



# **Perinatal Quality Collaborative Vermont**

presents the

**2025 Annual Statewide Improving Care of Newborns with  
Substance-exposure (ICoNS) Conference**

**Working Together: Optimizing Care  
through Statewide Collaboration**

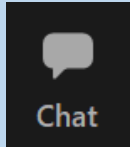


Larner College of Medicine

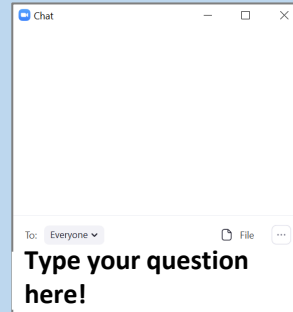


# Housekeeping

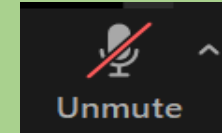
## Chat



Use the *Chat* box to ask a question.

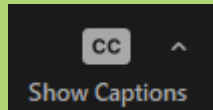


## Microphone



You will be muted when you join. If you wish to verbally ask your question during the Q&A portion of the presentation, please unmute your microphone.

## Captioning



Click *Show Captions* from your navigation bar to view automated captions.

## Evaluation

Before leaving the event, please complete the evaluation by copying and pasting the link provided in the *Chat* into a browser or scan the QR code Thank you!

A screenshot of a web evaluation form for the "PERINATAL QUALITY COLLABORATIVE VERMONT". The form title is "May 20, 2025 PQC-VT ICoNS Statewide Conference Evaluation". It includes a thank you message and a QR code. The form contains three questions with radio button options: "Was this activity free of commercial bias?", "I have an increased knowledge of the topic of perinatal substance use after this activity", and "As a result of your participation in this conference, how will you integrate a change(s) into your practice or behavior?". There is a "reset" link at the bottom right of the form.

If you would like to join our listserv, please send an email to [VCHIP.PQCVT@med.uvm.edu](mailto:VCHIP.PQCVT@med.uvm.edu).

# Welcome & Updates

Michelle Shepard MD, PhD

Assistant Professor of Pediatrics

UVM Larner College of Medicine & UVM Children's Hospital

May 20th, 2025

# FIVE POINTS OF FAMILY INTERVENTION



## PRE-PREGNANCY

Focus on preventing substance use disorders before a woman becomes pregnant through promoting public awareness of the effects of substance use (including alcohol and tobacco) during pregnancy and encouraging access to appropriate substance use disorder treatment



## PRENATAL

Focus on identifying substance use disorders among pregnant women through screening and assessment, engaging women into effective treatment services, and providing ongoing services to support recovery



## BIRTH

Focus on identifying and addressing the needs of infants affected by prenatal substance exposure, withdrawal symptoms, and Fetal Alcohol Spectrum Disorder including the immediate need for bonding and attachment with a safe, stable, consistent caregiver



## NEONATAL, INFANCY & POSTPARTUM

Focus on ensuring the infant's safety and responding to the needs of the infant, parent, and family through a comprehensive approach that ensures consistent access to a safe, stable caregiver and a supportive early care environment



## CHILDHOOD & ADOLESCENCE

Focus on identifying and responding to the unique developmental and service needs of the toddler, preschooler, child, and adolescent who was prenatally exposed through a comprehensive family-centered approach

**Infants with Prenatal Substance Exposure and their Families:**  
*Five Points of Family Intervention*



National Center on  
Substance Abuse  
and Child Welfare

# Vermont is Collaborative

- Local level:
  - Hospital level committees & QI workgroups
  - Community Response Teams
- Statewide:
  - VDH Family and Child Health initiatives
  - Perinatal Quality Collaborative-VT
  - VCHIP- ICoNS
- Regional Quality Improvement Network: NNEPQIN
- National projects and technical assistance: NCSACW

# Improving Care of Newborns with Substance-exposure

- What we are: Vermont Child Health Improvement Program (VCHIP) quality improvement project and part of the Perinatal Quality Collaborative Vermont
- Focus: to improve the quality of care for opioid-dependent pregnant and parenting people and opioid-exposed newborns in Vermont.
- Who we are: a collaborative team including partners from the Vermont Dept of Health, Dept for Children and Families, UVM Children's Hospital, community birth hospitals and people with lived experience



# Improving Care of Newborns with Substance Exposure (ICoNS)

[Explore](#)

Visit our new website!

[Improving Care of Newborns with Substance Exposure \(ICoNS\) | Vermont Child Health Improvement Program | The University of Vermont](#)

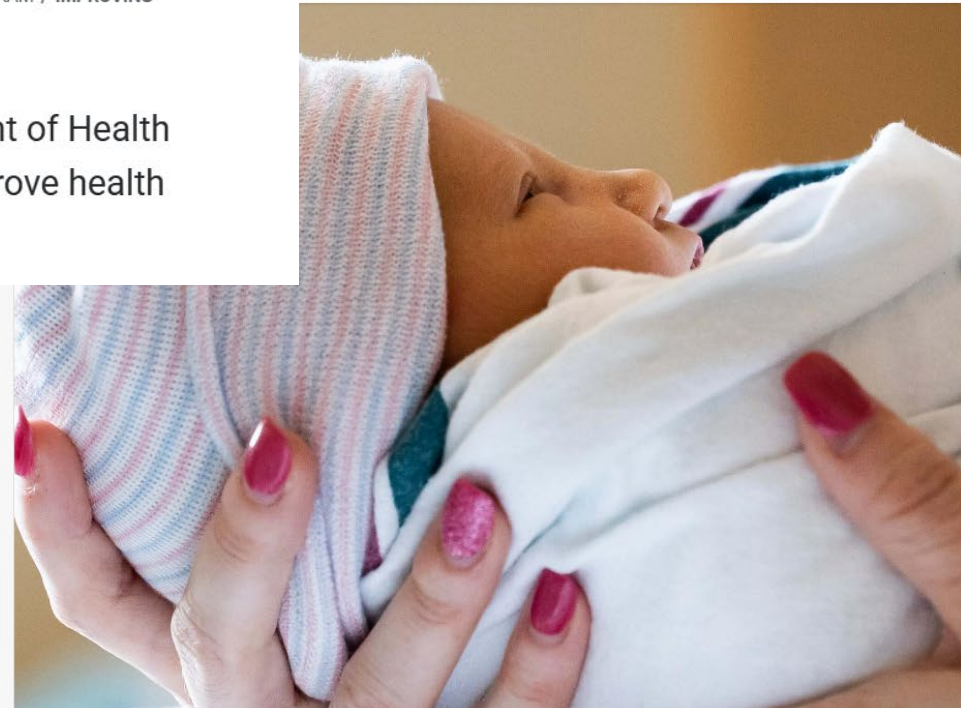


THE ROBERT LARNER, M.D. COLLEGE OF MEDICINE / VERMONT CHILD HEALTH IMPROVEMENT PROGRAM / IMPROVING CARE OF NEWBORNS WITH SUBSTANCE EXPOSURE (ICoNS)

The ICoNS project partners with the Vermont Department of Health and the University of Vermont Children's Hospital to improve health outcomes for opioid-exposed newborns.

## About Us

Our educational sessions for healthcare professionals enhance outcomes for pregnant individuals with substance use disorders and their infants. The project also tracks maternal and newborn health metrics to identify care gaps for focused quality improvement.



# ICoNS Initiatives

1. Partner with other VCHIP projects in the Perinatal Quality Collaborative
2. Support birth hospitals with Family Care Plan education and technical assistance
3. Collect hospital data for quality improvement initiatives
4. Provide education to providers and families affected by opioid use disorder



# Partnering with PQC-VT

## Perinatal Quality Collaborative-Vermont

**Mission:** Optimizing care and health outcomes in pregnancy and infancy through collaboration and continuous quality improvement.

**Goal:** The PQC-VT will improve care and health outcomes of pregnant people and infants in Vermont through the following initiatives:

- Set Perinatal health Outcome Priorities
- Provide Outreach and Education
- Advance Quality Improvement Efforts
- Monitor Pregnancy and Newborn Health Outcomes



# PQC-VT Focus Areas

Quality Improvement  
Coaching Activities

Obstetrics and  
Neonatal Clinical  
Expertise

Perinatal Statistics  
Report and statistics  
Conferent for Vermont  
Community Hospitals

Perinatal Transport  
Conferences for  
Vermont Community  
Hospitals

Education and skilled  
Training for Perinatal  
Health Care  
Professionals

Expertise in Substance  
Use Exposure in  
Newborns (ICON)

(STAMPP) Perinatal  
Mood and Anxiety  
Screening and referrals

Maternal Mortality  
Review Panel (MMRP)

Data Analytics and  
Dissemination

Alliance for Innovation  
on Maternal Health  
(AIM) Safety Bundles



# Vermont In-Depth Technical Assistance Initiative



## Key Partners

- Department for Children and Families
- Department of Health / Family and Child Health
- Department of Health / Substance Use Programs
- KidSafe Collaborative
- Division of Planning & Court Services, Court Administrator's Office
- University of Vermont Medical Center
- UVM Larner College of Medicine: Vermont Child Health Improvement Program (VCHIP)
- Lund
- Families with lived experience



Current IDTA Sites

Connecticut	Texas
Louisiana	Vermont
Massachusetts	Wyoming
Michigan	Orange County, CA
New Jersey	Riverside County, CA
Oklahoma	

The map is from the National Center on Substance Abuse and Child Welfare.



## Vermont Work Plan Goals

**Goal 1:** Map existing clinical and community-based services and supports across the state that work with pregnant individuals and families experiencing substance use and identify barriers and gaps in care.

**Goal 2:** Ensure integration among existing (and new) clinical and community-based services/supports.

**Goal 3:** Apply a health equity approach to the issue of substance use in pregnancy and in families, including a review of policy and structural factors that contribute to health disparities.

**Goal 4:** Improve data collection as a strategy to apply quality improvement methods in clinical and community care towards the goal of increased care coordination and systems integration.

**Goal 5:** Address gaps and concerns related to the current process of developing plans of safe care and CAPTA notifications.



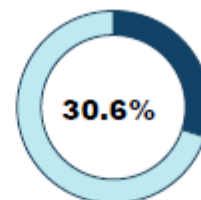
## Current Cohort Themes

- Wider dissemination and uptake of currently implemented POSC policies and practices
- Alternative notification pathways for infants with prenatal substance exposure
- Need for environmental scan/community mapping to understand gaps and opportunities
- Moving beyond pilots or regional policy and practice to state-wide services
- Establish evaluation framework to assess what works for all families

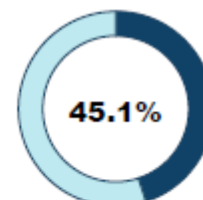
## Vermont Key Data Points

### Substance Use and Child Welfare Involvement

2020 Data from the Adoption and Foster Care Analysis and Reporting System (AFCARS)  
(Incidence)



Graph 1: Parental substance abuse identified as a condition of removal



Graph 2: % children <1yr with parental alcohol as an identified condition of removal

Prepared by Michelle Shepard, MD, PhD, Angela Zinno, MA, Katy Leffel, RN, BSN, IBCLC, and Julie Parent, MSW on behalf of the Vermont IDTA team.



# VT Family Care Plan Revisions

- In Depth Technical Assistance (IDTA) provided by The National Center of Substance Abuse and Child Welfare (NCSACW)
  - Update language to from Plan of Safe Care to Family Care Plan (FCP)
  - Develop new process for online completion of FCP
  - Electronic method for CAPTA notifications
  - New family centered website and support materials
- New documents and website planned to launch later in 2025

# Quality Improvement Data Collection

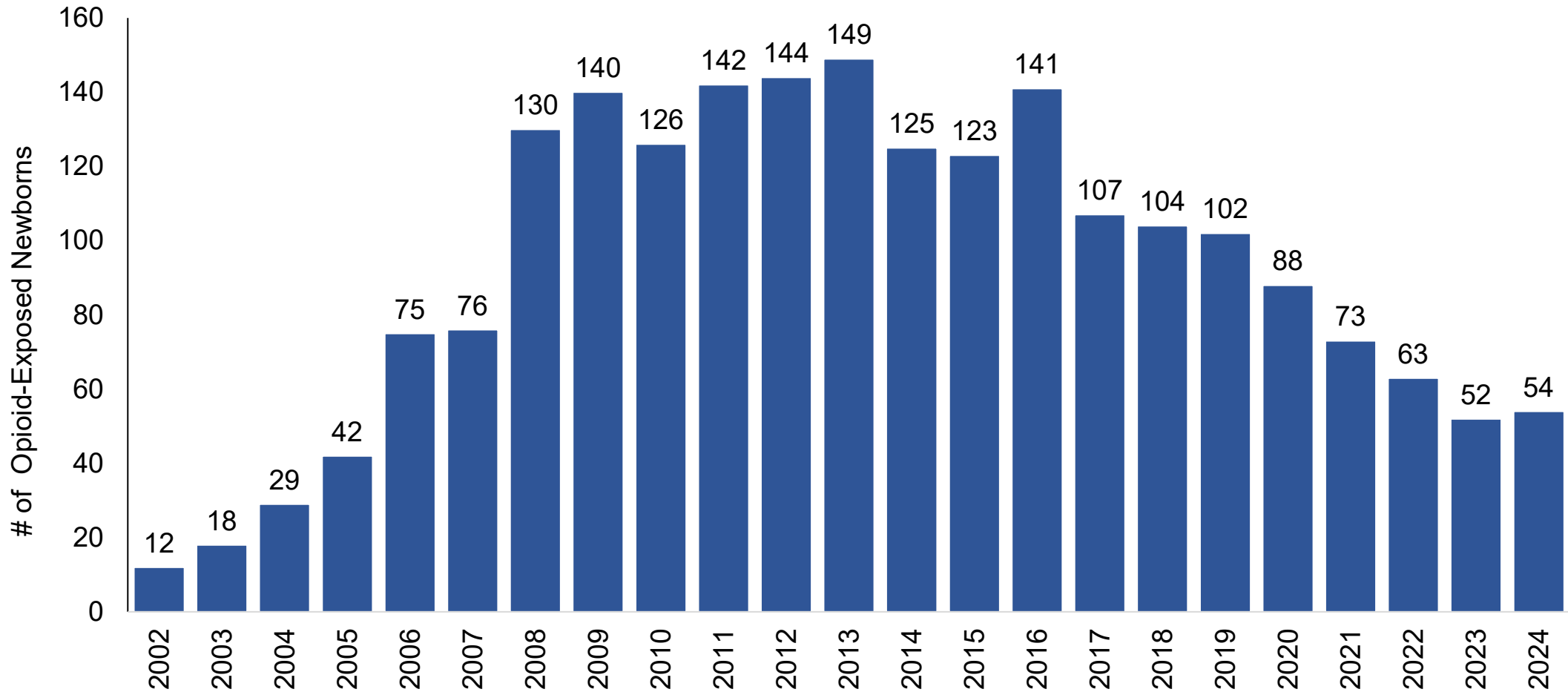
Direct data collection from UVM Medical Center EHR

Comparison to data collected from community hospitals

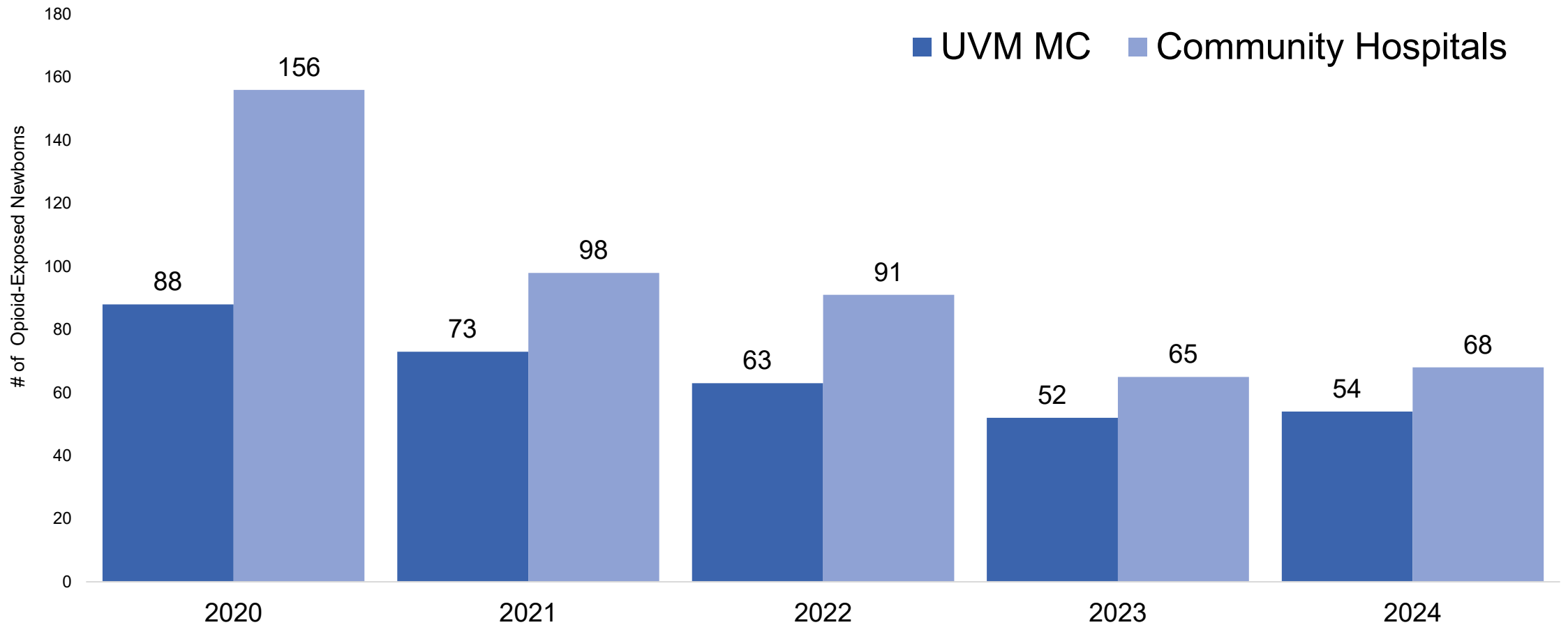
CAPTA data from notification forms



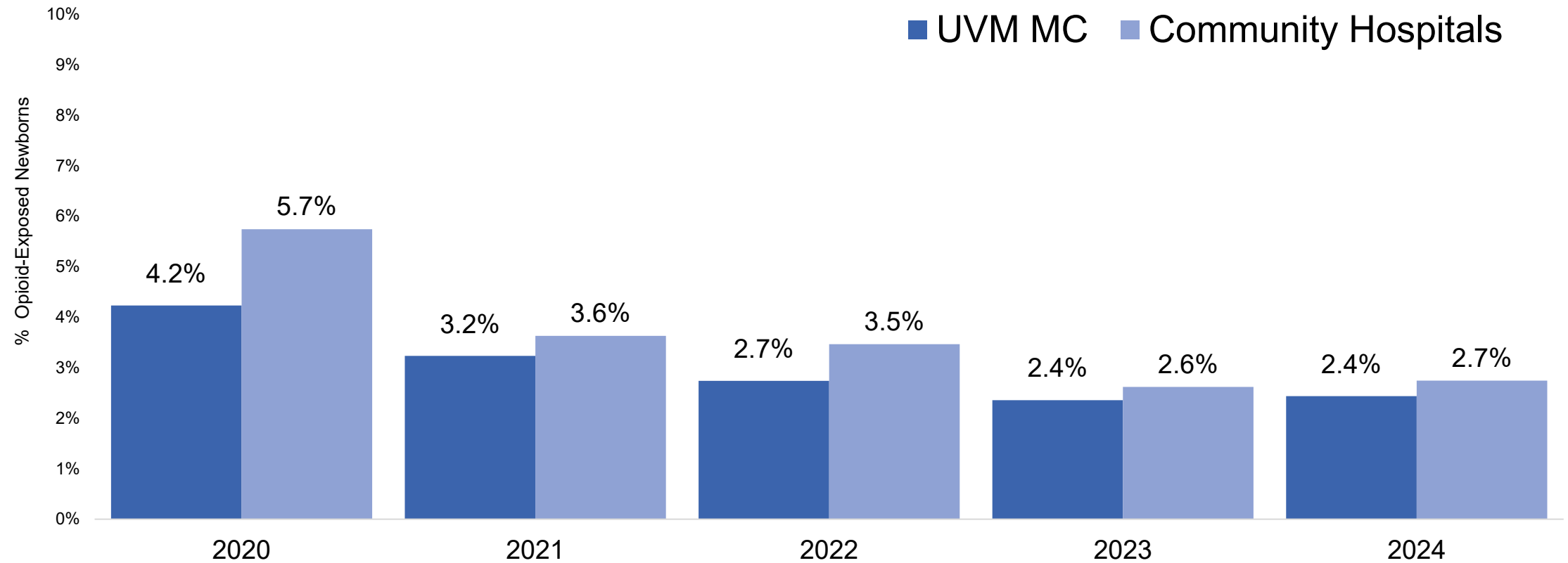
# Total Opioid-Exposed Newborns (OEN) Cared for at UVMMC



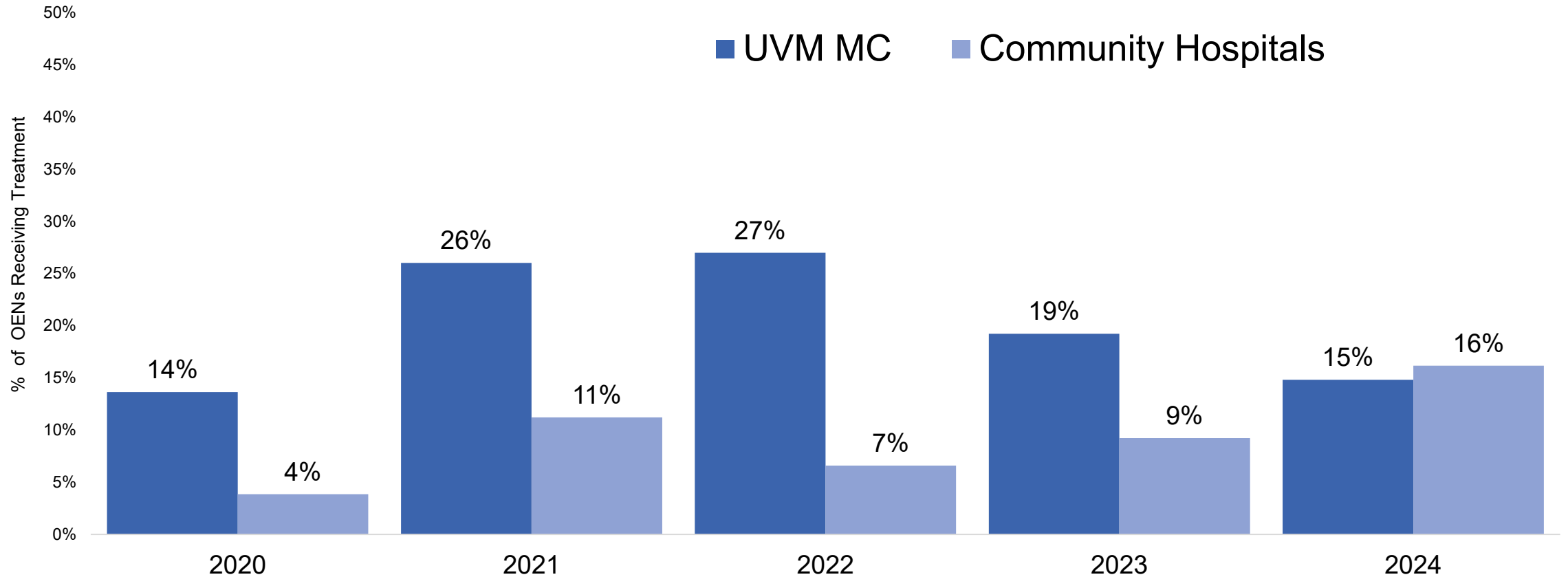
# Number of OEN born in VT hospitals



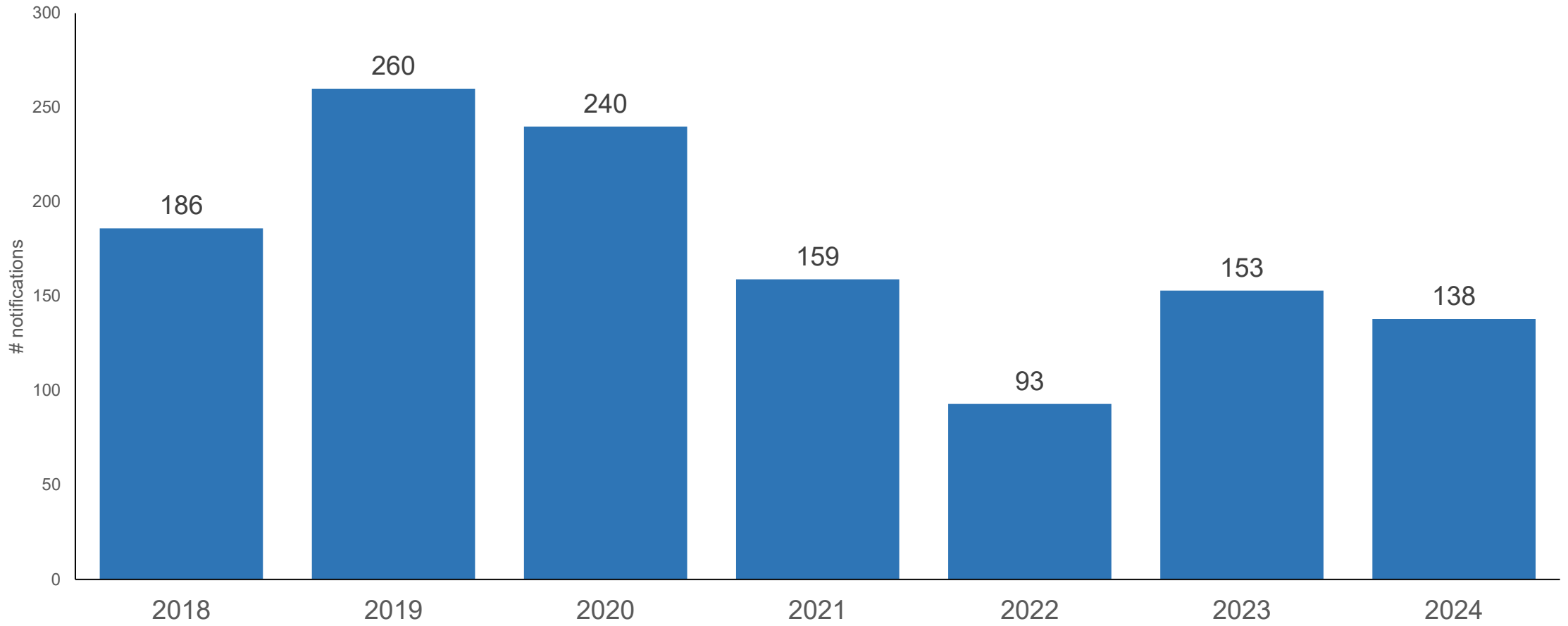
# Proportion OENs of VT live births



# Proportion of OENs receiving medication treatment

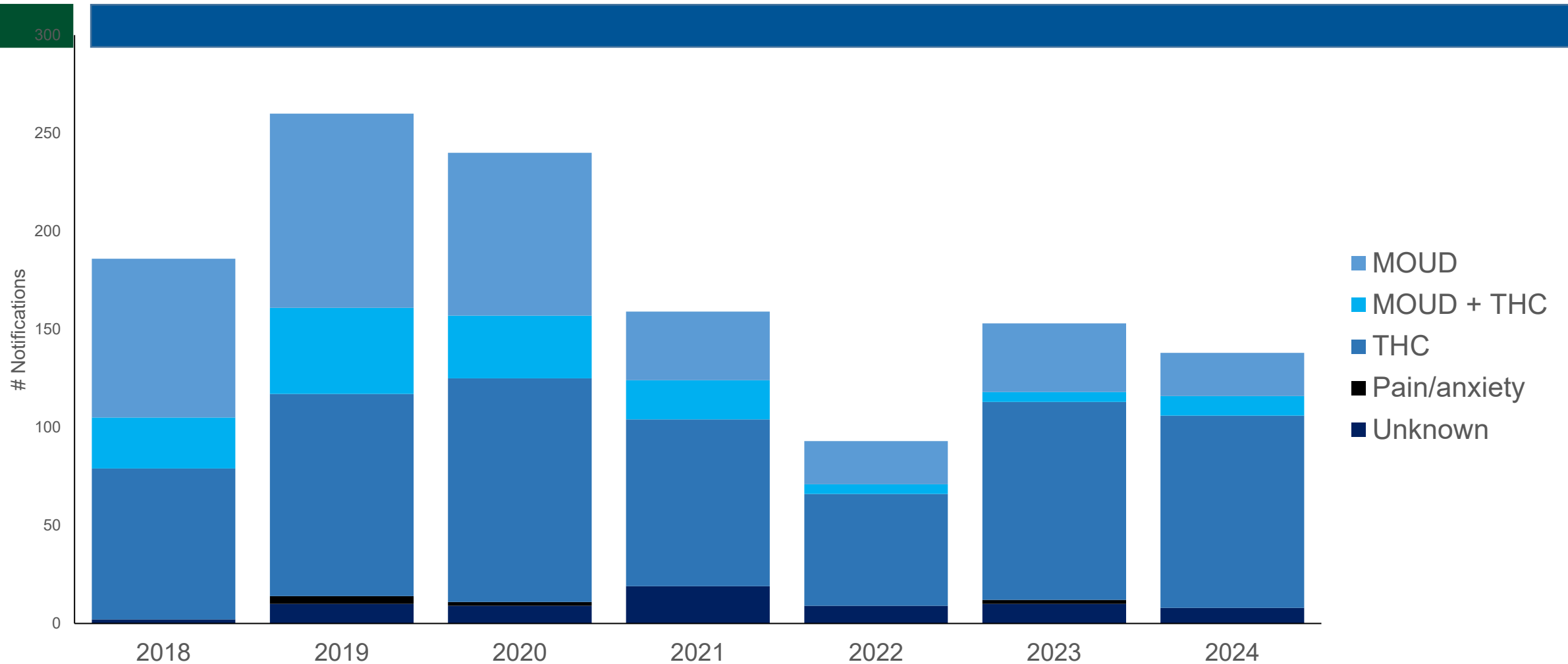


# Total CAPTA Notifications by Year





# CAPTA Notification By Type





# Provider and Family Education

# Toxicology Testing

## Infant Toxicology Testing Guideline for Providers:

Toxicology testing is only indicated in cases when the information would influence the care or treatment of the newborn. Toxicology testing may include urine testing from the pregnant individual and/or urine testing, umbilical cord testing or meconium testing from the infant. Testing should be performed only with parent/legal guardian informed verbal consent documented in the medical record. If urine toxicology testing is done, any unexpected presumptive positive urine testing must be sent for confirmatory testing.

Toxicology screening may be clinically indicated in the following situations:

- Newborn develops signs and symptoms concerning for withdrawal that are otherwise unexplained (i.e. inconsolability, poor sleeping, and/or poor feeding)
- Pregnant individual presents without prenatal care (less than 1 prenatal visit).
- Pregnant individual presents with symptoms of drug intoxication or withdrawal that are otherwise unexplained (i.e. disorientation, severe psychomotor agitation, or somnolence).

# UVM Health Network: Infant Toxicology Testing Guideline for Providers

## Who should be screened for substance use disorder?

Every pregnant person should have screening for alcohol, tobacco and substance use using a validated tool or conversation with a provider. ACOG CO 633

Positive responses on a validated screening tool should prompt brief office-based interventions and referral to treatment. ACOG CO 711

## What is toxicology testing?

Laboratory testing for the presence of substances using:

- Maternal urine
- Infant urine, meconium, or **umbilical cord tissue**

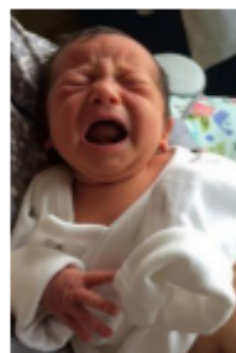
## When **MAY** toxicology testing be indicated?

### OB: Maternal testing

- Pregnant individual received less than 1 prenatal visit.
- Pregnant individual presents with unexplained signs/symptoms of intoxication or withdrawal.

### Pediatrics/NICU: Infant testing

- Infant with unexplained signs/symptoms concerning for substance withdrawal.
- If maternal testing was indicated and not able to be performed.



## Limitations of urine drug testing:

- Positive results do not diagnose substance use disorder, or its severity.
- Negative results do not exclude sporadic use.
- Must know what the test you ordered screens for:
  - Many opioid screens do not detect synthetic opioids and fentanyl.
- All unexpected positives require confirmatory testing:
  - False-positive results are common and can have severe consequences.

### Why universal umbilical cord hold?

- Eliminates maternal testing bias:
  - Testing will only be ordered if infant shows signs of withdrawal.
- Reduces urgency in determining if testing is indicated at time of birth:
  - Testing can be ordered for unexpected withdrawal signs up to 5 days after birth.
- Easy to collect and available from all deliveries:
  - First infant void often missed, or not enough meconium collected for testing.
- Faster and more reliable results:
  - Confirmatory testing included which reduces false positives seen in urine samples.
  - Turnaround of about 2 days (meconium can take up to 4+ days)

\*Consent is NOT required for cord collection and storage. All samples are discarded after 5 days. Families with questions should be directed to the Umbilical Cord Storage Parent Handout.



### Process for testing when indicated:

#### OB: Maternal testing

- Obtain informed verbal consent from the pregnant individual\*\*
- Document in the EHR reason for medical necessity.
- Order urine drug screen (UDS 11)
- Specific urine confirmatory testing must be ordered for unexpected positives.

#### Pediatrics/NICU: Infant testing

- Obtain informed verbal consent from a parent/guardian\*\*
- Document in the EHR reason for medical necessity.
- Order umbilical cord drug screen (universal cord HOLD is automatically checked in admission order set). If urgent results needed, consider also sending infant urine (UDS11).

\*\*If patient/parent unable to provide consent and testing impacts clinical management:

- Urgent (results impact clinical care now): document this in the medical record and obtain testing without consent.
- Not urgent (results may impact care later such as breastfeeding guidance): defer testing until consent can be obtained.

\*\*If patient/parent declines testing despite counseling on its medical necessity, document this clearly in the medical record.

- If NOT performing clinically indicated testing puts an infant at risk of harm, consider consulting DCF/CPS.



# Umbilical Cord Storage: Parent education

- Storage of a small piece of the umbilical cord from every delivery in the lab
- Cord is discarded after 5 days.
- Sample available if infant develops unexpected signs and symptoms after birth and testing is needed.
- Allows discussion about testing with parents, rather than having to make a rapid decision at the time of birth.

## What is universal umbilical cord storage?

Universal cord storage is the practice of taking a small piece of the umbilical cord from every delivery and holding it in the lab. Storing a piece of cord from every delivery ensures a sample will be available if additional testing is indicated. This allows consideration of the full clinical picture and discussion about testing with parents, rather than having to make a rapid decision at the time of birth on whether or not to obtain a sample.



## Why store umbilical cords?

Umbilical cords provide a non-invasive method of testing if your baby develops concerning or unexpected signs and symptoms in the first few days of life. Cords are easy to collect and are available from both vaginal and c-section births. Similar to the placenta which is stored after birth for 24hr, a small piece of the cord will now be stored in the lab. All cords are discarded after 5 days.



## How is the umbilical cord collected?

After cord clamping and delivery of the placenta is completed, a small section of the umbilical cord (3-5 inches) will be cut and cleaned by nursing staff. This segment will be placed in a specimen container, labeled, and sent to the lab for storage. The remaining cord will be discarded after birth.

# UVMMC Breastfeeding Guideline

Purpose: To provide guidance for breastfeeding in birth parents who have recently used non-prescribed substances based on updated recommendations from the Academy of Breastfeeding Medicine.

1. Breastfeeding should be supported for most infants
2. Breastfeeding is encouraged for infants during the first hour
3. Individualized planning for breastfeeding after the “Golden Hour” should be developed in partnership with the family and their care team
4. Birth parents should be supported in expressing milk to establish milk production.
5. Universal lactation consults are recommended
6. Education about substance exposure through breastmilk should be provided to all families.

Table of **NON-PRESCRIBED** Substances and Breastfeeding

<b><u>Short-acting</u></b>	<b>Examples</b>	<b>Half-Life Range</b>	Recommended time for clearance after last use: <b>24 hours</b>
Opioids	Morphine, Codeine, Oxycodone, Fentanyl, Heroin	2-4h	
Stimulants	Cocaine, Cathinone (bath salts) Dexamphetamine IR* Dextroamphetamine IR* (ex. Adderall)	1.5-4h	

\*IR= immediate release

<b><u>Medium-acting</u></b>	<b>Examples</b>	<b>Half-Life Range</b>	Recommended time for clearance after last use: <b>48 hours</b>
Opioids	Tramadol	6-7.5 hours	
Stimulants	Methamphetamine (Meth, crystal meth) MDMA (ecstasy) Amphetamine (Speed) Dexamphetamine ER** Dextroamphetamine ER** (ex. Vyvanse, Adderall XR)	4-12 hours	

\*\*ER/XR= extended release

<b><u>Longer-acting</u></b>	<b>Examples</b>	<b>Half-Life Range</b>	Recommended time for clearance after last use: <b>individualized</b> as substances have variable half-life; see reference below
Opioids	Buprenorphine, Methadone, buprenorphine-naloxone (suboxone)	8-59h	
Benzodiazepines	Diazepam, Alprazolam, Lorazepam, Clonazepam, Chlordiazepoxide	10-60h	

<b><u>Other Substances</u></b>	<b>Recommended time for clearance after last use:</b>	<b>Notes:</b>
Alcohol	Average of 2 hours per standard drink	Passes easily into breastmilk and changes milk taste and composition
Cannabis	Variable- depends on frequency of use	Decreasing or avoiding use is recommended due to passage into breastmilk and increased risk of SIDS from smoke exposure. If not possible, the benefits of breastmilk likely outweigh risk of exposure.
Nicotine	Not established	



# Breastfeeding Education

## Breastfeeding & Substance Use Guidance



The Breastfeeding & Substance Use Guide for parents and caregivers includes information regarding medications and substances that pass easily into breastmilk. Details include the effects on babies and what to do when breastfeeding. The guide has been translated into 16 languages.

[Resources | Vermont Child Health Improvement Program | The University of Vermont](#)

## Breastfeeding & Substance Use

Many medications and substances pass easily into breastmilk, including those listed here. If you have specific questions, please speak with a healthcare provider.



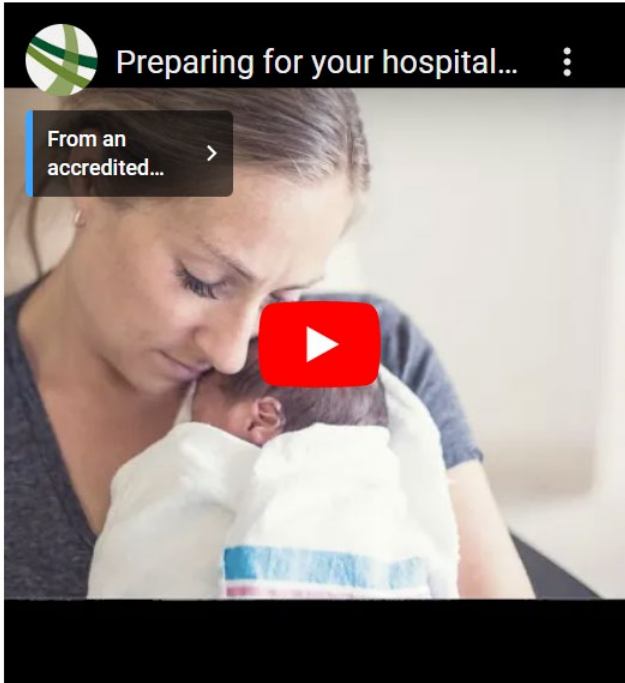
**This guide focuses on non-prescribed substances.**

For prescription medications, please speak with your healthcare provider for advice related to your medications. Providing breastmilk is generally supported when prescription medications are used as directed by a healthcare provider. This includes prescribed medications for opioid use disorder, benzodiazepines for anxiety, stimulants for ADHD, and opioids for chronic pain.



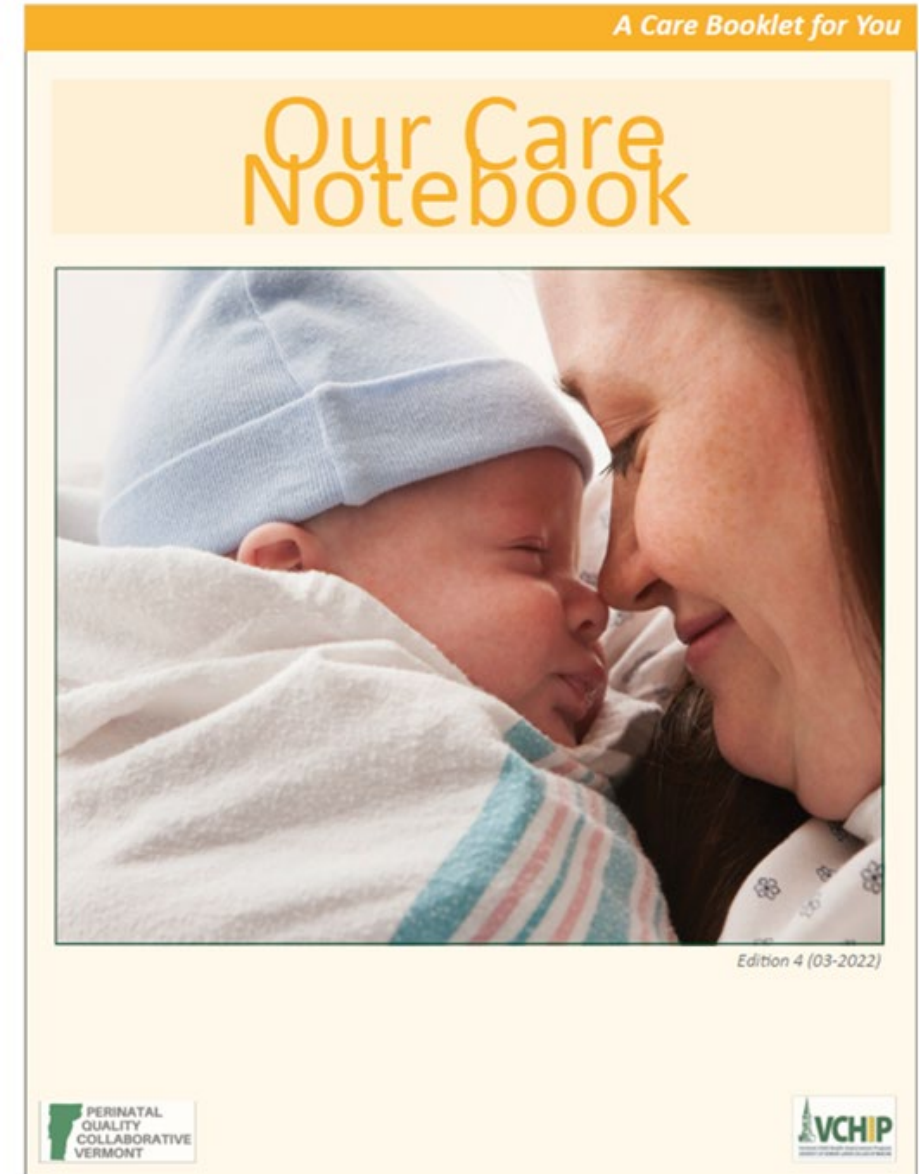
## Preparing for Hospital Stay and Preparing for Baby

- The video "Preparing for your hospital stay: what to expect after your baby is born" can help pregnant people with a history of opioid use disorder (OUD) prepare for their hospital stay and what to expect after their baby is born.



Our Care Notebook contains family centered information:  
During Pregnancy  
During Your Hospital Stay  
After Hospital Discharge  
Resources

[Improving Care of Newborns with Substance Exposure \(ICoNS\) | Vermont Child Health Improvement Program | The University of Vermont](#)







Substance Use  
Providers

Medical Providers

Birth Hospitals

Community  
Agencies & Supports

# ICoNS 2025: Showcasing Collaboration and Recentering Ourselves

- Statewide Collaboration to Improve Perinatal Substance Use Care
- Putting Families First: 2025 Revisions to the Family Care Plan
- Working Together in Clinical and Community Settings
- Powerlessness to Purpose: Navigating Uncertainty in a Changing Landscape

# PQC-VT ICoNS Team

## Faculty

- ❖ Michelle Shepard, MD, PhD, Pediatrics, Lead Faculty
- ❖ Molly Rideout, MD, Pediatrics
- ❖ Adrienne Pahl, MD, Neonatology
- ❖ Marjorie Meyer, MD, Obstetrics & MFM

## Collaborators

- ❖ Susan White, NP/APRN
- ❖ Bronwyn Kenny, MD

## VCHIP

- ❖ Julie Parent, MSW, ICON Project Director
- ❖ Courtenay Devlin, MS, ICON Data Manager
- ❖ Angela Zinno, MA, ICON Project Coordinator

## Parent Advisors

- ❖ Ashlee
- ❖ Arial

## Vermont Department of Health Liaison

- ❖ Ilisa Stalberg, MSS, MLSP, MCH Director

Website: <https://www.uvm.edu/larnermed/vchip/improving-care-newborns-substance-exposure-icons>

Email: [vchip.pqcvt@med.uvm.edu](mailto:vchip.pqcvt@med.uvm.edu)