

Increasing Human Milk Use in the NICU

September 23, 2022

Agenda

Time	Item	Speaker
12:00-12:10	Welcome & Current Data on Human Milk	Henry Lee, MS, MD
12:10-12:15	Video	
12:15-12:25	Tip Sheet	Caroline Toney-Noland, MSc
12:25-12:55	Panel Discussion and Q&A	Martha Douglas-Escobar, MD Carolyn Fischer, RN-C Jenny Quinn, PhD, NNP-BC Ashley Randolph, Founder of GLO Premies & NICU Mom Melanie Reitzel, MFA, RN, IBCLC (retired)
12:55-1:00	Wrap Up	Caroline Toney-Noland, MSc

Human Milk Nutrition at Home Discharge

Infants Born in 2006-2022

This chart is final for years 2021 and earlier. The chart is preliminary for 2022 as the data collection is on-going.

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Zoom

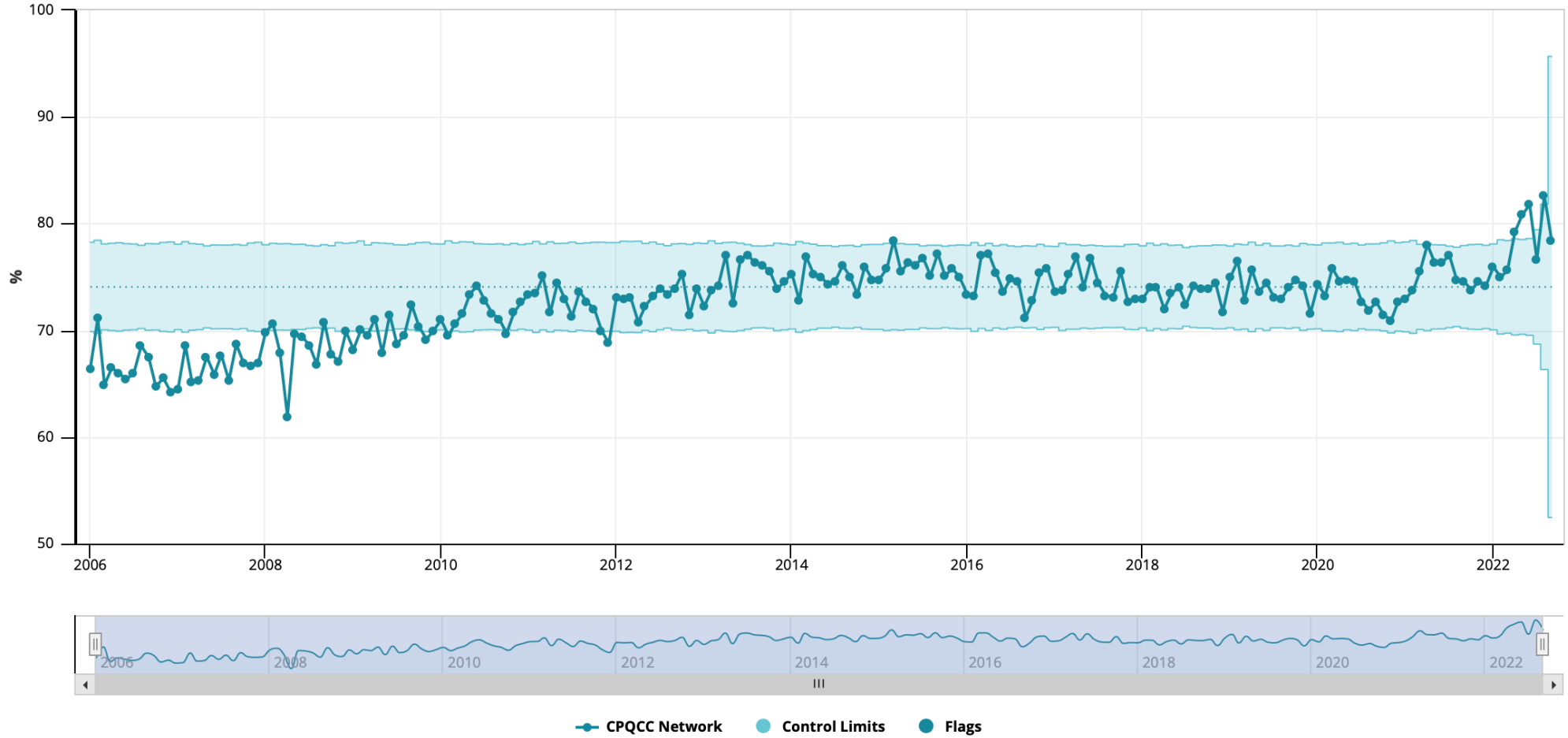
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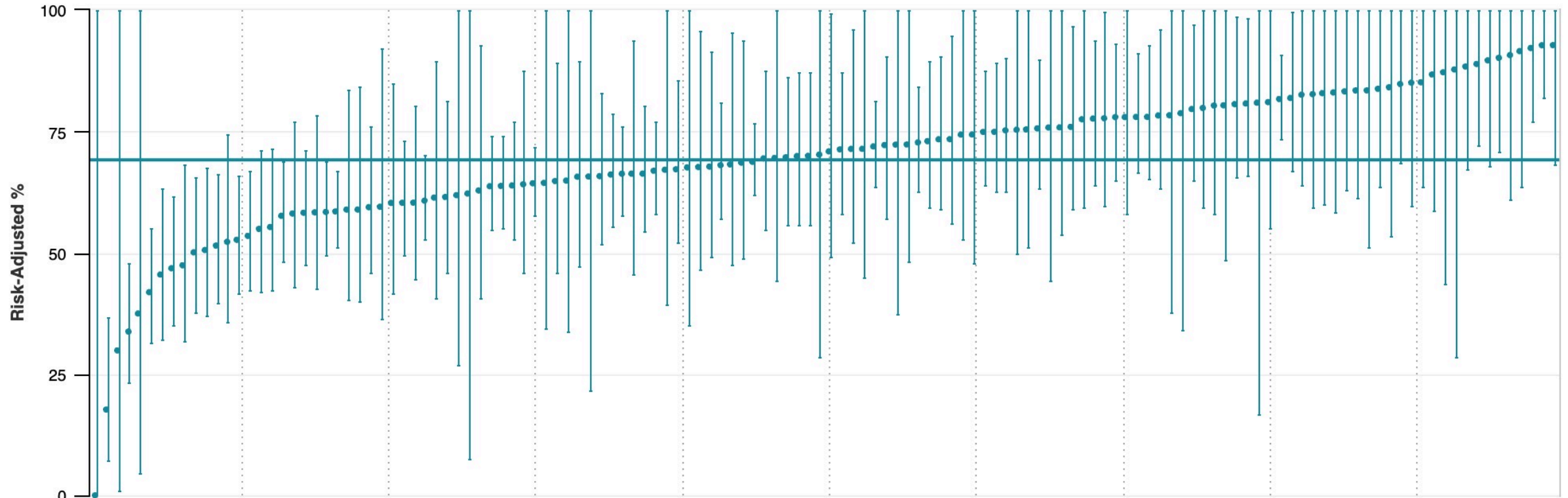
Nov 2005 → Oct 2022



Human Milk Nutrition at Home Discharge

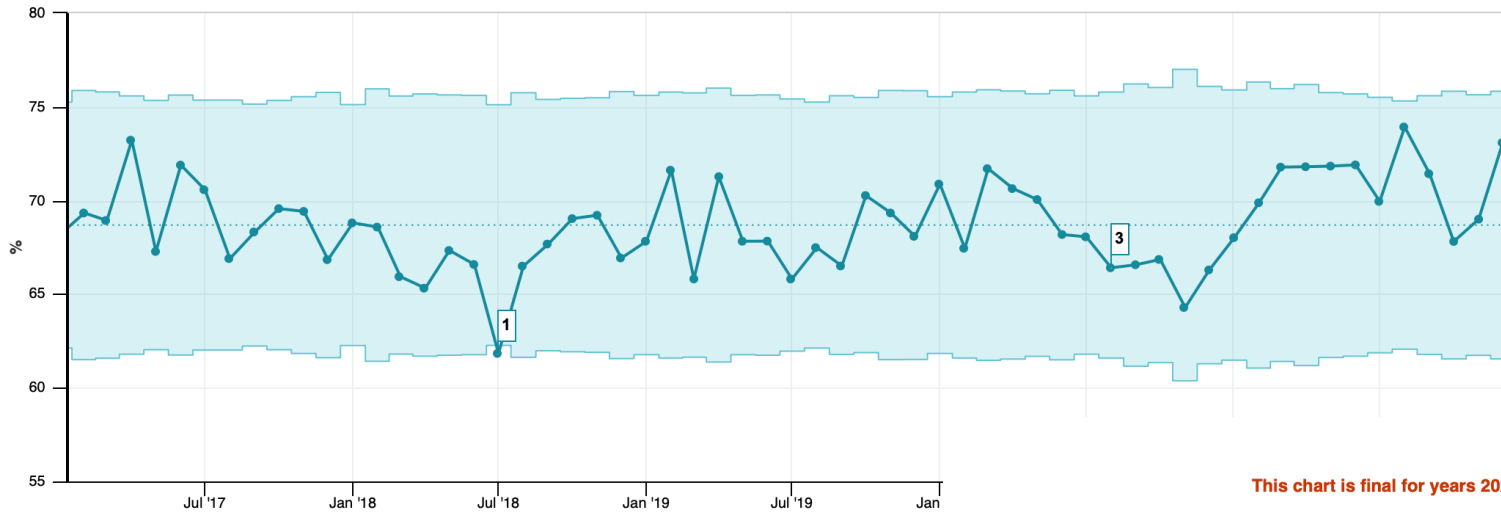
Infants 401 to 1,500 grams or 22 to 31 weeks of Gestation Born in 2019-2021

CPQCC Network 2019-2021: 69.1%



NICU Database Member NICUs in Ascending Order by %

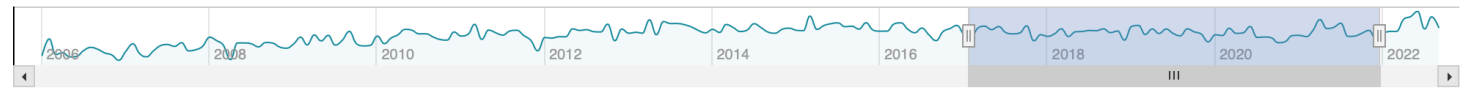
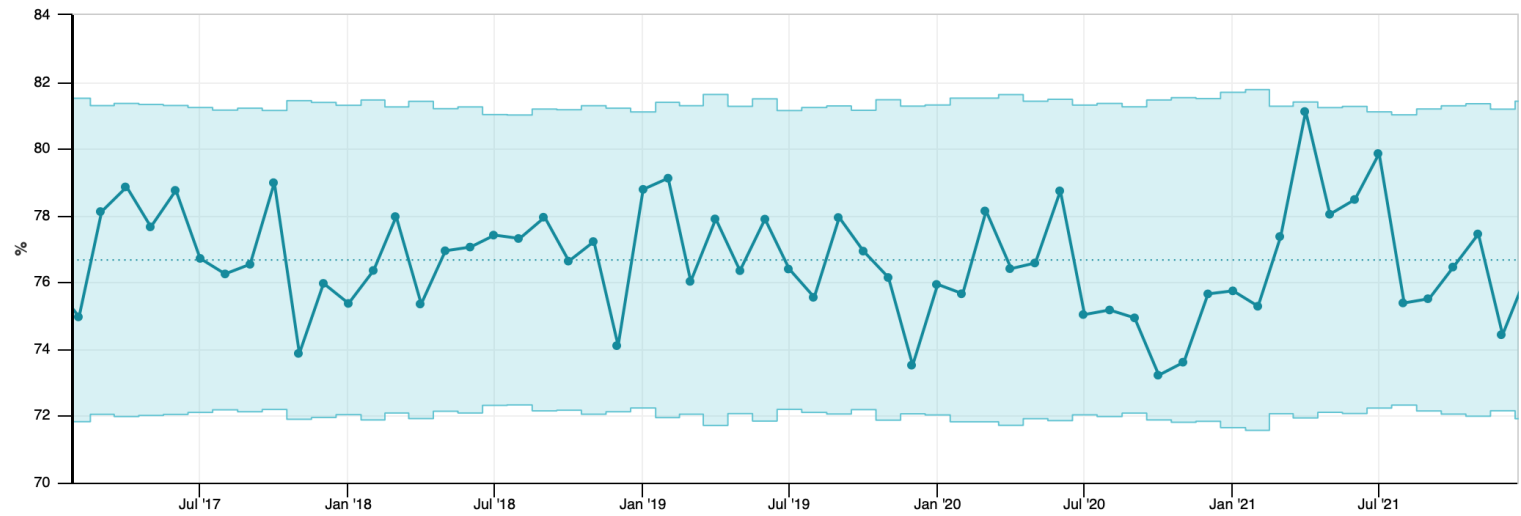
Human Milk Nutrition at Home Discharge
 Infants 401 to 1500 grams or 22 to 31 Completed Weeks Gestation Born in 2006-2022
 This chart is final for years 2021 and earlier. The chart is preliminary for 2022 as the data collection is on-going.
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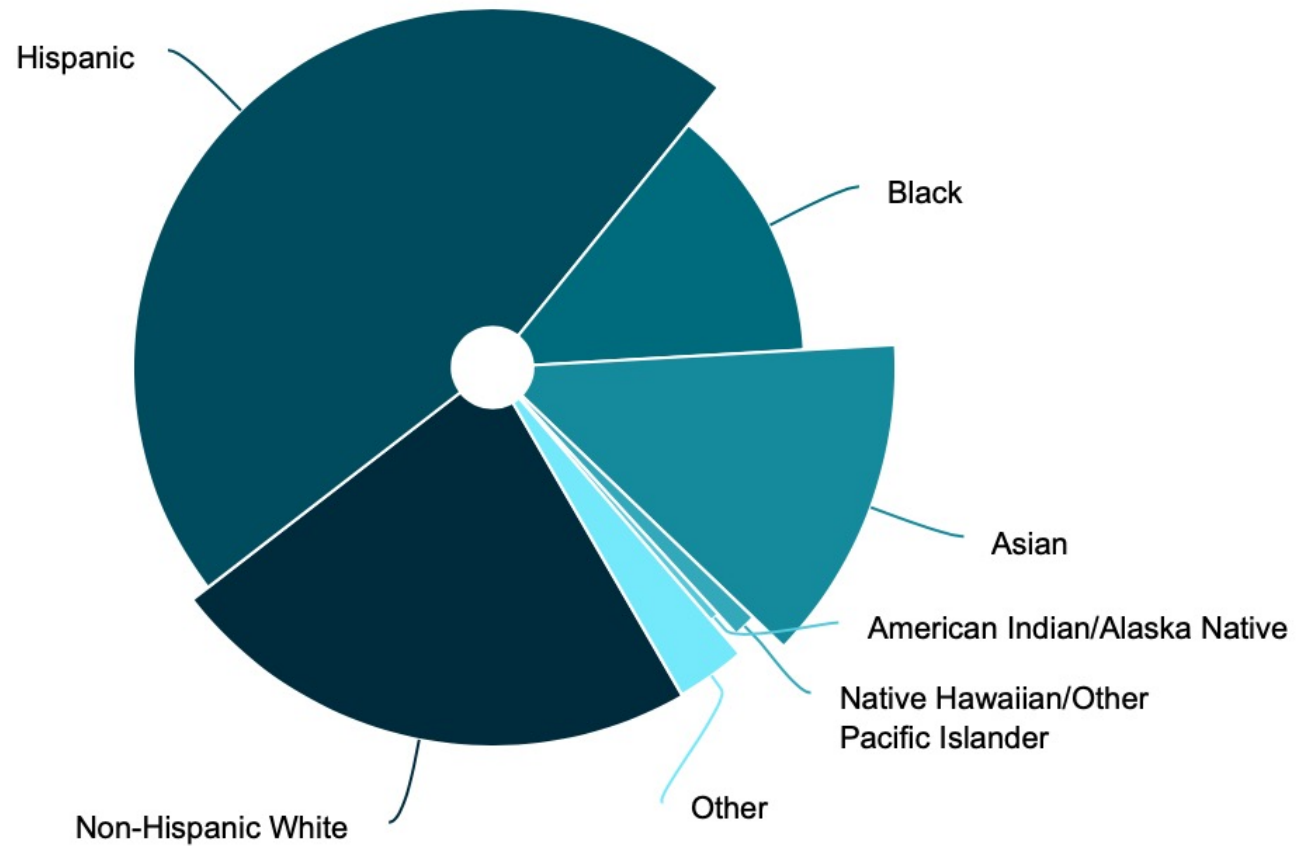
Human Milk Nutrition at Home Discharge
 Infants 1501 grams or more Born in 2006-2022
 This chart is final for years 2021 and earlier. The chart is preliminary for 2022 as the data collection is on-going.
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Race/Ethnicity Distribution for all VON Small Babies
Radii proportional to % with Human Milk Nutrition

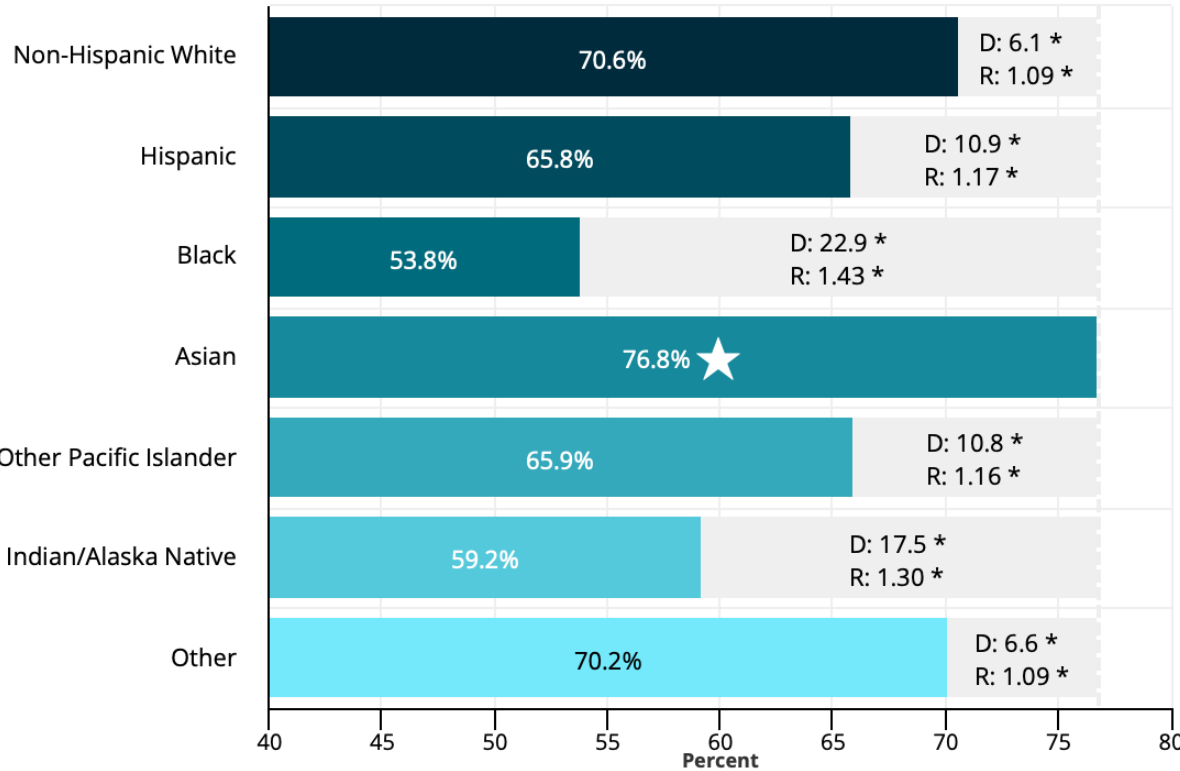


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2017 - 2021

Human Milk Nutrition by Race/Ethnicity

Reset zoom



CPQCC Network

2017 - 2021



Human Milk Nutrition by Race/Ethnicity

Race/Ethnicity	N	%	Difference best minus this group (D)	Opportunity for Improvement	Ratio of best and this group (R)
Non-Hispanic White	4,235	70.6	6.1	260	1.09
Hispanic	8,572	65.8	10.9	938	1.17
Black	2,461	53.8	22.9	564	1.43
Asian	2,422	76.8	0.0	na	1.00
Native Hawaiian/Other Pacific Islander	195	65.9	10.8	21	1.16
American Indian/Alaska Native	81	59.2	17.5	14	1.30
Other	556	70.2	6.6	37	1.09



Increasing the Rate of Human Milk in the NICU

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Increasing Human Milk Use at Discharge

These potentially better tips and change ideas reflect current best practices in the literature as well as practices gathered from CPQCC NICUs with high rates of human milk use at discharge. It is important to note that human milk use is not equal for all races and ethnicities. Because of this, some of the suggestions below refer specifically to increasing human milk use among infants of color who may otherwise be less likely to receive it.

1 Communicate with parents about the importance of providing human milk

- **Set an expectation for human milk use from the beginning.¹**
 - Talk about the importance of early hand-expression, pumping, and human milk feeding before delivery whenever possible.
 - Once the infant is medically stable, initiate non-nutritive sucking, per unit policy.
 - Support opportunities to have the mother feed the infant at the breast when the infant's condition allows.
 - Print out a week's worth of labels for the milk to set an expectation for parents and ensure they have the resources they need.
 - Provide a pump log (and check in with the parents about it).²
 - Discuss human milk as "medicine" and the best option for infant feeding.³
- **Be sure parents are aware of how much human milk is needed each day to feed their infant.**
 - If the parents don't bring in the ounces needed for the infant or if they begin to bring in fewer ounces, review the pump log if available or ask if there are barriers that prevent the mother from pumping at least 8 times a day. Acknowledge the hard work that the mother is doing with pumping, caring for other children, coming into the NICU, etc.
- **Racial and ethnic disparities exist in human milk use. There is not a single intervention to address this challenge, but ensuring that lactation education materials include a diverse representation of families and that lactation consultants provide ample time to families of color may lay a foundation for improved outcomes.⁴**
- **Mothers with a history of substance use disorder may need additional counseling about providing milk for their infants and the benefits of skin-to-skin care and infant bonding.**
- **Parents can do many things for their infant while in the NICU. Providing milk can be an opportunity to build confidence and empower parents as central members of the infant's care team.**
- **Small, kind interactions with parents build trust and facilitate strong family-staff relationships.**

2 Provide resources and materials that encourage human milk production

- **Advocate for meal and transportation vouchers⁵ for (at least) one parent.**
- **Ensure families can access an electric pump.**
- **When parents leave the NICU each day, ask if they have enough bottles for milk, freezer packs, cooler bags, and labels. Not only does this meet a material need, but it communicates the importance of human milk for the infant's care and well-being.**
- **Make privacy screens easily obtainable in the NICU to promote infant bonding and privacy while expressing milk when rooming in or individual rooms are not available.**
- **Work with NICU nursing leadership and/or the local WIC program to have breast pumps on site for families to use if they do not otherwise have access to an electric pump.**
- **A high-quality double electric pump can increase production and a loanable pump allows parents more opportunities for milk production outside the hospital.⁶**
- **Educational videos (like those from the March of Dimes and firstdroplets.com in both English and Spanish) can be very useful for families and should be used in tandem with a lactation consultant.**

3 Create a culture that promotes early hand-expression, pumping, and human milk feeding

- **NICU-specific lactation consultants increase human milk use rates.⁷**
 - Advocate for sufficient staffing on weekends and nights- babies eat around the clock!
- **Work with Social Services to ensure families are aware of parental leave options and signs of postpartum depression and anxiety which can affect human milk production and bonding.**
- **Child Life Services may be able to assist in caring for siblings while parents express milk in the NICU or participate in skin-to-skin.⁸**
- **Provide multidisciplinary healthcare teams with the knowledge necessary to help parents prioritize human milk as a potentially lifesaving intervention. Remember, this isn't just the lactation consultant's job- it is everyone's responsibility!**

4 Encourage skin-to-skin as early and often as possible.

- **24-hour NICU access for parents facilitates more opportunities for skin-to-skin care.**
 - Staff should be trained to actively look for opportunities to assist parents in skin-to-skin whenever possible.
 - Ensure there are adequate, comfortable chairs for parents to use while performing skin-to-skin.⁹
- **Evoke confidence with parents around holding their infant.**
 - Communicate that having time skin-to-skin is a goal every day for the infant. Remind parents that they are a key part of the infant's care team.¹⁰
 - Discuss discharge readiness and planning multiple times to ensure parents feel knowledgeable and comfortable caring for their infant.
- **Non-nutritive sucking or "just trying" with the infant at the breast will deepen infant bonding and provide a stronger foundation for eventual feeding at the breast.**
- **Since expressing milk right after skin-to-skin produces the most milk¹¹, train staff to assist parents in setting up the breast pump while skin-to-skin occurs so that parents can easily transition to pumping.**

5 Communicate with families that donor human milk can act as a bridge to mother's own milk.

- **Counsel families prenatally on the benefits of human milk for preterm infants and consider getting consent prenatally as well.**
 - Framing donor human milk as a temporary solution reminds families that human milk is critical for their infant's health and that the staff expect parents to be involved in the long-term solution of providing human milk to the infant.
- **Recognize that families of color may be less likely to have access to or consent to donor human milk use.¹² It is important to ensure there are several opportunities to share information regarding donor human milk with the family and that hospitals work diligently to provide access to this valuable resource.**

These tips were collated by Henry C. Lee, MD, Chief Medical Officer of CPQCC and Caroline Toney-Noland, MSc, a Program Manager at CPQCC, with consultation from CPQCC's Perinatal Quality Improvement Panel (PQIP) Education Committee, QI Infrastructure Committee, and Health Equity Committee. Many of the suggested practices in this document were gathered through interviews with CPQCC NICUs with high rates of human milk use at discharge.

For more information on increasing human milk at discharge, reference the [Human Milk Toolkit](#).

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³ Parker MG, Patel AL. Using quality improvement to increase human milk use for preterm infants. Semin Perinatol. 2017;41(3):175-186. doi:10.1053/j.semperi.2017.03.007

⁴ Lee HC, Gould JB, Martin-Anderson S, Dudley RA. Breast-milk feeding of very low birth weight infants as a function of hospital demographics. J Perinatol. 2011;31:S82-S82

⁵ Meier PP, Engstrom JL, Mingoelli SS, MiracleDJ, Kiesling S. The Rush Mothers' Milk Club: breastfeeding interventions for mothers with very-low-birth-weight infants. J Obstet Gynecol Neonatal Nurs. 2004;33(2):164-174.

⁶ Chamberlain LB, McMahon M, Philipp BL, Merewood A. Breast Pump Access in the Inner City: A Hospital-Based Initiative to Provide Breast Pumps for Low-income Women. J Hum Lac. 2006;22(1):94-98. doi:10.1177/0890334405284226

⁷ Mercado K, Vittner D, McGrath J. What Is the Impact of NICU-Dedicated Lactation Consultants? An Evidence-Based Practice Brief. Adv Neonatal Care. 2019;19(5):383-393. doi:10.1097/ANC.0000000000000602

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¹⁰ Vohr B, McGowan E, McKinley L, Tucker R, Kesler L, Alksnis B. Differential effects of the single-family room neonatal intensive care unit on 18- to 24-month Bayley scores of preterm infants. J Pediatr. 2017;185:42-48.e1

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¹² Cricco-Lizza R. Black non-Hispanic mothers' perceptions about the promotion of infant-feeding methods by nurses and physicians. J Obstet Gynecol Neonatal Nurs. 2006;35(2):173-180

1

Communicate with parents about the importance of providing human milk

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 - Provide a pump log (and check in with the parents about it!).²
 - Discuss human milk as "medicine" and the best option for infant feeding.³
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- Racial and ethnic disparities exist in human milk use. There is not a single intervention to address this challenge, but ensuring that lactation education materials include a diverse representation of families and that lactation consultants provide ample time to families of color may lay a foundation for improved outcomes.⁴
- Mothers with a history of substance use disorder may need additional counseling about providing milk for their infants and the benefits of skin-to-skin care and infant bonding.
- Parents can do many things for their infant while in the NICU. Providing milk can be an opportunity to build confidence and empower parents as central members of the infant's care team.
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Provide resources and materials that encourage human milk production

- Advocate for meal and transportation vouchers⁵ for (at least) one parent.
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- Make privacy screens easily obtainable in the NICU to promote infant bonding and privacy while expressing milk when rooming in or individual rooms are not available.
- Work with NICU nursing leadership and/or the local WIC program to have breast pumps on site for families to use if they do not otherwise have access to an electric pump.
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Panel Discussion and Q&A

Martha Douglas-Escobar, MD

Carolyn Fischer, RN-C

Jenny Quinn, PhD, NNP-BC

Ashley Randolph, Founder of GLO Preemies & NICU Mom

Melanie Reitzel, MFA, RN, IBCLC (retired)



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Wrap Up



Increasing Human Milk in the NICU

⇒ Unlisted


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Thank you!