

# CPH News and Views

A semi-monthly column on emerging topics related to healthy workplaces

## Issue #66: Employer Preparedness: A Total Worker Health Perspective to Promote Worker Well-Being in the Face of Disasters

**Cora Roelofs, ScD, Research Faculty, Department of Biomedical Engineering University of MA Lowell**

In 1911, 146 factory workers lost their lives in the Triangle Shirtwaist fire in New York City. While the immediate cause of the disaster was the fire, what made it a true disaster was an unsafe structure, locked exits, fire hazards, and lack of concern for employee welfare. Since that time, extensive regulations have been promulgated to assure better preparation and response. However, recent natural and human-caused disasters, not to mention the COVID-19 pandemic, have sharpened our awareness that many employers are still unprepared to protect employees or promote employee well-being in the face of potential disasters.

The Total Worker Health® TWH orientation is critical to promoting worker well-being in the face of emergencies and disasters such as severe weather events, acts of terrorism, disease outbreaks, and chemical spills. These events impact individuals as workers, family members, and residents of impacted communities. Beyond the immediate impacts of the disaster, work disruptions and demands during and follow disasters have profound impacts on individuals coping with other disrupted venues and systems that support their daily lives.

### A Model for TWH Employer Preparedness

With support from a CPH-NEW Pilot Grant, I developed a model for Employer Preparedness that borrows from the best of TWH and emergency preparedness concepts. Elements of these domains are listed in Fig 1. For example, in the Planning Domain a TWH perspective adds “Planning Equity” as a value so that workers on all shifts and employees with chronic diseases are accounted for in emergency planning. In the Training Domain, we include education that focuses on personal and family preparedness for diverse disasters, such as pandemic virus. Employer policies on pay and leave for workers who volunteer or are called up for community emergency response duty could be considered in the domain of HR Policies for Employer Preparedness. Planning may be the most important domain, for that is where all other domains are considered in a collaborative cyclical planning infrastructure that can continually strive for ever greater and more comprehensive preparedness.

### TWH® Employer Preparedness Model

Planning	HR Policies	Staffing	Communications	Hazard Reduction	Training	Resources for Resilience
<ul style="list-style-type: none"><li>•Best Practice Plans for All Hazards</li><li>•OSHA Requirements</li><li>•Cyclical Planning Infrastructure with HR integration</li><li>• Planning Equity</li></ul>	<ul style="list-style-type: none"><li>•Pay</li><li>•Benefits</li><li>•Leave</li><li>•Shifts</li><li>•Volunteering</li></ul>	<ul style="list-style-type: none"><li>•Supporting Essential Personnel</li><li>•Post-Disaster Continuity Supports</li><li>•Remote Operations</li><li>•Re-entry Protocols</li></ul>	<ul style="list-style-type: none"><li>•Before, during after</li><li>•Internal</li><li>•External</li></ul>	<ul style="list-style-type: none"><li>•PPE Supplies</li><li>•Building safety</li><li>•Chemical/ process safety</li><li>•Operations/ staffing</li><li>•Preventive maintenance and renewal</li><li>•Violence prevention and personnel policies</li></ul>	<ul style="list-style-type: none"><li>•Awareness level</li><li>•Frontline supervisor/ train the trainer</li><li>•Orientation/ new hire/ temp</li><li>•Personal, Family and Community Preparedness</li><li>•Drills and Exercises</li></ul>	<ul style="list-style-type: none"><li>•EAPs and Recovery Support</li><li>•Flexibility and Cross-Training</li><li>•Social Support and Connections</li><li>•Internal and External Resources</li></ul>

Figure 1

## Assessing TWH Employer Preparedness in a Sample of Employers

I collaborated with the Northeast Human Resources Association to conduct an on-line survey of their members' perspectives on their employers' preparedness in these seven critical domains. A TWH Employer Preparedness Index was created to score responses on a scale of No, Low, Moderate and High preparedness in each domain and in total to broadly characterize and compare the TWH Employer Preparedness of the sample. Seventy-six human resources professionals from diverse employment sectors and organization sizes responded to the survey.

Forty-two percent of the sample score a "moderate" level of preparedness, while 12% had a high level of preparedness, 29% had a low level, and 17% had no preparedness. While employers may have many elements of preparedness in place, almost all have room to improve. Respondents indicated that employers are better prepared for storms (89%) than for acts of violence (17%). One third reported preparedness for an infectious disease outbreak. Many employers have emergency plans, but these may not focus sufficiently on issues related to TWH, such as pay and benefits when an employer is closed. Policies and practices that might minimize conflicts between work and home, such as emergency child or elder care, may not be well developed in most employers' action plans. We did not find significant differences between types of employers and their level of preparedness, although it is likely that healthcare and large employers have greater TWH Employer Preparedness.

## Advancing Employer Preparedness

This study tested a TWH Preparedness survey with human resources professionals from a broad range of industrial sectors. The survey revealed wide variability in levels of emergency preparedness, while at the same time identifying categories of preparedness that tended to be underdeveloped by many employers. The TWH Preparedness model can be used by employers to conduct a self-assessment and to identify areas for improvement. The model, survey and index can also be used in a public health and general emergency preparedness context to inform emergency management agencies about preparedness gaps and strengths in their communities. As employers continue to resume operations and return to the "new normal" during the current COVID-19 pandemic, human resources leaders have an opportunity to take the lessons learned to create stronger, more complete TWH preparedness plans. The current COVID-19 pandemic has brought need for preparedness from hindsight to foresight.

### References

- The National Institute for Occupational Safety and Health (NIOSH) [Emergency Preparedness and Response Program](#)
- Roelofs, Cora. Employer Preparedness: A Total Worker Health® Conceptual Framework and Model. (Manuscript under Review)
- Roelofs, Cora. Employer Preparedness: Results from a Survey of Human Resources Professionals. (Manuscript under Review)

**Dr. Cora Roelofs** is research faculty in the Department of Biomedical Engineering at University of Massachusetts Lowell. In addition to employer preparedness, her research interests include opioids and the work environment, vulnerable worker populations, and prevention of heat and climate change hazards.

This study was supported by the CPH-NEW pilot grant program, funded by Grant Number 1 U19 OH008857 from the U.S. National Institute for Occupational Safety and Health (NIOSH).



*CPH-NEW is a Center for Excellence to Promote a Healthier Workforce of the National Institute for Occupational Safety and Health. CPH-News & Views is a semi-monthly column written by Center researchers on emerging topics related to healthy workplaces. These comments reflect thoughts of the individual researchers and do not represent conclusive research summaries, nor do they necessarily reflect a consensus among all Center personnel. We welcome your responses and discussion. Please send all questions and comments to [CPHNEW@uml.edu](mailto:CPHNEW@uml.edu).*