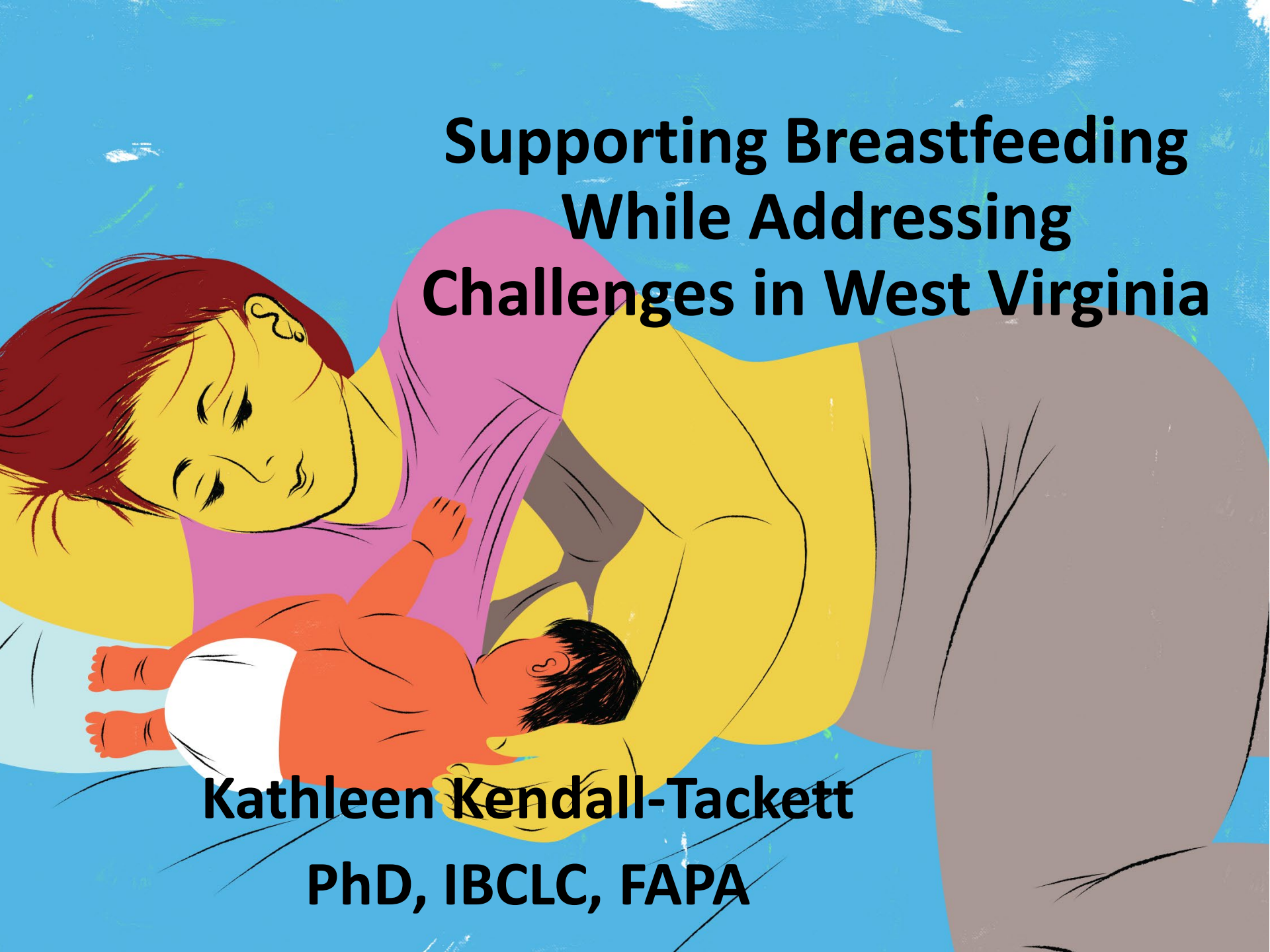
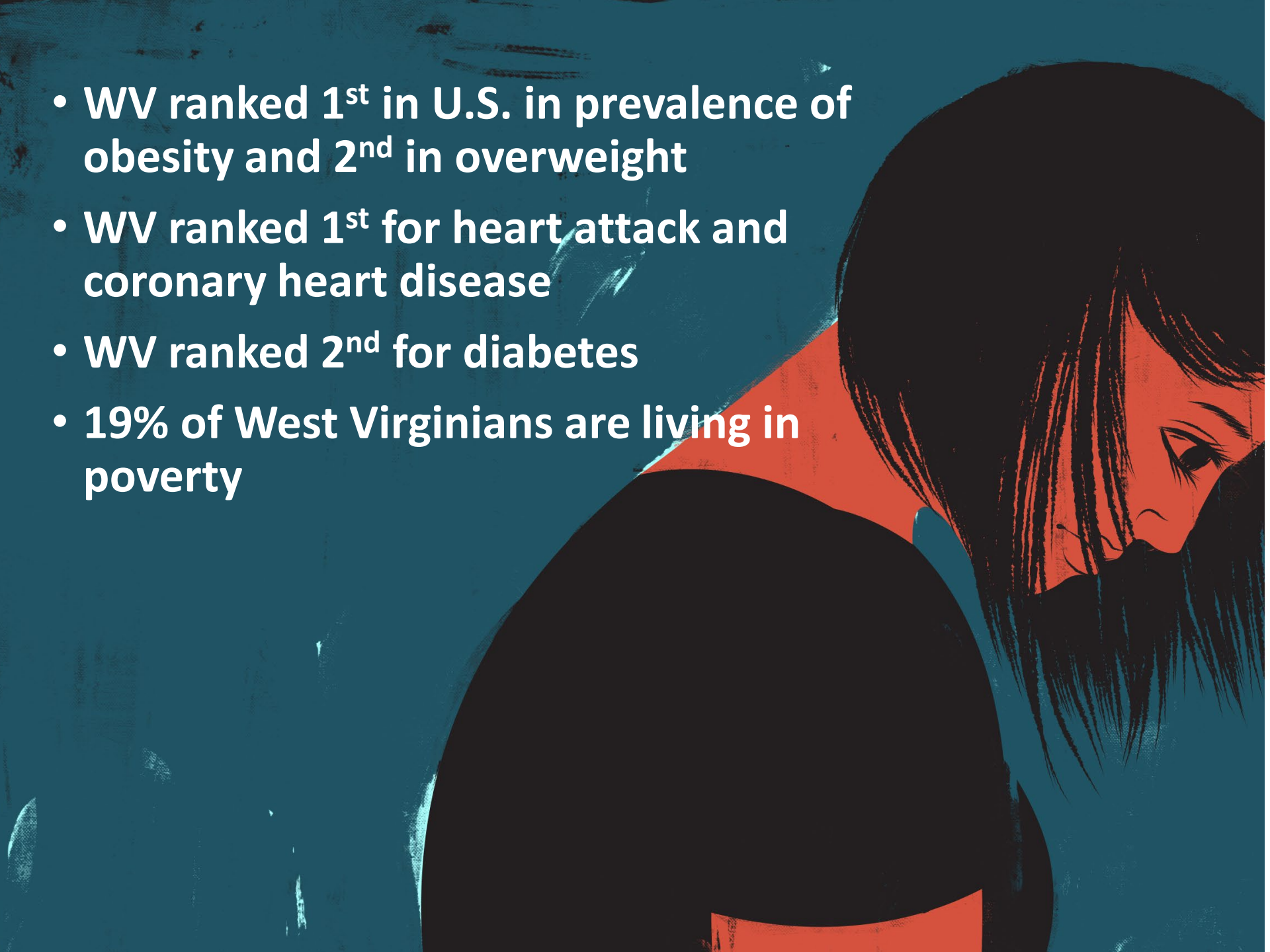
Supporting Breastfeeding While Addressing Challenges in West Virginia



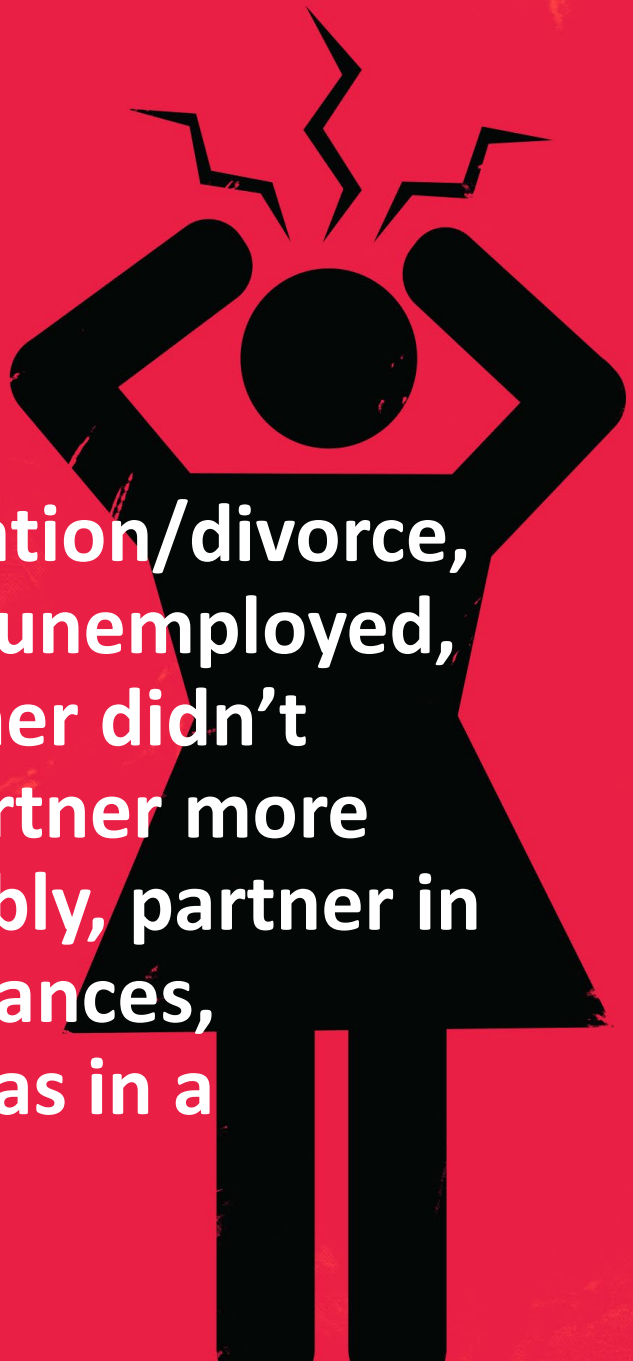
Kathleen Kendall-Tackett

PhD, IBCLC, FAPA


• WV ranked 1st in U.S. in prevalence of obesity and 2nd in overweight
• WV ranked 1st for heart attack and coronary heart disease
• WV ranked 2nd for diabetes
• 19% of West Virginians are living in poverty

- 62% of mothers in WV had some depression postpartum
- 11% said they often or always felt depressed

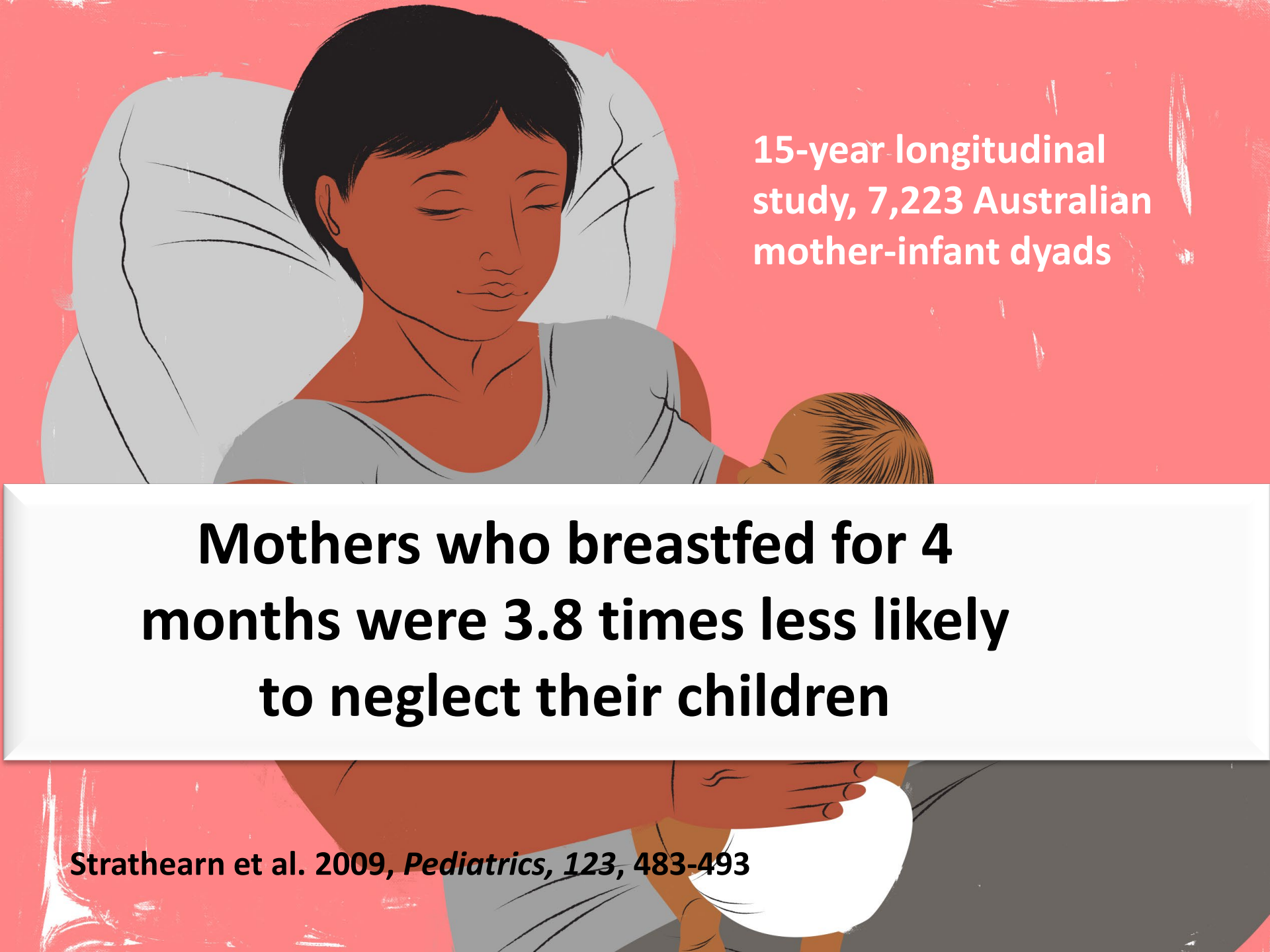
- Number of stressors
  - 1-2 (51%)
  - 3-5 (37%)
  - 6 or more (12%)
- Sick family member, separation/divorce, moved, homeless, partner unemployed, mother unemployed, partner didn't want baby, argued with partner more than usual, financial probably, partner in jail, some close using substances, someone close died, she was in a physical fight



- Breastfeeding reduces risk for all these problems
- And more

- **According to recent PRAMS data, 46% of women in WV were exclusively breastfeeding at 2 to 4 months**

Breastfeeding reduces the risk of maternal-perpetrated child maltreatment


15-year longitudinal study, 7,223 Australian mother-infant dyads
Mothers who breastfed for 4 months were 3.8 times less likely to neglect their children
Strathearn et al. 2009, *Pediatrics*, *123*, 483-493

And 2.6 times less likely to physically abuse them

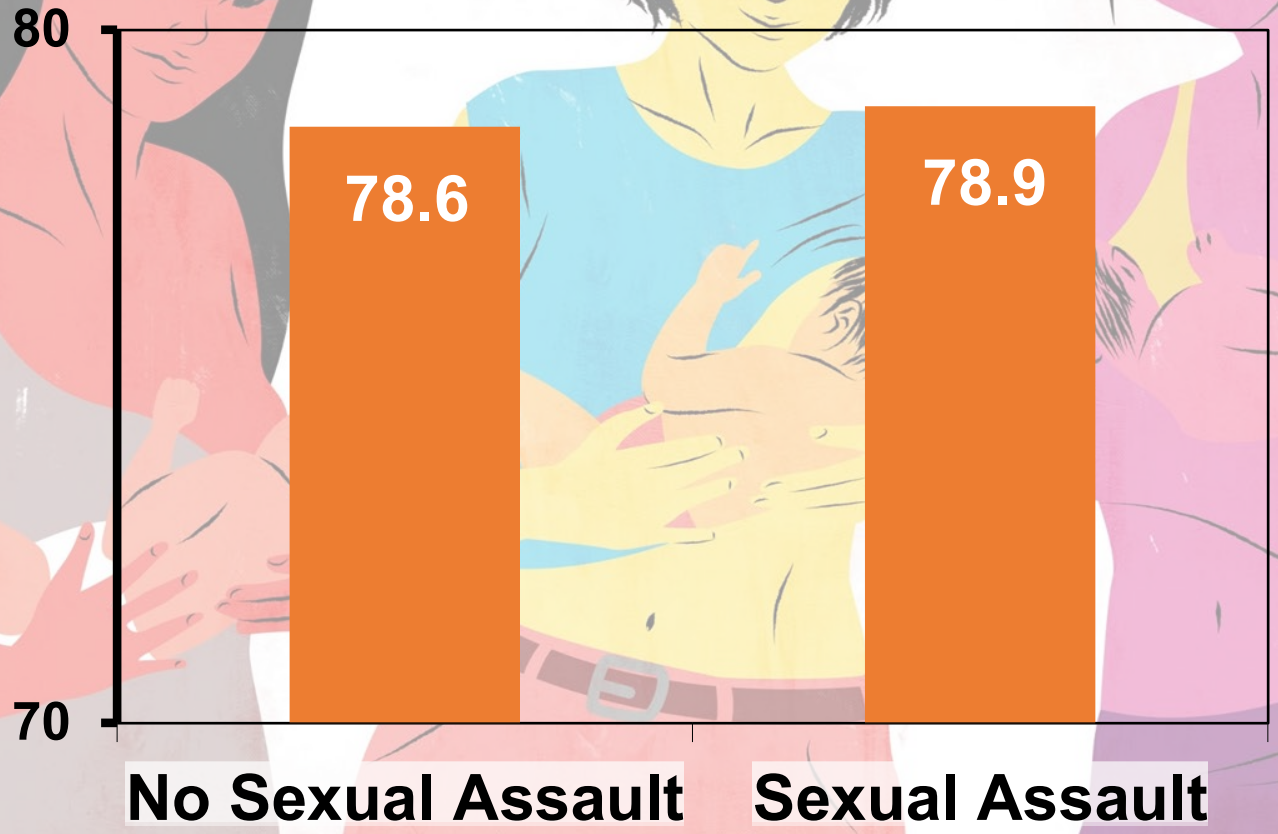
Strathearn et al. 2009, *Pediatrics, 123*, 483-493

Depressed-BF moms touched, stroked and looked at babies more
Breastfeeding protected babies from the effects maternal depression
Jones et al. 2004, *Biol Psychology*, *67*, 103-124

The Impact of Sexual Assault

Does breastfeeding help these mothers?

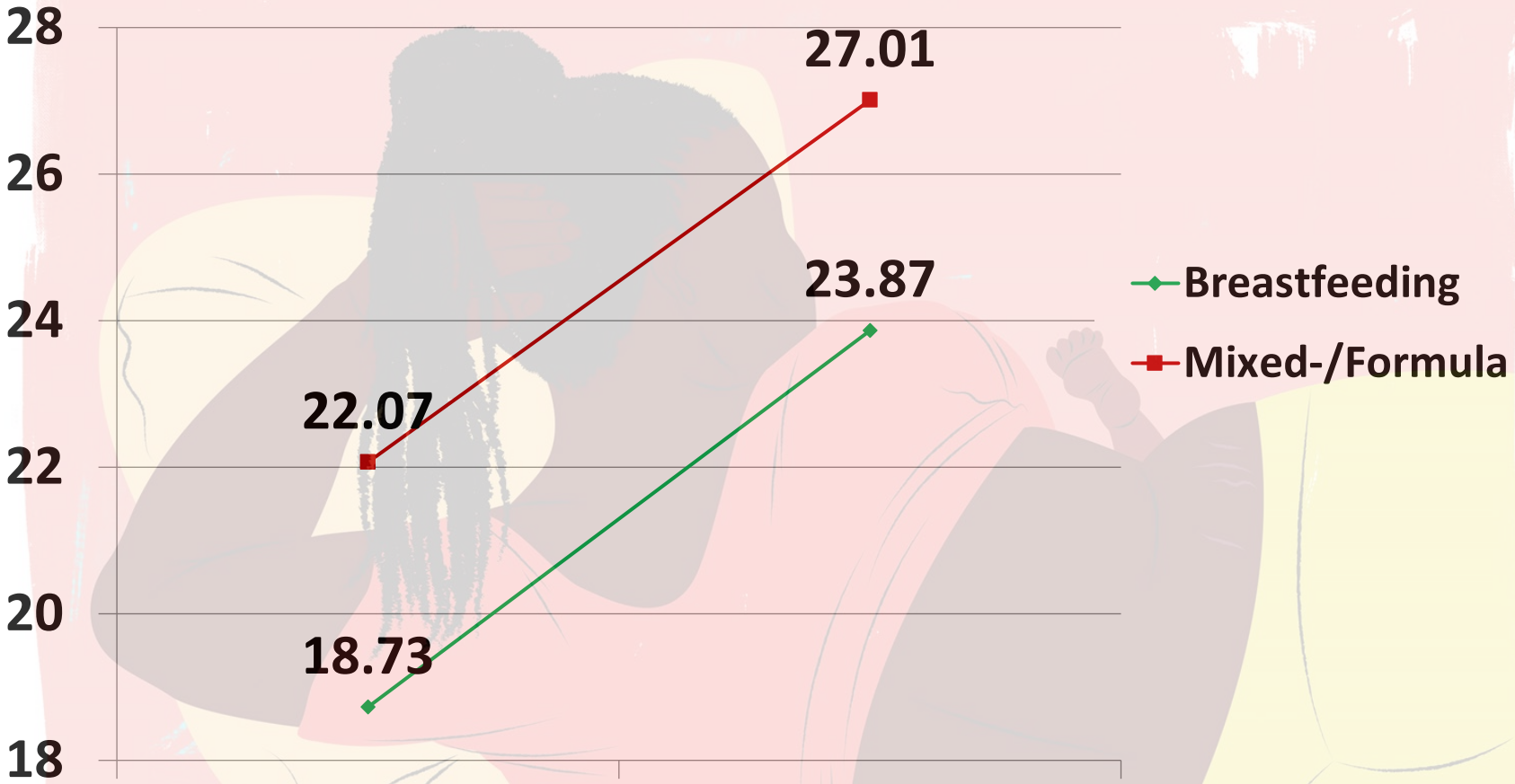
Percentage who are Breastfeeding



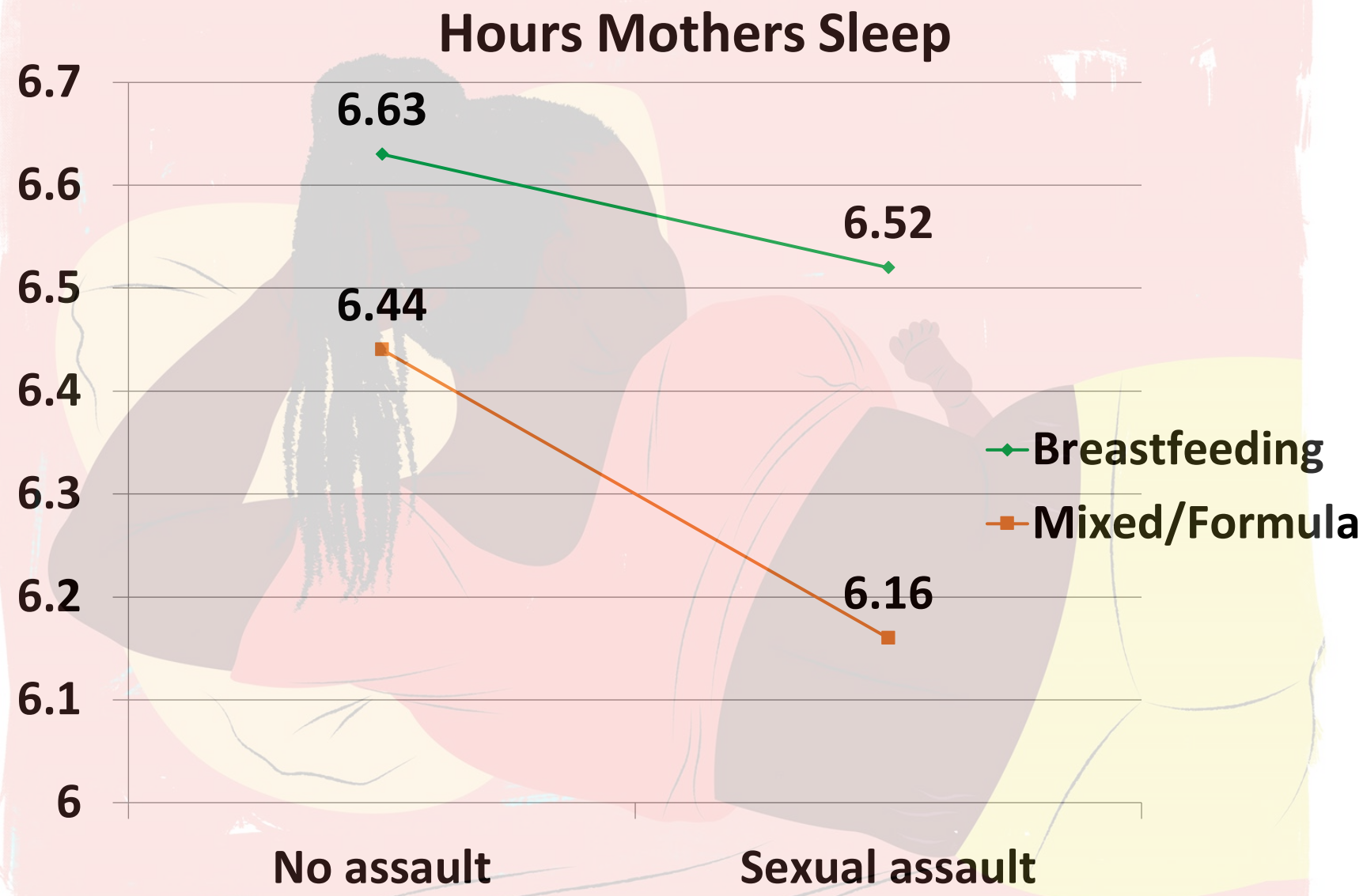
N=6,410, 994 sexual assault survivors

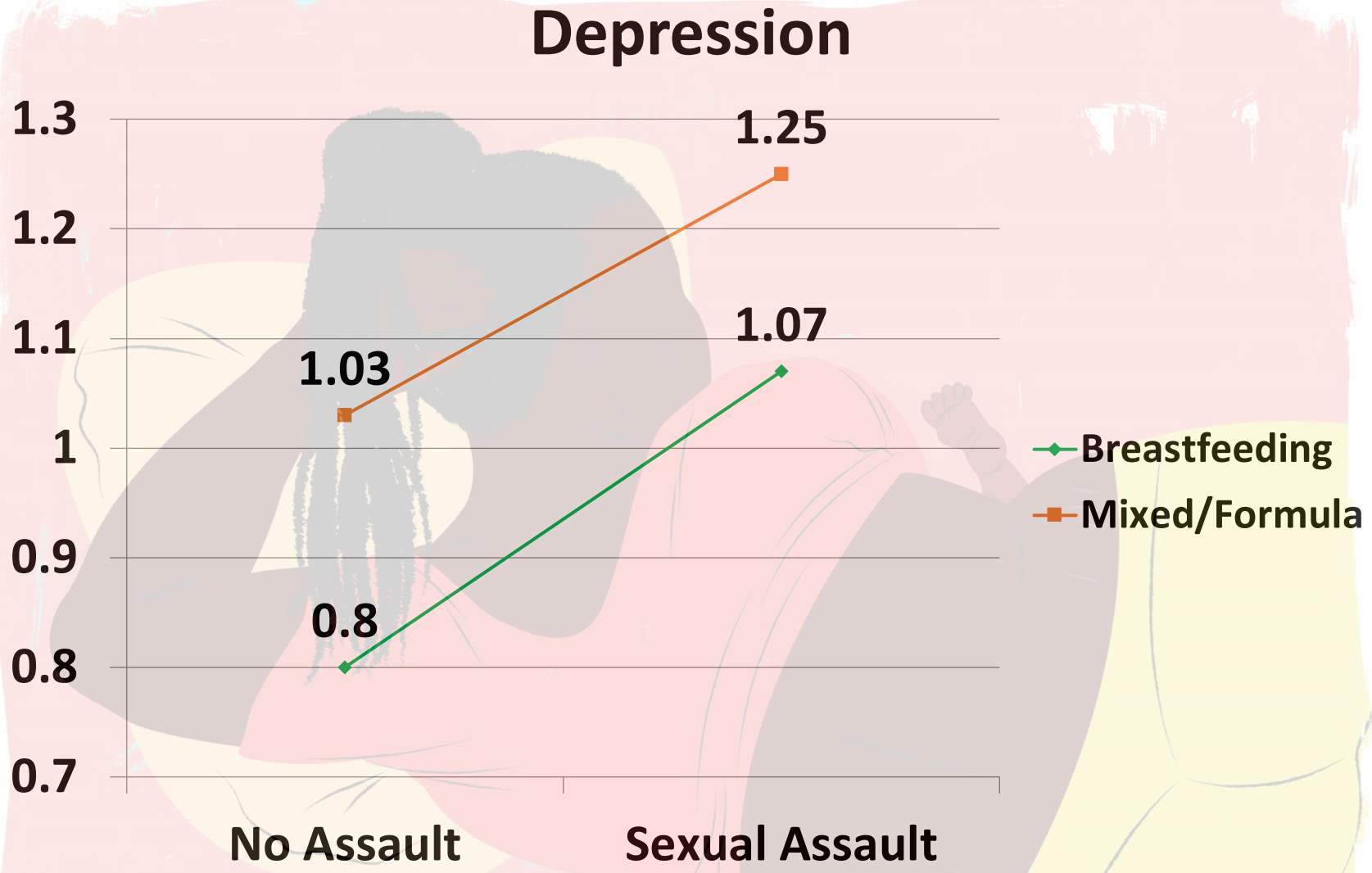
Kendall-Tackett et al., 2013, *Breastfeed Med, 8*(1), 16-22

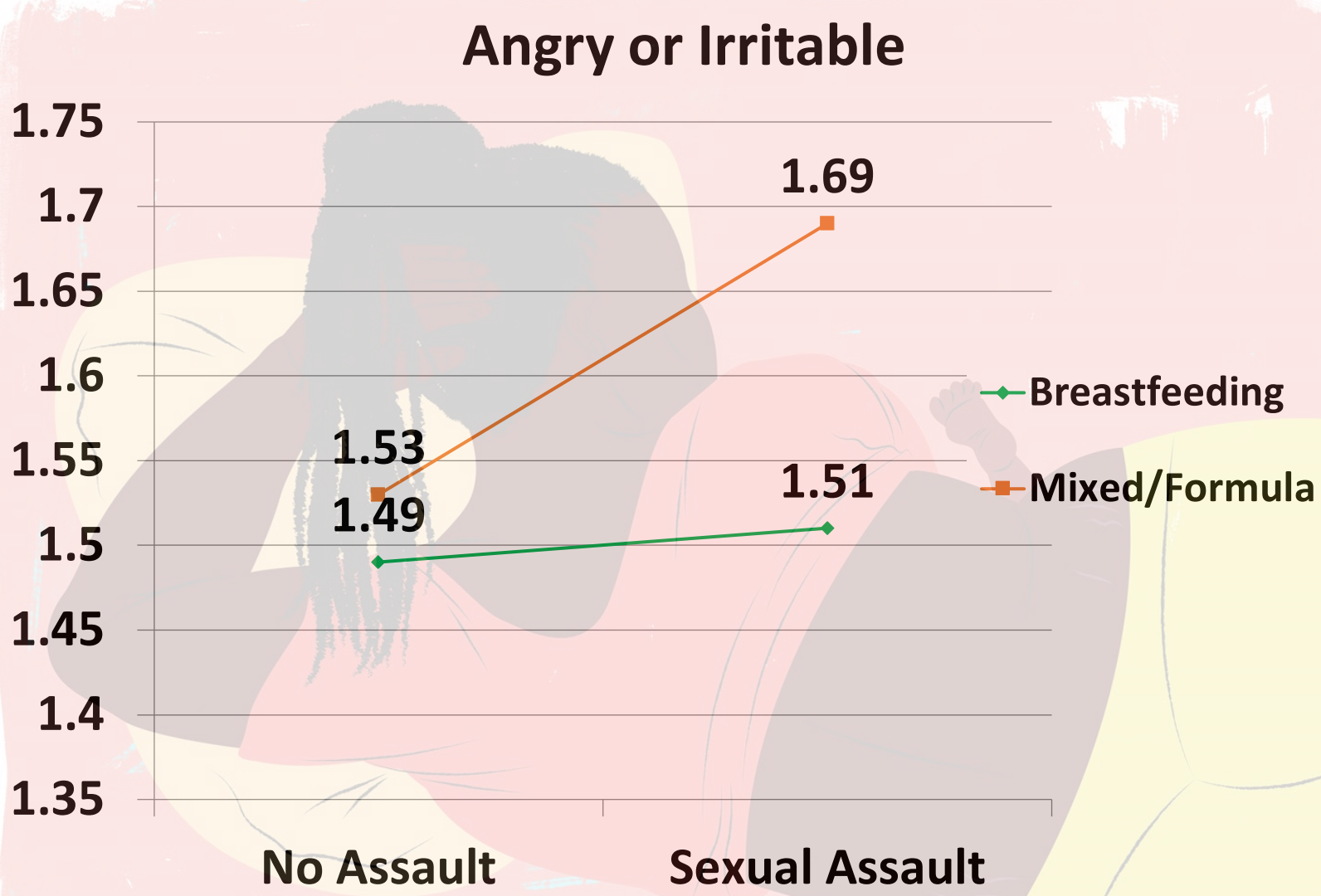
Minutes to Get to Sleep



Kendall-Tackett et al. 2013, *Breastfeed Med, 8*(1), 16-22

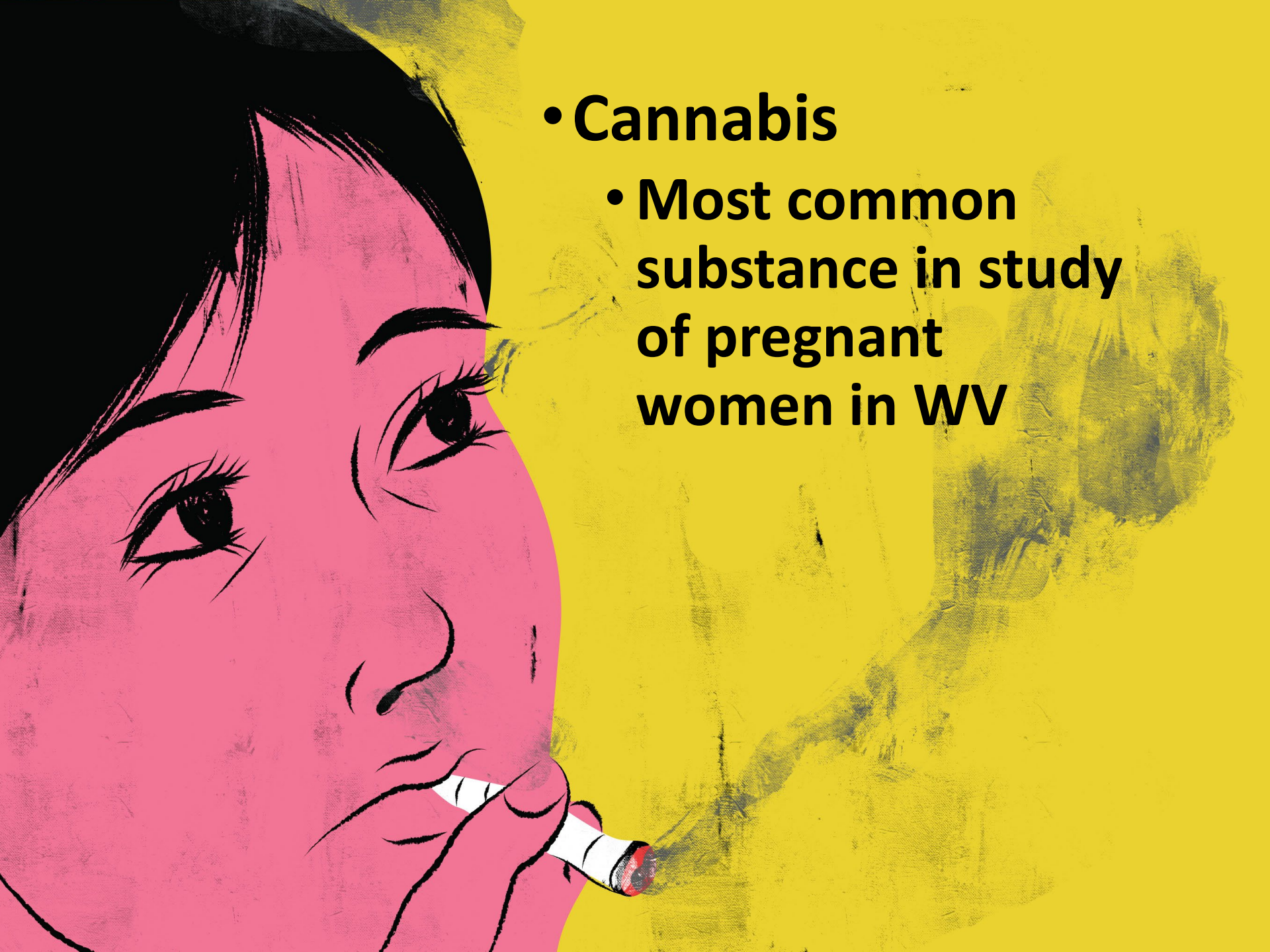

Hours Mothers Sleep
6.7
6.6
6.5
6.4
6.3
6.2
6.1
6
6.63
6.52
6.44
6.16
Breastfeeding
Mixed/Formula
No assault
Sexual assault


Depression
1.3
1.2
1.1
1
0.9
0.8
0.7
1.25
1.07
1.03
0.8
No Assault
Sexual Assault
Breastfeeding
Mixed/Formula


Angry or Irritable
1.75
1.7
1.65
1.6
1.55
1.5
1.45
1.4
1.35
1.69
1.53
1.49
1.51
No Assault
Sexual Assault
Breastfeeding
Mixed/Formula

• What are the challenges and barriers to breastfeeding?

- **Smoking**
  - **WV has the highest percentage (28%) of pregnant smokers in U.S.**
  - **94% of smoking mothers don’t allow smoking near baby**



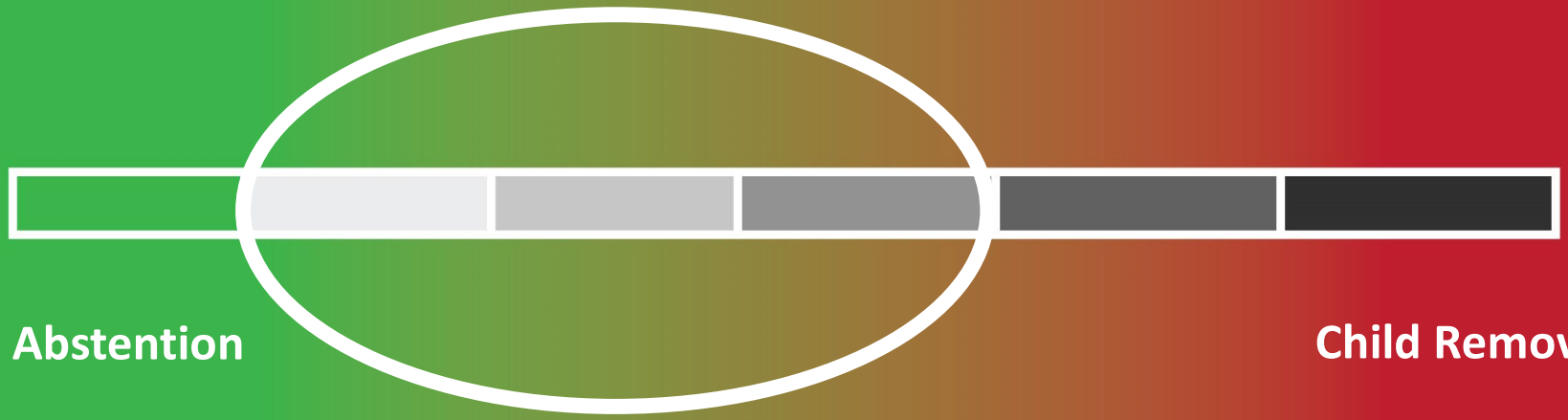
- Cannabis
  - Most common substance in study of pregnant women in WV

- **Substance Use**
  - **1 in 5 women had evidence of drug or alcohol exposure**
  - **WV has the lowest rates of alcohol use in last 3 months of pregnancy**

- **SIDS/SUID and Issues around Safe Sleep**
  - **West Virginia has one of the highest rates of SUID in the U.S.**
  - **6.1/1000 rate of infant mortality**
  - **Unsafe co-sleeping/bedsharing reported in 52% of deaths**

- **Encouraging Breastfeeding Where Appropriate**
- **Strategies for Harm Reduction**

Support Services and Harm Reduction



Abstention

Child Removal

Breastfeeding
Safe

Breastfeeding
Contraindicated

Abstention

Child Removal

Breastfeeding Contraindicated

Abstention

Child Removal

- When does risk of exposure to the substance via breastmilk exceed the risks of formula-feeding?
- How much is too much?

Tobacco and Nicotine

Bartholomew & Lee 2019, *Contemp OB/Gyn, 64*(9), https://www.contemporaryobgyn.net/pregnancy-and-birth/substance-use-breastfeeding-woman

Harm-reduction strategies

- Transdermal nicotine patches
- Vaping?
- Reducing number of cigarettes or using low nicotine brand
- Smoke after breastfeeding and use other settling techniques for the 1 ½ hours after each cigarette
- Avoid smoky environments with baby
- Cover hair and clothing while smoking. Leave outside. Wash hands and face
- Watch infant for nicotine-related symptoms and reduce exposure if possible
- Avoid cosleeping

Bartholomew & Lee 2019, *Contemp OB/Gyn, 64*(9), https://www.contemporaryobgyn.net/pregnancy-and-birth/substance-use-breastfeeding-woman

Cannabis

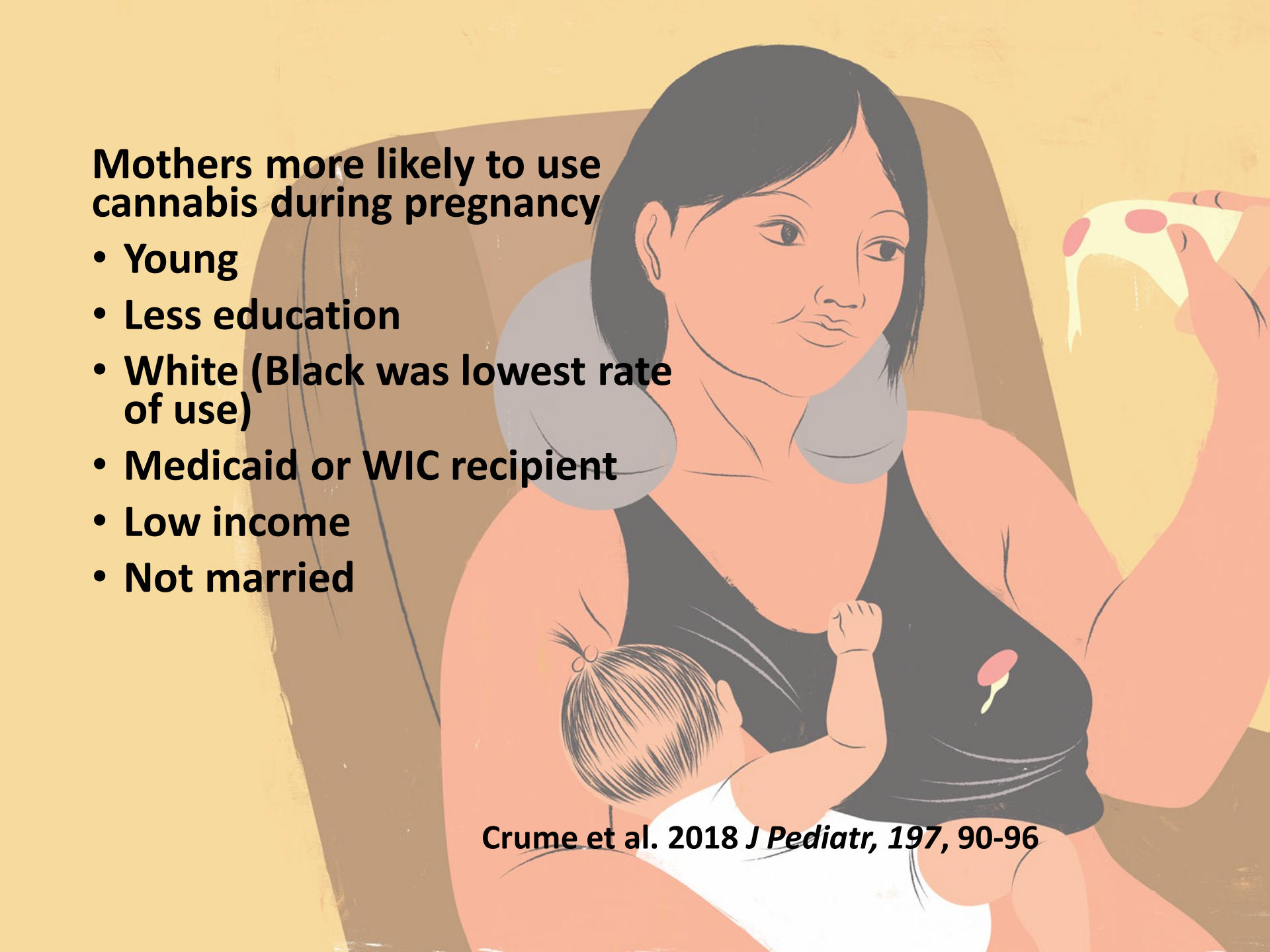
Some concerning beliefs

- It's "natural" therefore it's safe
- Cannabis is not addictive

3,207 mothers,
PRAMS data,
Colorado

- Overall cannabis use for pregnancy 5.7% and breastfeeding 5%
- Risk factors associated with higher use
  - Tobacco use in last trimester 27%
  - No daily multivitamin use 83%
  - Exercise <3x/week 46%
  - Food insecurity 17%
  - >3 stressors 12 months before delivery 55%
  - Unintended pregnancy 57%

Crume et al. 2018 *J Pediatr, 197*, 90-96



Mothers more likely to use cannabis during pregnancy

- **Young**
- **Less education**
- **White (Black was lowest rate of use)**
- **Medicaid or WIC recipient**
- **Low income**
- **Not married**

Crume et al. 2018 *J Pediatr, 197*, 90-96

4604 mothers PRAMS data, 7 states, 5.5% used cannabis while breastfeeding (n=366)

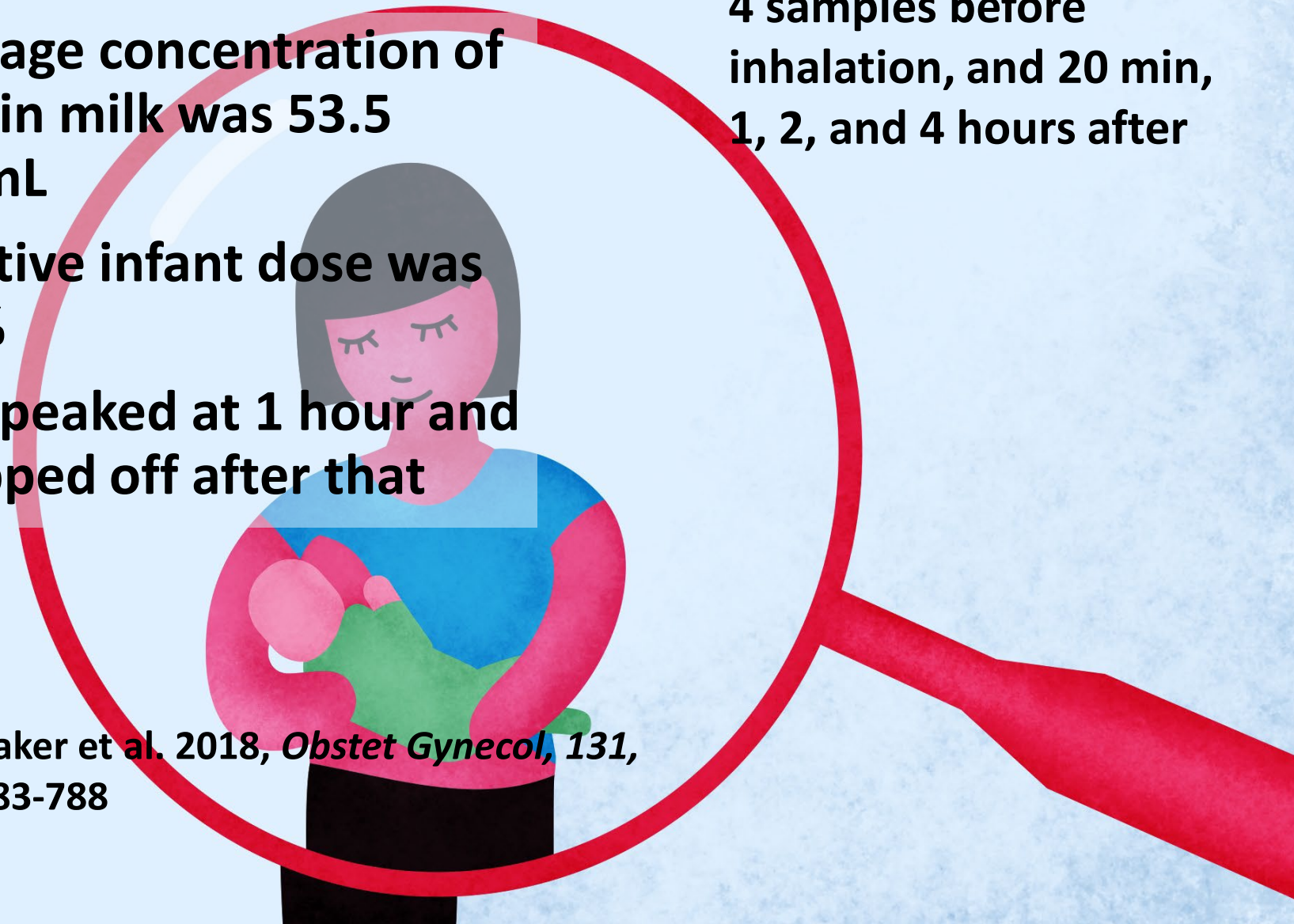
- Women who used were more likely to be young, single, and low-income
- More likely to smoke cigarettes
- If they thought it was safe to use cannabis while breastfeeding, there was no difference breastfeeding initiation or duration >12 weeks

Coy et al. 2021, J Hum Lact, doi: 10.1177/0890334421

- **Does THC accumulate in milk?**

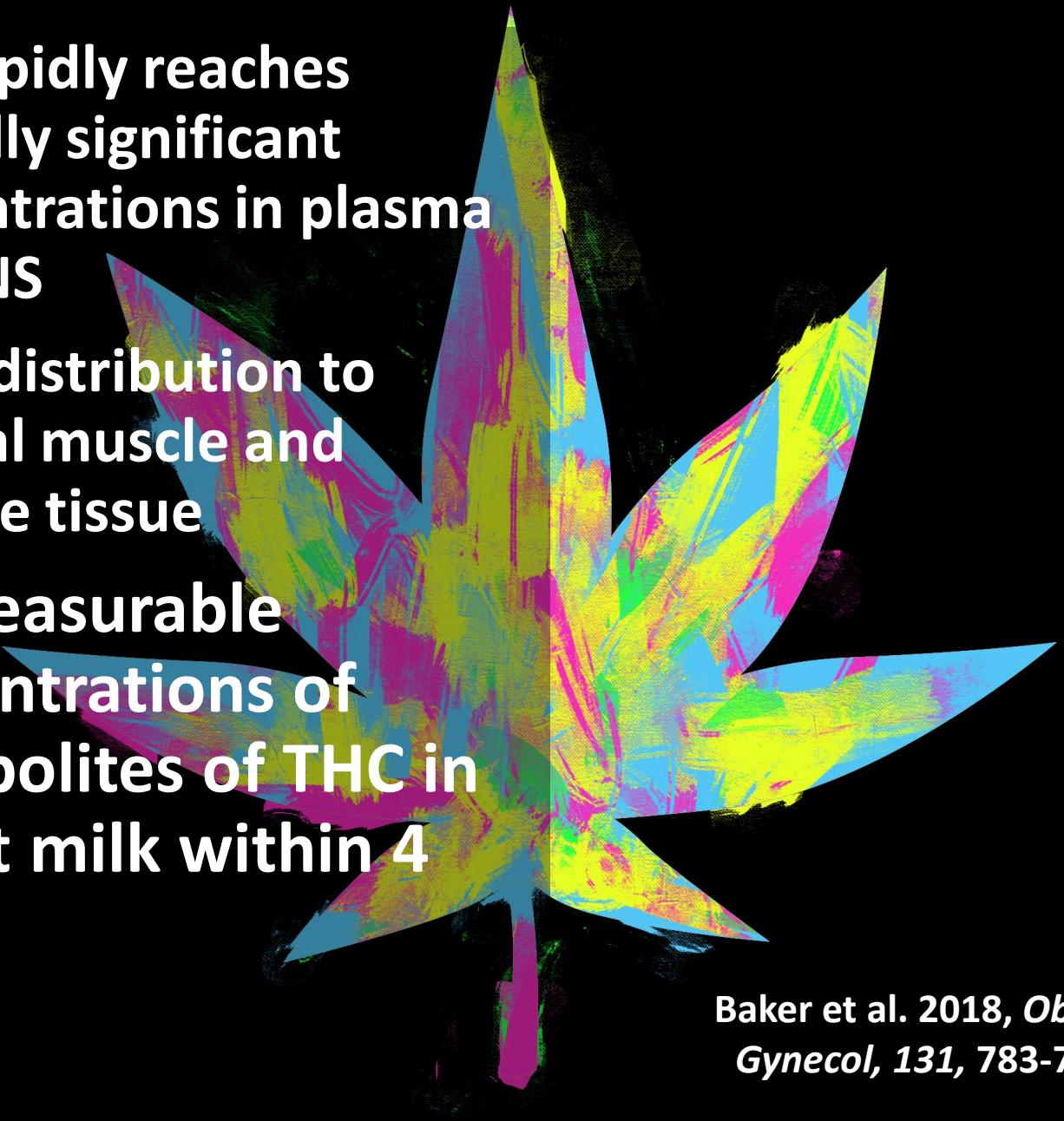
8 EBF mothers collected 4 samples before inhalation, and 20 min, 1, 2, and 4 hours after

- Average concentration of THC in milk was 53.5 ng/mL
- Relative infant dose was 2.5%
- THC peaked at 1 hour and dropped off after that



Baker et al. 2018, *Obstet Gynecol, 131,* 783-788

- THC rapidly reaches clinically significant concentrations in plasma and CNS
- Rapid distribution to skeletal muscle and adipose tissue
- No measurable concentrations of metabolites of THC in breast milk within 4 hours



Baker et al. 2018, *Obstet Gynecol, 131,* 783-788

- Full pumping
- Combined milk from right and left breasts
- Submitted 1-2 oz from each pumping
- Controlled type and how much they smoked

Baker et al. 2018, *Obstet Gynecol, 131,* 783-788

- **Δ-9-tetrahydrocannabinol (THC) was detectable in 63% of samples up to 6 days after last reported use**
- **Highly variable in THC content**
- **5 samples had detectable metabolites**
- **No standardization of amount consumed**
- **Need milk and plasma studies**

50 breastfeeding women, 54 samples

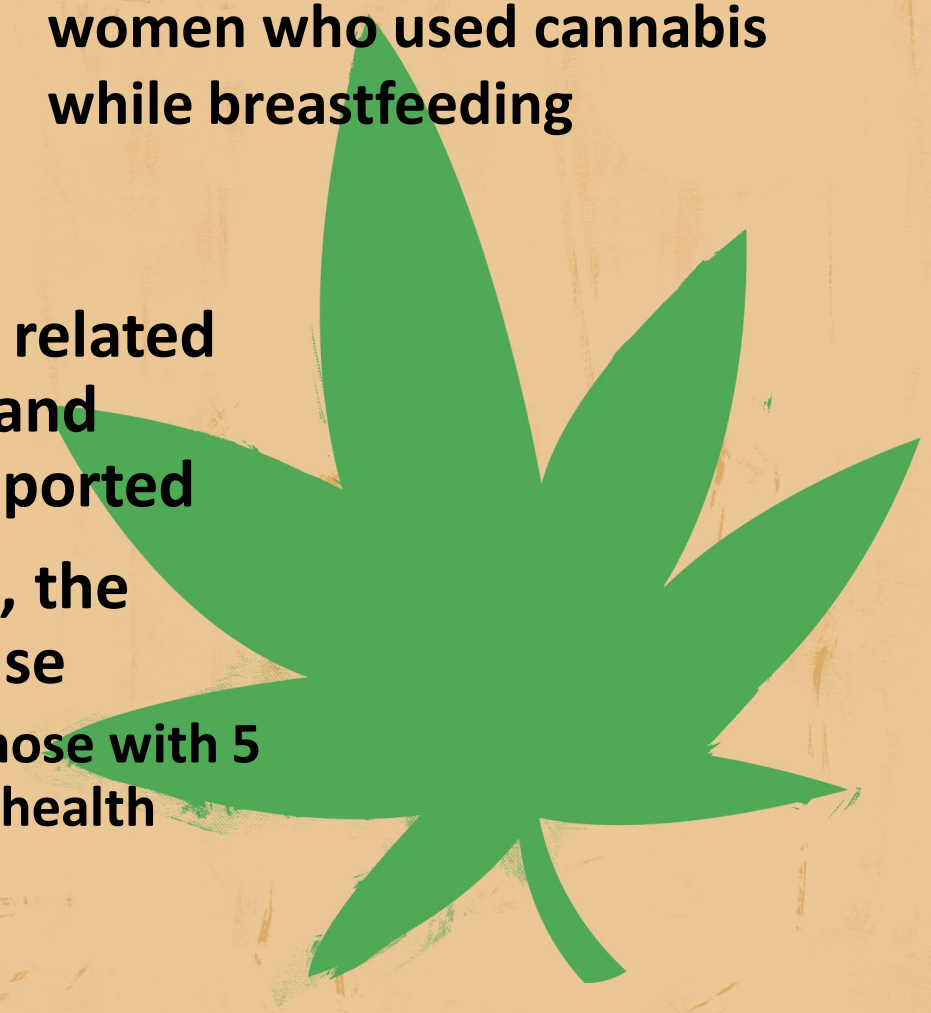
Bertrand et al. 2018, *Pediatrics, 142*(3), doi.org/10.1542/peds.2018-1076

- Full pumping that included more fatty milk
- Number of times/day the mother smoked predicts concentration of THC in milk
- Most detectable in first 24 hours
- If baby is exposed daily, concerns for cannabinoid accumulation in infants

Bertrand et al. 2018, *Pediatrics, 142*(3)
doi.org/10.1542/peds.2018-1076

- **Frequency of use is a key variable**
- **Frequency predicts accumulation of THC in breast milk**

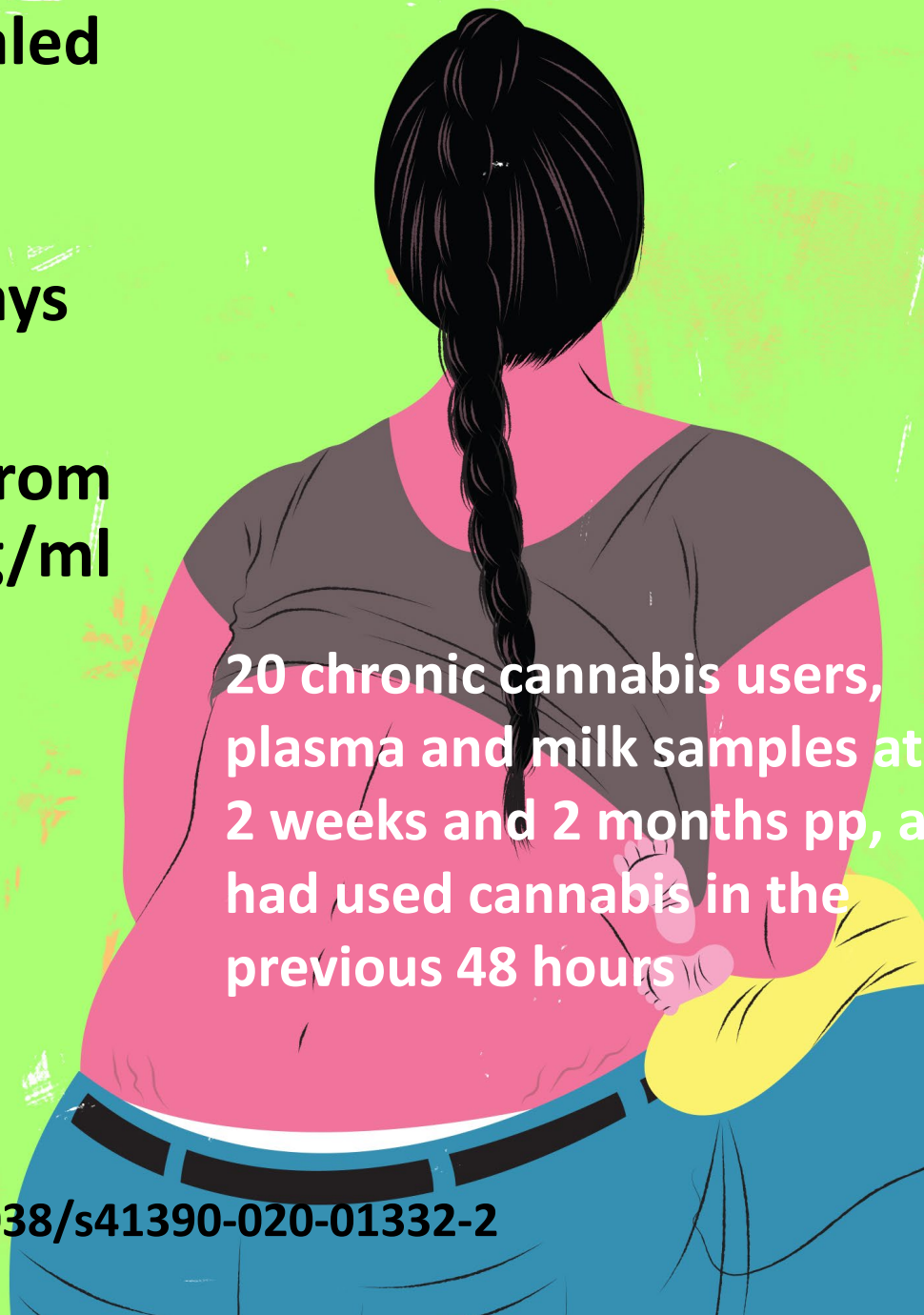
Online survey of 1,327 women who used cannabis while breastfeeding



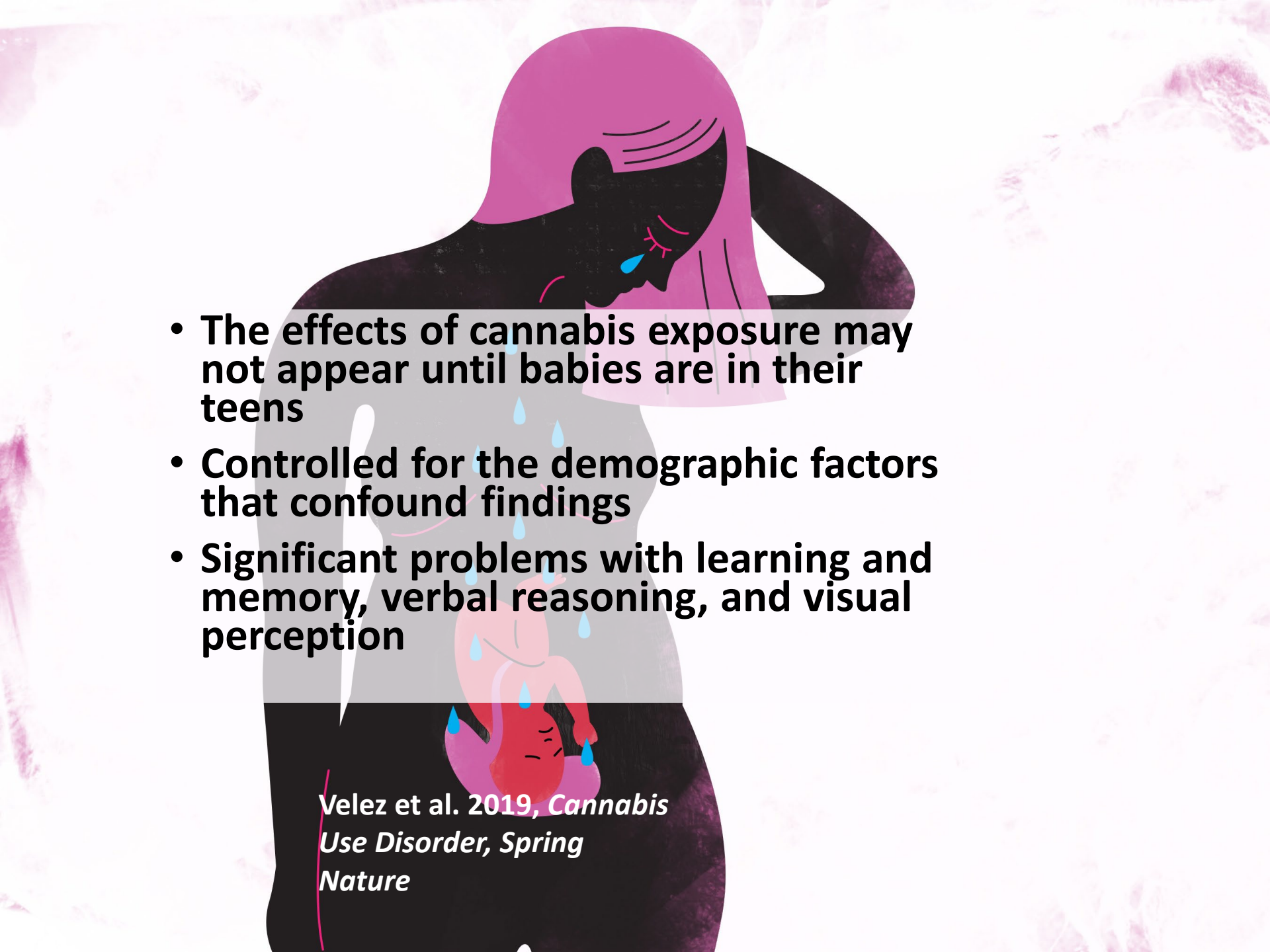
- **Frequency of cannabis use related to the number of physical and mental health problems reported**
- **The more health problems, the more likely was frequent use**
  - **Increased by 13 times for those with 5 or more physical or mental health problems**

Garner, Kendall-Tackett et al. 2022. *Breastfeeding Med.*

- After using cannabis (inhaled or edible), THC and CBD accumulate in breastmilk
- Remain present for 1-2 days
- Breast milk THC concentration increased from visit 1 to visit 2 by 30.2 ng/ml
- THC concentrates more in milk than plasma



Moss et al. 2021, *Pediatr Res*, doi: 10/1038/s41390-020-01332-2



- **The effects of cannabis exposure may not appear until babies are in their teens**
- **Controlled for the demographic factors that confound findings**
- **Significant problems with learning and memory, verbal reasoning, and visual perception**

Velez et al. 2019, *Cannabis Use Disorder, Spring Nature*

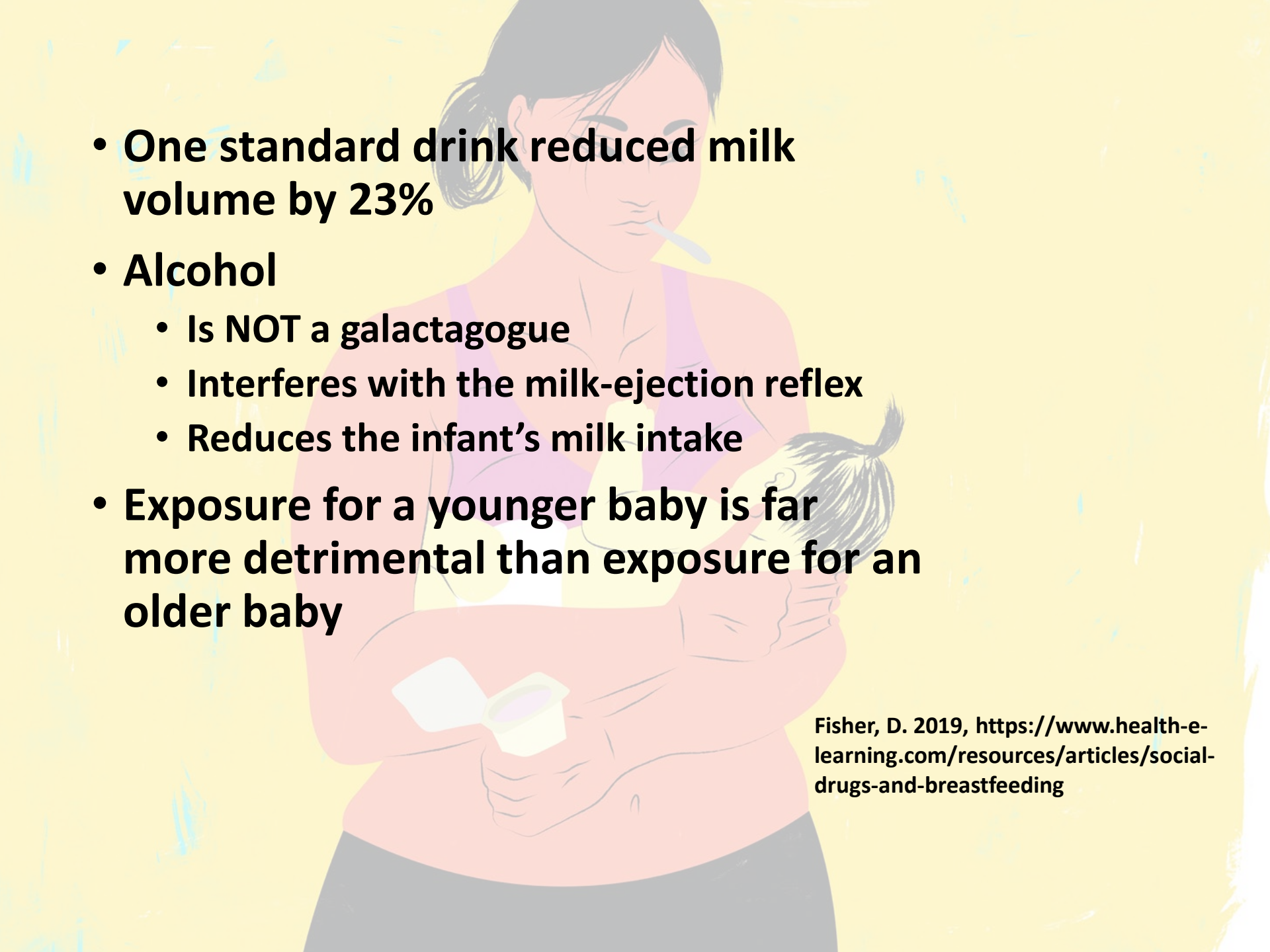
- **Harm reduction strategies**
  - **What types of support do mothers need to help them use less? (Trauma treatment, partner violence intervention, housing assistance)**
  - **If mothers are using for specific symptoms, could a CBD product be used instead?**
  - **If mothers are using to get high, an edible product may be better because it eliminates second-hand smoke**

Indiana Perinatal Quality Improvement Collaborative 2019, https://www.in.gov/laboroflove/files/breastfeeding-and-substance-use-final.pdf; Kendall-Tackett 2020, *Cannabis and breastfeeding*; Reece-Stremtan, Marinelli, ABM 2015, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4378642/

- **Mothers should NEVER sleep with their babies while using cannabis**
- **Have another adult around to care for the baby while high**
- **Periodic users can pump and dump or wait at least 4 hours before breastfeeding**

Breastfeeding is contraindicated for heavy cannabis users and those using other substances

Alcohol



- One standard drink reduced milk volume by 23%
- Alcohol
  - Is NOT a galactagogue
  - Interferes with the milk-ejection reflex
  - Reduces the infant's milk intake
- Exposure for a younger baby is far more detrimental than exposure for an older baby

Fisher, D. 2019, https://www.health-e-learning.com/resources/articles/social-drugs-and-breastfeeding

- Avoid alcohol in the first month postpartum until breastfeeding is well established
- No more than 2 drinks a day
- Don’t drink immediately before breastfeeding
- Consider expressing milk in advance
- No need to pump and dump

Stimulants

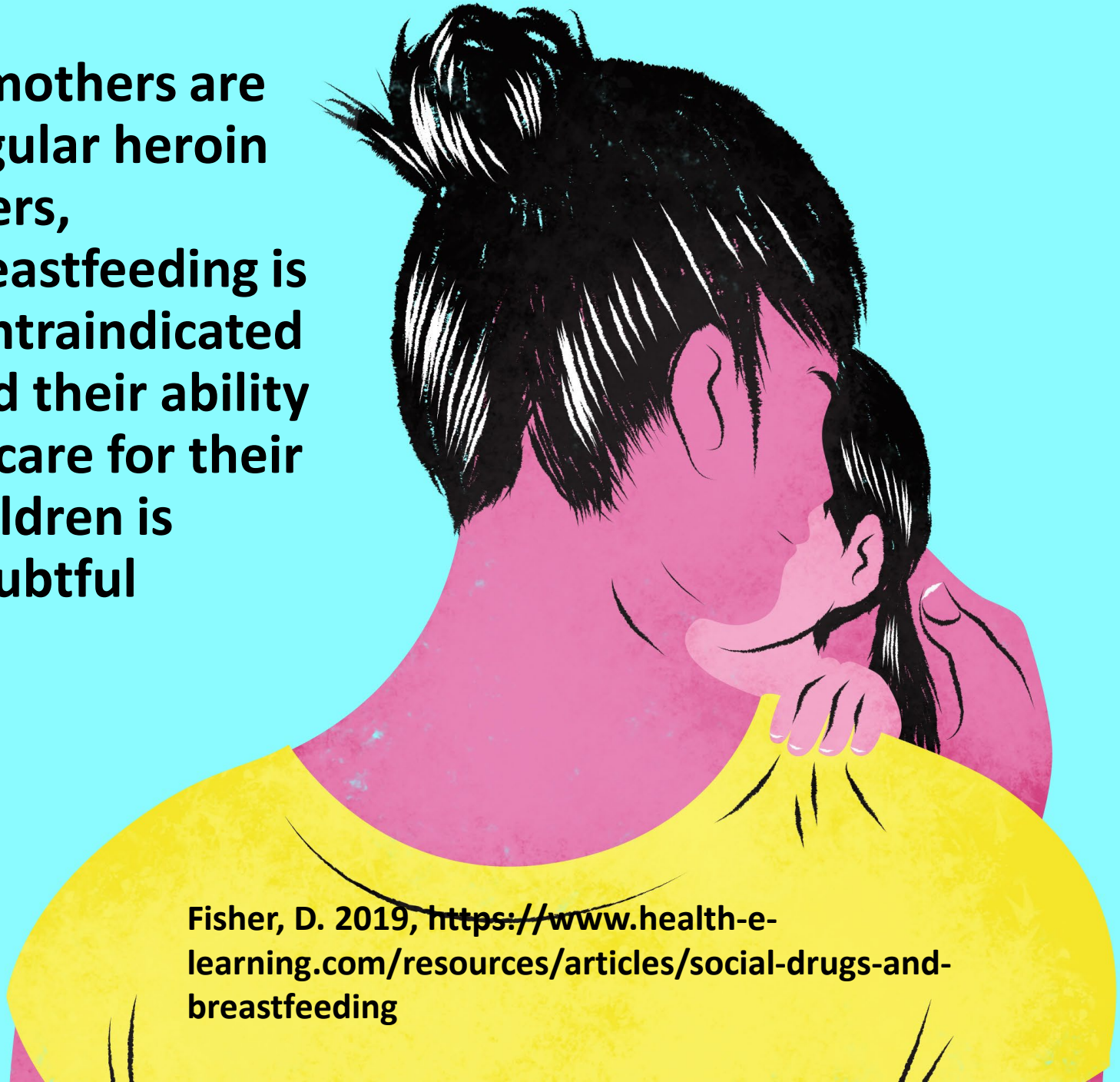
- Cocaine
- Methamphetamine

- CDC states that mothers using PCP, cocaine, or other street drugs should not breastfeed
- Exception: if mothers are enrolled in a supervised medication-assisted program and have negative screens for HIV and other street drugs

Bartholomew & Lee 2019, *Contemp OB/Gyn, 64*(9), https://www.contemporaryobgyn.net/pregnancy-and-birth/substance-use-breastfeeding-woman

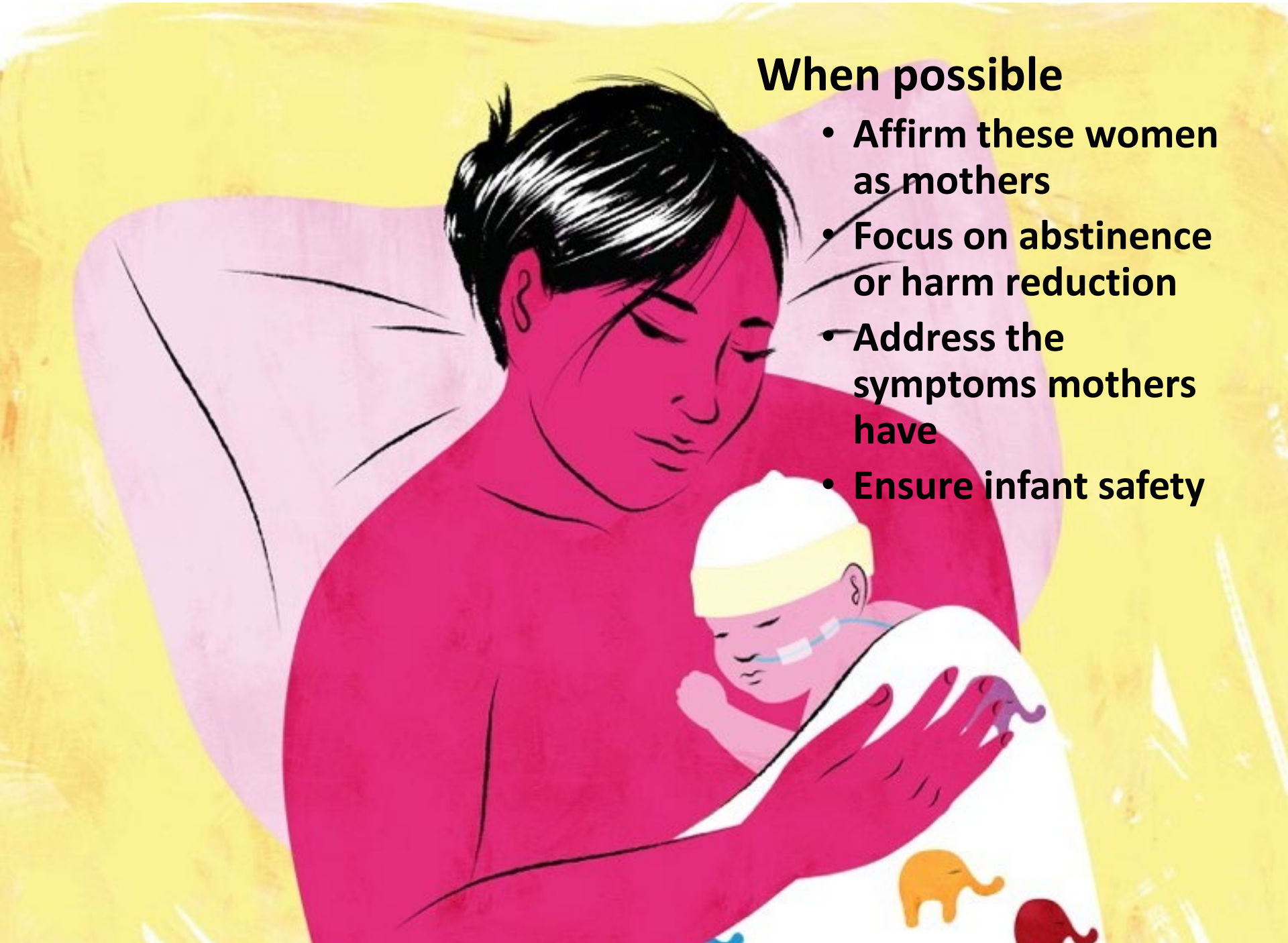
Opioids
• Heroin
• Prescription medications
• Methadone/buprenorphine

If mothers are regular heroin users, breastfeeding is contraindicated and their ability to care for their children is doubtful



Fisher, D. 2019, https://www.health-e-learning.com/resources/articles/social-drugs-and-breastfeeding

Bartholomew & Lee 2019, *Contemp OB/Gyn, 64*(9), https://www.contemporaryobgyn.net/pregnancy-and-birth/substance-use-breastfeeding-woman



When possible

- Affirm these women as mothers
- Focus on abstinence or harm reduction
- Address the symptoms mothers have
- Ensure infant safety

- **Use trauma-informed care**
- **Create a safe and comfortable environment**
- **Ask permission before talking about SUD, exposing, or touching**

Bartholomew & Lee 2019, *Contemp OB/Gyn, 64*(9), https://www.contemporaryobgyn.net/pregnancy-and-birth/substance-use-breastfeeding-woman

- “No effort should be spared in assisting the mother to receive treatment for her addiction for her own and her baby’s future.
- Giving birth and then breastfeeding can be an empowering and life changing experience for a women and may be the catalyst that causes her to stop substance abuse.
- Before counselling a women to feed artificial baby milk, consider giving her the opportunity to meet this challenge.”

Denise Fisher

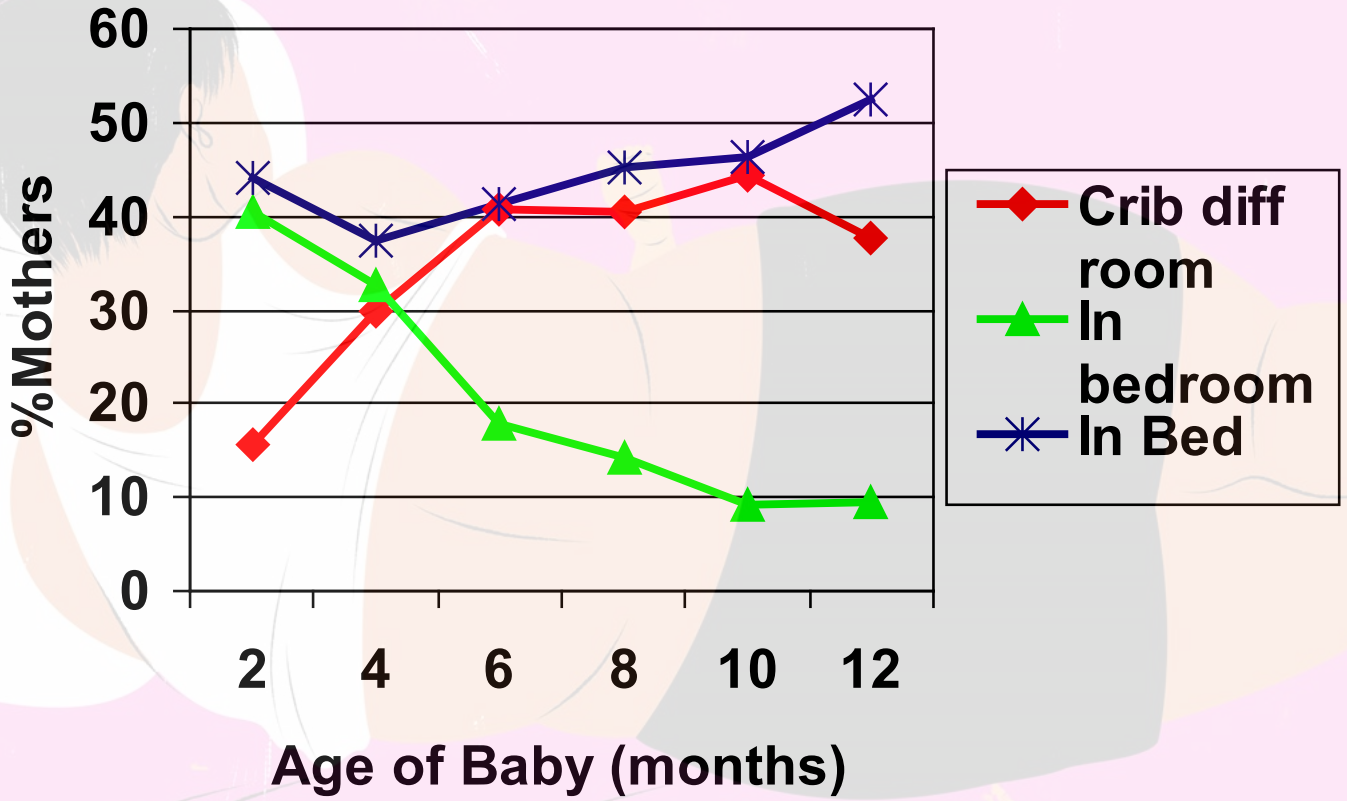
Safe Infant Sleep

- **Only 51% in WV say they "never" sleep with their babies**
- ***"Listed below are some things that describe how your new baby usually sleeps"***

- “Where does your baby usually sleep? That is, where does your baby spend most of the night?”

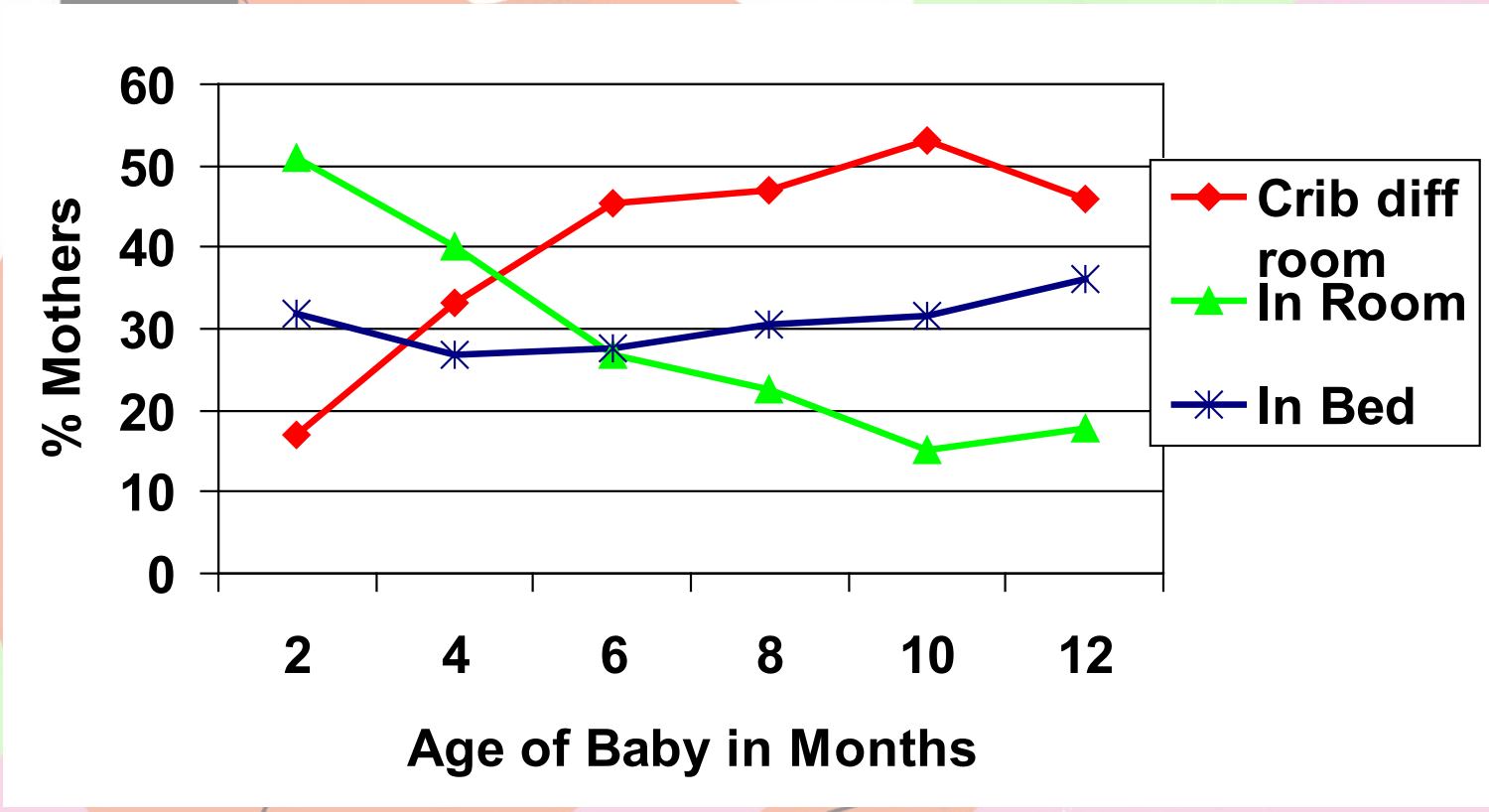
Where does your baby usually sleep?

U.S. Sample (N=4434)



• Where do babies start the night?
• Where do babies end the night?

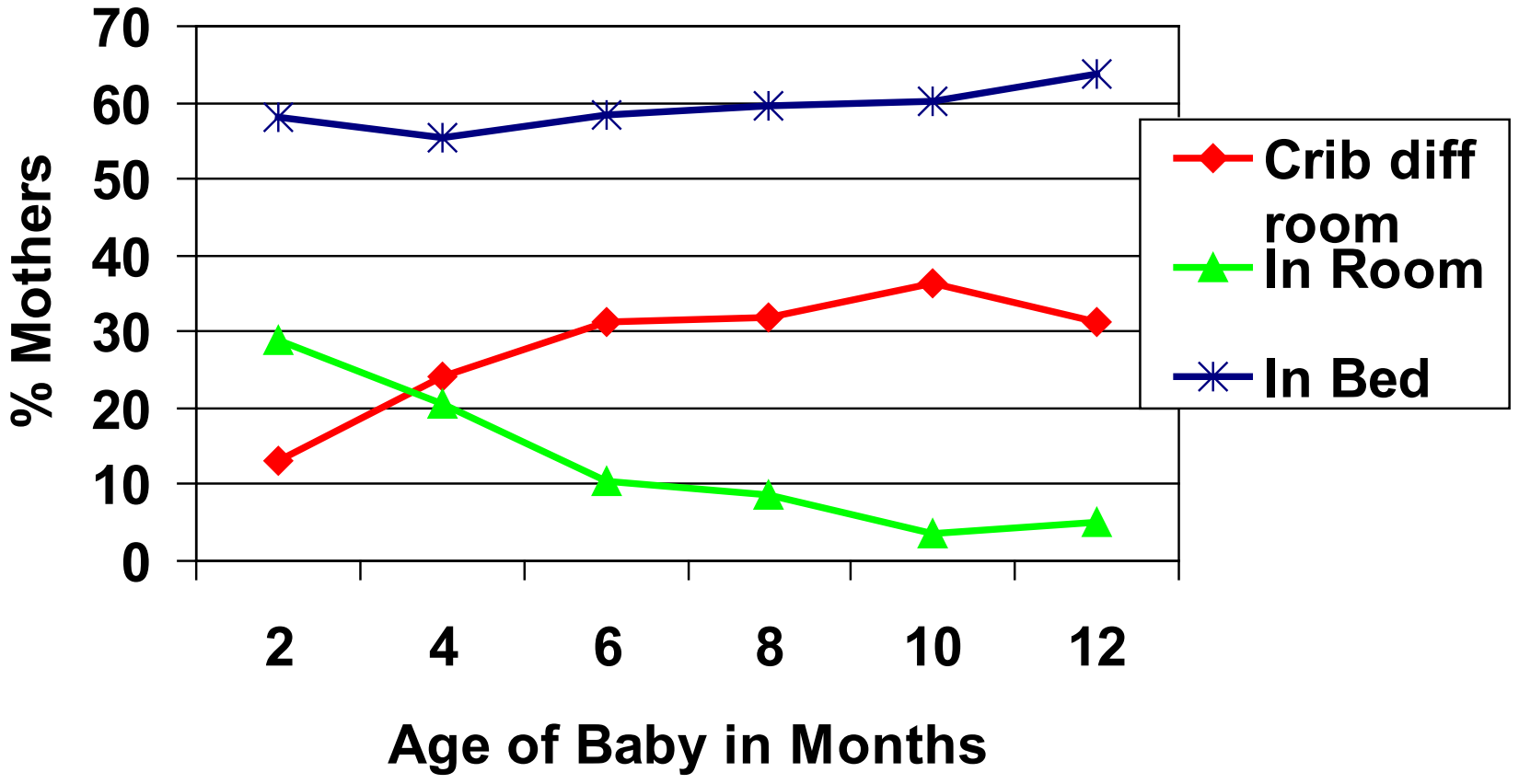
Where does your baby start the night?
US Sample (N=4336)



$X^2(10)=415.023$, $p<.0001$

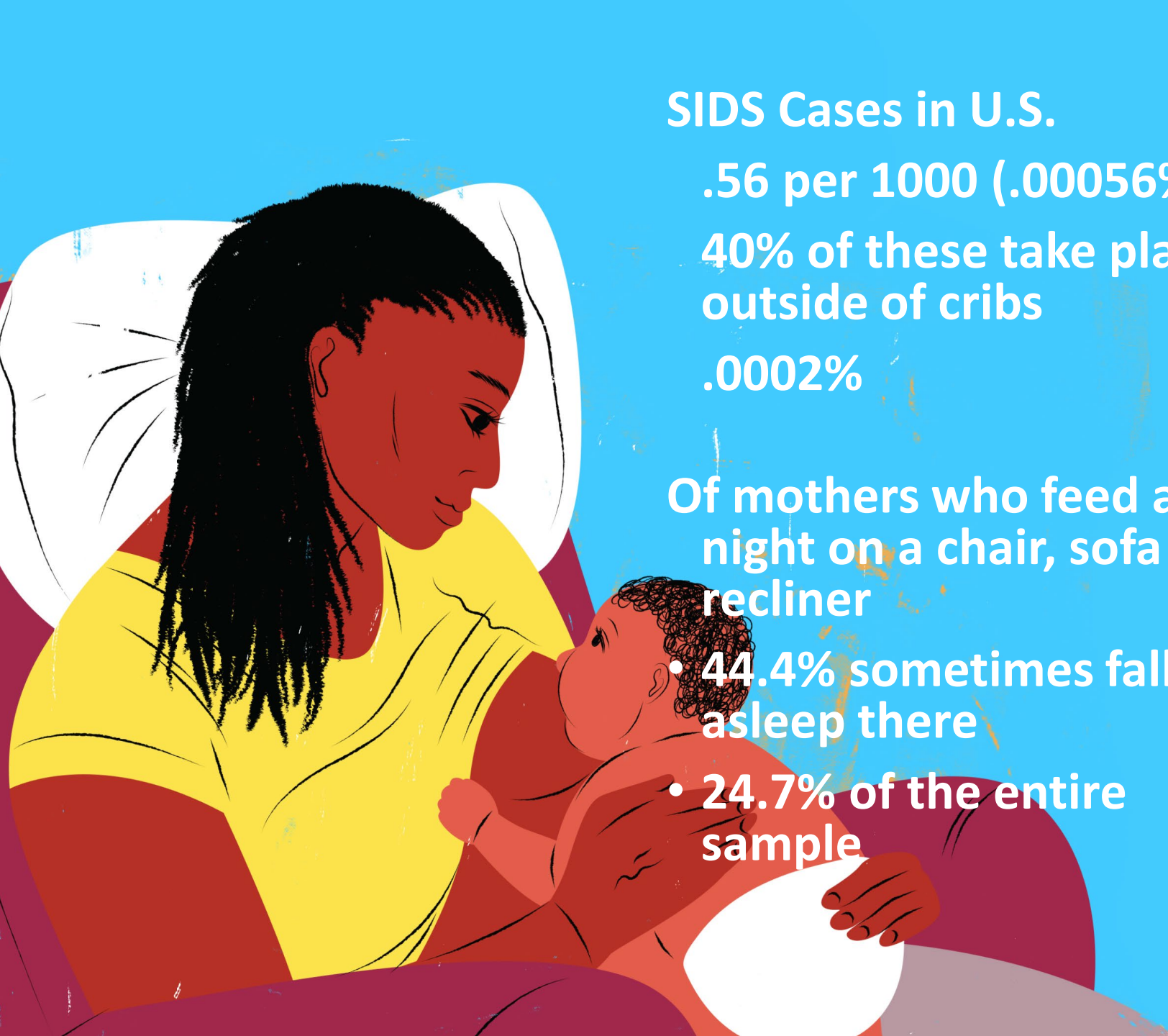
Where does your baby end the night?

U.S. Sample (N=4399)



$X^2(10)=365.36$, $p<.000$

• At night, do you usually share your bed with?
• 91% Partner
• 18.1% Other children
• 21% Pets



SIDS Cases in U.S.

.56 per 1000 (.00056%)

40% of these take place outside of cribs

.0002%

Of mothers who feed at night on a chair, sofa or recliner

- 44.4% sometimes fall asleep there
- 24.7% of the entire sample

- **Odds ratios for SIDS**
  - **12.2 infant in separate room, parent smokes**
  - **28.6 sleeping between parents <11 weeks**
  - **66.9 sleeping on a couch or chair**
  - **10.2 sharing a bed <11 weeks**
  - **1.07 sharing a bed >11 weeks**

Tappin et al. *J Pediatr* 2005, 147, 32-37

“Because of the extremely high risk of SIDS and suffocation on couches and armchairs, infants should not be fed on a couch or armchair when there is a high risk that the parent might fall asleep.”

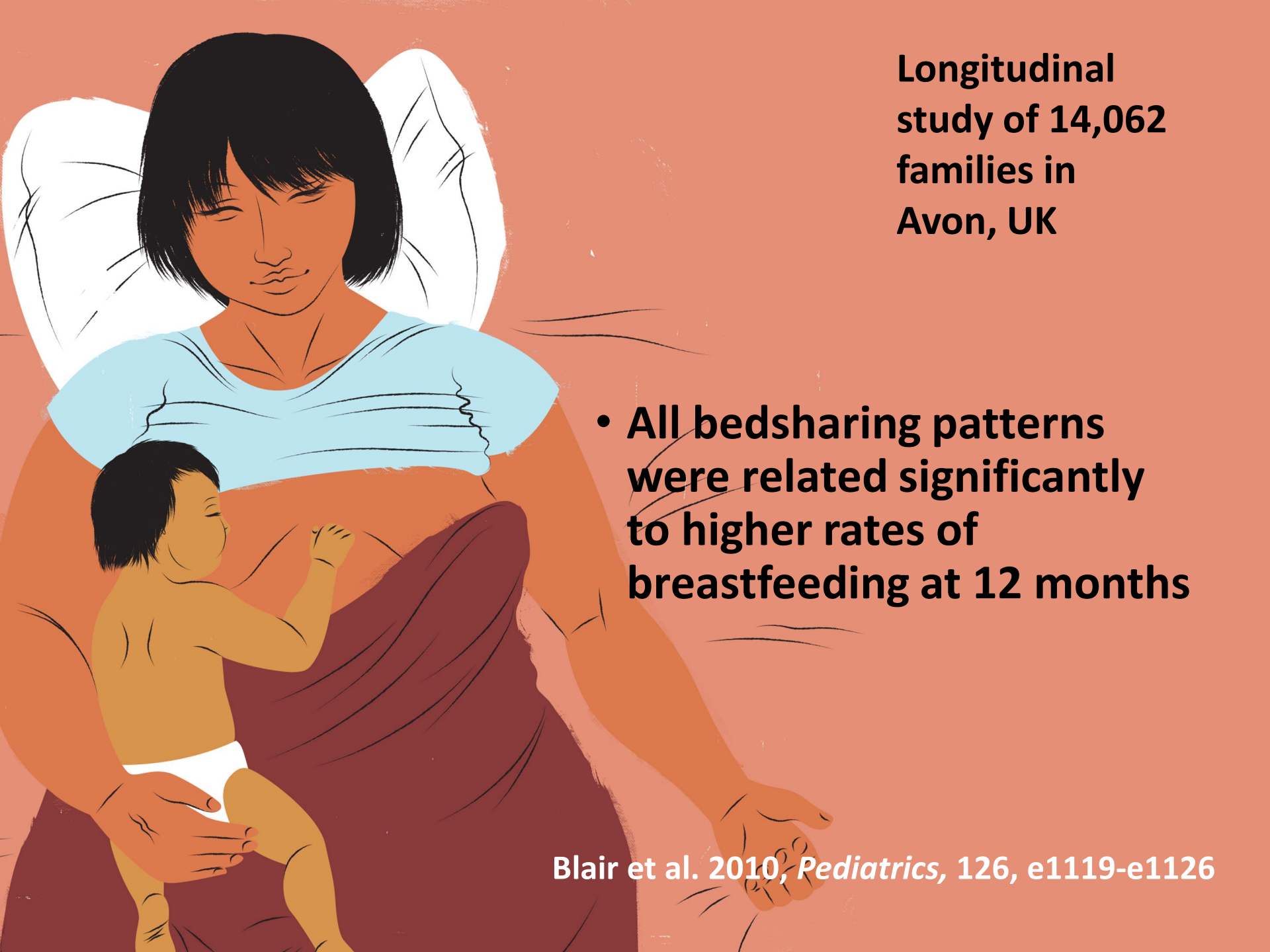
AAP 2011 Policy Statement

Bedsharing and
Breastfeeding

333 German infant deaths, 998 age-matched controls

- **Breastfeeding reduced the risk of sudden infant death syndrome by 50% at all ages throughout infancy**

Vennemann et al. 2009 Pediatrics, 123, e406-e410



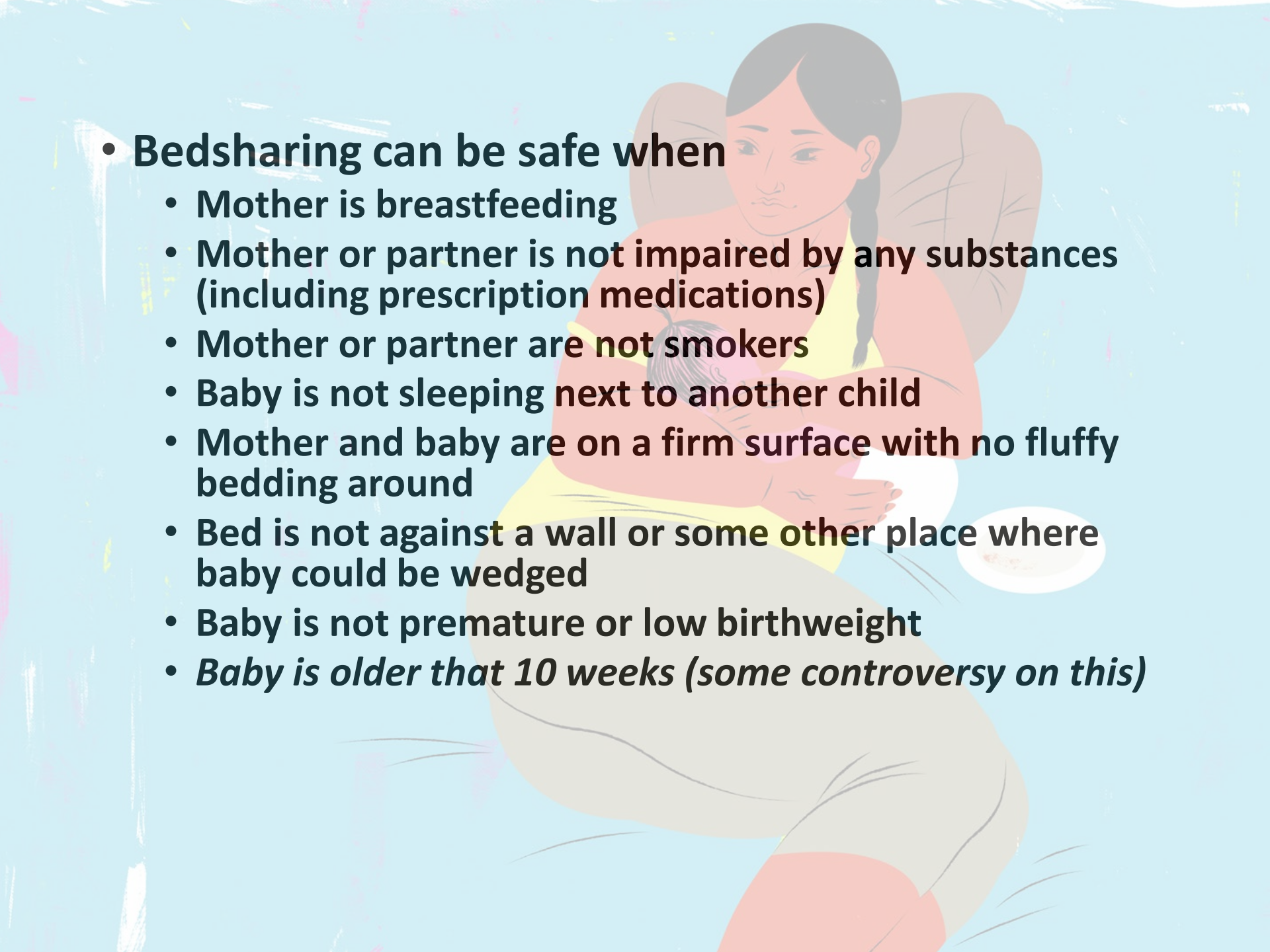
Longitudinal study of 14,062 families in Avon, UK

- **All bedsharing patterns were related significantly to higher rates of breastfeeding at 12 months**

Blair et al. 2010, *Pediatrics,* 126, e1119-e1126

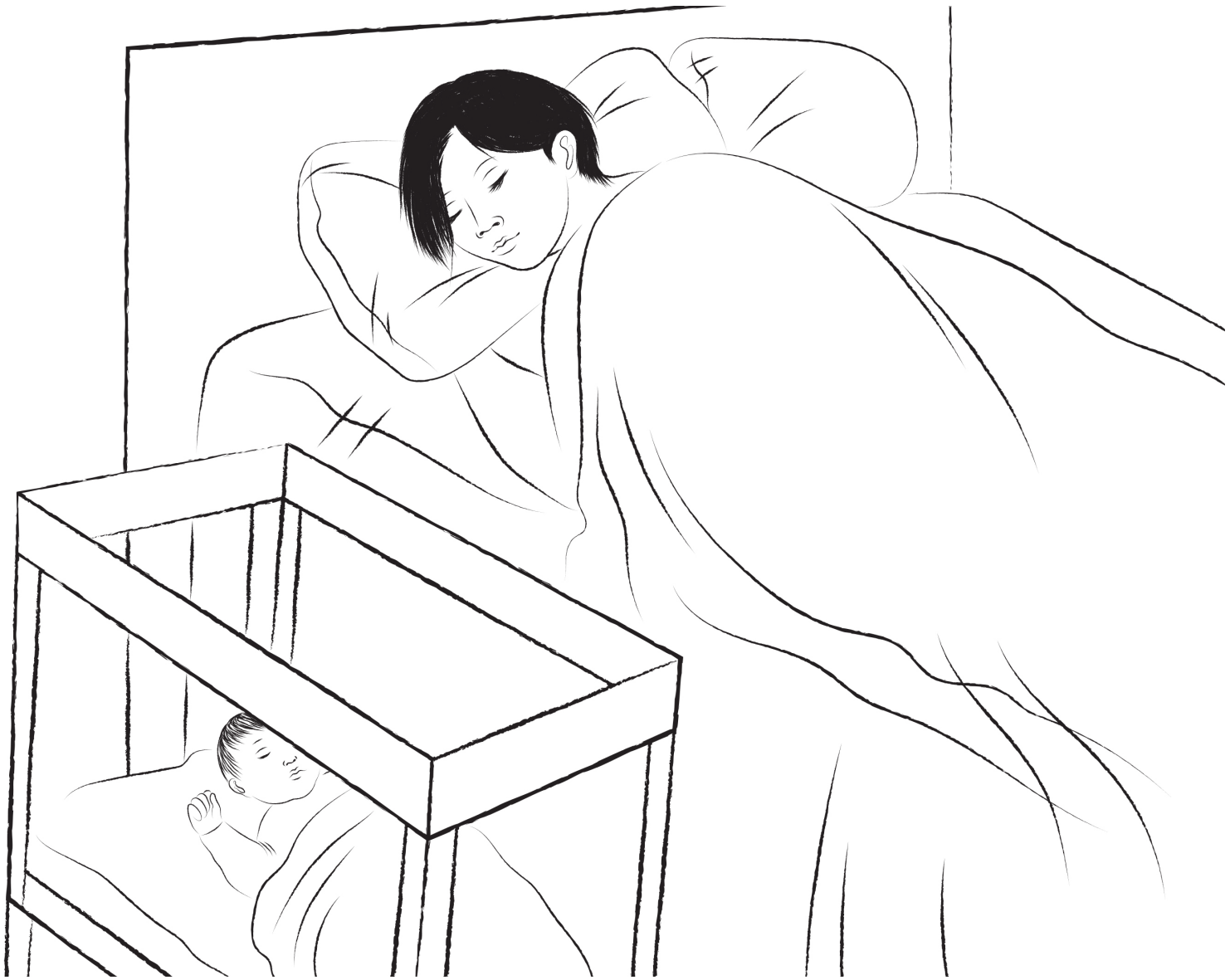
"Advice on whether bed sharing should be discouraged needs to take into account the important relationship with breastfeeding"

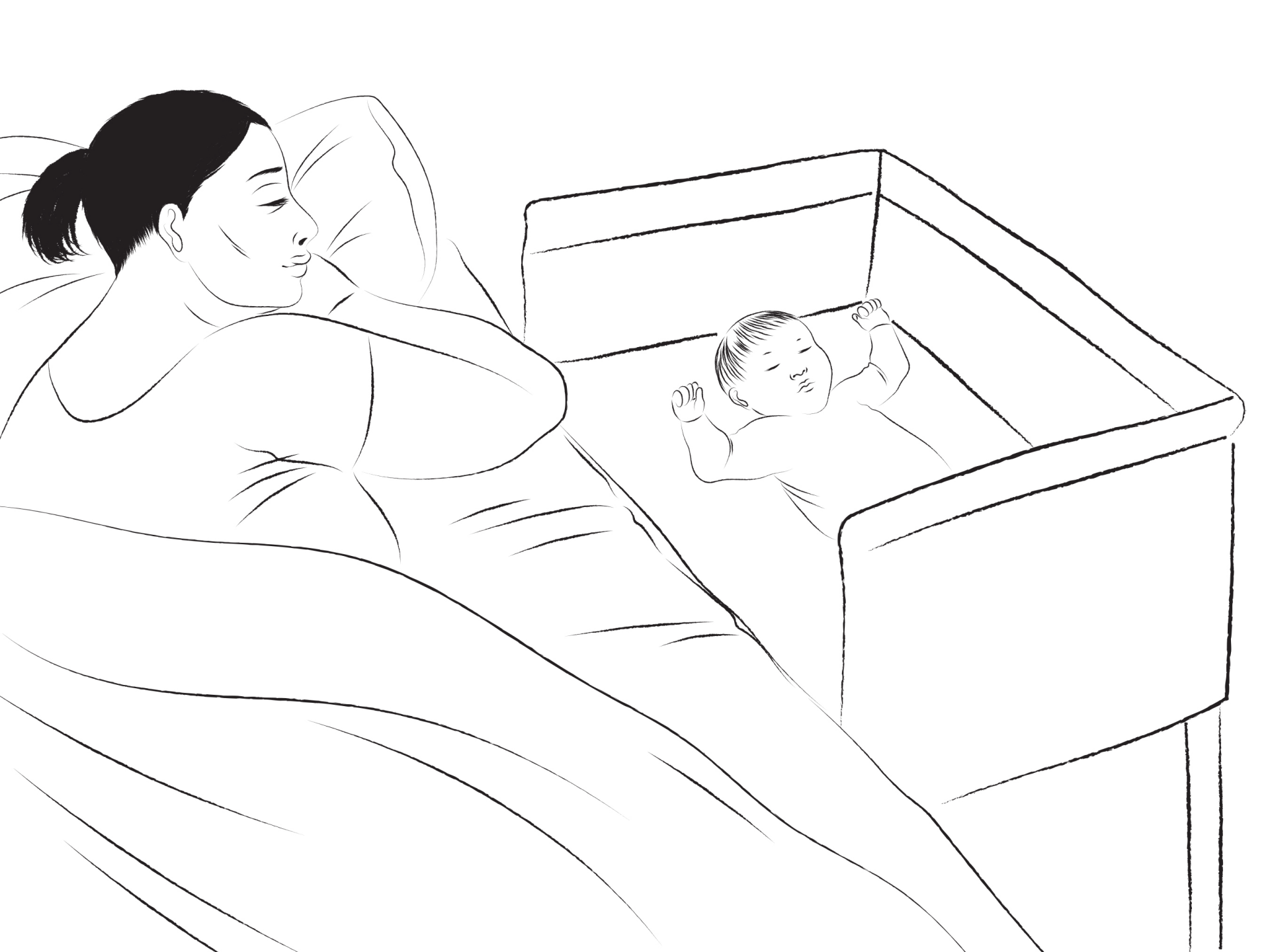
Blair et al. 2010, Pediatrics, 126, e1119-e1126



- **Bedsharing can be safe when**
  - **Mother is breastfeeding**
  - **Mother or partner is not impaired by any substances (including prescription medications)**
  - **Mother or partner are not smokers**
  - **Baby is not sleeping next to another child**
  - **Mother and baby are on a firm surface with no fluffy bedding around**
  - **Bed is not against a wall or some other place where baby could be wedged**
  - **Baby is not premature or low birthweight**
  - ***Baby is older that 10 weeks (some controversy on this)***

- **If bedsharing is contraindicated, here are some safer alternatives that keeps babies near**





- Breastfeeding is worth preserving, even when difficult
- It is especially helpful with high-risk populations
- The “benefits” of breastfeeding far exceed simply providing human milk to a baby
- It also provides mothers with many health benefits
- However, in some cases, breastfeeding is contraindicated
- When feasible, always support the mother and help her establish a secure attachment with her infant

Breastfeeding is a natural "safety net" against the worst effects of poverty.

… exclusive breastfeeding goes a long way toward canceling out the health difference between being born into poverty and being born into affluence ….

It is almost as if breastfeeding takes the infant out of poverty for those first few months in order to give the child a fairer start in life and compensate for the injustice of the world into which it was born.

James Grant

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Kathleen Kendall-Tackett
Kathy Kendall-Tackett

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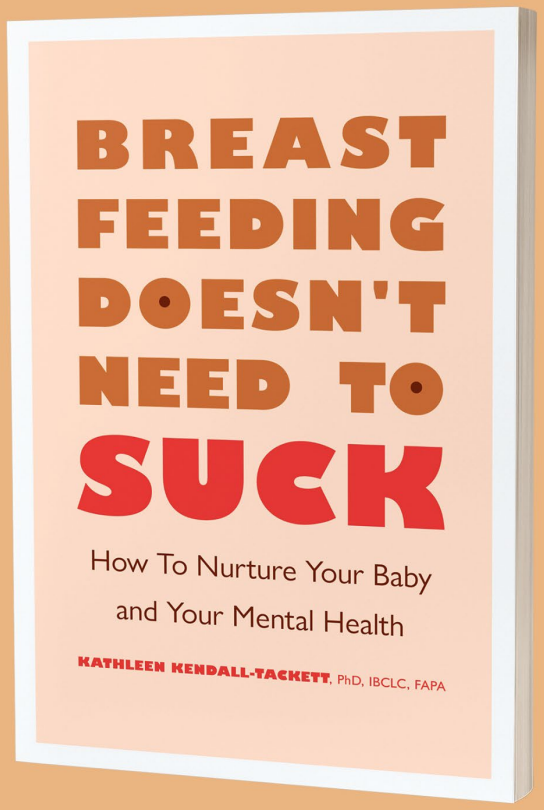
BREASTFEEDING AHEAD



DETRACTORS NOT WELCOME

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