A biomarker sub-stream will include ~1,000 participants who provide a hair and saliva sample for cortisol and epigenetic analysis.

Results: N/A

Conclusion: There is an urgent need for detailed individual-level data to analyze the nature of the association between disaster exposure and chronic disease. In 2020 alone, 16.8 million Australians were exposed to disasters. The frequency and severity of disasters are only expected to grow due to climate change. As the first prospective cohort study to longitudinally track individual-level disaster exposure and chronic disease outcomes, RECOVER will fill a critical evidence gap.

The Knowledge and Training Needs of Disaster Medicine among Healthcare Professionals and Medical Students in Makkah City: A cross-sectional study

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Introduction: Disaster medicine aims to prevent and respond to devastating events. Health professionals need to understand their role in disaster management to effectively respond when disasters occur. The aim of the study is to assess the knowledge level, preparedness, and the training gaps regarding disaster medicine among health professionals and medical students/interns in Makkah (Mecca) city.

Method: This is an online-based cross-sectional study design conducted in Makkah City. Physicians, nurses, and medical students/interns were included. Continuous variables were reported as means and confidence intervals. While categorical variables were reported as frequencies and percentages. Data were analyzed by Chi-square and Anova test as appropriate.

Results: Of the 651 participants, the mean age was 27.69 (95% CI 28.13 to 27.24) with 360 (55.30%) participants being males. The mean average score of disaster medicine knowledge was 7.90 (95% CI 8.29-7.51) for medical students/interns, 8.12 (95% CI 8.77-7.47) for nurses, and 4.85 (95% CI 5.21-4.49) for physicians (P <0.0001). The majority of participants selected first-aid skills and triage and evacuation as crucial aspects to be covered in learning disaster medicine, 406 (62.4%) and 373 (57.3%) respectively.

Conclusion: In this study, the level of knowledge regarding disaster management is average among the healthcare population. Certain aspects of disaster medicine are needed to be focused on such as first-aid skills and triage and evacuation. Incorporating disaster medicine as part of training programs is a demand.

The Most Vulnerable Populations: Exploring the FEMA National Risk Index by Racial/Ethnic Group

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Introduction: The US Federal Emergency Management Agency (FEMA) has created a publicly available National Risk Index (NRI) using natural disaster and community risk factor data to provide numeric and visual representations of communities' disaster risk. Of particular interest is the index's use of the social vulnerability and community resilience variables. This study's purpose was to identify and explore differences in vulnerability and resilience based on racial demographic data at the census tract level. By identifying communities at the highest risk, we can address modifiable risk factors to improve natural disaster outcomes for vulnerable populations.

Method: This project used merged data from the US Census Bureau's 2019 American Community Survey and source data for the FEMA NRI. Using Microsoft Excel, we created scatter plots of the social vulnerability and community resilience variables by census tract and predominant racial group, and calculated the mean, standard deviation, and statistical difference between those variables by race.

Results: In census tracts where Native Americans made up ≥50% of the population:

1) There was a positive linear association between percent of Native Americans and increased social vulnerability.

2) The average social vulnerability score (ASV) was significantly higher (ASV = 55.74) than for predominantly White tracts (ASV = 31.43) ($p < 0.001$).

3) The average risk score (ARS) was significantly higher (ARS = 30.18) compared to predominantly White tracts (ARS = 16.98) ($p < 0.001$).

4) The average resilience index score (ARIS) was significantly lower (ARIS = 51.83) than predominantly White tracts (ARIS = 55.08) ($p < 0.001$).

Conclusion: Results show that census tracts with predominantly Native American populations face significantly higher natural disaster risk and social vulnerability, and have significantly lower resilience scores compared to predominantly White tracts. Using modifiable factors to improve community resilience and decrease social vulnerability, the US can better protect communities at high natural disaster risk.

Hypothermia Progression Time Course for Evacuation Planning

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