DEPARTMENT OF HEALTH

Neonatal Abstinence Syndrome (NAS)

DATA BRIEF: STATEWIDE AND COUNTY TRENDS, 2016-2024

Background

Neonatal abstinence syndrome (NAS) is a withdrawal syndrome that can occur in newborns who were exposed to substances or prescribed medications during pregnancy (Council of State and Territorial Epidemiologists, 2023; Jilani, Frey, Pepin, & et al, 2019). It is more commonly associated with in utero exposure to opioids, but other categories of substances have also been associated with withdrawal (Council of State and Territorial Epidemiologists, 2023). The incidence of NAS in the United States increased from 2.9 per 1,000 hospital births in 2009 to 7.3 per 1,000 hospital births in 2017 (Healthcare Cost and Utilization Project, 2021). It is estimated that between 55% and 94% of newborns whose parent used opioids during pregnancy, whether illicitly or prescribed, will develop NAS (McQueen & Murphy-Oikonen, 2016).

NAS cases range from mild to severe with some more severe cases requiring intensive care and pharmacological interventions (Anbalagan & Mendez, 2023). Signs and symptoms of NAS generally include tremors, irritability, excessive crying, sneezing, and diarrhea (Anbalagan & Mendez, 2023). As cases can be mild, not all infants exposed to opioids or other substances in utero are diagnosed with NAS (McQueen & Murphy-Oikonen, 2016). The identification of infants at risk for NAS includes assessing the pregnant person's history of substance use, the pregnant person and infant toxicological results, and monitoring for symptom manifestation after birth (Jilani, Frey, Pepin, & et al, 2019). Nationally, in 2019, about 7% of women reported using prescription opioids during pregnancy (Centers for Disease Control and Prevention, 2020). Among these women, one in five reported opioid misuse, defined as obtaining and using opioids from a source outside of the healthcare system that were not prescribed to them, including the use of illicit opioids (i.e., heroin and fentanyl) (Centers for Disease Control and Prevention, 2020). Estimating infants exposed to opioid use during pregnancy is challenging. Taken together, though, estimates indicate a significant population of infants are at risk for NAS.

NAS-related Hospital Visits in Minnesota

This report reflects unique NAS-related hospital visits, not unique patients. Detailed methodology is provided in the Methods section.

From 2016 to 2024, there were 3,601 NAS-related hospital visits in Minnesota (Table 1). This corresponds to a statewide rate of 6.2 per 1,000 live births. The median rate (i.e., the rate in the middle of the overall range of rates) among counties in Minnesota was 3.9 per 1,000 live births.

Table 1: The annual rate of NAS-related hospital visits (per 1,000 live births) has varied since 2016, ranging from 5.3 in 2018 to 7.4 in 2022.

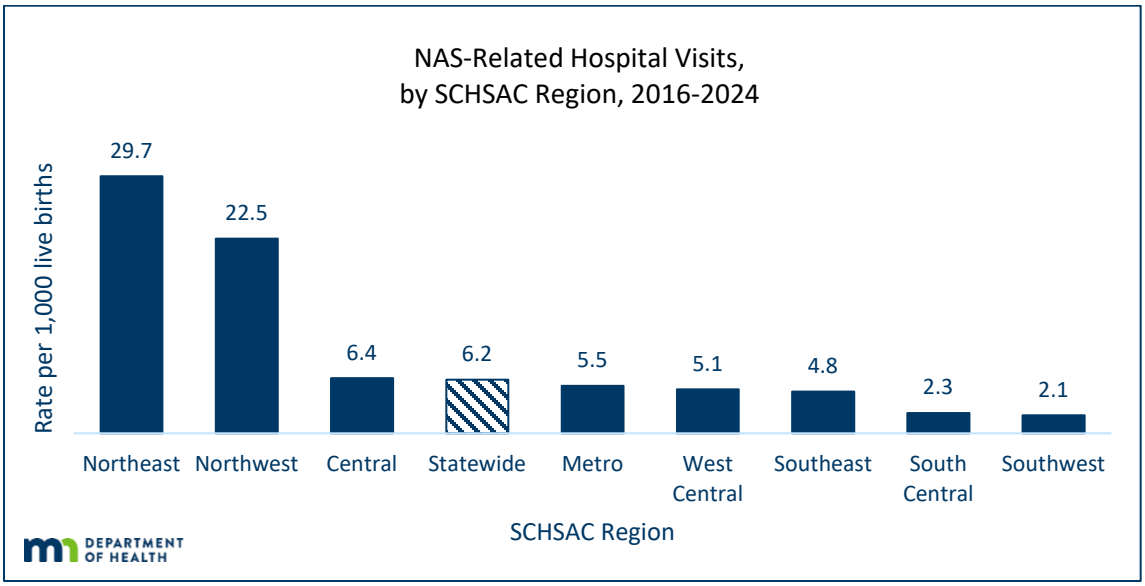
Year	Number of NAS-related hospital visits	Rate per 1,000 live births
2016	411	6.0
2017	433	6.4
2018	350	5.3
2019	367	5.6
2020	406	6.5
2021	375	5.9
2022	468	7.4
2023	399	6.6
2024	392	6.4
Total	3,601	6.2

SOURCE: Hospital Discharge Data, Injury Prevention and Mental Health Division, Minnesota Department of Health, 2016-2024

Examining the NAS data by State Community Health Services Advisory Committee (SCHSAC) regions[1], the highest rate of NAS-related hospital visits was found in the Northeast region, with a rate of 29.7 per 1,000 live births (341 visits between 2016 and 2024) (annual data by region are available in Appendix I). The lowest rate was found in the Southwest region of the state with a rate of 2.1 per 1,000 live births (44 visits between 2016 and 2024). The largest number (1,822 visits) and greatest proportion (51%) of NAS-related hospital visits occurred in the Metro region from 2016 to 2024. The rate for the Metro region, however, was the fourth highest among all regions and had a lower rate than the statewide rate of 6.2 per 1,000 live births (Figure 1). Rates also varied among counties within regions. Appendix II and Appendix III provide additional data on NAS-related hospital visit counts and rates by county.

[1] For more information and regional definitions, visit the SCHSAC State Community Health Services Advisory committee (www.health.state.mn.us/communities/practice/schsac/index.html) webpage.

Figure 1: The rate of NAS-related hospital visits (per 1,000 live births) varied by Minnesota SCHSAC region from 2016-2024, ranging from 2.1 in the Southwest region to 29.7 in the Northeast region.



SOURCE: Hospital Discharge Data, Injury Prevention and Mental Health Division, Minnesota Department of Health, 2016-2024

Prevention

Preventing NAS is best accomplished by intervening with a pregnant person's potential use during pregnancy. Preventing NAS requires an understanding that substance use is not simply an individual problem but is also shaped by factors such as community and family support, access to healthcare, and healthy relationships. The best method of prevention and treatment of opioid use during pregnancy and NAS is a whole-patient approach that includes a combination of medical, behavioral health, and community supports. Prevention strategies include preventing opioid misuse during pregnancy through changes in prescribing practices, identifying misuse during pregnancy, and connecting to treatment and recovery supports.

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an evidence-based approach for identifying birthing parents with substance use and connecting to treatment if needed. Birthing parents using opioids during pregnancy benefit from accessing comprehensive obstetric care that provides medications for opioid use disorder (MOUD) in addition to health monitoring and referral to recovery services. MOUD has been shown to improve a patient's adherence to treatment, reduce illicit opioid use, and support long-term recovery (Pew Charitable Trusts, 2016).

Treatment

Birthing parents receiving treatment for opioid use disorder benefit when there is adequate access to a wide array of recovery supports and resources in the community. Recovery supports are varied and include, but are not limited to, MOUD, behavioral health services, adequate and stable housing, family home visiting, and peer support groups (Substance Abuse and Mental Health Services Administration, 2018).

One of the most promising approaches for treatment of NAS is the evidence-based Eat, Sleep, Console (ESC) model of family-centered care (Grossman, Lipshaw, Osborn, & Berkwitt, 2018). The ESC model

emphasizes the parent's ability to provide care for their infant to reduce NAS symptoms through breastfeeding, swaddling, and skin-to-skin contact. Initial evaluations of the ESC model have shown a reduction in the length of hospital stays, pharmacological interventions needed for symptom management, and cost associated with infant care (Grossman, Lipshaw, Osborn, & Berkwitt, 2018). Hospitals can adapt policies and protocols to support the ESC model by promoting rooming in, allowing parents to provide the majority of infant care, and encouraging parents to spend as much time with their infant as possible.

Comprehensive obstetric care that includes MOUD can help to reduce the incidence of NAS through management of the amount and type of opioids that a fetus receives in utero. Certain medications used in MOUD have been shown to be more effective in reducing the symptoms of NAS, but more research is needed (Grossman, Lipshaw, Osborn, & Berkwitt, 2018). Nationwide, access to MOUD is dependent on several factors, such as where people live and their health insurance coverage. Coverage of services is often more difficult for people living in rural areas and those insured through Medicaid (Pew Charitable Trusts, 2016). These barriers must be addressed to allow parents to access the services for their needs and circumstances.

NAS Prevention Resources

Fast Tracker (https://fasttrackermn.org) is a resource developed by the Minnesota Department of Human Services that allows people to search for substance use treatment options.

The Minnesota Hospital Association has developed a Neonatal Abstinence Syndrome (NAS) toolkit (www.mnhospitals.org/Portals/0/Documents/patientsafety/Perinatal/Neonatal%20Abstinence%20Syndrome%20Toolkit.pdf). The toolkit provides information on risk assessment, screening, and treatment of NAS.

The Substance Abuse and Mental Health Services Administration (www.samhsa.gov) has developed Clinical Guidance for Treating Pregnant and Parenting Women with Opioid Use Disorder and Their Infants (https://store.samhsa.gov/product/Clinical-Guidance-for-Treating-Pregnant-and-Parenting-Women-With-Opioid-Use-Disorder-and-Their-Infants/SMA18-5054). This clinical guidance provides information on promising best practices for the prevention and treatment of maternal opioid use disorder and NAS.

The Minnesota Department of Health released the Findings and Recommendations from an Environmental Scan of Provider Practices Around Neonatal Abstinence Syndrome and Neonatal Opioid Withdrawal Syndrome (www.health.state.mn.us/diseases/cy/nas/findingsrec.pdf). This report provides recommendations for support from various levels to provide care for infants affected by NAS.

Methods

The data in this report represent unique hospital visits with a discharge diagnosis for NAS among neonates younger than 28 days and do not represent unique patients. Analyses were limited to Minnesota residents who received care in an acute care hospital in Minnesota or North Dakota. Records were excluded if the patient's age or state of residence was unknown, or if the visit occurred in a non-acute care or federal facility (e.g., Veterans Affairs, Indian Health Service). NAS-related hospital visits were identified using ICD-10-CM code P96.1 in alignment with the Council for State and Territorial Epidemiologist (CSTE) standardized definition for a confirmed NAS case (Council of State and Territorial Epidemiologists, 2023). Rates were calculated per 1,000 live births among Minnesota residents.

Note: a previous version of this report included infants less than one year and has been updated to reflect the CSTE neonatal definition of less than 28 days.

References

Anbalagan, S., & Mendez, M. D. (2023). *Neonatal Abstinence Syndrome.* Treasure Island (FL): StatPearls Publishing.

Centers for Disease Control and Prevention. (2020). *Data and statistics about opioid use during pregnancy*. Retrieved from Centers for Disease Control and Prevention: https://www.cdc.gov/pregnancy/opioids/data.html

Charles, M. K., Cooper, W. O., Jansson, L. M., Dudley, J., Slaughter, J. C., & Patrick, S. W. (2017). Male Sex Associated With Increased Risk of Neonatal Abstinence Syndrome. *Hospital Pediatrics, 7*(6), 328-334. doi:10.1542/hpeds.2016-0218

Council of State and Territorial Epidemiologists. (2019). *Neonatal Abstinence Syndrome Standardized Case Definition.* CSTE. Retrieved from https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf

Council of State and Territorial Epidemiologists. (2023). Update to the Neonatal Abstinence Syndrome Standardized Case Definition.

Grossman, M., Lipshaw, M., Osborn, R., & Berkwitt, A. (2018). A novel approach to assessing infants with neonatal abstinence syndrome. *Hospital Pediatrics, 8*(1), 1-6. doi:10.1542/hpeds.2017-0128

Healthcare Cost and Utilization Project. (2021). *Neonatal Abstinence Syndrome (NAS) Among Newborn Hospitalizations*. Retrieved from https://www.hcup-us.ahrq.gov/faststats/NASServlet?setting1=IP

Jilani, S., Frey, M., Pepin, D., & et al. (2019). Evaluation of state-mandated reporting of neonatal abstinence syndrome - six states, 2013-2017. *Morbidity and Mortality Weekly Report, 68*(1), 6-10. doi:10.15585/mmwr.mm6801a2

Kocherlakota, P. (2014). Neonatal abstinence syndrome. *Pediatrics, 134*(2), e547-e561.

McQueen, K., & Murphy-Oikonen, J. (2016). Neonatal abstinence syndrome. *New England Journal of Medicine*, 2468-2479.

Minnesota Department of Health. (2025). Findings and Recommendations from an Environmental Scan of Provider Practices Around Neonatal Abstinence Syndrome and Neonatal Opioid Withdrawal Syndrome. Retrieved from https://www.health.state.mn.us/diseases/cy/nas/findingsrec.pdf

Pew Charitable Trusts. (2016). *Medication-assisted treatment improves outcomes for patients with opioid use disorder.* Retrieved from https://www.pewtrusts.org/-/media/assets/2016/11/medicationassistedtreatment_v3.pdf

Substance Abuse and Mental Health Services Administration. (2018). *Clinical guidance for treating pregnant and parenting women with opioid use disorder and their infants.* SAMHSA. Retrieved from https://store.samhsa.gov/product/Clinical-Guidance-for-Treating-Pregnant-and-Parenting-Women-With-Opioid-Use-Disorder-and-Their-Infants/SMA18-5054

Winkelman, T., Villapiano, N., Kozhimannil, K., Davis, M., & Patrick, S. (2020). Incidence and costs of neonatal abstinence syndrome among infants with medicaid: 2004-2014. *Pediatrics, 141*(4). doi:10.1542/peds.2017-3520

Suggested Citation

Giesel, S., & Chagnon, J. (2025) Neonatal Abstinence Syndrome: Statewide and County Trends (2016-2024), Data Brief. Minnesota Department of Health. Retrieved from www.health.state.mn.us/diseases/cy/nas/index.html

Minnesota Department of Health
Neonatal Abstinence Syndrome (https://www.health.mn.gov/diseases/cy/nas/index.html)
Injury and Violence Prevention Section
PO Box 64822
Saint Paul, MN, 55164-0882
651-201-5484

To obtain this information in a different format, email: health.drugODepi@state.mn.us

Appendix I: NAS-related hospital visits by SCHSAC region, Number and Rates (per 1,000 live births), 2016-2024

SCHSAC Region	2016 N (rate)	2017 N (rate)	2018 N (rate)	2019 N (rate)	2020 N (rate)	2021 N (rate)	2022 N (rate)	2023 N (rate)	2024 N (rate)	Total N (rate)
Central	94 (9.4)	71 (7.3)	51 (5.3)	60 (6.5)	60 (6.5)	45 (4.7)	60 (6.2)	56 (6.0)	51 (5.3)	548 (6.4)
Metro	169 (4.3)	223 (5.7)	177 (4.6)	187 (5.0)	216 (6.0)	204 (5.6)	233 (6.5)	214 (6.2)	199 (5.7)	1,822 (5.5)
Northeast	52 (38.7)	38 (28.0)	46 (34.5)	42 (32.6)	46 (38.3)	35 (27.6)	33 (27.2)	24 (19.0)	25 (20.7)	341 (29.7)
Northwest	58 (26.2)	41 (18.5)	39 (18.5)	31 (15.3)	46 (24.3)	49 (25.0)	59 (30.9)	47 (25.6)	34 (19.0)	404 (22.5)
South Central	6 (1.4*)	17 (4.0*)	9 (2.1*)	17 (4.1*)	6 (1.5*)	8 (2.0*)	6 (1.5*)	10 (2.5*)	8 (2.0*)	87 (2.3)
Southeast	15 (2.6*)	24 (4.3)	13 (2.4*)	15 (2.7*)	16 (3.1*)	16 (3.0*)	53 (10.1)	28 (5.4)	54 (10.5)	234 (4.8)
Southwest	6 (2.4*)	4 (1.6*)	4 (1.6*)	3 (1.3*)	6 (2.6*)	5 (2.2*)	4 (1.7*)	4 (1.8*)	8 (3.7*)	44 (2.1)

SCHSAC Region	2016 N (rate)	2017 N (rate)	2018 N (rate)	2019 N (rate)	2020 N (rate)	2021 N (rate)	2022 N (rate)	2023 N (rate)	2024 N (rate)	Total N (rate)
West Central	11 (3.8*)	15 (5.3*)	11 (4.1*)	12 (4.5*)	10 (3.9*)	13 (5.0*)	20 (7.5*)	16 (6.7*)	13 (5.2*)	121 (5.1)

*Rates are considered unstable when the numerator includes 20 or fewer cases.

A map of SCHSAC regions (www.health.state.mn.us/communities/practice/connect/docs/schsacmap.pdf) is available on the Minnesota Department of Health: Center for Public Health Practice webpage.

Appendix II: Number of NAS-related hospital visits by County of Residence, 2016-2024

County of Residence	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	Rate per 1,000
Aitkin	1	2	1	2	1	3	0	4	1	15	14.5*
Anoka	17	25	25	30	25	20	18	18	16	194	5.3
Becker	4	9	4	6	3	6	7	10	7	56	16.3
Beltrami	40	26	29	18	32	39	43	28	25	280	52.3
Benton	4	3	3	3	1	1	0	0	2	17	3.7*
Big Stone	0	0	0	0	1	0	0	0	1	2	4.5*
Blue Earth	2	4	3	6	2	2	2	3	3	27	4.3
Brown	0	6	0	0	0	1	1	0	0	8	3.5*
Carlton	6	9	9	9	6	7	3	6	0	55	17.2
Carver	3	3	2	1	5	7	1	2	1	25	2.4
Cass	36	23	15	11	16	15	14	12	11	153	61.7
Chippewa	1	0	0	3	0	0	0	1	0	5	3.7*
Chisago	0	4	1	3	1	1	3	1	4	18	3.7*
Clay	3	1	5	4	2	2	2	4	2	25	3.3
Clearwater	1	2	2	3	3	1	2	4	0	18	18.7*

County of Residence	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	Rate per 1,000
Cook	0	1	0	0	0	1	2	0	0	4	11.7*
Cottonwood	1	0	1	0	0	0	2	0	0	4	3.6*
Crow Wing	4	5	5	4	6	3	12	2	2	43	7.4
Dakota	16	26	22	23	24	13	18	24	8	174	3.9
Dodge	0	2	0	0	2	1	5	3	3	16	7.1*
Douglas	2	1	1	1	2	3	3	2	1	16	4.4*
Faribault	0	0	1	0	1	0	1	0	0	3	2.4*
Fillmore	0	1	1	0	0	1	0	1	5	9	5.1*
Freeborn	2	0	2	0	2	1	1	0	1	9	3.4*
Goodhue	0	4	2	5	2	3	2	1	3	22	4.9
Grant	0	0	0	1	0	0	0	0	0	1	1.7*
Hennepin	74	99	79	83	93	103	116	94	102	843	6.2
Houston	0	0	0	0	0	0	0	0	0	0	0.0*
Hubbard	4	1	0	0	1	1	1	3	1	12	6.6*
Isanti	4	2	2	3	0	1	0	3	2	17	4.2*
Itasca	7	5	6	3	2	4	8	1	3	39	10.5

County of Residence	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	Rate per 1,000
Jackson	0	0	0	0	0	0	0	0	0	0	0.0*
Kanabec	1	1	2	0	1	0	3	3	1	12	8.1*
Kandiyohi	2	0	0	0	1	1	0	0	4	8	1.6*
Kittson	0	0	0	0	0	0	0	0	0	0	0.0*
Koochiching	3	3	1	0	2	2	1	0	1	13	15.1*
Lac Qui Parle	0	0	0	0	1	0	0	0	0	1	2.0*
Lake	0	0	0	1	2	0	0	1	0	4	4.8*
Lake of the Woods	0	0	0	0	0	0	0	0	0	0	0.0*
Le Sueur	0	0	0	3	0	3	0	0	0	6	2.2*
Lincoln	0	0	0	0	0	0	0	0	0	0	0.0*
Lyon	0	0	0	0	0	0	0	0	0	0	0.0*
Mahnomen	8	9	4	7	7	7	6	8	6	62	79.9
Marshall	2	0	0	1	0	0	0	0	0	3	3.2*
Martin	0	1	0	3	0	0	1	0	1	6	3.1*
McLeod	0	1	1	2	1	0	1	2	0	8	2.2*
Meeker	1	0	1	2	0	0	0	1	2	7	3.0*

County of Residence	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	Rate per 1,000
Mille Lacs	15	9	2	12	7	6	12	7	8	78	28.6
Morrison	5	2	1	3	2	3	1	1	1	19	5.8*
Mower	0	3	1	1	1	1	5	5	6	23	5.1
Murray	0	0	0	0	0	0	0	0	0	0	0.0*
Nicollet	0	2	1	0	0	1	0	1	1	6	2.0*
Nobles	0	0	0	0	1	1	0	0	0	2	0.8*
Norman	0	0	0	0	0	0	1	1	0	2	3.1*
Olmsted	5	2	2	5	5	2	31	15	26	93	5.2
Otter Tail	2	2	0	0	3	0	2	0	2	11	2.0*
Pennington	1	1	0	2	0	0	2	2	0	8	5.7*
Pine	3	6	4	7	7	3	5	3	2	40	17.8
Pipestone	0	0	0	0	0	1	0	0	1	2	2.6*
Polk	2	1	3	0	2	0	4	1	2	15	4.3*
Pope	0	0	0	0	0	0	3	0	0	3	2.7*
Ramsey	41	46	34	34	42	41	56	54	54	402	6.4
Red Lake	0	1	0	0	1	0	0	0	0	2	5.1*

County of Residence	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	Rate per 1,000
Redwood	1	0	1	0	0	1	1	2	0	6	3.7*
Renville	1	3	1	0	1	1	1	1	1	10	6.6*
Rice	1	3	0	2	1	5	2	2	4	20	3.2*
Rock	0	0	0	0	0	0	0	0	0	0	0.0*
Roseau	0	0	1	0	0	1	0	0	0	2	1.3*
St. Louis	35	18	29	27	33	18	19	12	20	211	12.8
Scott	7	7	4	10	12	10	11	10	8	79	5.1
Sherburne	9	6	1	0	4	3	2	6	5	36	3.4
Sibley	0	1	1	0	2	0	0	3	1	8	5.3*
Stearns	6	5	6	10	7	7	5	12	8	66	3.6
Steele	2	5	2	1	0	2	1	0	2	15	4.2*
Stevens	0	0	0	0	0	2	0	0	1	3	2.8*
Swift	0	1	0	0	0	0	0	0	1	2	2.0*
Todd	1	0	1	0	2	0	0	0	1	5	1.7*
Traverse	0	1	1	0	0	0	0	0	0	2	8.0*
Wabasha	1	0	1	0	0	0	5	1	2	10	5.0*

County of Residence	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	Rate per 1,000
Wadena	1	0	0	1	1	0	0	0	1	4	2.3*
Waseca	2	2	1	1	0	1	0	0	0	7	4.1*
Washington	11	17	11	6	15	10	13	12	10	105	4.3
Watonwan	1	0	0	0	0	0	0	0	0	1	0.7*
Wilkin	0	1	0	0	0	0	3	0	0	4	6.4*
Winona	4	4	2	1	3	0	1	0	2	17	6.0*
Wright	5	5	8	3	5	2	3	6	3	40	2.5
Yellow Medicine	0	0	1	0	1	0	0	0	0	2	2.5*
7-county Metro	169	223	177	187	216	204	233	214	199	1822	5.5
Greater MN	242	210	173	180	190	171	235	185	193	1779	7.2
Total	411	433	350	367	406	375	468	399	392	3,601	6.4

*Rates are considered unstable when the numerator includes 20 or fewer cases.

Appendix III: Five-year NAS-related hospital visits by County of Residence, 2020-2024

County of Residence	Five-year Total, 2020-2024	Five-year Rate per 1,000
Aitkin	9	16.2*
Anoka	97	4.8
Becker	33	18.5
Beltrami	167	61.2
Benton	4	1.7*
Big Stone	2	8.3*
Blue Earth	12	3.6*
Brown	2	1.6*
Carlton	22	12.7
Carver	16	2.7*
Cass	68	51.1
Chippewa	1	1.3*
Chisago	10	3.6*
Clay	12	3.0*
Clearwater	10	19.0*
Cook	3	16.7*
Cottonwood	2	3.3*
Crow Wing	25	8.0
Dakota	87	3.6
Dodge	14	11.0*
Douglas	11	5.6*
Faribault	2	3.1*
Fillmore	7	7.4*

County of Residence	Five-year Total, 2020-2024	Five-year Rate per 1,000
Freeborn	5	3.5*
Goodhue	11	4.5*
Grant	0	0.0*
Hennepin	508	7.1
Houston	0	0.0*
Hubbard	7	6.9*
Isanti	6	2.6*
Itasca	18	9.4*
Jackson	0	0.0*
Kanabec	8	10.0*
Kandiyohi	6	2.2*
Kittson	0	0.0*
Koochiching	6	12.8*
Lac Qui Parle	1	3.5*
Lake	3	6.9*
Lake of the Woods	0	0.0*
Le Sueur	3	2.0*
Lincoln	0	0.0*
Lyon	0	0.0*
Mahnomen	34	90.4
Marshall	0	0.0*
Martin	2	1.9*
McLeod	4	2.0*

County of Residence	Five-year Total, 2020-2024	Five-year Rate per 1,000
Meeker	3	2.4*
Mille Lacs	40	26.9
Morrison	8	4.5*
Mower	18	7.4*
Murray	0	0.0*
Nicollet	3	1.9*
Nobles	2	1.5*
Norman	2	5.9*
Olmsted	79	8.2
Otter Tail	7	2.3*
Pennington	4	5.4*
Pine	20	15.9*
Pipestone	2	4.8*
Polk	9	5.1*
Pope	3	5.1*
Ramsey	247	7.5
Red Lake	1	4.6*
Redwood	4	4.6*
Renville	5	6.3*
Rice	14	4.3*
Rock	0	0.0*
Roseau	1	1.2*
St. Louis	102	11.6

County of Residence	Five-year Total, 2020-2024	Five-year Rate per 1,000
Scott	51	6.1
Sherburne	20	3.5*
Sibley	6	7.0*
Stearns	39	3.9
Steele	5	2.6*
Stevens	3	5.0*
Swift	1	1.8*
Todd	3	1.9*
Traverse	0	0.0*
Wabasha	8	7.4*
Wadena	2	2.0*
Waseca	1	1.1*
Washington	60	4.4
Watonwan	0	0.0*
Wilkin	3	9.5*
Winona	6	4.0*
Wright	19	2.1*
Yellow Medicine	1	2.2*
7-county Metro	1066	6.0
Greater MN	974	7.3
Total	**2040**	**6.6**

*Rates are considered unstable when the numerator includes 20 or fewer cases.