

100 years of . . .



With this last issue of the year 2000, *Canadian Social Trends* concludes its review of the dramatic changes that have occurred in Canadian society over the last 100 years. In previous articles, we have visited the family, the labour force and immigration; in this final series of articles, we sketch the improvements in what might loosely be called “standard of living” — income and expenditures, urbanization, health and education.

Once again, these articles draw on many sources of data. We have

relied heavily on Statistics Canada’s archive of historical data, of course: it is extensive, and easily accessible to everyone. However, changes in concepts, collection methods and population coverage inevitably occur over a long period of time. While the editors charged with compiling volumes of historical statistics make heroic efforts to keep the data as comparable as possible, in practice the many social, legal and technological developments that occur over the decades cannot be ignored. Therefore, the statistics presented

in these articles are based on concepts and coverage that have occasionally undergone some modification. Although such changes do not significantly distort the general trend, the data should be interpreted with some caution.

A complete bibliography of sources is available on the *Canadian Social Trends* website at <http://www.statcan.ca/english/indepth/11-008/sthome.htm>

Note regarding “100 years of income and expenditure”

Income is normally presented in real, or constant, dollars, in order to take account of the cumulative effects of inflation. But until the 1980s, when high annual inflation rates make conversion to constant dollars more useful, dollar values in “100 years of income and expenditure” are presented in current dollars, unless stated otherwise. This is because current dollars may better convey to modern readers the psychological dimension of economic conditions like the desperation of the Depression and the euphoria of the boom that followed the Second World War. So next time your grandfather tells you that when he was a boy in 1935, an ice cream cone cost 5 cents and not \$2.00, you can remind him that personal disposable income was only \$304 then, too.

— Ed.

Education

by Warren Clark

The 20th century has seen dramatic changes to the educational system in Canada. At the beginning of the century, Canada was still a largely agricultural nation that did not put much of a premium on education. Only slightly more than half of school-aged youngsters attended school on a daily basis and more than one in 10 people could not read or write at all. In the intervening years, government support of education has made elementary and secondary education universally accessible across Canada, and helped to develop a sophisticated network of universities and colleges. In addition, a wide array of private sector business and trade schools has grown up alongside these public sector institutions. By the end of the century, people with university degrees outnumbered those with less than a Grade 9 education.

The benefits of education

Over the course of the last 100 years, the overall educational attainment of Canada's population has increased and the benefits of education to individuals and to society have become clear. An educated workforce, capable of using knowledge to generate innovation and wealth, is vital to a strong and prosperous economy. Education greatly influences the types of jobs Canadians obtain, and increases their likelihood of being employed and their standard of living. For example, the 1996 Census shows that graduates with a bachelor's degree were more likely to have been employed full-time full-year in 1995 (51%) than high school graduates (35%), and that they earned more (a median income of \$43,600 versus \$29,700).

In the same way that income increases with educational attainment, so too does the extent to which people contribute to their communities.

People with higher education are more likely to volunteer, have greater involvement in their children's education, be involved in sports, and donate to charities. Furthermore, the educational achievement of parents, and all that it entails, is generally passed on to their children.

Public education in Canada

The foundations of the public education system in Canada were laid at Confederation when it was agreed that education would be a provincial responsibility. As such, educational organization and practices have varied (and continue to vary) from province to province or territory. Shortly after Confederation, compulsory school attendance laws obliged parents to send their children to school. At the same time, public tax-supported schools were built, and the principle of free schooling for all children during their formative years was established.

Despite the availability of free education, though, many children frequently did not go to school, particularly boys. Long absences were common due to the demands of planting or harvest time, the need to help support the family, illness, or bad weather. In 1901, for example, about 1.1 million children were enrolled in elementary or secondary schools, but an average of only about six out of 10 students attended on a daily basis.

In response to these kinds of attendance problems, further efforts were made to lengthen the period of compulsory schooling and to enforce laws requiring attendance. By 1921, all provinces except Quebec had laws setting out the minimum amount of time that children must attend school full-time. For example, in British Columbia all children between the ages of 7 and 14 were obliged to attend school full-time during the school year.

Although education was free for young children and educators

recognized that children benefited most from attending school at an early age, many children did not start school until age 7 or 8. In 1921, only 52% of 6-year-olds and 83% of 7-year-olds attended school. In 1930, one in three Grade One students were aged 8 or older; however, regular daily attendance had risen to 86% of enrolment. More regular attendance patterns, combined with the raising of the age of mandatory attendance, extended the time children spent in the classroom by two years compared with 1919.

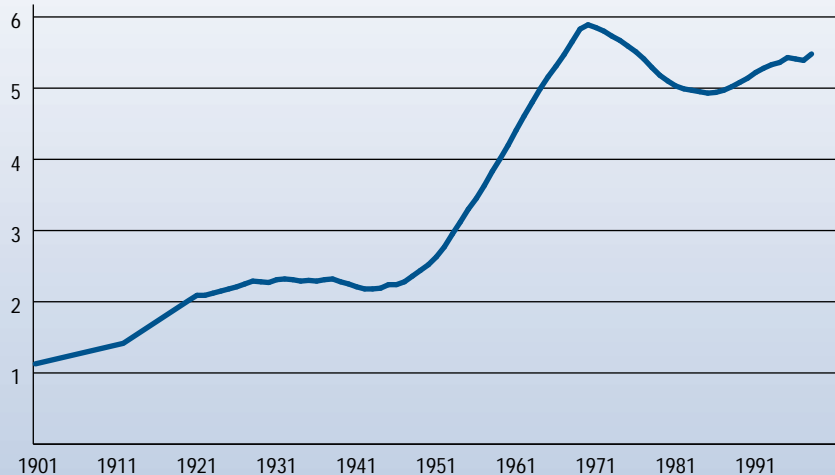
The Great Depression of the early 1930s greatly affected families and schools. Rural Canada, particularly the Prairies, was especially hard hit. Provincial grants and local property assessments in support of publicly-funded schools dropped by 15% between 1930 and 1935.¹ Rural schools were often supported by only a few dozen families. Also, because rural families generally had lower incomes and more children than urban families, rural families found it more difficult to keep their children in school and support the operation of schools. Both before and after the Depression, rural children were less likely than urban children to stay in school beyond the compulsory age of attendance.

Enrolment explodes with the baby boom

Beginning in the late 1940s, the postwar baby boom produced an explosion in elementary/secondary enrolment. It peaked at 5.9 million in 1970. This dramatic growth brought with it large class sizes, shortages of classroom space and a scarcity of teachers. School board officials, who had grown accustomed to only small changes in enrolment during the

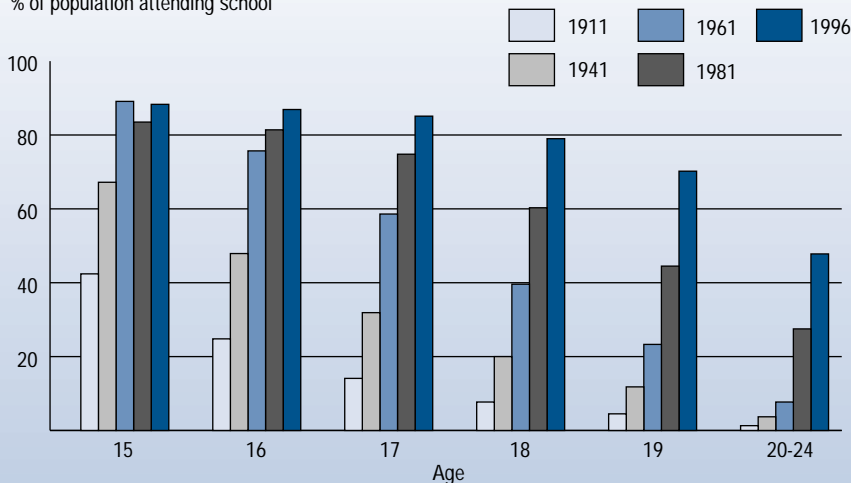
1. Urquhart, M.C. and K. A. H. Buckley. 1965. *Historical Statistics of Canada*. 599.

Millions of students



Sources: Statistics Canada, Catalogue nos. 81-568, 81-229 and 81-003 and special tabulations.

% of population attending school



Sources: Statistics Canada, Catalogue nos. 98-1931, vol.1 and 98-1941, vol.1, and special tabulations.

1930s and 1940s, could not build schools fast enough during the 1950s and 1960s. Between 1950 and 1970, enrolment increased by 134% while expenditures on elementary-secondary education increased by over 700% after accounting for inflation.

After the 1970 peak, enrolment dropped, reaching 4.9 million in 1985

as baby boomers moved on to colleges and universities and the much smaller baby bust cohort (born between 1967 and 1979) moved into elementary and secondary schools. Although there were fewer students, teenagers stayed in school longer — high school graduation rates that were 53% in 1971 rose to 70% in 1986 and then to

75% in the mid-1990s.² By 1995, enrolment had rebounded to 5.4 million.

Although Canada's 1998 secondary graduation rate (72%) was comparable to that of the United States (74%), it was still well below those of other industrialized countries such as France (87%) and Japan (96%).³ In the late 1980s and early 1990s, attention was focused on the number of early school leavers. Almost one in five (18%) 20-year-olds in 1991 had left school before graduation; by 1995, there were still 15% who had not completed high school. According to the 1996 Census, about 290,000 young adults aged 20 to 24 (15%) were not attending school and had not graduated from high school.

In the early 1950s, more than half of the population aged 15 and over had less than a Grade 9 education. Leaving school early did little harm since primary-sector and blue-collar manufacturing jobs were easy to find. Today, such jobs are much less common and, increasingly, high school (and often postsecondary) graduation may be a minimum requirement for employment. Therefore, young people who drop out in the 1990s may lack many skills needed to enter the labour market of the 21st century.

Postsecondary education

Some of the greatest advances in education in Canada in the 20th century have come in the area of postsecondary education. In 1901 there were only about 6,800 students in attendance full-time at 18 degree-granting institutions in Canada. The first women enrolled at Canadian

2. High school graduates as a percentage of the 18-year-old population outside Quebec and 17-year-old population in Quebec.

3. Organisation for Economic Co-operation and Development. 2000. *Education at a Glance: OECD Indicators 2000 Edition*. 147.

universities in the 1880s, and by the turn of the century about 12% of university students were women, most of whom were enrolled in arts and science programs. By 1920, full-time enrolment had nearly quadrupled to 23,200 and 17% were women. At this time, Canadian universities were mainly funded by fees and gifts from private citizens.⁴

Government grants to universities declined during the Depression, and staff salaries were cut. With no jobs available to tempt young people to look for jobs, those able to afford a university education took advantage of the situation. Enrolment rose slowly but steadily. Between 1920 and 1940, enrolment increased by 57% and by 1940, 23% of university students were women. While the student population in arts and science nearly doubled, the professional fields increased only modestly. The largest enrolment increases occurred in female-dominated fields such as education, household science, nursing, social work, library science and physical and occupational therapy.⁵

During the Second World War, there was a great deal of postsecondary educational activity, including technical training of more than 700,000 military personnel. In August 1942, Parliament passed the *Vocational Training Co-ordination Act*, which authorized training related to the Canadian war effort, including tradespersons in the armed forces and workers in industry. The *Act* also provided for training of personnel discharged from the armed forces, and for training that might be desirable in the postwar period. After the war, the *Veterans Rehabilitation Act* offered payment of tuition and other fees for each veteran starting a university or

4. Harris, R. S. 1976. *A History of Higher Education in Canada 1663-1960*. 210.

5. *Ibid.*, 351.

The changing nature of literacy — Grade 9 is no longer enough

In the early 20th century, illiteracy was fairly widespread. In 1901, 14% of the population aged 5 and over could not read or write at all; in 1921, it was 9% (or 5% of the population aged 10 and older). This was partly due to Canada's immigration policy of the late 19th and early 20th centuries, which saw many immigrants arrive who spoke neither French nor English. As a result, whereas only 4% of the Canadian- or British-born population aged 10 and older were illiterate, the rate for the foreign-born was 12%.

As the educational system expanded in the post-World War II era to handle the baby boom, experts became increasingly concerned that many Canadians were inadequately educated to cope with the complex nature of industrial society. Educational attainment of less than Grade 5 was considered a cut-off for basic adult literacy, and less than Grade 9 for functional illiteracy in industrialized economies such as Canada's.¹ In 1971, 6% of the adult population not attending school full-time had education of less than Grade 5 and another 24% had a Grade 5 to Grade 8 education.

In 1994, the first International Adult Literacy Survey (IALS) measured literacy levels of the Canadian adult population aged 16 to 65. The survey used detailed exercises to test skills at understanding and using printed information in daily activities at home, at work and in the community. The survey categorized literacy into five broad levels, with Level 1 being the lowest and Level 5 being the highest. Almost three out of five Canadians (over 10.5 million) had sufficient prose, document and numeric literacy skills to meet most everyday requirements in dealing with printed documents (Level 3 or higher). One in four Canadians had Level 2 skills (over 4.6 million); although these people generally believed they had good or excellent skills, their test scores were weak. For about one in six Canadians (over 3.1 million), dealing with printed materials presented a severe difficulty (Level 1).

Inadequate literacy is a serious personal and social problem. Literacy skills are crucial to the well-being of individuals and are linked to economic security. In 1994, working-age adults with weak Level 1 skills were less likely (59%) to have been employed during the year than those who had strong Level 4/5 skills (89%);² those who were employed worked fewer weeks per year than working adults with Level 4/5 skills. Adults with Level 1 literacy were also more likely to live in low-income households and had average personal income about two-thirds that of the average of adults with Level 4/5 skills.

- For more information, see Shalla, V. and G. Schellenberg. 1998. *The Value of Words: Literacy and Economic Security in Canada*. Statistics Canada Catalogue no. 89F0100XIE; Organisation for Economic Co-operation and Development. 1995. *Literacy, economy and society: Results of the first International Adult Literacy Survey*. Statistics Canada Catalogue no. 89-545-XPE.

1. Council of Ministers of Education, Canada. 1988. *Adult illiteracy in Canada: Identifying and addressing the problem*. 5.

2. Levels 4 and 5 are combined to ensure data reliability.

university preparation course within 15 months of leaving the military. In 1947-48, over 32,000 ex-service personnel received government assistance for university training.

This era also marked a new approach to government recognition of the social and economic importance of postsecondary education. In 1951, the Massey Royal Commission called

for a significant expansion of public responsibility for postsecondary education. The Commission recommended that the federal government make direct and unrestricted grants to universities. Parliament approved the recommendation for grants for the 1951-52 academic year.⁶

With these new financial underpinnings, and with growing grants from provincial governments, universities and colleges were able to accept growing enrolment throughout the 1950s, 1960s and 1970s. Demand for postsecondary education was high as the demand for skilled labour increased and as the baby boom children reached late adolescence. In the mid-1970s, strong enrolment growth was interrupted at universities, but it began to grow again at the end of the decade. In the 1980s, full-time university enrolment grew by 35%, peaking in 1994, and then levelling off. This flattening can be traced to several factors: the stabilization of the size of the young adult population; the weak economic recovery; mixed messages from the labour market — most new jobs required postsecondary education but the recession of the early 1990s had demonstrated that graduates were not immune from unemployment; stability of family size and incomes; and a drop in personal savings rates.⁷

Women outnumber men at universities by the 1990s

In 1960, about one quarter of students enrolled at university were women, not much different from the early 1930s. But this began to change in the early 1960s, when female-dominated

6. Sheffield, Edward, Duncan D. Campbell, Jeffrey Homes, B. B. Kymlicka, James H. Whitelaw. 1978. *Systems of higher education: Canada*. 8-9.

7. Association of Universities and Colleges of Canada. 1999. *Trends: The Canadian University in Profile*. 51.

Student assistance

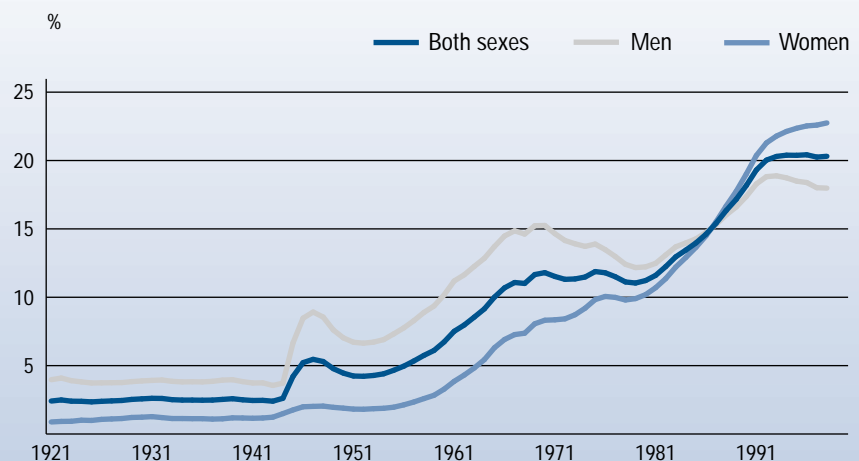
Responding to concerns about the accessibility of postsecondary education, in 1964 the federal government introduced the Canada Student Loan Program to provide financial assistance to postsecondary students who qualified for assistance according to assessed need. The program guaranteed loans made to qualified students and paid the interest on the loans while the student attended school and for six months following graduation. Provincial governments also instituted their own financial assistance programs.

In the 1990s, there was a major shift away from grant support of postsecondary students. This move, combined with increased loan limits, meant that students received larger loans and less grant assistance. At the same time, personal savings rates had dropped and government transfers to universities during the mid-90s declined. Family income, in real terms, remained about the same while tuition fees more than doubled. In 1999-2000, tuition fees in an average undergraduate arts program stood at \$3,379 compared with \$1,595 in 1988-89 (1999 dollars). As a result of these developments, the 1990s saw a dramatic increase in the average debt loads of students who borrowed.

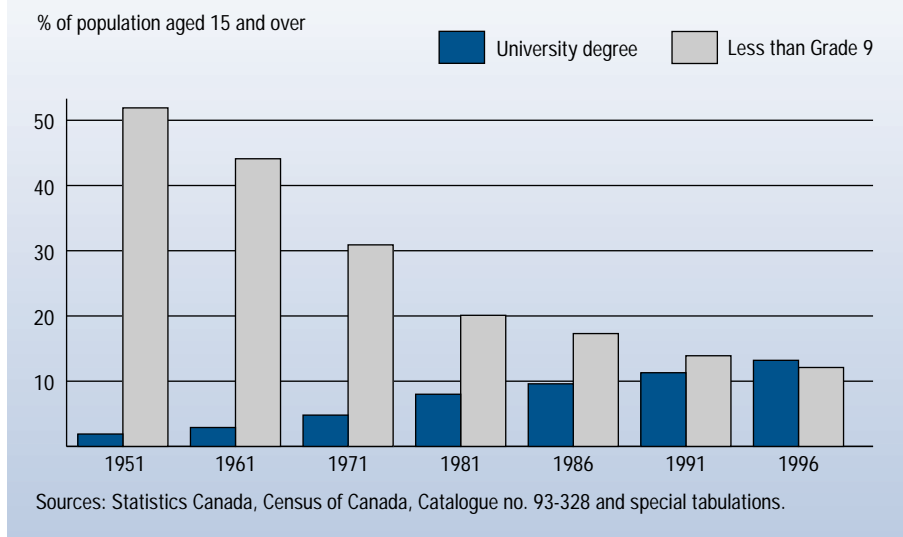
In February 1998, the Government of Canada announced a number of measures to address concerns about mounting student debt, including income tax credits for interest paid on student loans, grants for students with dependents, extension of education tax credits to part-time students, lengthening the interest relief period to up to 30 months following graduation, and the possibility of reducing the debt for student borrowers in the greatest financial hardship. However, legislation was also introduced to prevent borrowers from avoiding repayment of student loans through bankruptcy for a period of 10 years after the end of their studies.

- For more information, see Clark, W. 1998. "Paying Off Student Loans," *Canadian Social Trends*, 51; Human Resources Development Canada (HRDC). 1998. *Canada Student Loans Program, 1999-2000: Full-time and Part-time Students Information Guide*. Ottawa: HRDC.

CST Full-time university enrolment rates¹ have risen dramatically since World War II



1. Total full-time university enrolment related to 18-24 population age group. Sources: Statistics Canada, Catalogue nos. 81-568 and 81-229 and author's calculations.



teacher training programs were transferred from non-degree granting teachers colleges to universities. Also, beginning in the 1970s, women enrolled increasingly in male-dominated fields of study such as law, engineering and medicine. In the 1980s and 1990s, the training of registered nurses was also transferred to universities.

By 1989, there were more women enrolled full-time at Canadian universities than men, and the percentage of women had continued to grow into the late 1990s. Women are still under-represented in engineering, mathematics and sciences; for example, in 1997 20% of bachelor's degrees in engineering were granted to women, up from less than 1% in 1950. But women have made major gains in law and medicine, where they now represent about half of the first professional degrees granted; in 1950, only 4% of law and 5% of medical degrees were granted to women.

Summary

In the postwar period, elementary-school enrolment increased faster in Canada than in any other industrialized country. Rising expectations, the

widespread belief in education as a means of upward mobility, and rising affluence encouraged students to stay in school longer. Governments increased expenditures on education to 8% of GDP at its peak in 1992. In 1997, Canada ranked among the world's educational leaders, with spending on education as a proportion of GDP second only to the United States among G7 countries.⁸

8. Organisation for Economic Co-operation and Development. 2000. op. cit. 57.

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Income and expenditures

by Cara Williams

In the early years of the 20th century, Canadians worked very hard to provide themselves and their families with food and shelter. Canada was predominantly rural and most workers were farmers or worked for room and board. However, of those individuals who did earn and report regular

wages, in 1901, the average wage was \$308 per year.¹ In 1997, reported average earnings were \$27,660 per year. It is certain that in terms of overall standard of living, Canadians are better off materially now than at the turn of the century.

That said, many people believe that their standard of living has been declining because incomes are not increasing as fast as they did in the 1950s and 1960s. Additionally, food banks and soup kitchens, once a memory of the Great Depression, reappeared in Canadian cities in the early 1980s and they continue to play an important role in providing nutrition to many people.² Family incomes fell substantially in the 1981-82 recession and did not recover until the end of the decade. Then the recession of the early 1990s, and the slow recovery that followed, stalled incomes again. This article briefly traces average incomes and consumer spending over the past 100 years, and identifies some of the factors that have contributed to their development.

The Wheat Economy and World War I

At the turn of the century, the fortunes of the Canadian economy were driven primarily by the agricultural sector. A 15-year period of economic growth, fuelled by growing foreign demand for wheat, necessitated the construction of massive infrastructure within Canada to meet that demand: the development of arable land, the manufacture of agricultural equipment, and the construction of the transcontinental railway. The influx

1. Earnings and income concepts have changed a great deal over the last 100 years. 1901 and 1997 wage data are used to illustrate the relative difference in earnings and may not be strictly comparable.

2. See Oderkirk, J. 1992. "Food Banks," *Canadian Social Trends*, Spring 1992.

of immigrants also required that homes be built for families and grain elevators be built for wheat storage, both of which helped to develop the lumber industry in British Columbia. Between 1901 and 1911, the stock of housing in Canada increased by almost 40%.³

In 1913, international wheat prices fell, real Gross National Product (GNP) declined and the Prairie Wheat Boom came to an end. But with the outbreak of World War I in 1914, wartime production propelled growth in the Canadian economy and helped to usher in the manufacturing age. Per capita GNP grew between 1914 and 1917, but high rates of inflation eroded any purchasing power that workers might have gained. Also contributing to lower earnings were the introduction of new taxes designed to help finance government war expenditures. In 1916, the first business profits tax was levied (retroactive to 1914), and a year later personal income tax was introduced.

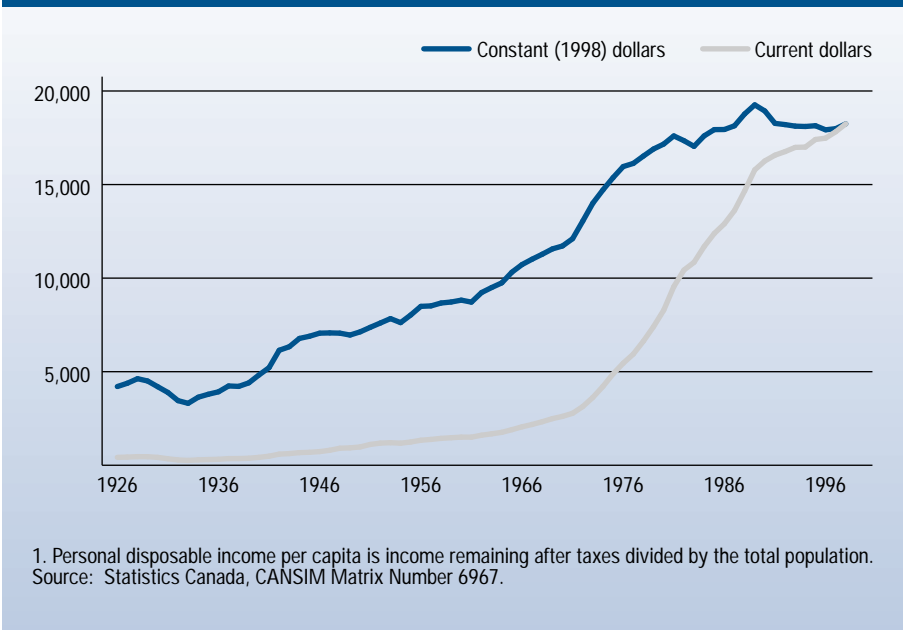
The 1920s

The 1920s began with a recession. During this time, estimated unemployment climbed to 14%. The average annual wage for workers (in current dollars) was estimated to be \$960 at the time of the 1921 Census. By 1924, the economy was growing again, and between 1926 and 1928, personal disposable income (income after taxes had been paid) increased by over 9%, from \$422 to \$460 per person. After much talk of a pension for the elderly, the Old Age Pensions Act, the first strand in the national social safety net, became law in 1927 and provided assistance to seniors 70 years and older.

3. For a more complete description of economic conditions during the 20th century, see Crompton, S. and M. Vickers. 2000. "100 years of labour force," *Canadian Social Trends*, Summer 2000.

CST

Although personal disposable income per capita¹ continues to rise, in constant dollars it has been relatively flat since 1991



Growing personal income promoted new housing construction; at the same time, the price of consumer goods was declining. Goods previously only available to the wealthy, such as automobiles, were now mass-produced and became more affordable to many. The popularity of the automobile stimulated growth in the service sector: to serve the new motoring public, restaurants and service stations sprouted up along newly constructed highways. Other service industries, including banking and insurance, grew and retailing expanded rapidly.

While declining prices were a blessing for those with money to buy goods and services, other parts of the economy were clearly experiencing hardships because of reduced prices. This was the case for both the fishing and agricultural industries in the Maritimes. Foreshadowing what would happen across North America by 1930, declining prices for their products left farmers and fishers unable to participate in the burgeoning consumer economy.

Many hoped that the economic prosperity experienced in the 1920s

would continue, but the final year of the decade saw dramatic change. Declining global commodity prices and the stock market crash, coupled with a 1% slip in personal disposable income and a negative savings rate, halted the emerging consumer economy.

The Dirty Thirties

The stock market crash of 1929 sent the Canadian economy into a tailspin. While the Depression resulted in great hardship, it did not affect everyone in the same way. The brunt of the job and income losses was borne by the "working class," the farmers on the Prairies, and the fishers and mine workers in the Maritimes. In 1930, the average annual wage fell almost 11% from a decade earlier (from \$959 to \$854). In an attempt to protect fledgling manufacturing industries from foreign competition, the government increased import tariffs. Although this policy protected many manufacturing jobs, it worsened conditions for industries reliant on exports, such as farming and fishing.

Per capita personal disposable income plummeted by 44% over the

period 1928 to 1933. For every year between 1929 and 1936, the personal savings rate was negative as Canadians who had accumulated savings were forced to spend them in order to survive. For many without money put aside, savings offered no cushion and soup kitchens sprouted up across the nation to try to feed people. Consumer expenditures dropped by 27% between 1930 and 1934, meaning that firms that had been supplying consumer goods and services shut down, worsening employment conditions still further.

Beginning in 1934, the economy began a slow process of recovery. Unemployment declined and personal disposable income and consumer spending began to grow again, although they did not return to pre-Depression levels until the early 1940s. In 1940, unemployment insurance was introduced into Canada to provide income security to some workers. This program, to which both employers and workers contributed, represented another strand in the social safety net.

WWII and the postwar boom

World War II had a profound effect on the Canadian economy. It demanded agricultural products and manufactured goods. The economic boom generated by this global humanitarian disaster marked the beginning of a 20-year period of growth that has been unsurpassed in recent years.

In 1943, personal disposable income stood 117% higher than it had ten years before, at \$624 per person. As the war came to an end, growth in personal income slowed but still continued to rise, from \$692 per person in 1945 to \$801 per person in 1947. In an attempt to stabilize any postwar economic instability, the federal government enhanced the social security system by introducing family allowance. In 1945, mothers of children under 16 began to receive a monthly stipend of \$5 to \$8 per child.

In the 1950s, the economy was running at full throttle; between 1951 and 1960, inflation and unemployment were low and personal disposable income increased by 35% in current dollars. Economic prosperity and rapid population growth spurred what was a much more affluent lifestyle for the majority of Canadians.

During this time, an array of new social programs was developed. In the mid-1960s, the Canada and Quebec Pension Plans (CPP/QPP) and Guaranteed Income Supplement (GIS) were introduced to provide further support for old age pensioners, universal health care was established, and the Canadian Assistance Plan was developed to help systemize social assistance and to establish national guidelines for social programs.

Do more household conveniences lead to higher expectations?

The new affluence ushered in the age of mass consumerism, heralded by marketing and advertising. Canadians' expectations of the "necessities of life" rose substantially during the postwar period. After World War II, people were interested in building homes and providing more for their families. Suburban communities sprouted up, making automobile ownership a necessity.

Houses were filled with an increasing array of appliances designed to save time and effort: washing machines, vacuum cleaners, dryers, mixers, dishwashers, blenders, and later microwave ovens. New products were developed at almost breakneck speed and these items both fed and reflected the new affluence. For instance, in 1972 less than 10% of households had a dishwasher, but by 1997 almost half of all households contained one. Microwaves have been adopted even more avidly: in 1979, less than 5% of households had one, but by 1998 over 88% did. Conversely, the necessity of some appliances

has faltered as times change. The sewing machine is one example. In 1973, 68% of all households in Canada had a sewing machine, but only 55% in 1990.

The growth of the consumer economy is reflected in the spending patterns during this time. Between 1961 and 1970, real inflation-adjusted per capita expenditures on durable goods — items like cars, washers and dryers, televisions, furniture — increased by 70% from \$386 to \$650 per person.

The changing economy

Until 1972, the economy had been growing at an accelerated pace, more women entered the job market (over one million joined the workforce between 1960 and 1970), and Canadians prospered at almost unparalleled rates. Many people assumed the postwar growth would continue into the 21st century, but by the mid-1970s it was clear that it would not. In 1972, the inflation rate began creeping up and interest rates followed. The unemployment rate surpassed 8% in 1977.

In August of 1981, the bank rate peaked at slightly over 21%, and by 1982 the unemployment rate was over 11%. The postwar economic glow was replaced by the most serious economic downturn since the Depression. Food banks and soup kitchens once again spread across the country to help the most vulnerable.⁴ Faced with economic uncertainty, Canadians reduced their spending on goods and services and began saving more of their income. Between 1981 and 1982, real spending on consumer goods and services decreased by over 2%. Personal spending on certain durable and semi-durable items decreased even more dramatically; for example, consumer expenditure on

4. Oderkirk. 1992. op. cit.

Low income over the last two decades

In the early 1980s, the Canadian economy faced a severe recession. Throughout the decade that followed, it became apparent that the workforce was becoming polarized by the unequal distribution of earnings and hours among workers of different ages and skill levels. Compounding these economic factors was the changing family composition (that is, more lone-parent families) and the ongoing reductions in government transfer payments, so that even after the recovery, the proportion of Canadians living in low income situations persisted. Three groups are considered most at risk for low income — women, children, and the elderly.

Women and seniors in low income

In 1998, 13% of women (2 million) were living below the low income after tax cut-offs (LICO-IAT), compared with just over 11% of the male population. Senior women account for much of the difference between women and men. In 1998, 11% of women aged 65 and over, compared with almost 6% of senior men, reported income below the LICO-IAT.

Low income among seniors became a growing concern in the postwar period. In 1980, 26% of seniors (mainly women) still lived below the LICO-IAT; by 1998, the percentage had fallen to just under 9%. This decline was a result of more seniors being eligible to collect full Canada/Quebec Pensions, especially women, whose increased labour force participation meant that they had contributed to CPP/QPP independently of their husbands. The incidence of low income among seniors in husband-wife families decreased from 6% in 1980 to 2% in 1998.

Changing family composition significantly affects entry or exit of children into low income

In 1980, just prior to the recession, 12% of children in Canada were living in low-income families.¹ In 1996, the percentage reached a peak of over 17%; by 1998, it had declined to 14%. Family breakdown and parental unemployment are identified as two of the principal contributors to continuing high levels of children living in low-income households. For instance, in 1998, just over 38% of lone-parent families lived below the LICO-IAT, compared with only 7% of two-parent families. Similarly, among

families where the head of the household had experienced some unemployment in 1998, the incidence of low income was almost 15%; it was only 7% where the household head had not been unemployed during the year.

While it is a relatively rare event, changing family structure has a significant impact on a family's low-income status. A study of longitudinal data for the years 1993 and 1994² showed that 99% of children of lone parents who married³ left low income, compared with 21% of children who remained in lone-parent families. Similarly, in families where a separation occurred, 61% of children entered low income, compared with 13% of children in families where there was no separation.

Is low income a temporary or permanent phenomenon?

Roughly half the individuals who start a spell of low income in a given year will live below the threshold for only one year. However, several key factors influence the probability of experiencing low income for an extended period (four years or more): having a low level of education, being a student, living alone or living in a lone-parent family. As well, Canadians who have work limitations, who are members of a visible minority group or who immigrated later than 1976 have a greater likelihood of living in a low income situation over an extended period.

- For more information, see *Income in Canada*, Statistics Canada Catalogue no. 75-202-XIE; *Why Do Children Move Into and Out of Low Income: Changing Labour Market Conditions or Marriage and Divorce?*, Analytical Studies Branch, Statistics Canada Catalogue no. 11F0019MPE, No. 132; *To What Extent are Canadians Exposed to Low-Income?*, Analytical Studies Branch, Statistics Canada Catalogue no. 11F0019MPE, No. 146; *Women in Canada 2000*, Statistics Canada Catalogue no. 89-503-XPE.

1. Estimates of low income are based upon the 1992-based Low Income After Tax Cut-offs.
2. Low income in this study is defined as below 50% of the 1993 median adult-equivalent adjusted family income.
3. Marriage includes common-law relationships.

new and used motor vehicles dropped by almost 17%. The personal savings rate in 1982 increased to close to 18% of disposable income.

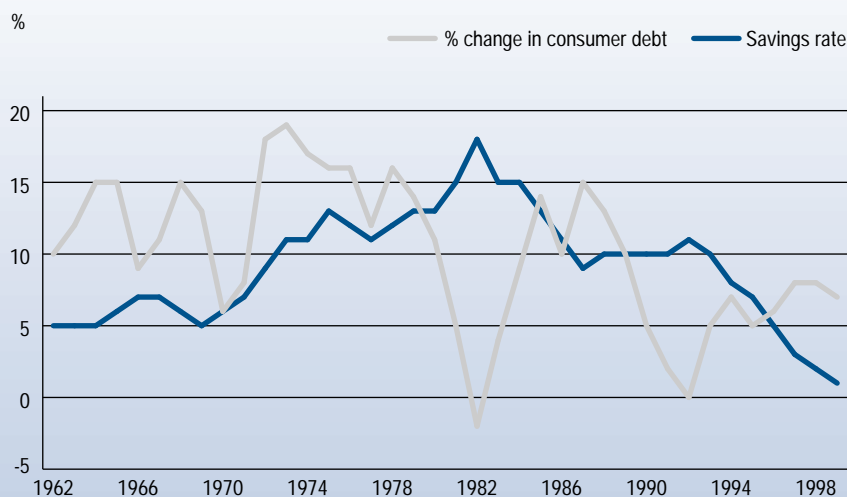
By the end of 1983, unemployment had edged down slightly, inflationary pressures had eased and spending rose again. By the end of the decade

Canadians had incurred more debt; over the course of the 1980s, consumer credit debt increased by 9% — from \$3,481 per person in 1980 to \$3,791 per person in 1989 in real terms — as credit became easier to obtain through loans and credit cards.⁵ The late 1980s also saw the beginnings of cutbacks in

the social welfare system: the principle of universality was removed from family allowance and old age security, and unemployment insurance benefits were cut.

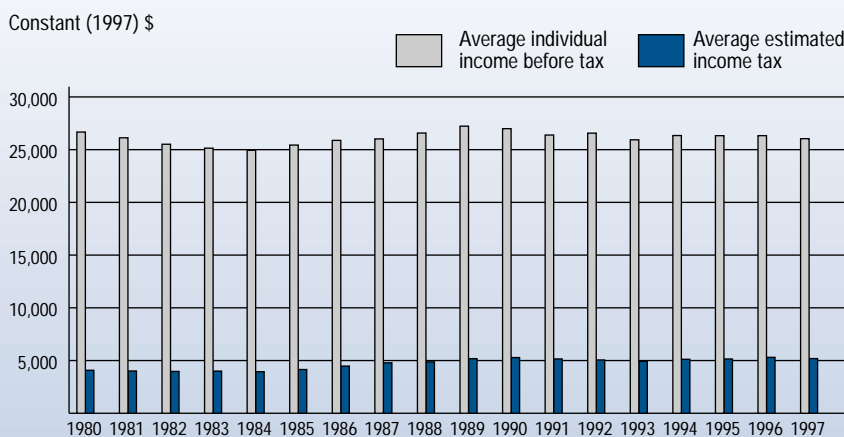
5. Consumer credit debt excludes mortgages.

Since 1993, the savings rate has been falling and consumer credit debt has been rising



Note: Change in consumer debt calculated using current dollars.
Sources: Statistics Canada CANSIM Matrix 6967 and CANSIM Matrix 751.

In the 1980s and 1990s, individual incomes¹ stagnated, while estimated income tax increased



1. Individual income includes income from all sources (i.e. employment, investment and pension incomes, government transfers and other sources of income); estimated income tax includes federal and provincial income tax payable on income and capital gains.
Source: Statistics Canada, Catalogue no. 13F0022XCB.

On the other hand, the phrase “decade of excess” was coined to describe the 1980s. Apart from the 1981-82 recession, growth in consumer spending was strong during this decade. Electronic devices for entertainment, at first considered a luxury and a status symbol, became a

necessity within a few short years. By 1998, most households contained a VCR, a colour television, a compact disc player and cablevision; almost half had a computer.

Real per capita personal spending on consumer goods and services increased 18% over the 1980s. Spending

on services such as recreation, entertainment, education and cultural services grew by almost 50% per capita, from \$909 to \$1,358. The love affair with consumer durables continued unabated — real per capita expenditures on big-ticket items increased by 51% to over \$1,898 per person.

The 1990s were a turbulent time. The early part of the decade saw an economic downturn and government social programs were cut further. Unemployment rates hovered well above 10% in the early part of the decade; however, the recession was not accompanied by the high inflation rates that had plagued the late 1970s and early 1980s. In fact, after 1991, annual inflation was well below 3%, but incomes were flat. In real terms, average individual income fell by more than 2% in the first half of the 1990s (from \$26,991 in 1990 to \$26,327 in 1995). Coupled with increasing taxes, the result was the steady erosion of purchasing power: between 1980 and 1997, the average estimated tax burden increased by more than 27%, while real before-tax incomes declined by more than 2%.

With individual incomes declining, so did family incomes. Between 1980 and 1997, real before-tax income increased less than 1%, but over this same period the average income tax paid by families increased by 32%. The result was a decline in after-tax family income of 5%.

Nevertheless, spending on consumer goods and services continued to rise in the 1990s. Between 1990 and 1999, real per capita personal spending on consumer goods and services increased by almost 12% (from \$14,801 to \$16,533).

Some of this spending was financed with credit, and the volume of consumer debt increased in the 1990s. Real consumer credit debt (including credit cards) increased between 1990 and 1999 by 22% to reach its highest level ever (\$4,584 per

person). At the same time, the personal savings rate dropped from 9.5% to 1.4% of disposable income, a decline of more than 85%.

Summary

The 20th century has been a time of enormous improvement in the general economic well-being of Canadians. At the beginning of the century, most people had little money available for anything beyond the necessities. The century saw both the Great Depression and the unparalleled growth of the 1950s and 1960s. It is perhaps a result of the enormous growth of the postwar period that Canadians feel at the end of the 1990s that their economic well-being has declined. The 1980s and 1990s have been a difficult time for many: jobs no longer offer lifetime security, and stagnant wages, coupled with government restraints, have left Canadians feeling that their standard of living is being eroded.

Although the 1990s began with a recession, they ended with a strong economic recovery. Unemployment levels were lower than they had been for 10 years. For the first time since 1972, the federal and some provincial governments were running surpluses, income tax rates began to drop and disposable income began to rise at rates higher than inflation. Canadians began to hope that the economic prosperity of the late 1990s would result in greater purchasing power and more wealth.

Cara Williams is an analyst with Housing, Family and Social Statistics Division, Statistics Canada.

HEALTH

by Susan Crompton

If health is to be prized more than wealth, then the rise in Canadians' overall material standards during the 20th century is nothing compared to

the vast improvements in their health status. In the 19th century, infectious and communicable diseases like typhoid, cholera, diphtheria, scarlet fever and many others devastated Canada's farming communities, towns and cities. Deaths from infection of wounds and septicemia due to unhygienic practices and conditions were common, and puerperal fever following childbirth killed thousands of women.

Infectious and communicable diseases arrived in Canada by ship from Europe and Asia and traveled up river systems from New York and New Orleans. There were four major outbreaks of cholera between 1832 and 1854. Diphtheria epidemics occurred fairly regularly in the later 19th and early 20th century. Measles epidemics, which generally attacked children between three and seven years old, were common (for example, in 1846 in the Red River district). In the late 19th century, over 3,000 Montrealers died in a smallpox epidemic, even though a vaccine was available.¹ The last outbreak of smallpox was recorded in Windsor, Ontario, in 1924.

The development of the science of bacteriology in the last half of the 1800s transformed the relationship between humans and disease. Armed with the knowledge that microbes transmit disease, physicians learned that they could control disease by preventing such transmission. Largely because of the control and prevention of infectious diseases by public health programs, Canadians' life expectancy has changed dramatically in the past 100 years. Between the 1920s and the 1990s, life expectancy for a Canadian newborn rose from 59 to 78 years. Women recorded an additional 20 years, from 61 to 81 years; and men, 16 more years, from age 59 to 75. This article looks briefly at changes in health over the last 100 years, with special focus on the current concerns of Canadians in childhood, mid-life and old age.

Most leading causes of death are now very different

In the early 1920s, the biggest killers of Canadians were heart and kidney diseases.² With an annual mortality rate of 222 per 100,000 population, they were the leading causes of death. The next most common cause was influenza, bronchitis and pneumonia (141 per 100,000), followed by diseases of early infancy. Tuberculosis (TB) took more lives than cancer. Intestinal illnesses like gastritis, enteritis and colitis, and communicable diseases such as diphtheria, measles, whooping cough and scarlet fever, were also among the leading causes of death.

The large-scale introduction of vaccines and antibiotics completed much of the work begun by public health programs. Vaccines against diphtheria, tetanus, typhoid and cholera had been developed in the late 19th and early 20th centuries;³ penicillin became available in the 1940s, offering a cure for tuberculosis, septicemia, pneumonia, and typhoid, among other illnesses.⁴ By 1950, the number of people diagnosed with diphtheria and typhoid had plummeted to less than 5 per 100,000; by the 1970s, the

1. Authorities instituted a mandatory vaccination program against smallpox, but Montrealers rioted in protest. Resistance subsided only with the mounting death toll. Briggs, E. and C. Briggs. 1998. *Before modern medicine: Diseases and yesterday's remedies*. 80.
2. Leacy, F. H. 1983. *Historical Statistics of Canada* (2nd ed.). Mortality rates for cardiovascular and renal disease are reported as a single category.
3. Porter, R. 1997. *The Greatest Benefit to Mankind: A medical history of humanity from antiquity to the present*. 439, 442-443.
4. The influenza pandemic of 1918-19 killed 21 million people worldwide, 50,000 in Canada; death was due mainly to pneumonia because, in the pre-penicillin era, it could not be treated. Briggs and Briggs. 1998. op. cit. 22, 61.

	Rate per 100,000
1921-25	
All causes	1,030.0
Cardiovascular and renal disease	221.9
Influenza, bronchitis and pneumonia	141.1
Diseases of early infancy	111.0
Tuberculosis	85.1
Cancer	75.9
Gastritis, duodenitis, enteritis and colitis	72.2
Accidents	51.5
Communicable diseases	47.1
1996-97	
All causes	654.4
Cardiovascular diseases (heart disease and stroke)	240.2
Cancer	184.8
Chronic obstructive pulmonary diseases	28.4
Unintentional injuries	27.7
Pneumonia and influenza	22.1
Diabetes mellitus	16.7
Hereditary and degenerative diseases of the central nervous system	14.7
Diseases of arteries, arterioles and capillaries	14.3
Note: Disease categories not identical over time. Rates in 1996-97 are age-standardized.	
Sources: Statistics Canada, Catalogue nos. 11-516 and 84-214.	

incidence of diseases like measles, whooping cough and scarlet fever were so low that these illnesses were considered mainly nuisances. This may be why cases of measles and whooping cough became more common in the first half of the 1990s, suggesting that vaccinations against these diseases were being abandoned as parents forgot they could be killers. By the late 1990s, however, incidence rates for both diseases had fallen again.

Since 1987, the rate of new active cases of tuberculosis has remained fairly stable at about 6 per 100,000. However, TB is an opportunistic disease, attacking those whose resistance to infection is already compromised by malnutrition or poor

living conditions; the incidence rate of TB in the Aboriginal population, for example, is four times as high as that in the general population.⁵

At the close of the 20th century, cardiovascular disease (heart disease and stroke) remains the leading cause of death among Canadians, as it had been when the century began. Nevertheless, it has declined dramatically in the last 50 years, probably reflecting changes in lifestyle (not smoking, eating a low-fat diet, exercise) and improvements in treatment (new pharmaceutical, medical and surgical techniques). In contrast, the rate for cancer has grown to become the second leading cause of death in Canada, compared to fifth in 1921.

However, the mortality rates for different age groups show very clearly that these two diseases are the biggest killers of older people. Cardiovascular disease is the primary cause of death among Canadians aged 75 and over, while cancer is the leading cause of death among Canadians aged 40 to 69. Unlike 100 years ago, when the principal victims of many diseases were children, Canadians now die mainly of diseases related to growing old.⁶

New health problems emerge in childhood

In 1921, the mortality rate for children under one year old was 102 per 1,000 live births; effectively, 10% of children did not live to their first birthday, 4% for less than one month. Within 25 years, the rate had been almost halved to 48 per 1,000 in 1946, and by 1996, it had dropped below 6 per 1,000 live births.

Lower neonatal infant mortality is associated with better prenatal care, including better nutrition during pregnancy, improved hygiene and technological advances in caring for the fetus before, during and after delivery. Immaturity and congenital abnormalities — problems that are now routinely handled in neonatal units — accounted for the majority of infant deaths in the early 1930s; the other principal killers (diarrhoea and enteritis, bronchitis and pneumonia,

5. Health Canada, Statistics Canada and Canadian Institute for Health Information. 1999. *Statistical Report on the Health of Canadians*. 280.

6. For example, the increasing age of the population has had a substantial effect on the growing incidence of cancer in Canada. It is estimated that, in 1995, aging of the population alone accounted for one-third of over 30,000 cancer deaths among men and more than one-quarter of over 25,000 deaths among women (assuming that mortality rates prevailing in 1971 remained constant.) National Cancer Institute of Canada. 2000. *Canadian Cancer Statistics 2000*. 28-29.

Public health: Cleaning up cities cleans out major diseases

Epidemics were almost commonplace in 19th century Europe's industrial cities. Overcrowded, with overflowing cesspits, garbage piled underfoot in the streets and yards of residential and commercial buildings, and unsafe drinking water, the impoverished working class tenements of British, German and American cities bred typhoid, scarlet fever, whooping cough, diphtheria and many other diseases. The biggest killer was tuberculosis; the most frightening was cholera.

When breakthroughs in bacteriology showed that many of the worst diseases were spread by bacteria and viruses in water, air and food, authorities were able to deal much more effectively with epidemics. Public health medicine prescribed clean water, sewage disposal, garbage removal and the sanitary handling of food to prevent epidemics. Cities that provided clean filtered drinking water, proper sewage disposal and garbage removal from the streets recorded dramatic and steady declines in outbreaks of infectious and communicable diseases. In hospitals, using simple antiseptics such as carbolic acid and iodine to treat wounds, and demanding that physicians wash their hands between patients, greatly reduced deaths from infection.

Public health councils were introduced to regulate and enforce "sanitary control" in England beginning in the 1850s and 1860s; in the United States, procedures were adopted somewhat piecemeal starting in the 1870s.

In Canada, the provinces started establishing boards of health in the 1880s to administer and enforce public health regulations. These provincial and municipal boards could, for instance, investigate the origins of outbreak of disease, enforce quarantines, and impose compulsory vaccinations. As their duties and responsibilities grew, boards became more professional, employing specialists in public health medicine to develop and administer programs.

By the late 19th and early 20th century, most of the epidemic killers of European and North American urban populations were under control and mortality rates were down substantially.

- For more information, see Briggs, E. and C. Briggs. 1998. *Before modern medicine: Diseases and yesterday's remedies*. Winnipeg: Westgarth; Dominion Bureau of Statistics. 1967. *Canada: One hundred, 1867-1967*. Ottawa: Ministry of Trade and Commerce; Porter, R. 1997. *The Greatest Benefit to Mankind: A medical history of humanity from antiquity to the present*. London: HarperCollins Publishers.

and communicable diseases) are now largely preventable with standard hygiene practices and vaccines or are curable with antibiotics.

Chronic problems rather than acute illness now comprise the principal health difficulties of Canadian children. Partly because of improved medical intervention, including neonatal technology and increased multiple births, there appears to be a growing trend toward pre-term births (less than 37 weeks) and low birthweight babies

(under 2,500 grams). (The two conditions are often linked; in 1996, 53% of premature babies were low birthweight.) Small babies not only have higher mortality rates than babies of normal weight, they also have more health problems that may last into adulthood. A 1999 study of Canadian children under age 3 showed that being a pre-term low birthweight baby, and having a mother who was in poor health, were both significantly associated with a child being in poor health.⁷

The rapid growth in the incidence of asthma also alarms health professionals. The percentage of Canadian children under 15 diagnosed with asthma increased from less than 3% in 1978-79 to over 11% in 1994-95. Asthma is more often reported among boys than girls (13% versus 9%), among school-age children than preschoolers (13% versus 7%), and among children in either low- or higher-income homes. Having a history of bronchitis or allergies, and having a parent or parents who also have a history of asthma, are significantly associated with asthma in children. Quality of life for asthmatic children can be significantly impeded: compared with other children, those with asthma are seven times as likely to be in only fair or poor health (7% versus 1%) and four times as likely to have activity limitations (13% versus 3%).⁸

Health status improving in young and middle adulthood

Accidents (mainly motor vehicle accidents, falls, suicides and homicides) were the single largest cause of death among young adults aged 25 to 39. The mortality rate ranged from 37 to 40 per 100,000 in 1997, with car accidents the main cause of accidental deaths. Dying from cancer is notable only by its rare occurrence: the mortality rate for cancer ranged between 7 and 24 per 100,000. In fact, the National Cancer Institute of Canada estimates there is only a one in 90 probability that a 30-year-old woman will develop cancer by the time she is 40, and a one in 143 probability that a man the same age will do so.

7. Chen, J. and W. J. Millar. 1999. "Birth outcome, the social environment and child health," *Health Reports*, 10, 4 (Spring 1999).

8. Millar, W. J. and G. B. Hill. 1998. "Childhood asthma," *Health Reports*, 10, 3 (Winter 1998).

On the other hand, cancer is the principal killer of Canadians in their 40s and 50s. Mortality rates remain comparatively low, though: in 1997, less than 100 per 100,000 for adults in their 40s, and between 160 and 300 for those in their 50s. Lung, breast and colon cancers are the three biggest killers.

Probably of greater day-to-day worry to adults in later mid-life are the creaks and aches that herald advancing age. On the whole, though, Canadians are healthier now than they were 20 years ago by a number of measures. A recent analysis of adults in three different age cohorts found that, after controlling for the effect of age, the odds of having heart disease, high blood pressure, arthritis and activity limitations were significantly lower for both men and women today than in the late 1970s.⁹

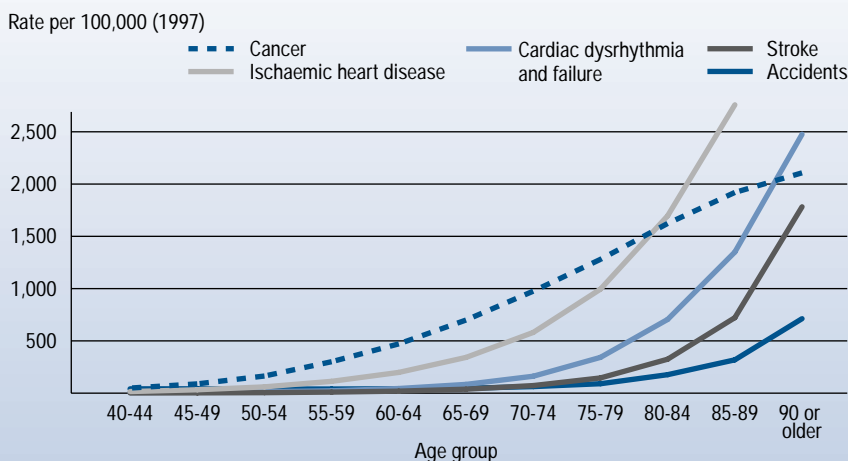
Improved treatment of disease has contributed to the better health of Canadian adults, as have health education efforts aimed at disease prevention. Asked in 1996-97 if they had done anything in the previous year to improve their health, almost half (48%) of 45- to 64-year-olds said they had. Most often, this health-conscious group of Canadians had increased the amount of exercise they took, although many said they had lost weight or improved their eating habits.

Another factor to which researchers attribute improved health is the lower prevalence of smoking. The National Cancer Institute of Canada cites smoking as the cause of one-quarter of all deaths among 35- to 84-year-olds. The substantial drop in smoking rates among mid-life adults is associated with declining rates of heart disease and stability in the incidence rates for certain types of cancers.

Most seniors still grow old at home
Cardiovascular disease is the major cause of illness, disability and death in Canada, and one of the major causes

CST

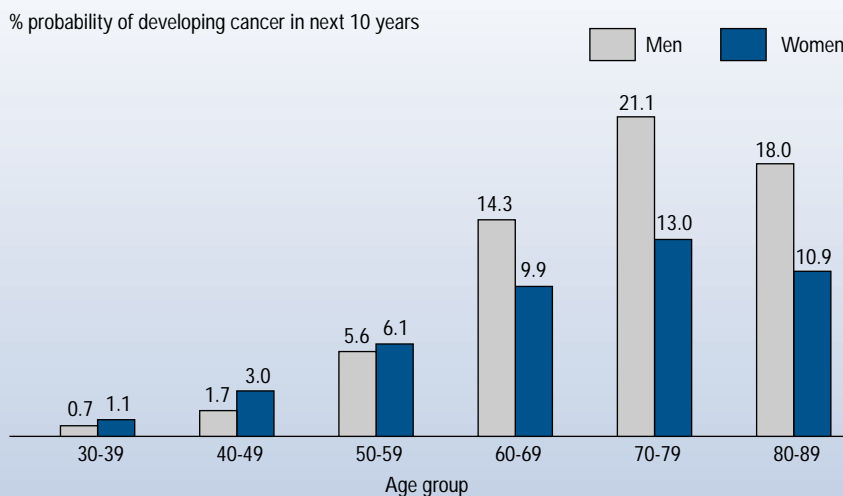
Cancer is the biggest killer of adults aged 40 to 75, ischaemic heart disease of those 75 and older



Note: Mortality rate for ischaemic heart disease, age 90 or older is 4,971.2 per 100,000. Source: Statistics Canada, Product no. 82F0075XCB.

CST

The likelihood of developing cancer in the next 10 years is very low for people in their 30s and 40s



Source: National Cancer Institute of Canada, *Canadian Cancer Statistics 2000*.

of hospitalization in this country.¹⁰ It is the leading cause of death among Canadians over the age of 75. Mortality rates in 1997 rose from 1,735 per 100,000 for people aged 75 to 79 to almost 11,000 for seniors 90 or older.

Since the 1980s, mortality rates for both categories of heart disease (heart attack and ischaemic heart disease)

have been falling, while those for stroke have remained fairly constant.

9. Chen, J. and W. J. Millar. 2000. "Are recent cohorts healthier than their predecessors?" *Health Reports*, 11, 4 (Spring 2000).

10. Heart and Stroke Foundation of Canada. 1999. *The changing face of heart disease and stroke in Canada 2000*. v.

	Age 32-49		Age 50-67		Age 68-85	
	1978-79	1996-97	1978-79	1996-97	1978-79	1996-97
%						
Men						
Heart disease	1.4	1.1	10.5	8.1	20.4	19.8
High blood pressure	9.7	5.0	21.7	18.6	32.2	26.0
Diabetes	1.1	1.7	4.5	7.2	4.6	12.1
Arthritis	6.1	5.3	23.6	17.3	32.3	30.9
Activity limitation	8.5	8.7	23.5	16.9	35.6	25.2
Daily smoker	47.6	31.8	42.6	24.7	29.6	13.9
Overweight	32.8	36.0	43.8	42.3	32.0	31.6
Women						
Heart disease	1.7	1.2	8.1	5.1	19.7	15.7
High blood pressure	8.9	4.4	30.0	21.6	46.3	37.2
Diabetes	1.1	1.9	5.0	5.4	8.6	9.4
Arthritis	13.2	9.3	36.3	30.5	50.9	47.2
Activity limitation	10.5	10.6	22.5	17.4	35.3	27.0
Daily smoker	39.5	26.4	31.2	19.2	14.7	9.7
Overweight	27.5	22.0	47.0	34.7	38.9	30.8

Source: Statistics Canada, Catalogue no. 82-003, 11, 4 (Spring 2000).

However, with an increasingly large elderly population, death rates from ischaemic heart disease and stroke are expected to rise throughout the first decade or more of the 21st century.¹¹

Cardiovascular disease and many other long-term health conditions common to later years, including dementia, can result in chronic pain, disability and activity limitation. In 1996-97, 25% of seniors lived with chronic pain and 28% had some kind of activity limitation because of a long-term health problem. Senior women had a greater chance of having a chronic condition than men of the same age group. The most common chronic ailment was arthritis (42%); others included high blood pressure (33%), food and other

allergies (22%), back problems (17%) and diabetes (16%). Many seniors had more than one chronic condition. On the whole, though, most seniors (78%) reported themselves to be in good to excellent health.

Nevertheless, one of many seniors' greatest fears is that their declining health will lead to their eventual commitment to a health care institution. In fact, very few seniors actually live in long-term health care facilities; in 1995, only 5% of the senior population aged 65 or older (and 18% of those aged 80 or older) was in an institution. Of course, health status is a key predictor of institutionalization. The odds of living in a health care institution are higher for seniors who need personal care (bathing, dressing,

etc.), have chronic health problems (particularly Alzheimer's), experience urinary incontinence, or suffer the effects of stroke. Socio-demographic factors also play a role: being over age 80, being unmarried, having less than Grade 9 education and having a lower income, also increase the odds of living in a health care institution.¹²

Getting help at home can prevent or delay the need for a senior in poor health to enter a health care facility. In 1996, about 22% of seniors in private households (over 750,000) were receiving some care at home because they had a long-term health problem. The majority of this caregiving was being provided by family and friends, but some seniors also received additional care provided by professional or volunteer organizations, or from a caregiver hired by the senior. As for publicly funded home care, in 1998-99, about 8% of seniors aged 65 to 79 and 28% of those aged 80 or older were receiving it.

Low income and poor health

The principal reason for introducing universal health care in Canada was to ensure that no-one could be denied access to health care because they were unable to pay. But almost 40 years after its introduction, people with low incomes are more likely to be afflicted by a variety of diseases, to be in poor health and to have lower life expectancy than people with high incomes. This disparity exists despite the fact that low-income Canadians use health care services more frequently than those with higher incomes; in 1998-99, people with low income were more likely to visit their doctors frequently,

11. Ibid.

12. Trottier, H., L. Martel, C. Houle, J.-M. Berthelot and J. Légaré. 2000. "Living at home or in an institution: What makes the difference for seniors?" *Health Reports*, 11, 4 (Spring 2000).

to go to emergency departments for care and to be admitted to hospital. They were also more likely to be using more than one medication.¹³

Certainly, risk behaviour and health status are closely related to educational level (and education and income are highly correlated). People with more education are less likely to smoke, drink heavily or be overweight; they tend to be more physically active and to have a positive outlook on life and good mental health. More people with a university degree also had better health care coverage for dental care, vision care and prescription drugs, probably provided as an employment benefit.¹⁴

Research findings like these suggest that social, environmental and genetic factors play key roles in determining an individual's health status. Thus, it seems possible that health education and making disease prevention the primary goal of health care could ultimately produce improvements in the health status of low-income Canadians.

Summary

Advances in public health measures and sanitary control, pharmaceuticals and medical technology in the 20th century have had a dramatic effect on the overall level of health in Canada. Diseases that caused deadly epidemics in the 19th century — cholera, typhoid, tuberculosis, measles, whooping cough and many others — have been virtually eliminated; death from infection has become rare in an era when cleanliness is standard practice and antibiotics are available. Life expectancy has increased by almost 20 years and the general overall level

13. "Health care services – recent trends," *Health Reports*, 11, 3 (Winter 1999); "Life expectancy," *Health Reports*, 11, 3 (Winter 1999).

14. *Statistical Report on the Health of Canadians*, Statistics Canada Catalogue no. 82-570-XIE. 1999.

Today's nightmare diseases

Cancer

In 2000, an estimated 132,100 new cases of cancer will be identified in Canada, most commonly prostate cancer for men and breast cancer for women. But after rising for many years, incidence rates for prostate cancer began to fall in 1994, while those for breast cancer have grown steadily for 30 years. In 2000, a projected 65,000 Canadians will die of cancer, most commonly of lung cancer, which accounts for one-third of male and one-quarter of female cancer deaths. Overall cancer mortality rates have been declining for men since 1988, and for women since the 1970s (except for lung cancer).

The probability of developing cancer is fairly high over a person's entire lifetime – one in 2.5 for men and one in 2.8 for women. Nevertheless, cancer is most often diagnosed in older Canadians: 70% of new cases and 82% of deaths are reported for people age 60 or older.

HIV infection/AIDS

Between 1985 and the end of 1999, a total of 45,534 Canadians had tested positive for HIV infection. The main victims of HIV infection have changed in recent years. Over the period 1985-94, 75% of HIV diagnoses were among men who have sex with men; in 1999, the proportion was 37%. In contrast, infection is increasing among intravenous drug users, from 9% in 1985-94 to 28% in 1999. HIV is also more frequently diagnosed among women now: 24% of new cases in 1999, compared with less than 10% over the 1985-94 period. There has also been an increase in HIV exposure via heterosexual sexual contact, from about 6% of positive tests in 1984-95 to over 19% in 1999.

From 1985 to 1999, a cumulative total of 16,913 Canadians had been diagnosed with AIDS; about 70% had also died of AIDS over this period. But mortality has dropped substantially in recent years. In 1994 and 1995, AIDS deaths reached highs of over 1,400 per year, but less than five years later (1998 and 1999), the numbers had fallen to only 249 and 106, respectively.¹

- For more information, see National Cancer Institute of Canada. 2000. *Canadian Cancer Statistics 2000*. Toronto: Division of HIV/AIDS Surveillance; Health Canada. 2000. *HIV and AIDS in Canada: Surveillance Report to December 31, 1999*. Ottawa: Health Canada.

1. 1998 and 1999 figures not adjusted for reporting delay.

of health seems to be improving for each successive generation.

However, the World Health Organization (WHO) has warned that a number of infectious diseases, including tuberculosis and pneumonia, are becoming increasingly resistant to antimicrobial drugs. The emergence of drug-resistant TB is of particular concern because it appears to be closely associated with HIV infection. At the same time, WHO's 1998 annual report

identifies Canada as part of the trend toward a population that will be longer-lived, with a life expectancy of 81 years by 2025. It further forecasts that Canadians will enjoy good health throughout most of that extended lifespan, as disability due to heart disease and some cancers continues to decline.

Susan Crompton is Editor-in-Chief of *Canadian Social Trends*.

URBAN DEVELOPMENT

by Frances Kremarik

When the first French settlers came to Canada in the 17th century, easy access to water was crucial because it was the only means of long-distance transport available. They settled along the shores of the St. Lawrence River in Quebec, and the seigneurial system distributed land in long narrow strips so that every farmer had a shoreline and access to the river. Major towns — Quebec City, Trois Rivières and Montréal — grew up along the St. Lawrence. Settlers in the Maritimes, both French and English, were also dependent upon water for transportation and communication. It provided the livelihood for most settlers, whether fishers or traders; Halifax, for instance, became the country's premier port.

Enticed by land grants and British rule, United Empire Loyalists started to settle in modern-day Ontario after the American Revolution. The St. Lawrence was still critical to transportation and communication, linking the Atlantic to the Great Lakes and helping to make cities like Kingston and Niagara Falls into prosperous communities.

In the 19th century, the railway became the country's second major transportation link; as such it became the magnet for the next wave of town and city building. Eastern Canada was laced with tracks connecting small communities and operated by a number of companies in a thriving competitive industry, and the mass settlement of western Canada at the end of the 19th and at the start of the 20th century was supported by the expanding tracks of the Canadian Pacific Railway (CPR).

Now, we are a nation that is connected by air and road as well as by water and rail. There are almost 14 million cars on roads that run over 900,000 kilometres and almost 2,000,000

passengers fly every month to and from destinations in Canada. But still, we live in the cities and towns that rose to prominence because they were important centres on the original "highways" created by water and rail.

Bright lights, big cities?

The towns and cities at the turn of the 20th century were small and compact. There were few highrise buildings,¹ and those that did exist were predominantly commercial. With the vast majority of people relying upon horse-drawn transportation or walking to reach their destination, industrial and commercial activities developed in close proximity to residential areas. In cities where streetcars and other forms of public transit had been introduced, people were able to live further away from the city centre, provided they remained close to the transit lines. This pattern of settlement created a "spoke" type of development in the city. Ultimately, public transit and private automobiles contributed to the segregation of land uses within the city, instead of a system of mixed industrial, commercial and residential use.

The average city at the turn of the 20th century may have been small, but it did have its slums. Although immigrants had been recruited to come to Canada to be farmers, a substantial proportion settled in cities. The majority of these newcomers were employed as low-paid unskilled and semi-skilled labour, swelling the ranks of the urban working class.² Forced to live among the smokestacks and factories with little if any public sanitation, the housing conditions of the working class were considered appalling by many social activists. Urban crowding and poor public sanitation resulted in frequent epidemics that did not always remain confined to the urban slums. By the time of the First World War, a movement to improve working class areas of the

cities had appeared.³ Following a typhoid epidemic in 1914, Montréal introduced a new water filtration system; during the same period, Toronto built a new sewage treatment and filtration plant and extended the city's sewer system. Municipal governments implemented health and safety programs that included improving sewers, cleaning streets, installing street lighting, and even providing access to hydroelectric power.⁴

When times were tough

After World War I, Canada became an industrial nation, a significant change from the days prior to the outbreak of war. Agriculture continued to be very important, but it became more and more mechanized in the drive to gain efficiencies. This in turn decreased the opportunities for employment on the farm and the flow of people moving from rural to urban areas accelerated. The shift toward urban residency can be seen in home ownership rates. In 1931, 79% of rural households owned their homes, but only 46% of urban households could say the same. This reflected the movement of rural families to urban areas, who came hoping for better opportunities and work but often had few financial resources. Some people still move to the city for the same reasons today.

The housing growth experienced after the Great War, by the cities in particular, came to an abrupt halt with the onset of the Great

1. A highrise building is defined as being five stories or higher.
2. Finkel, A., M. Conrad, and V. Strong-Boag. 1993. *History of the Canadian Peoples: 1867 to the Present*.
3. Douglas, A. 1997. *The Complete Idiot's Guide to Canadian History*.
4. At that time, the majority of urban dwellings relied upon coal and wood for cooking and heating. The smoke and residue strongly contributed to the poor air quality of the cities.

Depression in 1929. More than 450,000 new dwellings were built between 1921 and 1931; but only 340,000 were built between 1931 and 1941, even though there were 430,000 new families. Many families, but especially young men, migrated from the country to the city in search of work. Few were successful, and many depended upon relief for food and housing.

The car revolutionizes cities

The peace following World War II marked an unprecedented economic and population boom. Soldiers returned from the war, entered the workforce, married and demanded new homes for their new families. Contributing to the boom in urban growth was the massive influx of immigrants into Canada, most of whom settled in cities; by 1961, more than 80% of all foreign-born Canadians lived in urban areas, compared with two-thirds of the Canadian-born population.

Home ownership was part of the dream of respectable “middle-class” living: one generally enjoyed more living space than renters in addition to having equity in a property. The low-density housing preferred by this newly affluent society could only be built where land was cheap, that is, outside the city; but only ownership of a private automobile made large-scale development outside the city core feasible. With increasing car ownership (by 1960, almost 70% of Canadian households owned at least one car), people were now able to live even further away from city centres or their places of work. They were no longer dependent on public transit and its scheduling constraints but they had not increased their commuting time. And so began the suburban explosion.

The federal government also played an important role in the post-war housing boom. Prior to the Depression, it was quite common for

The new towns grew up at the whistle stop

In 1900, Canada had a population of just over 5 million. Two-thirds of Canadians lived in rural areas and were dependent for their livelihood upon farming and the farming economy. The Prairies were just starting to be opened up to wide-scale agriculture. The national population grew by 1.9 million people from 1901 to 1911; almost two-thirds of this growth (1.1 million people) occurred in the western provinces and territories.

The new settlers flooding into the west created a landscape of sod-built houses, or “soddies”, across the Prairies as more than 200,000 homesteads were settled in the first decade of the 1900s; in 1901, almost one-fifth of all homes in the Territories¹ were classified as “other”.² After a few harvests, settlers were able to move out of their sod-dies, and, lacking stone and brick for homes, build themselves wooden houses. Whistle stops along the railway tracks provided a central place to receive supplies from the trains and then sell them to surrounding homesteaders. Naturally enough, towns began to develop at these distribution sites, and as the rural population grew, so did urban centres like Calgary, Edmonton, and Saskatoon.

- For more information, see Finkel, A., M. Conrad, and V. Strong-Boag. 1993. *History of the Canadian Peoples: 1867 to present*. Toronto: Copp Clark Pitman.

1. In 1901, Alberta and Saskatchewan had not yet entered into Confederation as provinces and were classified, along with northern parts of present day Manitoba, Ontario, Quebec and the present-day territories, under the collective title of “The Territories”.
2. The categories for housing materials were wood, brick, stone, composite, and other.

people buying a house to pay over half of the purchase price with their own savings and to borrow the remainder from family and friends. Loans obtained from financial institutions were normally paid back within five years.⁵ During the Depression, the government attempted to stimulate needed construction by passing a number of acts related to housing. After World War II, the Central (now Canada) Mortgage and Housing Corporation (CMHC) was established in order to administer this legislation. Its primary function was to grant and insure mortgages. In this role, CMHC was directly responsible for the construction of half a million homes between 1945 and 1951.⁶

From 1949 to 1960, more than two-thirds of all new residential dwellings built were single detached houses, the basis of the suburban lifestyle. By 1971, the dream of owning a family home was a reality for

the majority of Canadians: 60% of households owned their home. They were also paying for that dream: more than half of all homeowners in 1971 had a mortgage, compared to less than one-third in 1951. The homes were also getting larger. In 1951, the average owner-occupied dwelling had 5.8 rooms; by 1971, it had 6.1 rooms. In contrast, rental housing was getting smaller, shrinking from an average of 4.5 to 4.4 rooms over the same period.

The city centre moves out to the suburbs

With cities expanding into previously rural areas, shopping centres, restaurants, and other service providers

5. Harris, R. 1991. “Housing,” *Canadian Cities in Transition*. 354-356.

6. Finkel et al. 1993. op. cit. 430.

Rapid growth of car ownership encouraged suburban development in the 1950s and 1960s...

	Passenger automobiles (000s)	% change in automobile registrations	% change in population
1946	1,235	--	--
1951	2,106	71	14
1956	3,222	53	15
1961	4,326	34	13
1966	5,481	27	10
1971	6,967	27	8

... and suburbs allowed Canadians to buy larger and larger homes

	Population (000s)	Number of occupied dwellings (000s)	Rate of ownership	Number of rooms ¹ per owned dwelling	Number of rooms ¹ per rented dwelling
1941	11,490	2,573	57	5.5 ²	--
1951	13,623	3,350	66	5.8	4.5
1961	18,238	4,554	66	5.8	4.4
1971	21,568	6,031	60	6.1	4.4
1981	24,343	8,282	62	6.6	4.3
1991	27,297	10,018	63	7.0	4.5
1996	28,847	10,820	64	7.1	4.5

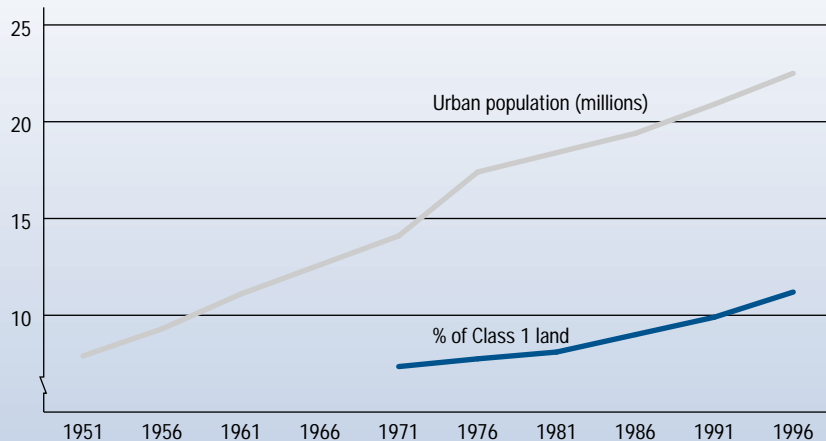
-- Data not available.

1. A room is an enclosed area within a dwelling which is finished and suitable for year-round living.

2. The figure is for both rented and owned dwellings.

Sources: Statistics Canada, CANSIM matrix T148 and Catalogue nos. 93-357-XPB and 92-932.

As the cities grew, more of the best farmland was used for urban development



Note: Data on land use not available for 1976 and 1986; trend line created for these years.
Sources: Statistics Canada, Catalogue nos. 16-200-XKE and 93-339.

began to locate in the outer edges of the city in order to be closer to their customers. Although this was convenient for suburbanites, it lured away the commercial activity that had formerly been directed to the city centre. The downtown areas of cities began to reflect the falling investment as businesses and commercial interests focused on areas that provided greater site acreage for development and a larger potential for revenue. Public transit systems that had been built in the 1960s to funnel workers and shoppers into the city core had to provide alternate routes to capture new passenger flows.

The increased use of the automobile also sucked the vitality from some smaller communities, especially those near metropolitan areas. Local opportunities diminished and some towns became “bedroom communities” — towns that are no longer economically self-sufficient and whose primary function is to provide housing for individuals working in the metropolitan centre. More and more bedroom communities developed as the substantial increase in the number of cars on the road resulted in major road infrastructure projects. Although new highways made it easier to visit the countryside, it also made it easier to commute into the city from the countryside; as such, it spawned further suburban development that contributed to the destruction of the rural environment.

Not only were cities growing “out”, they were also growing “up”. Faced with higher land costs in the city, the 1960s witnessed the construction of high-rise buildings for both commercial and residential uses. The majority of high-rise apartments were occupied by renters, in contrast to the high ownership rate of single detached dwellings in the suburbs. Cities’ downtown cores, however, were dominated by commercial buildings that just kept growing and growing,

Census metropolitan area	Average house value (\$)	Rate of ownership (%)	Average monthly ownership cost (\$)	Average monthly rental cost (\$)
St. John's	105,487	68	724	532
Halifax	115,582	60	761	598
Saint John	89,084	66	608	450
Montréal	131,838	49	814	542
Ottawa-Hull	154,234	59	931	670
Toronto	238,511	58	1,070	758
Winnipeg	97,824	64	681	507
Regina	89,708	66	667	491
Calgary	154,203	66	847	602
Edmonton	127,986	65	761	539
Vancouver	318,127	59	942	754

Source: Statistics Canada, Product no. 93-330-XPB.

creating an imposing and dominating landscape. In Montréal, city planners started developing underground shopping malls and walkways to connect commercial buildings, an idea taken up by Toronto in the 1980s.

Affordable cars and inexpensive gas had fueled the suburban explosion of the 1950s and 1960s. The rate of expansion came under pressure during the oil crisis of the 1970s, the resultant economic downturn and stagflation. People were not about to give up their cars, though: car ownership had increased to almost 80% of households by 1975, and over 20% owned more than one vehicle. Instead, smaller, more economic vehicles began to replace the gas-guzzling “boats” of the 50s and 60s. Public transit also became a popular issue in municipal politics as people looked to find a more inexpensive means of commuting to work.

New housing options developed in the 1980s

The 1980s started with the most severe recession since the Depression 50 years before, and the housing industry was especially hard hit. When the economic cycle regained its upswing in the

mid-1980s as spending increased on big-ticket items like cars and housing, the demand for housing exploded in southern Ontario, focused mainly in Toronto. Development continued to expand the urban centres outward, pushing suburbs even further from the city core. Homeowners continued to acquire bigger homes, with the average size of an owner-occupied dwelling growing to 7.0 rooms in 1991. In 1981, the average cost of a home was almost \$74,000; by 1996, the average cost was over \$82,000.⁷

There was a housing revival of sorts in the cities at this time, too, as new condominium projects in downtown areas multiplied. Introduced in the 1970s as an alternative housing option, they were almost exclusively an urban phenomenon and by 1991, almost 90% of all condominiums were located in the country's 25 largest cities, with Toronto and Vancouver leading the way.⁸ This development reflected the changing lifestyle of many Canadians and many larger urban centres made use of empty commercial space and turned it into residential units on prime downtown land. However, the gradual decline of

the inner city had also created an abundance of lower quality housing in prime city locations.

Refurbishing existing housing also served to revitalize the inner cities in a process called gentrification. This remains a common procedure whereby more upscale housing is created in an area where lower-cost housing once predominated. Although it helps to energize downtown cores and provides an alternative to suburban living, the unfortunate side effect can be the displacement of individuals on reduced incomes into more expensive housing, or no housing at all.

Homeownership in the 1990s

Like many things, our homes have changed over the century not only in appearance, but in location and tenure as well. In 1901, a majority of Canadians lived in large families in the countryside and owned the houses they lived in. The majority of homeowners were mortgage-free.

Families have changed, and so have their housing choices. More than 80% of husband-wife families own their homes, and just over half of them have a mortgage. In contrast, only 54% of common-law families own their homes, and three-quarters of them have a mortgage. Even fewer lone-parent families (45%) are homeowners, with 56% having to pay a mortgage. Almost one-quarter of married and common-law homeowner families spend more than 30% of their income on housing; more than half of lone-parent families are in the same situation.⁹

7. The values refer to owner-occupied private non-farm dwellings. Values are in constant dollars.

8. Lo, O. 1996. “Condominium Living,” *Canadian Social Trends*, Summer 1996.

9. Spending 30% of the household income on shelter costs is often used as a benchmark for affordability.

Summary

Canada at the turn of the century was predominantly rural. Canadians lived in the distinctive homes of the Quebec countryside, in Prairie "soddies", in the wooden houses of the Maritimes or in the stone-built farmhouses of Ontario. The way to get to the neighbour's house was on the back of a horse, and going to another town meant taking the train.

Today we live in the apartments of the cities and the single detached houses of the suburbs. Although we are undoubtedly an urban nation, middle-aged and older Canadians have started to move to smaller towns and cities just within commuting range of the "big" city in order to enjoy "country" living.¹⁰ Even though this change in lifestyle may represent a longing for the "good old days", when we go down the street to the store, we'll probably still use our cars.

10. Foot, D. K. and D. Stoffman. 1998. *Boom, bust & echo 2000: profiting from the demographic shift in the new millennium*. 48-49.

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