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Appendix A: Participants ............................................................................................................ 1
I. Introduction

The National Association of County and City Health Officials is the national organization serving more than 2,800 local health departments (LHDs). NACCHO and its members believe that local public health plays a vital role in helping people live healthy, productive lives. By working together to influence legislation, raise public awareness, identify model practices, and collect and disseminate tools and resources, NACCHO and its members work to protect and improve the health of all people and all communities.

NACCHO partnered with the Centers for Disease Control and Prevention (CDC) to support the local public health H1N1 2009–2010 response. As that enormous and complex task is ending, the public health community must collectively assess its response in order to prepare for the next national public health emergency. Specifically, CDC funded NACCHO and the Association of State and Territorial Health Officials (ASTHO) to identify policies (legal and non-legal) that influenced H1N1 detection, response, and recovery. NACCHO conducted several activities to identify key policies:

1. Environmental scan
2. Survey of NACCHO Sentinel Network
3. Workshop
4. Summary report

The environmental scan included reviewing existing literature, meeting minutes from H1N1 conference calls with LHD representatives during the course of the response, NACCHO Sentinel Network survey reports, various in-progress reviews/after-action reports, NACCHO H1N1 “Stories from the Field” online database, and more. The environmental scan highlighted 11 thematic areas of potential policy implications: communications, community mitigation, coordination/transparency, health equity, legal issues, medical care and countermeasures, Public Health Emergency Response (PHER) funding, surveillance and epidemiology, vaccine, volunteers, and workforce/employment issues.

These 11 themes were presented to the NACCHO Sentinel Network in April 2010 to identify the most import topics requiring further discussion and analysis. The NACCHO Sentinel Network is a purposive convenience sample of LHDs that agreed to assist NACCHO and the CDC by taking part in a series of surveys during the event to identify the impact of the H1N1 influenza pandemic on their communities, the activities they are undertaking to address the pandemic, and the related barriers and facilitators to their responses. The NACCHO Sentinel Network is made up of 148 LHDs representing 36 states, covering approximately 30 percent of the U.S. population. The NACCHO Sentinel Network has been providing NACCHO and CDC with critical situational awareness throughout the 2009–2010 H1N1 response. The NACCHO Sentinel Network identified vaccine, coordination/transparency, health equity, PHER funding, and communications as the top five topic areas requiring further discussion and analysis.

NACCHO worked with the Minnesota Center for Health Care Ethics (MCHCE) to plan and conduct a workshop with key informants from LHDs that incorporated the findings from the
environmental scan and survey of the NACCHO Sentinel Network. This report summarizes the results of the workshop.

II. Workshop Purpose and Participants

The goal of the workshop was to provide CDC, NACCHO, and other stakeholders with an improved understanding of key policies at the local, state, and federal levels that influenced—positively and negatively—LHD H1N1 detection, response, and recovery during the 2009–2010 influenza season. The meeting convened local health officials to provide the details of their local H1N1 experience in the context of policies (legal and non-legal) that helped or hindered response. NACCHO organized and sponsored the CDC-funded meeting.

Of the 25 NACCHO members who were invited to participate in the NACCHO H1N1 Policy Workshop on May 4 and 5 in Minneapolis, 23 were able to attend. Invites were chosen to represent diverse local public health agencies from various locations, governance structures, and sizes. Together they brought a range of expertise on agency administration, emergency planning and response, epidemiology, and clinical and legal issues. They were also diverse with respect to gender and race/ethnicity.

Staff from CDC, NACCHO, and ASTHO observed and commented from time to time during discussions. NACCHO staff also took notes of small group discussions during the workshop.

A list of participants has been provided as an appendix to this document.

III. Workshop Process and Reader Guide

As noted earlier, NACCHO and MCHCE created the workshop agenda based on the environmental scan and data from the NACCHO Sentinel Network survey.

MCHCE employed structured large and small group discussions using audience response technology. Sections IV(B) through IV(K) each begin with a list of recommendations about which participants were polled using audience response technology. In several cases the polling revealed equal standings in opinion among the relative importance of two or more recommendations. In such instances, there is a list of bulleted items within a topic area that indicates their priority in the larger list. For example, in the funding section, two recommendations were roughly tied for first priority, two others tied for second priority, two more tied for third priority, and a fourth recommendation stood alone. Three recommendations clustered as the fifth priority.

Participants cautioned that the group might have ranked recommendations differently had LHDs of all sizes been equally represented at the workshop. Some participants observed that their experiences with some policies depended on their department’s size and the size of the population served. For example, participants from larger agencies found frequent CDC communications helpful; participants from smaller agencies needed CDC communications better synthesized and prioritized.
Lists of priority policies that are included in the following sections should not be compared against each other. That is, the third item in one list (e.g., communication) should not be assumed to be of lesser importance than the first item in another (e.g., legal issues). This workshop focused on prioritization within specific categories, not across them.

In the sections that follow, numbered lists reflect prioritization. The order of bulleted lists does not imply priority.

**IV. Themes**

Many themes emerged from the workshop. Perhaps the strongest was a call for specific policies and funding to support a sustainable local public health infrastructure—not overly dependent on programmatic or emergency funding. Participants stressed that H1N1 showed both the strengths and weaknesses of the public health infrastructure overall. Lessons learned should inform policy-making that goes beyond pandemic preparedness and even preparedness for seasonal influenza.

Some of the themes that emerged from the workshop applied generally to many or all aspects of LHDs’ H1N1 response. Examples included funding, LHD involvement in national policy-making, and communication-related policies. Others were specific to particular resources (e.g., vaccine or medical countermeasures) or to a particular LHD function (e.g., epidemiology). Participants identified both strengths and opportunities for improvement when reflecting on policies that impacted LHDs’ responses to H1N1.

**A. Major Successes**

Participants agreed that public health’s response to H1N1 was outstanding. Workshop participants repeatedly stressed the importance of policies in five major areas that supported their successful response to H1N1:
- The provision of Public Health Emergency Response (PHER) funding.
- The availability of free vaccine for all populations.
- LHD involvement in national policy-setting.
- Communication by CDC, ASTHO, and NACCHO with LHDs.
- The availability of ancillary supplies.

Though participants had suggestions for improvements in each of these areas, they stressed that they did not want their suggestions to distract from the larger point: Factors including funding, free vaccine, involvement in policy-setting, communication, and availability of ancillary supplies were absolutely critical to LHDs’ success. Policies in these areas should be continued and enhanced. LHDs felt—many for the first time—that their voices were truly heard and included in national policy-setting.

**B. Funding**

PHER grants that were distributed to LHDs were essential in allowing LHDs to respond quickly and effectively to H1N1 without decimating essential public health services in other areas. That said, workshop participants had several policy recommendations related to funding. Related issues about contracting requirements and deadlines also came up during the funding
discussion. The following list highlights workshop participants’ most important funding-related policy recommendations, according to audience response polling. Policy recommendations that were approximately tied or clustered together are listed at the same level of priority.

### Funding priorities

1. **First:**
   - LHDs need more funds to strengthen public health infrastructure and more flexibility in use of funds in emergency.
   - Flu funding should be stabilized and Public Health Emergency Preparedness (PHEP) grants increased in order to increase LHDs’ capacity to build community resilience including implementing universal flu vaccination.

2. **Second:**
   - Shorten and simplify grant applications and contracting during emergencies.
   - LHDs need a defined, predictable and larger share of federal funds, including Department of Homeland Security (DHS) funding.

3. **Third:**
   - LHDs need more information earlier regarding total funding, timing, and carry-over for strategic decision-making. Funding should be accelerated.
   - Application of federal guidance should be more consistent from state to state. States differ in their interpretation about how federal funds can be used.

4. **Fourth:**
   - CDC awareness of different models of LHDs (and specifically the different ways in which LHDs receive CDC funding via states) should be improved. Assure that funding mechanisms are accessible by all LHD models. States and LHDs should distribute funds in the spirit in which CDC intends.

5. **Fifth:**
   - Separate funding support is needed for the community infrastructure that supports local public health, e.g., non-governmental organizations, community-based organizations, the Medical Reserve Corps (MRC).
   - PHER funds impeded insurance reimbursement. Future funding policies should be refined to avoid this problem.
   - Many LHDs, especially smaller ones, need a mechanism for frontloaded funding because they lack adequate funds on-hand to respond to an emergency.

A summary of funding discussions follows. Related topics are grouped together, but the order in which the bulleted items appear does not imply priority.

- **Influenza-related funding should be increased and stabilized** in order for LHDs to have a more sustainable infrastructure to respond to influenza year after year. Annually, 36,000 people die in the U.S. from influenza, with thousands more hospitalized. The public health infrastructure must be improved to address this preventable cause of death.
  - At least one participant clarified that stabilizing LHDs’ influenza-related capacity has more to do with building and sustaining long-term capacity in epidemiology/surveillance and community outreach than it does with enabling LHDs to deliver flu vaccine. Most LHDs are not the primary providers of seasonal flu vaccinations. LHDs need to expand and sustain community relationships with those that deliver vaccinations, rather than unnecessarily expand LHDs’ role as seasonal flu vaccinators.
• LHDs should receive funds from DHS. Currently, **DHS funding** is very focused on terrorism and frequently overlooks the medical and public health components of disaster response. DHS should ensure that all aspects of responding to a natural disaster or terrorist event are supported and funded.

• **Application and contracting requirements were burdensome** during the emergency, specifically contracts between states and LHDs; between LHDs and local vendors/community agencies; and, in some cases, between county LHDs and city LHDs. In the words of one participant, “It is costing us dollars to spend dimes.”
  o CDC’s application process needs streamlining. Some workshop participants suggested looking to the Federal Emergency Management Agency’s (FEMA) processes, but others were concerned that a FEMA contracting approach might be problematic in other ways. Perhaps some blend of FEMA and CDC approaches might be useful.
  o Identify, in a state of emergency, what are the minimal requirements to ensure accountability.
  o Mid-year progress reports were burdensome, and data deadlines for contracted vendors were unrealistic. In some instances, contracting requirements prevented LHDs from working with the community organizations best suited to deliver vaccine to vulnerable subpopulations. Standard contracting requirements should be waived or streamlined dramatically.
  o Some participants reported more success in their states where the state health department applied for PHER funds and distributed funds to LHDs quickly.

• **PHER funds were restrictive.** PHER funding was weighted toward vaccine allocations, and insufficient funds were available for epidemiology and laboratory expenses. LHDs should be allowed to move the funds to where they are most needed.
  o The CDC Office for State, Tribal, Local and Territorial Support (OSTLTS) should look into funding of states and localities during emergencies and how that can be improved, as well as the advantages and disadvantages of supporting LHDs with categorical funding.
  o Though the federal government declared a state of emergency for H1N1, some LHDs had difficulty redirecting staff from other federally-funded programs. For example, staff members funded by the Women, Infants, and Children Program (WIC) were largely hindered from assisting in H1N1 response.
  o To some participants, tying emergency funds such as PHER to a grant guidance and application process seemed outmoded. They suggested that future funding should be tied to accountability for meeting specific outcomes.

• Although CDC distributed funds to states **per capita**, not all states distributed accordingly to LHDs. In addition, some states held back too much funding, distributing an **insufficient share of funds to LHDs**. Some participants suggested that states should be directed to distribute a significant portion of the funds per capita to LHDs. An observer from CDC noted that CDC staff do not know the intricacies of how each state distributes federal funds to LHDs, and that LHDs could assist in educating CDC about local and state variation in funding distribution mechanisms.
  o State policies variously impeded or supported PHER funding of LHDs. Some participants observed that state distribution of PHER funds to LHDs was smooth
and equitable. Others reported having to expend significant time and energy to obtain an appropriate share of funding.

- The H1N1 experience provides an opportunity to evaluate the states’ relationships with LHDs and evaluate how funds flow to the local public health infrastructure.
- One participant observed that in-kind contributions from the state’s health department are not a sufficient substitute for actual funds.

- LHDs needed to **know earlier what funds would be coming** to them and which would be allowed to rollover into future budget cycles. Only in retrospect did it become clear that PHER funds provided through multiple grant cycles would have been sufficient to support hiring needed personnel.
  - Small, rural agencies have no funds in reserve. Emergency funds should be front-loaded, in order that agencies lacking funds and surge capacity can quickly ramp up to respond.

- PHER funding limited the ability’s of some LHDs to recoup **vaccination administration costs** from private insurers.

**B. Communication**

The following nine items are workshop participants’ most important policy recommendations regarding communications. They appear in roughly the order in which participants ranked them during an audience response poll, but participants cautioned that rankings of these priorities would likely vary according to the size of an LHD.

### Communication priorities

1. First:
   - Need integrated communication strategies and messaging among the federal government, states, LHDs, healthcare organizations and pharmacies (e.g., CDC needs capacity to include LHDs on conference calls with states).

2. Second:
   - Federal agencies should coordinate and integrate messages clearly regarding uncertainty and follow CDC’s lead and available evidence.

3. Third:
   - LHDs need tools for communication with vulnerable groups (e.g., word-picture documents and materials in multiple languages).
   - Communication strategies need to be evidence-based; during emergencies every LHD needs access to an engaged subject matter expert 24/7; LHDs need talking points from CDC.
   - Public health needs more effective communication with practitioners through networks proven to work.

4. Fourth:
   - There should be a central command and control system for information and communication.
   - Messages need to be timed to coincide with and/or precede Strategic National Stockpile (SNS) and vaccine distribution, according to the needs of the population.

5. Fifth:
   - The sheer volume of communications is overwhelming; LHDs need assistance with prioritizing communications, and federal and state agencies should synthesize them.
   - Public health should use new media better; LHDs imposing restrictions on social media access and use at work should lift those restrictions.
The following summarizes discussions about communication policies.

- **CDC’s communications were generally prompt and inclusive** of LHDs. NACCHO did a great job in communicating with LHDs. That said, at least one participant expressed concern that LHDs were left out of several early calls between the CDC and states, and not all information from these calls was transmitted to LHDs.

- Communication was **not always as good between local and state government**. Perhaps NACCHO and ASTHO could collaborate on ways to improve communication that take into account the variations in the ways states and LHDs relate.
  - Some LHDs reported good communication with state government.

- The **fluidity of communications** about an evolving pandemic was a mixed blessing.
  - On the one hand, participants appreciated candid, frequent updates. Participants acknowledged that communications needed to be fluid during H1N1. Some participants stated that assistance in crafting messages to explain this fluidity to the public and local media was helpful.
  - On the other hand, it was challenging to manage the volume of communications and maintain consistent communications with rapidly changing messages.

- A **unified command structure** at the federal level, just as states and LHDs implement the incident command system (ICS) would have improved communications and policy-making. Federal agencies outside the Department of Health and Human Services (HHS) did not always follow CDC’s lead.

- Some participants perceived that communications, particularly about early availability of vaccine, were **overly optimistic** and influenced by politics. Science should drive public health policies and communications with the public.
  - We need better communication policy and strategies. CDC did a great job of getting messages out, but there were too many promises in the beginning of the pandemic about vaccine availability. Public health needs to be both transparent and realistic. We should promise less and deliver more.
  - The public had access to data about the Strategic National Stockpile (SNS) and vaccine allocations, which created expectations that everything allocated had been shipped. Some participants observed that it would have been preferable to make public only data about what was actually distributed. Others observed that decisions about making data public should be informed by LHDs, since such decisions directly impact the work of LHDs.

- Messages from **CDC and states were not always consistent**. While flexibility on implementation and response is needed, inconsistent communications became difficult. It was not always clear when LHDs were empowered to deviate from federal or state guidance, or which they were to follow when guidance between states and LHDs differed.
• Some states bypassed LHDs and communicated directly to local providers and schools. LHDs need to be in the loop, and should be tapped as the conduit for communicating with local providers and schools.

• Public health, at all levels of government, needs stronger communication links with providers. CDC and national organizations like ASTHO and NACCHO should routinely reach out to national provider organizations and professional associations such as the American Medical Association, which will in turn help assure that communications with patients are consistent with public health guidance. LHDs need talking points for their own meetings with local providers.
  o One participant suggested that relationships with national provider organizations and professional associations should be formalized using memoranda of understanding or similar tools.

• As noted in section IV(D) below, CDC decisions to delay its public service campaign about vaccination until vaccine became available, while understandable, allowed messages from vaccine skeptics a head start. CDC and local health officials missed a crucial opportunity to educate the public.

• LHDs need clarity about what information is protected under the Health Insurance Portability and Accountability Act (HIPAA) and other privacy acts. Media requested information about which providers received vaccine and other supplies, to whom vaccine was delivered, etc. It takes too long to get media guidance from CDC.

• LHDs need real-time communication tools for all audiences, including assistance with social media messages.

• Many LHDs lack the time, expertise, and funding to develop communications materials tailored for specific audiences, particularly people who cannot read and non-English speakers. Moreover, it is inefficient for LHDs to duplicate efforts by producing such materials. CDC should develop the materials and share them widely.

• The upcoming influenza season underscores the importance of improving and streamlining communication streams now. H1N1-related questions and confusion are inevitable, and all public health agencies, from federal to state to local, should be ready with consistent messages.

C. General Recommendations for Public Health Preparedness, other than Communications and LHD Funding

The following list contains crosscutting policy recommendations for future public health response. These were ranked according to an audience response poll. Some participants observed that the order of these recommendations reflects the over-representation of the nation’s largest agencies at the workshop. Had more participants been from smaller agencies, the list might have been re-ordered.
General policy priorities, other than communications and LHD funding

1. First:
   - Support a sustainable public health infrastructure (e.g., provide resources necessary to form and sustain relationships, and epidemiological, laboratory and mass vaccination capacity; build on annual seasonal influenza response).

2. Second:
   - Include local public health representatives consistently at federal and state policy-making tables.
   - Improve workforce management and surge capacity at federal, state, and local levels; need flexibility to increase and move staff in emergencies, e.g., consider union contracts when developing local policies, modify federal contract limitations on use of staff as needed.

3. Third:
   - Federal and state agencies should tie funding of other local entities (e.g., police, schools, providers) to require them to partner with LHDs and state health departments. LHDs are already required to partner with these organizations, but the absence of a reciprocal requirement of such organizations to partner with LHDs impedes LHDs' effectiveness.
   - Clarify and enhance LHD authority and assist with forging strong local partnerships.
   - Define healthcare workers and other essential workers specifically to each kind of disaster. Based on recent experience, address inconsistencies in adapting and applying ICS to public health emergencies and structures, e.g., training, forms, and scenarios. (Some LHDs reported great success in implementing ICS, while others reported that modifying it for a public health emergency was challenging.)

The following summarizes discussions about these general policies.

- The declaration of a federal public health emergency clearly impacted the operations of HHS, but sister agencies were not similarly impacted. CDC led the HHS response but did not exert authority over non-HHS agencies. For example, CDC and the Occupational Safety and Health Administration (OSHA) issued inconsistent policies regarding the use of N95 respirators and surgical masks to prevent the transmission of H1N1 in healthcare settings. A unified federal command structure would have been helpful.

- Some participants observed that the lack of a declaration of emergency (or a delay in its issuance) at the state or local level impeded their agencies' H1N1 response, even though the federal government had issued a declaration. There should be consistency between federal and state governments when the federal government declares a state of emergency.

- Support volunteer organizations such as MRCs and non-governmental organizations that provide needed staffing, particularly for smaller LHDs.

- Some policies have unintended consequences. The probability of unintended consequences should be better considered during pandemic planning. For example, some participants argued that school closures caused more harm than good given students' dependence on school meals, societal disruption when parents had to take
time away from work or leave children unattended, and the lack of clear evidence of school closures’ efficacy.

- Understanding how to work with staff during public health emergencies within the restrictions of local and state labor agreements is essential. Some LHDs may need assistance in negotiating and contracting for flexibility during emergencies. Labor agreements have a profound impact on local emergency response.

- A comprehensive evaluation of H1N1 response—what worked, what didn't, and why—is necessary. It appears that a series of evaluations are underway, but are not well-connected.

- One participant suggested that future PHEP guidance reflect the emphasis on community resilience that is central to the National Health Security Strategy set forth by HHS in 2009.

D. Vaccine Administration and Distribution

The following were the most important vaccine administration and distribution policy recommendations named by workshop participants, ranked roughly in order according to an audience response poll.

<table>
<thead>
<tr>
<th>Vaccine administration and distribution priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. First:</td>
</tr>
<tr>
<td>o Build on successful H1N1 vaccination practices to achieve near universal seasonal flu vaccination.</td>
</tr>
<tr>
<td>2. Second:</td>
</tr>
<tr>
<td>o LHDs should have oversight of local distribution and redistribution.</td>
</tr>
<tr>
<td>o Attend to children’s special needs by addressing vulnerability, access barriers, possible need for second dose, consent practices, opt-out (vs. opt-in) policies; and include flu vaccination as part of routine pediatric and adolescent healthcare (e.g., during Early and Periodic Screening, Diagnosis and Treatment (EPSDT) exams).</td>
</tr>
<tr>
<td>3. Third:</td>
</tr>
<tr>
<td>o Address inequitable distribution by federal and state government between private and public sectors.</td>
</tr>
<tr>
<td>o Allow jurisdictions to reach the next level of vaccine priority faster (e.g., second or third tier).</td>
</tr>
<tr>
<td>o Clarify who owns “free” vaccine for purposes of reallocation, accountability, disposal, etc.</td>
</tr>
<tr>
<td>4. Fourth:</td>
</tr>
<tr>
<td>o Mandate vaccination of healthcare workers.</td>
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<tr>
<td>o Improve quality of ancillary supplies.</td>
</tr>
<tr>
<td>o Assure that agencies responsible for vaccinating federal employees and active military provide such employees and military with timely access to vaccine.</td>
</tr>
<tr>
<td>o Uniformly apply vaccine priority groups and define healthcare workers.</td>
</tr>
</tbody>
</table>
The following summarizes discussions about vaccine administration and distribution policies.

- The decision to provide vaccines for free allowed LHDs to distribute vaccines widely.

- Policies of the CDC Advisory Committee on Immunization Practices (ACIP) and the Food and Drug Administration (FDA) both helped and hindered LHDs’ H1N1 response.
  - ACIP’s pre-H1N1 recommendations for pediatric influenza vaccination helped facilitate seasonal vaccination for children and eliminated some of the confusion and surprise that would have ensued had H1N1 been the first time children were targeted for influenza vaccination.
  - There was confusion in movement to the second tier of ACIP’s guidelines. Some states quickly moved to the second tier and others did not. Some LHDs were held back from moving to the second tier in order to allow neighboring LHDs to catch up. Some providers were willing to vaccinate tier-one patients only; others were not.
  - Coordination between national opinion leaders such as the American Academy of Pediatrics and the CDC on the importance of following ACIP guidance was lacking.
  - The decision to use approved, slower vaccine manufacturing technologies rather than faster technologies in the face of unknown safety concerns was sound.
  - FDA should have included LHDs in its communications about the emergency use authorization (EUA) of Peramivir. Local providers asked questions about availability, distribution, and appropriate use of LHDs that some LHDs were not equipped to answer.

- As stated in other sections of this report, LHDs experienced a tension between needing local flexibility to respond and suffering from a lack of cross-jurisdictional uniformity.
  - Some participants emphasized that local control of vaccines was helpful, and it helped to have a public partnership. Local flexibility was important.
  - Some LHDs appreciated the federal decision to distribute vaccines centrally rather than leaving states to decide independently about vaccine distribution. Others observed that their state health departments played a larger role in deciding vaccine distribution. Some LHDs had no input on vaccination distribution within their jurisdictions.

- Many workshop participants observed that a government mandate requiring influenza vaccination of healthcare workers would be useful.
  - Some local health care institutions made great progress in developing stringent policies for vaccinating healthcare workers.
  - A mandate was tried and failed in at least one state.
  - Buy-in from the medical community has been a big challenge. There has been much effort but little fruition for local public health. LHDs often meet with local county medical societies, but medical professionals tend to seek guidance from national specialty societies.
  - In absence of a government mandate, CDC, ASTHO, and NACCHO should work with national provider groups and professional societies to help change the culture about vaccination in the healthcare workplace. LHDs should build on
such a national campaign and reach out to local providers, supported by materials, talking points, etc. from CDC, ASTHO or NACCHO. Outreach should include office-based as well as hospital-based healthcare workers.

- **Pediatric and adolescent vaccination policies**
  - Some participants urged that consent policies for pediatric vaccination should be changed. The opt-in model requires an engaged parent or guardian, which many children lack—particularly those that are vulnerable children. An opt-out policy would better reach them.
    - One participant declared that, because H1N1 was a reportable disease in that person’s jurisdiction, children as young as 12 were able to give consent. Other states’ reporting requirements did not trigger minor consent.
  - Some states’ emergency laws helped clarify LHD powers in an emergency, particularly the ability to conduct school-based vaccinations. Absent those state laws it would have been hard to conduct school-based vaccination. Participants agreed that state declarations of emergency are very important.
  - The Family and Educational Rights and Privacy Act (FERPA) creates a barrier to student health data. The data are necessary for LHDs to respond adequately to a health emergency. Interpretation of FERPA is too often dependent on the vagaries of individual school administrators. Consistent policy allowing LHD access to necessary data is essential.

- **Lack of scientific clarity and uniform policies on second doses** is still looming. There is great variation internationally and lack of consensus in this country. If second doses are still necessary, particularly for priority populations, the federal government should support the necessary infrastructure (e.g., data tracking and expenses for an immunization registry-based postcard reminder system).

- There was confusion about expanded scope of practice to support mass vaccination. Federal liability protection should be provided or clarified for health profession students.

- The decision to provide ancillary supplies and allow LHDs to purchase additional supplies was helpful. Nonetheless, the ancillary supplies provided did not always meet LHDs’ needs. LHDs should be consulted on ancillary supply purchasing decisions. For example, providing sharps containers to local agencies was a great idea, but many of the containers were too large to be usable.

- The federal government should expand its research agenda about effective communication on vaccine safety and factors that influence rates of vaccination. This research agenda should include examination about parental reluctance to authorize a second pediatric flu vaccine dose after consenting to the first dose.

- Promote and expand immunization registries. Data management and registries are insufficiently supported with policies and funding. Vaccine registries should be centralized and compatible with electronic medical records (HL7 messaging capability). Vaccine shipments should use barcodes for efficient tracking and inventory control.
• One participant observed that his LHD received no notice that a vaccine shipment was on the way, much less how large the shipment was. They learned that they were receiving vaccine only when they opened the box. This severely inhibited the LHD’s planning. With advance notice through an automated tracking system, the LHD could have notified providers or known whether the shipment would be large enough to hold mass clinics.

• Another participant expressed concern that some existing state registries may contain significant reporting errors and omissions.

• LHDs need for an improved documentation system that states the quantity and formulation of vaccine distributed to all community providers. This will assist LHDs with ordering vaccine and redistributing unused vaccine.

• Federal and state government decisions to delay public information campaigns about vaccine until November allowed anti-vaccine campaigns a head start. At the same time, overly optimistic projections about vaccine availability created confusion and mistrust.

• Federal agencies responsible for vaccinating active military and federal employees did not consistently have vaccine available for ACIP tier-one persons (e.g., pregnant women). This placed LHDs in the awkward position of either refusing to vaccinate such people or using their scarce supply to do so.

• Some LHDs should have been better informed and involved with state and federal governmental decisions to negotiate directly with large provider groups and pharmacies to distribute vaccine. LHDs’ ability to direct local distribution was impeded when pharmacy chains had separate access to vaccine supplies.

• LHDs need flexibility to respond to local epidemiology. For example, in the spring the national average age of H1N1 patients was 18, but in one major city the average was as young as 10. That city’s health department requested pediatric Tamiflu dosages from the SNS, but was denied.

• This city’s experience highlights the importance of local epidemiology and of using data to drive vaccine allocation decisions. LHDs epidemiology programs are severely underfunded.

• Redistribution of vaccine was challenging. Some LHDs lacked authority or mechanisms to take vaccine from private providers and redistribute to those who needed more in order to reach high-priority patients.

E. Vaccine Disposal

Workshop participants briefly discussed policy issues around disposal of unused vaccine. The following large themes emerged, all of which were ranked approximately equally by the participants during polling.
Vaccine disposal recommendations (equally prioritized)

- LHDs need a unified, simple mechanism to return vaccine.
- A federal solution to thimerosal disposal is needed, one that is consistent across environmental protection, natural resources, transportation, and public health agencies.
- Ownership and accountability for unused vaccine is unclear. Federal or state governments should fund disposal and not leave it to strained LHD budgets.
- A clear, consistent communication strategy is needed to address vaccine safety and the implications of treating unused vaccine as hazardous waste.
- Clarify manufacturers’ responsibilities regarding safe disposal of potentially hazardous materials, like thimerosal-containing vaccines.
- Guidance is also needed for disposal of ancillary supplies.

Some participants also expressed concern that unused vaccine will be needlessly wasted. As a matter of global equity, a mechanism for collecting and redistributing unused vaccines to developing countries is urgently needed since the vaccines may soon expire.

F. Data Collection, Management, and Analysis

Five general recommendations emerged concerning data collection, management, and analysis, all of which were approximately equally prioritized during polling.

Data recommendations (equally prioritized)

- Expand resources for local epidemiology.
- Focus on data requirements and timing during emergencies, e.g., de-prioritize contracting data and slow pace of reporting vaccine data; prioritize collection and speed of epidemiological data.
- Establish a national vaccine registry not limited to influenza; if a federal registry is not established, all 50 states should have vaccine registries.
- Provide an automated tracking system for supplies and vaccines.
- Provide timely clarification about data protection to facilitate timely responses to media and Freedom of Information Act requests.

On the second day of the workshop, participants edited the list of data recommendations shown above and were polled about prioritization. The list was synthesized from several of the previous day’s conversations about vaccine policies, epidemiology, and communication. Discussions specific to recommendations on vaccine, epidemiology, and communication data are reflected in those sections of the report.
G. Epidemiology

The following were the most important epidemiology-related recommendations named by workshop participants, ranked roughly in order according to an audience response poll.

<table>
<thead>
<tr>
<th>Epidemiology priorities</th>
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<tbody>
<tr>
<td>1. First:</td>
</tr>
<tr>
<td>‒ LHDs need access to their own data.</td>
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<tr>
<td>2. Second:</td>
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<tr>
<td>‒ LHDs need surge capacity guidance and resources for local epidemiology.</td>
</tr>
<tr>
<td>‒ LHDs need access to school health data protected under FERPA.</td>
</tr>
<tr>
<td>‒ LHDs and states need minimum standards for surveillance, including common definitions of syndromic surveillance.</td>
</tr>
<tr>
<td>3. Third:</td>
</tr>
<tr>
<td>‒ LHDs need increased capacity or access to laboratory tests to confirm flu and monitor for antiviral resistance patterns.</td>
</tr>
<tr>
<td>‒ LHDs should be involved in establishing case definitions.</td>
</tr>
<tr>
<td>‒ Local epidemiology leaders should be involved in state and federal policy-making.</td>
</tr>
<tr>
<td>‒ LHDs need a system to let officials know about ongoing clinical studies on patients with emerging infections, treatment modalities, and expedited Institutional Review Board (IRB) review.</td>
</tr>
<tr>
<td>‒ Epidemiology competencies and national accreditation standards should be applied to the epidemiology workforce, and LHDs should be supported with funding to employ that workforce.</td>
</tr>
<tr>
<td>4. Fourth:</td>
</tr>
<tr>
<td>‒ Local surveillance on veterinary data and data from pharmacies should be available.</td>
</tr>
</tbody>
</table>

The following summarizes discussions about policies concerning epidemiology.

- Participants praised CDC for presenting data on the large scale, but LHDs without local data systems cited lack of timely access to their own local data as the largest impediment to their H1N1 epidemiological response. While LHDs report to the state level, they said it is like reporting into a “black hole.” States generally report data at a regional level—not a local level. LHDs often do not receive their own data or comparative data from other LHDs from the state in a timely manner. Often they have to wait until the data are published. States determine the policies for data release and sharing and, according to one participant, no policy changes were made during the H1N1 emergency. Local disease incidence information and vaccine coverage data are important for targeting vaccination efforts, among other reasons. Participants recommended that NACCHO and ASTHO develop standards for timely data sharing by the states to the LHDs.

- LHDs should also have access to data from providers in their jurisdictions that are contained in states’ sentinel provider databases.

- Although participants agreed that the vaccine database was a very important, nearly real-time source of vaccine information, they observed that data entry was very time-consuming and staff-heavy. One LHD used a scan-based form for reporting and recommended it to the others at the table. Another participant noted that the state
registry/centralized disease surveillance did not allow for timely data dissemination. In general, participants felt that a more efficient and uniform system for data collection, and possibly a policy to allow for delay in reporting, would be helpful.

- Several participants reported difficulty adapting to the **changing reporting and testing requirements** from the CDC (i.e., the shift from looking for cases and reporting every case to not reporting any cases, and the shift from liberal testing to more selective testing).
  - Other participants reported no difficulty adapting to changed requirements. The changes became a communications challenge, as LHDs needed to explain why the requirements were changing and why LHDs could no longer provide accurate, weekly data about the total number of H1N1 cases.

- **Standardizing data collection and capacity**
  - According to the participants, levels of data collection varied among LHDs, and few had the infrastructure to collect more than a minimum level of data. Participants strongly agreed that minimum surveillance standards must be established. The CDC, with state and LHD input, should determine the set of minimum reporting requirements and the menu of systems (including testing and when to stop counting cases) that are necessary for appropriate surveillance. Local flexibility on data collection and the length of surveillance (beyond the minimum level) is important so LHDs can continue to collect data needed to establish local policies and engage in effective local response.
  - Participants also strongly recommended national standards for syndromic surveillance and case definitions. Although syndromic surveillance data on influenza-like illness were shared through the Distribute Project, consensus does not exist on syndromic surveillance and each locality conducted this type of surveillance differently. Also, while allowing for flexibility across jurisdictions to track cases is useful, participants stressed that interpretations must clarify why different pictures emerge from neighboring jurisdictions.
  - Participants also asked whether there is a resource that tells what epidemiology data are being collected from different sources, and suggested that LHDs connect with national data collection systems. One participant noted that school absenteeism surveillance was helpful.

- **Epidemiology capacity and workforce**
  - Participants stressed the need for policies to enhance epidemiology workforce capacity, especially surge capacity. The vast majority of participants stated that their LHDs lacked sufficient infrastructure to conduct important surveillance activities, both generally and in emergency situations. During the H1N1 emergency, some LHDs directed epidemiology staff to focus on collecting vaccination data, leaving insufficient capacity to continue important case surveillance. As a result, these LHDs did not have the evidence base to drive good decisions. Participants strongly recommended that the CDC establish policies to enhance workforce surge capacity.
  - Improvements in the public health infrastructure overall will ease the strain during emergency response. Nonetheless, LHDs will still need surge capacity in order to respond well to significant public health emergencies like pandemic.
- Recommendations for improving surge capacity included asking students, especially masters of public health (MPH) students, to assist with surveillance and pulling workers from other departments. One local health department reached an agreement with a local school of public health to place students into its Public Health Commission, and another local health department created an internal policy that determined which workers can be pulled from other programs in a public health emergency. However, legal barriers can prevent utilization of other workers, and MPH students are often already employed at LHDs in other capacities.

- Jurisdictions varied according to the governmental level exercising control over the proportion of epidemiology staff in each locality (i.e., state or local control over the number of epidemiologists per county or region). Participants wondered whether the variation of control at different levels of government helped to maximize surveillance. Some argued that local epidemiology capacity should be determined by the LHDs. Others recommended that the CDC determine the appropriate capacity and methods for creating resources for the surge.

- Epidemiology staff are often trained on the job and lack formal education in the discipline. One participant recommended establishing and funding national minimum epidemiology standards as part of National Public Health Accreditation Standards. Participants stressed that funding must accompany the policy in order for local public health to afford to employ accredited epidemiologists.

- Laboratory testing resources should be more equally available in all communities.

- Of the few participants that reported having good local epidemiology capacity, their respective states did not capitalize on the local resources. Participants emphasized the need for **LHD epidemiology representation at the policy-making table**. Epidemiology and surveillance seems often to be disconnected from policy. Participants called for a clearer link between local epidemiology and the development of national policy.

- During the H1N1 emergency, some participants would have liked greater access to clinical trial data on new drugs for emerging infections. A few recommended a communication system to **disseminate safety and efficacy data**, as well as more **expedited clinical trials** for new drugs to combat public health emergencies. LHDs were hampered when they did not know about what trials were being conducted.

- One participant suggested **that veterinary and pharmacy surveillance** should be a part of public health. Pharmacies could be a source of sentinel surveillance with mandatory data sharing.

- **Other recommendations** included: a system to assess disease severity, LHD access to medical countermeasures recommended to the states, and more transparency in information shared between the states and the federal government.
H. Medical Care and Countermeasures, other than Vaccines

The following comprises the participants’ most important recommendations about medical care and countermeasures, generally listed in order of importance according to an audience response poll.

Medical care and countermeasure priorities

1. First:
   - Refine guidance on countermeasures (e.g., respiratory protection: CDC needs to evaluate the science, make a value statement on uncertainty, and identify options if resources like N95s are unavailable).

2. Second:
   - Need guidance on use of antivirals before SNS antivirals are pushed out; explain divergence from the original federal pandemic plan, e.g., on use of antivirals and other countermeasures.

3. Third:
   - Need a policy on emergency distribution and prescribing of antivirals.
   - Improve guidance to physicians and other providers by partnering with national professional societies.

4. Fourth:
   - Assure capacity to ship vaccine in all weather conditions.
   - Develop ethics guidance on allocation of scarce resources.
   - LHDs should be asked whether they want SNS supplies and can benefit from them.
   - CDC should use LHDs to help educate providers about drugs under EUAs, e.g., Peramivir.
   - Inform LHDs about which organizations in their communities received SNS supplies, e.g., Peramivir.
   - Require manufactures to make more pediatric suspension; alternatively, issue standard protocols for making suspension.

The following summarizes discussions about medical care and countermeasure policies.

- Federal policies regarding masks and N95s were detrimental.
  - Scientific consensus was lacking, and competing federal agencies (CDC and OSHA) implemented conflicting policies. Neither CDC nor OSHA guidance was concordant with professional society recommendations.
  - CDC must decide on the science and provide factual guidance. If guidance cannot be implemented or the best resource is unavailable, CDC must make a value statement regarding uncertainty and offer best alternatives.
  - Fit-testing guidance on SNS supplies was unclear. The EUA allowed the general public to wear N95s without fit-testing. Individuals in work-settings were still required to be fit-tested on each brand and size of N95 they wore. SNS’ Personal Protective Equipment (PPE) shipments often contained N95s of brands or types for which the recipients weren’t fit-tested, necessitating new fit-tests on the spot. It would be helpful if agencies could request certain brands of N95s from the SNS. In a more extreme event, even unfamiliar N95 brands would be better than nothing, but during H1N1 it was inefficient to receive supplies that required a significant amount of time and human resources for new fit-tests.
• **Antiviral policies**
  o Federal policy should reflect that antivirals are a public health intervention, not just a medical treatment.
  o Federal guidelines prohibiting all prophylactic use were detrimental. Prophylaxis was clinically indicated in some circumstances. Fear of resistance was overstated, according to some participants.
  o Antiviral allocation guidance should differentiate between the period before and after vaccine availability, and also address the need for prophylaxis for exposed workers.
  o No clear reasons were offered for divergence from long-standing pandemic planning vis-à-vis antivirals.
  o It was difficult to provide medical care, including antivirals, to low income persons.
    ▪ One state provided a 24-hour nurse prescription call-in phone line that also facilitated insurance claims for insured individuals and access to SNS antivirals for those who lacked coverage.
  o As noted elsewhere in this report, public health linkages with healthcare providers urgently need attention and strengthening. Without mutual and ongoing interdependence and respect, in an emergency situation medical care may diverge from public health and vice versa. During H1N1, some states shipped antivirals only to providers, bypassing LHDs without and neglecting to inform them of which providers received antivirals. CDC did the same with Peramivir, by shipping it directly to hospitals. This impeded LHDs’ ability to direct providers who lacked antivirals to those who had received them. LHDs’ role regarding distribution and use of antivirals was unclear.
    ▪ Some participants argued that CDC should have given LHDs the lead role in distributing antivirals.
    ▪ Develop guidance (or requirements) for medical practitioners on use of medical countermeasures. CDC, NACCHO and ASTHO should coordinate with provider groups and professional associations at the national level (e.g., the American Medical Association, the Infectious Diseases Society of America, the American College of Physicians, and the American Academy of Pediatrics and its Red Book Committee).
    ▪ HRSA funding of medical programs should require an ongoing dialogue between medicine and public health.
  o Manufacturers did not make enough pediatric suspensions. As a result, suspensions had to be compounded in homes and local pharmacies, presenting quality problems.
  o Some LHDs lacked familiarity with antivirals for seasonal flu response and were not well prepared to assist with H1N1 antiviral implementation.
  o The SNS’ Shelf-Life Extension Program (SLEP) and expired medications policy were problematic.
    ▪ Short-dated antivirals should not be purchased for the SNS. If the antivirals have aged while in the SNS, they should be re-labeled before distribution if they qualify for SLEP.
    ▪ CDC and FDA should align with consistent policies about shelf-life extension and handling of expired medications. States should be trusted to store their antiviral stockpiles consistent with federal SNS standards.
    ▪ Allow rotation of stockpiled medications.
- Do not rely on LHDs for long-term storage, because of space shortages and expense.
- The push model was new and unfamiliar. Antivirals arrived in advance of guidance and distribution mechanisms.

- **SNS purchasing and shipping** decisions should account for the need to ship vaccines, drugs, and other supplies in all weather conditions. The lack of insulated shipping containers delayed shipments to cold climates this past winter and would have impeded shipments to hot climates in the summer.

- States should coordinate with LHDs to establish **alternative care sites** or mechanisms in all communities. Federal guidance should be issued to guide the development of such sites. Alternatives include tele-nurse triage, prescription hotlines, and flu treatment centers.

- Federal **ethical guidance is lacking for rationing or allocation** of scarce resources.

- The federal government needs to issue evidence-based guidance on **closing day care centers and furloughing healthcare workers** exposed to flu, e.g., whether (and for how long) to furlough an exposed intensive care nurse if prophylaxis is refused or unavailable.

1. **Legal Issues**

The following are the participants’ most important recommendations regarding legal issues according to an audience response poll.

### Legal issue priorities

1. First:
   - There is a need for emergency procurement policies at all levels, e.g., expedited contracts and requests for proposals (RFPs).

2. Second:
   - There is a need for emergency hiring policies at all levels of government.
   - CDC and OSHA should make practical and consistent policies regarding N95s and masks.

3. Third:
   - Just-in-time EUAs are difficult to understand, obtain and implement. Pre-event EUAs and a simplified administration process are needed.
   - Shelf-life extension should be streamlined. The CDC and FDA must coordinate and extend SNS shelf-life options to local purchasers.

4. Fourth:
   - Coordination with the Veterans’ Health Administration (VHA) regarding data reporting and sharing should be improved.
   - Legal counsel should be included in ICS and pandemic/emergency planning. To the extent possible, such lawyers should be subject matter experts (SMEs).
The following summarizes discussions about legal issues.

- Participants cited **PREP’s liability limiting provisions** as very helpful in H1N1 response. Participants needed more clarity on the scope of immunity and covered persons. Consistent information about whether students and volunteers were covered was lacking from CDC, NACCHO, and ASTHO.

- LHDs need a uniform and standardized system for **credentialing** vaccinators and other emergency medical personnel across jurisdictions. Differing systems of verification across the states hindered H1N1 response.

- Government officials should revisit **public health preparedness and emergency legislation** and tailor it to work better for local health departments in light of lessons learned from the H1N1 response. A coordinated emergency response is hindered by states that do not have a defined declaration of emergency and specific state liability coverage for volunteers. A declaration needs to be available in all states with a streamlined process for issuance. Vague and abstract laws can be improved, and the response experience should inform future policy.

- Implement **process-based assurance procedures** with emergency grant money to ensure that the funding goals are achieved in a timely manner.

- **Contracting and procurement policies**
  - Even with PHER funds available to augment LHD staff and supplies, participants generally found standard procurement policies (e.g., contracting and grant-writing) a substantial obstacle in the H1N1 response and, occasionally, a complete impediment. Burdensome and time-consuming contracting and RFP processes delayed LHDs’ ability to acquire needed staff and supplies. One participant noted that it took 18 months to complete an RFP process.
  - To expedite procurement processes, one LHD invoked an official’s emergency contract authority but still had to wait three months to get a contract. Another bypassed the customary RFP process using the “sole source” exception, but found that exception difficult to use. One LHD used a fiscal intermediary to administer all contracts and recommended this process to others.
  - Participants strongly recommended that the government establish emergency procurement policies to expedite the acquisition of staff and supplies. The policy should grant LHDs authority to submit expedited contracts in emergency situations.

- In emergencies, LHDs should be able to **divert federally funded workers** from other projects to boost capacity. Policies should ensure access to these workers and relax non-emergency related deliverable requirements for the workers. Participants also recommended that federal grantees for public health research should be obligated to partner with LHDs.

- OSHA and CDC National Institute for Occupational Safety and Health (NIOSH) guidance and requirements for **N95 respirators and masks** were inconsistent. Some guidance was unsupported by scientific data. Compliance became logistically impossible (e.g., fit-testing requirements for multiple brands). Future guidance should be developed with
LHD input and with a focus on evidence, practicality (especially in light of anticipated shortages), and consistency.

- While participants felt EUAs were useful in public health emergencies and better than investigational new drug applications, “just-in-time EUAs” were difficult to implement in light of different directives and mandates for different emergencies. Depending on the nature of the emergency, multiple federal directives can be issued from different agencies. Existing EUA forms were also burdensome to complete. The availability of pre-event EUAs, with easy-to-use sample forms available in multiple languages, would substantially improve LHD emergency response.

- Participants expressed concern about expiring drugs, and some recommended that LHD and state stockpiles should routinely receive the same shelf-life extensions as federal stockpiles.

- A disconnect between certain LHDs and the Department of Veterans Affairs was also cited by a few participants as an impediment to a coordinated emergency response. According to these participants, the Veterans Health Administration (VHA) is self-sufficient in some situations but not in others, inhibiting LHD planning efforts. LHDs do not know when to include the VHA in planning efforts. Policies to encourage coordination and information sharing are needed.

- **Minor consent:** Since parents often presumed that one consent was sufficient, LHDs had difficulty securing a second consent for second pediatric vaccine doses. Also, clarity was lacking on who could consent on behalf of a minor. As one participant asked, “What constitutes informed consent in a public health emergency?”

- Some LHDs needed clarification about whether to refer individuals who experienced adverse events from vaccine to the state health department, the Vaccine Adverse Event Reporting System (VAERS), or both. Some participants were concerned about a negative public perception of vaccine safety based on the non-validated, self-reported, and inclusive list of injuries in VAERS. Others disagreed, observing that reliance on self-reports in VAERS is an intentional, trusted feature of the system for vaccine skeptics.

- **Employment/absentee policies**
  - Participants debated the merits of an employment law excusing absences in a public health emergency, but did not reach a consensus. Although they felt excused absences might improve public health, they anticipated employer pushback on the proposal. Some suggested that the issue would be better resolved between individuals and their employers. One participant cautioned the group to consider the unintended consequences of developing new employment laws for public health emergencies.
    - A few participants recommended that the government explore a shared sick leave program for employees who run out of sick time, and encourage non-essential employees to work from home in emergencies.

- Part of the mission of the Department of Homeland Security (DHS) is to protect the country from disease-related disasters. Additional funds should be appropriated to
DHS to combat emerging infectious disease. DHS should also help fund LHDs, according to some participants.

J. Community Mitigation

These comprise the participants’ most important recommendations regarding community mitigation according to an audience response poll. Four recommendations were clustered in the first priority; one recommendation was ranked lower.

<table>
<thead>
<tr>
<th>Community mitigation priorities</th>
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</thead>
<tbody>
<tr>
<td>1. First:</td>
</tr>
<tr>
<td>o Increase epidemiologic surveillance ensuring that community mitigation is data-driven.</td>
</tr>
<tr>
<td>o LHDs and states need to better understand evidence-based triggers for school closures as well as implications of closures for society at large, and need clearer authority for other closures.</td>
</tr>
<tr>
<td>o Organizations (including volunteers, mental/behavioral health services, and other community based organizations) providing critical public health capacity and social services lack surge capacity, and should be strengthened.</td>
</tr>
<tr>
<td>o School funding can be affected by absenteeism. In an epidemic or pandemic, policies should be changed so that schools are not penalized for absenteeism.</td>
</tr>
<tr>
<td>2. Second:</td>
</tr>
<tr>
<td>o Smaller businesses need more assistance in establishing and implementing COOP.</td>
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</tbody>
</table>

The following summarizes discussions concerning community mitigation policies.

- Some participants observed that CDC’s community mitigation plans were based on a severity index that could not be implemented during the H1N1 pandemic. Severity data were not available, especially at the beginning of the pandemic. LHDs should be at the table when federal and state community mitigation plans are revisited.

- Many participants represented communities that had implemented school closures, and their experiences were mixed.
  - Some participants reported success with implementing local communication policies about community mitigation. Schools and other community partners relied on LHDs to take the lead, which in turn were acting on federal and state guidance.
  - Other participants reported confusion and frustration with rapidly changing guidance about closure triggers and recommended lengths of time for absences from schools and workplaces following an influenza-like illness.
  - As noted elsewhere in this report, tensions existed between LHDs’ need for health data about students and FERPA’s protection of those data. Clear policies should be set, allowing LHDs access to school disease transmission and absenteeism data during a public health emergency.

- At all levels of government, public health and educational institutions and agencies lack useful working relationships. State and federal public health and
education departments need better collaboration during planning and pandemic response. Some LHDs need more explicit authority to reach out to schools.
  - Some participants observed that H1N1 created the first real opportunity in their communities for LHDs and schools to collaborate. These newly formed relationships should be strengthened, capitalizing on H1N1-related momentum to facilitate school-based influenza vaccination campaigns this autumn.
  - Others gave examples of state health agencies not adequately informing education agencies about H1N1 response, such as a decision to ship N95s widely to all schools without sufficiently educating school administrators on how and when to use them, or assisting them with fit-testing.

- While LHDs are required to include schools and other agencies, such as police, in their planning processes, those same agencies have no mandate to work with LHDs. **Reciprocal mandates**, tied to funding, should be established. DHS and education budgets dwarf public health budgets, and those funding streams should be tapped.

- Some participants questioned the feasibility of **border screening and quarantine** stations at travel hubs. While this strategy was widely employed in the U.S. H1N1 response, it could become problematic in other epidemics. Other participants disagreed, noting that—while complete containment is impossible—mitigation and delay of spread is crucial.

- Several participants argued that community mitigation strategies—particularly school, daycare and business closures—have been insufficiently examined and should be the subject of expanded research. **School closures’ negative consequences to society** are not well understood.

- **Employment and furlough policies**
  - LHDs lacked legal authority (or clarity about such authority) to develop and implement sick leave policies for local government.
  - Specific federal guidance is needed about whether, when, and how long healthcare workers should be furloughed after a known flu exposure if post-exposure prophylaxis or appropriate PPE is either refused or unavailable.
  - Not all businesses, especially smaller businesses, have sick leave policies. Lacking a policy, employees may feel pressured to go to work when they are ill. One participant said that her community had a municipal ordinance making business licenses contingent on whether a business has a sick leave policy. The state’s legislature is considering whether to make that local policy into state law.

- **Continuity of operations plans (COOP)**
  - LHDs need better COOP tools and guidance for small businesses, and small business’ capacity to implement COOP should be assisted and strengthened. CDC’s checklist and guidance was helpful, but was also difficult to implement. Many small businesses lack the capacity to implement the checklist and guidance.
  - Similarly, LHDs need better COOP tools and guidance for community-based organizations, social service agencies, and volunteer groups—none of which have surge capacity to respond in a public health crisis.
K. Coordination and Transparency

These are the participants’ major recommendations regarding coordination and transparency. They are all of approximately equal importance according to an audience response poll.

**Coordination and transparency recommendations (equally prioritized)**

- Develop best practices and remove disincentives for school-based clinics.
- Identify strategies for expanding workforce and minimizing liability (e.g., volunteers, including students and MRC).
- Include legal counsel with as much subject matter expertise as possible from the beginning in planning; provide tools/tips on how to tap legal resources most effectively.
- Local units of government need to develop human resources and COOP policies.

The following summarizes participants’ discussions about coordination and transparency:

- LHDs need better **definitions of essential personnel**, particularly to understand who should and should not be prioritized to receive vaccines or deemed qualified to give vaccinations. Volunteer vaccinators should be prioritized for vaccination along with those paid to be at the mass vaccination clinics. Law enforcement and emergency medical system responders’ (EMS) held different perspectives of their risk during H1N1 than public health assessments of those risks. Law enforcement and EMS’ expectations about vaccine priority were not met.
  - LHDs reported varying needs for security at vaccination sites, which in turn points to the need for local flexibility about the extent to which law enforcement should be prioritized for vaccination.
  - The definition of “essential personnel” needs to be incident-dependent.
  - One participant observed that his state lacked a sufficient COOP. The LHD located in that state’s capital city was inundated with calls from every agency of state government asking for priority access to vaccine for agency employees. State government was not part of the threat preparedness planning for this LHD, meaning the LHD was unprepared to address this demand for vaccine.
  - For LHDs that depended heavily on MRC volunteers for surge capacity, assuring liability protection was critical.

- Participants expressed **different perspectives about ICS**.
  - Some observed that ICS needs to be improved to address incidents of long duration like a pandemic, and to be tailored better to public health disasters. CDC and HHS should be more involved at the federal level in designing and implementing ICS courses to assure that public health and medical responders have a seat at the ICS table.
  - The federal government did not implement ICS. There was no clear command-and-control structure among federal agencies that put federal public health agencies in the lead during this public health disaster.
  - Some observed that implementation of ICS in their communities was weak. Weekly rotation of commanders is not recommended because it causes confusion about who is in charge and increases the likelihood of having a commander with inadequate training. ICS commanders need better
communication with other Emergency Operation Centers. Commanders need to be appointed long-term.
  - In some communities, effective implementation of ICS was critical to the LHDs’ successful H1N1 response.

- Statutes and ordinances should clarify that the LHD is the community’s primary health authority during emergencies. Promote awareness of LHD role.
- Clarify if and when local physicians must follow advice from LHDs. Seek ways to reduce opinion shopping by physicians.
- Participants reported varied, and too often insufficient, partnerships with schools around closing policies and data access. Solid partnerships at the state level between education and health departments were useful in fostering local connections.
  - Policies may need to differ for elementary, junior, and senior high schools.
  - Some communities found it helpful for school nurses to be employed by the state.
  - In some states, memoranda of understanding (MOUs) with community partners such as schools carry little weight. MOUs should be binding.
  - As noted in section IV(j) above, relationships between LHDs and schools should be supported with funding and reciprocal mandates.
- Though not a policy recommendation, some participants stressed that in order to obtain good legal advice during an emergency, it is helpful to specify needed response time and to clarify whether you seek case law, CDC guidance and/or a legal opinion.
- Rural areas have special needs. For example, consider suitable locations for pre-placement of supplies. A plan to store antivirals in a National Guard facility failed because the facility was not air conditioned.
- After the first panic subsided, H1N1 risk perception was low, which impeded some LHDs’ ability to bring partners to the H1N1 response table.

L. Equity and Ethical Issues

Participants were not polled separately on their highest priority recommendations regarding equity and ethics. Numerous policy recommendations that had clear ethical implications—such as policies supporting opt-out (rather than opt-in) consent for pediatric influenza vaccination; recommendations to strengthen social service organizations’ surge capacity; and recommendations to streamline contracting processes so that community-based organizations can be tapped more effectively to outreach to vulnerable populations—were discussed and ranked as part of conversations reported in previous sections of this report.

Participants engaged in a focused conversation about equity and ethical issues that was part of the meeting agenda and spilled over into a spontaneous post-workshop discussion among many participants. The following summarizes both discussions.
• LHDs should have **sustained funding for outreach to vulnerable populations.** Historically siloed funding streams impede LHDs’ ability to build and sustain relationships, particularly with insular groups. PHER and PREP funding can be viewed as “proof of concept:” planning and testing of plans can work and should be applied to routine functions of health department activities.
  o LHD staff that are most culturally and linguistically competent are often those who’s funding is tied to programmatic grants. Some LHDs lacked the ability to tap these workers for pandemic response.

• **Vaccine policies**
  o The decision to distribute vaccine at no cost greatly supported LHDs’ ability to vaccinate poor and uninsured populations. Clarity around recouping administrative costs would have been helpful.
  o Some argued that school-based vaccination, supported by a sound opt-out consent policy, is the best way to vaccinate school-aged children, particularly vulnerable children without an engaged parent or guardian.
    ▪ Special planning consideration and policies should be given for home-schooled children.
    ▪ Other participants suggested that a non-mandatory vaccination policy would work better. If influenza vaccination were a routine part of EPSDT check-ups, mandatory school-based vaccination would not be needed. Mandatory school-based vaccination annually of all children in all grades would be challenging.
  o At least one state attempted a random distribution of vaccine to clinics, rather than distributing to LHDs per capita. Several participants criticized this policy as inequitable.
  o As with all aspects of pandemic response, good outreach depends on good data. Demographic data about vaccine recipients should be collected, allowing vaccination and other outreach to be grounded on sound, local epidemiology.
  o Healthcare workers care for some of the most vulnerable people in a pandemic, and yet healthcare workers are too often among the most reluctant to be vaccinated. Employment and government vaccination mandates should continue to be explored, although at least one state’s mandate policy spawned a court challenge.
  o States’ Vaccine for Children programs are successful. Some participants suggested expanding the programs to reach uninsured or under-insured adults, which could in turn reduce health disparities in vaccination rates.
  o One state used stimulus funds to eliminate vaccine administration fees, noticeably improving vaccine coverage.
  o Several participants observed that insufficient attention was given in their states or communities to vaccinate those in ACIP’s first tier before moving to a larger, less vulnerable population. At least one participant asked whether the resources necessary to reach a relatively small segment of difficult-to-reach vulnerable people should be better spent on vaccinating an increased number of those who can be more easily reached.
  o Some participants expressed concern about vaccine waste as an ethical issue. Unused vaccine should be collected and distributed quickly internationally before it expires.
• State and federal health agencies should develop more educational materials suitable for non- or semi-literate populations and more multi-language materials.

• Community-based organizations
  o Several participants observed that social service agencies lack surge capacity and rely on volunteers. Services for mental health, chemical dependency, and people with disabilities (e.g., home-based meal delivery) are just a few of the services that could quickly disappear in a crisis. Many—if not most—of these agencies and community-based organizations are unconnected to LHDs and struggle with fragmented or categorical funding. LHDs should become grant partners in order to foster better connections.
  o Cumbersome contractual and reporting requirements can prevent LHDs from working with faith and other community-based organizations to participate in pandemic response.

• Most people work in small-to-medium sized businesses. LHDs (at least in large cities) have more difficulty reaching small and medium-sized businesses. Employees of such businesses are often least financially capable of missing work, and often don’t have paid sick leave. This should receive policy attention at federal and state levels.

IV. Conclusion and Next Steps

Tactical and operational issues influence policies, and policies influence tactics and operations. While drawing a bright line between policies and tactical/operational responses was difficult to impossible during the workshop, participants succeeded in identifying specific laws, guidelines, procedures, and regulations that impacted their H1N1 response. CDC and NACCHO representatives at the workshop sincerely thanked participants for the time and energy they brought to this intense workshop. They expressed their commitments to highlight the workshop participants’ recommendations and observations with colleagues, partners, and leaders. Workshop evaluations showed that the meeting format was interactive and conducive to peer exchange. Participants were pleased with the workshop overall and expressed the need for further discussion. They offered suggestions for future workshop topics and action items to improve policy.

This project was ambitious, attempting to gather policy successes and challenges within a few months via environmental scan, NACCHO Sentinel Network surveys, a policy workshop, and this summary report. This effort revealed the need for more opportunities to review the 2009–2010 H1N1 response and the need to implement policy improvements for future responses based on the findings. NACCHO will continue to explore opportunities with its members and its partners, including CDC and ASTHO, to disseminate and build upon the findings from this project.
Appendix A

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Minneapolis, MN
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The mission of the National Association of County and City Health Officials (NACCHO) is to be a leader, partner, catalyst, and voice for local health departments in order to ensure the conditions that promote health and equity, combat disease, and improve the quality and length of all lives.