No. 39 – WINTER 1995

CANADIAN SOCIAL TRENDS

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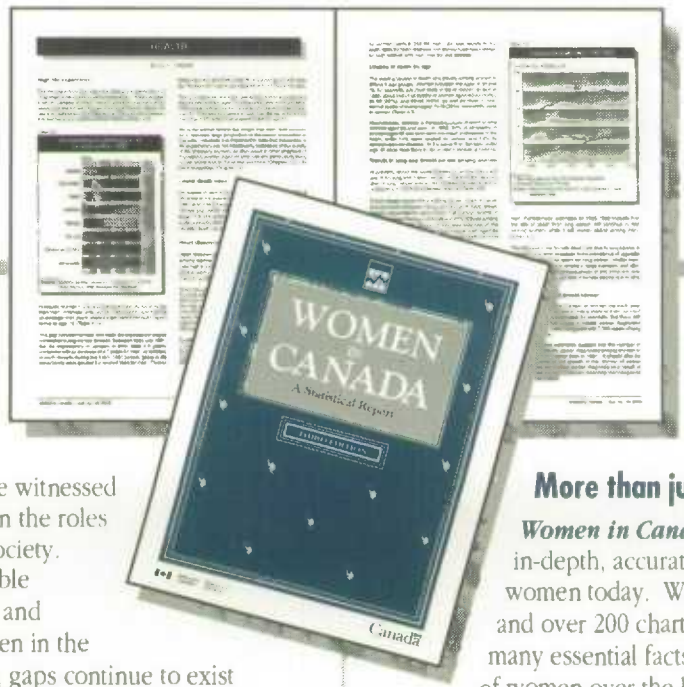
Women in Canada

Two Decades of Change



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ON OUR COVER:

Snowy Morning (c.1920) oil on canvas, 53.7 x 64.0 cm. Collection: National Gallery of Canada, Ottawa.

About the artist:

Born in 1864 in Douglas, Ontario, **Mary A. Eastlake** (nee Bell) spent her early childhood in Almonte (Ont.) and Carillon (Que.). A student of Robert Harris of Montreal, she later took up her artistic studies in Paris where she also exhibited some of her paintings. In 1939, Mrs. Eastlake, with her husband, arrived in Canada taking up residence in Montreal for several years and then later on moved to Almonte. Mrs. Eastlake died in Ottawa in 1951.

CANADIAN SOCIAL TRENDS

Editor-in-Chief
CYNTHIA SILVER

Editors
JO-ANNE BELLIVEAU
JILLIAN ODERKIRK
JEFFREY FRANK

Production Co-ordinator
CHERYL SARAZIN

Marketing Co-ordinator
ALEX SOLIS

•

Art Direction
DISSEMINATION DIVISION, STATISTICS CANADA

Design
GRIFFE DESIGN INC.

Illustrations and Photos
HERITAGE CANADA
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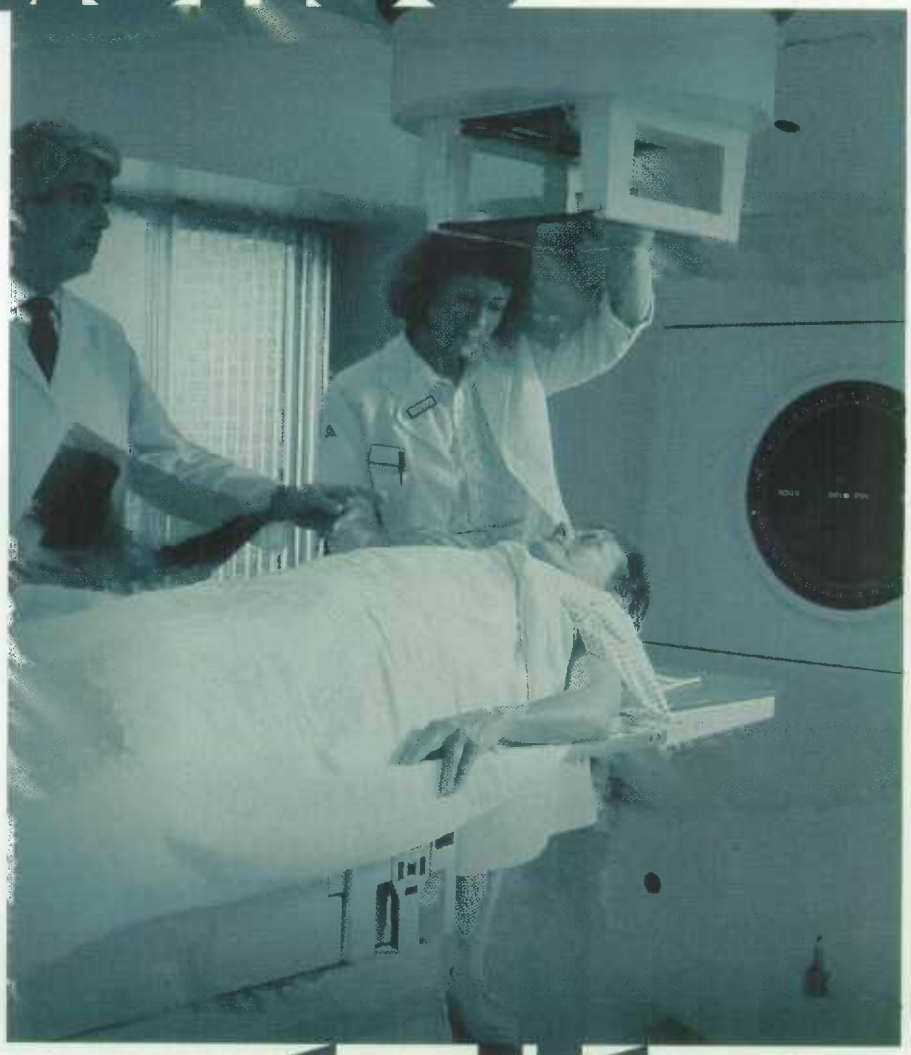
changes in cancer incidence and mortality



by Jo-Anne Belliveau and Leslie Gaudette

Cancer affects the lives of most Canadians through either their own illness, or the illness or death of a family member or friend. Today, well over one-third of Canadians are expected to develop this disease, up from about one-quarter in the early 1970s. In 1995 alone, an estimated 125,400 new cases of cancer will be diagnosed, and 61,500 people will die of this disease.

Throughout most of the century, cancer has been the second leading cause of death, after cardiovascular disease. In addition, the proportion of deaths due to cancer continues to increase. Today, about one-quarter of deaths are due to this disease, up from one-fifth at the beginning of the 1970s.

Cancer often develops as a result of factors over which an individual has no control, such as aging and genetic make-up. Lifestyle, however, can also affect a person's chances of developing this disease. In particular, smoking and diet are currently considered the predominant determinants of cancer.[1] Consequently, by changing lifestyles, Canadians may be able to prevent some types of cancer. In addition, improved medical procedures that permit cancers to be detected at an early stage, as well as improved technologies and drugs for treating the disease, can contribute to cancer control.

Incidence of cancer levelling off in recent years Although the incidence rate of all cancers combined[2] is much higher now than it was twenty-five years ago, the rate of new cases has levelled off since the mid-1980s.[3] After standardizing for changes in the age distribution of the population over time,[4] an estimated 465 of every 100,000 males will be diagnosed with cancer in 1995, up from 332 in 1969. For every 100,000 females, the rate will rise to an estimated 335 in 1995 from 277 in 1969.

These increases are partly due to improved registration of new cancer cases and increased use of diagnostic methods that allow early detection of the disease. In addition, changes in risk factors have contributed to a real increase in cancer.

Cancer mortality rates rose slowly between the late 1960s and the mid-1980s and have been relatively stable since then. In 1995, an estimated 247 of every 100,000 males will die of cancer, up from 222 in 1969. Female mortality rates, on the other hand, have changed little over the past twenty-five years. For every 100,000 females, an estimated 155 will die of cancer in 1995. This figure has fluctuated between 145 and 155 since 1969.

Lung, prostate, breast and colorectal cancer most common An estimated 66,400 new cases of cancer will be diagnosed in males in 1995. Prostate cancer will account for the largest proportion of these cases (24%), followed by lung (19%) and colorectal (13%) cancer (cancer of the colon and rectum). Of the 59,000 new cases among females, breast cancer will be, by far, the most commonly diagnosed (30%), followed by colorectal (13%) and lung (12%) cancer.

These cancers are also estimated to be the most common causes of cancer death, with lung cancer responsible for the highest proportion among both men and women. Of the estimated 33,700 male cancer deaths in 1995, 33% will be due to lung cancer, 12% to prostate cancer and 10% to colorectal cancer. Among women, 21% of the estimated 27,800 cancer deaths will result from lung cancer. The proportion due to breast cancer, however, will be almost as high (19%). Colorectal cancer will be responsible for an estimated 10% of female cancer deaths in 1995.

Lung cancer rates improving among men, but not among women In 1995, an estimated 92 of every 100,000 males will be diagnosed with lung cancer, down slightly from a peak of 97 in 1984. Before 1984, however, male lung cancer had been increasing, rising from 58 new cases for every 100,000 males in 1969. In contrast to the recent decline in lung cancer among males, the female rate is expected to continue rising, reaching an estimated 42 new cases for every 100,000 females in 1995. This is up from 30 cases in 1984 and 10 in 1969.

Differences also persist in the trends for male and female lung cancer death rates. The male rate has levelled off since the mid-1980s, after climbing since the late

[1] A.B. Miller,"Planning Cancer Control Strategies," **Chronic Diseases in Canada**, Health Canada, 1992.

[2] Includes all invasive malignant neoplasms with the exception of non-melanoma skin cancer.

[3] Cancer incidence data are estimated for 1991 to 1995, and mortality data are estimated for 1993 to 1995.

[4] In recent decades, the proportion of seniors has increased, while that of children has decreased. Rates have been age standardized to the 1991 Canadian population to eliminate the effects of these changes, so that death rates from different years could be compared.

CANADIAN SOCIAL TRENDS BACKGROUNDER CST

What is cancer?

Cancer is the uncontrolled growth of abnormal cells in the body. The disease occurs when the abnormal cells overcome the body's defences that usually destroy such cells.

Normal cells multiply in a very regulated manner; the number of new cells formed in tissues equals the number lost by cell death or injury. Abnormal cells, however, continue to divide, not necessarily at a faster rate, but continuously. Thus, in cancer tissues, the number of new cells is greater than the number of cells lost, resulting in a tumour mass.

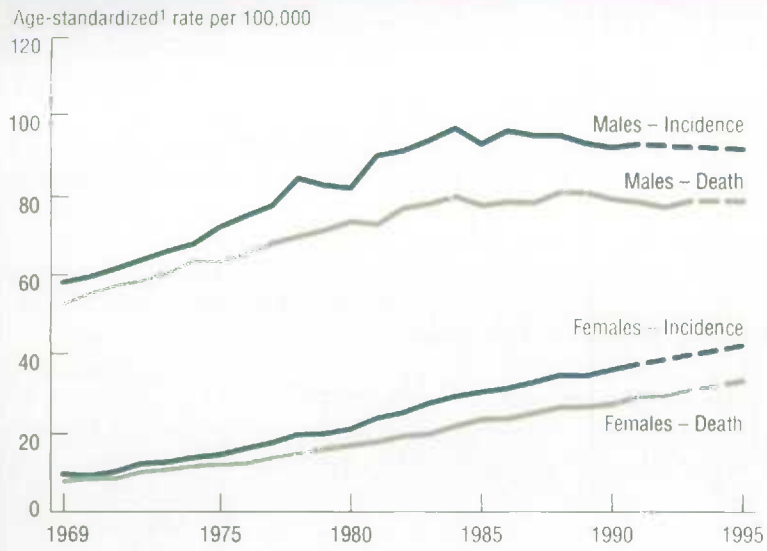
Cancer cells typically form a malignant tumour. In addition, some of the cancer cells may spread to other parts of the body through blood vessels or lymph channels. Often, secondary tumours are responsible for symptoms and death.

Sources: **Cancer Nursing: Principles and Practice**, Jones and Bartlett Publishers, Third Edition, 1993, and **Progress Against Cancer**, Ministry of Health, Ontario, 1994.

1960s. In 1995, an estimated 79 of every 100,000 males will die of lung cancer, up from 52 in 1969. In contrast, the female lung cancer death rate is still rising. An estimated 33 of every 100,000 females will die as a result of lung cancer in 1995, four times the 1969 rate of 8 of every 100,000.

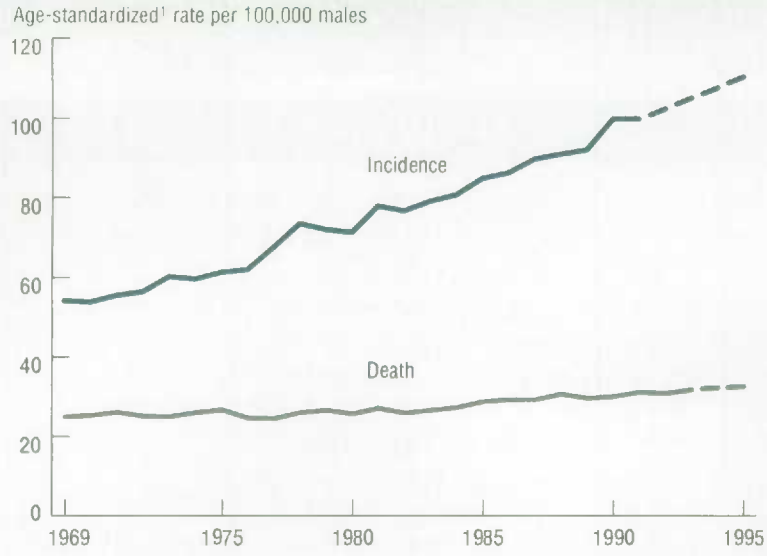
Lung cancer is one of the most preventable cancers, with almost 90% of deaths due to this type of cancer attributable to smoking.[5] Factors contributing to the risk of developing lung cancer include the length of time a person has smoked, the amount of tobacco consumed daily, and the tar and nicotine content of the cigarettes. In addition, second-hand smoke, often referred to as environmental tobacco smoke or ETS, appears to be related to lung cancer in non-smokers.

Lung cancer incidence and death rates, 1969-1995 CST



– – – Data estimated.
[1] Age standardized to the 1991 Canadian population.
Source: Statistics Canada, Health Statistics Division.

Prostate cancer incidence and death rates, 1969-1995 CST



– – – Data estimated.
[1] Age standardized to the 1991 Canadian population.
Source: Statistics Canada, Health Statistics Division.

Prostate cancer incidence and death rates increasing Prostate cancer is the only leading male cancer that is still increasing. In 1990, for the first time, the incidence rate of prostate cancer surpassed that of lung cancer among men. For every 100,000 males, there will be an estimated 110 new cases of prostate cancer in 1995, double the rate in 1969 (54 for every 100,000). Much of this increase, however, is due to the increasingly widespread use of medical procedures, including blood tests, that enable the detection of early staged tumours.

Deaths due to prostate cancer are also becoming more prevalent, with most of the increase occurring since the early 1980s. In 1995, an estimated 33 of every 100,000 males will die of prostate cancer, up from 26 in 1980. Throughout the 1970s, prostate cancer was responsible for between 25 and 27 deaths for every 100,000 males.

Incidence of breast cancer increasing, but death rate stable In 1995, an estimated 103 of every 100,000 females will be diagnosed with breast cancer, up from 78 in 1969. Although part of the increase may be related to early detection through breast self-examination, as well as increased mammography screening, the actual incidence of breast cancer is likely also rising. This may be due, in part, to changes in childbearing patterns. Women today are, on average, more likely than women in the past to have their first child at a later age, and to have fewer children or no children at all. These factors are believed to increase the risk of developing breast cancer. Nonetheless, to date, most of the rise in breast cancer incidence has occurred among women aged 60 and over.

Although the incidence of breast cancer has risen, the rate of death due to this type of cancer has been stable since the late 1960s. In 1995, an estimated 31 of every 100,000 females will die of this disease.

Colorectal cancer incidence and death rates declining in recent years The incidence of male colorectal cancer is estimated to be slightly lower in 1995 (62 new cases for every 100,000 males) than it was at its peak in 1985 (66 for every 100,000). It is still much more common, however, than in 1969 when 50 of every 100,000 males were diagnosed with this type of cancer. The trend was similar among females, although the rate has declined much faster since the mid-1980s. For every 100,000 females, the number of new cases of colorectal cancer rose from 43 in 1969 to 50 in 1985, before declining to an estimated 41 in 1995.

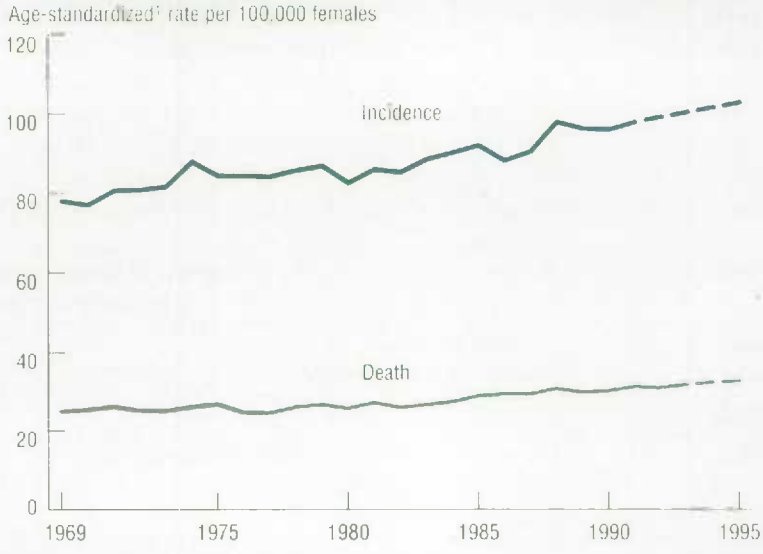
Colorectal cancer death rates among both men and women are lower now than in the late 1960s. The male rate, however, declined more slowly than the female rate. An estimated 25 of every 100,000 males will die of colorectal cancer in 1995, down from 31 in 1969. Among females, the rate is expected to drop to an estimated 15 deaths for every 100,000 females in 1995, from 25 deaths in 1969.

Changes in the diet of Canadians may have contributed to the decline in colorectal cancer. For example, evidence currently links large bowel cancer with the consumption of saturated fat and red meat. The consumption of dietary fibre, as well as fruits and vegetables, many of which contain vitamins A, C and E, appears to have a protective effect against colorectal cancer. The specific foods and compounds responsible for such an effect, however, have not been positively identified. Declines in mortality due to colorectal cancer may also result from more widespread use of methods for early detection that often allow more effective treatment of the disease, particularly among elderly people.

Incidence of melanoma has increased sharply Melanoma, a type of skin cancer, is expected to account for a small proportion of estimated cancer cases diagnosed in 1995 (2%), and an even smaller share of deaths (1%). Nonetheless, over the past two decades, the incidence of this type of cancer has increased sharply among both men and women. The number of new cases for every 100,000 males was estimated to be four times higher in 1995 (12) than in 1969 (3). For every 100,000 females, the rate almost doubled to 9 from 5 over the same period.

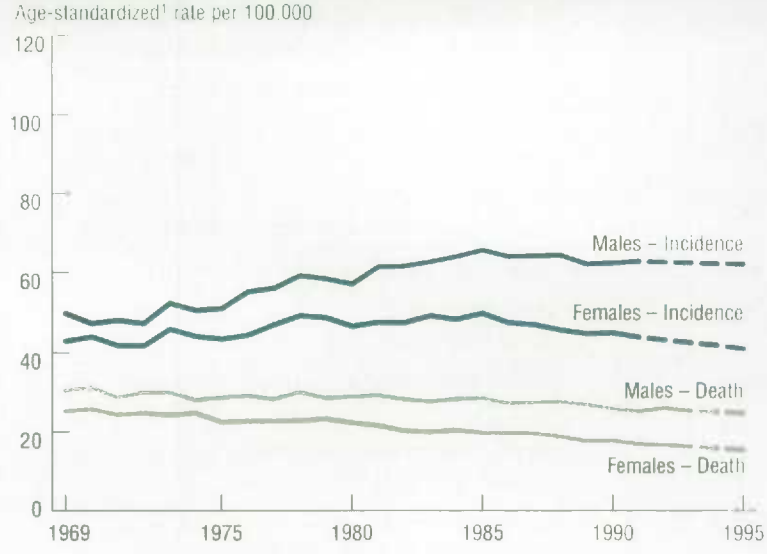
Although the major risk factor for melanoma is exposure to ultraviolet rays (UVRs) from the sun or from tanning machines, the exact nature of the relationship remains uncertain. Light-haired, light-skinned people, and those who burn

Breast cancer incidence and death rates, 1969-1995 CST



– – – Data estimated.
[1] Age standardized to the 1991 Canadian population.
Source: Statistics Canada, Health Statistics Division.

Colorectal cancer incidence and death rates, 1969-1995 CST



– – – Data estimated.
[1] Age standardized to the 1991 Canadian population.
Source: Statistics Canada, Health Statistics Division.

[5] For a more detailed discussion on smoking-related cancer mortality, see "Trends in mortality from smoking-related cancers, 1950 to 1991" in this issue of **Canadian Social Trends**.

Estimates of potential effects of prevention or early detection on cancer incidence

According to research for the Cancer and Palliative Care Unit of the World Health Organization,[1] a portion of cancer cases in Canada are potentially preventable, given current knowledge of risk factors. Lifestyle choices, such as smoking and diet, in particular, have been identified as the predominant determinants of human cancer.

The percentage of cancer cases that are potentially preventable was derived by comparing age-standardized cancer rates in Canada to those of countries where populations were largely Caucasian, and where cancer rates for different sites were lowest. It provides an indication of the effect that would be achievable if Canadians were to have the same lifestyle as people in the countries compared.

Cancer site	Action	Percentage of cancer incidence potentially preventable
Lung	Eliminate smoking Reduce occupational exposure to carcinogens	60%
Prostate	Reduce fat consumption	78%
Breast	Reduce fat and increase vegetable consumption Reduce obesity (postmenopausal women) Screen women aged 50 to 69	70%
Colorectal	Reduce fat and increase vegetable consumption	77%
Lymphoma	Reduce exposure to herbicides and pesticides	86%
Bladder	Eliminate smoking and reduce dietary cholesterol Reduce occupational exposure to carcinogens	73%
Body of the uterus	Reduce obesity Benefit from the protective effect of oral contraceptives (women aged 20 to 54)	82%
Stomach	Reduce nitrite in cured meats and salt-preserved foods, and increase fruit and vegetable consumption	52%
Leukemia	Reduce exposure to radiation and benzene	70%
Oral	Eliminate smoking and reduce alcohol consumption Increase fruit and vegetable consumption	68%
Pancreas	Eliminate smoking Reduce sugar and increase vegetable consumption	64%
Melanoma of the skin	Reduce unprotected exposure to sunlight	77%
Kidney	Eliminate smoking Reduce fat consumption	67%
Brain	Reduce occupational exposure to carcinogens	70%
Ovary	Reduce fat consumption Benefit from the protective effect of oral contraceptives (women aged 20 to 54)	53%
Cervix	Eliminate smoking Encourage use of barrier contraceptives Screen women aged 20 to 69	62%

[1] A.B. Miller, "Planning Cancer Control Strategies," **Chronic Diseases in Canada**, Health Canada, 1992.

and do not tan after sun exposure appear to be the most prone to developing melanoma from overexposure to UVRs. In recent years, concerns about the thinning of the ozone layer, which provides some protection against UVRs, have led to public awareness campaigns about the effects of overexposure to the sun.

Stomach cancer and cervical cancer have declined dramatically Despite increases in some cancers, many others have become less common in recent decades. Today, for example, the incidence and mortality rates of stomach cancer among both men and women are much lower than they were in the late 1960s. In 1995, for every 100,000 males, there will be an estimated 14 new cases of stomach cancer, and 9 deaths due to this disease. These rates are down from 24 cases and 24 deaths for every 100,000 males in 1969. For every 100,000 females, there will be an estimated 6 new cases and 4 deaths due to stomach cancer in 1995, down from 11 cases and 11 deaths in 1969. Declines may be partly attributable to dietary changes, such as a reduction in the consumption of cured meats and salt-preserved food, and an increase in fruit and vegetable consumption.

Cervical cancer rates dropped even faster than the rates of stomach cancer. An estimated 8 of every 100,000 females will be diagnosed with cervical cancer in 1995, down from 22 in 1969. Similarly, the mortality rate for cervical cancer dropped to 2 from 7 for every 100,000 females.

Part of the decline in cervical cancer is attributable to the detection of precancerous cells through cervical cytology screening such as Pap smears. If such cells are detected, regular monitoring is recommended so that a patient can be treated before cancer develops (often within three years). Routine cervical cancer re-screening may therefore contribute to a continued decline in this type of cancer.

Cervical cancer is likely strongly related to sexually transmitted viruses.[6] Women with a history of multiple sexual partners have the greatest exposure to such viruses. Also, those whose first sexual intercourse occurred at a young age

have a higher risk of developing cervical cancer than other women. Women can lower their risk of developing this type of cancer, however, by using barrier contraceptives, such as condoms or spermicidal foams.

Most Canadians develop or die from cancer at older ages In 1995, an estimated 72% of new cancer cases will occur among Canadians aged 60 and over. Although men overall are more likely than women to develop cancer, women are more likely than men to develop the disease at a younger age. Just over three-quarters (77%) of male cancer cases in 1995 are expected to be diagnosed among men aged 60 and over. In contrast, an estimated two-thirds (67%) of new female cancer cases will be diagnosed among women that age.

One of the main reasons for a higher incidence of cancer among younger women than among younger men is that many women develop breast cancer or cancer of the reproductive organs before age 60. In 1995, for example, an estimated 41% of new cases of breast cancer will occur among women aged 30 to 59. In contrast, only 6% of all new cases of prostate cancer will occur among men that young.

Cancer deaths also tend to be relatively uncommon among young Canadians. In 1995, an estimated 20% of cancer deaths will occur among people under age 60. Although women are much more likely than men to develop cancer at a young age, they are only somewhat more likely to die of this disease before reaching age 60. It is expected that 22% of female cancer deaths in 1995 will occur among people under age 60, compared with 18% of male cancer deaths. This is largely because the most commonly diagnosed cancer among women, breast cancer, as well as cancers of the female reproductive organs, can often be controlled with medical treatment.

Prognosis good for breast and prostate cancer, but poor for lung cancer Some types of cancer, particularly if they are diagnosed in the early stages of the disease, can be controlled. The potential prognosis for different sites can be estimated by expressing the number of cancer deaths as a percentage of new cancer cases. Two of the leading types of cancer, breast and prostate, have a very good prognosis, as does melanoma and cancer of the bladder, oral sites, uterus and cervix. For these cancer sites, estimated deaths will represent 33% or less of all new cases in 1995.

In contrast, the prognosis for lung cancer, as well as cancer of the stomach, pancreas and brain, is poor (deaths will represent more than 66% of new cases). Colorectal cancer has a fair prognosis, as does kidney and ovarian cancer, and lymphoma and leukemia. The prognosis for different types of cancer is similar for men and women.

Some cancers are largely preventable Some cancers have become less common in recent years and modest improvements have occurred in the survival rates of several cancers. For some types, early detection through screening has contributed to reduced mortality. For others, increasingly sophisticated medical treatments have improved the odds of survival.

Many forms of cancer are largely preventable because they are closely related to lifestyle. For example, tobacco use is responsible for an estimated 30% of cancer deaths.[5] A person's risk of developing lung cancer, however, can begin to decline within one year of quitting smoking.[6] The relationship between diet and cancer is more complex than that between smoking and cancer. Still, it has been estimated that a diet high in animal fats and low in fruits and vegetables may be a contributing factor to between 20% and 70% of cancer deaths.[6] Other lifestyle factors such as lack of regular exercise, also may be related to cancer, although the extent of the relationship remains unclear.

Caring for cancer patients, already a major health concern, will likely become an even more challenging issue as the population ages. Even in the past twenty-five years, the number of newly diagnosed cases has more than doubled to an estimated 125,400 in 1995, from 49,200 in 1969. Rising costs for treatment, as well as those associated with rehabilitation, pain relief and palliative care, could place additional burdens on the health-care system. Efforts to reduce the incidence of cancer through prevention may therefore become increasingly important. As the risk factors associated with cancer become more widely understood, and as Canadians become more aware of these risks, individuals will be in a better position to adapt their lifestyle to help prevent this disease.

[6] B. Cartmel, L.J. Loescher and P. Villar-Werstler, "Professional and Consumer Concerns About the Environment, Lifestyle, and Cancer," **Seminars in Oncology Nursing**, Vol. 8, No. 1, February 1992.

• For additional information on cancer trends, see **Canadian Cancer Statistics**, available from the Health Statistics Division, Statistics Canada.

Jo-Anne Belliveau is an Editor with **Canadian Social Trends** and **Leslie Gaudette** is an analyst with the Health Statistics Division, Statistics Canada.

CST

trends in mortality from smoking-related cancers, 1950 to 1991

by Paul J. Villeneuve and Howard I. Morrison

Cigarette smoking is widely recognized as the leading preventable cause of death in Canada. An estimated 20% of all deaths and about 30% of cancer deaths are directly attributable to tobacco use.[1] Deaths from cancers largely due to tobacco use have also become more common. Since the 1950s, the proportion of all cancer deaths that resulted from smoking-related cancers has risen, while the proportion due to all non-smoking-related cancers combined has declined. Today, the most common cause of cancer death is lung cancer. Nearly 90% of lung cancer deaths are due to smoking.[2] Despite the link between tobacco use and increased risk of developing cancer, many Canadians continue to smoke on a regular basis.

Smoking-related cancers up In this article, smoking-related cancers are defined as those at least 70% attributable to smoking or other forms of tobacco use. This includes cancer of the lung, oral cavity, pharynx, esophagus and larynx. Since the 1950s, death rates for these types of cancers have been rising. Standardizing for differences in the age structure of the population over time,[3] there were 75 deaths from smoking-related cancers for every 100,000 males in the early 1990s, up from 28 deaths in the early 1950s.[4] Among females, the increase in the death rate has been even faster. For every 100,000 females, the number of deaths from smoking-related cancers grew to 26 in the early 1990s from 7 in the early 1950s.

In contrast, from 1950 to 1991, the rate of death from other cancers has been relatively stable for men and has declined substantially for women. For every 100,000 males, there were between 110 and 117 deaths from non-smoking-related cancers each year from the early 1950s to the early 1990s. For every 100,000 women, the death rate from non-smoking-related cancers dropped to 94 from 121.

Dramatic increase in lung cancer death rate The overall increase in smoking-related cancer deaths since the middle of the century has been almost completely due to a sharp rise in lung cancer mortality rates. Standardizing for age differences, lung cancer accounted for 84% of male deaths from smoking-related cancers in the early 1990s, up from 62% in the early 1950s. Similarly, among females, the proportion rose to 88% from 54% over the same period.

The lung cancer death rate has climbed much faster among females than males. Between 1950 and 1991, the annual increase in lung cancer death rates averaged 5.4% for females and 3.6% for males. In addition, since the mid-1980s, the male lung cancer death rate has levelled off, while the female rate has continued to rise.

The average lag time between starting to smoke and developing lung cancer is over twenty years.[5] As a result, current lung cancer death rates reflect the smoking patterns of Canadians in the past. Since the late 1960s, the proportion of men who were regular smokers has declined considerably. It was not until the late 1980s, however, that the annual lung cancer death rate for men began to level off. On the other hand, the proportion of women who were regular smokers peaked in the early 1970s, and has declined relatively slowly since then.[6]

[1] N.E. Collishaw and K. Leahy, "Mortality attributable to tobacco use in Canada, 1989," **Chronic Diseases in Canada**, Vol. 12, No. 4, 1991.

[2] U.S. Department of Health and Human Services, **Reducing the health consequences of smoking: 25 years of progress. A report of the Surgeon General**, Public Health Service, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1989.

[3] Since the 1950s, the proportion of seniors in the population has increased and the proportion of children has fallen. The data in this article were age standardized to the 1971 Canadian population to eliminate the effects of these changes, so that death rates from different years could be compared.

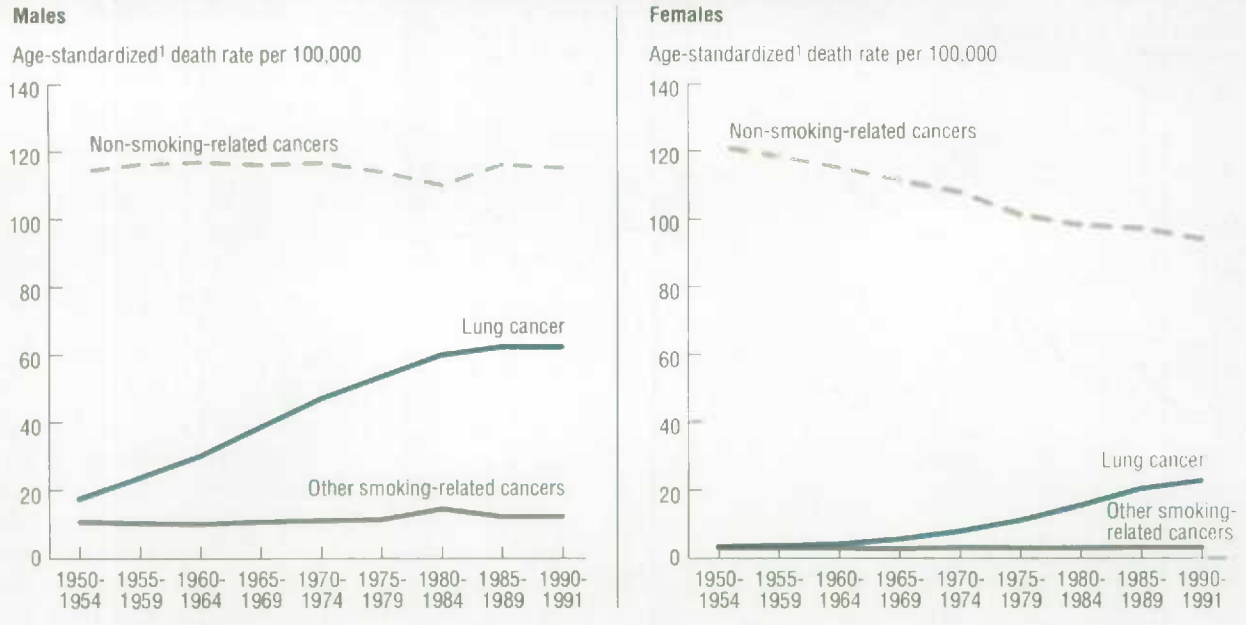
[4] Throughout this article, figures for the early 1990s represent the rate for 1990 and 1991, those for the early 1980s represent the rate from 1980 to 1984, and those for the early 1950s represent the rate from 1950 to 1954.

[5] C.C. Brown and L.G. Kessler, "Projections of Lung Cancer Mortality in the United States: 1985-2025," **Journal of the National Cancer Institute**, Vol. 80, No. 1, 1988.

[6] P. Villeneuve, Y. Mao and H. Morrison, **The benefits of smoking cessation on the mortality of middle-aged Canadians**, Bureau of Chronic Disease Epidemiology, Health Canada, 1993.

Lung cancer death rate higher now than in the 1950s

CST



[1] Age standardized to the 1971 Canadian population.
Source: Health Canada, **Chronic Diseases in Canada**, "Trends in Mortality of Selected Smoking-related Cancers, Canada, 1950-1991," Vol. 15, No. 4, Autumn 1994.

As a result, the lung cancer death rate for women continues to rise.

Lung cancer mortality highest and growing fastest among seniors By the early 1990s, there were almost 500 deaths from lung cancer for every 100,000 senior men aged 65 and over. This was five times greater than in the early 1950s, when 100 of every 100,000 senior men died of lung cancer. Similarly, among senior women, the death rate from lung cancer in the early 1990s (153 per 100,000) was six times higher than the rate in the early 1950s (25 per 100,000).

In recent years, the lung cancer mortality rate among men aged 45 to 64 has declined slightly. For every 100,000 men that age, the number of lung cancer deaths dropped to 117 in the early 1990s, from 121 during the 1980s. Before then, there had been a steady increase in lung cancer mortality. In the early 1950s, the lung cancer death rate was 48 for every 100,000 men aged 45 to 64. Among women aged 45 to 64, the lung cancer death rate rose throughout the whole period. In the early 1990s, there were 54 deaths for every 100,000 women aged 45 to 64, up from 41 in the early 1980s, and 7 in the early 1950s.

Lung cancer is rare before age 45. From 1950 to 1991, lung cancer death rates for men and women aged 25 to 44 ranged from 1 to 5 for every 100,000 people each year. Given that it takes twenty or more years to develop lung cancer, the low death rates in this age group are not surprising.

Death rates of other smoking-related cancers relatively stable Mortality rates for cancers of the esophagus, oral cavity and pharynx, and larynx are low compared to those of lung cancer, and have changed little since the 1950s. As with lung cancer, the mortality rates of these cancers are higher among men than among women. For every 100,000 males in the early 1990s, 4.8 died of esophagus cancer, 4.7 of oral cavity and pharynx cancer, and 2.8 of larynx cancer each year. For every 100,000 females, an average of 1.4 deaths were due to esophagus cancer and to oral cavity and pharynx cancer, while 0.5 were due to larynx cancer.

The reasons for such little change in mortality rates among these cancers are unclear. Oral cancer is more strongly associated with smoking pipes or cigars, and with snuff or chewing tobacco use, than with cigarette smoking.[7] Different trends in the use of various tobacco products, as well as different patterns in survival, may partly explain why lung cancer death rates have climbed, while

[7] "Cancer Epidemiology and Prevention," **Scientific American Medicine**, Chapter 12, Section I, March 1994.

CANADIAN SOCIAL TRENDS BACKGROUNDER CST

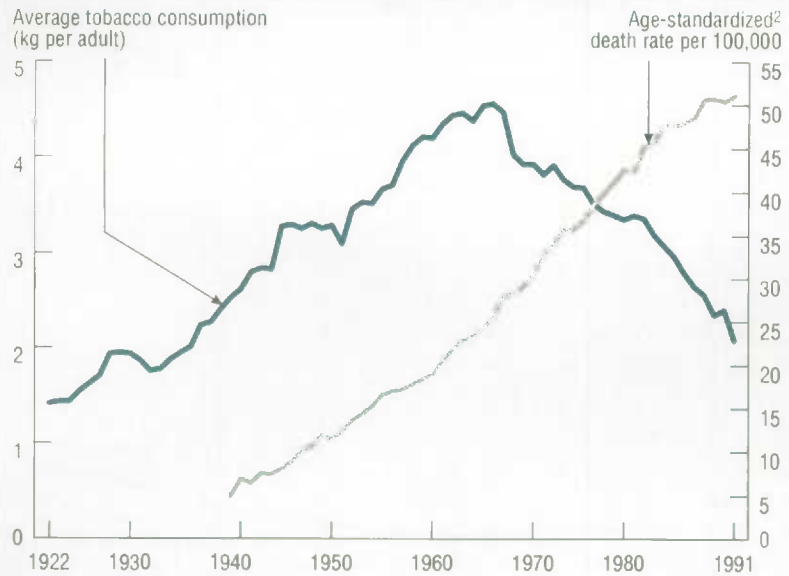
Tobacco consumption and lung cancer mortality have followed similar trends

From early in the century until the mid-1960s, smoking had become increasingly prevalent among Canadians. In the early 1920s, adults aged 15 and over each consumed an average of 1.4 kg of tobacco annually. By the mid-1960s, this had risen to an average of 4.5 kg. Since then, however, smoking has become less common, and, by 1991, average annual tobacco consumption had dropped to 2.1 kg per adult.

The average lag time between starting to smoke and developing lung cancer is over twenty years.[1] Consequently, the trend in lung cancer mortality is a reflection of the smoking habits of people at least twenty years earlier. The age-standardized lung cancer death rate rose sharply between 1940 (5 deaths for every 100,000 people) and 1988 (51 deaths for every 100,000 people), and has since remained relatively stable. This trend parallels the tobacco consumption patterns of about twenty years earlier.

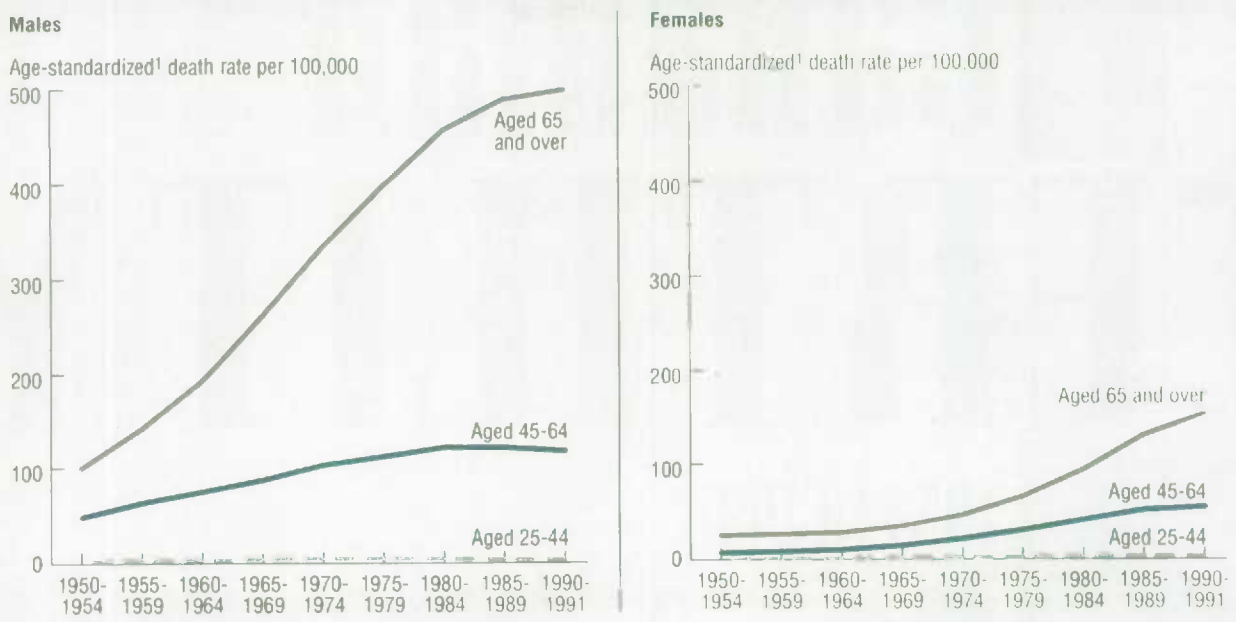
[1] C.C. Brown and L.G. Kessler, "Projections of Lung Cancer Mortality in the United States: 1985-2025," **Journal of the National Cancer Institute**, Vol. 80, No. 1, 1988.

Trends in tobacco consumption[1] and lung cancer death rate CST



[1] Excludes chewing tobacco and snuff.
[2] Age standardized to the 1991 Canadian population.
Source: Health Canada, Bureau of Chronic Disease Epidemiology

Lung cancer death rate increased most among seniors



[1] Age standardized to the 1971 Canadian population.
Source: Health Canada, **Chronic Diseases in Canada**, "Trends in Mortality of Selected Smoking-related Cancers, Canada, 1950-1991," Vol. 15, No. 4, Autumn 1994.

those of other smoking-related cancers have not. Cancers of the esophagus, oral cavity and pharynx, however, are associated not only with tobacco use, but also with alcohol consumption. The separate effects of tobacco and alcohol use are difficult to assess because heavy drinkers are often heavy smokers.

Prevention of smoking is key to reducing cancer mortality Cancers caused by tobacco use are the primary reason why overall cancer mortality has increased since the 1950s. If smoking-related cancer deaths were excluded from the total number of cancer deaths, the female mortality rate would have declined from 1950 to 1991, while the male rate would have remained unchanged. Despite the health risks associated with tobacco use, smoking rates remain high and have recently increased among teenagers.

Governments, and private and non-profit organizations have taken measures to promote the elimination of smoking. In most jurisdictions, smoking in workplaces and public places is prohibited. Controls on the advertising of tobacco products and regulations requiring health warnings on cigarette packaging have been implemented. Also, aggressive anti-smoking education programs in schools and anti-smoking advertising campaigns have been introduced.

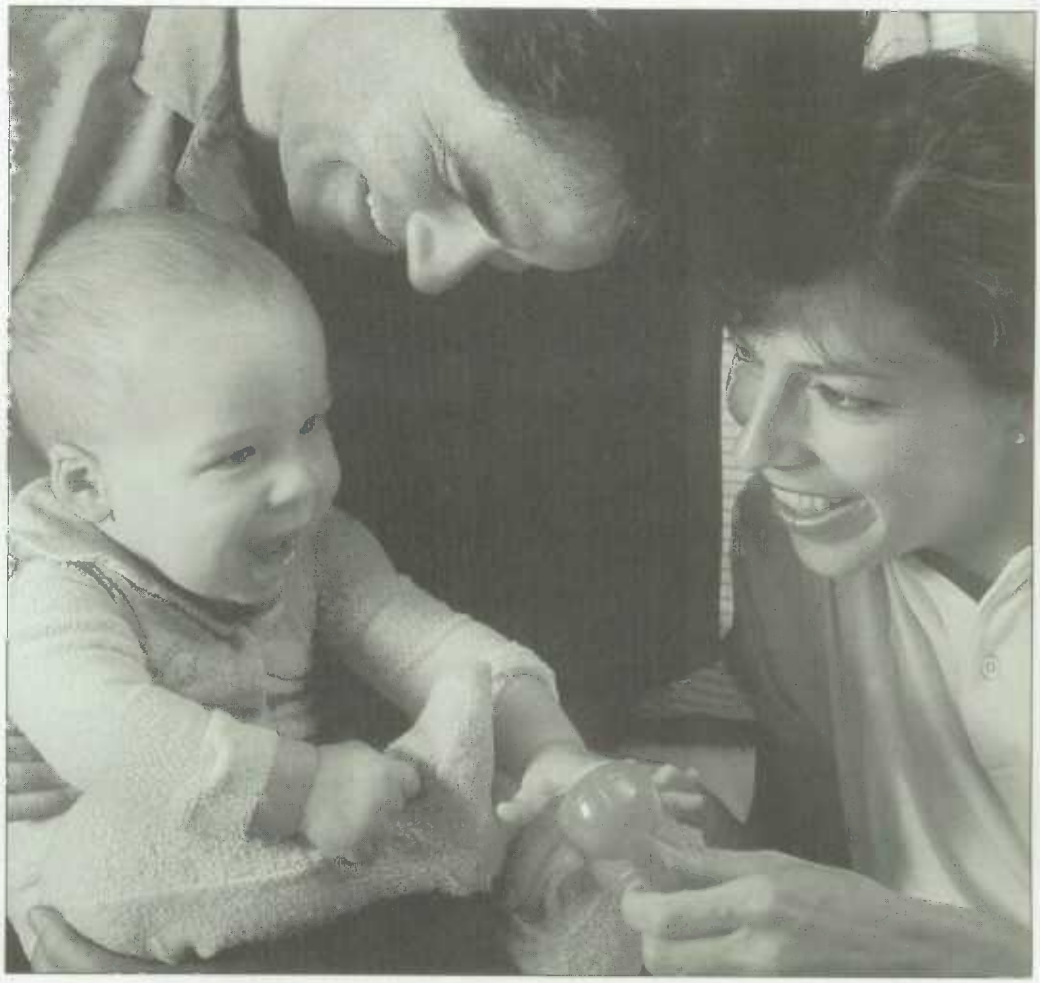
The affordability of cigarettes is one of the many factors which influences the prevalence of smoking, particularly among young smokers. The recent lowering of cigarette taxes by the federal government and the reduction of planned funding for its anti-smoking campaign have been controversial measures, and their ultimate effects are difficult to predict. Nonetheless, preventing new generations of smokers and encouraging current smokers to quit remain the most effective tools for reducing future cancer mortality rates.

• This article was adapted from "Trends in Mortality of Selected Smoking-related Cancers, Canada, 1950-1991" by Paul J. Villeneuve, Howard I. Morrison and Jey Elaguppillai, published in **Chronic Diseases in Canada**, Vol. 15, No. 4, pp. 123-128, Autumn 1994, Health Canada.

Paul J. Villeneuve is an analyst and **Howard I. Morrison** is an epidemiologist with the Cancer Division, Bureau of Chronic Disease Epidemiology, Laboratory Centre for Disease Control, Health Canada.

Canadian FERTILITY

1951 to 1993



from BOOM to BUST to STABILITY?

by Carl F. Grindstaff

Since before Confederation and continuing to the present time, Canada has been undergoing a demographic transition from a population with high birth and death rates to one with low birth and death rates. There are many reasons why this transition is occurring. With industrialization and urbanization came a separation of home and workplace, and an increasing demand for more technically skilled or educated workers. These changes resulted in a movement toward compulsory education programs for children and decreased involvement of children in family labour or paid work. Also accompanying industrialization were advancements in medicine, sanitation and personal hygiene practices, which together virtually eliminated many infectious diseases previously responsible for the majority of premature deaths among children and adults. With a reduced chance of early childhood death and a change from children as income earners to dependents, parents' desire for large families decreased. At the same time, advancements in contraceptive methods, particularly the introduction of oral contraceptives in the 1960s, facilitated the planning of smaller families.

As the twenty-first century approaches, Canadian society also appears to be undergoing a transition, similar to that in Europe, from an adherence to tradition and traditional institutions to an emphasis on individualism, secularism and personal development.[1] Social changes in the past thirty years provide evidence of this transition. These changes include rising educational attainment among men and women; greater and more diverse participation of women in the labour force (including women with preschool children); rising age at marriage; relatively high levels of marriage dissolution due to divorce; rising levels of lone-parent families; high levels of dual-income, husband-wife families; and cohabitation as a prevalent form of partnership.

Accompanying these transitions has been an overall decline in women's fertility, and an increasing trend toward the postponement of childbearing. During the last half of the twentieth century, there was an initial increase in women's fertility, during the baby boom, followed by a rapid and substantial decline in fertility and then a fairly long period of relative stability, with fertility rates at historically low levels. During this period of low fertility rates, the age at which women were having children also increased, with most women delaying childbirth to their late twenties and thirties.

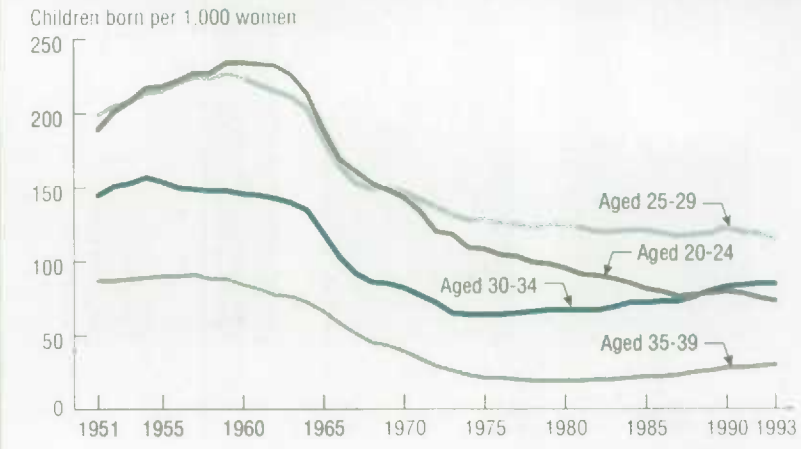
Fertility rates have been low and stable since the mid-1970s During the height of the baby boom, the number of children born in Canada each year increased by over 25%, rising to 479,300 in 1959 from 381,100 in 1951. From that point until the early 1970s, however, the number of children born annually decreased, falling to 343,400 in 1973. Thereafter, the number of births increased slowly to 405,500 in 1990 before falling again to 388,400 in 1993.

Although the number of children born annually increased during the 1970s and 1980s, this growth was due to an increasing population of women of childbearing age and not to higher fertility among women. From 1959 to 1987, the average number of children born per woman of childbearing age (the total fertility rate) declined by nearly 60% from 3.94 to 1.58. Since then, the rate rose to 1.71 in 1990 and then declined to 1.66 in 1993. At no time since the early 1970s, however, has the rate equalled or exceeded 2. At 2 births per woman, each parent has a replacement in the next generation. With fertility rates below 2, the population cannot be maintained through the birth of children alone. In general, the number of births and the birth rate have been stable for the past generation, but the timing of births across age groups has changed.

Births to women aged 30 to 34 becoming more common Canadian women are more likely today than they were thirty years ago to give birth to their first child toward the end of their reproductive lives. Since the late 1970s, in particular, the fertility rate of women in their early twenties has fallen, while that of women in their thirties has risen.

During the 1960s, the number of births for every 1,000 women was highest for women aged 20 to 29, with more children born to women aged 20 to 24 than to those aged 25 to 29. By 1971, fertility rates had fallen among women of all ages, but were slightly higher for women aged 25 to 29 than for those aged 20 to 24. This trend toward motherhood at older ages continued and by the late 1970s, the fertility rate of women aged 20 to 24 was less than half of that in the early 1960s. Also, for the first time since

Fertility of women in their early 30s now exceeds that of women in their early 20s

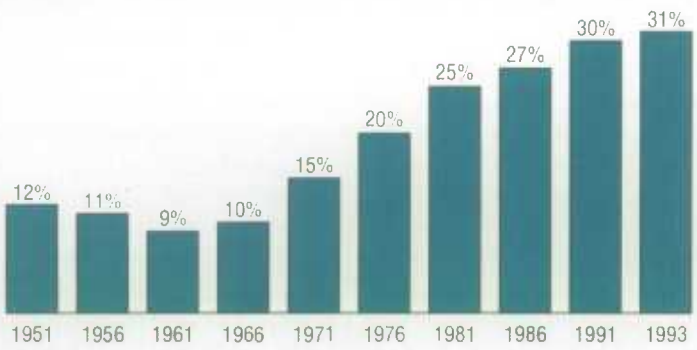


Note: Data for 1951 to 1990 exclude Newfoundland.
Source: Statistics Canada, Catalogues 82-553 and 84-210.

[1] D.J. van de Kaa, "Europe's Second Demographic Transition," **Population Bulletin**, Vol. 42, No. 1, 1987.

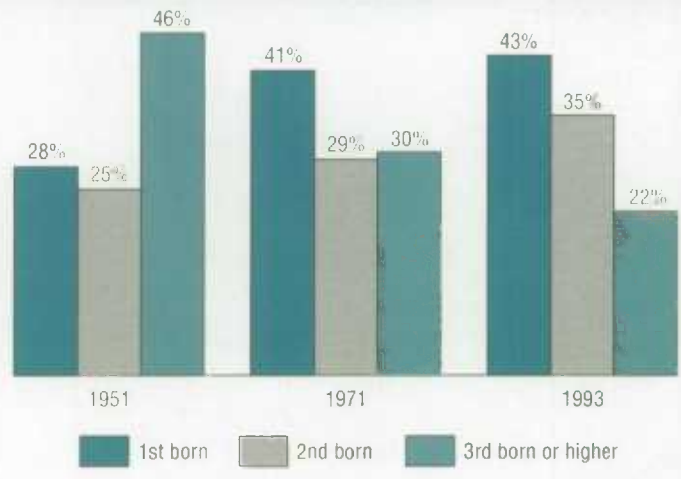
Proportion of all births that were to women aged 30-34

Proportion of all births that to women aged 30-34 that were first-born children



Note: Data for 1951 to 1981 exclude Newfoundland.
Source: Statistics Canada, Catalogues 82-553 and 84-210.

43% of children born in 1993 were their mother's first child



Note: Data for 1951 and 1971 exclude Newfoundland.
Source: Statistics Canada, Catalogues 82-553 and 84-210.

the 1950s, the level of fertility was not falling among women aged 30 to 34.

Since then, fertility rates have continued to decline among women in their twenties, but have increased among women in their thirties. By 1989, women aged 30 to 34 had higher fertility rates than did those aged 20 to 24, although women aged 25 to 29 had the highest rates of fertility.

As a result of these changes in fertility rates, the proportion of all births that were to young women has fallen. Throughout the 1970s and 1980s, the proportion of all births that were to women aged 20 to 24 declined, falling to less than 20% in 1993 from 36% in 1971. In contrast, the proportion of all births that were to women aged 30 to 34 doubled, rising to 29% in 1993 from 14% in 1971.

Women aged 30 and over more likely today to be having their first child

Forty years ago, births among women aged 30 and over were common, but most occurred because women had large families and, at that age, were having at least their third child. Today, many women aged 30 to 34 who give birth are doing so for the first time.

During the 1950s and 1960s, about one child in ten born to women aged 30 to 34 was a first-born child. By the 1990s, this ratio was almost one in three. Correspondingly, from 1956 to 1966, about half of all children born to women aged 30 to 34 entered a household where there were already three or more children. By the late 1980s, this happened about once in ten families.

This trend toward having a first child later in life is also present among women aged 40 to 44, although very few children are born to women this age (1% of all births). In the 1950s and 1960s, about 5% of children born to women aged 40 to 44 were first-born children and over 75% were a fourth child or higher. By the 1990s, however, just over one-half of all children born to women that age were a first or second child.

Women are having fewer children and childlessness is becoming more common The proportion of all children born that were a first or second child has increased dramatically over the past forty years, while births of a seventh child or higher have virtually disappeared. Of all

Fertility trends differ in Canada's three largest provinces

Fertility patterns in Ontario, Quebec and British Columbia have differed over the past forty years, with greater swings in fertility occurring in Quebec. During the 1950s, the fertility rate of Quebec women was higher than that of women in British Columbia and Ontario. In the 1960s, however, that pattern reversed and the fertility rate in Quebec fell below that of the other two provinces. By the mid-1970s, the fertility rate in Quebec approached that of the other two provinces, but then dropped again in the 1980s. By the early 1990s, fertility rates in all three provinces converged to similar levels.

The total fertility rate in 1993 was 1.61 children per woman of childbearing age in Quebec and British Columbia, and 1.64 children per woman that age in Ontario. All of these fertility rates were well below 2, the level at which parents from this generation replace themselves with children for the next. Although fertility rates were low, rates in Quebec were higher in the early 1990s than they had been at any time since the 1970s. In Ontario and British Columbia, rates had been fairly constant since the mid-1970s.

In 1951, Quebec had the highest number of births of any province in Canada, and the total number of children born in Quebec that year accounted for nearly one-third of all births. During the next forty years, however, with higher fertility in the rest of Canada, the proportion of all births that occurred in Quebec declined steadily. By the mid-1980s, the proportion of all births that were in Quebec reached a low of under 23%. At that time, the fertility rate of women in Quebec, at 1.4 children per woman of childbearing age, was one of the lowest rates anywhere in the world.

In 1987, the Quebec government developed a policy statement to encourage an increase in the number of children born, and subsequent budgets provided birth allowances with a maximum of $500 for a first child, $1,000 for a second child and $8,000 for all further children.[1] From 1987 to the early 1990s, the fertility rate in Quebec increased, rising to 1.65 children per woman of childbearing age in 1991 and 1992. By 1993, however, the fertility rate had fallen to 1.61.

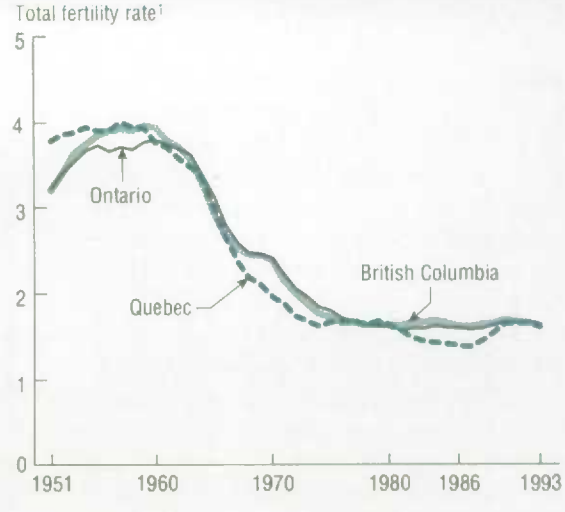
Historically, young women in Quebec have had lower birth rates than young women in Ontario and British Columbia. In 1951, for example, there were 176 births for every 1,000 women aged 20 to 24 in Quebec, compared with 186 births in Ontario and 193 births in British Columbia. In the early 1990s, however, the fertility of young Quebec women grew to exceed that of young women in the other two provinces. At its peak in 1990, there were 80 births for every 1,000 women aged 20 to 24 in Quebec, compared with 68 births in Ontario and 78 births in British Columbia. The increase in births to women this age in Quebec seems to parallel the introduction of the new system of Quebec birth allowances. From 1985 to 1988, there were between 69 and 72 births for every 1,000 Quebec women aged 20 to 24. The rate then rose to 76 per 1,000 in 1989 and to 80 per 1,000 in 1990 and 1991. By 1993, however, the rate had fallen to 75 per 1,000 women.

From the early 1950s to the late 1970s, the birth rate for women aged 30 to 34 was generally higher in Quebec than in Ontario and British Columbia. Since then, however, the birth rate among women aged 30 to 34 has been lower in Quebec than in the other two provinces. In 1993, there were 80 births for every 1,000 Quebec women aged 30 to 34, compared with 93 births in Ontario and 84 births in British Columbia. Although the birth rate was lower among Quebec women aged 30 to 34 than among women that age in Ontario and British Columbia, it was much higher in the early 1990s (between 76 and 80 births per 1,000 women) than it had been in the mid-1980s (between 59 and 62 births per 1,000 women).

Compared to women in Ontario and British Columbia, the largest drop in fertility over the past half-century has occurred in Quebec. Although fertility may increase in Quebec in the future in response to the provincial government's program of financial incentives to increase family size, annual growth in fertility rates in Quebec since the introduction of these birth allowances has been modest, and in recent years, rates have declined.

[1] **Statistics Related to Income Security Programs**, Human Resources Development, March 1995, and C. Le Bourdais and N. Marcil-Gratton, "Quebec's Pro-Active Approach to Family Policy: Thinking and Acting Family," **Canada's Changing Families: Challenges to Public Policy**, The Vanier Institute of the Family, 1994.

Fertility declined in Canada's three largest provinces CST



[1] Average number of children born per woman of childbearing age.
Source: Statistics Canada, Catalogues 82-553 and 84-210.

children born in 1993, 43% were a first child and 35% were a second child. In contrast, 28% of births in 1951 were a first child and 25% were a second child. In 1993, only 7% of children were born to mothers who already had three or more children, and less than 1% of children were born to mothers with six or more children. In 1951, on the other hand, 29% of children were born to mothers with three or more children and 9% to mothers with six or more children.

Childlessness has also become more common in recent years. Of women who had ever been married, the proportion aged 35 to 39 who had never given birth grew to 13% in 1991 from 7% in 1971, and 9% in 1961 and 1981. Similarly, the proportion of ever-married women aged 25 to 29 who were childless tripled to 38% in 1991 from 14% in 1961. A large proportion of these women, however, will likely have children later in life.

Implications of continued low fertility The consequences of declining birth rates are different for individuals than they are for society. For individuals, having fewer children and delaying childbearing may mean having more time and money to invest in each child and in their own personal development, as well as an increased opportunity to attain a higher standard of living. For society as a whole, however, falling birth rates lead to an aging of the population and a shrinking of the labour force. While the overall impact of these changes is unclear, a smaller proportion of the population with employment may decrease tax revenue for government programs at the same time as a rising proportion of seniors increases demand for income security programs and medical care. Governments have reacted to these changes by increasing immigration and, in the case of Quebec, creating a program of financial incentives for parents to have more children. These measures have not compensated for low fertility and the population has continued to age. It is not likely, however, that this aging will continue past the first half of the next century. With continued low fertility rates, it is expected that there will be a relatively even distribution of the population across all age groups, once the large number of baby boomers have died.

Dr. Carl F. Grindstaff is a professor with the Department of Sociology, University of Western Ontario.

CST

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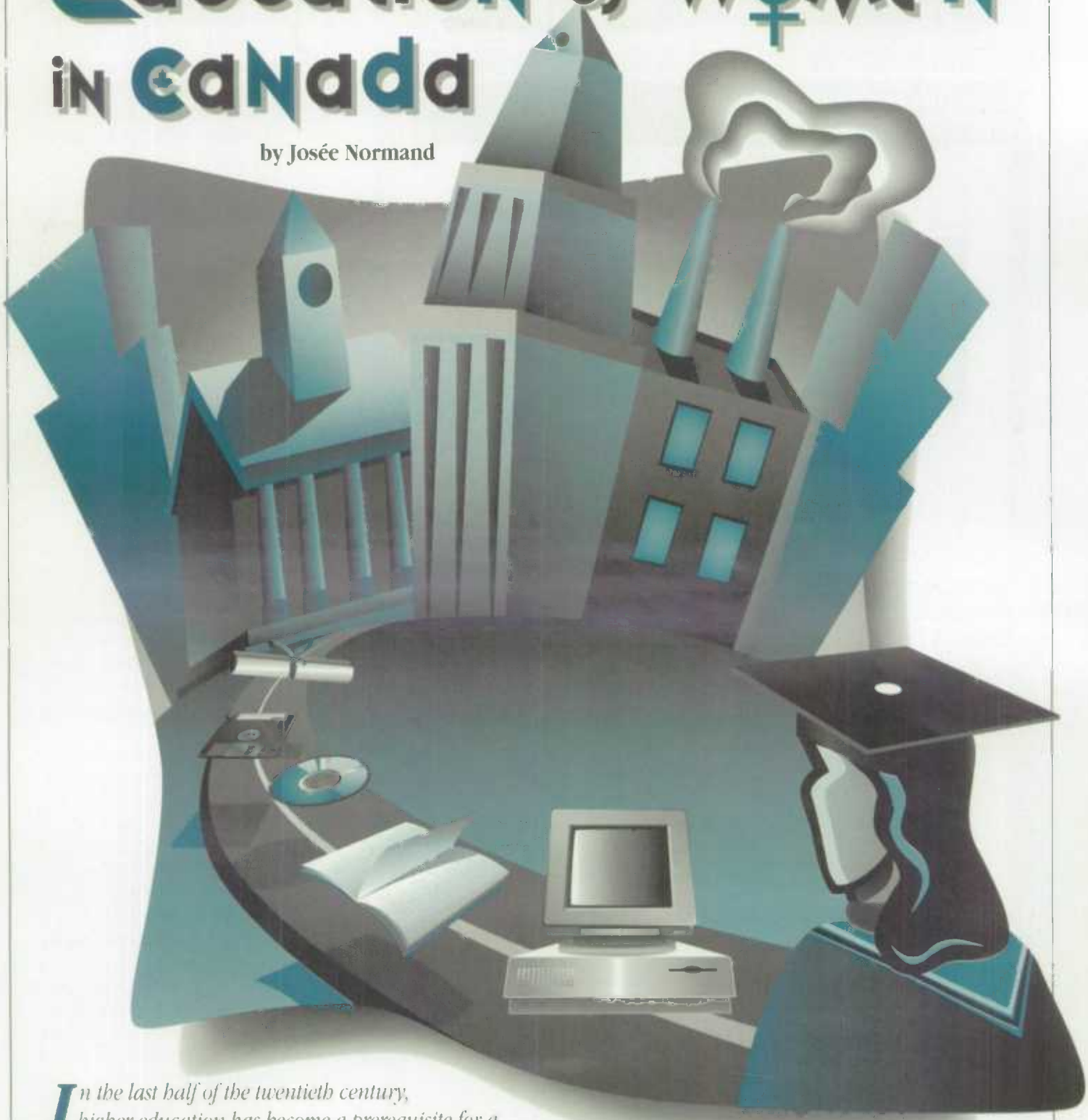
Education of Women in Canada

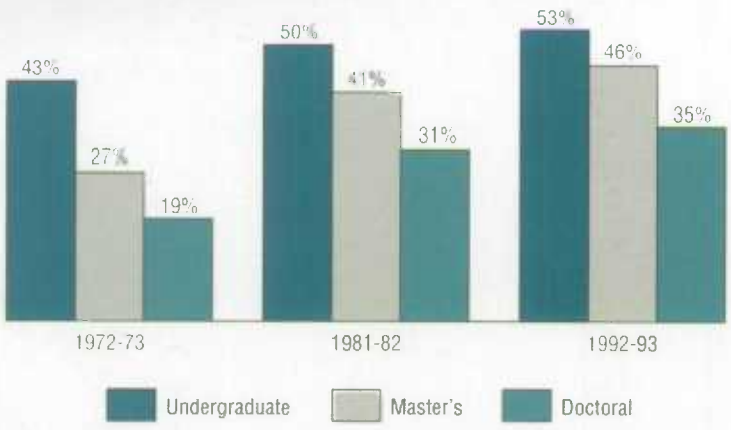
by Josée Normand



In the last half of the twentieth century, higher education has become a prerequisite for a growing share of occupations, and a requirement of most jobs paying above average wages. Moreover, the department of Human Resources Development estimated that just under one-half of jobs created during the 1990s will require more than sixteen years of education or training. Thus, for both women and men, the attainment of a postsecondary education has become increasingly important.

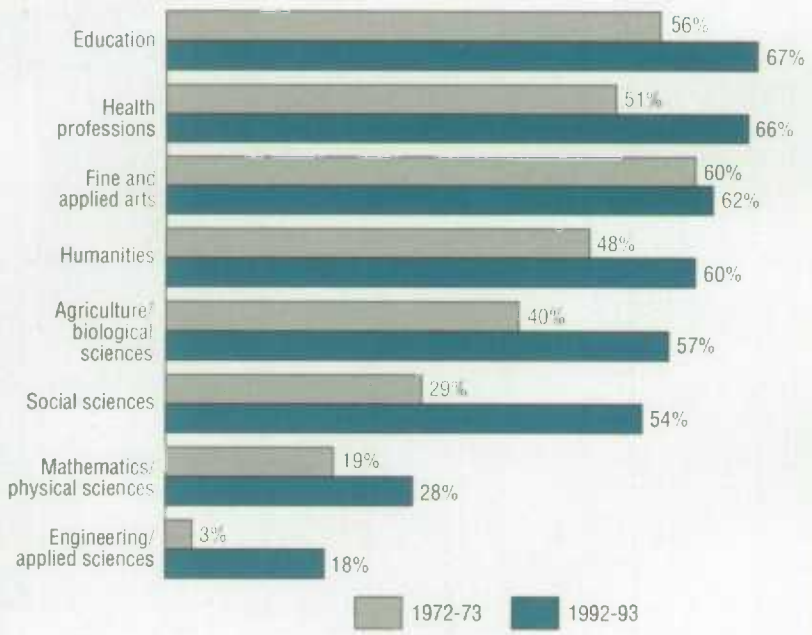
Men's enrolment in universities and colleges grew rapidly immediately following the Second World War. Among women, on the other hand, most of the increase in enrolment in higher education occurred during the past twenty-five years. Also over this time, women's labour force participation rose sharply, and women increasingly entered higher-paying occupations.

Women as a proportion of full-time enrolment, by level, 1972-73 to 1992-93 CST



Source: Statistics Canada, Education, Culture and Tourism Division.

Women as a proportion of total full-time university enrolment,[1] 1972-73 and 1992-93 CST



[1] Includes undergraduate and graduate students, except those in graduate certificate and diploma programs.
Source: Statistics Canada, Education, Culture and Tourism Division.

Despite improvements in educational attainment, however, women are still concentrated in female-dominated fields of study at both the university and community college level. At the same time, they continue to be underrepresented in many of the engineering, mathematics and applied science programs. In addition, although women now account for the majority of students at the undergraduate level, they remain the minority at the graduate level.

Proportion of women with a university education increasing rapidly Over the past two decades, the proportion of women with a university degree increased faster than the proportion of men with this level of education. By 1991, 10% of women aged 15 and over had a university degree, up from only 3% in 1971. Over the same period, the proportion of men with a university degree increased to 13% from 7%. Nonetheless, the proportion of women with this level of education remained lower than that of men.

Both women and men were almost twice as likely in 1991 as in the early 1970s to have other postsecondary education, such as a diploma or some university or college courses. The proportion of women with this level of education rose to 32% in 1991 from 18% in 1971. Similarly, the proportion among men rose to 31% from 17%.

Given these increases in educational attainment, it is not surprising that relatively few women and men have less than a Grade 9 education. In 1991, 14% of both women and men had this level of education, less than half the proportions in 1971 (31% of women and 33% of men).

Young women more likely to be highly educated than young men In 1991, 10% of women aged 20 to 24 had a university degree, compared with 8% of men that age. Young women were also more likely (21%) than young men (14%) to have a postsecondary certificate or diploma.

Women aged 25 to 44, on the other hand, were less likely than men that age to have a university degree (16% compared with 18%), but were more likely to have a postsecondary certificate or diploma (22% compared with 17%). Both senior women and men tended to have

less formal education than did younger people. Among seniors, 3% of women and 8% of men were university graduates, and 9% of women and 6% of men had a postsecondary certificate or diploma.

Women majority at undergraduate level, but not in graduate schools The difference in the proportions of all women and men with a university degree will likely close even further in the future, because women's share of university enrolment is higher now than it was during the 1970s. At the undergraduate level, women accounted for 53% of full-time enrolment in 1992-93, up from 43% in 1972-73. The proportion of women at the graduate level increased even more rapidly over the two decades. In 1992-93, 46% of full-time Master's students and 35% of full-time doctoral students were women, up from 27% and 19%, respectively, in 1972-73. As a result of these increases, most full-time university students were women in 1992-93 (52%).

Few women enrolled in mathematics or engineering At the undergraduate level, women accounted for the majority of full-time enrolment in 1992-93 in six out of eight major fields of study: health professions (68%), education (67%), fine and applied arts (62%), humanities (61%), agriculture and biological sciences (59%) and social sciences (54%). Women remain underrepresented, however, in mathematics and the physical sciences (30%), and in engineering and applied sciences (19%).

At the Master's level, women accounted for the majority of full-time enrolment in four major fields of study: education (66%), health (62%), fine and applied arts (59%), and humanities (56%). At the doctoral level, however, education was the only major program in which women accounted for the majority of full-time students (60%).

Similar to the situation at the undergraduate level, relatively few women were enrolled in graduate studies in mathematics or engineering. Of all full-time students at the Master's level, women accounted for 27% of those in mathematics and the physical sciences, and 18% of those in engineering and applied sciences, proportions similar to those at the undergraduate level. At the doctoral level, however, the proportions were lower: 19% in mathematics and the physical sciences, and only 11% in engineering and applied sciences.

At the undergraduate level, part-time studies more common among women Almost 200,000 women were attending university part-time in 1992-93. Part-time enrolment accounted for 40% of total enrolment of women, compared with about 30% of that of men.

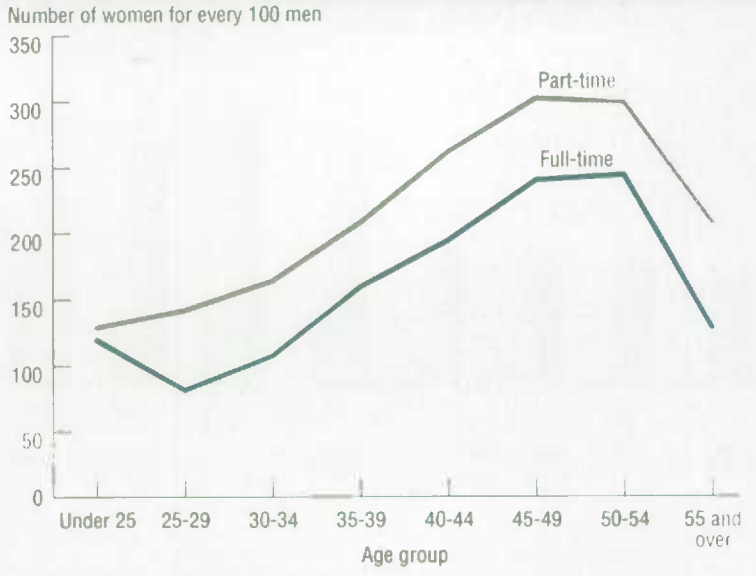
At the undergraduate level, the number of women studying part-time in 1992-93 (175,800) was much higher than that of men (102,400). As a result, women accounted for 63% of part-time undergraduate students. At the graduate level, however, the number of women enrolled part-time (22,100) was only slightly above that of men (20,600), and women accounted for just over one-half (52%) of part-time graduate students.

Women as a proportion of full-time enrolment, by level, 1992-93 CST

Field of study	Undergraduate	Master's	Doctoral
		%	
Health professions	68	62	43
Education	67	66	60
Fine and applied arts	62	59	46
Humanities	61	56	46
Agriculture/biological sciences	59	50	33
Social sciences	54	47	45
Mathematics/physical sciences	30	27	19
Engineering/applied sciences	19	18	11

Source: Statistics Canada, Education, Culture and Tourism Division

Ratio of female to male undergraduates, 1992-93 CST



Source: Statistics Canada, Education, Culture and Tourism Division

CANADIAN SOCIAL TRENDS BACKGROUNDER

When education was less valued, men left school earlier than did women

In the early part of this century, the proportion of women aged 15 to 19 who were attending school exceeded that of men.[1] This was perhaps because, at that time, there were fewer employment opportunities for young women than for young men. By 1951, however, the situation had reversed and proportionately more young men aged 15 to 19 were attending school. In the following decade, young men remained more likely to be in school, although school attendance became much more common among both women and men. During that period, the educational requirements of many occupations were rising and enrolment of young men in university programs began to grow. At the same time, increased urbanization resulted in greater employment opportunities for young women. This was perhaps why school attendance did not increase as much among young women as it did among young men.

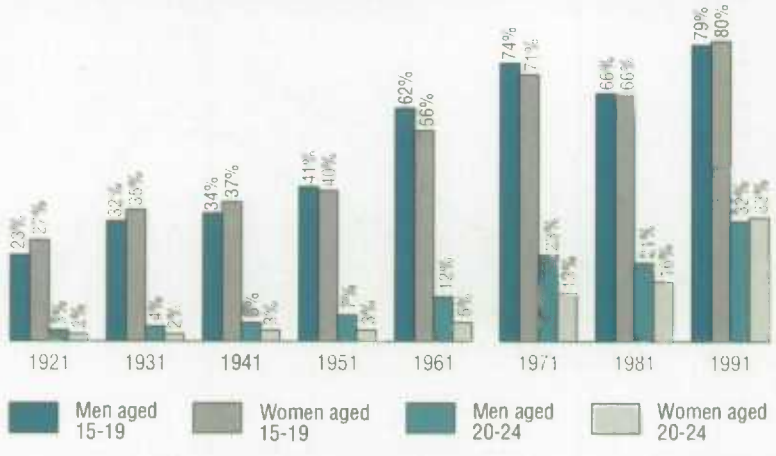
Since the 1960s, the proportion of women and men aged 15 to 19 who were attending school has continued to rise. It was not until 1981, however, that the proportion of women attending school equalled that of men.

In contrast, from 1921 to 1981, men aged 20 to 24 were proportionately more likely than women that age to be attending school. By 1981, however, the gap between the proportions for men and women narrowed considerably. In 1991, the proportion of women aged 20 to 24 attending school full-time[2] equalled that of men.

[1] Discussion of trends from 1921 to 1961 is from Statistics Canada, 1961 Census of Canada, Vol. 7, Part 1, General Summary and Review, p. 10-5. Data exclude Newfoundland, and the Yukon and Northwest Territories.

[2] From 1971 to 1991, full-time attendance was used to best approximate the concepts used in earlier years.

Proportion of young men and women attending school, 1921-1991[1]



[1] From 1971 to 1991, full-time attendance was used to best approximate the concepts used in earlier years. Data from 1921 to 1961 exclude Newfoundland, and the Yukon and Northwest Territories.
Source: Statistics Canada, 1961 Census of Canada, Vol.7, Part 1 and Catalogues 92-742, 92-743, 92-914 and 93-328.

Part-time university attendance was most common among women aged 25 and over. In 1992-93, only 7% of female undergraduates under age 20 and 19% of those aged 20 to 24 were enrolled part-time. In contrast, 60% of female undergraduates aged 25 to 29 and 87% of those aged 40 to 44 were part-time students. The proportion of male undergraduates who were enrolled part-time also rose at a similar rate with increased age.

More women undergraduates in most age groups Since students under age 25 studying full-time made up about one-half (54%) of all undergraduates in 1991, it was the growing number of women under age 25 that was mainly responsible for the female majority on campus. Nonetheless, among students in undergraduate programs, women outnumbered men in most age groups.

Of full-time students under age 25 in 1991, there were 119 women for every 100 men. This ratio declined to a low of 81 women for every 100 men among those aged 25 to 29. In each subsequent age group, the ratio increased, reaching 244 women for every 100 men among those aged 50 to 54. At ages 55 and over, however, the ratio fell to 128 women for every 100 men.

Women accounted for an even larger proportion of all part-time undergraduate students. Among those under age 25, there were 129 women for every 100 men. The ratio of women to men widened consistently with each age group. By age 45 to 54, there were about 300 women for every 100 men in part-time undergraduate programs. The ratio of women to men was lower among part-time students aged 55 and over, but women still outnumbered men (208 women for every 100 men).

Many women over age 25 may be pursuing a university education, either part-time or full-time, because they did not have the opportunity to do so when they were younger. Some may have been divorced or widowed, and are increasing their educational attainment to improve their job opportunities. Others, perhaps in the empty-nest family stage, have more

time for studies in their older years than they did when they were younger. By age 55, however, many men are retiring and also have increased time available to pursue their education. This perhaps explains why the ratio of women to men is closer among people in this age group, even though in the population that age women outnumber men.

Women account for over half of full-time community college enrolment In 1991-92, 53% of all full-time community college students were women, a figure virtually unchanged since the mid-1970s. As in universities, women accounted for the majority of students enrolled full-time in most fields of study, with the exception of applied science and technology programs. For example, almost all students enrolled full-time in secretarial sciences were women (96%), as were those in educational and counselling services (90%) and nursing (89%). In contrast, women accounted for only 32% of those in natural science and primary industry programs, 30% of those in mathematics and computer science, and only 12% of those in both engineering and other technologies.

Many employed women upgrading their job qualifications In 1991, 25% of employed women were taking non-academic courses to improve their employment skills, while 8% were taking academic courses with the same objective. Some of these women were upgrading their qualifications by taking both types of job-related training. The proportions of employed men taking non-academic (24%) and academic (7%) courses designed to improve their skills were similar to those of women.

Few women in trade apprenticeship programs Women accounted for only about 1% of people enrolled in the fifteen largest trade apprenticeship programs in 1992, the same proportion as in 1988. The number of women participating in such programs, however, doubled to 1,580 from 760 over the same period.[1] The largest proportions of women apprentices were in machinist, and painting and decorating programs in 1992 (about 4% of each). Women made up between 1% and 2% of apprentices in carpenter, construction

electrician, and motor vehicle body repair and mechanic programs, and less than 1% of those in bricklayer, industrial electrician, heavy-duty equipment mechanic, millwright, plumber, refrigeration, sheet metal, pipe fitter and welder programs. These major trades, each with at least 3,000 registrants in 1992, accounted for 73% of all apprentices in the 170 recognized programs.

Only two trades with over 3,000 registered apprentices in 1992 were not almost completely dominated by men: hairdresser (hairstylist) and cook. Between 1988 and 1992, about 86% of apprenticing hairdressers (hairstylists) and 26% of apprenticing cooks were women.

Most Canadians do not have a postsecondary education Despite rapid increases in higher education, almost 60% of both women and men in 1991 did not have any formal education beyond high school. Even among people aged 25 to 44, this was the case for about 40% of women and men. With nearly half of new jobs requiring at least sixteen years of education, people with lower levels of educational attainment will likely become increasingly disadvantaged in the job market.

In addition, with the progression of the information age, many jobs created in the future will require advanced technical and science-related skills. Women may have difficulty obtaining this type of employment because they lack the necessary qualifications. Even in recent years, women have accounted for a very small proportion of students enrolled in engineering, mathematics, computer science and other applied science programs. Similarly, partly as a result of historically low enrolment in such programs, women account for only about one in five professionals employed in natural science, engineering and mathematics-related occupations.

[1] Karl Skof, "Women in Registered Apprenticeship Training Programs," **Education Quarterly Review**, Statistics Canada Catalogue 81-003: Vol. 1, No. 4.

• For additional information, see **Women in Canada: A Statistical Report**, Third Edition, Statistics Canada Catalogue 89-503E.

Josée Normand is an analyst with the Target Groups Project, Housing, Family and Social Statistics Division, Statistics Canada.

THE CHINESE IN CANADA

by Rosalinda Costa and Viviane Renaud

Since the 1991 Census, on which this article is based, immigration to Canada from Hong Kong and the People's Republic of China has continued to grow rapidly. As a result, both the number and proportion of people in Canada with Chinese ancestry are larger today than in 1991.

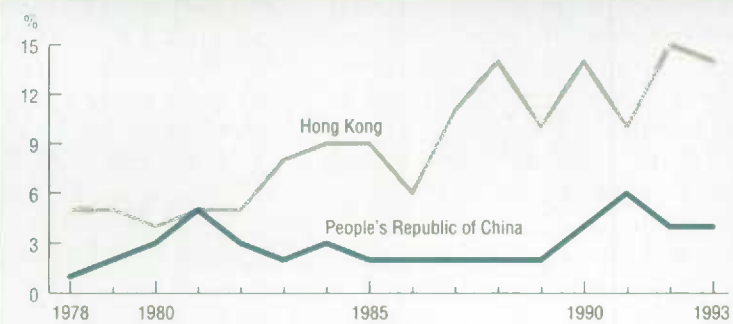
According to Citizenship and Immigration Canada records, the annual number of people immigrating from Hong Kong was 36,000 in 1993. This was up 25% from 1990 (29,000) and 80% from the late 1980s (about 20,000 each year). In contrast, from 1978 to 1986, between 5,000 and 8,000 people immigrated to Canada from Hong Kong each year. With this growth, the proportion of all immigrants to Canada who were from Hong Kong increased, rising to between 10% and 15% each year during the late 1980s and early 1990s. In contrast, in the late 1970s and early 1980s, only about 5% of all immigrants were from that country. Part of the reason for this growth in immigration is that on June 30, 1997, Hong Kong will return to Chinese from British rule and many people from Hong Kong may have immigrated to Canada in anticipation of this transfer.

Each year since the mid-1980s, between 20% and 40% of immigrants to Canada from Hong Kong were entrepreneurs and investors, and their dependants. An entrepreneur is an immigrant who intends to establish, purchase or invest in a commercial venture that will create employment opportunities for Canadian citizens, and who has the ability to participate in the management of the venture. Investors, on the other hand, are immigrants who have experience directing a commercial venture, and who have made a minimum investment of between $250,000 and $500,000 in a project that will create or continue employment opportunities for Canadian citizens. Since the mid-1980s, people from Hong Kong have accounted for between one-third and one-half of all immigrants entering the country in the entrepreneur class each year, and 40% to 60% of all immigrants in the investor class.

The annual number of people immigrating to Canada from the People's Republic of China is also higher now than during the late 1980s. There were 9,000 immigrants to Canada from China in 1993. This was a drop from 14,000 in 1991, but a substantial increase from the mid-1980s when about 2,000 people immigrated to Canada from China each year. The large increase in immigration in 1990 and 1991 occurred following the events in Tiananmen Square in 1989. This was partly because Chinese citizens in Canada with student visas were given the opportunity, under a special measure, to remain in Canada as landed immigrants.

Immigrants to Canada from the People's Republic of China were unlikely to be in either the entrepreneur or investor class: less than 1% of immigrants each year during the 1980s and 1990s. A larger proportion of immigrants from the People's Republic of China were refugees in 1991 (6%) and 1992 (11%), than during the mid- and late 1980s (about 1% or less).– Ed.

Annual immigration from Hong Kong and the People's Republic of China as a proportion of total immigration CST



Source: Citizenship and Immigration Canada, **Immigration Statistics**.

Prior to the 1960s, restrictions on immigration kept the Chinese population in Canada fairly small. Since then, however, recent waves of Chinese immigrants, largely from Hong Kong and the People's Republic of China, have made the Chinese one of the fastest growing ethnic groups in Canada. In the five years before the 1991 Census alone, the proportion of Canada's population who were people of Chinese origin grew to 2.4% from 1.7%.

The first major wave of Chinese immigration to Canada occurred during the late 1800s when Chinese labourers arrived in Western Canada to work on the construction of the Canadian Pacific Railway. After the completion of the railway, however, Chinese immigration was no longer encouraged, and in 1885, a federal bill imposed a head tax of $50 on people of Chinese origin entering Canada. To further discourage immigration, this tax was increased to $100 in 1900 and to $500 in 1903. At that time, the tax exceeded the average annual income of many Canadians (about $300).[1] By 1923, immigration of Chinese people was halted with the passing of the *Chinese Immigration Act*. This *Act*, which prohibited Chinese people from entering Canada, remained in effect until 1947, when it was repealed.

Restrictions on Chinese immigration remained in place, however, between 1947 and 1962. During that time, only spouses and children of Chinese people living in Canada were allowed to enter. Admission of Chinese immigrants remained restricted until 1967, when a point system to evaluate potential immigrants was introduced. Since then, Chinese people have been admitted to Canada under the same criteria as other immigrants.

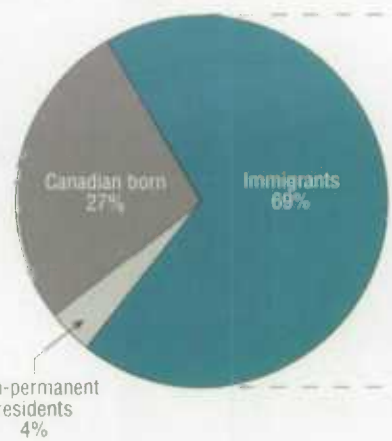
Despite the head tax during the early part of the twentieth century, the number of people of Chinese origin living in Canada increased, rising to 46,500 in 1931 from 17,300 in 1901. With continued restrictions on immigration, the number declined during the 1940s and 1950s and then rose to 58,200 in 1961. Following changes to immigration policy in the 1960s, however, the Chinese population in Canada increased greatly, reaching 120,000 in 1971. Since then, rapid growth has continued and by 1991, 653,000 people with Chinese ancestry[2] were living in Canada, a 58% increase from 1986.

[1] Average annual wage of those employed in manufacturing in 1900, 1901 Census of Canada.

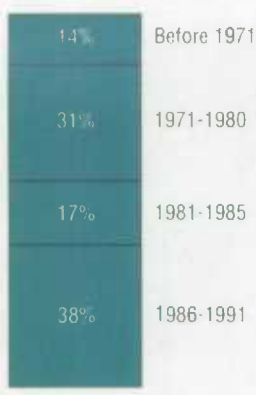
[2] Respondents to the 1991 Census could report more than one ethnic origin. This article includes all people who reported Chinese as an ethnic origin, whether or not they reported other ethnic origins. That year, 90% of people reporting Chinese did not report any other ethnic origins.

Most people of Chinese origin are immigrants CST

Total number of people of Chinese origin – 652,650



Period of immigration



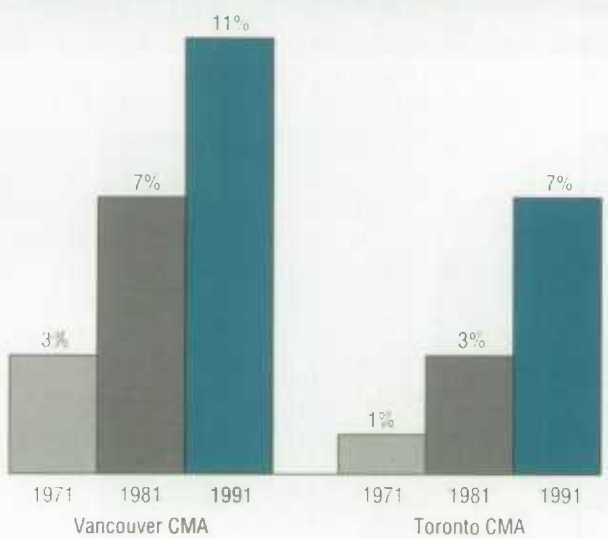
Source: Statistics Canada, Catalogue 93-315.

One of the fastest growing ethnic groups As most of the growth in the Chinese population during the past thirty years has been through immigration, it is not surprising that 69% of the Chinese living in Canada in 1991 were immigrants. The remainder of the Chinese population were either born in Canada (27%) or were non-permanent residents (4%).[3] Of immigrants of Chinese origin in 1991, over one-half (55%) arrived between 1981 and 1991, 31% during the 1970s, 9% during the 1960s, and only 4% before 1961. Of the Chinese born outside Canada, most were born in the People's Republic of China (34%) and Hong Kong (33%). The remainder were born in Viet Nam (10%), Taiwan (4%), Malaysia (3%) and other countries (15%).

Chinese population is concentrated in four provinces In 1991, almost all people of Chinese ancestry (95%) lived in four provinces: Ontario (47%), British Columbia (30%), Alberta (12%) and Quebec (6%). In comparison, 84% of Canada's total population lived in these four provinces. The Atlantic provinces, on the other hand, were home to 1% of the Chinese living in Canada in 1991, compared with 9% of Canada's total population.

The Chinese made up 6% of British Columbia's residents, 3% in Ontario and Alberta, and 1% in Manitoba and Saskatchewan. In each of the remaining provinces and territories, the Chinese community accounted for less than 1% of the population.

Chinese people account for a growing share of population in the Vancouver and Toronto CMAs[1]



[1] Census metropolitan areas.
Note: Includes single responses in 1971 and 1981, and single and multiple responses in 1991.
Source: Statistics Canada, Census of Canada.

Two out of three Chinese live in Toronto or Vancouver Individuals from many ethnic backgrounds, including Chinese, tend to settle in Canada's urban areas where employment opportunities are generally more plentiful, and where there are existing ethnic communities. In 1991, Chinese people (94%) were more likely than Canadians in general (60%) to live in census metropolitan areas (CMAs). In addition, two-thirds of the Chinese in Canada lived in either Toronto (39%) or Vancouver (27%). In contrast, only 20% of Canada's total population lived in these two CMAs. As a result, the Chinese accounted for a fairly large proportion of the populations of the Vancouver (11%) and Toronto (7%) CMAs in 1991.

Furthermore, the Chinese population was concentrated in a few municipalities within these two urban areas. In the Toronto CMA, eight out of ten Chinese lived in either Scarborough (28%), Toronto (22%), North York (16%), Markham (9%) or Mississauga (8%). In the Vancouver CMA, 60% of Chinese people lived in the city of Vancouver and 12% in both Burnaby and Richmond.

A younger population The Chinese population is slightly younger, on average, than the total Canadian population. In 1991, over half (54%) of Chinese people living in Canada were aged 15 to 44, 16% were aged 45 to 64 and 7% were aged 65 and over. In the total Canadian population, on the other hand, 48% were aged 15 to 44, 20% were aged 45 to 64 and 11% were aged 65 and over. The proportion of children in the Chinese population (22%) was similar to that in the overall Canadian population (21%).

As most of the Chinese population in 1991 had immigrated to Canada within the past three decades, it is not surprising that most Chinese people who had been born in Canada were children or young adults. That year, 60% of Canadian-born Chinese were under age 15, 35% were aged 15 to 44, 4% were aged 45 to 64 and 2% were seniors. Among Chinese immigrants, relatively few were under age 15 (9%), 60% were aged 15 to 44, 22% were aged 45 to 64 and 10% were seniors.

English was the mother tongue of one in five Chinese While three-quarters of the Chinese living in Canada reported Chinese as their only mother tongue, 18% reported English, 1% Vietnamese, 1% French and 5% other languages. Chinese people born in Canada, however, were about as likely to report English (46%) as their mother tongue as they were to report Chinese (47%). Almost all Chinese immigrants reported Chinese as their mother tongue (85%).

[3] Non-permanent residents are people living in Canada under student or employment authorizations, Minister's permits or who are refugee claimants.

Many people of Chinese origin, however, have adopted English as the language spoken at home. Overall, about one-third of people of Chinese origin reported that English was the language they spoke at home most often (32%). Speaking English at home was much more common among Canadian-born Chinese people (65%) than among Chinese immigrants (20%).

Many Chinese immigrants could not speak English or French in 1991 In 1991, 77% of Chinese people could carry on a conversation in English. Smaller proportions could speak both English and French (6%) or French only (1%). A slightly higher proportion of the Chinese born in Canada (80%) were able to converse in English than were the Chinese born elsewhere (76%).

A significant proportion of the Chinese, however, could speak neither English nor French (16%). This situation was particularly prevalent among immigrants (19%). As many Chinese immigrants have arrived in Canada recently, some have not yet had the time or opportunity to learn one of Canada's official languages. In addition, others living in cities with large Chinese communities may not find it necessary to learn English or French. Almost 9% of the Canadian-born Chinese were unable to speak at least one of Canada's official languages. Most Chinese people born in Canada, however, are very young and many may not have started school.

Most Chinese report having no religious affiliation The Chinese in Canada were much more likely than Canadians in general to report having no religious affiliation. In 1991, over one-half (56%) of the Chinese population reported no religious affiliation, while this was the case for only 13% of the total population. Chinese people were less likely to report an affiliation with Catholic (15%) or Protestant (17%) religions than were Canadians in general (46% and 36%, respectively). Among the Chinese, however, 11% reported Buddhism as their religion. This religion was uncommon among the total population (less than 1%).

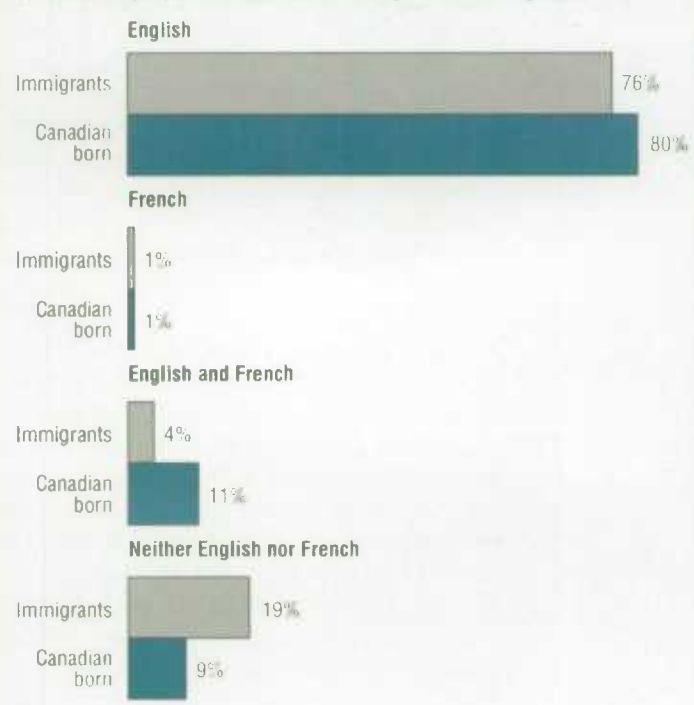
Canadian-born Chinese people were more likely than Chinese immigrants to be affiliated with a Christian religion. Among the Chinese population, 22% of those born in Canada reported an affiliation with a Protestant church, compared with 15% of immigrants. Chinese immigrants (14%), on the other hand, were almost three times more likely than Canadian-born Chinese (5%) to be Buddhist.

Chinese adults have higher levels of formal education than Canadians Among people aged 25 to 44 in 1991, 38% of Chinese immigrants and 53% of Canadian-born Chinese had at least some university education, compared with 27% of the total population. Part of this difference occurred because, even within the 25 to 44 age group, Chinese immigrants and, particularly, Canadian-born Chinese tended to be closer to age 25, and younger people are more likely than older people to have some university education. In addition, Chinese people with higher levels of education are more likely than other Chinese to be selected for immigration to Canada, thus increasing the overall educational level of that group.

Chinese men were the most likely to have high levels of educational attainment. In 1991, 45% of immigrant Chinese men aged 25 to 44 and 55% of Canadian-born Chinese men that age had at least some university education. In contrast, 28% of all Canadian men that age were that highly educated. Among women aged 25 to 44, 32% of Chinese immigrants and 52% of the Chinese born in Canada had at least some university education, compared with 26% of women in general.

Among those aged 45 and over, Chinese people (20%) were also more likely than Canadians in general (15%) to have at least some university

Almost one in five Chinese immigrants unable to speak English or French in 1991



Source: Statistics Canada, 1991 Census of Canada.

education. This difference was due entirely to the educational attainment of Chinese men, as the proportion of Chinese women with this level of education was equal to that of women in general (13% each). In 1991, 28% of Chinese men aged 45 and over had at least some university education, compared with 18% of all men that age. Among Chinese people aged 45 and over, there was little difference in the proportion of immigrants and Canadian-born with this level of education.

In this older age group, however, immigrant Chinese women were much more likely than other men and women to have less than a Grade 9 education. In 1991, 47% of immigrant Chinese women aged 45 and over had less than a Grade 9 education, compared with 18% of Canadian-born Chinese women and 29% of women in general. Among men aged 45 and over, a similar proportion of Chinese immigrants and the overall population had less than a Grade 9 education (28% each). Canadian-born Chinese men aged 45 and over were the least likely to have had this level of education (15%).

High labour force participation, different occupations Chinese adults (67%) were about as likely as all Canadian adults (68%) to have participated in the labour force in 1991. Among those aged 25 to 64, this was true for both men and women in all age groups. The only exception was Canadian-born Chinese women, who were more likely than all other women to have participated in the labour force. Among those aged 25 to 44, for example, 88% of Canadian-born Chinese women were participating in the labour force, compared with 78% of immigrant Chinese women and 79% of women in general. Similarly, among those aged 45 to 64, 70% of Canadian-born Chinese women were participating in the labour force, compared with 57% of both immigrant Chinese women and women in general.

Despite similar labour force participation rates, the occupations held by people of Chinese origin differed from those held by other Canadians. In 1991, managerial and professional occupations were much more common among Canadian-born Chinese men (38%) and immigrant Chinese men (37%) than among men in general (28%). Similarly, service occupations were also more common among immigrant Chinese men (20%) and Canadian-born Chinese men (14%) than among all men (10%). Employment in primary industries, processing, product fabricating and construction, on the other hand, was much less common among immigrant Chinese men (18%) and Canadian-born Chinese men (14%) than among men in general (33%).

Canadian-born Chinese women (35%) were slightly more likely than women in general (32%) to be employed in managerial and professional occupations. Immigrant Chinese women (26%), on the other hand, were much less likely than other women to have these types of occupations. Similarly, clerical work was more common among Canadian-born Chinese women (37%) than among all women (32%) and immigrant Chinese women (30%). Immigrant Chinese women (12%), on the other hand, were much more likely than Chinese women born in Canada (1%) or women in general (3%) to be employed in product fabricating.

Lower unemployment rates among Canadian-born Chinese aged 25 and over Among people aged 25 to 44, the unemployment rate of Canadian-born Chinese men (7%) was slightly lower than that of Chinese immigrant men (8%) and lower than that of all men (10%). Similarly, the unemployment rate of Canadian-born Chinese women that age (6%) was much lower than that of immigrant Chinese women and all women (10% each). Among people aged 45 to 64, the unemployment rate of Canadian-born Chinese men (6%) was lower than that of immigrant Chinese men and men in general (8% each). Among women that age, the unemployment rate of Canadian-born Chinese people (5%) was half that of Chinese immigrants (10%) and lower than that of the total population (8%).

The unemployment rates of young people, on the other hand, were high and similar for all three populations. Among men aged 15 to 24, 18% of Chinese immigrants, 17% of Canadian-born Chinese and 16% of the total population were unemployed. Among women that age, 15% of immigrant and Canadian-born Chinese, and of the total population were unemployed in 1991.

Rosalinda Costa and **Viviane Renaud** are analysts with the Housing, Family and Social Statistics Division, Statistics Canada.

CST

EDUCATORS' NOTEBOOK

Suggestions for using ***Canadian Social Trends*** *in the classroom*

Lesson plan for "Canadian Fertility, 1951 to 1993: From Boom to Bust to Stability?"

Objectives

- ❑ To learn or review the components of a chart
- ❑ To analyse trends in births and fertility rates for Canada
- ❑ To speculate on future trends based on analysis of statistical data

Method

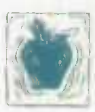
1. Review the components of a chart: titles, legends, X and Y axes, footnotes, units of measure, and data.
2. Divide the class into groups and assign one of the charts in *"Canadian Fertility, 1951 to 1993: From Boom to Bust to Stability?"* to each group. Give the students copies of the charts.
3. Each group should decide which are the most interesting aspects of their chart and write short statements describing the trends. The descriptions should include whether the indicator is rising, falling or remaining stable, and the pace at which the change is occurring.
4. After the students have completed the descriptions, have them predict, in writing, what will happen to the indicators in the future and speculate on the implications of these trend for Canada.
5. Have the groups present their work to the class, while the teacher summarizes the points.
6. Follow-up activities could include reading the article and comparing the class summary to the text. Did the class select the same variables as the author? Did the class and author have similar interpretations and conclusions? Also, the class could prepare a scrapbook of related newspaper and magazine articles, and summaries of stories carried by the electronic media.

Using other resources

- ❑ Use this issue of **CST** or **Selected Births and Fertility Statistics, Canada, 1921-1990**, Statistics Canada Catalogue 82-553, to examine the fertility situation at the time when most of the class was born. What was the impact on their generation?
- ❑ Examine other aspects of Canadian families and society with the **Family Studies Kit.** Order Statistics Canada product number 12F0044XHP for a set of 40 colour graphics on paper with supporting narratives. Order product number 12F0044XHB for a kit containing colour acetates of the graphics. Also, watch for parts of this kit on Statistics Canada's World Wide Web site on the Internet: http://www.statcan.ca/.

Share your ideas!

Do you have lessons using **CST** that you would like to share with other teachers? Send your ideas or comments to Harris Popplewell, Social Science Teacher at J.S. Woodsworth Secondary School, c/o Joel Yan, University Liaison Program, Statistics Canada, Ottawa, K1A 0T6. FAX (613) 951-4513. Internet: yanjoel@statcan.ca.



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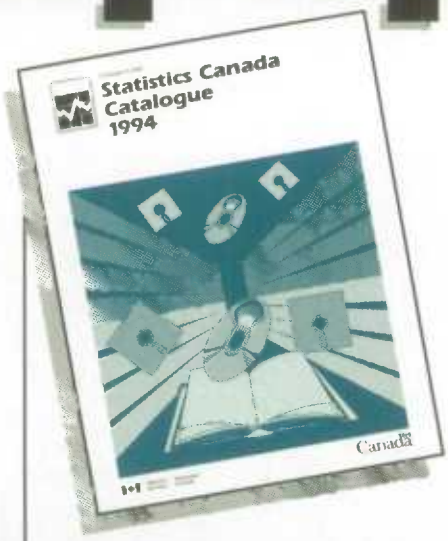

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SOCIAL INDICATORS

	1987	1988	1989	1990	1991	1992	1993	1994
POPULATION								
Canada, July 1 (000s)	26,549.7	26,894.8	27,379.3	27,790.6	28,120.1	28,542.2	28,947.0 PR	29,251.3 PR
Annual growth (%)	1.3	1.3	1.8	1.5	1.2	1.5	1.4 PR	1.1 PR
Immigration[1]	130,813	152,413	178,152	202,979	219,250	241,810	265,405 F	227,860 R
Emigration[1]	47,707	40,978	40,395	39,760	43,692	45,633	43,993 F	44,807 PR
FAMILY								
Birth rate (per 1,000)	14.4	14.5	15.0	15.3	14.3	14.0	13.4 P	•
Marriage rate (per 1,000)	6.9	7.0	7.0	6.8	6.1	5.8	5.5	•
Divorce rate (per 1,000)	3.6	3.1	3.0	2.8	2.7	2.8	2.7	•
Families experiencing unemployment (000s)	872	789	776	841	1,046	1,132	1,144	1,077
LABOUR FORCE								
Total employment (000s)	11,861	12,244	12,486	12,572	12,340	12,240	12,383	12,644
– goods sector (000s)	3,553	3,693	3,740	3,626	3,423	3,307	3,302	3,393
– service sector (000s)	8,308	8,550	8,745	8,946	8,917	8,933	9,082	9,252
Total unemployment (000s)	1,150	1,031	1,018	1,109	1,417	1,556	1,562	1,458
Unemployment rate (%)	8.8	7.8	7.5	8.1	10.3	11.3	11.2	10.3
Part-time employment (%)	15.2	15.4	15.1	15.4	16.4	16.8	17.3	17.1
Women's participation rate (%)	56.4	57.4	57.9	58.4	58.2	57.6	57.5	57.2
Unionization rate – % of paid workers	33.3	33.7	34.1	34.7	35.1	34.9	•	•
INCOME								
Median family income	38,851	41,258	44,400	46,089	46,742	47,719	47,969	•
% of families with low income (1992 Base)	12.8	12.0	10.9	12.0	12.9	13.3	14.5	•
Women's full-time earnings as a % of men's	65.9	65.3	65.8	67.6	69.6	71.8	72.0	•
EDUCATION								
Elementary and secondary enrolment (000s)	4,972.9	5,024.1	5,074.4	5,141.0	5,207.4	5,294.0	5,367.3	5,402.3 P
Full-time postsecondary enrolment (000s)	805.4	816.9	832.3	856.5	890.4	930.5	949.3	9,647.4 P
Doctoral degrees awarded	2,384	2,415	2,600	2,673	2,947	3,136	3,237	3,539
Government expenditure on education – as a % of GDP	5.6	5.5	5.5	5.8	6.3	6.4	6.2	•
HEALTH								
% of deaths due to cardiovascular disease – men	40.5	39.5	39.1	37.3	37.1	37.1	37.0	•
– women	44.0	43.4	42.6	41.2	41.0	40.7	40.2	•
% of deaths due to cancer – men	26.4	27.0	27.2	27.8	28.1	28.7	27.9	•
– women	26.1	26.4	26.4	26.8	27.0	27.3	26.9	•
Government expenditure on health – as a % of GDP	5.9	5.8	5.9	6.2	6.7	6.8	6.7	•
JUSTICE								
Crime rates (per 100,000) – violent	856	898	948	1,013	1,056	1,081	1,072 R	1,037
– property	5,731	5,630	5,503	5,841	6,141	5,890	5,525 R	5,214
– homicide	2.5	2.2	2.5	2.5	2.7	2.6	2.2	2.0
GOVERNMENT								
Expenditures on social programmes[2] (1993 $000,000)	175,423.6	179,817.8	187,892.3	196,762.4	205,481.1	211,778.7	211,432.6	•
– as a % of total expenditures	56.1	56.1	56.0	56.8	58.5	59.6	59.6	•
– as a % of GDP	25.5	24.7	25.2	26.9	29.5	30.2	29.7	•
UI beneficiaries (000s)	3,079.9	3,016.4	3,025.2	3,261.0	3,663.0	3,658.0	3,415.5	3,086.2
OAS and OAS/GIS beneficiaries[m] (000s)	2,748.5	2,835.1	2,919.4	3,005.8	3,098.5	3,180.5	3,264.1	3,340.8
Canada Assistance Plan beneficiaries[m] (000s)	1,904.9	1,853.0	1,856.1	1,930.1	2,282.2	2,723.0	2,975.0	3,100.2
ECONOMIC INDICATORS								
GDP (1986 $) – annual % change	+4.2	+5.0	+2.4	-0.2	-1.8	+0.6	+2.2	+4.5
Annual inflation rate (%)	4.4	4.0	5.0	4.8	5.6	1.5	1.8	0.2
Urban housing starts	215,340	189,635	183,323	150,620	130,094	140,126	129,988	127,346

– Not available • Not yet available P Preliminary data E Estimate m Figures as of March IR Revised intercensal estimates
PD Final postcensal estimates PP Preliminary postcensal estimates PR Updated postcensal estimates R Revised data F Final data

[1] For year ending June 30.

[2] Includes Protection of Persons and Property; Health; Social Services; Education; Recreation and Culture.

Life expectancy

Boys born in Canada during the 1990-1992 period can expect to live 74.6 years. Girls, however, can expect a few more years of life, living to an expected 80.9 years. While these are the "life expectancy" figures usually quoted, the older people survive, the longer their total life expectancy becomes. For example, among those who had already lived to age 65 in 1990-1992, men could expect a lifespan of 80.7 years, and women 84.9 years.

Life Tables, Canada and Provinces, 1990-1992,
Statistics Canada Catalogue 84-537.

Lower earnings reduced tax take in 1993

The average income tax paid by families in 1993 – $10,234 – was $271 lower than in 1992 after adjusting for inflation. This was largely because many family wage earners experienced unemployment or underemployment during the most recent recession, leaving families with lower earnings to tax. 1993 was the third straight year of decreasing average family tax, bringing the total average tax decline since 1990 to $900 (in 1993 dollars).

Income after Tax, Distributions by Size in Canada, 1993,
Statistics Canada Catalogue 13-210.

Increasing number of wives out-earn their husbands

A growing number of wives earn more than their spouses in dual-earner families. In 1993, wives were the higher earner in 25% of dual-earner families (an estimated 930,000 families). This was up from 19% in 1989 and just 11% in 1967.

Characteristics of Dual Earner Families, 1993,
Statistics Canada Catalogue 13-215.

Kids and gadgets go together

Two-parent households with children under age 18 were more likely than other households to own most types of household equipment. Not surprisingly, they also had higher incomes – averaging $59,348 in 1993, compared with $46,559 for households overall. Time saving appliances were particular favourites. For example, 92% of these families had a microwave and 61% had a dishwasher. In contrast, 64% of people living alone had a microwave and 23% had a dishwasher.

Household Facilities by Income and Other Characteristics, 1994,
Statistics Canada Catalogue 13-218.

Energy consumption high compared to other countries

Canada's per capita energy consumption – equivalent to 5.81 tonnes of oil in 1993 – was higher than that in any other major industrialized country. A high standard of living, the vastness of the county and the harsh climate partly explain Canada's high energy consumption. The primary reason, however, is an abundance of natural resources coupled with relatively low energy prices, which have encouraged the development of large energy intensive industries such as chemicals, aluminum, steel, and pulp and paper. Much of the output from these industries is destined for foreign markets.

Canadian Economic Observer, May 1995,
Statistics Canada Catalogue 11-010.

More abortions being performed earlier

In 1993, both the number of therapeutic abortions (104,403) and the abortion rate (26.9 abortions for every 100 live births) increased, continuing the upward trend that has prevailed since 1989. A growing proportion of abortions in Canadian hospitals were performed in the early stages of pregnancy. The share of abortions performed on women pregnant less than 13 weeks rose to 92% in 1993 from 88% in 1983. This may be one reason for the decrease in abortion-related complications, to 1.3% (of total abortion cases) in 1993 from 2.1% in 1983.

The Daily, July 12, 1995,
Statistics Canada Catalogue 11-001E.

More people went to the movies in 1993-94

Movie attendance at regular theatres in Canada reached 76.5 million in 1993-94, up 7% over the previous year. Drive-in attendance also increased, rising 12% to 2.3 million. Residents of Alberta and British Columbia were Canada's most avid movie-goers, with an average attendance of more than three times per person. In contrast, Newfoundland had the lowest average attendance at just over one movie per person.

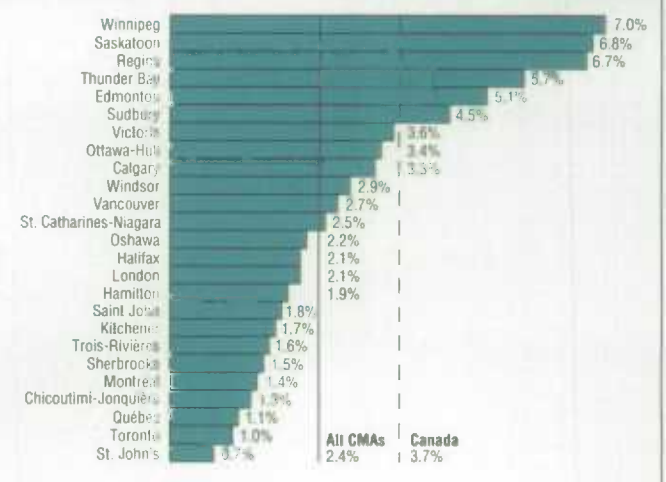
Canada's Culture, Heritage and Identity: A Statistical Perspective.
Statistics Canada Catalogue 87-211.

Aboriginal peoples in Northern and Western cities

People with Aboriginal origins (including North American Indian, Métis and Inuit origins) made up 3.7% of all Canadians in 1991, but only 2.4% of people living in Canada's 25 census metropolitan areas (CMAs). Winnipeg (44,970) and Montréal (44,650) were home to the largest numbers of people with Aboriginal origins. The CMAs located from Northern Ontario to Alberta, however, tended to have the largest concentrations of Aboriginal people among their residents. The proportions in Winnipeg, Saskatoon and Regina were highest at about 7%, followed by Thunder Bay, Edmonton and Sudbury. The exception in this zone was Calgary with 3.3%.

Canada's Aboriginal Population by Census Subdivisions and Census Metropolitan Areas, 1991 Census, Statistics Canada Catalogue 94-326.

Aboriginal people as a proportion of the population of Canada's census metropolitan areas, 1991 CST



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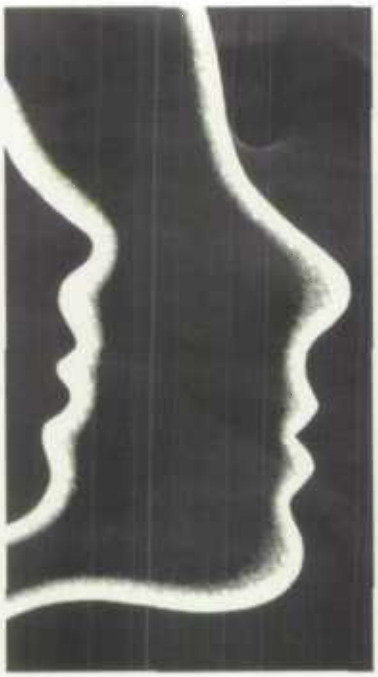

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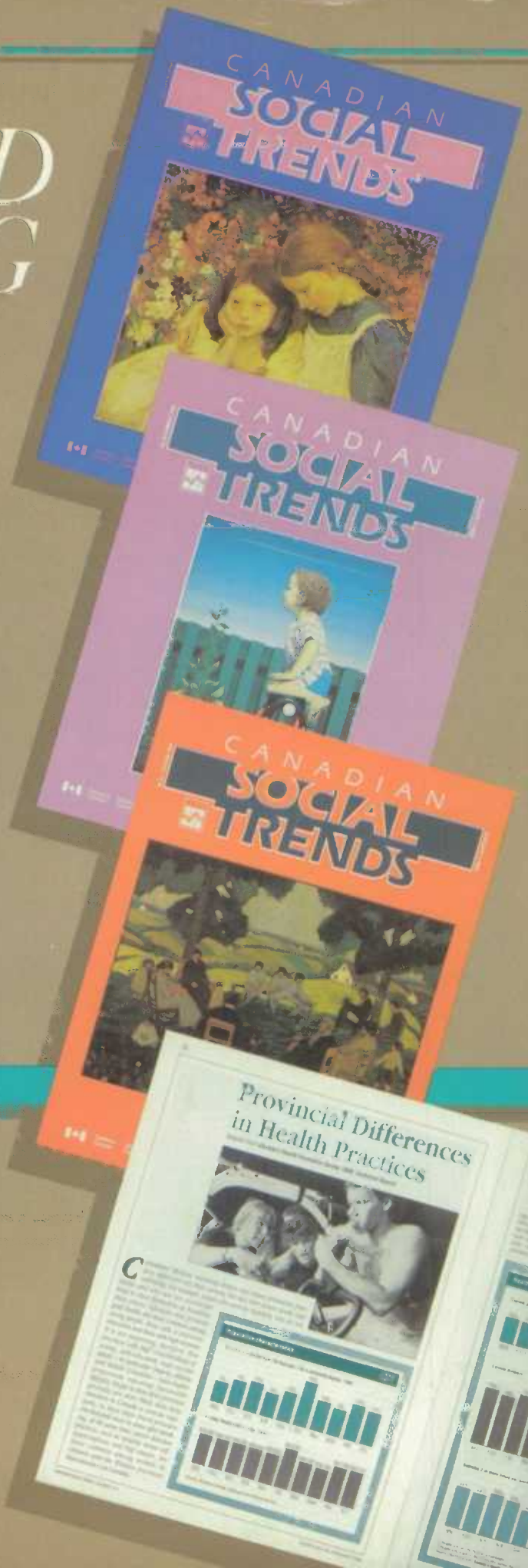

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