



Healthy Child Manitoba Office

Healthy Baby Programs

Infant Feeding

December 2009



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REPORT PURPOSE AND OVERVIEW

In June of 2004, Healthy Child Manitoba Office started collecting information about the Healthy Baby Program and program participants. Data collection includes:

- "We're Glad You are Here" forms
- Attendance Sheets
- Infant Feeding Charts
- Prenatal and Postnatal Participant Surveys
- Session Tracking Sheets

This report provides some highlights of information about infant feeding. This information was obtained from the infant feeding charts (5,437 charts), postnatal surveys (2,958 surveys) and prenatal surveys (2,125 surveys). The time period covered in this report, unless otherwise noted, is programs that occurred between June 1, 2004 and January 21, 2009.

Healthy Baby Programs take place at many different locations throughout Manitoba. Agencies are funded to deliver Healthy Baby Programs but do not use the name "Healthy Baby Program" - each agency and site has its own name and may have specific target groups (for example, there are some "teen sites" offered by some agencies).

Please direct any questions about this report to Cynthia Carr at epiresearch@shaw.ca

Infant feeding choices contribute to healthy early child development and breastfeeding is the optimal feeding method. The benefits are extensive for both mother and baby and include reduced childhood illnesses and hospitalization.¹

"There is encouraging evidence that good nutrition, nurturing and responsive caregiving in the first years of life, linked with good early child development programs, improve outcomes for all children's learning, behaviour and physical and mental health throughout life."ⁱⁱ

KEY FINDINGS

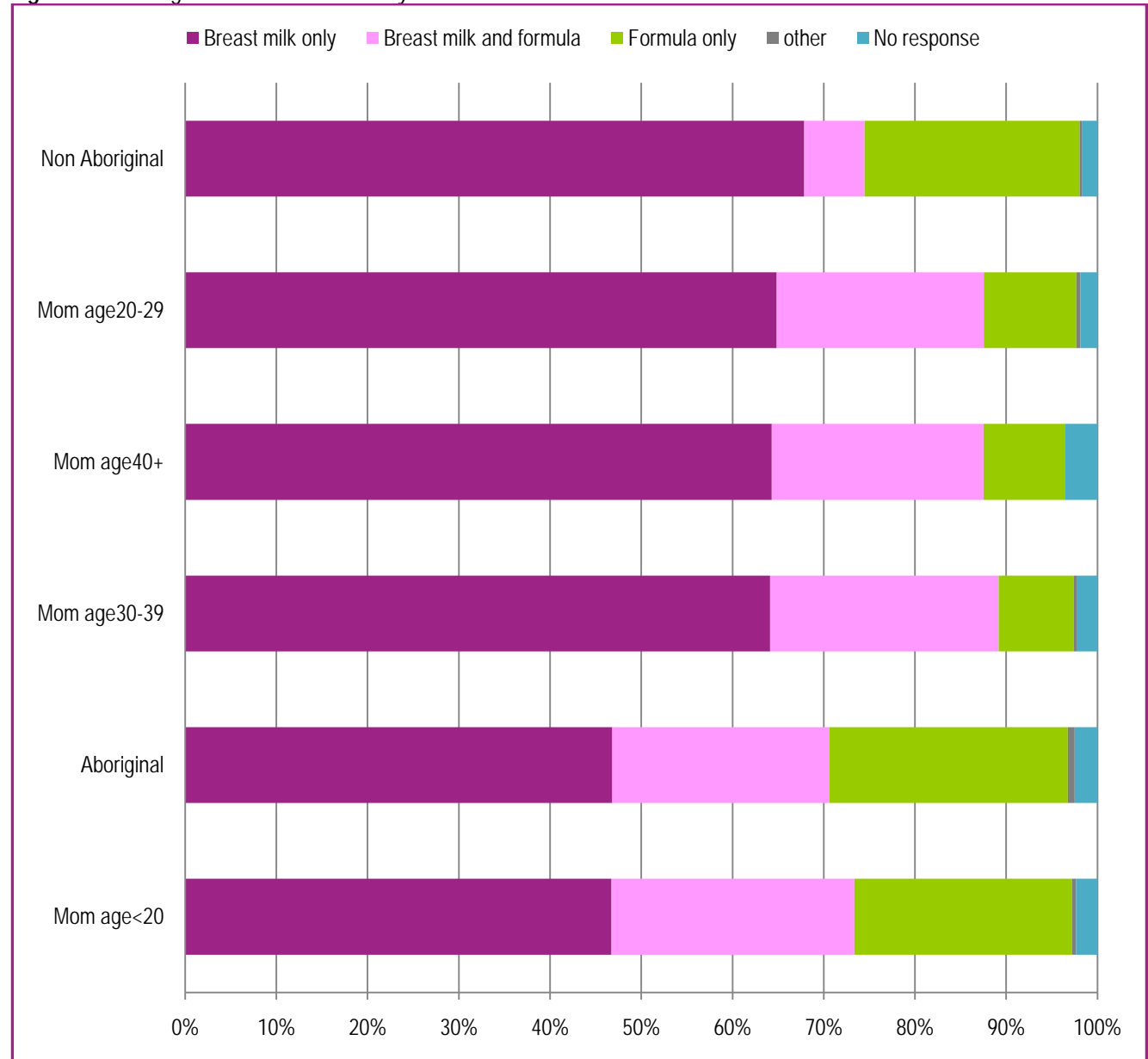
In this report we found that:

- Almost two out of three Healthy Baby Program participants breastfed their infants in the first month.
- Older moms who had completed high school, did not receive income assistance and were not Aboriginal were most likely to breastfeed their babies.
- Mom's under the age of 20 and Aboriginal moms were least likely to breastfeed their babies; these moms were also most likely to be "unsure" about how they planned to feed their baby when they were still pregnant.
- Women who supplemented in hospital were also less likely to breastfeed their babies.
- Only one in five participants solely breastfed their infants for the first six months of life.
- 44 per cent of participants breastfed until the baby was twelve months old (with other supplements).
- 62 per cent of women who "smoke daily" also breastfed their infants in the first three months of life; this is true for 56 per cent of women who drank alcohol daily.
- By six months of age, over half of infants (60%) had been introduced solids.
- By twelve months of age, one in three infants had been given cow's milk.
- Our data along with other studies have shown that older mothers with higher education and higher incomes are more likely to breastfeed. Considering the health and economic benefits of breastfeeding, there is a need to explore ways to reach younger and lower income mothers with breastfeeding information and supports.

1. INFANT FEEDING IN FIRST MONTH

- Information about how participants fed their babies in the first month of life is available from the postnatal survey.
- Of the 2,958 surveys returned, 2,393 participants responded to this question for a response rate of 80.9 per cent.
- Overall, almost two out of every three (63%) participants indicated that they fed their babies breast milk on in the first month.
- Almost one in four participants (23.9%) fed their babies a combination of breast milk and formula in the first month and only one in ten provided only formula.
- **Figure 1** shows that young moms (under age 20) and Aboriginal moms are least likely to solely breastfeed their infants, with less than half solely breastfeeding in the first month.

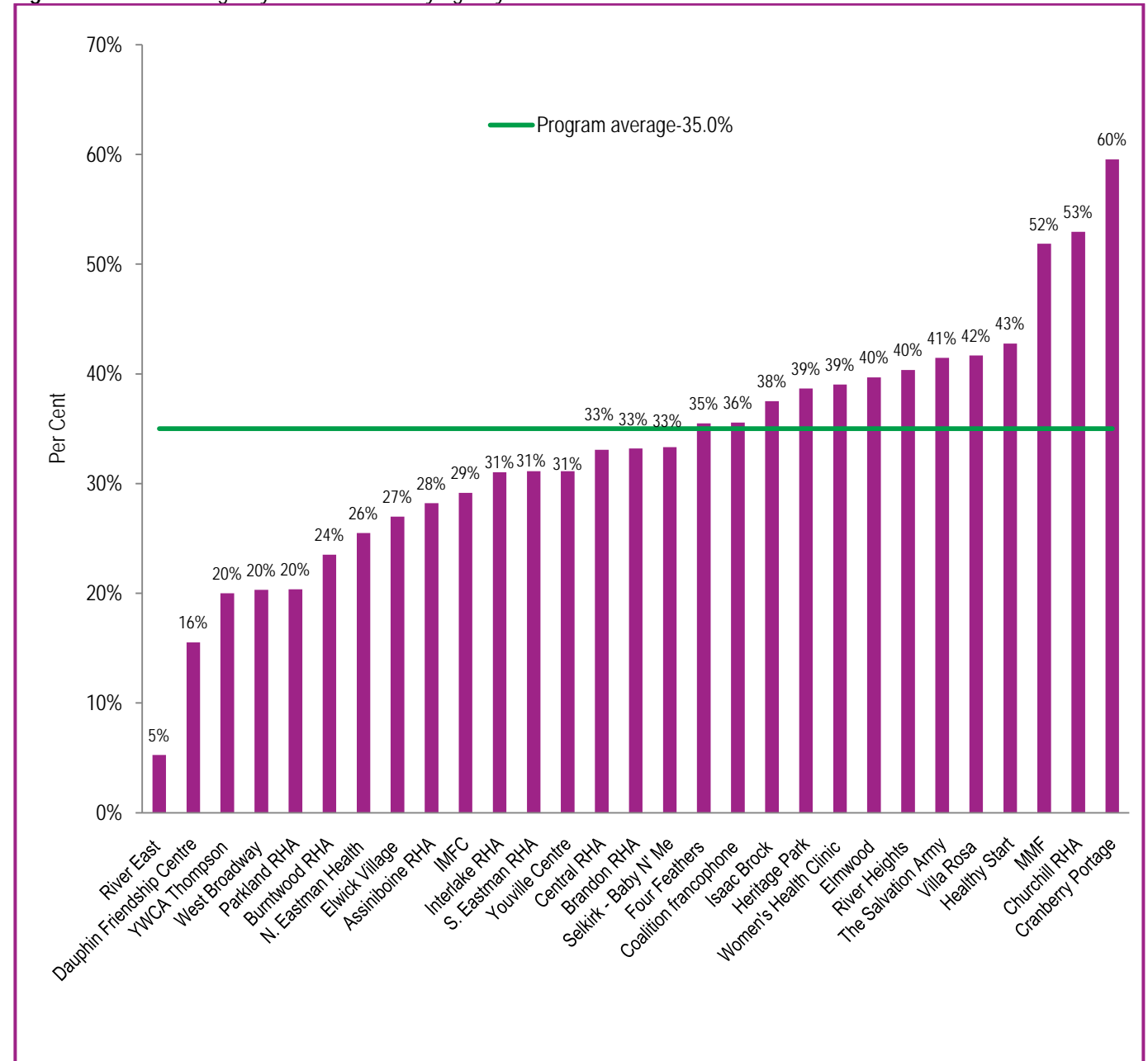
Figure 1. Feeding method in first month by characteristics of the mothers.



2. INFANT FEEDING AT FIRST VISIT TO HEALTHY BABY PROGRAM

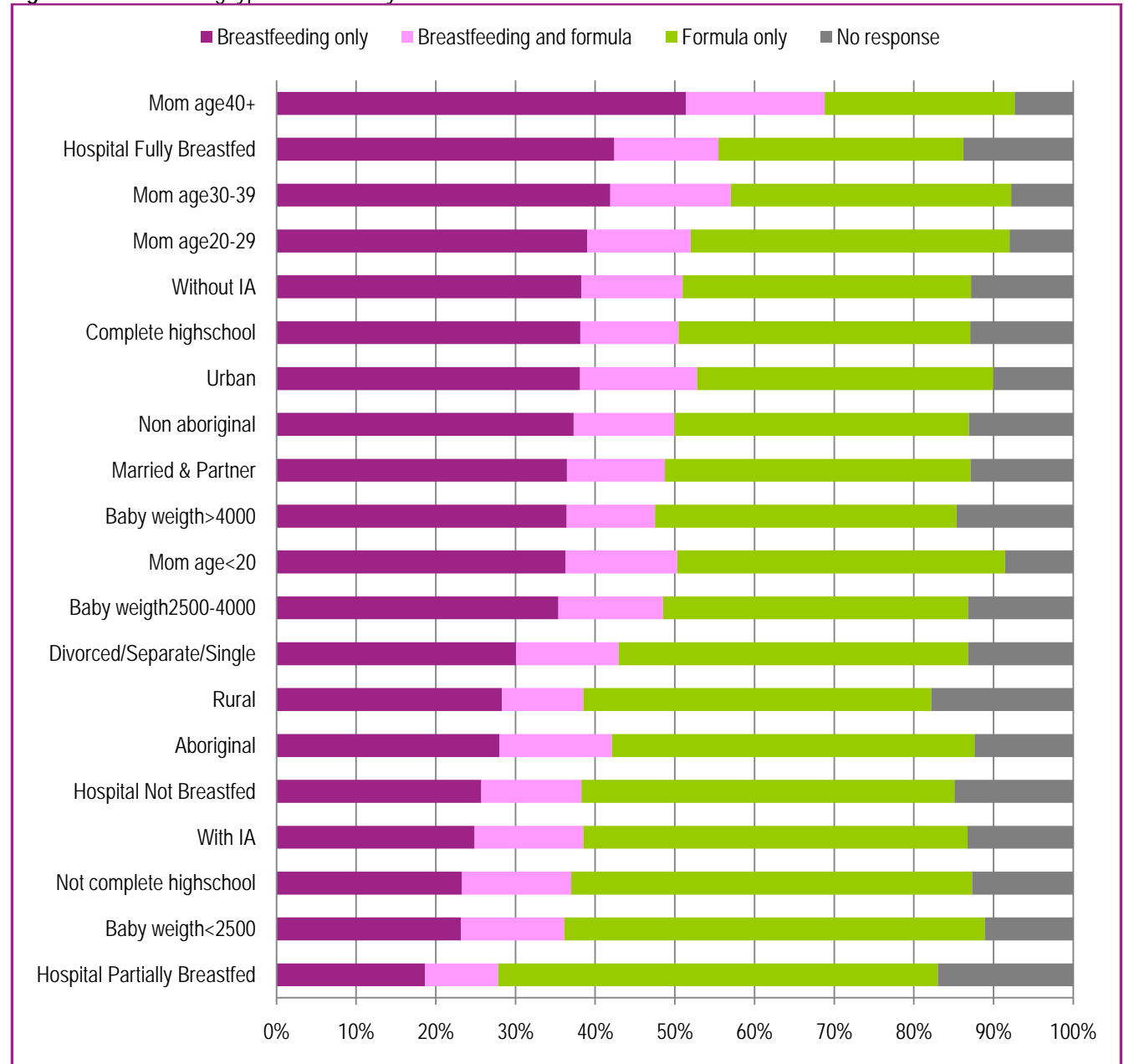
- This information (on 5,437 participants) is from the Infant Feeding Charts.
- On average, participants start attending Healthy Baby Programs when their babies are just over 14 weeks of age. This means that we do not have as much information about early infant feeding practices from the Infant Feeding Chart.
- By the time participants start attending Healthy Baby Programs, only 35 per cent of participants are solely breastfeeding their infants. The range is also quite wide, from 5 per cent of River East participants to 60 per cent of Cranberry Portage participants.
- Unless we are able to encourage participants to attend programming earlier, there may be limited opportunity to impact the duration of breastfeeding of program participants. One area of opportunity may be in the prenatal programming and strong linkages with breastfeeding support groups.

Figure 2. Breastfeeding only rate at first visit by agency.



- Differences in breastfeeding rates are impacted by a number of things. For example, research shows that younger moms and women of lower education and socio-economic status have lower breastfeeding rates.
- **Figure 3** shows information about indicators (such as age, high school completion etc) and how they relate to how the participant fed her baby when she first attended a Healthy Baby Program (regardless of the age of the infant).
- Participants were most likely to be breastfeeding if they were older, fully breastfed their infants in the hospital, do not receive income assistance, have completed high school, live in an urban setting and are not Aboriginal.
- Partially breastfeeding in hospital was most strongly associated with formula feeding at first visit, followed by babies birth weight of less than 2500 grams (low birth weight), not completing high school and receiving income assistance.

Figure 3. Infant feeding type at first visit by indicator.



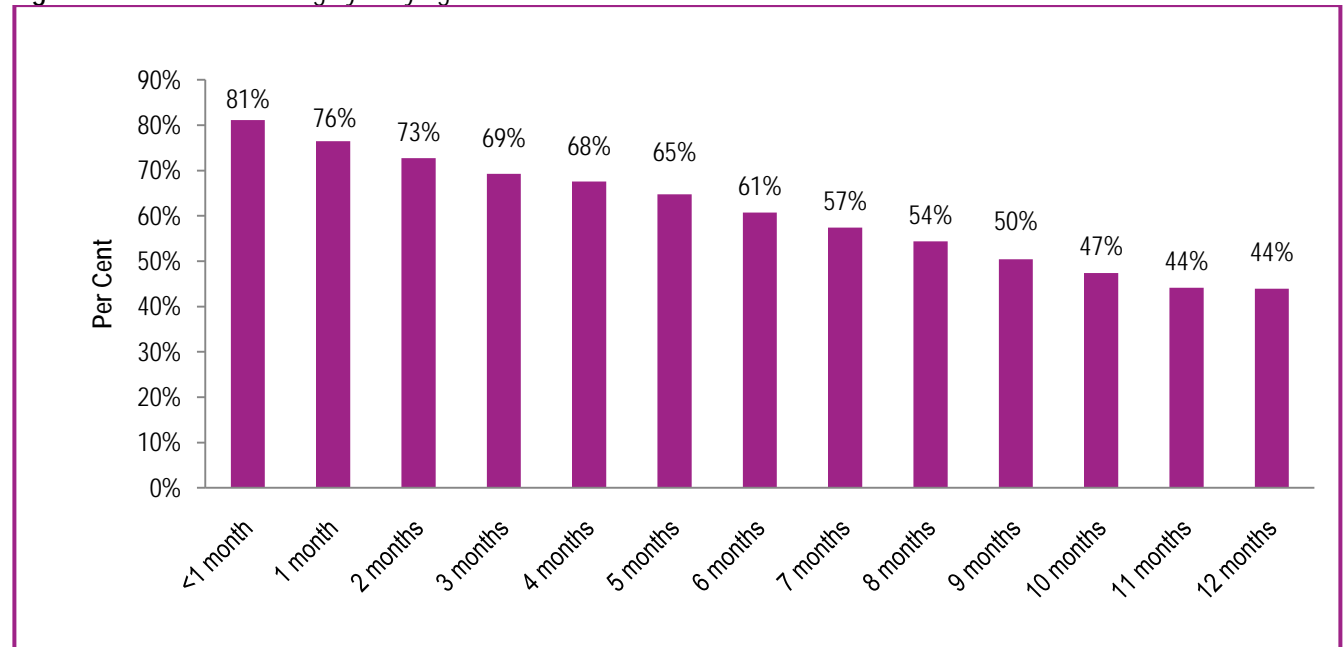
3. BREASTFEEDING DURATION

- The Canadian Paediatric Society (CPS)ⁱⁱⁱ recommends exclusive breastfeeding for at least the first six months of life and continued breastfeeding for up to two years or more.
- **Figures 4 and 5** are based on the Infant Feeding Charts which are filled out at each program attendance.
- For participants who attend when their infant is less than one month of age, 62 per cent are solely breastfeeding and 81 per cent are providing at least some breast milk, although it may be supplemented by formula.
- **Figure 4** shows that less than one in five (19%) participants follow the CPS recommendations of exclusive breastfeeding for the first six months of life. However, the good news is that 44 per cent of participants continue to breastfeed for the first twelve months (see **Figure 5**), although in most cases it is supplemented with formula and introduction of other nutritional options.

Figure 4. Sole breastfeeding by baby age.



Figure 5. ANY breastfeeding by baby age.

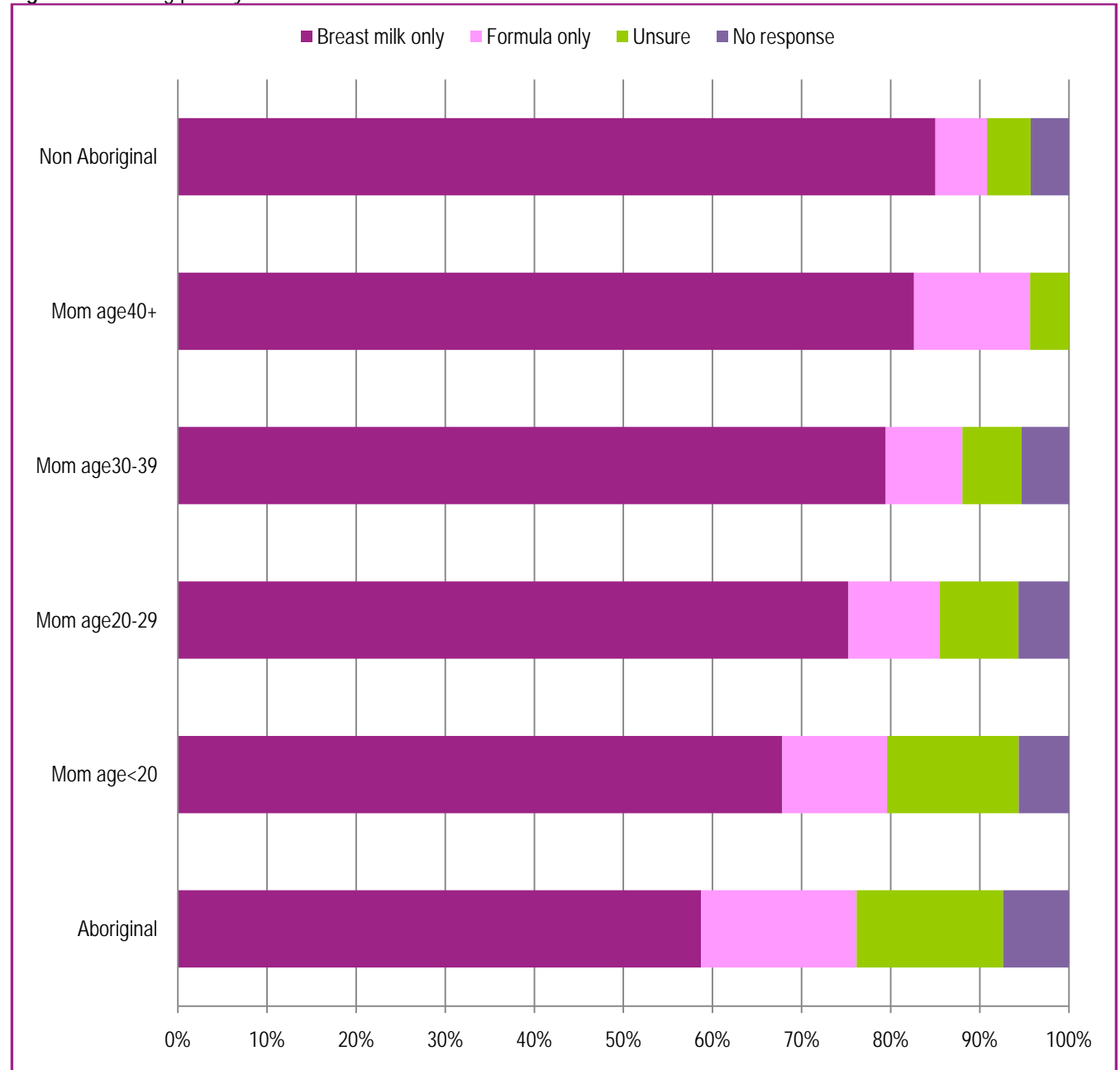


4. PLANS FOR INFANT FEEDING

Research has shown that women make their decision to breastfeed before conception or during the first three months of pregnancy^{iv}.

- Dr. Pat Martens of the Manitoba Centre for Health Policy suggests that the window of opportunity for teaching may be wider than is sometimes believed, especially for adolescent mothers. This indicates opportunities for the health care providers to give breastfeeding education throughout the pregnancy as well as when a woman is in the maternity hospital for delivery.
- **Figure 7** presents responses from our prenatal survey, where women are asked how they plan to feed their babies.
- It is important to note that our data agrees with previous research. It is younger women and Aboriginal women who are both LEAST likely to indicate that they plan to breastfeed and also MOST likely to indicate that they are "unsure".

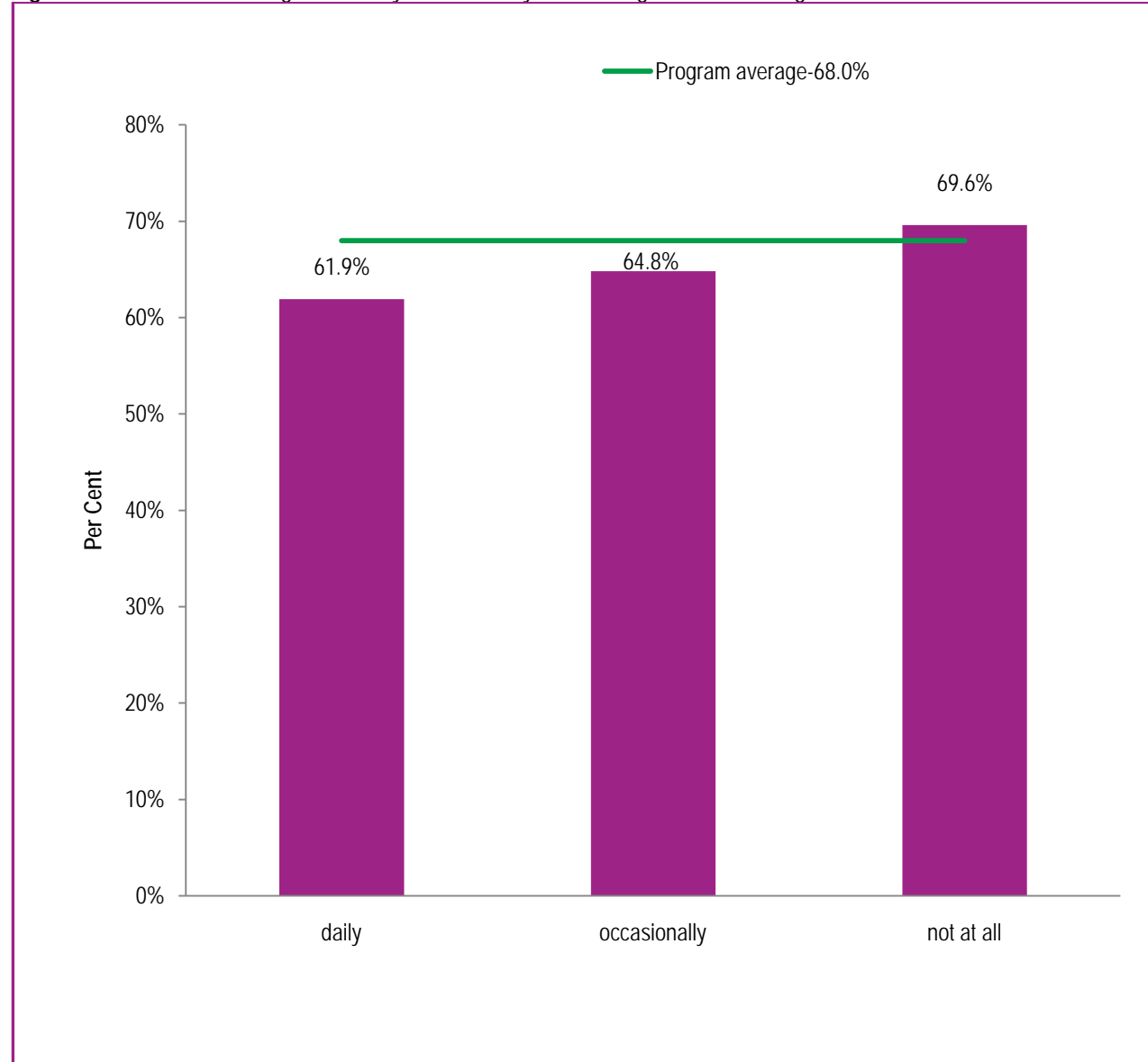
Figure 7. Feeding plan by indicator.



5. BREASTFEEDING RISK FACTORS

- Breastfeeding is identified as the best way to provide optimal nutritional, immunological and emotional nurturing for the growth and development of infants^v. However, there are some risks to the infant when the mom is smoking or drinking while breastfeeding.
- A mother who smokes can still breastfeed her baby. The current recommendation for breastfeeding mothers who smoke cigarettes is to continue to breastfeed and cut down on the amount smoked and **do NOT expose babies to second-hand smoke**. Risks from nicotine in the breast milk are higher when a breastfeeding mother smokes more than twenty to thirty cigarettes a day.
- **Figure 8** show the relationship between sole breastfeeding and smoking. These results come from linking the Postnatal Survey responses with the Infant Feeding Chart (IFC) data. We are only using the IFC data for those who filled out the survey. For this group, the sole breastfeeding rate for infants up to age three months is 68.0 per cent.
- 70 per cent of participants who do not smoke, solely breastfeed their babies for at least three months compared to 62 per cent of participants who smoke daily.

Figure 8. Sole breastfeeding when baby<3 months by three categories of smoking behaviour.



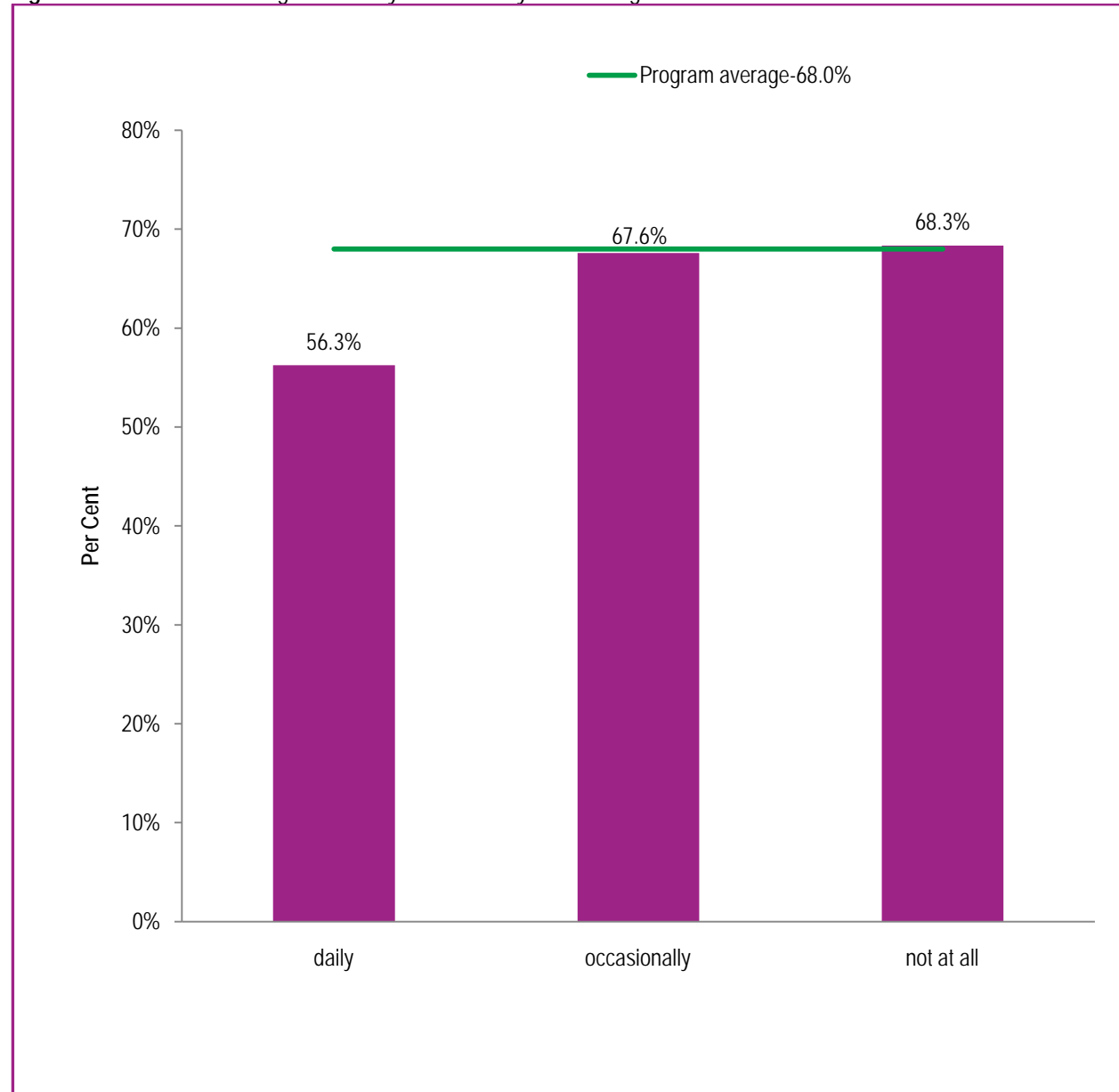
- Women who drink alcohol excessively should not breastfeed their babies as alcohol consumed by a mother passes into her breast milk at concentrations similar to those found in her blood stream.^{vi} Research^{vii} has shown that the effects of alcohol on nursing infants exposed to moderate levels include:

- Impaired motor development
- Changes in sleep patterns
- Decrease in milk intake
- Risk of hypoglycemia.

- **Figure 9** shows the relationship between sole breastfeeding and alcohol consumption. Again, we are only using the IFC data for those who answered the question on the survey. For this group, the sole breastfeeding rate for infants up to age three months is 74.9 per cent.

- Overall, 68.3 per cent of participants who do not drink alcohol, solely breastfeed their babies for at least three months compared to 67.6 per cent of participants who drink alcohol occasionally. Rates of breastfeeding are lower (56.3%) among women who consume alcohol daily compared to who consume occasionally or not at all. However, it is important to note that the "daily" group is based on very small numbers and should be interpreted with caution.

Figure 9. Sole breastfeeding when baby < 3 months by three categories of alcohol use.



6. INTRODUCTION OF OTHER FOODS

- It is generally recommended that solids be introduced no earlier than 6 months of age as infants are not physiologically or developmentally ready for new foods, textures and types of feeding until this age.
- **Figure 10** shows the age at which solids were introduced by program participants. These data are from the Infant Feeding Charts.
- It is interesting to note that even by twelve months of age, not all infants have been introduced to "solids". It may be beneficial to do further consultation to determine if these results are accurate or if perhaps, the term "solid" was not well understood.
- Cow's milk is not recommended for children under 1 year of age. Evidence suggests that infants fed cow's milk may not get enough vitamin E, iron, and essential fatty acids. They can also get too much protein, sodium, and potassium. In addition, cow's milk protein and fat are more difficult for an infant to digest and absorb.
- **Figure 11** shows that by 12 months of age, one in three infants has received cow's milk.

Figure 10. Consumption of solids by age of infant.

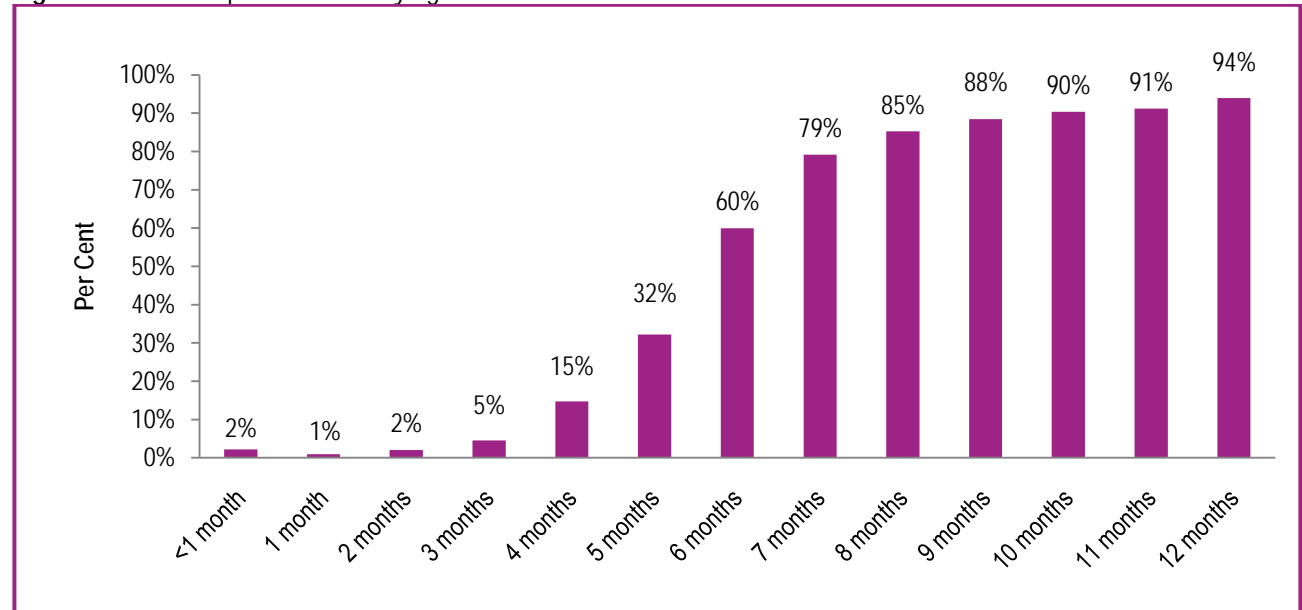


Figure 11. Consumption of cow's milk by age of infant.



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