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Less Educated Less Healthy
A Study of Chronic Illness Among Seniors of Ontario

by

Anshumala Ram, B.A. (Hons.)

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfilment of
the requirements for the degree of

Master of Arts

Department of Sociology and Anthropology

Carleton University

Ottawa, Ontario

December 13, 1994

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A Study of Chronic Illness Among Seniors of Ontario

submitted by Anshumala Ram, B.A. (Hons.)
in partial fulfilment of the requirements for
the degree of Master of Arts

Thesis Supervisor

Chair, Department of Sociology and Anthropology

Carleton University

January 13, 1995

Abstract

This study examines the impact of education on health as measured by the prevalence of chronic illness among seniors of Ontario, 50 years and over. Using data from the Ontario Health Survey, 1990, we find that the impact is usually negative as suggested by numerous previous studies. However, the strength and direction of the relationship between education and the prevalence varies by the type of illness and by age and sex.

The negative impact of education on the prevalence of chronic illness is generally more pronounced among females than males, particularly in the case of heart disorders and stroke, circulatory and vascular problems. Education is not a significant predictor of these diseases among males. Surprisingly, education does not have any significant effect on the prevalence of cancer among both males and females. In the case of less fatal diseases, the negative education gradient is of a modest nature, whereas the education gradient is positive for skin diseases and allergies among both males and females.

Although the negative impact of education on the prevalence of most chronic illnesses diminishes with advancing age, particularly among males, it persists in the case of fatal diseases, such as heart disorders and respiratory problems among women.

Although we find that education is generally a significant predictor of the prevalence of most chronic illnesses, we conclude that less educated are not always less healthy. Thus we suggest that efficiency and risk factor hypotheses which link life style, particularly, dietary, drinking, smoking and exercise habits, and use of medical facilities with illness, do not provide a complete explanation of health conditions among seniors.

This research suggests that although programmes and policies geared toward the improvement in life styles and the reduction in risk factors, should remain in force, a greater emphasis should be placed upon policies for coping with the increase in the prevalence of chronic health problems and lengthening the disability-free life among the elderly.

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Chapter 1

INTRODUCTION

There is a large body of social science literature which reports a strong positive association between socio-economic status - education in particular - and health (Feinstein, 1993; Wagstaff, 1989). This observation typically appears regardless of whether health is measured objectively (e.g., mortality rates) or subjectively (e.g., self-evaluation), and whether unit of analysis is an individual or a geographic region (Fuchs, 1982).

The question why the less educated are less healthy or conversely, why the highly educated are more healthy, has been dealt with by most previous researchers as consistent with the so-called "efficiency hypothesis". The major rationale for this hypothesis is that education influences health by bringing about a change in life styles and a reduction in risk factors. Drawing upon this general model, we examine in this study the impact of education on health as measured by the prevalence of chronic illness among seniors, 50 years and over. We derive a series of hypotheses basically by specifying certain conditions under which the impact is highly pronounced or not as pronounced, and test them with data from the Ontario Health Survey, 1990. Specifically, we argue that chronic illness is not a global concept but rather

comprises of various types of diseases which differ not only in terms of severity but also in terms of their etiology and prevention, and therefore, their relationship with education is not always significant and unidirectional.

Why this study ?

Due to a rapid decline in fertility rates and to some extent an increase in longevity at older ages in industrialized countries including Canada, there has been an increase in the number and proportions of persons in very old ages (McKie, 1993; Beaujot, 1991:202-209; Desjardins, 1993:22-41; Uhlenberg, 1992). In Canada, between 1971 and 1991, for example, the proportion of the population aged 55 and over increased from 16.1% to 20.4%. During the same period, the proportion 65 years and over increased from 8.1% to 11.6%. As the baby-boomers grow older, the proportion of aging population will become even larger. By 2036, for example, the Canadian population 65 years and over is likely to reach about a quarter of the total population.

Studies have shown that in industrialized countries with increasing life-expectancy among the elderly, a greater proportion of years of life is likely to be spent with chronic health problems and long-term disabilities (Verbrugge, 1984; Charlton, Wallace and White, 1994; Wilkins and Adams, 1983). During the past two decades, there has been a decline in the death rate but an increase in the morbidity rate due to chronic illness. It has also been found that the prevalence of chronic illness for

men increases most sharply between the ages of 50-64, but the increase among women is the quickest after age of 65 (Charlton, Wallace, and White, 1994:18). According to an estimate, women in Western societies can expect to spend up to one quarter of their lives disabled and men up to one-fifth (Olshansky, Carnes and Cassel, 1993:51) and this proportion may increase as lives get longer and additional years are added in the disabled state. According to some projections done by Wilkins and Adams (1983:111), the total volume of activity restriction in Canada resulting from chronic health impairment is expected to increase by 50% by the year 2031. "Until about 2011 the increase is attributable to persons aged 45-64 as well as to persons age 65 years and over. After that time, however, essentially all of the increase is due to rapid growth in the number of persons age 65 and over".

Since the proportion of the Canadian population that is older has been increasing and mortality from communicable diseases has declined, the chronic degenerative diseases and problems associated with them have become a subject of principal concern to society, care providers, and policy makers. Communicable diseases have been brought under control through improvements in living conditions, hygiene, immunization and numerous medical inventions such as antibiotic treatment. However, the causes of chronic diseases have remained less well known because of complex interaction between genetic pre-dispositions and environmental exposures that occur decades before the diagnosis (Breslow, 1985:109; McPherson, 1992; Fogel, 1994). Thus it has been difficult to pinpoint a set of

factors which may be at the root of certain chronic diseases and which might be prevented or arrested by medical treatment.

Research in various industrialized countries has shown time and again that persons in lower socio-economic status have worse health than those in higher socio-economic status. Educational attainment has emerged as one of the most important predictors of health, regardless of the way health is measured. It is not clearly established, however, why less educated persons have poorer health than more highly educated persons. This study is an attempt to develop and test certain hypotheses which link education and health among chronically ill persons in older ages. Basically, this study specifies some of the conditions under which less educated persons suffer worse health conditions in a society where every individual is supposed to have equal access to medical and hospital services. This knowledge is also useful to a policy maker from the viewpoint of shifting emphasis from the traditional medical orientation of cure to one of prevention and of adapting the environment to meet the needs of people with chronic health problems (Luft, 1978:6).

Study Plan

In chapter 2, we review some recent literature on the relation between socio-economic status and health in the industrialized world. Chapter 3 deals with the conceptual framework and specific hypotheses to be tested. In Chapter 4 , we present a discussion of the Ontario Health Survey which provides data for this study. In

this chapter, we also present a brief discussion of dependent and independent variables and methods used to analyze our data. Chapter 5 presents a descriptive analysis of the relationship between education and various types chronic illnesses. This chapter focuses on the results obtained from cross-tabulations. Chapter 6 elaborates these findings in a multivariate framework, using logistic regression analysis. The concluding chapter presents a brief summary and conclusions of our study and some implications for policy and future research.

Chapter 2

REVIEW OF LITERATURE

U.S. Studies

Empirical studies have consistently shown a positive relationship between years of formal schooling completed and good health. Perhaps the most important study to influence the research on this subject is that of Kitagawa and Hauser(1973). In their classic Differential Mortality in the United States: A Study in Socioeconomic Epidemiology, Kitagawa and Hauser linked death certificates with census information on education and income and found strong evidence to support the existence of income-education-level-related health inequality in the United States. Although, education and income were found to have important independent relationship with mortality, Kitagawa and Hauser (1973:23) asserted:

In our judgement, the education differentials probably provide more reliable indicators of socioeconomic differentials in mortality in the United States... than do the income differentials.

Grossman (1972) in his publication The Demand for Health: A Theoretical and Empirical Investigation also stressed that schooling rather than income is a better predictor of health. High income does not necessarily result in higher level of health, as high income may lead to indulgence in certain activities that may

have a negative impact on one's health status. Grossman found that high education helps persons to improve their life styles and therefore their health.

A more recent analysis based on data from the National Longitudinal Mortality Study by Rogot et al. (1992), reached conclusions similar to those of Kitagawa and Hauser. In both studies a strong inverse relationship between years of schooling and mortality in general, was found but among those 65 years and over, the relationship was relatively modest. Probably as argued by Feinstein (1993), the effects of education may "wear off" as a person ages. These studies have not been able to delineate the effects of "a host of variables that are central to a more penetrating analysis of differential mortality, such as access to medical care, reimbursement coverage, smoking, diet, and family upbringing" (Feinstein, 1993:287). Feldman et al.(1989) extended Kitagawa and Hauser's study by including some more recent statistics from two additional surveys conducted to examine the relationship between educational attainment and mortality during 1971-1984. Even after controlling for the effects of smoking, overweight, cholesterol and high blood pressure, Feldman and his associates found large and statistically significant effect of education on death from heart disease among men and women. Luft (1978) carried out a detailed analysis of the prevalence of chronic conditions based on data obtained from several large surveys conducted in the early 1970s. This study examined the relationship between two measures of socio-economic status, family income and

education and various types of chronic illnesses. In this study, "the reported age-specific prevalence rates for the most common chronic conditions, with a few exceptions, appear to bear a general negative relationship to income and education" (Luft, 1978:65).

Canadian Studies

By comparing various studies from Canada and other industrialized countries, Wilkins (1980) found persistent differences in mortality by social class. In his study of men aged 25 to 64 years, in five different occupational classes, Wilkins showed that chances of dying were nearly twice as high for unskilled workers, farmers, and labourers than those in professional occupations or upper levels of management. He concluded that "socio-economic differences in mortality in Canada are probably quite similar to socio-economic differences in mortality seen in other parts of the world" (Wilkins, 1980:22).

Wilkins and Adams (1983) calculated health expectancy index for Canada and found support for the existence of an inverse relation between low socio-economic levels and health expectancy. Perhaps a most revealing finding of this study is that the estimated disparity (in years not restricted in activities) between the wealthiest 20% of the population and the poorest 20% was approximately 14.3 years for men and 7.6 years for women in 1978. Even at age 65, the disparity between males of the highest and lowest income levels was and 4.0 years of disability-free life. Among females, the corresponding figures was 2.0 years (Wilkins and

Adams, 1983:95-100).

Appealing as they may appear, Wilkins and Adams' findings are not without limitations. Since measures of health expectancy and income inequality are cross-sectional in nature, it is difficult to establish a causal linkage between the two variables. It is likely that both income level and health expectancy were the product of third factor which occurred earlier in time. Possibly, education could have been a more appropriate variable to understand health and mortality. As Kitagawa and Hauser (1973:23-24) argue, "education as an index of socio-economic status has the advantage of being fixed after young adulthood; income, on the other hand is subject to variations over time and for many persons income during a given year... may be a poor predictor of the "wealth" component of socio-economic status".

Miller and Stephens (1993) examined the prevalence of selected risk factors - smoking, sedentary lifestyle and overweight - by socio-economic status in Canada between 1985 and 1991. This study found that generally as education increased, the prevalence of risk factors decreased. Since these risk factors are so highly associated with increased risk of cancer, heart disease and other chronic illnesses, the reduction in their prevalence should therefore bring about a reduction in the prevalence of associated diseases.

U.K. Studies

A large number of studies found that the Britons in lower social classes had worse health than those in higher social classes and that the gap had been widening. The Black Report (Black et al., 1982) is known to be the most significant work in influencing social science research on health inequalities in the United Kingdom and other industrialized countries. This study revealed that the mortality gap between persons from the lowest social class and those from the highest social class persisted despite the fact that in the United Kingdom the National Health Service has been in existence for quite sometime and has aimed at equalizing health care access and outcomes.

In addition to numerous data problems, this British study has suffered particularly from the exclusion of persons 65 years and over; by excluding the elderly from its scope, the study may have overstated the extent of health inequality in Britain as most people are older when they die and because the socioeconomic mortality differences are smaller at older ages. Another limitation of the study is the lack of information on morbidity. The study of mortality rates may not provide an accurate picture of patterns of ill health as the relationship between mortality and morbidity has changed and has become weaker as a consequence of declines of infectious diseases and tuberculosis and the increased incidence of chronic and degenerative diseases (Gray, 1982: 373).

Following the Black Report, numerous studies (see Wagstaff, 1989) appeared on health inequality in the United Kingdom. Coleman

and Salt (1992) analyzed chief causes of death in England and Wales in the 20th century and found that educated people recognize health hazards over time and try to avoid high risk activities which cause the concentration of diseases in lower social classes. According to this study, "educational deprivation rather than want of sustenance" (Coleman and Salt, 1992:262) is the major cause of health inequalities.

Using 1982 General Household Survey carried out by the Office of Population Census and Services of the United Kingdom, Haynes (1991) found a strong inverse relationship between social class and chronic illness. This was particularly true when class was measured by housing tenure and car availability rather than occupation. People living in rented accommodations with no access to a private car were about 30% more likely to suffer from an acute or a chronic illness than people living in their own home with more than one car.

O'Donnell and Propper (1991) examined the extent to which the British National Health Service (NHS) allocated health care according to need. This study which is based on the 1985 General Household Survey, concluded that the rich have a lower level of self-reported morbidity and thus corroborated the evidence of a negative association between income and mortality rates and the inequalities in health across social class. Needless to say that both income and morbidity were measured at the same time in this cross-sectional survey and therefore fall short in making a causal linkage between economic inequality and health.

Australian Studies

Australian statistics are highly consistent with the observations made by the Black Report. Using various measures of socio-economic status, the Australian Institute of Health and Welfare (1992) found that socio-economic differentials in health were real. This study suggested that health outcomes in Australia were a "result mainly of the interaction of the structural and behavioral processes, with selection making a small contribution, all taking place within the context of changing social and economic structures". Differential access to health care was not thought to be a major cause of health differentials in Australia but differential use of early intervention and preventive care were considered important for specific diseases. Also, childhood circumstances, particularly educational factors, were found to have played an important role in the production of adult health differentials. Although, working age (25-64) males and females classified as being of low education, reported significantly more chronic illness than did males and females with high education, there were no significant differences in reported illness levels for older people 65 years and over.

Scandinavian Studies

Sweden is one of the most egalitarian countries in the world today. Programs and policies in various spheres of life in this country have enabled persons to achieve equal access to health care facilities and other social services. However, statistics clearly

show that in the 1960s and 1970s, death rates among men in certain in lower-prestige occupations such as cleaning, packing, etc. were about twice as high as among those in technical, scientific and administrative occupations (Diderichsen, 1990:361). Also, certain parts of the country which suffer from high poverty and unemployment also exhibit high death rates. Data obtained from the Public Health Report of Sweden, 1987 also find inequalities in health. Findings based on interviews conducted during 1975-85, revealed considerable and persistent class differences in self-reported morbidity. Swedish studies are, however, inconclusive on the factors contributing to inequalities between social classes. It is not clear whether persons with poorer health conditions are a select group of people coming from poorer social economic background or they are exposed to greater risk factors like smoking, alcohol consumption and poor dietary habits (Diderichsen, 1990).

Lundberg (1991) also examined the impact of class inequality on health in Sweden. Using logit models, he found that class differences in physical illness among persons 15-64 years of age could only partially be understood as a result of differences in numerous control variables. Physical working conditions were found to be the prime source of class inequality and physical illness, although economic hardships during childhood and health-related behaviours did make important contributions to class differences in illness.

Valkonen (1993) examined age-standardized mortality rates by various socio-economic characteristics in Scandinavian countries and found that mortality differentials between educational categories were more marked than they were for occupation-based socio-economic categories. Among women, the relationship between education and mortality was weaker and less regular. Valkonen did not find any significant changes in the educational gradient of mortality from the first half to the second half of the 1970s in any of the four countries, Finland, Denmark, Sweden and Norway, and concluded that social inequalities in mortality neither increased nor diminished in the Scandinavian countries in the 1970s.

Maseide (1990) examined inequalities related to health in Norway. In this study salaried employees, particularly those in higher level occupations were found to have the least morbidity and mortality rates, whereas factory workers, farmers and fishermen, had the highest. Occupational groups with high death rates were characterized by irregular working time, heavy physical work and greater exposure to pollution and high risks of accidents, whereas lowest mortality rates were observed among teachers and nurses.

Karisto (1993) examined social status differences in chronic illness in Finland and found that morbidity varied significantly among social class and class differences were specially pronounced among farmers. The adjusted morbidity rate of farmers was more than twice as high as that of white-collar employees, in 1964; it was still 1.5 times higher in 1987.

In a study of morbidity and mortality in six European countries - Denmark, Finland, Norway, Sweden, England and Wales and Hungary, Lahtelma and Valkonen (1990) found that mortality among men with the highest level of education was 40 to 60 percent lower than among those with the lowest level of education. Among women, the pattern was more pronounced. The negative education gradient was also observed in the case of deaths from cancer and cardiovascular diseases. In all the countries, relative educational differences in mortality from cardiovascular diseases were greater among women than among men, particularly in the case of mortality from cardiovascular diseases.

Conclusions

Basically, two conclusions can be drawn from the above review of literature. First, regardless of which measure of health is used, education remains the most important predictor of good health status in almost all industrialized countries. Second, education influences health through the improvement in life styles and reduction of risk factors. The latter conclusion becomes clearer in the next chapter which deals with the conceptual framework for this study.

Chapter 3

CONCEPTUAL FRAMEWORK AND HYPOTHESES

The above review of literature based on the research done in various industrialized countries clearly supports a direct relationship between education and health. In this section, we present a discussion of the theoretical underpinnings of this relationship. There are three major hypotheses to explain the relationship between education and chronic illness: 1) efficiency hypothesis; 2) social selection hypothesis; and 3) inequality of access hypothesis.

The Efficiency Hypothesis

Why are the less educated less healthy ? Most promising research to answer this question has originated from the economic literature that views education and health as a form of human capital. "Human capital analysis starts with the assumption that individuals decide on their education, training, medical care, and other additions to knowledge and health by weighing the benefits and costs... Human capital in the form of good work habits or addictions to heavy drinking has a major positive and negative effects on productivity in both market and non-market sectors" (Becker, 1993:392). A well-known research based on this approach is that of Grossman (1972, 1975, 1977). Grossman argues that the 'production of health' can be increased not only by an investment

in medical care but other variables that might affect the efficiency of individuals and families in producing good health, and concludes that additional years of schooling makes the individual a more 'efficient producer' of health, through wiser use of medical care and health practices.

According to this so-called 'efficiency hypothesis', education increases individuals' efficiency in developing a healthy life style: persons with higher education are likely to choose healthier diets, be more aware of health risks, use medical care and use medical care more efficiently. A study based on data from the 1985 and 1991 General Social Surveys of Canada observed that smoking, overweight and physical inactivity - three lifestyle risk factors associated with increased risks of cancer, heart disease and other chronic diseases, varied by educational level and by sex within educational levels (Millar and Stephens, 1993). According to this study, smoking prevalence was more than twice as high for Canadian men 25 years and over who had not completed high school than for those who graduated from university. Also, the prevalence of physical inactivity ranged from 31% of those men who had not completed high school to 22% of university graduates, whereas the proportion of overweight men in the least educated group was 1.6 times that of the most educated group. These patterns were similar for women. Similar observations were made by Nair et al. (1989) in their analysis of cardiovascular diseases.

In Grossman's (1975) research, the positive effect of schooling on health remained statistically significant even after

controlling for a large number of variables, including parental education, spouse's education, health status in high school, income, job satisfaction, and various indicators of intelligence and ability. The positive effects of additional years of schooling on health persisted even at high levels of schooling. These observations led Grossman (1975:204) to infer "a causal relationship that runs from schooling to current health".

Fuchs (1979, 1982) presents a slightly revised version of the 'efficiency hypothesis'. He accepts Grossman's hypothesis but adds some modifications. Education according to him, seems to have little connection with more knowledgeable use of medical resources. He argues that the better-educated may not necessarily use medical care differently from the less educated; the better-educated patients choose the same kinds of physicians, have about the same length of stay in the hospital and have about the same outcome from medical treatment. Using research on surgical utilization as a measure of 'efficiency' effect in the use of medical care, he hypothesizes that "both schooling and health are manifestation of differences among individuals in the willingness and/or ability to invest in human capital" (Fuchs, 1979:77). He argues that better educated persons have a greater ability or willingness to invest in health related activities for the sake of future benefits in terms of a reduction in morbidity and mortality.

In order to find support for the efficiency hypothesis, we have to rule out other competing hypotheses. Behavioral genetics suggest a "genetic basis for many conditions, ranging from

Tourette's syndrome to alcoholism" (Science, 1994). There is substantial evidence to support the proposition that genetic factors are responsible for numerous health problems (Fogel, 1994), but it is not known why one socioeconomic group should inherit genetic problems more than another group.

The Inequality of Access Hypothesis

Another competing hypothesis focuses on differential access to medical facilities and inadequacies of health care systems (Manga, 1987; Anderson and Rosenberg, 1990; Pampalon, 1991). This hypothesis does have some relevance, but is likely to play only a minor role in Canadian society where there is a universal health care and equality of access to medical facilities, regardless of socio-economic background of individuals.

There are three fundamental principles of the Canadian health care programme: universality, comprehensiveness, and public funding. In the context of "MEDICARE", all Canadians are insured on the "same terms and conditions". All Canadians regardless of their social, economic and cultural backgrounds, have equal access to medical facilities and health care of their choice. "In the health sphere, Canada is probably more egalitarian than any other comparable industrialized democratic society. Private insurers are forbidden by law to sell supplementary coverage for publicly insured services and to maintain the 'equal terms' of access" (Marmor, 1993:58).

Comprehensiveness of health insurance program refers to the coverage of all conventional hospital and medical care. Patients are free to visit the hospital and physicians of their choice. Although most Canadian hospitals and physicians are private, they are publicly funded. Most of the money comes from federal and provincial revenues. Patients do not have to pay doctors or hospitals regardless of the severity of disease or the amount of expense for the services provided to them. Thus even if there is some inequality of access to medical care in Canada, it is likely to play only a minor role in explaining chronic health conditions among seniors.

The Social Selection Hypothesis

In order to find support for the efficiency hypothesis, another competing hypothesis which must be considered concerns social selection. According to this hypothesis, the relationship between education and health is spurious. This idea supposes that both less schooling and poor health are due to disadvantaged socio-economic, cultural and family backgrounds. Even when education is held constant, persons born and /or brought up in certain cultures, for example, are likely to have poorer health than those born and/or brought up in other cultures. Then it is not less education per se, but rather some other variables which precede schooling, may be responsible for poorer health. Thus in order to argue for the efficiency hypothesis, one must control for relevant social selection variables.

Three Hypotheses Derived for the Present Research

Although we accept the efficiency hypothesis, and propose that the higher the education, the lower the prevalence of chronic illness, we argue that persons' concern with healthier life style depends upon the nature of illness. There are reasons to assume that persons will pay greater attention to an illness which often causes death, than to the ones which are of less fatal nature. Thus we hypothesize that:

- H1: The impact of education is strong and negative on the prevalence of most fatal chronic illnesses. The less severe is the illness, the weaker is the effect of education.**

Any conceptual model dealing with morbidity or mortality is incomplete if it does not take sex differences into consideration. Previous research has shown time and again that although women on the average live longer than men, they are in worse health condition than men, with the chronic debilitating conditions in their later years of life (Verbrugge, 1985; Haug and Folmer, 1986; Manton, 1988). Since mortality is higher among men than women, there are reasons to assume that only men from higher socio-economic strata would be surviving into their later years, whereas living long is likely to be the case for women from all socio-economic strata. Thus our second hypothesis is as follows:

- H2: The negative relationship between education and the prevalence of chronic illness will be more pronounced among women than among men; this is particularly true in the case of fatal diseases.**

There is a substantial evidence to suggest that declining mortality and increasing longevity among the elderly has been

accompanied by worsening of health conditions (Verbrugge, 1984; Rothenberg and Koplan, 1990; Charlton, Wallace and White, 1994). Wilkins and Adams (1983) found that much of the gain in life expectancy at older ages in Canada has resulted in the proportion of time lived in a feeble condition. Thus it is argued that our life-saving technology has only postponed death and consequently increased the duration of chronic conditions (Gruenberg, 1979). However, an opposing view has been proposed by Fries' (1983, 1989), in his compression of morbidity hypothesis:

"The 'compression of morbidity' hypothesis envisions reduction of the national illness burden by postponing the age of onset of chronic infirmity relative to average life duration so that the period of morbidity is compressed between increasing age of onset and a relatively fixed life expectancy. The compression of morbidity thesis postulates that (a) if the morbid period is defined as that period from the onset of chronic infirmity until death, and (b) if the time of occurrence of such morbid events can be postponed, and (c) if adult life expectancy is relatively constant, then (d) morbidity will be compressed into a shorter period of time".

(Fries, 1989:208)

Fries predicted that the preventive approach to chronic illness through improved life style such as increased exercise, healthy diets, less smoking, etc., will significantly postpone the onset of chronic illness, and therefore compress the period of morbidity into an increasingly short duration. Fries based his prediction on the assumption that the maximum length of life of human beings is fixed at about 115 years. If the above hypothesis is correct then it is fair to assume that persons from higher socio-economic strata will be more likely than those from lower socio-economic strata to

postpone the onset of chronic illness until quite late in life by means of primary prevention. Some research suggest that over the past several decades, lower socio-economic groups have increasingly adopted life styles that have been identified as major risk for morbidity and mortality, whereas higher socio-economic groups have adopted more healthy life styles (Millar and Stephens, 1993; Nair et al., 1989; Manton, 1989). Also, the least healthy who are usually from the lower socio-economic status may have died prior to the age of 65. Consequently on average, the prevalence of chronic illness in lower socio-economic strata is usually no greater among persons over the age of 65 than those below the age of 65. Then it is hypothesized that:

H3: The negative impact of education on the prevalence of chronic illness will diminish with advancing age, which means that the negative effect is likely to be less pronounced among persons 65 years and over than among persons aged 50-64 years.

Since persons would like pay greater attention to chronic diseases which often cause death such as cancer, diabetes, heart disease and hypertension, postponement of the onset of chronic diseases will occur more often in the case of more fatal than less fatal diseases. Thus we propose a sub-hypothesis as follows:

H3a: The negative relationship between education and prevalence of chronic illness is less pronounced among persons 65 years and over than among those 50-64 years, particularly in the case of more fatal diseases (eg. heart, cancer, and circulatory problems).

Chapter 4

DATA AND METHODOLOGY

Data Source

Data for the present study come from the Ontario Health Survey, 1990. The target population of this survey consisted of all Ontarians who were residents of private dwellings during the survey period from January through December, 1990. This survey was conducted in two parts. Part I was an interview with one member of the household knowledgeable enough to answer questions concerning everyone within the household (see Forms 03 and 04 of the questionnaire reproduced in Appendix B). This part had a response rate of 87.5%, providing complete health information for over 61,000 people. Part II, which consisted of a self-completed questionnaire filled out by each member of the household, aged 12 years and over, had a response rate of 77.2%. This (see Form 05 of the questionnaire in Appendix B) part provided data on self-rated health, the use of medicines and drugs, smoking, alcohol use, family relationships, social supports, nutrition and numerous related variables, for over 49,000 people (Ontario Ministry of Health Survey, 1990a).

The Ontario Health Survey is based on a complex sample design. The population of Ontario was stratified by public health units and each unit was further divided into urban and rural strata. Respondents were selected using a multi-stage stratified cluster

sampling frame designed to obtain 1000 respondents per public health units (PHU). There was a marked variation in response rates by PHU. The PHUs with lowest responses to the self-completed questionnaire were all in Toronto Metropolitan areas, namely North York (81.1%), Scarborough (76.4%), City of Toronto (86.2%) and York (89.2%). Household response rates in these four units varied between 75% and 80%.

Thus the Ontario Health Survey did not consist of a simple random sample. Although the sample was designed to provide reliable information at the PHU level, each household and individual in the target population did not have the same probability of selection. "The unweighted sample counts cannot be considered to be representative of the target population unless the appropriate weights are applied" (Ontario Ministry of Health, 1990a:46). Therefore, the present study is based on the weighted sample (for various steps of the weighting procedures, Ontario Ministry of Health, 1990b:47-48).

Dependent Variables

The prevalence of chronic illnesses is our dependent variable. In order to define chronic illness, it may be useful to make a distinction between, chronic illness and acute illness. According to World Health Organization (1980:23) " 'acute' means 'ending in a sharp point', implying a finite duration, which, classically, culminated in a crisis. On the other hand 'chronic', which is derived from a word meaning 'time', indicates 'long-continued' ".

Thus it is time scale which is important in making a distinction between these two classes of illness. Stated simply, "acute diseases are generally understood to be those of abrupt onset and short duration, whilst chronic diseases are those with slow onset and long duration and often causing prolonged disability" (United Nations, 1958:28). Lorig (1993) makes a clear distinction between acute and chronic diseases, as shown in Table 4.1.

Chronic health problems as reported by the respondents in the Ontario Health Survey, 1990, consist of a list of 19 specific problems plus one item on the presence of any other problem. These 20 chronic health problems are:

1. Skin allergies or other skin diseases
2. Hay fever or other allergies
3. Serious trouble with back pain
4. Arthritis or rheumatism
5. Other serious problems with the joints or the bones
6. Paralysis or speech problem due to stroke
7. Asthma
8. Emphysema or chronic bronchitis or persistent cough
9. Epilepsy
10. High blood pressure or hypertension
11. Circulatory problems
12. Heart disease
13. Diabetes
14. Urinary problem or kidney disease

15. Stomach ulcer
16. Other digestive problems
17. Goitre or thyroid trouble
18. Eye problem, for ex., glaucoma, cataract
19. Cancer
20. Any other form of health problem/illness

A summary variable has also been created to indicate the presence of any of the above health problems (minimum of one and maximum of eight chronic illnesses).

There are several limitations of the measure of chronic illness used in this study. First, some persons with serious chronic illness are usually institutionalized and consequently not covered in this study. This survey collected data from the households in the non-institutionalized population; target population of the study is non-institutionalized population. Second, this study refers to health problems of only surviving people. According to the 1991 Life Tables for Ontario (Table 4.2), 97% of females and 94% of males survive by the age 50. Obviously, chances of survival diminish with the progression of age. Thus 46% of females but only 26% of males survive by the age 85. It is highly likely that persons with severe health conditions died before the survey. Third, respondents in interviews tend to report conditions of which they are aware and about which they are willing to report to the interviewer. Thus like several previous studies (National Centre for Health Statistics, 1986, 1987), chronic

illnesses are generally under-reported in interview surveys.

However, this does not mean that the measures of chronic illness used in this study are not valid. Following the works of Maddox (1962, 1987), self-perceived health has become a useful and valid measure of health status among the elderly and has been included in numerous large surveys in industrialized countries. Self-reported health has been found to be a significant predictor of subsequent mortality among older people, even after controlling for objective health status and health behaviour (Idler, Kasl and Lemke, 1990; Idler and Kasl, 1991). Longitudinal studies of aging have found a strong relationship between a global self-rated health question and mortality (Rakowski, Mor and Hiris, 1991; Rakowski and Mor, 1992).

Independent Variables

Our major independent variable is the level of schooling. This variable was derived from a question on the highest level of education that was completed by the respondent. It may be useful to note that response rates were almost constant (75% to 77%) for persons with education level between some primary and some post-secondary. The response rates were low, at 58% for persons with no education and high, at 81% for persons who has completed post-secondary education. We have categorized the total sample into five classes according to the level of education: primary or less, some secondary, completed secondary, some college and university degree. As expected, most older persons belong to the less -

educated categories and only a few - particularly among women - hold a university degree (Table 4.3). Persons who did not state their education (about 0.2%) were excluded from the analysis.

Age and sex are our most important control variables. As discussed in the previous chapter, the older the age, the more susceptible one is to a chronic illness. Also, the prevalence of specific diseases varies so much by sex that an overall analysis without sex differentials may not be revealing enough.

We have also introduced controls for two cultural variables: ethnicity and place of birth. These variables may in some circumstances be indicators of culture but in another context of social status. As life styles usually vary by cultural groups, numerous previous studies found it reasonable to hold factors associated with cultural background constant in multivariate analyses of morbidity and mortality. For example, the prevalence of smoking - perhaps a most important risk factor - was found to be markedly lower among foreign-born (16%) than among native - born Canadians (25%), according to a 1990 survey (Millar, 1992). This study also found a marked variation in the prevalence of smoking by ethnic origin, the highest being among aboriginal (59%), French (25%) and Ukrainian persons (26%) and the lowest being among Asians (9 to 11%).

Three additional control variables which refer to both risk factors and social background are: the age at which one first started smoking; the age at which one first started drinking alcoholic beverages; and age at which one first had sexual

intercourse. In strict sense of the term these three variables are not actually risk factors as they do not refer to prevalence or the extent of smoking, drinking or sex. Rather they refer to one's social origin. The younger ages at which one first started smoking or one first started drinking alcoholic beverages, or one first had sexual intercourse, refer to lower class origins and the higher ages refer to higher class origins. Distribution of weighted (scaled back) sample by age, sex and all other independent variables is presented in Table 4.4.

Methods of Analysis

Basically two procedures have been used to analyze the data. For the descriptive analysis, cross-tabulations and for the multivariate analysis, logistic regression procedure, have been used. Because of the complex sampling design of the survey, we have used a weighted sample for our analysis. Cross-tabulations are based on a full weighted sample, and regressions are based on a scaled-back sample, corrected for design effects. In order to control for the effects of various confounding variables, the major focus of our research is on logistic regressions. This procedure is efficient when the dependent variable is categorical and highly skewed. Our dependent variable - presence of a chronic illness - is dichotomous and highly skewed, as only a small proportion of the population suffers from any specific chronic illness. Like ordinary multiple regression analysis, this procedure allows statistical controls for a number of independent variables

simultaneously. This procedure provides a global test of significance for a given model, controlling for all predictors (Demaris, 1992:1-3). The relationship between education, control variables and the prevalence of chronic illness was examined by means of logistic regression analysis, which predicts a dichotomous outcome by estimating the following equation:

$$P = 1/(1 + e^{-bx})$$

Where P is the outcome, having or not having a chronic illness, x is a vector of independent variables, and b is a vector of coefficients linking each variable to the predicted outcome.

Given the cross-sectional nature of the survey, it is difficult to establish a causal link between the independent and the dependent variables. However, in the case of the present study, the temporal sequence - an important condition of causality - of the two variables, education and chronic illness, is clear. Seniors' health status is measured at the time of the survey, whereas education which was fixed after young adulthood, is measured much earlier in time.

An obvious limitation of this study is that we examine the impact of education on health status of only surviving people. Many persons with severe health conditions, who may have also attained lower education, may have died before the survey. If it is correct to assume that surviving persons are differently selected, then even a modest negative relation between education and chronic illness should support our major hypothesis.

Chapter 5

DESCRIPTIVE RESULTS

According to the Ontario Health Survey, 54.5% of the Ontario's population, 16 years and over suffered from at least one chronic illness in 1990 (Badley et al., 1993). The prevalence of chronic illness is higher at older ages. As expected, seniors who are the focus of this study had the highest prevalence. Of the total population of Ontario 50 years and over, 1.78 million or 73.5 percent, had one or more chronic illness.

Consistent with numerous previous studies (Marcus and Seeman, 1981; Verbrugge, 1985; Haug and Folmar, 1986), the prevalence of chronic illness was higher among women (75.6%) than men (71.8%). In light of the fact that women on the average live longer than men, this observation may seem paradoxical. However, this is to be expected as there are more older women than older men. It has also been found that because of various strains, women tend to develop illness more often than men (Marcus and Seeman, 1981). There are others who argue that women have more frequent illness, but the problems are typically not serious ones (Verbrugge, 1985:162).

The prevalence of chronic illness for both men and women is higher at older ages. As shown in Table 5.1, 66.0 percent of men and 67.8 percent of women 50-64 years of age reported having at least one chronic illness; the corresponding proportion is 78.5 percent among men and 83.7 percent among women, 65 years and over.

Older people not only have higher prevalence of chronic illness than not so old but they often suffer from more than one chronic health problem. It seems that the prevalence of chronic illness increases rapidly with advancing years but the pace of increase is faster among females than males.

Musculoskeletal disorders are the most common causes of chronic health problems, long-term disabilities, and consultations with health professionals in Ontario (Badley, Rasooly and Webster, 1994). As shown in Table 5.2, about 30.6 percent of the total population 50 years and over reported to have suffered from arthritis and rheumatism. The second most common type of chronic illness among seniors was high blood-pressure or hypertension (22.9%). Serious trouble with back pain (12.1%), hay fever or other allergies (11.2%) and heart disease (10.9%) also affected substantially large proportion of the aged population. The least common illnesses include epilepsy (0.7%) and paralysis or speech problem due to stroke (0.8%).

The sex differences in the prevalence of chronic illness are interesting. As Verbrugge (1985) observes, women have a greater prevalence of illness which are typically not life threatening ones, whereas men suffer more from life threatening diseases. Table 5.2 shows that heart disease, diabetes, urinary problems and stomach ulcer are more prevalent among men, whereas hay-fever, arthritis, digestive problems, thyroid and eye problems are more prevalent among women. Cancer is the only fatal disease which is slightly more prevalent among women than men (4.9% versus 4.1%).

This can perhaps be explained by a high prevalence of breast cancers among women.

Turning to the major focus of this study, we find generally an inverse relationship between education and the prevalence of chronic illness. Figure 5.1 presents percentage of persons 50 years and over who reported one or more chronic illness by the level of education attained. The prevalence of chronic illness is highest (78%) among those with primary or less education, followed by those with some secondary education (69.2%). University educated persons have the lowest prevalence, at 68.8%. Surprisingly, those with some community college or some university education have greater prevalence (72.2%) than those with completed secondary school education, thus distorting the expected monotonic inverse effect of education on the prevalence of chronic illness. At this stage of analysis, reasons for this observation are not clear.

Because of the global nature of the above discussion, it is difficult to generalize these findings. In order to understand the effect of education and other interrelated variables, on the prevalence of chronic health problems, one needs to examine various types of diseases separately. Following the ICD-9 codes (Badley et al., 1990; 1993) and mortality statistics (Statistics Canada, 1994), we have regrouped all chronic illnesses into three broad groups and 11 subgroups (see Appendix A for details):

I Fatal diseases

1. Heart disorders
2. Stroke, circulatory, and vascular problems
3. Cancer

II Less fatal diseases

1. Respiratory disorders
2. Digestive disorders
3. Diabetes and goitre or thyroid trouble
4. Urinary problems or kidney disease

III Least fatal diseases

1. Musculoskeletal disease
2. Eye problems
3. Skin diseases and allergies
4. Others

Because of the ill-defined nature of the last category 'Others', we have not analyzed this problem; we focus our discussion on only 10 classes of chronic illness.

In terms of fatality and prevalence, heart disorders and stroke, circulatory and vascular problems are on the top of list of chronic illnesses in Canada. As shown in Figures 5.2 and 5.3, university educated report lowest prevalence to these diseases, whereas those with primary education and those with some secondary education report highest prevalence. Persons with completed secondary or some college education occupy the middle position. Apparently, patterns are more pronounced among women than men.

Compared with those with a university degree, women with primary or less education are slightly more than twice as likely to develop heart disorders and three times as likely to develop stroke, circulatory and vascular problems. However, it is important to note that although being highly educated does have depressing effect on the propensity of having these problems, the impact of a university degree is highly pronounced. These observations seem to provide partial support to our first and second hypotheses.

Contrary to our hypothesis, there does not seem to be any consistent relationship between the level of education and the prevalence of cancer among both men and women as shown in Figure 5.4. Among men, those who had some college education show a higher prevalence of cancer, whereas among women, the prevalence is highest among those who had completed some secondary education. Probably, factors which may be responsible for cancer do not vary significantly by education. In another words, regardless of education, one is equally susceptible to risk factors (such as smoking) responsible for this disease or, persons with severe cancer problems, who are also less educated, have already died before reaching old age.

The negative education gradient is rather consistent although of a relatively modest nature, among those who had respiratory disorders; diabetes and goitre or thyroid troubles; urinary problems or kidney disease (Figures 5.5, 5.6 and 5.7). This observation supports again our first hypothesis. However those with some college education emerge as a unique group as they have

higher prevalence of these chronic illnesses than those who had obtained a university and also those who had completed a secondary education.

In the case of digestive disorders and eye problems, a curvilinear U-shape relationship between education and chronic illness emerges (Figures 5.8 and 5.9). It is likely that persons at both ends of the education continuum have poor dietary habits which lead to digestive disorders. It is also likely that both less and highly educated persons are involved in activities which cause strain to eyes.

Although less fatal in nature, musculoskeletal diseases are the most common chronic illnesses among older people. There is generally a negative relationship between education and the prevalence of musculoskeletal diseases among both men and women (Figure 5.10). Since less educated persons are usually more involved in activities that require physical work, they are more likely to develop diseases associated with joints and bones. Again, persons with community college or incomplete post-secondary education emerge as a deviant group, in that they exhibit higher prevalence of these problems than those with a university degree as well as those who had completed secondary schooling.

Skin diseases and allergies are known to be the least fatal diseases. Contrary to our primary hypothesis, the prevalence of skin diseases and allergies is positively related to education as shown in Figure 5.11. The prevalence is highest among those with a university degree (23.1%), followed by those with some community

or university education (19.9%) and those with completed secondary education (17.9%); persons who have only some secondary education show a lower prevalence (16.4%), while those with primary education or less the least (14.1%). It is interesting to note that the positive relationship between education and prevalence of skin diseases and allergies is more pronounced among males than females. At this stage it is not clear why education is positively associated with the prevalence of allergies. It may be that most of the less educated persons do not consider these non-fatal diseases of any serious consequence and therefore do not report them as chronic illnesses, or that they are immune to conditions which cause these problems. These findings are not unique. A U.S. study based on data obtained from the National Centre for Health Statistics (Luft, 1978:59-73) reports similar findings. According to this study, the prevalence of hay-fever was positively associated with both family income and education of the head.

In summary, with a few exception and particularly for women, we found support for our first and second hypotheses. The effect of education is strong and negative in the case of most fatal illnesses such as heart disorders, stroke, circulatory or vascular problems; weaker though still negative in the case of respiratory, diabetes, goitre and thyroid trouble, urinary problems and kidney diseases; and curvilinear in the case of digestive disorders and eye problems. These conclusions remain tentative as other relevant variables have not been controlled. In order to understand the prevalence of chronic illness, age which is the most

important explanatory variable must be controlled. This is done in the analysis that follows.

Chapter 6

MULTIVARIATE ANALYSIS

In this chapter we turn to the multivariate analysis based on logistic regressions. Following the cross-tabular presentations in the previous chapter, we begin our analysis by examining the overall prevalence of various chronic illnesses and their correlates. Results are presented in Tables 6.1 through 6.52, each representing a specific chronic illness. For each illness we present two models. Model I shows the impact of educational attainment, controlling for age and sex and model II shows the impact of educational attainment controlling for all social selection variables discussed in Chapter 4.

Overall Patterns

Before going into the detailed analysis, we would like to examine the results of logistic regression analysis of the overall prevalence of having one or more (minimum of one and maximum of eight chronic illness) health problems. As shown in Table 6.1, there is generally a negative relationship between educational attainment and the prevalence of chronic illness for persons 50 years and over. Compared with the university educated, persons with primary or less education are 19 percent more likely to have a chronic illness, as revealed in the $\exp(B)$ which is the anti-log of the regression coefficient (Model I). At the higher level of

education, the prevalence is lower. Interestingly, the lowest prevalence - 16 percent less than those with a university degree - is seen among those who have completed secondary education. After controlling for additional variables, these patterns remain almost unchanged as shown in model II. It may be noted that the global nature of the dependent variable - overall prevalence of chronic illness - used in these models masks the variations that may exist among the various measures of chronic diseases. Therefore in the analysis that follows, we have disregarded this variable and have focused our attention on specific illnesses only.

The remaining discussion is organized according to the fatal nature of the chronic illness, fatality defined by death rates caused by specific illnesses. Following mortality statistics published by Statistics Canada (1994), we have divided chronic illnesses into three broad groups: (1) most fatal which includes heart disorders, stroke/circulatory/vascular problems and cancer; (2) less fatal which includes respiratory disorders, diabetes/goitre/thyroid trouble, urinary problems/kidney disease, and digestive disorders; and (3) least fatal which includes musculoskeletal diseases, skin disease/allergies and eye problems. The remaining chronic illness have been grouped together as 'other health problems' which does not have a meaningful interpretation and therefore will not be discussed.

Table 6.2 presents the results on the prevalence of heart conditions among persons 50 years and over. Schooling does have a significant effect on the prevalence of heart disorders,

particularly at the lowest level of education. Controlling for all independent variables, compared to those who have obtained a university degree, persons with some secondary or less education are 18 to 19 percent more likely to experience heart disorders.

Education does not seem to have a significant effect on the prevalence of stroke, circulatory or vascular problems and cancer among persons beyond primary schooling; persons from all education backgrounds are almost equally likely to have these problems. However consistent with our hypothesis, the least educated experience significantly higher prevalence of these problems than persons of all other educational backgrounds (Table 6.3). Surprisingly, the negative education gradient is not at all significant in the case of cancer (Table 6.4).

Turning to less fatal diseases (respiratory disorders, digestive disorders, urinary problems or kidney diseases, and diabetes and goitre or thyroid trouble), we find a mild negative relationship between education and the prevalence of chronic illness, although the difference between the primary schooling and some secondary or more is generally large and significant (Tables 6.5, 6.6, 6.7, and 6.8). There is a curvilinear relationship between educational attainment and the prevalence of digestive disorders.

Now we turn to the least fatal chronic illnesses - musculoskeletal diseases, eye problems, and skin diseases and allergies (Tables 6.9 through 6.12). Although these illnesses are not fatal in terms of causing deaths directly, they could have

serious consequences resulting in disabilities. As we have shown in the previous chapter, musculoskeletal illness ranks the highest in prevalence among seniors. There is an inverse association between the level of education, the prevalence of this illness. This observation is particularly pronounced among those with the least education. As revealed in model I of Table 6.9, persons with primary or less education are 45 percent more likely to experience musculoskeletal problems than those who have obtained a university degree. Although this effect declines slightly after controlling for other variables as shown in model II, it remains pronounced and highly significant.

Education does not have any systematic effect on the prevalence of eye problems, although we do find that persons with completed secondary education are the least likely to have these problems (Table 6.10). The relationship between educational attainment and the prevalence of skin disease and allergies is not consistent with the primary hypothesis concerning the negative education gradient. In Table 6.11, we find that the higher the education the greater the likelihood of developing these problems. It is not surprising that these conditions with positive education gradients are the ones that appear to be of least fatal nature and most subject to differential reporting (Luft, 1978:64). It is possible that less educated persons are not as concerned enough about these problems as those with high education and therefore do not report them as chronic illnesses. It is also likely that less educated persons who usually may be employed in blue collar

occupations or who are unemployed, are immune to factors which cause these problems. However, these are merely speculations that need further research.

At this stage, it may be useful to look at the effects of other independent variables on the prevalence of various chronic illnesses. As expected, age remains the most important predictor of all chronic illnesses, indicating that as one gets older, he/she is more likely to have one more chronic illness.

Gender is the second most important predictor of chronic illness, although it does not make much difference in the case of heart disorders, respiratory disorders, digestive problems and cancer. However as discussed later, the impact of education on the prevalence of these diseases varies markedly by sex.

Smoking has always remained a central variable in research done on various illnesses. Previous research has shown time and again that cessation of cigarette smoking has a dramatic effect on morbidity and mortality, particularly that resulting from cancer and heart diseases (Hirdes and Forbes, 1989; McPherson, 1992). In this study, we have not been able to include a variable which reflects the intensity of smoking. However, we did include a variable concerning the age when the person first started smoking. This variable, therefore, is more a measure of social origin rather than the severity of smoking. Then it is not surprising that persons who first started smoking at a younger age (less than 20 years) are not significantly different in the prevalence of chronic illness than those who have never smoked in their life. However, this

variable is found to be a very strong and significant predictor of stroke/circulatory and vascular problems, respiratory disorders and digestive problems. Compared with those who had never smoked in their life, persons who started smoking daily at less than 20 years of age, had a 36 percent greater likelihood to have developed stroke, circulatory or vascular problems, 40 percent greater likelihood to have developed respiratory problems and 48 percent greater likelihood to have developed digestive problems. Similar patterns, although of a lesser magnitude, can be observed in the case of cancer and musculoskeletal disease. Surprisingly, the age when one first started drinking alcoholic beverages and the age when one first had sex do not seem to have a significant bearing on the prevalence of any chronic illness.

Ethnicity and the place of birth also do not affect the prevalence of chronic illness systematically. While persons from ethnic origins other than French, English or Europeans are more likely to have heart disorders, circulatory problems, diabetes, goitre and thyroid trouble and eye problem, persons of the French origin are more likely to have musculoskeletal, diabetes, goitre and thyroid trouble but least likely to have cancer. Also circulatory problems, respiratory disorders, eye problems such as glaucoma and cataract and cancer are least prevalent among those who were born in Asia and other developing countries.

Sex differences

A major finding which emerged from the above discussion, suggests that education is not necessarily an important predictor of all types of chronic illnesses. However, this observation remains incomplete unless the variation in the prevalence of specific chronic illnesses is discussed by gender and age.

Tables 6.13 through 6.32 present the results of logistic regressions of the prevalence of various chronic illnesses by sex. As shown in Table 6.13, education does not have any significant effect on heart disorders among males, indicating that regardless of their educational background, males are almost equally likely to develop this problem. Does it mean that less educated people are in as good health as are the highly educated? In other words, are the highly educated as unhealthy as the less educated? Perhaps not! If the answer to these question is 'yes', then we should have similar findings for women too. However, the relationship between education and the prevalence of heart problem is clearly negative among women. Controlling for all other independent variables, education has a strong and significant influence on the risk of developing heart diseases. It is likely that less educated men with severe heart disorders have already died before reaching age 50, whereas women because of their prolonged life, survive into later years. Consequently, the negative education gradient is more visible among older women than among older men.

Differences between those with less than secondary education and those with more than secondary education are important.

Compared with those who have obtained a university degree, women with less than secondary education are 32 to 38 percent more likely to experience these problems. Although the prevalence of heart disorders declines markedly after the completion of secondary education, the differential between the remaining higher educational groups (completed secondary, some university or college education and university degree) is small and insignificant. This seems to suggest that there is a critical level after which further increases in the level of education has only a minor role in reducing the propensity of having heart disorders.

Almost similar patterns emerge in the case of stroke, circulatory, and vascular problems (Tables 6.15 and 6.16). Again, the negative impact of education is more pronounced among females than males, with a marked difference between women who have some college or university education and those who have less. Surprisingly, education does not seem to have any systematic effect on the prevalence of cancer among both males and females, controlling for all background variables. However, this finding should not be construed as running counter to the efficiency hypothesis. It is likely that persons with severe cancers, who were also with less education, died much earlier in their lives. However, in order to understand this phenomenon more clearly, further research needs to be done.

The relationship between education and the prevalence of less fatal diseases is also negative but of a relatively mild nature (Tables 6.19 through 6.26). Consistent with our second hypothesis,

we find that among females the pattern is not as pronounced as it was in the case of more fatal diseases such as heart disorders and stroke, circulatory, and vascular problems. As shown in Table 6.19, education does not have a significant bearing on the prevalence of respiratory diseases among females, whereas among males the impact is negative and significant. Males with some secondary or less education are 33 to 40 percent more likely to have a respiratory problem than those with a university degrees. Similar patterns also emerge in the case of urinary and kidney problems (Tables 6.25 and 6.26). Of interest is a somewhat curvilinear relationship - although not of a highly significant nature - between education and the prevalence of digestive disorders among both males and females. As shown in Table 6.21 and 6.22, these problems are more prevalent among the least educated as well as among the highly educated. It is likely that risk factors such as poor and unhealthy dietary habits are equally prevalent among those with the least education as well as those with highest education. Surprisingly, education does not have any significant bearing on the prevalence of diabetes and goitre or thyroid troubles among males, although curvilinear pattern emerges among females (Tables 6.23 and 24).

Among the least fatal diseases (Tables 6.19 through 6.32), the negative and significant education gradient is observed only in the case of musculoskeletal problems, with both males and females exhibiting similar patterns. In the case of skin diseases and allergies, the education gradient is clearly positive among both

sexes, although significant only among males.

Age Differentials

This section seeks to determine the relationship between educational attainment and the prevalence of various types of chronic illnesses across the two broad age groups, 50-64 years and 65 years and over. As discussed in our conceptual framework, educational differentials in the prevalence of chronic illness tend to diminish in older ages as the most severely ill persons who are also most likely to be from lower socio-economic groups may have already died. In order to examine this hypothesis, we have extended our analysis by running logistic regressions for chronic illness by two age groups and sex. We do realize that age category 65 and over is too broad to capture fully the impact of aging that exists on the prevalence of chronic illness; clearly those 85 years and over are more likely to have less education as well as chronic problems than those 65-84 years of age. However, we could not examine this subject because of the small sample size in the age group 85 years and over.

Results presented in Tables 6.33 through 6.52 generally reveal that the prevalence of chronic illness diminishes with advancing age, thus supporting our third hypothesis. Among males, observations are noteworthy in the case of stroke, circulatory and vascular problems, digestive problems and urinary problems or kidney disease. There is a strong negative impact of educational attainment on the prevalence of these problems among males 50-64

years. However, the effect is not at all significant in the age group 65 years and over. Education remains an important predictor of the prevalence of respiratory disorders and muscular diseases even in the advanced age group. This is not surprising given the less and non-fatal nature of these problems.

Among females also, the negative impact of education on the prevalence of almost all chronic illnesses tends to diminish with advancing age (Tables 6.43 through 6.52). However, there are two important exceptions which merit attention. The negative impact of education on the prevalence of heart disorders is just as significant and pronounced among females aged 65 years and over as it is among those aged 50-64 years. Compared with university educated women aged 50-64 years, those with primary or less education, are 45 percent more likely to experience heart problems. The corresponding figure for women 65 years and over is almost equally high. Also, the education gradient in the case of respiratory disorders which is not significant among women 50-64 years, becomes negative and significant among those 65 years and over. Clearly, these observations run counter to the efficiency hypothesis and call for further research.

Chapter 7

CONCLUSIONS AND IMPLICATIONS

Using data obtained from the Ontario Health Survey, 1990, this study examined the effect of educational attainment on the prevalence of various types of chronic illnesses among persons 50 years and over. A major finding of the study is that the impact of education on the prevalence of chronic illness is generally negative as suggested by numerous previous research. However, the strength and direction of the relationship between education and the prevalence varies by the type of illness and by age and sex.

In the case of most fatal diseases (such as heart disorders; stroke, circulatory and vascular problems; and cancer) among men, we do not find any significant relationship between education and the prevalence of chronic illness. Does this mean that the less educated are as healthy as the highly educated? Or conversely, are the highly educated in as poor health as are the less educated? Probably not; if this were the case, then we would find similar patterns among women too. But we find a negative education gradient among women with heart disorders and stroke, circulatory and vascular problems. It is possible that less educated persons - especially men - with most fatal diseases, have already died before reaching the old age. As women live longer than men, the negative relationship between education and the prevalence of fatal chronic health problems is seen among them even in advanced ages.

These observations provide a qualified support for the efficiency hypothesis, and call for further research.

Also, there are still certain questions which remain largely unanswered. Why does education not have any systematic negative effect on the prevalence of cancer among both men and women, even among those who are between 50 to 64 years ? Why is the negative impact of education on the prevalence of heart disorders among women 65 years and over as significant as among women aged 50-64 ? Why is the impact of education on the prevalence of respiratory problems not significant among women aged 50-64, but is significant among those 65 years and older ?

Education has a negative effect - although of a mild nature - on the prevalence of less fatal diseases particularly among females. In the case of the least fatal diseases, the negative education gradient is observed only for musculoskeletal diseases, whereas the education gradient is positive among both sexes in the case of skin diseases and allergies.

These observations clearly imply that the increase in the level of education and therefore healthy life style may not be responsible for the reduction in the prevalence of all chronic illnesses for both sexes. Obviously, therefore, the efficiency hypothesis does not necessarily provide a complete explanation of health conditions among seniors of Ontario. Thus, one has to look for other explanations for understanding this phenomenon clearly.

In the case of chronic illnesses where education does have negative gradients, the impact is not as pronounced after a certain level. The most important impact is in the difference between primary or less education and some secondary. The difference between some secondary, community college and some university is usually small. Persons with a university degree are clearly better off than others. It appears that there is a critical level after which further increase in education does not contribute significantly to the reduction in the prevalence of chronic illness.

This study has implications for theory, methodology and policies related to health, in general and chronic illnesses, in particular. The study finds that the global measure of chronic illness comprised of various types of diseases is not a meaningful concept for examining the relationship between socio-economic background and health. We also find that any inference concerning the determinants of health is incomplete unless sex and age differences are taken into consideration. The effect of an independent variable such as education, on health conditions could be much different for males than for females and for the very old than for not so old.

The weakness of the efficiency hypothesis in explaining the prevalence of all chronic illnesses also puts the compression hypothesis into question. If changes in life styles are not always responsible for the improvement in health, one wonders how the onset of chronic illness could be postponed as proposed by Fries'

(1983, 1989) compression of morbidity argument. Although we do not reject these hypotheses altogether, we suggest that they need further revisions in the light of the health conditions as measured by chronic illness. One could classify chronic illnesses into two groups: illnesses which are primarily caused by risk factors, such as smoking, alcohol consumption, dietary habits, etc. and others which are primarily hereditary in nature or originate in childhood.

The efficiency and compression of morbidity hypotheses could be useful in understanding the prevalence of only the first group but not the second group of illnesses. Also other hypotheses, particularly in the area of behavioral genetics need to be taken into consideration. As economist Robert W. Fogel (1994:384) in his Nobel lecture, asserted, "chronic diseases at later ages are, to a considerable degree, the result of exposure to infectious diseases, malnutrition, and other types of bio-medical and socioeconomic stress early in life". He finds that conditions such as "coronary heart disease, hypertension, stroke, diabetes, and autoimmune thyroiditis begin in utero or in infancy but do not become apparent until mid-adult or later ages... Early onset of the degenerative diseases of old age appears to be linked to inadequate cellular development early in life" (Fogel, 1994:381). He went on to emphasize the policy relevance of these observations: "If the reforms of health care and pension programs now being considered by policy makers are to be successful, they must be consistent with the long-term physiological changes governing the decline in chronic diseases and the increase in longevity. Long-term

forecasts that do not take account of the dynamics of these changes over the past century, and of the socioeconomic, and biomedical, and other environmental improvements that made them possible, are liable to be far off the mark" (Fogel, 1994:388-389).

The research reporting positive association between education and health, thereby supporting the efficiency hypothesis, has become a major argument among social scientists and policy makers who are not threatened by the dependency burden and increased medical costs expected from the increasing proportion of the elderly. These social scientists see that healthy lifestyle popularized by baby-boomers "may cut the rates of chronic diseases in old age, potentially reducing the use of health services and lengthening the average person's productive life... These positive trends may already be paying health dividends... These improvements may be due to increasing levels of education and income, as a new generation moves into the eldest age groups... Even though the absolute numbers of the chronically disabled will certainly continue to rise, the expansion may not be as great as the catastrophe some demographic doomsayers predict" (Longino, 1994:39-40). However, our research suggests that increased education and therefore increased adoption of healthy lifestyle may not be responsible for the reduction of all chronic health problems, particularly among women. Then the society must be prepared to face the consequences of the increase in those chronic problems which are not likely to be eliminated or reduced by the improvement in healthy life style.

Institutionalization, primarily in nursing homes, has been advocated as the dominant solution to address the increase in the number of older persons with chronic illness (Matras, 1990:284). Although most older people view nursing homes negatively and less than one-tenth of them reside in long-term institutions, they may enter them in larger numbers in the coming years. Note that about a quarter of the population aged 85 and over resides in such institutions (Matras, 1990:284). As the proportion of the elderly gets increasingly concentrated in the age group 85 and over, the need for institutional care for the chronically ill will increase. The need will be particularly pronounced for women, many of whom may not only suffer from fatal and degenerative diseases longer than men, but will often have to live in the widowed state.

Some analysts undermine the importance of intervention through the improvements in the natural or working environment and an increased investment in health care technology, in order to deal with chronic health problems of industrialized society. Such proposals are based on the assumption that chronic diseases are, to a considerable degree, the result of poor life styles and increased exposure to risk factors, and that improvement in life styles, particularly reduced consumption of fats, alcohol and tobacco, improved nutrition, increased exercise and regular visits to physicians will bring about a reduction in chronic health problems at later ages. Our study questions this view. Take cancer as an example, which is so well known for its causal linkage with risk factor cigarette smoking and lower socio-economic status. Although

we do find a higher prevalence of cancer among women than among men, we do not see this to be associated with educational level. Another example is heart disorder, which shows a negative education gradient among females but not among males. It appears that there are certain factors beyond just life styles or risk factors which are responsible for these fatal illnesses. These observations clearly call for continued emphasis on genetic research and the interventionist strategy, particularly through increased investment in health care research and technology.

Although we do not undermine the emphasis on identifying life style and risk factors which contribute to the initiation and progression of chronic diseases, we argue that victims should not be blamed for their ill health. As Chang (1993:13) asserts, "not all 'life styles' or human behaviours are voluntarily 'chosen'." For example, it is known that smoking behaviour is strongly related to socioeconomic status, indicating that smoking is a form of social conditioning. Arguing that individuals are responsible for their health is neither justifiable nor helpful." Take musculoskeletal disorders as an example. According to the Ontario Health Survey, about one-third of the population 50 years and over suffer from diseases such as arthritis, rheumatism, and serious problems with back, bones or joints. These problems affect the least educated most. Changes in life style, particularly increased exercise and improved nutrition, may help alleviate these conditions among the less educated to some extent. However, these problems will remain with lower-class people who engage in manual

labour. The future society must face the burden of large aging population which may suffer from one or the other types of musculoskeletal disorders. Attention must be paid to the needs of people with these health problems and efforts be made to reduce the effects of disability and activity limitations. As Luft (1978:7) argues, "This is the easier task because it primarily involves policy changes of a much more traditional nature, rather than those that require new knowledge about the causes of disease and how to effect major behavioural changes".

Notes

1. This study refers to the prevalence (contrary to incidence) of chronic illness. While incidence refers to new cases of disease at a particular period of time, prevalence refers to the number of cases of ill-health existing at a given point in time (United nations, 1958:29).
2. It may be noted that 0.4% of the total population 50 years and over did not respond to the question on chronic illness. It is not known whether this group did or did not have any chronic illness. However, this small number should not affect our analysis in any meaningful way.
3. It may be useful to make a distinction between chronic illness and disability. Chronic illness is defined as a condition which is long-lasting and of permanent nature. However, disability refers to activity limitation which does not necessarily result in a chronic illness .
4. 'All chronic diseases' refers to the prevalence of having a minimum of one and a maximum of 8 chronic illnesses.
5. Whenever we use terms 'some college' or 'some community college' or 'some university', we are referring to 'some community college, technical college, CEGEP, or nursing programme; completed community college, technical college, CEGEP, or nursing programme; or some university (not completed).'

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Table 4.1
Contrasts Between Acute and Chronic Disease

	Acute Disease	Chronic Disease and Illness
Beginning	usually rapid	usually gradual
Cause	usually one	many
Duration	short	indefinite
Diagnosis	commonly accurate	often uncertain, especially early
Diagnostic	often decisive	often have limited value
Treatment	cure common	cure rare
Role professional	select and conduct therapy	teacher and partner of patient
Role of patient	follow orders	partner of health professionals; responsible for daily management

Source: Lorig (1993:11)

Table 4.2
Life Expectancy and Survivors from the Abridged
Life Table, Ontario, 1991

Age (years)	Male		Female	
	Survivors	Life expectancy	Survivors	Life expectancy
0	100,000	75.00	100,000	80.94
1-4	99,329	74.51	99,443	80.39
5-9	99,191	70.61	99,344	76.47
10-14	99,107	65.67	99,269	71.58
15-19	99,006	60.73	99,196	66.58
20-24	98,648	55.94	99,047	61.67
25-29	98,198	51.19	98,896	56.76
30-34	97,731	46.42	98,712	51.86
35-39	97,172	41.67	98,470	46.99
40-44	96,411	36.98	98,102	42.15
45-49	95,444	32.33	97,540	37.38
50-54	93,933	27.80	96,580	32.72
55-59	91,447	23.49	95,022	28.22
60-65	87,285	19.48	92,496	23.91
65-69	80,749	15.84	88,717	19.82
70-74	71,349	12.58	83,149	15.97
75-79	58,986	9.67	74,735	12.47
80-84	43,030	7.32	62,479	9.41
85-89	26,037	5.48	45,913	6.89
90+	11,819	4.22	27,163	4.95

Source: Demography Division, Statistics Canada,
 Unpublished Tables.

Table 4.3

**Population(a) Composition by Level of Education and Sex
For Persons 50 Years and Over**

Level of Education	Male	Female
Primary and Less	291,851 (26.2)	324,413 (24.7)
Some Secondary	270,971 (24.3)	359,803 (27.4)
Completed Secondary	241,814 (21.7)	319,978 (24.4)
Some College (b)	162,397 (14.6)	218,249 (16.6)
University Degree	148,345 (13.3)	88,379 (6.7)
Total (c)	1,115,377 (100.0)	1,310,823 (100.0)

Note:

(a) Population figures refer to weighted sample size.

(b) See note 5 on p. 62.

(c) Not stated category of education is not shown.

Table 4.4
Distribution of Population (weighted* sample)
by Age, Sex and Other Independent Variables

	Male		Female		Total	
	50-64 years	65 years and over	50-64 years	65 years and over	50-64 years	65 years and over
Educational Attainment						
Primary or less	1,057	1,105	912	1,260	1,969	2,365
Some secondary	1,107	781	1,351	1,128	2,458	1,909
Completed secondary	865	525	1,111	770	1,976	1,295
Some college	642	346	817	634	1,459	980
University degree	475	251	292	134	767	385
Ethnic Origin						
Not Stated	8	8	12	10	20	18
French	280	165	342	231	622	396
English	551	533	644	727	1,195	1,260
Other European	1,006	724	1,023	857	2,029	1,581
Others	320	205	300	214	620	419
Canadian	1,981	1,373	2,162	1,887	4,143	3,260
Place Of Birth						
Not Stated	3	3	6	7	9	10
Other place in Canada	524	444	592	527	1,110	971
USA and Europe	862	631	883	765	1,745	1,396
Asia and Others	271	201	271	208	542	409
Ontario	2,486	1,729	2,731	2,419	5,217	4,148
Age First Started Smoking						
Not Stated	150	167	176	300	326	467
20 Years and Over	200	97	382	247	582	344
Less than 20 years	822	306	545	160	1,367	466
Never smoked	2,974	2,438	3,380	3,219	6,354	5,657
Age First Started Drinking						
Not Stated	319	426	480	932	799	1,358
25 Years and Over	302	344	804	824	1,106	1,168
20-24 Years	1,164	837	1,486	801	2,650	1,638
Less than 20 Years	2,119	1,072	1,126	408	3,245	1,480
Never Drank	242	329	587	961	829	1,290
Age First Had Sex						
Not Stated/						
Not Applicable	1,040	1,120	936	1,384	1,976	2,504
25 Years and Over	405	470	514	684	919	1,154
20-24 Years	1,088	665	1,504	1,136	2,592	1,801
Less than 20 years	1,013	753	1,529	722	3,142	1,475

* Weighted sample scaled down.

Table 5.1
Percentage Of Persons Reporting
One Or More Chronic Illness
By Age Group And Sex

	Male	Female
50 Years and over	71.8	75.6
50-64 Years	66.0	67.8
65 Years and over	78.5	83.7

Table 5.2
 Percentage Of Persons 50 Years and Over
 Reporting A Chronic Illness By Sex

	Total	Male	Female
Arthritis or rheumatism	30.6	24.5	35.9
High blood pressure or hypertension	22.9	20.7	24.8
Serious trouble with back pain	12.1	12.9	11.4
Hay Fever or other allergies	11.2	9.4	12.7
Heart disease	10.9	12.9	9.1
Eye problem	8.7	7.0	10.2
Skin allergies or other skin diseases	7.5	7.2	7.8
Other serious problems with the joints or the bones	6.6	6.7	6.5
Circulatory problems	6.5	6.7	6.4
Other digestive problems	6.2	5.0	7.2
Diabetes	6.1	6.9	5.4
Goitre or thyroid trouble	5.1	1.3	8.3
Cancer	4.5	4.1	4.9
Emphysema or chronic bronchitis or persistent cough	4.2	4.9	3.6
Stomach ulcer	4.0	4.7	3.4
Urinary problem or kidney disease	3.9	4.4	3.6
Asthma	3.6	3.3	3.9
Paralysis or speech problem due to stroke	0.8	1.1	0.6
Epilepsy	0.7	0.7	0.7
Any other form of health problem	6.5	5.5	7.3

Table 6.1
Logistic Regressions Of Educational Attainment And Related
Variables On The Prevalence Of One Or More Chronic Health Problems
For Persons 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	.175**	.054	1.19	.177**	.057	1.19
Some Secondary	.128**	.052	1.14	.119**	.053	1.13
Completed Secondary	-.178**	.052	.84	-.179**	.052	.84
Some College	-.018	.061	.98	-.023	.061	.98
Age	.042**	.003	1.04	.044**	.003	1.05
Sex						
Male	-.087**	.028	.92	-.089**	.030	.91
Ethnic Origin						
Not Stated				-.495	.324	.61
French				.232*	.126	1.26
English				.062	.094	1.06
Other European				.090	.088	1.09
Others				-.111	.111	.89
Place Of Birth						
Not Stated				.181	.446	1.20
Other place in Canada				-.055	.130	.95
U.S.A. and Europe				-.019	.125	.98
Asia and Others				-.072	.143	.93
Age First Started Smoking						
Not Stated				.149	.114	1.16
20 Years and Over				-.264**	.090	.77
Less than 20 Years				.038	.079	1.04
Age First Started Drinking						
Not Stated				-.049	.077	.95
25 Years and Over				-.024	.065	.98
20-24 Years				-.068	.052	.94
Less than 20 Years				.041	.055	1.04
Age First Had Sex						
Not Stated/Not Applicable				-.178**	.050	.84
25 Years and Over				-.035	.061	.97
20-24 Years				.113**	.048	1.12
Intercept	-1.617**	.198		-1.910**	.246	
Model Chi-Square		249.43			299.33	
df		6			25	
p		.000			.000	
N		15,563			15,563	

* p<.10 ** p<.05; two-tailed t test Note: Reference categories are: for educational attainment, university degree; for sex, female; for ethnic origin, Canadian; for place of birth, Ontario; age first started smoking, never smoked; age first started drinking, never drank; age first had sex, less than 20 years.

Table 6.2

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Heart Disorders For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	.141**	.050	1.15	.165**	.053	1.18
Some Secondary	.168**	.050	1.18	.176**	.051	1.19
Completed Secondary	-.019	.053	.98	-.023	.054	.98
Some College	.014	.061	1.01	.012	.062	1.01
Age	.042**	.003	1.04	.043**	.003	1.04
Sex						
Male	.019	.027	1.02	.018	.029	1.02
Ethnic Origin						
Not Stated				-.407	.374	.67
French				.141	.127	1.15
English				-.007	.100	.99
Other European				-.029	.095	.97
Others				.203*	.117	1.23
Place Of Birth						
Not Stated				.444	.402	1.56
Other place in Canada				-.115	.120	.89
USA and Europe				-.132	.115	.88
Asia and Others				-.144	.136	.87
Age First Started Smoking						
Not Stated				1.220**	.104	1.25
20 Years and Over				-.285**	.100	.75
Less than 20 years				-.114	.082	.89
Age First Started Drinking						
Not Stated				-.048	.071	.95
25 Years and Over				.007	.061	1.01
20-24 Years				.047	.051	1.05
Less than 20 Years				.010	.054	1.01
Age First Had Sex						
Not Stated/Not Applicable				-.101**	.048	.90
25 Years and Over				-.059	.058	.94
20-24 Years				.057	.046	1.06
Intercept	-3.619**	.186		-3.827**	.235	
Model Chi-Square		269.46			314.21	
df		6			25	
p		.000			.000	
N		15,563			15,563	

* P<.10 ** P<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.3

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Stroke, Circulatory and Vascular Problems For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	.168*	.087	1.18	.154*	.092	1.17
Some Secondary	.064	.091	1.07	.024	.092	1.02
Completed Secondary	.080	.109	1.08	.047	.097	1.05
Some College	.040	.096	1.04	.091	.110	1.09
Age	.040**	.005	1.04	.045**	.005	1.05
Sex						
Male	.090*	.048	1.09	.103**	.051	1.11
Ethnic Origin						
Not Stated				-.770	.934	.46
French				.154	.255	1.17
English				.103	.218	1.12
Other European				.073	.213	1.08
Others				.358	.251	1.43
Place of Birth						
Not Stated				.851	.598	2.34
Other place in Canada				.049	.188	1.05
USA and Europe				-.084	.180	.92
Asian and Others				-.829**	.248	.44
Age First Started Smoking						
Not Stated				-.252	.188	.78
20 Years and Over				.041	.162	1.04
Less than 20 years				.308**	.131	1.36
Age First Started Drinking						
Not Stated				.009	.122	1.01
25 Years and Over				-.110	.111	.90
20-24 Years				-.030	.090	.97
Less than 20 Years				-.101	.097	.90
Age First Had Sex						
Not Stated/Not Applicable				-.121	.086	.89
25 Years and Over				-.141	.106	.87
20-24 Years				.180**	.081	1.20
Intercept	-5.259**	.323		-5.554**	.422	
Model Chi-Square		83.70			119.75	
df		6			25	
p		.000			.000	
N		15,563			15,563	

* P<.10 ** P<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.4

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Cancer For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	-.158	.113	.85	-.047	.118	.95
Some Secondary	-.097	.112	.90	-.134	.114	.87
Completed Secondary	.240**	.107	1.27	.196*	.108	1.22
Some College	.035	.131	1.04	.038	.132	1.04
Age	.042**	.006	1.04	.045**	.007	1.05
Sex						
Male	-.044	.059	.96	-.048	.063	.95
Ethnic Origin						
Not Stated				1.769	.418	5.86
French				-.953	.298	.39
English				-.066	.156	.94
Other European				-.388**	.158	.68
Others				.033	.224	1.03
Place of Birth						
Not Stated				-.040	.826	.96
Other place in Canada				.176	.255	1.19
USA and Europe				.009	.245	1.01
Asia and Others				-.614**	.313	.54
Age First Started Smoking						
Not Stated				.094	.233	1.10
20 Years and Over				-.350	.231	.70
20-24 Years				.162	.179	1.18
Age First Started Drinking						
Not Stated				-.184	.162	.83
25 Years and Over				.344**	.118	1.41
20-24 Years				-.112	.116	.89
Less than 20 Years				.027	.120	1.07
Age First Had Sex						
Not Stated/Not Applicable				-.135	.108	.87
25 Years and Over				-.174	.129	.84
20-24 Years				.153	.098	1.17
Intercept	-5.786**	.395		-6.087**	.494	
Model Chi-Square		56.42			113.260	
df		6			25	
p		.000			.000	
N		15,563			15,563	

* P<.10 ** P<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.5

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Respiratory Disorders For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	.268**	.086	1.31	.222**	.090	1.25
Some Secondary	.122	.089	1.13	.065	.090	1.07
Completed Secondary	-.094	.099	.91	-.095	.099	.91
Some College	.045	.109	1.05	.075	.110	1.08
Age	.244	.005	1.02	.028**	.005	1.03
Sex						
Male	.080*	.047	1.08	.052	.051	1.05
Ethnic Origin						
Not Stated				-.036	.679	.96
French				.190	.212	1.21
English				.002	.176	1.00
Other European				-.157	.170	.86
Others				.035	.219	1.04
Place Of Birth						
Not Stated				.205	.763	1.23
Other place in Canada				.102	.223	1.11
USA and Europe				.142	.215	1.15
Asia and Others				-.549**	.271	.58
Age First Started Smoking						
Not Stated				.105	.167	1.11
20 Years and Over				-.169	.160	.84
Less than 20 Years				.339**	.120	1.40
Age First Started Drinking						
Not Stated				-.196	.128	.82
25 Years and Over				.107	.107	1.11
20-24 Years				-.006	.092	.99
Less than 20 Years				.027	.094	1.03
Age First Had Sex						
Not Stated/Not Applicable				.095	.082	1.10
25 Years and Over				-.059	.105	.94
20-24 Years				-.118	.086	.89
Intercept	-4.226**	.319		-4.431**	.410	
Model Chi-Square		46.53			89.64	
df		6			25	
p		.000			.000	
N		15,563			15,563	

* P<.10 ** P<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.6

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Digestive Disorders For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educ tional Attainment						
Primary or Less	.207**	.074	1.23	.188**	.078	1.21
Some Secondary	.181**	.074	1.20	.172**	.075	1.19
Completed Secondary	-.253**	.087	.78	-.255**	.087	.77
Some College	-.111	.096	.89	-.111	.097	.90
Age	.007*	.004	1.01	.010**	.005	1.01
Sex						
Male	-.030	.041	.97	-.044	.044	.96
Ethnic Origin						
Not Stated				.664*	.399	1.94
French				-.014	.168	.99
English				-.180	.131	.84
Other European				-.128	.119	.88
Others				-.227	.159	.80
Place Of Birth						
Not Stated				-1.383	1.364	.25
Other place in Canada				.219	.356	1.25
USA and Europe				.260	.352	1.30
Asia and Others				.563	.365	1.76
Age First Started Smoking						
Not Stated				-.246	.167	.78
20 Years and Over				.124	.146	.88
Less than 20 Years				.391**	.112	1.48
Age First Started Drinking						
Not Stated				.113	.105	1.12
25 Years and Over				.014	.093	1.02
20-24 Years				-.114	.079	.89
Less than 20 Years				.001	.081	1.00
Age First Had Sex						
Not Stated/Not Applicable				-.109	.074	.90
25 Years and Over				.003	.089	1.00
20-24 Years				.090	.070	1.09
Intercept	-2.738**	.276		-3.132**	.457	
Model Chi-Square		25.87			52.40	
df		6			25	
p		.000			.001	
N		15,563			15,563	

* P<.10 ** P<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.7

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Diabetes And Goitre Or Thyroid Trouble For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.077	.073	1.08	.065	.077	1.07
Some secondary	.111	.072	1.12	.086	.073	1.09
Completed secondary	-.094	.079	.91	-.080	.080	.92
Some College	.058	.087	1.06	.060	.088	1.07
Age	.022**	.004	1.02	.020**	.004	1.02
Sex						
Male	-.235**	.040	.79	-.220**	.043	.80
Ethnic Origin						
Not stated				-1.761	1.362	.17
French				.456	.307	1.58
English				.231	.289	1.26
Other European				.271	.285	1.31
Others				.419	.304	1.52
Place Of Birth						
Not stated				-.611	.979	.54
Other place in Canada				.328	.261	1.39
USA and Europe				.129	.258	1.14
Asia and others				-.091	.283	.91
Age First Started Smoking						
Not stated				.120	.146	1.13
20 years and over				-.002	.135	1.00
Less than 20 years				-.225*	.126	.80
Age First Started Drinking						
Not stated				-.030	.099	.97
25 years and over				.049	.088	.95
20-24 years				.029	.074	1.03
Less than 20 years				-.081	.081	.92
Age First Had Sex						
Not stated/not applicable				.076	.068	1.08
25 years and over				-.079	.085	.94
20-24 years				-.077	.069	.93
Intercept	-3.626**	.263		-4.088**	.458	
Model Chi-Square		81.82			108.83	
df		6			25	
p		.000			.000	
N		15,563			15,563	

* P<.10 ** P<.05; two-tailed t test.

Note: As in Table 6.1

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Resolution test chart showing patterns of vertical and horizontal lines with numerical labels: 1.0, 1.1, 1.25, 1.4, 1.6, 1.8, 2.0, 2.2, 2.5, 2.8, 3.2, 3.6, 4.0, 4.5, 5.0, 5.6, 6.3, 7.1, 8.0, 9.0, 10.

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Table 6.8

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Urinary Problems Or Kidney Disease For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.164	.112	1.18	.146	.117	1.16
Some secondary	.007	.117	1.01	-.030	.119	0.97
Completed secondary	-.139	.129	0.87	-.124	.130	0.88
Some college	.105	.138	1.11	.108	.138	1.11
Age	.030**	.006	1.03	.032**	.007	1.03
Sex						
Male	.136**	.063	1.15	.132**	.067	1.14
Ethnic Origin						
Not stated				-.649	1.290	0.52
French				-.135	.370	0.87
English				.078	.310	1.08
Other European				.487*	.290	1.63
Others				-.093	.306	0.91
Place of Birth						
Not stated				-2.029	4.170	0.13
Other place in Canada				.841	1.050	2.39
USA and Europe				.437	1.050	1.55
Asia and others				.259	1.070	1.30
Age First Started Smoking						
Not stated				.104	.239	1.11
20 years and over				-.131	.238	0.88
Less than 20 years				-.113	.195	0.90
Age First Started Drinking						
Not stated				-.051	.163	0.95
25 years and over				-.122	.149	0.89
20-24 years				.037	.119	1.02
Less than 20 years				.008	.123	1.01
Age First Had Sex						
Not Stated/not applicable				-.006	.110	0.99
25 years and over				-.244*	.145	0.78
20-24 years				.025	.110	1.03
Intercept	-5.187**	.419		-6.218**	1.16	
Model Chi-Square		32.414			57.79	
df		6			25	
p		.000			.000	
N		15,563			15,563	

* P<.10 ** P<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.9

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Musculoskeletal Disease For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.370**	.047	1.45	.329**	.049	1.39
Some secondary	.149**	.047	1.16	.153**	.047	1.16
Completed secondary	-.078	.049	0.92	-.066	.050	0.94
Some college	.053	.056	1.05	.060	.056	1.06
Age	.021**	.003	1.02	.022**	.003	1.02
Sex						
Male	-.148	.025	0.86	-.149	.027	0.86
Ethnic Origin						
Not stated				.210	.315	1.23
French				.220*	.113	1.25
English				-.162*	.088	0.85
Other European				.024	.082	1.05
Others				-.189*	.106	0.83
Place of Birth						
Not stated				.887**	.405	2.43
Other place in Canada				-.209*	.118	0.81
USA and Europe				-.242**	.114	0.79
Asia and others				-.176	.132	0.84
Age First Started Smoking						
Not stated				.004	.098	1.00
20 years and over				-.194**	.087	0.82
Less than 20 years				.120*	.072	1.13
Age First Started Drinking						
Not stated				-.024	.066	0.98
25 years and over				.048	.057	1.05
20-24 years				-.080*	.048	0.92
Less than 20 years				-.011	.050	0.99
Age First Had Sex						
Not Stated/not applicable				-.040	.045	0.96
25 years and over				-.024	.054	0.98
20-24 years				-.007	.043	1.00
Intercept	-1.83**	.170		-1.64**	.218	
Model Chi-Square	225.49			260.77		
df	6			25		
p	.000			.000		
N	15,563			15,563		

* $P < .10$ ** $P < .05$; two-tailed t test.

Note: As in Table 6.1

Table 6.10

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Eye Problems For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	-.056	.081	0.95	-0.020	.085	0.99
Some secondary	.081	.080	1.08	0.064	.082	1.07
Completed secondary	-.252**	.093	0.78	-0.254**	.094	0.78
Some college	.065	.098	1.07	0.057	.099	1.06
Age	.079**	.005	1.08	0.081**	.005	1.08
Sex						
Male	-.130**	.046	.88	-0.126**	.049	0.88
Ethnic Origin						
Not stated				-2.261	2.159	0.10
French				0.431	.463	1.54
English				0.483	.443	1.62
Other European				.370	.442	1.45
Others				.695	.459	2.00
Place Of Birth						
Not stated				.625	.586	1.87
Other place in Canada				.106	.178	1.11
USA and Europe				-.139	.173	0.87
Asia and others				-.631**	.226	0.53
Age First Started Smoking						
Not stated				.009	.161	1.01
20 years and over				-.134	.164	0.87
Less than 20 years				.026	.145	1.03
Age First Started Drinking						
Not stated				.102	.106	1.11
25 years and over				.029	.094	1.03
20-24 years				-.035	.086	0.97
Less than 20 years				-.040	.093	0.96
Age First Had Sex						
Not stated/not applicable				-.246**	.079	0.78
25 years and over				.077	.088	1.08
20-24 years				.009	.077	1.01
Intercept	-7.620**	.315		-8.179**	.567	
Model Chi-Square	358.23			392.28		
df	6			25		
p	.000			.000		
N	15,563			15,563		

* P<.10 ** P<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.11

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Skin Disease And Allergies For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	-.255**	.063	.77	-.200**	.066	.82
Some secondary	-.122*	.050	.88	-.132**	.061	.88
Completed secondary	-.032	.060	.97	-.044	.061	.96
Some college	.094	.068	1.10	.078	.068	1.08
Age	-.017**	.004	.98	-.016**	.004	.98
Sex						
Male	-.125**	.033	.88	-.128**	.034	.88
Ethnic Origin						
Not stated				-1.246*	.706	.29
French				.217	.186	1.24
English				.372**	.160	1.45
Other European				.238	.157	1.27
Others				.230	.179	1.26
Place Of Birth						
Not stated				.670	.426	1.95
Other place in Canada				-.053	.130	.95
USA and Europe				-.276**	.126	.70
Asia and others				-.269*	.155	.76
Age First Started Smoking						
Not stated				.053	.133	1.05
20 years and over				-.139	.114	.87
Less than 20 years				-.041	.096	.96
Age First Started Drinking						
Not stated				.076	.088	1.08
25 years and over				-.003	.073	1.00
20-24 years				-.026	.061	.97
Less than 20 years				.043	.063	1.04
Age First Had Sex						
Not Stated/not applicable				-.180**	.061	.84
25 years and over				.000	.069	1.00
20-24 years				.063	.054	1.07
Intercept	-.431*	.220		-.689**	.294	
Model Chi-Square		71.38			110.70	
df		6			25	
p		.000			.85	
N		15,563			15,563	

* $p < .10$ ** $p < .05$; two-tailed t test.

Note: As in Table 6.1

Table 6.12

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Other Chronic Health Problems For Persons 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.415**	.082	1.52	.222**	.090	1.25
Some secondary	.039	.088	1.04	.065	.090	1.07
Completed secondary	-.247**	.099	.78	-.095	.099	.91
Some college	.131	.111	.88	.075	.110	1.08
Age	-.001	.048	1.00	-.004	.005	1.00
Sex						
Male	-.139**	.313	.87	-.111**	.051	.90
Ethnic Origin						
Not stated				-3.95	5.27	.02
French				.94	1.07	2.56
English				.81	1.06	2.25
Other European				.99	1.06	2.68
Others				.140	1.07	1.15
Place Of Birth						
Not stated				-3.383	6.647	.03
Other place in Canada				.711	1.666	2.04
USA and Europe				.828	1.665	2.29
Asia and others				1.051	1.670	2.86
Age First Started Smoking						
Not stated				-.110	.192	.90
20 years and over				-.039	.170	.96
Less than 20 years				-.002	.142	1.00
Age First Started Drinking						
Not stated				.077	.119	1.08
25 years and over				-.270**	.115	.76
20-24 years				-.133	.090	.88
Less than 20 years				-.079	.093	.93
Age First Had Sex						
Not stated/not applicable				-.112	.083	.89
25 years and over				.131	.096	1.41
20-24 years				-.043	.081	.96
Intercept	-2.54**	.313		-4.156**	1.997	
Model Chi-Square		38.04			89.07	
df		6			25	
p		.000			.000	
N		15,563			15,563	

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.13

Logistic Regressions Of Educational Attainment And
Related Variables On The Prevalence Of Heart Disorders
For Males 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.003	.073	1.00	.025	.076	1.03
Some secondary	.111	.074	1.12	.101	.075	1.11
Completed secondary	.101	.079	.90	-.109	.080	.90
Some college	.116	.099	1.12	.118	.091	1.13
Age	.039**	.004	1.04	.041**	.005	1.04
Ethnic Origin						
Not stated				-.164	.527	.85
French				.129	.184	1.14
English				-.088	.147	.92
Other European				-.026	.135	.97
Others				.111	.164	1.12
Place Of Birth						
Not stated				-1.042	1.230	.35
Other place in Canada				.201	.323	1.22
USA and Europe				.213	.319	1.24
Asia and others				.259	.334	1.30
Age First Started Smoking						
Not stated				.297*	.168	1.35
20 years and over				-.584**	.190	.56
Less than 20 years				.053	.116	1.05
Age First Started Drinking						
Not stated				-.079	.124	.92
25 years and over				.009	.112	1.01
20-24 years				.104	.077	1.11
Less than 20 years				.058	.075	1.06
Age First Had Sex						
Not stated/not applicable				-.012	.072	.99
25 years and over				-.117	.092	.89
20-24 years				.080	.072	1.08
Intercept	-3.405**	.280		-4.049**	.446	
Model Chi-Square		92.04			120.16	
df		5			24	
p		.000			.000	
N		7,154			7,154	

* $p < .10$ ** $p < .05$; two-tailed t test.

Note: As in Table 6.1

Table 6.14

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence of Heart Disorders For Females 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	.307**	.072	1.36	.323**	.077	1.38
Some secondary	.262**	.070	1.30	.276**	.072	1.32
Completed secondary	.095	.073	1.10	.087	.076	1.09
Some college	-.015	.086	.98	-.022	.087	.98
Age	.044**	.004	1.05	.046**	.004	1.05
Ethnic Origin						
Not stated				-.599	.543	.55
French				.133	.177	1.14
English				.059	.140	1.06
Other European				-.032	.135	.97
Others				.290*	.170	1.34
Place Of Birth						
Not stated				.825*	.470	2.28
Other place in Canada				-.153	.146	.86
USA and Europe				-.211	.141	.81
Asian and others				-.280	.174	.76
Age First Started Smoking						
Not stated				.211	.136	1.23
20 years and over				-.126	.122	.88
Less than 20 years				-.277**	.132	.76
Age First Started Drinking						
Not stated				-.036	.088	.96
25 years and over				.011	.075	1.01
20-24 years				.039	.071	1.04
Less than 20 years				-.024	.082	.98
Age First Had Sex						
Not stated/not applicable				-.160**	.066	.85
25 years and over				-.016	.077	.98
20-24 years				.032	.062	1.03
Intercept	-3.868**	.252		-4.029**	.311	
Model Chi-Square		194.55			226.23	
df		5			24	
p		.000			.000	
N		8,409			8,409	

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.15

Logistic Regressions Of Educational Attainment And Related Variables On Prevalence Of Stroke, Circulatory and Vascular Problems For Males 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.127**	.121	1.14	.066	.127	1.07
Some secondary	-.041	.132	.96	-.122	.136	.89
Completed secondary	-.193	.145	.82	-.202	.147	.82
Some college	.239	.151	1.27	.290*	.153	1.34
Age	.050**	.007	1.05	.056	.008	1.06
Ethnic Origin						
Not stated				-1.442	2.067	.24
French				.436	.478	1.55
English				.230	.446	1.26
Other European				.073	.440	1.08
Others				.551	.465	1.74
Place Of Birth						
Not stated				-.881	2.510	.41
Other place in Canada				.366	.650	1.44
USA and Europe				.187	.645	1.21
Asia and others				-.194	.676	.82
Age First Started Smoking						
Not stated				-.596	.347	.55
20 years and over				-.069	.307	.93
Less than 20 years				.676	.192	1.97
Age First Started Drinking						
Not stated				-.166	.212	.85
25 years and over				.084	.179	1.09
20-24 years				-.062	.131	.94
Less than 20 years				-.188	.130	.83
Age First Had Sex						
Not stated/not applicable				.098	.121	1.10
25 years and over				-.195	.163	.82
20-24 years				.011	.128	1.01
Intercept	-5.792**	.480		-6.781	.918	
Model Chi-Square		55.71			90.75	
df		5			24	
p		.000			.000	
N		7,154			7,154	

* $p < .10$ ** $p < .05$; two-tailed t test.

Note: As in Table 6.1

Table 6.16

Logistic Regressions Of Educational Attainment
And Related Variables On The Prevalence Of Stroke, Circulatory and
Vascular Problems For Females 50 Years and Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.292**	.139	1.34	.285**	.147	1.33
Some secondary	.241*	.138	1.27	.226*	.140	1.25
Completed secondary	.299**	.142	1.35	.301**	.143	1.35
Some college	.036	.167	1.04	.002	.170	1.00
Age	.033**	.007	1.03	.036**	.007	1.04
Ethnic Origin						
Not stated				-.446	1.069	.64
French				-.036	.335	.96
English				.056	.263	1.06
Other European				.154	.256	1.17
Others				.173	.345	1.19
Place Of Birth						
Not stated				1.127*	.642	3.09
Other place in Canada				.119	.227	1.13
USA and Europe				.006	.216	1.01
Asia and others				-1.212**	.372	.30
Age First Started Smoking						
Not stated				.037	.234	1.04
20 years and over				.195	.199	1.21
Less than 20 years				-.203	.235	.87
Age First Started Drinking						
Not stated				.083	.153	1.09
25 years and over				-.268*	.143	.77
20-24 years				-.057	.129	.95
Less than 20 years				.031	.147	1.03
Age First Had Sex						
Not stated/not applicable				-.300**	.124	.74
25 years and over				-.107	.142	.90
20-24 years				.302	.106	1.35
Intercept	-4.989**	.447		-5.265**	.550	
Model Chi-Square		39.63			72.86	
df		5			24	
p		.000			.000	
N		8,409			8,409	

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.17

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Cancer For Males 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	-.065	.163	.94	-.048	.173	.96
Some secondary	-.108	.174	.90	-.171	.179	.85
Completed secondary	-.061	.179	.94	-.114	.183	.89
Some college	.242	.194	1.27	.331*	.198	1.39
Age	.057*	.009	1.06	.061**	.010	1.06
Ethnic Origin						
Not stated				2.682**	.540	14.62
French				-1.050**	.487	.35
English				.028	.243	1.03
Other European				-.314	.239	.73
Others				-1.001**	.416	.37
Place Of Birth						
Not stated				1.133	1.047	3.10
Other place in Canada				-.551	.376	.58
USA and Europe				-.475	.335	.62
Asia and others				-.339	.431	.71
Age First Started Smoking						
Not stated				.472	.353	1.60
20 years and over				-.611	.499	.54
Less than 20 years				.096	.274	1.10
Age First Started Drinking						
Not stated				.047	.270	1.05
25 years and over				-.125	.260	.88
20-24 years				-.010	.181	.99
Less than 20 years				.126	.173	1.13
Age First Had Sex						
Not stated/not applicable				-.082	.171	.92
25 years and over				-.228	.218	.80
20-24 years				.078	.167	1.08
Intercept	-6.823**	.627		-6.883**	.780	
Model Chi-Square	38.16			88.36		
df	5			24		
p	.000			.000		
N	7,154			7,154		

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.18

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Cancer For Females 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	-.236	.158	.79	-.087	.166	.92
Some secondary	-.077	.148	.93	-.114	.152	.89
Completed secondary	.408**	.138	1.50	.388**	.140	1.47
Some college	-.089	.178	.91	-.082	.182	.92
Age	.033**	.008	1.03	.037**	.009	1.04
Ethnic Origin						
Not stated				-1.326	2.641	.27
French				-.376	.638	.69
English				.346	.554	1.41
Other European				.069	.555	1.07
Others				1.249**	.584	3.49
Place Of Birth						
Not stated				-3.033	7.902	.05
20 years and over				1.255	1.984	3.51
USA and Europe				.969	1.982	2.63
Asia and others				-.492	2.009	.61
Age First Started Smoking						
Not stated				-.169	.334	.84
20 years and over				-.256	.272	.77
Less than 20 years				.294	.261	1.34
Age First Started Drinking						
Not stated				-.253	.206	.78
25 years and over				.501**	.137	1.65
20-24 years				-.183	.158	.83
Less than 20 years				.048	.173	1.05
Age First Had Sex						
Not stated/not applicable				-.172	.145	.84
25 years and over				-.092	.161	.91
20-24 years				.178	.124	1.19
Intercept	-5.158**	.515		-6.911**	2.126	
Model Chi-Square		26.511			73.77	
Df		5			24	
P		.000			.000	
N		8,409			8,409	

* p<.10 ** p<.05; two-tailed t test.
Note: As in Table 6.1

Table 6.19

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Respiratory Disorders For Males 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	.441**	.124	1.55	.337**	.130	1.40
Some Secondary	.315**	.131	1.37	.282**	.134	1.33
Completed Secondary	-.151	.155	.86	-.114	.157	.89
Some College	.274	.159	1.32	.267*	.162	1.31
Age	.035**	.007	1.04	.037**	.008	1.04
Ethnic Origin						
Not stated				-.936	1.572	.39
French				.693*	.385	2.00
English				.168	.350	1.18
Other European				-.135	.348	.87
Others				.031	.387	1.03
Place Of Birth						
Not Stated				-2.465	7.815	.09
Other place in Canada				.751	1.960	2.12
USA and Europe				.890	1.959	2.43
Asia and Others				.375	1.970	1.45
Age First Started Smoking						
Not stated				.179	.265	1.20
20 years and over				-.341	.304	.71
Less than 20 years				.309*	.176	1.36
Age First Started Drinking						
Not stated				-.371*	.216	.69
25 years and over				.157	.185	1.17
20-24 years				.033	.134	1.03
Less than 20 years				.030	.128	1.03
Age First Had Sex						
Not stated/not applicable				.236**	.117	1.27
25 years and over				-.079	.166	.92
20-24 years				-.219	.138	.94
Intercept	-4.909**	.475		-5.786**	2.043	
Model Chi-Square		56.36			87.42	
df		5			24	
p		.000			.000	
N		7,154			7,154	

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.20

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Respiratory Disorders For Females 59 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.087	.121	1.09	.109	.129	1.12
Some Secondary	-.061	.122	.94	-.159	.125	.85
Completed Secondary	-.086	.128	.92	-.110	.130	.90
Some College	-.160	.151	.85	-.150	.153	.86
Age	.017**	.007	1.02	.020**	.007	1.02
Ethnic Origin						
Not stated				.336	.779	1.40
French				-.241	.293	.79
English				-.054	.217	.95
Other European				-.060	.212	.94
Others				.136	.304	1.15
Place Of Birth						
Not stated				.600	.796	1.82
Other place in Canada				.017	.262	1.02
USA and Europe				.005	.249	1.01
Asia and others				-.972**	.375	.38
Age First Started Smoking						
Not stated				.056	.219	1.06
20 years and over				-.109	.192	.90
Less than 20 years				.435**	.175	1.55
Age First Started Drinking						
Not stated				-.049	.160	.95
25 years and over				.044	.133	1.04
20-24 years				-.118	.130	.89
Less than 20 years				.021	.143	1.02
Age First Had Sex						
Not stated/not applicable				-.097	.119	.91
25 years and over				-.016	.137	.98
20-24 years				-.028	.111	.97
Intercept	-3.689**	.432		-3.69**	.526	
Model Chi-Square		10.11			48.03	
df		5			24	
p		.072			.003	
N		8,409			8,409	

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.21

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Digestive Disorders For Males 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	.309**	.107	1.37	.273**	.113	1.31
Some Secondary	.080	.115	1.08	.081	.118	1.08
Completed Secondary	-.180	.129	.84	-.183	.131	.83
Some College	-.150	.150	.86	-.130	.152	.88
Age	.005	.007	1.00	.007	.007	1.01
Ethnic Origin						
Not stated				1.392**	.493	.02
French				-.350	.255	.70
English				-.325*	.192	.72
Other European				-.147	.163	.86
Others				-.302	.217	.74
Place Of Birth						
Not stated				-2.620	4.697	.07
Other place in Canada				.644	1.184	1.90
USA and Europe				.359	1.182	1.43
Asia and Others				1.026	1.188	2.79
Age First Started Smoking						
Not stated				-.307	.283	.74
20 years and over				-.085	.259	.92
Less than 20 years				.455**	.164	1.58
Age First Started Drinking						
Not stated				-.016	.191	.98
25 years and over				-.109	.179	.90
20-24 years				-.109	.122	.90
Less than 20 years				.138	.114	1.15
Age First Had Sex						
Not stated/not applicable				.025	.109	1.02
25 years and over				.204	.134	1.23
20-24 years				-.005	.111	.99
Intercept	-2.608**	.425		-3.102**	1.268	
Model Chi-Square	11.14			45.65		
df	5			24		
p	.049			.000		
N	7,154			7,154		

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.22

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Digestive Disorders For Females 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	.115	.105	1.12	.076	.112	1.08
Some Secondary	.246**	.098	1.28	.212**	.100	1.24
Completed Secondary	-.308**	.118	.74	-.323**	.119	.72
Some College	-.088	.126	.92	-.072	.128	.93
Age	.009	.006	1.01	.013**	.006	1.01
Ethnic Origin						
Not stated				1.217	1.431	.30
French				.485	.345	1.62
English				.174	.316	1.19
Other European				.166	.310	1.18
Others				.126	.351	1.13
Place Of Birth						
Not stated				-.715	1.393	.49
Other place in Canada				.007	.375	1.01
USA and Europe				.280	.367	1.32
Asia and Others				.186	.402	1.20
Age First Started Smoking						
Not stated				-.163	.211	.85
20 years and over				-.144	.180	.87
Less than 20 years				.290*	.169	1.34
Age First Started Drinking						
Not stated				.194	.128	1.21
25 years and over				.042	.111	1.04
20-24 years				-.098	.107	.91
Less than 20 years				-.111	.121	.89
Age First Had Sex						
Not stated/not applicable				-.234**	.104	.79
25 years and over				-.141	.121	.87
20-24 years				.136	.091	1.15
Intercept	-2.820**	.364		-3.540**	.594	
Model Chi-Square		17.53			39.69	
df		5			24	
p		.000			.023	
N		8,409			8,409	

* $p < .10$ ** $p < .05$; two-tailed t test.

Note: As in Table 6.1

Table 6.23

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Diabetes, goitre or thyroid Troubles For The Male Population 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.034	.118	1.03	-.009	.124	.99
Some secondary	-.033	.165	.97	-.049	.127	.95
Completed secondary	.059	.127	1.06	.081	.128	1.08
Some college	.014	.152	1.01	.020	.153	1.02
Age	.039**	.007	1.04	.035**	.007	1.04
Ethnic Origin						
Not stated				-1.798	2.064	.17
French				.894*	.466	2.44
English				.240	.445	1.27
Other European				.076	.437	1.08
Others				.209	.463	1.23
Place Of Birth						
Not stated				-.081	1.396	.92
Other place in Canada				.014	.382	1.01
USA and Europe				.031	.375	1.03
Asia and Others				.026	.413	1.03
Age First Started Smoking						
Not stated				.416*	.259	1.52
20 years and over				-.745*	.391	.47
Less than 20 years				.030	.211	1.03
Age First Started Drinking						
Not stated				.231	.179	1.26
25 years and over				-.201	.187	.82
20-24 years				.051	.123	1.05
Less than 20 years				-.120	.124	.89
Age First Had Sex						
Not stated/not applicable				.079	.114	1.08
25 years and over				-.003	.146	1.00
20-24 years				-.052	.121	.95
Intercept	-4.868**	.451		-5.190**	.730	
Model Chi-Square		32.15			56.490	
df		5			24	
p		.000			.000	
N		7,154			7,154	

* p<.10 ** p<.05; two-tailed t test.
Note: As in Table 6.1

Table 6.24

Logistic Regressions OF Educational Attainment And Related Variables On The Prevalence Of Diabetes And Goitre Trouble For The Female Population 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.112	.095	1.12	.115	.101	1.12
Some secondary	.189	.090	1.21	.153*	.092	1.17
Completed secondary	-.177*	.102	.84	-.170*	.103	.84
Some College	.096	.109	1.10	.104	.110	1.11
Age	.014**	.005	1.01	.013**	.005	1.01
Ethnic Origin						
Not stated				-1.856	1.947	.16
French				.199	.434	1.22
English				.252	.408	1.29
Other European				.398	.404	1.49
Asian and Others				.581	.429	1.79
Place Of Birth						
Not stated				-.932	1.387	.39
Other place in Canada				.512	.365	1.67
USA and Europe				.224	.362	1.25
Asia and Others				-.205	.396	.81
Age First Started Smoking						
Not stated				.032	.186	1.03
20 years and over				.168	.152	1.18
Less than 20 years				-.288*	.176	.75
Age First Started Drinking						
Not stated				-.123	.120	.88
25 years and over				-.021	.101	.98
20-24 years				-.010	.095	.99
Less than 20 years				-.015	.108	.99
Age First Had Sex						
Not stated/not applicable				.064	.086	1.07
25 years and over				-.124	.106	.88
20-24 years				-.088	.084	.92
Intercept	-2.871**	.325		-3.598**	.623	
Model Chi-Square		19.388			44.91	
df		5			24	
p		.002			.006	
N	8, 409	8, 409				

* $p < .10$ ** $p < .05$; two-tailed t test.

Note: As in Table 6.1

Table 6.25

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Urinary or Kidney disease For The Male Population 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.310**	.148	1.36	.301	.155	1.35
Some secondary	-.054	.171	.95	-.090	.174	.91
Completed secondary	-.501**	.209	.61	-.510	.210	.60
Some college	.221	.193	1.25	.236	.195	1.27
Age	.041**	.009	1.04	.044	.010	1.04
Ethnic Origin						
Not stated				-.630	1.339	.53
French				-.245	.473	.78
English				.252	.351	1.29
Other European				.567	.322	1.76
Asia and others				-.044	.399	.96
Place Of Birth						
Not stated				-3.079	12.904	.05
Other place in Canada				.877	3.232	2.41
USA and Europe				.575	3.231	1.78
Asia and Others				.859	3.238	2.36
Age First Started Smoking						
Not stated				.619	.355	1.86
20 years and over				-.658	.521	.52
Less than 20 years				-.196	.288	.82
Age First Started Drinking						
Not stated				-.179	.280	.84
25 years and over				-.703	.331	.50
20-24 years				.221	.175	1.25
Less than 20 years				.226	.170	1.25
Age First Had Sex						
Not stated/not applicable				.067	.158	1.07
25 years and over				-.387	.231	.68
20-24 years				.138	.162	1.15
Intercept	-5.799**	.604		-7.307	3.305	
Model Chi-Square		33.103			57.99	
df	5	24				
p	.000	.000				
N	7,154	7,154				

* $p < .10$ ** $p < .05$; two-tailed t test.

Note: As in Table 6.1

Table 6.26

Logistic Regressions OF Educational Attainment And Related Variables On The Prevalence Of Urinary Or Kidney Disease For The Female Population 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	.043	.179	1.04	.023	.189	1.02
Some secondary	.124	.171	1.13	.052	.174	1.05
Completed secondary	.164	.176	1.18	.677	.179	1.18
Some college	.072	.204	1.07	.079	.207	1.08
Age	.021**	.009	1.02	.021**	.010	1.02
Ethnic Origin						
Not stated				-2.661	7.126	.07
French				.393	1.474	1.48
English				.268	1.447	1.31
Other European				.813	1.439	2.25
Others				.307	1.492	1.36
Place Of Birth						
Not stated				-2.363	7.858	.09
Other place in Canada				1.266	1.976	3.55
USA and Europe				.830	1.976	2.29
Asia and others				-.472	2.035	.62
Age First Started Smoking						
Not stated				-.248	.351	.78
20 years and over				.027	.282	1.03
Less than 20 years				.133	.289	1.14
Age First Started Drinking						
Not stated				.095	.205	1.10
25 years and over				.066	.174	1.07
20-24 years				-.102	.176	.90
Less than 20 years				-.206	.204	.81
Age First Had Sex						
Not stated/not applicable				-.081	.159	.92
25 years and over				-.134	.189	.87
20-24 years				-.053	.152	.95
Intercept	-4.769**	.592		-6.325**	2.506	
Model Chi-Square		7.709			35.91	
df		5			24	
P		.173			.056	
N		8,409			8,409	

* $p < .10$ ** $p < .05$; two-tailed t test.

Note: As in Table 6.1

Table 6.27

**Logistic Regressions Of Educational Attainment And
Related Variables On The Prevalence Of Musculoskeletal Disease
For Males 50 Years And Over**

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	.346**	.068	1.41	.306**	.071	1.36
Some Secondary	.136**	.070	1.15	.136**	.072	1.15
Completed Secondary	-.087	.075	.92	-.072	.076	.93
Some College	.161*	.085	1.18	.161*	.086	1.17
Age	.108**	.004	1.01	.014**	.004	1.01
Ethnic Origin						
Not stated				.259	.469	1.30
French				.307*	.168	1.36
English				-.241*	.135	.79
Other European				.011	.123	1.01
Others				-.147	.153	.87
Place Of Birth						
Not stated				-2.552	2.901	.08
Other place in Canada				.648	.731	1.91
USA and Europe				.573	.730	1.77
Asia and Others				.690	.736	1.99
Age First Started Smoking						
Not stated				-.127	.163	.88
20 years and over				-.257*	.157	.77
Less than 20 years				.233**	.104	1.26
Age First Started Drinking						
Not stated				.024	.117	1.02
25 years and over				-.121	.108	.89
20-24 years				.026	.074	1.03
Less than 20 years				.087	.070	1.09
Age First Had Sex						
Not stated/not applicable				-.010	.068	.99
25 years and over				-.069	.087	.93
20-24 years				.085	.068	1.09
Intercept	-1.358**	.262		-2.273	.785	
Model Chi-Square		64.45			95.30	
df		5			24	
p		.000			.000	
N		7.143			7.143	

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.28

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Musculoskeletal Disease For Females 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	.386**	.065	1.47	.335**	.069	1.40
Some Secondary	.153**	.063	1.16	.147**	.064	1.16
Completed Secondary	-.075	.066	.93	-.075	.067	.93
Some College	-.037	.075	.96	-.020	.076	.98
Age	.027**	.004	1.03	.027**	.004	1.03
Ethnic Origin						
Not stated				.134	.446	1.14
French				.136	.156	1.15
English				-.085	.121	.92
Other European				.055	.115	1.06
Others				.221	.151	.80
Place Of Birth						
Not stated				2.026**	.728	7.59
Other place in Canada				-.493**	.198	.61
USA and Europe				-.491**	.195	.61
Asia and Others				-.461**	.216	.63
Age First Started Smoking						
Not stated				.093	.126	1.10
20 years and over				-.152	.107	.86
Less than 20 years				.024	.110	1.02
Age First Started Drinking						
Not stated				-.037	.082	.96
25 years and over				.128*	.069	1.14
20-24 years				-.105	.065	.90
Less than 20 years				-.104	.073	.90
Age First Had Sex						
Not stated/not applicable				-.069	.060	.93
25 years and over				.014	.070	1.01
20-24 years				-.061	.056	.94
Intercept	-2.123**	.227		-1.543**	.314	
Model Chi-Square		124.83			159.67	
df		5			24	
p		.000			.000	
N		8,409			8,409	

* $p < .10$ ** $p < .05$; two-tailed t test.
 Note: As in Table 6.1

Table 6.29

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Eye Problems For The Male Population 50 Years And Over

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	-.058	.127	.94	-.001	.134	1.00
Some secondary	.040	.131	1.04	.002	.135	1.00
Completed secondary	-.363**	.155	.70	-.386**	.157	.68
Some college	.028	.166	1.03	.022	.168	1.02
Age	.078**	.007	1.08	.078**	.008	1.08
Ethnic Origin						
Not Stated				-3.600	7.874	.02
French				.489	1.602	1.63
English				1.011	1.583	2.75
Other European				.431	1.583	1.54
Others				1.178	1.588	3.25
Place Of Birth						
Not stated				-3.875	12.430	.02
Other place in Canada				1.090	3.112	2.97
USA and Europe				.910	3.111	2.48
Asia and Others				.577	3.117	1.78
Age First Started Smoking						
Not stated				.513**	.261	1.70
20 years and over				-.538	.361	.58
Less than 20 years				.050	.213	1.05
Age First Started Drinking						
Not stated				.129	.197	1.14
25 years and over				.107	.175	1.11
20-24 years				-.199	.139	.82
Less than 20 years				-.110	.134	.90
Age First Had Sex						
Not stated/not applicable				-.251*	.132	.78
25 years and over				-.064	.156	.94
20-24 years				.128	.129	1.14
Intercept	-7.687**	.512		-9.388*	3.528	
Model Chi-Square	120.65			155.66		
df	5			24		
p	.000			.000		
N	7,154			7,154		

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.30

Logistic Regressions OF Educational Attainment And Related Variables On The Prevalence Of Eye Problems For The Female Population 50 Years And Over, Ontario, 1991

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	-.021	.107	.98	.014	.115	1.01
Some secondary	.14	.104	1.15	.133	.107	1.14
Completed secondary	-.153	.119	.86	-.151	.120	.86
Some college	.12	.125	1.13	.087	.127	1.09
Age	.080**	.006	1.08	.085**	.007	1.09
Ethnic Origin						
Not stated				-2.053	2.344	1.13
French				.547	.513	1.73
English				.266	.480	1.30
Other European				.461	.484	1.59
Others				.457	.521	1.58
Place Of Birth						
Not stated				1.047*	.617	2.85
Other place in Canada				.081	.201	1.08
USA and Europe				-.183	.195	.83
Asia and others				-.798**	.286	.45
Age First Started Smoking						
Not stated				-.253	.214	.78
20 years and over				.041	.193	1.04
Less than 20 years				-.007	.221	.99
Age First Started Drinking						
Not stated				.060	.127	1.06
25 years and over				-.022	.113	.99
20-24 years				.091	.112	1.10
Less than 20 years				.003	.134	1.00
Age First Had Sex						
Not stated/not applicable				-.244**	.101	.78
25 years and over				.136	.108	1.15
20-24 years				-.052	.096	.95
Intercept	-7.602**	.406		-8.353**	.662	
Model Chi-Square	221.23			251.63		
df	6			24		
p	.000			.000		
N	8, 409			8, 409		

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.31

**Logistic Regressions Of Educational Attainment And
Related Variables On The Prevalence Of Skin Disease and Allergies
For Males 50 Years And Over**

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or Less	-.327**	.097	.72	-.253**	.101	.78
Some Secondary	-.178*	.094	.84	-.181*	.096	.83
Completed Secondary	-.027	.094	.97	-.042	.095	.96
Some College	.149	.104	1.16	.119	.106	1.13
Age	-.014**	.006	.97	-.014**	.006	.99
Ethnic Origin						
Not Stated				-1.396	1.253	.25
French				-.058	.32	.94
English				.539*	.278	1.71
Other European				.379	.272	1.46
Others				.238	.296	1.27
Place Of Birth						
Not stated				-2.882	4.720	.06
Other place in Canada				.697	1.186	2.01
USA and Europe				.583	1.184	1.79
Asia and Others				.852	1.191	2.35
Age First Started Smoking						
Not stated				.015	.233	1.01
20 years and over				-.149	.213	.86
Less than 20 years				-.154	.149	.86
Age First Started Drinking						
Not stated				.002	.169	1.00
25 years and over				-.094	.143	.91
20-24 years				-.078	.099	.93
Less than 20 years				.140	.092	1.15
Age First Had Sex						
Not stated/not applicable				-.156*	.095	.86
25 years and over				-.025	.112	.98
20-24 year				.026	.087	1.03
Intercept	-.776**	.348		-2.083	1.266	
Model Chi-Square		34.14			67.78	
df		5			24	
p		.000			.000	
N		7,143			7,143	

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.32

Logistic Regressions OF Educational Attainment And Related Variables On The Prevalence Of Skin Disease And Allergies For The Female Population 50 Years And Over, Ontario, 1991

Independent Variables	Model I			Model II		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Educational Attainment						
Primary or less	-.183**	.084	.83	-.140	.090	.87
Some secondary	-.075	.078	.93	-.104	.080	.90
Completed secondary	-.025	.080	.98	-.036	.081	.96
Some college	.070	.090	1.07	.051	.091	1.05
Age	-.029**	.005	.98	-.019**	.005	.98
Ethnic Origin						
Not stated				-1.360	.80	.26
French				.407*	.231	1.50
English				.308	.200	1.36
Other European				.192	.199	1.21
Others				.277	.236	1.32
Place Of Birth						
Not stated				1.198**	.489	3.31
Other place in Canada				-.080	.156	.92
USA and Europe				-.372**	.152	.69
Asia and Others				-.597**	.202	.55
Age First Started Smoking						
Not stated				.037	.165	1.04
20 years and over				-.204	.137	.82
Less than 20 years				.161	.131	1.17
Age First Started Drinking						
Not stated				.112	.106	1.12
25 years and over				.044	.087	1.04
20-24 years				.021	.079	1.02
Less than 20 years				-.082	.091	.92
Age First Had Sex						
Not stated/not applicable				.179**	.080	.84
25 years and over				.016	.089	1.02
20-24 years				.084	.069	1.09
Intercept	-.173	.286		-.223	.368	
Model Chi-Square		30.461			65.56	
df		5			24	
p		.000			.000	
N		8,409			8,409	

* p<.10 ** p<.05; two-tailed t test.

Note: As in Table 6.1

Table 6.33

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Heart Disorders For Males by Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.031	.105	1.03	.033	.110	1.03
Some Secondary	-.009	.102	.99	-.039	.105	.96
Completed Secondary	-.132	.109	.88	-.127	.111	.88
Some College (c)	.175	.116	1.19	.192	.117	1.21
Age	.082**	.013	1.09	.085**	.013	1.09
Intercept	-5.869**	.740		-6.207**	.870	
Model Chi-Square		46.90			71.51	
df		5			24	
p		.000			.000	
N		4,146			4,146	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	-.011	.102	.99	.039	.107	1.04
Some Secondary	.241**	.109	1.27	.254**	.112	1.29
Completed Secondary	-.044	.117	.96	-.080	.120	.92
Some College (c)	.014	.143	1.01	.001	.145	1.00
Age	.013	.010	1.01	.012	.010	1.01
Intercept	-1.539**	.715		-2.451**	.976	
Model Chi-Square		7.25			27.99	
df		5			24	
p		.203			.261	
N		3,008			3,008	

* $P < .10$ ** $P < .05$; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.34

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Stroke, Circulatory And Vascular Problems For Males by Age Groups

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.567**	.184	1.76	.440**	.196	1.55
Some Secondary	-.074	.216	.93	-.194	.222	.82
Completed Secondary	-.205	.237	.81	-.208	.241	.81
Some Comm/Un&College	-.331	.280	.72	-.265	.283	.77
Age	.100**	.026	1.11	.108**	.027	1.11
Intercept	-8.847**	1.547		11.169*	6.10	
Model Chi-Square		27.04			54.55	
df		5			24	
p		.000			.000	
N		4,146			4,146	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	-.143	.160	.87	-.150	.168	.86
Some Secondary	-.026	.170	.97	-.075	.175	.93
Completed Secondary	-.165	.186	.85	-.189	.190	.83
Some Comm/Un&College	.577**	.186	1.78	.623**	.192	1.86
Age	.017	.015	1.02	.019	.016	1.02
Intercept	-3.299**	1.086		-3.837**	1.37	
Model Chi-Square		9.96			31.93	
df		5			24	
p		.076			.129	
N		3008			3008	

* P<.10 ** P <.05; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.35

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Cancer For Males by Age Group

Independent Variables	Model I			Model II(a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	-.327	.310	.72	-.310	.323	.73
Some Secondary	-.074	.277	.93	-.276	.287	.76
Completed Secondary	-.233	.308	.79	-.401	.321	.67
Some College (c)	.434	.274	1.54	.582**	.282	1.79
Age	.086**	.035	1.09	.090**	.036	1.09
Intercept	-8.543**	2.022		-9.861	4.584	
Model Chi-Square		9.45			41.09	
df		5			24	
p		.093			.016	
N		4,146			4,146	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.077	.197	1.08	.048	.216	1.05
Some Secondary	-.097	.227	.91	-.083	.234	.92
Completed Secondary	.084	.225	1.09	.019	.233	1.02
Some College (c)	.088	.278	1.09	.133	.286	1.14
Age	.036**	.018	1.04	.044**	.020	1.05
Intercept	-5.307**	1.329		-6.794**	2.65	
Model Chi-Square		4.61			46.66	
df		5			24	
p		.465			.004	
N		3008			3008	

* $P < .10$ ** $P < .05$; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.36

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Respiratory Disorders For Males by Age Group

Independent Variables	Model I			Model II(a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.422**	.194	1.53	.223	.206	1.25
Some Secondary	.549**	.184	1.73	.511**	.191	1.67
Completed Secondary	-.058	.225	.94	-.057	.229	.94
Some College (c)	.165	.233	1.18	.168	.238	1.18
Age	.089**	.024	1.09	.088**	.024	1.09
Intercept	-8.092**	1.383		-9.332	5.868	
Model Chi-Square		35.15			69.64	
df		5			24	
p		.000			.000	
N		4,146			4,146	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.438**	.162	1.55	.045**	.170	1.50
Some Secondary	.054	.191	1.06	.049	.196	1.00
Completed Secondary	-.217	.216	.80	-.174	.219	.84
Some College (c)	.388*	.220	1.47	.339	.225	1.40
Age	.013	.016	1.01	.014	.016	1.01
Intercept	-3.288**	1.133		-4.556	2.788	
Model Chi-Square		13.77			33.21	
df		5			24	
p		.017			.100	
N		3008			3008	

* P<.10 ** P <.05; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.37

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Digestive Disorders For Males by Age Groups

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.474**	.146	1.61	.459**	.155	1.58
Some Secondary	.278*	.147	1.32	.274*	.152	1.32
Completed Secondary	-.325*	.182	.72	-.313*	.184	.73
Some College (c)	-.263	.202	.77	-.260	.204	.77
Age	-.0007	.019	1.00	.001	.019	1.00
Intercept	-2.382**	1.075		-3.941	3.740	
Model Chi-Square		15.97			43.54	
df		5			24	
p		.007			.009	
N		4,146			4,146	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.124	.157	1.13	.025	.168	1.03
Some Secondary	-.225	.187	.80	-.190	.193	.83
Completed Secondary	-.026	.186	.97	-.032	.191	.97
Some College (c)	.012	.225	1.01	.038	.231	1.04
Age	-.006	.016	.99	-.002	.017	1.00
Intercept	-1.760	1.148		-2.670	2.594	
Model Chi-Square		2.19			40.39	
df		5			24	
p		.823			.019	
N		3008			3008	

* P<.10 ** P <.05; two-tailed t test.

Notes:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.38

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Diabetes And Goitre Or Thyroid Trouble For Males by Age Group

Model II (a)			Model I			
Independent Variables	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	-.171	.198	.84	-.179	.207	.84
Some Secondary	-.034	.185	.97	-.038	.189	.96
Completed Secondary	-.029	.193	.97	-.007	.99	.99
Some College (c)	.264	.197	1.30	.262	.200	1.30
Age	.078**	.023	1.08	.080**	.024	1.08
Intercept	-7.260**	1.349		-8.042**	2.083	
Model Chi-Square		13.34			31.82	
df		5			24	
P		.020			.131	
N		4,146			4,146	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.185	.151	1.20	.137	.159	1.15
Some Secondary	-.007	.172	.99	-.040	.176	.96
Completed Secondary	.180	.172	.20	.183	.175	1.20
Some College (c)	-.299	.242	.74	-.275	.246	.76
Age	-.007	.015	.99	-.015	.016	.99
Intercept	-1.581	1.086		-2.247	2.733	
Model Chi-Square		3.30			19.99	
df		5			24	
P		.655			.697	
N		3008			3008	

* P<.10 ** P <.05; two-tailed t test.

Notes:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.39

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Urinary Problems Or Kidney Disease For The Males by Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.889**	.223	2.43	.850**	.240	2.34
Some Secondary	-.117	.286	.89	-.153	.291	.86
Completed Secondary	-.557	.347	.57	-.553	.349	.58
Some College (c)	-.076	.328	.93	-.062	.331	.94
Age	-.005	.032	.99	-.007	.032	.99
Intercept	-3.325*	1.801		-5.137	6.135	
Model Chi-Square		16.15			28.31	
df		5			24	
p		.006			.247	
N		4,146			4,146	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	-.092	.199	.91	-.091	.207	.91
Some Secondary	-.020	.215	.98	-.081	.221	.92
Completed Secondary	-.484*	.263	.62	-.506*	.267	.60
Some College (c)	.436*	.241	1.55	.465*	.248	1.59
Age	.037**	.018	1.04	.043**	.020	1.04
Intercept	-5.314**	1.344		-7.035**	2.894	
Model Chi-Square		8.97			32.72	
df		5			24	
p		.110			.110	
N		3008			3008	

* P<.10 ** P <.05; two-tailed t test.

Notes:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 40

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Musculoskeletal Disease For Males by Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.342**	.093	1.41	.259**	.098	1.30
Some Secondary	.214**	.091	1.24	.192**	.093	1.21
Completed Secondary	-.074	.097	.93	-.049	.098	.95
Some College (c)	.060	.107	1.07	.066	.109	1.07
Age	.025**	.011	1.03	.027**	.011	1.03
Intercept	-2.157**	.647		-3.483**	1.39	
Model Chi-Square		38.79			67.97	
df		5			24	
p		.000			.000	
N		4,146			4,146	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.338**	.101	1.40	.340**	.106	1.41
Some Secondary	.012	.112	1.01	.043	.115	1.04
Completed Secondary	-.105	.119	.90	-.133	.121	.88
Some College (c)	.335**	.140	1.40	.343**	.143	1.41
Age	.011	.010	1.01	.017	.010	1.02
Intercept	-1.386	.715		-1.386*	.715	
Model Chi-Square		25.57			50.18	
df		5			24	
p		.000			.001	
N		3,008			3,008	

* $P < .10$ ** $P < .05$; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.41

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Eye Problems For Males by Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.127	.225	1.14	.123	.238	1.13
Some Secondary	-.120	.236	.89	-.147	.244	.86
Completed Secondary	-.290	.262	.75	-.287	.267	.75
Some College (c)	-.097	.276	.91	-.108	.283	.90
Age	.041	.028	1.04	.048	.030	1.05
Intercept	-5.610**	1.634		-7.659	5.778	
Model Chi-Square		5.56			37.86	
df		5			24	
p		.352			.036	
N		4,146			4,146	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	-.131	.153	.88	-.010	.163	.90
Some Secondary	.116	.160	1.10	.117	.160	1.13
Completed Secondary	-.412**	.193	.66	-.441**	.197	.64
Some College (c)	.109	.210	1.11	.067	.216	1.07
Age	.081**	.014	1.08	.081**	.014	1.08
Intercept	-7.868**	1.012		-9.319**	2.905	
Model Chi-Square		39.38			72.93	
df		5			24	
p		.000			.000	
N		3008			3008	

* P<.10 ** P <.05; two-tailed t test.

Notes:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.42

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Skin Disease And Allergies For Males by Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	-.504**	.134	.60	-.450**	.140	.64
Some Secondary	-.188	.118	.83	-.185	.121	.83
Completed Secondary	.004	.117	1.00	-.001	.119	1.00
Some College (c)	.082	.130	1.09	.058	.131	1.06
Age	-.001	.014	1.00	-.000	.014	1.00
Intercept	-1.477*	.804		-2.842	2.14	
Model Chi-Square		34.025			62.70	
df		5			24	
p		.000			.000	
N	4,146	4,146				
65 Years and Over						
Educational Attainment (b)						
Primary or Less	-.070	.145	.93	.013	.153	1.01
Some Secondary	-.086	.159	.92	-.103	.164	.90
Completed Secondary	-.001	.163	1.00	-.038	.168	.96
Some College (c)	.365**	.181	1.44	.365**	.181	1.44
Age	-.011	1.036	1.00	-.011	.014	.99
Intercept	-1.044	1.036		-3.263	2.909	
Model Chi-Square		4.88			38.47	
df		5			24	
p		.431			.031	
N	3008	3008				

* P<.10 ** P <.05; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.43

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Heart Disorders For Females By Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.319**	.113	1.38	.375**	.122	1.45
Some Secondary	.176*	.106	1.19	.196*	.109	1.22
Completed Secondary	.105	.108	1.11	.111	.110	1.12
Some College (c)	-.341**	.139	.71	-.345**	.141	.71
Age	.047**	.013	1.05	.049**	.014	1.05
Intercept	-4.114**	.761		-4.431**	.819	
Model Chi-Square		31.16			55.52	
df		5			24	
p		.000			.000	
N		4,483			4,483	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.347**	.097	1.42	.339**	.103	1.40
Some Secondary	.338**	.098	1.40	.360**	.100	1.43
Completed Secondary	.094	.106	1.10	.085	.107	1.09
Some College (c)	.219*	.116	1.25	.227*	.118	1.26
Age	.013*	.007	1.01	.016**	.008	1.02
Intercept	-1.601**	.543		-1.666**	.620	
Model Chi-Square		32.10			53.98	
df		5			24	
p		.000			.000	
N		3,926			3,926	

* p < .10 ** p < .05; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.44

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Stroke, Circulatory And Vascular Problems For Females By Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.505**	.227	1.66	.502**	.243	1.65
Some Secondary	.285	.223	1.33	.306	.229	1.36
Completed Secondary	.077	.234	1.08	.089	.238	1.09
Some College (c)	.165	.259	1.18	.136	.263	1.15
Age	.028	.025	1.03	.028	.026	1.03
Intercept	-4.758**	1.430		-6.524*	3.550	
Model Chi-Square		9.73			26.85	
df		5			24	
p		.083			.312	
N		4,483			4,483	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.176	.174	1.19	.165	.185	1.18
Some Secondary	.193	.176	1.21	.168	.180	1.18
Completed Secondary	.419**	.179	1.52	.429**	.182	1.54
Some College (c)	-.073	.220	.93	-.145	.226	.87
Age	.023*	.012	1.02	.031**	.013	1.03
Intercept	-4.203**	.909		-4.403**	1.015	
Model Chi-Square		9.99			41.96	
df		5			24	
p		.076			.013	
N		3,926			3,926	

* p < .10 ** p < .05; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.45

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Cancer For Females
By Age Group

Independent Variables	Model I			Model II(a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.107	.268	1.11	.145	.287	1.16
Some Secondary	-.210	.267	.81	-.161	.275	.85
Completed Secondary	.349	.227	1.42	.391*	.235	1.48
Some College (c)	-.070	.297	.93	-.054	.303	.95
Age	-.017	.030	.98	-.011	.031	.99
Intercept	-2.503	1.716		-4.478	3.147	
Model Chi-Square		3.24			26.89	
df		5			24	
p		.663			.309	
N		4483			4483	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	-.380*	.194	.68	-.206	.206	.81
Some Secondary	-.055	.180	.95	-.093	.186	.91
Completed Secondary	.416**	.173	1.52	.401**	.177	1.49
Some College (c)	-.138	.224	.87	-.077	.230	.93
Age	.007	.015	1.01	.022	.016	1.02
Intercept	-3.175**	1.069		-6.017		
Model Chi-Square		9.92			25.013	
df		5			24	
p		.077			.000	
N		3,926			3,926	

* $p < .10$ ** $p < .05$; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.46

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Respiratory Disorders For Females By Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.026	.190	1.03	-.004	.209	1.00
Some Secondary	-.149	.183	.86	-.327*	.191	.72
Completed Secondary	-.222	.188	.80	-.261	.193	.77
Some College (c)	-.262	.224	.77	-.205	.230	.81
Age	.031	.023	1.03	.040*	.024	1.04
Intercept	-4.479**	1.312		-4.683**	1.390	
Model Chi-Square		8.77			52.94	
df		5			24	
p		.119			.001	
N		4,483			4,483	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.236	.174	1.27	.326*	.142	1.38
Some Secondary	.111	.180	1.12	.039	.182	1.04
Completed Secondary	.136	.192	1.15	.120	.194	1.13
Some College (c)	.032	.217	1.03	.054	.221	1.06
Age	.008	.013	1.01	.010	.014	1.01
Intercept	-3.198**	.970		-4.86	3.817	
Model Chi-Square		3.00			24.67	
df		5			24	
p		.670			.450	
N		3,926			3,926	

* p < .10 ** p < .05; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.47

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Digestive Disorders For Females By Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.370**	.157	1.45	.341**	.171	1.41
Some Secondary	.358**	.144	1.43	.327**	.150	1.39
Completed Secondary	-.298*	.172	.74	-.307*	.174	.74
Some College (c)	-.355*	.205	.70	-.344*	.208	.71
Age	-.001	.019	1.00	.005	.020	1.01
Intercept	-2.383**	1.083		-4.262	3.401	
Model Chi-Square		15.56			41.19	
df		5			24	
p		.008			.016	
N		4,483			4,483	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	-.076	.140	.93	-.101	.149	.90
Some Secondary	.120	.135	1.13	.129	.138	1.14
Completed Secondary	-.341**	.163	.71	-.349**	.165	.76
Some College (c)	.069	.164	1.07	.091	.167	1.10
Age	-.011	.012	.99	-.006	.012	.99
Intercept	-1.236	.846		-2.001**	.994	
Model Chi-Square		6.44			19.20	
df		5			24	
p		.266			.742	
N		3,926			3,926	

* p < .10 ** p < .05; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.48

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Diabetes And Goitre Or Thyroid Trouble For Females By Age Group

Independent Variables	Model I			Model II(a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.026	.156	1.03	.060	.167	1.06
Some Secondary	.272**	.134	1.31	.196	.139	1.22
Completed Secondary	-.113	.148	.89	-.120	.152	.89
Some College (c)	.069	.164	1.07	.068	.167	1.07
Age	.022	.017	1.02	.019	.018	1.02
Intercept	-3.466**	.992		-4.810**	2.193	
Model Chi-Square		6.84			41.941	
df		5			24	
p		.233			.013	
N		4,483			4,483	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.146	.121	1.16	.113	.130	1.12
Some Secondary	.082	.123	1.09	.073	.126	1.08
Completed Secondary	-.273*	.143	.76	-.248*	.144	.78
Some College (c)	.090	.147	1.09	.086	.150	1.09
Age	-.024**	.010	.98	-.025**	.011	.97
Intercept	.075	.751		-.513	.966	
Model Chi-Square		10.86			26.08	
df		5			24	
p		.054			.349	
N		3,926			3,926	

* $p < .10$ ** $p < .05$; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.49

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Urinary Problems Or Kidney Disease For Females By Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.022	.274	1.02	.057	.292	1.06
Some Secondary	.139	.239	1.15	.014	.247	1.01
Completed Secondary	-.059	.255	.94	-.155	.260	.86
Some College (c)	.071	.283	1.07	.064	.287	1.07
Age	-.008	.031	.99	-.006	.033	.99
Intercept	-3.026*	1.738		-5.40	5.582	
Model Chi-Square		.563			21.94	
df		5			24	
p		.990			.583	
N		4483			4483	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.148	.266	1.16	.116	.283	1.12
Some Secondary	.209	.269	1.23	.195	.275	1.22
Completed Secondary	.463*	.272	1.59	.489*	.276	1.63
Some College (c)	.155	.314	1.17	.138	.321	1.15
Age	.043**	.017	1.04	.037**	.018	1.04
Intercept	-6.564**	1.277		-7.761**	3.904	
Model Chi-Square		9.35			34.830	
df		5			24	
p		.096			.071	
N		3,926			3,926	

* p < .10 ** p < .05; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.50

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Musculoskeletal Disease For Females By Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.526**	.096	1.69	.428**	.103	1.53
Some Secondary	.103	.089	1.11	.081	.092	1.08
Completed Secondary	-.070	.091	.93	-.073	.093	.93
Some College (c)	-.084	.105	.92	-.029	.107	.97
Age	.019*	.011	1.02	.020*	.011	1.02
Intercept	-1.666**	.630		-1.030	.732	
Model Chi-Square		39.37			69.54	
df		5			24	
p		.000			.000	
N		4,483			4,483	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	.272**	.089	1.312	.262**	.096	1.30
Some Secondary	.183*	.090	1.201	.198**	.092	1.22
Completed Secondary	-.094	.097	.910	-.089	.098	.91
Some College (c)	-.006	.108	.994	.001	.111	1.00
Age	.021**	.007	1.022	.020**	.008	1.02
Intercept	-1.637**	.534		-1.130*	.614	
Model Chi-Square		23.94			36.055	
df		5			24	
p		.000			.054	
N		3,926			3,926	

* p < .10 ** p < .05; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.51

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Eye Problems For Females By Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	.372	.230	1.45	.335	.251	1.44
Some Secondary	.276	.222	1.32	.303	.230	1.35
Completed Secondary	.143	.230	1.15	.198	.236	1.22
Some College (c)	-.241	.301	.79	-.230	.305	.79
Age	.114**	.028	1.12	.114**	.029	1.12
Intercept	-9.810**	1.639		-10.348**	1.780	
Model Chi-Square		24.38			43.42	
df		5			24	
p		.000			.009	
N		4,483			4,483	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	-.126	.121	.88	-.073	.130	.93
Some Secondary	.086	.119	1.09	.073	.123	1.08
Completed Secondary	-.281**	.141	.76	-.267*	.143	.77
Some College (c)	-.206	.140	1.23	.187	.145	1.21
Age	.063**	.009	1.06	.07	.010	1.07
Intercept	-6.263**	.696		-7.525**	1.462	
Model Chi-Square		53.79			81.99	
df		5			24	
p		.000			.000	
N		3,926			3,926	

* p < .10 ** p < .05; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Table 6.52

Logistic Regressions Of Educational Attainment And Related Variables On The Prevalence Of Skin Disease And Allergies For Females by Age Group

Independent Variables	Model I			Model II (a)		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)
50-64 Years						
Educational Attainment (b)						
Primary or Less	-.260**	.121	.77	-.199	.130	.82
Some Secondary	-.072	.104	.93	-.101	.108	.90
Completed Secondary	.039	.103	1.04	.004	.105	1.00
Some College (c)	.194*	.115	1.21	.184	.118	1.20
Age	-.023*	.013	.98	-.023*	.014	.98
Intercept	-.020	.739		-.083	.815	
Model Chi-Square		11.10			44.46	
df		5			24	
p		.050			.007	
N		4,483			4,483	
65 Years and Over						
Educational Attainment (b)						
Primary or Less	-.128	.119	.88	-.090	.128	.91
Some Secondary	-.083	.119	.92	-.113	.122	.83
Completed Secondary	-.123	.129	.88	-.113	.131	.89
Some College (c)	-.113	.145	.89	-.150	.149	.86
Age	-.021**	.010	.98	-.021*	.011	.98
Intercept	-.075	.741		.111	.838	
Model Chi-Square		8.15			32.99	
df		5			24	
p		.148			.104	
N		3,926			3,926	

* $p < .10$ ** $p < .05$; two-tailed t test.

Note:

- (a) Coefficients for the remaining control variables - ethnic origin, place of birth, age first started smoking, age first started drinking, and age first had sex - are not shown.
- (b) Reference category is 'University Degree'.
- (c) Refers to some community college education or completed community college education or some university education.

Figure 5.1
Percentage Of The Population 50 Years And Over
With One Or More Chronic Health Problems
By Level Of Education

Figure 5.2
Percentage Of The Population 50 Years And Over
With Heart Disorders By Level Of Education

Figure 5.3
Percentage Of The Population 50 Years And Over
With Stroke, Circulatory and Vascular Problems
By Level Of Education

Figure 5.4
Percentage Of The Population 50 Years And Over
With Cancer By Level Of Education

Figure 5.5
Percentage Of The Population 50 Years And Over
With Respiratory Disorders By Level Of Education

Figure 5.6
Percentage Of The Population 50 Years And Over
With Digestive Disorders By Level Of Education

Figure 5.7
Percentage Of The Population 50 Years And Over
With Diabetes And Goitre Or Thyroid Trouble
By Level Of Education

Figure 5.8
Percentage Of The Population 50 Years And Over
With Urinary Problems Or Kidney Disease
By Level Of Education

Figure 5.9
Percentage Of The Population 50 Years And Over
With Musculoskeletal Disease
By Level Of Education

Figure 5.10
Percentage Of The Population 50 Years And Over
With Eye Problems By Level Of Education

Figure 5.11
Percentage Of The Population 50 Years And Over
With Skin Disease and Allergies
By Level Of Education

Figure 5.12

**Percentage Of The Population 50 Years And Over
With Other Chronic Health Problems
By Level Of Education**

THE 1990 ONTARIO HEALTH SURVEY

APPENDIX A Survey Questionnaires

A Dwindling Identification

[illegible]

B Record of Calls on Drilling

#	Date	Time	Comments
1			
2			
3			
4			
5			
6			
7			
8			

6 Introduction

from Statistics Canada. We are conducting a survey for the Ontario Ministry of Health. Your household has been selected to be part of this important study about the health of the residents of Ontario. This study is being conducted under the Ministry of Health Act which ensures that all information collected will be kept strictly confidential.

© Household Membership

10	11	12	13	14	15	16	17
NO	Names of Household Members	Age	Sex	DOB	DOB	DOB	DOB
Cell							
1							
2							
3							
4							
5							
6							
7							
8							

COMPLETE SECTION D AS FOLLOWS:

- Ask: What are the names of all persons living or staying here who have no usual place of residence elsewhere?

Enter Pg # in Item 10 and names in Item 11 (print names using upper case letters).

- Ask: Are there any persons away from this household attending school, visiting, travelling or in hospital who usually live here?

If so, enter Pg # in Item 10 and names in Item 11.

- Ask: Does anyone else live here such as relatives, roomers, boarders, or employees?

If so, enter Pg # in Item 10 and names in Item 11.

- Complete Item 12 through 16 for each name entered.

E Household Items

20 Tel. no. at which household can be reached:

- -

Area Code

OR 1 ☐ Refused OR 2 ☐ No telephone

21 Type of dwelling

22 Final status code for dwelling

F Comments

Interviewer Questionnaire (Form 04)

The Interviewer Questionnaire (Form 04) was designed so that information for up to six respondents in a household could be entered in the same booklet. When the booklet is open, a column of questions and six columns for respondents' answers are displayed on facing pages. Interviewers asked a series of questions for all respondents in the household before going on to the next set of questions. These breaks were marked by bold lines across the questionnaire -- for example after questions 6, 9, 17, 21, 24, etc. Questions 112 to 118 on the last page of the questionnaire pertained to the whole household and therefore did not have corresponding columns for each respondent.

The cover of the questionnaire is seventeen inches long and eight and a half inches wide, while the pages of the questionnaire are eleven inches by eight and a half inches. This allows for a six inch projection above the pages of the booklet when it is open. The Identification area and Health Problem area for each respondent is printed on the inside of the cover's projection and was visible throughout the interview as the pages were turned. To help in visualizing how the actual questionnaire worked, a reduced copy of the open booklet showing the Health Problem area and all six columns for respondents is displayed on the following page.

Whenever a health problem was identified for a respondent, for example at question 9, 12, or 16, the problem was "entered above" in the health problem area for that respondent with the corresponding question number at which it was identified. At Section I (Health Problem Probes) the interviewer transcribed each unique health problem to the questionnaire and a series of questions was asked about each problem. Each respondent could have up to eight health problems recorded in this section -- questions 81 to 88.

The Interviewer Questionnaire, reproduced on the following pages, shows the questions and the two columns for responses which are on the same page as the questions. The four additional columns which are on the facing pages of the booklet are not shown.

☐ Yes ☐ No → Go to 14	☐ Yes ☐ No → Go to 14	☐ Yes ☐ No → Go to 14	☐ Yes ☐ No → Go to 14
<input type="text"/> <input type="text"/> days	<input type="text"/> <input type="text"/> days	<input type="text"/> <input type="text"/> days	<input type="text"/> <input type="text"/> days
☐ entered above (problem, 12)	☐ entered above (problem, 12)	☐ entered above (problem, 12)	☐ entered above (problem, 12)
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No → Go to Section C	☐ Yes ☐ No → Go to Section C	☐ Yes ☐ No → Go to Section C	☐ Yes ☐ No → Go to Section C
<input type="text"/> <input type="text"/> days	<input type="text"/> <input type="text"/> days	<input type="text"/> <input type="text"/> days	<input type="text"/> <input type="text"/> days
☐ entered above (problem, 12)	☐ entered above (problem, 12)	☐ entered above (problem, 12)	☐ entered above (problem, 12)
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

PHU	Docket	Mo	Assignment No.
1 <input type="text"/>	- <input type="text"/>	2 <input type="text"/>	3 <input type="text"/>

Interviewer No

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Questionnaire

<input type="text"/>	of	<input type="text"/>
----------------------	----	----------------------

04

CONFIDENTIAL
WHEN COMPLETED

Interviewer
Questionnaire

**Ontario
Health
Survey**

Identification	Pg Ln Age Sex			Pg Ln Age Sex		
	Name			Name		
	Interviewer: Record Pg/Ln No Name Age and Sex of each person on Household Record Form					
Health Problem Area	Problem	Ques 8	Problem	Ques 8		

Section B		
Two Week Disability The next questions (also) refer to the 14 days starting from yesterday and going back to _____ (day) (date)		
10 During these 14 days, did _____ stay in bed all or most of the day because of _____ health? (include any nights spent in hospital)	1 ☐ Yes 2 ☐ No → Go to 14	3 ☐ Yes 4 ☐ No → Go to 14
11 How many days?	<input type="text"/> days	<input type="text"/> days
12 What was the health problem responsible for _____ staying in bed? (Any other health problems?)	5 ☐ entered above (question, 10)	6 ☐ entered above (question, 10)
13 Was this the result of an accident or injury?	1 ☐ Yes 2 ☐ No	3 ☐ Yes 4 ☐ No
14 Were there any other days during these 14 days that _____ cut down on things _____ usually do/does because of _____ health? (Do not count those days spent in bed)	3 ☐ Yes 4 ☐ No → Go to Section C	5 ☐ Yes 6 ☐ No → Go to Section C
15 How many days?	<input type="text"/> days	<input type="text"/> days
16 What was the health problem responsible for _____ cutting down on the things _____ usually do/does? (Any other health problems?)	5 ☐ entered above (question, 14)	6 ☐ entered above (question, 14)
17 Was this the result of an accident or injury?	1 ☐ Yes 2 ☐ No	3 ☐ Yes 4 ☐ No

Section A

Contacts with Health Professionals

The following questions ask about contacts with health professionals during the past twelve months. (For children include contacts by parents about children.)

1 Did see or talk to any of the following health professionals about health during the past twelve months?

(a) General practitioner?

01 ☐ Yes →
02 ☐ No

How many times?
01 ☐ Yes →
02 ☐ No

(b) Specialist, e.g. pediatrician, gynecologist, psychiatrist?

03 ☐ Yes →
04 ☐ No

How many times?
03 ☐ Yes →
04 ☐ No

(c) Nurse?

05 ☐ Yes →
06 ☐ No

How many times?
05 ☐ Yes →
06 ☐ No

(d) Dentist/Denturist/Dental care provider?

07 ☐ Yes →
08 ☐ No

How many times?
07 ☐ Yes →
08 ☐ No

(e) Optometrist/Optician?

09 ☐ Yes →
10 ☐ No

How many times?
09 ☐ Yes →
10 ☐ No

(f) Pharmacist/Druggist?

11 ☐ Yes →
12 ☐ No

How many times?
11 ☐ Yes →
12 ☐ No

(g) Physiotherapist?

13 ☐ Yes →
14 ☐ No

How many times?
13 ☐ Yes →
14 ☐ No

(h) Chiropractor?

15 ☐ Yes →
16 ☐ No

How many times?
15 ☐ Yes →
16 ☐ No

(i) Psychologist/Social worker or other counsellor?

17 ☐ Yes →
18 ☐ No

How many times?
17 ☐ Yes →
18 ☐ No

(j) Other health professional?

19 ☐ Yes →
20 ☐ No

How many times?
19 ☐ Yes →
20 ☐ No

(specify)

(specify)

2 INTERVIEWER CHECK ITEM:

If NO in all parts of question 1 →

Otherwise →

1 ☐ Go to Section B

2 ☐ Go to question 3

1 ☐ Go to Section B

2 ☐ Go to question 3

<p>3 During the past twelve months, did go to an emergency room at a hospital because of health?</p>	<p>3 ☐ Yes → How many times? <input type="text"/> <input type="text"/></p> <p>4 ☐ No</p>	<p>3 ☐ Yes → How many times? <input type="text"/> <input type="text"/></p> <p>4 ☐ No</p>
<p>4 Were/Was admitted to a hospital during the past twelve months?</p>	<p>5 ☐ Yes → How many times? <input type="text"/> <input type="text"/></p> <p>6 ☐ No → Go to question 6</p>	<p>5 ☐ Yes → How many times? <input type="text"/> <input type="text"/></p> <p>6 ☐ No → Go to question 6</p>
<p>5 In total, how many nights did spend in a hospital during the past twelve months.</p>	<p><input type="text"/> <input type="text"/> <input type="text"/> nights</p>	<p><input type="text"/> <input type="text"/> <input type="text"/> nights</p>
<p>6 Were/Was a patient in a nursing home or convalescent home during the past twelve months?</p>	<p>7 ☐ Yes</p> <p>8 ☐ No</p>	<p>7 ☐ Yes</p> <p>8 ☐ No</p>

<p>I would now like to ask some questions about the last two weeks. That is, the fourteen days starting with yesterday and going back to _____ (day) _____ (date)</p> <p>(Show calendar)</p>		
<p>7 Did see or talk to any health professionals about health, during those 14 days?</p>	<p>1 ☐ Yes</p> <p>2 ☐ No → Go to Section B</p>	<p>1 ☐ Yes</p> <p>2 ☐ No → Go to Section B</p>
<p>8 Which health professionals did see or talk to in the last 14 days? Was it a:</p> <p>(Mark all that apply)</p> <p>(a) General practitioner?</p> <p>(b) Specialist, e.g. pediatrician, gynecologist, psychiatrist?</p> <p>(c) Nurse?</p> <p>(d) Dentist/Denturist/dental care provider?</p> <p>(e) Optometrist/Optician?</p> <p>(f) Pharmacist/Druggist?</p> <p>(g) Physiotherapist?</p> <p>(h) Chiropractor?</p> <p>(i) Psychologist, social worker or other counsellor?</p> <p>(j) Other health professional?</p>	<p>Where was the most recent visit? (Show booklet, page 1)</p> <p>01 ☐ → <input type="text"/> <input type="text"/> (enter code)</p> <p>02 ☐ → <input type="text"/> <input type="text"/> (enter code)</p> <p>03 ☐ → <input type="text"/> <input type="text"/> (enter code)</p> <p>04 ☐ → <input type="text"/> <input type="text"/> (enter code)</p> <p>05 ☐</p> <p>06 ☐</p> <p>07 ☐</p> <p>08 ☐</p> <p>09 ☐</p> <p>10 ☐</p> <p>_____ (specify)</p>	<p>Where was the most recent visit? (Show booklet, page 1)</p> <p>01 ☐ → <input type="text"/> <input type="text"/> (enter code)</p> <p>02 ☐ → <input type="text"/> <input type="text"/> (enter code)</p> <p>03 ☐ → <input type="text"/> <input type="text"/> (enter code)</p> <p>04 ☐ → <input type="text"/> <input type="text"/> (enter code)</p> <p>05 ☐</p> <p>06 ☐</p> <p>07 ☐</p> <p>08 ☐</p> <p>09 ☐</p> <p>10 ☐</p> <p>_____ (specify)</p>
<p>9 What were the health problems for the visits or consultations, during those 14 days?</p> <p>(Any other health problems?)</p>	<p>1 ☐ None</p> <p>2 ☐ entered above (problem, 9)</p>	<p>1 ☐ None</p> <p>2 ☐ entered above (problem, 9)</p>

Section B

Two Week Disability

The next questions (also) refer to the 14 days
starting from yesterday and going back to

_____ (day)

_____ (date)

10 During those 14 days, did _____
stay in bed all or most of the day because
of _____ health?
(Include any nights spent in hospital)

3 ☐ Yes

4 ☐ No → Go to 14

3 ☐ Yes

4 ☐ No → Go to 14

11 How many days?

days

days

12 What was the health problem responsible
for _____ staying in bed?
(Any other health problems?)

5 ☐ entered above
(problem, 12)

5 ☐ entered above
(problem, 12)

13 Was this the result of an accident or
injury?

1 ☐ Yes

2 ☐ No

1 ☐ Yes

2 ☐ No

14 Were there any other days during those
14 days that _____ out down on
things _____ usually do/does
because of _____ health?
(Do not count those days spent in bed)

3 ☐ Yes

4 ☐ No → Go to
Section C

3 ☐ Yes

4 ☐ No → Go to
Section C

15 How many days?

days

days

16 What was the health problem responsible
for _____ cutting down on the
things _____ usually do/does?
(Any other health problems?)

5 ☐ entered above
(problem, 16)

5 ☐ entered above
(problem, 16)

17 Was this the result of an accident or
injury?

1 ☐ Yes

2 ☐ No

1 ☐ Yes

2 ☐ No

Section C Use of Medication		
18 During those same 14 days did use any prescription drugs or prescription medications?	3 ☐ Yes 4 ☐ No → Go to 20	3 ☐ Yes 4 ☐ No → Go to 20
19 What was the health problem for which took this medication? (Any other health problems?)	5 ☐ None 6 ☐ entered above (problem, 19)	5 ☐ None 6 ☐ entered above (problem, 19)
20 During those 14 days did use any non-prescription drugs or medications, for example; pain relievers, ointments, vitamins or cough or cold remedies?	1 ☐ Yes 2 ☐ No → Go to Section D	1 ☐ Yes 2 ☐ No → Go to Section D
21 What was the health problem for which took this medication? (Any other health problems?)	3 ☐ None 4 ☐ entered above (problem, 21)	3 ☐ None 4 ☐ entered above (problem, 21)
Section D Medical Insurance		
22 Are/Is covered by any kind of government or private dental insurance plan which pays for all or part of regular dental care?	5 ☐ Yes 6 ☐ No 7 ☐ Don't know	5 ☐ Yes 6 ☐ No 7 ☐ Don't know
23 Are/Is covered by any kind of government or private insurance plan which pays all or part of the cost of glasses, contact lenses or other optical care?	1 ☐ Yes 2 ☐ No 3 ☐ Don't know	1 ☐ Yes 2 ☐ No 3 ☐ Don't know
24 Are/Is covered by any kind of government or private insurance plan which pays for all or part of the cost of prescribed medication or other health services? (Do not include CHIP)	4 ☐ Yes 5 ☐ No 6 ☐ Don't know	4 ☐ Yes 5 ☐ No 6 ☐ Don't know

Section E

Accidents and Injuries

The following questions refer to accidents which occurred during the past 12 months. Only report accidents which resulted in an injury that was serious enough to limit normal activities, such as a broken bone, a bad cut or burn, sore back or a sprained ankle.

25 During the past 12 months, did
..... have an accident...

(a) in a car, van or truck?

1 ☐ Yes → How many?
2 ☐ No [][]

(b) on a motorcycle?

3 ☐ Yes → How many?
4 ☐ No [][]

(c) on a snowmobile or all-terrain
vehicle (ATV)?

5 ☐ Yes → How many?
6 ☐ No [][]

1 ☐ Yes → How many?
2 ☐ No [][]

3 ☐ Yes → How many?
4 ☐ No [][]

5 ☐ Yes → How many?
6 ☐ No [][]

26 INTERVIEWER CHECK ITEM:
If NO in all parts of question 25 →
Otherwise →

7 ☐ Go to question 28
8 ☐ Go to question 27

7 ☐ Go to question 28
8 ☐ Go to question 27

27 Did any of these accidents happen while
working at a job or a business?

1 ☐ Yes → How many?
2 ☐ No [][]

1 ☐ Yes → How many?
2 ☐ No [][]

28 During the past 12 months, did
..... have an accident...

(a) as a pedestrian?

3 ☐ Yes → How many?
4 ☐ No [][]

3 ☐ Yes → How many?
4 ☐ No [][]

(b) on a bicycle?

5 ☐ Yes → How many?
6 ☐ No [][]

5 ☐ Yes → How many?
6 ☐ No [][]

<p>29 (Other than accidents already mentioned) did have an accident or injury while working at a job or business in the past 12 months?</p>	<p>How many?</p> <p>7 ☐ Yes → <input type="text"/> <input type="text"/></p> <p>8 ☐ No</p>	<p>How many?</p> <p>7 ☐ Yes → <input type="text"/> <input type="text"/></p> <p>8 ☐ No</p>
<p>30 (Other than accidents already mentioned) Did have an accident while participating in games or sports?</p>	<p>How many?</p> <p>1 ☐ Yes → <input type="text"/> <input type="text"/></p> <p>2 ☐ No</p>	<p>How many?</p> <p>1 ☐ Yes → <input type="text"/> <input type="text"/></p> <p>2 ☐ No</p>
<p>31 (Other than those mentioned) did have an accident involving falls, burns, poison, cuts or any other kind of accident in the past 12 months, serious enough to limit normal activities?</p>	<p>How many?</p> <p>3 ☐ Yes → <input type="text"/> <input type="text"/></p> <p>4 ☐ No</p>	<p>How many?</p> <p>3 ☐ Yes → <input type="text"/> <input type="text"/></p> <p>4 ☐ No</p>
<p>32 INTERVIEWER CHECK ITEM: If YES in any of questions 25 to 31 → Otherwise →</p>	<p>5 ☐ Go to 33 6 ☐ Go to Section F</p>	<p>5 ☐ Go to 33 6 ☐ Go to Section F</p>
<p>33 What were the injuries or health problems that resulted from the accident(s)? (Any other health problems?)</p>	<p>7 ☐ None 8 ☐ entered above (problem, 33)</p>	<p>7 ☐ None 8 ☐ entered above (problem, 33)</p>

Section F

Health Status

The next set of questions ask about each person's usual ability in certain areas, such as vision, hearing and speech.
(Do not ask questions 35 to 65 for children less than 6 years old.)

34 INTERVIEWER CHECK ITEM:

Person 6 years or older _____ →

Person less than 6 years old _____ →

1 ☐ Go to question 35

2 ☐ Go to question 66

1 ☐ Go to question 35

2 ☐ Go to question 66

VISION

35 Are/is usually able to see well enough to read ordinary newspaper without glasses or contact lenses?

3 ☐ Yes → Go to 38

4 ☐ No

3 ☐ Yes → Go to 38

4 ☐ No

36 Are/is usually able to see well enough to read ordinary newspaper with glasses or contact lenses?

5 ☐ Yes → Go to 38

6 ☐ No

5 ☐ Yes → Go to 38

6 ☐ No

37 Are/is able to see at all?

7 ☐ Yes

8 ☐ No → Go to 40

7 ☐ Yes

8 ☐ No → Go to 40

38 Are/is able to see well enough to recognize a friend on the other side of the street without glasses or contact lenses?

1 ☐ Yes → Go to 40

2 ☐ No

1 ☐ Yes → Go to 40

2 ☐ No

39 Are/is usually able to see well enough to recognize a friend on the other side of the street with glasses or contact lenses?

3 ☐ Yes

4 ☐ No

3 ☐ Yes

4 ☐ No

<p>HEARING</p> <p>40 Are/is usually able to hear what is said in a group conversation with at least three other people <i>without</i> a hearing aid?</p>	<p>5 ☐ Yes → Go to 45</p> <p>6 ☐ No</p>	<p>5 ☐ Yes → Go to 45</p> <p>6 ☐ No</p>
<p>41 Are/is usually able to hear what is said in a group conversation with at least three other people <i>with</i> a hearing aid?</p>	<p>7 ☐ Yes → Go to 43</p> <p>8 ☐ No</p>	<p>7 ☐ Yes → Go to 43</p> <p>8 ☐ No</p>
<p>42 Are/is able to hear at all?</p>	<p>1 ☐ Yes</p> <p>2 ☐ No → Go to 45</p>	<p>1 ☐ Yes</p> <p>2 ☐ No → Go to 45</p>
<p>43 Are/is usually able to hear what is said in a conversation with one other person in a quiet room <i>without</i> a hearing aid?</p>	<p>3 ☐ Yes → Go to 45</p> <p>4 ☐ No</p>	<p>3 ☐ Yes → Go to 45</p> <p>4 ☐ No</p>
<p>44 Are/is usually able to hear what is said in a conversation with one other person in a quiet room <i>with</i> a hearing aid?</p>	<p>5 ☐ Yes</p> <p>6 ☐ No</p>	<p>5 ☐ Yes</p> <p>6 ☐ No</p>
<p>SPEECH</p> <p>45 Are/is usually able to be understood completely when speaking with strangers?</p>	<p>7 ☐ Yes → Go to 50</p> <p>8 ☐ No</p>	<p>7 ☐ Yes → Go to 50</p> <p>8 ☐ No</p>
<p>46 Are/is able to be understood partially when speaking with strangers?</p>	<p>1 ☐ Yes</p> <p>2 ☐ No</p>	<p>1 ☐ Yes</p> <p>2 ☐ No</p>
<p>47 Are/is able to be understood completely when speaking with those who know well?</p>	<p>3 ☐ Yes → Go to 50</p> <p>4 ☐ No</p>	<p>3 ☐ Yes → Go to 50</p> <p>4 ☐ No</p>
<p>48 Are/is able to be understood partially when speaking with those who know well?</p>	<p>5 ☐ Yes → Go to 50</p> <p>6 ☐ No</p>	<p>5 ☐ Yes → Go to 50</p> <p>6 ☐ No</p>
<p>49 Are/is able to speak at all?</p>	<p>7 ☐ Yes</p> <p>8 ☐ No</p>	<p>7 ☐ Yes</p> <p>8 ☐ No</p>

<p>GETTING AROUND</p> <p>50 Are/is able to walk around the neighbourhood without difficulty and without mechanical support such as braces, cane or crutches?</p>	<p>1 ☐ Yes → Go to 57</p> <p>2 ☐ No</p>	<p>1 ☐ Yes → Go to 57</p> <p>2 ☐ No</p>
<p>51 Are/is able to walk at all?</p>	<p>3 ☐ Yes</p> <p>4 ☐ No → Go to 54</p>	<p>3 ☐ Yes</p> <p>4 ☐ No → Go to 54</p>
<p>52 Do/Does require mechanical support such as braces, cane or crutches to be able to walk around the neighbourhood?</p>	<p>5 ☐ Yes</p> <p>6 ☐ No</p>	<p>5 ☐ Yes</p> <p>6 ☐ No</p>
<p>53 Do/Does require the help of another person to be able to walk?</p>	<p>7 ☐ Yes</p> <p>8 ☐ No</p>	<p>7 ☐ Yes</p> <p>8 ☐ No</p>
<p>54 Do/Does require a wheelchair to get around?</p>	<p>1 ☐ Yes</p> <p>2 ☐ No → Go to 57</p>	<p>1 ☐ Yes</p> <p>2 ☐ No → Go to 57</p>
<p>55 How often do/does use a wheelchair – always, often, sometimes or never?</p>	<p>3 ☐ Always</p> <p>4 ☐ Often</p> <p>5 ☐ Sometimes</p> <p>6 ☐ Never</p>	<p>3 ☐ Always</p> <p>4 ☐ Often</p> <p>5 ☐ Sometimes</p> <p>6 ☐ Never</p>
<p>56 Do/Does need the help of another person to get around in the wheelchair?</p>	<p>7 ☐ Yes</p> <p>8 ☐ No</p>	<p>7 ☐ Yes</p> <p>8 ☐ No</p>
<p>HANDS AND FINGERS</p> <p>57 Do/Does usually have the full use of two hands and ten fingers?</p>	<p>1 ☐ Yes → Go to 61</p> <p>2 ☐ No</p>	<p>1 ☐ Yes → Go to 61</p> <p>2 ☐ No</p>
<p>58 Do/Does require the help of another person because of limitations in the use of hands or fingers?</p>	<p>3 ☐ Yes</p> <p>4 ☐ No → Go to 60</p>	<p>3 ☐ Yes</p> <p>4 ☐ No → Go to 60</p>
<p>59 Do/Does require the help of another person with some tasks, most tasks, almost all tasks or all tasks?</p>	<p>5 ☐ Some tasks</p> <p>6 ☐ Most tasks</p> <p>7 ☐ Almost all tasks</p> <p>8 ☐ All tasks</p>	<p>5 ☐ Some tasks</p> <p>6 ☐ Most tasks</p> <p>7 ☐ Almost all tasks</p> <p>8 ☐ All tasks</p>
<p>60 Do/Does require special equipment, for example, devices to assist in dressing, because of limitations in the use of hands or fingers?</p>	<p>1 ☐ Yes</p> <p>2 ☐ No</p>	<p>1 ☐ Yes</p> <p>2 ☐ No</p>

FEELINGS

(Show booklet page 2)

61 Would you describe as being usually:

- (a) happy and interested in life?
- (b) somewhat happy?
- (c) somewhat unhappy?
- (d) unhappy with little interest in life?
- (e) so unhappy that life is not worthwhile?

(Mark one only)

- a) 3 ☐
- b) 4 ☐
- c) 5 ☐
- d) 6 ☐
- e) 7 ☐

(Mark one only)

- a) 3 ☐
- b) 4 ☐
- c) 5 ☐
- d) 6 ☐
- e) 7 ☐

MEMORY

(Show booklet, page 3)

62 How would you describe usual ability to remember things?
Are/is :

- (a) able to remember most things?
- (b) somewhat forgetful?
- (c) very forgetful?
- (d) unable to remember anything at all?

(Mark one only)

- a) 1 ☐
- b) 2 ☐
- c) 3 ☐
- d) 4 ☐

(Mark one only)

- a) 1 ☐
- b) 2 ☐
- c) 3 ☐
- d) 4 ☐

THINKING

(Show booklet, page 4)

63 Would you describe usual ability to think as:

- (a) able to think clearly and solve problems?
- (b) having a little difficulty when trying to think or solve problems?
- (c) having some difficulty when trying to think or solve problems?
- (d) having a great deal of difficulty when trying to think or solve problems?
- (e) unable to think or solve any problems?

(Mark one only)

- a) 5 ☐
- b) 6 ☐
- c) 7 ☐
- d) 8 ☐
- e) 9 ☐

(Mark one only)

- a) 5 ☐
- b) 6 ☐
- c) 7 ☐
- d) 8 ☐
- e) 9 ☐

PAIN AND DISCOMFORT

64 Are/Is usually free of pain and discomfort?

1 ☐ Yes → Go to Section G

2 ☐ No

1 ☐ Yes → Go to Section G

2 ☐ No

(Show booklet, page 5)

65 Which one of the following sentences best describes the effect of the pain and discomfort usually experiences?

(a) pain and discomfort that does not prevent any activities?

(b) pain and discomfort that prevents a few activities?

(c) pain and discomfort that prevents some activities?

(d) pain and discomfort that prevents most activities?

(Mark one only)

a) 3 ☐

b) 4 ☐

c) 5 ☐

d) 6 ☐

(Mark one only)

a) 3 ☐

b) 4 ☐

c) 5 ☐

d) 6 ☐

Section G Restriction of Activities 66 Do/Does need the help of another person with personal care such as eating, bathing, dressing or getting around inside the house, because of any impairment or health problem?	7 ☐ Yes 8 ☐ No	7 ☐ Yes 8 ☐ No
67 Do/Does need the help of another person in looking after personal affairs, doing everyday household chores, going shopping or getting around outside the house, because of any impairment or health problem?	1 ☐ Yes 2 ☐ No	1 ☐ Yes 2 ☐ No
68 Are/is usually able to go outside in good weather?	3 ☐ Yes 4 ☐ No	3 ☐ Yes 4 ☐ No
69 Are/is usually confined to a bed or chair for most of the day because of health?	5 ☐ Yes 6 ☐ No	5 ☐ Yes 6 ☐ No
70 (a) Compared to other people of the same age in good health, are/is limited in the kind or amount of activity can do because of a long-term physical or mental condition or health problem? (b) From what age has/have been limited in activities?	7 ☐ Yes 8 ☐ No → Go to Section H 9 ☐ Since birth <u> </u> <u> </u> age	7 ☐ Yes 8 ☐ No → Go to Section H 9 ☐ Since birth <u> </u> <u> </u> age
71 (a) Does health limit activities at home? (b) Are/is unable to do most everyday household chores?	1 ☐ Yes 2 ☐ No → Go to 72 3 ☐ Yes 4 ☐ No	1 ☐ Yes 2 ☐ No → Go to 72 3 ☐ Yes 4 ☐ No
72 (a) Are activities at school or work limited because of health? (b) Are/is unable to work or go to school?	5 ☐ Yes 6 ☐ No → Go to 73 7 ☐ Yes 8 ☐ No	5 ☐ Yes 6 ☐ No → Go to 73 7 ☐ Yes 8 ☐ No

<p>73 Are/Is limited in other activities such as leisure time pursuits or transportation to and from work and school because of health?</p>	<p>1 ☐ Yes 2 ☐ No</p>	<p>1 ☐ Yes 2 ☐ No</p>
<p>74 What is the <i>main</i> health problem causing to be limited in activities?</p>	<p>3 ☐ entered above (problem, 74)</p>	<p>3 ☐ entered above (problem, 74)</p>
<p>75 Was it the result of an accident or injury?</p>	<p>4 ☐ Yes 5 ☐ No</p>	<p>4 ☐ Yes 5 ☐ No</p>
<p>76 Are there any other health problems which limit activities?</p>	<p>6 ☐ Yes → enter above (problem, 76) 7 ☐ No</p>	<p>6 ☐ Yes → enter above (problem, 76) 7 ☐ No</p>

Section H

Chronic Health Problems

The following questions refer to long term physical health problems.

(Show booklet, page 6)

77 Do/Does has/have:

- (a) Skin allergies or other skin diseases?
- (b) Hay fever or other allergies?
- (c) Serious trouble with back pain?
- (d) Arthritis or rheumatism?
- (e) Other serious problems with the joints or the bones?
- (f) Paralysis or speech problem due to stroke?
- (g) Asthma?
- (h) Emphysema or chronic bronchitis or persistent cough?
- (i) Epilepsy?
- (j) High blood pressure or hypertension?
- (k) Circulatory problems?
- (l) Heart disease?
- (m) Diabetes?
- (n) Urinary problems or kidney diseases?
- (o) Stomach ulcer?
- (p) Other digestive problems?
- (q) Goitre or thyroid trouble?
- (r) Eye problems, for example, glaucoma, cataract?
- (s) Cancer → If yes, what type?

YES

NO

- (a) 01 ☐ 02 ☐
- (b) 03 ☐ 04 ☐
- (c) 05 ☐ 06 ☐
- (d) 07 ☐ 08 ☐
- (e) 09 ☐ 10 ☐
- (f) 11 ☐ 12 ☐
- (g) 13 ☐ 14 ☐
- (h) 15 ☐ 16 ☐
- (i) 17 ☐ 18 ☐
- (j) 19 ☐ 20 ☐
- (k) 21 ☐ 22 ☐
- (l) 23 ☐ 24 ☐
- (m) 25 ☐ 26 ☐
- (n) 27 ☐ 28 ☐
- (o) 29 ☐ 30 ☐
- (p) 31 ☐ 32 ☐
- (q) 33 ☐ 34 ☐
- (r) 35 ☐ 36 ☐
- (s) 37 ☐ 38 ☐

YES

NO

- (a) 01 ☐ 02 ☐
- (b) 03 ☐ 04 ☐
- (c) 05 ☐ 06 ☐
- (d) 07 ☐ 08 ☐
- (e) 09 ☐ 10 ☐
- (f) 11 ☐ 12 ☐
- (g) 13 ☐ 14 ☐
- (h) 15 ☐ 16 ☐
- (i) 17 ☐ 18 ☐
- (j) 19 ☐ 20 ☐
- (k) 21 ☐ 22 ☐
- (l) 23 ☐ 24 ☐
- (m) 25 ☐ 26 ☐
- (n) 27 ☐ 28 ☐
- (o) 29 ☐ 30 ☐
- (p) 31 ☐ 32 ☐
- (q) 33 ☐ 34 ☐
- (r) 35 ☐ 36 ☐
- (s) 37 ☐ 38 ☐

type of cancer

type of cancer

78 INTERVIEWER CHECK ITEM:

If YES in any of question 77, enter each health problem in problem area above. →

Otherwise →

- 1 ☐ entered above [problem(s), 77]
- 2 ☐ none

- 1 ☐ entered above [problem(s), 77]
- 2 ☐ none

79 Do/Does have any other long term health problem?

- 3 ☐ yes
 - 4 ☐ no
 - 5 ☐ don't know
- } Go to Section I

- 3 ☐ yes
 - 4 ☐ no
 - 5 ☐ don't know
- } Go to Section I

80 What are other chronic health problems?
(Any other chronic health problems?)

- 6 ☐ entered above [problem(s), 80]

- 6 ☐ entered above [problem(s), 80]

Section I—Health Problem Probes

INTERVIEWER: If there are no health problems reported for any member of the household go to Section J.

I would now like to ask some questions about each health problem you mentioned earlier.

PROBE 1

81

(a) Interviewer: Copy first health problem and related question numbers.

Problem

Question Number(s)

Problem

Question Number(s)

(b) How long did/have/has have/had?

(mark one only)

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

(c) When did last consult a health professional about?

1) In the past 12 months

2) 1 to 2 years ago

3) 3 to 5 years ago

4) More than 5 years ago

5) Don't know

6) Never

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

(Show booklet, page 7)

(d) Which health professional(s) did consult in the last 12 months about this problem?

1) medical doctor

2) nurse

3) dentist

4) optometrist

5) pharmacist

6) physiotherapist

7) chiropractor

8) psychologist/

social worker

9) other (specify)

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(e) Were/Was ever told by a doctor or other health professional that this health problem is related to any job ever had?

1 ☐ yes

2 ☐ no

3 ☐ don't know

1 ☐ yes

2 ☐ no

3 ☐ don't know

(Show booklet, page 8)

(f) Did anything prevent from receiving care or services for this problem?

1) nothing

2) too expensive

3) didn't know a doctor or where to go

4) too far away or transportation problem

5) couldn't get appointment

6) no hospital bed

7) language problem

8) too embarrassed to go

9) other reason (specify)

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

<p>PROBE 2</p> <p>82</p> <p>(a) Interviewer: Copy health problem and related question numbers.</p>	<div> <div></div> <div></div> <div></div> </div> <p>Problem</p> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <p>Question Number(s)</p>	<div> <div></div> <div></div> <div></div> </div> <p>Problem</p> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <p>Question Number(s)</p>
<p>(b) How long did/have/has have/had?</p> <p>(mark one only)</p>	<p>1 ☐ Since birth</p> <div> <div>2 <input type="text"/></div> <div>days</div> </div> <div> <div>3 <input type="text"/></div> <div>weeks</div> </div> <div> <div>4 <input type="text"/></div> <div>months</div> </div> <div> <div>5 <input type="text"/></div> <div>years</div> </div>	<p>1 ☐ Since birth</p> <div> <div>2 <input type="text"/></div> <div>days</div> </div> <div> <div>3 <input type="text"/></div> <div>weeks</div> </div> <div> <div>4 <input type="text"/></div> <div>months</div> </div> <div> <div>5 <input type="text"/></div> <div>years</div> </div>
<p>(c) When did last consult a health professional about?</p> <p>1) In the past 12 months 4) More than five years ago</p> <p>2) 1 to 2 years ago 5) Don't know</p> <p>3) 3 to 5 years ago 6) Never</p>	<p>☐ enter code</p> <p>If code 1 go to (d)</p> <p>If code 2 to 5 go to (e)</p> <p>If code 6 go to (f)</p>	<p>☐ enter code</p> <p>If code 1 go to (d)</p> <p>If code 2 to 5 go to (e)</p> <p>If code 6 go to (f)</p>
<p>(Show booklet, page 7)</p> <p>(d) Which health professional(s) did consult in the last 12 months about this problem?</p> <p>1) medical doctor 6) physiotherapist</p> <p>2) nurse 7) chiropractor</p> <p>3) dentist 8) psychologist/</p> <p>4) optometrist social worker</p> <p>5) pharmacist 9) other (specify)</p>	<p>(mark all that apply)</p> <div> <div>1 ☐</div> <div>2 ☐</div> <div>3 ☐</div> <div>4 ☐</div> <div>5 ☐</div> <div>6 ☐</div> <div>7 ☐</div> <div>8 ☐</div> <div>9 ☐</div> </div> <div> <div></div> <div></div> </div>	<p>(mark all that apply)</p> <div> <div>1 ☐</div> <div>2 ☐</div> <div>3 ☐</div> <div>4 ☐</div> <div>5 ☐</div> <div>6 ☐</div> <div>7 ☐</div> <div>8 ☐</div> <div>9 ☐</div> </div> <div> <div></div> <div></div> </div>
<p>(e) Were/Was ever told by a doctor or other health professional that this health problem is related to any job ever had?</p>	<p>1 ☐ yes</p> <p>2 ☐ no</p> <p>3 ☐ don't know</p>	<p>1 ☐ yes</p> <p>2 ☐ no</p> <p>3 ☐ don't know</p>
<p>(Show booklet, page 8)</p> <p>(f) Did anything prevent from receiving care or services for this problem?</p> <p>1) nothing</p> <p>2) too expensive</p> <p>3) didn't know a doctor or where to go</p> <p>4) too far away or transportation problem</p> <p>5) couldn't get appointment</p> <p>6) no hospital bed</p> <p>7) language problem</p> <p>8) too embarrassed to go</p> <p>9) other reason (specify)</p>	<p>(mark all that apply)</p> <div> <div>1 ☐</div> <div>2 ☐</div> <div>3 ☐</div> <div>4 ☐</div> <div>5 ☐</div> <div>6 ☐</div> <div>7 ☐</div> <div>8 ☐</div> <div>9 ☐</div> </div> <div> <div></div> <div></div> </div>	<p>(mark all that apply)</p> <div> <div>1 ☐</div> <div>2 ☐</div> <div>3 ☐</div> <div>4 ☐</div> <div>5 ☐</div> <div>6 ☐</div> <div>7 ☐</div> <div>8 ☐</div> <div>9 ☐</div> </div> <div> <div></div> <div></div> </div>

PROBE 3

83

(a) Interviewer: Copy health problem and related question numbers.

Problem

--	--	--	--	--	--	--	--

Question Number(s)

Problem

--	--	--	--	--	--	--	--

Question Number(s)

(b) How long did/have/has have/had ?

(mark one only)

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

(c) When did last consult a health professional about ?

1) In the past 12 months

2) 1 to 2 years ago

3) 3 to 5 years ago

4) More than five years ago

5) Don't know

6) Never

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

(Show booklet, page 7)

(d) Which health professional(s) did consult in the last 12 months about this problem?

1) medical doctor

2) nurse

3) dentist

4) optometrist

5) pharmacist

6) physiotherapist

7) chiropractor

8) psychologist/

social worker

9) other (specify)

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(e) Were/Has ever told by a doctor or other health professional that this health problem is related to any job ever had?

1 ☐ yes

2 ☐ no

3 ☐ don't know

1 ☐ yes

2 ☐ no

3 ☐ don't know

(Show booklet, page 8)

(f) Did anything prevent from receiving care or services for this problem?

1) nothing

2) too expensive

3) didn't know a doctor or where to go

4) too far away or transportation problem

5) couldn't get appointment

6) no hospital bed

7) language problem

8) too embarrassed to go

9) other reason (specify)

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

PROBE 4

84

(a) Interviewer: Copy health problem and related question numbers.

Problem

Question Number(s)

Problem

Question Number(s)

(b) How long did/have/has have/had?

(mark one only)

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

(c) When did last consult a health professional about?

1) in the past 12 months

2) 1 to 2 years ago

3) 3 to 5 years ago

4) More than five years ago

5) Don't know

6) Never

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

(Show booklet, page 7)

(d) Which health professional(s) did consult in the last 12 months about this problem?

1) medical doctor

2) nurse

3) dentist

4) optometrist

5) pharmacist

6) physiotherapist

7) chiropractor

8) psychologist/

social worker

9) other (specify)

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(e) Were/Has ever told by a doctor or other health professional that this health problem is related to any job ever had?

1 ☐ yes

2 ☐ no

3 ☐ don't know

1 ☐ yes

2 ☐ no

3 ☐ don't know

(Show booklet, page 8)

(f) Did anything prevent from receiving care or services for this problem?

1) nothing

2) too expensive

3) didn't know a doctor or where to go

4) too far away or transportation problem

5) couldn't get appointment

6) no hospital bed

7) language problem

8) too embarrassed to go

9) other reason (specify)

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

PROBE 5

85

(a) Interviewer: Copy health problem and related question numbers.

Problem

--	--	--	--	--	--	--	--	--	--

Question Number(s)

Problem

--	--	--	--	--	--	--	--	--	--

Question Number(s)

(b) How long did/have/hes have/had ?

(mark one only)

1 ☐ Since birth

2
days

3
weeks

4
months

5
years

1 ☐ Since birth

2
days

3
weeks

4
months

5
years

(c) When did last consult a health professional about ?

1) In the past 12 months

2) 1 to 2 years ago

3) 3 to 5 years ago

4) More than five years ago

5) Don't know

6) Never

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

(Show booklet, page 7)

(d) Which health professional(s) did consult in the last 12 months about this problem?

1) medical doctor

2) nurse

3) dentist

4) optometrist

5) pharmacist

6) physiotherapist

7) chiropractor

8) psychologist/

social worker

9) other (specify)

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(e) Were/Was ever told by a doctor or other health professional that this health problem is related to any job ever had?

1 ☐ yes

2 ☐ no

3 ☐ don't know

1 ☐ yes

2 ☐ no

3 ☐ don't know

(Show booklet, page 8)

(f) Did anything prevent from receiving care or services for this problem?

1) nothing

2) too expensive

3) didn't know a doctor or where to go

4) too far away or transportation problem

5) couldn't get appointment

6) no hospital bed

7) language problem

8) too embarrassed to go

9) other reason (specify)

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

PROBE 6

86

(a) Interviewer: Copy health problem and related question numbers.

Problem

--	--	--	--	--	--	--	--	--	--

Question Number(s)

Problem

--	--	--	--	--	--	--	--	--	--

Question Number(s)

(b) How long did/have/has have/had?

(mark one only)

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

(c) When did last consult a health professional about?

1) in the past 12 months	4) More than five years ago
2) 1 to 2 years ago	5) Don't know/
3) 3 to 5 years ago	6) Never

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

(Show booklet, page 7)

(d) Which health professional(s) did consult in the last 12 months about this problem?

1) medical doctor	6) physiotherapist
2) nurse	7) chiropractor
3) dentist	8) psychologist/
4) optometrist	social worker
5) pharmacist	9) other (specify)

(mark all that apply)

1 ☐

6 ☐

2 ☐

7 ☐

3 ☐

8 ☐

4 ☐

9 ☐

5 ☐

(mark all that apply)

1 ☐

6 ☐

2 ☐

7 ☐

3 ☐

8 ☐

4 ☐

9 ☐

5 ☐

(e) Were/Was ever told by a doctor or other health professional that this health problem is related to any job ever had?

1 ☐ yes

2 ☐ no

3 ☐ don't know

1 ☐ yes

2 ☐ no

3 ☐ don't know

(Show booklet, page 8)

(f) Did anything prevent from receiving care or services for this problem?

- 1) nothing
- 2) too expensive
- 3) didn't know a doctor or where to go
- 4) too far away or transportation problem
- 5) couldn't get appointment
- 6) no hospital bed
- 7) language problem
- 8) too embarrassed to go
- 9) other reason (specify)

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

PROBE 7

87

(a) Interviewer: Copy health problem and related question numbers.

Problem

--	--	--	--	--	--	--	--	--	--

Question Number(s)

Problem

--	--	--	--	--	--	--	--	--	--

Question Number(s)

(b) How long did/have/has have/had ?

(mark one only)

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

(c) When did last consult a health professional about ?

- 1) in the past 12 months
- 2) 1 to 2 years ago
- 3) 3 to 5 years ago

- 4) More than five years ago
- 5) Don't know
- 6) Never

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

(Show booklet, page 7)

(d) Which health professional(s) did consult in the last 12 months about this problem?

- 1) medical doctor
- 2) nurse
- 3) dentist
- 4) optometrist
- 5) pharmacist

- 6) physiotherapist
- 7) chiropractor
- 8) psychologist/ social worker
- 9) other (specify)

(mark all that apply)

- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐

- 6 ☐
- 7 ☐
- 8 ☐
- 9 ☐

(mark all that apply)

- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐

- 6 ☐
- 7 ☐
- 8 ☐
- 9 ☐

(e) Were/Was ever told by a doctor or other health professional that this health problem is related to any job ever had?

1 ☐ yes

2 ☐ no

3 ☐ don't know

1 ☐ yes

2 ☐ no

3 ☐ don't know

(Show booklet, page 8)

(f) Did anything prevent from receiving care or services for this problem?

- 1) nothing
- 2) too expensive
- 3) didn't know a doctor or where to go
- 4) too far away or transportation problem
- 5) couldn't get appointment
- 6) no hospital bed
- 7) language problem
- 8) too embarrassed to go
- 9) other reason (specify)

(mark all that apply)

- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐
- 6 ☐
- 7 ☐
- 8 ☐
- 9 ☐

(mark all that apply)

- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐
- 6 ☐
- 7 ☐
- 8 ☐
- 9 ☐

PROBE 8

88

(a) Interviewer: Copy health problem and related question numbers.

Problem

--	--	--	--	--	--	--	--	--	--

Question Number(s)

Problem

--	--	--	--	--	--	--	--	--	--

Question Number(s)

(b) How long did/have/has have/had
_____?

(mark one only)

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

1 ☐ Since birth

2		
---	--	--

days

3		
---	--	--

weeks

4		
---	--	--

months

5		
---	--	--

years

(c) When did last consult a health professional about _____?

1) in the past 12 months

2) 1 to 2 years ago

3) 3 to 5 years ago

4) More than five years ago

5) Don't know

6) Never

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

☐ enter code

If code 1 go to (d)

If code 2 to 5 go to (e)

If code 6 go to (f)

(Show booklet, page 7)

(d) Which health professional(s) did consult in the last 12 months about this problem?

1) medical doctor

2) nurse

3) dentist

4) optometrist

5) pharmacist

6) physiotherapist

7) chiropractor

8) psychologist/

social worker

9) other (specify)

(mark: all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(e) Were/Was ever told by a doctor or other health professional that this health problem is related to any job ever had?

1 ☐ yes

2 ☐ no

3 ☐ don't know

1 ☐ yes

2 ☐ no

3 ☐ don't know

(Show booklet, page 8)

(f) Did anything prevent from receiving care or services for this problem?

1) nothing

2) too expensive

3) didn't know a doctor or where to go

4) too far away or transportation problem

5) couldn't get appointment

6) no hospital bed

7) language problem

8) too embarrassed to go

9) other reason (specify)

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

(mark all that apply)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐

7 ☐

8 ☐

9 ☐

Section J

Socio-Demographic Information

The next few questions will help us compare the health of different groups of people in Ontario.

89 What was date of birth?
(If the exact date unknown, get approximation)

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Day		Month		Year	

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Day		Month		Year	

90 Where was/were born?

In Canada

Outside Canada

01 Ont.	07 Que.	13 United Kingdom	21 Jamaica
02 P.E.	08 Man.	14 Italy	22 India
03 N.S.	09 Sask.	15 United States	23 Sri Lanka
04 N.B.	10 B.C.	16 Portugal	24 Hong Kong
05 Nfld.	11 Alberta	17 Poland	25 Vietnam
06 Yukon	12 N.W.T.	18 Germany	26 Philippines
		19 Holland	27 Hungary
		20 Greece	28 Yugoslavia
			29 El Salvador

<input type="text"/>	enter code
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99 ☐ Other (specify)

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99 ☐ Don't know

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99 ☐ Other (specify)

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99 ☐ Don't know

91 INTERVIEWER CHECK ITEM:
If code 01 to 12 or 99 in Question 90 →
Otherwise →

1 ☐ Go to 93

2 ☐ Go to 92

1 ☐ Go to 93

2 ☐ Go to 92

92 In what year did first immigrate to Canada?

19	<input type="text"/>	<input type="text"/>
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99 ☐ Before 1900

99 ☐ Don't know

19	<input type="text"/>	<input type="text"/>
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99 ☐ Before 1900

99 ☐ Don't know

93 What is ethnic or cultural identity?
(Enter all codes that apply)

01 French	13 Polish
02 English	14 Portuguese
03 German	15 North American Indian
04 Scottish	16 Metis
05 Irish	17 Inuit
06 Italian	18 Canadian
07 Ukrainian	19 Other (specify)
08 Dutch	
09 Chinese	
10 Jewish	
11 East Indian	
12 Hungarian	

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94 What language do/does
speak most often at home?

- 01 ☐ English
 - 02 ☐ French
 - 03 ☐ Italian
 - 04 ☐ Portuguese
 - 05 ☐ Polish
 - 06 ☐ German
 - 07 ☐ Dutch
 - 08 ☐ Greek
 - 09 ☐ Spanish
 - 10 ☐ Hungarian
 - 11 ☐ Chinese
 - 12 ☐ Vietnamese
 - 13 ☐ Tamil
 - 14 ☐ Other (specify)
- _____
- _____

- 01 ☐ English
 - 02 ☐ French
 - 03 ☐ Italian
 - 04 ☐ Portuguese
 - 05 ☐ Polish
 - 06 ☐ German
 - 07 ☐ Dutch
 - 08 ☐ Greek
 - 09 ☐ Spanish
 - 10 ☐ Hungarian
 - 11 ☐ Chinese
 - 12 ☐ Vietnamese
 - 13 ☐ Tamil
 - 14 ☐ Other (specify)
- _____
- _____

95 What is the highest level of education that
..... have/has ever completed?

- 01 No formal schooling
- 02 Some primary school
- 03 Primary school
- 04 Some secondary or high school
- 05 Completed secondary or high school
- 06 Some community college, technical college, CEGEP, or nursing program
- 07 Completed community college, technical college, CEGEP, or nursing program
- 08 Some university (not completed)
- 09 University degree (completed)
Bachelor, Masters, PhD.

enter code

10 ☐ Don't know

enter code

10 ☐ Don't know

96 What was main activity
during the last 12 months? Was it working
at a job or business, looking for work,
going to school, keeping house, retired or
something else?

- 1 ☐ Working at
a job → Go to 98
 - 2 ☐ Looking for work
 - 3 ☐ Going to school
 - 4 ☐ Keeping house
 - 5 ☐ Retired
 - 6 ☐ Other (specify)
- _____

- 1 ☐ Working at
a job → Go to 98
 - 2 ☐ Looking for work
 - 3 ☐ Going to school
 - 4 ☐ Keeping house
 - 5 ☐ Retired
 - 6 ☐ Other (specify)
- _____

97 Did work at a job or business at any time during the last 12 months?	7 ☐ Yes 8 ☐ No → Go to 106	7 ☐ Yes 8 ☐ No → Go to 106
98 During how many of the last 12 months was/were working?	<input type="text"/> <input type="text"/> months	<input type="text"/> <input type="text"/> months
99 Was the work mostly full-time or mostly part-time?	1 ☐ Full-time 2 ☐ Part-time	1 ☐ Full-time 2 ☐ Part-time
100 For whom do/does/did (last) work?	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
101 What kind of business, industry or service is/was this?	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
102 What kind of work does/did do?	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
103 What are/were most important activities or duties?	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
104 How many persons does this company employ? Include persons in all branch locations of the company. Are there...200 or more? From 100 to 199? From 50 to 99? From 20 to 49? Less than 20?	1 ☐ 200 or more 2 ☐ 100 to 199 3 ☐ 50 to 99 4 ☐ 20 to 49 5 ☐ Less than 20 6 ☐ Don't know	1 ☐ 200 or more 2 ☐ 100 to 199 3 ☐ 50 to 99 4 ☐ 20 to 49 5 ☐ Less than 20 6 ☐ Don't know

105 How long has/have worked at this job or business?	<div> <div> <div></div><div></div><div></div> </div> years </div> <div> ☐ Less than one year </div> <div> Go to 107 </div>	<div> <div> <div></div><div></div><div></div> </div> years </div> <div> ☐ Less than one year </div> <div> Go to 107 </div>
106 Have/has ever worked?	<div> ☐ Yes </div> <div> ☐ No → Go to 112 </div>	<div> ☐ Yes </div> <div> ☐ No → Go to next person </div>
107 Since began to work, for whom have/has worked the longest?	<div> ☐ Same as 100 → Go to 112 </div> <div>OR</div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div>	<div> ☐ Same as 100 → Go to next person </div> <div>OR</div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div>
108 What kind of business, industry or service was this?	<div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div>	<div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div>
109 What kind of work did do?	<div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div>	<div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div>
110 What were most important activities or duties?	<div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div>	<div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div> </div>
111 How long did work at this job or business?	<div> <div> <div></div><div></div><div></div> </div> years </div> <div> ☐ Less than one year </div>	<div> <div> <div></div><div></div><div></div> </div> years </div> <div> ☐ Less than one year </div>

112 How many rooms are there in this home/apartment/unit? Include kitchen, bedrooms, finished rooms in basement or attic. Do not include bathrooms, halls, vestibules and rooms used solely for business.

rooms

113 Is this home/apartment/unit owned or being rented by a member of this household?

- 1 ☐ Owned → Go to 115
2 ☐ Rented
3 ☐ Other

114 Is the rent for this dwelling subsidized by the government for any reason?

- 4 ☐ Yes
5 ☐ No
6 ☐ Don't know

INTERVIEWER: Examples of government subsidization are—low income housing projects, cooperative housing projects, public housing.

115 Is this dwelling in need of any repairs? Do not include desirable remodelling, additions or regular maintenance.

- 1 ☐ Yes
2 ☐ No → Go to 117

116 Does it require major repairs for reasons such as sagging floors, bulging walls or damaged electrical wiring or minor repairs for reasons such as broken windows, leaking sink or small cracks in interior walls?

- 3 ☐ Major repairs
4 ☐ Minor repairs

(Show booklet, page 9)

117 Thinking about your total household income, from which of the sources listed did your household receive any income during the last 12 months?

- 1 ☐ Wages and salaries
2 ☐ Income from self-employment
3 ☐ Dividends and interest on bonds, deposits and savings
4 ☐ Family allowances
5 ☐ Unemployment insurance
6 ☐ Worker's compensation
7 ☐ Old Age Security, Guaranteed Income Supplement, Canada or Quebec Pension, Retirement Pension Plan
8 ☐ Family Benefits including GAINS-A, GAINS-D and General Welfare Assistance (Municipal Allowance)
9 ☐ Other

(Show booklet, page 10)

118 What was your approximate total household income for the year 1989 before income tax deduction?

- 01 No income
02 Less than \$5,000
03 \$5,000 - \$11,999
04 \$12,000 - \$19,999
05 \$20,000 - \$29,999
06 \$30,000 - \$39,999
07 \$40,000 - \$49,999
08 \$50,000 - \$59,999
09 \$60,000 - \$69,999
10 \$70,000 - \$79,999
11 \$80,000 or more

enter code

- 12 ☐ Don't know

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be from a notebook or a standard ruled sheet of paper. There is no handwriting or other markings on the page.

PHU	Client No	HRD Page and No	Month
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

This form to be completed by _____

05

**CONFIDENTIAL
WHEN COMPLETED**

Ontario Health Survey

Ministry of Health
Ontario

**Premier's Council on
Health Strategy**

Ontario Health Survey

The Ontario Ministry of Health is conducting an important study in the province. The questions on this form are about your health and the many factors relating to health.

Responding to each question is *voluntary*, but if the survey is to give us a true picture of health in the province, everyone must complete and return their questionnaire.

How to complete the Questionnaire

Take time to read instructions and answer each required question carefully.

When answering, place an "X" to indicate your response.

☒ Yes
☐ No

Write numbers in the boxes provided filling all the boxes.

06

Follow arrows and "Go to" instructions to make sure you only answer the necessary questions. For example:

67. Have you been the driver of a car, truck or van in the last 12 months?

1 ☐ Yes
2 ☐ No → Go to 73

If you answer "Yes" you would continue to the following question.

If you answer "No" the next question you would answer would be question 73.

All answers are kept strictly confidential.

1. In general, compared to other persons your age, would you say your health is...

- 1 ☐ Excellent
- 2 ☐ Very good
- 3 ☐ Good
- 4 ☐ Fair
- 5 ☐ Poor

2. Which one of the following best describes how you usually feel?

- 1 ☐ Happy and interested in life
- 2 ☐ Somewhat happy
- 3 ☐ Somewhat unhappy
- 4 ☐ Unhappy with little interest in life
- 5 ☐ So unhappy that life is not worthwhile

3. Which one of the following sentences best describes the effect of pain or discomfort you usually experience?

- 1 ☐ Free of pain and discomfort
- 2 ☐ Pain or discomfort that does not prevent any activities
- 3 ☐ Pain or discomfort that prevents a few activities
- 4 ☐ Pain or discomfort that prevents some activities
- 5 ☐ Pain or discomfort that prevents most activities

4. As a whole, would you describe your life as ...

- 6 ☐ Very stressful
- 7 ☐ Fairly stressful
- 8 ☐ Not very stressful
- 9 ☐ Not at all stressful

5. How satisfied are you with your health?

- 1 ☐ Very satisfied
- 2 ☐ Somewhat satisfied
- 3 ☐ Not too satisfied
- 4 ☐ Not at all satisfied

6. Is there anything you plan to do over the next year to improve your health?
(Mark all that apply)

- 01 ☐ Nothing
- 02 ☐ Increase exercise
- 03 ☐ Lose weight
- 04 ☐ Gain weight
- 05 ☐ Improve eating habits
- 06 ☐ Quit smoking
- 07 ☐ Reduce amount smoked
- 08 ☐ Reduce drug or medication use
- 09 ☐ Drink less alcohol
- 10 ☐ Have blood pressure checked
- 11 ☐ Attempt to control blood pressure
- 12 ☐ Deal with stress better
- 13 ☐ Receive medical treatment
- 14 ☐ Change jobs
- 15 ☐ Other _____

(Specify)

7. In the past 4 weeks did you take any of the following?

a) Pain relievers
(for example: Aspirin, Advil, Tylenol)	01 ☐ Yes →
02 ☐ No
b) Medicine for the heart
or blood pressure	07 ☐ Yes →
08 ☐ No
c) Stomach remedies
or laxatives	13 ☐ Yes →
14 ☐ No
d) Tranquilizers or sleeping pills
(for example: Valium, Diazepam, Librium)	19 ☐ Yes →
20 ☐ No
e) Penicillin
or other antibiotics	25 ☐ Yes →
26 ☐ No
f) Cough or cold
remedies	31 ☐ Yes →
32 ☐ No
g) Allergy medicine, or
antihistamines	37 ☐ Yes →
38 ☐ No
h) Codeine, Demerol
or Morphine	43 ☐ Yes →
44 ☐ No
i) Anti-depressants	49 ☐ Yes →
50 ☐ No
j) Diet pills or stimulants	55 ☐ Yes →
56 ☐ No
k) Vitamins	61 ☐ Yes →
62 ☐ No

Did you take this
on the advice of
a doctor or dentist?

03 ☐ Yes }
04 ☐ No }
09 ☐ Yes }
10 ☐ No }
15 ☐ Yes }
16 ☐ No }
21 ☐ Yes }
22 ☐ No }
27 ☐ Yes }
28 ☐ No }
33 ☐ Yes }
34 ☐ No }
39 ☐ Yes }
40 ☐ No }
45 ☐ Yes }
46 ☐ No }
51 ☐ Yes }
52 ☐ No }
57 ☐ Yes }
58 ☐ No }
63 ☐ Yes }
64 ☐ No }

Did you take this at
least once a week in
the past 4 weeks?

05 ☐ Yes
06 ☐ No
11 ☐ Yes
12 ☐ No
17 ☐ Yes
18 ☐ No
23 ☐ Yes
24 ☐ No
29 ☐ Yes
30 ☐ No
35 ☐ Yes
36 ☐ No
41 ☐ Yes
42 ☐ No
47 ☐ Yes
48 ☐ No
53 ☐ Yes
54 ☐ No
59 ☐ Yes
60 ☐ No
65 ☐ Yes
66 ☐ No

8. How many different types of prescription drugs have you taken in the last 4 weeks?

Number

9. Have you ever used any of the following drugs more than five times in your life?

Have you used it
in the last 12 months?

a) Marijuana, cannabis or hash	01 ☐ Yes }
02 ☐ No }
b) Cocaine or crack	05 ☐ Yes }
06 ☐ No }
c) LSD (acid)	09 ☐ Yes }
10 ☐ No }
d) Speed (amphetamines, uppers)	13 ☐ Yes }
14 ☐ No }
e) Heroin (dust, horse, junk, smack)	17 ☐ Yes }
18 ☐ No }
f) Glue, solvents or gasoline	21 ☐ Yes }
22 ☐ No }

03 ☐ Yes
04 ☐ No
07 ☐ Yes
08 ☐ No
11 ☐ Yes
12 ☐ No
15 ☐ Yes
16 ☐ No
19 ☐ Yes
20 ☐ No
23 ☐ Yes
24 ☐ No

10. At the present time do you smoke cigarettes daily, occasionally or not at all?

- 1 ☐ Daily
 2 ☐ Occasionally
 3 ☐ Not at all } Go to 15

11. At what age did you begin to smoke daily?

Age

12. How many cigarettes do you smoke each day now?

Number of cigarettes

13. How likely do you think it is that your smoking will lead to health problems for you?

- 1 ☐ Very likely
 2 ☐ Somewhat likely
 3 ☐ Somewhat unlikely
 4 ☐ Very unlikely

14. Have you tried to quit smoking in the past 12 months?

- 5 ☐ Yes
 6 ☐ No } Go to 19

15. Have you ever smoked cigarettes daily?

- 7 ☐ Yes
 8 ☐ No → Go to 19

16. At what age did you begin to smoke daily?

Age

17. At what age did you stop smoking daily?

Age

18. How many cigarettes a day did you usually smoke?

Number of cigarettes

19. Do you smoke pipes, cigars, or cigarettes daily, occasionally or not at all?

- 1 ☐ Daily
 2 ☐ Occasionally
 3 ☐ Not at all

20. How many of your friends smoke cigarettes?

- 4 ☐ All of them
 5 ☐ Most of them
 6 ☐ About half of them
 7 ☐ A few of them
 8 ☐ None of them

3 of/de 3

PM-1 3½"x4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

PRECISIONSM RESOLUTION TARGETS

D | Alcohol

When a question refers to a drink it means:

- 1 bottle of beer (12 oz. or 360 ml.)
- 1 glass of wine (4–5 oz. or 120–150 ml.)
- 1 small shot of liquor or spirits with or without mix (1–1 1/2 oz.)

21. Have you ever taken a drink of beer, wine, liquor or other alcoholic beverage?

- 1 ☐ Yes
2 ☐ No → Go to Section E

22. Not counting small sips, at what age did you start drinking alcoholic beverages?

Age

23. In the past 12 months, have you taken a drink of beer, wine, liquor or other alcoholic beverage?

- 1 ☐ Yes → Go to 25
2 ☐ No

24. Did you ever regularly drink more than 12 drinks in a week?

- 3 ☐ Yes
4 ☐ No } Go to Section E

25. In the past 12 months, how often did you drink alcoholic beverages?

- 1 ☐ Everyday
2 ☐ 4 to 6 times a week
3 ☐ 2 to 3 times a week
4 ☐ Once a week
5 ☐ Once or twice a month
6 ☐ Less than once a month

26. In the past 12 months, how many times did you drink 10 or more drinks on one occasion?

Times 99 ☐ Never

27. Beginning with yesterday, how many drinks did you have on each of the last 7 days?
(Enter 00 on the days you had no drinks)

28. How likely do you think it is that your drinking will lead to health problems for you?

- 1 ☐ Very likely
2 ☐ Somewhat likely
3 ☐ Somewhat unlikely
4 ☐ Very unlikely

29. In your opinion how many of your friends would you say drink too much?

- 1 ☐ All of them
2 ☐ Most of them
3 ☐ About half of them
4 ☐ A few of them
5 ☐ None of them

30. In the past 12 months have you tried to reduce the amount you drink?

- 1 ☐ Yes
2 ☐ No

Continued on next page...

D | Alcohol

Continued from page 4

The next questions concern drinking and problems related to your drinking during the last 12 months.

31. a) Do you feel you are a normal drinker?

- 3 ☐ Yes
4 ☐ No

b) Does your family worry or complain about your drinking?

- 5 ☐ Yes
6 ☐ No

c) Do you feel bad about your drinking?

- 7 ☐ Yes
8 ☐ No

d) Do your friends or relatives think you are a normal drinker?

- 1 ☐ Yes
2 ☐ No

e) Are you always able to stop drinking when you want to?

- 3 ☐ Yes
4 ☐ No

f) Have you attended a meeting of Alcoholics Anonymous (A.A.) because of your drinking?

- 5 ☐ Yes
6 ☐ No

g) Has drinking created problems with your spouse or other family members?

- 7 ☐ Yes
8 ☐ No

h) Have you got into trouble at work because of drinking?

- 1 ☐ Yes
2 ☐ No

i) Have you neglected your obligations, your family or your work for two or more days in a row because you were drinking?

- 3 ☐ Yes
4 ☐ No

j) Have you gone to anyone for help about your drinking?

- 5 ☐ Yes
6 ☐ No

k) Have you been in a hospital because of your drinking?

- 7 ☐ Yes
8 ☐ No

l) Have you been arrested, even for a few hours, because of drunk behaviour?

- 1 ☐ Yes
2 ☐ No

m) Have you been arrested for drunk driving or driving after drinking?

- 3 ☐ Yes
4 ☐ No

E | Your Family

The following questions concern families and family relationships

Answer for the family members you live with or your immediate family if you live alone.

32. Planning family activities is difficult because we misunderstand each other.	1 ☐
Strongly agree	2 ☐
Agree	3 ☐
Disagree	4 ☐
Strongly disagree
33. In times of crisis we can turn to each other for support.	5 ☐
Strongly agree	6 ☐
Agree	7 ☐
Disagree	8 ☐
Strongly disagree
34. We cannot talk to each other about sadness we feel.	1 ☐
Strongly agree	2 ☐
Agree	3 ☐
Disagree	4 ☐
Strongly disagree
35. Individuals (in the family) are accepted for what they are.	5 ☐
Strongly agree	6 ☐
Agree	7 ☐
Disagree	8 ☐
Strongly disagree
36. We avoid discussing our fears and concerns.	1 ☐
Strongly agree	2 ☐
Agree	3 ☐
Disagree	4 ☐
Strongly disagree
37. We express feelings to each other.	5 ☐
Strongly agree	6 ☐
Agree	7 ☐
Disagree	8 ☐
Strongly disagree
38. There are lots of bad feelings in our family.	1 ☐
Strongly agree	2 ☐
Agree	3 ☐
Disagree	4 ☐
Strongly disagree
39. We feel accepted for what we are.	5 ☐
Strongly agree	6 ☐
Agree	7 ☐
Disagree	8 ☐
Strongly disagree
40. Making decisions is a problem for our family.	1 ☐
Strongly agree	2 ☐
Agree	3 ☐
Disagree	4 ☐
Strongly disagree
41. We are able to make decisions about how to solve problems.	5 ☐
Strongly agree	6 ☐
Agree	7 ☐
Disagree	8 ☐
Strongly disagree
42. We don't get along well together.	1 ☐
Strongly agree	2 ☐
Agree	3 ☐
Disagree	4 ☐
Strongly disagree
43. We confide in each other.	5 ☐
Strongly agree	6 ☐
Agree	7 ☐
Disagree	8 ☐
Strongly disagree
44. Drinking is a source of tension or disagreement in our family.	1 ☐
Strongly agree	2 ☐
Agree	3 ☐
Disagree	4 ☐
Strongly disagree

45. Which one of the following best describes your current dental health?

- 1 ☐ I have my own teeth and no dentures
- 2 ☐ I have my own teeth and one or more denture(s) or bridge(s)
- 3 ☐ I have no teeth and full upper and lower dentures or plates
- 4 ☐ I have no teeth and no dentures

46. Are you ordinarily able to:

a) Chew a piece of fresh carrot?

- 5 ☐ Yes
- 6 ☐ No

b) Chew firm meats such as steaks or chops?

- 7 ☐ Yes
- 8 ☐ No

c) Bite off and chew a piece from a whole fresh apple?

- 1 ☐ Yes
- 2 ☐ No

47. During the past month have you had any of the following dental health problems?

	Yes	No
Toothache	01 ☐	02 ☐
Pain in teeth from hot, cold or sweet foods or liquids	03 ☐	04 ☐
Pain in the jaw joints	05 ☐	06 ☐
Pain or discomfort from dentures	07 ☐	08 ☐
Sore or bleeding gums	09 ☐	10 ☐

48. How long has it been since you last saw a dentist, dental therapist or other dental care provider?

- 1 ☐ Within the last six months
- 2 ☐ 6 months to 1 year
- 3 ☐ 1-2 years
- 4 ☐ 3-5 years
- 5 ☐ More than 5 years
- 6 ☐ Don't know

} Go to
Section G

49. What was the main reason that you did not visit a dentist in the last year?

- 1 ☐ Too expensive
- 2 ☐ Afraid or dislike dentists
- 3 ☐ Too busy
- 4 ☐ Nothing wrong
- 5 ☐ Don't know a dentist
- 6 ☐ A dentist's office is too far away
- 7 ☐ Physical or medical problems prevented me from going
- 8 ☐ Other _____
(Specify)

50. How often do you usually see a dentist or dental therapist (denturist)?

- 1 ☐ Regularly (i.e. at least once a year for check-ups)
- 2 ☐ Less than once a year
- 3 ☐ Only when I have pain or other trouble

51. Not counting the people you live with, how many relatives do you have that you feel close to?

Relatives

52. During the past 12 months how often did you see any of these relatives?

- 1 ☐ More than once a week
- 2 ☐ Once a week
- 3 ☐ Once a month
- 4 ☐ Several times a year
- 5 ☐ About once a year
- 6 ☐ Never

53. Not counting the people you live with or your relatives, how many close friends would you say that you have? (By close friends, we mean people that you feel at ease with, can talk to about private matters and can call upon for help.)

Close Friends

54. During the past 12 months how often did you see your close friends?

- 1 ☐ More than once a week
- 2 ☐ Once a week
- 3 ☐ Once a month
- 4 ☐ Several times a year
- 5 ☐ About once a year
- 6 ☐ Never

55. Which one of the following best describes how you spent your leisure time during the past 2 months?

- 1 ☐ Almost all of it by myself
- 2 ☐ More than half of it by myself
- 3 ☐ About half of it by myself and half of it with others
- 4 ☐ Almost all of it with others

56. How satisfied are you with your social life?

- 5 ☐ Very satisfied
- 6 ☐ Somewhat satisfied
- 7 ☐ Somewhat unsatisfied
- 8 ☐ Very unsatisfied

57. Do you have children of your own?

- 1 ☐ Yes → How satisfied are you with your relationship with your children?
- 2 ☐ No
- 3 ☐ Very satisfied
- 4 ☐ Somewhat satisfied
- 5 ☐ Somewhat unsatisfied
- 6 ☐ Very unsatisfied

58. Are you presently married or living with someone?

- 1 ☐ Yes → How satisfied are you with this relationship?
- 2 ☐ No
- 3 ☐ Very satisfied
- 4 ☐ Somewhat satisfied
- 5 ☐ Somewhat unsatisfied
- 6 ☐ Very unsatisfied

59. Among your friends or in your family, is there someone you confide in or talk to freely about your problems?

- 7 ☐ Yes
8 ☐ No

60. Among your friends or in your family is there someone who can help you in a time of need?

- 1 ☐ Yes
2 ☐ No

61. a) Are you a member of any voluntary organizations or associations, such as church and school groups, labour unions, or social, civic and fraternal clubs?

- 1 ☐ Yes
2 ☐ No → Go to Question 62

b) Do you regularly attend meetings of these groups?

- 3 ☐ Yes
4 ☐ No

c) Are you a member of any committees in these organizations?

- 5 ☐ Yes
6 ☐ No

62. Would you tell us how you felt during the past 12 months?

	Hardly ever	Less than half the time	More than half the time	Most of the time
a) I have been feeling full of pep and energy	01 ☐	02 ☐	03 ☐	04 ☐
b) My health gave me no concern	05 ☐	06 ☐	07 ☐	08 ☐
c) I had no problem handling my feelings	09 ☐	10 ☐	11 ☐	12 ☐
d) Life was rather boring	13 ☐	14 ☐	15 ☐	16 ☐
e) I felt rather low	17 ☐	18 ☐	19 ☐	20 ☐
f) I felt tense, or on edge	21 ☐	22 ☐	23 ☐	24 ☐
g) I felt cheerful and light-hearted	25 ☐	26 ☐	27 ☐	28 ☐
h) I felt quite lonely	29 ☐	30 ☐	31 ☐	32 ☐
i) It took some effort to keep my feelings under control	33 ☐	34 ☐	35 ☐	36 ☐
j) Many interesting things happened	37 ☐	38 ☐	39 ☐	40 ☐
k) I was worried about my health	41 ☐	42 ☐	43 ☐	44 ☐
l) I felt exhausted, worn out or at the end of my rope	45 ☐	46 ☐	47 ☐	48 ☐
m) I felt reasonably relaxed	49 ☐	50 ☐	51 ☐	52 ☐
n) I felt quite loved and appreciated	53 ☐	54 ☐	55 ☐	56 ☐

Continued on next page...

G | Your Life In General

Continued from page 9

63. Have you ever seriously thought about committing suicide (taking your own life)?

- 1 ☐ Yes
- 2 ☐ No → Go to Section H

64. Did this happen during the past 12 months?

- 3 ☐ Yes
- 4 ☐ No

65. Have you ever tried to commit suicide (take your life)?

- 5 ☐ Yes
- 6 ☐ No → Go to Section H

66. Did this happen during the past 12 months?

- 7 ☐ Yes
- 8 ☐ No

68. During the last 12 months how many kilometres or miles have you driven a car, truck or van?

- 3 ☐ 1600 km or less
(1000 miles or less)
- 4 ☐ 1601 km to 8000 km
(1001 to 5000 miles)
- 5 ☐ 8001 km to 16000 km
(5001 to 10000 miles)
- 6 ☐ 16001 km to 24000 km
(10001 to 15000 miles)
- 7 ☐ 24001 km to 32000 km
(15001 to 20000 miles)
- 8 ☐ More than 32000 km
(more than 20000 miles)

69. How often do you fasten your seat belt in a motor vehicle when you are a driver?

- 1 ☐ Always
- 2 ☐ Most of the time
- 3 ☐ Rarely
- 4 ☐ Never

70. Indicate how often you do each of the following when you drive.

a) Drive through yellow lights?

- 5 ☐ Most of the time
- 6 ☐ Some of the time
- 7 ☐ Rarely
- 8 ☐ Never
- 9 ☐ Don't know

b) Pass at an intersection?

- 1 ☐ Most of the time
- 2 ☐ Some of the time
- 3 ☐ Rarely
- 4 ☐ Never
- 5 ☐ Don't know

H | Driving and Safety

67. Have you been the driver of a car, truck or van in the last 12 months?

- 1 ☐ Yes
- 2 ☐ No → Go to 73

Continued on next page...

c) Follow too closely?

- 1 ☐ Most of the time
- 2 ☐ Some of the time
- 3 ☐ Rarely
- 4 ☐ Never
- 5 ☐ Don't know

74. Have you driven a motorcycle in the last 12 months?

- 5 ☐ Yes
- 6 ☐ No

d) Change lanes abruptly?

- 1 ☐ Most of the time
- 2 ☐ Some of the time
- 3 ☐ Rarely
- 4 ☐ Never
- 5 ☐ Don't know

75. Did you ride a bicycle during the last 12 months?

- 1 ☐ Yes→
- 2 ☐ No

Did you wear a helmet?

- 3 ☐ Always
- 4 ☐ Most of the time
- 5 ☐ Rarely
- 6 ☐ Never

71. Compared to other car drivers, how do you generally drive?

- 1 ☐ Much faster than others
- 2 ☐ A little faster than others
- 3 ☐ About the same speed as others
- 4 ☐ A little slower than others
- 5 ☐ Much slower than others

76. Have you driven an all terrain vehicle (ATV) or snowmobile during the past 12 months?

- 1 ☐ Yes→
- 2 ☐ No

Did you wear a helmet?

- 3 ☐ Always
- 4 ☐ Most of the time
- 5 ☐ Rarely
- 6 ☐ Never

72. In the past 12 months how many times have you driven after having two or more drinks in the previous hour?

Times

- 98 ☐ Never

77. Have you driven a motor boat during the last 12 months?

- 1 ☐ Yes
- 2 ☐ No→ Go to Section I

73. How often do you fasten your seat belt in a motor vehicle when you are a passenger?

- 1 ☐ Always
- 2 ☐ Most of the time
- 3 ☐ Rarely
- 4 ☐ Never

78. In the past 12 months how many times have you driven a motor boat after having two or more drinks in the previous hour?

Times

- 98 ☐ Never

Women's Health

The following questions are for females only

Males should go to Section J.

79. When did you last have a Pap smear test?

- 1 ☐ Less than 12 months ago
- 2 ☐ 1 or 2 years ago
- 3 ☐ More than 2 years ago
- 4 ☐ Never
- 5 ☐ Don't know

80. When did you last have a breast examination by a doctor or a nurse?

- 1 ☐ Less than 12 months ago
- 2 ☐ 1 or 2 years ago
- 3 ☐ More than 2 years ago
- 4 ☐ Never
- 5 ☐ Don't know

81. Have you ever had a mammogram (breast X-ray)?

- 1 ☐ Yes→ When was the last time?
- 2 ☐ No
- 3 ☐ Less than 12 months ago
- 4 ☐ 1 to 2 years ago
- 5 ☐ More than 2 years ago
- 6 ☐ Don't know

82. Do you take either of the following types of pills?

a) Oral contraceptives (either as a method of birth control or to regulate your menstrual cycle, or for another reason)

- 1 ☐ Yes
- 2 ☐ No

b) Female hormones (as a treatment for menopausal disorders, infertility or for another reason)

- 3 ☐ Yes
- 4 ☐ No

83. Did you ever give birth to a child?

- 5 ☐ Yes
- 6 ☐ No→ Go to 86

84. When was your last child born?

Month Year

85. Did you breast-feed your last child?

- 1 ☐ Yes→ How long did you breast feed your last child?
- 2 ☐ No
- 3 ☐ less than 1 month
- 4 ☐ 1-3 months
- 5 ☐ 4-6 months
- 6 ☐ more than 6 months

86. Have you been pregnant in the last 5 years?

- 1 ☐ Yes
- 2 ☐ No→ Go to Section J

87. Was your last/current pregnancy planned?

- 3 ☐ Yes
- 4 ☐ No

88. Are you pregnant now?

- 5 ☐ Yes→ Go to Section J
- 6 ☐ No
- 7 ☐ Don't know

89. What was the result of your last pregnancy?

- 1 ☐ Birth of a child
- 2 ☐ Stillbirth
- 3 ☐ Miscarriage
- 4 ☐ Abortion

J Sexual Health

We would like to ask a few general questions about sexual behaviour due to the seriousness of problems such as sexually transmitted diseases and unplanned pregnancies.

90. At what age did you first have sexual intercourse?

Age

98 ☐ Never → Go to Section K

91. In the past year, have you had a sexual partner?

- 1 ☐ Yes
2 ☐ No → Go to Section K

92. In the past year how many sexual partners did you have?

Partners

93. In the past year what form of birth control did you or your partner(s) use?

	Yes	No
Condom	01 ☐	02 ☐
Condom and foam	03 ☐	04 ☐
Pills	05 ☐	06 ☐
Diaphragm	07 ☐	08 ☐
IUD	09 ☐	10 ☐
Vasectomy or tubal ligation (tubes tied)	11 ☐	12 ☐
Other _____	13 ☐	14 ☐

(Specify)

94. In the past year, how often did you or your partner(s) use some form of birth control?

- 1 ☐ Never
2 ☐ A few times
3 ☐ Often
4 ☐ Always

} Go to 96

95. Since you are not using a contraceptive method at present which of the following best describes your situation?

- 5 ☐ You or your partner are past childbearing age
6 ☐ You want to become a parent
7 ☐ You or your partner are unable to have children
8 ☐ Other _____
(Specify)

96. In the past year, how often did you or your partner(s) use a condom as protection from sexually transmitted diseases?

- 1 ☐ Never
2 ☐ At least one occasion
3 ☐ A few times
4 ☐ Often
5 ☐ Always

AIDS is a major health concern in the province but exactly how many people are at risk is not known. The following question is intended to estimate the number at increased risk.

97. Listed below are five statements. Please read all five, and answer "Yes" if at least one statement is true for you. DO NOT indicate which statement or statements are true.

- a) I have hemophilia and received clotting factor concentrates since 1978.
b) I am a man who has had sex with another man at least once since 1978.
c) I have shared a needle while taking drugs at least once since 1978.
d) Since 1978, I am or have been the sex partner of any person who would answer "yes" to any of the above items.
e) I have had sex for money or drugs since 1978.

- 1 ☐ Yes to at least one statement
2 ☐ No to all statements
3 ☐ Don't know

98. Did you work at a job or business in the past 12 months?

- 7 ☐ Yes
8 ☐ No → Go to Section L

99. Does your job or business require you to do any of the following?

	Yes	No
Sit for more than 1/2 your work day	01 ☐	02 ☐
Drive for more than 1/2 your work day	03 ☐	04 ☐
Bend and lift more than 50 times a day	05 ☐	06 ☐
Frequent lifting of more than 50 pounds	07 ☐	08 ☐
Frequent lifting of less than 50 pounds	09 ☐	10 ☐
Work rotating shifts	11 ☐	12 ☐

100. Over the past 12 months how often has your job or business involved any of the following?

	Never	Occasionally	Often	Always	Don't know
a) Noise which interferes with your ability to hear a normal conversation with a person six feet away from you.	01 ☐	02 ☐	03 ☐	04 ☐	05 ☐
b) Tools which cause a lot of vibration to your hands (chain saw, jack hammers or drills).	06 ☐	07 ☐	08 ☐	09 ☐	10 ☐
c) Work which requires long periods of repeated movements of your hands and arms.	11 ☐	12 ☐	13 ☐	14 ☐	15 ☐
d) Operating vehicles or equipment that have a lot of vibration.	16 ☐	17 ☐	18 ☐	19 ☐	20 ☐
e) Working with your back in an awkward position.	21 ☐	22 ☐	23 ☐	24 ☐	25 ☐

101. In your job or business have you worked with any of the following materials over the past 12 months?

	Never	Occasionally	Often	Always	Don't know
a) Dust from wood, grain, hay, straw	01 ☐	02 ☐	03 ☐	04 ☐	05 ☐
b) Dust from silica, granite or rock dust	06 ☐	07 ☐	08 ☐	09 ☐	10 ☐
c) Glass fibre dust or asbestos	11 ☐	12 ☐	13 ☐	14 ☐	15 ☐
d) Dust or fumes from lead, cadmium, nickel, chromium or mercury	16 ☐	17 ☐	18 ☐	19 ☐	20 ☐
e) Fumes from solvents, paints or gasoline	21 ☐	22 ☐	23 ☐	24 ☐	25 ☐
f) Resins or isocyanates	26 ☐	27 ☐	28 ☐	29 ☐	30 ☐
g) Pesticides (bug or weed killers)	31 ☐	32 ☐	33 ☐	34 ☐	35 ☐
h) Coal tar or pitch	36 ☐	37 ☐	38 ☐	39 ☐	40 ☐

Physical Activities

102. Have you participated in the following physical activities during the last month?

		number of times	About how much time do you spend on each occasion?			
			1—15 minutes	16—30 minutes	31—60 minutes	more than 1 hour
a) Walking for exercise	01 ☐ Yes→ 02 ☐ No	<input type="text"/>	1 ☐	2 ☐	3 ☐	4 ☐
b) Bicycling	03 ☐ Yes→ 04 ☐ No	<input type="text"/>	5 ☐	6 ☐	7 ☐	8 ☐
c) Running or jogging	05 ☐ Yes→ 06 ☐ No	<input type="text"/>	1 ☐	2 ☐	3 ☐	4 ☐
d) Exercises at home	07 ☐ Yes→ 08 ☐ No	<input type="text"/>	5 ☐	6 ☐	7 ☐	8 ☐
e) Exercise class, aerobics	09 ☐ Yes→ 10 ☐ No	<input type="text"/>	1 ☐	2 ☐	3 ☐	4 ☐
f) Ice skating	11 ☐ Yes→ 12 ☐ No	<input type="text"/>	5 ☐	6 ☐	7 ☐	8 ☐
g) Cross-country skiing	13 ☐ Yes→ 14 ☐ No	<input type="text"/>	1 ☐	2 ☐	3 ☐	4 ☐
h) Ice hockey	15 ☐ Yes→ 16 ☐ No	<input type="text"/>	5 ☐	6 ☐	7 ☐	8 ☐
i) Swimming	17 ☐ Yes→ 18 ☐ No	<input type="text"/>	1 ☐	2 ☐	3 ☐	4 ☐
j) Squash or racquetball	19 ☐ Yes→ 20 ☐ No	<input type="text"/>	5 ☐	6 ☐	7 ☐	8 ☐
k) Tennis	21 ☐ Yes→ 22 ☐ No	<input type="text"/>	1 ☐	2 ☐	3 ☐	4 ☐
l) Softball, baseball	23 ☐ Yes→ 24 ☐ No	<input type="text"/>	5 ☐	6 ☐	7 ☐	8 ☐
m) Downhill skiing	25 ☐ Yes→ 26 ☐ No	<input type="text"/>	1 ☐	2 ☐	3 ☐	4 ☐
n) Curling	27 ☐ Yes→ 28 ☐ No	<input type="text"/>	5 ☐	6 ☐	7 ☐	8 ☐
o) Bowling	29 ☐ Yes→ 30 ☐ No	<input type="text"/>	1 ☐	2 ☐	3 ☐	4 ☐
p) Golf	31 ☐ Yes→ 32 ☐ No	<input type="text"/>	5 ☐	6 ☐	7 ☐	8 ☐
q) Weight training	33 ☐ Yes→ 34 ☐ No	<input type="text"/>	1 ☐	2 ☐	3 ☐	4 ☐
r) Basketball, soccer, volleyball	35 ☐ Yes→ 36 ☐ No	<input type="text"/>	5 ☐	6 ☐	7 ☐	8 ☐
s) Dancing — popular, ballet, modern	37 ☐ Yes→ 38 ☐ No	<input type="text"/>	1 ☐	2 ☐	3 ☐	4 ☐
t) Other _____ (Specify)	39 ☐ Yes→ 40 ☐ No	<input type="text"/>	5 ☐	6 ☐	7 ☐	8 ☐

Continued on next page...

L | Physical Activities

Continued from page 15

103. Which of the following sentences best describes your usual daily activities or work habits?

- 1 ☐ I am usually sitting during the day and do not walk about very much.
- 2 ☐ I stand or walk about quite a lot during the day but I do not have to carry or lift things very often.
- 3 ☐ I usually lift or carry light loads, or I have to climb stairs or hills often.
- 4 ☐ I do heavy work or carry very heavy loads.

104. How likely do you think it is that your current level of physical activity will lead to health problems for you?

- 5 ☐ Very likely
- 6 ☐ Somewhat likely
- 7 ☐ Somewhat unlikely
- 8 ☐ Very unlikely

105. How many of your friends take part in regular physical exercise?

- 1 ☐ All of them
- 2 ☐ Most of them
- 3 ☐ About half of them
- 4 ☐ A few of them
- 5 ☐ None of them

106. How long ago did you last have your blood pressure checked?

- 1 ☐ Within the last 6 months
- 2 ☐ 6 months to one year ago
- 3 ☐ 13 months to 2 years ago
- 4 ☐ More than 2 years ago
- 5 ☐ Never had it checked
- 6 ☐ Don't know

M | Nutrition

107. What is your height?

1 cm

OR

2 ft in

108. What is your weight?

1 kg

OR

2 pounds

109. What would you like to weigh?

1 kg OR 2 pounds

110. Do you think that you could improve your health by changing your eating habits?

- 1 ☐ Yes
- 2 ☐ No
- 3 ☐ Don't know

A person's health can be affected by the kinds and amounts of food they eat and the beverages they drink. Complete the chart on the next pages including foods and beverages consumed both at home and away from home.

For every food mark Yes or No, — If Yes, indicate the number of times and mark day, week or month. Mark one of the serving sizes.

Here are some examples showing how to complete the chart.

EXAMPLES

- "Hank drinks whole milk once a day — about 1 1/2 cups each time."
This is how he would show that on the chart

	Do you have this food or beverage at least once a month?	About how many times per day or week or month?	About how much do you have each time?
112. Whole milk or Homo and beverages made with it	☒ Yes → ☐ No	<div style="border: 1px solid black; padding: 2px; display: inline-block;">01</div> ☒ Day ☐ Week ☐ Month	☐ 1 Cup ☒ More than 1 cup ☐ Less than 1 cup

- "Hank eats dark rye in a sandwich for lunch five times a week, two slices each time."
He would record his bread this way.

127. Dark rye, pumpnickel, fibre-enriched bread and rolls	☒ Yes → ☐ No	<div style="border: 1px solid black; padding: 2px; display: inline-block;">05</div> ☐ Day ☒ Week ☐ Month	☒ 1-2 slices ☐ 3-4 slices ☐ 5 or more slices
---	--	--	---

- "Hank only eats roast beef or steak every 3 or 4 months."
He would show that on the food chart like this.

133. Roast beef and steak	☐ Yes → ☒ No	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> </div> ☐ Day ☐ Week ☐ Month	☐ 4 ounces ☐ More than 4 ounces ☐ Less than 4 ounces
---------------------------	--	---	--

Do you have
this food or
beverage at
least once a
month?

About how many times
per day or week or
month?

About how much do you have each time?

White or Chocolate Milk to Drink

111.	2% milk and
beverages made with it	11 ☐ Yes→
12 ☐ No	☐
☐
☐	13 ☐ Day
14 ☐ Week
15 ☐ Month	16 ☐
1 cup	17 ☐
More than
1 cup	18 ☐
Less than
1 cup
112.	Whole milk or Homo and
beverages made with it	21 ☐ Yes→
22 ☐ No	☐
☐
☐	23 ☐ Day
24 ☐ Week
25 ☐ Month	26 ☐
1 cup	27 ☐
More than
1 cup	28 ☐
Less than
1 cup
113.	Skim milk and
beverages made with it	31 ☐ Yes→
32 ☐ No	☐
☐
☐	33 ☐ Day
34 ☐ Week
35 ☐ Month	36 ☐
1 cup	37 ☐
More than
1 cup	38 ☐
Less than
1 cup
114.	Milkshakes	41 ☐ Yes→
42 ☐ No	☐
☐
☐	43 ☐ Day
44 ☐ Week
45 ☐ Month	46 ☐
Small	47 ☐
Regular	48 ☐
Large

Cheese, Yogurt and Eggs

115.	Hard cheese
such as cheddar	51 ☐ Yes→
52 ☐ No	☐
☐
☐	53 ☐ Day
54 ☐ Week
55 ☐ Month	56 ☐
1 inch
cube	57 ☐
More than
1 inch cube	58 ☐
Less than
1 inch cube
116.	Processed cheese slices
(including on sandwiches
and hamburgers)	61 ☐ Yes→
62 ☐ No	☐
☐
☐	63 ☐ Day
64 ☐ Week
65 ☐ Month	66 ☐
1
slice	67 ☐
2
slices	68 ☐
More than
2 slices
117.	Cottage cheese	71 ☐ Yes→
72 ☐ No	☐
☐
☐	73 ☐ Day
74 ☐ Week
75 ☐ Month	76 ☐
1/2
cup	77 ☐
More than
1/2 cup	78 ☐
Less than
1/2 cup
118.	Any other cheese and
cheese spreads	81 ☐ Yes→
82 ☐ No	☐
☐
☐	83 ☐ Day
84 ☐ Week
85 ☐ Month	86 ☐
1 in. cube
/ 1 tbsp.	87 ☐
More than
cube/tbsp.	88 ☐
Less than
cube/tbsp.
119.	Yogurt	91 ☐ Yes→
92 ☐ No	☐
☐
☐	93 ☐ Day
94 ☐ Week
95 ☐ Month	96 ☐
Small
carton	97 ☐
Large
carton	98 ☐
1/2
cup
120.	Eggs	11 ☐ Yes→
12 ☐ No	☐
☐
☐	13 ☐ Day
14 ☐ Week
15 ☐ Month	16 ☐
1
egg	17 ☐
2
eggs	18 ☐
3 or more
eggs

		Do you have this food or beverage at least once a month?	About how many times per day or week or month?	About how much do you have each time?			
Breakfast cereals							
121.	Oatmeal porridge, oat bran	21 ☐ Yes → 22 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	23 ☐ Day 24 ☐ Week 25 ☐ Month	26 ☐ 3/4 cup	27 ☐ More than 3/4 cup	28 ☐ Less than 3/4 cup
122.	All-bran, 100% Bran, Fibre-One, Fibre-Plus	31 ☐ Yes → 32 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	33 ☐ Day 34 ☐ Week 35 ☐ Month	36 ☐ 3/4 cup	37 ☐ More than 3/4 cup	38 ☐ Less than 3/4 cup
123.	Bran Flakes, Corn Bran, Muffets, Shredded Wheat	41 ☐ Yes → 42 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	43 ☐ Day 44 ☐ Week 45 ☐ Month	46 ☐ 3/4 cup	47 ☐ More than 3/4 cup	48 ☐ Less than 3/4 cup
124.	Any other cooked or dry cereal such as Corn Flakes, Rice Krispies, Malt-O-Meal	51 ☐ Yes → 52 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	53 ☐ Day 54 ☐ Week 55 ☐ Month	56 ☐ 3/4 cup	57 ☐ More than 3/4 cup	58 ☐ Less than 3/4 cup
125.	If you eat cereal.						
a)	Do you usually add sugar? 1 ☐ Yes		2 ☐ No				
b)	Which ONE of the following do you use most often on your cereal?						
	3 ☐ Cream/Half & Half	4 ☐ Whole milk	5 ☐ 2% milk	6 ☐ Skim milk

		Do you have this food or beverage at least once a month?	About how many times per day or week or month?	About how much do you have each time?			
Breads, Rolls and Muffins							
126.	Wholewheat or light rye bread and rolls	61 ☐ Yes→ 62 ☐ No	☐ ☐ ☐	63 ☐ Day 64 ☐ Week 65 ☐ Month	66 ☐ 1-2 slices	67 ☐ 3-4 slices	68 ☐ 5 or more slices
127.	Dark rye, pumpernickel, fibre-enriched bread and rolls	71 ☐ Yes→ 72 ☐ No	☐ ☐ ☐	73 ☐ Day 74 ☐ Week 75 ☐ Month	76 ☐ 1-2 slices	77 ☐ 3-4 slices	78 ☐ 5 or more slices
128.	White, Italian, French egg, raisin bread and rolls	81 ☐ Yes→ 82 ☐ No	☐ ☐ ☐	83 ☐ Day 84 ☐ Week 85 ☐ Month	86 ☐ 1-2 slices	87 ☐ 3-4 slices	88 ☐ 5 or more slices
129.	Bran or corn muffins	91 ☐ Yes→ 92 ☐ No	☐ ☐ ☐	93 ☐ Day 94 ☐ Week 95 ☐ Month	96 ☐ 1 muffin	97 ☐ 2 muffins	98 ☐ 3 or more muffins
130.	Any other muffins, such as blueberry, plain, chocolate chip	11 ☐ Yes→ 12 ☐ No	☐ ☐ ☐	13 ☐ Day 14 ☐ Week 15 ☐ Month	16 ☐ 1 muffin	17 ☐ 2 muffins	18 ☐ 3 or more muffins
131.	If you eat bread, do you add			Always	Usually	Sometimes	Rarely/Never
	Butter, margarine or cream cheese			01 ☐	02 ☐	03 ☐	04 ☐
	Mayonnaise or salad dressing			05 ☐	06 ☐	07 ☐	08 ☐
	Peanut butter			09 ☐	10 ☐	11 ☐	12 ☐
	Jelly, jam, honey or other sweet spread			13 ☐	14 ☐	15 ☐	16 ☐
132.	If you eat muffins, do you add						
	Butter, margarine or cream cheese			17 ☐	18 ☐	19 ☐	20 ☐
	Mayonnaise or salad dressing			21 ☐	22 ☐	23 ☐	24 ☐
	Peanut butter			25 ☐	26 ☐	27 ☐	28 ☐
	Jelly, jam, honey or other sweet spread			29 ☐	30 ☐	31 ☐	32 ☐

		Do you have this food or beverage at least once a month?	About how many times per day or week or month?	About how much do you have each time?			
Meat, Poultry and Fish							
133.	Roast beef and steak	11 ☐ Yes→ 12 ☐ No	<input type="text"/>	13 ☐ Day 14 ☐ Week 15 ☐ Month	16 ☐ 4 ounces	17 ☐ More than 4 ounces	18 ☐ Less than 4 ounces
134.	Roast pork and pork chops	21 ☐ Yes→ 22 ☐ No	<input type="text"/>	23 ☐ Day 24 ☐ Week 25 ☐ Month	26 ☐ 4 ounces	27 ☐ More than 4 ounces	28 ☐ Less than 4 ounces
135.	Liver, any type	31 ☐ Yes→ 32 ☐ No	<input type="text"/>	33 ☐ Day 34 ☐ Week 35 ☐ Month	36 ☐ 4 ounces	37 ☐ More than 4 ounces	38 ☐ Less than 4 ounces
136.	Fried chicken, nuggets, chicken sandwiches	41 ☐ Yes→ 42 ☐ No	<input type="text"/>	43 ☐ Day 44 ☐ Week 45 ☐ Month	46 ☐ 2 pieces 6 nuggets 1 s'wich	47 ☐ 4 pieces 9 nuggets 2 s'wich	48 ☐ More than 4 pieces/ 9 nuggets
137.	Barbecued chicken	51 ☐ Yes→ 52 ☐ No	<input type="text"/>	53 ☐ Day 54 ☐ Week 55 ☐ Month	56 ☐ quarter chicken	57 ☐ half chicken	58 ☐ 2 pieces or slices
138.	Any other chicken, turkey or other poultry	61 ☐ Yes→ 62 ☐ No	<input type="text"/>	63 ☐ Day 64 ☐ Week 65 ☐ Month	66 ☐ 1-2 slices	67 ☐ 3-4 slices	68 ☐ 5 or more slices
139.	Fried fish, fried fish sandwiches	71 ☐ Yes→ 72 ☐ No	<input type="text"/>	73 ☐ Day 74 ☐ Week 75 ☐ Month	76 ☐ 1 piece/ sandwich	77 ☐ 2 pieces/ sandwiches	78 ☐ 3 or more pcs/s'wichs
140.	Any other fish, canned, fresh or frozen, such as tuna	81 ☐ Yes→ 82 ☐ No	<input type="text"/>	83 ☐ Day 84 ☐ Week 85 ☐ Month	86 ☐ 1 piece/ 1/4 cup	87 ☐ 2 pieces/ 1/2 cup	88 ☐ 3 or more pcs or 3/4 c
141.	Hamburgers and cheeseburgers	91 ☐ Yes→ 92 ☐ No	<input type="text"/>	93 ☐ Day 94 ☐ Week 95 ☐ Month	96 ☐ single pattie	97 ☐ double pattie	98 ☐ More than 3 single or 2 double patties
142.				Always	Usually	Sometimes	Rarely/Never
a)	If you eat meat or chicken, do you add gravy?			01 ☐	02 ☐	03 ☐	04 ☐
b)	If you eat meat, do you eat the fat?			05 ☐	06 ☐	07 ☐	08 ☐
c)	If you eat chicken, do you eat the skin?			09 ☐	10 ☐	11 ☐	12 ☐
d)	If you eat fish, do you have tartar sauce or mayonnaise with it?			13 ☐	14 ☐	15 ☐	16 ☐

		Do you have this food or beverage at least once a month?	About how many times per day or week or month?	About how much do you have each time?			
143.	Weiners, hot dogs	11 ☐ Yes→ 12 ☐ No		13 ☐ Day 14 ☐ Week 15 ☐ Month	16 ☐ regular	17 ☐ large/ 2 regular	18 ☐ More than 1 lg/2 reg
144.	Bacon	21 ☐ Yes→ 22 ☐ No		23 ☐ Day 24 ☐ Week 25 ☐ Month	26 ☐ 1-2 slices	27 ☐ 3-4 slices	28 ☐ 5 or more slices
145.	Sausage	31 ☐ Yes→ 32 ☐ No		33 ☐ Day 34 ☐ Week 35 ☐ Month	36 ☐ 1-2 links	37 ☐ 3-4 links	38 ☐ 1-2 large sausages
146.	Coldcuts, luncheon meats such as bologna, salami, chicken loaf or ham	41 ☐ Yes→ 42 ☐ No		43 ☐ Day 44 ☐ Week 45 ☐ Month	46 ☐ 1-2 slices	47 ☐ 3-4 slices	48 ☐ 5 or more slices
Mixed meat, fish or chicken dishes							
147.	Meat and chicken pies	51 ☐ Yes→ 52 ☐ No		53 ☐ Day 54 ☐ Week 55 ☐ Month	56 ☐ 1 slice/ small pie	57 ☐ 2 slices/ small pies	58 ☐ 3 or more sm pie/ slices
148.	Meat and fish stews	61 ☐ Yes→ 62 ☐ No		63 ☐ Day 64 ☐ Week 65 ☐ Month	66 ☐ 1 cup	67 ☐ More than 1 cup	68 ☐ Less than 1 cup
149.	Spaghetti, lasagna, other pasta with meat- tomato sauce	71 ☐ Yes→ 72 ☐ No		73 ☐ Day 74 ☐ Week 75 ☐ Month	76 ☐ 2 cups	77 ☐ More than 2 cups	78 ☐ Less than 2 cups
150.	Macaroni and cheese, other pasta dishes with cheese	81 ☐ Yes→ 82 ☐ No		83 ☐ Day 84 ☐ Week 85 ☐ Month	86 ☐ 2 cups	87 ☐ More than 2 cups	88 ☐ Less than 2 cups
151.	Pizza	91 ☐ Yes→ 92 ☐ No		93 ☐ Day 94 ☐ Week 95 ☐ Month	96 ☐ 1-2 slices	97 ☐ 3-4 slices	98 ☐ 5 or more slices
152.	Any other mixed dishes made with ground meat, fish or chicken	11 ☐ Yes→ 12 ☐ No		13 ☐ Day 14 ☐ Week 15 ☐ Month	16 ☐ 1 cup	17 ☐ More than 1 cup	18 ☐ Less than 1 cup
153.	Any other pasta, or noodles	21 ☐ Yes→ 22 ☐ No		23 ☐ Day 24 ☐ Week 25 ☐ Month	26 ☐ 1 cup	27 ☐ More than 1 cup	28 ☐ Less than 1 cup
154.	Rice, any type	31 ☐ Yes→ 32 ☐ No		33 ☐ Day 34 ☐ Week 35 ☐ Month	36 ☐ 1 cup	37 ☐ More than 1 cup	38 ☐ Less than 1 cup

		Do you have this food or beverage at least once a month?	About how many times per day or week or month?	About how much do you have each time?			
Vegetables							
155.	French fries, home fries, pan fried potatoes	41 ☐ Yes→ 42 ☐ No	<input type="text"/>	43 ☐ Day 44 ☐ Week 45 ☐ Month	46 ☐ small fries	47 ☐ large fries	48 ☐ 1 cup
156.	Any other potatoes — baked, boiled, salad	51 ☐ Yes→ 52 ☐ No	<input type="text"/>	53 ☐ Day 54 ☐ Week 55 ☐ Month	56 ☐ 1 cup	57 ☐ More than 1 cup	58 ☐ Less than 1 cup
157.	Broccoli	61 ☐ Yes→ 62 ☐ No	<input type="text"/>	63 ☐ Day 64 ☐ Week 65 ☐ Month	66 ☐ 1/2 cup	67 ☐ More than 1/2 cup	68 ☐ Less than 1/2 cup
158.	Carrots, raw and cooked	71 ☐ Yes→ 72 ☐ No	<input type="text"/>	73 ☐ Day 74 ☐ Week 75 ☐ Month	76 ☐ 1/2 cup	77 ☐ More than 1/2 cup	78 ☐ Less than 1/2 cup
159.	Corn	81 ☐ Yes→ 82 ☐ No	<input type="text"/>	83 ☐ Day 84 ☐ Week 85 ☐ Month	86 ☐ 1/2 cup small cob	87 ☐ More than 1/2 cup	88 ☐ Less than 1/2 cup
160.	Green peas	91 ☐ Yes→ 92 ☐ No	<input type="text"/>	93 ☐ Day 94 ☐ Week 95 ☐ Month	96 ☐ 1/2 cup	97 ☐ More than 1/2 cup	98 ☐ Less than 1/2 cup
161.	Green beans, string beans, yellow beans	11 ☐ Yes→ 12 ☐ No	<input type="text"/>	13 ☐ Day 14 ☐ Week 15 ☐ Month	16 ☐ 1/2 cup	17 ☐ More than 1/2 cup	18 ☐ Less than 1/2 cup
162.	Any other beans, peas lentils — lima, navy baked, pork and beans	21 ☐ Yes→ 22 ☐ No	<input type="text"/>	23 ☐ Day 24 ☐ Week 25 ☐ Month	26 ☐ 1/2 cup	27 ☐ More than 1/2 cup	28 ☐ Less than 1/2 cup
163.	Squash, all types	31 ☐ Yes→ 32 ☐ No	<input type="text"/>	33 ☐ Day 34 ☐ Week 35 ☐ Month	36 ☐ 1/2 cup	37 ☐ More than 1/2 cup	38 ☐ Less than 1/2 cup
164.	Salad — combination lettuce and tomato	41 ☐ Yes→ 42 ☐ No	<input type="text"/>	43 ☐ Day 44 ☐ Week 45 ☐ Month	46 ☐ 1 cup	47 ☐ More than 1 cup	48 ☐ Less than 1 cup
165.	Any other salads such as coleslaw, carrot, bean, spinach	51 ☐ Yes→ 52 ☐ No	<input type="text"/>	53 ☐ Day 54 ☐ Week 55 ☐ Month	56 ☐ 1 cup	57 ☐ More than 1 cup	58 ☐ Less than 1 cup
166.	Any other vegetables such as cabbage, Brussels sprouts	61 ☐ Yes→ 62 ☐ No	<input type="text"/>	63 ☐ Day 64 ☐ Week 65 ☐ Month	66 ☐ 1/2 cup	67 ☐ More than 1/2 cup	68 ☐ Less than 1/2 cup

- 167.
- | | Always
01 ○ | Usually
02 ○ | Sometimes
03 ○ | Rarely/Never
04 ○ |
|--|----------------|-----------------|-------------------|----------------------|
| a) If you eat potatoes or rice, do you add butter, margarine, gravy or sour cream? | | | | |
| b) If you eat vegetables, do you add butter, margarine, cheese or other sauce? | 05 ○ | 06 ○ | 07 ○ | 08 ○ |
| c) If you eat salads, do you add diet, low-fat, low-calorie dressings or mayonnaise? | 09 ○ | 10 ○ | 11 ○ | 12 ○ |
| d) If you eat salads, do you add regular mayonnaise, salad dressing, or salad oil? | 13 ○ | 14 ○ | 15 ○ | 16 ○ |

		Do you have this food or beverage at least once a month?	About how many times per day or week or month?	About how much do you have each time?
Fruit				
168.	Apples, applesauce	11 ○ Yes→ 12 ○ No	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> 13 ○ Day 14 ○ Week 15 ○ Month	16 ○ 1 apple/ 1/2 cup 17 ○ 2 apples/ 1 cup 18 ○ More than 2 apples/2 cups
169.	Bananas	21 ○ Yes→ 22 ○ No	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> 23 ○ Day 24 ○ Week 25 ○ Month	26 ○ 1 banana 27 ○ 2 bananas 28 ○ 3 or more bananas
170.	Oranges, nectarines	31 ○ Yes→ 32 ○ No	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> 33 ○ Day 34 ○ Week 35 ○ Month	36 ○ 1 orange/ nectarine 37 ○ 2 oranges/ nectarines 38 ○ 3 or more oran/necs
171.	Pears, peaches fresh & canned	41 ○ Yes→ 42 ○ No	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> 43 ○ Day 44 ○ Week 45 ○ Month	46 ○ 1 fruit/ 1/2 cup 47 ○ 2 fruit/ 1 cup 48 ○ More than 2 fruit/2 cups
172.	Raisins, prunes, other dried fruit	51 ○ Yes→ 52 ○ No	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> 53 ○ Day 54 ○ Week 55 ○ Month	56 ○ 1/2 cup 57 ○ 1 cup 58 ○ More than 1 cup
173.	Any other fruit, including berries and fruit cocktail and salad	61 ○ Yes→ 62 ○ No	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> 63 ○ Day 64 ○ Week 65 ○ Month	66 ○ 1 fruit/ 1/2 cup 67 ○ 2 fruit/ 1 cup 68 ○ More than 2 fruit/2 cups

		Do you have this food or beverage at least once a month?	About how many times per day or week or month?	About how much do you have each time?			
Beverages							
174.	Orange juice	71 ☐ Yes→ 72 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	73 ☐ Day 74 ☐ Week 75 ☐ Month	76 ☐ 1/2 cup	77 ☐ 1 cup	78 ☐ More than 1 cup
175.	Apple, other citrus juices	81 ☐ Yes→ 82 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	83 ☐ Day 84 ☐ Week 85 ☐ Month	86 ☐ 1/2 cup	87 ☐ 1 cup	88 ☐ More than 1 cup
176.	Tomato, mixed vegetable juices	91 ☐ Yes→ 92 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	93 ☐ Day 94 ☐ Week 95 ☐ Month	96 ☐ 1/2 cup	97 ☐ 1 cup	98 ☐ More than 1 cup
177.	Fruit drinks such as Tang or Kool-Aid	11 ☐ Yes→ 12 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	13 ☐ Day 14 ☐ Week 15 ☐ Month	16 ☐ 1/2 cup	17 ☐ 1 cup	18 ☐ More than 1 cup
178.	Regular soft drinks not diet	21 ☐ Yes→ 22 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	23 ☐ Day 24 ☐ Week 25 ☐ Month	26 ☐ small/ 1 can	27 ☐ medium	28 ☐ large
179.	Coffee	31 ☐ Yes→ 32 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	33 ☐ Day 34 ☐ Week 35 ☐ Month	36 ☐ 1 cup	37 ☐ 2 cups	38 ☐ 3 or more cups
180.	Tea	41 ☐ Yes→ 42 ☐ No	<input type="text"/> <input type="text"/> <input type="text"/>	43 ☐ Day 44 ☐ Week 45 ☐ Month	46 ☐ 1 cup	47 ☐ 2 cups	48 ☐ 3 or more cups
181.	If you drink coffee.						
a)	Do you add sugar?	1 ☐ Yes	2 ☐ No				
b)	Which ONE of the following do you use most often?						
	3 ☐ No milk or cream	4 ☐ Cream or evaporated whole milk	5 ☐ Whole milk or evaporated 2% milk	6 ☐ 2% milk	7 ☐ Skim milk		
182.	If you drink tea.						
a)	Do you add sugar?	1 ☐ Yes	2 ☐ No				
b)	Which ONE of the following do you use most often?						
	3 ☐ No milk or cream	4 ☐ Cream or evaporated whole milk	5 ☐ Whole milk or evaporated 2% milk	6 ☐ 2% milk	7 ☐ Skim milk

		Do you have this food or beverage at least once a month?	About how many times per day or week or month?	About how much do you have each time?			
Desserts and Snacks							
183.	Ice cream, ice milk, sherbet	11 ☐ Yes→ 12 ☐ No	<input type="text"/>	13 ☐ Day 14 ☐ Week 15 ☐ Month	16 ☐ 1 scoop	17 ☐ 2 scoops	18 ☐ 3 or more scoops
184.	Cake	21 ☐ Yes→ 22 ☐ No	<input type="text"/>	23 ☐ Day 24 ☐ Week 25 ☐ Month	26 ☐ 1 slice	27 ☐ 2 slices	28 ☐ 3 or more slices
185.	Pie	31 ☐ Yes→ 32 ☐ No	<input type="text"/>	33 ☐ Day 34 ☐ Week 35 ☐ Month	36 ☐ 1 slice	37 ☐ 2 slices	38 ☐ 3 or more slices
186.	Cookies, crackers	41 ☐ Yes→ 42 ☐ No	<input type="text"/>	43 ☐ Day 44 ☐ Week 45 ☐ Month	46 ☐ 1-5	47 ☐ 5-10	48 ☐ More than 10
187.	Donut, danish croissant	51 ☐ Yes→ 52 ☐ No	<input type="text"/>	53 ☐ Day 54 ☐ Week 55 ☐ Month	56 ☐ 1	57 ☐ 2	58 ☐ 3 or more
188.	Potato chips	61 ☐ Yes→ 62 ☐ No	<input type="text"/>	63 ☐ Day 64 ☐ Week 65 ☐ Month	66 ☐ small bag	67 ☐ More than small bag	68 ☐ Less than small bag
189.	Popcorn	71 ☐ Yes→ 72 ☐ No	<input type="text"/>	73 ☐ Day 74 ☐ Week 75 ☐ Month	76 ☐ 2 cups	77 ☐ More than 2 cups	78 ☐ Less than 2 cups
190.	Peanuts, other nuts seeds	81 ☐ Yes→ 82 ☐ No	<input type="text"/>	83 ☐ Day 84 ☐ Week 85 ☐ Month	86 ☐ 1/2 cup	87 ☐ More than 1/2 cup.	88 ☐ Less than 1/2 cup
191.	Chocolate	91 ☐ Yes→ 92 ☐ No	<input type="text"/>	93 ☐ Day 94 ☐ Week 95 ☐ Month	96 ☐ regular bar	97 ☐ large bar	98 ☐ 2 pieces
<div> <div>Do you use at least once a month?</div> <div>About how many capsules or tablets per day or week or month?</div> <div>About how much calcium per capsule or tablet?</div> </div>							
192.	Calcium supplements	11 ☐ Yes→ 12 ☐ No	<input type="text"/>	13 ☐ Day 14 ☐ Week 15 ☐ Month	16 ☐ 50-300 mg	17 ☐ 301-900 mg	18 ☐ more than 900 mg

Appendix B

REGROUPED CHRONIC ILLNESSES

I Fatal diseases

1. Heart disorders

(Corresponding chronic health problem: high blood pressure; heart disease)

2. Stroke, circulatory, and vascular problems

(paralysis or speech problem due to stroke; circulatory problems)

3. Cancer

II Less fatal diseases

1. Respiratory disorders

(asthma; emphysema or chronic bronchitis or persistent cough)

2. Digestive disorders

(stomach ulcer; other digestive problems)

3. Diabetes and goitre or thyroid trouble

4. Urinary problems or kidney disease

III Least fatal diseases

1. Musculoskeletal disease

(arthritis or rheumatism; serious back pain; other serious problem with the joints or the bones)

2. Eye problems

(for example, glaucoma or cataract)

3. Skin diseases and allergies

(skin allergies or other skin diseases; hay fever or other allergies)

4. Others

(epilepsy; other chronic health problems)

Source: Badley, Yoshida and Webster (1993)

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