Joint Legislative Child Protection Oversight Committee

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Children born to opioid-dependent parents

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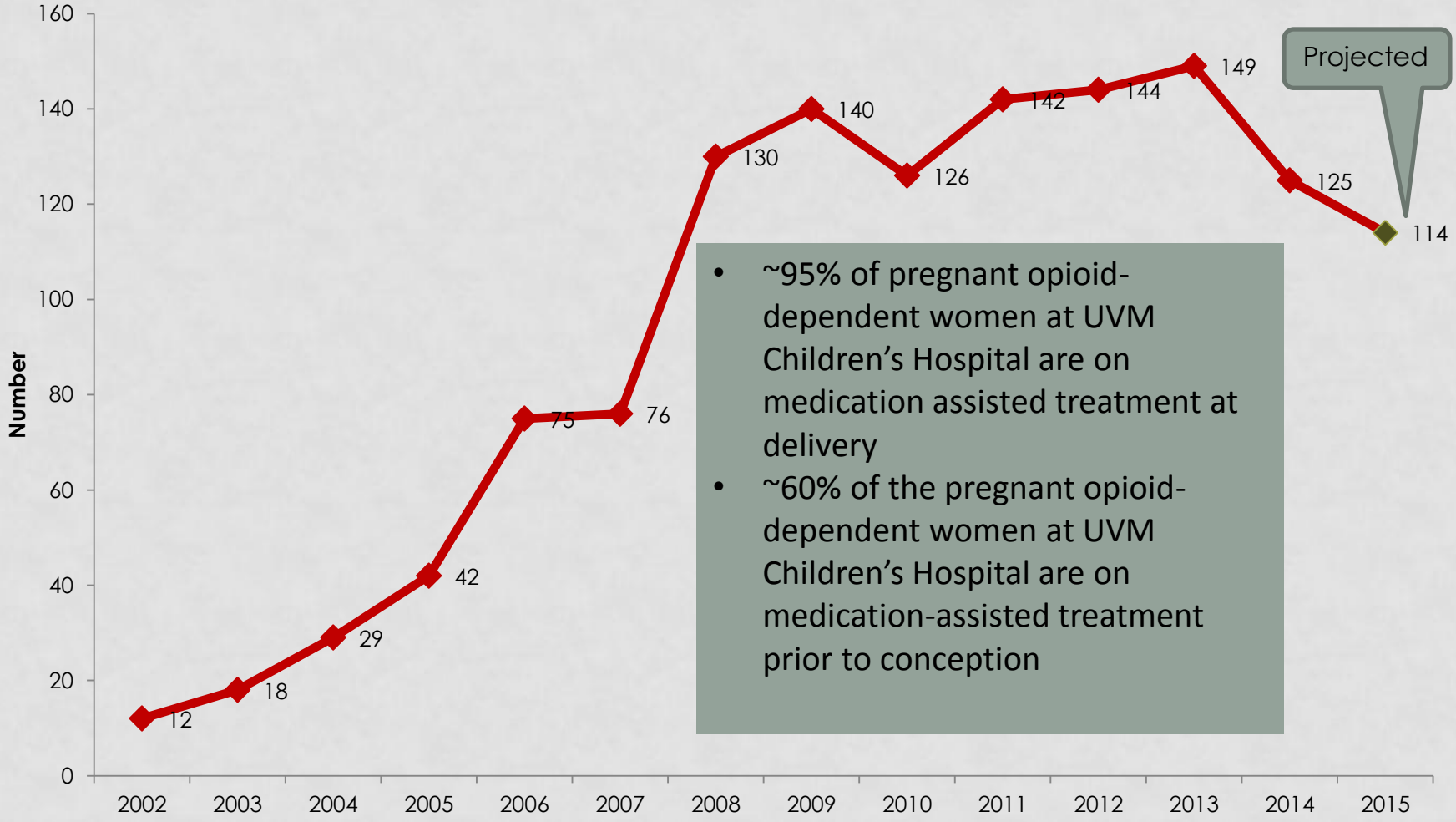
Total number of opioid-exposed infants followed by UVM Children's Hospital

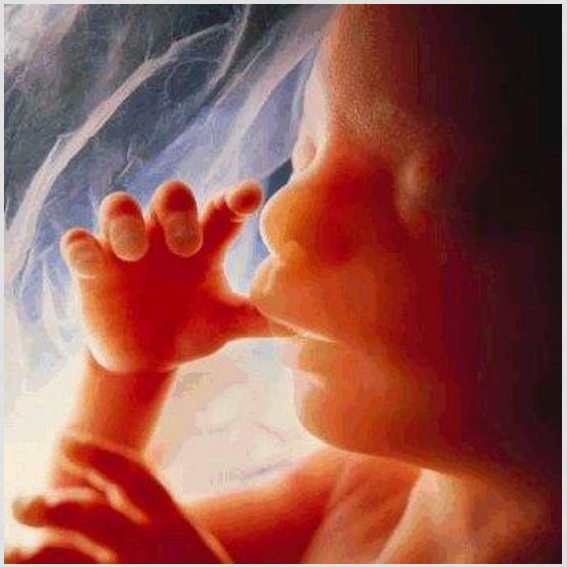


- ~95% of pregnant opioid-dependent women at UVM Children's Hospital are on medication assisted treatment at delivery
- ~60% of the pregnant opioid-dependent women at UVM Children's Hospital are on medication-assisted treatment prior to conception

Medication assisted treatment is the standard of care for the pregnant opioid-dependent woman

Patterns of use / withdrawal leads to:

- ***Mother:***
  - Irritability, tremulousness, anxiety, cramping
- ***Fetus:***
  - Increased oxygen demand
  - Decreased utero-placental exchange
  - Fetal hypoxia, meconium aspiration syndrome, fetal demise
  - Placental abruption, preeclampsia
  - Low birth weight, prematurity



Linnart Nillson: A Child is Born

Neonatal Abstinence Syndrome: Mothers

Issues facing substance-using pregnant women and their children

- Generational substance use
- Untreated mental health problems

- Legal involvement
- Unstable housing
- Unstable transportation

- Limited parenting skills and resources
- Exposure to trauma

- Lack of positive and supportive relationships

Slide courtesy of H Jones

Opioid dependence in pregnancy: Treatment options

- Detoxification: not safe in pregnancy
- Medication Substitution: the standard of care
  - Methadone

  - Buprenorphine

- Harm Reduction
  - Needle exchange

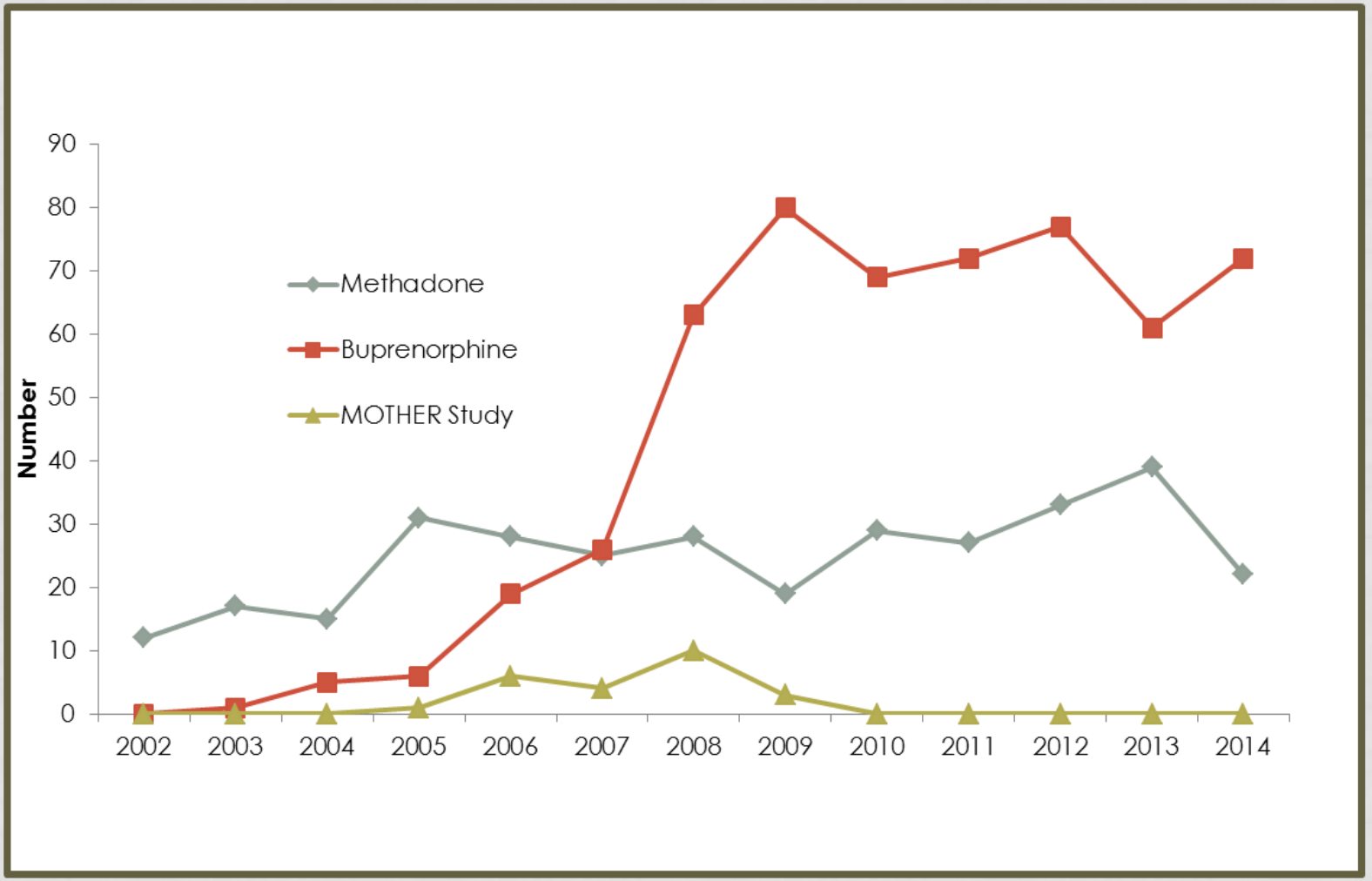
Why is medication assisted treatment the best alternative?

- Decreases prematurity and low birth weight
- Improves the health of the pregnancy
- Lowers infant mortality
- Pregnant woman feels well (not "high") and has no cravings
- Successful engagement in treatment increases the probability of good parenting
- Detoxification during pregnancy is rarely successful and dangerous to the fetus

Concern: anything that drives pregnant opioid-dependent women from seeking treatment results in more prematurity, higher infant mortality, less probability of successful parenting

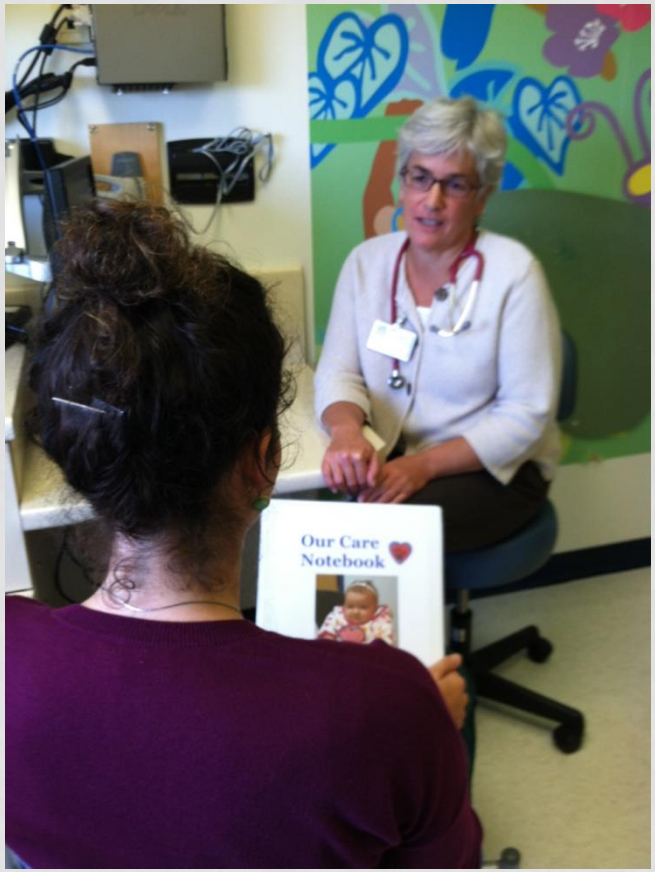
University of Vermont Children's Hospital:

Infants born to opioid dependent women with substance abuse on **methadone** or **buprenorphine** at delivery (N = 897)



Focus on the mother's health to have better outcomes

- Build trust
- Focus on respect and strengths
- Decrease fear and shame
- **Promote breastfeeding**



Neonatal Abstinence Syndrome (NAS): Description

- Neonatal Abstinence Syndrome is an expected consequence of a pregnant woman who
  - Uses opioids (e.g., heroin, oxycodone)
  - Is on prescribed opioids (e.g. for maternal pain)
  - Is on medication assisted treatment with methadone or buprenorphine
- Defined by alterations in the:
  - *Central nervous system*
    - high-pitched crying, irritability
    - exaggerated reflexes, tremors and tight muscles
    - sleep disturbances
  - *Autonomic nervous system*
    - sweating, fever, yawning, and sneezing
  - *Gastrointestinal distress*
    - poor feeding, vomiting and loose stools
  - *Signs of respiratory distress*
    - nasal stuffiness and rapid breathing

- **NAS is *not* Fetal Alcohol Syndrome (FAS)**
- **NAS is treatable and does not have any long-term consequences**

Slide adapted from of H Jones

(Finnegan et al., *Addict Dis*. 1975; Desmond & Wilson, *Addict Dis*. 1975)

NAS: Pharmacologic Treatment

- Short-acting opioids (morphine sulfate, dilute tincture of opium)
  - Inpatient treatment
  - "standard of care"
  - Symptom based versus weight based
  - Endorsed by the AAP (2012)
- Methadone
  - Inpatient treatment and inpatient to outpatient treatment
  - Symptom versus weight based
  - Allows for shorter length of stay (with outpatient treatment)
  - Endorsed by the AAP (2012)
  - (Several studies including MS Brown et al (2015) which revealed shortened duration of treatment with methadone)
- Dilute tincture of opium and phenobarbital (Coyle et al, 2002)
  - Decreased severity of withdrawal, decreased length of stay
- Buprenorphine (Kraft et al, 2011)
  - Shorter length of stay in buprenorphine treated infants
  - Well tolerated
- Adjunctive therapy with clonidine (Agthe et al, 2009)
  - Oral clonidine as adjunct to short-acting opioids
  - Shortens the duration of therapy, no short-term cardiovascular side effects were observed

Myth #1: Opioids during pregnancy ➔ "damaged baby"

- There is no evidence that opioid exposure, in and of itself, results in developmental delay or any other lasting effects on the exposed child

- On the other hand, alcohol exposure can result in profound physical /developmental / behavioral effects

Myth #2: Every baby born to a mother on opioids is born "addicted"

- Opioid-exposed: exposure to opioids – most commonly methadone or buprenorphine – through a program. May also be due to street acquired opioids.
- Opioid-dependent: infant exhibits signs of withdrawal severe enough to need medication
- Opioid-addicted: infants cannot be addicts, the disease of addiction requires obsession and compulsion, loss of control, "breaking the rules"
- Vermont data show that only 25% of opioid-exposed infants require treatment

"Addicted newborns"

Myth #3: If a baby needs treatment for opioid withdrawal, it must be because the mother "used" opioids during pregnancy

- The severity of withdrawal is not associated with the dose of medication during pregnancy
- Exposure to tobacco can also increase the severity of withdrawal
- Higher neonatal abstinence syndrome scores do not indicate that a mother has "used" during pregnancy

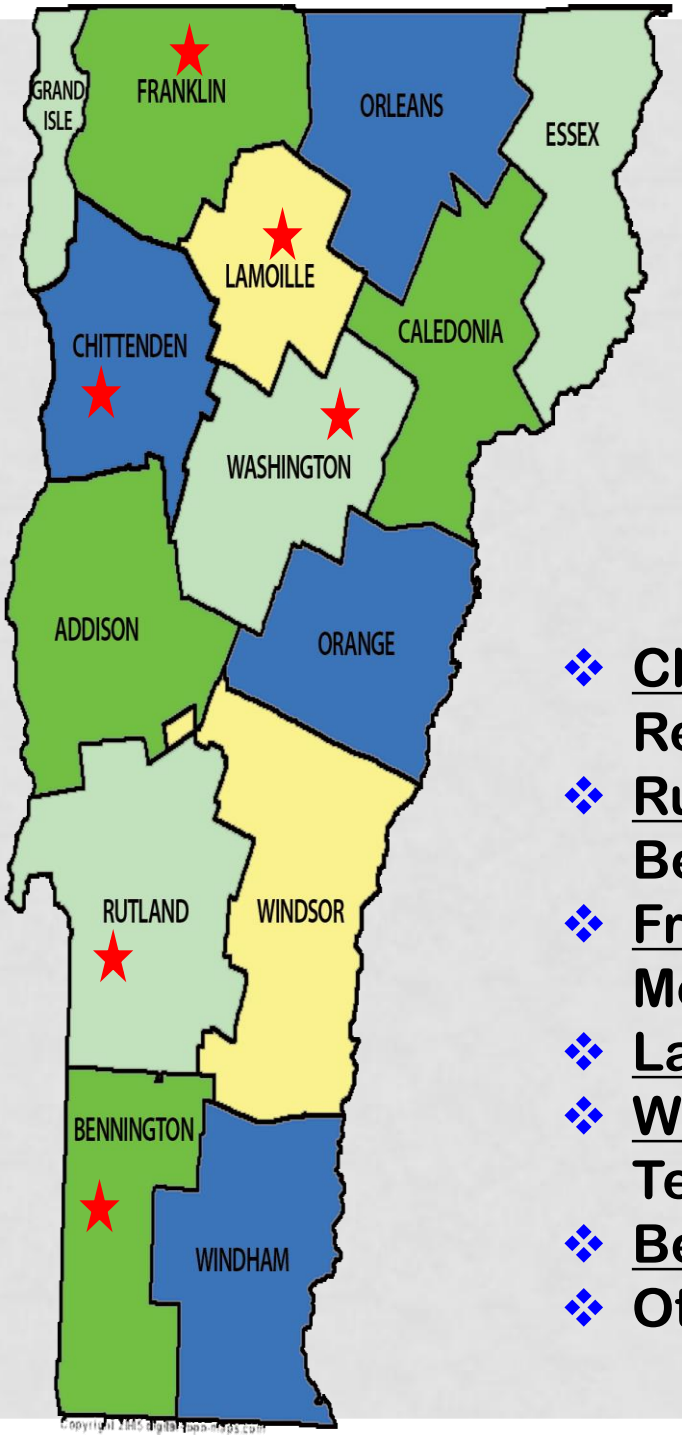
Myth #4: Opioid use + pregnancy → child abuse

- 1,287 babies born to opioid-dependent women at UVM Children's Hospital
- Over 90% of these babies have been discharged in the care of their mother +/- father (2002 – 2014)
- If a parent is not adhering to treatment, does not want to receive treatment **and** is actively using – they may NOT be ready to parent a child
- The majority of parents we see are actively engaged in treatment and display good parenting, many need support in order to do so

Vermont Experience: Overall

- ChARM Team: Children and Recovering Mothers
- Monthly multidisciplinary meetings with multiple agencies: impaneled
- High risk factors:
  - Increased distance to treatment center
  - Discontinuation of methadone / buprenorphine
  - Actively using partner
  - Abusive relationship with partner
- **Women respond well to positive interactions with health care providers**

★ Methadone and buprenorphine clinics



State of Vermont: Multidisciplinary Collaborative Groups Who Coordinate Comprehensive Services for Pregnant and Parenting Women with Opioid Use Disorders

- Chittenden County: Children and Recovering Mothers (ChARM)
- Rutland County: Babies and Mother's Beginning In-Sync (BAMBI)
- Franklin County: Children and Recovering Mothers-II (ChARM-II)
- Lamoille County: Close to Home
- Washington County: Community Response Team
- Bennington County: Safe Arms
- Other counties in Vermont have teams also

Conclusions

- In Vermont, we have an outstanding system for providing care to addicts including pregnant and parenting women and their families
- If the "word on the street" becomes "it is best to hide your use because your child will be removed", we will have fewer pregnant opioid-dependent women in treatment, the infant may not exhibit signs of withdrawal prior to discharge, and the family will stay under the radar without support and child abuse and neglect will
- We have had the privilege of seeing the majority of children in this program receive excellent parenting
- Relapse is a part of recovery for many – it is essential that women feel safe in sharing their recovery and relapse(s)
- Behind every case of NAS, there is a mother suffering from the disease of addiction – this is where efforts need to be the greatest!
- Developmental / behavioral outcomes are overall not affected by opioid-exposure in utero on its own, unlike alcohol exposure

The baby’s health and safety depends upon the mother’s health