Public Health Departments Face Formidable Issues During COVID-19 Pandemic

By William Pilkington and Deepak Kumar

Abstract

COVID-19 has raised serious questions about the pandemic response capacity and capability of local health departments. Workforce issues have made testing and tracing very challenging for these resource-strapped public health agencies. In addition, public health has failed to respond effectively to the disproportionate COVID-19 cases and deaths occurring within minority populations. Leadership issues have also hampered public health efforts to impact coordinated responses in local communities. Given these challenges, new coalitions of academic, private, and public health providers have begun performing traditional public health disease control measures and raised even more questions about the viability of public health.

Suggested Citation

Introduction

During the COVID-19 pandemic, public health departments are struggling to contain the spread of the virus while reeling from years of workforce reductions and diminished emergency preparedness capability. The historical way that preparedness public health funding has been distributed with large increases immediately following a public health emergency followed by years of diminished support has not provided sustainable public health preparedness.

The 2,800 plus public health agencies in the United States are usually part of local or state government and are responsible to district boards of health, county boards of commissioners, or mayors and governors. These local health departments provide health promotion and protection services which often vary by geographic location. For example, in the southern portion of the nation, many health departments still provide primary care services while local health departments in the northeast concentrate on environmental health services. Hence the saying, "if you have seen one health department, you have seen one health department." In response to these structural variations, the Public Health Accreditation Board (PHAB) was created in 2007 and currently 255 or slightly less than ten percent of the local health departments have achieved PHAB accreditation. In regard to public health preparedness and readiness, the National Association of County and City Health Officials (NACCHO) established "Project Public Health Ready" in 2002 to recognize local health departments that have met rigorous criteria for capacity and capability to plan for and respond to public health emergencies.[1] Just over 500 local health departments have received Project Public Health Ready recognition. Entering the COVID-19 outbreak, the vast majority of local public health departments were neither accredited by PHAB nor certified as "preparedness ready" by NACCHO.

The COVID-19 pandemic has complicated the daily operations of all local public health departments in America. Because a person who has questions or concerns about COVID-19 often tends to turn to their local health department for advice and consultation during a health crisis, local public health agencies were quickly overwhelmed by persons seeking assistance and testing as the pandemic took hold in the United States.[2] In urban and suburban health departments, there are larger staffs and these departments have the infrastructure and capacity to meet public demands in normal and surge situations. However, the vast majority of local public health departments serve populations under 50,000 people and many rural health departments have staff numbering fewer than ten employees.[3] The unique and critical roles that public health departments play in response to large health crises such as the current pandemic are not fully appreciated in many communities, nor are the unique challenges they face in meeting those demands. An understanding of these issues is important for ascertaining why public health departments have struggled to respond to this pandemic. This essay examines and addresses the scope and nature of these struggles with a focus on workforce, health equity and preparedness issues.

Workforce Issues Exposed By COVID-19

For more than a decade, both the Association of State and Territorial Health Officials (ASTHO) and NACCHO have warned that continued decreases in public health funding threaten the ability of rural health departments to conduct required daily activities, much less maintain a state of readiness for a pandemic like COVID-19.[4] The COVID-19 pandemic has put enormous pressure on already strained public health personnel. As COVID-19 began, the national public health workforce was short by almost 250,000 workers.[5] The pandemic quickly became the single focus for most health departments and the majority of daily public health work focused on COVID-19 testing, monitoring, and contact tracing. Along with the responsibilities came the criticism, and throughout the pandemic public health departments have been criticized for their failure to provide and sustain adequate numbers of COVID-19 testing sites.[6]

In responding to workforce concerns, local health departments have been forced to alter traditional work schedules and rely on unconventional methods to compensate for the lack of personnel. The increasing numbers of cases and deaths and the sustained nature of the threat have combined to undermine public health agencies' ability to meet community testing and tracing needs. Hospitals and private testing sites have conducted most of the COVID-19 testing in many communities and states are hiring contact tracers to supplement local public health efforts. Personal safety concerns have further diminished public health staffs and some public health workers have quit as a result of threats from the public.[7]

Further complicating these workforce concerns is the fast-growing number of public health leaders who have resigned under pressure or been fired during this pandemic. In Colorado, the Rio Grande public health director was fired for opposing the relaxation of lockdown restrictions and in California, at least seven public health leaders have resigned or retired since the onset of the pandemic.[8]

These workforce issues combined with the loss of experienced leadership have placed many public health departments in a precarious position as they fight a once in a lifetime pandemic. Staffs are strained, stretched, and threatened. Their leaders are under constant pressure as they try to convince their citizens that public health must take precedence over economic interests. To further complicate the public health situation, the disproportionate number of cases and deaths among persons of color has resulted in renewed demands for racial health equity and exposed the fact that health departments have failed to address health inequities in their communities.

Health Equity in a Pandemic

In almost any county or city in America, the number of confirmed COVID-19 cases and deaths among persons of color is disproportionate to their representation among the general population. *The Atlantic* maintains a racial data dashboard that showed the following COVID-19 results for July 14, 2020. In Alabama, Black or African Americans made up 27% of the population and 45% of the cases, in Connecticut 10% of the population and 19% of the cases, and in Maine 1% of the population and 26% of the cases. As for deaths, in Maryland, Black or African Americans made up 29% of the population and 41% of the deaths, in Michigan, 14% of the population and 41% of the deaths, and in Missouri, 12% of the population and 36% of the deaths.

A multitude of co-morbidities such as diabetes, heart disease, chronic kidney and liver diseases, lung disease, and immune disorders have been identified for COVID-19. Most if not all of these risk factors disproportionately affect minority populations and are influenced by social factors faced by minority and health disparity populations. In such a situation, the availability and accessibility of testing for minority populations has been grossly inadequate. Recently, a large group of medical school deans joined together in an op-ed that urged health authorities to address racial disparities in coronavirus testing.[9]

Adequate and timely diagnosis and treatment of COVID-19 should not be impacted by racial bias or lack of resources. The lack of accessibility to primary care because of race, age, or any other characteristic is well documented.[10]   Evidence indicates that an outbreak situation aggravates existing disparities in distribution of resources and disease management.[11] COVID-19 has once again illustrated that persons of color in America suffer and die at much higher rates than their white counterparts.

Were Health Departments Prepared for COVID 19?

One of the key responsibilities of any public health department is emergency planning, preparedness, and response. Fortunately, major public health emergencies like the COVID-19 pandemic are extremely rare. Even so, local health departments are expected to be able to respond rapidly and effectively to a variety of natural and man-made disasters. Nelson et al. define emergency preparedness in the public health setting as the capacity of the public health and health care systems, communities, and individuals, to prevent, protect against,

quickly respond to, and recover from health emergencies, particularly those whose scale, timing, or unpredictability threatens to overwhelm routine capabilities.[12]

Preparedness involves a coordinated and continuous process of planning and implementation that relies on measuring performance and taking a corrective action. This lack of coordination and collaboration has been well documented by Rubin and others in previous research.[13] During COVID-19 there has been a great deal of systemic disharmony in the development of public health initiatives and emergency preparedness solutions especially with respect to testing and contact tracing.   This dysfunction has been widely recognized in the popular media and has hampered the allocation of very limited resources during the onset and continuation of the pandemic. The work of Lotstein demonstrated the potential of evidence-based quality metrics to improve public response to a pandemic, but it also argued that more investment in improved measurement was needed to apply these concepts more broadly.[14] A recent report by the Trust for America's Health stated "years of funding cuts have left health departments with twentieth-century tools for dealing with twenty-first-century problems."[15]

Almost a decade ago, the Association of State and Territorial Health Officials (ASTHO) and CDC completed a collaborative project to develop a National Health Security Preparedness Index (NHSPI). The new index was supposed to combine different preparedness criteria into one composite set of measures that could be used to determine relative public health preparedness capabilities over time. The NHSPI was also supposed to measure and help guide activities that support implementation of the National Health Security Strategy. According to the ASTHO website announcing the NHSPI, this index was needed because there was no standardized, national assessment of health emergency preparedness. The index finally got off the ground with funding support from the CDC and Robert Wood Johnson Foundation and has published an annual report since 2013.[16] The decreased funding available to local health departments over the past decade should have suggested a new public health strategy for emergency preparedness, but it did not. This new strategy should have also included adjusting to decreased funding while maintaining a state of readiness that would be adequate under normal or emergency conditions. This new strategy might have allowed most local health departments to handle surge capacity, address laboratory capacity issues, provide mass testing and eventually provide mass vaccinations. The public health testing and tracing failures have clearly demonstrated that local public health departments were not ready or prepared for a pandemic like COVID-19.

How Health Departments Can Weather the COVID-19 Storm

To meet these workforce, health equity, and preparedness challenges, health departments must become experts in addressing social determinants of health and developing strategies that achieve health equity for all persons.[17] Health departments must also improve their crisis management capabilities and learn to continue normal services when surge capacity is reached.[18]

We have highlighted in this article both the unique role that public health departments play in the response efforts as well as the unique challenges they face in confronting COVID-19.

There are solutions to these challenges and they require innovative thinking about public health service delivery in both urban and rural areas. Regionalization of public health departments has helped to improve emergency preparedness in many states.[19] Sharing of services has also demonstrated promise in smaller communities where resources are scarce and tax bases are small.[20] There is also a role for academia and community-based organizations to play in assisting public health departments to develop and implement plans and processes for managing surge capacity.   This role might include such services as workforce development assistance and strategic preparedness planning.

How well our public health departments handle the challenges presented by COVID-19 may determine the structure of local public health in the United States going forward. If COVID-19 demonstrates that public health departments were largely ineffectual in meeting their communicable disease responsibilities during this pandemic, there will likely be a clarion call to examine and overhaul our public health system which might include evaluating the need for an alternative public health delivery system.

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