VERMONT
DEPARTMENT OF HEALTH

Newborns Exposed to Opioids in Vermont

December 2024

Background

The American College of Obstetricians and Gynecologists recommends that all people who are both pregnant and opioid dependent are in active treatment, including use of medications to treat opioid use disorder (MOUD).[i] Vermont has high MOUD treatment rates with nearly three percent of people aged 18-64 on MOUD each year. Buprenorphine, which is used more than methadone for treatment during pregnancy, is associated with a lower rate of neonatal abstinence syndrome (NAS) compared to methadone treatment.[ii] NAS is a group of symptoms that can happen to a baby when it is born and is no longer exposed to opioids or other drugs through the parent.

KEY POINTS

The 2022 rate of Vermont newborns diagnosed with neonatal abstinence syndrome is less than half the 2013 rate.

Vermont NAS rate is becoming more similar to the US rate. In 2021 it was just over half the US rate compared to nearly six times the US rate in 2013.

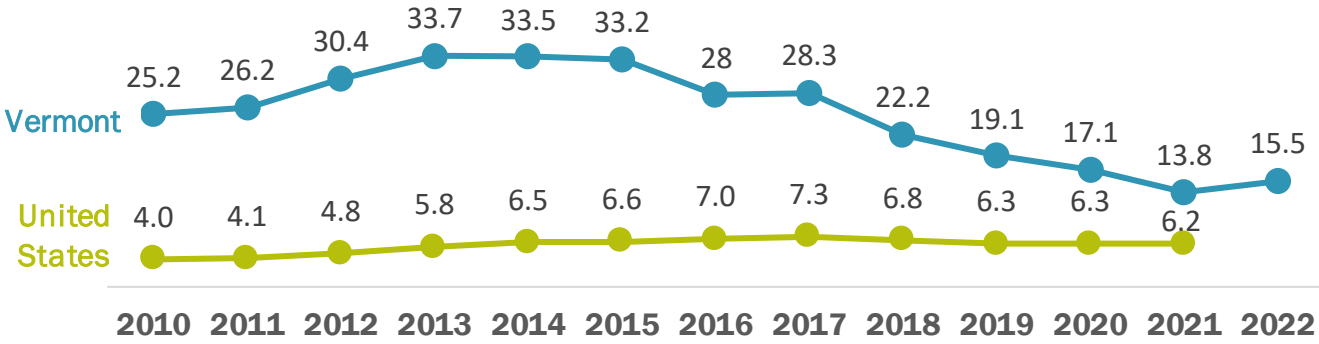
In 2015, 87% of Vermont infants confirmed with NAS were born to a person in treatment.[iii] If a person who is pregnant is identified as opioid dependent or is receiving MOUD, their infant is considered "exposed to opioids" and monitored for signs and symptoms of NAS. Many infants never show symptoms of NAS. Of those who do, a minority (37% in 2015) need treatment.

Since 2002, Vermont hospitals have gone through rigorous quality improvement in treating people who are pregnant and infants who are opioid dependent.

Neonatal Abstinence Syndrome (NAS) Trend Over Time

In Vermont, the rate of NAS per 1,000 babies has decreased from its peak in 2013 (33.7 newborns with NAS per 1,000 newborns) which was nearly six times the national average. By 2021, the Vermont rate was about two times the national average.

The rate of VT newborns diagnosed with NAS in Vermont and the United States were more similar in 2021 than in previous years.



Source: Healthcare Cost and Utilization Project (HCUP). HCUP data is not available beyond 2021.

Discussion of Trends

In Vermont, the rate of opioid misuse in the past year is similar to the rate in US[iv], and nearly three percent of Vermonters aged 18-64 have received MOUD in the last year.[v]

The difference in NAS rates between Vermont and the US might be related to differences in practices, coding (how cases are recorded), and rates of opioid use and treatment.

The difference in NAS rates may also be due in part to the comprehensive way Vermont treats people who are pregnant and opioid dependent, supports provider education and awareness, and improves access to care.

Another possible reason why there is a decrease in Vermont's NAS rate is the changing pregnancy rate of people on MOUD. The number of people of childbearing age who are receiving MOUD and are insured by Vermont Medicaid has stayed about the same. However, the percentage of those on MOUD who became pregnant dropped from 9.4% in 2015 to 2.3% in 2022.

Key Takeaways

After increasing between 2010 and 2013, the rate of infants in Vermont with Neonatal Abstinence Syndrome (NAS) has decreased. However, in 2021 (the most recent year of data available) it is still higher than the national average.

A similar decline was found in the percent of people who are pregnant and in treatment. This may account, at least in part, for the decline in the Vermont rate of infants with NAS.

Limitations and Data Notes

NAS rates may be underestimated by restricting this analysis to live births/birth hospitalizations and excluding cases that may have been identified as transfers from other healthcare facilities to reduce duplication. Secondary outcomes of hospital charges and hospital length of stay were not analyzed as these outcomes would be biased due to the lack of information for infants who were transferred from their birth hospital for additional treatment. Analyses were limited to discharges of live born (diagnosis code of V3 or Z28) among Vermont residents at Vermont hospitals, excluding transfers from other facilities. Data were limited to Vermont hospitals because data for 2014-2022 are not yet available from all bordering states.

There are different ways of coding NAS. This analysis is based on a single NAS code to allow a comparison of Vermont and U.S. rates. The U.S. rate of NAS increased from 4.0 infants per 1,000 hospital deliveries in 2010 to 6.2 in 2021,[vi] while the VT rate has decreased from 25.2 to 13.8 in the same period.

The Green Mountain Care Board (GMCB) is the data steward to the Vermont Uniform Hospital Discharge Data Set (VUHDDS). VUHDDS data are submitted annually to the Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project.

For More Information

Substance Use Data in Vermont: HealthVermont.gov/DSUReports
Find data briefs, reports, assessments, evaluations, survey results and other publications on alcohol, opioids, cannabis and overall substance use in Vermont as well as analyses that inform and evaluate Health Department efforts on addressing substance use.

One More Conversation: 1MoreConversation.com and HealthVermont.gov/1MoreConversation
These are resources for pregnant people and their healthcare providers to discuss substance use during pregnancy.

Plan of Safe Care: dcf.vermont.gov/fsd/partners/posc Information about Vermont's procedures related to federal legislation for infants exposed to any substance abuse during pregnancy, with substance withdrawal symptoms after birth, and suspected of having fetal alcohol spectrum disorder (FASD).

Vermont Child Health Improvement Program (VCHIP) Improving Care of Newborns with Substance Exposure (ICoNS): med.uvm.edu/vchip/improving_care_for_opioid-exposed_newborns
Information about the ICoNS project, which partners with the Vermont Department of Health and the University of Vermont Children's Hospital to improve health outcomes for opioid-exposed newborns.

Vermont Helplink: VTHelplink.org VT Helplink is your connection to Alcohol and Drug Support Services. Call or text "LINK" to 802.565.LINK.

For questions about this data, contact: AHS.VDHDSU@vermont.gov

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[i] *Opioid use and opioid use disorder in pregnancy*. (n.d.). ACOG. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2017/08/opioid-use-and-opioid-use-disorder-in-pregnancy

[ii] Lemon, L. S., Caritis, S. N., Venkataramanan, R., Platt, R. W., & Bodnar, L. M. (2017). Methadone versus buprenorphine for opioid use dependence and risk of neonatal abstinence syndrome. *Epidemiology*, *29*(2), 261–268. https://doi.org/10.1097/ede.0000000000000780

[iii] Neonatal Abstinence Syndrome Surveillance Pilot Study Report, NAS Study

[iv] National Survey on Drug Use and Health. (2021b). National Survey on Drug Use and Health: Model-Based Prevalence Estimates (50 states and the District of Columbia). In Table 1 Illicit Drug Use in the Past Month: Among People Aged 12 or Older; by Age Group and State, Annual Average Percentages, 2021 and 2022. https://www.samhsa.gov/data/sites/default/files/reports/rpt44484/2022-nsduh-sae-tables-percent-CSVs/2022-nsduh-sae-tables-percent.pdf

[v] Substance Use Dashboard | Vermont Department of Health. (2024, August 29). https://www.healthvermont.gov/alcohol-drugs/substance-use-data-reports/substance-use-dashboard

[vi] HCUP Fast Stats. Healthcare Cost and Utilization Project (HCUP). December 2022. Agency for Healthcare Research & Quality, Rockville, MD. http://datatools.ahrq.gov/hcup-fast-stats