

The Importance of Exclusive Breastfeeding

Exclusive breastfeeding of newborn infants is considered a best practice in infant care.

During the Hospital Stay

The American Academy of Pediatrics (AAP)

recommends “Give no supplements (water, glucose water, infant formula or other fluids) to breastfeeding newborn infants unless medically indicated”.¹ Recognizing the importance of exclusivity, the Joint Commission requires hospitals to report their rate of exclusive breast milk feeding during the newborn’s hospitalization.²

Formula supplementation of breastfed infants during the hospital stay can lead to:

- **Increased risk of necrotizing enterocolitis**

Formula-fed infants develop necrotizing enterocolitis (NEC) 6 to 10 times more often than exclusively breastfed infants. Each case of NEC in extremely premature infants costs an estimated \$74,004 plus an additional \$124,036 for those who require surgery.³ One in eight cases of NEC in these infants results in death.⁴

- **Disruption of the infant microbiome**

Even a small amount of formula given during the first three days of life decreases protective lactobacillus and increases levels of E. coli and C. difficile, differences still detectable at three months of age. A healthy microbiome is essential to immune and metabolic health.^{5,6}

- **Increased risk of severe engorgement**

Supplementation decreases the frequency of breastfeeds in the first few days. This increases the risk of severe engorgement and can negatively affect milk supply.⁷

- **Increased risk of allergy**

Avoiding cow’s milk formula in the first three days of life is protective against allergy at 2 years of age.⁸

- **Continued supplementation after hospital discharge**

Mothers who intend to exclusively breastfeed after discharge are more likely to achieve that goal if their infant is exclusively breastfed during the hospital stay.⁹

- **Earlier cessation of breastfeeding**

In-hospital supplementation more than doubles the risk of early weaning.¹⁰ In 2018, by 3 months of age only one in four breastfed WIC infants fed formula in Minnesota hospitals continued breastfeeding (27%), while three of four (72%) of those exclusively breastfed in the hospital continued to breastfeed.¹¹



- **Increased risk of SIDS**

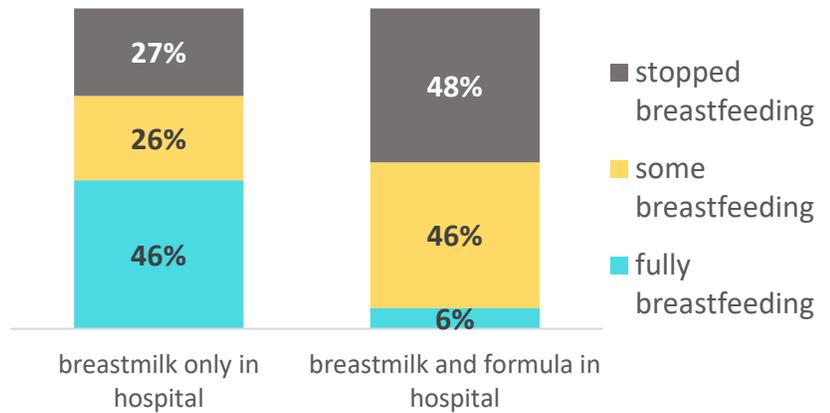
The AAP recommends exclusive breastfeeding to reduce the risk of SIDS, stating that “the protective effect of breastfeeding increases with exclusivity.”¹² Compared to exclusively breastfed infants, partially breastfed infants have 2.5 times, and formula-fed infants 3.7 times, the odds of dying from SIDS.¹³

Breastfeeding at 3 months among infants in the Minnesota WIC program

At 3 months of age, breastfeeding status varied depending on whether breastfed infants had been given formula during their hospital stay. Infants who had been exclusively breastfed in the hospital were:

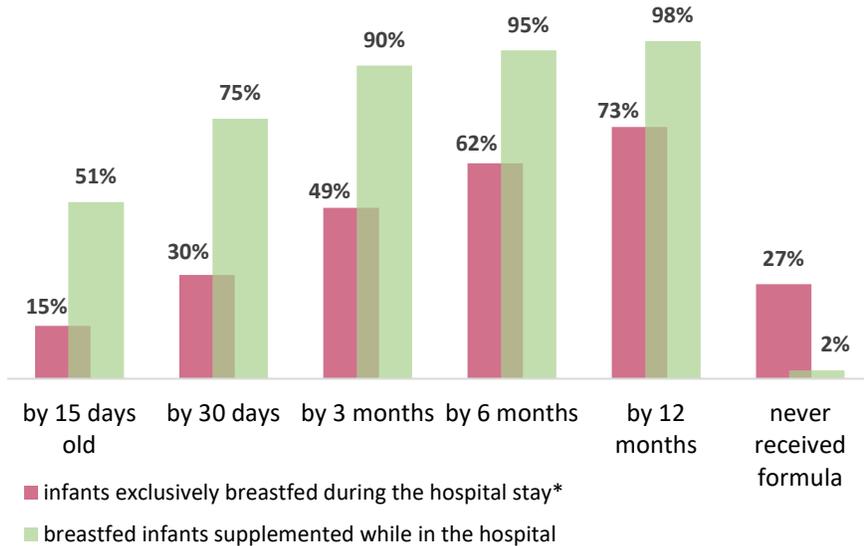
- more likely to continue to breastfeed (72% vs. 52%), and
- eight times as likely to be fully breastfeeding compared to those who were given formula in the hospital. (Figure 1)

Figure 1. Breastfeeding at 3 months among infants who initiated breastfeeding, 2018



In-hospital supplementation and formula usage in WIC infants

Figure 2. Minnesota WIC breastfed infants issued formula, by in-hospital feeding method, 2018



* includes infants supplemented with pasteurized donor human milk

At 12 months, 27% of infants who were exclusively breastfed in the hospital had never received formula from WIC, compared to only 2% of those who were supplemented with formula while in the hospital. (Figure 2)

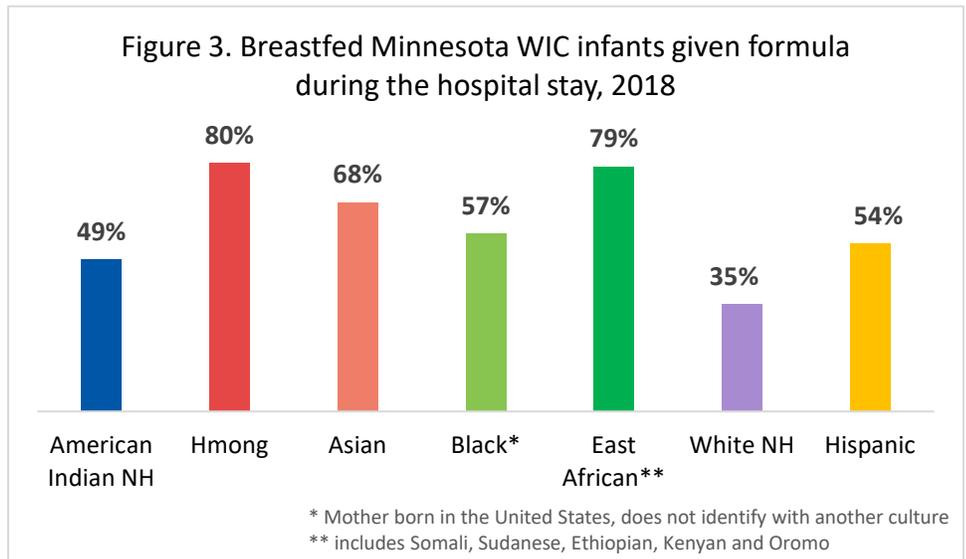
Babies exclusively breastfed in the hospital were issued formula from WIC a median of three months later than those who were given formula during the hospital stay.

Prevention of unnecessary supplementation

Although medical necessity or mother’s choice is often stated as the reason for in-hospital supplementation, a recent study found hospital rates varied from 2.3% to 98.3%¹⁴, suggesting that most supplementation is preventable. WIC prenatal education and peer counselor support can prepare mothers to get off to the best start. Maternity care best-practice policies and procedures, such as those outlined in the Baby Friendly Ten Steps, as well as competent, culturally sensitive lactation care, can help mothers avoid supplementation. If breastfed infants have received formula in the hospital, good follow-up care can help improve mothers’ chances of reaching their long-term breastfeeding goals.

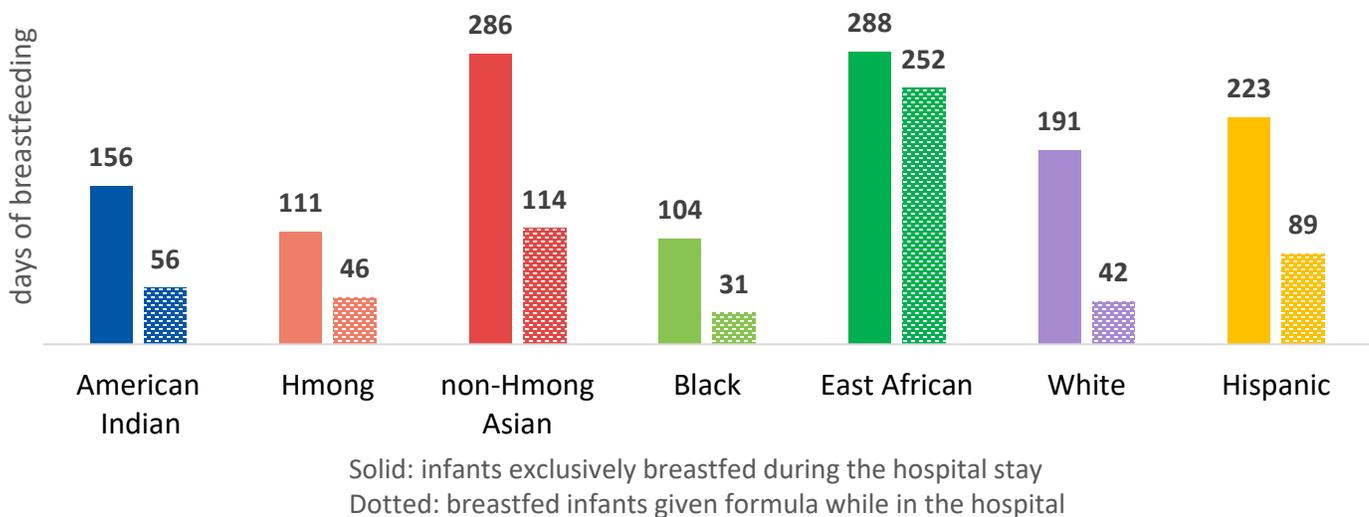
Rates of in-hospital supplementation of breastfed infants participating in WIC varied widely by race and ethnicity.

- White (65%) and American Indian (51%) infants were most likely to be exclusively breastfed.
- East African and Asian infants who initiated breastfeeding were most likely to be supplemented while in the hospital.
- Only one out of five Hmong and East African infants exclusively breastfed while in the hospital. (Figure 3)



Infants exclusively breastfed in the hospital breastfeed longer

Figure 4. Median days breastfed by in-hospital feeding method and by race/ethnicity and selected cultural identities*, 2018



*for definition see Methodology and Interpretation¹⁴

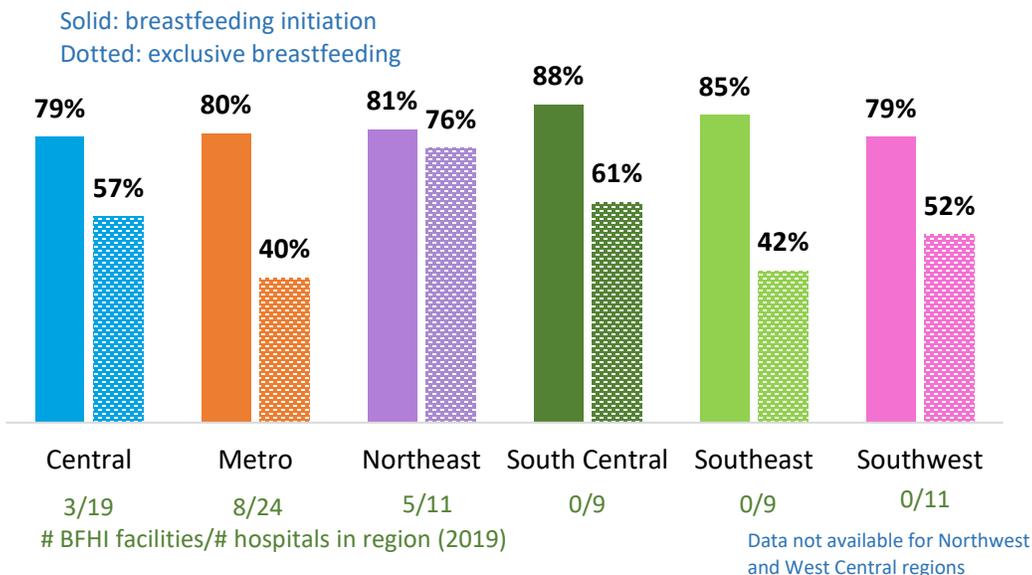
Figure 4. Infants exclusively breastfed during the hospital stay, breastfed longer than those who were supplemented. The difference in duration was especially striking among White infants, where those not supplemented breastfed more than four times as long as those who received formula in the hospital. Median days breastfed was two to three times as long among American Indian, Hmong, other Asian, Black and Hispanic infants who were exclusively breastfed, compared to those who were given formula during the hospital stay.

Disparities in breastfeeding exclusivity by region

Across Minnesota, rates of formula supplementation of breastfed infants varies more widely than initiation rates.

- In the Metro region, high rates of supplementation among East African and Hmong participants contributes to low rates of exclusive breastfeeding.
- The Northeast region has the highest rate of exclusivity in Minnesota, and also the highest percentage of hospitals (45%) which have achieved Baby-Friendly (BFHI) designation.

Figure 5. Breastfeeding initiation and exclusive breastfeeding during the postpartum hospital stay by region, MN WIC, 2018



Breastfeeding Friendly Maternity Center recognition programs



New mothers need good information to get started and to continue with breastfeeding. Mothers also need a supportive environment. The Minnesota Department of Health recognizes maternity centers that have taken steps toward implementing Breastfeeding Friendly policies and procedures. Breastfeeding Friendly facilities strive to support mothers to achieve their breastfeeding goals.

The Five-Star Designation program recognizes maternity centers in Minnesota that have taken steps toward implementing the Ten Steps and encourages progress toward achieving Baby-Friendly designation. The program celebrates each milestone by awarding maternity centers one star for every two steps achieved, for a total of five stars. Maternity centers that achieve all ten steps become eligible for the Minnesota Mother-Baby Ten STEPS Award. Learn more about the Ten Steps to Successful Breastfeeding at [MDH's Breastfeeding Friendly Recognition Program](#). MDH also has Breastfeeding Friendly recognition programs for workplaces, health departments and child care facilities.

MDH encourages hospitals to pursue Baby-Friendly designation through Baby-Friendly USA. A list of hospitals that have been designated Baby-Friendly can be found at [Baby-Friendly Facilities A-Z and by State](#).

More on Breastfeeding Friendly efforts across Minnesota and resources for health care providers and facilities interested in the Ten Steps and Baby-Friendly designation can be accessed online at the [Minnesota Breastfeeding Coalition's website](#).

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[WIC Program and CSFP](#)

[Exclusive Breastfeeding During the Hospital Stay Fact Sheet](#)

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Complete Listings of Hyperlinks

[MDH's Breastfeeding Friendly Recognition Program](https://www.health.state.mn.us/people/breastfeeding/recognition/index.html)

[\(https://www.health.state.mn.us/people/breastfeeding/recognition/index.html\)](https://www.health.state.mn.us/people/breastfeeding/recognition/index.html)

[Baby-Friendly Facilities A-Z and by State \(http://www.babyfriendlyusa.org/find-facilities/designated-facilities--by-state\)](http://www.babyfriendlyusa.org/find-facilities/designated-facilities--by-state)

[Minnesota Breastfeeding Coalition's website \(https://mnbreastfeedingcoalition.org/\)](https://mnbreastfeedingcoalition.org/)

[WIC Program and CSFP \(http://www.health.state.mn.us/people/wic/index.html\)](http://www.health.state.mn.us/people/wic/index.html)

[Exclusive Breastfeeding During the Hospital Stay Fact Sheet](https://www.health.state.mn.us/people/wic/localagency/reports/bf/info/index.html)

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