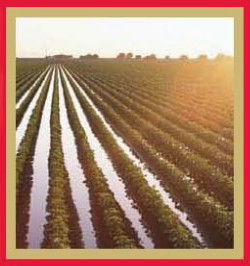




Evaluation of Novel H1N1 Vaccine Policy Public Engagement

October 25, 2009

Prepared by:

The Public Policy Center
University of Nebraska
215 Centennial Mall South, Suite 401
Lincoln, NE 68588 – 0228
Phone: 402 – 472 – 5678
FAX: 402 – 472 – 5679
Email: ppc@nebraska.edu

University of Nebraska
PUBLIC POLICY CENTER

Table of Contents

List of Tables and Figures

Executive Summary

The Centers for Disease Control and Prevention (CDC) sponsored a public engagement effort to obtain citizen and stakeholder input on the Novel H1N1 Vaccine Program. The purpose of the meetings were to obtain input from community members about which vaccination program approach – in terms of intensity and breadth – the federal government should implement to respond to the H1N1 pandemic: "Go Easy," "Moderate," or "Full Throttle." The CDC contracted with the Keystone Center to facilitate three public engagement processes to collect public input:

1. Ten citizen meetings conducted around the United States; one in each CDC area
2. Two on-line deliberations
3. A stakeholder meeting

The Keystone Center contracted with the University of Nebraska Public Policy Center to conduct an evaluation of the public engagement process. Questions addressed by the evaluation were:

1. How successful was the project in attracting a **sufficient number** of citizens with a **broad diversity of perspectives,** and what could have improved recruitment?
2. How successful was the process in ensuring a **sufficient level of citizen knowledge** about vaccine policy so they could engage in informed discussions, and how did knowledge vary?
3. Did the process result in a **balanced, honest, and reasoned discussion** of the issues, what would have improved the process and how did perceptions vary among groups?
4. How did the process affect **citizen perceptions about vaccine goals** or options and values underlying those goals or options?
5. Did the process affect **citizen trust in government** and support for policy decisions?
6. Did the process **empower citizens to participate effectively** in policy work?
7. How did **stakeholders consider citizen information**?
8. How did **decision makers use citizen and stakeholder information**?
9. **Did the process and outcomes** (resulting from the process) **meet the expectations of project sponsors and facilitators**?

Results of the evaluation include these findings:

1. **The process was generally successful in attracting citizens to participate in ten in-person public engagement meetings held across the country.** The process was less successful at attracting citizens to participate in two web dialogues. The goal of the project was to attract 100 citizens to each of the in-person meetings for a total of 1000 participants; this goal was nearly met with 980 citizens participating in the meetings. The goal of attracting 1000 citizens to each of the web dialogues was not reached; 330 citizens participated in the two web dialogues.
2. **The process was successful in attracting participants from diverse backgrounds and perspectives.** Although certain groups, such as males, were

underrepresented in the meetings and the participant characteristics did not exactly match the participating communities' populations, there was still enough diversity in the backgrounds and perspectives of participants to result in meaningful exploration of differing opinions and open dialogue. Healthcare and public health officials were over-represented at the in-person meetings and even more so for the web dialogue. Evaluation results found differences in perspectives across demographic groups and meeting locations, thereby reinforcing the need to include diverse representation in public engagement processes to obtain multiple points of view. The process may have benefitted from efforts to gain broader representativeness of participants.

3. **The process was successful in improving the knowledge of participants so they could engage in informed discussions about national vaccine policy.** The presentation of information and the opportunity to engage in dialogue about the topic resulted in participants' increasing their understanding of critical information about vaccines and vaccine policy. This finding was true for both the in-person meetings and the web dialogues. Knowledge increased for all groups regardless of education, income, race/ethnicity, age, gender and geographic location. The process did not result, though, in the same level of knowledge for all participants. The process did result, however, in leveling the knowledge base for persons who are not employed in the healthcare or public health fields.
4. **The evaluation revealed that citizens changed their perspectives and opinions as a result of the deliberative process.** By becoming better informed about the topic areas and engaging in discussions about issues related to vaccine policy, participant views about priority areas and social values underlying the priority areas changed significantly from the pre-test to the post-test. This result indicates that citizen deliberations provide a qualitatively different type and level of input from alternative methods such as public polling or surveys. Contrary to expectations, we did not find the process to result in increased agreement among participants about priority areas and social values. There were significant differences in value ratings across the meeting sites for the in-person citizen meetings; therefore, having multiple meeting locations appears necessary to obtain varied perspectives. The over-representation of health and public health officials at the in-person meetings did not appear to have a major impact since the rating of values was not significantly different than participants who were not health care/public health officials.
5. **The process was perceived to be of high quality by citizens and evaluators.** We believe this was true in large part to the level of planning of project organizers and facilitators prior to the meetings. Participants rated the process high on a number of dimensions. For example, citizens and stakeholders thought the participants felt comfortable talking in the meeting, the discussion was fair to all participants, and the process helped them understand the types of trade-offs involved in developing national vaccine policy. Satisfaction with the process was consistent across race, ethnicity, age, gender, and income, and family status, indicating the process did not favor one group over another. Satisfaction did vary

by meeting location and meeting format; citizens provided lower ratings for the web dialogue than the in-person meetings. There was some dissatisfaction with special interest groups who appeared to dominate some meetings and small group discussions. These concerns suggest processes to get a cross section of individuals and to assign persons to small group tables could have been beneficial.

6. **The in-person process tended to increase trust in local government and decrease trust in federal government in making policy decisions**. This finding was expected and consistent with the previous evaluation findings reflecting a successful process; because as participants gain subject mastery, they may be more comfortable moving control of the issue closer to the local level. Trust in health departments tended to be higher than government in general across all levels of government. Citizens believed public officials will use their input and believed the deliberations will increase public support of the decisions.
7. T**he process appeared to increase the probability that citizens would engage in future civic activity**. Citizens reported after the meeting that they are more likely to participate in other types of engagement such as volunteering in their community, attending meetings of public boards, donating to charity, contacting elected officials and working on an election campaign.
8. **This public engagement process met most of the principles of the CDC public engagement model**:
    a. There was a real desire for advice, and the decision on the table was real, although a bit ambiguous.
    b. There was adequate time in deliberation, but the process could have benefitted from more time to clarify the purpose and to recruit for web dialogue.
    c. Both facts and values contributed to the choices that will be made.
    d. There was active agency staff and sufficient resources committed to process, although the CDC faced challenges in staffing the meetings with experts who were responding to the pandemic, which detracted from the process.
    e. Both nonpartisan citizens and partisan stakeholders participated in the process, although one of the stakeholder meetings originally envisioned, did not occur.
    f. There was a critical mass of citizens participating in the process and there was sufficient diverse participation; however, both citizen and stakeholder meetings included disproportionate representation from health care/public health officials, and there was a perception that special interests were overrepresented.
    g. There was mutual learning through dialogue and thoughtful deliberation by participants.
    h. Difficult choices were made and agreed-upon recommendations were produced, although there was no effort to reach consensus.

i. It is unclear at this point whether the last two principles were met: recommendations receive serious consideration/Participants obtain candid feedback about decisions made.

Chapter 1: Introduction

This evaluation examined a process for engaging the public in discussions about how to proceed in developing a vaccine for the Novel H1N1 influenza pandemic affecting the United States in 2009. The pandemic began in Mexico in the spring of 2009 and quickly spread to the United States. At the beginning of the public engagement process, 43,771 Americans had confirmed Novel H1N1 influenza, 5011 had been hospitalized, and 302 individuals had died as a result of the flu. The Centers for Disease Control and Prevention (CDC) desired to get public input about how expeditiously to pursue a vaccine for the novel H1N1 virus and contracted with the Keystone Center to organize and facilitate a series of meetings to obtain this input. The primary question was whether the CDC should move as fast as possible ("full throttle"), go slow, or go at a moderate pace. There is not a scientific basis for selecting the pace; and the CDC was interested in understanding citizen perspectives and the values underlying these perspectives.

The Public Engagement Process

The public engagement process was organized in a very short time frame since the pandemic was occurring and the decision about how to proceed imminent. A process planning group was formed; members of the group included CDC sponsors, the Keystone Center facilitators, WestEd staff (the organization contracted to organize on-line deliberations, and University of Nebraska Public Policy Center evaluators. There were three primary processes to collect public input:

1. Ten citizen meetings conducted around the United States; one in each Federal Emergency Management Region
2. Two on-line deliberations
3. A stakeholder meeting

The Keystone Center worked with local organizations to recruit for the citizen meetings. Participants were contacted through a variety of methods including eEmailings, advertisements, and word of mouth. Participants were provided lunch and a $50 stipend at the end of the meeting.

The 10 citizen face to face meetings followed a similar format:

1. An evaluation activity in which each participant was asked to complete a pre-test evaluation survey.
2. A welcome by the CDC and local organizers providing context for the meeting and the need for citizen input.
3. Overview of the agenda and the meeting
4. A morning presentation of essential information about the Novel H1N1 pandemic and issues related to the vaccine program, followed by a question and answer session.

5. A morning activity in which participants are introduced to scenarios and assumptions underlying the approach to developing and distributing vaccine for the Novel H1N1 influenza vaccine; participants, in small groups, were asked to discuss options and the pros and cons of each.
6. Report outs from the small group sessions
7. Small group sessions to discuss the values, motivations, interests, and beliefs underlying their selection among the options
8. Electronic polling in which each participant could vote for options under varying scenarios
9. A summary of the meeting and communication of CDC plans for making decisions
10. An evaluation activity in which each participant was asked to complete a post meeting evaluation form, followed by a focus group for participants who were willing to stay after the meeting to share their perceptions about the process.

Throughout the process, expert resource people from the CDC and state/local public health experts were encouraged to observe and roam among participants to answer questions. Local conveners were primarily responsible for promotion and recruitment of participants to the engagement forums, recruitment of small group facilitators, securing meeting spaces, and arranging for catering and other administrative details. Working with the core planning team, the local conveners identified training times for small group facilitators prior to the actual event.

Evaluation Questions

The evaluation examined the following questions:

1. How successful was the project in attracting a sufficient number of citizens with a broad diversity of perspectives and what could have improved recruitment?

   The goal of the project was to attract 100 individuals to each of the 10 citizen meetings; this number was not based on any statistical model of representativeness. Rather, project sponsors consider this level of participation reasonable in communicating to policy makers a broad involvement of citizens from across the country. This level of participation also would allow the Keystone Center, as the process facilitator, to structure meetings that include both small group and large group discussions. Project sponsors hoped to attract up to 1000 participants in each of the on-line dialogues; again, the target was not established to demonstrate statistical representativeness, but to demonstrate a method of meaningfully engaging relatively large numbers of citizens in informed discussions about policies regarding the H1N1 influenza virus.

   Project sponsors and facilitators were interested in recruiting a diversity of citizens representing multiple perspectives. While an exact replication of United

States demographics was not intended, it was intended for the project to attract citizens from different racial/ethnic groups, income levels, education backgrounds, age, gender, and profession. Obtaining a proper sample of individuals for the participatory process was a key element of its success. As a normative matter, commentators have asserted that involving a representative cross-section of the public to participate in deliberative forums is an ideal goal. Such representativeness is critical because it ensures that all members of a community potentially affected by the policy matter of issue are provided a voice in the discussion (Chambers, 2003; Fishkin, 1995). But practitioners have also found that participants find greater satisfaction and value in participatory processes in which a wide diversity of viewpoints is shared (Halvorsen, 2001). Additionally, government sponsors of participatory processes benefit from listening to and receiving a broad – not narrow or selective – array of input (Carnes, Schweitzer, Peelle, Wolfe, & Munro, 1998).

Recruitment of a representative cross-section can be challenging. Often, participatory forums can be dominated by special interest groups or others who represent a narrow personal or professional interest in a policy matter, rather than the interests of the community as a whole (Guild, Guild & Thompson, 2004). Research has also shown that some participatory forums tend to disproportionately attract individuals who are white, female, high-income, older, and have high educational levels (Goidel, Freeman, Procopio, Zewe, 2008). Strategies to obtain more representative participants might involve using aggressive outreach and promotion efforts or oversampling techniques. Additionally, the use of a financial incentive can offset costs incurred through travel, daycare, or taking a day off from work, and attract individuals to participate in forums who are not motivated by personal or professional interests (Fishkin, 1995). Demographic and professional diversity among participants that fits the target community of interest are thus important indications of the representativeness of a participatory forum.

The Keystone Center worked with community leaders in each of the 10 regions to attract participants to the citizen meetings using a variety of recruitment strategies. In addition, the Keystone Center worked with WestEd to recruit citizens to the on-line dialogues. An important evaluation question concerns how the different recruitment strategies relate to the level and diversity of participation for both the in-person and on-line meetings. We also examined whether the process attracts citizens from a range of professions or whether participation is skewed toward health care and public health professions.

2. How successful was the process in ensuring a sufficient level of citizen knowledge about vaccine policy so they could engage in informed discussions?

One of the goals of the process was to ensure a sufficient level of participant knowledge so they can engage in informed dialogue about the issues. A process of education or increase in knowledge among participants is implicit in an effective deliberative experience. Thus, increase in knowledge among participants and their perceptions of the value of their discussion experience are measurable indicators of a successful deliberative discussion (Shindler & Neburka, 1997; Webler, Tuler & Krueger, 2001).

For each of the citizen and stakeholder meetings, information related to policy decisions about vaccination for H1N1 influenza was provided. In addition to this information, experts were available to answer questions generated by individual participants and the small groups. We believe there are three underlying assumptions related to the goal of having informed participants that can be tested through the evaluation: 1) the process will significantly increase the relevant knowledge of participants; 2) participants will believe they have sufficient knowledge to engage in informed discussion and make reasoned recommendations; and 3) the process will produce some equalization of knowledge among participants; in other words, while participants are likely to have varying levels of knowledge going in to the deliberation, the process will close this knowledge gap, resulting in a more equitable discussion of the issues. Through the evaluation, we examined whether the information was successfully conveyed to specific populations.

3. Did the process result in a balanced, honest, and reasoned discussion of the issues and what would have improved the process?

   Generally speaking, a deliberative experience is one in which participants carefully consider the pros and cons of a policy issue in a reasoned, informed, and balanced discussion (Matthews, 2002; Stromer-Galley, 2005). A good deliberative experience involves listening to all sides of a debate, analysis of relevant information or evidence, and a discussion environment free of bias, peer pressure, or over-reliance on rhetoric (Delli Carpini, Cook & Jacobs, 2004; Fishkin, 1995; Gastil, 1993). A positive deliberative process may thus amount to a successful problem-solving experience, in which a solution to a policy question is arrived at through a process of reasoned and informed discussion (Muhlberger, 2000). Other components of deliberative quality include a respectful discussion tone, transparency and clarity of meeting objectives and rules, equal and fair treatment among participants, and comfort with the meeting's physical location and environment (Halvorsen, 2001). Characteristics of a successful deliberation, such as exposure to different viewpoints, factual learning, and careful consideration of issues, may likely result in a shift in opinions or attitudes about the policy question of issue.

It is assumed that a well-facilitated meeting will result in a rich discussion of the issues in which multiple perspectives are considered and well-reasoned decisions or recommendations are made. To achieve this desired outcome, there are underlying assumptions about the process that can be tested through the evaluation: 1) was the process perceived to be fair by participants, 2) did individual participants feel comfortable sharing their perspectives, 3) were discussions dominated by select individuals or groups, 4) did the discussion help participants understand the trade-offs involved in policy decisions, 5) were participants satisfied with the outcome of the process, 6) was the process perceived to be free from bias, and 7) were all important points and perspectives voiced?

4. How did the process affect citizen perceptions about vaccine goals or options and values underlying those goals or options?

   The Keystone Center, in collaboration with the project sponsors, developed a number of identifiable goals and policy options to provide structure for citizen and stakeholder discussion and input. One of the assumptions of public engagement and deliberative processes is that through the process of understanding the issues, sharing perspectives, and gaining an appreciation of the trade-offs involved in policy decisions, participants change their opinions about the policies that should be implemented. If this were not the case, public input could be attained much easier and less expensively through public polling. This deliberative aspect is considered to be value-added because outputs will be more thoughtful and well-reasoned. The evaluation tested this assumption by examining changes in perspectives about vaccine goals and values relevant to those goals. In addition, we hypothesize that because participants have a chance to obtain similar knowledge about H1N1 influenza and develop a greater depth of understanding about the policy options, they will have increasingly similar perspectives after participation than before. In other words, the deliberative process will result in a convergence of beliefs among participants. We were also interested in whether there were differences among demographic groups in perspectives about policy choices.

5. Did the process affect citizen trust in government and support for policy decisions?

   The primary goal for this public engagement process was to produce citizen and stakeholder perspective for policy makers to consider as they grapple with important decisions. The evaluation also tested whether the process had an impact in participant beliefs in other areas: specifically whether participants had greater trust in government and willingness to support policy decisions by public officials who considered their input. The evaluation tested this assumption by assessing trust in various levels of government before and after the process.

6. Did the process empower citizens to participate effectively in policymaking work?

   Similar to evaluation question five above, another by-product of public engagement is that citizens might feel more empowered by participating in public dialogue about important issues and increase their involvement in activities designed to improve society or their community (e.g., voting, volunteering, lobbying elected officials). The evaluation tested this assumption by assessing changes in participant planned activity. Participating in deliberative experiences might lead to a greater interest among participants in participating in civic activities and public policy generally (Min, 2007).

7. How did stakeholders consider citizen information?

   As discussed previously, stakeholders met after the citizen meetings to consider citizen input and provide their own perspectives on policy issues. The assumption underlying this process was that stakeholders would carefully consider the perspectives of citizens and the results of the citizen meetings as they craft their recommendations. The evaluation tested this assumption.

8. How did decision makers use citizen and stakeholder information?

   A key indicator of the success of a participatory process is the extent to which the process resulted in any significant impact. Identifying what impact equates with success is, however, a subjective exercise. Arguably, the optimal goal of a participatory process is for the public to have a direct opportunity to make policy that reflects their preferences and priorities. However, successful impact can have other manifestations. Public participation can inform or improve decision-making, it can connect the public with each other and policymakers, build trust in government, provide opportunities for public education about policy issues, and foster healthy discourse and discussion in general (Beierle & Cayford, 2002). In a minority of cases, policymakers can have less virtuous objectives behind sponsoring participatory processes, such as to placate select interests, manage public impression, or generate public acceptance of a pre-determined policy (Arnstein, 1969).

   Impact can be measured in a number of ways. The extent to which a participatory process does directly influence policy has been measured vis-a-vis policymaker perceptions of how public input improves or informs policy decisions (Carnes, Schweitzer, Peelle, Wolfe, & Munro, 1996). Additionally, changes in citizen trust and confidence in government, or perceptions of government responsiveness, can indicate a positive impact in participant attitudes towards government (Goidel, Freeman, Procopio, Zewe, 2008).

Commentators have also argued that participating in robust, deliberative experiences about policy can increase political sophistication among participants (Fishkin, 1991; Gastil & Adams, 1995), and research has shown such an increase can indeed occur after citizens engage in deliberative forums (Gastil & Dillard, 1999), or that participants' policy changes change in other ways (Barabas, 2004).

Once the report is finished and the recommendations from the stakeholder and citizen engagement efforts are communicated, there is an assumption (or expectation) that decision makers will carefully consider this information as they make policy. Through the evaluation, we planned to understand how information from the public engagement process was communicated to decision makers, how they considered the citizen and stakeholder input in relation to various other information sources, and the extent to which public engagement input impacted policy decisions. Specifically, we planned to assess 1) whether decision-makers knew about the process, 2) whether decision-makers read the report about the process, 3) whether public input from the process was part of the information considered in developing the policy, 4) whether public input become part of the evidence or justification for or against certain alternatives, and 5) whether public input affected the policy in a clearly defined way. We will also explore the expectations of decision makers regarding the public engagement process and the type of information resulting from the process that would be useful in making policy decisions. For this report, we have not completed this phase of the evaluation.

9. How well did the process and outcomes resulting from the process meet the expectations of project sponsors and facilitators?

   Through the planning process a steering committee was developed to clarify the goals of the project and to design a process to meet those goals. The evaluators were part of this planning process and thus documented initial and evolving expectations, barriers encountered, lessons learned, and satisfaction with the results specific to this project. One aspect of this assessment was to measure the process against preliminary principles being developed by the CDC for public engagement processes: 1) the desire for advice and the decision on the table were real; 2) the purpose of the process was clear and there was adequate time for the process given the purpose; 3) the policy decision was based on both facts and values and these were clear to participants, 4) sufficient resources including staff time were devoted to the effort; 5) both stakeholders and citizens at large participated in a meaningful way; 6) an adequately large number of diverse persons participated; 7) unbiased information and neutral facilitation were provided; 8) the process was characterized by mutual learning through dialogue and thoughtful deliberation; 9) difficult choices were made and recommendations were agreed upon; and 10) the recommendations received

serious consideration by policy makers and feedback about the decision was provided to participants.

Chapter 2: Evaluation Methods

This study employs a mixed method design using quantitative and qualitative measures. The evaluation logic model can be found in Attachment A. Two external experts in public engagement evaluation reviewed the evaluation design, and the evaluators modified the design based on their feedback. The University of Nebraska-Lincoln Institutional Review Board reviewed and approved the final evaluation design and all participants were asked to complete an approved informed consent form to participate in the evaluation. There were six major methodological components:

1. A pre-post survey was conducted of meeting participants for 10 citizen meetings, one stakeholder meeting, and two on-line processes to assess change in knowledge, goals, values, citizen empowerment, and trust in government. Stakeholders were also asked how they considered citizen input.
2. Demographic information about participants was obtained, and an analysis was conducted to compare deliberation participant demographic characteristics to characteristics of the communities within which the meetings were held.
3. Post-meeting surveys were conducted for each of the 13 meetings to obtain citizen and stakeholder perceptions about process quality.
4. Post-meeting focus groups were conducted for the 11 citizen/stakeholder meetings to gain an in-depth understanding about the process and outcomes from the meeting. Evaluators directly observed all of the citizen and stakeholder meetings using a standard observation protocol, which will be developed.
5. Evaluators participated in planning meetings with project sponsors and facilitators to understand the recruitment and meeting processes and the rationale for these processes. Interviews with facilitators and project sponsors were conducted to understand how well the process was implemented and document lessons learned along the way.
6. Document reviews and interviews were conducted with decision makers to understand the initial expectations of public officials for the public engagement process and how policy was ultimately affected by the process.

The evaluators worked with conference sponsors and facilitators to integrate the evaluation data collection into the public engagement process. For the citizen and stakeholder meetings, the pre- and post-surveys were conducted through paper and pencil surveys; for the on-line sessions, the pre-post surveys were web based. The pre-survey consisted of seven sets of questions: 1) multiple-choice questions assessing knowledge about H1N1 influenza based on the presentation materials, 2) a section asking opinions about goals and values relied upon in making decisions related to the deliberative topic, 3) a question about whether they received a flu shot last year, 4) a section on trust of different levels of government, 5) questions about how they learned about the meeting and their motivation to participate, 6) perceived empowerment (e.g., future anticipated activity such as voting, volunteering, communication with policy

makers), and 7) questions about themselves (gender, age, education, employment, race, ethnicity, income, and family status). The post-survey included four sets of questions replicated from the pre-survey (knowledge, goals and values, empowerment, and trust in government); in addition, the post-survey included a question about the respondent's intention to get a flu shot in the fall and a set of questions about the quality, fairness and effectiveness of the deliberative process. For the on-line deliberations, the surveys included questions specific to the on-line process. To help reduce response-order bias, three versions of each survey were administered with the order of questions randomly varied in the opinion questions sections. For evaluation questions administered through a paper and pencil survey, citizens received pre-tests upon registering 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 about 15 minutes to complete the paper and pencil post-test. For the on-line format, evaluators worked with organizers and facilitators to integrate the surveys seamlessly into the process.

For the 11 in-person citizen and stakeholder meetings, participants were asked to volunteer to stay after the meeting and participate in a focus group. Respondents self-selected to join each focus group. The focus group questions for citizens and stakeholders included how they perceived the information about vaccines; the quality of the participation; aspects of the process that influenced their opinions; their satisfaction with the process and how the process could have been enhanced; how they thought policy makers would consider their input, and how the process may have empowered them to participate in policymaking work. Citizens were also 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. Stakeholders were asked how they considered citizen input. Interviews with conference sponsors and facilitators occurred through the project management team conference calls and by telephone during the planning of the process, and were supplemented with direct observation of the meetings.

To understand how the public engagement results are used by policy makers, we planned to identify key decision makers and information-conveyers, conduct initial interviews prior to the public engagement processes to understand decision-maker expectations, conduct interviews after policy has been developed, and review documents (reports, memoranda, presentation materials) related to the flow and use of the information. We were not able to complete this component of the evaluation given the short time line. We discuss the effort to obtain this information in Chapter 10.

Analyses

Quantitative data from the pre/post surveys was analyzed using the software package SPSS v17. Atlas.ti, a qualitative analysis software package, was used to organize information from audio tapes and detailed notes from focus groups, interviews and observations. Triangulation with multiple coders and data sources served as a validation

strategy. The qualitative data was intended to provide depth and explanation for quantitative findings.

1. To assess the extent to which the process is successful in attracting citizens with a broad diversity of perspectives, we report on the number and demographic characteristics of meeting participants. We compare the demographic characteristics of meeting participants to the demographic characteristics of the general population in the community where the meeting was held. We use chi-square tests to determine statistical significance related to demographic differences. We supplement the quantitative analysis with direct observation of diversity of perspective and citizen perceptions about the diversity of citizen participants. Because stakeholders are generally selected because of their positions or interests, no analysis was conducted regarding stakeholder diversity. Through these analyses, we drew conclusions regarding the following:
    a. The extent to which each citizen meeting site was successful in meeting the goal of 100 citizens, or whether there was a sufficient number of participants at each meeting to have productive small and large group discussions.
    b. The extent to which the on-line dialogues were successful in meeting the goal of 1000 participants, or whether there was a sufficient number of participants to have productive dialogue. We document the number of people who register, a smaller number who log in to the dialogue, and the smaller number of persons who actually post messages.
    c. The extent to which the process attracts 40 stakeholders.
    d. Barriers and successes in attracting citizens to participate for each format based on the recruitment strategies for each citizen event.
    e. The extent to which the process attracted citizens of diverse backgrounds to each citizen and on-line meeting, including barriers to and successes in recruiting diversity, and identify recommendations for future public engagement processes.
    f. How the characteristics of citizen participants were similar to or different from the characteristics of the broader population in each community.

2. To assess the knowledge of participants related to information about H1N1 vaccine policy, we compare change in knowledge on the pre- and post-survey. A multi-way Analysis of Variance (ANOVA) is used to determine statistical significance between pre and post scores including significance testing for each knowledge question. Supplementing the quantitative analysis is direct observation of the level of discussion among citizen deliberators by the evaluators and experts. We examine how knowledge and change in knowledge are related to characteristics of participants (i.e., demographic and status as stakeholder or citizen), meeting location and meeting format (on-line versus face-to-face) and compare standard deviations from the pre-survey to the post-

survey to determine whether the process provided participants with a similar level of knowledge.

3. To assess how well the process results in a balanced, honest, and reasoned discussion of the issues, we rely on direct observation by evaluators using a standardized protocol, as well as observations of facilitators and meeting organizers. We also gauge citizen perceptions of the process through standard ratings on the post survey as well as qualitative information obtained through the focus groups and comments offered on the survey. We examine how perceptions about the process are related to participant characteristics, meeting site, and format using a multi-way Analysis of Variance (ANOVA). We will supplement the quantitative analysis with information from the citizen and stakeholder focus groups.

4. To assess how the process affected the goals and values of the citizen participants, we rely primarily on the pre-post survey. A multi-way ANOVA is used to test for statistically significant differences between pre and post ratings. We supplement the quantitative results with perception of citizens about how and why their opinions may have changed. We examine how values and goals are related to citizen demographic characteristics, to the level of knowledge of citizens and to the satisfaction of citizens with the process. We also conduct a cross-site analysis of values and goals. Finally, we compare standard deviations from the pre-survey to the post-survey to determine changes in level of agreement about values and goals.

5. To assess changes in trust of various levels of government in making decisions about H1N1 influenza and perceptions about how decision makers will use the input, we conduct a multi-way Analysis of Variance (ANOVA) on the data from the pre-post survey to detect significant differences across time and sites. We examine how changes in trust and perceptions about how the input will be used relate to participant characteristics, knowledge and satisfaction with the process. We will supplement the quantitative results with citizen and stakeholder perceptions of changes in trust.

6. To assess citizen empowerment, we conduct a multi-way ANOVA on the pre-post survey data regarding past and anticipated future involvement in citizen public involvement across time and sites. We also examine how citizen empowerment relates to participant characteristics, changes in values and goals, and satisfaction with the process.

7. To assess how stakeholders considered citizen information, we rely on direct observation by evaluators, facilitators and meeting organizers. We also gauge stakeholder use of the citizen information through open-ended questions on the post-survey as well as information obtained through the focus groups. We

examine how stakeholders used this information across meeting sites and formats through qualitative analysis.

8. To assess decision maker use of the information, we interview public officials before the process to better understand their knowledge about the planned event and their expectations about how the results will be used in their decision making. After policy is developed, we will review final federal guidance, the output from the public engagement process (including presentations and memos), and input from other sources. We will supplement the document review with follow-up interviews with decision makers to construct an analysis of impact.

9. To assess meeting specific elements and lessons learned, the evaluators participated in all planning meetings and structure questions for project sponsors and facilitators to capture project goals, reasons for process design, lessons learned, and satisfaction with the results.

Survey Response Rates

Citizens received pre-tests 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 about 15 minutes to complete the paper and pencil post-test. We excluded information from the knowledge and values sections from the analyses for pre-surveys that were collected after the informational presentation, as these may have been influenced by the process. For the pre-post surveys, there was a 99 percent

response rate (see Table 1); 84 percent of participants at citizen meetings completed both the pre-survey and the post-survey. It should be noted that in some meetings, we had a higher number of survey respondents than registered participants. We believe that in these meetings there were participants who attended but did not register. It is also possible that participants used a different identifier on their pre and post survey, in which case we counted them twice.

Table 1
Number of Pre-tests and Post-tests Completed and Response Rate

HHS Region City, State	Date	Registered Attendance	Surveys Completed	Pre & Post	Pre Only	Post Only
Denver						
Denver, CO	08/08	85	82 (96%)	67	7	**8**
Kansas City						
Lincoln, NE	08/08	126	124 (98%)	123	0	**1**
Atlanta						
Birmingham, AL	08/15	97	94 (97%)	84	6	**4**
San Francisco						
Sacramento, CA	08/15	83	81 (98%)	62	7	**12**
Chicago						
Vincennes, IN	08/15	64	64 (100%)	55	6	**3**
Dallas						
El Paso, TX	08/22	146	142 (97%)	131	8	**3**
Philadelphia						
Bucks County, PA	08/22	97	89 (92%)	73	10	**6**
New York						
New York City, NY	08/22	85	88 (104%)	65	11	**12**
Boston						
Somerville, MA	08/29	111	115 (104%)	89	12	**14**
Seattle						
Spokane, WA	08/29	86	87 (101%)	73	7	**7**
OVERALL Citizens, In-Person		980	966 (99%)	822	74	**70**
Stakeholders, In-Person						
Washington, D.C.	9/10-11	32	29 (91%)	26	2	**1**
Web Dialogue						
	8/26-27		107	50	45	**12**
	8/31-9/1		98	29	65	**4**
OVERALL Web Dialogue		**330**	**205 (62.1%)**	**79**	**110**	**16**

Qualitative data was gathered in three ways: through focus groups, open-ended questions on the survey, and observations of all meetings by the independent evaluator. This data was reviewed by multiple evaluators, compared across sites and to the quantitative data (numbers from the survey analysis), and grouped to illustrate themes and provide explanations for the evaluation results from the participant viewpoint.

Focus groups were offered at each site following the conclusion of the event. Participants were asked to volunteer to stay about 30 minutes after the event to talk with the independent evaluator about their impressions of the process they had just participated in. Stipends were not affected by participation in the focus group. A total of 59 people (15 men and 44 women) took part in focus group discussions across all sites and the stakeholder meeting. They were asked to talk about why they attended, their impressions of the process and what they believed about how the information might be used by decision makers.

Open ended questions were asked on the pre- and post-test surveys to allow respondents to elaborate on why they attended the event, reasons for not getting an annual flu vaccination, and any general comments about the event in general.

Members of the evaluation team attended each event across the country and recorded observations of the process using a standard set of observation criteria. Key observations were recorded about the large group and small group sessions including observations of: the participant demeanor, facilitation style, quality of discussion, environmental factors and overall meeting process elements.

Table 2
Number of Focus Group Participants

Focus Group Location	Males	Females
Denver	2	4
Lincoln	2	11
Birmingham	0	3
Vincennes	0	3
Sacramento	0	6
New York	1	0
Bucks County	2	2
El Paso	0	8
Somerville	6	3
Spokane	2	0
Stakeholder	0	4
Total	**15**	**44**

Chapter 3: Evaluation Results – Recruitment and Participation

Summary of Findings

- The process was successful at attracting citizens to in-person deliberations and having enough citizens at each meeting to engage in small and large group exercises; however, the project did not meet its goal of attracting 1000 participants to the 10 citizen meetings, and in only three of the 10 meeting locations attracted 100 or more participants.
- The project was not able to meet its goal of attracting 1000 participants to each of the on-line citizen dialogue sessions; however, the on-line dialogue sessions did attract enough participants to be productive. Additional time and more focused recruitment efforts would likely have increased participation.
- Only one of the stakeholder meetings was conducted, although two had been anticipated. As a result, stakeholders were not involved in framing the issue as planned.
- Major reasons for participating in the citizen meetings included interest in the subject, the desire to gain knowledge about the topic, and a feeling of responsibility to contribute to an important public policy issue.
- Attrition was not a problem for the in-person meetings because of the process to award stipends at the end of meetings.

Level of Participation

For the in-person citizen meetings, the goal of the public engagement process was to recruit a sufficiently large number of citizens to participate in each meeting and to have citizens represent a diversity of perspectives and backgrounds. A "rule of thumb" goal for the citizen deliberations was to attract 100 participants at each of the three sites; organizers believed that a process having large numbers of citizen participants would be perceived as more credible and generalizable by decision makers. In addition, facilitators wanted a sufficient number of citizens to allow small group deliberations. Based on participation numbers, the process was not quite successful at meeting its goal of attracting 1000 citizens to participate in the face-to-face meeting, and was successful in only three of the ten locations at attracting 100 or more citizens (see Table 1 in Chapter 2). Despite not meeting the numerical goals, evaluator observations and findings from the focus groups and interviews indicate the process was successful at recruiting and attracting enough citizens to conduct a fruitful deliberative process in each of the 10 sites. Each citizen meeting included enough citizens to have multiple small group discussions. The level of participation was impressive given the short time frame for organizing and recruiting for the meetings.

For the web dialogues, the goal was to recruit 1000 citizens for each of the two sessions. The process was not successful in meeting this goal, although there was enough participation for each session to conduct productive web dialogue. Additional time and

a more expansive recruitment effort including more timely press releases by the CDC would likely have resulted in increased participation in the web dialogues. Another goal of the project was to include about 40 stakeholders in two meetings to be held in Washington, D.C. One meeting was designed to frame the issues prior to the citizen meetings and the other was to be held after the citizen meetings and was designed to allow the stakeholders an opportunity to consider results from the citizen meetings as they deliberated. The first stakeholder meeting was not conducted due to time pressures. The second meeting included 32 stakeholders, short of the goal of 40 participants, but a sufficient number to conduct a meaningful process.

Reasons for Participation

Table 3 indicates citizens found out about the meetings through personal invitation, either by an eEmail or word of mouth. A smaller number learned about the meeting through public notices through the internet, newspapers, radio, or television. Since personal invitations seem to be a primary method of recruitment, expanding the types of organizations or contacts who issue invitations may be a means of increasing participation and diversity of participants.

Table 3
Methods for Learning About the Meeting

In-person meeting (%)	Web Dialogue (%)	Method
28.4	39.5	Email
22.8	6.7	Word of Mouth (friend/family member)
16.6	13.4	Internet (not email)
13.5	2.3	Newspaper
11.3	23.1	Professional Colleague or Professional Organization
8.3	7.4	Community or Religious Organization
7.7	1.3	Flyer
6.6	7.0	Government agency
5.7	3.0	Other
2.9	1.0	Television
2.0	0.7	Radio
0.8	0.3	Facebook

Table 4 indicates the reasons given for participating in the meetings. The most common response was that participants had an interest in learning more about the pandemic influenza. This reason for participating appears higher in this project than in previous public engagement processes sponsored by the CDC on pandemic influenza; this may not be surprising since a pandemic was hypothetical in previous processes, but was a real issue covered extensively by the media during the current project. Another common reason given for participating was having a personal interest in the topic. Others indicated they were motivated by civic duty to participate. Few respondents on the survey indicated the stipend was a reason for participating. However, in focus groups there were several who said that the stipend and food offered at the meetings was the incentive that "got me out of bed this morning, I'm not going to lie." The survey results may reflect what respondents view as the socially acceptable answer for why they attended rather than the ultimate motivation for going to a full day meeting on a weekend.

> I though the subject was very important, and the money that they offered me. (*El tema me pareció muy importante además del dinero que me ofrecieron*).
>
> Spanish Speaking Participant

Table 4
Reasons for Participation

Reason	Frequency	Percent	Cumulative Percent
Personal interest	155	15.6	15.6
Stipend	35	3.5	19.1
Altruism civic duty	83	8.3	27.4
Gain knowledge	337	33.9	61.3
Activism Concern	74	7.4	68.7
Other	185	18.6	87.3
No comment	126	12.7	100.0
Total	995	100.0	

Chapter 4: Evaluation Results - Diversity of Participants

Summary of Findings

- The process was successful at attracting participants of diverse backgrounds and interests, although the demographic characteristics of participants did not mirror those of the communities within which the meetings were held.
- Participants were more likely to be involved in the health care and public health fields.
- Females, Hispanics, Native Americans, persons aged 45 – 64, persons without children, and persons with higher education were over-represented at the citizen in-person meetings.
- There was a perception among a number of participants that at some meetings special interest groups were over represented and dominated the discussion.
- A randomized or stratified recruitment process combined with alternative strategies of recruitment would have likely increased the demographic and professional diversity of participants. Later chapters of this report discuss whether increasing diversity would have likely altered the outcomes of the meetings.
- Similar to the in-person meetings, web dialogue participants were more likely to be 45-54 years of age and involved in healthcare or public health than the general population; web dialogue participants were even more likely than the in-person participants to be skewed toward higher incomes and higher levels of education than the general population; unlike the in-person meetings, web dialogue participants were over representative of White/Caucasian than the general population.
- Web dialogue participants were less likely than in-person meeting participants to believe there were a diversity of perspectives.

A goal of the project was to attract a diversity of participants, both in terms of demographic characteristics and perspectives. It was not necessarily the goal to have the participants match the exact demographics of the United States or of the communities in which the meetings were held, but rather to have enough diversity to hear multiple perspectives from different sectors of the population. In this sense, it appears the process was generally successful.

Citizen In-Person Meetings

Participants in the citizen meetings represented a diverse mixture of demographic characteristics and perspectives. For participants who completed the pre-survey, the demographic information indicates diversity within the sample in age, gender, race/ethnicity, education, income, profession, and family makeup, although participants were not exactly representative of the general population in the 10 communities. To determine how representative meeting participants were of the total U.S. population,

and of their respective communities, overall demographic data were compared to U.S. population Census estimates, and meeting-specific demographic data were compared to county-level Census estimates. In order to make certain comparisons, some demographic groups have been collapsed to match those provided by the Census.

Table 5 shows the gender of participants for each of the 10 citizen face-to-face meetings. Overall, nearly 70 percent of the participants were female. In only one meeting location (New York City) did male participants outnumber females. Female participants were statistically over-represented in seven of the meetings. Focus group attendees pointed out several groups who seemed to be missing from the discussion in all sites (young people under age 24; persons with disabilities; homeless). One participant summed it up by noting that the groups who were underrepresented in the discussions were "the people least likely to get flu shots." In several sites the overrepresentation of professionals in the health care or public health areas was noted by focus group participants. Some noted that this was helpful in their discussions because the professionals "added interesting information" to the discussion and were able to serve as subject matter experts while providing their opinion in discussions. Other participants found it difficult to engage in discussion because the health professionals were much more prepared to discuss with facts than they were.

Table 5
Gender of Participants by Meeting Location

%	Overall	CO	NE	AL	CA	IN	TX	PA	NY	MA	WA
Male	30.5^	22.5^	27.9^	13.5^	20.3^	37.7	23.9^	45.7	51.4	37.0^	32.9^
Female	69.5*	77.5*	72.1*	86.5*	79.7*	62.3	76.1*	54.3	48.6	63.0*	67.1*
Valid N	884	71	122	89	69	61	138	81	74	100	79
Unknown	82	11	2	5	12	3	4	8	14	15	8
^underrepresented, *overrepresented											

Table 6 shows the age groups of participants across the 10 meeting sites. Collapsing across all sites, 18-24, 25-34, 35-44 and 65+ year olds were underrepresented while 45-54 and 55-64 year olds were overrepresented. Participants in Birmingham, AL; Sacramento, CA; and Somerville, MA were age representative of their respective communities. For the other communities, there tended to be disproportional representation by age.

Table 6
Age of Participants by Meeting Location

%	Overall	CO	NE	AL	CA	IN	TX	PA	NY	MA	WA
18-24	10.4^	7.0	5.7^	6.7	21.7	1.6^	15.2	4.9	18.9*	12.0	8.9
25-34	9.0^	7.0^	7.4^	10.1	8.7	3.3^	14.5	3.7^	9.5^	12.0	8.9
35-44	17.1^	12.7	10.7^	16.9	17.4	16.4*	22.5	14.8	13.5	23.0	20.3
45-54	23.6*	16.9	23.8	24.7	15.9	32.8	24.6*	19.8	27.0	24.0	26.6
55-64	25.9*	43.7*	36.1*	16.9	27.5	27.9	15.2	25.9*	25.7*	18.0	30.4*
65+	13.9^	12.7	16.4	24.7	8.7	18.0	8.0^	30.9*	5.4	11.0	5.1^
Valid N	884	71	122	89	69	61	138	81	74	100	79
Unknown	82	11	2	5	12	3	4	8	14	15	8
^underrepresented, *overrepresented											

Table 7 shows the race and ethnicity of participants across the 10 citizen meeting locations. Overall, Hispanic and Asian/Pacific Islander participants were over-represented and Whites and Native American/American Indians were under-represented in comparison to the U.S. population. Not surprisingly, there were substantial regional variations. For example, in El Paso, Texas, nearly 87 percent of participants were Hispanic while in Buck County, Pennsylvania, there were no participants of Hispanic origin. In Birmingham, Alabama, 64 percent of participants were Black/African American while the meetings in El Paso, Texas and Vincennes, Indiana included no Black/African American participants. For the meetings in Denver, Colorado; Sacramento, California; El Paso, Texas; and Spokane, Washington, there were no significant differences in race/ethnicity between meeting participants and the population of each community.

Table 7
Race/Ethnicity of Participants by Meeting Location

%	Overall	CO	NE	AL	CA	IN	TX	PA	NY	MA	WA
Hispanic	22.9*	28.2	5.7	7.9*	29.0	6.7*	86.8	--	22.2	7.1	2.6
White	58.4^	56.3	82.8	25.8^	43.5	91.7	12.5	93.8	41.7	72.4	88.5
Black or African American	12.4	7.0	7.4*	64.0*	14.5	--	--	2.5	25.0*	7.1	1.3
Asian or Pacific Islander	2.3*	4.2	0.8	1.1	4.3	--	0.7	--	2.8	6.1	3.8
Native American or Alaska Native	1.3^	1.4	2.5*	--	4.3	1.7*	--	1.2*	--	1.0*	1.3
Other	2.6*	2.8	0.8	1.1	4.3	--	--	2.5	8.3*	6.1*	2.6
Valid N	876	71	122	89	69	60	136	81	72	98	78
Unknown	90	11	2	5	12	4	6	8	16	17	9

^underrepresented, *overrepresented

Table 8 shows the proportion of meeting participants who were parents or guardians of children under 18 years of age. El Paso, Texas included the most participants who were parents or guardians of children – nearly 50 percent, while the Denver, Colorado meeting included the fewest – about 24 percent. Households at all locations except Lincoln, NE and Bucks County, PA were representative of their respective communities. Households with no children under age 18 were overrepresented in both Nebraska and Pennsylvania. Generally, across all 10 meeting locations, parents and guardians of children under 18 years

of age were under-represented. County-level Census estimates regarding children are only available at the household level. Therefore, if participants each represent a unique household, the Census comparison is accurate. If, however, some participants represent the same household, the survey proportions will be overestimates for the household Census comparison.

Table 8
Parent/Guardian of Child under 18 of Participants by Meeting Location

%	Overall	CO	NE	AL	CA	IN	TX	PA	NY	MA	WA
Yes	30.7^	23.9	24.6^	28.4	26.1	40.0	48.2	21.5^	25.7	26.5	**34.6**
No	69.3*	76.1	75.4*	71.6	73.9	60.0	51.8	78.5*	74.3	73.5	**65.4**
Valid N	876	71	122	88	69	60	137	79	74	98	**78**
Unknown	90	11	2	6	12	4	5	10	14	17	**9**
^underrepresented, *overrepresented											

Table 9 shows the education of meeting participants across meeting locations. Education is compared only for participants aged 25 and older. People with less than a ninth grade education, people with some high school education but no diploma, and high school graduates/those with a high school diploma were underrepresented while people with some college education, college graduates, and graduate school graduates were overrepresented. There were substantial regional differences. For example, participants attending the El Paso, Texas meeting were the most likely to have less than a high school education and least likely to have a graduate degree. In general, higher education levels were overrepresented at all locations.

Table 9
Education of Participants by Meeting Location

%	Overall		CO	NE	AL	CA	IN		TX	PA	NY	MA	WA
Less than high school	1.5^		1.4	--	--	--	--		8.8^	--	--	--	--
Some high school	3.6^		4.2	0.8^	2.2^	--	1.6		14.6	1.2	4.1	1.0	--
High school graduate	14.0^		15.5	6.6^	24.7	11.6^	9.8^		22.6	17.3	10.8	8.0^	10.1^
Some college	23.4*		22.5	27.0	21.3	30.4	21.3		22.6	17.3*	20.3*	26.0*	24.1
College graduate	26.6	36.2*	23.9	24.6	21.3	21.7	44.3	53.3*	17.5	28.4	29.7	33.0	31.6
Some graduate school	7.8		5.6	14.8	4.5	10.1	9.8		5.8	4.9	8.1	6.0	7.6
Graduate school graduate	23.0*		26.8*	26.2*	25.8*	26.1*	13.1		8.0*	30.9*	27.0	26.0	26.6*
Valid N	883		71	122	89	69	61		137	81	74	100	79
Unknown	83		11	2	5	12	3		5	8	14	15	8

^underrepresented, *overrepresented (note that Census comparisons are made to participants aged 25 and older while percentages reported in this table, with the exception of those in the collapsed college graduate category, are based on all participants)

Table 10 shows the annual household income of participants across the meeting locations. There were variations across the meeting sites; for example, participants in El Paso, Texas were more likely than participants in other meeting locations to have annual incomes of $15,000 or less, and less likely to have incomes of $100,000 or more. Collapsing across sites, households earning less than $15,000 and households earning $35,000-$49,999 were overrepresented while households in all other income categories were underrepresented. Participants at all locations except Lincoln, NE; El Paso, TX; and New York, NY were representative of their respective communities in terms of income. County-level Census estimates regarding

income are only available at the household level. Therefore, if participants each represent a unique household, the Census comparison is accurate. If, however, some participants represent the same household, the survey proportions will be overestimates for the household Census comparison.

Table 10
Annual Household Income of Participants by Meeting Location

%	Overall	CO	NE	AL	CA	IN	TX	PA	NY	MA	*WA*
Less than $15,000	17.9*	14.5	13.9	25.6	7.5	5.5	39.4*	6.6	17.6	15.2	*15.8*
$15,000 - $34,999	20.7^	26.1	13.9^	29.3	20.9	14.5	29.9	21.1	17.6	18.5	*11.8*
$35,000 - $49,999	16.9*	15.9	23.8*	15.9	16.4	18.2	10.2	15.8	23.5*	14.1	*17.1*
$50,000 - $74,999	17.4^	14.5	20.5	17.1	16.4	34.5	9.4	11.8	23.5	16.3	*18.4*
$75,000 - $99,999	11.0^	10.1	12.3	4.9	14.9	12.7	4.7	19.7	5.9	8.7	*21.1*
$100,000 or more	16.1^	18.8	15.6	7.3	23.9	14.5	6.3	25.0	11.8^	27.2	*15.8*
Valid N	834	69	122	82	67	55	127	76	68	92	*76*
Unknown	132	13	2	12	14	9	15	13	20	23	*11*
*^underrepresented, *overrepresented*											

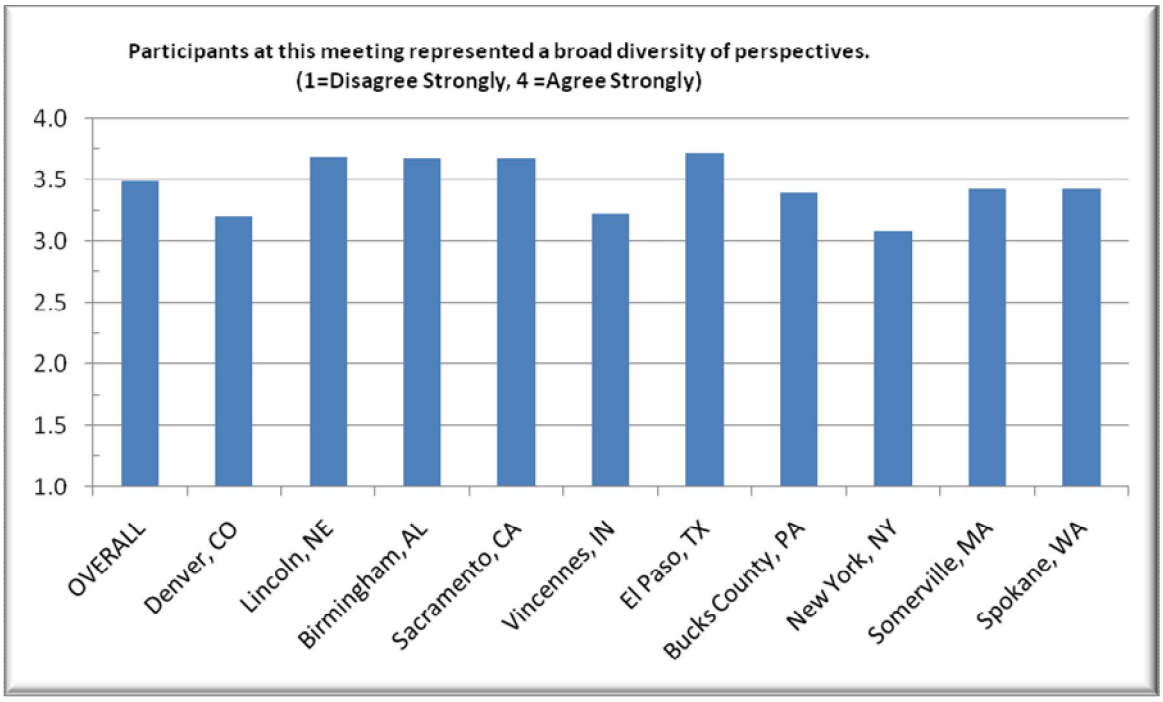
Table 11 shows selected professions of participants across the 10 meeting locations. We did not have percentages of these professions in the general population with which to compare; however, it appears healthcare and public health professionals were over-represented at the meetings. Overall, nearly half of all participants employed in health care, public health, emergency management, or by state or local government. Nearly 40 percent were employed in health care or public health. There were differences across the meeting locations. Participants at the El Paso, Texas, Bucks County, Pennsylvania, and Birmingham, Alabama meetings were least likely to be employed in any of the five categories; in contrast, only 26.2 percent of participants in Vincennes, Indiana were employed outside of the five categories.

Table 11
Profession of Participants by Meeting Location

%	Overall	CO	NE	AL	CA	IN	TX	PA	NY	MA	*WA*
Health Care	26.3	32.4	28.7	15.7	24.6	42.6	19.6	19.5	21.6	25.0	*43.0*
Public Health	12.8	21.1	15.6	10.1	18.8	18.0	5.1	8.5	13.5	13.0	*11.4*
Local Government	8.0	11.3	8.2	4.5	8.7	16.4	4.3	9.8	9.5	8.0	*5.1*
State Government	6.9	2.8	9.0	13.5	15.9	3.3	5.8	--	4.1	3.0	*11.4*
Emergency Management	5.8	4.2	4.9	1.1	2.9	18.0	2.2	4.9	13.5	7.0	*5.1*
None of the Above	51.9	42.3	50.0	58.4	43.5	26.2	63.8	63.4	51.4	57.0	*44.3*
Valid N	885	71	122	89	69	61	138	82	74	100	*79*
Unknown	*81*	*11*	*2*	*5*	*12*	*3*	*4*	*7*	*14*	*15*	*8*

At all locations, citizens, on average, agreed with the statement "Participants at this meeting represented a broad diversity of perspectives" (see Figure 1).

Figure 1
Perceptions of Diversity by Location



A univariate ANOVA revealed significant differences across locations in average agreement ($F(9, 825)=8.370$, $p<.001$). Follow-up analyses indicate the highest ratings were given in El Paso, Lincoln, Birmingham, and Sacramento (Means = 3.67 to 3.71, which did not differ from each other). The lowest rating was given in New York (M=2.81). The rest of the locations fell into a middle group that did not differ among the group (Means = 3.18 to 3.40).

Web Dialogue

Data from the web dialogue was analyzed and compared to data from the in-person citizen meetings. Some questions were inadvertently not asked of web dialogue participants, and this is noted in the appropriate sections.

All tables present information for both those who registered for the web dialogue (who may or may not have participated or completed a pre- or post-survey), and those who completed either a pre-survey and/or a post-survey (but still may not have participated). These two groups of participants were compared to each other on all demographic variables. There are no demographic differences between these two groups.

Web participants who completed either a pre- or post-dialogue evaluation survey were used for all demographic comparisons to Census data and to in-person meeting. This maintains consistency with all subsequent analyses, since all other analyses use data from the pre- and post-dialogue surveys.

Gender of web dialogue participants cannot be compared to in-person meeting participants because gender was not asked in the web dialogue.

Compared to Census data for the total U.S. population, 18-24, 25-34, and 65+ age groups were underrepresented in the web dialogue, while 45-54 and 55-64 year olds were overrepresented ($\chi^2(5)=181.308$, $p<.001$). There is also a significant difference in the age distribution across meeting formats ($\chi^2(5)=31.635$, $p<.001$). As the table below illustrates, the youngest and oldest age groups had lower representation in the web dialogue than in the in-person meetings, while the 45-54 age group had greater representation in the web dialogue than in the in-person meetings (see Table 12).

Table 12
Age of Participants

	In-Person Meeting	Web Dialogue: Completed Survey	Web Dialogue: Registered
18-24	10.4^	2.0^~	1.3
25-34	9.0^	11.1^	12.5
35-44	17.1^	18.6	20.5
45-54	23.6*	35.2*~	33.7
55-64	25.9*	27.6*	25.6
65+	13.9^	5.5^~	6.4
Valid N	884	199	297
^underrepresented, *overrepresented ~differ between web dialogue and in-person meetings			

Compared to Census data for the total U.S. population, those in the Hispanic and Black/African-American ethnic groups were underrepresented in the web dialogue, while those in the White/Caucasian ethnic group were overrepresented ($\chi^2(5)=96.646$, $p<.001$). There is also a significant difference in the ethnic distribution across meeting formats ($\chi^2(5)=74.754$, $p<.001$). Those in the Hispanic and Black/African American ethnic groups had lower representation in the web dialogue than in the in-person

meetings, while those in the White/Caucasian ethnic group had greater representation in the web dialogue than in the in-person meetings (see Table 13).

Table 13
Race/Ethnicity of Participants

	In-Person Meeting	Web Dialogue: Completed Survey	Web Dialogue: Registered
Hispanic	22.9*	3.0^~	5.0
White or Caucasian	58.4^	89.1*~	85.6
Black or African American	12.4	4.0^~	5.0
Asian or Pacific Islander	2.3^	0.5	1.0
Native American or Alaska Native	1.3*	2.5	1.7
Other	2.6*	1.0	1.7
Valid N	876	201	299

^underrepresented, *overrepresented
~differ between web dialogue and in-person meetings

Web dialogue participants did not differ significantly from Census data for the total U.S. population in the proportion of households with children under age 18 ($\chi^2(1)=1.630$, p=.202). There is also a not a significant difference in the household composition distribution across meeting formats ($\chi^2(1)=3.608$, p=.058) See Table 14).

Table 14
Parent/Guardian of Child under 18 of Participants

	In-Person Meeting	Web Dialogue: Completed Survey	Web Dialogue: Registered
Yes	30.7^	37.6	39.4
No	69.3*	62.4	60.6
Valid N	876	202	297

^underrepresented, *overrepresented
~differ between web dialogue and in-person meetings

Web dialogue participants were more educated than the general U.S. population ($\chi^2(5)=631.923$, $p<.001$). Compared to Census data, those in the three education groups with high school diploma or less, and those with some college, were underrepresented in the web dialogue, while those who had graduated from college or graduate school were overrepresented. There is also a significant difference in educational distribution across meeting formats ($\chi^2(6)=65.632$, $p<.001$). Web dialogue participants were more educated than the in-person meeting participants. There were significantly fewer web dialogue participants with a high school education or less, and with some college, while there were significantly more web dialogue participants who had graduated from college, had some graduate school, or graduated from graduate school than for in-person meeting participants.

Table 15
Education of Participants

	IN-PERSON MEETING		WEB DIALOGUE: COMPLETED SURVEY		WEB DIALOGUE: REGISTERED
Less than high school (1)	1.5^		--^		--
Some high school (2)	3.6^		--^		--
High school graduate (3)	14.0^		2.5^~		3.3
Some college (4)	23.4*		11.4^~		11.4
College graduate (5)	26.6	36.2*	32.8~	45.7*	32.1
Some graduate school (6)	7.8		12.9~		11.4
Graduate school graduate (7)	23.0*		40.3*~		41.8
Valid N	883		201		299

^underrepresented, *overrepresented
~differ between web dialogue and in-person meetings

Web dialogue participants reported being in higher income levels than the general U.S. population ($\chi^2(5)=150.086$, $p<.001$). Compared to Census data, those in the three lowest income groups (all less than $50,000) were underrepresented in the web dialogue, while those in the three highest income groups ($50,000 and over) were overrepresented. There is also a significant difference in income distribution across meeting formats ($\chi^2(5)=91.541$, $p<.001$). Web dialogue participants reported higher income levels than did the in-person meeting participants. There were significantly

fewer web dialogue participants in the three lowest income groups (all less than $50,000), while there were significantly more web dialogue participants in the three highest income groups ($50,000 and over) than in-person meeting participants.

Table 16
Annual Household Income of Participants

	In-Person Meeting	Web Dialogue: Completed Survey	Web Dialogue: Registered
Less than $15,000 (1)	17.9*	3.3^~	3.7
$15,000 - $34,999 (2)	20.7^	6.0^~	6.3
$35,000 - $49,999 (3)	16.9*	8.7^~	8.5
$50,000 - $74,999 (4)	17.4^	26.2*~	25.5
$75,000 - $99,999 (5)	11.0^	19.1*~	19.2
$100,000 or more (6)	16.1^	36.6*~	36.9
Valid N	834	183	271
^underrepresented, *overrepresented ~differ between web dialogue and in-person meetings			

There are significantly fewer web dialogue participants than in-person meeting participants employed in local government ($\chi^2(1)=11.316$, p=.001). There are significantly more web dialogue participants employed in emergency management than in-person meeting participants ($\chi^2(1)=10.617$, p=.001).

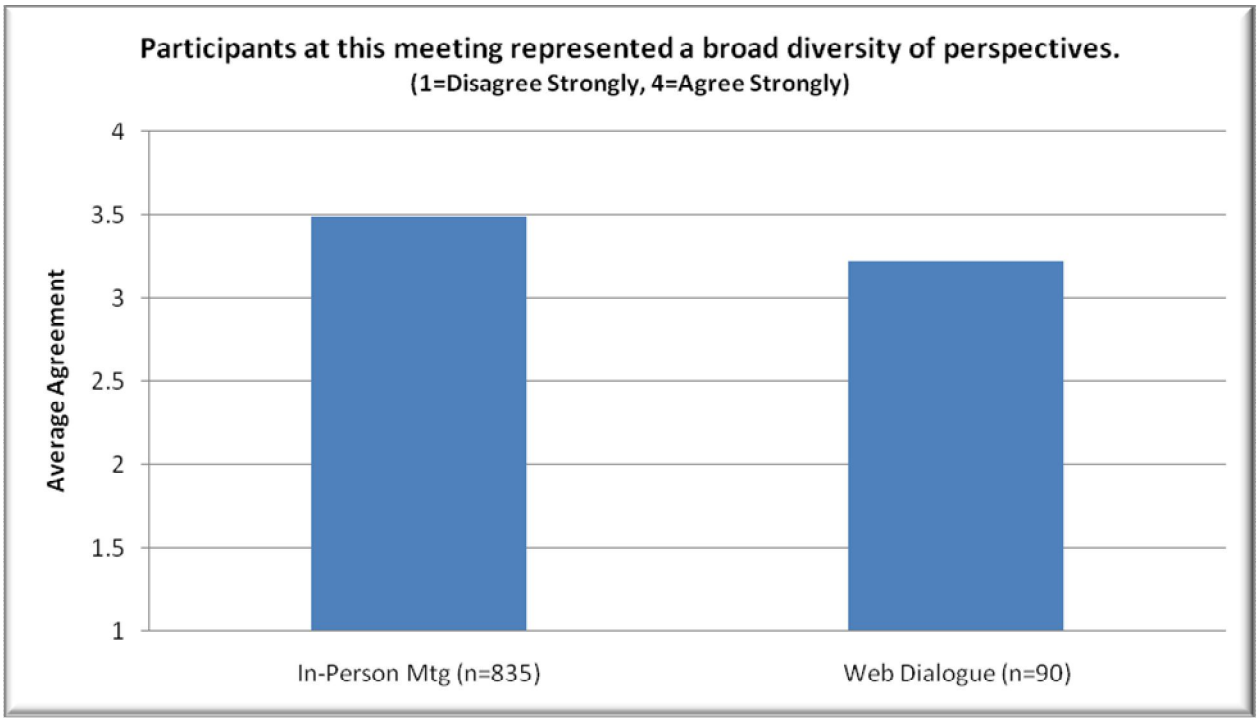
Table 17
Profession of Participants

	In-Person Meeting	Web Dialogue: Completed Survey	Web Dialogue: Registered
Health Care	26.3	29.3	31.1
Public Health	12.8	12.7	11.9
Local Government	8.0	1.5~	2.6
State Government	6.9	3.4	4.2
Emergency Management	5.8	12.2~	9.9
None of the Above	51.9	48.8	48.1
Valid N	885	205	312

***Percents in the table above can add to more than 100 percent because people could check more than one listed profession.**
~differ between web dialogue and in-person meetings

There is a significant difference between meeting formats ($F(1,923)=9.697$, $p=.002$) in average agreement with the statement "Participants at this meeting represented a broad diversity of perspectives". Web dialogue participants ($M=3.22$) agreed with this statement less than did participants at in-person meetings ($M=3.49$).

Figure 2
Perceptions of Diversity: In-Person versus Web Dialogue



Stakeholders

There was not an effort in the process to ensure stakeholders represented a diversity of demographics or perspectives. Rather, stakeholders were selected based on their professional associations and positions. Although we do not present the analysis here, stakeholders had different demographic characteristics than citizens: they tended to be older, more likely to be White, more highly educated, and have higher incomes than participants in the citizen meetings. There were no significant differences in gender or whether they had children at home. Not surprisingly, Stakeholders were more likely than citizens to be involved in healthcare, public health, or be employed by government (see Table 18).

Table 18
Profession of Participants

%	Citizen	Stakeholder
Health Care	26.3	39.3
Public Health	12.8	64.3
Local Government	8.0	7.1
State Government	6.9	7.1
Emergency Management	5.8	10.7
None of the Above	51.9	10.7
Valid N	885	28

***Percents in the table above can add to more than 100 percent because people could check more than one listed profession.**

Chapter 5: Evaluation Results – Citizen and Stakeholder Knowledge

Summary of Findings

- The process was successful at increasing relevant knowledge of participants, so citizens could engage in informed dialogue.
- Participants in the web dialogue had greater knowledge going into the dialogue than participants in the in-person meetings; however, participants at the in-person meetings increased their knowledge more than the web dialogue participants.
- Knowledge increased equivalently across demographic groups based on education, income, race/ethnicity, age, gender, and geographic location.
- Participants believed they had adequate knowledge to make informed choices about vaccine policy.
- The process did not equalize knowledge substantially across groups; in other words, persons with lower levels of understanding at the beginning of the meeting increased their understanding of the information at about the same level as person with greater understanding at the beginning of the meeting.
- In contrast to the above finding, persons who were not in the healthcare or public health fields increased their knowledge more than healthcare or public health professionals, helping to reduce the disparity in knowledge about pandemic influenza.
- The evaluation findings suggest information presented should be tailored to participants with lower education and from particular racial/ethnic groups.

Citizen In-Person Meetings

Citizens were given a seven-item knowledge test at the beginning and end of each in-person deliberation meeting. As indicated in Table 19, average scores for citizen knowledge increased significantly from the pre-test to the post-test ($F(1,821)=520.849$, $p<.001$). Therefore the process was successful in increasing knowledge of meeting participants. We hypothesized that the process would equalize knowledge across the participants – creating a common level of understanding for all participants. Visual inspection of the variance scores (as indicated by standard deviation) indicated that the disparity in knowledge did not decease appreciably – meaning that people did not become much closer in their level of knowledge from the pre-test to the post-test (standard deviation = 23.51 on pre-test and 22.49 on post-test).

Table 19
Change in Citizen Knowledge

	Pre-Test	Post-Test
OVERALL SCORE	52.55	71.17*
Standard Deviation	23.51	22.49

*significant change in score

There was statistically significant improvement for six of the seven knowledge items (see Table 20). McNemar's chi-square tests indicate there were significant increases in knowledge on all items except "Who is at risk when a new flu virus appears that has never been seen before?" Most people got this item correct on the pre-test, so there was little room for improvement.

Table 20
Change in Knowledge by Item

	% WHO GOT QUESTION CORRECT	
Question	Pre-Test	Post-Test
Q1. How soon after someone is infected with a flu virus can they get sick?	37.7	61.4*
Q2. About how many people die in a typical year from flu in the United States?	42.7	76.4*
Q3. Who is at risk when a new flu virus appears that has never been seen before?	87.7	87.5
Q4. How many flu pandemics have occurred over the last 100 years?	51.8	85.4*
Q5. What causes flu pandemics?	46.5	58.9*
Q6. Where did the 2009 novel H1N1 flu virus start?	74.1	88.4*
Q7. In the United States, which group has been most likely to be hospitalized after getting the novel H1N1 flu?	27.4	40.1*
*significant change in score		

In focus groups several people suggested that more information be sent to everyone in advance of the discussion to "bring people up to speed" before the event. In some groups participants noted that the "pre-test" helped orient them before the facts were presented in the video. Some participants in focus groups identifying themselves as scientists or researchers were concerned that the video presentation was too technical for "lay people." Non-health professionals generally believed the information presented

in the video or in person by the subject matter experts was understandable and "not over anyone's head." Subject matter experts answering questions in-person were generally well thought of by participants even if they did not agree with them. Several comments were made about the patience and respect shown by presenters for dissenting positions expressed by some participants. Minority participants did note that the subject matter experts ("presenters") were "White."

Knowledge by Location

A repeated measures factorial ANOVA was run to examine the effect of in-person meeting location on change in knowledge scores. There is a significant interaction of change in knowledge score by location ($F(9,812)=2.999$, $p=.002$). Participants increased in knowledge at all meeting locations (see Table 21). Most increases in knowledge were relatively proportionate, with Spokane and Lincoln participants scoring the highest, El Paso and Birmingham participants scoring the lowest, and participants at other locations falling into a group in the middle. The one exception is New York, where the increase in knowledge was less than other locations, causing it to move from the middle grouping to the lowest grouping. This is consistent with lower ratings for perceived knowledge in New York. We believe the relevant consistency in knowledge change across meeting locations can be attributed to the standard presentation of information through a video shown at all locations except one; at the Denver location, the presentation was provided live by a content expert, but the same information outline and content was used as presented in the video.

Table 21
Change in Knowledge by Meeting Location

Meeting Location	Pre-Test Score	Post-Test Score
Denver, CO	54.80	73.13*
Lincoln, NE	61.56	77.70*
Birmingham, AL	41.16	65.31*
Sacramento, CA	50.69	73.27*
Vincennes, IN	55.84	75.58*
El Paso, TX	39.48	60.31*
Bucks County, PA	59.10	72.21*
New York, NY	54.73	63.74*
Somerville, MA	54.74	73.19*
Spokane, WA	59.88	82.58*
*significant change in score – differences between states of 5.0 or greater are significant		

Knowledge by Profession and Demographic Variable

Not surprisingly, persons who were employed in health care or public health had a higher level of knowledge coming into the meetings than participants not employed in those fields (see Table 14); there is a significant main effect of profession on average knowledge scores ($F(1,812)=47.640$, $p<.001$). However, the process was successful to some extent in equalizing the knowledge base between the two groups. A repeated measures factorial ANOVA was run to examine the effect of being in a health care profession on change in knowledge scores. There was a significant interaction of change in knowledge score by whether or not a participant was employed in a health profession ($F(1,812)=11.279$, $p=.001$). At both testing times, those in a health profession scored significantly higher than those not in a health profession. However, the *increase* in knowledge of those not in a health profession was significantly greater than for those in a health profession.

Table 22
Change in Knowledge by Pre and Post Test by Profession

	Pre-Test Score	Post-Test Score
Employed in Health Care or Public Health	60.76	75.91*
Not employed in Health Care or Public Health	48.14	68.95*

*significant change in score

A repeated measures factorial ANOVA was run to examine the effect of any demographic variables (gender, age, ethnicity, education, income, or being a parent/guardian of a child under 18) on change in knowledge scores. There were no interactions with change in knowledge for any of the variables included; for all demographic variables, all groups within the variable had a change in knowledge of about the same amount and direction. There were no main effects on knowledge scores for gender, age, income, nor for being a parent/guardian of a child under 18.

There is a main effect of ethnicity ($F(3,605)=5.169$, $p=.002$). Both before and after the meeting, those in the Black/African-American (preM=38.63; postM=58.75) and Hispanic ethnic groups (preM=40.75; postM=61.98) scored lowest on the knowledge test, while those in the White/Caucasian ethnic group scored highest (preM=60.08; postM=78.26). The position of the low scoring groups is likely related to the fact that El Paso and Birmingham were the lowest scoring cities, as they had the highest percentage of Hispanics and of Blacks/African-Americans, respectively. However, this effect was not mitigated by controlling for location of the meeting, or for education level.

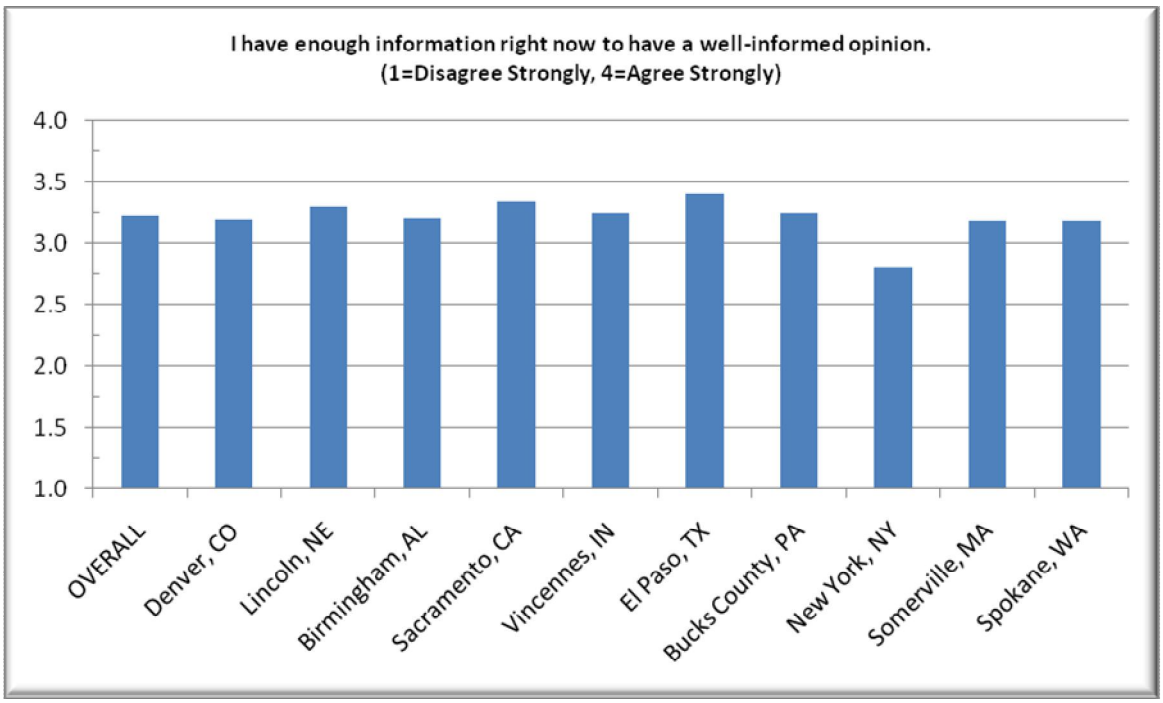
There is also a main effect of education ($F(4,605)=2.737$, $p=.028$). Follow-up analyses indicate a positive linear relationship between education and knowledge score both

before (r(881)=.360, p<.001) and after (r(810)=.366, p<.001) the meetings. The implications for these findings indicate that additional efforts to tailor the informational material to persons of Hispanic and African-American background and to persons of lower education could have improved comprehension and increased knowledge even more for these groups. As noted through some of the focus groups, although there were translators at most of the meetings, the meeting materials were not translated into Spanish; having Spanish materials and knowledge presentation may have improved comprehension for Spanish speakers.

As expected from the previous overall analysis, scores on the knowledge test increased significantly from the pre-test to the post-test across all demographic groups (F(1,605)=32.086, p<.001).

To supplement the knowledge test, we assessed the degree to which citizen participants thought they had enough knowledge to understand the issues around vaccines. In response to the statement, "I have enough information right now to have a well-informed opinion," citizens rated this item an average of 3.28 on a scale of 1 – 4 with "4" meaning agree strongly and "1" meaning disagree strongly (see Figure 4). There were significant differences across the meeting sites. The lowest rating was given in New York (M=2.81), while ratings in the other cities did not differ from each other (Means=3.18 to 3.40).

Figure 3
Perceptions of Having a Well-Informed Opinion by Location



Web Dialogue

A repeated measures ANOVA was used to examine whether there was any relationship of change in knowledge by meeting format (in-person citizen meeting vs. web dialogue). There is a significant interaction, $F(1,899) = 8.832$, $p = .003$. Follow-up analyses indicate that there is a significant increase in knowledge for both the in-person meetings and the web dialogue, but that the increase in knowledge for the in-person meetings was significantly greater (nearly twice as great) as for the web dialogue.

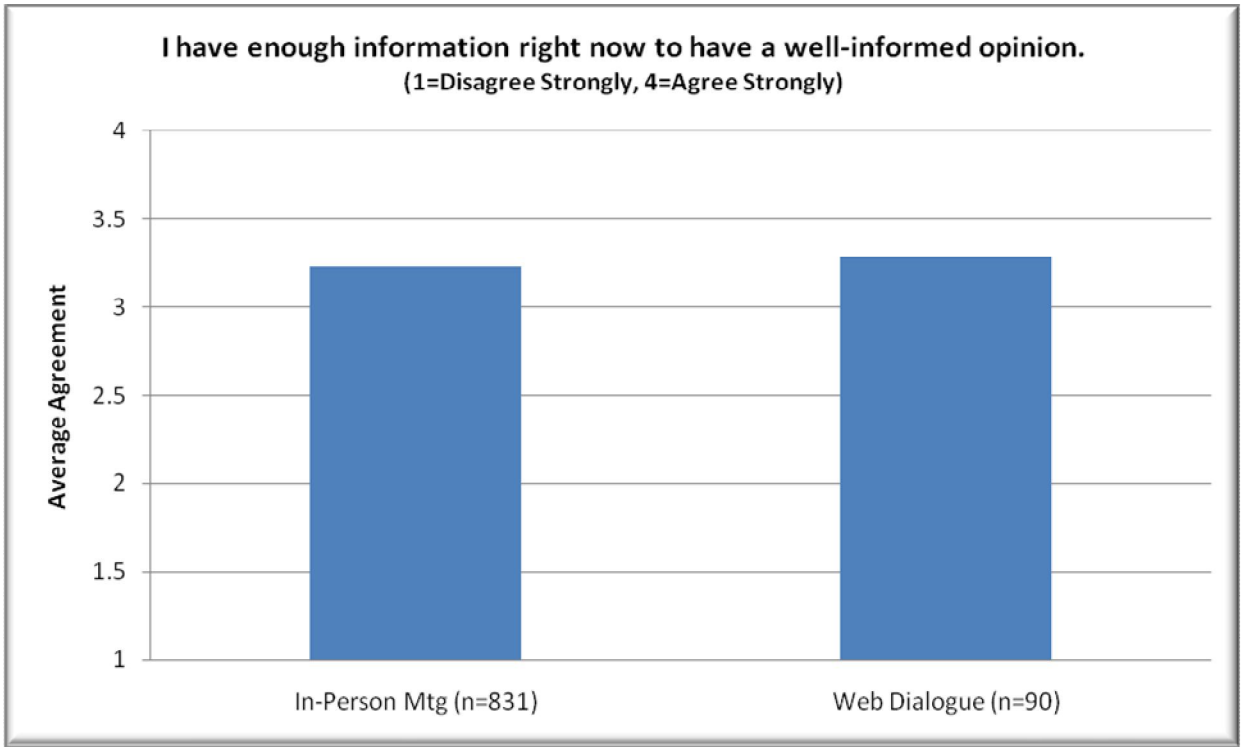
A main effect of meeting format is present, $F(1,899) = 47.682$, $p < .001$. Web dialogue participants had more knowledge overall than in-person meeting participants. There is also a main effect of time of survey, $F(1,899) = 113.308$, $p < .001$; for both meeting formats, post-test scores are significantly higher than pre-test score.

Table 23
Change in Citizen Knowledge by Meeting Format

% correct (SD)	In-Person Meeting	Web Dialogue
Pretest Mean (Std Dev)	52.55 (23.51)	72.51 (21.91)
Posttest Mean (Std Dev)	71.17* (22.49)	83.00 (16.98)
Valid N	822	79
*significant increase		

There is a no significant difference in average agreement between meeting formats ($F(1,919) = 0.504$, $p = .478$) with the statement "I have enough information right now to have a well-informed opinion."

Figure 4
Perceptions of Having a Well-Informed Opinion: In-Person versus Web Dialogue



An additional question was asked in the web dialogue regarding what resources participants used to inform themselves before and/or during the dialogue. The percent of participants selecting each item are presented in the table below.

Table 24
Source of Information for Web Dialogue Participants

Resource	Percent who used
20 Answers	84.6
Discussion Guide	87.9
Other information in the Web Dialogue library	56.0
Resources located elsewhere	51.6

Many of the post-test respondents from the web dialogue commented on where they obtained information about flu. Most frequently cited responses were: internet sites related to flu (blogs, government websites, medical information sites, media sponsored sites and workplace sponsored sites); newspapers and other print media; and person to person communication locally. Only one person made a comment about following the

links provided on the web dialogue as a way to educate themselves about the flu. However, it is clear from comments that the links were viewed by others engaging in the dialogue. For example, some dialogue participants suggested they viewed material in addition to the information listed in the web dialogue library: "My own personal research in the field of health and wellness from the fields of nutrition, nursing, homeopathy. Other websites on vaccinations/safety that were not listed in your library."

Stakeholders

A repeated measures ANOVA was used to examine whether there was any relationship of change in knowledge to participant type (citizen vs. stakeholder). There is a significant interaction, $F(1,846) = 6.082$, $p = .014$. Follow-up analyses indicate that there was a significant increase in knowledge for citizens, but not for stakeholders.

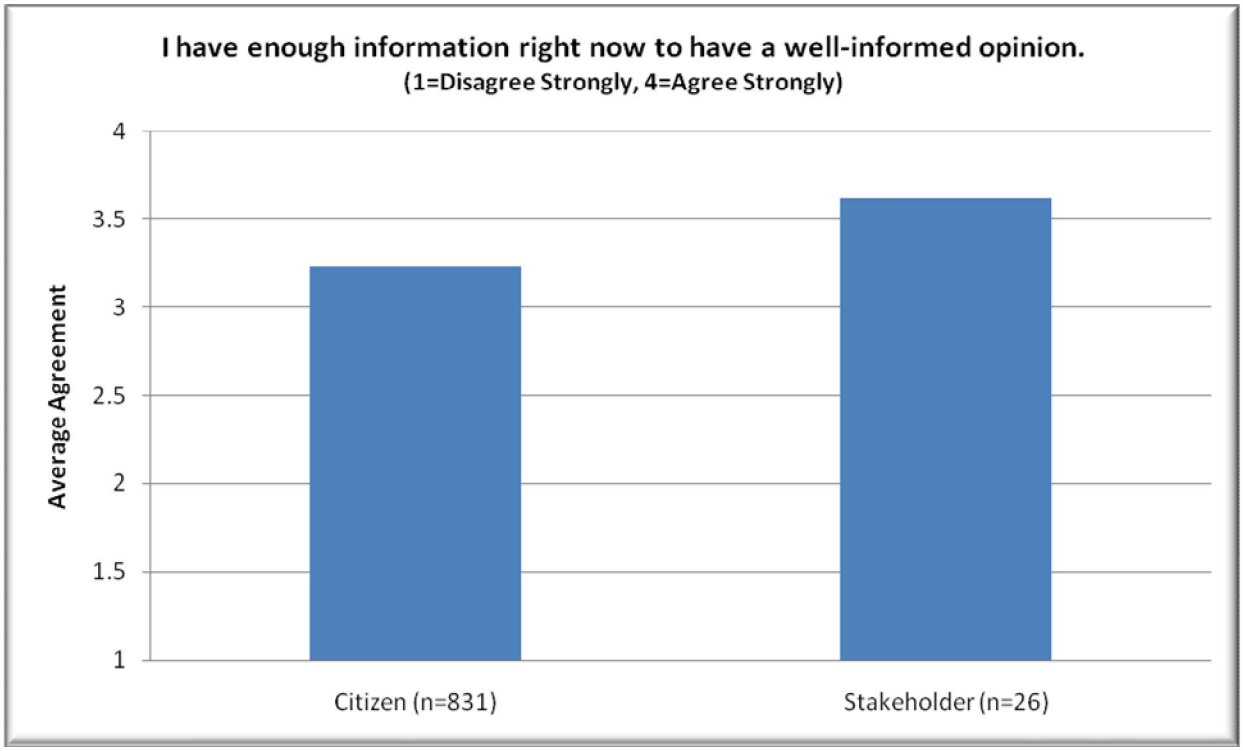
A main effect of participant type is present, $F(1,846) = 25.131$, $p < .001$. Stakeholders had more knowledge overall than citizens. There is also a main effect of time of survey, $F(1,846) = 30.665$, $p < .001$, indicating that post-test scores are significantly higher than pre-test scores, but as indicated by the interaction described above this is only the case for participants in the citizen meetings, not the stakeholders.

Table 25
Change in Stakeholder Knowledge

% correct (SD)	Citizen	Stakeholder
Pretest Mean (Std Dev)	52.55 (23.51)	78.02 (18.17)
Posttest Mean (Std Dev)	71.17* (22.49)	85.16 (23.73)
Valid N	822	26
*significant increase		

There is a significant difference in average agreement between participant types ($F(1,855)=5.792$, $p=.016$) such that stakeholders agree more strongly than citizens that they had enough information to have a well-informed opinion.

Figure 5
Perceptions of Having a Well-Informed Opinion: Citizens versus Stakeholders



Chapter 6: Evaluation Results – Impact of Deliberations on Beliefs

Summary of Findings

- As a result of the deliberative process, the opinions of participants changed. Therefore the process likely produced information different than would be obtained through non-deliberative processes such as random polls or focus groups.
- Contrary to predictions, the process did not result in a greater level of agreement among participants about social values.
- There were significant differences in value ratings across the meeting sites for the in-person citizen meetings; therefore, having multiple meeting locations appears necessary to obtain varied perspectives.
- The over-representation of health and public health officials at the in-person meetings did not appear to have a major impact since the rating of values was not significantly different than participants who were not health care or public health officials.
- Although there were no significant differences in values ratings across race/ethnicity/income, education, or having children, there were differences based on gender and age. This result suggests the importance in public engagement processes of having representation of both genders and across age groups.
- There were also significant differences in values ratings between persons who received flu shots and those who did not; this finding reinforces the need to have representative participation in public engagement processes to obtain perspectives of the general population rather than special interest groups.

Citizen In-Person Meetings

Changes in Beliefs

Survey results indicate some opinions regarding social values and priority areas changed for citizens after they received information and deliberated about vaccines. This change is important in that it indicates that something in the deliberative process actually influences participant thinking and beliefs. Hence, the deliberative process provides different information than non-deliberative processes such as polling or focus groups. Participants were asked to rate 14 social values on a scale from "1" (not at all important) to "4" (very important). A repeated measures ANOVA indicated that beliefs related to the novel H1N1 virus changed significantly from the pre-test to the post-test ($F(2,750)=8.013$, $p<.001$). This was driven by changes on "Flu caused by the novel H1N1 virus won't be as severe as predicted", for which agreement increased.

Table 26
Changes in Beliefs from Pre to Post Meeting

Belief	Pre-Meeting	Post-Meeting
Even if the flu caused by the novel H1N1 virus is as severe as predicted, I won't get sick.	1.93	1.97
Flu caused by the novel H1N1 virus won't be as severe as predicted.	2.28	2.41*

*significant change; Rating scale: 1 = Disagree Strongly, 4 = Agree Strongly

A repeated measures ANOVA indicated that goals/values related to pandemic flu planning decisions changed significantly from the pre-test to the post-test ($F(14,585)=8.062$, $p<.001$). This was driven by changes on seven of the fourteen items. After the meetings, greater importance was placed on: "Ensuring freedom to make my own health care decisions"; and "Limit expenditure of government resources". Less importance was placed on: "Move forward to protect people even if all the details are unknown"; "Preserve trust in public officials"; "Collect sufficient information before making major decisions"; "Ensure there is enough vaccine even if it means moving resources from other public services"; and "The U.S. should provide surplus flu vaccines to poor countries that don't have enough vaccine".

We predicted that agreement among participants would increase on goals and values as a result of the deliberations. As a result of sharing ideas and listening to different perspectives, we thought we would find that participants would come to a common understanding and some level of agreement about goals and values underlying planning

decisions. A t-test was used to examine any change in standard deviations to determine whether people grew closer in agreement after the meeting. There was no significant change in standard deviations ($t(13) = .650$, $p > .05$). A possible reason for this result is that while participants had the opportunity to listen to other perspectives and consider different perspectives, they were not asked to reach consensus or reach any type of agreement. Hence, although perspectives changed as a result of the deliberations, the change did not move in a unified direction.

Table 27
Changes in Goals/Values Pre to Post Meeting

Goal/Value	Mean (Std Dev)	
	Pre-Survey	Post-Survey
Minimize social disruption and maintain community stability	3.48 (0.769)	3.45 (0.802)
Protect the maximum number of people from possible vaccine side effects	3.69 (0.595)	3.68 (0.625)
Treat everyone the same	3.28 (0.994)	3.26 (1.002)
Protect the maximum number of people from the risk of getting a novel H1N1 virus	3.66 (0.711)	3.66 (0.688)
Ensure the freedom to make my own health care decisions	3.57 (0.680)	3.71* (0.568)
Ensure that public safety is a priority in a flu pandemic	3.76 (0.555)	3.72 (0.591)
Move forward to protect people even if all the details are unknown	3.10 (1.001)	2.99* (0.965)
Expect individuals and communities will do what is needed to minimize the impact of pandemic flu	3.50 (0.765)	3.43 (0.700)
Preserve trust in public officials	3.30 (0.907)	3.07* (0.985)
Minimize the number of people who die from the flu	3.84 (0.458)	3.80 (0.496)
Limit expenditure of government resources	2.57 (1.017)	2.70* (0.954)
Collect sufficient information before making major decisions	3.75 (0.541)	3.69* (0.558)
Ensure there is enough vaccine even if it means moving resources from other public services	3.29 (0.902)	3.19* (0.902)
The U.S. should provide surplus flu vaccines to poor countries that don't have enough vaccine	3.04 (0.996)	2.92* (0.966)

Rating scale: 1 = Not At All Important, 4 = Very Important
*significant increase from pre-meeting survey
*significant difference from pre-meeting survey

Changes by Different Groups

A repeated measures factorial MANOVA was run to examine the effect of in-person meeting location on change in goals/values. There is a significant interaction of change in goals/values by location ($F(126,5256)=1.479$, $p<.001$). This interaction was driven by four items. For "Treat everyone the same", rating of importance increased in Denver, decreased in Bucks County and Somerville, and did not change in other cities. For "Preserve trust in public officials", rating of importance decreased significantly in Lincoln, Somerville, Spokane, and Vincennes. For "Minimize the number of people who die from the flu", rating of importance decreased in Bucks County, Denver, and Spokane. And for "Ensure there is enough vaccine even if it means moving resources from other public services", rating of importance decreased significantly in Birmingham, Bucks County, Spokane, and Vincennes.

There is a main effect of meeting location on importance ratings of goals/values ($F(126,5256)=2.244$, $p<.001$). Thirteen of the fourteen goals/values items contribute to this effect ("Minimize social disruption and maintain community stability" did not differ across locations). The locations which gave the statistically highest and lowest importance ratings on each item are listed in Table 28.

Table 28
Goals/Values by Location

Goal/Value	Gave Highest Rating	Gave Lowest Rating
Minimize social disruption and maintain community stability	none	none
Protect the maximum number of people from possible vaccine side effects	El Paso	Spokane Somerville
Treat everyone the same	El Paso Birmingham	Spokane Somerville
Protect the maximum number of people from the risk of getting a novel H1N1 virus	Birmingham	Denver Spokane
Ensure the freedom to make my own health care decisions	New York	Lincoln Somerville
Ensure that public safety is a priority in a flu pandemic	Birmingham Lincoln	Spokane New York Denver
Move forward to protect people even if all the details are unknown	El Paso Birmingham	New York
Expect individuals and communities will do what is needed to minimize the impact of pandemic flu	El Paso	Spokane
Preserve trust in public officials	El Paso	New York
Minimize the number of people who die from the flu	All locations except Spokane	Spokane
Limit expenditure of government resources	El Paso Birmingham Denver	Vincennes
Collect sufficient information before making major decisions	El Paso	Somerville
Ensure there is enough vaccine even if it means moving resources from other public services	Birmingham El Paso	Spokane New York
The U.S. should provide surplus flu vaccines to poor countries that don't have enough vaccine	Sacramento Somerville	Denver Spokane

A repeated measures factorial MANOVA was run to examine the effect of being in a health care profession on change in goals/values. There was neither a significant interaction of profession with time of survey ($F(14,581)=0.626$, $p=.845$) nor a main effect

of being in a health care profession(F(14,581)=1.627, p=.068) on importance of goals/values.

Table 29
Importance of Goals/Values by Profession

	Health Care or Public Health		Not Health Care or Public Health	
	Pre	Post	Pre	Post
Minimize social disruption and maintain community stability	3.58	3.53	3.42	**3.40**
Protect the maximum number of people from possible vaccine side effects	3.66	3.65	3.71	**3.70**
Treat everyone the same	3.21	3.21	3.31	**3.28**
Protect the maximum number of people from the risk of getting a novel H1N1 virus	3.75	3.70	3.61	**3.63**
Ensure the freedom to make my own health care decisions	3.53	3.71	3.59	**3.72**
Ensure that public safety is a priority in a flu pandemic	3.79	3.77	3.73	**3.69**
Move forward to protect people even if all the details are unknown	3.24	3.04	3.01	**2.96**
Expect individuals and communities will do what is needed to minimize the impact of pandemic flu	3.50	3.53	3.50	**3.53**
Preserve trust in public officials	3.42	3.12	3.23	**3.05**
Minimize the number of people who die from the flu	3.88	3.82	3.82	**3.79**
Limit expenditure of government resources	2.50	2.63	2.62	**2.74**
Collect sufficient information before making major decisions	3.71	3.66	3.77	**3.72**
Ensure there is enough vaccine even if it means moving resources from other public services	3.35	3.25	3.25	**3.15**
The U.S. should provide surplus flu vaccines to poor countries that don't have enough vaccine	3.06	2.92	3.05	**2.92**
Valid N				
Unknown				

Change in goals/values – differences by participant demographics

A repeated measures factorial MANOVA was run to examine the effect of any demographic variables (gender, age, ethnicity, education, income, or being a

parent/guardian of a child under 18) on change in importance of goals/values. There were no interactions with time of survey nor main effects on importance of goals/values for: ethnicity, education, income, or being a parent/guardian.

There is an interaction of gender by time of survey on importance of goals/values ($F(14,399)=2.835$, $p<.001$). This interaction was driven by the same four items which drove the interaction of location by time of survey. For "Treat everyone the same" and "Minimize the number of people who die from the flu", rating of importance decreased for men but not for women. For "Preserve trust in public officials", rating of importance decreased significantly for both men and women, but did so significantly more for women than for men. And for "Ensure there is enough vaccine even if it means moving resources from other public services", rating of importance decreased for women but not for men. There is not a main effect of gender on importance ratings across goals/values ($F(14,399)=1.019$, $p=.433$).

There is no interaction of age with time of survey on importance of goals/values ($F(70,2015)=0.942$, $p=.613$); meaning that each age group **changed** about the same amount and direction as the others. There is, however, a main effect of age on rating of importance of goals/values ($F(70,2015)=1.307$, $p=.047$). This main effect is driven by three items. For "Minimize social disruption and maintain community stability", the 18-24 group rated importance significantly lower than did the top 4 age groups (from 35 through 65+), which did not differ from each other. The 25-34 fell in the middle, but was not significantly different from the 18-24 group or the 35 through 65+ groups. For "Protect the maximum number of people from possible vaccine side effects", those in the 18-24 group rated importance significantly lower than did the other 5 age groups, from 25 through 65+. For "Preserve trust in public officials, the 18-24 age group rated importance significantly lower than the 5 older age groups, and those in the 65+ age group rated importance significantly higher than the 5 younger age groups. The middle 4 age groups did not differ from each other.

Change in goals/values – differences by flu shot last year

A repeated measures factorial MANOVA was used to examine whether those who regularly get a flu shot (indicated by the item "Did you get a flu shot last year") differed from those who do not regularly get flu vaccines in their ratings of importance of goals/values. There is not a significant interaction of having gotten a flu shot last year by time of survey on ratings of importance ($F(14,540)=0.866$, $p=.597$) ; those who did and did not get flu shots last year had opinion changes of about the same amount and in the same direction.

There is a main effect of having gotten a flu shot on ratings of importance of goals/values ($F(14,540)=7.348$. $p<.001$). All items except 3 contributed to this effect ("Treat everyone the same"; "Expect individuals and communities will do what is needed to minimize the impact of pandemic flu"; and "Preserve trust in public

officials"). Those who did get the flu vaccine last year rated the following items more important than those who did not get the flu vaccine: "Minimize social disruption and maintain community stability"; "Protect the maximum number of people from the risk of getting a novel H1N1 virus"; "Ensure that public safety is a priority in a flu pandemic"; "Move forward to protect people even if all the details are unknown"; "Minimize the number of people who die from the flu"; "Ensure there is enough vaccine even if it means moving resources from other public services"; and "The U.S. should provide surplus flu vaccines to poor countries that don't have enough vaccine". Those who did *not* get the flu vaccine last year rated the following items more important than those who did get the flu vaccine: "Protect the maximum number of people from possible vaccine side effects"; "Ensure the freedom to make my own health care decisions"; "Limit expenditure of government resources"; and "Collect sufficient information before making major decisions".

Table 30
Importance of Goals/Values by Flu Shot Last Year

	Average Importance Rating	
	Got a flu shot last year	Did not get a flu shot last year
Minimize social disruption and maintain community stability	3.57*	3.35
Protect the maximum number of people from possible vaccine side effects	3.64	3.74*
Treat everyone the same	3.27	3.23
Protect the maximum number of people from the risk of getting a novel H1N1 virus	3.78*	3.52
Ensure the freedom to make my own health care decisions	3.54	3.74*
Ensure that public safety is a priority in a flu pandemic	3.82*	3.65
Move forward to protect people even if all the details are unknown	3.25*	2.82
Expect individuals and communities will do what is needed to minimize the impact of pandemic flu	3.55	3.46
Preserve trust in public officials	3.26	3.14
Minimize the number of people who die from the flu	3.89*	3.77
Limit expenditure of government resources	2.50	2.75*
Collect sufficient information before making major decisions	3.63	3.80*
Ensure there is enough vaccine even if it means moving resources from other public services	3.43*	3.00
The U.S. should provide surplus flu vaccines to poor countries that don't have enough vaccine	3.10*	2.86
Valid N		
Unknown		
***significant difference – higher score is marked**		

Change in beliefs and goals/values– differences related to change in knowledge

A repeated measures MANOVA was performed to determine whether change in knowledge from the pre-meeting survey to the post-meeting survey was related to agreement with beliefs about the 2009 novel H1N1 virus. There is no interaction of change in knowledge with time of survey for beliefs ($F(2(749)=1.442$, $p = .237$). There is also no main effect of change in knowledge on overall beliefs ($F(2,749)=1.874$, $p=.154$).

A repeated measures MANOVA with change in knowledge score as a covariate was performed to determine whether change in knowledge from the pre-meeting survey to the post-meeting survey was related to importance ratings of goals/values. There is no interaction of change in knowledge with time of survey for goals/values (F(14(584)=1.538, p = .093). There is also no main effect of change in knowledge on overall ratings of goals/values (F(14,584)=1.668, p=.058).

Change in goals/values– differences related to process ratings

A repeated measures MANOVA with overall process rating as a covariate was performed to determine whether rating of the meeting process was related to importance ratings of goals/values. There is no interaction of process with time of survey on importance ratings of goals/values (F(14,561)=1.370, p=.162). There is a main effect of process on importance ratings of goals/values (F(14,561)=12.133, p<.001). On both the pre-survey and the post-survey, the overall process rating was significantly positively correlated with all goals/values items except "Ensure the freedom to make my own health care decisions", and "Limit expenditure of government resources".

Web Dialogue

A repeated measures MANOVA was performed to examine whether there was a change in beliefs about the 2009 novel H1N1 flu virus by meeting format (in-person vs. web dialogue). There is not a significant interaction between meeting format and time of survey, F(2, 827) =1.317, p=.269. There are also no significant main effects of participant type (F(2, 827) = 2.902, p=.055) nor of time of survey (F(2, 827)=0.523, p=.593).

A repeated measures MANOVA with web dialogue participants only also indicated there is no effect of time of survey on beliefs about the 2009 novel H1N1 virus for the web dialogue participants, F(2,76)=0.216, p=.806.

Table 31
Differences in Perception between In-Person Deliberations and Web Dialogues

	In-Person Meeting		Web Dialogue	
	Pre	Post	Pre	Post
Even if flu caused by the novel H1N1 virus is as severe as predicted, I won't get sick.	1.93 (.911)	1.97 (.933)	1.74 (.813)	1.77 (.836)
Flu caused by the novel H1N1 virus won't be as severe as predicted.	2.28 (.956)	2.41* (.909)	2.36 (.805)	2.32 (.730)
Valid N	752	752	78	78

*significant change

A repeated measures MANOVA was performed to examine whether there was a change in goals/values related to pandemic flu planning decisions by meeting format. There is not a significant interaction between meeting format and time of survey, $F(14,656) = 1.454$, $p=.123$. There is a significant main effect of meeting format, $F(14, 656) = 8.705$, $p<.001$. This effect is driven by nine of the fourteen items (noted in the table); in-person meeting participants rated all nine items as more important both before and after the meeting than did web dialogue participants.

There is also a significant main effect of time of survey on importance ratings of goals/values, $F(14, 656)=4.131$, $p<.001$. This effect is driven by five items. For "Ensure the freedom to make my own health care decisions", participants (collapsed across meeting format) rated this item higher at the post-survey than at the pre-survey. For the remaining four items (Preserve trust in public officials; Collect sufficient information before making major decisions; Ensure there is enough vaccine even if it means moving resources from other public services; and The U.S. should provide surplus flu vaccines to poor countries that don't have enough vaccine) participants (collapsed across meeting format) rated these items *lower* at the post-survey than at the pre-survey.

A repeated measures MANOVA with web dialogue participants only indicates that for web dialogue participants there is an effect of time of survey on importance ratings of goals/values, $F(14, 58)=2.256$, $p=..016$. One item contributed to this effect: The U. S. should provide surplus flu vaccines to poor countries that don't have enough vaccine". Web dialogue participants considered this less important at the post-survey than at the pre-survey.

Table 32
Importance of Values/Goals by Participation Format

	In-Person Meeting		Web Dialogue	
	Pre	Post	Pre	Post
Minimize social disruption and maintain community stability	3.48 (.769)	3.45 (.802)	3.28 (.791)	3.36 (.737)
^Protect the maximum number of people from possible vaccine side effects	3.69 (.595)	3.68 (.625)	3.35 (.790)	3.51 (.750)
^Treat everyone the same	3.28 (.994)	3.26 (1.002)	2.43 (1.098)	2.51 (1.021)
^Protect the maximum number of people from the risk of getting a novel H1N1 virus	3.66 (.711)	3.66 (.688)	3.42 (.884)	3.35 (.906)
^Ensure the freedom to make my own health care decisions	3.57 (.680)	3.71* (.568)	3.18 (.893)	3.32 (.802)
Ensure that public safety is a priority in a flu pandemic	3.76 (.555)	3.72 (.591)	3.75 (.524)	3.68 (.577)
^Move forward to protect people even if all the details are unknown	3.10 (1.001)	2.99* (.965)	2.81 (.914)	2.76 (.911)
^Expect individuals and communities will do what is needed to minimize the impact of pandemic flu	3.50 (.765)	3.53 (.700)	3.08 (.975)	3.10 (.906)
Preserve trust in public officials	3.30 (.907)	3.07* (.985)	3.08 (1.004)	3.00 (1.113)
Minimize the number of people who die from the flu	3.84 (.458)	3.80 (.496)	3.86 (.421)	3.92 (.278)
^Limit expenditure of government resources	2.57 (1.017)	2.70* (.954)	2.19 (.781)	2.18 (.828)
^Collect sufficient information before making major decisions	3.75 (.541)	3.69* (.558)	3.47 (.691)	3.29 (.740)
^Ensure there is enough vaccine even if it means moving resources from other public services	3.29 (.902)	3.19* (.902)	2.92 (1.017)	2.83 (.919)
The U.S. should provide surplus flu vaccines to poor countries that don't have enough vaccine	3.04 (.996)	2.92* (.966)	3.08 (.989)	2.78* (.953)
Valid N	599	599	72	72

*significant change
^in-person rating higher on average than web dialogue rating

Stakeholders

A repeated measures MANOVA was performed to examine whether there was a change in beliefs about the 2009 novel H1N1 flu virus by participant type (citizen vs. stakeholder). There is not a significant interaction between participant type and time of survey, F(2, 772) =2.214, p=.110. There are also no significant main effects of participant type (F(2, 772) = .734, p=.480) nor of time of survey (F(2, 772)=1.517, p=.220).

A repeated measures MANOVA with stakeholders only also indicated there is no effect of time of survey on beliefs about the 2009 novel H1N1 virus for the stakeholders, F(2,21)=3.269, p=.058.

Table 33
Perceptions by Citizens and Stakeholders

	Citizen		Stakeholder	
Mean (SD)	**Pre**	**Post**	**Pre**	**Post**
Even if flu caused by the novel H1N1 virus is as severe as predicted, I won't get sick.	1.93 (.911)	1.97 (.933)	1.61 (.783)	1.87 (.920)
Flu caused by the novel H1N1 virus won't be as severe as predicted.	2.28 (.956)	2.41* (.909)	2.30 (.822)	2.17 (.778)
Valid N	752	752	23	23
*significant change				

A repeated measures MANOVA was performed to examine whether there was a change in goals/values related to pandemic flu planning decisions by participant type (citizen vs. stakeholder). There is not a significant interaction between participant type and time of survey, F(14,606) = 1.544, p=.091. There is a significant main effect of participant type, F(14, 606) = 2.060, p=.012. This effect is driven by three items: "Treat everyone the same"; "Ensure the freedom to make my own health care decisions"; and "Collect sufficient information before making major decisions". Citizens rated all of these items as more important than stakeholders rated them.

There is also a significant main effect of time of survey on importance ratings of goals/values, F(14, 606)=2.591, p=.001. This effect is driven by two items: "Treat everyone the same"; and "Ensure the freedom to make my own health care decisions". Collapsed across participant type, both of these items were rated more important at the post-survey than at the pre-survey.

A repeated measures MANOVA with stakeholders only indicates that for stakeholders there is no effect of time of survey on importance ratings of goals/values, F(14, 8)=1.296, p=.367.

Table 34
Goal ratings by Citizens and Stakeholders

	Citizen		Stakeholder	
Mean (SD)	**Pre**	**Post**	**Pre**	**Post**
Minimize social disruption and maintain community stability	3.48 (.769)	3.45 (.802)	3.50 (.740)	3.59 (.734)
Protect the maximum number of people from possible vaccine side effects	3.69 (.595)	3.68 (.625)	3.50 (.740)	3.64 (.492)
Treat everyone the same	3.28 (.994)	3.26 (1.002)	2.41 (1.098)	3.05 (.997)
Protect the maximum number of people from the risk of getting a novel H1N1 virus	3.66 (.711)	3.66 (.688)	3.45 (.963)	3.64 (.790)
Ensure the freedom to make my own health care decisions	3.57 (.680)	3.71* (.568)	3.14 (.774)	3.59 (.503)
Ensure that public safety is a priority in a flu pandemic	3.76 (.555)	3.72 (.591)	3.73 (.550)	3.68 (.716)
Move forward to protect people even if all the details are unknown	3.10 (1.001)	2.99* (.965)	3.00 (.873)	3.05 (.899)
Expect individuals and communities will do what is needed to minimize the impact of pandemic flu	3.50 (.765)	3.53 (.700)	3.50 (.740)	3.45 (.671)
Preserve trust in public officials	3.30 (.907)	3.07* (.985)	3.50 (.802)	3.41 (1.008)
Minimize the number of people who die from the flu	3.84 (.458)	3.80 (.496)	3.82 (.664)	3.95 (.213)
Limit expenditure of government resources	2.57 (1.017)	2.70* (.954)	2.41 (.734)	2.41 (.734)
Collect sufficient information before making major decisions	3.75 (.541)	3.69* (.558)	3.50 (.512)	3.36 (.581)
Ensure there is enough vaccine even if it means moving resources from other public services	3.29 (.902)	3.19* (.902)	3.23 (.973)	3.18 (.733)
The U.S. should provide surplus flu vaccines to poor countries that don't have enough vaccine	3.04 (.996)	2.92* (.966)	3.09 (.811)	3.09 (.610)
Valid N	599	599	22	22

*significant change

Chapter 7: Evaluation Results – Quality of Deliberations

Summary of Findings

- Participants perceived the process to be of high quality.
- Overall meeting facilitation was perceived to be good, although there was some variability in quality across small group facilitators.
- There was some dissatisfaction with special interest groups who appeared to dominate some of the meetings and the small group discussions. These concerns suggest processes to get a cross section of individuals and to assign persons to small group tables could have been beneficial.
- Satisfaction with the process varied by meeting location; the differences in satisfaction are due in part to differences in the type of persons who attended the meetings than to differences in process, reinforcing the recommendation to seek representative participation.
- One factor in the quality of meetings was the presence of public officials and experts; meetings did not function as smoothly in locations where experts were not present.
- Participants in the web dialogue rated the process less positively than citizens at the in-person meetings.

Citizen In-Person Meetings

Ten full-day meetings were convened by Keystone in communities across the country as part of the engagement process. Meetings were held on Saturday, August 8th in Denver, CO, and Lincoln, NE; Saturday, August 15th in Birmingham, AL, Sacramento, CA, and Vincennes, IN; Saturday, August 22nd in Bucks County, PA, El Paso, TX, and New York, NY; and Saturday, August 29th in Somerville, MA, and Spokane, WA.

The purpose of the meetings were to obtain input from community members about what vaccination program approach – in terms of intensity and breadth – the federal government should implement to respond to the H1N1 pandemic: "Go Easy," "Moderate," or "Full Throttle." The meeting format consisted of 1) a welcome and orientation provided by Keystone staff with CDC and local health officials; 2) a video presentation by Dr. Beth Bell from the CDC's National Center for Immunization and Respiratory Diseases division with background information about H1N1 and plans for vaccination; 3) a question and answer session provided by a CDC Subject Matter Expert; 4) small group sessions in which community members participated in facilitated discussions about the pros and cons of the Go Easy, Moderate, and Full Throttle vaccination approaches; 5) a large group reporting-out session of small group discussion results; 6) an electronic polling session in which meeting participants used real-time voting technology (TurningPoint software and keypads) to vote for desired vaccination approaches in a variety of contexts; and finally 7) a large group discussion session of polling results.

Prior to and after meeting activities, University of Nebraska evaluators administered evaluation surveys among participants with the aid of Keystone staff. Informed consent was obtained through the use of University of Nebraska IRB-approved processes. Evaluation team members also recruited and convened focus groups among volunteer meeting attendees after each community meeting as part of the evaluation process. Community meeting participants were recruited with the help of local partners at meeting sites, and a $50 stipend was offered to participants as an incentive and compensation for time. Small group discussion facilitators were also identified through local partners, and participated in training sessions prior to the community meetings led by Keystone staff.

As meetings progressed, Keystone staff, CDC officials, and University of Nebraska evaluators participated in regular teleconferences to discuss observations and address any challenges or developments that arose from the community meetings. Although the overall framework and objectives of the meetings remained consistent, slight modifications were made over time. Early impressions from some of the meetings indicated that there were challenges with a minority of meeting participants disrupting activities, a lack of rules in regards to members of the media participating and videotaping meeting activities, and the clarity of some presentation materials. In particular, there were concerns that political activists were intentionally trying to disrupt meeting activities by dominating discussion sessions, and that the objectives of the engagement process – to obtain input about vaccination approaches – were being displaced by activists attempting to focus discussion on vaccine safety and trust in government. Thus, in subsequent sessions, Keystone staff modified meeting and polling material to emphasize the objectives of the engagement process, clarified house rules in regards to participation, and developed contingency plans to minimize disruption or domination by single voices.

Another concern that arose as the community meetings were convened was the composition of meeting participants. The objective of the engagement process was to obtain input about vaccination approaches from a cross-section of the targeted community, rather than specific sectors. As meetings progressed, it became apparent that significant portions of meeting participants came from health care or public health backgrounds. Recruitment and outreach strategies were modified to encourage participation by individuals without health care backgrounds. However, this proved difficult given that the nature of the discussion topic attracted participants with personal and professional affiliations to health care or public health.

Participant Perceptions

Participants were asked to rate the process on the post-meeting surveys. On the positively worded items, average ratings were all between Agree Somewhat (3) and Agree Strongly (4), indicating a good process. On the two negatively worded items,

average ratings fell between Disagree Somewhat (2) and Agree Somewhat (3). This indicates that a sizable number of participants (35.1 percent) felt that one person or a small group of people dominated the discussion, which our observations would support in some cities. It also indicates that a sizable number of people (44.4 percent) felt important points were left out of the discussion.

Table 35
Citizen Ratings of Process

ITEM	MEAN RATING
This discussion was fair to all participants.	3.55
I felt comfortable talking in this discussion.	3.64
I think other people in this discussion felt comfortable talking.	3.60
*One person or a small group of people dominated the discussion.	2.10
*Important points were left out of our discussion.	2.32
This process produced a valuable outcome.	3.27
This process has produced credible, relevant, and independent information.	3.23
This process helped me better understand the types of trade-offs involved.	3.31
Rating scale: 1 = Disagree Strongly, 4 = Agree Strongly *On these items a lower score indicates a better process.	

Focus Group Results

Comments from the focus groups confirmed that citizens thought the process was well facilitated. For example, with regard to the large group discussion, one citizen stated:

> "It was a good thing to try and answer everyone's questions. It took time, and may have seen to some as being a little too long. But I really appreciated that everyone's questions were answered." *Denver Focus Group Participant*

Facilitation of the overall event in each city was managed by Keystone, a professional facilitation group. Groups of locally available professionals were paid $200 each to facilitate small group discussions at each site. They completed a short orientation provided by Keystone the day before or immediately prior to the event. The quality of small group facilitation varied within and across sites (as perceived by evaluation observers and via comments on the surveys/focus groups). Though most of the

comments made in focus groups and on surveys were complimentary of the large group facilitation, there was both praise and criticism expressed for small group facilitation. Criticisms were generally related to bias rather than facilitation skill, for example: "Our facilitator was not neutral. She expressed too many of her opinions."

Lincoln participants requested more clarity on the assumptions after the video and prior to the small group discussions, particularly related to what had already been decided (e.g., vaccine development and allotment has already been decided). This was addressed in subsequent events after a change in process was implemented with apparent success. In Birmingham the subject matter expert added an assumption that was seen as helpful to the discussions by noting that all should assume that safety monitoring at the same level would be present for all three approach options (go slow; moderate; full throttle). Adding more in-person clarification of assumptions seemed to be seen as beneficial by participants.

Most believe the facilitation overall was well done and that they had opportunities to voice their opinion throughout the day. There were a few comments on the surveys critical of small group facilitators though most were positive about facilitation overall.

A general concern was voiced in focus groups and on surveys about the strong anti-vaccine voices at the events. Participants noted that these strong opinions were overrepresented in their dominance of discussion and made some citizens participate less in the small and large group discussions. Comments in focus groups and on the survey expressed a sentiment similar to this participant: "Have one organized group with a clear-cut agenda & allowing them to at times monopolize the proceedings prevented the free exchange and communication of objective information." There was however, agreement that the discourse was civil and that respect from the subject matter experts and facilitators toward the people expressing strong opinions was responsible for making most people believe their opinion was heard. The expression of strong organized opinions was commented on by several participants in post-surveys: "The CDC must realize this group had lots of people against vaccine in general. The general public does not have this opinion. You, the CDC, need to go ahead."

Another person wrote a post-meeting note:

> "I attended the H1N1 Workshop… this past Saturday. I would like to take the opportunity to highlight that I was appalled at how few [community] residents attended the meeting in comparison to the [special interest] groups who showed up in droves. At my table alone, 5 of the 8 members were extremists in their views. The responses to the questions were NOT a reflection of the …community at large and did NOT address the overriding questions of the role out of the H1N1 Vaccination for previously disenfranchised ethnic and social groups. I genuinely feel that the result of this exercise was a veneer of community engagement, of little to no value. I am deeply concerned all of the

> workshops experienced similar problems in terms of the attendees in which case the results are seriously biased."

Two methods may have helped. One would have been to randomly select persons to participate. This method would have perhaps resulted in a broader cross section of the population participating and may have prevented organized blocks of interest groups from participating. The other would have been to randomly assign participants to tables. Some individuals who happened to sit at a table of a group with particular perspective felt "outnumbered." One facilitator facilitated a table of one extended family, and the perspectives at that table were not very diverse. Random seating would help ensure a diversity of perspectives for each small group discussion

Satisfaction by Meeting Location

A MANOVA was run to examine the effect of in-person meeting location on process ratings. There is a significant effect of location ($F(72,6168)=3.634$, $p<.001$). The pattern of ratings differed between the positively worded items and the negatively worded items.

For positively worded items, the highest ratings were consistently given in Birmingham and El Paso; the next highest ratings were given in Lincoln, Sacramento, Vincennes, and sometimes Somerville; the third highest ratings were given in Bucks County, and sometimes Somerville and Spokane; and the lowest ratings were consistently given in Denver, New York, and sometimes Spokane.

The patterns for the two negatively worded items differed from each other. For "Important points were left out of our discussion", the worst ratings were again given in Denver and New York, as was the case with the positively worded items. The best ratings were given in Birmingham, Sacramento, and Vincennes; the next highest ratings were given in Spokane and Lincoln, and the third highest ratings were given in El Paso and Somerville.

For "One person or a small group of people dominated this discussion", the worst ratings were given in Denver and El Paso, followed by the next worst in Bucks County and New York. The other six locations did not differ from each other, all giving the best ratings on this item.

Perception of process – differences by participant profession

A MANOVA was run to examine the effect of being in a health care profession on ratings of the process. There is no significant effect of whether or not a participant was employed in a health profession ($F(8,712)=1.069$, $p=.383$.

Table 36
Perception of process – differences by participant profession

Item	Mean Rating	
	Employed in Health Care or Public Health	Not Employed in Health Care or Public Health
This discussion was fair to all participants.	3.58	3.56
I felt comfortable talking in this discussion.	3.66	3.67
I think other people in this discussion felt comfortable talking.	3.58	3.63
*One person or a small group of people dominated the discussion.	2.18	2.02
*Important points were left out of our discussion.	2.26	2.32
This process produced a valuable outcome.	3.32	3.25
This process has produced credible, relevant, and independent information.	3.27	3.22
This process helped me better understand the types of trade-offs involved.	3.37	3.30

Rating scale: 1 = Disagree Strongly, 4 = Agree Strongly
*On these items a lower score indicates a better process.

Perception of process – differences by participant demographics

A factorial MANOVA was run to examine the effect of any demographic variables (gender, age, ethnicity, education, income, or being a parent/guardian of a child under 18) on ratings of the process. There is no effect on ratings of the process for gender, age, education, income, or whether a person was a parent/guardian.

There is a main effect of ethnicity ($F(24,1560)=1.886$, $p=.006$). This effect includes 5 of the 8 process questions. Those *not* included in the effect are: "This discussion was fair to all participants"; "I felt comfortable talking in this discussion"; and "I think other people in this discussion felt comfortable talking". For these items there were no differences by ethnicity.

On the other five items, those in the Black/African-American and Hispanic ethnic groups gave higher ratings to the process than did in the White/Caucasian or Other ethnic groups. This result is appears to be related to the fact that El Paso and Birmingham consistently rated the process higher than in other cities, as they had the highest

percentage of Hispanics and of Blacks/African-Americans, respectively. However, this effect was *not* mitigated by controlling for location of the meeting.

Web Dialogues

WestEd convened two web dialogues about the H1N1 vaccination plans on August 26-27, 2009, and August 31-September 1, 2009. Both dialogues were facilitated by Keystone personnel, and featured subject matter experts from the CDC and state and local health entities. The web dialogues were open to the public, but required registration to log in and participate.

Both web dialogues took place over a two day period, and each dialogue used a similar format and agenda. On Day 1, participants were first asked to review a Frequently Asked Questions document on influenza called "20 Answers About Influenza" created by the CDC. A Dialogue Library was also available featuring further background information on H1N1 and the discussion topics. Participants then engaged in two discussion topics on Day 1:

UNDERSTANDING H1N1

- Understanding the differences between seasonal and novel H1N1 flu
- Assumptions guiding the proposed h1n1 vaccination program approaches
- Questions about vaccine safety and efficacy

VACCINATION PROGRAM APPROACHES

- Pros and cons of a "Go Easy" approach to vaccination
- Pros and cons of a "Moderate Effort" approach to vaccination
- Pros and cons of a "Full Throttle" approach to vaccination

Following the discussion on Day 1, participants were asked to complete an "Informed Preferences Poll" asking participants which approach to vaccination they favored, why they favored their selected approach, and how their approach would change if the anticipated H1N1 outbreak was more or less severe than expected.

On Day 2 of the web dialogue, participants engaged in discussions about the results of the poll, and implications for implementation of the vaccine program:

REVIEW OF POLL RESPONSES

- Exploration of Poll Results
- Implementation issues – a look into the future

Facilitators introduced each discussion topic with focus points for discussion. Facilitators were present from 9am EST to 9pm EST, but participants could post comments and ask questions through the duration of the web dialogues. Comments and questions were

added in linear order in discussion threads. Check boxes accompanied comments for participants to agree with a comment. Participants received a summary of the previous days' discussions via email.

Summary of August 26-27 Web Dialogue

PARTICIPANTS

A total of one hundred ninety four (194) people registered for the August 26-27 web dialogue. Excluding project staff, panelists, and evaluators, one hundred and sixty seven (167) registrants were actual participants. Top occupational categories among all registrants included health care (24 percent), education (16 percent), other (15 percent), emergency management (10 percent), and public health (10 percent). Geographic background of registered participants included city (37 percent), suburb (30 percent), small town (16 percent), and rural (8 percent). Top rates among registered participants by location included California (13 percent), District of Columbia (6 percent), Colorado (5 percent), New York (5 percent), and Texas (5 percent). It should be noted that registered participants included University of Nebraska and WestEd staff, and CDC representatives.

DISCUSSIONS

A total of 432 messages were posted in the August 26-27 web dialogue:

Discussions

Thursday, August 27: Review of Poll Responses (View Summary)

Discussion Subject	Messages	Last Updated
Exploration of Poll Results	40	8/28/09 11:32 AM
Implementation issues -- a look into the future	58	8/28/09 11:33 AM

Wednesday, August 26: Understanding H1N1 (View Summary)

Discussion Subject	Messages	Last Updated
Understanding the differences between seasonal and novel H1N1 flu	159	8/27/09 1:36 PM
Assumptions guiding the proposed H1N1 vaccination program approaches	30	8/26/09 10:21 PM
Questions about vaccine safety and efficacy	54	8/27/09 1:04 PM

Wednesday, August 26: Vaccination Program Approaches (View Summary)

Discussion Subject	Messages	Last Updated
Pros and cons of a "GO EASY" approach to a vaccination program	29	8/27/09 1:43 PM
Pros and cons of a "MODERATE EFFORT" approach to a vaccination program	27	8/26/09 11:51 PM
Pros and cons of a "FULL THROTTLE" approach to a vaccination program	35	8/27/09 1:41 PM

On Day 1 of the August 26-27 web dialogue, questions posed in the Understanding H1N1 discussion included concerns about risk among pregnant women, costs of

vaccination vs. benefits for society, incubation periods for H1N1, treatment alternatives to vaccines, financial implications of the vaccination program for small health departments, and the use and safety of adjuvants and thimerosal in vaccines. Participants then discussed the pros and cons of each of the three vaccine program approaches before participating in the Informed Preferences Poll. In the discussion about pros and cons of vaccination approaches, there were further questions posed about vaccine safety, as well as how vaccination would be implemented.

One hundred individuals (100) out of the one hundred sixty seven participants (167) completed the Informed Preferences Poll. Asked which vaccination approach they favored, fifty five (55) individuals (55 percent) preferred Moderate Effort, thirty one (31) individuals (31 percent) preferred Full Throttle, and fourteen (14) individuals (14 percent) preferred Go Easy.

On Day 2 of the August 26-27 web dialogue, participants engaged in discussions about poll results and concerns about vaccination program implementation. Most participants noted that the support for a Moderate Effort allowed the government the flexibility to increase or decrease vaccination efforts if the actual outbreak was larger or smaller than expected. There was also discussion about the extent to which the public would support a Moderate Effort if the government planning scenario predictions of 30,000-90,000 deaths would occur.

EXPERTS

- *Beth Bell*, Acting Director, National Center for Immunization and Respiratory Diseases (NCIRD), CDC
- *Stephanie Dopson*, HHS/CDC
- *Anthony Fiore***,** Medical Epidemiologist, MD, MPH, Captain, Public Health Service, Influenza Division, Centers for Disease Control and Prevention
- *John Iskander*, Senior Medical Consultant, CDC
- *Frank Malinoski*, President and Principal Partner, TD Consultancy, LLC
- *Martin Meltzer*, Senior Economist and Distinguished Consultant, Division of Emerging Infections and Surveillance Service, CDC
- *Kelly Moore*, Medical Director of the Tennessee Immunization Program, Tennessee Department of Health
- *Eleanor Peters*, Epidemiology Specialist, St. Louis County Department of Health

Summary of August 31-September 1 Web Dialogue

PARTICIPANTS

A total of one hundred sixty four (164) people registered for the August 31-September 1 web dialogue. Excluding project staff, panelists, and evaluators, one hundred and forty

nine (149) registrants were actual participants. Top occupational categories among all registrants included health care (31 percent), other (14 percent), education (11 percent), public health (11 percent), and interested individuals (10 percent). Geographic background of registered participants included city (35 percent), suburb (33 percent), small town (16 percent), and rural (11 percent). Top rates among registered participants by location included California (9 percent), New York (6 percent), Georgia (5 percent), New Jersey (5 percent), Virginia (5 percent), and Washington (5 percent). It should be noted that registered participants included University of Nebraska and WestEd staff, and CDC representatives.

DISCUSSIONS

A total of 551 messages were posted in the August 31-September 1 web dialogue:

Discussions

Tuesday, September 1: Review of Poll Responses (View Summary)

Discussion Subject	Messages	Last Updated
Exploration of Poll Results	56	9/1/09 8:49 PM
Implementation issues -- a look into the future	140	9/1/09 11:53 PM

Monday, August 31: Understanding H1N1 (View Summary)

Discussion Subject	Messages	Last Updated
Understanding the differences between seasonal flu and novel H1N1	139	9/1/09 9:04 AM
Assumptions guiding the proposed H1N1 vaccination program approaches	44	9/1/09 9:12 AM
Vaccine safety and efficacy	50	9/1/09 9:16 AM

Monday, August 31: Vaccination Program Approaches (View Summary)

Discussion Subject	Messages	Last Updated
Pros and cons of a "GO EASY" approach to a vaccination program	63	9/1/09 2:08 PM
Pros and cons of a "MODERATE EFFORT" approach to a vaccination program	21	9/1/09 8:10 AM
Pros and cons of a "FULL THROTTLE" approach to a vaccination program	38	9/1/09 8:43 PM

On Day 1 of the August 31-September 1 web dialogue, questions posed in the Understanding H1N1 discussion included concerns about how the risks of H1N1 were being reported, whether or not the vaccine would be voluntary if the pandemic was severe, the use and safety of adjuvants and thimerosal in vaccines, and how harmful H1N1 might be for individuals with vulnerable underlying health conditions.

Seventy seven (77) individuals out of the one hundred forty nine (149) participants completed the Informed Preferences Poll. When asked which vaccination approach they favored, forty four (44) individuals (57 percent) preferred Moderate Effort, eighteen (18) individuals (23 percent) preferred Full Throttle, and fifteen (15) individuals (19 percent) preferred Go Easy.

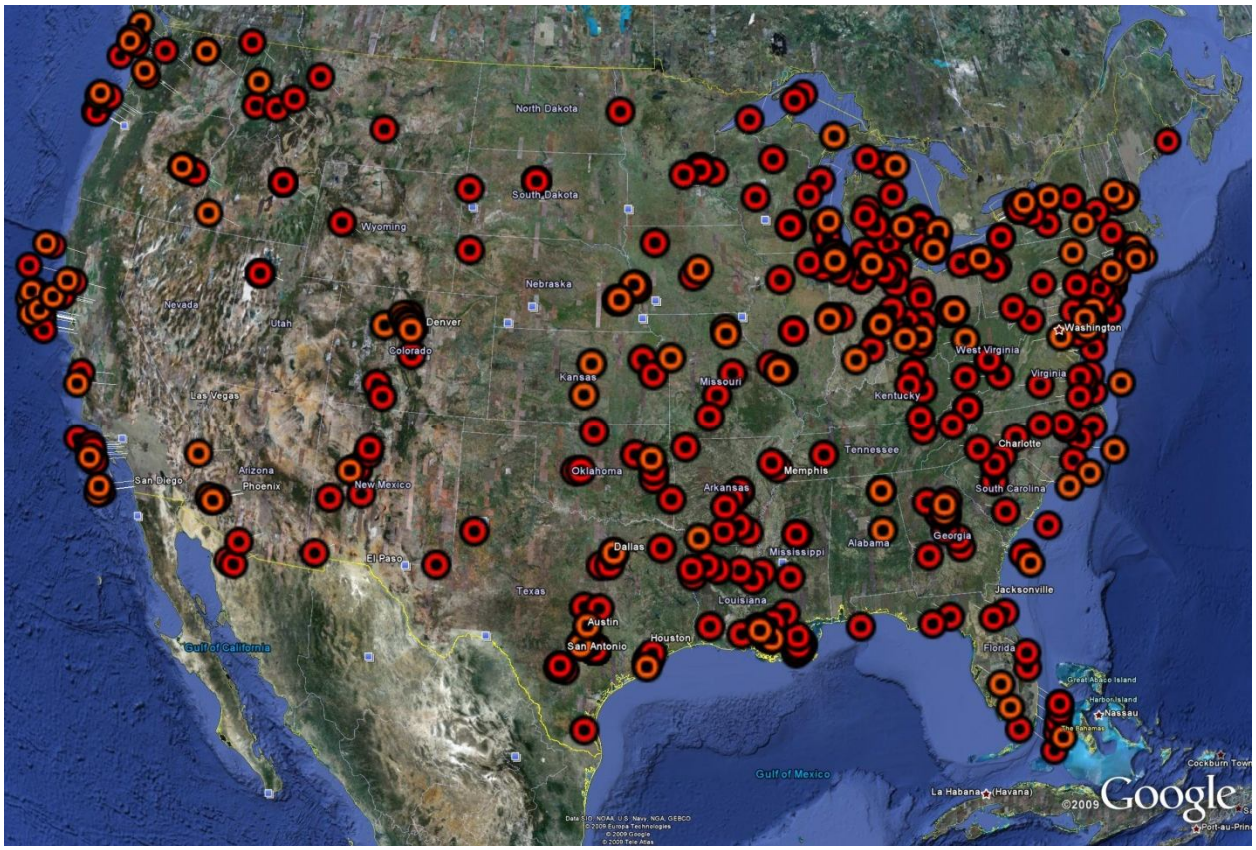
On Day 2 of the August 31-September 1 web dialogue, participants again discussed the poll responses. Further discussion included questions and concerns about ongoing clinical trials, and communication strategies for education about vaccination.

Experts for the August 31-September 1, 2009 web dialogue were the following individuals:

- *Roger Bernier*, Senior Advisor For Scientific Strategy and Innovation, National Center for Immunization and Respirat, CDC
- *Anthony Fiore*, Medical Epidemiologist, MD, MPH, Captain, Public Health Service, Influenza Division , Centers for Disease Control and Prevention
- *John Iskander***,** Senior Medical Consultant, CDC
- *Frank Malinoski*, President and Principal Partner, TD Consultancy, LLC
- *Martin Meltzer*, Senior Economist and Distinguished Consultant, Division of Emerging Infections and Surveillance Service, CDC
- *Eleanor Peters*, Epidemiology Specialist, St. Louis County Department of Health

All together, individuals from forty-four states, the District of Columbia, and the territory of Puerto Rico, participated in the web dialogues.

Figure 6
Location of Web Dialogue Participants



Participant Feedback

Overall, the comments from participants reflected a positive experience:

> "I truly am impressed by both the format and the information that comes out of the discussion. The CDC should be very glad to hear these responses; I'm sure they are pretty indicative of what the general population is thinking. Even after 2 days of discussion, I'm still undecided if I want to get the vaccine, but at least I'm better informed."

A repeated measures factorial MANOVA was performed to examine whether there were any differences between meeting formats on ratings of the meeting process. There is a significant effect of meeting format on the process ratings $F(8, 859)=10.539$, $p<.001$. Five of the eight items contribute to this effect (the three on which there is no difference are "This discussion was fair to all participants", "Important points were left out of our discussion", and "This process helped me better understand the types of trade-offs involved"). On the five contributing items, ratings of the in-person meeting were better than ratings of the web dialogue.

Table 37
Process Ratings for In-Person versus Web Dialogue

	In-Person Meeting	*Web Dialogue*
This discussion was fair to all participants. (a)	3.56 (.694)	*3.51 (.713)*
I felt comfortable talking in this discussion. (b)	3.66* (.612)	*3.20 (.847)*
I think other people in this discussion felt comfortable talking. (c)	3.61* (.584)	*3.31 (.634)*
One person or a small group of people dominated the discussion. (d)	2.10* (1.113)	*2.41 (.883)*
Important points or perspectives were left out of the day's discussion. (e)	2.32 (1.090)	*2.16 (1.022)*
This process produced a valuable outcome. (h)	3.28* (.780)	*2.90 (.665)*
This process has produced credible, relevant and independent information. (j)	3.24* (.827)	*3.03 (.799)*
This process helped me better understand the types of trade-offs involved. (k)	3.32 (.767)	*3.24 (.792)*
Valid N	781	*87*

**significantly higher rating*

Two additional questions about the process were asked only in the web dialogue. On a 1 to 5 scale, with 1 being 'Very Negative', 5 being 'Very positive', and 3 being 'Neither positive nor negative', respondents gave an average rating of 3.06 to the question "Overall, how would you rate your experience in this online dialogue?"

The other question asked only on the web dialogue is "Do you think there should be dialogues on other topics in the future?" On a 1 to 5 scale, with 1 being 'Definitely no', 5 being 'Definitely yes', and 3 being 'Maybe', respondents gave an average score of 3.32 (between 'Maybe' and 'Probably yes').

Comments about the format used in the web dialogue by users who completed the post test ranged from "Very user friendly - quick visuals of information and responses. Excellent summaries," to "The interface was static and new entries were hard to find. Given Web 2.0 technology, the experience could have been made much more user-friendly." A single theme related to the acceptability of format for the web dialogue did not emerge from the open-ended comments made by users.

Some viewers who did not post actual notes on the web dialogue did complete the pre-post surveys and commented that the act of reading and agreeing with posts was beneficial. For example, "I did not comment, because I did not feel it appropriate. I did enjoy reading and "agreeing" with other writers." The process used for the web dialogue was viewed by some as "time consuming" but beneficial:

> "Since I work over 8 hours and commute, I didn't have time to become involved in active conversation with the participants but did devote three hours the first night and two the second night to read the dialogue in the evening."

Stakeholders

A repeated measures factorial MANOVA was performed to examine whether there were any differences between citizens and stakeholders on their ratings of the meeting process. There is no significant effect of participant type (citizen vs. stakeholder) on the process ratings ($F(8, 798)=1.643$, $p=.109$) (see Table 38).

Table 38
Process Ratings for Citizens versus Stakeholders

Mean (SD)	Citizen	Stakeholder
This discussion was fair to all participants. (a)	3.56 (.694)	3.73 (.604)
I felt comfortable talking in this discussion. (b)	3.66 (.612)	3.65 (.562)
I think other people in this discussion felt comfortable talking. (c)	3.61 (.584)	3.62 (.496)
One person or a small group of people dominated the discussion. (d)	2.10 (1.113)	1.46 (.761)
Important points or perspectives were left out of the day's discussion. (e)	2.32 (1.090)	1.73 (.724)
This process produced a valuable outcome. (h)	3.28 (.780)	3.31 (.736)
This process has produced credible, relevant and independent information. (j)	3.24 (.827)	3.23 (.815)
This process helped me better understand the types of trade-offs involved. (k)	3.32 (.767)	3.35 (.629)
Valid N	781	26

Chapter 8: Evaluation Results – Trust in Government

Summary of Findings

- The in-person process tended to increase trust in local government and decrease trust in federal government.
- Trust in health departments tended to be higher than government in general across all levels of government.

Citizen In-Person Meetings

A repeated measures MANOVA indicated that trust in government changed significantly from the pre-survey to the post-survey ($F(6,753)=7.244$, $p<.001$). This was driven by changes at the local and federal level, as there was no change for either the State Health Department or State Government. Ratings of trust increased at the local level for both the Local Health Department and Local Government. Ratings of trust decreased at the federal level for both the CDC and the Federal Government.

Table 39
Trust Ratings Pre to Post Meeting

Government Entity	Pre-Meeting	Post-Meeting
Local Health Department	3.09	3.15*
Local Government	2.75	2.82*
State Health Department	3.03	3.03
State Government	2.77	2.77
U.S. Centers for Disease Control and Prevention (CDC)	3.22*	3.14
Federal Government	2.71*	2.64
*significant change – higher ratings are marked; Rating scale: 1 = Trust Not At All, 4 = Trust Very Much		

Focus group comments supported the findings that citizens generally have a high trust in government, particularly government health agencies:

> "Even though I expressed some apprehension, I do trust CDC. As I've said earlier, I've admired the work that they have done, the people they have involved. I have a lot more confidence that they will be honest in their reporting of the outcomes of these meetings from city to city, and that they will take these with serious consideration. " *Sacramento Focus Group Participant*

> "The CDC knows that public trust is eroding and that they need to do something. I hope they change their tact and become more transparent because I think what they have done in the past has not worked. And I think they heard that loud and clear. I think they are going to hear that in all 10 cities, and I hope

> it promotes the kind of transparency that we all really want." *Denver Focus Group Participant*

Focus groups after each event included at least one person who identified themselves as someone concerned about vaccine safety. Event participants in this group were vocal throughout the process and very concerned about the role of government in the dissemination of vaccine for H1N1. There seemed to be a sense that governmental public health officials were more trusted than politicians as evidenced by numerous comments like this:

> I trust CDC because they are the experts and they will have the final word about the vaccine. ("Confío en CDC ya que ellos son los expertos y tendrán la palabra final acerca de la vacuna"). *El Paso Focus Group Participant*

Some comments were also critical of the media yet the perception was that health officials were trying to deliver accurate information to the public:

> "Please get education started and DO NOT TRUST the media (any level) to get it right. All information should come from State Health Dept and CDC. Get info on TV, Computer, in schools, etc but info should be correct!" *Vincennes participant*

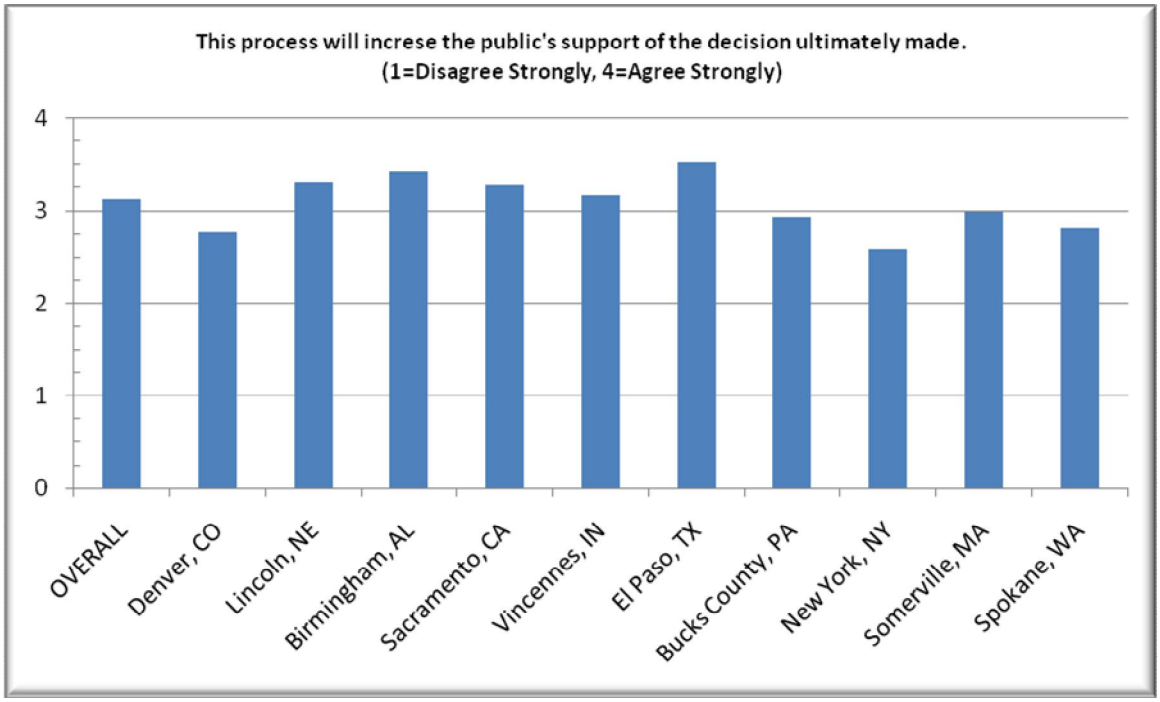
Focus group participants generally indicated that personal health decisions should be reserved for the individual to make in consultation with a trusted professional:

> "Trust in government is not that important; it's not relevant because in the end I am going to my doctor; that's my medical person." *Somerville Focus Group Participant*

Perception of support for decision by meeting location

At all locations, citizens, on average, agreed more than they disagreed with the statement "This process will increase the public's support of the decision ultimately made" (see Figure 6). A univariate ANOVA revealed significant differences between locations in average agreement ($F(9, 821)=8.242$, $p<001$). Follow-up analyses indicate that the lowest rating was given in New York ($M=2.58$), while the next lowest ratings were given in Denver and Spokane (Means=2.76 and 2.81, respectively). The highest ratings were given in El Paso ($M=3.52$), and Birmingham ($M=3.43$), with the second highest ratings given in Lincoln, Sacramento, and Vincennes (Means=3.16 to 3.30). Ratings in Somerville ($M=2.99$) and Bucks County ($M=2.93$) fell in the middle of the ratings.

Figure 7
Perceptions of Support for Decision by Location



Change in trust – differences by location

A repeated measures factorial MANOVA was run to examine the effect of in-person meeting location on change in trust scores. There is a not a significant interaction of change in trust by location ($F(54,4494)=1.208$, $p=.142$); participants in different locations changed about the same amount in the same direction. There is, however, a significant main effect of location on trust ($F(54,4494)=4.401$, $p<.001$). Follow up analyses were performed for each government entity individually.

For the local health departments, the highest ratings of trust were given in Birmingham, Lincoln, El Paso, Vincennes, and Sacramento (Means=3.25 to 3.35); the next highest ratings were given in Spokane, Somerville, Bucks County, and Denver (Means=2.91 to 2.99); and the lowest rating was given in New York (M=2.61).

For the local governments, the highest ratings of trust were given in El Paso, Lincoln, and Birmingham (Means=2.97 to 3.10); the next highest in Sacramento, Somerville, Bucks County, Vincennes, and Spokane (Means=2.60 to 2.85); and the lowest ratings were given in Denver and New York (Means=2.45 and 2.37, respectively).

For the State health departments, the highest ratings of trust were given in Birmingham, El Paso, Lincoln, Sacramento, and Vincennes (Means=3.10 to 3.32); the next highest ratings were given in Somerville, Bucks County, Denver, and Spokane (Means=2.72 to 2.94); and the lowest rating was given in New York (M=2.45).

For the State governments, the highest ratings of trust were given in El Paso and Birmingham (Means=3.23 and 3.17, respectively); the next highest ratings were given in Lincoln, Vincennes, Somerville, Sacramento, and Bucks County (Means=2.64 to 2.90); and the lowest ratings of trust were given in Spokane, Denver, and New York (Means=2.27 to 2.41).

For the CDC, the highest ratings of trust were given in Birmingham, Lincoln, Sacramento, El Paso, and Vincennes (Means=3.38 to 3.52); the next highest rating was given in Bucks County (M=3.13); the third highest ratings were given in Somerville, Denver, and Spokane (M=2.79 to 3.00); and the lowest rating was given in New York (M=2.46).

For the Federal Government, the highest ratings of trust were given in El Paso and Birmingham (Means=3.18 and 3.12, respectively); the next highest ratings were given in Sacramento, Lincoln, Vincennes, Somerville, and Bucks County (Means=2.52 to 2.78); and the lowest ratings were given in Denver, Spokane, and New York (Means=2.15 to 2.27).

Change in trust and perceptions of use and decision support – differences by participant profession

A repeated measures factorial MANOVA was run to examine the effect of being in a health care profession and on change in trust in government. There is not a significant interaction of profession with time of survey ($F(6,746)=0.962$, $p=.450$); participants in both groups changed about the same amount and in the same direction. There is a main effect of being in a health care profession on trust in government ($F(6,746)=12.182$, $p<.001$). Follow-up analyses indicate that this effect is driven by differences in trust of the health departments on the local, state, and federal levels. Those employed in health care professions had higher trust in local health departments, state health departments, and the CDC than did people who were not in health care professions.

Table 40
Trust in Government (Average Ratings) by Profession

Government Entity	In Health Care or Public Health	Not in Health Care or Public Health
Local Health Department	3.32*	3.01
Local Government	2.82	2.78
State Health Department	3.21*	2.94
State Government	2.81	2.75
U.S. Centers for Disease Control and Prevention (CDC)	3.39*	3.06
Federal Government	2.69	2.67

Rating scale: 1 = Trust Not At All, 4 = Trust Very Much
*significant difference – higher ratings are marked

A univariate ANOVA was performed to examine whether there were differences between those in a health profession and those not in a health profession on agreement with the statement "Officials will use our input in their decisions". There is an effect of profession on agreement with this item ($F(1,751)=6.172$, $p=.013$). Those in a health profession ($M=3.13$) agreed with this item more than those not in a health profession ($M=2.96$).

A univariate ANOVA was also performed to examine whether there were differences between those in a health profession and those not in a health profession on agreement with the statement "This process will increase the public's support of the decision ultimately made". There is an not effect of profession on agreement with this item ($F(1,762)=1.159$, $p=..282$).

Change in trust and perceptions of use and decision support – differences by participant demographics

A repeated measures factorial MANOVA was run to examine the effect of any demographic variables (gender, age, ethnicity, education, income, or being a parent/ guardian of a child under 18) on trust in government. There were no interactions with time of survey or main effects on trust in government for: age, ethnicity, education, income, or being a parent/guardian.

There is no interaction of gender by time of survey on trust in government ($F(6,746)=1.106$, $p=.357$) ; the trust ratings of men and women changed about the same amount and in the same direction. There is a main effect of gender on trust in government ($F(6,746)=9.429$, $p<.001$). For all government entities, at both the pre-

survey and the post-survey, women consistently gave higher ratings of trust than did men.

A univariate ANOVA was performed to examine whether there were differences based on demographic variables on agreement with the statement "Officials will use our input in their decisions". There are no effects of any demographic variables on agreement with this item.

A univariate ANOVA was also performed to examine whether there were differences based on demographic variables on agreement with the statement "This process will increase the public's support of the decision ultimately made". There is an effect of ethnicity on agreement with this item ($F(3,561)=3.344$, $p=..019$). Those in the Hispanic ($M=3.47$) and Black/African-American ($M=3.34$) ethnic groups agreed with this item more than did those in the White/Caucasian ($M=2.96$) and Other ($M=2.98$) ethnic groups.

There is also an effect of income on agreement with the statement "This process will increase the public's support of the decision ultimately made" ($F(5,561)=2.940$, $p=.012$). Those in the lowest income group (Less than $15,000; $M=3.43$) agreed with this item more than did those in the next lowest income group ($15,000 - $34,999; $M=3.23$). Both of these groups agreed with the item more than did the four higher income groups, which did not differ from each other.

Change in trust in government – differences by flu shot last year

A repeated measures factorial MANOVA was used to examine whether those who regularly get a flu shot (indicated by the item "Did you get a flu shot last year") differed from those who do not regularly get flu vaccines on trust in government. There is not a significant interaction of having gotten a flu shot last year by time of survey on trust in government ($F(6,701)=1.230$, $p=.289$); those who did and did not get flu shots changed their trust ratings about the same amount and in the same direction.

There is, however, a main effect of having gotten a flu shot on trust in government ($F(6,701)=15.214$. $p<.001$). This is the case for all government entities. Those who got a flu shot last year indicated more trust in government than did those who did not get a flu shot last year.

Table 41
Trust in Government (Average Ratings) by
Whether Respondent Got a Flu Shot Last Year

Government Entity	Did Get a Flu Shot	Did Not Get a Flu Shot
Local Health Department	3.33*	2.89
Local Government	2.91*	2.64
State Health Department	3.25*	2.79
State Government	2.91*	2.60
U.S. Centers for Disease Control and Prevention (CDC)	3.48*	2.86
Federal Government	2.84*	2.50

Rating scale: 1 = Trust Not At All, 4 = Trust Very Much
*significant difference – higher ratings are marked

Trust in government– differences related to change in knowledge

A repeated measures MANOVA with change in knowledge score as a covariate was performed to determine whether change in knowledge was related to trust in government. There is no interaction of change in knowledge with time of survey on trust in government ($F(6,751)=0.462$, $p=.837$). There is also no main effect of change in knowledge on overall trust in government ($F(6,751)=0.427$, $p=.861$).

A univariate ANOVA with change in knowledge as a covariate was performed to examine whether there was an effect on agreement with the statement "Officials will use our input in their decisions". There is no effect of change in knowledge on agreement with this item ($F(1,757)=0.325$, $p=.569$).

A univariate ANOVA with change in knowledge as a covariate was also performed to examine whether there was an effect on agreement with the statement "This process will increase the public's support of the decision ultimately made". There is no effect of change in knowledge on agreement with this item ($F(1,768)=0.553$, $p=.376$).

Trust in government– differences related to process ratings

A repeated measures MANOVA with overall process score as a covariate was performed to determine whether process rating was related to trust in government. There is an interaction of process rating with time of survey on trust in government ($F(6,715)=2.921$, $p=.008$). This interaction applied to ratings of trust in the local health department, the CDC, and the federal government. For all of these government entities, process rating and trust had stronger positive correlations at the post-survey than at the pre-survey.

There is also a main effect of process rating on trust in government ($F(6,715)=34.069$, $p<.001$). At both the pre-survey and post-survey, for all government entities, trust was positively correlated with process ratings.

Correlations of overall process rating with the statements "Officials will use our input in their decisions", and "This process will increase the public's support of the decision ultimately made" were run. Overall process rating was positively correlated with both of these items ($r(815)=.532$, $p<.001$; and $r(830)=.621$, $p<.001$, respectively).

Flu vaccine behavior and intentions

A McNemar's chi-square was performed to determine whether there was any increase in participants who got the flu shot last year and those to intend to get a flu shot for 2009 novel H1N1. There is a significant difference, $\chi^2(706)=169.379$, $p<.001$. Of the participants who responded to both questions, 50.8 percent stated they got the flu shot last year, and 61.3 percent stated they intend to get a flu shot for 2009 novel H1N1.

Reasons people provided for not wanting to get the 2009 novel H1N1 flu shot were coded into categories. The most common reason stated for not wanting to get the flu shot was concern about safety and effectiveness of the vaccine, or vaccine side effects (38.8 percent). The next highest category were personal reason (23.6 percent cited religion, prefer homeopathic medicine, don't feel at risk for the virus, already got the virus for immunity, never get vaccinated). Other reasons stated for not getting the vaccine were a desire for more information (14.3 percent), not being in a priority group (10.2 percent), reactions to previous vaccine or vaccine risks such as egg allergies or autoimmune disorders (8.4 percent), and lack of trust in the federal government and/or pharmaceutical companies (4.7 percent).

There is a significant correlation between income and having received a flu shot last year ($r(770)=.168$, $p<.001$). A follow-up univariate ANOVA indicates that those in the Less than $15,000 income group (32 percent) are less likely to have received the flu shot than those in the $15,000 - $34,999 income group (46 percent). People in these lowest two income groups were less likely to get the shot than people in the four highest income groups, which did not differ from each other.

Web Dialogue

A repeated measures MANOVA was performed to examine whether there was a change in trust in government by meeting format. There is not a significant interaction between meeting format and time of survey ($F(6,829) = 1.914$, $p=.076$); on average, participants in the web dialogue and the in-person meetings changed their trust ratings about the same amount and in the same direction. There is a significant main effect of meeting format ($F(6,829) = 6.096$, $p<.001$). This effect is driven by differences in trust of Local

and State governments. Web dialogue participants indicated less trust in these two entities than did participants at the in-person meetings.

There is also a significant main effect of time of survey on trust in government ($F(6,829)=2.554$, $p=.019$). Trust ratings of Local governments contributed to this effect. Participants in both the web dialogue and the in-person meetings indicated greater trust in their local government at the post-survey than at the pre-survey.

A repeated measures MANOVA with web dialogue participants only, indicates that for web dialogue participants there is no effect of time of survey on trust in government ($F(6,71)=2.026$, $p=.073$).

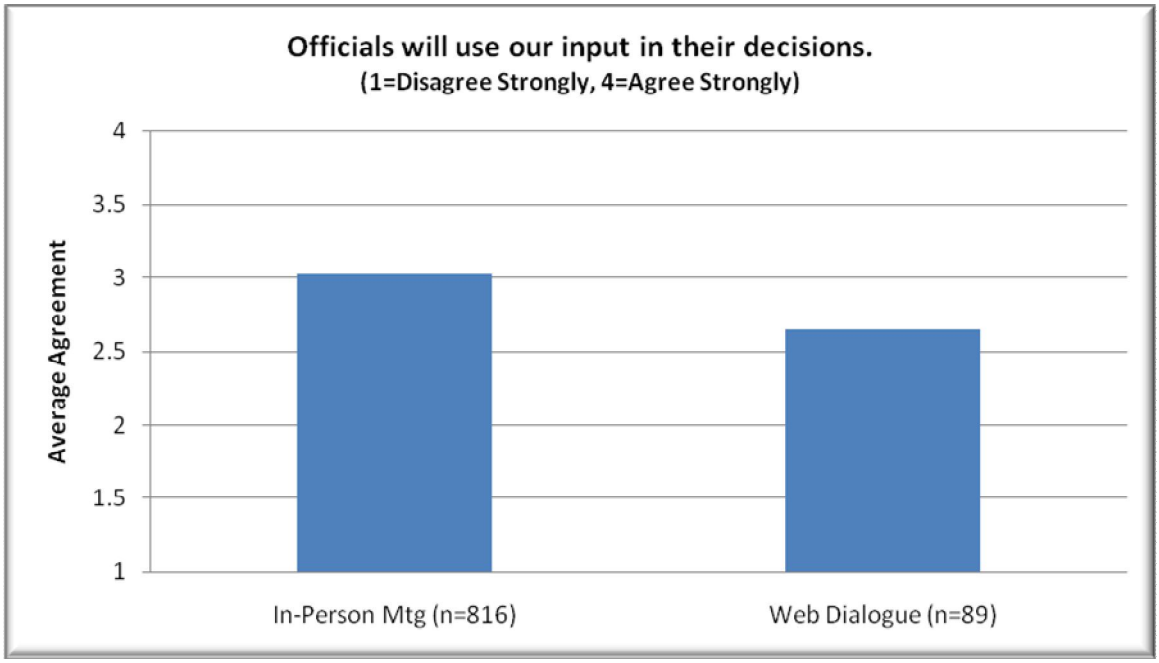
Table 42
Trust Ratings for In-Person versus Web Dialogue

	In-Person Meeting		Web Dialogue	
	Pre	Post	Pre	Post
Local Health Department	3.09 (.887)	3.15* (.859)	2.99 (.910)	2.96 (.910)
Local Government	2.75 (.890)	2.82* (.881)	2.55 (.820)	2.64 (.857)
State Health Department	3.03 (.922)	3.03 (.899)	3.01 (.896)	2.96 (1.006)
State Government	2.77 (.928)	2.77 (.914)	2.58 (.894)	2.47 (.867)
U.S. Centers for Disease Control and Prevention (CDC)	3.22 (1.013)	3.14* (1.020)	3.32 (.924)	3.36 (.945)
Federal Government	2.71 (1.008)	2.64* (1.004)	2.75 (.962)	2.73 (.868)
Valid N	759	759	77	77

*significant change

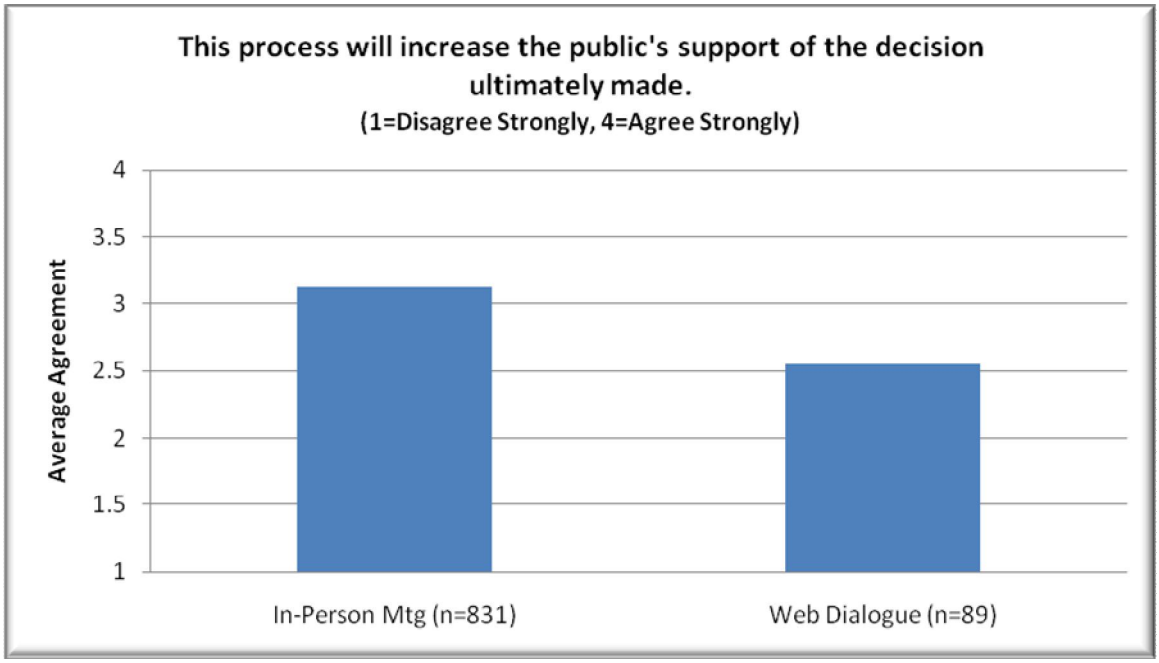
There is a significant difference in average agreement between web dialogue participants and in-person meeting participants ($F(1,903)=15.733$, $p< .001$) with the statement "Officials will use our input in their decisions". Web dialogue participants ($M=2.65$) agreed with this item significantly less than did in-person meeting participants ($M=3.02$).

Figure 8
Perceptions of Use of Input: In-Person versus Web Dialogue



There is a significant difference in average agreement between web dialogue participants and in-person meeting participants, ($F(1,918)=36.864$, $p<..001$) with the statement "This process will increase the public's support of the decision ultimately made". Web dialogue participants ($M=2.55$) agreed with this item significantly less than did in-person meeting participants ($M=3.12$).

Figure 9
Perceptions of Support for Decisions: In-Person versus Web Dialogue



A McNemar's chi-square was performed to determine whether there was any increase in web dialogue participants who got the flu shot last year and those who intend to get a flu shot for 2009 novel H1N1. There is no significant difference, $\chi^2(1)=14.835$, p=.359. Of the web dialogue participants who responded to both questions, 64.9 percent stated they got the flu shot last year, and 71.4 percent stated they intend to get a flu shot for 2009 novel H1N1.

Stakeholders

A repeated-measures MANOVA was performed to examine whether there was a change in trust in government by participant type (citizen vs. stakeholder). There is not a significant interaction between participant type and time of survey ($F(6,776) = 1.580$, p=.150); stakeholders and citizens changed their trust ratings about the same amount in the same direction, on average. There is a significant main effect of participant type ($F(6,776) = 4.396$, p<.001). This effect is driven by differences in trust of State health departments and of the CDC. Citizens indicated less trust in these two entities than did stakeholders. This is not surprising since many of the stakeholders were employed by state and local health departments.

There is not a significant main effect of time of survey on trust in government ($F(6,776)=1.536$, p=.164). A repeated measures MANOVA with stakeholders only,

indicates that for stakeholders there is no effect of time of survey on trust in government (F(6,18)=1.128, p=.385).

Table 43
Trust Ratings for Citizens versus Stakeholders

	Citizen		Stakeholder	
Mean (SD)	Pre	Post	Pre	Post
Local Health Department	3.09 (.887)	3.15* (.859)	3.37 (.711)	3.46 (.658)
Local Government	2.75 (.890)	2.82* (.881)	2.92 (.830)	2.71 (.751)
State Health Department	3.03 (.922)	3.03 (.899)	3.58 (.717)	3.42 (.830)
State Government	2.77 (.928)	2.77 (.914)	2.92 (.776)	2.67 (.868)
U.S. Centers for Disease Control and Prevention (CDC)	3.22 (1.013)	3.14* (1.020)	3.71 (.690)	3.71 (.751)
Federal Government	2.71 (1.008)	2.64* (1.004)	3.08 (.776)	2.96 (.806)
Valid N	759	759	24	24

*significant change

Interpretation of Results

Because of the interesting findings for this study – the decrease in trust for federal level of government and the increase in trust for local government, we examine potential explanations. An abundance of theoretical and empirical commentary and studies of trust in government exist in fields ranging from political science to psychology to economics (Benesh, 2006; Dougherty, Lindquist & Bradbury, 2006; Parent, Vandebeek & Gemino, 2005; Phelan, 2005; Rousseau, Sitkin, Burt & Camerer, 1998). Sharp differences exist in how to properly define and measure trust and its characteristics, determine distinguish trust from confidence, and similar definitional problems (Dalton, 2005; Kampen, Van De Walle, Bouckaert, 2006; Van Ryzin, 2007;). What is clear is the general notion that trust in government has been decreasing in recent years, whether due to perceptions of poor performance, scandals, media influence, or other social trends (Bélanger & Carter, 2008; Blind, 2006; Hetherington, 2005; Rahn & Rudolph, 2005; Weitz-Shapiro, 2008).

Differences of opinion also exist in regards to the causal connection between public participation and trust in government. Famously, Robert Putnam theorized that civic engagement generally creates trust both in civil society institutions and government

(Putnam 2000, 2003). But competing positions exist that assert that it is trust in government that causes civic engagement, and not the other way around (Job, 2005).

There have been few empirical studies measuring changes in trust after deliberative experiences. Of those that have been done, however, many tend to measure trust in government as a general concept, rather than in specific governmental entities. After a deliberative poll about the Australian constitutional referendum, Luskin and Fishkin reported that participants had greater trust in government than both non-participants and an independent control group (2002). However, other research on deliberative polling found that deliberation had no significant effects on trust in government (Luskin, Fishkin, Boucher & Monceau, 2007). Park, Jowell, and McPherson found that in a deliberative poll about Britain's national health service, participant trust in making medical decisions moved towards individual physicians and away from government, suggesting greater trust in people or entities within a more personal locus of familiarity (1998).

It is yet unclear how the process of deliberation results in specific outcomes. Although on one level, positive measures of political efficacy have been shown to increase as a result of a deliberative experience (Gastil, 2000; Gastil, Deess & Weiser, 2000), less clear outcomes have also been identified. Some deliberative experiences can result in poor outcomes due to tensions related to the involvement of stakeholder groups or other reasons (Button & Mattson, 1999; Hendriks, 2002).

Although the literature is mixed about the impact of public deliberations on trust in government, the results in this evaluation are consistent with results the evaluators have found in other evaluations on public engagement (see Attachment 2 for a summary of these previous evaluation results). A possible explanation is that citizens felt empowered through the deliberations and, as a result, favored more local control of decision making.

- For the H1N1 Vaccine Project, citizens at in-person meetings had more trust in local health departments and local government making decisions and less trust in federal government and the CDC in making these decisions. There were no significant changes for the web dialogue and the stakeholder meeting.
- For the 2007 Public Engagement Project on Pandemic Influenza, we found a significant increase in preference for local health departments to make decisions about vaccines; the preference for the CDC to make these decisions was slightly lower after the meeting, but not statistically significant. The CDC received the highest preference to make these decisions both before and after the meeting. For stakeholders, the CDC received a significantly lower rating at the end of the meeting and state health departments and state government received significantly higher ratings.
- In the evaluation of the Community Control Measures Project, we did not include the CDC as an option on the pre-post surveys. For citizens, the preference for federal government, state government, and state health

departments making decision decreased significantly, and the preference for local health departments increased significantly. Stakeholders rated federal government significantly lower at the end of the meeting, and local government significantly higher.

- For the 2005 Public Engagement Process on Pandemic Influenza, both citizens and stakeholders (with the exception of citizens in Atlanta) were less likely to believe the CDC should make decisions about vaccine and more likely to believe state health departments should make these decisions.

Chapter 9: Evaluation Results – Citizen Empowerment

Summary of Findings

- Citizens reported intent to increase civic activities after participating in the deliberative process.
- There were significant differences in citizen empowerment across the 10 meeting locations.

Citizen In-Person Meetings

Change in empowerment

A three-way univariate repeated measures MANOVA was performed to examine any differences between citizen empowerment behaviors exhibited in the past 12 months, intentions at the pre-survey for the next 12 months, and intentions on the post-survey for the next 12 months. There is a significant difference across time in empowerment behaviors ($F(12,702)=16.500$, $p<.001$). Follow-up analyses indicated there was no effect across time on "Voted/Vote in an election" ($F(1,713)=2.181$, $p=.140$). All other items contributed to the effect. For these items, reported past behavior was lower than intended future behavior on both the pre-survey and the post-survey. Intended behaviors did not differ from each other between survey times. Because of this non-difference of intention at the pre-survey and post-survey, and for ease of interpretation, all subsequent analyses in this section compare reported behaviors in the past 12 months to intended behaviors on the post-survey only.

Many of the focus group participants and survey respondents indicated in comments that they intended to take information from the meetings back to their own constituency groups (e.g. paid or volunteer work sites; neighborhoods; extended family groups). Some left with a sense of urgency about having more information available to the public similar to the presentation at the public engagement event they attended. Although many of the focus group attendees identified themselves as active and engaged in their communities, some noted that there appeared to be a number of people in attendance who seemed to have been less involved in local civic activity in the past. One Somerville participant who described himself as very civically active said: "There were a lot of people here that I don't see at local meetings." It was unclear if empowerment of these individuals will result from their participation in this event.

Citizen empowerment – differences by location

To examine differences in empowerment behaviors/intentions by meeting location, a repeated measures factorial MANOVA was used. There is an interaction of location with time of survey ($F(54,4404) = 1.752$, $p=.001$). There are four empowerment items included in this effect. For "Voted/Vote in an election" there was a significant increase

between past behavior and future intention in El Paso, but there were no differences in other cities. For "Contact an elected official", there was a significant increase in Lincoln, Birmingham, El Paso, New York, and Somerville, with no differenced in other cities. For "Donate to or raise funds for a charity", there was significant increase in Birmingham, El Paso, New York, and no differences in other cities. For "Work on or donate funds to an election campaign", there was a significant increase in El Paso and in New York, and no differences in other cities.

There is also a significant main effect of meeting location on overall citizen empowerment ($F(54,4404)=3.436$, $p<.001$). Five of the empowerment items are included in this effect. The locations which gave the statistically highest and lowest importance ratings on each item are listed in Table 44 below.

Table 44
Citizen Behavior Ratings

Behavior/Intention	Gave Highest Rating	Gave Lowest Rating
Vote(d) in an election	All locations except El Paso	El Paso
Contact(ed) an elected official	New York Somerville	El Paso Sacramento
Attend(ed) a meeting of a local board	New York Vincennes Sacramento Somerville El Paso	Bucks County Lincoln
Volunteer(ed) in your community	None	none
Donate(d) to or raise(d) funds for a charity	Bucks County	El Paso
Work(ed) on or donate(d) to an election campaign	Denver Somerville	El Paso

As expected from the overall analysis, there is a main effect of time of survey on empowerment behavior/intentions ($F(6,729)=20.659$, $p<.001$). For all behaviors/intentions except "Vote(d) in an election", reported past behavior was lower than intended future behavior.

Citizen empowerment – differences by participant profession

A repeated measures factorial MANOVA was run to examine the effect of being in a health care profession on empowerment behaviors/intentions. There is not a significant interaction of profession with time of survey ($F(6,731)=1.956$, $p=.070$); participants ratings changed the same amount regardless of whether they were or were not in a health profession. There is a main effect of being in a health care profession ($F(6,731)=5.571$, $p<.001$) on empowerment behaviors/intentions. This main effect was driven by the items: "Vote(d) in an election", "Volunteer(ed) in your community", "Donate(d) to or raise(d) funds for a charity", and "Work(ed) on or donate(d) to an election campaign". As observed in table 45, those in a health profession were more likely to say they both did and planned to vote in an election, volunteer in their community, and donate to or raise funds for a charity. Those not in health professions are more likely to say they both did and planned to work on or donate to an election campaign.

Table 45
Empowerment Behavior/Intention by Profession

	Percent of Respondents Reporting Behavior/Intention	
Empowerment Behavior/Intention	**In Health Care or Public Health**	**Not in Health Care or Public Health**
Vote(d) in an election	.87*	.82
Contact(ed) an elected official or their staff	.61	.60
Attend(ed) a meeting of a local board	.58	.55
Volunteer(ed) in your community	.86*	.80
Donate(d) to or raise(d) funds for a charity	.89*	.79
Work(ed) on or donate(d) to an election campaign	.34	.42*

*significant difference – higher percentages are marked

Citizen empowerment – differences by participant demographics

A repeated measures factorial MANOVA was run to examine the effect of any demographic variables (gender, age, ethnicity, education, income, or being a parent/guardian of a child under 18) on empowerment behaviors/intentions. There were no interactions with time of survey or main effects on empowerment behaviors/intentions for: gender, age, ethnicity, or being a parent/guardian.

There is an interaction of education with time of survey on empowerment behaviors/intentions ($F(24,2176)=2.348$, $p<.001$). Follow-up analyses indicate this effect is driven by the items "Vote(d) in an election", "Volunteer(ed) in your community", "Donate(d) to or raise(d) funds for a charity", and "Work(ed) on or donate(d) to an election campaign". For all of these items, the percentage of people endorsing the item increased from past behavior to future intention for those who completed less than high school or were high school graduates. Those who had completed some college also had an increase in the percent of people endorsing "Work(ed) on or donate(d) to an election campaign". There were no other differences between past behavior and future intention for any of the other education groups. There is no main effect of education on empowerment behaviors/intentions when collapsed across time of survey ($F(24,2176)=0.758$, $p=.793$).

There is no interaction of income with time of survey on empowerment behaviors/intentions ($F(30,2725)=1.224$, $p=.187$); all income groups reported future intentions greater than their past behaviors. There is a main effect of income on empowerment behaviors/intentions ($F(30,2725)=1.845$, $p=.003$). The only item that contributes to this effect is "Donate(d) to or raise(d) funds for a charity". Follow-up analyses indicate that those in the Less than $15,000 income group (57.5 percent) were the least likely to endorse this item, followed by those in the $15,000 - $34,999 income group (68.5 percent), which in turn was followed by the $35,000 - $49,999 income group (85.5 percent). Those in the top three income groups were the most likely to endorse this item, and did not differ from each other (all endorsement rates above 90 percent).

Citizen empowerment – differences related to process ratings

A repeated measures MANOVA with overall process score as a covariate was performed to determine whether process rating was related to empowerment behaviors/intentions. There is an interaction of process rating with time of survey for empowerment behaviors/intentions ($F(6,727)=6.624$, $p <.001$).

This interaction applied to five of the empowerment behaviors/intentions, excluding "Volunteer(ed) in your community". For three of the contributing items("Contact(ed) an elected official or their staff," "Donate(d) to or raise(d) funds for a charity," and "Work(ed) on or donate(d) to an election campaign") process rating was negatively correlated with having performed the behavior in the past, but not correlated with future intention to perform the behavior.

For the item "Attend(ed) a meeting of a local board," process rating was not significantly correlated with having performed the behavior in the past, but was positively correlated with future intention to perform the behavior.

For the item "Vote(d) in an election," process rating had a negative but non-significant correlation with having performed the behavior in the past, while it had a positive but non-significant correlation with future intention to perform the behavior.

There is also a main effect of process rating on engagement behavior/intentions ($F(6,727)=5.664$, $p<.001$). At both the pre-survey and post-survey, for "Volunteer(ed) in your community," process rating was positively correlated with endorsement of the item.

Relationship of past empowerment behavior to goals/values

An empowerment index (indicating degree of empowerment at the time of the pre-survey) was created by summing the number of empowerment behavior items endorsed by a participant. A repeated measures MANOVA was then run using this empowerment index as a covariate to determine any effect on goals/values. There is no significant interaction of empowerment by time of survey on importance ratings of goals/values ($F(14,573)=0.733$, $p=.741$); empowerment related to the pre-survey goals/values the same way that it related to the post-survey goals/values.

There is, however, a main effect of empowerment on the importance rating of goals/values ($F(14,573)=3.491$, $p<.001$). Seven of the fourteen goal/value items contribute to the main effect. The empowerment index is significantly negatively correlated with "Treat everyone the same" ($r(586)= -.204$, $p<.001$); "Protect the maximum number of people from the risk of getting a novel H1N1 virus" ($r(586)=- .115$, $p=.006$); "Ensure that public safety is a priority in a flu pandemic" ($r(586)= -.078$, $p=.049$); "Move forward to protect people even if all the details are unknown" ($r(586)= -.083$, $p=.048$); "Limit expenditure of government resources" ($r(586)= -.111$, $p=.011$); "Collect sufficient information before making major decisions" ($r(586)= -.090$, $p=.050$); and "Ensure there is enough vaccine even if it means moving resources from other public services" ($r(586)= -.120$, $p=.018$). The negative correlation indicates that those who have engaged in more empowerment behaviors tended to disagree with these items.

Web Dialogue

For analysis of the web data on citizen empowerment, "Attended a meeting of a local board" was not included in the analysis because past behavior on this item was not asked of web dialogue participants.

A three-way repeated measures factorial MANOVA was performed to examine any relationship between time (three levels: behaviors exhibited in the past 12 months, intentions at the pre-survey for the next 12 months, and intentions on the post-survey for the next 12 months) and meeting format. There is not a significant interaction of

time and meeting format (F(10,794)=1.301, p=.226); web dialogue participants and in-person meeting participants endorsed behaviors/intentions similarly across time.

There is, however, a significant main effect of meeting format (F(5,799)=5.593, p<.001). Four of the five behaviors/intentions contributed to this effect: Vote(d) in an election; Contact(ed) an elected official; Volunteer(ed) in your community; and Donate(d) to or raise(d) funds for a charity. Across behaviors and intentions at both survey times, web dialogue participants were more likely to say they had/planned to perform these behaviors.

There is also a main effect of time on empowerment (F(10,794)=2.660, p=.003). Two empowerment items contributed to this effect: Contact(ed) an elected official; and Volunteer(ed) in your community. The pattern across time was the same as for the in-person meeting-only analysis described previously: reported past behavior was lower than intended future behavior on both the pre-survey and the post-survey, and intended behaviors did not differ from each other between survey times.

A three-way univariate repeated measures MANOVA for web dialogue participants only, was performed to examine any differences between empowerment behaviors exhibited in the past 12 months, intentions at the pre-survey for the next 12 months, and intentions on the post-survey for the next 12 months. For web dialogue participants, there is no significant difference across time in empowerment behaviors/intentions (F(9,68)=1.041, p=.418).

Stakeholders

A three-way repeated measures factorial MANOVA was performed to examine any relationship between time (three levels: behaviors exhibited in the past 12 months, intentions at the pre-survey for the next 12 months, and intentions on the post-survey for the next 12 months) and type of participant (stakeholders vs. citizens). There is not a significant interaction of time and participant time (F(12,727)=0.525, p=.899); stakeholders and citizens-at-large endorsed behaviors/intentions similarly across time.

There is, however, a significant main effect of participant type (F(6,733)=2.335, p=.031). Three behaviors/intentions contributed to this effect: Vote(d) in an election; Contact(ed) an elected official; and Work(ed) on or contribute(d) to an election campaign. Across behaviors and intentions at both survey times, stakeholders were more likely to say they had voted/planned to vote in an election and that they had contacted/planned to contact an elected official. Citizens were more likely to say they had worked on or donated to/planned to work on or donate to an election campaign.

There is also a main effect of time on empowerment (F(12,727)=2.086, p=.016). Three empowerment items contributed to this effect: Contact(ed) an elected official;

Attend(ed) a meeting of a local board; and Volunteer(ed) in your community. The pattern across time was the same as for the citizen-only analysis described previously: reported past behavior was lower than intended future behavior on both the pre-survey and the post-survey, and intended behaviors did not differ from each other between survey times.

A three-way univariate repeated measures MANOVA for stakeholders only, was performed to examine any differences between empowerment behaviors exhibited in the past 12 months, intentions at the pre-survey for the next 12 months, and intentions on the post-survey for the next 12 months. For stakeholders, there is no significant difference across time in empowerment behaviors/intentions $F(10,16)=0.852$, $p=.591$).

Chapter 10: Evaluation Results – Perceptions about Use of the Public Input

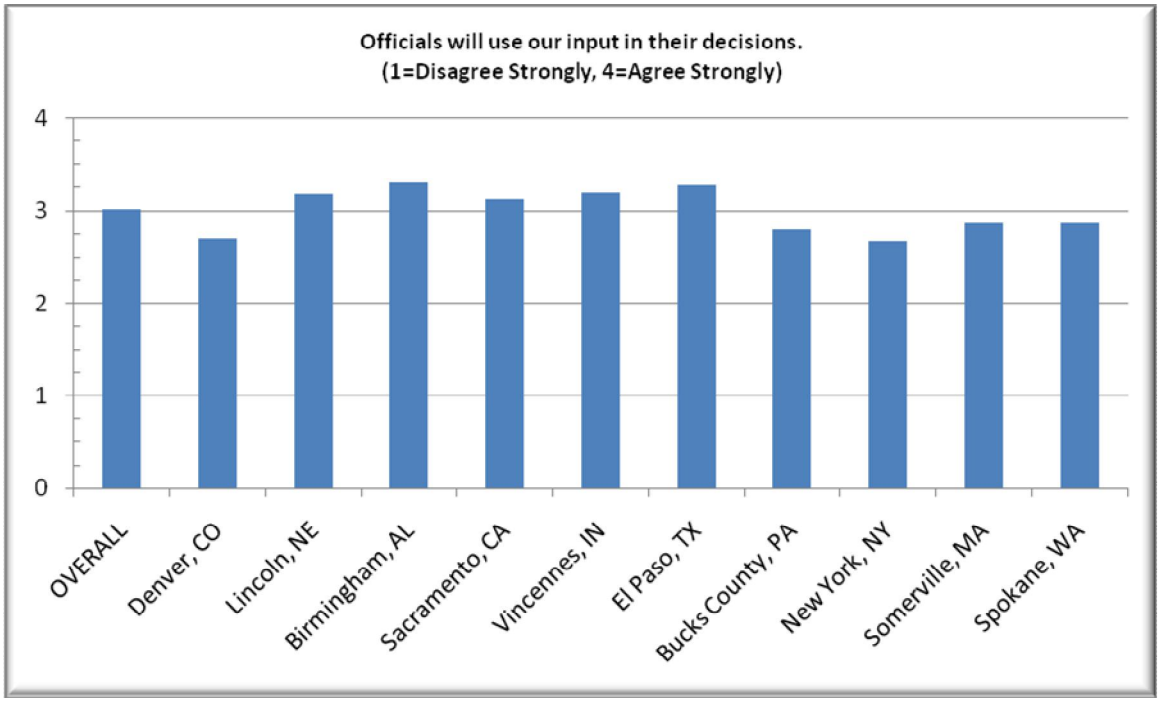
Summary of Findings

- Citizens tended to believe public officials would use their input from the deliberations.
- The perceptions of use of the information varied by location with citizens from Alabama, Texas, Indiana, Nebraska, and California more likely to believe their input would be used.
- The presence of high level public officials at the meetings was cited as evidence that the input would be taken seriously.
- Stakeholder comments were generally less hopeful than citizens' that the public engagement process would actually be used by decision makers in public health.
- Stakeholders thought citizen input should be considered, but the planning for the pandemic was already well underway in local jurisdictions.
- Both citizens and stakeholders tended to believe that the public engagement process would increase public support for policy decisions.

Citizen In-Person Meeting

At all locations, citizens, on average, agreed more than they disagreed with the statement "Officials will use our input in their decisions" (see Figure 9). A univariate ANOVA revealed significant differences between locations in average agreement ($F(9, 806)=4.838$, $p<.001$). Follow-up analyses indicate that the lowest ratings were given in New York, Denver, Bucks County, Somerville, and Spokane, which did not differ from each other (Means=2.67 to 2.86). The highest ratings were given in Birmingham, El Paso, Vincennes, Lincoln, and Sacramento, which did not differ from each other (Means=3.13 to 3.30).

Figure 10
Perceptions of Use of Input by Location



Participants expressed hope in focus groups and on surveys that the work done in these sessions would be used by decision makers. Many said that the presence of high ranking health officials at the event was an indication that their input would be taken into consideration: "I hope that our opinion is taken seriously and used." *El Paso participant* Some, however, were skeptical. For example:

> "I think this meeting was conducted so the gov't could say--see we included the peoples opinion it won't amount to anything and they will do what they intend to do regardless." *Denver participant*

Stakeholders

Stakeholders were asked at the end of the meeting how they used the input collected previously from citizens that was presented to the stakeholders during their meeting. Of the stakeholders who responded to this question, 66.7 percent stated they used citizen input to understand and consider different citizen viewpoints or to reconsider their own assumptions; 33.3 percent stated they used citizen input to reconsider public health strategies such as vaccine distribution and communication/education.

Stakeholder comments were generally less hopeful than citizens that the public engagement process would actually be used by decision makers in public health.

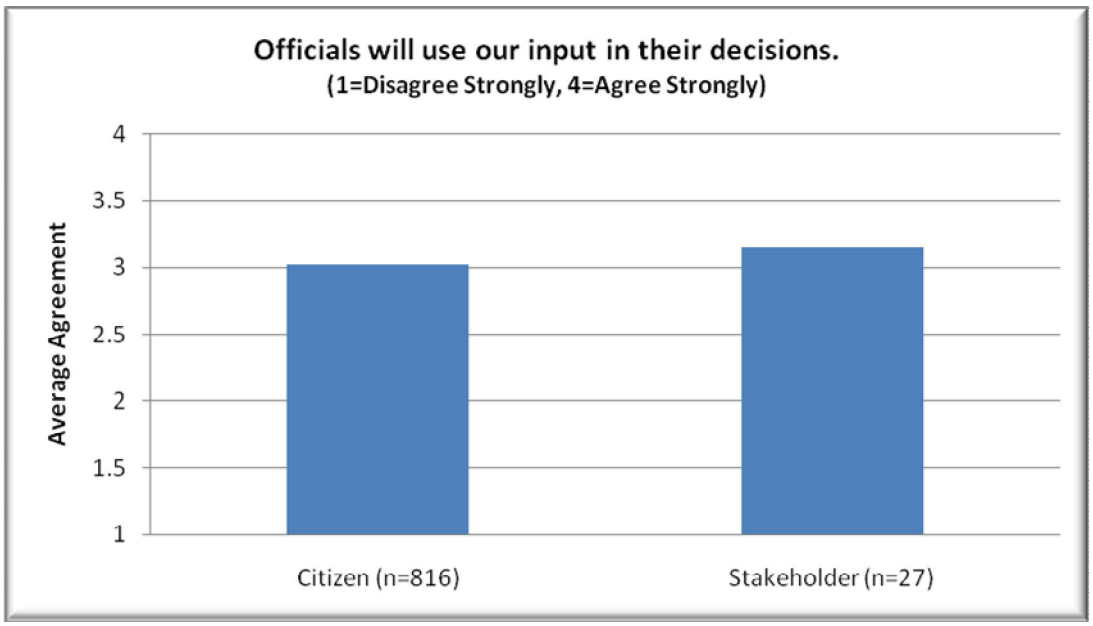
> "I don't think this process produced any meaningful results. Public health agencies are not going to change their plans based on this, nor should they." *Stakeholder*

The message that came through for the stakeholders was that the information from citizens should be taken into account, but the planning for the pandemic was already well underway in local jurisdictions. The key area of impact for citizen input for stakeholders seemed to be related to how citizens are given information about novel H1N1 vaccine policy decisions rather than altering the decisions already made. One stakeholder captured this in the following comment: "I do think there's a misunderstanding of what rich communication is: People think its persuasive communication to get people to do things they don't want to by using clever catchphrases. No, rich communication is interactive. It's hearing interests and concerns and incorporating them into messages and the policy that underwrites your messages." There were a few comments about the need to be more mindful of the citizen input, for example:

> "We need to listen for real. And when the advice seems good, if we listened for real, we should be able to decide if it's good advice or not, and if its good advice, we need to integrate it into our policy." *Stakeholder*

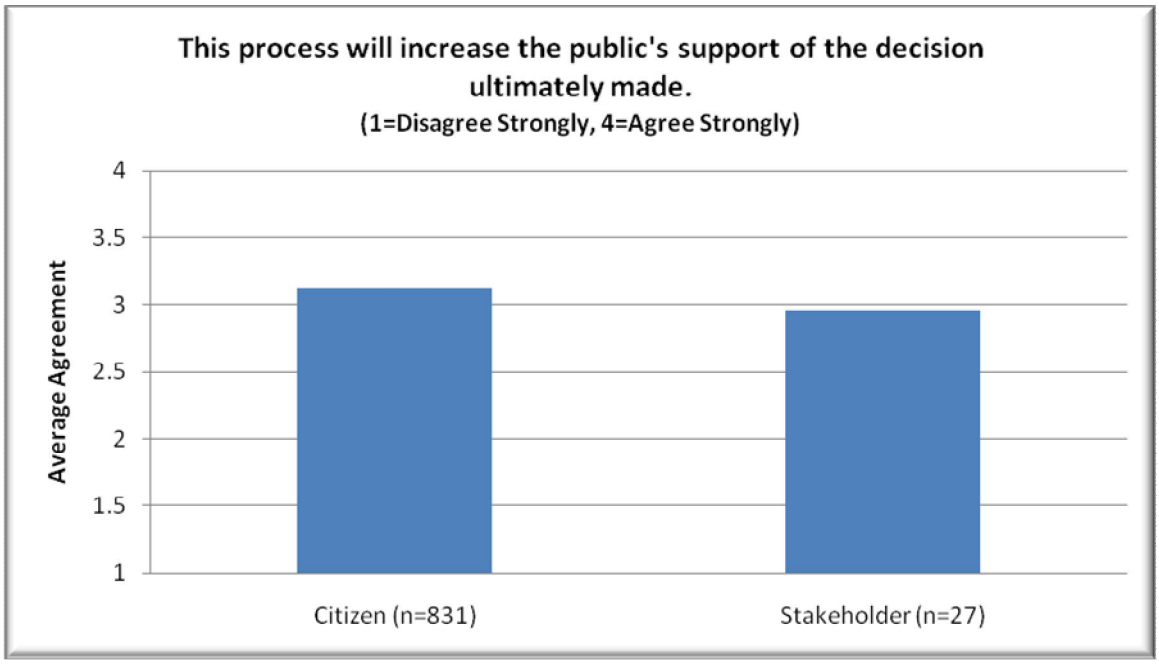
There is not a significant difference in average agreement between stakeholders and citizens ($F(1,841)=0.581$, $p=..446$) with the statement "Officials will use our input in their decisions".

Figure 11
Perceptions of Use of Input: Citizens versus Stakeholders



There is not a significant difference in average agreement between stakeholders and citizens (F(1,856)=0.711, p=..351) with the statement "This process will increase the public's support of the decision ultimately made".

Figure 12
Perceptions of Support for Decision: Citizens versus Stakeholders



Chapter 11: Summary of Lessons Learned

The general impression of sponsors about the process used to gather public input via the engagement activities was that it was successful. At this point, it is unclear how the information will be used by the CDC. The evaluators will conduct an impact analysis later this year. However, there have been a number of side benefits. CDC staff has been able to interact with the public and witness the implementation of a high quality public engagement process. For the most part, citizens have appreciated the time and effort put forth by the CDC to obtain their input and have felt positively about the experience. The CDC has also learned from this process and has improved its capacity to sponsor public engagement efforts in the future.

With regard to the principles of public engagement being developed by the CDC, this process provided an opportunity to learn from experience. There was a real interest in obtaining input from stakeholders and citizens; however, the decision to be made was ambiguous and unclear. The CDC struggled to determine what the question was to be answered. This process was unusual in public engagement in that the pandemic was currently in process, and the decision on how to move forward was being made during the process. The process was also different in that there was not a clear document of outcome; there was not a clear policy decision or guidance that was to be included in an official document. It might have helped to have more time in the beginning to develop the specific question to be answered and to have stakeholders involved in the framing. But time in the midst of a pandemic was a luxury and not a part of this process. There was time for the deliberation process but perhaps not enough time to formulate a clearly articulated question that was meaningful to decision makers. The question that was presented was an issue that included both scientific facts and values.

The dedication of resources by the CDC was impressive at one level, but fell short on another. The agency leadership supported engaging the public in a deliberation process, and the agency committed sufficient funding to achieve this goal. However, having adequate CDC staff to serve as subject matter experts at all of the meetings became a challenge. Again, the process was tested by implementation during a pandemic crisis. The very experts who were needed to participate in citizen and stakeholder deliberations were the same people who were responding to the pandemic influenza situation. Not all of the meetings had CDC experts to answer questions. In most locations, local health experts provided the needed expertise in addition to the CDC experts; however, in some locations there were insufficient local experts as well as insufficient CDC experts. As a result, in some of the meetings participants made unsubstantiated claims about vaccine safety in large group sessions, and there was no subject matter expert present to rebut such claims. This experience highlighted the need for the CDC and local health departments to work in partnership, and also for the CDC to determine ways in which enough subject matter experts can be available to participate in similar types of public meetings. This is especially important if it can be

anticipated that public meetings may attract activists or advocates for a particular policy position. Having subject matter experts available and prepared to address questions or unsubstantiated assertions is crucial.

The process included both nonpartisan citizens and partisan stakeholders. In previous public engagement processes, the CDC had worked with stakeholders to help frame the issues. Because of the time constraints in this process, stakeholders were not involved in developing the questions for citizens. This extra step may have lead to more clarity or utility in the questions to be posed and the answers provided. The stakeholder participants were heavily weighted toward local public health officials. Having a broader stakeholder group may have benefitted the process. It is also unclear what impact the citizen input had on stakeholder discussions. It did not appear that stakeholders were greatly influenced by the output from the citizen deliberations.

The process did include a critical mass of citizens. Within the short timeframe of the project, it was a commendable achievement to conduct 10 citizen in-person meetings involving nearly 1000 participants. The web dialogues, however, did not meet expectations for recruitment. There was extensive publicity for the web dialogues; however, the CDC did not issue its press release until right before the web dialogues went live. As the sponsoring entity and government agency responsible for pandemic planning and response, the CDC's issuing of a press release to attract participants to the web dialogues was critical, and should have been done early enough in the process so it could be disseminated through outreach partners. Although there were extensive outreach partners affiliated with the web dialogues, there may not have been enough time for these individual partners to properly promote the dialogues through their own channels.

Despite the smaller than expected numbers of participants in the web dialogues, the format used proved to be an accessible and easy to use medium for quality deliberation. The dialogues were designed to provide participants with education about the topics of discussion, and had a linear quality so participants could read previous comments prior to entering the dialogue. Additionally, the dialogues were easy to navigate, and accessible to individuals without advanced experience or knowledge of computers or online interaction.

There were issues related to diversity of participants in both the in-person meetings and the web dialogues. Participation was heavily weighted toward public health officials and health care professionals; participants were also more likely to be females, wealthier and better educated than the general population. In addition, select special interest groups sometimes appeared to dominate the meetings. Still, there appeared to be enough diversity representing various perspectives to have productive deliberations. High quality facilitation helped ensure that the diverse perspectives were channeled into fruitful outcomes. Overall, citizens and stakeholder appeared to have learned through mutual dialogue and thoughtful deliberation.

The result of the deliberative process was that difficult choices were made and the recommendations were communicated. The voting allowed citizens and stakeholders to clearly express their preferences for the three options. However, the electronic polling also avoided having participants come to agreement or consensus. After discussing the issues and deliberating about the pros and cons, each participant in the end could select her or his preference as an individual. In addition, the stakeholder and citizen meetings resulted in different recommendations; citizens had a preference for a moderate approach while stakeholders favored a full throttle approach. Therefore, there did not appear to be an agreed upon recommendation.

The final principles of the CDC public engagement model are that recommendations receive serious consideration and that participants receive candid feedback about the decisions made. It is too early in the process to know how the feedback will be received and used within the government decision making structure. Early indications are that the information is being seriously considered. We will conduct a more thorough evaluation of this issue in late 2009. It is also unclear how the results of the process will be communicated to participants, although there is a plan to post the results on a web site and to provide an email update for participants who provided email addresses.

Chapter 12: Conclusions

The process was successful at attracting citizens and stakeholders to participate in the deliberative processes. Organizers were successful at attracting citizens to 10 public meetings held across the country. The goal was to attract 100 participants at each site for a total of 1000 participants. They met their goal at three of the local meetings, and overall, 980 citizens participated in the 10 meetings. The magnitude of participation was impressive, particularly given the short time frame for planning the meetings. Participation was sufficiently large to produce an effective deliberation process at each site that included both small group and large group discussions. The project was not successful in meeting its goal of attracting 1,000 participants to each of two web-based deliberations. Only 330 citizens participated in the web dialogues. There were enough participants in the web dialogues, however, to result in a successful deliberation. Another goal of the project was to include about 40 stakeholders in two meetings to be held in Washington, D.C. One meeting was designed to frame the issues prior to the citizen meetings and the other was to be held after the citizen meetings and was designed allow the stakeholders an opportunity to consider results from the citizen meetings as they deliberated. The first stakeholder meeting was not conducted due to time pressures. The second meeting included 32 stakeholders, short of the goal of 40 participants, but a sufficient number to conduct a meaningful process. Working through local networks and offering stipends for participation contributed to the success in attracting citizens to the in-person meetings. Additional time and a more expansive recruitment effort including more timely press releases by the CDC would likely have resulted in increased participation in the web dialogues.

The process was successful at attracting participants of diverse backgrounds and interests, although the demographic characteristics of participants did not mirror those of the communities in which the meetings were held. It was not necessarily the goal to have the participants match the exact demographics of the United States or of the communities in which the meetings were held, but rather to have enough diversity to hear multiple perspectives from different sectors of the population. In this sense, it appears the process was generally successful. Females, Hispanics, Native Americans, persons aged 45 – 64, persons without children, and persons with higher education were over-represented at the citizen in-person meetings. Participants were more likely to be involved in the health care and public health fields. There was a perception among a number of participants that at some meetings special interest groups were over represented and dominated the discussion. A randomized or stratified recruitment process combined with alternative strategies of recruitment would have likely increased the demographic and professional diversity of participants. Other sections of this report discuss whether increasing diversity would have likely altered the outcomes of the meetings. Similar to the in-person meetings, web dialogue participants were more likely to be 45-54 years of age and involved in health care or public health than the general population; web dialogue participants were even more likely than the in-person

participants to be skewed toward higher incomes and higher levels of education than the general population; unlike the in-person meetings, web dialogue participants were over representative of White/Caucasian than the general population. Web dialogue participants were less likely than in-person meeting participants to believe there were a diversity of perspectives.

The process was successful at increasing relevant knowledge of participants, so citizens could engage in informed dialogue. Participants in the web dialogues had greater knowledge going into the dialogue than participants in the in-person meetings; however, participants at the in-person meetings increased their knowledge more than the web dialogue participants. Knowledge increased equivalently across demographic groups based on education, income, race/ethnicity, age, gender, and geographic location. Participants believed they had adequate knowledge to make informed choices about vaccine policy. The process did not equalize knowledge substantially across groups; in other words, persons with lower levels of understanding at the beginning of the meeting increased their understanding of the information at about the same level as person with greater understanding at the beginning of the meeting. In contrast to the above finding, persons who were not in the health care or public health fields increased their knowledge more than health care or public health professionals, helping to reduce the disparity in knowledge about pandemic influenza. The evaluation findings suggest information presented should be tailored to participants with lower education and from particular racial/ethnic groups.

As a result of the deliberative process, the opinions of participants changed. Therefore the process likely produced information different than would be obtained through non-deliberative processes such as random polls or focus groups. Contrary to predictions, the process did not result in a greater level of agreement among participants about social values. In other word, although opinions changed for individuals, the changes were not in a common direction. There were significant differences in value ratings across the in-person citizen meeting sites; therefore, having multiple meeting locations appears necessary to obtain varied perspectives. The over-representation of health and public health officials at the in-person meetings did not appear to have a major impact since their rating of values was not significantly different than participants who were not health care or public health officials. Although there were no significant differences in values ratings across race/ethnicity/income, education, or having children, there were differences based on gender and age. This result suggests the importance in public engagement processes of having equitable representation of both genders and across age groups. There were also significant differences in values ratings between persons who received flu shots and those who did not; this finding reinforces the need to have representative participation in public engagement processes to obtain perspectives of the general population rather than special interest groups.

Participants perceived the process to be of high quality. Overall meeting facilitation was perceived to be good, although there was some variability in quality across small

group facilitators. There was some dissatisfaction with special interest groups who appeared to dominate some of the meetings and the small group discussions. These concerns suggest processes to get a cross section of individuals and to assign persons to small group tables could have been beneficial. Satisfaction with the process varied by meeting location; the differences in satisfaction are due more to differences in meeting participants than to differences in process, reinforcing the recommendation to seek representative participation. One factor in the quality of meetings was the presence of public officials and experts; meetings did not function as smoothly in locations where experts were not present. There were no significant differences in ratings among demographic groups based on age, gender, education, income and parental status; therefore the process appeared to be successful for all groups. There was, however, a difference based on race/ethnicity; Black/African Americans and Hispanics rated the process higher than Whites/Caucasians. Participants in the web dialogue rated the process less positively than citizens at the in-person meetings.

The in-person process tended to increase trust in local government and decrease trust in federal government. This finding appears to conflict with focus group results in which participants expressed appreciation to the CDC in holding the public engagement meetings and gathering public input for decision making. The finding is, however, consistent with previous evaluations of public engagement processes and may suggest that citizens felt empowered through the deliberations and, as a result, favored more local control of decision making. Trust in health departments tended to be higher than government in general across all levels of government. The process appeared to increase the likelihood that participants would increase their civic activities as a result of attending the deliberation.

Citizens tended to believe public officials would use their input from the deliberations. The perceptions of use of the information varied by location with citizens from Alabama, Texas, Indiana, Nebraska, and California more likely to believe their input would be used. The presence of high level public officials at the meetings was cited as evidence that the input would be taken seriously. Stakeholder comments were generally less hopeful than citizens that the public engagement process would actually be used by decision makers in public health. Stakeholders thought citizen input should be considered, but the planning for the pandemic was already well underway in local jurisdictions. Both citizens and stakeholders tended to believe that the public engagement process would increase public support for policy decisions.

The public engagement process met most of the principles of the CDC public engagement model:

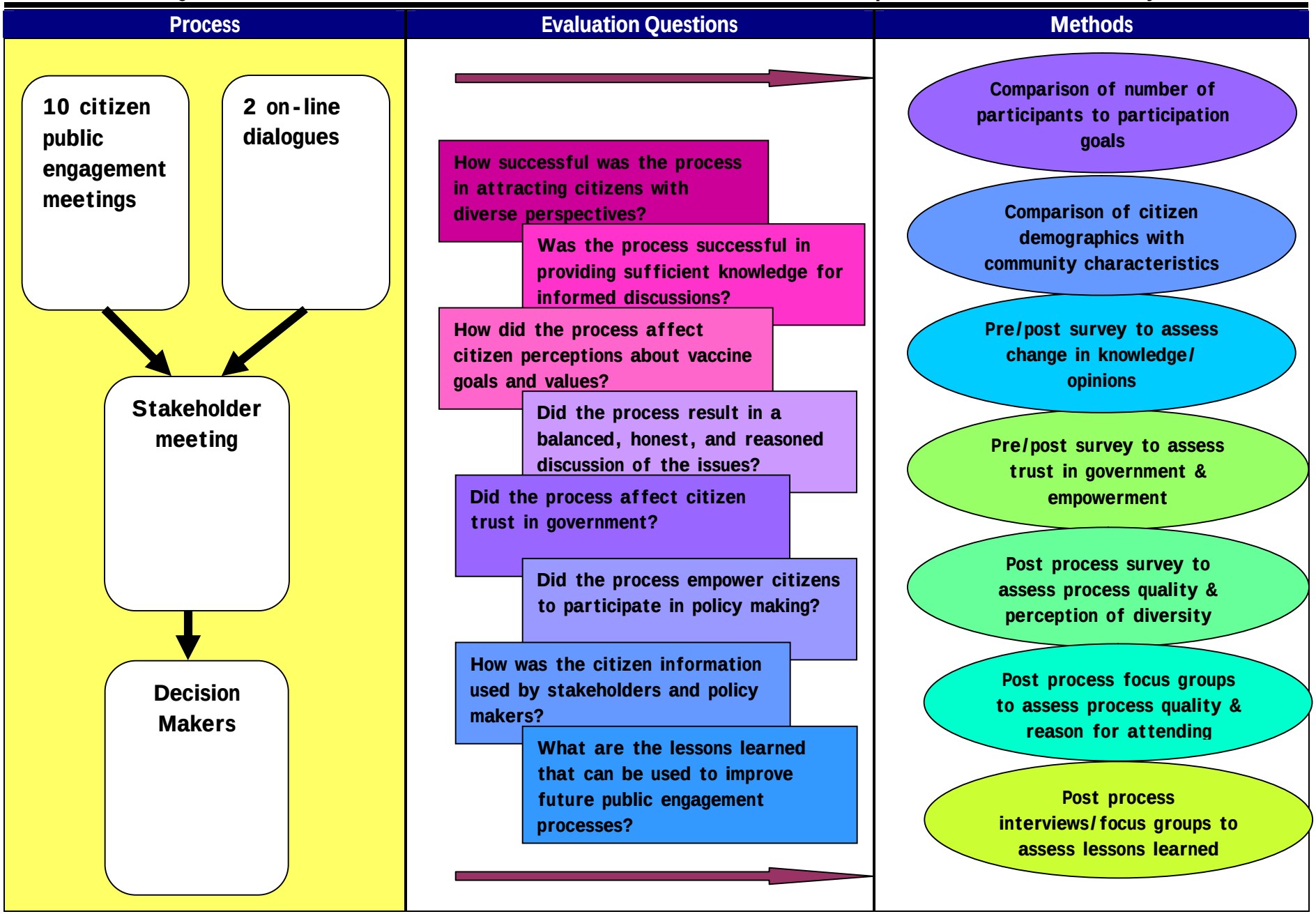
1. There was a real desire for advice, and the decision on the table was real, although a bit ambiguous.
2. There was adequate time in deliberation, but the process could have benefitted from more time to clarify the purpose and to recruit for web dialogue.
3. Both facts and values contributed to the choices that will be made.

4. There were active agency staff and sufficient resources committed to process, although the CDC faced challenges in staffing the meetings with experts who were responding to the pandemic, which detracted from the process.
5. Both nonpartisan citizens and partisan stakeholders participated in the process, although one of the stakeholder meetings originally envisioned did not occur.
6. There was a critical mass of citizens participating in the process and there was sufficient diverse participation; however, both citizen and stakeholder meetings included disproportionate representation from health care/public health officials, and there was a perception that special interests were overrepresented.
7. There was mutual learning through dialogue and thoughtful deliberation by participants.
8. Difficult choices were made and agreed-upon recommendations were produced, although there was no effort to reach consensus.
9. It is unclear at this point whether the last two principles were met: recommendations receive serious consideration/participants obtain candid feedback about decisions made.

Appendix 1

Logic Model for the Evaluation of the Deliberative Process to Obtain Citizen Input on National Vaccine Policy

Logic Model for the Evaluation of the Deliberative Process to Obtain Citizen Input on National Vaccine Policy



Appendix 2

Analysis of Previous Evaluation Results Regarding Trust in Government

Analysis of Previous Evaluation Results Regarding Trust in Government

In the Evaluation of novel H1N1 Vaccine Policy Public Engagement, we found that after the process, citizens tended to have lower trust in federal government making policy decisions and higher trust in local government making decisions. This is consistent with findings from other evaluations of public engagement processes pertaining to public health issues. A possible explanation is that citizens felt empowered through the deliberations and, as a result, favored more local control of decision making.

- For the H1N1 Vaccine Project, citizens at in-person meetings had more trust in local health departments and local government making decisions and less trust in federal government and the CDC in making these decisions. There were no significant changes for the web dialogue and the stakeholder meeting.
- For the 2007 Public Engagement Project on Pandemic Influenza, we found a significant increase in preference for local health departments to make decisions about vaccines; the preference for the CDC to make these decisions was slightly lower after the meeting, but not statistically significant. The CDC received the highest preference to make these decisions both before and after the meeting. For stakeholders, the CDC received a significantly lower rating at the end of the meeting and state health departments and state government received significantly higher ratings.
- In the evaluation of the Community Control Measures Project, we did not include the CDC as an option on the pre-post surveys. For citizens, the preference for federal government, state government, and state health departments making decision decreased significantly, and the preference for local health departments increased significantly. Stakeholders rated federal government significantly lower at the end of the meeting, and local government significantly higher.
- For the 2005 Public Engagement Process on Pandemic Influenza, both citizens and stakeholders (with the exception of citizens in Atlanta) were less likely to believe the CDC should make decisions about vaccine and more likely to believe state health departments should make these decisions.

Evaluation of Novel H1N1 Vaccine Policy Public Engagement

A repeated measures MANOVA indicated that trust in government changed significantly from the pre-survey to the post-survey for citizens ($F(6,753)=7.244$, $p<.001$). This was driven by changes at the local and federal level, as there was no change for either the state health department or state government. Ratings of trust increased at the local level for both the local health department and local government. Ratings of trust decreased at the federal level for both the CDC and the federal government. There was

not this type of shift for citizens engaged in the web dialogue; in fact, there were no significant differences from the pre-test to the post-test.

Table 1
Trust Ratings Pre- to Post-Meeting for In-Person versus Web Dialogue

	In-Person Meeting		Web Dialogue	
	Pre	Post	Pre	Post
Local Health Department	3.09	3.15*	2.99	2.96
Local Government	2.75	2.82*	2.55	2.64
State Health Department	3.03	3.03	3.01	2.96
State Government	2.77	2.77	2.58	2.47
U.S. Centers for Disease Control and Prevention (CDC)	3.22	3.14*	3.32	3.36
Federal Government	2.71	2.64*	2.75	2.73
Valid N	759	759	77	77

*significant change

There was not this same type of movement for the stakeholders (see Table 2). There were slight changes; trust in local health departments went up slightly by the end of the meeting; trust in the CDC stayed the same and trust in other levels of government went down. However, none of these changes were statistically significant.

Table 2
Trust Ratings for Citizens versus Stakeholders

	Citizen		Stakeholder	
Mean	**Pre**	**Post**	**Pre**	**Post**
Local Health Department	3.09	3.15*	3.37	3.46
Local Government	2.75	2.82*	2.92	2.71
State Health Department	3.03	3.03	3.58	3.42
State Government	2.77	2.77	2.92	2.67
U.S. Centers for Disease Control and Prevention (CDC)	3.22	3.14*	3.71	3.71
Federal Government	2.71	2.64*	3.08	2.96
Valid N	759	759	24	24

*significant change

In the evaluation of the 2007 Public Engagement Process for Pandemic Influenza, citizens were asked a slightly different question: who should make decisions about vaccine distribution in the event of a pandemic? As shown in Table 3, 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. Although respondents were slightly less likely to select the CDC on the post-test compared to the pre-test, this change was not statistically significant.

Table 3
Changes in Citizen Ratings Regarding Who Should Determine 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

When we asked 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 4). 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 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 4
Changes in Stakeholder Ratings Regarding Who Should Determine 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

Evaluation of Public Engagement Process on Community Control Measures

This project involved decisions about community control measures such as cancelling public events and closing schools. In this evaluation, unlike the others, we did not specifically include the CDC in the response options. Citizens were most likely to believe that local health departments should make decisions about community control measures (see Table 5). Citizens from the Atlanta meeting were more likely than citizens from other meetings to indicate the federal government should make these decisions; this higher ranking may be because the Centers for Disease Control and Prevention (CDC) is located in Atlanta. In the focus groups and interviews, Atlanta participants pointed out that the CDC was a government entity with special expertise in medical issues. They generally viewed the CDC as local though it is a federal agency. The CDC was not necessarily viewed as a government entity by participants at other sites. They viewed policy makers as legislators and government officials who would take into account information provided by medical experts like those in public health or at the CDC. Most viewed the CDC and public health officials as more trustworthy than elected officials when making decisions about community control measures. Some hoped that there would be consistency in decisions related to community control measures from state to state and country to country.

Table 5
Changes in Citizen Ratings Regarding
Who Should Determine Community Control Measures

	Pre-test %	Post-test %
Individuals themselves	3.6%	4.2%
Local health department	30.7%	36.1% *
City or county government	13.3%	12.7%
State Health Department	27.7%	22.9% *
State government	9.0%	4.8% *
Federal government	15.7%	19.3% *

* indicates a significant change at p<.05

For stakeholders, the top two entities were local and state health departments (see Table 6). Rankings of the different entities changed after citizens and stakeholders went through the process. For citizens, the largest shifts in opinion regarding who should determine what controls measures are adopted or implemented are away from the state level (state government and state health department) and toward local health

departments and somewhat toward the federal government. For stakeholders, after the deliberation, people shifted toward preferring more local determination in the adoption of control measures.

Table 6
Changes in Stakeholder Ratings Regarding Who Should Determine Community Control Measures

	Pre-test %	Post-test %
Individuals themselves	7.7%	7.7%
Local health department	30.8%	30.8%
City or county government	0%	7.7%*
State Health Department	30.8%	30.8%
State government	15.4%	15.4%
Federal government	15.4%	7.7% *

* indicates a significant change at p<.05

Evaluation of the Public Engagement Pilot Project on Pandemic Influenza

Stakeholders and citizens were asked who, or what entity, should decide priorities for influenza vaccine. At the stakeholder meeting and all four citizen deliberation sites, the highest rated entity for making this decision in the pre-meeting survey was the Centers for Disease Control and Prevention (CDC). After the deliberations, the CDC received lower ratings at all sites except Atlanta, where the CDC is located. State and local health departments received higher post-deliberation process ratings at all sites except Atlanta. In fact, in Boston and Portland, citizens gave state health departments the highest ratings after the participatory process. Along this same line, since the Centers for Disease Control and Prevention are located in Atlanta, it is possible that Atlanta citizens viewed the CDC as more of a local entity than a federal agency and rated it higher after the deliberations.

Table 7
Pre- and Post-Survey Ratings of Who Should Determine Vaccine Distribution by Site

Organization	DC		Atlanta		Boston		Omaha		Portland	
	Pre	**Post**	Pre	**Post**	Pre	**Post**	Pre	**Post**	Pre	**Post**
White House	7.7%	**4.8%**	2.2%	**1.1%**	3.1%	**3.2%**	0.0%	**2.6%**	2.9%	**0.0%**
CDC	61.5 %	**47.6 %**	67.4 %	**74.2 %**	43.8 %	**29.0 %**	52.0 %	**46.1 %**	45.7 %	**29.6 %**
Other Fed Agency	3.8%	**4.8%**	0.0%	**3.2%**	3.1%	**3.2%**	1.3%	**0.0%**	2.9%	**11.1 %**
State Health Dept.	11.5 %	**19.0 %**	4.3%	**4.3%**	12.5 %	**35.5 %**	9.3%	**26.3 %**	17.1 %	**48.1 %**
Local Health Dept	0.0%	**4.8%**	1.1%	**1.1%**	3.1%	**3.2%**	2.7%	**15.8 %**	5.7%	**3.7%**
Doctors and Nurses	0.0%	**0.0%**	2.0%	**2.2%**	6.3%	**19.4 %**	9.3%	**5.3%**	5.7%	**0.0%**
Individuals Themselves	3.8%	**0.0%**	4.3%	**4.3%**	3.1%	**0.0%**	0.0%	**1.3%**	2.9%	**0.0%**
Not enough info to decide	11.5 %	**19.0 %**	18.5 %	**9.7%**	25.0 %	**6.5%**	25.35	**2.6%**	17.1 %	**7.4%**

References

Arnstein, S. R. (1969). A Ladder of Citizen Participation. *Journal of the American Institute of Planners, 35*(4), 216-224.

Barabas, J. (2004). How deliberation affects policy opinions. *American Political Science Review, 98*(4), 687-701.

Beierle, T. C., & Cayford, J. (2002). *Democracy in practice: Public participation in environmental decisions*. Washington, DC: Resources for the Future.

Bélanger, F., & Carter, L. (2008). Trust and risk in e-government adoption. *Journal of Strategic Information Systems, 17*, 165-176.

Benesh, S. C. (2006). Understanding public confidence in American courts. *Journal of Politics, 68*, 697-707.

Blind, P. (2006). Building trust in government in the twenty-first century: Review of literature and emerging issues. 7th Global Forum on Reinventing Government. Vienna, Austria. (Paper available at http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN025062.pdp).

Button, M., & Mattson, K. (1999). Deliberative democracy in practice: Challenges and prospects for civic deliberation. *Polity, 31*, 609-637.

Carnes, S. A., Schweitzer, M., Peelle, E. B., Wolfe, A. K., & Munro, J. F. Performance Measures for Evaluating Public Participation Activities in DOE's Office of Environmental Management. ORNL-6905, Oak Ridge National Laboratory, 1996.

Carnes, S. A., Schweitzer, M., Peelle, E. B., Wolfe, A. K., & Munro, J. F. (1998). Measuring the success of public participation on environmental restoration and waste management activities in the U.S. Department of Energy. *Technology in Society, 20*, 385-406.

Chambers, S. (2003). Deliberative democratic theory. *Annual Review of Political Science, 6*, 307-326.

Dalton, R. J. (2005). The social transformation of trust in government. *International Review of Sociology, 15*(1), 133-154.

Delli Carpini, M. X., Cook, F. L., & Jacobs, L. R. (2004). Public deliberation, discursive participation, and citizen engagement: A review of the empirical literature. *Annual Review of Political Science, 7*, 315-344.

Dougherty, G. W., Lindquist, S. A., & Bradbury, M. D. (2006). Evaluating performance in state judicial institutions: Trust and confidence in the Georgia judiciary. *State and Local Government Review, 38*, 176-190.

Fishkin, J. (1991). Democracy and deliberation. New Haven, CT: Yale University Press.

Fishkin, J. (1995). *The voice of the people*. New Haven, CT: Yale University Press.

Gastil, J. (1993). *Democracy in small groups*. Gabriola Island, BC: New Society Publishers.

Gastil, J. (2000). Is face-to-face citizen deliberation a luxury or a necessity? *Political Communication, 17*, 357-361.

Gastil, J., & Adams, G. E. (1995). Understanding public deliberation. Albuquerque, NM: Institute for Public Policy.

Gastil, J., Deess, E. P., & Weiser, P. (2000). Civic awakening in the jury room: A test of the connection between jury deliberation and political participation. Paper presented at the meeting of the International Communication Association, Acapulco, Mexico.

Gastil, J., & Dillard, J. P. (1999). Increasing political sophistication through public deliberation. *Political Communication, 13*, 3-23.

Goidel, R. K., Freeman, C. M., Procopio, S., Zewe, C. F. (2008). Who participates in the "Public Square" and does it matter? *Public Opinion Quarterly, 72*(4), 792-803.

Guild, W., Guild, R., & Thompson, F. (2004). 21st Century Polling. *Public Power Magazine, March-April 2004*, 28-35.

Halvorsen, K. E. (2001). Assessing public participation techniques for comfort, convenience, satisfaction, and deliberation. *Environmental Management, 28*(2), 179-186.

Hendriks, C. (2002). Institutions of deliberative democratic processes and interest groups: Roles, tensions and incentives. *Australian Journal of Public Administration, 61*(1), 64-75.

Hetherington, M. (2005). Why trust matters: Declining political trust and the demise of American liberalism. Princeton, NJ: Princeton University Press.

Job, J. (2005). How is trust in government created? It begins at home, but ends in the parliament. *Australian Review of Public Affairs, 6*(1), 1-23.

Kampen, J. K., Van De Walle, S., & Bouckaert, G. (2006). *Public Performance & Management Review, 29*(4), 387-404.

Luskin, R., & Fishkin, J. (2002). Deliberation and "Better Citizens". (Paper available at http://cdd.stanford.edu/research/papers/2002/bettercitizens.pdf).

Luskin, R., Fishkin, J., Malhotra, N., & Siu, A. (2007). Deliberation in the schools: A way of enhancing civic engagement? (Paper available at http://cdd.stanford.edu/research/papers/2007/civic-education.pdf).

Matthews, D. (2002). *For communities to work*. Dayton, OH: Kettering Foundation Press.

Min, J. (2007). Online vs. face-to-face deliberation: Effects on civic engagement. *Journal of Computer-Mediated Communication, 12*(4), article 11.

Muhlberger, P. (2000). *Defining and measuring deliberative participation and potential: A theoretical analysis and operationalization*. Paper presented at the International Society of Political Psychology Twenty-Third Annual Scientific Meeting, July 1-4, 2000.

Parent, M., Vandebeek, C. A., & Gemino, A. C. (2005). *Government and Information Quarterly, 22*, 720-736.

Parks, A., Jowell, R., & McPherson, S. (1998). The future of the National Health Service: Results from a Deliberative Poll. (Paper available at http://cdd.stanford.edu/research/papers/2000/report_kings_fund.pdf).

Phelan, C. (2005). Public trust and government betrayal. *Journal of Economic Theory, 130*, 27-43.

Putnam, R. (2000). Bowling alone: The collapse and revival of American community. New York: Simon & Schuster.

Putnam, R., Feldstein, L., & Cohen, D. (2003). Better together: Restoring the American community. New York: Simon & Schuster.

Rahn, W., & Rudolph, T. J. (2005). A tale of political trust in American cities. *Public Opinion Quarterly, 69*(4), 530-560.

Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review, 23*, 393-404.

Shindler, B. , & Neburka, J. (1997). Public participation in forest planning: Attributes of success. *Journal of Forestry, 95*(1), 17-19.

Stromer-Galley, J. (2005).*Decoding Deliberation*. Paper presented at 2nd Conference on Online Deliberation: Design, Research, and Practice /DIAC-2005, Stanford University, Stanford, CA, USA.

Webler, T., Tuler, S., & Krueger, R. (2001). What is a good public participation process? Five perspectives from the public. *Environmental Management, 27*(3), 435-450.

Weiss, C. (1979). The many meanings of research utilization. *Public Administration Review, 39*(5), 426-431.

Weitz-Shapiro, R. (2008). The local connection: Local government performance and satisfaction with democracy in Argentina. *Comparative Political Studies, 41*(3), 285-308.

Van Ryzin, G. (2007). Pieces of a puzzle: Linking government performance, citizen satisfaction, and trust. *Public Performance & Management Review, 30*(4), 521-535.