Evaluation of Influenza Pandemic-Focused Public Engagement for Harris County Public Health Services

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Executive Summary

The Harris County Public Health and Environmental Services (HCPHES) sponsored a public engagement effort to obtain citizen and stakeholder input on the draft plan for prioritizing vaccines, antivirals, and ventilators in the event of an influenza pandemic. The HCPHES contracted with the Keystone Center to facilitate eight citizen meetings (two in each city quadrant) and one stakeholder meeting. Each meeting included a similar format: participants were welcomed and provided an overview of the meeting objectives; information about pandemic influenza was presented; participants were provided an opportunity to ask questions; participants separated into small groups and discussed priorities for vaccines, antivirals, and ventilators; small groups reported on their discussions to the larger group; and participants were asked to individually rate priorities for each of the three topic areas through electronic voting.

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, and what could have improved recruitment?
2. How successful was the process in attracting citizens with a broad diversity of perspectives that reflect different sectors of the community?
3. How successful was the process in ensuring a sufficient level of citizen knowledge about pandemic influenza policy so they could engage in informed discussions, and how did knowledge vary by different groups?
4. 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?
5. How did the process affect citizen perceptions about vaccine goals or options?

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 county. The goal of the project was to attract 50 citizens to each of the in-person meetings for a total of at least 400 participants for the eight meeting; this goal was exceeded with 606 citizens participating in the meetings. Six of the eight citizen meetings attracted 50 or more individuals. Although two stakeholder meetings were originally planned, only one was held which included 30 participants. The original proposal included a web-based dialogue which would have reached additional participants; however, the web dialogue was not implemented.

2. The process was successful in attracting participants from diverse backgrounds and perspectives. Although certain groups, such as males, white and Hispanics, persons over 65 years of age, and people with higher incomes were underrepresented in the
meetings and the participant characteristics did not exactly match the population demographics of the county, there was still enough diversity in the backgrounds and perspectives of participants to result in meaningful exploration of differing opinions and open 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, antivirals, and ventilators. Knowledge increased for all groups regardless of education, income, race/ethnicity, age, gender and geographic location. The process did not result, though, in all participants attaining the same level of knowledge.

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 pandemic influenza 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 engagement methods such as public polling or surveys. This finding is qualified in that changes in opinions were likely not great enough that they changed the overall priorities produced by the meetings. In other words, Harris County likely would have obtained the same results had they simply conducted a telephone survey. This is not to say the deliberative process was without merit. As discussed below, the process produced other benefits related to citizen involvement and support for policy decisions. Contrary to expectations, we did not find the process to result in increased agreement among participants about priority areas and social values.

5. **The process was perceived to be of high quality by citizens and stakeholders.** We believe this was true in large part due 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 varied across race, ethnicity, and gender indicating the process may have worked better for some groups than others. Participants thought their input would be used by policy makers and the process would increase public support of decisions. The process also appeared to result in some level of community activism; many of the participants indicated they planned to communicate information and issues from the meeting to other individuals and groups within the community.
Chapter 1: Introduction

This evaluation examined a process for engaging the public in Harris County Texas about how to prioritize scarce medical resources in the event of an influenza pandemic. The Harris County Public Health and Environmental Services (HCPHES) sponsored the process and contracted with the Keystone Center to design and conduct the meetings with citizens and stakeholders. The intent of the process was to understand public perspectives in prioritizing vaccines that prevent people from getting influenza, antivirals to reduce the symptoms of persons who have influenza, and ventilators to help people with influenza breath better. There is an assumption that in a severe pandemic these medical resources will not be available in sufficient quantities to meet the needs of all individuals who could benefit from them, and therefore, decisions would need to be made about how these scarce resources could best be deployed. There is not a scientific basis for selecting the allocation of these resources, and the HCPHES was interested in understanding citizen perspectives and the values underlying these perspectives.

The Public Engagement Process

The Keystone Center worked with HCPHES to organize and conduct eight citizen meetings and one stakeholder meeting. Participants were contacted through a variety of methods including e-mail, advertisements, and word of mouth. Participants were provided, breakfast, lunch and a $75 stipend at the end of the meeting.

The eight citizen and one stakeholder 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 HCPHES providing context for the meeting and the need for citizen input
3. A discussion of previous work in Harris County concerning preparation for pandemic influenza
4. Overview of the agenda and objectives for the meeting
5. A morning presentation of essential information about pandemic influenza and issues related to the vaccines, antivirals, and ventilators, followed by a question and answer session
6. A morning activity in which participants are introduced to scenarios and assumptions underlying the approach to developing and distributing vaccines, antiviral medication, and ventilators
7. Participants were then involved in three sequential small group discussion: priorities for vaccines, priorities for antiviral medications, and priorities for ventilators
8. Report outs from the small group sessions
9. A large group discussion and reflection
10. Electronic polling in which each participant could vote for options for each of the three areas 
11. A large group discussion of the polling results 
12. An evaluation activity in which each participant was asked to complete a post meeting evaluation form

Throughout the process, experts were available to answer participant questions. Small group facilitators were recruited locally and trained by the Keystone Center.

Evaluation Questions

The Keystone Center contracted with the University of Nebraska Public Policy Center to conduct an evaluation of the public engagement process. The evaluation examined the following questions:

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

   The goal of the project was to attract 50 individuals to each of the eight citizen meetings, or at least a minimum of 10 individuals; 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 county. 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.

2. How successful was the process in attracting citizens with a broad diversity of perspectives that reflect different sectors of the community?

   Project sponsors and facilitators were interested in recruiting a diversity of citizens representing multiple perspectives. While an exact replication of Harris County demographics was not intended, the project was expected 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 and project sponsors to attract participants to the citizen meetings using a variety of recruitment strategies. An important evaluation question concerns how the different recruitment strategies relate to the level and diversity of participation for the meetings.

3. How successful was the process in ensuring a sufficient level of participant 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 could 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 pandemic 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 the extent to which the information was successfully conveyed to specific populations.
4. 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?

5. How did the process affect participant 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 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. If there are different
perspectives across different groups then the importance of recruiting across
community sectors is reinforced.
CHAPTER 2: EVALUATION METHODS

This evaluation employs a mixed method design using quantitative and qualitative measures. The evaluation logic model can be found in Attachment A. The University of Nebraska-Lincoln Institutional Review Board reviewed and approved the final evaluation design. There were five major methodological components:

1. A pre-post survey was conducted of meeting participants for eight citizen meetings and one stakeholder meeting to assess change in knowledge, goals, and values.
2. Demographic information about participants was obtained, and an analysis was conducted to compare deliberation participant demographic characteristics to characteristics of the Harris County adult population.
3. Post-meeting surveys were conducted for each of the nine meetings to obtain citizen and stakeholder perceptions about process quality.
4. Post-meeting telephone interviews were conducted for the nine citizen/stakeholder meetings to gain an in-depth understanding about perceptions regarding the process and outcomes from the meeting.
5. Open ended questions were asked on the pre- and post-test surveys to allow respondents to elaborate on why they attended the event and any general comments about the event in general.

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. The pre-survey consisted of three sets of questions: 1) multiple-choice questions assessing knowledge about influenza based on the presentation materials, 2) a section asking opinions about which groups should be given priority for influenza vaccine, and 3) questions about how they learned about the meeting and their motivation to participate. The post-survey included two sets of questions replicated from the pre-survey (questions assessing knowledge about pandemic influenza and questions about priority groups for flu vaccine); in addition, the post-survey included a set of questions about the quality, fairness and effectiveness of the deliberative process and a section about participant demographic information. Participants 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 nine citizen and stakeholder meetings, participants were asked to volunteer to participate in a telephone interview. The phone interview questions for citizens and stakeholders included how they perceived the information about pandemic influenza; 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; and how they thought policy makers would consider their input. 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.

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 interviews. 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 a sufficient number of citizens and stakeholders, we report on the number of meeting participants at each location and draw conclusions regarding the following:
   a. The extent to which each citizen meeting site was successful in meeting the goal of 50 citizens (10 minimum), 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 process attracts 30 stakeholders.

2. To assess how well the process included participants with a broad diversity of perspectives, we report on the 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. 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. Barriers and successes in attracting citizens to participate for each format based on the recruitment strategies for each citizen event.
   b. 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.
   c. How the characteristics of citizen participants were similar to or different from the characteristics of the broader population in each community.
   d. How the diversity of perspectives was perceived by participants.

3. To assess the knowledge of participants related to information about pandemic influenza, 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. We examine how knowledge and change in knowledge are related to characteristics of participants.
(i.e., demographic and status as stakeholder or citizen) 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.

4. To assess the extent to which the process resulted in a balanced, honest, and reasoned discussion of the issues, we gauge citizen perceptions of the process through standard ratings on the post survey as well as qualitative information obtained through the telephone interviews and comments offered on the survey. We examine how perceptions about the process are related to participant characteristics using a multi-way Analysis of Variance (ANOVA).

5. To assess how the process affected the perceptions of the 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 perceptions are related to citizen demographic characteristics, to the level of knowledge of citizens and to the satisfaction of citizens with the process. Finally, we compare standard deviations from the pre-survey to the post-survey to determine changes in level of agreement about values and goals.

6. Qualitative data was gathered through telephone interviews and open-ended questions on the survey. 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. We conducted 19 citizen interviews and four stakeholder interviews.

**Survey Response Rates**

Of the 604 citizens who returned a survey, 600 returned a pre-survey, 585 returned a post-survey, and 581 returned both surveys. The table below presents the number of surveys received by location and a completed (providing both pre- and post-surveys) response rate based on the number attending each location. Overall, the response rate was nearly 96%. In one location, we had more evaluation surveys returned than registered participants. We believe in this case, there may have been participants who walked in and were not included as registered participants. In addition to the citizen participants, 30 stakeholders completed both the pre and post evaluation survey.
<table>
<thead>
<tr>
<th>Location</th>
<th>Number Attending</th>
<th>Number of Surveys Received</th>
<th>Pre-Survey</th>
<th>Post-Survey</th>
<th>Both Surveys</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Jacinto Junior College</td>
<td>47</td>
<td></td>
<td>44</td>
<td>42</td>
<td>42</td>
<td>89.4</td>
</tr>
<tr>
<td>Sunnyside Multi-Service Center</td>
<td>68</td>
<td></td>
<td>66</td>
<td>67</td>
<td>65</td>
<td>95.6</td>
</tr>
<tr>
<td>Riley Chambers Community Center</td>
<td>55</td>
<td></td>
<td>55</td>
<td>55</td>
<td>55</td>
<td>100</td>
</tr>
<tr>
<td>Berry Center</td>
<td>48</td>
<td></td>
<td>49</td>
<td>48</td>
<td>48</td>
<td>100</td>
</tr>
<tr>
<td>Galena Park School District</td>
<td>83</td>
<td></td>
<td>87</td>
<td>87</td>
<td>87</td>
<td>104.8</td>
</tr>
<tr>
<td>Humble Center</td>
<td>106</td>
<td></td>
<td>105</td>
<td>103</td>
<td>103</td>
<td>97.2</td>
</tr>
<tr>
<td>Chinese Community Center</td>
<td>99</td>
<td></td>
<td>98</td>
<td>91</td>
<td>89</td>
<td>89.9</td>
</tr>
<tr>
<td>Shirley Acres</td>
<td>100</td>
<td></td>
<td>96</td>
<td>92</td>
<td>92</td>
<td>92.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>606</strong></td>
<td><strong>600</strong></td>
<td><strong>585</strong></td>
<td><strong>581</strong></td>
<td><strong>581</strong></td>
<td><strong>95.9</strong></td>
</tr>
</tbody>
</table>
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; the project met the goal of attracting at least 50 participants to six of the eight citizen meetings, with two of the meeting locations attracting 100 or more participants.
- Only one of the stakeholder meetings was conducted, although two had been anticipated. The process was successful at attracting 30 stakeholders to participate.
- 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.
- The most common method for citizens to find out about the meeting was through word of mouth, while stakeholders found out about the meeting through email or from professional colleagues/organizations.
- Attrition was not a problem for the meetings because of the process to award stipends at the end of meetings.

Level of Participation

For the 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 50 participants to each of the eight meetings; 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 in addition to the large group discussions. Based on participation numbers, the process was successful in attracting at least 50 participants to six of the eight citizen meetings. All of the meetings included more than 10 participants, the minimum number to properly conduct the meeting. The average attendance across the eight citizen meetings was about 78 participants. Based on the number of pre and post evaluation surveys completed, attrition during the meetings was not a major issue (see Table 2.1). We believe the lack of attrition can be attributed to payment of the stipend at the end of the meeting.

The original design included two stakeholder meetings; however only one was held. The process was successful at attracting 30 stakeholders to the stakeholder meeting. In addition, the original design included a web dialogue which would have allowed input from additional citizen; however, the web dialogue was not implemented.
How did participants learn about the meeting?

Table 3.1 indicates the majority of citizen participants (51.5%) learned about the meeting through friends and family members. A good number of citizen participants also learned about the meeting through email (15.2%), community or religious organizations (11.0%), fliers (10.8%), and professional colleagues or organizations (9.1%). 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.

Stakeholders tended to learn about the meeting differently than citizen participants. The largest proportion of stakeholders learned about the meeting through email (44.8%) and professional colleagues or organizations (41.4%). A good number of stakeholders also learned about the meeting through community or religious organizations (27.6%) and government agencies (24.1%).

Table 3.1
Methods for Learning About the Meeting

<table>
<thead>
<tr>
<th>Medium</th>
<th>Percent of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Citizens (n=584)</td>
</tr>
<tr>
<td>Newspaper</td>
<td>1.7</td>
</tr>
<tr>
<td>Internet (not email)</td>
<td>5.5</td>
</tr>
<tr>
<td>Television</td>
<td>1.0</td>
</tr>
<tr>
<td>Radio</td>
<td>0.5</td>
</tr>
<tr>
<td>Email</td>
<td>15.2</td>
</tr>
<tr>
<td>Flyer</td>
<td>10.8</td>
</tr>
<tr>
<td>Community or Religious Organization</td>
<td>11.0</td>
</tr>
<tr>
<td>Professional Colleague or Professional Organization</td>
<td>9.1</td>
</tr>
<tr>
<td>Government Agency</td>
<td>5.8</td>
</tr>
<tr>
<td>Facebook</td>
<td>1.5</td>
</tr>
<tr>
<td>Word of Mouth (friend/family member)</td>
<td>51.5</td>
</tr>
<tr>
<td>Other</td>
<td>6.2</td>
</tr>
</tbody>
</table>
Why did citizens choose to participate in the meetings?

The most common reason given for participating in the meetings was because of an interest in the topic or wanting more information about pandemic influenza. Some participants had an interest because they were involved in public health while others had little knowledge but a strong interest in what they could do to protect themselves and their families. Still others were interested in how Harris County would respond in the event of a pandemic. As stated by some participants:

“I found out about it from my son’s school, and I am part of the school council. They sent me a package about the event. I obviously have a kid and have a family of my own and wanted to learn more about it.”

“I found out about the meeting through word of mouth. A girlfriend of mine told me about it. I was very interested because once these pandemics occur, everyone gets so frantic. That is why I attended, to get educated. I wanted to come in and learn all I could so I could share it with my community.”

Many participants were also motivated to attend because of a feeling of civic responsibility. Some said they wanted to have a voice in the decision making process. As stated by one participant, “It is something that really concerns me, since I have a very small child and would want to take part in making decisions and understanding of why and what happens in dangerous situations as such.” Some participants were motivated by a desire to get better informed so they could provide information to others in the community.

A substantial number of participants mentioned the stipend or the free lunch as one of the reasons they attended. Many of these respondents indicated that the stipend and lunch were not the only reasons they attended, but they at least factored into their decisions.

“I am doing an internship at the UT School of Public Health and my mentor forwarded me an email about it. It looked interesting, and also there was the $75 stipend, so those were both incentives to go to the event.”

“I was interested in the pan flu, and of course the $75. I thought that was unusual, but I would have attended without the $75.”

A few participants indicated the primary reason they attended was due to encouragement from a friend or relative. Other participants indicated they attended primarily because they worked in a field related to the topic (e.g., community health worker, first responder, nursing student). As stated by participants:

“I am a school nurse at the elementary level. I just got into school nursing a few years ago, and before that was in a hospital setting. You kind of lose touch with
all the information they give you and what is going on. So I thought this would be a good educational experience for me to learn what was going on.”

“I am a medical assistant. A pandemic is something I need to be aware of because I work in a clinic, and I wanted to give my opinion about it to Harris County.”

A few individuals noted that they were attracted to the meeting because it pertained to their own health condition or experiences:

“I found out about the meeting through a flyer that was circulating at the VA hospital. I chose to attend because I am disabled, and I wanted to learn how anti-viral medicine would be distributed to the people.”

“I heard about the meeting from one of my girlfriends. I’ve been sick from 2001 until about 2009. She suggested that I go out and become informed about these shots because I didn’t know anything about them. I knew they were important but hadn’t gotten them until about a few years ago. I wanted to learn more about them.”

Who attended the stakeholder meeting and why?

Representatives from various community health and human service-related agencies were invited to the meeting to learn about current Harris County pandemic planning activities and provide their input. Meeting participants interviewed indicated that they attended the meeting both as part of their professional responsibilities and out of personal interest:

“I’m a community health worker. I don’t really make the decisions that go on. Our agency receives a lot of calls about where to go for services for health, the flu, for H1N1. We’re like the health center and take those calls and educate the people about where to go if they need vaccinations.”

“I do not have a role as of yet as we don’t specifically have a pandemic flu emergency plan. But if we do have a plan, I will be the one who will design it for my organization. My previous employment was in pharmacy, so I thought that it might be good to look at that side in terms of how to deal with people coming in to our clinic and needing medication.”

“Our agency was asked to participate in the meeting, and I have an academic curiosity in what Houston plans to do in terms of plans for the next pandemic.”
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.
- Females, African Americans, persons aged 45 – 64, persons with associates degrees, and persons with low incomes were over-represented at the citizen meetings.
- A randomized or stratified recruitment process combined with alternative strategies of recruitment would have likely have resulted in a demographic balance more representative of the community. Later chapters of this report discuss whether changing the demographic makeup would have likely altered the outcomes of the meetings.

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 Harris County, 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.

How diverse were citizen participants?

Participants in the citizen meetings represented a diverse mixture of demographic characteristics and perspectives. For participants who completed the post-survey, the demographic information indicates diversity within the sample in age, gender, race/ethnicity, education, and income, although participants were not exactly representative of the general population in the community. To determine how representative meeting participants were of the total Harris County population, overall demographic data were compared to Census estimates. In order to make certain comparisons, some demographic groups have been collapsed to match those provided by the Census.

Table 4.1 shows the percentage of adults by gender for Harris County, citizen participants and stakeholder participants. Comparing citizens to Harris County Census Data (2009 estimates), we found males were underrepresented and females were overrepresented at the citizen meetings ($\chi^2(1) = 181.30, p < .001$). There is no significant difference in the gender distribution across the citizen and stakeholder meetings ($\chi^2(1) = 0.030, p = .864$).
Table 4.1
Gender for Harris County Adults, Citizens and Stakeholders

<table>
<thead>
<tr>
<th></th>
<th>Census Data</th>
<th>Citizen Sample (n=210)</th>
<th>Stakeholder Sample (n=9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>49.8%</td>
<td>37.7%</td>
<td>36.0%</td>
</tr>
<tr>
<td>Female</td>
<td>50.2%</td>
<td>62.3%</td>
<td>64.0%</td>
</tr>
<tr>
<td>No Answer</td>
<td>(n=47)</td>
<td>(n=16)</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2 shows a comparison of the ages for citizen and stakeholder participants to Harris County Census Data (2009 estimates). Citizens across the eight meetings did not match Census Bureau statistics on the distribution of age in Harris County ($\chi^2(5) = 588.32$, p < .001). Specifically, those in the 25-34, 35-44, and 65+ age groups were underrepresented, while those in the 45-54 and 55-64 age groups were overrepresented. Those in the 18-24 age group were represented according to their proportion in the overall population. There is no significant difference in the overall age distribution across the citizen and stakeholder meetings ($\chi^2(5) = 6.745$, p = .240).

Table 4.2
Ages for Harris County Adults, Citizens and Stakeholders

<table>
<thead>
<tr>
<th></th>
<th>Census Data</th>
<th>Citizen Sample (n=210)</th>
<th>Stakeholder Sample (n=9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>13.4%</td>
<td>14.5%</td>
<td>4.0%</td>
</tr>
<tr>
<td>25-34</td>
<td>22.9%</td>
<td>14.1%</td>
<td>12.0%</td>
</tr>
<tr>
<td>35-44</td>
<td>20.3%</td>
<td>14.3%</td>
<td>28.0%</td>
</tr>
<tr>
<td>45-54</td>
<td>18.9%</td>
<td>28.4%</td>
<td>20.0%</td>
</tr>
<tr>
<td>55-64</td>
<td>13.1%</td>
<td>22.4%</td>
<td>32.0%</td>
</tr>
<tr>
<td>65+</td>
<td>11.3%</td>
<td>6.3%</td>
<td>4.0%</td>
</tr>
<tr>
<td>No Answer</td>
<td>(n=45)</td>
<td>(n=5)</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.3 shows a comparison of the race/ethnicity of citizens and stakeholders to Harris County Census Data (2009 estimates). Citizens across the eight meetings did not match Census Bureau statistics on the distribution of race/ethnicity in Harris County \(\chi^2(6) = 5614.72, p < .001\). Specifically, Hispanics and Whites/Caucasians were underrepresented, while Blacks/African-Americans were overrepresented. There is a significant difference in the distribution of ethnicities across the citizen and stakeholder meetings \(\chi^2(6) = 37.017, p < .001\). There was a higher percentage of Whites/Caucasians and of Asians, and a lower percentage of Blacks/African-Americans, in the stakeholder group than in the citizen groups.

### Table 4.3

<table>
<thead>
<tr>
<th>Race/Ethnicity for Harris County Adults, Citizens and Stakeholders</th>
<th>Census Data</th>
<th>Citizen Sample</th>
<th>Stakeholder Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>39.8%</td>
<td>11.3% (n=63)</td>
<td>12.0% (n=3)</td>
</tr>
<tr>
<td>White or Caucasian</td>
<td>35.1%</td>
<td>11.7% (n=65)</td>
<td>48.0% (n=12)</td>
</tr>
<tr>
<td>Black or African-American</td>
<td>17.9%</td>
<td>68.2% (n=379)</td>
<td>24.0% (n=6)</td>
</tr>
<tr>
<td>Asian</td>
<td>5.7%</td>
<td>5.0% (n=28)</td>
<td>16.0% (n=4)</td>
</tr>
<tr>
<td>Native Hawaiian or other Pacific Islander</td>
<td>0.1%</td>
<td>0.4% (n=2)</td>
<td>0% (n=0)</td>
</tr>
<tr>
<td>Native American or Alaska Native</td>
<td>0.2%</td>
<td>0.7% (n=4)</td>
<td>0% (n=0)</td>
</tr>
<tr>
<td>Other</td>
<td>1.2%</td>
<td>2.7% (n=15)</td>
<td>0% (n=0)</td>
</tr>
<tr>
<td>No Answer</td>
<td></td>
<td>(n=48)</td>
<td>(n=5)</td>
</tr>
</tbody>
</table>

Table 4.4 shows a comparison of the education levels of citizens and stakeholders to Harris County Census Data (2009 estimates). Citizens across the eight meetings did not match Census Bureau statistics on the distribution of education level attained \(\chi^2(4) = 973.43, p < .001\). Specifically, those with less than a high school degree were underrepresented, while those with an Associate’s degree were overrepresented. As expected, there is a difference in education level across the citizen and stakeholder meetings \(\chi^2(4) = 44.886, p < .001\). Stakeholders overall were more educated than the citizens who attended the meetings, with nearly half of stakeholders holding graduate or professional degrees, and one-third holding a Bachelor’s degree.
Table 4.4
Education for Harris County Adults, Citizens and Stakeholders

<table>
<thead>
<tr>
<th></th>
<th>Census Data (age 25+)</th>
<th>Citizen Sample</th>
<th>Stakeholder Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school graduate</td>
<td>22.6%</td>
<td>7.8% (n=41)</td>
<td>0% (n=0)</td>
</tr>
<tr>
<td>High school graduate or GED</td>
<td>45.0%</td>
<td>49.0% (n=257)</td>
<td>11.1% (n=3)</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>5.3%</td>
<td>16.8% (n=88)</td>
<td>7.4% (n=2)</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>17.8%</td>
<td>15.8% (n=83)</td>
<td>33.3% (n=9)</td>
</tr>
<tr>
<td>Graduate or Professional school degree</td>
<td>9.3%</td>
<td>10.7% (n=56)</td>
<td>48.1% (n=13)</td>
</tr>
<tr>
<td>No Answer</td>
<td></td>
<td>(n=79)</td>
<td>(n=3)</td>
</tr>
</tbody>
</table>

Table 4.5 shows a comparison of income for citizens, stakeholders and Harris County Census Data (2009 estimates). Citizens across the eight meetings did not match Census Bureau statistics on the distribution of education level attained ($\chi^2(5) = 1225.89, p < .001$). Specifically, those making $75,000 to $99,999 and those making $100,000 or more were underrepresented, while those making less than $15,000 were overrepresented. There is a difference in household income level across the citizen and stakeholder groups ($\chi^2(5) = 30.843, p < .001$). There was a significantly lower percentage of stakeholders in the lowest two income groups, and a significantly higher percentage in the highest three income groups, compared to citizens who attended the meetings.

Table 4.5
Income for Harris County Adults, Citizens and Stakeholders

<table>
<thead>
<tr>
<th></th>
<th>Census Data</th>
<th>Citizen Sample</th>
<th>Stakeholder Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $15,000</td>
<td>12.8%</td>
<td>31.5% (n=162)</td>
<td>3.8% (n=1)</td>
</tr>
<tr>
<td>$15,000 - $34,999</td>
<td>22.3%</td>
<td>27.0% (n=139)</td>
<td>7.7% (n=2)</td>
</tr>
<tr>
<td>$35,000 - $49,999</td>
<td>14.3%</td>
<td>17.7% (n=91)</td>
<td>19.2% (n=5)</td>
</tr>
<tr>
<td>$50,000 - $74,999</td>
<td>17.6%</td>
<td>14.2% (n=73)</td>
<td>34.6% (n=9)</td>
</tr>
<tr>
<td>$75,000 - $99,999</td>
<td>11.3%</td>
<td>5.0% (n=26)</td>
<td>19.2% (n=5)</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>21.6%</td>
<td>4.7% (n=24)</td>
<td>15.4% (n=4)</td>
</tr>
<tr>
<td>No Answer</td>
<td></td>
<td>(n=89)</td>
<td>(n=4)</td>
</tr>
</tbody>
</table>
Data from citizens was analyzed to determine the geographic coverage of the meetings. Table 5.6 below provides the geographic breakdown of those who provided viable zip codes. Participants appeared to represent all areas of Harris County.

Table 5.6
Geographic Distribution of Participants

<table>
<thead>
<tr>
<th>Geographic Sector</th>
<th>Citizen Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Houston Inner Loop</td>
<td>16.7</td>
</tr>
<tr>
<td>Northeast</td>
<td>19.6</td>
</tr>
<tr>
<td>Northwest</td>
<td>17.2</td>
</tr>
<tr>
<td>Southeast</td>
<td>23.7</td>
</tr>
<tr>
<td>Southwest</td>
<td>17.8</td>
</tr>
<tr>
<td>Surrounding Area</td>
<td>5.0</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
</tr>
</tbody>
</table>

How did Participants Perceive the Diversity of Other Participants?

When asked about general impressions of other participants, the majority of interviewees believed that the meeting audiences in general were demographically and professionally diverse, representative of the larger community, and motivated to participate by genuine interest in the topic. Interviewees generally indicated that the diversity in backgrounds and opinions contributed to a positive overall experience:

“I definitely felt there was a good diversity in attendees. It was a little bit of an eye opener for me. It is amazing to see how much or how little people know about certain things. It is an eye opener. These are voters, and some of them don’t even know what the flu is, or what a pandemic is.”

“I was impressed. There was a wide range of people there. A lot of professionals. And I was glad to see a lot of lay people there. People not so educated, but just basic, common, hard-working folks that may not know how to express themselves eloquently but still got out their thoughts and concerns and I thought that was extremely helpful. Especially coming from the black community, because in the black community there is not a lot of trust in police and city officials.”
“We had some police officers there. We had some EMTs there. I was there from a school. There were some CERT people there. There were senior citizens there. There were some stay-at-home moms. I think there was some good variety there.”

“There were people from all walks of life. I was very glad to see the community as a whole. All age ranges. I was very impressed by that. It was anywhere from zero to ninety-nine. I was very impressed in the way they jumped right in. Everybody participated. There was no one left out.”

A few interviewees indicated that the forums attracted a minority who were there solely for the financial incentive, and believed that it may have detracted from the overall experience. Others also believed that participation may have been skewed in other ways, particularly if they thought the participants didn’t reflect the neighborhood:

“For the most part I think everyone was there for good intentions. I think there were a few people there who just liked to hear themselves talk. To come for $75 and hear themselves talk.”

“It was a very diverse group of people - Professional people, community workers, citizens. I think they reached a very diverse group. You also had family members, and I don’t think that was good. I guess that was the stipend.”

“It was a good mix of the community, but there were quite a few medical professionals there. I’m wondering what the individuals who actually live in that community would have thought about those issues.”

“I don’t think there were many people from that community there. It seemed like most of them were from other parts of town. It didn’t seem like there were a lot of people from where the event was taking place.”

A Note about Further Analyses Using Demographic Information

We should note the five demographic variables are significantly correlated to each other. Because of this, they are entered together in later analyses to determine their independent contribution to effects. The tables below present the relationships among these variables for citizen participants. Table 4.7 shows the correlations for four
demographic groups and Table 4.8 shows the relationship of these variables with ethnicity.

### Table 4.7
**Correlation among Demographic Categories**

<table>
<thead>
<tr>
<th></th>
<th>Correlation (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender</td>
</tr>
<tr>
<td>Gender</td>
<td>--</td>
</tr>
<tr>
<td>Age Group</td>
<td>.047 ( .269)</td>
</tr>
<tr>
<td>Education Level</td>
<td>.143* ( .001)</td>
</tr>
<tr>
<td>Household Income</td>
<td>.049 ( .279)</td>
</tr>
</tbody>
</table>

*Significant correlation

### Table 4.8
**Relationship of Demographic Groups to Ethnicity**

<table>
<thead>
<tr>
<th></th>
<th>Relationship with Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Gender</td>
<td>0.744</td>
</tr>
<tr>
<td>Age Group</td>
<td>3.169*</td>
</tr>
<tr>
<td>Education Level</td>
<td>6.990*</td>
</tr>
<tr>
<td>Household Income</td>
<td>16.225*</td>
</tr>
</tbody>
</table>

*Significant F-value

It should be noted that due to small percentages of participants in some of the ethnicity categories, the ethnicity variable was condensed into five categories for use in later analysis: Hispanic, White/Caucasian, Black/African-American, Asian, and Other.
Chapter 5: Evaluation Results – Citizen and Stakeholder Knowledge

SUMMARY OF FINDINGS

- The process was successful at increasing relevant knowledge of participants, so citizens and stakeholders could engage in informed dialogue.
- Stakeholders had more knowledge than citizens at the beginning of the meetings and both groups increased their knowledge at about the same rate. Citizens were more likely than stakeholders to believe the information was too complicated for most people to understand.
- 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 prioritizing vaccines, antivirals, and ventilators.
- 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, but the groups did not end up with the same level of knowledge by the end of the event.
- The evaluation findings suggest information presented should be tailored to participants with lower education.

Did participant’s knowledge about pandemic influenza increase?

Citizens were given a five-item knowledge test at the beginning and end of each in-person deliberation meeting. A between-groups repeated measures ANOVA was run to compare the knowledge scores of citizen and stakeholder participant groups before and after the meeting. As indicated in Table 5.1, average scores for citizen knowledge increased significantly from the pre-test to the post (F(1, 601) = 17.244, p < .001). Citizen knowledge increased by 9 percentage points, and stakeholder knowledge increased by 13 percentage points, on average. Therefore the process was successful in increasing knowledge of meeting participants.

There is a difference in knowledge between citizens and stakeholders (F(1,601) = 610.158, p < .001). Stakeholders possessed more knowledge than citizens of flu-related information both before and after the meeting. There is no interaction of type of participant (citizen or stakeholder) and time of testing (pre-meeting or post-meeting; (F(1,601) = 0.418, p = 0.518). Citizen and stakeholder knowledge increased at an equal rate from pre-meeting to post-meeting.
Table 5.1  
Citizen and Stakeholder Change in Knowledge

<table>
<thead>
<tr>
<th>Total Score (% correct)</th>
<th>Citizens (n=576)</th>
<th>Stakeholders (n=27)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest Mean (Std Dev)</td>
<td>34.17 (23.31)</td>
<td>57.04 (22.67)</td>
</tr>
<tr>
<td>Posttest Mean (Std Dev)</td>
<td>43.37 (26.52)</td>
<td>69.63 (22.44)</td>
</tr>
</tbody>
</table>

Data from citizen participants was examined using McNemar’s chi-square to determine on which individual knowledge questions there was an increase in correct answers from pre-meeting to post-meeting. There was a significant increase in people answering correctly on four of the five questions (see Table 5.2).

Table 5.2  
Citizen Change in Knowledge by Question

<table>
<thead>
<tr>
<th>Question</th>
<th>% (#) of Citizens Answering Correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1: How soon after someone is infected with a flu virus can they get sick?</td>
<td>24.3% (140)   25.3% (146)</td>
</tr>
<tr>
<td>Q2: Who is at risk when a new flu virus appears that has never been seen before?</td>
<td>68.6% (395)   76.7% (442)*</td>
</tr>
<tr>
<td>Q3: What causes flu pandemics?</td>
<td>30.0% (173)   43.2% (249)*</td>
</tr>
<tr>
<td>Q4: How is a severe flu pandemic different from seasonal flu?</td>
<td>37.8% (218)   47.4% (273)*</td>
</tr>
<tr>
<td>Q5: Which of the following is true of antiviral medication?</td>
<td>10.1% (58)    24.1% (139)*</td>
</tr>
</tbody>
</table>

*Significant increase in participants giving correct answer
Did citizen participants believe they had sufficient knowledge to engage in informed discussion and make reasoned recommendations?

One set of questions on the post-meeting questionnaire asked participants to rate the discussion on several elements (using a scale from Disagree Strongly (1) to Agree Strongly (4)). Three of these relate to knowledge or understanding of information. Mean ratings (and standard deviations) are presented in Table 5.3 below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean Ratings (Standard Deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>This process helped me better understand the types of trade-offs involved.</td>
<td>Citizens 3.58 (0.656)</td>
</tr>
<tr>
<td>I have enough information right now to have a well-informed opinion.</td>
<td>Citizens 3.52 (0.663)</td>
</tr>
<tr>
<td>The information was too complicated for most people to understand.</td>
<td>Citizens 1.98 (1.149)</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Stakeholders 3.67 (0.482)</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Stakeholders 3.44 (0.507)</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Stakeholders 1.42* (0.776)</td>
</tr>
</tbody>
</table>

*Differs significantly from Citizens

Both citizens and stakeholders overall agreed that the process helped them to better understand the tradeoffs involved in developing flu policies, and that they had enough information by the end of the meeting to have a well-informed opinion. Although both citizens and stakeholders tended to disagree that the information presented was too complicated for most people to understand, citizens disagreed significantly less than did stakeholders (F(1,564) = 5.567, p = .019), indicating the information presented may have been too difficult to understand for some of the participants.

Was there an equalization of knowledge among participants?

One way to examine equalization of knowledge is to determine whether people scored closer together on the quiz questions, by looking at whether the standard deviations for each individual question decreased. 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 decrease appreciably – meaning that people did not become much closer in their level of knowledge from the pre-test to the post-test (standard deviation = 23.31 on pre-test and 26.52 on post-test – see Table 5.1). Within
group t-tests were conducted on the quiz question standard deviations for both citizen and stakeholder participants. Standard deviations did not significantly change from pre-meeting to post-meeting for both groups (citizens: \( t(575) = -16.374, p = .357 \); stakeholders \( t(26) = 3.896, p = .309 \)). Therefore, the process did not result in an equalization of knowledge across participants.

**Did knowledge change differ across demographic groups?**

Next we examined whether citizen education level affected understanding of the material, as well as improvement in knowledge pre-meeting to post-meeting. As observed previously, scores increased overall from pre-meeting to post-meeting \( (F(1,513) = 33.433, p < .001) \). There is not a significant interaction between education level and time of testing \( (F(4,513) = 1.092, p = .365) \). This indicates that knowledge scores tended to increase equally across all levels of education, rather than bringing scores closer together at the post-test.

Table 5.4 shows the change in knowledge for participants by education level. Overall, those with higher levels of education scored significantly higher than those with lower levels of education, collapsed across time \( (F(4,513) = 1436.622, p < .001) \). Those who did not graduate from high school, and those with a high school diploma or GED scored lower than those with more education \( (p\text{-values range from } < .001 \text{ to } .034) \), but did not differ from each other \( (p = .232) \). Those with an Associate’s degree scored higher than those with less education \( (\text{vs. less than high school}, p = .014; \text{vs. high school degree or GED}, p = .034) \), and scored lower than those with a Bachelor’s degree \( (p = .001) \). Those with a Bachelor’s degree and those with a graduate or professional degree did not differ from each other \( (p = .296) \). Therefore, participants with higher levels of education understood the information about pandemic influenza better than those with lower levels of education. The implications for these findings indicate that additional efforts to tailor the informational material to persons of lower education could have improved comprehension and increased knowledge even more for these groups.

**Table 5.4**

<table>
<thead>
<tr>
<th>Change in Knowledge by Citizen Education Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizens Overall</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>( n=518 )</td>
</tr>
<tr>
<td><strong>Pre-test Mean</strong></td>
</tr>
<tr>
<td>Mean (Std Dev)</td>
</tr>
<tr>
<td><strong>Post-test Mean</strong></td>
</tr>
<tr>
<td>Mean (Std Dev)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Ethnicity
Because ethnicity could have an impact on knowledge acquisition due to language barriers, we examined whether citizen ethnicity affected understanding of the material, as well as improvement in knowledge pre-meeting to post-meeting.

As observed previously, scores increased overall from pre-meeting to post-meeting ($F(1,543) = 18.316, p < .001$). There is not a significant interaction between ethnicity and time of testing ($F(4,543) = 2.114, p = .078$). This indicates that knowledge scores tended to increase equally across all ethnic groups, rather than bringing scores closer together at the post-test.

Overall, ethnicities differed in their knowledge scores ($F(4,543) = 16.606, p < .001$). Whites/Caucasians scored higher than all other ethnic groups (p-values range from <.001 to .032). Asians and Other ethnicities scored about the same, and significantly higher than Blacks/African-Americans (p = .009 and .025, respectively), who scored the lowest.

Table 5.5
Change in Knowledge by Citizen Race/Ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Citizens Overall (n=548)</th>
<th>Hispanic (n=63)</th>
<th>White/Caucasian (n=65)</th>
<th>Black/African-American (n=372)</th>
<th>Asian (n=27)</th>
<th>Other (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test Mean</td>
<td>34.49 (23.44)</td>
<td>33.99 (22.61)</td>
<td>49.85 (24.78)</td>
<td>30.59 (22.09)</td>
<td>47.41 (23.63)</td>
<td>40.95 (19.47)</td>
</tr>
<tr>
<td>Post-test Mean</td>
<td>43.83 (26.21)</td>
<td>46.98 (23.87)</td>
<td>62.15 (26.49)</td>
<td>39.78 (25.13)</td>
<td>43.70 (27.20)</td>
<td>49.52 (28.01)</td>
</tr>
</tbody>
</table>

How did participation in the meetings impact participants’ understandings or knowledge of the issues?

A majority of interviewees indicated that participating in a meeting led to gains in knowledge about pandemic influenza and concerns related to distribution of medical resources:

“I was pretty knowledgeable about the H1N1. I did not know there were anti-virals that you could take after you have it. I wasn’t aware of the issue of who should get it first. The issue around the aging population and some of the perspectives - like kick them to the curb - that was really a
surprise to me. That it was even an issue was a real surprise. My opinion was very different and I almost ended up changing it at the end.... I have a different cultural perspective in that I believe in taking care of aged and elderly first should a pandemic occur. But then it started making sense to me that the priority should be those who help other people, doctors and nurses. That was really different from what I was thinking before.”

“I didn’t actually hold any particular views about the issue before attending. But it pushed me to think about these things. The one discussion that really sparked my interest was about having enough ventilators for patients and choosing which patients to try and save. That discussion was the most heated. It made me think about the issue in a way that I never thought about it before. I thought it was good. Before the discussion I had no idea about this. As the discussion went on I started to form my own opinion.”

“At first I didn’t really know what it was about. When we first got there we took a pre-survey and I tried to think what was really going on. I think with the more information you got, the smarter your decisions became. Once you had the basis for what was going on you had a better idea of how to answer questions later.”

“Before I came to this meeting I was very uninformed. In my eyes it was like ‘Why are they doing this? Why is it taking so long to get the medication? Are they going to help us?’ I had all these questions. After going to this meeting, I was so informed.”

Interviewees noted that the discussions gave them a new appreciation for the difficult choices facing the medical community in the event of a pandemic-type of scenario:

“I just realized that the doctors and health care providers have a hard task in deciding who should be the people who receive the shots and everything first. When they were asking us I realized how difficult it was to make those calls.”

“Really it gave me some insight on how they – the doctors – would go about giving the vaccines to people, and how they did their research and how everyone’s opinion had a lot to do with that....It was very informative to get information on how they were going to do it, and how they would give the vaccines to people who couldn’t afford it, for example.”

Additionally, some interviewees indicated that prior to the meeting, they had an ambivalent or negative perception of vaccines, or knew others that did. Participation in
the discussions and learning about the pandemic changed participant attitudes towards taking vaccines:

“I didn’t know anything about the H1N1 and didn’t know much about the last pandemic episode they had. It educated me about who should get it and who shouldn’t, and how to get the virus, and so on. I didn’t know anything about that.... I've had the pneumonia shot and I think I had the flu shot this year. I’m going to try and share this with my relatives who don’t take the flu shot.”

“There are so many things that need to get out to the community so they don’t panic. It makes you feel more secure in taking these vaccines, because without the knowledge of how it works, you are afraid of these vaccines.”

“Two of them stated to me that beforehand that they would never take the flu shot. But after attending the meeting, because it was so informative, in deciding whether to take the flu shot or not, they now can make an educated choice. Before, they weren’t informed and had a lot of misinformation. I think in general a lot of misinformation was cleared up, excellent knowledge was provided, and a lot of people who wouldn’t have taken the vaccine before now have better insight and knowledge to make smarter choices.”

Some individuals indicated that participation in meetings did not change their opinions, but was educational because of the exposure to different viewpoints:

“I don’t think it really affected me. I didn’t really have any opinions at the start of the meeting. It was just good to listen to everyone else’s opinions at the meeting.”

“My opinions didn’t change, but it was interesting to hear the opinions of the others. Eighty five to ninety percent of the people there were just from the general public. The majority of them just seemed to be Joe Public. It was interesting to hear the reasons why various groups weren’t getting the medicine.”

Did participants understand the purpose of the meeting and information presented?

All participants interviewed noted that they understood the purpose of the meeting, and that the information presented was clear and easy to understand. Several interviewees indicated that facilitators and staff were helpful, informative, and answered any questions participants had:
“Everybody introduced themselves at the beginning and said where they were from. Everything was very clear and concise. I understood who was sponsoring it and why they were sponsoring it.”

“My understanding of why they had the meeting is to make sure that their priorities were in line with what the public wants.”

“Going into it I was a little fuzzy, but it became clear to me in the morning. And the moderators and other staff really helped me understand what was going on.”

“It was very easy to understand whether you had a medical background or not. They took us step by step and answered questions, and didn’t rush anybody. They gave everybody time to discuss things. It was done very well.”

“The information presented was very clear and they were very open to answering questions if people needed clarification on anything.”
Chapter 6: Evaluation Results – Impact of Deliberations on Beliefs About Priorities

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. This conclusion is qualified in that the level of change did not appear great enough to affect overall priorities.
- Contrary to predictions, the process did not result in a greater level of agreement among participants about priorities. We believe this may be because the process was not designed to achieve consensus or that the process polarized the views of participants.
- There were significant differences in priority ratings across race, ethnicity, gender, age, and education. This result suggests the importance in public engagement processes of having representation of both demographic groups.
- There were significant differences between citizen and stakeholders regarding whether all persons regardless of age, medical condition, or job should receive the same priority. Citizens were more likely than stakeholders to all persons should be treated the same. This finding provides evidence for including both citizens and stakeholder if the interest is in obtaining different perspectives.

Did ratings of priority groups change?

Participants were asked to indicate the priority of various groups for receiving influenza vaccine in a pandemic, on a scale from Very Low Priority (1) to Very High Priority (5), at the beginning of each meeting and again at the end of each meeting. Mean ratings (and standard deviations) are presented in Table 6.1 below. A between-groups repeated measures MANOVA was used to analyze differences between stakeholder and citizen participants in their group priority ratings before and after the meeting. There are no significant differences between citizens and stakeholders in their group priority ratings (F(7, 444) = 1.618, p = .128).

There is an overall difference in group priority ratings from pre-meeting to post-meeting (F(7, 444) = 5.189, p < .001). This difference is driven by different pre-meeting and post-meeting ratings for children (F(1,450) = 12.196, p = .001), the elderly (F(1,450) = 6.803, p < .001), and workers who help keep communities functioning (F(1,450) = 7.762, p = .006). Priority ratings for all three of these groups decreased significantly from pre-
meeting to post-meeting. There is no interaction of type of participant (citizen or stakeholder) with time of rating (pre-meeting or post-meeting) \( F(7,444) = 1.043, p = .400 \).

**Table 6.1**

Citizen and Stakeholder Ratings of Priority Groups Pre and Post Meeting

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Ratings (Standard Deviation)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Citizens (n=431)</td>
<td>Stakeholders (n=21)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-meeting</td>
<td>Post-meeting</td>
<td>Pre-meeting</td>
</tr>
<tr>
<td>Healthcare workers</td>
<td>3.53 (0.718)</td>
<td>3.59 (0.651)</td>
<td>3.67 (0.483)</td>
</tr>
<tr>
<td>Pregnant women</td>
<td>3.53 (0.749)</td>
<td>3.47 (0.704)</td>
<td>3.67 (0.577)</td>
</tr>
<tr>
<td>Persons who are most likely to get seriously ill or die from the flu</td>
<td>3.48 (0.747)</td>
<td>3.46 (0.746)</td>
<td>3.67 (0.577)</td>
</tr>
<tr>
<td>Children</td>
<td>3.66 (0.585)</td>
<td>3.44* (0.762)</td>
<td>3.62 (0.590)</td>
</tr>
<tr>
<td>The elderly</td>
<td>3.56 (0.682)</td>
<td>3.31* (0.784)</td>
<td>3.57 (0.676)</td>
</tr>
<tr>
<td>People important to everyone’s safety, like firefighters, police or ambulance workers</td>
<td>3.40 (0.755)</td>
<td>3.20 (0.769)</td>
<td>3.57 (0.598)</td>
</tr>
<tr>
<td>Workers who help keep communities functioning, such as those who keep on the electricity and those who get food to grocery shelves</td>
<td>3.04 (0.908)</td>
<td>2.84* (0.906)</td>
<td>3.24 (0.539)</td>
</tr>
</tbody>
</table>

*significant change from pre to post

Although citizen opinions did change as a result of the process, these changes were subtle. Table 6.2 shows the rank order of groups that were included in both the evaluation surveys and the electronic polling. Rankings among these four groups were the same for the polling results, and the evaluation pre-meeting and post-meeting surveys.
Table 6.2
Priority Ranks for Polling, Pre-survey and Post Survey

<table>
<thead>
<tr>
<th>Group</th>
<th>Priority/Importance to vaccinate - Rank</th>
<th>Polling Results</th>
<th>Evaluation Survey Pre</th>
<th>Evaluation Survey Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare workers</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>People most likely to get seriously ill die from the flu</td>
<td></td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Public safety workers</td>
<td></td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Workers who provide critical societal functions</td>
<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Did group priority ratings converge?

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. Convergence of ratings was examined by looking at whether the standard deviations for group priority ratings decreased from pre-meeting to post-meeting. Within-group t-tests were conducted on the standard deviations from the priority ratings for both citizen and stakeholder participants. Standard deviations were not significantly different from pre-meeting to post-meeting for both groups (citizens: \( t(430) = -8.099, p = .462 \); stakeholders \( t(20) = 0.153, p = .948 \)). 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. Another explanation is that discussion caused within-group polarization among participants, or hardening of sub-groups within the group discussions (Lau & Murningham, 2005; Phillips, Mannix, Neale & Gruenfeld, 2004; Shaw & Barrett-Power, 1998). Groups that are demographically diverse (as these meetings were) might be particularly vulnerable to such an effect.

Are there differences among demographic groups in ratings of priority groups?

A repeated measures MANOVA model (specified for main effects of demographic variables and pre-post ratings, and interactions of demographic variables with pre-post ratings only) was used to analyze whether demographic groups represented by the five demographic variables (gender, age group, ethnicity, education level, and household income group) differed in their group priority ratings. All demographic variables were
entered into one analysis because there is a high degree of inter-correlation among these variables (see analysis under demographics section).

All demographic variables except income were independently related to group priority ratings: gender (F(7, 337) = 2.378, p = .022); age group (F(35, 1705) = 1.488, p = .033); ethnicity (F(28,1360) = 2.355, p < .001); education level (F(28, 1360) = 1.533, p = .038); and household income (F(35,1705) = 1.395, p = .063). There were no significant interactions of demographic variables with pre-post priority ratings. These findings reinforce the importance of including a diversity of demographic groups in the public engagement process. Individuals from different backgrounds have different beliefs about priorities for scarce resources. The discussion below provides details about how beliefs varied by different groups.

**Gender**
For gender, the effect was driven by priority ratings for safety workers (F(1,343) = 4.307, p = .039). Women gave safety workers a higher priority rating (M = 3.343) than did men (M = 3.207).

**Age Group**
For age group, the effect was driven by priority ratings for: safety workers (F(5,343) = 3.880, p = .002); and workers who help keep communities functioning (F(5,343) = 3.197, p = .008). Priority ratings for safety workers generally increased as age group increased. Those in the 18-24 age group gave the lowest priority rating (M = 3.005), and differed significantly from those in the four highest age groups (p-values range from <.001 to .005). Those in the 25-34 age group gave the next lowest ratings (M = 3.114) and differed significantly from those in the two highest age groups (p-values range from .001 to .003). Those in the 35-44 (M = 3.327) and 45-54 (M = 3.280) did not differ from each other, but did differ from those 18-24 (p = .005 and p = .003, respectively), and differed from those 65 or older (p = .049 and p = .023, respectively); those 45-54 also differed significantly from those 55-64 (p = .021). Those in the two highest age groups, 55-64 (M = 3.403) and 65 or older (M = 3.522), did not differ from each other, although as mentioned they both differed from the two youngest age groups (p-values range from <.001 to .003), and from the 45-54 age group (p = .021 and p = .023, respectively); those 65 or older also differed from the 45-44 age group (p = .049).

Priority ratings for workers who help keep communities functioning also generally increased as age group increased, and significantly differed between the two youngest and two oldest age groups. Those 18-24 (M = 2.709) and 25-34 (M = 2.744) gave lower priority ratings than did those 55-64 (M = 3.121) and those 65 or older (M = 3.334) (p-values range from .002 to .006). The two middle age groups, 35-44 (M = 3.026) and 45-54 (M = 2.961) gave ratings in between the other groups, and did not differ from the other groups significantly.


**Ethnicity**

Due to small percentages of participants in some of the ethnicity categories, the ethnicity variable was condensed into five categories for use in this and later analysis: Hispanic, White/Caucasian, Black/African-American, Asian, and Other. For ethnicity, the effect was driven by priority ratings for: the elderly (F(4,343) = 4.009, p = .003); children (F(4,343) = 5.841, p < .001); and pregnant women (F(4,343) = 4.982, p = .001). Priority ratings for the elderly differed between those who were White/Caucasian, who gave the lowest priority rating to the elderly (M = 3.053), and those who were Hispanic (M = 3.403, p = .006) or those who were Black/African-American (M = 3.437, p < .001), who gave the two highest priority ratings to the elderly. There were no other significant differences between groups.

Priority ratings for children were lowest among Whites/Caucasians (M = 3.180), who differed from all four other ethnicities (p-values range from < .001 to .034). The next lowest rating was given by Other ethnicities (M = 3.481), who differed only from Whites/Caucasians (p = .034). Blacks/African-Americans gave the next highest rating (M = 3.500), and differed significantly from Hispanics (p = .009) and Whites/Caucasians (p < .001). Asians gave the next highest rating (M = 3.601), and differed only from Whites/Caucasians (p = .009). The highest priority rating for children was given by Hispanics (M = 3.747), who differed significantly from Blacks/African-Americans (p = .009) and Whites/Caucasians (p < .001).

Priority ratings for pregnant women were again lowest among Whites/Caucasians (M = 3.249), who differed significantly from Hispanics (p < .001) and Blacks/African-Americans (p = .012). The next lowest ratings were given by Other ethnicities (M = 3.267) and Asians ( M = 3.307), who both differed only from Whites/Caucasians (p = .018 and p = .018, respectively). The next highest priority rating was given by Blacks/African-Americans ( M = 3.531), who differed from Hispanics (p = 0.18) and Whites/Caucasians (p = .012). The highest priority rating for pregnant women was given by Hispanics (M = 3.762), differing significantly from all other ethnicities (p-values range from <.001 to .018).

**Education Level**

For education level, the effect was driven by priority ratings for: the elderly (F(4,343) = 4.035, p = .003); children (F(4,343) = 2.768, p = .027); and pregnant women (F(4,343) = 4.465, p = .002). Priority ratings for the elderly differed between those who had less than a high school degree, who gave the lowest priority rating to the elderly (M = 2.899), and those with a high school degree/GED (M = 3.330, p = .011), as well as those with an Associate’s degree (M = 3.451, p = .008), the latter of which gave the highest priority rating to the elderly. There were no other significant differences between education groups in priority ratings for the elderly.

Priority ratings for the children also differed between those who had less than a high school degree, who gave the lowest priority rating to children (M = 3.296), and those
with a high school degree/GED ($M = 3.570, p = .045$), as well as those with an Associate’s degree ($M = 3.679, p = .047$), who gave the two highest priority ratings to children. There were no other significant differences between education groups in priority ratings for children.

Priority ratings for pregnant women differed between those who had less than a high school degree, who gave the lowest priority rating to pregnant women ($M = 3.076$), and those with a high school degree/GED ($M = 3.426, p = .023$), as well as those with an Associate’s degree ($M = 3.620, p = .002$), and those with a Bachelor’s degree ($M = 3.574, p = .009$). Those with a graduate or professional degree ($M = 3.420$) did not differ from any other group in priority ratings for pregnant women.

**Did opinions change about treating people the same?**

Participants were asked to indicate how much they agreed or disagreed with the use of various criteria for setting flu vaccine priority groups (on a scale from Strongly Disagree (1) to Strongly Agree (5)). Mean ratings (and standard deviations) are presented in Table 6.2 below.

A between-groups repeated measures MANOVA was used to analyze differences between stakeholder and citizen participants in their agreement on how to set priorities before and after the meeting. Unlike the ratings of particular priority groups shown in table 6.1, there are no overall differences between pre-meeting and post-meeting agreement on how to set priorities ($F(3,586) = 0.784, p = .503$). There is also no interaction of type of participant (citizen or stakeholder) with time of rating (pre-meeting or post-meeting) ($F(3,568) = 0.128, p = .943$).

Unlike the ratings of priority groups shown in table 6.1, there is an overall difference in agreement on how to set priorities between citizens and stakeholders ($F(3,568) = 16.467, p < .001$). This difference is driven by all three ways to set priorities: by age ($F(1,570) = 37.124, p < .001$); by job ($F(1,570) = 43.748, p < .001$); and by medical condition ($F(1,570) = 21.442, p < .001$). Stakeholders disagreed more than citizens that priority for receiving flu vaccine should be regardless of age, job, or medical condition.
Table 6.2
Citizen and Stakeholder Ratings of Treating Persons the Same Pre and Post Meeting

<table>
<thead>
<tr>
<th>Priority Criterion</th>
<th>Mean Ratings (Standard Deviation)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(In order of highest to lowest agreement for citizens at post-test)</td>
<td>Citizens (n=545)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-meeting</td>
<td>Post-meeting</td>
<td>Pre-meeting</td>
<td>Post-meeting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All persons should receive the same priority to flu vaccine regardless of their age</td>
<td>2.97 (1.027)</td>
<td>3.00 (1.083)</td>
<td>1.93 (0.874)</td>
<td>2.00* (0.961)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All persons should receive the same priority to flu vaccine regardless of their job</td>
<td>2.97 (1.085)</td>
<td>2.86 (1.155)</td>
<td>1.81 (0.921)</td>
<td>1.70* (0.869)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All persons should receive the same priority to flu vaccine regardless of their medical condition</td>
<td>2.69 (1.102)</td>
<td>2.51 (1.152)</td>
<td>1.78 (0.847)</td>
<td>1.74* (0.903)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant difference between citizens and stakeholders

Did opinions on how to set priorities converge?

Convergence of agreement with ways to set priorities was examined by looking at whether the standard deviations for agreement ratings decreased from pre-meeting to post-meeting. Within-group t-tests were conducted on the standard deviations from the agreement ratings for both citizen and stakeholder participants. Standard deviations did change for citizens, but instead of decreasing they increased from pre-meeting to post-meeting (t(544) = -181.269, p = .010). Standard deviations were not significantly different from pre-meeting to post-meeting for stakeholders (t(26) = -2.872, p = .546). Again, the reason for lack of convergence may be that citizens were not asked to reach consensus, but rather to give their individual opinions through electronic polling; or positions were polarized as a result of the deliberations.

Are there differences among demographic groups in how to set priorities?

A repeated measures MANOVA model (specified for main effects of demographic variables and pre-post ratings, and interactions of demographic variables with pre-post ratings only) was used to analyze whether demographic groups represented by the five demographic variables (gender, age group, ethnicity, education level, and household income group) differed in their group priority ratings. This analysis examined differences for citizen participants only. As with the questions about specific priority groups, opinions about treating groups the same were different across demographic groups, again reinforcing the need to include a diversity of citizens in public engagement processes. Below is a detailed discussion of the differences across groups.
Gender, ethnicity, and household income were independently related to agreement with how to set priorities: gender (F(3,429) = 5.770, p = .001); age group (F(15,1293) = 1.413, p = .133); ethnicity (F(12,1293) = 2.595, p = .002); education level (F(12, 1293) = 1.426, p = .147); and household income (F(15,1293) = 1.984, p = .014). There were no significant interactions of demographic variables with pre-post agreement ratings.

**Gender**

For gender, the effect was driven by agreement with setting priorities based on medical condition (F(1,431) = 15.062, p < .001). Women (M = 2.332) disagreed more than men (M = 2.668) that people should receive the same priority for flu vaccine regardless of medical condition.

**Ethnicity**

For ethnicity, the effect was driven by agreement with setting priorities based on: age (F(4,431) = 2.526, p = .040); and job (F(4,431) = 3.762, p = .005). Hispanics expressed the most agreement with setting priorities regardless of age (M = 3.116), and differed significantly from Whites/Caucasians (p < .001) and Asians (p = .003). The next highest agreement with setting priorities regardless of age was expressed by Other ethnicities (M = 2.927), who did not differ significantly from other groups. Blacks also expressed a relatively high agreement with setting priorities regardless of age (M = 2.861), differing from Whites/Caucasians (p < .001) and Asians (p = .021). Whites/Caucasians (M = 2.648) and Asians (M = 2.528) expressed the least agreement of setting priorities regardless of age, with their ratings falling halfway between Disagree Somewhat (score = 2) and Agree Somewhat (score = 3).

Blacks/African-Americans expressed the most agreement with setting priorities regardless of job (M = 2.902), and differed significantly from Whites/Caucasians (p < .001) and Other ethnicities (p = .013). The next highest agreement with setting priorities regardless of job was expressed by Hispanics (M = 2.786), who also differed from Whites/Caucasians (p = .004). Asians also expressed relatively middle-of-the-road agreement with setting priorities regardless of job (M = 2.664), and did not differ from other ethnic groups. Other ethnicities (M = 2.457) and Whites/Caucasians (M = 2.417) expressed the least agreement with setting priorities regardless of job.

**Household Income**

For household income, the effect was driven by agreement with setting priorities based all options presented: age (F(5,431) = 3.334, p = .006); job (F(5,431) = 2.790, p = .017); and medical condition (F(5,431) = 4.450, p = .001). The lowest three income groups (Less than $15,000; $15,000 to $34,999; and $35,000 to $49,999) consistently expressed more agreement with setting priorities regardless of age, and job, than did the highest three income groups ($50,000 to $74,999; $75,000 to $99,999; and $100,000 or more) (p-values range from < .001 to .032).
Regarding setting priorities based on medical condition, those with a household income less than $15,000 expressed the most agreement with setting priorities regardless of condition (M = 2.737), and differed significantly from the top three income levels (p-values range from < .001 to .030). The next highest agreement with setting priorities regardless of medical condition was expressed by the two groups with a household income between $15,000 and $49,999 (M = 2.719 and 2.663) who both differed from the two income groups between $50,000 and $99,999 (p-values all = .001 or < .001). The income group of $100,000 or more expressed middle-of-the-road agreement with setting priorities regardless of medical condition (M = 2.575), and differed significantly only from the groups with the most agreement (Less than $15,000, p = .030) and with the least agreement ($75,000 to $99,999, p = .048). The two groups with household incomes between $50,000 and $99,000 (M = 2.281 and 2.026) expressed the least agreement with setting priorities regardless of medical condition.
Chapter 7: Evaluation Results – Quality of Deliberations

SUMMARY OF FINDINGS

- Participants perceived the process to be of high quality. Participants thought the meetings were beneficial, educational, and professionally run and managed.
- Citizens were more likely than stakeholders to believe a person or group dominated the discussion and that important points were left out of the meeting.
- There were differences among groups in the perception of the quality of the process. Women tended to rate the process more positively than men and Hispanics tended to rate the process lower than other ethnic/racial groups.

Post-Meeting Ratings of the Process

At the end of each meeting, participants were asked to indicate their degree of agreement or disagreement with several statements (using a scale from Disagree Strongly (1) to Agree Strongly (4)). Mean ratings (and standard deviations) are presented in Table 7.1 below.

Overall, citizen and stakeholder participants gave high ratings to the meetings, with positive statements rated between Agree Somewhat (score = 3) and Agree Strongly (score = 4), and negative statements rated between Disagree Somewhat (score = 2) and Disagree Strongly (score =1). Citizens did tend to disagree less strongly with the negative statements than did stakeholders: important points were left out (F(1,566) = 3.898, p = .049); and a person or people dominated the meeting (F(1,588) = 4.873, p = .028).
Table 7.1
Process Ratings by Citizens and Stakeholders

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean Ratings (Standard Deviation)</th>
<th>Citizens</th>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>This meeting was fair to all people who attended.</td>
<td>3.76 (0.544)</td>
<td>3.92 (0.277)</td>
<td></td>
</tr>
<tr>
<td>I felt comfortable talking in this meeting.</td>
<td>3.75 (0.560)</td>
<td>3.96 (0.200)</td>
<td></td>
</tr>
<tr>
<td>This meeting produced a good outcome.</td>
<td>3.73 (0.545)</td>
<td>3.76 (0.436)</td>
<td></td>
</tr>
<tr>
<td>People at this meeting represented a wide variety of perspectives.</td>
<td>3.63 (0.642)</td>
<td>3.50 (0.590)</td>
<td></td>
</tr>
<tr>
<td>This process helped me better understand the types of trade-offs involved.</td>
<td>3.58 (0.656)</td>
<td>3.67 (0.482)</td>
<td></td>
</tr>
<tr>
<td>Important points were left out of our meeting.</td>
<td>2.08 (1.100)</td>
<td>1.64* (0.757)</td>
<td></td>
</tr>
<tr>
<td>One person or a small group of people dominated the meeting.</td>
<td>1.99 (1.152)</td>
<td>1.46* (0.932)</td>
<td></td>
</tr>
</tbody>
</table>

*Differs significantly from Citizens

Are there differences among demographic groups in ratings of the process?

A MANOVA model (specified for main effects of demographic variables only) was used to analyze whether groups represented by the five demographic variables (gender, age group, ethnicity, education level, and household income group) differed in their process ratings. This analysis examined differences for citizen participants only. Gender and ethnicity were independently related to ratings of the process: gender (F(7, 408) = 6.508, p < .001); age group (F(35, 2060) = 1.228, p = .169); ethnicity (F(28, 1644) = 1.772, p = .008); education level (F(28, 1644) = 1.399, p = .080); and household income (F(35, 2060) = 1.307, p = .108).

Gender
For gender, the effect was driven by all process items. Women rated the process more favorably than men on:

- The meeting was fair to all who attended (F(1, 414) = 22.236, p < .001); felt comfortable talking in the meeting (F(1, 414) = 6.156, p = .013);
- The process helped to better understand the trade-offs involved (F(1, 414) = 10.744, p = .001);
• People at the meeting represented a variety of perspectives \( (F(1,414) = 5.539, p = .019) \); and
• The meeting produced a good outcome \( (F(1,414) = 8.404, p = .004) \).

Men indicated more agreement than women with the negative statements: one person or group of people dominated the meeting \( (F(1,414) = 4.507, p = .034) \); and important points were left out \( (F(1,414) = 20.589, p < .001) \).

Ethnicity
For ethnicity, the effect was driven by two of the seven process items: the meeting was fair to all who attended \( (F(4,414) = 3.757, p = .005) \); and one person or group of people dominated the meeting \( (F(4,414) = 3.420, p = .009) \). ‘Other’ ethnicities agreed the most that the meeting was fair to all who attended \( (M = 3.853) \), followed by Whites/Caucasians \( (M = 3.816) \), and Blacks/African-Americans \( (M = 3.701) \); all three of these ethnic groups differed significantly from Hispanics \( (M = 3.470, p-values range from .002 to .022) \), who agreed with this statement the least. Whites/Caucasians also differed significantly from Asians \( (M = 3.517, p = .017) \).

Asians disagreed the least that one person or group of people dominated the meeting \( (M = 2.558) \), with an average score that fell in the neutral territory between Disagree Somewhat \( (score = 2) \) and Agree Somewhat \( (score = 3) \). Asians did not differ significantly Hispanics \( (M = 2.000) \), but they did differ from all other ethnic groups: Blacks/African-Americans \( (M = 1.962, p = .018) \); Whites/Caucasians \( (M = 1.623, p = .001) \); and Other ethnicities \( (M = 1.445, p = .006) \). There were no other significant differences.

What were citizen participants’ overall impressions of the meetings?

The information gained through interviews confirmed that participants had a positive view of the process. All interviewees expressed very positive comments about the meeting they attended. Participants thought the meetings were beneficial, educational, and professionally run and managed. Several individuals indicated that they felt energized and inspired to participate in a meeting:

“I believe that it was very informative. It was not what I expected. I sort of thought that it was going to be one of those seminars where you go and sit and listen to someone talk for hours and be really boring. Actually it turned out to be something really fun and informative at the same time. I kind of enjoyed it.”
“I thought it was very well facilitated. They took a lot of care making sure everyone was comfortable. It was a great learning experience. I thought the group breakouts were good. It gave us a chance to contribute if we weren’t comfortable sharing ideas in a larger group. We could share ideas with others. So I thought it was well structured. I felt it was good and important for some of the key leaders who were leading this initiative to actually be able to drop in and talk to us briefly.”

“I think that it was very informative. I felt like it was good that they asked for our opinions on how they could improve on the research….I think they did good with serving everybody lunch and breakfast. I think the incentive was very good also…. I had never attended anything like that before. It was a good hands-on learning experience.”

“It was very well put together. I met several professionals for the first time and others I had met before. I was very impressed with the way it flowed and everything. I’ve been to many trainings and most of them are sort of stuffy, but not this one. I was impressed with it.”

“Very well organized. Everyone was in position, everything was well done. Everyone was very professional. It couldn’t have been done better.”

“Great decision to have the doctor available to answer our questions. Thank you for providing breakfast, lunch and snacks.”

Among individuals interviewed, there were few negative comments about process or content related to the discussions. There were a few minor complaints, but they were primarily related to logistical issues. Comments written on surveys provided a few additional criticisms:

“The only suggestion I would have is that I think the registration part was a little long and a little confusing for some people. If they would have had name tags there already filled out or something it might have worked faster.”

“I think that it was really good that they asked the general population how they felt, or what some of the ways are they would handle the
situation. I think it was a really good thing that they got the general population involved. The things that weren’t so good was that we had a few technology problems that took away from the time that we had.”

“The printed questions used for discussions sometimes overlapped or caused some confusion by the way they were written.” The process could have been improved through better sign-up, food distribution, informing people restrooms were available through both entrances to room.”

“The cut-out game in Spanish was poorly written and confusing. Very, very bad!”

What were citizen participants’ overall impressions of the small group exercises and discussions?

All interviewees found the small group experiences to be thoughtful and informative discussions that were well-run and managed. Many of the respondents commented about the high quality of the small group facilitators. Participants enjoyed the opportunity to share their feedback with others in a respectful way:

“Everyone has their own opinion and what they value. At times there was some debate and some back and forth. But overall it showed that there was not just one way of thinking but several different ways of thinking.”

“The small group discussions were very, very informative. It gave everyone a chance to voice their opinions and think about how people should receive the vaccine. It gave everyone some insight on how it should be implemented, and why it should be implemented. You got to find out a lot about how each person thought, and why they thought about how things should be implemented.”

“I think the small groups worked really good. Even with the time limits, we still wanted more time to talk about the topics.”

“I was impressed with peoples’ ability to agree to disagree. We all don’t have the same point of views. When it came down to each individual person giving their opinion, everyone was allowed to do that without any friction of any kind. Everything was well structured and everyone seemed to get along so I was impressed.”

“I liked the fact that the discussions were facilitated, which really helped keep the discussions going so we could produce a result that we wanted. Mostly people were pretty civil and open, although a little vocal. It was good for everyone because everyone wanted to air different views.”
Several interviewees specifically indicated that they enjoyed the diversity in the small group sessions, and how that informed the discussions and exposed them to new perspectives on the topic of discussion:

“The small group discussions were great. There was great input. We had two people from the Houston response team and they were informative. They had some great ideas.”

“They were quite interesting. We sat with several young people. It was a mixture of adults and younger people. It was quite shocking for some of us to learn their perspectives on how they view things. It was very informative. It was bridge-building as far as generations are concerned.”

“It was excellent; it was really how I got all my learning. To hear others’ opinions was very interesting because there were different opinions and it made it more interesting.”

A few interviewees did express some criticism about how small group discussions were handled, although this reflected a small minority of experiences. It seemed that these criticisms were related to logistical issues, and not process characteristics:

“In our particular group we ended up having two co-leaders who were facilitators and they differed in the way they conducted the questions and had people contributing, so that became sort of confusing.”

“Basically, it got a little rowdy. You couldn’t focus on what you wanted to do because each table was noisy. Everyone was so opinionated that it got sort of loud.”

**What were stakeholder participants’ overall impressions of the meeting?**

Stakeholder meeting interviewees also had very positive overall impressions of the meeting:

“This was the first time I had ever attended a meeting like this. I was impressed. I liked what was discussed. I liked the way they had us work together as a team. I actually learned a lot from that. When I went there I learned a lot about what we were discussing.”

“My overall impression was that I thought it was good. I thought it was organized well. I liked the use of the technology with the slides and the clickers.”
“I found that the meeting was well-run, that it was interactive. Overall I had a good impression of the meeting. I thought the questions were appropriate. The time allotted was good. Overall I thought that the program was good and that they were really looking to get community input. If they weren’t taking input directly they were at least engaging the community. The community is thinking about these things.”
Chapter 8: Evaluation Results – Perceptions about Use of the Public Input

SUMMARY OF FINDINGS

- Citizens and Stakeholders tended to believe public officials would use their input from the deliberations. Participants were pleased they had a voice in this process.
- It was unclear how information would be communicated back to participants about the decisions ultimately made; however, this type of feedback would likely enhance trust in the policy making process and further the benefits produced by the public engagement process.
- Both citizens and stakeholders tended to believe that the public engagement process would increase public support for policy decisions.
- Many participants appeared to be moved to action as a result of the meeting. Some indicated they would communicate the information to other individuals or organizations; others said they would be more likely to participate in other similar processes.

Do participants have greater trust in government and support for policy decisions by public officials who consider their input?

On the post-meeting questionnaire participants indicated their degree of agreement or disagreement with two statements indicating trust and support of public officials (using a scale from Disagree Strongly (1) to Agree Strongly (4)). Mean ratings (and standard deviations) are presented in the table below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean Ratings (Standard Deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officials will use our input in their decisions.</td>
<td>3.33 (0.768)</td>
</tr>
<tr>
<td></td>
<td>Citizens</td>
</tr>
<tr>
<td></td>
<td>3.08 (0.572)</td>
</tr>
<tr>
<td></td>
<td>Stakeholders</td>
</tr>
<tr>
<td>These meetings will increase people’s support of the decisions.</td>
<td>3.48 (0.671)</td>
</tr>
<tr>
<td></td>
<td>Citizens</td>
</tr>
<tr>
<td></td>
<td>3.48 (0.510)</td>
</tr>
<tr>
<td></td>
<td>Stakeholders</td>
</tr>
</tbody>
</table>

Both citizens and stakeholders overall agreed that they expected officials to use their input in flu policy decisions, and expected the meetings to increase people’s support of
the policy decisions. Stakeholders only somewhat agreed (score = 3) that officials would use their input, but this did not differ significantly from the opinions of citizens.

**Following the meetings, what were participants’ opinions or expectations of Harris County?**

Almost all interviewees felt appreciative that the meetings provided them with an opportunity to voice their opinions to Harris County about pandemic influenza planning. The experience fostered positive attitudes towards local government, and also created an expectation that public input would be used in actual planning activities:

“It gave me a deeper insight into what was going on. Seeing what type of things they were trying to do and get feedback. Sometimes you do make decisions being at the top, and not realizing that it does affect the people below you in a different way. So I thought it was really kind of thoughtful to bring the discussion down a level and see what the people say instead of making a decision on their own.”

“Sometimes being in a rank higher you don’t know what the people need. I think that if you want to be a good leader, sometimes you have to follow the people who follow you. So I would hope they take public input into consideration.”

“It made me look at them in an even better light. I think it was much needed, not just with statistical purposes to gather the information, but to ask what the people think. I appreciate Harris County asking the people, and not just Harris County or the government making all the decisions. We actually have input on what decisions will be made.”

“This was the first time to participate in anything like this and I hadn’t known before that these kinds of things were even available. I’d like to see this happen more often and more people made aware of opportunities to make a difference by participating in forums like this. I have a really different impression now, more positive, than I’ve had before. Because I thought they were not in touch with the community about things like this…. I thought all these decisions were very bureaucratic and little or no consideration of the community. In this case I think they are ending up getting different community perspectives, and looking at different groups and different needs, as opposed to one homogenous group of people.”

“It improved my opinion of the city officials and our public health system and made me think that they are trying to do things that are not just
meant to be seen by people and have no effect, but that will actually lead to something, be practical and actually be used. So overall it did make me feel a lot better about my city and the city officials here.”

When asked if they believed Harris County would use public input for actual planning activities, some interviewees did express some caution and hesitation:

“I have a positive opinion of Harris County now that they are open to the opinions of the people and trying to make sure that they have a voice.... I am hoping they will use our opinions in planning. Probably some they will use and some not. I am hoping they will take some of the advice and use it or enforce it in some sort of way.”

“The proof will always be when they actually implement it. But I sure hope so.... I predict that they will use it. It sounded like their plans were mainly in line with what the public wanted.”

“I think they will take our input into account. They put a lot of effort into organizing the event. At the end of the day, expert input will be used so they can’t do everything based on the public’s wishes. But I think the important thing for them is not the technical part of it, but what the people’s feelings are on the ethical issues.”

Several interviewees particularly enjoyed interacting with Harris County officials. The fact that they were present and engaged participants fostered a sense of goodwill and positive expectations:

“I feel better about my city knowing that we are trying to put together a plan. It makes me want to be involved in these affairs and stay abreast with what is going on with it.”

“I especially liked when the physician from Harris County spoke. She had a lot of great information, and she came down to our level. In other words she talked with us about these things on a level that we could understand, and that was very important. And she gave relevant examples, so she was very much in tune with the community. She was very polite. I work with doctors. A lot of time a lot of doctors are just way in the clouds. Not very humble and they lack in social skills. She was quite different. She was very approachable, very down to earth.”
What follow-up activities have participants done, or plan to do, as a result of participating in the discussions?

Almost all participants interviewed stated that they informed friends and family members about the discussion they attended:

“I’ve discussed these issues with a lot of people I have come into contact with, friends.... I plan to keep abreast of this issue and how they will implement it. I’ll look on the internet to see if Harris County gives any updates about this.”

“I took the folder I got at the meeting and shared it with my family. I discussed it with my family members and friends, and that gave them an opportunity to learn about how they could go to a meeting and learn more about it.”

“One thing that I did do when I got home is, I informed the people that I knew. I gave them information. We came out all being ambassadors concerning the information that we received.”

A few interviewees were very enthusiastic, and stated that they wanted to be more involved in their communities about the issue, and wanted to take affirmative action to help spread awareness about pandemic influenza:

“What I want to do is stay in the loop. I want to learn more and know what is happening. I want to be a part of it. I want to put flyers out there and be out there and help people understand how it works. In our communities, in our low income communities, when something like this happens, they feel downtrodden and low and feel that no one is there for them. I want to be one of those out there to say that people do care for us. We may be low income but they do care and they are trying to put things in place for us. I want to educate them so they won’t be afraid, because they are afraid when these things happen. Put me on the list. Call me. I am here!”

“It makes me want to go and inform others about the things that are happening and pass on the subject matter. I think there are a lot of people in the community who don’t quite understand what these things are. You hear about them all the time but you don’t really know who is making the decisions if or when something like that happens. So I’m going to be spreading the information that I received.”
To what extent will the Stakeholder meeting lead to follow-up activities by participants/participating organizations?

Not unlike the citizen engagement meetings, stakeholder interviewees indicated that the meeting inspired them on a personal level to talk about the topics of discussion with work colleagues and friends and family. Some individuals said that it changed their minds about the importance of receiving a flu shot:

“I couldn’t even wait to get back to my organization, I called my director on my phone and said, ‘I am so glad that you sent me to this.’ The excitement, the information and knowledge that I received, and the table discussions in my group, as well as in other groups. It was amazing. I walked away with so much information. I’m one who does not take flu shots. I don’t like them. I don’t like big needles. But I walked away from there determined that next time around I would have a flu shot. That’s just not me if you knew me. That means that the importance of what information I gathered and everything that was shared changed my whole attitude. Pardon the pun, but next time I will suck it up and take the needle.”

Interviewees indicated that participation in the meeting would have an organizational impact, although it is too early to identify concrete next steps:

“Our organization doesn’t have a role in pandemic flu planning yet. But when I walked away from the seminar at the meeting, I came back very excited about being able to write some ideas down to forward on to our corporate office … I learned a wide variety of information that I did not know and had very little information prior to. I very much look to passing on that information in the very near future. It very much pertains to the organization I work for in a major way.”

Other interviewees did state that they either had ideas for follow-up activities, or had already engaged in some:

“We have sixteen offices all over the state of Texas. We have many foster parents in and surrounding Harris County. It is vital for us to get this information out as soon as possible. I would like to get this information out, talk about the scenarios, and ask ‘Are we prepared to handle a situation like this?’”

“I brought an extra folder from the meeting and I had talked to our supervisor and said we really need to sit down and discuss what was in the meeting. I took notes. I think it is a good thing for us to be prepared and be aware of what is going on. We’ll probably sit down as a staff and
discuss what I learned from this meeting and what our role might be in a situation that we will be a part of.”

How did participation in the Stakeholder meeting affect perceptions and expectations of Harris County?

Interviewees indicated that they were generally hopeful that Harris County would make use of input generated from the stakeholder meeting, although there was uncertainty whether or not input would actually be used:

“The one thing I think a lot of people had a question about was, ‘What happens next? Would our opinions matter? Who is going to take this information and where is it going to go?’ More clarification or a follow-up, like an email would be helpful to let us know what happened to the information. We don’t know if Harris County is really going to use this information, or was the whole thing just for fun. We want to know that it was actually useful.”

“I think Harris County will use our input in planning. I am sure there is a reason that they planned this meeting. I think they really want to know what the community thinks. We live in a large community where we might be affected. I’m sure that the information that we are feeding back will be helpful to them. I think it’s a good effort for them to hear our ideas and opinions.”

“They don’t have to take all the suggestions, they don’t have to take any of the suggestions, but hopefully this isn’t just an exercise in public relations, and that this is actually about public health, and that when their plans are finalized, they distribute this information to the community. It is clear that this is both a community and agency outreach, so I hope that they use these agencies to help get the information to the community.”
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

<table>
<thead>
<tr>
<th>Process</th>
<th>Evaluation Questions</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 citizen public engagement meetings</td>
<td>How successful was the process in attracting citizens and stakeholders to participate?</td>
<td>Comparison of number of participants to participation goals</td>
</tr>
<tr>
<td>1 stakeholder meeting</td>
<td>How successful was the process in attracting citizens with diverse perspectives?</td>
<td>Comparison of citizen demographics with community characteristics</td>
</tr>
</tbody>
</table>

**Meeting Process**
- Pre-session survey
- Welcome and overview
- Pandemic 101 presentation
- Questions and answers
- Overview: assumptions & scenarios
- Charges to small groups
- Small group: Vaccines
- Small group: Antivirals
- Small group: Ventilators
- Small group report out
- Discussion of results
- Electronic voting
- Post-session survey

**Evaluation Questions**
- Was the process successful in providing sufficient knowledge for informed discussions?
- How did the process affect citizen perceptions about vaccine goals and values?
- Did the process result in a balanced, honest, and reasoned discussion of the issues?

**Methods**
- Pre/post survey to assess change in knowledge
- Pre/post survey to assess change in opinions
- Post process survey to assess process quality & perception of diversity
- Post process focus groups to assess process quality & reason for attending
References


