



TESTIMONY

CHILDREN AND ADOLESCENTS
CIVIL JUSTICE
EDUCATION
ENERGY AND ENVIRONMENT
HEALTH AND HEALTH CARE
INTERNATIONAL AFFAIRS
POPULATION AND AGING
PUBLIC SAFETY
SCIENCE AND TECHNOLOGY
SUBSTANCE ABUSE
TERRORISM AND
HOMELAND SECURITY
TRANSPORTATION AND
INFRASTRUCTURE
U.S. NATIONAL SECURITY

This PDF document was made available from www.rand.org as a public service of the RAND Corporation.

[Jump down to document](#) ▼

The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world.

Support RAND

[Browse Books & Publications](#)

[Make a charitable contribution](#)

For More Information

Visit RAND at www.rand.org

Explore additional [RAND Testimony](#)

View [document details](#)

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use.

TESTIMONY

Public Health Preparedness in California Lessons from Seven Jurisdictions

NICOLE LURIE

CT-227

June 2004

Testimony presented to the California Senate Committee on Health and Human Services on June 2, 2004

This product is part of the RAND Corporation testimony series. RAND testimonies record testimony presented by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.



Published 2004 by the RAND Corporation
1700 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138
1200 South Hayes Street, Arlington, VA 22202-5050
201 North Craig Street, Suite 202, Pittsburgh, PA 15213-1516

RAND URL: <http://www.rand.org/>

To order RAND documents or to obtain additional information, contact
Distribution Services: Telephone: (310) 451-7002;
Fax: (310) 451-6915; Email: order@rand.org

Statement of Nicole Lurie, MD, MSPH¹
Associate Director, RAND Center for Domestic and International Health Security

Before the Committee on Health and Human Services
California Senate

June 2, 2004

Good afternoon Madame Chair and members of the Committee. My name is Nicole Lurie. I am a physician and RAND researcher and it is an honor to have the opportunity to participate in today's hearing.

I am here today with two of my RAND colleagues: Robert Valdez and Jeffrey Wasserman. The three of us, together with others at RAND, have recently completed a study that looked at local public health systems with a particular focus on public health preparedness in California. The findings are being released today via RAND's website (www.rand.org), and through a Web-exclusive report in the journal, *Health Affairs* (www.healthaffairs.org). We are delighted to share with you some of the study's key findings and recommendations for improving public health in California.

Approximately two years ago, we were approached by members of the Little Hoover Commission's staff and asked if we would examine various aspects of the State's public health infrastructure. They were specifically interested in having us conduct a "gap

¹ The opinions and conclusions expressed in this testimony are the author's alone and should not be interpreted as representing those of RAND or any of the sponsors of its research. This product is part of the RAND Corporation testimony series. RAND testimonies record testimony presented by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

analysis” – to identify what was needed and what it would cost. And they were most concerned about how well the public health system could protect Californians in the event of a public health emergency in the form of a contagious infectious disease – which covers a broad spectrum of threats from bioterrorism to SARS, or even a new disease.

With the generous support of the California Endowment, we embarked upon an 18-month study. A grant from Kaiser Permanente to RAND’s Center for Domestic and International Health Security, which I co-lead, also supported some of the work. All of us involved – the RAND team, the California Endowment, and the Little Hoover Commission staff recognized at the outset that public health is about a lot more than preparedness for an infectious disease emergency or bioterrorism, but looking at this issue provides a very useful way to also look at other aspects of the public health infrastructure.

To begin with, it turns out that there are no existing, agreed upon public health performance standards, even in the area of public health preparedness, so we had to develop and apply a set of innovative methods to answer the questions posed to us. I’ll describe them briefly so you can be clear about what we did.

First, we reviewed about 25 sets of checklists and recommendations developed by various governmental and private organizations about public health preparedness – they were all different, and there was very little evidence to support any of them. So we put together an expert panel, reviewed all of these measures as well as recommendations

from the Centers for Disease Control and Prevention (CDC), and came up with an “interim” set of measures to use for this work. Our report provides more detail about this process. Then, working with these measures, we developed a table-top exercise – akin to those used in the military, that allowed participants to grapple with a wide range of issues likely to arise during an infectious disease outbreak or bioterrorist attack. With the strong advice and input of HOAC and CCLHO and others, we asked 8 public health jurisdictions to participate in a two-day site visit, which included a day of interviews with key stakeholders and participation in a day-long table-top exercise. Seven of the eight agreed to participate. These 7, taken together, include 39% of the state’s population, and cover urban and rural, small, medium and large jurisdictions, the north and south, and represent places that carry out their own programs and those that contract functions back to the state. We promised these jurisdictions confidentiality and anonymity, so I will not be sharing with you results that relate to any one particular jurisdiction.

Our work yielded a number of important findings. Let me say at the outset that all of the jurisdictions have been hard at work. **Despite a very slow start for receipt of CDC-related funds at the local level, each of the health jurisdictions we studied has undertaken significant preparedness activities.** Some of these have been related to CDC and the California Department of Health Services efforts; others have been in conjunction with the Governor’s Office of Emergency Services. These activities have included general preparedness planning, development of smallpox plans, and identification of an individual to serve as the bioterrorism coordinator. At this point all of the jurisdictions can receive messages from the California Health Alert Network

(CAHAN), and all can be on the phone at the same time with the State Health Officer. That wasn't the case just a year ago.

As you know, public health jurisdictions vary significantly in their organizational arrangements, size, scope, locally defined responsibilities, quality of their leadership, and available resources. **In both our site visits and exercises, we found widespread variation among local health jurisdictions with respect to their ability to respond to infectious disease outbreaks and other public health threats.** Two jurisdictions were well prepared, according to our assessments, and one was particularly poorly prepared. As a result, we have to conclude that *California residents do not enjoy an equal level of protection against a wide array of public health threats*, even after accounting for real or perceived differences in health risks faced by residents of different locales. Although our analysis focused on public health preparedness, we also found similar variation in activities aimed at addressing chronic disease. Some jurisdictions report that they do 'nothing' while others have quite robust programs.

Third, despite differences in the size and organization of the public health jurisdictions studied, **many of the perceived gaps identified in relation to preparedness were similar.** Such perceived gaps include: training of existing public health staff to assume "back-up" roles in the event of an outbreak; strategic planning; community health assessment; workforce needs, particularly in the areas of epidemiological and laboratory capacity; and access to legal consultation on public health law. In fact, we observed a lot of redundancy and inefficiency, as many of the jurisdictions had undertaken separate, but parallel efforts to address some of these gaps – in other words, each jurisdiction was left

to its own devices to develop their bioterrorism preparedness activities. As a result numerous basic activities seem to be done multiple times and in multiple ways. Examples range from developing staff training programs in many sites, to rewriting lab manuals in others. However, all jurisdictions identified the need for a robust information system that would automate regular disease reporting from labs and hospitals; receive and map new cases in the event of an outbreak; and serve as a tool to manage outbreak investigation, contact tracing, and vaccination or prophylaxis if necessary.

Fourth, strong, central leadership and coordination of public health appears to be lacking. We found that, for the most part, study participants did not believe they could rely on the California Department of Health Services to address needs common to many jurisdictions, or that there was strong central leadership to facilitate coordination or sharing of resources. At least with regard to preparedness, this results in a fragmented system in which each jurisdiction must fend for itself, and as I mentioned, we saw that clearly in the duplication of efforts across counties. With the exception of the state public health laboratory, few jurisdictions believe they can count on the Department of Health Services in an emergency.

Another consequence of this lack of leadership is the considerable ambiguity surrounding the appropriate roles for a local health jurisdiction vis-à-vis other local agencies with a stake in emergency preparedness as well as with the Department of Health Services.

We found that for some key activities, there is currently little agreement about *what* local health jurisdictions should do when faced with a public health emergency – as

well as *how* they should do it. We also noted that beyond the preparedness issue, there does not appear to be a widely shared understanding of what public health is or agreement about the kinds of activities public health agencies are responsible for.

Sixth, in most jurisdictions we studied, involvement of community groups in public health preparedness efforts, particularly those that serve underrepresented minority groups, is significantly lacking. While this was not always the case when it came to other public health activities, we found that some public health jurisdictions we visited had incomplete knowledge of exactly where vulnerable population groups were or how to reach and communicate with them. We note that historically, poor and minority populations are some of the most vulnerable in an infectious disease epidemic.

Finally, we are concerned that the current focus on public health preparedness activities may have a hidden cost. There was substantial evidence that reassignments of staff to accomplish preparedness functions, coupled with pre-existing workforce shortages and county-level cuts in public health budgets, are compromising other public health functions. Multiple examples of retrenchments in essential programs (such as sexually transmitted disease and tuberculosis contact tracing, or teen pregnancy prevention programs) were provided during key informant interviews. Investments in public health preparedness should serve to bolster improvements in other vital areas of public health concern because many functions have dual- or multi- use applications.

Investments in the public health infrastructure addressing preparedness concerns create an important base on which to build a stronger public health system at the local and state levels. Improvements in the public health infrastructure resulting from the recent investments in preparedness create an unprecedented opportunity to strengthen public health. However, countervailing pressures, which stem in part from California's fiscal crisis, place the likelihood of capitalizing on this opportunity at risk.

Although the results of our analysis have raised significant concerns about the public health infrastructure in California, we believe that they have also pointed the way toward improving our ability to protect California residents from a wide array of public health threats. Some of the key recommendations that have emerged from our study are as follows:

As a first step, the State should create a high-level commission to examine alternative ways of reorganizing public health in California, and to develop a shared understanding of what public health is and does. Such a body should focus on the role of strong, public health leadership at the state level – and what it takes to support it – as well as the nature of state-local relationships. Meanwhile – at least in the short-run – centralization and regionalization of some functions, and sharing of resources among others, will likely lead to greater effectiveness and efficiency. We recognize that any process that involves rearranging responsibilities is likely to be contentious and will need to account for the political realities of state and local jurisdictional control and funding. Hence, the process for conducting such an examination must be fair, evidence-based, and neutral, and have as its

overriding goal a system that efficiently protects and improves the health of the public across the entire state.

Second, a set of objective performance measures for preparedness should be developed, implemented, and refined as needed. Preparedness in jurisdictions should be regularly exercised based on these measures. Such a system would clarify expectations and responsibilities for local public health agencies and ensure accountability. Ultimately, such a measurement system should extend beyond preparedness to other aspects of public health.

Third, improve the statewide epidemiological information system. A robust information system is the backbone upon which coordinated public health activities should be built.

Fourth, a great effort must be made to generate increased community involvement in preparedness activities. Community involvement in defining issues and planning responses is the linchpin to successful implementation of any public plan.

Fifth, we must build and maintain a highly skilled public health workforce. In virtually all jurisdictions, key members of the workforce are aging into retirement and there is little evidence of succession planning. Because of overall workforce shortages, local jurisdictions are competing with one another for scarce human resources, with little regard for how human resources might be used most efficiently. Workforce planning

must occur at all levels. Salary structures and archaic hiring practices at both state and local levels will need to be revised in order to recruit and retain highly qualified staff – and to create a pipeline for a public health workforce of the future.

Investment in training is needed for existing public health staff at all levels, from leadership development and incident command structure training, to cross-training public health professionals to fulfill critical functions during a public health emergency. Such training could occur in an efficient and effective way through coordinated planning and sharing of resources. While this is not a California-specific issue, California has pressing needs for such professionals.

Finally, additional resources will be necessary to improve public health

preparedness and to improve local public health systems. During the course of our study, we attempted to estimate the additional resources needed to improve the preparedness functions that local public health agencies are expected to engage in to protect against infectious disease outbreaks. Our estimates are that between 72 and 96 million dollars are needed annually, in addition to federal resources expected as a result of the federal grants (CDC and HRSA). However, we could not estimate how much this amount could be reduced by creating greater efficiencies. Furthermore, in the jurisdictions we studied we also found evidence that additional resources are needed to assure that essential public health services are available in all locales in the state to cover the wide range of new and old health threats the people of California face on a daily basis.

Before I close, I want to address a couple of issues that I know have been of concern to some of those who have reviewed our findings. First, is the issue of generalizability. Our findings are based largely on intensive studies of seven jurisdictions. They were deliberately selected, with a lot of input from the public health community, to cover a broad range of jurisdictional characteristics. We went to significant efforts, described in our report, to assess whether these jurisdictions were fundamentally different than others in the state. Our finding of variation holds whether we study 7 jurisdictions, or all 61, which we think would have been an inefficient use of study resources. We suspect that we would have found more variation, and perhaps some additional gaps, if we had studied more areas, but that the key messages would have been the same.

In closing, we believe that while California has made progress in improving our ability to prepare for, and respond to, a bioterrorist attack or infectious disease outbreak, much more work needs to be done. Additionally, we are concerned that other public health programs are not getting the attention and resources that they require, which we may all come to regret, sooner rather than later. At the same time, we believe that stronger leadership at the State level, coupled with a comprehensive assessment of the ways in which public health services are organized and delivered throughout the State, will produce efficiency gains and improvements in the public health system's performance. We are encouraged by the new team in place at the Department of Health Services, but a few individuals alone, absent significant structural changes and dedicated resources,

cannot accomplish what is really required. It is the responsibility of a much larger group of stakeholders to develop a blueprint for improvement.

Thank you.