

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.