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Process Evaluation of Project Public Health Ready Phase 2

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Sponsored by the National Association of County and City Health Officials
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Preface

Even before the events of Fall 2001, public health officials understood the need to prepare the nation for bioterrorism and other public health emergencies. Those events presented a new sense of urgency around the development of preparedness plans and procedures for emergency response at the national, state, and local level, in order to prepare communities to perform effectively at the front lines of such an event. In this context, Project Public Health Ready (PPHR) aims “to prepare staff of local governmental public health agencies to respond and protect the public’s health.” Launched by the National Association of County and City Health Officials (NACCHO) in June 2003, PPHR has three key components: (1) preparedness planning; (2) competency-based training; and (3) drills/exercises. PPHR is being rolled out in three roughly one-year phases, each with a different round of participating sites and updated criteria.

In January 2005, NACCHO contracted with the RAND Center for Domestic and International Health Security to evaluate the second phase (2004-2005) of PPHR. The overall goal of this evaluation is to describe the benefits and challenges in participating in PPHR, along with a discussion of the broader impact of the PPHR activities on participating sites’ overall preparedness. This report builds on a similar evaluation of Phase 1 (2003-2004).1

This report describes the results of the evaluation. The report begins with a brief description of the public health preparedness context, NACCHO, and PPHR. We then describe our evaluation methodology and summarize our findings. Finally, we describe the resulting conclusions and recommendations.

This report was prepared specifically for NACCHO, but it should be of interest to individuals working in public health preparedness at the federal, state, and local levels, and especially to local public health agencies in Project Public Health Ready or to those considering participation in the program. Comments or inquiries should be sent to the RAND Principal Investigator, Michael Stoto (mstoto@rand.org).

This work was sponsored by NACCHO with funding from CDC. For more information about the RAND Center for Domestic and International Health Security, please visit http://www.rand.org/health/healthsecurity/. The mailing address is RAND Corporation, 1200 South Hayes Street, Arlington, VA 22202. More information about RAND is available at http://www.rand.org.

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## Glossary

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<tr>
<td>APC</td>
<td>Advanced Practice Center</td>
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<td>Cities Readiness Initiative</td>
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<td>DHS</td>
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<td>EMS</td>
<td>emergency medical services</td>
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<td>Federal Emergency Management Agency</td>
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<td>LPHA</td>
<td>local public health agency</td>
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<td>PPHR</td>
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<td>Urban Area Security Initiative</td>
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Summary

In January 2005, the National Association of County and City Health Officials (NACCHO) contracted with the RAND Center for Domestic and International Health Security to evaluate the second phase (2004–2005) of its Project Public Health Ready (PPHR) program. PPHR is a voluntary recognition program that aims to prepare staff of local public health agencies (LPHAs) to respond and protect the public’s health. The project has three key components: (1) preparedness planning; (2) training and workforce competency; and (3) exercises and drills. LPHAs that are seeking official recognition from NACCHO in the area of public health preparedness participate in a series of informational meetings and conference calls, receive guidance from NACCHO staff, and then submit a written application indicating how they have addressed specific criteria under each of the three component categories. Recognition is based on peer review of the submitted written material. Unlike the earlier Phase 1 of PPHR, groups of LPHAs were allowed to seek recognition as a region, with new criteria developed for this purpose. LPHAs funded by the Centers for Disease Control and Prevention (CDC) as Advanced Practice Centers (APC) were required to participate in PPHR if they did not achieve recognition in the first phase.

The overall goals of the PPHR Phase 2 evaluation were to assess the benefits and challenges of the PPHR process, and to the extent possible, identify the impact of PPHR participation on an LPHA’s preparedness for public health emergencies. Specific evaluation objectives, which were developed in consultation with NACCHO project leaders, were to:

- Identify issues related to NACCHO’s management and implementation of PPHR that can be used both immediately—and in the future—for quality improvement within the program.
• Describe whether, how, and the extent to which participating public health agencies took advantage of the resources that were built into the PPHR process.

• Describe participating LPHA staff’s perception of the value of the program, vis-à-vis enhancement of knowledge and skills related to emergency preparedness and to provide NACCHO and its partners with data that can be used to inform future programmatic direction.

• Describe the experience of sites seeking regional recognition, and identify the strengths and weaknesses of the regional recognition process.

• To the extent possible, describe any improvement in participant sites’ preparedness to respond to public health emergencies following participation in the project, with a special focus on potential differences in performance and processes implemented by APCs.

RAND staff gathered information for this study through in-person and telephone interviews of two or more staff at fifteen participating LPHAs chosen to reflect diversity in the approach to PPHR (regional vs. individual vs. metropolitan, APC or not), type of health department and population served, and geographic location. In addition we observed meetings and telephone conference calls organized by NACCHO and reviewed written documents.

This evaluation had several limitations, resulting in part from its limited scale and scope, short timeline, and budget. For instance, we were able to interview or visit only 15 of the 22 participating sites, so it is possible that the sites we visited were not representative of the other participants. We minimized the likelihood of selection bias by choosing sites to achieve a balance between APC and non-APC locations; regional, individual, and metropolitan sites; and geographic and health department types. Also, by the time we were conducting the last interviews, new themes stopped emerging, so
it is likely that we did not miss any key issues. The sites that participated in PPHR, of course, are not representative of all LPHAs in the United States, nor is that necessary for this process evaluation of the PPHR program. The participating sites tended to be among the “cream of the crop,” and as such were more likely to be well-prepared early in the process, which may not be the case in future PPHR rounds.

One of our stated broad evaluation objectives was to describe any improvement in participant sites’ preparedness to respond to public health emergencies after participation in the project. Given the current lack of consensus—and even disagreement—about what the proper performance measures for preparedness are, there was no objective way to assess whether this objective was met. So, with the exception of the tabletop exercises that we facilitated or observed, we relied on self-reports of improvements in preparedness attributed to participation in PPHR. Respondents often found it challenging to comment on PPHR activities and outcomes as separate from those associated with other preparedness activities, especially at those sites that had already made substantial inroads in preparedness prior to their participation. This will continue to be a challenge as long as PPHR is seen as distinct from other efforts.

Evaluation Findings

Objectives for Participation

At most sites, the health director made the decision to apply to PPHR after hearing about the project through NACCHO contacts or materials. The reasons for participation revolved around the opportunity to have an external assessment of their efforts in the area of public health preparedness. Interviews also suggest that PPHR also allowed LPHAs to see what other health departments were doing and stay abreast of national efforts. Many LPHAs participated to help them work more efficiently toward better preparedness. Others reported that the recognition was the primary objective because it provided assurance that their work was on track. For some LPHAs, PPHR certification was seen as a way to establish the department’s credentials vis-à-vis other
county agencies. For the most part, the LPHAs thought that PPHR had met these objectives and had helped them achieve what they wanted.

*Implementation Approach*

Participating LPHAs developed different methods of organizing and implementing the project. Some sites began their work on the PPHR application by conducting an initial assessment and gap analysis before coming up with a project plan. Many sites formed small teams with responsibilities divided among the team members, depending on their skills. At other sites, the health director assigned the project to a single individual—the PPHR key contact. Several of the larger metropolitan LPHAs took this approach. The level of support from agency leaders varied considerably. Health directors in some LPHAs showed their support by discussing the progress of their PPHR application at weekly executive staff meetings and supporting kickoff meetings with various departments. In contrast, the project coordinator at another participating site reported, “the project lived entirely in my [office] cube.”

*Support from NACCHO and Other Sources*

The kickoff and regional meetings organized by NACCHO served two primary functions. First, by providing information and explanations of the criteria and required submission materials, they helped participants understand how the PPHR program worked. Second, the meetings gave the participants an opportunity to network with other participating sites and learn where they were in the process compared with others, and how they planned to approach the different program components.

Monthly conference calls organized for various groups of LPHAs allowed participants to get feedback on specific questions and helped them understand how to meet the requirements; however, some reported that these conference calls often lacked structure and would have been more helpful if there was an agenda with specific topics for each call. A project email list was not actively used by the sites to communicate with each other or share information, and was not seen as very helpful.
Participating sites took advantage of BT Toolbox—a collection of materials on bioterrorism and public health preparedness gathered by NACCHO—to some extent, consulting the different sections as needed for forms and models. The materials from Phase 1 sites that were available or distributed at these meetings also proved useful as the current sites worked to complete the PPHR requirements. Despite these resources, some LPHAs noted a need for a better library of materials or another method of getting specific information to the sites, preferably from the NACCHO Web site.

NACCHO offered to review submission materials prior to the application deadlines to further support the sites in completing the requirements. Several of the sites took advantage of the offer, but with mixed results. While the feedback was generally considered helpful, in some cases it took a long time to get comments back.

All sites were assigned a CDC-funded academic center for public health preparedness to support their PPHR efforts, but only a few sites received support from these centers, mostly on their training needs assessment. The APC’s were even less involved with the PPHR sites. State health departments also provided little support. With two exceptions, the state health departments did not offer to help, choosing instead to observe the process from afar.

*Time and Resources*

The amount of staff time expended in completing PPHR varied widely across the sites. In some LPHAs, small project teams devoted significant staff time—with each team member spending anywhere from 50 to 80 percent of their time on PPHR. At other sites, the person with primary responsibility for PPHR devoted all or nearly all of their time to PPHR in the months leading up to the deadline. In other cases, the key contact spent one day a week on the project. The time commitment for the health directors was considerably smaller, with most spending only a nominal amount of time directly on the project. Nonetheless, most LPHAs agreed that the overall value of PPHR was worth the time and resources spent on the project. PPHR gave them a national perspective on public health preparedness and a framework to organize their own efforts. It helped
ensure that their thinking was on the right path and provided an impetus for bringing things together. The sites used the PPHR process to validate and confirm what they had already done and to guide what they still needed to complete. Further, the project moved them to accomplish objectives that they would not have been able to do otherwise.

Project Components

With respect to preparedness planning, participating LPHAs generally reported that the PPHR framework provided a structure around which the LPHAs could review and organize their plans. The project connected their preparedness-planning efforts to a national effort, giving them some leverage within their community. Some LPHAs reported that PPHR had only a marginal effect on their preparedness planning. While the project provided a confirmation of what they had accomplished, the impact on planning represented more of a refinement of existing plans rather than the creation of new plans. Other LPHAs reported that the consequences of the preparedness-planning efforts would likely be felt only after they had an opportunity to train staff and exercise the plans. There was some sense that PPHR was too focused on the planning component, and the process distracted them from conducting actual preparedness projects. As a result, the project had no real effect on preparedness planning at some sites.

The project seemed to have had the largest impact in the area of training and workforce competency. PPHR helped raise awareness of the need for training within agencies and gave staff members a broader perspective on their agency’s role in emergency response and in bioterrorism events. Consistent with PPHR expectations, competency assessment and training plans tended to focus on broad-based competencies required of all health department employees. Many of the LPHAs had trained the staff who would respond to a bioterrorism event or to a public health emergency prior to PPHR. The project led participating sites to expand their training efforts to include all staff levels, with more focused training on the topics most needed by the staff. PPHR also helped them step up the pace of the training so that they
completed training much sooner than they would have otherwise. However, some of the metropolitan sites thought that training hundreds of employees who would not be involved in a response was not necessary; in response to this feedback, NACCHO changed the requirement for these sites during the course of the project.

PPHR had less of an effect on exercises and drills at the sites. Most participating LPHAs had completed tabletop exercises or drills prior to PPHR and were already moving forward with this component by hiring consultants and developing schedules for tabletops and exercises. The remaining LPHAs had observed or participated in county, state, or military exercises and drills, but they had not conducted their own drills or taken the lead on such efforts prior to PPHR. Requiring that after-action reports be prepared and submitted compelled participating LPHAs to look critically at the deficits revealed by their after-action reports and identify next steps toward improvement. PPHR narrowed the focus of the exercises and drills. In other cases, PPHR allowed LPHAs to organize exercises of their own, with a public health focus, rather than simply participating in county-wide exercises in which public health played a less central role.

*Regional Recognition*

One of the major innovations in Phase 2 of PPHR was the ability of groups of LPHAs to seek recognition on a regional basis. To guide these efforts, NACCHO and the regional sites developed a framework that includes three approaches to regionalization—coordination, standardization, and development of regional capacity—which apply differently depending on local capabilities and needs, and for different public health functions. All of the regional participants reported that participation in PPHR as a region helped to strengthen their regional preparedness. In particular, they said that working together toward PPHR recognition helped to strengthen relationships among public health professionals in the region, and between public health and other emergency partners, that will be essential during a public health emergency.
Although only four regions participated in PPHR in Phase 2, there were major structural differences among them, and opinions varied on the value of the framework and the specifics of the requirements for regional recognition. Some regional PPHR participants questioned whether meeting the PPHR regional criteria truly meant that the region was in fact prepared for public health emergencies.

**Overall Impact on Preparedness**

As a whole, PPHR seems to have had a positive impact on preparedness. Most LPHA respondents reported feeling better prepared after having completed the PPHR requirements—primarily because agency staff now understand their roles and responsibilities. The project provided a framework to organize their efforts and an impetus for formalizing and distributing plans. The training and exercises enabled staff to interact with others and learn about the agency’s partners. Some LPHAs pointed to the results of the evaluation of workforce competencies as evidence of improved preparedness. PPHR also helped them to know more about their partners and to bring organizations together. They expect that this sharing of roles and resources will help them with a future health emergency or bioterrorism event. Some LPHAs reported that they thought they were better prepared, but found it difficult to attribute changes to PPHR. They believed they were headed in this direction anyway, and there were a lot of similar efforts under way at the same time. A few LPHAs did not feel better prepared to respond to public health emergencies compared to than before the project. While the project helped them to document things better, it did not improve their preparedness capabilities. These sites were ones that were already well prepared and working on other efforts to improve preparedness.

The failure of some health departments (which the peer reviewers had regarded highly) to achieve PPHR recognition led some reviewers to question whether meeting the criteria truly ensures that an LPHA or region is “prepared” in some sense for public health emergencies. Indeed, one of the regional sites withdrew from Phase 2 when they realized that they could *document* preparedness, but were not sure that they actually were *prepared*. Given the lack of a national consensus about the meaning or
measurement of preparedness, this is not surprising. To address these problems, some reviewers suggested that the review process focus more on quality than on quantity, perhaps differentially weighing the importance of the various criteria. Others suggested tightening up and/or clarifying guidelines, noting that there was some subjectivity in the language of the written documentation.

Conclusions and Recommendations

Overall, as with the pilot phase, participating LPHAs viewed PPHR positively, and worth the effort. The more advanced sites recommend PPHR to others, but primarily as a means of comparing what they are already doing against national standards, thereby documenting the level of preparedness they have achieved. While many of these sites did not feel that participating in PPHR improved their capabilities, they valued the affirmation and believed that the recognition could lead to increased leverage in the future. For LPHAs and regions that were less advanced with respect to public health preparedness, PPHR is recommended as a process that provides structure and organization for their preparedness efforts. This distinction between more and less advanced LPHAs is consistent with a notable difference between Phase 1 and Phase 2 of PPHR. In Phase 1, the LPHAs tended to use PPHR as a process to learn about preparedness and to find tools and approaches to become better prepared. In contrast, Phase 2 participants were more likely to see PPHR as affirming efforts that they had already undertaken and to document their preparedness, and less likely to make use of tools and materials obtained from NACCHO.

Recommendation 1. NACCHO should consider whether the primary goal of PPHR is (a) to help LPHAs become better prepared, (b) to assess and document the level of preparedness that they have already achieved, or (c) both. This is a fundamental choice, which should determine the nature of the program criteria and the support that NACCHO offers to participating sites. Smaller LPHAs seeking recognition for the first time, for instance, might have the goal of improving preparedness, while
LPHAs with more established programs and those seeking re-recognition in PPHR might have documentation as the primary goal. To the extent that PPHR becomes a way to document preparedness rather than a process to improve it, the meetings and other aspects of NACCHO support will have to become more focused on explaining the requirements and helping with the documentation rather than on improving preparedness. If, on the other hand, NACCHO decides that PPHR should focus on helping participating sites to improve their level of preparedness, meetings and other activities should be oriented toward providing tools, models, and other materials to help LPHAs actually become more prepared.

Recommendation 2. Following a review of the primary goals of PPHR, NACCHO should reevaluate the project’s components and associated criteria to ensure that they are aligned with the project’s goals. PPHR’s three broad goals—preparedness planning, workforce competency, and exercise simulation—are well suited to the concept of PPHR as a process that can lead to improved preparedness. If the focus changes toward documenting preparedness, however, two kinds of changes should be considered. First, the overall framework should be broadened or refocused to include critical public health emergency functions such as surveillance, epidemiological and laboratory investigation, mass prophylaxis, and risk communication. Second, the specific measures should be changed to focus on objective measures of individual or organizational capabilities rather than the presence or absence of elements of a process. Participating LPHAs, for instance, would have to demonstrate the competency of their staff and their agency’s ability to perform surveillance, conduct epidemiological investigations, and communicate with the public about risks.

Recommendation 3. If the focus of PPHR shifts toward documenting preparedness rather than being a process to improve preparedness, NACCHO should consider alternatives to assessing preparedness. Although the PPHR requirements have shifted toward assessing performance, they may not yet be optimal for this purpose. The challenge of assessing preparedness was particularly salient for
regional sites, perhaps reflecting the lack of a national consensus on the role of regions, or even their definition, in public health preparedness and response. Rather than requiring LPHAs to assess competencies and develop a plan for improving them over time, for instance, PPHR should require that participating sites actually document that LPHA staff meet objective competency standards rather than simply rely on self-assessments, as is common now. Further, in addition to the broad-based emergency response competencies developed by Columbia University, the standards should cover more advanced competencies such as outbreak investigation and public communication. The focus of the drill and exercise component might also change from developing a plan for drills and exercises to raising awareness and training LPHA employees to the use of drills and exercises, with external observers, to assess preparedness per se.

Recommendation 4. NACCHO should expand opportunities for participating sites to interact with peers. This might be accomplished by pairing PPHR applicants with LPHAs that were recognized in previous years, or by establishing peer groups of applicants (based on similarities of the jurisdictions served or type of health department, or LPHAs in the same state). If drills and exercises were used to assess preparedness, as suggested in the previous paragraph, representatives of PPHR-recognized LPHAs could serve as external observers.

Recommendation 5. NACCHO should reconsider the PPHR timeline to identify options that would allow participating LPHAs more time to prepare. The project timeline represented the primary barrier for the participating sites as they worked to complete the PPHR requirements. It is recognized, however, that the timeline for recognition is driven in large part by the cooperative agreement between NACCHO and CDC that supports PPHR.

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Recommendation 6. NACCHO should work with CDC and appropriate partners to clarify the role of academic centers for public health preparedness, APCs, and state health departments and regional offices. Despite expectations that partners of this sort would collaborate with the local and regional sites in PPHR, our interviews found relatively little of this kind of interaction. The stated expectations of relevant federal preparedness programs and funding streams, as well as the reward structures of the state, local and academic partners, should be examined.
Introduction and Background

In January 2005, the National Association of County and City Health Officials (NACCHO) contracted with the RAND Center for Domestic and International Health Security to evaluate the second phase (2004–2005) of its Project Public Health Ready (PPHR) program. This report describes the results of this evaluation. It begins with a brief description of the public health preparedness context, NACCHO, and Project Public Health Ready. We then describe our evaluation methodology and summarize our findings. Finally, we describe the resulting conclusions and recommendations. While NACCHO is the primary intended audience for this report, other interested stakeholders might include participating sites, individuals and organizations interested in PPHR as a model for organizing their own preparedness efforts, and policymakers interested in better understanding the challenges and opportunities associated with public health emergency preparedness efforts.

The Public Health Context

Even before the events of Fall 2001, federal, state, and local public health officials understood the need to prepare the nation for bioterrorism incidents and other public health emergencies. The events of Fall 2001 presented a new sense of urgency to the development of preparedness plans and procedures for emergency response at the national, state, and local levels. These plans and procedures were intended to enable the emergency response and public health communities to perform effectively at the front lines of such emergencies or incidents.

In the aftermath of these events, Congress and the Department of Health and Human Services (DHHS) responded to the need to strengthen the public health infrastructure. From 2002 to 2005, almost $5 billion has been distributed through the Centers for Disease Control and Prevention (CDC), and through the Health Resources and Services Administration (HRSA) as part of cooperative agreements to strengthen...
state and local public health, as well as hospital preparedness. This investment has also led to initiatives to ensure the appropriate use of funds at the state and local level. The CDC cooperative agreements, for instance, have required recipients to report on a variety of performance goals, benchmarks, and critical tasks; however, the content of these reports has changed considerably over the years. More recently, there have been attempts to coordinate the Cooperative Agreement guidance with the Department of Homeland Security’s (DHS) National Preparedness Goal and Target Capabilities List.

All of this must be understood in terms of the larger national public health system in this country. As has been pointed out elsewhere, the nation’s public health infrastructure has been underfunded and understaffed for many years and its structure is largely unchanged from a time when the needs of the public were quite different. As a result, many local public health agencies (LPHAs) have struggled to deliver basic public health services to their communities. Even though more funds are available, the mandate to enhance preparedness for bioterrorism incidents and other public health emergencies adds another layer of burden to this already stressed system.

**NACCHO and Project Public Health Ready**

NACCHO’s role as the national association representing local public health agencies (including city, county, metropolitan, and tribal agencies is to work to support efforts that seek to protect and improve the health of all people and all communities. It provides a variety of programmatic and educational resources, as well as advocacy support for over 1,000 member LPHAs. As such, it plays a key role in ensuring a timely and effective public health response at the local level—which is often the “front line” for emerging public health issues through a variety of programs. In support of this mission, NACCHO developed PPHR to assist local public health agencies to meet new demands.

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3 We have adopted the NACCHO use of the term “local” to include city, county, metro, district, and tribal agencies.
regarding preparedness while maintaining critical public health functions in other areas. PPHR was also intended to serve as a means of ensuring accountability for investments in local public health preparedness, and can be thought of as an approach to “quality improvement” in public health.

Project Public Health Ready (PPHR) is a voluntary recognition program that aims to prepare staff of local governmental public health agencies to respond and protect the public’s health through a competency-based training and certification program. It is a collaborative activity between NACCHO and the CDC. Initially conceived as a certification program, Project Public Health Ready is now considered a recognition program. While originally focused on bioterrorism incidents, PPHR is now more broadly focused on public health preparedness for all kinds of hazards. Launched in June 2003, the project has three key components: (1) preparedness planning; (2) training and workforce competencies; and (3) exercises and drills. LPHAs seeking recognition can participate in a series of informational meetings and conference calls, obtain guidance from NACCHO staff, and then submit a written application indicating how they have addressed specific criteria under each of the three components. These criteria are based on existing standards for public health preparedness that were set by the CDC, the Columbia University Center for Public Health Preparedness, and others; however, PPHR is not prescriptive about specific corrective actions and improvement methods. After peer review of the written material, sites that demonstrate preparedness are recognized as “Public Health Ready.”

The goal of PPHR is to prepare staff of local governmental public health agencies to respond to emergencies and to protect the public's health through a competency-based training and recognition program. Although recognition per se may

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have some value to participating LPHA when dealing with peers and supervisors, the primary benefits of PPHR come from the work that the participating sites do to become better prepared. Among the expected benefits of participation is the synergy with local and state resources, including emergency management agency expertise and state bioterrorism funding. It was also expected that participation would include consultation with the CDC-funded Academic Centers for Public Health Preparedness, a network of research and training programs in schools of public health and similar institutions. Other supports provided to participating sites by the NACCHO project team include periodic conference calls and newsletters, sites visits, and in-person meetings. Sites do not receive funding for participation, but NACCHO intends for their efforts to be supported through existing funding arrangements with their states and the Academic Centers with which they are linked.

In this context, PPHR makes certain assumptions, more or less explicitly. First, it assumes that a successful response during an emergency is related to the amount of and/or quality of preparedness planning, training, and drilling. Second, the program assumes that feedback to LPHAs, in the form of peer review from external observers in the PPHR process can lead to corrective actions. Third, PPHR assumes that LPHAs need technical assistance in their planning, training, and drilling efforts, and that fostering “communities of practice” among LPHAs that promote sharing of ideas, motivation, and other agents of change can be helpful. Fourth, the program assumes that the involvement of state health departments, APCs, and academic centers for public health preparedness enhances the efforts of the participating LPHAs. In addition, NACCHO has made an effort to align the PPHR criteria with the CDC’s criteria for state funding of public health preparedness efforts, and assumes that this alignment makes the program objectives of PPHR and CDC programs consistent—or at least not contradictory. It must also be acknowledged that since there are no monetary incentives in PPHR, the goals are to some degree limited. Finally, although the program criteria include coordination with fire, emergency medical services (EMS), and other components of a community’s emergency response, PPHR is ultimately focused on the LPHA’s—rather than the community’s—preparedness.
Twelve local agencies served as pilot sites in Phase 1 (2003–2004), and eleven of those were recognized as “Public Health Ready.” Phase 2 of Project Public Health Ready was launched in October 2004. In February 2004, NACCHO contracted with RAND to conduct an evaluation of the pilot phase of PPHR. The evaluation involved document review, site visits, design and conduct of tabletop exercises, and key informant interviews with participating LPHA representatives, academic partner site representatives, and state health department liaisons. This earlier evaluation suggested that, overall, PPHR was a positive force in the participating LPHAs’ efforts to prepare for bioterrorism incidents and public health emergencies. Participation in the project provided these LPHAs with (1) a framework to use in organizing their preparedness activities; (2) ideas, materials, and support from their colleagues in the national program, academic public health preparedness centers, and elsewhere; and (3) recognition for their departments’ efforts. Additional results of participation included improved relationships with critical local partners and an improved sense of purpose and understanding of public health preparedness functions among department staff. It was not possible to clearly differentiate the impact of PPHR from other preparedness activities mandated by CDC and state health departments, but participating departments generally reported that their participation in PPHR helped them to better fulfill their responsibilities regarding preparedness. In particular, PPHR deadlines and requirements led LPHAs to become prepared sooner than if they had not participated in the program.7

However, the evaluation also pointed to several limitations of PPHR, most of which were associated with its status as a pilot program and the early state of development of standards, materials, and science base for public health preparedness. LPHAs began the project without a clear idea of its criteria, which were developed during the pilot phase. PPHR requirements were, to some extent, inconsistent with state and CDC expectations, which were themselves very much in flux. Guidance and

materials that participants thought would be provided were either not available anywhere or the partner academic centers and state health departments were not able to locate and supply them. Respondents reported that support from academic centers and state departments generally was variable, depending in part on these partners’ own state of development. However, they praised NACCHO staff for their efforts, especially given the challenging situation.

One of the major innovations in Phase 2 of PPHR was the ability of groups of LPHAs to seek recognition on a regional basis. To guide these efforts, NACCHO and the regional sites developed a framework that includes three approaches to regionalization—coordination, standardization, and development of regional capacity—which apply differently, depending on local capabilities and needs, and for different public health functions. Constituent LPHAs are not required to individually meet the PPHR requirements (and are not individually recognized), but rather regions seeking PPHR recognition must develop preparedness, training, and exercise plans on a regional basis. In total, 30 sites participated, with five of these “sites” being regional rather than individual LPHAs. A total of 67 LPHAs were involved. Six of these are also funded by the CDC as Advanced Practice Centers for Public Health Preparedness (APC), which are “[l]ocal public health agencies developing cutting-edge tools and resources that will help it and other LPHAs . . . prepare for, respond to, and recover from public health emergencies.” Another distinction between Phase 2 and Phase 1 of the program is that five of the participating sites were large metropolitan areas (served by single LPHAs).

Phase 2 sites began their participation in PPHR in October 2004. In July 2005, 14 of the 24 individual sites that participated in Phase 2, as well as one not recognized in the previous year, were recognized. In December 2005, eight individual sites, which had been deferred in July, were recognized. In November 2005, three regional sites were reviewed, but their recognition was deferred pending more information.

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Methods

Evaluation Framework

The overall goals of the PPHR Phase 2 evaluation were to assess the benefits and challenges of the PPHR process, and to the extent possible, identify the impact of PPHR participation on an LPHA’s preparedness for public health emergencies. Specific evaluation objectives, which were developed in consultation with NACCHO project leaders, were to:

- Identify issues related to NACCHO’s management and implementation of PPHR that can be used both immediately—and in the future—for quality improvement within the program.

- Describe whether, how, and the extent to which participating public health agencies took advantage of the resources built into the Project Public Health Ready process.

- Describe participating LPHA staff’s perception of the value of the program, vis-à-vis enhancement of knowledge and skills related to emergency preparedness and provide NACCHO and its partners with data that can be used to inform future programmatic direction.

- Describe the experience of sites seeking regional recognition, and identify the strengths and weaknesses of the regional recognition process.

- To the extent possible, describe any improvement in participant sites’ preparedness to respond to public health emergencies following participation in the project, with a special focus on potential differences in performance and processes implemented by APCs.
PPHR is being rolled out in three roughly one-year phases, each with a different round of participating sites and updated criteria. NACCHO regards these years as those of a pilot project that is intended to develop a program that can eventually be implemented on a national scale. This evaluation is intended to help guide that expansion.

Data Collection

From April to July 2005, RAND staff conducted in-person interviews during site visits at two individual sites and two regional sites. In addition, telephone interviews were conducted with nine individual sites and two regional sites. Sites were chosen to achieve a balance between Advanced Practice Center (APC) and non-APC locations; regional, individual, and metropolitan sites; as well as geographic and health department type. The sites, which were chosen in consultation with NACCHO staff, are listed in Table 1. An asterisk indicates that a pre- and post-review site visit or interview was conducted, as discussed below.

Table 1. PPHR Site Visits and Telephone Interviews.
NOTE: An asterisk indicates that a pre- and post-review site visit or interview was conducted.

<table>
<thead>
<tr>
<th>APC</th>
<th>Regional Sites</th>
<th>Individual Sites</th>
<th>Metropolitan Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site visit: * MA-Region 4B/ Cambridge</td>
<td>Telephone interview: CA-Santa Clara County</td>
<td>Telephone interview: WA-Seattle/King County</td>
<td></td>
</tr>
<tr>
<td>Telephone interview: GA- East Central Health District/Augusta</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-APC</th>
<th>Site visit: * IL-Northern Illinois/ Chicago</th>
<th>Site visit: FL-Orange, Orlando, Okeechobee</th>
<th>Telephone interview: MA-Boston TN-Davidson/ Nashville TX-San Antonio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone interview: NY-Western NY/Buffalo</td>
<td>Telephone interview: * CA-Kern County ID-Panhandle District, Central District * VA-Arlington County</td>
<td></td>
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</tr>
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Telephone interviews were guided by a semi-structured protocol (reproduced in the appendix to this report and lasted approximately 45 minutes. They allowed for participants’ additional comments throughout. The respondents were identified through a list provided by NACCHO project leaders. In most cases, the list included two individuals—the health department director and NACCHO’s key PPHR contact, often the department’s preparedness manager. We tried to interview both at each site, but this was not always possible due to job turnover. For regional sites, we interviewed both individuals closely associated with the “region,” however defined, and others more closely associated with the component LPHAs. For those sites with an APC, we also attempted to interview the APC program manager. While we had originally planned to conduct interviews with state health department and academic collaborators at selected sites, we discovered that these units had only a limited involvement in the PPHR projects. Therefore, we informally interviewed representatives of academic units and APCs that had worked with PPHR sites.9

For three of the individual sites and two of the regional sites, we conducted two rounds of interviews. The first round, conducted before the PPHR application process was complete, focused on the department’s reasons for participating, approach to implementation, and preparedness status prior to PPHR. The second round occurred after the application deadline and included the remainder of the interview questions, which focused on the experience of participating in PPHR and on its potential impact. For the two regional sites, both sets of interviews were conducted in person during site visits.

In addition, we conducted in-person interviews during site visits to two of the PPHR individual sites. During the site visits, we interviewed the health officer and PPHR key contact for each site. In addition, we interviewed approximately five other senior-

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9 One of the authors, Dr. Stoto, is a co-investigator at the Harvard Center for Public Health Preparedness, and in this context provided advice to Harvard researchers working with the Massachusetts regional site.
level people who were likely to be involved in a public health emergency, including nursing directors, epidemiologists, and assistant directors.

Because the focus of this evaluation was on the PPHR process, most of our efforts were focused on interviews and site visits designed to understand the participants’ experience of the process. We also gathered information on their perceptions of PPHR’s impact on preparedness. We developed an open-ended interview protocol with specific questions that addressed each of the evaluation objectives. NACCHO project staff provided feedback on an initial draft, which was revised based on their comments. That protocol is included here as an appendix. In all interviews, participants were assured of the anonymity and confidentiality of their individual responses. They were also informed that participation was voluntary and would have no impact on future PPHR recognition or participation. RAND’s Institutional Review Board approved both this project and our methodology.

One way to validate the information that sites reported in their PPHR documentation and our interviews is to observe the LPHAs during exercises. Thus, in each of the regional sites we visited, we observed the regional tabletop exercise used by the site to meet PPHR requirements. In addition, during a visit to one of the individual sites, we facilitated and observed a tabletop exercise focusing on the initial epidemiologic response following a bioterrorism attack. We used exercise methodology and scenarios developed by RAND\textsuperscript{10} and tested them in a number of LPHAs including three in our evaluation of PPHR Phase 1. This exercise was in addition to those conducted by the site as a requirement of their PPHR recognition and was conducted in July 2005, several months after PPHR activities were completed.

In addition, RAND project staff attended the kickoff meeting in Atlanta, all three regional meetings, and listened in on many conference calls with participating sites. We also reviewed documents, attended the review meeting in June 2005 at which NACCHO’s PPHR oversight committee decided which participating sites would be recognized, and monitored the preliminary review of the regional sites in October 2005.

We drew upon information we gathered in our evaluation of Phase 1 of PPHR to put the results of Phase 2 in context.\textsuperscript{11} In addition, we used a draft report about the regional approach to PPHR prepared for NACCHO, plus presentations from two of the regional sites presented at the Phase 2 kickoff meeting in San Diego in October 2005.

Limitations

This evaluation had several limitations, resulting in part from its limited scale and scope, short timeline, and budget. In particular, as a process evaluation, the focus is on the experience of the PPHR participants as they report it; we only informally addressed the impact of PPHR participation on preparedness.

We were able to interview or visit only seven of the twelve individual, non-metropolitan sites and four of the six metropolitan sites. We did interview or visit all four regional sites. It is, possible, therefore, that the sites we visited were not representative of the other participants. We minimized the likelihood of selection bias by choosing sites to achieve a balance between APC and non-APC locations; regional, individual, and metropolitan sites; as well as geographic and health department types. Also, by the time we were conducting the last interviews, new themes had stopped emerging, so it is likely that we did not miss any key issues. The sites that participated in PPHR, of course, are not representative of all LPHAs in the United States, nor is that necessary for this process evaluation of the PPHR program. The participating sites tended to be

among the “cream of the crop,” and as such were likely well-prepared early in the process, which may not be the case in future PPHR rounds.

We attempted to complete interviews with at least two people at each participating LPHAs—usually the health director and a key PPHR contact—and in most cases we were able to interview both of those individuals. However, this was not always possible due to job turnover at the sites. Further, except for the sites we visited in person, we primarily interviewed individuals involved with the PPHR process, not the end recipients of the activities on the front lines of public health. For future PPHR evaluations, we recommend incorporating feedback from LHPA staff who are not in leadership roles.

Respondents often found it challenging to comment on PPHR activities and outcomes as separate from those associated with other preparedness activities, especially at those sites that had already made substantial inroads in preparedness prior to their participation. This aspect of the reporting will continue to be a challenge as long as PPHR is seen as distinct from other efforts.

One of our stated broad evaluation objectives was to describe any improvement in participant sites’ preparedness to respond to public health emergencies after participation in the project. Given the current lack of consensus—and even disagreement—about what the proper performance measures for preparedness are, there was no objective way of assessing this issue. Indeed, the PPHR recognition process was in effect an evaluation of sites’ preparedness, albeit based on one set of potential criteria that has certainly not been endorsed by all parties involved. So, with the exception of the tabletop exercises that we facilitated or observed, we relied on self-reports of improvements in preparedness attributed to participation in PPHR.

The tabletop exercise that we facilitated during one of the site visits may in fact have been too easy for a high-performing site, as evidenced by their appropriate and well-practiced responses to the exercise scenario and their apparent ability to function
seamlessly as teams. However, if future PPHR participants enter the project with lower levels of baseline preparedness, such exercises are appropriate ways to assess preparedness—not only with respect to participants’ actual responses to the scenarios, but also to the more general observations that we were able to make about the leadership role of the health director, the level of teamwork, and a general ability to think quickly and clearly with a reliance on solid plans.
Evaluation Findings

This section details the findings from the evaluation, organized around the primary evaluation questions. The evaluation design focused on identifying key themes and domains to be used in assessing the implementation of the project and on making recommendations for the next iteration. With this approach, our analysis of the semi-structured interviews was solely qualitative. We intersperse findings from our telephone interviews and in-person interviews with health directors and the key contact or staff person who coordinated the LPHA’s efforts.

Objectives for Participation

There was a good deal of consistency in how the sites came to participate in PPHR. At most sites, the health director, who had heard about PPHR through NACCHO contacts or materials, made the decision to apply to PPHR. In a few cases, the LPHA preparedness coordinator brought the idea to the health director for approval and support. In Idaho, the seven health district directors collectively decided to apply for PPHR recognition in an effort to have the entire state recognized as “public health ready.” Sites with APCs noted that NACCHO required them to apply to PPHR. These sites did not view participation as voluntary and would not necessarily have applied otherwise. Typically, the PPHR key contact prepared the application materials with the support and encouragement of the health director, but with little direct involvement of the health director. The health directors made themselves available during the process but served primarily in an oversight or advisory capacity.

The reasons for participation revolved around the opportunity to have an external assessment of their efforts in the area of public health preparedness. Many LPHAs had already been working toward improving preparedness in ways consistent with the PPHR goals and reported that they had made tremendous progress. Since the project fit with existing national standards related to departmental improvements, PPHR offered validation for what they had already done. One health director remarked, “I was looking
for an objective evaluation of whether the work we have done has prepared us for anything. We wanted someone independent to recognize our efforts.” The process gave them insight and confidence in what they had already accomplished. The structure and organization that came with the PPHR criteria was also important. The framework provided a means to organize their efforts, identify areas of improvement, and understand what still needed to be done. Overall, the project supported their efforts to become a better health department and to do everything they could to be well prepared.

The project also allowed LPHAs to see what other health departments were doing and to stay abreast of national efforts. Some sites participated in PPHR because they wanted to maintain their position as a forward-thinking department and get recognition from their peers. As public health agencies nationally moved toward improved preparedness, they did not want to be left behind. The project helped them keep abreast of cutting-edge practice issues. PPHR provided an opportunity to create synergies locally and nationally and to get support from NACCHO and other sources that might not have been available otherwise.

The specific objectives for participation were focused in three areas. Many LPHAs participated with the single objective of helping them to work more efficiently toward better preparedness. While recognition was important, they wanted more than a certificate to hang on a wall. They wanted to develop infrastructure and increase staff knowledge to advance their level of preparedness. Others reported that the recognition was the primary objective because it provided assurance that their work was on track. The project led them through a self-assessment process that focused on identifying areas that needed improvement. As one health director put it, “the project was more about taking a look at where we were and assessing accomplishments.” The project also assessed the effectiveness of their efforts through an outside evaluation that provided objective information about what they had accomplished and what still needed to be done. PPHR exposed the LPHAs to good practices from across the nation and provided networking opportunities. For some LPHAs, PPHR certification was seen as a way to establish the department’s credentials vis-à-vis other county agencies.
For the most part, the LPHAs thought that PPHR had met these objectives and helped them achieve what they wanted. The framework organized their efforts and made them focus on the specific actions needed for better preparedness. This includes both broad goals of planning, workforce development, and exercising; the general approach to regional preparedness, and the specific performance measures. The thorough review validated what they had already done, identified areas of need, and set benchmarks for their future efforts. The project also gave them an opportunity to train and to conduct exercises that helped staff understand each other’s roles and responsibilities. Some LPHAs had more limited success in meeting their objectives for the project. The short time frame left some tasks incomplete and pressured the staff to perform very quickly. While the project moved them toward a better understanding of what needed to be done, it fell short of actually making these LPHAs better prepared.

Implementation Approach

Participating LPHAs developed different methods of organizing and implementing the project. Some sites approached the criteria by conducting an initial assessment and gap analysis and coming up with a project plan. Many sites formed small teams, with responsibilities divided among the team members depending on their skills. Some teams consisted of staff from the preparedness section of the agency. These teams had regular meetings and informal contacts that facilitated close communication about the status of the different components. Other teams were comprised of staff from different parts of the LPHA. While these teams had regularly scheduled meetings, the team members worked independently on their assignments with the key contact serving as the overall coordinator. At other sites, the health director assigned the project to a single individual, the PPHR key contact. Several of the larger metropolitan LPHAs took this approach. This person usually talked to leaders in each relevant area, gathered existing information, and then assembled the documentation. The level of support for the key contact varied from regular meetings with the health director and/or key contact to nearly complete independence. The health directors in some LPHAs showed their
support by discussing the progress of their PPHR application at weekly executive staff meetings and supporting kickoff meetings with various departments. In contrast, the project coordinator in one participating site reported, “the project lived entirely in my [office] cube.”

Overall, these implementation approaches worked well for the sites. It helped to have the project start from the top and then work downward to include managers as team members and staff as participants in training and exercises. For some LPHAs, the team approach was a proven method for them. The team members were already familiar working with each other, which made the project more manageable. Even when the project resided with a single person, the approach worked because one person had control of the information and primary responsibility for seeing that all of the pieces came together. The LPHAs uniformly noted the short time frame as the biggest drawback to the way they approached and implemented the project. Some sites were not able to start working immediately because more pressing issues, for example, the flu vaccine shortage and the need to respond to natural disasters, took precedence. Other sites noted that it took a while to understand the PPHR criteria and requirements. Both issues compressed the time frame to the point where some sites did not believe they had adequate time to complete and refine their submissions.

Regardless of how the project was organized, the key contact played a critical role in its implementation. Most of the key contacts had a background in public health, but they were relatively new to preparedness training. Others had a background in emergency response or preparedness through the military or another agency but did not have public health experience.

The level of support from agency leaders also varied considerably. Some project leaders had outstanding support and direction from their health directors. In these situations, the health director discussed the project at weekly meetings of senior staff, mandated that agency staff participate in training and assessment activities, and provided information and documentation for the submission materials. In other cases,
the health director was minimally involved in the project, providing only general direction and support.

Support from NACCHO and Other Sources

NACCHO conducted a kickoff meeting and three regional meetings to provide support and resources for the participating LPHAs. The regional meetings were organized to bring together sites participating as regions, as well as metropolitan area sites. The health director and/or key staff, and in some cases representatives of the respective state health departments and academic centers for public health preparedness, attended these meetings. The meetings served two primary functions. First, they helped participants understand how the PPHR program worked by providing information and explanations of the criteria and required submission materials. The meetings moved the discussion from a vague concept to a concrete program with information and directions about what the sites needed to do to complete the PPHR requirements. The meetings also included presentations from the Phase 1 sites, which were particularly useful—the current sites learned what others had done and got ideas from them about how to approach the requirements. Second, the meetings provided an opportunity for the participants to network with other participating sites and learn where they were in the process and how they planned to approach the different program components.

At the kickoff meeting, the health directors appreciated the opportunity to get together and exchange ideas. They built relationships that continued throughout the process. Grouping the regional and metropolitan sites together for the regional meetings proved to be a very effective way of sharing information across sites experiencing similar issues with the PPHR criteria. The meetings included details about the PPHR program and its requirements as well as more substantive information about public health preparedness. The regional meetings, for instance, included a leadership training component organized by the University of Texas Houston Health Sciences Center. While this presentation provided useful information for LPHA officials seeking to
improve their preparedness skills, it did not seem useful to some of the participants who were more concentrated on what was needed to achieve PPHR recognition.

NACCHO also supported the sites with monthly conference calls and a project email list. NACCHO organized the conference calls so that the regional, metropolitan, and other individual sites had separate calls. However, these calls did not appear to be as useful as the in-person meetings. While the calls allowed participants to get feedback on specific questions and helped them understand how to meet the requirements, some felt that they lacked structure. They believed that the calls would have been more helpful if there had been an agenda with specific topics for each conference call. Similarly, the email list was not very helpful. While NACCHO used it to send materials or reminders to the sites, the sites did not actively use it to communicate with each other or to share information.

Use of PPHR Tools and Frameworks

In completing the PPHR requirements, the LPHAs had an opportunity to integrate PPHR tools and frameworks into the day-to-day practice of public health. While the LPHAs made use of various tools, templates, or models, this varied considerably for the different program components. For the preparedness planning component, the sites consulted many of the references from BT Toolbox\(^{12}\)—a collection of materials on bioterrorism and public health preparedness gathered by NACCHO—and used some of its flow charts, graphs, and tables. Some sites looked at state templates, Federal Emergency Management Agency (FEMA) materials, and emergency operations plans from other agencies and materials from Phase 1 sites and adapted them as needed. The LPHAs made more widespread use of tools for the training and workforce competency component. While the PPHR criteria did not specify a particular tool, several sites used assessment tools from Columbia University, the University of Illinois at Chicago, the Northwest Practice Center, and other existing tools to assess training.

\(^{12}\)BT Toolbox has since been renamed and is available on the Web at http://www.naccho.org/EQUIPh/.
needs and evaluate workforce competencies. The LPHAs made more limited use of tools, templates, and models for the exercise and drill component. A few sites adapted templates for after-action reports, but otherwise they did not look elsewhere for help with activities in this area.

The sites took advantage of BT Toolbox to some extent, consulting the different sections as needed for forms and models. The materials from Phase 1 sites that were available or distributed at the meetings also proved useful as the current sites worked to complete the PPHR requirements. One PPHR key contact said, “It was especially useful to see a completed document so I could see where NACCHO was coming from with the criteria.” The checklists and templates generated by the Phase 1 sites were particularly helpful, providing examples of how to document activities. Several sites consulted directly with Phase 1 sites via telephone to get more information about their approach to meeting the requirements. Despite these resources, some LPHAs noted a need for a better library of materials or other methods of getting specific information to the sites. For example, some LPHAs thought it would have been helpful for them to have more resources available on the NACCHO Web site.

NACCHO also offered to review submission materials prior to the application deadlines to further support the sites in completing the requirements. Several of the sites took advantage of the offer, but with mixed results. While the feedback was generally considered helpful, in some cases it took a long time to get comments back. NACCHO conducted a site visit to Idaho during the process, which gave the health district directors there an opportunity to talk about their approach and get feedback. Overall though, the sites found NACCHO staff to be available, responsive, and flexible in helping them through the PPHR process. NACCHO also effectively outlined which tasks they could and could not help the LPHAs accomplish. A small number of respondents noted, however, that while the NACCHO staff were helpful in terms of interpreting the program requirements, some were lacking in practical substantive knowledge of public health preparedness.
In designing the second phase of PPHR, NACCHO attempted to increase the involvement of the Academic Centers for Public Health Preparedness and Advanced Practice Centers (APCs). In principle, both academic units and APCs can supply PPHR with expertise and experience with preparedness planning, tools and resources for workforce competency assessment, training resources, and help with implementation and evaluation of drills and exercises. However, while each site had an assigned academic center, most were not involved during the process. A few sites received support from their academic center for their training needs assessment, but otherwise these potential resources did not prove to be very helpful to PPHR sites. At least one academic center cited the need for additional funding for specific tasks. The APCs were even less involved with the PPHR sites. Most sites only mentioned the APC’s in the context of why they participated, since LPHAs with APC’s were required to apply to PPHR. In one regional site, the APC led the PPHR effort, but otherwise none of the APC’s helped with the PPHR activities or provided materials.

State health departments also provided little support to participating LPHAs. While most sites had good working relationships with their state health department, the individual sites generally did not seek their help in completing the PPHR requirements. In one case, however, the PPHR meetings provided an opportunity for the LPHA to interact and build a relationship with the state health department. Otherwise, with two exceptions, the state health departments did not offer to help the individual sites’ LPHAs. In Florida, for instance, the state health department designated a PPHR coordinator who facilitated communication across the three PPHR sites and three other counties that completed PPHR. They even offered a modest budget to help all six sites complete the requirements. As a result, the Florida counties did not use the NACCHO support as much as other sites, instead getting support and sharing information with each other during regular meetings. State health departments were somewhat more involved with the regional sites, as discussed above.
Time and Resources

All of the sites seeking PPHR recognition are also, to some degree, involved in a wide range of public health preparedness activities, such as the state implementation of the CDC cooperative agreements, the Cities Readiness Initiative (CRI), DHS’s Urban Area Security Initiative (UASI), and so on. The PPHR requirements have intentionally been coordinated with these programs to reduce duplication of effort, and indeed the staff most directly involved with PPHR are also deeply involved with these other activities. As a result, although we sought to distinguish the costs of participating in PPHR from preparedness activities in general, the overlap in these activities makes it difficult to do so.

The amount of staff time expended in completing the PPHR requirements varied widely across the sites. While some LPHAs found it difficult to gauge how much time the project took, most agreed that it was considerably more than they had anticipated. In some LPHAs, small project teams of one to three people devoted significant staff time, with each team member spending anywhere from 50 to 80 percent of their time for three to six months on PPHR. At some sites, the person with primary responsibility for PPHR devoted all or nearly all of his or her time to PPHR in the months leading up to the deadline. In other cases, the key contact spent one day a week on the project. The time commitment for the health directors was considerably smaller, with most spending only a nominal amount of time directly on the project.

PPHR added to the time spent on preparing for bioterrorism incidents at some LPHAs. These sites would not have conducted the training or exercises without the project. Through PPHR, they involved more agency staff, produced more detailed plans, attended meetings, and assembled material—all of which added to what they would have done related to bioterrorism preparedness without PPHR. The framework and organization that the project offered also increased the efficiency of time spent on bioterrorism preparedness. However, at just as many sites, PPHR did not add to the time spent on bioterrorism preparedness or increase the efficiency of the time spent.
The LPHAs would have handled most of those activities anyway. Through PPHR, these sites refined and added detail to their documentation, but did not fundamentally change their level of preparedness effort.

Nonetheless, most LPHAs agreed that the overall value of PPHR was worth the time and resources spent on the project. PPHR gave them a national perspective on public health preparedness and a framework to organize their own efforts. It helped ensure that their thinking was on the mark, and it provided an impetus for bringing things together. The sites used the PPHR process to validate and confirm what they had already done and to guide what they still needed to complete. Further, the project propelled them to attend to tasks that they would not have done otherwise. The focus on training and exercises brought broader participation within the agency and community. Yet, for other LPHAs, there was some uncertainty about whether the project added value. Some LPHAs reported that the project was worthwhile only if they received the recognition. As one PPHR key contact put it, “If we receive the recognition, then the time spent will have been worth it. Otherwise, I would not necessarily view it as a worthwhile effort.” For these sites, the process itself took too much time and used up too many resources to make it worth the effort. While the process provided some valuable lessons about their status, much of that work would have been accomplished at some point anyway. The compressed time frame put pressure on staff and meant they had to submit partial or incomplete materials. It is recognized, however, that the timeline for recognition is driven in large part by the deadlines in the cooperative agreement between NACCHO and CDC that supports PPHR.

The Review Process

LPHAs applying for PPHR recognition were required to submit five paper copies of their application, one to be maintained complete, one for NACCHO staff for a technical review, and three for the external reviewers. Each site had three peer reviewers, who were mostly from other local health departments. The reviewers discussed the applications by conference call, and then individually prepared written
evaluations, scoring each criterion as met. All three reviewers had to come to consensus on the decision. The peer reviewers then participated in a face-to-face meeting to make final decisions about the recognition of each participating LPHA or region. Because of the number of applications, the peer reviewers met in two subcommittees during the face-to-face meeting to review the individual applications, and in one combined group to make the final decisions.

Based on our limited observation of the review meetings and comments from participating LPHAs, the review process seems to have gone well. Reviewers reported that the face-to-face meeting helped them understand the review process and added to the consistency of their decisions. Some suggested that the initial reviewers add comments explaining their scores, especially in areas in which it was not clear that the applicants had met the standards. The use of reviewers from different parts of the country was seen to have added credibility to the process, but time differences made setting up conference calls difficult. It was also suggested that reviewers from states with similar public health structures might better understand the possibilities and constraints that the applicants faced.

Some applicants and reviewers expressed concern about the volume of the written materials that were required. Many of the participating LPHAs we interviewed said that the cost of preparing and duplicating these materials was substantial, and a burden to participation in PPHR. Although it was recognized that this would create logistical difficulties for the NACCHO project staff, some suggested allowing the applicants to submit material on a CD-ROM as a matter of convenience and to save printing costs. Another suggestion that was raised at the review meeting was requiring or encouraging applicants to submit an executive summary that explains where material relating to each of the program requirements can be found in the submission, as well as what the reviewers can expect to find there. This procedure was adopted for the regional applications, which were submitted later.
Only 14 of the 25 individual sites that participated in Phase 2 were recognized at the initial review meeting, a much lower proportion than in Phase 1. The reviewers reported, however, that most of the faults in the documentation for the sites that were not recognized were simply lacking documentation that could be easily supplied. Some of the 11 sites that were not initially recognized were given an opportunity to resubmit their documentation, but the review of this material took place after the time frame of this evaluation, so the results for those 11 sites cannot be discussed here.

The failure of some health departments that the peer reviewers regarded as highly likely to achieve PPHR recognition led some reviewers to question whether meeting the criteria ensures that an LPHA or region is truly “prepared” in some sense for public health emergencies. Indeed, one of the regional sites withdrew from Phase 2 when they realized that they could document their preparedness, but were not sure that they actually were prepared. Given the lack of a national consensus about the meaning or measurement of preparedness, this is not surprising. To address these problems, some reviewers suggested that the review process focus more on quality than on quantity, perhaps differentially weighing the importance of the various criteria. Others suggested tightening up and/or clarifying guidelines, noting that there was some subjectivity in the language.

**Project Components**

Project Public Health Ready has three key components: (1) preparedness planning, (2) training and workforce competency, and (3) exercises and drills, and our interviews identified information about each of them.

**Preparedness Planning**

Prior to PPHR, most of the LPHAs had an “all-hazards” plan that covered general emergency operations or medical responses. A few of them also had bioterrorism plans. These plans were usually integrated with or annexed to the county emergency
management plan. Some of the larger metropolitan LPHAs only had draft or hazard-specific plans but no formal plans that covered the full range of public health responses. The PPHR framework provided a structure around which the LPHAs could review and organize their plans. The sites identified and filled in gaps in their plans, with expansions and revisions that reached deeper levels of the agency. For the sites already working to revise or enhance their plans prior to PPHR, the project accelerated the pace of these efforts. PPHR also emphasized the need to coordinate with external partners and showcased the health department’s primary role in bioterrorism preparedness. The project connected their preparedness planning efforts to a national effort, which in turn gave them some leverage within their own communities.

Prior to PPHR, many of the LPHAs had already identified and described their functional roles in an emergency. As a result, the project had little impact in this area for some sites. For others, the project reinforced what they had and brought it to a more detailed level. The structured format of the PPHR criteria helped them examine, formalize, and document existing staff functional roles. This close examination helped staff understand the different roles and how they fit together into the larger context. For other LPHAs, the existing descriptions prior to PPHR only covered key staff, with no defined roles or job action sheets for staff whose roles came into play below the top level of a response. PPHR allowed them to expand the identification and description of staff functional roles to all levels of the agency.

Overall, PPHR participants reported that the project had a positive but limited impact in the area of preparedness planning. PPHR enabled LPHAs to involve staff at all levels in the planning process and to increase their awareness of staff roles and responsibilities in an emergency response. Through the project, sites assessed their plans, identified gaps, and integrated them with existing plans. The PPHR criteria helped them document and pull together existing plans so that their own documentation on preparedness was all together in one place. For some sites, the process provided confirmation and reassurance about the status of their preparedness planning. The accelerated timeline pushed them to accomplish preparedness actions faster than they
would have otherwise. Some LPHAs reported that participation in PPHR gave them an opportunity to consolidate efforts that they had been involved in over the past few years for other purposes (e.g., the Department of Health and Human Services’ Cities Readiness Initiative [CRI] or Department of Homeland Security’s Urban Area Security Initiative [UASI]).

Some LPHAs reported that PPHR had only a marginal effect on their preparedness planning. While the project did provide a confirmation of what they had accomplished, the impact on their planning represented more of a refinement of existing plans rather than the creation of new plans. One of the PPHR key contacts said, “PPHR did not really enhance this area. This piece was in pretty good shape before the project.” Some LPHAs reported that the consequences of the preparedness planning efforts would likely be felt in the future once they had an opportunity to train and exercise the plans. There was some sense that PPHR was too focused on the planning component. Some believed that the process distracted them from undertaking other preparedness activities. As a result, the project had no real effect on preparedness planning at some sites.

Training/Workforce Competencies

The project seemed to have had the largest impact in the area of training and workforce competency. PPHR helped raise awareness of the need for training within the agency and gave everyone a broader perspective on the agency’s role in emergency response and bioterrorism incidents. Through PPHR, many LPHAs expanded their training to reach all levels of staff. For these, the project definitely enhanced basic workforce competencies through training that made staff understand their roles and responsibilities during an emergency response. PPHR also provided a standardized way to document and formalize their training plans. While the sites had already done some work related to training and workforce competencies, PPHR accelerated the timeline and expanded the breadth and depth of the training in ways that would not have been accomplished otherwise. The PPHR key contact at one local health
department said the project enabled them to “include the entire staff and increase the breadth of topics.” Yet, this component is still evolving as the agencies continue to refine and implement their training plans. Some LPHAs were further along in training and workforce competencies than others, and wanted to use a capability-based approach to meet the PPHR requirements in this area. They expressed frustration that the PPHR criteria did not recognize exercises or drills as an acceptable approach to training and ongoing assessment.

PPHR requires a training needs assessment related to bioterrorism or other general emergency response training, but the participating LPHAs varied in how this training was conducted. A few of the LPHAs had completed formal needs assessments showing that agency staff had very little knowledge and very basic concerns that needed to be addressed. Some of the LPHAs had not conducted formal needs assessments prior to PPHR. Others had conducted them, but low response rates or the need for further analyses meant that they were not useful in completing the PPHR requirements. LPHAs that conducted formal needs assessments as part of PPHR found that the results helped them identify and prioritize their training needs.

The LPHAs also differed in whether they had developed a plan for bioterrorism incidents or general emergency response training prior to PPHR. A few of the LPHAs did not have a training plan at all, while others had a rudimentary plan that was incomplete when the project started. PPHR accelerated efforts to develop and refine training plans. For those LPHAs with no training plans at all prior to PPHR, the project helped to develop comprehensive plans in a structured format with details on who would be trained, when the training would occur, and what topics would be covered. The overall effect of PPHR was to expand the training plan to reach deeper into the agency. For LPHAs with existing training plans, the project had no notable effect in this area.

Consistent with the PPHR expectations, competency assessment and training plans tended to focus on broad-based competencies required of all health department employees. Some of the large metropolitan sites, however, thought that training
hundreds of employees who would not be involved in a response was unnecessary, so in response to this feedback, NACCHO changed the requirement for these sites during the course of the project. In addition, some sites noted the need for more specialized competency assessment and training (regarding, say, outbreak investigation, communication with the public, and so on) that was not part of the PPHR requirements.

Many sites used a learning management system developed by one of the academic centers that kept track of training needs and activities on an individual level. Both these systems and independently developed workforce competency surveys typically focus on self-assessment of competencies, especially those developed at Columbia University,13 rather than on objective measures or more specialized competencies. Some of those we interviewed suggested that in the future more objective measures and more specialized competencies should be addressed.

In terms of actual training, many of the LPHAs had trained the staff who would respond to bioterrorism incidents or to a public health emergency prior to PPHR. The project expanded the training to include all staff levels with more focused training on the topics most needed by the staff. PPHR helped them step up the pace of the training so that they completed training much sooner than they would have otherwise.

Few of the LPHAs had evaluated workforce competencies related to bioterrorism incidents or to general emergency response functions prior to PPHR. While some used the needs assessments and exercises for this purpose, most had not conducted comprehensive evaluations of workforce competencies. PPHR helped LPHAs incorporate evaluation into their training plan in a structured way. In some cases, the project served to introduce staff to the core competencies and help them understand preparedness and their roles in an emergency response. The evaluation results verified their competencies, helped staff feel confident about their abilities, and moved them from a haphazard approach to training to a plan more focused on staff needs. For those

13 Columbia School of Nursing, Center for Health Policy, Bioterrorism and Emergency Readiness: Competencies for All Public Health Workers. Available at: http://cpmcnet.columbia.edu/dept/nursing/institutes-centers/chphsr/btcomps.pdf.
with more advanced training programs, PPHR’s focus on workforce competencies validated and documented what they already knew about the status of workforce competencies.

**Exercises and Drills**

All of the LPHAs reported some activities related to planning, conducting, and evaluating exercises or drills related to bioterrorism incidents or to general public health emergencies. A majority of LPHAs had completed tabletops and other exercises prior to PPHR and were already moving forward with this component by hiring consultants and developing schedules for additional tabletops and exercises. The remaining LPHAs had observed or participated in county, state, or military exercises and drills but had not conducted their own or taken the lead prior to PPHR.

PPHR sites were required to document their participation in the planning, implementing, and evaluation of one or more tabletops and/or functional exercises, a full-scale exercise, or an actual emergency event that tested the LPHA’s response plan and workforce competencies. They were also required to develop a correction plan that takes into account what was learned and a plan for future exercises. The sites used a variety of approaches to completing these requirements. A few sites developed an entirely new exercise or drill for the project. Other sites used an actual response to a public health emergency (such as an outbreak of hepatitis) to meet the PPHR requirements. Some sites used exercises or drills that had already been planned and were able to incorporate certain elements of PPHR into these already planned activities. Many used tabletops, exercises, or drills that had already been conducted prior to PPHR. In the exercises and drills, the LPHAs variously tested communication, disease investigation, command and control, and information support functions. Their participation in PPHR enabled them to look critically at the deficits revealed by the after-action reports and to identify the next steps in their preparedness planning. PPHR enhanced the focus of the exercises and drills, making them much tighter than they would have been otherwise. In other cases, PPHR allowed LPHAs to organize
exercises of their own, with a public health focus, rather than simply participating in county wide exercises in which public health played a less central role.

PPHR had less of an effect on exercises and drills at the sites than it did on planning and competency-based training. Most LPHAs already had programs in place that met or exceeded the PPHR requirements. While many of these sites had improved in this area, they did not attribute the improvements to PPHR. According to one PPHR key contact, “Our agency is already strong in this area, so I would not say that PPHR enhanced this component.” At some sites the project enabled them to take a lead role in organizing or conducting exercises or drills, bringing in more of a public health focus. For others, PPHR helped them involve more agency staff and community partners in their exercises and drills, thereby giving them hands-on experience with their roles and responsibilities during a response. The project also helped sites document their exercises and drills through after action reports that identified needs and provided recommendations about next steps.

Regional Recognition

One of the major innovations in Phase 2 of PPHR was the ability of groups of LPHAs to seek recognition on a regional basis. This development recognizes both the reality of public health emergencies, which are usually not confined to a single county or city and thus require a regional response, and the growing trend for state and local health departments to develop regional structures for this and other reasons.\textsuperscript{14} In the current approach, constituent LPHAs are not required to individually meet the PPHR requirements (and consequently, are not individually recognized), but instead, regions seeking PPHR recognition must develop preparedness, training, and exercise plans on a regional basis. NACCHO developed a three-part framework to help guide the regional sites through this regional planning process, but the sites were not required to use it in

their documentation. The framework specifies different levels of organization that might vary for different functions.

- **Coordinate**: to exchange information on functions/activities so that voluntary individual efforts can work together more harmoniously.
- **Standardize**: to create some uniformity across individual health departments in how this function is conducted and measured, which each participating health department agrees to adopt, so that resources can be shared more effectively in an emergency.
- **Develop regional capacity**: to create a separate capacity above or in addition to what each individual health department would develop, possibly through a regional office of emergency preparedness.15

Although CDC, HRSA, and DHS make reference to regional issues in public health preparedness, they offer little guidance about what regionalization means, how regions should be defined, or how regional preparedness should be assessed. Nor do these agencies specifically fund regional preparedness. In this context, NACCHO’s implementation of a regional approach to PPHR, and the guidance it offered through the three-part framework described above, were seen as important contributions. All of the regional participants reported that participation in PPHR as a region helped to strengthen their regional preparedness. In particular, they report that working together toward PPHR recognition helped to strengthen relationships among public health professionals in the region, and between public health and other emergency partners, relationships that will be essential during a public health emergency.

Although only four regions participated in PPHR in Phase 2, there were major structural differences among them. One region (East Central Georgia) consists of a health district office that oversees 13 county health departments. Both the regional and the county agencies are part of the Georgia Division of Public Health, and the regional office is one of 18 such offices set up explicitly to facilitate emergency response in the

state. Two of the PPHR regions are made up of fewer than 10 county health departments in home-rule states (in which county health departments are independent of the state health department). The Western New York region is contained in one of the regional epidemiology offices set up by the New York State Department of Health, and the region has a history of sharing resources to develop regional capacity for public health emergencies and other purposes. The Northern Illinois region, in distinction, is a self-initiated consortium that operates independently of the Illinois Department of Public Health. The final region, Massachusetts Region 4B, is composed of 27 cities and towns, each with its own health department or board of health, all of which are independent of the Massachusetts Department of Public Health. That region is one of several regional offices that the state health department uses to distribute CDC preparedness funding, but, unlike the others, it is administered by an employee of one of the constituent health departments rather than by the state, which also happens to be an APC. Unlike Western New York and Northern Illinois, the dominant central city (Boston) is not included in Region 4B.

Given this variability, it is not surprising that opinions varied in their rating of the value of the framework and the specific requirements for regional recognition. The two regions that consisted of county health departments with independent local authority found the framework easier to apply and more useful. However, it did not seem to fit as well in other regions with different local public health structures and authorities. And while the concepts of coordination, standardization, and development of regional capacity were generally regarded as useful, some found it difficult to implement them in the context of the PPHR requirements. One regional coordinator, for instance, suggested that while the concepts were generally relevant, the tabular form of the PPHR measures—used to report how each public health emergency function would be treated in one of the three categories—was cumbersome. This coordinator would have preferred a narrative approach to describing how the region’s response is organized.

After considering whether all LPHAs in a region should be required to meet the PPHR criteria for individual sites, NACCHO decided to recognize regions instead. As a
result, regions were required to document, for instance, a regional concept of operations and authorities in their emergency plan, and a plan for regional exercises. Three of the four participating regions reported that this was a reasonable approach, while one region would have preferred individual recognition for all LPHAs.

More generally, some regional PPHR participants questioned whether meeting the PPHR regional criteria truly meant that the region was prepared for public health emergencies. As discussed below, there was a similar concern about the individual sites, but a lack of consensus about the meaning of regional preparedness per se made this concern more salient for the regional sites. Indeed, one of the regional sites reported that they could meet the formal requirements of PPHR, but transferred out of Phase 2 and into Phase 3 because they did not believe that they were truly prepared.\(^{16}\)

The regional sites also expressed some of the same concerns as those of the individual sites (see below) about the short time line for the PPHR process. Some regional coordinators argued that even more time was needed to develop a regional PPHR application, especially in those sites where a regional infrastructure was not already established before the PPHR process began. Representatives of Massachusetts Region 4B argued, for instance, that given the small size of many of its constituent health departments, it had to build regional capacity that did not yet exist, not just coordinate existing resources and response plans. This lack of existing regional capacity contributed to their inability to complete a PPHR submission during Phase 2.\(^{17}\)

**Overall Impact on Preparedness**

Overall, PPHR seems to have had a positive impact on preparedness. Most LPHAs reported being better prepared after having completed the PPHR requirements, primarily because agency staff now understand their roles and responsibilities. The

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\(^{16}\) Clark M, “Are We Ready Yet?” *Project Public Health Ready in Region 4B*. Presented at the Phase 3 kickoff meeting, San Diego, October 2005.

\(^{17}\) Clark M, “Are We Ready Yet?” *Project Public Health Ready in Region 4B*. Presented at the Phase 3 kickoff meeting, San Diego, October 2005.
project provided a framework to organize their efforts and an impetus for formalizing and distributing plans. One health director said, “We are better prepared. The project put a framework around our efforts and gave them a structure to get us prepared more quickly.” The training and exercises enabled staff to interact with others and to learn about the agency’s partners. Some LPHAs pointed to the results of the evaluation of workforce competencies as evidence of improved preparedness. PPHR also helped them learn more about their partners and helped bring organizations together. They expect that this sharing of roles and resources will help them with a future event. Some LPHAs reported that they were better prepared than they had been prior to PPHR, but found it difficult to attribute changes directly to PPHR. They believed they were headed in this direction anyway, and there were a lot of other efforts under way at the same time as PPHR’s. A few LPHAs did not feel better prepared to respond to public health emergencies compared to before the project. While the project helped them to better document their preparedness planning, it did not improve their capabilities. Typically, these sites were ones that were already well prepared and working on other efforts to improve preparedness.

While the participating LPHAs generally reported being better prepared after PPHR, they were largely unable to demonstrate improved responses given the short time frame. None of the sites had an actual public health emergency during or just after completing PPHR. Some sites used the flu vaccine shortage to activate and test certain processes, but they did not report that PPHR enhanced their response. A few of the LPHAs had conducted exercises or drills since completing PPHR, but again the project did not seem to have affected their responses. The sites did find that the project helped them to involve more staff and partners and expand their reach into the community. Most of the LPHAs already had good relationships with other agencies within their jurisdiction before the PPHR project began. The project strengthened some of them, but it had limited impact at most sites. The same is true for relationships with other jurisdictions—the project did not change the existing good relationships.
The primary drawbacks of PPHR relate to the time commitment and requirements of the timeline. The project required considerable staff time and resources and in some cases took them away from other important activities. Further, the project was unfunded, and for some LPHAs (those with APC’s), work on PPHR was not voluntary. The timeline compressed a lot of activity into a short time frame, which put pressure on the project team or key contact. Issues also arose related to the balance between the project components. Some LPHAs reported that PPHR focused too much on planning and required too much documentation. The sites spent time meeting criteria and *documenting* plans rather than *improving* plans and responses. According to one PPHR key contact, “The criteria were so detailed that [we] had to do a lot of modifications to meet them. Some aspects of this process actually distracted us from doing other work.” These LPHAs reported that they needed more time to write and test plans before submitting them.
Conclusions and Recommendations

Overall, as with the pilot phase, participating LPHAs viewed PPHR as a positive activity, and one that was worth the effort. Most of the participating LPHAs would also recommend the project to other interested health departments. The more advanced sites would also recommend PPHR to others, but primarily as a means to compare what they are already doing against national standards and thus document the level of preparedness they have achieved. While many of these sites did not believe that participating in PPHR improved their capabilities, they valued the affirmation and thought that the recognition may lead to increased leverage in the future. For LPHAs and regions that were less advanced with respect to public health preparedness, PPHR is recommended as a process that provides structure and organization for their preparedness efforts.

This distinction between more and less advanced LPHAs is consistent with notable differences between Phase 1 and Phase 2 of PPHR. In Phase 1, the LPHAs tended to use PPHR as a process to learn about preparedness and to find tools and approaches to become better prepared. In contrast, Phase 2 participants were more likely to see PPHR as affirming efforts that they had already undertaken and to document their preparedness, and less likely to make use of tools and materials obtained from NACCHO.

The varying perspectives on the project might reflect differences in the LPHAs that participated in Phase 1 and those that participated in Phase 2. Phase 2 participants included a number of large metropolitan areas as well as sites that had previously been funded as APCs, both of which might be expected to have more resources and to be further along in preparedness efforts for reasons other than PPHR. In addition, Phase 2 PPHR activities took place more than a year after those of Phase 1. As a result, Phase 2 LPHAs had a greater understanding of the meaning of public health preparedness and the tools to achieve it, had received and spent more funding from the CDC, and had participated in more state-directed activities. In this context,
PPHR might have been seen less as a process to achieve preparedness and more as a means to document the level of preparedness that LPHAs had already reached.

**Recommendation 1.** NACCHO should consider whether the primary goal of PPHR is (a) to help LPHA become better prepared, (b) to assess and document the level of preparedness that they have already achieved, or (c) both. This is a fundamental choice, which should determine the nature of the program criteria and the support that NACCHO offers to participating sites. The third option, “both,” is intended to suggest either that the first two goals both apply to all participating sites, or that the program needs to have different primary goals for some sites, as discussed below. Smaller LPHAs seeking recognition for the first time, for instance, might have the goal of improving preparedness, while LPHAs with more established programs and those seeking re-recognition in PPHR might have documentation as their primary goal.

The distinction between a *process to achieve preparedness* and *documenting the level of preparedness an LPHA had reached* is reflected in the content of NACCHO’s meetings and conference calls for PPHR participants during Phase 2. Rather than focusing on what preparedness means and how to achieve it, or on acquiring tools and models that could help an individual LPHA become more prepared, many of the PPHR project coordinators in Phase 2 seemed more interested in the content and format of the documentation required in order to achieve recognition. Since in many cases an LPHA’s recognition depended primarily on the work of one or a small number of staff completing the PPHR application, this is understandable. But to the extent that PPHR becomes a way to *document preparedness* rather than a process to *improve preparedness*, the meetings and other aspects of NACCHOs support will have to become more focused on explaining the requirements and helping with the documentation rather than on improving preparedness.

If, however, NACCHO decides that PPHR should focus on helping participating sites to improve their level of preparedness, meetings and other activities should be oriented toward providing tools, models, and other material to help LPHAs become
more prepared. In the last few years, the amount of such material that has become available from schools of public health, Advanced Practice Centers and other health departments, professional associations, and other entities has increased dramatically. Rather than simply telling LPHA representatives about the existence of this material and how to find it, PPHR meetings could include hands-on demonstrations of competency assessment tools and learning management systems, “training-the-trainer” sessions, and practice in developing and evaluating tabletop exercises.

**Recommendation 2. After reviewing the primary goals of PPHR, NACCHO should reevaluate the project’s components and associated criteria to ensure that they are aligned with the project’s goals.** The current requirements include components that are oriented both to the process of improving preparedness and to documenting that a site is prepared. The preparedness planning component, for instance, which is the most specific of the three components, clearly articulates standards for a preparedness plan and requires that an LPHA meets these standards. In contrast, the training/workforce competency and exercise/drill components both include requirements for plans for future activities, and those seem more oriented toward a process to become better prepared. This distinction is similar to that seen in the performance measures associated with CDC cooperative agreements for public health preparedness. When they first started, the performance measures focused on having a process in place to improve preparedness. In the four years since the cooperative agreements were first issued, however, there has been a move toward changing the measures into performance standards.

PPHR’s three broad goals—preparedness planning, workforce competency, and exercise simulation—are well suited to the concept of PPHR as a process leading to improved preparedness. If the focus changes toward documenting preparedness, however, two kinds of changes should be considered. First, the overall framework could be broadened or refocused to include critical public health emergency functions such as surveillance, epidemiological and laboratory investigation, mass prophylaxis, and risk communication. Functions of this sort are required to be included in the sites’
emergency response plans, but the PPHR requirements do not specify the content or set any standards for what is necessary or adequate. Second, the specific measures should be changed to focus on objectives’ measures of individual or organizational capabilities rather than the presence or absence of elements of a process. Participating LPHAs, for instance, would have to demonstrate the competency of their staff and their agency’s ability to perform surveillance, epidemiological investigations, and communicate with the public about health risks.

Over time, consistent with the need for public health agencies to demonstrate accountability for the funds they have received, the focus of the performance measures that state and local health departments have had to report as part of the CDC preparedness cooperative agreement and other programs has shifted. Immediately after September 11, 2001, these measures focused on ensuring that a process to improve preparedness was in place. Beginning in FY 2006, however, the CDC measures will be coordinated with the DHS Target Capabilities, which are more oriented toward performance during an actual emergency. Over time, the PPHR requirements have intentionally been changed so that they are consistent with the CDC measures, to avoid the burden of having different requirements for the PPHR project and the CDC cooperative agreement. As a result, PPHR has become more oriented toward documenting preparedness instead of becoming a process to help LPHAs achieve actual levels of preparedness.

**Recommendation 3. If the focus of PPHR shifts toward documenting preparedness rather than toward becoming a process to actually improve preparedness, NACCHO should consider alternatives to assessing preparedness.**

As noted above, both representatives of participating sites and reviewers have wondered whether the PPHR review process is too focused on documentation rather than on determining whether an LPHA was truly prepared for emergencies. “Shouldn’t the focus be more on substance than on seeing whether a site has all of the requisite signoffs?” one LPHA staff member asked. Although the PPHR requirements have shifted toward assessing preparedness, they may not yet be optimal for this purpose.
Indeed, the lack of a national consensus on what it means for a community or its LPHA to be “prepared” for public health emergencies makes this difficult. The challenge of assessing preparedness was particularly salient for regional sites, perhaps reflecting the lack of a national consensus on the role of regions, or even their definition, in public health preparedness and response.

Rather than requiring LPHAs to assess competencies and develop a plan for improving them over time, for instance, PPHR could require that participating sites actually document that LPHA staff meet objective competency standards rather than simply rely on self-assessments, as is common now. Further, in addition to the broad-based emergency response competencies developed by Columbia, the standards could cover more advanced competencies such as outbreak investigation and public communication. The focus of the drill and exercise component might also change from developing a plan for drills and exercises to raising awareness and training LPHA employees to the use of drills and exercises, with external observers, to assess preparedness per se. Questions were raised at the review meeting, however, about whether the demonstration of a “good” response to an actual incident was an appropriate measure of preparedness.

One of the aspects of PPHR that many of the participants valued the most, and would have liked more of, was the opportunity to interact with peers in other LPHAs around the country. These interactions seem to have helped health officers and public health preparedness coordinators learn about best practices as well as approaches to PPHR recognition, and to help them keep their agencies on the cutting edge of preparedness practice. One health director described the meetings as “bringing value by keeping staff at the forefront.”

Recommendation 4. NACCHO should expand opportunities for participating sites to interact with peers. This might be accomplished by pairing

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18 Columbia School of Nursing, Center for Health Policy, Bioterrorism and Emergency Readiness: Competencies for All Public Health Workers. Available at: http://cpmcnet.columbia.edu/dept/nursing/institutes-centers/chphsr/btcomps.pdf.
PPHR applicants with LPHAs that achieved recognition in previous years, or by establishing peer groups of applicants (based on similarities of the jurisdictions served or by type of health department, or LPHAs in the same state). If drills and exercises were used to assess preparedness, as suggested in the previous paragraph, representatives of PPHR-recognized LPHAs could serve as external observers.

**Recommendation 5. NACCHO should reconsider the PPHR timeline to identify options that would allow participating LPHAs more time to prepare.** The project timeline represented the primary barrier for the participating sites as they worked to complete the PPHR requirements. The condensed time frame put a lot of pressure on staff to assemble, revise, and develop the necessary materials. In some cases, the need to meet deadlines prevented them from delegating roles and responsibilities and more fully involving agency staff and partners. The LPHAs had to fit PPHR activities in with other non-voluntary preparedness initiatives that often took priority. Finally, some LPHAs encountered difficulties in demonstrating how their existing efforts aligned with the standardized PPHR criteria, which were seen by some as too rigid. It is recognized, however, that the timeline for recognition is driven in large part by the cooperative agreement between NACCHO and CDC that supports PPHR.

**Recommendation 6. NACCHO should work with CDC and appropriate partners to clarify the role of academic centers for public health preparedness, APCs, and state health departments and regional offices.** Academic centers for public health preparedness, APCs, and state health departments could enhance LPHAs’ participation in PPHR in many ways, including assisting with planning, assessing workforce competencies, providing training, and helping to implement and evaluate drills and exercises. In addition, many states have set up regional public health offices to deal with federal funding and emergency response, and these should be valuable resources for regional PPHR sites. However, despite expectations that partners of this sort would collaborate with the local and regional sites in PPHR, our interviews revealed relatively little of this kind of interaction. There were, however, examples in which each of these types of partners did work well with participating LPHAs, and the conditions
that led to this effective partnership should be explored. The stated expectations of relevant federal preparedness programs and funding streams, as well as the reward structures of the state, local and academic partners, should also be examined.

LPHAs pointed to several factors that facilitated their completion of PPHR. For some sites, the involvement and support of the health director served as a catalyst. In many cases, the health director signaled the importance of the project by committing staff time and resources to the project. One PPHR key contact noted, “There was a genuine commitment to doing this project well and doing it right. That made it easier to get buy-in for the project.” For the LPHAs in Idaho, going through the process as a state provided motivation and support. The project teams also facilitated the process with team members who were dedicated and committed to doing the job right. The project teams took pride in their work and wanted to successfully complete what they had started. Several of the health directors mentioned the PPHR key contact as a driving force in the agency’s ability to coordinate the effort. PPHR’s clear and helpful framework also helped LPHAs during the process. The framework provided the structure and organization needed to clearly assess where they stood in specific areas of preparedness. The ability to share information and products with current and former sites also helped the LPHAs through the process.

The participating LPHAs had a number of specific recommendations for the next phase of PPHR. Many of them recommended lengthening the project time line to one year to allow sites to adequately prepare the required documentation. Several sites thought that the criteria needed to be simplified and strengthened to reduce duplication, particularly in the exercises/drills component. In terms of NACCHO support, sites recommended that NACCHO provide examples of what would constitute an acceptable application and offer more specific direction at the beginning of the project. Other LPHAs sought an alternative to the massive amount of documentation required. Some suggested the addition of a NACCHO site visit to allow agencies to demonstrate preparedness and capabilities through exercises or drills. Others suggested that applicants be allowed to submit their material on a CD-ROM to reduce costs. Many sites
looked for an expanded opportunity to work with peers, as discussed above. Finally, some sites expressed concerned about the lack of planned follow-up for those recognized as “public health ready.” They recommended that NACCHO develop a detailed plan to ensure that these LPHAs continue their efforts and maintain their preparedness.

Discussion

This report described our evaluation of the second phase of PPHR. Because of our work on the pilot phase, we started with an understanding of the current status of LPHAs’ various preparedness efforts. As noted above, we uncovered some interesting differences between the two phases. We found that despite the time and resources required, PPHR was a useful model for LPHAs that chose to participate. The current LPHAs viewed the project as a means to have an external assessment of their own preparedness programs. This was particularly true for large or relatively advanced sites. For them, PPHR served to validate and confirm the preparedness efforts already under way. Many of the LPHAs also wanted a national perspective on preparedness. They participated to see what others were doing, how they fit in, and what else needed to be done to get them to some benchmark level of preparedness. For some of the smaller LPHAs and for those less far along, PPHR provided a useful framework to organize their preparedness efforts. Overall, the LPHAs used PPHR more for structure than for improving preparedness. Nonetheless, many of them said that their efforts, particularly in the training component, made them better prepared.

Given that the project had more success in documenting rather than improving preparedness, we looked at the participating LPHAs to help understand what factors might have contributed to their successful completion of the project. For example, we considered whether it mattered if the health director was involved, if the site used a team or individual approach to completing the requirements, or if the LPHA was at a more basic or advanced stage of preparedness development. At some of the larger, metropolitan sites, the active support of the health director did not appear to matter. Further, many of these sites were successful despite assigning primary responsibility to
a single person. For the most part, these LPHAs were at a more advanced stage of development and for this reason they needed less support to successfully complete the requirements. On the other hand, LPHAs that are not as far along seem to need the support of the agency leadership and a strong team that represents the agency. As the program moves forward, it will be important to clarify whether PPHR is going to focus on getting LPHAs up to a certain level of preparedness or on moving LPHAs along to a new level of preparedness.
### Appendix: Local Public Health Agency Interview Protocol

<table>
<thead>
<tr>
<th>INTRO</th>
<th>Thank you for agreeing to meet with me today to talk about your agency’s experience in implementing Project Public Health Ready, as well as your opinions regarding its impact on your agency’s preparedness to protect the public health.</th>
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<tbody>
<tr>
<td>CONSENT</td>
<td>Before we begin, let me assure you that everything you discuss today will be held in strict confidence. Your participation is completely voluntary. You are free to choose not to participate and we can stop the interview at any time. Your willingness to participate will have absolutely no impact on your future Project Public Health Ready participation or recognition. We will not provide NACCHO project leaders with the names of individuals who chose not to participate, nor will we report their names in any written materials resulting from this project. We will not quote or cite you in any of our written documents without your prior approval, and we will not share your comments with anyone who is not a part of the project team, including other people whom we talk with in connection with the project, except as required by law. We will also keep all notes from our discussion today in a locked file cabinet and/or on a password-protected computer, and they will be destroyed at the end of the project. Do you have any questions regarding the voluntary nature of your participation or our data confidentiality and safeguarding procedures? [If yes, respond to all questions. If no, continue with script.] Are you ready to proceed with the discussion? Thank you.</td>
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### Objectives for PPHR Participation

1. Who decided that your agency would apply to the PPHR program?
   a) Is this person still with your agency?
   b) How involved was this person in the application process?

2. Can you tell me why your agency chose to participate in PPHR?
   a) What were your specific objectives for participation? Probe for balance between recognition vs. improvement in preparedness.
   b) What did you think it could help your agency accomplish?
   c) Were you able to achieve what you wanted? Please explain.

### Implementation

3. Can you describe your agency’s overall approach to completing the requirements of PPHR?
   a) What worked well about this approach?
   b) What would you do differently if you could do it over?
**Preparedness Planning Component**

4) Prior to PPHR, did your agency have a written bioterrorism or all-hazards plan?
   a) Has your agency developed a special plan for bioterrorism or integrated its bioterrorism efforts into a departmental or county all-hazards plan?
   b) What effect did participating in PPHR have on your agency’s emergency planning?

5) Prior to PPHR, had your agency identified and described the staff functional roles in an emergency?
   a) What effect did PPHR have on your agency’s functional roles?

6) Did your agency use or adapt any particular tools, templates, or models in completing this component of PHHR?

7) Overall, did participation in PPHR enhance your preparedness planning?
   a) If yes, please provide specific examples.
   b) If no, probe why not.

**Training/Workforce Competency Component**

8) Prior to PPHR, had your agency conducted a needs assessment related to bioterrorism or general emergency response training?
   a) If yes: What were the results of the needs assessment?
   b) If no: Did your agency conduct a needs assessment as part of PPHR? What were the results of the needs assessment?

9) Prior to PPHR, had your agency developed a plan for bioterrorism or general emergency response training?
   a) What effect did participating in PPHR have on your agency’s training plan?

10) Prior to PPHR, had your agency trained the staff who would respond to bioterrorism or a public health emergency?
    a) What effect did participating in PPHR have on your agency’s bioterrorism or general emergency response training?

11) Prior to PPHR, had your agency evaluated workforce competencies related to bioterrorism or general emergency response functions?
    a) What effect did participating in PPHR have on your agency’s workforce competencies?

12) Did your agency use or adapt any particular tools, templates, or models in completing this component of PHHR?
13) Overall, did participation in PPHR enhance the training and competency of your workforce?
   a) If yes, please provide specific examples.
   b) If no, probe why not.

Exercise and Drills Component

14) Prior to PPHR, did your agency plan, conduct, and evaluate exercises or drills related to bioterrorism or general public health emergencies?

15) Was the exercise or drill used to meet the PPHR requirements already conducted or planned before starting PPHR?

16) What protocols and public health functions were tested during the exercise or drill?

17) Did your agency use or adapt any particular tools, templates, or models in completing this component of PHHR?

18) Overall, did participation in PPHR enhance the benefits of your agency’s exercises and drills?
   a) If yes, please provide specific examples.
   b) If no, probe why not.

Regional Questions [for regional sites only]

19) Describe the regional structure that your agency is participating in, especially with regard to the local vs. regional responsibility for specific public health functions, authorities, and allocation of resources.

20) Was your region organized before you participated in PPHR, or in order to apply for PPHR recognition? Was the region organized on the initiative of the participating LPHAs, the state health department, or in some other way?

21) Who took the lead on completing the PPHR requirements (individual LPHAs, regional office, one or more component LPHAs)?

22) How involved were the LPHAs or boards of health in completing the PPHR requirements?

23) How involved was the state and/or regional health department in completing the PPHR requirements?

24) Did PPHR change your agency’s relationship with the state health department or other LPHAs? Please explain.
25) Did you find the designation of specific functions as coordinated, standardized, or developing regional capacity in the regional application process helpful? Please explain.

26) What were the strengths and drawbacks to applying for PPHR recognition as a region? Please explain.

**APC Questions [For APC sites only]**

27) How involved was your agency’s APC in your efforts to complete the requirements for PPHR?
   a) *If no APC but one is close, ask:* How involved was the APC in [fill in location] in your efforts to complete the requirements for PPHR?

28) What kind of technical support did the APC provide?

29) How useful was the APC in helping to complete the PPHR requirements?
   a) Please describe specific ways in which the APC contributed to your efforts to meet the PPHR requirements.

30) Did participation in PPHR help the APC meet its own performance goals?

**Support from NACCHO**

31) Did your agency participate in any of the following activities? If so, in what ways did you find them useful? Can you suggest ways to make them more useful in the future?
   a) Project kickoff meeting in Atlanta
   b) Regional meetings in Washington, Houston, or Seattle *(indicate which one)*
   c) Conference calls about regional recognition
   d) Monthly project conference calls

32) Did your agency make use of any of the following sources of technical support?
   a) BT Toolbox. *If yes, ask about specific sections.*
   b) Planning and assessment
   c) EPI and surveillance
   d) Lab
   e) HAN, communication, IT
   f) Risk communication
   g) Education and training
   h) Strategic national stockpile
   i) Training assessment tool *(indicate which one)*
   j) Materials provided during the kickoff or regional meetings
   k) Direct consultations with phase 1 or phase 2 PPHR sites
   l) Project email list
   m) Individual calls with NACCHO
n) NACCHO’s review of materials prior to submission

33) Did your agency receive any other technical assistance or support from NACCHO during the PPHR process? Please describe this support.

34) As you worked to complete the PPHR requirements, which types of NACCHO support were more or less helpful?

35) Was there support that you needed but did not get from NACCHO or other sources?

Support from Other Sources

36) Did your agency receive technical assistance or other support for PPHR from the following entities? Please describe this support. How useful was it in completing the PPHR requirements? Would your agency have had access to this support if you had not participated in PPHR?
   a) Academic Centers for Public Health Preparedness [Be prepared to tell the respondents which center was paired with them.]
   b) Advanced Practice Centers in own or other local public health agency
   c) Phase 1 or 2 PPHR site

37) Did your agency receive any support for PPHR from your state health department? Please describe this support. How useful was it in completing the PPHR requirements? Would your agency have had access to this support if you had not participated in PPHR?

Time and Resources

38) Were you able to track the staff time and/or expenses your agency spent on PPHR activities (distinct from other public health preparedness activities that would have been done even without PPHR)?

39) How much time and/or expense, if any, did participating in PPHR add to the time spent on bioterrorism activities in general?

40) Did participating in PPHR help you use the time and resources spent on bioterrorism related activities more efficiently?

41) From your perspective, was the value you received worth the time and resources spent on PPHR? Please explain.

Staffing [for PPHR key contact only]

42) Please tell me about your education and past work experience.
43) What is your current position within the agency?

44) How did you become involved with PPHR?

45) Were other people integrally involved in completing the PPHR requirements? Please describe their involvement.

46) Did you get support from your agency leadership to help meet the requirements of PPHR? Please explain.

Preparedness

47) Is your agency better prepared to respond to public health emergencies now compared to before PPHR? Please explain.

48) Compared to nearby or similar jurisdictions, how well prepared is your agency for bioterrorism or public health emergencies?

49) Has your agency had an actual public health emergency since participation in PPHR?
   a) If yes: Did participation in PPHR enhance your agency’s response to the situation? How? What did you do differently?

50) Has your department participated in exercises or drills since completion of PPHR?
   a) If yes: Did participation in PPHR enhance your agency’s response during the exercise? How? What did you do differently?

Coordination with Other Jurisdictions and Agencies

51) Prior to PPHR, did your agency have good working relationships with other agencies within your jurisdiction related to emergency or bioterrorism preparedness?
   a) What effect did participating in PPHR have on your agency’s working relationships with other agencies within your jurisdiction?

52) Prior to PPHR, did your agency have good working relationships with neighboring jurisdictions related to emergency or bioterrorism preparedness?
   a) What effect did participating in PPHR have on your agency’s working relationships with neighboring jurisdictions?

Other Outcomes

53) In addition to what we have already discussed, can you describe any positive benefits of participating in PPHR?
54) In addition to what we have already discussed, did you find any drawbacks to participating in PPHR?

**Conclusion and Reflections on PPHR**

55) What factors facilitated your agency's completion of PPHR?

56) What were the barriers to completing PPHR? How were the barriers addressed?

57) Would you recommend participation in PPHR to other agencies? Please explain.

58) What changes would you recommend to PPHR?

59) Did your health department produce plans, procedures, or exercises as a result of PPHR that would be helpful to future participants or other health departments? Please describe.

60) Is there anything you would like to tell me about your participation in PPHR that I have not asked?