

NACCHO

National Association of County & City Health Officials

The National Connection for Local Public Health

Resource Portfolio Project on the CDC Public Health Preparedness Capabilities

**National Association of County and City
Health Officials**



June 30, 2014

Table of Contents

Introduction.....	Page 3
Project Overview.....	Page 3
Methodology.....	Page 4
CDC Public Health Preparedness Capability 1: Community Preparedness.....	Page 8
CDC Public Health Preparedness Capability 6: Information Sharing.....	Page 27
CDC Public Health Preparedness Capability 8: Medical Countermeasures Dispensing and CDC Public Health Preparedness Capability 9: Medical Materiel Management and Distribution.....	Page 42
CDC Public Health Preparedness Capability 13: Public Health Surveillance and Epidemiologic Investigation.....	Page 63
Acknowledgments.....	Page 83
Appendix A: Capabilities Fact Sheets.....	Page 84
Appendix B: NACCHO Workgroup Fact Sheets.....	Page 92

Introduction

Goal: Improve local public health preparedness capacity and capability by developing strategies that strengthen preparedness program, assessment, planning, and implementation

As local health departments (LHDs) strive to achieve and enhance community preparedness and recovery capacity and capability, they often face a random assortment of tools from wide-ranging sources. As the trusted member organization for LHDs, the National Association of County and City Health Officials (NACCHO) is well positioned to support LHDs by connecting them to the most reliable and relevant resources. With support from the Centers for Disease Control and Prevention (CDC), NACCHO developed a resource portfolio for LHDs to reference and use when addressing the CDC public health preparedness capabilities. NACCHO is also working with CDC partners as they develop a parallel project for CDC Public Health Emergency Preparedness (PHEP) cooperative agreement awardees.

Through this project for LHDs, NACCHO collaborated with national partners to develop and promote educational materials that advance the development of specific CDC public health preparedness capabilities at the local level. To accomplish these activities, NACCHO subcontracted with the Center for Infectious Disease Research and Policy (CIDRAP) to identify, research, and validate tools, practices, and products that can assist LHDs in meeting select CDC public health preparedness capabilities. NACCHO chose CIDRAP based on its extensive experience in vetting and promoting resources through the Public Health Practices (PHP) project.

Project Overview

To set the foundation for the project and inform the process of vetting public health preparedness and response practices, NACCHO solicited information from local subject matter experts to identify priority LHD roles and challenges in addressing specific CDC public health preparedness capabilities. NACCHO summarized this information through fact sheets on capabilities 1, 6, 8 & 9, and 13 (Appendix A). The fact sheets included an overview of the capability, the aspects of the capability requirements most applicable to LHDs, a list of challenges LHDs face in meeting those requirements, and suggestions for resources that would help them overcome those challenges. Each fact sheet was presented to and vetted by multiple workgroups of local public health preparedness subject matter experts to ensure accuracy and comprehensiveness.

The finished fact sheets guided CIDRAP's research and vetting process as CIDRAP developed a listing of resources and trainings available to assist LHDs with addressing these capabilities. First, CIDRAP conducted a comprehensive environmental scan of available resources. CIDRAP then researched and validated these resources to determine the top-tier resources recommended for inclusion as technical assistance resources for LHDs. A detailed description of the resource vetting process is included below.

NACCHO and CIDRAP then produced a final listing of validated resources and trainings available to assist LHDs with addressing CDC public health preparedness capabilities 1, 6, 8 & 9, and 13. The fact sheets and resource listings for each capability are included in subsequent sections of this portfolio. The project was completed on June 30, 2014.

Methodology

Resource Vetting Process

CIDRAP has extensive experience researching, validating, and promoting public health resources through the PHP project. CIDRAP's dynamic process for vetting public health preparedness and response practices for this project draws from the Public Health Practices (PHP) project staff's accumulated and ongoing knowledge about the U.S. public health system. The process blends the measurement of each practice's applicability to defined criteria with staff's sound judgment regarding what is useful and transferable in public health practice. As a result, as the project progressed, the vetting process was adjusted and refined to accommodate changes based on local priorities and needs.

To meet the needs for the NACCHO resource portfolio project on the CDC preparedness capabilities, CIDRAP modified its traditional vetting process for PHP to include the following: (1) tools that may be widely used and valuable but do not necessarily meet the PHP definition of innovative; (2) tools developed by federal, private, and other entities not traditionally included on the PHP site; and (3) tools that have been used, evaluated, or data-driven in a documented way. Additionally, the vetting process for each capability used a specific set of criteria, aspects of which may not have been applicable to the other capabilities. This document includes an overview of the general methodology for this project, as adapted from the PHP project, and includes specific methodology from Capability 1 as an example. Additional methodology notes are included with each capability resource listing.

General Public Health Practices (PHP) Methodology

In brief, a practice suitable to pass the PHP vetting process meets the following criteria:

- Belongs in one or more of the search criteria listed on the site;
- Is useful without obvious flaws;
- Has relevance beyond the jurisdiction that created it. Relevance in this instance is applied liberally; while a tool listing contact information for local faith-based organizations would not have external relevance, a story about working with organizations to develop a communications network would be potentially transferable; and
- Most recently, was recommended or submitted by a local agency representative who worked or shared practices with CIDRAP previously and knew what types of work CIDRAP features on the PHP site.

Included practices typically use CDC guidelines as a starting point and then incorporate local needs and considerations. They may also do the following:

- Fall outside of the realm of normal public health duties;
- Use local knowledge to respond to a problem or show innovation; and
- Be considered especially noteworthy if they address a pressing concern in a creative way (e.g., a project that attempts to eliminate health disparities in disaster response, a project that saves time and money for other jurisdictions by providing translated materials, or an initiative to provide healthcare access to the uninsured during an emergency).

Practices that have not passed the PHP vetting process tend to have the following characteristics:

- Cannot be categorized by typical public health domains (e.g., practices addressing the problems of dog licensing in a jurisdiction);

- Not useful or relevant to any jurisdiction beyond the one that created it (e.g., a list of contact information for local agencies);
- Solely a research project, study, or a program evaluation;
- Solely a communication device (e.g., a poster) with no campaign or story behind its creation;
- Lacking any information or tools to make the activity useful or transferable to other agencies; and
- Made up of redundant, mostly unoriginal information (e.g., a school toolkit with information drawn almost entirely from Contra Costa County’s seminal school preparedness toolkit).

Resource Portfolio Project Methodology

Example: Capability 1—Community Preparedness

Assumptions

CIDRAP’s methodology for selecting and vetting practices for NACCHO’s resource portfolio project for CDC public health preparedness capabilities began with the general PHP methodology and was adapted to incorporate the following assumptions:

1. **Eligible practices would come from all jurisdictions and disciplines** associated with health preparedness/response and emergency management.
2. **Practices would provide the following resources** to address Public Health Preparedness Capability 1: Community Preparedness:
 - Hazard vulnerability analyses and jurisdictional risk assessments
 - Memoranda of understanding with community organizations
 - Definition and identification of size and geographic distribution of at-risk populations
 - Educational materials for organizations serving at-risk populations
3. **Eligible practices would meet the following standards** followed by CIDRAP’s Public Health Practices selection process:
 - ***The practice is useful*** without obvious flaws
 - ***The practice can be transferred*** beyond the jurisdiction that created it or be adapted by another agency with relative ease. Transferability is defined by the following qualities: (1) The practice consists of both a tool and some guidance or training on how to implement it; (2) The practice has been used, shared, or adapted by the originating or another organizations; or (3) The practice, if missing key elements, fills a need and could easily be used or adapted by a sophisticated user.
 - ***The practice uses local knowledge*** or draws on a thorough understanding of context to address a problem. This attribute is especially important when evaluating practices that attempt to meet the needs of at-risk populations.

Search Methodology

1. **Source material:** CIDRAP’s Public Health Practices website; NACCHO’s Model Practices database; Schools of Public Health Preparedness and Emergency Response Research Centers; CDC’s Cities Readiness Initiative; NACCHO’s Advanced Practice Centers; Association of State and Territorial Health Officials (ASTHO); CIDRAP’s At-Risk Populations and Pandemic Influenza guidance and resource listings; social media keyword and hashtag searching; PubMed keyword searching; session and poster materials from the American Public Health Association’s 2014 annual

meeting and the 2012 and 2013 Public Health Preparedness Summits; Google keyword searching

2. Search results

CDC preparedness capability resource	Resources identified through targeted searching	Resources selected for top tier	Resources selected for second tier
Hazard vulnerability analyses and jurisdictional risk assessments	24	4	16
Memoranda of understanding with community organizations	20	5	8
Definition and identification of size and geographic distribution of at-risk populations	16	4	10
Educational materials for organizations serving at-risk populations	53	4	14

Procedural Methodology

1. **Top-tier practices** were selected based on the following characteristics:
 - **Completeness:** The resource represents a package of materials: an interactive, adaptable tool plus some guidance or training on how to use it.
 - **Inclusivity or thoroughness:** If a resource addresses the complex issue of human vulnerability or disability, it provides context and a nuanced view of the topic. The importance of a community participatory element is built into the implementation guidelines for the resource.
 - **Applicability to common or relevant problems:** To the best of NACCHO and CIDRAP’s knowledge, the resource addresses LHD challenges.
 - **Evaluation or use:** The resource was evaluated formally, informed by community data or subject matter expertise, built in response to community engagement feedback or pilot studies, or used to implement preparedness activities or assessments in local communities.
 - **Transferability:** The resource can easily be transferred between jurisdictions or sectors. It is simple enough to apply to a range of agencies while comprehensive enough to ensure that another agency can use it immediately.
 - **Scalability:** The resource offers an array of methods that agencies can select to carry out based on their desired effort level, resource availability and community needs; i.e., the resource provides multiple entry points to beginning the project.

- **Mutual benefit:** The resource clearly explains the benefits to and requirements for each participant. The resource may also attempt to create or build on sustainable community/governmental relationships.
2. **Second-tier practices** were included because, while not widely applicable or transferable, they may have significant usefulness to some jurisdictions or communities. These resources were excluded from the top tier for the following reasons:
- **Difficult to adapt or transfer:** The resource depends on a specific context that precludes transfer to another jurisdiction; lacks information or a tool allowing users to take and use it immediately; or otherwise requires significant work to adapt on the part of any given jurisdiction.
 - **Overly specialized:** The resource, while potentially useful, does not cover a diverse range of issues. Examples include community trainings for one specific segment of the population (e.g., parents of children with autism), agreements with Las Vegas resorts, and assessments for hospice service continuity.
 - **Require supplementation:** The resource may include useful information but would require significant additional tools, guidance, or training to implement. Examples include opinion papers and data sources.

CDC Public Health Preparedness Capability 1: Community Preparedness

- ❖ Resource: Hazard vulnerability analyses and jurisdictional risk assessments
- ❖ Resource: Memoranda of understanding (MOUs) with community organizations
- ❖ Resource: Identification of size and geographic distribution of at-risk populations/Defining at-risk populations
- ❖ Resource: Educational materials for organizations serving at-risk populations

Methodology for Selecting Top-Tier Resources

The criteria below present more detail about how resources were chosen and inform the overarching question: Will this resource help implement or facilitate public health preparedness activities at the local level? The usefulness of top-tier resources stems from the following qualities:

- **Completeness**—The resource represents a package of materials: an interactive, adaptable tool plus guidance or training on how to use it.
- **Inclusivity or thoroughness**—If a resource addresses the complex issue of human vulnerability or disability, it provides context and a nuanced view of the topic. A community participatory element is built into the implementation guidelines for the resource.
- **Applicability to common or relevant problems**—To the best of NACCHO and CIDRAP’s knowledge, the resource addresses LHD challenges.
- **Evaluation or use**—The resource was evaluated formally; informed by community data or subject matter expertise; built in response to community engagement feedback or pilot studies; or used to implement preparedness activities or assessments in local communities.
- **Transferability** —The resource can easily be transferred between jurisdictions or sectors. It is simple enough to apply to a range of agencies while comprehensive enough to ensure that another agency use it immediately.
- **Scalability**— The resource offers an array of methods that agencies can select to carry out based on their desired effort level, resource availability and community needs; i.e., the resource provides multiple entry points to beginning the project.
- **Mutual benefit**— The resource clearly explains the benefits to and requirements for each participant. The resource may also attempt to create or build on sustainable community/governmental relationships.

Methodology for Excluding Second-Tier Resources

Second-tier resources were included because, while not widely applicable, they may have significant usefulness and applicability to some jurisdictions or communities.

- **Difficult to adapt or transfer**—Resources depends on a specific context that precludes transfer to another jurisdiction; lack information or tools that would make it possible to use immediately; or otherwise require significant work to adapt on the part of any given jurisdiction.
- **Overly specialized**—Resources, while potentially useful, do not cover a diverse enough range of issues. Examples include community trainings for one specific segment of the population (e.g., parents of children with autism), agreements with Las Vegas resorts, and assessments for hospice service continuity.
- **Require supplementation**—Resources may include good information but would require significant additions of tools, guidance, or training to implement. Examples include guidance that lacks available resources or specific action points, opinion papers, and data sources.

Top-Tier Hazard Vulnerability Analyses/Risk Assessments

Community Assessment Tool for Public Health Emergencies, Including Pandemic Influenza | Centers for Disease Control and Prevention | [Link](#)

Description and rationale for inclusion: The assessment uses a question-and-answer approach to consider planning gaps, resource shortages, and agency capabilities in many community and healthcare sectors. Sectors for which the assessment gathers data include 911 call centers, emergency medical services, primary care providers, hospital systems, alternate care sites, palliative care/hospice, mortuary services, outpatient clinics, urgent care centers, public health, home healthcare, long-term care, pharmacies, emergency management, local government, and veterans affairs.

Evaluated or data-driven: The assessment was developed in response to feedback from community workshops. It was reviewed by subject matter experts and piloted by communities.

Hazard Risk Assessment Instrument | University of California Los Angeles Center for Public Health and Disasters | [Link](#)

Description and rationale for inclusion: The instrument provides background on conducting a community risk assessment, while allowing users to progress through worksheets that consider the probability of hazards and the severity of consequences considering baseline health indicators and hazard-specific data. Also included are worksheets for scoring a hazard's consequences on human life/health, healthcare service interruption, and community and agency infrastructure. The instrument provides hazard models and case studies for earthquakes, flooding, hurricanes, bombings, and tornadoes.

Second-Tier HVAs/Risk Assessments

Difficult to adapt or transfer

Vulnerability and Capacity Assessment | International Federation of Red Cross and Red Crescent Societies | [Link](#)

My Hazards | California Emergency Management Agency | [Link](#)

Ada County Hazard Vulnerability Analysis | Ada City-County Emergency Management | [Link](#)

Denton County Hazard Vulnerability Analysis | Denton County Emergency Services | [Link](#)

Mason County Identification and Vulnerability Analysis | Mason County Emergency Management | [Link](#)

Overly specialized

Hazard Vulnerability Assessment | National Association for Home Care and Hospice | [Link](#)

Hazard Vulnerability Analysis Form and Scale | Columbia University School of Nursing | [Link](#)

Risk Assessment | Federal Emergency Management

Evaluated or data-driven: The instrument was developed based on workgroup expertise and community data.

Jurisdictional Risk Assessment Resources | Texas Department of State Health Services | [Link](#)

Description and rationale for inclusion: Resources comprise a jurisdictional risk assessment tool and several training videos developed by Texas preparedness partners. The tool is an interactive spreadsheet that allows users to assess 65 community functions related to CDC Public Health Preparedness Capability 1, the probability of 41 hazards, and access to specific resources. The spreadsheet also features a comprehensive scoring method for determining severity of disaster consequences and the likelihood of obtaining mitigation assets. (User tip: Disable macros for a more adaptable tool. When spreadsheet macros are enabled, data choices will pertain only to Texas counties.)

Videos train users on completion and use of the tool and ways to use American Fact Finder data on disability, age, and linguistic isolation in completing assessments.

Evaluated or data-driven: The instrument was developed with and is informed by substantial community data.

Health Risk Assessment (HRA): Kanawha County Report Fall 2012 | West Virginia Department of Health and Human Resources Center for Threat Preparedness | [Link](#)

Description and rationale for inclusion: The assessment provides a well-designed and organized template for conducting a risk assessment based on CDC Public Health Preparedness Capability 1 functions. The template guides users through identifying and ranking hazards and their impacts, agency mitigation activities, and community mitigation roles. The layout of the template and the way it communicates risk and mitigation make it ideal both for agency assessment and community outreach.

Agency | [Link](#)

Nursing Home and Assisted Living Residence Hazard and Vulnerability Analysis | Wisconsin Department of Health Services | [Link](#)

Hazard Vulnerability Assessment Tool | Colorado Department of Public Health and Environment | [Link](#)

Developing a Facility Hazard and Vulnerability Analysis | National Association of Community Health Centers | [Link](#)

Hazard Vulnerability Analysis | Florida Kidney Disaster Coalition | [Link](#)

Requires supplementation

Threat and Hazard Identification and Risk Assessment Guide | Department of Homeland Security | [Link](#)

Environmental Risk Assessment | University of North Carolina Center for Public Health Preparedness | [Link](#)

Hazards Vulnerability Analysis | Kaiser Permanente | [Link](#)

What is Hazard Vulnerability Analysis? | Local Public Health Institute of Massachusetts | [Link](#)

Evaluated or data-driven: The assessment was developed via an advisory committee and workgroups and thus is expertise-based rather than data-driven.

A Note on Methods

Top-tier risk assessments were chosen on the following basis:

- *Completeness*—practices that consisted of both a tool and some guidance on how to use it
- *Inclusivity*—consideration of the importance of context and the community participatory element in implementing risk assessments
- *Evaluation*—any steps taken to evaluate the assessment or ensure it was driven by data or expertise
- *Transferability*— ability of the assessment to be transferred between jurisdictions and sectors

Second-tier assessments were not chosen because they were overly simple; missing elements that could help them be replicated in other jurisdictions; overly specialized; dependent on approaches that did not consider LHDs in a leadership role; or did not respond to the requirements of CDC Public Health Preparedness Capability 1.

Table 1: Scoring for top-tier and second-tier risk assessments

Title	Interactive Tool	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[CDC] Community Assessment Tool for Public Health Emergencies, Including Pandemic Influenza	x	x			x	x	x
[UCLA] Hazard Risk Assessment	x	x			x	x	x
[TX DSHS] Jurisdictional Risk Assessment Resources	x	x	x		x		x
[WV DHHR] Health Risk Assessment (HRA): Kanawha County Report Fall 2012	x	x			x	x	x
[Red Cross/Red Crescent] Vulnerability and Capacity Assessment	x	x	x		x	x	
[CA EMA] My Hazards	x	x					
[Ada] Ada County Hazard Vulnerability Analysis	x	x			x		
[Denton] Denton County Hazard Vulnerability Analysis	x	x			x		

[Mason] Mason County Identification and Vulnerability Analysis	x	x			x		
[NAHCH] Hazard Vulnerability Assessment	x	x		x			
[Columbia] Hazard Vulnerability Analysis Form and Scale	x	x		x			
[FEMA] Risk Assessment	x			x			
[WI DHS] Nursing Home and Assisted Living Residence Hazard and Vulnerability Analysis		x		x			
[CO DPHE] Hazard Vulnerability Assessment Tool	x			x			
[NACHC] Developing a Facility Hazard and Vulnerability Analysis			X	x			
[FL Kidney] Hazard Vulnerability Analysis	x			x			
[DHS] Threat and Hazard Identification and Risk Assessment Guide		x					
[UNC CPHP] Environmental Risk Assessment			x				
[Kaiser] Hazards Vulnerability Analysis	x			x	x	x	x
[LPI MA] What is Hazard Vulnerability Analysis?		x					

Top-Tier MOU Templates and Guidance

Memorandum of Understanding | City of Minneapolis Department of Health and Family Support and Saint Paul – Ramsey County Public Health | [Link](#)

Description and rationale for inclusion: The MOU and accompanying training and educational materials allow community-based organizations to act as closed Points of Dispensing (PODs) (i.e., distribute countermeasures directly to employees and clients) following an emergency (one of the most common uses for a community-based MOU). The memorandum and materials take into account a variety of scenarios and considerations in a manner that can be transferred easily to other jurisdictions. Materials include a closed POD workbook and worksheets, job action sheets, and educational materials on alternate dispensing modes.

Memorandum of Understanding | San Mateo County Health Department | [Link](#)

Description and rationale for inclusion: The MOU and educational materials provide a means by which a local agency and community-based organization (CBO) can share resources and maintain the CBO’s operations during an emergency. The MOU is thorough and considers a variety of situations and legal requirements while still being transferable. Most important, this MOU explains the benefits to both parties in detail. Materials include a project overview, an after-action report on community meetings, and a survey of special populations.

Evaluated or data-driven: The MOU and accompanying materials were informed by a series of community meetings with vulnerable populations.

Memorandum of Agreement | New Mexico Department of Health | [Link](#)

Second-Tier MOU Templates and Guidance

Difficult to adapt or transfer

Memorandum of Agreement | South Carolina Department of Health and Environment | [Link](#)

Agreement for Collaboration in the Event of an Emergency | North Central District Health Department | [Link](#)

Memorandum of Understanding between the American Red Cross and the State of Oregon | Oregon Office of Emergency Management | [Link](#)

San Luis Obispo County Healthcare Coalition Memorandum of Understanding | San Luis Obispo County Public Health Emergency Preparedness Program | [Link](#)

Overly specialized

Memorandum of Understanding | Southern Nevada Health District | [Link](#)

Memorandum of Understanding | Western Region Homeland Security Advisory Council | [Link](#)

Requires supplementation

Model Memorandums of Understanding | Centers

Description and rationale for inclusion: The MOU and training materials provide a way for a state health agency to share preparedness funding and responsibilities with an American Indian tribe. While parts of the MOU may not be transferable to other jurisdictions, the MOU considers some issues integral to forming agreements with a federally recognized tribe. Benefits to both sides and expectations are clearly laid out. Materials include a community training manual, background presentation, and project overview that describes how the project has been used.

Evaluated or data-driven: The project was informed by meetings with New Mexico tribes and the outreach work of a state tribal liaison; trainings occurred throughout the state, and the materials have been used extensively.

Community Health Center (CHC) Mutual Aid System Memorandum of Understanding (MOU) Model | National Association of Community Health Centers (NACHC) | [Link](#)

Description and rationale for inclusion: The MOU thoroughly delineates responsibilities between an LHD and a health center during a surge event. Care is taken not to overwhelm health centers with too many expectations, and benefits to both parties are clearly described. Materials include training and background presentations.

Master MOU | Southwest Utah Public Health Department | [Link](#)

Description and rationale for inclusion: The MOU allows CBOs to act as closed PODs for clients and staff during an emergency. The comprehensive template thoroughly describes scenarios and expectations. The MOU is also accompanied by materials that augment it, such as personal preparedness education. Materials include closed POD workbooks and educational and personal preparedness resources.

for Disease Control and Prevention Public Health Law Program | [Link](#)

Partnering for Strength: MOUs: Getting Your Relationship in Print | Collaborating Agencies Responding to Disaster (CARD) | [Link](#)

A Note on Methods

Top-tier MOUs were chosen on the following basis:

- *Completeness*— templates that consisted of both the MOU itself and a set of materials that would help an agency use them or place them into context
- *Thoroughness*—templates that took into account a diverse range of situations and liability scenarios
- *Applicability to the most common problems facing local agencies*—templates that applied to the need for closed PODs to serve vulnerable people, health center surge
- *Mutual benefit*—templates that clearly provided benefits to all agencies entering into the agreement
- *Transferability*—ability of the MOUs to be transferred between jurisdictions

Second-tier assessments were not chosen for the top tier because they lacked helpful materials or thorough language, making them difficult for another agency to adapt. Certain levels of specialization in the second-tier tools (MOUs for pharmacies, resorts, public transit), however, may make them useful to certain audiences.

Table 1: Scoring for top-tier and second-tier MOUs

Title	Interactive Tool	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[Minneapolis] Memorandum of Understanding	x	x			x		x
[San Mateo] Memorandum of Understanding	x	x			x	x	x
[New Mexico] Memorandum of Agreement	x	x		x	x		x
[NACHC] Community Health Center (CHC) Mutual Aid System MOU Model	x	x		x	x	x	x
[Southwest Utah] Master MOU	x	x			x		x
[CDC Public Health Law] Model Memorandums of Understanding		x					x
[CARD] Partnering for Strength: MOUs: Getting Your Relationship in Print		x					x
[South Carolina] Memorandum of Agreement	x			x			x

[North Central] Agreement for Collaboration in the Event of an Emergency	x			x			x
[Oregon] Memorandum of Understanding between the American Red Cross and the State of Oregon	x	x		x	x		x
[San Luis Obispo] San Luis Obispo County Healthcare Coalition Memorandum of Understanding	x	x		x			x
[Nevada] Memorandum of Understanding	x			x			
[Western Region] Memorandum of Understanding	x			x			

Top-Tier Identification and Definition Tools

Public Health Workbook to Define, Locate, and Reach Special, Vulnerable, and At-Risk Populations in an Emergency | Centers for Disease Control and Prevention | [Link](#)

Description and rationale for inclusion: The comprehensive workbook includes clear guidance and rationale along with a substantial set of customizable tools for defining at-risk populations in a given jurisdiction and providing outreach. The process of defining populations is presented without dogma and is intended to be informed by local data and experience. While anyone could use the workbook, the workbook would probably be most useful and engaging to someone already involved in qualitative research among at-risk populations.

Evaluated or data-driven: The workbook was informed by literature review and interviews with government and community leaders. State and local health departments have used and reviewed it extensively (in draft form).

Special Needs Populations Assessment Toolkit | Kansas Association of Local Health Departments | [Link](#)

Description and rationale for inclusion: The toolkit features a scalable approach to identifying at-risk populations. It includes assessments for both community agencies and residences and allows for identification of needs experienced by the elderly, people with disabilities, non-English speakers, and people living in shelters and other institutions. Materials can be used for preparedness or recovery purposes, and assessments offer the option of combining GIS tools with more traditional technology.

Evaluated or data-driven: The toolkit has been used by LHDs in Kansas. Most materials were developed based on local data and experience, particularly those materials

Second-Tier Identification and Definition Tools

Difficult to adapt or transfer

The CDC/ATSDR Public Health Vulnerability Mapping System: Using a Geographic Information System for Depicting Human Vulnerability to Environmental Emergencies | Centers for Disease Control and Prevention; Agency for Toxic Substances and Disease Registry | [Link](#)

Polk County Special Population Planning | Western Region Partnership for Public Health Preparedness | [Link](#)

Special Needs Populations Mapping for Public Health Preparedness | RAND | [Link](#)

Vulnerable Populations: A Function-Based Vulnerability Measure for the New York City Region | New York City Department of Health and Mental Hygiene | [Link](#)

A Guide for Including People with Disabilities in Disaster Preparedness Planning | Connecticut Developmental Disabilities Network | [Link](#)

Requires supplementation

SNAPS: Snap Shots of Population Data, Version 1.5 |

addressing the needs of the high population of elderly people living in the state.

Community Based Vulnerability Assessment: A Guide to Engaging Communities in Understanding Social and Physical Vulnerability to Disasters | University of North Carolina Institute for the Environment; MDC, Inc. | [Link](#)

Description and rationale for inclusion: The data-centric assessment focuses on identifying and mapping physical and social vulnerability, employment centers, and environmental hazards. It takes a participatory approach to assessment, offering opportunities and tools to engage community partners if resources permit. The guide helpfully identifies data sources an agency can use to identify and map at-risk populations and expected/ideal output and goals for each data source.

Evaluated or data-driven: Numerous communities on the eastern seaboard participated in a demonstration project to identify barriers and strategies related to preparedness and recovery in vulnerable populations. The guide was developed as a result of lessons learned from these demonstrations.

Meeting the Needs of Vulnerable Populations: Equity in Emergency Response | Public Health – Seattle & King County | [Link](#)

Description and rationale for inclusion: The toolkit provides agencies tools and guidance they might need to provide outreach directly or to collaborate with CBOs. Examples of tools include surveys to be used with CBOs, prioritization metrics for medical services, and mapping resources. Most tools can be scaled to an agency's needs and amount of effort.

Evaluated or data-driven: The assessment section of the toolkit was informed by a series of public engagement meetings related to medical prioritization held in 2008.

Centers for Disease Control and Prevention | [Link](#)

Behavioral Risk Factor Surveillance System | Centers for Disease Control and Prevention | [Link](#)

Disability Counts | Rural Institute of Montana | [Link](#)

Social Vulnerability Index for the United States | Hazards and Vulnerability Research Institute | [Link](#)

"Identifying At-Risk Populations" in At Risk Populations and Pandemic Influenza: Planning Guidance for State, Territorial, Tribal, and Local Health Departments | Association of State and Territorial Health Officials; Center for Infectious Disease Research and Policy | [Link](#)

A Note on Methods

Top-tier risk identification and definition tools were chosen on the following basis:

- *Completeness*—practices that consisted of both a tool and some guidance on how to use it
- *Scalability*—practices that provided multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs
- *Evaluation*—any steps taken to evaluate the assessment or ensure it was driven by data, expertise, or community participation
- *Transferability*—ability of the assessment to be transferred between jurisdictions and sectors

Second-tier identification tools were not chosen because they offered limited options to agencies wishing to begin an assessment, provided only data sources, were complicated enough to require significant methodological expertise, or presented opinions rather than direct guidance.

Table 1: Scoring for top-tier and second-tier identification and definition resources

Title	Interactive Tool	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[CDC] Public Health Workbook to Define, Locate, and Reach Special, Vulnerable, and At-Risk Populations in an Emergency	x	x			x	x	x
[Kansas] Special Needs Populations Assessment Toolkit	x	x			x	x	x
[UNC] Community Based Vulnerability Assessment: A Guide to Engaging Communities in Understanding Social and Physical Vulnerability to Disasters	x	x			x	x	x
[Seattle] Meeting the Needs of Vulnerable Populations: Equity in Emergency Response	x	x			x	x	x
[CDC/ATSDR] The CDC/ATSDR Public Health Vulnerability Mapping System: Using a Geographic Information		x				x	

System for Depicting Human Vulnerability to Environmental Emergencies							
[Polk] Polk County Special Population Planning	x	x				x	x
[RAND] Special Needs Populations Mapping for Public Health Preparedness	x	x		x		x	
[Connecticut] A Guide for Including People with Disabilities in Disaster Preparedness Planning		x		x			
[CDC] SNAPS: Snap Shots of Population Data, Version 1.5	x				x	x	x
[CDC] Behavioral Risk Factor Surveillance System	x				x	x	x
[ASTHO/CIDRAP] "Identifying At-Risk Populations" in At-Risk Populations and Pandemic Influenza: Planning Guidance for State, Territorial, Tribal, and Local Health Departments		x			x	x	x

Top-Tier Community-Based Organization (CBO) Training Tools

A Guide for Including People with Disabilities in Disaster Preparedness Planning | University of Connecticut Center for Excellence in Developmental Disabilities | [Link](#)

Description and rationale for inclusion: The guide is designed for ease of use by community organizations or by individuals with physical, sensory, developmental, and psychiatric disabilities. Extensive guidance and scenarios cover planning for at-risk populations by outreach, communication techniques, evacuation strategies, and sheltering considerations. Tools include a disability preparedness inventory and assessment/supply lists for shelter or sheltering-in-place planning.

Evaluated or data-driven: The guide was informed by a multi-agency forum on lessons learned during Gulf Coast emergencies.

The Prepared Community Initiative | Bernalillo County Community Health Council | [Link](#)

Description and rationale for inclusion: The initiative is a training and technical assistance program for community organizations partnering with LHDs to serve at-risk populations. Three phases of the project are scalable to an agency's needs and include extensive training, creation of an outreach network, assessment, and communication (all with accompanying tools). The initiative's materials are intended to be used collaboratively between LHDs and community organizations as a relationship-building mechanism.

Evaluated or data-driven: The initiative's phases and materials were built

Second-Tier CBO Training Tools

Difficult to adapt or transfer

Vulnerable & At-Risk Populations Resource Guide | University of North Carolina Preparedness and Emergency Response Research Center | [Link](#)

Emergency Preparedness Tips for Those with Functional Needs | Illinois Terrorism Task Force | [Link](#)

Functional Needs of People with Disabilities: A Guide for Emergency Managers, Planners, and Responders | National Organization on Disability | [Link](#)

Communication Considerations for Vulnerable Populations: Before, During and After a Disaster | Florida Department of Health | [Link](#)

Overly specialized

Individuals with Autism Spectrum Disorder and Emergency Planning Resources | Minnesota Governor's Council on Developmental Disabilities | [Link](#)

Emergency Response Preparedness Self-Assessment Instrument | National Association of State Directors of Developmental Disabilities Services | [Link](#)

collaboratively with community health councils and tested in three pilot communities.

Meeting the Needs of Vulnerable Populations: Equity in Emergency Response | Public Health – Seattle & King County | [Link](#)

Description and rationale for inclusion: The extensive toolkit allows community agencies to select an area and level of planning right for their work with at-risk clients. Tools include materials for holding focus groups, distributing mini-grants, holding community training sessions, and developing preparedness action plans. Case studies demonstrate how other agencies have used and benefited from the materials.

Evaluated or data-driven: The toolkit was built collaboratively among local agencies in the Pacific Northwest.

Emergency Management for Community-Based Organizations | Minneapolis Department of Health and Family Support | [Link](#)

Description and rationale for inclusion: The guide provides a comprehensive way for CBOs to ensure continuity during an emergency by offering ways to prioritize services, plan for volunteers, keep adequate records, and deal with client and service surge. Planning forms, an interactive road map, and sample exercises help local agencies and CBOs build and scale preparedness activities.

Evaluated or data-driven: The guide and its tools were built on lessons learned from task force collaborations.

Emergency Preparedness Guide for Dialysis Patients | Trans-Atlantic Renal Council | [Link](#)

Preventing and Responding to Sexual Violence in Disasters: A Planning Guide for Prevention and Response | National Sexual Violence Resource Center | [Link](#)

Disaster Planning Tips for Older Adults and Their Families | Centers for Disease Control and Prevention Healthy Aging Program | [Link](#)

Guidance for Integrating Culturally Diverse Communities into Planning for and Responding to Emergencies: A Toolkit | National Consensus Panel on Emergency Preparedness and Cultural Diversity | [Link](#)

ECHO | ECHO Minnesota | [Link](#)

Requires supplementation

Go|Stay|Kit: The Ultimate Emergency Preparedness Kit | Vulnerable Populations Committee of Jackson and Josephine Counties | [Link](#)

Emergency Management Be Prepared Initiative | Ohio Department of Health | [Link](#)

Community Tool Box | University of Kansas Work Group for Community Health and Development | [Link](#)

A Note on Methods

Top-tier CBO training tools were chosen on the following basis:

- *Completeness*—practices that consisted of both a tool and some guidance on how to use it
- *Scalability*—practices that provided multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs
- *Mutual benefit*—tools that explained work required or attempted to create sustainable relationships between governmental and community agencies
- *Evaluation*—any steps taken to evaluate the educational materials or ensure they were driven by data, expertise, or community participation
- *Transferability*—ability of the assessment to be transferred between jurisdictions and sectors

Second-tier training tools were not chosen because they were specialized (i.e., focused on a situation or population that may not be relevant to many organizations) or because they would be difficult to transfer between jurisdictions (i.e., they lacked key tools that an organization would have to provide, lacked guidance to identify problems, or set forth opinions rather than strategies).

Table 1: Scoring for top-tier and second-tier CBO training resources

Title	Interactive Tool	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[University of Connecticut] A Guide for Including People with Disabilities in Disaster Preparedness Planning	x	x			x	x	x
[Bernalillo] The Prepared Community Initiative	x	x	x		x	x	x
[Seattle] Meeting the Needs of Vulnerable Populations: Equity in Emergency Response	x	x	x		x	x	x
[Minneapolis] Emergency Management for Community-Based Organizations	x	x			x	x	x
[Minnesota] Individuals with Autism Spectrum Disorder and Emergency Planning Resources	x	x		x		x	x

[NASDDDS] Emergency Response Preparedness Self-Assessment Instrument	x			x		x	x
[Trans-Atlantic Renal Council] Emergency Preparedness Guide for Dialysis Patients		x		x			x
[NSVRC] Preventing and Responding to Sexual Violence in Disasters: A Planning Guide for Prevention and Response		x		x	x	x	x
[CDC] Disaster Planning Tips for Older Adults and Their Families		x		x			x
[National Consensus Panel] Guidance for Integrating Culturally Diverse Communities into Planning for and Responding to Emergencies: A Toolkit	x	x		x			x
[ECHO] ECHO Minnesota	x			x		x	x
[Jackson and Josephine Counties] Go Stay Kit: The Ultimate Emergency Preparedness Kit	x			x			x
[University of North Carolina] Vulnerable & At-Risk Populations Resource Guide	x	x			x		
[University of Kansas] Community Tool Box	x	x			x		x
[Illinois] Emergency Preparedness Tips for Those with Functional Needs		x		x			
[NOD] Functional Needs of People with Disabilities: A Guide for Emergency Managers, Planners, and Responders		x		x			x

[Florida] Communication Considerations for Vulnerable Populations: Before, During and After a Disaster		x					x
[Ohio] Emergency Management Be Prepared Initiative	x			x			

CDC Public Health Preparedness Capability 6: Information Sharing

- ❖ Resource: Templates, models, or guidance to improve timeliness of information sharing
- ❖ Resource: Templates for improving situational awareness
- ❖ Resource: Electronic health systems and public health alerts
- ❖ Resource: Cost-effective solutions for information exchange technologies

CDC Public Health Preparedness Capability 6: Information Sharing | *Resource Need: Improving Timeliness of Information Sharing*

Top-Tier Timeliness of Information Sharing Tools

Real-Time Information Network Provides Emergency Education and Warnings to Refugees | Utah Department of Health | [Link](#)

Description and rationale for inclusion: The materials describe a real-time information network to communicate with limited-English proficient refugees during a disaster. It describes how the network succeeded by assigning different roles to each state agency, using a state refugee services liaison to maintain the network, and distributing emergency messages to trusted refugee leaders/interpreters.

Helpful materials: Real Time Information Network fact sheet

Social Media Training Program Builds Responders' Comfort with, Ability to Use Facebook, Twitter for Emergency Communications | JSI Research and Training Institute, Inc. | [Link](#)

Description and rationale for inclusion: The materials enable responders to improve their use and understanding of popular social media sites to communicate with the general public during emergencies. A description of the resources can be found [here](#).

Inter-Jurisdictional Health Information Exchange | Joint Public Health Informatics Task

Second-Tier Timeliness of Information Sharing Tools

Requires supplementation

Reaching Out: An Evolving Communications Strategy | Rhode Island Department of Health | [Link](#)

Efforts to Provide H1N1 Outreach and Situational Awareness | New York State Department of Health | [Link](#)

Memorandum of Understanding between the American Red Cross and the State of Oregon | Oregon Office of Emergency Management | [Link](#)

Mutual Aid Template | Cambridge Public Health | [Link](#)

Difficult to adapt or transfer

NEME After-Action Report Details Interstate Coordination Efforts | Mid-America Alliance | [Link](#)

A Mass Casualty Care Strategy for Biological Terrorism Incidents | Department of Defense | [Link](#)

Force; Public Health Informatics Institute | [Link](#)

Description and rationale for inclusion: The material provides practical advice and information to public health managers and staff who craft data exchange agreements. It includes reasoning for providing particular provisions and advice on different considerations to take into account when crafting these agreements.

Helpful materials: Guidance document

Strengthening Biosurveillance Systems for Enhanced Situational Awareness | University of North Carolina Gillings School of Global Public Health; Public Health Informatics Institute | [Link](#)

Description and rationale for inclusion: The material aids public health leaders as they improve their capacity to achieve situational awareness during a public health emergency. The main purpose is to serve as a reference and guiding principle for public health leaders, so that they can design, manage, and maintain biosurveillance systems during public health emergencies.

Helpful materials: Guidance document

Core Information Needs for Situational Awareness and Response Management | The North Carolina Institute for Public Health | [Link](#)

Description and rationale for inclusion: The training provides an overview of different situational awareness, response management, and biosurveillance systems. It also discusses next steps that public health leaders can take to continue to enhance situational awareness.

Helpful materials: Training materials

PIO Avian Flu Functional Exercise | Ohio Department of Health | [Link](#)

Risk Communication and Public Education Tool Kit | Santa Clara County Advanced Practice Center | [Link](#)

A Note on Methods

Top-tier tools were chosen on the following basis:

- *Completeness*—materials/tools that represent a complete approach, with some guidance or instruction on how to use them
- *Inclusivity/Thoroughness*—materials/tools that allow agencies to determine the appropriateness for their particular needs
- *Transferability*—materials/tools that can be easily transferred and adapted among different situations, sectors, or jurisdictions
- *Adaptability*—materials/tools that can be adapted by a wide range of jurisdictions and disciplines

Second-tier assessments were not chosen for the top tier because they lacked helpful materials or needed description, making them difficult for another agency to adapt; they were too specialized; or they were not complex enough.

Title	Completeness	Inclusivity	Helpful Materials	Transferability	Adaptability	Evaluated or Data-Driven
Real-Time Information Network Provides Emergency Education and Warnings to Refugees	x		x	x	x	x
Social Media Training Program Builds Responders' Comfort with, Ability to Use Facebook, Twitter for Emergency Communications		x	x	x	x	
Inter-Jurisdictional Health Information Exchange	x	x	x	x		
Strengthening Biosurveillance Systems for Enhanced Situational Awareness	x	x	x		x	
Core Information Needs for Situational Awareness and Response Management	x	x	x	x	x	
Reaching Out: An Evolving Communications Strategy			x	x		
Efforts to Provide H1N1 Outreach and Situational Awareness		x	x		x	
NEMA After-Action Report Details Interstate Coordination Efforts		x	x	x		

A Mass Casualty Care Strategy for Biological Terrorism Incidents			x	x		
PIO Avian Flu Functional Exercise Mutual Aid Template	x		x	x		
Risk Communication and Public Education Tool Kit		x	x	x		

Top-Tier Templates for Improving Situational Awareness

Florida Uses Dark Site Templates to Prepare for Internal and Public Communication during Disasters | Florida Department of Health | [Link](#)

Description and rationale for inclusion: The resource describes offline webpage templates/dark sites to be customized and placed online when a disaster occurs. Employing a dark site system allows public information officers and communications staff to focus on high-priority information needs during a disaster, while steering media, stakeholders, and the public to accurate and current information.

Helpful materials: Dark site standard operating guidelines

Risk Communication Toolkit for Local Health Agencies | New Jersey Department of Health | [Link](#)

Description and rationale for inclusion: The materials enable LHDs to create their own crisis communication plan. It assists LHDs in effectively managing and communicating during an emergency or crisis.

Helpful materials: Guidance document

Information Sharing: A Planning Toolkit | Center for Technology in Government | [Link](#)

Description and rationale for inclusion: The material provides a framework for planning within individual organizations and across organizations involved in an information-sharing initiative. The document helps to inform planning and design of information sharing/integration initiatives and helps to identify any capability weaknesses.

Second-Tier Templates for Improving Situational Awareness

Requires supplementation

Situational Awareness Dashboard Consolidates H1N1 Vaccine Information | New York State Department of Health | [Link](#)

Tribal Emergency Response Committee Lays Important Groundwork for Response | Mille Lacs Band of Ojibwe | [Link](#)

PIO/JIC Toolkit | University of Iowa | [Link](#)

Improving and Maintaining Healthcare Communication Systems for a Healthcare Coalition | Boston University School of Public Health; Massachusetts Department of Public Health | [Link](#)

Overly specialized

Colorado's GEEERC | Colorado Department of Public Health and Environment | [Link](#)

Helpful materials: Guidance document

“PODPocket” Mobile App and Standard Guidance Help Kentucky Counties Establish PODs | Lake Cumberland District Health Department | [Link](#)

Description and rationale for inclusion: The material describes the team-based approach to developing standardized guidance and a Web-based app to assist counties across the state in establishing and running Points of Dispensing. The app provides numerous tools for reference and use in a portable, accessible format. A description of the resource can be found [here](#).

Dark Site Emergency Communications Until Crisis Occurs | Santa Carla County Public Health Department Advanced Practice Center | [Link](#)

Description and rationale for inclusion: This information helps public health departments set up an emergency dark site. Advantages of using a dark site include the ability to post quickly changing information, the existence of an alternate site when a standard site crashes due to too many hits or a malfunctioning server, and the ease with which users can quickly select and prepare documents for uploading. The approach to building and maintaining a dark site enables members of the public to easily view and navigate to the information they critically needed during health emergencies.

Helpful materials: Training materials

A Note on Methods

Top-tier tools were chosen on the following basis:

- *Completeness*—materials/tools that represent a complete approach, with some guidance or instruction on how to use them
- *Inclusivity/Thoroughness*—materials/tools that allow agencies to determine the appropriateness for their particular needs
- *Transferability*—materials/tools that can be easily transferred and adapted among different situations, sectors, or jurisdictions
- *Adaptability*—materials/tools that can be adapted by a wide range of jurisdictions and disciplines

Second-tier assessments were not chosen for the top tier because they lacked helpful materials or needed description, making them difficult for another agency to adapt; they were too specialized; or they were not complex enough.

Title	Completeness	Inclusivity	Helpful Materials	Transferability	Adaptability	Evaluated or Data-Driven
Florida Uses “Dark Site” Templates to Prepare for Internal and Public Communication during Disasters	x		x	x	x	x
Risk Communication Toolkit for Local Health Agencies	x	x	x		x	
Information Sharing: A Planning Toolkit	x		x	x	x	
“PODPocket” Mobile App and Standard Guidance Help Kentucky Counties Establish PODs			x	x	x	x
Toolkit Adapts Infectious Disease Emergency Response Plan for Local Health Departments	x		x	x	x	x
Dark Site Stores Emergency Communications until Crisis Occurs		x	x	x	x	
Situational Awareness Dashboard Consolidates H1N1 Vaccine Information			x	x	x	
Tribal Emergency Response Committee Lays Important			x	x		

Groundwork for Response						
Colorado's GEEERC		x	x	x		
University of Iowa - PIO/JIC Toolkit			x	x	x	
Improving and Maintaining Healthcare Communication Systems for a Healthcare Coalition			x		x	

Top-Tier Electronic Health Systems and Public Health Alerts

Utah Stakeholders Forge Healthcare Coalition to Strengthen Surge Capacity | Northern Utah Healthcare Coalition | [Link](#)

Description and rationale for inclusion: This healthcare coalition was formed to facilitate relationships, planning, training, communication, and ways to share resources before a disaster occurs. The coalition helps the community prepare for a surge event by building relationships between many different types of healthcare entities, providing training and education opportunities, crafting regional response plans, and building mechanisms for sharing equipment and resources.

Helpful materials: Website with related resources

Boston Health Coalition Builds Cross-Agency Emergency Communication Structure | Boston University School of Public Health | [Link](#)

Description and rationale for inclusion: The resource describes how health agencies formed a coalition to establish an emergency communications network, which serves its individual members via establishing training opportunities, creating avenues for mutual aid, and advocating for policy priorities at the state level.

ICCE Net: Intrastate Crisis Communication Enhancement Network | North Carolina Division of Public Health | [Link](#)

Description and rationale for inclusion: The material describes a technical,

Second-Tier Electronic Health Systems and Public Health Alerts

Requires supplementation

Using Electronic Health Record Alerts to Provide Public Health Situational Awareness to Clinicians | New York City Department of Health and Mental Hygiene | [Link](#)

HAN Best Practices | Centers for Disease Control and Prevention | [Link](#)

Overly specialized

Multi-Layered Communications Strategy Protects Residents in the Path of Arizona Wildfire | Apache County Public Health Services District | [Link](#)

administrative, and training infrastructure to harmonize risk communications between various levels of government. Additionally, the program may be an effective way to build a strong public information support structure that spans geographic and jurisdictional areas.

Helpful materials: Project overview and project plan

A Note on Methods

Top-tier tools were chosen on the following basis:

- *Completeness*—materials/tools that represent a complete approach, with some guidance or instruction on how to use them
- *Inclusivity/Thoroughness*—materials/tools that allow agencies to determine the appropriateness for their particular needs
- *Transferability*—materials/tools that can be easily transferred and adapted among different situations, sectors, or jurisdictions
- *Adaptability*—materials/tools that can be adapted by a wide range of jurisdictions and disciplines

Second-tier assessments were not chosen for the top tier because they lacked helpful materials or needed description, making them difficult for another agency to adapt; they were too specialized; or they were not complex enough.

Title	Completeness	Inclusivity	Helpful Materials	Transferability	Adaptability	Evaluated or Data-Driven
Utah Stakeholders Forge Healthcare Coalition to Strengthen Surge Capacity	x		x	x	x	
Boston Health Coalition Builds Cross-Agency Emergency Communication Structure		x	x	x	x	x
ICCE Net: Intrastate Crisis Communication Enhancement Network			x	x	x	
Using Electronic Health Record Alerts to Provide Public Health Situational Awareness to Clinicians			x	x	x	
CDC’s HAN Best Practices		x	x	x		
Multi-Layered Communications Strategy Protects Residents in the Path of Arizona Wildfire		x	x	x	x	

Top-Tier Cost-Effective Solutions for Information Exchange Technologies

Florida’s Virtual JIC Creates a Safe and Effective Work Environment for Communications Responders | Florida Department of Health | [Link](#)

Description and rationale for inclusion: The resource describes the development of a virtual Joint Information Center, which provides access to information (online) and saves time and resources by using a virtual workspace.

Helpful materials: Joint Information Center standard operating guidelines

Media Monitoring Process Informs Recommendations for Public Communications during H1N1 | Florida Department of Health | [Link](#)

Description and rationale for inclusion: The materials describe how LHDs developed a targeted process to monitor news and opinion, while making these information sources the basis of daily recommendations. Incident command leadership found that the usability and timeliness of this process for synthesizing media reports informed their communication strategies and messages.

Helpful materials: Media monitoring standard operating guidelines

H1N1 Flu Partner Webcasts | Wisconsin Department of Health Services | [Link](#)

Description and rationale for inclusion: The materials describe weekly briefings via live

Second-Tier Cost-Effective Solutions for Information Exchange Technologies

Overly specialized

Rumor Investigation Process Helped Florida Prioritize Communication Response, Conserve Resources during H1N1 | Florida Department of Health | [Link](#)

Difficult to adapt or transfer

Videoconferencing Technology to Disseminate Timely Messages | North Carolina Division of Public Health | [Link](#)

Public Health Software Program for Medical Patient Data Tracking, Situational Awareness and Services Rendered During Major Response Events | Hidalgo County Health and Human Services | [Link](#)

Requires supplementation

Joint Information Center Exercise: Disaster Communication on a Regional Scale | Harris County Office of Homeland Security and Emergency Management | [Link](#)

Florida Uses Dark Site Template to Prepare for

and on-demand webcasts to increase viewers, conserve resources, and communicate increasingly complex data. This approach enabled the health department to provide more detailed and complex information because it was able to include graphs and maps of trends in disease spread and vaccine uptake in presentations. This approach also had the benefit of allowing multiple partners to receive the same information from the state health department at roughly the same time.

Helpful materials: Archived webcasts and webinar about development

Public Health & Electronic Health Information Exchange: A Guide to Local Agency Leadership | The Institute for Public Health Informatics and Research; Duval County Health Department | [Link](#)

Description and rationale for inclusion: The material introduces basic concepts that might be relevant to LHDs considering a more active role in developing electronic health information exchange within their jurisdictions.

Helpful materials: Guidance document

Free/Libre Open Source Software in Health Care: A Review | Healthcare Informatics Research | [Link](#)

Description and rationale for inclusion: The document assesses and summarizes the current state of the art and the contribution of Free Open Source Software in healthcare settings in different parts of the world. The Free Open Source Software approach is adaptable to local needs and of particular interest to those with budgetary constraints.

Helpful materials: Document with links

Internal and Public Communication during Disasters
| Florida Department of Health | [Link](#)

A Note on Methods

Top-tier tools were chosen on the following basis:

- *Completeness*—materials/tools that represent a complete approach, with some guidance or instruction on how to use them
- *Inclusivity/Thoroughness*—materials/tools that allow agencies to determine the appropriateness for their particular needs
- *Transferability*—materials/tools that can be easily transferred and adapted among different situations, sectors, or jurisdictions
- *Adaptability*—materials/tools that can be adapted by a wide range of jurisdictions and disciplines

Second-tier assessments were not chosen for the top tier because they lacked helpful materials or needed description, making them difficult for another agency to adapt; they were too specialized; or they were not complex enough.

Title	Completeness	Inclusivity	Helpful Materials	Transferability	Adaptability	Evaluated or Data-Driven
Florida’s Virtual JIC Creates a Safe and Effective Work Environment for Communications Responders	x		x	x	x	x
Media Monitoring Process Informs Recommendations for Public Communications During H1N1	x		x	x	x	x
H1N1 Flu Partner Webcast	x		x	x	x	
Public Health & Electronic Health Information Exchange: A Guide to Local Agency Leadership	x		x	x	x	
Free/Libre Open Source Software in Health Care: A Review	x	x	x		x	
Rumor Investigation Process Helped Florida Prioritize Communication Response, Conserve Resources during Deepwater Horizon Disaster	x		x	x		
Videoconferencing Technology to Disseminate Timely Messages			x	x	x	

Public Health Software Program for Medical Patient Data Tracking, Situational Awareness and Services Rendered During Major Response Events			x	x		
Joint Information Center Exercise: Disaster Communication on a Regional Scale		x	x	x		
Florida Uses "Dark Site" Templates to Prepare for Internal and Public Communication during Disasters			x	x	x	x

CDC Public Health Preparedness Capability 8: Medical Countermeasures and Dispensing

CDC Public Health Preparedness Capability 9: Medical Materiel Management and Distribution

- ❖ Resource: Dispensing planning, training, and exercising
- ❖ Resource: Inventory management tools and systems
- ❖ Resource: Security concerns
- ❖ Resources: At-risk populations
- ❖ Resource: Coordination and communication

Methodology for Selecting Top-Tier Resources

The criteria below present more detail about how resources were chosen and inform the overarching question: Will this resource help implement or facilitate public health preparedness activities at the local level? The usefulness of top-tier resources stems from the following qualities:

- **Completeness**—Resources represent a package of materials: an interactive or adaptable tool or strategy plus some guidance or training on how to use it.
- **Inclusivity or thoroughness**—Resources provide enough detail for other agencies to determine appropriateness to their jurisdiction. The inclusion of templates and spreadsheets was a plus.
- **Applicability to common or relevant problems**—To the best of NACCHO and CIDRAP’s knowledge, resources address LHD challenges.
- **Evaluation or use**—Resources were evaluated formally, informed by community data or subject matter expertise, built in response to community engagement feedback or pilot studies, or used to implement preparedness activities or assessments in local communities.
- **Transferability**—Resources can easily be transferred between jurisdictions or sectors. They are simple enough to apply to a range of agencies while comprehensive enough to ensure that another agency can use them immediately.
- **Scalability**— The resource offers an array of methods that agencies can select to carry out based on their desired effort level, resource availability and community needs; i.e., the resource provides multiple entry points to beginning the project.
- **Mutual benefit**—The resources explain the benefits to and requirements for each participant. The resources may also attempt to create or build on sustainable community/governmental relationships.

Methodology for Excluding Second-Tier Resources

Second-tier resources were included because, while not widely applicable, they may have significant usefulness and applicability to some jurisdictions or communities.

- **Difficult to adapt or transfer**—Resources may depend on a specific context that precludes transfer to another jurisdiction; lack information or a tool that would make it possible to use immediately; or otherwise require significant work to adapt on the part of any given jurisdiction.

- **Overly specialized**—Resources, while potentially useful, do not cover a diverse range of issues. Examples include community trainings for one specific segment of the population (e.g., parents of children with autism), agreements with Las Vegas resorts, and assessments for hospice service continuity.
- **Requires supplementation**—Resources may include good information but would require significant additions of tools, guidance, or training to implement. Examples include guidance that lacks available resources or specific action points, opinion papers, and data sources.

Top-Tier Hazard Dispensing Planning/Training/Exercising Resources

Community Immunity | Toledo-Lucas County Health Department | [Link](#)

Description and rationale for inclusion: *Tools for dispensing planning, training, and exercising.* The website provides a comprehensive, well-organized, and easy-to-search set of tools for planning, training, and exercising medical countermeasures management and dispensing. Resources are designed for health department and open and closed POD partners. Among the links on the site are a Strategic National Stockpile (SNS) mass dispensing and planning guide that can be a template for other agencies, inventory lists, 26 training modules, 13 just-in-time training presentations, job action sheets, agent fact sheets, dispensing algorithms, forms, signage, risk communication, and marketing materials.

Evaluated or data-driven: The dispensing tools are based on H1N1 lessons learned and input from volunteers and health department staff. Resources on the site are described as helpful for developing plans compliant with CDC's Local Technical Assistance Review Tool. Among the partners in development of the tools was the University of Toledo Center for Instruction, which has extensive expertise in instructional design and interactive media.

Emergency Dispensing Site and Point of Distribution Staff Training Series | Cambridge Public Health Department / Advanced Practice Center | [Link](#)

Description and rationale for inclusion: *Training tools.* Part of a series of training resources, these compact tools address training volunteers (including Medical Reserve Corps) and provide a strong mix of instructions for trainers and materials for trainees.

Second-Tier Dispensing
Planning/Training/Exercising Resources

Difficult to adapt or transfer

Civil Air Patrol Antivirals Delivery to Remote Areas | Michigan Department of Community Health | [Link](#)

Overly specialized

Assessment tool for identifying rural POD sites | Greater Monadnock Public Health | [Link](#)

Consolidated Clinic Planning Model | University of Maryland | [Link](#)

Small Independent Pharmacy Exercise | Federal Independence Health Department | [Link](#)

Mass Vaccination Clinic at Baseball Stadium | Kane County Health Department | [Link](#)

Zoo Vaccination Clinic | Norfolk Department of Health | [Link](#)

Included in the document are pre- and post-training assessments, job action sheets, flow charts, pictograms in English and Spanish, and case studies addressing phases from entry to registration, screening, and dispensing to discharge.

Evaluated or data-driven: The training tools have been reviewed for listing in NACCHO's Advanced Practice Centers toolkits.

Final After-Action Report: Response to the Novel H1N1 Pandemic Influenza | Texas Department of State Health Services | [Link](#)

Description and rationale for inclusion: *A tool for gap analysis.* This detailed report includes 40 pages of narrative addressing all aspects of antiviral and vaccine distribution management that occurred during the 2009 H1N1 pandemic. Section 7.3 (Improvement Plan) provides a matrix of corrective actions regarding medical supplies management and distribution and mass prophylaxis that can function as a gap analysis for agencies evaluating their plans.

Evaluated or data-driven: Data collection comprised input from a wide range of stakeholders, interviews with subject matter experts, regional partner focus groups, and an online survey.

Closed Points of Distribution Resources | City of Minneapolis Department of Health and Family Support and Saint Paul – Ramsey County Public Health | [Link](#)

Description and rationale for inclusion: *Tools for dispensing planning, exercising, and operation.* This comprehensive set of tools includes a memorandum of understanding, a closed POD workbook, worksheets, job action sheets, a simple antibiotic inventory tracking sheet, templates for labeling and labeling instructions, color-coded and detailed dispensing flow charts, and an agency closing checklist.

Evaluated or data-driven: The set of tools was revised in 2014 to comply with the state

and incident command system standards.

Drive-Thru Point of Dispensing Planning Guide | Louisville Metro Public Health and Wellness, Orange County Health Department, NACCHO | [Link](#)

Description and rationale for inclusion: *A dispensing planning tool.* This comprehensive alternate-dispensing guide provides detailed instructions, well-designed charts for planning, training guidance, inventory control recommendations, a supply checklist, and sample signage.

Evaluated or data-driven: Ten local agency subject matter experts reviewed the guide.

Operation Cache Out | Summit and Tooele County Health Departments | [Link](#)

Description and rationale for inclusion: *An alternate dispensing strategy.* Two counties in Utah partnered with a local bank and credit union and the Utah Department of Health to exercise an alternate dispensing approach that used drive-thru lanes to distribute antiviral medications. This two-page document describes the objectives, methodology, and results. The exercises demonstrated provision of “medication” to 1,565 vehicles and 4,824 people with an average processing time of 1.28 minutes. More details can be found [here](#).

Evaluated or data-driven: Data were collected using the Cities Readiness Initiative Data Collection Spreadsheet for Assessing Mass Distribution Capability in a POD Drill Using Time Studies.

Residential Delivery of Medical Countermeasures Using School Buses | Chesapeake Health Department | [Link](#)

Description and rationale for inclusion: *An alternate dispensing strategy.* As part of a Cities Readiness Initiative (CRI) program, emergency planners developed a strategy to deliver antibiotic kits to all 90,000 residences within the city limits during an emergency. Exercises have shown that a fleet of approximately 203 school buses staffed with four volunteers each can cover city residences in approximately five to six hours.

Evaluated or data-driven: A description of this practice has been downloaded frequently from the Public Health Practices project website and is included in Practices Demonstrating Strategies section of the Whole Community Inclusion [website](#) (a project of NACCHO and ASTHO funded by the CDC).

Antiviral Drug Prescribing, Dispensing, and Delivery Project | Minnesota Department of Health and Olmsted County Public Health | [Link](#)

Description and rationale for inclusion: *An alternate dispensing strategy.* Originally funded as a project to explore dispensing antivirals to home-bound individuals, the emergence of the H1N1 pandemic parlayed this project into a state-wide effort. Called MN FluLine, the practice involved a triage phone line staffed by nurses who prescribed antivirals and were able to relieve the burden on existing resources. The call center also made it possible for uninsured and under-insured individuals to access antiviral drugs through the state stockpile.

Evaluated or data-driven: Data for the MN FluLine original project were gathered through discussion groups, surveys, and a tabletop exercise. Reports of the initiative were published in professional journals including [Public Health Reports](#). The CDC is exploring taking the process to a national scale, including involving a national network of poison control centers as triage partners.

A Note on Methods

Top-tier dispensing planning, training, and exercising resources were chosen on the following basis:

- *Completeness*—resources that consisted of a tool or description and some guidance on how to use them
- *Inclusivity or thoroughness*—resources that provided enough detail for other agencies to determine appropriateness to their jurisdiction. The inclusion of templates and spreadsheets was a plus.
- *Evaluation or use*—any steps taken to evaluate the tool or ensure it was driven by data or expertise
- *Transferability*—ability of the practice to be adopted as is or modified without undue burden
- *Scalability*—resources that provided multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs

Second-tier dispensing planning, training, and exercising resources were not chosen for the top-tier because they involved community assets that may not be available to all jurisdictions or, though promising, may be too complex to adopt easily.

Table 1: Scoring for top-tier and second-tier dispensing planning, training, and exercising resources

Title	Interactive Tool or Detailed Description	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[Toledo-Lucas County Health Department] Community Immunity	x	x	x		x	x	x
[Cambridge Public Health Department] Emergency Dispensing Site and Point of Distribution Staff Training Series	x	x	x		x	x	x
[Texas Department of State Health Services] Final After-Action Report: Response to the Novel H1N1 Pandemic Influenza	x	x			x	x	x
[Louisville Metro Public Health, Orange County Health Department,	x	x			x	x	x

NACCHO] Drive-Thru Point of Dispensing Planning Guide							
[Summit and Tooele County Health Departments] Operation Cache Out	x	x			x	x	x
[Chesapeake Health Department] Residential Delivery of Medical Countermeasures Using School Buses	x				x	x	
[Minnesota Department of Health and Olmsted County Public Health] Antiviral Drug Prescribing and Delivery Project	x	x			x	x	x
[Michigan Department of Community Health] Civil Air Patrol Antivirals Delivery to Remote Areas	x			x		x	x
[Greater Monadnock Public Health Region] Assessment Tool for Identifying Rural POD Sites	x			x	x	x	x
[University of Maryland] Consolidated Clinic Planning Model	x	x		x	x	x	x
[Federal Independence Health Department] Small Independent Pharmacy Exercise	x			x	x	x	x
[Kane County Health Department] Mass Vaccination Clinic at Baseball Stadium	x			x	x	x	x

[Norfolk Department of Health] Zoo Vaccination Clinic	x			x		x	x
----------------------------------------------------------	---	--	--	---	--	---	---

Top-Tier Inventory Management Tools and Systems

Online Survey Tool to Track Antiviral and PPE Data | Illinois Department of Health | [Link](#)

Description and rationale for inclusion: *Inventory management system.* Based on CDC’s Medical Countermeasure Situational Report form and used during the H1N1 pandemic, this weekly survey tracked supplies that LHDs and hospitals had in stock or had already distributed. Requests from the state were made after perceived shortages were verified with LHDs and hospitals. The practice required a Survey Monkey account, and an Americorp intern coordinated data collection. Additional details can be found [here](#).

Evaluated or data-driven: Data collection was a central component of the practice.

Community Immunity: Important Forms and Documents | Toledo-Lucas County Health Department | [Link](#)

Description and rationale for inclusion: *Inventory management system.* This website provides an extensive set of templates that can be used for local distribution sites and open and closed PODs. Forms cover medication and vaccine tracking, supply lists, supply requests, and log sheets for medication and vaccine runners, dispensers, and vaccinators. Among the links on the site are an SNS mass dispensing and planning guide that can be a template for other agencies, inventory lists, 26 training modules, 13 just-in-time training presentations, job action sheets, agent fact sheets, dispensing algorithms, forms, signage, risk communication, and marketing materials.

Evaluated or data-driven: The dispensing tools are based on H1N1 lessons learned and input from volunteers and health department staff. Resources on the site are described

Second-Tier Inventory Management Tools and Systems

Requires supplementation

Inventory Management and Volunteer System | Virginia Department of Health | [Link](#)

Antiviral Distribution Network | Texas Department of Health Services | [Link](#)

as helpful for developing L-TAR-compliant plans. Among the partners in development of the tools was the University of Toledo Center for Instruction, which has extensive expertise in instructional design and interactive media.

A Note on Methods

Top-tier inventory management guidelines/tools and examples were chosen on the following basis:

- *Completeness*—resources that consisted of both a tool or detailed description and some guidance on how to use them
- *Inclusivity or thoroughness*—resources that provided enough context for other agencies to determine appropriateness to their jurisdiction. The inclusion of templates and spreadsheets was a plus.
- *Evaluation or use*—any steps taken to evaluate the approach or ensure it was driven by data or expertise
- *Transferability*—ability of the tool or approach to be adopted as is or modified without undue financial burden
- *Scalability*—resources that provided multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs

Second-tier inventory management guidelines/tools and examples were not included in the top tier because to adapt or bring to an appropriate scale they may require assets not available to all jurisdictions

Table 1: Scoring for top-tier and second-tier Inventory management tools and systems

Title	Interactive Tool or Detailed Description	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[Illinois Department of Health] Online Survey Tool to Track Antiviral and PPE Data	x	x			x	x	x
[Toledo Lucas County Health Department] Community Immunity: Important Forms and Documents	x	x	x		x	x	x
[Virginia Department of Health] Inventory Management and Volunteer System	x			x		x	x
[Texas Department of Health] Antiviral Distribution Network	x	x	x	x	x	x	x

Top-Tier Security Tools

A Plan for Regional Mass Prophylaxis | North Country Public Health Network | [Link](#)

Description and rationale for inclusion: Security planning is well integrated into this 2013 annex updating a public health emergency plan developed by a regional collaborative in New Hampshire. The resources describe the role of security in plan development, POD activation, chain of command and receipt of SNS supplies, inventory management, redistribution of SNS resources, facility security (interior and exterior), crowd control, contact with symptomatic individuals, and use of force.

Evaluated or data-driven: The annex includes the signatures of 29 individuals representing emergency preparedness and response responsibilities in towns comprising the network.

Open POD Security Checklist | Toledo-Lucas County Health Department | [Link](#)

Description and rationale for inclusion: One of several POD security tools on the Community Immunity [website](#), this checklist covers such activities as crowd control, fire control, control of access, traffic and parking, and emergency traffic evacuation. The site also offers a training [module](#) detailing security issues for open PODs.

Evaluated or data-driven: The dispensing tools are based on H1N1 lessons learned and input from volunteers and health department staff. Resources on the site are described as helpful for developing L-TAR-compliant plans. Among the partners in development of the tools was the University of Toledo Center for Instruction, which has extensive expertise in instructional design and interactive media.

Second-Tier Security Tools

None identified

Public Dispensing Sites Police Security Site Concerns | Kansas Department of Health and Environment | [Link](#)

Description and rationale for inclusion: This checklist includes detailed questions that help planners determine supplies and the number of personnel needed for mass dispensing sites.

Evaluated or data-driven: The checklist is part of the state’s repository of standard operating guides.

Strategic National Stockpile Plan | Southeastern District Health Department | [Link](#)

Description and rationale for inclusion: Appendix 3—Security Support—defines the responsibilities and requirements of the security detail. Appendix 12 addresses security related to SNS distribution. Appendix 7 includes a job action sheet for a security lead.

Evaluated or data-driven: The plan was identified as a best practice by NACCHO’s Project Public Health Ready. It has attracted ratings on the NACCHO PPHR Toolkit and achieved four out of five stars by five raters.

A Note on Methods

Criteria for top-tier security tools were chosen on the following basis:

- *Completeness*—resources that consisted of a tool and some directions on how to use it or a detailed description of the tool
- *Inclusivity or thoroughness*—resources provided enough context for other agencies to determine appropriateness to their jurisdiction. The inclusion of templates and spreadsheets was a plus.
- *Evaluation or use*—any steps taken to evaluate the approach or ensure it was driven by data or expertise
- *Transferability*— ability of the assessment to be transferred between jurisdictions and sectors
- *Scalability*—practices that provide multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs

No second-tier security resources were identified.

Table 1: Scoring for top-tier and second-tier security tools

Title	Interactive Tool or Detailed Description	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[North Country Public Health Network] A Plan for Regional Mass Prophylaxis	x	x			x	x	x
[Toledo-Lucas County Department of Health] Open Pod Security Checklists	x	x	x		x	x	x
[Kansas Department of Health and Environment] Public Dispensing Sites Police Site Security Concerns	x	x			x	x	x
[Southeastern District Health Department] Strategic National Stockpile Plan	x	x			x	x	x

CDC Public Health Preparedness Capability 8: Medical Countermeasures; Capability 9: Medical Materiel Management and Distribution | *Resource Need: At-Risk Populations*

Top-Tier At-Risk Populations Tools

Dispense Assist | Johnson County Department of Health and Environment | [Link](#)

Description and rationale for inclusion: This online tool allows individuals to screen themselves for prophylaxis eligibility/requirements, print vouchers to take to PODs, and receive medication in a quick and error-free manner. The site can accommodate two million hits per hour. Once personal health information is scanned, it can be transferred to a spreadsheet, but the information is not stored by the Dispense Assist program.

Evaluated or data-driven: The basis for this tool is a medical algorithm vetted by more than 63 physicians. Mentions of tool usage have been observed at preparedness-related conferences.

Push Partner Registry | Portland Oregon Cities Readiness Initiative | [Link](#)

Description and rationale for inclusion: This website provides tools to engage organizations that help people who *cannot attend* (such as residents of long-term care facilities or prison inmates) or are *unlikely to attend* (the homeless population) public health medication distribution sites. Materials include a planning guide, inclusive just-in-time training tools, registry enrollment form, screening tools, and job action sheets.

Evaluated or data-driven: Tools were developed through the Multnomah County Advanced Practice Center.

Pictogram-Based Site Signage and Pocket Translator Tools | Cambridge Advanced Practice Center, revised by the Multnomah County Advanced Practice Center | [Link](#)

Second-Tier At-Risk Populations Tools

Difficult to adapt or transfer

Risk-Based Vaccine Allocation for American Indian Population | Arizona Department of Health Services | [Link](#)

Overly specialized

Early Expansion of Vaccine Eligibility to Seniors | Oklahoma State Department of Health | [Link](#)

H1N1 Vaccine Clinics for Medically Fragile Children | Rhode Island Department of Health | [Link](#)

Description and rationale for inclusion: The tools were designed to increase way-finding and POD navigation for individuals with limited English proficiency or physical, cognitive, or behavioral disability and reduce client fear and anxiety. The Site Signage tool comprises 24 different pictograms for placement in a clear line of sight at various functional areas within a POD site. The Pocket Translator is a two-part, handheld resource for POD responders to assist community members in navigating a POD site.

Evaluated or data-driven: The tools were developed by the Cambridge Advanced Practice Center and revised by the Multnomah Advanced Practice Center.

Taking H1N1 Vaccine to Vulnerable Populations | Oregon Department of Health and Human Services | [Link](#)

Description and rationale for inclusion: This report describes collaboration among LHDs, community-based organizations, and emergency medical service agencies that provided flu vaccine to homebound individuals during a five-county pilot project in Oregon. The strategy involved nontraditional vaccinators: paramedics from local ambulance services. More details about the practice can be found [here](#).

Evaluated or data-driven: The practice was based on a collaboration of diverse stakeholders. Results from the survey administered by vaccinators and completed during the 15-minute wait period showed that lack of availability of vaccine presented the greatest barrier to initially being vaccinated for H1N1. The next greatest barrier to being vaccinated was lack of transportation, either from being homebound or from not having transportation assistance.

A Note on Methods

Top-tier risk strategies for tools for at-risk populations were chosen on the following basis:

- *Completeness*—practices that consisted of both a tool and some guidance on how to use it
- *Inclusivity*—consideration of the importance of context and engagement with at-risk populations in development of the strategy
- *Evaluation*—any steps taken to evaluate the strategy or assure it was driven by data or expertise
- *Transferability*—the tool or approach can be adopted as is or modified with reasonable accommodation for regional differences
- *Scalability*—practices provided multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs

Second-tier training tools were not chosen for the first-tier owing to the fact that they were specialized (i.e., focused on a situation or population that may not be relevant all jurisdictions) or because they would be difficult to transfer between jurisdictions (i.e., missing key tools that an organization would have to provide).

Table 1: Scoring for top-tier and second-tier at-risk population resources

Title	Interactive Tool or Detailed Description	Guidance	Training	Specialized	Inclusivity	Scalable	Evaluated or Data-Driven	Transferable
[Johnson County Department of Health and Environment] Dispense Assist	x	x	x		x	x	x	x
[Portland Oregon Cities Readiness Initiative] Push Partner Registry	x	x	x		x	x	x	x
[Cambridge Advanced Practice Center and Multnomah Advanced Practice Center] Pictogram-Based Signage and Pocket Translator Tool	x	x	x		x	x	x	x
[Oregon Department of Health and Human Services] Taking H1N1 Vaccine to Vulnerable Populations	x	x			x	x	x	x
[Arizona Department of Health Services]	x			x	x	x		

Risk-Based Vaccine Allocation for American Indian Population								
[Oklahoma State Department of Health] Early Expansion of Vaccine Eligibility to Seniors	x			x	x	x	x	x
[Rhode Island Department of Health] H1N1 Vaccine Clinics for Medically Fragile Children	x			x				x

Top-Tier Coordination and Communication Practices

Situational Awareness Dashboard | New York State Department of Health | [Link](#)

Description and rationale for inclusion: The practice involved creating a webpage that consolidated information about the H1N1 vaccine for state and local decision-makers. The dashboard included health and vaccine safety advisories, H1N1 toolkits, guidance documents, legal information for providers, and information about the status of vaccine ordering and tracking. Time-sensitive data that needed to reach decision-makers quickly included school absenteeism and closure, emergency department surge and overrun, rates of uninsured, and medical surge at health centers.

Evaluated or data-driven: The site gathered and condensed geographic data, LHD and hospital data, and epidemiological and clinical laboratory information.

Standard Operating Guides | Kansas Department of Health | [Link](#)

Description and rationale for inclusion: The Mass Dispensing Standard Operating Guides section on this website is a repository of tools, templates, and guidance designed to assist LHDs and medical agencies in developing preparedness plans. The guides standardize expectations and offer downloadable resources that include medical materiel receipt, storage, handling, and cold-chain requirements.

Evaluated or data-driven: Tools are part of the state’s repository of standard operating guides.

Second-Tier Coordination and Communication Practices

Requires supplementation

PODPocket Mobile App | Lake Cumberland District Health Department | [Link](#)

A Note on Methods

Top-tier coordination and communication practices/examples were chosen on the following basis:

- *Completeness*—practices that consisted of both a tool and some guidance on how to use it
- *Inclusivity or thoroughness*—resources that provided enough context for other agencies to determine appropriateness to their jurisdiction. The inclusion of templates and spreadsheets was a plus.
- *Evaluation*—any steps taken to evaluate the practice or ensure it was driven by data or expertise
- *Transferability*—ability of the assessment to be transferred between jurisdictions and sectors
- *Scalability*—resources that provided multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs

The second-tier coordination and communication resource was not chosen for the top tier because the tool was being updated and downloadable components were not available when CIDRAP completed its vetting process.

Table 1: Scoring for top-tier and second-tier coordination and communication resources

Title	Interactive Tool or Detailed Description	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[New York State Department of Health] Situational Awareness Dashboard	x	x			x	x	x
[Kansas Department of Health] Standard Operating Guides	x	x			x	x	x
[Lake Cumberland District Health Department] PODPocket Mobile App		x			x	x	

CDC Public Health Preparedness Capability 13: Public Health Surveillance and Epidemiologic Investigation

- ❖ Resource: Tools to track and report epidemiologic information to the state health agency
- ❖ Resource: Epidemiologic work plans for state/local investigation coordination and written surveillance plans
- ❖ Resource: Standard operating procedures (SOPs) for specific epidemiologic investigations
- ❖ Resource: Training for documenting lessons learned from epidemiologic investigation
- ❖ Resource: Epidemiologic guidance for mitigating disease spread for at-risk populations

Methodology for Selecting Top-Tier Resources

The criteria below present more detail about how resources were chosen and inform the overarching question: Will this resource help implement or facilitate public health preparedness activities at the local level? The usefulness of top-tier resources stems from the following qualities:

- **Completeness**—The resource addresses the full spectrum of epidemiologic investigation, case finding, assessment, or reporting.
- **Evaluation**—Steps had been taken to ensure that the resource was driven by data or expertise.
- **Use**—The resource is being used and demonstrates streamlined processes between epidemiologists at the state and local level or between epidemiologists and laboratories/community partners.
- **Specificity**—In relevant instances, the resource addresses the complexity and nuances of an epidemiologic response to a particular biological, chemical, or radiological agent.
- **Transferability**—The resource can easily be transferred between jurisdictions or sectors. In many cases, transferability refers to ease of use or communication between state and local epidemiologists.
- **Scalability**— The resource offers an array of methods that agencies can select to carry out based on their desired effort level, resource availability and community needs; i.e., the resource provides multiple entry points to beginning the project.

Methodology for Excluding Second-Tier Resources

Second-tier resources were included because, while not widely applicable, they may have significant usefulness and applicability to some jurisdictions or communities.

- **Difficult to adapt or transfer**—The resource may depend on a specific context that precludes transfer to another jurisdiction; lack information or a tool that would make it possible to use immediately; or otherwise require significant work to adapt on the part of any given jurisdiction.
- **Overly specialized**—The resource, while potentially useful, does not cover a diverse enough range of issues. Examples include laboratory guidance for responding to one specific chemical class or surveillance guidelines for a specific geographic or biological problem.
- **Require supplementation**—The resource may include good information but would require significant additions of tools, guidance, or training before use. Examples include guidance that lacks available resources or specific action points, opinion papers, sample investigation reports, and data sources.

CDC Public Health Preparedness Capability 13: Public Health Surveillance and Epidemiologic Investigation | *Resource Need: Tools to Track and Report Epidemiologic Information to the State Health Department*

Top-Tier Epidemiologic Reporting Tools

Orpheus (Oregon Public Health Epidemiologists' User System) | Oregon Health Authority | [Link](#)

Description and rationale for inclusion: Orpheus provides an online forum and tools to allow local and state epidemiologists to manage communicable disease reports. It offers a robust database for inter-jurisdictional partnership and communication and training videos for users new to the system, security documents, links for laboratory reporting, syndromic surveillance guidelines.

Evaluated or data-driven: The system is used by Oregon state and local epidemiologists.

North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) | North Carolina Public Health; University of North Carolina School of Medicine | [Link](#)

Description and rationale for inclusion: NC DETECT is a syndromic surveillance system that represents a collaboration among state and local epidemiologists, emergency departments, and bioinformatics. Users can report and pull datasets gathered from diverse sources and download fact sheets that present user-friendly analysis of epidemiologic data during a specific time period. As part of NC DETECT data-gathering efforts, the North Carolina Division of Public Health placed epidemiologists in 10 hospital systems—a practice that has enhanced syndromic surveillance for communicable disease and biologic agents.

Evaluated or data-driven: NC DETECT is used by North Carolina epidemiologists and has been built and enhanced over the past decade.

Second-Tier Epidemiologic Reporting Tools

Difficult to adapt or transfer

EpiQMS – Epidemiologic Query and Mapping System | Pennsylvania Department of Health; Washington Department of Health | [Link](#)

Requires supplementation

Epi Info | Centers for Disease Control and Prevention | [Link](#)

Open Epi: Open Source Epidemiologic Statistics for Public Health | Emory University | [Link](#)

Spatialepidemiology.net | Imperial College London | [Link](#)

Disaster-Related Mortality Surveillance Form | Centers for Disease Control and Prevention | [Link](#)

Natural Disaster Morbidity Surveillance Individual Form | Centers for Disease Control and Prevention | [Link](#)

Natural Disaster Morbidity Surveillance Line List | Centers for Disease Control and Prevention | [Link](#)

Natural Disaster Morbidity Surveillance Tally Sheet |

Biomonitoring in Public Health: Epidemiologic Guidance for State, Local, and Tribal Public Health Agencies | Council of State and Territorial Epidemiologists (CSTE) | [Link](#)

Description and rationale for inclusion: This guide offers a detailed introduction to biomonitoring and syndromic surveillance appropriate for local and state epidemiologists beginning a data collection or reporting project. Information and tools address elements of planning a biomonitoring project (including data collection procedures and working with inter-jurisdictional stakeholders), implementing the project (including data collection and analysis), and using data to inform public health response.

Evaluated or data-driven: The guide was developed by a CSTE occupational and environmental health subcommittee with significant input from state epidemiologists.

Pre-School and School Health Surveillance Guide | Tarrant County Advanced Practice Center | [Link](#)

Description and rationale for inclusion: The toolkit describes how to integrate communicable disease surveillance into public schools via a Web-based absenteeism monitoring tool that schools can use to submit health data to local and state epidemiologists. The toolkit describes all steps needed to build this robust data collection and reporting system and provides all administrative and technical resources, along with communicable disease fact sheets for teachers and parents.

Evaluated or data-driven: The practice has been used in Tarrant County, and evaluation of the county's lessons learned informed the development of the toolkit. The toolkit also includes case studies from local agencies that have used/adapted the process.

Centers for Disease Control and Prevention | [Link](#)

Natural Disaster Morbidity Surveillance Summary Report Form | Centers for Disease Control and Prevention | [Link](#)

A Note on Methods

Top-tier epidemiologic reporting tools were chosen on the following basis:

- *Completeness*—practices that provide information related to the full spectrum of epidemiologic collection, analysis, and reporting
- *Evaluation*—any steps taken to evaluate the tool or ensure it was driven by data or expertise
- *Use*—tools or systems that have been used or adapted and demonstrate streamlined reporting methods among epidemiologists, laboratories, and community/healthcare partners
- *Scalability*—practices that provide multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs
- *Transferability*—ability of the tool to be used between jurisdictions and sectors and ease of use for communicating between state and local epidemiologists

Second-tier reporting tools were not chosen for the top tier because they were simply data gathering tools/datasets or missing elements that could help other jurisdictions easily replicate them.

Table 1: Scoring for top-tier and second-tier epidemiologic reporting tools

Title	Interactive Tool	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[OR] Orpheus (Oregon Public Health Epidemiologists’ User System)	x	x	x			x	x
[NC] North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT)	x	x	x		x	x	x
[CSTE] Biomonitoring in Public Health: Epidemiologic Guidance for State, Local, and Tribal Public Health Agencies	x	x			x	x	x
[Tarrant County] Pre-School and School Health Surveillance Guide	x	x	x		x	x	x
[PA and WA] EpiQMS – Epidemiologic Query and Mapping System	x			x			

[CDC] Epi Info	x				x	x	x
[Emory] Open Epi: Open Source Epidemiologic Statistics for Public Health	x						
[Imperial College London] Spatialepidemiology.net	x						
[CDC] Disaster-Related Mortality Surveillance Form	x			x		x	x
[CDC] Natural Disaster Morbidity Surveillance Individual Form	x			x		x	x
[CDC] Natural Disaster Morbidity Surveillance Line List	x			x		x	x
[CDC] Natural Disaster Morbidity Surveillance Tally Sheet	x			x		x	x
[CDC] Natural Disaster Morbidity Surveillance Summary Report Form	x			x		x	x

CDC Public Health Preparedness Capability 13: Public Health Surveillance and Epidemiologic Investigation | Resource Need: Epidemiologic Work Plans for State/Local Investigation Coordination and Written Surveillance Plans

Top-Tier Epidemiologic Work and Surveillance Plans

Outbreak/Epidemiologic Response Plan | Napa County Health and Human Services Agency | [Link](#)

Description and rationale for inclusion: The epidemiologic response plan provides comprehensive guidance and tools for conducting an investigation and coordinating efforts with various partners. The plan includes detailed information on outbreak investigation, epidemiologic surge capacity, epidemiologic responsibilities between state and local agencies, surveillance and coordination of data collection and notification, and contact tracing.

Evaluated or data-driven: The guide is used and revised on an ongoing basis in response to state protocol and updated security information.

Foodborne and Waterborne Disease Outbreak Investigation Resource Manual | Arizona Department of Health Services | [Link](#)

Description and rationale for inclusion: This manual provides detailed information and tools on foodborne illnesses, outbreak investigation, case finding, lab analysis, and environmental assessment. Forms and guidance on how to collect and analyze data for state reporting are particularly user-friendly.

Evaluated or data-driven: The resource manual was based on existing Arizona Department of Health Services laboratory and infectious disease response protocol and laboratory protocols from Wisconsin, Massachusetts, Louisiana, Kansas, and Arizona's Maricopa County.

Second-Tier Epidemiologic Work and Surveillance Plans

Difficult to adapt or transfer

Conducting an Epidemiologic Investigation | Massachusetts Department of Public Health | [Link](#)

Medical Surveillance Program | George Mason University | [Link](#)

Building a Public Health Community of Practice: A Biosurveillance Resource Compendium | Tarrant County Advanced Practice Center | [Link](#)

Overly specialized

Guidelines for the Investigation of Zoonotic Disease in Domestic Companion Animals | New Jersey Department of Health and Human Services | [Link](#)

West Virginia Mosquito Surveillance Plan | West Virginia Department of Health and Human Resources | [Link](#)

Infectious Disease Emergency Response (IDER) Toolkit | San Francisco Bay Area
Advanced Practice Center | [Link](#)

Description and rationale for inclusion: The toolkit provides tools for implementing Incident Command System for epidemiologic efforts between state and local agencies. Forms, guidance, and training address roles and responsibilities of epidemiologic personnel during an investigation and coordination of epidemiologic and surveillance activities between jurisdictions and emergency management agencies.

Evaluated or data-driven: The IDER toolkit is based on resources used by the San Francisco Department of Public Health since 2006. It has been refined numerous times based on its use during exercises and real-life emergency events, including San Francisco's response to the 2009 H1N1 pandemic.

Jefferson County/Regional Epidemiology | Jefferson County Public Health District
(Ohio) | [Link](#)

Description and rationale for inclusion: This work plan presents a streamlined model for small LHDs. It addresses inter-jurisdictional epidemiologic concepts of operations, Incident Command System roles, state and local responsibilities for surveillance and data collection, epidemiologic investigation procedures, and methods for data reporting and evaluation.

Evaluated or data-driven: The work plan was built from Ohio Department of Health infectious disease response plans in use. It was also informed by epidemiologic experience during exercises and real-life investigations at the county level.

Communicable Disease Manual | North Carolina Division of Public Health | [Link](#)

Description and rationale for inclusion: This manual contains comprehensive information on epidemiologic reporting between jurisdictions, investigation protocols,

case definitions, surveillance data, security and legal elements of an epidemiologic investigation, training for newer epidemiologists, sample templates for standing orders, and sample press releases. Job/role descriptions at all levels of an epidemiologic investigation clearly delineate responsibilities during a response.

Evaluated or data-driven: Much of the information in the manual is informed by site visits to collect best practices and practices in use for epidemiologic investigation.

A Note on Methods

Top-tier epidemiologic and surveillance work plans were chosen on the following basis:

- *Completeness*—plans that provide thorough information about all steps of an epidemiologic investigation
- *Evaluation*—any steps taken to evaluate the plan or ensure it was driven by data or expertise
- *Use*—tools or systems that have been used or adapted and demonstrate streamlined reporting methods among epidemiologists, laboratories, and community/healthcare partners
- *Scalability*—practices that provide multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs
- *Transferability*—ability of the tool to be used between jurisdictions and sectors and ease of use for communicating between state and local epidemiologists

Second-tier work plans were not chosen for the top tier because they were overly specialized, missing elements that would contribute to an understanding of how to conduct an epidemiologic investigation, or were too complex to be easily transferable.

Table 1: Scoring for top-tier and second-tier epidemiologic and surveillance work plans

Title	Interactive Tool	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[Napa County] Outbreak/Epidemiologic Response Plan	x	x			x	x	x
[AZ] Foodborne and Waterborne Disease Outbreak Investigation Resource Manual	x	x		x	x		x
[San Francisco] Infectious Disease Emergency Response Toolkit	x	x	x		x		x
[Jefferson County] Jefferson County/Regional Epidemiology	x	x					x
[NC] Communicable Disease Manual	x	x			x		x
[MA] Conducting an Epidemiologic Investigation		x					

[George Mason] Medical Surveillance Program	x	x		x	x		x
[Tarrant County] Building a Public Health Community of Practice: A Biosurveillance Resource Compendium	x	x	x				
[NJ] Guidelines for the Investigation of Zoonotic Disease in Domestic Companion Animals	x	x		x			
[WV] West Virginia Mosquito Surveillance Plan	x	x		x			

CDC Public Health Preparedness Capability 13: Public Health Surveillance and Epidemiologic Investigation | Resource Need: Standard Operating Procedures (SOPs) for Specific Epidemiologic Investigations

Top-Tier Epidemiologic Standard Operating Procedures

Chemical Information Source Matrix | Michigan Department of Community Health | [Link](#)

Description and rationale for inclusion: The matrix provides information on more than 130 chemicals and their medical management guidelines. Documents address the process of chemical cluster investigations, chemical classes and toxicology, response to exposure, responder guidance for decontamination and personal protective equipment, and laboratory guidance.

Evaluated or data-driven: The matrix was adopted by the Interstate Chemical Terrorism Workgroup and has been used by participating state and local agencies.

Guide to Surveillance, Reporting, and Control | Massachusetts Department of Health and Human Services | [Link](#)

Description and rationale for inclusion: Easy-to-use fact sheets and operating procedures discuss reporting criteria and responsibilities, laboratory testing, case investigation, and spread prevention for the following agents: amebiasis, anthrax, babesiosis, botulism, brucellosis, campylobacter enteritis, chickenpox and shingles, cholera, cryptosporidiosis, cyclosporiasis, dengue, diphtheria, E. coli, eastern equine encephalitis, ehrlichiosis, encephalitis, foodborne disease, giardiasis, Group A and B Streptococcus, Guillain-Barre Syndrome, Haemophilus influenzae, Hansen’s Disease, hantavirus, hemolytic uremic syndrome, Hepatitis A-C, HIV/AIDS, influenza, legionellosis, leptospirosis, listeriosis, Lyme disease, malaria, measles, meningitis, monkeypox, mumps, norovirus, pertussis, plague, polio, prion disease, psittacosis, Q fever, rabies, Reye syndrome, rheumatic fever, rickettsialpox, Rocky Mountain Spotted Fever, rubella, salmonellosis, SARS, shigellosis, smallpox, STDs, Streptococcus

Second-Tier Epidemiologic Standard Operating Procedures

Difficult to adapt or transfer

Model Standard Operating Procedures – Workplace Epidemiologic Investigations | United States Army | [Link](#)

Medical Surveillance Program | George Mason University | [Link](#)

Public Health Respiratory Protection Program Template | Minnesota Department of Health | [Link](#)

Standard Operating Procedures (SOP) for Pyrophoric Chemicals | Temple University | [Link](#)

pneumoniae, tetanus, toxic shock syndrome, toxoplasmosis, trichinosis, tuberculosis, tularemia, typhoid, viral hemorrhagic fevers, West Nile Virus, yellow fever, and yersiniosis.

Model Standard Operating Procedures: Benzene Medical Surveillance | United States Army | [Link](#)

Description and rationale for inclusion: This SOP describes procedures for responding to airborne benzene exposure, including surveillance methods, medical examination, and treatment protocol. Medical history and tracking forms are included.

Standard Operating Procedures | City of Phoenix | [Link](#)

Description and rationale for inclusion: The city's SOPs include guidelines for responding to mercury exposure, radiological events, flammable chemicals, natural gas leaks, clandestine drug labs, explosive materials, and weapons of mass destruction.

A Note on Methods

Top-tier epidemiologic standard operating procedures were chosen on the following basis:

- *Completeness*—plans that address all aspects of an exposure follow-up process, from notification to reporting
- *Specificity*—procedures that address the complexity and nuances of responding to a particular agent
- *Evaluation*—any steps taken to evaluate the SOPs or ensure they were driven by data or expertise
- *Use*—tools or systems that have been used or adapted or tools that draw on information from relevant professional sources
- *Transferability*—ability of the tool to be used between jurisdictions and sectors

Second-tier epidemiologic SOPs were not chosen for the top tier because they did not include information specific to a particular type of process/response (i.e., procedures that were overly generalized), were overly specialized, or included processes more germane to a laboratory protocol than public health response.

Table 1: Scoring for top-tier and second-tier epidemiologic standard operating procedures

Title	Interactive Tool	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[MI] Chemical Information Source Matrix	x	x			x	x	x
[MA] Guide to Surveillance, Reporting, and Control	x	x			x		x
[U.S. Army] Model Standard Operating Procedures: Benzene Medical Surveillance	x	x		x			x
[Phoenix] Standard Operating Procedures	x	x					x
[U.S. Army] Model Standard Operating Procedures – Workplace Epidemiologic Investigations	x			x			
[George Mason] Medical Surveillance Program		x					
[MN] Public Health Respiratory Protection Program Template	x	x		x			x

[Temple] Standard Operating Procedures (SOP) for Pyrophoric Chemicals		x		x			
-----------------------------------------------------------------------	--	---	--	---	--	--	--

CDC Public Health Preparedness Capability 13: Public Health Surveillance and Epidemiologic Investigation | *Resource Need: Training for Documenting Lessons Learned from Epidemiologic Investigation*

Top-Tier Epidemiologic Investigation Resources for Documenting Lessons Learned

Epidemiology Exercises for Regional Response Teams | Missouri Department of Health and Senior Services | [Link](#)

Description and rationale for inclusion: User-friendly and entertaining exercise materials guide epidemiologists through documenting and reporting case-finding, syndromic surveillance and response, outbreak interviewing, and communicating across jurisdictions. The materials balance the more analytic duties of the epidemiologist and the need for documenting all qualitative aspects of the outbreak case-finding process.

Evaluated or data-driven: Training material is in use for new Missouri Department of Health and Senior Services employees.

Documents for Exercise Reporting | Texas Department of State Health Services | [Link](#)

Description and rationale for inclusion: The resources provide training guidance and forms for documentation that guide epidemiologists through writing investigation improvement and corrective action plans, assessing capacity and community needs, ensuring their investigation meets capabilities, and performing discussion-based evaluations.

Evaluated or data-driven: Exercise reporting materials are maintained and revised regularly in accordance with Department of Homeland Security exercise and training regulations.

Second-Tier Epidemiologic Investigation Resources for Documenting Lessons Learned

Difficult to adapt or transfer

Epidemiologic Surveillance After Natural Disaster | University of Wisconsin; Pan American Health Organizations | [Link](#)

Leading Edge Tabletop Exercise After Action Report/Improvement Plan | Florida Department of Health | [Link](#)

Sample After-Action Report | West Virginia Division of Homeland Security and Emergency Management | [Link](#)

Requires supplementation

Disaster Epidemiology Interviewing Training Guide | Oregon Health Authority | [Link](#)

Exercise Evaluation Guides | Chicago Department of Public Health | [Link](#)

Description and rationale for inclusion: These guides explain evaluation of surveillance and detection activities and disease containment. They also address the documentation of observations, especially qualitative or subjective observations related to epidemiologic investigation and cause and consequence of disease transmission.

Evaluated or data-driven: Materials were developed by the Chicago Health System Coalition for Planning and Response Exercise, Training, and Education Overarching Committee in compliance with Department of Homeland Security exercise protocol.

A Note on Methods

Top-tier epidemiologic investigation resources for documenting lessons learned were chosen on the following basis:

- *Completeness*—plans that address all aspects of documentation, from interview/case-finding results to evaluation of qualitative observations made during the course of the outbreak investigation
- *Evaluation*—any steps taken to evaluate the resource or ensure it was driven by data or expertise; any steps taken to ensure that documentation conformed to CDC Capability 13
- *Scalability*—practices that provide multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs.
- *Transferability*—ability of the tool to be used between jurisdictions and sectors, especially considering the relevance and appropriateness of the tool for newer epidemiologists who may need more training in documentation of outbreak investigation

Second-tier epidemiologic investigation resources for documenting lessons learned were not chosen for the top tier because they included information that did not conform to Capability 13 or to a standard United States epidemiologic process, were overly specialized, or were missing information and training/guidance that would have made them directly transferable.

Table 1: Scoring for top-tier and second-tier epidemiologic investigation resources for documenting lessons learned

Title	Interactive Tool	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[MO] Epidemiology Exercises for Regional Response Teams	x	x	x		x		x
[TX] Documents for Exercise Reporting	x	x	x		x		x
[Chicago] Exercise Evaluation Guides	x	x			x		x
[WI/PAHO] Epidemiologic Surveillance After Natural Disaster		x		x			
[FL] Leading Edge Tabletop Exercise After Action Report/Improvement Plan	x						
[WV] Sample After-Action Report	x						
[OR] Disaster Epidemiology Interviewing Training Guide	x	x		x			

CDC Public Health Preparedness Capability 13: Public Health Surveillance and Epidemiologic Investigation | *Resource Need: Epidemiologic Guidance for Mitigating Disease Spread for At-Risk Populations*

Top-Tier Epidemiologic Guidance for Mitigating Disease Spread for At-Risk Populations

Community Assessment for Public Health Emergency Response (CASPER) Toolkit | Centers for Disease Control and Prevention | [Link](#)

Description and rationale for inclusion: This toolkit guides epidemiologists through data collection in assessment areas, fieldwork with at-risk populations, and community data analysis to mitigate risk before and after an emergency. Numerous forms promote informed community decision-making for epidemiologic response.

Evaluated or data-driven: The toolkit, developed in collaboration with subject matter experts, features examples of community risk assessments submitted by state and local health departments.

A Tool Kit for Rapid Epidemiologic Assessment in a Public Health Emergency, Berkeley, California | City of Berkeley Department of Health and Human Services Public Health Division | [Link](#)

Description and rationale for inclusion: The toolkit describes how to conduct community assessment fieldwork, epidemiologic reporting, and mapping to mitigate risk following a disaster. The primary example uses the needs of 200 houses in the vicinity of a disaster, but the materials can easily be transferred to epidemiologic risk assessment and reporting for other identified needs.

Second-Tier Guidance for Mitigating Disease Spread for At-Risk Populations

Difficult to adapt or transfer

The Public Health Disparities Geocoding Project Monograph | Harvard School of Public Health | [Link](#)

Disaster Emergency Needs Assessment | International Federation of Red Cross and Red Crescent Societies | [Link](#)

Pre-Disaster Mitigation Plan | Lake County Office of Emergency Management | [Link](#)

Description and rationale for inclusion: The plan describes risk assessment methods for communities and vulnerable populations in an epidemiologic investigation, mitigation strategies, prioritization of needs, and community capability assessments.

Evaluated or data-driven: The plan was developed by a local interdisciplinary committee and adopted by the local Board of County Commissioners.

A Note on Methods

Top-tier epidemiologic guidance for mitigating disease spread for at-risk populations was chosen on the following basis:

- *Completeness*—plans that address all aspects of epidemiologic risk assessment, from fieldwork and reporting to implementing public health policy or action
- *Evaluation*—any steps taken to evaluate the assessment or ensure it was driven by data, expertise, or a community participatory element
- *Scalability*—practices that provide multiple options for implementing a project, allowing agencies to adapt materials and information to resource availability and community needs
- *Transferability*—ability of the tool to be used between jurisdictions and sectors

Second-tier epidemiologic guidance for mitigating disease spread for at-risk populations was not chosen for the top tier because it was overly specialized or did not conform to aspects of Capability 13.

Table 1: Scoring for top-tier and second-tier epidemiologic guidance for mitigating disease spread for at-risk populations

Title	Interactive Tool	Guidance	Training	Specialized	Scalable	Evaluated or Data-Driven	Transferable
[CDC] Community Assessment for Public Health Emergency Response (CASPER) Toolkit	x	x			x	x	x
[Berkeley] A Tool Kit for Rapid Epidemiologic Assessment in a Public Health Emergency, Berkeley, California	x	x			x		x
[Lake County] Pre-Disaster Mitigation Plan	x	x			x	x	x
[Harvard] The Public Health Disparities Geocoding Project Monograph	x	x					
[Red Cross] Disaster Emergency Needs Assessment	x	x			x		

Acknowledgments

This document was supported by Award Number 5U38HM000449-05 and 5U38OT000172-02 from the Centers for Disease Control and Prevention. NACCHO is grateful for this support. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the funder.

This document was produced through collaboration between the NACCHO and the Center for Infectious Disease Research and Policy (CIDRAP). NACCHO gives special thanks to Resham Patel, MPH; Rachel Schulman, MSPH, CPH; Scott Fisher, MPH; Kathleen Kimball-Baker; Natalie Vestin, MPH; and Carlos Cruz for their key contributions to this project.

This document would not be possible without the critical subject matter expertise of several NACCHO advisory groups:

- Epidemiology Workgroup
- ePublic Health Informatics Workgroup
- Medical Countermeasures Workgroup
- Preparedness Planning, Outcomes, and Measurement Workgroup
- Preparedness Policy Advisory Group
- Risk Communication and Information Sharing Workgroup

Additional information about these NACCHO member advisory groups can be found in Appendix B.

NACCHO

National Association of County & City Health Officials

The National Connection for Local Public Health

www.naccho.org



Public Health

Prevent. Promote. Protect.

The mission of the National Association of County and City Health Officials (NACCHO) is to be a leader, partner, catalyst, and voice for local health departments.

1100 17th St, NW, 7th Floor Washington, DC 20036

P 202-783-5550 F 202-782-1583

© 2014. National Association of County and City Health Officials

Fact Sheet: Capability 1

Community preparedness is the ability of communities to prepare for, withstand, and recover from disasters. With respect to public health, community preparedness is an ongoing collaboration between public and private organizations and citizens of a community to develop public health, medical, and mental/behavioral health systems to meet the needs of a jurisdiction faced with an emergency. The resilience of these systems is vital to promoting the community's recovery from an incident.

Community preparedness necessitates that public health system partners train community and faith-based organizations about their role in preventing, mitigating, responding to, and recovering from public health incidents. Doing so educates community members about how to access medical and mental/behavioral health resources. Community preparedness efforts are targeted toward the entire community, taking into account unique cultural, socioeconomic, and demographic components and those persons at higher risk for adverse health outcomes. Public and private partners also work together to ensure that the specific functional needs of at-risk populations in the jurisdiction are addressed.

Important Aspects for Local Health Departments (LHDs)

- Determining the risks to the health of the jurisdiction; identifying services that can mitigate these risks.
 - LHDs coordinate with emergency management, hospitals, and other partners to complete a jurisdictional risk assessment that identifies threats to the health of the community. The results of this assessment provide vital information to assist LHDs in focusing their preparedness efforts on the most likely threats.
- Building community partnerships to support public health preparedness; engaging partners.
 - LHDs identify community groups that can help mitigate threats to public health during an emergency. These efforts are informed by the hazards identified in the jurisdictional risk assessment.
 - LHDs initiate partnerships with community and faith-based partners and develop strategies for ongoing engagement. Continuous engagement of the partners and provision of training and guidance allow LHDs to leverage the health and public health services that these agencies can provide to support recovery efforts, increasing the response capabilities of the jurisdiction. LHDs also encourage trusted partners to assist with the accurate dissemination of information before, during, and after an incident.
 - Partnerships with community organizations are multidisciplinary and include emergency management and healthcare partners.
- Training and preparing community organizations to meet the functional needs of at-risk populations during an emergency.
 - LHDs work to understand the functional needs of the at-risk populations in their jurisdiction. They collaborate with partners to prepare to meet the needs of these individuals during an emergency. LHDs also work with the community groups that serve these individuals to assist them in educating their members about preparedness and recovery.

Resources Needed for LHDs

- LHDs may be required to report to the Centers for Disease Control and Prevention about their progress with completing the jurisdictional risk assessment. Templates or best practices for these assessments would be helpful, especially ones that combine public health threats with general threats and medical/healthcare threats. Public health, emergency management, and hospitals often use separate documents, which is not conducive toward integrated planning efforts.
- LHDs could use guidance and resources for assessing which community organizations would be the most beneficial partners and for building and maintaining strong relationships with these organizations. Templates for memoranda of understanding with community organizations would be useful for formalizing these relationships.
- LHDs could also use guidance to help them identify the size and geographic distribution of at-risk populations and assess their functional needs. LHDs need educational materials in multiple languages to share with organizations that serve these individuals, so standardized materials or templates would be beneficial. In service of these efforts, LHDs could use a uniform definition of these populations and consistent guidance on how their needs should be prioritized. Best practices or lessons learned from LHDs that have accomplished these activities would be helpful, as well.

Fact Sheet: Capability 6

Information sharing is the ability for all levels of government and the private sector to exchange information across jurisdictions and disciplines. With respect to public health, information sharing refers to the exchange of health-related information and “situational awareness” information during an emergency response. Information sharing also includes the capability to issue public health alerts to public and private partners to prepare them for, and assist with their response to, public health incidents. These efforts facilitate a rapid response to protect the public from disease exposure and other public health threats.

Information sharing necessitates that public health identify the appropriate stakeholders with whom to share information. This capability also requires identifying how, when, and with whom to share different types of data, taking into account any necessary security provisions and legal and privacy considerations. Public health must also have standardized processes for sending, requesting, and receiving situational awareness information during an emergency response so that all responding agencies have a common operating picture and public health can participate in all relevant jurisdictional information exchanges. These information sharing mechanisms do not have to differ from those used day-to-day, although processes must in place to ensure that mechanisms meet the needs of public health agencies during a response.

Important Aspects for Local Health Departments (LHDs)

- Identifying stakeholders with whom to share information.
 - LHDs identify and maintain accurate contact information for response partners and stakeholders (including healthcare organizations) across disciplines and jurisdictions so they can be contacted when necessary. Communications with these organizations include regularly scheduled meetings, ad hoc meetings, and situational awareness information sharing during a response.
- Developing rules for sharing information with partners.
 - Prior to a response, LHDs have a thorough understanding of the information sharing needs of their response partners, including when they should be contacted, what information they require, any specific data-exchange requirements (such as specific definitions or terminology), and documented processes and protocols for sharing, requesting, and receiving information. Partners also must understand the information sharing needs for public health. Memoranda of understanding may be required in certain situations.
 - LHD legal counsel ensures that all laws, regulations, and privacy considerations are respected in information sharing processes.
- Sharing situational awareness information during a response.
 - LHDs have systems and protocols for developing and disseminating public health alerts and situation reports to partners. In particular, public health must have a protocol to share basic epidemiological and clinical data with relevant healthcare organizations. Information sharing protocols may differ depending on whether an incident, such as a disease outbreak, has the potential to affect an entire community or just a smaller subset of the population.
 - LHDs have developed processes with their response partners for safely and securely exchanging information to create a common operating picture, including processes for verifying the source of the information and acknowledging its receipt. LHDs must also

have established systems and protocols for requesting and receiving important information from local and state partners.

Resources Needed for LHDs

- Information sharing must be timely to facilitate a rapid and effective public health response. LHDs and their partners can be reluctant to share information or may delay sharing information for fear of worsening the incident or creating unnecessary panic. Delays in information sharing among healthcare, laboratories, and public health put communities at risk for disease outbreaks and other adverse health outcomes. Resources that could improve the timeliness of information sharing include templates or models for information sharing protocols; sample plans and processes for sharing, requesting, and receiving information; memoranda of understanding related to information sharing; and resources for education and outreach both within the agency and with information sharing partners.
- LHDs receive copious amounts of information from many different partners during a response. Guidance or actual systems for synthesizing the volume of information received would save time and facilitate response efforts. Methods to improve situational awareness across response partners that limit the number of duplicative meetings and streamline communications would be particularly useful. The federal government can assist by being more specific with update notifications regarding which guidance or information on federal websites has changed and by providing messaging templates or talking points that LHDs can use for communications.
- Lists that LHDs use to communicate public health alerts may not be comprehensive. Best practices or tools for identifying stakeholders and keeping lists of their contact information accurate and organized would assist with communication activities. As partner organizations and their staff change, LHDs find it difficult to update lists with current information. Strategies for comprehensively subscribing community partners to alert lists, for example healthcare providers, could improve efforts to create a common operating picture. More robust electronic systems that allow providers to subscribe to alert lists could also improve public health's reach.
- Secure and effective information exchange requires significant expenditures for procuring and maintaining technology. Financial assistance to offset the costs of these technologies or access to more cost-effective technology solutions would be helpful.
- Information exchange technologies are not necessarily as effective when providers across the community use different systems. Having the ability to integrate public health communications into the provider information exchange technology increases the likelihood that LHD response communications will reach the right people at the right time. Examples of systems that can be used across the community, or strategies for engaging stakeholders to develop such systems, would increase the effectiveness of information exchange. Health information exchanges (HIE) are not necessarily multi-directional and may not meet information sharing needs during an emergency.
- While ideally all local hospitals, labs, and providers would already be connected to and reporting data into a common surveillance system, in practice some data often are not available through that route. LHDs must have the capacity to request, receive, organize, and analyze these data outside the surveillance system. Resources that could assist LHDs with these tasks include templates or examples and tools for data collection, survey dissemination, data analysis, and report generation. Processes and standards for verifying the source of information and acknowledging receipt would be helpful, as well.

Fact Sheet: Capabilities 8 and 9

Medical countermeasure dispensing is the ability to provide countermeasures, including vaccines and oral drugs, as treatment or prophylaxis for an identified population facing a public health threat. Medical countermeasure dispensing requires highly coordinated planning with partners from several disciplines prior to an incident. Roles, responsibilities, and standard operating procedures must be established to dispense countermeasures based on the population affected, the agent posing the threat, and the incident severity. Protocols must be developed for requesting, storing, and dispensing medications and maintaining the security of dispensing sites. A process must also be established to track and report adverse events from the countermeasures.

Medical materiel management and distribution is the ability to acquire, store, transport, distribute, track, and recover unused portions of pharmaceuticals and other medical supplies during an incident. Similar to medical countermeasure dispensing, medical materiel management and distribution requires processes for requesting, receiving, transporting, and distributing additional supplies of medical materiel when they are needed during a response and maintaining the security of the materiel during these activities. An inventory system is also needed to track and report on the location and status of this materiel.

For both medical countermeasures and medical materiel, processes must exist to demobilize and return unused supplies at the conclusion of a response.

Important Aspects for Local Health Departments (LHDs)

- Requesting and receiving additional supplies of medical countermeasures and medical materiel
 - LHDs have strategies for determining which countermeasures and medical materiel are required in an incident.
 - LHDs have processes for requesting additional LHD medical countermeasures and medical materiel, including contact information for suppliers.
 - LHDs have strategies to transport the additional supplies to receiving sites.
 - LHDs have identified receiving sites for supplies and processes and protocols for storing them.
 - LHDs must maintain the security of supplies of medical countermeasures and medical materiel.

- Developing and carrying out strategies for medical countermeasure dispensing
 - LHDs work with partners to develop strategies for dispensing medical countermeasures to the entire target population and for distributing medical materiel to all necessary areas, including restricted sites.
 - LHDs have processes to activate and train the personnel that are dispensing medical countermeasures and medical materiel and to request the assistance of additional staff and volunteers as needed.
 - LHDs have a demobilization process that includes recovery and return of unused medical countermeasures and medical materiel.

- Managing inventories of supplies
 - LHDs have access to inventory management systems to track medical countermeasures and medical materiel and provide status reports to partners.

- Reporting adverse events
 - LHDs have protocols for collecting data on adverse events and reporting them to federal entities.

Resources Needed for LHDs

- Capability 8 requires complex and comprehensive strategies for dispensing medical countermeasures to an entire target population in a timely manner. Resources that could be helpful include the following:
 - Tools to perform gap analyses or feasibility studies to identify and address weaknesses within current dispensing plans.
 - Alternate dispensing plans: Novel strategies or best practices for dispensing countermeasures, including closed points of dispensing and mobile dispensing strategies.
 - Tools for training and exercising dispensing activities.
 - Specific strategies for reaching and communicating with at-risk populations.
- Capability 9 requires extensive coordination between state and local health departments. Best practices or examples of how states and locals are successfully coordinating and managing information for this capability, for example regarding cold chain storage and recovering unused medical materiel, could help them more effectively meet Public Health Emergency Preparedness (PHEP) requirements. The best practices could include how to achieve more clarity on state expectations and better means of communicating local capacity levels.
- Some LHDs could use guidance to develop processes for determining what countermeasures and medical materiel are needed during an incident and for requesting additional supplies when inventory runs low.
- Strategies for tracking adverse events, especially in the long-term or for oral medications, and clearer requirements about expectations for this capability, could help LHDs meet PHEP requirements.
- While CDC's Inventory Management and Tracking System (IMATS) is an option available to LHDs for inventory management, its use is not always required and no singular system is universally used. Clear, specific guidelines or recommendations to assist with setting up and using an inventory management system that can share real-time inventory between sites would help LHDs with capabilities 8 and 9. Examples of low-cost or no-cost electronic or spreadsheet-based systems would make these systems more sustainable and accessible for jurisdictions with limited funding available.
- Some LHDs could use more specific guidance on the minimum requirements for security for supplies of medical countermeasures and medical materiel. Best practices for maintaining the security of these supplies would be helpful, as well.

Fact Sheet: Capability 13

Public health surveillance and epidemiological investigation is the ability of public health departments to detect, investigate, and mitigate public health threats. This capability involves both the ability to conduct routine disease surveillance and detection and to scale up surveillance and detection systems in response to a public health emergency.

Public health departments must have processes and systems to conduct surveillance to identify any emerging public health threats. When outbreaks are identified, public health must have protocols to investigate their cause and, based on an analysis of the information gathered, recommend measures to prevent additional disease spread. Public health professionals must then monitor those interventions through the duration of the incident, analyze their success, and potentially recommend new actions as needed. Finally, at the conclusion of the incident, public health professionals must review and document their surveillance and investigation efforts to identify areas for improvement.

Important Aspects for Local Health Departments (LHDs)

- Conducting public health surveillance and disease detection to identify emerging public health threats
 - LHDs must gather and analyze surveillance data from multiple sources, including monitoring trends of notifiable conditions, and engage relevant stakeholders to report data into their systems. Processes must exist to monitor populations especially at risk for disease.
 - LHDs must have processes and protocols for when, how, and to whom to report certain data findings, including data that must be reported to the Centers for Disease Control and Prevention through the state health department.
 - Provisions must exist to ensure the protection of sensitive data according to all applicable laws, including the Health Insurance Portability and Accountability Act.

- Conducting epidemiological investigation to investigate public health threats
 - LHDs must have processes and protocols for determining when and how to investigate disease outbreaks, including case definition and confirmation, contact tracing, and determining source(s) of the pathogen, means of transmission, and populations at risk of continued exposure. These processes and protocols must include coordination with the state health department.
 - Comprehensive templates for investigation reports should be developed beforehand to ensure that all necessary information is collected, including background information on the incident, investigation methods, findings, and recommendations.
 - Protocols and formal memoranda of understanding, when necessary, must be developed beforehand to determine when and how to bring in other agencies to collaborate on investigations.

- Recommending mitigation actions based on epidemiological findings; monitoring and analyzing the effects of mitigation actions on disease spread
 - LHDs must have protocols for using the epidemiological data they have collected to recommend actions to mitigate the public health threat. LHDs should consider the

- needs of at-risk populations, potentially recommending additional mitigation actions specific to their needs.
 - Procedures to monitor and document the performance of the recommended actions must be built into response strategies.
- Conducting performance improvement for public health surveillance and epidemiological investigation
 - LHDs must have processes for engaging stakeholders to conduct after-action reports to assess surveillance, detection, investigation, and mitigation efforts.
 - Protocols must exist to ensure the implementation of the corrective actions identified in the after-action reports, in particular those related to at-risk populations.

Resources Needed for LHDs

- This capability requires extensive tracking and reporting of information to the state health department, both day-to-day and during a public health emergency. Affordable, easy-to-use systems or tools to assist with tracking data and generating reports would also save LHDs time and resources. In particular, greater application of automatic data-gathering tools would help because manual data entry practices are time-consuming.
- LHDs could also use examples of epidemiological work plans for jurisdictions of similar sizes to help manage required activities based on staffing and resource limitations. Examples of how to effectively coordinate with state health departments regarding epidemiological investigation activities would streamline work to meet this capability.
- LHDs could use standard operating procedures or processes to assist with specific kinds of epidemiological investigations, for example chemical exposure response (e.g. mercury).
- Examples of written surveillance plans would help LHDs develop plans specific to their own jurisdictions. Some LHDs that rely on BioSense use the generic BioSense structure and could use additional guidance to tailor the system to their local/jurisdictional parameters.
- LHDs need to be equipped to accurately document lessons learned from epidemiological investigation activities and implement areas for improvement. Trainings for documenting lessons learned during exercises and real events would improve their ability to evaluate and improve response activities.
- LHDs could use additional guidance or strategies for how to mitigate disease spread for at-risk populations that may be at heightened risk of exposure.

NACCHO's Medical Countermeasures Workgroup



Workgroup Description

The National Association of County and City Health Officials' (NACCHO's) Medical Countermeasures Workgroup focuses on issues related to medical countermeasures preparedness planning and implementation efforts. The workgroup seeks to align its work with the Centers for Disease Control and Prevention's (CDC's) Public Health Emergency Preparedness Capabilities 8 and 9 and the Assistant Secretary for Preparedness and Response's Public Health Emergency Medical Countermeasures Enterprise strategy. The Medical Countermeasures Workgroup is a new addition to NACCHO, incorporating the issues once addressed by the Strategic National Stockpile and Pandemic Influenza Workgroups. Membership includes local health officials and public health preparedness professionals.

The workgroup assesses gaps in local medical countermeasure preparedness planning and implementation efforts; develops recommendations for use of existing and new resources; coordinates tasks and opportunities related to the medical countermeasures initiative; and provides policy guidance, through NACCHO, to local, state, federal, and private-sector partners.

Workgroup Publications:

- *Local Health Department Guide to Collaboration with Department of Defense* (2013)
- *Strengthening Local Public Health Preparedness through Partnerships with Military Colleagues* (2013)
- *Practical Implications of Posse Comitatus Act on Military Integration into Local Health Department Disaster Planning and Response* (2013)
- *Whole Community Inclusion and Medical Countermeasure Points of Dispensing Guide: Including At-Risk Communities and the Vulnerable in Planning and Preparedness Activities* (2013)
- *Long-term Distribution and Dispensing Strategy for Medical Countermeasures Policy Statement* (in progress)

Recent Activities

Local Health Department Guide to Collaboration with Department of Defense

Workgroup members reviewed and contributed to the NACCHO report *The Local Health Department Guide to Collaboration with Department of Defense*. This guidance document helps local health departments better understand the process of integrating Department of Defense assets into a public health preparedness response, thereby facilitating development of collaborations for incidents requiring a mass dispensing or mass vaccination campaign.

Practical Implications of Posse Comitatus Act on Military Integration into Local Health Department Disaster Planning and Response

Workgroup members reviewed the NACCHO issue brief *Practical Implications of Posse Comitatus Act on Military Integration into Local Health Department Disaster Planning and Response*. This issue brief provides a cursory overview of the Posse Comitatus Act of 1878, one of many doctrines that inform military integration into emergency planning and response.

Whole Community Inclusion and Medical Countermeasure Points of Dispensing

Workgroup members reviewed guidance regarding the dispensing of medical countermeasures to vulnerable and at-risk populations during a public health emergency. More information can be found at www.wcphep.org.

Medical Countermeasure Plus Operational Readiness Review

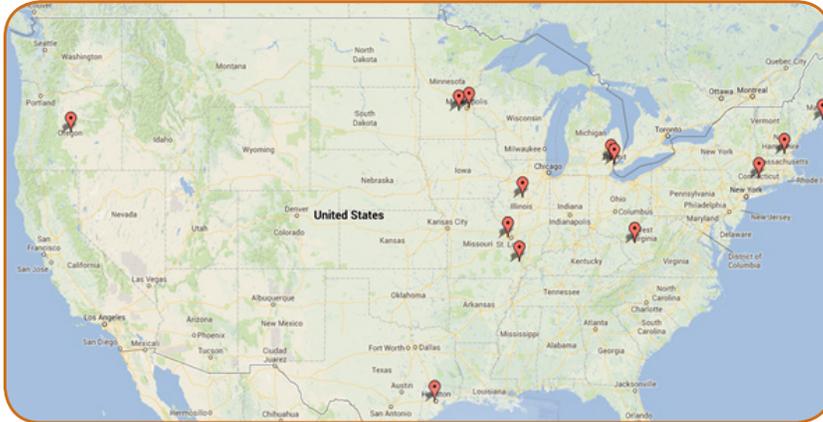
Workgroup members are supporting the CDC in reviewing relevant performance indicators that assess building capacity and demonstration of capability across core areas of public health preparedness activities to replace the current Technical Assistance Review process.

[FACT SHEET]

November 2013



NATIONAL REPRESENTATIVES OF THE WORKGROUP



Acknowledgments

This document was made possible through support from the Centers for Disease Control and Prevention, Cooperative Agreement 5U38HM000449-05. NACCHO is grateful for this support. The views expressed within do not necessarily represent those of the sponsor.

FOR MORE INFORMATION, PLEASE CONTACT:

Lisa Brown, MPH

Program Analyst, Pandemic and Catastrophic Preparedness
lbrown@naccho.org

Andrew Roszak, JD, MPA, EMT-P

Senior Director, Environmental Health, Pandemic Preparedness,
and Catastrophic Response
arozsak@naccho.org

For more information regarding the workgroup,
e-mail preparedness@naccho.org.

Workgroup Members

- Melissa Marquis, Emergency Preparedness Specialist, Connecticut Association of Directors of Health (Workgroup Chair)
- Garrett Simonsen, Public Health Network Coordinator, Derry (NH) Health Department (Vice Chair)
- Shana Altman, MRC Coordinator, Logan County (IL) Department of Health
- Heather Blair, Emergency Preparedness Coordinator, Oakland County (MI) Health Division
- Janet Briscoe, Director, Epidemiology and Emergency Preparedness, Kanawha-Charleston (WV) Health Department
- Joshua Carlyle, Public Health Preparedness Planner, Carver County (MN) Public Health
- Muriel DeLaVergne-Brown, Public Health Director, Crook County (OR) Health Department
- Robert Einweck, Emergency Preparedness Manager, St. Paul-Ramsey County (MN) Public Health
- Gregg Kocher, Regional Response Planner, St. Louis County (MO) Department of Health
- Michael McClendon, Director, Office of Public Health Preparedness, Harris County (TX) Public Health and Environmental Services
- Robert Miller, Pharmacist (Disaster Committee), Maine Coast Memorial Hospital/LRAT
- Andrew Pickett, Emergency Preparedness Coordinator, Detroit (MI) Department of Health and Wellness Promotion
- Jane Wernsman, Director, Cape Girardeau County (MO) Public Health Center

NACCHO

National Association of County & City Health Officials

The National Connection for Local Public Health

www.naccho.org



The mission of the National Association of County and City Health Officials (NACCHO) is to be a leader, partner, catalyst, and voice for local health departments.

1100 17th St, NW, 7th Floor Washington, DC 20036

P 202-783-5550 F 202-783-1583

© 2013. National Association of County and City Health Officials.

NACCHO's Preparedness Planning, Outcomes, and Measurement Workgroup



Workgroup Description

The National Association of County and City Health Officials' (NACCHO's) Preparedness Planning, Outcomes, and Measurement (PPOM) Workgroup addresses topics such as measuring preparedness capabilities and outcomes, legal preparedness, administrative preparedness, and community engagement. Workgroup activities also relate to all 15 of the Centers for Disease Control and Prevention's (CDC's) Public Health Preparedness (PHEP) capabilities and related performance measures, with additional focus on PHEP capabilities 1 and 2: Community Preparedness and Community Recovery. The workgroup may also provide guidance and feedback to relevant NACCHO projects, including Project Public Health Ready (PPHR).

PPOM activities include the following:

- Provided substantive feedback on a document-selection tool developed by NACCHO's accreditation team that highlights direct links between evidence approved for PPHR recognition and documentation required for Public Health Accreditation Board accreditation.
- Collaborated with the CDC and surveyed members of NACCHO's Preparedness Policy Advisory Group regarding how data collection for PHEP performance measures differs across states.
- Provided extensive feedback to the Association of State and Territorial Health Officials (ASTHO) on the National Health Security Preparedness Index.
- Provided substantive feedback and approved version 7 of the PPHR criteria, which aligns with PHEP capabilities, and version 2 of the PPHR re-recognition criteria, which focuses on quality improvement.
- Participating in monthly conference calls of ASTHO's Performance Evaluation and Improvement Workgroup (PEIW), which focuses on the development of public health preparedness performance measures and informing the implementation of performance measures at the state and local levels.
- Promoting NACCHO's Model Practices Program and reviewing preparedness-related applications.

Background

- All disasters start and end locally. Development of informed preparedness planning is essential for the protection of local public health and communities across the country.
- It is critical to measure progress in preparedness capabilities and capacities and to demonstrate return on investment of federal and state funding.
- Evidence-based performance metrics should be relevant to state and local health departments, reflect health department input, and be manageable to complete.

Current Workgroup Goals

- Provide LHD representation regarding the development and revision of national standards and measurement tools related to local public health preparedness.
- Improve LHD community preparedness and recovery capacity by increasing implementation and adoption of national standards through promotion and use of new and existing related resources.

Current Members

- Steve Englander, Center for Public Health Preparedness, Cincinnati (OH) Health Department (*Workgroup Co-Chair*)
- Steve Huleatt, Director of Health, West Hartford-Bloomfield (CT) Health District (*Workgroup Co-Chair*)
- Raphael Barishansky, Director, Office of EMS, Connecticut Department of Health
- Teresa Goodman, Administrator, Citrus County (FL) Health Department
- Betty King, Southeast Ohio Regional Public Health Coordinator, Washington County (OH) Health Department
- Terri Kramolis, Director/Health Officer, Bayfield County (WI) Health Department
- Darin Letzring, All Hazards Planner, Southeastern Idaho Public Health
- Linda Newton, Training Officer, Southern Nevada Health District
- David Olinger, Public Health Preparedness Coordinator, Fort Bend County (TX) Health Department
- Kathryn Quinn, Program Manager, Public Health Preparedness, Central District (ID) Health Department
- Matthew Ringenberg, Emergency Response Coordinator, Illinois Department of Public Health
- Elizabeth Rodriguez, Public Health Emergency Response Coordinator, Stamford City (CT) Health Department
- Cindy Shelton, Assistant Director, Office of Emergency Preparedness, Virginia Department of Health
- Julie Stephens, Emergency Preparedness and Disaster Recovery Specialist, Linn County (IA) Health Department
- Gerrit Bakker, Senior Director, Association of State and Territorial Health Officials (*ASTHO Representative*)
- Sarah Sisco, Director of Evaluation, Office of Emergency Preparedness and Response, New York City Department of Health and Mental Hygiene (*PEIW Representative*)

Workgroup Membership



Acknowledgments

This fact sheet was supported by Cooperative Agreement #1U38OT000172-01 from the CDC. NACCHO is grateful for this support. The contents do not necessarily represent the official views of the CDC.

FOR MORE INFORMATION, PLEASE CONTACT:

Resham Patel, MPH

Senior Program Analyst, Public Health Preparedness
202-507-4233
rpatel@naccho.org

Scott Fisher

Senior Director, Preparedness Programs
202-507-4218
sfisher@naccho.org

NACCHO

National Association of County & City Health Officials

The National Connection for Local Public Health

www.naccho.org



Public Health
Prevent. Promote. Protect.

The mission of the National Association of County and City Health Officials (NACCHO) is to be a leader, partner, catalyst, and voice for local health departments.

1100 17th St, NW, 7th Floor Washington, DC 20036

P 202-783-5550 F 202-782-1583

© 2014. National Association of County and City Health Officials

NACCHO's Preparedness Policy Advisory Workgroup



Workgroup Description

The Preparedness Policy Advisory Workgroup (PPAG) is the National Association of County and City Health Officials' (NACCHO's) overarching preparedness workgroup that provides feedback and comment federal public health preparedness policy issues and initiatives to strengthen the voice of local health departments (LHDs) on national policy issues related to the planning, response, and recovery from disasters and other emergencies. The PPAG consists of LHD preparedness representatives from each state and from four directly funded cities (Los Angeles, Chicago, New York, and Washington, DC). In addition, the six workgroup chairs participate in monthly PPAG calls and meetings.

Recent PPAG activities include the following:

- The PPAG provided feedback on the National Health Security Strategy (NHSS) and the strengths and challenges associated with the implementation at the local level. Members identified strengths where national progress had been made as a result of the 2009 NHSS goals and objectives, including direct federal outreach to the local level, adoption of new technologies such as social media, strengthening the Medical Reserve Corps, and effective emergency operation centers. Additionally, the PPAG identified areas for improvement such as timeliness of countermeasures, efficient staffing management, consistent and timely guidance, and logistical support. The Department of Health and Human Services' (HHS) Office of the Assistant Secretary for Preparedness and Response (ASPR) used this feedback to help inform the content of the evaluation of progress of the 2009 NHSS and development of the 2014 NHSS.

- Several PPAG members were selected to be reviewers of the National Health Security Preparedness Index (NHSPI), which aims to provide an accurate portrayal of the nation's health security using relevant, actionable information to guide efforts to achieve a higher level of health security preparedness. While the NHSPI scores are measured at a state level, LHDs can use the data to drive local change and discuss with state and federal partners how their preparedness efforts have influenced the NHSPI.
- The group commented on Section 201 of the Pandemic and All-Hazards Preparedness Reauthorization Act of 2013 (PAHPRA), the Guidance for Temporary Reassignment of State and Local Personnel during a Public Health Emergency. The new PAHPRA provision offers important staffing flexibility for state, local, and tribal public health departments during a federally declared public health emergency. The statute allows for the temporary reassignment of federally funded personnel to immediately assist in a jurisdiction's response to a public health emergency.

Current Workgroup Goals

- To enhance the capability of local public health departments to prepare for, respond to, and recover from disasters and other public health emergencies by providing feedback on preparedness practices and policy, as well as direction and oversight to NACCHO's Preparedness advisory groups.
- Provide input to NACCHO's Preparedness Committee to help inform the organization's position on a variety of high-level initiatives.
- Improve local health department community preparedness and recovery capacity by promoting new and existing related resources, tools and best practices

Meetings

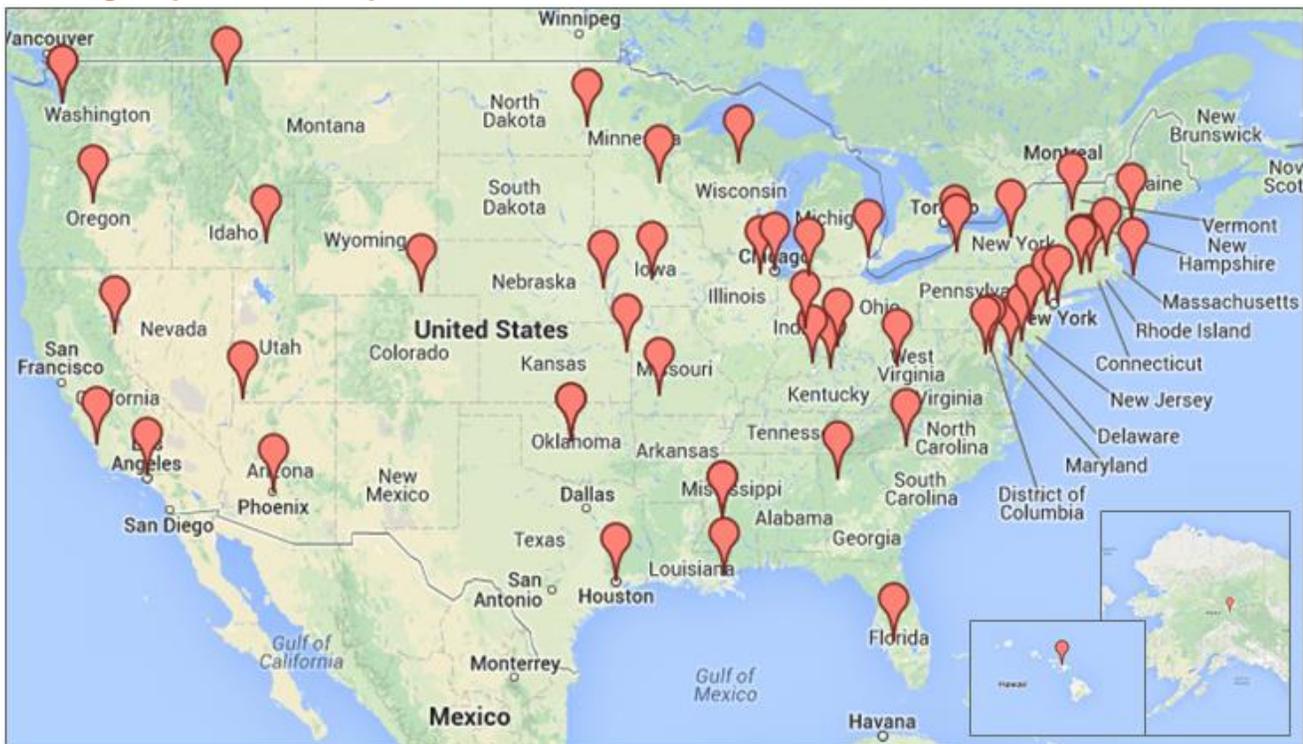
The PPAG held its first in-person meeting in conjunction with the NACCHO Annual Conference on July 9, 2013. The workgroup welcomed federal representatives from the Centers for Disease Control and Prevention, ASPR, and ASPR's Hospital Preparedness Program to discuss the federal priority areas and engagement with the PPAG during the next year. These representatives highlighted the value of the LHD perspective and echoed the importance of having PPAG be a conduit between LHDs in the field and federal stakeholders. The group also discussed its priorities for 2013–2014 including sharing information and telling the “stories” of LHDs, implementing national standards at the local level, engaging vulnerable populations, and improving community resilience.

Each month, the group participates in 1.5-hour conference calls. These calls include updates from federal partners and stakeholders, discussions about pertinent and timely preparedness topics, and feedback on various preparedness metrics, national guidance, and standards.

Main Activities

- Provides feedback and comment on federal policies and guidelines including PAHPRA Temporary Reassignment Provision Guidance, NHSS, and the NHSPI
- Provides subject matter expertise on principal emergency preparedness topics such as the Public Health Emergency Preparedness (PHEP) Capabilities and ASPR's Hospital Preparedness Program.
- Reviews and approves NACCHO preparedness policy statements such as the State and Local Public Health Performance Measures policy and the Local Public Health All-Hazards Preparedness policy

Workgroup Membership



Workgroup Members

- Mac McClendon, Director Office of Public Health Preparedness Emergency Management Coordination, Harris County (TX) Public Health and Environment
- Sherry Adams, Executive Officer, Southwestern District (ND) Health Unit
- Bobbi Alcock, CNYMRC Coordinator, Central New York Medical Reserve Corps (MRC Workgroup Chair)
- Paula Alexander, Public Health Director, Franklin County (KY) Health Department
- Kasia Alexander, Emergency Response Coordinator/Manager, Shelby County (TN) Health Department
- Steve Alles, Program Manager, Philadelphia Department of Health
- Brian Amy, Medical Director and Interim Senior Deputy Director, Health Emergency Preparedness and Response (DC) Administration
- Marc Barbieri, Emergency Management Coordinator, Fairfax County (VA) Health Department
- Julie Benedict, Emergency Preparedness Specialist, Vermont Department of Health
- Pamela Blackwell, Director, Center for Emergency Preparedness and Response, Cobb and Douglas (GA) Public Health
- Pam Blixt, Preparedness Manager, Minneapolis Department of Health and Family Support
- Janet Briscoe, Director of Emergency Preparedness, Kanawha-Charleston (WV) Health Department
- Christine Brookes, Project Liaison, Marion County (IN) Public Health Department (*Surge Management Workgroup Chair*)
- Mary Kay Burns, Administrator, DeSoto County (FL) Health Department
- Tracy Chalmers, Program Manager, Erie County (NY) Health
- Leigh Cheney, Capital Area Public Health Region Coordinator, Capital Region (NH) MRC
- Linda Conlon, President of the Wisconsin Association of Local Health Departments and Boards, Oneida County (WI) Health Department
- Timothy Cooper, Director, Office of Preparedness, Delaware Health and Social Services
- Dave Cox, Deputy Director, Oklahoma City-County Health Department
- Muriel de la Vergne-Brown, Public Health Director, Crook County (OR) Health Department
- John Degnan, Program Director, Eastern Highlands (CT) Health District
- Alisa Diggs, Program Manager, Office of Preparedness and Response, Maricopa County (AZ) Department of Public Health
- Samantha Dye, Environmental Health Supervisor, Gaston County (NC) Health Department
- Steve Englender, Director, Cincinnati (OH) Health Department (*Preparedness Planning, Outcomes, and Measurement Workgroup Chair*)
- Kathleen Foster, Health Officer, Talbot County (MD) Health Department
- Dent Guynes, Emergency Response Coordinator, West Central (MS) Public Health District
- Caity Hager, Program Coordinator, Maine Cities Readiness Initiative, (ME)
- Terry Hayes, Health Director, Town of Dennis (MA) (*Incident Management Workgroup Chair*)
- Steve Huleatt, Director of Health, West Hartford-Bloomfield (CT) Health District (*Preparedness Planning, Outcomes, and Measurement Workgroup Chair*)
- Lester Jones, Health Director, Union County (NJ) Department of Public Safety
- John Kelley, Public Health Response Coordinator, Cheyenne-Laramie (WY) County Health Department
- Shavonna Lausterer, Public Health Emergency Response Coordinator, Douglas County (NE) Health Department
- Meredith Li-Vollmer, Risk Communication Specialist, Public Health - Seattle & King County (WA) (*Risk Communication Workgroup Chair*)
- Michael Loehr, Preparedness Director, Public Health – Seattle & King County (WA)
- Maggie Mann, District Manager, Southeast District (ID) Health Department
- Melissa Marquis, Emergency Preparedness Specialist, Connecticut Association of Directors of Health (*Medical Countermeasures Workgroup Chair*)
- Suzette McKinney, Deputy Commissioner Bureau of Public Health Preparedness and Emergency Response, Chicago Department of Public Health
- Marc Nishimoto, Public Health Preparedness Planner, Maui (HI) District Health Office

- Susan O'Donnell O'Toole, Emergency Preparedness Public Health Nurse, Interior Region (AK)
- Jennifer Rankosky, Preparedness Coordinator, Flathead City County (MT) Health Department
- Marisa Raphael, Preparedness Director, New York City Department of Health and Mental Hygiene
- Stephen Ronck, Deputy Commissioner of Community Health, Oklahoma State Department of Health
- Holley Rose, Preparedness Coordinator/Environmental Health Specialist, Medical Reserve Corps Unit Leader, Ripley County Health Department, (IN)
- Michelle Shoresman, Public Health Emergency Preparedness Program Manager, San Luis Obispo County (CA) Public Health Department
- Patrick Sweeney, Disaster Preparedness Coordinator, Polk County (IA) Health Department
- Kevin Sweet, Public Health Director and Emergency Management Director, Town of Maynard (MA)
- Liz Ticer, Public Health Emergency Coordinator, Johnson County (KS) Health Department
- Paulette Valentine, Director of Emergency Preparedness Division, Southwest Utah Public Health
- Sundee Warren, Public Health Emergency Response Coordinator, Department of Health and Hospitals (LA)
- Jeff Whitesides, Public Health Preparedness Program Manager, Washoe County (NV) Health District

Acknowledgments

This fact sheet was supported by Cooperative Agreement #1U38OT000172-01 from the CDC. NACCHO is grateful for this support. The contents do not necessarily represent the official views of the CDC.

FOR MORE INFORMATION, PLEASE CONTACT:

Samantha Morgan, MPH

Senior Program Analyst, Preparedness
202-507-4188
smorgan@naccho.org

NACCHO

National Association of County & City Health Officials

The National Connection for Local Public Health



Public Health
Prevent. Promote. Protect.

The mission of the National Association of County and City Health Officials (NACCHO) is to be a leader, partner, catalyst, and voice for local health departments.

1100 17th St, NW, 7th Floor Washington, DC 20036

P 202-783-5550 F 202-782-1583

© 2014. National Association of County and City Health Officials

Risk Communications and Information Sharing Workgroup



Workgroup Description

The National Association of County and City Health Officials' (NACCHO's) Risk Communication and Information Sharing Workgroup provides a forum for public information officers, risk communications specialists, and other interested local health department (LHD) staff to discuss communications topics that are specific to preparedness and emergency response and provide subject matter expertise to NACCHO and other stakeholders. The group addresses topics related to Public Health Emergency Preparedness (PHEP) capability 6: Information Sharing, and 4: Emergency Public Information and Warning; the group also focuses on how LHDs are incorporating new expectations and standards related to risk communications and public information and considers emerging communication trends such as the use of social media for situational awareness and disaster response. When appropriate, this group collaborates with other NACCHO workgroups such as the ePublic Health and Informatics Workgroup and the Public Relations Committee on issues of information sharing and interoperability.

Recent Risk Communication and Information Sharing Workgroup activities include the following:

- Attended an in-person meeting at the National Public Health Information Coalition (NPHIC) Symposium in September 2013 to discuss workgroup goals and objectives for 2013–2014;
- Reviewed and provided feedback to the Centers for Disease Control and Prevention (CDC) on its Crisis Emergency Risk Communications Manual (2012 edition);
- Provided feedback on NACCHO's whole community inclusion point of dispensing guidance document;
- Submitted two abstracts that were accepted for the 2014 Preparedness Summit. The abstracts were for sessions focused on risk communications for vulnerable populations and social media for emergency management;
- Provided ongoing guidance for NACCHO's Nurse Triage Line and Pandemic Influenza mobile texting projects; and
- Contributed to NACCHO's communications vehicles such as a blog post in the *Preparedness Brief* to highlight National Rural Health Day.

Background

The Risk Communication and Information Sharing Workgroup, which started in July 2013, has contributed to several projects and initiatives for NACCHO and the CDC (see list to the left). The workgroup has an ambitious workplan for 2013–2014, which includes developing a NACCHO policy statement on social media use for emergency management, developing a risk communications toolkit with training options and resources for the NACCHO Toolbox, and expanding on NACCHO's partnership with NPHIC.

Current Workgroup Goals

- Support LHDs in identifying appropriate and relevant trainings, tools, and technical assistance
- Assist public health communicators in anticipating communication needs and barriers during crisis through peer-generated stories from the field
- Ensure the relevance of risk communication materials, policies, and guidance developed by federal partners and NACCHO through review and feedback processes

