

Smoking in Canadian Homes

Are Children at Risk?

Overview

In 1996-97, nearly 1.6 million Canadian children under the age of 12 were regularly exposed to cigarette smoke at home. This amounts to one third of all children in this age group (Table 1). Not surprisingly, children's exposure to environmental tobacco smoke (ETS) is very strongly influenced by the presence of a household member who smokes daily: *85% of young children who live with a daily smoker are regularly exposed to ETS* (Table 1). In short, if there is a smoker in the household, the chances are very high that children in the same household will live in a polluted environment.

Table 1. Children Age 0-11 Regularly Exposed to ETS at Home, by Province

	Children exposed to smoke at home			
	Total number of children	Number of children exposed	Percentage of all children	Percentage of all children living with a daily smoker
	'000	'000	%	%
Canada	4,678	1,561	33	85
NF	71	30	43	88
PE	17	7	44	79
NS	99	42	42	87
NB	80	30	37	88
QC	884	394	45	94
ON	2,168	656	30	82
MB	218	72	33	87
SK	125	49	40	90
AB	583	183	31	85
BC	434	99	23	67

Are all children equally at risk?

The chances that a child will be exposed to ETS depend upon the nature of the family, the family's economic circumstances, and where the family lives. (The characteristics of the *smoker* in the household are also important and are described in Highlights #2 and #3).

Among all children less than 12 years of age, ETS exposure is greatest in disadvantaged households (Fig. 1a) -- those households with a single parent (48%), low income (51%) and poor food security (52%), and income received mainly from workers' compensation or social assistance (53-63%). Exposure is also above average in Newfoundland, Nova Scotia, Prince Edward Island, and Quebec (42-45%). All of these figures are well above the Canadian average of 33% of children being exposed.

Elevated exposure in disadvantaged households and in certain provinces is not surprising, however, because there are more smokers in such households and in some provinces. Thus it is important to compare *children who live with a smoker* to determine which ones are exposed to *extra* risk.

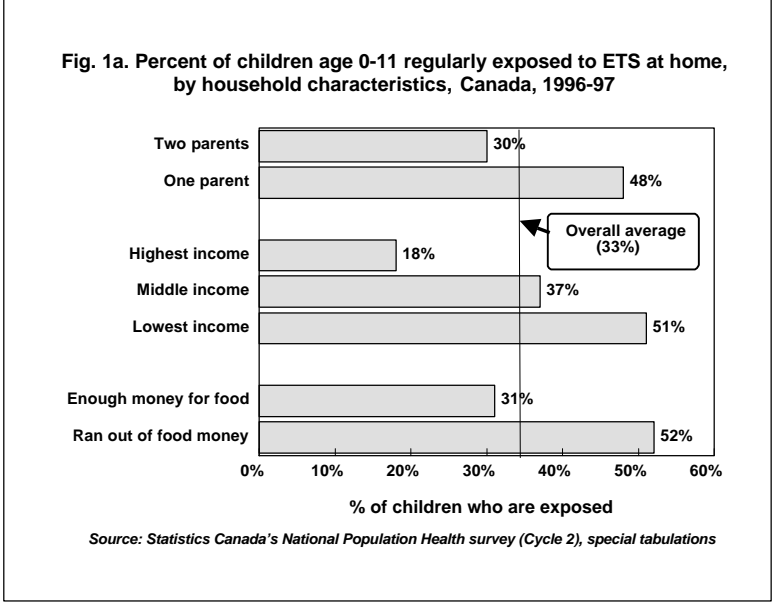
When this group of at least 1.026 million children is examined, the differences among family types, circumstances, and province are considerably diminished (Fig. 1b). Compared to the overall average of 85% of children living with smokers being regularly exposed to ETS, exposure is *lower* for children living with both parents (81%), in upper-income families (74-79%), in homes where self-employment is the main source of income (73%), and in Prince Edward Island (79%). But the greatest protection for children living with an adult who smokes is found in British Columbia, where “only” 67% of such young children are regularly exposed to ETS at home. This contrasts sharply with the other provinces, although it still leaves a majority of BC children regularly exposed to ETS if someone at home smokes (Table 1).

Once account is taken of the presence of a smoker at home, there is no longer any real difference in exposure related to food security (Fig. 1b).

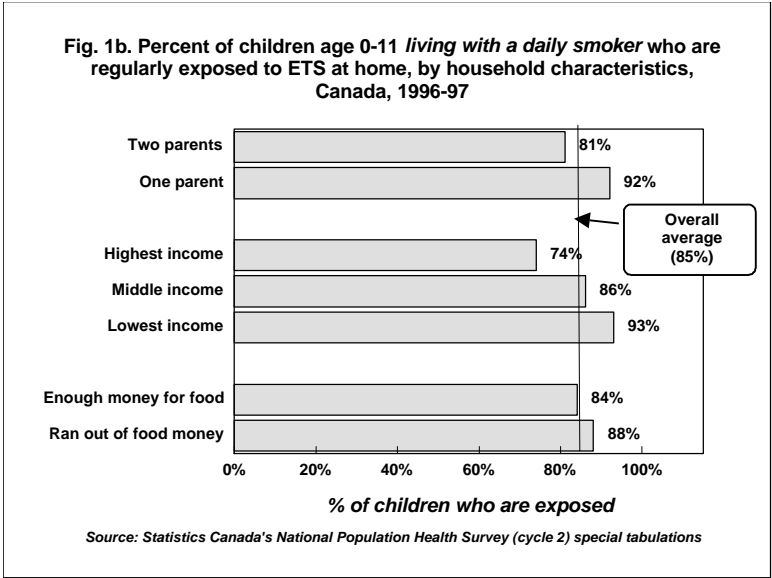
Nor is there any significant distinction in the chances of exposure related to household crowding or urban/rural location. This is true whether or not adult smoking is considered.

What Does This Mean for Children?

The health effects of ETS are well documented and widely known. For children, who have higher ventilation rates, the effects can be especially acute. Among the important childhood outcomes of ETS exposure are exacerbated asthma, other respiratory problems, ear infections and even Sudden Infant Death Syndrome.



The presence of a smoker in the household is the best predictor of a child's exposure to ETS - more important than the family's economic circumstances or where they live.



Given the serious consequences for children of exposure to ETS, one might imagine that adults who smoke around children are unaware of the hazard. In general, this appears not to be true. Awareness of the health risk of ETS was fairly high in Canada in 1996-97: 86% of all persons age 12 and older were aware of some risk. When these people were asked specifically about respiratory ailments resulting from ETS, 84% (72% overall) acknowledged the association. (These results are also from the National Population Health Survey, and are broadly representative of Canadians. They are explored further in Highlight Sheet #3.)

Awareness of the risks of ETS is actually greatest among persons age 12-44, that is, among those who could be the parents or older siblings of children less than 12, yet the vast majority of these children are regularly exposed to cigarette smoke if there is a daily smoker in the home. Assuming that the smokers wish no harm to the children, this suggests other possibilities, for example, the smokers may think that the hazard is reduced by opening a window, smoking in another room from the children, or smoking only when they are not present. However, none of these measures is as effective as restricting the smoking to the outdoors. There are no recent reliable Canadian data to probe smokers' beliefs about these measures to reduce the danger of the ETS they cause.

These results suggest that education of parents about the dangers of smoking for their children — and about effective safeguards — would be appropriate activities for both physicians and public health authorities. They also suggest that the best protection for children would result if the smokers in their homes would quit.

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.