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TECHNICAL REPORT

Exemplary Practices in Public Health Preparedness

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SUMMARY

Overview: Over the past three years, state and local health departments throughout the United States have undertaken a variety of activities and initiatives to improve their level of preparedness for bioterrorism and other public health emergencies. Under a contract with the Department of Health and Human Services (DHHS), RAND was asked to develop a repository of practices for public health emergency and bioterrorism preparedness at the state and local levels that can serve as exemplars of preparedness for responding to bioterrorism and other public health emergencies. The selection of exemplary practices is one of several tasks in RAND's work for DHHS. This report describes RAND's approach and methods for identifying and evaluating practices and describes the individual practices nominated as exemplary.

The selection of exemplary practices involved several steps, including: establishing definitions of key terms; determining initial selection criteria; collecting preliminary data on public health practices; identifying initial candidate practices; collecting additional data on a set of identified candidate practices; and selecting final exemplary practices.

Definitions: In consultation with DHHS, we defined a **practice** broadly as "any activity that a state or local health department engages in that enhances the achievement of critical capacities and/or benchmarks. Our starting assumption was that an **exemplary** practice should be "technically sound, effective, replicable and sustainable." As we began to review practices, however, we realized that many of the practices had only recently been implemented, and that there was scant evidence of their effectiveness as an individual practice of preparedness, and in some cases, lack of evidence of effectiveness for a whole category or practices (e.g., syndromic surveillance). Where no formal evidence was available, we used our best professional judgment, guided by a set of developed criteria, to assess whether a practice was exemplary. We encountered some challenges in attempting to rigorously apply these criteria consistently across all CDC focus areas and practice descriptions. As such, these criteria served to guide our evaluation efforts; however, our final recommended practices were also informed by professional judgment and opinion based on our prior experience and feedback received from DHHS. Thus, we also considered whether the practice allowed for flexibility, continuous quality improvement, and multiple use/applicability.

Selection criteria and data collection: We developed a set of criteria that would be used to select initial candidate exemplary practices for review. The primary goal of these initial criteria was to ensure, to the extent practical, that the selection of practices was (1) primarily aimed at one of the focus areas in the Centers for Disease Control and Prevention (CDC) funding guidance and (2) balanced with regard to characteristics of the populations served, type/size of public health department, and geographic region. To ensure that all CDC Focus Areas were represented, RAND focus area leaders were assigned to identify candidate practices in a specific area.

The initial search for candidates took place between January and April 2004. In order to compare the candidate practices and assess which should be considered for the final list, a one-page summary was created for each practice, based primarily on information that was available without contacting the health department responsible for the practice. After incorporating DHHS feedback on our initial list of candidate practices, we conducted telephone interviews for the subset of identified practices within their assigned areas. The interviewee varied by practice, but was most often the contact person for the individual practice identified in the source literature or a public health department representative. Following the supplemental data collection, the RAND team then reapplied the predetermined criteria to select the final list of exemplary practices from among the candidates. Each practice was reviewed and critiqued by the entire team. The intent of this process was to ensure consistency across focus areas by vetting the practices in a group forum, as well as to ensure that the information presented demonstrated that the practice met the criteria outlined above.

At each stage of the process outlined above, summary descriptive information on the practices identified, reviewed, and selected was reviewed and approved by the DHHS Project Officers.

Results: Following initial review of 73 candidate practices with our project officers, 27 were selected for further evaluation (representing 15 states, 12 different state Public Health Departments and 5 local public health departments). Based upon our further data collection and review according to the criteria for exemplariness (see Chapter 2) augmented by professional judgment and critique of the RAND team, 13 practices were selected and nominated as exemplary to DHHS. The 12 selected practices represent practices from 8 different states plus the District of Columbia. Table S.1 provides a listing of the practices nominated as exemplary.

Table S.1 List of Exemplary Practices

	CDC Focus Area Addressed						
Name of Practice	A	B	C	D	E	F	G
Computer-Assisted Emergency Notification System "Citywatch"	X					X	
Real-Time Outbreak and Disease Surveillance (RODS)		X					
North Carolina Public Health Regional Surveillance Teams		X					
Hospital Emergency Response Data System (HERDS)	X	X			X		
New York City Syndromic Surveillance System		X					
Increasing Laboratory Capacity to Respond to Bioterrorism Agents—Mobile BSL-3 Lab			X	X			
Maintaining Connectivity with Sentinel Labs			X	X			
Medical Operations Center					X		
Hospital Mutual Aid Radio System					X		
Risk Communication Needs Assessment	X					X	
University of Illinois - Chicago Learning Management System							X
Epidemiology Intelligence Service		X					

Conclusions: The 12 practices presented in this report were selected as exemplars in public health preparedness based upon a review of available information. These practices form the basis for an initial repository of practices for public health emergency and bioterrorism preparedness at the state and local levels. With modifications tailored to local needs and circumstances, these practices can be adopted by many jurisdictions. It should be noted, however, that our summary descriptions provide only a brief overview of the practices and interested individuals are encouraged to contact the listed points of contact for additional information.

We recommend that DHHS continue to review and evaluate these efforts as a means of updating this repository over time and to maintain relevance with the evolving needs of public health departments.

Limitations and Caveats: A few limitations and caveats require noting. First, the objective of this process was to develop a repository of practices for public health emergency and bioterrorism preparedness that can serve as an initial repository of exemplars for state and local health departments. Our goal was to identify potential exemplars based on the information that was available to us at the time of our review.

Second, because our methodology relied heavily on the literature and the state progress reports, our final list of practices reflects only those documented in these sources. Third, when we describe a practice as having been implemented in a given state, that does not mean that the state was the only health department or other healthcare-related organization to have undertaken such activity or that the state or organization's efforts were any more effective than another's efforts in the same regard.

Fourth, some focus areas lend themselves toward an objective evaluation using existing criteria better than others. For example, much work has been done to document what makes a good surveillance system, what constitutes a better training program, and so on. For other areas, criteria have yet to be developed. In addition, the minimum level of acceptable criteria necessary to designate a practice as exemplary also varied by focus area.

Finally, while we overcame several challenges in our review of potential practices, we offer caution with regard to interpreting our nominated exemplary practices without full consideration of the limitations of this study, which include those imposed by our methodology, the lack of available external objective criteria for evaluating these practices, and, in some cases, the lack of evidence of effectiveness for preparedness activities within the public health field more generally.