

Northwest Portland Area Indian Health Board

Neonatal Abstinence Syndrome among American Indians & Alaska Natives in Oregon

Background

What is Neonatal Abstinence Syndrome?

Neonatal abstinence syndrome (NAS) happens when a baby is exposed to certain drugs in the mother's womb and suffers drug withdrawal after birth. NAS is often caused when a woman takes opioids or other drugs during pregnancy. Opioids may be prescribed as painkillers following injury or surgery. Heroin is also an opioid. Other drugs taken during pregnancy that might lead to NAS include antidepressants or benzodiazepines commonly prescribed for anxiety. These drugs can pass through the placenta and cause serious problems for the baby, such as sudden infant death, breathing and feeding problems, and seizures. It can also cause longer-term impairments in cognitive and behavioral outcomes.¹

What are the impacts of NAS?

States and cities across the country are facing a considerable increase in maternal opioid use and the accompanying negative impact on newborns.^{2,3} Across the US, every 25 minutes a baby is born suffering from NAS, a nearly 500% increase nationally since 2000. One study³ found that higher rates of NAS were seen among American Indians/Alaska Natives (AI/AN) than in other race groups.⁴

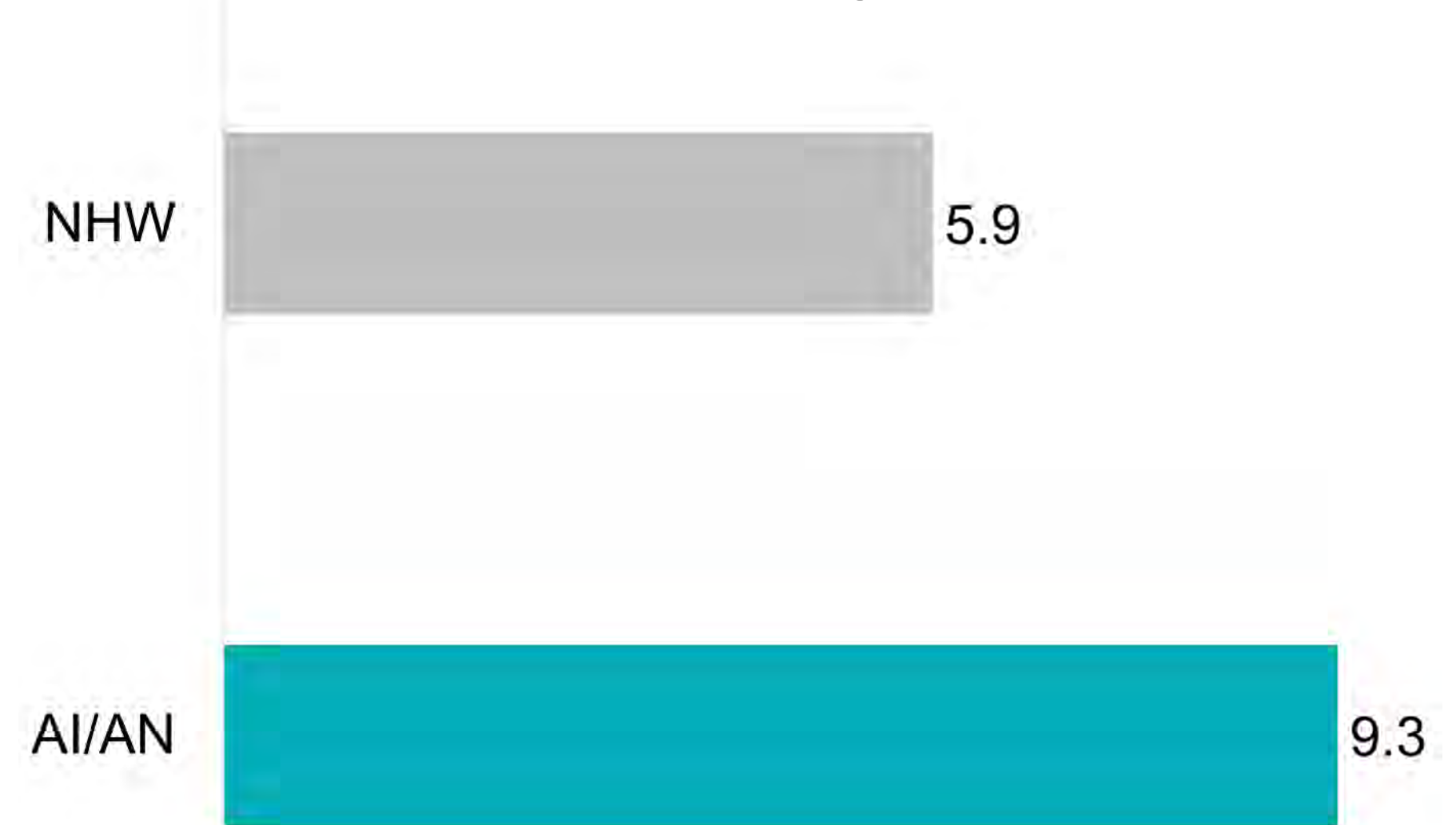
Findings

There were a total of 206,871 hospital deliveries between 2010 and 2017 in Oregon. Of these, 3,975 and 155,291 newborns were AI/AN and non-Hispanic White (NHW). During these years, the rate of being diagnosed with NAS was **1.6 times higher** for AI/AN newborns than for NHW newborns. Further, the rate of NAS among AI/AN newborns went from 6.7 per 1,000 live births in 2010 to 17.0 in 2017, a **153% increase**.

Recommendations

Several critical NAS prevention strategies include the Medication-Assisted Treatment (MAT) and prescription drug monitoring programs (PDMPs). The Medication-Assisted Treatment (MAT) can help pregnant women who are addicted to opioids. PDMPs are state-based databases that track controlled substance prescriptions dispensed by pharmacies within each state. Further, it is important to increase proactive, patient-centered approaches to contraceptive counselling as well as improving access to community resources available to drug-dependent women of reproductive age.

Neonatal Abstinence Syndrome Rates per 1,000 births in Oregon 2010 - 2017

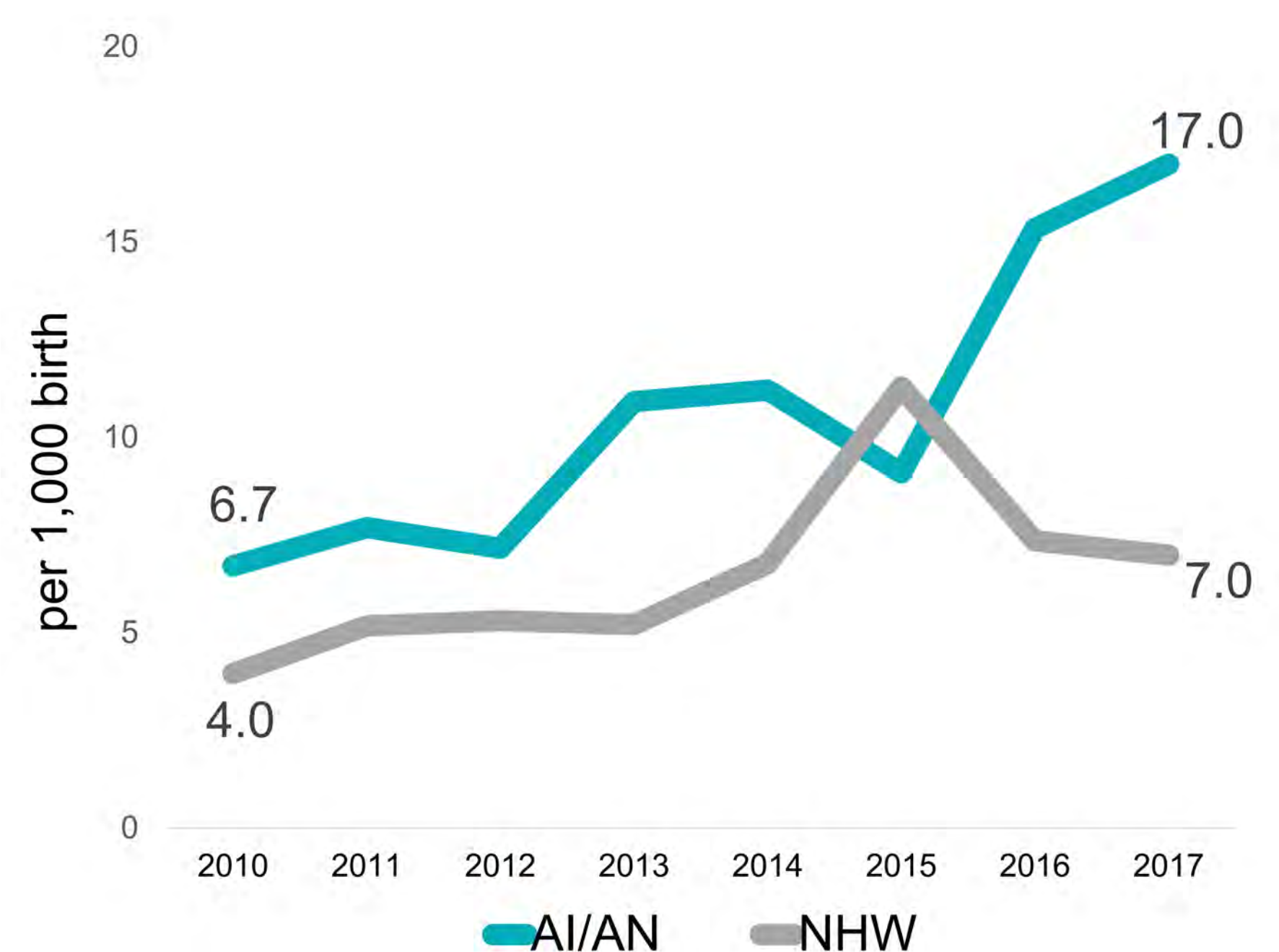


From 2010-2017 AI/AN Newborns were

1.6 times

more likely to experience Neonatal Abstinence Syndrome than NHWs

Neonatal Abstinence Syndrome Trends in Oregon, 2010-2017



Data Source

- Oregon Association of Hospitals & Health Systems, Oregon inpatient hospital discharge data between 2010–2017 corrected for misclassified AI/AN race by the IDEA-NW Project.
- Inclusion criteria were (1) residents of Oregon and (2) discharge record specifying a hospital birth (ICD-9-CM or ICD-10-CM). Indication of a transfer from another care facility was excluded to avoid being counted twice in the numerator or denominator.
- NAS diagnosis was identified via ICD-9-CM or ICD-10-CM code that indicates drug withdrawal syndrome in newborn and include records with the following codes: 779.5, P96. Currently, there is no single ICD-9/10-CM code that captures NAS with sufficient sensitivity and specificity. Therefore, for any NAS reporting, the codes applied are being used as a proxy for NAS-related diagnoses.
- On October 1st 2015, the International Classification of Disease classification system updated from ICD-9-CM to ICD-10-CM. The impact of this transition still needs to be evaluated. The NAS rate calculated for year 2015 may be unstable due to code transition. However, the results presented in this report still suggests an increase in NAS despite the impact of the code change.

References

1. Ko, J. Y., Patrick, S. W., Tong, V. T., Patel, R., Lind, J. N., & Barfield, W. D. (2016). Incidence of neonatal abstinence syndrome—28 states, 1999–2013. *Morbidity and Mortality Weekly Report*, 65(31), 799–802.
2. Patrick, S. W., Davis, M. M., Lehmann, C. U., & Cooper, W. O. (2015). Increasing incidence and geographic distribution of neonatal abstinence syndrome: United States 2009 to 2012. *Journal of Perinatology*, 35(8), 650–655.
3. Strahan, A. E., Guy, G. P., Bohm, M., Frey, M., & Ko, J. Y. (2020). Neonatal Abstinence Syndrome Incidence and Health Care Costs in the United States, 2016. *JAMA Pediatrics*, 174(2), 200–202.
4. Baldacchino, A., Arbuckle, K., Petrie, D. J., & McCowan, C. (2014). Neurobehavioral consequences of chronic intrauterine opioid exposure in infants and preschool children: a systematic review and meta-analysis. *BMC Psychiatry*, 14:104.

Northwest Tribal Substance Resources

Indian Country ECHO Substance Use Disorders (SUD)

This program increases access to treatment and recovery services for persons with SUD in tribal communities by training providers on best practices and evidence-based treatments.

<https://www.indiancountryecho.org/program/substance-use-disorder/>

Tribal Opioid Response Consortium

The NPAIHB Opioid Response (TOR) Consortium assists NW Tribes to address the opioid crisis by increasing capacity to address the complex factors associated with a comprehensive opioid response, including enhancing access to culturally appropriate prevention, treatment, and recovery activities.

<http://www.npaihb.org/opioid/#Tribal-Opioid-Response>

MCH Opioid Project

The NPAIHB MCH Opioid Team is investigating maternal opioid use, neonatal abstinence syndrome in Northwest Tribal communities. For additional

information, please contact

mchopioid@npaihb.org

INDIAN
COUNTRY
ECHO

Contact

For more information about the IDEA-NW Project, please contact:

Project E-mail: ideanw@npaihb.org

Web: www.npaihb.org/idea-nw

This publication was produced by NPAIHB's IDEA-NW Project and was developed with funding support from the Centers for Disease Control and Prevention (Cooperative Agreement Number NU58DP006385) and the National Institute of Health (Grant Number DA047940). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC or the NIH.