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2017 DISTINGUISHED NURSE SCHOLAR IN RESIDENCE

NATIONAL ACADEMY OF MEDICINE

JOHNS HOPKINS SCHOOL OF NURSING

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

Global Health Emerging Infectious Diseases: Workforce Development for National Security

Learning Objectives



- Understand the need for a robust workforce for future global outbreak response.
- Identify current challenges for workforce development, deployment and sustainment.
- Consider opportunities to strengthen the workforce through practice, education, policy & research initiatives.

Disclosure Statement

- I, and all immediate family members or partners, declare that I have **NO** financial or non-financial arrangement or affiliation with a commercial interest as defined by the ACCME. I do not intend to reference unlabeled/unapproved uses of drugs or products in my presentation.



- “Whether a natural outbreak, an accidental release, or a deliberate attack, biological threats are among the most serious we face, with the potential for significant health, economic and national security impacts. Therefore, promoting our health security is a national security imperative”.

Robert P. Kadlec, HHS Assistant Secretary for Preparedness and Response

ASPR 2018



Providing Strong Leadership



Building a Regional Disaster Health Response System



Sustaining Public Health Security Capacity



Enhancing the Medical Countermeasures Enterprise

2019

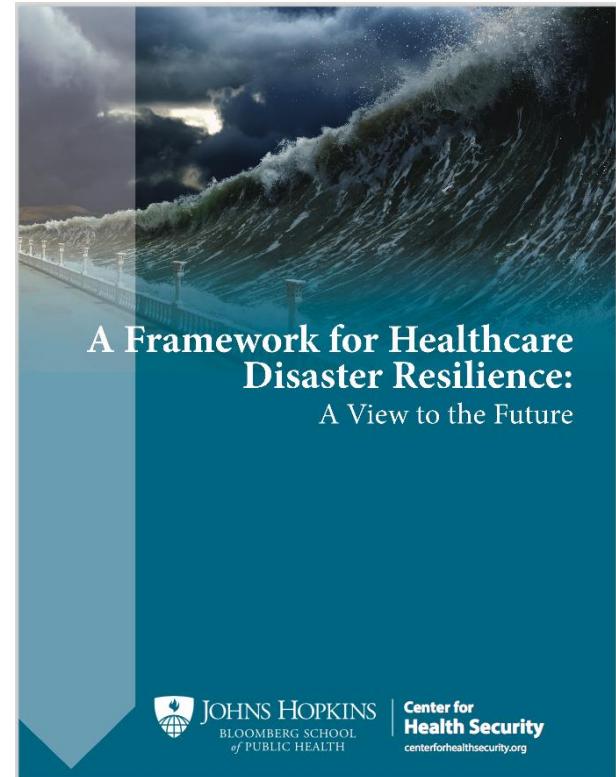
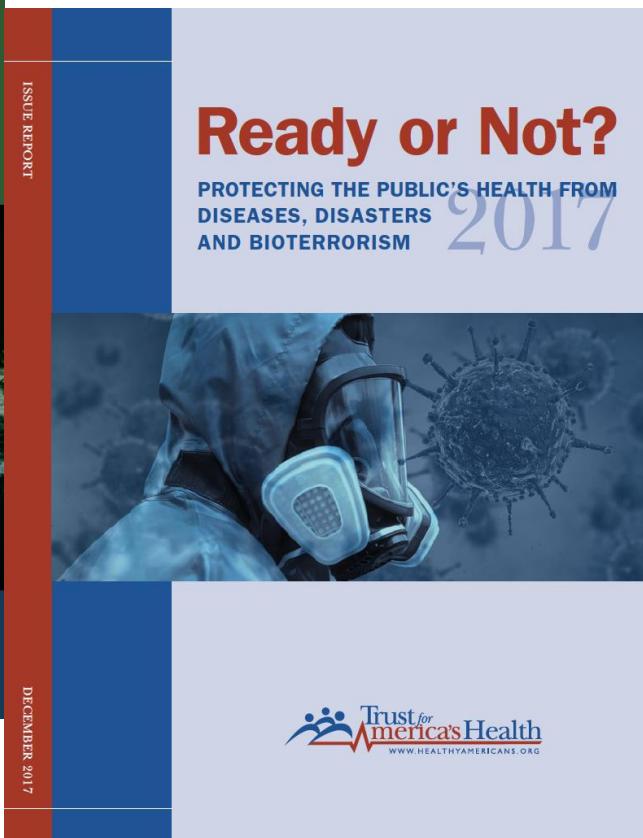
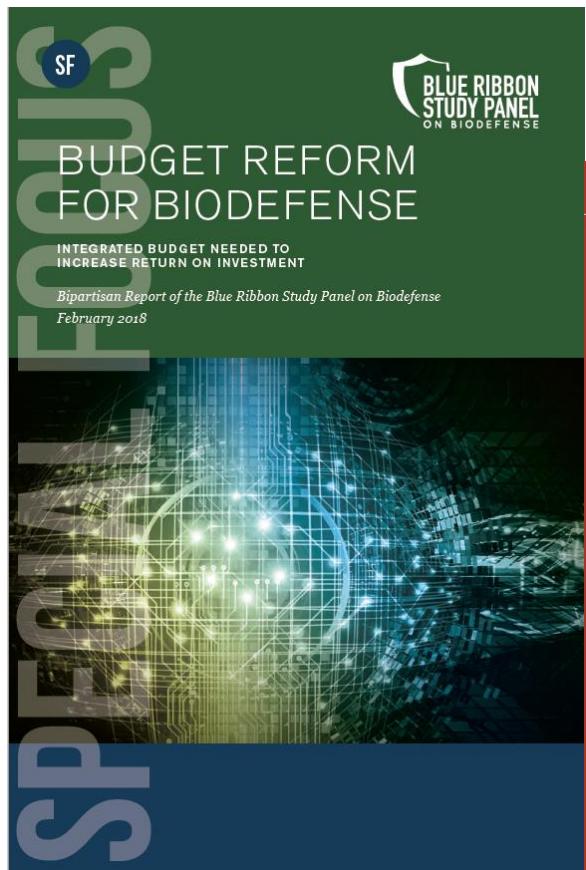
- ASPR upcoming projects: adaptive planning for 21st century threats, understanding the consequences of large-scale disasters, MCM last-mile project to support ASPR in maintaining contact with state and local jurisdictions about dispensing needs and consider ways for ASPR to take on more direct responsibility during large disasters.
- Bioinformatics for biodefense and pathogen detection: metagenomics (Mid-Atlantic Microbiome Meeting, January 2018).
- DHS replacing BIOWATCH with a new system, faster technology.

NATIONAL BIODEFENSE STRATEGY

2018



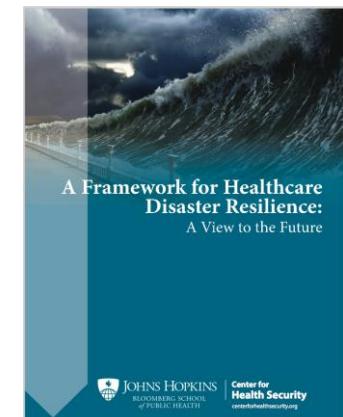
- Enable risk awareness to inform decision-making across the biodefense enterprise.
- Ensure biodefense enterprise capabilities to prevent bioincidents.
- Ensure biodefense enterprise preparedness to reduce the impacts of bioincidents.
- Rapidly respond to limit the impacts of bioincidents.
- Facilitate recovery to restore the community, the economy, and the environment after a bioincident.



A Framework for Healthcare Disaster Resilience: A View to the Future

Johns Hopkins Center for Health Security

- February 2018 report: U.S. NOT ready for catastrophic events (PanFlu, Bio, Rad)
- Culture of Resilience: Resilient communities and health sectors
- Broad, effective healthcare coalitions (HCCs)
- Specialized disaster resource hospitals (Level 1 Trauma Centers with Burn Units and Critical Care Units)
- ASPR: designate a program exclusively dedicated to catastrophic events/ National Coordinator for catastrophic health events



NAM Activities of Interest

- *Readiness for Microbial Threats 2030: Exploring Lessons Learned Since the 1918 Influenza Pandemic: A Workshop (November 27-28, 2018)*
- Evidence-Based Practices for Public Health Emergency Preparedness and Response: Assessment of and Recommendations for the Field (Consensus Study)
- Committee on the Use of Elastomeric Respirators in Health Care (Consensus Study)

Expanding nursing's role in responding to global pandemics 5/14/2018

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^aGlobal Nursing & Health Expert Panel

^bEmerging Infectious Diseases Expert Panel

Executive Summary

We know by now that the world will see another pandemic in the not-too-distant future; that random mutations occur often enough in microbes that help them survive and adapt; that new pathogens will inevitably find a way to break through our defenses; and that there is the increased potential for intentional or accidental release of a synthesized agent. Every expert commentary and every analysis in recent years tells us that the costs of inaction are immense. And yet, as the havoc caused by the last outbreak turns into a fading memory, we become complacent and relegate the case for investing in preparedness on a back burner, only to bring it to the forefront when the next outbreak occurs. The result is that the world remains scarily vulnerable.—World Bank, 2017

The world is interdependent, not only in terms of the flow of human beings but also the spread of new, emerging, and re-emerging pathogens (EIDR). The number of outbreaks per year has tripled in the last several decades (Smith et al., 2014) and the human and economic impact of human immunodeficiency virus, severe acute respiratory syndrome, Ebola, and other diseases, has been staggering. Yet only a handful of countries have carried out pandemic preparedness exercises (World Bank, 2017). Furthermore, funding for pandemic preparedness (e.g., the Coalition for Epidemic Preparedness Innovations and the Bloomberg Foundation), has been led by nongovernmental donors more than by governments. Global preparedness is critical and must include strengthening global surveillance in public and other health care delivery systems. Communities must be engaged as active partners in primary and secondary infectious

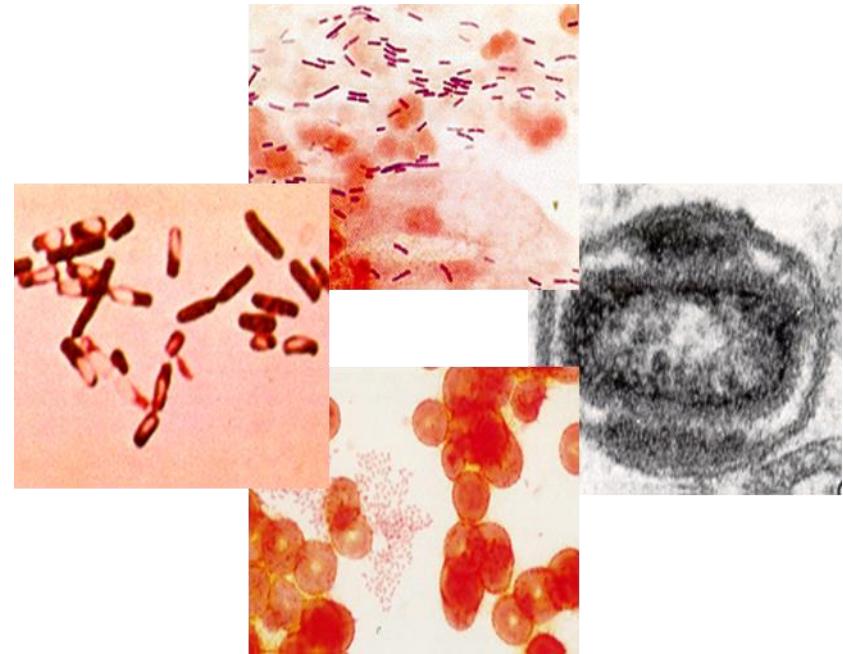
disease prevention efforts. As the largest cadre of the health workforce in every country, as well as a profession that is dedicated to prevention and alleviation of suffering, nurses must be integrally involved with interprofessional teams, communities, and across sectors for global pandemic preparedness.

Background

Infectious diseases constitute the third leading cause of death worldwide (WHO, 2017). International mobility contributes to the promulgation of new and reemerging pathogens that frequently are resistant to current form of treatment (Morens & Fauci, 2013). This mobility may result in disease outbreaks that have dire consequences. Emerging global pandemics pose high risks for individuals and communities.

The unpredictability of pandemic outbreaks (agents, time, and place) is a given in communicable diseases. The gap in the incorporation of nursing knowledge and skills related to screening, disease identification, rapid response, community involvement, inter and intra-agency communication, governmental notification, and coordination need not remain challenges to adequate and timely responses. The failure to develop a coordinated system of health care workers who understand the importance of detecting and forwarding information about the identification of an illness is a major gap in our ability to contain new infections.

A key issue is the time delay in the early identification of infections that pose a threat to potential epidemics/pandemics. To mitigate the delay, it is essential that the health care professional who is the initial point of contact with the infected person, likely the



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Challenges for Workforce Development

- Lack a national plan for workforce development for disasters and PHEIC.
- Lack of robust readiness metrics.
- Need to develop and deploy a workforce with appropriate KSA's for outbreak response
- Need to sustain workforce capabilities through multiple waves of an outbreak
- Need to ensure the safety and well-being of the workforce
- Provide access and selection of appropriate PPE, (type, supply, duration of use, storage & cleaning, disposal)
- Existing deficiencies across practice, education, policy & research

Challenges and Opportunities for Strengthening Academic/Practice Partnerships to Impact Population Health in Chronic Disease and Emergency Response

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BACKGROUND	TOOLKITS	METHODS
<p>A healthcare and public health workforce that possesses the knowledge, skills, and abilities to respond to any disaster or public health emergency in a timely and appropriate manner depends on:</p> <ul style="list-style-type: none">• Level of readiness and willingness to participate• Understanding role across a broad range of specialties and during all phases of a disaster <p>The absence of a clearly articulated vision and framework for disaster education and an unprepared workforce:</p> <ul style="list-style-type: none">• Limits the effectiveness of local, state and federal response plans• Limits organization surge capacity• Negatively impacts health outcomes in populations <p>OBJECTIVES by disasters</p> <p>Participants will be able to:</p> <ul style="list-style-type: none">• Identify curricular materials to implement disaster preparedness within a population health framework that fits within existing curriculum• Implement collaboration and partnership-centered approaches to disaster preparedness and response• Customize toolkit to meets needs of students and clinicians	<p>https://disasternursing.org/toolkit/flint-water/</p> <p>https://disasternursing.org/911-air-particulates/</p> <p>https://disasternursing.org/zika/</p> <p>https://disasternursing.org/toolkit/remixed/</p> <p>Community of Solution</p>	<p>Identified essential educational needs and core competencies</p> <p>Assessed integration of state and local-level population focused training</p> <ul style="list-style-type: none">• Discussions with key informants• Review of relevant documents• Guided discussions at key partner stakeholder meetings• Review and abstraction from available core competencies and other government planning documents• Survey of medical, public health, and nursing programs• Interviews with experts
		<p>OUTCOME</p> <ul style="list-style-type: none">• Toolkit designed for interdisciplinary workforce modeled after the practical playbook• Interactive Modules• Curriculum• Workshop focused on collaboration between public health and primary care approaches to disaster preparedness and response
		<p>IMPLICATIONS</p> <p>Primary care providers can now apply theoretical principals during disaster response and preparedness activities with a population focus.</p>



Society for the Advancement of Disaster Nursing
<https://disasternursing.org/toolkit/>
For more information, please contact Roberta Lavin at lavin@umsl.edu

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SAINT LOUIS UNIVERSITY
School of Nursing

Nurses as a Critical Component of the Disaster Healthcare Workforce

- Disaster & Public Health Emergency Readiness
- National Surge Capacity
- Community Resiliency
- National Health Security Strategy



Recommendations

1.1 Review and model a scope of practice for pandemic/PHE nursing in federal, state, and local emergency management operations plans.

- Nurses should participate on all pandemic planning committees, which need to, among other important planning, establish protocols concerning nursing's role.

1.2 Establish evidence-based, competency driven, and leveled approaches to pandemic/PHE teaching learning practices in the pre-licensure setting.

- Develop clinical learning opportunities using multiple delivery platforms that can be easily integrated into the undergraduate and/or graduate nursing curricula.

1.3 Provide continuing education for pandemic/PHE nursing preparedness and response.

- Establish a national framework for life-long learning in pandemic/PHE nursing for nurses including advanced practice nurses, nurse executives and nursing faculty.

Recommendations

1.4 Address scientific gaps in knowledge, skills, and resources

Establish a focused research agenda based on a thorough workforce readiness needs assessment to document gaps in literature, nursing knowledge and skills, and available resources. Disseminate the research agenda with policy makers and funders.

1.5 Encourage a culture of community volunteerism

Nurses are the largest part of the healthcare workforce in the US. To meet surge capacity needs during pandemics and other PHEs, national nursing organizations should encourage their members to pre-register with government response teams or private organizations.

1.6 Consider coordination of military and civilian Nursing assets

Establish a foundation for the communication and coordination of military and civilian nurse assets.

Crisis Standards of Care

1.7 Correct challenges for volunteer health professionals

Challenges for volunteer health professionals include reciprocity of state-based licenses, liability coverage, and compensation policies for harm incurred during response, and loss of employment.

1.8 Adopt crisis standards of care.

To best support clinical nursing practice during large scale PHEs, encourage health care and community organizations to embrace workforce readiness initiatives and to adopt a framework for crisis standards of care (IOM Report, 2012).



The cover of the report features the title 'INSTITUTE OF MEDICINE' at the top, followed by 'REPORT BRIEF • SEPTEMBER 2009'. The main title 'GUIDANCE FOR ESTABLISHING CRISIS STANDARDS OF CARE FOR USE IN DISASTER SITUATIONS' is in the center, with 'A LETTER REPORT' below it. The IOM logo is at the bottom left, and the text 'Advising the Nation. Improving Lives.' is at the bottom right.

CRISIS STANDARDS OF CARE
Based on a review of currently available crisis standards of care protocols, published literature, and testimony provided at its workshop, the committee concludes that there is an urgent and clear need for a single national set of guidance for states with crisis standards of care that can be generalized to all crisis events and is not specific to a particular type of event or setting. While this report provides a single general framework, individual disaster scenarios may require specific considerations, such as differences between man-made events and sudden-onset events, while the key elements and components remain the same.

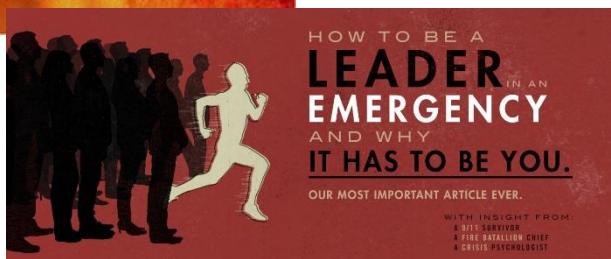
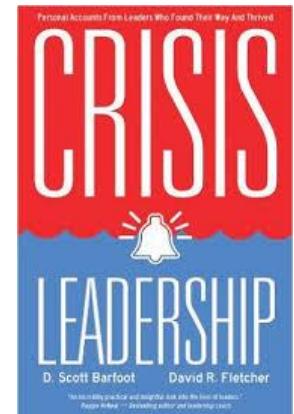
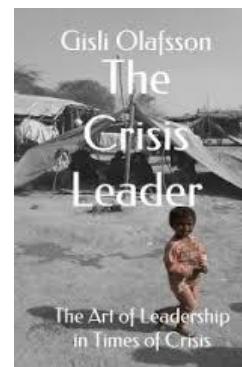
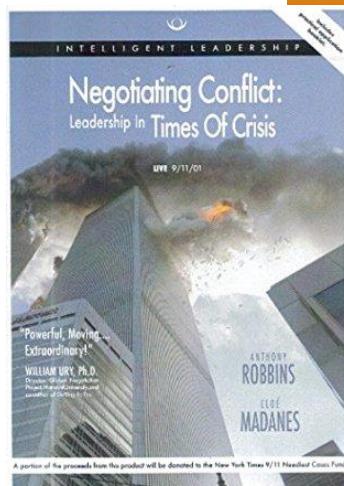
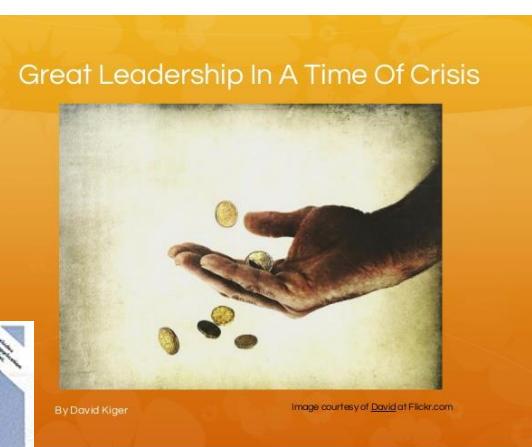
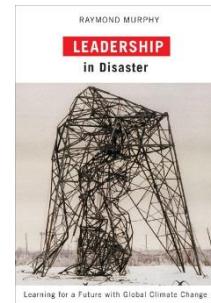
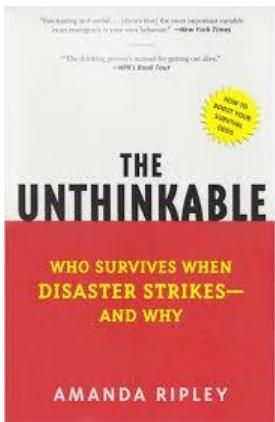
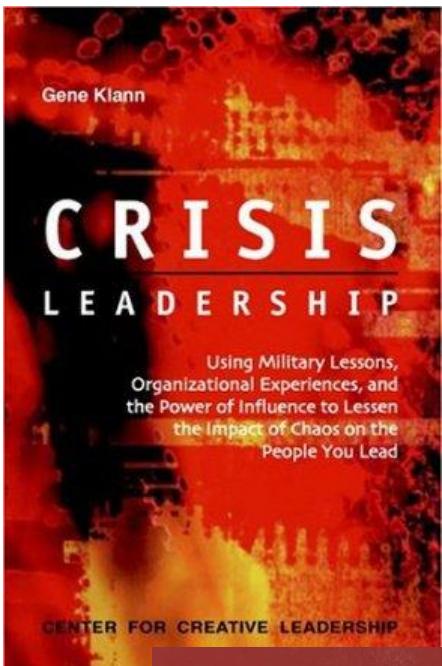
A Toolkit for Indicators and Triggers
The toolkit is designed to assist states and local public health officials, health-care facilities, and providers in the development of systematic and comprehensive policies and practices for crisis standards of care at times when resources are scarce.

The cover features the title 'Crisis Standards of Care' at the top, followed by 'SUMMARY OF A WORKSHOP SERIES'. Below that is a photograph of a medical monitor displaying vital signs. The IOM logo and the text 'Advising the Nation. Improving Lives.' are at the bottom.

FORUM ON MEDICAL AND PUBLIC HEALTH PREPAREDNESS FOR CATASTROPHIC EVENTS
This report summarizes the findings and recommendations from a forum held in 2011 to discuss the need for a national framework for crisis standards of care, the development of a toolkit for indicators and triggers, and the role of the National Academies in supporting the field.

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Crisis Leadership



Veenema, T. G., Deruggiero, K., Losinski, S. L., & Barnett, D. (2017). Hospital Administration and Nursing Leadership in Disasters: An Exploratory study using concept mapping. *Nursing Administration Quarterly*. April/June, Vol.41, Iss. 2, pp.151-163.

Characteristics of the highest importance to ensure excellence in disaster response:

- Decision making skills
- Communication
- Leadership qualities
- Understanding of the organizational culture
- Strong personal attributes
- Education level
- Disaster management skills.

The five events that most concerned hospital administrators/executive nurse leaders:

- *Infectious disease outbreak*
- Active shooter
- Terrorist event
- Riots/ civil unrest
- Bomb threat/Bomb

