

# Improving Nutrition in the NICU

## SETRAC Breastmilk Initiative

Strategies for Increasing the Number of Houston Area  
NICU Graduates Discharged on Mother's Own Milk

# The Ideal Meal

- \* The AAP continues to support breastmilk as the normative diet for all infants.
- \* “The potent benefits of human milk are such that all preterm infants should receive human milk. **Mother’s own milk**, fresh or frozen, should be the primary diet, and it should be fortified appropriately for the infant born weighing less than 1.5 kg.”

- AAP Policy Statement 2012  
Breastfeeding and the Use of Human Milk

Mother’s Own Milk is the most important **MEDICINE** prescribed in the NICU.

# Breastfeeding Statistics

In the US, Texas currently ranks

- ❖ #15 in “Ever breastfed”
- ❖ #23 in “Breastfeeding at 12 months”

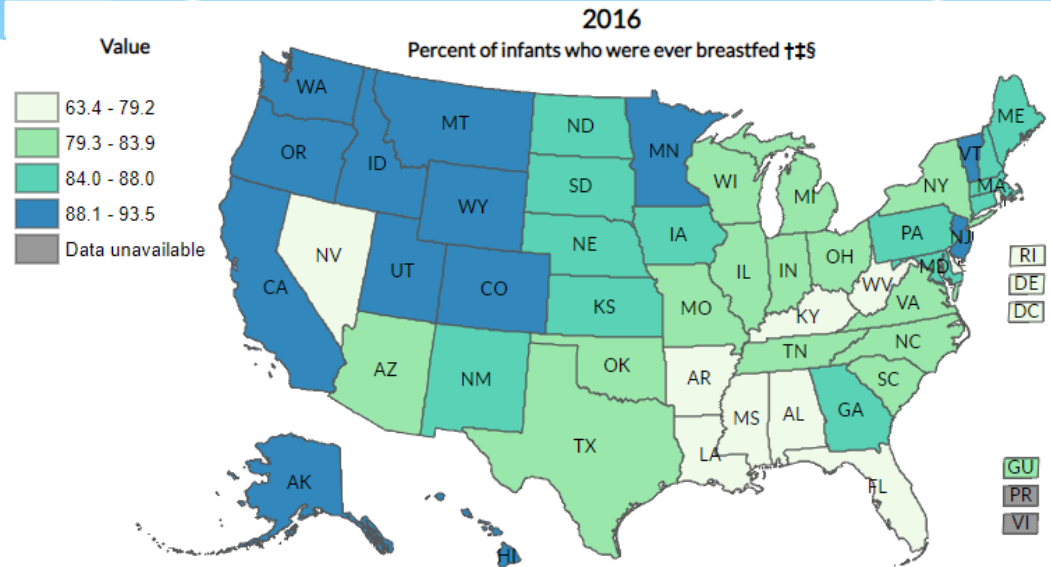


Table 1. Breastfeeding Rates among Infants Born in 2017

State/Territory	Ever breastfed	Breastfeeding at 6 months	Breastfeeding at 12 months	Exclusive breastfeeding through 3 months	Exclusive breastfeeding through 6 months	Breastfed infants receiving formula before 2 days of age
US National <sup>b</sup>	84.1	58.3	35.3	46.9	25.6	19.2
Texas	85.9	55.1	31.3	45.8	23.9	22.5

<sup>a</sup>Source: CDC National Immunization Survey (NIS) 2018–2019, among 2017 births. Breastfeeding rate indicators are the percentage of infants breastfeeding at the specified time points, calculated among all infants. The rate for infants receiving formula before 2 days of age is calculated among breastfed infants.

<https://www.cdc.gov/breastfeeding/data/reportcard.htm>

# Houston Statistics

- \* 2019-2020 SETRAC Breastmilk at Discharge
  - \* All NICU Admissions **62.4% (2019) – 69.1% (2020)**
  - \* VLBW Infants **26.6% (2019)- 31.1% (2020)**

# How can we do better?

- \* Project aim:

- \* Increase the number of infants discharged from the NICU on any amount of mother's own milk by **10%** by **Jan 1, 2022**.

- \* Minimum 1 breastmilk feed within 24hr prior to discharge

- \* Target population:

- \* All NICU admits (**SETRAC Goal  $\geq 80\%$** )
- \* VLBW (Birth weight  $< 1500$  g) (**SETRAC Goal  $\geq 40\%$** )

# Strategies for Improvement

## \* **Bronze Level**

- \* Promote breastfeeding culture in the hospital
- \* Focus on initiation and establishment of breastmilk

## \* **Silver Level**

- \* Continued improvement in earlier steps
- \* Focus on maintenance of breastmilk supply

## \* **Gold Level**

- \* Continued improvement in earlier steps
- \* Improving rates of direct breastfeeding prior to discharge

	Total NICU Discharges on Breastmilk	VLBW NICU Discharges on Breastmilk	Time to First Breastmilk Expression
Bronze	≥ 60%	≥ 45%	≤ 6hr
Silver	≥ 70%	≥ 55%	≤ 3hr
Gold	≥ 80%	≥ 65%	≤ 1.5hr

# Build the Team

- \* Breastfeeding Task Force
  - \* NICU/Nursery providers, leadership, RN champion
  - \* L&D/Post-partum providers, leadership, RN champion
  - \* Lactation consultant
  - \* Additional collaboration (Nutritionist, Dietician, etc.)
- \* Identify specific areas in need of improvement and unit barriers

# Initial Survey

## \* Begin with internal audits of:

	Yes	No
* Documentation of prenatal breastmilk counseling prior to, or within 6 hours of, delivery for all preterm deliveries or admissions from delivery room.	<input type="checkbox"/>	<input type="checkbox"/>
* Breast pump available at mother's bedside within 6 hours of delivery.	<input type="checkbox"/>	<input type="checkbox"/>
* Hand expression or pumping by 6 hours (Bronze level)	<input type="checkbox"/>	<input type="checkbox"/>
* Hand expression or pumping by 3 hours (Silver level)	<input type="checkbox"/>	<input type="checkbox"/>
* Hand expression or pumping by 1.5 hour (Gold level)	<input type="checkbox"/>	<input type="checkbox"/>
* Mother with mechanical pump or pump prescription/WIC appointment prior to her discharge.	<input type="checkbox"/>	<input type="checkbox"/>
* Applicable only for mother's discharged prior to infant.		



# Bronze Level Strategies

## \* Promote Breastmilk **Culture**

### \* Texas Ten Steps

- \* Engage Hospital and Staff in the Texas Ten Steps Program

### \* Annual Staff Breastfeeding Training

- \* Aid in staff comfort with hand expression, pump assist and breastfeeding in the NICU

### \* Prenatal counseling

- \* Provider should meet with family before delivery, if possible, or **within 6 hours** of birth.
- \* Documentation should include providing breastfeeding support



# Bronze Level Strategies

- \* Focus on **initiation** and **establishment** of supply
  - \* Lactation consult for all NICU admits
  - \* Breast pump access
    - \* Breast pump in delivery/recovery room within 6 hours of delivery
    - \* Hand or mechanical breastmilk expression as early as possible
    - \* Breast Pump Depot
  - \* MOMI Project
    - \* Track pumping log (paper vs electronic app) over first 7 days of life



# Silver Level Strategies

**GO MOM**

Baby's Name: \_\_\_\_\_

Mother's Name: \_\_\_\_\_

Name of Breast Pump: \_\_\_\_\_ Double / Single Pump

Plans to breastfeed: Yes / No ("if no, ask again at 32 weeks CGA")

Ask daily and document:

1. How is your milk supply?
2. How much milk are you getting when you pump (ounces or mLs)?
3. How often are you pumping in a day?
4. (Optional) Would you like any tips or help?

❖ If mother's supply is good or improving, give positive feedback:

- ☐ "Great job! It can be hard work, but (Baby's name) gets stronger with every bottle you make."
- ☐ "Let us know if you notice your supply decrease or have any questions."

❖ If mother's supply down or she has troubles/concerns, offer support:

- ☐ Lactation consult in < 12 hours. "One of our lactation specialists will be getting in touch with you soon."
- ☐ Increase number of pumping sessions in a day (10-12 times/day for 2-5 days). "Are you pumping during the night as well?"
- ☐ Take care of mom: increase water intake, decrease caffeine, get plenty of rest. Warm compresses and gentle massage for blocked ducts. See your doctor if you feel ill or have red/painful breasts.
- ☐ Increase milk stimulus: pump at baby's bedside and increase Kangaroo care time (as clinically able).
- ☐ Encourage mom: "It can be hard work, but hang in there. (Baby's name) gets stronger with every drop of milk you make."

- \* Focus on **maintenance** of supply
- \* GO MOM Project
  - \* Ask daily about mother's milk supply
    - \* Focus on 24 hr volume
    - \* Remember to ask about evening pumping sessions
- \* Audit EBM drop off
  - \* Keep log in NICU or milk bank when milk is dropped off by family (track volumes)
- \* Early intervention with LC if drop in EBM supply noted
  - \* Consider auditing logs every 3-7 days

# Gold Level Strategies

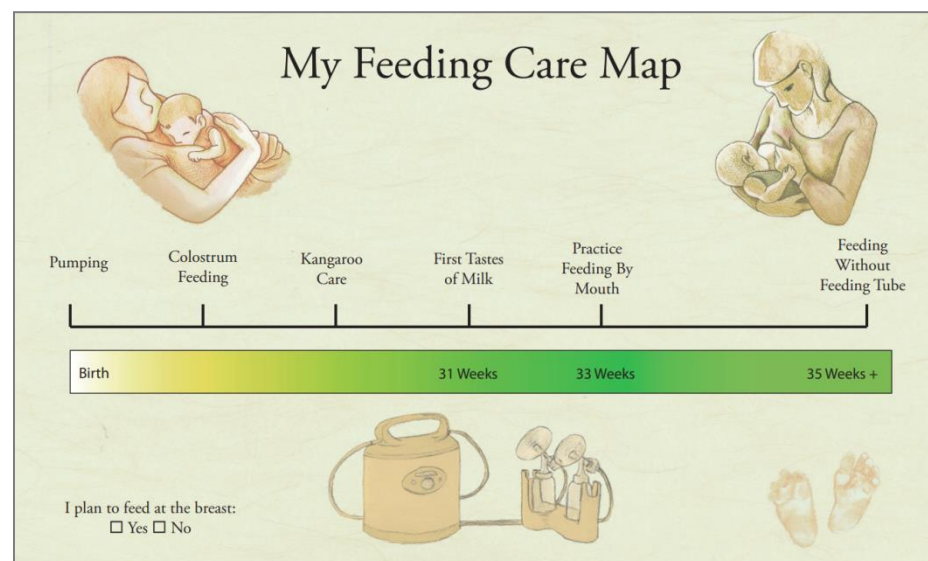
- \* Focus on improving **breastfeeding** in the NICU

- \* Delay initiation of bottle feeds until breastfeeding established for mother-infant dyads that plan to feed at the breast.

- \* Begin with non-nutritive breast feedings and advance as tolerated until infant is successfully latching and feeding well at breast (~1-2 times per day when available)

- \* Promote “home feeding routine” prior to discharge.

- \* Mimic number of breast feedings/ unfortified feeds vs fortified feeds as is anticipated for home



Courtesy of Carmichael-Swanner, Hair, Hurst, Kirby. July 2016  
Baylor College of Medicine Guidelines for Acute Care of the Neonate

# Additional Resources

- \* CDC Breastfeeding Toolkit
  - \* <https://www.cdc.gov/breastfeeding/resources/toolkits.html>
- \* AAP Resources
  - \* <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Breastfeeding/Pages/default.aspx>
  - \* [https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Breastfeeding/Documents/Hospital\\_Breastfeeding\\_Policy.pdf](https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Breastfeeding/Documents/Hospital_Breastfeeding_Policy.pdf)
- \* Texas WIC
  - \* <https://texaswic.org/breastfeeding>
- \* Texas Ten Steps
  - \* <http://texastenstep.org/tools-and-resources/resources-for-health-care-providers/>
- \* UTH Lactation Foundation
  - \* <https://med.uth.edu/lactation-foundation/>
  - \* <https://med.uth.edu/lactation-foundation/resources/>
- \* <https://breastpumpdepot.com/>
- \* Instructional videos to support early feeding
  - \* <http://www.rushmothersmilkclub.com/indexfb29.html?p=Home>
  - \* <https://med.stanford.edu/newborns/professional-education/breastfeeding.html>