

# Infant Feeding Surveillance System Summary Report

August 2012 to August 2013

A Peel Health Technical Report



## KEY MESSAGES

- Almost all Peel mothers initiate breastfeeding.
- Almost half (49%) of infants are given formula prior to being discharged from hospital after birth.
- After leaving the hospital, 46% of mothers introduce liquids other than breast milk in the first two weeks (regardless of whether they supplemented in hospital).
- Although 60% of mothers continue to breastfeed for six months, only 10% report exclusive breastfeeding at six months postpartum.
- Approximately one-quarter (24%) of mothers introduce solids prior to five months of age.
- One in five mothers (18%) who introduce solids at four or five months of age reported exclusive breastfeeding up until that time point.

## INTRODUCTION

Breast milk is the only food that infants need for healthy development in the first six months of life. Daily vitamin D supplementation during their first year of life is also recommended for breastfed infants.<sup>1</sup> Breastfeeding has both short-term and long-term health benefits for mother and infant. Breastfed babies are at a lower risk for respiratory and gastrointestinal infections.<sup>2</sup> Maternal health outcomes associated with breastfeeding include a lowered risk of breast cancer and increased bonding between mother and infant.<sup>2</sup> The World Health Organization (WHO) recommends breastfeeding within one hour of birth, and exclusive breastfeeding for the first six months of life as optimal for healthy development. By about six months of age, infants are developmentally ready for other foods.<sup>3</sup>

In August 2012 the Infant Feeding Surveillance System (IFSS) was launched by Peel Public Health (PPH). The IFSS is an on-going system of data collection that provides information regarding infant feeding practices of Peel mothers up to six months postpartum. This system was developed to replace the surveys of breastfeeding practices previously conducted every five years in Peel (1999/2000, 2004/2005 and 2009/2010).



## **PURPOSE OF THE INFANT FEEDING SURVEILLANCE SYSTEM**

The purpose of the Infant Feeding Surveillance System (IFSS) is to provide data for:

1. Population health assessment and surveillance activities outlined in the Ontario Public Health Standards (2008)
2. Maintenance of Peel Public Health's Baby-Friendly Initiative (BFI) designation
3. Monitoring Family Health's Breastfeeding program, including reporting of breastfeeding indicators to Regional Council for the 2010-2014 Term of Council Priority #10 - *Optimizing Early Child Development*

## **PURPOSE OF THE REPORT**

The purpose of this report is to provide the results of the IFSS from August 21, 2012 (launch date) through August 20, 2013.

## **METHODS**

Following the birth of an infant(s), consent is obtained by the hospital nurse or midwife for the mother to be contacted by PPH. During the data collection period, consent was documented using the Parkyn Postpartum Screening Tool (August 2012 to April 2013) and the Healthy Babies Healthy Children (HBHC) Screening Tool (April 2013 to August 2013). 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 five months and 8.5 months of age (21 to 38 weeks) were selected from the ISCIS database for inclusion in the sampling frame. All teen mothers (aged 15 to 19 years) were selected from ISCIS, along with a random sample of adult mothers (20+ years) from each 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

Data were collected through a telephone survey conducted by one of two trained staff members within the Family Health Division. The surveys were administered in the respondent's language of preference through the use of a professional language line, as required. Calls were made during regular business hours on weekdays.



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).

It was intended that up to 10 call attempts would be made to each selected mother. However, as this target was never reached, call attempts were reduced to five by October 2012 in order to reach mothers before their babies were too old to be eligible (i.e., 40 weeks of age). Call disposition statistics were collected to capture the number of completed calls and the reasons for non-completion or refusal (where given).

In this report, data are presented where the numerator is 10 or more and the denominator is 30 or more. Data analysis includes descriptive statistics, as well as bivariate analysis by the characteristics of the mother (e.g., age, education, income). Due to the limited power of this sample to detect differences between groups, differences in breastfeeding practices between groups should be interpreted with caution.

Respondents to the IFSS survey were compared to non-respondents using chi-square tests (categorical variables) and t-tests (continuous variables) based on mother's age, gestational age, infant sex, type of birth, feeding method at hospital discharge and delivery method. A *p-value* of less than 0.05 was considered statistically significant.

The data presented in this report have been weighted using post-stratification weights based on municipality of residence. This weighting was done to account for the over-sampling of adult mothers from Caledon.

### ***Definition of Terms***

In this report, ***breastfeeding initiation*** is defined as any self-reported attempt to breastfeed the infant (successful or unsuccessful) based on the question "Have you ever tried to provide breast milk to your baby?"

***Exclusive breastfeeding*** is defined as provision of breast milk only, without additional food or liquid (e.g., water, sugar water or formula) excluding vitamins or required medication.

## **RESULTS**

Between September 2012 and August 2013, there were 15,642 births in Peel and a total of 344 surveys were conducted with eligible mothers. A small number of surveys were conducted with teen mothers aged 15 to 19 years (n=23). Given the reporting restrictions noted above and the different sampling strategy used for teens (all teens selected into sample), the results below exclude teen respondents.



### **Response Rate**

Table 1 presents the call disposition status for the 1,032 records available in the IFSS database.

**Table 1: Call Disposition Status  
Peel, August 2012 to August 2013**

<b>Status</b>	<b>Number</b>	<b>Per cent (%)</b>
Ineligible due to age of infant (> 40 weeks)	505	48.9
Completed survey	344	33.3
Consent declined	44	4.3
Not eligible*	51	4.9
Not in service*	77	7.5
Outright rejection	11	1.1
<b>Total</b>	<b>1,032</b>	<b>100.0</b>

\* These records are not included in the denominator for the purposes of calculating the response rate.

To calculate the response rate, the total number of completed calls was divided by the total number of potentially eligible calls. The response rate for the IFSS was 38.1% for the period August 2012 to August 2013.

### **Characteristics of Respondents**

Table A1 (Appendix) provides a description of the un-weighted sample of mothers for August 2012 to August 2013 from the IFSS.

The profile of mothers surveyed shows that the majority of respondents were:

- 30 years of age or older
- Multiparous
- Married
- Post-secondary graduates
- Immigrants

In addition, the majority of respondents (71%) did not attend prenatal classes during this pregnancy, had a vaginal delivery (66 %) and delivered an infant born at 37 weeks or more (full term) (85%).

### **Characteristics of Non-Respondents**

The characteristics of those who completed the IFSS survey were compared to those who were selected from 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 their baby was 40 weeks of age.



Table A2 (Appendix) shows the comparison of respondents and non-respondents. Respondents were similar to non-respondents based on: average age of the mother, gestational age, infant sex, birth weight, type of birth and method of delivery. Non-respondents were more likely to report combination feeding at hospital discharge compared to respondents.

### ***Breastfeeding Initiation***

Almost all mothers reported initiating breastfeeding (97.8%, 95% CI 95.4% - 99.0%).

Reported reasons for not initiating breastfeeding included:

- Health professional's advice
- Planned to bottle feed/formula feed
- Maternal pain
- Baby was ill
- Maternal medication
- Physical reason (e.g., previous breast surgery)
- Psychosocial issues (e.g., depression, anxiety)

### ***Breastfeeding While in Hospital***

Overall, 94% of mothers reported breastfeeding in the hospital. A small percentage of women who did not breastfeed while in hospital initiated breastfeeding after discharge. Of those who breastfed in hospital, 83% reported receiving help from a health professional while in hospital.

Almost half (49%) of mothers reported that their infant was given liquids other than breast milk in hospital. Almost one in three mothers (31%) reported being given formula to take home with them when they left the hospital. Among those who initiated breastfeeding, reasons for feeding babies liquids other than breast milk while in hospital included (multiple responses possible):

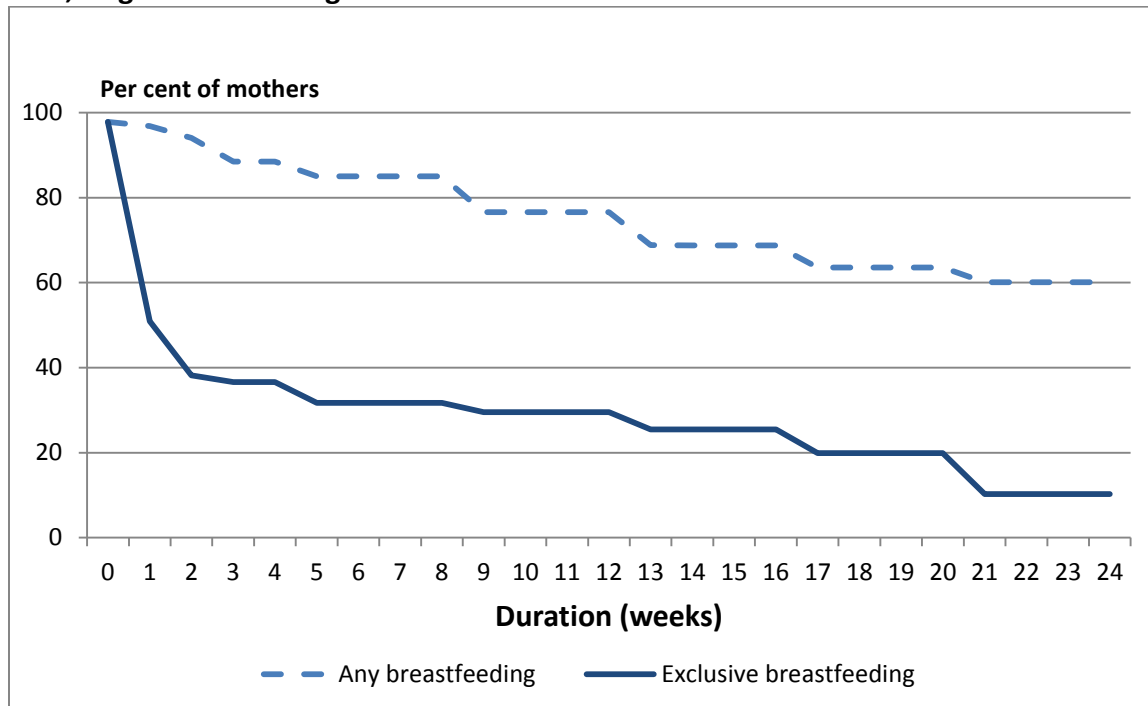
- Not enough milk (n=79)
- Other issues (such as jaundice, "milk hadn't come in yet", low blood sugar, prematurity)(n=36)
- Baby ill (n=25)
- Latching concerns (n=19)
- Baby was hungry (n=17)
- Mother was ill (n=13)
- Baby's weight concerns (n=10)



After leaving hospital, 46% of mothers reported introducing liquids other than breast milk within the first two weeks (regardless of whether they reported supplementation in hospital).

Overall, 60% of mothers continued to breastfeed to six months postpartum (Figure 1). As shown in Table A4 (Appendix), 15% of mothers report breastfeeding for less than two months postpartum and 31% for less than four months.

**Figure 1: Duration of Any Breastfeeding and Exclusive Breastfeeding to Six Months, Peel, August 2012 to August 2013**



Notes: Weighted data

Source: Infant Feeding Surveillance System August 21 2012-August 20 2013, Peel Public Health.

Among mothers who introduced liquids or foods other than breast milk prior to six months, 66% reported that their infant received three or more feedings per week of other liquids/food and 33% one to two feedings per week.

### ***Exclusive Breastfeeding***

Although almost all mothers initiated breastfeeding, only half (51%) of mothers reported exclusively breastfeeding at the time of discharge from hospital (Table 2). Ten per cent of mothers reported exclusive breastfeeding at six months postpartum (Table 2, Figure 1).

**Table 2: Exclusive Breastfeeding,  
Peel, August 2012 to August 2013**

Time Point	Number exclusively breastfeeding	Per cent (%)	95% confidence interval
Exclusive breastfeeding at hospital discharge			
Yes	163	50.8	45.2 – 56.4
No	158	49.2	43.6 – 54.8
Exclusive breastfeeding at 2 weeks postpartum			
Yes	123	38.3	33.0 – 43.9
No	198	61.7	56.1 – 67.0
Exclusive breastfeeding at 4 weeks postpartum			
Yes	117	36.4	31.2 – 42.0
No	204	63.6	58.0 – 68.8
Exclusive breastfeeding at 2 months postpartum			
Yes	102	31.8	26.8 – 37.2
No	219	68.2	62.8 – 73.2
Exclusive breastfeeding at 4 months postpartum			
Yes	82	25.5	20.9 – 30.7
No	239	74.5	69.3 – 79.1
Exclusive breastfeeding at 6 months postpartum			
Yes	33	10.3	7.3 – 14.3
No	288	89.7	85.7 – 92.7

Notes: Weighted data

Source: Infant Feeding Surveillance System August 21 2012-August 20 2013, Peel Public Health.

### ***Breastfeeding Cessation***

Among those who had stopped breastfeeding by the time of the survey, the most common reasons for stopping were:

- Mother reported “not enough milk” (n=93)
- Other reasons (including issues with pumping of breast milk, baby had allergic reaction to something in breast milk, need to care for other children) (n=52)
- Refusal to feed at the breast (n=20)
- Baby was hungry (n=12)





### ***Introduction of Solids***

Mothers were asked when their infant was first given solid foods such as infant cereal, fruits, vegetables or meat products. In total, 77 infants (24%) were given solids before the age of five months (Table 3).

**Table 3: Introduction of Solids,  
Peel, August 2012 to August 2013**

<b>Timing of solids</b>	<b>Number (n=316)</b>	<b>Per cent (%)</b>	<b>95% confidence interval</b>
Less than 4 months	11	3.5	1.8 – 6.3
4 to less than 5 months	66	20.9	16.6 – 25.9
5 to less than 6 months	88	27.8	23.0 – 33.2
6 to 8 months	150	47.5	41.9 – 53.1

Note: Weighted data

Source: Infant Feeding Surveillance System August 21 2012-August 20 2013, Peel Public Health.

Among those mothers who introduced solids at four or five months of age, 18% reported exclusive breastfeeding up until that time point.

### **DISCUSSION**

In Peel, initiation of breastfeeding shortly after birth remains high; almost all women begin to breastfeed. However, feeding infants breast milk substitutes (infant formula) during the birth hospitalization is common practice. A mother's perception that she is not producing enough breast milk for her baby is the reason most often given for supplemental feeding. This is likely a misperception on the mother's part; infants require only small volumes of breast milk in the first few days of life.

Providing mothers with free samples of breast milk substitutes when they leave hospital is a practice that does not support exclusive breastfeeding. This practice is against the WHO international code of marketing of breast milk substitutes. One in three mothers reported being given formula to take home with them when they left the hospital.

Even infants who were exclusively breastfed in hospital are likely to be fed a breast milk substitute at home; there is an abrupt drop in exclusive breastfeeding during the first one to two weeks following hospital discharge.

A mother's perception that she is not producing enough breast milk to meet her baby's needs is also the primary reason given for mothers stopping breastfeeding between two weeks and six months. The perception of not having enough breast milk, starting in hospital and continuing throughout the mother's breastfeeding experience, is an area requiring further exploration and intervention by Peel Public Health.



Many mothers reported feeding their infants solid foods earlier than recommended by Health Canada. Nearly one quarter (24%) of babies received solid foods before they reached five months of age and a further 28% between five to six months.

## LIMITATIONS

There are several limitations to the IFSS and the analysis presented in this report:

- The IFSS was developed to have a sufficient sample to provide a precise estimate of the rate of exclusive breastfeeding at six months postpartum. However, the IFSS is insufficiently powered to detect differences between subgroups (e.g., age group, immigrant status, income).
- Due to the small number of teen mothers surveyed, the IFSS sample does not allow for the reporting of breastfeeding practices among teen mothers (15 to 19 years) at this point in time.
- Non-respondents to the IFSS were more likely to report combination feeding at hospital discharge compared to respondents. This may indicate non-response bias as respondents have different infant feeding practices than non-respondents.
- The survey questions did not clearly distinguish between the introduction of other liquids and solids, which may have caused confusion for respondents.
- The survey questions do not capture the volume of supplemental liquids fed to infants.
- Due to issues with the sampling process, the data presented for August 2012 through August 2013 have been weighted using post-stratification weights based on the mother's municipality of residence. This was done to account for the oversampling of Caledon adult mothers. Refinements to the sampling process for future data collection will allow for the calculation of design weights to account for the probability of selection.
- Due to improvements in the process of selecting the women to be interviewed, the data presented in this report will serve as a new "benchmark" for reports by Peel Public Health on infant feeding. The current report cannot be compared to three previous reports by Peel Public Health (1999/2000, 2004/2005, 2009/2010) where convenience sampling was utilized.



## REFERENCES

1. Institute of Medicine. (2010). Dietary reference intakes for calcium and vitamin D. National Academies Press: Washington, D.C.
2. Ip, S., Chung, M., Raman, G., Chew, P., Magula, N., DeVine, D., Trikalinos, T., & Lau J. (2007) Breastfeeding and maternal and infant health outcomes in developed countries. *Evidence Report Technology Assessment. 153*, 1-186.
3. Naylor, A.J., Morrow, A.L. (2001). Developmental readiness of normal full term infants to progress from exclusive breastfeeding to the introduction of complementary foods. Washington DC: LINKAGES/Wellstart International.



**APPENDIX**

**Table A1: Demographic Characteristics of Adult Respondents, Peel, August 2012 to August 2013**

Characteristic	Number (n=321)	Per cent (%)
<b>Municipality</b>		
Brampton	120	37.4
Caledon	79	24.6
Mississauga	122	38.0
<b>Maternal age group (years)</b>		
20-24	17	5.3
25-29	92	28.7
30-34	121	37.7
35-39	72	22.4
40-44	17	5.3
45+	NR	NR
<b>Respondent's first child</b>		
Yes	133	41.4
No	188	58.6
<b>Did you breastfeed previous children (n=188)</b>		
Yes, some of them	11	5.9
Yes, all of them	153	81.4
No	24	12.8
<b>Sex of infant</b>		
Female	160	49.8
Male	161	50.2
<b>Type of birth</b>		
Single	306	95.3
Multiples	15	4.7
<b>Delivery Type</b>		
Caesarean Section	108	33.6
Vaginal	213	66.4
<b>Attended prenatal classes</b>		
Yes	93	29.0
No	228	71.0



**Table A1: Demographic Characteristics of Adult Respondents continued**

<b>Characteristic</b>	<b>Number (n=321)</b>	<b>Per cent (%)</b>
<b>Birth hospital</b>		
William Osler (Brampton Civic Hospital)	90	28.0
William Osler (Etobicoke campus)	19	5.9
Trillium Health Partners (Mississauga Hospital)	48	15.0
Trillium Health Partners (Credit Valley Hospital)	94	29.3
Midwife attended home birth	0	0
Other	70	21.8
<b>Marital Status</b>		
Married (legally)	272	84.7
Common-law or living with a partner	23	7.2
Single (never married)	23	7.2
Separated (not legally divorced)	NR	NR
<b>Education</b>		
High school or less	43	13.4
Some post-secondary	19	5.9
Post-secondary graduate	255	79.4
Refused/ Missing	NR	NR
<b>Household Income Before Taxes</b>		
Less than \$50,000	33	10.3
\$50,000 to less than \$80,000	41	12.8
\$80,000 or more	114	35.5
Don't Know	98	30.5
Refused	35	10.9
<b>Gestational Age</b>		
<37 weeks (preterm)	34	10.6
37 weeks or greater (term)	272	84.7
Missing	15	4.7
<b>Length of Time in Canada</b>		
Non-immigrant	156	48.6
Recent (0 to 5 years)	47	14.6
Intermediate (6 to 10 years)	36	11.2
Long term (11 years or more)	76	23.7
Don't know/Refused	NR	NR

**Table A1: Demographic Characteristics of Adult Respondents continued**

<b>Characteristic</b>	<b>Number (n=321)</b>	<b>Per cent (%)</b>
<b>Ethnic Origins</b>		
North American (e.g., Canadian, American)	50	15.6
British	34	10.6
South Asian (e.g. East Indian, Pakistani, Sri Lankan, Punjabi)	94	29.3
Caribbean (e.g. Jamaican, Trinidadian, West Indian)	26	8.1
African (e.g. South Africa, Ethiopian, Somali)	14	4.4
European (e.g., Italian, Portuguese, Polish, French, Greek)	92	28.7
East or South East Asian (e.g. Filipino, Japanese, Chinese, Vietnamese)	33	10.3
West Asian/ Arab (e.g. Persian, Egyptian, Iranian, Lebanese)	13	4.0
Latin, Central and South American (e.g. Brazilian, Columbian)	16	5.0
Other	10	15.0
Don't know/refused	NR	NR

NR = not releasable due to small numbers

Note: Un-weighted data

Source: Infant Feeding Surveillance System August 21 2012-August 20 2013, Peel Public Health.



**Table A2: Comparison of Characteristics of Adult Respondents to Non-Respondents, Peel, August 2012 to August 2013**

Variable	Respondents (n=321) %	Non- Respondents (n=471) %	p-value
Municipality			0.21
Brampton	37.4	42.0	
Caledon	24.6	19.8	
Mississauga	38.0	38.2	
Mother's age			0.16
Mean	31.6	31.1	
Gestation age group (singletons only)			0.45
<37 weeks (preterm)	6.5	8.0	
37 week or greater (term)	93.5	92.0	
Sex of Infant			0.53
Male	49.0	51.4	
Female	51.0	48.6	
Birth Weight (grams)			0.71
Mean	3246.9	3261.8	
Type of birth			0.07
Single	95.3	97.7	
Multiple	4.7	2.3	
Feeding Method at Discharge			0.03
Breast Milk	66.4	59.2	
Breast Milk Substitute	6.9	5.0	
Both	26.7	35.8	
Delivery Method			0.78
Vaginal	66.3	67.3	
Caesarean Section	33.7	32.7	

\*Non-respondents include adult participants that had an incomplete survey (n=1), declined to participate (n=10), declined consent (n=39), did not respond after more than ten call backs (n=0), or who were not surveyed because they were not reached before their infant reached 40 weeks of age (n=421)

Note: Un-weighted data

Source: Infant Feeding Surveillance System August 21 2012-August 20 2013, Peel Public Health.



**Table A3: Characteristics Associated with Exclusive Breastfeeding at Discharge from Hospital, Peel, August 2012 to August 2013**

Characteristic	Number exclusively breastfeeding	Per cent (%)	95% confidence interval
<b>Exclusive breastfeeding at hospital discharge</b>			
Yes	163	50.8	45.2 – 56.4
No	158	49.2	43.6 – 54.8
<b>Maternal age group (years)</b>			
Less than 25 years	NR		
25-29	52	58.4	47.5 – 68.6
30-34	65	52.8	43.7 – 61.8
35+ years	37	41.6	31.4 - 52.5
<b>Respondent's first child</b>			
Yes	58	47.2	38.2 - 56.3
No	105	53.3	46.1 – 60.4
<b>Delivery Type</b>			
Caesarean Section	57	48.3	39.1 – 57.6
Vaginal	106	52.2	45.1 – 59.2
<b>Birth hospital</b>			
William Osler	58	56.9	46.7 – 66.5
Trillium Health Partners	86	50.0	42.3 – 57.7
Other	19	41.3	27.3 – 56.7
<b>Marital Status</b>			
Married or common-law	145	50.0	44.1 – 55.9
Not married/common-law	18	58.1	39.3 – 74.9
<b>Education</b>			
High school or less	22	51.2	35.7 – 66.4
Some post-secondary	NR		
Post-secondary graduate	127	49.8	43.5 – 56.1
<b>Household Income Before Taxes</b>			
Less than \$50,000	24	58.5	42.2 – 73.3
\$50,000 to less than \$80,000	21	47.7	32.7 – 63.1
\$80,000 or more	46	47.4	37.3 – 57.8
Don't Know	56	51.9	42.1 – 61.5
Refused	16	51.6	33.4 – 69.4
<b>Born in Canada</b>			
No	102	50.5	43.4 – 57.6
Yes	61	51.3	42.0 – 60.5





**Table A3: Characteristics Associated with Exclusive Breastfeeding at Discharge from Hospital continued**

Characteristic	Number exclusively breastfeeding	Per cent (%)	95% confidence interval
Length of Time in Canada (immigrants only)			
Recent (0 to 5 years)	35	59.3	45.8 – 71.7
Intermediate (6 to 10 years)	21	48.8	33.6 – 64.3
Long term (11 years or more)	43	46.7	36.4 – 57.4
Gestational Age (singletons only)			
<37 weeks (preterm)	16	43.2	27.5 – 60.4
37 weeks or greater (term)	145	54.7	48.5 – 60.8
Ethnic Origins			
North American (e.g., Canadian, American)	23	56.1	39.9 - 71.2
British	17	63.0	42.5 – 79.9
South Asian (e.g. East Indian, Pakistani, Sri Lankan, Punjabi)	53	46.1	36.8 – 55.6
Caribbean (e.g. Jamaican, Trinidadian, West Indian)	18	56.3	37.9 – 73.2
African (e.g. South Africa, Ethiopian, Somali)	NR		
European (e.g., Italian, Portuguese, Polish, French, Greek)	31	50.0	37.2 - 62.8
East or South East Asian (e.g. Filipino, Japanese, Chinese, Vietnamese)	20	51.3	35.0 – 67.3
West Asian/ Arab (e.g. Persian, Egyptian, Iranian, Lebanese)	NR		
Latin, Central and South American (e.g. Brazilian, Columbian)	NR		

NR = not releasable due to small numbers

Note: Weighted data

Source: Infant Feeding Surveillance System August 21 2012-August 20 2013, Peel Public Health.



**Table A4: Any Breastfeeding Duration,  
Peel, August 2012 to August 2013**

<b>Breastfeeding duration</b>	<b>Number (n=321)</b>	<b>Per cent (%)</b>	<b>95% confidence interval</b>
Only while in hospital	NR	NR	-
After birth hospitalization to less than two weeks old	NR	NR	-
Two weeks to less than one month old	18	5.6	3.4 – 8.8
1 month to less than 2 months old	11	3.4	0.0 – 6.2
2 months to less than 3 months old	27	8.4	5.7 – 12.2
3 months to less than 4 months old	25	7.9	5.3 – 11.5
4 months to less than 5 months old	17	5.3	3.2 – 8.5
5 months to less than 6 months old	11	3.3	0.0 – 6.0
6 months to 8 months old	193	60.1	54.5 – 65.5

NR = not releasable due to small numbers

Note: Weighted data

Source: Infant Feeding Surveillance System August 21 2012-August 20 2013, Peel Public Health.



**Table A5: Characteristics Associated with Any Breastfeeding at Six Months Postpartum, Peel, August 2012 to August 2013**

Characteristic	Number breastfeeding	Per cent (%)	95% confidence interval
<b>Any breastfeeding at six months postpartum</b>			
Yes	193	60.1	54.5 – 65.5
No	128	39.9	34.5 – 45.5
<b>Maternal age group (years)</b>			
Less than 25 years	10	52.6	29.5 - 74.8
25-29	56	62.9	52.0 – 72.7
30-34	76	61.8	52.6 – 70.3
35+ years	50	56.2	45.3 – 66.5
<b>Respondent's first child</b>			
No	123	62.1	54.9 – 68.8
Yes	70	56.9	47.7 – 65.7
<b>Delivery Type</b>			
Caesarean Section	62	52.5	43.2 – 61.7
Vaginal	131	64.5	57.5 – 71.0
<b>Birth hospital</b>			
William Osler	65	63.7	53.6 – 72.8
Trillium Health Partners	100	58.1	50.4 – 65.5
Other	27	58.7	43.3 – 72.7
<b>Marital Status</b>			
Married or common-law	179	61.7	55.8 – 67.3
Not married/common-law	14	45.2	27.8 – 63.7
<b>Education</b>			
High school or less	19	44.2	29.4 – 60.0
Some post-secondary	NR	NR	
Post-secondary graduate	161	63.4	57.1 – 69.3
<b>Household Income Before Taxes</b>			
Less than \$50,000	21	51.2	35.4 – 66.8
\$50,000 to less than \$80,000	27	61.4	45.5 – 75.3
\$80,000 or more	59	60.8	50.4 – 70.4
Don't Know	66	61.7	51.7 – 70.8
Refused	20	64.5	45.4 – 80.2
<b>Born in Canada</b>			
No	132	65.3	58.3 - 71.8
Yes	61	50.8	41.6 – 60.0



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

Characteristic	Number breastfeeding	Per cent (%)	95% confidence interval
Length of Time in Canada (immigrants only)			
Recent (0 to 5 years)	44	74.6	61.3 – 84.6
Intermediate (6 to 10 years)	29	67.4	51.3 – 80.5
Long term (11 years or more)	54	58.7	47.9 – 68.7
Gestational Age (singletons only)			
<37 weeks (preterm)	25	67.6	50.1 – 81.4
37 weeks or greater (term)	165	62.3	56.1 – 68.1
Ethnic Origins			
North American (e.g., Canadian, American)	24	58.5	42.2 – 73.3
British	14	53.8	33.7 – 72.9
South Asian (e.g. East Indian, Pakistani, Sri Lankan, Punjabi)	73	62.9	53.4 – 71.6
Caribbean (e.g. Jamaican, Trinidadian, West Indian)	16	48.5	31.2 – 66.1
African (e.g. South Africa, Ethiopian, Somali)	NR	NR	
European (e.g., Italian, Portuguese, Polish, French, Greek)	34	54.8	41.8 – 67.3
East or South East Asian (e.g. Filipino, Japanese, Chinese, Vietnamese)	24	61.5	44.7 – 76.2
West Asian/ Arab (e.g. Persian, Egyptian, Iranian, Lebanese)	NR	NR	
Latin, Central and South American (e.g. Brazilian, Columbian)	NR	NR	

NR = not releasable due to small numbers

Note: Weighted data

Source: Infant Feeding Surveillance System August 21 2012-August 20 2013, Peel Public Health.



**Table A6: Characteristics Associated with Exclusive Breastfeeding at Six Months Postpartum, Peel, August 2012 to August 2013**

Characteristic	Number exclusively breastfeeding	Per cent (%)	95% confidence interval
<b>Exclusive breastfeeding at six months postpartum</b>			
Yes	33	10.3	7.3 – 14.3
No	288	89.7	85.7 – 92.7
<b>Maternal age group (years)</b>			
Less than 25 years	NR		
25-29	11	12.2	6.6 – 21.2
30-34	14	11.4	6.6 – 18.7
35+ years	NR		
<b>Respondent's first child</b>			
No	19	9.6	6.1 – 14.9
Yes	13	10.6	6.0 – 17.7
<b>Delivery Type</b>			
Caesarean Section	12	10.2	5.6 - 17.4
Vaginal	21	10.3	6.7 – 15.6
<b>Birth hospital</b>			
William Osler	11	10.7	5.7 – 18.7
Trillium Health Partners	17	9.8	6.0 – 15.5
Other	NR		
<b>Marital Status</b>			
Married or common-law	33	11.4	8.1 – 15.7
Not married/common-law	NR		
<b>Education</b>			
High school or less	NR		
Some post-secondary	NR		
Post-secondary graduate	27	10.6	7.2 – 15.2
<b>Household Income Before Taxes</b>			
Less than \$50,000	NR		
\$50,000 to less than \$80,000	NR		
\$80,000 or more	13	13.5	7.7 – 22.4
Don't Know	10	9.3	4.8 – 16.9
Refused	NR		
<b>Born in Canada</b>			
No	21	10.4	6.7 – 15.7
Yes	12	10.1	5.6 – 17.3



**Table A6: Characteristics Associated with Exclusive Breastfeeding at Six Months Postpartum continued**

Characteristic	Number exclusively breastfeeding	Per cent (%)	95% confidence interval
<b>Length of Time in Canada (immigrants only)</b>			
Recent (0 to 5 years)	NR		
Intermediate (6 to 10 years)	NR		
Long term (11 years or more)	NR		
<b>Gestational Age (singletons only)</b>			
<37 weeks (preterm)	NR	13.5	5.1 – 29.6
37 weeks or greater (term)	28	10.6	7.3 – 15.1
<b>Ethnic Origins</b>			
North American (e.g., Canadian, American)	NR		
British	NR		
South Asian (e.g. East Indian, Pakistani, Sri Lankan, Punjabi)	12	7.0	3.3 – 13.7
Caribbean (e.g. Jamaican, Trinidadian, West Indian)	NR		
African (e.g. South Africa, Ethiopian, Somali)	NR		
European (e.g., Italian, Portuguese, Polish, French, Greek)	12	19.4	10.8 – 31.7
East or South East Asian (e.g. Filipino, Japanese, Chinese, Vietnamese)	NR		
West Asian/ Arab (e.g. Persian, Egyptian, Iranian, Lebanese)	NR		
Latin, Central and South American (e.g. Brazilian, Columbian)	NR		

NR = not releasable due to small numbers

Note: Weighted data

Source: Infant Feeding Surveillance System August 21 2012-August 20 2013, Peel Public Health.