Opioid Use and Opioid Use Disorder in Pregnancy

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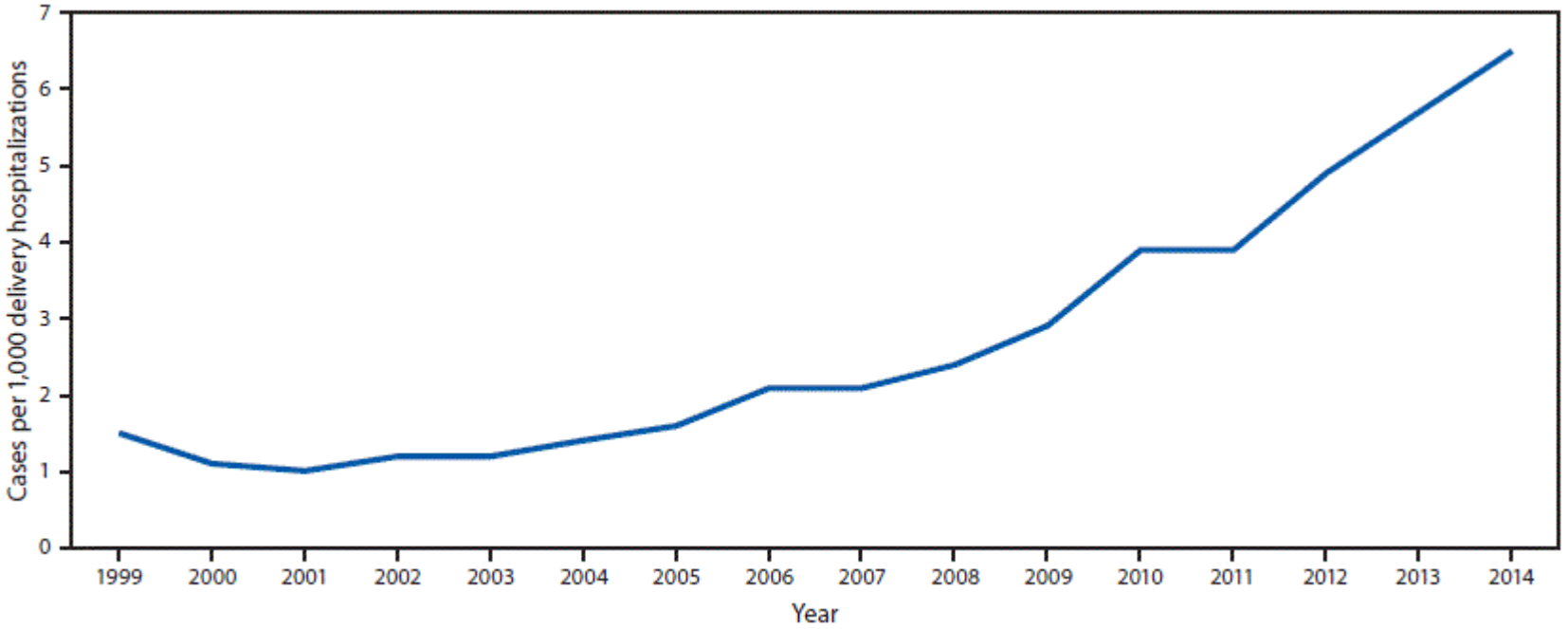
Minnesota Perinatal Physicians

10/28/2020

Scope of the problem…

National prevalence of opioid use disorder per 1,000 delivery hospitalizations* — National Inpatient Sample (NIS),† Healthcare Cost and Utilization Project (HCUP), United States, 1999–2014



CDC MMWR Haight SC, Ko JY, Tong VT, Bohm MK, Callaghan WM. Opioid Use Disorder Documented at Delivery Hospitalization — United States, 1999–2014. MMWR Morb Mortal Wkly Rep 2018;67:845–849.

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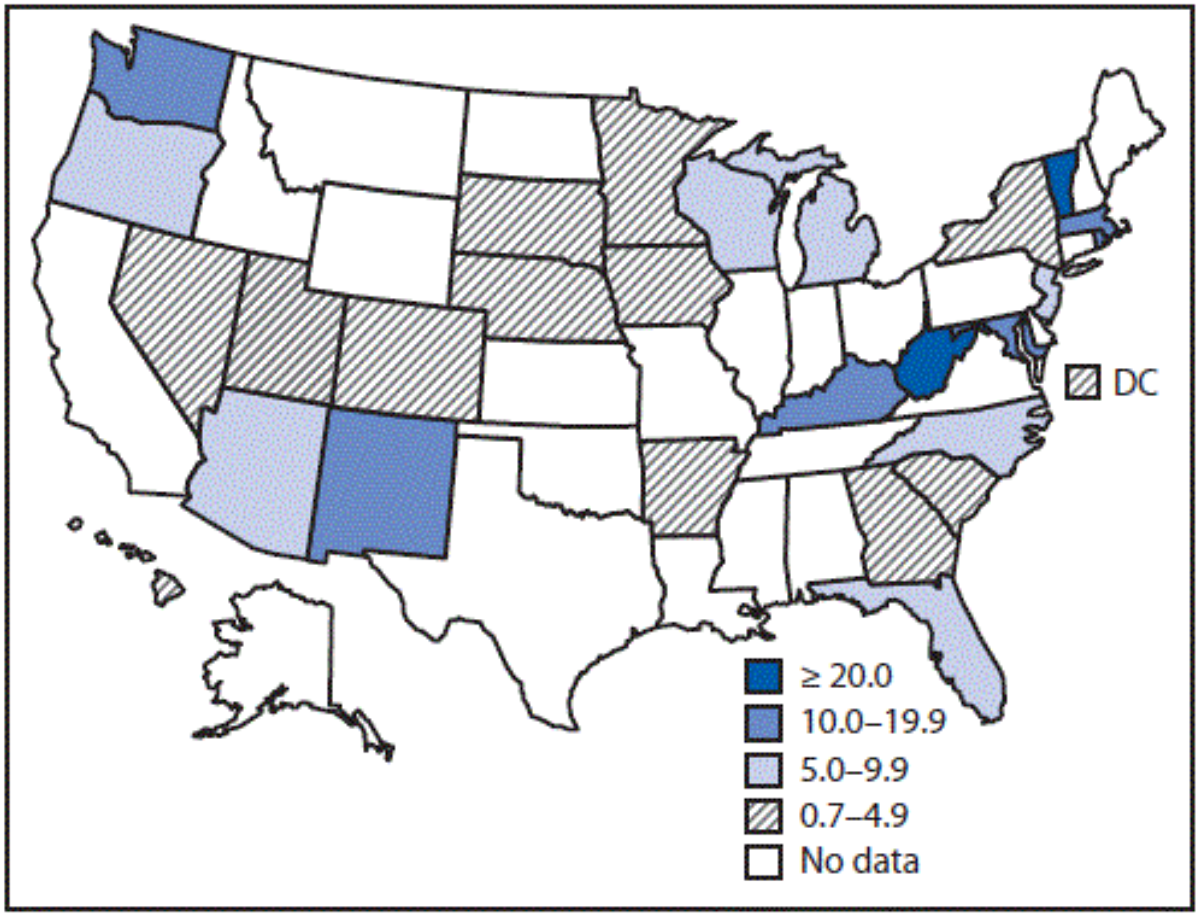


CDC MMWR Haight SC, Ko JY, Tong VT, Bohm MK, Callaghan WM. Opioid Use Disorder Documented at Delivery Hospitalization — United States, 1999–2014. MMWR Morb Mortal Wkly Rep 2018;67:845–849.

Scope of the problem…

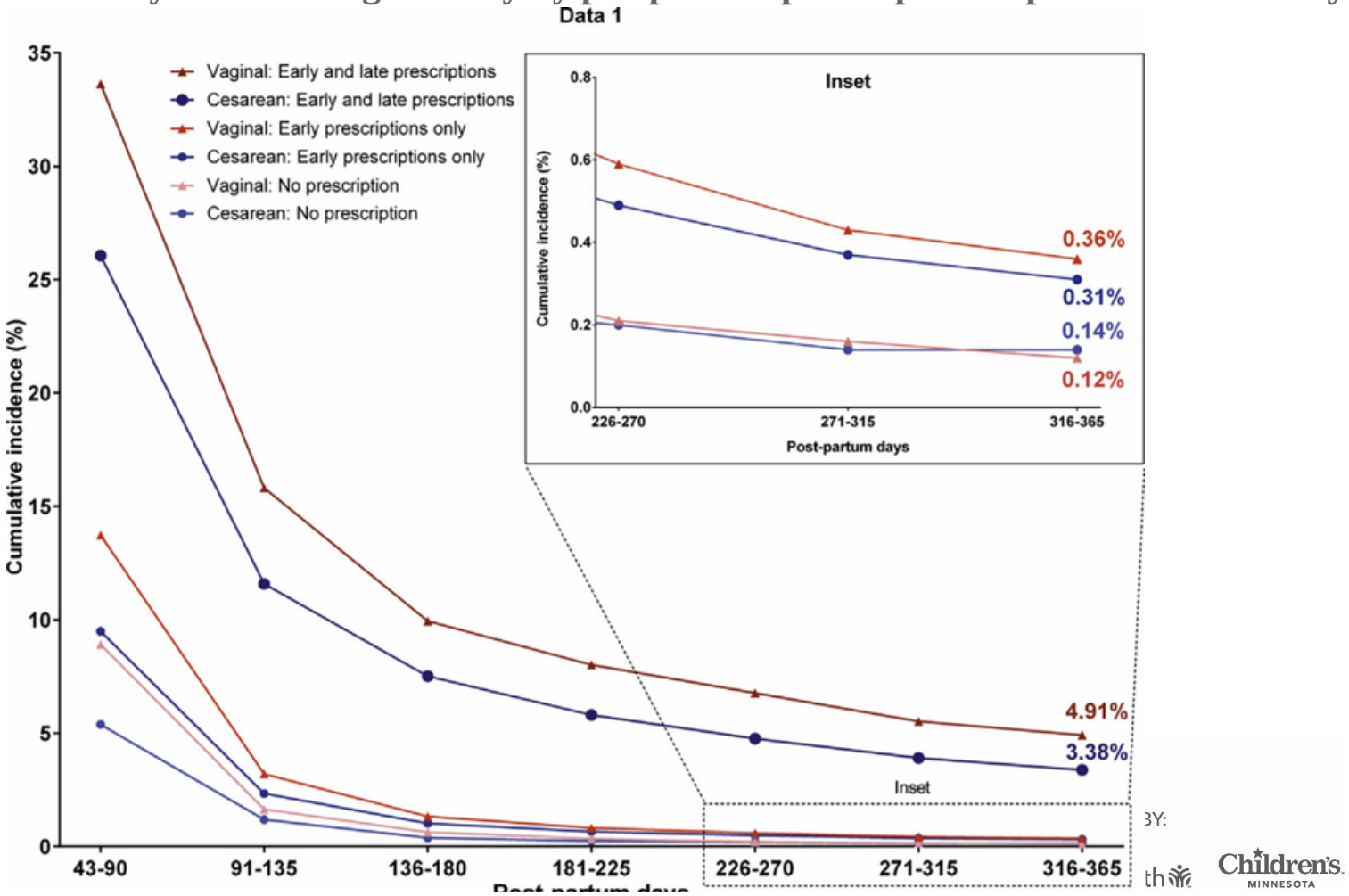
- **In 2019, 6.6% of US women reported using prescription opioids during pregnancy**
  - 91.3% obtained via prescription from a health care provider
  - 21.2% reported misuse
  - 27.1% felt they needed to cut back or stop prescription opioid use during pregnancy

DELIVERED BY:

CDC MMWR Ko JY, D'Angelo DV, Haight SC, et al. *Vital Signs:* Prescription Opioid Pain Reliever Use During Pregnancy — 34 U.S. Jurisdictions, 2019. MMWR Morb Mortal Wkly Rep 2020;69:897–903.

Scope of the problem…

Persistent opioid use at year following delivery by postpartum prescription exposure and delivery type



Osmundson et al. Risk of persistent opioid use after delivery. Am J Obstet Gynecol. 2019 Apr; 220(4): 405–407..

Opioid Use Disorder

- **Pattern of opioid use characterized by tolerance, craving, inability to control use**
- **Continued use despite adverse consequences**

*the presence of tolerance and/or withdrawal symptoms alone while taking prescribed opioids under medical supervision does not meet criteria for opioid use disorder

DELIVERED BY:

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.

Impact of Opioids on Pregnancy

- **Risk of fetal anomalies is very small if present at all**
  - Possible small increase in risk of fetal anomalies with first trimester codeine exposure
  - No difference in risk of anomalies in women on methadone or buprenorphine compared to general population
- **Possible increased risk of childhood developmental delays**
  - Difficult to differentiate risk due to opiate exposure versus other co-existing risk factors
  - Likely higher in children with history of neonatal abstinence syndrome

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.
Fill et al. Educational Disabilities Among Children Born with Neonatal Abstinence Syndrome. Pediatrics 2018; 142(3):e20181562.

Impact of Opioids on Pregnancy

- **Risk of poor pregnancy outcomes with maternal opioid use disorder:**
  - Fetal growth restriction, abruption, stillbirth, preterm delivery, meconium passage
- **Most risks not seen with prescribed opioids in the absence of opioid use disorder**
  - Small increased risk of fetal growth restriction (OR 1.22-1.5) with chronic prescribed opioid use

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.
Sujan et al. Maternal prescribed opioid analgesic use during pregnancy and associations with adverse birth outcomes: A population-based study. PLoS Med 2019;16(12):e1002980.

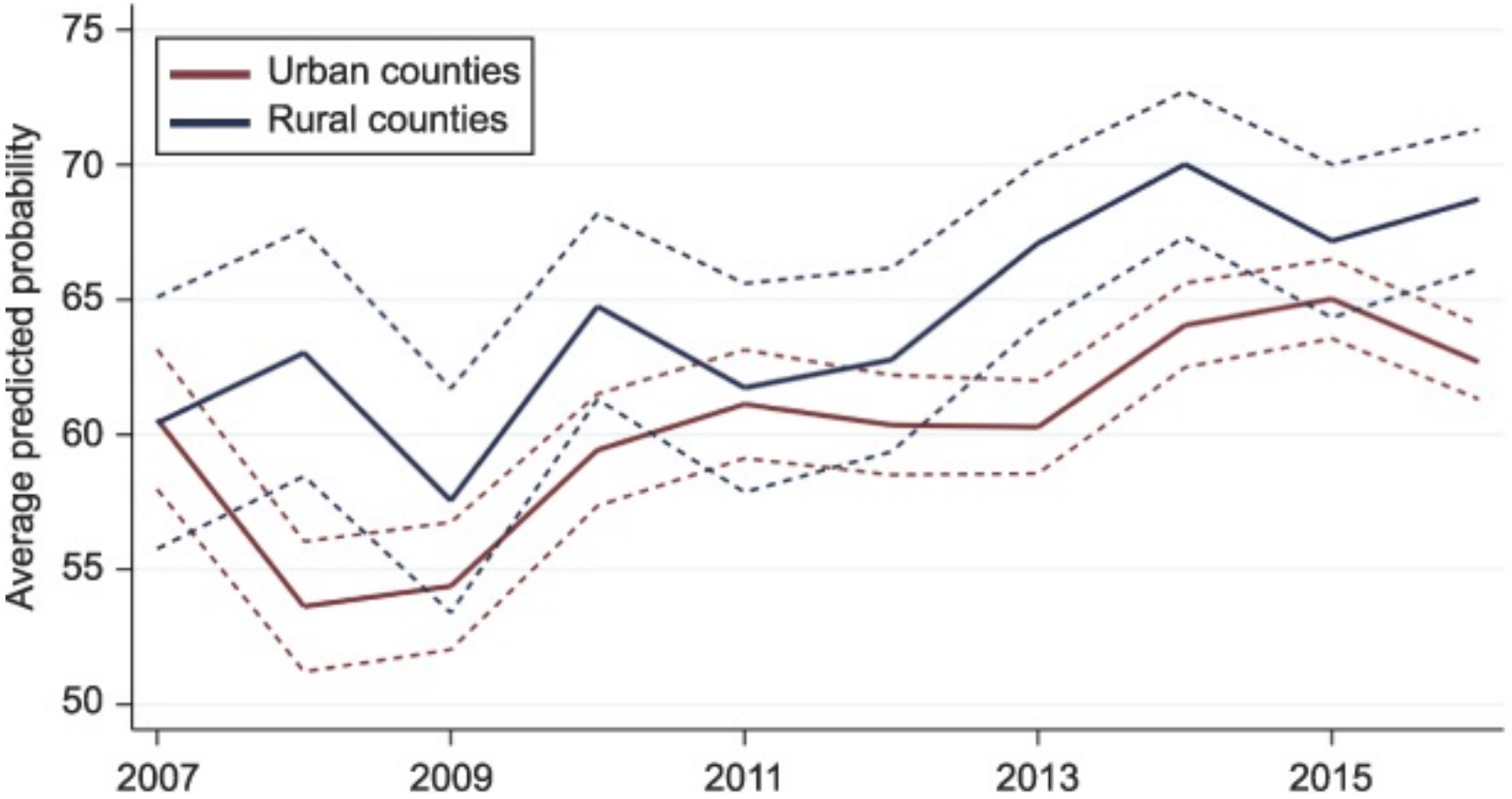
Impact of Opioids on Pregnancy

- **Risk of additional risky behaviors with maternal opioid use disorder:**
  - Infection exposure (HIV, Hepatitis B/C, STDs)
  - Domestic violence
  - Polysubstance use
    - 64% of women with opioid use disorder used tobacco, methamphetamines, alcohol and/or cocaine
    - Polysubstance use rates increasing nationwide but faster in rural than urban counties

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.
Krans E et al. Polysubstance Use Among Pregnant Women With Opioid Use Disorder in the United States, 2007–2016. Obstet Gynecol 2020; 136:556-564.

Polysubstance Use

Adjusted prevalence of polysubstance use diagnosis among those with opioid use disorder at delivery residing in rural and urban counties in the United States, 2007–2016.



Krans E et al. Polysubstance Use Among Pregnant Women With Opioid Use Disorder in the United States, 2007–2016. Obstet Gynecol 2020; 136:556-564.

Neonatal Abstinence Syndrome

- Drug withdrawal syndrome resulting from chronic maternal opioid use during pregnancy
- Occurs in 30-80% of exposed neonates
- Irritability, poor sleep, feeding difficulties, high-pitched cry, seizures, vomiting, loose stools, sweating
- Appears within 12-72 hours of birth, lasts for up to 3 weeks
- Treated with supportive cares and supplemental opioids if needed

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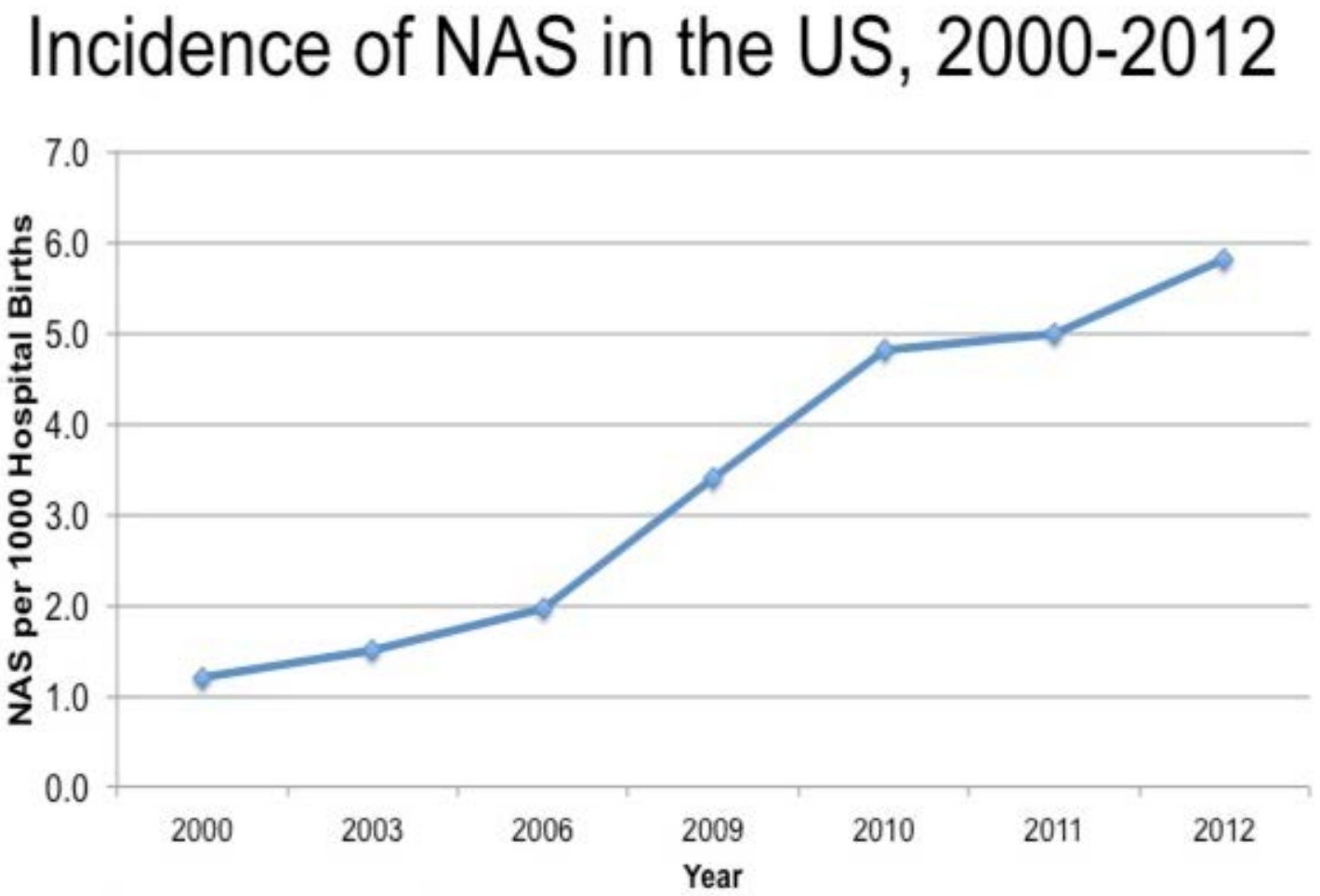
Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.

Neonatal Abstinence Syndrome



Patrick SW, et. al. Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009. *JAMA*. 2012 May 9;307(18):1934-40.

Patrick SW, Davis MM, Lehman CU, Cooper WO. Increasing incidence and geographic distribution of neonatal abstinence syndrome: United States 2009 to 2012. J Perinatol. Apr 30 2015.

Neonatal Abstinence Syndrome

- **Maternal methadone use:**
  - Symptoms appear by 72 hours, can last several weeks
- **Maternal buprenorphine use:**
  - Symptoms appear by 12-48 hours, resolve by 7 days
- **Prescribed opioids:**
  - Risk of NAS 1-20% with third trimester use, higher with longer use or higher doses, or history of maternal opioid misuse. Timing and duration of symptoms dependent on type of opioid and dosing
- **Illicit opioids:**
  - Risk of NAS, timing and duration of symptoms dependent on use patterns

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Ob
Desai et al. Exposure to prescription opioid analgesics in utero and the risk of neonatal abstinence syndrome: A population-based coho

Screening for Opioid Use Disorder in Pregnancy

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

ASAM American Society of Addiction Medicine

ACOG COMMITTEE OPINION

Number 711 • August 2017

(Replaces Committee Opinion Number 524, May 2012)

Committee on Obstetric Practice
American Society of Addiction Medicine

The Society of Maternal–Fetal Medicine endorses this document. This Committee Opinion was developed by the American College of Obstetricians and Gynecologists' Committee on Obstetric Practice in collaboration with committee members Maria A. Mascola, MD, MPH; Ann E. Borders, MD, MSc, MPH; and the American Society of Addiction Medicine member Mishka Terplan, MD, MPH.

the MOTHER BABY Center

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Allina Health

Children's MINNESOTA

Screening for Opioid Use Disorder in Pregnancy

- **SBIRT** – early universal **S**creening, **B**rief **I**ntervention, and **R**eferral to **T**reatment

Box 1. SBIRT: Screening, Brief Intervention, and Referral to Treatment

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an evidence-based practice used to identify, reduce, and prevent problematic use and dependence on alcohol and other substances. The SBIRT model was impelled by an Institute of Medicine (now known as the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine) recommendation that called for community-based screening for health risk behaviors, including substance use.

Screening—A health care professional assesses a patient for risky substance use behaviors using standardized screening tools. Screening can occur in any health care setting.

Brief Intervention—A health care professional engages a patient showing risky substance use behaviors in a short conversation, providing feedback and advice.

Referral to Treatment—A health care professional provides a referral to brief therapy or additional treatment to patients who screen in need of additional services.

Data from SAMHSA-HRSA Center for Integrated Health Solutions. SBIRT: Screening, Brief Intervention, and Referral to Treatment. Available at: http://www.integration.samhsa.gov/clinical-practice/SBIRT. Retrieved March 20, 2017.

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.

Screening for Opioid Use Disorder in Pregnancy

- **SBIRT – early universal Screening, Brief Intervention, and Referral to Treatment**

- **Screen at first prenatal visit and every trimester**
- **NOT laboratory drug testing**
- **Recommend validated screening tools (4Ps, NIDA quick screen, CRAFFT questions, T-ACE)**

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Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.

Screening for Opioid Use Disorder in Pregnancy

- **SBIRT – early universal Screening, Brief Intervention, and Referral to Treatment**

- ***Universal screening* rather than "Targeted" screening**
- **Illicit drug use rates are similar across racial and socioeconomic backgrounds**
  - But testing and reporting of illicit drug use is far more common for women of color and lower socioeconomic status

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.
Chasnoff et al. The prevalence of illicit drug or alcohol use during pregnancy and discrepancies in mandatory reporting in Pinellas County Florida. NEJM 1990; 1202-1206.

The NIDA Quick Screen

- In the past year, how many times have you drunk more than 4 alcoholic drinks per day?
- In the past year, how many times have used tobacco?
- In the past year, how many times have you taken illegal drugs or prescription drugs for nonmedical reasons?

DELIVERED BY:

American College of Obstetricians and Gynecologists. *Substance Use: Obstetric and Gynecologic Implications; in Special Issues in Women's Health*.; 2005.

T-ACE

- Tolerance: How many drinks does it take to make you feel high? (>2 = 2 points)
- Have people Annoyed you by criticizing your drinking? (yes = 1 point)
- Have you ever felt you ought to Cut down on your drinking? (yes = 1 point)
- Eye opener: Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover? (yes = 1 point)

Scores of 2 or more indicates a high risk of prenatal alcohol exposure

DELIVERED BY:

Wright TE, Terplan M, Ondersma SJ, et al. The role of screening, brief intervention, and referral to treatment in the perinatal period. *Am J Obstet Gynecol*. 2016;215(5):539-547.

Treatment of Opioid-Use Disorder in Pregnancy

- **Opioid-replacement therapy (methadone or buprenorphine) in combination with counseling and behavioral therapy**
  - Reduces relapse risk
  - Improves adherence to prenatal care and treatment programs
  - Reduces risk of obstetrical complications
  - Patients should be counseled about the risk of neonatal abstinence syndrome

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.
CDC "Treatment for Opioid Use Disorder Before, During and After Pregnancy", https://www.cdc.gov/pregnancy/opioids/treatment.html Accessed 10/25/2020

Methadone

- Long-acting opioid receptor agonist, decreases withdrawal symptoms
- Dosed with daily visits to a dedicated methadone-treatment clinic
- May require dose-titration or split-daily dosing due to pharmacokinetics of pregnancy
- QT prolongation – watch for medication interactions
- Higher doses do not increase the risk of neonatal abstinence syndrome

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Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.

Buprenorphine (Subutex)

- **Opioid receptor partial agonist**
  - Less likely to overdose
- **Risk of diversion**
  - Suboxone (Subutex+Naloxone – Naloxone activates only with injection usage)
  - Suboxone or Subutex are both safe options for pregnancy
- **May precipitate withdrawal if transitioned from methadone to buprenorphine**
- **Can impact dosing of postpartum/postoperative pain medications**

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Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.

Medically-Supervised Withdrawal in Pregnancy

- Associated with high relapse rates (50-90%)
- Can be successful if combined with intensive outpatient behavioral therapy
- No decrease in the risk of NAS (compared to opioid-replacement therapy)
- No increased risk of preterm labor, stillbirth during withdrawal period

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.
Wang et al. Opioid Detoxification in Pregnancy:Systematic Review and Meta-Analysis of Pernatal Outcomes. Am J Perinal 2019; 36:581-7.

Pregnancy Management for Women with Opioid-Use Disorder

- **Encourage opioid replacement therapy**
- **HIV, Hepatitis B, Hepatitis C, STD screening with new OB labs AND repeated third trimester**
  - Consider Hepatitis B vaccination if nonimmune
- **Screening for polysubstance use**
- **Screening for other behavioral health disorders**
- **First trimester US for dating and viability**
- **Third trimester growth ultrasound**
- **Consider antenatal testing for women actively using illicit opioids** (not indicated for opioid replacement therapy alone in the absence of other indications)

Intrapartum/Postpartum Management

- **Continue methadone or buprenorphine dosing during labor and postpartum period**
  - Avoid Stadol or Nubain for labor pain in women on methadone
- **Choose regional anesthesia during labor or CS if possible**
- **Optimize nonopioid pain relief (NSAIDs/Tylenol)**
- **If narcotic pain meds needed, may require higher doses due to tolerance (average 50% higher)**
- **Monitor baby for signs of NAS**

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Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.

Plan of Safe Care

- **Collaborate with local child welfare services to develop an individualized "Plan of Safe Care" after birth**

CONTENTS: SAFETY: CONSENSUS STATEMENT

National Partnership for Maternal Safety

Consensus Bundle on Obstetric Care for Women With Opioid Use Disorder

Krans, Elizabeth E. MD, MSc; Campopiano, Melinda MD; Cleveland, Lisa M. PhD, RN; Goodman, Daisy DNP, CNM; Kilday, Deborah MSN, RN; Kendig, Susan JD, MSN; Leffert, Lisa R. MD; Main, Elliott K. MD; Mitchell, Kathleen T. MHS, LCADC; O'Gurek, David T. MD, FAAFP; D'Oria, Robyn MA, RNC; McDaniel, Deidre MSW, LCSW; Terplan, Mishka MD, MPH **Author Information**

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doi: 10.1097/AOG.0000000000003381

MOTHER BABY Center DELIVERED BY: Allina Health Children's MINNESOTA

Minnesota's Best Practice Guide for Responding to Prenatal Exposure to Substance Use

https://edocs.dhs.state.mn.us/lfserver/Public/DHS-7605-ENG

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Treatment of Acute and Chronic Pain in Pregnancy

- **Maximize nonopioid pain management strategies**
- **When opioids are required:**
  - Short acting, immediate release, intermittent
  - Less than 2 week course
  - Avoid transition to chronic opioids

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.
Krans et al. National Partnership for Maternal Safety: Consensus Bundle on Obstetric Care for Women With Opioid Use Disorder. Obstet Gyneol 2019; 134(2):165-175.

Treatment of Acute and Chronic Pain in Pregnancy

- **Women on chronic prescribed opioids prior to pregnancy**
  - Counsel on risk of neonatal abstinence syndrome
  - Consider slow weaning as tolerated
  - Maximize nonopioid treatment options
  - If weaning not possible, monitor for neonatal abstinence syndrome postpartum

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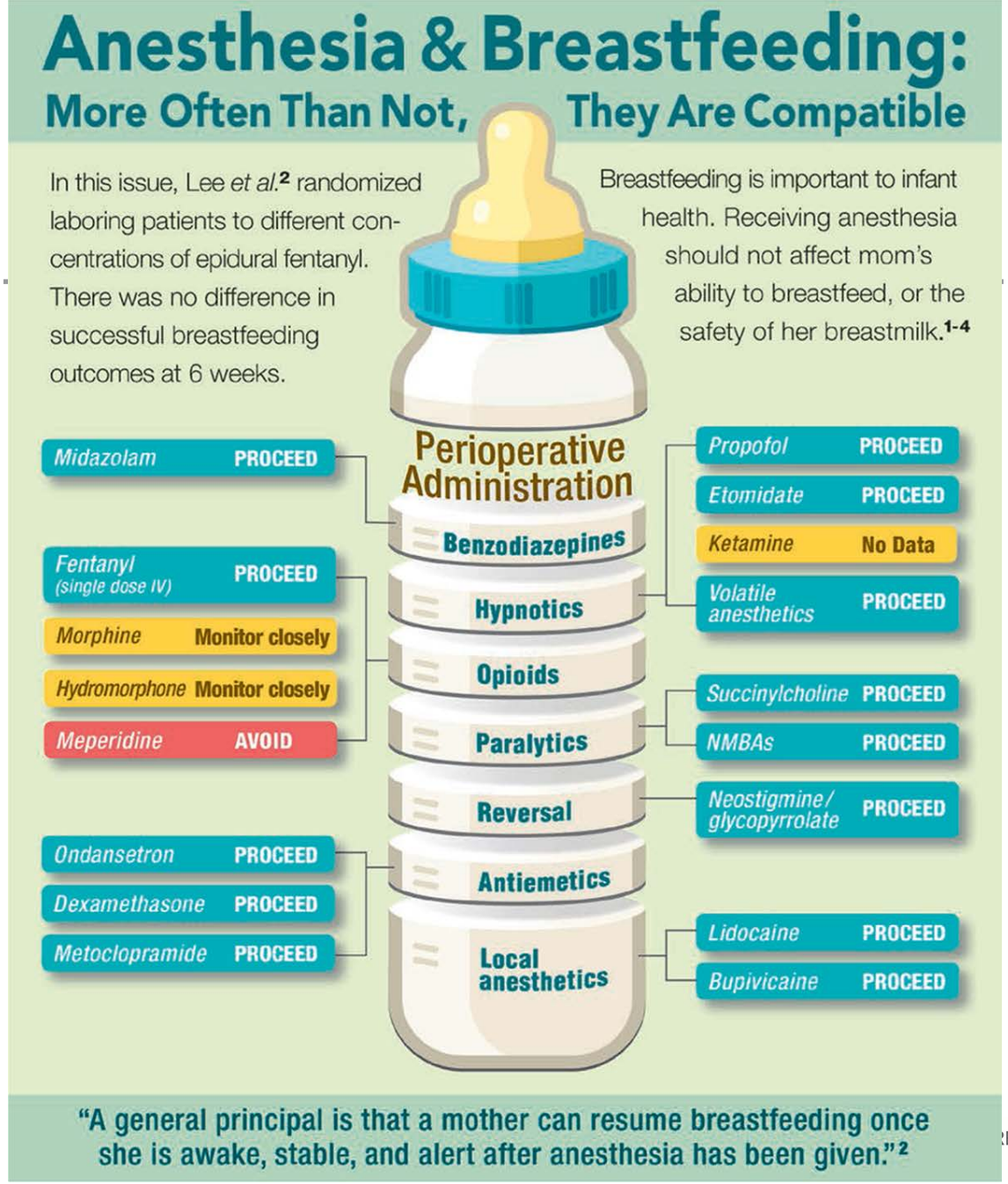
Krans et al. National Partnership for Maternal Safety: Consensus Bundle on Obstetric Care for Women With Opioid Use Disorder. Obstet Gyneol 2019; 134(2):165-175.

Opioids and Breastfeeding

- **Opioids cross into breastmilk at low but detectable levels**
- **Breastfeeding decreases the severity of NAS**
  - Encourage breastfeeding for mothers on methadone and buprenorphine
- **Continue breastfeeding for mothers on prescribed opioids**
  - Monitor infant for sedation, avoid co-sleeping

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.

Reece-Stremtan S, Marinelli KA and The Academy of Breastfeeding Medine. ABM Clinical Protocol #21: Guidelines for Breastfeeding and Substance Use or Substance Use Disorder, Revised 2015. Breastfeeding Medicine 2015 10(3):135-41.



Cobb et al. Breastfeeding after anesthesia: A review for anesthesia providers regarding the transfer of medications into breast milk. Transl Perioper Pain Med 2015; 1:1–7

Opioids and Breastfeeding

- **Recommend against breastfeeding with active illicit opioid use**
- **Avoid tramadol, meperidine and codeine in breastfeeding**
  - Risk of baby being a rapid metabolizer

Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017; 130:e81-94.

Reece-Stremtan S, Marinelli KA and The Academy of Breastfeeding Medine. ABM Clinical Protocol #21: Guidelines for Breastfeeding and Substance Use or Substance Use Disorder, Revised 2015. Breastfeeding Medicine 2015 10(3):135-41.

THANK YOU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