ENVIRONMENT

Environmental conditions influence quality of life, health, and well-being. Environmental health pertains to a wide range of physical, chemical, and biological factors that impact people's ability to prevent and manage disease, illness, and injury and to promote health and well-being.

Read about Ramsey County's climate action efforts, including Ramsey County's Climate Change Vulnerability Assessment.

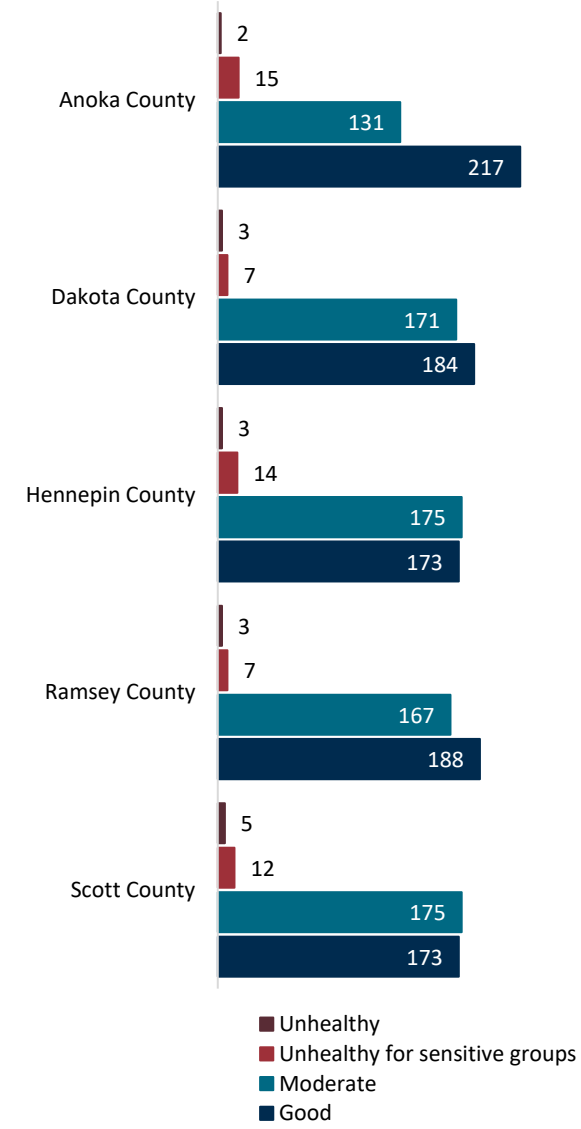
Air quality

The United States Environmental Protection Agency (EPA) manages data related to air quality, including the Air Quality Index (AQI). Higher AQI values indicate greater levels of air pollution.[2]

Air quality can also be measured by concentrations of small particles that come from dust, smoke, or dirt (i.e., fine particle concentration). These particles are small enough that they can be inhaled and lead to health problems related to heart and lung health.[109]

- In 2023, Ramsey County air quality was most often good, followed by moderate.
- Ramsey County had a higher number of good air quality days compared to Dakota, Hennepin, and Scott counties but a lower number than Anoka County.
- Ramsey County had fewer days with air quality that was unhealthy for sensitive groups compared to Anoka, Hennepin, and Scott counties.
- Between 2013 and 2023, air pollution in Ramsey County and other metro-area counties increased, as indicated by increasing AQI values.
- In 2023, Ramsey County had similar air pollution levels as Dakota, Hennepin, and Scott counties.

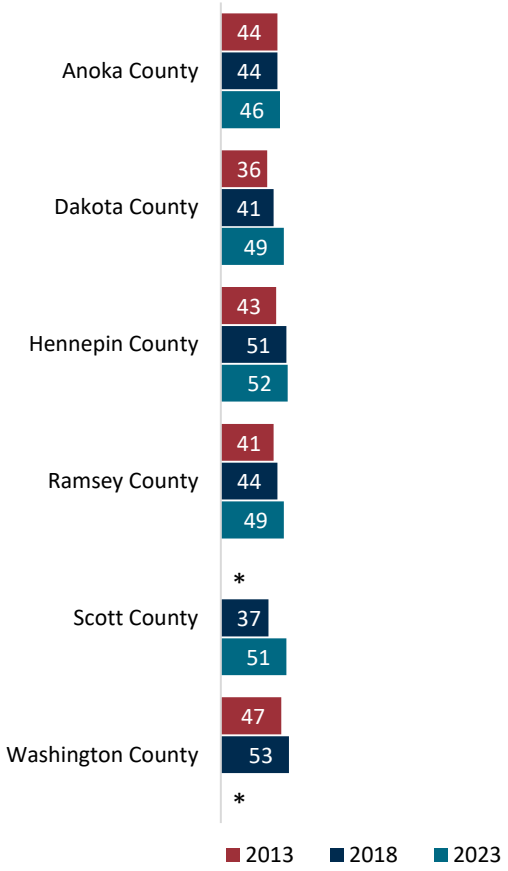
1. **Number of days with unhealthy, unhealthy for certain groups, moderate, and good air quality by metro-area county, 2023**



Source: United States Environmental Protection Agency.[182]

Note: Data for Carver and Washington counties were unavailable.

2. Median Air Quality Index (AQI) values by metro-area county



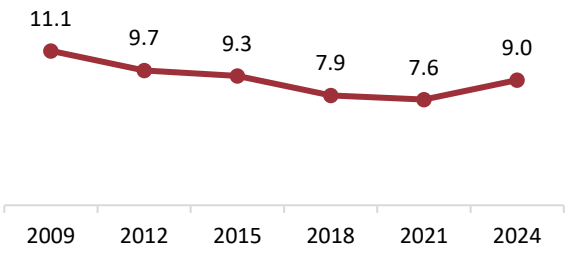
Source: United States Environmental Protection Agency.[182]

Note: AQI values of 50 and under indicate "good" air quality.

*Data for all years for Carver County, 2013 data for Scott County, and 2023 data for Washington County were unavailable.

- The average fine particle concentration in Ramsey County declined between 2009 and 2021. It increased between 2021 and 2024.

3. Average fine particle concentrations (micrograms per cubic meter), Ramsey County



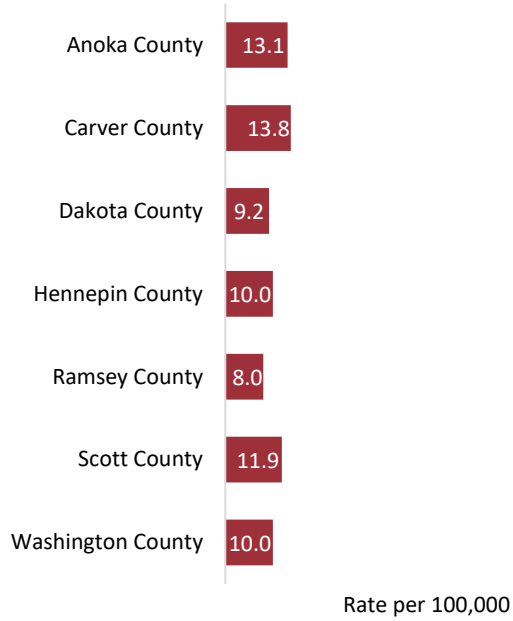
Source: Minnesota Pollution Control Agency.[135]

Note: Data for Carver and Washington counties were unavailable.

Heat exposure

- The summer heat index is a measure of how hot it feels when relative humidity is added to the actual air temperature. Ramsey County's summer heat index between 2019 and 2022 was 80.0, similar to other metro-area counties.[110]
- In 2022, Ramsey County had 10 extreme heat days, similar to other metro-area counties.[110]
- In 2018-2022, Ramsey County had the lowest rate of heat-related illness emergency department visits compared to other metro-area counties.

1. 4. Heat-related illness emergency department visits by metro-area county, 2018-2022

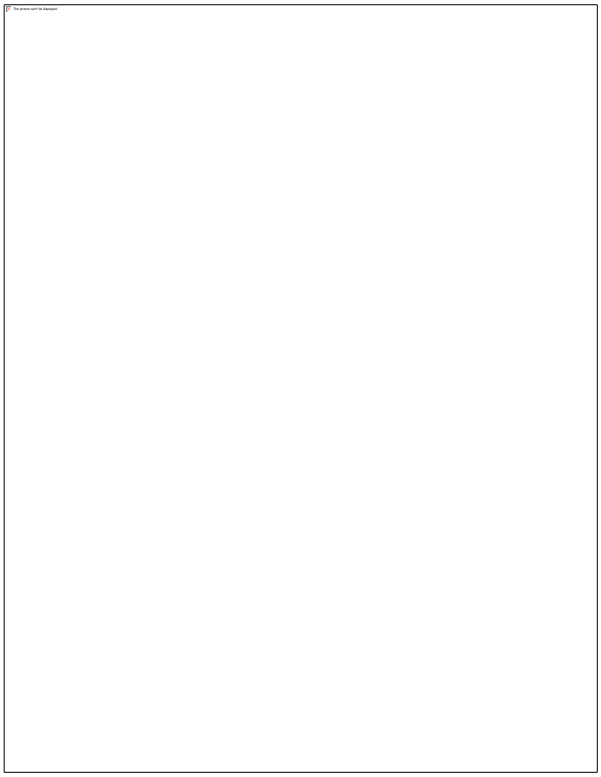


Source: Minnesota Department of Health.[110]

Note: Rates are age-adjusted.

- Extreme heat risk in Ramsey County varies widely across the county. It is lowest near bodies of water.

5. Extreme heat risk, 2024

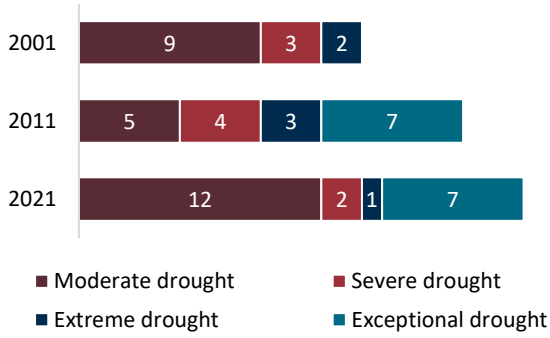


Source: Ramsey County. [150]

Drought

- In 2021, Ramsey County had a similar number of days in drought compared to other metro-area counties (i.e., 10-11).[42]
- The number of weeks Ramsey County is in drought increased between 2001 and 2021.

6. Number of weeks in drought, Ramsey County



Source: Centers for Disease Control and Prevention.[42]

Lead exposure

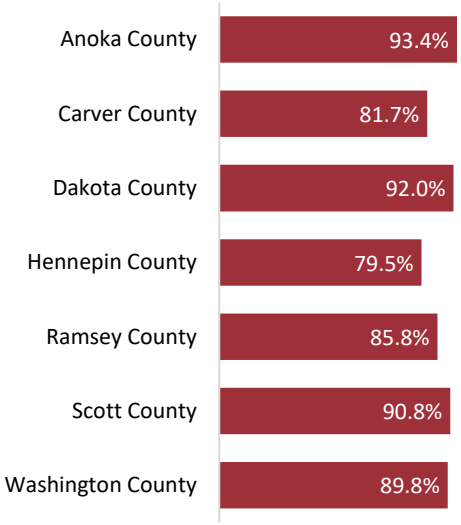
Lead exposure can permanently damage health and development in children and cause health issues among adults.[113] Testing a home for lead can help identify lead risk hazards from common sources such as lead-based paint, lead-contaminated soil, lead dust, and plumbing materials and fixtures containing lead. The three methods to test a home for lead are hiring a licensed lead risk assessor, using home test kits, or by sending samples of paint, dust, soil, or drinking samples to an accredited laboratory. From 2014-2022, elevated blood lead levels (EBLLs) were defined as being above 5 micrograms of lead per deciliter of blood (mcg/dL).[121] In 2023, the Minnesota legislature increased the EBLL to 3.5 mcg/dL, but the data reported here pertain to earlier years.

Risk Factors

Lead exposure is more common among children from low-income households, children and pregnant people who live in housing built before 1978, immigrants and refugees who come from countries with weaker lead regulations, and people who work in industries or have hobbies that involve lead exposure. Homes built before 1978 are more likely to contain lead-based paint because it was banned for residential use in 1978.[31]

- Between 2017-2021, a greater percentage of children were tested for elevated blood lead levels (≥ 5mcg/dL) in Anoka, Dakota, Scott, and Washington counties than in Ramsey County. Fewer children were tested in Carver and Hennepin counties.

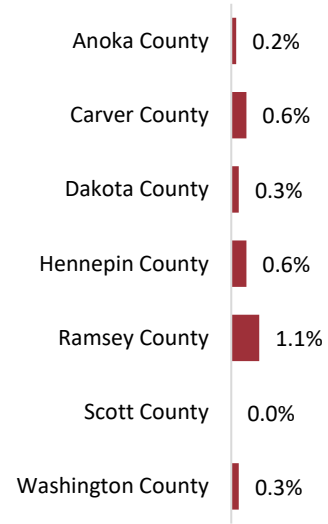
7. Children age 3 and under tested for lead by metro-area county, 2017-2021



Source: Minnesota Department of Health.[99]

- Ramsey County had the highest percentage of children with elevated blood lead levels (≥ 5mcg/dL) compared to other metro-area counties.

8. Children with elevated blood lead levels (≥ 5mcg/dL) by metro-area county, 2017-2021



Source: Minnesota Department of Health.[99]

- Most areas of Ramsey County were more likely to have elevated blood lead levels compared to Minnesota overall.
- Blood lead levels are highest among children in areas closer to downtown Saint Paul.

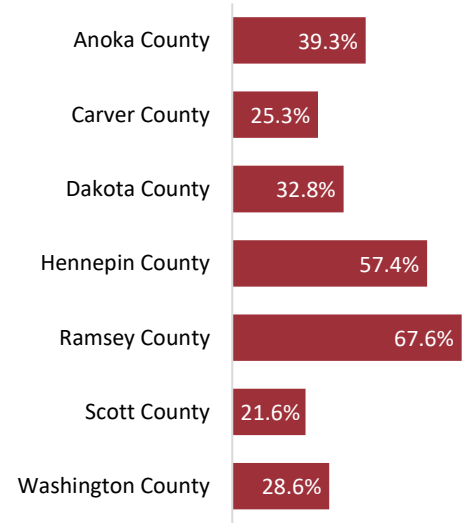
9. Blood lead levels among children in Ramsey County compared to all children in Minnesota, 2017-2021

Source: Minnesota Department of Health.[98]

Note: This map indicates blood lead levels among children in Ramsey County as they relate to children in Minnesota overall (e.g., the areas in which blood lead levels among Ramsey County children are 1 to 2 times higher than all Minnesota children).

- Compared to other metro-area counties, Ramsey County has the highest percentage of people living in buildings built before 1978.

10. People living in buildings built before 1978 by metro-area county, 2022



Source: United States Census Bureau.[179]

Social vulnerability

The Centers for Disease Control and Prevention uses Census data to calculate its Social Vulnerability Index, including data related to housing, transportation, racial and ethnic minority identities, age, disability status, English language proficiency, employment, poverty, health insurance status, and education. Higher social vulnerability refers to communities that may be more adversely affected by disasters, hazards, and other community stressors (e.g., disease outbreaks, chemical spills, tornadoes). Social vulnerability scores range from 0, indicating the lowest level of vulnerability, to 1, indicating the highest level of vulnerability.

- Compared to other metro-area counties, Ramsey had the highest social vulnerability score in 2022.

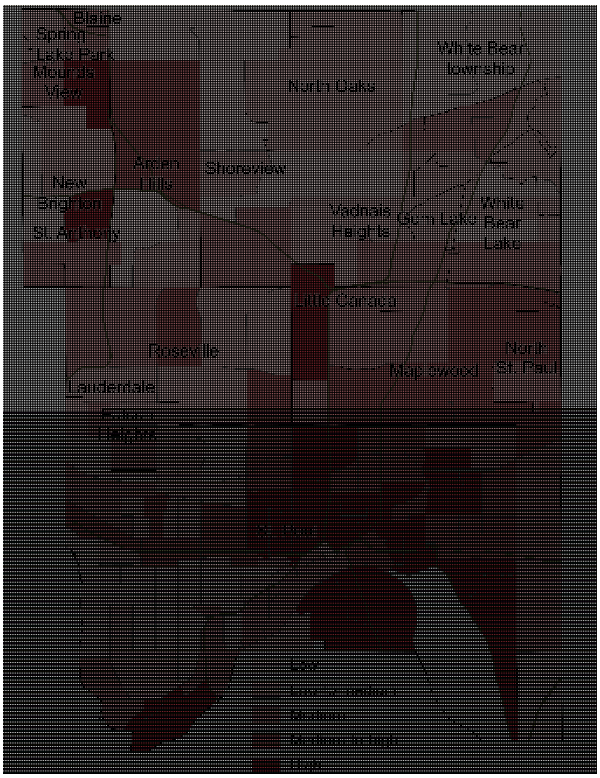
11. Social vulnerability by metro-area county, 2022

County	Social vulnerability numeric score	Social vulnerability score category
Anoka	0.18	Low
Carver	0.03	Low
Dakota	0.15	Low
Hennepin	0.41	Low to medium
Ramsey	0.71	Medium to high
Scott	0.10	Low
Washington	0.05	Low

Source: Centers for Disease Control and Prevention.[37]

- Within Ramsey County, neighborhoods closer to downtown Saint Paul have higher levels of social vulnerability.

12. Social vulnerability, Ramsey County, 2022



Source: Centers for Disease Control and Prevention.[3]