April – June 2009 H1N1 Pandemic Response

After Action Report
April 24 – June, 2009

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Executive Summary

The April-June 2009 response to H1N1 Pandemic Influenza was the first time in recent memory that a response primary focus was public health and the healthcare sector. The Washington State Department of Health (DOH) was the primary state response agency for this event. Several other state agencies including the Washington Military Department, Department of General Administration, State Patrol, Department of Corrections, Office of the Superintendent of Public Instruction, and Department of Social and Health Services were actively involved in response activities. The federal, state, local, and private sector businesses response within Washington State did what was required to protect the citizens of the State of Washington and their well being.

The Strategic National Stockpile (SNS) receive medical resources, and distributed them to the Local Health Jurisdictions' (LHJs) around the state in a timely manor. Only minor problems were encounter during this part of the response. When orders were changed or delivery locations were in flux, Department of Health staff were flexible and kept a positive attitude. Most issues that need to be addressed are minor in nature

The Communications Office received praise for delivering public messages that were proactive and consistent. The agency worked hard to coordinate its messages and other communications activities with the Local Health Jurisdictions (LHJs). There were areas for improvement, but nothing that was critical to the agency's ability to respond.

The H1N1 event required DOH to respond in a new way. The agency's Emergency Operations Center (EOC) was activated and staffed for 12 consecutive days for the first time. During the event, the EOC also had to address issues such as timekeeping and control of tasking for the first time. Another first for the agency was that it was the lead state agency for a major event.

The State's response activities were praised at all levels. The most telling comment on the benefits of our preparedness efforts, which was repeated at all levels, was that "ICS works." Additional themes emphasized during the after action phase of the response were the agency's ability to be flexible on changing medical resources requests and well-coordinated communications strategies. Many commented that the daily conference calls were a good vehicle for dissemination of guidance. This event also showed both the benefits and weaknesses of agency-sponsored exercises. No exercise, no matter how well designed, can create the focus and momentum of a real event. Exercises just don't last long enough to give participants an opportunity to develop corrective actions on the fly and implement them. Many of the issues that surfaced during the response had been previously addressed during exercises, so staff was prepared to tackle them.

Below you will find the major findings and issues from the State of Washington's response to this H1N1 event.

Major Findings

Federal

What went well:

- During the rapidly changing situation, the US Centers for Disease Control and Prevention (CDC) quickly developed the needed guidance, and then was not afraid to change the guidance when the situation demanded it.
- Given the short timeline CDC was able to deliver medical supplies as promised.
- Shipping documents were available long before shipments arrived, allowing Reception Storage, and Staging (RSS) staff to preload numbers into the Inventory Management System.
- Regional US Department of Health and Human Services (HHS), Assistant Secretary for Preparedness and Response (ASPR) representatives were available and responsive. Their daily updates helped keep those at the state informed of what was happening at the federal level.

What needs improvement:

- In some areas it was not clear why the guidance changed so much.
- Guidance document changes were not highlighted or otherwise apparent. In most cases one had to reread the whole document (usually a multiple page document) to find the applicable changes.

State

What went well:

- Support from the Washington State Department of General Administration and Washington State Patrol support was outstanding.
- Senior agency staff visits to Department of Health response venues were universally praised as a real morale booster.
- The Department of Health's response was generally viewed as positive both by local and federal partners. Areas singled out included:
    - Communications messaging
    - Strategic National Stockpile activities
- The overall attitude of Department of Health personnel directly contributed to a positive experience for all involved.
- Coordination and communications with Local Health Jurisdictions.

What needs improvement:

- Agency middle managers may not be fully aware of the need to release their staff from day-to-day duties to support Emergency Response activities.
- Department of Health response personnel are usually only one deep. Backfill staff needs to be trained and used during a response.
- Department of Health needs to establish volunteer surge capacity to support.

    - RSS operations
    - EOC operations
    - Laboratory operations
    - Epidemiological operations
    - Licensed health care professions that can provide surge support for local health efforts.
- Guidance should be developed that describes when to ask the Governor to declare an emergency during a health event needs.

Local

What went well:

- Coordination of deliveries of medical resources.

What needs improvement:

- Communications within agencies.
- Plans for long term storage of medical resources.
- Coordination with other response agencies and emergency management at the county level.

Section 1: Event Overview

Late on Thursday April 23, 2009 the media began reporting the first possible cases of novel influenza. Cases were appearing in Mexico and possible cases in California and Texas. On Friday, April 24, the first reports of cases in Canada occurred with at least one of the cases appearing in the Province of British Columbia, just a few miles from the US-Canadian Border. The British Columbia Ministry of Health activated their Emergency Operations Center in support of the response. They notified the Washington State Department of Health of this activation. The British Columbia response combined with word coming from the Communicable Disease-Epidemiological Section at Shoreline indicated that a major event was beginning.

Over the weekend of April 25 and 26 surveillance and response activities began to increase throughout the agency. This culminated in the activation of the Department of Health Emergency Operations Center (EOC) on the morning of Monday April 27. The EOC remained activated in the designated facility (Town Center 1 Room 163) until Monday, May 11. After May 11, the Department of Health EOC activities were then preformed by the staff of the Department of Health Emergency Preparedness Unit until the event conclusion. Major activities of the agency in the ensuing weeks are broken out in the timeline below.

Event Start Date
April 24, 2009

Event End Date
On-going

Location
Washington State

Mission:
Preserve Life, and Property of the Citizens of the state of Washington.

Contributing Agencies:
- Washington State Department of Health
- Washington Emergency Management Division

Sequence of Events

April 24 – CDC press conference announces the emergence of a novel influenza strain in Mexico. Cases also identified in California and Texas. Province of British Columbia activate Health EOC

April 25 – World Health Organization (WHO) declares a formal "public health emergency of international concern.

April 26 – Federal determination and announcement that a public health emergency exists. First confirmed case in British Columbia (2), Homeland Security Secretary announces release of antivirals from the federal stockpile.

April 27 – Department of Health activates its EOC, and begins planning for reception of Strategic National Stockpile antiviral and personal protective equipment deliveries. State of Oregon activates Emergency Support Function (ESF) 8 Agency Operations Center. WHO elevates the pandemic alert level from Phase III to Phase IV.

April 28 – WHO confirms that H1N1 has spread outside North America to Spain, Israel, and New Zealand.

April 29 – WHO raises pandemic level to Phase V. The RSS team deploys to RSS location.

May 1 – First deliveries from Federal Stockpile of Medical Resources.

May 3 – First deliveries from RSS to LHJs.

May 8 – RSS operations shut down, last of planned deliveries conducted. All antivirals and Personnel Protective Equipment (PPE) being held for local health jurisdictions moved to longer term storage.

May 9 – Announcement of first death from H1N1 in Washington State.

May 11 – Department of Health EOC scales back to limited operations conducted out of Emergency Preparedness Unit's offices.

May 18 – Last Department of Health daily Situation Report released. For then on, it was done a as needed.

May 21 – Department of Health creates a H1N1 "Activities Team" to track, implement, and plan for future actions related to H1N1."

June 5 – Final Department of Health Situation Report.

June 11 – WHO declares Pandemic Phase VI.

Section 2: Analysis of Event

This section evaluates the capabilities, activities, and tasks associated with this event. Comments are organized by event venues:

I. Feedback from Local Health Jurisdictions (LHJs)

A. What went well – Coordination:

- Interactions with pharmacy partners and licensing board
- The Department of Health provided information (April 26-27) on how many antivirals and other medical supplies would be available to each LHJ was very helpful. This allowed the LHJs adequate time to plan and determine the best course of action for delivering SNS supplies.
- In Asotin County the coordination with the local health jurisdiction in Idaho went well. The same message was conveyed throughout the valley. Asotin County also worked closely with local schools on messaging.
- When San Juan Health Department (HD) needed help to move students attending a camp in the San Juan Islands via the ferry system. The state's assistance through Emergency Management division worked well and expedited the movement.
- It was helpful to Mason County to have Thurston County HD staff with SNS experience available to assist with planning. They were able to provide guidance and assistance on how to deal with the issues surrounding delivery and storage of antivirals.
- Conference calls with Department of Health were helpful. The calls provided a lot of information that local authorities could then report back to governing bodies keeping them updated and assisting the decision making process at the local level.

B. What needs improvement – Coordination:

1. Although calls were very helpful, there was some duplication of information between calls. It is not always clear which calls the LHJs should participate in. Quite often some people would end up sitting through multiple calls where the same information was discussed.
   - Recommendation(s): Establish a procedure to determine early in the event what calls are needed and who will represent the appropriate entities in those calls. Work to prevent duplication of effort on calls and if possible have a central point at which participants can go to get call in information.
2. Last minute generation of specific longer-term inventory requirements presented problems for the LHJs.
   - Recommendation(s): Develop inventory requirements then incorporate them into SNS plan to include passing the requirements to the LHJs.

3. Getting Lab results presented some problems. The LHJs would like to have an automated system that they could log into and pull up the latest results.
   - Recommendation(s): Explore possibility of automated system for distribution of laboratory results.
4. Some felt that the Public Health Response and Assessment Team (PHRAT) call should have begun earlier in the response. The PHRAT discussions were very helpful and would have helped in the initial stages of the response.
   - Recommendation(s): Review plan for PHRAT trigger points and revise as necessary.
5. Tribal census numbers historically do not reflect their real service populations. Not having correct numbers causes a problem in allocations based on population.
   - Recommendation(s): Work with tribal groups to ensure that they are properly represented in county census. Also, look at using the actual population served by the tribal health entity to determine numbers of medical supplies to be provided.
6. The tribes did not get involved in the program to acquire federally subsidize antivirals until after the response began. Not being involved early did not allow them to cache drugs before the event.
   - Recommendation(s): Work with Tribal Health and LHJs to educate them on this program and how they can take part in it.
7. At times, some of the LHJs were not in agreement with state on numbers of positive, potential, and presumptive cases. Some of the state information on the numbers went out before the LHJ was ready to address the issues.
   - Recommendation(s): Work with LHJs to establish procedures for how the numbers will be released and when.
8. In some cases the messages were not well coordinated. The CDC, Department of Health, and Local Health Officer were not always in agreement on what information to pass to the public.
   - Recommendation(s): Continue to work with LHJs to coordinate messaging. Look at establishing formal process for coordinating messages.
9. Information needs to be concise. World Health Organization (WHO), CDC, Department of Health information was coming from everywhere and it was difficult to manage.
   - Recommendation(s): Look at establishing one function within Washington State to act as a clearing house for this type of information.

C. <u>What needs improvement - Other items:</u>

1. In Region IV some state level entities were unsure if the regional staff was speaking for all the LHJs in the region. Early on in the event Department of Health contacted every LHJ to get their medical resources delivery requests. Later on the regional staff changed what the LHJ requested. To verify these changes were appropriate and the Department of Health re-contacted the LHJs to verify the delivery changes.

- Recommendation(s): Work with LHJs and regions to ensure the state understands in which cases the regional staff has the consent of the LHJs to make these requests.

2. Public health needs to ensure that the military healthcare segment is connected to the overall community. In Spokane, Fairchild Air Force Base was getting all the SECURES messages and was very happy with this connection. In the Puget Sound area the military is one of the larger healthcare providers in the community. In some cases they were not following the same processes as everyone else and this caused confusion.
   - Recommendation(s): Work with the military healthcare community to ensure that they are well connected with their LHJs and with the healthcare coalitions in their regions.
3. This event came close to pushing LHJs over their limit in terms of staff. They were barely able to sustain operations for 2 weeks usually for 12 hour days. If this would have required 24/7 operations most of the LHJs could not have sustain them.
   - Recommendation(s): Look for ways to supplement LHJ response capabilities for longer term 24/7 operations.
4. Much of our planning is based on case severity index. This index provides good planning information, but for a newly emerging threat, it is difficult to determine. Using the present method of determining case severity (number of illness verses the number of deaths) much of this information is not available during the initial stages. The lack of information caused wild swings in determining community mitigation actions, and this may affect the creditability of public health officials.
   - Recommendation(s): Determine if case severity index is the proper measure for actions, or should something else be used. Incorporate these findings into pandemic planning.

II. Department of Health Senior Management Team

A. What went well:

- This was the first opportunity that medical associations had an opportunity to exercise their emergency plans.
- First real test of the Administration and Finance section of Department of Health EOC.
- The notifications of agency's Assessment and Response Team (ART) members ahead of time allow them to prepare for meetings.
- Having a press conference on Sunday, April 26 even before the agency activated, helped to get ahead on messaging to the public.
- The State Public Health Laboratory (PHL) work on developing relationships with other laboratories across the state before the event was a great asset. These relationships allowed the PHL to delegate other work and to concentrate on H1N1.

- The relationships between response partners developed before the response through planning and exercises efforts were of major benefit. The relationships and trust were already established and help to expedite actions.
- Department of Health staff came through when needed. They exhibited a "can do" attitude and were always there when needed.
- The ART response went well because they used the plan. It never seemed out of control. Past exercises really helped the ART to prepare and to have an idea of what to expect.
- The State Public Health Laboratory showed a definite ability to improvise. They were able to quickly adapt to a rapidly changing situation.
- Distributing the Sitrep throughout the agency allowed everyone to keep up on the agencies response activities.
- The ART process had the right people in the right places.
- Communications with the Local Health Districts from Department of Health through the ART went well.
- CDC seemed to be well prepared and this reflected in the entire system working well.
- The work the agency did with the Governor's Office went well and reflected well on the overall response.
- Putting the case numbers online helped to cut down on the number of calls from the media to the Communications Office.
- The process of periodic staff communications to the whole agency went well. People felt informed about what was happening.
- The morning huddle by selected ART members helped to get the agency's activities for the day focused based on the current situation.
- The translation of press releases and fact sheets went smoothly. Using internal agency resources allowed for quick translation and distribution to the public (Spanish language only).
- Notifications of the Human Resources (HR) Office ahead of time allowed them to be better prepared to address HR issues as they arose.
- Incident Command worked – At all levels!
- Working with the LHJs went well. The agency was responsive to their needs and concerns.
- Department of Health messaging to LHJs was consistent.

B. What needs improvement:

1. Shoreline interaction with the Department of Health EOC although getting better needs improvement.
   - Recommendation(s): Continue to refine this relationship through exercises, training, and plan refinement.
2. The process for notifying agency staff asked to support the response did not always go well. In some cases people only had limited notification that they were on standby or were not updated on changing reporting times for specific events.
   - Recommendation(s): Develop specific procedures for staffing response functions. These procedures should address standby requirements, source of staffing for specific positions and notification protocols.
3. This response put a tremendous amount of pressure on certain staff members. They took the entire burden on themselves and did not have a back up. If this event lasted much longer, they may not have stood up well to the burden and performance may have suffered.
   - Recommendation(s): Department of Health needs to establish a system that trains and uses back ups. Not just for senior staff position, but for all critical response roles across the agency. These positions requirements should also be incorporated into position descriptions and tied to specific positions.
4. Although H1N1 response was one of the agency's top priorities during the event, this was not adequately communicated to staff.
   - Recommendation(s): When a response begins, the notification to the agency should give guidance on how the response's is prioritized against other agency requirements.
5. Many of the Department of Health staff that were used for the EOC and RSS activities are volunteers. These activities are essential to the response and must have people who are assigned so that during the response this becomes their primary responsibility.
   - Recommendation(s): Look into assigning these roles to specific positions and make them become part of the Position Description.
6. The Department of Health's role versus the LHJs' role in a health-centric event such as pandemic influenza is not always clear to other state agencies. The separation needs to be clearly drawn for agencies such as the Department of Corrections and Department of Social and Health Services who are responsible for people classed as wards of the state who are residents in facilities in different counties.
   - Recommendation(s): Work with the State Agency Pandemic Influenza Working Group to clarify issues with agencies that care for wards of the state. Ensure this is incorporated into the Pandemic Influenza portion of the State Consolidate Emergency Management Plan (CEMP).
7. The state never declared an emergency, but the Federal Government did declare a public health emergency. Because of this, the response at times became complicated. Was there an emergency in Washington State or not? The relationship between state and federal declarations should be clarified.

- Recommendation(s): Work to define the criteria for declaring an emergency at the state level. This should, include a discussion of the benefits of not declaring an emergency.

8. How Washington State Emergency Management Division's assets and the State EOC could best be used during this event was never clear. During a public health response, the State EOC's role needs better definition.
   - Recommendation(s): Work with the Washington State Emergency Management Division to define their role in a public health emergency and determine how they can support Department of Health and the LHJs
9. A Governor's Declaration of Emergency may have helped the focus the agencies response, particularly among those parts that have a direct response role.
   - Recommendation(s): Work to define the criteria for declaring an emergency at the state level. This should also include a look at the benefits of not declaring emergency.
10. The question whether or not a state level call center should be established was asked many times during the response. Although asked, the question was never answered. It is not clear what should trigger this and how it would support or incorporate its activities with call centers/information lines set up at the county level in the state.
    - Recommendation(s): Review Call Center plan based on this event and ensure that triggers for activation apply to this type of pandemic. Also look at coordinating with the 211 program to provide additional support.
11. The agency has no mechanism to quickly and effectively communicate with health care providers during an emergency.
    - Recommendation(s): Review agency communications tools to see if one of the existing systems that can be used to satisfy for this requirement.
12. The agency's relationship with tribes and federal entities that provide healthcare to large populations (i.e. military healthcare facilities) needs to be better developed. These entities are not getting all state-level healthcare messages, and reporting mechanisms are not always clear.
    - Recommendation(s): Continue to work with tribes and federal entities to ensure that they are included in messaging that Department of Health provides with LHJs and other healthcare entities across the state.
13. Managing email became a significant issue. The number of emails with large attachments caused email boxes to often go over the size limits. In many cases forwarding of emails with only FYI indicates that the sender has not read the email.
    - Recommendation(s): Look into the possible expansion of e-mail inbox size limits during a response event or find other solutions. Establish agency guidance on forwarding of e-mails to ensure that large e-mails are not going to the same person numerous times, and that e-mails are not being forwarded without review first.
14. A safety officer role in the EOC as well as all areas that have response activities (Shoreline, etc.,) is needed. This role should address mental health (overwork) issues as well as physical safety.

- Recommendation: Review the possibility of assigning safety officer role to an already existing position. The staff that fulfills this role should get formal training on what their responsibilities will be.

15. Managers and staff throughout the agency have many unanswered questions about HR requirements during a pandemic.
    - Recommendation: Establish an HR working group that has responsibility for conducting HR planning and developing answers to HR questions that arise during a pandemic.

III. Emergency Operations Center

A. What went well:

- Regular presence of the Communications Liaison in the EOC was extremely valuable for both the EOC operation and the Communications Office.
- The tracking tool developed during the incident for tracking information and resource requests was a valuable tool that worked well.
- Division of Information Resources Management (DIRM) did a great job of setting up the EOC up each day and the equipment worked well.
- Tools such as SECURES and WebEOC worked well during the event.
- Finance/Administration was able to act on what has only been practiced in exercises in the past (setting up contracts, tracking time, purchasing pharmaceuticals, etc.) The event was a great learning tool for the future.
- Putting the sign up sheet for the Department of Health EOC on the "O" drive worked well. It helped to resolve some of the staffing issues for the Department of Health EOC during the event.
- The training that has been done for the DOH EOC in the past was successful. It helped prepare those who had attended the training.
- Operations/Logistic and Planning sections were on-task and did a great job.
- The Director Support position was highlighted by many people as being a tremendous help. The individuals that staffed this position made it valuable to the EOC operations.
- The Incident Command System (ICS) structure in the EOC was expanded to include branches and task forces under the planning section. The expansion was useful and should be further developed for use in the future.
- The treats for the EOC such as apples, nuts, fruit, etc were appreciated.
- The staff that worked in the Department of Health EOC for the first time during the event felt welcomed and learned quickly.
- The agency plans worked well during the event.

B. What needs improvement:

1. Shifts shorter than eight hours do not allow enough time for good continuity of operations. The short shifts slowed the EOC's response and made it less effective. A significant amount of time was taken up training and back-briefing replacement staff.
   - Recommendation(s): Most shifts should be no shorter than eight hours
2. Not all requests for assistance from DIRM from the EOC went through the proper channels (EOC Director to DIRM management) to be tasked.
   - Recommendation(s): Ensure EOC staff is properly trained on how to do support requests.
3. Direction from management to Department of Health general staff about tracking hours spent on any particular event needs to be given early in the response. Timekeeping became a matter of confusion and will lead to the agency not capturing a true representation of the associated cost.
   - Recommendation(s): Develop a consistent policy on tracking of hours for Department of Health response staff. Incorporate it into Department of Health EOC training.
4. Staff was unsure of how EOC timekeeping should be tracked. Guidance was not always clear and had to be reissued several times.
   - Recommendation(s): Develop clear timekeeping guidelines and train Department of Health EOC staff on their responsibilities during regular Department of Health EOC training.
5. To often decisions made outside the EOC (such as during the PHRAT call) that effected EOC operations were not communicated to EOC staff in a timely manner. Decisions included taskings to Department of Health staff not in the EOC that were being duplicated by EOC staff or were similar to existing EOC efforts.
   - Recommendation(s):
6. Some found the SITREP to be long and confusing.
   - Recommendation(s): Develop a shortened version or an executive summary.
7. The logs kept by most Department of Health EOC staff on WebEOC did not have enough information to recreate what happened during the event.
   - Recommendation(s): More training needs to be done on what is expected of Department of Health Staff when logging information.
8. Staff did not always feel they understood what the Department of Health EOC function was during this event, and how it affected there response role of the agency.
   - Recommendation(s): Develop a fact sheet that explains what the EOC is and how it operates during a response to be shared with staff when the EOC activation announcement goes out to the agency.
9. Communications between the RSS and the Department of Health EOC was not always conducted as planned. EOC staff were not included in the initial request for SNS resources, and when SNS resource requests or delivery points changed, EOC staff was unsure of their role.

- Recommendation(s): There needs to be further planning and coordination done on the role of the Department of Health EOC and the RSS.

10. There did not appear to be a depth of knowledge on RSS operations in the Department of Health EOC. Outside of the RSS staff, there is very limited knowledge of RSS operations within Department of Health. For EOC staff this posed a problem. At times when asked question on RSS operations they either did not understand the question, or did not know where to go to get the answer.
    - Recommendation(s): Work with EOC staff to educate them better on RSS operations, this should include letting EOC staff observe RSS operations during exercises, and looking at rotating staff between RSS and EOC. Look at developing a fact sheet for the RSS and SNS with answers to basic questions the LHJ's and others had.
11. The EOC on initial activation was not fully staffed. The current plan is to activate the EOC initially at full staffing and then determine if it should remain fully activated or operate at a scaled back level. This posed problems when the EOC needed to expand capability to a normal level. Finding staff to fill the required roles was difficult.
    - Recommendation(s): Always fully activate the EOC per the plan
12. Ensure that the EOC Administration/Finance Section is activated with initial EOC activation. It was found during this event that they have a lot of critical functions to perform at the beginning of the response such as: setting up a Master Index Code for the event, putting into place attendance tracking functions, etc.
    - Recommendation(s): Make sure that the EOC plan to fully activate Department of Health EOC at the beginning of response is followed.
13. The use of non-Public Health Emergency Preparedness and Response (PHEPR) Department of Health staff to support EOC operations was not always supported. Lower level managers were not made aware of what the agency's staffing policy and priority for the EOC were.
    - Recommendation(s): Need more emphasis on EOC participation and support from the executive level, and agency managers and staff need guidance on agency priorities during a response.
14. When the Department of Health EOC closed for the day and RSS operations were still on going, a clear change of who would provide support responsibilities for the RSS was not evident.
    - Recommendation(s): Develop protocols for continuing RSS support after Department of Health EOC hours and communicate them to all RSS staff.
15. The EOC expressed concern about not having the materials, such as Clorox wipes, to clean desks and work spaces.
    - Recommendation(s): Make EOC staff aware of what cleaning resources are available and where they are located.
16. There was a lot of duplication of efforts in some areas. Areas that had duplication included factions and information gathering. Often this resulted from tasking being assigned and accomplished outside of the EOC, without EOC Staff knowledge.
    - Recommendation(s): Make sure request are channeled through the EOC.

17. Quite often, several people (inside and outside of the Department of Health EOC) worked on the same issue. External partners were contacted by different people for the same purpose.
    - Recommendation(s): Establish a process for tasking and tracking requests within the EOC. Ensure that the agency understands the EOC role in this process and incorporates it into the EOC plan.
18. The process for approving Web postings was not always as quick as necessary. The reason for the delays was not always apparent at the division level.
    - Recommendation(s): Develop clear guidance on Web posting procedures during a response, and train EOC and other appropriate staff on them.
19. Briefings in the EOC were not always conducted on a regular basis and did not always follow a consistent format.
    - Recommendation(s): Develop an DOH EOC briefing plan that includes guidance on timing of update briefings and suggested format.
20. There was limited oversight of stress levels among EOC staff. A few times during the response individuals may have been under too much stress and become ineffective in their ability to support the EOC.
    - Recommendation(s): Stress relief options needs to be developed and made available to EOC Staff.
21. During this event a state of emergency was never declared. If purchasing and contract processing request would have risen much higher (volume and amount), the ability of trained staff would have been seriously inhibited in handling these issues. It was not clear what would trigger a declaration of emergency during a public health event.
    - Recommendation(s): Purchasing and contracting offices need to be much more involved in the planning process. They need to develop trigger points that help decision makers decide when a declaration of emergency should be considered.
22. Although multi-media capability exists in the EOC, it was little utilize during the H1N1 response. This might have improved the transfer of information between Shoreline and the EOC as well as other Department of Health venues.
    - Recommendation(s): Explore how multi-media capabilities in TC1 Room 163 could enhance EOC operations.
23. Several contingency contracts were developed during the response. If the agency wants to implement them long-term, they need to be finalized and put into place now. Otherwise the agency will be scrambling to get them into place during an event.
    - Recommendation(s): If these contacts are needed, put them into place now. Also, create a process for developing and implementing contracts quickly during a response. Train appropriate EOC staff on this contracting process.
24. The Administrative and Finance section of the EOC plan needs to be reviewed and updated in the areas that describe forms, staffing protocols, EOC scheduling process and other activities.
    - Recommendation(s): Review EOC administrative and finance plan to ensure it accurately reflects the duties of the function.

25. The depth of EOC staffing is limited. The number of people actually available during this response was limited at times. Lack of staff available forced some parts of the agency to take on a significant number of the EOC positions.
    - Recommendation(s): Ensure that a greater number of Department of Health staff is trained and available to staff the EOC.
26. Several of the critical roles in the EOC were filled by PHEPR staff. Pulling EOC staff from only one program does not follow the EOC plan.
    - Recommendation(s): Review EOC operations plan to ensure that the plan addresses which staff may fill what roles.
27. Shift change in EOC was not always a smooth process. Because shifts ran for one day, the next person filling that position did not always get a formal shift change briefing or did not have a chance to spend time with their predecessor in that role.
    - Recommendation: Review the possibility of adding requirement for critical positions to leave a hard copy list of assignments and "to-do's" for the next shift. Explore the possibility of doing some sort of shift change briefing that could be incorporated into the EOC plan.
28. The EOC Director's position was not included in the review process for news releases and SECURES Messages. Several times the agency sent out news releases that were not up to date) and SECURES messages that were not complete and had to be re-sent.
    - Recommendation: Review requirements that the EOC Director or designated EOC position to review significant messages before being sent to partner response agencies.
29. The process for tracking information from other sources (e.g. reporting numbers from world and U.S.) is not clearly defined. The agency should identify specific information sources and not deviate from protocol by using information from multiple sources.
    - Recommendation: Make sure the EOC plan addresses this.
30. Consider whether Situation Report (Sitrep) should be used as a "newsletter." The Sitrep was tracking a lot of "nice to know" information and kept it there for several days. There is a need to define the purpose of Sitrep and stick to it. Ensure that the Sitrep does not become an all purposes communications tool.
    - Recommendation: Review purpose of Department of Health Sitrep. This should include audience that the document is intended for. Ensure that information is current and appropriate.

IV. Secure Electronic Communication, Urgent Response and Exchange System (SECURES)

A. A significant amount of effort was expended in sharing information with our local partners via the Document Library on the SECURES System.
- Recommendation(s): Canvass local partners to determine if information-sharing via the SECURES Document Library created value for them.

B. Posting relevant content to the Document Library could have been faster.

- Recommendation(s): Explore creating a "DOH SECURES Librarian" role so that individual administrators and/or content experts can manage this function during future events. The nature of the event will determine who is dropped in to this role.

C. Although focused SECURES Alerts are often sent to specific Roles and/or Role Groups of partners outside our agency, quite often there was very limited distribution of these alerts within the agency. . Depending upon the nature of the event, specific staff may need to be added to a "DOH Alerting Awareness" role so that they are aware of these communications.
- Recommendation(s): Establish a protocol for review of the "DOH Alerting Awareness" role in the early stages of an event. Determine who needs to be added or deleted from this role based on the nature of the event.

D. It is not always clear that the Roles and Role Groups in place are those that are needed to facilitate communications between the agency Duty Officer and partners in any given event?
- Recommendation(s): Determine if there is a need to establish more formal guidelines for focused alerting: Determine if additional Role Groups are needed to better meet our alerting communications needs.

E. Feedback received from some local partners during this event indicated that they looked to SECURES for some real-time information that they never received via that channel.
- Recommendation(s): Determine our partners' expectations regarding emergency communications during an event.

F. Tribal partners were not able to access the folders that were created on the Web site for this event.
- Recommendation(s): Review SECURES to ensure in future events that tribal partners have a way to access these SECURES folders.

V. Strategic National Stockpile Reception Staging and Storage Facility

A. What went well:

1. **Warehouse:**
   - Very strong and well developed esprit de corp and willingness to get the job done.
   - Great teamwork among all members of the RSS group -- people were available and willing to help, had can-do attitudes and were willing to pitch in as needed.
   - When inventory management had conflicting information warehouse staff was more than willing to check the physical inventory on the warehouse floor.
   - Washington State Department of General Administration (GA) support was outstanding. This went from facilities, to warehouse operations to local deliveries around the state. One local health administrator commented that "The GA truck driver was the best part of the response."

- New staff added at the last minute proved RSS just-in-time training program works. The staff were quick learners and outstanding contributors to the successful distribution efforts.
- Interaction between Quality Assurance and picking operations went well.
- Receiving went well; staff reacted well to a fluid environment when trucks came in not as expected.
- The GA liaison suggested a numbering and management system to add resources to the pallets racks - this system for pallet racks worked well (will add to procedures).
- Having an extra day before first arrivals allowed time for mapping out warehouse space and planning to incorporate pallet racks.
- Update briefings were helpful; they let everyone know what was going on and what was coming.
- People who have been working in the RSS really helped to get the new volunteers trained and up to speed on RSS operations.
- Changing from one bus to several vans to transport RSS staff provided flexibility and allowed those no longer engaged to leave early when little was happening.
- The spreadsheet developed prior to the RSS deployment depicting the local allocations and order list from locals was helpful to have in the warehouse.
- The exercises and practice runs allowed a level of confidence when staff arrived. It was helpful to know where things were and how things should flow.
- The various safety officers did a great job. Participants stated that they never once felt they were working in an unsafe environment.
- Having the GA staff move the pallets was a great idea. They can do it much faster and safer than RSS staff could have.
- RSS staff felt they had great selection of food snacks, which was much appreciated. The lunch vendor was excellent; the lunches were filling and had quality ingredients.

2. **Command Center:**
   - The Division of Strategic National Stockpile (DSNS) emailed the federal pick list to Department of Health days prior to distribution to the states. Having the list enabled RSS staff to input the resources into the RSS Inventory Tracking System (RITS) system prior to actually receiving the shipments. Having the inventory preloaded into RITS speed up the process.
   - In the past the RITS system has been troublesome for RSS staff. For this event the system worked well and provided the necessary tracking and paperwork for outgoing orders.

- RSS staff were able to develop faster ways of entering incoming inventory information from DSNS. This allowed for quicker development of orders and passing of requirements to warehouse staff.
- Logistics sections operations went smoothly because of cross-training and people knowing their jobs.
- The logistics lead role kept the WebEOC log up-to-date and helped to maintain RSS situational awareness.
- Although not needed, Washington State Department of Transportation was available and on call for the entire event
- Those on the RITS team were always there to support the operation, before, during, and after the RSS was open. Their commitment is outstanding
- Doing regular and consistent RITS training has been invaluable. Those working on the RITS system were prepared and able to operate smoothly in a constantly changing environment.
- Despite a totally different security environment from what had been practiced during the exercises, the Washington State Patrol Security Team was flexible and worked well with RSS staff.
- The Department of Health senior management visit to the RSS was an immense moral booster.
- The SECURES system served as a great communication tool. It worked well for notifying staff on reporting times and updating them when things changed. The provision of a call in number for those with question helps.
- RSS leadership informed staff on changes in the situation as soon as possible
- Having food and beverages available in the warehouse helped.
- Communication between Logistics and Warehouse using the runners went well.
- Document Control in the warehouse had all appropriate supplies; they were available and packed in the go kits.

B. <u>From the LHJs:</u>

- The entire process was well coordinated with the LHJs.
- The ability to contact RSS staff as needed helped a lot!
- When the LHJs requested changes to orders or delivery locations the RSS staff was flexible. In several cases it allowed the LHJ to send a representative to the RSS and pick up the items if they could not make the delivery within the LHJs timeframe.
- Department of Health providing temporary storage of supplies was a benefit to the LHJs
- The RSS distribution plan to LHJs worked well.

- The planned delivery time was within one hour of the actual delivery. Drivers were very clear on when and what they were delivering (Washington State Department of General Administration (GA) drivers).
- Drivers from GA were very good. Numerous LHJs praised the drivers for their attitude, and ability to accommodate the jurisdictions requirements.
- One county with numerous delivery points was very happy with Department of Health's ability to deliver to each of them and the manner in which the delivery took place.

C. <u>What needs improvement:</u>

1. **Warehouse:**
    a. Staff training on how to do initial reception of incoming trucks and offloading of resources did not always meet the requirements
        - Recommendation(s): Revisit requirements for training on reception. Revise appropriately based on lessons learned.

    b. Accuracy of the inventory sheets from the physical inventory of pallets was questionable at times.
        - Recommendation(s): Review training requirements to ensure that inventory issues are properly addressed.

    c. Communication between the Command Center and the warehouse can be improved. Those in the warehouse tend to feel isolated and this is aggravated by the distance.
        - Recommendation(s): Refine communications methods between RSS warehouse and Command Center.

    d. The Quality Assurance function was understaffed. The understaffing lead to several major errors in orders that were not caught before they left the RSS.
        - Recommendation(s): Identify and train additional staff to perform the Quality Assurance function. Also look at the responsibilities of this function and how they could be better utilized to ensure accuracy of orders.

    e. Within the RITS system the documentation produced did not have the strengths of medications on the pick list or package labeling. This was a problem, during the picking and inspection of orders because the Tamiflu came in three strengths (30, 45, and 75 mg) and a suspension. It was not always clear which was the appropriate medication to pick.
        - Recommendation(s): Work with DSNS to get medication strengths included in the appropriate labeling.

    f. RSS planning has been primarily focused around reception of air cargo containers which are based on the push package scenario. In this event incoming deliveries were made using standard pallets which the warehouse planning has not focused on. The pallets caused delays and some confusion.

- Recommendation(s): Develop a warehouse plan that can adapt to both containers and pallets.

g. In the present plan the warehouse does not have a computer tied into the inventory system allowing warehouse staff access and to see their future taskings. The lack of access to the inventory system limits the amount of preplanning warehouse staff can do.
   - Recommendation(s): Provide computer and appropriate training to warehouse staff.

h. Warehouse staff is not sure what information they need to provide back to the Command Center to ensure accuracy of inventory information.
   - Recommendation(s): Provide training to warehouse staff on inventory needs.

i. The delivery of mixed pallets was confusing to warehouse staff.
   - Recommendation(s): Develop plan for handling mixed pallets.

j. Warehouse ran out of shrink wrap.
   - Recommendation(s): Plan for adequate amounts for shrink wrap or work around.

k. Dry erase markers with a strong odor made it difficult for those using them. They made staff light-headed and unable to concentrate.
   - Recommendation(s): Make sure that Dry Erase Makers are odorless.

l. Packing list envelopes did not have contact information for delivery points on them.
   - Recommendation(s): Ensure that procedures for packing list include the requirement for contact information for each location on the envelopes.

m. One truck was held up at a delivery site while an inventory of the delivery was conducted. Holding up the truck held up delivery to follow-on sites, forcing rescheduling of several deliveries.
   - Recommendation(s): Ensure that local reception plans address procedures for delivery inventory and immediate release of delivery trucks.

n. The provision for delivery to multiple delivery sites within each jurisdiction would have posed problems if this had been a time critical situation. In particular for small deliveries, this slowed the process down, or necessitated the use of more trucks than single delivery points would have required.
   - Recommendation(s): Work with LHJs to develop criteria for single and multiple delivery scenarios.

o. The RSS had hard hats that were not easily fitted. Not having quick fitting hats caused time delays when crews had to stop to fit the hard hats , some crew members were uncomfortable because they were never able to get them to fit comfortably.
   - Recommendation(s): Look into getting bump hats, or hard hats that can be better fitted to staff.

p. As operations began to ramp down, the RSS ended up with excess personnel on site. Quite often these staff had to remain on site because they were the only people trained to perform a function that might be required.
   - Recommendation(s): Develop plan to ramp down operations and cross-train personnel so they can perform multiple functions.

q. GA staff was not trained on the RSS protocols. Racking would have been done differently if GA had been trained on the RSS protocols.
   - Recommendation(s): Work with GA to train staff on RSS protocols.

2. **Command Center:**
   a. Inventory accountability was significantly affected by multiple labels and incorrect information being recorded, and entered into RITS.
      - Recommendation(s): Review and revise inventory accountability and procedures as necessary.

   b. The EOC was not always aware of the issues that the RSS team faced during this event. The lack of awareness was the result of only having a very small number of Department of Health staff outside the RSS that understood RSS operational requirements.
      - Recommendation(s): Provide training on RSS operations to EOC Staff and agency senior leadership.

   c. RSS team members' regular duty supervisors were not always aware that team members were deployed. This was compounded by the lack of understanding outside of those actively involved, of the agency's role in the response.
      - Recommendation(s): Develop procedure for staff notification of RSS deployment that includes supervisory notifications.

   d. Notification of the RSS staff for changes in the shift schedule and staffing was not always received by staff or their supervisors. Notification did not always come from the EOC.
      - Recommendation(s): Review procedures and make sure there is only one source of notification for RSS staff.

   e. Security requirements for the RSS and the resources do not always require a maximum effort. The RSS should incorporate phased levels of planning; and implementation instead of 12 hour push (WSP).
      - Recommendation(s): Review and revise security procedures as necessary.

   f. RITS discrepancies slowed down operations. Several times the failure of the RITS system halted operations in the Warehouse.
      - Recommendation(s):

   g. RSS operations would be enhanced if RITS adds the capability to choose locations in the warehouse; print out order summaries and customer information; and pre-generate inventory reports.
      - Recommendation(s): Work with DSNS to incorporate these upgrades to the system.

   h. The pick list generation process told pickers several times to pull from empty spots in the warehouse. This delayed order preparations, as warehouse staff

would have to go back to the command center and have the pick list regenerated with correct information.
   - Recommendation(s):

i. Using SECURES to notify RSS staff posed problems when profiles were out of date.
   - Recommendation(s): Continue to emphasize the importance of keeping personal SECURES profiles up to date.

j. Access to contact information for RSS leadership was limited. Several times this prevented RSS staff from being able to quickly find a contact number when needed.
   - Recommendation(s): Develop and maintain a mobile telephone listing of the RSS leadership and save it to a folder on the O: drive.

k. Route planning does not always use the most efficient route. Several times drivers routes seemed to back track when there were obvious shorter routes.
   - Recommendation(s): Look at new route-planning software applications.

l. Many RSS staff members had few if any days off. Lack of down time will lead to fatigue and cause problems with accuracy and safety.
   - Recommendation(s): Develop plan that specifies the maximum number of days any staff members can work. Ensure that it evenly distributes work load.

m. Several local delivery addresses changed more than once. This caused planning problems and delayed delivery.
   - Recommendation(s): Ensure LHJ level planning takes into account long-term storage requirements and is update at regular intervals to account for changes.

n. The Centers for Disease Control and Prevention's Division of Strategic National Stockpile (DSNS) did to provide tracking information on trucks in route to the Washington State RSS. The lack of notification caused multiple problems with issues such as scheduling staff for reception and ensuring access to facility.
   - Recommendation(s): Work with the DSNS leadership to develop appropriate communications protocols between the state and the DSNS Operations during events that are appropriate, secure, and meet the needs of the state and DSNS.

o. RSS operations have only one assigned on-site Information Technology (IT) support staff. When IT issues arose the RSS staff had to reach back and try to fix issues through phone-provided directions. Although agency IT staff went out of their way to help, if someone would have been on site, most of the issues could have been corrected much quicker and would not have slowed down RSS operations.
   - Recommendation(s): Work with DIRM to establish on-site IT support for RSS operations.

p. RSS needs to be able to be better able to inform LHJs on delivery schedules and actual delivery times. Small LHJs have limited staff and off-site storage locations need accurate delivery scheduling information.
   - Recommendation(s): Look at establishing a delivery branch in the RSS command center, with the responsibility of scheduling deliveries, communications of delivery schedules, and route planning.

q. The plan does not designate a place to keep vehicle keys in Tumwater. Although a plan was developed on the fly, it did not address all the issues that could come up.
   - Recommendation(s): Work with EOC planners to develop a 24/7 vehicle key drop off and pick up plan.

r. If multiple vehicles are going to be used for transport of RSS staff, a vehicle use plan needs to be developed. The vehicle use plan should address things like scheduling of trips, number of passengers per trip, etc.
   - Recommendation(s): Develop RSS vehicle use plan.

s. Basic housekeeping and setup issues were difficult due to the lack of historical documentation or corporate memory.
   - Recommendation(s): Develop continuity book that includes: internal and external partner' contact information, leadership call down list, how-to documents (POs, WebEOC, SECURES, historical documents), where the RSS has ordered from in the past, and equipment needs (toner, batteries, chargers, blue and yellow books, etc).

t. Each trucking company provided different levels of service. The inconsistency of service levels caused problems with deliveries.
   - Recommendation(s): Review plan on use of trucking companies establishing a minimum level of service.

u. The RSS has only one person designated as Safety Officer. The person fulfilling these duties had to work an unreasonable number of hours during the event.
   - Recommendation(s): More than one person needs be identified to fulfill this role.

v. RSS did not have a plan to deal with pallets that had multiple lot numbers.
   - Recommendation(s): Revise plan to accommodate for issues like these.

w. Responsibility for and format of daily RSS Sitrep needs to be defined.
   - Recommendation(s): Incorporate into RSS plans and procedures.

x. Order Status board process was different than practiced during exercises. It was not clear and not always up-to-date.
   - Recommendation(s): Review order status board procedures based on experience from this event.

y. Lot numbers on PPE posed a problem. Some pallets had multiple lot numbers on the pallet. Getting an accurate inventory delayed operations.

- Recommendation(s): Determine if inventorying of lot numbers for PPE is required. If so, look at delaying inventory of those pallets until after the bulk of the picking is completed.

z. No plan exists for destroying distributed pharmaceuticals when the shelf life expires.
   - Recommendation(s): Develop a large scale pharmaceutical disposal plan.

D. From the LHJs:

1. At some of the early delivery sites the delivery did not go as planned. The receiving party did not know what PPE supplies were to arrive. In one case the delivery arrived 24 hours later than scheduled.
   - Recommendation(s): Develop a dedicated delivery section within the RSS to address issues like these.
2. The expiration date on the Tamiflu suspension was less than 60 days after delivery. The expiration date means that most of this will have to be destroyed before having a chance to use it.
   - Recommendation(s): Work with CDC to ensure that in future deployments resources have a longer shelf life.
3. One county did not receive its Tamiflu 75 mg allocation until 10 days after the scheduled delivery. The RSS team did not discover the oversight until they conducted an after event review.
   - Recommendation(s): Enhance the quality control function of the RSS warehouse. Require local delivery sites to make an immediate inventory of deliveries and report to RSS what they received.
4. It was not clear what type of masks were in the deliveries. Having the brand of mask would be helpful to know in advance.
   - Recommendation(s): Once information such as mask brand, or other things that may affect use of deliveries is known, forward it to LHJs.
5. A conscious decision to not break down supplies any smaller than case size posed a problem for the smallest counties. The items in shorter supply usually did not get to them (example: Garfield County only got 3 boxes – one of Tamiflu and two of masks). They did not get other items they needed such as gloves.
   - Recommendation(s): Develop a method where additional supplies (possibly from a state cache) are available to supplement supplies to ensure everyone gets a minimal level.
6. LHJs received no guidance on storage or temperature control of non-pharmaceutical medial supplies. The guidance would have been helpful.
   - Recommendation(s): If guidance exists on storage requirements of non-pharmaceutical medical supplies forward that to LHJs before deliveries begin.

VI. Department of Health facilities in Shoreline

A. What went well:

- The incident command structure, as modified by the State Public Health Laboratory (PHL) and Communicable Disease Epidemiology Section (CDES) staff, significantly helped to coordinate operations at Shoreline.
- Communications from the public health system to the public were timely and appropriate
- PHL and CDES staff met at least once a day face-to-face. The meeting allowed them to exchange information and set appropriate priorities for what was happening at the time.
- The interactions between CDES, the PHL, and the Information Technology Section (IT) went very well.
- Agreeing on a single time to give case updates, a daily time at which numbers will be published and cut-off time for producing them gave everyone a time to shoot for and when to expect the product.
- The PHL got out negative lab reports promptly.
- Daily calls to LHJs kept both parties informed about what needed to be improved and what they were doing right.
- Communications with counterparts in British Columbia helped to keep staff aware of what was happening on both sides of the border. The communications were particularly helpful because cases appeared in British Columbia before Washington State.
- The use of outside volunteers really helped when surge capacity was needed.
- The Non-infectious Disease Epidemiology Office in Tumwater was able to help by conducting remote data entry, greatly assisting CDES in meeting its reporting deadlines.
- Putting into place a Memorandum of Understanding with Public Health – Seattle & King County to perform some of the routine testing (e.g., pertussis) enabled the PHL to concentrate more on influenza testing
- A database was created that allowed users to make queries
- CDES developed and used "assembly line" data entry system to spread things out.
- CDES created a template for Sitreps and used it.
- CDES connection with PHL lab database.
- Using the Web site as a basic resource page helped to reduce the number of phone calls.
- Epidemiological analysis of data to show age-based distribution and other trends.

- Past exercises helped provide the foundations for how Shoreline responds.

B. From the LHJs:

- Having access to live bodies and regular conference calls helped a lot
- LHJs appreciated the give and take in developing guidelines. State lab was very helpful
- Shoreline's ability to receive samples during the first two weekends made getting samples out easier and timelier.
- Feedback from state through CDC about what was happening with probable cases was helpful and informative. Dealing with uncertainty early on was difficult and information was helpful. Data interpretation and dialogue was helpful.
- Public Health Seattle-King County Laboratory stepped up and helped out with routine work when the PHL was doing flu work. This helped them to concentrate on that task.

C. What needs improvement:

1. The numbers that are communicated to the public are labor intensive to produce.
   - Recommendation(s): CDES should develop procedures to establish what numbers need to be tracked, and when tracking will be modified and discontinued.
2. The media interest in the event skewed the priorities. The skewed priorities were particularly true with the numbers of cases confirmed.
   - Recommendation(s): Continue working with the Communications Office to develop a strategy on when the numbers will be available and how the numbers should be presented in the future.
3. The database for tracking cases does not work well for CDES.
   - Recommendation(s): Review database requirements and make sure that a system meets both CDES and PHL needs.
4. Communications channels with other state agencies were not clear.
   - Recommendation(s): Review response plans and make sure they address how entities at Shoreline will communicate with other state agencies.
5. Guidance coming from federal partners changed a lot during the event. The way the guidance documents were rewritten (significant format changes) made it time-consuming to read them and find changes. This, when time was extremely valuable.
   - Recommendation(s): Department of Health should request CDC, possibly through NACHO/ASTHO, that modifications to CDC guidance documents be tracked so that changes can be readily identified.
6. The system in place now to communicate results and pass them on to partners is slow and cumbersome.
   - Recommendation(s): Review system applicability and add dating of documents.

7. When Shoreline went to ICS structure they did not communicate to customers the new communications channels. The customers relied on what they had done before, which sometimes circumvented the ICS structure.
   - Recommendation(s): Shoreline should develop notification procedures in their emergency planning documents to inform customers of changes in reporting and communications process during activations.
8. Most staff that responded to this event ended up with email inboxes over capacity. Many of these emails had large attachments.
   - Recommendation(s): Work with Department of Health IT staff to allow more capacity on inboxes during a response.
9. The number of phone calls increased to the point when Shoreline staff were unable to handle them.
   - Recommendation(s): Look into the possibility of increasing staff to handle phone inquiries, or using alternative methods such as Web site information or agency calendar.
10. Staff used multiple listservs to distribute and receive communications during the response. This creates confusion on which is providing the right info and leads to overwhelming the email inboxes.
    - Recommendation(s): CDES should review the different listservs and established which ones will be used to distribute information during an event.
11. Establish and communicate deadlines for information. Establishing deadlines will create an expectation and will cut down on multiple calls requesting that information before it is ready.
    - Recommendation(s): CDES should revise its emergency response plan so that it addresses how time lines for information will be established at the beginning of the response.
12. It was difficult to navigate to the CDES or PHL portion of the Department of Health external Web site.
    - Recommendation(s): Shoreline should work with Communications Office to establish clear links on the Department of Health Website.
13. Staff at Shoreline was at capacity. If something else would have happened during the H1N1 event, or if the event had continued for a longer period of time, staffing resources would have been severely taxed.
    - Recommendation(s): CDES and PHL should explore surge capacity remedies, including: use of Tumwater Department of Health staff; having a call center set-up to take burden off phones; parceling out some function to other entities; using volunteers. Shoreline emergency plans should address additional workspace needs should operations need to be expanded.
14. Current Laboratory test capacity is limited.
    - Recommendation(s): PHL should explore possible technological solutions to increase capacity to include: robotic extractors, database upgrades, bar code readers, etc.

15. There is no outbreak management system for managing an outbreak from start to finish that can be used by staff from both CDES and the Public Health Laboratory.
    - Recommendation(s): Shoreline should explore possible modifications to existing systems, or acquisition of new systems that will fulfill this role.
16. The laboratory's system for prioritizing and storing of specimens requires revision.
    - Recommendation(s): PHL should develop procedures for storing specimens that will ensure they are tested in the proper order.
17. The testing requirement instructions that come out from the CDC were long and complicated.
    - Recommendation(s): Department of Health should work with CDC to establish procedures that can quickly and simply adapt to a developing situation.
18. The shipper for specimens that were shipped to CDC, did not perform satisfactory.
    - Recommendation(s): Shoreline should look into new shipping company to fill this requirement.
19. Shoreline needed the capability to do after hours web posting.
    - Recommendation(s): Shoreline should work with Communications Office to establish procedures to post information after hours.
20. PHL laboratory capacity was overwhelmed partly due to the decisions not to establish a case definition for testing and to test all flu positive samples from commercial labs during the early outbreak.
    - Recommendation(s): CDES should address this problem in the Communicable Disease Emergency Management Plan based on lessons learned from the novel H1N1 event.

D. From the LHJs:

1. In some cases the laboratory protocols were sent to the local laboratories, but not the LHJs.
    - Recommendation(s): Review process for sending Laboratory protocols and ensure LHJs are included.
2. Early on in process state lab wanted everything to go there even though they were over capacity. Not using local labs slowed things down.
    - Recommendation(s): Give local laboratories guidance on how to perform this type of testing.
3. Some of the LHJ's did not pre-screen samples before sending them to the state lab.
    - Recommendation(s): Make sure that protocols for sending samples to the Public Health Laboratory for influenza testing include instructions for appropriate pre-screening.
4. Among the smaller counties in the Seattle media market, the public does not understand that the actions taken by the larger LHJs are not necessarily the same for the small LHJs or that they are taking parallel actions.
    - Recommendation(s): Communications office work with all LHJs in state to get this message out during a response. Make sure plans and procedures address this issue.

VII. State Emergency Management Division

The overall theme from the response for the Department of Health/Emergency Management Division interaction was "Circumstances will drive what we do and this needs to be a planning assumption."

A. What went well:

- Conducting regular conference calls once a day. The call kept all parties current on what was occurring.
- Public messaging went well. It began early and was proactive.
- The use of Joint Information Systems to keep participants up to date work well.

B. What needs improvement:

1. The State does not have standardized policies to deal with personnel issues that could occur during a pandemic. These include: leave policy, management of ill employees, and moving employees among agencies to full critical needs.
   - Recommendation(s): Working through the State Pandemic Influenza Working Group, develop agreed upon policies for dealing with these tasks.
2. No formal procedures exist for Department of Health to tap into expertise resident in EMD that can support a response such as this one.
   - Recommendation(s): Work with EMD to identify possible areas where they could supplement agency staff during a response when the State EOC is not activated. The assistance might include deployment of a liaison from EMD to the Department of Health EOC. Develop and implement a new WebEOC board that can be monitored by other WebEOC Users for their jurisdictions. Information posted to this board would be vetted internally by the Department of Health EOC Director prior to posting. Also look at posting Department of Health EOC Sitreps to WebEOC and make them accessible to other WebEOC Users.
3. The criteria for asking the Governor to make a Declaration of Emergency for a health related event remains unclear. The Governor's declaration brings with it the ability to waive appropriate Revised Codes of Washington (RCWs), but which ones would be need to be waived for a health event have not been identified.
   - Recommendation(s): EMD and Department of Health should work together to define the criteria and trigger points for declaring an emergency at the state level. As part of the work RCWs that might need to be waived should be identified. The process should also include a look at the benefits of not declaring an emergency.
4. Since the State EOC did not activate for this event, local emergency management were unable to use their normal methods for being kept updated on the current status of the response. The one conference call done with local jurisdictions was well received.

- Recommendation(s): EMD and Department of Health jointly work with their local partners to set up a dialog at the county and regional level. The dialogue will help to develop the local partner relationship and make them less dependent on the state for information during a health-centered event.

5. The Public Health Response and Assessment Team (PHRAT) was a valuable forum for keeping the LHJs and the state aware of ongoing issues at both levels. No one from State Emergency Management is a member.
   - Recommendation(s): Look into making a representative from the EMD a member of the PHRAT.
6. There was some confusion about the incident number, how it was generated, and who generates the incident number.
   - Recommendation(s): Work with Washington Emergency Management Division to clarify already existing procedures for generating incident numbers and notifying participating agencies of the numbers.

VIII. Department of Health Communications Office

A. What went well:

- Early in the response even though CDES could only provide incomplete information, that information helped to head off a lot of media inquires and established Department of Health as the place to go for information on the Pandemic.
- Leadership changes at Shoreline have made working with both the Public Health Laboratory and CDES much easier and more productive.
- Translation services did very well; the Communications Office was able to quickly tap resources to translate a variety of materials. The Communications Office also had the opportunity to work out the process with the Spanish review team within the Environmental Health Division.
- Partnerships with other state agencies and community groups worked well; the Communications Office proactively worked with government and community partners to meet information needs.
- The EOC Communications Liaison role was invaluable to effective response.
- The agency's media briefings, news releases, and response to reporters were effective in delivering important public health messages to news consumers (public) quickly and accurately. The agency's Web site also served as a one-stop shop for consumer and partner information.
- The Communications Office did well on internal communication and organizing event information response.
- The Communications Office partnered with the business contact at state Emergency Management division to effectively reach out to the private sector.

- Providing case numbers daily at the same time helped with workload issues and increased accuracy of reporting in the media.
- Having a daily communications touch base call with the LHJs and tribes helped keep messaging around the state consistent and kept the Communications Office updated on what was happening at the local level.
- News conferences held by agency leadership set the tone for timely, accurate news reports and cultivated the agency's profile as the credible voice of public health. The result was news reports that reflected positively on agency staff, leaders, and strategies.
- The closed-captioned "Germ Trail" TV public service announcement was quickly distributed to media throughout the state.

B. From the LHJs:

- The local health officer and the Washington Secretary of Health were giving the same message.
- Department of Health EOC Sitreps were helpful.
- The SECURES system worked well and was very helpful. Although tribal partners were not able to access swine flu folder, the SECURES folders were helpful.
- Department of Health Communications Office was responsive and timely, including proactive partner communication and media outreach.
- Communications Office set up a phone number and e-mail for partner/public/staff questions. This information triage capacity was effective and lessened the workload on other programs.

C. What needs improvement:

1. 211 – This is primarily a referral service, but may help extend public call capacity in an emergency.
   - Recommendation(s): Continue to explore if/how 211 can supplement public health call center capacity statewide.
2. Communications' role during a response is critical. The current staff in the Communications Office cannot support sustained operations over a long period. Additional agency staff needs to be trained to support the communications mission and made available during a response.
   - Recommendation(s): Assure that divisional, office, and program managers allow time for training before an event and for staff to participate in the response during a public health event/emergency. These training and response roles for staff around the agency should be formally included in their job descriptions.

3. The role of and demands on the Communications Office Liaison to the Department of Health EOC were unclear and shifted during the event. There was no one to back-up the position.
   - Recommendation(s): Work with EOC planners to clearly define the role and training needs of the communications liaison position, and then staff should be trained to those standards. Communications and planners should work together to develop the training program for the position. A depth chart of trained, qualified staff (from around the agency) able to fulfill the role must be established.
4. The requirements for producing the Governor's report need to be clearly established, captured in planning requirements, and have staff trained to produce the report correctly.
   - Recommendation(s): Work with Washington State Emergency Management Division and Department of Health PHEPR staff to clearly establish the requirements and responsibility for producing the Governor's Report.. The responsibility may change base depending on the type of event the state is responding to.
5. Although communications between Department of Health and LHJs worked well, the Department of Health will continue to balance the needs of the LHJs with the larger state level requirements.
   - Recommendation(s): None
6. There is provision for someone to fulfill the librarian role for all the documents produced for the response.
   - Recommendation(s): Look into identifying a librarian role for documentation produced during response activities.
7. The state Emergency Management Division's (EMD) emergency operations center plays a key role in assuring effective inter-agency communication in a declared state emergency. There was no such declaration in this event, leaving EMD unclear of its role.
   - Recommendation(s): Develop triggers to contact state EMD communications and coordinate which responsibilities go to each agency.
8. Connections to other state and local agencies could have been better coordinated.
   - Recommendation(s): Develop protocols to communicate with state agencies – as partners and as employers. Directing the public to those agencies that have additional information about the emergency needs to be strengthened.
9. The public service announcements (PSAs) produced by partners on this event appeared not to have closed captioning for the deaf and hard of hearing.
   - Recommendation(s): The agency should work with partner agencies producing PSA's to make sure they are closed captioned.
10. Not all inquires were coming into designated contact points. Not having a single point for information left many in the agency being asked questions on this event without a place to get answers or to refer callers to.

- Recommendation(s): Incorporate into existing response plans method of distributing to agency staff general guidelines for answering questions on the response and where to refer callers should they need more information.

11. The messages to the public that went out said call your health care provider if you are sick, but these messages did not address what the uninsured should do.
    - Recommendation(s): When developing messaging for the public take into account what segments of the society that are not served by traditional health care, and the guidance they may need. Encourage DSHS to reach out to the un-insured in the agency messages on this topic.

D. From the LHJs:

1. Having a state level phone bank/call center developed early in the response could have been helpful. Many of the small LHJs as well as healthcare providers were overwhelmed by calls from the worried well. Having this might have helped.
    - Recommendation(s): Review Call Center plan based on this event and ensure that triggers for activation apply to this type of Pandemic. Divisions should be prepared to reassign call center volunteers during this type of event.
2. Some LHJs call centers were not confident they had adequate information to develop their scripts in a timely manner.
    - Recommendation(s): Work with LHJs to highlight already developed scripts or identify areas where scripts can be developed ahead of time; if not yet developed.

Section 3: Conclusion

The H1N1 event provided public health and the health care sector with a good preview of what could happen during a more intense pandemic influenza event. During the event Washington State Department of Health (DOH) was given the opportunity to test many things under more trying conditions than any exercise can simulate. The agency was able to do things like run the Reception, Storage, and Staging Facility (RSS) for over a week and deliver medical supplies to almost every county in the state. The H1N1 event afforded the federal, state, and local participants a chance to test plans that had never been tested at this level and with all those entities whose participation the plan depends upon.

The final result was that those involved were able to accomplish what they planned, but some of their plans need significant revision.

At the federal level, the delivery and notification process worked, but not smoothly. Constantly changing guidance on school closures, treatment, and use of antivirals, left some confused, and unsure of what they should do. But, the Strategic National Stockpile were able to successfully conduct probably the largest peacetime non-military logistics operations in the country's history as planned.

At the state level, it was found that although plans are robust, there were many issues that had not been anticipated that need to be addressed.

The RSS was able to receive and distribute Strategic National Stockpile medical supplies, but many internal procedures should be re-evaluated to make the process faster and more streamlined. There was an extreme contrast between the two trucking organizations (one private, the other State Department of General Administration) doing the actual delivery. One did an outstanding job and was praised at all levels. The other did not meet expectations. The overall coordination of the delivery process should be revisited at several levels.

The State Public Health Laboratory at Shoreline was able to meet the demand of this event, but would be hard pressed during a larger event. Several areas need review to ensure that they can handle a surge event.

The Communicable Disease-Epidemiology (CDES) offices were able to run a good epidemiological investigation and keep up with federal requirements, but staff was stretched almost to the breaking point. Across the board, surge staffing was an issue. The other big issue that faces CDES in future events is deciding when to test, and deciding how to balance the need for medical testing and other requirements.

The Department of Health Emergency Operations Center (EOC) had never been tested to this level. Previously their longest activation was for three days during the flood of December 2007. This time the EOC operated in the designated facility for 14 days. Many issues were uncovered in areas of operation that included timekeeping, contract management and coordination with all agency activities, just to name a few. The EOC was able to maintain situational awareness and keep the agency's focus without fail.

The Communications Office although praised across the board for their messaging and ability to keep everyone on message has issues to deal with internal to the agency and coordinating with jurisdictions across the state.

Finally at the state level, the agency leadership was focused and on target throughout the response. Nevertheless, leadership needs to work on issues such as deciding how much priority to give an event of this kind, where guidance on personnel issues will come from, and how staff shortfalls will be overcome.

At the local level most agencies expressed the feeling that they were able to respond to this event, but had this had been a more significant event, they would have been overwhelmed. Several issues came up that need to be addressed by most local health jurisdictions. These include long-term staffing, reception and storage of medical supplies, and ensuring that antivirals are dispensed per federal guidelines. Overall, the local jurisdictions were able to do what they had to do to meet the needs of the community.

Knowing that H1N1 will return in the fall, but not how severe it will be means that everyone involved in the H1N1 response needs to take a hard look at their capabilities and what they can do better next time. A lot of planning needs to be accomplished in the next few months. This will require some hard decisions about how to use limited resources in the best interest of the populations we serve.

Appendix A: Improvement Plan

The following plan includes recommendation identified in Section II.

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
Feedback from Local Health Jurisdictions				
I.B.1. Although calls were very helpful, there was some duplication of information between calls. It is not always clear which calls the LHJs should participate in. Quite often some people would end up sitting through multiple calls where the same information was discussed.	Establish a procedure to determine early in the event what calls are needed and who will represent the appropriate entities in those calls. Work to prevent duplication of effort on calls and if possible have a central point at which participants can go to get call in information.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
I.B.2. Last minute generation of specific longer-term inventory requirements presented problems for the LHJs.	Develop inventory requirements then incorporate them into SNS plan to include passing the requirements to the LHJs.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
I.B.3. Getting Lab results presented some problems. The LHJs would like to have an automated system that they could log into and pull up the latest results.	Explore possibility of automated system for distribution of laboratory results.	**DOH PHL**	Aug 1, 2009	Jan 1, 2010
I.B.4. Some felt that the Public Health Response	Review plan for PHRAT trigger points and revise as	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
and Assessment Team (PHRAT) call should have begun earlier in the response. The PHRAT discussions were very helpful and would have helped in the initial stages of the response.	necessary.			
I.B.5. Tribal census numbers historically do not reflect their real service populations. Not having correct numbers causes a problem in allocations based on population.	Work with tribal groups to ensure that they are properly represented in county census. Also, look at using the actual population served by the tribal health entity to determine numbers of medical supplies to be provided.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
I.B.6. The tribes did not get involved in the program to acquire federally subsidize antivirals until after the response began. Not being involved early did not allow them to cache drugs before the event.	Work with Tribal Health and LHJs to educate them on this program and how they can take part in it.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
I.B.7. At times, some of the LHJs were not in agreement with state on numbers of positive, potential, and presumptive cases. Some of the state information on the	Work with LHJs to establish procedures for how the numbers will be released and when.	**DOH CDES/ DOH PHL**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
numbers went out before the LHJ was ready to address the issues.				
I.B.8. In some cases the messages were not well coordinated. The CDC, Department of Health, and Local Health Officer were not always in agreement on what information to pass to the public.	): Continue to work with LHJs to coordinate messaging. Look at establishing formal process for coordinating messages.	**DOH PHEPR/DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
I.B.9. Information needs to be concise. World Health Organization (WHO), CDC, Department of Health information was coming from everywhere and it was difficult to manage.	Look at establishing one function within Washington State to act as a clearing house for this type of information.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
I.C.1. In Region IV some state level entities were unsure if the regional staff was speaking for all the LHJs in the region. Early on in the event Department of Health contacted every LHJ to get their medical resources delivery requests. Later on the regional staff changed what the LHJ requested. To verify these changes were appropriate and the Department of Health re-	Work with LHJs and regions to ensure the state understands in which cases the regional staff has the consent of the LHJs to make these requests.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
contacted the LHJs to verify the delivery changes.				
I.C.2. Public health needs to ensure that the military healthcare segment is connected to the overall community. In Spokane, Fairchild Air Force Base was getting all the SECURES messages and was very happy with this connection. In the Puget Sound area the military is one of the larger healthcare providers in the community. In some cases they were not following the same processes as everyone else and this caused confusion.	Work with the military healthcare community to ensure that they are well connected with their LHJs and with the healthcare coalitions in their regions.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
I.C.3. This event came close to pushing LHJs over their limit in terms of staff. They were barely able to sustain operations for 2 weeks usually for 12 hour days. If this would have required 24/7 operations most of the LHJs could not have sustain them.	Look for ways to supplement LHJ response capabilities for longer term 24/7 operations.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
I.C.4. Much of our planning is based on case severity index. This index	Determine if case severity index is the proper measure for actions, or	**DOH PHEPR/DOH CDES/ DOH PHL**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
provides good planning information, but for a newly emerging threat, it is difficult to determine. Using the present method of determining case severity (number of illness verses the number of deaths) much of this information is not available during the initial stages. The lack of information caused wild swings in determining community mitigation actions, and this may affect the creditability of public health officials.	should something else be used. Incorporate these findings into pandemic planning.			
Department of Health Senior Management Team				
II.B.1. Shoreline interaction with the Department of Health EOC although getting better needs improvement.	Continue to refine this relationship through exercises, training, and plan refinement.	**DOH EHSPHL**	Aug 1, 2009	Jan 1, 2010
II.B.2. The process for notifying agency staff asked to support the response did not always go well. In some cases people only had limited notification that they were on standby or were not updated on changing reporting times for specific	Develop specific procedures for staffing response functions. These procedures should address standby requirements, source of staffing for specific positions and notification protocols.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
events.				
II.B.3. This response put a tremendous amount of pressure on certain staff members. They took the entire burden on themselves and did not have a back up. If this event lasted much longer, they may not have stood up well to the burden and performance may have suffered.	Department of Health needs to establish a system that trains and uses back ups. Not just for senior staff position, but for all critical response roles across the agency. These positions requirements should also be incorporated into position descriptions and tied to specific positions.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
II.B.4. Although H1N1 response was one of the agency's top priorities during the event, this was not adequately communicated to staff.	When a response begins, the notification to the agency should give guidance on how the response's is prioritized against other agency requirements.	**DOH PHEPR/DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
II.B.6. Many of the Department of Health staff that were used for the EOC and RSS activities are volunteers. These activities are essential to the response and must have people who are assigned so that during the response this becomes their primary responsibility.	Look into assigning these roles to specific positions and make them become part of the Position Description.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
II.B.6. The Department of Health's role versus the	Work with the State Agency Pandemic	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
LHJs' role in a health-centric event such as pandemic influenza is not always clear to other state agencies. The separation needs to be clearly drawn for agencies such as the Department of Corrections and Department of Social and Health Services who are responsible for people classed as wards of the state who are residents in facilities in different counties.	Influenza Working Group to clarify issues with agencies that care for wards of the state. Ensure this is incorporated into the Pandemic Influenza portion of the State Consolidate Emergency Management Plan (CEMP).			
II.B.7. The state never declared an emergency, but the Federal Government did declare a public health emergency. Because of this, the response at times became complicated. Was there an emergency in Washington State or not? The relationship between state and federal declarations should be clarified.	Work to define the criteria for declaring an emergency at the state level. This should, include a discussion of the benefits of not declaring an emergency.	**DOH PHEPR/EMD**	Aug 1, 2009	Jan 1, 2010
II.B.8. How Washington State Emergency Management Division's assets and the State EOC could best be used during this event was never clear.		**DOH PHEPR/EMD**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
During a public health response, the State EOC's role needs better definition.				
II.B.9. A Governor's Declaration of Emergency may have helped the focus the agencies response, particularly among those parts that have a direct response role.	Work to define the criteria for declaring an emergency at the state level. This should also include a look at the benefits of not declaring emergency.	**DOH PHEPR/EMD**	Aug 1, 2009	Jan 1, 2010
II.B.10. The question whether or not a state level call center should be established was asked many times during the response. Although asked, the question was never answered. It is not clear what should trigger this and how it would support or incorporate its activities with call centers/information lines set up at the county level in the state.	Review Call Center plan based on this event and ensure that triggers for activation apply to this type of pandemic. Also look at coordinating with the 211 program to provide additional support.	**DOH PHEPR/Communications Office**	Aug 1, 2009	Jan 1, 2010
II.B.11. The agency has no mechanism to quickly and effectively communicate with health care providers during an emergency.	Review agency communications tools to see if one of the existing systems that can be used to satisfy for this requirement.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
II.B.12. The agency's	Continue to work with	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
relationship with tribes and federal entities that provide healthcare to large populations (i.e. military healthcare facilities) needs to be better developed. These entities are not getting all state-level healthcare messages, and reporting mechanisms are not always clear.	tribes and federal entities to ensure that they are included in messaging that Department of Health provides with LHJs and other healthcare entities across the state.			
II.B.13. Managing email became a significant issue. The number of emails with large attachments caused email boxes to often go over the size limits. In many cases forwarding of emails with only FYI indicates that the sender has not read the email.	Recommendation(s): Look into the possible expansion of e-mail inbox size limits during a response event or find other solutions. Establish agency guidance on forwarding of e-mails to ensure that large e-mails are not going to the same person numerous times, and that e-mails are not being forwarded without review first.	**DOH DIRM**	Aug 1, 2009	Jan 1, 2010
II.B.14. A safety officer role in the EOC as well as all areas that have response activities (Shoreline, etc.,) is needed. This role should address mental health (overwork) issues as well as physical safety.	Review the possibility of assigning safety officer role to an already existing position. The staff that fulfills this role should get formal training on what their responsibilities will be.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
II.B.15. Managers and	Establish an HR working	**DOH HR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
staff throughout the agency have many unanswered questions about HR requirements during a pandemic.	group that has responsibility for conducting HR planning and developing answers to HR questions that arise during a pandemic.			
Emergency Operations Center				
III.B.1. Shifts shorter than eight hours do not allow enough time for good continuity of operations. The short shifts slowed the EOC's response and made it less effective. A significant amount of time was taken up training and back-briefing replacement staff.	Most shifts should be no shorter than eight hours	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.2. Not all requests for assistance from DIRM from the EOC went through the proper channels (EOC Director to DIRM management) to be tasked.	Ensure EOC staff is properly trained on how to do support requests.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.3. Direction from management to Department of Health general staff about tracking hours spent on any particular event needs to be given early in the response. Timekeeping became a matter of	Develop a consistent policy on tracking of hours for Department of Health response staff. Incorporate it into Department of Health EOC training.	**DOH FM**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
confusion and will lead to the agency not capturing a true representation of the associated cost.				
III.B.4. Staff was unsure of how EOC timekeeping should be tracked. Guidance was not always clear and had to be reissued several times.	Develop clear timekeeping guidelines and train Department of Health EOC staff on their responsibilities during regular Department of Health EOC training.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.5. To often decisions made outside the EOC (such as during the PHRAT call) that effected EOC operations were not communicated to EOC staff in a timely manner. Decisions included taskings to Department of Health staff not in the EOC that were being duplicated by EOC staff or were similar to existing EOC efforts.		**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.6. Some found the SITREP to be long and confusing.	Develop a shortened version or an executive summary.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.7. The logs kept by most Department of Health EOC staff on WebEOC did not have enough information to recreate what happened during the	More training needs to be done on what is expected of Department of Health Staff when logging information.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
event.				
III.B.8. Staff did not always feel they understood what the Department of Health EOC function was during this event, and how it affected there response role of the agency.	Develop a fact sheet that explains what the EOC is and how it operates during a response to be shared with staff when the EOC activation announcement goes out to the agency.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.9. Communications between the RSS and the Department of Health EOC was not always conducted as planned. EOC staff were not included in the initial request for SNS resources, and when SNS resource requests or delivery points changed, EOC staff was unsure of their role.	There needs to be further planning and coordination done on the role of the Department of Health EOC and the RSS.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.10. There did not appear to be a depth of knowledge on RSS operations in the Department of Health EOC. Outside of the RSS staff, there is very limited knowledge of RSS operations within Department of Health. For EOC staff this posed a problem. At times when asked question on RSS	Work with EOC staff to educate them better on RSS operations, this should include letting EOC staff observe RSS operations during exercises, and looking at rotating staff between RSS and EOC. Look at developing a fact sheet for the RSS and SNS with answers to basic questions the LHJ's and others had.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
operations they either did not understand the question, or did not know where to go to get the answer.				
III.B.11. The EOC on initial activation was not fully staffed. The current plan is to activate the EOC initially at full staffing and then determine if it should remain fully activated or operate at a scaled back level. This posed problems when the EOC needed to expand capability to a normal level. Finding staff to fill the required roles was difficult.	Always fully activate the EOC per the plan	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.12. Ensure that the EOC Administration/Finance Section is activated with initial EOC activation. It was found during this event that they have a lot of critical functions to perform at the beginning of the response such as: setting up a Master Index Code for the event, putting into place attendance tracking functions, etc.	Make sure that the EOC plan to fully activate Department of Health EOC at the beginning of response is followed.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
III.B.13. The use of non-Public Health Emergency Preparedness and Response (PHEPR) Department of Health staff to support EOC operations was not always supported. Lower level managers were not made aware of what the agency's staffing policy and priority for the EOC were.	Need more emphasis on EOC participation and support from the executive level, and agency managers and staff need guidance on agency priorities during a response.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.14. When the Department of Health EOC closed for the day and RSS operations were still on going, a clear change of who would provide support responsibilities for the RSS was not evident.	Develop protocols for continuing RSS support after Department of Health EOC hours and communicate them to all RSS staff.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.15. The EOC expressed concern about not having the materials, such as Clorox wipes, to clean desks and work spaces.	Make EOC staff aware of what cleaning resources are available and where they are located.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.16. There was a lot of duplication of efforts in some areas. Areas that had duplication included factions and information gathering. Often this resulted from tasking	Make sure request are channeled through the EOC.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
being assigned and accomplished outside of the EOC, without EOC Staff knowledge.				
III.B.17. Quite often, several people (inside and outside of the Department of Health EOC) worked on the same issue. External partners were contacted by different people for the same purpose.	Establish a process for tasking and tracking requests within the EOC. Ensure that the agency understands the EOC role in this process and incorporates it into the EOC plan.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.18. The process for approving Web postings was not always as quick as necessary. The reason for the delays was not always apparent at the division level.	Develop clear guidance on Web posting procedures during a response, and train EOC and other appropriate staff on them.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
III.B.19. Briefings in the EOC were not always conducted on a regular basis and did not always follow a consistent format.	Develop an DOH EOC briefing plan, that includes guidance on timing of update briefings and suggested format	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.20. There was limited oversight of stress levels among EOC staff. A few times during the response individuals may have been under too much stress and become ineffective in their ability to support the EOC.	Stress relief options needs to be developed and made available to EOC Staff.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.21. During this	Purchasing and contracting	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
event a state of emergency was never declared. If purchasing and contract processing request would have risen much higher (volume and amount), the ability of trained staff would have been seriously inhibited in handling these issues. It was not clear what would trigger a declaration of emergency during a public health event.	offices need to be much more involved in the planning process. They need to develop trigger points that help decision makers decide when a declaration of emergency should be considered.			
III.B.22. Although multi-media capability exists in the EOC, it was little utilize during the H1N1 response. This might have improved the transfer of information between Shoreline and the EOC as well as other Department of Health venues.	Explore how multi-media capabilities in TC1 Room 163 could enhance EOC operations.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.23. Several contingency contracts were developed during the response. If the agency wants to implement them long-term, they need to be finalized and put into place now. Otherwise the agency will be scrambling to get them into place	Recommendation(s): If these contacts are needed, put them into place now. Also, create a process for developing and implementing contracts quickly during a response. Train appropriate EOC staff on this contracting process.	**DOH PHEPR/DOH FM**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
during an event.				
III.B.24. The Administrative and Finance section of the EOC plan needs to be reviewed and updated in the areas that describe forms, staffing protocols, EOC scheduling process and other activities.	Review EOC administrative and finance plan to ensure it accurately reflects the duties of the function.	**DOH PHEPR/DOH FM**	Aug 1, 2009	Jan 1, 2010
III.B.25. The depth of EOC staffing is limited. The number of people actually available during this response was limited at times. Lack of staff available forced some parts of the agency to take on a significant number of the EOC positions.	Ensure that a greater number of Department of Health staff is trained and available to staff the EOC.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.26. Several of the critical roles in the EOC were filled by PHEPR staff. Pulling EOC staff from only one program does not follow the EOC plan.	Review EOC operations plan to ensure that the plan addresses which staff may fill what roles.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.27. Shift change in EOC was not always a smooth process. Because shifts ran for one day, the next person filling that position did not always get a formal shift change	Review the possibility of adding requirement for critical positions to leave a hard copy list of assignments and "to-do's" for the next shift. Explore the possibility of doing	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
briefing or did not have a chance to spend time with their predecessor in that role.	some sort of shift change briefing that could be incorporated into the EOC plan.			
III.B.28. The EOC Director's position was not included in the review process for news releases and SECURES Messages. Several times the agency sent out news releases that were not up to date) and SECURES messages that were not complete and had to be re-sent.	Review requirements that the EOC Director or designated EOC position to review significant messages before being sent to partner response agencies.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.29. The process for tracking information from other sources (e.g. reporting numbers from world and U.S.) is not clearly defined. The agency should identify specific information sources and not deviate from protocol by using information from multiple sources.	Make sure the EOC plan addresses this.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
III.B.29. Consider whether Situation Report (Sitrep) should be used as a "newsletter." The Sitrep was tracking a lot of "nice to know" information and kept it there for several	Review purpose of Department of Health Sitrep. This should include audience that the document is intended for. Ensure that information is current and appropriate.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
days. There is a need to define the purpose of Sitrep and stick to it. Ensure that the Sitrep does not become an all purposes communications tool.				
Secure Electronic Communication, Urgent Response and Exchange System (SECURES)				
IV.A. A significant amount of effort was expended in sharing information with our local partners via the Document Library on the SECURES System.	Recommendation(s): Canvass local partners to determine if information-sharing via the SECURES Document Library created value for them.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
IV.B. Posting relevant content to the Document Library could have been faster.	Explore creating a "DOH SECURES Librarian" role so that individual administrators and/or content experts can manage this function during future events. The nature of the event will determine who is dropped in to this role.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
IV.C. Although focused SECURES Alerts are often sent to specific Roles and/or Role Groups of partners outside our agency, quite often there was very limited distribution of these alerts within the agency. . Depending upon the nature	Establish a protocol for review of the "DOH Alerting Awareness" role in the early stages of an event. Determine who needs to be added or deleted from this role based on the nature of the event.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
of the event, specific staff may need to be added to a "DOH Alerting Awareness" role so that they are aware of these communications.				
IV.D. It is not always clear that the Roles and Role Groups in place are those that are needed to facilitate communications between the agency Duty Officer and partners in any given event?	Determine if there is a need to establish more formal guidelines for focused alerting: Determine if additional Role Groups are needed to better meet our alerting communications needs	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
IV.E. Feedback received from some local partners during this event indicated that they looked to SECURES for some real-time information that they never received via that channel.	Determine our partners' expectations regarding emergency communications during an event.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
IV.F. Tribal partners were not able to access the folders that were created on the Web site for this event.	Review SECURES to ensure in future events that tribal partners have a way to access these SECURES folders.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
Strategic National Stockpile Reception Staging and Storage Facility				
V.C.1.a. Staff training on how to do initial reception of incoming trucks and offloading of resources did not always meet the requirements	Revisit requirements for training on reception. Revise appropriately based on lessons learned.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
V.C.1.b. Accuracy of the inventory sheets from the physical inventory of pallets was questionable at times.	Review training requirements to ensure that inventory issues are properly addressed.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.c. Communication between the Command Center and the warehouse can be improved. Those in the warehouse tend to feel isolated and this is aggravated by the distance.	Refine communications methods between RSS warehouse and Command Center.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.d. The Quality Assurance function was understaffed. The understaffing lead to several major errors in orders that were not caught before they left the RSS.	Identify and train additional staff to perform the Quality Assurance function. Also look at the responsibilities of this function and how they could be better utilized to ensure accuracy of orders.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.e. Within the RITS system the documentation produced did not have the strengths of medications on the pick list or package labeling. This was a problem, during the picking and inspection of orders because the Tamiflu came in three strengths (30, 45, and 75 mg) and a suspension. It was not always clear which was the appropriate medication to	Work with DSNS to get medication strengths included in the appropriate labeling.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
pick.				
V.C.1.f. RSS planning has been primarily focused around reception of air cargo containers which are based on the push package scenario. In this event incoming deliveries were made using standard pallets which the warehouse planning has not focused on. The pallets caused delays and some confusion.	Develop a warehouse plan that can adapt to both containers and pallets.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.g. In the present plan the warehouse does not have a computer tied into the inventory system allowing warehouse staff access and to see their future taskings. The lack of access to the inventory system limits the amount of preplanning warehouse staff can do.	Provide computer and appropriate training to warehouse staff.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.h. Warehouse staff is not sure what information they need to provide back to the Command Center to ensure accuracy of inventory information.	Provide training to warehouse staff on inventory needs.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.i. The delivery of mixed pallets was	Develop plan for handling mixed pallets.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
confusing to warehouse staff.				
V.C.1.j. Warehouse ran out of shrink wrap.	Plan for adequate amounts for shrink wrap or work around.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.k. Dry erase markers with a strong odor made it difficult for those using them. They made staff light-headed and unable to concentrate.	Make sure that Dry Erase Makers are odorless.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.l. Packing list envelopes did not have contact information for delivery points on them.	Ensure that procedures for packing list include the requirement for contact information for each location on the envelopes.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.m. One truck was held up at a delivery site while an inventory of the delivery was conducted. Holding up the truck held up delivery to follow-on sites, forcing rescheduling of several deliveries.	Ensure that local reception plans address procedures for delivery inventory and immediate release of delivery trucks.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.n. The provision for delivery to multiple delivery sites within each jurisdiction would have posed problems if this had been a time critical situation. In particular for small deliveries, this slowed the process down, or necessitated the use of	Work with LHJs to develop criteria for single and multiple delivery scenarios.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
more trucks than single delivery points would have required.				
V.C.1.o. The RSS had hard hats that were not easily fitted. Not having quick fitting hats caused time delays when crews had to stop to fit the hard hats , some crew members were uncomfortable because they were never able to get them to fit comfortably.	Look into getting bump hats, or hard hats that can be better fitted to staff.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.p. As operations began to ramp down, the RSS ended up with excess personnel on site. Quite often these staff had to remain on site because they were the only people trained to perform a function that might be required.	Develop plan to ramp down operations and cross-train personnel so they can perform multiple functions.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.1.q. GA staff was not trained on the RSS protocols. Racking would have been done differently if GA had been trained on the RSS protocols.	Work with GA to train staff on RSS protocols.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.a. Inventory accountability was significantly affected by multiple labels and	Review and revise inventory accountability and procedures as necessary.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
incorrect information being recorded, and entered into RITS.				
V.C.2.b. The EOC was not always aware of the issues that the RSS team faced during this event. The lack of awareness was the result of only having a very small number of Department of Health staff outside the RSS that understood RSS operational requirements.	Provide training on RSS operations to EOC Staff and agency senior leadership.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.c. RSS team members' regular duty supervisors were not always aware that team members were deployed. This was compounded by the lack of understanding outside of those actively involved, of the agency's role in the response.	Develop procedure for staff notification of RSS deployment that includes supervisory notifications	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.d. Notification of the RSS staff for changes in the shift schedule and staffing was not always received by staff or their supervisors. Notification did not always come from the EOC.	Review procedures and make sure there is only one source of notification for RSS staff.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.e. Security requirements for the RSS	Review and revise security procedures as necessary.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
and the resources do not always require a maximum effort. The RSS should incorporate phased levels of planning; and implementation instead of 12 hour push (WSP).				
V.C.2.f. RITS discrepancies slowed down operations. Several times the failure of the RITS system halted operations in the Warehouse.		**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.g. RSS operations would be enhanced if RITS adds the capability to choose locations in the warehouse; print out order summaries and customer information; and pre-generate inventory reports,	Work with DSNS to incorporate these upgrades to the system.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.h. The pick list generation process told pickers several times to pull from empty spots in the warehouse. This delayed order preparations, as warehouse staff would have to go back to the command center and have the pick list regenerated with correct information.		**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.i. Using SECURES to notify RSS staff posed	Continue to emphasize the importance of keeping	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
problems when profiles were out of date.	personal SECURES profiles up to date.			
V.C.2.j. Access to contact information for RSS leadership was limited. Several times this prevented RSS staff from being able to quickly find a contact number when needed.	Develop and maintain a mobile telephone listing of the RSS leadership and save it to a folder on the O: drive.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.k. Route planning does not always use the most efficient route. Several times drivers routes seemed to back track when there were obvious shorter routes	Look at new route-planning software applications.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.l. Many RSS staff members had few if any days off. Lack of down time will lead to fatigue and cause problems with accuracy and safety.	Develop plan that specifies the maximum number of days any staff members can work. Ensure that it evenly distributes work load.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.m. Several local delivery addresses changed more than once. This caused planning problems and delayed delivery.	Ensure LHJ level planning takes into account long-term storage requirements and is update at regular intervals to account for changes.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.n. The Centers for Disease Control and Prevention's Division of Strategic National Stockpile (DSNS) did to	Work with the DSNS leadership to develop appropriate communications protocols between the state and the	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
provide tracking information on trucks in route to the Washington State RSS. The lack of notification caused multiple problems with issues such as scheduling staff for reception and ensuring access to facility.	DSNS Operations during events that are appropriate, secure, and meet the needs of the state and DSNS.			
V.C.2.o. RSS operations have only one assigned on-site Information Technology (IT) support staff. When IT issues arose the RSS staff had to reach back and try to fix issues through phone-provided directions. Although agency IT staff went out of their way to help, if someone would have been on site, most of the issues could have been corrected much quicker and would not have slowed down RSS operations.	Work with DIRM to establish on-site IT support for RSS operations.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.p. RSS needs to be able to be better able to inform LHJs on delivery schedules and actual delivery times. Small LHJs have limited staff and off-site storage locations need accurate	Look at establishing a delivery branch in the RSS command center, with the responsibility of scheduling deliveries, communications of delivery schedules, and route planning.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
delivery scheduling information.				
V.C.2.q. The plan does not designate a place to keep vehicle keys in Tumwater. Although a plan was developed on the fly, it did not address all the issues that could come up.	Work with EOC planners to develop a 24/7 vehicle key drop off and pick up plan.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.r. If multiple vehicles are going to be used for transport of RSS staff, a vehicle use plan needs to be developed. The vehicle use plan should address things like scheduling of trips, number of passengers per trip, etc.	Develop RSS vehicle use plan.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.s. Basic housekeeping and setup issues were difficult due to the lack of historical documentation or corporate memory.	Develop continuity book that includes: internal and external partner' contact information, leadership call down list, how-to documents (POs, WebEOC, SECURES, historical documents), where the RSS has ordered from in the past, and equipment needs (toner, batteries, chargers, blue and yellow books, etc).	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.t. Each trucking	Review plan on use of	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
company provided different levels of service. The inconsistency of service levels caused problems with deliveries.	trucking companies establishing a minimum level of service.			
V.C.2.u. The RSS has only one person designated as Safety Officer. The person fulfilling these duties had to work an unreasonable number of hours during the event.	More than one person needs be identified to fulfill this role.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.v. RSS did not have a plan to deal with pallets that had multiple lot numbers.	Revise plan to accommodate for issues like these.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.w. Responsibility for and format of daily RSS Sitrep needs to be defined.	Incorporate into RSS plans and procedures	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.x. Order Status board process was different than practiced during exercises. It was not clear and not always up-to-date.	Review order status board procedures based on experience from this event.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.y. Lot numbers on PPE posed a problem. Some pallets had multiple lot numbers on the pallet. Getting an accurate inventory delayed operations.	Determine if inventorying of lot numbers for PPE is required. If so, look at delaying inventory of those pallets until after the bulk of the picking is completed.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.C.2.z. No plan exists	Develop a large scale	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
for destroying distributed pharmaceuticals when the shelf life expires.	pharmaceutical disposal plan.			
V.D.1. At some of the early delivery sites the delivery did not go as planned. The receiving party did not know what PPE supplies were to arrive. In one case the delivery arrived 24 hours later than scheduled.	Develop a dedicated delivery section within the RSS to address issues like these.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.D.2. The expiration date on the Tamiflu suspension was less than 60 days after delivery. The expiration date means that most of this will have to be destroyed before having a chance to use it.	Work with CDC to ensure that in future deployments resources have a longer shelf life.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.D.3. One county did not receive its Tamiflu 75 mg allocation until 10 days after the scheduled delivery. The RSS team did not discover the oversight until they conducted an after event review.	Enhance the quality control function of the RSS warehouse. Require local delivery sites to make an immediate inventory of deliveries and report to RSS what they received.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.D.4. It was not clear what type of masks were in the deliveries. Having the brand of mask would be helpful to know in	Once information such as mask brand, or other things that may affect use of deliveries is known, forward it to LHJs.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
advance.				
V.D.5. A conscious decision to not break down supplies any smaller than case size posed a problem for the smallest counties. The items in shorter supply usually did not get to them (example: Garfield County only got 3 boxes – one of Tamiflu and two of masks). They did not get other items they needed such as gloves.	Develop a method where additional supplies (possibly from a state cache) are available to supplement supplies to ensure everyone gets a minimal level.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
V.D.6. LHJs received no guidance on storage or temperature control of non-pharmaceutical medial supplies. The guidance would have been helpful.	If guidance exists on storage requirements of non-pharmaceutical medical supplies forward that to LHJs before deliveries begin.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
Department of Health facilities in Shoreline				
VI.C.1. The numbers that are communicated to the public are labor intensive to produce.	Recommendation(s): CDES should develop procedures to establish what numbers need to be tracked, and when tracking will be modified and discontinued.	**DOH CDES**	Aug 1, 2009	Jan 1, 2010
VI.C.2. The media interest in the event skewed the priorities. The skewed priorities were particularly true with the numbers of cases	Recommendation(s): Continue working with the Communications Office to develop a strategy on when the numbers will be available and how the	**DOH CDES**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
confirmed.	numbers should be presented in the future.			
VI.C.3. The database for tracking cases does not work well for CDES.	Review database requirements and make sure that a system meets both CDES and PHL needs.	**DOH CDES**	Aug 1, 2009	Jan 1, 2010
VI.C.4. Communications channels with other state agencies were not clear.	Review response plans and make sure they address how entities at Shoreline will communicate with other state agencies.	**DOH CDES**	Aug 1, 2009	Jan 1, 2010
VI.C.5. Guidance coming from federal partners changed a lot during the event. The way the guidance documents were rewritten (significant format changes) made it time-consuming to read them and find changes. This, when time was extremely valuable.	Department of Health should request CDC, possibly through NACHO/ASTHO, that modifications to CDC guidance documents be tracked so that changes can be readily identified.	**DOH CDES**	Aug 1, 2009	Jan 1, 2010
VI.C.6. The system in place now to communicate results and pass them on to partners is slow and cumbersome.	Review system applicability and add dating of documents.	**DOH CDES**	Aug 1, 2009	Jan 1, 2010
VI.C.7. When Shoreline went to ICS structure they did not communicate to customers the new communications channels. The customers relied on	Shoreline should develop notification procedures in their emergency planning documents to inform customers of changes in reporting and	**DOH EHSPHL**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
what they had done before, which sometimes circumvented the ICS structure.	communications process during activations.			
VI.C.8. Most staff that responded to this event ended up with email inboxes over capacity. Many of these emails had large attachments.	Work with Department of Health IT staff to allow more capacity on inboxes during a response.	**DOH EHSPHL/DOH DIRM**	Aug 1, 2009	Jan 1, 2010
VI.C.9. The number of phone calls increased to the point when Shoreline staff were unable to handle them.	Look into the possibility of increasing staff to handle phone inquiries, or using alternative methods such as Web site information or agency calendar.	**DOH EHSPHL**	Aug 1, 2009	Jan 1, 2010
VI.C.10. Staff used multiple listservs to distribute and receive communications during the response. This creates confusion on which is providing the right info and leads to overwhelming the email inboxes.	CDES should review the different listservs and established which ones will be used to distribute information during an event.	**DOH CDES**	Aug 1, 2009	Jan 1, 2010
VI.C.11. Establish and communicate deadlines for information. Establishing deadlines will create an expectation and will cut down on multiple calls requesting that information before it is ready.	CDES should revise its emergency response plan so that it addresses how time lines for information will be established at the beginning of the response.	**DOH CDES**	Aug 1, 2009	Jan 1, 2010
VI.C.12. It was difficult	Shoreline should work	**DOH**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
to navigate to the CDES or PHL portion of the Department of Health external Web site.	with Communications Office to establish clear links on the Department of Health Website.	**EHSPHL/Communications Office**		
VI.C.13. Staff at Shoreline was at capacity. If something else would have happened during the H1N1 event, or if the event had continued for a longer period of time, staffing resources would have been severely taxed.	CDES and PHL should explore surge capacity remedies, including: use of Tumwater Department of Health staff; having a call center set-up to take burden off phones; parceling out some function to other entities; using volunteers. Shoreline emergency plans should address additional workspace needs should operations need to be expanded.	**DOH EHSPHL**	Aug 1, 2009	Jan 1, 2010
VI.C.14. Current Laboratory test capacity is limited.	PHL should explore possible technological solutions to increase capacity to include: robotic extractors, database upgrades, bar code readers, etc.	**DOH PHL**	Aug 1, 2009	Jan 1, 2010
VI.C.15. There is no outbreak management system for managing an outbreak from start to finish that can be used by staff from both CDES and the Public Health Laboratory.	Shoreline should explore possible modifications to existing systems, or acquisition of new systems that will fulfill this role.	**DOH EHSPHL**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
VI.C.16. The laboratory's system for prioritizing and storing of specimens requires revision.	PHL should develop procedures for storing specimens that will ensure they are tested in the proper order.	**DOH PHL**	Aug 1, 2009	Jan 1, 2010
VI.C.17. The testing requirement instructions that come out from the CDC were long and complicated.	Department of Health should work with CDC to establish procedures that can quickly and simply adapt to a developing situation.	**DOH PHL**	Aug 1, 2009	Jan 1, 2010
VI.C.18. The shipper for specimens that were shipped to CDC, did not perform satisfactory.	Recommendation(s): Shoreline should look into new shipping company to fill this requirement.	**DOH EHSPHL**	Aug 1, 2009	Jan 1, 2010
VI.C.19. Shoreline needed the capability to do after hours web posting.	Shoreline should work with Communications Office to establish procedures to post information after hours.	**DOH EHSPHL/Communications Office**	Aug 1, 2009	Jan 1, 2010
VI.C.20. PHL laboratory capacity was overwhelmed partly due to the decisions not to establish a case definition for testing and to test all flu positive samples from commercial labs during the early outbreak.	CDES should address this problem in the Communicable Disease Emergency Management Plan based on lessons learned from the novel H1N1 event.	**DOH PHL**	Aug 1, 2009	Jan 1, 2010
VI.D.1. In some cases the laboratory protocols were sent to the local laboratories, but not the LHJs.	Review process for sending Laboratory protocols and ensure LHJs are included.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
VI.D.2. Early on in	Give local laboratories	**DOH PHL**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
process state lab wanted everything to go there even though they were over capacity. Not using local labs slowed things down.	guidance on how to perform this type of testing.			
VI.D.3. Some of the LHJ's did not pre-screen samples before sending them to the state lab.	Make sure that protocols for sending samples to the Public Health Laboratory for influenza testing include instructions for appropriate pre-screening.	**DOH PHL/DOH PHL**	Aug 1, 2009	Jan 1, 2010
VI.D.4. Among the smaller counties in the Seattle media market, the public does not understand that the actions taken by the larger LHJs are not necessarily the same for the small LHJs or that they are taking parallel actions.	Communications office work with all LHJs in state to get this message out during a response. Make sure plans and procedures address this issue.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
State Emergency Management Division				
VII.B.1. The State does not have standardized policies to deal with personnel issues that could occur during a pandemic. These include: leave policy, management of ill employees, and moving employees among agencies to full critical needs.	Working through the State Pandemic Influenza Working Group, develop agreed upon policies for dealing with these tasks.	**DOH PHEPR**	Aug 1, 2009	Jan 1, 2010
VII.B.2. No formal procedures exist for Department of Health to	Work with EMD to identify possible areas where they could	**DOH PHEPR/EMD**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
tap into expertise resident in EMD that can support a response such as this one.	supplement agency staff during a response when the State EOC is not activated. The assistance might include deployment of a liaison from EMD to the Department of Health EOC. Develop and implement a new WebEOC board that can be monitored by other WebEOC Users for their jurisdictions. Information posted to this board would be vetted internally by the Department of Health EOC Director prior to posting. Also look at posting Department of Health EOC Sitreps to WebEOC and make them accessible to other WebEOC Users.			
VII.B.3. The criteria for asking the Governor to make a Declaration of Emergency for a health related event remains unclear. The Governor's declaration brings with it the ability to waive appropriate Revised Codes of Washington (RCWs), but which ones would be	EMD and Department of Health should work together to define the criteria and trigger points for declaring an emergency at the state level. As part of the work RCWs that might need to be waived should be identified. The process should also include a look	**DOH PHEPR/EMD**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
need to be waived for a health event have not been identified.	at the benefits of not declaring an emergency.			
VII.B.4. Since the State EOC did not activate for this event, local emergency management were unable to use their normal methods for being kept updated on the current status of the response. The one conference call done with local jurisdictions was well received.	EMD and Department of Health jointly work with their local partners to set up a dialog at the county and regional level. The dialogue will help to develop the local partner relationship and make them less dependent on the state for information during a health-centered event.	**DOH PHEPR/EMD**	Aug 1, 2009	Jan 1, 2010
VII.B.5. The Public Health Response and Assessment Team (PHRAT) was a valuable forum for keeping the LHJs and the state aware of ongoing issues at both levels. No one from State Emergency Management is a member.	Look into making a representative from the EMD a member of the PHRAT.	**DOH PHEPR/EMD**	Aug 1, 2009	Jan 1, 2010
VII.B.6. There was some confusion about the incident number, how it was generated, and who generates the incident number.	Work with Washington Emergency Management Division to clarify already existing procedures for generating incident numbers and notifying participating agencies of the numbers.	**EMD**	Aug 1, 2009	Jan 1, 2010
Department of Health Communications Office				

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
VIII.C.1. 211 – This is primarily a referral service, but may help extend public call capacity in an emergency.	Continue to explore if/how 211 can supplement public health call center capacity statewide.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
VIII.C.2. Communications' role during a response is critical. The current staff in the Communications Office cannot support sustained operations over a long period. Additional agency staff needs to be trained to support the communications mission and made available during a response.	Assure that divisional, office, and program managers allow time for training before an event and for staff to participate in the response during a public health event/emergency. These training and response roles for staff around the agency should be formally included in their job descriptions.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
VIII.C.3. The role of and demands on the Communications Office Liaison to the Department of Health EOC were unclear and shifted during the event. There was no one to back-up the position.	Work with EOC planners to clearly define the role and training needs of the communications liaison position, and then staff should be trained to those standards. Communications and planners should work together to develop the training program for the position. A depth chart of trained, qualified staff (from around the agency) able to fulfill the role must be established.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
VIII.C.4. The requirements for producing the Governor's report need to be clearly established, captured in planning requirements, and have staff trained to produce the report correctly.	Work with Washington State Emergency Management Division and Department of Health PHEPR staff to clearly establish the requirements and responsibility for producing the Governor's Report.. The responsibility may change base depending on the type of event the state is responding to.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
VIII.C.5. Although communications between Department of Health LHJs worked well, the Department of Health will continue to balance the needs of the LHJs with the larger state level requirements	None	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
VIII.C.6. There is provision for someone to fulfill the librarian role for all the documents produced for the response.	Look into identifying a librarian role for documentation produced during response activities.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
VIII.C.7. The state Emergency Management Division's (EMD) emergency operations center plays a key role in assuring effective inter-agency communication in	Develop triggers to contact state EMD communications and coordinate which responsibilities go to each agency.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
a declared state emergency. There was no such declaration in this event, leaving EMD unclear of its role.				
VIII.C.8. Connections to other state and local agencies could have been better coordinated.	Develop protocols to communicate with state agencies – as partners and as employers. Directing the public to those agencies that have additional information about the emergency needs to be strengthened.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
VIII.C.9. The public service announcements (PSAs) produced by partners on this event appeared not to have closed captioning for the deaf and hard of hearing.	The agency should work with partner agencies producing PSA's to make sure they are closed captioned.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
VIII.C.10. Not all inquires were coming into designated contact points. Not having a single point for information left many in the agency being asked questions on this event without a place to get answers or to refer callers to.	Incorporate into existing response plans method of distributing to agency staff general guidelines for answering questions on the response and where to refer callers should they need more information	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
VIII.C.11. The messages to the public that went out said call your health care	When developing messaging for the public take into account what	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010

Observation	Recommendation	Primary Responsible Party	Start Date	Estimated Completion Date
provider if you are sick, but these messages did not address what the uninsured should do.	segments of the society that are not served by traditional health care, and the guidance they may need. Encourage DSHS to reach out to the un-insured in the agency messages on this topic.			
VIII.D.1. Having a state level phone bank/call center developed early in the response could have been helpful. Many of the small LHJs as well as healthcare providers were overwhelmed by calls from the worried well. Having this might have helped.	Review Call Center plan based on this event and ensure that triggers for activation apply to this type of Pandemic. Divisions should be prepared to reassign call center volunteers during this type of event.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010
VIII.D.2. Some LHJs call centers were not confident they had adequate information to develop their scripts in a timely manner.	Work with LHJs to highlight already developed scripts or identify areas where scripts can be developed ahead of time; if not yet developed.	**DOH Communications Office**	Aug 1, 2009	Jan 1, 2010

Appendix B: Community and Family Health (CFH) After-Action Report

April-May 2009 H1N1 Response

- It was unclear which messages the Communications Office was receiving. Most of the messages received by CFH Communications (in OAS) (not the ones from the EOC), but even though asked, CFH Communications never got confirmation if these were already being sent to them. CFH Communications didn't want to bother them, but did need to know if they were getting this information. I found out after the fact that the messages were unnecessary--they were on the Washington State Association of Local Public Health Officials (WSALPHO) distribution list.

- Need adverse effects reporting for antivirals to medications. Need a way to share info with providers, perhaps Web.

- Record keeping of doses patients receive when multi-doses are required.

- Identify a private distribution and administration system for reporting to DOH.

- When phone calls are held with external partners relevant programs need to be included either in the call or be informed as to what is taking place on the calls re: expectations etc.

- HR protocols for supervisors need development for their employees that come to work manifesting the symptoms of the H1N1 virus, and even working in Tumwater EOC.

- No plan for diagnosis, treatment, vaccination of DOH employees.

- Requests for postings to the DOH H1N1 (Swine Flu) page, either slow, put in hard to find locations (not on Swine Flu page) or not posted at all. Lack of feedback regarding posting status. Is delegation needed to assist Communications Team and/or staff posting items to DOH external and internal Web sites?

- The EOC staff needs to be looped in when event response projects are worked on outside the EOC so that they are aware that the work is happening and who to keep in the loop within their Division.

- There needs to be more coordination and communication between the desks in the EOC.

- Public messaging translation should be more equitable to English messaging.

- Information for staff on public phone call messaging needed more rapidly.

Appendix C: Dr Anthony Marfin's iLinc Presentation on "Decision Making During a Novel H1N1 Influenza Epidemic," June 30, 2009

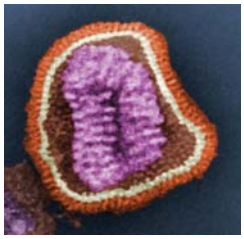
Decision Making During a Novel H1N1 Influenza Epidemic

Anthony A Marfin
Washington State Department of Health

Focus on decisions made in the first two weeks of outbreak

4/21/09 (Day 1): Swine Influenza A (H1N1)

Swine Influenza A (H1N1) Infection in Two Children
Southern California, Mar–Apr 2009 (MMWR Early Release)



"unique combination of gene segments"

"neither child had contact with pigs"

"different from human influenza A (H1N1)"

"large proportion of the population may be susceptible"

"possibility that human-to-human transmission of this new influenza virus has occurred"

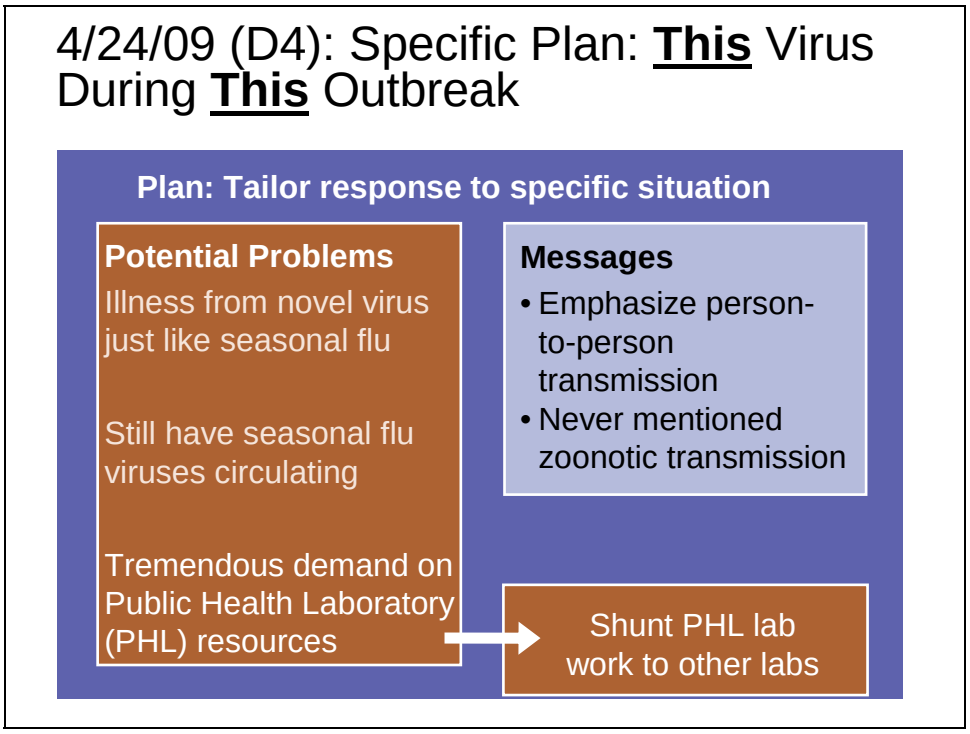
4/24/09 (D4): Update: Swine Influenza A

Update: Swine Influenza A (H1N1) Infections—California and Texas, April 2009 (MMWR Dispatch)

"six more persons infected by the same strain in San Diego County (CA), Imperial County (CA), & Guadalupe County (TX)"

"viruses of the same strain confirmed by CDC among specimens from patients in Mexico"

"any influenza A viruses that cannot be subtyped be sent promptly for testing"

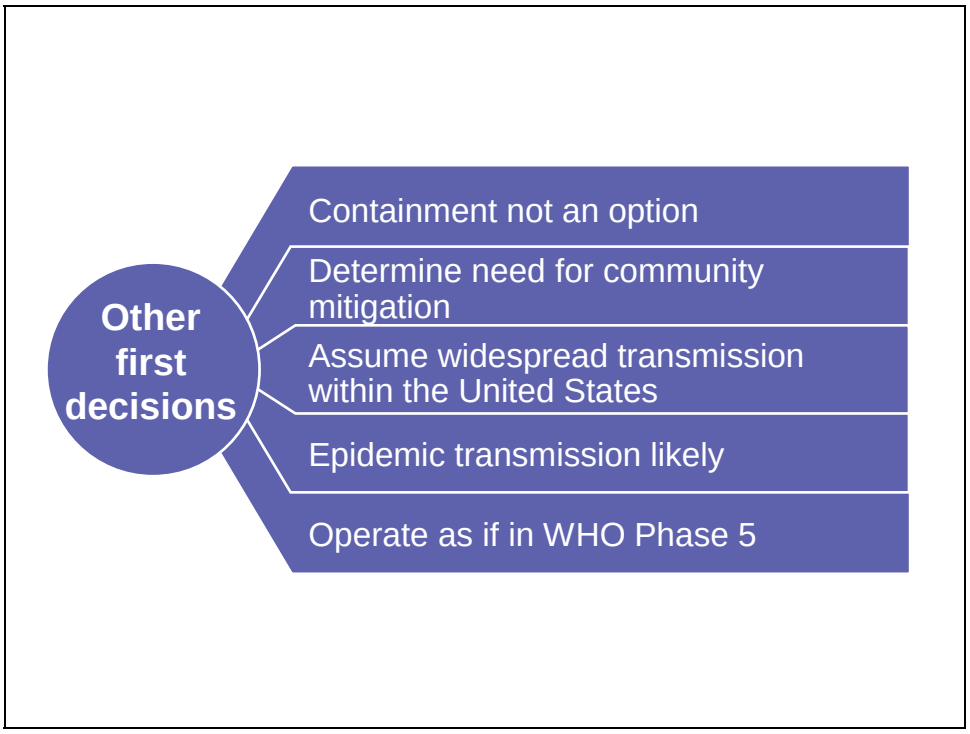


We had our first meeting at our Public Health Laboratories on April 24 to discuss our initial activities

Knowing that even the best pan flu operational plans must be somewhat broad to retain flexibility, our goal was to review our current ops plan and more specifically apply it to <UNDERLINE> **THIS** virus during **THIS** outbreak

At this meeting, we identified potential problems
First, from the descriptions, the illness due to the new virus and the illness due to the seasonal virus were indistinguishable
Second, we knew that we still had seasonal influenza circulating
As a result, this outbreak had the potential to put a great demand on our laboratory
One of the first decisions that Dr. Romesh Gautom and his lab staff made was to shunt non-influenza lab work to other labs

One other decision we made at the meeting was that we would start emphasizing that this was an illness being spread person-to-person and we never mentioned in any of our initial information anything about zoonotic transmission from pigs



These are some of the other decisions we made

Containment not an option and there was no need to specifically identify and aggressively treat each and every singles case

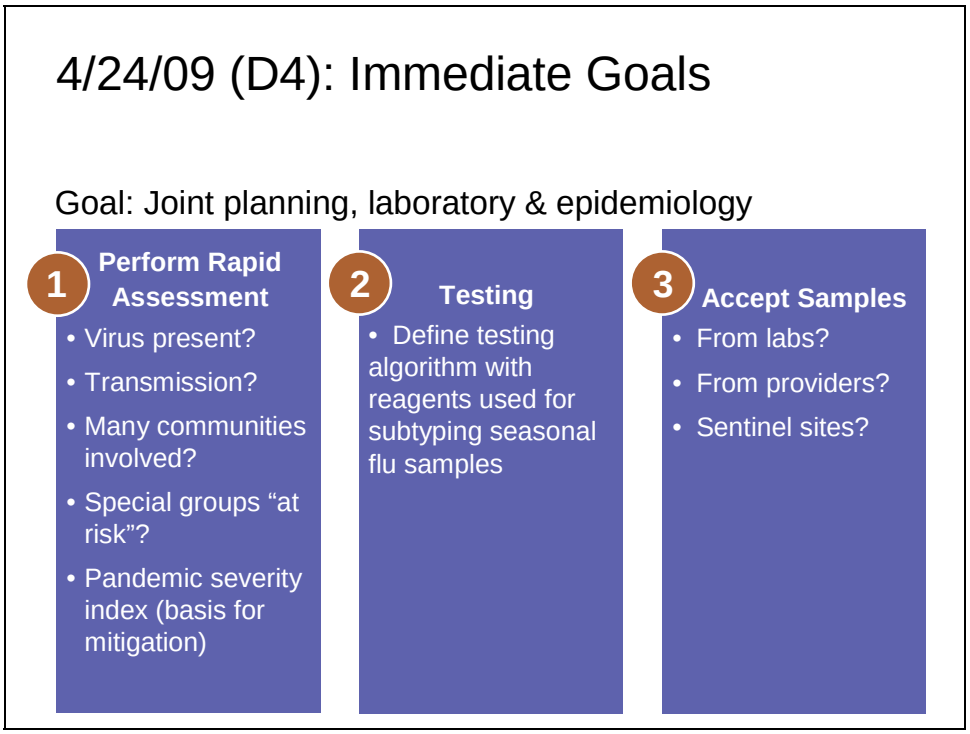
Because we assumed widespread activity of the virus and that a well matched vaccine was unlikely, community mitigation to lessen the impact was the only public health option. Unfortunately, we did not have a "Pandemic Severity Index" upon which we could base our response…as a result, we planned our initial testing in a way to rapidly identify the number of hospitalized persons

Other decisions we made were:

To assume widespread transmission within the United States

That epidemic transmission likely

And, that we would jump forward in our plan to operate as if in WHO Phase 5

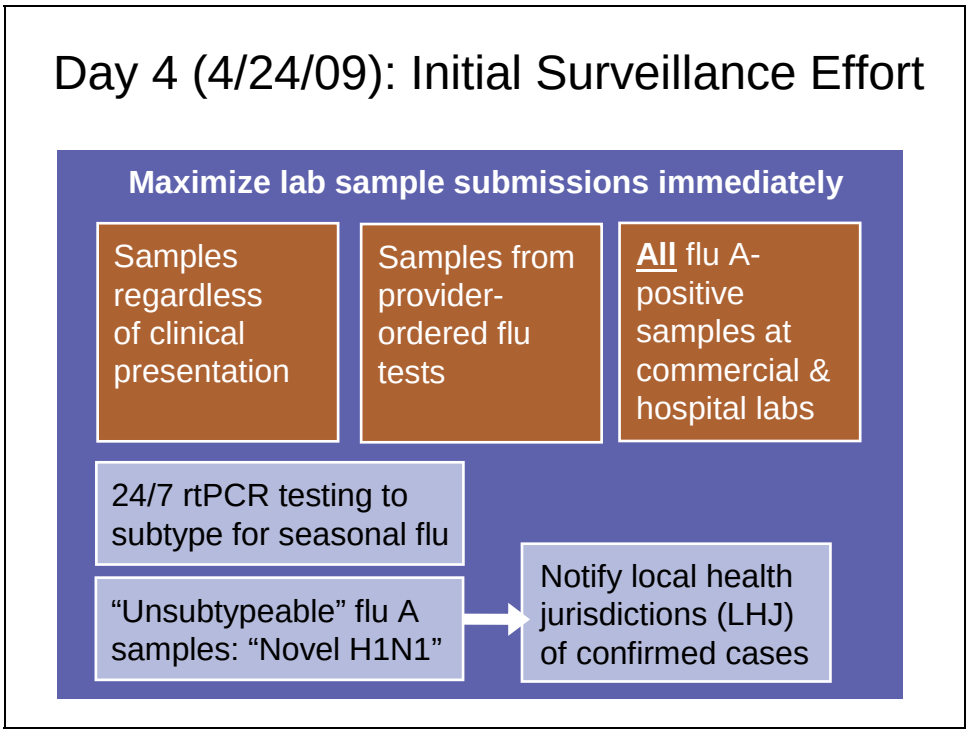


We decided to develop a system to support rapid assessment to determine the following:

Is the virus present in Washington?
Is it being locally transmitted?
How many communities already have widespread transmission?
Are there special "at risk" groups?
And, again, what is the severity of this virus strain

As I mentioned before, we identified the testing method that would be used to define "unsubtypeable" virus

And, then we had to decide, from whom would we accept samples…commercial laboratories….providers operating within CDC's ILI-NET…sentinel hospitals and clinics?

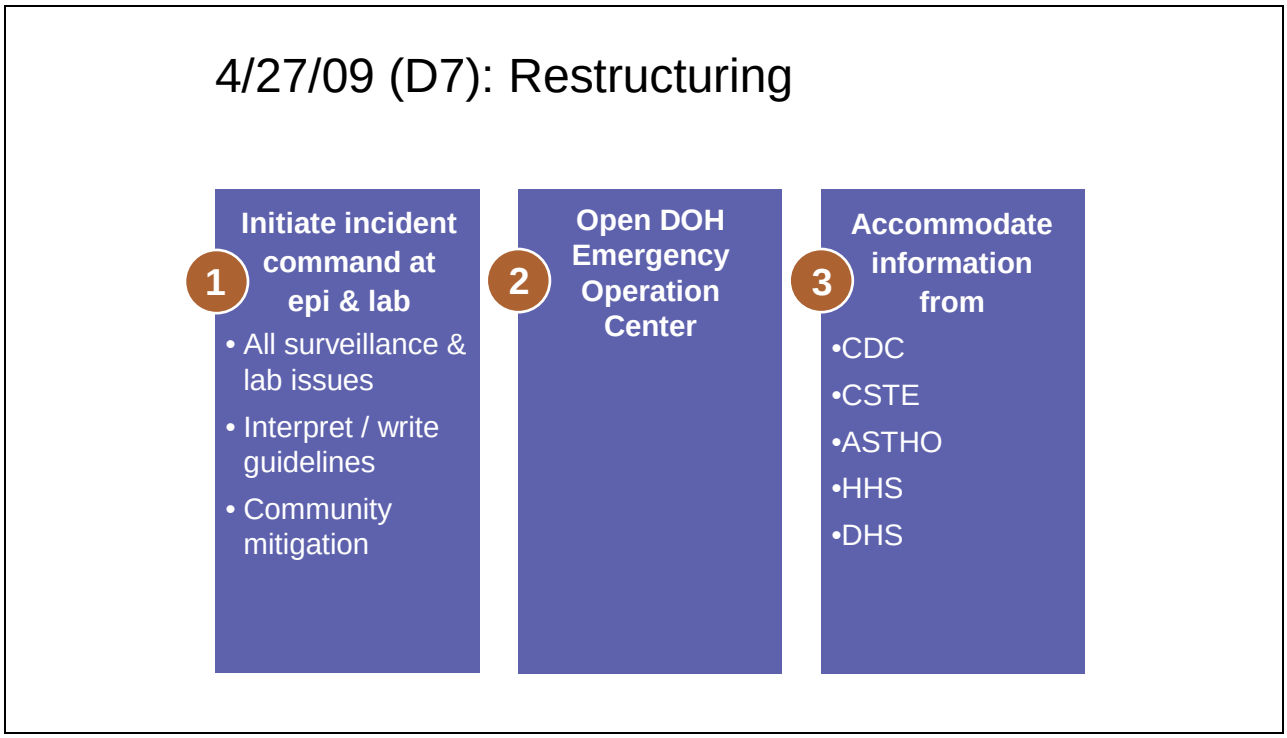


So, here is our initial surveillance plan

We decided to accept ANY influenza-positive sample from any and all commercial and hospital labs in Washington. We also set up a system whereby providers, working with their local public health agencies, could also submit samples to us BUT, the vast majority of the cases came from the laboratories. We accepted these samples REGARDLESS of the clinical presentation of the ill person.

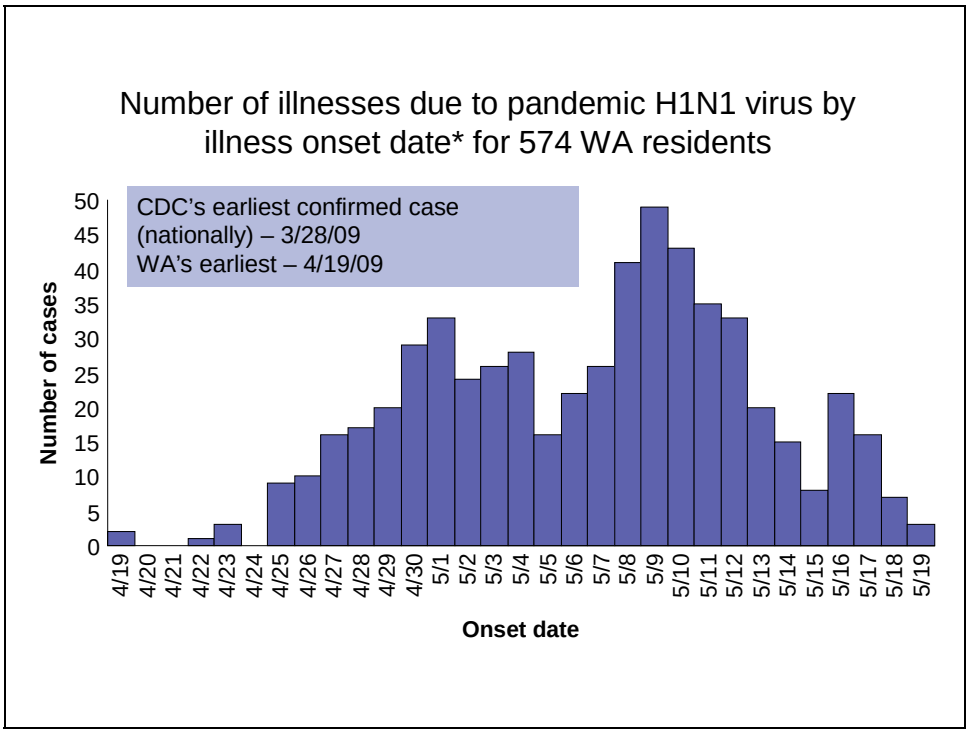
We knew there would be a large number of samples and the folks in the lab set up a system that was essentially 24/7 with regards to testing samples. This was a calculated risk assuming that we would be able to answer the most important questions about the epidemiology of this virus quickly.

Because nearly all of these samples came in from the labs, local public health agencies were largely unaware of the number of samples that were coming into us. As a result, our lab and epidemiology groups had to develop systems to notify not only the submitting lab but also the counties in which people infected with the novel virus were living so that an investigation would ensue.



Also, on April 24, the fourth day of this outbreak, we decided to go into an "incident command light" structure that involved the lab and epi groups. Our agency, the Washington Department of Health, made plans for opening the agency's Emergency Operation Center.

One of the reasons that we decided to move into these different structures was to accommodate the sheer volume of information that was coming out of the federal agencies and to find a way that everyone did not have to be in a teleconference all the time.

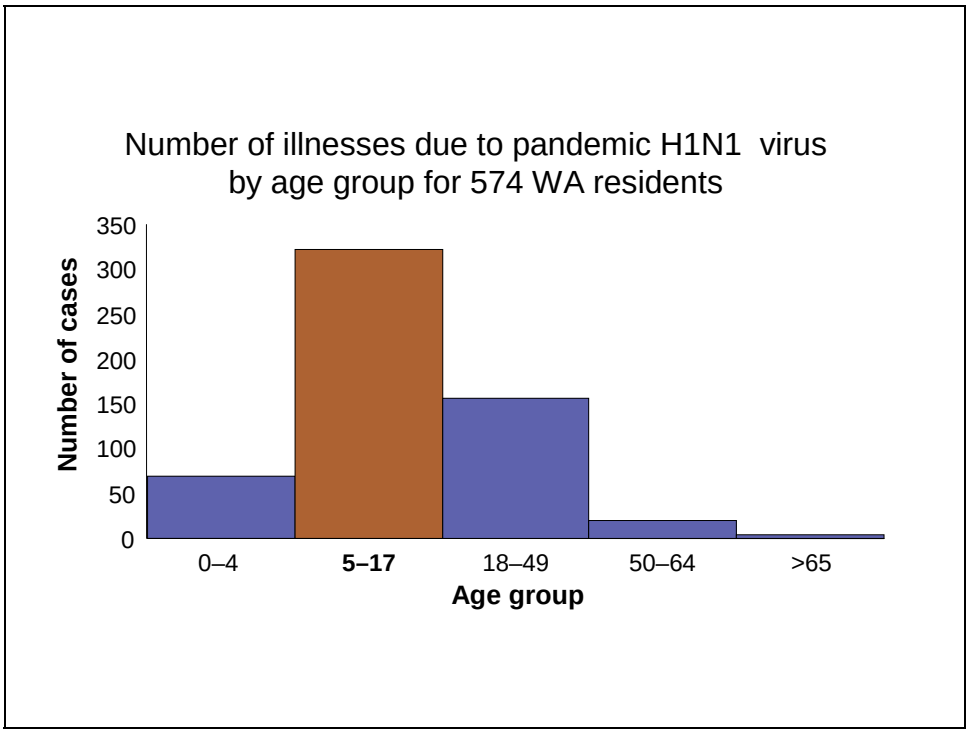


From that initial surveillance strategy, this is what we found.

In the first five weeks of testing, we identified 574 cases of pandemic H1N1 infection among Washington residents

The first two cases had illness onset on April 19, two days prior to CDC's announcement of the first two cases….and there was no epidemiological connection between them.

Of these first 20 or so cases, we knew that infections were occurring on both sides of the Cascade Mountains in Eastern and Western Washington
Also, we know that, of the first ten cases, none had travel to Mexico and that local transmission was occurring



More than two thirds of these 574 cases with illness onset from April 19 through May 23 were among persons less than 18 years of age. And, as everyone now knows, unlike seasonal influenza most cases are in persons less than 5 and in persons ≥ 65, this virus appeared to cause more illness in older children, adolescents, and young adults.

Hospitalization rates of confirmed cases of pandemic H1N1 virus in Washington reported 4/26–5/23/09

	Hospitalized		
Age group (yrs)	Yes (%)	No	Unknown
0 – 4	8 (12%)	50	11
5 – 17	18 (6%)	268	37
18 – 49	6 (4%)	132	19
50 – 64	6 (32%)	12	1
65+	2 (50%)	2	0
Total	**40 (7%)**	**464**	**68**

Of the 40 hospitalizations that we knew of in the first five weeks of the outbreak, 80% were among persons less than 50 year old….again a very marked difference than what we have seen in seasonal influenza

Results of Rapid Assessment

- Pandemic H1N1 virus present in state within three weeks of earliest U.S. cases*
- Cases occur in western and eastern WA*
- None of initial cases traveled to Mexico*
- Local transmission is occurring*
- Hospitalization rate likely higher than that seen for seasonal influenza
- Low case fatality ratio

* Knew within the first five days of testing

Here is the summary of our rapid assessment. The first five items were things we knew within the first five days of our initiating our rapid assessment.

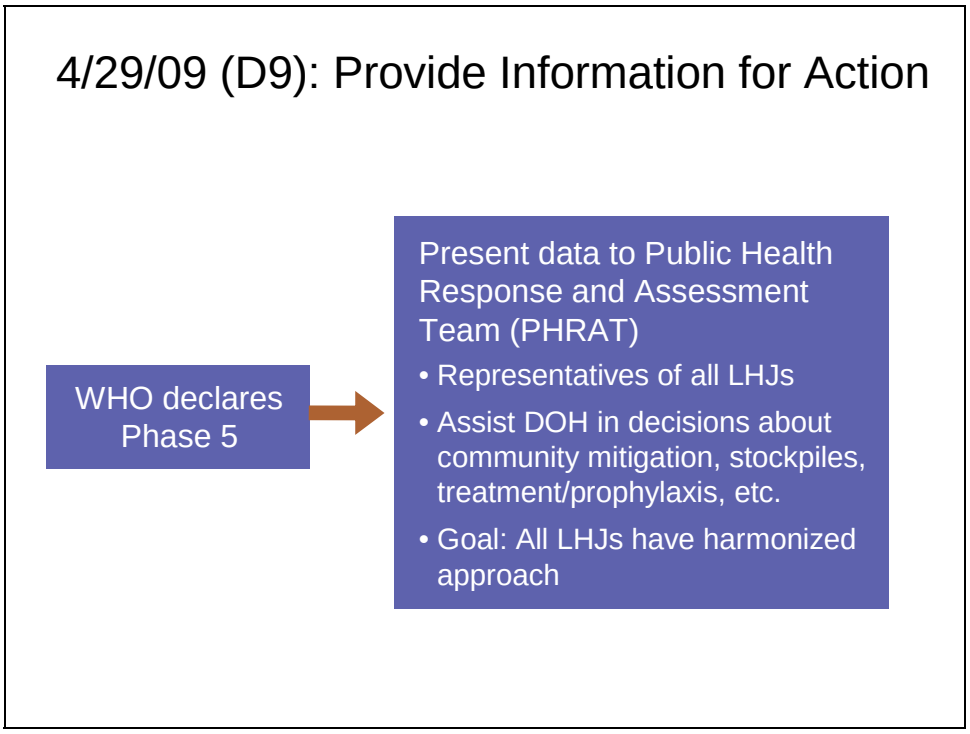
Of the 1414 cases tested at our lab, 574 (41%) were positive for pandemic H1N1 influenza virus.

In retrospect, two confirmed cases had illness onset before CDC's first announcement of the Southern California Cases.

Infection was locally occurring in geographically separated parts of the state

None of the cases with illness onset from 4/19 through 4/23 had travel to Mexico.

Since then, we have appreciated that, although the hospitalization rate is slightly higher than seasonal influenza, the case fatality ratio is relatively low and that we were not dealing with a 1918-like influenza epidemic…which of course would greatly affect the community mitigation strategies that were employed over these first few weeks.



In Washington, our pan flu plans establish a Public Health Response and Assessment Team (called a PHRAT team)

This is made up of representatives from our 35 local health jurisdictions (or LHJs) and it is intended to assist DOH in decisions about community mitigation, stockpiles, treatment, prophylaxis.

Another one of its goals is to have all of the LHJs performing a harmonized approach to these issues.

On April 29, on the ninth day of this outbreak, using the testing and surveillance strategy just described we were able to give a relatively comprehensive picture of the activity of this virus within our state.

Parenthetically, this is also the day that WHO declared Phase 5.

What From Our Plans Went Well?

- Laboratory-epidemiology cooperation
- Rapid assessment plan
- Convening PHRAT
  - No school closure
  - Judicious use of antivirals
- Stockpile distribution
- Communication with LHJs

So, what from out pan flu plans and our initial attempts to operationalize them went well?

Certainly, that early, initial meeting between the lab and the epi group created a situation in which we were cooperating and working towards the same goals.

One of those goals was to perform rapid assessment. We all knew that this would put great demand on our laboratory but, in my opinion, because we were able to get a pretty good idea of what the impact on the state would be, our LHJs were able to rationally discuss mitigation strategies in our PHRAT. As a result, school closure was a very small issue for us and we were able to judiciously use antivirals.

Stockpile distribution and its use went well…I think in part due to amount of Washington-specific rapid assessment information that was going out to our LHJs through regular communication.

What Didn't Go As Well As Planned?

- Overwhelmed laboratory capacity due to:
  - Lack of case definition
  - Accepting all commercial lab flu positive samples
- Distribution of confirmed cases to LHJs overwhelmed LHJ capacity to investigate
- Data entry & database management
- Communication with businesses and schools
- Public's understanding of stockpiles

So, what didn't go so well?

Our laboratory capacity was rapidly overwhelmed. Part of that was due to the decisions not to establish a case definition for testing and to test all flu positive samples from commercial laboratories. In short, we rapidly found out that there was a lot of flu testing going on in the state and a lot of it was influenza A. This in itself was actually an important finding.

A second issue was the fact that this rapid assessment surveillance system was so different than our usual system. In our usual system, labs report to LHJs. LHJs may then request samples be sent to our public health laboratories for confirmation as part of their investigation. And, then a complete report about a confirmed case is entered into a database shared by LHJs and the state. In this rapid assessment, the state assumed the responsibility of reporting lab-confirmed samples to the LHJs and because there were hundreds and hundreds of such lab-confirmations without ANY clinical information, it placed a big burden of doing an immediate investigation on the LHJs. Needless to say, this quickly overwhelmed some counties.

In addition, there were problems with data entry and data management due to differences in the spread sheet sent out by CDC, the data that came in with submitted samples, and lab and Epi entering on separate databases. Since those initial 4-5 weeks, we have embarked on a concerted effort to unify and streamline data entry by the lab and Epi groups, to decrease the amount of information that we want to immediately receive from LHJs and fast-track STARLiMs in our state.

In hindsight, although we communicated well with our traditional public health partners, we need to work on our real-time communication with the business community and schools.

And, last, our public had a very high expectation of our oseltamivir stockpiles …envisioning mass distribution of antivirals. In my opinion, we need to better explain the role of mass distribution of pharmaceutical agents especially with the very real possibility of pan flu vaccination in the fall.