Research Brief: Effect of Variations in State Emergency Preparedness Laws on the Public Health Workforce's Willingness to Respond in Emergencies

Study Team: Lainie Rutkow, JD, PhD, MPH; Jon S. Vernick, JD, MPH; Carol B. Thompson, MS, MBA; Daniel J. Barnett, MD, MPH

Background: The public health system plays a critical role in emergency planning, response, and recovery activities. When an emergency occurs, such as a natural disaster or a major infectious disease outbreak, personnel within the public health system participate in all aspects of a response. For example, members of the public health workforce may distribute and administer vaccinations, assist in triaging and transporting affected individuals, and engage in risk communication activities. Even if they are not designated as first responders, members of the public health workforce are important players in emergency preparedness and response because they help to ensure that the public health system functions effectively despite emergency conditions.

During a public health emergency, laws at the federal, state, and local levels establish key parameters for a response. At the federal and state levels, a declaration of emergency determines the geographic scope of a response and may be the catalyst for specific emergency operating plans to go into effect. As part of an emergency response, licensure laws may be temporarily waived to allow out-of-state health care professionals to practice in the affected state. Interstate and intrastate emergency agreements may be activated, allowing interjurisdictional coordination of response personnel and health care supplies.

This project assessed whether state laws influence the public health workforce's willingness to respond during emergencies. The project's aims were: 1) Identify and classify variations in emergency response laws in the 50 U.S. states; 2) Assess the association between specific state emergency preparedness laws and willingness to respond during emergencies among the public health workforce (including health department staff and emergency medical services workers); and 3) Assess whether public health workers believe that particular future legal protections would enhance their willingness to respond during emergencies.

Methods: For Aim 1, the study team conducted a systematic search of statutory codes in the 50 U.S. states to identify the presence or absence of the following emergency preparedness laws: 1) laws granting the state government the authority to declare a public health emergency; 2) laws requiring the state to develop a public health emergency plan; 3) laws providing state-level protections from liability for responders; 4) laws granting priority access to healthcare

resources for responders in the state; and 5) laws facilitating intrastate collaboration during an emergency response.

For Aim 2, the study team used data collected by the National Registry of Emergency Medical Technicians through its mid-year Longitudinal EMT Attributes and Demographics Study. This survey was conducted in 2009 and included questions about response willingness among EMS workers during an influenza pandemic. These survey data were merged with data collected during Aim 1 about the presence/absence of three emergency preparedness laws in each of the 50 U.S. states. Data were analyzed using logistic regression models. In separate analyses for Aim 2, the study team used data collected in 2009-2010 by the Johns Hopkins~Public Health Infrastructure Response Survey Tool. This survey queried members of the local public health workforce about their response willingness during four public health emergency scenarios. Data from this survey were merged with data collected during Aim 1 about states' authority to declare a public health emergency. Data were analyzed using logistic regression models.

For Aim 3, the study team used data collected in 2011-2012 by the Johns Hopkins~Public Health Infrastructure Response Survey Tool. This version of the survey queried members of the local public health workforce about their response willingness during four public health emergency scenarios given the presence of three types of legal protections. The legal protections were: 1) priority access to response-related healthcare for workers' families; 2) access to response-related mental health services for workers; and 3) access to personal protective equipment.

Key Findings:

Aim 1, Legal Research:

- Of the five types of emergency preparedness laws of interest, all 50 states had enacted at least two types of these laws.
- In 24 states, the government has the authority to declare a public health emergency.
- In 13 states, the government requires the development of a public health emergency response plan.
- In 15 states, responders are granted priority access to at least some health resources.
- Every state provides at least some liability protections to responders.
- Every state has mechanisms to facilitate collaboration between localities during emergency responses.

Aim 2, Survey of Public Health Workforce:

- EMS workers in states that allowed governmental declarations of public health emergency were more likely to report response willingness to an influenza pandemic than those in states that did not permit such declarations. This difference, however, was not statistically significant.

- Our findings were similar relative to EMS workers, other state-level emergency preparedness laws, and response to an influenza pandemic.
- Among local public health workers, for naturally occurring and manmade disasters, there was not a statistically significant difference in response willingness among those living in states that allowed for a governmental declaration of public health emergency and those in states that did not have this type of law.

Aim 3, Legal Protections for Public Health Workers:

- For our four emergency scenarios of interest, a majority of local public health workers indicated that they would be more willing to respond if one of the following protections were in place: 1) priority access to healthcare for their families; 2) guaranteed access to mental health care for response-related concerns; and 3) guaranteed access to personal protective equipment.

Policy and Practice Implications and Recommendations:

Aim 1, Legal Research: Because recent research has confirmed that there are notable gaps in emergency response willingness among the public health workforce, it is important to consider ways in which this critical cohort can be encouraged to participate in emergency responses. State-level emergency preparedness laws offer one avenue to potentially improve response willingness. As a first step, it is important to catalog variations among the 50 states in their approaches to emergency preparedness laws. Our Aim 1 findings provide a snapshot of the presence/absence of five types of emergency preparedness laws across the 50 states. This information can help policymakers and practitioners to quickly identify and compare these laws.

Aim 2, Survey of Public Health Workforce: We did not find an association between the presence of particular emergency preparedness laws and response willingness among the public health or emergency medical services workforces. Despite this, there are steps that policymakers can take steps to ensure that these workforces are better aware of the laws under which they function in emergencies. In addition, departmental-level policies should be considered as a way to both increase response willingness and develop more personalized means to address response concerns among the public health workforce.

Aim 3, Legal Protections for Public Health Workers: The three hypothetical legal protections that we considered were found to improve response willingness among members of the local public health workforce. Because these types of protections potentially one group of individuals over another (e.g., responders' families), policymakers must consider the ethical implications of implementing these types of laws.

Limitations:

Aim 1, Legal Research: Relevant laws may have been unintentionally excluded from the findings despite a systematic search strategy. In addition, it is possible that some states revised or amended their laws after we finished conducting our research. Finally, this research was limited to the 50 U.S. states and did not include Washington, DC, or local governments.

Aim 2, Survey of Public Health Workforce: Local health departments that received the Johns Hopkins~Public Health Infrastructure Response Survey Tool were recruited through convenience and snowball sampling. This means that our findings may not be applicable to the full U.S. local public health workforce. The survey asked local public health workers to think about their response willingness during hypothetical emergency scenarios. Their answers may not reflect what their behavior would be during a real-world event.

Aim 3, Legal Protections for Public Health Workers: In addition to the limitations noted above for the Johns Hopkins~Public Health Infrastructure Response Survey Tool, this research only considered three types of potential legal protections. There are likely other possible legal protections that would resonate with members of the local public health workforce.

Acknowledgement: This study is supported by a grant from the Robert Wood Johnson Foundation. Any opinions are those of the authors alone. The study team would like to thank Robert Hudson, Ronald Pirrallo, and Lillian Shirley for helpful comments throughout the study. In addition, the study team would like to thank Maxim Gakh, Rachael Piltch-Loeb, and Jennifer Siegel for their assistance with project-related research.