

**Special Topic:
Understanding Prenatal Substance
Exposure and Child Welfare Implications**

Child Welfare Training Toolkit



National Center on
Substance Abuse
and Child Welfare

Acknowledgment



National Center on
Substance Abuse
and Child Welfare

*A program of the Substance Abuse and Mental Health Services Administration (SAMHSA)
and the Administration for Children and Families (ACF), Children's Bureau*

SAMHSA
Substance Abuse and Mental Health
Services Administration



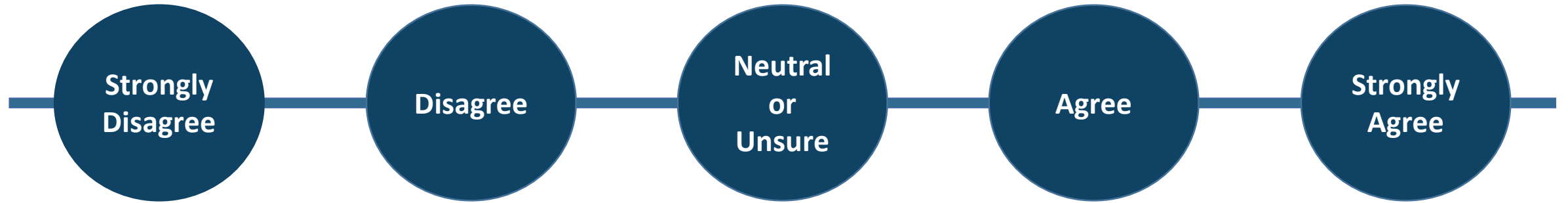
www.ncsacw.samhsa.gov | ncsacw@cffutures.org

Learning Objectives

After completing this training, child welfare workers will:

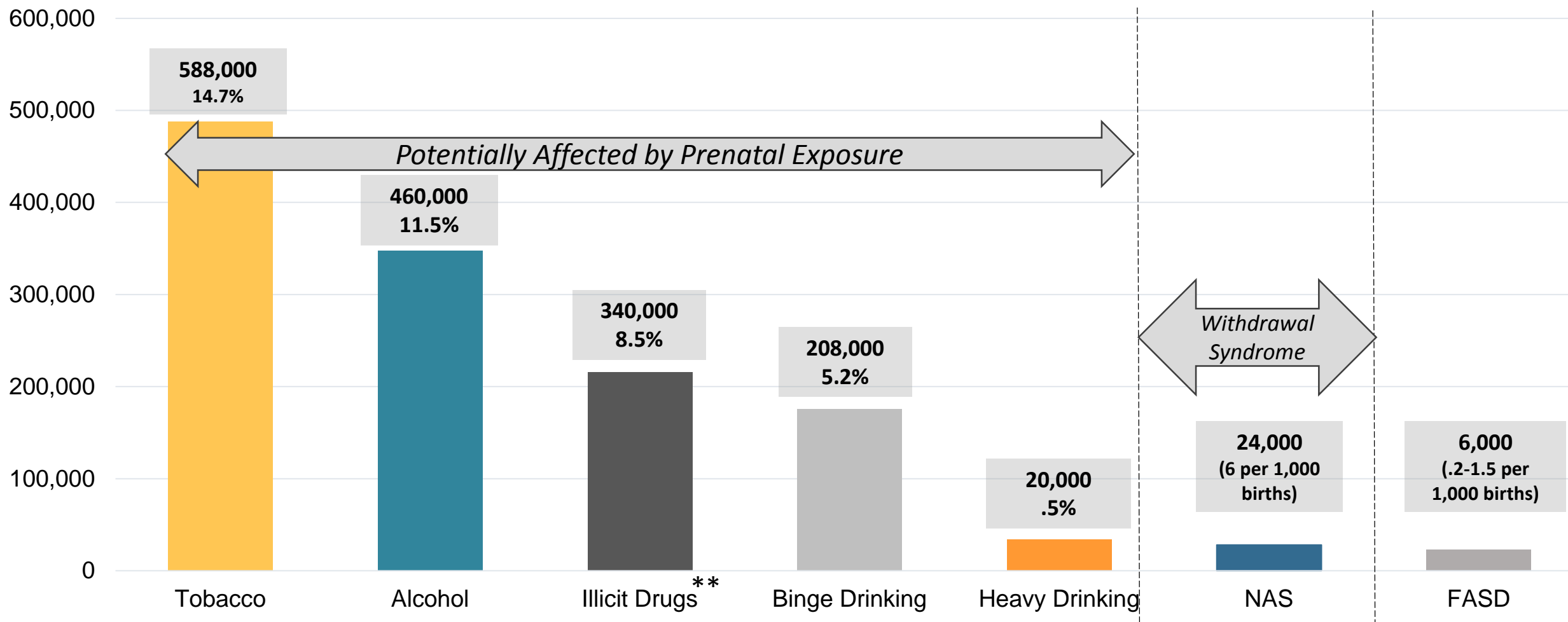
- Discuss the context and prevalence of prenatal substance use
- Identify the effects of prenatal substance use on infants and their families
- Discuss Fetal Alcohol Spectrum Disorders (FASDs), Neonatal Abstinence Syndrome (NAS), and Neonatal Opioid Withdrawal Syndrome (NOWS)
- Increase knowledge of screening and referral for treatment and resources
- Identify the treatment needs of parents and infants
- Value collaboration between systems of care for successful outcomes
- Understand the implications of amendments to the Child Abuse Prevention and Treatment Act (CAPTA) made by the Comprehensive Addiction and Recovery Act (CARA) of 2016 related to infants with prenatal substance exposure and their families

Collaborative Values Inventory



- In different circumstances, any person could be a parent with a substance use disorder
- Newborns with positive tests for illegal drugs should be removed from their parent's custody
- Medication-assisted treatment, prescription drugs that treat opioid addiction, should be made available to pregnant women
- When a parent refuses substance use disorder treatment they should face penalties
- Substance use disorder treatment will only be effective if a parent wants treatment

Estimated Number of Infants* Affected by Prenatal Exposure, by Type of Substance and Infant Disorder, 2017



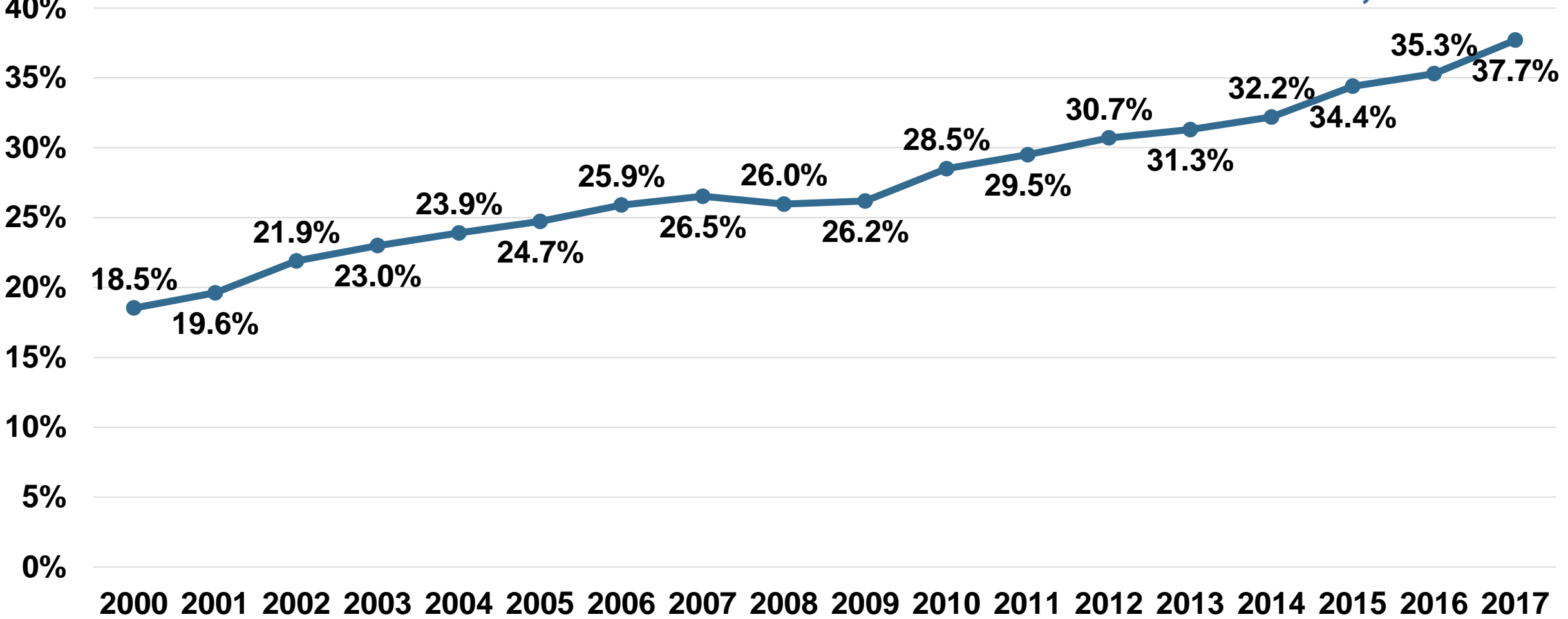
*Approximately 4 million (3,855,500) live births in 2017; National Vital Statistics Report, Vol. 67, No. 8; https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_08-508.pdf

Estimates based on rates of past month drug use: National Survey on Drug Use and Health, 2017; <https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHDetailedTabs2017/NSDUHDetailedTabs2017.pdf>

** Includes nine categories of illicit drug use: use of marijuana, cocaine, heroin, hallucinogens, inhalants, and methamphetamine, as well as the non-medical use of prescription-type pain relievers, tranquilizers, stimulants, and sedatives

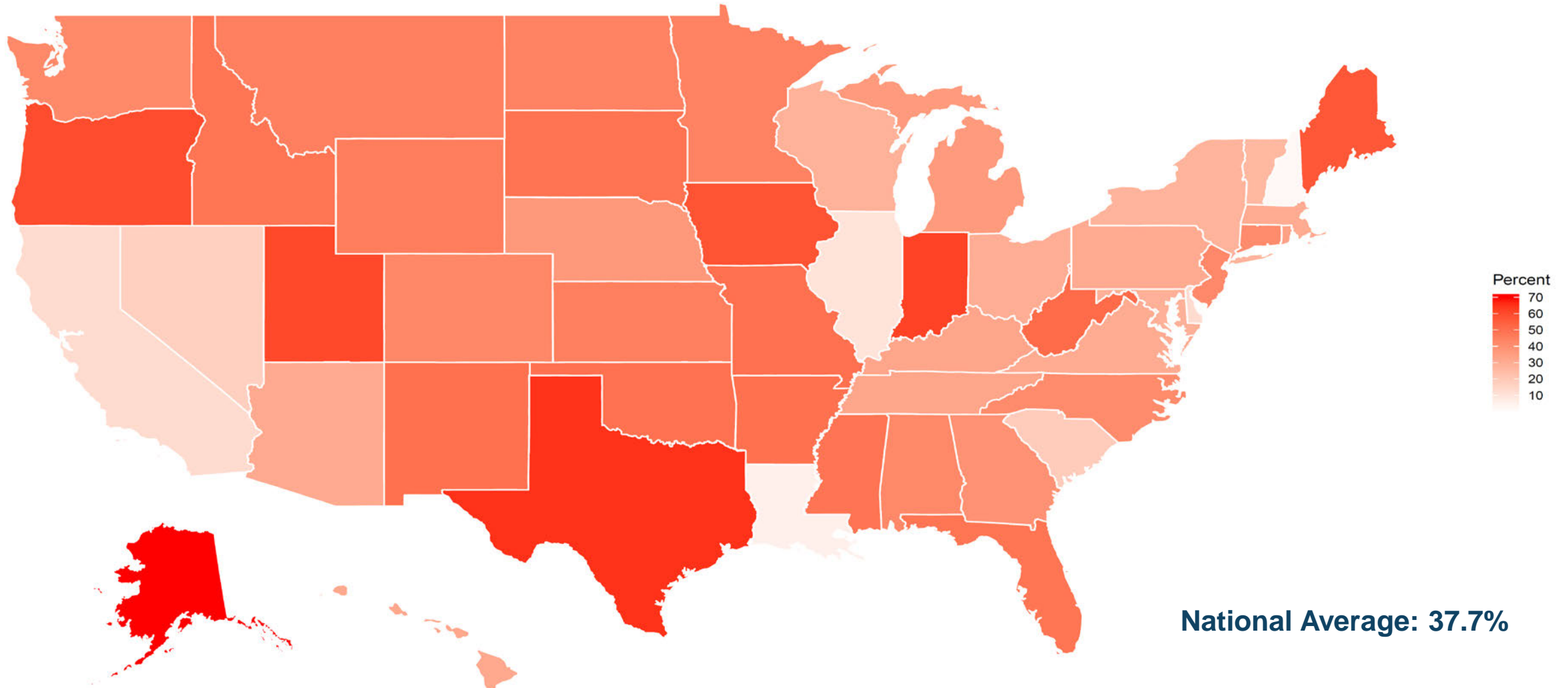
Prevalence of Parental Alcohol or Other Drug Use Reported as a Contributing Factor for Reason for Removal in the United States

Number of Children in Out-of-Home Care in 2017 = 690,627



Note: Estimates based on all children who entered out-of-home care at some point during the fiscal year. (U.S. Department of Health and Human Services, 2018)

Prevalence of Parental Alcohol or Other Drug Use as a Contributing Factor for Reason for Removal by State, 2017

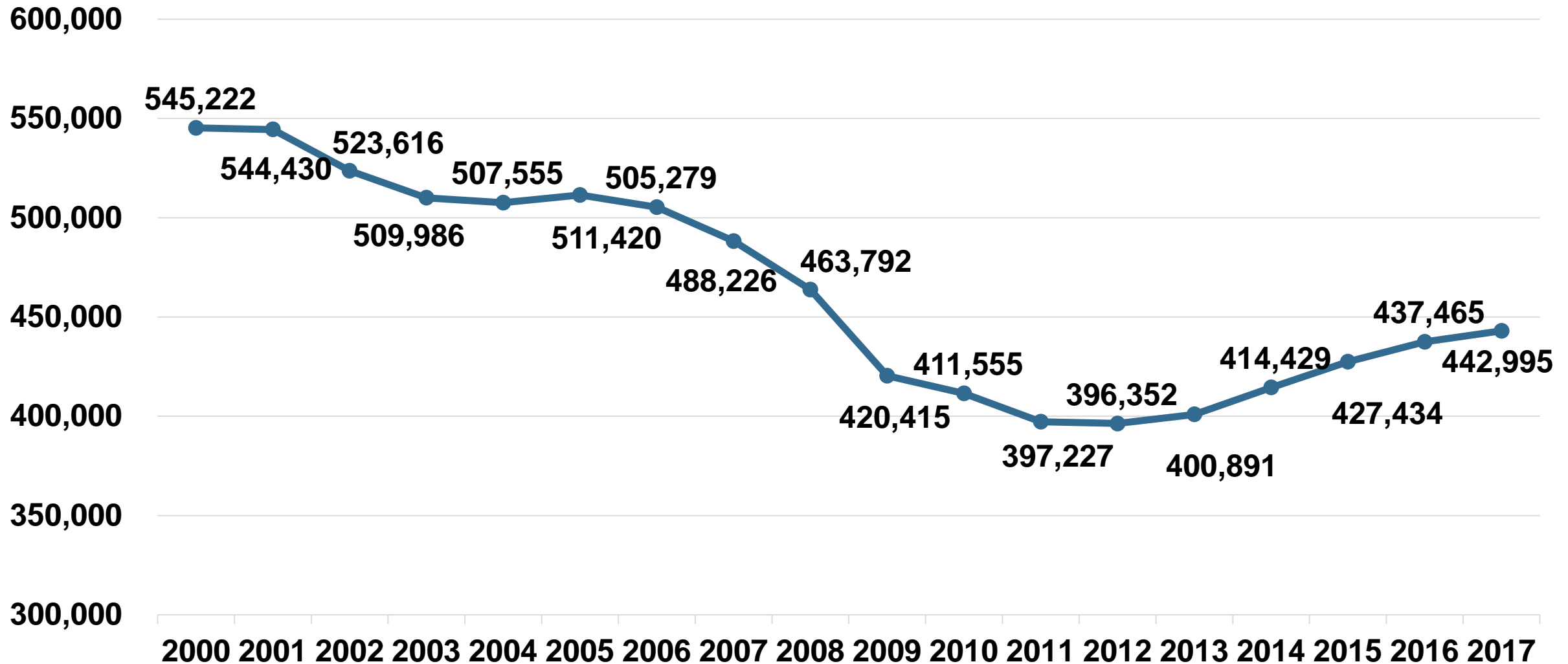


Efforts in data collection have improved in recent years, but significant undercount remains in some states.

Note: Estimates based on children in out of home care at some point during Fiscal Year 2017.

Source: AFCARS Data, 2000-2017

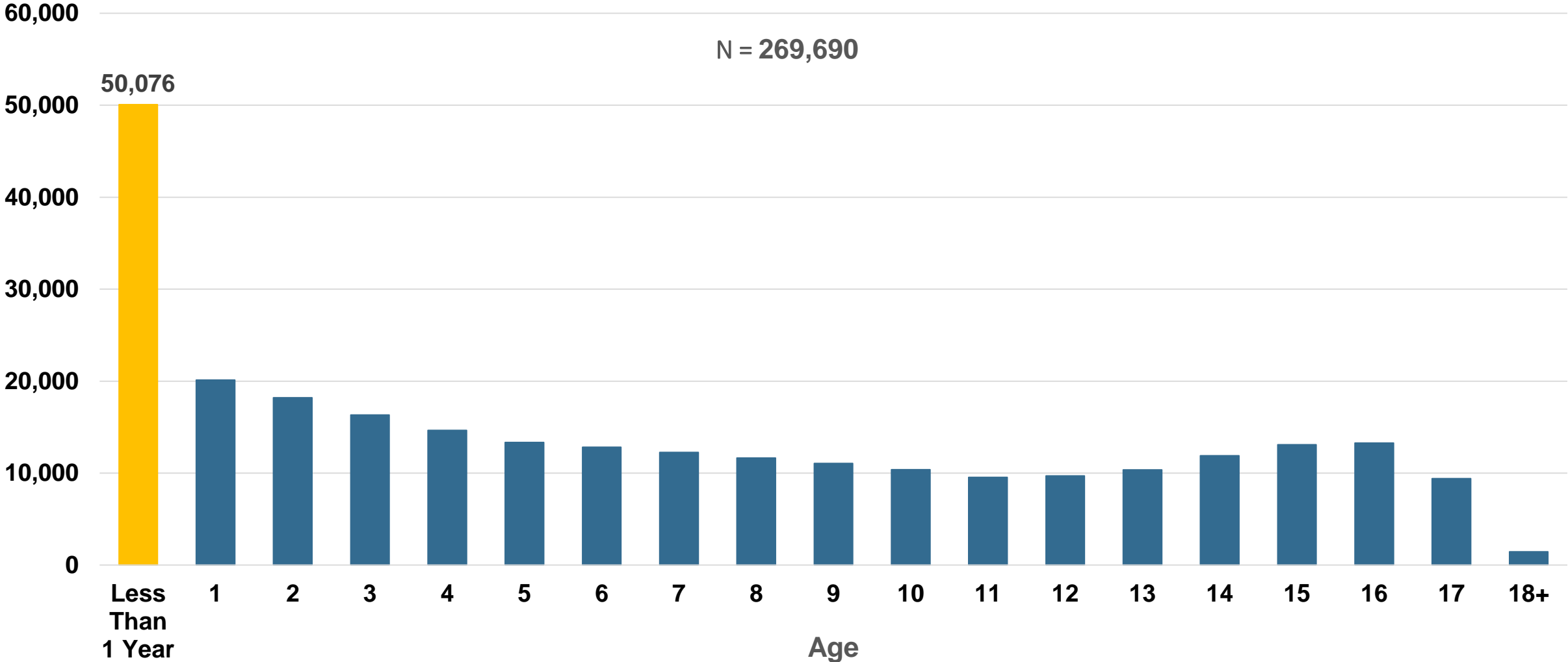
Number of Children in Out-of-Home Care at End of Fiscal Year in the United States, 2000 to 2017



Note: Estimates based on children in foster care as of September 30

(U.S. Department of Health and Human Services, 2018)

Number of Children who Entered Foster Care, by Age at Removal in the United States, 2016



Note: Estimates based on children who entered out of home care during Fiscal Year (U.S. Department of Health and Human Services, 2018)

Effects of Prenatal Substance Exposure

American Academy of Pediatrics Technical Report

Comprehensive review of ~275 peer reviewed articles over 40 years (1968-2006)




Short-Term

Birth Anomalies
Fetal Growth
Neurobehavioral
Withdrawal



Long-Term



Achievement
Behavior
Cognition
Growth
Language

Short-Term Effects of Prenatal Substance Exposure

	Growth	Anomalies	Withdrawal	Neurobehavioral
Alcohol	Strong Effect	Strong Effect	No Effect	Effect
Nicotine	Effect	No consensus	No Effect	Effect
Marijuana	No Effect	No Effect	No Effect	Effect
Opiates	Effect	No Effect	Strong Effect	Effect
Cocaine	Effect	No Effect	No Effect	Effect
Methamphetamine	Effect	No Effect	Lack of Data	Effect

Long-Term Effects of Prenatal Substance Exposure

	Growth	Behavior	Cognition	Language	Achievement
Alcohol	Strong Effect	Strong Effect	Strong Effect	Effect	Strong Effect
Nicotine	No consensus	Effect	Effect	Effect	Effect
Marijuana	No Effect	Effect	Effect	No Effect	Effect
Opiates	No Effect	Effect	No consensus	Lack of Data	Lack of Data
Cocaine	No consensus	Effect	Effect	Effect	No consensus
Methamphetamine	Lack of Data	Lack of Data	Lack of Data	Lack of Data	Lack of Data

Complex Interplay of Factors

Interaction of various prenatal and environmental factors:

- Family characteristics
- Family trauma
- Prenatal care
- Exposure to multiple substances (alcohol and tobacco)
- Early childhood experiences in bonding with parent(s) and caregiver(s)
- Other health and psychosocial factors



Challenges to Mother-Infant Dyad Affected by Substance Use Disorders

For the Mother

Altered responses

Stigma/Negative Stereotypes

Lack of parenting role models

Low parental confidence

Lifestyle changes related to drug seeking and drug use

Exposure to Violence or Chaotic Environment

Maternal Brain Changes

- Normal infant cues perceived as irritating
- Difficulties with self-regulation

Psychiatric Comorbidities

- Depression, anxiety, PTSD

Health Concerns

- HIV, Hep C, HSV, STDs



For the Child

Developmental Harm

Neglect or Physical Harm

Repeated Exposure: in-utero or secondary exposure

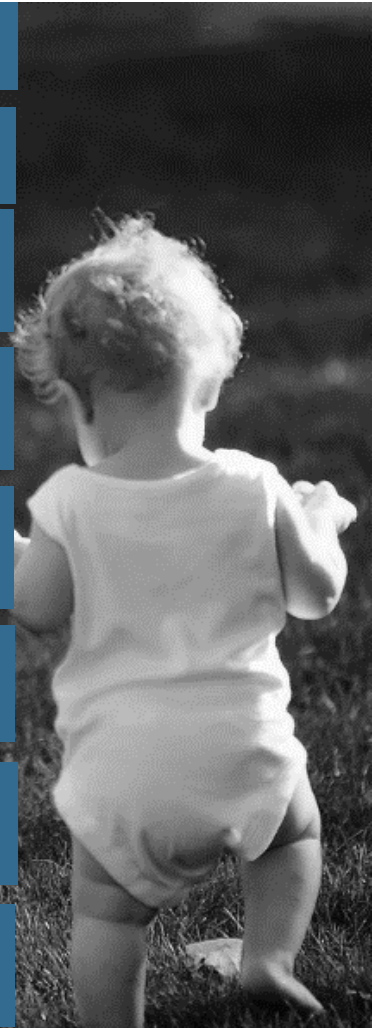
Altered trajectories of development due to parental responsiveness

Risk of child maltreatment and physical harm

Exposure to Violence

Effects on child development and emotional well-being

Acquired infections with health and developmental consequences



Fetal Alcohol Spectrum Disorder (FASD)

Fetal Alcohol Spectrum Disorder (FASD)

Fetal Alcohol Spectrum Disorder:

- A non-diagnostic umbrella term describing the range of effects that can occur in an individual whose mother consumed alcohol during pregnancy
- These effects may include physical, mental, behavioral, and/or learning disabilities with possible lifelong implications

Possible diagnoses within the spectrum include:

- Fetal Alcohol Syndrome (FAS)
- Partial Fetal Alcohol Syndrome (pFAS)
- Alcohol-Related Neurodevelopmental Disorder (ARND)
- Static Encephalopathy/Alcohol-Exposed (SE/AE)
- Neurobehavioral Disorder/Alcohol-Exposed (ND/AE)

Fetal Alcohol Spectrum Disorder (FASD)

Prevalence of fetal alcohol spectrum disorders:

- Estimated at 9.1 per 1,000 live births,
- A review of in-school screening and diagnosis studies suggest that the national rate could potentially be closer to 50 per 1,000

Factors that influence the effect that alcohol has on the developing fetus:

- Amount of alcohol
- Pattern and timing of exposure
- Genetics
- Mother's use of tobacco and/or other substances
- Mother's health and nutrition
- Mother's level of stress and/or trauma
- Mother's age

Possible Effects of Fetal Alcohol Spectrum Disorder

- **Exposure to alcohol in utero can lead to impairment in the following neuropsychological domains:**
 - Intellectual performance
 - Executive function
 - Learning and memory
 - Language
 - Visual-spatial ability
 - Motor function
 - Attention
 - Activity levels
- **Prenatal alcohol exposure can also lead to behavioral problems such as:**
 - Adaptive dysfunction
 - Academic difficulties
 - Increased rates of psychiatric disorders

Unique Aspects of Fetal Alcohol Spectrum Disorder

- Alcohol is legal and perceived as a “low threat” substance, making prevention challenging
- Diagnosis requires a medical evaluation and neurodevelopmental assessment conducted by a multidisciplinary team (Cook et al., 2016)
- Neurobehavioral outcomes depend on the dose and pattern of alcohol consumption and the developmental stage when the fetus was exposed (Mattson et al., 2011)
- Primary disabilities resulting from FASD can lead to secondary disabilities including:
 - Issues in school
 - Mental health problems
 - Inappropriate sexual behavior
 - Alcohol and drug use
 - Involvement in the criminal justice system without early intervention and treatment (Benz et al., 2009)

Neonatal Abstinence Syndrome (NAS) and Neonatal Opioid Withdrawal Syndrome (NOWS)

Neonatal Abstinence Syndrome and Neonatal Opioid Withdrawal Syndrome

Neonatal Abstinence Syndrome*:

- Refers to withdrawal symptoms resulting from exposure to a variety of substances including opioids, nicotine, benzodiazepines and certain serotonin reuptake inhibitors

Neonatal Opioid Withdrawal Syndrome:

- Withdrawal from opioid exposure

* *These terms are sometimes used interchangeably*

(American College of Obstetricians and Gynecologists, 2017; Jansson et al., 2009; Substance Abuse and Mental Health Services Administration, 2018; Jones et al., 2012)



The reporting of neonatal abstinence syndrome has increased over the past 15 years

A number of data sources have looked at the incidence of neonatal abstinence syndrome. While it appears that the incidence is rising due to the opioid epidemic, it is unclear whether this rise is due to increased attention to neonatal abstinence syndrome and improvements in identification, or an increase in infants being born with neonatal abstinence syndrome.

In 2000, 1.2 per 1,000 hospital births were diagnosed as having Neonatal Abstinence Syndrome

(Patrick et al., 2012)

In 2016 data from 23 hospitals in the U.S. pediatric system indicate 20 per 1,000 live births were diagnosed as having Neonatal Abstinence Syndrome

(Milliren et al., 2017)

Neonatal Abstinence Syndrome and Neonatal Opioid Withdrawal Syndrome

- Neonatal abstinence syndrome occurs with notable variability, with **50-80%** of exposed infants developing symptoms
- Of those infants who develop symptoms, approximately **50%** receive treatment
- Neonatal opioid withdrawal syndrome is an expected and treatable condition that follows prenatal exposure to opioids
- Symptoms generally begin within 1-3 days after birth but may take 5-10 days to appear

(American College of Obstetricians and Gynecologists, 2017; National Institutes of Health, 2014; Hudak & Tan, 2012; Jansson et al., 2009; Substance Abuse and Mental Health Services Administration, 2018; Jones et al., 2012)



Unique Risks of Neonatal Abstinence Syndrome



Cues from babies are difficult to interpret because of:

- Escalation of neonatal abstinence syndrome display
- Use of medication
- Prolonged hospital stay



Inaccurate interpretation of cues by parents leads to:

- Decreases in parenting confidence
- Inappropriate response



Lack of training and/or protocols among hospital staff can lead to:

- Over/under medication
- Premature hospitalization discharge
- Re-hospitalization

Screening and Referral

Opportunities and Challenges

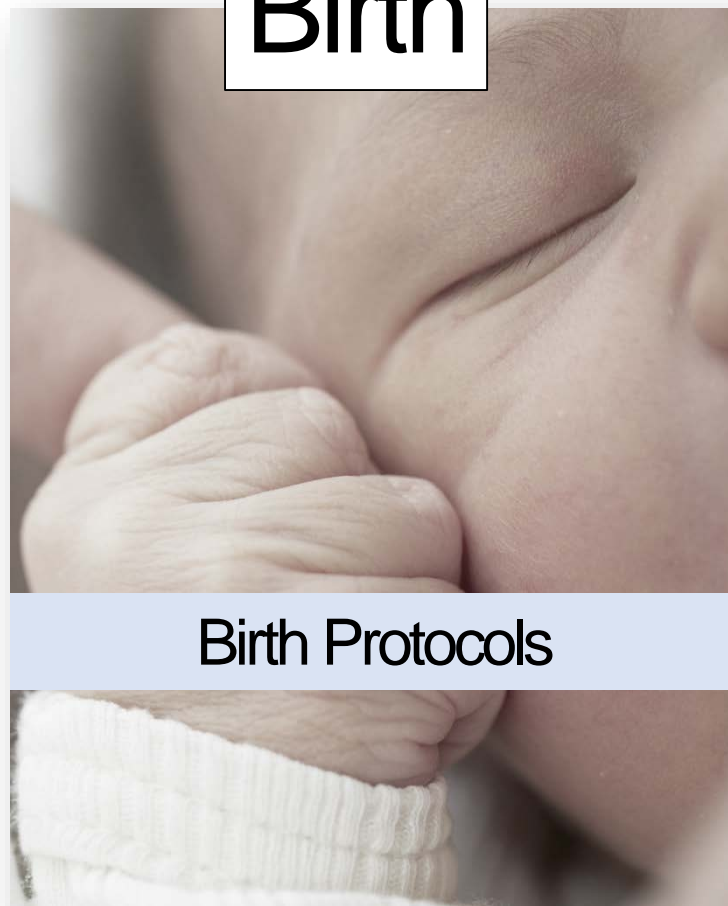
For women with substance use disorders and their infants and families

Prenatal



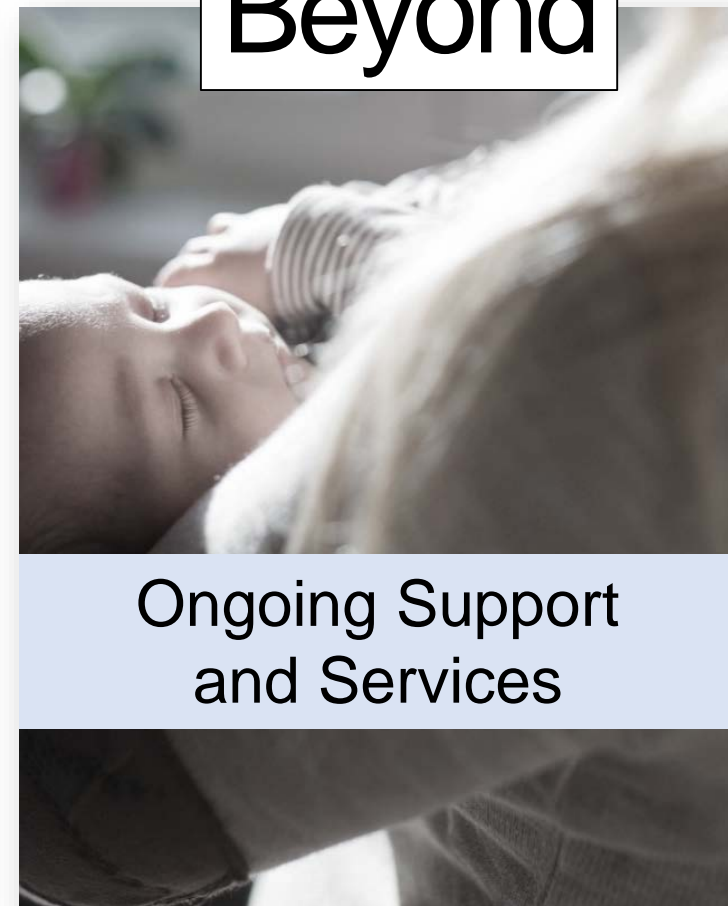
Prenatal Screening
Substance Use Disorder
Treatment

Birth



Birth Protocols

Beyond



Ongoing Support
and Services

Practice Strategies to Support Infants with Prenatal Substance Exposure and their Families



- Use the convening power of partners to meet with hospitals and health providers to create change
- Clarify how substance use disorders are identified during pregnancy
- Ensure effective treatment solutions for infant and family are available
- Understand the recovery process – some parents can safely remain/reunify with children when they are in treatment and recovery

Practice Strategies to Support Infants with Prenatal Substance Exposure and their Families



- Hospitals universally screen mothers at delivery
- Infants are tested based on identified criteria and policies
- Hospitals understand and follow notification criteria
- Non-pharmacological treatments for Neonatal Abstinence Syndrome are used, including breastfeeding and rooming-in where not contraindicated

Medication-Assisted Treatment (MAT)

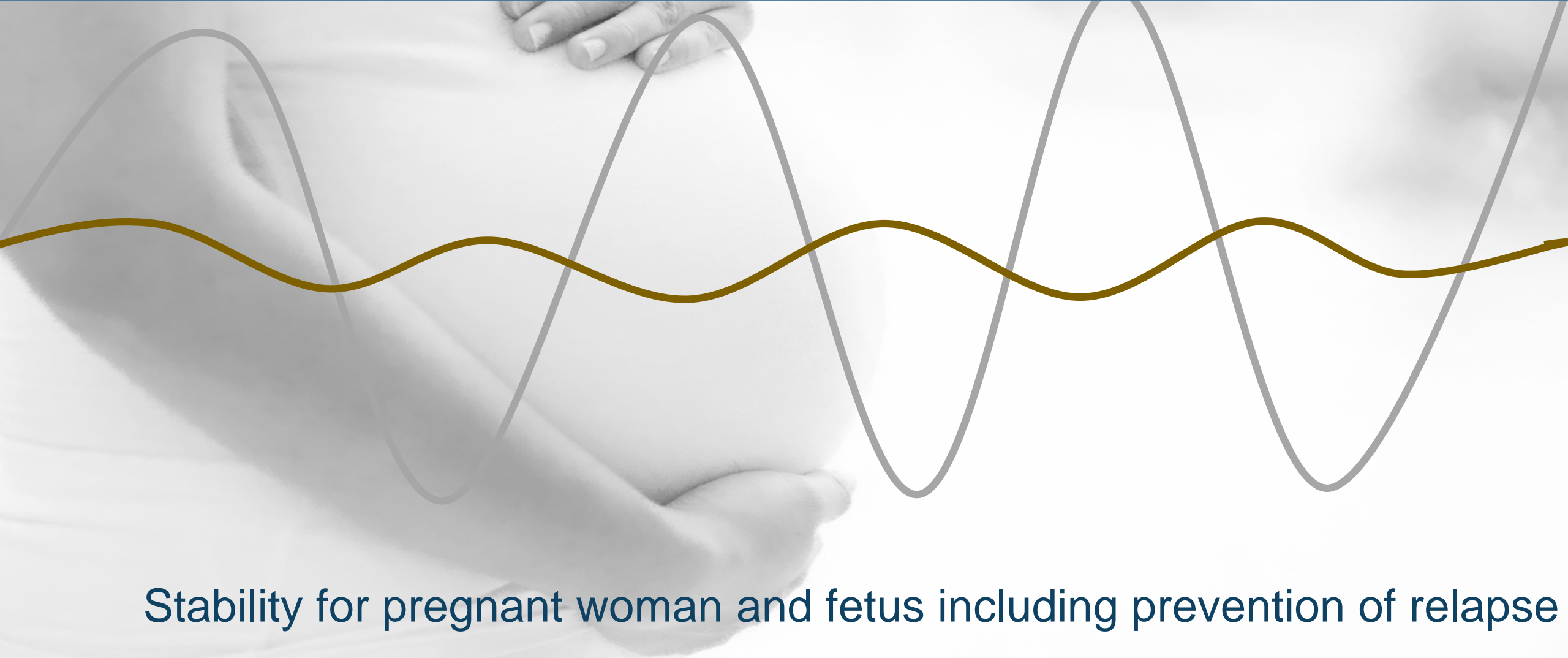
Medication-Assisted Treatment



As part of a comprehensive treatment program, medication-assisted treatment has been shown to:

- Increase retention in treatment
- Decrease illicit opioid use
- Decrease criminal activities, re-arrest and re-incarceration
- Decrease drug-related HIV risk behavior
- Decrease pregnancy-related complications
- Reduce maternal craving and fetal exposure to illicit drugs

Benefits of Medication-Assisted Treatment for Pregnant Women

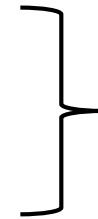


Stability for pregnant woman and fetus including prevention of relapse

(Substance Abuse and Mental Health Services Administration, 2018)

Medications Used to Treat Opioid Use Disorders

- Methadone (50-year research base)
- Buprenorphine (Subutex; 2010- MOTHER Study)
- Buprenorphine-Naloxone Combination (Suboxone®; Zubsolv)
- Naltrexone Extended-Release (Vivitrol®) – once per month injection
- Naloxone (Narcan®) – Reverses overdose



**Used During
Pregnancy**

“...opiate dependence is a medical disorder and ... pharmacologic agents are effective in its treatment.”

Treatment for Parents, Infants and Families

Supporting the Mother/Infant Dyad

- The neonatal period is an optimal time to begin interventions to optimize dyadic interaction
- Improving clinician attitudes positively impact dyadic interactions
- Nurses who demonstrated caring behaviors towards mothers were better able to help them recognize and interpret infant cues, thus enhancing mother-infant interactions

(Velez & Jansson, 2008; Velez & Jansson, 2015)



Interventions for infant treatment focused on a simplified approach to assessment, nonpharmacological therapies, care outside of the NICU, and empowering messages to parents that led to...



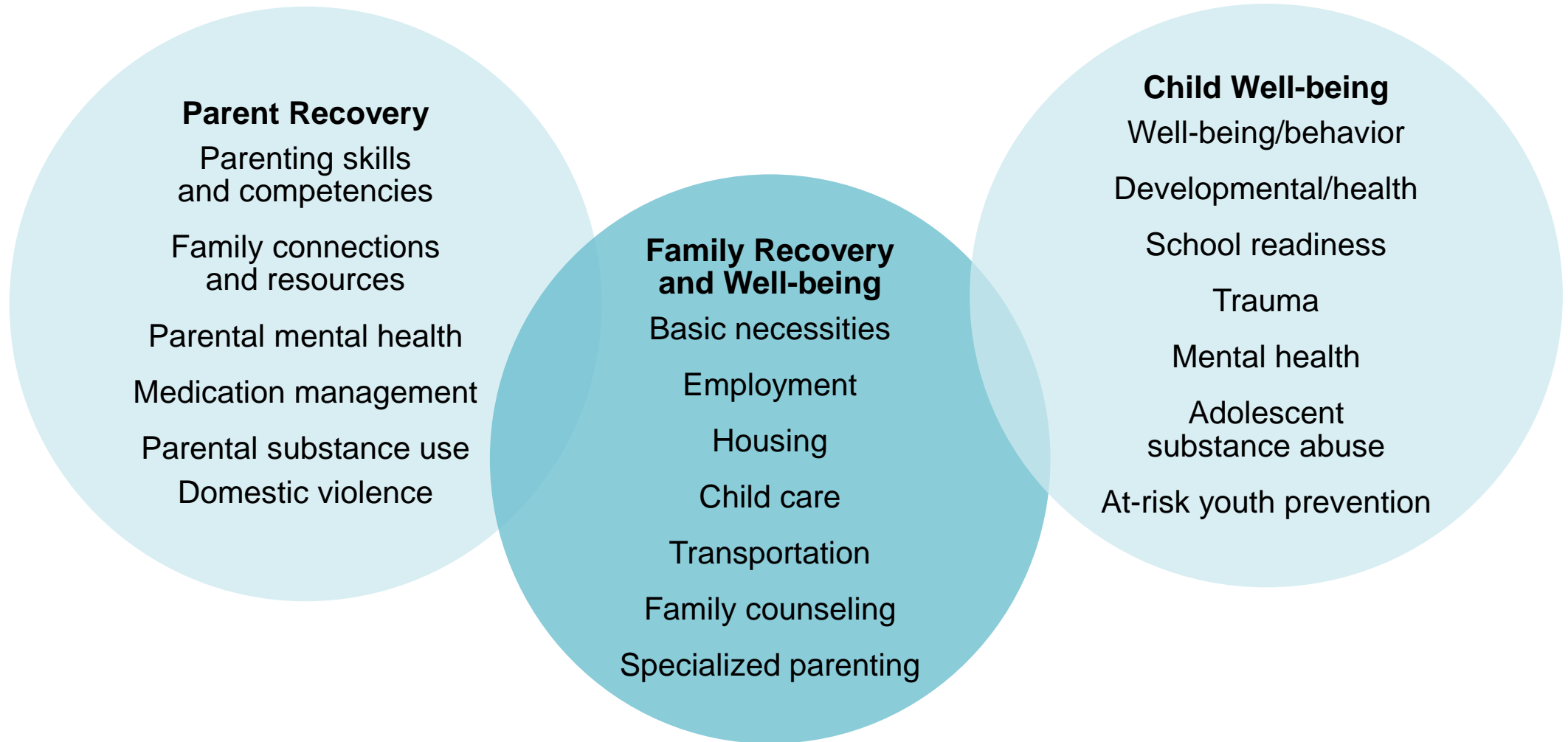
...substantial and sustained **decreases** in average **length of stay**, the proportion of **infants treated with morphine**, and **hospital costs**.

Postpartum Period

The postpartum period can be a challenging time for mothers using opioids and those with substance use disorders...

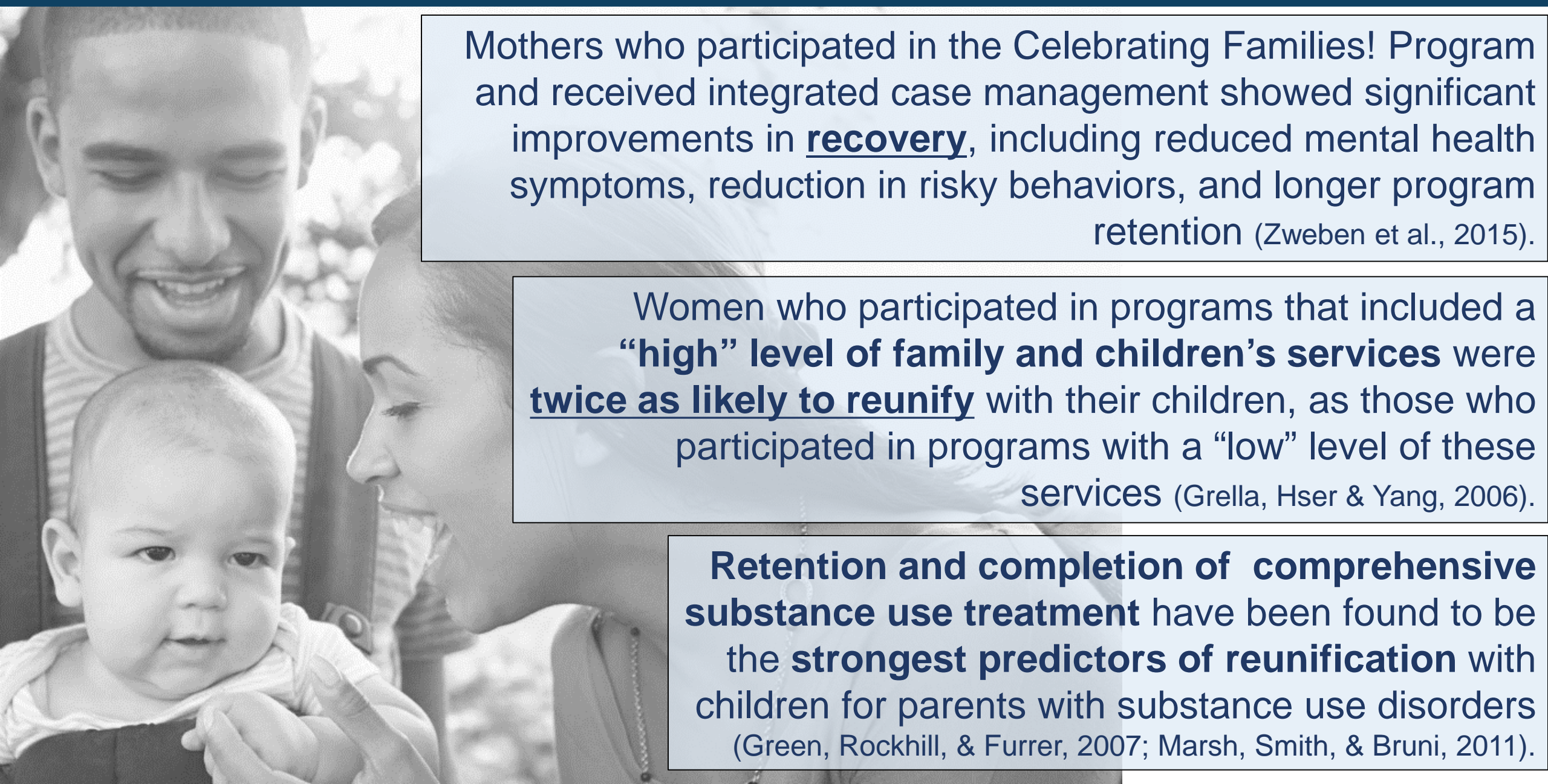
- Women who use opioids during pregnancy are at increased risk of depression, anxiety, and maternal death compared to those not using opioids
- Recent studies indicate that nearly half of maternal deaths in the postpartum period may be related to substance use and 1 in 5 specifically related to overdose
- Women with opioids use disorders are more susceptible to overdose between 7 and 12 months postpartum than any other time during pregnancy or the year after their infant's birth
- Women are more likely to overdose during pregnancy and throughout the first year postpartum if they are not on pharmacotherapy to treat their opioid use disorder

A Family Focus



(Werner, Young, Dennis, & Amatetti, 2007)

Benefits of Family-Centered Substance Use Disorder Treatment



Mothers who participated in the Celebrating Families! Program and received integrated case management showed significant improvements in **recovery**, including reduced mental health symptoms, reduction in risky behaviors, and longer program retention (Zweben et al., 2015).

Women who participated in programs that included a **“high” level of family and children’s services** were **twice as likely to reunify** with their children, as those who participated in programs with a “low” level of these services (Grella, Hser & Yang, 2006).

Retention and completion of comprehensive substance use treatment have been found to be the **strongest predictors of reunification** with children for parents with substance use disorders (Green, Rockhill, & Furrer, 2007; Marsh, Smith, & Bruni, 2011).

Rethinking Family Recovery



- Parents' recovery occurs in the context of family relationships
- Services that strengthen families and support parent-child relationships help keep children safe

~85% of children in substantiated abuse and neglect cases
either stay home or go home

Collaborative Practice in Child Welfare

The Importance of Collaboration

Substance use and child maltreatment are often **multi-generational problems** that can only be addressed through a coordinated approach across multiple systems to address needs of both parents and children

The Necessity of Collaboration

Meaningful collaboration across systems that includes agreement on **common values**, enhanced **communication** and **information sharing**, blended funding and data collection for **shared outcomes**...

...results in improved outcomes for families including **increased engagement and retention** of parents in substance use treatment, **fewer children removed** from parental custody, **increased family reunification** post-removal and **fewer children reentering** the child welfare system and foster care.

Child Welfare Legislation Related to Infants with Prenatal Exposure



1974

Child Abuse Prevention and Treatment
Act (CAPTA)



2003

The Keeping Children and
Families Safe Act



2010

The CAPTA Reauthorization Act



2016

Comprehensive Addiction and
Recovery Act (CARA)

Primary Changes
in **CAPTA**
Related to Infants
with Prenatal
Substance
Exposure



1974

Child Abuse Prevention and Treatment Act (CAPTA)

- Federal funding to support prevention, assessment, investigation, prosecution, and treatment activities related to child abuse and neglect
- Current funding provides several grant programs:
 - **State Grants:** a formula grant to improve Child Protective Services (CPS)
 - **Discretionary grants:** competitively awarded funds to support research, technical assistance, and demonstration projects
 - **Community-based Grants (CBCAP):** funding to all states for support of community-based activities to prevent child abuse and neglect
 - **Children's Justice Act Grants:** to States and territories to improve the assessment, investigation, and/or prosecution of child abuse and neglect cases with particular focus on sexual abuse and exploitation of children, child fatalities, and children who are disabled or with serious health disorders



2003

The Keeping Children and Families Safe Act of 2003

- Amended CAPTA and created new conditions for states to receive their state grant:
 - Congressional report states: **“To identify infants at risk of child abuse and neglect so appropriate services can be delivered to the infant and mother to provide for the safety of the child”** and...
 - **“the development of a safe plan of care...to protect a child who may be at increased risk of maltreatment, regardless of whether the State had determined that the child had been abused or neglected as a result of prenatal exposure”**
- To receive state grant, governor must assure they have policies and procedures for:
 - Appropriate referrals to address needs of infants **“born with and identified as being affected by illegal substance abuse or withdrawal symptoms resulting from prenatal drug exposure”**
 - **“health care providers involved in the delivery or care of such infants notify the child protective services system...”**
 - **“the development of a plan of safe care...”**



2010

The CAPTA Reauthorization Act of 2010

- Conditions for receipt of state grant were updated to clarify definition of substance-exposed infant and added Fetal Alcohol Spectrum Disorder:
 - “Born with and identified as being affected by illegal substance abuse or withdrawal symptoms resulting from prenatal drug exposure **or a Fetal Alcohol Spectrum Disorder**”
- Added reporting requirements to Annual State Data Reports to include:
 - Number of children referred to child welfare services identified as prenatally drug exposed or Fetal Alcohol Spectrum Disorders
 - Number of children involved in a substantiated case of abuse or neglect determined to be eligible for referral to Part C of the Individuals with Disabilities Education Act (children under age 3)
 - Number of children referred to agencies providing early intervention services under Part C

2016

Comprehensive Addiction and Recovery Act (CARA)

- Further clarified population requiring a Plan of Safe Care:
 - “Born with and identified as being affected by substance abuse or withdrawal symptoms resulting from prenatal drug exposure, or a Fetal Alcohol Spectrum Disorder,” **specifically removing “illegal”**
- Required the Plan of Safe Care to include needs of both the infant and family/caregiver:
 - “the **development of a Plan of Safe Care** for the infant born and identified as being affected by substance abuse or withdrawal symptoms, or a Fetal Alcohol Spectrum Disorder to ensure the safety and well-being of such infant following release from the care of healthcare providers, including through –(I)**addressing the health and substance use disorder treatment needs of the infant and affected family/caregiver”**



2016

Comprehensive Addiction and Recovery Act (CARA)

- **Specified data reported by States**, to the extent practicable, through National Child Abuse and Neglect Data System (NCANDS)
 - The number of infants identified as being affected by substance abuse, withdrawal symptoms resulting from prenatal drug exposure, or Fetal Alcohol Spectrum Disorder
 - The number of infants for whom a Plan of Safe Care was developed
 - The number of infants for whom referrals were made for appropriate services—including services for the affected family or caregiver
- Specified **increased monitoring and oversight**
 - Children’s Bureau through the annual CAPTA report in the State plan
 - States to ensure that Plans of Safe Care are implemented and that families have referrals to and delivery of appropriate services

CAPTA Plans of Safe Care Best Practices

- Can be developed prior to birth of the infant
- Includes a comprehensive, multidisciplinary assessment
- Has multiple intervention points: pregnancy, birth, and beyond
- Addresses needs of infant and family or caregiver
- Puts structure in place to ensure coordination of, access to, and engagement in services

How is Plan of Safe Care Different?

**Child
Welfare
Services
Safety
Plan**

**Substance
use
Disorder
Treatment
Plan**

**Hospital
Discharge
Plan**

Why Should We Do Plans of Safe Care?

Expectations based on experiences with grantees and knowledge of the benefits of collaboration:

- Healthier babies and families
- Improved collaboration and cost saving



National Center on Substance Abuse and Child Welfare

A Program of the

Substance Abuse and Mental Health Services
Administration

Center for Substance Abuse Treatment

and the

Administration on Children, Youth and Families

Children's Bureau

Office on Child Abuse and Neglect

www.ncsacw.samhsa.gov

ncsacw@cffutures.org

References

References

- American College of Obstetricians and Gynecologists. (2017). Opioid use and opioid use disorder in pregnancy. Committee opinion No. 711. *Obstetrics & Gynecology*, 130(2), e81–e94.
- 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(1). doi:10.1186/1471-244x-14-104.
- Bandstra, E. S., Morrow, C. E., Mansoor, E., & Accornero, V. H. (2010). Prenatal drug exposure: infant and toddler outcomes. *Journal of Addictive Diseases*, 29(2), 245–258. doi:10.1080/10550881003684871.
- Behnke, M., Smith, V. C., & Committee on Substance Abuse. (2013). Prenatal substance abuse: Short-and long-term effects on the exposed fetus. *Pediatrics*, peds.2012-3931. doi:10.1542/peds.2012-3931
- Benz, J., Rasmussen, C., & Andrew, G. (2009). Diagnosing fetal alcohol spectrum disorder: History, challenges and future directions. *Paediatrics & Child Health*, 14(4), 231–237.
- Boles, S. M., Young, N. K., Dennis, K., & DeCerchio, K. (2012). The Regional Partnership Grant Program: Enhancing collaboration, promising results. *Journal of Public Welfare*, 6(4), 482–496.
- Center for Behavioral Health Statistics and Quality. (2017). *2016 National Survey on Drug Use and Health: Detailed tables*. Substance Abuse and Mental Health Services Administration, Rockville, MD. Retrieved from <https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.pdf>
- Children and Family Futures. (2017). *Collaborative values inventory*. Retrieved from <http://www.cffutures.org/files/cvi.pdf>

References

- Children's Bureau. (2013). Child Welfare Outcomes Report Data, Custom Report Builder. U.S. Department of Health & Human Services, Administration for Children & Families. Retrieved from <https://cwoutcomes.acf.hhs.gov/cwodatasite/>
- Cook, J. L., Green, C. R., Lilley, C. M., Anderson, S. M., Baldwin, M. E., Chudley, A. E., & Mallon, B. F. (2016). Fetal alcohol spectrum disorder: A guideline for diagnosis across the lifespan. *Canadian Medical Association Journal*, 188(3), 191–197.
- Davis, Jonathan M. MD. Differential Outcomes for Neonates with and Without Neonatal Abstinence Syndrome (NAS). SAMHSA Listening Session, April 2018.
- Dennis, K., Rodi, M. S., Robinson, G., DeCerchio, K., Young, N. K., Gardner, S. L., ... & Corona, M. (2015). Promising results for cross-systems collaborative efforts to meet the needs of families impacted by substance use. *Child Welfare*, 94(5e), 21. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/26827463>
- Dolan, K. A., Shearer, J., White, B., Zhou, J., Kaldor, J., & Wodak, A. D. (2005). Four-year follow-up of imprisoned male heroin users and methadone treatment: mortality, re-incarceration and hepatitis C infection. *Addiction*, 100(6), 820–828. doi:10.1111/j.1360-0443.2005.01050.x
- Drabble, L. (2007). Pathways to collaboration: Exploring values and collaborative practice between child welfare and substance abuse treatment fields. *Child Maltreatment*, 12(1), 31–42. doi:10.1177/1077559506296721
- Fullerton, C. A., Kim, M., Thomas, C. P., Lyman, D. R., Montejano, L. B., Dougherty, R. H., ... & Delphin-Rittmon, M. E. (2014). Medication-assisted treatment with methadone: Assessing the evidence. *Psychiatric Services*, 65(2), 146–157. doi:10.1176/appi.ps.201300235
- Green, B. L., Rockhill, A., & Furrer, C. (2007). Does substance abuse treatment make a difference for child welfare case outcomes? A statewide longitudinal analysis. *Children and Youth Services Review*, 29(4), 460–473. doi:10.1016/j.chilyouth.2006.08.006

References

- Grella, C. E., Hser, Y., & Huang, Y. (2006). Mothers in substance abuse treatment: Differences in characteristics based on involvement with child welfare services. *Child Abuse & Neglect*, 30(1), 55–73. doi:10.1016/j.chiabu.2005.07.005
- Grossman, M. R., Berkwitt, A. K., Osborn, R. R., Xu, Y., Esserman, D. A., Shapiro, E. D., & Bizzarro, M. J. (2017). An initiative to improve the quality of care of infants with neonatal abstinence syndrome. *Pediatrics*, 139(6), e20163360. doi:10.1542/peds.2016-3360
- Gordon, M. S., Kinlock, T. W., Schwartz, R. P., & O'Grady, K. E. (2008). A randomized clinical trial of methadone maintenance for prisoners: Findings at 6 months post-release. *Addiction*, 103(8), 1333–1342.
- Guerri, C., Bazinet, A., & Riley, E. P. (2009). Foetal alcohol spectrum disorders and alterations in brain and behaviour. *Alcohol & Alcoholism*, 44(2), 108–114.
- Havnes, I., Bukten, A., Gossop, M., Waal, H., Stangeland, P., & Clausen, T. (2012). Reductions in convictions for violent crime during opioid maintenance treatment: A longitudinal national cohort study. *Drug and Alcohol Dependence*, 124(3), 307–310.
- Hudak, M.L., & Tan, R.C., The Committee on Drugs and The Committee on Fetus and Newborn. (2012). Neonatal drug withdrawal. *Pediatrics*, 129, e540–e560. doi:10.1542/peds.2011-3212
- Jansson, L. M., Velez, M., Harrow, C. (2009). The opioid exposed newborn: Assessment and pharmacological management. *Journal of Opioid Management*, 5(1), 47–55.
- Jones, H. E., Chisolm, M. S., Jansson, L. M., & Terplan, M. (2012). Naltrexone in the treatment of opioid-dependent pregnant women: The case for a considered and measured approach to research. *Addiction*, 108(2), 233–247. doi:10.1111/j.1360-0443.2012.03811.x

References

- Kinlock, T. W., Gordon, M. S., Schwartz, R. P., & O'Grady, K. E. (2008). A study of methadone maintenance for male prisoners: 3-month postrelease outcomes. *Criminal Justice and Behavior*, *35*(1), 34–47.
- 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*, 799–802. doi:10.15585/mmwr.mm6531a2
- Marsh, J. C., Smith, B. D., & Bruni, M. (2011). Integrated substance abuse and child welfare services for women: A progress review. *Child Youth Serv Rev*, *33*(3), 466–472. doi:10.1016/j.chilyouth.2010.06.017
- Mattson, S. N., Crocker, N., & Nguyen, T. T. (2011). Fetal alcohol spectrum disorders: neuropsychological and behavioral features. *Neuropsychology Review*, *21*(2), 81–101.
- May, P. A., & Gossage, J. P. (2001). Estimating the prevalence of fetal alcohol syndrome: A summary. *Alcohol Research & Health*, *25*(3):159–167. Retrieved from <http://pubs.niaaa.nih.gov/publications/arh25-3/159-167.htm>
- May, P. A., Gossage, J. P., Kalberg, W. O., Robinson, L. K., Buckley, D., Manning, M., & Hoyme, H. E. (2009). Prevalence and epidemiologic characteristics of FASD from various research methods with an emphasis on recent in-school studies. *Developmental Disabilities Research Reviews*, *15*(3), 176–192.
- Mehta, P. K., Bachhuber, M. A., Hoffman, R., & Srinivas, S. K. (2016). Deaths from unintentional injury, homicide, and suicide during or within 1 year of pregnancy in Philadelphia. *American Journal of Public Health*, *106*(12), 2208–2210. doi:10.2105/ajph.2016.303473
- Metz, T. D., Rovner, P., Hoffman, M. C., Allshouse, A. A., Beckwith, K. M., & Binswanger, I. A. (2016). Maternal deaths from suicide and overdose in Colorado, 2004–2012. *Obstetrics & Gynecology*, *128*(6), 1233–1240. doi:10.1097/aog.0000000000001695

References

- Milliren, C. E., Gupta, M., Graham, D. A., Melvin, P., Jorina, M., & Ozonoff, A. (2017). Hospital variation in neonatal abstinence syndrome incidence, treatment modalities, resource use, and costs across pediatric hospitals in the United States, 2013 to 2016. *Hospital Pediatrics*, 8(1), 15–20. doi:10.1542/hpeds.2017-0077
- National Council on Alcoholism and Drug Dependence, Inc. (2015). *Fetal alcohol spectrum disorder*. Retrieved from <https://www.ncadd.org/about-addiction/alcohol/item/443-alcohol-and-pregnancy-fetal-alcohol-spectrum-disorder>
- National Institutes of Health, U.S. National Library of Medicine. (2014). *Neonatal abstinence syndrome*. Retrieved from <http://www.nlm.nih.gov/medlineplus/ency/article/007313.htm>
- National Institute on Drug Abuse. (2016). *Effective treatments for opioid addiction*. Retrieved from <https://www.drugabuse.gov/publications/effective-treatments-opioid-addiction/effective-treatments-opioid-addiction>
- National Institute on Drug Abuse. (2017). *Treating opioid use disorder during pregnancy*. Retrieved from <https://www.drugabuse.gov/publications/treating-opioid-use-disorder-during-pregnancy/treating-opioid-use-disorder-during-pregnancy>
- Nygaard, E., Slinning, K., Moe, V., & Walhoyd, K. B. (2015). Cognitive function of youths born to mothers with opioid and poly-substance abuse problems during pregnancy. *Child Neuropsychology*, 23(2), 15–187.
- 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. doi:10.1038/jp.2015.36
- Patrick, S. W., Schumacher, R. E., Benneyworth, B. D., Krans, E. E., McAllister, J. M., & Davis, M. M. (2012). Neonatal abstinence syndrome and associated health care expenditures: United States, 2000-2009. *JAMA*, 307(18) 1934–1940. doi:10.1001/jama.2012.3951

References

- Schiff, D. M., Nielsen, T., Terplan, M., Hood, M., Bernson, D., Diop, H., ... & Land, T. (2018). Fatal and nonfatal overdose among pregnant and postpartum women in Massachusetts. *Obstetrics & Gynecology*, 132(2), 466–474.
- Substance Abuse and Mental Health Services Administration. (2017). *Substance-exposed infants: A report on progress in practice and policy development in states participating in a program of in-depth technical assistance September 2014 to September 2016: Executive summary*. Retrieved from https://ncsacw.samhsa.gov/files/IDTA_Executive_Summary.pdf
- Substance Abuse and Mental Health Services Administration. (2018). *Clinical Guidance for treating pregnant and parenting women with opioid use disorder and their infants*. HHS Publication No. (SMA) 18-5054. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2018). *Adoption and foster care analysis and reporting system (AFCARS) Foster Care File FY 2017*. Ithaca, NY: National Data Archive on Child Abuse and Neglect [distributor]. Retrieved from <https://ndacan.cornell.edu>
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. (2018). Births: Final data for 2016. *National Vital Statistics Reports*, 59(1). Hyattsville, MD: National Center for Health Statistics. Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_01_tables.pdf
- Velez, M., & Jansson, L. M. (2008). The opioid dependent mother and newborn dyad: Non-pharmacologic care. *Journal of Addiction Medicine*, 2(3), 113.
- Velez, M. L., & Jansson, L. M. (2015). Perinatal addictions: Intrauterine exposures. *Textbook of Addiction Treatment: International Perspectives*, 2333–2363. doi:10.1007/978-88-470-5322-9_100

References

- Werner, D., Young, N. K., Dennis, K., & Amatetti, S. (2007). *Family-centered treatment for women with substance use disorders: History, key elements and challenges*. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/sites/default/files/family_treatment_paper508v.pdf
- Whiteman, V. E., Salemi, J. L., Mogos, M. F., Cain, M. A., Aliyu, M. H., & Salihu, H. M. (2014). Maternal opioid drug use during pregnancy and its impact on perinatal morbidity, mortality, and the costs of medical care in the United States. *Journal of Pregnancy*, 2014, 1–8. doi:10.1155/2014/906723
- Zweben, J. E., Moses, Y., Cohen, J. B., Price, G., Chapman, W., Lamb, J. (2015). Enhancing family protective factors in residential treatment for substance use disorders. *Child Welfare*, 94(5), 145–166. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/26827469>

Resources

Resources

- Casey Family Programs. (2017). *Safe Children-Information Packet: What Are Infant Plans of Safe Care?* Available at: https://caseyfamilypro-wpengine.netdna-ssl.com/media/SC_Infant-Plans-of-Care.pdf
- Gardner, S. (2014). *State-level policy advocacy for children affected by parental substance use.* Available at: <http://childwelfareparc.org/wp-content/uploads/2014/08/State-Level-Policy-Advocacy-for-Children-Affected-by-Parental-Substance-Use.pdf>
- National Center on Substance Abuse and Child Welfare. (2017). *Child Abuse Prevention and Treatment Act: Substance exposed infants statutory summary.* Available at: https://ncsacw.samhsa.gov/files/CAPTA_SEI_Statutory_Summary.pdf
- National Perinatal Association Workgroup on Perinatal Substance Use. (2018). *Infographic Packet: Your Pregnancy and Substance Use, Perinatal Substance Use- 5 Ways You Can Improve Care during Pregnancy.* Available at <http://www.nationalperinatal.org/Infographics>
- Substance Abuse and Mental Health Services Administration. (2016). *A collaborative approach to the treatment of pregnant women with opioid use disorders.* HHS Publication No. (SMA) 16-4978. Rockville, MD: Substance Abuse and Mental Health Services Administration. Available at: https://ncsacw.samhsa.gov/files/Collaborative_Approach_508.pdf
- Substance Abuse and Mental Health Services Administration & Administration on Children, Youth and Families, Children's Bureau. (2017). *Summary 2017 policy academy: Improving outcomes for pregnant women and postpartum women with opioid use disorders and their infants, families and caregivers.* Available at: https://ncsacw.samhsa.gov/files/Policy_Academy_Dissemination_Brief.pdf
- Substance Abuse and Mental Health Services Administration. (2018). *Clinical Guidance for Treating Pregnant and Parenting Women with Opioid Use Disorder and Their Infants.* HHS Publication No. (SMA) 18-5054. Rockville, MD: Substance Abuse and Mental Health Services Administration.