

Extreme Weather Case Study:

You are stationed at a large public hospital in Puerto Rico in the year 2022. Yesterday, a Category 5 hurricane tore across the island, and you have been selected to join the Emergency Disaster Management Unit.

Current situation: The entire electrical grid for the island is shut down due to storm damage. Your hospital has a back-up generator allowing for limited patient services, but fuel is scarce. Eighty percent of hospitals on the island are closed due to damages. Telecommunications are extremely limited and non-existent in most areas. Many roads, especially leading to remote communities, are impassible. Much of the local crop production such as bananas, coffee, and citrus has been decimated. Islanders have lost their homes, their jobs, and their way of life. Many have lost family members either to direct damage from the storm, or from subsequent health issues. The emotional toll the storm has had on people is incalculable. People are evacuating, but the process is slow. Staff shortages in every industry are immense, but particularly within the health industry – it seems that the system is so fragile, it is on the verge of collapse. There are hundreds of thousands in need of medical care. Conditions for aid workers are dangerous and the death toll is unknown.

Your Mission: The Governor has asked your team to establish a list of top 5 priorities in terms of caring for the health of the Island, and asked for an action plan to present to the news media on this evening's broadcast. Work with your team to establish the most likely essential needs and how they might be addressed.

Answer the following in small groups:

One person to volunteer to take notes and another to present to large group after returning. Use the "Group #" hyperlink to a Google Doc to take notes together.

During the small Group session

- Introduce yourself to your team, your specialty, your location
- Find 2 sources to answer the discussion question.
- Be prepared to present your findings on the question(s) assigned to your group in the large group in a 2-3 min presentation.
- Expect 15-20 minutes of small group discussion before recollecting
- If time allows, please consider your top 5 priorities in terms of caring for the health of the island which will be discussed more as a large group.

Group 1:

What populations are most vulnerable? How can they be accessed?

-Patients with complex social determinants of health (poor, food insecure, lack of resources to relocate during emergencies)

-young and elderly

-closest to flood zone

-dialysis patients

-hospice patients

-unable to ambulate/wheelchair bound or amputees

<https://www.health.state.mn.us/communities/ep/afn/atriskshort.html>

<https://www.un.org/en/development/desa/population/publications/pdf/technical/TP2019-4.pdf>

https://envirn.org/wp-content/uploads/2017/06/Environmental-Health-in-Nursing_Unit-VI.pdf
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Group 2

What sectors could you partner with to achieve your goals?

- housing
- Social services
- Food and water systems
- Waste management
- and many more

- *Relevant publications*

- *Collaborations in the long term:*

- https://cpb-us-w2.wpmucdn.com/usfblogs.usfca.edu/dist/9/244/files/2016/05/tobinjane_6169444_64615508_2018-Jane-Tobin-Capstone-final-3-2cpgp94.pdf

- *Role of non-profits: Simo, G., & Bies, A. L. (2007). The role of nonprofits in disaster response: An expanded model of cross-sector collaboration. Public administration review, 67, 125-142.*

Group 3:

How can hospitals and public health departments respond? What guidance can you provide?

How will you portray this information to the media?

- Share where can people find resources and medical services*
- expand services needed most*
- communicate via trusted messenger with uniform message*
- triage to hospital vs less emergent care center*
- careful communication, keep people informed but don't trigger panic*
- Communication resources:*

- <https://ecoamerica.org/wp-content/uploads/2014/12/ecoAmerica-CRED-2014-Connecting-on-Climate.pdf>
- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/215678/dh_125431.pdf
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Group 4

What impending public health concerns should the government be concerned about?

- mental health*
- PTSD*
- supplying basic food and water*
- provide people with sense of community*
 - <https://emergency.cdc.gov/>
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