CMQCC
California Maternal
Quality Care Collaborative

Care for Mothers with Opioid Use Disorder: Introducing the National Safety Bundle

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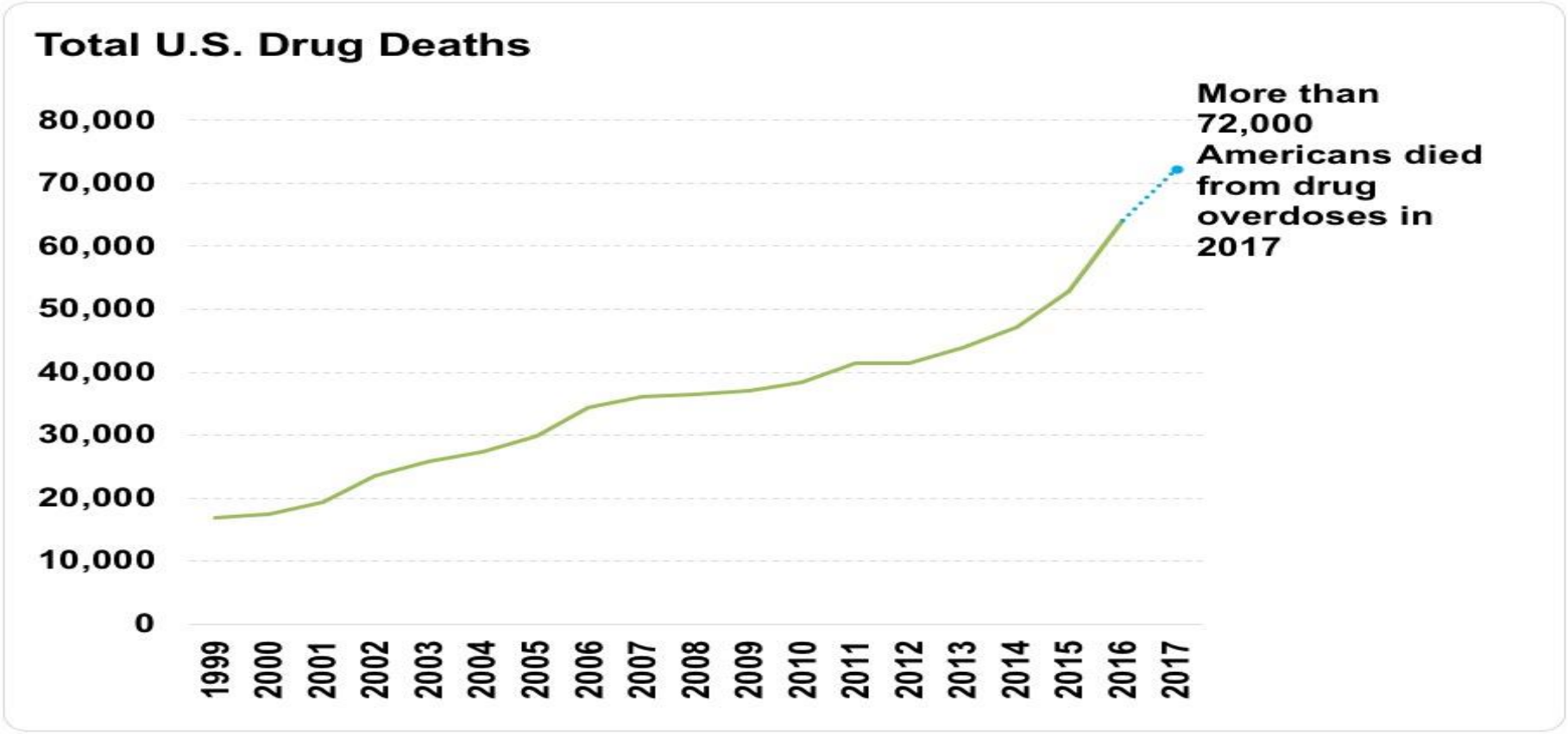
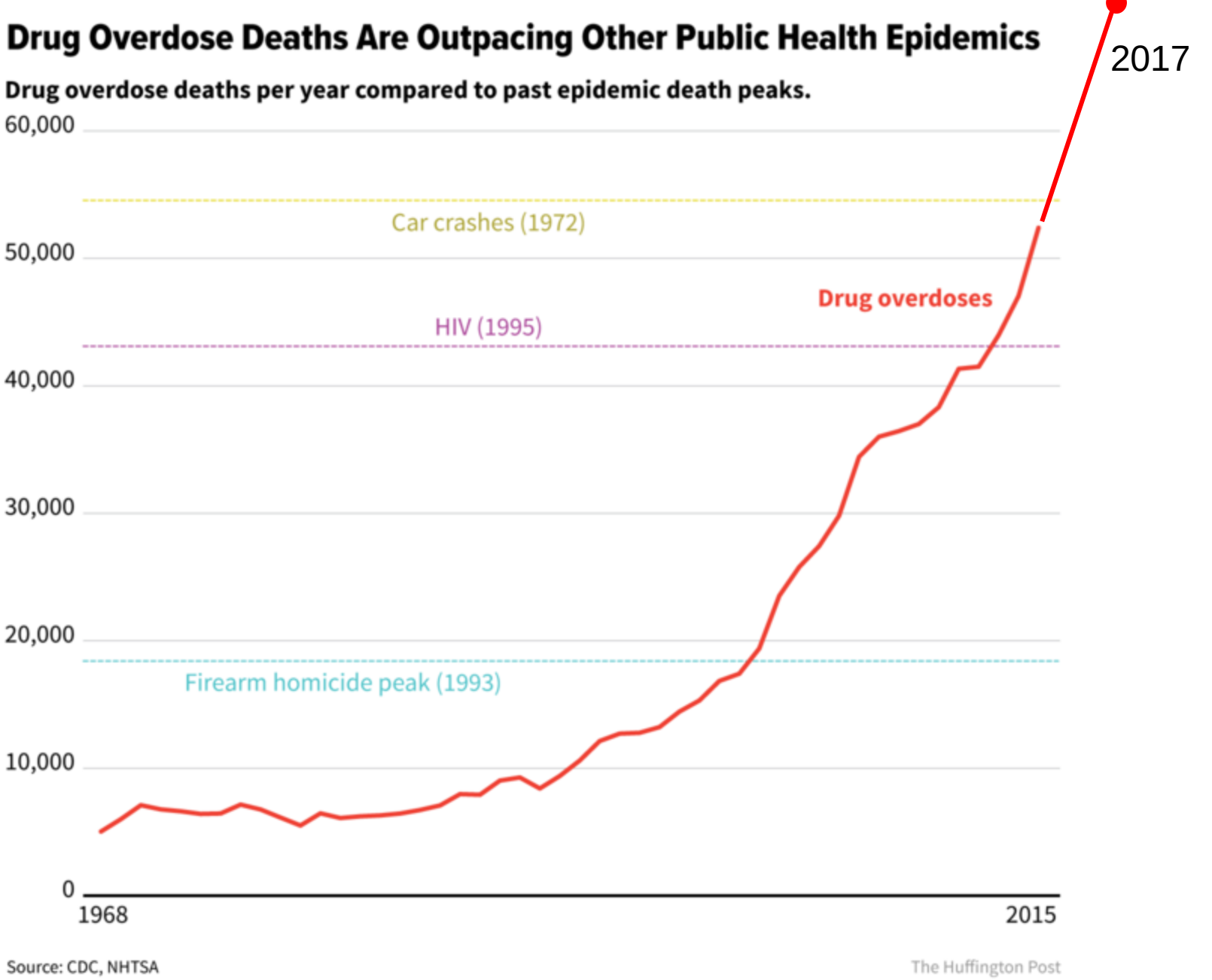
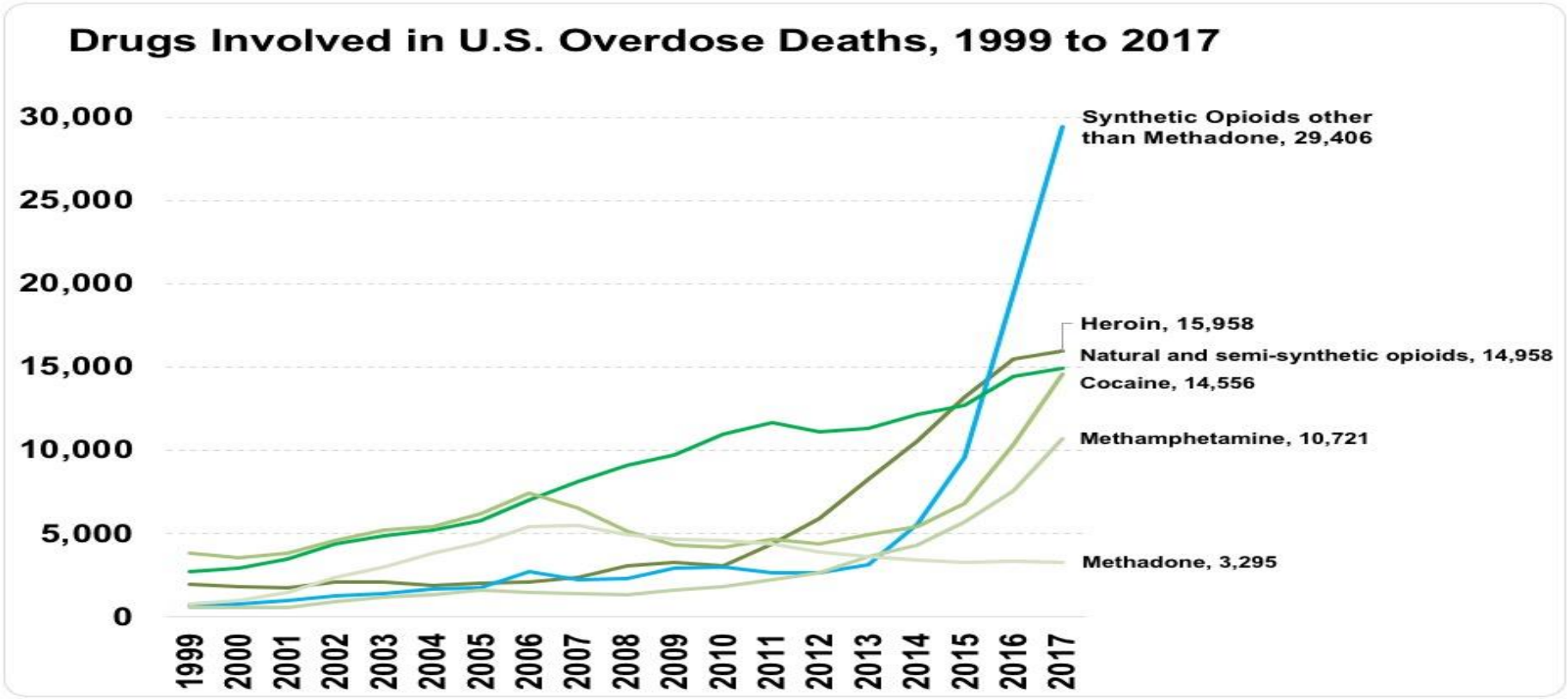


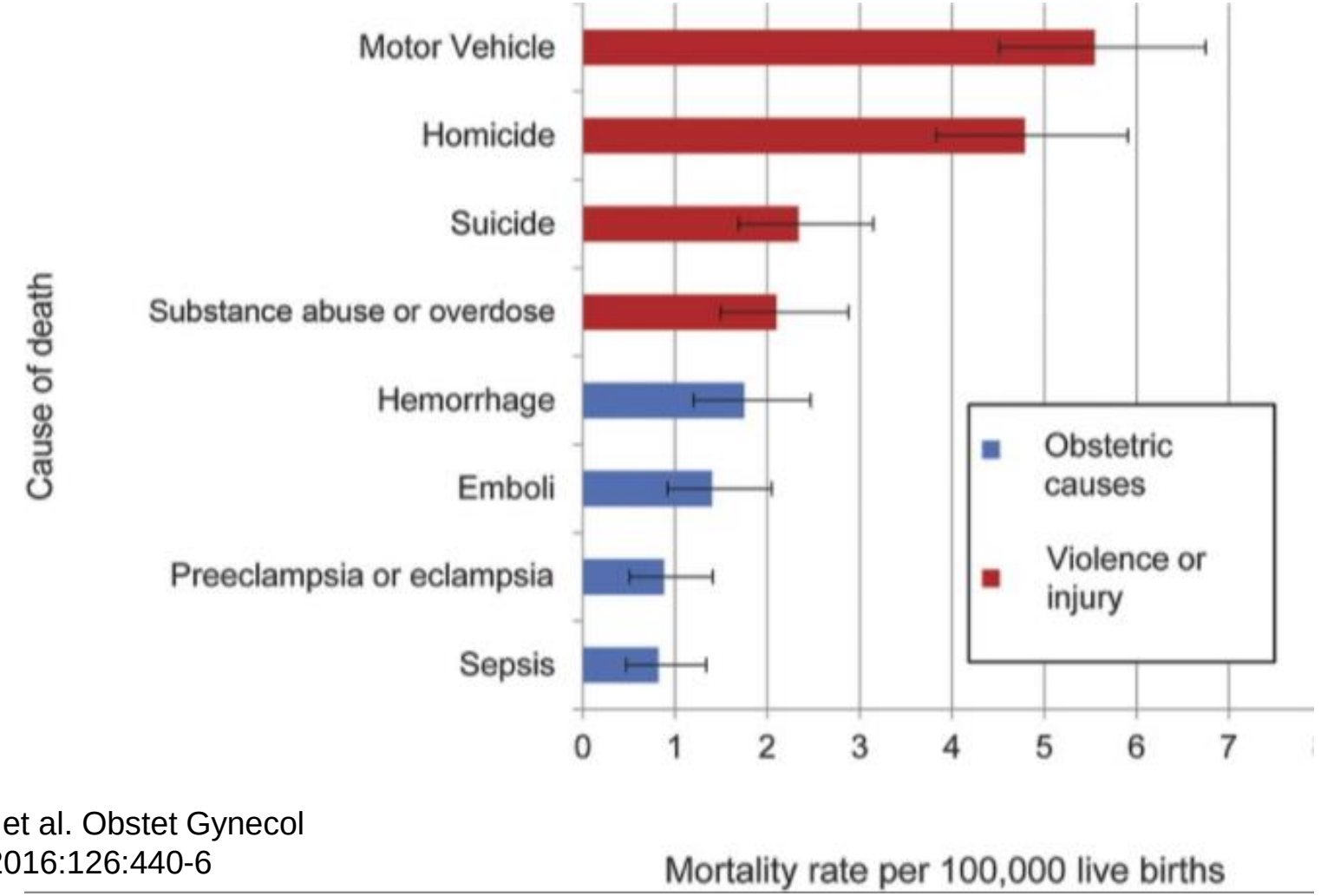
For Perspective, let's Compare Drug-related Deaths to Other Public Health Epidemics…


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
Car crashes (1972)
HIV (1995)
Firearm homicide peak (1993)
Drug overdoses
2017
1968
2015
Source: CDC, NHTSA
The Huffington Post

Multiple Drugs are Involved



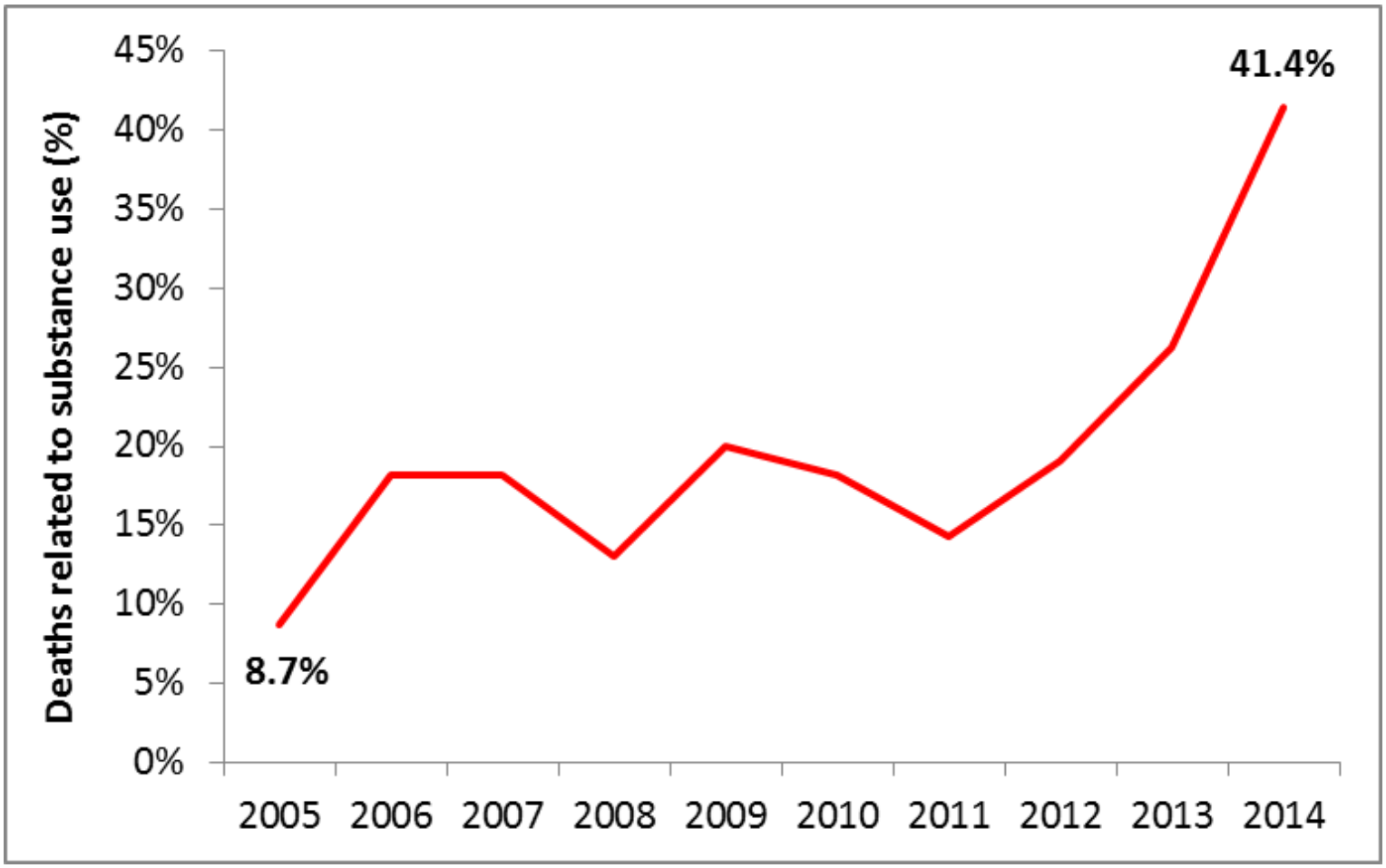
Drug-related Pregnancy-Associated Mortality: Illinois



Koch A et al. Obstet Gynecol 2016:126:440-6

Drug-related Pregnancy-Associated Mortality: Massachusetts

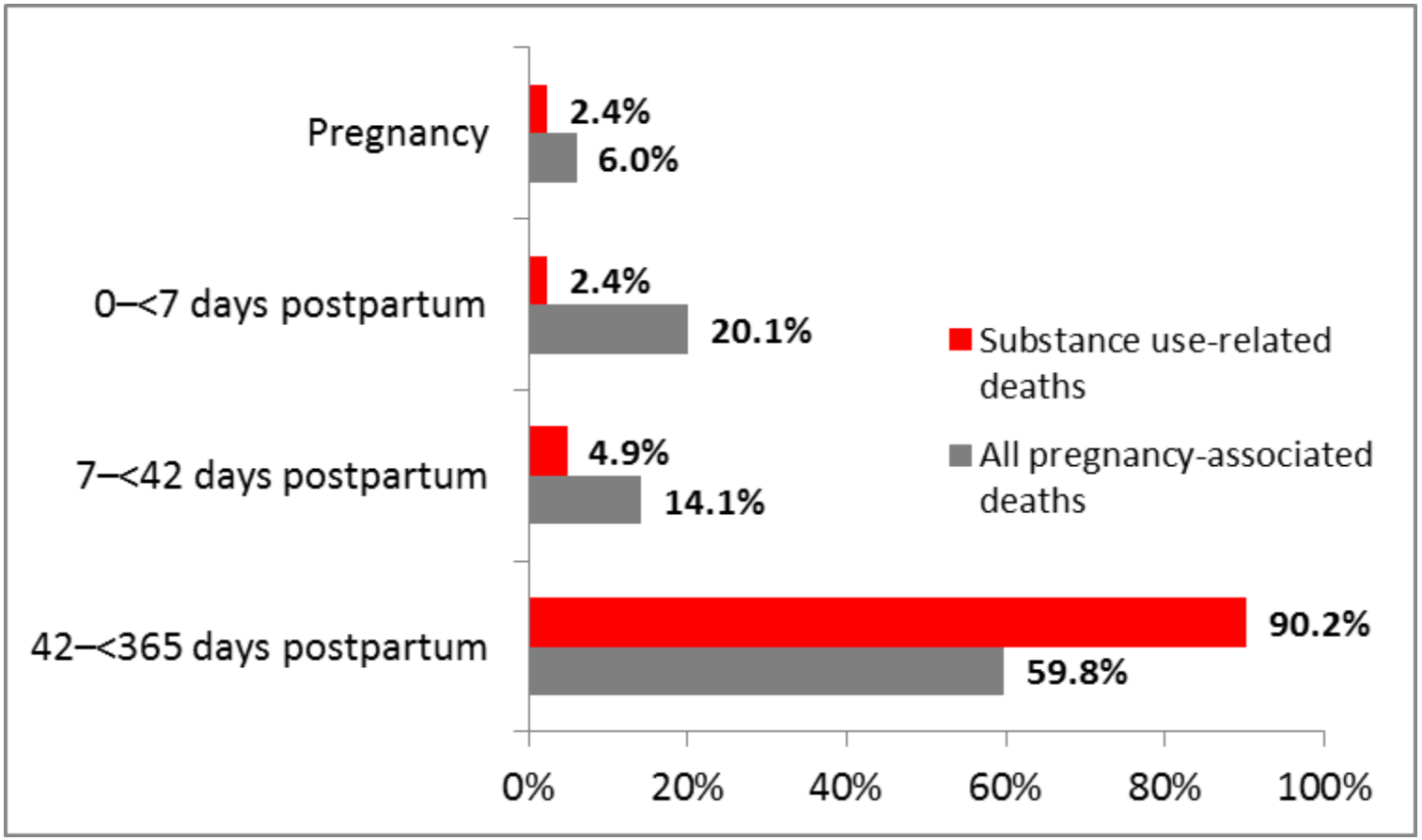
Percent of Pregnancy-Associated Deaths Related to Substance Use by Year



Preliminary Data from Massachusetts DPH, Courtesy Dr. Ronald Iverson

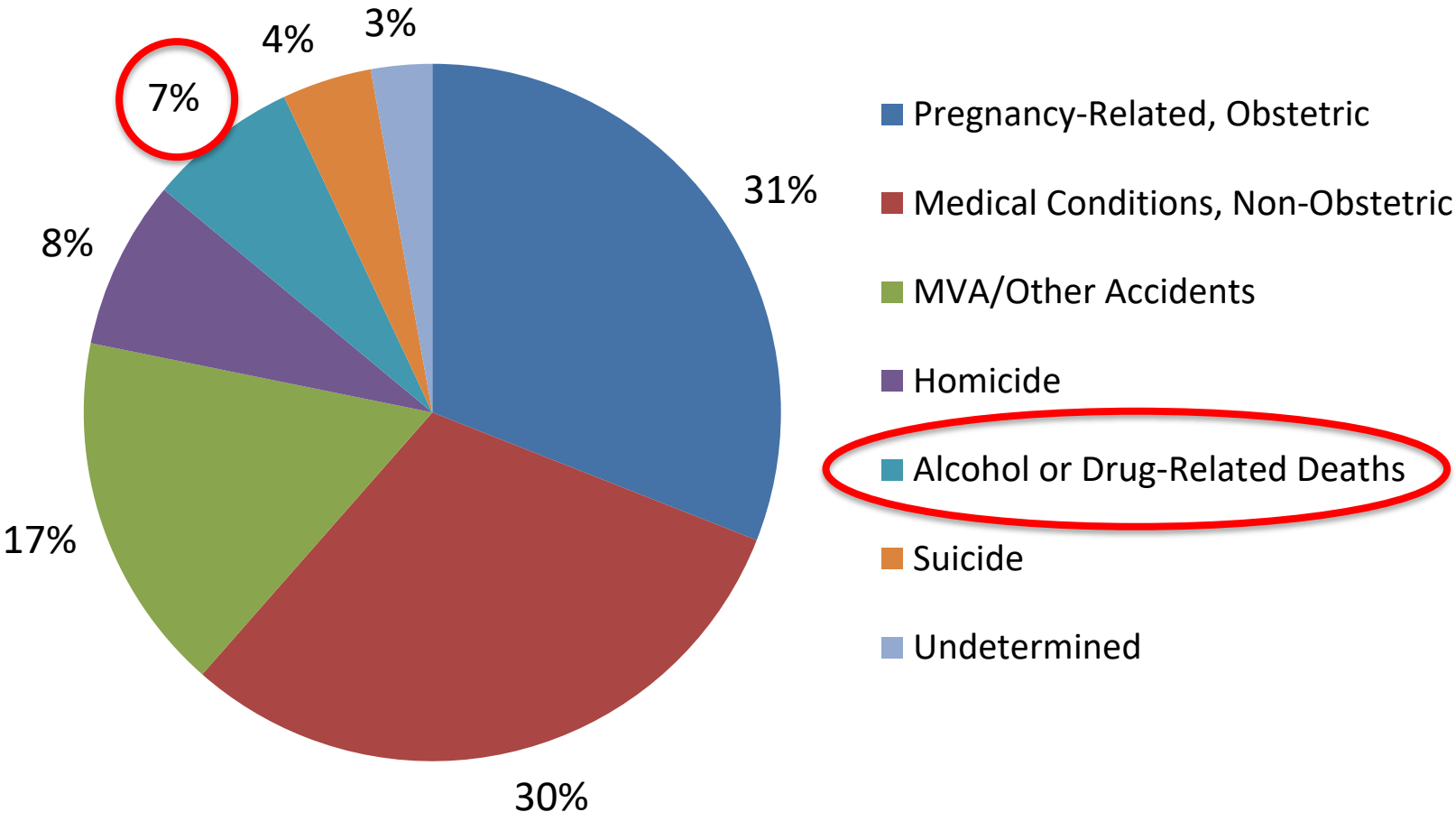
Most Substance-Use Associated Pregnancy Mortality is After Delivery

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



Preliminary Data from Massachusetts DPH, Courtesy Dr. Ronald Iverson

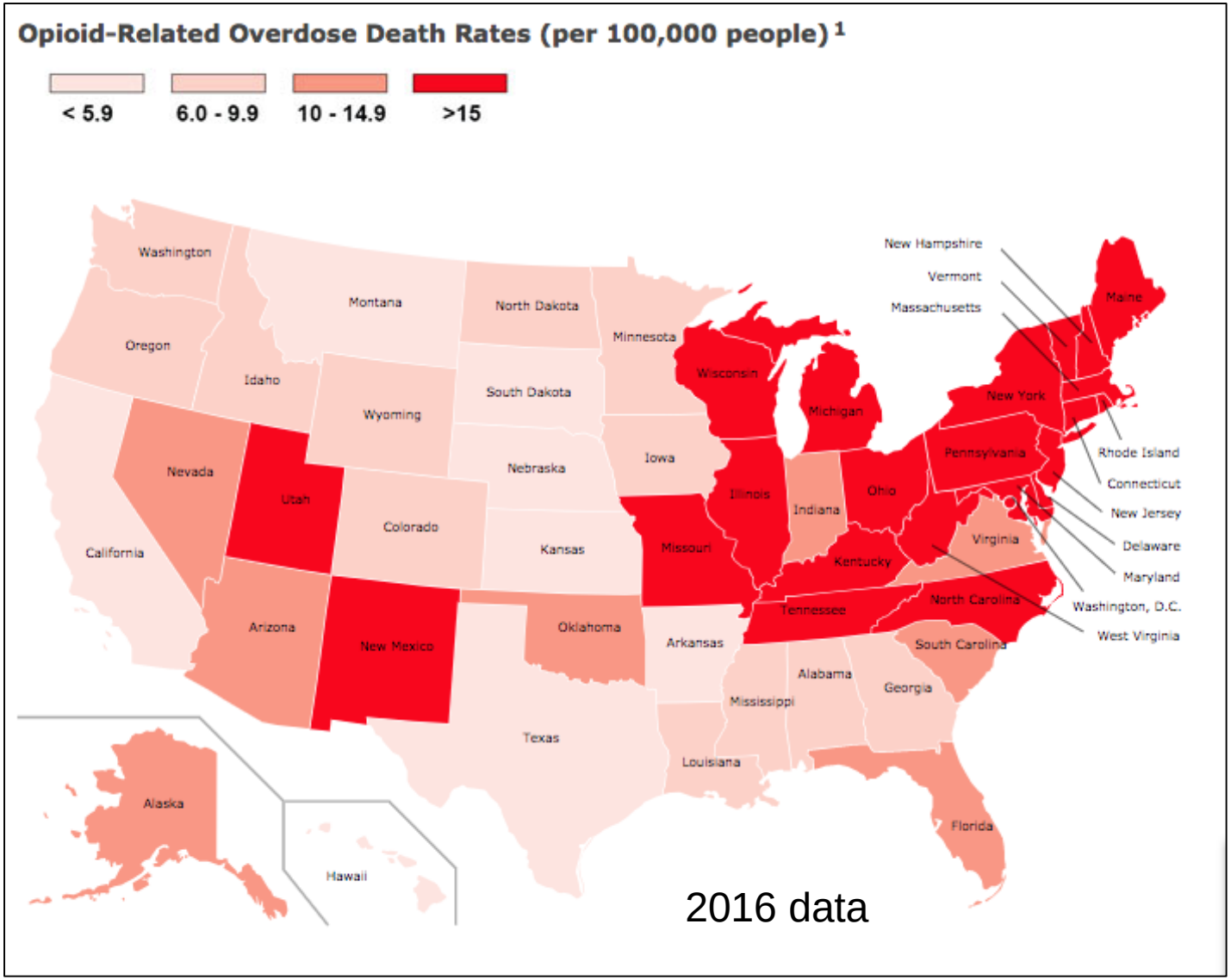
Causes of Pregnancy-Associated Deaths, from the Death Certificate*, California Residents, 2002-2007 (N=1,059)



*prior to case review

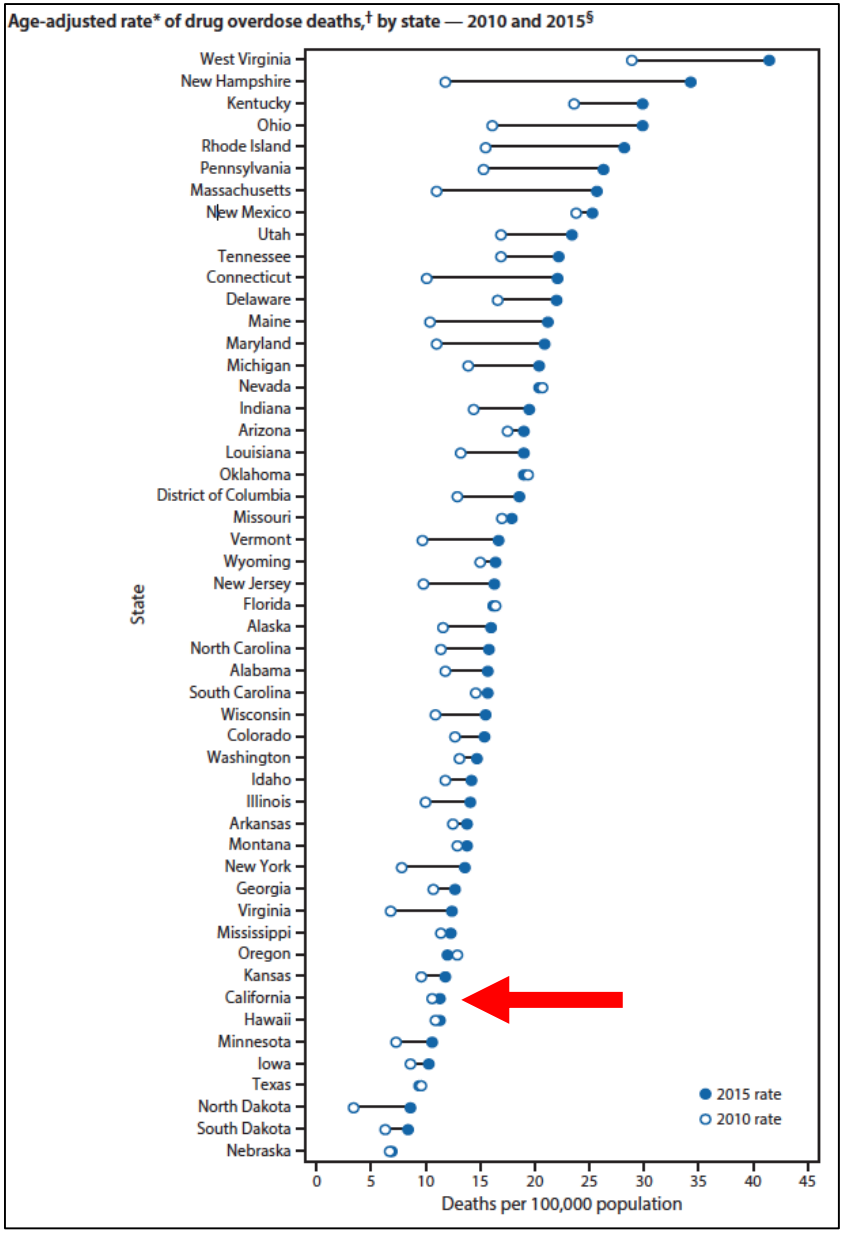
Source: *The California Pregnancy-Associated Mortality Review. Report from 2002-2007 Maternal Death Reviews.* Sacramento: California Department of Public Health, Maternal, Child and Adolescent Health Division. 2018

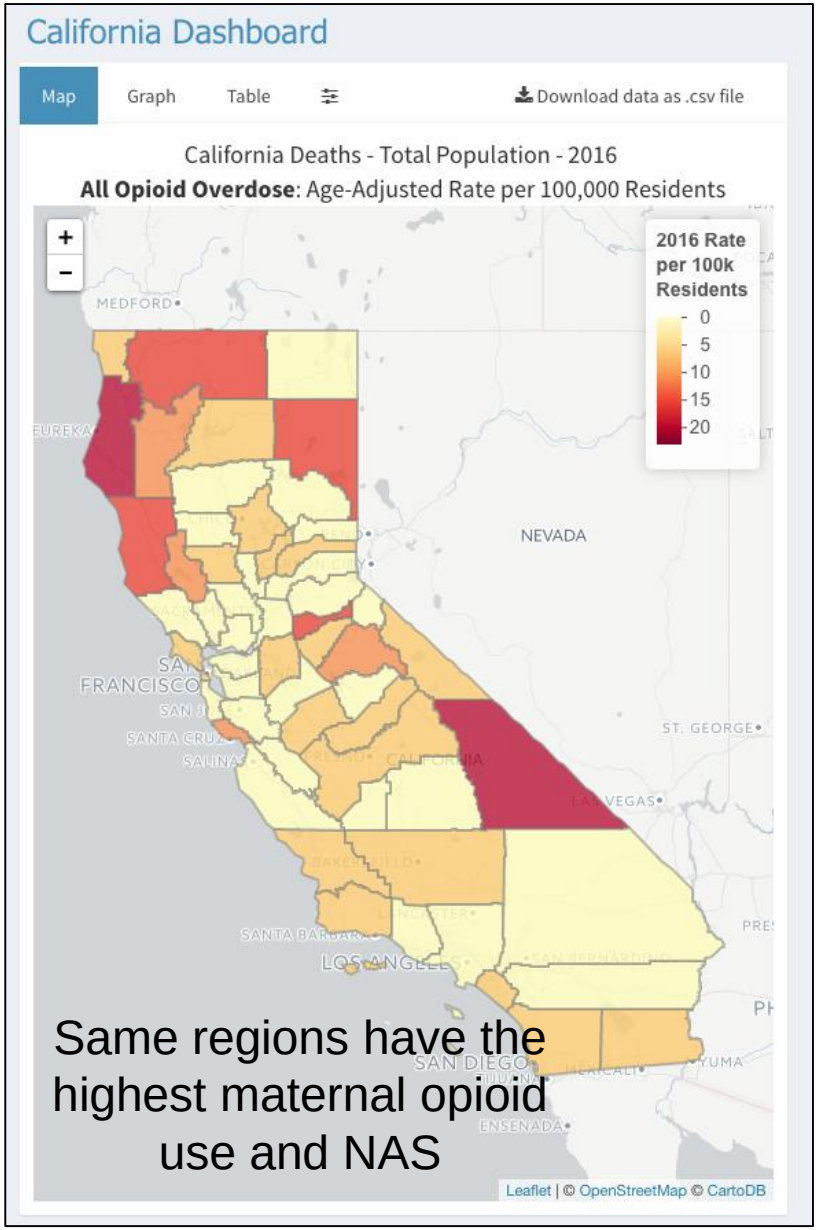
Geography of Opioid Overdose Deaths



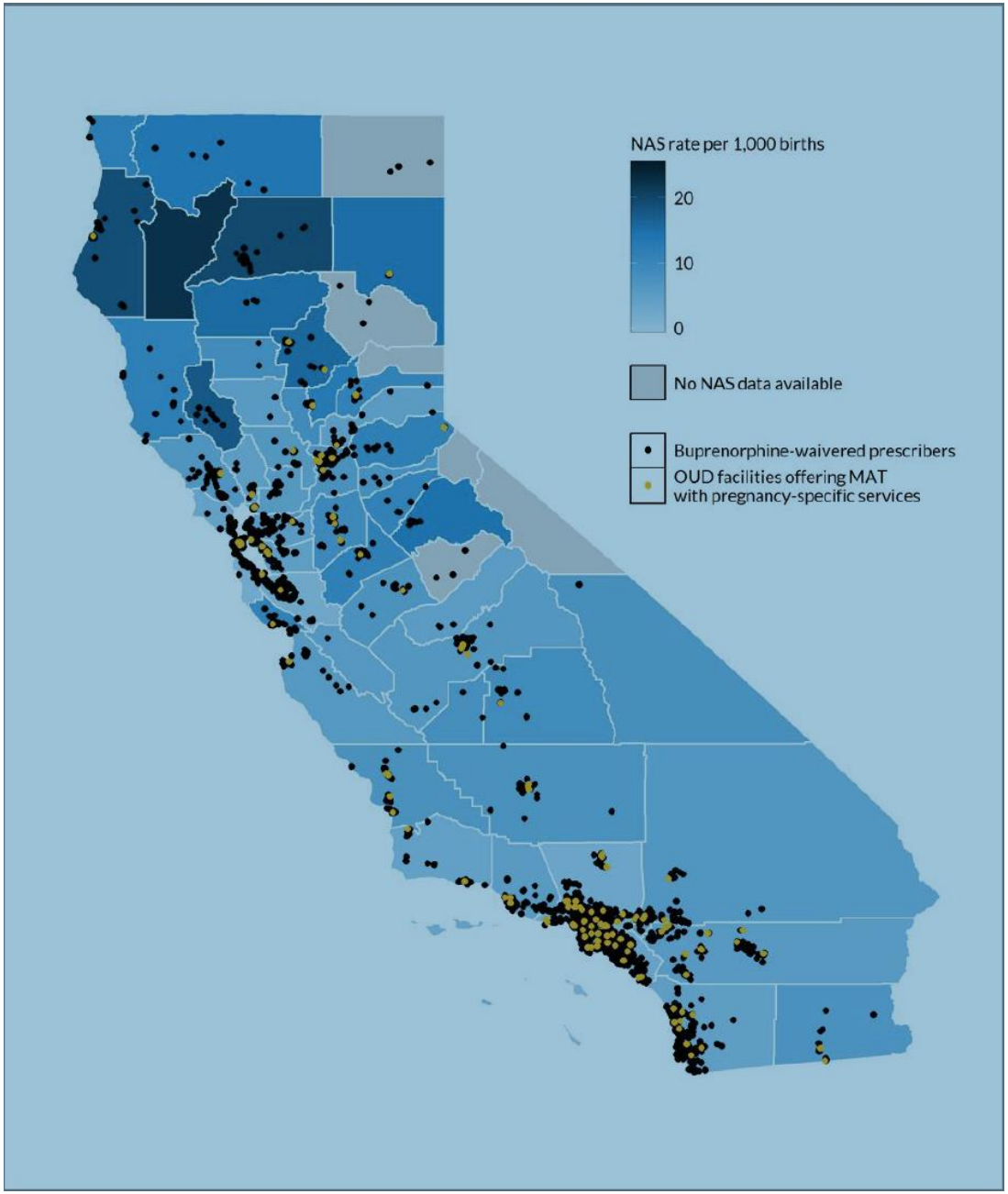
NIH-NIDA: https://www.drugabuse.gov/drugs-abuse/opioids/opioid-summaries-by-state

Geography of Opioid Overdose Deaths





Same regions have the highest maternal opioid use and NAS



NAS Incidence Rates (2005-2016)

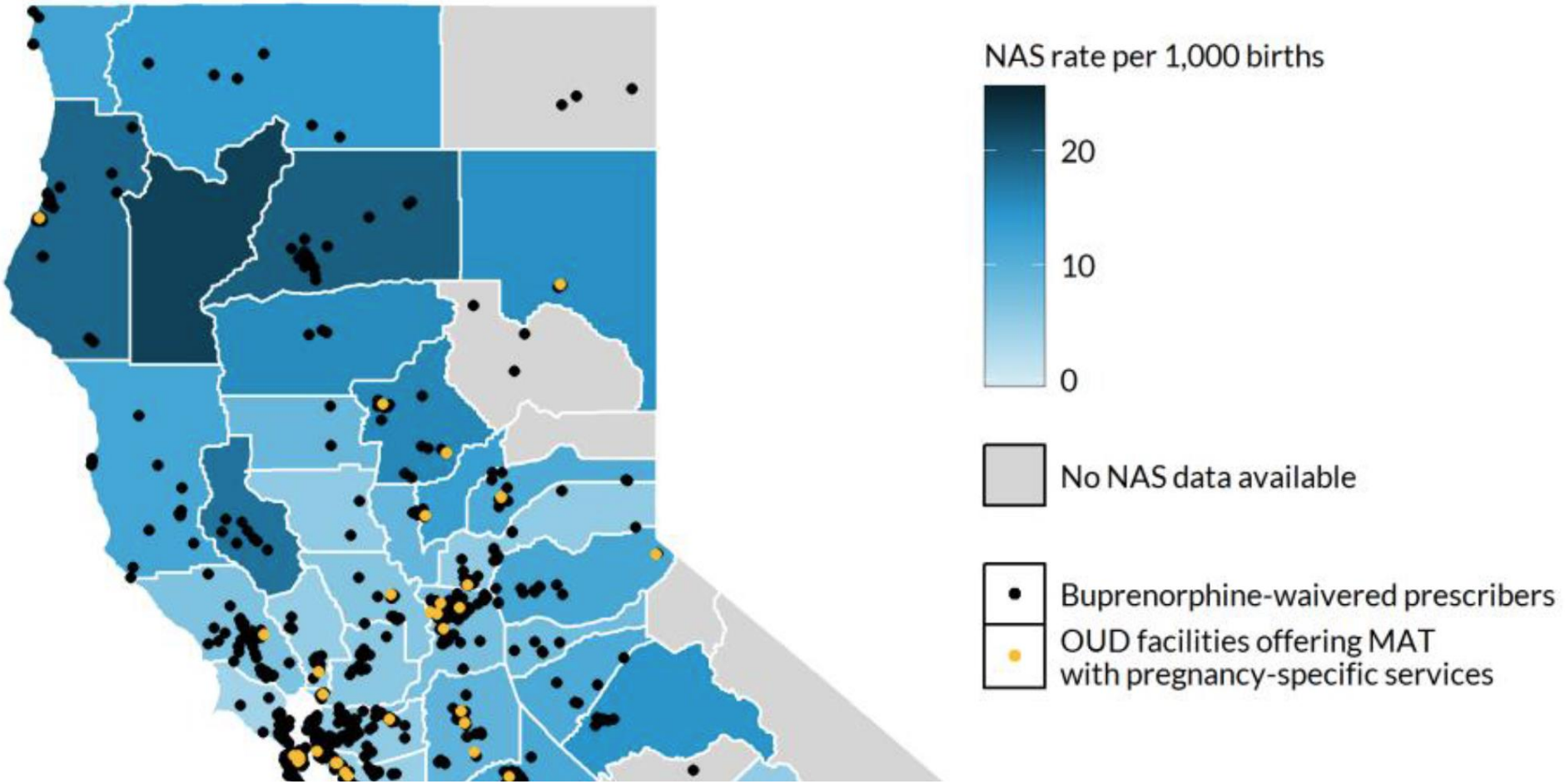
Buprenorphine-Prescriber Locations

OUD Treatment Facilities Offering Pregnancy Services,

by County

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

NAS Incidence Rates (2005-2016): Northern California Counties



Total Livebirths* in Counties Served by Partnership HealthPlan

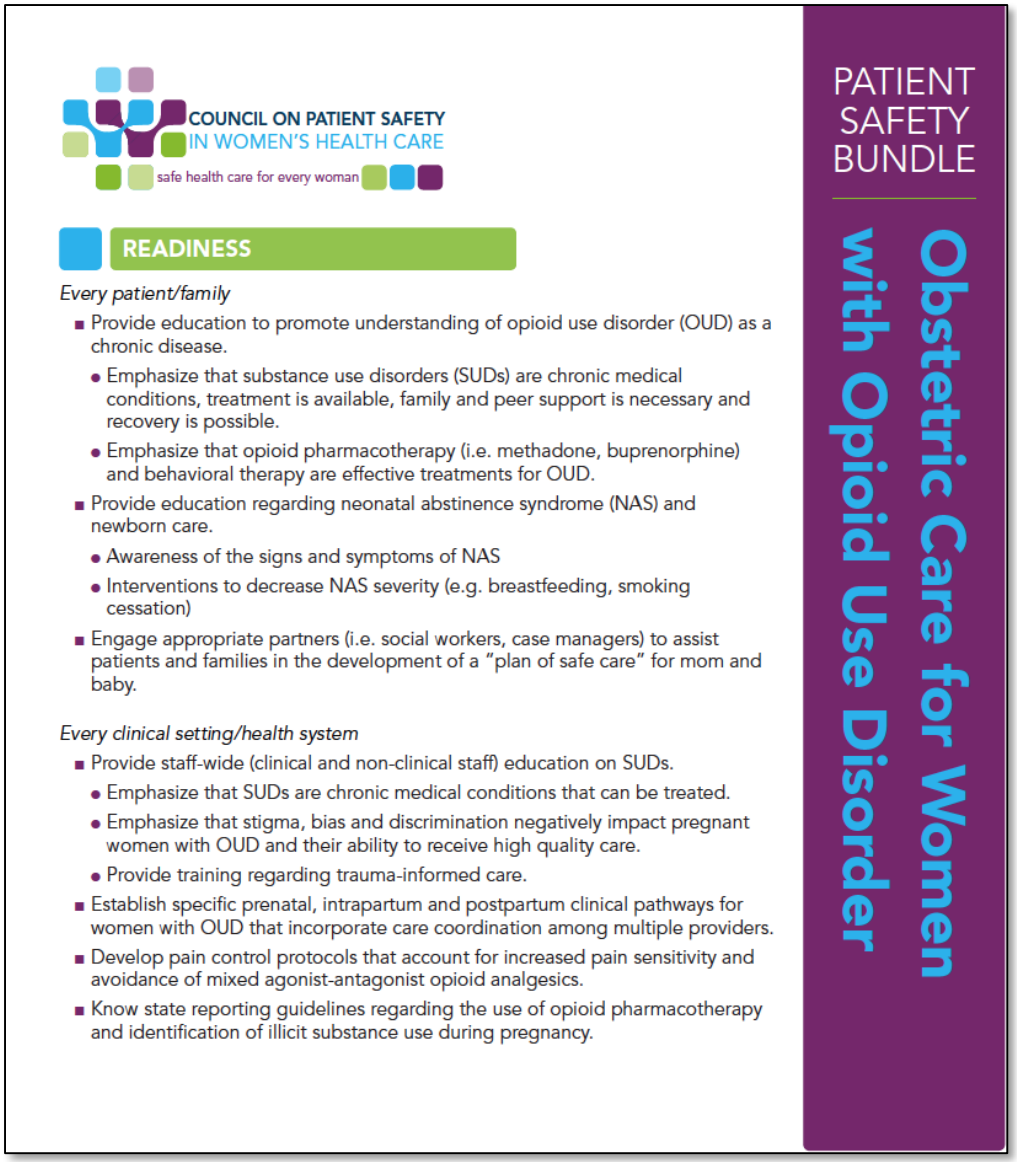
	2017 Live Births
Del Norte	242
Humboldt	1,308
Lake	730
Lassen	246
Marin	2,176
Mendocino	928
Modoc	25
Napa	1,262
Shasta	1,910
Siskiyou	330
Solano	4,740
Sonoma	4,526
Trinity	118
Yolo	2,232
Total	21,148

*By county of residence, from CMQCC MDC based on CDPH preliminary Birth Data

National OB Safety Bundles

- Council on Patient Safety in Women's Health Care
  - Every professional organization involved with women's healthcare (ACOG, AWHONN, ACNM, AAFP, etc)
- Produces multi-disciplinary OB safety bundles:
  - Obstetric Hemorrhage, Hypertension, Prevention of VTE, Prevention of Primary Cesarean Birth
  - Published simultaneously in multiple society journals
- All have similar structure:
  - Readiness: Every clinical setting
  - Recognition and Prevention: Every woman
  - Response: Every woman with Opioid Use Disorder
  - Reporting/System learning: Every clinical setting

Obstetric Care for Women with Opioid Use Disorder



COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE
safe health care for every woman

PATIENT SAFETY BUNDLE

Obstetric Care for Women with Opioid Use Disorder

READINESS

Every patient/family

- Provide education to promote understanding of opioid use disorder (OUD) as a chronic disease.
  - Emphasize that substance use disorders (SUDs) are chronic medical conditions, treatment is available, family and peer support is necessary and recovery is possible.
  - Emphasize that opioid pharmacotherapy (i.e. methadone, buprenorphine) and behavioral therapy are effective treatments for OUD.
- Provide education regarding neonatal abstinence syndrome (NAS) and newborn care.
  - Awareness of the signs and symptoms of NAS
  - Interventions to decrease NAS severity (e.g. breastfeeding, smoking cessation)
- Engage appropriate partners (i.e. social workers, case managers) to assist patients and families in the development of a "plan of safe care" for mom and baby.

Every clinical setting/health system

- Provide staff-wide (clinical and non-clinical staff) education on SUDs.
  - Emphasize that SUDs are chronic medical conditions that can be treated.
  - Emphasize that stigma, bias and discrimination negatively impact pregnant women with OUD and their ability to receive high quality care.
  - Provide training regarding trauma-informed care.
- Establish specific prenatal, intrapartum and postpartum clinical pathways for women with OUD that incorporate care coordination among multiple providers.
- Develop pain control protocols that account for increased pain sensitivity and avoidance of mixed agonist-antagonist opioid analgesics.
- Know state reporting guidelines regarding the use of opioid pharmacotherapy and identification of illicit substance use during pregnancy.

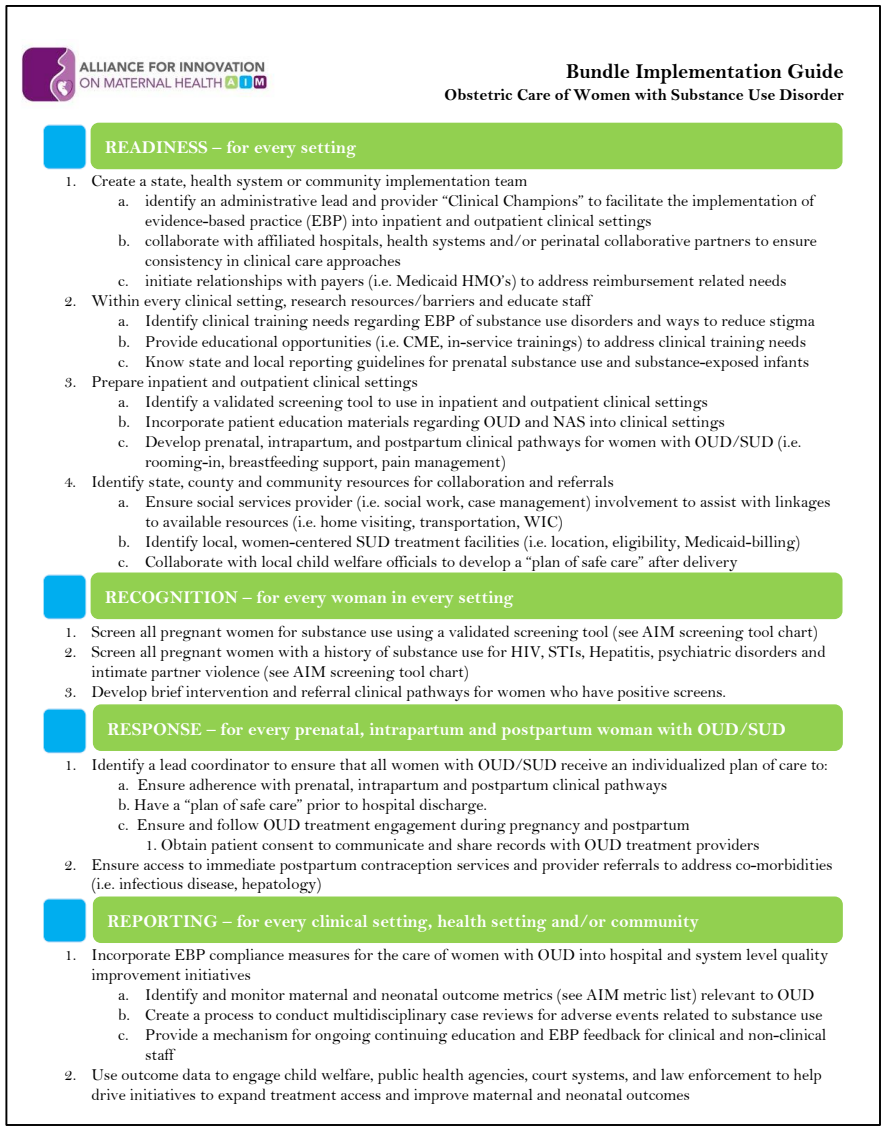
- Released August 2017
- Commentary In Press
- Implemented Nationally by AIM (Alliance for Innovation on Maternal Health)
- National Collaborative is generating more support materials

ALLIANCE FOR INNOVATION ON MATERNAL HEALTH AIM

AIM OB OUD Bundle Goals

- **Improve** identification and care of women with OUD through screening and linkage to treatment
- **Optimize** Medical Care of Pregnant Women with OUD
- **Increase** access to MAT for pregnant and postpartum women with OUD
- **Prevent** opioid use disorder by reducing the number of opioids prescribed for deliveries
- **Optimize** the care of Opioid Exposed Newborns by improving maternal engagement in infant management (maintain the mother-infant dyad)

First Step: Form a Local Team



ALLIANCE FOR INNOVATION ON MAINTERNAL HEALTH AIM

Bundle Implementation Guide
Obstetric Care of Women with Substance Use Disorder

READINESS – for every setting

1. Create a state, health system or community implementation team
   a. identify an administrative lead and provider "Clinical Champions" to facilitate the implementation of evidence-based practice (EBP) into inpatient and outpatient clinical settings
   b. collaborate with affiliated hospitals, health systems and/or perinatal collaborative partners to ensure consistency in clinical care approaches
   c. initiate relationships with payers (i.e. Medicaid HMO's) to address reimbursement related needs
2. Within every clinical setting, research resources/barriers and educate staff
   a. Identify clinical training needs regarding EBP of substance use disorders and ways to reduce stigma
   b. Provide educational opportunities (i.e. CME, in-service trainings) to address clinical training needs
   c. Know state and local reporting guidelines for prenatal substance use and substance-exposed infants
3. Prepare inpatient and outpatient clinical settings
   a. Identify a validated screening tool to use in inpatient and outpatient clinical settings
   b. Incorporate patient education materials regarding OUD and NAS into clinical settings
   c. Develop prenatal, intrapartum, and postpartum clinical pathways for women with OUD/SUD (i.e. rooming-in, breastfeeding support, pain management)
4. Identify state, county and community resources for collaboration and referrals
   a. Ensure social services provider (i.e. social work, case management) involvement to assist with linkages to available resources (i.e. home visiting, transportation, WIC)
   b. Identify local, women-centered SUD treatment facilities (i.e. location, eligibility, Medicaid-billing)
   c. Collaborate with local child welfare officials to develop a "plan of safe care" after delivery

RECOGNITION – for every woman in every setting

1. Screen all pregnant women for substance use using a validated screening tool (see AIM screening tool chart)
2. Screen all pregnant women with a history of substance use for HIV, STIs, Hepatitis, psychiatric disorders and intimate partner violence (see AIM screening tool chart)
3. Develop brief intervention and referral clinical pathways for women who have positive screens.

RESPONSE – for every prenatal, intrapartum and postpartum woman with OUD/SUD

1. Identify a lead coordinator to ensure that all women with OUD/SUD receive an individualized plan of care to:
   a. Ensure adherence with prenatal, intrapartum and postpartum clinical pathways
   b. Have a "plan of safe care" prior to hospital discharge.
   c. Ensure and follow OUD treatment engagement during pregnancy and postpartum
      1. Obtain patient consent to communicate and share records with OUD treatment providers
2. Ensure access to immediate postpartum contraception services and provider referrals to address co-morbidities (i.e. infectious disease, hepatology)

REPORTING – for every clinical setting, health setting and/or community

1. Incorporate EBP compliance measures for the care of women with OUD into hospital and system level quality improvement initiatives
   a. Identify and monitor maternal and neonatal outcome metrics (see AIM metric list) relevant to OUD
   b. Create a process to conduct multidisciplinary case reviews for adverse events related to substance use
   c. Provide a mechanism for ongoing continuing education and EBP feedback for clinical and non-clinical staff
2. Use outcome data to engage child welfare, public health agencies, court systems, and law enforcement to help drive initiatives to expand treatment access and improve maternal and neonatal outcomes

Bundle Implementation Guide is Very Helpful

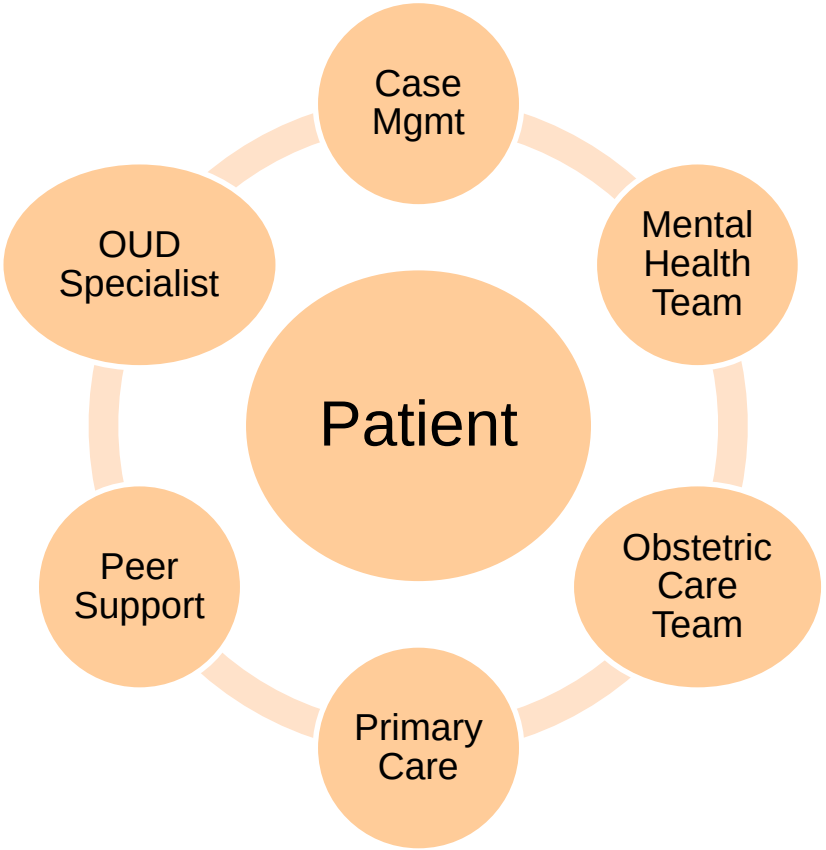
Pregnant Women are the group with the greatest engagement for treatment and behavior change

READINESS

Provide clinical and non-clinical staff education on SUDs	▪ SUDs are chronic medical conditions. ▪ Stigma, bias and discrimination negatively impact pregnant women with OUD. ▪ Provide training regarding trauma-informed care.
Trauma-Informed Care	▪ **Understand** the neurobiology of trauma ▪ **Recognize** the signs and symptoms of trauma in patients and families ▪ **Screen** for physical and sexual violence ▪ **Coordinate** care with behavioral health/psychiatric care teams ▪ **Prevent** re-traumatization

READINESS

Learn the Resources Available in Your Community



READINESS

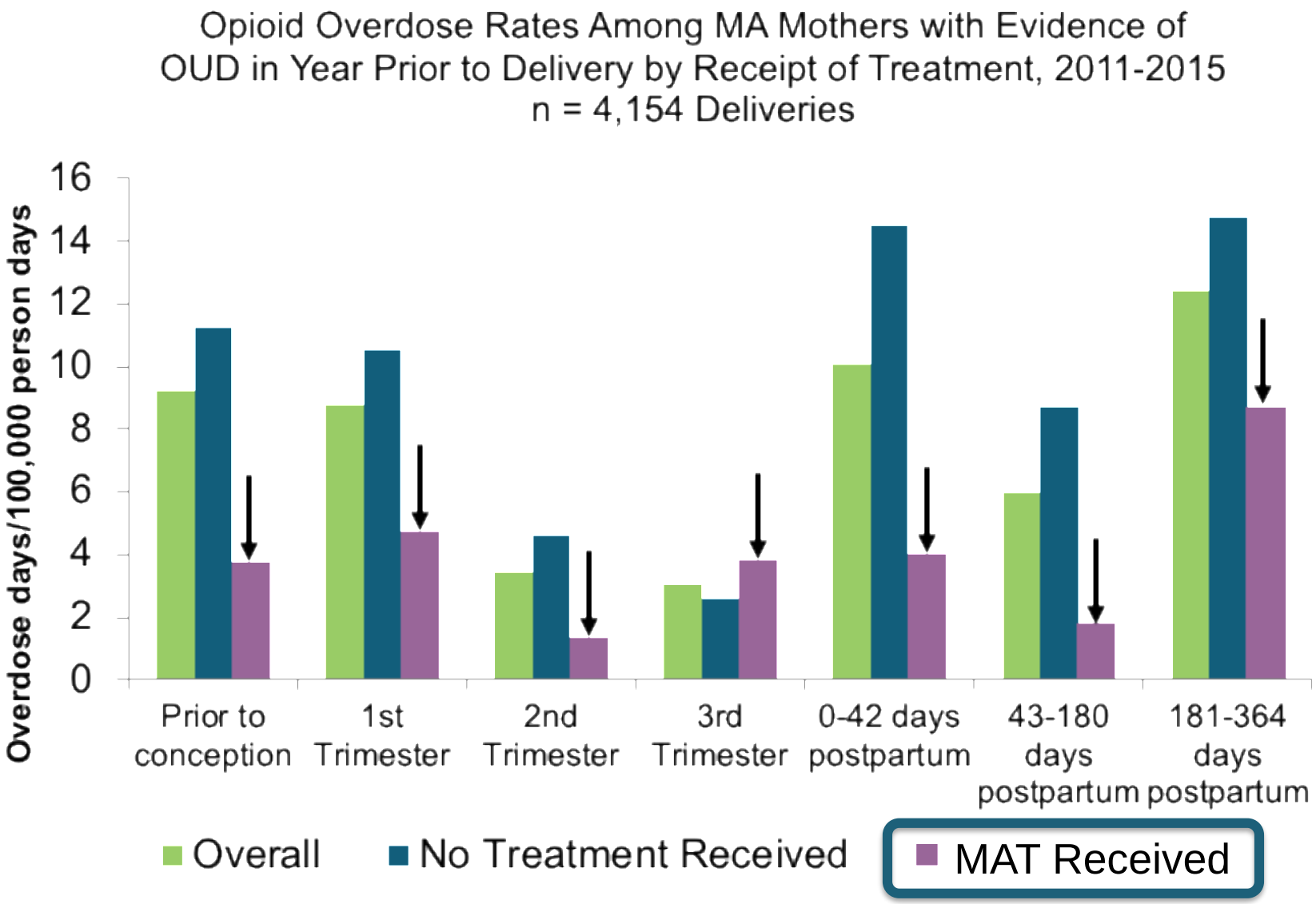
Identify local SUD treatment facilities	▪ Provide women-centered care. ▪ Wrap-around services such as housing, child care, transportation and home visitation. ▪ Drug and alcohol counseling.
Know	▪ State reporting guidelines regarding the use of opioid pharmacotherapy and identification of illicit substance use during pregnancy. ▪ Federal, state and county reporting guidelines for substance-exposed infants. ▪ Understand “Plan of Safe Care” requirements.
Develop pain control protocols	▪ Account for increased pain sensitivity and avoidance of mixed agonist-antagonist opioid analgesics. ▪ Order sets. ▪ Remove agonist/antagonists from Pyxis.

READINESS

For OUD Patient and family

OUD education	▪ Medication Assisted Therapy (MAT) and behavioral therapy is recommended. ▪ Family and peer support is necessary. ▪ Recovery is possible.
NAS education	▪ Signs/symptoms of NAS. ▪ Neonatal consult pre-delivery. ▪ Plan for breastfeeding. ▪ Plan for rooming in. ▪ Eat Sleep Console

MAT Reduces Maternal Overdoses



Preliminary Data from Massachusetts DPH, Courtesy Dr. Ronald Iverson

READINESS

For OUD Patient and family

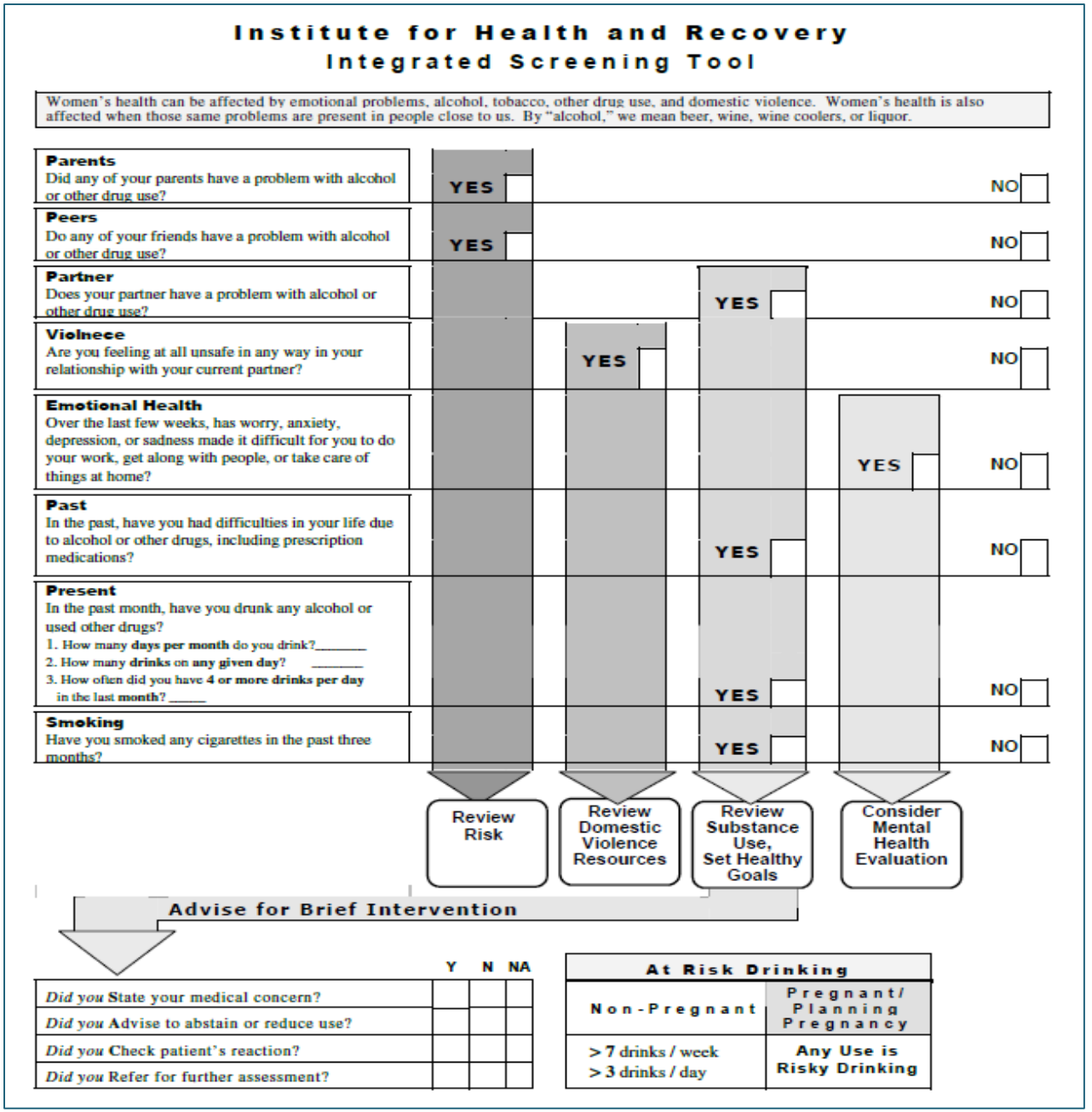
Develop a "plan of safe care" for mom & baby	▪ Child Abuse Prevention and Treatment Act (CAPTA) ▪ Ensure the safety and well-being of infants affected by substance use following release from health care providers.

RECOGNITION & PREVENTION

Assess all pregnant women for SUDs	▪ Drug and alcohol use. ▪ Screening, Brief Intervention and Referral to Treatment (**SBIRT**) ▪ Screen for polysubstance use among women with OUD.
Screening Tools	▪ Many options—no strong evidence that one is best ▪ 4P+ or 5 P's are among the most common ▪ **SBIRT: S**creening, **B**rief **I**ntervention, **R**efer to **T**reatment

The 5 P's

- Parents
- Peers
- Partner
- Past
- Present



Institute for Health and Recovery
Integrated Screening Tool

Women's health can be affected by emotional problems, alcohol, tobacco, other drug use, and domestic violence. Women's health is also affected when those same problems are present in people close to us. By "alcohol," we mean beer, wine, wine coolers, or liquor.

Parents
Did any of your parents have a problem with alcohol or other drug use? YES NO

Peers
Do any of your friends have a problem with alcohol or other drug use? YES NO

Partner
Does your partner have a problem with alcohol or other drug use? YES NO

Violence
Are you feeling at all unsafe in any way in your relationship with your current partner? YES NO

Emotional Health
Over the last few weeks, has worry, anxiety, depression, or sadness made it difficult for you to do your work, get along with people, or take care of things at home? YES NO

Past
In the past, have you had difficulties in your life due to alcohol or other drugs, including prescription medications? YES NO

Present
In the past month, have you drunk any alcohol or used other drugs? YES NO
1. How many **days per month** do you drink?_____
2. How many **drinks on any given day**? _____
3. How often did you have **4 or more drinks per day** in the last **month**? _____

Smoking
Have you smoked any cigarettes in the past three months? YES NO

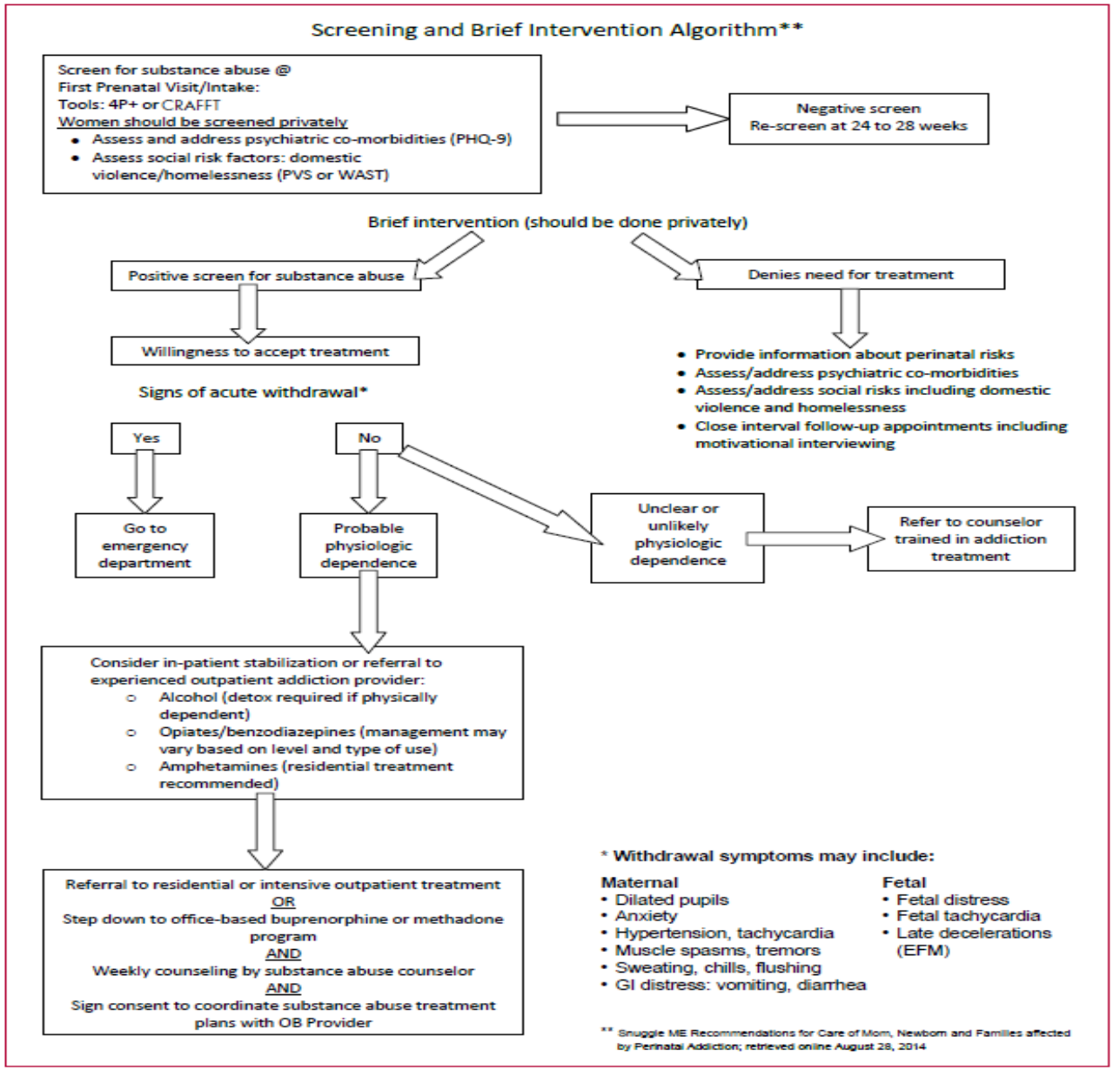
Review Risk | Review Domestic Violence Resources | Review Substance Use, Set Healthy Goals | Consider Mental Health Evaluation

Advise for Brief Intervention

	Y	N	NA
Did you State your medical concern?			
Did you Advise to abstain or reduce use?			
Did you Check patient's reaction?			
Did you Refer for further assessment?			

At Risk Drinking	
Non-Pregnant	Pregnant/ Planning Pregnancy
> 7 drinks / week > 3 drinks / day	Any Use is Risky Drinking

Screening, Brief Intervention Refer to Treatment



https://here.doh.wa.gov/portals/14/Materials/950-135-PregSubs-en-L.pdf

RESPONSE

Medication Assisted Treatment (MAT)

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)

For pregnant women with an opioid use disorder, opioid agonist pharmacotherapy is the recommended therapy and is preferable to medically supervised withdrawal because withdrawal is associated with high relapse rates, which lead to worse outcomes. More research is needed to assess the safety (particularly regarding maternal relapse), efficacy, and long-term outcomes of medically supervised withdrawal.

RESPONSE

All patients with OUD are enrolled in a woman-centered OUD treatment program	▪ Establish clinic relationships. ▪ Link to local resources that support recovery.
Incorporate key counseling, education and resources into care pathways	▪ Breastfeeding and lactation support. ▪ Immediate postpartum contraceptive (LARC) options. ▪ Pain management strategies ▪ Infant care

RESPONSE

Breastfeeding and Childcare Resources

CHILDBIRTH, BREASTFEEDING AND INFANT CARE:

Methadone and Buprenorphine

Are you pregnant, taking methadone or buprenorphine, and want to know how this may affect your delivery, ability to breastfeed, or your newborn?

Or are you a pregnant woman using heroin or prescription opioids and considering treatment with methadone or buprenorphine?

HOW SHOULD I PREPARE FOR DELIVERY?

- Choosing a doctor and hospital with experience in methadone and buprenorphine during labor and delivery can be helpful.
- Select a doctor for your baby *(a pediatrician or family physician)* and meet before delivery to talk about the care of your baby.
- Find out whether you can tour the nursery before your baby is born to learn about how the nursery cares for opioid exposed infants.

WHAT ABOUT PAIN RELIEF DURING AND AFTER DELIVERY?

- Your usual daily methadone or buprenorphine dose will not treat pain.
- Discuss pain control for childbirth and after delivery with your physician during prenatal care.
- Meet with the anesthesia doctor to discuss your labor and delivery pain. This meeting can happen before labor or early in labor.
- If you are having a planned cesarean delivery or have one after labor, discuss postoperative pain.
- The doctors on Labor and Delivery MUST know that you are taking methadone or buprenorphine so that you are not given labor pain medications such as Stadol and Nubain which can cause withdrawal in women taking methadone or buprenorphine.

WHAT ABOUT CHILD PROTECTIVE SERVICES?

- Many babies and mothers get tested for drugs and alcohol at delivery -- this might include methadone and buprenorphine
- Having a positive drug test, even if it's for prescribed medications, may mean that social workers or a child protection agency will want to talk to you and your family.
- A child services worker may come to your home to see how safe the environment is for your baby.
- Please talk to your doctor and other health care providers about the child protection laws in your state.

HOW DOES OPIOID WITHDRAWAL AFFECT THE BABY AFTER DELIVERY?

- After delivery, the baby no longer receives nutrients and medications such as buprenorphine and methadone from the mother's bloodstream. Your baby may develop withdrawal – called Neonatal Abstinence Syndrome (NAS).
- Not all babies born to moms on methadone or buprenorphine develop NAS.
- Each baby shows withdrawal differently. The following are some of the most common signs in opioid exposed babies:

Tremors or shakes	*Crying*	*Frequent yawning*
Poor feeding/sucking	*Sleep problems*	*Stuffy nose*
Fever	*Sneezing*	*Tight muscles*
Vomiting	*Diarrhea*	*Loose stool (poop)*

- These signs may happen from birth to 7 days after delivery and can last days, weeks, or months.
- Your baby may need medication to treat these symptoms and make the baby feel better. The baby's dose will then be decreased over time, until the symptoms have stopped.
- Your baby may be watched for four or five days in the hospital to see if medication will be needed.
- If a baby has NAS, it does not mean that he or she will have long-term problems.

CAN I BREASTFEED IF I AM TAKING BUPRENORPHINE OR METHADONE?

- Breastfeeding is usually encouraged for women who are taking methadone or buprenorphine, except in some cases.
- Breastfeeding is not safe for women those with HIV, taking certain medicines that are not safe in breastfeeding, or who are actively using street drugs.
- Only very small amounts of methadone and buprenorphine get into the baby's blood and may help lessen the symptoms of NAS.

HOW WILL HAVING A NEWBORN AFFECT MY RECOVERY?

- The weeks and months after the baby is born can be a stressful time for women in recovery. Be sure to continue counseling, and use parenting support programs.
- Do not make a decision to stop your opioid medication too quickly or too soon because this increases the risk of relapse.
- It is important to discuss decisions about your medication with your doctors and your counselors. *For further information, please see brochure Pregnancy and Methadone and Buprenorphine.*

http://pcssmat.org/wp-content/uploads/2013/10/ASAM-WAGBrochure-Opioid-Labor

RESPONSE

Coordinate among providers during pregnancy, postpartum and the inter-conception period	▪ Referrals to providers for co-morbid conditions. ▪ Lead provider responsible for care coordination. ▪ Communication strategy.
Engage child welfare services	▪ Develop safe care protocols tailored to the patient and family's OUD treatment and resource needs.

REPORTING & SYSTEMS LEARNING

Develop mechanisms to collect data and monitor process and outcome metrics	▪ Inpatient and outpatient ▪ Data dashboard measures – Outcome – Process
Create multidisciplinary case review teams	▪ Evaluate patient, provider and system-level issues.
Develop learning opportunities for providers and staff	▪ Use data and events to educate teams

AIM OPIOID Measures

- Outcome Measures
  - Pregnancy Associated Opioid Deaths (state data)
  - Average length of stay for newborns with Neonatal Abstinence Syndrome (NAS)
- Process Measures
  - Percent of women with OUD during pregnancy who receive medication assisted treatment MAT or behavioral health treatment
  - Percent of OEN receiving mother's milk at newborn discharge
  - Percent of OEN who go home to biological mother

AIM OPIOID Measures

- Structure Measures
  - Has your hospital implemented a universal screening protocol for OUD?
  - Percent of affiliated Prenatal Care Sites which have implemented a universal screening protocol for OUD
  - Has your hospital implemented post-delivery and discharge pain management prescribing practices for routine vaginal and cesarean births focused on limiting opioid prescriptions?
  - Has your hosptial implemented specific pain management and opioid prescribing guidelines for OUD patients?

Links to Key Resources

- Download the Bundle: https://safehealthcareforeverywoman.org/patient-safety-bundles/obstetric-care-for-women-with-opioid-use-disorder/
- Complete Bundle Resource List: https://safehealthcareforeverywoman.org/wp-content/uploads/2017/08/Obstetric-Care-for-Women-with-Opioid-Use-Disorder-Bundle_Resource-Listing.pdf
- National AIM Collaborative on OUD Implementation Resources: *GREAT STUFF* https://safehealthcareforeverywoman.org/national-collaborative-on-maternal-oud/oud-resources/

National AIM Collaborative on OUD

RESOURCES

AIM Opioid Collaborative Chart

A visual aid linking opioid collaborative goals to corresponding key drivers, interventions, resource links, and metrics. Click here.

AIM Opioid Implementation Guide

AIM Opioid Screening Tool Chart

AIM Neonatal Abstinence Syndrome Slides

AIM Screening Slides

AIM "Questions for States to Consider"

AIM Opioid Use Disorder Chart Checklist

AIM Opioid Metrics

Additional Resources

ALLIANCE FOR INNOVATION ON MATERNAL HEALTH AIM

Bundle Implementation Guide

Obstetric Care of Women with Substance Use Disorder

READINESS – for every setting

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    a. identify an administrative lead and provider "Clinical Champions" to facilitate the implementation of evidence-based practice (EBP) into inpatient and outpatient clinical settings
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    c. initiate relationships with payers (i.e. Medicaid HMO's) to address reimbursement related needs
2. Within every clinical setting, research resources/barriers and educate staff
    a. Identify clinical training needs regarding EBP of substance use disorders and ways to reduce stigma
    b. Provide educational opportunities (i.e. CME, in-service trainings) to address clinical training needs
    c. Know state and local reporting guidelines for prenatal substance use and substance-exposed infants
3. Prepare inpatient and outpatient clinical settings
    a. Identify a validated screening tool to use in inpatient and outpatient clinical settings
    b. Incorporate patient education materials regarding OUD and NAS into clinical settings
    c. Develop prenatal, intrapartum, and postpartum clinical pathways for women with OUD/SUD (i.e. rooming-in, breastfeeding support, pain management)
4. Identify state, county and community resources for collaboration and referrals
    a. Ensure social services provider (i.e. social work, case management) involvement to assist with linkages to available resources (i.e. home visiting, transportation, WIC)
    b. Identify local, women-centered SUD treatment facilities (i.e. location, eligibility, Medicaid-billing)
    c. Collaborate with local child welfare officials to develop a "plan of safe care" after delivery

RECOGNITION – for every woman in every setting

1. Screen all pregnant women for substance use using a validated screening tool (see AIM screening tool chart)
2. Screen all pregnant women with a history of substance use for HIV, STIs, Hepatitis, psychiatric disorders and intimate partner violence (see AIM screening tool chart)
3. Develop brief intervention and referral clinical pathways for women who have positive screens.

RESPONSE – for every prenatal, intrapartum and postpartum woman with OUD/SUD

1. Identify a lead coordinator to ensure that all women with OUD/SUD receive an individualized plan of care to:
    a. Ensure adherence with prenatal, intrapartum and postpartum clinical pathways
    b. Have a "plan of safe care" prior to hospital discharge.
    c. Ensure and follow OUD treatment engagement during pregnancy and postpartum
        1. Obtain patient consent to communicate and share records with OUD treatment providers
2. Ensure access to immediate postpartum contraception services and provider referrals to address co-morbidities (i.e. infectious disease, hepatology)

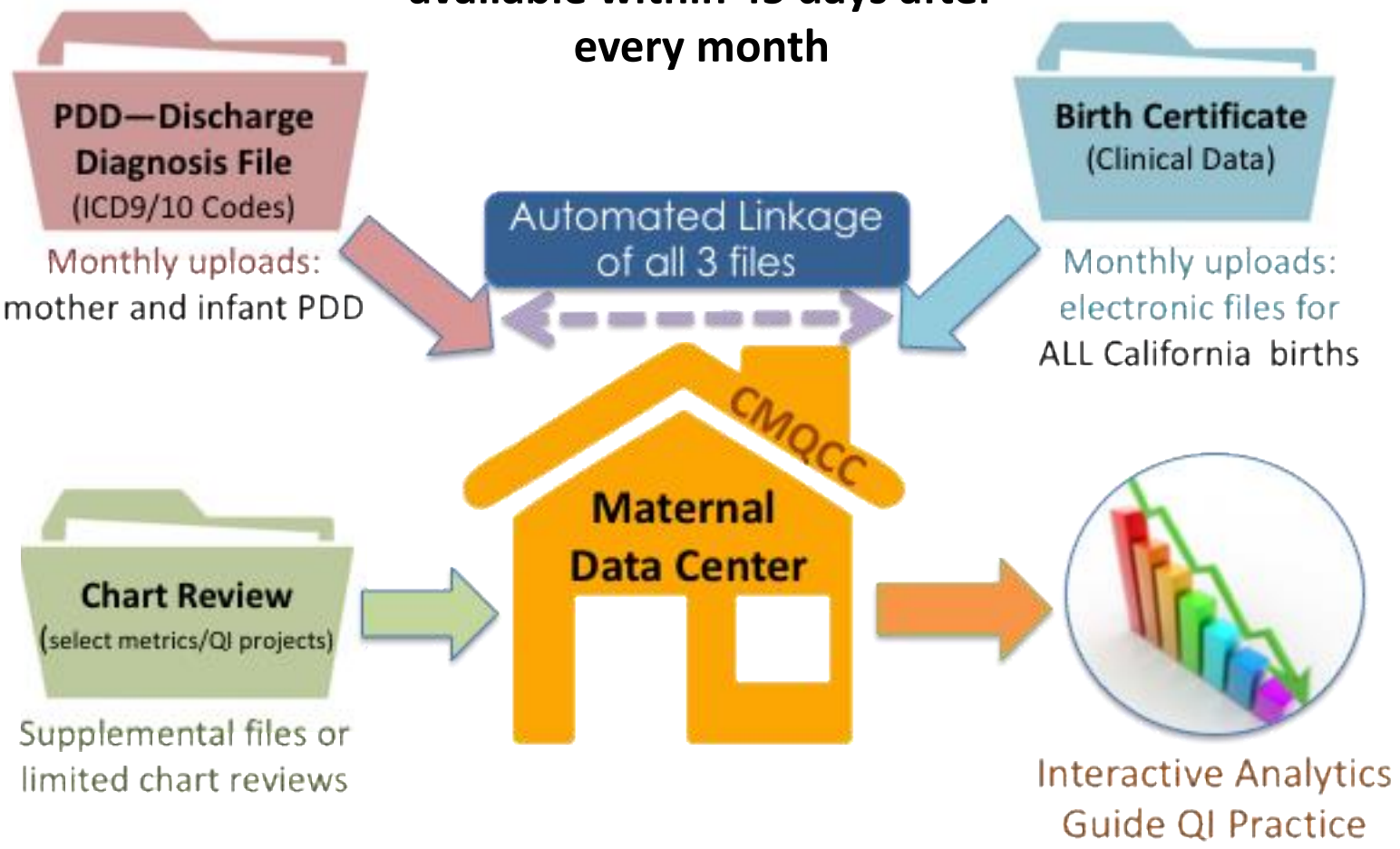
REPORTING – for every clinical setting, health setting and/or community

1. Incorporate EBP compliance measures for the care of women with OUD into hospital and system level quality improvement initiatives
    a. Identify and monitor maternal and neonatal outcome metrics (see AIM metric list) relevant to OUD
    b. Create a process to conduct multidisciplinary case reviews for adverse events related to substance use
    c. Provide a mechanism for ongoing continuing education and EBP feedback for clinical and non-clinical staff
2. Use outcome data to engage child welfare, public health agencies, court systems, and law enforcement to help drive initiatives to expand treatment access and improve maternal and neonatal outcomes

What do I do first?

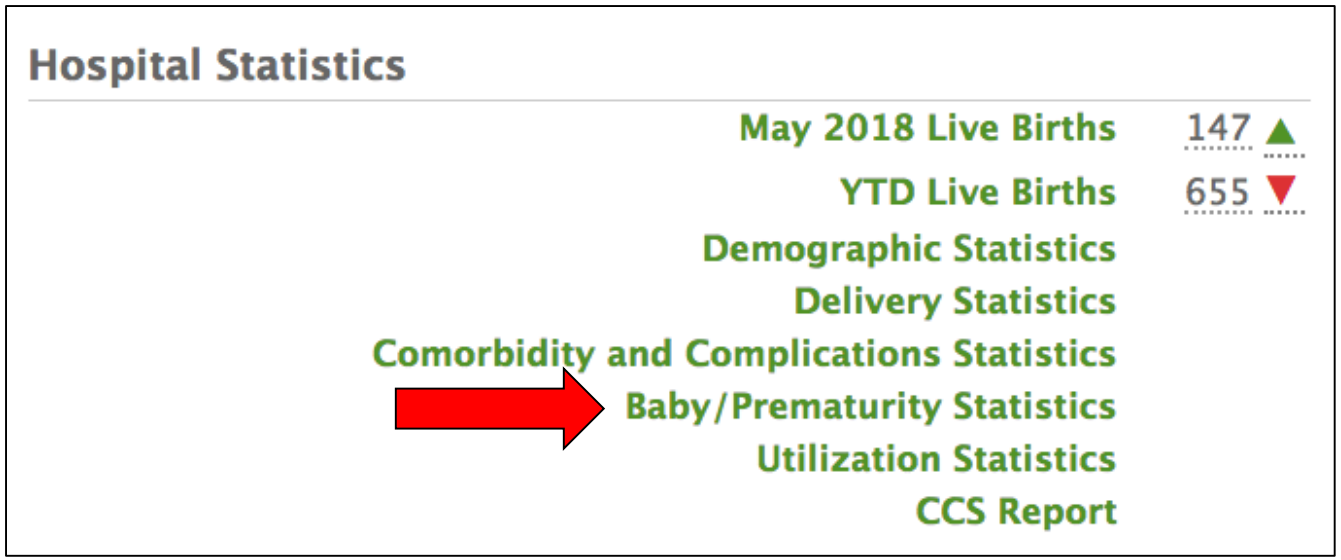
CMQCC Maternal Data Center

Rapid-cycle data: metrics available within 45 days after every month

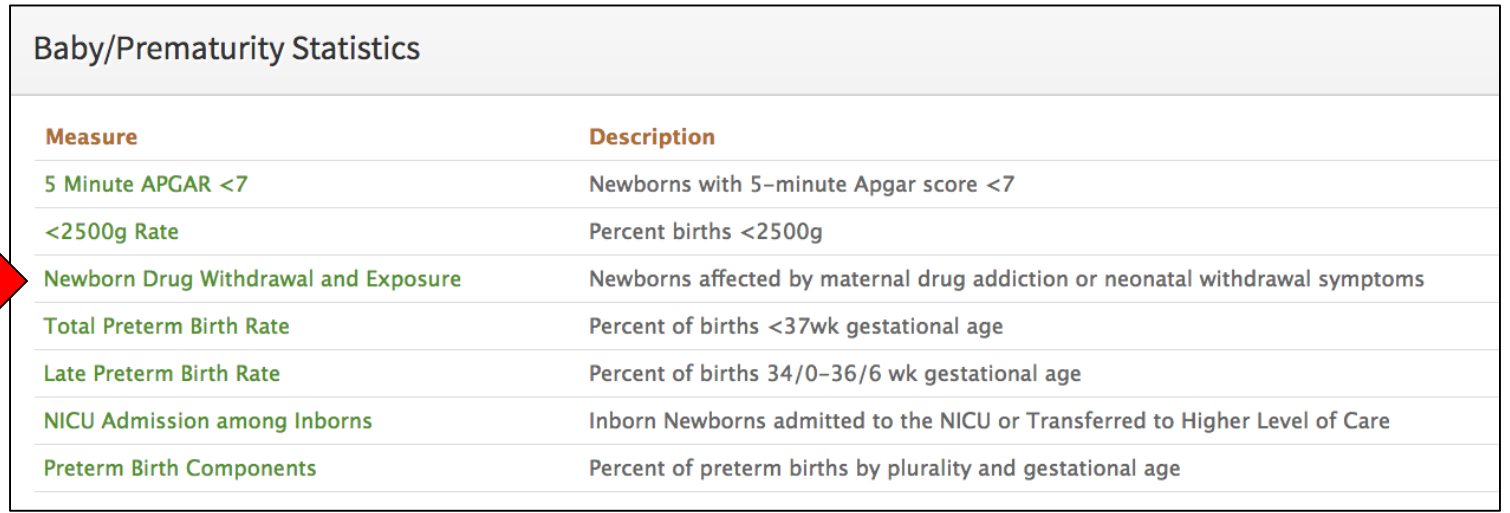


Links over 1,000,000 mother/baby records each year!

MDC Navigation to Hospital Opioid Data



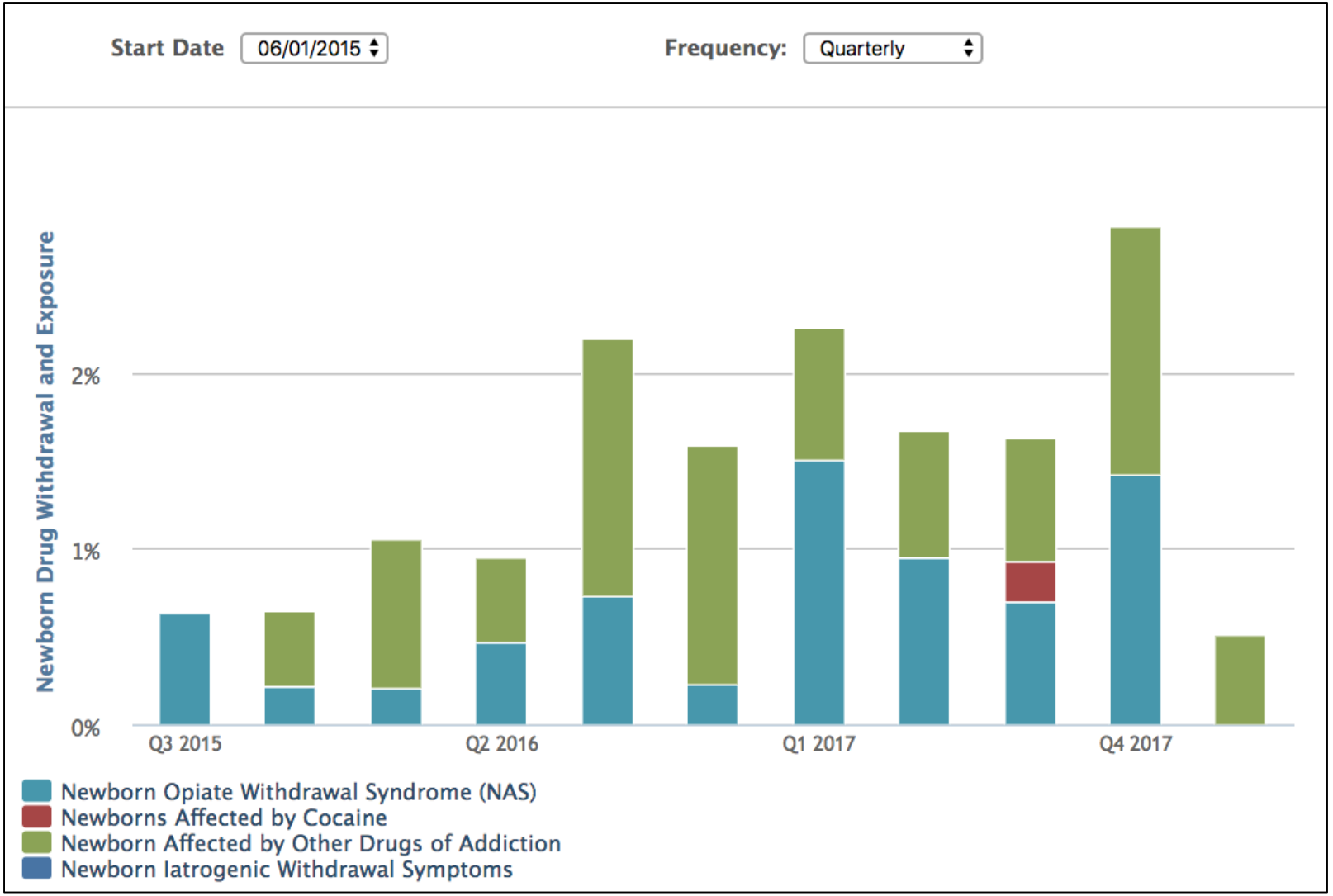
Hospital Home Page



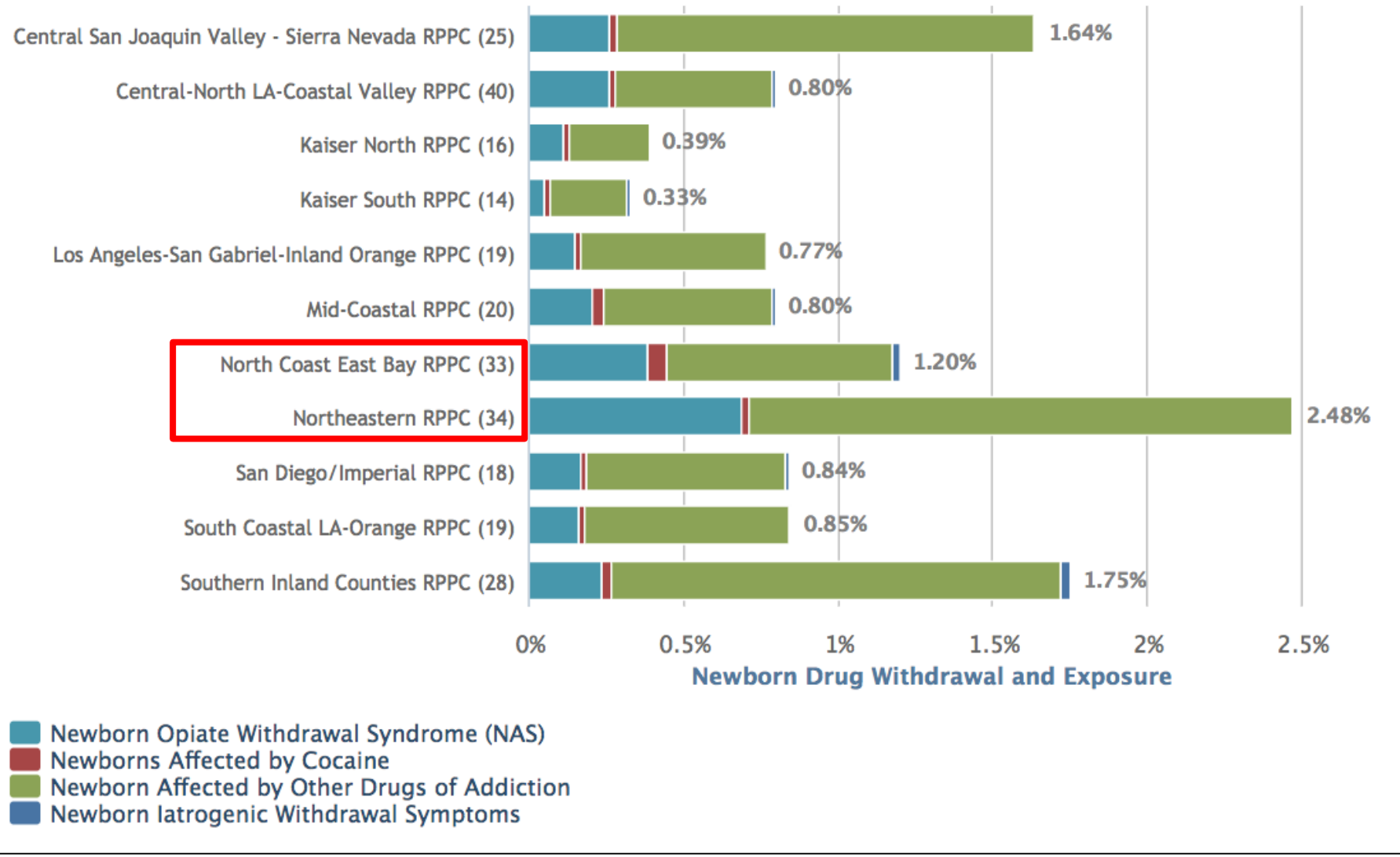
Which ICD Codes in the California Maternal Data Center Represent NAS and/or Infant Exposure?

ICD-10	Comments*
P96.1 Neonatal withdrawal symptoms from maternal use of drugs of addiction	High sensitivity/specificity for clinically diagnosed NAS. Widely used and validated by Vanderbilt and others.
P96.2 Withdrawal symptoms from therapeutic use of drugs in newborn	Most commonly used for NAS related to antidepressants or other therapeutic uses of meds and for iatrogenic withdrawal that occurs after treatment in a NICU .
P04.41 Newborn affected by maternal use of cocaine	Newborns are affected by cocaine toxicity, but less likely to have withdrawal symptoms
P04.49 Newborn affected by maternal use of other drugs of addiction (RETIRED IN OCT 2018 AND REPLACED WITH MORE SPECIFIC CODES)	Mostly indicates opioids and mostly represents exposure but not withdrawal. If trying to capture all babies exposed, need to also look at the maternal record and use opioid use/ dependency code series: F11.xx
P04.14 Newborn affected by maternal use of opiates (new in October 2018)	Represent exposure but not withdrawal, as above.

MDC Hospital View: Newborns Affected by Maternal Drug Addiction or Neonatal Withdrawal Symptoms



Regions: Newborns Affected by Maternal Drugs--2017



Regions: NAS--2017