

EXECUTIVE SUMMARY

INTRODUCTION

In May and June 2002, a joint study on pregnancy and smoking, co-ordinated by the University of Toronto was conducted with the Region of Peel Health Department, Toronto Public Health and York Region Health Services. The 2002 study was a follow-up to the 2001 smoking and pregnancy study conducted in the Region of Peel, the City of Toronto and Durham Region.

The objectives of the study were:

- To describe smoking prevalence in pregnant women;
- To describe factors associated with smoking during pregnancy;
- To evaluate the accuracy of the Parkyn form in assigning low birth weight codes and maternal age group codes;
- To compare 2001 and 2002 results to see if there were any significant changes in smoking status by pregnancy period or factors associated with smoking during pregnancy;
- To increase the sample size of women that intended to quit or successfully quit at the time of the survey. The 2002 sample was added to the 2001 sample to enable a more detailed analysis of quit rates during pregnancy.

METHODS

Currently, all mothers in the Province of Ontario who deliver a baby at an Ontario hospital are assessed upon discharge by hospital nurses using the Parkyn screening form (Appendix A). The screening form is used to identify mothers and babies at high risk and in need of additional support after they leave the hospital. Prior to discharge, hospitals obtain consent from mothers to share this information with the Health Department. If consent is obtained, the hospital faxes the completed Parkyn form to the local Health Department after the mother is discharged. If the residence of the mother is in a different health unit, the form is then faxed to the appropriate health unit. During May and June 2002, PHNs obtained consent from recent Peel mothers to participate in the study.

A structured questionnaire (Appendix B) was used to gather more specific information about mothers overall smoking behaviour throughout the pregnancy (includes smoking behaviour between menstrual period and knowledge of pregnancy and overall smoking since the mother found out she was pregnant), smoking behaviour during each trimester and postpartum. In each of these

areas, questions were included about the number of cigarettes smoked on a daily basis. One question about quitting smoking, and several demographic indicators; such as education, ethnicity, birthplace of mother and the number of years the mother lived in Canada were also included.

Mothers were excluded from the study if they refused to participate, were unable to be contacted by the PHN (either by telephone or mail), were not referred to the Health Department, agreed but could not complete the study during the telephone interview, or were determined by the PHN to be excluded for personal reasons. All data were entered into a database using Microsoft®Access 97 and analyzed using SPSS version 11.0 and EpilInfo version 6.04d.

There were a number of mothers (n=18) who had babies with missing date-of-birth data. The birth date of these babies was estimated to be June 1, or the median date of the 2002 study so that the age of the mother could be calculated. There were 9 mothers for which this could not be done since the mother's date of birth was missing.

The analysis for other variables from the Parkyn form and the quit smoking questions were based on combining the 2001 and 2002 study data as indicated in those sections. All other analyses are based on 2002 data only.

RESULTS

The Peel Health Department contacted 560 out of 889 women during the months of May and June 2002. Of these, 421 consented to be a part of the study for a participation rate of 75%. Approximately half (49.4%) of the study respondents were Canadian born. The mean age of women in the study was 30 years (range 16-45 years). More than two-thirds (68.6%) of the women surveyed were well educated; having completed either college or university and the majority (95.2%) spoke English. The characteristics of the 2002 sample were very similar to the 2001 sample.

Overall, 14.5% of women reported smoking during pregnancy, that is, smoked since they found out they were pregnant or, smoked between their last menstrual period and the time they found out they were pregnant. The prevalence of smoking declined to 5.7% by the first trimester and stayed below 5% throughout the remainder of the pregnancy.

Similar to the 2001 study, the 2002 study revealed that smoking rates during pregnancy were significantly higher among Canadian born women (22.1%) than among foreign born women (7.1%). Smoking rates were also significantly higher in the younger age group (less than 19 years old), (71.4%) compared to the older

age groups (20-24 years, 28.6%; 25-29 years, 12.7%; 30 years and older, 11.8%). In addition, smoking rates were higher in those women with less than a high school education (40%) compared to women with a university education (3.1%).

Eighty-eight per cent of women who smoked during their pregnancy tried to quit during their pregnancy. This proportion was similar to that of the 2001 study (87%). Approximately two-thirds (67.7%) of women who smoked at the beginning of their pregnancy were smoke free at the end of the study. This is comparable to the 71% of women who were smoke free at the end of the 2001 study.

The 2001 and 2002 samples were combined to provide a larger sample for the quit smoking analysis. Younger women less than age 19 were least likely to be successful quitters by the end of the study (36.4%) compared to those aged 20 to 29 (71.8%) and those aged 30 years and older (68.8%). Successful quitting among women who had less than a high school education was lower (40%) compared to women who completed a university education (80%).

An assessment of the Parkyn form to correctly identify low birth weight and maternal age showed that the Parkyn form was correct for birth weight in 97.1% of the records and for maternal age in 97.6% of the records.

CONCLUSION

Characteristics of the survey respondents in this study are generalizable to all mothers in the Region of Peel. This study showed that the prevalence of smoking during pregnancy in the Region of Peel of 14.5% was similar to the 17% shown in the 2001 study and was also comparable to other Canadian studies.

Rates of smoking during pregnancy were higher among younger women and among those less educated. Canadian born women were more likely to be smokers than those who were foreign born.

Overall, 88% of the women surveyed in 2001 and 2002 who smoked during their pregnancy tried to quit at some point while pregnant. Two-thirds of these women were smoke free at the time of the survey. Women in the youngest age group (less than 19 years old) and women with less than a high school education were less likely to be successful in quitting than were women in older age groups or with a higher education.