Tropical Cyclone Bibliography

Matt

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Here is an example reference: (Kinney et al. 2008)

Here are some more references (Ryan et al. 2015; Goldmann and Galea 2014)

Here are example bullet points:

- Item 1
- Item 2
- Item 3

Here is an example quotation:

> "Right here." (Kinney et al. 2008)

(Kinney et al. 2008)

> Spatial Scale:

- "National Weather Service maps of storm tracks were used to identify the parishes that were hit by the centers of each storm, and thus were likely to have experienced the most intense effects of the storm" (Kinney et al. 2008)

Exposure:

- Severity of prenatal storm exposure assessed two ways: intensity of storm's impact on parish, and how vulnerable residents would be if storm hit their parish. (Intensity and Vulnerability).
- Using data from NCHS, 40 week gestations were assumed to estimate the gestional age of babies during the storm.

Results/Outcomes:

- AD(Autistic Disorder) had significantly higher prevalence in those with higher prenatal storm exposure. AD Prevalence also depended on Prenatal Period of Storm Exposure (what gestational period the baby was in when the storm exposure occured)

(Bayleyegn et al. 2006)

Spatial Scale:

- Escambia and Santa Rosa counties were identified as those most impacted by Hurricane Ivan by Florida Department of Health. Probability Proportional to Size Sampling (modified from the WHO), was used to obtain a sample of 30 clusters within these counties, which were put on maps given to interview teams.
- 7 households interviewed per cluster, for a total of 420 households interviewed.
- Interviews administered asking for demographic info, housing info, damage info, etc.

Temporal scale

- Survey instruments administered over 3 days, 6 days after Hurricane Ivan made landfall.

Results/Outcomes

- Most commonly reported "Greatest needs" were garbage pickup and restoration of electricity, after that it was access to medical care, medications, home repair, and ice. -Interviews and surveys were intended to look at what the health and safety impacts were after the hurricane, it turned out to be a wide variety of factors including poor environmental hygiene, living in damaged homes, sleep disturbance, respiratory problems, and the aformentioned "Greatest Needs."

(Hagy, Lehrter, and Murrell 2006)

Temporal/Spatial Scale:

- Water quality surveys conducted monthly from 2000 to 2004 at up to 15 sites located on two transects within the Pensacola Bay system. Post Hurricane Ivan surveys were taken October 6 and November 5, or 20 and 50 days after the storm.

- Extent of inundated land and maximum height of tidal surge were estimated by directly observing locations and heights of high water marks around perimeter of Pensacola Bay. -Total Prism Model used to estimate the magnitude of exchane associated with storm surge.

Outcome/Results:

- Hurricane Ivan caused water to rise continuously for 31 hours.
- Storm surge inundated 165 km^2 of land, which increased the Bay's surface area by 50% and it's volume by 230%.
- Based on Total Prism Model, storm surge flushed a maximum of 60% of the Bay's water out to sea as it retreated - this must have increased salinity of the Bay substantially.
- Using Navy's model estimate of offshore salinity in the Tidal Prism Model, Ivan's surge was computed to have increased the mean salinity of the Bay from 23.4 to as high as 30.0.
- Tidal surge replaced Bay waters with low-nutrient, well-oxygenated, oligotrophic Gulf waters
- Post-storm freshwater input stimulated an increase in phytoplankton biomass, which persisted for several weeks.
- Hypoxia was intensified relative to the seasonal norm.

(Lieberman-Cribbin et al. 2017)

Spatial Scale:

- Self reported flood data
- "Public macro-level flood data was obtained from the FEMA Modeling Task Force (MOTF) Hurricane Sandy Impact Analysis" (Lieberman-Cribbin et al. 2017)
- New York State 3 meter spatial resolution storm surge product downloaded and imported into licensed version of ArcGIS to provide water depth above ground in New York City and Long Island
- Street level geo-coding in SAS using datasets generated from U.S. Census Bureau TIGER/Line shapefiles. Process matches street, city, and zip-code from survey dataset with lookup dataset to produce a coordinate

(S. C. Grabich et al. 2016)

Spatial Scale:

- Births to (only) Florida residents linked to address to link to hurricane exposure
- Hurricane risk assessed at county level

Temporal Scale:

- Risk period begins at 20 weeks of gestation
- Pregnancy divided into exposed time and unexposed time after 20 weeks

- Study population included births with estimated date of conception between October 24, 2003 and September 26, 2004.

(Harville et al. 2018)

Spatial Scale:

- Convenience sampling at a broad range of community and health facilities.

(Scaramutti et al. 2019)

Spatial Scale:

- Major cities in Florida and Puerto Rico were coded as urban with 0, and all other areas were coded as rural/suburban with a 1.

(Bianchette et al. 2009)

Temporal Scale:

- Post hurricane images of vegetation take 9.5 months after hurricane to ensure that vegetation damage observed was permanent.

(S. Grabich et al. 2016)

Spatial/Temporal Scale:

- Hurricane disaster exposure 3 methods, FEMA Presidential disaster declarations, spatial data on specific storm trajectory (storm tracks with a symmmetrical buffer around them), novel meteorological measure based on Saffir-Simpson hurricane intensity scale.
- Preterm birth and low birth weight rates collected from the county level of exposed areas

(Bevilacqua et al. 2020)

Spatial

- ggmaps package in R was used to generate distribution of zip codes of the participants

Temporal

(Lane et al. 2013)

Spatial

- "Based on vulnerable subgroups identified in the literature, potential indicators of population vulnerability for which data are available were identified and mapped within the 42 NYC United Hospital Fund (UHF) neighborhoods located within any NYC hurricane evacuation zone. UHF neighborhoods are zip code-aggregated areas within all five boroughs. For each indicator, prevalences were categorized intoquartilesbyneighborhood."

(Lane et al. 2013)

(Schwartz et al. 2018)

Spatial

- Convenience sampling from the Greater Houston area

Temporal

- Research team arrived in Houston less than 3 weeks after Hurricane Harvey made landfall

(Pugatch 2019)

- "I use windspeed data on tropical storms originating in the Atlantic and eastern North Pacific oceans (the regions relevant to Mexico), available from the National Oceanic and Atmospheric Administration (NOAA) Tropical Prediction Center, a U.S. government agency. NOAA analyzes data from reconnaissance aircraft, ships, and satellites to create "best tracks" of individual storms: positions (latitude and longitude) of storm centers at 6-hourly intervals, combined with intensity information (windspeed and barometric pressure; Jarvinen, Neumann, & Davis, 1993; Davis, Brown, & Preston, 1984; Chu, Sampson, Levine, & Fukada, 2002). Complete records for both ocean regions are available since 1949. Fig. 1 maps storm best tracks making landfall in Mexico" (Pugatch 2019)
- "I use data on tropical storm exposure and mortality in all 31 Mexican states, plus Mexico City, for each month during 1990– 2011 (I chose the starting period based on the availability of microdata on mortality). I create an index to measure storm severity by incorporating two elements, windspeed and population density" (**???**)

References

Bayleyegn, Tesfaye, Amy Wolkin, Kathleen Oberst, Stacy Young, Carlos Sanchez, Annette Phelps, Joann Schulte, Carol Rubin, and Dahna Batts. 2006. "Rapid Assessment of the Needs and Health Status in Santa Rosa and Escambia Counties, Florida, After Hurricane Ivan, September 2004." *Disaster Management & Response* 4 (1). Elsevier: 12–18.

Bevilacqua, Kristin, Rehana Rasul, Samantha Schneider, Maria Guzman, Vishnu Nepal, Deborah Banerjee, Joann Schulte, and Rebecca M Schwartz. 2020. "Understanding Associations Between Hurricane Harvey Exposure and Mental Health Symptoms Among Greater Houston-Area Residents." *Disaster Medicine and Public Health Preparedness*. Cambridge University Press, 1–8.

Bianchette, TA, K-B Liu, NS-N Lam, and LM Kiage. 2009. "Ecological Impacts of Hurricane Ivan on the Gulf Coast of Alabama: A Remote Sensing Study." *Journal of Coastal Research*. JSTOR, 1622–6.

Goldmann, Emily, and Sandro Galea. 2014. "Mental Health Consequences of Disasters." *Annual Review of Public Health* 35. Annual Reviews: 169–83.

Grabich, SC, J Horney, C Konrad, and DT Lobdell. 2016. "Measuring the Storm: Methods of Quantifying Hurricane Exposure with Pregnancy Outcomes." *Natural Hazards Review* 17 (1). American Society of Civil Engineers: 06015002.

Grabich, Shannon C, Whitney R Robinson, Stephanie M Engel, Charles E Konrad, David B Richardson, and Jennifer A Horney. 2016. "Hurricane Charley Exposure and Hazard of Preterm Delivery, Florida 2004." *Maternal and Child Health Journal* 20 (12). Springer: 2474–82.

Hagy, James D, John C Lehrter, and Michael C Murrell. 2006. "Effects of Hurricane Ivan on Water Quality in Pensacola Bay, Florida." *Estuaries and Coasts* 29 (6). Springer: 919–25.

Harville, Emily W, Arti Shankar, Christine Dunkel Schetter, and Maureen Lichtveld. 2018. "Cumulative Effects of the Gulf Oil Spill and Other Disasters on Mental Health Among Reproductive-Aged Women: The

Gulf Resilience on Women's Health Study." *Psychological Trauma: Theory, Research, Practice, and Policy* 10 (5). Educational Publishing Foundation: 533.

Kinney, Dennis K, Andrea M Miller, David J Crowley, Emerald Huang, and Erika Gerber. 2008. "Autism Prevalence Following Prenatal Exposure to Hurricanes and Tropical Storms in Louisiana." *Journal of Autism and Developmental Disorders* 38 (3). Springer: 481–88.

Lane, Kathryn, Kizzy Charles-Guzman, Katherine Wheeler, Zaynah Abid, Nathan Graber, and Thomas Matte. 2013. "Health Effects of Coastal Storms and Flooding in Urban Areas: A Review and Vulnerability Assessment." *Journal of Environmental and Public Health* 2013. Hindawi.

Lieberman-Cribbin, Wil, Bian Liu, Samantha Schneider, Rebecca Schwartz, and Emanuela Taioli. 2017. "Self-Reported and Fema Flood Exposure Assessment After Hurricane Sandy: Association with Mental Health Outcomes." *PLoS One* 12 (1). Public Library of Science: e0170965.

Pugatch, Todd. 2019. "Tropical Storms and Mortality Under Climate Change." *World Development* 117. Elsevier: 172–82.

Ryan, Benjamin J, Richard C Franklin, Frederick M Burkle, Kerrianne Watt, Peter Aitken, Erin C Smith, and Peter Leggat. 2015. "Analyzing the Impact of Severe Tropical Cyclone Yasi on Public Health Infrastructure and the Management of Noncommunicable Diseases." *Prehospital and Disaster Medicine* 30 (1). Cambridge University Press: 28–37.

Scaramutti, Carolina, Christopher P Salas-Wright, Saskia R Vos, and Seth J Schwartz. 2019. "The Mental Health Impact of Hurricane Maria on Puerto Ricans in Puerto Rico and Florida." *Disaster Medicine and Public Health Preparedness* 13 (1). Cambridge University Press: 24–27.

Schwartz, Rebecca M, Stephanie Tuminello, Samantha M Kerath, Janelle Rios, Wil Lieberman-Cribbin, and Emanuela Taioli. 2018. "Preliminary Assessment of Hurricane Harvey Exposures and Mental Health Impact." *International Journal of Environmental Research and Public Health* 15 (5). Multidisciplinary Digital Publishing Institute: 974.