

Environmental Exposures

Temperature

Air pollutants

PM2.5, O3, NO2

- gridMet has ~4km (1/24°) resolution of temperature and relative humidity
 - Weathermetrics converts relative humidity and temperature to dew point for apparent temperature (AT)

Data Sources

- EPA website has daily values for the three air pollutants at air monitor locations

- Assign AT by finding closest grid centroid to patient location

Coverage

- Assign air monitor data
 - Closest monitor
 - Closest continuous monitor
 - Weighted average of monitors within radius
 - Average of monitors within radius

- Will not capture microclimates smaller than the 4km x 4km resolution

Complications

- Air pollution varies spatially. Closest monitor may be best estimate but will probably have missing data. Can use MICE on closest monitor data and use closest continuous as sensitivity analysis