Assessing exposure to hurricanes and other tropical storms for epidemiological research

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Motivation

Assessing exposure

Hazard-specific metrics

- Distance from the storm
- High winds
- Rainfall
- Flood events
- Storm events

Distance from storm

[Intro to best tracks]

Distance from storm

[Importance of interpolating tracks]

Wind exposure

[Reminder of best tracks, intro to Willoughby model]

Wind exposure

[Factors of doing the modeling (transfering from surface to gradient and back, etc.), other applications of the model]

Rain exposure

[Intro to NLDAS-2 data]

Rain exposure

[Showing how to ID date of closest approach]

Rain exposure

[Showing map from hurricaneexposure]

Flood and tornado events

[Intro to NOAA Storm Events]

Flood and tornado events

[Figure from hurricaneexposure]

Agreement between exposure metrics

Agreement on intensity

[How we measured this]

Agreement on intensity

[What we found]

Agreement at the county level

[How we measured this]

Agreement at the county level

[What we found]

Software