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Dramatic Increases in Maternal Opioid Use and Neonatal Abstinence Syndrome

DRAMATIC INCREASES IN MATERNAL OPIOID USE DISORDER AND NEONATAL ABSTINENCE SYNDROME

Opioid use during pregnancy can result in a drug withdrawal syndrome in newborns called **neonatal abstinence syndrome**, or **neonatal opioid withdrawal syndrome** (NAS/NOWS), which causes **costly** hospital stays. A recent analysis showed that an estimated **32,000** babies were born with this syndrome in the United States in 2014, a more than **5-fold increase** since 2004.



**EVERY ~ 15 MINUTES,
A BABY IS BORN SUFFERING
FROM OPIOID WITHDRAWAL.**

NAS/NOWS and Maternal Opioid Use Disorder on the Rise
Rates per 1,000 Hospital Births



Growing Hospital Costs for Treatment of NAS/NOWS
Inflation-Adjusted U.S. Dollars (millions)



Honein et al. Pediatrics 2019; Winkelmann et al. Pediatrics 2018; Haight et al. MMWR 2018.



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Text Description of Infographic

Use of opioids during pregnancy can result in a drug withdrawal syndrome in newborns called neonatal abstinence syndrome or neonatal opioid withdrawal syndrome (NAS/NOWS). A recent analysis of the extent, context, and costs of NAS/NOWS found that incidence of NAS/NOWS is rising in the United States. There was a greater than five-fold increase in the proportion of babies born with NAS from 2004 to 2014, when an estimated 32,000 infants were born with NAS/NOWS —equivalent to one baby suffering from opioid

withdrawal born approximately every 15 minutes. Newborns with NAS/NOWS are more likely than other babies to also have low birthweight and respiratory complications. Nationally, rates of opioid use disorder at delivery hospitalization more than quadrupled during 1999–2014, to 6.5 per 1000 births in 2014. In 2014, \$563M were spent on costs for treatment of NAS/NOWS; the majority of these charges (82%) were paid by state Medicaid programs, reflecting the greater tendency of mothers using opioids during pregnancy to be from lower-income communities. The rising frequency (and costs) of drug withdrawal in newborns points to the need for measures to reduce antenatal exposure to opioids.

Top Graph: Every ~15 minutes, 1 baby is born suffering from opioid withdrawal.

Bottom Left Graph: NAS/NOWS and maternal opioid use disorder on the rise graph. The rate of babies born with NAS/NOWS per 1,000 hospital births was 1.5 in 2004, 1.9 in 2005, 2.2 in 2006, 2.2 in 2007, 2.7 in 2008, 3.4 in 2009, 4.8 in 2010, 5.0 in 2011, 5.9 in 2012, 7.0 in 2013 and 8.0 in 2014. The rate of maternal OUD per 1,000 hospital births was 1.4 in 2004, 1.6 in 2005, 2.1 in 2006, 2.1 in 2007, 2.4 in 2008, 2.9 in 2009, 3.9 in 2010, 3.9 in 2011, 4.9 in 2012, 5.7 in 2013 and 6.5 in 2014

Bottom Right Graph: Growing hospital costs for treatment of NAS/NOWS. Inflation-adjusted U.S. dollars spent annually for hospital costs of treating NAS/NOWS were 90.9 million in 2004, 112 million in 2005, 145 million in 2006, 180 million in 2007, 171 million in 2008, 221 million in 2009, 329 million in 2010, 348 million in 2011, 428 million in 2012, 525 million in 2013 and 563 million in 2014.

References: [Honein et al. Pediatrics 2019](#), [Winkelma et al. Pediatrics 2018](#), [Haight et al. MMWR 2018](#).

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