



### Introduction

The Timiskaming Health Unit supports and promotes breastfeeding through the Baby Friendly Initiative. This initiative aims to promote and support informed infant feeding decisions, and to increase the initiation, duration, and exclusivity of breastfeeding. This report provides information for the THU catchment area on breastfeeding rates and infant feeding trends to increase understanding of the infant feeding choices that mothers make.

### Methods and data notes

The breastfeeding initiation results were obtained from birth notification forms that are received from local hospitals and midwives when a mother who resides in the Timiskaming Health Unit catchment area gives birth, and also the Better Outcomes Registry Network of Ontario (BORN), a data system which collects information for all births in Ontario.<sup>1,2</sup> The remaining results in this report were collected using voluntary telephone and in-person surveys conducted by Timiskaming Health Unit’s Public Health Nurses.<sup>3</sup> All Timiskaming mothers who consented to participate were surveyed at three time points: 48 hours after hospital discharge, when their baby was 2 months of age, and when their baby was 6 months of age.

Participation rates were calculated by comparing our respondents to the known number of new mothers in the area (Table 1).<sup>1,2,3</sup> The main reason for mothers not participating was being unable to be

contacted by telephone and only a small proportion of mothers declined to participate. Due to some mothers not participating, it is estimated that the initiation, 48 hours, 2 month, and 6 month data for each year are accurate within plus or minus the percentage noted under ‘margin of error’ in Table 1.

Please note that there were changes in THU’s program and service delivery during the COVID-19 pandemic between 2020 to 2022. It is advised to interpret the results with caution during these years as they may not be representative of all of Timiskaming’s mothers.

**Table 1: Response rate of new mothers by survey year<sup>1,2,3</sup>**

		Number of participants	Response rate	Margin of error
2018	Discharge	294	90	2%
	48 hours	221	68	4%
	2 months	181	57	5%
	6 months	198	60	4%
2019	Discharge	288	87	2%
	48 hours	224	67	4%
	2 months	195	58	5%
	6 months	167	51	5%
2020	Discharge	233	74	3%
	48 hours	178	56	5%
	2 months	146	47	6%
	6 months	152	46	6%
2021	Discharge	232	72	3%
	48 hours	160	50	6%
	2 months	95	27	9%
	6 months	89	28	9%
2022	Discharge	201	69	4%
	48 hours	158	54	5%
	2 months	99	35	8%
	6 months	136	43	6%

## Participating mothers

This section provides some demographic information about mothers who participated in the infant feeding survey. When comparing the participating mothers by year there was little variation, therefore, all the years were combined in the analysis below (January 2018 to December 2022).

The mother’s age at the time of birth can be found in Figure 1. The most common age groups from highest to lowest was the 25 to 29 group at 35%, 30 to 34 group at 26%, 20 to 24 at 23%, 35 and over at 12%, and 3% of mothers were 19 years of age or younger. The average age of participants was 28 years (Figure 1).<sup>3</sup>

When asked to identify their cultural identity, the mothers identified as the following: 79% Anglophone, 12% Francophone, 3% Indigenous, 1% visible minority, and 5% as ‘other’.<sup>3</sup>

Regarding education, 18% had less than a high school degree, 18% had a high school degree, 3% had some post-secondary education, and 61% had completed post-secondary education.<sup>3</sup>

When asked their marital status, 6% identified as single.<sup>3</sup>

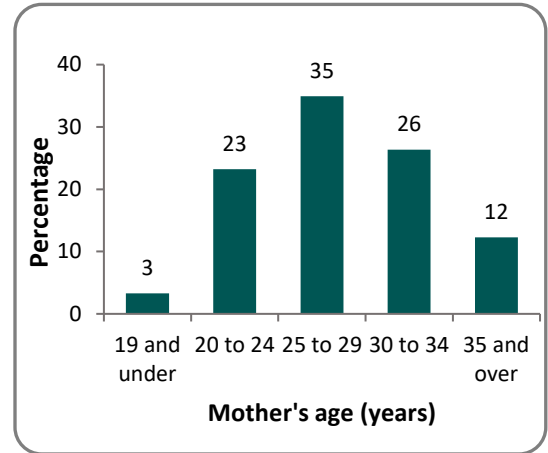
When questioned about financial concerns, 5% of mothers stated they were having financial difficulties.<sup>3</sup>

The distribution of the participating mothers’ age was compared to Timiskaming mothers’ records from the Better Outcome Registry and Network to determine if the sample in this survey was representative of mothers in Timiskaming.<sup>2,3</sup> This comparison resulted in no statistical differences, which indicates that the participating mothers are an accurate portrayal of mothers in Timiskaming.

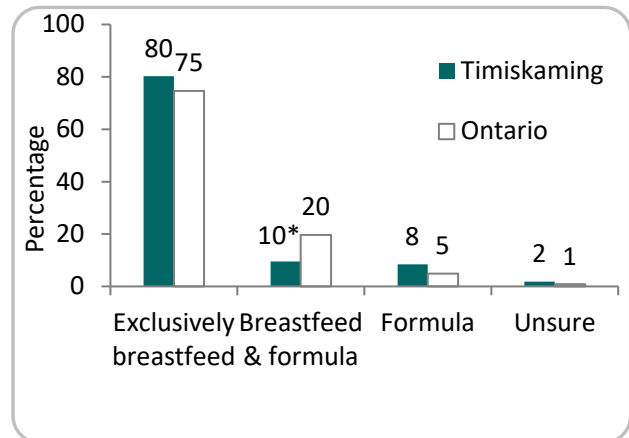
## Infant feeding intentions

This section presents the percentage of women who self-reported their intentions to feed their infant breast milk when asked during pregnancy or at the time of birth. It includes the intention to feed at the breast or provide expressed breast milk or donor milk. In Timiskaming, a larger percentage of women (80%) intended to exclusively breastfeed and a significantly lower percentage (10%) when compared with Ontario intended to feed both breast milk and formula. The percentage of mothers (8%) who intended to exclusively feed their infants formula was not statistically different from Ontario’s (5%) and 2% were unsure.<sup>2</sup>

**Figure 1: Mother’s age at the time of birth, 2018 to 2022.<sup>3</sup>**



**Figure 2: Mother’s intentions regarding feeding method during pregnancy or at birth, Timiskaming and Ontario, 2022.<sup>2</sup>**

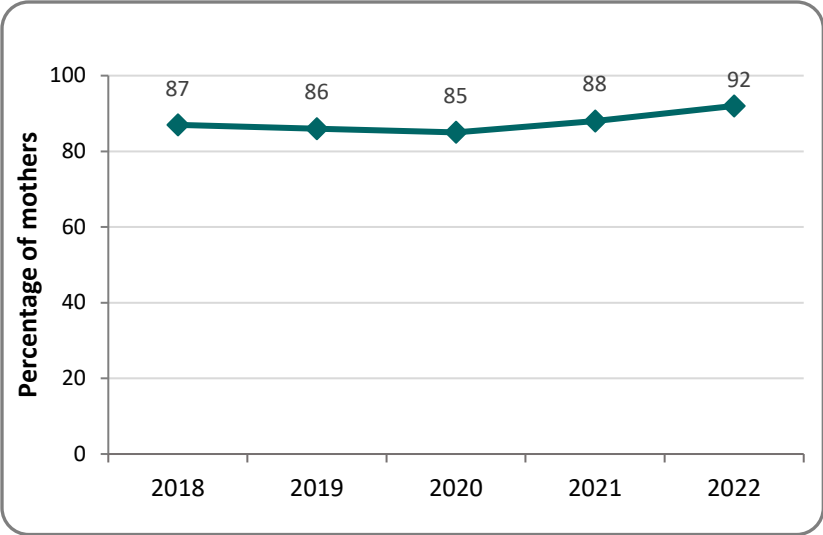


\* Rate was statistically different from Ontario's rate

### Breastfeeding initiation

Initiation means that breastfeeding or providing breast milk to an infant was attempted from birth to discharge. The breastfeeding initiation rates were between 85% (recorded in 2020) and 92% (recorded in 2022). Overall, the 2018 to 2022 period saw an increasing trend in breastfeeding initiation rates in Timiskaming.<sup>3</sup> There were no statistical differences found among the breastfeeding initiation rates by year.

**Figure 3: Breastfeeding initiation at birth, Timiskaming and Ontario, 2018 to 2022.<sup>3</sup>**



In 2022, BORN reported Ontario’s rate of providing breast milk (breast milk only or combination of breast milk and formula) from birth to discharge (hospital, birth centre or home birth) as 90% and Timiskaming’s rate as 88%.<sup>2</sup> Timiskaming’s rate from this source was not statistically different from Ontario’s rate.<sup>2</sup>

## Infant feeding 48 hours after discharge from the hospital

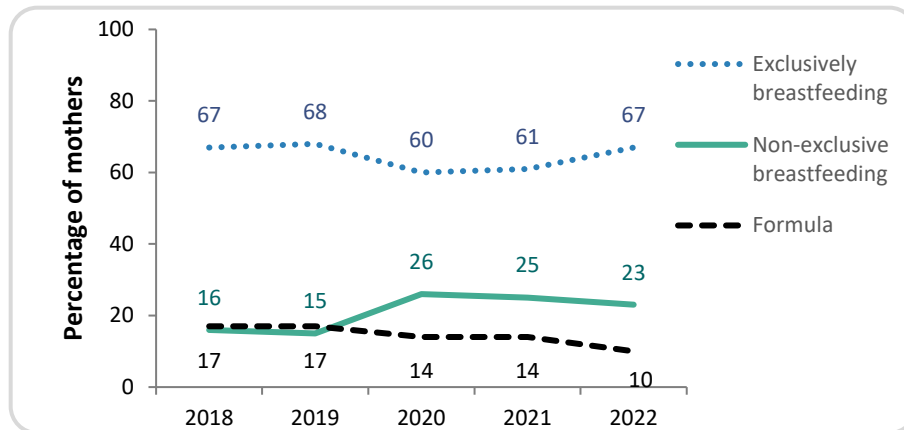
### Definitions<sup>4</sup>

**Exclusive breastfeeding:** The infant is receiving human milk only (including expressed milk and donor milk). Additionally, this includes oral rehydration solution, syrups (vitamins, minerals, medicines).

**Non-exclusive breastfeeding:** The infant is receiving formula, human milk and water, water-based drinks, fruit juice, or any other liquid or solids.

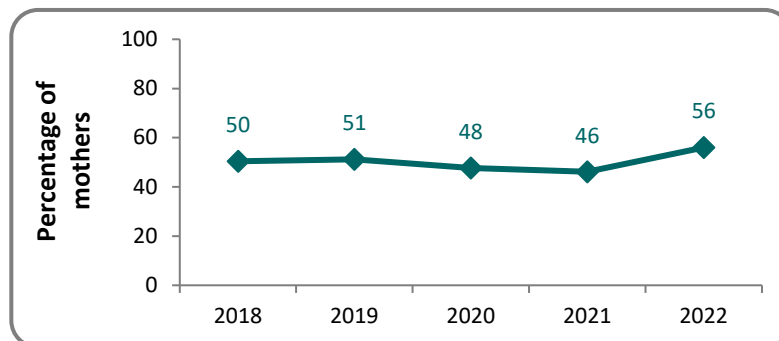
In 2022, at 48 hours after discharge, 67% of mothers were exclusively breastfeeding, 23% of mothers were non-exclusively breastfeeding, and 10% were providing formula only (Figure 4).<sup>3</sup> None of these rates were statistically different by year.

**Figure 4: Current infant feeding choices 48 hours after hospital discharge, 2018 to 2022.**<sup>3</sup>



In 2022, at 48 hours after discharge, 56% of mothers provided only breast milk to their babies since birth.<sup>3</sup> None of these rates were statistically different by year (see Figure 5).<sup>3</sup>

**Figure 5: Percentage of mothers who provided only breast milk to their babies from birth to 48 hours after hospital discharge, 2018 to 2022.**<sup>3</sup>

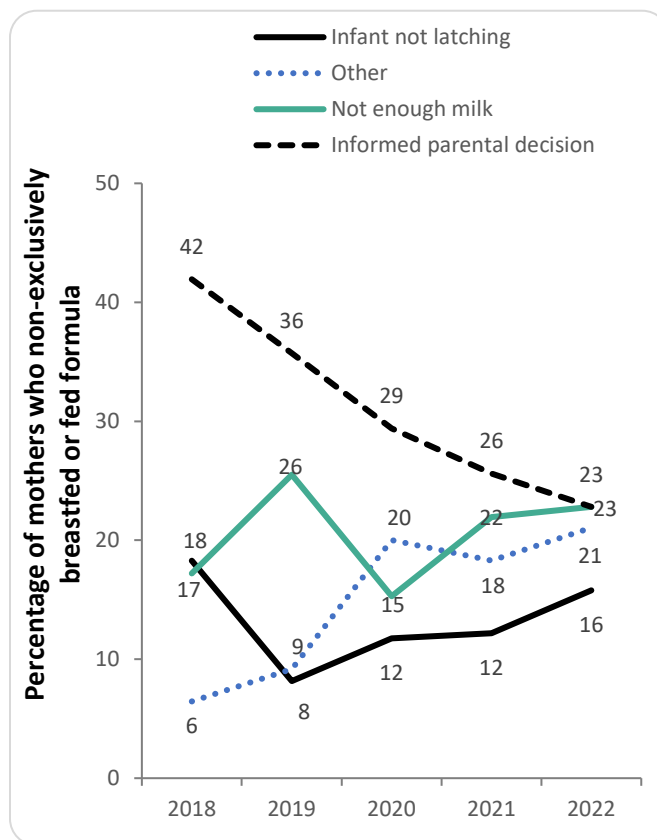


Mothers who had not exclusively provided breast milk to their babies were asked to provide their rationale for their infant feeding choice. The most common responses in 2022 were: ‘informed parental decision’ (23%) and ‘not enough milk’ (23%) followed by ‘Other reasons’ (21%). Other less commonly identified reasons include ‘infant not latching’ (16%), ‘baby not gaining weight’ (5%) and ‘mother too tired’ (4%). (Figure 6).<sup>3</sup>

The following data includes only mothers who were non-exclusively breastfeeding and had provided formula at one point since birth. In 2022, 86% of the mothers had provided formula at the hospital and 14% had provided formula since they came home (post-discharge), and none had provided formula both at the hospital and at home.<sup>3</sup>

Mothers with babies born in 2022 when asked about infant feeding support, 99% of mothers stated that after they left the hospital, they knew how to get help with feeding their infant if it were required.<sup>3</sup>

**Figure 6: Most common reasons for feeding infant formula, 48 hours after hospital discharge, 2018 to 2022.<sup>3</sup>**

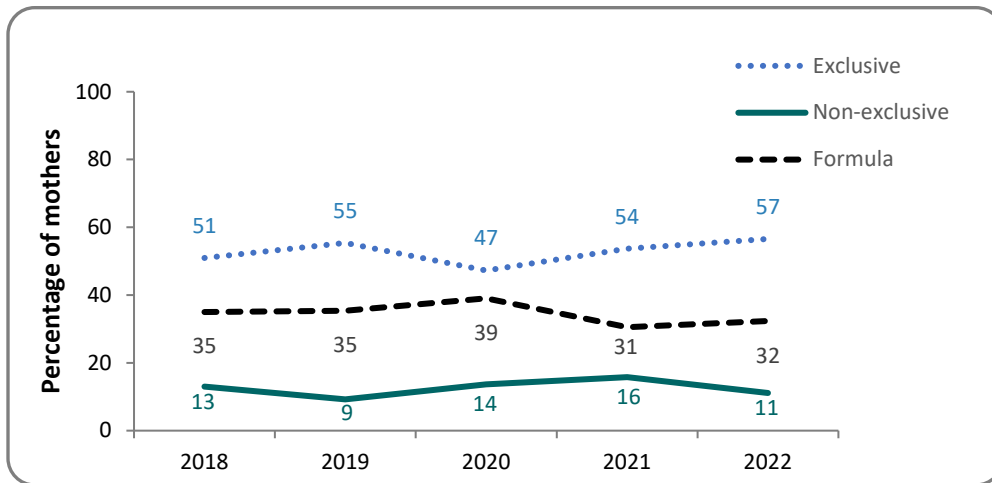


## Infant feeding 2 months after birth

This section includes mothers who had a 2 month-old child within the survey data collection period (January of 2018 to December of 2022).

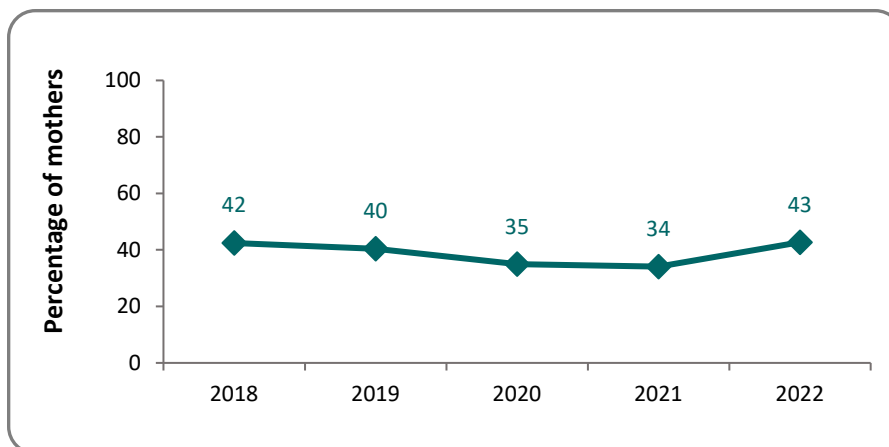
At the time of the 2 month contact, 57% of 2022 mothers were exclusively breastfeeding their infant, 11% were combination feeding, and 32% were feeding only formula.<sup>3</sup> These percentages were not statistically different over time (Figure 7).

Figure 7: How mothers were feeding their infants at 2 months of age, 2018 to 2022.<sup>3</sup>



In 2022 at 2 months after birth, 43% of mothers exclusively provided breast milk to their baby since birth<sup>3</sup>. There were no statistical differences over time (Figure 8).

Figure 8: Percentage of mothers who provided only breast milk to their babies from birth to 2 months of age, 2018 to 2022.<sup>3</sup>

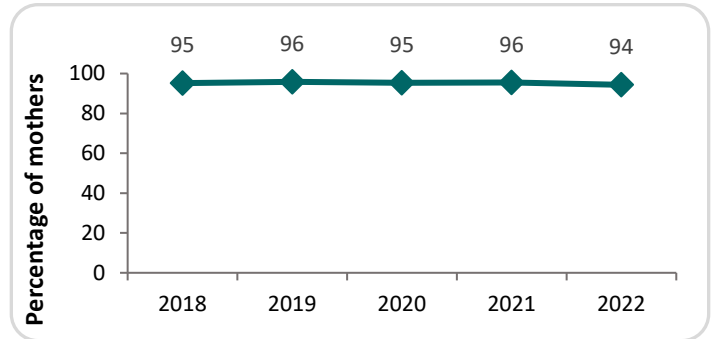


Mothers who indicated that they were currently providing breast milk but had not exclusively breastfed since birth were asked if their baby had received only breast milk in the last 7 days. In 2022, 83% of these mothers fed their baby only breast milk in the last 7 days.<sup>3</sup>

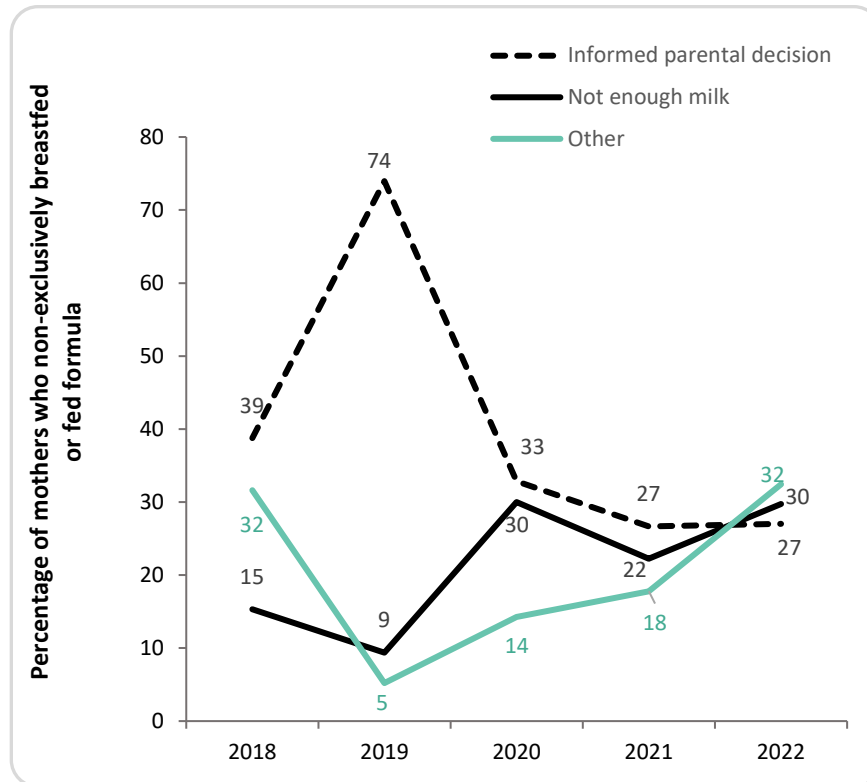
Mothers who indicated that they were only providing breast milk at two months were asked if they were giving their baby vitamin D supplement. In 2022, 94% of mothers providing only breast milk at two months were giving their baby vitamin D supplementation.<sup>3</sup> There was no statistical difference in the rates by year.<sup>3</sup>

In 2022, mothers who were non-exclusively breastfeeding and had provided formula at 2 months were asked to provide their rationale for their infant feeding choice. The most common responses were 'Other' (32%), 'not enough milk' (32%) and 'informed parental decision' (27%) (see Figure 10).<sup>3</sup>

**Figure 9: Percentage of exclusively breastfeeding mothers who provided vitamin D supplement, 2018 to 2022.**<sup>3</sup>



**Figure 10: Most common reasons for feeding infant formula at two months, 2018 to 2022.**<sup>3</sup>



In 2022, all mothers were asked if they felt supported in their infant feeding decisions. Almost all mothers, 99%, felt supported from health care providers, 99% felt supported at home, and 93% felt supported while out in public places.<sup>3</sup>

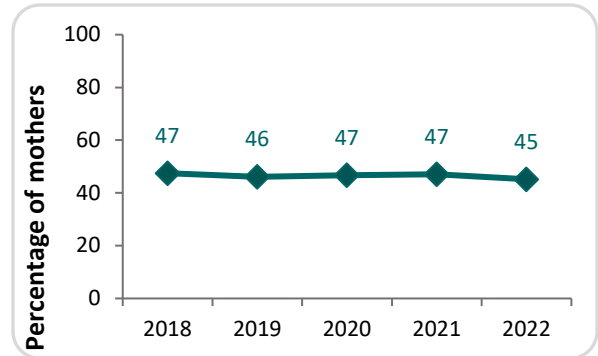
## Infant feeding 6 months after birth

This sample includes mothers who had a 6 month-old child within the survey data collection period (January 2018 to December of 2022).

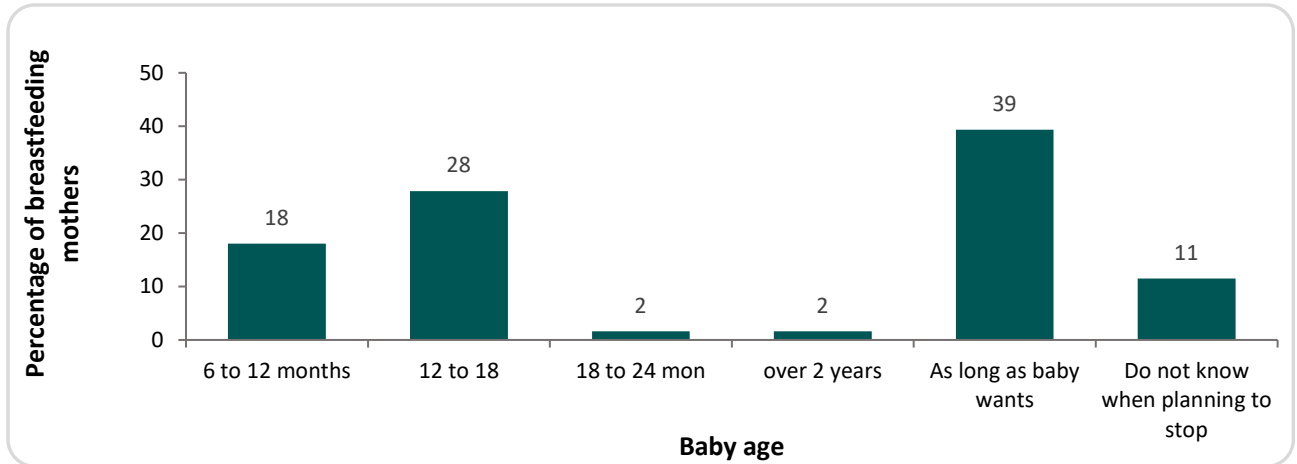
In 2022, 45% of mothers were providing breast milk to their 6 month-old child.<sup>3</sup> This rate was not statistically different from the rate of any other years (Figure 11).

Of the mothers who were still breastfeeding their infant at 6 months in 2022 (61 mothers), 39% planned to breastfeed as long as the baby wants breast milk, 28% planned to breastfeed until the child is 12 to 18 months of age, and 18% planned to breastfeed until the child is 6 to 12 months of age (Figure 12).<sup>3</sup>

**Figure 11: Percentage of mothers who are breastfeeding at 6 months, 2018 to 2022.<sup>3</sup>**



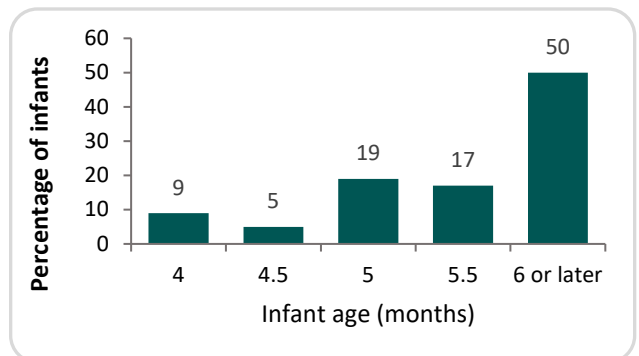
**Figure 12: How long mothers plan to breastfeed their infants, 2022.<sup>3</sup>**



Mothers were asked what age they started feeding their infant solid foods. The average infant's age where mothers introduced solid foods was 5.5 months, with four months being the youngest, and the majority (50%) being 6 months of age or older (Figure 13).<sup>3</sup>

In 2022, mothers who had fed their baby breast milk at least once (and were not still breastfeeding) were asked the last time they gave their baby breast milk. The top four time points for last giving their baby breast milk was less than 1 month (24%), 1 month (22%), 2 months (16%) and 3 months (9%).<sup>3</sup>

**Figure 13: Age at which solid food was first introduced to infants, 2022.<sup>3</sup>**



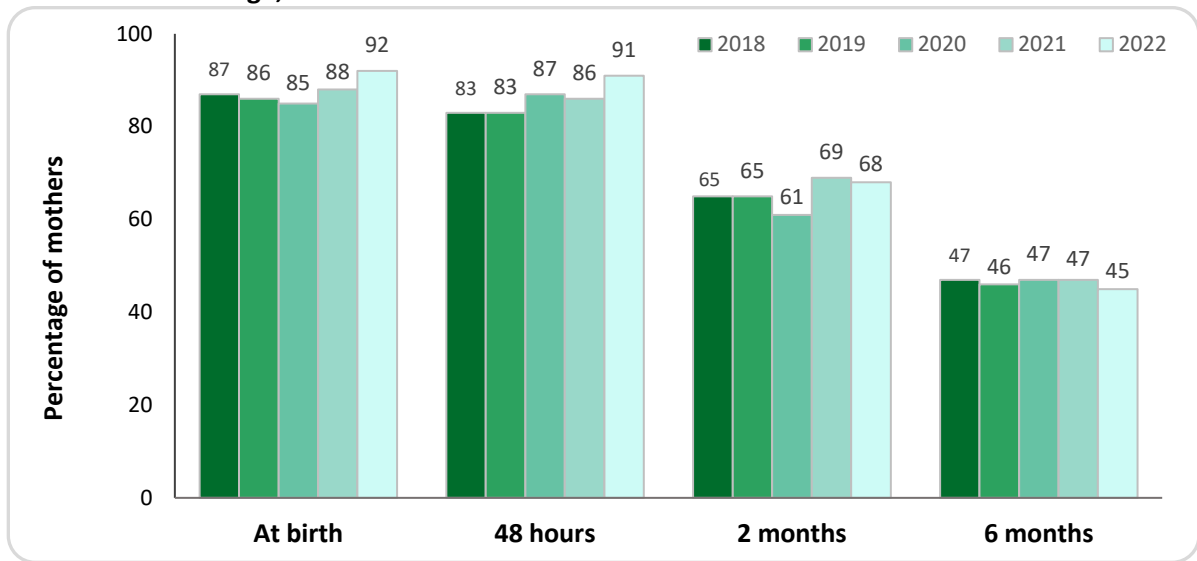


## Summary over time for providing any breast milk

Figure 14 presents the percentage of mothers who provided any breast milk to their child, whether exclusively or non-exclusively.<sup>3</sup> In each year, the same trend can be seen where there was no statistical difference between the rate of being fed breast milk at birth and the 48 hours after discharge, but there was a statistical decrease in rates between the 48 hours and 2 months, and again between the 2 months and 6 month time points except for the year 2020.

There was no statistical difference in breastfeeding rates between years at each time point i.e. birth, 48 hours, 2 months, and 6 months.

**Figure 14: Percentage of mothers who provide any breast milk to their child from birth to 6 months of age, 2018 to 2022.<sup>3</sup>**



### How to interpret these data

In this report, a statistical difference is one that is likely not due to chance alone; more specifically that there is only a one in twenty chance that the difference is not true. Smaller sample sizes, as often seen in Timiskaming, make it more difficult to detect statistical differences as there is more uncertainty around the precision of the estimate.

Reference to Timiskaming means the Timiskaming Health Unit area, which includes the district of Timiskaming and the Municipality of Temagami.

## References

<sup>1</sup> Timiskaming Birth Notifications 2018 to 2022.

<sup>2</sup> Newborn and Pregnancy Report BORN Information System, BORN Ontario. Information accessed on February 26, 2024.

<sup>3</sup> Timiskaming Health Unit Infant Feeding Surveillance Survey. January 2018 to December 2022. Data extracted February 2024.

<sup>4</sup> Breastfeeding Committee for Canada, The National Authority for the Baby-Friendly Initiative. Breastfeeding Definitions and Data Collection Periods. 2012. Available at [http://breastfeedingcanada.ca/documents/BCC\\_BFI\\_Breastfeeding\\_Definitions\\_and\\_Data\\_Collection\\_English.pdf](http://breastfeedingcanada.ca/documents/BCC_BFI_Breastfeeding_Definitions_and_Data_Collection_English.pdf).