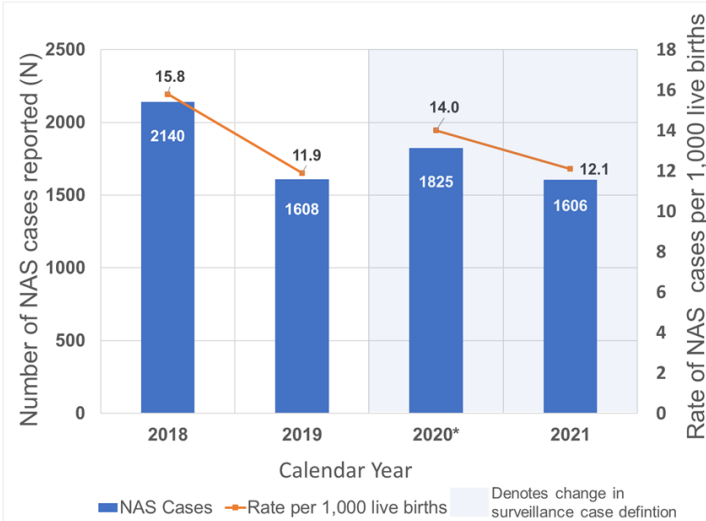




2021 Neonatal Abstinence Syndrome Surveillance Key Statistics and Findings

Figure 2. Number of infants with NAS and incidence rate per 1,000 live births by calendar year



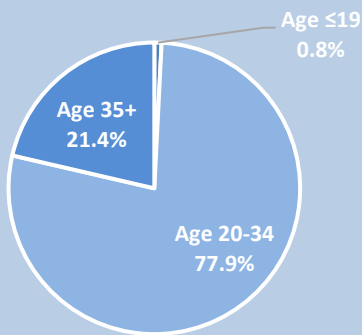
The Department of Health received **1,606** case reports of infants that met the NAS surveillance case definition in the calendar year 2021. The incidence rate of NAS in Pennsylvania decreased from 14.0 cases per 1,000 live births in 2020 to **12.1 cases per 1,000 live births in 2021**.

In 2021 NAS cases were defined as Pennsylvania resident newborns (neonates less than 28 days old) showing withdrawal symptoms due to in utero exposure to opioids, benzodiazepines, or barbiturates via prescription, treatment with medication for opioid use disorder (MOUD), or illicit use.

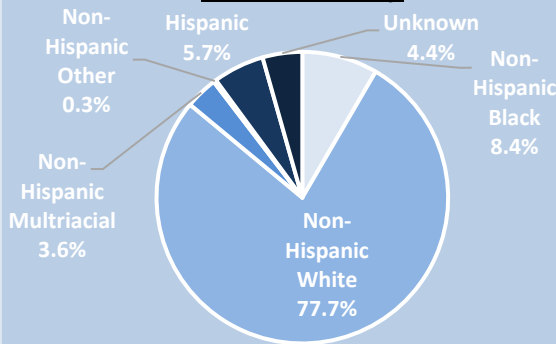
*Beginning in 2020 the Department of Health's NAS Case definition expanded to include cases of NAS exposed to barbiturates, benzodiazepines, or opioids. In 2018 and 2019 solely cases of NAS resulting from in utero exposure to opioids were reported to the Department of Health

Maternal Characteristics (N=1586)

Maternal Age



Maternal Race/Ethnicity

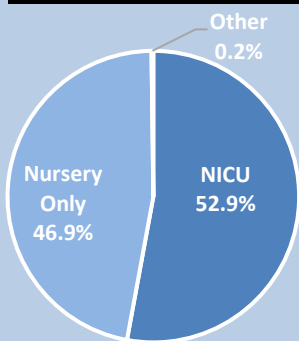


Note: Percentages may not add to 100% due to rounding

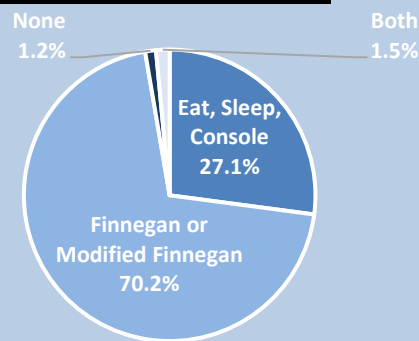
- **43.1%** of people who gave birth to an infant with NAS were insured by Medicaid at delivery
- **81.5%** had initiated prenatal care during their pregnancy
- **58.0%** had received MOUD during their pregnancy; **Black people who gave birth to an infant with NAS were less likely to have received MOUD during pregnancy than white people (25.4% vs. 63.3%)**

Infant Assessment and Care (N=1606)

Location of Infant Care

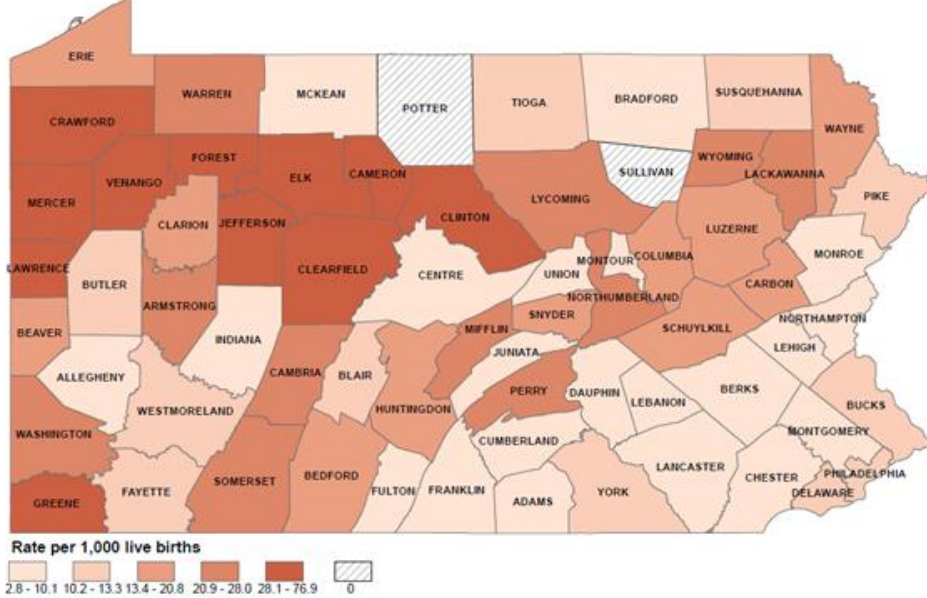


Infant Assessment Method



- **Infants with NAS were more likely to be admitted to the NICU for care after delivery than other infants delivered in Pennsylvania (52.9% vs. 9.6%)**
- **Approximately 4 out of every 10 infants with NAS had a hospital length of stay exceeding a week (>7 days)**

Map 3. NAS incidence rate per 1,000 live births by county of maternal residence



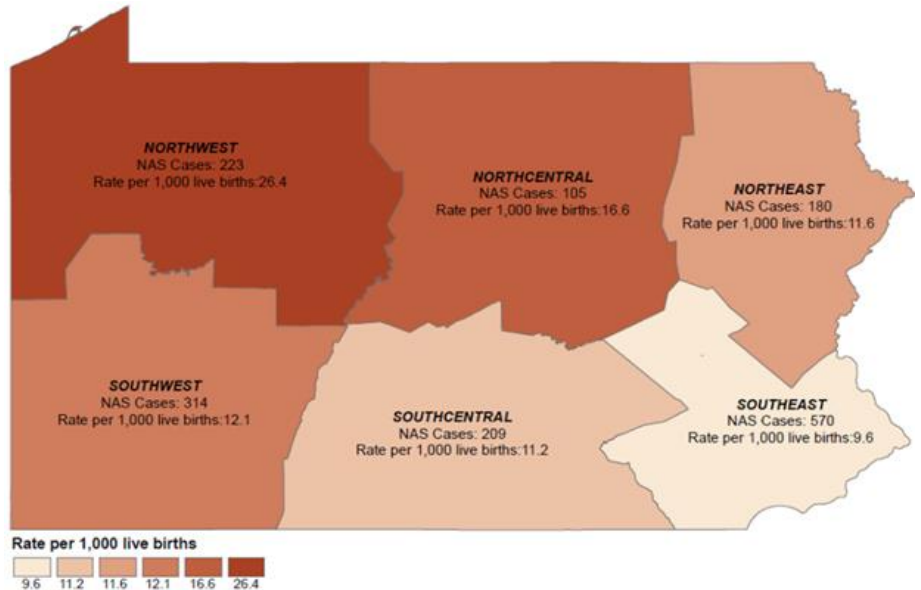
This map depicts incidence rates of NAS cases per 1,000 live births by county of maternal residence.

Incidence rates of NAS were highest in Elk (46.5), Clinton (45.5), Greene (45.3), Venango (42.5), and Lawrence (38.3) counties. Incidence rates based on fewer than 10 events are unstable and should be interpreted with caution. A table of case counts and incidence rates by county can be found in the [2021 NAS Annual Report \(Table 16\)](#).

This map depicts case counts and incidence rates of NAS per 1,000 live births by region of maternal residence. **The northwestern region of the state had the highest incidence rate of 26.4 NAS cases per 1,000 live births – a rate that is 2.8 times higher than the lowest incidence rate in the Southeast (9.6).** While the Northwestern region still has the highest incidence rate of NAS in the state, there was a slight decrease from 30.8 cases per 1,000 live births in 2020 to 26.4 cases per 1,000 in 2021.

A table of incidence rates by region over time can be found in the [2021 NAS Annual Report \(Table 17\)](#).

Map 4. NAS incidence rate per 1,000 live births by region of maternal residence



Data Sources: NAS Surveillance Program Database (Bureau of Family Health, Pennsylvania Department of Health); Vital Statistics (Bureau of Health Statistics and Registries, Pennsylvania Department of Health)

For additional data and statistics, please see the comprehensive [2021 Neonatal Abstinence Syndrome Annual Report](#).



ADDITIONAL RESOURCES

Do you have questions or need additional information about NAS Surveillance in Pennsylvania? Please contact the Division of Newborn Screening and Genetics at 717-783-8143 or visit the website listed below.

Neonatal Abstinence Syndrome Program: <https://www.health.pa.gov/topics/programs/Newborn-Screening/Pages/NAS.aspx>