

High-Performing Local Health Departments Relate Their Experiences at Community Engagement in Emergency Preparedness

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ABSTRACT

Context: Local health departments (LHDs) are implementing a national mandate to engage community partners, including individuals, businesses, and community- and faith-based organizations in the larger public health emergency preparedness (PHEP) enterprise.

Objective: Investigate how LHDs of varying size and resource levels successfully engage the community in PHEP to help uncover “best practices” that aspiring agencies can replicate, particularly in low-resource environments.

Design: In-depth, semistructured qualitative interviews with practitioners from 9 highly performing LHDs.

Setting: Participating agencies comprised equal amounts of small (serving <50 000 residents), medium (serving 50 000–500 000 residents), and large (serving >500 000 residents) LHDs and were diverse in terms of geographic region, rural-urban environment, and governance structure.

Participants: A cross section of LHD staff (n = 34) including agency leaders, preparedness coordinators, public information officers, and health educators/promoters.

Main Outcome Measure: Local health department performance at community engagement as determined by top scores in 2 national LHD surveys (2012, 2015) regarding community engagement in PHEP.

Results: Based on key informant accounts, high-performing LHDs show a holistic, organization-wide commitment to, rather than discrete focus on, community engagement. Best practices clustered around 5 domains: administration (eg, top executive who models collaborative behavior), organizational culture (eg, solicitous rather than prescriptive posture regarding community needs), social capital (eg, mining preexisting community connections held by other LHD programs), workforce skills (eg, cultural competence), and methods/tactics (eg, visibility in community events unrelated to PHEP).

Conclusions: For LHDs that wish to enhance their performance at community engagement in PHEP, change will entail adoption of evidence-based interventions (the technical “what”) as well as evidence-based administrative approaches (the managerial “how”). Smaller, rural LHDs should be encouraged that, in the case of PHEP community engagement, they have unique social assets that may help offset advantages that larger, more materially resourced metropolitan health departments may have.

KEY WORDS: best practices, community engagement, community resilience, emergency preparedness, local health department

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Local health departments (LHDs) help rally communitywide efforts to manage disasters with health impacts.¹⁻³ This responsibility emerged as a centerpiece of the nation's response to the 2001 terror attacks, including federal public health emergency preparedness (PHEP) grants to local

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and state health agencies.^{4,5} Encouraged PHEP capabilities include risk communication, building coalitions that integrate businesses and community- and faith-based organizations (CFBOs), opening emergency planning to public input, and mobilizing volunteers.⁶ National standards for local public health preparedness also feature community preparedness, including multisector partnerships, vulnerable population initiatives, and 2-way exchanges (eg, town hall meetings, public strategy sessions).⁷

Mounting national doctrine regarding “whole community” approaches to disaster and epidemic management⁸⁻¹² and a growing literature on health agency experience in applying these approaches¹³⁻²⁴ signal an opportunity for LHDs to enlist more and varied community partners in PHEP. The whole-of-community model recognizes that government—hampered by scarce public dollars, often inflexible procedures, and limited local understanding—cannot be the sole agent in reducing the chances and consequences of extreme events and that community partners can bring complementary assets to bear (eg, stockpiled households able to weather adverse conditions, self-organized groups that offer mutual aid or backfill emergency professionals).²⁵

However, over the past decade, a countervailing force has also been at work. Cumulative job losses and funding cuts in connection with the Great Recession and a protracted recovery have hampered LHD abilities to deliver essential services.²⁶⁻³¹ Preparedness programming has not been immune, and some LHDs are struggling to partner with CFBOs and other entities, strengthen networks through exercises, manage volunteers, and conduct other community engagement activities.^{26,32-36}

Against this backdrop, we conducted a mixed-methods study into the resources and techniques that LHDs use to involve community residents and groups in PHEP. In 2015, phase 1 entailed a national LHD survey and refielding of the 2012 “Community Engagement in Public Health Emergency Preparedness (CEPHEP)” instrument.³⁷ The 2015 survey revealed little change in the intensity of CEPHEP undertaken, despite the increasing doctrinal significance of this area of practice, and it underscored the importance of having programmatic funding, experienced staff, and an explicit CEPHEP policy to execute this work.³⁸ Represented here, phase 2 employed qualitative methods to examine how LHDs of varying size and resource levels successfully implement a national CEPHEP mandate and to uncover “best practices,” especially in low-resource environments.

Methods

The University of Pittsburgh institutional review board deemed the project exempt.*

Between September 2016 and January 2017, we interviewed staff at high-performing LHDs to document CEPHEP approaches. High-performing LHDs were those with a top CEPHEP score in both the 2012 and 2015 surveys (See Table, Supplemental Digital Content 1, available at <http://links.lww.com/JPHMP/A381>, which shows how CEPHEP was operationalized).^{37,38} Of the 25 LHDs that met this criterion, 15 LHDs were prioritized for recruitment, with a goal of 9 final participants. Fifteen comprised equal amounts of small (serving <50,000 residents), medium (serving 50 000-500 000 residents), and large (serving >500 000 residents) LHDs and were diverse in terms of region, rural-urban environment, and governance structure (home rule/not). Of 13 contacted LHDs, 9 participated, 3 were nonresponsive, and 1 declined because of staff turnover.

The final 9 LHDs (Table 1) served jurisdictions from 7 different states and 6 different Department of Health & Human Services regions. Interviewees (n = 34) included agency executives (n = 6), preparedness coordinators (n = 8), public information officers (n = 4), health educators/promoters (n = 8), and other preparedness and/or community engagement staff (n = 8; eg, preparedness medical director, emergency planner, volunteer coordinator). Informants were interviewed by phone, typically one-on-one for 45 minutes using standard open-ended questions; team members audio-recorded and took notes on the exchange. Among issues probed were measures of successful CEPHEP, recommended CEPHEP practices, and CEPHEP in a low-resource context. Summary interview reports were prepared and coded using NVivo qualitative data analysis software (QSR International Pty Ltd Version 11, 2015). Thematic categories were produced iteratively, with a priori themes derived from current CEPHEP literature and others induced from summary reports and comparison across them (Table 2).³⁹

Thematic Results

LHDs adapt the CEPHEP mandate to local capacity and circumstance

Unique, place-based circumstances suggest creativity and initiative by LHDs as well as potential lack of a

*During the study, the researchers transitioned from the UPMC Center for Health Security (ie, University of Pittsburgh Medical Center) to the Johns Hopkins Center for Health Security.

TABLE 1
Profiles of Local Health Departments Participating in Interviews

Category and Identity	Population Served ^a	Rural-Urban Continuum Code ^b	Governance—Home Rule ^a	Number of Key Informants
Small				
A	<25 000	9	Yes	1
B	25 000-49 999	6	Yes	3
C	25 000-49 999	4	No	6
Medium				
D	250 000-499 999	1	Yes	3
E	250 000-499 999	1	Yes	4
F	100 000-249 999	2	Yes	3
Large				
G	1 000 000+	1	Yes	5
H	500 000-999 999	1	No	5
I	1 000 000+	1	Yes	4

^aInformation is current as of 2015 and provided by the National Association of County & City Health Officials.

^bThe classification scheme (administered by the Economic Research Service of the US Department of Agriculture) distinguishes metropolitan counties by the population size of their metro area, and nonmetropolitan counties by degree of urbanization and adjacency to a metro area or areas. The latest codes available are from 2013.

one-size-fits-all approach. Demographics, geographic locale, regional culture and history, and common-place hazards were among the particulars cited as influencing CEPHEP. High-performing LHDs included a modestly resourced small health department serving a rural population with a high proportion of elderly longtime residents, a medium-sized health department serving the diverse collar community of a large city and benefiting from that jurisdiction's LHD, and a well-resourced and well-established metropolitan health department serving multigenerational inhabitants and recent émigrés in a mix of identity-oriented neighborhoods.

Small and large LHDs have comparative advantages and disadvantages for CEPHEP. Smaller, rural health agencies remarked that familiarity and sense of mutual obligation characterize relationships among responders (ie, public health, fire, police, emergency management) and between them and the community: "We are one of those counties where everyone knows someone, or everyone is related." Rich in social connectivity, the smallest LHDs still had to balance "high value" needs amidst scarce money, staff, and time. In contrast, a large metropolitan LHD reported having ample resources (eg, trainees to aid outreach, epidemiological capacity to uncover at-risk groups) but working hard at engaging a large, diverse, and evolving urban population.

LHDs of all sizes reported doing CEPHEP with limited budgets, staff, and time. A medium-sized LHD laid out its painfully scaled-back strategy: rely on more electronic connections and spend less time in the field, use "no cost" communication materials from

the Centers for Disease Control and Prevention and other jurisdictions, do not update older print publications, reluctantly lay off multilingual staff, leverage the county's other volunteer organizations, and cross-train personnel in emergency preparedness. A large LHD executive reported "doing less with less." Implementing staff reductions and role consolidations, he has also encouraged partners to strengthen their PHEP commitment: "It's a community response, not a public health one."

Collaborative whole community approaches are becoming the norm

Robust interagency collaboration reflects a maturation of the "whole community" ideal. One informant explained: "It's a big 'we'—not just limited to the health department. There's almost a changing of the guard with people in our county, so nobody cares who owns the issues." A medium-sized LHD relied heavily upon the community outreach efforts of the county's office of emergency management, based upon that agency's standing influence. "Dismantling silos," one informant noted, was important within government and between governmental and nongovernmental entities. The health officer of a medium-sized LHD summed up the approach: "We're a small government agency and can't do everything by ourselves.... [P]reparedness is a team sport."

Community engagement is an integral feature of PHEP, rather than a luxury or standalone activity competing for resources. A preparedness coordinator noted that community engagement was fundamental

TABLE 2
Interview Themes

<i>LHDs adapt the CEPHEP mandate to local capacity and circumstance</i>	
Place-based specifics (eg, geography, regional culture, commonplace hazards) influence CEPHEP	"[Our state] is known for its natural disasters—so the amount and volume of these present many opportunities to come together and address these issues."
Small and large LHDs have comparative advantages and disadvantages for CEPHEP	"Everyone knows everyone else. For example, I wrote our emergency protocol with our county attorney who later became a county judge."
LHDs of all sizes report doing CEPHEP under conditions of scarcity (budgets, staff, time)	"You don't do more with less; you do less with less."
<i>Collaborative whole community approaches are becoming the norm</i>	
Robust interagency collaboration shows that the "whole community" ideal has matured	"It is a big 'we'—not just limited to the health department."
CE is considered integral to PHEP, not an add-on or luxury item	"We cannot do it alone. We have a well-staffed agency but without the community being involved, there is very little we can accomplish."
PHEP is more integrated into the whole agency, not siloed off	"Even in situations where we don't have a true emergency [hepatitis C outbreak], we pulled in our emergency preparedness division to set up an ICS structure. So this capability is well-respected within our agency."
<i>CEPHEP is more salient when the department and its leaders are in the public's eye</i>	
An LHD's overall community presence raises the local value of PHEP	"I think leadership needs to be fully engaged all the way up the chain.... My staff sees me getting out into the public with our partners and that encourages them to do the same thing."
A community-centered ethos drives organizational priorities and leadership	"Keep the mission in front of you—understand that it's bigger than you as a person and it's going to take a community effort to get the job done."
Regularly convened drills and collaborative after-action analyses enliven CEPHEP	"We are constantly performing 'hot washes' to determine how well our efforts are working. We work hard to get people involved and invested."
<i>Able staff and adequate financial "power" CEPHEP activities</i>	
Time, "people" skills, language ability and cultural competence ensure CEPHEP success	"Partnerships are based upon interactions, people showing up and talking to one another.... You need staff that are well-suited to doing it."
Funding and in-kind support enable meetings, motivational giveaways, and minigrants	"When we had our full-scale exercise, we provided candy as a thank you for participating. Also, local restaurants pay for food when we have trainings. They know we are struggling."
<i>Practice standards, technical capabilities, and metrics set the bar for success</i>	
Existing tools and guidance set LHD expectations about model CEPHEP	"In that engagement, we have a lot of groups that are not 'mainstream'—minority groups, marginalized groups, neighborhood groups that aren't considered traditional partners. We utilized the MAPP program as part of these efforts."
Training, technology, and templates enable mass and targeted public communication	"Our community communicates in a very different way now, because of social media. So we've had to find different ways of listening to these conversations and making use of the information we gather."
CEPHEP assessment has shifted from hoping for, to collecting evidence of success	"[Think] carefully about whether you're actually reaching the people who need to be reached. Hard data helps people know if/when they need to change their strategies."
<i>Recognizing LHD partners' own needs, interests, and strengths is essential</i>	
Knowing community characteristics (eg, SES, culture) helps LHD target those most in need	"We have to improve cultural competence—our demographics [in the city] are changing, and we have to stay abreast of this."
Ties with CFBOs and businesses enable broad and deep community outreach	"[P]artner with organizations that aren't health-oriented, but are willing to incorporate health messaging into their work—nightclubs, gyms, churches, and parks."
Face time, follow-through, and issues of mutual benefit reflect genuine CEPHEP	"If I'm always trying to see what I can get from people, they are less likely to build relationships. I have to show them what the health department can offer them."

Abbreviations: CE, community engagement; CEPHEP, Community Engagement in Public Health Emergency Preparedness; CFBOs, community- and faith-based organizations; ICS, incident command system; LHD, local health department; MAPP, Mobilizing for Action through Planning and Partnerships; PHEP, public health emergency preparedness.

to all PHEP objectives: “It is an overarching priority. It is integrated into all of our priorities. We have our 15 capabilities, and community engagement shows up in each of those capabilities....[W]e are unable to achieve success without those relationships.” Without involving the community, offered an executive, even a large, well-resourced LHD could not achieve its preparedness mission: “We cannot do it alone. We have a well-staffed agency but without the community being involved, there is very little we can accomplish.”

Public health preparedness and community engagement efforts to achieve it are becoming more integrated with other LHD initiatives—through foresight and by necessity. As one division head remarked,

Internally, we have a great organization that supports emergency preparedness efforts. Even in situations where we don’t have a true emergency, like the 2013 hepatitis C outbreak, we pulled in our emergency preparedness division to set up an ICS [Incident Command System] structure. So this capability is well-respected within our agency.

Agency preparedness efforts, according to informants, have also been bolstered by cross-training that has exposed more staff to this facet of public health, disaster training and exercises that have involved the entire workforce, and linkages with programs like maternal and child health.

Preexisting LHD-community partnerships benefit whole community preparedness, and disaster collaborations are evolving to support broader well-being initiatives. One executive explained:

The health department does best when it taps longstanding relationships that have formed around very specific programs or diseases....The preparedness people are still learning how their work fits into the larger efforts taking place at the health department—community engagement and cross-sector collaboration offers some common ground.

After catastrophic flooding in a different community, a vibrant coalition of the LHD, other agencies, businesses, and CFBOs emerged to mitigate future inundations; now embracing overall resilience, the coalition is also mobilizing to address gun violence.

Community engagement in public health emergency preparedness is more salient when the department and its leaders are in the public eye

An LHD’s overall community presence raises the local value of public health preparedness. Many community partners, interviewees remarked, associate LHDs with food safety inspections, immunization, and sexually transmitted disease testing. More frequent

engagement with the community was seen to alter this narrow view, enhance trust in public health, and ultimately improve preparedness. However, LHDs cautioned that, as public agencies, their presence within the community could be misconstrued as authoritative or demanding and advocated approaching partners with a “what can I do for you” attitude rather than “here’s what you should be doing.”

A strong community-centric ethos drives the organizational priority on CEPHEP. Local health department leaders played a large part in how their agency prioritized CE compared with other responsibilities, and leader buy-in was judged essential to CEPHEP success. Leaders who “walked the walk” and interacted with the community helped establish the expectation that other staff would follow in their footsteps. Openness to form “active, rigorous partnerships” with community partners was a prevailing organizational ethos and individual staff “passion” among high performers. One LHD advised peers to always “keep the mission in front of you—understand that it’s bigger than you as a person and it’s going to take a community effort to get the job done.”

Regularly convened drills and collaborative after-action analyses enliven CEPHEP. Many LHDs stressed that exercises and drills, particularly during interim “no disaster” years, kept preparedness salient. One LHD held its own drills and was invited to participate in those held by their partners, further strengthening their community presence. Another LHD acknowledged that even nonemergency events (eg, car seat events, health fairs) benefited PHEP because the agency was often working with the same partners they would encounter in a crisis. After-action analyses and “hot washes” were helpful in communally distilling lessons: “We have to make sure to have every single partner at the table to prepare after-action reports. Otherwise, you don’t think about certain things—time for people to heal, counseling and mental health support.”

Able staff and adequate financing power CEPHEP activities

Successful CEPHEP depends upon seasoned staff with time, “people” skills, language ability, and cultural competence. Limited LHD ability to devote time and staff to partnership building emerged in many interviews. Hiring staff with preexisting community ties helped alleviate this problem, as it shifted time and attention from creating relationships to nurturing them. Local health departments of all sizes remarked that “frontline” health educators and community health workers were highly valuable to the CEPHEP

mission, as they were skillful at one-on-one interactions. Strong interpersonal skills and “the right personality” were key to CEPHEP. In addition, staff who were multilingual and cognizant of different cultural practices helped engage communities that might otherwise be overlooked.

Programmatic funding and in-kind support make meetings, motivational giveaways, minigrants, and more happen. Microgrants to select CFBOs in low-resource neighborhoods lacking historic connections to LHDs helped improve agency contacts and strengthened CFBO capacity. Handout materials (eg, template emergency plans), catered meals, and other material giveaways were seen to “incentivize” preparedness. One respondent described his or her LHD as “resource rich” because it could offer “go-bags” and literature to encourage household preparedness. Informants struggling with internal budget constraints frequently spoke of relying on partners to push ahead with CE (eg, asking the local newspaper to subsidize the printing and distribution of preparedness materials).

Practice standards, technical capabilities, and metrics set the bar for success

Existing tools and guidance set LHD expectations about model CEPHEP. The Mobilizing for Action through Planning and Partnerships, a strategic framework that “helps communities apply strategic thinking to prioritize public health issues and identify resources to address them,” was cited by some LHDs as an essential tool in their CEPHEP toolbox.⁴⁰ Mobilizing for Action through Planning and Partnerships was judged a “step-by-step, concrete model” that LHDs could adapt as needed. Completing periodic community health needs assessments also helped ensure engagement of partners within marginalized and economically disadvantaged populations.

Communication training, technology, and templates enable LHDs to reach mass audiences as well as specific subpopulations. Social media such as Facebook and Twitter were noted as useful and convenient platforms for public communications, though the development of consistent, concise, and creative messages tailored to individual populations was seen as resource intensive. Many respondents spoke of having properly trained communications staff to craft and disseminate effective messages as well as preprepared message templates that cover a range of different disasters as important practice standards. In addition, using communication feedback loops, where the LHD analyzed the uptake of information by the public and corrected any misconceptions, was an important practice standard.

Assessment of CEPHEP success has shifted from hoping to collecting evidence that a given department is doing well. An oft-cited proxy was partner participation in exercises, health fairs, and emergency operations center activities. Several respondents cautioned against “ticking-off-boxes” when judging CEPHEP achievement, encouraging preparedness coordinators to consider instead whether they “genuinely” addressed the needs of key partners and high-risk groups. Less-formal metrics (eg, feedback) were also cited: “I know I’m doing my job right when there’s a mutual exchange of information between the health department and a stakeholder.” Others desired more rigorous metrics: “We hope we’re getting it right, but we’re just not sure. We’re developing an index of preparedness activities that cut across all our mission areas, and are hoping that this will enable us to measure things more effectively.”

Recognizing LHD partners’ own needs, interests, and strengths is essential

Awareness of demographic, cultural, socioeconomic, and other community characteristics helps the department target resources to those most in need. Engaging nontraditional partners (especially marginalized groups) in identifying community health needs and priorities remains critical to CEPHEP success. Describing LHD collaboration with a local Catholic charity to care for a growing Burmese refugee population, an interviewee noted, “It’s important to constantly reevaluate your population and its unique needs. We have to build trust and develop cultural awareness to ensure that they are not left out of preparedness efforts.” Another interviewee reported that his jurisdiction’s diversity has catalyzed close partnerships with local churches and rabbis. These ties, in turn, have enabled the LHD to coordinate vaccination drives and develop culturally sensitive health education programs targeting high-risk populations.

Nurturing relationships with CFBOs and businesses—to strengthen their preparedness and to reach vulnerable populations—is critical. In 1 county, the LHD has engaged “neighborhood hub” corner stores by regularly meeting with storeowners to discuss preparedness needs. Another respondent noted, “It’s really important to partner with organizations that aren’t health-oriented, but are willing to incorporate health messaging into their work—nightclubs, gyms, churches, and parks.” Acknowledging historic tensions with local government when forging new partnerships was deemed a best practice. Local health departments have leveraged CFBO capabilities to strengthen preparedness among high-risk populations: for example, working with a school for the

visually impaired to coordinate evacuation plans and emergency radio messaging.

Face time, consistent outreach, follow-through on promises, and work on mutually beneficial issues embody meaningful CEPHEP. Effective CEPHEP requires diligently reaching out and meeting people where they are. An informant explained: “Everything we do revolves around cultivating relationships and following through.” Interviewees acknowledged that genuine CEPHEP requires time, resources, and a willingness to “spread oneself thin”: “People [tend to] do what is comfortable, which limits reach into the community. We’re very good about going into spaces where we’re not comfortable and building partnerships.” Involving partners at the outset of planning strengthened their investment, as did patience: “Everyone has a different idea of what an emergency looks like and how they’re going to respond. You have to hear them out.”

Discussion

Based on 2 national surveys, the LHDs queried for this study excel at participatory, partner-focused approaches to public health preparedness. To enhance their own CEPHEP performance, aspiring health departments may wish to adopt and adapt practices catalogued by key informants (Table 3).

Strengthening organizational culture as well as field tactics

The reported experiences of high-performing LHDs suggest that CEPHEP excellence depends upon certain administration approaches, not just specific engagement techniques. As research on public health performance demonstrates, “best practices” encompass not only *what* to implement (ie, effective interventions) but also *how* to implement (ie, management style).⁴¹⁻⁴³ For instance, CEPHEP high-performing LHDs have leadership and a top-to-bottom organizational culture that valorizes community partners, seamlessly integrates community engagement into all PHEP endeavors, and liberally spreads around credit for PHEP achievements (Table 3). Quality improvement studies in public health suggest that CEPHEP activities be implemented in a supportive organizational climate to realize their full potential.^{44,45} The CEPHEP high performers appear organizationally “mature” in having a comprehensive organization-wide commitment to, rather than a discrete focus on, community engagement.^{45,46}

To date, the “best practices” literature on whole community approaches to emergency management has spotlighted tactics (eg, foster relations with

community leaders, elicit participation in exercises).⁴⁷⁻⁴⁹ Similarly, the public health evidence on ways to strengthen resilience to disasters is rich in description of discrete techniques for coalition building and participatory decision making.^{21,24,50-53} These accounts assume rather than depict the fertile organizational environment for the methods they proscribe. Study participants, too, recommend specific CEPHEP techniques such as creating opportunities for collective learning such as exercises, interacting on a consistent face-to-face basis, and being present at health events unrelated to PHEP (Table 3). Nonetheless, dominating the best practices narrative of key informants are elements such as institutional dynamics, ethos, and workforce.

Leveraging social capital

A further element of CEPHEP performance important to key informants is social capital, that is, the network of ties through which to access resources such as social support, social credentials, and information exchange.⁵⁴ High-performing LHDs commit to engage the broader community via every available connection, leveraging influence held by other governmental agencies, programs such as maternal and child health, CFBOs and businesses, and staff with prior community ties (Table 3).

Small, rural LHDs noted that the social familiarity and sense of mutual obligation characteristic of their communities greatly facilitate whole community PHEP approaches. Other research bears their individual comments out: rural communities are close-knit, with a higher degree of socialization for cooperation and social support than metropolitan communities, though not uniformly and for complex reasons.^{55,56} Small and large LHDs thus may be able to excel equally at CEPHEP performance by leveraging different resources.

Although coming more easily for small LHDs via reduced community scale and greater intimacy, fruitful social connections nonetheless remain a top objective for midsized and large LHDs. For instance, a large metropolitan health department strategically reached out to embassies to engage more effectively with newly arrived immigrants, and a midsized LHD parlayed relationships cultivated while working in the emergency planning zone of a nuclear power plant into stronger overall ties with that facility and other engaged community organizations.

Limitations

Study data were self-reported and the sample size was small, thus limiting generalizability. In addition, the

TABLE 3**Practices of Highly Performing Local Health Departments in Connection With CEPHEP**

Domain	Description
Administration	
Leadership	Top executive who values CEPHEP, allocates material support, and models partnering behavior (ie, takes part in community PHEP events)
Program budget	Funds set aside for CEPHEP activities and goods (eg, catered meetings, giveaways like go bags, partner microgrants)
Community profile	Up-to-date awareness of community demographics and health priorities, including needs of underserved, at-risk populations
Holistic PHEP strategy	Calculated, seamless integration of CE into the development and execution of other PHEP capabilities
Metrics	Qualitative and quantitative measure of CEPHEP activities and impact
Organizational culture	
Resourcefulness	Creative application of local circumstances and assets to achieve CEPHEP
Selflessness	Eagerness to share recognition and spread credit around for PHEP wins
Partner-affirming	Passionate commitment to community as genuine partner in PHEP
Service orientation	Solicitous rather than prescriptive posture concerning partner needs and circumstances (ie, what can I do for you)
Respect for others	Regard for partner's history, interests, strengths, and time
Social capital	
Interagency Collaboration	Capitalizing on community ties held by agency partners (eg, EMA)
Intraagency cooperation	Mining preexisting community connections held by other LHD programs (eg, maternal and child health) for CEPHEP
CFBO and business ties	Extending reach of LHD via intermediary organizations that already have influence and standing in community at large and with subpopulations
Connected individuals	CE/PHEP staff have history working in the community and prior relationships on which they can build
Partner assets	Leveraging assets and in-kind donations from partners for CEPHEP ends (eg, facilities for meetings, local knowledge)
Workforce skills	
Interpersonal aptitude	Adeptness at one-to-one interactions and group social exchange
Cultural competence	Ease at crossing cultures; familiarity with distinct belief systems, health practices, and social norms and structures
Multilingual ability	Capacity to communicate in multiple languages
Communication	Expert in traditional and social media and risk and crisis communication
Cross-training	Exposure to responsibilities in multiple LHD programs including PHEP
Methods and tactics	
Face time	Early and consistent partner outreach with follow-through on promises
Participatory planning	Application of state-of-the-art partnership development tools (eg, MAPP, CHNA)
Expectation setting	At outset of PHEP partnership, a clear understanding of respective roles, responsibilities, and assets
Exercises	Collective learning through common experiences and debriefing
Non-PHEP presence	Enhanced visibility of LHD in community at-large and in health events unrelated to PHEP

Abbreviations: CE, community engagement; CEPHEP, community engagement in public health emergency preparedness; CFBO, community- and faith-based organizations; CHNA, community health needs assessment; EMA, emergency management agency; LHD, local health department; MAPP, Mobilizing for Action Through Planning and Partnerships; PHEP, public health emergency preparedness.

Implications for Policy & Practice

- For LHDs that wish to enhance their CEPHEP performance, change will entail adoption of evidence-based interventions (the technical “what”) as well as evidence-based administrative approaches (the managerial “how”).
- That high CEPHEP performance is associated with nonmonetary administrative elements (eg, leaders who model genuine engagement) and organizational culture (eg, a solicitous rather than prescriptive posture with partners) is encouraging, especially given that scarce resources are a reality for most LHDs.
- In light of study findings, a practical starting place for those LHDs with low capacity could include strategic planning by committed leader(s) who directly connect PHEP objectives and deliverables to partnership-strengthening activities; a department-wide inventory of current community connections where preexisting goodwill can serve as a foundation for PHEP collaborations; and development of an up-to-date community profile that identifies areas in which to strengthen LHD knowledge about the health priorities and influential leaders of populations who are vulnerable to hazard and disaster impacts.
- Smaller, rural LHDs should be heartened that, in the context of CEPHEP excellence, they have unique social assets that may help offset advantages that larger, more materially resourced metropolitan health departments may have.

study relied upon on summary reports, creating the potential for investigator recording bias.³⁹ To compensate, the researchers invited participants during manuscript preparation to review and comment on categories and themes to ensure the validity of how responses were selected, organized, and framed. The study investigated high-performing LHDs to identify best practices; future research could interview participants across the continuum of performance levels to help uncover key differences.

References

1. Nelson C, Lurie N, Wasserman J, Zakowski S. Conceptualizing and defining public health emergency preparedness. *Am J Public Health*. 2007;97(suppl 1):S9-S11.
2. Altevogt BM, Pope AM, Hill MN, Shine KI. *Research Priorities in Emergency Preparedness and Response for Public Health Systems: A Letter Report*. Washington, DC: The National Academies Press; 2008.
3. Gibson PJ, Theodore F, Jellison JB. The common ground preparedness framework: a comprehensive description of public health emergency preparedness. *Am J Public Health*. 2012;102(4):633-642.
4. Pandemic and All Hazards Preparedness Act, Pub L No. 109-417; 120 Stat 2831 (2006).
5. Pandemic and All Hazards Preparedness Reauthorization Act, Pub L No. 113-5; 127 Stat 161 (2013).
6. Centers for Disease Control and Prevention. Office of public health preparedness and response. Public health preparedness capabilities: national standards for state and local planning. http://www.cdc.gov/phpr/capabilities/dslr_capabilities_july.pdf. Published March 2011. Accessed May 3, 2017.
7. National Association of County & City Health Officials. Project public health ready criteria. Version 8. <http://archived.naccho.org/topics/emergency/PPHR/upload/PPHR-Criteria-Version-8-FINAL-2.pdf>. Published September 2015. Accessed May 3, 2017.
8. US Department of Health & Human Services. National Health Security Strategy and Implementation Plan 2015-2018. <http://www.phe.gov/Preparedness/planning/authority/nhss/Documents/nhss-ip.pdf>. Accessed May 3, 2017.
9. US Department of Homeland Security. National preparedness goal. First edition. <https://www.fema.gov/pdf/prepared/npg.pdf>. Published September 2011. Accessed May 3, 2017.
10. The White House. National security strategy. https://www.whitehouse.gov/sites/default/files/rss_viewer/national_security_strategy.pdf. Published May 2010. Accessed May 3, 2017.
11. The White House. Presidential policy directive/PPD-8: national preparedness. <http://www.dhs.gov/xlibrary/assets/presidential-policy-directive-8-national-preparedness.pdf>. Published March 30, 2011. Accessed May 3, 2017.
12. Federal Emergency Management Agency. A whole community approach to emergency management: principles, themes and pathways for action. FDCO 104-008-1. https://www.fema.gov/media-library-data/20130726-1813-25045-0649/whole_community_dec2011__2_.pdf. Published December 2011. Accessed May 3, 2017.
13. Andrulis DP, Siddiqui N, Purtle JP. Integrating racially and ethnically diverse communities into planning for disasters: the California experience. *Disaster Med Public Health Prep*. 2011;5(3):227-234.
14. Taylor L, Miro S, Bookbinder SH, Slater T. Innovative infrastructure in New Jersey: using health education professionals to inform and educate during a crisis. *Health Promot Pract*. 2008;9(4 suppl):88S-95S.
15. Chandra A, Williams M, Plough A, et al. Getting actionable about community resilience: the Los Angeles County Community Disaster Resilience project. *Am J Public Health*. 2013;103(7):1181-1189.
16. McCabe OL, Perry C, Azur M, et al. Guided preparedness planning with lay communities: enhancing capacity of rural emergency response through a systems-based partnership. *Prehosp Disaster Med*. 2013;28(1):8-15.
17. Wells KB, Tang J, Lizaola E, et al. Applying community engagement to disaster planning: developing the vision and design for the Los Angeles County Community Disaster Resilience initiative. *Am J Public Health*. 2013;103(7):1172-1180.
18. Plough A, Fielding JE, Chandra A, et al. Building community disaster resilience: perspectives from a large urban county department of public health. *Am J Public Health*. 2013;103(7):1190-1197.
19. Li-Vollmer M. Health care decisions in disasters: engaging the public on medical service prioritization during a severe influenza pandemic. *J Participat Med*. 2010;2:e17.
20. Schoch-Spana M, Sell TK, Morhard R. Local health department capacity for community engagement and its implications for disaster resilience. *Biosecur Bioterror*. 2013;11(2):118-129.
21. Cha BS, Lawrence RI, Bliss JC, Wells KB, Chandra A, Eisenman DP. The road to resilience: insights on training community coalitions in the Los Angeles County community disaster resilience project. *Disaster Med Public Health Prep*. 2016;10(6):812-821.
22. Wells KB, Springgate BF, Lizaola E, Jones F, Plough A. Community engagement in disaster preparedness and recovery: a tale of two cities—Los Angeles and New Orleans. *Psychiatr Clin North Am*. 2013;36(3):451-466.
23. Chi GC, Williams M, Chandra A, Plough A, Eisenman D. Partnerships for community resilience: perspective from the Los Angeles County Community Disaster Resilience project. *Public Health*. 2015;129(9):1297-1300.
24. McCabe OL, Semon NL, Lating J, et al. An academic-government-faith partnership to build disaster mental health preparedness and community resilience. *Public Health Rep*. 2014;129(suppl 4):96-106.

25. Harrald JR. Agility and discipline: critical success factors for disaster response. *Ann Am Acad Polit Social Sci*. 2006;604:256-227.
26. ASTHO, NACCHO, APHL, CSTE. Impact of the redirection of Public Health Emergency Preparedness (PHEP) funding from state and local health departments to support national Zika response. <http://www.naccho.org/uploads/downloadable-resources/Impact-of-the-Redirection-of-PHEP-Funding-to-Support-Zika-Response.pdf>. Published May 2016. Accessed May 3, 2017.
27. Willard R, Shah GH, Leep C, Leighton K. Impact of the 2008-2010 economic recession on local health departments. *J Public Health Manag Pract*. 2012;18(2):106-114.
28. Ye J, Leep C, Newman S. Reductions of budgets, staffing, and programs among local health departments: results from NACCHO's economic surveillance surveys, 2009-2013. *J Public Health Manag Pract*. 2015;21(2):126-133.
29. Mays GP, Hogg Ra. Economic shocks and public health protections in US metropolitan areas. *Am J Public Health*. 2015;105(suppl 2):S280-S287.
30. Reschovsky A, Zahner SJ. Forecasting the revenues of local public health departments in the shadows of the "Great Recession." *J Public Health Manag Pract*. 2016;22(2):120-128.
31. National Association of County & City Health Officials (NACCHO). The changing public health landscape: findings from the 2015 forces of change survey. <http://nacchoprofilestudy.org/wp-content/uploads/2015/04/2015-Forces-of-Change-Slidedoc-Final.pdf>. Published June 2015. Accessed May 3, 2017.
32. Hasbrouck L. Congress to decide funding for public health emergencies. Domestic preparedness. <https://www.domesticpreparedness.com/resilience/congress-to-decide-funding-for-public-health-emergencies/>. Published September 28, 2015. Accessed May 3, 2017.
33. National Association of County & City Health Officials. 2013 National profile of local health departments. <http://archived.naccho.org/topics/infrastructure/profile/upload/2013-National-Profile-of-Local-Health-Departments-report.pdf>. Published 2014. Accessed May 3, 2017.
34. Carbone E, Hannah J, Harvey M, Blumenstock J. Strategies for measuring and messaging the preparedness impact on national health security. ASTHO DPHP Annual Meeting; October 8, 2014; Washington, DC. http://www.astho.org/Preparedness/DPHP-Annual-Meeting/HPP_PHEP_ImpactStrategies/. Accessed May 3, 2017.
35. Davis MV, Bevc CA, Schenck AP. Declining trends in local health department preparedness capacities. *Am J Public Health*. 2014;104(11):2233-2238.
36. National Association of County & City Health Officials. Impact of public health emergency preparedness funding on local public health capabilities, capacity, and response. http://njaccho.org/wp-content/uploads/2014/06/report_phepimpact_july2015-Final.pdf. Published July 2015. Accessed May 3, 2017.
37. Schoch-Spana M, Selck F, Goldberg L. A national survey on health department capacity for community engagement in emergency preparedness. *J Public Health Manag Pract*. 2015;21(2):196-207.
38. Schoch-Spana M, Nuzzo J, Ravi S, et al. The local health department mandate and capacity for community engagement in emergency preparedness: a national view over time. *J Public Health Manag Pract*. (in press).
39. Ryan GW, Bernard HR. Techniques to identify themes. *Field Methods*. 2003;15(1):85-109.
40. National Association of County & City Health Officials. MAPP framework. <http://archived.naccho.org/topics/infrastructure/mapp/framework/index.cfm>. Accessed May 3, 2017.
41. Brownson RC, Allen P, Duggan K, Stamatakis KA, Erwin PC. Fostering more-effective public health by identifying administrative evidence-based practices. *Am J Prev Med*. 2012;43(3):309-319.
42. Brownson RC, Reis RS, Allen P, et al. Understanding administrative evidence-based practices: findings from a survey of local health department leaders. *Am J Prev Med*. 2014;46(1):49-57.
43. Duggan DK, Aisaka K, Tabak RG, et al. Implementing administrative evidence based practices: lessons from the field in six local health departments across the United States. *BMC Health Serv Res*. 2015;15:221.
44. Gyllstrom E, Gearin K, Frauendienst R, Myhre J, Larson M, Riley W. Local health department factors associated with performance in the successful implementation of community-based strategies: a mixed methods approach. *Am J Public Health*. 2015;105(suppl 2):S311-S317.
45. Duffy G, McCoy K, Morn J, Riley W. The continuum of quality improvement in public health. *Q Manag Forum*. 2010;35(4):1-9.
46. Riley WJ, Parson HM, Duffy GL, Moran JW, Henry B. Realizing transformational change through quality improvement in public health. *J Public Health Manag Pract*. 2010;16(1):72-78.
47. Sobelson RK, Wigginton CJ, Harp V, Bronson BB. A whole community approach to emergency management: strategies and best practices of seven community programs. *J Emerg Manag*. 2015;13(4):349-357.
48. Grimm D. Whole community planning: building resiliency at the local level. *J Bus Contin Emerg Plan*. 2014;7(3):253-259.
49. Scott J, Coleman M. Reaching on unreach: building resilience through engagement with diverse communities. *J Bus Contin Emerg Plan*. 2016;9(4):359-374.
50. Eisenman D, Chandra A, Fogleman S, et al. The Los Angeles County Community Disaster Resilience Project—a community-level, public health initiative to build community disaster resilience. *Int J Environ Res Public Health*. 2014;11(8):8475-8490.
51. Pfefferbaum B, Pfefferbaum RL, Van Horn RL. Community resilience interventions: participatory, assessment-based, action-oriented processes. *Am Behav Sci*. 2015;59(2):238-253.
52. O'Sullivan TL, Corneil W, Kuziemyk CE, Toal-Sullivan D. Use of the structured interview matrix to enhance community resilience through collaboration and inclusive engagement. *Systems Res Behav Sci*. 2015;32:616-628.
53. Chandra A, Williams MV, Lopez C, Tang J, Eisenman D, Magana A. Developing a tabletop exercise to test community resilience: lessons from the Los Angeles County Community Disaster Resilience Project. *Disaster Med Public Health Prep*. 2015;9(5):484-488.
54. Kawachi I, Subramanian SV, Kim D. Social capital and health: a decade of progress and beyond. In: Kawachi I, Subramanian SV, Kim D, eds. *Social Capital and Health*. New York, NY: Springer-Verlag; 2008:1-26.
55. Debertin DL, Goetz SJ. Social capital formation in rural, urban and suburban communities. University of Kentucky Staff Paper 474. <http://ageconsearch.tind.io/bitstream/159102/2/s474%20Social%20Capital%20Debertin%20complete.pdf>. Published October 2013. Accessed May 3, 2017.
56. Hofferth SL, Iceland J. Social capital in rural and urban communities. *Rural Sociol*. 1998;63(4):574-598.