Introduction for UCSF meeting

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Education and Position

B.S. in Chemical Engineering North Carolina State University

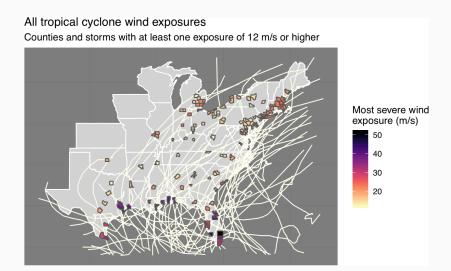
Ph.D. in Environmental Engineering Yale University

PostDoc in Biostatistics Johns Hopkins Bloomberg School of Public Health

Asst. Prof. of Environmental Epidemiology Dept. of Environmental & Radiological Health Sciences, CSU



Environmental epidemiology



Environmental epidemiology

Respiratory hospitalization risks during the top 10 wind-based storm exposures compared to matched unexposed days

Tropical cyclone	County	Wind ^a	Percent increase ^b
Wilma (2005)	Palm Beach County, FL	52	38 (-3, 95)
Charley (2004)	Lee County, FL	45	25 (-10, 73)
Charley (2004)	Orange County, FL	41	44 (4, 99)
Ike (2008)	Harris County, TX	39	44 (25, 65)
Charley (2004)	Volusia County, FL	37	8 (-15, 38)
Wilma (2005)	Broward County, FL	37	66 (36, 104)
Katrina (2005)	Broward County, FL	34	36 (19, 57)
Frances (2004)	Palm Beach County, FL		35 (15, 59)
Irene (1999)	Broward County, FL		10 (-14, 41)
Irene (1999)	Palm Beach County, FL		40 (-3, 100)

^a Modeled maximum sustained surface wind (m/s) at county center

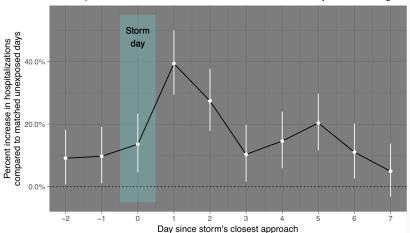


^b Percent increase in hospitalizations compared to matched unexposed days

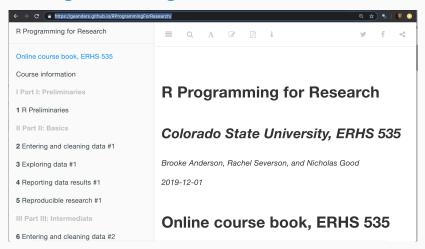
Environmental epidemiology

Respiratory hospitalization risks by lag day

Storm exposure assessed as maximum sustained winds in the county of 21 m/s or higher



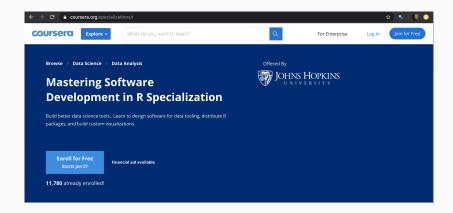
R Programming



https://geanders.github.io/ RProgrammingForResearch/



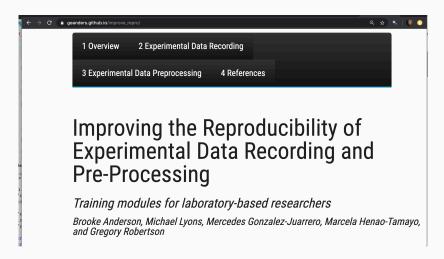
R Programming



https://www.coursera.org/specializations/r



Reproducible research



https://geanders.github.io/improve_repro/



Statistics for biology course



https://kind-neumann-789611.netlify.com/

Statistics for biology course

Topics include:

Clustering
Mixture Models
Testing
Networks and Trees
High-Throughput Count Data
Image Data
Supervised Data
Design of High-Throughput Experiments