# Puerto Rico: After Natural Disasters

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#### Introduction

- In September of 2017, the Category 5 Hurricane Maria made landfall in Puerto Rico, causing nearly \$90 billion in damage and damaging roughly 300,000 homes (Talbot).
- Historically, Puerto Rico has loosely enforced housing regulations, leading to many households not being built to code or lacking the proper documentation (Talbot).

Many places were damaged, not only homes but landmarks too. If there is a way to become better prepared, then it should be available to all citizens.

### Research Question

How can we help the island of Puerto Rico better withstand natural disasters?

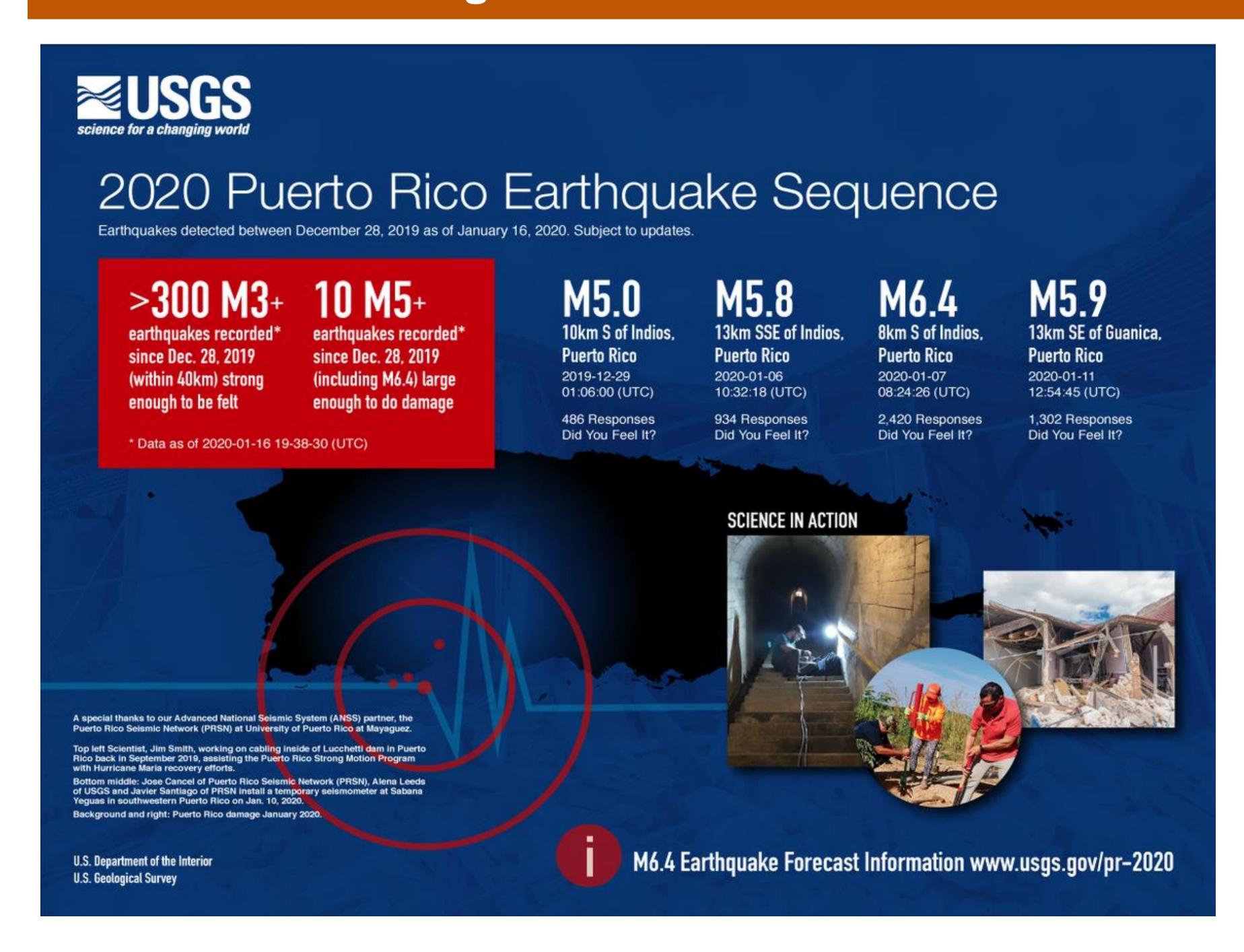
## Methods



To make a house "hurricane-proof" there are a few key things that you can do.

- Use a material, like concrete, that is sturdier than wood, paneling, or bricks.
- Get hurricane shutters made of metal or poly-carbonate plastic to cover windows or large openings.
- Try and direct the wind away, meaning you can use tiedown straps or get sloped roof tiles.

# Figures and Results



Because Puerto Rico is on a fault line, there are occasionally earthquakes. These earthquakes, especially the 6.4 Magnitude that happened 2 years after Maria, can damage the already broken structures of homes.





This is Puerto Rico 6 months after Hurricane Maria, flooded with water.

#### Conclusion



Patients from community pharmacies in San Juan, Puerto Rico reported difficulty with access to medications and lack of appropriate storage for refrigerated medications following the natural disaster of Hurricane Maria (Jimenez). There was a transportation problem, but the community had faith. If we want to better the island, we need to better the ways we protect the community.

#### References

2020 Puerto Rico Earthquake Sequence (as of Jan. 16, 2020), www.usgs.gov/media/images/2020-puerto-rico-earthquake-sequence-jan-16-2020.

"7 Best Practices for Building a Hurricane-Proof House." *BMS CAT*, 2 Nov. 2020, www.bmscat.com/2019/05/7-best-practices-for-building-a-hurricane-proof-house/.

Chokroverty, Linda. "66.4 THE EARLY AFTERMATH OF EARTHQUAKES IN PUERTO RICO: ENLISTING THE COMMUNITY IN MENTAL HEALTH RECOVERY." *Clinical Key*, 1 Oct. 2020, www-clinicalkey-com.proxy.lib.wayne.edu/#!/content/playContent/1-s2.0-S0890856720308133?returnurl=null&referrer=null.

El-Anwar, Omar, Khaled El-Rayes, and Amr Elnashai. "Optimizing Large-Scale Temporary Housing Arrangements After Natural Disasters." *Journal of Computing in Civil Engineering*, vol. 23, no. 2, 2009, pp. 110-118.

Jiménez-Mangual, Beatriz, C., et al. "Description of Patients Medications Needs and the Community Pharmacist's Role in Puerto Rico Following a Natural Disaster." *Journal of Primary Care & Community Health*, vol. 10, 2019.

*ProQuest*, https://proxy.lib.wayne.edu/login?url=https://www-proquest-com.proxy.lib.wayne.edu/scholarly-journals/description-patients-medications-needs-

community/docview/2375717511/se-2?accountid=14925, doi:http://dx.doi.org.proxy.lib.wayne.edu/10.1177/2150132719842701.

Leighton, Heather. "Before and after Photos of Puerto Rico Shows the Island Six Months after Hurricane Maria." *Chron*, Houston Chronicle, 21 Mar. 2018, www.chron.com/news/science-environment/article/Before-after-photos-Puerto-Rico-12770381.php#photo-15266560.

Straub, Adam M. "Natural Disasters Don't Kill People, Governments Kill People: Hurricane Maria, Puerto Rico–Recreancy, and 'Risk Society." *Springer Link*, 14 Oct. 2020, link-springer-com.proxy.lib.wayne.edu/article/10.1007/s11069-020-04368-z#citeas.

Talbot, Jessica, et al. "Informality in Postdisaster Reconstruction: The Role of Social Capital in Reconstruction Management in Post–Hurricane Maria Puerto Rico." Research Gate, 2020.