



---

**Applied Research and Analysis Directorate**  
*Information, Analysis and Connectivity Branch*

---

**Direction de la recherche appliquée et de l'analyse**  
*Direction générale, de l'information, de l'analyse et de la connectivité*

---



# **Departmental Performance Report**

## **1999 – 2000**

### **Annex A:**

# **Measuring Health In Canada**

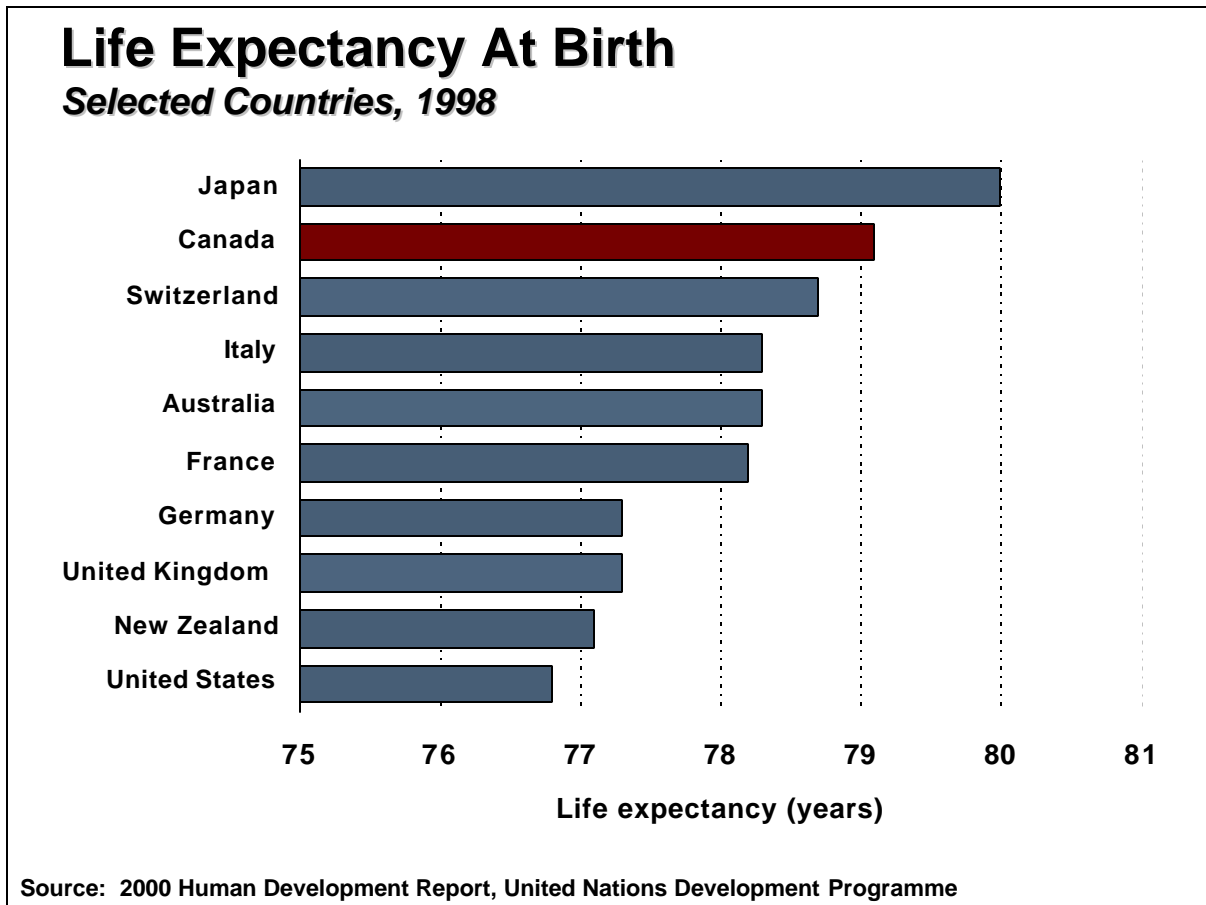
The health of a population is determined by many factors, and only partly the result of government actions. Nevertheless, information on government programs affecting health can be better interpreted when placed in the context of the overall health status of Canadians.

Measuring Health in Canada provides this context, including information on:

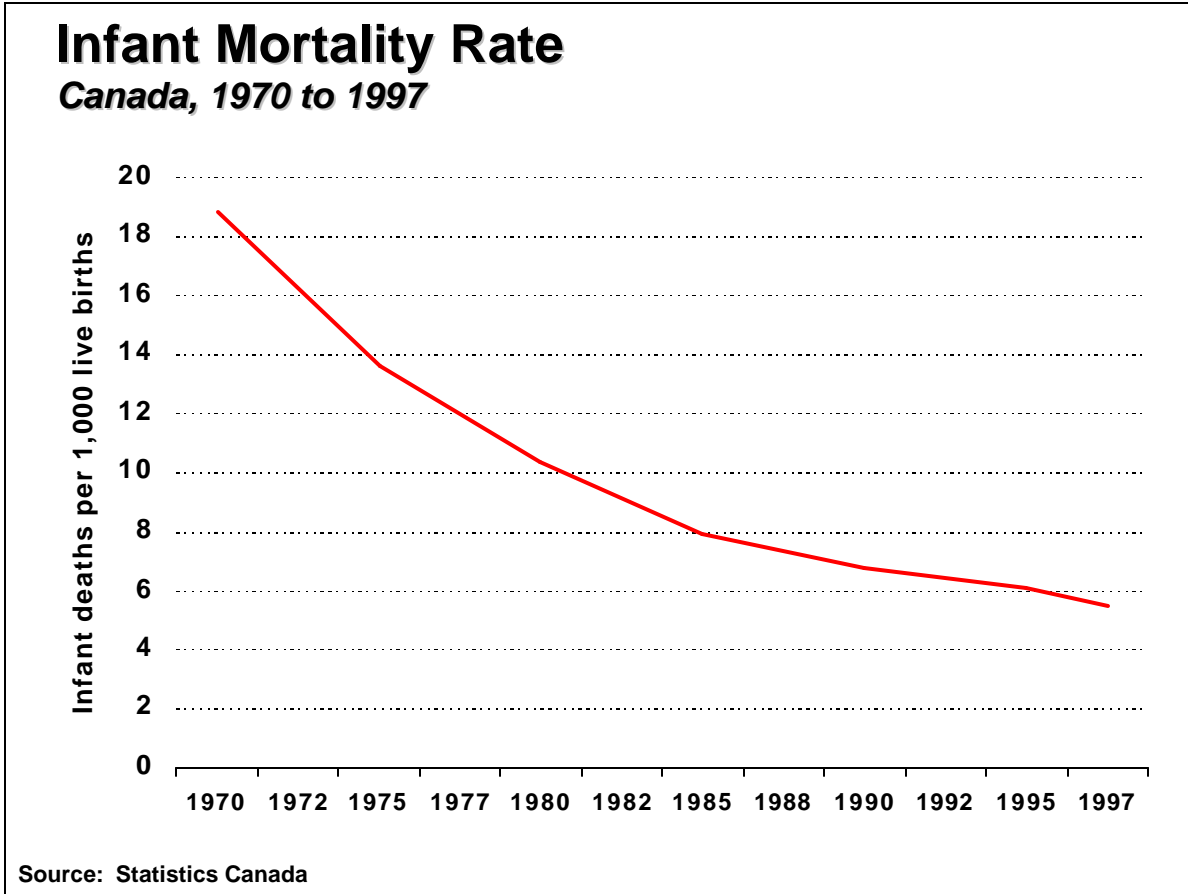
?	General Indicators of Life Expectancy and Mortality:	3
	Life Expectancy At Birth.....	3
	Infant Mortality Rate.....	4
	Life Expectancy Given Selected Ages – Males.....	5
	Life Expectancy Given Selected Ages – Females.....	5
	Leading Causes of Deaths – 1985.....	6
	Leading Causes of Deaths – 1997.....	6
	Cardiovascular Disease Mortality Rates.....	7
	Cardiovascular Disease Deaths.....	8
	Cancer Incidence Rates – Males.....	9
	Cancer Mortality Rates – Males.....	9
	Cancer Incidence Rates – Females.....	10
	Cancer Mortality Rates – Females.....	10
	Injury Mortality Rates – By Cause of Death & Sex.....	11
	Injury Mortality Rates – Males.....	12
	Injury Mortality Rates – Females.....	12
	Injury Mortality Rates – Males – By Cause of Death & Sex.....	13
	Injury Mortality Rates – Females – By Cause of Death & Age.....	13
?	General Indicators of Health Status and Morbidity:	14
	Self-Rated Health.....	14
	Prevalence of Selected Chronic Conditions.....	15
	Canadians with Asthma – Males.....	16
	Canadians with Asthma – females.....	16
	Leading Notifiable Diseases Incidence Rates.....	17
	Hepatitis C Incidence Rates – By sex.....	18
	Hepatitis C Incidence Rates – By Age & Sex.....	19
	Foodborne Illnesses Incidence Rates.....	20
	Prevalence of Depression – Males.....	21
	Prevalence of Depression – Females.....	21
	Overweight Prevalence – By Age & Sex.....	22
	Overweight Prevalence – By Age.....	23
?	Behaviours and Preventative Measures:	24
	Daily Smoking – By Age.....	24
	Daily Smoking – By Age & Sex.....	25
	Family Violence – Spousal – By Sex.....	26
	Family Violence – Spousal – By Sex & Type of Violence.....	27
	Family Violence – Violence Against Children and Youth by Family Members.....	28

	Moderate Leisure – Time Physical Activity .....	29
	Regular Moderate Physical Activity.....	30
	Preventative Measures .....	31
?	HIV/AIDS: and	
	Positive HIV Test Results – By sex.....	32
	Positive HIV Test Results – Adult Males .....	33
	Positive HIV Test Results – Adult Females .....	34
	Acquired Immune Deficiency Syndrome .....	35
?	First Nations and Inuit Health:	
	Life Expectancy at Birth – Males .....	36
	Life Expectancy at Birth – Females.....	36
	Infant Mortality Rates.....	37
	Prevalence of Chronic Conditions .....	38
	Tuberculosis Incidence Rates .....	39
	Aboriginal AIDS Cases.....	40
	Positive HIV Tests.....	41

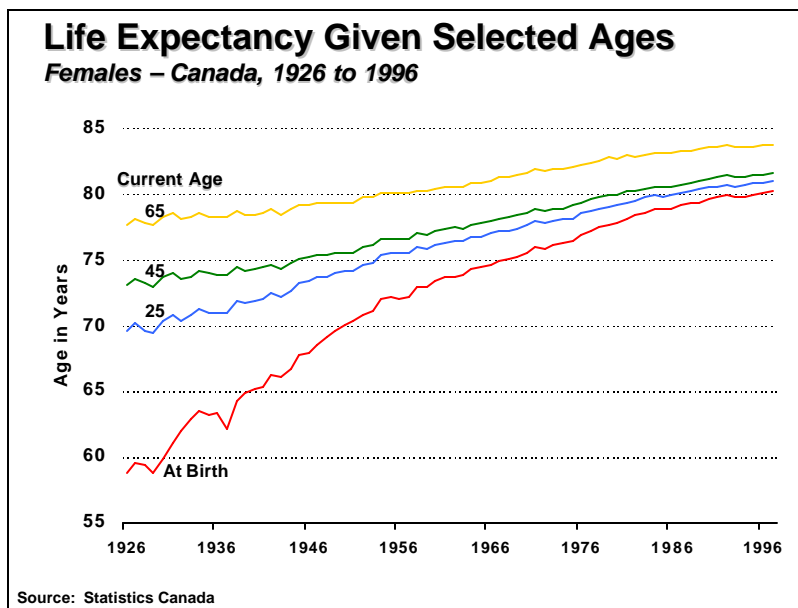
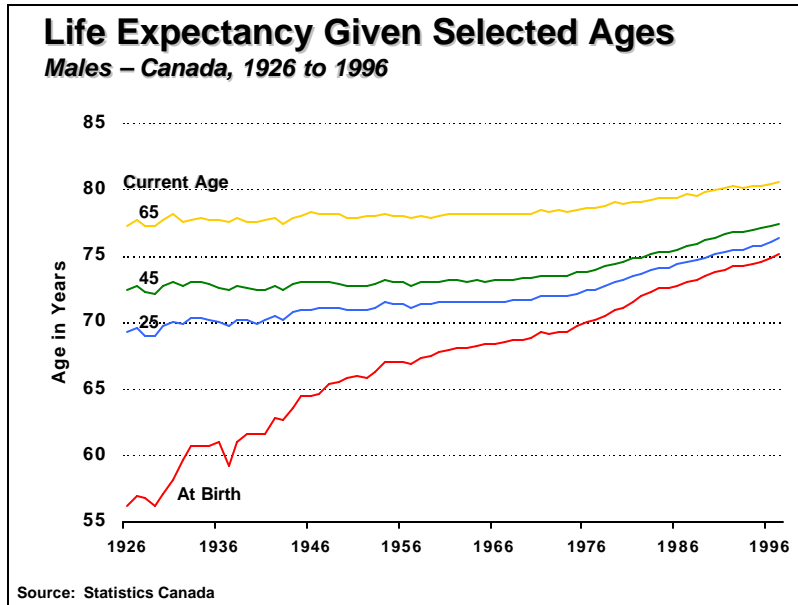
## General Indicators of Life Expectancy and Mortality



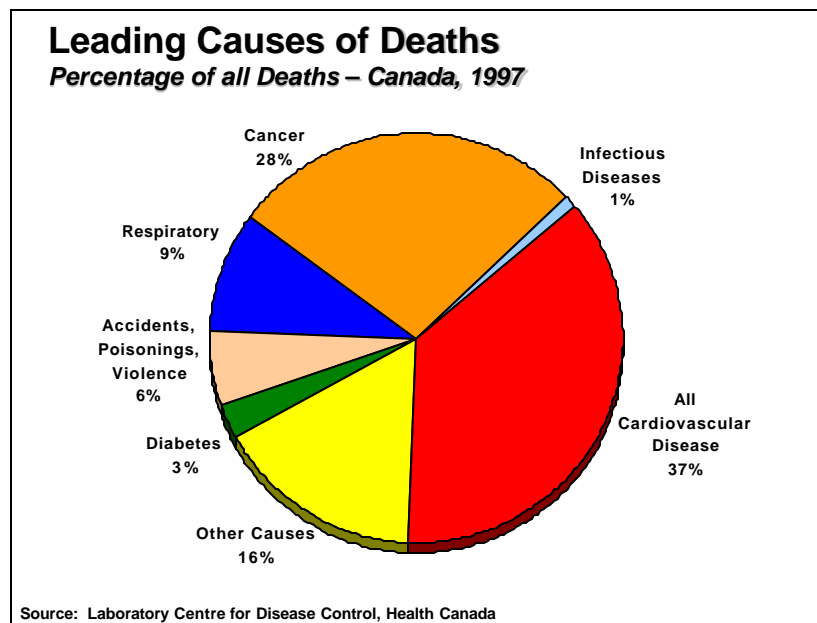
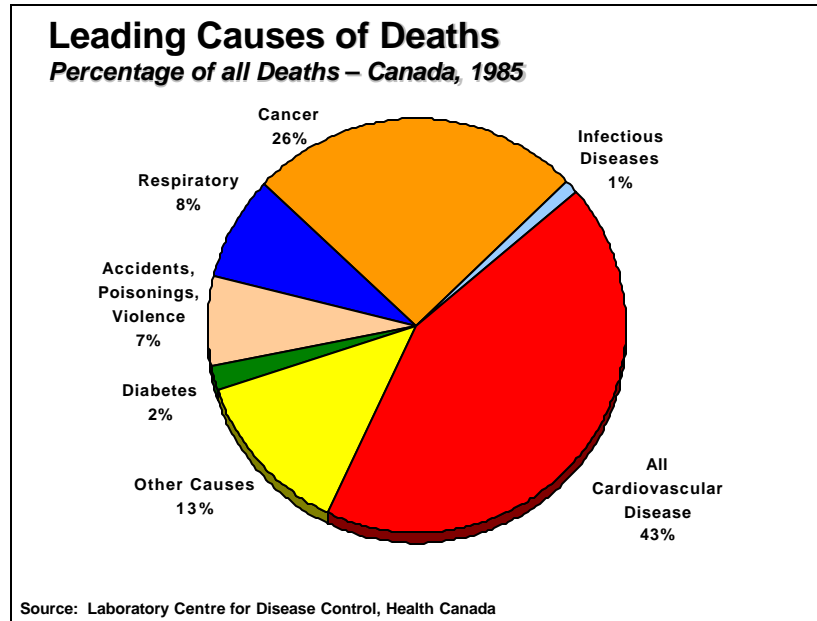
- ? Life expectancy at birth in Canada rose steadily from 59 years in the early 1920s to over 79 years by 1998.
- ? In 1998, life expectancy at birth in Canada was 79.1 years, second only to Japan and tied with Iceland in international rankings.



- ? Canada's infant mortality rate declined from 18.8 infant deaths per 1000 live births in 1970 to 5.5 in 1997.
- ? Ongoing reductions, including a decline from 6.8 to 5.5 infant deaths per 1,000 live births from 1990 to 1997, have continued to contribute to increases in life expectancy.

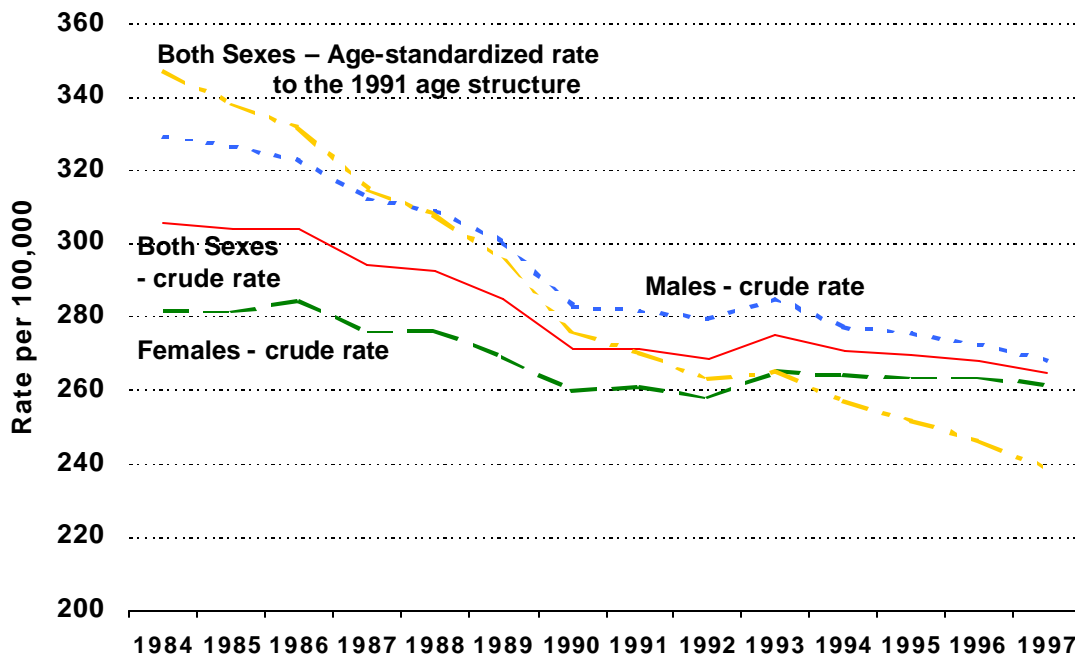


- ? Life expectancy can be measured at birth or at any age.
- ? Life expectancies at all ages have increased in Canada over the past 60 years.
- ? The largest gains have been in life expectancy at birth, due to reductions in infant mortality. There have also been large gains in life expectancy at ages 25 and 45.
- ? From the 1960s on, life expectancy at age 65 for males increased from 78 to over 80, and for females from 80 to over 83.



- ? The leading causes of death in Canada are cardiovascular diseases and cancer.
- ? Deaths due to cardiovascular diseases declined as a percentage of all deaths, from 43 per cent in 1985 to 37 per cent in 1997.
- ? Cancer deaths as a percentage of all deaths increased from 26 per cent to 28 per cent between 1985 and 1997.

## Cardiovascular Disease Mortality Rates Canada, 1984-1997

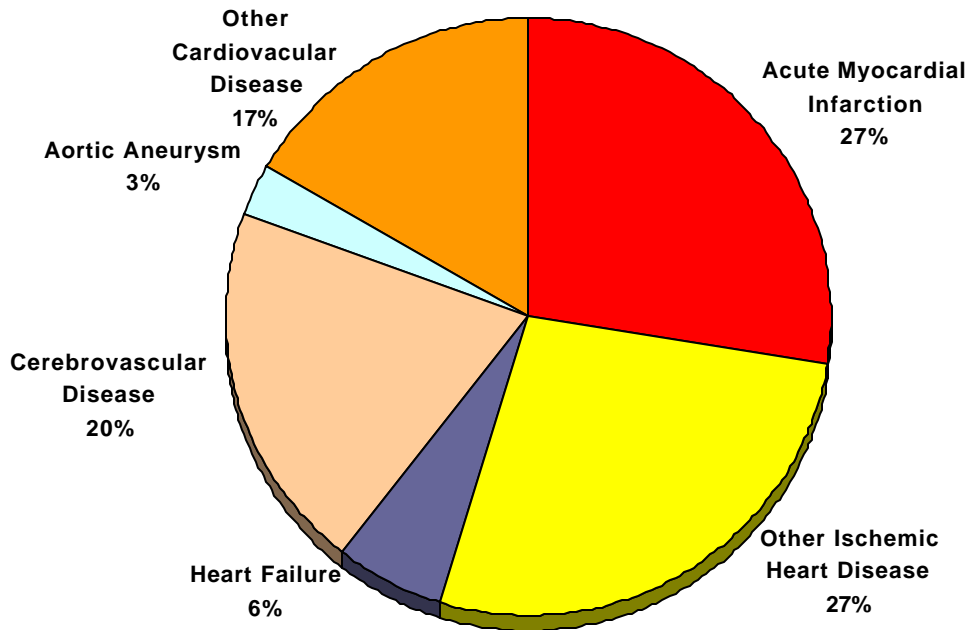


Source: Laboratory Centre for Disease Control, Health Canada

- ? Canada's age-standardized mortality rates for cardiovascular disease have declined since 1984.
- ? Between 1991 and 1997, crude mortality rates declined for males and increased slightly for females.
- ? For many diseases, including cardiovascular diseases, the number of new cases and deaths rise as the population ages. Age-standardization accounts for changes in the age distribution of the population and permits comparisons over time. Age standardized rates in this annex have been standardized to the 1991 Canadian age structure.

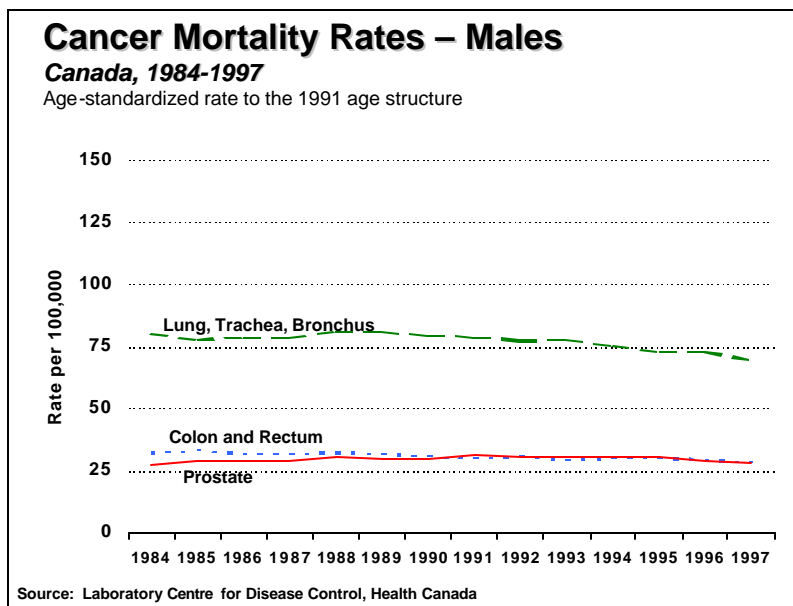
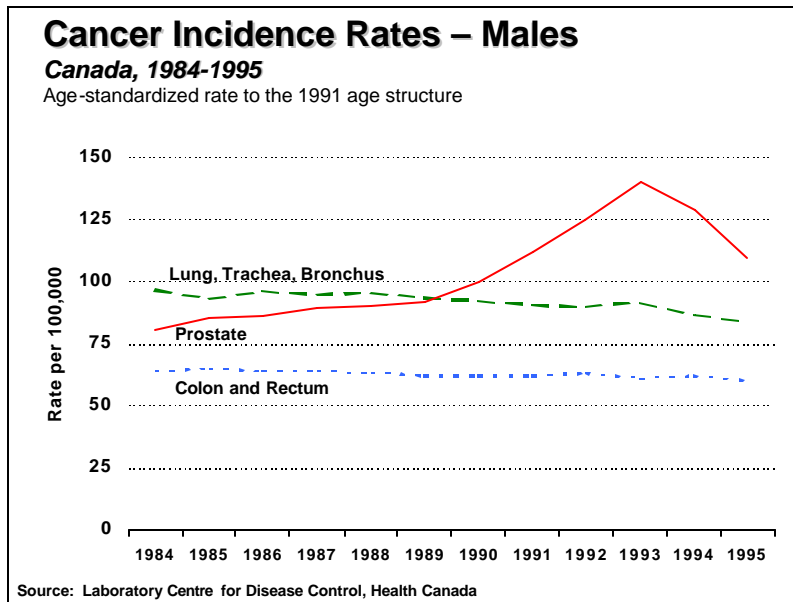


## Cardiovascular Disease Deaths Percentage of all Deaths – Canada, 1997

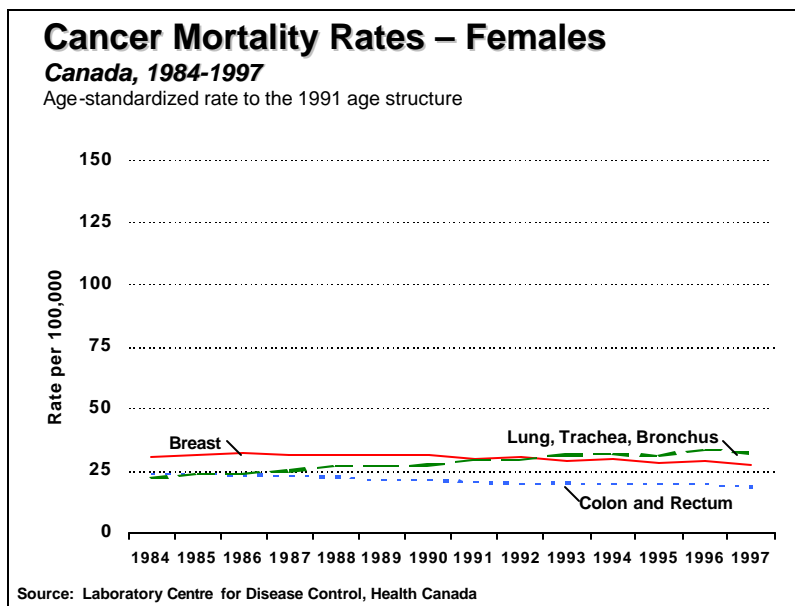
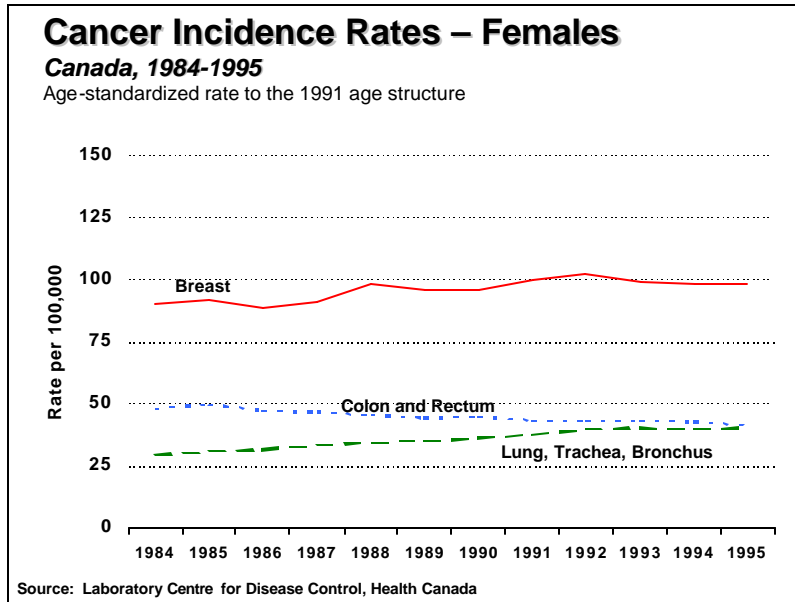


Source: Laboratory Centre for Disease Control, Health Canada

- ? Acute myocardial infarction (AMI), other ischemic heart disease, and cerebrovascular disease (including stroke) account for the greatest proportion of cardiovascular disease deaths in Canada.



- ? Lung cancer continues to have the highest mortality rate among cancers for the Canadian male population, although the age-standardized rate has been declining since 1988.
- ? While the age-standardized mortality rate for prostate cancer has remained relatively constant, the age-standardized incidence rate has increased significantly and has been higher than that of lung cancer since 1989.
- ? In this annex, **incidence rates** are defined as the number of new cases per 100,000 people in a given year, and **mortality rates** as the number of deaths per 100,000 people in a given year. Differences between incidence and mortality rates over time reflect rates of survival.

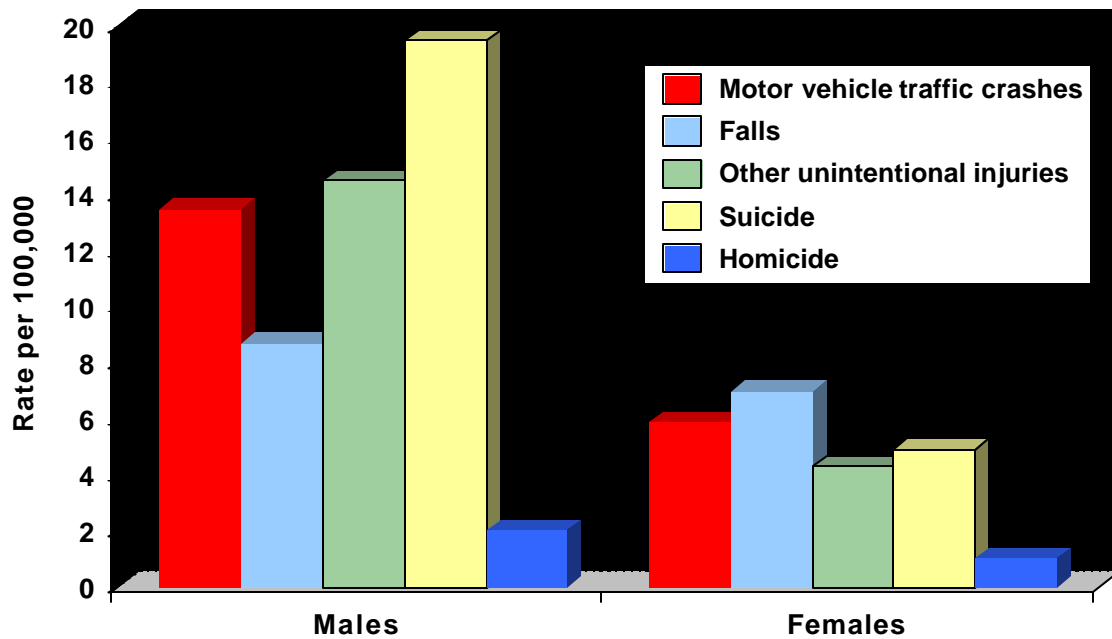


- ? The age-standardized incidence rate for lung cancer among Canadian women has increased relative to breast cancer, however breast cancer remains the most frequently contracted cancer among women.
- ? While the age-standardized mortality rate for breast cancer has declined since 1986, the rate for lung cancer has increased. Lung cancer surpassed breast cancer in 1993 as the leading cause of cancer mortality among women in Canada.

## Injury Mortality Rates

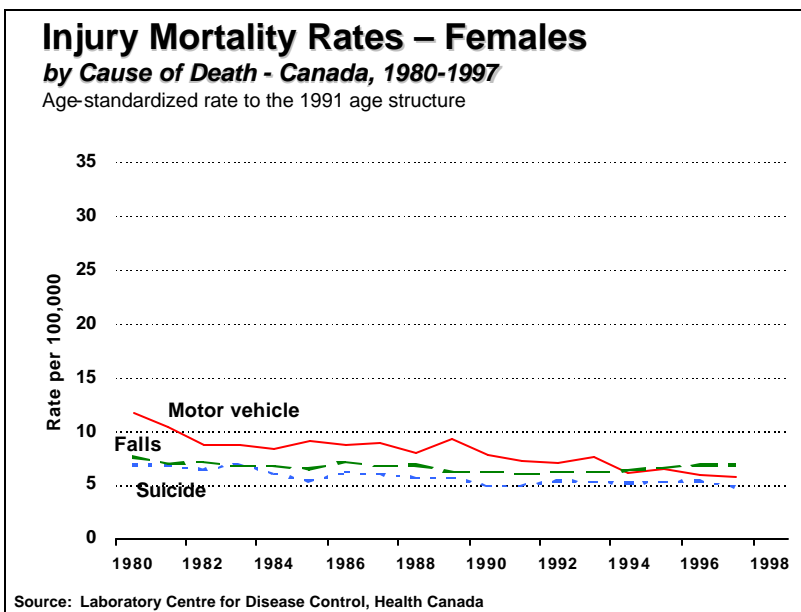
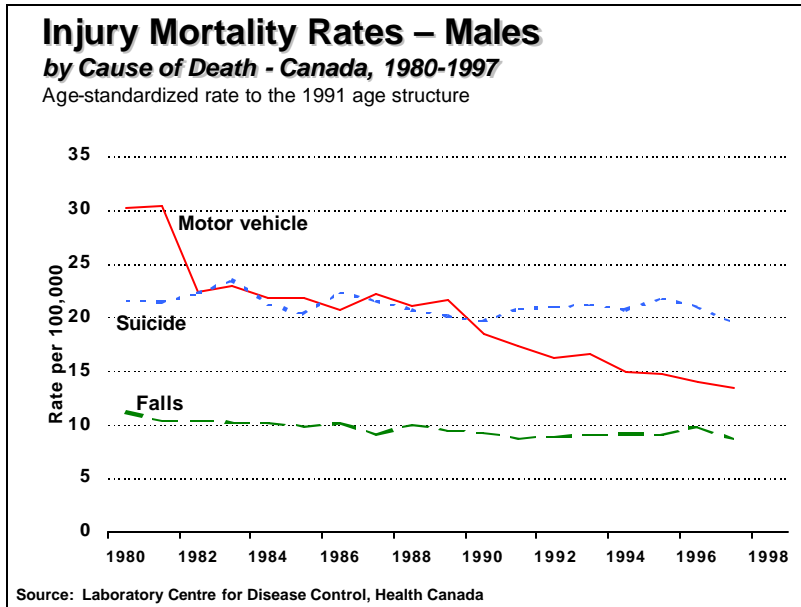
*by Cause of Death & Sex – Canada, 1997*

Age-standardized rate to the 1991 age structure

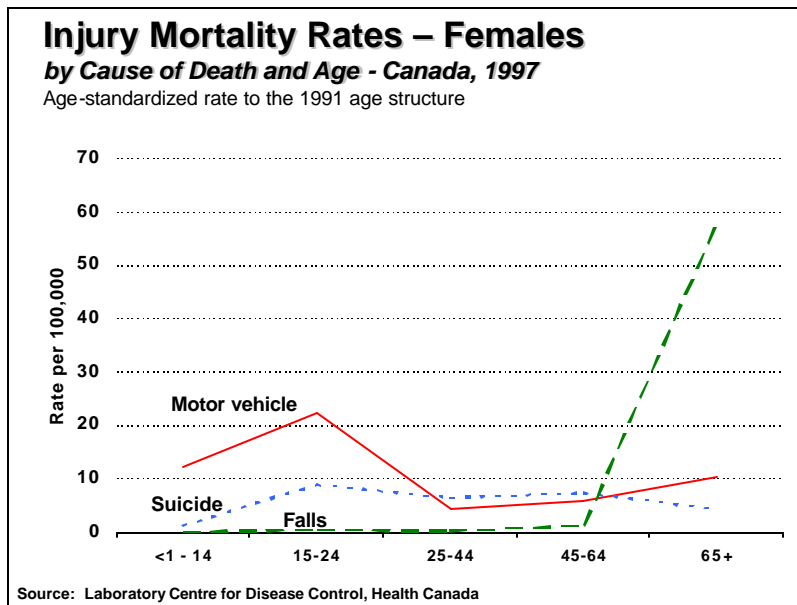
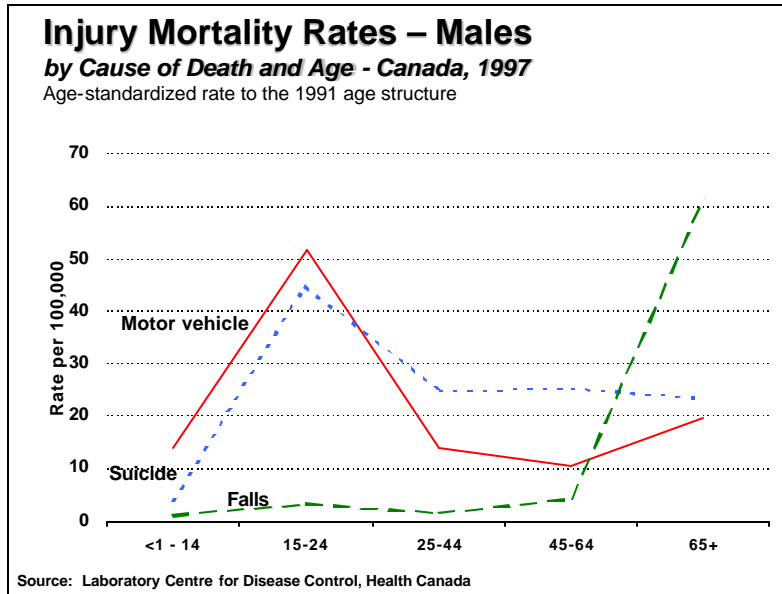


Source: Laboratory Centre for Disease Control, Health Canada

- ? Injury mortality rates in Canada are significantly higher for men than for women.
- ? Age-adjusted suicide rates are almost four times higher for males than females, and more than twice as many males as females die in motor vehicle accidents.
- ? Mortality rates for falls do not differ greatly between sexes, accounting for fewer than 9 deaths per 100,000 men and 7 deaths per 100,000 women.

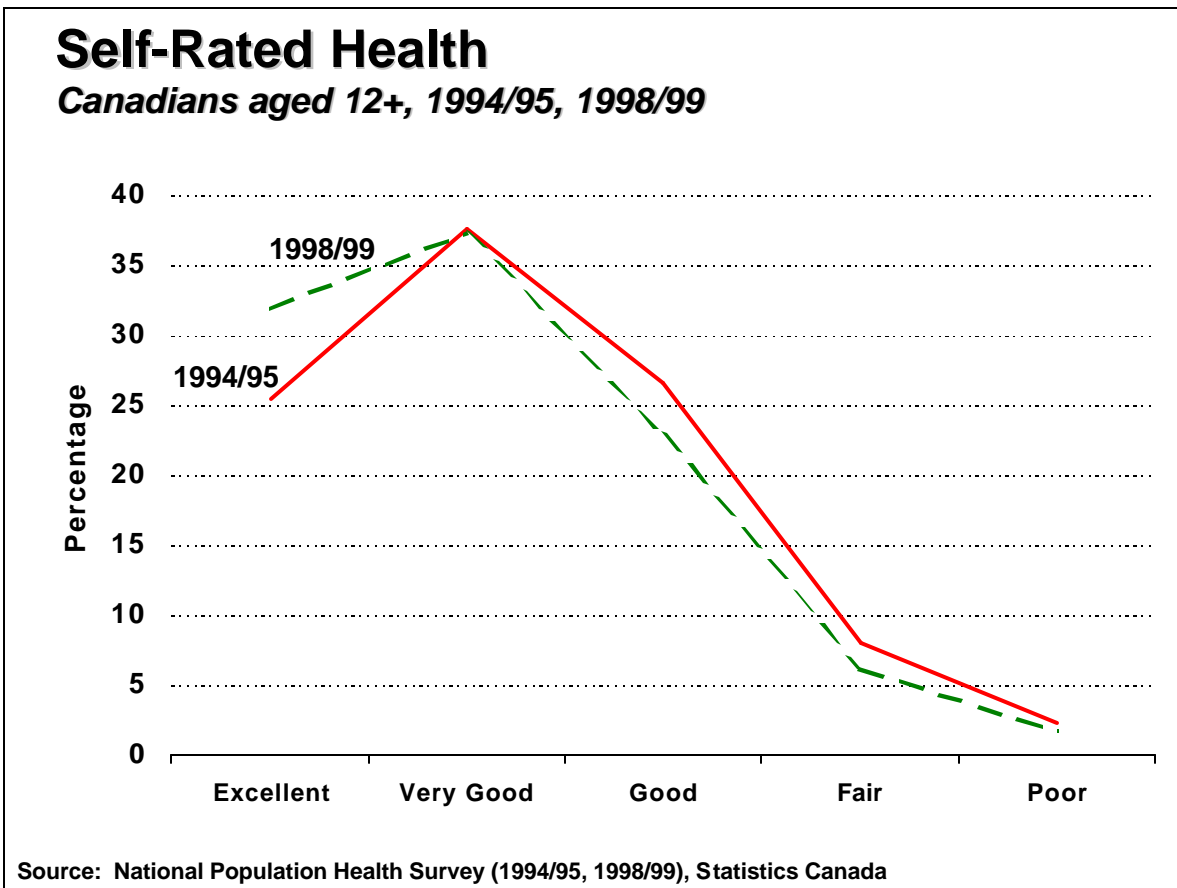


- ? Age-standardized motor vehicle mortality rates have declined for both males and females since 1980.
- ? Since 1990, suicide has been the leading cause of injury mortalities among men. The age-adjusted suicide rate has been relatively stable since 1980, at approximately 20 deaths per 100,000.
- ? For women, the age-standardized mortality rate for falls has remained relatively constant at around 7 deaths per 100,000, and falls have been the leading cause of injury mortalities since 1994.



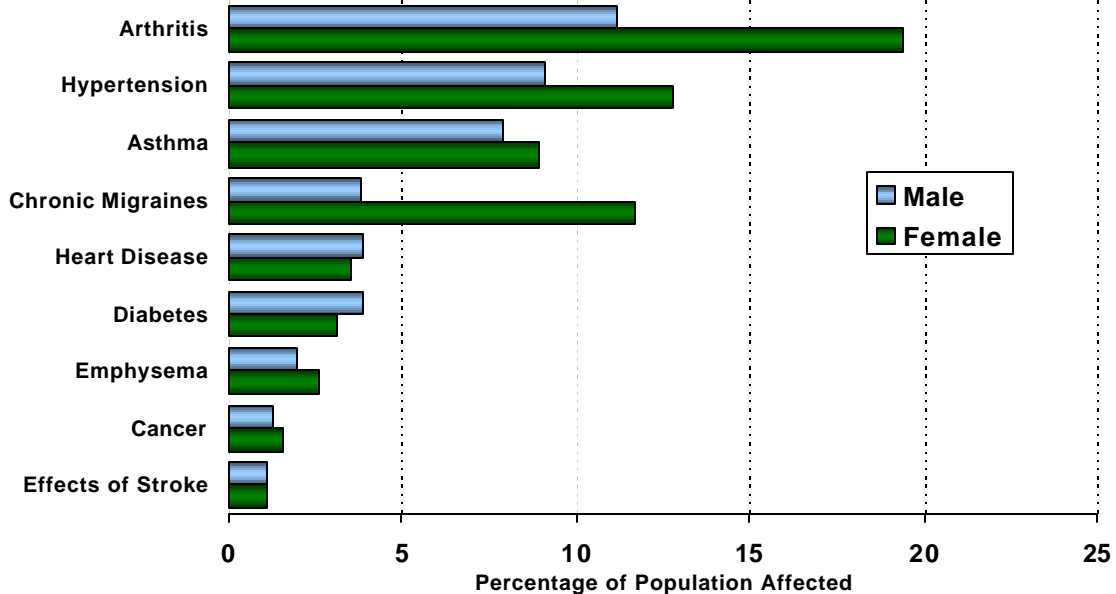
- ? For both males and females, injury mortality rates for falls rise dramatically for the 65+ year age group.
- ? Motor vehicle mortality and suicide rates peak at the 15-24 year age group.

## General Indicators of Health Status and Morbidity



- ? The percentage of Canadians rating their health highly increased between 1994/95 and 1998/99. In 1998/99, approximately 92 per cent of Canadians rated their health as good, very good or excellent.

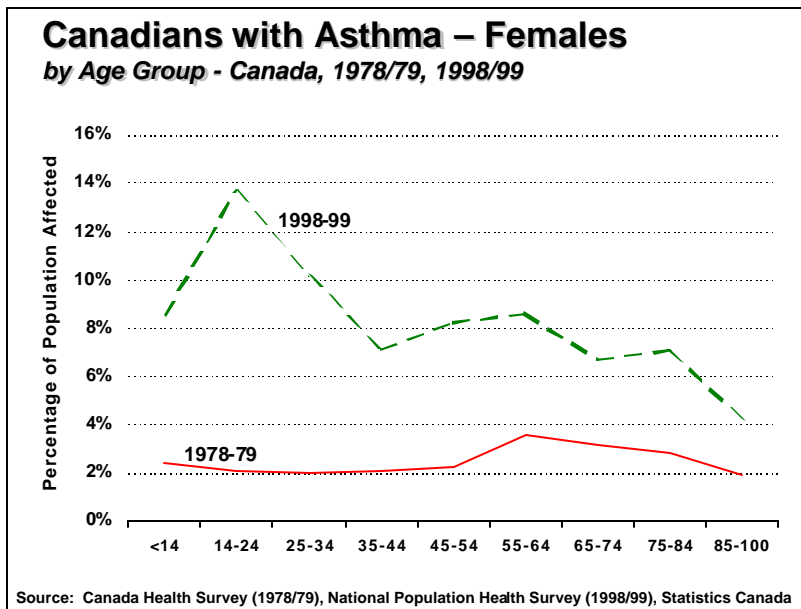
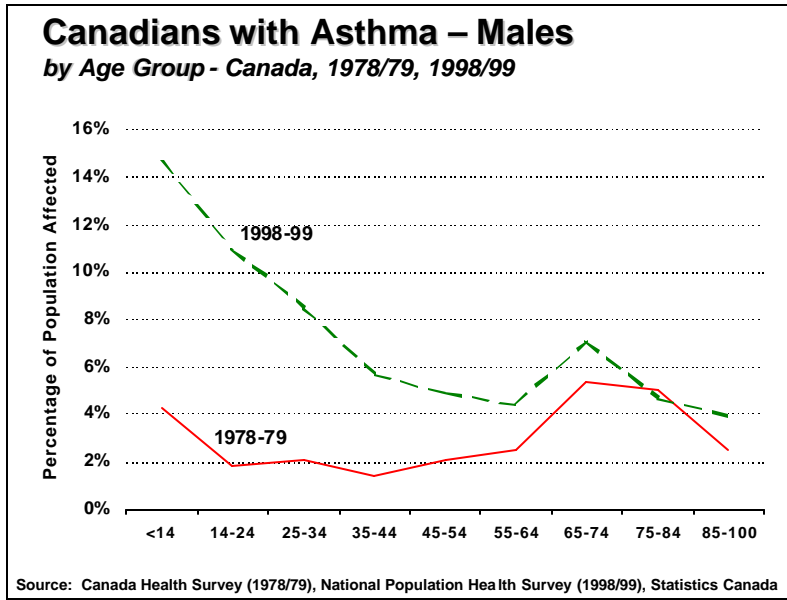
## Prevalence of Selected Chronic Conditions by Sex - Canada, 1998/99



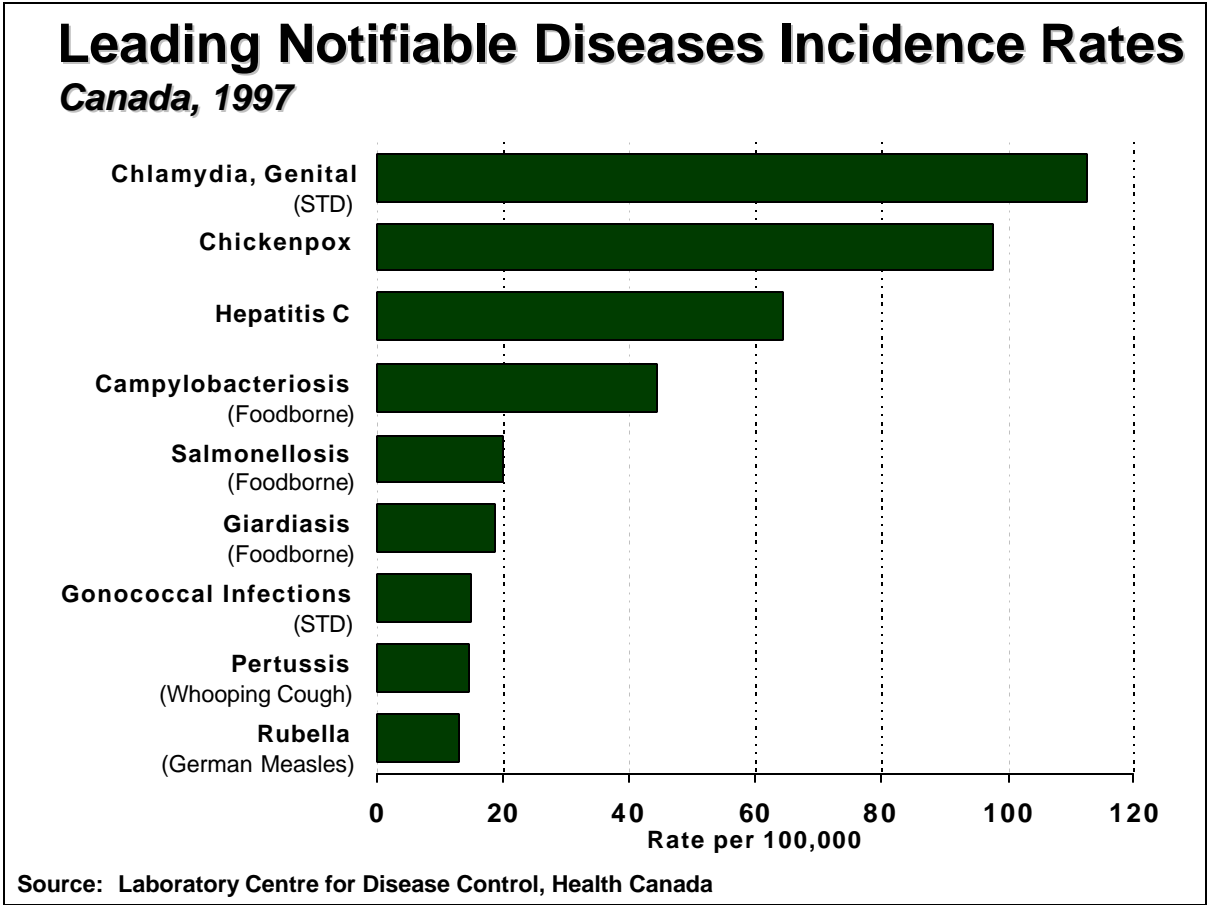
Source: National Population Health Survey (1998/99), Statistics Canada

- ? Arthritis and hypertension are the most prevalent chronic conditions in Canadians. Prevalence, defined as the percentage of the population affected, increases substantially for both men and women over the age of 54 years.
- ? In 1998/99, almost twice as many women as men were likely to suffer from arthritis, and women were three times as likely to suffer from chronic migraines. Chronic migraines were most prevalent among women in the 35-44 year age group.

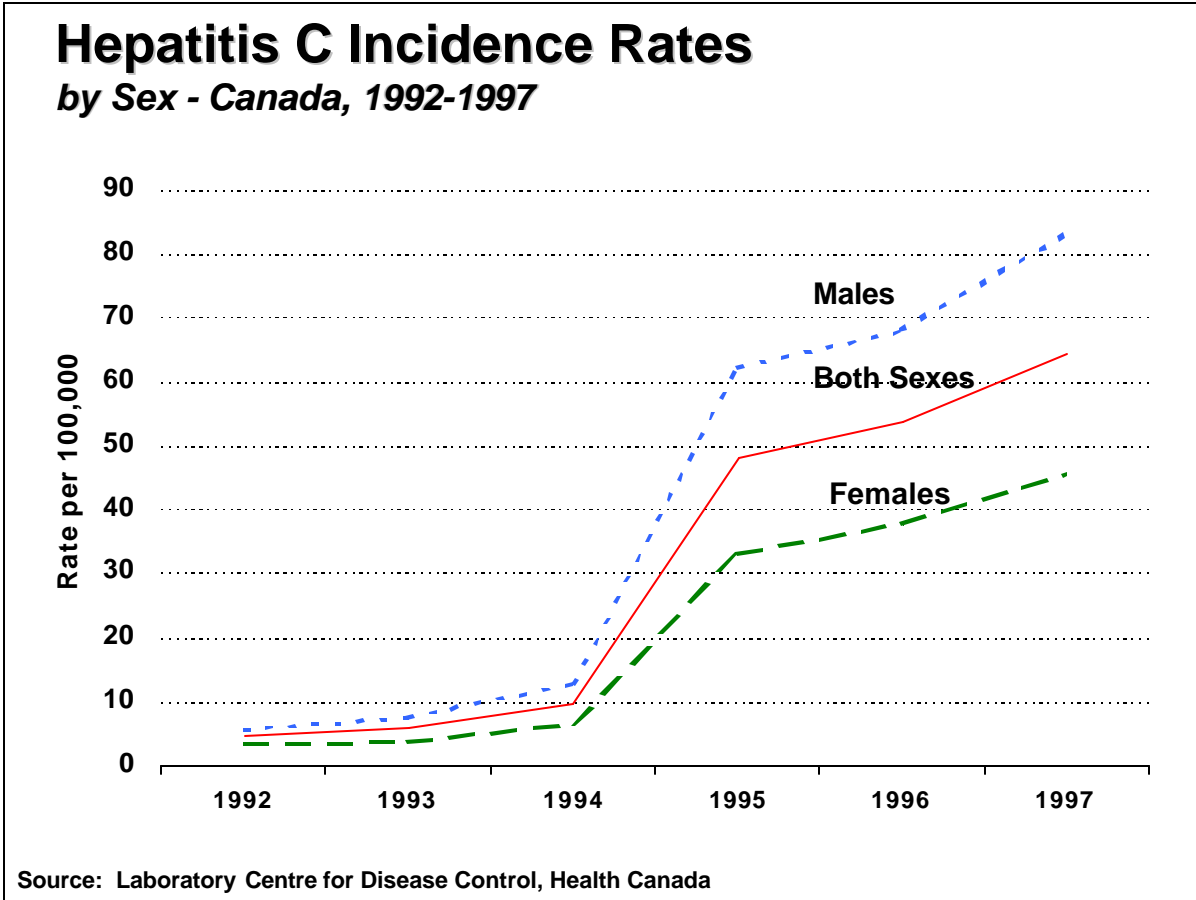




- ? Asthma is a chronic condition affecting Canadians of all ages.
- ? Prevalence rates have risen considerably over the past twenty years, particularly in the under 35 year age groups.
- ? The increase in prevalence could be due, in part, to changes in diagnostic criteria.



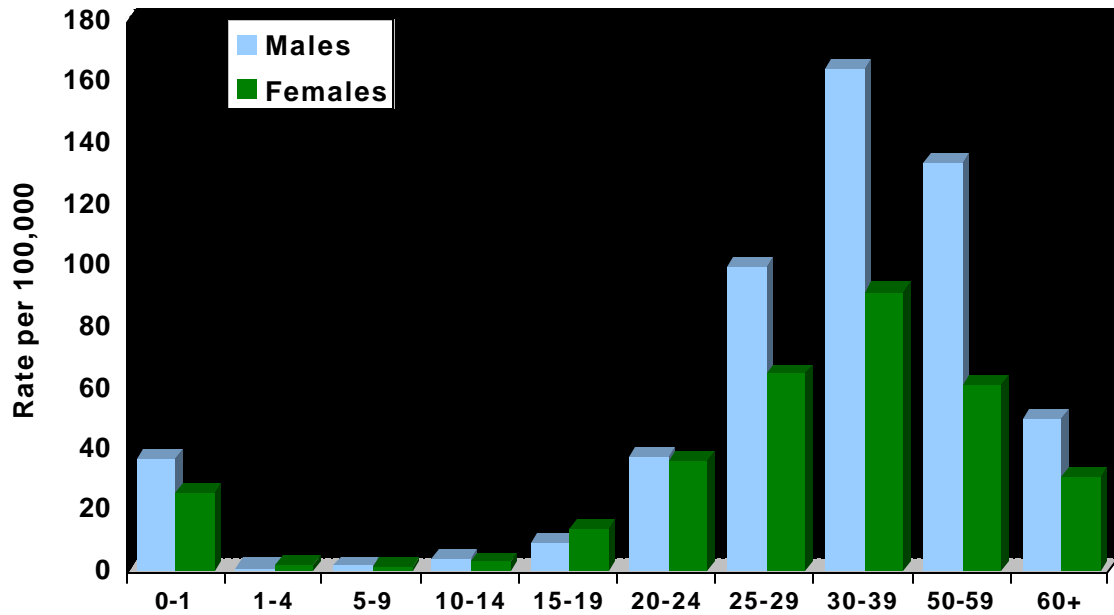
? Leading notifiable diseases include sexually transmitted diseases, foodborne illnesses, childhood diseases, and hepatitis C.



? There was a significant increase in the incidence rate of hepatitis C between 1992 and 1997. The greatest increase was among males.

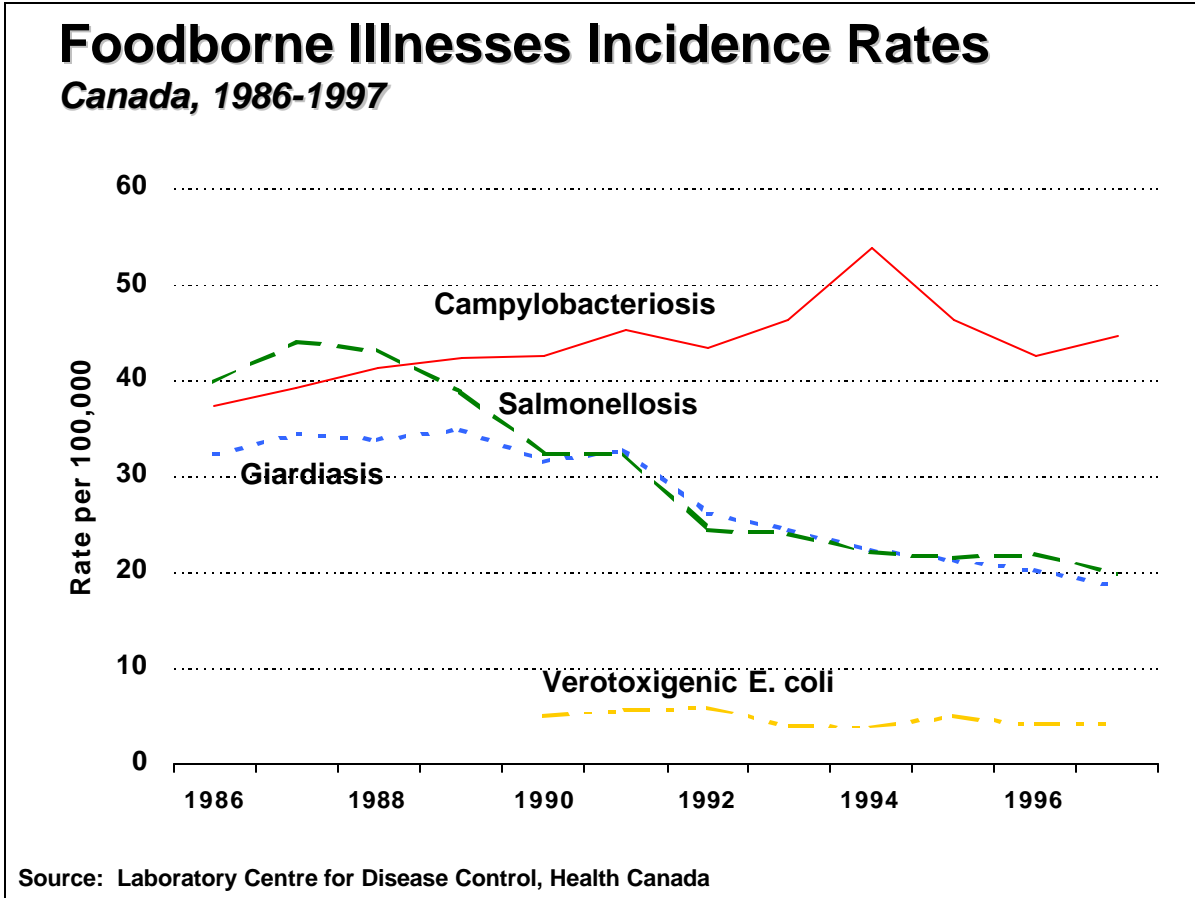
## Hepatitis C Incidence Rates

by Age and Sex - Canada, 1997

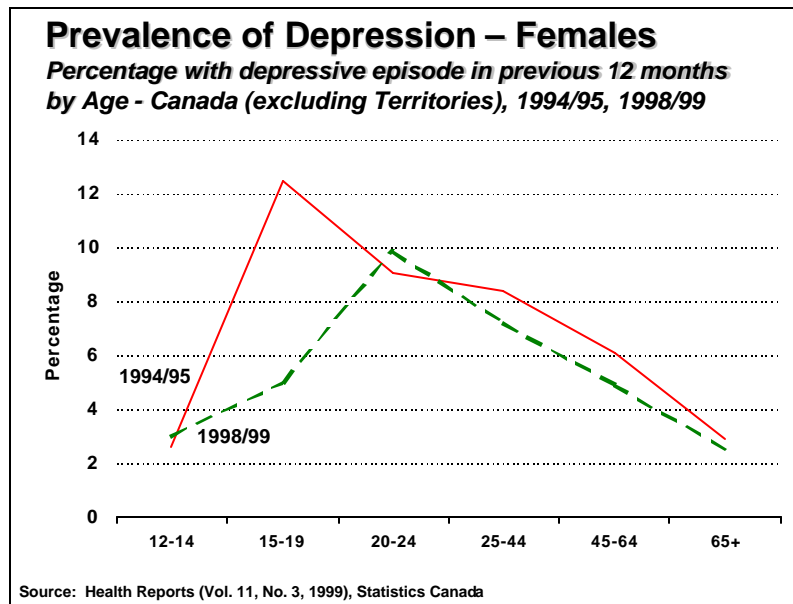
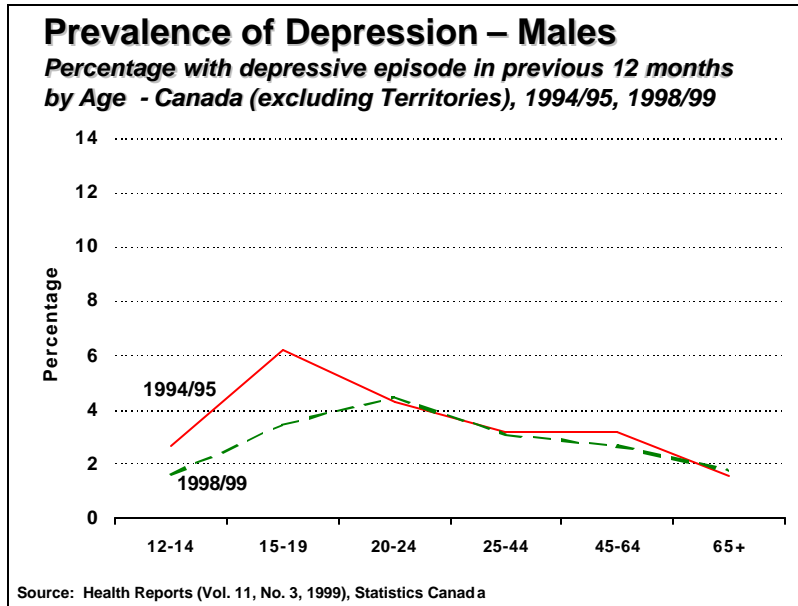


Source: Laboratory Centre for Disease Control, Health Canada

- ? In 1997, Canadians most likely to contract hepatitis C were between the ages of 25 and 59.
- ? The incidence rate of hepatitis C is much higher for men than for women.



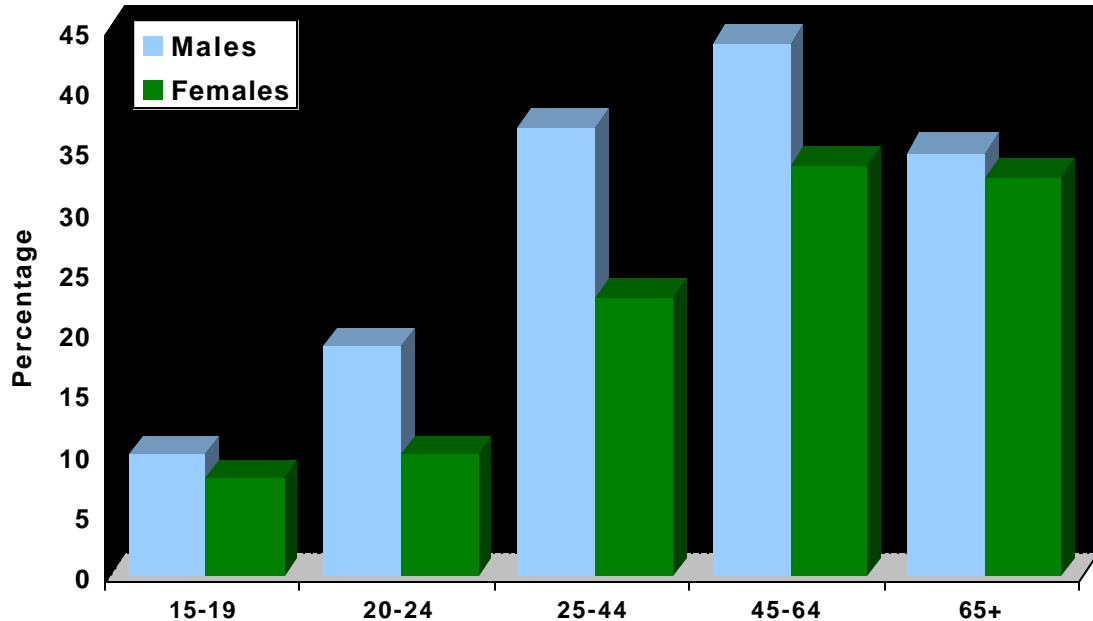
- ? The incidence rates for giardiasis and salmonellosis have declined since 1987, while there has been an increase in the incidence rate of campylobacteriosis.
- ? The incidence rate of verotoxigenic E. coli has remained relatively stable since 1990.
- ? Foodborne illnesses are far more common than the reported numbers suggest and as few as 10 per cent of cases may be recorded.
  
- ? **Campylobacteriosis** is a bacterial disease transmitted through undercooked chicken or pork, contaminated water or raw milk, or through contact with infected infants or animals.
- ? **Giardiasis** is a parasitic infection transmitted through contaminated food, unfiltered water or through person-to-person contact where personal hygiene may be poor.
- ? **Salmonellosis** is a bacterial illness transmitted through contaminated food or beverages.
- ? **Verotoxigenic E. coli** is usually transmitted through undercooked, contaminated ground beef. Infection may also be transmitted through raw milk or sewage-contaminated water.



- ? According to the National Population Health Survey, depression is more prevalent among women than men. The prevalence of depression peaks among those aged 15 to 24 years, declines in mid-life and is lowest among those aged 65 or older.
- ? The percentage of the population reporting a depressive episode in the previous 12 months was lower in 1998/99 than in 1994/95.
- ? The National Population Health Survey includes a set of questions designed to determine whether respondents experienced a major depressive episode during the preceding year. It should be noted that prevalence estimates are based on responses of household residents and do not include residents of institutions.

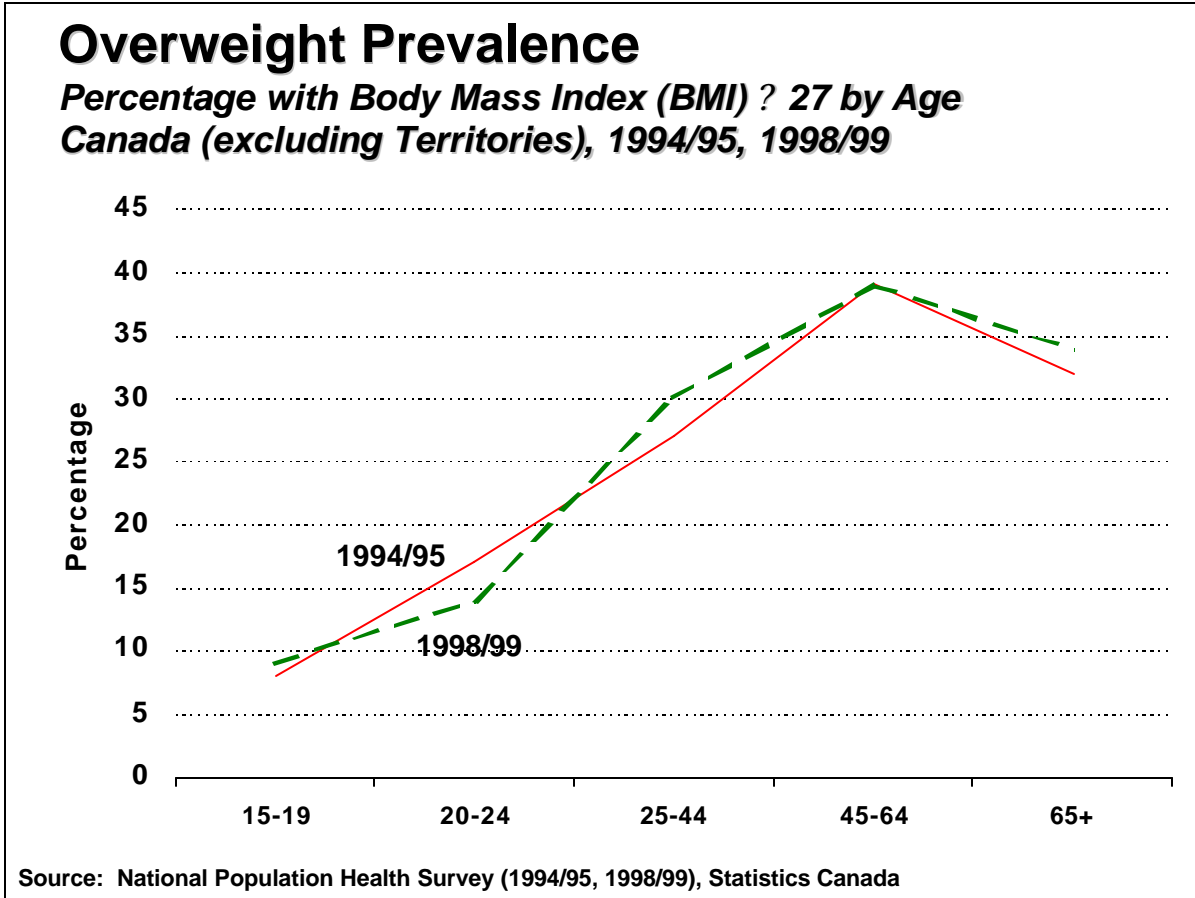
## Overweight Prevalence

Percentage with Body Mass Index (BMI)  $\geq 27$  by Age and Sex  
Canada (excluding Territories), 1998/99



Source: National Population Health Survey (1998/99), Statistics Canada

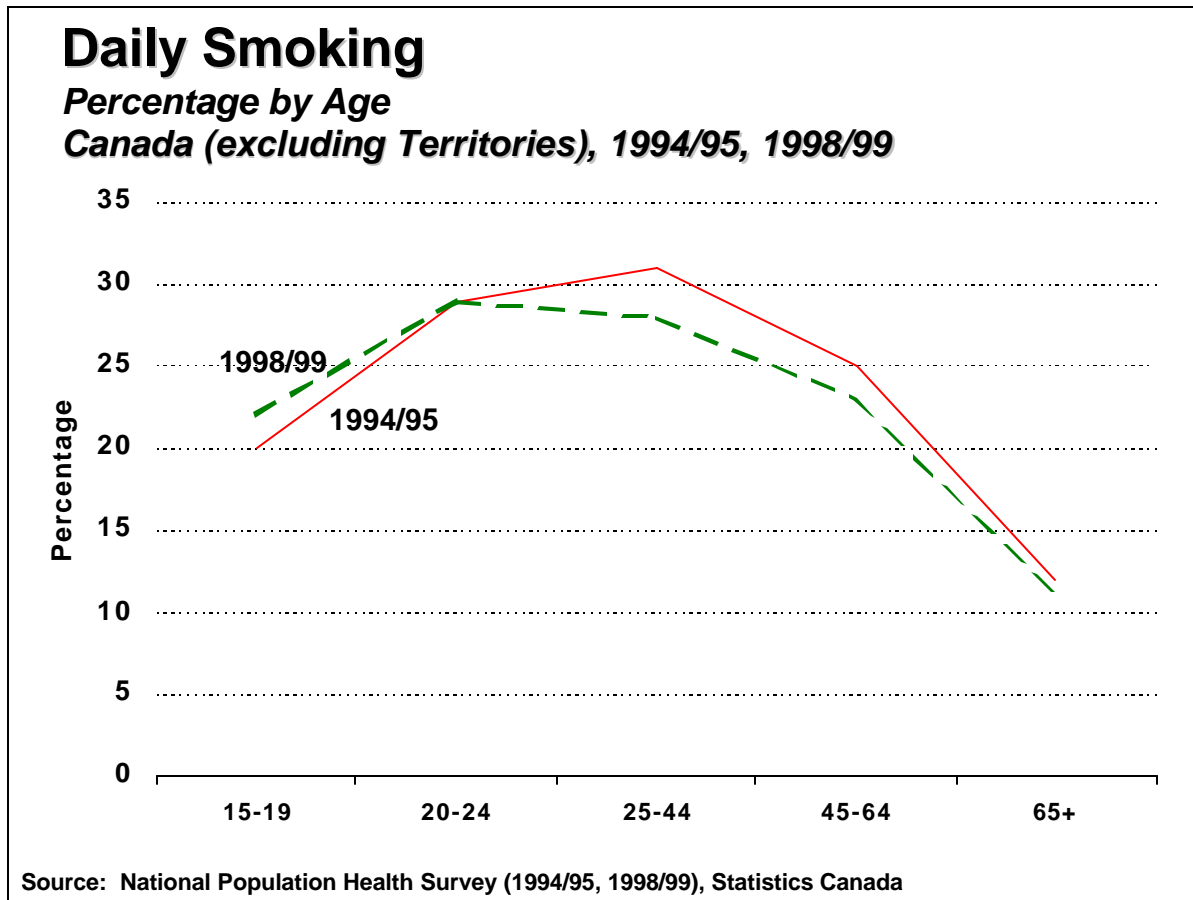
- ? Based on a Body Mass Index measurement greater than or equal to 27, in 1998/99 the percentage of overweight men was greater than the percentage of overweight women for all age groups.
- ? The proportion of the population that was overweight was greatest for the 45-64 year age group.
- ? Body Mass Index (BMI) is a measure of human body size and proportion. It is defined as the weight in kilograms, divided by the square of height in meters.



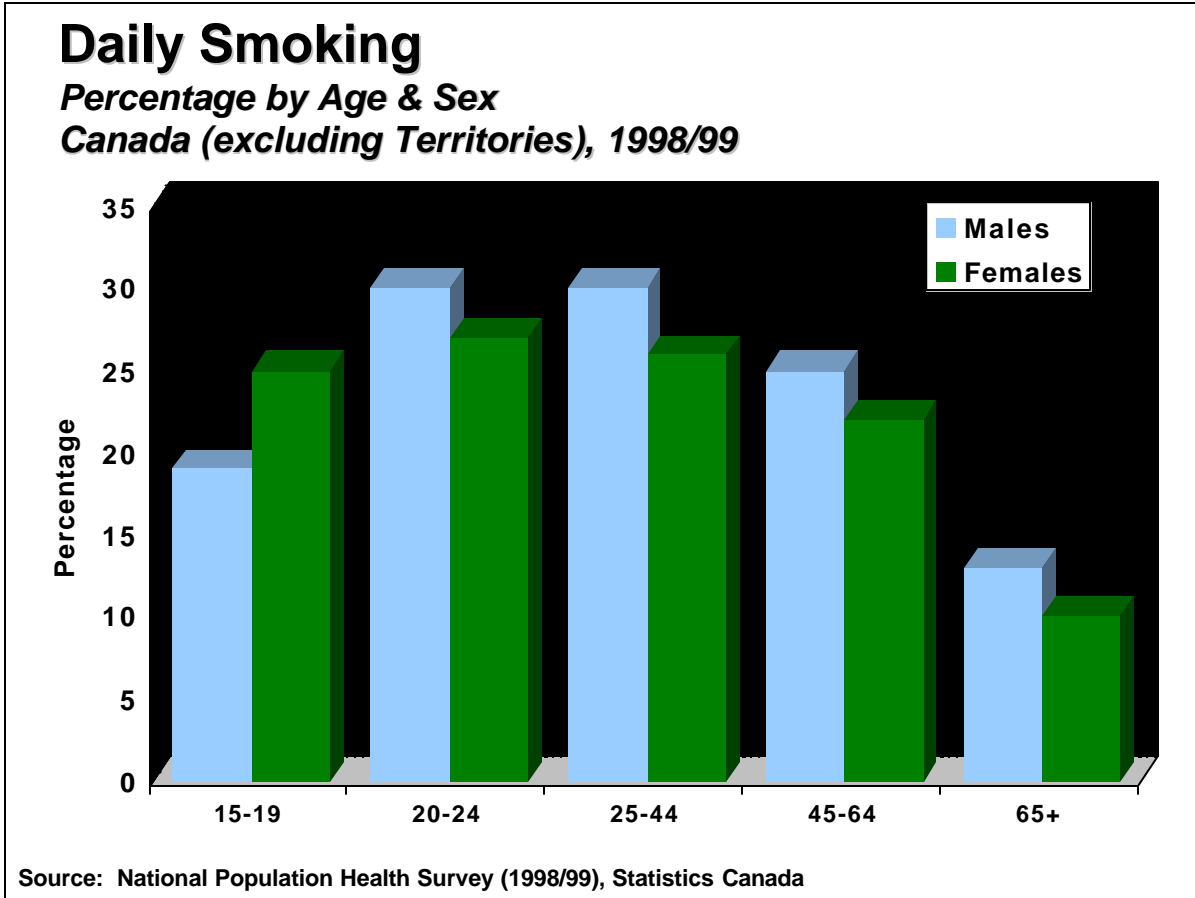
? The proportion of the population that is overweight has been relatively stable over the past five years.



## Behaviours and Preventative Measures



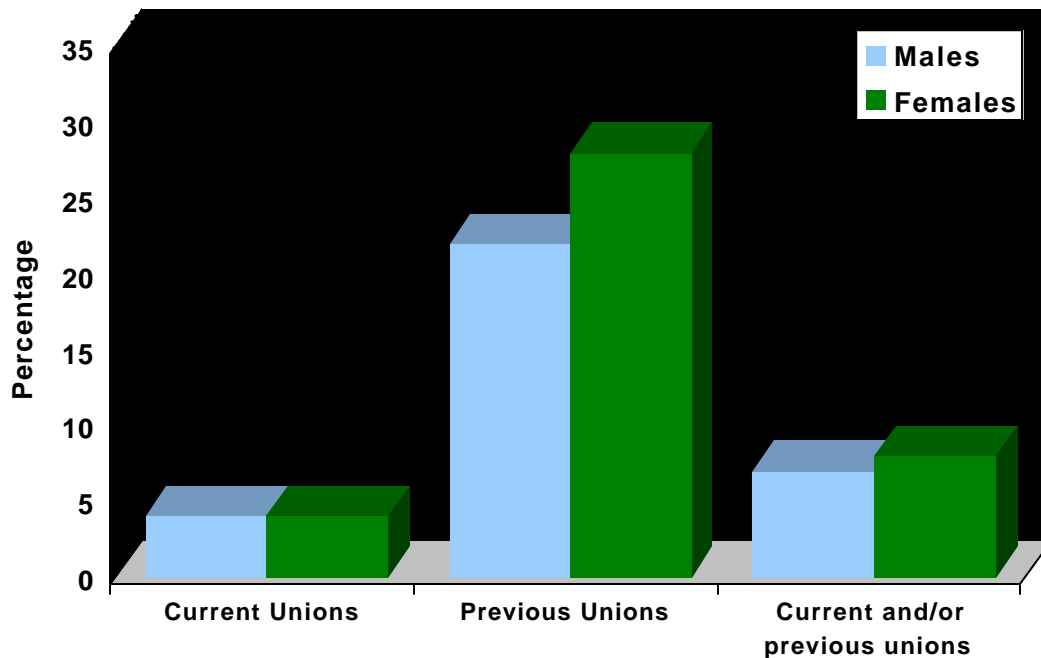
- ? In 1996/97, 96 per cent of Canadians aged 12 and over felt that there were smoking-related health risks for those who smoke. Nevertheless, 24 per cent of Canadians were daily smokers in 1998/99.
- ? Between 1994/95 and 1998/99 there was an increase in the percentage of Canadians aged 15 to 19 who were daily smokers, due to an increase in the percentage of females who smoked.
- ? The percentage of those in the 20-24 year age group who smoked on a daily basis remained constant, although the percentage of males who smoked increased and the percentage of females who smoked decreased.
- ? The greatest reduction in daily smoking was in the 25-44 year age group for both males and females.



- ? In 1998/99 females aged 15 to 19 were more likely to smoke than their male counterparts. For all other age groups, a greater proportion of males than females smoke daily.

## Family Violence - Spousal

*Rates of spousal violence by sex, past 5 years  
Canada (non-institutionalized population), 1999*

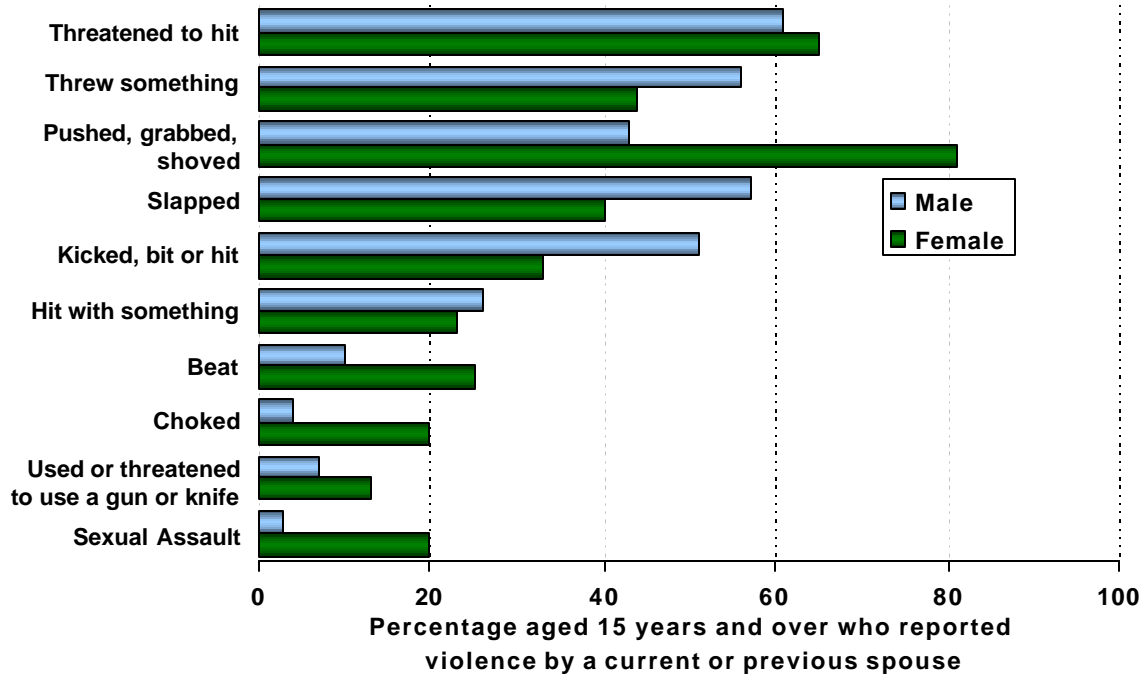


Source: General Social Survey, 1999, Statistics Canada

- ? Based on the results of the 1999 General Social Survey, approximately 7 per cent of people who were married or living in a common-law relationship during the past 5 years experienced some type of violence by their intimate partners.
- ? The 5 year rate of violence was similar for men and women (7 and 8 per cent respectively), affecting approximately 549,000 men and 690,000 women.
- ? People who ended relationships in this period were more likely to report some type of spousal violence in that previous union – 28 per cent of women and 22 per cent of men. Whereas only 4 per cent of those who were in the same relationship throughout this period reported some type of violence.

## Family Violence – Spousal

*Reported violence, past 5 years  
by sex and type of violence, Canada, 1999*

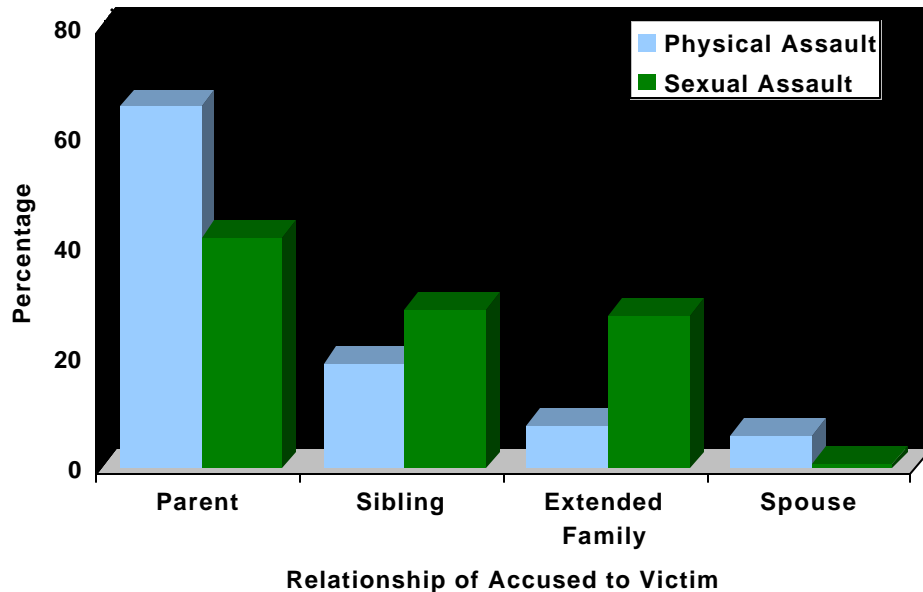


Source: General Social Survey, 1999, Statistics Canada

- ? In the 1999 General Social Survey, women and men reported experiencing somewhat different forms of violence. Women were more likely than men to report more severe forms of violence.
- ? Women were more than twice as likely as men to report being beaten (25 versus 10 per cent), five times more likely to report being choked (20 versus 4 per cent), and almost twice as likely to report being threatened by, or having a gun or knife used against them (13 versus 7 per cent).
- ? Men were more likely than women to report being slapped (57 versus 40 per cent) having something thrown at them (56 versus 44 per cent), and being kicked, bit or hit (51 versus 33 per cent).

## Family Violence - Violence Against Children and Youth by Family Members

*Child and youth victims of assault reported to police by accused – victim relationship, 1999*

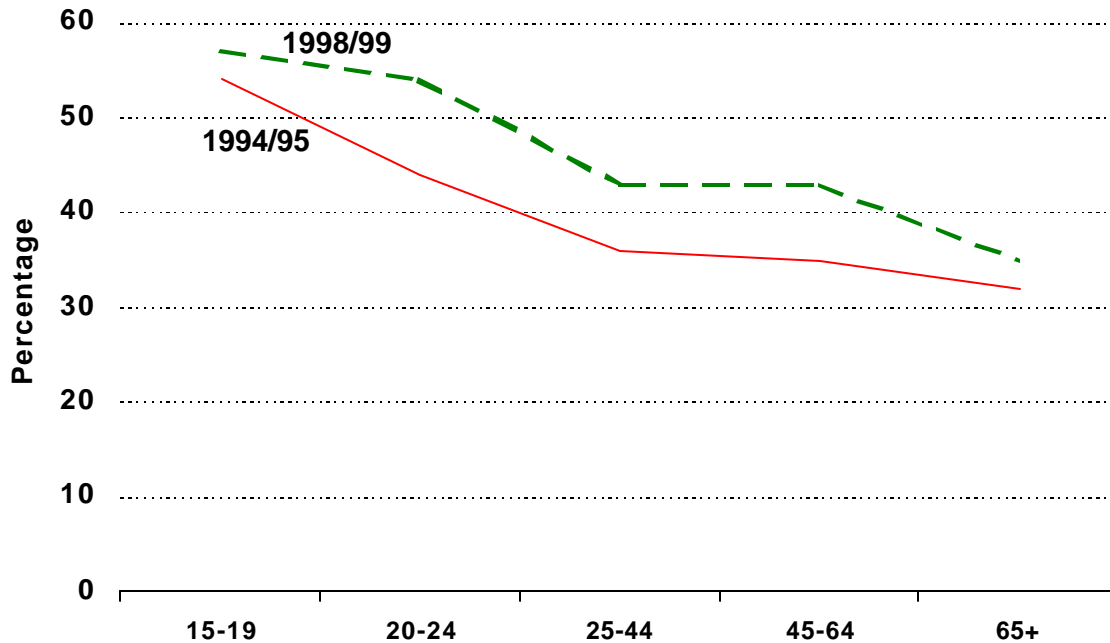


Source: Canadian Centre for Justice Statistics, Incident-based Uniform Crime Reporting (UCR2) Survey, Statistics Canada

- ? In 1999, children and youth under 18 years of age made up 23 per cent of the Canadian population and were the victims in 24 per cent of assaults reported to a sample of police departments.
- ? Within families, children and youth were most often assaulted by parents. Sixty-six per cent of victims of physical assault and 42 per cent of victims of sexual assault were victimized by their parents.

## Moderate Leisure-Time Physical Activity

*Percentage Reporting Regular Moderate Physical Activity by Age - Canada (excluding Territories), 1994/95, 1998/99*



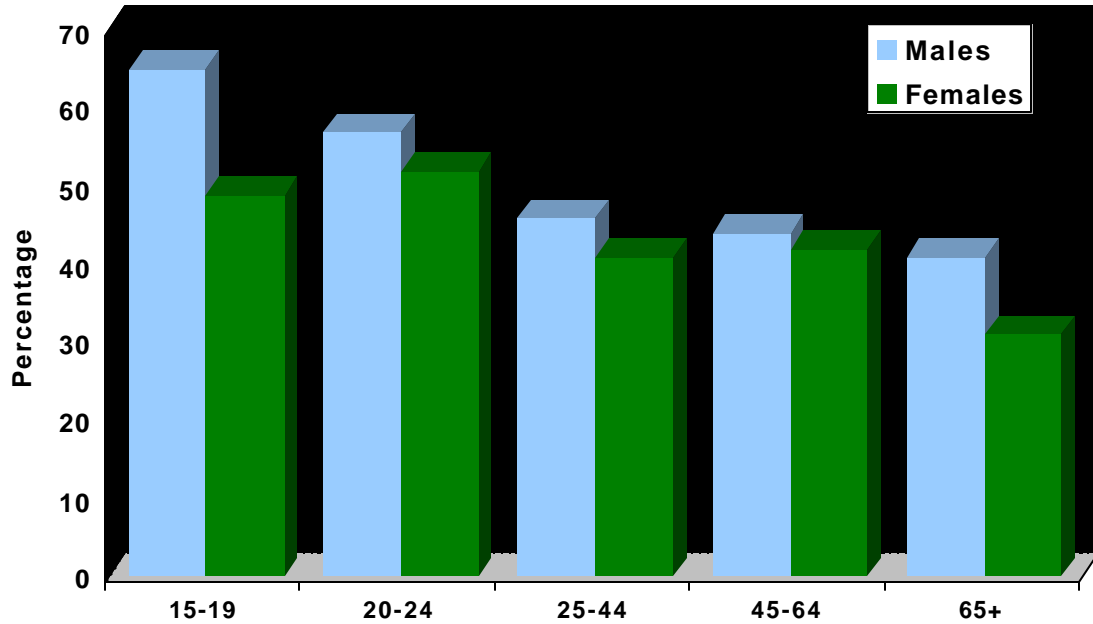
Source: National Population Health Survey (1994/95, 1998/99), Statistics Canada

- ? Between 1994/95 and 1998/99, there was an increase in the proportion of the population regularly participating in leisure-time activities requiring moderate or higher levels of energy expenditure.
- ? The greatest increase in these activities was in the 20-24 year age group.

## Regular Moderate Physical Activity

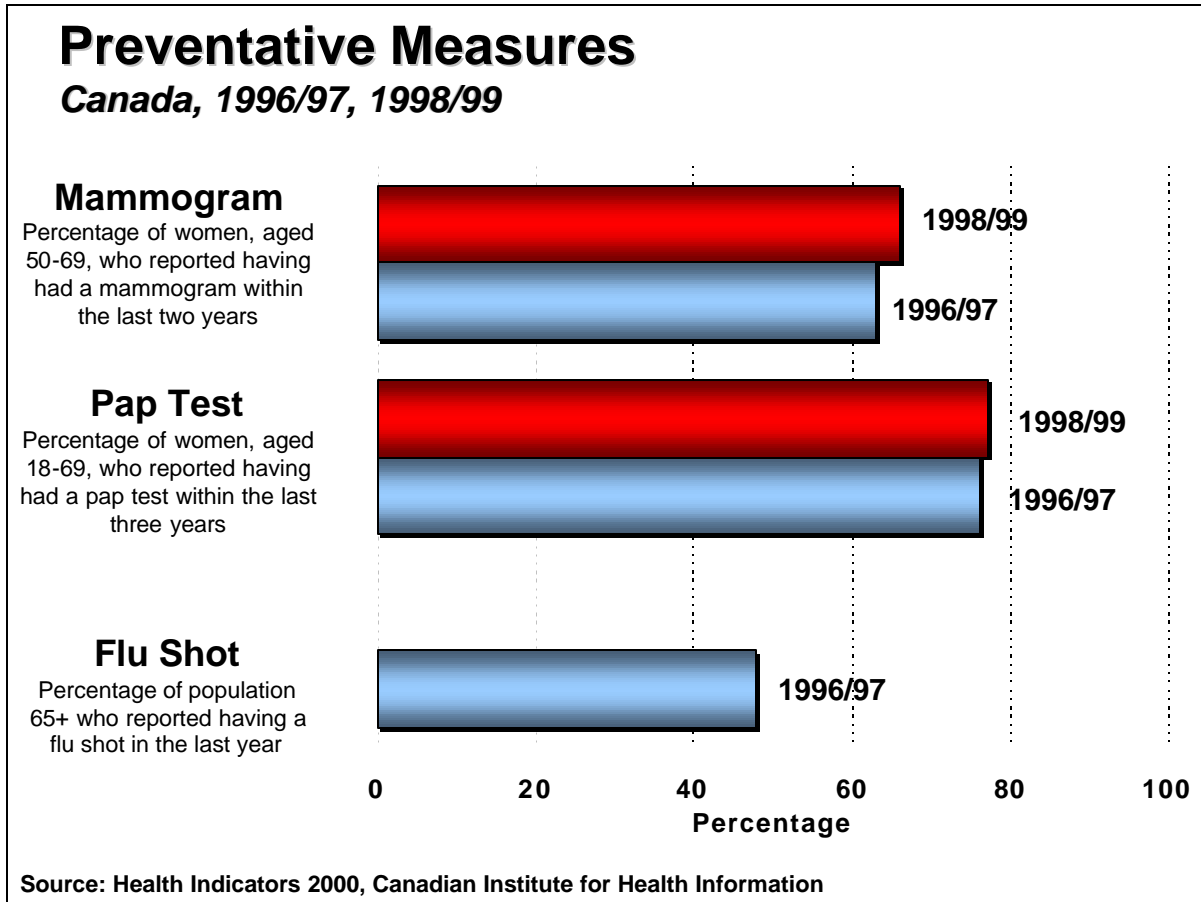
by Age and Sex

Canada (excluding Territories), 1998/99



Source: National Population Health Survey (1998/99), Statistics Canada

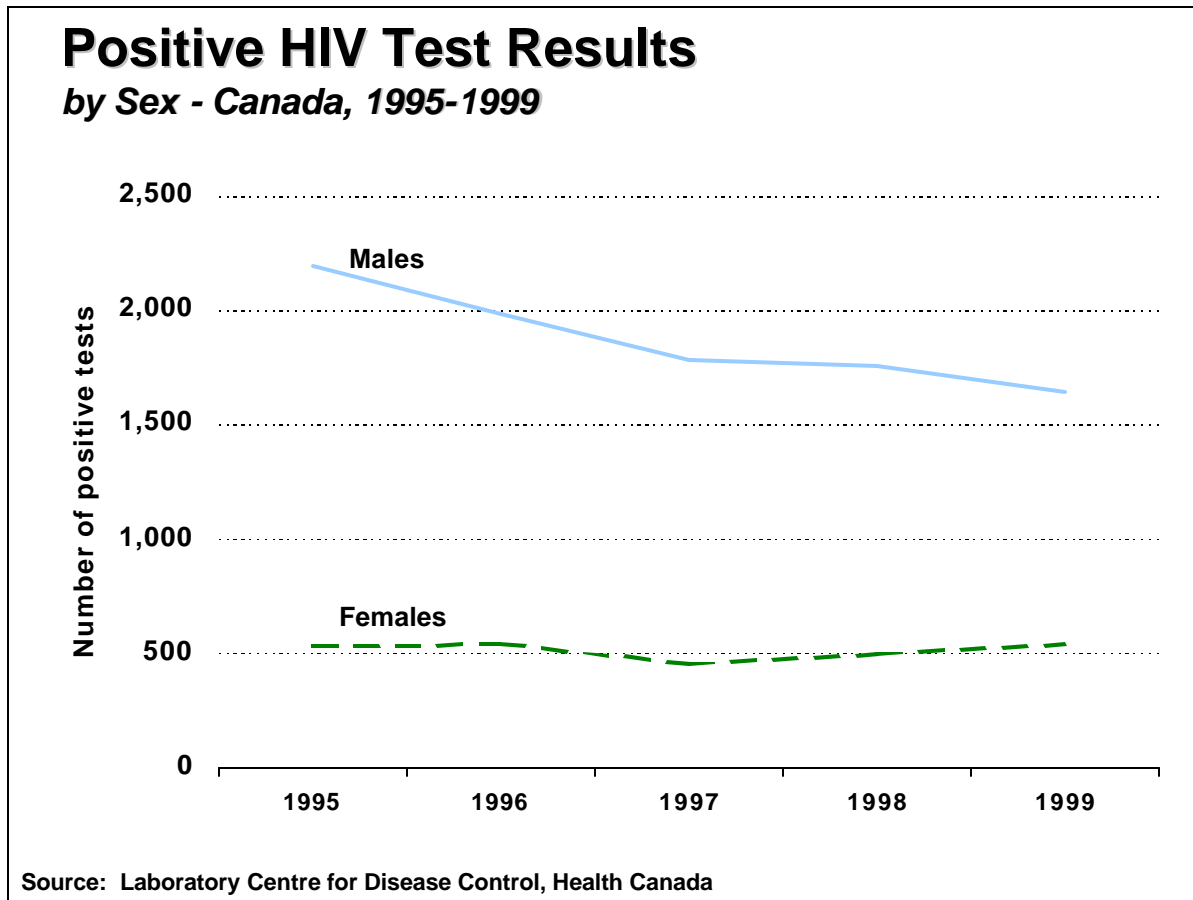
- ? In 1998/99 males were more likely to be physically active than females, particularly for the 15-19 and 65+ age groups.



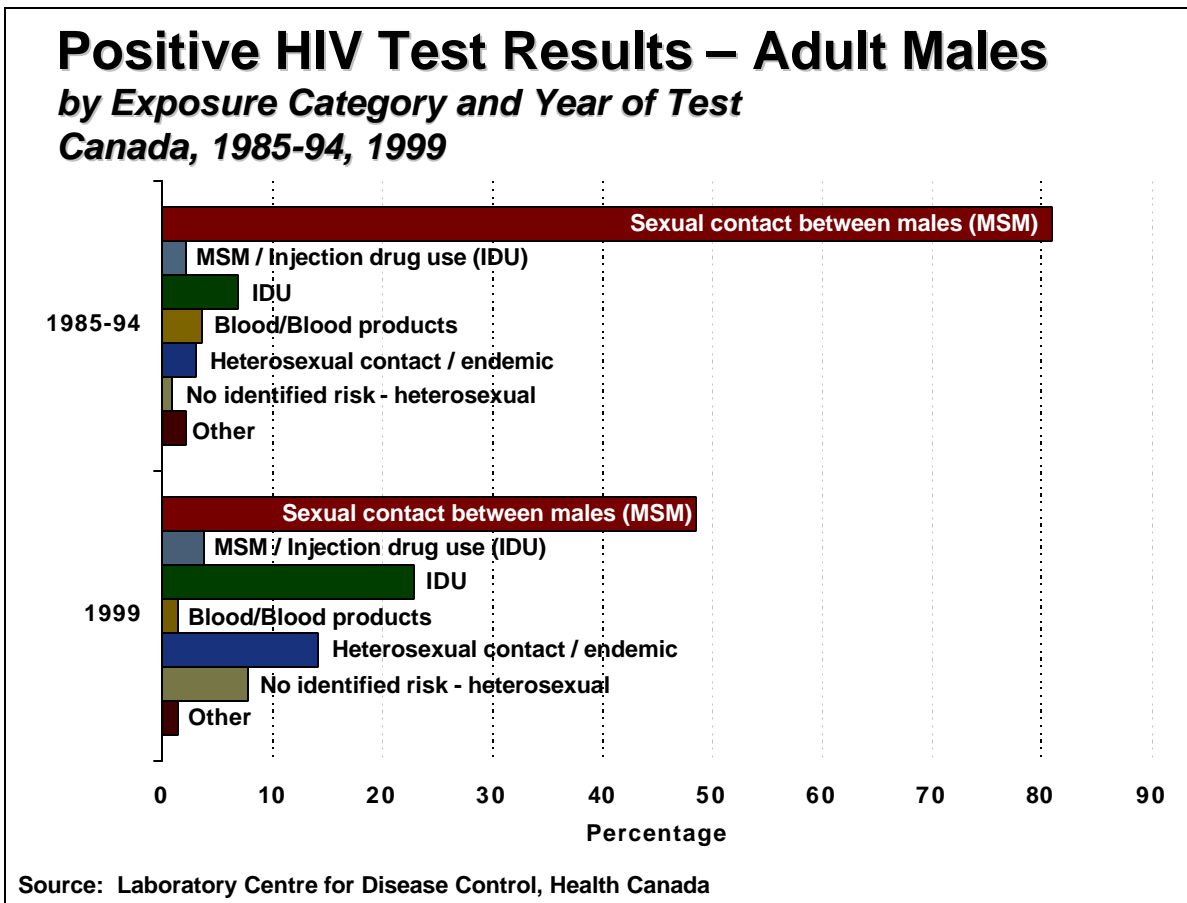
- ? Between 1996/97 and 1998/99 there was a modest percentage increase in the number of women who reported having mammograms within the preceding two years and pap tests within the preceding three years.
- ? In 1996/97, about 48 per cent of the population 65+ reported having a flu shot in the preceding year.



## HIV/AIDS

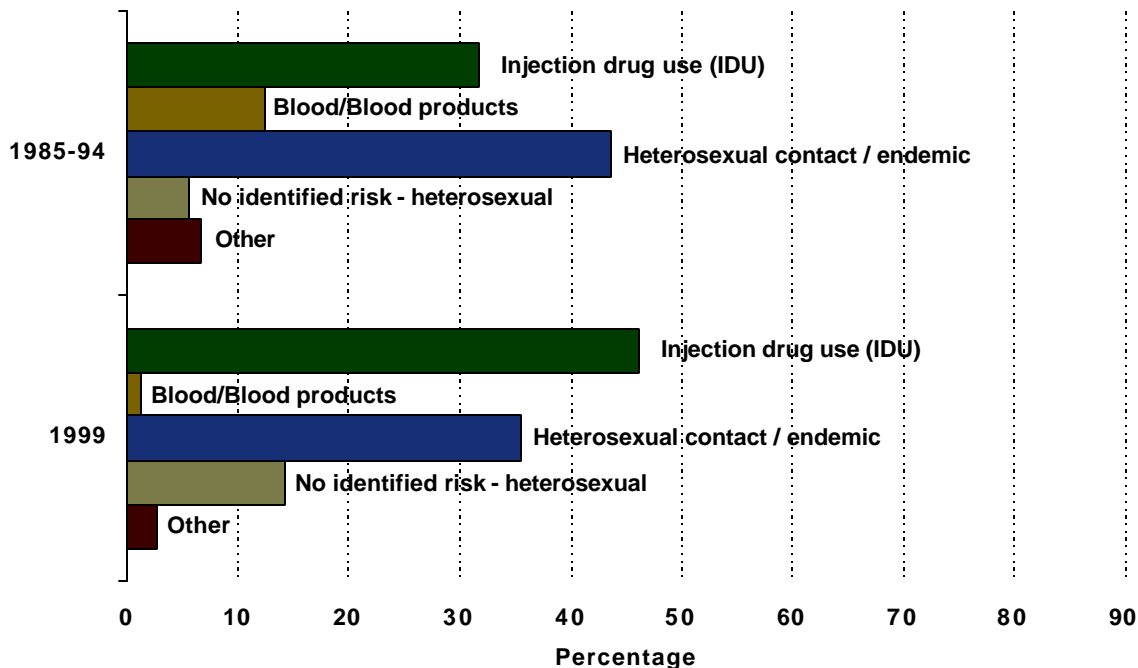


- ? The number of positive HIV test reports declined for males in Canada between 1995 and 1999, but remained relatively constant for females.
- ? Females accounted for about 25 per cent of all positive test results in 1999.



- ? For males, there has been a significant decrease in the percentage of positive HIV tests reporting sexual contact between males as the exposure category. This remains the primary exposure to HIV among males.
- ? There has been a significant increase in HIV transmission by injection drug use, accounting for almost 23 per cent of positive test results in 1999.
- ? **\*Heterosexual contact/endemic** includes persons who were born in a country in which the predominant means of HIV transmission is heterosexual contact and persons who report heterosexual contact with a person who is either HIV-infected or who is at increased risk for HIV infection.

## Positive HIV Test Results – Adult Females by Exposure Category and Year of Test Canada, 1985-94, 1999

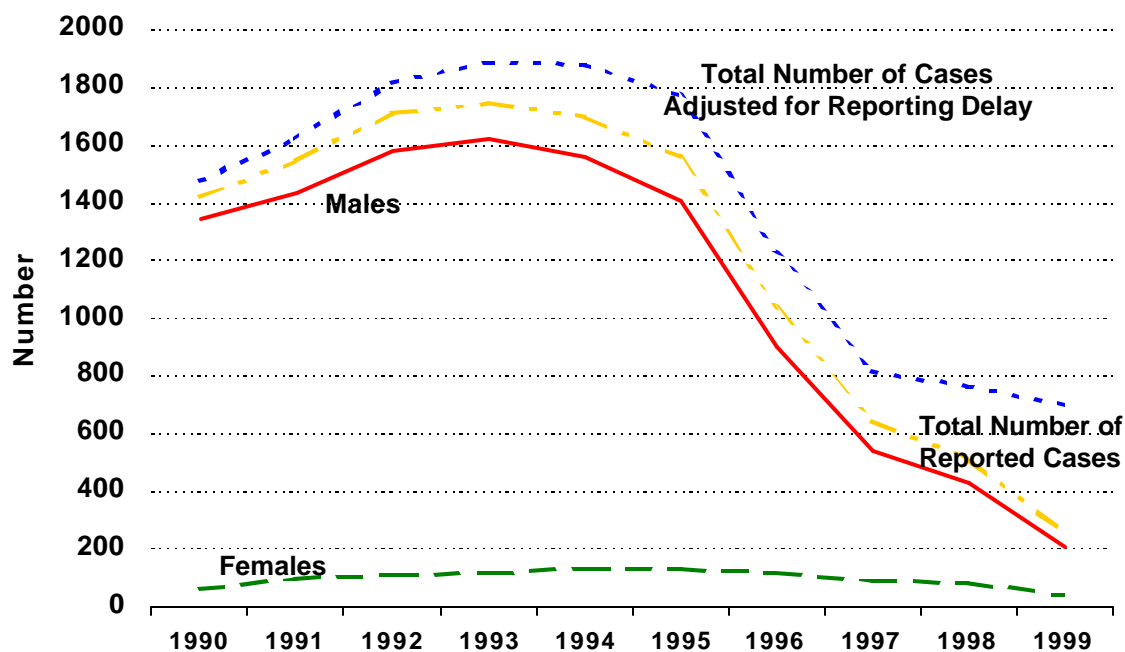


Source: Laboratory Centre for Disease Control, Health Canada

? For females, injection drug use has become the primary mode of transmission for HIV infection, accounting for 46 per cent of positive test results in 1999.

## Acquired Immune Deficiency Syndrome

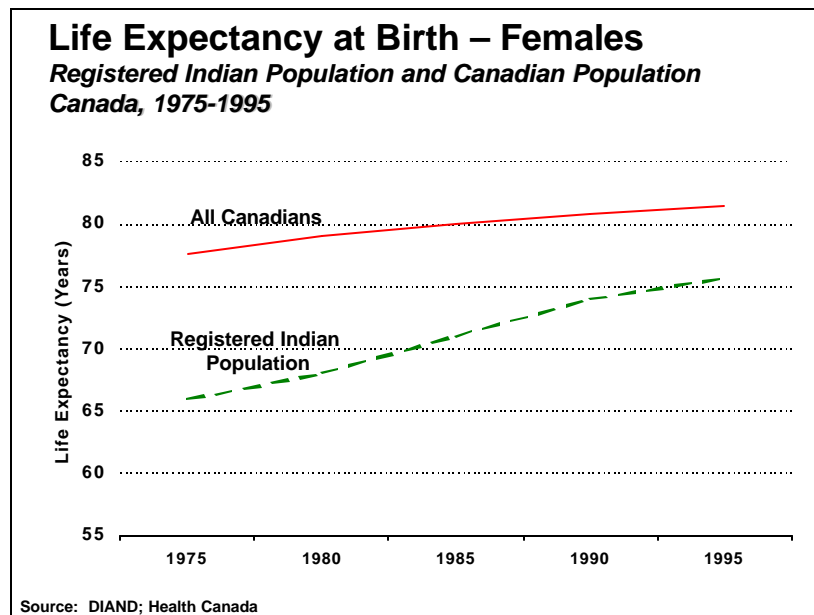
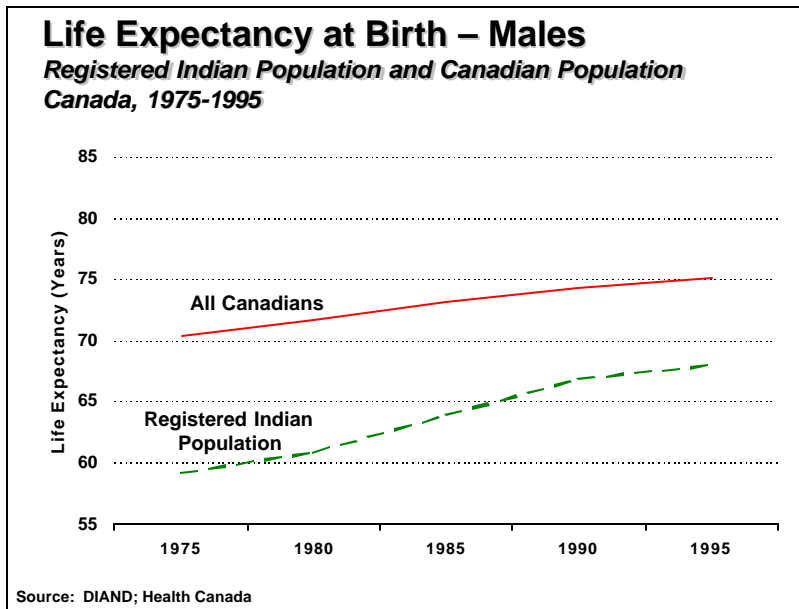
*Reported Cases, Canada, 1990-1999*



Source: Laboratory Centre for Disease Control, Health Canada

- ? Cases adjusted for reporting delays are estimates of the number of AIDS cases diagnosed in each year that will eventually be reported.
- ? Since 1993, the annual number of reported AIDS cases has steadily declined.
- ? Since 1997, however, the rate of decline in the number of delay-adjusted AIDS cases has slowed and the curve is now levelling off.

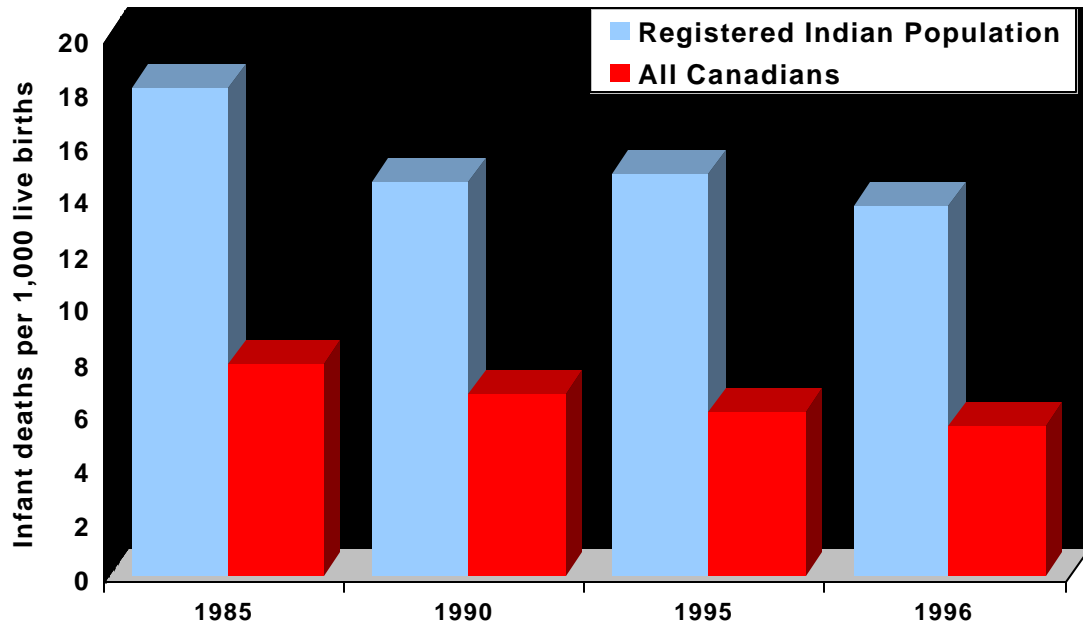
## First Nations and Inuit Health



- ? Life expectancy at birth for the registered Indian population is much lower than for the overall Canadian population. It is, however, increasing relative to the overall Canadian population.
- ? From 1975 to 1995 the gap in life expectancy for males in the registered Indian population compared to that of the overall Canadian population decreased from approximately 9 to 5 years. The gap for females decreased from approximately 12 to 6 years.

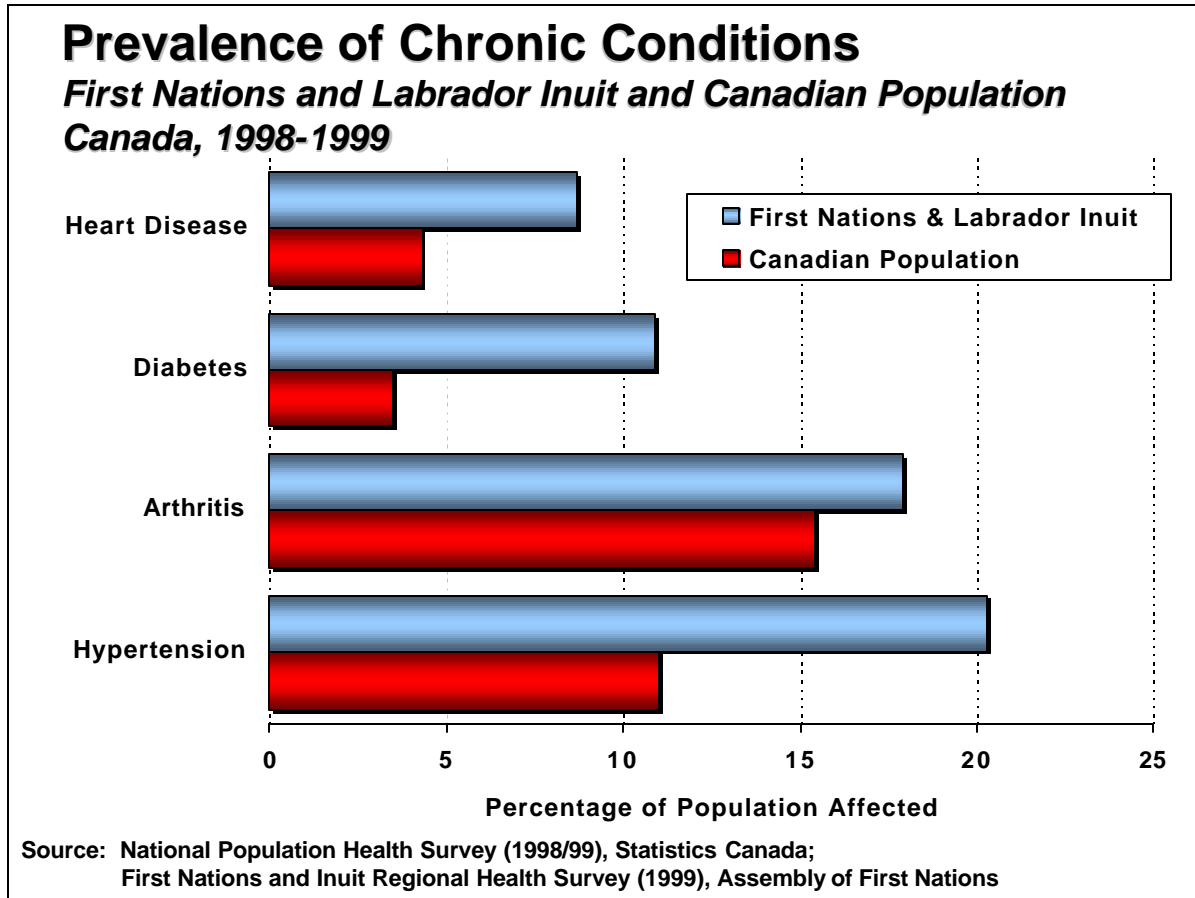
## Infant Mortality Rates

*Registered Indian Population and Canadian Population  
Canada, 1985-1996*

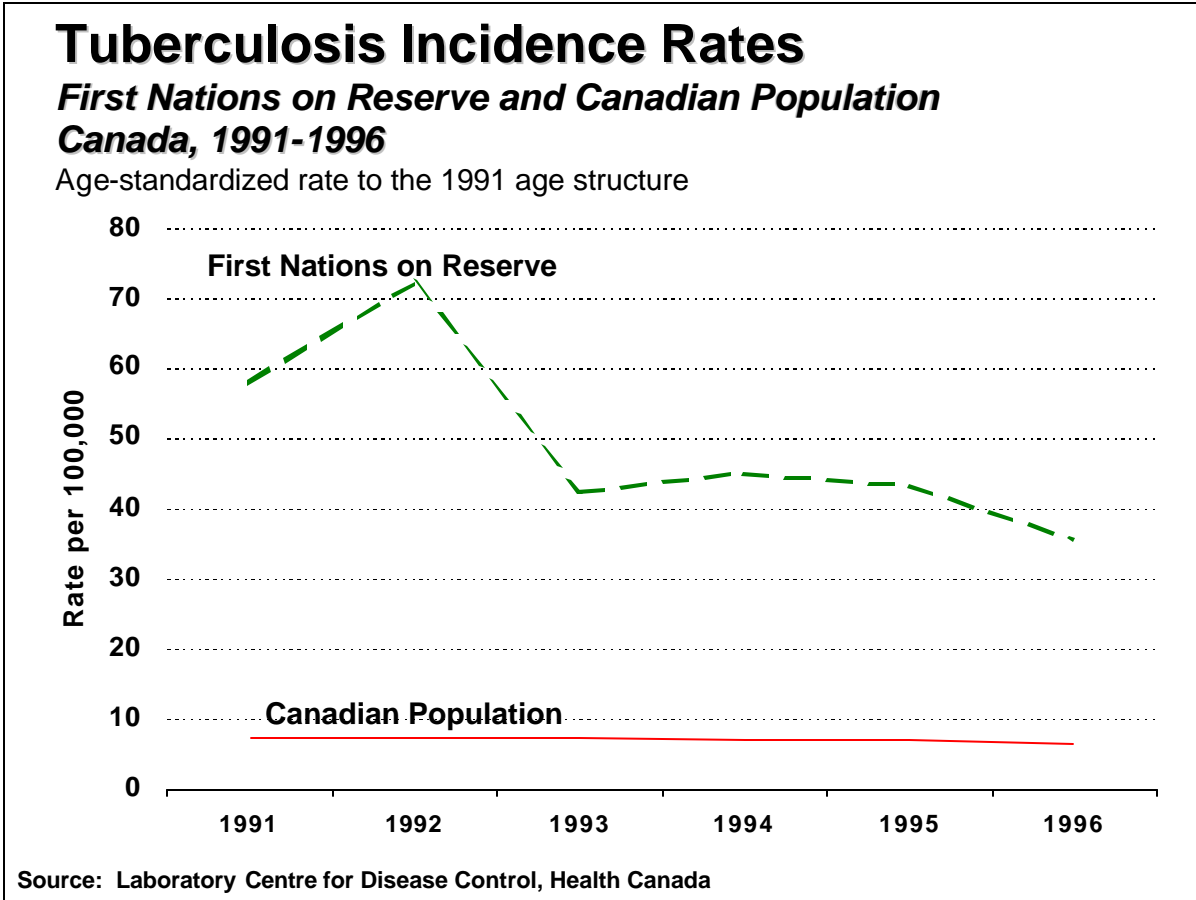


Source: Statistics Canada; Health Canada

- ? The infant mortality rate of the registered Indian population decreased relative to that of the overall Canadian population between 1985 and 1996, but continues to be more than twice as high.

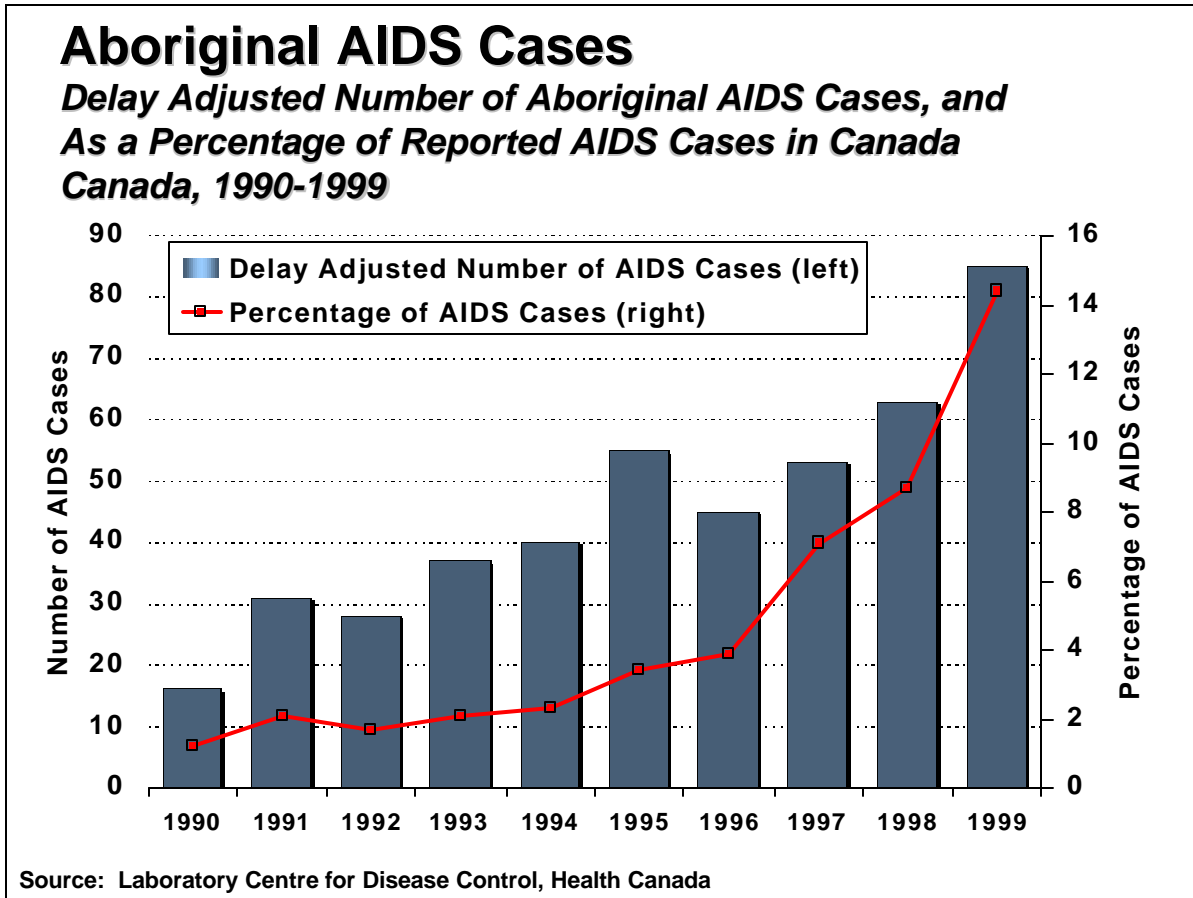


- ? All of these chronic conditions are more prevalent among the First Nations and Labrador Inuit people than in the overall Canadian population.
- ? In relative terms, the greatest difference is in the prevalence of diabetes, which is more than three times as prevalent among First Nations and Labrador Inuit than in the overall Canadian population.

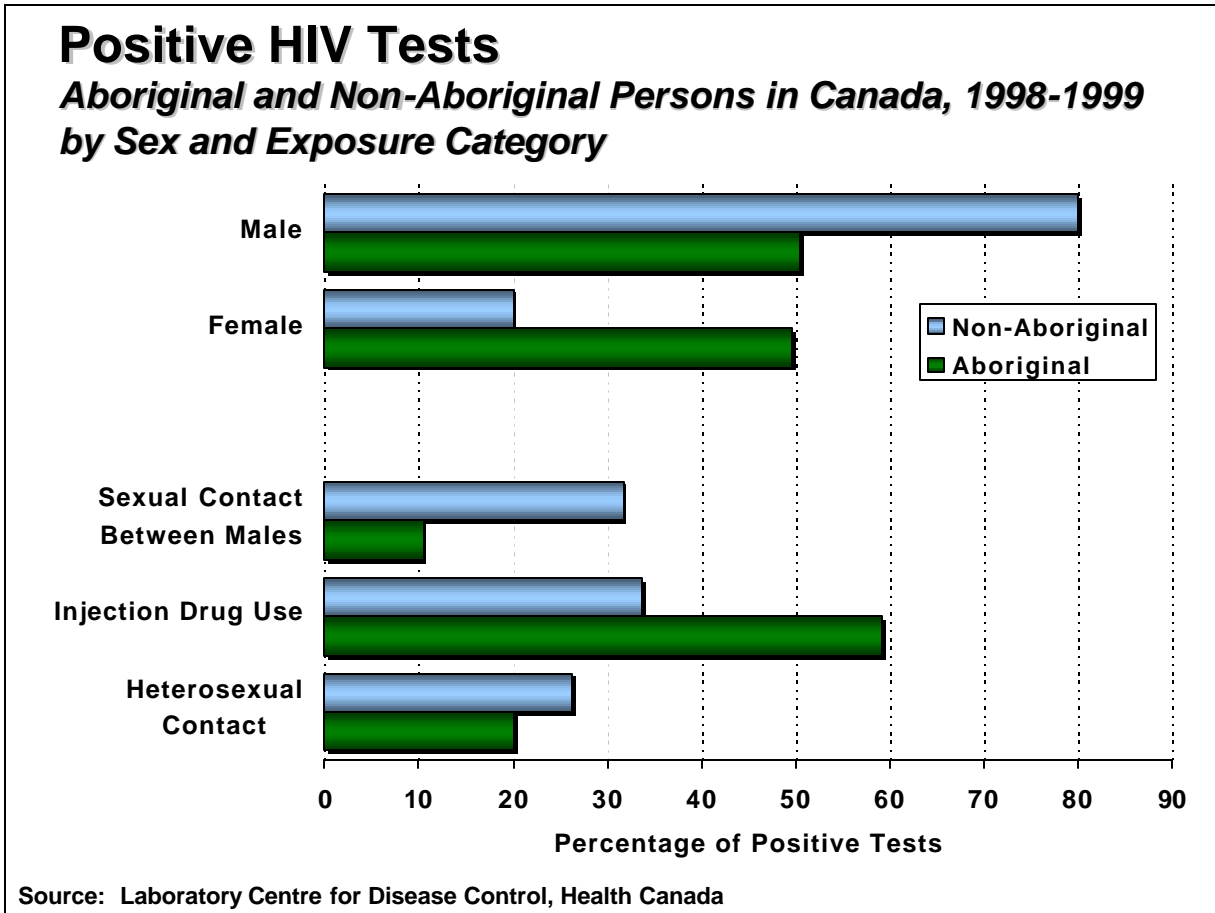


- ? The incidence rate for tuberculosis among the First Nations on reserve declined between 1991 and 1996, but remains more than five times greater than that of the overall Canadian population.





- ? The annual number of AIDS cases reported in the Aboriginal population grew between 1990 and 1999, whereas the number in the overall Canadian population declined significantly.
- ? The Aboriginal population represents about 3 per cent of the Canadian population. However, in 1999, reported Aboriginal AIDS cases represented over 14 per cent of all reported AIDS cases in Canada.



- ? Evidence suggests that injection drug use is the most important mode of HIV transmission among the Aboriginal people, compared to male sexual contact with other males for the non-Aboriginal population.
- ? The number of males and females with positive HIV test reports is about equal for the Aboriginal population, whereas 80% of the non-Aboriginal positive HIV test reports are for males.
- ? There are limitations to the Aboriginal HIV data. Studies have been done among high-risk populations and results may not be generalizable to the Aboriginal population. Data are available only for those who came forward for testing and/or treatments, and may not represent the total number of Aboriginal people infected.