Breastfeeding in the 21st Century

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Disclosures:

I have no pharmaceutical or industrial affiliations

Objectives:

- **Addressing barriers for broader breastfeeding implementation in the USA.**
- **The risk and benefits of breastfeeding for mothers who have perinatal mood and anxiety disorder (PMAD) and postpartum depression and anxiety.**
- **Breastfeeding updates with medically complex situations such a mothers affected by HIV, Hepatitis B and C virus.**

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Goals:

Protect
Promote
Support
Breastfeeding for all women

- Who is facing the challenge of breastfeeding ?
- How can we come to recognize our most vulnerable patients and how do we better serve them in their breastfeeding practices?

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Benefits of Breastfeeding:

- Decreased rates of common childhood infections such as diarrhea and otitis media
- Decreased rates of childhood obesity in children who are breastfed as infants
- Decreased rates of necrotizing enterocolitis
- Decreased risk of sudden infant death syndrome
- Enhanced bonding between mother and child
- Decreased rates of hypertension, hyperlipidemia, type 2 diabetes mellitus and cardiovascular disease among women who breastfed
- Decreased rates of ovarian and breast cancer in women
- Improved return to pre-pregnancy weight
- Birth spacing

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AAP BREASTFEEDING POLICY JULY 2022

The AAP recommends exclusive breastfeeding for the first six months of life, followed by continued breastfeeding with appropriate complementary foods for up to 2 years or beyond.

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What programs and organizations help better define breastfeeding goals?

American Academy of Pediatrics (AAP) July 2022 policy

Healthy People 2030

World Health Organization (WHO)

WIC programs

The US Preventative Services Task Force (USPSTF)

UNICEF and the Baby Friendly Hospital Initiative (BFHI)

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Barriers to Breastfeeding

- Race/ ethnicity
- Education
- Income
- Return to work and lack of support from employer and childcare challenges.
- Lack of knowledge about the benefits & management of breastfeeding.
- Public breastfeeding. Embarrassment about feeding in public. We lack positive influencers and role models.
- Lactation problems and lack of lactation support from medical staff.
- Inadequate policies and practices in hospitals, health care centers and from health providers.
- Lack of lactation support from family & social systems.
- Misconceptions that formula is equivalent. Aggressive promotion and marketing of infant formula.
- Lack of Breastfeeding Marketing and advertisement.

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Racial and ethnic disparities in breastfeeding initiation United States 2019

Racial and Ethnic Disparities in Breastfeeding Initiation — United States, 2019 | MMWR (cdc.gov)

Assessed racial/ethnic groups included
infants born to Hispanic, White , black , Asian, American Indian or Alaskan Native (AI/AN),
Native Hawaiian/ Other Pacific Islander (NH/OPI)and multiracial mothers .

TABLE. Percentage of live infants not transferred to another facility for whom breastfeeding was initiated,* by state/territory and maternal race/ethnicity† — National Vital Statistics System, 48 states,§ District of Columbia, Guam, Northern Mariana Islands, and Puerto Rico, 2019

Return

Jurisdiction	No. of infants¶ (% initiating breastfeeding)								Largest disparity**
	Overall	Hispanic	White	Black	Asian	AI/AN	NH/OPI	Multiracial	
United States††	**3,129,646 (84.1)**	**665,584 (87.4)**	**1,686,505 (85.5)**	**492,852 (73.6)§§**	**164,602 (90.3)¶¶**	**25,807 (76.6)**	**7,843 (80.2)**	**69,626 (83.1)**	**16.7**
Alabama	56,054 (69.6)	4,730 (64.2)	32,031 (77.2)	17,285 (56.1)§§	863 (84.6)¶¶	140 (73.6)	—***	971 (71.5)	28.5
Alaska	9,492 (92.9)	761 (95.9)	4,685 (96.3)¶¶	288 (94.4)	569 (81.0)	1,812 (88.5)	293 (76.1)§§	919 (94.7)	20.2
Arizona	78,613 (88.9)	33,426 (87.9)	31,629 (91.1)	4,489 (84.5)	2,846 (93.3)¶¶	3,739 (84.7)	218 (80.7)§§	1,842 (86.6)	12.6
Arkansas	34,123 (73.7)	3,769 (81.9)	21,994 (78.0)	6,052 (52.3)§§	698 (85.0)¶¶	218 (72.9)	506 (67.0)	654 (74.3)	32.7

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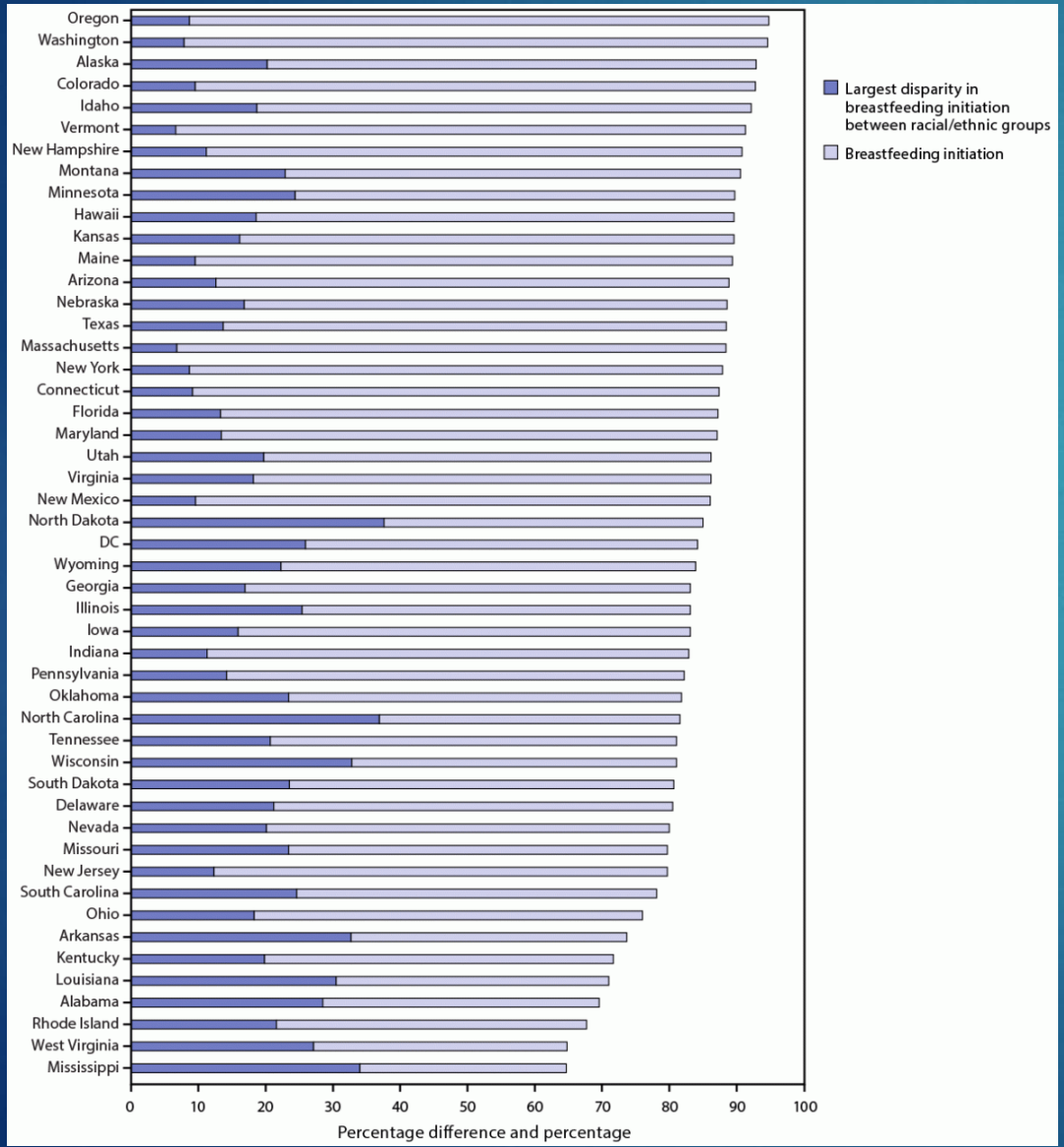
FIGURE 1. Breastfeeding initiation and largest disparity in breastfeeding initiation between racial/ethnic groups,* by state† — National Vital Statistics System, 48 states and the District of Columbia, 2019

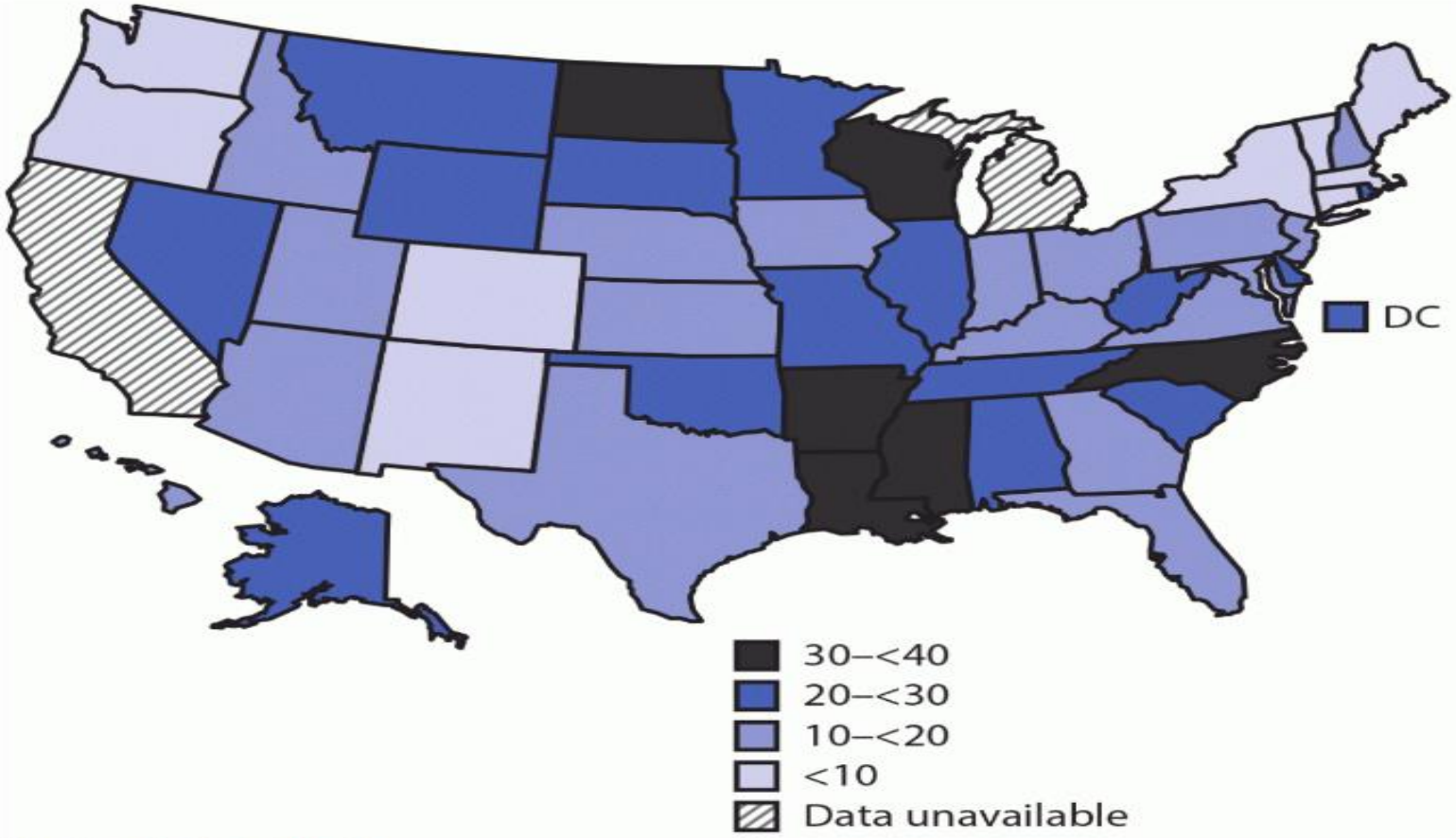


- Alabama 69.6 %
- Arkansas 73%
- Kentucky 71%
- Louisiana 71%
- Mississippi 64%
- New Jersey 79.7 %
- New York 87.9 %

Abbreviation: DC = District of Columbia.

- *Breastfeeding initiation is measured as a percentage. Largest disparity in breastfeeding initiation between racial/ethnic groups is measured as a percentage difference.
- † Includes all states except California and Michigan. California does not report breastfeeding initiation data to the National Vital Statistics System. Michigan uses nonstandard wording for the breastfeeding initiation item on the birth certificate, which prevents comparison of data to other states.

FIGURE 2. Largest disparity in breastfeeding initiation between racial/ethnic groups, by percentage point difference — National Vital Statistics System, 48 states and the District of Columbia, 2019



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NORTH DAKOTA	MISSISSIPPI
WISCONSIN	NORTH CAROLINA
ARKANSAS	LOUISIANA
OKLAHOMA	SOUTH CAROLINA
NEVADA	ALABAMA
WEST VIRGINIA	MONTANA
WASHINGTON	OREGON
MAINE	NEW YORK
VERMONT	MASSACHUSETTS

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Angela Marie Johnson [1], Rena Menke [2], Jonathan Eliahu Handelzalts [2 3], Kiddada Green [4], Maria Muzik [2 5] (2021) report,

"Reimaging racial trauma as a barrier to breastfeeding versus childhood trauma and depression among African American Mothers"

- **Systemic and structural racism that is reflected in workplace policies and practices**
- **Lack of access to higher education**
- **Discriminatory housing policy**
- **Biased healthcare**
- **Unsupportive workplace**
- **Reduced maternity leave ~ 8 weeks with less flexible work conditions**

Chocolate Milk: The Documentary
Discussion on why more African American women are not breastfeeding
www.chocolatemilkdoc.com/series
https://youtu.be/DKh49uUr1Tk

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Contributing factors to breastfeeding disparities among low-income women

- Cultural influences
- Financial need to return to work
- Lack of support from partners and family members to continue breastfeeding (Sriraman & Kellams, 2016).
- The physiologic immaturity of preterm infants combined with the social and economic disadvantages experienced by low-income women places infants at significantly greater risk for morbidity and hospital re-admission (Meier et al., 2007).

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Breastfeeding Rates Among Women with Lower Income and Less Education

Women living at less than 100% of the federal poverty level 76.7%

Women in special Supplemental nutrition programs for women infants and children 77%

Women with high school diplomas and GED 75.6%

Women younger than 20 74%

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Breastfeeding among working mothers

- Strong barrier to breastfeeding
- Mothers often use return to work date as a weaning timeline
- Mother working in informal sectors and shift work struggle the most
- Fatigue, practicality, intensity
- Uncomfortable with feeding or pumping at work

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Additional Barrier:
Misconception that formulas are equivalent
Lack of Breastfeeding promotion

Infant formula market was worth $2.66 billion in 2018. Projected to reach 5.7 billion by 2026.

Despite compelling amounts of inappropriate and unethical marketing of breast milk substitutes and infants being malnourished, ill and hospitalized or dying from contaminated or diluted breast milk substitutes the infant formula business is growing.

Infant formula manufacturers claim their products can alleviate discomfort or improve nighttime sleep and also infer that formula can enhance brain development and improve intelligence all of which are unsubstantiated.

Lancet published a 3-paper series in February 2023 which outlines how typical infant behaviors such as crying, fussiness and poor nighttime sleep are portrayed by the commercial milk formula industry as pathological and framed as reasons to introduce formula, when in fact these behaviors are common and developmentally appropriate.

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Misconception that formulas are equivalent.
Lack of Breastfeeding promotion.

As health care providers we need to continue to remind our parents that breastfeeding has been proven to provide health benefits across high income and low-income settings, it reduces childhood infectious diseases, mortality and malnutrition and the risk of later obesity;

and mothers who breastfeed have decreased risk of breast and ovarian cancer, and type 2 diabetes, cardiovascular disease.

According to the World Health Organization less than 50% of babies worldwide are breastfed resulting in an economic loss of nearly $350 billion each year.

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Interventions to support and enhance breastfeeding in vulnerable groups

- Mandate for Paid family leave with maintenance of full benefits and 100% pay for minimum of 16 to 20 weeks.
- Workplace flexibility with time and space to pump for both full time and part-time or shift work employees. Pro breastfeeding Interventions in the workplace.
- Lactation support and community support based on breastfeeding advocacy and support programs. Access to skilled practical help, trained health workers and peer counselors and certified lactation consultants.
- Structured outpatient appointment times with a lactation consultant i.e. weekly, and eventually biweekly and monthly appointments. Telemed appointments.
- Educating mothers, children and adolescents about the importance of supporting breastfeeding.
- Encourage women especially African American and Hispanics, to explore careers in health care, lactation support and peer counseling

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Interventions to support and enhance breastfeeding in vulnerable groups

- Interventions that take place during a combination of the prenatal peripartum or postpartum time periods were more effective than those that took place only during one time.
- Identifying perinatal risk factors will help highlight which newborns and mothers are likely to require more support and what degree of support.
- Continue to institute evidence-based guidelines in hospitals, and private practices, outpatient clinics and enhance breastfeeding practices in social media to scale up breastfeeding services overall.
- Continuing to address the unethical marketing of infant formulas through healthcare providers and encouraging government and medical societies along with hospitals to avoid the unnecessary marketing of breast milk substitutes.

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For all Breastfeeding moms
Focus on avoiding early discontinuation of breastfeeding and address at all follow up exams:

- Painful nipples
- Milk supply concerns
- Concerns about baby's behavior and weight
- Lack of confidence with breastfeeding skills *

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The challenges for mothers who have postpartum depression and anxiety.

- Most common complication of childbirth
- 20% of women experience depression during the perinatal period, with rates tripling for higher risk groups such as teens and women with low income
- Suicide accounts for approximately 20% of postpartum deaths
- Maternal depression has adverse effects on infant behavior emotional and cognitive development in the short and the long term

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What are the risk factors for postpartum depression ?

- **Changes in hormone levels –**

  levels of estrogen and progesterone decrease sharply in the hours after childbirth. These changes may trigger depression symptoms.
- **History of depression antenatal depression and anxiety-** previous history of mental illness including depression stressful life events & trauma.
- **Emotional factors** -feelings of doubt about pregnancy and parenting role
- **Poor physical health or fatigue** many women feel very tired after giving birth recovery from childbirth can take weeks (especially a cesarean birth) for a woman to regain her normal strength and energy
- **Lack of social support from others and stressful life events**
- **Childcare stress/ Lack of childcare**
- **Lack of breastfeeding knowledge, breastfeeding difficulties**
- **Challenging infant temperament**
- **Negative body image**
- **Low socioeconomic status**

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Postpartum depression and the effects on infancy and children:

- Mothers suffering from postpartum depression have difficulty bonding and engagement with their infants
- Multiple studies have indicated infants of depressed mothers perform less optimally on Brazelton neonatal behavioral assessment scales
- Studies have found children whose mother experience postpartum depression exhibited social and emotional problems during later childhood including less emotional well being.

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How exactly breastfeeding affects the risk of PPD is not well understood.

- Researchers hypothesize a connection between breastfeeding and postpartum depression. Many have suggested that breastfeeding may protect against postpartum depression and have suggested that stopping or weaning of breastfeeding may be a trigger for postpartum depression and or anxiety.
- Several studies have demonstrated an association between longer breastfeeding durations and a lower prevalence of PPD; However, other studies have indicated that breastfeeding mothers are not protected from PPD. Breastfeeding helps some mothers relax and sleep. Breastfeeding can cause stress, exhaustion and sleep disturbances in other mothers.
- Research has been very difficult to interpret due to small sample sizes and confounders such as socioeconomic factors, maternal education, family income, marital status, social supports, and stressful life events.

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What screening tools can be used for PPD?

- S-213 PPD law requires NJ providers to perform screenings prior to discharge and at first postnatal visits.
- Depression screening tools are important tools to screen for depression and anxiety and endorsed by ACOG.
- Edinburgh postpartum depression scale (EPDS)or Patient health questionnaire PHQ-9 are screening tools which are free, widely used and validated for use in the perinatal time period-pregnancy through the first years of a child's life .
- EPDS is a 10 items; Takes less than five minutes, considered a screening tool but not a diagnostic tool

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Addressing postpartum depression and anxiety:

- Let mothers know that many people experience postpartum depression
- Postpartum depression is not their fault and does not reflect on their ability to parent
- Postpartum depression is highly treatable and that they will get better with appropriate treatment. Postpartum depression can be treated with antidepressants, talk, therapy, rest, mindfulness, and exercise.
- Emphasize that caring for themselves is caring for their baby
- Provide resources and referrals

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Addressing Postpartum Depression and Anxiety

- Lactation consultants often refer to what is called the "Trifecta Approach" which is combining the expertise of a pediatrician, lactation consultant and a clinical psychologist or social worker specializing mental health.
- Each professional is responsible for their specific role
- The pediatrician assumes responsibility for obtaining the mental health history, along with the medical management of the infant this includes evaluating the mother for PPD risk by performing EPDS and assessing the infant for any physical issues which could impact breastfeeding .
- The lactation consultant shares in the assessment of the feeds and focuses on the breastfeeding management and feeding strategies along with coping skills with breastfeeding .

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Resources for postpartum depression and anxiety:

- www.4women.gov National women's health
- The Motherhood Center - Postpartum Depression NY Support
- Uppitysciencechick
- Breastfeeding Made Simple – 7 Natural Laws for Nursing Mothers
- Seleni Institute | Perinatal Mental Health, Postpartum Specialists, Postpartum Therapy
- www.chss.iup.edu/postpartum
- The New York Milk Bank - Home Page (nymilkbank.org)

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Mothers Breastfeeding with Hepatitis B CDC guidelines:

- All infants born to HBV infected mother should receive hepatitis B immune globulin (HBIG) and the first dose of hepatitis B vaccine within 12 hours of birth , the second dose of vaccine should be given out ages one to two months, and the third dose at age 6 months .
- The infant should be tested after completion of the vaccine series, at age 9 to 12 months , to determine if the vaccine worked and that the infant is not affected with HBV through exposure to the mother's blood during the birth process .
- No need to delay breastfeeding until the infant is fully immunized . The risk of HBV mother to child transmission through breastfeeding is negligible if infants born to HBV mothers positive mothers receive the Hep B HBIG and Hep B vaccine at birth .

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Mothers Breastfeeding with Hepatitis B virus or Hepatitis C virus

- If a mother who is HBV or HBC positive has cracked and bloody nipples and or areola are cracked and bleeding, she should stop nursing temporarily and pump to maintain her milk supply while not breastfeeding
- Moms can express until nipples are no longer cracked or bleeding.
- Once healed, the mother may fully resume breastfeeding.
- Providers may need to refer mothers for lactation support to learn how to maintain milk production and review how to supplement with pasteurized donor milk or formula while temporarily not breastfeeding.

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CDC JAN 31,2023
Breastfeeding updates for mothers affected by HIV:

- Over the past two decades clinical trials have demonstrated the risk of vertical transmission can be significantly reduced with administration of anti retroviral medications (ART) during pregnancy, delivery and postpartum period.
- Breastfeeding is important for the overall health of the infant, and maternal antiretroviral therapy and infant antiretroviral prophylaxis has been shown to substantially decrease HIV transmission during breastfeeding .
- Although it may be anticipated that mixed feedings (eg , breastfeeding combined with other types of liquids or solids) might be associated with a lower risk of HIV transmission compared with exclusive breastfeeding due to less exposure to HIV infected breast milk , studies have not supported this hypothesis.

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Exclusive Breastfeeding Protocol WHO

Exclusive breastfeeding for six months, in combination with maternal ART and a short-term period of infant prophylaxis to minimize HIV transmission from the mother while optimizing the health benefits of breastfeeding for the infant.

Breastfeeding, along with maternal ART and appropriate complementary foods, should continue without restriction for up to 24 months or longer.

ART Should be initiated in all individuals with HIV, including pregnant and breastfeeding females, regardless of CD4 cell count or clinical stage and continued lifelong.

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Infant Feeding for Individuals with HIV in the United States | NIH

Guidelines were updated in January of 2023

- **Evidence-based patient counseling to support their shared decision making about infant feedings .Counseling prior to conception or as early as possible in pregnancy reviewed throughout the pregnancy and again after delivery .**
- Replacement feeding with formula or banked pasteurized donor human milk is recommended when people with HIV are not on ART and/or do not have a suppressed viral load during pregnancy (at a minimum throughout the third trimester), as well as at delivery.
- **Mothers living with HIV can breastfeed, while being fully supported for ART adherence--including adherence counseling, and promotion and support of breastfeeding. The duration of breastfeeding should not be restricted .**
- **Be aware--postpartum depression occurs more frequently in individuals with HIV compared to those without HIV.**

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Lactation Questions:

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