Survey of Parents of Children 0 to 2 years – 2002

A Peel Health Status Report

Region of Peel
Working for you
Public Health

ACKNOWLEDGEMENTS

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INTRODUCTION

There is a growing consensus that the early years of life are critical in the development and future well-being of children. During the first years of a child's life, his or her brain and nervous system undergo immense development. What happens to children from conception to five years of age helps to establish the foundation for how well they will do in all facets of their lives.

There have been several studies conducted over the past 10 years that have examined health outcomes among children. However, there are significant gaps in information on children, particularly at the local level and among children of pre-school age.

In January 2002, Public Health Units across Ontario received provincial funding to conduct Perinatal and Child Health Survey Strategy initiatives. Additional funding was subsequently made available for the calendar year 2003. Peel Health developed a telephone survey using items from existing survey instruments where possible. This report describes results of the Peel Pre-School Survey conducted in 2002.

The objectives of the study were:

- to establish baseline information from mothers of children aged 0-4, concerning their knowledge about and behaviours regarding a wide variety of health topics
- to identify health issues for Peel children aged 0-4 years of age
- to identify barriers to accessing health services, and opportunities to enhance health information, in order to direct and position the Early Years information campaigns.

Although the objectives of the study intended to examine children aged zero to four years, the actual results yielded information pertaining mostly to those aged zero to two years. This was a function of having asked parents with more than one child to answer questions based only on their youngest child.

METHODS

The sampling frame for this survey was drawn from the Healthy Babies / Healthy Children Database (HBHC), also referred to as the Integrated Services for Children Information System (ISCIS). Included in the survey were mothers who resided in Peel Region, delivered a baby in 2000 or 2001 and spoke English according to information collected on screening tools used for the HBHC

program. The main study was conducted between May 6th and October 4th, 2002.

A structured telephone survey was developed to collect data on a number of topics. These included: pregnancy and health, fetal alcohol syndrome, folic acid use, physical activity, reading to children, sun safety, second hand smoke, dental health, parenting, child care, family meals, food insecurity, child health issues, car seat safety, access to services and information, and demographic characteristics of mothers.

Questions were developed to assess mothers' knowledge and perceptions about health issues relevant to pregnant women, as well as parenting behaviours that influence child health.

RESULTS

A total of 1,649 telephone surveys were completed (a response rate of 46%). Mothers in the survey tended to be slightly older and were more likely to be married compared to mothers giving birth in 1999. Two-thirds of the respondents were well-educated women (completed college, university or more) and the majority (81%) spoke English most often in the home. Sixty per cent of mothers were Canadian-born. When asked to which ethnic or cultural group their ancestors belonged, the most frequent responses included South Asian (19%), Canadian (16%), English (14%), and Italian (10%). Two-thirds of respondents were employed at the time of the survey. Over one-third reported that their household income was $80,000 or higher. These demographic characteristics were found to be fairly comparable to Peel data from the 2001 Census.

Thirty-one per cent of respondents had a youngest child who was less than one year old, 44% had a youngest child who was one year old and 24% had a youngest child who was two years old at the time of the survey.

Overall, 58% of mothers reported taking a vitamin supplement containing folic acid. Women aged 30 years or older were more likely to have taken folic acid supplementation than younger women.

With respect to pregnancy and health, the majority of mothers consistently ranked the cutting down or elimination of both alcohol and smoking as the "most important thing to do". However, for one-third of mothers, knowledge of the effects of alcohol on the fetus was poor, as they believed that one to two drinks in total during pregnancy would be "somewhat safe", while a further 15% believed this amount to be "very safe".

Nearly all mothers (99%) reported having a family physician or paediatrician, and among those, 84% indicated that they had not had difficulty getting an appointment for their child within the previous 12 months.

Mothers were also asked where they go to obtain information about parenting or children's health. The most common sources of information included friends and family (51%), books and library resources (43%), doctors (43%) and magazines (40%). Ten per cent of mothers reported obtaining information from Health Department services.

Only four per cent of mothers reported that their youngest child had asthma that had been diagnosed by a health professional.

Among all children for whom age and weight were provided, 78% were restrained in car seats appropriate to their age and weight.

With respect to dental health, 32% of mothers said that their children had taken a drink in a bottle to bed at some point in their lives. The majority of mothers (84%) reported that their children had teeth to brush. Among these, 75% of mothers said that they either brushed their children's teeth or supervised when they were brushing their teeth all the time. While 90% of mothers whose children had teeth reported having a family dentist, only 9% had actually taken their youngest child for a visit to the dentist.

Five per cent of mothers reported that someone in the household regularly smoked inside the home. The majority of mothers reported that smoking was not allowed in the home at all (94%), nor was it allowed in vehicles (94%).

Five per cent of mothers reported that in the 12 months prior to the survey, someone in the household worried that there would not be enough food to feed the family because of a lack of money, 9% reported that someone in the household did not eat the quality or variety of food they wanted because of a lack of money, and 4% reported that the family actually did not have enough food to eat because of a lack of money.

With respect to bicycle helmet use, 45% of mothers reported that their children aged one year or more rode bicycles, tricycles or rode in wagons; of these, only 60% always wore a helmet.

The most frequently used strategies by mothers of children aged one year or more to manage children's behaviour were talking calmly to their children (78%) or describing alternative behaviours (58%). The majority of mothers reported infrequent use of physical punishment (96%) or ignoring their child after inappropriate behaviour (93%).

Nineteen per cent of mothers identified that there were barriers to their youngest child being physically active; of these, 57% identified time, 39% identified lack of money and 15% said the cost of the activity was a barrier to participation.

Overall, 95% of mothers reported that their children were read to, with 75% of these being read to at least daily. About 50% of mothers said they or another adult had started to read to their child by the age of three months. This proportion increased to 75% by six months of age and to 87% by one year of age.

Five per cent of mothers reported that their children had been sunburned at some point in their lives. The most commonly used strategy to protect children from the sun was the use of protective clothing, with 88% of mothers reporting their children wore protective clothing “always” or “often”.

CONCLUSION

The health practices of Peel parents of children aged 0 to 2 years are generally good. Most mothers are well-connected to services and seem to be aware of appropriate risk factors in the preconception period or during pregnancy. They also report good parenting practices as their children age. More focus needs to be placed on parents who are single, young, new immigrants or of low income in order to ensure that their children are given the resources and opportunities to develop to their fullest potential.

INTRODUCTION

BACKGROUND

There is a growing consensus that the early years of life are critical in the development and future well-being of children.[1] During the first years of a child's life, his or her brain and nervous system undergo immense development. What happens to children from conception to five years of age helps to establish the foundation for how well they will do in all facets of their lives.

Canada's National Children's Agenda (NCA) identifies five critical environmental influences that affect a child's development: biological inheritance; family; child care and school; physical and community environments; and society.[1] While it is recognized that children are shaped by the world around them and that many environments can affect their development, the most influential environment is that of the family.

Parents have a critical role in providing a nurturing environment that includes stimulation, protection and structure in order for children to successfully adapt to the developmental tasks associated with the pre-school years.[2] At the same time, families are shaped by the physical and community environments in which they live, as well as by economic and societal influences.

In September 2000, the Government of Canada, Provinces (except Quebec) and Territories agreed to improve and expand the services and programs they deliver to children under the age of 6 years and their families. *The Early Childhood Development Agreement* is a long-term commitment to help young children reach their full potential, and to help families support their children.[1] As part of this commitment, First Ministers agreed to report on investments in early childhood development programs and services, as well as on the health status of children.

There have been several studies conducted over the past 10 years that have examined health outcomes among children. However, there are significant gaps in information on children, particularly at the local level. For example, the 1994/95 National Population Health Survey, the 1996/97 Ontario Health Survey and the 2000/01 Canadian Community Health Survey only included respondents who were aged 12 years and older. The National Longitudinal Survey of Children and Youth (NLSCY), started in 1994, is following a cohort of children aged 0 – 11 years by surveying them or their parents every two years until they reach adulthood. While this has been one of the best sources of information on the development of children in Canada, analyses at the local level are not available. The Region of Peel's *Child Health Report 2002* identified a number of important gaps in the available information pertaining especially to children of pre-school age.[3]

In January 2002, Public Health Units across Ontario received provincial funding to conduct Perinatal and Child Health Survey Strategy initiatives. The funds were to be used to address information needs in support of Early Child Development. This included information needs for a broad range of health status outcomes and risk factors related to maternal, pregnancy, infant and child health (child defined as children between the ages of zero and six years of age). Health units were initially given funding for a period of one year, from January to December, 2002. Additional funding was subsequently made available for the calendar year 2003.

To address these issues, Peel Health developed a telephone survey using items from existing survey instruments where possible. The balance of this report will focus on findings related to the Peel Pre-School Survey conducted in 2002, and will draw comparisons to provincial or national statistics when they are available.

STUDY OBJECTIVES

The objectives of the Peel Pre-School Survey 2002 were:

- to establish baseline information from mothers of children aged 0-4, concerning their knowledge about and behaviours regarding a wide variety of health topics
- to identify health issues for Peel children aged 0-4 years of age
- to identify barriers to accessing health services, and opportunities to enhance health information, in order to direct and position the Early Years information campaigns.

Although the objectives of the study intended to examine children aged zero to four years, the actual results yielded information pertaining mostly to those aged zero to two years. This was a function of having asked parents with more than one child to answer questions based only on their youngest child.

METHODS

Sample Selection

The sampling frame for this survey was drawn from the Healthy Babies / Healthy Children Database (HBHC), also referred to as the Integrated Services for Children Information System (ISCIS). Included in the survey were mothers who resided in Peel Region, delivered a baby in 2000 or 2001 and spoke English according to information collected on screening tools used for the HBHC program.

Mothers were selected at random from the HBHC database. Each selected mother was sent a letter that described the study and provided an opportunity to refuse to be a survey participant (see Appendix A). If the mother did not refuse during this phase, she had another opportunity to refuse when the survey was introduced during telephone contact by the survey company (Compustat Consultants Inc., henceforth referred to as Compustat).

Survey Administration

Participant lists were e-mailed to Compustat on a regular basis in a zipped, password-protected file. This file contained the name, telephone number and municipality of residence of the mother.

A structured telephone survey was developed to collect data on a number of topics (see Appendix B). These included: pregnancy and health, fetal alcohol syndrome, folic acid use, physical activity, reading to children, sun safety, second-hand smoke, dental health, parenting, child care, family meals, food insecurity, child health issues, car seat safety, access to services and information, and demographic characteristics of mothers. Questions were developed to assess mothers' knowledge and perceptions about health issues relevant to pregnant women, as well as parenting behaviours that influence child health. The survey tool was pilot tested in April 2002 and subsequently revised based on results of the pilot.

The main study was conducted between May 6th and October 4th, 2002. Mothers were called at various times of the day and week, weekdays between 9:00 a.m. and 9:00 p.m. and weekends between 10:00 a.m. and 4:00 p.m. If the time was inconvenient for the mother, appointments were scheduled for a more suitable time. At least 10 call attempts were made to each number selected from the sampling frame. Although the goal was to complete 1,800 telephone surveys, data were collected from only 1,649 mothers due to the limited number of Caledon mothers having given birth during the timeframe of interest.

When respondents had more than one child, they were asked to answer all questions in reference to their youngest child.

Data Analysis and Results

Preliminary analyses of data were conducted by Compustat using custom software, and tables of results were provided to the Health Department. Raw data files in SPSS and text formats were also provided, which allowed further cross-tabulations to be performed using SPSS Version 11.1, and charts and tables to be prepared using Excel 2002.

Of the 1,649 telephone interviews that were completed, 58% of the mothers were from Mississauga, 28% were from Brampton and 13% were from Caledon. Caledon was intentionally over-sampled to provide more accurate results for this municipality. Therefore, the overall results for Peel required "weighting" to eliminate any regional bias. The results were weighted such that Mississauga mothers represented 64% of respondents, Brampton 31% and Caledon 5%, proportions which are similar to the actual proportion of residents and mothers of newborns across the Region of Peel as shown in Appendix C.

Data shown in tables throughout this report are thus the weighted responses, with the exception of those pertaining to call attempts (see Results, Table 1) and any breakdowns by municipality. The process of weighting the data altered the overall results by only a small amount (0-2%).

Overall results for Peel Region are accurate to within plus or minus 2% in the worst-case scenario (i.e. results that measure proportions near 50%), at the 95% confidence level – meaning that 19 times out of 20, the results would be accurate to within two percentage points. The accuracy level of results for Mississauga is plus or minus 3%, for Brampton, plus or minus 5%, and for Caledon, plus or minus 7%, all at the 95% confidence level.

The Results section of this report presents findings as proportions of responses by the mother. In some cases, proportions are based on all mothers' responses whereas in other cases, they are based on a subset of the data. When this occurs, the subset number is included in the accompanying table or figure. Differences in proportions between demographic groups have been highlighted. Words such as "more likely" or "less likely" are only used when those differences have been found to be statistically significant at the 95% confidence level.

RESULTS

Response Rates

Over the course of the data collection phase, a total of 4,814 calls were made and 1,649 calls completed, yielding a response rate of 46%. This response rate was calculated as the number of completed calls divided by the sum of the number of completes, call backs, refusals, those with answering machines, language barriers, busy lines, no answer, and those who hung-up or were unable to be reached (i.e. excludes not eligible, not in service and wrong number categories). Table 1 shows the outcome of the data collection phase by call disposition category.

Table 1
Call Attempts and Results,
Region of Peel, 2002

Call Disposition	Frequency	Per Cent
Completed	1649	34.3%
Answering Machine	19	0.4%
Call Back	123	2.6%
Language Barrier	277	5.8%
Line is Busy	3	0.1%
No Answer	64	1.3%
Not Eligible	71	1.5%
Not in Service	410	8.5%
Refused	735	15.3%
Hang-up	74	1.5%
Wrong number, no new number given	756	15.7%
Unable to be reached	633	13.1%
Total number called	4,814	100.0%

Notes: Percentages may not equal 100% due to rounding. Numbers are based on unweighted data.

There were 964 completed calls for Mississauga, 467 for Brampton and 218 for Caledon, yielding response rates of 44%, 45% and 91%, respectively.

Household, Child and Respondent Characteristics

Thirty-seven per cent of the households surveyed consisted of four people, while 31% were made up of three people, 17% of five people and 13% of six or more people (Table 2).

Table 2
Household Composition of Respondents,
Region of Peel, 2002

Household Composition	Per Cent
One person	0.0%
Two people	0.9%
Three people	31.1%
Four people	37.3%
Five people	17.4%
Six people	8.6%
Seven or more people	4.7%
Total	100.0%

Fifty-three per cent of mothers indicated that they had one child six years of age or younger, while 40% had two children six or under and 7% had three children aged six or younger (Table 3). While not shown here, single mothers (69%) and mothers in common-law relationships (70%) were more likely to have just one child six years or under than were married mothers (50%). There was also a higher proportion of mothers who were recent immigrants to Canada, i.e. had immigrated within five years or less, having only one child aged six or less (67%), compared to immigrants who had lived here six years or longer (50% with one child in this age group).

Table 3
Number of Children 0 to 6 Years in Respondent Households,
Region of Peel, 2002

Number of Children Aged 0 – 6 Years	Per Cent
One child	53.1%
Two children	40.0%
Three children	6.5%
Four children	0.3%
Five children	0.1%
Total	100%

Overall, 54% of respondents had only one child, 40% had two children and 6% had three or more children of any age (i.e. the children could be older than six years of age).

Thirty-one per cent of respondents had a youngest child who was less than one year old, 44% had a youngest child who was one year old and 24% had a youngest child who was two years old at the time of the survey (Table 4).

Table 4
Age of Respondents' Youngest Child,
Region of Peel, 2002

Age Group	Per Cent
Less than 1 year old	30.9%
1 year old to just under 2 years old	44.1%
2 years old to just under 3 years old	23.6%
3 years of age or older	0.1%

Age and Marital Status

The age and marital status of survey respondents was compared to information from the 1999 Ontario Live Birth Database for Peel (Tables 5 and 6). Higher proportions of mothers in the 30-34, 35-39 and 40-44 year age groups suggest that the survey respondents were slightly older than mothers who gave birth in 1999. Respondents who were married made up a slightly larger proportion of the total as compared to mothers giving birth in 1999; conversely, the proportion of single mothers was slightly higher in the Ontario Live Birth Database.

Most survey respondents were 30 years of age or older, with 39% being 30-34 years and 27% being 35-39 years of age. In addition, most mothers (86%) were married, while 7% were living in common-law arrangements. Only 6% of the mothers surveyed were single and had never been married.

Table 5:
Comparison of Maternal Age between 2002 Study Respondents and Mothers in the 1999 Ontario Live Birth Database

Mothers' Age Group	Respondents (n = 1507)	Ontario Live Birth Database for Peel, 1999
10 - 14 yrs	0.1%	0.0%
15 - 19 yrs	1.1%	2.5%
20 - 24 yrs	6.5%	12.0%
25 - 29 yrs	18.5%	30.9%
30 - 34 yrs	39.1%	35.3%
35 - 39 yrs	26.5%	16.8%
40 - 44 yrs	5.1%	2.4%
45 - 49 yrs	0.8%	0.1%
50+ yrs	0.0%	0.0%
Unknown	2.3%	0.1%
Total	100.0%	100.0%

Sources: Region of Peel Pre-School Health Survey 2002; Ontario Live Birth Database 1999, distributed through the Health Planning System by the Ontario Ministry of Health and Long-Term Care.

Table 6
Comparison of Marital Status between 2002 Study Respondents and Mothers in the 1999 Ontario Live Birth Database

Mothers' Marital Status	Respondents (n = 1507)	Ontario Live Birth Database for Peel, 1999
Married	86.1%	81.9%
Common law	6.5%	n/a
Separated	1.5%	0.0%
Divorced	0.3%	0.5%
Single	5.5%	9.6%
Widowed	0.0%	0.1%
Refused	0.1%	n/a
Unknown	0.0%	7.9%
Total	100.0%	100.0%

Notes: n/a = not applicable. Percentages may not equal 100% due to rounding.
Sources: Region of Peel Pre-School Health Survey 2002; Ontario Live Birth Database 1999, distributed through the Health Planning System by the Ontario Ministry of Health and Long-Term Care

Home Language

The majority of respondents spoke English most often in the home (81%), while 18% indicated a language other than French or English (Table 7). This is somewhat different than the findings of the 2001 Census, in which 64% of the population spoke English most often in the home. This result may be a function of the fact that the survey was only provided in English; 6% of those contacted to participate in the survey could not because of a language barrier (Table 1).

Although not shown, respondents from Mississauga were less likely to speak English most often in the home (77%), compared to 85% of respondents from Brampton and 96% of respondents from Caledon.

Table 7
Comparison of Language Most Often Spoken in the Respondents' Home, Region of Peel, 2002 and Census of Canada, 2001

Language	Respondents (n = 1507)	2001 Census (Peel)
English	80.6%	64.1%
Punjabi	2.9%	3.1%
Chinese (incl. Cantonese, Mandarin)	2.1%	3.2%
Urdu	2.1%	0.6%
Spanish	1.6%	0.5%
Arabic	1.4%	0.4%
Polish	1.2%	1.2%
Portuguese	0.9%	0.7%
French (incl. French + English)	0.8%	0.2%
Gujarati	0.7%	0.2%
Hindi	0.6%	0.2%
Tamil	0.5%	0.4%
Twi	0.5%	n/a
Italian	0.4%	0.5%
Croatian	0.3%	0.1%
Filipino	0.3%	0.4%
German	0.3%	0.0%
Other	2.9%	24.0%
Total	100.0%	100.0%

Notes: 2001 Census data are based on information for both sexes combined. The "Other" category includes 23% of the population reporting more than one language. N/A = not available. Percentages may not equal 100% due to rounding.
Sources: Region of Peel Pre-School Health Survey 2002; Statistics Canada 2001 Census of Canada.

Place of Birth

Overall, 60% of respondents were born in Canada. The proportion of Canadian-born respondents ranged from 57% in Mississauga to 81% in Caledon (Table 8).

Table 8
Proportion of Canadian-born Respondents by Municipality, Region of Peel, 2002

Municipality	Per Cent
Brampton	62.5%
Caledon	81.2%
Mississauga	57.4%
Peel Total	60.2%

Among those who were foreign-born, 22% had lived in Canada for five years or less, 23% had lived in Canada between 6 and 10 years, and 55% had lived in Canada for more than 10 years (Table 9).

Table 9
Proportion of Foreign-born Respondents by Length of Time in Canada, Region of Peel, 2002

Number of Years Lived in Canada	Per Cent
0 – 5 yrs	22.2%
6 – 10 yrs	23.1%
11 – 20 yrs	26.5%
21 – 30 yrs	21.6%
31 – 40 yrs	6.5%
More than 40 yrs	0.1%
Total (Foreign-born)	100.0%

Ethnic or Cultural Group

When asked to which ethnic or cultural group their ancestors belonged, 16% of respondents indicated they were Canadian, 19% identified South Asian, 14% responded that they were English, and 10% identified Italian (Table 10). These four categories were among the top six ethnic groups identified in the 2001 Census for Peel.

Table 10
Comparison of Ethnic or Cultural Group of Respondents, Region of Peel, 2002 and Census of Canada, 2001

Ethnic or Cultural Group	Respondents (n = 1507)	2001 Census (Peel)
South Asian	18.6%	15.9%
Canadian	15.6%	19.2%
English	13.9%	16.3%
Italian	10.1%	8.6%
Scottish	8.0%	10.8%
Irish	7.9%	10.3%
Portuguese	4.9%	5.2%
French	4.8%	5.0%
Black	4.6%	1.3%
German	4.0%	4.7%
Chinese	3.2%	4.9%
Polish	2.9%	5.3%
Dutch	1.9%	1.9%
Ukranian	1.8%	2.4%
North American Indian	0.5%	0.8%
Jewish	0.2%	0.4%
Metis	0.1%	0.2%
Inuit/Eskimo	0.1%	0.0%
Other	16.7%	26.3%
Unknown	2.6%	n/a
Total	100.0%	100.0%

Notes: 2001 Census data are based on information for both sexes combined.
Percentages do not sum to 100% due to multiple response options. N/A = not applicable.
Sources: Region of Peel Pre-School Health Survey 2002; Statistics Canada 2001 Census of Canada.

Highest Level of Education

With respect to educational attainment, 68% of respondents had completed college, university or more, while 9% started but did not complete college or university, and 22% completed high school or less (Table 11). This demonstrates that the survey group was somewhat more educated than the population at large, as in the Census, only 47% completed college or university, while 37% had completed high school.

Table 11
Comparison of Highest Level of Education Attained by Respondents, Region of Peel, 2002 and Census of Canada, 2001

Mother's Highest Level of Education	Respondents (n = 1507)	2001 Census (Peel)
Public school	0.1%	7.6%
High school	21.6%	29.5%
Some college	5.7%	7.0%
Some university	3.3%	8.3%
Completed college	29.6%	26.9%
Completed university	28.9%	20.7%
Postgraduate degree	9.1%	n/a
Refused	0.3%	n/a
Unknown	1.4%	n/a
Total	100.0%	100.0%

Notes: 2001 Census data are based on information for both sexes combined. N/A = not applicable.
Sources: Region of Peel Pre-School Health Survey 2002; Statistics Canada 2001 Census of Canada.

Employment and Household Income

Approximately two-thirds (65%) of respondents were currently employed at the time of the survey. Over one-third (35%) reported that their household income was $80,000 or higher (Table 12). Fewer proportions of survey respondents reported incomes at the lower levels compared to the population as a whole; however, because 14% of respondents refused to give income information, it is difficult to determine whether the Pre-School survey sample was in fact comparable to the population of Peel with respect to income level.

Table 12
Comparison of Household Income of Respondents, Region of Peel, 2002 and Census of Canada, 2001

Household Income Level	Respondents (n = 1507)	2001 Census (Peel)
< $10,000	1.0%	3.5%
$10,000 - $19,999	1.2%	5.4%
$20,000 - $29,999	4.5%	6.4%
$30,000 - $39,999	7.1%	8.2%
$40,000 - $49,999	6.8%	8.7%
$50,000 - $59,999	9.9%	9.1%
$60,000 - $69,999	9.2%	9.4%
$70,000 - $79,999	7.1%	8.6%
$80,000 +	34.9%	40.7%
don't know	4.8%	n/a
refused	13.6%	n/a
Total	100.0%	100.0%

Note: N/A = not applicable
Sources: Region of Peel Pre-School Health Survey 2002; Statistics Canada 2001 Census of Canada.

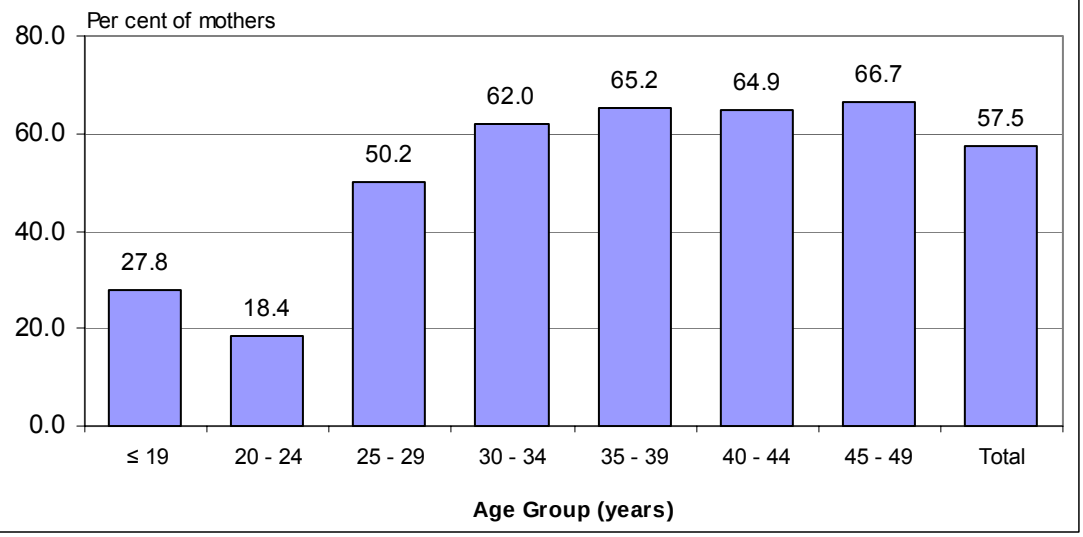
Preconception Health and Folic Acid Supplementation

An increased intake of folic acid by women prior to pregnancy reduces the risk of Neural Tube Defects (NTDs).[4,5] NTDs are birth defects that affect the brain and spinal cord, and may result in serious disability, including paralysis or death. NTDs include spina bifida, anencephaly and encephalocele.

NTDs can occur in the first month of pregnancy as the neural tube is developing, which is often at a time when a woman may not even know she is pregnant.[6] For this reason, folic acid needs to be included in the diet before conception and during early pregnancy. Vitamin supplements that contain 0.4 milligrams of folic acid should be taken every day at least three months before a woman becomes pregnant and continued through the first three months of pregnancy.

Survey respondents were asked whether they took a vitamin supplement containing folic acid before becoming pregnant the most recent time. Overall, 58% of mothers reported taking such a supplement. Figure 1 depicts these results by age of the mother. Women aged 30 or older were more likely to have taken folic acid supplementation than younger women.

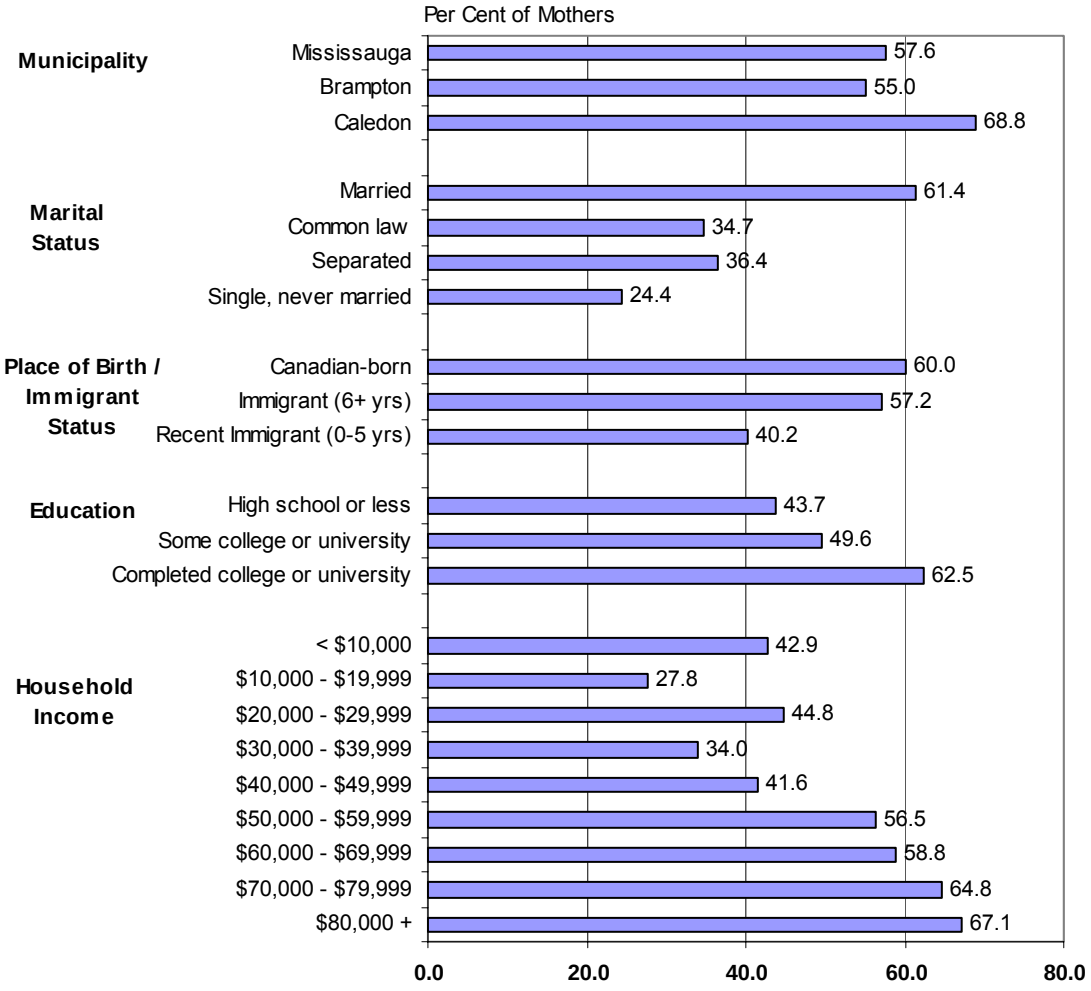
Figure 1
Proportion of Mothers Who Took a Vitamin Supplement containing Folic Acid prior to Pregnancy, by Age Group Region of Peel, 2002



Results from the 2000-2001 Canadian Community Health Survey showed that 57% of Peel and 52% of Ontario mothers who had given birth in the past five years reported having taken a vitamin supplement containing folic acid before their last pregnancy.

Figure 2 shows folic acid supplementation prior to pregnancy by selected characteristics of respondents. Mothers who lived in Caledon, were married, completed college or university, or had higher levels of income were also more likely to have taken vitamin supplements containing folic acid prior to pregnancy than were other women.

Figure 2
Proportion of Mothers Who Took a Vitamin Supplement containing Folic Acid prior to Pregnancy, by Selected Characteristics, Region of Peel, 2002



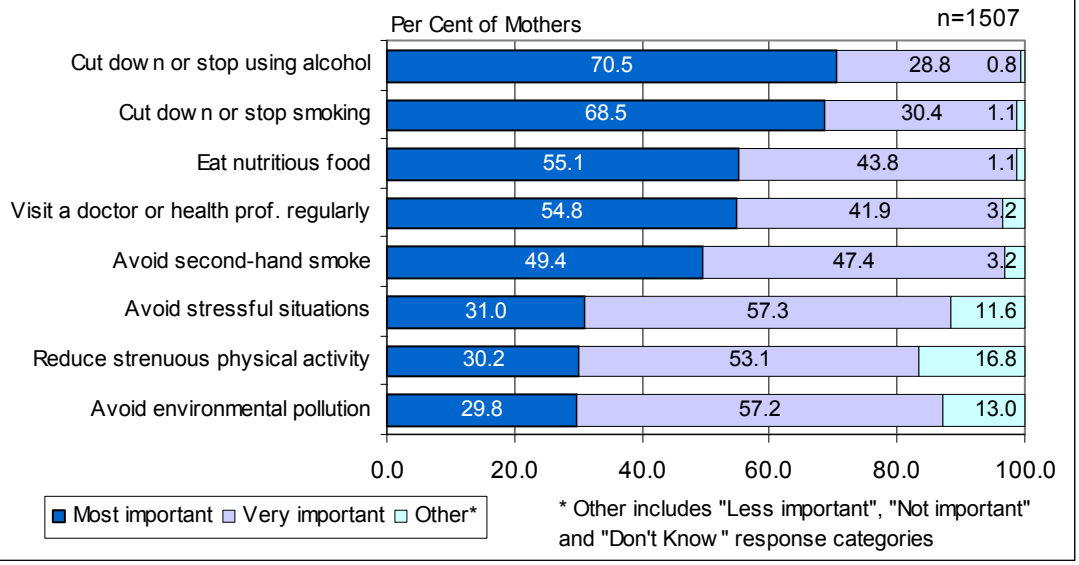
Knowledge of Risk Factors during Pregnancy

It is well recognized that certain factors during pregnancy can have adverse effects on the developing fetus and health of the newborn after delivery. For example, smoking during pregnancy has been implicated in causing low birth weight, prematurity and intrauterine growth retardation.[7]

In order to gauge mothers' awareness and knowledge of health issues concerning pregnant women, respondents were asked a series of questions about a variety of health behaviours. These included behaviours such as reducing or eliminating the use of alcohol and tobacco, eating nutritious food, visiting a doctor or health professional on a regular basis, avoiding second-hand smoke, stressful situations or environmental pollution and reducing strenuous physical activity. Mothers were asked their opinions as to whether each of these was "the most important thing to do", "a very important thing to do", "a less important thing to do" or "not important to do".

The vast majority of mothers felt that all of these behaviours were either "the most important thing to do" or "a very important thing to do" (87% to 99%). However, reduction of both alcohol use and smoking were ranked as most important (Figure 3). This result was found regardless of regional or demographic factors such as age, marital status or income.

Figure 3
Mothers' Perceived Importance of Selected Pregnancy and Health Issues, Region of Peel, 2002



Alcohol consumption during pregnancy can cause a series of adverse health effects known as Fetal Alcohol Syndrome (FAS). Research examining the levels

of alcohol consumed compared to the severity of health effects on the child has been found to be equivocal, resulting in no amount of alcohol being determined to be safe.[8] For this reason, physicians and public health officials recommend against having any alcohol if a woman knows or suspects she is pregnant: "The prudent choice for women who are or may become pregnant is to abstain from alcohol".[9]

Mothers were asked their perceptions on how safe they thought it was for a pregnant woman to drink certain amounts of alcohol, while taking into consideration the health effects on the baby. Respondents felt that the safety level decreased with increasing amounts or frequency of alcohol used during pregnancy (Table 13).

Table 13
Mothers' Perceptions of the Safety of Different Levels of Alcohol Use during Pregnancy, Region of Peel, 2002

Level of Alcohol Use by Pregnant Woman	Mothers' Perceptions of Safety			
	Not at all safe	Not very safe	Somewhat safe	Very safe
3-4 drinks each weekend	82.8%	15.6%	0.9%	0.1%
1 drink each day	77.3%	16.4%	5.3%	0.3%
2 drinks on 2-3 occasions	55.0%	14.8%	26.5%	2.9%
1-2 drinks in total	42.8%	8.6%	33.2%	14.8%

Note: Respondents were asked "Considering the effects on the baby, do you think it would be very safe, somewhat safe, not very safe, or not at all safe for a pregnant woman to drink each of the following amounts of alcohol?"

When these results were examined by municipality, mothers from Caledon were less likely to report that alcohol use was not at all safe (Table 14).

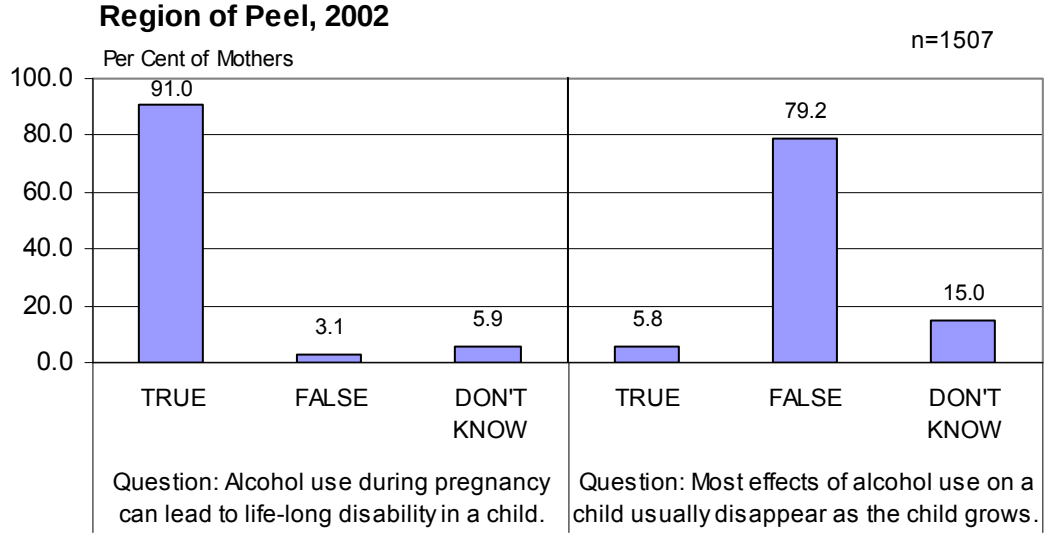
Table 14
Proportion of Mothers Reporting Alcohol Use during Pregnancy as Not at All Safe, by Level of Alcohol Use and Municipality, Region of Peel, 2002

Level of Alcohol Use by Pregnant Woman	Municipality			
	Mississauga	Brampton	Caledon	Peel Total
3-4 drinks each weekend	82.1%	85.2%	78.4%	82.5%
1 drink each day	75.9%	81.2%	71.6%	76.8%
2 drinks on 2-3 occasions	53.3%	60.4%	42.7%	53.9%
1-2 drinks in total	41.3%	47.8%	31.7%	41.8%

Although not shown here, mothers in the lowest income category, as well as those in the highest income category, were less likely to perceive even low levels of alcohol as being unsafe.

Respondents were asked two true or false questions on the topic of Fetal Alcohol Syndrome: “Alcohol use during pregnancy can lead to life-long disabilities in a child” and “Most of the effects of alcohol use on a child usually disappear as the child grows”. The majority of respondents (91%) correctly identified that alcohol use during pregnancy can lead to life-long disabilities in a child. However, 9% of respondents either did not know or answered incorrectly (Figure 4).

Figure 4: Mothers' Responses to Questions about Fetal Alcohol Syndrome, Region of Peel, 2002



Seventy-nine per cent of respondents answered the second question correctly; however, a much larger proportion (21%) either did not know that the effects of alcohol use on a child would not disappear as the child grew or answered incorrectly.

No differences were observed among age groups, education levels, income levels or municipalities with respect to the proportions of mothers answering correctly to these two questions. However, those who were foreign-born, and especially those who were recent immigrants, had much higher proportions of respondents not knowing whether or not the effects of alcohol use on a child would disappear as the child grew, at 21% and 29%, respectively.

Child Health and Parenting

Access to health services and information

The ability to access health information and services when needed is extremely important to parents of small children. It is especially difficult when first-time parents are presented with problems for which they have no experience, and their young child cannot tell them what is wrong. The majority of Peel residents appear to be well-linked to family physicians, and have access to various resources available through community centres, telephone information lines, the internet and the public health department.

Nearly all mothers (99%) reported having a family physician or paediatrician, and among those, 84% indicated that they had not had difficulty getting an appointment for their child within the previous 12 months. Of the 16% of mothers who had had difficulty, most expressed concerns that the wait was too long, the office hours were not convenient, the doctors were too busy to see them or the doctor was unavailable because of being on-call, ill or on maternity leave (Table 15). No trends or differences were seen among the various demographic groups examined, including those who immigrated within the past 5 years.

Table 15
Reason for Difficulty in Getting Appointments with Family Physicians or Paediatricians in the Past 12 Months, Region of Peel, 2002

Reason for Difficulty in Getting Appointments (n=234)	Per Cent
Wait is too long to get appointment	74.4%
Office hours not convenient	14.1%
Doctor is too busy (too many patients)	9.4%
Doctor is not available (on-call, ill, maternity leave)	6.0%
Telephone line is busy and can't get through	3.0%
Can't get or find doctor	3.0%
No appointments available on short notice	1.7%
Distance to office too far	1.7%
Other	5.1%

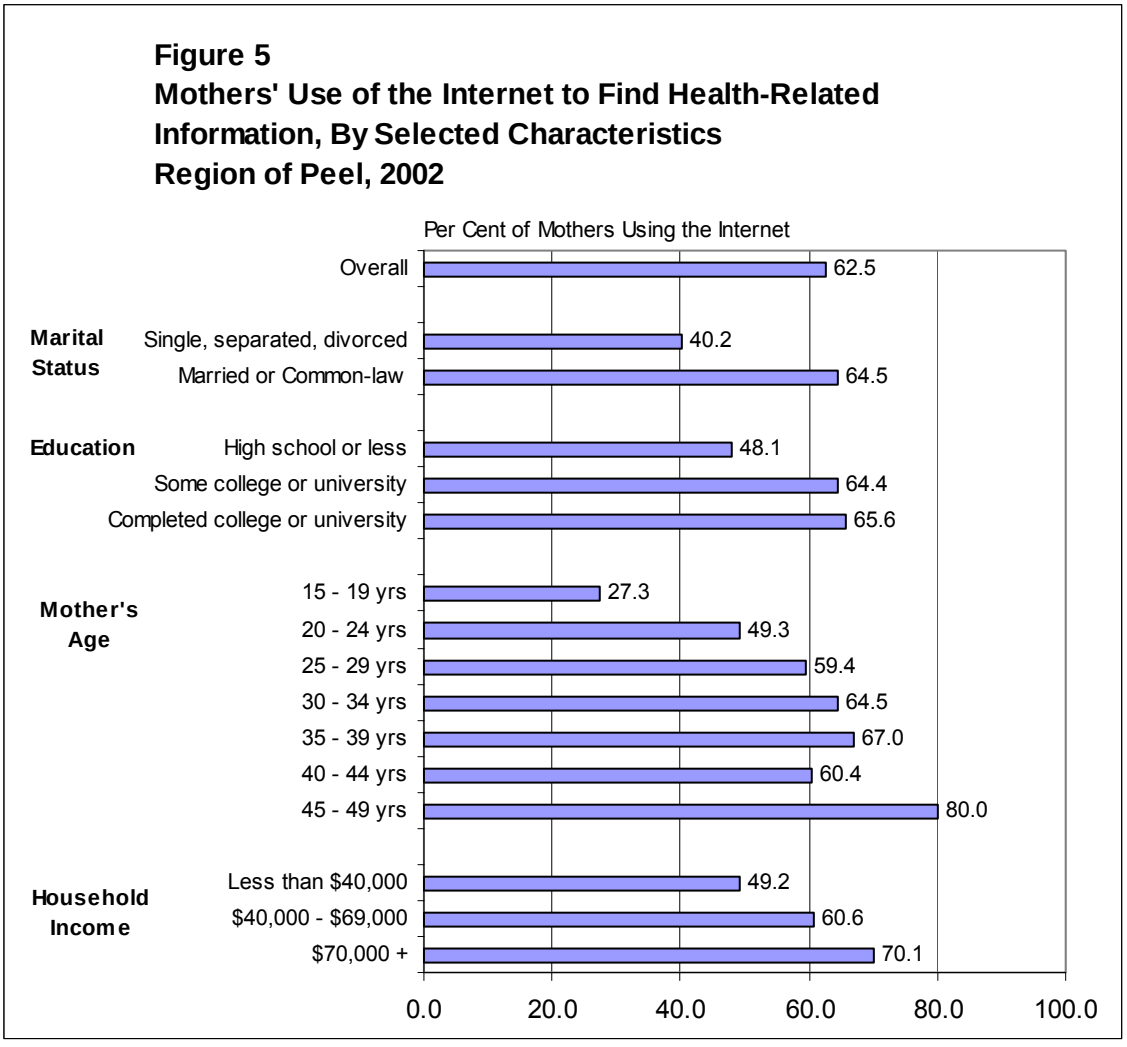
Notes: Only those reporting having difficulties accessing their family doctors are included in this analysis.
Percentages do not sum to 100% due to multiple response options.

Fifty-eight per cent of mothers reported that they had made use of a walk-in clinic to take their youngest child to see a doctor.

Almost three-quarters of mothers (73%) reported using the internet. These results varied by certain demographic groups. For example, lower proportions of mothers in the youngest and oldest age groups reported using the internet compared to mothers in the other age groups. Those with higher levels of education and higher incomes were more likely to use the internet than were those with lower education or income.

Among mothers who had used the internet, 63% had used the internet to obtain health-related information, and 60% had used the internet to find information on parenting. These results varied depending on the demographic characteristics of the mother (see Figures 5 and 6).

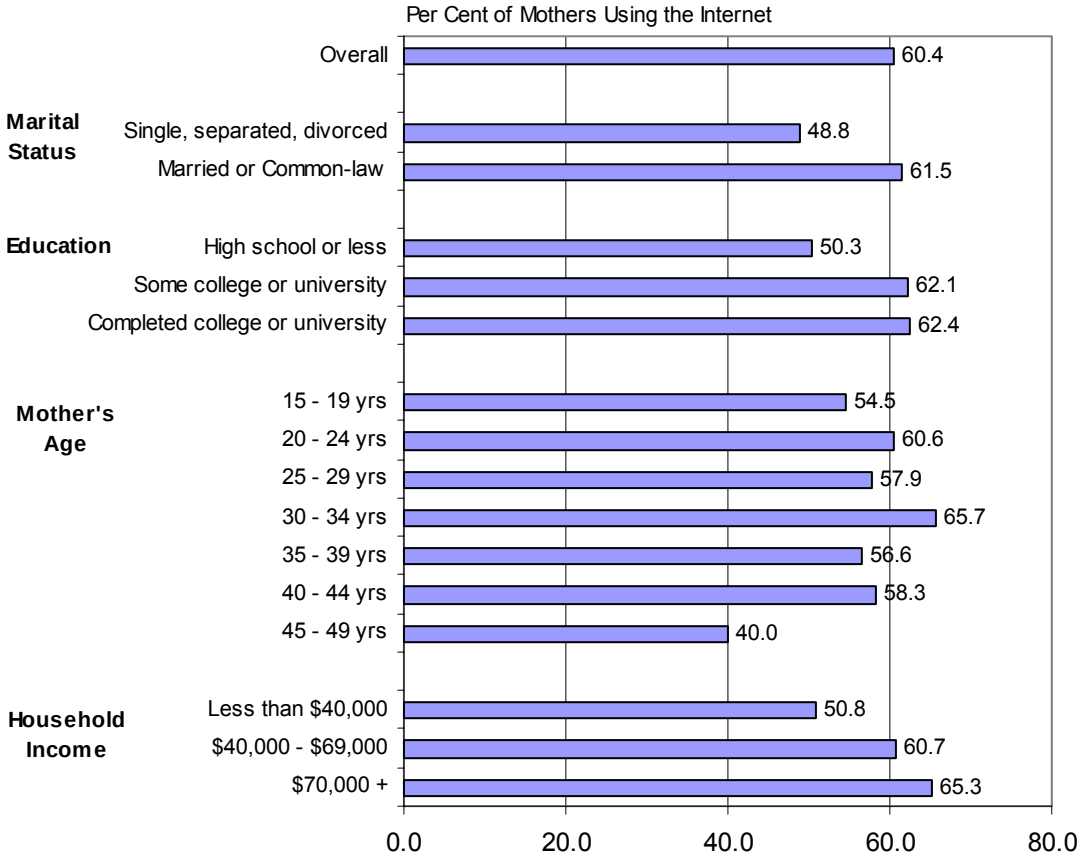
Figure 5
Mothers' Use of the Internet to Find Health-Related Information, By Selected Characteristics
Region of Peel, 2002



Lower proportions of mothers with an education equivalent to high school or less reported using the internet to find health-related information compared to those with higher levels of education (Figure 5). There was a trend towards increasing

use of the internet to access health-related information with increasing age of the mother. Mothers from households with incomes of $70,000 or more were more likely to use the internet to obtain health-related information than were mothers with incomes of less than $40,000, although there were no significant differences compared to the middle income group ($40,000 to $69,999). Mothers who were married or in common-law relationships were more likely to use the internet to find health-related information than mothers who were single, separated or divorced.

Figure 6
Mothers' Use of the Internet to Find Parenting Information, by Selected Characteristics, Region of Peel, 2002



Trends were somewhat similar for parenting-related information, except that lower proportions of mothers aged 45-49 accessed parenting information on the internet compared to mothers in the other age groups (Figure 6).

Mothers were also asked where they go to obtain information about parenting or children's health (Table 16). The most common sources of information included

friends and family (51%), books and library resources (43%), doctors (43%) and magazines (40%). Ten per cent of mothers reported obtaining information from Health Department services, including Health Line Peel, Healthy Babies Healthy Children Family Visitors and Nurses, Healthy Start Nurses and New Baby Clinics, while 9% had used the TeleHealth Ontario telephone information line.

Table 16
Mothers' Reported Sources of Parenting and Child Health Information, Region of Peel, 2002

Sources of Parenting and Child Health Information	Per Cent
Friends, family	50.8%
Books, Library	43.3%
Doctor	42.9%
Magazines, pamphlets, other printed	39.5%
TeleHealth Ontario telephone line	8.9%
Internet	7.4%
Hospital	5.6%
Health Department information	**5.1%**
Health Department "Health Line Peel"	**3.3%**
Television	3.2%
Community centres (parent-child, drop-in)	3.0%
Newspapers	2.7%
Professional training, experience	2.3%
Health Department nurses, visitors, other	**1.6%**
Prenatal programs (not specified)	1.3%
Pharmacy	1.3%
Support groups (mother, teen, parent)	1.3%
Work, co-workers or relates to job	0.7%
Other Health Lines (SickKids, MotherRisk)	0.7%
Other	2.3%

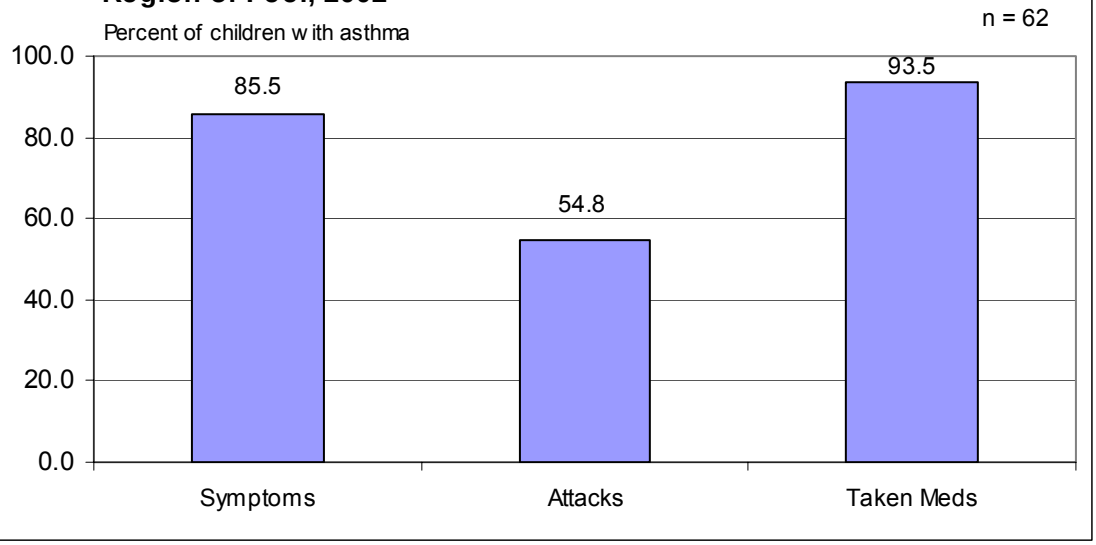
Note: Percentages do not sum to 100% due to multiple response options.

Asthma

Asthma is a chronic respiratory illness, affecting people of all ages, but is more prevalent among children and adolescents. When bronchial tubes become inflamed and swollen, the flow of air to the lungs becomes blocked, resulting in wheezing, coughing, tightness of the chest, shortness of breath and an increased production of mucus. Symptoms can range from mild to life-threatening.

In this survey, mothers were asked if their youngest child had asthma that had been diagnosed by a health professional. Only four per cent of mothers said that their child had asthma. However of these, 86% had had symptoms within the past year, about half (55%) had had an asthma attack, and nearly all (94%) had taken prescription medicine for their symptoms.

Figure 7
Proportion of Children Diagnosed with Asthma Who Had Symptoms, Attacks or Taken Medication, Region of Peel, 2002



Responses to the prevalence of asthma question did not vary widely based on municipality of residence, age of the mother, marital status, education level, income level or country of birth. Similarly, no significant differences were observed in the use of prescribed medications for asthma based on these demographic characteristics.

Return to school has been postulated as one explanation for a summer trough and fall peak seen in seasonal patterns of asthma hospitalizations among children aged 10 and younger.[10] However, findings from the present study did not show any differences in the proportion of children diagnosed with asthma

when comparing whether these children were cared for in daycares and nursery schools (49% with asthma) versus the home (51% with asthma).

Prevalence rates of asthma among Canadian children aged 5 to 19 have been reported to be as high as 13%.[11] However, this proportion is based on data that exclude children less than five years of age. While comparisons are not available from other jurisdictions, the fact that asthma is the leading cause of hospitalization among one to nine year-olds in Peel[3] suggests that asthma is a common condition.

Car Seat Safety

Correctly used child restraints can prevent about 70% of motor vehicle collision-related injuries and deaths.[12] During 2002 in Canada, less than 20% of all car seats checked were correctly installed, meaning that four out of every five children were not properly restrained in their car seats.[12] Common car seat installation mistakes include placing rear-facing infant carriers in a forward-facing position, improper use of the tether strap, failure to use locking clips on seat belts and improper tightening of seat belts.[13] In Ontario, the penalty for not ensuring that a child is properly secured in a vehicle is $110.00 and two demerit points against the driver's licence.[14,15]

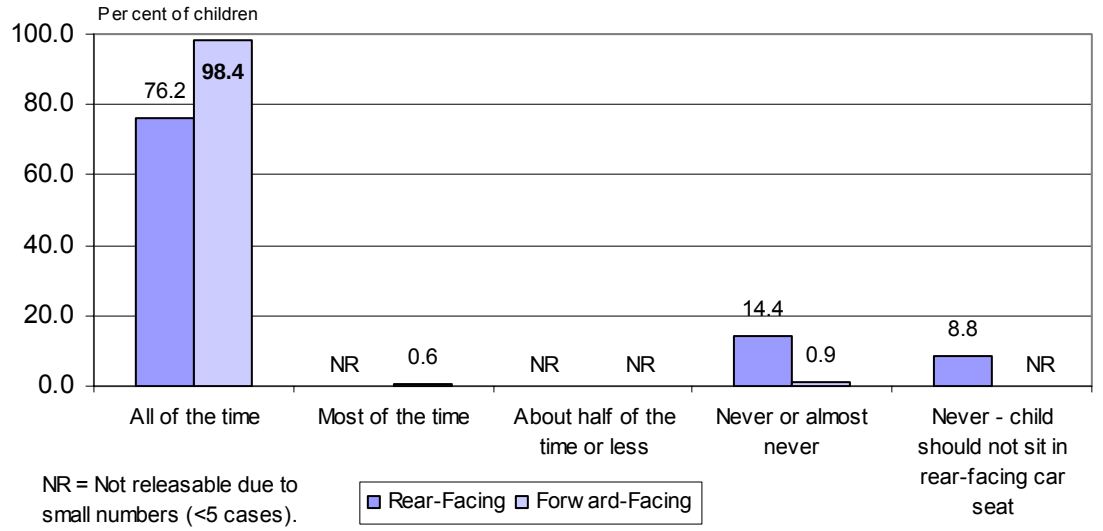
Requirements for car seats or restraints vary depending on the weight and height of the child.[12] Rear-facing infant seats should be used from birth until the child weighs 10 kilograms (22 pounds); these should never be placed in a seat equipped with an air bag. Forward-facing child seats are intended to be used when the child weighs 10 -18 kilograms (22 - 40 pounds) and can independently pull to a standing position. These seats must be anchored to the vehicle frame using a tether strap. Booster seats are used for children weighing 18 kilograms (40 pounds) or more. The purpose of these seats is to raise the sitting height of the child to make the adult seat belt assembly (lap and shoulder harness) fit properly. Seat belts may be used when the child reaches 27 kilograms (60 pounds), although some booster seats can accommodate children weighing up to 100 pounds.[16] The lap belt should be worn low on the hips, while the shoulder belt should be worn over the shoulder and across the chest, not behind the back or under the arm, as this could cause serious injury or death.[16]

Mothers in the survey were asked their children's weight and age in order to determine whether or not rear- and forward-facing car seats were being used properly. A total of 1459 mothers provided sufficient information for this analysis.

Out of the 319 mothers whose children were aged less than one and weighed less than 22 pounds, 76% said that their child always travelled restrained in a rear-facing car seat. Some misunderstanding about the use of these seats was demonstrated, as 9% of mothers believed that the child should never be in a rear-facing car seat (Figure 8). No differences were found among the demographic variables examined.

Out of the 901 mothers whose children were aged one or older and weighed 22 pounds or more, 98% said that their child always travelled restrained in a forward-facing car seat (Figure 8). These results did not vary by any of the demographic variables examined.

Figure 8
Proportion of Children Travelling in Appropriate Car Seats, Region of Peel, 2002



Among all children for whom age and weight were provided (n=1459), 78% were restrained in car seats appropriate to their age and weight. One limitation to the survey design was that it was conducted over the telephone rather than in person, thus observations of whether the child's car seat was installed correctly and used appropriately could not be obtained.

The back seat of the vehicle is the safest place in which children can travel.[16] Transport Canada recommends that children aged 12 and younger be properly restrained in the back seat, especially if there is a front passenger air bag in the vehicle.[12] Nearly all mothers (99%) reported that their children always travelled in the back seat of the vehicle, and there were no differences amongst demographic groups for this question.

Child Care

Many parents of young children make use of different types of child care.[1] Factors that can influence whether or not parents use child care include the age and employment status of the mother, and the composition of the family. Children of mothers who work and children of single mothers are more likely to be in child care compared to children of mothers who do not work or mothers who are married.[17]

In the present survey, mothers were asked if they currently made use of child care such as day-care, babysitting, care by a relative or other caregiver, and if so, for how many hours each week. Almost half (49%) of all mothers reported that they used some form of child care. Table 17 shows the percentage of mothers using child care by various demographic characteristics.

Table 17
Child Care Use, By Selected Demographic Characteristics of the Mother, Region of Peel, 2002

Selected Demographic Characteristics of the Mother		Per Cent Using Child Care
Overall		49.2%
Employment Status	Employed	86.4%
	Not employed	13.4%
Marital Status	Separated	78.3%
	Single	64.6%
	Married	48.1%
	Common law	45.9%
Place of Birth / Immigrant Status	Canadian-born	53.3%
	Foreign-born: New Immigrant (0-5 yrs)	30.7%
	Foreign-born: Immigrant (6+ yrs)	47.1%
Education	High school or less	40.4%
	Some college or university	49.3%
	Completed college or university	52.0%
Household Income	< $40,000	42.9%
	$40,000 to $69,999	39.2%
	> $70,000	58.4%

Eighty-six per cent of mothers using child care were employed compared to 13% who were not employed. Mothers who were single (65%) or separated (78%) were more likely to use child care than mothers who were married (48%) or living

in common-law relationships (46%). Those mothers who were new immigrants (31%) and those in the lowest education group (40%) were not as likely to report use of child care. Mothers with household incomes in the highest category (58%) were more likely to use child care than mothers from the middle (39%) or lowest income categories (43%).

Of mothers reporting use of child care, 39% indicated that it took place in their own home, more often by a relative (32%) than a non-relative (7%) (Table 18). Care outside of the home was most often provided in another person's home that was not a licensed day-care (21%).

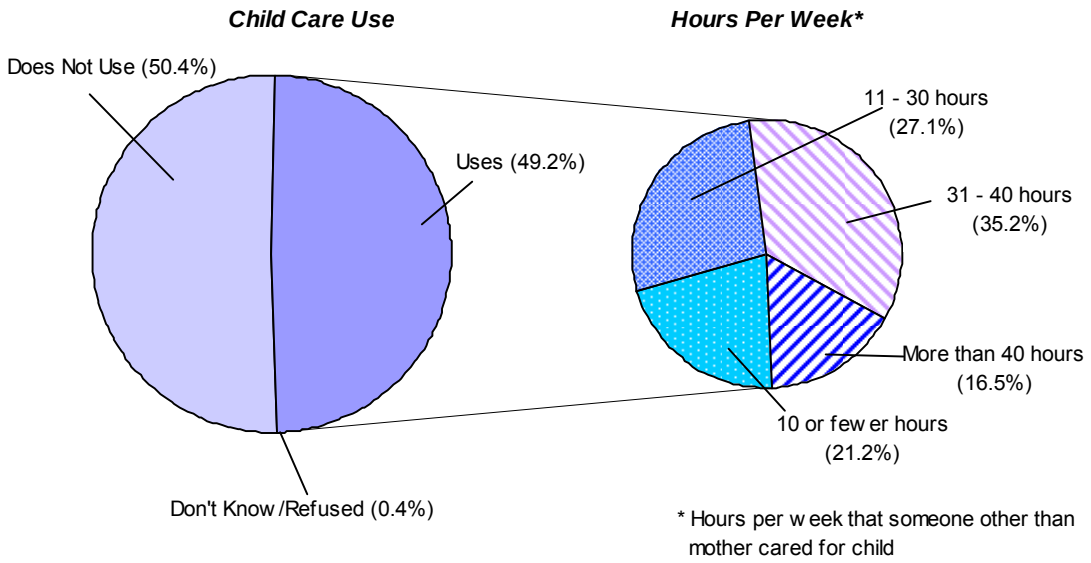
Table 18
Type of Child Care among Those Using Child Care,
Region of Peel, 2002

Types of Child Care Used (n = 742)	Per Cent
Care in own home - by relative	32.4%
Care in own home - by non-relative	6.8%
Subtotal Care in own home	**39.2**%
Care outside of the home - other's home - licensed	12.7%
Care outside of the home - other's home - not licensed	20.6%
Care outside of the home - day care	15.4%
Care outside of the home - nursery school	1.7%
Care outside of the home - other	10.4%
Subtotal – Care outside of the home	**60.8**%

The provision of child care by a relative was more often used by younger mothers, single mothers, new immigrants, and those of lower income groups (data not shown).

Among mothers using child care, more than half reported that their child was looked after by someone other than themselves for over 30 hours per week (Figure 23).

Figure 9
Child Care Use, by Hours per Week, Region of Peel, 2002



Dental Health Practices

Oral health is an area which is often over-looked, but plays an important role in general well-being. In children, dental disease can cause abscesses in the mouth and undue pain, which can affect eating, sleeping and growth and development.[18] While oral diseases are seldom life-threatening, there is increasing evidence that some oral conditions such as gum infections can be associated with systemic diseases like diabetes, heart disease and stroke.[18]

To date, there have been no dental health assessments of the pre-school aged child population in Peel. The present survey asked mothers about a variety of dental health behaviours, such as: whether their children take bottles to bed and if so, what are the contents; how often they brush their children's teeth or provide supervision for this activity; and whether their children had ever been taken to see a dentist.

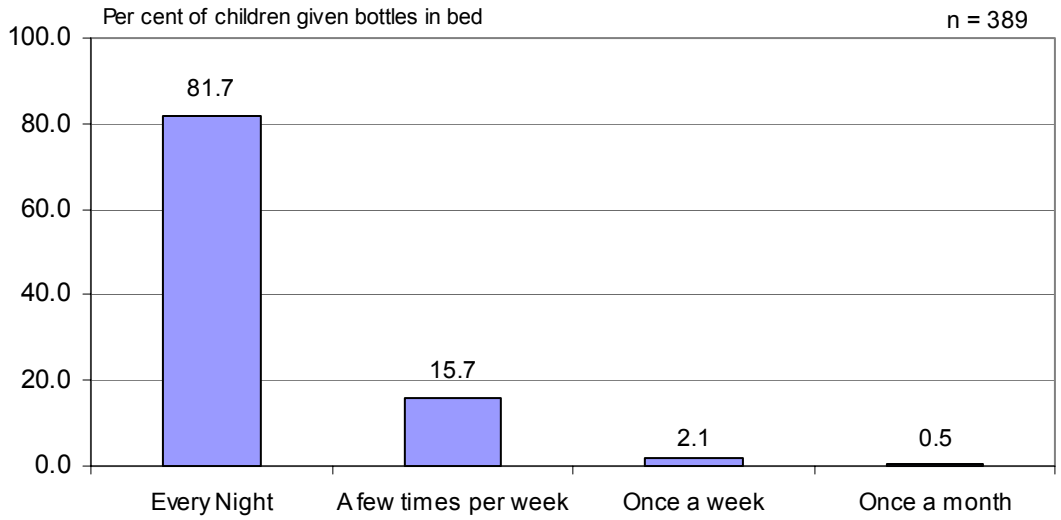
The Canadian Dental Association (CDA) recommends that babies and young children not be given bottles in bed; if bottles must be given, the CDA suggests using plain water.[19] This is because formula, cow's milk, breast milk and fruit juice all contain sugars. Prolonged exposure of the teeth to these sugars can increase the risk of dental caries.[20]

In the present study, 32% of mothers said that their children had taken a drink in a bottle to bed at some point in their lives. Mothers from Caledon were less likely to report that their children had taken a bottle to bed (19%), compared to mothers from either Mississauga (32%) or Brampton (34%). The proportion of mothers reporting that their children had ever taken a bottle to bed decreased with increasing age of the mother, increasing levels of education and increasing levels of household income. Single mothers and mothers who were new immigrants were more likely to report that their children had taken a bottle to bed.

Among mothers who said that their children had taken a bottle to bed, 81% reported that this practice still continued. When asked about the frequency of their children taking a bottle to bed, 82% of these mothers said bottles were taken to bed every night (Figure 10). The most commonly reported contents of the bottles included milk (75%), water (14%), formula (12%) and juice (8%), followed by other contents such as cereal mixtures, diluted juice or breast milk.

Among those mothers who had already discontinued the practice of allowing their child to take a bottle to bed, 61% reported that their child had stopped by the age of one year.

Figure 10
Frequency of Taking Bottles to Bed among Children Currently Being Given Bottles in Bed, Region of Peel, 2002

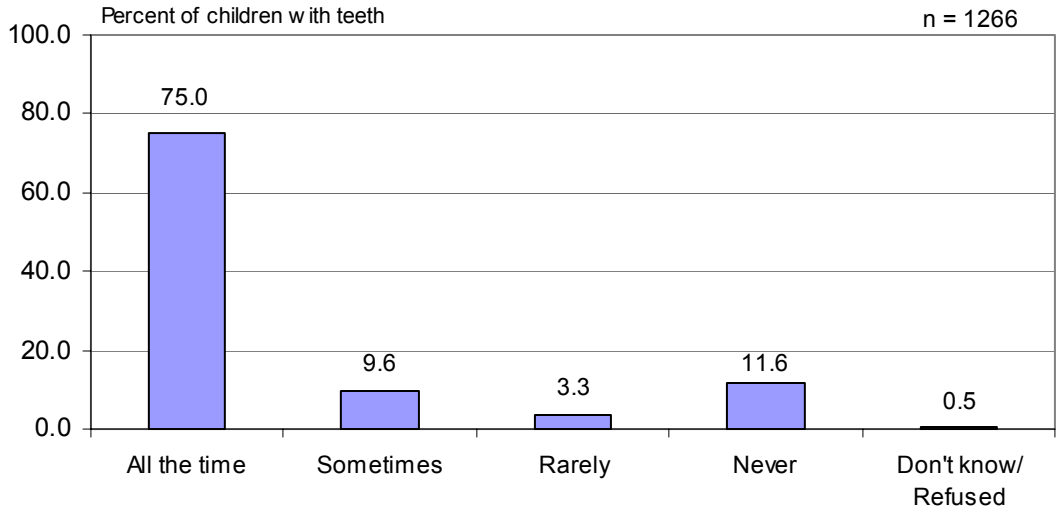


The majority of mothers (84%) reported that their children had teeth to brush. Among these, 75% of mothers said that they either brushed their children's teeth or supervised when they were brushing their teeth all the time (Figure 11). However, 15% said they rarely or never brushed or supervised the brushing of their children's teeth. One-half of all mothers indicated that their children swallowed or ate toothpaste when brushing their teeth.

The CDA recommends that children be taken for their first visit to the dentist within six months of the eruption of their first tooth, or around age one.[21] Among mothers whose children had teeth, 90% reported having a family dentist but only 9% had actually taken their youngest child for a visit to the dentist. The majority of those who had taken their child did not report any difficulties or problems in getting their child to the dentist (93%). Most of the dentist visits (75%) occurred in 2002; however, 22% occurred in the preceding year. While 37% of mothers indicated that they planned to take their child to the dentist within the next twelve months, 49% said they weren't planning to take them for more than a year, and 13% did not know when they were next going to take their child to the dentist.

These dental health patterns were consistent across municipalities and demographic characteristics of the mother.

Figure 11
Frequency of Toothbrushing/Supervision of Toothbrushing for Children with Teeth, Region of Peel, 2002



Exposure to Second-hand Smoke

Smoking is a leading cause of premature death and preventable illness, both among smokers and non-smokers.[3,22] Among young children, exposure to second-hand smoke has been associated with the development of pneumonia, bronchitis and other lung diseases, and is a suspected cause of Sudden Infant Death Syndrome (SIDS).[23]

According to the Ontario Health Survey 1996/97, 24% of Peel children aged 12 to 19 were exposed to second-hand smoke in the home; however, children younger than 12 were not included in that survey. The present study asked whether anyone in the household smoked regularly, and what the rules and understandings were with respect to where and when smoking was allowed.

Five per cent of mothers reported that someone in the household regularly smoked inside the home. Table 19 shows that the majority of mothers reported that smoking was not allowed in the home at all (94%), nor was it allowed in vehicles (94%). Although not shown, a total of 90% of mothers reported that smoking was not allowed in their homes or vehicles. This suggests that approximately 10% of pre-school aged children are exposed to some level of second-hand smoke in either the home or vehicle.

Table 19
Reported Smoking Policies in Homes and Vehicles,
Region of Peel, 2002

Smoking Policies in Homes and Vehicles	Per Cent of Mothers
Smoking in the home is not allowed at all	93.7%
Smoking in the home is allowed some of the time	0.8%
Smoking in the home is allowed in certain areas	3.8%
Smoking in the home is allowed except if children are present	0.7%
Smokers do whatever they want when in the home	1.0%
Smoking in the vehicle is not allowed at all	94.4%
Smoking in the vehicle is allowed some of the time	1.7%
Smoking in the vehicle is allowed except if children are present	2.6%
Smokers do whatever they want when in the vehicle	0.8%

No differences were found with respect to municipality or demographics of the mother. The above findings are consistent with the responses of mothers that avoiding second-hand smoke during pregnancy was either one of the most important things to do (49%) or a very important thing to do (47%) (Figure 3).

Family Meals

According to the Vanier Institute of the Family, 45% of the Canadian labour force is made up of parents, thus nearly half of all employed people need to balance the demands of their jobs with the needs of their children.[24] With respect to perceived time stress, women indicate higher levels than men, and married women with children report the highest levels of time stress.[24]

In these days of busy schedules with both parents often working, it is difficult to find the time to eat even one family meal together per day. The benefits of family meal times include that: children are more likely to eat properly balanced meals; important attitudes and habits about eating are developed; useful nutritional information can be shared between adults and children; opportunities to bond with other family members are provided; and communication skills, both conversational and listening, can be improved.[25]

Mothers were asked how many days in the week the whole family ate together. Only 58% reported that the entire family ate together every day (Table 20).

Table 20
Frequency of Family Meals Eaten Together,
Region of Peel, 2002

Frequency of Family Meals Together	Per Cent
Every day	57.5%
5-6 days per week	15.0%
3-4 days per week	13.5%
1-2 days per week	11.2%
1-2 times per month	0.5%
Rarely or never	2.0%
Don't know	0.2%

Although not shown, new immigrant mothers more often reported eating together every day (80%) compared to mothers who were Canadian-born (56%) or mothers who had been immigrants to Canada for more than five years (55%).

Mothers were also asked about the frequency with which their children ate breakfast. The majority of mothers (94%) reported that their children ate breakfast every day. Single mothers and mothers living in common-law relationships reported in slightly lower proportions that their children ate breakfast each day (88% and 89%, respectively), compared to married mothers (95%).

Food Insecurity

"Food insecurity" is a term used to define hunger in developed countries.[26] It is the inability to acquire or consume an adequate quality or quantity of food in a socially acceptable way, or the uncertainty that one will be able to do so.

According to data from the National Population Health Survey, 10% of Canadians, or about 3 million people, were living in food-insecure households in 1998/99.[27] Households having low incomes or those depending on social assistance, those led by female lone-parents or those living in rental accommodation had a higher likelihood of experiencing food insecurity. This condition was found to be associated with poor health, multiple chronic illnesses, obesity, distress and depression.

Mothers were asked whether, in the past 12 months, they or someone in their household: worried that there would not be enough food for the family to eat; did not eat the desired quality or variety of foods; or did not have enough food for the family to eat, because of a lack of money. Five per cent of respondents indicated that they worried about insufficient quantity of food. Nine per cent said that they or someone in the household did not eat the quality or variety of foods they wanted to, and 4% said that someone in fact did not have enough food to eat because of a lack of money at some point in the past 12 months.

Table 21
Food Insecurity by Selected Demographic Characteristics of the Mother, Region of Peel, 2002

Selected Demographic Characteristics of the Mother		…worry there would not be enough food because of a lack of money?	…not eat the quality or variety of food because of a lack of money?	…not have enough food for family to eat because of a lack of money?
Overall		5.1%	8.9%	3.5%
Mother's Age	15 to 19 years	23.5%	29.4%	23.5%
	20 years or more	4.8%	8.6%	3.2%
Marital Status	Separated	31.8%	40.9%	22.7%
	Single	14.6%	20.7%	14.6%
	Married	3.6%	6.9%	2.0%
Education	High school or less	10.1%	15.9%	7.4%
	Some college or university	2.9%	8.0%	3.6%
	Completed college or univ.	3.6%	6.7%	2.2%
Household Income	< $40,000	13.2%	23.4%	8.8%
	$40,000 - $69,999	4.2%	11.4%	3.4%
	> $70,000	1.0%	1.9%	0.6%

Note: Respondents were asked "In the past 12 months, did you or anyone else in your household…?"

Mothers who were single or separated, those with only high school education, and those in the lowest income category were more likely to report worrying about there not being enough food for their family because of a lack of money (Table 21). These groups were also more likely to report that they or someone in their household did not eat the variety or quality of food they wanted, or have enough food at some point in the preceding 12 months.

Injuries

"Injuries" are the effects on the body resulting from a transfer of energy which cannot be tolerated by the body. Forms of energy that cause injury include mechanical (such as the impact from falls), thermal (e.g. burns, hypothermia), chemical, electrical or those related to radiation.[28] "Accidents" are often considered to be events that are unexpected or unintentional, that happen by chance or without an apparent cause.[29] Many health professionals prefer not to use the term "accident" when referring to unintentional injuries, since it is often the case that these injuries could have been prevented through changes in behaviours, either on the part of the child or the caregiver.

There is consensus among experts that most injuries are predictable, preventable events having identifiable risk factors that can be reduced.[30] However, a 1996 Health Canada study on parental attitudes toward unintentional childhood injuries found that parents were less likely to hold the view that these injuries were preventable.[31] The majority of parents felt that injuries to children were only "fairly preventable" (42%) or "somewhat preventable" (32%), whereas 17% felt they were "very preventable" and only 2% said they were "completely preventable".

In the present study, mothers were asked if their youngest child had, in the past 12 months, experienced an injury serious enough to require medical attention by a doctor, nurse or dentist. Injuries were characterized according to the type of injury, body part affected, place of occurrence and reason for the injury. Where the child had sustained more than one injury, details were collected only on the most serious injury as perceived by the mother.

Nine per cent of mothers indicated that their child had been injured in the past 12 months. Of these, 43% of the injuries were cuts, scrapes or bruises, 11% were broken or fractured bones, 9% were burns or scalds, 6% were dislocations, 6% were dental injuries, 5% were concussions, and 2% were sprains or strains (Table 22).

Of the body parts affected, 31% mentioned head or neck, 27% involved arms or hands, 20% involved face or scalp and 10% involved legs or feet (Table 23).

The majority of these injuries occurred either inside the child's own home or apartment (66%) or just outside the home or apartment, including the yard or driveway, parking lot, or other shared areas related to the home such as apartment hallways or laundry rooms (13%). Injuries at playgrounds or parks represented only 1% of all injury locations; this was also the case for school or daycare settings.

Table 22
Type of Most Serious Injury among those Children with Injuries, Region of Peel, 2002

Type of Injury (n = 128)	Per Cent
Cut, scrape or bruise	43.0%
Broken or fractured bone	10.9%
Burn or scald	9.4%
Dislocation	6.3%
Dental injury	5.5%
Concussion	4.7%
Sprain or strain	2.3%
Internal injury	0.8%
Other (mostly "head")	17.2%

Table 23
Location of Most Serious Injury among those Children with Injuries, Region of Peel, 2002

Body Part Affected (n = 128)	Per Cent
Head or neck (excluding eyes, face or scalp)	31.3%
Arms or hands	26.6%
Face or scalp (excluding eyes)	20.3%
Legs or feet	10.2%
Eyes	4.7%
Shoulder	2.3%
Trunk (excluding back or spine; including chest or internal organs)	1.6%
Systemic	1.6%
Back or spine	0.0%
Hip	0.0%
Unknown	3.1%

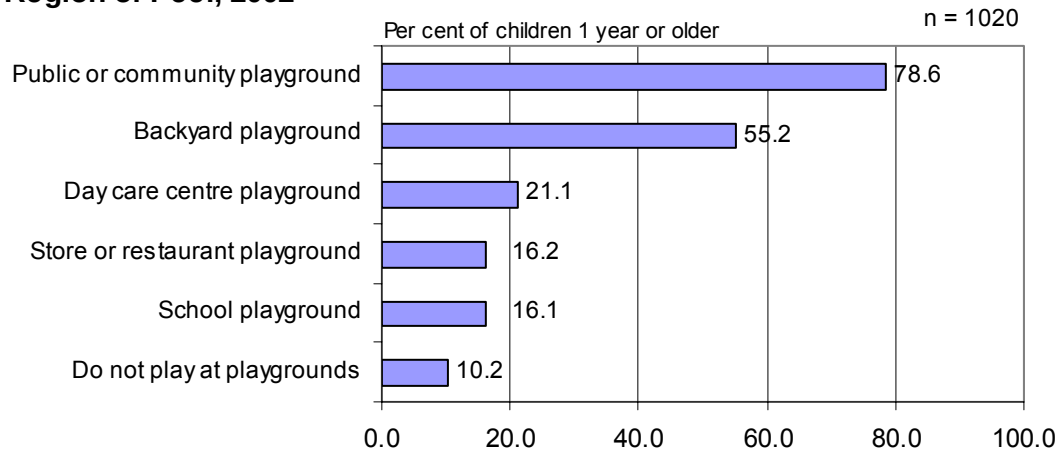
Responses about the nature of the accident revealed that 55% were the result of "falls (excluding bicycle or sports)". An additional 9% of injuries that were counted in the "Other" category were related to falling from something (e.g. change table, stroller, shopping cart), jumping on the bed and falling, slipping and falling on a wet floor or tripping over objects left on the floor.

Analyses of the frequency of injuries by demographic variables did not reveal any trends with respect to age of the mother, marital status, education level, or immigrant status, as most numbers once broken down were too small to be reliable. Residents of Brampton reported a slightly lower proportion of injuries (6%) among their children compared to those from Mississauga (10%) or Caledon (8%).

This survey also asked mothers about their practices regarding use of playground equipment during the spring and summer and supervision of children at playground facilities. Approximately 30% of all mothers reported their youngest child did not play on playground equipment, and upon further examination, it was determined that 77% of these children were under one year of age, and thus likely too young to make use of these types of facilities. All children aged less than one year were subsequently removed from further analyses of playground and bicycle helmet use.

Ninety per cent of mothers with children aged one year or more named at least one type of playground at which their child spent time each week during the spring or summer. Most frequently mentioned were public or community playgrounds (79%) and backyard playgrounds (55%) (Figure 12).

Figure 12
Use of Playground Equipment Among Children Aged One Year or Older, by Type of Playground, Region of Peel, 2002

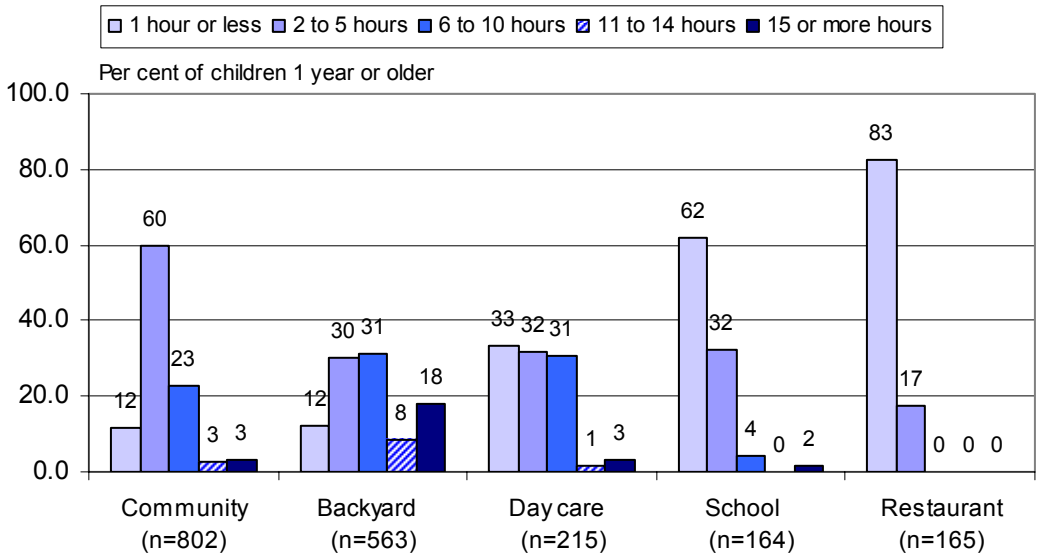


Note: Percentages do not sum to 100% due to multiple response options.

Longer amounts of time were spent each week during the spring or summer at backyard playgrounds and public or community facilities, followed by those at daycares and schools. Sixty per cent of mothers reported their youngest child aged one or more spending 2 to 5 hours per week at a community playground,

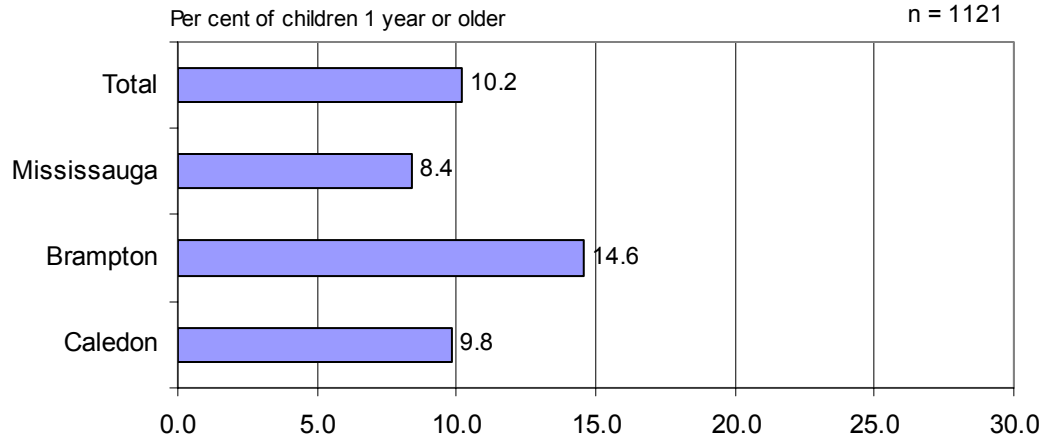
with an additional 23% saying their child spent 6 to 10 hours per week at such a facility (Figure 13). Thirty per cent of mothers reported their child spending 2 to 5 hours on backyard playground equipment, with 31% saying their child spent 6 to 10 hours each week and a further 26% saying their child spent 11 or more hours each week playing on backyard equipment.

Figure 13
Time Spent per Week at Various Types of Playgrounds Among Children Aged One Year or Older, Region of Peel, 2002



While overall, 10% of mothers reported that their youngest child did not play on playground equipment, this proportion varied by municipality of the mother, from 8% in Mississauga and 10% in Caledon, to 15% in Brampton (Figure 14).

Figure 14
Proportion of Children That Do Not Play on Playground Equipment, by Municipality, Region of Peel, 2002



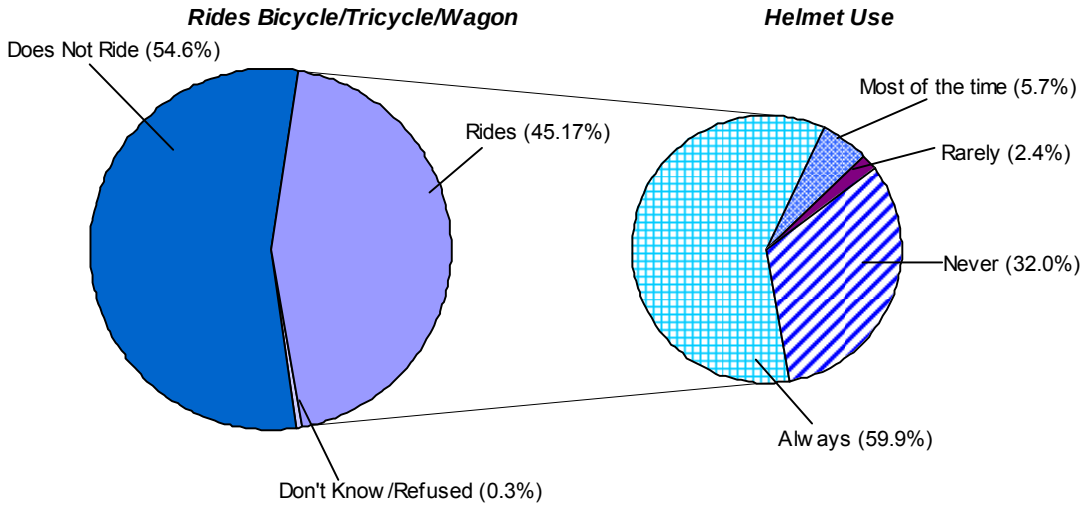
Although not shown here, there was a slight trend of decreasing use of playground equipment by children with decreasing levels of income of the mother.

The vast majority (98%) of mothers reported accompanying their children to the playground, and of these, 82% reported that they stayed close enough to catch their child in case of a fall. Less than one per cent of mothers whose children used playground equipment indicated that their child had suffered a playground injury serious enough to require a medical visit to the doctor's office, emergency room or clinic.

In Ontario, the law requires that children and youth under the age of 18 wear an approved bicycle helmet when traveling on any public road.[32] Research has shown that wearing helmets is effective in preventing head injuries. According to the Hospital for Sick Children, helmet use can reduce the risk of brain injury by up to 88%.[33] It has also been found that provinces having helmet laws in place have experienced a 45% reduction in the number of head injuries, based on data from 9650 Canadian children aged 5-19 years of age, hospitalized because of a bicycle-related injury.[34]

In the present study, 55% of mothers indicated that their youngest child aged one year or older was not a rider or passenger of a bicycle, tricycle or wagon. Among those who were, 60% of children always wore a helmet, 6% wore a helmet most of the time, 2% rarely wore a helmet and 32% never wore a helmet during these activities (Figure 15).

Figure 15
Proportion of Children Aged One Year or Older that Wear Bicycle Helmets when Riding on Bicycles, Tricycles or in Wagons, Region of Peel, 2002



More riders aged two years old "always" wore helmets (65%) compared to riders aged one year old (56%). There is still room for improvement with regards to public education about helmet laws, as all riders of bicycles or tricycles in this age group should have been wearing helmets for their protection.

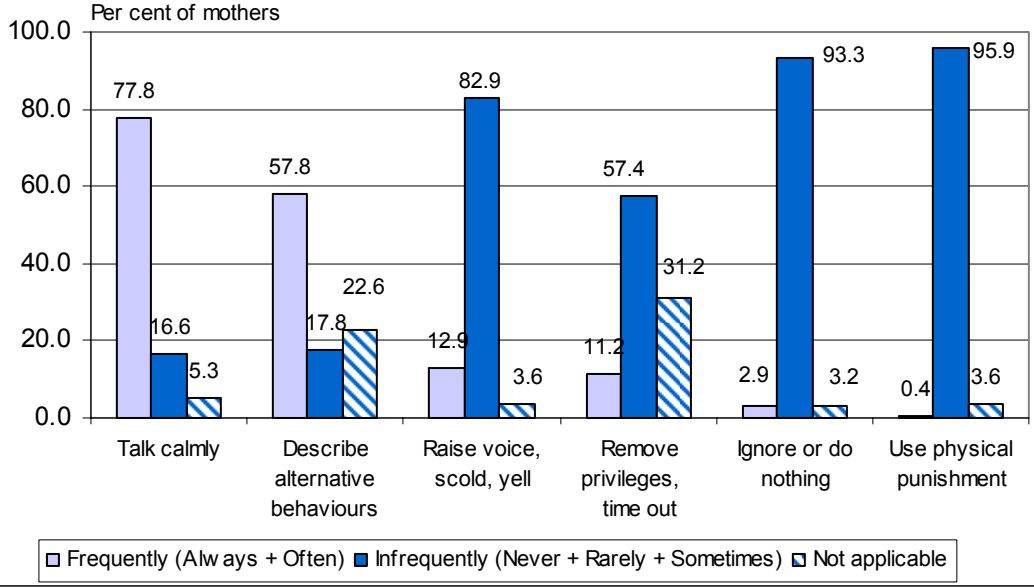
Managing Children's Behaviour

There are various alternatives available when attempting to teach children appropriate behaviours and the differences between "right" and "wrong". Some choices include talking calmly, describing alternate ways of behaving that are acceptable, removing privileges or imposing "time-outs".

When asked about the frequency of use of various approaches to managing children's behaviour, there was a notable proportion of mothers that said that discipline strategies were not applicable to their situation. Most of these responses were from mothers of children less than one year of age. Children of this age were removed from further analyses of managing behaviours.

The most frequently used strategies by mothers of children aged one year or more were talking calmly to their children (78%) or describing alternative behaviours (58%) (Figure 16). Fewer mothers reported frequently raising their voices (13%) or taking away privileges (11%). The majority of mothers reported infrequent use of physical punishment (96%) or ignoring their child after inappropriate behaviour (93%).

Figure 16
Mothers' Use of Behaviour Management Techniques with Children Aged One Year or Older, Region of Peel, 2002



In general, there were no large differences in the frequency of responses among the various demographic groups examined.

Less than one per cent of all mothers surveyed thought that shaking an infant was either “safe”, “somewhat safe” or did not know whether it was safe to do, while the vast majority (99%) recognized it as being “not at all safe to do”. These results did not vary across demographic groups.

Thirty-four per cent of mothers found the challenge of balancing work and parenting to be “quite” or “very” stressful, 23% reported it as being “stressful” and 29% said it was “a little” stressful (Table 24). Only 11% of mothers thought that finding the balance between work and parenting was “not at all stressful”.

Table 24
Mothers’ Reported Level of Stress When Balancing Work and Parenting, Region of Peel, 2002

Level of Stress	Per Cent
Very stressful	19.3%
Quite stressful	14.4%
Stressful	22.6%
A little stressful	28.6%
Not at all stressful	11.4%
Don’t know/Refused	3.7%

A higher proportion of mothers who completed college or university reported that they found balancing work and parenting to be quite or very stressful (36%) compared to mothers who reported high school as being their highest level of education attained (28%). Although one might have expected to find differences among groups by marital status, none were found. For example, similar proportions of mothers who were separated versus married found balancing work and parenting to be quite or very stressful (33% and 34%, respectively).

Physical Activity Levels of Children

Growing evidence suggests that Canada's children and youth are facing an activity and fitness crisis.[35] The combination of sedentary lifestyles, in which children prefer to watch television, play video or computer games and get rides to school or other venues, along with food choices that are high in content of fat and sugar, has resulted in increases in the proportion of overweight and obese children.[36,37]

This is a concern because patterns of behaviour which can lead to an unhealthy adult weight often begin in childhood, and obesity in adulthood is a risk factor for heart disease, high blood pressure, diabetes, gall bladder disease and some types of cancer.[22] Lack of physical activity can also result in the loss of its protective benefit in reducing the risk of osteoporosis and limiting the disabling effects of heart disease and stroke.[35]

The benefits of physical activity to children include that it: builds stronger bones and muscles; improves cardiovascular fitness; helps maintain a healthy weight; increases energy levels; improves attention span; reduces stress and feelings of depression or anxiety; improves self-esteem; improves memory, problem-solving and decision-making; decreases the likelihood of involvement with smoking, drugs or crime; reduces violent tendencies; leads to more cooperative relationships; and improves attitudes, discipline, behaviour and creativity.[38]

While most of the research on activity levels and childhood obesity has been conducted on children aged five or older, these behaviours likely start at an even earlier age as a function of parental practices. With respect to young children, it is up to the parents and caregivers to ensure that children are provided with healthy food choices, shown healthy eating behaviours and given opportunities to be physically active.

In the current study, mothers were asked if there were any barriers to their youngest child being physically active, and if so, to identify these barriers. Nineteen per cent of mothers said that there were barriers; of these, 57% identified time, 39% identified lack of money and 15% identified cost of the activity as barriers to participation (Table 25).

Although not shown, responses were found to vary depending on the marital status and income level of the mother. Mothers who were single, separated or divorced were more likely to report that lack of money was a barrier to participation, whereas mothers who were married or in common-law relationships were more likely to report that time was a barrier to their child participating in physical activity. Mothers with lower incomes were more likely to report that lack of money was a barrier to participation, whereas mothers who had higher

incomes were more likely to report that time was a barrier to their child participating in physical activity.

Table 25
Barriers to Physical Activity of Children*,
Region of Peel, 2002

Barrier to Physical Activity* (n = 282)	Per Cent
Time	57.4%
Lack of Money	38.7%
Cost	14.5%
Child has Physical Disability	2.5%
Convenience	0.7%
Parent has Physical Activity Limitation	0.4%
Other	2.8%

* Based on respondents who reported barriers to physical activity among their children.
Percentages do not sum to 100% due to multiple response options.

Mothers were asked about the frequency with which they or another adult went for a walk, went to the park or played games with their youngest child. Sixty-three per cent of mothers said that they or another adult went for a walk with their child daily or several times each day and an additional 32% went for a walk with their child a few times per week.

No trends were found when examining these results by age, income, education, marital status or municipality of the mother. However, Canadian-born mothers were more likely to report that they or another adult took their child for walks daily or more (68%) compared to foreign-born mothers (55%).

Only 24% of mothers said they or another adult took their child to the park on at least a daily basis; however, nearly half of all mothers (48%) said their child went to the park a few times per week. There were no differences between demographic groups on this question.

The most frequently reported activity was playing games: 94% of mothers responded that they or another adult usually played games with their child daily or several times each day. Again, there were no differences between demographic groups for this question.

Mothers were also asked their opinion as to whether they thought their youngest child was more, less or equally as active as other children of the same age and

sex. Just over 60% of mothers thought their child was more active than his or her peers (Table 26).

Table 26
Mothers' Opinion of Physical Activity Levels of their Children Compared to Peers of the Same Age and Sex, Region of Peel, 2002

Opinion of Child's Activity Level	Per Cent
Much more active	35.8%
Moderately more active	25.1%
Equally active	35.2%
Moderately less active	1.3%
Much less active	0.5%

One limitation of this survey is that it did not provide the ability to determine children's actual levels of activity. It is possible that mothers' answers to the above question were biased towards the more socially acceptable response of being more active, although there is no means of confirming this.

Reading to Children

Reading is a very important parent-child activity that is associated with improved readiness for school among young children.[39] It provides an opportunity for parents to nurture their children, as well as exposes children to language and vocabulary, both of which can have a positive effect on behaviour and other skills.[1]

Mothers in the survey were asked if they or another adult read to their children or showed them pictures or wordless baby books, and if so, how often and at what age this activity was started. Overall, 95% cent of mothers responded that their children were read to, with approximately 75% of these being read to daily or several times per day. By comparison, mothers who were new immigrants within the last five years were less likely to report reading to their children (84%), and only 63% reported that their children were read to daily or several times per day.

Mothers in the highest income group were more likely to report reading at least daily compared to mothers in the lowest income group: 80% of mothers with household incomes of at least $70,000 read to their child at least once per day compared to 69% of mothers with incomes under $40,000. There were no other large differences between demographic groups.

Table 27 shows the age in months at which reading to the child was reported to begin. By the age of three months, about 50% of mothers said they or another adult had started to read to their child. This proportion increased to 75% by six months of age. Most mothers (87%) reported that their child was being read to before the child reached one year of age.

Table 27
Age at which Reading to Children* Began,
Region of Peel, 2002

Age of Child* (in Months)	Per Cent	Cumulative Per Cent
0 to 3 months	49.6%	49.6%
4 to 6 months	24.9%	74.6%
7 to 9 months	9.3%	83.8%
10 to 11 months	3.4%	87.2%
12 or more months	9.8%	97.0%
Don't know/No response	3.0%	100.0%

* Based on respondents who reported reading to their children.

Although the trend was not consistent across all age groups, more mothers aged 20 to 24 and 25 to 29 years read to their children at an early age compared to older mothers. Only 30% of mothers aged 40 to 44 reported starting to read to their children at zero to three months, compared to 63% of mothers aged 20 to 24 and 53% of mothers aged 25 to 29 years. Regionally, 58% of Caledon mothers and 55% of those from Brampton started reading to their children at zero to three months compared to 49% of mothers from Mississauga. New immigrant mothers were not as likely to start to read to their children at a very young age, as only 31% reported reading to them at three months or less; meanwhile, 57% of Canadian-born mothers read to their children at this age. Higher proportions of mothers reported that reading started at three months or less as income levels increased.

Mothers were also asked how often their children looked at books or other reading materials on their own at home. Two-thirds of mothers reported that their children looked at books daily or a few times each day, while another 12% reported this activity occurring a few times per week. However, about 17% of mothers said their children never or rarely looked at books on their own; these children were found to be of varying ages, not just those who were very young.

Sun Safety

The risk of skin cancer, one of the most frequent of all types of cancer, increases with over-exposure to ultraviolet (UV) rays from the sun.[40] Children are even more vulnerable than adults because their skin is thinner and more sensitive, thus the UV rays can penetrate more easily. In infants, even a short exposure to summer sun (less than 15 minutes) between 11:00 a.m. and 4:00 p.m. might result in serious burns.[40] Protecting young children from the sun may greatly reduce their risk of developing skin cancer later on in life.[41]

Several diseases of the eye can also result from exposure to UV radiation, and the damaging effects are cumulative, building up steadily over a person's life.[42] For this reason, it is recommended that people of all ages wear sunglasses that block out harmful UV rays.

Mothers in the survey were asked whether any part of their children's bodies had been sunburned and practices associated with protecting their children from exposure to the sun. Only 5% of mothers reported that their children had been sunburned at some point in their lives. These results were consistent across all demographic groups examined.

The most commonly used strategy to protect children from the sun was the wearing of protective clothing; 88% of mothers reported their children wore protective clothing "always" or "often" (Figure 17). The use of sunscreen with a sun protection factor (SPF) of 15 or higher was the second most frequently mentioned strategy, with 72% of mothers using sunscreen on their children either "always" or "often".

Avoiding sun exposure between the hours of 11:00 a.m. and 4:00 p.m. was a strategy "always" or "often" employed by 64% of mothers. Nearly half (49%) of all mothers said their children never wore sunglasses with UV protection when in the sun.

Some of these results were found to vary by demographic group. For example, those mothers who were foreign-born and especially those who were new immigrants were not as likely to have their children always wear protective clothing, sunscreen or sunglasses; however, they were more likely to have their children avoid sun exposure during peak hours (Table 28). Although not shown, mothers from lower income groups were also less likely to have their children always wear protective clothing or sunscreen compared to mothers with higher incomes.

Figure 17
Proportion of Mothers Reporting Use of Sun Protection Strategies with their Children, Region of Peel, 2002

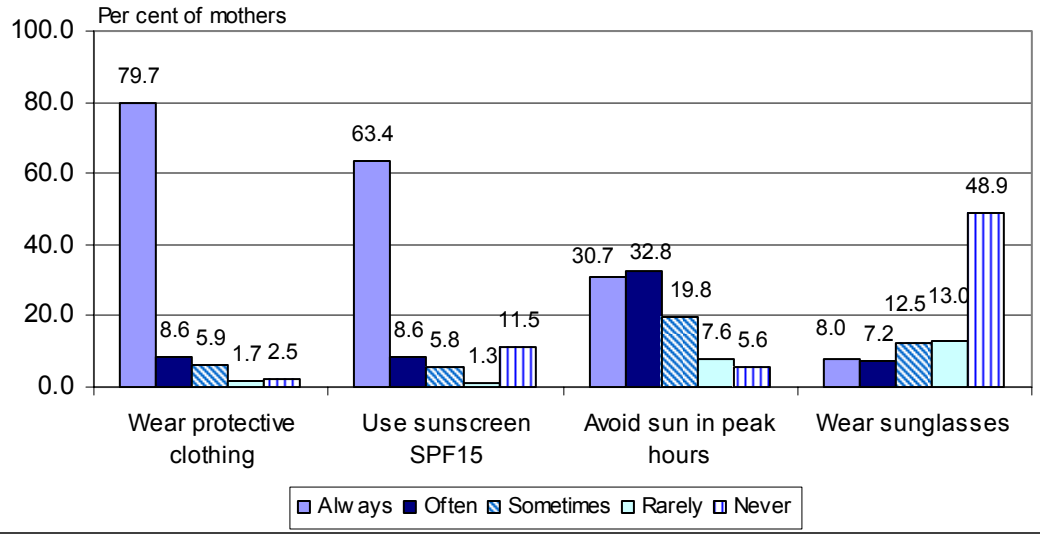


Table 28
Proportion of Mothers Reporting Use of Sun Protection Strategies with their Children, by Selected Demographic Characteristics, Region of Peel, 2002

Selected Demographic Characteristics	Always Wears Protective Clothing	Always Wears Sunscreen SPF15	Always Avoids Sun 11am-4pm	Always Wears Sunglasses
Overall	79.7%	63.4%	30.7%	8.0%
Canadian-born	84.4%	73.5%	25.2%	9.9%
Foreign-born	72.7%	48.0%	38.9%	5.2%
New Immigrant	63.0%	36.2%	44.1%	3.1%

DISCUSSION

This survey attempts to address gaps in information regarding Peel's pre-school aged children by contacting parents of children that were born in 2000 or 2001. While there are many limitations to conducting surveys of this kind, the benefits include an improved understanding of parents' knowledge of risks, their use of health-promoting practices and behaviours and issues or concerns that require further public health intervention.

Findings

Just over half of mothers reported taking a vitamin supplement containing folic acid prior to pregnancy, with older women more likely to have taken folic acid supplementation than younger women. Proportions were particularly low for single women and those with low incomes. Overall, the results demonstrated that more action needs to be taken to increase child-bearing women's awareness around the importance of folic acid supplementation, particularly among sexually-active teenagers and young adults. All women who are sexually active should take vitamin supplements containing folic acid in case they become pregnant. In addition, results suggest that recent immigrants and those in the low income bracket may be at a higher risk of neural tube defects (NTDs) due to low levels of folic acid supplementation. These groups need more tailored education on the importance of folic acid supplementation. Due to differences in these populations, various approaches, such as providing information in multiple languages, may be necessary.

Most mothers recognized that during pregnancy, it is important for women to reduce or eliminate alcohol consumption and smoking. However for one-third of mothers, knowledge of the effects of alcohol on the fetus was poor, as they believed that one to two drinks in total during pregnancy would be "somewhat safe", while a further 15% believed this amount to be "very safe". The current recommendation is that complete abstinence from alcohol is the safest choice for women who are or who may become pregnant. Nine per cent of respondents either answered incorrectly or did not know that alcohol use during pregnancy can lead to life-long disability in a child, and about 20% of respondents either answered incorrectly or did not know that the effects of alcohol on a child do not disappear as the child grows.

Some misunderstanding about the correct use of child and infant car seats was demonstrated, as 9% of mothers thought that the child should never be in a rear-facing car seat. Whether this was a function of the wording of the question or an actual knowledge deficit could not be determined from the available data. Using information on age and weight, it was determined that about three-quarters of children in the survey were restrained in appropriate car seats; however, this leaves one-quarter of children potentially more susceptible to injury when

travelling in their parents' vehicles. Further information on the proper use of child car seats needs to be communicated so that all Peel children are protected from injuries caused by motor vehicle collisions.

Poor dental health practices pertaining to children were identified among some of the respondents. One-third of mothers reported that their children had taken a bottle to bed, with three-quarters of these saying that the bottle contained milk and 20% saying the contents were formula or juice. The presence of these liquids in the child's mouth for long periods of time can lead to early childhood tooth decay. Only 14% of mothers who gave bottles to their children said the bottle contained water, which, if bottles must be given, is the recommended choice. One-quarter of mothers of children with teeth said they never, rarely or only sometimes brushed or supervised the brushing of their children's teeth. Among mothers of children with teeth, less than 10% had actually taken their child for a visit to the dentist. It is evident from results such as these that more education needs to be delivered to parents of young children on the topic of dental health.

Approximately 10% of children in the survey were exposed to second-hand smoke in the home or in vehicles, indicating that "smoke-free home" messages might be working. On-going efforts should continue in order to bring the level down to zero.

With less than two-thirds of mothers reporting that the entire family ate together every day, it is evident that parents need more practical guidelines on how to balance their lives between home and work in order to be able to eat at least one meal together daily. Scheduling several meal times per week together can provide important structure and allow family members to build and strengthen family ties.

The issue of food insecurity is sensitive. These results may be low as individuals are often unwilling to disclose financial problems of this nature. Five per cent of mothers reported that in the 12 months prior to the survey, someone in the household worried that there would not be enough food to feed the family because of a lack of money, 9% reported that someone in the household did not eat the quality or variety of food they wanted because of a lack of money, and 4% reported that the family actually did not have enough food to eat because of a lack of money. Adequate nutrition is a basic need and important to the health of all individuals. Ensuring that those in need know where to access free food is needed.

Less than 10% of respondents reported that their youngest children had sustained an injury which was serious enough to require medical attention and which had occurred in the 12 months leading up to the survey. Most of these occurred in or around the home and involved cuts, scrapes or bruises as a result

of falling. Information on three and four year-old children may have provided more insights into childhood injuries had these data been captured.

One area in need of further promotion among parents of young children is that of bicycle helmet use. Forty-five per cent of mothers reported that their children aged one year or more rode bicycles, tricycles or rode in wagons. Of these, 40% did not always wear a helmet. In Ontario, the law requires that children and youth under the age of 18 years wear an approved bicycle helmet when travelling on any public road. Head injuries often have lasting results – preventing them is of paramount importance.

Certain health messages appear to be getting through. For example, the vast majority of respondents knew that shaking an infant was not at all safe to do and very few parents used forms of physical punishment when managing behaviours of their children aged one year or more.

If less health knowledge and unsafe practices were apparent, they tended to be found among new immigrants, single parents, young parents, and those with lower education or income levels.

For example, recent immigrants (0 to 5 years in Canada) were less likely to read to their children and fewer started reading to them at an early age. This group was more likely to say they did not know when asked if the effects of alcohol disappeared as the child gets older. They were not as likely to use protective clothing or sunscreen with their children, favouring avoidance of sun during peak hours instead.

On the other hand, recent immigrants were more likely to eat together as a family every day and less likely to say balancing work and parenting was stressful. They tended to use formal child care less often, with higher proportions using family members, suggesting that they have family supports on which to draw. They were also found to be linked to physicians and not experience any more barriers than others when accessing their doctors. These findings suggest that any areas of concern around young children's health experienced by new immigrants might be attributed to lack of exposure to public health messages in the areas noted above.

In examining results for young mothers, it was found that they were less likely to have taken folic acid supplements, more likely to report food insecurity issues, not as likely to use the internet to access information on health and more likely to report that their children never played on playground equipment.

Those with low income were found to be less likely to recognize that any amount of alcohol is unsafe for a pregnant woman and her unborn baby, more likely to report issues of food insecurity, less likely to have children use playground

equipment, more likely to report lack of money as a barrier to their children participating in physical activity and less likely to have children use protective clothing or sunscreen. In these situations, it is important to discern the effect of financial barriers on health practices. These respondents might benefit from education and referral to programs that address financial issues.

Limitations

There were numerous limitations encountered in several facets of this survey including the sample selection process, the administration of the survey and the data analysis phase. These limitations are described below.

In general, the response rate was relatively low (46%). A total of only 1,649 calls were completed and able to be included in the analyses. Using the Integrated Services for Children Information System database in 2002 to draw a sample of mothers who had given birth as long ago as 2000 may have resulted in many telephone numbers having been lost due to mothers having moved or changed numbers or services. As well, the refusal rate of 15% was high despite having mailed an introductory letter to the mother.

The survey was only administered in English. Sample selection using the Healthy Babies Healthy Children screening tool was supposed to identify those mothers who could speak English, yet a further six per cent of calls could not be completed due to language barriers. The survey was not able to address issues or health concerns among those who cannot speak English well and were excluded from the sample for this reason. This limitation could mean that the health issues noted for the immigrant population may be more significant than these data indicate. The proportion of mothers excluded from the survey could not be determined using the Integrated Services for Children Information System.

When there was more than one child in the family, having respondents answer questions only for the youngest child meant that many three and four year-olds were inadvertently excluded from the analyses. This meant that for parental behaviours such as taking children to the park, wearing bicycle helmets, managing children's behaviours, brushing children's teeth, etc., there were significant proportions of mothers who felt that the questions were not applicable to their "youngest" children. As well, answers representing children aged three years and older were not obtained on some of these important issues.

Respondents tended to be older than the population at large, meaning that younger mothers may have been under-represented in the survey. Knowing that this group tended to have slightly poorer outcomes in the present survey, it is possible that results presented in this study may be poorer than reported.

Respondents also appeared to be more educated than the population at large, meaning that less-educated groups may have been under-represented; whether this affected the quality of responses obtained in this study is difficult to assess.

Survey respondents in both the lower and higher income categories appeared to be under-represented when compared to 2001 Census data. Eighteen per cent of respondents either refused to provide information on income or did not know into which category their household income fell.

Responses to some questions on health practices such as folic acid supplementation, avoidance of alcohol and tobacco during pregnancy, whether children ride in the back seat of vehicles, supervision of children when brushing their teeth, etc. had the possibility of becoming biased because of socially acceptable responses.

Direct observations, such as whether a child's car seat was installed correctly and used appropriately, or whether children were as active as stated by their parents, could not be obtained.

Questions on the use of child care did not allow an examination of whether the care arrangements represented the "preferred" choice or one that was out of necessity. For example, single mothers or those who were recent immigrants may have preferred to be able to find child care that was more suited to their financial or other needs if it had been available, rather than relying on family members.

CONCLUSIONS

The health practices of Peel parents of children aged 0 to 2 years are generally good. Most mothers are well-connected to services and seem to be aware of appropriate risk factors in the preconception period or during pregnancy. They also report good parenting practices as their children age. More focus needs to be placed on parents who are single, young, new immigrants or of low income in order to ensure that their children are given the resources and opportunities to develop to their fullest potential.

RECOMMENDATIONS

With respect to the administration of surveys to this population in the future, it would be beneficial to use selection strategies other than basing responses on the youngest child. For example, choosing the child with the date of birth closest to the date of call allows children of mixed ages to be included in the responses. This is important for a variety of questions, such as those relating to injuries, playground use, bicycle helmet use, disciplinary styles and dental health practices.

Peel Health should develop further communication and health promotion strategies for health issues such as folic acid use and alcohol abstinence to be targeted to women prior to and during pregnancy. Although these strategies should be aimed at all women of child-bearing years, there is some evidence to suggest a need to focus messages on young women. This is especially evident for folic acid supplementation. In addition, the issue of social drinking and long-term effects of alcohol on the child should be incorporated into program planning and communications.

Dental health messages for parents of young children need to include information about the consequences of children taking bottles containing sugary liquids to bed, the need to brush or supervise the brushing of children's teeth, and when to take the child for their first dentist visit.

There is a need for continued education and promotion of appropriate use of car seats, particularly in terms of rear-facing versus forward-facing seats.

Families need to know where to access food support programs and these programs need to be run in such a way that those using them feel comfortable and not stigmatized.

There is also a need for the development and implementation of strategies that address barriers to reading to infants at an early age, particularly among mothers

who are recent immigrants. Reading in any language, along with the physical contact associated with this action, has tremendous benefits to the child and needs to be encouraged.

Peel Health needs to target new Canadians with public health messages on pre-school aged children and health through the Newcomer Reception Centres, LINC classes and ethno-cultural and immigrant resettlement agencies.

It is important to include family members and child care providers as a target audience for key health messages relevant to young children, as the majority of mothers reported that their child was looked after by someone other than themselves for more than 30 hours per week.

The use of the Internet and walk-in clinics should also be considered when planning health promotion strategies, as the majority of mothers indicated having taking their child to a walk-in clinic or using the Internet.

Key messages on some of the problem issues such as folic acid use, dental health practices, bicycle helmet use, etc. need to be developed and disseminated through such communication vehicles as Health-Line Peel and Peel Health Call Centres. These messages play over the telephone as clients are waiting in the queue to have their telephone call answered.

Peel Health needs to develop strategies which involve collaborating with workplaces in order to distribute child health information to parents. Focusing on places of work in which there are higher proportions of young parents or young people who are thinking about pregnancy may be effective in this regard.

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APPENDIX A
INFORMATION AND CONSENT LETTER

(Date)

(Name)
(Address)

Dear (Mother of a child born in 2000 or 2001):

As part of the Healthy Babies, Healthy Children program, a Public Health Nurse from the Peel Health Department called you shortly after the birth of your child, to ask you about your baby and tell to you about services available for mothers and newborns in your area. In addition, you may have been visited in your home by a Public Health Nurse or Family Visitor. I am writing to you now to ask if you would be willing to help us learn more about the health of young children in the Region of Peel.

Peel Health will be conducting a telephone survey of mothers of children born in 2000 or 2001. The purpose of the survey is to learn about a variety of child health issues, and to ask some specific health questions about your youngest child. The telephone survey will take place between April and July 2002 and will take about 20 minutes of your time. Compustat Consultants have been contracted to conduct the actual telephone survey on behalf of Peel Health.

The answers you give in the survey are confidential and will only be released in group form without names. If you do not wish to participate in this survey, please contact Healthline Peel at 905-799-7700 by April 19, 2002 and we will remove your name from the list.

The results of this survey will help us to improve services to young children and their mothers. If you would like additional information about this survey, please contact Julie Stratton at 905-791-7800 extension 2610. Thank you in advance for your participation.

Sincerely,

David McKeown, MDCM, MHSc, FRCPC
Medical Officer of Health

APPENDIX B

PRE-SCHOOL HEALTH SURVEY
REGION OF PEEL HEALTH DEPARTMENT

ID Number _____

Date of Interview _____/____/____ **Interviewer** _____
(yyyy/mm/dd)

Hello, may I please speak with _____? Hello, my name is ____ and I'm calling on behalf of the Peel Health Unit. We are conducting a random survey of mothers with pre-school children. Did you receive a letter from the Health Department giving you information about this survey?

IF YES, GO TO Question 2
IF NO, GO TO Question 1a

1a. Is it all right if I give you the information about the survey now to see if you would like to participate?

IF YES. READ LETTER
IF NO, GO TO QUESTION 1B

1b. Is there a better time to call you back?

IF YES, RECORD CALL BACK INFORMATION
IF NO, STOP ➔ THANK YOU VERY MUCH FOR YOUR TIME

SCRIPT FOR LETTER

It is important for the Peel Health Unit to learn more about your experiences as a parent and to learn more about the health issues of pre-school children. Peel Health is asking a random sample of mothers who have given birth in the past three years to help us by answering a 20-minute telephone interview, which is being conducted over the next few months.

Participation in this survey is voluntary and you are free not to answer any question.

If you have any concerns about the survey or wish to find out about the results, please contact Julie Stratton at the Peel Health Department at 905-791-7800 ext 2610. We value your knowledge and ideas and feel that your answers will help us provide more effective services to families living in the Region of Peel.

2. Are you willing to participate in this survey? It will take about 20 minutes of your time.

   IF YES, GO TO QUESTION 3
   IF NO, STOP ➔ THANK YOU VERY MUCH FOR YOUR TIME

3. Is it convenient for you to answer the questions now?

   IF YES,
   Please remember that you can refuse to answer any questions or stop the interview at any time if you wish. Your answers to the questions will be completely confidential and no one will be able to link your name to the answers you give.
   CONTINUE TO SURVEY.

   IF NO,
   When would be a better time to call you back?
   RECORD CALL BACK INFORMATION

I would like to start by asking you some general questions about your household.

1. Including yourself, how many people (adults and children) live in your household? _____

2. How many of these people are children between the ages of zero and six? Number _____

3. What is / are the date(s) of birth of your child / these children?

Child	Date of birth (yyyy/mm/dd)
Child 1	
Child 2	
Child 3	
Child 4	
Child 5	

4. What municipality do you live in?
   - 1 Mississauga
   - 2 Brampton
   - 3 Caledon
   - 88 Don't know
   - 99 Refused

PREGNANCY AND HEALTH

5. I would now like to ask you some questions about health issues concerning pregnant women.

   In your opinion, is each of the following: The most important thing to do, A very important thing to do, A less important thing to do, or Not important to do.

   a) Cut down or stop smoking?
   - 1 The most important thing to do
   - 2 A very important thing to do
   - 3 A less important thing to do
   - 4 Not important to do
   - 88 Don't know
   - 99 Refused

b) Cut down or stop using alcohol?

1 The most important thing to do
2 A very important thing to do
3 A less important thing to do
4 Not important to do
88 Don't know
99 Refused

c) Avoid stressful situations?

1 The most important thing to do
2 A very important thing to do
3 A less important thing to do
4 Not important to do
88 Don't know
99 Refused

d) Eat nutritious food?

1 The most important thing to do
2 A very important thing to do
3 A less important thing to do
4 Not important to do
88 Don't know
99 Refused

e) Visit a doctor or health professional on a regular basis?

1 The most important thing to do
2 A very important thing to do
3 A less important thing to do
4 Not important to do
88 Don't know
99 Refused

f) Reduce strenuous physical activity? (Defined as activity that is more than you are used to or results in exhaustion).

1 The most important thing to do
2 A very important thing to do
3 A less important thing to do
4 Not important to do
88 Don't know
99 Refused

g) Avoid environmental pollution?

1 The most important thing to do
2 A very important thing to do
3 A less important thing to do
4 Not important to do
88 Don't know
99 Refused

h) Avoid second-hand smoke?

1 The most important thing to do
2 A very important thing to do
3 A less important thing to do
4 Not important to do
88 Don't know
99 Refused

6. Considering the effects on the baby, do you think it would be very safe, somewhat safe, not very safe, or not at all safe for a pregnant woman to drink each of the following amounts of alcohol?

a) One alcoholic drink each day during the pregnancy?

1 Very safe
2 Somewhat safe
3 Not very safe
4 Not at all safe
88 Don't know
99 Refused

b) Three or four alcoholic drinks each weekend during the pregnancy?

1 Very safe
2 Somewhat safe
3 Not very safe
4 Not at all safe
88 Don't know
99 Refused

c) Two alcoholic drinks on two or three different occasions during the pregnancy?

1 Very safe
2 Somewhat safe
3 Not very safe
4 Not at all safe
88 Don't know
99 Refused

d) A total of one or two alcoholic drinks during the pregnancy?
   1 Very safe
   2 Somewhat safe
   3 Not very safe
   4 Not at all safe
   88 Don't know
   99 Refused

Fetal Alcohol Syndrome

7. I will now read you a series of statements and would like you to classify the statements as TRUE or FALSE.

   a) Alcohol use during pregnancy can lead to life-long disabilities in a child.
      1 True
      2 False
      88 Don't know
      99 Refused

   b) Most of the effects of alcohol use on a child usually disappear as the child grows.
      1 True
      2 False
      88 Don't know
      99 Refused

NOTE: IF RESPONDENT ASKS ABOUT THE RECOMMENDED AMOUNT OF ALCOHOL – REPLY THAT AT PRESENT IT IS RECOMMENDED THAT NO ALCOHOL BE CONSUMED DURING PREGNANCY.

Folic Acid

8. Did you take a vitamin supplement containing folic acid before you became pregnant the most recent time?
   1 Yes
   2 No
   88 Don't know
   99 Refused

Physical Activity and Reading

I am now going to ask you some questions about activities you or another adult participate in with your (youngest) child.

9. Are there any barriers to your (youngest) child being physically active, such as time, cost, or lack of money?
   1 Yes
   2 No ➔ go to Question 11
   88 Don't know ➔ go to Question 11
   99 Refused ➔ go to Question 11

10. What are these barriers? [Do not read list] [Check all that apply]
   1 Time
   2 Cost
   3 Lack of money
   4 Convenience
   5 Child has physical disability
   6 Parent has physical activity limitation
   7 Other ➔Please specify _____
   88 Don't know
   99 Refused

11. How often do you or another adult usually go for a walk with your (youngest) child? [Do not read list] [check one only]
   1 Never or rarely
   2 Less than once a month
   3 Once a month
   4 A few times a month
   5 Once a week
   6 A few times a week
   7 Daily
   8 A few times each day
   88 Don't know
   99 Refused

12. How often do you or another adult usually go to the park with your (youngest) child? [Do not read list] [check one only]
    1 Never or rarely
    2 Less than once a month
    3 Once a month
    4 A few times a month
    5 Once a week
    6 A few times a week
    7 Daily
    8 A few times each day
    88 Don't know
    99 Refused

13. How often do you or another adult usually play games with your (youngest) child? [Do not read list] [check one only]
    1 Never or rarely
    2 Less than once a month
    3 Once a month
    4 A few times a month
    5 Once a week
    6 A few times a week
    7 Daily
    8 A few times each day
    88 Don't know
    99 Refused

14. In your opinion, how physically active is your (youngest) child compared to other children of the same age and sex? Would you say:
    1 Much more active
    2 Moderately more active
    3 Equally active
    4 Moderately less active
    5 Much less active
    88 Don't know
    99 Refused

<u>Reading</u>

15. Do you or another adult read to your (youngest) child or show him/her pictures or wordless baby books?
    1 Yes
    2 No ➔ go to Question 18
    88 Don't know ➔ go to Question 18
    99 Refused ➔ go to Question 18

16. How often do you do this? [Do not read list] [check one only]
    1 Rarely
    2 Less than once a month
    3 Once a month
    4 A few times a month
    5 Once a week
    6 A few times a week
    7 Daily
    8 A few times each day
    88 Don't know
    99 Refused

17. How many months old was he/she when you started to do this (to the nearest month)? _____ 88 Don't know 99 Refused

18. How often does your (youngest) child look at books, magazines or comics, on his/her own? Think about what he/she does at home only, do not include day care or pre-school. [Do not read list]
    1 Never or rarely
    2 Less than once a month
    3 Once a month
    4 A few times a month
    5 Once a week
    6 A few times a week
    7 Daily
    8 A few times each day
    88 Don't know
    99 Refused

Sun Safety

Now I would like to ask about your (youngest) child and sun exposure.

19. Has any part of your child's body ever been sunburned?
    By sunburn we mean any reddening discomfort of your (youngest) child's skin that lasts longer than 12 hours after exposure to the sun.
    1 Yes
    2 No
    88 Don't know
    99 Refused

20. How often do you try to keep your (youngest) child from being in the sun between 11 am and 4 pm? Would you say:
    1 Always
    2 Often
    3 Sometimes
    4 Rarely
    5 Never
    6 Not applicable
    88 Don't know
    99 Refused

21. How often does your (youngest) child wear sunglasses with ultra violet (UV) protection when in the sun? Would you say:
    1 Always
    2 Often
    3 Sometimes
    4 Rarely
    5 Never
    6 Not applicable
    88 Don't know
    99 Refused

22. How often does your (youngest) child wear protective clothing, including a hat, when in the sun? Would you say:
    1 Always
    2 Often
    3 Sometimes
    4 Rarely
    5 Never
    6 Not applicable
    88 Don't know
    99 Refused

23. How often does your (youngest) child use sunscreen with a sun protection factor of 15 or more while in the sun? Would you say:
    1 Always
    2 Often
    3 Sometimes
    4 Rarely
    5 Never
    6 Not applicable
    88 Don't know
    99 Refused

Second Hand Smoke

Now I would like to ask you some questions about smoking.

24. Does anyone in this household smoke regularly inside the home?
    1 Yes
    2 No
    88 Don't know
    99 Refused

25. Which of the following best describes the rules or understanding about smoking inside your home including visitors when your children are home? Would you say:
    1 Smoking is not allowed at all
    2 Smoking is allowed sometimes
    3 Smoking is allowed in certain areas of the home
    4 Smoking is allowed, except when children are present
    5 Smokers do whatever they want
    88 Don't know
    99 Refused

26. Which of the following best describes the rules or understanding about people smoking in the VEHICLE you drive in most, or are a passenger in with your children. Would you say:
    1 Smoking is not allowed at all
    2 Smoking is allowed some of the time
    3 Smoking is allowed except when children are present
    4 Smokers do whatever they want
    88 Don't know
    99 Refused

Dental Health

The next set of questions are about your (youngest) child's dental health.

27. Has your (youngest) child ever taken a drink in a bottle to bed?
    1 Yes
    2 No ➔ go to Question 32
    88 Don't know ➔ go to Question 32
    99 Refused ➔ go to Question 32

28. Does your (youngest) child currently take a bottle to bed?
    1 Yes
    2 No ➔ go to Question 31
    99 Refused ➔ go to Question 31

29. How often does your child take a bottle to bed? Would you say:
1 Every night
2 A few times per week
3 Once a week
4 Once a month
88 Don't know
99 Refused

30. What do you usually put in the bottle? [Do not read list] [Check all that apply]: ➔ after response Go To Question 32.
1 Juice
2 Milk
3 Pop
4 Water
5 Sugar water
6 Formula
7 Other (please specify) _____
88 Don't know
99 Refused

31. At what age did your (youngest) child stop taking a bottle to bed?
Age in months _____ 88 Don't know 99 Refused

32. Does your (youngest) child have any teeth to brush?
1 Yes
2 No ➔ go to Question 41
88 Don't know ➔ go to Question 41
99 Refused ➔ go to Question 41

33. How often do you brush your youngest child's teeth or supervise your youngest child when they are brushing their teeth? Would you say:
1 All the time
2 Sometimes
3 Rarely
4 Never
88 Don't know
99 Refused

34. Does your child eat or swallow toothpaste?
1 Yes
2 No
88 Don't know
99 Refused

35. Do you have a family dentist?
1 Yes
2 No
88 Don't know
99 Refused

36. Have you ever taken your (youngest) child to visit the dentist?
1 Yes
2 No ➔ go to Question 40
88 Don't know ➔ go to Question 40

37. Have you had any difficulty or problems getting your (youngest) child to the dentist?
1 Yes
2 No ➔ go to Question 39
88 Don't know ➔ go to Question 39
99 Refused ➔ go to Question 39

38. What are some of the difficulties or problems you had in getting your (youngest) child to the dentist? [Do not read list] [Check all that apply]:
1 Transportation
2 Cost / affordability
3 Fear
4 Could not find one
5 Lack of time
6 Other (please specify) _____
88 Don't know
99 Refused

39. When was the last time your (youngest) child visited a dentist?
(_____/_____) 88 Don't know 99 Refused
(YYYY/ MM)

40. When do you plan to take him/her to the dentist?
1 Within the next month
2 Within the next 2-3 months
3 Within the next 4-6 months
4 Within the next 6-12 months
5 More than a year
6 Don't plan to go
88 Don't know
99 Refused

Parenting

The next series of questions are about parenting.

41. When your youngest child breaks the rules or does things that he/she is not supposed to, how often do you:

a. Ignore it or do nothing? Would you say never, rarely sometimes often or always?

1 Never
2 Rarely
3 Sometimes
4 Often
5 Always
6 Not applicable
88 Don't know
99 Refused

b. Raise your voice, scold or yell at him/her?

1 Never
2 Rarely
3 Sometimes
4 Often
5 Always
6 Not applicable
88 Don't know
99 Refused

c. Talk to your child calmly about it?

1 Never
2 Rarely
3 Sometimes
4 Often
5 Always
6 Not applicable
88 Don't know
99 Refused

d. Use physical punishment such as spanking?

1 Never
2 Rarely
3 Sometimes
4 Often
5 Always
6 Not applicable
99 Refused

e. Describe alternative ways of behaving that are acceptable?
1 Never
2 Rarely
3 Sometimes
4 Often
5 Always
6 Not applicable
88 Don't know
99 Refused

f. Take away privileges or put him/her in his/her room?
1 Never
2 Rarely
3 Sometimes
4 Often
5 Always
6 Not applicable
88 Don't know
99 Refused

42. Some parents or caregivers may shake an infant in anger or frustration when they are trying to get it to stop crying. Considering the effects on the health of the baby, would you say it is safe, somewhat safe, or not at all safe to shake an infant?
1 Safe
2 Somewhat safe
3 Not at all safe
88 Don't know
99 Refused

43. How would you describe the challenge of balancing work and parenting your young children? Would you say it is:
1 Not at all stressful
2 A little stressful
3 Stressful
4 Quite stressful
5 Very stressful
88 Don't know
99 Refused

Child Care

44. Do you currently use childcare such as day-care, babysitting, care by a relative or other caregiver?

1 Yes
2 No ➔ go to Question 47
88 Don't know ➔ go to Question 47
99 Refused ➔ go to Question 47

45. Which of the following type of childcare do you use the most?

1 Care provided in your home
1.1 By a relative
1.2 By a non-relative

2 Care provided outside of the home
2.1 In someone else's home
2.1.1 Licenced
2.1.2 Non-licenced

2.2 At a day-care
2.3 At a nursery school
2.4 Other

88 Don't know
99 Refused

46. On average, how many hours per week does someone other than yourself care for your child? Hours: _____

Family Meals

The next set of questions are about family meals.

47. How many days in a week does your whole family eat together?

1 Everyday
2 5-6 days per week
3 3-4 days per week
4 1-2 days per week
5 1-2 times per month
6 Rarely or never
88 Don't know
99 Refused

48. How many days in a week does your child eat breakfast?
    1 Everyday
    2 5-6 days per week
    3 3-4 days per week
    4 1-2 days per week
    5 Rarely or never
    88 Don't know
    99 Refused

Food Insecurity

In the past 12 months, did you or anyone else in your household:

49. WORRY that there would not be enough food for your family to eat because of a lack of money?
    1 Yes
    2 No
    88 Don't know
    99 Refused

50. Not eat the quality or variety of foods that you wanted to eat because of a lack of money?
    1 Yes
    2 No
    88 Don't know
    99 Refused

51. Not have enough food for your family to eat because of a lack of money?
    1 Yes
    2 No ➔ go to Question 53
    88 Don't know ➔ go to Question 53
    99 Refused ➔ go to Question 53

52. How do you cope with feeding your family when this happens?
[Do not read list] [Check all that apply]
1 Parent/guardian skips meals or eat less
2 Children skip meals or eat less
3 Cut down on variety of food family usually eats
4 Seek help from relatives
5 Seek help from friends
6 Seek help from social worker/government office
7 Seek help from food bank (emergency food program)
8 Use school meal program
9 Other (please specify) _____
88 Don't know
99 Refused

Child Health Issues

I now have a few questions about child health issues.

53. Does your (youngest) child have asthma that has been diagnosed by a health professional?
1 Yes
2 No ➔ go to Question 57
88 Don't know ➔ go to Question 57
99 Refused ➔ go to Question 57

54. In the past 12 months, has your (youngest) child had any asthma symptoms?
1 Yes
2 No
88 Don't know
99 Refused

55. In the past 12 months, has your (youngest) child had any asthma attacks?
1 Yes
2 No
88 Don't know
99 Refused

56. Has your child ever taken prescription medication for asthma?
1 Yes
2 No
88 Don't know
99 Refused

The following questions refer to injuries that your (youngest) child might have had in the past 12 months, such as a broken bone, bad cut or burn, head injury, poisoning, or a sprained ankle, which were serious enough to require medical attention by a doctor, nurse or dentist.

57. In the past 12 months, has your (youngest) child had a serious injury?
    1 Yes
    2 No ➔ go to Question 63
    88 Don't know ➔ go to Question 63
    99 Refused ➔ go to Question 63

58. In the past 12 months, how many times has your (youngest) child been seriously injured?
    ____ times 88 Don't know 99 Refused

59. For the most serious injury, what type of injury did your (youngest) child have? [Do not read list] [Check all that apply]
    1 Broken or fractured bone
    2 Burn or scald
    3 Dislocation
    4 Sprain or strain
    5 Cut, scrape or bruise
    6 Concussion
    7 Poisoning by substance or liquid
    8 Internal injury
    9 Dental injury
    10 Other (specify) _____
    11 Multiple injuries
    88 Don't know
    99 Refused

60. What part(s) of your child's body was injured? [Do not read list] [Check all that apply].
    1 Eyes
    2 Face or scalp (excluding eyes)
    3 Head or neck (excluding eyes and face or scalp)
    4 Arms or hands
    5 Legs or feet
    6 Back or spine
    7 Trunk (excluding back or spine) (including chest, internal organs)
    8 Shoulder
    9 Hip
    10 Multiple sites
    11 Systemic
    88 Don't know
    99 Refused

61. Where did the injury happen, for example, at home, on the street, in the playground or at school? [Do not read list] [Check one only]

1 Inside own home/apartment
2 Outside home, apartment, including yard, driveway, parking lot or in shared areas related to home such as apartment hallway or laundry room
3 In or around other private residence
4 Inside school / day-care centre or on school / centre grounds
5 At an indoor or outdoor sports facility (other than school)
6 Other building used by general public
7 On sidewalk/street/highway
8 In a playground/park (other than school)
9 Other (specify) _____
88 Don't know
99 Refused

62. Can you describe what happened? For example, was the injury the result of a fall, sports injury or poisoning? [Do not read, but try to get as specific as possible] [Check one only]

1 Motor vehicle collision – passenger
2 Motor vehicle collision – pedestrian
3 Motor vehicle collision – riding bicycle
4 Other bicycle accident
5 Fall (excluding bicycle or sports)
6 Sports (excluding bicycle)
7 Physical assault
8 Scalded by hot liquids or foods
9 Accidental poisoning
10 Self-inflicted poisoning
11 Other intentionally self-inflicted injuries
12 Natural/environmental factors (eg. animal bite, sting)
13 Fire/flames or resulting fumes
14 Near drowning
15 Other (specify) _____
88 Don't know
99 Refused

63. In the spring and summer, on average, how many hours per week does your (youngest) child spend at each of the following types of playgrounds with play equipment?
    1 Backyard playground: _____ hours
    2 Public or community playground: _____ hours
    3 School playground: _____ hours
    4 Day-care centre playground: _____ hours
    5 Playground at store or restaurant: _____ hours
    6 Do not play on playground equipment ➔ go to Question 67
    88 Don't know
    99 Refused

64. Do you accompany your (youngest) child to the playground?
    1 Yes
    2 No ➔ go to Question 66
    88 Don't know ➔ go to Question 66
    99 Refused ➔ go to Question 66

65. Which of the following best describes your regular behaviour when you accompany your (youngest child) to the playground? Do you:
    1 Stay close enough to catch
    2 Stay no more than 5 to 10 feet away
    3 Stay more than 10 feet away
    4 Do not accompany child to playground
    88 Don't know
    99 Refused

66. Has your (youngest) child ever suffered a playground injury serious enough that a medical visit was required (eg. doctor's office, emergency room or clinic)?
    1 Yes
    2 No
    88 Don't know
    99 Refused

67. When riding or as a passenger on a bicycle, tricycle, wagon, how often does your (youngest) child wear a helmet? Would you say:
    1 Always
    2 Most of the time
    3 Rarely
    4 Never
    5 Does not ride
    88 Don't know
    99 Refused

Car Seat Safety

The next set of questions are about how your youngest child is restrained in a vehicle.

68. What is your (youngest) child's weight?
Lbs _____ Oz _____
Kilograms _____

69. Is your (youngest) child able to pull themselves up to a standing position?
1 Yes
2 No
99 Refused

70. When your (youngest) child travels in a vehicle, how often does he/she travel restrained in a rear facing car seat? Would you say all of the time, most of the time, about half the time, less than half the time, or never or almost never?
1 all of the time
2 most of the time
3 about half the time
4 less than half the time
5 never or almost never
6 never - child should not sit in a rear facing car seat
7 child does not travel in a vehicle ➔ go to Question 74
88 don't know
99 refused

71. When your (youngest) child travels in a vehicle, how often does he/she travel restrained in a forward-facing car seat or booster seat? Would you say: all of the time, most of the time, about half the time, less than half the time, or never or almost never?
1 all of the time
2 most of the time
3 about half of the time
4 less than half the time
5 never or almost never
88 don't know
99 refused

72. When your (youngest) child travels in a vehicle, how often does he/she ride in a back seat rather than the front of the vehicle? Would you say all of the time, most of the time, about half the time, less than half the time, or never or almost never?
    1 all of the time
    2 most of the time
    3 about half the time
    4 less than half the time
    5 never or almost never
    88 don't know
    99 refused

73. What kind of vehicle does your (youngest) child usually travel in? Is it a:
    1 Car with back seat
    2 Car with no back seat
    3 Truck with a back seat
    4 Truck with no back seat
    5 Van
    6 SUV with a back seat
    7 SUV with no back seat
    8 Other (please specify) _____
    88 Don't know
    99 Refused

Access to Services and Information

Now I have some questions about services and access to information.

74. Do you have a family physician or paediatrician?
    1 Yes
    2 No ➔ go to Question 77
    88 Don't know
    99 Refused

75. In the past 12 months, have you had difficulty getting an appointment for your child with your family physician or paediatrician?
    1 Yes
    2 No ➔ go to Question 77
    3 Did not need an appointment ➔ go to Question 77
    88 Don't know ➔ go to Question 77
    99 Refused ➔ go to Question 77

76. Thinking of the most recent time you had difficulty, was it due to [check all that apply]:
    1 not being able to get or find a family physician
    2 the physician's office being a long distance from home
    3 the physician's office being closed on evenings, weekends, or holidays
    4 having to wait too long to get an appointment
    5 other (please specify) _____
    88 don't know
    99 Refused

77. Have you ever taken your (youngest) child to a walk in clinic? (IF RESPONDENT ASKS: This is a medical office that you do not normally receive care from and where you do not require an appointment)
    1 Yes
    2 No
    88 Don't know
    99 Refused

78. Do you use the Internet?
    1 Yes
    2 No ➔ go to Question 81
    88 Don't know ➔ go to Question 81
    99 Refused ➔ go to Question 81

79. Have you used the Internet to access health-related information?
    1 Yes
    2 No
    88 Don't know
    99 Refused

80. Have you ever used the Internet to find information on parenting?
    1 Yes
    2 No
    88 Don't know
    99 Refused

81. Where do you go to find information about parenting or regarding your child's health? Please describe as many sources as you like. [Do not read list] [Check all that apply]
    1 Doctor
    2 Health clinic/hospital
    3 Prenatal classes
    4 Pharmacy
    5 Friends/family
    6 Library
    7 Newspaper
    8 Public health Department
    9 Magazine
    10 Other (please specify) _____
    88 Don't know
    99 Refused

Demographics

Finally, I would like to ask you some questions about yourself.

82. What is your date of birth?
    Date of birth (yyyy/mm/dd) (____/____/____)

83. What is your current marital status?
    1 Married ➔ go to Question 85
    2 Living common law ➔ go to Question 85
    3 Widowed
    4 Separated
    5 Divorced
    6 Single, never married
    7 Refused

84. Do you currently have a partner?
    1 Yes
    2 No
    99 Refused

85. What language do you speak most often at home?
    1 English
    2 French
    88 Other (please specify) _____
    99 Refused

86. Were you born in Canada?
    1 Yes ➔ go to Question 88
    2 No ➔ go to Question 87
    88 Don't know ➔ go to Question 88
    99 Refused ➔ go to Question 88

87. How many years have you lived in Canada _____ years.

88. To which ethnic or cultural groups did your ancestors belong? (For example; French, Scottish, Chinese). [Do not read list] [Check all that apply]

1 Canadian
2 French
3 English
4 German
5 Scottish
6 Irish
7 Italian
8 Ukrainian
9 Dutch (Netherlands)
10 Chinese
11 Jewish
12 Polish
13 Portuguese
14 South Asian (eg East Indian, Pakistan, Punjabi, Sri Lankan)
15 Black
16 North American Indian
17 Metis
18 Inuit/Eskimo
19 Other (please specify) _____
88 Don't know
99 Refused

89. What is the highest grade or level of education that you completed? [Do not read list]

1 no formal schooling
2 public school - grade _____
3 high school – grade _____
4 some college
5 some university
6 completed college
7 completed university (one degree)
8 postgraduate degree
88 Don't know
99 Refused

90. Are you currently employed?
1 Yes
2 No
88 Don't know
99 Refused

If have partner or spouse:

91. What is the highest level of education that your partner or spouse completed? [Do not read list]
    1 no formal schooling
    2 public school - grade _____
    3 high school – grade _____
    4 some college
    5 some university
    6 completed college
    7 completed university (one degree)
    8 postgraduate degree
    88 Don't know
    99 Refused

Income

92. I will now read you a list. Can you estimate in which of the following groups your household income falls? Is it… [Read list. Start at 1 and read until respondent answers]
    1 <10,000
    2 10,000-19,999
    3 20,000-29,999
    4 30,000-39,999
    5 40,000-49,999
    6 50,000-59,999
    7 60,000-69,999
    8 70,000-79,999
    9 80,000+
    88 Don't know
    99 Refused

93. Including yourself, how many people in total (both children and adults) are supported by your family's income? _____ people

94. What are the first three digits of your postal code? ____

THANK YOU FOR YOUR TIME IN PARTICIPATING IN THIS SURVEY. IF YOU HAVE ADDITIONAL HEALTH RELATED QUESTIONS, PLEASE CONTACT THE HEALTH LINE PEEL AT 905-799-7700 (TOLL-FREE 1-888-919-7800).