

Prenatal Health

Introduction

Health behaviours in women, both prior to and during pregnancy, can influence the health of the unborn child. This chapter includes information on several aspects of prenatal health, including: preconception health and folic acid supplementation; early prenatal medical visits; prenatal class attendance; and overall knowledge and perceptions of specific risk factors associated with morbidity in early childhood.



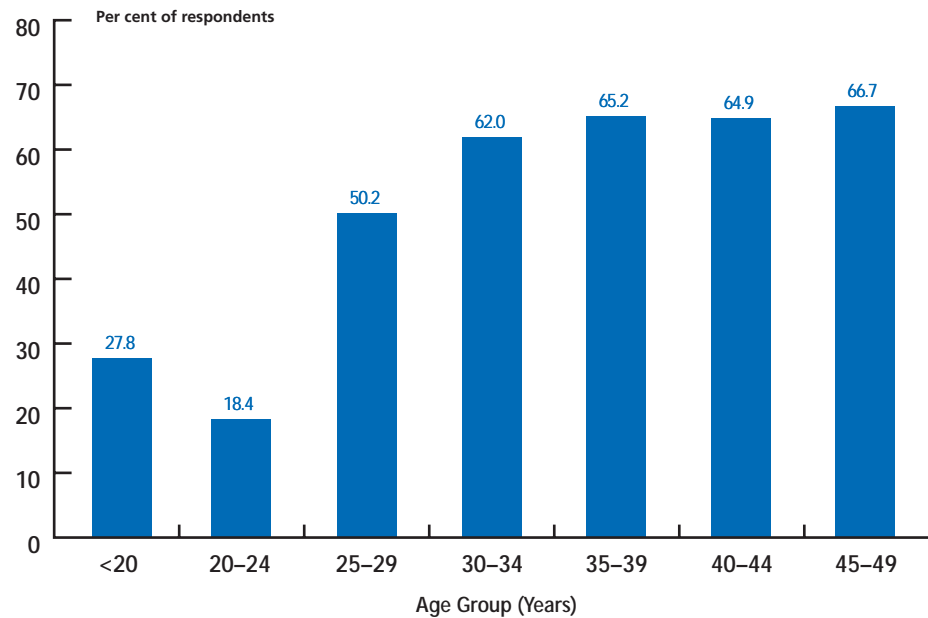
Preconception Health and Folic Acid Supplementation

An increased intake of folic acid by women prior to pregnancy reduces the risk of Neural Tube Defects (NTDs).^{10,11} 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 and are described in more detail in the chapter titled *Infant Health—The First Year of Life* (see page 29).

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.¹² 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.

The *Survey of Parents of Children 0 to 2 Years—2002* was conducted in Peel in 2002. 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 3.1 (see following page) depicts these results by age group of the mother. Women aged 30 or older were more likely to have taken folic acid supplementation than were younger women.

Figure 3.1: Proportion of Mothers Who Took a Vitamin Supplement Containing Folic Acid Prior to Pregnancy, by Maternal Age Group, Region of Peel, 2002

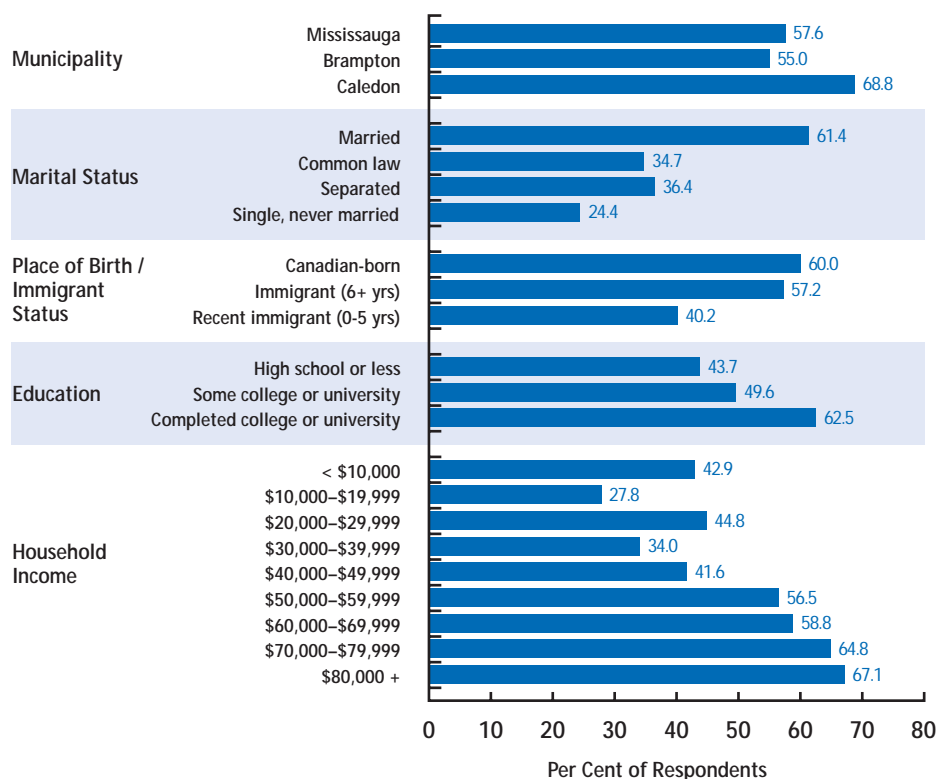


Source: Survey of Parents of Children 0-2 Years, Region of Peel, 2002

Results from the 2000/2001 Canadian Community Health Survey showed similar findings where 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.

According to the *Survey of Parents of Children 0 to 2 Years—2002*, and as shown in Figure 3.2 (see following page), folic acid supplementation prior to pregnancy varies by a number of other socio-economic and geographic characteristics. These characteristics include municipality of residence, marital status, immigrant status, education and household income of mothers. Peel 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 3.2: Proportion of Mothers Who Took a Vitamin Supplement Containing Folic Acid Prior to Pregnancy, by Selected Characteristics, Region of Peel, 2002



Source: Survey of Parents of Children 0–2 Years, Region of Peel, 2002.

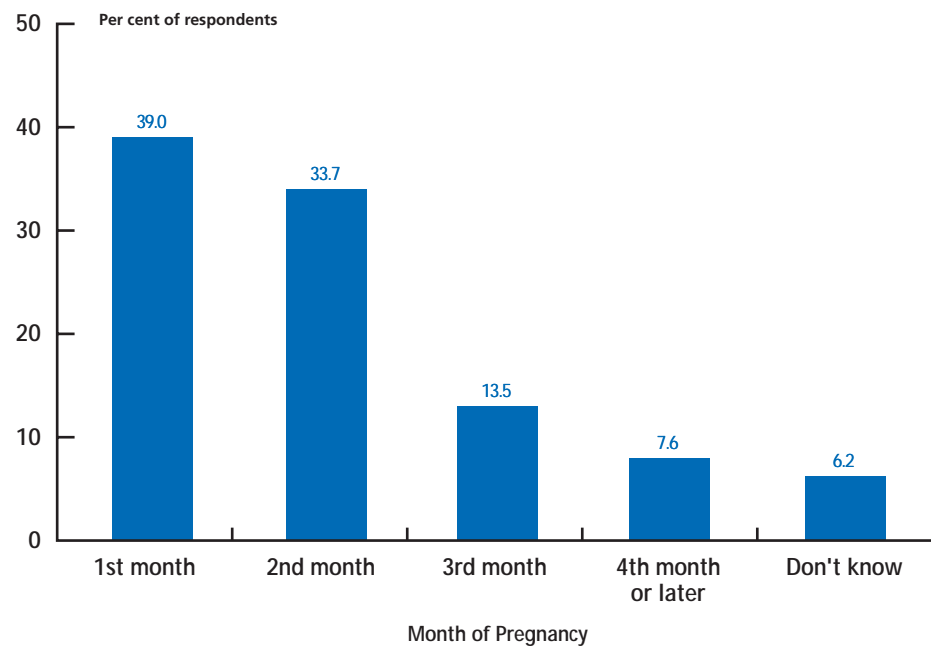
Prenatal Medical Visit and Prenatal Class Attendance

Prenatal Medical Visit

Medical professionals such as family doctors, obstetricians and midwives are among the numerous sources of information and education that are available to expecting mothers. The initial prenatal visit to medical professionals can provide an opportunity to educate expecting mothers on information relevant to their pregnancy, such as promoting behaviours that support healthy pregnancies, as well as providing an opportunity to explore relevant risk factors.

The *Prenatal Education Classes: Survey of Mothers—2003* was conducted in the Region of Peel in 2003. Respondents were asked to indicate the week or month during their pregnancy at which they went for their first prenatal visit to a doctor or mid-wife, whichever was first. As shown in Figure 3.3 (see following page), most mothers (73%) reported having their initial prenatal medical visit within the first two months of their pregnancy. Thirteen per cent of mothers had their first prenatal visit during their third month of pregnancy, and 8% during their fourth month or later.

Figure 3.3: First Prenatal Medical Visit by Month of Pregnancy, Region of Peel, 2003



Source: Prenatal Education Classes: Survey of Mothers—2003, Region of Peel, 2003.

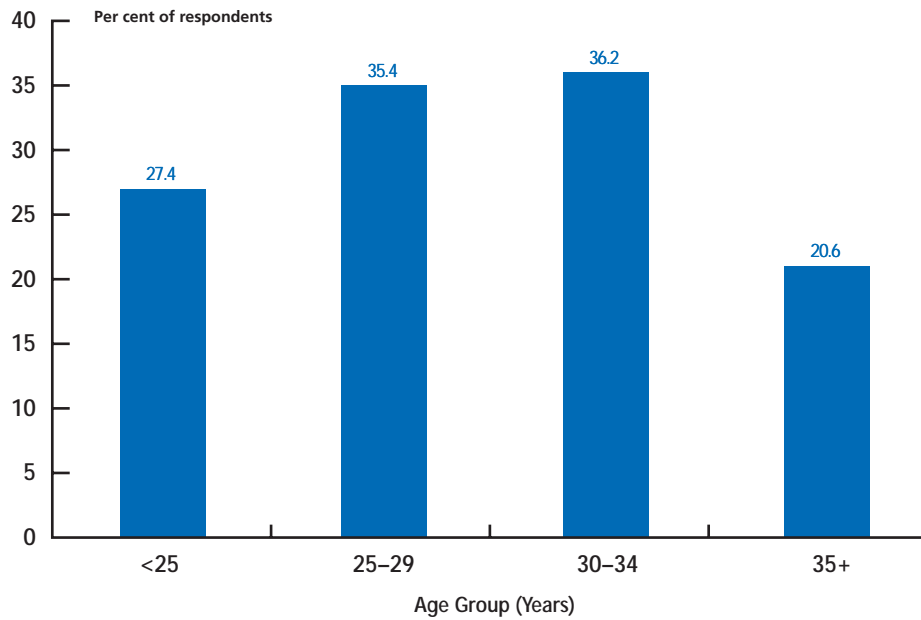
Prenatal Class Attendance

Prenatal classes are another important source of education for expecting parents that offer an in-depth look at pregnancy and the postpartum period. Examples of topics that may be addressed in prenatal classes include: nausea and vomiting, prenatal testing, lifestyle risks, breastfeeding, nutrition and exercise, labour and delivery, role of the support person, baby care, post-partum care and community resources.

The Prenatal Education Classes: Survey of Mothers—2003 estimated that almost one-third (32%) of Peel mothers who gave birth during 2003 attended prenatal classes during their most recent pregnancy. Respondents who reported that it was their first pregnancy were more likely to have attended prenatal classes (58%) than those who did not (10%).

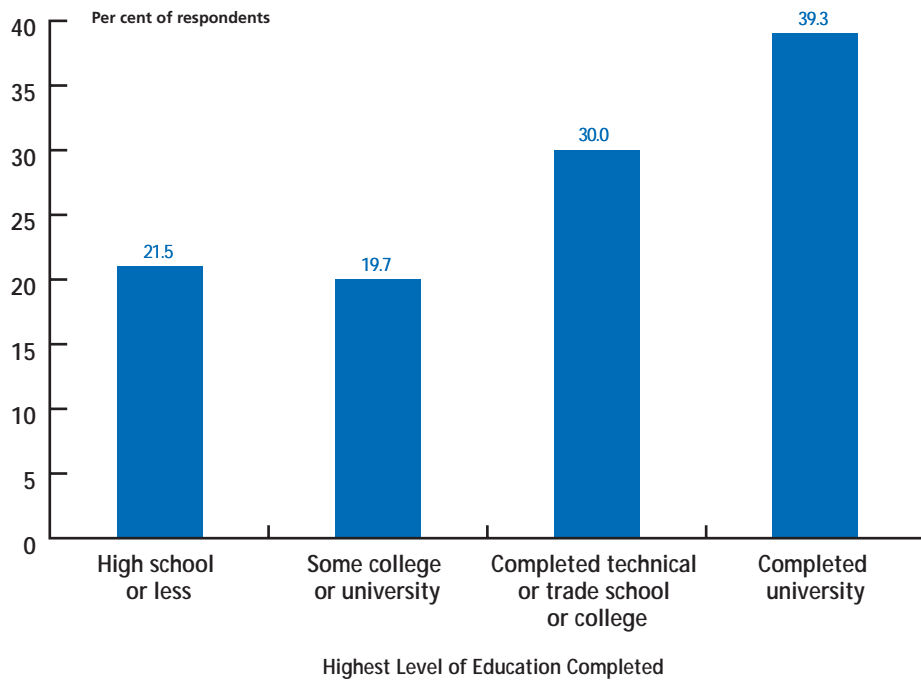
Prenatal class attendance varied according to some measures of socio-economic status including age and education of the mother. As shown in Figure 3.4 (*see following page*), mothers aged 25 to 29 years (35%) and 30 to 34 years (36%) were more likely to have attended prenatal classes compared to mothers aged 35 years and older (21%). In addition, mothers who completed higher levels of schooling (i.e. who completed trade, technical school, college or university) were more likely to attend classes than those with less education (*see Figure 3.5 on following page*).

Figure 3.4: Prenatal Class Attendance by Maternal Age Group, Region of Peel, 2003



Source: Prenatal Education Classes: Survey of Mothers—2003, Region of Peel, 2003.

Figure 3.5: Prenatal Class Attendance by Highest Level of Education Completed by the Mother, Region of Peel, 2003



Source: Prenatal Education Classes: Survey of Mothers—2003, Region of Peel, 2003.

Among mothers who attended prenatal classes, the majority (71%) attended when they were 7 to 9 months pregnant, while just over one-quarter (27%) attended when they were 4 to 6 months pregnant.

Knowledge and Perceptions of Risk Factors

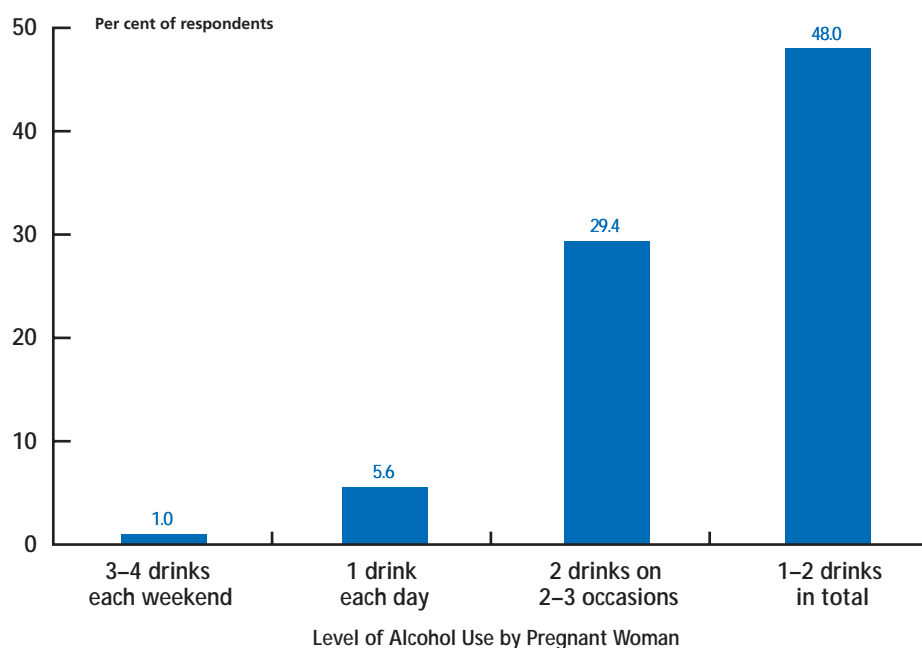
It is well recognized that certain factors during pregnancy can have adverse effects on the developing fetus and health of the newborn after delivery. For example, smoking during pregnancy has been implicated in causing low birth weight, prematurity and intrauterine growth retardation.¹³

Alcohol Consumption during Pregnancy and Fetal Alcohol Syndrome/ Fetal Alcohol Effects

Alcohol consumption during pregnancy can cause a series of adverse health effects known as Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE). 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.¹⁴ For this reason, physicians and public health officials recommend against having any alcohol if a woman knows or suspects she is pregnant.¹⁵

Results of the *Survey of Parents of Children 0 to 2 years—2002* indicate that some women feel drinking during pregnancy is somewhat safe in moderation. While only 1% of mothers perceived it to be somewhat or very safe for a pregnant woman to drink 3 to 4 drinks of alcohol each weekend when considering the effects on the baby, 29.4% believed that it was either somewhat or very safe for a pregnant woman to drink two drinks of alcohol on 2 to 3 occasions, and 48% believed it to be somewhat or very safe for a pregnant woman to drink 1 to 2 drinks in total during a pregnancy as shown in Figure 3.6 (*see following page*).

Figure 3.6: Mothers Who Reported Alcohol Use During Pregnancy as 'Somewhat or Very Safe', by Level of Alcohol Use, Region of Peel, 2002



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?"

Source: Survey of Parents of Children 0-2 Years, Region of Peel, 2002.

Results of the *Survey of Parents of Children 0 to 2 Years—2002* also suggest that 91% of Peel mothers with children 0 to 2 years old, knew that alcohol use during pregnancy can lead to life-long disability in a child. Similarly, 79% of mothers knew that most effects of alcohol use on a child do not usually disappear as the child grows. There were no differences observed in respondents' knowledge of these facts among age groups, education levels, income levels or municipality of residence. However, higher proportions of respondents who were foreign-born (21%), and those who were recent immigrants (29%) did not know whether or not the effects of alcohol use on a child would disappear as the child grew.

Summary

Preconception Health and Folic Acid Supplementation

In Peel, 58% of mothers reportedly took a vitamin supplement containing folic acid before becoming pregnant the most recent time. Women aged 30 years or older were more likely to have taken folic acid supplementation than younger women. Other differences in folic acid supplementation were observed by municipality of residence, marital status, immigrant status, education and household income of mothers. Peel mothers who lived in Caledon, were married, completed college or university or had higher levels of income were more likely to have taken vitamin supplements containing folic acid prior to pregnancy than were other women.

Prenatal Medical Visit and Prenatal Class Attendance

In Peel, approximately 73% of women who gave birth in 2003 reportedly had their first prenatal medical visit within the first two months of their pregnancy, while 13% had their first visit during their third month and 8% during their fourth month of pregnancy or later.

An estimated 32% of Peel mothers who gave birth in 2003 attended prenatal classes during their pregnancy. Study findings suggest that first-time mothers are more likely to attend prenatal classes than experienced mothers. In addition, females 25 to 34 years were more likely than other age groups to attend classes, and those who completed higher levels of schooling were also more likely to attend classes than those with less education.

Knowledge and Perceptions of Risk Factors

Some Peel mothers feel drinking during pregnancy is somewhat safe in moderation. While 1% of mothers perceived it to be somewhat or very safe for a pregnant woman to drink 3 to 4 drinks of alcohol each weekend when considering the effects on the baby, almost half (48%) believed it to be somewhat or very safe for a pregnant woman to drink 1 to 2 drinks in total during a pregnancy.

The majority of Peel mothers with children 0 to 2 years old (91%), knew that alcohol use during pregnancy can lead to life-long disability in a child and 79% knew that most effects of alcohol use on a child do not usually disappear as the child grows. Higher proportions of respondents who were foreign-born (21%), and who were recent immigrants (29%), did not know whether or not the effects of alcohol use on a child would disappear as the child grew.