A Tale of Two Health Departments

Last year, the Harried County Health Department participated in a two-day exercise to improve its preparedness for pandemic flu. The exercise tested the department’s entire plan and involved all staff and their community sponsors. During the exercise, the health department ran into several problems. There was confusion about who was in charge and, especially, about how to get the internal approvals needed to release urgent communications to the public. The emergency phone system went down. Although these and many other problem areas were noted in the after-action review (AAR), no specific follow-up activities were identified to improve performance.

A month later, two children at a local elementary school were diagnosed with active tuberculosis (TB). The health department offered to test all kids at the school, but the announcement was delayed. By the time the announcement went public, most parents had already heard about the TB cases through the grapevine and pulled their children from school, afraid to bring them back for testing. At the same time, calls from frantic parents flooded the health department, overwhelming its phone system.
In another state, the Reddy County Health Department has been engaging in monthly pandemic flu preparedness drills. Some skills, such as staff call-down, are practiced every month; other drills focus on one specific preparedness area, such as risk communication, or a specific process, such as message development. After each event, the health department assesses performance and identifies needed improvements. When initial drills showed that the department was slow both in developing messages and in getting them out to the public, staff identified the source of each problem, made improvements, and retested the process. On subsequent drills, the time to develop and disseminate messages was cut in half.

Reddy County also recently had a chance to test its preparedness skills in a real-life situation when an outbreak of salmonella poisoning that was traced to a popular local restaurant affected 100 people in the county. Using well-practiced call-down procedures, Reddy Co. mobilized to respond to the emergency and activated the agency’s emergency response plan, using the Incident Command System. Staff took on their assigned roles. The Public Information Officer (PIO) and her staff were able to draw upon a stock of pre-written messages in order to quickly develop a message appropriate for the situation. The message was promptly approved by the health director and disseminated to the public, averting panic.
Is Your Public Health Agency Prepared?
The challenges involved in mounting an effective emergency response are common to public health agencies across the country. Although agencies have worked hard to develop plans to respond to an outbreak of pandemic influenza and to meet other emergency preparedness requirements, there is substantial variation in the degree to which agencies are prepared. Many struggle, as Harried County does, to meet all the planning requirements, including the need to conduct large-scale exercises. Yet, many find that, even with the exercises, performance does not improve. Moreover, some public health organizations find that the demands of meeting public health emergency preparedness (PHEP) requirements conflict with the need to fulfill their day-to-day responsibilities, such as providing vaccinations and dealing with the annual flu season. Other departments have successfully identified areas in need of improvement but do not know what improvement strategy to use, and they are concerned that attempts to make large changes could bring disruption to the agency.

1In this document, we use the term agency to refer to health departments at both the state and local levels, as well as other public health organizations of various types and sizes.
A Quality Improvement (QI) Approach to Public Health Emergency Preparedness

This toolkit was developed by the RAND Corporation to address the need for a systematic approach to closing gaps in preparedness. The toolkit describes a model for promoting improvement in PHEP and offers some promising ideas developed by public health agencies across the nation.

The QI approach provides a comprehensive way to assess performance, identify shortfalls, and implement improvements. QI is a data-driven, systematic approach to organizational change. QI can provide a clear focus for decisions about how to allocate resources and help build common understanding about the improvement process among stakeholders. QI methodology can be applied to developing new processes as well as to improving existing processes. The QI approach described in this toolkit can be used to help both agencies facing large gaps in PHEP performance and those that are doing relatively well, but still see the need for further improvement.
There have been a growing number of efforts to apply QI to public health practice. For example, starting in 1997, the Turning Point Performance Management collaborative focused on developing QI-related capacities with a number of state health departments (Hasmiller, 2002). The National Network of Public Health Institute’s Multi-State Learning Collaborative–2 (MLC-2) has encouraged participating states to use QI in the context of accreditation efforts (National Network of Public Health Institutes, 2007). As part of its participation in MLC-2, Michigan has created a guidebook, Embracing Quality in Local Public Health: Michigan’s Quality Improvement Guidebook (Tews et al., 2008), highlighting the work of a number of local health departments. The approach to QI in PHEP presented here is aligned with, and expands on, these ongoing efforts to bring QI to public health generally.

This toolkit is based largely on the work of the PREPARE for Pandemic Influenza (PI) learning collaborative (Lotstein et al., 2007; Lotstein et al., 2008). The PREPARE pilot collaborative sought to modify and test the Institute for Healthcare Improvement’s (IHI) Breakthrough Series QI learning collaborative model (which had been used successfully in the health care system) to improve public health preparedness for pandemic influenza (IHI, 2003). See Box 1.1 for more details about the collaborative.
The toolkit also includes ideas for improving key preparedness functions, which were collected as part of a recent RAND study to identify exemplary practices in PHEP for pandemic influenza. Although some of these ideas were developed outside of a formal QI program, we believe that they could be successfully integrated in public health agencies’ QI efforts. Moreover, although many of the ideas were developed to address PHEP for pandemic influenza, most of the ideas also apply to preparedness for other emergencies.

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3Promising practices in pandemic-influenza preparedness were identified from current and prior RAND work on PHEP, from a review of relevant documents and literature, and from a search of various Internet resources, including the University of Minnesota’s Center for Infectious Disease Research and Policy (CIDRAP) Web site on promising practices for pandemic influenza (http://www.cidrap.umn.edu/cidrap/content/influenza/panflu/); Web sites for state and local public health departments, particularly those designated as Advanced Practice Centers by the National Association of City and County Health Officials (NACCHO); NACCHO’s toolbox (http://www.naccho.org/toolbox/); and government Web sites, such as www.Pandemicflu.gov (http://www.pandemicflu.gov/) and the Lessons Learned Information Sharing System (https://www.llis.dhs.gov/index.do).
Introduction

Box 1.1

**Working Together for Improvement: The PREPARE for Pandemic Influenza Pilot Learning Collaborative**

Many of the ideas discussed in this toolkit were developed as part of a pilot QI learning collaborative called Promoting Emergency Preparedness and Readiness for Pandemic Influenza (PREPARE for PI). The collaborative was modeled on the Institute for Healthcare Improvement’s (IHI’s) Breakthrough Series Collaboratives and funded by the U.S. Department of Health and Human Services’ Office of the Assistant Secretary for Preparedness and Response (ASPR) and the Robert Wood Johnson Foundation.

Following the format of other QI learning collaboratives, the planners of PREPARE for PI began with a meeting of national experts in PHEP, during which the group developed a mission statement, the framework and the improvement ideas that were promoted in the collaborative. The planning group (made up of PHEP and QI experts from RAND and Cincinnati Children’s Hospital and Medical Center) then recruited public health agencies to participate.
Five health departments participated in the pilot of PREPARE for PI over the course of ten months. Two state (Georgia and Virginia) and three local (Baltimore City, Maryland; Genesee County, Michigan; and Multnomah County, Oregon) health departments participated. All these organizations were selected based on their interest in using QI, although some had previous experience with QI and others did not. Both large and small agencies were represented. Each agency chose three to four individuals, who were drawn from both preparedness and general program divisions, to make up its QI team. Teams participated in three in-person learning sessions and also communicated regularly both within and across teams, through regular email, conference calls, and monthly team reports.

Teams moved from planning to implementation on a number of activities critical to preparedness. For example, they improved performance on key measures, such as decreasing the time needed to create and approve emergency press releases, and improved their capacity to set up a flu-vaccination team in a short time frame. Team members also strengthened partnerships both within their agencies and with external response partners.