

THE KEYSTONE CENTER

Public Engagement Project on Vaccine Prioritization for Pandemic Influenza

Final Report

Sponsored by The U.S. Department of Health and Human Services, The Association of State and Territorial Health Officials, and the National Association of County and City Health Officials

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Executive Summary

The complex and unique nature of pandemic influenza requires a thoughtful and thorough vaccine prioritization planning process. In 2005, the U.S. Department of Health and Human Services (HHS) issued guidance on vaccine prioritization. This guidance was developed by the Advisory Committee on Immunization Practices (ACIP) and the National Vaccine Advisory Committee (NVAC) and although the group considered potential priority groups broadly, they concluded that the primary goal of a pandemic response was to decrease health impacts including severe morbidity and death; secondary pandemic response goals included minimizing societal and economic impacts. In December of 2005, the Centers for Disease Control and Prevention (CDC) sponsored the “Public Engagement Pilot Project on Pandemic Influenza” (PEPPPI) in order to elicit public input on the question of who should be vaccinated first in the early days of an influenza pandemic when vaccine supplies are still limited. In contrast to the guidance, the main goal identified by citizens was limiting the effects of a pandemic on society by preserving essential societal functions. Recognizing that citizen perspectives needed further exploration and that evolving planning assumptions and response strategies needed further consideration, HHS decided to revisit its 2005 guidance on vaccine prioritization. In the fall of 2006, an interagency work group was established under the leadership of HHS and the Department of Homeland Security in order to set forth new guidance for vaccination prioritization.

The “Public Engagement Project on Pandemic Influenza Vaccine Prioritization” (PEPPIVP) is one component that informed workgroup deliberations. The engagement project was a joint effort by HHS, CDC, the Association of State and Territorial Health Officials (ASTHO) and the National Association of County and City Health Officials (NACCHO) to involve members of the public and stakeholders on the question of prioritizing pandemic vaccine. The PEPPIVP consisted of two rounds of meetings facilitated by The Keystone Center. During the first round, three meetings were held prior to the release of the draft guidance. The main goal was to have the public discuss and rate potential influenza pandemic vaccination goals. During this round, citizen meetings with 100 + participants were held in Nassau County, NY; and Las Cruces, NM, and one meeting with 100 + stakeholders was held in Washington, DC. The workgroup considered this input as it developed the draft pandemic vaccination guidance. The second round of meetings followed a similar structure but was held after the release of the draft guidance. The main goal was to solicit public response to the guidance and to identify any concerns or suggested changes. The meetings were held in Milwaukee, WI; Hendersonville, NC; and Washington, DC.

Each meeting began with a pre-test to assess participants’ knowledge on pandemic influenza. Local and federal partners then gave short informational presentations designed to enable participants to have an informed discussion on pandemic influenza and vaccine prioritization. The nature of the presentations differed slightly between citizen and stakeholder meetings. Question-and-answer sessions followed all presentations.

Participants in Round One were next provided with a fact sheet listing ten potential goals for prioritization, what each means, and examples of groups that would be vaccinated with each goal. In a

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breakout session, small group facilitators led tables of 5-10 participants through a series of five questions:

- 1) Which goal(s) do you believe to be the most important and why?
- 2) Are the goals provided by the government balanced and complete?
- 3) What values did you use to prioritize these goals?
- 4) How would you choose to make decisions to guide the distribution of vaccine in the event of a shortage?
- 5) What values would guide you in choosing priority groups of those to receive vaccine?

Participants then rated the ten goals in a large group setting. Four goals emerged as most important:

- a) vaccinate persons who are essential to implementing our pandemic response;
- b) vaccinate persons who provide community essential services;
- c) vaccinate persons who are at increased risk of pandemic infection because of their occupation;
- d) vaccinate children.

The placement of children in this group is significant since seasonal influenza vaccination is recommended annually for older adults and those with underlying diseases and these groups suffer the greatest morbidity and mortality from influenza infection. Moreover, almost one-third of public participants were ≥ 65 years old. Reasons given for rating these goals the highest were:

- some of the goals were seen as more appealing since they seemed to benefit multiple groups;
- certain goals help maintain the functioning of society presently and in the future;
- some goals would benefit children which was a high priority; and
- participants perceived that certain goals could work in combination to reduce the spread of pandemic influenza.

Post-tests indicate that participants' knowledge increased significantly throughout the deliberations (average pre-test score 40% versus post-test score 69%, $p < 0.001$). The guidance workgroup considered these priorities in preparing the draft guidance.

In Round Two, participants were asked to respond to the guidance following the initial informational presentations. Small group facilitators referred to a number of charts detailing the draft pandemic vaccine prioritization plan to guide tables of 5-10 participants through five questions. These questions were:

- 1) Do you agree/ disagree with the goals that underpin the guidance?
- 2) Do you agree/ disagree with the order of priority for vaccination in the guidance?
- 3) Do you agree/ disagree with the adjustments based on pandemic severity?
- 4) What changes to the guidance do you think should be considered and voted upon by the entire group?

Citizen participants also discussed the question: Do you think this approach could/would/will work in your area?

A majority of participants in Round Two agreed with:

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- a) the goals prioritized during Round One
- b) the decision to vaccinate children before adults, and
- c) the overall prioritization plan outlined in the guidance.

The continued placement of children as a priority is significant especially since nearly one-fourth of participants were ≥ 65 years. Although many proposed changes were offered, few gained agreement indicating a general satisfaction with the guidance. Changes that did gain agreement reflected the values of inclusion, fairness and maintaining the functioning of society. For example, participants in all meetings agreed to move government officials who do not have contact with people infected with pandemic influenza lower on the priority list. Citizens in Milwaukee and Hendersonville both strongly agreed that food, transportation, and pharmaceutical workers should be moved to Tier 2 while stakeholders overwhelmingly supported the explicit mention that all residents are included in the plan regardless of citizenship status. Post-tests of Round Two also show significant increases in participant knowledge (average pre-test score 40% versus post-test score 59%, $p < 0.001$).

Participants at various points expressed concerns with lack of full understanding of the impact of a pandemic influenza outbreak on their community including: how severe the outbreak could be, what preventative measures would be taken, vaccine prioritization and decision-making, implementation of the vaccination plan, and how people who are not listed in a priority group will be addressed. These concerns and the changes that gained agreement are important expressions of beliefs and values by a diverse and informed public and therefore meaningful data to consider in modifying the draft guidance.

I. Participating Organizations

Association of State and Territorial Health Officials (ASTHO)

Border Health Education Training Center at New Mexico State University

Centers for Disease Control & Prevention (CDC)

City of Milwaukee Health Department

Henderson County Department of Public Health

Nassau County Department of Health Public Health Emergency Preparedness

National Association of County & City Health Officials (NACCHO)

New York State Senator Michael Balboni

New York State Department of Health

New Mexico State Health Department

North Carolina Department of Health and Human Services

Southern Area Health Education Center Environmental Health Committee

The Keystone Center

University of Nebraska

U.S. Department of Health & Human Services (HHS)

U.S. Department of Homeland Security

Wisconsin Department of Public Health

II. Background

The complex and unique nature of pandemic influenza requires a thoughtful and thorough vaccine prioritization planning process. Vaccine must be prioritized because 1) everyone will be susceptible; 2) U.S.-based production is currently not sufficient to make vaccine rapidly for the entire population; and 3) national pandemic response goals can best be achieved through the targeted use of available vaccine. In an effort to guide state and local planning and to promote further discussion, HHS issued guidance on vaccine prioritization in 2005. This guidance was developed by the ACIP and NVAC and although the committees considered potential priority groups broadly, they concluded that the primary goal of a pandemic response was to decrease health impacts including severe morbidity and death; secondary pandemic response goals included minimizing societal and economic impacts.

In December of 2005, the Centers for Disease Control and Prevention (CDC) sponsored the “Public Engagement Pilot Project on Pandemic Influenza” (PEPPPI) in order to elicit public input on the question of who should be vaccinated first in the early days of an influenza pandemic when vaccine supplies are limited. The main theme of this discussion was the importance of limiting the effects of a pandemic on society by preserving essential societal functions. Recognizing that citizen perspectives needed further exploration and that evolving planning assumptions and response strategies needed further consideration, the HHS decided to revisit its 2005 guidance on vaccine prioritization. In the fall of 2006, an interagency work group was established under the leadership of HHS and the Department of Homeland Security in order to develop updated guidance for vaccination prioritization.

The “Public Engagement Project on Pandemic Influenza Vaccine Prioritization” (PEPPIV) is one component informing workgroup deliberations. The engagement project is a joint effort by HHS, the CDC, the Association of State and Territorial Health Officials (ASTHO) and the National Association of County and City Health Officials (NACCHO), to involve members of the public and stakeholders on the question of prioritizing pandemic vaccine. It follows in the tradition of the “Public Engagement Project on Community Control Measures” (PEPCCM) conducted in 2006 to learn what level of support the public might have and what trade-offs citizens might be willing to make for a package of non-pharmaceutical control measures that would be socially disruptive but have the potential to slow the spread of disease. The project won the International Association of Public Participation’s 2007 project of the year. These projects show an evolution in incorporating public values and priorities into public health decision-making.

The PEPPIV consisted of two rounds of meetings. During the first round, three meetings were held prior to the release of the draft guidance by the interagency workgroup. The main goal was to have the public comment on and rate potential influenza pandemic vaccination goals. Two were citizen meetings with 100+ participants held in communities that differed in size and geography. The third was a meeting of 100+ stakeholders. The workgroup considered this input as it developed the draft pandemic vaccination guidance. The second round of meetings followed a similar structure but was held after the release of the draft guidance. The main goal was to solicit public response to the guidance and to identify any concerns or suggested changes.

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The public learning that resulted and quality of public input received during this project reveal that this approach merits consideration by HHS when addressing questions where public beliefs and values are important.

III. Round One

III. A. Methods

During round-one meetings, participants were first given a pre-test to measure knowledge of pandemic influenza. Participants then listened to presentations by federal and state or local subject matter experts. In the citizen meetings, one presentation provided essential background about pandemic influenza and another framed the issue of vaccine prioritization. In the stakeholder meeting, one presentation discussed prioritization planning efforts and another overviewed key issues in vaccine prioritization. Question-and-answer sessions followed all presentations.

Participants were then given a hypothetical scenario describing how an influenza pandemic might unfold in the US. They were provided with a fact sheet listing ten potential goals for a pandemic influenza vaccination program, what each means, and examples of groups that would be vaccinated to advance each goal. In a breakout session, facilitators led tables of 5-10 participants through a series of five questions:

- 1) Are the goals provided by the government balanced and complete?
- 2) Which goal(s) are important and why?
- 3) What values did you use to prioritize these goals?
- 4) How would you choose to make decisions to guide the distribution of vaccine in the event of a shortage?
- 5) What values would guide you in choosing priority groups of those to receive vaccine?

Facilitators also made note of important themes or key points that emerged during the discussion but that were not captured through the above questions. Once tables reported their findings to the large group, all participants were asked to rate each of the 10 vaccination goals on a scale from 1 (not important) to 7 (extremely important) using electronic polling devices.

Following the polling, participants discussed concerns and made additional comments in a large group setting. Participants also completed a post-test to assess learning and the deliberation process.

III. B. Results

III.B.1. Number of Participants, Demographics and, Prior Knowledge Assessment

Two public meetings were held on January 27, 2007. One meeting, consisting of 108 culturally diverse participants, occurred in the small community of Las Cruces, New Mexico. Another meeting, consisting of 135 participants representing a mostly older age group, occurred in Nassau County, New York. The stakeholder meeting was held on January 29, 2007 in Washington, DC and included 90 representatives from government agencies, companies in critical infrastructure sectors (including some who serve on

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sector coordinating councils), health care organizations and professional societies, emergency service providers, and community organizations.

Participants in both locations were diverse in term of age, ethnicity, education, and income. Despite the fact that participants were diverse in all of these areas, both quantitative polling results and qualitative discussion results indicate that they shared many of the same values and beliefs in regards to vaccine prioritization. Income level varied across locations with a majority of participants in Las Cruces making \$30,000 or less, while a majority of participants in Nassau earned more than \$60,000. Education levels varied across locations, with the majority of participants in Las Cruces having some college or less while the majority of participants in Nassau County had some college or more. Age ranges were fairly diverse across locations with almost a majority of participants in Nassau County over 65, while Las Cruces participants represented a more diverse age grouping. Ethnicity varied across locations with a majority of participants in Las Cruces being Hispanic whites while a majority of participants in Nassau County were non-Hispanic whites.

TABLE 1: Demographics of Citizen Meetings¹

Characteristic	Las Cruces, NM	Nassau County, NY
Gender		
Male	26.0	43.5
Female	74.0	56.6
Ages		
18-24	12.9	4.4
25-34	13.9	5.5
35-44	15.8	2.2
45-54	26.7	14.3
55-64	14.9	25.3
65+	15.8	48.4
Ethnicity		
Hispanic White	72.3	14.4
Hispanic Black	2.0	1.1
Non-Hispanic White	21.8	70.0
Non-Hispanic Black	1.0	8.9
Asian	0.0	0.0
Native American	0.0	4.4
Other	3.0	1.0
Parent or Guardian of Children under 18		
Yes	60	27
No	40	73
Education Level		
Less than High School	16.2	1.1
Some High School	5.1	1.1
High School Graduate	20.2	25.8

¹ Demographic information taken from the Evaluation of the Public Engagement Project on Pandemic Influenza Vaccine Prioritization by the University of Nebraska.

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Some College	22.2	17.2
College Graduate	10.1	22.6
Some Grad School	11.1	6.5
Completed Grad School	15.2	25.8
Income Level		
\$15,000 or less	31.3	8.8
\$15,001-\$30,000	21.9	6.3
\$30,001-\$60,000	35.4	30.0
\$60,001-\$100,000	8.3	25.0
\$100,000 or more	3.1	30.0

Participants had fairly limited prior knowledge of pandemic influenza. However, pre- and post-tests results showed significant increases in participant knowledge (average pre-test score 40% versus post-test score 69%, $p < 0.001$). As indicated in the table below, significant increases in participant knowledge was seen on all questions.

TABLE 2: Prior Knowledge Assessment², Participant scores of vaccine knowledge questions for pre- and post-tests.

Question	% (#) of people who answered correctly	
	Pre-Test	Post-Test
Q1: How soon after someone is infected with an influenza virus will they get sick?	35.8% (64)	70.4% (126)*
Q2: When will the next pandemic occur?	52.5% (94)	74.3% (133)*
Q3: About how many people do you think die in a typical year from flu in the United States?	27.4% (49)	66.5% (119)*
Q4: Who is at risk when a new influenza virus appears that has never been seen before?	79.9% (143)	91.6% (164)*
Q5: How many pandemics have occurred in the last 100 years?	38.0% (68)	88.8% (159)*
Q6: What causes a flu pandemic?	42.5% (76)	47.5% (85)
Q7: About how many people could become ill in the United States during a severe pandemic?	15.1% (27)	34.1% (61)*
Q8: About how long would it take to produce a flu vaccine after the virus causing a pandemic is identified?	25.7% (46)	74.9% (134)*

* = significant increase in % correct based on McNemar test

² Assessment information taken from the Evaluation of the Public Engagement Project on Pandemic Influenza Vaccine Prioritization by the University of Nebraska.

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III.B.2. Polling Results

Both the citizen and the stakeholder participants as a whole rated most of the goals at least moderately important for vaccination prioritization.

TABLE 3: Mean rating for proposed vaccination program goals based on a 7-point scale (1 = not important; 7 = extremely important).

Goal	NY	NM	DC	ALL
Vaccinate persons who are essential to implementing a pandemic response	6.0	6.7	6.8	6.4
Vaccinate persons providing essential services in communities	5.7	5.9	6.4	6.0
Vaccinate persons who are at increased risk of pandemic influenza because of their jobs	5.6	5.8	5.9	5.7
Vaccinate children	5.7	5.9	4.9	5.5
Vaccinate persons who are at risk of transmitting the virus to those unable to receive protection from the virus	5.3	5.3	4.6	5.1
Vaccinate persons who protect national and homeland security	5.2	4.6	4.7	4.9
Vaccinate persons who are most likely to be protected by a pandemic vaccine	5.1	4.5	4.0	4.6
Vaccinate to prevent severe pandemic illness or death	4.8	4.0	4.8	4.6
Vaccinate persons working to keep the pandemic out of the United States	5.3	4.3	3.3	4.4
Vaccinate persons providing essential economic services	4.2	3.0	4.5	3.8

When goals are ranked (**TABLE 4**, below), clusters of goals emerged at the high, middle, and low points of the spectrum which indicates that participants had a vision of what goals they believe should be prioritized. The clusters also suggest that participants wanted multiple goals to be achieved simultaneously.

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TABLE 4: Ranking of pandemic vaccination goals by public and stakeholder meeting participants based on the ratings provided in **Table 3**.

Goal	NY	NM	DC	ALL
Protect persons performing the pandemic response and providing care to those who are ill	1	1	1	1
Protect persons providing essential community services	2	3	2	2
Protect persons at occupational risk of pandemic infection	4	4	3	3
Protect children	3	2	4	4
Protect persons likely to transmit infection to those who cannot be protected by vaccine	6	5	7	5
Protect persons working to protect U.S. homeland and national security	7	6	6	6
Protect persons at highest risk of severe pandemic illness and death	9	7	5	7
Protect persons among whom vaccine is most likely to be effective	8	8	9	8
Protect persons working to delay pandemic entry into the United States	5	9	10	9
Protect persons providing essential economic services	10	10	8	10

Most Important Goals

- Vaccinate persons who are essential to implementing our pandemic response
- Vaccinate all persons who provide community essential services
- Vaccinate persons who are at increased risk of pandemic infection because of their occupation
- Vaccinate children

Participants rated the above four goals as most important. Stakeholders rating of these goals as most important may have reflected the importance they placed on maintaining critical infrastructure during a pandemic since their top three represent groups that comprise the essential core. Stakeholders rated vaccinating children the fourth among these goals possibly due to their awareness that they are “little spreaders.” While New Mexico and New York also rated these four goals as most important, they differed in that they placed children higher than those at increased risk due to occupation. This may have been due to a strong sense of family in both communities. This ranking is particularly significant in New York where participants overwhelmingly represented an older population.

In terms of the other three most highly rated goals, New Mexico participants found maintaining a working health care system and protecting those who take care of others as also most important while

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in New York, the desire to maintain social order may have led to their ranking of the other three goals related to occupational risk, delaying entry of the pandemic and vaccinating likely vectors as most important.

Moderately Important

- Vaccinate persons who are at risk of transmitting the virus to those unable to receive protection from vaccination.
- Vaccinate persons who protect the national and homeland security.
- Vaccinate to prevent severe illness and death.

The above three goals were rated as moderately important by participants. In New Mexico, vaccinating persons who are at risk of transmitting the virus to those unable to receive protection from the vaccine was rated the highest in importance in this grouping possibly due to the often expressed value of protecting those who cannot protect themselves. In New York, this goal also ranked slightly higher than the other two middle goals. This rating may be due to the sentiment of saving “future generations” and protecting those that “had more life to live” that prevailed in New York’s older population.

In contrast to the citizen meetings, the health care industry was well represented at the stakeholder meeting. Participants familiar with health care approaches often stated that vaccinating to prevent severe illness and death reflected the current approach to seasonal influenza. A few participants even questioned why this approach would not automatically be the main goal for pandemic influenza vaccination. This perspective may explain why the stakeholders rated that goal highest among the three of moderate importance.

Somewhat Important

- Vaccinate persons most likely to be protected by the vaccine.
- Vaccinate persons who are essential to delay entry of pandemic infection into the United States.
- Vaccinate persons who provide essential economic services.

Vaccinating persons who are most likely to be protected by pandemic vaccine - young, previously healthy persons - ranked highest in importance among the lower three goals. Both public groups and stakeholders saw this goal as a moderate priority for different reasons. New York participants argued that the groups represented included many who are important to the functioning of society. In New Mexico, participants reflected that they were the population hardest hit by the 1918 outbreak. For stakeholders, this group did not “need vaccination” as much as other populations.

Vaccinating persons who are essential to delay entry of pandemic infection into the United States ranked second in importance among the lower three goals. Participants in all three meetings expressed similar reasons for its low level of priority. Most groups stated that the timing and nature of a pandemic would make vaccination to achieve this goal ineffective. Since the virus would most likely be in the United States by the time vaccination is available, this goal would be “too little, too late.” In New Mexico, a few stakeholders expressed concern that the border patrol would be ineffective against “something they can’t see” anyway.

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Vaccinating persons who provide essential economic services --Participants in both New Mexico and New York did not see this as a high priority. One small discussion group in New York suggested taking it off the list of goals while one in New Mexico stated “alternative systems will keep things going (bartering, promissory notes, etc.).”

IV. Round Two

IV. A. Methodology

During Round Two meetings, participants were first given a pre-test to assess knowledge of pandemic influenza. They then listened to presentations by subject matter experts from the state and local health departments. In the citizen meetings, participants listened to presentations from local health officials on local preparedness and also provided background information essential for an informed discussion on pandemic influenza, vaccination prioritization, and the draft guidance. Finally, citizens were introduced to the guidance with a presentation that overviewed the reasoning behind vaccine prioritization, the goals used to guide vaccine prioritization, and the process followed to craft the draft guidance. Stakeholders heard a more detailed version of this presentation. Stakeholders were then given a sample of what occurred at the four public meetings through both a high line summary of polling results and a panel discussion with four citizen representatives. In all meetings, questions and answers followed these initial presentations.

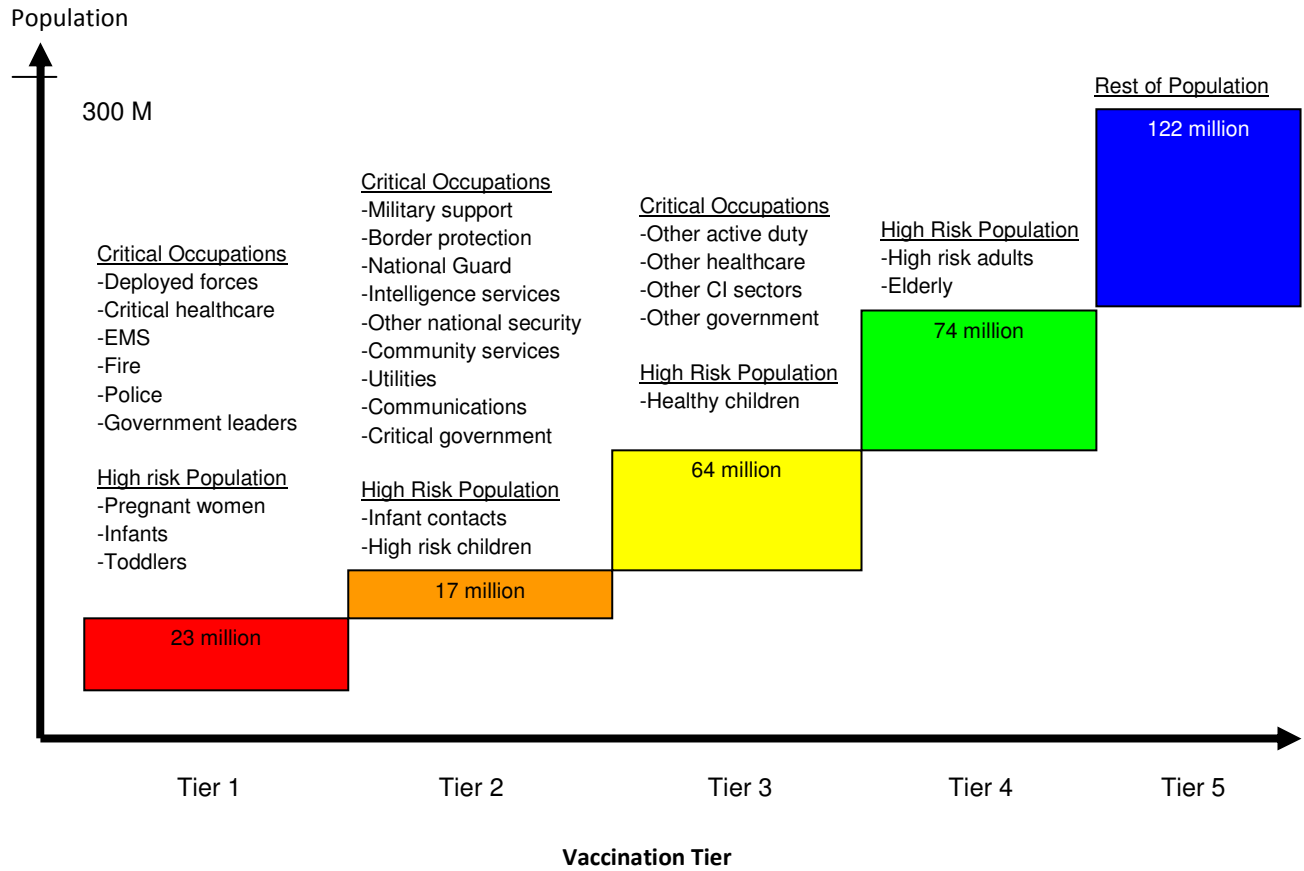
Next, table-top facilitators, referring to a number of charts (Figures 1 & 2, below) detailing the tier plan, helped guide tables of 5-10 participants through five questions. These questions were:

- 1) Do you agree/ disagree with the goals that underpin the guidance?
- 2) Do you agree/ disagree with the order of priority for vaccination in the guidance?
- 3) Do you agree/ disagree with the adjustments based on severity?
- 4) What changes to the guidance do you think should be considered and voted upon by the entire group?

Citizen participants also discussed the question: Do you think this approach would work in your area?

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FIGURE 1: Draft vaccination tiers for a severe pandemic



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FIGURE 2: Draft target groups for severe, moderate and less severe pandemics as defined by the Pandemic Severity Index (Severe = PSI 4 or 5; Moderate = PSI 3; Less severe = PSI 1 or 2)

	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Not targeted*
Category	Target group	Estimated Number	Severe	Moderate	Less Severe	
Homeland and National Security	Deployed and mission critical persons	700,000				
	Essential support & sustainment personnel	650,000				
	Intelligence services	150,000				
	Border protection personnel	100,000				
	National Guard personnel	500,000				
	Other domestic national security personnel	50,000				
	Other active duty & essential support	1,500,000				
Health Care and Community Support Services	Public health personnel	300,000				
	Inpatient health care providers	3,200,000				
	Outpatient and home health providers	2,000,000				
	Health care providers in LTCFs	800,000				
	Community support & emergency management	600,000				
	Other important health care personnel	500,000				
Critical Infrastructure	Emergency Medical Service personnel	2,000,000				
	Law enforcement personnel					
	Fire services personnel	50,000				
	Manufacturers of pandemic vaccine & antivirals	50,000				
	Key government leaders					
	Electricity sector personnel	1,900,000 to				
	Natural gas personnel	4,400,000				
	Communications personnel					
	Water sector personnel					
	Critical government personnel					
	Transportation sector personnel	1,400,000 to				
	Food and agriculture sector personnel	3,500,000				
	Banking and finance personnel					
	Pharmaceutical sector personnel					
	Chemical sector personnel					
	Oil sector personnel					
	Postal and shipping personnel					
	Other important government personnel					
General Population	Pregnant women	3,100,000				
	Infants & toddlers 6–35 months old	10,300,000				
	Household contacts of infants < 6 months	4,300,000				
	Children 3–18 yrs with high risk conditions	6,500,000				
	Children 3–18 yrs without high risk	58,500,000				
	Persons 19–64 with high risk conditions	36,000,000				
	Persons >65 yrs old	38,000,000				
	Healthy adults 19–64 yrs old	121,800,000				

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Following table-top discussions, facilitators met with the Keystone representatives to put any suggested changes into a form suitable for polling. Once the meeting reconvened, Keystone summarized the propositions for the meeting participants. In the stakeholder meeting, a panel of six individuals representing the government, military and homeland security, essential community services, and general public sectors offered some perspectives to facilitate consideration and discussion of the proposed changes. In all meetings, participants were polled on each proposed change using a seven-point scale to indicate support or opposition:

1	2	3	4	5	6	7
Strongly Agree		Agree		Disagree		Strongly Disagree

Following the polling, participants discussed concerns and made additional comments in a large group setting. Finally, participants completed a post-test to assess learning and the process of deliberation.

IV. B. Results

IV.B.1. Number of Participants, Demographics, and Prior Knowledge Assessment

Number of Participants

The first citizen meeting was held on November 10, 2007 in Milwaukee, Wisconsin, with 137 participants. The second citizen meeting was held on November 17, 2007 in Hendersonville, North Carolina, with 118 participants. The stakeholder meeting was held on December 13, 2007 in Washington DC. The 50 participants represented national, state, and local agencies, occupational associations, and community groups. In all meetings, the number of registered participants reflects participants as well as facilitators and note-takers. Facilitators and note-takers did not participate in polling. This explains why the polling number counts are less than the number of registered.

Participant Demographics from Citizen Meetings³

Participants in Milwaukee and Hendersonville were diverse in age, ethnicity, education level, income and status as parent or guardian of a child under 18. Despite the fact that participants were diverse in all of these areas, both quantitative polling results and qualitative discussion results indicate that they shared many of the same values and opinions in regards to vaccine prioritization.

³ Demographic information taken from the Evaluation of the Public Engagement Project on Pandemic Influenza Vaccine Prioritization by the University of Nebraska.

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TABLE 5: Demographics of Citizen Meetings

Characteristic	Milwaukee, WI	Hendersonville, NC
Gender		
Male	24.4	42.0
Female	25.6	58.0
Age		
18-24	15.6	2.9
25-34	28.6	11.6
35-44	19.5	11.6
45-54	19.5	20.3
55-64	11.7	14.5
65+	5.2	39.1
Ethnicity		
Hispanic White	27.6	8.7
Hispanic Black	0	2.9
Non-Hispanic White	6.6	82.6
Non-Hispanic Black	59.2	4.3
Asian	0	0
Native American	1.3	1.4
Other	5.3	0
Parent of Guardian of Children under 18		
Yes	59	26
No	41	74
Education Level		
Less than High School	2.6	0
Some High School	7.9	1.4
High School Graduate	28.9	8.7
Some College	36.8	26.1
College Graduate	6.6	21.7
Some Grad School	7.9	15.9
Completed Grad School	9.2	26.1
Income Level		
\$15,000 or less	46.5	3.2
\$15,001-\$30,000	21.1	9.7
\$30,001-\$60,000	26.8	38.7
\$60,001-\$100,000	2.8	35.5
\$100,000 or more	2.8	12.9

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Prior Knowledge Assessment⁴

Pre-and post-tests results showed significant increases in participant knowledge (average pre-test score 39.6% versus post-test score 59.44%, $p < 0.001$). As indicated in the table below, significant increases in participant knowledge were seen on all questions.

TABLE 6: Participant scores of vaccine knowledge questions for pre- and post- tests.

Question	% (#) of people who answered correctly	
	Pre-Test	Post-Test
Q1: How soon after someone is infected with an influenza virus will they get sick?	44.8% (64)	59.4% (85)*
Q2: When will the next pandemic occur?	49.0% (70)	69.2% (99)*
Q3: About how many people do you think die in a typical year from flu in the United States?	26.6% (38)	55.9% (80)*
Q4: Who is at risk when a new influenza virus appears that has never been seen before?	76.2% (109)	85.3% (122)*
Q5: How many pandemics have occurred over the last 100 years?	38.5% (55)	76.2% (109)*
Q6: What causes a flu pandemic?	42.0% (60)	48.3% (69)
Q7: About how many people could become ill in the United States during a severe pandemic?	19.6% (28)	37.1% (53)*
Q8: About how long would it take to produce a flu vaccine after the virus causing a pandemic is identified?	20.3% (29)	44.1% (63)*

* = significant increase in % correct based on McNemar test

⁴ Assessment information taken from the Evaluation of the Public Engagement Project on Pandemic Influenza Vaccine Prioritization by the University of Nebraska.

IV.B.2. General Reactions to the Guidance

Participants in all meetings were first polled on general reactions to the goals and guidance.

TABLE 7: Percentage of responses to the question, “Do you agree or disagree with the goals for pandemic vaccinations from the earlier public meetings?”

Answer	Milwaukee, WI	Hendersonville, NC	Stakeholders
1 Strongly Agree	21	31	25
2--	16	21	18
3 Agree	32	41	36
4--	11	1	6
5 Disagree	12	5	10
6--	1	0	1
7 Strongly Disagree	7	1	4

*94% in Hendersonville, 82% in Milwaukee and 79% of stakeholders “strongly agree” to “agree” with the goals for pandemic vaccinations from earlier public meetings.

TABLE 8: Percentage of responses to the question, “Do you agree or disagree with the plan to vaccinate children before older adults?”

Answer	Milwaukee, WI	Hendersonville, NC	Stakeholders
1 Strongly Agree	66	64	55
2--	2	9	9
3 Agree	14	18	21
4--	6	4	5
5 Disagree	5	2	6
6--	0	0	1
7 Strongly Disagree	8	2	3

*91% in Hendersonville, 85% of stakeholders, and 82% in Milwaukee “strongly agree” to “agree” to vaccinate children before older adults. These results reflect the communities’ strong sense of family and belief that older adults have “lived their life.”

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TABLE 9: Percentage of responses to the question “Overall, do you agree or disagree with the draft guidance plan for who gets vaccines earlier and who later?”

Answer	Milwaukee, WI	Hendersonville, NC	Stakeholders
1 Strongly Agree	14	21	20
2--	13	14	17
3 Agree	30	44	36
4--	11	9	11
5 Disagree	11	11	9
6--	4	0	1
7 Strongly Disagree	17	1	6

*79% in Hendersonville, 57% in Milwaukee and 73% of Stakeholders “strongly agree” to “agree” with the draft guidance plan for who gets vaccines earlier and who later. Agreement was lower in Milwaukee than any other city. This difference may be due to a fundamental mistrust of government and government planning that seemed to prevail in that community. The caveat that the plan should be implemented with fairness, flexibility, and responsiveness to local conditions was made in both communities. Stakeholders stressed that the plan must be flexible and allow state and local health agencies to tailor the guidance for their communities needs.

IV.B.3. Suggested Changes to the Guidance

Participants in all three meetings offered suggested changes to the guidance. Although specific recommendations may have differed from meeting to meeting, suggestions did correspond to the specific groups prioritized in the guidance. In the following section, polling results are reported as they correspond to the prioritized group. For sake of clarity, percentages were grouped: 1-3 is strongly agree to agree and 5-7 is strongly disagree to disagree. Possible reasons for voting results are also discussed where expressed by participants.

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TABLE 10: Percentage of strongly agree to agree versus strongly disagree to disagree on changes to the placement of the general population. Spaces that are left blank indicate that this question was not asked in that city.

General Population	Milwaukee A/SA- D/SD	Hendersonville A/SA-D/SD	Stakeholders A/SA-D/SD
Move all healthy children to a higher Tier	78%/17%		
Move healthy children to Tier 2		46%/44%	
Move high risk children and contacts of infants to Tier 1		40%/49%	
Prioritize children 3-18 years before infants and toddlers		49%/36%	
Move pregnant women, infants and toddlers to Tier 2		54%/41%	
Prioritize one adult per household in Tier 1	60%/40%		
Prioritize one adult per household in Tier 4			29%/64%
Include parents/guardians of children in Tier 4		55%/38%	
Move high risk adults to Tier 2		27%/71%	
Prioritize healthy adults before the ill and elderly	23%/69%	51%/36%	
Move severely incapacitated, disabled and terminally ill to Tier 5		65%/26%	
Move elderly adults to Tier 5			47%/42%
Move healthy elderly to Tier 5		67%/19%	
Move elderly to a higher Tier	48%/48%		
Include persons in nursing homes in Tier 1	25%/65%		
Target homeless people in Tier 4			33%/ 58%
Target people in communal living settings such as prison in Tier 4			28%/67%
Include prisoners as a target group	15%/81%		
Explicitly include all persons regardless of citizenship status			90%/10%
Include a random selection of the population in Tier 1	19%/ 75%		

Summary of specific suggestions regarding the general population

- Prioritize children 3-18 yrs before infants and toddlers (modification of life-cycle approach)
- Move pregnant women, infants, and toddlers to Tier 2
- Move all children to a higher tier

The theme of moving children to a higher tier was prevalent in both of the communities. Reasons given for such a move include the beliefs that children are valuable, vulnerable, and warrant protection. The reason given in Hendersonville for prioritizing older children before infants and pregnant women was the belief that pregnant women and young children would already be protected because they would be at home.
- Prioritize parent or healthy head of household

Agreement with prioritizing one healthy head of household in Milwaukee may reflect the overarching themes expressed in that community that prioritization should be as fair and inclusive as possible with little opportunity for discrimination and that if schools and daycare centers are closed, one adult must be given the capacity to care for the family. Stakeholders' disagreement with this change may reflect their greater understanding of the limits of vaccine production and the sheer numbers of this group in the general population.
- Prioritize healthy adult before ill or elderly
- Prioritize very elderly (>80 yrs old) and severely incapacitated/terminally ill in Tier 5

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Agreement in Hendersonville with prioritizing younger adults before the elderly was especially significant given that participants represented an older population. Reasons given for this change were that older people had lived their lives and that it was more important to protect younger generations. This may have been due to a deep sense of family in that community and the notion that prioritization should be fair and inclusive.

- Prioritize persons in nursing homes, homeless people, prisoners, and others living in communal settings

In each of the three meetings, there was concern over populations housed together because they may be at increased risk. Participants in Milwaukee and at the stakeholder meeting were concerned about nursing home patients and participants in Hendersonville were concerned about prisoners. None of these changes gained agreement however.

- Explicitly include persons who are not U.S. citizens or permanent residents
There was a strong sense in the stakeholder meeting that vaccination should not be determined by immigration status. Stakeholders’ disagreement with many of the other changes in this category may have reflected their general sentiment that the document was satisfactory and flexible enough to be implemented.

TABLE 11: Percentage of strongly agree to agree versus strongly disagree to disagree on changes to the placement of the critical infrastructure.

Critical Infrastructure	Milwaukee A/SA- D/SD	Hendersonville A/SA-D/SD	Stakeholders A/SA-D/SD
Move food and agriculture, transportation and pharmaceutical to Tier 2	56%/32%	67%/18%	18%/64%
Move essential transportation services to Tier 2			24%/67%
Move utility workers to Tier 1		63%/35%	
Move most essential electricity and water personnel to Tier 1			47%/44%
Prioritize childcare workers	55%/35%		23%/64%
Prioritize childcare workers and teachers in Tier 2		56%/36%	20%/71%
Put educators and teachers in Tier 1	33%/60%		
Prioritize family members of emergency responders and Health Care Workers in Tier 1		41%/55%	

Specific suggestions regarding critical infrastructure

- Prioritize essential food and agriculture in Tier 2
- Prioritize essential transportation in Tier 2
- Prioritize essential pharmaceuticals in Tier 2
- Prioritize essential utility workers (electricity & water) in Tier 1
General agreement on moving food, agriculture, transportation, pharmaceuticals, and utility workers higher in the communities may reflect worries about not having basic supplies and utilities to survive for long periods at home. Although a slight majority of stakeholders appeared to share this concern over water and electricity, they disagreed with any major changes to other services, possibly due to their general satisfaction with the guidance.
- Prioritize childcare workers

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- **Prioritize teachers**
Both agreement and disagreement on the issue of prioritizing teachers and childcare workers may reflect participants' general sense on the importance of caring for children but also their understanding that schools and childcare facilities may be closed during a pandemic.
- **Prioritize family members of HCWs, first responders, and CI in the same tiers**
The proposal of prioritizing the family members of those who care for society may reflect the general theme that essential personnel would not go to work if their family members were not protected that was expressed in Hendersonville. However, this proposal did not gain agreement.

TABLE 12: Percentage of strongly agree to agree versus strongly disagree to disagree on changes to the placement of the healthcare and community support services.

Healthcare and Community Support Services	Milwaukee A/SA- D/SD	Hendersonville A/SA-D/SD	Stakeholders A/SA-D/SD
Include pharmacists as essential HCWs	77%/14%		
Move mortuary and death services personnel to Tier 2			56%/35%
Increase the proportion of nursing home workers in Tier 1			54%/43%

Specific suggestions regarding healthcare and community support services

- **Prioritize pharmacists as essential HCWs**
Agreement in Milwaukee with prioritizing pharmacists may reflect this community's general concern over getting access to medication during a pandemic in light of the perceived discriminatory practices of health care services they currently face.
- **Prioritize mortuary and death services personnel in Tier 2**
Despite stakeholders' general agreement with the document, a majority did agree with prioritizing mortuary and death services in Tier 2 possibly due to the realization that there will be a surge in need for these services during a pandemic.
- **Increase the proportion of nursing home workers in Tier 1**
Stakeholders also agreed with increasing the proportion of health care workers in Tier 1 possibly due to their understanding that more than the proposed 25% of health care workers are involved in direct patient care.

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TABLE 13: Percentage of strongly agree to agree versus strongly disagree to disagree on changes to the placement of homeland, national security and government.

Homeland, National Security and Government	Milwaukee A/SA- D/SD	Hendersonville A/SA-D/SD	Stakeholders A/SA-D/SD
Move politicians to Tier 5	77%/15%		
Move government officials without close contact to a lower Tier		79%/16%	
Move government officials without close contact to their general public group			63%/33%
Move about community leaders to Tier 1	36%/57%		
Move deployed forces to Tier 2	68%/23%		
Move National Guard to Tier 1 and deployed forces to Tier 2		65%/18%	
Don't prioritize non-deployed forces	65%/23%		
Move "other active duty" to Tier 4		48%/40%	

Specific suggestions regarding government, and homeland and national security

- Move politicians/government officials without close contact to their general population group (+3)
Moving politicians without close contact to their general population group was a suggestion that gained strong agreement in all meetings. The general sense was that these individuals were not at increased risk due to their profession and so should be treated like the general population. In Milwaukee, distrust of public officials and the view that status should not lead prioritization was strongly expressed.
- Prioritize National Guard in Tier 1 and deployed forces in Tier 2 (+1)
A general concern over homeland security and maintaining social order was expressed at the Hendersonville meeting.
- Don't prioritize non-deployed and active duty or move them both to Tier 4 (+2)
Slight agreement with this change may reflect the thinking expressed that this would be a fairer system and that it would leave more vaccine for those at a higher risk.

V. Major Concerns Expressed During Round One and Two

A few key concerns also emerged during deliberations. Three were most frequently discussed by participants during both Round One and Round Two meetings.

V.A. Communication

The major concern across both rounds of meetings was the need for open and visible bi-lingual communication and education regarding the nature of the pandemic, preventative measures, other control measures, vaccine prioritization, and decision-making. Participants agreed that any public documents should be clear, complete, and easy to understand. Participants during second round meetings noted that some terms and categories on the informational material they received seemed unclear and vague. They made a number of suggestions for making materials clearer and less open to inaccurate interpretations. These suggestions are contained in the transcribed comment cards found in

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Appendix B. One suggestion made multiple times was to include a detailed breakdown of all the individuals contained in each group on the prioritization table.

Participants also suggested that communication should be persistent and consistent and move through all channels such as media, community leaders, networking, and word-of-mouth. Participants identified communication as the key to getting public support and maintaining a sense of normalcy and social order throughout a pandemic.

V.B. Implementation

The second major area of concern was implementation of a system for vaccine prioritization. This concern emerged as early as the first round of citizen meetings and became especially pronounced during the second-round stakeholder meeting. Specific concerns in this area were: who holds the decision making power, the tension between federal uniformity and local flexibility, having an organized distribution plan that works despite financial disparities, and integrating the vaccination plan into other preexisting planning efforts. The increasing focus on implementation might suggest broad conceptual agreement with the approach of the guidance.

V.C. Populations that are Not a Priority

The third major area of concern was the position of other populations that could potentially impact the pandemic but that are not currently represented as a priority in the list. Although the institutionalized and homeless were of some concern, the main population at issue was low income, migrant, and illegal workers. In fact, a majority of stakeholders agreed that the guidance should explicitly include all people regardless of citizenship status.

VI. Discussion: Challenges and Findings

In this project, more than 400 diverse members of the public, generally without particular knowledge or interest in pandemic influenza, and 150 stakeholders, some with specialized knowledge on this issue, offered their perspectives on the goals and guidance for pandemic vaccination allocation. Although there are a number of challenges and limitations with the project, the results confirm that it produced sound and valid insight on public values and perspectives concerning vaccine prioritization.

One challenge involved delays in implementing the second set of meetings to obtain feedback on the draft guidance. As a result, meetings had to be postponed and citizens and stakeholders had to be recruited quickly. To aid with the effort of rapid recruitment, community networks were used which resulted in the citizen populations not being as representative as the regional population at large. At the same time, evaluation data suggests a fairly diverse mix of participants in terms of age, income, education, and ethnicity. In addition, the networks proved fundamental to the success of the project. The communities were resilient and the meetings came together well. Post-test data from all citizen and stakeholder meetings indicate that participants applauded the process and appreciated the opportunity to provide input on an important public health issue. Citizens described the meetings as “professional” and “well-structured.” They benefited from the process; knowledge increases were significant as a result of deliberations (39.8% pre-test score and 65.5% post-test $p < .05$). Moreover, participants showed an increased trust in the all levels of government to make vaccination decisions on their behalf.

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A second challenge involved the transferability of the results. Participants were not chosen randomly. Since a random sample was not assumed, the findings cannot necessarily be extrapolated to the larger community. The quantitative results should not be over-interpreted. At the same time, however, these participants-- diverse in age, income, ethnicity, education, and parental status--agreed on many fundamental points. There was much similarity between the perspectives offered by the citizens and the stakeholders in both rounds revealing that the communities expressed fundamental American values such as fairness, honesty, order, protecting families and children, maintaining the functioning of society, and caring for those who care for others.

Despite these few challenges, the project produced important results that were an integral part of the pandemic influenza vaccination planning process. Results from Round One meetings confirmed pilot project findings that maintaining the functioning of society now and in the future was a leading priority for vaccination. The results also revealed that the public valued children in their own right. Four goals for vaccine prioritization grounded in these values emerged most important. They were: protecting persons critical to the pandemic response, protecting persons providing essential community services, protecting persons at increased occupational risk, and protecting children.

The priorities identified in Round One influenced the interagency work group as they prepared the guidance. The [Draft Guidance on Allocating and Targeting Pandemic Influenza Vaccine](#) states that “public and stakeholder input have been central to the development of this draft guidance.” As a result, workers performing critical societal and healthcare functions as well as pregnant women and young children 6 months to 3 years were placed in Tier 1. Workers in all other essential services such as water, electricity, community and emergency response, and high-risk children 3 -18 years were placed in Tier 2. Healthy children 3-18 were placed in Tier 3 with workers of services such as transportation, food, agriculture, banking, and pharmaceuticals. All of these groups were placed before high-risk adults. If the workgroup had prepared the guidance according to the 2005 pandemic vaccination goal of decreasing health impacts including severe morbidity and death, high risk adults may have been a higher priority. However, as Round Two results indicate, this current guidance better reflects public values.

A majority of participants in Round Two agreed with 1) the goals prioritized during Round One, 2) the decision to vaccinate children before adults, and 3) the overall prioritization plan outlined in the guidance. Participants expressed strong agreement on these points when asked explicitly. The continued placement of children as a priority is significant especially since almost one-fourth of participants were over 65. Also, participants did not express strong agreement on the majority of proposed changes indicating that overall they were fairly satisfied with the way the guidance balanced various public values. Specifically, many stakeholder participants indicated that they accepted the guidance as is and wanted to discuss issues of implementation rather than substantive changes during break out groups. When later polled, an issue of implementation (recognizing all people regardless of citizenship status), drew the most agreement from them. However, both citizens and stakeholders did express concerns that they felt should be addressed.

Proposed changes that did gain agreement were not grounded in special interest. Instead, they reflected the values of fairness, inclusion, and maintaining a functioning, ordered society. Changes that drew general agreement include: putting healthy adults before the elderly, including food, agriculture,

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transportation, and essential pharmaceuticals in Tier 2, moving politicians/government officials without close contact to their general population group, and moving non-deployed active duty personnel down.

The facts that 1) a majority of participants in all meetings expressed strong agreement with the goals for prioritization and the guidance, 2) many proposed changes to the guidance failed to secure strong agreement, and 3) proposed changes that did secure strong agreement were not grounded in self-interest but in the values of fairness, inclusion, and maintaining the functioning of society reveals that these suggested changes are important expressions of beliefs by a diverse and informed public and therefore are meaningful data to consider in modifying the draft guidance.

VII. Conclusion

The “Public Engagement Project on Pandemic Vaccine Prioritization” was an elegant process to obtain the public’s informed perspectives on pandemic influenza vaccine prioritization. The findings indicate that when informed, citizens can provide input into federal planning that is selfless, meaningful and thoughtful. The findings also indicate that the engagement process builds trust in the government and produces documents that better reflect public values. In turn, the resulting guidance will incorporate both scientific fact and public values and be more complete, acceptable, and fair.

Appendix A

Comment Cards, Round 1 (*note: comments were transcribed verbatim*)

1. Consideration should be given to the racial and ethnic disparities and health care that low income and minority group families have been confronted.
2. Concern of who gets what may be perceived as an experimental vaccine.
3. Might have been helpful to give the definition of critical infrastructure sectors per HSPD-7 and the National Infrastructure Protection plan. NIPP show graph of the 13 sectors and 4 key resource. Many refer to sectors without the National Partnership structure established for their engagement and resources.
4. I don't think that people don't understand that a vaccinated worker is unlikely to spread disease to his/her family. This should be an issue for targeted awareness campaigning.
5. When discussing the 'families' of essential workers, please clarify that you actually mean 'households' (or if not, why not?) unrelated members of same household (very common) are also at risk in this situation.
6. It was made very clear that the goals were not meant to represent specific people and we were to rank them as goals. However, the goal "vaccinate people most likely to get sick or die" would elicit very different responses depending on what groups that represented (elderly vs. pregnant women and kids).
7. My concern is to include persons with severe and persistent mental health conditions as one of the most at risk populations.
8. I think that it is risky to base public policy on a straw poll (the electronic polling). I noted that many stakeholders had already left before the straw poll.
9. Value Protect life and maintain social stability

 Minimize mortality in the population as a whole by
 - 1) Vaccinate those at the highest risk first that are
 - 2) Essential workers in critical infrastructure
 - 3) Protect those at disproportionate risk
 - 4) Protect those who would transmit to vulnerable.

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Value Efficiency and efficacy- use vaccine on those with adequate vaccine response.

Value Fairness

10. Themes not addressed in assumptions:

Implementation

Cost for vaccines- Who is going to pay? How much?

Access- Who is going to distribute and administer the vaccines? Where?

Adverse events- Is the VCP paying for vaccine related injuries? Or who else?

By what mechanism?- Who is going to conduct surveillance for AEO?

11. Regarding electronic voting

You risk prejudicing the response by using term essential services. Better to use term like “persons who work in essential industries.” If a person provides an essential service then that person must be protected.

12.

-Goal orienting process prevent getting more efficiency (defining as protecting more people for less doses) because you don't know yet how many people would be included in each goal (back of the envelope modeling).

-Goals are fine, but how to decide, at county level which group of people will fall into fulfill each goal? Will it be too subjective?

-Local HD want state to give directives from states and states want . . .

-Unlikely at risk and low consequences determine less priority (framework)

-Are principle of prioritization acted upon locally or at what level?

-Goal #5 underpins every other goals

-Children may be transmitters, not only key point in life cycle, and universal affective concern.

-Consequences of not meeting goals are to be considered.

-Children can be protected with other measures, so they may not be allocated scarce vaccine.

-Altered standard of care: public needs education on this. It's the only way to meet surge in demand and w/ decreased workforce. But it does not mean lesser quality of care.

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- Some of the goals may be met with other measures (quarantine, etc) EG: Protecting children, elderly and sick, without using vaccine. Reserve vaccine for people that can't follow social isolation measures.
 - Homeland security is not a priority, as threat many not increase (focus on helping people) while demands on essential services (health care).
 - In considering essential services, more than a minimum number of people might be protected (need turnover).
 - Service registry for (ex nurses/HCV) (avoid double membership) who has authority to mobilize group? Even if have preformed teams is better.
 - Identify in advance of a PA who is in charge or provides directive.
 - Communication between state local federal.
13. Important in public (and to some extent stakeholder) meetings to talk about and look at a different scenario of less severity/different.
14. Perhaps through subsequent public and stakeholder meetings and/or website, it would be good and interesting to also have people rank even broader goals (may help workgroup is some of finer level decisions).
- Save number of lives
 - Save life years
 - Save most at risk
 - Maintain infrastructure /normalcy to extent possible
 - Save with some basic ethical principal values

Appendix B

Comment Cards, Round Two (*note: comments were transcribed verbatim*)

1. Process - How do you get people to do it? - Unbiased person that can vouch for us. - All children at risk - Where to put other people who are doing critical care for others- Are the numbers based on the # of people they can handle in each tier or based on the # of people that fall in each category?
2. Need a sheet that explains - Border protection vs government worker- Government leaders vs. critical government- Military support vs. National Guard. Means different things to different people. People have different ideas of who falls into these groups. Define critical vs. noncritical hands- on vs. hands off. Many feel that police means all police vs. patrol and dispatch.
3. How can we protect our children from getting the Pandemic? What about those of us who are not sick will we get the vaccination to prevent getting it? What about if a person who is sick a person that's not a state and government official? I think sick children should be in the first tier and healthy children should be moved to the second tier. What do you think?
4. How many times can one person have the flu? Need to know more about bird flu. Go to homes, check of children.
5. In an effort to educate community members about pandemic flu, measures to decrease spread of infection, and the guidelines for vaccine prioritization: 1) make packets for people attending this meeting that they can take to their community so that they can educate others. Include simple graphs and talking points, 2) create service projects that help promote pan flu education for high schoolers, church groups, etc. Use the "what's your tier?" slogan.
6. Even if you close down schools how is that going to change the problem? That really not going to change b/c friend will still hang out and go to places so really the people who don't have friend are the only one that is safe. Other wise the problem is not going to change. Closing down school is not going to change the problem!
7. What about the parents? If we vaccinate children first then how can we protect the parents so they will be healthy to care for their children? Possible solution" Move parents from the healthy adults group up to tier three.
8. How can we find hidden people (like the undocumented). We need a lot of education to be prepared for pandemic. Communication is going to be crucial for implementation. We want to participate in communication/ education/ implementation since we already know about it.
9. How best can we educate the general population about the vaccine plan? Because . . . lack of understanding= perception of unfairness or uneven distribution- social chaos.

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10. Non-citizens are here. They must fit into spheres with rest of people. An I.D. necessary? Ignore them?
11. Who, when is it decided that it is a severe, moderate, or less situation?
12. Where are the homeless on the tier, and how do you reach them with vaccine?
13. What, where are the school workers and day care workers? Should they be more with higher priority. Please clarify where they are in the tier.
14. Will antiviral for pandemic strain be given to family members of a person who gets sick from the flu for use as prophylaxis like Tamiflu is used now for Flu prophylaxis?
15. Need for public prioritization of giving flu vaccine made known before incident so it can be made without emotion.
16. Increase the campaigns for disease control and target all ages and groups.
17. Facility prep to administer shots. Rural medical center may need some up grades to stay open- example. Saluda Medical Center needs a generator to stay open if the power goes out. Cost- \$25,000. Public education is #1.
18. To help prevent panic: Today's attendees leave than as missionaries for awareness of flu dangers and preventative measures. To school kids service clubs regular columns preparedness of "common good."
19. Como identificar. Como comunicar. Diferencias en milticoion detanes. Chart confuses- should know where they fall. Mass communication. Would like to be a part of implementation.
20. What is the CDC expectation for LPHAs to monitor and/or enforce vaccine prioritization guidelines after vaccine delivery to a community?
21. Vaccine Prioritization Guidelines must consider capacity and capability of LPHAs to implement given the tremendous liability and pressure that LPHAs will face during pandemic from the public.
22. Ben Schwartz repeatedly refers to the fact that implementation issues need to be addressed subsequently to issuance of the guidance but localities and states currently have been asked to have an operational plan and have been graded and compared to each other.
23. The prioritization workgroup need to find out and understand how their guidance is being used by Federal Agencies to create mandates that make the strategy impossible to implement.
24. What are the policies being considered that will enforce adherence to this plan? For example, what sort of planning is CDR Dawley engaged in at Homeland Security?
25. This question relates to tiers, prioritization, and the two doses. Do you not move to the next tier once everyone in a higher tier has both doses? If there is limited vaccine in a tier, is there guidance on giving someone their 2nd dose on time before giving first dose to other individuals?

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26. What is included in “mission critical?” Would tier 1 include National Guardsmen who are deployed to help with the pandemic? Groups (such as transportation workers) who deliver anti-virals? [This may be a state-level decision, but the Feds can provide guidance]
27. HHS and CDC you should mandate public engagement a little more. Keep guidance flexible for vaccine prioritization.
28. Communicate- It’s tough
29. Is there consideration of matching tiers with expected vaccine availability?
30. Was there any American Indian/ Alaska Native population or government participation in the community meetings?
31. Prioritizing persons with high risk conditions. Are persons with conditions/ disease requiring immuno-suppression included w/in high risk target groups? Seasonal vaccine is not recommended for these persons because it is not likely to be effective. Instead, seasonal guidelines recommend vaccinating their household contacts. How are you going to protect these people during a pandemic?
32. What is the federal process for making changes to the guidance during a pandemic? (For example, if changes need to be made based on the burden of illness- V versus. W shaped mortality. How will these changes then be communicated to state, local HDS and the general public?
33. Do you include pharmacists in your grouping of “outpatient and home health care providers?” I ask this question since vaccinating pharmacists (those that give vaccine) could be integral in providing vaccine and dispensing meds.
34. Who decides the definition of home health care workers- homecare will become a very important segment as the hospitals fill up. Homecare workers deliver the supplies such as oxygen to more than 1 mil. Medicare patients and provide other services will there be included in “home health segment.”
35. Are there reasons that a state might get a supply of vaccines that is greater than the population recorded in the census, e.g. , larger numbers of undocumented workers, seasonal visitors, large numbers of military family members who expect to receive vaccine from state they reside in. Have large healthcare facilities located in border towns/ cities and treat many patients from other states?
36. Stratification by PSI: 1) What criteria were used to change a group from one tier to another?, 2) Stratification didn’t really change the tiers much; Why do it?

Appendix C

Prioritization of Pandemic Influenza Vaccination

Evaluation of an Online Dialogue

March 2008

Prepared for:
National Association of County & City Health Officials

In Cooperation with:
Centers for Disease Control and Prevention

Prepared by:
WestEd
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EXECUTIVE SUMMARY

From December 4 to 6, 2007, people from all over the country gathered online to learn about and discuss vaccination priorities for pandemic influenza in the Vaccination Prioritization for Pandemic Influenza Web Dialogue. The focus of this web-based dialogue was the *Draft Guidance on Allocating and Targeting Pandemic Influenza* produced by a Federal interagency group led by the Department of Health and Human Services (HHS) and the Department of Homeland Security. The draft guidance describes how influenza vaccine should be prioritized to ensure the functioning of society during an influenza pandemic.

As a part of drafting and finalizing the vaccination prioritization guidance, HHS sought input from all interested parties through in-person public meetings, meetings with key stakeholders, a *Federal Register* request for comments, and—through the Centers for Disease Control (CDC)—this web-based public dialogue. The dialogue sought to obtain public input on the guidance from a larger segment of the public than might be engaged through in-person meetings. Sponsors were also interested in investigating whether this type of public engagement was useful for informing health policy decisions generally. This report describes the major themes shared by participants in the dialogue and evaluates it as an approach for engaging the public in an important policy issue.

Description of the Draft Guidance

The draft guidance identifies five tiers of vaccination priority, with Tier 1 as the highest priority and Tier 5 as the lowest priority. In the event of a pandemic influenza outbreak, available vaccines will be distributed to those in Tier 1 first. The guidance then groups all persons into one of four categories: 1) Homeland and National Security, 2) Health Care and Community Support Services, 3) Critical Infrastructure, and 4) General Population. Subgroups of people in each of the categories are placed into each of the five Tiers according to their profession, age, and/or health status. This placement is then adjusted for the severity of the pandemic. For example, in a severe pandemic:

- › Tier 1 includes (among others) deployed and mission critical military personnel, public health and Emergency Medical Service personnel, and pregnant women.
- › Tier 2 includes essential military support personnel, community support and emergency management personnel, energy sector personnel, and children aged 3–18 years with high risk medical conditions.
- › Tier 3 includes active duty military and health care personnel not already in Tiers 1 or 2, transportation sector personnel, and children 3–18 years old without high risk medical conditions.
- › Tier 4 includes people 19–64 years old with high risk medical conditions and those over 65 years old.
- › Tier 5 includes healthy adults 19–64 years old.

The guidance describes the rationale for its prioritization approach and estimates the number of people that would be vaccinated in each tier.

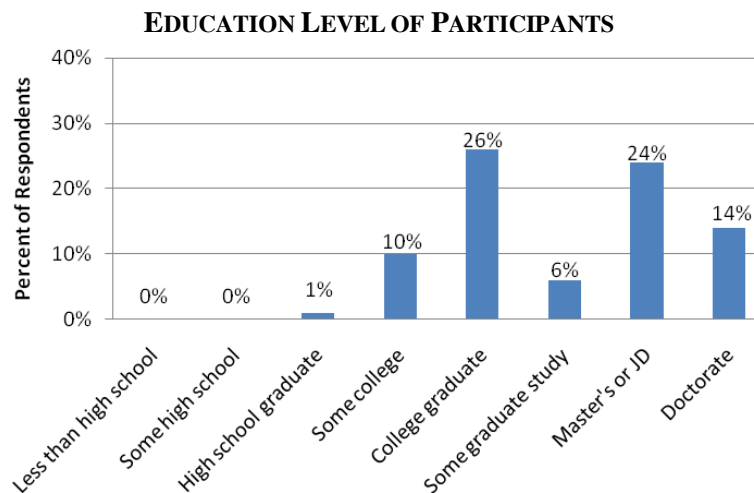
Description of the Dialogue

The dialogue was developed and produced by WestEd’s WebDialogues and facilitated by Jones & Stokes and the Keystone Center. Participants went through a process of learning about the issue, then deliberating aspects of the policy and finally answering opinion questions about potential changes to the Draft Guidance.

Each day of the dialogue focused on a different topic:

- **Day 1: What is Pandemic Influenza? How Will the Vaccine be Used?** During this day of the dialogue, participants discussed the nature of pandemic influenza and how it differs from seasonal influenza, the possible impacts, and the ways that vaccine can be used to respond to it.
- **Day 2: Priorities for the Draft Guidance.** During this part of the dialogue, participants discussed the priorities for distributing vaccine that were proposed in the draft guidance, and how this prioritization may change depending upon the severity of the strain of pandemic influenza and other factors.
- **Day 3: Reflections on Personal Impacts, Emerging Issues.** This day of the dialogue provided an opportunity for participants to discuss implementation issues, such as how the guidance would affect them personally and what could be done before vaccine was available. Participants also took a poll on Day 3 to measure their level of agreement or disagreement with possible changes to the draft guidance’s approach for allocating vaccine.

By the start of the dialogue, 423 people had registered and 348 subsequently logged in to participate. During the dialogue, both registered and non-registered individuals could review resources and read messages. Only participants that had registered and were logged in could respond to all messages and could create new messages. One hundred and nine people chose to write messages, contributing 1,275 messages in all. Eleven subject matter experts served as panelists and were on hand to interact with participants. Facilitators posed questions and helped keep discussions on topic.



Participants in the dialogue came from all around the United States, with a small number coming from other countries, including the United Kingdom and Canada. Demographic data submitted by the participants showed that, overall, participants had high levels of education, were more likely to be white and female than the general population and had a great deal of experience and knowledge about pandemic influenza.

- › 40% of participants responded that they lived in an urban area; 25% lived in a suburban area, 18% lived in a small town, and 11% lived in a rural area.
- › 60% of participants were between the ages of 35 and 54; only 3% of participants were 65 years or older.

- › 80% of participants held at least a college degree, with 48% of all participants holding a master’s degree or higher, as shown in the figure above.
- › 66% of participants were female.
- › 79% of participants were non-Hispanic white. 4% identified themselves as African American, and 4% identified themselves as Latino or Hispanic. Other respondents were Asian or Pacific Islander, Native America or multi-racial.
- › 39% of participants were parents or guardians of children 18 years or younger.
- › Participants came from a variety of professions and backgrounds. 38% of participants identified themselves as public health professionals or practitioners, 17% were government employees, and 10% identified themselves as health care providers. Others worked as educators, in the business or corporate sector or were students. 61% of participants said they were professionally involved in pandemic influenza planning and issues and another 14% said they were knowledgeable about the issues, though not professionally involved.

Overview of Discussions

Much of the discussion over the three days focused on a few key themes. (The full discussion and daily and final summaries are available on the Vaccination Prioritization for Pandemic Influenza dialogue website: <http://www.webdialogues.net/panflu/engage>.) These themes were:

- › Whether or not assumptions in the draft guidance that place pandemic influenza’s Case Fatality Rate (CFR) at 2% and Attack Rate (AR) at 30% are appropriate, particularly in light of a much higher CFR for recent cases of H5N1 avian flu.
- › The need for truthful, accurate, and consistent communication about pandemic influenza from many sources that will educate the public, promote self-reliance and personal responsibility, minimize alarmism, and build trust in government.
- › Whether or not family members of critical front line responders to pandemic influenza—such as emergency responders and medical personnel—should be vaccinated early to help ensure that those on the front line felt comfortable leaving their families and fulfilling their professional roles.
- › Whether or not to increase the importance of age as a criterion for prioritization, in particular raising the vaccination priority of 20-40 year olds, who were most vulnerable in the 1918 pandemic and are critical to the current workforce.
- › How to prepare for the “pre-vaccine” period during the initial months of a pandemic before an adequate vaccine supply is available, particularly for those who are unable to use preventive methods, such as social distancing, or lack access to antiviral medications or personal protective equipment.
- › How to adequately prepare for a pandemic, including what kind of preparations should be undertaken, how long a period of isolation people should prepare for, and the need for credible and consistent message from government.
- › A number of suggestions (not all broadly supported) to change the draft guidance’s prioritization approach for each of the four main groups, such as:
 - Homeland and National Security Group: Moving non-deployed military personnel and domestic national security personnel higher in the ranking and clarifying who in the military has the highest vaccination status.

- Critical Infrastructure Group: Moving those involved in maintaining the electricity grid, community pharmacists, postal and shipping sector personnel, and financial sector personnel higher in the ranking,
- Health Care & Community Support Services Group: Increasing the priority of transportation workers, non-clinical hospital staff, and funerary workers.
- General Population Group: Re-evaluating where infants, young children, families, and non-residents are prioritized.

Dialogue Polling Results

Some of the main discussion themes that had to do with vaccine prioritization were incorporated into a poll given on the final day of the dialogue. Participants were asked to rate their level of agreement with 20 statements, most concerning how various groups should be prioritized based on their ages, professions, and family relationships.

Participants agreed most strongly with the ideas that:

- › Government officials that do not have close contact with the public should not have a privileged position in the tiers, but should be prioritized based on their age and health status as part of the general population.
- › Children should be vaccinated before older adults as currently described in the guidance.

Participants disagreed most strongly with the idea that babies under six months should be prioritized in Tier 1. These infants are not prioritized in the current guidance because they do not respond well to influenza vaccine and the vaccine is not licensed for this age group. Household contacts of these young infants are currently prioritized in Tier 2.

Other poll results suggested broad and weakly positive agreement (i.e. an average response in the “slightly agree” category) with:

- › The prioritization structure as it currently appears in the plan;
- › Moving healthy younger adults ahead of older adults;
- › Moving school aged children 3-18 years old ahead of children 6 months to 3 years old; and
- › Moving transportation, food, and pharmaceutical personnel; community pharmacists; National Guard members; and child care workers higher in the prioritization.

Different groups participating in the dialogue had clearly differing views on some issues. Key differences included:

- › Younger participants were generally more in favor of moving younger people higher in the prioritization than were older participants.
- › Those on the front line of vaccine response were more likely to favor moving families of front line workers up in the prioritization.
- › People professionally involved in pandemic influenza were more satisfied by the prioritization in the current guidance than those not professionally involved, and they were less interested in moving groups around among the tiers.
- › Those who said they participated frequently in social media web sites on pandemic influenza were more critical of the current guidance and more interested in changing the ranking to

emphasize maintaining security, protecting critical infrastructure, and focusing on the health of current and future working age adults rather than the very young or the elderly.

Evaluation

By including an online dialogue in the public participation process for developing the draft vaccination guidance, CDC sought to:

- › Sponsor a fair and effective process that encourages learning and discussion;
- › Hear from a demographically diverse group with a broad range of perspectives;
- › Hear from people who would not have the opportunity to participate in in-person meetings or who were not likely to comment on the guidance independently, particularly interested citizens who were not part of communities that frequently make their views known to CDC (e.g., health care, public health, organized pandemic influenza communities of interest);
- › Provide the same opportunities as the in-person meetings to learn about and consider pandemic influenza vaccination issues; and
- › Provide the same opportunities as the in-person meetings for the sponsors to discover the opinions of the participants.

Sponsors were interested in the extent to which the dialogue, by meeting these goals, was a model that could be used for public engagement on other policy issues. To help understand whether the dialogue met these goals, participants were asked a number of questions about their experience in the dialogue through a post-dialogue evaluation form.

Regarding the fairness and effectiveness of the process:

- › Respondents were generally positive about their experiences in the dialogue, and many felt that online dialogues should be used for future policy topics.
- › Most respondents said they would be more active in policymaking if online dialogues were used more often, and would look favorably upon policymakers who used the format to solicit public comment.
- › Overall, respondents were generally positive regarding the quality and fairness of the dialogue, and most felt comfortable sharing their views with other participants.
- › Respondents felt that the dialogue had produced credible and useful information.
- › Many respondents felt that the dialogue had been dominated by a small group of people.
- › Just under half of the respondents believed that policymakers would use the input from the dialogue when revising the final guidance.

Regarding who participated in the process:

- › Fewer people participated in the dialogue than expected.
- › Participants were not as demographically diverse as sponsors had hoped; they were more highly educated than the general population, and were more likely to be white and female.
- › Most of the participants were professionally involved in pandemic influenza planning or policy, and many others had a great deal of knowledge, though were not professionally involved; sponsors had hoped to attract more people that had less direct involvement in, and knowledge about, pandemic influenza.

- › Although respondents were positive about the overall participant interaction and level of knowledge, some also said they felt that the dialogue did not reach the general public.
- › A number of factors influenced how many people (and what type of people) participated, but the most important was likely the approach to outreach, which did not include communications strategies targeted to reach the general public.

Regarding the extent to which people learned about pandemic influenza and re-evaluated their own opinions regarding vaccine prioritization:

- › There was some modest improvement in knowledge about pandemic influenza as measured by pre-dialogue and post-dialogue questions about the disease.
- › Opinions about the vaccination priorities were generally stable, with only moderate changes in participants' opinions from the beginning of the dialogue to the end.
- › Most respondents to the post-dialogue evaluation form felt that the dialogue had helped them consider the trade-offs involved in setting priorities for pandemic influenza vaccinations.
- › Most respondents agreed that they had learned a great deal about the draft guidance.
- › Many participants agreed that they had learned a great deal about the causes and consequences of pandemic influenza.

Lessons Learned

Over the course of the dialogue, the dialogue team developed insights into the dialogue process that could be useful for future online policy dialogues. A sampling of these lessons includes:

- › Outreach should be tailored to the target audience, and early strategic marketing is necessary to reach people who have not traditionally been engaged on these topics.
- › The amount of activity in the dialogue depends less on the number of participants than on their enthusiasm for posting messages.
- › Because of the uncertainty about how many messages each individual is going to contribute, the facilitation team needs to have the flexibility to dedicate itself full-time to the project and to work an extended day.
- › Future dialogues may benefit from moderating comments, though this could result in a significantly slower dialogue and considerably more staff time. An alternative might be to limit the number of messages each individual could submit each day, or to have panelists take a more active role in responding to off-topic comments.
- › When addressing a broad, more general audience, using methods to make participation more approachable could help gather feedback and discussion from those who may be intimidated by the activity and knowledge level of the dialogue.
- › Organizers must expect participants to bring their own interests and agendas, which may not coincide with the formal dialogue agenda.
- › High quality panelists are an important component of the discussions.
- › It is useful to provide explicit, limited opportunities for participants to set the agenda. (The third day's agenda of the dialogue was left incomplete to permit organizers to add items that appeared to be of great interest to the participants.)
- › Avoid asking participants to do too much.

Conclusions

The Vaccination Prioritization for Pandemic Influenza Web Dialogue provided insights about

- › The nation's response to a pandemic influenza outbreak, and
- › Web dialogues as a method of public engagement.

The dialogue generated a number of ideas to consider for adjusting the prioritization of vaccine distribution. Many of these ideas were debated in the dialogue itself, and support differed among groups in the poll. The Federal interagency group will have to consider these differing viewpoints as it revises the draft guidance. Participants also suggested a number of considerations about preparing for, and responding to, pandemic influenza that go beyond the scope of the guidance. Some of these concerned the vital importance of honest and credible communication from government. Others concerned the best way for individuals to prepare themselves. This information can be useful for informing the overall plans for influenza pandemic preparation.

Regarding the dialogue format itself, participants were generally satisfied with the process and the information it generated. Sponsors would have liked to have more participants that were more demographically representative of the United States and less directly involved in pandemic influenza issues. Some participants questioned the amount of influence that the dialogue would have, but at least as many were confident that it would have some influence. Many were eager to see more of the same type of public engagement processes on other policy issues, and that they would look favorably on policymakers that used the process for feedback on policy development and changes.

1. INTRODUCTION

Dialogue Overview

From December 4 to 6, 2007, over 420 people gathered online to learn about and discuss vaccination priorities for pandemic influenza. Experts say that a deadly worldwide outbreak of influenza is inevitable, though when such an outbreak will occur is unknown. Planning for a pandemic response and preparedness activities are underway at all levels of government and by organizations and families in the private sector. The United States Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) are leading national efforts to increase the timeliness and amount of pandemic influenza vaccine that will be available and to plan for how it will be administered according to predetermined priorities.

The focus of the Vaccination Prioritization for Pandemic Influenza Web Dialogue was the *Draft Guidance on Allocating and Targeting Pandemic Influenza* ('draft guidance'), released on October 17, 2007 by a Federal interagency group led by HHS and the Department of Homeland Security.¹ The guidance describes a plan for allocating scarce vaccines in the event of a pandemic influenza outbreak. The dialogue sought to obtain public input on the objectives for the vaccination program that underlie the guidance. It was also an opportunity to hear specific recommendations for the guidance. Information provided from people participating in the dialogue—along with information from related in-person meetings and written comments—will be considered as the draft guidance is revised.

Participants in the dialogue came from a variety of sectors, including business, education, government, public health, first responder professions, health care, media, and research. Some also registered as interested individuals. Participants hailed from 44 states, the District of Columbia, Guam, Puerto Rico, Canada, Nigeria, and the United Kingdom. Over the course of the three day dialogue, participants posted 1,275 messages to discuss:

- › What is pandemic influenza and how will influenza vaccine be used?
- › The priorities in the draft guidance; and
- › Reflections on personal impacts and emerging issues.

The National Association of County and City Health Officials (NACCHO) and the Association of State and Territorial Health Officials (ASTHO) co-hosted the dialogue, which was developed and produced by WestEd. It was conducted in cooperation with CDC and HHS. The dialogue was facilitated by Nicholas Dewar, Senior Facilitator at Jones & Stokes. He was accompanied as facilitator for part of the time by Don Greenstein, Senior Mediator/Senior Associate, the Keystone Center for Science and Public Policy. Ross & Associates Environmental Consulting, Ltd. assisted with the dialogue evaluation. Participants in the web dialogue discussed this critical health issue with state and local public health officials and pandemic planners from HHS, the Department of Homeland Security, and the Department of Veterans Affairs who served as panelists.

¹ (<http://www.webdialogues.net/cs/panflu-engage-library/view/dcat/185>).

Purpose and Structure of Report

The purpose of this report is twofold. First is to describe the major themes shared by participants about the draft guidance and response to a pandemic influenza outbreak generally. Second is to evaluate the dialogue as an approach for engaging the public in an important public policy issue. The report draws on three different aspects of the dialogue:

- › The messages posted to the dialogue website as well as information about the dynamics of messaging and reading;
- › A poll completed on the last day of the dialogue in which participants indicated their agreement or disagreement with statements about vaccine priorities proposed by participants during the web dialogue and at prior public engagement meetings; and
- › Forms filled out by participants at the beginning and end of the dialogue asking about their knowledge and opinions about pandemic influenza and their views on the dialogue itself.

This report brings these three different sources of insight together and seeks to synthesize and distill the major themes and lessons from the event.

Section 2 describes the background for the dialogue, including a short summary of the CDC guidance on vaccination priorities for pandemic influenza. It also describes how the web dialogue fit into the overall approach for obtaining public input on the guidance.

Section 3 describes the web dialogue itself. It includes information on the dialogue process as well as the agenda and the approach to facilitating and reaching out to potential participants. The section also describes the demographics and other characteristics of participants. Finally, it describes the dynamics of the discussion, including the patterns of posting and reading messages.

Section 4 provides a thematic overview of the discussions in the dialogue. It draws from daily summaries that were issued for each of the days of discussion and distills key messages and points of discussion.

Section 5 describes the results of the poll conducted on the last day of the dialogue. In addition to reporting overall poll results, the discussion makes some preliminary comparisons of the preferences held by different groups participating in the dialogue.

Section 6 focuses on evaluating the dialogue as an approach to public involvement. It focuses on the extent to which the dialogue met CDC's intent to:

- › Sponsor a fair and effective process that encourages learning and discussion;
- › Hear from a demographically diverse group from a broad range of perspectives;
- › Hear from people who would not have the opportunity to participate in in-person meetings or who were not likely to comment on the guidance independently, particularly interested citizens that were not part of communities that frequently make their views known to CDC (e.g., health care, public health, organized pandemic influenza communities of interest);
- › Provide the same opportunities as the in-person meetings to learn about and consider pandemic influenza vaccination issues; and
- › Provide the same opportunities as the in-person meetings for the sponsors to discover the opinions of the participants.

Section 7 summarizes the conclusions about the dialogue. Appendices provide detailed information on demographics, poll results, the responses to evaluation questions, and qualitative insights from participants related to implementing the draft guidance.

2. BACKGROUND

Draft Guidance on Allocating and Targeting Pandemic Influenza

A Federal Interagency group, led by the Department of Health and Human Services (HHS) and the Department of Homeland Security developed the draft guidance discussed during the dialogue. The guidance described how vaccine should be prioritized to ensure the functioning of society during an influenza pandemic. Because the nature and impact of a pandemic influenza outbreak is expected to be different from normal seasonal influenza outbreaks, it is necessary to have a specific plan in place for managing pandemic influenza vaccine.

Unlike seasonal influenza outbreaks, few people in society will have immunity to a pandemic strain of influenza virus, and the infection and death rates will likely be higher and span more groups in society. With pandemics that cause greater severity of illness and higher death rates, there will likely be a heavier burden on health care systems, and a strain on critical infrastructure sectors. With higher infection rates, there may also be a threat to national security if large numbers of military personnel fall ill.

The draft guidance is intended to help communities provide vaccines and care in a consistent and timely manner in the event of a pandemic influenza outbreak. However, the guidance is also intended to be flexible, to make allowance for the many variables inherent in such an outbreak, including the status of vaccine technology, susceptible groups to a particular strain of influenza virus, and the severity of the virus itself.

The draft guidance identifies five tiers of vaccination priority, with Tier 1 as the highest priority and Tier 5 as the lowest priority. In the event of a pandemic influenza outbreak, vaccines will be distributed to those in Tier 1 first. The guidance then groups all persons into one of four categories: 1) Homeland and National Security, 2) Health Care and Community Support Services, 3) Critical Infrastructure, and 4) General Population. Subgroups of people in each of the categories are placed into each of the five Tiers according to their profession, age, and/or health status. This placement is then adjusted for the severity of the pandemic. For example, in a severe pandemic:

- › Tier 1 includes (among others) deployed and mission critical military personnel, public health and Emergency Medical Service personnel, and pregnant women.
- › Tier 2 includes essential military support personnel, community support and emergency management personnel, energy sector personnel, and children aged 3 to 18 years with high risk medical conditions.
- › Tier 3 includes active duty military and health care personnel not already in Tiers 1 or 2, transportation sector personnel, and children 3 to 18 years old without high risk medical conditions.
- › Tier 4 includes people 19 to 64 years old with high risk medical conditions and those over 65 years old.
- › Tier 5 includes healthy adults 19 to 64 years old.

The guidance describes the rationale for its prioritization approach and estimates the number of people that would be vaccinated in each tier.

Overall Stakeholder Approach and Process

As a part of drafting and finalizing the vaccination prioritization guidance, the interagency group sought input from all interested parties in a variety of ways: through in-person public meetings, through meetings with key stakeholders, with a *Federal Register* request for comments, and through a web-based public dialogue, which is described in this report. With this public engagement process, project organizers hoped to gather useful and valuable citizen input that could augment comments received from expert groups, and integrate citizen input into the final recommendations.

The web dialogue sought to expand public input on the government's pandemic influenza vaccination goals beyond those who could participate at the in-person meetings. It attempted to facilitate involvement and input from citizens who do not live near one of the four public meeting sites, and to engage a larger segment of the public. Sponsors were also interested in the extent to which the dialogue was a model that could be used for public engagement on other policy issues.

3. DESCRIPTION OF THE DIALOGUE

The dialogue was an online event developed and produced by the WebDialogues team at WestEd. It was active for three days, and allowed registered participants the opportunity to read and respond to discussions and post new discussion topics. Participants were encouraged to learn about pandemic influenza by reading materials posted in an online document library, and to submit other materials for possible inclusion in the library. The dialogue materials and messages remained available on the Internet after the close of the dialogue for participants and other interested parties to review discussions, daily summaries, and background materials. The website will be available as an informative archive long after the dialogue has concluded.

Dialogue Structure and Website Elements

The Vaccination Prioritization for Pandemic Influenza dialogue website provided the elements described below.

Home page. The home page identified the dialogue hosts and the purpose and goals of the dialogue. While the dialogue was in progress, it provided information about informed consent, links to a registration form, and the means to log in. A “Tell a Friend” link allowed registered individuals to share information about the dialogue with others.

Agenda. The dialogue agenda focused on a different topic each day. Each topic was described in a background brief and included multiple related “focus point” discussions. Focus points framed and introduced questions for the day and described a desired outcome for the discussions. Each topic included links to information about those who would help guide the discussion for the day (i.e., the facilitators and panelists, whose roles are described below) and recommended library resources. Summaries for each day were linked to the agenda as they became available.

Discussion. Each day a number of focus point discussions were introduced. Each discussion was held in a separate area of the website. Messages could be viewed in either a threaded outline or full text view. Icons for unique roles in the dialogue (host, panelist, facilitator, and summarizer) were linked to names in the discussions. Although a new topic and related focus points were introduced each day, discussions remained open until the dialogue’s conclusion.

Panelists. Eleven subject matter experts contributed information about pandemic influenza and the draft guidance as part of the dialogue’s discussions. Panelists were featured with pictures and brief biographies and were highlighted with a distinctive icon in the discussion. Many of these panelists stayed active in the discussions over the entire dialogue.

Participant information was available on the website for registered individuals. Demographic totals provided an overview of the participants as a group. Individuals were listed by first and last name, role in the dialogue, and their city or town and state. A map posted the first day of the dialogue illustrated the locations of participants (see Appendix F). Individual names linked to a pop-up window carrying additional information, including (when available) their title, organization, type of home location,

personal statement, and titles of the messages submitted to the discussions. A “Contact Me” link allowed other participants to initiate private communication.

Library. The library contained information about the draft guidance and pandemic influenza as well as background on the related public engagement efforts. The final wrap-up summary and poll results were a part of the library.

Manager options. Individuals with manager permissions could add and modify dialogue content. They could see who was logged in at any time, view the number of people having viewed and/or agreed with specific messages, flag messages needing panelist attention, edit or delete messages if necessary, and assign messages to categories. For example, message categories captured participants’ suggested changes to the draft guidance.

Other features included:

- › **Guidelines**, which provided detailed information on the dialogue structure, ground rules, and participant roles.
- › **Search**, which enabled participants to search dialogue messages, library resources, and participants.

Dialogue Discussion Process

Following is an overview of the elements of the dialogue discussion process.

Registration. Registration for the dialogue began about fifteen days before the start date of the dialogue, and was open to any member of the public. The registration process authenticated email addresses, created a unique login and password, and collected basic information about participants including name, email address, city and state. Other information, such as organizational affiliation and demographic information and a personal statement, was optional. Individuals were also asked information regarding their knowledge of pandemic influenza and opinions on goals for creating a vaccination prioritization strategy. Although the dialogue was publicly available, participants were required to register and log in to contribute messages and complete the poll and evaluation form.

Pre-dialogue communication. On the day before the dialogue, participants received an email containing the website URL and a reminder about the start date. The email asked them to review the agenda and library resources and to familiarize themselves with the panelists and participants.

Dialogue launch. The dialogue topic and all the discussions for the day were introduced each morning at 10:00 AM EST. At this time, registered individuals received an email containing the day’s agenda, a list of panelists, and the website URL.

Participation. Individuals were invited to prepare for the dialogue by reviewing background resources and to participate actively on all three days by reading and posting messages. They were able to take part in a variety of ways. Although the website and all content was publicly available, registrants were required to log in to contribute messages, share a resource, indicate agreement using the “I Agree” feature

linked to each message, and complete the poll and evaluation on the final day. Participants could either post a new message or respond to an existing message.

Facilitator. The facilitator encouraged everyone to join the conversation and consider key aspects of the topic. He served to ensure that the conversation focused on the desired outcomes and, when necessary, called for clarification of information or viewpoints. He also reminded participants about different days or focus points into which some messages should be redirected and about the discussion ground rules. Discussions were actively facilitated until approximately 9:00 PM EST each day. Even without facilitation, participants continued to contribute messages throughout the evening.

Monitors. Staff monitored the discussions to identify messages needing facilitator or panelist attention. Messages needing panelist attention carried a “response needed” flag that was visible to staff and panelists only. As soon as a panelist replied to the comment, the flag disappeared. Monitors, facilitators, and panelists categorized messages that suggested changes to the draft guidance or prompted questions for potential inclusion in the poll held on the final day of the dialogue.

Summaries. Short daily summaries captured discussion highlights entered before 12:00 AM EST. Each morning, before the new topic and discussions were introduced, the summary from the previous day was linked to the agenda and emailed to participants. After the dialogue's conclusion, each summary was updated to incorporate points entered after the daily cutoff time, and summaries for all three days were incorporated into one document, placed in the library, linked to the home page, and emailed to participants.

Poll. On the final morning, participants were asked to complete a poll to provide feedback on proposed changes to the draft guidance. Polling questions were drawn from issues raised by participants in the dialogue and in previous in-person engagements. The poll was linked to the website, and a reminder was emailed to registrants. Only registered dialogue participants could complete the poll. Twice during the third day, reminder emails were sent to non-completers.

Evaluation. On the final afternoon, participants were asked to complete a dialogue evaluation form that asked questions about their experiences in and feelings about the dialogue, as well as the same pandemic influenza knowledge questions that had been asked at the beginning of the dialogue. The form consisted of 25 multiple-choice questions, as well as five chances to submit written comments. Individuals were sent periodic reminders over the following ten days to complete the evaluation form.

Scaling strategy. A two-tiered participation strategy was prepared in case a very large number of individuals (greater than 1,500) registered for the dialogue. The registration form asked whether individuals wanted to be discussants or observers and requested key demographics (location, ethnicity, and age) that could be used for sampling to select a subgroup of discussants. Both discussants and observers would review the daily agendas and recommended library resources, follow the discussions, read the daily discussion summaries, and complete the poll and evaluation. Discussants would share their views directly with participants by posting messages in the discussions. Observers could suggest “fresh perspectives” that discussants had not yet raised. These fresh perspectives would be reviewed by the WebDialogues team, and the facilitator would introduce noteworthy themes into the discussion. Both discussants and observers could indicate their agreement (or withdraw agreement) with comments

submitted by discussants. Ultimately, this scaling strategy was not used, due to the number of participants; any registered participant could post and respond to discussion points.

Agenda

To keep the dialogue focused on topics relevant to pandemic influenza and the draft guidance document, organizers developed an agenda of daily topics:

Day 1: What is Pandemic Influenza? How Will the Vaccine be Used? During this day of the dialogue, participants discussed the nature of pandemic influenza, how it differs from seasonal influenza, the possible impacts of pandemic influenza on a place, and the ways that vaccine can be used to respond to pandemic influenza. Participants were also encouraged to discuss the strategy for prioritizing use of vaccine that is outlined in the draft guidance. Focus points were:

- › What is pandemic influenza?
- › How will vaccine be used against pandemic influenza?
- › Pandemic scenarios: what would be the story of pandemic influenza in “Ourtown”?
- › The strategy of the Draft Guidance

Day 2: Priorities for the Draft Guidance. During this part of the dialogue, participants discussed the prioritization proposed within each major population grouping in the draft guidance, and how this prioritization may change depending upon the severity of the strain of pandemic influenza and other factors. Focus points were:

- › Prioritization in the Homeland and National Security (HNS) Group
- › Prioritization in the Critical Infrastructure (CI) Group
- › Prioritization in the Health Care and Community Support Services (HC/CSS) Group
- › Prioritization in the General Population (GP) Group
- › Changes in prioritization depending on influenza pandemic severity

Day 3: Reflections on Personal Impacts, Emerging Issues. This day of the dialogue provided an opportunity for participants to discuss with public health officials other issues that had been raised during the dialogue and were not directly related to the focus points of the previous two days. Focus points were:

- › How would the Draft Guidance affect me and my family?
- › What can we do before vaccine becomes available?
- › What will make the prioritization guidance acceptable?

The agenda was intended to provide the same learning opportunities for participants as had been provided in the face-to-face public meetings. It was also intended to provide the same opportunities for the sponsors to discover the opinions of the participants. The three fundamental elements of the event were determined to be:

1. A learning opportunity for participants;
2. An opportunity for the sponsors to observe the deliberations of the participants; and
3. An opportunity to poll the opinions of the participants.

To reflect this, the main agenda of the dialogue was split between the first two days, with the learning coming first, followed by the deliberation. The agenda reflected that the poll could not be conducted until after these first two phases were completed. Therefore, it was scheduled for the beginning of the third day.

It was necessary to have some attractive content on the third day in order to draw participants into the poll. However, it was recognized that all information of importance to the sponsor needed to be included *before* the poll was taken so that the participants would complete the poll after having an opportunity to become properly informed. As a result, the third day was designed to focus on reflections of how the prioritization would affect individuals personally. Space was also left in the agenda to add items that appeared during the first two days to have high significance for the participants. Two focus points were added to the third day: “What can we do before vaccine becomes available?” was added because this appeared to be of great interest to participants, and “What will make the prioritization guidance acceptable?” was added at the request of a project sponsor.

It was important that the agenda sustain participants’ attention and interest because they:

- › Were not offered money as a reward for participating—in contrast to the in-person meetings—but participated in a way that was purely voluntary;
- › Were not segregated from their normal lives during the event, but were presumably always subject to the demands and distractions of their normal lives (e.g., work, family responsibilities, YouTube, etc.); and
- › Were not in an environment in which their pattern of participation could be carefully choreographed by passing from a learning segment, to a deliberation segment, to a reporting segment. Instead they were free to roam from one “focus point” to another throughout the dialogue.

It was anticipated that the public would be interested in the subject of the discussion because the participants at the in-person events appeared to be authentically interested in the topic and not just in the monetary reward that they were offered. The agenda was not intended to respond to any specific interests of the public, except on the third day when items of particular interest were included in order to attract the participants to the poll.

Facilitation Process

Facilitation in the dialogue aimed to achieve a range of goals. Depending upon the volume of postings in any particular period it was often not possible to pursue all of these goals at once. The goals were to:

- › Keep the environment as comfortable and welcoming as possible so that all participants would be more likely to join the dialogue by posting messages. There was very little need for facilitator intervention to meet this goal. Only one individual gave any substantial cause for concern, and was responsive to a personal email approach from the facilitator.
- › Make the dialogue easy for participants to follow. This involved encouraging participants to give their postings descriptive “Subject” lines, limiting each posting to a single major issue, and posting their messages in the focus point where participants could expect to find it (i.e., make each posting relevant to the specific focus point). This was where most of the facilitation effort was used.

- Keep the dialogue on-point, so that the key issues are discussed adequately, and keep it free of irrelevant chatter, which would dilute the content of each discussion and potentially reduce the value of the dialogue. There was very limited time available for facilitation work in pursuit of this goal until later on the second day and during the third day.

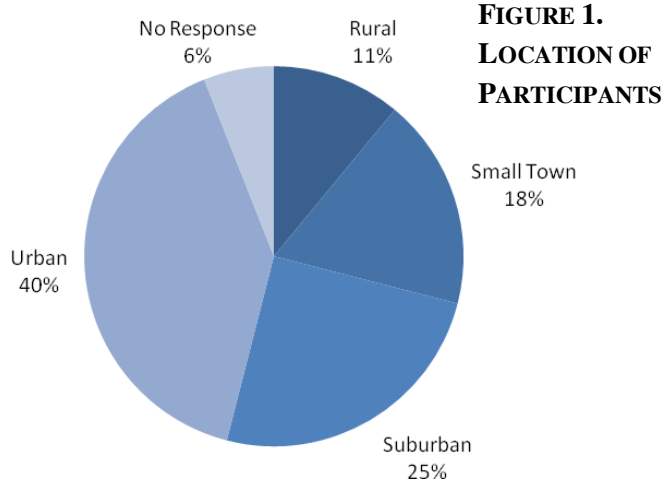
Outreach

Outreach is the process by which organizations and individuals are invited to participate in the dialogue. Outreach for this event was conducted over fifteen days, four of which spanned the Thanksgiving holiday. NACCHO and CDC promoted the dialogue using partners, local organizations, and a variety of web resources.

CDC leveraged traffic to CDC.gov, worked with HHS to send announcements to other operational divisions, and worked with its online partners to promote registration. Outreach included a link to the dialogue on CDC.gov and PandemicFlu.gov web pages; announcements to partner social networks (such as MySpace); and email notifications to CDC.gov subscribers.

NACCHO distributed the dialogue announcement to state and local health department public information officers, who have connections with extensive local networks in their communities. NACCHO also sent the announcement to the National Education Association, a membership organization of 3.2 million professionals employed in public education institutions. NACCHO also arranged for advertising through Yahoo and Google search engines. Advertisements for the web dialogue were linked to keywords searched by users.

WestEd announced the dialogue to previous dialogue participants who had asked to be informed of future dialogues. WestEd also sent the announcement to a wide variety of state and national partner education, business, civic, ethnic, and public engagement organizations.



Description of Participants

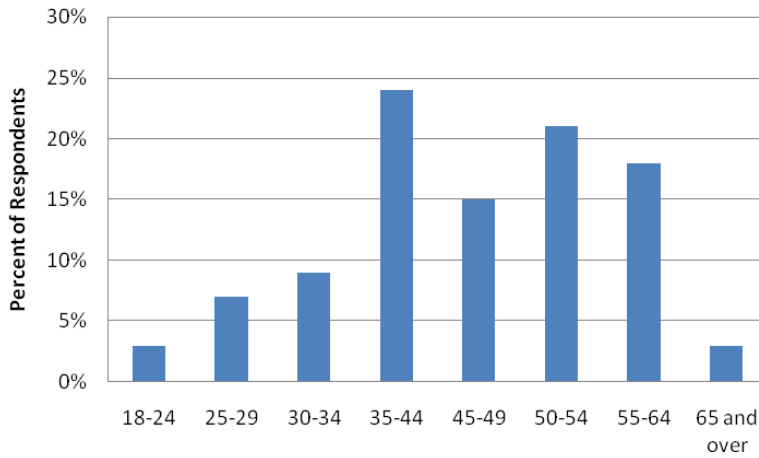
Four hundred and twenty-three people registered to participate in the dialogue.² Twenty-eight percent signed up to be discussants and 67% indicated interest in observing if a very large number of registrants necessitated the selection of a subgroup of discussants. The remaining 5% of respondents did not indicate a participant role for their time in the dialogue. The roles of “discussants” and “observers” were not enforced, and those signed up as observers were able to post

² This number includes all of those registered by the time official registration was turned off at 2:00 PM EST on December 5, 2007.

messages to the dialogue.

Demographic data show that participants were overall very educated, and were more likely to be white and female than the general population. Participants also had higher level of experience and knowledge about pandemic influenza issues than would be expected in the general population. Demographic information includes:

FIGURE 2. AGES OF PARTICIPANTS



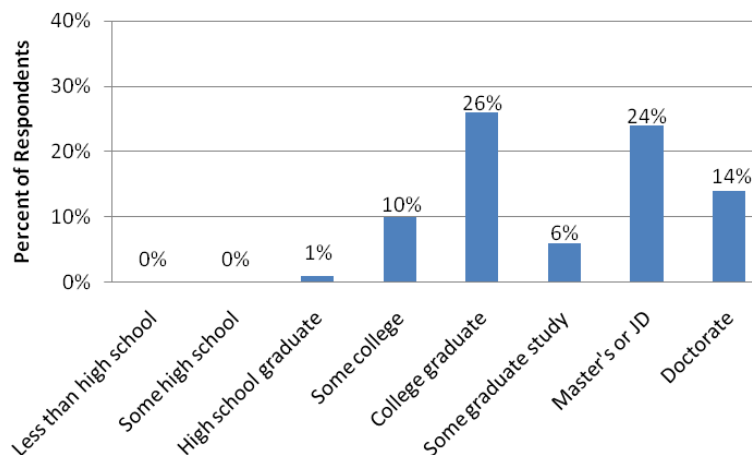
rural area.

- › 60% of respondents were between the ages of 35 and 54, as shown in Figure 2; only 3% were 65 years or older.
- › 80% of respondents held at least a college degree, with 48% of all respondents holding a master’s degree or higher, as shown in Figure 3.
- › 66% of respondents were female (versus 51.3% female in the general population, according to the U.S. 2000 Census).
- › 79% of respondents were non-Latino white (versus 75.1% of the general population). 4% identified themselves as African American (versus 12.3% of the general population), and 4% identified themselves as Latino or Hispanic (versus 12.5% of the general population). The remaining participants identified themselves as Asian or Pacific Islander, Native American or multi-racial.
- › 39% of respondents were parents or guardians of children 18 years or younger.

The participants in the dialogue came from many different professional backgrounds. Seventeen percent were government

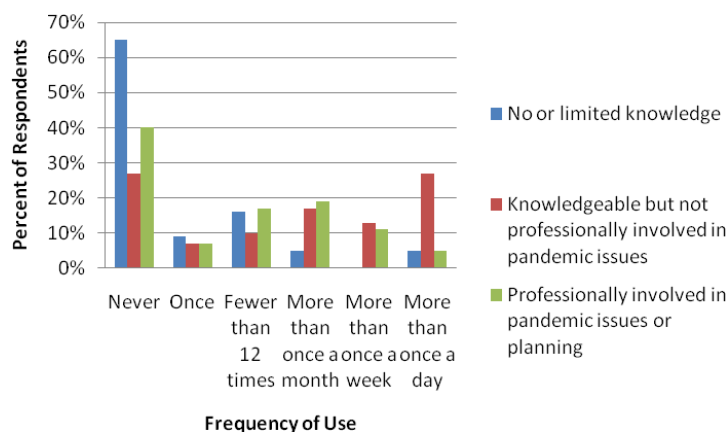
- › Registrants came from 44 states and the District of Columbia in the U.S., as well as Guam and Puerto Rico. A small number of participants also joined the dialogue from Canada, the United Kingdom, and Nigeria (see Appendix F for a map of participants in the contiguous United States).
- › As shown in Figure 1, 40% of respondents reported that they lived in an urban area; 25% lived in a suburban area, 18% lived in a small town, and 11% lived in a

FIGURE 3. EDUCATION LEVEL OF PARTICIPANTS



employees, and 38% of participants identified themselves as public health professionals or practitioners. Other participants worked as educators or health care providers, were first responders, worked in the corporate or business world, or were students. Most of the participants (61%) responded that they were professionally involved in pandemic influenza policy or planning. Fourteen percent of participants said they had a great deal of knowledge about pandemic influenza, but were not professionally involved in it; the remaining 25% of participants answered that they had limited or no knowledge of pandemic issues, or they did not respond to the question.

FIGURE 4. SOCIAL MEDIA USE OF KNOWLEDGE/EXPERIENCE GROUPS



Dialogue registrants were also asked about their use of social media on pandemic topics, such as blogs and message boards. While 39% of participants answered that they had never used social media sites about pandemic influenza, 35% said they participated in these sites at least once a month. As shown in Figure 4, those who were knowledgeable about pandemic issues but not professionally involved were the most involved in social media sites dedicated to pandemic issues.

The number of registrants does not tell the whole story of how many people were exposed to the dialogue. Nearly 40% of the

registrants said that others in their family, office, class, or community group were indirectly exposed to the dialogue through them. A conservative estimate puts these additional participants at over 770, bringing the total number of people directly or indirectly involved in the dialogue to over 1100. It is not known how involved these additional people were in the dialogue.

Dynamics of Participation

Patterns of Posting and Reading Messages

Three hundred and forty-eight people logged on at some time over the three days of the dialogue to post or read messages. (Because the dialogue could be viewed without logging in, there may be other individuals—both registered and unregistered—that visited the dialogue site to read messages.) One hundred and nine people posted at least one message. Collectively, they contributed 1,275 messages to the dialogue. Roughly 300 to 500 messages were posted each day. On average, each of the messages posted was viewed by 20 other logged-in participants for a total of 25,485 message views over the course of the dialogue.³ The number of views per message ranged from 1 to 133.

The messages were organized into “threads” based on 12 agenda topics. Although participants were actively encouraged to stay on topic in their threaded messages, many of the conversations wandered into

³ This number includes only messages viewed by logged-in individuals reading individual messages in the dialogue’s “outline” format (one message viewed at a time). Messages read using the “full text” view, which allowed the reader to view all messages in the discussion thread on one screen, are not included in this number.

new areas. The facilitator sent a number of messages asking participants to stay on topic or to move their discussions to a thread that was more closely related to their line of discussion.

Time Spent Participating in the Dialogue

Based on responses to the post-dialogue evaluation form, the median participant in the dialogue participated on two of the three days and spent about an hour on the dialogue each day. As shown in

FIGURE 5. HOW MANY DAYS DID YOU VISIT THE SITE TO READ INFORMATION RESOURCES AND/OR READ OR POST MESSAGES?

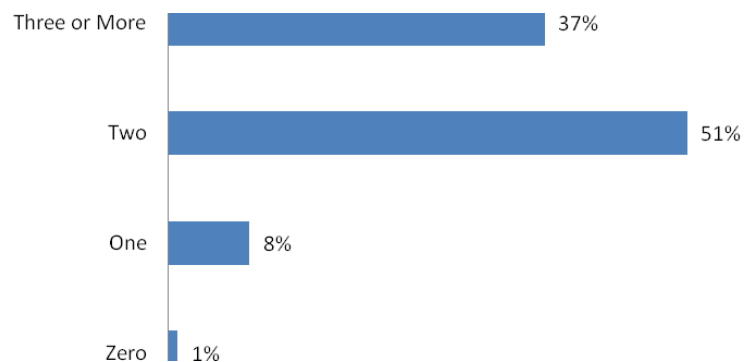


Figure 5, 37% of those who responded to questions in the post-dialogue evaluation form said they participated on three or more days (those participating on more than three days were presumably reviewing information in the document library prior to the dialogue). Another 51% of respondents said they participated on two days, and 8% said they participated on only one day. On the days they participated, 25% said they participated for more than two hours per day, and another 48%

participated between thirty minutes and two hours. Twenty-four percent participated for less than thirty minutes per day.

In “snapshots” of participation taken roughly every two to three hours during the dialogue, the number of individuals logged on at the same time ranged from a high of 81 people at 12:30 PM EST on the second day to a low of 17 people later that night (10:30 PM EST). Averaged across all of these snapshots, there were 44 people logged on at any given time.

Differences in the Amount of Participation

There were large differences in the number of messages posted by participants. Most significantly, a small percentage of participants contributed a large percentage of the total messages—a phenomenon that has been seen in other online dialogues. Eight people (7% of all those who posted messages) contributed fully half the messages to the dialogue, one of them posting 174 messages and another 127. Twenty-five people posted only one message.

Because a relatively small group of people contributed so much of the content of the dialogue, it is useful to describe them. The eight people that contributed over 50% of the messages included:

- › The dialogue facilitator who was actively guiding the dialogue over the course of the three days.
- › Two panelists who were responsible for guiding the discussion. One was from the Department of Homeland Security and the other from a state health preparedness and response surveillance team.
- › An urban corporate/business person and father of teenagers who said his “primary goal is to save their lives from a severe Pandemic of H5N1.” He described himself as taking pandemic influenza

“very personally” and said he is “concerned about our nation's state of preparedness for a severe H5N1 Pandemic.”

- › A rural “interested individual” who said her primary interest is as a “moralist/ethicist” concerned that “the poor, under-served, and at-risk individuals and families within our society will not have a voice in this discussion.”
- › A public health student studying emerging infectious disease, especially pandemic influenza, who was involved in helping a university prepare for a pandemic outbreak and who has done extensive research on the 1918–19 pandemic.
- › An elected official and “interested individual” from a small town who was a member of the local Board of Education and said she was “especially interested in how schools can play a part in community mitigation efforts and in the health of our children.”
- › A participant who described herself only as “suburban.”

Posting messages was not the only way that people could make their views known. The dialogue included an “I agree” feature that allowed participants to register their agreement with particular posts. While half of the messages received no “I agree” concurrences, the other half received from 1 to 45 such concurrences. The message receiving the most agreement expressed the enormity of the issue: “We are all little mice when it comes to something this big!” Other messages receiving a high level of agreement include:

“CDC is using the 1917-18 pandemic as our model for a "severe" pandemic with a case fatality rate (CFR) as you said of ~2%. Given that the mortality rate for seasonal flu and its complications is far less than 1%, this is a significant mortality rate. For those who aren't clear on the difference between mortality rate and case fatality rate, mortality rate is the number of deaths in a known population over a given period of time. CFR refers to the number of deaths among known cases of a particular disease. This is important to remember in pandemic discussions, because with the current H5N1 avian flu, we have to deal with CFR. That is, of the people we KNOW have laboratory-confirmed H5N1, 60%+ have died. We do NOT know how many people have had H5N1 and have not been diagnosed--and who perhaps recovered. The rate of death among all people who have had H5N1 may be much smaller--we don't know. In addition, many of the countries where people are getting H5N1 do not have adequate access to health care for many of their citizens, and the CFR may be higher because people are getting diagnosed and treated late.”

In reference to “social distancing”: I had one person state that she could understand the not going to the malls but she will always attend her church services. Which will cause many people to rethink how do we enforce the 3-5 feet separation between people or no large gatherings held in the community. Does the government had the resources to enforce this? I don't think.. So people will choose what they think is important for them to observe in Social Distancing.

When a pandemic hits, it's by definition a new virus strain for which we won't have a vaccine. With our present technology, it will take 3-6 months to produce and distribute a pandemic vaccine. There may be SOME crossover immunity from current seasonal flu vaccine and from exposure to previous influenza viruses, but we won't know that until the pandemic hits.

4. OVERVIEW OF DISCUSSIONS

This section briefly describes the major themes of the dialogue discussion as determined by the number of related messages. The full discussion and daily and final summaries are available on the Vaccination Prioritization for Pandemic Influenza dialogue website: www.webdialogues.net/panflu/engage. Each of the sub-sections below focuses on a key theme of the dialogue discussions. Additional themes related to implementing the guidance are included in Appendix E.

Planning Assumption: Case Fatality Rate

The plan for prioritizing pandemic influenza vaccine differs based on the severity of the pandemic. The draft guidance is based on the worst pandemic on record, the 1918 pandemic, which had a Case Fatality Rate (CFR) of 2-2.5% and an Attack Rate (AR) of 30%. Dialogue participants noted concern about using the 1918 pandemic as a basis for planning since, in recent H5N1 avian influenza outbreaks, over 60% of the people known to have laboratory-confirmed H5N1 infections have died. Some participants called for planning for a truly severe pandemic with a CFR of 60–80% rather than the 2% used for the draft guidance. Given new scientific research, participants debated whether a high-CFR virus would cause a pandemic or whether it would “burn” itself out before it infected a large number of people.

As CFR increases, the importance of the guidelines increases in order to protect the critical personnel needed to maintain essential services. While a high CFR is a problem, it was noted that an illness with a high AR might be more damaging to infrastructure and society at large. Some believed that a higher CFR would not change the prioritization scheme. Regardless of the CFR, the prioritization scheme must balance protecting security and critical infrastructure and key resources personnel with pandemic responders and the most vulnerable in the general population.

Building Trust through Education

Educating the public about pandemic influenza was a recurrent theme during the dialogue. Participants called for educational communications that are truthful, accurate, realistic, credible, transparent, consistent, effective, and timely. The goal is to educate the public and promote self-reliance and personal responsibility while building trust in the government. Furthermore, communications must stimulate actionable responses rather than alarm the public. They must strike a balance—neither being overly dire nor overly cautious.

Suggested education topics included what could happen during a pandemic including the truth about how bad things could be, the risks of pandemic influenza, steps people can take to prepare themselves and their families, why there will be a shortage of vaccine, what the vaccination priorities are and why they have been established, the need for compliance with the guidance (e.g., voluntary quarantine), planning for the pre-vaccine period, and stockpiling food, water, and medical supplies.

Education and planning need to begin with local governments, businesses, schools, churches, and health care providers. Education must allow people time to prepare financially, physically, and emotionally before the pandemic arrives. It should begin now and continue at the beginning and throughout a

pandemic including during a second and third wave of outbreaks. It was noted that should the pandemic behave differently than expected or should the availability of vaccine or antiviral drugs change, it will be a challenge to communicate to the public the corresponding changes in pandemic influenza priorities.

Changing Vaccination Priorities

The prioritization scheme is set up so that people in targeted groups within the four categories listed below will be vaccinated simultaneously. Additionally, it was suggested that groups within tiers be prioritized since influenza vaccine production capacity is currently limited.

1. Homeland and National Security (HNS) Group

Suggested changes in the Homeland and National Security (HNS) Group included:

- › Move non-deployed military personnel up in priority because, in a pandemic, soldiers may have to redeploy to provide relief or to defend against an opportunistic attack by a foreign adversary. They need to maintain their mobility to enter influenza-stricken areas.
- › Move domestic national security personnel to Tier 1 because they are dedicated to general support service including some basic infrastructure work as well as security tasks.
- › Make the list of who in the military has Tier 1 Level A status since the military ranks so high on the priority list.

Participants discussed relative priorities of Critical Infrastructure (CI) and Homeland & National Security (HNS) groups, with some preferring that CI (e.g., energy sector personnel) be given higher priority.

2. Health Care & Community Support Services (NC/CSS) Group

Suggested changes in the Health Care & Community Support Services (HC/CSS) Group included:

- › Give priority to transportation workers who are instrumental in delivering supplies to hospitals, police and fire departments, and the military. It is also important to identify transportation companies that are most important to Tier 1 and Tier 2 people and move those transportation people to Tier 1.
- › Identify non-clinical hospital staff from critical support departments (e.g., pharmacy, diagnostic imaging) for vaccination along with their clinical counterparts.
- › Recognize funerary workers as crucial to the overall health of the community.

3. Critical Infrastructure (CI) Group

Suggested changes in the Critical Infrastructure (CI) Group included:

- › Move those directly involved in production and distribution of electrical power to Tier 1. Some participants suggested that electric power is the only truly critical infrastructure and, as such, it is vital to maintain capacity.
- › Move community pharmacists to Tier 1. As the most accessible health professionals, community pharmacists provide information and protective medications as well as access to vaccines and maintenance medicines for the chronically ill.
- › Move pharmacy workers associated with mail order pharmacy operations to Tier 2.
- › Move postal and shipping sector personnel to Tier 2.
- › Re-categorize hazardous materials transporters as water sector personnel for distribution of chlorine.

- › Review the priority for the financial sector to ensure access to the money supply so the flow of food, fuel, and medicines can continue.

4. General Population (GP) Group

In the General Population (GP) Group discussion, questions arose about:

- › The tier in which to place infants (birth to 5 months) and their mothers.
- › The appropriate tier for young children. While children are not going to keep society safe during a crisis, they are more likely to spread influenza than infants.
- › Whether every family should receive one vaccine for the main breadwinner.
- › Vaccinating non-residents.

Protecting Family Members

The question was raised about whether members of the families of “critical” workers would receive vaccine. This is the custom in some mass treatment programs in order to avert a loss of responders. It was noted that some healthcare providers and Emergency Medical Technicians (EMTs) would refuse to work if they are not given first access to personal protective equipment (PPE), antivirals, and the vaccine as soon as it is available. Some may refuse to work if their families are not protected. To add families, it would be necessary to define “family” to know where to draw the line.

Currently, there is no plan to include family members in the vaccine prioritization scheme (unless they fit one of the prioritized groups). The reasoning is that critical workers—not their family members—will be directly in harm’s way or are completely necessary for the rest of the population. By adding families to the mix in a pandemic, it would be impossible to appropriately vaccinate all critical workers. Instead, other interventions (e.g., antivirals, community mitigation measures) will be implemented to help maintain essential functions and protect family members of critical workers.

Adding Age as a Criterion for Prioritization

A suggestion was made to add an age criterion (e.g., 20–40 year olds) to the occupation criterion if the goal of prioritization is to reduce deaths and maintain infrastructure. During the 1918 pandemic, the 20–40 year old age group was the most vulnerable. Furthermore, this age group is widely represented in the workforce today and has the most potential to protect society. For this reason, it needs protection.

It was noted that the draft guidance is not primarily age-based but leans more toward protecting society (e.g., Critical Infrastructure). In discussion of age-group susceptibility, panelists indicated that until the pandemic is underway, we cannot predict what population will be at the highest risk. It may be necessary to revise the plan based on how the pandemic behaves.

Surviving the Pre-Vaccine Period

During the initial months of a pandemic before an adequate vaccine supply is available, measures to reduce the spread of influenza will be vitally important. Similarly, strategies for “continuity of operations” for government, business, and other organizations will be important. Suggested non-

pharmaceutical interventions included covering coughs and sneezes, hand washing, use of facemasks and other personal protective equipment (PPE), and antiviral medications. Community mitigation measures included quarantine, social distancing, closing schools, canceling public gatherings, and altering business operations. Ensuring compliance with these measures—particularly among people who are asymptomatic and contagious—will be difficult. Providing funding to help communities survive the pre-vaccine period was suggested.

Workplace issues reflected concern for people who have no sick days (often lower income people) or who might go bankrupt or lose their homes if they stay home from work. Social distancing is more feasible for those who can telecommute than for those whose jobs rely on people congregating (e.g., retail, restaurants) and those with service jobs (e.g., janitors, utility workers).

Preparing for the Pandemic

Preparedness and citizens' capacity to prepare for the pandemic encompasses planning for the worst case scenario; stockpiling and rotating medicines and food staples; organizing adequate storage area, neighbor-to-neighbor communication, and hygiene; and using available public services (e.g., food banks). Insurance company policies for issuing prescription drugs and federal policy changes affecting insurance companies triggered concerns about stockpiling sufficient medicines. It was noted that government sources have indicated different durations for planning purposes (e.g., 2 weeks, 6–8 weeks, 4–6 months). To gain credibility and support adequate preparation, the government message must be consistent.

Related planning and preparation topics raised by participants included:

- › Funding new methods of vaccine development;
- › Purchasing adequate supplies of antivirals, antibiotics, and PPE;
- › Keeping the supply chain from breaking down to insure delivery of key resources (e.g., medicines produced overseas, raw materials);
- › Distributing vaccine to states based on tiered individuals rather than on state population;
- › Implementing the draft guidance in a way that documents group membership prior to giving vaccines;
- › Communicating a clear explanation, using the current vaccine production capacity, of when to expect tiered individuals to receive a vaccine.

It was suggested that local health leaders be required to create Pandemic Preparedness Coordinating Committees that include all relevant stakeholders. In this way, these committees could find solutions appropriate to their communities.

5. POLLING RESULTS

On the third day of the dialogue, participants were asked to rate their agreement or disagreement with 19 statements about vaccination priorities and one statement about the dialogue itself. The poll was a way to check the level of agreement with ideas that emerged from the dialogue discussion.

Of the 423 people who registered for the dialogue, 164 took the poll. The demographics of this group of poll participants were very similar to the make-up of the registrant group as a whole, as was their use of social media and their role in the dialogue. The only large difference between these two groups was the percentage of those who stated that they were knowledgeable about pandemic influenza but were not professionally involved; in the overall registrant group, 14% stated that they were of this type, while 23% of the poll participants stated they were of this type.

The statements in the poll were selected by the dialogue facilitator, panelists, Keystone staff, and WebDialogues staff to reflect key topics of conversation over the first two days of the dialogue. Many of them correspond to the themes identified in Section 4.

Participants were asked to rate their agreement on a seven point scale from “strongly disagree” to “strongly agree.” To calculate poll results, “strongly disagree” was converted to the numeric value -3 and “strongly agree” was converted to the numeric value 3. All other responses in between were converted into the intervening integers with the numeric value 0 representing a neutral response.

Overall Results Related to Vaccination Preferences

Table 1 describes the overall level of agreement or disagreement with each of 19 statements about vaccine priorities, ordered from highest level of agreement to lowest. (The twentieth question asked whether a web-based dialogue is a good format for discussing health policy issues: participants moderately agreed).⁴ The responses are grouped according to the closest response category, and the numeric average response value and standard deviation are given in columns to the right.

Table 1. Ranked Poll Responses

Poll Question and Level of Agreement	Mean	Standard Deviation
Strongly Agree (2.5 to 3)—none		
Moderately Agree (1.5 to 2.49)		
15. Do you agree or disagree that government officials without close contact with the public should be prioritized as part of the General Public dependent on their age and health status?	1.77	1.52
2. Do you agree or disagree with the draft guidance plan to vaccinate children before older adults?	1.57	1.63
Slightly Agree (0.5 to 1.49)		

⁴ The poll question numbers correspond to the order in which they were asked in the poll and match the question numbers in Appendix B.

Poll Question and Level of Agreement	Mean	Standard Deviation
6. Do you agree or disagree that school aged children should be moved up and vaccinated before infants and younger children?	1.44	1.52
3. Do you agree or disagree that individuals 80 years or older should be moved from Tier 4 to Tier 5?	1.40	1.61
18. Do you agree or disagree that Tier 4 and 5 should be switched (healthy adults vaccinated before the ill and elderly)?	1.31	1.83
17. Do you agree or disagree that transportation, food and pharmaceutical personnel should be moved from Tier 3 to Tier 2?	1.30	1.64
1. Overall, do you agree or disagree with the draft guidance plan for who gets vaccinated earlier and who later?	1.29	1.45
12. Do you agree or disagree that community pharmacists should be moved from Tier 3 to Tier 1?	1.05	1.78
10. Do you agree or disagree that the National Guard should be moved from Tier 2 to Tier 1?	0.94	1.82
11. Do you agree or disagree that family members of first responders should be vaccinated at the same time as the first responder? (First responder is defined as Medical responders including EMS, law enforcement, and fire).	0.89	2.10
14. Do you agree or disagree that all critical infrastructure personnel should be moved to Tier 1 and pregnant women, infants and toddlers should be moved to Tier 2?	0.82	2.00
16. Do you agree or disagree that child care workers should be vaccinated in Tier 2?	0.80	1.60
8. Do you agree or disagree that families of those working in the critical infrastructure or healthcare should be vaccinated in the same Tier as the worker?	0.70	2.13
Neutral (-0.5 to 0.49)		
9. Do you agree or disagree that all homeland security personnel (Coast Guard, border protection, TSA, FEMA, intelligence services) should be moved to Tier 1?	0.28	2.04
13. Do you agree or disagree that postal personnel should be moved from Tier 3 to Tier 2?	0.15	1.74
4. Do you agree or disagree that all individuals age 20 and below should be moved to Tier 1?	-0.06	1.94
7. Do you agree or disagree that the primary wage earner from each family should be moved to Tier 1?	-0.16	2.00
19. Do you agree or disagree that personnel who maintain the integrity of the money supply system should be moved from Tier 3 to Tier 1?	-0.44	1.85
Slightly Disagree (-1.5 to -0.51)		
5. Do you agree or disagree that babies under 6 months should be prioritized along with older infants and toddlers? (Currently they are not prioritized because they do not respond well to influenza vaccine and the vaccine is not licensed for this age group).	-0.98	1.67
Moderately Disagree (-2.5 to -1.51)—none		
Strongly Disagree (-3 to -2.51)—none		

The mean numeric responses ranged from 1.77 (moderately agree) to -0.98 (slightly disagree). For most of the questions, responses clustered around the mean, indicating that most respondents shared a similar

view. For about five questions, responses did not cluster around the mean, indicating that there was a fair amount of disagreement among the respondents on these issues (see questions in Table 1 with a standard deviation equal or greater than two).

The highest level of agreement (moderately agree) was with the ideas that:

- › Government officials that do not have close contact with the public should not have a privileged position in the tiers, but should be prioritized based on their age and health status. This would mean that these individuals would move from Tiers 1 through 3 (depending on their position) to Tiers 4 or 5.
- › Children should be vaccinated before older adults, which is the approach currently in the plan.

Participants disagreed most strongly with the idea that babies under six months should be prioritized in Tier 1. These infants are not prioritized in the current guidance because they do not respond well to influenza vaccine and the vaccine is not licensed for this age group. Household contacts of these young infants are currently prioritized in Tier 2.

Other poll results suggested broad and positive, although only slight, agreement with:

- › The prioritization structure as it currently appears in the plan (poll question 1)
- › Moving healthy younger adults (currently Tier 5) ahead of older adults (currently Tier 4) (poll questions 3 and 18)
- › Moving school aged children 3-18 years old (currently Tier 2) ahead of children 6 months to 3 years old (currently Tier 1) (poll questions 6 and 14); and
- › Moving the following professions up in the ranking:
 - Transportation, food, and pharmaceutical personnel (Tier 3 to 2);
 - Community pharmacists (Tier 3 to 1);
 - National guard (Tier 2 to Tier 1); and
 - Child care workers (Not currently ranked to Tier 2)

Comparison of Groups' Responses

While the average poll results across the entire group of participants tells us about the group's overall opinion, responses differed among sub-sets of participants. This section describes some key differences in responses by demographic factors, such as age, status as a parent or guardian, professional involvement with pandemic influenza, and involvement in pandemic influenza social media sites.

The comparison of opinions between different groups participating in the dialogue was based on the difference between the mean response for the "in-group" participants and the "out-group" participants for each poll question. A statistical "t-test" was used to identify differences in these sets of responses that were statistically significant at a level of 90% confidence or higher (i.e., p-value is 0.1 or less). Only such statistically significant results are discussed below. Appendix B shows the results of these comparisons for all poll questions. More sophisticated multi-variate statistical analysis is possible and would lead to more robust conclusions about the differences in opinions.

Differences Among Age Groups

Many of the polling questions dealt with how different age cohorts should be prioritized. In the current draft guidance, for a severe pandemic:

- › Pregnant women and infants and toddlers 6–35 months old are in Tier 1,
- › Those with household contact with infants less than 6 months old and children 3–18 years old with high risk conditions are in Tier 2,
- › Children 3–18 without high risk conditions are in Tier 3,
- › People 19–64 with high risk conditions and people 65 years or older are in Tier 4, and
- › Healthy adults 19–64 years old are in Tier 5.

Many of the questions in the poll concerned the relative ranking of children, working adults, and the elderly. Generally, results suggest that younger participants were more in favor of moving younger people higher in the prioritization than were older participants. Specifically, compared to adults 45 and older, adults aged 18–45 years were more in favor of:

- › Vaccinating healthy adults, who are currently in Tier 5, ahead of the ill and elderly, who are currently in Tier 4 (poll question 15).
- › Moving all individuals age 20 and below into Tier 1; most of these individuals are currently in Tier 5 (poll question 4).

Respondents 18–45 years old generally disagreed with prioritizing babies under 6 months along with older infants and toddlers in Tier 1, although their disagreement was less strong than that of older poll respondents. Adults 18–45 years old generally agreed with the proposition that government officials without close contact with the public should be prioritized as part of the general public but their agreement was less strong than that of older poll respondents.

Parents and Guardians of Children Under 18

A number of questions dealt with where children should stand in the prioritization and the question of whether families of those in the higher tiers (e.g., first responders) should be vaccinated in higher tiers as well. It is reasonable to hypothesize that parents and guardians of children under 18 would be more in favor of a higher ranking for children and families.

Interestingly, those identifying themselves as parents or guardians of children under 18 did not appear to prefer moving children up in priority for vaccination any more than those without children under 18. In fact, the only statistically significant difference between parents or guardians and the rest of poll respondents was that parents or guardians disagreed to a lesser degree than others with the idea that people who maintain the integrity of the money supply should be moved from Tier 3 to Tier 1 (poll question 19), a result that probably has little to do with parental status.

Participants Involved in “Front Line” Response to a Pandemic Influenza Outbreak

Many polling questions dealt with how those in various professions—or their families—should be prioritized. To examine how those currently on the “front line”—and therefore in Tier 1 of the prioritization—felt about how they or their families were prioritized, the analysis looked at poll results for those in front line professions versus those in other professions. This included the 47% of poll respondents that identified themselves as health care providers, first responders, public health professionals and/or public health practitioners.

Currently, the draft guidance classifies these front line professions in Tier 1. Importantly, the families of people in these professions are classified based only on age and health status, which would put children into Tiers 1 to 3 and healthy spouses in Tier 5. One of the key themes of the dialogue discussion was whether first responders would be comfortable responding to an influenza outbreak if they knew their families were not vaccinated against pandemic influenza. One participant wrote during Day 2 of the dialogue that,

“You cannot expect someone to go into an environment where they could catch and/or bring home a deadly disease, infect and possibly kill their own family. I suspect many would be willing to go to work or help where needed if they knew their families would be taken care of...”

Other participants felt that bringing family members up in the vaccine prioritization would be contrary to the reasoning behind the prioritization plan, with one arguing that,

“Prioritization isn't meant to minimize the value of a person's life based on vocation, rather it is to help ensure the national security and economic stability of our nation. As such, family members should receive vaccination based on their individual priority level.”

Overall, front line poll respondents were consistently more likely to favor moving families of front line workers up in the prioritization. Specifically, those on the front line were more in favor of:

- › Vaccinating families of those working in critical infrastructure or healthcare in the same tier as the worker (poll question 8)
- › Vaccinating families of first responders at the same time as the first responder (poll question 11)

These front line professions were also more in favor of the prioritization currently in the guidance (poll question 1), including its provision to vaccinate children before older adults (poll question 2). Although they—like most other respondents—disagreed with the idea of prioritizing babies under 6 months along with older infants and toddlers, they disagreed less strongly with this proposition than other poll respondents.

Those currently on the front line were no more in agreement or disagreement than other respondents on the many questions that discussed moving other professions higher in the prioritization, including transportation, food, and pharmaceutical industry employees; community pharmacists; National Guard members; all critical infrastructure personnel; all homeland security personnel, child care workers, postal personnel and/or people who maintain the integrity of the money supply.

People Professionally Involved with Pandemic Influenza

Many people who participated in the dialogue were already professionally involved in pandemic influenza issues. Of the poll respondents, 78% said that they were knowledgeable about the topic because of their professions.

Poll results suggested that those involved professionally in pandemic influenza were more satisfied by the prioritization in the current guidance and less interested in moving groups around among the tiers.

Specifically, this group was more in favor of the draft guidance’s plan to vaccinate children before older adults (poll question 2) and less in favor of the following changes to the draft guidance:

- › Moving individuals 80 years or older from Tier 4 to Tier 5 (poll question 3)
- › Moving the primary wage earner from each family into Tier 1 (poll question 7)
- › Vaccinating healthy adults before the ill and elderly by switching Tiers 4 and 5 (poll question 18)

This group was less supportive of most of the other changes proposed in the polling questions, although the differences between their level of agreement or disagreement and that of the other respondents were not statistically significant. This group was also more supportive of the current prioritization in the guidance, although the difference was not statistically significant.

Participants Involved in Pandemic Influenza Social Media Sites

There are very active social media sites—such as blogs, message boards and Facebook groups—devoted to pandemic influenza. Participants in these sites are often very knowledgeable about pandemic influenza through either their professional activities or through personal interest or concern.

Thirty-eight percent of poll respondents said they participated in social media sites more than once per month (13% participated more than once per day) and 62% said they participated in such sites only infrequently or had never participated. Of the frequent users, around two-thirds identified themselves as professionally involved in pandemic influenza and the remaining third said they were knowledgeable about pandemic influenza but not professionally involved.

Generally, those involved in social media sites were more critical of the current guidance and more interested in changing the ranking to emphasize maintaining security, protecting critical infrastructure, and focusing on the health of current and future working age adults rather than the very young or the elderly.

Specifically, those participating in social media sites once a month or more were more in favor of:

- › Vaccinating healthy adults before the ill and elderly by switching Tiers 4 and 5 (poll questions 3 and 18)
- › Moving all individuals age 20 and below to Tier 1 (poll question 4)
- › Moving the primary wage earner from each family to Tier 1 (poll question 7)
- › Moving the National Guard from Tier 2 to Tier 1 (poll question 7)
- › Vaccinating families of first responders at the same time as the first responder (poll question 11)
- › Moving postal personnel from Tier 3 to Tier 2 (poll question 13)
- › Moving all critical infrastructure personnel to Tier 1 and pregnant women, infants, and toddlers from Tier 1 to Tier 2 (poll question 14)

This group was less in favor of the current draft guidance plan for who gets vaccinated first and who later (poll question 1) and the current draft guidance’s plan to vaccinate children before older adults (poll question 2). They were however, slightly to moderately in agreement with both—just less so than others.

Not surprisingly, given their presence online, this group was significantly more supportive of the web-based dialogue format (poll question 20).

6. EVALUATION

Evaluation Purpose and Approach

By including an on-line dialogue into the public participation process for developing the draft vaccination guidance, CDC sought to:

- › Sponsor a fair and effective process that encouraged learning and discussion;
- › Hear from a demographically diverse group with a broad range of perspectives;
- › Hear from people who would not have the opportunity to participate in in-person meetings or who were not likely to comment on the guidance independently, particularly interested citizens who were not part of communities that frequently make their views known to CDC (e.g., health care, public health, organized pandemic influenza communities of interest);
- › Provide the same opportunities as the in-person meetings to learn about and consider pandemic influenza vaccination issues; and
- › Provide the same opportunities as the in-person meetings for the sponsors to discover the opinions of the participants.

This section reports information about the extent to which these goals were achieved.

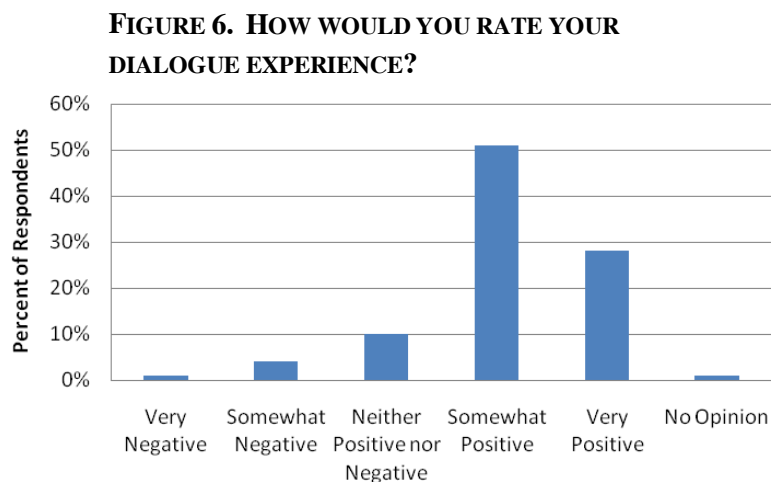
Sponsor a fair and effective process that encourages learning and discussion

One goal of the public engagement process was to have a fair and effective process in which citizens were satisfied with the experience and confident that their input would be seriously considered by policymakers. To measure the extent to which this goal was met, the post-dialogue evaluation form asked participants about their overall satisfaction with the dialogue, as well as specific aspects of the dialogue process.

Overall Satisfaction

When asked how satisfied they were with the dialogue overall, 28% of respondents rated the experience as very positive, and 51% as somewhat positive, as shown in Figure 6. Only 5% rated it as somewhat negative or very negative (12% had no opinion or said they were neither positive nor negative about the dialogue).

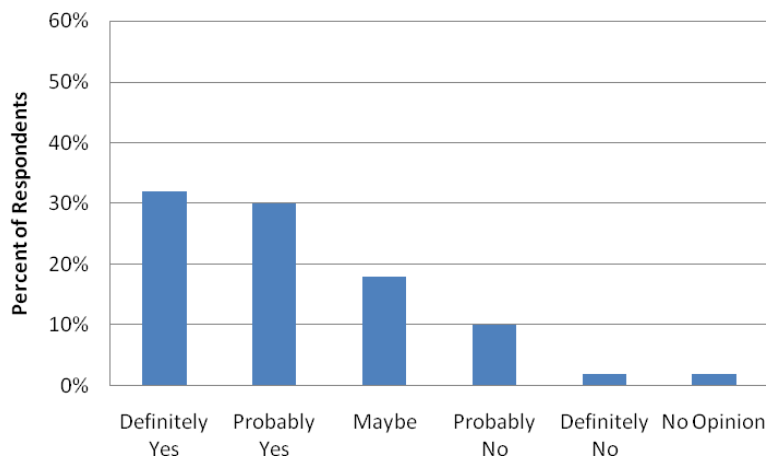
When asked whether similar online dialogues should be used for future policy topics, 50% of respondents said ‘definitely yes’ and 21% said ‘probably yes.’ As seen in Figure 7, 62% of respondents said they would probably or definitely be



more involved in policymaking if there were more online dialogues, and 75% of respondents said they would look favorably on policymakers who used the format to solicit public comment. Many of the suggested topics for future dialogues were centered around public health issues and considerations, with most focusing on other pandemic influenza planning issues, such as managing specific populations or educating the public.

The answers to “satisfaction” questions in the post-dialogue evaluation form were similar to those for a poll question that asked people to agree or disagree with the statement that “this web-based dialogue is a good format for discussing health policy issues such as vaccine prioritization for pandemic influenza.” Thirty-five percent of poll respondents strongly agreed with the statement and 30% moderately agreed. Only 6% moderately or strongly disagreed.

FIGURE 7. WOULD YOU BE MORE INVOLVED IN THE POLICYMAKING PROCESS IF YOU COULD PARTICIPATE THROUGH SIMILAR ONLINE DIALOGUES?



Comments from the respondents

offer a more nuanced view of their overall satisfaction of the dialogue, with mixed criticism and compliments:

- › Many respondents commented that the dialogue was informative and prompted them to think more about the issues and trade-offs associated with vaccination prioritization. One commenter noted that the discussion had increased his fear as a pandemic influenza planner, but that the ideas had also “lit a fire” to get the word out to the public.
- › Some respondents commented that it was hard to know what other participants’ agendas, levels of knowledge and credibility were, which made it difficult to evaluate the veracity of their comments.
- › Some respondents enjoyed the online format to learn and interact with other participants. One commenter felt that the online dialogue format was beneficial because “Everyone could ask questions or make comments that they would not normally make in real life.”
- › Many commenters felt that it was difficult to follow all of the conversations and threads, but that the daily summaries helped. Others felt that they could not commit the necessary time to stay fully engaged.
- › Some commenters felt that fewer questions per day, or not breaking the agenda up, might have been a better format, given the interrelated nature of pandemic influenza vaccination prioritization issues.

Quality and Fairness of the Dialogue

The post dialogue evaluation form asked participants a number of questions about the quality of the discussions and the fairness of the dialogue.

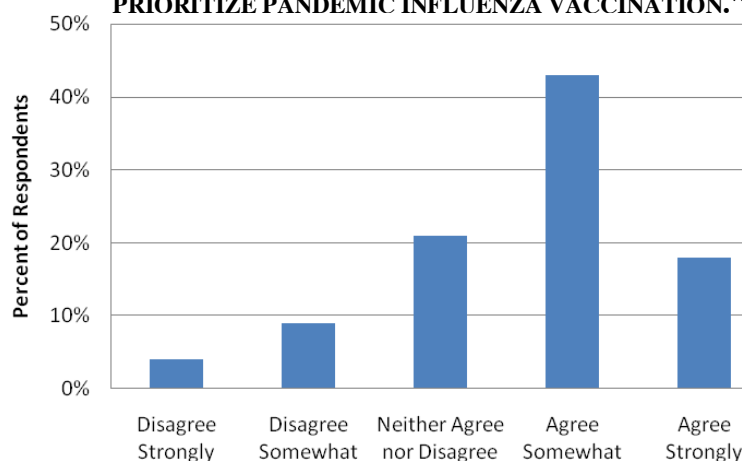
Overall, respondents were generally positive regarding the quality of the dialogue. Forty-three percent of respondents agreed somewhat and 35% agreed strongly that the dialogue had been a balanced, honest, and reasoned discussion. Of the respondents that were active discussants in the dialogue, 89% felt at least somewhat comfortable expressing their views with other participants, and 81% of all respondents believed that other participants were comfortable sharing their views. Overall, respondents felt that the dialogue was fair to all participants—45% agreed strongly and 30% somewhat agreed with this statement.

Outcomes and Influence

The dialogue and the overall public engagement process was intended to connect the public to the issues and build confidence in participating citizens that their opinions and input would be considered by policymakers. The post-dialogue evaluation form asked respondents a number of questions about the

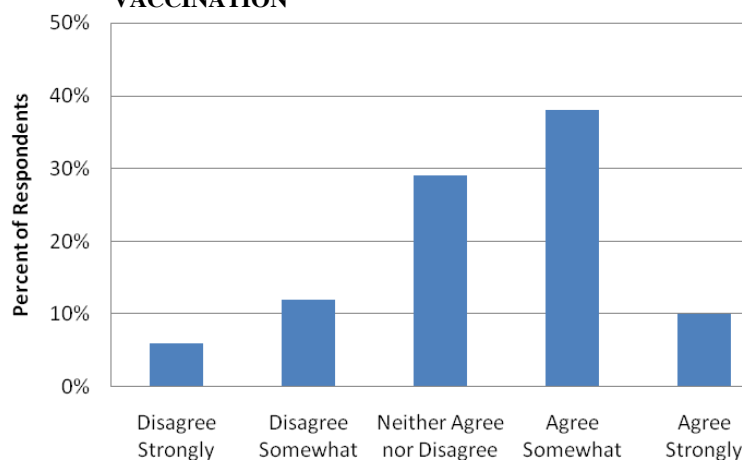
amount of influence they felt they would have on the guidance, and if they believed that the dialogue would favorably impact the final outcome of the policy.

FIGURE 8. “I THINK THIS PROCESS PRODUCED A VALUABLE OUTCOME REGARDING HOW TO PRIORITIZE PANDEMIC INFLUENZA VACCINATION.”



Many of the respondents felt that the dialogue generated useful information. Forty-eight percent of respondents agreed somewhat and 22% agreed strongly that the dialogue had produced credible, relevant and independent information. A slightly smaller number of respondents believed that the dialogue process had produced a valuable outcome for prioritizing scarce vaccination resources, as shown in Figure 8.

FIGURE 9. “I THINK THAT OFFICIALS WILL USE OUR INPUT IN THEIR DECISIONS ABOUT HOW TO PRIORITIZE PANDEMIC INFLUENZA VACCINATION”



The respondents were also generally optimistic, though slightly less so, that policymakers would carefully consider the input put forth from the engaged public or that the public process would result in more trust from the general public for the final guidance, as seen in Figure 9. Ten percent of participants agreed strongly that policymakers would use the input from the dialogue when revising the final guidance, and 38% agreed somewhat—29% neither disagreed nor agreed with this statement. Views were fairly evenly split on the question of whether the dialogue process would increase public support for the ultimate

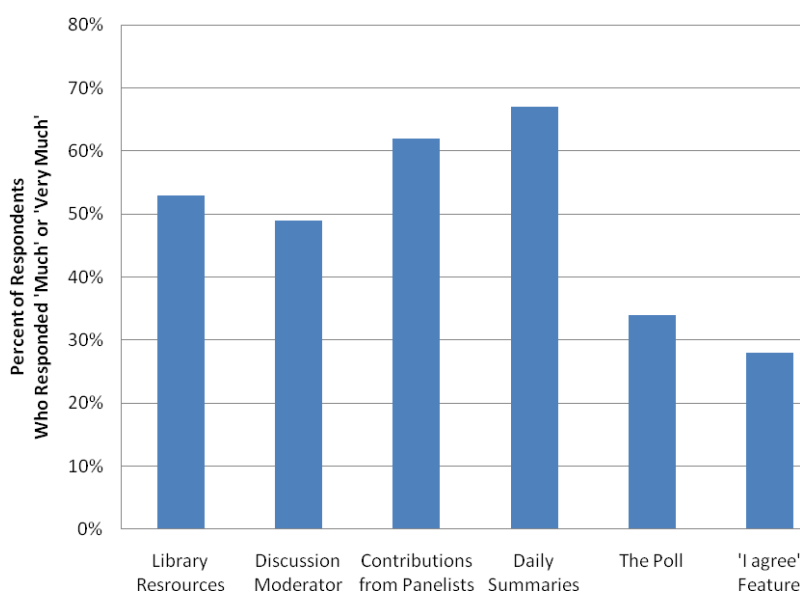
decision on vaccination prioritization: 34% of respondents agreed somewhat or strongly while 28% disagreed somewhat or strongly; 33% neither agreed nor disagreed.

Dialogue Technology and Process

Best practices for online dialogues are still being developed and studied. Respondents to the post-dialogue evaluation form were asked questions regarding the different components of the dialogue and the extent to which they contributed to the quality of the dialogue (answers ranged from “very much” to “not at all”). Participants were also asked if they had trouble with any part of the dialogue process.

Respondents answered that the daily summaries and the contributions from the panelists contributed the most to the quality of the dialogue, with 67% and 62% answering ‘much’ or ‘very much,’ respectively (Figure 10). In the comments, a respondent noted that the daily summaries were very useful for keeping

FIGURE 10. HOW MUCH DID THE FOLLOWING COMPONENTS CONTRIBUTE TO QUALITY OF THE DIALOGUE?



abreast of all the varied discussions through the day. Less useful, in the eyes of the respondents, were the final poll and the ‘I agree’ feature, with 34% and 28% of the respondents answering ‘much’ or ‘very much,’ respectively, to the degree to which these features contributed quality to the dialogue. One commenter said that adding a function to the ‘I agree’ feature that showed users how many people had agreed with a particular posting would be beneficial to understanding what others thought of a particular statement. Although the poll was not rated highly by participants, it was a valuable tool for dialogue sponsors to understand participants’ opinions.

Hear from a demographically diverse group from a broad range of perspectives

The dialogue sponsors sought to attract a wide diversity of participants that represented different perspectives as well as different demographic characteristics, including age, gender, race and education. Evaluating whether this was accomplished involves looking both at how many people participated and how diverse they were.

The number of people who registered for the dialogue and then actively participated in it was less than expected. It is a challenge to identify a single number for how many people participated in the dialogue because people participated in different ways. The count can range from the 109 people who posted messages, to the 164 who responded to the poll, to the 348 people who logged in to the site during the three days of the dialogue, to the 423 people who registered for it. Even these numbers probably don’t

catch everyone who visited the site to read messages because these people were not required to register or log in. If one looks at participant’s information about who participated in the dialogue through them, the number of people “exposed” to the dialogue can be estimated at around 1,100.

The initial goal for the dialogue was to involve a maximum of 1,500 people. Expectations were raised significantly with the prospect of working with Google as a key partner in the dialogue. Had this strategy materialized, the expectation was to accommodate as many as 16,000 participants in a modified “proxy” format in which a sub-group would be randomly sampled to create a diverse mix of discussants from throughout the country. However, the anticipated arrangement with Google did not materialize.

In addition to attracting fewer people as active participants than originally envisioned, the dialogue also attracted a less diverse body of participants than desired. As noted in Section 3, participants were more highly educated than the average population and were more likely to be white and female than the general population. Participants also had a great deal of experience and knowledge around pandemic influenza issues than would be expected in the general population (an issue taken up below).

FIGURE 11. DO YOU FEEL THAT IMPORTANT ISSUES WERE LEFT OUT OF THE DIALOGUE?

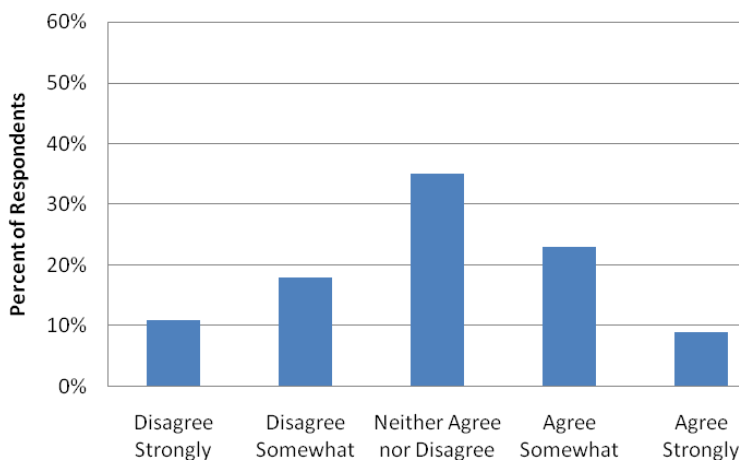
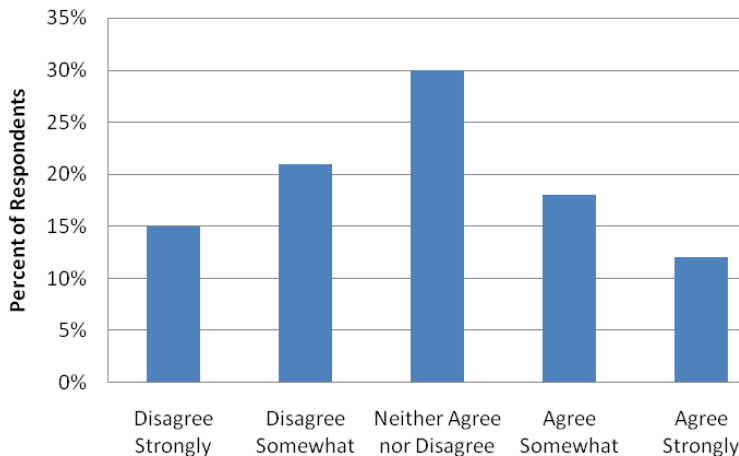


FIGURE 12. DO YOU FEEL THAT IMPORTANT PERSPECTIVES WERE LEFT OUT OF THE DIALOGUE?



One risk of not having a broad base of participation is that important perspectives or issues will be left out of discussions. In the post-dialogue evaluation, participants were asked about the balance of perspectives in the dialogue. When asked if one person or a small group had dominated the dialogue, 32% agreed somewhat and 11% agreed strongly, while 13% disagreed somewhat and 11% disagreed strongly (the remaining 32% neither disagreed nor agreed or had no response). Respondents were also asked if they felt that important issues or perspectives had been left out of the dialogue.

- › As shown in Figure 11, 32% of respondents agreed somewhat or strongly that important issues had been left out of the dialogue, while 29% disagreed with this statement.
- › Thirty percent of respondents strongly or somewhat agreed that important perspectives had been left out of the dialogue, while 36% strongly or somewhat disagreed with this statement, as shown in Figure 12.

Comments from respondents elaborated on these responses: many commenters noted that the views of the ‘general public’ were not well expressed, and that the dialogue had been dominated by a few, rather expert voices and opinions. On the other side, one of the respondents who had been one of the more active participants said, “A few of us dominated the dialogue but it was up to those who felt equal passion to find their own voice and speak it.”

The goal of involving individuals who were uninformed about pandemic influenza made it difficult to first gain their attention and then secure a commit to a three-day, highly complex discussion. Beyond this general challenge, there were a number of reasons that the dialogue did not attract as many people—or as a diverse a set of participants—as desired. The most important reason is the outreach strategy. To attract a large group of the lay public, outreach needs to be compelling and broad, reaching people through the communications channels that they use. These include mainstream media, television, high use Web sites, organizations with broad membership, and other avenues. In this dialogue, a number of factors hampered the ability to reach people through these means of communication, including:

- A compressed schedule that constrained the amount of time available to advertise the dialogue, and the timing of the dialogue between Thanksgiving and the winter holidays;
- The loss of Google as a key outreach partner;
- A request from HHS that the press not be contacted as part of the dialogue outreach activities, due to HHS’s concern about the potentially sensitive nature of the prioritization recommendations;
- A reluctance to engage the pandemic flu “social media” (e.g., blog) community in communicating about or participating in the dialogue; and
- Belated announcements and links to the web dialogue, which did not appear on CDC.gov and panflu.gov websites until at most three working days before the dialogue began.

As a reflection of these shortcomings in outreach, when participants were asked how they heard about the dialogue, no participants said they heard about it from traditional media (newspaper, magazine, radio, or TV) and only a small fraction said they heard about it from a search engine or website. Most people reported hearing about the dialogue through much more targeted, personalized channels, such as an email from an organization, through friends or family, through work or through an announcement on a discussion list.

Other factors also help explain the lower than expected level of participation and lack of diversity. These include:

- *The voluntary nature of participation.* Online participation competes for attention with many other things in people’s lives in a way that is more significant than face-to-face interaction where the participants are more “captive” for the duration of the interaction. In the case of this dialogue, the challenge was increased by a number of factors, including the proximity of the dialogue to the holiday season and the end of academic terms, a general drop off of media coverage about pandemic influenza, the lack of a sense of immediacy about the issue, and the lack of incentives (financial or otherwise) for participating.
- *The relatively high level of commitment expected of participants.* As an expectation for participating in the dialogue, individuals were told they needed to learn about pandemic flu and the guidance document. They were also asked to participate on all three days and to complete

three forms, one at registration and two on the final day of the dialogue. Although expectations of this nature do not preclude a robust turnout, it makes the challenge far more significant.

- *The complexity of the issue.* As noted above, participants were expected to learn about pandemic influenza in order to participate in the dialogue. Not only are the technical issues about the disease complex, the hypothetical scenarios, abstractions, and difficult trade-offs involved in prioritization were highly complex as well. The barriers to entry for lay people not familiar with public health were therefore high.
- *The “digital divide.”* Although the “digital divide” is less pronounced today than it was when it first drew considerable attention ten to fifteen years ago, use of the Internet is still skewed by factors such as education and income level. Fully 86% of those registering for the dialogue said they used the Internet one or more times per day, and none said they used it less than once per month. Thirty-five percent said they participated in social media sites (such as blogs) on pandemic influenza once a month or more. People that used the Internet more were more likely to find out about the dialogue, particularly given the lack of traditional media coverage, and more likely to be comfortable participating.

Hear from people who would not have the opportunity to participate otherwise, particularly interested citizens that are not “typical” pandemic influenza stakeholders

By conducting an online dialogue CDC hoped to hear new voices, especially those of members of the interested public that will be affected by the vaccination guidelines. They were less interested in hearing from the organized groups that are CDC’s typical stakeholders, such as the public health community and organized groups concerned about the response to pandemic influenza.

As noted above, however, many participants had much more experience and knowledge about pandemic influenza issues than would be expected in the general population. Most (61%) reported that they were professionally involved in pandemic influenza policy or planning; 14% said they had a great deal of knowledge about pandemic influenza, but were not professionally involved in it. Only 11% said that they had limited or no knowledge of pandemic influenza (5% did not respond). When asked five factual questions about pandemic influenza before the dialogue started, 66% of respondents were correct on four or five of the questions. Only 20% of participants were only correct on two or fewer questions.

The expertise of the group was very clear in the discussions. The most active people posting to the website—the eight participants that posted 50% of the messages—were very well versed in the issues.

In the post-dialogue evaluation, respondents were positive about the overall participant interaction and level of knowledge, but many respondents also said that they felt that the dialogue did not reach the people that the dialogue organizers had intended, and that the dialogue could have been advertised more widely. As one responder wrote, “Generally, I found the discussion productive. I was disappointed that not more non-public health folks participated, as I really wanted to hear voices from the general public.”

Provide the same opportunities as the in-person meetings to learn about and consider pandemic influenza vaccination issues

One goal of the dialogue was to educate participants about pandemic influenza and encourage them to think about their values and opinions about vaccination priorities. This was intended to help participants take an active and educated role in discussing and considering the issues in the dialogue and elsewhere. Participants in the dialogue were asked to answer a set of factual questions about pandemic influenza before and after the dialogue. There were five multiple-choice knowledge questions:

1. How soon after someone is infected with an influenza virus will they get sick?
2. When will the next pandemic occur?
3. About how many people do you think die in a typical year from influenza in the United States?
4. Who is at risk when a new influenza virus appears that has never been seen before?
5. How many pandemics have occurred over the last 100 years?

One hundred and twenty-five participants answered the questions both before and after the dialogue. The results suggest that participants improved their knowledge somewhat during the dialogue. However, many had a high degree of knowledge going into the dialogue either because of their professional involvement or personal interest in the issue or because they educated themselves using resources in the dialogue's document library prior to the dialogue. Forty-seven percent of the participants that answered knowledge questions both before and after the dialogue were correct for all of the questions prior to the dialogue, and 51% were correct for all the questions after the dialogue. Prior to the dialogue, 13% got two or fewer answers correct, which was down to 6% after the dialogue. Twenty-nine percent of individuals got a better score on the post-evaluation questions, 53% stayed the same, and 18% received a lower score.

Along with the factual questions about pandemic influenza, participants were asked to express their opinions about vaccination priorities before and after the dialogue. They rated the following goals on a one to eight scale (where one was highest priority):

- › Minimize deaths due to influenza
- › Minimize the spread of influenza
- › Maintain social order
- › Maintain critical health care services
- › Maintain economic productivity
- › Treat all persons the same regardless of status
- › Ensure adequate distribution of vaccine and antiviral medicines
- › Maintain national security

Opinions about the goals were fairly stable from the beginning of the dialogue to the end (see Table 2). In both the pre-dialogue and post-dialogue evaluations, the top three goals were 1) minimize the spread of influenza, 2) maintain critical health care services, and 3) minimize deaths due to influenza. The least supported goals were 1) treat all persons the same regardless of status and 2) maintain economic productivity. To the extent that opinions changed over the course of the dialogue, it was at the bottom of the scale, where "treat all persons the same regardless of status" declined by over one ranking point to be the least supported goal and "maintain economic productivity" rose nearly three-quarters of a point.

Table 2. Comparison of Pre-Dialogue and Post-Dialogue Evaluation Ranking of Vaccination Goals

Rank	Pre-Dialogue Order (Mean Score on 1 to 8 scale where 1 is highest)	Post-Dialogue Order (Mean Score on 1 to 8 scale where 1 is highest)
1	Minimize the spread of influenza (2.31)	Minimize the spread of influenza (2.18)
2	Maintain critical health care services (2.76)	Maintain critical health care services (2.87)
3	Minimize deaths due to influenza (2.90)	Minimize deaths due to influenza (3.00)
4	Ensure adequate distribution of vaccine and antiviral medicines (3.78)	Maintain social order (3.84)
5	Maintain social order (4.06)	Ensure adequate distribution of vaccine and antiviral medicines (4.17)
6	Maintain national security (4.80)	Maintain national security (4.54)
7	Treat all persons the same regardless of status (5.31)	Maintain economic productivity (5.08)
8	Maintain economic productivity (5.84)	Treat all persons the same regardless of status (6.33)

In addition to the knowledge and opinion questions asked before and after the dialogue, participants were asked how much they perceived themselves learning about pandemic influenza from the dialogue process:

- › 76% agreed that the dialogue had helped them consider the trade-offs involved in setting priorities for pandemic influenza vaccinations (6% disagreed strongly or somewhat).
- › 73% agreed strongly or somewhat that they had learned a great deal about what the draft guidance proposed as a strategy for prioritizing access to vaccines (7% disagreed strongly or somewhat).
- › 60% agreed strongly or somewhat that they had enough information to have a well-informed opinion about making the best use of limited supplies of vaccine in a pandemic (18% disagreed strongly or somewhat).
- › 47% of all respondents agreed strongly or somewhat that they had learned a great deal about the causes and consequences of pandemic influenza (30% said they disagreed strongly or somewhat).

Overall, the dialogue seems to have made at least some impact on the level of knowledge of the participants and had a slight impact on their opinions. At the very least, it prompted discussions and considerations of the many issues surrounding pandemic influenza. One commenter enthusiastically complimented the dialogue process, saying that he had participated fully in the process, and concluded, “I learned a lot and am motivated to prepare and help others prepare.”

Provide the same opportunities as the in-person meetings for the sponsors to discover the opinions of the participants

The thematic summary of discussions and the poll results were the two main ways for sponsors to understand the opinions of participants about the draft guidance and issues that inform its ranking. These are summarized in Sections 3 and 4 of this report.

Lessons Learned

Over the course of the dialogue, the facilitator and other members of the dialogue team developed insights into the dialogue process that could be beneficial to future web dialogues on policy issues. Below are a number of these “lessons learned.”

In order to hold an effective dialogue, there are a few non-negotiable factors that dialogue hosts and contractors should adhere to:

- Scheduling needs to be flexible enough to ensure that there are no serious conflicts with the schedules of key host organization staff during dialogue development, outreach and production;
- There should be at least ten weeks of lead time. This includes five weeks to develop the agenda, compile library resources and schedule panelists, four weeks to announce the dialogue, and one additional week to accommodate unknown issues that crop up; and
- Key panelists need to be available to participate.

Tailor outreach to the target audience, and engage in early strategic marketing, especially if the goal is to reach people who have not traditionally been engaged on these topics. One goal of the dialogue was to involve a broad and diverse group of individuals throughout the country who were relatively unfamiliar with pandemic influenza and who wanted to learn about the subject and offer feedback on the draft guidance. Timing for final dialogue development and outreach was tight because of the need to conclude the dialogue before a key stakeholder meeting. The tight schedule was exacerbated by the announcement period overlapping the Thanksgiving holiday. A few key lessons are:

- › *Include all project sponsors in outreach planning.* All project sponsors should participate in developing outreach goals and identifying targeted groups, communication channels, opportunities and challenges. Develop a specific plan that all sponsors and involved individuals sign off on and that identifies what needs to be done and when. (For critical organizations, there should be redundancy in personnel to cover unexpected absences.)
- › *Identify the targeted participants early.* Clearly state the intended audience in the dialogue announcement and on the home page so that untargeted, yet interested, individuals are not disappointed.
- › *Identify organizations and avenues for recruiting targeted participants.* Focus outreach efforts on organizations providing a gateway to targeted individuals. Knowing the intended audience will help staff provide information and instruction to partners assisting with outreach.
- › *Build in sufficient time to announce the dialogue.* Plan on four weeks to actively announce a large dialogue. This is particularly important when multiple agencies or organizations are working together to announce a dialogue. If the timing spans a major holiday, add an additional week for outreach. Contact partner organizations to outline the outreach activities well before the announcement date. Track the outreach effectiveness of key partner organizations. Contact key organizations again midway through the outreach period to report on progress and request additional communication if needed.
- › *When the general public is the target audience, use mass media to announce the dialogue.* Special efforts are needed to secure coverage well before the dialogue begins. Work with the media to secure interviews that allow sponsors to highlight the importance of the dialogue and the value of participants’ input.

- › *Employ new media communication avenues.* Use new media (e.g., mobile technology, MySpace, e-alerts, e-cards, web marketing, etc.) to expand marketing and outreach avenues.
- › *Use Search-oriented advertisements (e.g., Google and Yahoo AdWords) when targeting individuals who are aware of and interested in the topic.* Plan on running advertisements for at least two to three weeks prior to the dialogue start.
- › *Track registrant demographics and revise outreach accordingly.* Review demographics and refocus outreach to target under-represented groups or regions. Track how participants hear about the dialogue to revise communications efforts mid-way through the outreach period.
- › *Consider providing incentives to participants.* Recruitment for in-person pandemic influenza meetings became easier when a \$50 stipend was offered to attendees. Consider providing a movie, book, or restaurant gift certificate (or similar incentive) to individuals contributing messages and completing required forms.
- › *Include strategies to engage individuals who do not use online communication.* Employ community-based strategies to engage individuals who may not use, or are not comfortable with, online communication. Collaborate with organizations, such as libraries and community centers, to hold simultaneous in-person discussions with interested individuals and then represent their views in the dialogue. Prepare reference resources to match the target audience. If less educated individuals are targeted, prepare simplified versions of key resources and make the material available to collaborating groups along with outreach invitations.

Activity in the dialogue depends less on the number of participants than on their enthusiasm. The size of the registrant population is not necessarily an accurate indicator of the amount of activity in the dialogue. In this dialogue, the group of participants was very accustomed to online communication, readily joined the dialogue discussions, and posted a large number of messages. Volume was particularly heavy at the beginning of the first day, although the pace did not significantly slacken until the third day. Because the level of activity in a dialogue is uncertain, the facilitation team needs to have the ability and flexibility to accommodate different levels of participation by registrants. Facilitators may have to work extended work days and panelists may have to be ready to perform some facilitation tasks. The availability of back-up facilitators was helpful in this situation.

Consider moderating messages. Many individuals entered messages that would have been more appropriate for a different discussion topic. Additionally, the facilitator needed to frequently remind participants to stay on topic and focus on the desired outcomes stated in the agenda. Future dialogues engaging a broad public (versus more targeted professionally-oriented discussions) may benefit from message moderation, depending on the size of the participant group. This would involve reviewing all messages to assess their relevance before publishing them to the web dialogue. Screening and moderating, especially in high-volume situations, creates delays in posting messages and can significantly slow the dialogue. Consideration of this strategy must balance the potential benefits of improved relevance against the potential loss of participation resulting from the slower posting and response rates. Facilitators could also suggest revisions to messages to meet targeted outcomes and adhere to guidelines, or participants could be limited in the number of messages submitted each day to the dialogue to encourage on-point discussion. Another solution is to have panelists take a more active role in directing and redirecting discussions.

Take steps to encourage broad participation. Although the targeted audience of this dialogue was the general public, some people may have felt intimidated by the many active participants who had a great deal of knowledge about pandemic influenza. A very active and high level discussion thread can deter people from participating or asking questions in spite of a facilitator's best efforts. When addressing a broad, more general audience, using methods to make participation more approachable could help gather feedback and discussion from those who may be intimidated by the activity and knowledge level of the dialogue. Options include:

- › Anticipating the different levels of knowledge and creating separate discussions for participants that are more or less knowledgeable about the subject;
- › Using feedback from alternate avenues of input to help guide and stimulate additional conversation; for example, there could be a feature for participants to tag other participants' messages with "I Don't Understand," or "I Need More Information" to alert the facilitator regarding their level of understanding or needs;
- › Creating a link for direct communication with the facilitator and/or dialogue staff so that participants can express concerns, ask questions or suggest new topics without entering a message in the discussion; and
- › Planning for some discussion topics to be defined based on participant input on previous days.

Organizers must expect participants to bring their own agendas. Participants were very interested in the general topic of pandemic influenza, and many had specific points that were of great interest to them. As a result, it required no effort to generate a lively discussion. However, it was clear that much of the agenda was not what participants really wanted to discuss. In a situation where participation is entirely voluntary, it is not feasible to expect participants stay completely on-point. Even when the facilitator had time to ask questions that would bring participants into discussions about specific issues, it was noticeable that these questions tended to produce short threads while participants actively engaged in nearby, and perhaps less relevant, conversations. It was clear that, no matter how carefully designed the agenda, the volunteer participants set much of the agenda themselves. After the dialogue was over, there was a high volume of postings to sift through to find some relevant items. It is likely that, if the facilitators had somehow kept the participants more closely aligned with the agenda, there would not have been as many items of interest, though the volume and enthusiasm of contributions would certainly have been lower. In an important way, the "remuneration" paid to volunteer participants in the dialogue was not paid in money, but in the opportunity to use part of the dialogue space for their own agendas. In return, the sponsors obtained insight into much that was not entirely relevant (but may nevertheless have been useful), and a relatively small proportion of comment that was exactly on-point to the original agenda.

High-quality panelists are an important component of dialogues. The dialogue was fortunate to have many high quality panelists who were able to dedicate so much time to the dialogue. Their effort was focused on reacting to participants' questions and intervening in conversations that appeared to be based on misinformation. In addition to this reactive role, in future dialogues, panelists may be able to proactively generate discussions on points that are of interest to the project sponsors. This would be especially useful in circumstances where a high volume of postings is distracting the facilitator from the goal of keeping the dialogue on point. To do this, it may be necessary to coach panelists in effectively posing questions. It is important to clarify the host organizations' roles and responsibilities for recruiting panelists. It is also important to allow substantial lead and staff time to invite panelists and to anticipate scheduling conflicts.

The ability to “flag” incoming messages is very useful. The ability to flag incoming messages allowed all staff members to support the work of panelists and the facilitator by flagging postings that needed attention. This was especially useful during the high-volume times.

Provide explicit, limited opportunities for participants to set agenda. The volume of responses to the poll on the last day of the dialogue suggested that the strategy to encourage participants to stay with the dialogue through a third day was effective. The third day’s agenda was left incomplete to permit the organizers to add items that appeared to be of great interest to participants, to further encourage participation on the third day. However, the full agenda for the third day was not announced until the close of the second day, so participants were not given significant advance notice of the additional agenda items. The additional agenda items included the discussion of “What to do Before Vaccine is Available.” This was a topic that caused much off-topic discussion during the first two days. It is a classic facilitation tactic to bring attention back to a relevant issue by promising participants an opportunity to discuss less relevant issues later. It might have helped keep participants in more relevant discussions if, during the off-topic discussion, the facilitator had promised an opportunity to discuss that off-topic issue on the third day. It might have provided even more support for adherence to the agenda on the first two days if there had been an explicit opportunity for participants to propose agenda items for the third day. This could have been achieved, for example, by including a focus point in the first two days that invited “proposals for agenda items for day three.” This change to the agenda would have necessitated meetings with the sponsors at the end of each day to discuss the agenda for the third day and establish these specific opportunities.

Robust and early collaboration is important. The web dialogue was one aspect of a much larger collaborative effort by multiple agencies and organizations to solicit input on the draft guidance. Although WestEd developed and produced the web dialogue, dialogue elements such as panelist recruitment and participant outreach were primarily the responsibility of other organizations. Dialogue planning, recruitment of panelists, and outreach could have benefited from earlier and closer collaboration with Keystone, the organization leading the in-person engagements, as well as the other key organizations.

Create opportunities for non-targeted participants to participate. The registration form stated the dialogue was not intended for public health practitioners, health care providers, or first responders. It requested these individuals submit written comments on the draft guidance instead. To keep the process as open as possible and set the stage for future engagements, involve these groups by framing an additional topic or discussion track that addresses their knowledge and interests. To build further confidence and engagement at registration, solicit suggestions for additional dialogue topics.

Avoid asking participants to do too much. Two requests for feedback on the final day—the poll and evaluation form—caused information overload, some participant confusion, and likely reduced the response rate for both. Balance the need to gather data and information with the desire to build registration numbers. Keep the registration process as short as possible to increase completion.

Beware of spam filters when conducting email authentication. When beginning the registration process, email messages providing the registration link and authenticating the email address were

frequently caught in registrants' spam filters. This was particularly true for government agencies and large organizations. Alternate authentication methods not requiring email links should be explored.

Design of web-based engagement should be collaborative and iterative. Each dialogue has a different goal, purpose and target audience. Every dialogue results in new insights regarding how to recruit and engage the target audience in order to achieve the goals and desired outcomes. To evolve web-based engagement, agencies and organizations should implement and evaluate different strategies and then work closely with decision makers, panelists and participants to determine what works for everyone. Ideas that arose from the experience of this dialogue (and aren't already described above) include the following features that could be activated as needed:

- › Require that participants log in to view dialogue discussions and review daily summaries while the dialogue is underway—this allows an accurate count of active participants;
- › Require individuals to review and agree to discussion guidelines prior to their first message contribution;
- › Create a means to limit the number of posts by individuals, according to a host-determined algorithm; tracking could be by discussion thread or by total messages for each participant;
- › Count the “click throughs” on emailed summaries and email agenda reminders to count the number of people using these resources;
- › Track participation activities and provide incentives to individuals meeting a defined level of active participation; and
- › Create a “hover feature” in the discussion to enable participants to view key participants' information without having to click on their profile.

7. CONCLUSION

The Vaccination Prioritization for Pandemic Influenza Web Dialogue provided insights about the nation's response to a pandemic influenza outbreak and insights into electronic dialogues as a method of public engagement.

Regarding the nation's response to pandemic influenza, the dialogue generated a number of ideas to consider for adjusting the prioritization of vaccine distribution. Many of these ideas were debated in the dialogue, and support differed among groups in the poll on changes to the vaccination prioritization draft guidance. The Federal interagency group led by the Department of Health and Human Services and the Department of Homeland Security will have to consider these differing viewpoints as it goes about revising the draft.

Participants suggested a number of considerations about preparing for, and responding to, pandemic influenza that go beyond the scope of the guidance. Some of these concerned the vital importance of honest and credible communication from government. Others concerned the best way for individuals to prepare themselves. This information can be useful for informing the overall plans for influenza preparation.

Concerning the dialogue format itself, participants were generally satisfied with the process and the information it generated. Some questioned the amount of influence that the dialogue would have, but at least as many were confident that it would have some influence. Dialogue organizers found that, compared to an in-person meeting, it is difficult to predetermine who will participate in such a dialogue, and it can be challenging to keep discussions on the specific topics of the agenda. Sponsors would have liked to have more participants that were more demographically representative of the United States and less directly involved in pandemic influenza issues. Some participants reported that the dialogue was dominated by a few people and some viewpoints, especially those of the "general public," were not well represented. Nevertheless, participants and organizers heard from those deeply committed to the topic (and in many cases highly educated about it) and heard about the issues on which these participants think CDC needs to focus as the agency revises the draft guidance and makes plans for pandemic influenza outbreaks.

APPENDIX A. DEMOGRAPHICS SUMMARY

Total Number of Registrants: 423.

Sex	Number	Percent of Total
Female	283	67%
Male	140	33%
No Response	0	0%

Ethnicity	Number	Percent of Total
African American/ Non-Hispanic Black	18	4%
Asian or Pacific Islander	15	4%
Caucasian/Non-Hispanic White	334	79%
Hispanic White/Latino	18	4%
Multi-racial/ethnic	10	2%
Native American/American Indian	2	<1%
Other	25	6%
No Response	1	<1%

Education	Number	Percent of Total
Less than high school	0	0%
Some high school	1	<1%
High school graduate (or equivalent)	4	1%
Some college/higher education	42	10%
College graduate	108	26%
Some graduate study	27	6%
Master's (MA, MS, etc) or JD	145	34%
Doctorate (e.g. Ph.D., MD, LLB)	60	14%
No Response	36	9%

Age	Number	Percent of Total
18-20	1	<1%
21-24	14	3%
25-29	31	7%
30-34	37	9%
35-44	103	24%
45-49	62	15%

Age	Number	Percent of Total
50-54	87	21%
55-64	74	18%
65 and over	12	3%
No Response	2	<1%

How would you describe your home location?

Location	Number	Percent
Rural	46	11%
Small Town	77	18%
Suburban	105	25%
Urban	171	40%
No Response	24	6%

In what role are you participating in this dialogue?

Role	Number	Percent of Total
Public health professional/practitioner	158	38%
Government employee	73	17%
Health care provider	42	10%
Interested individual	47	11%
First responder	16	4%
Educator	33	8%
Corporate/business person	30	7%
Student	10	2%
Researcher	7	2%
Media	5	1%
Scientist	5	1%
Elected official	3	1%
Civil Society	1	0%
NGO	1	0%
Community based organization	1	0%
Other	62	15%

Respondents could answer multiple roles.

Type of Participant	Number	Percent of Total
Discussant	120	28%
Observer	285	67%
No Response	18	5%

How did you hear about the dialogue?

Dialogue Information Source	Number	Percent of Total
Announcement on discussion list	26	6%
Blog	5	1%
Community group	8	2%
Email from organization	180	43%
Friend or colleague	104	25%
NACCHO invitation	2	<1%
Newspaper/Magazine/Radio/TV	0	0%
Through work or business	56	13%
Professional organization	17	4%
Search engine	4	1%
Website	16	4%
Other*	16	4%

* Other respondents reported finding out about the dialogue through fluwikie.com and by chance when researching about pandemic influenza and other topics.

Will others in your family, office, class or community group be indirectly participating in the dialogue through you? If so, how many?

Indirect Participation?	Number	Percent of Total
No, just me	256	61%
1-3	94	22%
4-5	41	10%
6-10	10	2%
11-15	4	1%
16-20	4	1%
20-25	1	<1%
More than 25	13	3%
No Response	0	0%

Are you a parent or guardian of children 18 years or younger?

Guardian?	Number	Percent of Total
No	240	57%
Yes	163	39%
No Response	20	5%

How frequently do you use the internet?

Internet Frequency	Number	Percent of Total
One or more times per day	365	86%
One or more times a week	5	1%
One or more times per month	3	1%

Internet Frequency	Number	Percent of Total
Fewer than 12 times	0	0%
Once	0	0%
Never	0	0%
No Response	50	12%

How often do you participate in blogs or other social media sites about pandemic flu?



Social Media	Number	Percent of Total
One or more times per day	34	8%
One or more times a week	41	10%
One or more times per month	70	17%
Fewer than 12 times	65	15%
Once	28	7%
Never	164	39%
No Response	21	5%

What best describes your knowledge and experience with pandemic flu?

Knowledge/Experience	Number	Percent of Total
No knowledge or experience prior to this dialogue	7	2%
Limited knowledge, mainly from reading or talking about topic with others	36	9%
Knowledgeable about the topic but not professionally involved in it	60	14%
Professionally involved in pandemic influenza issues	117	28%
Professionally involved in local, state or federal pandemic planning	183	43%
No Response	20	5%

Cross-Tab of Knowledge/Experience versus Social Media Use

Knowledge/Experience ----->	No knowledge or experience prior to this dialogue	Limited knowledge, mainly from reading or talking about topic with others	Knowledgeable about the topic but not professionally involved in it	Professionally involved in pandemic influenza issues	Professionally involved in local, state or federal pandemic planning
Social Media Use ↓					
Never	71%	64%	27%	41%	40%
Once	29%	6%	7%	6%	7%
Fewer than 12 times	0%	19%	10%	22%	15%
More than once per month	0%	6%	17%	17%	21%
More than once per	0%	0%	13%	9%	12%

Knowledge/ Experience  Social Media Use 	No knowledge or experience prior to this dialogue	Limited knowledge, mainly from reading or talking about topic with others	Knowledgeable about the topic but not professionally involved in it	Professionally involved in pandemic influenza issues	Professionally involved in local, state or federal pandemic planning
week					
More than once per day	0%	6%	27%	5%	5%

APPENDIX B. POLL RESULTS SUMMARY

After the dialogue was completed, participants took a poll that asked them questions about changes in the vaccination prioritization plan that participants and panelists discussed during the dialogue. 164 participants who had registered for the dialogue took this poll.

Demographics of Poll Respondents

Sex	Number	Percent of Total
Female	110	67%
Male	54	33%
No Response	0	0%

Ethnicity	Number	Percent of Total
African American/ Non-Hispanic Black	8	5%
Asian or Pacific Islander	1	1%
Caucasian/Non-Hispanic White	136	83%
Hispanic White/Latino	7	4%
Multi-racial/ethnic	3	2%
Native American/American Indian	1	1%
Other	8	5%
No Response	0	0%

Education	Number	Percent of Total
Less than high school	0	0%
Some high school	0	0%
High school graduate (or equivalent)	1	1%
Some college/higher education	24	15%
College graduate	40	24%
Some graduate study	15	9%
Master's (MA, MS, etc) or JD	55	34%
Doctorate (e.g. Ph.D., MD, LLB)	21	13%
No Response	8	5%

Age	Number	Percent of Total
18-20	0	0%
21-24	5	3%

Age	Number	Percent of Total
25-29	14	9%
30-34	12	7%
35-44	39	24%
45-49	26	16%
50-54	34	21%
55-64	27	16%
65 and over	7	4%
No Response	0	0%

How would you describe your home location?

Location	Number	Percent
Rural	17	10%
Small Town	33	20%
Suburban	51	31%
Urban	59	36%
No Response	44	2%

In what role are you participating in this dialogue?

Role	Number	Percent of Total
Public health professional/practitioner	56	34%
Government employee	24	15%
Health care provider	16	10%
Interested individual	23	14%
First responder	6	4%
Educator	10	6%
Corporate/business person	13	8%
Student	4	2%
Researcher	4	2%
Media	2	1%
Scientist	4	2%
Elected official	2	1%
Civil Society	0	0%
NGO	0	0%
Community based organization	0	0%
Other	24	15%

Respondents could answer multiple roles.

Type of Participant	Number	Percent of Total
Discussant	51	31%
Observer	105	64%

Type of Participant	Number	Percent of Total
No Response	8	5%

How did you hear about the dialogue?

Dialogue Information Source	Number	Percent of Total
Announcement on discussion list	12	7%
Blog	4	2%
Community group	3	1%
Email from organization	62	38%
Friend or colleague	52	32%
NACCHO invitation	0	0%
Newspaper/Magazine/Radio/TV	0	0%
Through work or business	20	12%
Professional organization	6	4%
Search engine	2	1%
Website	9	5%
Other*	7	4%

*Will others in your family, office, class or community group be indirectly participating in the dialogue through you?
If so, how many?*

Indirect Participation?	Number	Percent of Total
No, just me	97	59%
1-3	36	22%
4-5	19	12%
6-10	2	1%
11-15	2	1%
16-20	1	1%
20-25	1	1%
More than 25	6	4%
No Response	0	0%

Are you a parent or guardian of children 18 years or younger?

Guardian?	Number	Percent of Total
No	98	60%
Yes	58	35%
No Response	9	5%

How frequently do you use the internet?

Internet Frequency	Number	Percent of Total
One or more times per day	157	96%
One or more times a week	3	2%

Internet Frequency	Number	Percent of Total
One or more times per month	0	0%
Fewer than 12 times	0	0%
Once	0	0%
Never	0	0%
No Response	14	9%

How often do you participate in blogs or other social media sites about pandemic flu?

Social Media	Number	Percent of Total
One or more times per day	20	12%
One or more times a week	13	8%
One or more times per month	27	16%
Fewer than 12 times	20	12%
Once	9	5%
Never	67	41%
No Response	8	5%

What best describes your knowledge and experience with pandemic flu?

Knowledge/Experience	Number	Percent of Total
No knowledge or experience prior to this dialogue	1	1%
Limited knowledge, mainly from reading or talking about topic with others	12	7%
Knowledgeable about the topic but not professionally involved in it	37	23%
Professionally involved in pandemic influenza issues	45	27%
Professionally involved in local, state or federal pandemic planning	61	37%
No Response	8	5%

Overall Responses

1. Overall, do you agree or disagree with the draft guidance plan for who gets vaccinated earlier and who later?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	4	2%	1.29
Moderately Disagree (-2)	11	7%	
Slightly Disagree (-1)	5	3%	
Neutral (0)	10	6%	
Slightly Agree (1)	36	22%	
Moderately Agree (2)	74	45%	
Strongly Agree (3)	21	13%	

No Response (-)	3	2%	
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2. Do you agree or disagree with the draft guidance plan to vaccinate children before older adults?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	5	3%	1.57
Moderately Disagree (-2)	6	4%	
Slightly Disagree (-1)	10	6%	
Neutral (0)	18	11%	
Slightly Agree (1)	14	9%	
Moderately Agree (2)	49	30%	
Strongly Agree (3)	60	37%	
No Response (-)	2	1%	

3. Do you agree or disagree that individuals 80 years or older should be moved from Tier 4 to Tier 5?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	5	3%	1.40
Moderately Disagree (-2)	8	5%	
Slightly Disagree (-1)	7	4%	
Neutral (0)	20	12%	
Slightly Agree (1)	29	18%	
Moderately Agree (2)	43	26%	
Strongly Agree (3)	50	30%	
No Response (-)	2	1%	

4. Do you agree or disagree that all individuals age 20 and below should be moved to Tier 1?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	20	12%	-0.05
Moderately Disagree (-2)	26	16%	
Slightly Disagree (-1)	29	18%	
Neutral (0)	20	12%	
Slightly Agree (1)	23	14%	
Moderately Agree (2)	26	16%	
Strongly Agree (3)	19	12%	
No Response (-)	1	1%	

5. Do you agree or disagree that babies under 6 months should be prioritized along with older infants and toddlers? (Currently they are not prioritized because they do not respond well to influenza vaccine and the vaccine is not licensed for this age group.)

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	32	20%	-0.98
Moderately Disagree (-2)	50	30%	

	Number	Percent of Total	Mean Response
Slightly Disagree (-1)	14	9%	
Neutral (0)	37	23%	
Slightly Agree (1)	12	7%	
Moderately Agree (2)	12	7%	
Strongly Agree (3)	5	3%	
No Response (-)	2	1%	

6. Do you agree or disagree that school aged children should be moved up and vaccinated before infants and younger children?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	1	1%	1.44
Moderately Disagree (-2)	12	7%	
Slightly Disagree (-1)	8	5%	
Neutral (0)	12	7%	
Slightly Agree (1)	36	22%	
Moderately Agree (2)	46	28%	
Strongly Agree (3)	47	29%	
No Response (-)	2	1%	

7. Do you agree or disagree that the primary wage earner from each family should be moved to Tier 1?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	29	18%	-0.16
Moderately Disagree (-2)	20	12%	
Slightly Disagree (-1)	25	15%	
Neutral (0)	17	10%	
Slightly Agree (1)	26	16%	
Moderately Agree (2)	26	16%	
Strongly Agree (3)	16	10%	
No Response (-)	5	3%	

8. Do you agree or disagree that families of those working in the critical infrastructure or healthcare should be vaccinated in the same Tier as the worker?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	20	12%	0.70
Moderately Disagree (-2)	16	10%	
Slightly Disagree (-1)	15	9%	
Neutral (0)	12	7%	
Slightly Agree (1)	22	13%	
Moderately Agree (2)	32	20%	
Strongly Agree (3)	45	27%	

No Response (-)	2	1%	
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9. Do you agree or disagree that all homeland security personnel (Coast Guard, border protection, TSA, FEMA, intelligence services) should be moved to Tier 1?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	19	12%	0.28
Moderately Disagree (-2)	25	15%	
Slightly Disagree (-1)	16	10%	
Neutral (0)	12	7%	
Slightly Agree (1)	32	20%	
Moderately Agree (2)	29	18%	
Strongly Agree (3)	26	16%	
No Response (-)	5	3%	

10. Do you agree or disagree that the National Guard should be moved from Tier 2 to Tier 1?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	4	2%	0.94
Moderately Disagree (-2)	19	12%	
Slightly Disagree (-1)	19	12%	
Neutral (0)	18	11%	
Slightly Agree (1)	28	17%	
Moderately Agree (2)	30	18%	
Strongly Agree (3)	45	27%	
No Response (-)	1	1%	

11. Do you agree or disagree that family members of first responders should be vaccinated at the same time as the first responder? (First responder is defined as Medical responders including EMS, law enforcement, and fire.)

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	17	10%	0.89
Moderately Disagree (-2)	16	10%	
Slightly Disagree (-1)	12	7%	
Neutral (0)	13	8%	
Slightly Agree (1)	21	13%	
Moderately Agree (2)	31	19%	
Strongly Agree (3)	52	32%	
No Response (-)	2	1%	

12. Do you agree or disagree that community pharmacists should be moved from Tier 3 to Tier 1?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	8	5%	1.05
Moderately Disagree (-2)	13	8%	
Slightly Disagree (-1)	14	9%	

	Number	Percent of Total	Mean Response
Neutral (0)	13	8%	
Slightly Agree (1)	35	21%	
Moderately Agree (2)	40	24%	
Strongly Agree (3)	40	24%	
No Response (-)	1	1%	

13. Do you agree or disagree that postal personnel should be moved from Tier 3 to Tier 2?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	10	6%	0.15
Moderately Disagree (-2)	24	15%	
Slightly Disagree (-1)	25	15%	
Neutral (0)	32	20%	
Slightly Agree (1)	32	20%	
Moderately Agree (2)	21	13%	
Strongly Agree (3)	18	11%	
No Response (-)	2	1%	

14. Do you agree or disagree that all critical infrastructure personnel should be moved to Tier 1 and pregnant women, infants and toddlers should be moved to Tier 2?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	18	11%	0.82
Moderately Disagree (-2)	15	9%	
Slightly Disagree (-1)	9	5%	
Neutral (0)	8	5%	
Slightly Agree (1)	35	21%	
Moderately Agree (2)	40	24%	
Strongly Agree (3)	37	23%	
No Response (-)	2	1%	

15. Do you agree or disagree that government officials without close contact with the public should be prioritized as part of the General Public dependent on their age and health status?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	5	3%	1.77
Moderately Disagree (-2)	5	3%	
Slightly Disagree (-1)	4	2%	
Neutral (0)	10	6%	
Slightly Agree (1)	26	16%	
Moderately Agree (2)	43	26%	
Strongly Agree (3)	66	40%	
No Response (-)	5	3%	

16. Do you agree or disagree that child care workers should be vaccinated in Tier 2?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	5	3%	0.80
Moderately Disagree (-2)	12	7%	
Slightly Disagree (-1)	19	12%	
Neutral (0)	24	15%	
Slightly Agree (1)	34	21%	
Moderately Agree (2)	46	28%	
Strongly Agree (3)	20	12%	
No Response (-)	4	2%	

17. Do you agree or disagree that transportation, food and pharmaceutical personnel should be moved from Tier 3 to Tier 2?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	9	5%	1.30
Moderately Disagree (-2)	3	2%	
Slightly Disagree (-1)	10	6%	
Neutral (0)	16	10%	
Slightly Agree (1)	39	24%	
Moderately Agree (2)	39	24%	
Strongly Agree (3)	45	27%	
No Response (-)	3	2%	

18. Do you agree or disagree that Tier 4 and 5 should be switched (healthy adults vaccinated before the ill and elderly)?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	8	5%	1.31
Moderately Disagree (-2)	11	7%	
Slightly Disagree (-1)	11	7%	
Neutral (0)	14	9%	
Slightly Agree (1)	25	15%	
Moderately Agree (2)	34	21%	
Strongly Agree (3)	59	36%	
No Response (-)	2	1%	

19. Do you agree or disagree that personnel who maintain the integrity of the money supply system should be moved from Tier 3 to Tier 1?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	29	18%	-0.44
Moderately Disagree (-2)	26	16%	
Slightly Disagree (-1)	28	17%	

	Number	Percent of Total	Mean Response
Neutral (0)	25	15%	
Slightly Agree (1)	21	13%	
Moderately Agree (2)	25	15%	
Strongly Agree (3)	8	5%	
No Response (-)	2	1%	

20. Do you agree or disagree that this web-based dialogue is a good format for discussing health policy issues such as vaccine prioritization for pandemic influenza?

	Number	Percent of Total	Mean Response
Strongly Disagree (-3)	1	1%	1.66
Moderately Disagree (-2)	9	5%	
Slightly Disagree (-1)	7	4%	
Neutral (0)	14	9%	
Slightly Agree (1)	24	15%	
Moderately Agree (2)	50	30%	
Strongly Agree (3)	58	35%	
No Response (-)	1	1%	

Comparison of Poll Responses between Groups

In the tables that follow, responses to poll questions that differ at a 90% confidence interval or more (i.e., a p-value of 0.1 or less) are shaded. The analysis used a two-tailed t-test assuming equal variances.

Poll Questions by Age (18–44 vs. 44 and above)

Poll Question	Age 18–44			Age 44 and above			Diff. in Means	p-value
	Mean	Std Dev	N	Mean	Std Dev	N		
1. Overall, do you agree or disagree with the draft guidance plan for who gets vaccinated earlier and who later?	1.49	1.31	68	1.15	1.54	93	0.33	0.15
2. Do you agree or disagree with the draft guidance plan to vaccinate children before older adults?	1.72	1.52	68	1.47	1.70	94	0.25	0.33
3. Do you agree or disagree that individuals 80 years or older should be moved from Tier 4 to Tier 5?	1.26	1.61	68	1.50	1.61	94	-0.24	0.36
4. Do you agree or disagree that all individuals age 20 and below should be moved to Tier 1?	0.25	1.97	69	-0.28	1.90	94	0.52	0.09
5. Do you agree or disagree that babies under 6 months should be prioritized along with older infants and toddlers? (Currently they are not prioritized because they do not respond well to influenza vaccine and the vaccine is not licensed for this age group).	-0.50	1.77	68	-1.33	1.51	94	0.83	0.00
6. Do you agree or disagree that school aged children should be moved up and vaccinated before infants and younger children?	1.61	1.47	69	1.32	1.55	93	0.29	0.24
7. Do you agree or disagree that the primary wage earner from each family should be moved to Tier 1?	-0.03	1.98	66	-0.26	2.03	93	0.23	0.48
8. Do you agree or disagree that families of those working in the critical infrastructure or healthcare should be vaccinated in the same Tier as the worker?	0.76	2.14	68	0.66	2.14	94	0.11	0.76
9. Do you agree or disagree that all homeland security personnel (Coast Guard, border protection, TSA, FEMA, intelligence services) should be moved to Tier 1?	0.24	2.03	67	0.32	2.05	92	-0.08	0.82
10. Do you agree or disagree that the National Guard should be moved from Tier 2 to Tier 1?	1.06	1.74	70	0.86	1.89	93	0.20	0.50
11. Do you agree or disagree that family members of first responders should be vaccinated at the same time as the first responder? (First responder is defined as Medical responders including EMS, law enforcement, and fire).	1.03	2.00	68	0.79	2.18	94	0.24	0.47
12. Do you agree or disagree that community pharmacists should be moved from Tier 3 to Tier 1?	0.99	1.73	69	1.10	1.83	94	-0.11	0.70
13. Do you agree or disagree that postal personnel should be moved from Tier 3 to Tier 2?	0.18	1.74	68	0.14	1.75	94	0.04	0.89
14. Do you agree or disagree that all critical infrastructure personnel should be moved to Tier 1 and pregnant women, infants and toddlers should be moved to Tier 2?	0.61	2.05	69	0.98	1.97	93	-0.37	0.25
15. Do you agree or disagree that government officials without close contact with the public should be prioritized as part of the General Public dependent on their age and health status?	1.48	1.70	67	1.98	1.34	92	-0.50	0.04
16. Do you agree or disagree that child care workers should be vaccinated in Tier 2?	0.90	1.49	68	0.73	1.68	92	0.17	0.51
17. Do you agree or disagree that transportation, food and pharmaceutical personnel should be moved from Tier 3 to Tier 2?	1.15	1.75	67	1.40	1.56	94	-0.26	0.33
18. Do you agree or disagree that Tier 4 and 5 should be switched (healthy adults vaccinated before the ill and elderly)?	1.59	1.53	69	1.11	2.01	93	0.49	0.09
19. Do you agree or disagree that personnel who maintain the integrity of the money supply system should be moved from Tier 3 to Tier 1?	-0.51	1.84	69	-0.40	1.88	93	-0.11	0.71
20. Do you agree or disagree that this web-based dialogue is a good format for discussing health policy issues such as vaccine prioritization for pandemic influenza?	1.74	1.32	69	1.60	1.57	94	0.14	0.54

Poll Questions by Parent or Guardian Status

Poll Question	Parent/Guardian			Not Parent/Guardian			Diff. in Means	p-value
	Mean	Std Dev	N	Mean	Std Dev	N		
1. Overall, do you agree or disagree with the draft guidance plan for who get vaccinated earlier and who later?	1.26	1.67	58	1.31	1.35	95	-0.05	0.85
2. Do you agree or disagree with the draft guidance plan to vaccinate children before older adults?	1.55	1.70	58	1.61	1.56	96	-0.06	0.81
3. Do you agree or disagree that individuals 80 years or older should be moved from Tier 4 to Tier 5?	1.60	1.61	58	1.28	1.53	96	0.32	0.22
4. Do you agree or disagree that all individuals age 20 and below should be moved to Tier 1?	0.09	2.06	58	-0.09	1.90	97	0.18	0.58
5. Do you agree or disagree that babies under 6 months should be prioritized along with older infants and toddlers? (Currently they are not prioritized because they do not respond well to influenza vaccine and the vaccine is not licensed for this age group).	-0.97	1.78	58	-0.93	1.65	96	-0.04	0.89
6. Do you agree or disagree that school aged children should be moved up and vaccinated before infants and younger children?	1.45	1.57	58	1.48	1.47	96	-0.03	0.90
7. Do you agree or disagree that the primary wage earner from each family should be moved to Tier 1?	-0.29	2.03	56	-0.15	2.01	95	-0.14	0.68
8. Do you agree or disagree that families of those working in the critical infrastructure or healthcare should be vaccinated in the same Tier as the worker?	0.91	2.11	58	0.64	2.17	96	0.28	0.44
9. Do you agree or disagree that all homeland security personnel (Coast Guard, border protection, TSA, FEMA, intelligence services) should be moved to Tier 1?	0.49	2.19	55	0.20	1.98	96	0.29	0.40
10. Do you agree or disagree that the National Guard should be moved from Tier 2 to Tier 1?	0.97	1.90	58	0.99	1.80	97	-0.02	0.94
11. Do you agree or disagree that family members of first responders should be vaccinated at the same time as the first responder? (First responder is defined as Medical responders including EMS, law enforcement, and fire).	1.12	2.14	57	0.79	2.11	97	0.33	0.35
12. Do you agree or disagree that community pharmacists should be moved from Tier 3 to Tier 1?	1.05	1.84	58	1.08	1.76	97	-0.03	0.92
13. Do you agree or disagree that postal personnel should be moved from Tier 3 to Tier 2?	0.18	1.78	57	0.19	1.73	97	-0.01	0.97
14. Do you agree or disagree that all critical infrastructure personnel should be moved to Tier 1 and pregnant women, infants and toddlers should be moved to Tier 2?	0.81	2.13	57	0.72	1.99	97	0.09	0.80
15. Do you agree or disagree that government officials without close contact with the public should be prioritized as part of the General Public dependent on their age and health status?	1.80	1.53	55	1.72	1.55	96	0.08	0.76
16. Do you agree or disagree that child care workers should be vaccinated in Tier 2?	0.61	1.83	57	0.95	1.45	95	-0.33	0.22
17. Do you agree or disagree that transportation, food and pharmaceutical personnel should be moved from Tier 3 to Tier 2?	1.09	1.87	56	1.45	1.51	97	-0.36	0.19
18. Do you agree or disagree that Tier 4 and 5 should be switched (healthy adults vaccinated before the ill and elderly)?	1.53	1.69	58	1.19	1.90	96	0.35	0.25
19. Do you agree or disagree that personnel who maintain the integrity of the money supply system should be moved from Tier 3 to Tier 1?	-0.09	1.92	58	-0.68	1.77	96	0.59	0.05
20. Do you agree or disagree that this web-based dialogue is a good format for discussing health policy issues such as vaccine prioritization for pandemic influenza?	1.71	1.40	58	1.57	1.51	97	0.14	0.57

Poll Questions by Professional Involvement in Pandemic Influenza Issues

Poll Question	Professionally Involved in Pandemic Influenza			Not Professionally Involved			Diff. in Means	p-value
	Mean	Std Dev	N	Mean	Std Dev	N		
1. Overall, do you agree or disagree with the draft guidance plan for who get vaccinated earlier and who later?	1.34	1.43	104	1.18	1.59	49	0.15	0.55
2. Do you agree or disagree with the draft guidance plan to vaccinate children before older adults?	1.76	1.41	105	1.22	1.93	49	0.54	0.05
3. Do you agree or disagree that individuals 80 years or older should be moved from Tier 4 to Tier 5?	1.25	1.68	104	1.72	1.26	50	-0.47	0.08
4. Do you agree or disagree that all individuals age 20 and below should be moved to Tier 1?	-0.20	1.89	105	0.34	2.08	50	-0.54	0.11
5. Do you agree or disagree that babies under 6 months should be prioritized along with older infants and toddlers? (Currently they are not prioritized because they do not respond well to influenza vaccine and the vaccine is not licensed for this age group).	-1.03	1.59	104	-0.76	1.89	50	-0.27	0.36
6. Do you agree or disagree that school aged children should be moved up and vaccinated before infants and younger children?	1.41	1.56	105	1.59	1.37	49	-0.18	0.48
7. Do you agree or disagree that the primary wage earner from each family should be moved to Tier 1?	-0.41	1.99	102	0.24	2.01	49	-0.66	0.06
8. Do you agree or disagree that families of those working in the critical infrastructure or healthcare should be vaccinated in the same Tier as the worker?	0.87	2.09	105	0.47	2.24	49	0.40	0.29
9. Do you agree or disagree that all homeland security personnel (Coast Guard, border protection, TSA, FEMA, intelligence services) should be moved to Tier 1?	0.29	2.06	101	0.34	2.08	50	-0.05	0.88
10. Do you agree or disagree that the National Guard should be moved from Tier 2 to Tier 1?	0.89	1.80	105	1.18	1.90	50	-0.29	0.35
11. Do you agree or disagree that family members of first responders should be vaccinated at the same time as the first responder? (First responder is defined as Medical responders including EMS, law enforcement, and fire).	1.01	2.14	105	0.71	2.08	49	0.30	0.42
12. Do you agree or disagree that community pharmacists should be moved from Tier 3 to Tier 1?	1.10	1.81	105	1.02	1.74	50	0.08	0.81
13. Do you agree or disagree that postal personnel should be moved from Tier 3 to Tier 2?	0.10	1.74	105	0.35	1.76	49	-0.24	0.42
14. Do you agree or disagree that all critical infrastructure personnel should be moved to Tier 1 and pregnant women, infants and toddlers should be moved to Tier 2?	0.60	2.04	104	1.08	2.00	50	-0.48	0.17
15. Do you agree or disagree that government officials without close contact with the public should be prioritized as part of the General Public dependent on their age and health status?	1.71	1.49	101	1.82	1.65	50	-0.11	0.69
16. Do you agree or disagree that child care workers should be vaccinated in Tier 2?	0.90	1.53	102	0.66	1.75	50	0.24	0.38
17. Do you agree or disagree that transportation, food and pharmaceutical personnel should be moved from Tier 3 to Tier 2?	1.25	1.61	103	1.46	1.74	50	-0.21	0.47
18. Do you agree or disagree that Tier 4 and 5 should be switched (healthy adults vaccinated before the ill and elderly)?	1.13	1.94	104	1.72	1.49	50	-0.60	0.06
19. Do you agree or disagree that personnel who maintain the integrity of the money supply system should be moved from Tier 3 to Tier 1?	-0.34	1.85	105	-0.69	1.83	49	0.35	0.27
20. Do you agree or disagree that this web-based dialogue is a good format for discussing health policy issues such as vaccine prioritization for pandemic influenza?	1.56	1.50	105	1.74	1.41	50	-0.18	0.48

Poll Questions by “Frontline” Profession Status

Poll Question	“Frontline” Profession			Not “Frontline” Profession			Diff. in Means	p-value
	Mean	Std Dev	N	Mean	Std Dev	N		
1. Overall, do you agree or disagree with the draft guidance plan for who get vaccinated earlier and who later?	1.61	1.19	76	1.02	1.60	86	0.58	0.01
2. Do you agree or disagree with the draft guidance plan to vaccinate children before older adults?	1.99	1.14	77	1.22	1.90	86	0.77	0.00
3. Do you agree or disagree that individuals 80 years or older should be moved from Tier 4 to Tier 5?	1.33	1.62	76	1.47	1.60	87	-0.14	0.57
4. Do you agree or disagree that all individuals age 20 and below should be moved to Tier 1?	0.12	1.81	77	-0.18	2.05	87	0.30	0.32
5. Do you agree or disagree that babies under 6 months should be prioritized along with older infants and toddlers? (Currently they are not prioritized because they do not respond well to influenza vaccine and the vaccine is not licensed for this age group).	-0.71	1.60	76	-1.22	1.70	87	0.51	0.05
6. Do you agree or disagree that school aged children should be moved up and vaccinated before infants and younger children?	1.45	1.51	77	1.45	1.53	86	0.00	1.00
7. Do you agree or disagree that the primary wage earner from each family should be moved to Tier 1?	0.04	1.92	76	-0.31	2.09	84	0.35	0.28
8. Do you agree or disagree that families of those working in the critical infrastructure or healthcare should be vaccinated in the same Tier as the worker?	1.19	1.90	77	0.24	2.24	86	0.95	0.00
9. Do you agree or disagree that all homeland security personnel (Coast Guard, border protection, TSA, FEMA, intelligence services) should be moved to Tier 1?	0.27	1.98	75	0.26	2.12	85	0.01	0.98
10. Do you agree or disagree that the National Guard should be moved from Tier 2 to Tier 1?	0.99	1.76	77	0.89	1.89	87	0.10	0.72
11. Do you agree or disagree that family members of first responders should be vaccinated at the same time as the first responder? (First responder is defined as Medical responders including EMS, law enforcement, and fire).	1.30	1.81	77	0.50	2.28	86	0.80	0.02
12. Do you agree or disagree that community pharmacists should be moved from Tier 3 to Tier 1?	1.09	1.70	77	1.01	1.85	87	0.08	0.78
13. Do you agree or disagree that postal personnel should be moved from Tier 3 to Tier 2?	0.07	1.61	76	0.21	1.85	87	-0.14	0.61
14. Do you agree or disagree that all critical infrastructure personnel should be moved to Tier 1 and pregnant women, infants and toddlers should be moved to Tier 2?	0.78	1.93	76	0.87	2.08	87	-0.10	0.76
15. Do you agree or disagree that government officials without close contact with the public should be prioritized as part of the General Public dependent on their age and health status?	1.58	1.61	76	1.95	1.41	84	-0.37	0.12
16. Do you agree or disagree that child care workers should be vaccinated in Tier 2?	0.84	1.50	75	0.74	1.70	86	0.10	0.71
17. Do you agree or disagree that transportation, food and pharmaceutical personnel should be moved from Tier 3 to Tier 2?	1.28	1.48	75	1.29	1.78	87	-0.01	0.98
18. Do you agree or disagree that Tier 4 and 5 should be switched (healthy adults vaccinated before the ill and elderly)?	1.26	1.82	77	1.35	1.85	86	-0.09	0.76
19. Do you agree or disagree that personnel who maintain the integrity of the money supply system should be moved from Tier 3 to Tier 1?	-0.42	1.77	77	-0.48	1.93	86	0.06	0.83
20. Do you agree or disagree that this web-based dialogue is a good format for discussing health policy issues such as vaccine prioritization for pandemic influenza?	1.61	1.45	77	1.70	1.49	87	-0.09	0.69

Poll Questions by Frequency of Use of Pandemic Influenza Social Media Sites

Poll Question	Participate More than Once a Month			Participate Less than Once a Month			Diff. in Means	p-value
	Mean	Std Dev	N	Mean	Std Dev	N		
1. Overall, do you agree or disagree with the draft guidance plan for who get vaccinated earlier and who later?	1.02	1.63	59	1.46	1.35	94	-0.44	0.07
2. Do you agree or disagree with the draft guidance plan to vaccinate children before older adults?	1.29	1.85	59	1.78	1.42	95	-0.49	0.07
3. Do you agree or disagree that individuals 80 years or older should be moved from Tier 4 to Tier 5?	1.82	1.28	60	1.14	1.68	94	0.68	0.01
4. Do you agree or disagree that all individuals age 20 and below should be moved to Tier 1?	0.43	2.05	60	-0.32	1.85	95	0.75	0.02
5. Do you agree or disagree that babies under 6 months should be prioritized along with older infants and toddlers? (Currently they are not prioritized because they do not respond well to influenza vaccine and the vaccine is not licensed for this age group).	-0.93	1.62	60	-0.95	1.74	94	0.01	0.96
6. Do you agree or disagree that school aged children should be moved up and vaccinated before infants and younger children?	1.57	1.59	60	1.40	1.45	94	0.16	0.51
7. Do you agree or disagree that the primary wage earner from each family should be moved to Tier 1?	0.17	2.01	59	-0.43	1.99	92	0.60	0.07
8. Do you agree or disagree that families of those working in the critical infrastructure or healthcare should be vaccinated in the same Tier as the worker?	0.95	2.11	59	0.61	2.16	95	0.34	0.34
9. Do you agree or disagree that all homeland security personnel (Coast Guard, border protection, TSA, FEMA, intelligence services) should be moved to Tier 1?	0.60	2.13	58	0.12	2.00	93	0.49	0.16
10. Do you agree or disagree that the National Guard should be moved from Tier 2 to Tier 1?	1.32	1.86	60	0.77	1.79	95	0.55	0.07
11. Do you agree or disagree that family members of first responders should be vaccinated at the same time as the first responder? (First responder is defined as Medical responders including EMS, law enforcement, and fire).	1.47	1.97	59	0.57	2.14	95	0.91	0.01
12. Do you agree or disagree that community pharmacists should be moved from Tier 3 to Tier 1?	1.20	1.73	60	0.99	1.82	95	0.21	0.48
13. Do you agree or disagree that postal personnel should be moved from Tier 3 to Tier 2?	0.62	1.54	60	-0.10	1.81	94	0.71	0.01
14. Do you agree or disagree that all critical infrastructure personnel should be moved to Tier 1 and pregnant women, infants and toddlers should be moved to Tier 2?	1.15	1.96	59	0.51	2.05	95	0.65	0.05
15. Do you agree or disagree that government officials without close contact with the public should be prioritized as part of the General Public dependent on their age and health status?	1.84	1.56	58	1.69	1.52	93	0.16	0.54
16. Do you agree or disagree that child care workers should be vaccinated in Tier 2?	0.75	1.64	60	0.87	1.58	92	-0.12	0.65
17. Do you agree or disagree that transportation, food and pharmaceutical personnel should be moved from Tier 3 to Tier 2?	1.59	1.52	59	1.15	1.72	94	0.44	0.11
18. Do you agree or disagree that Tier 4 and 5 should be switched (healthy adults vaccinated before the ill and elderly)?	1.81	1.58	59	1.01	1.90	95	0.80	0.01
19. Do you agree or disagree that personnel who maintain the integrity of the money supply system should be moved from Tier 3 to Tier 1?	-0.50	1.94	60	-0.43	1.80	94	-0.07	0.81
20. Do you agree or disagree that this web-based dialogue is a good format for discussing health policy issues such as vaccine prioritization for pandemic influenza?	2.12	1.17	60	1.31	1.56	95	0.81	0.00

APPENDIX C. EVALUATION DATA SUMMARY

For the dialogue, a pre-dialogue evaluation form and a post-dialogue evaluation form were presented to respondents. Both forms asked participants knowledge questions about pandemic influenza to gauge overall and individual knowledge in the participant group. In addition to the knowledge questions, the forms asked participants questions that gauged their opinion on pandemic influenza policy. The post-dialogue evaluation form asked questions regarding respondents' feelings about the dialogue process as well.

Knowledge about Pandemic Influenza

The evaluations had five knowledge questions. The following tables show how well the respondents did on all of the questions and how well they did on each of the questions. For each of the questions, the tables show any difference in the percentage who were correct, and also shows the difference in number correct for those respondents who answered questions before and after the dialogue. 390 respondents answered the pre-dialogue questions, and 136 respondents answered the post-dialogue questions.

Overall Respondent Group

N for Pre-Dialogue Evaluation = 390

N for Post-Dialogue Evaluation = 136

Fraction of Quiz Questions Correct	Pre-Dialogue Number	Pre-Dialogue Percentage	Post-Dialogue Number	Post-Dialogue Percentage
5/5 (100%)	148	38%	68	51%
4/5 (80%)	109	28%	32	24%
3/5 (60%)	56	14%	27	20%
2/5 (40%)	30	8%	7	5%
1/5 (20%)	12	3%	0	0%
0/5 (0%)	35	9%	2	1%

Intersection Respondent Group

N=125

Fraction of Quiz Questions Correct	Pre-Dialogue Number	Pre-Dialogue Percentage	Post-Dialogue Number	Post-Dialogue Percentage
5/5 (100%)	59	47%	64	51%
4/5 (80%)	30	24%	29	23%
3/5 (60%)	19	15%	25	20%
2/5 (40%)	11	9%	6	5%
1/5 (20%)	3	2%	0	0%
0/5 (0%)	3	2%	1	1%

Intersection Group: Of this group, how many participant scores increased between the pre- and post-dialogue, how many participant scores stayed the same, and how many decreased?

Intersection Score Change	Number	Percent of Total
Went Up	36	29%

Intersection Score Change	Number	Percent of Total
Stayed Same	66	53%
Went Down	23	18%

Question 1: How soon after someone is infected with an influenza virus will they get sick?

Question 1	Pre-Dialogue	Post-Dialogue	Change
Number of Respondents Correct	211/390	80/136	--
% Correct	54%	58%	+4%
Intersection – Number Correct	78/125	75/125	-3
Intersection - % Correct	62%	60%	-2%

Question 2: When will the next pandemic occur?

Question 2	Pre-Dialogue	Post-Dialogue	Change
Number of Respondents Correct	288/390	111/136	--
% Correct	74%	82%	+8%
Intersection – Number Correct	100/125	102/125	+2
Intersection - % Correct	80%	82%	+2%

Question 3: About how many people do you think die in a typical year from flu in the United States?

Question 3	Pre-Dialogue	Post-Dialogue	Change
Number of Respondents Correct	252/390	113/136	--
% Correct	70%	83%	+13%
Intersection – Number Correct	90/125	105/125	+15
Intersection - % Correct	72%	84%	+12%

Question 4: Who is at risk when a new influenza virus appears that has never been seen before?

Question 4	Pre-Dialogue	Post-Dialogue	Change
Number of Respondents Correct	345/390	133/136	--
% Correct	96%	98%	+2%
Intersection – Number Correct	119/125	123/125	+4
Intersection - % Correct	95%	98%	+3%

Question 5: How many pandemics have occurred over the last 100 years?

Question 5	Pre-Dialogue	Post-Dialogue	Change
Number of Respondents Correct	320/390	126/136	--
% Correct	89%	93%	+4%
Intersection – Number Correct	110/125	118/125	+8
Intersection - % Correct	88%	94%	+6%

Questions about Influenza Vaccine Policy

Imagine you had to decide about priorities in the event of pandemic influenza when there is a limited supply of the vaccine. How would you rate the following goals, from '1,' highest priority, to '8,' lowest priority?

Participants were instructed to look at all of the goals and decide what is most important and what is least important to them and anchor their answers from 1 to 8 appropriately. Participants did not have to use each number and could repeat numbers. The following charts show the mean response for the respondents who took both the pre- and post-evaluations and the breakdown of their answers. For the means, smaller numbers indicate that participants ranked the goal with a higher priority. Larger numbers are goals that have been given a lower priority.

Intersection Summary

Goal	Pre-Dialogue Mean	Post-Dialogue Mean	Change in Mean
Minimize deaths due to influenza	2.90	3.00	+0.10
Minimize the spread of influenza	2.31	2.18	-0.13
Maintain social order	4.06	3.84	-0.22
Maintain critical health care services	2.76	2.87	+0.11
Maintain economic productivity	5.84	5.08	-0.76
Treat all persons the same regardless of status	5.31	6.33	+1.02
Ensure adequate distribution of vaccine and antiviral medicines	3.78	4.17	+0.39
Maintain national security	4.80	4.54	-0.26

Goal: Minimize deaths due to influenza

	Pre-Dialogue Percentage	Post-Dialogue Percentage	Change in Percentage
1	37%	36%	-1%
2	18%	18%	0%
3	12%	12%	0%
4	9%	8%	-1%
5	10%	8%	-2%

	Pre-Dialogue Percentage	Post-Dialogue Percentage	Change in Percentage
6	6%	4%	-2%
7	5%	8%	+3%
8	3%	5%	+2%

Goal: Minimize the spread of influenza

	Pre-Dialogue Percentage	Post-Dialogue Percentage	Change in Percentage
1	41%	47%	+6%
2	26%	21%	-5%
3	12%	13%	+1%
4	7%	5%	-2%
5	7%	8%	+1%
6	2%	4%	+2%
7	2%	1%	-1%
8	2%	0%	-2%

Goal: Maintain social order

	Pre-Dialogue Percentage	Post-Dialogue Percentage	Change in Percentage
1	10%	13%	+3%
2	12%	16%	+4%
3	19%	18%	-1%
4	17%	18%	+1%
5	16%	17%	+1%
6	12%	4%	-8%
7	11%	8%	-3%
8	3%	7%	+4%

Goal: Maintain critical health care services

	Pre-Dialogue Percentage	Post-Dialogue Percentage	Change in Percentage
1	23%	18%	-5%
2	29%	27%	-2%
3	17%	25%	+8%
4	14%	16%	+2%
5	12%	4%	-8%
6	3%	5%	+2%
7	2%	3%	+1%
8	0%	0%	0%

Goal: Maintain economic productivity

	Pre-Dialogue Percentage	Post-Dialogue Percentage	Change in Percentage
1	7%	4%	-3%
2	6%	4%	-2%
3	7%	15%	+8%
4	10%	15%	+5%
5	7%	14%	+7%
6	10%	20%	+10%
7	13%	11%	-2%
8	40%	15%	-25%

Goal: Treat all persons the same regardless of status

	Pre-Dialogue Percentage	Post-Dialogue Percentage	Change in Percentage
1	2%	4%	+2%
2	11%	8%	-3%
3	11%	4%	-7%
4	12%	3%	-9%
5	11%	4%	-7%
6	16%	11%	-5%
7	17%	17%	0%
8	20%	48%	+28%

Goal: Ensure adequate distribution of vaccine and antiviral medicines

	Pre-Dialogue Percentage	Post-Dialogue Percentage	Change in Percentage
1	17%	8%	-9%
2	14%	16%	+2%
3	16%	17%	+1%
4	21%	19%	-2%
5	5%	12%	+7%
6	16%	9%	-7%
7	8%	13%	+5%
8	3%	6%	+3%

Goal: Maintain national security

	Pre-Dialogue Percentage	Post-Dialogue Percentage	Change in Percentage
1	14%	13%	-1%
2	8%	13%	+5%
3	10%	11%	+1%

4	9%	6%	-3%
5	15%	13%	-2%
6	10%	18%	+8%
7	15%	15%	0%
8	18%	9%	-9%

Questions About the Process

Question 1: How many days did you visit the site to read information resources and/or read or post messages?

	Number	Percent of Total
I didn't visit the website	1	1%
One Day	11	8%
Two Days	70	51%
Three Days	37	27%
More than Three Days	14	10%
No Response	3	2%

Question 2: On the days that you visited the site during the dialogue itself, how much time did you spend reading or posting messages each day (on average)?

	Number	Percent of Total
Less Than Fifteen Minutes	8	6%
Fifteen to Thirty Minutes	22	16%
Thirty Minutes to an Hour	33	24%
One to Two Hours	32	24%
More than Two Hours	34	25%
Not Applicable - I was not actively following the dialogue	3	2%
No Response	4	3%

Question 3: Overall, how would you rate your experience in this online dialogue?

	Number	Percent of Total
Very Negative	2	1%
Somewhat Negative	11	4%
Neither Positive nor Negative	13	10%
Somewhat Positive	69	51%
Very Positive	38	28%
No Opinion	1	1%
No Response	2	1%

Please rate the following statements regarding the quality and fairness of the dialogue:

a. The dialogue was a balanced, honest and reasoned discussion

	Number	Percent of Total
Disagree Strongly	2	1%
Disagree Somewhat	5	4%
Neither Agree nor Disagree	17	13%
Agree Somewhat	58	43%
Agree Strongly	48	35%
No Response	6	4%

b. I felt comfortable expressing my views in the dialogue (If you were an observer, please choose “not applicable”).

	Number	Percent of Total	Percent of Active Participants
Disagree Strongly	1	1%	1%
Disagree Somewhat	2	1%	3%
Neither Agree nor Disagree	5	4%	7%
Agree Somewhat	18	13%	26%
Agree Strongly	44	32%	63%
Not Applicable	60	44%	--
No Response	6	4%	--

c. I think other people felt comfortable expressing their views in this dialogue.

	Number	Percent of Total
Disagree Strongly	1	1%
Disagree Somewhat	2	1%
Neither Agree nor Disagree	16	12%
Agree Somewhat	48	35%
Agree Strongly	63	46%
No Response	6	4%

d. This dialogue was fair to all participants.

	Number	Percent of Total
Disagree Strongly	3	2%
Disagree Somewhat	3	2%
Neither Agree nor Disagree	22	16%
Agree Somewhat	41	30%
Agree Strongly	61	45%
No Response	6	4%

e. One person or a small group of people dominated the dialogue.

	Number	Percent of Total
Disagree Strongly	15	11%
Disagree Somewhat	18	13%
Neither Agree nor Disagree	38	28%
Agree Somewhat	44	32%
Agree Strongly	15	11%
No Response	6	4%

f. Important issues were left out of the dialogue.

	Number	Percent of Total
Disagree Strongly	15	11%
Disagree Somewhat	25	18%
Neither Agree nor Disagree	47	35%
Agree Somewhat	31	23%
Agree Strongly	12	9%
No Response	6	4%

g. Important perspectives were not represented in the dialogue.

	Number	Percent of Total
Disagree Strongly	20	15%
Disagree Somewhat	28	21%
Neither Agree nor Disagree	41	30%
Agree Somewhat	25	18%
Agree Strongly	16	12%
No Response	6	4%

Please rate the following statements regarding what you may have learned from the dialogue

a. I learned a great deal about the causes and consequences of pandemic influenza.

	Number	Percent of Total
Disagree Strongly	16	12%
Disagree Somewhat	25	18%
Neither Agree nor Disagree	25	18%
Agree Somewhat	48	35%
Agree Strongly	16	12%
No Response	6	4%

b. I learned a great deal about what the draft guidance proposes as a strategy for prioritizing access to vaccines.

	Number	Percent of Total
Disagree Strongly	1	1%

	Number	Percent of Total
Disagree Somewhat	8	6%
Neither Agree nor Disagree	22	16%
Agree Somewhat	56	41%
Agree Strongly	43	32%
No Response	6	4%

c. This process helped me better understand the types of trade-offs involved in setting priorities for pandemic influenza vaccination.

	Number	Percent of Total
Disagree Strongly	3	2%
Disagree Somewhat	5	4%
Neither Agree nor Disagree	19	14%
Agree Somewhat	62	46%
Agree Strongly	41	30%
No Response	6	4%

d. I have enough information right now to have a well-informed opinion about making the best use of limited supplies of vaccine in a pandemic.

	Number	Percent of Total
Disagree Strongly	4	3%
Disagree Somewhat	21	15%
Neither Agree nor Disagree	23	17%
Agree Somewhat	59	43%
Agree Strongly	23	17%
No Response	6	4%

Please rate the following statements regarding the outcomes and influence of the dialogue

a. I think this process has produced credible, relevant and independent information.

	Number	Percent of Total
Disagree Strongly	4	3%
Disagree Somewhat	12	9%
Neither Agree nor Disagree	19	14%
Agree Somewhat	65	48%
Agree Strongly	30	22%
No Response	6	4%

b. I think this process produced a valuable outcome regarding how to prioritize pandemic influenza vaccination.

	Number	Percent of Total
Disagree Strongly	5	4%
Disagree Somewhat	12	9%

	Number	Percent of Total
Neither Agree nor Disagree	29	21%
Agree Somewhat	59	43%
Agree Strongly	25	18%
No Response	6	4%

c. I think officials will use our input in their decisions about how to prioritize pandemic influenza vaccination.

	Number	Percent of Total
Disagree Strongly	8	6%
Disagree Somewhat	16	12%
Neither Agree nor Disagree	40	29%
Agree Somewhat	52	38%
Agree Strongly	14	10%
No Response	6	4%

d. I think this process will increase the public's support of the decision ultimately made on how to prioritize pandemic influenza vaccination.

	Number	Percent of Total
Disagree Strongly	11	8%
Disagree Somewhat	27	20%
Neither Agree nor Disagree	45	33%
Agree Somewhat	41	30%
Agree Strongly	6	4%
No Response	6	4%

Please rate how much the following components of the dialogue contributed to its quality.

a. Library resources

	Number	Percent of Total
Not at All	5	4%
A Little	16	12%
A Fair Amount	25	18%
Much	21	15%
Very Much	52	38%
Not Applicable	9	7%
No Response	8	6%

b. Discussion moderator

	Number	Percent of Total
Not at All	2	1%
A Little	19	14%

	Number	Percent of Total
A Fair Amount	38	28%
Much	37	27%
Very Much	30	22%
Not Applicable	2	1%
No Response	8	6%

c. Contributions from panelists

	Number	Percent of Total
Not at All	2	1%
A Little	10	7%
A Fair Amount	29	21%
Much	43	32%
Very Much	41	30%
Not Applicable	4	3%
No Response	7	5%

d. Daily summaries

	Number	Percent of Total
Not at All	2	1%
A Little	9	7%
A Fair Amount	22	16%
Much	40	29%
Very Much	51	38%
Not Applicable	5	4%
No Response	7	5%

e. The Poll

	Number	Percent of Total
Not at All	10	7%
A Little	23	17%
A Fair Amount	37	27%
Much	21	15%
Very Much	26	19%
Not Applicable	11	8%
No Response	8	6%

f. "I agree" feature

	Number	Percent of Total
Not at All	20	15%
A Little	25	18%

	Number	Percent of Total
A Fair Amount	28	21%
Much	19	14%
Very Much	19	14%
Not Applicable	14	10%
No Response	11	8%

Do you think there should be dialogues on other topics in the future?

	Number	Percent of Total
Definitely No	3	2%
Probably No	2	1%
Maybe	27	20%
Probably Yes	28	21%
Definitely Yes	68	50%
No Opinion	1	1%
No Response	7	5%

Would you be more involved in the policymaking process if you could participate through similar online dialogues?

	Number	Percent of Total
Definitely No	3	2%
Probably No	14	10%
Maybe	25	18%
Probably Yes	41	30%
Definitely Yes	44	32%
No Opinion	3	2%
No Response	6	4%

Would you view more favorably policymakers who solicit the general public's opinion through similar online dialogues?

	Number	Percent of Total
Definitely No	4	3%
Probably No	4	3%
Maybe	19	14%
Probably Yes	39	29%
Definitely Yes	63	46%
No Opinion	2	1%
No Response	5	4%

APPENDIX D. SAMPLE PARTICIPANT COMMENTS

Sample Quotes from Registration Biographies

I recruit, orient, and train volunteers to serve in public health emergencies such as pandemics—so I am directly interested in this subject. I have also been an emergency and disaster volunteer and I think that I can pretty accurately represent a volunteer's viewpoint on this issue.

I am a local pandemic influenza planner and very concerned about our vaccine supply and usage. This is not only a logistic issue but an ethical issue as well.

The need for clear and consistent guidance and messaging for the public is critical, particularly during the early stages of a pandemic. I am very concerned how communities will distribute the small supplies. There needs to be more discussion on identifying personnel positions of instrumental value, who are critical to maintaining health and safety. These are tough decisions and we need leaders who are willing to make them.

My primary interest is as a moralist/ethicist. I am also concerned that the poor, under-served, and at-risk individuals and families within our society will not have a voice in this discussion. An equitable decision regarding vaccine prioritization must begin by considering that all citizens within our society have equal value.

I have been involved in the Cyber Flu Community for almost three years. I have moderated and administered two Pandemic Influenza forums, and write a pandemic issues blog. As someone who comes from a law enforcement family, having been one myself, and the mother of a patrol officer much of what I do is done with First Responders in mind.

In such a rural area, with a small population where “everyone knows everyone” the decision whom to vaccinate and whom not to will have immense emotional overtones. Well-defined policies and procedures must be in place in order to overcome long-term community and societal ramifications.

I am a school health nurse serving high-risk students in Durham, NC. This topic, along with other public health topics, is of particular interest to me because the population of adolescents I serve often gets overlooked.

I chose to be an observer because I have limited knowledge of this subject and would like to gain some insight from the discussants on this subject and hopefully be a discussant myself on a future topic.

Comments on Overall Dialogue Experience

I thought it was kind of one sided in a sense, a lot of the facilitators were government employees. I would have liked more neutral academics to be involved in the dialogue.

The online postings seemed to have the same problem as comments sections on news sites or blogs—any person can say things, but with so many opinions and statements and little in the way of citations, it is hard to wade through everything.

I read every comment posted on every dialog. I went to websites suggested by other participants, and forwarded these sites to others. I talked with my co workers about some of the information on these dialogs. I have contacted the Director of our Public Health Dept. and asked to be more involved in planning. I learned a lot and am motivated to prepare and help others prepare.

Rather cumbersome...but the summaries helped

It was interesting, and insightful. I learned from experts, was allowed to ask questions and debate issues with people from diverse backgrounds.

Generally, I found the discussion productive. I was disappointed that not more non-public health folks participated, as I really wanted to hear voices from the general public. Dividing the discussion into multiple parts seemed a good idea at first, but the topics actually interrelated often enough that one general discussion might have been better.

It is very hard to dedicate the amount of time needed to become fully engaged.

I found the dialogues confusing. I really did not know who the people were, their responsibilities, and expertise. The agenda was vague and the output of this exercise essentially unknown to me.

There was a lot of information and comments; some helpful, some questionable, some provocative and maybe some showing off, but overall a useful discussion. There did seem to be a small number who tended to set the tone (at least for awhile) and dominated the discussion.

Excellent. This was my first time and I found this type of dialogue above excellent. I got a chance to learn and express my views at the same time. The learning level was so nice. Everyone could ask questions or make comments that they would not normally make in real life. You performed an excellent service to the community.

I am the new Preparedness Director for my county. I knew I had a big job ahead of me before the dialogue. Now I have an even greater understanding of the implications of a pandemic. It's made me even more scared, but has lit a fire to "get the word out." I believe that the more people who are prepared, the less impact a pandemic will have. The limited vaccine can't be depended on, using NPI's and having food stores can.

The CDC and HHS should have advertised this widely to increase participation.

This was very helpful because it brought up issues that we didn't even consider in our planning. It also provided a better insight of the consequences that will occur during a pandemic.

Too much detail in a short time period, I personally could not support the requested 2 hour requested time commitment over 3 days. I thought some of the dialogue just kept recycling back to single threads. I also think the dialogue leaders/panelist should have been color coded so you easily could sort out panelist comments versus participants. Just too much data for a short period of time. I personally lost interest. Sensory overload

Difficult to fully follow the discussion threads when so many people are participating. This works only when there is relatively small community.

I thought it was going to discuss solutions more, there was a lot of venting about what has and has not been done. I didn't feel we came to a consensus—guess that's the problem—an ethical dilemma.

I was unable to participate on all three days, and the insistence that participants be active for all three days dissuaded me from being more active, as I thought I had "broken the rules" sort of. I would encourage participants to join in when they can even if they can't be active for all three days.

Comments on Points of View Not Represented in Dialogue

A few of us dominated the dialogue but it was up to those who felt equal passion to find their own voice and speak it. In actuality, I am very introverted and don't speak up very often. Panflu and my town's preparedness has fueled an engine inside me that I was not aware that I have. I do feel bad that people may not have found the courage to speak up. Perhaps, this effort will spark a passion that they will bring to their own communities. Thank you for the opportunity for a mom from a small town to speak her voice.

As is the problem with any voluntary internet forum, one will not hear the opinions of those who do not care about the topic. I feel like it would be incredibly beneficial to hear just why skeptics are skeptical, or why Joe American doesn't care about panflu preparations.

General population perspective could have been represented more.

I believe it was your intent to attract the average citizen rather than professionals in healthcare. It appears your participants were largely professional with strong opinions. The perspective that appears to be omitted was that of the common working class unless you have captured those opinions in another forum. I was reticent to sign up as a healthcare professional yet was very grateful to view the postings of so many wise and thoughtful citizens.

I don't know of any perspectives that were left out, but since only certain people (those who have access to the internet and have the flexibility to participate) participated, I don't know what other perspectives could have come in via a different methodology.

I think the dialogue was very comprehensive and covered all of the goals as outlined.

Law enforcement was not adequately represented—security of immunization and health care providers was not discussed.

Lower income people and people who will be at risk during a pandemic—Homeless, elderly, sickly...

Pandemic influenza scenario touches too many sectors—it would have been virtually impossible to cover them all. From my perspective, the food and agricultural sector has not been adequately addressed—would it not be a priority to maintain food safety standards, even if at some reduced level? What will we do to allow inspection activities to continue? How about animal health inspections/investigations? If animal diseases are allowed to run their course unchecked this amounts to much more beyond an economic concern, it may well become a public health issue.

Perspectives of youth, perspectives of the faith communities, perspectives of homeless and other economically-depressed persons, perspectives of people who don't have access to computers. I couldn't tell if there was tribal representation. Perspectives of people who don't have citizenship but may be in the country at the time of a pandemic.

Perspectives were lost because this opportunity wasn't advertised widely.

Vulnerable groups and how to reach them were not as well addressed as perspectives about critical infrastructure. Katrina taught us lessons about leaving the preparations for at-risk groups until later vs. paying more attention to them sooner. There is a 'digital divide' bias we must acknowledge in web-dialogues related to access to internet, health and overall literacy. These are critical limitations that require other means to overcome if we really want to engage with a key subpopulation.

Comments on any Difficulties Accessing Technology

I certainly didn't know exactly how/when/where to respond. I kind of felt I was just throwing in ideas here and there without them being connected to where they should have been. It was easy to read what others wrote, but, apparently, I didn't have the necessary insider information to be an effective participant. Good first attempts at this kind of thing. I'm sure they'll get better as we learn our way around doing Internet discussions.

Wasn't sure what would happen if I clicked on ""I agree""too apprehensive to try it.

Other General Comments

Invitations/publicity for the dialogue were not well distributed, I know a number of people who would have participated if they had known

Again, dialogue should have focus on single ideas versus 4–5 threads each day some of which seemed to follow back to a previous day discussion. Moderator need to manage dialogue process more tightly.

Did not appear that there were a large number of participants. I only saw this advertised through PH professional sources. That does not exactly lend itself towards getting feedback back from the “general” public.

How much is accomplished through this sort of dialogues is yet to be seen. Personally, I believe traditional dialogues, with physical representation and unquestionable commitment appear to be more binding and promote accountability.

I very much appreciated the facilitator identifying tangents from the topic, and identifying when another dialogue better addressed the subject.

I would like to have remained more anonymous to the general public in order to be able to express my views more openly.

If state health departments are not advised of these dialogues I think that they should be. I work in Public Health and heard about this from a friend. As part of the Anti-viral planning committee in my county I felt this would be valuable for all county and state health departments to see what the public thinks on these issues.

I'm not sure who gets the information besides the participants and in what format. Is the result stuffed in an envelope and included in mail sent to legislators, etc. who never really look at most the stuff they receive. Will there be a monetary reward for them if they prove they read it?

It was a very helpful and useful tool. It also enabled a large number of participants to voice their views.

It was very helpful to hear how other agencies were addressing the pandemic flu issues and preparation for it. It was comforting to know so many agencies are working together.

Although it is interesting to read various opinions, it would be interesting to know how many people checked the “I agree” box to get a better sense of the number of people with that opinion

APPENDIX E. IMPLEMENTATION CONSIDERATIONS FOR THE DRAFT GUIDANCE

Once the draft guidance has been formalized, plans to implement the guidelines need to be developed. Some considerations, concerns, and suggestions generated by dialogue participants follow.

The Homeland and National Security (HNS) Group

- › While national security depends on having troops overseas, consideration needs to be given to having enough troops at home during a pandemic.

The Critical Infrastructure (CI) Group

- › State and local planners need to identify potential weak points in their Critical Infrastructure (e.g., chlorinating water). If local jurisdictions depend on personnel outside their area, they need to plan to do without.
- › Given the weaknesses inherent in “just-in-time” inventory systems, planners need to anticipate lack of raw materials.
- › Consider government stockpiling of water purification systems/tablets/chlorine for individual families.
- › Alternatives to electric power, such as diesel powered electric generators to keep hospitals functioning, need to be examined. Considerations include diesel fuel needs, environmental storage restrictions, restocking, time a diesel generator can run, and fuel costs.
- › Back up generators could be used in pharmacies and drug stores.
- › The government needs to improve infrastructure relative to power outages (e.g., the need for electricity to power furnace fans).
- › A plan is needed to replace absentee critical workers with Tier 1 military personnel and to train these individuals.
- › Power plant operators, who are required to have specialized skills, take years to train.
- › Given the anticipated heightened risk/heightened attrition among First Responder/Law Enforcement people (due to inadequate PPE/sanitation opportunities, more exposure and spreading opportunities, most presumed at-risk cohort for serious illness/death, more responsibilities), their ranks will be decimated by the time vaccine is available.
- › People may be seriously ill for weeks and recovering for months. A significant portion of the population will not be able to work.
- › Workers may not be willing to leave family unattended to go to work.
- › Planning should address school closures rather than vaccine.
- › Avoiding infection by isolating people in small groups may be a much more cost effective strategy than attempting to treat sick people.
- › State and local partners will need time to adopt the draft guidance once it is formalized.
- › Insurance company limitations on medications—especially for the elderly, infirm, and chronically ill—need to be modified.

The Health Care and Community Support Services (HC/CSS) Group

- › OSHA is clear there is insufficient evidence to make regulatory recommendations about PPE for recovered workers. Currently, PPE is necessary for all who are at risk of infection by influenza regardless of their recovered status.

- › For those who have been infected and recovered from the virus, how do we determine if they are truly immune and don't need to be vaccinated? Resources required to draw blood and run tests need to be considered.
- › Public perception may be crucial to compliance. If there is a perception of being over-militarized, other issues may need to be considered.

The General Population (GP) Group

- › Explore alternative communications methods (e.g., MySpace, Facebook) to educate children about the importance of social distancing.
- › Examine the practicality of identifying people in various groups before vaccinating them (e.g., identifying pregnant women would be difficult).
- › Citizens need to be prepared for children not getting vaccinated. Education needs to contain the whole truth—recognizing current H5N1 data (vis a vis virulence and demographics of most vulnerable groups) for what may happen. Projections need to be realistic and truthful rather than based on optimism. It is important to plan for a devastating pandemic and prepare the public for it.
- › If all children are vaccinated and the critical infrastructure collapses, those children will be at risk. It is necessary to consider the importance of saving children relative to protecting the critical infrastructure.
- › Consider closing all schools in a preemptive manner before there is exposure.

Changes in Prioritization Depending on Pandemic Severity

- › Education needs to address the concerns of emergency sector personnel regarding family members.
- › Need to educate Tier 1 individuals about the role they play during a pandemic and deliver the message that with scarce resources, tough decisions have to be made.
- › Alternatives to protect family members of critical workers need to be addressed. Some alternatives have been identified: antivirals, community mitigation measures, non-pharmacological interventions, social distancing, self-isolation.
- › Consider critical workers protecting family members by not returning home until vaccine is available for all family members.
- › Concern was expressed about there being an inadequate supply of antivirals during the first six months, and also whether antivirals will be effective during the next six to twelve months.
- › Identify which Tier 1 individuals will go to work during the first six months when there is no vaccine for anyone.
- › Need to consider volunteers (and their families) who will serve in an emergency situation. Without volunteers, response will be limited.
- › Concern was noted about the impossibility of implementing the prioritization scheme given the government's insistence that public health departments document group membership before providing vaccine.
- › Address unique needs of rural areas where there are limited resources (e.g., grocery stores).
- › Employers will need plans to allow employees to work at home.

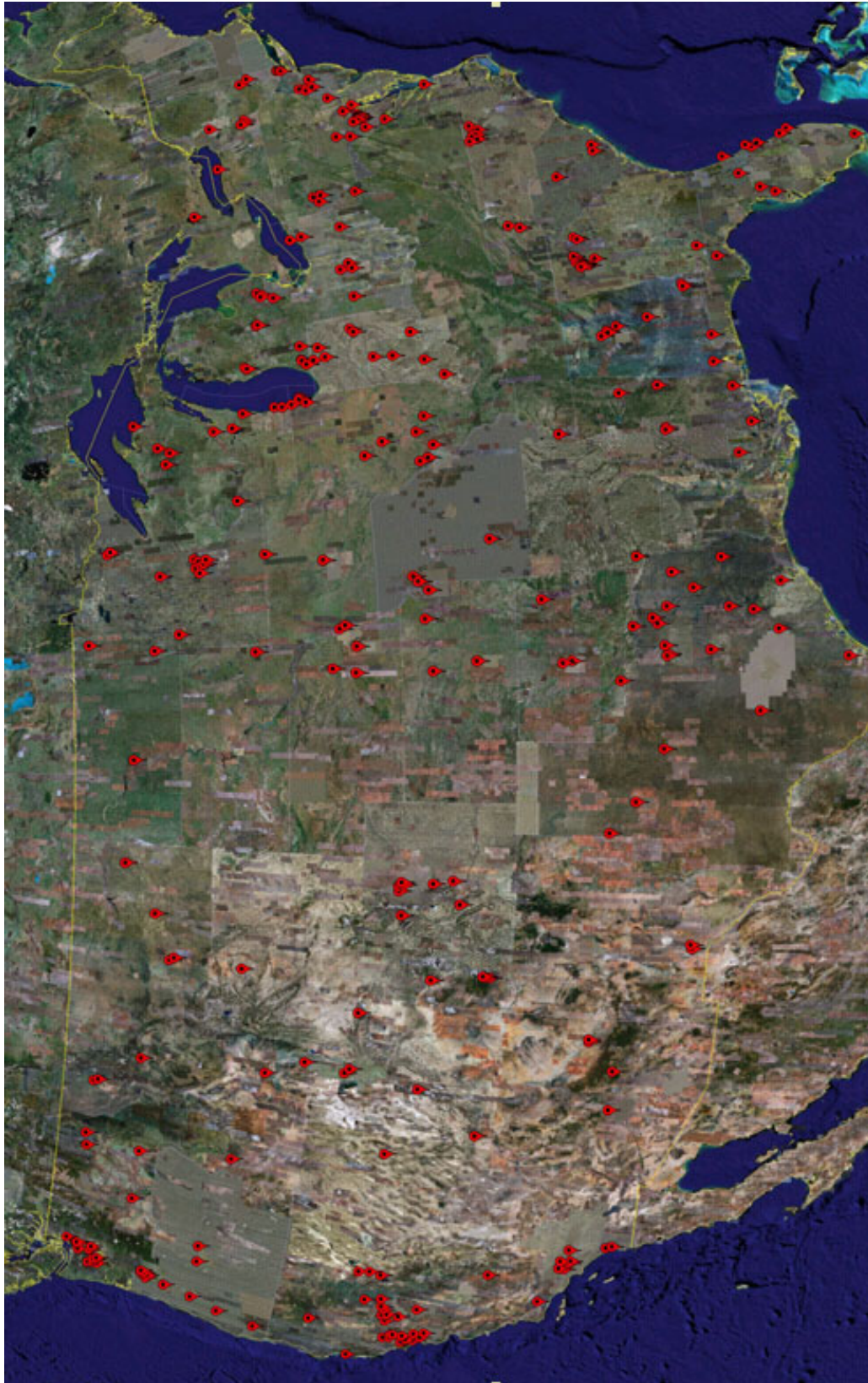
What Can We Do Before Vaccine Becomes Available?

- › Consider the overload on communications systems by individuals making unnecessary calls (e.g., children with cell phones). Ensure clear unhindered access to communications for emergency personnel.

What Will Make the Prioritization Guidance Acceptable?

- › Tell the truth or say, “I don’t know.” Start with absolute truth (e.g., the need for survival mode).
- › Revisit assumptions of draft guidance based on current reality of how H5N1 behaves to avoid poor decisions based on incomplete or incorrect data and assumptions.
- › Tell the public what the priorities are and why, including guidance about personal protection.
- › Clearly delineate the risks—or the American citizens will reject even thinking about the subject.
- › Allow for flexibility until critical data is available. Inform the public that the guidelines are based on estimates and projections that may change (e.g., most vulnerable populations).
- › Educate those who will make decisions about school closure about the dangers of pandemic flu (vs. seasonal flu).
- › Create a national education campaign that clarifies the approach and explains the concept of “essential” or “critical” personnel. Everyone needs to speak with a “common definition” and response protocol.

APPENDIX F. MAP OF PARTICIPANTS



Appendix D



Evaluation of the Public Engagement Project on Pandemic Influenza Vaccine Prioritization

Phase I: Evaluation of Public and Stakeholder Input

DRAFT

February 7, 2008

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Executive Summary

This report presents the results of an evaluation of the Public Engagement Project on Pandemic Influenza Vaccine Prioritization, an effort to engage citizens and stakeholders in discussions about methods to prioritize vaccine distribution in the event of an influenza pandemic. Meetings with citizens occurred January 2007 in Las Cruces, New Mexico and Nassau County, New York; and during November 2007 in Milwaukee, Wisconsin and Hendersonville, North Carolina. Citizens were provided information about pandemic influenza and deliberated about the issues and challenges of vaccination priorities. Stakeholders met in Washington, D.C. after the first two citizen meetings and again after the second two meetings. The stakeholder meetings followed a format similar to the citizen meetings. Key findings from the evaluation include:

1. The process was successful in attracting diverse citizens to engage in the process.
2. Citizens were motivated to participate in the process because of personal interest in the subject and the payment of a stipend.
3. Participants had sufficient knowledge about pandemic influenza to adequately consider and discuss vaccine distribution measures for pandemic influenza. The process substantially increased the knowledge of citizen participants.
4. Participants perceived the process to represent balanced, honest, and reasoned discussion of the issues while respecting diversity of views.
5. The process affected the opinions and judgments of citizen participants related to values and goals of vaccine priorities.
6. Participants were satisfied with the outcomes of the process and generally believed their input would be used by policy makers.

Evaluation of the Public Engagement Project on Pandemic Influenza Vaccine Prioritization

Phase I: Public and Stakeholder Input

The Project

This project arose out of a desire by the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services to obtain citizen and stakeholder input about who should receive priority for getting vaccinated in the event of pandemic influenza. To obtain this input, four citizen meetings were held, in Las Cruces, New Mexico; Nassau County, New York; Milwaukee, Wisconsin; and Hendersonville, North Carolina. The first two citizen meetings were held in January 2007 followed by a meeting of stakeholders in Washington, D.C. on January 30, 2007. Draft federal guidelines for prioritizing how vaccines would be distributed in the event of a pandemic were released between the January 2007 stakeholder meeting and the next round of citizen meetings were held during November 2007 in Milwaukee, Wisconsin and Hendersonville, North Carolina. The second round of citizen meetings was designed to obtain feedback on the draft guidelines. A second stakeholder meeting was held in December 2007 to review input from the second round of citizen meetings and to provide stakeholder input on the draft federal guidelines. The citizen meetings followed a similar format:

- Meeting facilitators welcomed citizen participants and outlined meeting goals and ground rules;
- Pandemic planning experts presented citizen participants with general information about the influenza and vaccination prioritization through a series of educational presentations; in the last two citizen meetings, information about the draft federal guidance was presented;
- Citizens deliberated in facilitated, small group discussions about vaccination prioritization, ranked sectors of the general population for vaccination, and identified general concerns;
- Citizens expressed their preferences and concerns about vaccination prioritization in a large group reporting-out period; and
- An electronic polling session of citizens was conducted to measure citizen preferences about vaccination prioritization.

The stakeholder meetings included panel presentations from representatives of the citizen meetings in addition to expert presentations.

Program Evaluation Questions

The evaluation addresses the following questions:

1. Participation and recruitment questions:
 - a. Did the process successfully attract a sufficient number of citizen participants in four locations?

- b. Did the process successfully recruit participants who reflected a diversity of perspectives, and demographic characteristics such as age, gender, race/ethnicity, education, and income?
 - c. Why did citizens elect to participate in the process?
- 2. Process issues:
 - a. Did citizens and stakeholders have sufficient knowledge about pandemic influenza to engage in informed discussions about vaccine prioritization?
 - b. Were citizens and stakeholders satisfied with the process?
 - c. Did the process result in a balanced, honest, and reasoned discussion of the issues while respecting diversity of views?
 - d. Did the process affect the opinions and judgments of participants related to values and goals of vaccine distribution?
- 3. Product issues:
 - a. Did citizens and stakeholders believe their input would be considered by decision makers?
 - b. Did citizens contribute useful information for the stakeholder deliberations and did stakeholders consider and integrate citizen input into their recommendations?
 - c. Did citizen and stakeholder input receive serious consideration by decision makers and adds value to the input already being received from expert groups? A key aspect of the evaluation is to understand how citizen and stakeholder input is used by decision makers in establishing pandemic influenza policy. For this report, the evaluators were in the process of collecting information about use of the input and the analysis is not included.

Method

This study employs a sequential, mixed method design using quantitative and qualitative information. There are four major methodological components:

1. Pre- and post surveys completed by citizens and stakeholders;
2. Individual interviews conducted with stakeholders and citizens who attended the meetings;
3. Individual interviews with organizers and facilitators;
4. Focus groups conducted immediately after each of the citizen meetings; and
5. A qualitative evaluation component will be implemented in the future to determine how citizen and stakeholder input is used by decision makers, including document reviews and individual interviews with policy makers.

Pre-Post Survey

Respondents. For each of the citizen meetings, respondents were asked to complete an informed consent form and voluntarily complete the surveys. Demographic information about respondents is discussed in the Results section below. Four hundred eighteen individuals from the citizen groups completed the survey (114 in New Mexico, 119 in New York, 101 in Wisconsin and 84 in North Carolina). About 10% of the respondents completed the Spanish version of the survey, nearly all from the New Mexico meeting.

Surveys. The pre-survey consisted of two sections: eight multiple-choice questions assessing knowledge about pandemic influenza and a section with four items asking opinions about values, goals, priority populations, and who should make decisions about vaccine distribution. The post-survey included these two sections and two additional sections: 1) a series of statements about the quality, fairness and effectiveness of the deliberative process that respondents were asked to rate on a 5-point scale from strongly agree to strongly disagree and 2) demographic questions. Surveys were pre-tested and modified to improve comprehension of questions and answers. To help reduce response-order bias, three versions of each survey were administered with the order of questions randomly varied in the opinion-questions section. Spanish versions were also developed.

Procedures. Citizens received pre-tests upon registration at the beginning of each meeting. Organizers asked them to find a seat and complete the survey immediately. At the end of the meeting, participants had 15 minutes to complete the post-test. Stakeholders at the first meeting were given the pre-test but not the post-test. The original plan was to have the stakeholders complete the post-test at their second meeting, but the length of time between meetings was longer than originally planned and there were some stakeholders participating in one of the meetings but not both. At the second stakeholder meeting participants were administered both pre- and post-tests. Given the length of time between the two stakeholder meetings and because many participants from the first stakeholder meeting did not participate in the second meeting, data presented in this report is from the second stakeholder meeting only.

Individual Interviews

Respondents. The evaluators contacted two groups of people for individual interviews:

1. Stakeholders who participated in the second Washington, D.C. meeting
2. Citizens who participated in the four local meetings

Citizens and stakeholders were asked to provide contact information on the informed consent forms if they were interested in participating in the interviews. The evaluators randomly selected a number of participants from the second stakeholder group and each of the citizen groups who provided their contact information and attempted to contact them by telephone and e-mail. Those people who could be reached were selected to participate. Interviews were conducted in Spanish for Spanish-speaking participants.

Interview Questions. Both stakeholders and citizens were asked how they perceived the information presented at the meetings; the quality of the participation; their satisfaction with the process; and how they thought policy makers would consider their input. In addition, the stakeholders were asked how they considered the input from the citizen deliberations in their decisions and how the deliberations might have changed the relationships among stakeholders. Citizens were asked their opinions about how representative of the general public the participants at the meeting were, how they found out about the meeting, and why they participated.

Procedures. Each randomly selected respondent was contacted to schedule an interview with the evaluators. Evaluation staff following an interview protocol conducted the interviews, which were recorded and transcribed.

Focus Groups.

Respondents. At each of the citizen meetings and the second stakeholder meeting, participants were asked to volunteer to stay after the meeting and participate in a focus group. Respondents self-selected to join each focus group.

Procedures. The same questions used in the interviews were used for the focus groups. The discussions were recorded and transcribed. Survey and focus group input was entered into a software program called Atlas.ti. Multiple raters identified themes in the answers from respondents.

Results

Participation and Recruitment

Preliminary observations and findings from the citizen interviews indicate the process was successful at recruiting and attracting citizens to participate in the deliberative meetings. There were 498 citizens who participated in the four citizen meetings (137 in Wisconsin, 118 in North Carolina, 108 in New Mexico, and 135 in New York). It is apparent the process succeeded in attracting a sufficient number of citizens to engage in dialogue at each meeting. The goal was to have at least 100 citizens at each site and all of the sites met this goal. In addition, there were nearly double the number of citizens who participated in this process in comparison to two previous participatory processes on pandemic influenza sponsored by the Centers for Disease Control and Prevention; the Public Engagement Project on Community Control Measures for Pandemic Influenza attracted 259 citizens at four sites in 2006, and approximately 250 citizens participated in the Public Engagement Pilot Project on Pandemic Influenza held in four sites in 2005. Part of the reason for increased participation appears to be the stipends for citizen participation which were provided for this process, but not for the previous two.

Citizens learned about the public engagement meetings through a variety of sources. New Mexico participants were more likely to say that they heard about the forum through friends, family or acquaintances than New York participants. New York participants were

more likely to have responded to a newspaper notice or an email invitation. A number of New York participants attended in response to an invitation from a local politician that they trusted. Many of the Wisconsin participants were recruited by the local Black health coalition. Several of the North Carolina participants said that they received information about the event while they were getting their annual flu shot. Both Wisconsin and North Carolina participants said they had been personally ‘invited’ to attend either by a health official or by someone they knew. Some of the people interviewed recalled seeing a notice about the event in a newspaper, but the personal invitation was what they credited with influencing them to register.

Stakeholders attending the meeting in Washington, D.C. were personally invited to attend by the organizers of the event. Even though they were representing professional interests at the stakeholder meeting, their personal reasons for attending mirrored those of the citizen participants.

“I came because I thought I had something to contribute and something to learn.”
Stakeholder

All groups contained some people who attended because it was related to their job or the group they represented. Almost everyone interviewed said they had some personal interest in learning more about pandemic influenza.



Participants in the citizen groups were asked about any effect the stipend may have had on their decision to attend. Most said that they attended out of personal or professional interest in the subject matter first, but admitted easily that the stipend and the food played a major part in getting them to the forum on a Saturday. For many it was what tipped the scale in favor of attendance. One participant voiced this theme by saying, “without the stipend I would have found excuses not to attend.” The stipend was also viewed as an acknowledgement that participants’ time and opinions had value to organizers.

“I like the idea that someone is willing to listen to me and actually give me a stipend for my opinions.”
“It was a nice feeling – I came away with information, lunch and 50 dollars.”

A participant in North Carolina suggested that the stipends be limited to one per household to encourage diverse participation and to discourage people from signing up multiple family members. However, the high number of participants may be due, at least in part, to family members attending together. Several of the participants from all of the sites said that they attended because of a family member’s urging; these individuals indicated that, although they did not expect to get anything but the stipend out of the event, they left with a clearer understanding of pandemic influenza and the difficulties faced by policy makers in vaccination prioritization.

Citizens participating in the meetings represented diverse demographic backgrounds. Table 1 shows age percentages for the four citizen meetings. Participants represented a cross-section of ages, although the largest age group of citizens at each meeting site was 65 years of age or older.

Table 1
Percentage of respondents by age for citizen sites

Age	Overall	Las Cruces	Long Island	Milwaukee	Hendersonville
18-24	9.2	12.9	4.4	15.6	2.9
25-34	14.5	13.9	5.5	28.6	11.6
35-44	12.1	15.8	2.2	19.5	11.6
45-54	20.4	26.7	14.3	19.5	20.3
55-64	16.9	14.9	25.3	11.7	14.5
65+	26.9	15.8	48.4	5.2	39.1

Table 2 shows gender percentages for the four citizen meetings, indicating that participants were predominately female.

Table 2
Percentage of respondents by gender for citizen sites

Gender	Overall	Las Cruces	Long Island	Milwaukee	Hendersonville
Male	33.6	26.0	43.5	24.4	42.0
Female	66.4	74.0	56.5	75.6	58.0

Table 3 shows race/ethnicity for each site and indicates there was a mix of racial/ethnic diversity across the four sites, although a majority were Hispanic and non-Hispanic white. The four sites included no Asian participants who completed the survey or who indicated their race/ethnicity on the survey.

Table 3
Percentage of respondents by race/ethnicity for citizen sites

Race/Ethnicity	Overall	Las Cruces	Long Island	Milwaukee	Hendersonville
Hispanic White	27.4	72.3	14.4	27.6	8.7
Hispanic Black	7.7	2.0	1.1	0.0	2.9
Non-Hispanic White	43.8	21.8	70.0	6.6	82.6
Non-Hispanic Black	17.0	1.0	8.9	59.2	4.3
Asian	0.0	0.0	0.0	0.0	0.0
Native American	1.8	0.0	4.4	1.3	1.4
Other	2.4	3.0	1.1	5.3	0.0

Table 4 shows education levels across the four sites and indicates participants had a range of education levels. Almost 20% of participating citizens had a graduate school degree. Fewer than 10% of participants had less than a high school degree.

Table 4
Percentage of respondents by education level for citizen sites

Education Level	Overall	Las Cruces	Long Island	Milwaukee	Hendersonville
Less than high school	5.6	16.2	1.1	2.6	0.0
Some high school	3.9	5.1	1.1	7.9	1.4
High school graduate	21.4	20.2	25.8	28.9	8.7
Some college	24.9	22.2	17.2	36.8	26.1
College graduate	15.1	10.1	22.6	6.6	21.7
Some graduate school	10.1	11.1	6.5	7.9	15.9
Graduate school graduate	19.0	15.2	25.8	9.2	26.1

Table 5 shows income levels of participants. Participants represented a range of income groups, although the largest category of individuals was incomes between \$30,000 and \$60,000 per year.

Table 5
Percentage of respondents by income level for citizen sites

Income Category	Overall	Las Cruces	Long Island	Milwaukee	Hendersonville
\$15,000 or less	23.3	31.3	8.8	46.5	3.2
\$15,001 - \$30,000	15.2	21.9	6.3	21.1	9.7
\$30,001 - \$60,000	32.7	35.4	30.0	26.8	38.7
\$60,001 - \$100,000	16.8	8.3	25.0	2.8	35.5
\$100,001 or more	12.0	3.1	30.0	2.8	12.9

Table 6 compares the demographic characteristics from the four citizen meetings to the demographics of the broader population across the four communities. Participants in the four citizen meetings tended to be older, more likely to be female, less likely to be white or black, more likely to be Hispanic, more likely to have attended college and more likely to be lower income than the general population of the four communities. The goal of recruitment efforts was not to mirror the demographic of the communities but to have a diversity of backgrounds and perspectives. The project appears to have succeeded in this respect.

Table 6
Comparison of meeting participant characteristics to general population

		Meeting Participants	Community Demographics
Age	20-24*	9.2%	8.5%
	25-34	14.5%	18.3%
	35-44	12.1%	20.6%
	45-54	20.4%	20.2%
	55-64	16.9%	14.8%
	65+	26.9%	17.5%
Gender	Male	33.6%	48.1%
	Female	66.4%	51.9%
Race/Ethnicity	Hispanic **	35.1%	13.3%
	White	43.8%	53.4%
	Black	17.0%	26.4%
	Asian	0.0%	4.9%
	Native American	1.8%	0.3%
	Other	2.4%	1.7%
Education	Less than high school	5.6%	5.7%
	Some high school	3.9%	7.8%
	High school graduate	21.4%	26.3%
	Some college	24.9%	16.8%
	College graduate	15.1%	26.4%
	Some graduate school	10.1%	***
	Graduate school graduate	19.0%	16.9%
Income	Less than \$15,000	23.3%	14.4%
	\$15,000 - \$24,999	****	10.0%
	\$25,000 - \$34,999	****	9.7%
	\$35,000 - \$49,999	****	12.6%
	\$50,000 - \$74,999	****	17.0%
	\$75,000 - \$99,999	****	11.4%
	\$100,000 or more	12.0%	24.9%

* Meeting participants in this category range from age 18-24, while Community Demographics encompass only ages 20-24.

** Meeting participants of Hispanic race/ethnicity responded as either Hispanic White (27.4%) or Hispanic Black (7.7%) for a total of 35.1%. Community Demographics reflect as Hispanic those individuals who identify themselves as Hispanic only. For both groups, White or Black indicates Non-Hispanic White or Non-Hispanic Black.

*** Community demographics do not report citizens with some graduate school experience.

**** These five categories of income are reported as listed for Community Demographics. However, our Meeting Participants reported income in increments as follows: \$15,001 - \$30,000 (15.2%), \$30,001 - \$60,000 (32.7%), and \$60,001 - \$100,000 (16.8%).

Minority health coalitions were heavily involved in the recruitment efforts in New Mexico and Wisconsin, the two sites that were most likely to state that attendance at the event was representative of their community. New Mexico participants said that there was a noticeable absence of people representing the business community. The Wisconsin participants pointed out the lack of representation from people who were homeless



or disabled. All of the groups would have liked the event to have included younger people in the discussion and commented on the large number of older adults attending. The older adults interviewed said that their demographic group was more available to attend such events on a Saturday because they had fewer obligations and commitments than younger people.

All groups would also have liked the events to include more “everyday Joes,” including families with children. Participants offered suggestions for recruitment that included targeting organizations that serve people in the underrepresented groups or asking for organizations to select participants that were representative of their constituency rather than depend on recruitment strategies like newspaper ads. Several people suggested that offering on-site child care be considered as an incentive for parents of young children to attend. The location and timing of the event was also suggested as playing a significant role in determining which groups could attend.

“They should go to areas that are really truly in the community, like a block from my crib.”

Citizen and Stakeholder Knowledge



Citizens were given an eight item knowledge test at the beginning of each session and again at the end. The average scores for citizens increased significantly from the pre-test to the post-test; the average score increased from 39.6% on the pre-test to 64.5% on the post test ($F = 272.530, p < .001$). The level of knowledge on all items, but one, increased significantly from the pre-test to the post-test indicating that the presentation of information and the discussions improved citizen understanding of pandemic influenza (see Table 7). Additional

analysis indicates that although those who participated in January 2007 and those who participated in November 2007 started at the same pre-test knowledge level (both scoring 39.6% correct), the January group had a greater increase in knowledge by the post-test (68.5% correct vs. 59.4% correct for the November group). This could be due to a different process at the two time periods.

Table 7
Change in citizen knowledge

Question	% of people who answered correctly	
	Pre-test	Post-test
Q1: How soon after someone is infected with an influenza virus will they get sick?	39.8% (128)	65.5% (211)*
Q2: When will the next pandemic occur?	50.9% (164)	72.0% (232)*
Q3: About how many people do you think die in a typical year from flu in the United States?	27.0% (4987)	61.8% (199)*
Q4: Who is at risk when a new influenza virus appears that has never been seen before?	78.3% (252)	88.8% (286)*
Q5: How many pandemics have occurred over the last 100 years?	38.2% (123)	83.2% (268)*
Q6: What causes a flu pandemic?	42.2% (136)	47.8% (154)
Q7: About how many people could become ill in the United States during a severe pandemic?	17.1% (55)	35.4% (114)*
Q8: About how long would it take to produce a flu vaccine after the virus causing a pandemic is identified?	23.3% (75)	61.2% (197)*

* indicates a significant increase in knowledge at $p < .05$

The perceptions of the citizens verify the quantitative results. Overall, citizens believed they had enough information to have well-informed opinions about vaccine distribution. On a 1 to 5 scale, with 5 representing strongly agree and 1 representing strongly disagree, average scores were as follows:

Table 8
Citizen perception about level of knowledge

Statement	Overall Mean (Std Dev)	January 2007 Mean (Std Dev)	November 2007 Mean (Std Dev)
I think I have enough information right now to have a well-informed opinion about making the best use of limited supplies of vaccine in a pandemic.	4.29 (0.86)	4.28 (0.87)	4.31 (0.84)

Overall knowledge scores appear higher for stakeholders than for citizen groups (see Table 9). There was little change in overall scores from pre-test (81.1%) to post-test

(83.1%). This could reflect the high degree of knowledge on the subject that most stakeholders came with or it could be because there was no educational presentation related to general knowledge about pandemic influenza offered to stakeholders at the event. Knowledge increased pre- to post-deliberation on only Question 7; the number of people answering correctly doubled. This is in contrast to the citizen groups, where although knowledge increased on Question 7, a majority of people continued to answer incorrectly on the posttest. The educational emphasis at the stakeholder meeting was on the proposed federal guidelines for vaccination in the event of a severe pandemic. The resulting increase in knowledge related to the number of people who could become ill in a severe pandemic reflects this educational emphasis.

Table 9
Change in stakeholder knowledge

Question	% (#) of people who answered correctly	
	Pre-test	Post-test
Q1: How soon after someone is infected with an influenza virus will they get sick?	80.6% (25)	77.4% (24)
Q2: When will the next pandemic occur?	93.5% (29)	80.6% (25)
Q3: About how many people do you think die in a typical year from flu in the United States?	87.1% (27)	80.6% (25)
Q4: Who is at risk when a new influenza virus appears that has never been seen before?	100.0% (31)	93.5% (29)
Q5: How many pandemics have occurred over the last 100 years?	96.8% (30)	93.5% (29)
Q6: What causes a flu pandemic?	71.0% (22)	67.7% (21)
Q7: About how many people could become ill in the United States during a severe pandemic?	45.2% (14)	87.1% (27)*
Q8: About how long would it take to produce a flu vaccine after the virus causing a pandemic is identified?	74.2% (23)	83.9% (26)

* indicates a significant increase in knowledge at $p < .05$

The perceptions of the stakeholders verify the quantitative results. Overall, stakeholders believed they had enough information to have well-informed opinions about vaccine distribution. On a 1 to 5 scale, with 5 representing strongly agree and 1 representing strongly disagree, average scores were as follows:

Table 10
Stakeholder perception about level of knowledge

Statement	N	Mean (Std Dev)
I think I have enough information right now to have a well-informed opinion about making the best use of limited supplies of vaccine in a pandemic.	35	4.31 (0.68)

Participants were asked about the information presented at the event. Almost everyone interviewed said that there was at least some information that they heard for the first time at the event. This included people who reported having extensive knowledge prior to attending the event. Participants from all sites reported referring to the handouts throughout the day and using them as references in small group deliberations. Some participants described the information as “very influential” while others noted that it served as a refresher for them. Most agreed that the information presented at the beginning of the day was necessary to bring all participants up to a shared knowledge level.

*“We would not have been able to discuss it without the information.”
“It created an impact on our discussion. If it wasn’t for that I don’t think we could have had a good dialogue.”*

All of the participants interviewed said the information presented was understandable, though several wondered if it might have been hard for other participants to grasp or follow. Some citizens thought additional information would have been helpful such as information about the value of vaccinations at different stages of a pandemic. The two citizen meetings held after the federal guidance was released had a handout on their tables that graphically represented the vaccination priorities which some found confusing. Suggestions for improvement included having a list of definitions or a glossary in the handouts. A bilingual Hispanic participant noted that a few of the Spanish speaking people at his table had some trouble with the language, but in general it was understandable.

“Being at the Hispanic table, having the material translated in Spanish would help. It was just a few people who didn’t have the ability to fully understand the whole thing.”

On the other end of the spectrum, some participants thought the information presented was “over-simplified.” There were several participants who said that the delivery of the information could have been improved, but most were generally satisfied with the content. Having speakers from local jurisdictions was meaningful to most participants and helped “reinforce” the key messages.

*“They didn’t speak down to us, but they didn’t talk over our heads.”
“I thought it was at a level that I thought just about everybody could understand”*

The second stakeholder meeting did not include the presentation on the difference between pandemic and seasonal influenza as the citizen groups did. Focus group participants after this meeting noted that it should not have been assumed that all stakeholders came in with an understanding about the difference between seasonal and pandemic influenza. They noted that an introductory presentation similar to those done at the citizen group meetings may have given participants shared clarity on the issues being discussed.

“I think the complexity could be explained better.”

All of the stakeholders who were interviewed said that they understood the information presented. Several stakeholders said they also had to rely on information they obtained outside of the event about pandemic influenza when considering the proposed federal guidelines. Several reported reviewing the federal guidelines and previous pandemic influenza public engagement reports prior to coming to the event.

“On the website there was more information. Maybe send out information about where to look for information prior to the meeting.”

The Quality of Deliberations

The post-surveys indicate citizens generally believed the process was of high quality. Table 11 shows average scores for ratings of the process on a scale 1 to 5, with 1 representing strongly disagree and 5 representing strongly agree. For the first six items, a higher quality process is associated with a higher score. For the last two items, a higher quality process is associated with a lower score. Opinions differed between citizens who participated at different times ($F(11, 263) = 1.894, p = .040$). Those who participated in January 2007 were more positive about the process than those who participated in November 2007, giving higher ratings to feeling comfortable talking in the discussion; feeling the discussion was fair to all; thinking other people felt comfortable talking; and thinking the process produced credible, relevant, and independent information.

Table 11
Average citizen ratings of process

Statement	Overall Mean (Std Dev)	January 2007 Mean (Std Dev)	November 2007 Mean (Std Dev)
I felt comfortable talking in this discussion.	4.69 (0.66)	4.81* (0.46)	4.55* (0.83)
I think this process helped me better understand the types of trade-offs involved in setting priorities for influenza vaccination.	4.62 (0.66)	4.66 (0.60)	4.58 (0.72)
This discussion was fair to all participants.	4.57 (0.75)	4.70* (0.65)	4.41* (0.84)
I think other people in this discussion felt comfortable talking.	4.52 (0.78)	4.63* (0.64)	4.39* (0.91)
I think this process has produced credible, relevant, and independent information.	4.49 (0.76)	4.58* (0.71)	4.38* (0.81)
I think this process produced a valuable outcome regarding how to prioritize influenza vaccination.	4.38 (0.88)	4.43 (0.81)	4.31 (0.95)
Important points were left out of our discussion.	2.71 (1.39)	2.75 (1.41)	2.65 (1.38)
One person or a small group of people dominated the discussion.	2.20 (1.42)	2.14 (1.42)	2.28 (1.43)

* Citizens who participated in different processes differed in opinion.

The post-surveys indicate stakeholders generally believed the process was of high quality, although their ratings were slightly less positive than citizen ratings. Table 12 shows average scores for ratings of the process on a scale 1 to 5, with 1 representing strongly disagree and 5 representing strongly agree. For the first six items, a higher quality process is associated with a higher score. For the last two items, a higher quality process is associated with a lower score.

Table 12
Average stakeholder ratings of process

Statement	N	Mean (Std Dev)
This discussion was fair to all participants.	35	4.60 (0.78)
I felt comfortable talking in this discussion.	34	4.50 (0.71)
I think other people in this discussion felt comfortable talking.	35	4.29 (0.96)
I think this process helped me better understand the types of trade-offs involved in setting priorities for influenza vaccination.	35	4.20 (0.72)
I think this process has produced credible, relevant, and independent information.	35	4.14 (0.85)
I think this process produced a valuable outcome regarding how to prioritize influenza vaccination.	35	4.09 (0.82)
Important points were left out of our discussion.	34	2.59 (1.18)
One person or a small group of people dominated the discussion.	35	2.11 (0.99)

Only a few people commented on the registration process prior to the meeting. A couple of people talked about the lack of feedback between registration and the event. It was recommended that participants receive tangible confirmation of registration like an email or mailing that included up to date information about the logistics of the event.

“Advertisements in the paper should have had specific information and someone should have gotten back to us. We had to call someone in New Mexico to find out if we were registered.” Several people in the Wisconsin and North Carolina groups said that registration went “smoothly.” Several participants “checked out” the organizer before agreeing to attend and cited the availability of historical information and reports on partner websites as influential in their decision to register for the event.

The process during the meeting was generally applauded and appreciated by participants. They described it as “professional” and “well-structured.” Many of the participants commented on the physical setting of the meetings in addition to the process. New Mexico participants appreciated the placement of microphones throughout the room, the simulcast interpreting and the personal attention from their facilitators. New York

participants valued the process but felt that moving from room to room may have been disruptive. New Yorkers also said that more time could have been allotted for small group discussion and completion of the surveys, which was included in subsequent meetings in Wisconsin and North Carolina.

Wisconsin participants had trouble hearing questions from the audience because of the lack of microphones. Some complained about the room being cramped and cold making it somewhat uncomfortable. North Carolina participants also commented on how cramped their room was. No complaints were lodged about the food in any of the locations. Stakeholders did not comment in the interviews or focus group about facilities.

The small group discussion was valuable to participants in all sites. They generally enjoyed the discussion and thought the facilitation was good.

“I liked the way we broke down into groups. Each person from the table got to say what their group was thinking.”

“I found it fair. If you wanted to give your input you certainly had the opportunity to do so.”

Participants generally viewed the information as building toward active participation in both large and small group discussions. Listening to other people’s viewpoints was universally seen as positive in both sites.

“I really think the thing that most influenced my opinion was the give and take at the table. It wasn’t only the tables, but when they reported out giving different reasons.”

“We all came from different backgrounds, ethnic backgrounds, and professional groups. What was good about it was that we all compromised.”

The availability of experts seemed to be very important and impressive to some participants. They found it helpful to have their questions answered and felt valued because experts sat at their table and were accessible for questions.

“What surprised me was that there was a guy there who said he was from the government – that surprised me a lot.”

Several of the participants viewed the pre-meeting surveys as a source of information that helped set the expectation of knowledge to be gained throughout the day.

“I realized that when I did the initial pre-test that it had been quite a while since I had read that information and I’d forgotten a lot of it.”

“I liked the way they tried to get a feel for what you knew before and what you knew after.”

The event in New Mexico included both English and Spanish speakers. The Spanish speakers who were interviewed appreciated the efforts made to mix the populations, but at times felt isolated from the group. They noted that some of the information, notably the electronic polling, was not available in Spanish. Some of the Spanish speakers were concerned that there may have been a loss of critical information in the simultaneous translation. One participant noted that she felt badly that the English speakers were left out of the Spanish speaker's discussions. Another said that this was a "solid effort" to be inclusive and that it was important for Spanish speakers not to be separated from the rest of the community. Like the English-speaking participants, they would have liked to have seen more Spanish speakers at the event who were working class and not there to represent a specific constituency. They recommended more personal outreach to the community to increase attendance at future events.

There was a table of bilingual and Spanish-only speakers in Wisconsin. One participant commented about the segregation of the table. This person suggested that integrating the Hispanic participants may have led to more diversity of opinion in the small group discussions. Another participant in Wisconsin noted that the briefing materials were not translated into Spanish, making it difficult for non-English speakers to refer back to written materials as others had the opportunity to do.

Three of the meetings included electronic polling of participants that followed small group discussion. Technical difficulties prevented polling in New York. New Mexico participants thought that the electronic voting process could have been explained better or made available in Spanish for Spanish speakers in the forum. Interviewed participants liked the availability of electronic polling, but had a variety of opinions about the timing and implementation of polling.



Participants at the meetings in Wisconsin and North Carolina and the second stakeholder meeting were asked to summarize their discussion via a reporter for organizers over the lunch hour. The organizers then crafted polling questions from the themes that arose from the small group discussions. Several participants noted that the questions did not capture the depth of their discussions. They were concerned that polling was the only mechanism for learning about the discussion from other tables, limiting the discussion and interaction among small groups.

“Some people that brought up certain things there was not time for discussion afterwards, we just voted on it.”

Some participants, particularly in Wisconsin, were concerned about the role that government officials had in presenting the polling questions.

“I’m not walking around Milwaukee saying the conspiracy theorists are right – I’m not going that far – I’m simply saying that the sense of neutrality, scientific neutrality about obtaining public opinion was lost.”

This was less of an issue in North Carolina and the second stakeholder group because neutral facilitators assumed the role of presenting the polling questions rather than a government official. The stakeholders and citizens all wanted more time to explore and discuss polling results. Prior to voting, participants were asked if they wanted to explain the theme from their small group’s perspective. Differing opinions were not solicited prior to the vote, nor was there much time for discussion after the vote. Some participants were concerned about this and suggested that polling be staggered throughout the day to allow for small and large group discussion about emerging issues. The placement of polling at the end of the day did not allow for extended discussion to clarify or explain the votes.

“When we did the polling and we saw some real strong differences of opinion. I leave not knowing why there were those differences.”

Overall, the day-long process was generally viewed as valuable by citizen participants.

“I really loved the simple fact that we was able to sit down and actually talk and express our opinions.”

“Thank you for the opportunity to come and learn the information – making us feel important – that we have a say. It’s not only that you asked, but we received from you.”

Some stakeholders were critical of the electronic polling. As indicated by one stakeholder:

“I think that it is risky to base public policy on a straw poll (the electronic polling). I noted that many stakeholders had already left before the straw poll.”

The Impact of Deliberations on Citizen Opinions

Survey results indicate some opinions regarding social values, goals, and priority groups changed for citizens after they received information and deliberated about vaccine priorities. Citizens were asked to rate each value on a 1-7 scale where ‘1’ was ‘Most Important’ and ‘7’ was ‘Least Important.’ Table 13 indicates that social justice, utilitarianism, equality, national security, compassion, and independence all decreased in importance following the deliberation, while societal contribution increased in importance (although it received the lowest rating both before and after the deliberation). Relatively high importance was placed on social justice, social order and utilitarianism both before and after the deliberation.

Table 13
Changes in social value ratings by citizens

Social Value	Pre-test Mean (Std Dev)	Post-test Mean (Std Dev)	ANOVA F-value	ANOVA p-value
Social Justice	1.69 (1.31)	2.10 (1.79)	8.834	.003 [^]
Social Order	1.95 (1.33)	2.15 (1.64)	2.144	.145
Utilitarian	1.95 (1.40)	2.25 (1.80)	4.563	.034 [^]
Equality	2.09 (1.74)	2.52 (1.96)	8.223	.005 [^]
National Security	2.09 (1.57)	2.86 (1.97)	30.028	<.001 [^]
Nationalism	2.88 (1.98)	3.06 (1.94)	1.829	.178
Compassion	2.36 (1.83)	3.26 (2.03)	40.864	<.001 [^]
Freedom	3.25 (2.11)	3.50 (2.10)	2.918	.089
Independence	2.93 (1.99)	3.62 (2.26)	17.849	<.001 [^]
Societal Contribution	4.48 (2.16)	3.68 (2.07)	23.033	<.001 [*]

* indicates a significant increase in importance at p<.05

[^] indicates a significant decrease in importance at p<.05



Table 14 shows citizen ratings of goals before and after deliberations. Citizens were asked to rank the goals from '1' for 'Highest Priority' to '8' for 'Lowest Priority.' Maintaining critical health care increased in priority after the deliberation, and was ranked first. Minimizing the spread of influenza was also a fairly high priority, although its ranking decreased as a result of the deliberation. Other goals that decreased in priority after the deliberation were: ensuring adequate distribution of vaccine and antivirals, minimizing deaths due to influenza, and treating all persons the same. Maintaining economic productivity was the lowest priority both before and after the deliberation.

Table 14
Changes in goal ratings by citizens

Goal	Pre-test Mean (Std Dev)	Post-test Mean (Std Dev)	ANOVA F-value	ANOVA p-value
Maintain critical health care services	3.21 (1.95)	2.84 (1.90)	6.942	.009*
Minimize the spread of influenza	2.68 (1.85)	3.04 (2.00)	5.585	.019^
Ensure adequate distribution of vaccine and antiviral medicines	3.11 (2.16)	3.58 (2.32)	8.270	.004^
Minimize deaths due to influenza	3.30 (2.34)	3.75 (2.33)	7.076	.008^
Maintain social order	4.22 (2.44)	4.00 (2.22)	1.962	.162
Maintain national security	4.23 (2.65)	4.43 (2.56)	1.630	.203
Treat all persons the same regardless of status	4.02 (2.64)	4.85 (2.54)	23.803	<.001^
Maintain economic productivity	5.32 (2.49)	5.37 (2.36)	0.118	.731

* indicates a significant increase in priority at $p < .05$

^ indicates a significant decrease in priority at $p < .05$

Table 15 shows the change in group ratings by citizens from the pre-test to post-test. Citizens were asked to rank the following groups from '1' for 'Highest Priority' to '8' for 'Lowest Priority' for receiving limited flu vaccine. Both before and after the deliberation, the highest priority for vaccination was placed on those who provide healthcare. High priority was also placed on those who implement pandemic response activities, provide vital community services, and are most likely to pass the virus to others in the community. Those who provide healthcare, implement pandemic response activities, provide vital community services, and provide the greatest economic benefit to the community were prioritized significantly higher after the deliberation, although the last group still received a fairly low priority ranking (second-to-last). Priority decreased for those who: are at high risk of dying, are most likely to transmit the virus to those at high risk of dying, and those who request the vaccine (lowest priority overall).

Table 15
Changes in group ratings by citizens

Group People ...	Pre-test Mean (Std Dev)	Post-test Mean (Std Dev)	ANOVA F-value	ANOVA p-value
... who provide health care	2.54 (1.95)	2.28 (1.79)	4.022	.046*
... who implement pandemic response activities	3.35 (2.22)	2.80 (2.04)	12.554	<.001*
... who provide vital community services	3.69 (2.03)	3.31 (1.93)	5.544	.019*
... most likely to pass influenza to others in community	3.56 (2.04)	3.73 (1.94)	1.203	.274
... most likely to transmit viruses to those at high risk of dying	3.63 (2.06)	4.37 (2.03)	25.107	<.001^
... at highest risk of dying	3.66 (2.36)	4.65 (2.14)	50.282	<.001^
... who provide greatest economic benefits	5.76 (2.12)	5.44 (2.11)	4.311	.039*
... who request vaccine (first come, first served)	6.11 (2.39)	6.79 (2.05)	24.662	<.001^

* indicates a significant increase in priority at $p < .05$

^ indicates a significant decrease in priority at $p < .05$

Survey results indicate opinions regarding social values, goals, and priority groups changed much less for stakeholders than for citizens after they received information and deliberated about vaccine priorities. Regarding social values (Table 16), there were no significant differences in the stakeholder ratings from pre-deliberation to post-deliberation. Like the citizen groups, relatively high importance was placed on: Social Order, Social Justice, and Utilitarianism, both before and after the deliberation. This stakeholder group also placed some importance on the values of National Security.

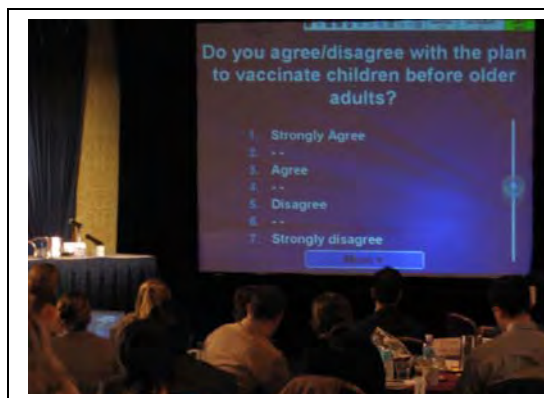


Table 16
Changes in social value ratings by stakeholders

Social Value	Pretest Mean (Std Dev)	Posttest Mean (Std Dev)	ANOVA F-value	ANOVA p-value
Social Order	1.95 (1.27)	1.84 (0.69)	0.112	.742
Social Justice	2.11 (1.24)	1.95 (1.13)	0.460	.506
Utilitarian	1.89 (1.24)	2.05 (1.47)	0.415	.527
National Security	2.26 (1.41)	2.37 (1.34)	0.321	.578
Compassion	3.00 (1.25)	3.00 (1.41)	<.001	1.000
Nationalism	3.95 (2.04)	3.79 (2.04)	0.321	.578
Societal Contribution	4.00 (2.00)	3.89 (1.94)	0.068	.797
Equality	3.97 (2.15)	4.11 (1.94)	0.516	.482
Freedom	5.21 (1.75)	4.95 (1.97)	0.703	.413
Independence	5.11 (1.63)	5.47 (2.01)	1.901	.185

There was also little change in stakeholder rankings of goals (see Table 17) from pre-test to post-test. Maintaining critical health care increased in priority after the deliberation and was ranked first. Minimizing the spread of influenza and minimizing deaths were also prioritized over the other goals and did not change as a result of the deliberation.

Maintaining national security decreased significantly in priority after the deliberation, as did maintaining economic productivity. Maintaining economic productivity was the lowest priority both before and after the deliberation.

Table 17
Changes in goal ratings by stakeholders

Goal	Pretest Mean (Std Dev)	Posttest Mean (Std Dev)	ANOVA F-value	ANOVA p-value
Maintain critical health care services	3.03 (1.35)	2.45 (1.27)	4.727	.038*
Minimize the spread of influenza	3.03 (1.94)	2.59 (1.57)	1.442	.240
Minimize deaths due to influenza	2.93 (2.39)	3.03 (2.20)	0.139	.712
Ensure adequate distribution of vaccine and antiviral medicines	4.66 (1.72)	4.76 (1.62)	0.085	.773
Maintain social order	4.55 (2.25)	4.93 (1.98)	0.653	.426
Maintain national security	4.31 (2.65)	5.03 (2.41)	4.850	.036^
Treat all persons the same regardless of status	6.17 (2.21)	6.14 (2.05)	0.012	.913
Maintain economic productivity	5.79 (1.70)	6.62 (1.21)	9.907	.004^

* indicates a significant increase in importance at $p < .05$

^ indicates a significant decrease in importance at $p < .05$

Table 18 shows no significant changes in group ratings by stakeholders from the pre-test to post-test. Both before and after the deliberation, the highest priority for vaccination was placed on those who provide healthcare, followed closely by those who implement response activities. High priority was also placed on those who are most likely to transmit viruses to those at high risk of dying and those who provide vital community services. These top rankings are similar to those given by the citizen groups. Individuals who provide the greatest economic benefits and those who request the vaccine were given the lowest priority.

Table 18
Changes in group ratings by stakeholders

Group People ...	Pretest Mean (Std Dev)	Posttest Mean (Std Dev)	ANOVA F-value	ANOVA p-value
... who provide health care	2.17 (1.26)	2.27 (1.72)	0.070	.794
... who implement pandemic response activities	2.57 (1.72)	2.73 (1.89)	0.326	.573
... most likely to transmit viruses to those at high risk of dying	4.03 (1.75)	3.83 (1.44)	0.317	.579
... who provide vital community services	3.67 (1.67)	3.90 (1.61)	0.568	.457
... most likely to pass influenza to others in community	4.07 (1.60)	4.20 (1.75)	0.205	.654
... at highest risk of dying	4.30 (2.15)	4.40 (1.92)	0.059	.809
... who provide greatest economic benefits	6.37 (1.71)	6.40 (1.71)	0.015	.904
... who request vaccine (first come, first served)	7.40 (1.55)	7.80 (0.41)	1.851	.184

Results from the interviews and focus groups indicated that many individuals believed the process did not alter their opinions about vaccine priorities. Although most said the discussions and information did not change their opinions, they did say that it helped “broaden” or “clarify” their views.

“I still have the same opinions but it clarified them a bit about why I feel this way.”

“I was surprised at the excellent questions and new ideas that came out of this.”

“I got better insight into some things I did not give much thought to.”

Several people reported the information presented did have an affect on their opinions. This included information gained by asking experts questions during both large and small group discussions. One participant summed up the experience by saying, “each time new information was given, the discussion changed.” Many participants reported that the small group discussion had the biggest influence on their opinions.

“It wasn’t so much about the speaker, it was more about us interacting with each other.”

“My mind totally changed by listening to one of the member who made me see things from a totally different perspective.”

“I heard people mentioning things I didn’t think of, and realized they were very important also.”

Use of the Input by Policymakers

Citizens generally expressed their belief the input provided would be used by policymakers. They also believed the deliberative process would increase the public’s support of the decision that would be made about vaccine distribution. Table 19 shows citizen ratings for these two question (on a 1 to 5 scale with 5 being strongly agree and 1 being strongly disagree).

Table 19
Citizen perceptions about the impact of citizen input

Statement	Overall Mean (Std Dev)	January 2007 Mean (Std Dev)	November 2007 Mean (Std Dev)
I think this process will increase the public’s support of the decision ultimately made on how to prioritize influenza vaccination.	4.34 (0.83)	4.38 (0.83)	4.29 (0.84)
I think officials will use our input in their decisions about how to prioritize influenza vaccination.	4.07 (0.98)	4.10 (0.88)	4.03 (1.09)

Stakeholders also expressed their belief that the input provided would be used by policymakers. They also believed the deliberative process would increase the public’s support of the decision that would be made about vaccine distribution. Table 20 shows stakeholder ratings for these two question (on a 1 to 5 scale with 5 being strongly agree and 1 being strongly disagree).

Table 20
Stakeholder perceptions about the impact of citizen input

Statement	N	Mean (Std Dev)
I think officials will use our input in their decisions about how to prioritize influenza vaccination.	35	4.03 (0.66)
I think this process will increase the public’s support of the decision ultimately made on how to prioritize influenza vaccination.	35	4.00 (0.77)

Results from the interviews and focus groups indicate participants at both sites were generally pleased with the outcomes of the meeting and felt like it reflected their work in the small and large groups. When asked about how they expected policy makers to use

the information, participants expressed a mix of optimism and cynicism. The cynical responses often were rooted in perceptions of how the federal government responded to Hurricane Katrina. “Look at Katrina – that was one state. They couldn’t even take care of Katrina right.” Pandemic influenza planning efforts associated with the federal government viewed through the lens of past performance led to other cynical comments.

“These reports are going to get buried in somebody’s office – unfortunately especially in the current climate, planners will do what they are going to do.”

“I don’t have great expectations that they are going to follow this.”

“Unless there is a huge overwhelming suggestion that multiple groups are making, I think that the policy will pretty much stay the way they designed them.”

“If my input is going to be dismissed, let’s not waste time – if my input is going to be included, then I’d be willing to sacrifice time without a stipend.”

These comments were tempered by the hope that these forums signaled new respect for public input. Participants from all sites wanted to believe the work they did will be considered by federal decision makers. All who were interviewed were clear that their input was only part of the information that policy makers would be considering. Most thought and expected that expert opinions would be more heavily weighted than citizen input. This did not negate their hope that citizen input would be considered.

“I’ve never seen the government try so hard to really get a feel for what everybody wants”

“I just hope that they take all the information into consideration and not let politics rule whatever decision they come to.”

“Maybe we actually are making a difference at this meeting.”

Selected representatives of the citizen groups were invited to present and participate in the stakeholder meetings. Stakeholders welcomed the citizen viewpoints were impressed by how serious the citizen groups deliberated. The comments of stakeholders reflected how the value of citizen input increased when they were given the opportunity to interact with citizens at the meeting.



“I probably didn’t give enough credit to the lay folks.”

“We need to have that interaction with non-federal people from outside in the communities.”

One participant thought it might be helpful if decision makers were given the same opportunity to receive information, ask questions and engage in discussions before they ultimately made decisions about vaccine prioritization. He referred to the effect this experience had on him as an example of how policy makers might benefit from it:

“Maybe before the conference they had certain ideas, but the information from these conferences will change their opinion – because it happened to me – before, I did pretty good research on influenza and vaccines – I developed a certain understanding of it – and yet the conference itself gave me a broader view.”

The gravity of the decisions faced by policy makers related to vaccine prioritization was felt by participants in all citizen sites. They wanted those in charge of the decisions to take into account all available information and to keep citizens informed of their progress.

“I think I left there with a sense of how tough it would be.”

“This is people’s lives....I think they should continue to keep us informed all the way down.”

“We are not separate from you.”

The overall impression from citizen participants was that the effort to engage the public in the discussion was successful. People genuinely appreciated being asked for their opinion and felt better informed when they left the session.

“A lot of times I think people feel like the government just comes in and makes these decisions after all this work to prioritize and it was really nice to let people come up with the decisions.”

“I wish they did this more often. They usually they take surveys, but they never really educate the public and then take surveys. I wish they would do this with a lot of other issues as well, like education or workers rights.”

“I think that a lot of people went away informed and wanted to be made aware and wanted to have more input. They went away hungry.”

A general theme from the citizens was that they would be more inclined to accept the decisions of policy makers because they had the opportunity to meaningfully participate in the decision. Stakeholders noted that this theme seemed to persist even when citizens were asked about how they would react if the resulting decision or policy turned out to be contrary to their personal recommendation or belief. Stakeholders also noted that they were surprised to learn from citizen panels that participants advocated for groups to receive priority in vaccination that they were personally not part of. Interviewed stakeholders cautioned against over-generalizing the results of the citizen groups. One

stakeholder noted that overselling the results could lead to “skepticism” related to the validity of the process.

“Its gone farther than the vast majority or almost any policy process that I can think of to be inclusive and to bring more voices to the table in a more deliberate fashion. That said, it should not be oversold.”

Many of the citizens who were at the events expressed a sense of responsibility for educating others about pandemic influenza as a result of their participation. One citizen described the role as one of being a “missionary for vaccination.” Another summed up the responsibility like this:

“If we ever need to do this, the opportunity for those of us who were there to more or less defend the policies will be useful. It will definitely keep my level of frustration down.”

Participants will be tuned in to see what happens with their input. Most would appreciate a personal communication from organizers that gave them a website or internet resource to periodically check for updates. They said that they would like an email or letter acknowledging their participation and directing them to these resources. Participants were hopeful that the federal government would involve local health departments in ongoing decisions and in dissemination of information so local community members could be assured that their needs would be met.

Who Should Decide Vaccine Distribution

Citizens were asked who should make decisions about vaccine distribution in the event of a pandemic. As shown in Table 21, the largest shifts in opinion on who should determine vaccine distribution are away from individuals themselves and toward local health departments. The CDC was the most strongly endorsed decision-maker both before and after the deliberation.

Table 21
Changes in citizen ratings regarding who should decide vaccine priorities

	Pre-test % (#)	Post-test % (#)
Individuals themselves	13.8% (39)	8.9% (25)^
Local health department	15.6% (44)	22.3% (63)*
City or county government	3.2% (9)	3.5% (10)
State Health Department	12.4% (35)	10.6% (30)
State government	1.4% (4)	3.9% (11)
CDC	49.3% (139)	45.0% (127)
Federal government	4.3% (12)	5.7% (16)

* indicates a significant increase at p<.05

^indicates a significant decrease at p<.05

For stakeholders, the largest shifts in opinion on who should determine vaccine distribution are away from individuals and the CDC and toward state health departments and state government (see Table 22). This is similar to the citizen deliberations with the locus of control moving toward a more local setting. In the case of citizens, the movement was from federal and state to local health departments and government. Stakeholders moved from federal to state levels of government and health departments. The CDC was the most strongly endorsed decision-maker both before the deliberation, while the federal government was the most strongly endorsed after the deliberation, with the CDC and state health departments in second place.

Table 22
Changes in stakeholder ratings regarding who
should decide vaccine priorities

	Pretest % (#)	Posttest % (#)
Individuals themselves	6.9% (2)	0% (0) [^]
Local health department	3.4% (1)	3.4% (1)
City or county government	6.9% (2)	10.3% (3)
State Health Department	10.3% (3)	24.1% (7)*
State government	0% (0)	10.3% (3)*
CDC	37.9% (11)	24.1% (7) [^]
Federal government	34.5% (10)	27.6% (8)

* indicates a significant increase at $p < .05$

[^]indicates a significant decrease at $p < .05$

Summary and Conclusions

Based on evaluation results, the Public Engagement Project on Pandemic Influenza Vaccine Prioritization met its major goals. Organizers were successful in recruiting participants to the four citizen meetings held in Las Cruces, New Mexico, Nassau County, New York, Milwaukee, Wisconsin and Hendersonville, North Carolina. The goal of recruiting 100 citizens for each meeting was exceeded. Nearly 500 individuals from these communities gave up a Saturday to engage in a deliberative process around an important public policy issue. Providing stipends and enhanced recruitment efforts appears to have resulted in increased participation in comparison to previous public engagement efforts regarding pandemic influenza.

Citizens represented a diversity of demographic characteristics and perspectives. The goal of the public engagement process was not to have citizen participants mirror the exact demographics of the general populations of the four communities; rather, the goal was to have enough demographic diversity to ensure participants reflected a variety of perspectives and points of view. In this sense, the project succeeded. Participants tended to be older and more educated than the general population. There were more females and Hispanic participants than the general population as well. However, there were participants from across demographic groupings at each meeting. Citizens themselves

indicated they were impressed with the diversity of opinions during the discussions. Despite the cross section of individuals who participated, some thought there was an absence of ordinary citizens. Many of the participants attended because they worked in the health care field or they were members of particular groups with an interest in pandemic influenza.

The public engagement process resulted in increased knowledge for citizens participating in the meetings. Stakeholders generally came into their meetings with a high level of knowledge. Both citizens and stakeholders believed they had adequate knowledge to understand the key concepts. It appears that citizens and stakeholders had sufficient knowledge to engage in thoughtful and informed discussions about which groups should receive priority for vaccinations in the event of a pandemic.

Both citizens and stakeholders believed the process was of high quality, although stakeholders slightly less so than citizens. Both groups felt comfortable talking in the discussion, thought the discussion was fair to all participants, and felt others in the discussion were comfortable in talking during the process. Most indicated that all the important points were included in the discussion and that no one person or group dominated the discussion. Citizens agreed that the process was well structured and professionally organized. Participants particularly appreciated the small and large group discussions and the availability of experts in the process. In one site, the electronic polling did not work; however, this did not appear to be a major detraction for participants. Some individuals indicated that Spanish speakers felt isolated from the rest of the group and that the meeting materials including the electronic polling were not available in Spanish.

Engaging in the participatory process appears to have significantly changed the opinions of citizen and stakeholder regarding the importance of social values to consider when making decisions about vaccine priorities, the goals for vaccine policy, and the priority groups for vaccination. For citizens, the values of “social justice”, “utilitarianism”, “equality”, “national security”, “compassion”, and “independence” all decreased in importance following the deliberation, while “societal contribution” increased. The goals of “ensuring adequate distribution of vaccine”, “minimizing deaths due to influenza”, and “treating all persons the same” decreased after deliberations, while the goal of maintaining critical health care services increased. With regard to groups of individuals who should receive priority for vaccination, “people likely to transmit viruses to those at risk of dying”, “people at highest risk of dying”, and “people who request the vaccine first” decreased in importance, while “people who implement pandemic response activities” increased. These results provide evidence of the value of obtaining input from citizens and stakeholders through this type of participatory process. Participants who understand the issues and engage in deliberations about policy options develop different perspectives than if they had not participated in the process. Although opinions changes, the participants themselves did not comprehend that their perspectives had been altered. Many indicated that the process helped refine or clarify their views, but that their perspectives had not changed substantially.

Both citizens and stakeholders thought the process would increase public support of vaccine policy and that officials would use the public input in making their decisions; although stakeholders were a bit less sure. Citizens in particular appreciated the opportunity to be involved in the process. The majority of citizens and stakeholders believed that the federal government including the Centers for Disease Control and Prevention should make the decision about which groups should receive priority for vaccine in the event of a pandemic. However, after the process, there was a significant shift in participants who thought that county or local health departments should make these decisions.



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