

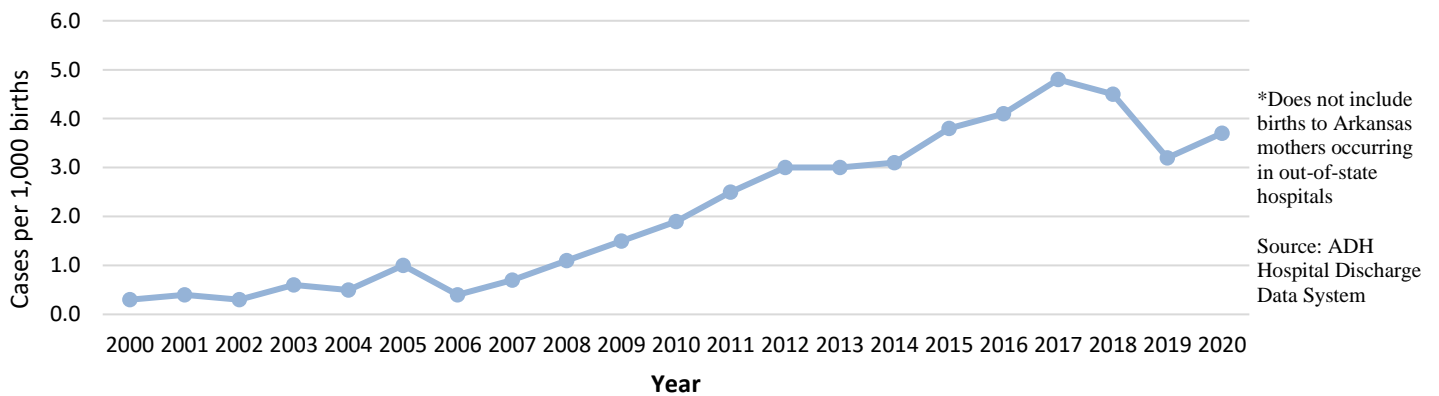


Neonatal Abstinence Syndrome in Arkansas 2000 – 2020

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 nearly eleven-fold between 2000 and 2019 (Figure 1). In 2000, the NAS rate was 0.3 per 1,000 births. By 2017, it increased to 4.8 per 1,000 births. In 2018, the NAS rate decreased slightly to 4.5 per 1,000 births. In 2019, the NAS rate decreased further to 3.2 per 1,000 births. In 2020, the NAS rate has increased again to 3.7 per 1,000 births. The median number of days spent in the hospital for babies diagnosed with NAS was 10, compared to 2 days for babies without NAS in 2020. That same year, median medical care costs for babies diagnosed with NAS were \$26,078 compared to \$5,345 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, 2000-2020*



Neonatal Abstinence Syndrome is More Common in Certain Groups of People

The rate of NAS diagnosis was higher among whites than it was among non-whites in Arkansas during 2020. About 4 out of every 1,000 white babies were diagnosed with NAS in 2020, 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 more than three times as high among women on Medicaid as women with other types of insurance (Table 1).

Table 1. Neonatal abstinence syndrome diagnoses: Demographic characteristics and insurance, Arkansas residents, 2020*

		Number	Percent**	Rate per 1,000
Race***	White	91	80.5%	4.4
	Non-white	20	17.7%	2.1
	Unknown	<5	N/A	N/A
Ethnicity***	Hispanic	< 5	N/A	N/A
	Non-Hispanic	110	97.3%	4.1
	Unknown	<5	N/A	N/A
Insurance	Medicaid	103	91.1%	5.4
	Private	<5	N/A	N/A
	Other or unknown	7	6.2 %	1.5

*Totals vary due to missing values.

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

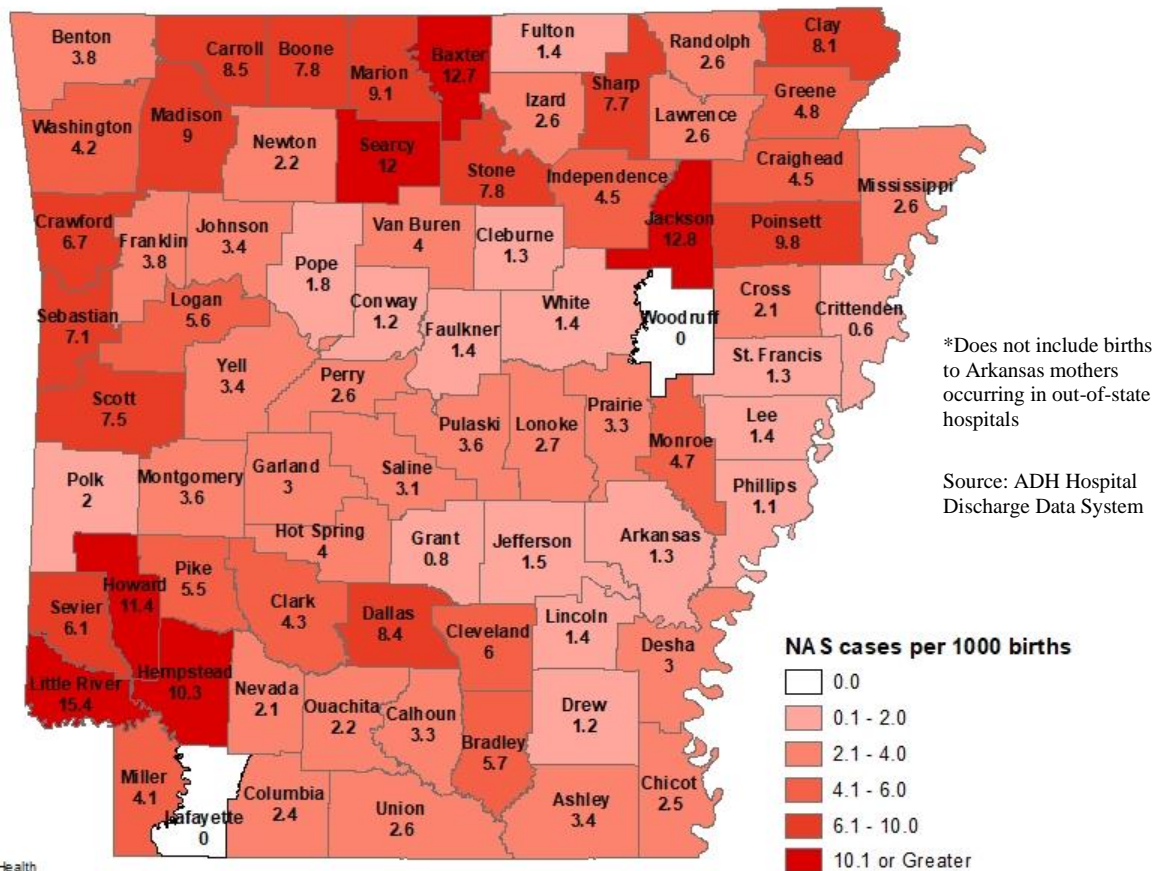
***Non-whites merged into a single category and counts < 5 redacted to ensure confidentiality

Source: ADH Hospital Discharge Data System

NAS Rates Vary by County

The rate of NAS diagnosis varied across Arkansas counties. About 97 percent of counties reported at least one case of NAS between 2014 and 2020. Some of the highest rates were from the Northwest, Northeast, and Southwest regions in Arkansas. (Figure 2).

Figure 2. Neonatal abstinence syndrome diagnoses per 1,000 hospital births, Arkansas residents, 2014 - 2020*

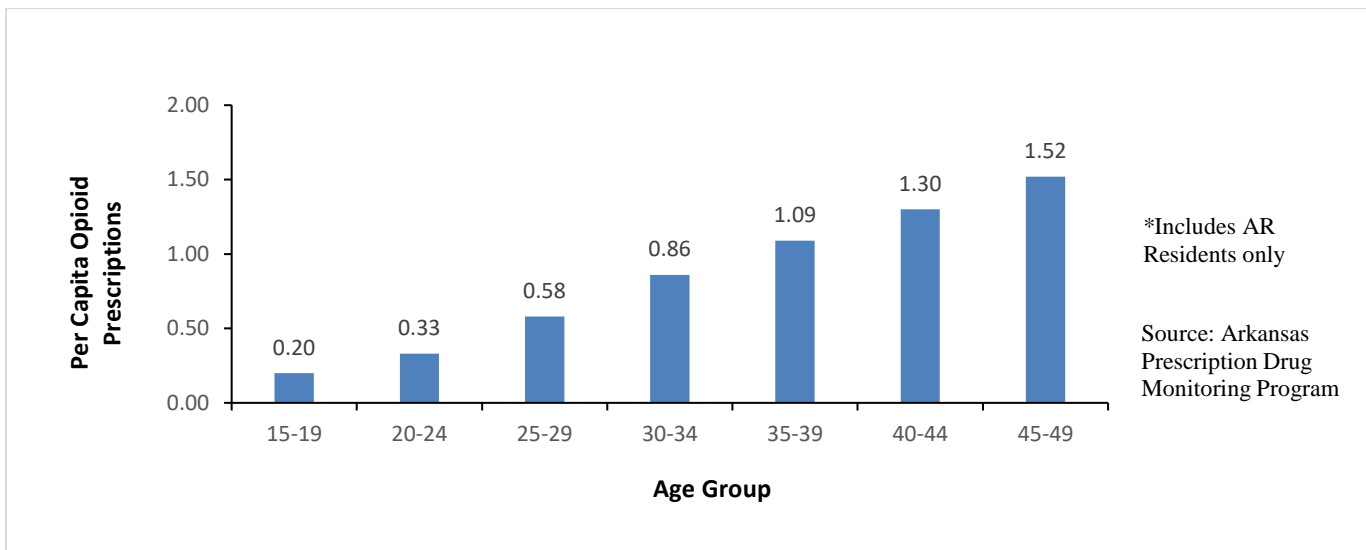


Date: September 30, 2022
 Source: Arkansas Department of Health
 Map created by: Arah Robertson Opioid Epidemiologist

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 0.20 and 1.52 opioid prescriptions per capita in 2020 (Figure 3). Opioid prescriptions per capita among women of reproductive age has decreased in every age group from 2018 to 2020. In 2018, the range was between 0.26 to 1.74.

Figure 3. Opioid prescriptions filled per capita by women of reproductive age, Arkansas residents, 2020*



*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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