Research Brief

NCPERRC
North Carolina Preparedness and Emergency Response Research Center

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Support and Services Provided by Public Health Regional Surveillance Teams (PHRSTs) to Local Health Departments in North Carolina

During July and August 2009, the North Carolina Preparedness and Emergency Response Research Center (NCPERRC) administered a web-based survey to preparedness coordinators (PCs) based at local health departments (LHDs) across North Carolina. The survey aimed at determining the range and frequency of support Public Health Regional Surveillance Teams (PHRSTs) provide to LHDs, as well as variations among services provided by different teams. The survey asked specifically about support and services provided between July 1, 2008 and June 30, 2009. This report provides a discussion of the results from this survey.

To better understand the impact of regionalizing public health workforce assets in North Carolina, a survey aimed at documenting specific support and services that Public Health Regional Surveillance Teams (PHRSTs) provide Local Health Departments (LHDs) was developed and administered by the North Carolina Preparedness and Emergency Response Research Center (NCPERRC). This report provides a discussion of the results from this survey.

Background

In December 2001, North Carolina established 7 PHRSTs to build and support local public health capacity to prevent, prepare for, respond to, and recover from public health incidents and events. The PHRSTs provide support and services to a designated regional group of LHDs ranging in number from 7 – 17, with an average of 12. Teams are employed by host LHDs around the state and were originally designed to include an administrative specialist, a physician/epidemiologist, an industrial hygienist, and a nurse consultant. Over the course of the program, teams have been staffed differently based on host-county leadership and/or individual team member expertise. Currently, the only full-time position common to all teams is the administrative specialist.

Methods

This project identified 7 categories of support and services PHRSTs provide to LHDs by reviewing the PHRST operations manual and contract agreement addenda with the Public Health Preparedness and Response (PHP&R) Branch at the North Carolina Division of Public Health. These categories were: communication and liaison support, exercises, epidemiology and surveillance, planning, consultation and technical assistance, training, and public health event response. An eighth category was added to capture the services PHRSTs provided to LHDs during the early stages of the H1N1 outbreak (April 1 to June 30, 2009). Across these categories, a list of 80 specific types of assistance was developed to describe the range of support and services that PHRSTs might provide to

LHDs. In addition to the 8 categories, respondents were asked to rate the overall quality of support and services their LHD received from the PHRSTs (on a 4-point Likert scale).

Results

83 of the state's 85 LHDs completed the survey, as did the Health and Medical Division of the Eastern Band of Cherokee Indians, for a response rate of 98% (84/86). Of the 84 respondents, 85% included "preparedness coordinator" (PC) in their job title. In LHDs where the PC position was vacant or a very recent hire, other staff completed the survey. Participants were not required to report if they were providing an aggregated response from LHD staff or their individual response.

Of the types of assistance listed in the survey, 26 (33%) were received by 75% or more LHDs. Only a single item, "Hold regular meetings of preparedness coordinators," was received by 100% of respondents.

The average number of types of assistance received by 75% or more LHDs in a PHRST region was 27 (range, 18 to 33). The mean number of types of assistance received per LHD by PHRST region was 41 (range, 32 to 48).

The "core package" of support and services included:

- 9 types of communication and liaison assistance
- Provision of regional exercises
- Assistance accessing and using the NC Health Alert Network
- Assistance developing and/or refining Strategic National Stockpile, isolation & quarantine plans
- Technical assistance related to industrial hygiene and personal protective equipment
- Training
- H1N1 outbreak response assistance

Overall, respondents rated the quality of assistance received from the PHRSTs as good (median, 3.0 on 4 point scale). However, there was significant variation among PHRSTs in terms of quality ($F = 7.41$; $Pr > F < 0.001$). This variation was not explained by demographic differences between PHRST regions.

Discussion

PHRST assistance is largely focused on communication and liaison activities, regional exercises, and planning (representing 18 of the 26 types of assistance received by 75% or more LHDs). Therefore, PHRSTs may provide North Carolina with benefits consistent with those found in other states with regionalized programs such as improved networking and coordination.[1,2] Open-ended comments collected as part of the web-based survey indicate that LHDs place high value on the role PHRSTs play in enhancing local and regional preparedness.

There was significant variation in the number, type, and perceived quality of services provided by the 7 PHRSTs to LHDs. The core package of support and services varied among PHRSTs, with the number of services received by 75% or more LHDs in a PHRST region ranging from 18-33 (out of a possible 80). This variation could not be explained by demographic differences between the PHRST regions. Team composition - as measured by total full-time equivalent employees, or having a physician, epidemiologist or pharmacist on the team - was associated with significant differences in the number and type of support and services. While variation in team composition may allow PHRSTs to address the identified needs of their particular region, it is unclear how much variation across teams is acceptable and/or desirable to PHP&R and LHDs.

Conclusion and Recommendations

PHRSTs provided a core package of support, services, and training to LHDs in North Carolina during the 2008-09 fiscal year. However, the core package varied among PHRSTs, as did the perceived quality of the assistance and training received. PHRSTs are in the challenging position of receiving directives from, and being accountable to, a variety of entities at the local, regional, and state level, which may contribute to a lack of clarity regarding the role of PHRSTs on the part of the PHRSTs themselves, as well as LHDs.

One goal of PHP&R for the PHRSTs is to provide consistent, high quality assistance and training to all LHDs across North Carolina. To this end, additional guidance related to priority areas of assistance and training, provided by either PHP&R and/or LHDs

should be developed. In these areas, where benefits and efficiencies of regionalization may be easily realized (such as communication), guidance should be prioritized across local, regional, and state levels. This guidance may be enacted through existing operations manual, annual contract agreement addenda, and/or an alternative format.

References

[1] Koh, et al. Regionalization of local health systems in the era of preparedness. *Annu Rev Public Health.* 2008;29:205-18.

[2] Bravata, et al. Regionalization of bioterrorism preparedness and response. *Evidence Report/Technology Assessment No. 96*. AHRQ Publication No. 04-E016-2. Rockville, MD: Agency for Healthcare Research and Quality. April 2004.

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