



Maternal Opioid Use PRAMS 2019



Background

The incidence of opioid use has increased in the general population, for women of reproductive age (15-44 years), and for pregnant women. Using data collected from Illinois death certificates, from 2008 to 2017 the rate of all opioid-related drug poisoning deaths among women of reproductive age tripled, from 4.6 to 13.7 per 100,000 deaths. From 2008 to 2017, among women of reproductive age, rates of opioid-related deaths rose for non-Hispanic Blacks, Hispanics, and non-Hispanic Whites; with non-Hispanic Whites annually having the highest rate. Opioid-related deaths are highest among women aged 30 years and over.¹ As the opioid use rate has increased among women of reproductive age, the rate of infants born with neonatal abstinence syndrome (NAS) also has grown in Illinois. NAS was initially identified among newborns whose mothers routinely used heroin or methadone. More recently, NAS has become increasingly associated with pregnant women's use of opiates, including prescribed and illegal prescription opioid use. The hospital discharge data reveal that the NAS rate increased by 63.8% in Illinois, from 1.77 to 2.90 per 1,000 births, between 2011 and 2017.²

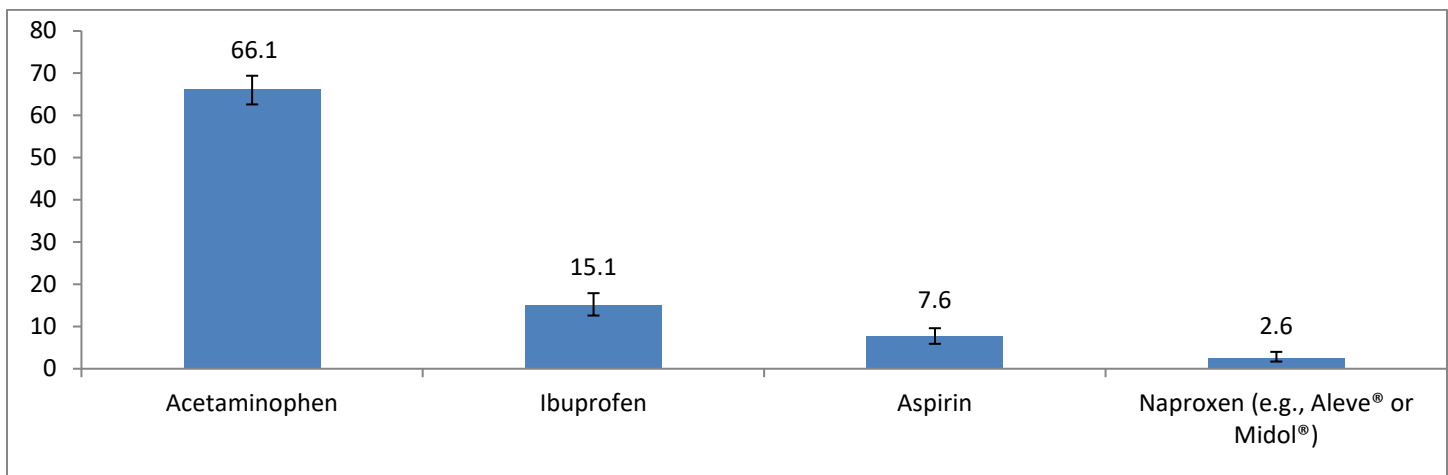
Pregnancy Risk Assessment Monitoring System (PRAMS)

The Illinois Department of Public Health (IDPH) PRAMS project is an ongoing survey of women who recently delivered live born infants in Illinois. PRAMS is a grant-funded project conducted in collaboration with the Centers for Disease Control and Prevention (CDC). PRAMS collects state-level, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. From April to December 2019, a 13-question opioid supplement was added to the PRAMS survey. These results are for those responding during the April to December 2019 period and weighted using the annual birth file.

Drug Use During Pregnancy

During pregnancy, 72.1% (CI 68.8 - 75.2) of women used an over-the-counter (OTC) pain reliever (i.e., acetaminophen, ibuprofen, aspirin, or naproxen), with just over two thirds (66.1%) using acetaminophen.

Survey Question: During your most recent pregnancy, did you use any of the following over-the-counter pain relievers?

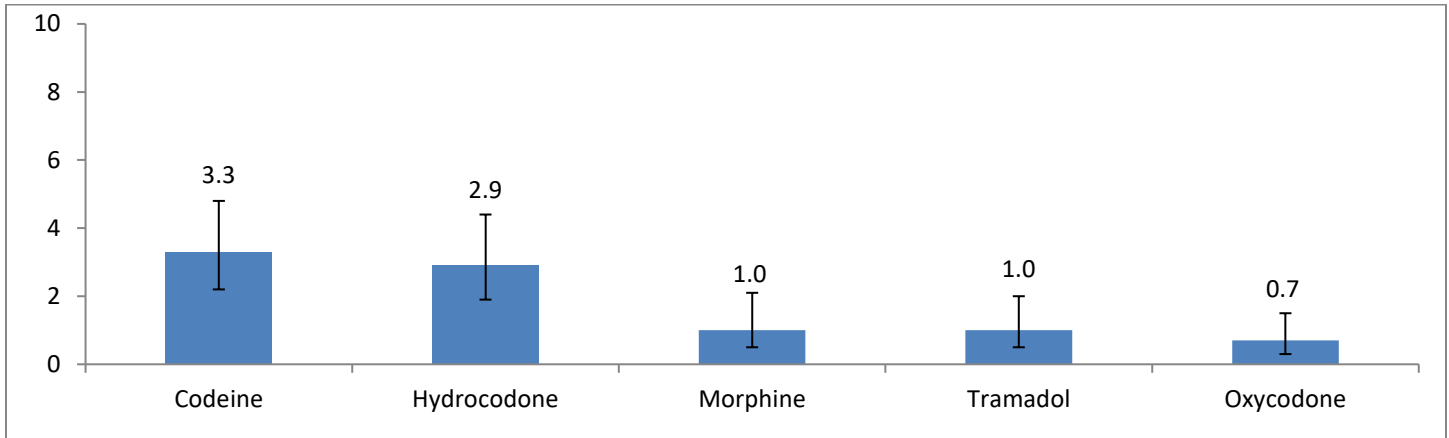


Note: Bars display 95% confidence intervals

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Among recent mothers, 5.6% (CI 4.2 - 7.5) used a prescription pain reliever, such as hydrocodone, codeine, oxycodone, tramadol, hydromorphone, oxymorphone, morphine, or fentanyl, during pregnancy. Codeine use (3.3%, CI 2.2 – 4.8) or hydrocodone use (2.9%, CI 1.9 - 4.4) was more prevalent than use of morphine (1.0%, CI 0.5 – 2.1), tramadol (1.0%, CI 0.5 – 2.0), or oxycodone (0.7%, CI 0.3 – 1.5). Other drugs used are not reportable due to small cell sizes.

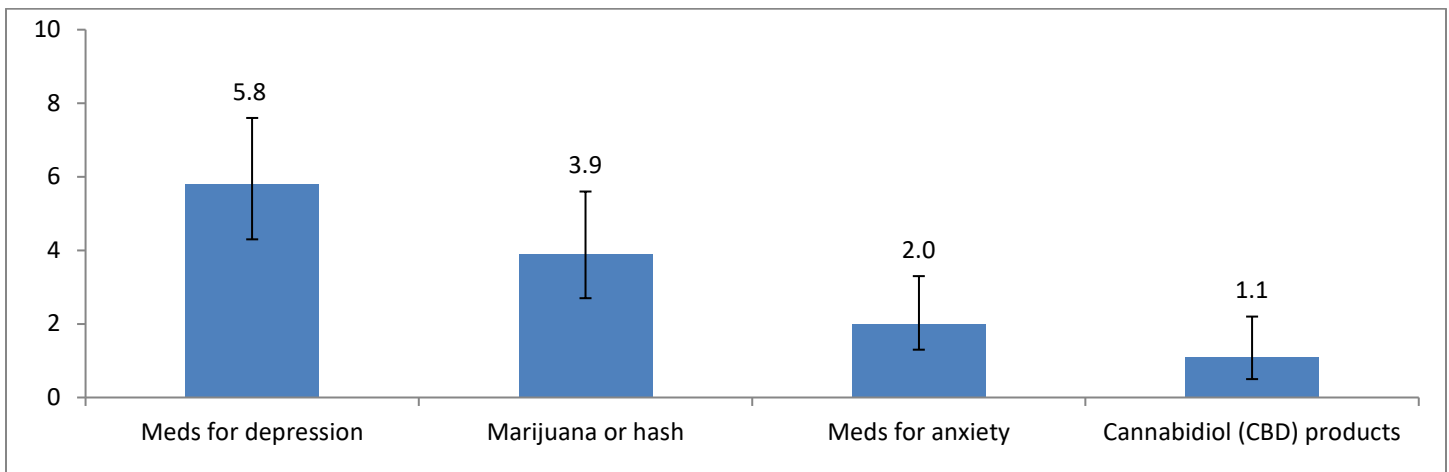
Survey Question: During your most recent pregnancy, did you use any of the following prescription* pain relievers?
* Hydrocodone, codeine, oxycodone, tramadol, hydromorphone, oxymorphone, morphine, fentanyl



Note: Bars display 95% confidence intervals

During pregnancy, 10.6% (CI 8.5 – 13.0) of recent mothers reported taking medications or drugs, such as medication for depression or anxiety, methadone, Adderall®/Ritalin®, marijuana, heroin, amphetamines, or cocaine. Of drugs used during pregnancy, 5.8% (CI 4.3 – 7.6) of recent mothers used medications for depression, 3.9% (CI 2.7 – 5.6) used marijuana or hash, 2.0% (CI 1.3 – 3.3) used medications for anxiety, and 1.1% (CI 0.5 – 2.2) used cannabidiol (CBD) products. Not reportable due to small cell sizes are methadone, Adderall®/Ritalin®/other stimulant, synthetic marijuana (K2), hallucinogens, naloxone, heroin, amphetamines, cocaine, tranquilizers, or sniffing gasoline/huffing.

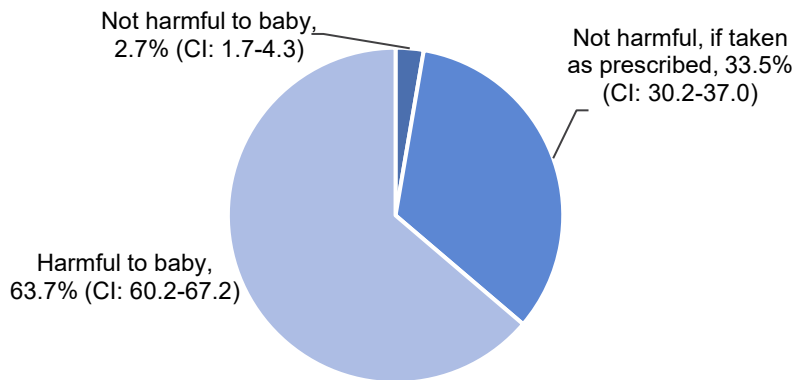
Survey Question: During your most recent pregnancy, did you take or use any of the following medications or drugs for any reason?



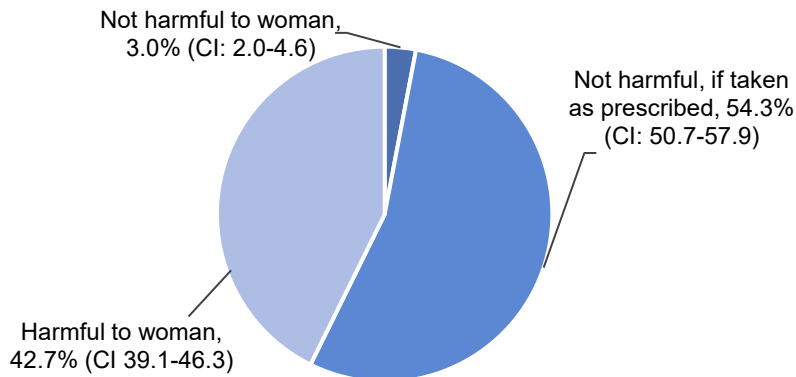
Note: Bars display 95% confidence intervals

Perceptions and Education about Drug Use During Pregnancy

Most recent mothers (63.7%, CI 60.2 - 67.2) believe that using prescription pain relievers during pregnancy could be harmful to a *baby's health*, even if taken as prescribed; 33.5% (CI 30.2 - 37.0) believe if taken as prescribed prescription pain reliever use during pregnancy is not harmful; and 2.7% (CI 1.7 – 4.3) believe prescription pain reliever use during pregnancy is not at all harmful to a baby's health.



More than half of recent mothers (54.3%, CI 50.7 - 57.9) believe that using prescription pain relievers during pregnancy is not harmful to a *woman's own health*, if taken as prescribed; 42.7% (CI 39.1 - 46.3) believe using prescription pain relievers during pregnancy is harmful, even if taken as prescribed; and 3.0% (CI 2.0 – 4.6) believe it is not at all harmful to a woman's own health.

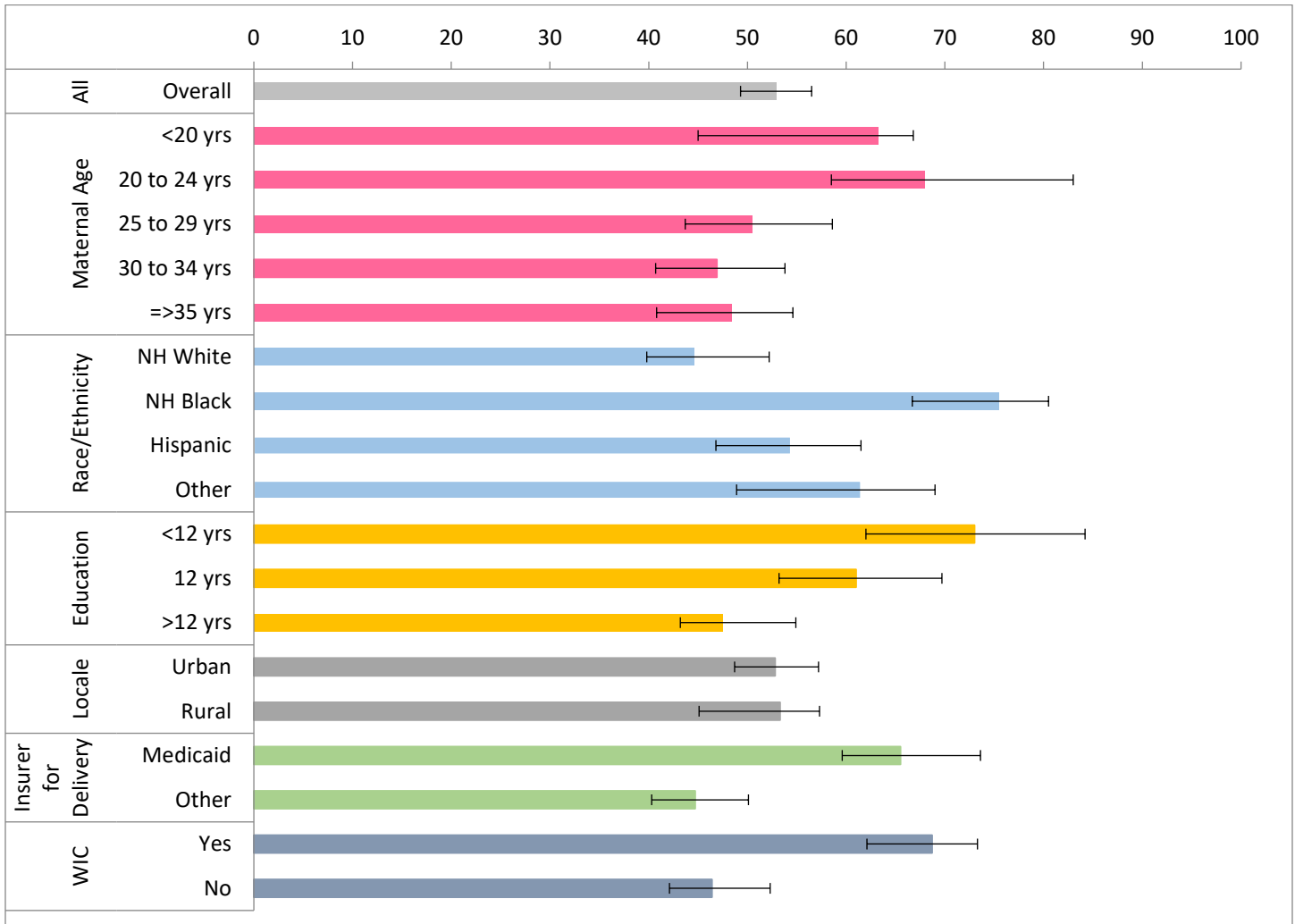


More than half of recent mothers (52.9%, CI 49.3 – 56.5) reported a health care worker (e.g., doctor, nurse, or other health care provider) talked with them during their recent pregnancy about how using prescription pain relievers during pregnancy could *affect a baby*. This is less than the provider counseling prevalence of 68.1% (CI 63.8 - 72.1) reported by PRAMS jurisdictions nationally (Source: CDC *Morbidity and Mortality Weekly Report* available at: <https://www.cdc.gov/mmwr/volumes/69/wr/mm6928a1.htm>). Differences existed by sociodemographic groups with non-Hispanic Whites (44.6%, CI 39.8 – 49.6), those with more than 12 years of education (47.5%, CI 43.2 - 51.9), insurance coverage other than Medicaid (44.7%, CI 40.3 – 49.3), and those

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not receiving WIC benefits (46.4%, CI 42.1 – 50.7) being less likely to receive health care worker education compared to, respectively, non-Hispanic Blacks (75.5%, CI 66.7 - 82.6); those with less than 12 years of education (73.0%, CI 62.0 - 81.7), those with Medicaid insurance (65.5%, CI 59.6 - 70.9), and those receiving Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) benefits (68.7% CI 62.1 – 74.6).

Survey Question: At any time during your most recent pregnancy, did a doctor, nurse, or other health care worker talk with you about how using prescription pain relievers during pregnancy could *affect a baby*?



Note: Bars display 95% confidence intervals

Summary

- During pregnancy, 72.1% of women used an over-the counter (OTC) pain reliever (i.e., acetaminophen, ibuprofen, aspirin, or naproxen), with over two-thirds (66.1%) using acetaminophen.
- During pregnancy, 5.6% of women used a prescription pain reliever, such as hydrocodone, codeine, oxycodone, tramadol, hydromorphone, oxymorphone, morphine, or fentanyl. Codeine use (3.3%) and hydrocodone use (2.9%) during pregnancy were more often reported followed by morphine (1.0%), tramadol (1.0%), and oxycodone (0.7%); other drugs used are not reportable due to small cell sizes.
- During pregnancy, 10.6% of women reported taking medications or drugs, such as medication for depression or anxiety, methadone, Adderall®/Ritalin®, marijuana, heroin, amphetamines, or cocaine. Of drugs used during pregnancy, 5.8% of recent mothers used medications for depression, 3.9% used marijuana or hash, 2.0% used medications for anxiety, and 1.1% used cannabidiol (CBD) products.
- Most recent mothers (63.7%) believe that using prescription pain relievers during pregnancy could be harmful to a *baby's health*, even if taken as prescribed. Conversely, about half of recent mothers (54.3%) believe that using prescription pain relievers during pregnancy is not harmful to a *woman's own health*, if taken as prescribed.
- About half of recent mothers (52.9%) reported a health care worker talked with them during their recent pregnancy about how using prescription pain relievers during pregnancy could *affect a baby*. Differences existed by sociodemographic groups with non-Hispanic Whites (44.6%), those with more than 12 years of education (47.5%), insurance coverage other than Medicaid (44.7%), and those not receiving WIC benefits (46.4%) being less likely to receive health care worker education.

Resources

- **CDC Opioid Use During Pregnancy Resources:** <https://www.cdc.gov/pregnancy/opioids/resources.html>
- **Illinois Perinatal Quality Collaborative Initiatives:** <https://ilpqc.org/initiatives/>
- **State of Illinois Opioid Action Plan:** <http://www.dph.illinois.gov/opioids/ilplan>
- **IDPH PRAMS website:** <http://dph.illinois.gov/data-statistics/prams>

Key to Interpreting Data

- **Confidence Interval (CI)** – Means one can be 95% confident that the true population rate falls within the ranges around the sample rate (e.g., 71.0% of women reported OTC use, but the true rate could be between 66.4% - 75.1%).³ Results with large CI widths should be interpreted with caution due to unreliability.
- **Error Bar** – A visual representation of the confidence intervals on a graph.

References

1. <http://www.dph.illinois.gov/sites/default/files/publications/opioid-deaths-among-women-repro-age.pdf>
2. <http://www.dph.illinois.gov/sites/default/files/publications/nas-annual-report-march-2019.pdf>
3. https://www.census.gov/content/dam/Census/library/publications/2018/acs/acs_general_handbook_2018_ch07.pdf

To learn more about PRAMS methods and to see data availability by year, visit:

<http://dph.illinois.gov/data-statistics/prams>



THE BEST SOURCE OF DATA ON MOTHERS AND BABIES