Adding 2 more data sets changed my research question to: How does exposure to extreme heat events affect hospital admissions for cardiovascular disease in the United States, while controlling for air quality and access to green spaces?

Hypothesis: Exposure to extreme heat events, as measured by high temperature and heat index values, will increase the risk of hospital admissions for cardiovascular disease, with potentially greater effects in certain regions and for certain demographic groups. This relationship will be influenced by air pollution and access to green spaces, with higher levels of air pollution and lack of access to green spaces exacerbating the health effects of extreme heat events.

Datasets:

1. Extreme heat event data from the National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information, downloaded from <https://www.ncei.noaa.gov/access/metadata/landing-page/bin/iso?id=gov.noaa.ncdc:C00761>.
2. Cardiovascular disease hospitalization data from the Centers for Disease Control and Prevention (CDC), downloaded from <https://www.cdc.gov/dhdsp/data_statistics/index.htm>.
3. Demographic and socioeconomic data from the American Community Survey (ACS), downloaded from <https://www.census.gov/programs-surveys/acs>.

Added data sets:

1. Air quality data from the Environmental Protection Agency (EPA) Air Quality System (AQS), downloaded from <https://www.epa.gov/aqs>.
2. Green spaces data, downloaded from <https://www.mphonline.org/green-states/>

Variables:

• Extreme heat events: daily maximum temperature and heat index values for each county in the contiguous United States.

• Cardiovascular disease hospitalizations: number of hospitalizations for cardiovascular disease for each state (2009-2011).

• Demographic and socioeconomic: population, median household income, and education level for each state.

• Air quality: indicator is air toxics and the measure is the concentration of Benzene measured in micrograms per cubic meter (ug/m3)

• Green spaces: Rank of each state as based on the following four measures (weights): green energy prevalence (25%), open spaces and natural beauty (25%), waste diversion and recycling (25%) and social justice and access to clean outdoors (25%).

By using these five datasets and merging them together, you can gain a more comprehensive understanding of the relationship between extreme heat events and cardiovascular disease hospitalizations in the United States, while controlling for important demographic, socioeconomic, environmental, and access to green spaces factors.