Emergency Preparedness, State Laws, and Willingness to Respond among the EMS Workforce

Daniel J. Barnett, MD, MPH
Associate Professor
Department of Environmental Health Sciences
Johns Hopkins Bloomberg School of Public Health

April 2014
Faculty Disclosure:

Members of the study team have no financial relationships to disclose.
Acknowledgements

Co-authors:
- Lainie Rutkow, JD, PhD, MPH
- Jon S. Vernick, JD, MPH
- Carol B. Thompson, MS, MBA

This research was supported by a grant from the Robert Wood Johnson Foundation’s Public Health Services and Systems Research Program.
Objectives

• Upon completion of this educational activity, you will be able to:

  – 1) Explain why willingness to respond among the EMS workforce is important to ensure an effective response during an influenza pandemic.

  – 2) Describe state-level emergency preparedness laws that may influence willingness to respond among the EMS workforce.

  – 3) Discuss how the discrepancy between the perceived and objective legal environments may affect EMS workers’ willingness to respond.
Background: Public Health Emergency Preparedness System

- Health Care Delivery Systems
- Homeland Security and Public Safety
- Communities
- Employers and Business
- Academic
- The Media

Source: IOM (2008)
Relevance of Willingness Among EMS Providers: ‘Ready, Willing, and Able’ Framework (McCabe et al., 2010)
EMS and Response Willingness: Potential Legal Considerations

- Healthcare delivery systems sector includes pre-hospital healthcare services (EMS)

- Expanding research points to response willingness deficits among EMS and other provider cohorts toward emergent public health threats, including pandemic influenza (Barnett et al. 2010; Watt et al. 2010; Basta et al. 2009; Balicer et al. 2010; Stergachis et al. 2011; Barnett et al., 2012)

- Leading identified deficits among EMS and other health provider cohorts include concerns about worker safety considerations (Garrett et al. 2009; Barnett et al. 2010) – an issue of legal relevance in public health emergencies

- However, recent research (Jacobson et al., 2012) on local public health and emergency management workforces indicates that knowledge and perception of emergency preparedness laws varies greatly, with “a clear disconnect” between the actual legal environment (i.e., codified law and accompanying regulations) and individuals’ perceptions or interpretations of the law.
Relevance of EMS Willingness Findings to State Laws

- State-level emergency preparedness laws offer a mechanism to protect EMS workers during an influenza pandemic, and hence potentially to enhance their willingness to respond.
Study Methods I

• Survey distributed to a nationally representative, stratified random sample of 1,537 U.S. EMS workers as part of the Longitudinal EMT Attributes and Demographics Study (LEADS) conducted annually by the National Registry of EMTs (NREMT)

• Mid-year survey window: May – June 2009
Data from the LEADS mid-year survey were merged with data about the presence or absence of three types of emergency preparedness laws in each of the 50 U.S. states:

1) Laws that grant states the ability to declare a public health emergency
2) Laws that require states to create a public health emergency plan; and
3) Laws that give first responders priority access to health resources, such as vaccines
Results

• Overall response rate: 49%

• Of 586 respondents who primarily provided clinical EMS services, we analyzed responses of 421 who had complete data for all study variables

• Participants in our analysis sample did not significantly differ from those excluded from our sample on any characteristics
  – Gender, age, highest educational level completed, presence of family dependents, organization type, practice type, years of experience, knowledge of pandemic flu, locale, percent of population below poverty level, number of federal disaster or emergency declarations
Results (cont’d)

• 188 respondents (45%) lived in a state with a law that permitted a governmental declaration of public health emergency.

• 100 respondents (24%) lived in a state with a law that required the state to develop a public health emergency plan.

• 109 respondents (26%) lived in a state with a law that granted responders priority access to health resources (e.g., vaccines).
Results

- Compared to respondents who lived in states that did not allow the government to declare a public health emergency, those in states that permitted declarations had a larger percentage agreeing that they were willing to respond during an influenza pandemic.

- In adjusted and unadjusted analyses, this difference was not statistically significant.

- We found similar results for the other laws of interest.
Conclusion

• While it is possible that these laws have no effect on willingness to respond, recent research suggests that inconsistencies between the perceived and objective legal environments for EMS workers could be another explanation for our findings.
References

Thank You!

• Questions?
  - Daniel Barnett, dbarnett@jhsph.edu
  - Lainie Rutkow, hrutkow@jhsph.edu