

Peel Infant Feeding Survey 2016

Annual Summary Report

A Peel Health Technical Report

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KEY MESSAGES

- Almost all mothers (99%) reported initiating breastfeeding either in hospital or after discharge. However, approximately half of mothers reported their infant was given liquids other than breast milk, primarily formula, in the hospital.
- The percentage of mothers exclusively breastfeeding at six months significantly increased from seven per cent in 2015 to 14% in 2016.
- Similar to the survey results in 2015, the rates of any breastfeeding gradually declined following hospital discharge with 67% of mothers providing any breast milk at six months.
- Most mothers (88%) who had given their infant a vitamin D supplement reported that they had done so every day or almost every day.
- Almost a quarter of infants continue to be offered solid foods either too early (less than five months) or too late (more than seven months).

INTRODUCTION

Infant feeding decisions and practices have immediate and lifelong effects on the health of mothers and their infants. In the first six months of life, breast milk is the only food an infant needs for healthy growth and development. A daily vitamin D supplement is also required for breastfed infants and some infants who consume formula in smaller amounts.¹ Infants who are breastfed exclusively for six months are less likely to have gastrointestinal infections and middle ear infections compared to infants who are exclusively breastfed for three to four months and then fed a combination of breast milk and formula.² Mothers who breastfeed exclusively for six months are also more likely to experience rapid maternal weight loss compared to mothers who exclusively breastfeed for three to four months and then begin to combination feed their infants.² Furthermore, women have a lower risk of developing breast cancer when they breastfeed for at least 12 months in their lifetime.³ For these reasons, the early introduction of solid foods is associated with less time spent breastfeeding and a potential decrease in both milk supply and the benefits of exclusive breastfeeding for the infant and mother.⁴

In May of 2015, Peel Public Health initiated the Peel Infant Feeding Survey (PIFS). The PIFS is an annual cross-sectional survey designed to support the collection, analysis, and dissemination of information regarding infant feeding practices of Peel mothers until their infant is between six and eight months of age. This is the first year that allows for the comparison of Peel Infant Feeding Survey data, as the same survey was used in 2015. Findings will be used to inform Peel Public Health programming around infant feeding and related community programs in order to support optimal infant feeding practices in Peel region.

PURPOSE OF THE INFANT FEEDING SURVEY

The data collected through PIFS will be used for:

1. Informing the Family Health Division's Breastfeeding/Infant Feeding programs;



2. Population health assessment and surveillance activities outlined in the Ontario Public Health Standards (2008, revised May 2016) that aim to promote public health and protect the public from harm;
3. Maintenance of Peel Public Health's Baby-Friendly Initiative (BFI) designation; and,
4. Planning breastfeeding programs and services in the community, including hospital partners.

PURPOSE OF THE REPORT

The purpose of this report is to provide the results of data collected through the Peel Infant Feeding Survey with 455 mothers, surveyed between May and July 2016.

HOW TO READ THIS REPORT

The methods and data limitations are described in the *Methods* section of this report.

In some tables, ninety-five per cent confidence intervals (presented as "95% CI" in the report) are provided for many of the estimates (e.g., percentages). The confidence interval presents a lower and upper range of values, which we are confident, contains the true value of the estimate for the whole population 95% of the time, or 19 times out of 20.

For example, 67% of Peel mothers provided any breastfeeding to their infant at six months with a confidence interval for that estimate of 62% and 71%. This means if we repeated the study twenty times using different samples of the same size from the same population; on nineteen occasions the estimate would be somewhere between 62% and 71%, while on one occasion the estimate would be below 62% or above 71%. We could say that we are 95% sure the actual percentage of any breastfeeding for infants at six months in the population is between 62% and 71% and in this particular study, the sample estimate is 67%.

When the 95% confidence interval of the estimate for one group does not overlap with that of another group, the difference between the estimates is considered statistically significant (i.e., unlikely to be due to chance). If the confidence intervals of two estimates do overlap, the estimates may still be significantly different. An appropriate statistical test would be required to assess the statistical difference of the two estimates.

DEFINITION OF TERMS

In this report, **breastfeeding** is defined as any self-reported attempt to feed the infant at the breast, or feed breast milk or mother's milk by cup, tube, or bottle. **Breastfeeding initiation** is measured by the question "Have you ever tried to feed your baby breast milk?"

Exclusive breastfeeding is defined as breastfeeding only, without additional food or liquid (e.g., water, sugar water or formula) excluding vitamins, minerals, or required medication. By this definition, an infant would no longer be classified as exclusively breastfeeding after consuming only a single sip of water or other liquid.

Combination feeding occurs when an infant receives any combination of formula and breast milk.



Eligible mothers were six to eight months postpartum at the initiation of this survey and residing in one of Peel’s municipalities. Mothers who were less than 15 years of age, had known involvement with the Children’s Aid Society, or experienced a stillbirth or had a live born infant who died were not eligible to participate. For additional details about eligible mothers, please see *Methods – Survey Sampling*.



RESULTS

Between May 13 and July 11, 2016, a total of 455 surveys were completed with eligible mothers. Fewer than 10 surveys were completed by teen mothers aged 15 to 19 years. Given the reporting restrictions noted in the *Methods* section, this report cannot provide results according to teen respondents.

Response Rate

Table 1 presents the call disposition status for the 830 eligible records available in the Peel Infant Feeding Survey (PIFS) database. Not presented in the table are 40 ineligible records and 129 not in service records.

Table 1: Call Disposition Status, Peel, 2016

Status	Number	Per cent
Completed survey	455	54.8
Other call types [†]	29	3.5
Refused	101	12.2
Terminated	245	29.5
Total	830	

[†]Other call types include those who requested a call back, hung up, or required an interpreter.

Notes – There are 40 ineligible and 129 not in service records excluded from the denominator for the purposes of calculating the response rate. Not in service includes: business numbers; fax/computer line; moved, with no new number given; not in service numbers; and wrong numbers.

To calculate the response rate, the total number of completed surveys was divided by the total number of potentially eligible calls. The response rate for the PIFS was 55%.

Characteristics of Respondents

Table A1 (Appendix) provides a description of the un-weighted sample of mothers from the PIFS. Table 2 compares select characteristics among survey respondents to Peel mothers. A smaller proportion of survey respondents are younger than 30 years compared to Peel mothers. Survey respondents are similar in proportions to Peel mothers for being multiparous, legally married, and having a vaginal birth of their infant. Comparisons for the proportion of immigrants and post-secondary graduates are not available.



Table 2: Selected Demographic Comparison of Survey Respondents to Peel Mothers, Peel

Characteristic	Per cent of respondents ^A	Per cent of Peel mothers
Younger than 30 years	30.8 (26.7 – 35.2)	36.1 ^B
Multiparous	54.5 (49.9 – 59.0)	58.8 ^B
Vaginal birth	69.8 (65.4 – 73.9)	70.6 ^B
Legally married	81.1 (77.2 – 84.4)	80.1 ^{+C}
Immigrants	65.2 (60.7 – 69.5)	NA
Post-secondary graduates	73.8 (69.6 – 77.7)	NA

⁺Use estimate with caution.

NA = Not Applicable. No comparison statistic for mothers was available.

Sources:

^APeel Infant Feeding Survey 2016, Peel Public Health.

^BPublic Health Unit Analytic Reporting Tool (Cube), BORN Information System (BIS), BORN Ontario. Information accessed on November 16, 2016.

^COntario Live Birth Database 2011, Ontario Office of the Registrar General, IntelliHEALTH Ontario, Ministry of Health and Long-Term Care.

Additionally, among mothers who responded: 92% who had a previous child had breastfed one of their previous children; 44% of primiparous mothers attended a prenatal class, whereas 11% of multiparous mothers attended a prenatal class; and 91% delivered an infant born at 37 weeks or more (full-term).

Characteristics of Non-Respondents

The characteristics of those who completed the Peel Infant Feeding Survey were compared to those who were selected from the Integrated Services for Children Information System (ISCIS) but did not respond to the survey (i.e., non-respondents). Non-respondents included those who had an incomplete survey, declined to participate/consent or were not contacted before the sample size was reached.

Table A2 (Appendix) shows the comparison of respondents and non-respondents. Respondents were similar to non-respondents based on: municipality of residence, mother’s age, gestational age, infant sex, infant birth weight, type of birth, feeding method at hospital discharge and method of delivery.

Intention to Breastfeed

While pregnant, mothers were intending to feed their baby the following during the first four weeks of life:

- Breast milk only (78%)
- Combination of foods (e.g., breast milk, formula, juice) (18%)
- Formula only (3% *use estimate with caution)

These results are not significantly different from 2015 survey results.



Breastfeeding Initiation

Almost all mothers (99%) reported initiating breastfeeding either in hospital or after discharge.

Reasons for not breastfeeding included:

- Did not consider breastfeeding or planned to bottle feed/formula feed
- Previous experience of breastfeeding was not for them
- Not convenient

Feeding While in Hospital

Overall, 93% of mothers reported breastfeeding in the hospital. A small percentage of women who did not breastfeed while in hospital initiated breastfeeding after discharge (6%*use estimate with caution). Of those who breastfed in hospital, 84% reported receiving help from a health professional while in hospital.

Approximately half (47%) of mothers reported their infant was given liquids other than breast milk in hospital. For these infants, 96% were given formula; other infants received sugar water. A small percentage (5%*) of these infants were given both formula and other liquids such as sugar water. (*use estimate with caution)

Among mothers who initiated breastfeeding, the reasons for feeding babies liquids other than breast milk while in hospital included (multiple reasons possible):

- Perception of not having enough breast milk (46%, n=96)
- Latching concerns (12%, n=25)
- Baby was hungry (9%, n=19)
- Baby had low blood sugar (9%, n=18)
- Baby was ill (8%, n=17)
- Concerns about baby's weight (5%, n=10)

About one in three mothers (32%) reported being given formula to take home with them when they left the hospital. For mothers who gave birth at Brampton Civic Hospital, 43% received formula to take home; 30% at Mississauga Hospital; and 22% at Credit Valley Hospital. This percentage increased significantly for Credit Valley Hospital from 2015, but is not statistically different for Brampton Civic Hospital or Mississauga Hospital. For additional details about formula, please see the *Feeding within First Two Weeks* and the *Breastfeeding Duration* sections.

Feeding Within First Two Weeks (postpartum)

Ninety-six per cent of mothers were breastfeeding at two weeks after hospital discharge, of which 39% introduced formula to their infant during this time. Of these mothers who introduced formula while breastfeeding in the first two weeks, 62% provided breast milk and 21% provided formula for the majority of feedings (more than half of these feedings).



Breastfeeding Duration

Overall, 88% of mothers were breastfeeding at two months and 77% were breastfeeding at four months after hospital discharge (Table 3, Figure 1). By six months, 67% of mothers were breastfeeding. These rates for any breastfeeding were not statistically different compared to findings from the 2015 survey. In addition, preliminary analysis showed mothers who received formula to take home from the hospital had significantly reduced rates of breastfeeding beginning at two months postpartum compared to those who did not receive formula (Appendix Table A3). Since there was no statistically significant change between years at each time point, these findings were not different from 2015 results.

Among mothers who stopped breastfeeding, the most common reasons for stopping were (multiple responses possible):

- Perception of not having enough breast milk (49%, n=90)
- Breast refusal (17%, n=31)
- Not latching (9%, n=17)
- Mother was ill (9%, n=16)
- Mother was on medication (7%, n=13)

Some of the common reasons for stopping breastfeeding have changed compared to the 2015 survey results. Previously, mothers cited being fatigued/exhausted/needed to rest/ no time and the infant being hungry as the third and fifth most common reasons; in 2016 these reasons were not reported. Two new reasons linked to the mother’s health were added to the list of common reasons to stop breastfeeding this year: the mother was ill and the mother was on medication.

Table 3: Any Breastfeeding Duration, Peel, 2015 – 2016

Breastfeeding duration	2016		2015	
	Number of mothers (n=455)	Per cent (95% CI)	Number of mothers (n=455)	Per cent (95% CI)
Two weeks	436	95.8 (93.5 – 97.3)	432	95.0 (92.5 – 96.6)
1 month	420	92.3 (89.5 – 94.4)	416	91.5 (88.5 – 93.7)
2 months	402	88.4 (85.0 – 91.0)	397	87.2 (83.8 – 90.0)
3 months	378	83.1 (79.3 – 86.3)	372	81.8 (77.9 – 85.1)
4 months	351	77.1 (73.0 – 80.8)	337	74.2 (70.0 – 78.1)
5 months	324	71.2 (66.9 – 75.2)	308	67.9 (63.4 – 72.0)
6 months or longer	304	66.8 (62.3 – 71.0)	290	63.9 (59.3 – 68.2)

CI: Confidence Interval

Source: Peel Infant Feeding Survey 2015 – 2016, Peel Public Health.



Table 4: Exclusive Breastfeeding Duration, Peel, 2015 – 2016

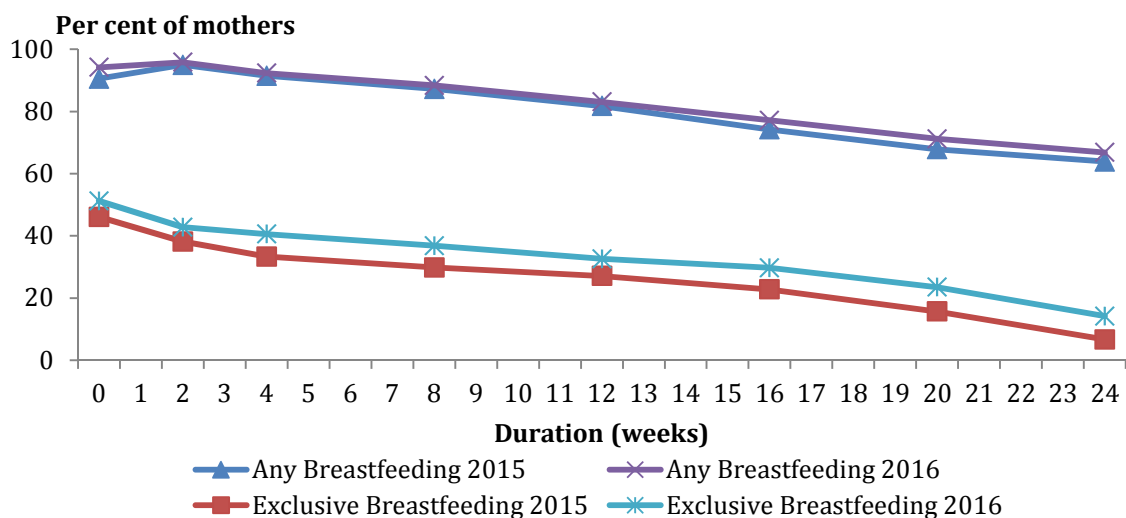
Breastfeeding duration	2016		2015	
	Number of mothers (n=455)	Per cent (95% CI)	Number of mothers (n=455)	Per cent (95% CI)
Two weeks	193	42.8 (38.3 – 47.4)	174	38.2 (33.8 – 42.8)
1 month	183	40.6 (36.1 – 45.2)	152	33.3 (29.1 – 37.8)
2 months	166	36.8 (32.5 – 41.4)	136	29.8 (25.8 – 34.2)
3 months	147	32.6 (28.4 – 37.1)	123	27.1 (23.2 – 31.4)
4 months	134	29.7 (25.7 – 34.1)	103	22.8 (19.1 – 26.9)
5 months	106	23.5 (19.8 – 27.7)	71	15.7 (12.6 – 19.4)
6 months or longer	64	14.2 (11.3 – 17.7)	30	6.7* (4.7 – 9.4)

*Use estimate with caution

CI: Confidence Interval

Source: Peel Infant Feeding Survey 2015 – 2016, Peel Public Health.

**Figure 1:
Duration of Any Breastfeeding and Exclusive Breastfeeding to Six Months Postpartum, Peel, 2015-2016**



Source: Peel Infant Feeding Survey 2015 – 2016, Peel Public Health.



Exclusive Breastfeeding

Although almost all mothers initiated breastfeeding, only 51% reported exclusively breastfeeding at the time of discharge from hospital. As most mothers (84%) stay in hospital for less than 72 hours, this is a significant drop in a short time (Appendix Table A1). However, some of these infants may have been given supplementation due to health concerns. Fourteen per cent of mothers reported exclusively breastfeeding at six months postpartum (Table 4). Compared to 2015 results, the percentage of mothers exclusively breastfeeding at six months has significantly increased from seven per cent to 14% (Table 4, Figure 1).

Breastfeeding Support and Concerns

Of mothers who ever breastfed, 40% experienced difficulties or concerns with breastfeeding. The most common concerns with breastfeeding included (multiple responses possible):

- Not latching (43%, n=78)
- Perception of not having enough breast milk (42%, n=76)
- Sore nipples (10%, n=18)
- Sore breasts/mastitis, engorgement (8%, n=14)
- Difficulty breastfeeding due to baby's physical health (including tongue-tie) (7%, n=13)

The most common concerns with breastfeeding are consistent with reporting from 2015 results.

After being discharged from the hospital, 46% of mothers who attempted to breastfeed reported a time when they would have benefited from a breastfeeding program or service. Of these women, 21% were not able to use a breastfeeding program or service. The most common reasons for not being able to use a breastfeeding program or service included (multiple responses possible):

- Transportation (30%, n=13)
- Too busy (27%, n=12)

These most common reasons for not being able to use a breastfeeding program or service are consistent with results from the 2015 survey.

After leaving the hospital, 45% of all mothers used a breastfeeding program or service. Of these mothers, 85% reported needing breastfeeding assistance. The most common places where mothers received help with breastfeeding were (multiple responses possible):

- Breastfeeding clinic (54%, n=108)
- At the hospital (44%, n=88)
- Home visit by any professional (21%, n=43)
- Telephone support (10%, n=20)
- Internet resource (9%, n=19)
- Doctor's office (8%, n=17)

Compared to 2015 results, there was an increase in the proportion of mothers receiving breastfeeding help from the hospital (44% in 2016 compared to 13% in 2015), while a decrease was observed at breastfeeding clinics (54% in 2016 compared to 69% in 2015). This may be attributed to breastfeeding program delivery and marketing changes, or to the change in coding



for this question. In the previous 2015 survey, “at the hospital” was not a coded response and therefore the interviewer may, in some instances, have coded “breastfeeding clinic at the hospital” as only “breastfeeding clinic”. Therefore, some misclassification for this question may have occurred in 2015.

Vitamin D

While breastfeeding, 84% of mothers said they had given their infant a vitamin D supplement at least once. Among mothers who had given their infant a vitamin D supplement, 88% had done so either every day (66%) or almost every day (23%). Based on the recommendations of the Institute of Medicine (2011)¹, Peel’s Family Health Division recommends that all breastfed infants receive a daily vitamin D supplement of 10 µg (400 IU) beginning at birth and continuing until the infant’s diet includes at least 10 µg (400 IU) per day of vitamin D from other dietary sources.

Introduction of Liquids (Before Six months)

Among the 451 mothers who breastfed their infant, 379 (84%) had ever introduced another liquid. Among these 379 breastfed infants, 188 (50%) received formula and no other liquids, 91 (24%) received liquids other than formula, and 100 (26%) received formula and other liquids.

Mothers who breastfed their infant were asked when their infant was first given formula. In total, 113 (60%) of 188 breastfed infants who received formula and no other liquids were given it before the age of two weeks (Table 5). Additionally, mothers who breastfed their infant were asked when their infant was first given liquids other than formula, such as water, honey, sugar water, juice or tea. For 65 (71%) of 91 breastfed infants who received liquids other than formula, other liquids were not introduced until they were at least five months old (Table 6). Finally, among breastfed infants who were introduced to both formula and other liquids, 54 (54%) of 100 breastfed infants were given any liquid other than breast milk before the age of two weeks (Table 7). For additional details about liquids introduced in hospital, please see the *Feeding While in Hospital* section.

Table 5: Introduction of Formula and No Other Liquids Among Breastfeeding Mothers, Peel, 2016

Timing of Liquids	Number	Per cent	95% confidence interval
Less than 2 weeks	113	60.1	52.9 – 66.9
2 weeks to less than 1 month	10	5.3*	2.9 – 9.6
1 to less than 2 months	15	8.0*	4.9 – 12.8
2 to less than 3 months	13	6.9*	4.0 – 11.6
3 to less than 4 months	NR	NR	NR
4 to less than 5 months	12	6.4*	3.7 – 10.9
5 to less than 6 months	11	5.8*	3.3 – 10.3
More than 6 months old	NR	NR	NR

*Use estimate with caution

N = 188

NR = Not releasable due to small numbers

Note: Mothers introduced formula at least once and may or may not be continuing to formula feed.

Source: Peel Infant Feeding Survey 2016, Peel Public Health.



Table 6: Introduction of Liquids Other than Formula Among Breastfeeding Mothers, Peel, 2016

Timing of Liquids	Number	Per cent	95% confidence interval
Less than 2 weeks	NR	NR	NR
2 weeks to less than 1 month	NR	NR	NR
1 to less than 2 months	NR	NR	NR
2 to less than 3 months	NR	NR	NR
3 to less than 4 months	NR	NR	NR
4 to less than 5 months	13	14.3*	8.5 – 23.1
5 to less than 6 months	11	12.1*	6.8 – 20.6
More than 6 months old	54	59.3	49.0 – 68.9

*Use estimate with caution

N = 91

NR = Not releasable due to small numbers

Note: Mothers introduced liquids other than formula at least once and may or may not be continuing to feed these liquids.

Source: Peel Infant Feeding Survey 2016, Peel Public Health.

Table 7: Introduction of Formula and Other Liquids Among Breastfeeding Mothers, Peel, 2016

Timing of Liquids	Number	Per cent	95% confidence interval
Less than 2 weeks	54	54.0	44.2 – 63.5
2 weeks to less than 1 month	NR	NR	NR
1 to less than 2 months	NR	NR	NR
2 to less than 3 months	11	11.0*	6.2 – 18.8
3 to less than 4 months	NR	NR	NR
4 to less than 5 months	NR	NR	NR
5 to less than 6 months	NR	NR	NR
More than 6 months old	NR	NR	NR

*Use estimate with caution

N = 100

NR = Not releasable due to small numbers

Note: Mothers introduced formula and other liquids at least once and may or may not be continuing to feed these liquids.

Source: Peel Infant Feeding Survey 2016, Peel Public Health.

Among mothers who introduced other liquids to their breastfed infant (n=379), 288 mothers (76%) had introduced formula to their infant after being discharged from hospital or midwifery care. Other common liquids introduced after being discharged were (multiple responses possible):

- Water (46%, n=176)
- Juice (13%, n=48)



The most common reasons among breastfeeding mothers for introducing formula and no other liquids to babies (n=188) included (multiple responses possible):

- Perception of not having enough breast milk (45%, n=85)
- Baby was hungry (15%, n=29)
- Mother and baby were separated (9%, n=16)
- Not latching (8%, n=15)
- Baby’s weight concerns (8%, n=15)

The most common reasons among breastfeeding mothers for introducing liquids other than formula to babies (n=91) included (multiple responses possible):

- Supplementing solid foods (26%, n=24)
- Hydration or constipation (23%, n=21)
- Health professional’s advice (12%, n=11)

The most common reasons among breastfeeding mothers for introducing formula **and** other liquids to babies (n=100) included (multiple responses possible):

- Supplementing solid foods (25%, n=25)
- Hydration or constipation (18%, n=18)
- Health professional’s advice (13%, n=13)
- Appropriate age (10%, n=10)

The reasons for introducing formula and no other liquids among breastfeeding mothers are consistent with 2015 survey results. These reasons included the perception of not having enough breast milk, the infant being hungry and having latching concerns. In the 2016 survey, mothers also identified maternal infant separation and infant weight concerns as additional reasons why formula was introduced.

Introduction of Solids

Mothers were asked when their infant was first given solid foods such as infant cereal, fruit, vegetables, meat products, dairy products, grain products, eggs, or legumes. In total, 77% of infants were given solids around the recommended age of six months (Table 8).

Table 8: Introduction of Solids, Peel, 2016

Timing of solids	Number	Per cent	95% confidence interval
Less than 4 months	13	2.9*	1.7 – 4.9
4 to less than 5 months	72	16.0	12.9 – 19.7
5 to less than 6 months	132	29.4	25.4 – 33.8
6 to less than 7 months	215	47.9	43.3 – 52.5
7 to less than 8 months	17	3.8*	2.4 – 6.0

*Use estimate with caution

N = 449

Note: Weighted data

Source: Peel Infant Feeding Survey 2016, Peel Public Health.



Among mothers who introduced solids to their infant prior to six months of age, 23% reported exclusive breastfeeding up until that time point. This was not a significant change compared to the similar 2015 statistic of 18%.

The most common purees or solid foods given to babies by mothers who introduced solid foods were (multiple responses possible):

- Vegetables (89%, n=402)
- Fruit (88%, n=398)
- Infant cereal (75%, n=336)
- Meat products (46%, n=209)
- Grain products (34%, n=152)

At the time of the survey, nine of ten mothers (92%) had given their infant iron-rich foods such as infant cereal, meat products, grain products, eggs or legumes. Of these mothers, 73% provided iron-rich foods at least twice daily and 25% provided once daily. This is similar to the number of servings of iron-rich foods provided per day from 2015 results.

The most common reasons for starting to feed babies purees or solid foods included (multiple responses possible):

- Health professional's advice (39%, n=175)
- Mother felt it was time (34%, n=152)
- Baby showed interest (21%, n=94)
- Baby was hungry (19%, n=84)
- Previous children's feeding experience (5%, n=21)

Compared to 2015 results, there was an increase in the proportion of mothers who identified they "felt it was time" to introduce solid foods (34% in 2016 compared to 9% in 2015), accompanied by small decreases for the reason "baby showed interest" (21% in 2016 compared to 29% in 2015) and "baby was hungry" (19% in 2016 compared to 27% in 2015). These concepts are similar and the redistribution of responses may be attributed to the updated coding for this question. In the previous 2015 survey, "mother felt it was time" was not a coded response and therefore the interviewer, in some instances, may have classified responses appropriate to "mother felt it was time" into the other two categories.



DISCUSSION

The Family Health Division at Peel Public Health continues to focus on supporting families to achieve their infant feeding goals. Work continues on streamlining services between the hospital and the community. As breast milk is the optimal source of nutrition for babies, providing just-in-time information and technical support are important in encouraging women to predominantly or exclusively breastfeed during the first six months of their baby's life. The annual Peel Infant Feeding Survey gathers information on the infant feeding practices of mothers in Peel, monitors the rates of breastfeeding in the region, helps identify both the challenges parents face and the supports available to them in the community, and determines whether Peel Public Health is reaching the goal of increasing the number of infants being breastfed to six months.

While pregnant, only 78% of mothers intended to offer their baby "breast milk only" during the first four weeks of life. Almost all mothers (99%) reported initiating breastfeeding either in hospital or after discharge. However, approximately half of mothers reported their infant was given liquids other than breast milk, primarily formula, in the hospital. Furthermore, about one third of mothers continue to be provided with formula prior to discharge from the hospital. This rate significantly increased at one area hospital (from 12% of mothers in 2015 to 22% in 2016). Providing free samples of formula to mothers contravenes the World Health Organization's International Code of Marketing of Breast-milk Substitutes and the Baby-Friendly Initiative.⁵

Beginning at discharge from the hospital or midwifery care, the rates of exclusive breastfeeding drastically decline, with only 51% of mothers reporting exclusive breastfeeding at the time of discharge. Despite this continued trend, the percentage of mothers exclusively breastfeeding at six months has significantly increased from 7% in 2015 to 14% in 2016.

Similar to the survey results in 2015, the rates of any breastfeeding gradually decline following hospital discharge with 67% of mothers providing any breastfeeding at six months. The most frequent reason for stopping breastfeeding was the perception of not having enough breast milk.

Breastfeeding support is offered in hospital with 84% of those who breastfeed in hospital receiving help from a professional. However, consistent with the results from 2015, more challenges in receiving breastfeeding support occur after the mother and baby have left the hospital, with almost half of mothers who attempted to breastfeed reporting a time when they would have benefited from a breastfeeding program or service. One fifth of these women were not able to use a breastfeeding program or service with common reasons cited including transportation and the mother being too busy.

Peel's Family Health Division continues to recommend that all breastfed infants receive a daily vitamin D supplement of 10 µg (400 IU) beginning at birth and continuing until the infant's diet includes at least 10µg (400 IU) per day of vitamin D from other dietary sources. Most mothers (88%) who had given their infant a vitamin D supplement report that they had done so every day or almost every day.



Current messaging states that solid foods should be introduced to infants at around six months of age with the infant showing signs of readiness. Over three quarters of infants are being provided with solid foods around the recommended age of six months. However, 23% of infants continue to be offered solid foods either too early (less than five months) or too late (more than seven months); this proportion is consistent with 2015 PIFS results. Introducing solid foods too early can impact the amount and duration of breastfeeding as it can affect the mother's milk supply. Furthermore introducing solid foods too late can affect a child's developmental skills associated with eating textured food as well as can increase the risk of certain nutrient deficiencies (i.e., iron). The most common reasons for introducing purees or solid foods included health professionals' advice, the mother feeling that it was time, and the baby showing interest or being hungry. The provision of iron-rich foods as the first solid foods offered to infants continues to be high with 92% of mothers offering their baby iron-rich foods first.

In 2016, the rates of breastfeeding initiation, any breastfeeding and exclusive breastfeeding have remained similar to the previous year, with the exception of increased exclusive breastfeeding at six months. As enhancements continue to be made to breastfeeding services in the community and in Peel Public Health programming, there remain 3 key areas for continued improvement:

- Increasing the proportion of women who provide any breast milk to their infant for a longer duration of time;
- Increasing the proportion of women who are predominantly or exclusively breastfeeding at six months; and,
- Increasing the number of parents who introduce solid foods at the right time.

Infant feeding practices continue to be impacted by parental beliefs, inconsistent messages, barriers to accessing services, and current hospital policies.

A mandate of Peel Public Health is to work with community partners to support mothers in feeding infants in the best way possible for each child. Along with community partners, Peel Public Health can continue to follow this mandate by removing barriers and providing services that are needed at the time they are needed. This mandate can be achieved by:

- Continued tailoring of infant feeding programs and services to ensure they are available to all new mothers and their families when they need or want it;
- Continued provision of clear and consistent information to parents about when and how to introduce solid foods; and
- Continued work with Peel hospital partners to review infant feeding policies and protocols regarding supplementation and provision of formula.



METHODS

Survey Sampling

Following the birth of an infant, consent is obtained by the hospital nurse or midwife for the mother to be contacted by Peel Public Health. During the data collection period, consent was documented using the Healthy Babies Healthy Children (HBHC) Screening Tool. Completed screening tools are faxed to Peel Public Health and entered into the provincial Integrated Services for Children Information System (ISCIS) database.

Mothers with infants between 26 and 33 weeks of age (approximately six to eight months) were selected from the ISCIS database for inclusion in the sampling frame. All teen mothers (aged 15 to 19 years) were selected, along with a random sample of adult mothers (20+ years) residing within one of Peel's three municipalities.

Excluded from the sampling frame were:

- Mothers who were less than 15 years of age
- Mothers with known involvement of the Children's Aid Society
- Mothers of a multiple birth where one or more of the infants died
- Mothers of a stillborn infant or a live born infant who died

Survey Tool

The survey tool was comprised of 47 questions; seven of these questions were worded differently for mothers who delivered in hospital compared to a home birth. The survey was approximately 15 to 20 minutes in duration and completed using a Computer-Assisted Telephone Interview (CATI) system. Topics included in the survey and described in this report include:

- Birth and Baby
- Breastfeeding Initiation and Support
- Feeding in Hospital
- Feeding at Home (Breastfeeding)
- Vitamin D Supplementation
- Hospital Births: Feeding at Home (Other liquids)
- Home Births: Feeding at Home (Other liquids)
- Feeding at Home (Solids)
- Characteristics of the Mother

Data were collected through a telephone survey conducted by CCI Research Inc. The surveys were administered in the respondent's language of preference through the use of a professional language line. Calls were made during the day and evening, on weekdays and weekends between May 13 and July 11, 2016.

A standard script was used to describe the survey and to obtain consent to participate. Respondents were informed of their rights as a participant (e.g., to refuse to answer any question, to end their participation at any time).



All mothers in the sample were called until the list was exhausted according to the call specifications (i.e., at least 15 call attempts). Call disposition statistics were collected to capture the number of completed calls and the reasons for non-completion or refusal (where given).

Survey Development

Following 2015 Peel Infant Feeding Survey completion, minor revisions were made to attain the current survey. Questions regarding introduction of liquids other than formula and breast milk, and vitamin D supplementation frequency were added into the 2016 Peel Infant Feeding Survey. Questions regarding exclusivity at two weeks, introduction of solids, vitamin D supplementation, introduction of iron-rich foods, and use of supports were introduced in the 2015 Peel Infant Feeding Survey.

Peel Public Health conducted a pre-pilot test of the 2015 survey questions and skip patterns in the Region of Peel Family Health Division in March 2015. Prior to each survey cycle, CCI Research Inc. tested the survey tool using the CATI System. Minor revisions to the survey instrument were considered following the results of these tests.

Analysis and Reporting

Data analysis includes descriptive statistics, as well as bivariate analysis by the characteristics of the mother (e.g., age, education, income). Respondents to the Peel Infant Feeding Survey were compared to non-respondents using chi-square tests (categorical variables) and t-tests (continuous variables) based on mother's municipality of residence, mother's age, gestational age, infant sex, infant birth weight, type of birth, feeding method at discharge and delivery method. A *p-value* of less than 0.05 was considered statistically significant.

The 2015 data presented in this report have been weighted using design weights based on age category of mothers (e.g., teen mothers, adult mothers). The weighting was done to account for the probability of selection for each respondent and non-response. The final design weight was based on the product of the probability of being sampled and the non-response adjustment factor. The 2016 data presented in this report were not weighted due to a small number of teen mother respondents, preventing standard error estimates. Estimates and confidence intervals presented in this report were computed using Stata/SE 14.0.

In this report, data are presented where the numerator is 10 or more and the denominator is 30 or more. Any data with values less than this numerator or denominator were suppressed and labelled as not releasable due to small numbers. The coefficient of variation (CV) was also computed to determine the releasability of survey estimates. Estimates with a CV of 0-16.5 were releasable, estimates with CVs falling within 16.6-33.3 were released with caution and estimates with CV greater than or equal to 33.4 were labelled not releasable due to small numbers. Additionally, if the proportion of missing responses for a question was five per cent or greater, cases with missing responses were kept in the analysis. If the proportion of missing responses for a question was less than five per cent, cases with missing responses were excluded from the analysis. Instances where the missing responses were included in the analysis are noted in the text, tables or figures.



LIMITATIONS

There are several limitations to the Peel Infant Feeding Survey and analysis presented in this report:

- The sampling frame from ISCIS does not include all births in the Region of Peel because not all women consent to have their data collected through ISCIS. It is possible that the 10% of births not captured in ISCIS are systematically different than the births that are included in the database.
- PIFS was developed to have a sufficient sample to provide a precise estimate of the rate of exclusive breastfeeding at six months postpartum. However, the PIFS is insufficiently powered to detect differences between subgroups (e.g., age group, immigrant status, income).
- Due to the small number of teen mothers surveyed and the releasability guidelines for the PIFS (required denominator of at least 30 individuals), the PIFS sample does not allow for the reporting of breastfeeding practices among teen mothers (15 to 19 years) at this point in time.
- Due to differences in sampling methodology, data from the 2016 PIFS should not be compared with previous infant feeding reports by Peel Public Health (i.e., 2004/2005, 2009/2010) where convenience sampling was used.
- In addition, some questions have changed and may be asked differently from the 2012/2013 Infant Feeding Surveillance System Summary Report. When making comparisons between 2016 PIFS data and 2012/2013 data, caution should be taken to ensure questions are comparable. Differences in weighting methods between 2012/2013, 2015, and 2016 analyses will not have significant impact on the proportions presented; however they will provide additional precision to the estimates.

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APPENDIX 1: Supplemental Tables

Table A1: Demographic Characteristics of Adult Respondents, Peel, 2015 – 2016

Characteristic	2016 Number	2016 Per cent	2015 Per cent
Municipality			
Brampton	240	52.8	51.0
Caledon	19	4.2	4.8
Mississauga	196	43.1	44.2
Maternal Age Group (years)*			
15-19	NR	NR	3.7
20-24	21	4.6	14.7
25-29	118	25.9	37.1
30-34	197	43.3	35.8
35-39	97	21.3	6.4
40+	21	4.6	2.2
Respondent's First Child			
Yes	207	45.5	46.0
No	248	54.5	54.0
Breastfed Previous Children	(n=248)		(n=245)
Yes, some of them	19	7.7	4.5
Yes, all of them	208	83.9	86.1
No	21	8.5	9.4
Sex of Infant			
Female	230	50.8	45.8
Male	223	49.2	54.2
Type of Birth			
Single	442	97.1	97.1
Multiples	13	2.9	2.9
Delivery Type			
Caesarean Section	137	30.2	31.0
Vaginal	317	69.8	69.0
Planned Caesarean Section*	(n=137)		(n=141)
Yes	81	59.1	46.8
No	56	40.9	53.2
Attended Prenatal Classes			
Yes	119	26.3	27.0
No	333	73.7	73.0



Table A1: Demographic Characteristics of Adult Respondents continued

Characteristic	2016 Number	2016 Per cent	2015 Per cent
Birth Location			
William Osler (Brampton Civic Hospital)	159	35.1	33.2
William Osler (Etobicoke campus)	26	5.7	5.5
Trillium Health Partners (Mississauga Hospital)	80	17.7	18.9
Trillium Health Partners (Credit Valley Hospital)	139	30.7	30.3
Home birth	NR	NR	0
Other	46	10.2	12.1
Baby's Length of Stay in Hospital			
Less than 1 day (Less than 24 hours)	NR	NR	3.3
1 day (24 to 47 hours)	202	44.7	41.5
2 days (48 to 71 hours)	129	28.5	30.1
3 days (72 to 95 hours)	50	11.1	13.2
4 days or more (96 hours or more)	62	13.7	11.9
Marital Status			
Married (legally)	368	81.1	80.7
Common-law or living with a partner	44	9.7	9.9
Single (never married)	36	7.9	8.6
Separated (not legally divorced)	NR	NR	NR
Divorced	0	0	NR
Education			
High school or less	84	18.5	16.3
Some post-secondary	35	7.7	8.1
Post-secondary graduate	336	73.8	75.6
Household Income Before Taxes			
Less than \$50,000	163	35.8	33.0
\$50,000 to less than \$80,000	71	15.6	16.0
\$80,000 or more	143	31.4	33.2
Don't Know	39	8.6	9.0
Refused	39	8.6	8.8
Gestational Age			
<37 weeks (preterm)	41	9.1	8.1
37 weeks or greater (term)	408	90.9	91.9
Born in Canada			
Yes	158	34.8	36.7
No	296	65.2	63.3



Table A1: Demographic Characteristics of Adult Respondents continued

Characteristic	2016 Number	2016 Per cent	2015 Per cent
Length of Time in Canada			
Non-immigrant	158	35.0	37.0
Recent (0 to 5 years)	102	22.6	20.8
Intermediate (6 to 10 years)	82	18.2	15.3
Long term (11 years or more)	109	24.2	26.8
Ethnic Origins			
North American (e.g., Canadian, American)	58	12.9	16.0
British	33	7.3	9.7
South Asian (e.g., East Indian, Pakistani, Sri Lankan, Punjabi)	168	37.3	37.6
Caribbean (e.g., Jamaican, Trinidadian, West Indian)	49	10.8	12.7
African (e.g., South African, Ethiopian, Somali)	15	3.3	4.0
European (e.g., Italian, Portuguese, Polish, French, Greek)	88	19.5	20.2
East or South East Asian (e.g., Filipino, Japanese, Chinese, Vietnamese)	55	12.2	9.5
West Asian/ Arab (e.g., Persian, Egyptian, Iranian, Lebanese)	32	7.1	4.8
Latin, Central and South American (e.g., Brazilian, Columbian)	20	4.4	4.6
Other	NR	NR	NR

N=455

*Proportion of characteristics is significantly different between years.

NR – Not releasable due to small numbers

Source: Peel Infant Feeding Survey 2015 – 2016, Peel Public Health.



Table A2: Comparison of Characteristics of Adult Respondents to Non-Respondents*, Peel, 2016

Characteristic	Respondents % (n=455)	Non-respondents % (n=544)	p-value
Municipality			0.66
Brampton	52.8	50.0	
Caledon	4.2	4.0	
Mississauga	43.1	46.0	
Mother's Age (years)			0.12
Mean	31.8	31.3	
Gestation Age Group (singletons only)			0.64
<37 weeks (preterm)	9.1	10.0	
37 week or greater (term)	90.9	90.0	
Sex of Infant**			0.87
Female	50.9	50.4	
Male	49.1	49.6	
Infant Birth Weight (grams)			0.24
Mean	3249.8	3204.2	
Type of Birth			0.78
Single	97.1	97.4	
Multiple	2.9	2.6	
Feeding Method at Discharge			0.38
Breast Milk	54.3	56.8	
Breast Milk Substitute	2.6	3.7	
Both	29.4	25.0	
Missing	13.6	14.5	
Delivery Method**			0.47
Caesarean Section	29.4	27.0	
Vaginal	62.0	65.6	
Missing	8.6	7.4	

*Non-respondents include those who wanted a call back (n=24), required an interpreter or hung up (n=5), refused or removed their number (n=101), were ineligible (n=169), or were not reached before the maximum number of call attempts (n=245).

**Proportion of respondents may differ compared to variables in Appendix Table A1 due to different data being compared between respondents and non-respondents.

Source: Peel Infant Feeding Survey 2016, Peel Public Health.



Table A3: Any Breastfeeding Duration by Formula Received from Hospital at Discharge Status, Peel, 2016

Breastfeeding duration	Did not receive formula to take home		Received formula to take home	
	Number of mothers (n=307)	Per cent (95% CI)	Number of mothers (n=145)	Per cent (95% CI)
Two weeks	296	96.4 (93.6 – 98.0)	137	94.5 (89.3 – 97.2)
1 month	286	93.2 (89.7 – 95.5)	131	90.3 (84.3 – 94.2)
2 months	280	91.2 (87.5 – 93.9)	119	82.1 (74.9 – 87.5)
3 months	266	86.6 (82.3 – 90.0)	109	75.2 (67.5 – 81.6)
4 months	253	82.4 (77.7 – 86.3)	95	65.5 (57.4 – 72.8)
5 months	237	77.2 (72.2 – 81.6)	84	57.9 (49.7 – 65.7)
6 months or longer	224	73.0 (67.7 – 77.6)	78	53.8 (45.6 – 61.8)

CI – Confidence Interval

Source: Peel Infant Feeding Survey 2016, Peel Public Health.



Table A4: Characteristics Associated with Exclusive Breastfeeding at Hospital Discharge, Peel, 2015 – 2016

Characteristic	2016 Number exclusively breastfeeding at discharge	2016 Per cent with characteristic exclusively breastfeeding at discharge (95% CI)	2015 Per cent with characteristic exclusively breastfeeding at discharge (95% CI)
Maternal Age Group (years)			
15-19	NR	NR	NR
20-24	NR	NR	53.0 (41.0 – 64.7)
25-29	52	44.1 (35.4 – 53.2)	41.7 (34.4 – 49.3)
30-34	103	53.4 (46.3 – 60.3)	48.5 (40.9 – 56.1)
35-39	51	53.7 (43.6 – 63.5)	NR
40+	NR	NR	NR
Respondent's First Child			
Yes	96	46.6 (39.9 – 53.5)	45.9 (39.2 – 52.7)
No	134	55.1 (48.8 – 61.3)	46.4 (40.2 – 52.8)
Delivery Type			
Caesarean Section	48	35.3 (27.7 – 43.7)	33.2 (25.9 – 41.4)
Vaginal	182	58.3 (52.8 – 63.7)	52.0 (46.4 – 57.5)
Birth Location			
William Osler (Brampton Civic Hospital)	73	46.2 (38.6 – 54.0)	43.4 (35.7 – 51.5)
William Osler (Etobicoke campus)	NR	NR	NR
Trillium Health Partners (Mississauga Hospital)	41	51.2 (40.4 – 62.0)	49.8 (39.3 – 60.3)
Trillium Health Partners (Credit Valley Hospital)	80	58.0 (49.6 – 66.0)	53.6 (45.2 – 61.8)
Home birth	0	0	0
Other	23	51.1 (36.8 – 65.3)	35.6*(24.2 – 49.0)
Marital Status			
Married (legally)	184	50.7 (45.5 – 55.8)	45.8 (40.7 – 50.9)
Common-law or living with a partner	24	55.8 (40.8 – 69.8)	46.6 (32.4 – 61.2)
Single (never married)	17	47.2*(31.7 – 63.3)	53.6 (37.9 – 68.7)
Separated (not legally divorced)	NR	NR	0
Divorced	0	0	0
Education			
High school or less	40	48.8 (38.1 – 59.5)	44.6 (33.6 – 56.2)
Some post-secondary	20	57.1 (40.5 – 72.3)	41.1*(26.7 – 57.3)
Post-secondary graduate	170	51.2 (45.8 – 56.6)	46.7 (41.5 – 52.1)
Gestational Age (singletons only)			
<37 weeks (preterm)	NR	NR	NR
37 weeks or greater (term) [†]	221	55.0 (50.1 – 59.8)	47.9 (43.1 – 52.8)



Table A4: Characteristics Associated with Exclusive Breastfeeding at Hospital Discharge continued

Characteristic	2016 Number exclusively breastfeeding at discharge	2016 Per cent with characteristic exclusively breastfeeding at discharge (95% CI)	2015 Per cent with characteristic exclusively breastfeeding at discharge (95% CI)
Household Income Before Taxes			
Less than \$50,000	80	49.4 (41.7 – 57.1)	44.4 (36.6 – 52.5)
\$50,000 to less than \$80,000	37	52.1 (40.5 – 63.5)	46.4 (35.2 – 57.8)
\$80,000 or more	70	50.0 (41.8 – 58.2)	47.2 (39.3 – 55.2)
Don't Know [†]	26	68.4 (52.2 – 81.2)	38.4*(24.9 – 54.0)
Refused	17	44.7*(29.9 – 60.6)	55.0 (39.5 – 69.6)
Ethnic Origins			
North American (e.g., Canadian, American)	25	43.9 (31.3 – 57.3)	49.5 (37.9 – 61.2)
British	18	58.1 (39.4 – 74.7)	50.8 (36.2 – 66.1)
South Asian (e.g. East Indian, Pakistani, Sri Lankan, Punjabi)	78	46.7 (39.2 – 54.4)	38.9 (31.6 – 46.6)
Caribbean (e.g. Jamaican, Trinidadian, West Indian)	27	55.1 (40.6 – 68.8)	48.0 (35.1 – 61.1)
African (e.g. South African, Ethiopian, Somali)	NR	NR	NR
European (e.g., Italian, Portuguese, Polish, French, Greek)	43	50.0 (39.4 – 60.6)	53.6 (42.9 – 63.9)
East or South East Asian (e.g. Filipino, Japanese, Chinese, Vietnamese) [†]	31	57.4 (43.6 – 70.2)	37.2 (23.7 – 53.0)
West Asian/ Arab (e.g. Persian, Egyptian, Iranian, Lebanese)	15	46.9*(29.8 – 64.8)	NR
Latin, Central and South American (e.g. Brazilian, Columbian)	NR	NR	NR
Other	NR	NR	NR
Born in Canada			
Yes	80	52.0 (44.0 – 59.8)	54.6 (47.0 – 62.1)
No [†]	150	51.0 (45.3 – 56.7)	41.2 (35.6 – 47.0)
Length of Time in Canada (immigrants only)			
Recent (0 to 5 years)	51	50.0 (40.4 – 59.6)	49.8 (39.8 – 59.9)
Intermediate (6 to 10 years) [†]	40	49.4 (38.6 – 60.2)	29.0*(19.5 – 40.8)
Long term (11 years or more)	58	53.7 (44.2 – 62.9)	40.4 (32.0 – 49.4)

*Use estimate with caution

[†] Significantly different rates between years

CI – Confidence Interval

NR – Not releasable due to small numbers

Source: Peel Infant Feeding Survey 2015 – 2016, Peel Public Health.



Table A5: Characteristics Associated with Any Breastfeeding at Six Months Postpartum, Peel, 2015 – 2016

Characteristic	2016 Number breastfeeding at six months	2016 Per cent with characteristic breastfeeding at six months (95% CI)	2015 Per cent with characteristic breastfeeding at six months (95% CI)
Maternal age group (years)			
15-19	NR	NR	NR
20-24	NR	NR	58.2 (46.1 – 69.4)
25-29	77	65.2 (56.2 – 73.3)	66.9 (59.4 – 73.6)
30-34	132	67.0 (60.1 – 73.2)	62.6 (54.9 – 69.7)
35-39	67	69.1 (59.2 – 77.5)	NR
40+	NR	NR	NR
Respondent's first child			
Yes	133	64.2 (57.5 – 70.5)	64.8 (58.0 – 71.0)
No	171	69.0 (62.9 – 74.4)	63.3 (57.1 – 69.2)
Delivery Type			
Caesarean Section	92	67.2 (58.8 – 74.5)	56.2 (47.8 – 64.1)
Vaginal	212	66.9 (61.5 – 71.9)	67.4 (62.0 – 72.4)
Birth Location			
William Osler (Brampton Civic Hospital)	104	65.4 (57.7 – 72.4)	60.4 (52.3 – 67.9)
William Osler (Etobicoke campus)	NR	NR	NR
Trillium Health Partners (Mississauga Hospital)	51	63.8 (52.7 – 73.5)	66.8 (56.2 – 75.9)
Trillium Health Partners (Credit Valley Hospital) [†]	101	72.7 (64.6 – 79.4)	61.3 (52.9 – 69.1)
Home birth	NR	NR	0
Other	29	63.0 (48.3 – 75.7)	73.0 (59.8 – 83.1)
Marital Status			
Married (legally)	247	67.1 (62.1 – 71.8)	68.1 (63.1 – 72.7)
Common-law or living with a partner	29	65.9 (50.8 – 78.3)	46.2 (32.2 – 60.8)
Single (never married)	22	61.1 (44.5 – 75.5)	49.9 (34.6 – 65.2)
Separated (not legally divorced)	NR	NR	0
Divorced	0	0	0
Education			
High school or less [†]	52	61.9 (51.1 – 71.7)	40.2 (29.6 – 51.8)
Some post-secondary	18	51.4 (35.2 – 67.3)	60.8 (44.5 – 75.1)
Post-secondary graduate	234	69.6 (64.5 – 74.3)	69.3 (64.2 – 74.0)
Gestational Age (singletons only)			
<37 weeks (preterm)	22	53.7 (38.5 – 68.2)	NR
37 weeks or greater (term)	276	67.6 (62.9 – 72.0)	66.7 (62.0 – 71.1)



Table A5: Characteristics Associated with Any Breastfeeding at Six Months Postpartum continued

Characteristic	2016 Number breastfeeding at six months	2016 Per cent with characteristic breastfeeding at six months (95% CI)	2015 Per cent with characteristic breastfeeding at six months (95% CI)
Household Income Before Taxes			
Less than \$50,000	100	61.4 (53.6 – 68.5)	56.2 (48.0 – 63.9)
\$50,000 to less than \$80,000	48	67.6 (55.9 – 77.5)	61.5 (49.8 – 71.9)
\$80,000 or more	101	70.6 (62.6 – 77.5)	68.4 (60.5 – 75.3)
Don't Know	32	82.0 (66.8 – 91.2)	68.3 (52.6 – 80.7)
Refused	23	59.0 (43.1 – 73.2)	75.0 (59.4 – 86.0)
Ethnic Origins			
North American (e.g., Canadian, American)	30	51.7 (38.7 – 64.6)	56.9 (45.2 – 68.0)
British	19	57.6 (39.6 – 73.8)	66.4 (51.9 – 79.9)
South Asian (e.g. East Indian, Pakistani, Sri Lankan, Punjabi)	114	67.9 (60.4 – 74.5)	63.9 (56.4 – 70.8)
Caribbean (e.g. Jamaican, Trinidadian, West Indian)	35	71.4 (56.8 – 82.6)	57.1 (43.7 – 69.6)
African (e.g. South African, Ethiopian, Somali)	NR	NR	NR
European (e.g., Italian, Portuguese, Polish, French, Greek)	57	64.8 (54.1 – 74.2)	64.5 (54.1 – 73.8)
East or South East Asian (e.g. Filipino, Japanese, Chinese, Vietnamese)	41	74.6 (61.0 – 84.6)	60.5 (44.7 – 74.3)
West Asian/ Arab (e.g. Persian, Egyptian, Iranian, Lebanese)	20	62.5 (43.9 – 78.0)	NR
Latin, Central and South American (e.g. Brazilian, Columbian)	NR	NR	NR
Other	NR	NR	0
Born in Canada			
Yes	95	60.1 (52.3 – 67.5)	62.6 (55.0 – 69.7)
No	208	70.3 (64.8 – 75.2)	64.6 (58.8 – 69.9)
Length of Time in Canada (immigrants only)			
Recent (0 to 5 years)	72	70.6 (61.0 – 78.6)	73.5 (63.6 – 81.4)
Intermediate (6 to 10 years)	54	65.8 (55.0 – 75.3)	56.5 (44.6 – 67.7)
Long term (11 years or more)	79	72.5 (63.3 – 80.1)	62.0 (53.0 – 70.2)

N=304

† Significantly different rates between years

NR – Not releasable due to small numbers

Source: Peel Infant Feeding Survey 2015 – 2016, Peel Public Health.