





Combined Emergency Department and Hospitalization Rates* of Asthma as Primary Diagnosis, per Census Tract and County Particulate Matter 2.5 μ , Connecticut 2014-2018

Connecticut Asthma Program

Legend

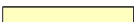


 CT DEEP Air Monitoring Station

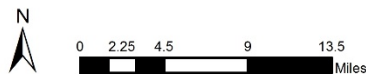
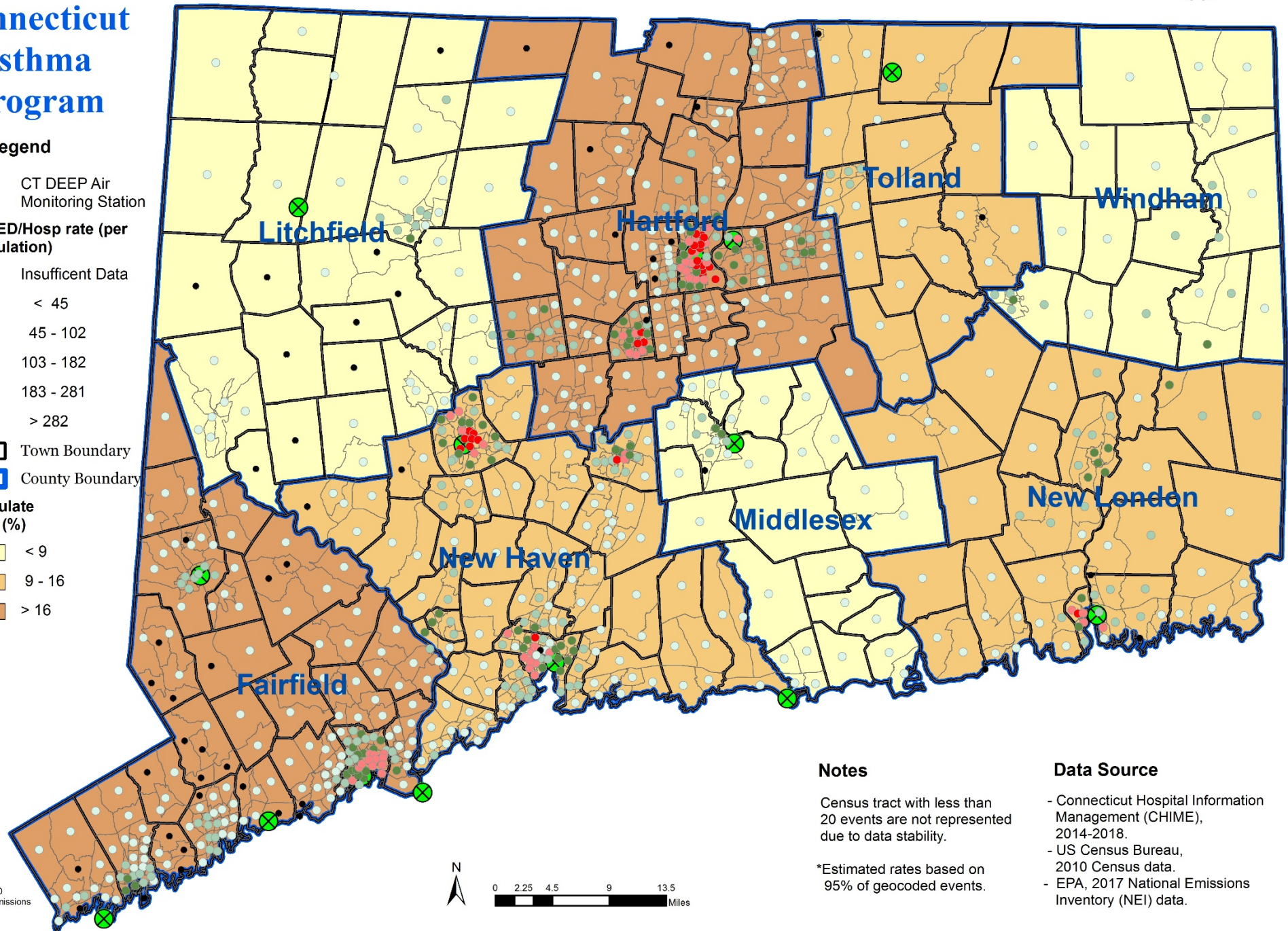
Combined ED/Hosp rate (per 10,000 population)

-  Insufficient Data
-  < 45
-  45 - 102
-  103 - 182
-  183 - 281
-  > 282

-  Town Boundary
-  County Boundary

2017 Particulate Matter 2.5 μ (%)

-  < 9
-  9 - 16
-  > 16



Notes

Census tract with less than 20 events are not represented due to data stability.

*Estimated rates based on 95% of geocoded events.

Data Source

- Connecticut Hospital Information Management (CHIME), 2014-2018.
- US Census Bureau, 2010 Census data.
- EPA, 2017 National Emissions Inventory (NEI) data.

Map Description

This map presents the state of Connecticut's five-year combined emergency department and hospitalization rates of asthma as primary diagnosis at the census tract layer, overlaid with the county layer featuring a one-year pollution level as a percentage from the total for the specific pollutant, in this case, with particulate matter size 2.5 micrometers (PM2.5). Sources of PM2.5 include direct emissions from combustion of gasoline, oil, diesel fuel and wood, but PM2.5 can also be formed indirectly in the atmosphere through chemical reactions of sulfur dioxide and nitrogen oxides as well as both man-made and naturally occurring volatile organic compounds. Census tracts with less than 15 events do not have a rate calculation due to data stability.

Major Findings

Background: The towns of Bridgeport, New Haven, Stamford, Hartford and Waterbury are the top five towns with high density population during 2014-2018. The overall statewide age-adjusted emergency department visit/hospitalization rate during 2014-2018 was 69.8 per 10,000 population.

Fine particulate matter contains microscopic solids or liquid droplets that are so small (e.g., 1/70th the diameter of a human hair) that they can be inhaled deep into the lungs and cause serious health problems. According to the Environmental Protection Agency (EPA), some fine particles may even enter the bloodstream through the lungs. More information on PM can be found on the [EPA website](#).

Residents from Hartford, New Haven and Fairfield counties have used hospital emergency department services or have been hospitalized at a greater rate than other counties. Within Hartford County the towns of Harford, East Hartford and New Britain, in New Haven County the towns of Waterbury, Meriden and New Haven, in Fairfield County the city of Bridgeport and in New London County the city of New London have several census tracts showing three -fold or more of that of the state combined asthma rate.

The 2017 EPA's National Emissions inventory shows Fairfield and Hartford counties as the areas emitting greater than 16% of the total pollution of PM2.5, followed by Tolland, New London and New Haven counties emitting between 9-16% and Litchfield, Middlesex and Windham as the areas emitting less than 9% each of the total PM2.5

Two of the three counties emitting 9-16% of PM 2.5 and all two counties emitting greater than 16% of PM2.5 include census tracts with the highest combined asthma rate.

Produced by the Connecticut Department of Public in collaboration with the Connecticut Department of Energy and Environmental Protection.