

Assessing the Intersection of Health Outcomes and Disaster and Risk Management

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Introduction

- Brazil is a large country with a wide diversity of biomes, communities, and disasters
- Disaster management and prevention is important to reduce the impact and devastation of such events



Brazil has a diversity of biomes, from the coastline city of Rio de Janeiro (left) to the semi-arid city of Brumandinho (center) to the mountainous city of Petrópolis (right)

Objective

Study risk and disaster management in Brazil, and restructure how the world thinks about disasters

CEPEDES (Center for Studies and Research in Emergencies)

- CEPEDES seeks to improve Brazil's risk and disaster management
- The internship aimed to study the different disasters Brazil currently faces, from COVID-19, mining dam disasters, floods, landslides, to oil spills



CEPEDES and Disaster and Risk Reduction

- CEPEDES organized guides (left) to **standardize** disaster management and response across Brazil
- Impact of disaster is primarily dependent on **structures of society** (e.g. healthcare access), not the trigger of the disaster itself (e.g. disease)
- **Risk** is how these social constructions of society interact and interconnect to across systems to destabilize communities
- Encourage more **prospective**, rather than reactive, measures

Brumadinho Mining Dam Disaster

- The 2019 mining dam disaster in Brumandinho, Minas Gerais, Brazil released a flood of mining waste into the neighboring towns, killing over 270 people
- Currently presenting the results of the first year of a 10-year study to the scientific community and local communities impacted
- One such community was Córrego do Feijão – the presentation helped **empower the victims** with the knowledge and ability to **take action for their own wellbeing**
- Efforts from the municipality, state, Fiocruz, and Ministry of Health are being made to assess the long-term health impacts (e.g. heavy metals)
- Each level had a limit to the impact and depth of their work if they worked independently, so they agreed to **collaborate together** in order to more effectively surveil the communities' health
- Tension between holding the mining dam company, Vale, responsible, and continuing to receive its benefits and support



Researchers answer questions from the scientific and local community following their presentations



Researchers present the results of their study of the health impacts of the mining dam disaster to the residents of Córrego do Feijão

Conclusions

- Working with CEPEDES has restructured how I approach public health issues and the importance of building resilience in communities from the **foundation**
- Effectiveness of a project, policy, or goal involves **interdisciplinary** and **multilevel** cooperation

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The CEPEDES team