Improving Outcomes for Mothers & Newborns Affected by Opioids

All lines have been muted to eliminate background noise

The webinar is being recorded and will be posted on the **CMQCC YouTube Channel** for additional viewing

Questions may be posted utilizing the 'chat' function and will be answered at the end of the webinar

HMA
Health Management Associates

CMQCC

CPQCC

Objectives for Today's Webinar

Objectives for today's webinar

1. Be familiar with the scope of the perinatal opioid epidemic
2. Have a solid understanding of key concepts of quality improvement in the care of mothers and newborns affected by opioids

Topics and Speakers

- **The Current Landscape and Opportunity in California**

  Elliott Main, MD, Medical Director California Maternal Quality Care Collaborative, Clinical Professor of Obstetrics & Gynecology, Stanford University

- **Just the Facts – The Neurobiology of Addiction and MAT**

  Helen DuPlessis, MD, MPH, Principal, Health Management Associates

- **Maternal Care: Emerging Best Practices**

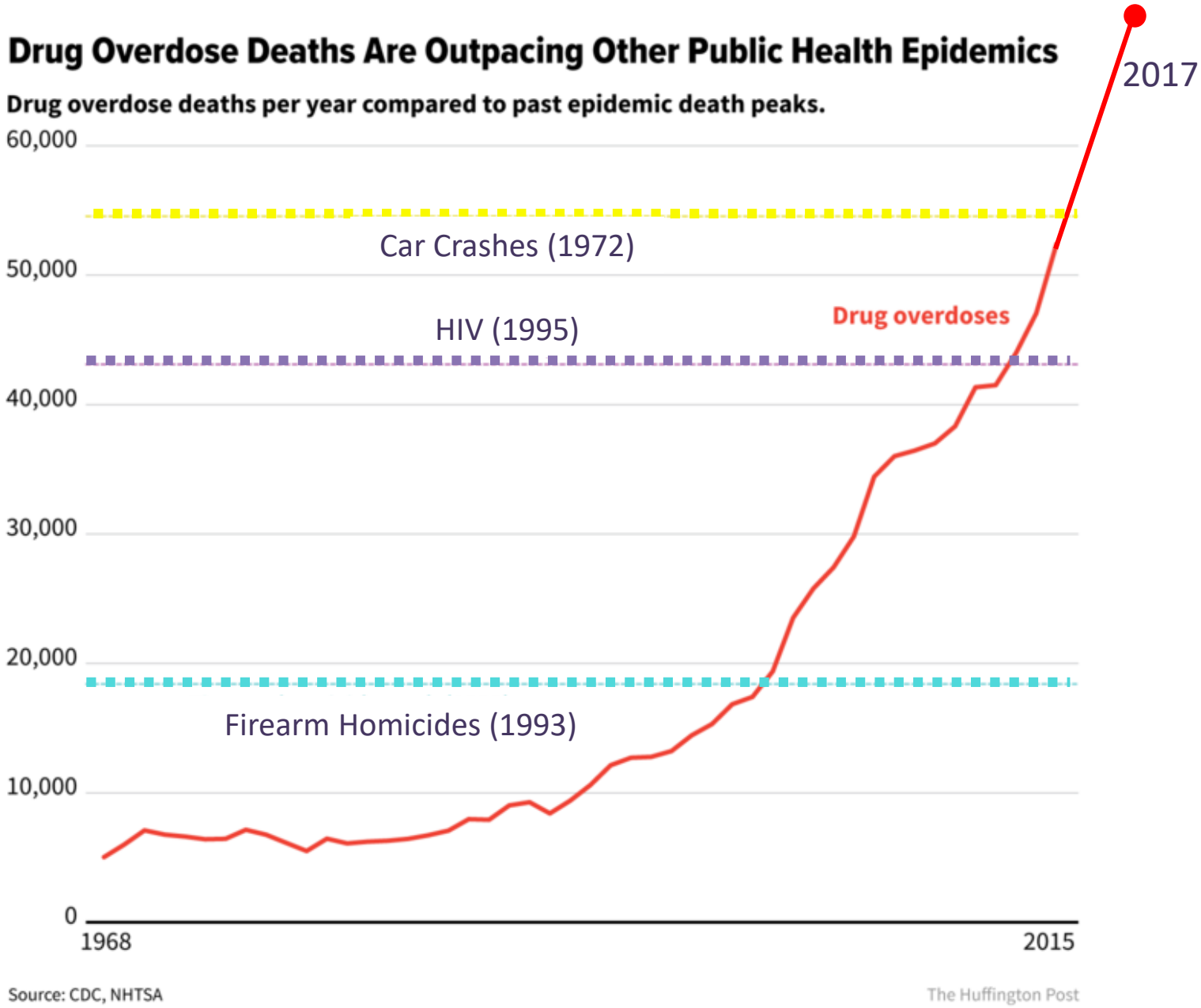
  Elliott Main

- **Newborn Care: Emerging Best Practices**

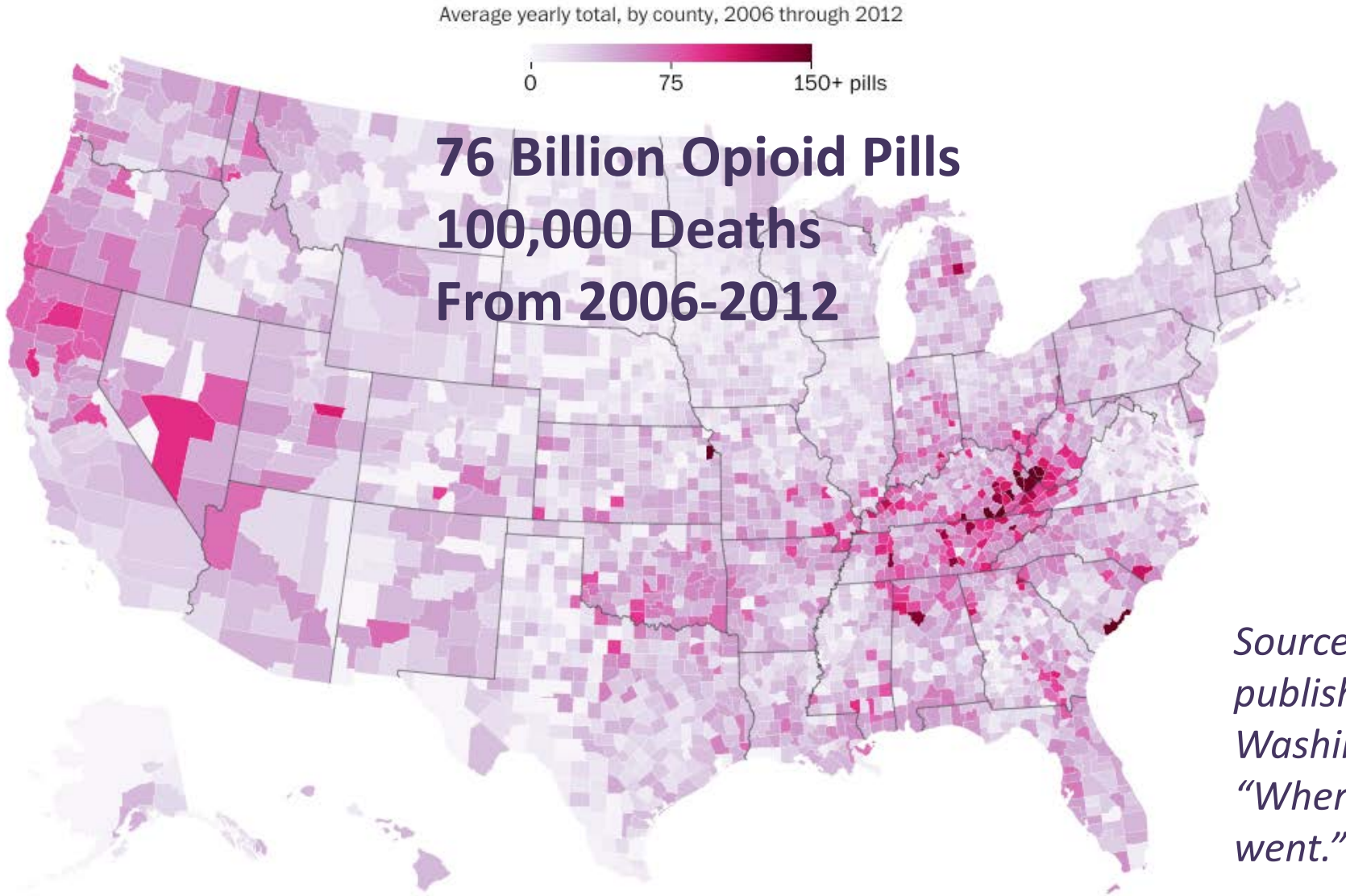
  Henry Lee, MD, CMO California Perinatal Quality Collaborative (CPQCC), Associate Professor of Pediatrics, Stanford University

Current Landscape and Opportunities in California

Dr. Elliott Main, CMQCC


Drug Overdose Deaths Are Outpacing Other Public Health Epidemics
Drug overdose deaths per year compared to past epidemic death peaks.
60,000
50,000
40,000
30,000
20,000
10,000
0
1968
2015
2017
Car Crashes (1972)
HIV (1995)
Firearm Homicides (1993)
Drug overdoses
Source: CDC, NHTSA
The Huffington Post

Number of Opioid Pills Distributed, Per Person, Per Year



Source: DEA Database, published by the Washington Post: "Where the pain pills went." July 16, 2019

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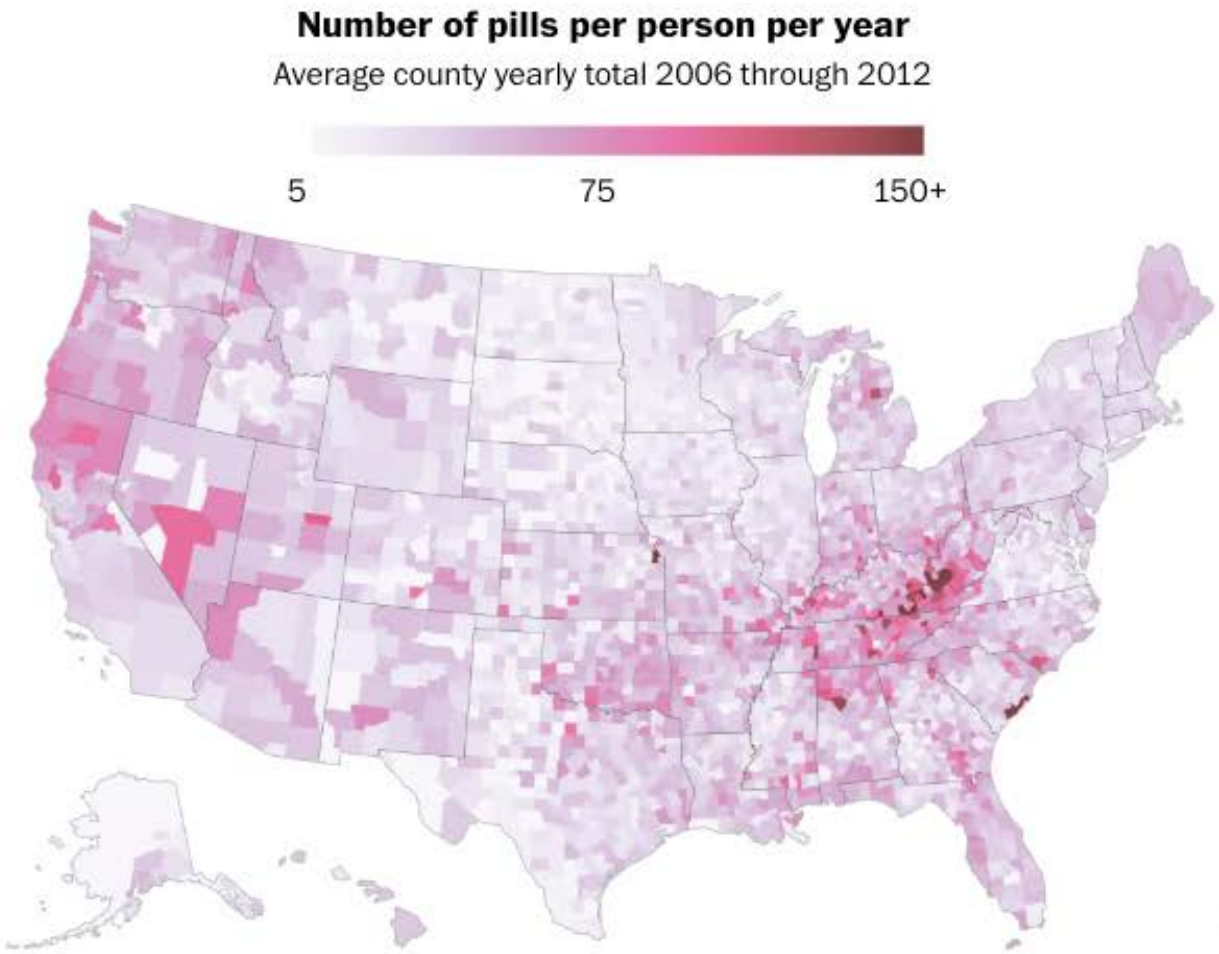


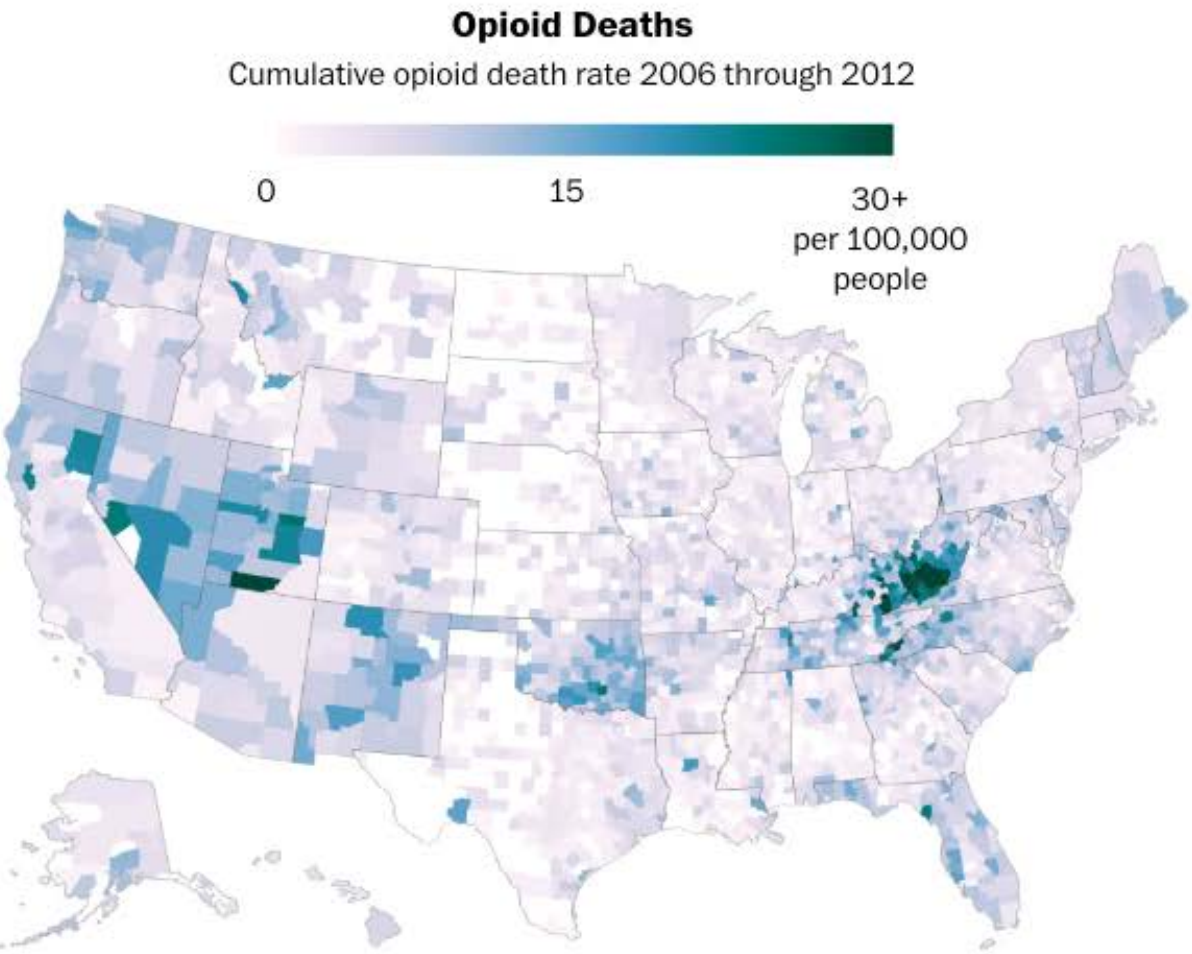
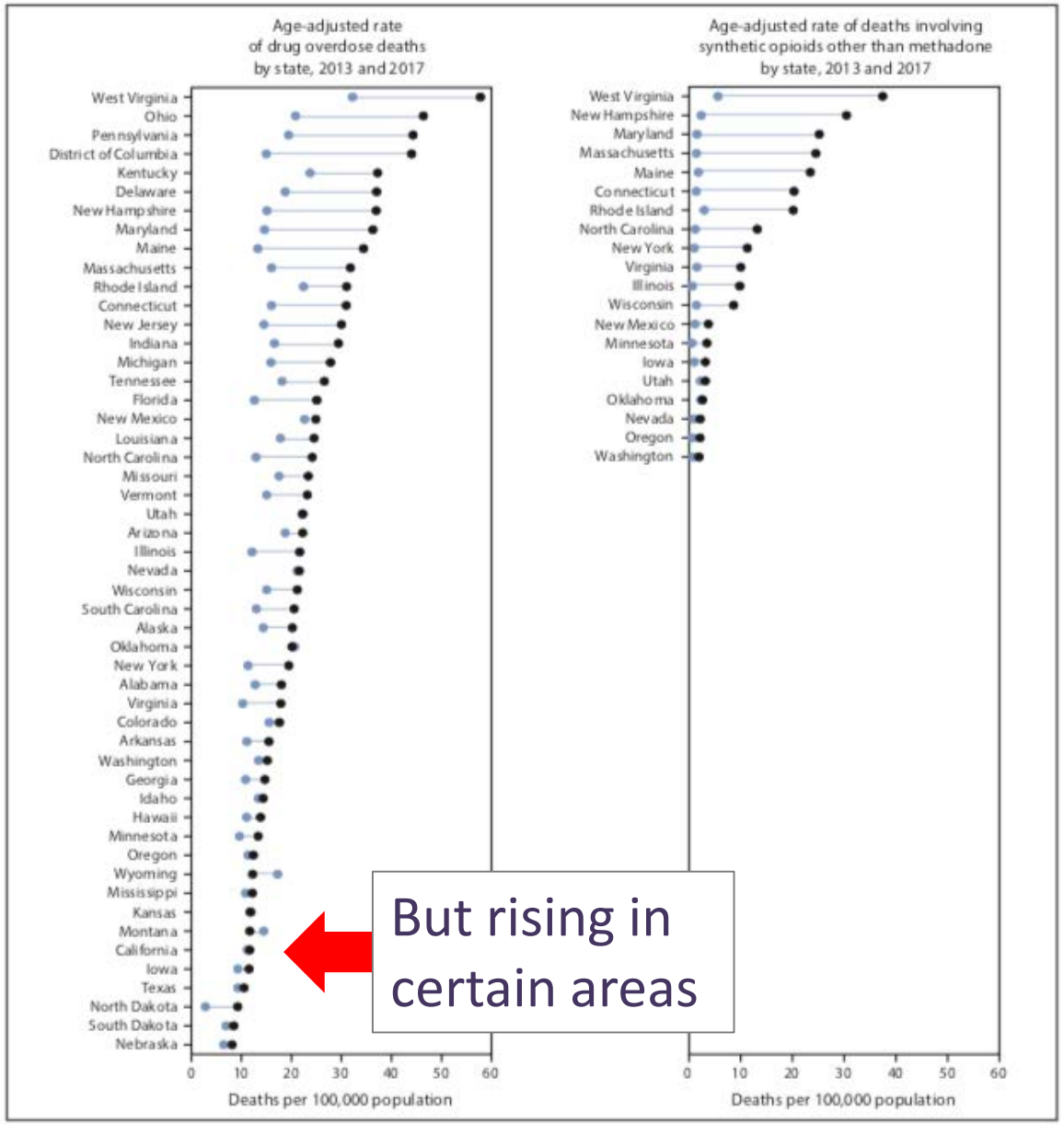


FIGURE. Age-adjusted rates* of drug overdose deaths and deaths involving synthetic opioids other than methadone,† by state§ — United States, 2013 and 2017¶



Source: MMWR December 21, 2018 Vol 67.

Locations with:

High Rates of Prescribing Opioids…

Also have:

High Rates of Opioid Overdose Deaths…

And also have:

High Rates of Opioid Use in Pregnancy…

And also have:

High Rates of Neonatal Abstinence Syndrome (NAS)

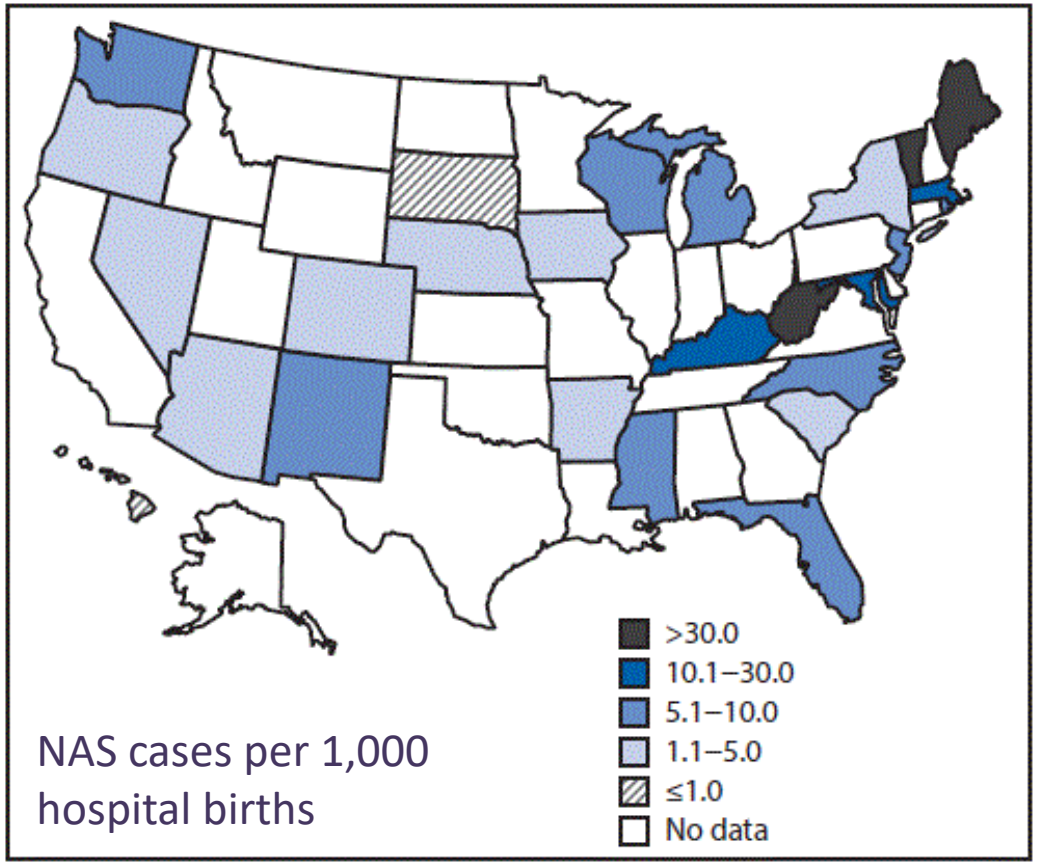
Neonatal Abstinence Syndrome

From 2004 to 2014, the incidence of **NAS** in the United States increased 433%, from 1.5 to 8.0 per 1,000 hospital births. MMWR 2019;68:6–10.

For Medicaid-covered infants, the healthcare costs associated with caring for NAS totaled $462 million in 2014 alone.

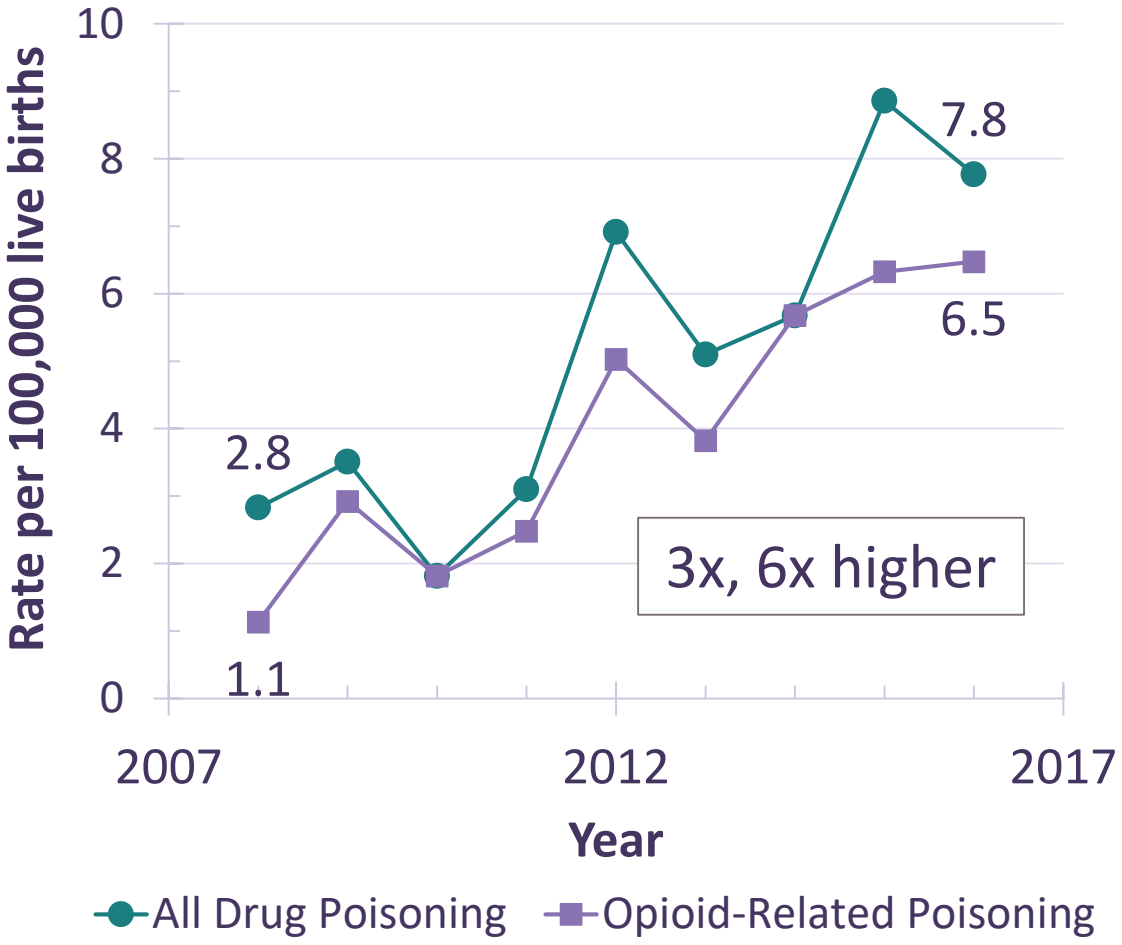
Tyler NA, et al., Incidence and Costs of Neonatal Abstinence Syndrome Among Infants With Medicaid: 2004–2014. Pediatrics, 2018

NAS incidence rates-25 states (2012–2013)



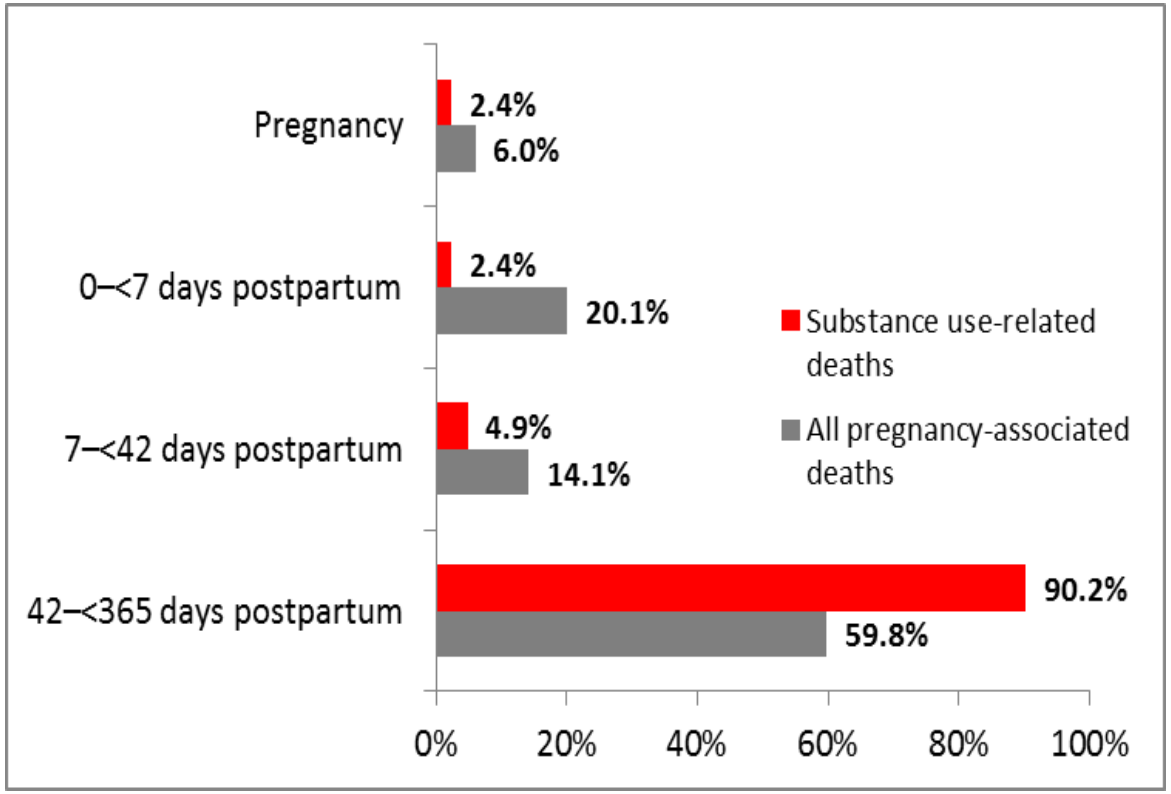
Source: MMWR 2016;65:799–802

Increase of Pregnancy-Associated Deaths Due to Drug Overdose (Illinois)



Data Source: ILPQC: Illinois death certificates, 2008-2016.

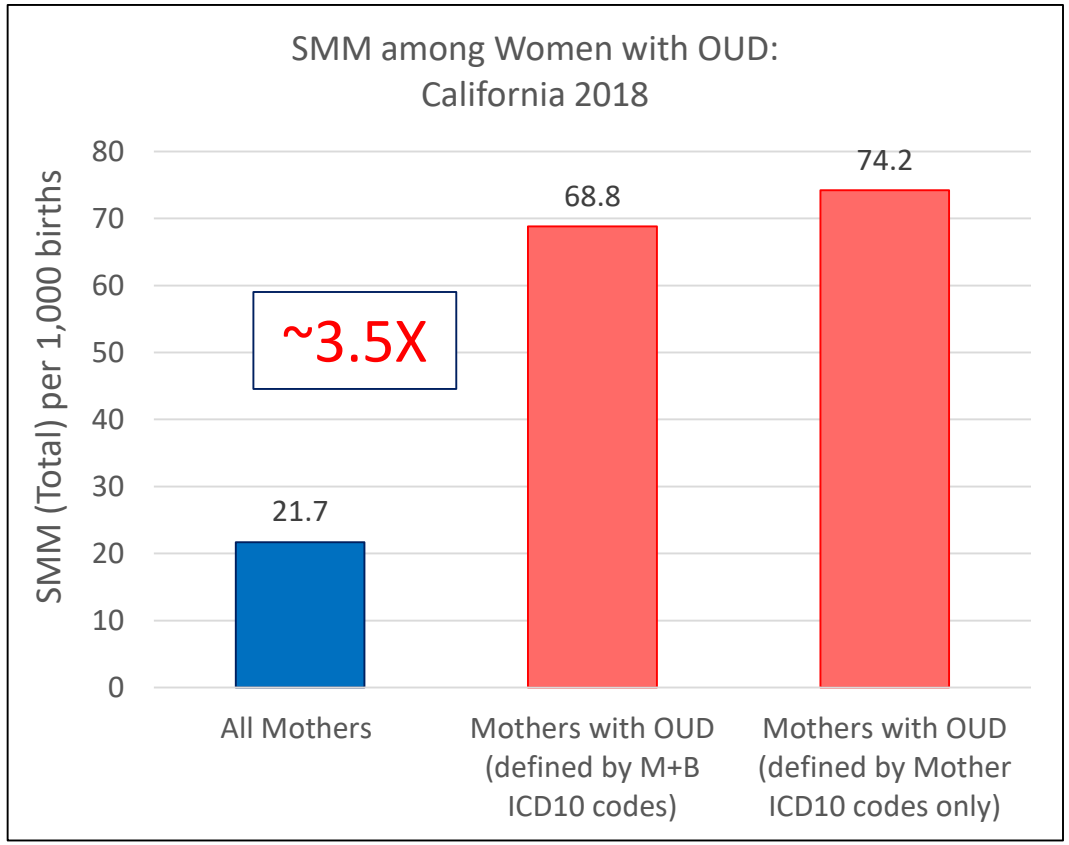
Most Substance-Use Associated Pregnancy Deaths Occur After Delivery

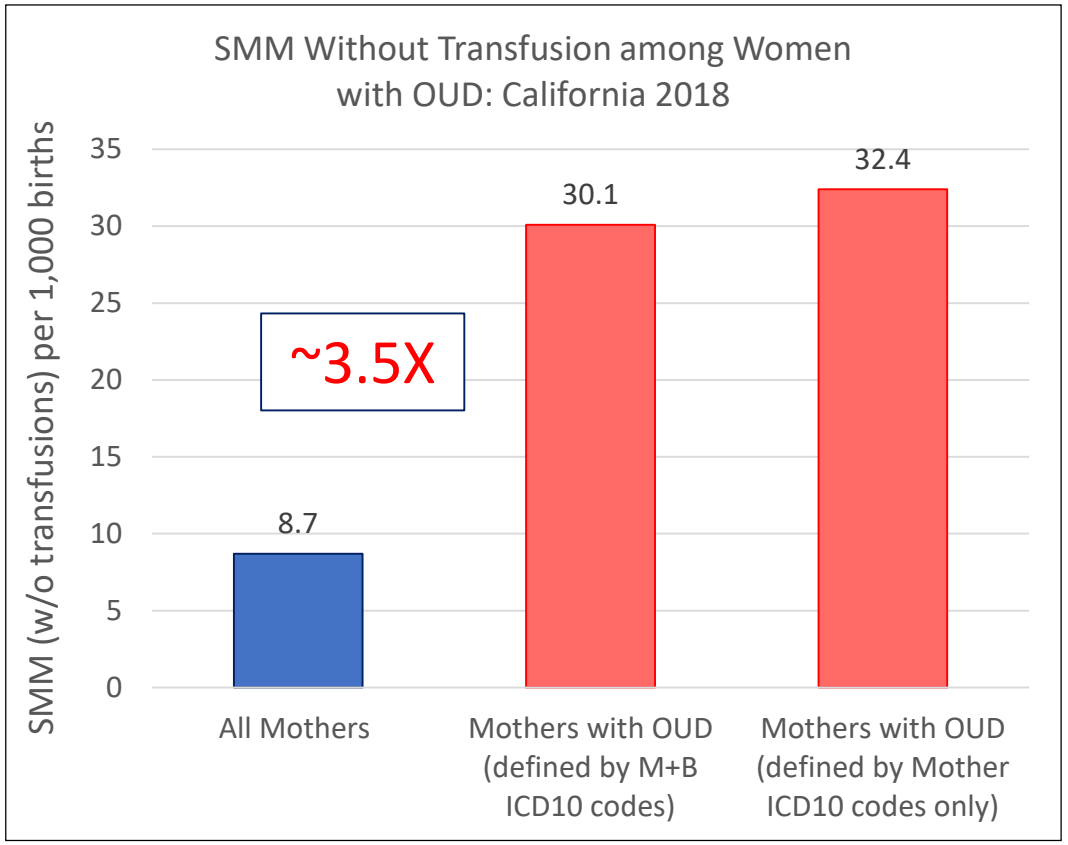


Percent of Pregnancy-Associated Deaths Related to Substance Use by Time Period

Data Source: Massachusetts DPH, Courtesy Dr. Ronald Iverson

Severe Maternal Morbidity Among Mothers with Opioid Use Disorder





N:	419,991	1,730	1,267

N:	419,991	1,730	1,267

Mother ICD-10 codes for OUD: F11.xx

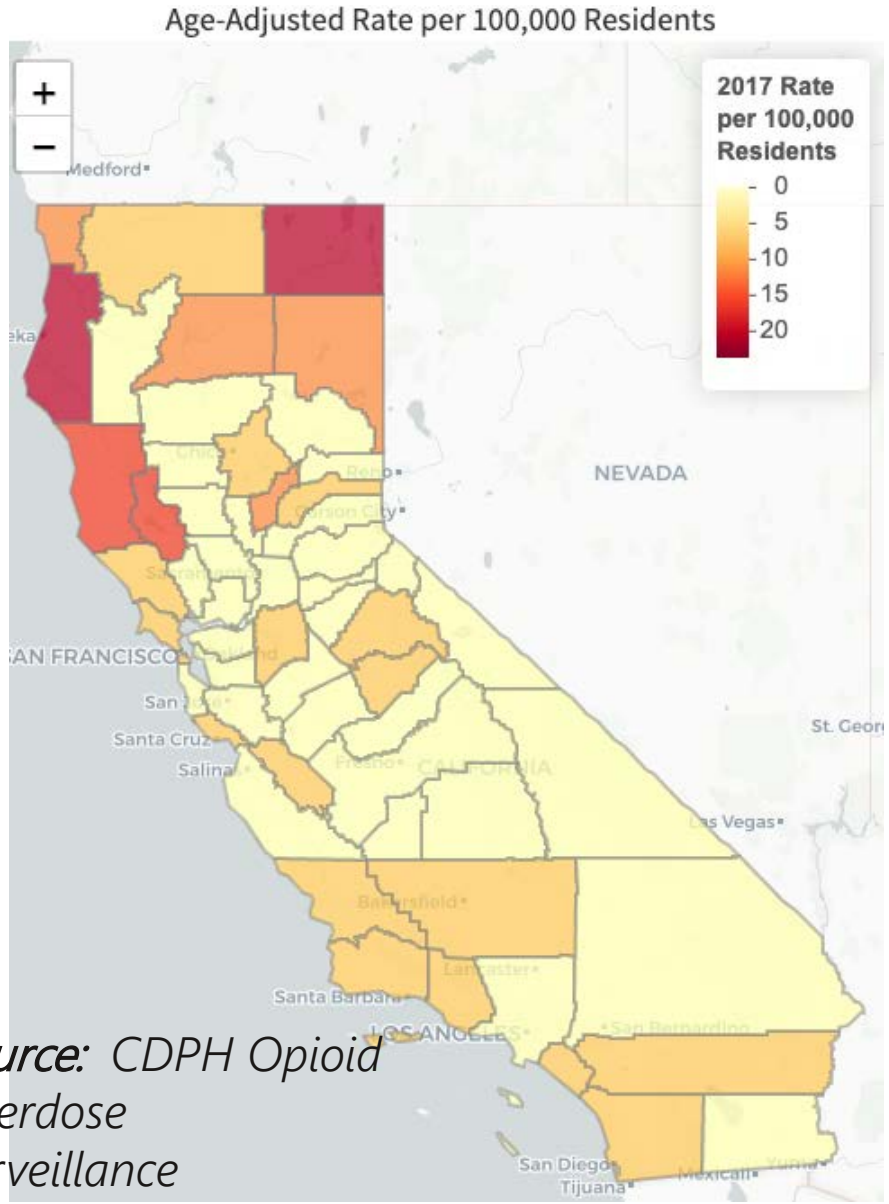
Baby ICD-10 codes for OUD: P96.1, P04.49; after October 1 2018: P04.14 Newborn affected by maternal use of opiates

Examining data for the period Oct 1 2018 thru February 28 2019 (using the new ICD-10 code) finds results nearly identical to those for 2018 in its entirety presented above.

CMQCC

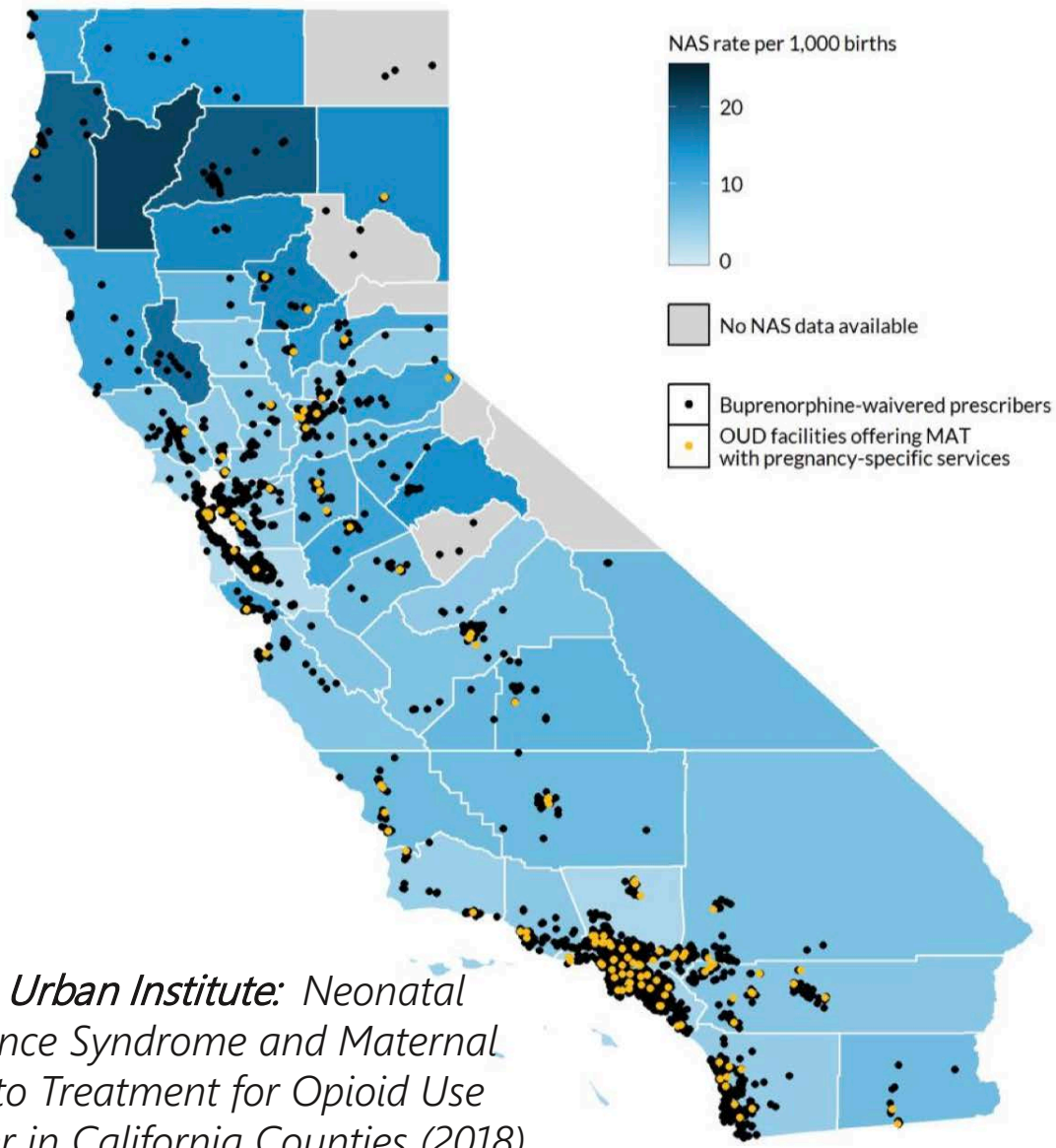
Pregnancy is a window of opportunity to **identify** women with Opioid Use Disorder (OUD) and link to **treatment** as well as begin to develop a **plan for optimizing her baby's care**.

Opioid Overdose Deaths (2017)



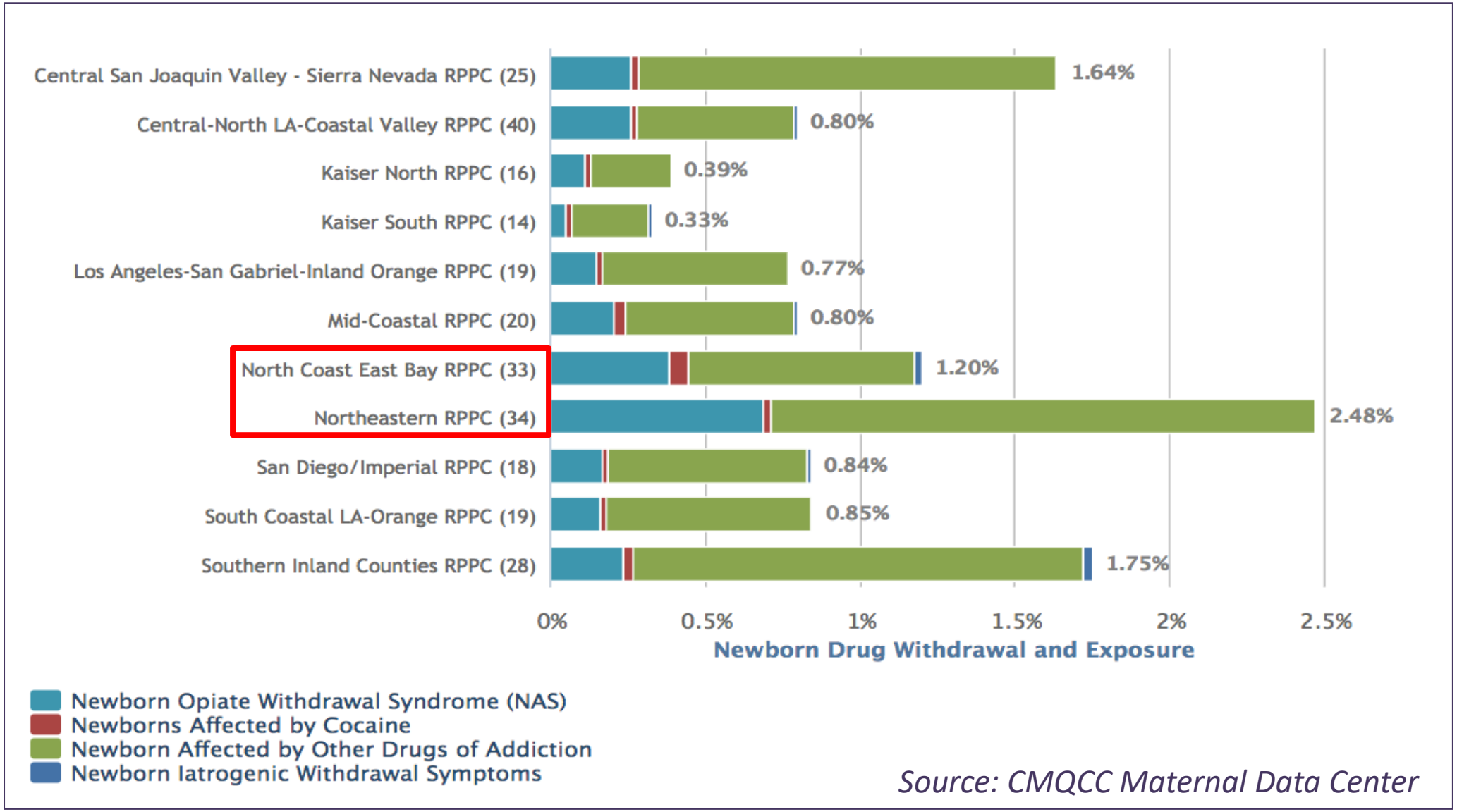
Source: CDPH Opioid Overdose Surveillance Dashboard

NAS Incidence Rates (2005-2016)



Source: Urban Institute: Neonatal Abstinence Syndrome and Maternal Access to Treatment for Opioid Use Disorder in California Counties (2018)

Perinatal Regions: Newborns Affected by Maternal Drugs-2017



Source: CMQCC Maternal Data Center

Overarching Goals

Preserve Mother-Baby Dyad | **Refer Mother to Treatment and Keep in Treatment** | **Reduce Incidence of NAS** | **Integration with Community Services**

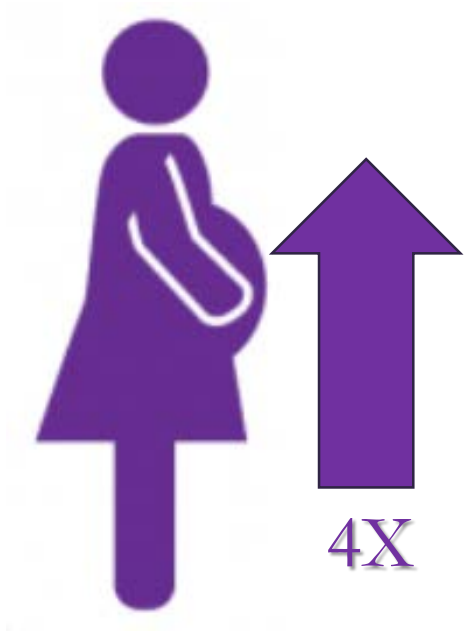
- Starts in Prenatal Care
  - Self-reported screening and referral to Medication Assisted Treatment
  - Start as early as possible to ready mom for plan of safe care
- Labor considerations
- Post-delivery hospital stay
  - Maternal considerations
  - Newborn considerations
- Discharge Considerations

HEALTH MANAGEMENT ASSOCIATES

Perinatal OUD & SUD and the California Mother & Baby Substance Use Exposure Initiative Project Overview

Qi- Collaborative Webinar,
July 23, 2019

EPIDEMIOLOGY OF OUD DURING PREGNANCY



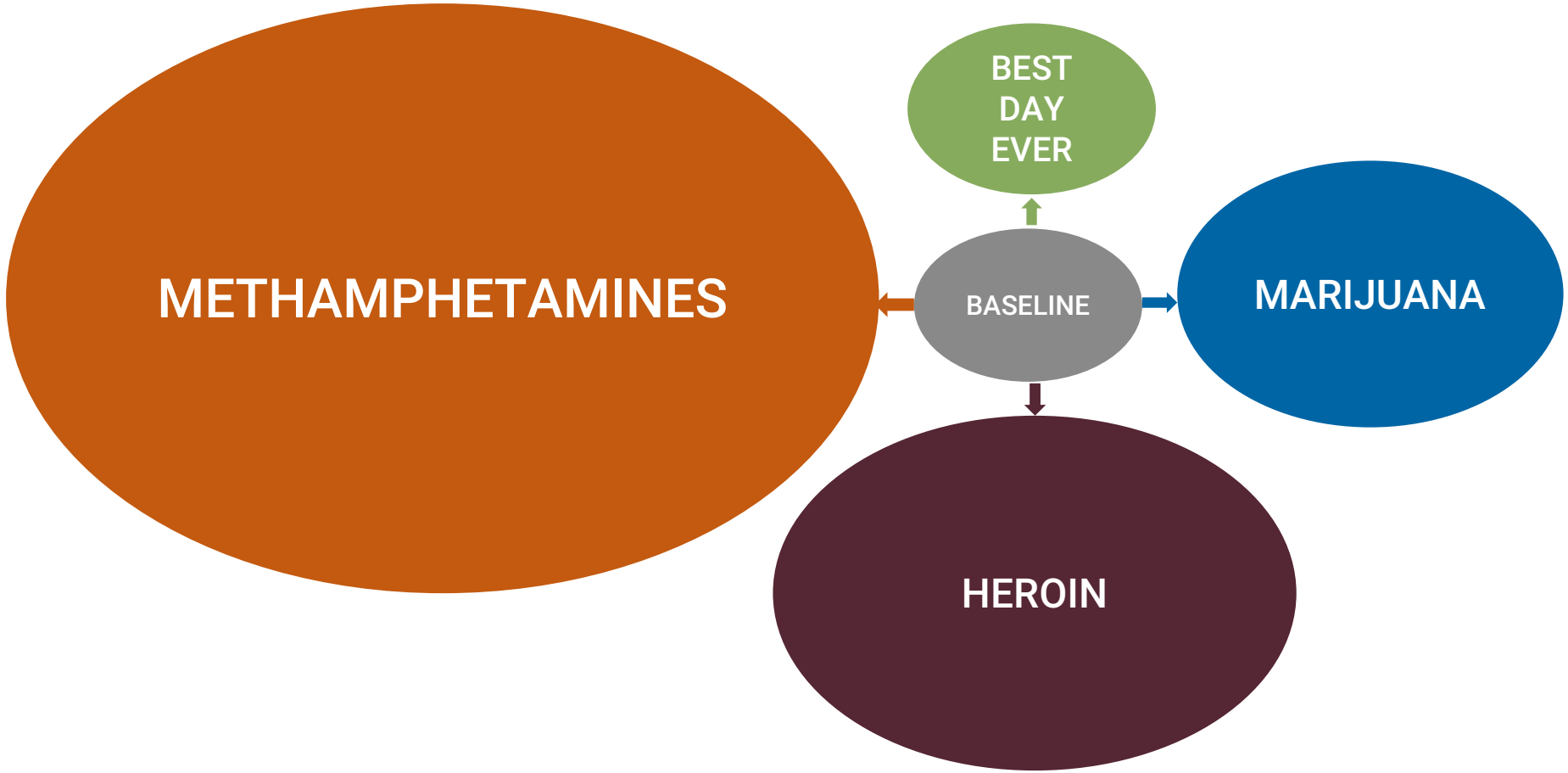
- SAMHSA data: > 400,000 infants are exposed to EtOH or other illicit/inappropriate drug use during pregnancy
- Number of pregnant women with OUD increased from 1.5/1000 → 6.5/1000 live births (1999-2014)
- CA prevalence 1.6/1000 live births (6.5/1000 in US
- Annual rates of ↑ were lowest in CA and HI (0.1/1000/year) and highest in VT, ME, NM, WV (VT prevalence is 48.6/1000)

ADDICTION 101 – THE PROBLEM

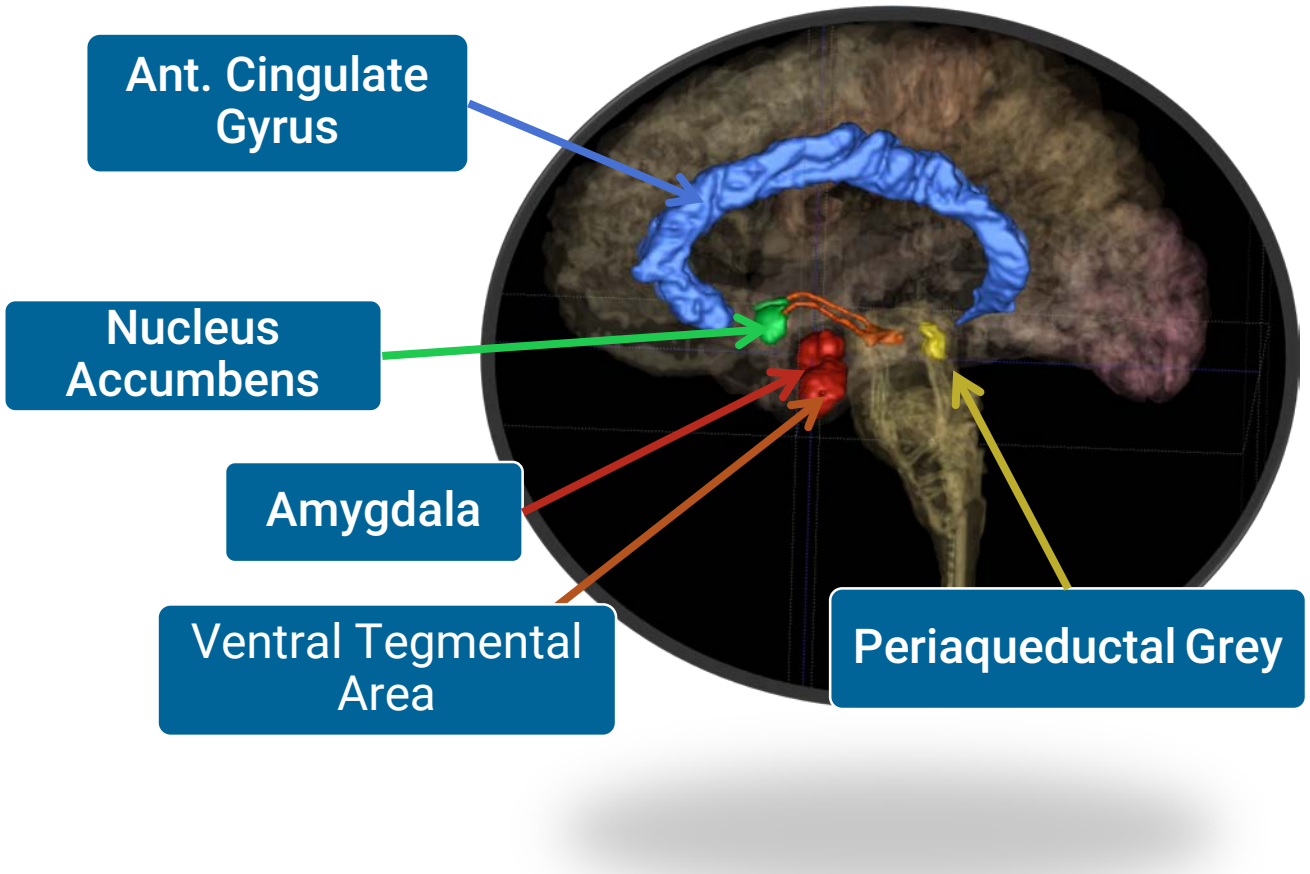
What is Addiction?

It is a **chronic neurobiological disorder** centered around a **dysregulation of the natural reward system**

ADDICTION 101

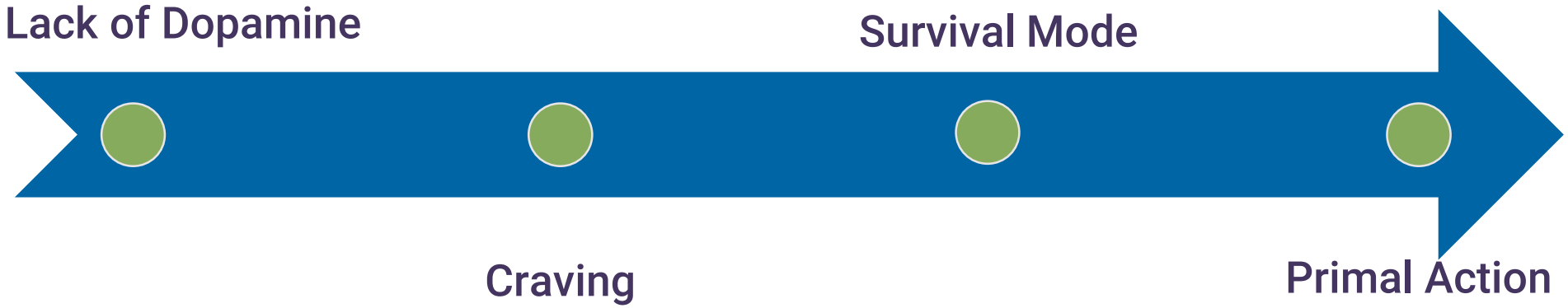


ADDICTION 101 – NEUROBIOLOGY OF ADDICTION



CASE STUDY: KAYLA

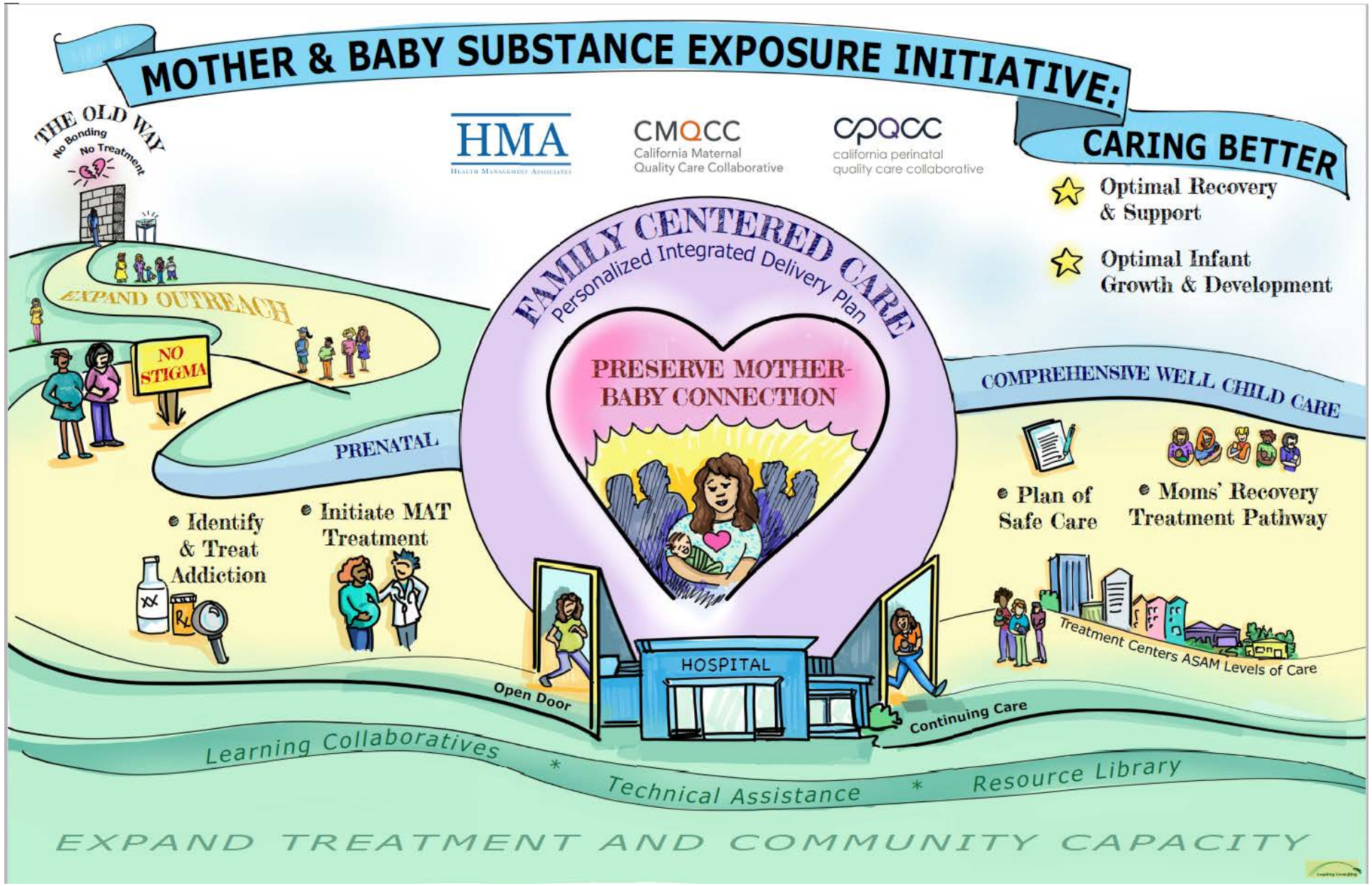
- Family history of addiction
- Moderate early life trauma
- Addiction to oral opioids
- Poorly controlled anxiety
- Physical dependence, addiction to opioids & benzos
- Diversion after 1st offense → Overdose episode
- Pregnant
- NO SOCIAL SUPPORT
- Hospital Staff made her feel judged, inadequate and powerless



MEDICATION ASSISTED TREATMENT (MAT): Evidence-base and Impact

MAT	OD Deaths	Retention in Treatment	Pregnancy Outcomes	NAS
Detoxification/ Withdrawal				
Methadone				
Buprenorphine (Mono)				
Buprenorphine/ Naloxone				
Naltrexone				

MAT is the standard of care for the treatment of pregnant women with OUD


MOTHER & BABY SUBSTANCE EXPOSURE INITIATIVE:
CARING BETTER
HMA
CMQCC
California Maternal
Quality Care Collaborative
cpqcc
california perinatal
quality care collaborative
THE OLD WAY
No Bonding
No Treatment
Optimal Recovery
& Support
Optimal Infant
Growth & Development
FAMILY CENTERED CARE
Personalized Integrated Delivery Plan
PRESERVE MOTHER-
BABY CONNECTION
EXPAND OUTREACH
NO
STIGMA
PRENATAL
COMPREHENSIVE WELL CHILD CARE
Identify
& Treat
Addiction
Initiate MAT
Treatment
Plan of
Safe Care
Moms' Recovery
Treatment Pathway
HOSPITAL
Open Door
Continuing Care
Treatment Centers ASAM Levels of Care
Learning Collaboratives * Technical Assistance * Resource Library
EXPAND TREATMENT AND COMMUNITY CAPACITY

MOTHER & BABY SUBSTANCE USE EXPOSURE INITIATIVE OVERVIEW

HMA will work to deliver state-of-the-art treatment from the prenatal phase to the post-delivery phase.

This work will be accomplished through:

+ **Outreach** and relationship building including the hosting of an informational community-facing events
+ Development of **protocols, guidelines, safety bundles and toolkits** of OB, NICU, and Pediatrics
+ Curating and **distribution of patient facing materials**
+ Expanding **treatment access points** (quick start sites)
+ Facilitation of **learning collaboratives**
+ Providing **technical assistance** to providers
+ Providing an online **resource library**

Project Outcomes Include

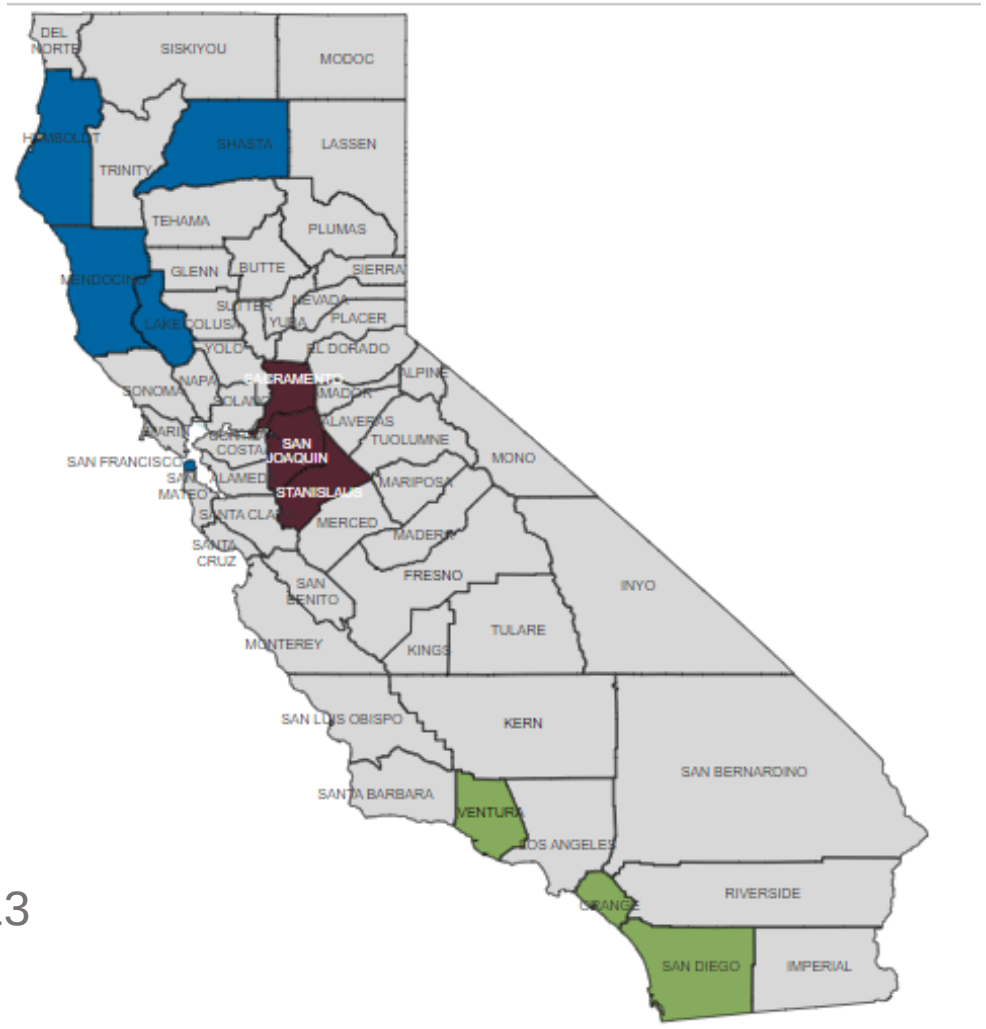
+ Decrease in **NAS length of stay**
+ Decrease in **NAS severity**
+ Decrease in the number of **unnecessary Child Protective Service referrals**
+ Increase in **moms in long term recovery**
+ **Identify and treat** at least 50% of predicted individuals in the target counties

MOTHER & BABY SUBSTANCE USE EXPOSURE INITIATIVE COUNTY SELECTION

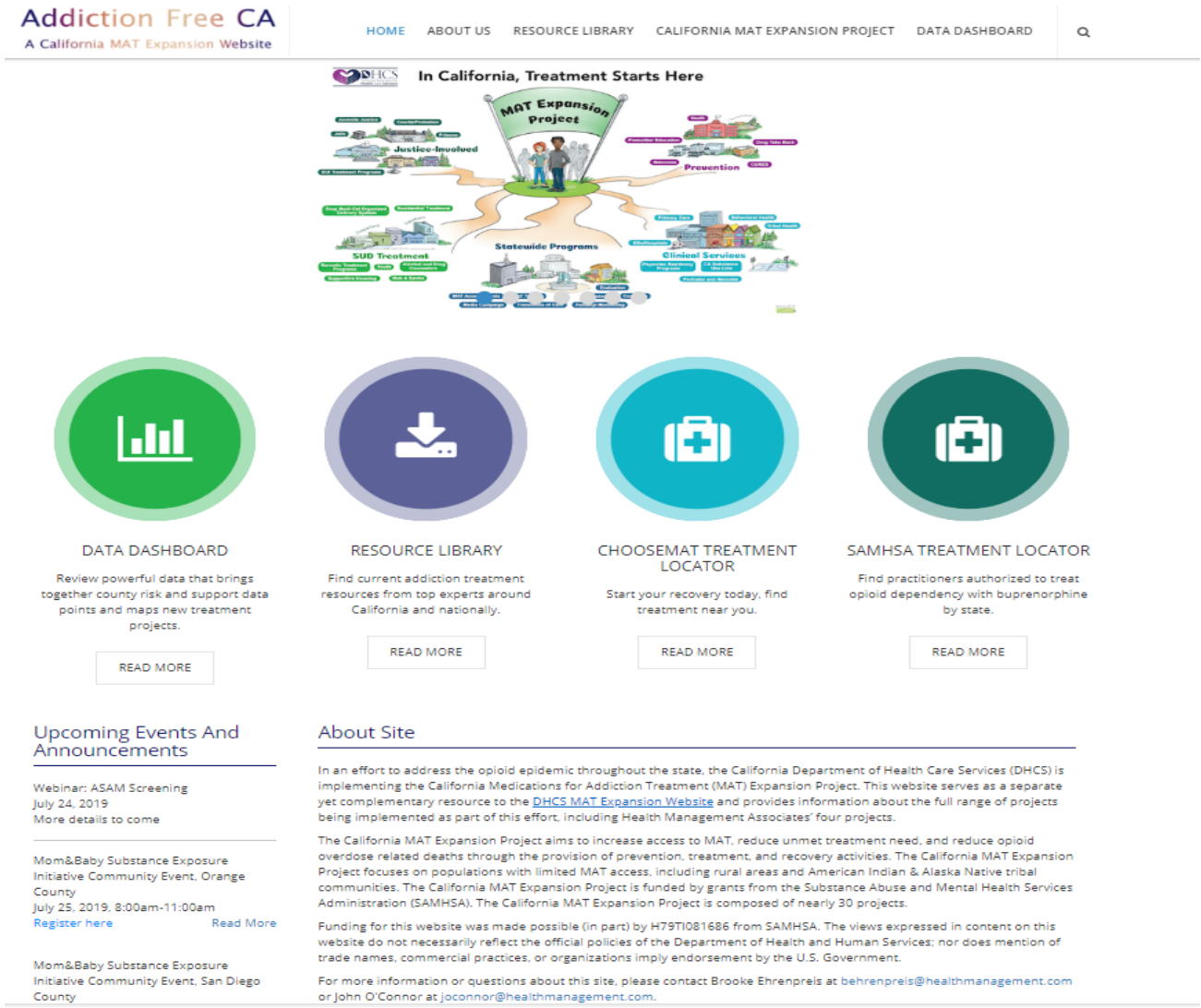
- **Regional distribution:**
  - **Northern California**: Humboldt*, Mendocino*, Lake*, Shasta
  - **Central Valley**: Sacramento, Stanislaus, San Joaquin
  - **Southern California**: Ventura*, Orange*, San Diego*

***same counties as Transitions**

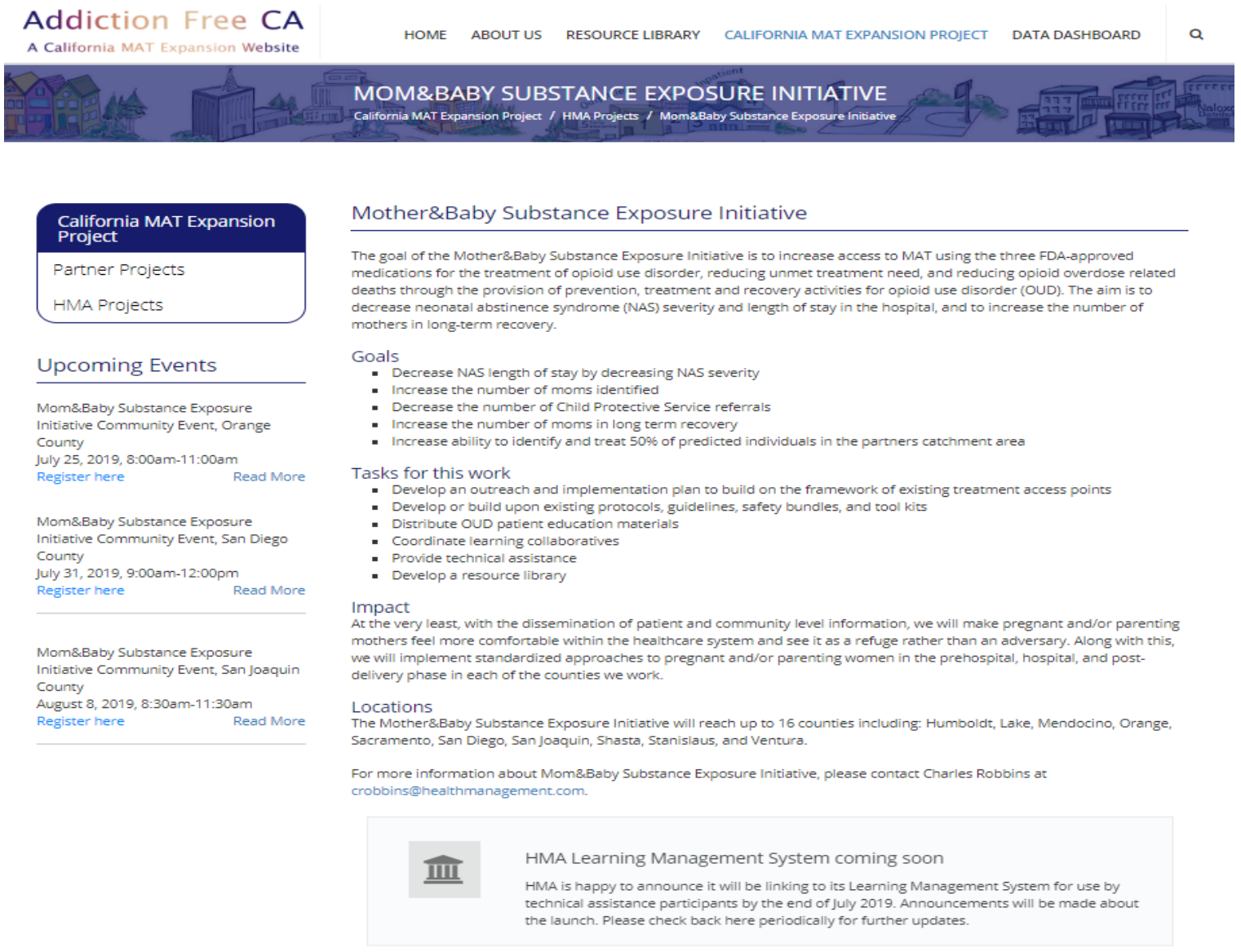
- **Diverse representation:**
  - Mix of urban and rural
  - Population range: 64,665 - 3,095,313
  - Variety of challenges to maximize learning and scalability



Addiction Free CA Website



Addiction Free CA Website

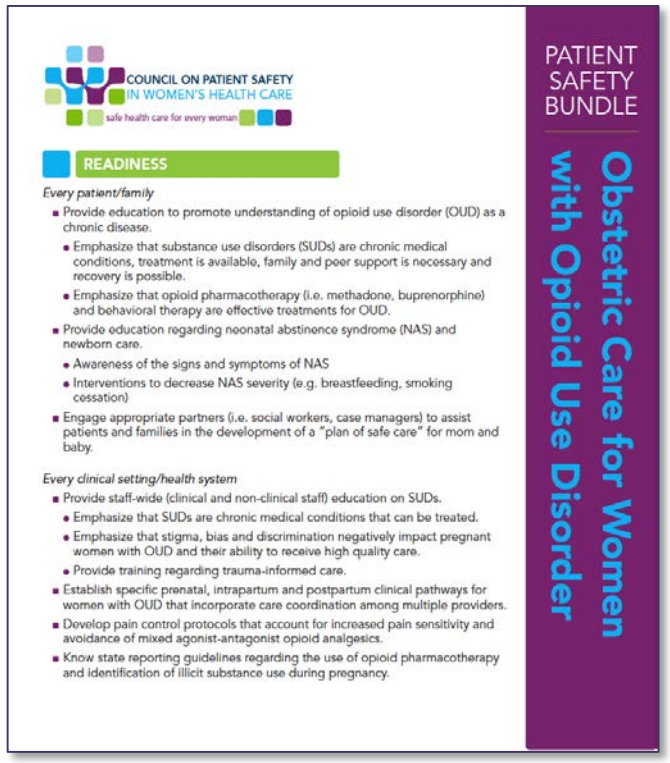


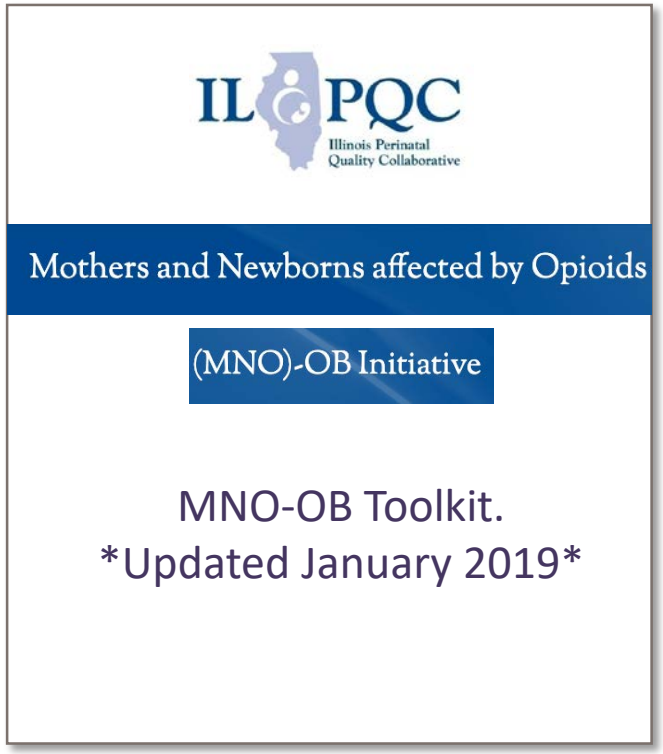
Maternal Care: Emerging Best Practices

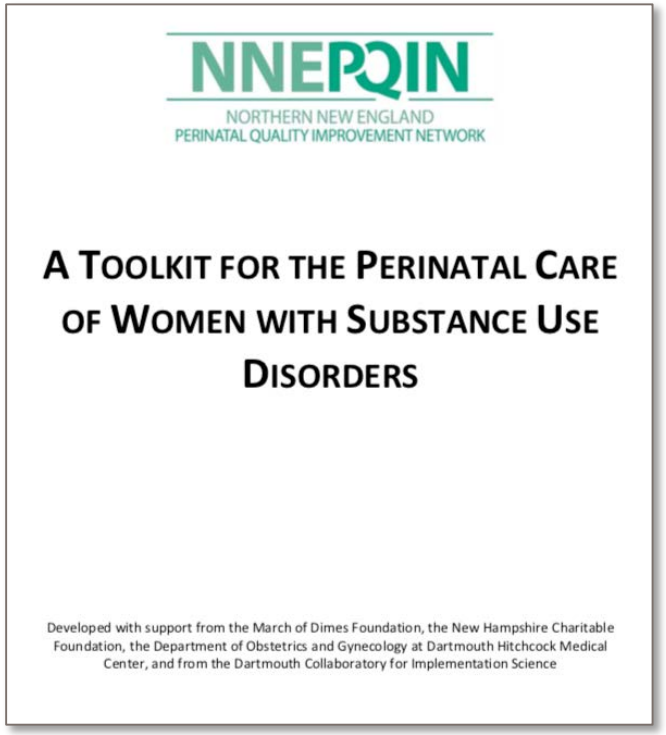
Dr. Elliott Main, CMQCC

Key Reference Documents

ALLIANCE FOR INNOVATION ON MATERNAL HEALTH AIM







National Safety Bundle Commentary

August 2019

Safety: *Consensus Statement*

National Partnership for Maternal Safety

Consensus Bundle on Obstetric Care for Women With Opioid Use Disorder

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

The Toolkit: Maternal Care

Section 1	Topic Area
Prenatal Care	Educate Staff About Opioid Use Disorder
	Maternal Screening & Toxicology
	Brief Intervention
	Referral to Services
	Antenatal Care Plan
	Preparation for Labor & Delivery and Postpartum Care

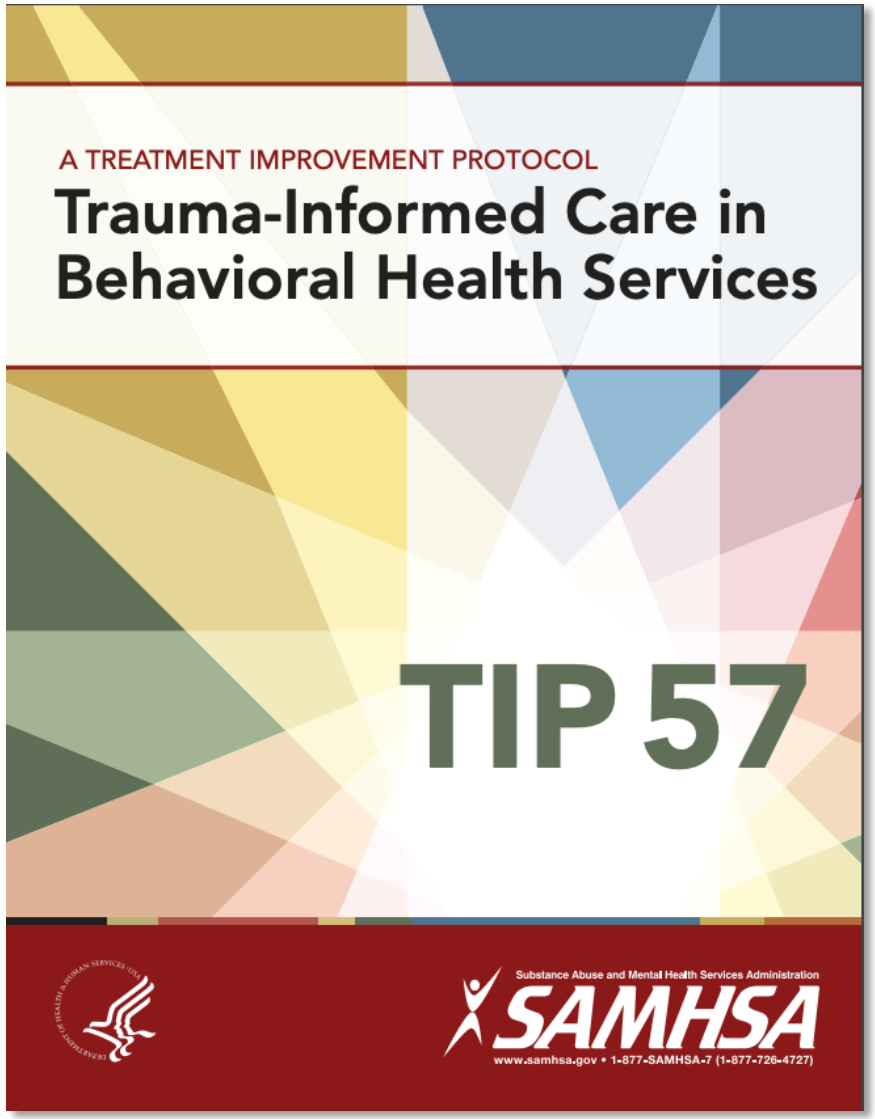
Screen Every Prenatal Patient

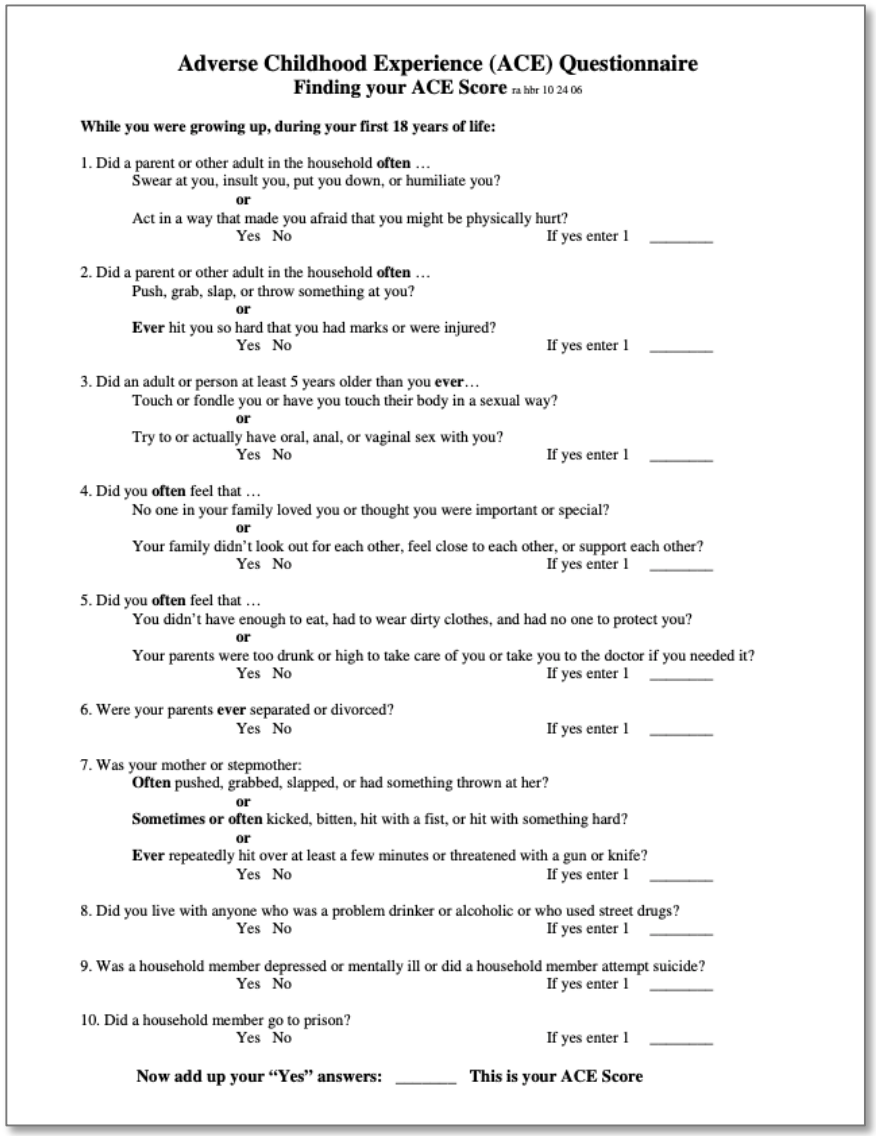
- Screening based only on factors, such as poor adherence to prenatal care or prior adverse pregnancy outcome, can lead to missed cases and may add to stereotyping and focus on minority populations.
- Therefore, it is essential that screening be universal.
- Multiple validated screening tools are available:
  - 4P, 4P+, 5P, NIDA, CRAFFT, Substance Use Risk Profile--Pregnancy

What to do with a Positive?

- SBIRT (Screening, brief intervention, referral for treatment)
- Motivational Interviewing
- Trauma Informed Care

The Toolkit: Maternal Care





Adverse Childhood Experience (ACE) Questionnaire
Finding your ACE Score ra hbr 10 24 06

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household **often** …
   Swear at you, insult you, put you down, or humiliate you?
   or
   Act in a way that made you afraid that you might be physically hurt?
   Yes No If yes enter 1 _____

2. Did a parent or other adult in the household **often** …
   Push, grab, slap, or throw something at you?
   or
   Ever hit you so hard that you had marks or were injured?
   Yes No If yes enter 1 _____

3. Did an adult or person at least 5 years older than you **ever**…
   Touch or fondle you or have you touch their body in a sexual way?
   or
   Try to or actually have oral, anal, or vaginal sex with you?
   Yes No If yes enter 1 _____

4. Did you **often** feel that …
   No one in your family loved you or thought you were important or special?
   or
   Your family didn't look out for each other, feel close to each other, or support each other?
   Yes No If yes enter 1 _____

5. Did you **often** feel that …
   You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
   or
   Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
   Yes No If yes enter 1 _____

6. Were your parents **ever** separated or divorced?
   Yes No If yes enter 1 _____

7. Was your mother or stepmother:
   Often pushed, grabbed, slapped, or had something thrown at her?
   or
   Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?
   or
   Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
   Yes No If yes enter 1 _____

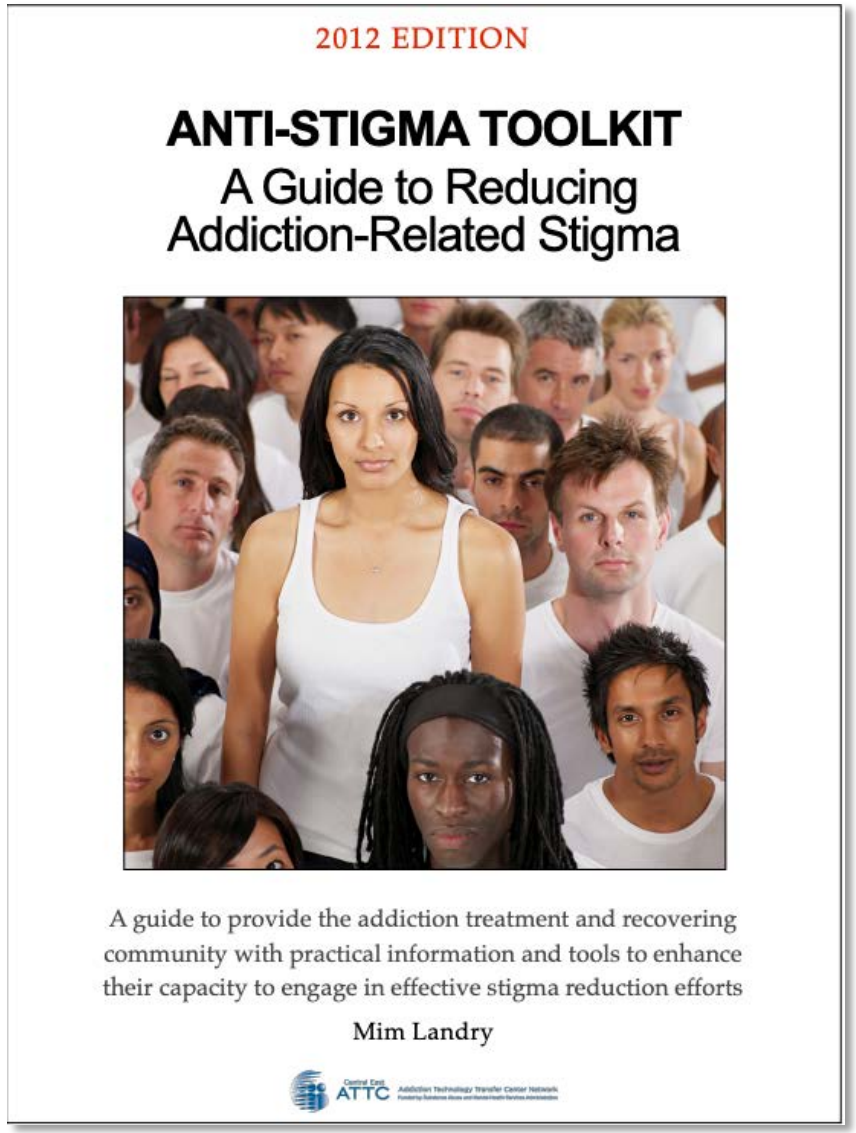
8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
   Yes No If yes enter 1 _____

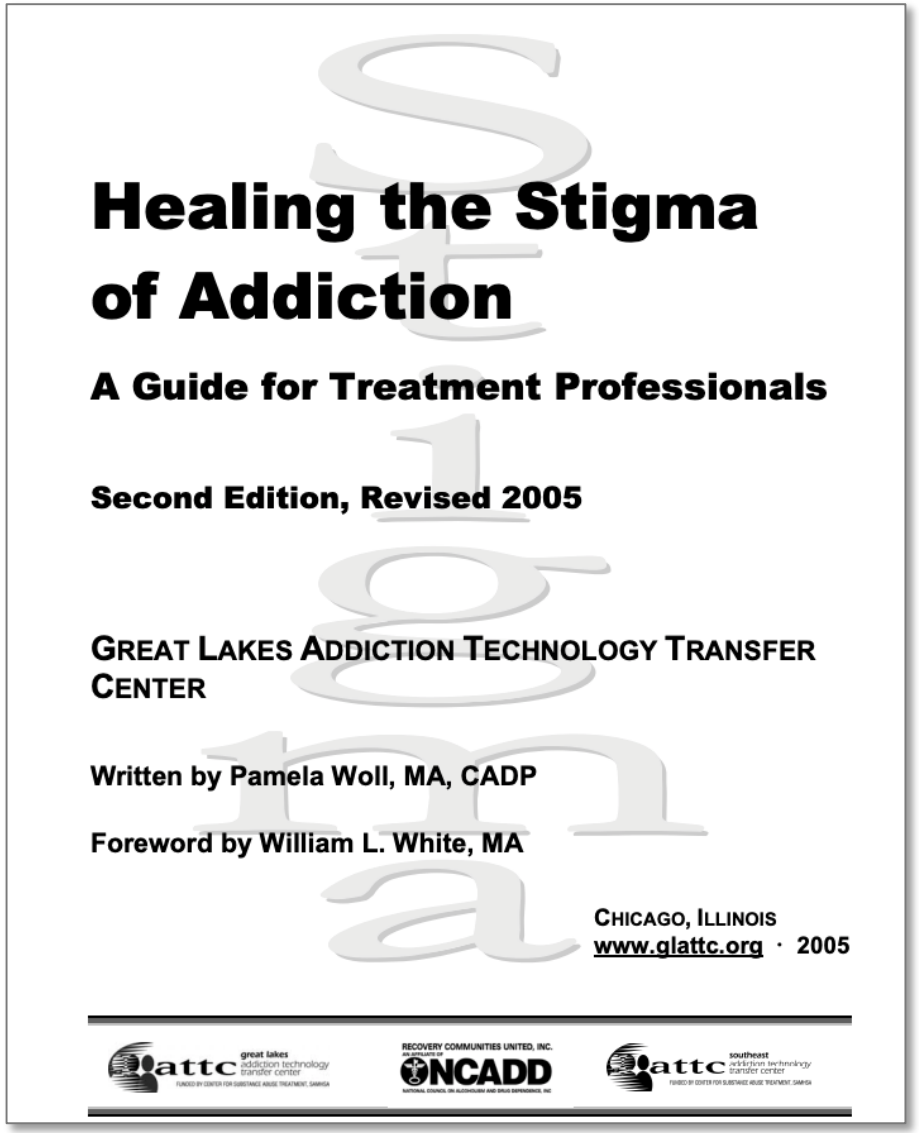
9. Was a household member depressed or mentally ill or did a household member attempt suicide?
   Yes No If yes enter 1 _____

10. Did a household member go to prison?
    Yes No If yes enter 1 _____

Now add up your "Yes" answers: _____ This is your ACE Score

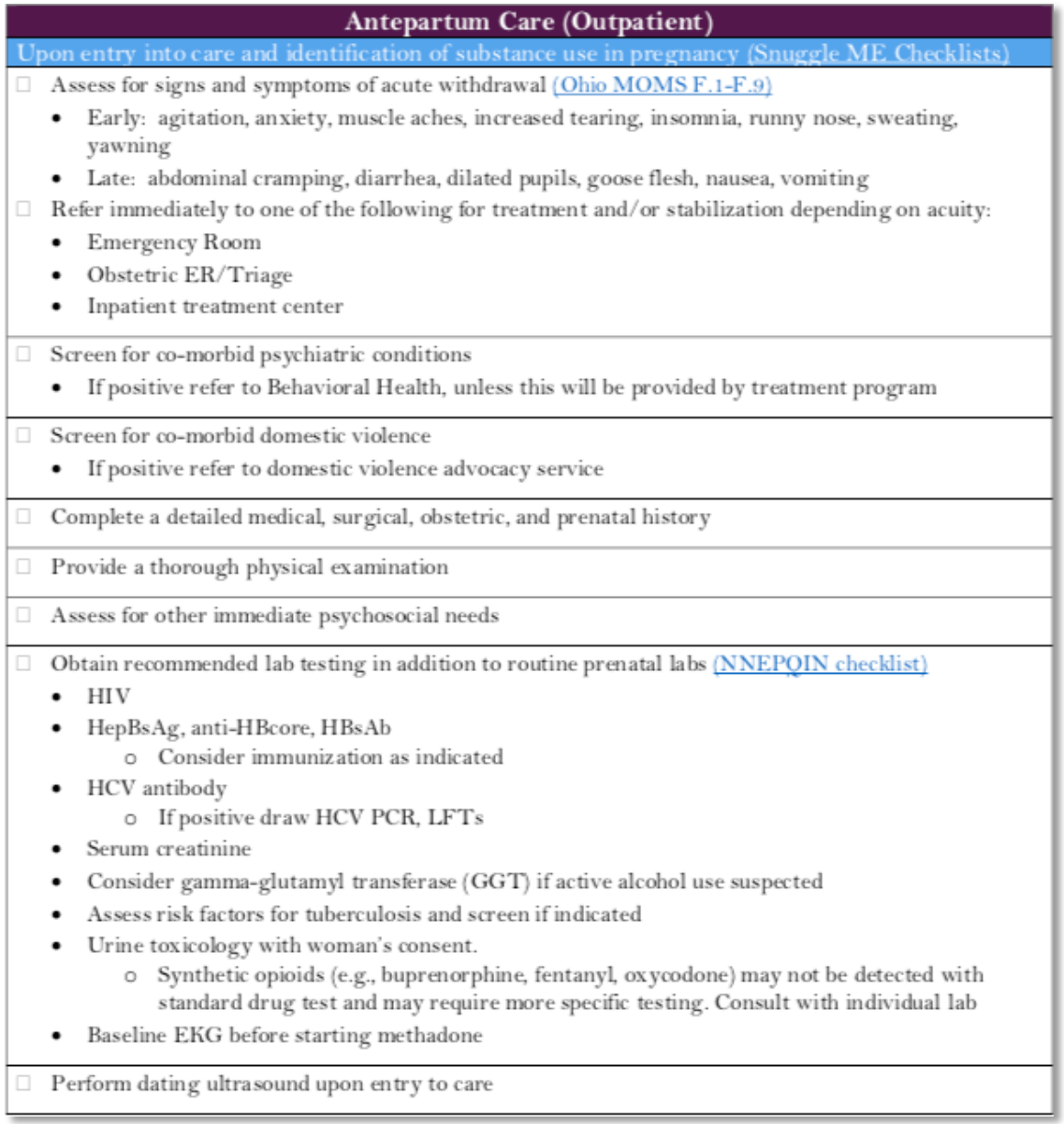
Reducing Stigma





Opioid Use Disorder Clinical Pathway

- Screen for co-morbid psychiatric conditions and domestic violence
- Additional Lab testing
- Assess level of care required
- Consultation considerations
- Coordinate care with MAT program
- Narcan Toolkit
- Education



Antepartum Care (Outpatient)

Upon entry into care and identification of substance use in pregnancy (Snuggle ME Checklists)

- ☐ Assess for signs and symptoms of acute withdrawal (Ohio MOMS F.1-F.9)
  - Early: agitation, anxiety, muscle aches, increased tearing, insomnia, runny nose, sweating, yawning
  - Late: abdominal cramping, diarrhea, dilated pupils, goose flesh, nausea, vomiting
- ☐ Refer immediately to one of the following for treatment and/or stabilization depending on acuity:
  - Emergency Room
  - Obstetric ER/Triage
  - Inpatient treatment center
- ☐ Screen for co-morbid psychiatric conditions
  - If positive refer to Behavioral Health, unless this will be provided by treatment program
- ☐ Screen for co-morbid domestic violence
  - If positive refer to domestic violence advocacy service
- ☐ Complete a detailed medical, surgical, obstetric, and prenatal history
- ☐ Provide a thorough physical examination
- ☐ Assess for other immediate psychosocial needs
- ☐ Obtain recommended lab testing in addition to routine prenatal labs (NNEPQIN checklist)
  - HIV
  - HepBsAg, anti-HBcore, HBsAb
    - Consider immunization as indicated
  - HCV antibody
    - If positive draw HCV PCR, LFTs
  - Serum creatinine
  - Consider gamma-glutamyl transferase (GGT) if active alcohol use suspected
  - Assess risk factors for tuberculosis and screen if indicated
  - Urine toxicology with woman's consent.
    - Synthetic opioids (e.g., buprenorphine, fentanyl, oxycodone) may not be detected with standard drug test and may require more specific testing. Consult with individual lab
  - Baseline EKG before starting methadone
- ☐ Perform dating ultrasound upon entry to care

Educational Resources

Factsheet 1 of 4

Opioid Use Disorder and Pregnancy

Taking helpful steps for a healthy pregnancy

Introduction

If you have an opioid use disorder (OUD) and are pregnant, you can take helpful steps now to ensure you have a healthy pregnancy and a healthy baby. During pregnancy, OUD should be treated with medicines, counseling, and recovery support. Good prenatal care is also very important. Ongoing contact between the healthcare professionals treating your OUD and those supporting your pregnancy is very important.

The actions you take or don't take play a vital role during your pregnancy. Below are some important things to know, about OUD and pregnancy, as well as the Do's and Don'ts for making sure you have a healthy pregnancy and a healthy baby.

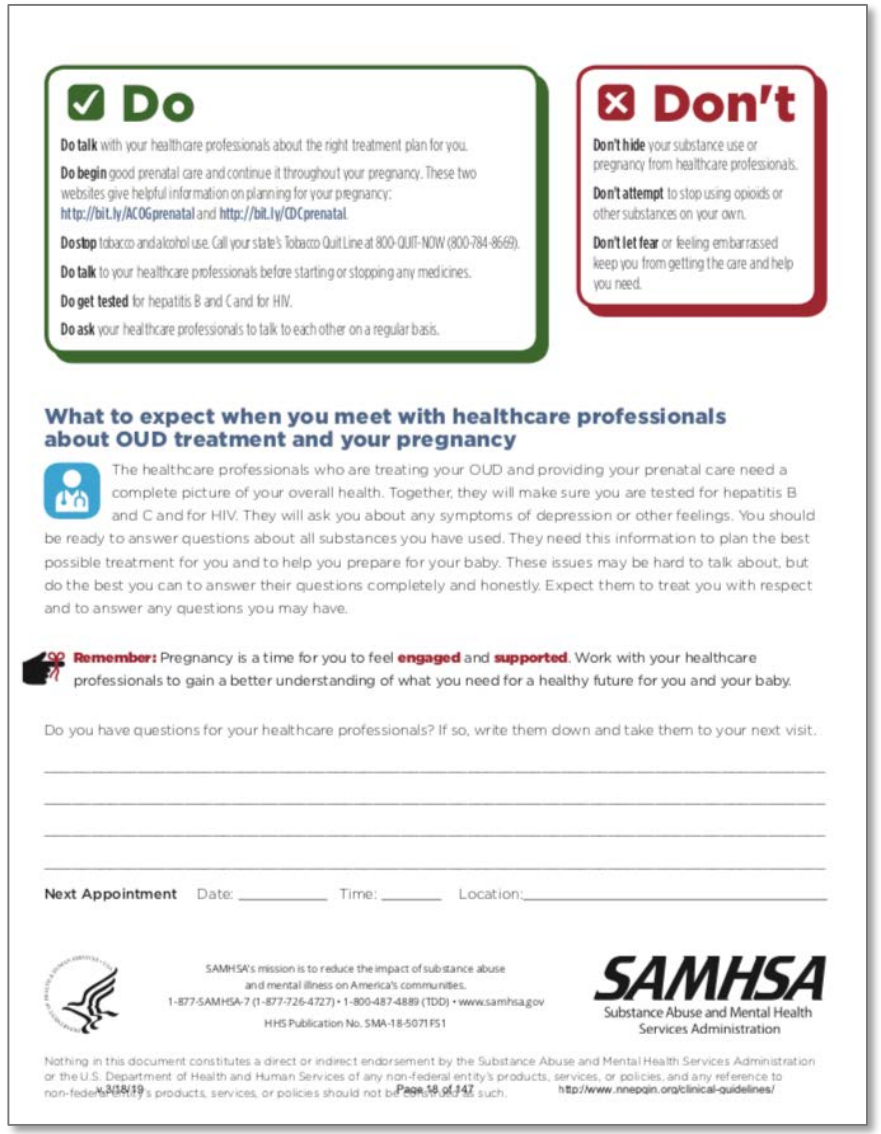
Things to know

- OUD is a treatable illness like diabetes or high blood pressure.
- You should not try to stop opioid use on your own. Suddenly stopping the use of opioids can lead to withdrawal for you and your baby. You may be more likely to start using drugs again and even experience overdoses.
- For pregnant women, OUD is best treated with the medicines called methadone or buprenorphine along with counseling and recovery support services. Both of these medicines stop and prevent withdrawal and reduce opioid cravings, allowing you to focus on your recovery and caring for your baby.
- Tobacco, alcohol, and benzodiazepines may harm your baby, so make sure your treatment includes steps to stop using these substances.
- Depression and anxiety are common in women with OUD, and new mothers may also experience depression and anxiety after giving birth. Your healthcare professionals should check for these conditions regularly and, if you have them, help you get treatment for them.
- Mothers with OUD are at risk for hepatitis and HIV. Your healthcare professionals should do regular lab tests to make sure you are not infected and, if you are infected, provide treatment.
- Babies exposed to opioids and other substances before birth may develop neonatal abstinence syndrome (NAS) after birth. NAS is a group of withdrawal signs. Babies need to be watched for NAS in the hospital and may need treatment for a little while to help them sleep and eat.

About OUD

People with OUD typically feel a **strong craving for opioids** and find it hard to cut back or stop using them. Over time, many people **build up a tolerance** to opioids and need larger amounts. They also spend more time looking for and using opioids and less time on everyday tasks and relationships. Those who suddenly reduce or stop opioid use may suffer **withdrawal symptoms** such as nausea or vomiting, muscle aches, diarrhea, fever, and trouble sleeping.

If you are concerned about your opioid use or have any of these symptoms, please check with your **healthcare professionals** about treatment or tapering or find a provider at this website: www.samhsa.gov/find-help.



Do

Do talk with your healthcare professionals about the right treatment plan for you.

Do begin good prenatal care and continue it throughout your pregnancy. These two websites give helpful information on planning for your pregnancy: http://bit.ly/ACOGprenatal and http://bit.ly/CDCprenatal.

Do stop tobacco and alcohol use. Call your state's Tobacco Quit Line at 800-QUIT-NOW (800-784-8669).

Do talk to your healthcare professionals before starting or stopping any medicines.

Do get tested for hepatitis B and C and for HIV.

Do ask your healthcare professionals to talk to each other on a regular basis.

Don't

Don't hide your substance use or pregnancy from healthcare professionals.

Don't attempt to stop using opioids or other substances on your own.

Don't let fear or feeling embarrassed keep you from getting the care and help you need.

What to expect when you meet with healthcare professionals about OUD treatment and your pregnancy

The healthcare professionals who are treating your OUD and providing your prenatal care need a complete picture of your overall health. Together, they will make sure you are tested for hepatitis B and C and for HIV. They will ask you about any symptoms of depression or other feelings. You should be ready to answer questions about all substances you have used. They need this information to plan the best possible treatment for you and to help you prepare for your baby. These issues may be hard to talk about, but do the best you can to answer their questions completely and honestly. Expect them to treat you with respect and to answer any questions you may have.

Remember: Pregnancy is a time for you to feel **engaged** and **supported**. Work with your healthcare professionals to gain a better understanding of what you need for a healthy future for you and your baby.

Do you have questions for your healthcare professionals? If so, write them down and take them to your next visit.

_____

_____

_____

_____

Next Appointment Date: _____ Time: _____ Location: _____

SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities.
1-877-SAMHSA-7 (1-877-726-4727) • 1-800-487-4889 (TDD) • www.samhsa.gov
HHS Publication No. SMA-18-5071FS1

SAMHSA
Substance Abuse and Mental Health Services Administration

The Toolkit: Maternal Care (*continued*)

Section 2	Topic Area
Inpatient Care for Substance Exposed Mothers	Educate Staff About Opioid Use Disorder
	Maternal Screening and Toxicology
	Intrapartum Care Plan
	Anesthetic Pain Management Plan
	Care Pathways to Minimize Opioid Use
	Breastfeeding

Section 4	Topic Area
Discharge Plan for Mother	Plan of Safe Care
	Discharge Checklist
	Setting Follow-Up Visits for Mother

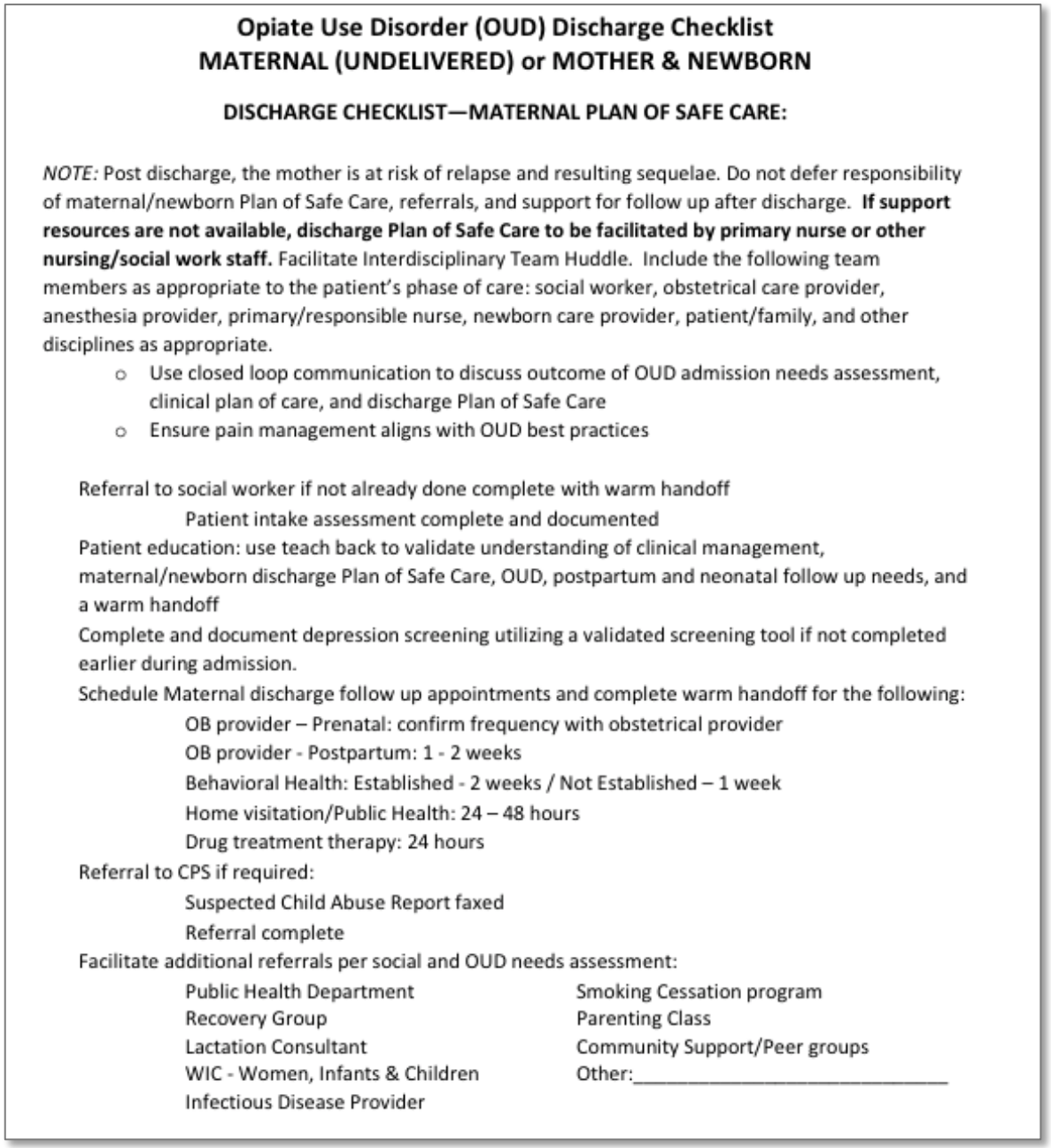
Anesthetic Pain Management Plan

- Teamwork, pre-planning
- Address fear with clear plan
- Epidural is primary analgesia
- Avoid nalbuphine (Nubaine) and butorphanol (Stadol), may precipitate withdrawal
- Caution with intrathecal opioids
- Alternatives: acupuncture, TENS, Nitrous oxide
- Doula helpful to reduce anxiety

May 23, 2019 –
SOAP Enhanced Recovery After Cesarean Consensus Statement

Maternal Discharge Checklist

- Part of the *Plan for Safe Care* for the Mother
- Goal: maintain the Mother-Baby Dyad
- Warm handoffs are critical
- Metric: 100% completed for all OUD moms
- Remember postpartum is the time of greatest risk for mothers with OUD



Opiate Use Disorder (OUD) Discharge Checklist
MATERNAL (UNDELIVERED) or MOTHER & NEWBORN

DISCHARGE CHECKLIST—MATERNAL PLAN OF SAFE CARE:

NOTE: Post discharge, the mother is at risk of relapse and resulting sequelae. Do not defer responsibility of maternal/newborn Plan of Safe Care, referrals, and support for follow up after discharge. **If support resources are not available, discharge Plan of Safe Care to be facilitated by primary nurse or other nursing/social work staff.** Facilitate Interdisciplinary Team Huddle. Include the following team members as appropriate to the patient's phase of care: social worker, obstetrical care provider, anesthesia provider, primary/responsible nurse, newborn care provider, patient/family, and other disciplines as appropriate.

- Use closed loop communication to discuss outcome of OUD admission needs assessment, clinical plan of care, and discharge Plan of Safe Care
- Ensure pain management aligns with OUD best practices

Referral to social worker if not already done complete with warm handoff
Patient intake assessment complete and documented
Patient education: use teach back to validate understanding of clinical management, maternal/newborn discharge Plan of Safe Care, OUD, postpartum and neonatal follow up needs, and a warm handoff
Complete and document depression screening utilizing a validated screening tool if not completed earlier during admission.
Schedule Maternal discharge follow up appointments and complete warm handoff for the following:
OB provider – Prenatal: confirm frequency with obstetrical provider
OB provider - Postpartum: 1 - 2 weeks
Behavioral Health: Established - 2 weeks / Not Established – 1 week
Home visitation/Public Health: 24 – 48 hours
Drug treatment therapy: 24 hours
Referral to CPS if required:
Suspected Child Abuse Report faxed
Referral complete
Facilitate additional referrals per social and OUD needs assessment:

Public Health Department	Smoking Cessation program
Recovery Group	Parenting Class
Lactation Consultant	Community Support/Peer groups
WIC - Women, Infants & Children	Other:_____
Infectious Disease Provider	

Working With The Local Communities

Our scope is broader than the hospital setting. We will work to support hospitals and providers who work with mothers and their newborns from the prenatal period through the period after discharge home, helping them connect to **wraparound services** in the local community through best practices.

Our goal is to learn from the individual communities and:

1. Support current efforts and activities
2. Provide additional resources
3. Share efforts from other communities

Newborn Care: Emerging Best Practices

Dr. Henry Lee, CPQCC

The Toolkit: Newborn Care

Section 3	Topic Area
Inpatient Care of Substance Exposed Newborns	Educate Staff
	Newborn Screening and Toxicology
	Relationships With Parents
	Non-pharmacologic Care of Neonatal Abstinence Syndrome (NAS)
	Pharmacologic NAS Care

Section 4	Topic Area
Discharge Plan for Newborn	Plan of Safe Care
	Discharge Checklist
	Setting Follow-Up Visits for the Newborn

Education of Staff About Neonatal Abstinence Syndrome

Identification, evaluation, and treatment

- Clinical providers and staff with strong foundation of knowledge can educate and support families
- Positive interactions with families of newborns with NAS contribute to better outcomes
- Provider and staff interactions with families should be supportive and non-judgmental
- Families can play valuable role in care, including mothers being encouraged to breastfeed if on stable MAT dose

Newborn Screening & Toxicology

Identifying substance-exposed newborns

- Importance of maternal screening
- Selective newborn screening policies can be developed in conjunction with policies of maternal care team
- There is not a perfect newborn screening test. False positives can occur. In one study, both meconium and umbilical cord toxicology samples were negative for opiates in significant percentage of newborns with diagnosis of NAS.*

*Labardee et al. Clinical Biochemistry 2017;50:1093

- Universal biological toxicology screening for newborns is not recommended as specific maternal situation will guide newborn approach

"A detailed, professionally obtained history is more helpful than toxicology screening of the newborn to accurately screen for substance abuse."*

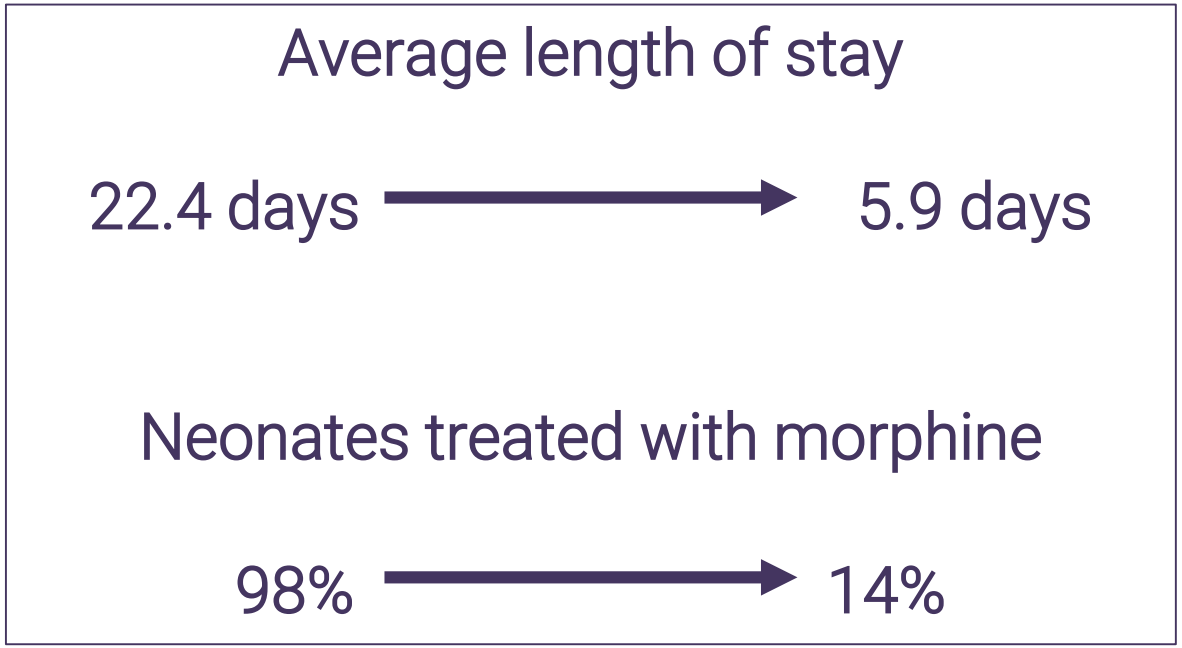
*Vermont Guidelines for Screening for Substance Abuse During Pregnancy

Therapeutic Relationship With Parents / Caregivers

Empower parents to be involved with care of newborn

Yale New Haven Children's Hospital project – Interventions:

- Standardized non pharmacologic care
- Prenatal counseling of parents
- Transfer from WBN to inpatient unit
- Novel approach to assessment
- Rapid morphine weans
- Empowering message to parents
- Spread of change to NICU (2008 → 2016)



Grossman MR et al. An Initiative to Improve the Quality of Care of Infants with Neonatal Abstinence Syndrome. Pediatrics. 2017;139(6):e20163360

Empowering Message to Parents

"On the inpatient unit, we explained that our first-line and most important treatment would center around measures to comfort the infant and that these should be performed by a family member. Parents were told that they were the treatment of their infants and must be present as much as possible. Nurses and physicians focused on supporting and coaching parents on the care of their infants."

Grossman MR et al. An Initiative to Improve the Quality of Care of Infants with Neonatal Abstinence Syndrome. Pediatrics. 2017;139(6):e20163360

Non-pharmacologic Care

"Eat-Sleep-Console"

QI Project 2016 – large urban academic center – 120-130 opioid-exposed neonates annually

Implementation of non-pharmacologic bundle as first-line treatment for NAS:

- Parental presence
- Skin-to-skin contact
- Holding
- Breastfeeding
- Creating calm, low stimulation environment

*Wachman et al. Quality improvement initiative to improve inpatient outcomes for neonatal abstinence syndrome. J Perinatology 2018; 38: 1114-22.

Non-pharmacologic Care

"Eat-Sleep-Console"

- Transition from Finnegan scoring to function-based ESC assessments.*

  Neonate's ability to effectively eat, sleep, and console

- "Cuddler" program

Pharmacologically treated neonates:	87% → 40%
Adjunctive agent use:	34% → 2.4%
Mean length of stay:	17 days → 11 days
Parental presence at bedside:	56% → 76%

*Grossman MR, Lipshaw MJ, Osborn RR, Berkwitt AK. A novel approach to assessing infants with neonatal abstinence syndrome. Hosp Pediatr. 2018;8:1–6.

Wachman et al. Quality improvement initiative to improve inpatient outcomes for neonatal abstinence syndrome. J Perinatology 2018; 38: 1114-22.

Pharmacologic Therapy

Growing evidence

- Morphine as a prn dosing regimen initially instead of scheduled dosing
- PRN dosing may minimize pharmacotherapy exposure and therefore side effects (for morphine - respiratory depression, bradycardia, hypotension, urinary retention, decreased intestinal motility)
- Considering policies for when to move to scheduled or escalated dosing
- Develop weaning protocol

Pharmacologic Therapy

*Methadone as first-line pharmacotherapy?**

- Randomized controlled trial methadone v. morphine
- Length of stay 14 days (methadone) vs. 21 days (morphine) treatments (p – 0.008)

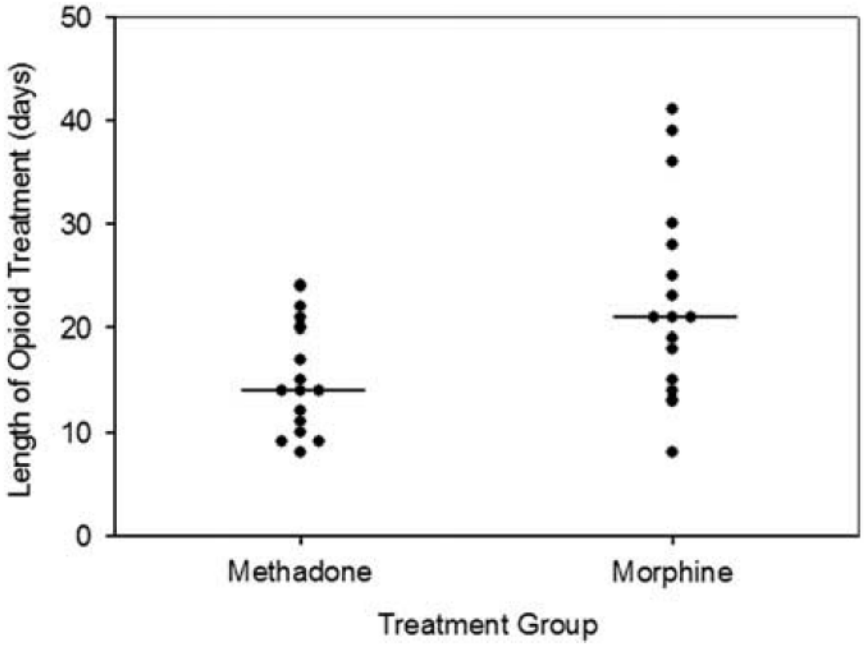


Figure 2. Comparison of length of opioid treatment (days) between methadone-treated and morphine-treated infants. Each individual infant's length of treatment with either methadone or morphine is represented by a black dot. The horizontal black line represents the median for each group which is significantly different between groups ($P = 0.008$).

*Brown MS, Hayes MJ, Thornton LM. Methadone versus morphine for treatment of neonatal abstinence syndrome: a prospective randomized clinical trial. *J Perinatol* 2015; 35:278-83.

Dyad-centered Plan of Safe Care

Newborn visits

- Positive outcomes for the mother/baby unit need to support mother's recovery and well-being
- A mother may be more likely to follow up for baby's clinic visits than her own
- Partnerships in community with pediatric and maternal medical homes with MAT provider, public health nursing, and other programs to collaboratively provide care will lead to optimal outcomes

Questions

The webinar evaluation will be sent to your registered email address within 24 hours. We would appreciate five minutes of your time to support our efforts at quality webinar programming.

Thank You!

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For further information or questions please contact Christina Oldini at cmoldini@stanford.edu