

Top Line Report

**Centers for Disease Control and Prevention
Division of Global Migration and Quarantine
Community Interventions for Infection Control Unit (CI-ICU)
State, Tribal, Local, and Territorial Health Departments (STLTs)
Needs Assessment Project**

Key Informant Interviews

February 21, 2012

Background

Impact of Influenza

In the United States, the first pandemic influenza outbreak since 1968 was declared in 2009, tapering off by April 2010¹. The pandemic influenza manifested in two major peaks with the first occurring in June 2009 followed by the second in October 2009¹. During the first peak, all states had reported cases of H1N1 infections and the largest number of reported cases was primarily in major cities. Within two months of the initial outbreak, cases of H1N1 were reported across the country. During the period of April 2009 through August 2009, more than 9,000 hospitalizations and 593 deaths due to H1N1 were reported¹.

Nonpharmaceutical Interventions (NPIs)

Nonpharmaceutical interventions (NPIs) can be effective in slowing the spread of influenza before and during a pandemic when vaccines and antivirals may not be available. The impact of influenza on world populations over the past few years has prompted health officials to promote the use of NPIs to mitigate the spread of influenza during a pandemic as many public health officials predict that there will be insufficient supplies of vaccine and antivirals in a pandemic emergency. This potential situation has resulted in an increased focus on the use of NPIs to mitigate human transmission.² NPIs encompass a range of activities that can be implemented at the individual and institutional levels and may involve the simultaneous use of multiple NPIs. The timing of NPIs can vary, with implementation occurring anywhere from the initial onset of an influenza pandemic or at a later stage. Some examples of NPIs include staying at home when sick, school closures, and reducing public gatherings.

Current available literature suggests that the use, number, and timing of the implementation of NPIs are important factors in reducing transmission of disease³. Available data on public views of the use of NPIs indicates receptiveness to NPIs. In a 2009 study conducted with 523 parents, 85% of parents reported that school/child care center dismissals to reduce the transmission of H1N1 were very or somewhat effective in preventing the spread of H1N1 among children⁴. Further, 75% of these respondents reported the school dismissal was “not at all” a problem for them. While the available literature provides some insight into the implementation, use, and perception of NPIs, the systematic study of NPI implementation and various facets of implementation are necessary to reduce influenza transmission.

Current Project

State, tribal, local, and territorial public health officials (STLTs) are frontline providers of pandemic influenza information to community leaders and the general public. The Centers for Disease Control and Prevention (CDC) Division of Global Migration and Quarantine’s (DGMQ) Community Interventions for Infection Control Unit (CI-ICU) would like to determine the best methods for communicating information about pandemic influenza NPIs to STLTs to effectively implement, communicate, and monitor NPI-related information in communities. The first step in this assessment was to conduct key informant interviews. The Oak Ridge Institute for Science and Education (ORISE) was tasked with developing the key informant interview guide, conducting the interviews, analyzing the interviews, and completing a top line report.

This top line report provides an overview of findings drawn from interviews with key informants. The findings will help guide the content, methodology, format, structure, and kinds of questions to ask for the CI-ICU STLTs needs assessment survey. This top line report highlights thematic results and concludes with initial recommendations.

¹ Junf, M., Aqwesloq, S., Olawn, A., Jernigan, D., Biggerstaff, M., et al. (2011). Epidemiology of 2009 pandemic influenza A (H1N1) in the United States, *Clinical Infectious Diseases*, 52(S1), S13-S26.

² Aledort, J., Lurie, N., Wasserman, J., and Bozzette, S. (2007). Non-pharmaceutical public health interventions for pandemic influenza: An evaluation of the evidence base, *BMC Public Health*, 7, 208-216.

³ Hatchett, R., Mecher, C., and Lipsitch, M. (2007). Public health interventions and epidemic intensity during the 1918 influenza pandemic, *Proceedings of the National Academy of Sciences of the United States of America*, 104(18), 7582-7587.

⁴ Morbidity and Mortality Weekly Report (2010). *Parental attitudes and experiences during school dismissals related to 2009 Influenza A (H1N1)-United States*, 59(35), September 10, 2010, 1131-1134.

Methodology

Participants

Participants were recruited by CI-ICU staff members and affiliates and represented a variety of organizations. Organizations represented by participants included the Association of State and Territorial Health Officials (ASTHO), the Council of State and Territorial Epidemiologists (CSTE), the National Association of County and City Health Officials (NACCHO), the National Public Health Information Coalition (NPHIC), and the Society for Public Health Education (SOPHE). Areas of expertise for participants included emergency preparedness and communications (n=4), emergency preparedness and health education (n=1), emergency preparedness and public health programs (n=1), emergency preparedness only (n=1), and epidemiology only (n=1).

National Professional Organizations Represented

Association of State and Territorial Health Officials	National Public Health Information Coalition
Council of State and Territorial Epidemiologists	Society for Public Health Education
National Association of County and City Health Officials	

Interviews

Between July 29 and August 16 2011, ORISE conducted six key informant in-depth interviews lasting approximately 90 minutes each. Five interviews were individual interviews and one was a group interview with three people from the same organization, resulting in a total of eight respondents (n=8). Respondents were asked 47 questions, developed in advance and organized into the following topic areas: demographics and background, guidance, messages, materials, channels, partnerships, trainings, monitoring systems, the needs assessment process and additional recommendations. All interviews were conducted by ORISE staff with two representatives from CDC listening to the interviews for feedback and improvement purposes only. Interviews were audio recorded and transcribed.

Analysis

Qualitative analysis was conducted using the framework of grounded theory⁵. Grounded theory is a method of analyzing qualitative data, such as interviews, and is employed when the goal of a study is to develop a theory about the given topic and to provide guidance as to how to approach further investigation of the given topic. Using this method of qualitative analysis involves creating categories from the data by coding. Constant comparative analysis is one method for coding in grounded theory. This method allows for identifying similarities and differences within each area of the given topic. For example, in the current study this could be the questions within each section.

Utilizing constant comparative analysis, commonalities and differences within each question were identified along with any subcategories that existed. For the current study, coding involved reading transcripts line by line, question by question, and section by section to develop initial categories and subsequent subcategories. A category can be considered a major theme that is related to the question posed, while a subcategory is an item related to the identified category. After the categories and subcategories were identified, the transcripts were reviewed again, noting where those categories and subcategories were found within the text. Categories and subcategories identified will be used to guide the needs assessment and are listed, as appropriate, in tables below each question. To give further specificity, when applicable, details related to each category and subcategories are provided in a separate column labeled details. When a response within a category, subcategory, or details column was mentioned by more than one participant, the corresponding number of participants providing this response is provided within the table to reflect these occurrences.

⁵ Willig, C. (2001). *Introducing qualitative research in Psychology: Adventures in theory and method*; Grounded Theory, Open University Press, 32-48.

Results

Awareness

- The 2007 Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States- Early, Targeted, Layered Use of Nonpharmaceutical Interventions
 - Six participants were aware of the document; two participants did not provide a response and were part of the group interview
 - Of the six participants that were aware of the document, one reported that they made “*people aware of the availability of the document and resource...*” while another participant reported they had read the document
- The Public Health Emergency Preparedness Cooperative Agreement funded by the CDC
 - Six participants were aware of the agreement; two participants did not provide a response and were part of the group interview.
 - Of the six participants that were aware of the agreement, four were aware of the capability that outlines NPIs

Role and Communications with STLTs

Three of the eight participants’ roles fell within state and local health departments, two with states and territories, one with local health departments and tribal partners, one with state and local agencies, and one with state health departments. Participants reported utilizing a variety of communication methods with the frequency of communications varying based on type of communication method.

Please describe your role with state, tribal, local, and territorial health departments and how you communicate with them.

State and local health departments (n=3)	
Role	Communication methods, frequency
Collaborate with public information officers, risk communications, and networks	Not specified
Collaborate with national networks of members from state and local health departments	(1) Collaboration with public information officers via phone and e-mail on a daily basis; (2) Monthly conference calls, risk communication trainings, and periodic in-person meetings
States and territories (n=2)	
Role	Communication methods, frequency
Represent the interests and positions of epidemiologists, inform decision making, and set up emergency or urgent communications with members of the organization	(1)E-mail, telephone, conference calls, fax, periodic in-person meetings, as well as a national meeting; (2) Subcommittees were also a method of communication via regular monthly meetings as well as utilizing daily communications; Subcommittee communication was reported to be the most frequent type of communication.
Serve as a link between the organizations members, state and territorial public health officials, and CDC and U.S. government operating divisions, and to facilitate bidirectional communications when there are issues or concerns to be raised with the federal government	(1) Standing ad hoc committees and special work groups. Further, this participant expanded by adding that the organization communicates with its members via regularly scheduled conference calls, e-mails, newsletters, annual conferences. During emergencies they communicate via an emergency operations center. The frequency of communication was not specified.
Local health departments and tribal partners (n=1)	
Role	Communication methods, frequency
Represent 2,800 local health departments across the country	(1) Workgroups composed of local health officials on a regular basis via monthly or bimonthly conference calls, sometimes face-to-face meetings or e-mail portals as needed; (2)

	electronic publications (preparedness e-newsletter and monthly public health newsletter) and conference calls during emergencies to members of their organization; (3) website during emergencies (audience not specified during interview)
State and local agencies (n=1)	
Role	Communication methods, frequency
Prepare information to keep members informed of the latest information from the CDC, state, and local health departments	(1) Website via news highlights delivered weekly; other updates to website; (2) daily contact with members of state and local agencies-method not specified
State health departments (n=1)	
Role	Communication methods, frequency
Discuss issues including budget, grant guidance, operations protocols, coordinate responses during specific events, not disasters	Method not specified, frequency stated as regular basis

Role and Communications with Community Settings

Participants' role with community settings varied. Four of the eight participants reported not having a role with community settings; three reported roles with child care facilities, K-12 schools, institutions for higher education, businesses, and community organizations; and one participant reported a role with an institution for higher education.

- Child care facilities, K-12 schools, institutions for higher education, and businesses (n=3)
 - Roles and communication methods with child care facilities
 - Assist in emergency preparedness, specifically pandemics, in conjunction with local emergency management agencies. Development of materials, such as keeping children at home.
 - Child care health specialist liaison communicates on a daily basis using conference calls, a Listserv, and Robocall options. Other activities occur at the request of the facilities.
 - Roles and communication methods with K-12 schools
 - Coordinate and provide information. Worked with several districts in one county to assist in emergency preparedness, specifically pandemics, in conjunction with local emergency management agencies. Development of materials, such as keeping children at home, fact sheets, and a comic strip.
 - Calls with school public information officers. Other activities occur at the request of the schools.
 - Roles and communication methods with higher education
 - Planning, development of a Memorandum Of Understanding (MOU) regarding isolation and quarantine of students as well as the implementation. Engaged in development of future MOUs for mass dispensing and mass vaccination.
 - Communication method and frequency not specified.
 - Roles and communication methods with businesses
 - Developed a business leadership circle comprised of top business executives in the county. Discussed pandemic preparedness, answered questions from business leaders, assessed business capabilities and limitations, assisted in becoming better prepared for a pandemic. Gather information regarding business community knowledge based on community containment and social distancing. Role has transitioned to business liaison. In business liaison role, provides technical assistance.
 - Business leadership circle active for three years and held closed door sessions. As business liaison, activates as needed and was activated during H1N1 to field questions from businesses as needed.
 - Roles and communication methods with community organizations

- Direct liaison with community organizations serving vulnerable populations in order to assist in development of emergency preparedness plans and the identification of risks during public health hazards, such as pandemics
- Frequency of communication not specified.
- Institution for higher education (n=1)
 - Role and communication methods
 - No formal role. Relationship with academic centers funded as preparedness and emergency response centers.
 - No regular communication. Communication occurs in relation to specific activities they are engaged in at that time. Example given: “...we sit on some advisory committees..., we may be helping them with their surveys or sponsoring their surveys through helping them disseminate their surveys to local health departments, things like that.”

DRAFT

Guidance

What kind of pandemic influenza NPI guidance did state and local health departments want and need more of from CDC?

Participants identified three main categories of pandemic influenza NPI guidance that state and local health departments wanted and needed more of from CDC. The first, research, was in regard to research related to what does and does not work in terms of NPIs. The second main category, education, participants reported a variety of wants and needs from state and local health departments, with the two most mentioned items being education related to school closures and materials that did not address the concerns for the populations being served. The third main category, communication and partnership, was primarily related to providing information to state and local health departments in advance.

Category	Subcategory	Details
Research		
	Determine what does and does not work	
Education		
	Materials	<ul style="list-style-type: none"> • “too technical” • Needs to be more flexible, ability to adapt materials • Not appropriate • Did not address the concerns for the populations being served (n=2)
	School closures (n=2)	
	Mass gatherings	
	What is adequate protection when in contact with people and rules	<ul style="list-style-type: none"> • for health care workers • for those who work with the public
	Better describing the science behind why certain interventions should be given priority and legitimacy	
	The “next generation” of community mitigation strategies based on the H1N1 experience	
	Activation of NPIs at the local, state, and federal level	
	More understandable material for vulnerable populations	
Communication and Partnership		
	Opportunity to give input into the material that is delivered	
	Involving everyone to alert in advance, explain the rationale, get buy in, and implementing	
	Getting materials earlier in order to prevent spending resources that resulted in a similar product	
Misc.		
	Health care professionals to have support	

Comments

“I think there are a number of social issues that really need to be thought through more carefully when developing any type of NPI guides.”

“Especially low-income populations that are just aren’t able to stay home from work.”

“...wanted that layer of protection to be consistent with what the CDC was recommending.” “...folks had to go in a different direction because what was happening on the ground, just wasn’t reality, you know, it wasn’t matching what CDC was recommending.”

Are there any additional specific issues about NPI guidance that are of particular interest or concern for state and local health departments that you think we should ask them in our needs assessment?

When asked about any additional specific issues about NPI guidance that would be of particular interest or concern for state and local health departments that would need to be asked in the needs assessment, participants identified two main categories: implementation and assessment. Implementation issues were related to (1) the use of NPIs, (2) the use of personal protective equipment (PPE), and (3) cultural issues. Assessment issues were related to (1) strategies and approaches, (2) staff training, and (3) partnerships.

Category	Subcategory	Details
Implementation		
	Use of NPIs	<ul style="list-style-type: none"> • Health literacy • How to maintain use in minority populations • How to increase use in “larger population” • Security issues • Involvement of outside entities • More messaging from federal level that business communities could support
	Use of PPE	<ul style="list-style-type: none"> • What type to use • When to use/not use • Controversy related to efficacy, specifically in masses
	Cultural	<ul style="list-style-type: none"> • Identification of trusted communication channels • Assessing if the message is received
Assessment		
	Strategies and approaches	<ul style="list-style-type: none"> • Effectiveness
	Staff training	<ul style="list-style-type: none"> • Messaging • Implementation • Communication to public
	Partnerships	<ul style="list-style-type: none"> • Community groups • Other responders

Comments

“...more pre-pandemic to be able to understand these different cultural health beliefs and start to help create messages that are going to fit with people’s existing beliefs. And get them along so that they understand why measures have to be taken.”

“If there was a way in which there could be some measurable impact on social distancing or even personal hygiene, I think that would go a long way into promoting its use the next time a pandemic hits.”

What individual, institutional, or community level NPI recommendations do you believe are difficult for state and local health departments to implement?

Participants reported an array of responses in regard to individual, institutional, and community level NPI recommendations that they believed were difficult for state and local health departments to implement. Responses were categorized by NPI recommendations within the individual, institutional, and community level, with one subcategory, school closures, falling within both the individual and institutional levels. For example, school closure responses at the individual level were related to items such as the consequences for the parents in terms of how they will find child care as well as the economic impact of the school closure on the parent. Whereas institutional level responses for school closures were related to the criteria for when a school should close from the health department perspective.

Category	Subcategory	Details
Individual		
	Getting people to stay at home	<ul style="list-style-type: none"> • When they are sick
	School closures	<ul style="list-style-type: none"> • Guidance on child care • Educational impact on child • Economic impact on caregivers • Unanticipated consequences
Institutional		
	School closures	<ul style="list-style-type: none"> • Criteria for implementing
	Mass gatherings	<ul style="list-style-type: none"> • Other key agencies to communicate and partner with • Political structures within communities • Decision making
	Jails	
Community		
	Child care centers	<ul style="list-style-type: none"> • Inconsistent guidelines • Better recommendations
	Mass transit	
	Difficult to reach employers in business community	

Comments

“...we were getting reports that kids, in fact, were showing up at community centers and other places. So I mean, we saw what happened when kids didn’t have good alternatives, kids and parents didn’t have good alternatives.”

“...states are and localities sometimes asked to implement things that there just isn’t all the evidence.”

What individual, institutional, or community level NPI recommendations are difficult for state and local and territorial health departments to communicate?

Individual, institutional, and community level NPI recommendations participants reported as being difficult for state, local, and territorial health departments to communicate were all three levels as well as responses within each of the three levels. The most frequently reported items that were difficult to communicate were individual level recommendations, specifically acceptance of messages and getting people to stay at home when they are sick.

Category	Subcategory	Details
All 3		
	Any	<ul style="list-style-type: none"> • When not communicated consistently • When not implemented consistently
Individual		
	Messages	<ul style="list-style-type: none"> • Acceptance of (n=2) • Getting people to stay at home when sick (n=3) • Options for child care • Health literacy • Isolation and quarantines
	Education	<ul style="list-style-type: none"> • Epidemiology of the virus, how it is spread and contained
Institutional		
	Education	<ul style="list-style-type: none"> • Epidemiology of the virus, how it is spread and contained (provided response specific to both individual and institutional levels)
Community		
	Businesses	<ul style="list-style-type: none"> • Decisions to remain open • Decisions to change hours

What individual, institutional, or community level NPI recommendations are difficult to monitor and why?

When asked what individual, institutional, and community level NPI recommendations were difficult to monitor and why, the majority of respondents reported that all three levels were difficult to monitor due to a lack of resources. The second most mentioned item in regard to recommendations that are difficult to monitor were

individual level recommendations. Specific items mentioned related to individual level recommendations that are difficult to monitor included staying at home when sick, covering coughs, and hand washing.

Category	Subcategory	Details
All 3		
	Lack of resources (n=3)	<ul style="list-style-type: none"> To evaluate interventions and programs
Individual		
	Lack of resources	<ul style="list-style-type: none"> No tools for data collection Lack of training for data collection
	Some things can not be monitored	<ul style="list-style-type: none"> Staying at home when sick (n=3) Covering coughs (n=2) Hand washing (n=2)
	Health literacy	<ul style="list-style-type: none"> Can have an impact on the data collected
	Messages	<ul style="list-style-type: none"> Dissemination Receiving Effectiveness
Institutional		
	School closures	
Community		
	Businesses (n=2)	<ul style="list-style-type: none"> The information is voluntary
	Mass gatherings	

Messages

What do the state and local health departments think about CDC's NPI messages for community settings and the general public?

Participants reported a variety of items in regard to what state and local health departments think about CDC's NPI messages for community settings and the general public. These items fell within three main categories: (1)

messages, (2) missing information, (3) and appropriateness of language. Items mentioned by participants related to messages included that the messages were understood, that the messages were conflicting, and that the messages were lacking in evidence. Items related to the category missing information included the use of masks, vaccine shortage information, and risk groups. Lastly, some participants reported the language as not appropriate whereas others reported the language as being appropriate.

Category	Subcategory	Details
Messages		
	Local health departments	<ul style="list-style-type: none"> • Understood the messages • Received well • Messages offered to public were good direction • Disseminated the messages • Successful in message dissemination
	Conflicting messages	<ul style="list-style-type: none"> • Between science and epidemiology of the virus • School closures, when and how long to close • Use of masks
	Pandemic severity	<ul style="list-style-type: none"> • Not understood • Conflicting messages
	Lack of evidence	<ul style="list-style-type: none"> • Of messages being received at state and local levels • If messages were effective
Missing Information		
	Vaccine shortage information	<ul style="list-style-type: none"> • For local health departments
	Use of masks	<ul style="list-style-type: none"> • What to do when there is a shortage of masks • Guidelines and suggestions for those with different levels of risk • How to communicate • Scientific evidence
	Risk groups	<ul style="list-style-type: none"> • Develop messages (n=2) <ul style="list-style-type: none"> - to emphasize who is at greatest risk - why individuals should protect themselves
Language Appropriate		
	Yes	
	No	<ul style="list-style-type: none"> • Too technical (n=2) <ul style="list-style-type: none"> ○ Results in message not being used ○ Results in having to “translate” messages (n=2) • Health literacy • Translation of materials into different languages, particularly languages for the West Coast populations such as Vietnamese and Korean [Analysis note: in reference to participant statement that the languages that get translated first tend to be East Coast languages]

Comments

“...messaging around vaccine shortage wasn’t particular helpful, because people didn’t understand why it wasn’t there and what was taking so long.”

“It wasn’t about the employee; it was about the coworker that you don’t know. It’s the person on the bus that you don’t know, who is at much greater risk for hospitalization or death than that employee might have been and it’s that, almost like a community contract or community responsibility to take care of not only yourself, but the person next to you. That, I think, would be a very powerful approach as one of many types of messages to produce during an event like this, really emphasize it.”

“It seemed to me that the CDC was doing a pretty good job in crafting the messages and getting them out to the public.”

“My general impression was the work that CDC put together, a lot of it was on the fly.”

“...given the work with nonpharmaceutical interventions, particularly the school closure thing, but really all of them, I think the -- there needs to be some sort of thing to allow an organization like CDC to make the decisions, inform HHS and then proceed. But the idea of having to actually get approval for things on the fly is counterproductive and that really doesn't look very good.”

Are there specific issues about NPI messages for community settings and the general public that are of particular interest or concern for state and local health departments that you think we should ask them during our needs assessment?

Specific issues mentioned by participants about NPI messages for community settings and the general public that were of particular interest or concern included sending information to health departments before public release, guidance on message development, and consideration of the various demographics that each department may serve.

Category	Subcategory	Details
Send Information to Health Departments		

	Before public release (n=2)	<ul style="list-style-type: none"> • So they could be on the same page • To allow for response to media questions • To provide input from state and local perspective • To direct their efforts in other areas if they were working on the same thing • To have the same themes when developing materials of same topic
Message Development		
	Guidance on messaging	<ul style="list-style-type: none"> • Get input from crisis centers, communication practitioners, and professionals • Incorporate SERC training methods into what is shared and provided
	Vulnerable populations	<ul style="list-style-type: none"> • Different populations may not have the same amount of information or have the same level of effectiveness
Community		
	Demographics	<ul style="list-style-type: none"> • Urban, suburban, rural • Special or at-risk populations
	Guidance	<ul style="list-style-type: none"> • Actions taken across a media market

Comments:

"...often times, what they were finding is the media would come and say well, the CDC just released this, and the health department had no idea that that happened and so didn't really know the basis of the information that the media was bringing before them or the physician or the key messages that the CDC wanted, you know, to come out at that time that they could have, you know, kind of been consistent with at the local level."

"...one of the things that I heard frequently on those hot wash calls was the strong desire by members, particularly in the larger, more heavily populated state for advance knowledge of message work being done by CDC..."

"I mean I think you probably ought to go through the whole list. You should probably give them the menu of things to discuss just to remind them of the various things that they'd have."

"I think it's an important question to ask them because it would be -- sort of my reaction to your question is sort of my best way to synthesize everything I've heard from everybody over the course of a year."

"You know, do you have school closures in one county and not in the next? Do you have certain recommendations as far staying home that stop at a state line or stop at a county line?"

What types of NPI messages for community settings and the general public do you think that state and local health departments wish they had from CDC or felt that they couldn't answer well because they didn't have specific or better messages from CDC?

The types of NPI messages for community settings and the general public that respondents reported state and local health departments wished they had from CDC or felt they couldn't answer well varied. The main categories identified for this item included "don't know," cultural, personal protective equipment, and miscellaneous items.

Category	Subcategory	Details
Don't Know		
	Not sure	
	Didn't hear any	
	Don't think there was	

Cultural		
	How to reach diverse populations	<ul style="list-style-type: none"> • Cultural and ethnic differences • Rural • Non-English speaking
	Multilingual toolkit	<ul style="list-style-type: none"> • Containing already translated materials in multiple languages • Containing messages developed with/by the different cultures and communities that have been tested, are effective, and result in behavior change
Personal Protective Equipment		
	Redevelop messages	
Misc.		
	Business and school closures	
	Schools	<ul style="list-style-type: none"> • Information from the federal level to schools to work with local health department before communicating to parents

Comments

“...and figure out how can we create messages that are accurate but that come from within the culture that contain the right message, the right language that would affect behavior change.”

“...that whole arena needs to be worked through, you know, completely.”

“...I guess the amount of time really didn't make any sense and it was going to cause a huge problem.”

Materials

What types of materials do you think local health departments find most and least helpful regarding NPI guidance for public health partners and communication messages for the general public?

Responses regarding the type of materials local health departments found most and least helpful regarding NPI guidance for public health partners and communication messages for the general public were categorized by most helpful, least helpful, and varies. Items reported to be most helpful included the use of social media as well as standard materials with simple messages. Items reported to be least helpful included the content of the materials, methods of communication, and lack of opportunity to collaborate. Responses within the varies category were specifically related to materials and their usefulness varying by the size of the health department as well as the target audience being reached.

Category	Subcategory	Details
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Most Helpful		
	One source for information	
	CDC information	<ul style="list-style-type: none"> • Fact sheets • Web info • Tools • Print and video
	Standard materials	<ul style="list-style-type: none"> • Fact sheets • Simple messages (n=2) • Different formats
	Social media (n=3)	<ul style="list-style-type: none"> • Text messages • Facebook (n=2) • Twitter (n=2) • YouTube
	Content	<ul style="list-style-type: none"> • Right amount of information • Ability to reach the audience • Sensitivity to the target population • Formats that work for different communities • Health literacy
Least Helpful		
	Content	<ul style="list-style-type: none"> • That are long • That are complicated • Not in multiple languages
	Methods of communication	<ul style="list-style-type: none"> • Need to be able to identify what the updates were from the prior version • Podcasts
	Lack of opportunity to collaborate	<ul style="list-style-type: none"> • Would like to cobrand to reinforce the message to the communities
Varies		
	Organization	<ul style="list-style-type: none"> • Larger agencies have more resources • Smaller agencies with less resources pick and choose materials
	Methods of communication	<ul style="list-style-type: none"> • Use of “non standard” materials, such as infotainment, for community • Use the “standard format” for government officials

Comments

“...fact sheets that a minister could hand out during the Sunday sermon, or could be readily plugged into a local newspaper were also of equal value.”

“...that it’s not just the federal government, CDC that’s suggesting this, but it’s also my local or state health department that’s on this as well. They are all saying the same thing.”

“...I think they’re going to react to something that they’re used to seeing, which is the infotainment that they get on a daily basis...”

Are there specific issues about NPI materials that are of particular interest or concern for state and local health departments that you think we should ask them about during our needs assessment?

Specific issues about NPI materials of particular interest or concern for state and local health departments that should be asked about during the needs assessment were related to the amount of information that is released, planning, and asking participants about what their experiences were in terms of what did and did not work.

Category	Subcategory	Details
Amount		
	Frequency of release	<ul style="list-style-type: none"> Overloaded with information All information was useful
Planning		
	Structure	<ul style="list-style-type: none"> Developing a planning template for guidance
	Legal authority	<ul style="list-style-type: none"> Who to reach out to? How to reach out to other organizations? (lack of means)
Their experiences		
	What did and did	<ul style="list-style-type: none"> In general

	not work for them	<ul style="list-style-type: none"> • Addressing health literacy • Addressing working with other languages
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What types of NPI materials do you think state and local health departments wish they had?

The types of NPI materials respondents stated that state and local health departments wish they had included fact sheets, materials that could be altered, as well as miscellaneous items. Fact sheets and the ability to alter or adapt materials were mentioned by a total of four participants (two for fact sheets and two for ability to alter or adapt materials). Specific items mentioned related to fact sheets were having one page per NPI and fact sheets that were tailored to different cultural groups. Specific items mentioned related to altering and adapting materials included issues related the population being served as well as adapting for specific hazards.

Category	Subcategory	Details
Fact Sheets (n=2)		
	One page per NPI	<ul style="list-style-type: none"> • Why it is important • Why is it being done • What is hoped to be achieved • Why everyone should follow the guidance
		<ul style="list-style-type: none"> • For public
		<ul style="list-style-type: none"> • For media

	Cultural	<ul style="list-style-type: none"> • Multilingual • Culturally competent language and format
Ability to Alter or Adapt Materials (n=2)		
	Fact sheets	<ul style="list-style-type: none"> • All items may not be relevant to their population • Be able to substitute ones that are not applicable for ones that are
	In the medium provided (e.g. social media)	<ul style="list-style-type: none"> • For specific hazard
	Schools and child care facilities	<ul style="list-style-type: none"> • Did not meet needs • Literacy level not appropriate
Misc.		
	Materials to measure effectiveness	
	Pretailored text messages	
	Community mitigation strategies	<ul style="list-style-type: none"> • Identification of top 5 or 10 that would most likely be implemented and create in advance the main reasons they are important

Comments

"...but the products being delivered by CDC were, as I hear from our members, could not be altered. They, you know, you could type the thing in yourself again and recreate it, but that's taking a lot of time that might otherwise be used in some better fashion at the local level."

"...we ended up developing our own content for schools, for childcares and in some cases, because there wasn't any information available from CDC but in other cases, it was because they didn't meet our needs. It wasn't at the right literacy level, it was all text, you know, and so it sort of...not just looking at the sectors in the material, but also how it's presented and addressing the issues that we've been talking about."

Do you think that state and local health departments prefer CDC materials that they can adapt to various community settings themselves or do they prefer CDC materials that are already targeted to different community settings?

Participants primarily reported that state and local health departments preferred both CDC materials that could be adapted as well as CDC materials that were already targeted to different community settings. The two subcategories related to this were context and needs, specifically that what the state and local health departments prefer in terms of materials would be context and needs dependent.

Category	Subcategory	Details
Both (n=4)		
	Context dependent	<ul style="list-style-type: none"> • Some people prefer CDC materials so they can pass on the information • Others want the flexibility to adapt for their needs • Others enjoy adapting the messages to their community
	Needs dependent	<ul style="list-style-type: none"> • Will use targed materials if they meet their needs, otherwise they adapt the materials • Issue of efficiency and getting information out as quickly as possible
Adapt to Community Settings themselves		
	State officials	<ul style="list-style-type: none"> • Enhance or expand messages

		<ul style="list-style-type: none"> • State specific information, state law or regulation that may be different from CDC material • Policy being pursued in a particular state may be relevant to information • Jurisdictions may have different policies
	Cobranding	<ul style="list-style-type: none"> • Opportunity to adapt by cobranding

Comment

“You know what? It's up to the health department. If they want to take those messages and adapt them for their communities, they are going to do so, but I don't think CDC needs to go in either direction. I think it's 50/50. You need to develop the set in stone-type of messages that are like "Here it is; here is what you need to provide to your public." And then other ones that are more like a template. "Here, you can change this as related to your needs." I don't think there is any sort of need to go in either direction. I think both are valuable, and I think both are wanted by health departments.”

Channels

What are some communication challenges that state and local health departments faced regarding pandemic influenza NPI, including getting information from CDC as well as disseminating information to leaders within community settings?

Communication challenges faced by state and local health departments regarding pandemic influenza NPis were related to two main categories: (1) timeliness of information and (2) structure. Specifically, participants reported that information from the government agencies needs to get out to the state and local health departments faster and that in regard to structure, there was too much information at one time, issues with partnerships, and issues regarding data collection.

Category	Subcategory	Details
Timeliness of Information (n=3)		
	At the beginning	<ul style="list-style-type: none"> • Need to be able to get information from government agencies faster • Difficult to understand what the situation was • Difficult to understand the process of how data was going to be communicated
Structure		
	Too much information at once	<ul style="list-style-type: none"> • Having to sift through all the information that was coming from various organizations and groups

Partnerships	<ul style="list-style-type: none"> • Coordinating information from various sources and disseminating that information • Establishment of one system to receive and exchange information that disseminates information regularly or in a consistent manner (n=2) • Need consistent information between federal agencies • Need federal agencies to release information to their target audiences at same time • Information from CDC should be consistent with local jurisdictions
Collecting data	<ul style="list-style-type: none"> • Timing of and reason for request for data from federal agencies was not understood and frustrating • Would like to know in advance, based on H1N1 experience, what at minimum are the requests for data going to be; what type of information is needed

Comment

“While we fully appreciate the importance of internal controls, and the coordination, especially when there’s a lot of federal agencies sharing leadership responsibility in an issue. That being said, I just think the federal government needs to do a better job in getting information out more timely. And that means getting it through clearance quicker than they traditionally do.” “And again, it’s a fact of life. It’s a necessary evil. But I think there are times when the state health officials and the public would have benefitted by getting some of the information out quicker or sooner and getting it through internal federal clearance more rapidly.”

Are there any other specific issues about NPI communication channels that you think are of particular interest or concern for state and local health departments that you think we should ask them about?

Other specific issues about NPI communication channels of particular interest or concern for state and local health departments that participants thought should be asked during the needs assessment varied. Due to the variation and specificity of responses, items that participants that should be asked about are listed in bullet form below.

- What are their preferred communication channels during that time?
- Who are they connecting/partnering with?
- Structure questions to get subcategories of responses to see if there is a difference between urban, suburban, rural, and frontier.
- Whether or not the NPIs, the NPI messaging, and the monitoring were different for different sectors (private, health care, education).
- Was there communication with institutions of higher learning or associations of institutions of higher learning?

What do you think is the best way for CDC to reach state and local health departments to communicate NPI information? Are the channels different depending on if the information consists of messages for the public, scientific implementation guidance, or monitoring guidance?

The best way for the CDC to reach state and local health departments to communicate NPI information was to communicate via (1) national organizations, (2) local and state health departments, and (3) web pages. In regard to channels differing based on information and messages for different segments of the population, participants reported that the channels would differ based on the type of information as well as the intended recipients of the information. For example, guidance or official position statements were reported to be best communicated through official channels, whereas information and messages for different target audiences should be communicated through calls with members from the specific target audience.

Category	Subcategory	Details
Besty Way to Reach-General		
	National organizations (n=2)	<ul style="list-style-type: none"> • CDC • FEX • ASTHO • NACCHO • COCCA
	Local and state health departments	<ul style="list-style-type: none"> • E-mail • Conferene call (n=4) • Summaries of conference calls • CDC Preparedness page
	Web	<ul style="list-style-type: none"> • Repository

		<ul style="list-style-type: none"> • Web pages (n=2)
	General public	<ul style="list-style-type: none"> • CDC Preparedness page • National Health Communicators group to guide how to communicate with general public
Type of Information		
	Guidance or official position statement	<ul style="list-style-type: none"> • Via official channels
	Different target audience	<ul style="list-style-type: none"> • Calls with members from that audience
	Sensitive, controversial	<ul style="list-style-type: none"> • Via national organizations who communicate to their members to have a conference call

Comment

“Something we’re doing and it may be something that...to think about in terms of how CDC might do this as well, we have begun recording those conference calls and syncing them up with the PowerPoint slides if they are part of a presenter’s time and archiving those on our website so that members who weren’t able to get on the call because of something else happening or some schedule conflict, they can access those at a later point and get the same information.”

What do you think are the most effective communication channels, such as e-mails, ads, websites, etc., that state and local health departments use to disseminate NPI information to different kinds of community settings?

The most effective communication channels reported by participants included e-mail, websites, in person meetings, and social media. For in-person meetings, participants reported meetings with stakeholders, minority populations, schools, businesses and community organizations as being effective for disseminating NPI information. For social media, participants reported use of Twitter and You Tube as effective communication channels. Other effective communication channels mentioned included health alert networks and conference calls.

Category	Subcategory	Details
E-mail (n=4)		
	n/a	
Website (n=4)		
	State and local	<ul style="list-style-type: none"> • Dedicated sections • Dedicated significant space on home page
In-Person Meetings (n=4)		
	With stakeholders	
	With minority populations	
	For larger settings	<ul style="list-style-type: none"> • Schools • Businesses
	Community organizations	<ul style="list-style-type: none"> • To produce materials • Meet with local health departments
Social Media (n=4)		
	Twitter	<ul style="list-style-type: none"> • College age • In general
	YouTube	

Misc.		
	Health alert network	• Heavily relied on by state officials
	Conference calls	
	Dependent upon the issue	

Comment

“...I think a lot of our members felt that, especially at local health departments, that their most effective means of communicating was face-to-face with community leaders about NPIs and many of them often, many of them would go to, for example, to make a brief little presentation at a church service in a black community for example about NPIs and steps people could take to protect themselves and also urge vaccinations.”

Partnerships

What groups or agencies do you think CDC should also reach out to in order to help state and local health departments get the information they need regarding implementing, monitoring, and/or communicating NPIs in community settings?

Participants reported a variety of groups and agencies they thought the CDC should reach out to in order to help state and local health departments get information into community settings. The main groups and agencies reported fell within three categories: (1) national organizations, (2) educational, and (3) community. Examples include CSTE, local schools, and businesses.

Category	Subcategory	Details
National Organizations (n=4)		
	Council of State and Territorial Epidemiologists	• For redundant messaging
	ACOG	
	U.S. Department of Education	
	Sports	• NCAA • MLB
	Nontraditional organizations	
Educational		
	Higher education (n=2)	• College teams
	Local schools (n=4)	• PTAs
	Boards of education	
Community		
	Organizations	• Neighborhood associations • Faith-based organizations • Professional sports teams (n=2)
	Child care centers	

Businesses (n=3)	<ul style="list-style-type: none"> • Business associations
Health related	<ul style="list-style-type: none"> • Health care providers • Community clinics • Local hospitals • Large health centers • Pharmacies • EMA
Misc	<ul style="list-style-type: none"> • Grocery stores • Hotels • Starbucks • Elected officials (n=2)

Are there specific issues about NPI partnerships that are of particular interest or concern for state and local health departments that you think we should ask them about during our needs assessment?

When asked if there were specific issues about NPI partnerships of particular interest or concern for state and local health departments that should be asked during the needs assessment, participant responses fell within two main categories: (1) identifying and creating partnerships and (2) established partnerships. Examples given included how to identify and create new partners as well as identifying current partners.

Category	Subcategory	Details
Identifying and Creating Partners (n=3)		
	Identifying new partners	<ul style="list-style-type: none"> • To establish partnership • Establishing communication and feedback methods
	Creating new partners	<ul style="list-style-type: none"> • How to engage the partner to implement the plan(s) • “Operationalize the recommendations” for business settings
Established Partnerships (n=3)		
	Auhorities between states and localities	
	Identify current partners	<ul style="list-style-type: none"> • Rank the importance of each of their partners • Determine who they want to talk to regarding NPIs • How they communicate with them • How they get feedback from them

Comment

“Who do they want to talk to in terms of NPIs? If you have them rank those and you can probably get a pretty good sense of who they want and need to reach out to. Then, based on that, that’s when you work on building your guidance and your messaging. Okay, this is how you bring in community-based groups into the planning stages; this is how you bring in faith-based organization into your NPI planning, but first and foremost you need to know who those health departments feel are the most important groups to reach out to. Once you know that, then you can go ahead and build messages and build guidance based on who you know those potential partners are.”

What are some of the challenges that state and local health departments face in establishing partnerships with health partners in government agencies and community settings?

Participants reported three main categories of some of the challenges that state and local health departments face in establishing partnerships with health partners in government agencies and community settings. The three main categories included lack of resources, communication, and maintaining/establishing partnerships. In regard to lack of resources, two participants specifically mentioned a lack of staff as being a challenge that state and local health departments face in establishing partnerships.

Category	Subcategory	Details
Lack of Resources		
	Lack of staff (n=2)	<ul style="list-style-type: none"> • Many health departments have staff working in multiple positions • Lack of time • Need people to sustain the relationship
	Knowledge	<ul style="list-style-type: none"> • May not have information for reaching out to groups • May not know there is a need to reach out to community groups • May not know why they should reach out to groups • How to reach out and communicate with multiple partners during a disaster when there are limited resources • Need a toolkit of “best practice” models for how health departments can engage
Communication		
	Identifying existing capabilities	<ul style="list-style-type: none"> • Identifying preexisting communication networks • Identifying preexisting communication capabilities
Maintaining/Establishing Partnerships		
		<ul style="list-style-type: none"> • How to keep and nurture relationships during a disaster • Maintain partnerships that were utilized during the pandemic • Establishing partnerships with businesses

Comment

“You have people at health departments that are wearing several hats right now. They are not only the preparedness coordinator, they are also the nurse and that kind of thing. They just don't have the time or the incentive to be reaching out to those groups, or they may not even have the information.”

Trainings

What knowledge gaps do state and local health departments have regarding pandemic influenza NPIs, including effectiveness, decision making, implementation, monitoring, and communication?

Knowledge gaps within state and local health departments regarding pandemic influenza NPIs fell within four main categories: (1) effectiveness, (2) efficacy, (3) implementation, and (4) other. Effectiveness of pandemic influenza NPIs was the most frequently reported knowledge gap followed by implementation of NPIs.

Category	Subcategory	Details
Effectiveness (n=3)		
	School closures	
	Social distancing	
	Any NPI (n=3)	
Efficacy		
	Of PPE	
	Of NPIs	
Other Knowledge Gaps		
	NPIs	<ul style="list-style-type: none"> • Going beyond the basics • What does the public consider acceptable and necessary • Message mapping around the recommendations • Will there be a new version of guidance based on lessons learned from H1N1
	Science	<ul style="list-style-type: none"> • How many fewer people will get sick if these behaviors are adopted • How does a pandemic start and spread
	Consequences	<ul style="list-style-type: none"> • Of a pandemic from each level
Implementation (n=2)		
	How to implement NPIs	<ul style="list-style-type: none"> • The extent to which they could/should be applied at each level • How to build the plan

Comment

“I think probably there is a knowledge gap in how effective, what the evidence is, what the data suggests is the effectiveness of any single NPIs. The NPIs have a great deal of apparent, inherent logic to them that are easily understood, but if you were asked by a reporter, you know, what’s the impact, how many fewer people are going to get ill because we adopt, they all adopt these behaviors? You don’t have an answer other than these are just good common sense steps that people can take to protect themselves.”

What topics should be included in a pandemic influenza NPI training for state and local health departments?

Participants reported two main categories of topics that should be included in a pandemic influenza NPI training for state and local health departments: (1) general training and (2) training related to implementation. General training items mentioned included basic level training about what NPIs are as well as targeted training based on the person’s role and experience. Training items related to implementation included the development of capabilities, tracking and monitoring NPIs, messaging, criteria for NPIs, and what to do once the pandemic ends.

Category	Subcategory	Details
General Training		
	What are NPIs	<ul style="list-style-type: none"> • Describing the entire global perspective • Reminding what the NPIs are • What are the NPIs that could/would be considered
	Assuring appropriate training	<ul style="list-style-type: none"> • Based on their role and level of experience—policy makers, health communications, lab personnel, epidemiologists
	National	<ul style="list-style-type: none"> • Information on national position, policy, and procedures
Implementation		
	Developing capabilities	<ul style="list-style-type: none"> • How to develop/build a plan (n=2) • How to develop decision-making plans • How to involve partners (n=2)
	Tracking and monitoring NPIs	<ul style="list-style-type: none"> • In general • With travelers
	Messaging	<ul style="list-style-type: none"> • For “specific populations” • For legal authorities to help them understand authority to implement
	Criteria	<ul style="list-style-type: none"> • When to implement specific NPIs • What strategies to use locally, regionally, and nationally • Domestic and international travel • For recalling or suspending specific strategies
	Once pandemic ends	<ul style="list-style-type: none"> • How to “return to normalcy”

What do you believe is the best way is to present a training to state and local health departments?

Participants reported two main categories of how to best present a training to state and local health departments. The first category, electronic training, included use of webinars and other online training. The second category, in-person training, included local and national/regional trainings.

Category	Subcategory	Details
Electronic Training (n=6)		
	Webinars	<ul style="list-style-type: none"> • Series • Prepackaged • That allow for interaction between audience and presenters • That allow for people to ask questions, have polling
	Online training	
In-Person Training (n=5)		
	Locally	<ul style="list-style-type: none"> • From subject matter experts in the topic area
	National/regional	<ul style="list-style-type: none"> • With peers • Didactic training • Allow for health officers in different jurisdictions to discuss and debate recommendations and messaging strategies • At existing conferences

Are there any specific issues about NPI training that you believe are of particular interest or concern for state and local health departments that you think we should ask them about during our needs assessment?

Other specific issues about NPI training of particular interest or concern for state and local health departments that participants thought should be asked during the needs assessment varied. Due to the variation and specificity of responses, items that participants should be asked about are listed in bullet form below.

- What was learned from the past about science behind the interventions, school closures, and social distancing
- Providing an array of topics and asking what they are interested in by people’s backgrounds or time within their positions or familiarity with pandemic. Some may want basic, some may want advanced
- The legal foundation and framework for when things go from a recommendation to a mandate. The legal sufficiency of any jurisdiction that actually would be forced or would want to force adherence to an NPI

- Accessibility of training
- Credibility of the presenter

Are you aware of any trainings that already exist on NPIs and pandemic influenza?

Participants consistently reported that they were not aware of any trainings that already existed on NPIs and pandemic influenza. See below for specific responses as well as the number of participants that provided that response.

- No (n=6)
- No response (n=1), No longer on call (n=1)

Monitoring Systems

Are you aware of any monitoring systems in place to capture school or business dismissals?

Participants generally reported that they were not aware of any monitoring systems in place to capture school or business dismissals. One participant reported that they were aware of a monitoring system in place to capture school or business dismissals.

- No (n=2)
- Think there are/don't know (n=2)
- Yes (n=1)
- No response (n=1), No longer on call (n=1)

Do you know any monitoring systems that would be able to capture absenteeism in schools or businesses, cancellation of organized events, or other implementation of NPI recommendations?

Generally participants were not aware of any monitoring systems that are able to capture absenteeism in schools or businesses, cancellation of organized events, or other implementation of NPI recommendations. Two participants reported they were aware of their own internal surveillance system specifically related to absenteeism in public school districts.

- No (n=4)
- Don't know (n=1)
- Yes (n=2)
 - Internal surveillance system for public school districts
 - Individuals in emergency operation center are point of contact for other areas such as day care centers. They call to assess from a broad perspective the degree of absenteeism
- No longer on call (n=1)

What good or bad insights do you have regarding state and local health department experiences and/or thoughts about monitoring systems for these purposes?

Participant responses regarding good or bad insights about state and local health department experiences and/or thoughts about monitoring systems for these purposes were best captured in the transcriptions. Excerpts from the transcripts that were relevant and reflective of insights are provided below. Each bullet represents a quote from one participant.

- *“You know, I think that health departments would be interested in having these systems. The problem is getting the funding and the human resources to build and sustain those, and I think, you know, largely right now, people are saying the reason they don’t have those systems is because they don’t have that infrastructure.”*
- *“I think everyone appreciates the value and benefit of monitoring. As I sort of mentioned a few moments ago, the key here is sort of knowing and understanding up front what monitoring everybody should be doing, the reasons for it. Don’t monitor just for the sake of monitoring, but if everyone, if the practice community agrees that this is good data that will help us get a national snapshot of certain disease trends or how the community is responding, I think the states would totally support and buy into it. But again, they have to also have an understanding of what the value and utility of such monitoring could and would be and also to make sure that it’s not so overwhelming or time consuming that it become counterproductive.”*
- *“I think maybe it would be, it might be a nice thing to include and certainly, as I was suggesting, our members maintain their new partnerships with schools if we formalize any sort of monitoring along those lines. I don’t know whether, there may be some mechanism I’m unaware of, for example, in Idaho where the state and local Epi’s communicate data at this level. That might be a good recommendation as well if that’s not already in place.”*

Are there any other specific issues about monitoring systems that you think would be of particular interest or concern for state, local, and territorial health departments that you think we should ask them about during our needs assessments?

Other specific issues about monitoring systems that would be of particular interest or concern for state, local, and territorial health departments that should be asked during the needs assessment are listed below. Given the lack of responses in regard to additional specific issues about monitoring systems, specific items mentioned by participants are listed in bullet form below.

- Do they currently have tracking systems? What are the challenges in developing and sustaining those systems?
- Is what they are doing with their seasonal influenza monitoring programs sufficient for a pandemic?
- How to monitor sites that are not under their control

Needs Assessment Process

What titles or roles in state and local health departments would the ideal participant hold for us to get input about pandemic influenza NPIs along the lines of implementation, guidance issues, communications issues, training issues, and monitoring issues?

When participants were asked what titles or roles in state and local health departments would the ideal participant hold in order to get input about pandemic influenza NPIs along the the lines of implementation, guidance, communication, training, and monitoring issues, a wide variety of responses were given. Specific titles and roles mentioned are listed below and separated by state and local level. When a specific title/role was mentioned by more than one participant, the corresponding n is listed in parantheses next to that title/role. Overall, it appears that based on responses from all participants, it is their belief that anyone that has a role in pandemic influenza responses should be included in the needs assessment.

Comments

“...it’ll look different across the local public health landscape. In small health departments, you might have the health officer is really the only one who might have that—be able to answer all the questions. ...it really depended on the size of the local health department, because there are a variety of different positions as the health department gets larger, but they could be the health officer, epidemiologist, preparedness coordinator, community nurse, training coordinator, SNS planner or just preparedness planner.”

State Level

- State health officers (n=2)
- State epidemiologists (n=2)
- Senior communications person
- Cabinet and subcabinet officers (secretary, commissioner of health)
- Influenza coordinator
- Preparedness director

Local

- Director of public health preparedness
- Emergency preparedness coordinator (n=2)
- Emergency preparedness manager/planner (n=2)
- Preparedness coordinators
- Local health officers (n=3)
- Epidemiologists (n=3)
- Communicable disease chiefs
- Senior deputy
- SNS
- Community health nurse
- Senior communications person

- Risk communications person (n=2)
- PIO (n=3)
- Leadership for intervention
- Interventionists
- Training coordinators
- Immunization program persons
- Anyone who has a role in a response

What specific methods do you recommend we use to recruit state and local health departments that are members of your organization for the CDC needs assessment?

Responses from participants varied in regard to specific methods they recommend be used to recruit state and local health departments that are members of their organizations for the needs assessment. Responses were categorized by methods to inform their members and methods to reach their members. In order to provide an accurate description of the responses, excerpts from the transcripts are provided as well as bullet points regarding specifics when provided by the respondent.

Methods

To inform

“And maybe put together a paragraph for them just to inform their constituencies that the CDC is interested in their input and their evaluation of some of the NPI things and will be soliciting their participation, just as a heads up.”

To reach

Membership lists from

- o state health officers, communications, PIOs, states, and associations

National organizations

- o SOPHE, NACCHO (n=2), ASTHO, and others
- o Listserv

Invite a select group of people from specific jurisdictions for an interview

Depends on number of people you want to reach and the method of assessment

For small sample, use communication channels with members to recruit or invite participants

Could be more targeted by selecting specific states and local health departments to interview

Comment

“...We have received a lot of feedback over the last couple months from health departments regarding the survey burden that they're under. They've just been receiving lots of surveys and don't feel like they have the time and staff resources to be able to respond to these...”

What specific methods do you recommend we use to recruit state and local health departments who are not members of your organization?

Specific methods participants recommended be used to recruit state and local health departments who are not members of their organization varied. Due to the variation and specificity of responses, methods that participants recommend be used are listed in bulleted form below.

- *“...find the contact information for those health departments and e-mail them or if you can get some calls out to them, that's what I would suggest.”*
- Advertise using “your website,” specific Facebook pages for branches and divisions of the CDC
- Strategic marketing approach
- Use national organizations to “support”

- *“...we have found... obviously if they get a note from us saying number one that this is legitimate, it's important and to the extent that your schedule would allow, we really wish that you would support CDC in this effort, that many times carries weight and could make the difference between successful and a not so successful data collection effort.”*
- Find and other national organizations
- For tribes, go through the state

What specific methods do you recommend we use to recruit state and local health departments in rural, tribal, and other hard to reach areas to participate?

Responses from participants regarding specific methods for recruiting state and local health departments in rural, tribal, and other hard to reach areas for participation in the needs assessment fell within two specific categories: (1) tribal and (2) state/local/rural. Methods for recruiting from tribal areas included utilizing the 12 tribal epicenters, national associations that represent tribal nations, and in-person methods. Methods for recruiting state/local/rural areas included reaching out to the health departments within that area and utilizing NACCHO for outreach.

Category	Subcategory	Details
Tribal		
	12 tribal epicenters	<ul style="list-style-type: none"> • Designated leadership • Identify an information officer or someone else in charge of public health
	National associations that represent tribal nations	<ul style="list-style-type: none"> • Contact via SNS summit • Identify contacts via CDC, national associations, or state level • Work with the Indian health service • Work with the National Indian Health Board
	In person	<ul style="list-style-type: none"> • Go to the locations and reach out
State/Local/Rural		
	Rural	<ul style="list-style-type: none"> • Reach out and get them involved
	Local	<ul style="list-style-type: none"> • NACCHO to reach out and contact the city and county officials
	State	<ul style="list-style-type: none"> • For local health departments

Comment

“...there really isn't any hard to reach state or territory but also recognizing that territories are different than states. They are a lot smaller, they truly have the island culture and sometimes it just takes a little bit more effort to get them focused on a national effort, such as this.”

What is the best way for us to ask for participants to participate in this needs assessment project?

Participant reported four main categories in regard to the best way to ask participants to participate in the needs assessment: (1) e-mail (2) telephone (3) national organizations and (4) methods dependent upon the sample desired. The most frequently reported ways to ask participants to participate in the needs assessment included e-mail and via national organizations.

Category	Details
E-mail (n=4)	<ul style="list-style-type: none"> • From CDC • From Listserv
Telephone	
National Organizations (n=3)	<ul style="list-style-type: none"> • Send via ASTHO • Send via NACCHO • Via the national organizations' regularly scheduled calls with members-to promote and urge members to participate • Use NPHIC-members expressed desire to participate in development of messages and communication tools ahead of time by emphasizing that their input will help to shape materials may increase participation • Directors of organizations cosigning an e-mail or letter to members/states to make them aware of the needs assessment and emphasize that it is important to participate • Send via CDC;method not specified • Talk with CDC liaisons across the country to gather their recommendations
Dependent upon Sample Desired	<ul style="list-style-type: none"> • For example, if looking at geographic areas, subsets of areas, or other demographic information

Comments

"Sell the information...present it as something that these people need to know and need to be trained on."

"...to give them a heads up..."

"..just be flexible from one part of the country to the next..."

What other groups or agencies do you recommend CDC reaches out to as potential partners to help recruit participants?

Groups or agencies participants recommended CDC reaches out to as potential partners to help recruit participants were primarily national health organizations. The groups/agencies mentioned by participants are listed in the table below. When a specific group/agency was mentioned by more than one participant, the corresponding n is noted next to the group/agency.

Groups/Agencies	
ASTHO (n=5)	NACCHO (n=2)
SOPHE (n=2)	National Environmental Health Association
NPHIC	National Indian Health Board
Office of the Civilian Volunteer Medical Reserve Corps	CDC departments, OSTLTS
Organization for communication officers	School nurse administrators association
Organizations that represent large corporations or companies, such as the Chamber of Commerce	Blogs

What do you think is the best way for us to implement this needs assessment with state and local health departments?

When asked the best way to implement the needs assessment with state and local health departments, participants provided responses in two categories: (1) assessment methods and (2) sampling methods. The most frequently reported assessment method to use was to utilize a combination of methods. For example, using both surveys and in-person interviews. The most frequently reported sampling method was to sample across all states. Details regarding specific assessment and sampling methods provided are listed below.

Category	Details
Assessment Methods	
Survey (n=3)	<ul style="list-style-type: none"> Brief, not open-ended For large health departments
In person interviews (n=3)	<ul style="list-style-type: none"> As only method For mid size or small health departments For tribal level
Combination of methods (n=4)	<ul style="list-style-type: none"> Surveys In-person interviews Focus groups Give jurisdictions options to participate
Focus groups (n=2)	<ul style="list-style-type: none"> For midsize or small health departments Series of focus groups
Sampling Methods	
Across all states (n=2)	<ul style="list-style-type: none"> With public information officers, epidemiologists, and state health officers to ask open-ended questions Target different regions due to cultural differences across the country
Contact the state	<ul style="list-style-type: none"> To identify 5-6 persons to participate in a 60- to 75-minute call

Are there other methods you recommend for informing this needs assessment with state and local health departments in rural, tribal, or other hard to reach areas?

Participants generally reported that their recommendations for methods to inform state and local health departments in rural, tribal, or other hard to reach areas were the same as mentioned in the previous question. Therefore, methods that were not previously identified by the participant in the prior question are listed below.

Other methods not previously identified by the participant in the prior question

- Short survey
- Provide more prompts to get answers to questions
- Provide an incentive
- Take advantage of already existing outlets, such as national and regional meetings. Develop a breakfast or dinner meeting or invite attendees at the meeting to participate in an in-person needs assessment

Since we want to try to get a naturally diverse geographic reach, what do you think is the best regional breakup for gathering people in this assessment?

Due to the variation of responses from participants in terms of the best regional break up for gathering people in the needs assessment, responses are provided below in bullet format. Of note, four participants reported using the public health service regions as the best method for regional breakup.

- By features of the geography and population, such as large and small population areas and urban, rural areas
- Large urban areas
- Large, heavily populated states
- Public health service regions (n=4)
 - To be able to compare data to other types of existing data
 - Try to break it up into as small regions as possible
 - “lumping” and “splitting” regions until you get a number less than 10
- Representatives of territories
- Identifying larger jurisdictions in addition to assessing by region-as jurisdictions differ

What are some other NPI topics that are a particular interest or concern for state and local health departments that you think we should ask them that we haven't already discussed?

Other NPI topics of particular interest or concern for state and local health departments that participants thought should be asked that were not previously discussed were limited. Excerpts from the transcripts of two participants are provided below to reflect additional NPI topics of interest or concern.

Comments

- *“...I think a lot of it has to do with funding and infrastructure. So as part of the needs assessment is not only what do you need from the federal government for the purposes of knowledge and information and tools, but also what do you, meaning states, states, what do you need to actually do the job in the field and in your community?... And the point is that CDC or the federal government could do the best job possible producing products, tools, and messaging, but if it winds up on the laps on a public health agency that has a poor infrastructure and just doesn't have the resources to build the capabilities... So I think it would be appropriate for this exercise to address the needs to the jurisdictions, the states and territories as far as funding and other infrastructure needs to actually get the job done.”*
- *“How about the economic impacts of NPIs and the associated human impacts of NPIs. What I haven't heard yet is any type of analysis of what this would cost a local, state or the nation financially in economic down turn...”*
“What are potential solutions, well let me back up, what are the associated cascading effects of NPIs? Have we even identified them and what are solutions under way or solutions that should be brought under way at the national, state and local level and certainly brought up from the community levels to address some of those because that's going to have a big impact on whether or not they are accepted in a community.”

Is there anything that we have not discussed today that you would like to mention about pandemic influenza NPI implementation, monitoring, communication, training, or other NPI topic?

Participant responses to items that were not discussed during the interview that they wanted to mention about pandemic influenza NPI implementation, monitoring, communication, training, or other NPI topics were best reflected in the descriptive responses that were provided. Excerpts from the transcripts are listed below.

Comments

- *“You know, I think what you'll also hear is that we need to do a better job, and this true of not only non-pharmaceutical, but also pharmaceutical interventions, is that the public health and more importantly, the health care community should do a better job practicing what they preach.”*
- *“Staff at school, the teachers would train for this type of thing.”*
- *“...I was interested that you were doing this and think it's useful and I'm glad you're doing it.”*
- *“When you're talking about NPI and you look at across the local public health landscape, I think the sophistication, the infrastructure to be able to monitor, track and assess the efficacy of NPIs looks different from locale to locale, and I think we don't have a real good national picture of how health departments are addressing or can address these NPIs. On the other hand, I think health departments would want to be able to address these NPIs and put plans in place to engage these NPIs, but because of limited resources aren't able to do that, and so can this assessment really get at the various dimensions of where public health is across the NPI continuum.”*
- *“...maybe talking with the states to see if in fact, to ask them what they have done to improve, which will meet their unmet needs through their own after action reviews and improvement planning. And it may also be helpful to sort of connect that with the new target capabilities that came out of the CEP program.”*

- *“... just want to suggest that if there is one thing I hope you take away from this interview is that the NPI recommendations are greatly appreciated.” “... challenges I mentioned earlier... if we could work on those things, it would be greatly appreciated by public health communicators across the country.”*

Do you have any questions about NPIs which you would like CDC to answer in a follow-up e-mail after the call?

Questions about NPIs that participants mentioned they would like CDC to answer in a follow-up e-mail after the call are listed below as excerpts from the transcripts.

Comments

- *“...I think what would be very, very helpful is, for not only me, but also for the states and territories to possibly get a project update on sort of the status of the 2007 Community Mitigation Strategy playbook if you will and the new effort that I believe CDC is launching to sort of create the next generation.” “...I think the public health community would really benefit from an update on where CDC is on that effort.”*

Comments

- *“...is guidance being revised from the latest to CDC HHS plans and protocols to pandemic response, we mentioned a lot about the categories, is that under revision now and is there an ETA on when that might be completed?”*

DRAFT

Conclusion and Recommendations

Conclusion

Participants in the key informant interviews expressed appreciation for the current project, feeling that the needs assessment is relevant and needed. Feedback from participants indicated that the questions posed were relevant to the discussion and that there was adequate time and leeway to allow for thoughtful consideration and expression of their ideas. The feedback and knowledge that will be gained and incorporated from the next phase of the study were thought to be of critical importance for individuals with roles in pandemic influenza response at the local, state, and national level, national health organizations, and the profession as a whole.

Recommendations

Needs Assessment Process

- Utilize a combination of methods in order to obtain adequate representation from target audiences
 - Use surveys and alternative methods to collect data
 - Suggested methods: web-based surveys and a format (conference calls, in-person interviews, or mailed survey) that would allow for representation of hard to reach populations
- Develop a sampling strategy as needs may vary based on demographic factors
 - Demographic variables to consider include (1) size of health department, (2) location of country, (3) size of population served by the health department, and (4) demographic characteristics of the population served by the health department (e.g., race, education)
- Identify participant characteristics to determine if needs vary by these characteristics
 - Participant role in organization and pandemic influenza response
 - Level of expertise of participant (professional background and education)

Areas to Address in Needs Assessment

- Determine if participant needs are individual, institutional, or both
- Determine desired level of involvement participant would like: involvement in planning and guidance or involvement to only include receiving and disseminating information
- Determine if participant feels they have received adequate training, if applicable, in areas such as messaging, implementation, guidance, monitoring, partnerships, and data collection
- Determine if participants prefer materials that can be adapted or “ready to use”
- Determine how participant would prefer to receive information from CDC (e.g., methods, format, frequency)
- Identify how participant currently receives information about pandemic influenza (e.g., national associations, colleagues, via department distribution)
- Identify the main populations served by participant and participant’s agency
 - Identify segments of the population that the participant identifies as having needs that are not met (e.g., businesses); determine needs for each of the segments (e.g., guidance for working with populations, having culturally appropriate materials)
- Assess awareness of the 2007 Interim Pre-Pandemic Planning Guidance of Community Strategy for Pandemic Influenza in the United States
 - Assess use of the guide
 - Determine reasons for not using
 - Gather feedback regarding usefulness
- Identify existing partnerships
- Identify individual and institutional barriers to training, communication, implementation, messaging, monitoring, partnerships, and data collection