

# Floods, Fires and a Pandemic...oh my!

## Melanie Dowling

#### INTRODUCTION

Disasters come in different forms all over the world causing disruption over both short and long periods of time also causing great damage or in some cases death. Disasters include:

- Natural/environmental disasters (i.e. floods, fires, earthquakes, tornadoes and hurricanes)
- Chemical disasters and radiological/nuclear disasters
- Biological disasters (i.e. pandemics)
- Explosive incidents

Worldwide the most prevalent disaster in 2020, which is the novel COVID-19 pandemic virus is constantly mutating, making it difficult to develop vaccines and treatments. Disasters, including pandemics which cause a massive strain on the healthcare system due to lack of medical supplies available.

### SIGNIFICANCE

- Every year disasters kill approximately 90,000 people and affect the lives of approximately 160 million people worldwide (World Health Organization, 2020)
- In 2010, the Centers for Disease Control and Prevention evaluated China for their emergency readiness and found China's reserve supplies to be 37.5%, and only 4.8% of all medical facilities were prepared (Wang et al., 2020)
- Due to lack of personal protective equipment (PPE) during the COVID-19 pandemic 3,300 healthcare workers (HCWs) were infected and 22 died in China (Mason, 2020)
- March 5, 2020 the union of National Nurses United reported in a survey of 6,500 nurses that 30% said that their organization had a sufficient PPE stock to respond to the surge event (Mason, 2020)

#### **POSITION STATEMENT**

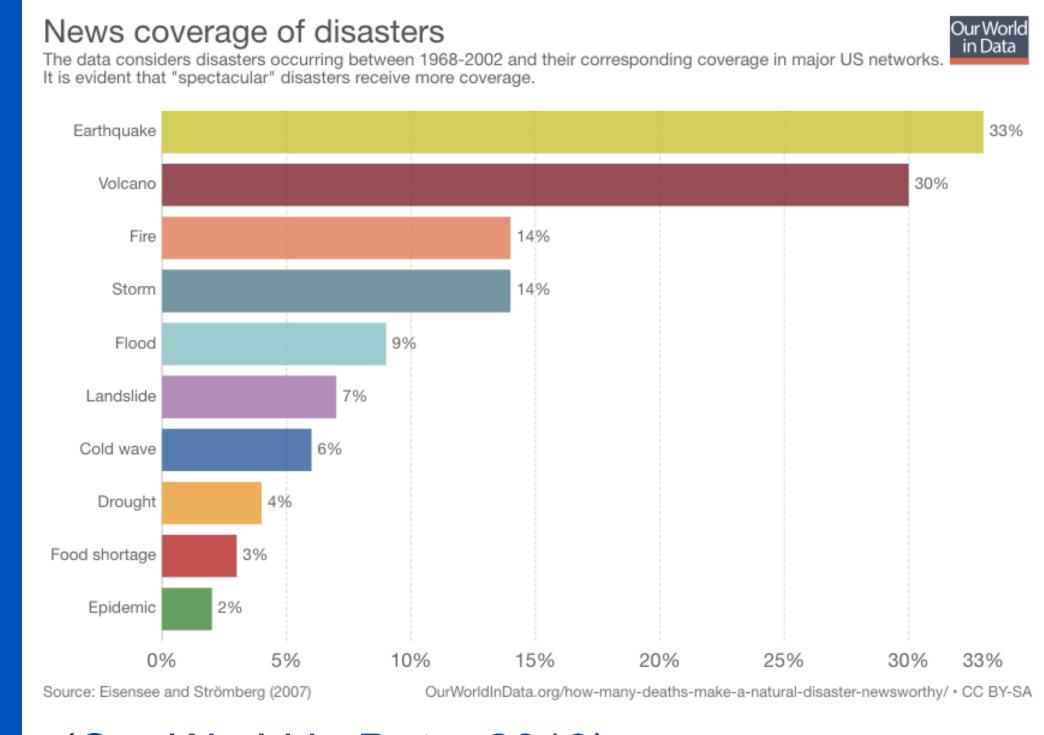
HCWs in hospitals are not prepared to handle disasters in the community due to lack of training and PPE.

#### SUPPORT FOR POSITION

- According to the union National Nurses United, 44% of nurses had employers give them appropriate information about COVID-19 and how to respond to it thus reducing staff anxiety (Mason, 2020)
- HWCs are experiencing anxiety within the workplace due to lack of data on how to protect themselves from COVID-19 (Mason, 2020)
- During the H1N1 influenza of 2009, the United States suffered from a shortage of PPE (Wang et al., 2020)
- Recent viruses such as Ebola, Zika and Middle East respiratory syndrome proved that the we are not equipped to handle a pandemic (Greenberger, 2018)
- In China, due to lack of PPE the healthcare workers were told to reuse masks that were previously used (Mason, 2020)
- Healthcare workers reusing their masks exposed them to the virus and caused some to become ill and/or die (Mason, 2020)
- The "Interim Infection Prevention and Control Recommendations" raised concern within healthcare as the recommendation was to use facemasks in leu of the N95 (Mason, 2020)
- Regular face masks do not protect against the COVID-19 pandemic like N95 masks (Mason, 2020)

#### IMPLICATIONS FOR PRACTICE

- Those working within healthcare should receive yearly training on the proper use of PPE. Such as proper technique for donning and doffing (Mason, 2020)
- The different layers of government (federal, state and local), need to work together with public health nurses to develop a more effective response to pandemic surge events (Mason, 2020)
- HCWs should receive training on surge events. Which can be both internal or external events within the healthcare setting (Mason, 2020)
- Surge event training allows for facilities to be prepared for the possibility of a pandemic, fire or flood in the future (Mason, 2020)
- The federal government should work with nurses ensure that the nation's health care sector will have a better supply of PPE, including N95 and reusable respirators to eliminate waste (Mason, 2020)
- The United States should have factories on American soil to have the ability to produce PPE during surge events. As most PPE is produced overseas in China (Mason, 2020)
- Public health nurses should help the media properly educate the public on disasters instead of spreading fear and panic



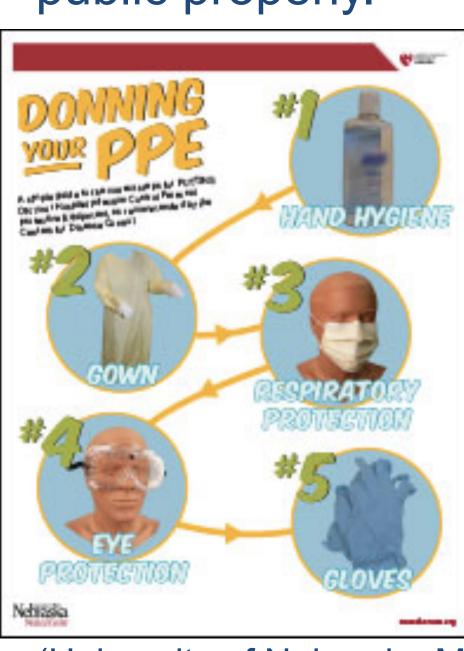
(Our World in Data, 2019).

#### CONCLUSION

Hospitals are not properly equipped to handle disasters within the community due to lack of training and PPE for healthcare workers.

HCWs should receive proper training for PPE, hygiene and updates from management with new protocols.

Community nurses should work with local, state and federal government officials and the media to help with educating the public properly.





(University of Nebraska Medical Center, 2020).

#### REFERENCES

Greenberger, M. (2018). Better prepare than react: Reordering public health priorities 100 years after the Spanish Flu epidemic.

American Journal of Public Health, 108(11),1465-1468. Retrieved April 5, 2020, from <a href="https://doiorg.libproxy.misericordia.edu/10.2105/AJPH.2018.304682">https://doiorg.libproxy.misericordia.edu/10.2105/AJPH.2018.304682</a>

Mason, D. J. (2020). Protecting health care

workers against COVID-19 and being

prepared for future pandemics. Retrieved April 6,

2020 from

https://jamanetwork.com/channels/heal forum/fullarticle/2763478

Our World in Data. (2019). *Natural Disasters*. [Digital image]. Retrieved April 6, 2020, from <a href="https://ourworldindata.org/natural-disasters">https://ourworldindata.org/natural-disasters</a>

University of Nebraska Medical Center (2020). Personal
Protective equipment- hospital infection control.
[Digital image]. Retrieved April 6, 2020, from <a href="https://app1.unmc.edu/nursing/heroes/print-hppe.cfm">https://app1.unmc.edu/nursing/heroes/print-hppe.cfm</a>

Wang, X., Zhang, X., & He, J. (2020). Challenges to the system of reserve medical supplies for public health emergencies: Reflections on the outbreak of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) epidemic in China. *BioScience Trends*, 14(1), 3–8. <a href="https://doi-org.libproxy.misericordia.edu/10.5582/bst.2">https://doi-org.libproxy.misericordia.edu/10.5582/bst.2</a> 020.01043

World Health Organizations. (2020). *Natural events*.

Retrieved April 6, 2020, from

<a href="https://www.who.int/environmental\_health\_emergencies/natural\_events/en/">https://www.who.int/environmental\_health\_emergencies/natural\_events/en/</a>