

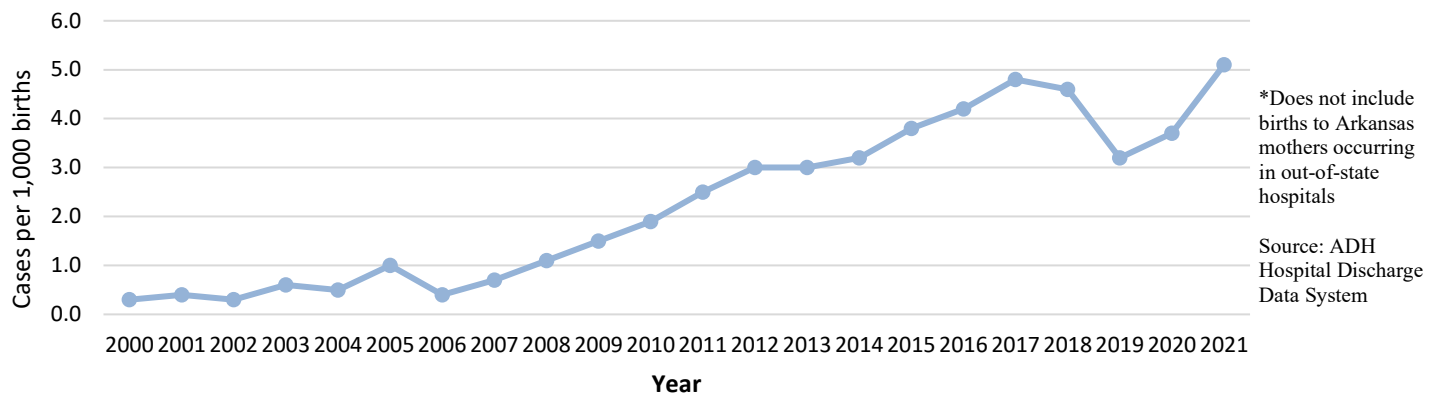


# Neonatal Abstinence Syndrome in Arkansas 2000 – 2021

## Cases of Neonatal Abstinence Syndrome Continue to Rise

Neonatal Abstinence Syndrome (NAS) is a collection of symptoms resulting from drug use during pregnancy. In recent clinical literature, a trend has been seen to acknowledge the marked rise in opioids as a factor in Neonatal Abstinence Syndrome (NAS) by a change in terminology to use Neonatal Opioid Withdrawal Syndrome (NOWS). We use the existing term NAS here because the data used in generating this report includes other drugs such as cocaine in addition to opioids. The rate of NAS diagnosis in Arkansas increased close to seventeen-fold between 2000 and 2021 (Figure 1). After decreasing in 2018 and 2019, the NAS rate increased to 3.7 per 1,000 births in 2020. In 2021 the increase continued to a new high of 5.1 per 1,000 births. The median number of days spent in the hospital for babies diagnosed with NAS decreased from 10 in 2020 to 9 in 2021, while the median for babies without NAS stayed 2 days. Median medical care costs in 2021 for babies diagnosed with NAS were \$36,978 compared to \$5,360 for babies born without NAS. Iatrogenic NAS cases, or instances with prolonged neonatal intensive care and extended use of opioids resulting in withdrawal in newborns, were excluded from analyses.

Figure 1. Rate of neonatal abstinence syndrome per 1,000 hospital births, Arkansas residents, 2000-2021\*



## Neonatal Abstinence Syndrome is More Common in Certain Groups of People

In 2021 the rate of NAS diagnosis was higher among whites than it was among non-whites in Arkansas. About 6 out of every 1,000 white babies were diagnosed with NAS in 2021, compared to about 2 out of every 1,000 among non-whites. Similarly, non-Hispanics had higher rates than Hispanics. NAS rates also varied based on insurance type. The rate of NAS diagnosis was considerably higher among women on Medicaid than women with other types of insurance (Table 1).

Table 1. Neonatal abstinence syndrome diagnoses: Demographic characteristics and insurance, Arkansas residents, 2021\*

		Number	Percent**	Rate per 1,000
<b>Race***</b>	<b>White</b>	142	87.1%	6.4
	<b>Non-white</b>	18	11.0%	1.8
	<b>Unknown</b>	3	1.9%	17.2
<b>Ethnicity***</b>	<b>Hispanic</b>	Suppressed	N/A	N/A
	<b>Non-Hispanic</b>	159	97.5%	5.6
	<b>Unknown</b>	Suppressed	N/A	N/A
<b>Insurance</b>	<b>Medicaid</b>	139	85.3%	7.9
	<b>Private</b>	10	8.6%	1.3
	<b>Other or unknown</b>	14	6.1%	2.0

\*Totals vary due to missing values.

\*\*Percentages may not add up to 100 due to missing values.

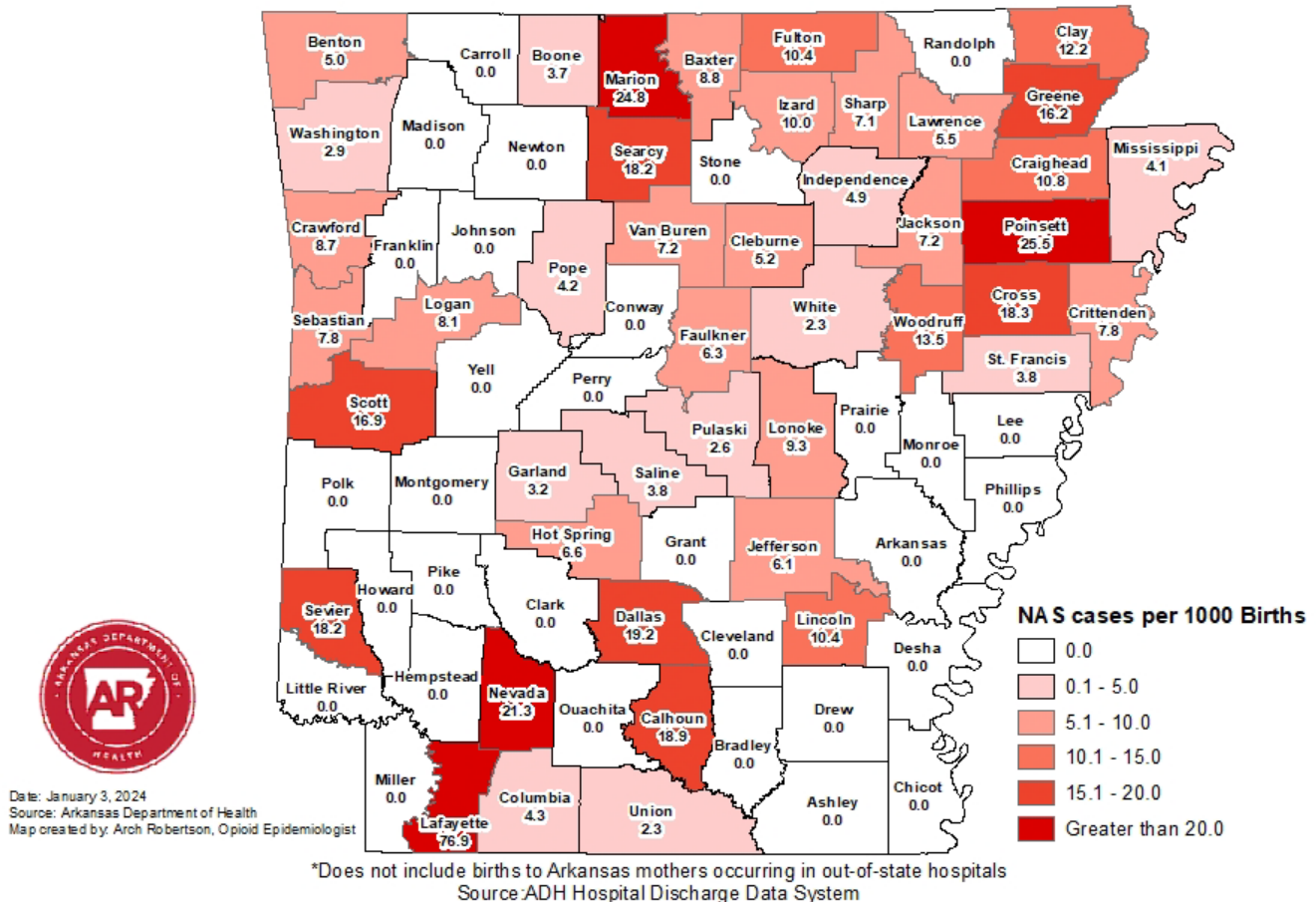
\*\*\*Non-whites merged into a single category and counts < 10 redacted to ensure confidentiality

Source: ADH Hospital Discharge Data System

## NAS Rates Vary by County

The rate of NAS diagnosis varied across Arkansas counties. Between 2014 and 2021 all counties reported at least one NAS case. (Figure 2).

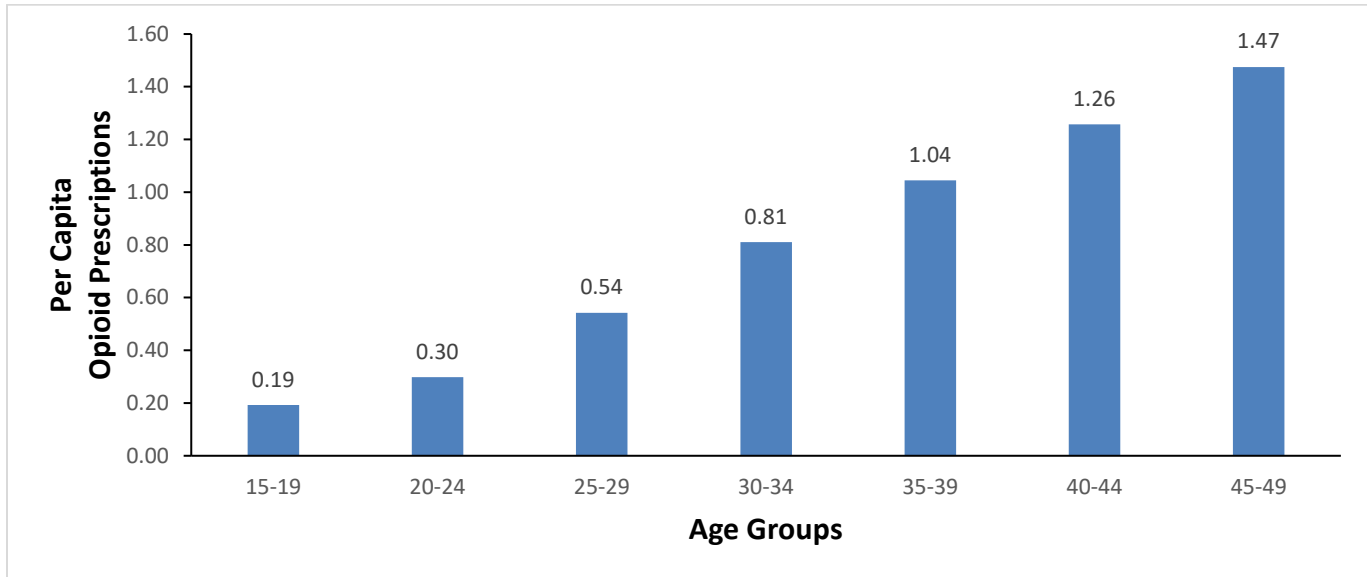
Figure 2. Neonatal abstinence syndrome diagnoses per 1,000 hospital births, Arkansas residents, 2021\*



## Opioid Prescribing to Women of Reproductive Age

Prescription opioid use during pregnancy is a major risk factor for NAS. In Arkansas, women between the ages of 15 and 49 filled between 0.19 and 1.47 opioid prescriptions per capita in 2021 (Figure 3). Opioid prescriptions per capita among women of reproductive age has been decreasing in every age group since 2014. In 2021 there was an 11% average decrease in per capita prescriptions across all age groups when compared to 2020 when the range was 0.20 to 1.52.

Figure 3. Opioid prescriptions filled per capita by women of reproductive age, Arkansas residents, 2021\*



\*Source: AR PDMP

\*Includes dispensations to AR residents only

\*The data represented in this chart was merged with updated drug class to create a more complete data set. The information may be different than analyses in the past due to this updated method of data preparation for analysis.

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