

# Smoking in Canadian Homes

## Does Health Knowledge Make a Difference?

### Overview

Of the 4.7 million children in Canada under the age of 12, one third are regularly exposed to tobacco smoke at home. The chances of a child being exposed are higher if he or she is living with a single parent, is in a low-income family, or lives in Quebec or Saskatchewan (see Highlight Sheet #1). But the most important factor related to children's exposure is living with an adult who smokes: 85% of young children who live with a daily smoker are exposed regularly to ETS.

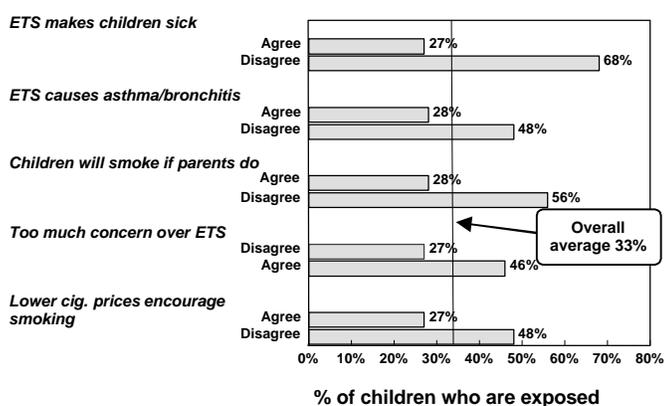
Moreover, the chances of a child being exposed to ETS increase with the smoker's dependence: the more the adult smokes daily, the greater the number of years smoked, and the shorter the time until the first cigarette each day, the greater the likelihood of ETS in the home (see Highlight Sheet #2).

Education has some mitigating effect on exposure, however: as years of formal education increase for the smoker, the likelihood of regular ETS in the home declines. This suggests that knowledge in general, and perhaps specific knowledge of the health effects of ETS, may be an important factor in whether children are exposed to ETS. There is evidence that this is true in the Canadian population.

### Knowledge of Adults and ETS Exposure of Children

Not surprisingly, children in Canada are much more likely to be regularly exposed to ETS at home if they live with an adult who is unaware of the dangers of ETS. For example, children are about twice as likely to be exposed if the household adult disagrees that ETS makes children sick and causes asthma and bronchitis (Fig. 3a). Similarly, ETS exposure is related to adult knowledge about the modeling effect of smoking in front of children. Young children in Canada are half as likely to face regular ETS at home if the adult believes that smoking will encourage children to start.

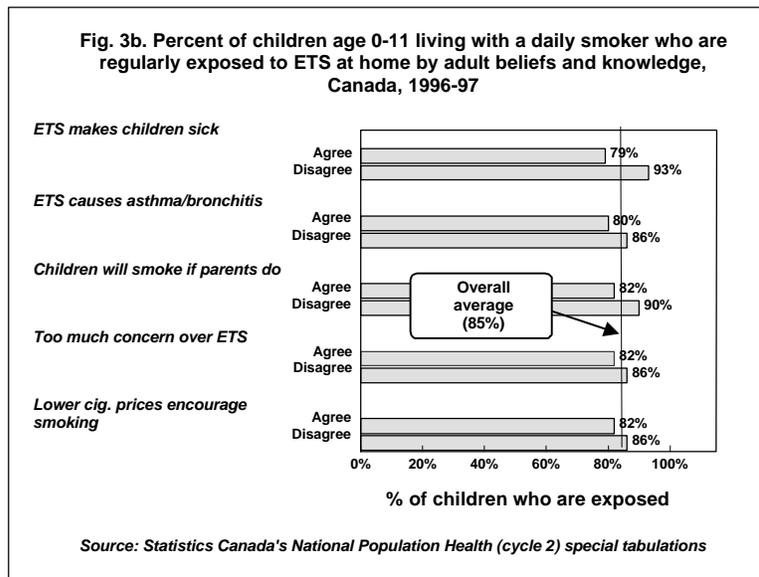
Fig. 3a. Percent of children age 0-11 regularly exposed to ETS at home by adult beliefs and knowledge, Canada, 1996-97



Source: Statistics Canada's National Population Health (cycle 2) special tabulations

While these results suggest that correct health knowledge reduces the potential for ETS exposure, they may also be related to a generally negative attitude toward smoking. For example, there is a greater likelihood of child exposure when (a) adults feel there is too much concern in society about ETS, and (b) they disagree that lower cigarette prices encourage smoking (Fig. 3a). These two beliefs have little to do with health, per se, but are almost as strongly predictive of exposure as is health knowledge.

## Knowledge of Daily Smokers and ETS Exposure of Children



***The presence of a smoker in the household is the best predictor of children's exposure to second-hand smoke — more important than the smoker's knowledge of the health effects of second-hand smoke.***

smoke if parents do (Fig. 3b). While the differences between smokers with health knowledge and those without are considerably narrower than the differences in the general population (Fig. 3a), it is apparent that correct adult knowledge is of some importance to the ETS exposure of children. Similarly, when smokers have a positive attitude toward smoking (agreeing that there is too much concern over ETS, or disagreeing that lower prices encourage smoking), the children living with them are slightly more likely to be exposed.

### What Does This Mean for Children?

The patterns of results summarized in the two charts make it clear that, while health knowledge is important, the major factor affecting children's exposure to ETS is the presence in the home of an adult smoker. Moreover, while it helps when adults know about the harm that ETS can cause, this may not be enough knowledge. For example, they may erroneously think that smoking light cigarettes, smoking only occasionally, or smoking with a window open, may all provide safeguards when smoking at home. Or they may think that their own children are not susceptible if, for example, they do not complain or show any immediate symptoms of illness. While the survey did not collect the information necessary to examine such speculations, they may explain why there is such a disconnect between adult knowledge and child exposure.

Even when children live with knowledgeable adults and university graduate smokers (Highlight Sheet #2), three quarters or more are exposed regularly to ETS. Why don't Canadian smokers act on their knowledge about the potential for harming their children? One explanation may be that the urge to smoke can be so strong that other considerations take second priority. It is clear that the stronger the dependence on smoking, the greater the likelihood of children being exposed (Highlight Sheet #2).

These results suggest that health knowledge (and perhaps attitudes) explain much of smoking in front of children. However, a lack of health knowledge and a positive attitude toward smoking are also commonly found among smokers. Thus, for a true test of the importance of health knowledge, it is necessary to look at the exposure of children who live with daily smokers.

As noted above, among all Canadian children who live with a daily smoker, 85% are exposed regularly to ETS. However, within this group, exposure is more likely for children living with an adult smoker who disagrees that (a) ETS makes children sick, (b) ETS causes asthma/bronchitis, or (c) children will

One implication for physicians and public policy officials alike is that the best measure for protecting children from ETS at home is prevention of smoking in the first instance and promotion of cessation in the second. While prevention is the cornerstone of much tobacco control policy, cessation tends to have much lower priority. Perhaps a recognition that cessation can be a key to the goal of protection will give cessation the priority it deserves.

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## References

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## Acknowledgments

This analysis was supported by Health Canada, whose Population Health Fund and Tobacco Strategy provided funding while the Cancer Bureau provided the data file. The opinions expressed in the analysis are not necessarily shared by Health Canada. The analysis and text were prepared by Thomas Stephens. Helpful comments on earlier drafts were received from Margaret de Groh and Mary Jane Ashley.

## Background of the study

These results are from a special analysis of over 31,000 children age 0-11 living in 20,358 households across Canada in 1996-97. They were part of the National Population Health Survey, a comprehensive study conducted by Statistics Canada every two years and designed to describe the health status and circumstances of the Canadian population. These results are representative of children in all parts of the country except remote areas and the territories.

Information was collected by trained interviewers using a portable computer for in-home questioning. Data reported here were obtained from a selected member of the household age 12 or older.

The survey did not conduct a census of the smoking habits of all household smokers. Thus it is possible to identify children who definitely live with a smoker *only if the household member selected for an interview was a smoker*. If that person was not a smoker, however, it is not possible to say if another adult was or if the child definitely lived with no smokers. Thus the statement that “at least” 1.026 million children live with a smoker. Considering that nearly 1.6 million children are regularly exposed to ETS at home, close to this number probably live with a smoker.

This is the first time that the ETS exposure of such a large and diverse sample of children has been studied in such depth.