Catalogue no. 84-214-XIE

Vital Statistics Compendium, 1996

Statistics Canada Statistique Canada

Canada

Data in many forms

Statistics Canada disseminates data in a variety of forms. In addition to publications, both standard and special tabulations are offered. Data are available on the Internet, compact disc, diskette, computer printouts, microfiche and microfilm, and magnetic tape. Maps and other geographic reference materials are available for some types of data. Direct online access to aggregated information is possible through CANSIM, Statistics Canada's machine-readable database and retrieval system.

How to obtain more information

Inquiries about this product and related statistics or services should be directed to:

Halifax	(902) 426-5331	Regina	(306) 780-5405
Montréal	(514) 283-5725	Edmonton	(403) 495-3027
Ottawa	(613) 951-8116	Calgary	(403) 292-6717
Toronto	(416) 973-6586	Vancouver	(604) 666-3691
Winnipeg	(204) 983-4020		

You can also visit our World Wide Web site: http://www.statcan.ca

Toll-free access is provided **for all users who reside outside the local dialing area** of any of the Regional Reference Centres.

National enquiries line	**1 800 263-1136**
National telecommunications device for the hearing impaired	**1 800 363-7629**
Order-only line (Canada and United States)	**1 800 267-6677**

Ordering/Subscription information

All prices exclude sales tax

Catalogue no. 84-214-XPE is published occasionally as a standard paper product. The price for delivery in Canada is $45.00; outside Canada, US $45.00. Please order by mail from Statistics Canada, Dissemination Division, Circulation Management, 120 Parkdale Avenue, Ottawa, Ontario, K1A 0T6; by phone, at **(613) 951-7277** or **1 800 770-1033**; by fax, at **(613) 951-1584** or **1 800 889-9734**; or on the Internet, at order@statcan.ca. For changes of address, please provide both old and new addresses. Statistics Canada products may also be purchased from authorized agents, bookstores and local Statistics Canada offices.

This product is also available on the Internet as Catalogue no. 84-214-XIE for CDN $33. Users can obtain this product at http://www.statcan.ca/cgi-bin/downpub/feepub.cgi.

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner and in the official language of their choice. To this end, the Agency has developed standards of service that its employees observe in serving its clients. To obtain a copy of these service standards, please contact your nearest Statistics Canada Regional Reference Centre.

Statistics Canada
Health Statistics Division

Vital Statistics Compendium 1996

by Doreen Duchesne
François Nault
Heather Gilmour
Russell Wilkins

Published by authority of the Minister responsible for Statistics Canada

October 1999

Price: Canada: $45.00
United States: US$45.00
Other countries: US$45.00

Catalogue no. 84-214-XPE
ISBN 0-660-17893-1

Catalogue no. 84-214-XIE
ISBN 0-660-17893-1

Frequency: Occasional

Ottawa

Note of Appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

La version française de cette publication est disponible sous le titre *Recueil de statistiques de l'état civil, 1996*, nº 84-214-XPF au catalogue, ISBN 0-660-96232-2, sur papier, et nº 84-214-XIF, ISBN 0-660-96232-2, sur l'Internet.

SYMBOLS

The following standard symbols are used in Statistics Canada publications:

..	figures not available
...	figures not appropriate or not applicable
–	nil or zero
- -	amount too small to be expressed
p	preliminary figures
r	revised figures
x	confidential to meet secrecy requirements of the *Statistics Act*

The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences - Permanence of Paper for Printed Library Materials, ANSI Z39.48 - 1984.

TABLE OF CONTENTS

TABLE OF CONTENTS - continued

TABLE OF CONTENTS - continued

TABLE OF CONTENTS - continued

TABLE OF CONTENTS - concluded

FOREWORD

This *Vital Statistics Compendium* provides an overview of various kinds of data, collectively known as vital statistics. The core elements of live births, stillbirths and deaths are the basis of some of the most meaningful health and demographic indicators, such as life expectancy, infant mortality, causes of death, fertility rates and population change. They are also the beginning and end points of more comprehensive person-oriented health data.

Marriage data are included in this publication because they are collected by the same provincial and territorial registries that compile live birth, stillbirth and death data. Divorce data are also presented because of their relationship to marriage data. However, with the rising popularity of consensual unions and an increasing proportion of births occurring outside of marriage, these data have become less valuable from a social perspective than they once were. Nevertheless, weddings remain an industry of considerable economic importance, and represent the beginning of an indefinite legal contract. Similarly, divorces mark the end of that contract, and are of economic importance to the individuals involved. Furthermore, the impact of divorce and subsequent custody and maintenance arrangements have recently been the object of intense debate in parliamentary committees and the media.

Numerous individuals have contributed to this publication. François Nault designed the *Compendium* and supervised the first draft; Doreen Duchesne prepared the "Causes of death" chapter and edited the manuscript; Heather Gilmour was responsible for "Vital statistics by census division" and "International comparisons"; Russell Wilkins supervised the final draft and prepared the Introduction; Rochelle Handleman and Susan Schaan were involved at the early stages of data processing; Claude Grenier and Patricia Tully were involved at the later stages of table preparation and data verification; Richard Trudeau devised the leading causes of death methodology; and Allan Rowell of Geography Division provided help with the maps. Valuable assistance was also provided at various stages by the technical staff: Marc Saint-Laurent, Barbara Riggs, Colette Coghlan, Paula Woollam, Renée Bourbonnais, Micheline Pilon, Bernie Edwards and Agnès Jones. Finally, the *Compendium* was produced under the auspices of Cyril Nair (former Chief, Health and Vital Statistics Data) and Pamela White (former Assistant Director, Health Statistics Division).

The cooperation of the data suppliers, that is, the provincial and territorial vital statistics registries and the Central Registry of Divorce Proceedings at the Department of Justice Canada, is gratefully acknowledged.

We hope that readers will find the information contained in this *Compendium* useful. Comments on its format or contents may be addressed to Doreen Duchesne by phone, at 1-613-951-6379; fax, at 1-613-951-0792; or email, at duchdor@statcan.ca.

Gary Catlin, Director
Health Statistics Division

October 1999

INTRODUCTION

This *Vital Statistics Compendium* comprises summary data on marriages, divorces, live births, stillbirths and deaths. The Introduction describes the history, purposes and organization of vital statistics data collection and processing in Canada; it also covers the data sources, data quality, and methods pertaining to the compilation of vital events. The opening chapter provides a brief overview of vital statistics for 1996. Subsequent chapters deal with marriage, divorce, birth, fetal and infant mortality, total mortality, causes of death, data by census division, and international comparisons. Most charts and tables contain data at the Canada, provincial and territorial levels for the years 1986 through 1996; however, cause of death data are presented at the national level for 1979 through 1996, and the provincial and territorial levels for 1995 and 1996. The Appendices comprise population denominator data used to calculate rates, the calculation method for age-standardized mortality rates, the methodology underlying the selection of leading causes of death, and a table of codes from the *International Classification of Diseases* (ICD) manual used to tabulate the number of deaths due to external causes. The Glossary and References follow the Appendices.

Although the vital statistics registration system covers all births, deaths and marriages occurring in Canada, the birth and death tables in this publication exclude events pertaining to non-residents temporarily in Canada. Births and deaths of Canadian residents occurring in the United States, which are reported under a reciprocal agreement, are included. However, births and deaths concerning Canadian residents in countries other than Canada and the United States are excluded. The marriage data—which are reported here by place of occurrence only—include marriages taking place in Canada that involve non-residents (e.g. tourists from Japan marrying in Jasper), but exclude marriages involving Canadian residents that take place in other countries (including the United States).

Vital Statistics in Canada

History

In 1918, the Dominion Bureau of Statistics (DBS, now Statistics Canada) was created by the *Statistics Act*. Two dominion–provincial conferences were subsequently held to establish a Canadian system of vital statistics, which was to involve the DBS and the provincial vital statistics offices. In this cooperative arrangement, the DBS was to provide the provinces with standard registration forms for live births, stillbirths, deaths and marriages;[1] the provinces would subsequently return transcripts of the completed forms to the DBS. Eight provinces initially joined the cooperative system, leading to the publication of the first annual report for Canada in 1921. Quebec began to participate in 1926, and Newfoundland in 1949. Data from the territories were first included in the regular publications in 1950.

[1] *Divorce data are not part of the vital statistics registration system described here, but are included in this* Compendium *because of their relationship to marriage data. Background information on divorce statistics is provided further on in this section.*

Purposes

The complete and accurate registration of all vital events in Canada continues to be the main objective of this collaborative effort among the provinces, the territories and Statistics Canada. Under a federal–provincial agreement, the registration of live births, stillbirths, deaths and marriages is the responsibility of the provinces and territories. The primary function of the provincial and territorial registration systems is to obtain and preserve such documentary evidence as is necessary to protect the legal rights of the individual. At any time after registration, the individual or family concerned may refer to the records for proof of the pertinent facts concerning a live birth, stillbirth, death or marriage.

In addition to the registration of vital events, the provincial and territorial vital statistics registries are also involved in the production of statistics. Such data are used extensively for government policy purposes; they are also used by the research community and other health professionals in the production of population estimates and projections, demographic trend analyses, health surveillance and epidemiological research.

Provincial and territorial Vital Statistics Acts (or equivalent legislation) render compulsory the registration of all live births, stillbirths, deaths and marriages that occur within their jurisdictions. These Acts follow, as closely as possible, a Model Vital Statistics Act,[2] which was approved in 1919 by an Order-in-Council to promote uniformity of legislation and reporting practices among the provinces and territories.

The Canadian system of vital statistics operates under an agreement between the Government of Canada and the provincial and territorial governments. The Vital Statistics Council for Canada, an advisory committee set up by an Order-in-Council, consists of representatives from all jurisdictions and Statistics Canada who oversee policy and operational matters. Under the agreement, all registrars collect a specified set of data elements, although any of them may decide to collect additional information.

Data elements

Live births The main form for the registration of a *live birth* is completed by the parents, who are responsible for filing it with the local registrar. Most provinces also require physicians (or other birth attendants) to report all births. The central vital statistics registry in each province and territory provides Statistics Canada with microfilm copies or electronic images of the birth registration forms, in addition to coded data derived from these forms. The following birth-associated variables are reported by all jurisdictions: date and place of birth; child's sex, birthweight and gestational age; parents' age, marital status and birthplace; mother's place of residence; type of birth (single or multiple); and parity (total number of liveborn and stillborn children ever born to the mother). Birthweight and gestational age are reported by the parents in most jurisdictions, except Newfoundland and Quebec (where the information is reported by

[2] *See Fair (1994).*

the physician), and British Columbia (as of 1997). However, information from the physician's report may be used to correct the parents' report with respect to these two variables.

Deaths The form for the registration of a *death* is divided into two parts: the first contains personal information; the second, medical information. Personal data are supplied to the undertaker (funeral director) by an informant, usually a relative of the deceased. The medical certificate of death is completed by the medical practitioner last in attendance, or by a coroner if an inquest or enquiry was held. The undertaker, or person acting as the undertaker, enters the details pertaining to the disposition of the body (e.g. burial) on the death registration form, and is responsible for filing the completed form with the local registrar, who then issues the burial permit. The following death-related variables are reported by all jurisdictions: age, sex, marital status, place of usual residence, and birthplace of the deceased; date of death; cause of death; place of occurrence of the death; place of accident (for most non-transport-related accidental deaths); and autopsy (whether one was held, and if so, whether the results were taken into account in establishing the cause of death).

Stillbirths The form for the registration of a *stillbirth* either combines birth and death information into a single document, or consists of a statement of stillbirth and a medical certificate of stillbirth. Reporting requirements parallel those for live births and deaths. The variables reported for stillbirths include those reported for live births plus those reported for deaths. Two additional variables are also reported by most jurisdictions; specifically, whether fetal death occurred before or during labour, and whether labour was induced.

Marriages The form for the registration of a *marriage* is completed by the bride and groom, and the officiant (the person who performed the marriage) is responsible for filing it with the local registrar. The central vital statistics registry in each province and territory provides data to Statistics Canada from these marriage registration forms. The following variables are reported: date of birth of bride and groom (except Newfoundland and Ontario); age and marital status of bride and groom prior to marriage; birthplace of bride and groom (except Nova Scotia and Manitoba); place of residence of bride and groom (except Newfoundland, Nova Scotia, Ontario and Saskatchewan); religious denomination of bride and groom (except Nova Scotia, New Brunswick and Quebec); birthplace of bride and groom's parents (except Newfoundland, Nova Scotia, Quebec, Ontario and Manitoba); date, place and officiant; licence or banns (except Newfoundland, Quebec and Alberta); and religious denomination of officiant (except Nova Scotia and Quebec).

Data processing

For live births, deaths, stillbirths and marriages, all provinces and territories supply microfilm copies or optical images of registration forms to Statistics Canada. In addition, Nova Scotia, New Brunswick, Quebec, Ontario and the western provinces supply machine-readable abstracts of registrations, which contain the required standard information. For Prince Edward Island and Newfoundland (except for live births) and the

territories, the required standard information on microfilm is converted to machine-readable format at Statistics Canada. Subsequent changes to registrations due to errors or omissions are transmitted to Statistics Canada as the information becomes available. However, changes received after a cutoff date are not reflected in published tabulations.

The provinces that supply data in machine-readable form also code most or all of their data and carry out edits before sending them to Statistics Canada. Editing practices vary by jurisdiction, but usually include checks to ensure that the required data are present; in addition, code ranges are validated where applicable, and consistency checks are performed between related data elements, such as birthweight and duration of gestation, marital status and age, and cause of death and sex.

Statistics Canada supplies the various jurisdictions with manuals (such as the *International Classification of Diseases* or ICD, and the *Standard Geographical Classification* or SGC), to promote data reliability and consistency; the Agency also provides training and consultation services for cause of death coding.

In the case of the Atlantic provinces and the territories, the cause of death (for both deaths and stillbirths) is coded at Statistics Canada, as is geographic information for Yukon, and reports pertaining to non-residents of the province or territory of occurrence. Disease classification and geographic information pertaining to Canadian residents born in the United States, or who have died there, are also coded at Statistics Canada. The machine-readable files provided by some provinces are converted to a standard format; required data not provided by the provinces and territories in machine-readable form are captured in a standard format.

The data from all provinces and territories are then subjected to a series of edits to verify completeness and quality. Most errors and omissions detected during processing are corrected by referring to the microfilmed registrations or consulting the provinces and territories. More recently, standard edit specifications have been developed by Statistics Canada for inclusion in provincial edit systems.

Since 1990, Ontario has used optical imaging technology for storing copies of vital registration documents, and microfilm copies are no longer produced. From 1990 to 1995 it was not possible to edit all of the vital statistics data reported by Ontario because the optical images had not been transferred to Statistics Canada. Invalid codes were assigned to the "not stated" category, and unlikely situations were accepted as reported. As of 1996, the complete editing of Ontario data has again been possible, thanks to the availability of optical image copies at Statistics Canada.

Vital Statistics Data Quality

Coverage

Due to legal reporting requirements, the registration of births, deaths, stillbirths and marriages is considered to be virtually complete. However, records received after a

cutoff date (late registrations) are not included when annual tabulations are disseminated, resulting in some undercoverage. In 1994, for example, information on 280 deaths and 1,720 live births was received too late to be included in the tabulations. Counts of late registrations of stillbirths and marriages were not compiled.

Completeness

The reporting completeness of core statistical data items varies with the item, the reporting province or territory and the year. For the combined provincial and territorial *death* data, completeness in the 1991-to-1996 period was 99% or higher for age, sex, marital status, place of residence and cause of death; 95% to 96% for birthplace of the deceased; 28% to 30% for birthplace of the parents of the deceased; and 20% to 22% for place of accident (usually not applicable). For the *live birth* data, completeness in 1996 was 98% to 100% for most variables, except for the mother's marital status, and the father's age and birthplace (91% to 93%). For the *stillbirth* data, completeness in 1996 was 98% to 100% for the place of occurrence, kind of birth (single or multiple), sex, duration of gestation, parity, and the mother's age; 96% for birthweight; 81% for the underlying cause of death; 85% for the mother's marital status; and 86% for the person attending the delivery. For the *marriage* data, the completeness of core statistical data items varied with the item, the reporting province or territory and the year. In most provinces and territories in 1996, reporting was nearly complete when the item was reported at all. However, many items (including province of residence) were not reported at all in one or more provinces. Thus, the only variables reported by all provinces were the age and marital status of the bride and groom prior to marriage, the place of occurrence of the marriage, and the type of marriage officiant present.

In 1991, an agreement was signed with the province of Newfoundland that allowed Statistics Canada to use data from the Live Birth Notification file, obtained from the Newfoundland Department of Health. This file provides more complete information, both in terms of registered births and collected variables, than was previously available from the provincial registry of Vital Statistics. Before 1991, the registry provided only counts of births from the parents' registration form (known as the Return of Birth), which usually had to be adjusted for under-enumeration. Therefore, the historical tables on births do not cover Newfoundland, except for the one on the total number of births. Since 1995, the provincial registry has provided composite records to Statistics Canada, based on both of the above documents.

Accuracy of data capture and coding

Plans have been made to evaluate the accuracy of data capture and coding in the near future. A sample of records is to be recaptured, recoded and matched against corresponding records on the Canadian Vital Statistics Database. The data elements to be reviewed for births include the child's date of birth, duration of gestation, sex and birthweight, the kind of birth involved, and the mother's age, parity, marital status and usual place of residence. The data elements under review for deaths include the date, location, nature and cause of death, and selected characteristics of the deceased (sex, date of birth, age at death, marital status, usual place of residence, birthplace, and parents' birthplace).

Similar quality assessment studies were previously conducted on a sample of 1980 and 1981 records for the 10 provinces (Nagnur, Currie and Heath, 1981; Nagnur et al, undated). Samples of records from the final edited machine-readable files were compared with recoded versions of the original microfilm documents. Various sources of error were identified and reported so that improvements in the data collection process could be implemented, such as the training of coding staff. The overall findings indicated that error rates for most variables were quite low. However, some concerns were raised related to the geographic coding of the place of residence of the deceased (at the local or municipal level) and the coding of the underlying cause of death.

Certain causes of death, particularly homicides and suicides, may have been temporarily assigned to non-specific categories (such as "other unknown and unspecified cause," ICD-9: 799.9) when the data were first reported to Statistics Canada, pending further investigation, such as an inquest or an autopsy (Young and Wagner, 1994; Wilkins, 1994). For example, in the case of Alberta in 1985 and Ontario in 1990, relatively more deaths than usual were classified to other, unknown, unspecified or ill-defined causes, and fewer deaths were deemed to be accidents, poisonings or the consequences of violence (e.g. suicide and homicide). While the more precise information is usually reported at a later date, it is not reflected in the published data.

Changes in cause-of-death coding over time

Since 1979 in Canada, cause-of-death information in published reports has been based on the ninth revision of the *International Classification of Diseases* (ICD-9). This revision, which reflects a restructuring of the classification and modifications of the rules for selecting the underlying cause of death, has resulted in some discontinuities with previous revisions. Any comparisons of ICD-9 categories with previous revisions, either by category number or disease title, should be made with reference to both the ICD-9 and the earlier classification(s). In this respect, particular care should be taken with certain categories, sections or chapters of the ICD. These include: category 558, which contains conditions previously classified to the infectious diseases chapter; category 579, which includes some conditions previously found in the chapter on endocrine disorders; categories 390-398 and 424, where assumptions of rheumatic origin are no longer made for certain conditions; categories 490-493 for asthma, bronchitis and emphysema, where the linkage of conditions is no longer possible; the pregnancy with abortive outcome section (630-639), which now includes ectopic pregnancies; the chapter on perinatal conditions, where the age restriction has been changed; and the symptoms, signs and ill-defined chapter, where certain symptoms have been removed and placed in other chapters relating to specific organ systems.

In addition, the increasing importance of human immunodeficiency virus (HIV) infection resulted in the introduction of an addendum to the ICD-9, providing for specific codes for HIV infection. These codes (042, 043 and 044), assigned to Chapter I on infectious and parasitic diseases of the ICD-9, have been used in Canada since 1987. Prior to 1987, HIV infection, if so identified, was classified to immunity disorders, found in Chapter III.

Timeliness

Data are usually available towards the end of the year following the data year in question, and the tabulations shortly thereafter. Tabulations pertaining to 1996 data were delayed by the cancellation of the former publication program.

Population estimates and rates

Prior to 1992, vital statistics rates were calculated using denominators that excluded persons lacking official authorization to reside permanently in Canada, as well as adjustments for net census undercoverage; however, the numerators generally included these two groups. Since 1992, the use of an adjusted series of population estimates, retroactive to 1971, has addressed this problem. This series, produced and frequently revised by Demography Division, comprises annual mid-year (July 1) population estimates for each province and territory, by age (single years), sex and marital status.[3]

In the production of vital statistics, the legal definition of marital status is used. This means that persons in common-law unions are categorized as single, widowed, separated or divorced. Prior to 1981, however, the population estimates used to calculate rates assigned common-law partners to the married category.

Divorce Data

History, purpose and content of divorce data

Divorce data do not form part of the Vital Statistics registration system described above, but are included in this *Compendium* because of their relationship to marriage data. Since 1969, divorce data have been provided to Statistics Canada by the Central Registry of Divorce Proceedings (CRDP) at the Department of Justice Canada. The target universe for divorce statistics consists of all divorces processed in Canada.

Divorce statistics are important for both administrative and demographic reasons. These data are essential for the administration of social programs; for example, government departments and embassies generally require confirmation of an individual's marital status for pension and immigration purposes. Divorce data are used in litigation involving fatal accidents, and they are often crucial in specialized studies (e.g. examining divorce as a social phenomenon) and the development of family-based measures (e.g. fertility projections).

---

[3] *In December 1998, Demography Division released yet another series of adjusted population estimates for 1971-1998. However, an earlier series (published in Demography Division's* Annual Demographic Statistics, 1997, *catalogue 91-213-XPB) was used to calculate the rates published in the Compendium (see Appendices 1 and 2). The Glossary contains additional information on population estimation and rates.*

The data elements in the divorce file include information on the age of the husband and wife at the time of marriage and divorce, their birth dates and marital status prior to marriage, the province or territory granting the divorce decree, the duration of marriage and reason for breakdown, the person making the divorce application, and information on dependent children and child custody, if applicable.

Data collection

The Central Registry of Divorce Proceedings (CRDP) at the Department of Justice Canada collects information on all divorces processed in Canada. The impetus for a central divorce registry arose from the need to eliminate duplicate registrations of divorce proceedings. At present, intraprovincial or intraterritorial duplications arise in approximately 5% of all applications, and interprovincial or interterritorial duplications in 0.5% of applications.

Each year the Health Statistics Division at Statistics Canada obtains a machine-readable file from the CRDP on completed divorce cases. Statistics Canada processes the data and produces a set of standard tabulations. The number of completed divorces (granted divorce decrees) in a given year is not necessarily associated with the legal actions filed that year. Furthermore, the divorce tabulations presented here (and in the *Divorces* publication, Statistics Canada, catalogue 84F0213XPB) show the province where the divorce decree was granted, rather than the husband or wife's province of residence.

Change in grounds for divorce over time

Under the 1985 *Divorce Act*, marriage breakdown became the only grounds for divorce. Evidence of marriage breakdown was reduced to being separated for at least one year, adultery, physical cruelty, or mental cruelty. In cases where the couple files a joint application for divorce, the only valid category is separation for at least one year. The other three reasons for divorce—adultery, physical cruelty and mental cruelty—are only legally admissible when one spouse initiates a divorce proceeding against the other.

Data processing

After a divorce process has been finalized, the courts in each province and territory send information to the CRDP for entry into the central database. Upon receipt of an annual data file from the CRDP, Statistics Canada carries out a series of consistency checks to assess the quality of the data. Following consultations with the CRDP to check out inconsistencies, a series of standard tabulations is prepared.

Data quality

Detailed divorce tabulations have been available since 1969. Divorce counts in this publication represent "decrees absolute" and do not include any other form of marital dissolution (e.g. separation). To some extent, the number of divorce decrees granted in any one year depends on such factors as the number of petitions or applications filed, the number of centres hearing divorce petitions, and the time interval necessary for a

petition to end in a final decree. The variations could be appreciable at a provincial or territorial level. This aspect should be taken into account when making comparisons between jurisdictions, or within jurisdictions over time.

Divorce rates do not necessarily provide an accurate index of union dissolution, since they are based on unions that have been legally contracted. Common-law relationships comprise a significant proportion of unions in Canada, though the proportion varies from one province or territory to another. Persons in consensual unions are not at risk of divorce, since no legal procedure is required to dissolve such relationships. Caution is advised when making cross-cultural comparisons, as consensual unions may represent a large proportion of all unions in certain communities.

Data coverage and completeness

Because of the obligatory legal requirements to register divorce decrees in all provinces and territories, the level of coverage and data quality are high. Small regional differences in coverage may exist, however, due mainly to registrations received beyond the cutoff date for data compilation. But the overall effect on the statistical measures and tabulations is small.

The reporting completeness of core statistical items varies with the item, the reporting province or territory, and the year. Most data elements found in the standard tabulations produced by Statistics Canada have a high level of completeness. Information on child custody and dependent children are not complete, however, because court offices do not always provide the required data elements; furthermore, child custody arrangements may not be recorded on the divorce registration form if custodial arrangements were not pursuant to a court order (e.g. the parties reached a custody decision beforehand and the court did not have to adjudicate). Consequently, divorce registration data underestimate the total number of dependent children affected by divorce as well as the total number of custody orders.

Additional information

The following products, which contain more detailed information on 1996 and 1997 vital statistics, are also available ($20 each): *Causes of Death, 1996 and 1997* (catalogue 84F0208XPB); *Mortality—Summary List of Causes, 1996 and 1997* (catalogue 84F0209XPB, also available free of charge as downloadable PDF files from Statistics Canada's Web site: www.statcan.ca); *Leading Causes of Death at Different Ages, Canada, 1996 and 1997* (catalogue 84F0503XPB); *Births and Deaths, 1996 and 1997* (catalogue 84F0210XPB); *General Summary of Vital Statistics by Local Area, 1996 and 1997* (catalogue 84F0001XPB); *Divorces, 1996 and 1997* (catalogue 84F0213XPB). To order any of the above products or custom tabulations (on a cost-recovery basis), contact Client Custom Services, Health Statistics Division, Statistics Canada by telephone (1-613-951-1746) or fax (1-613-951-0792).

Vital statistics data for earlier years can be found in the following publications: *Selected Birth and Fertility Statistics, Canada, 1921-1990* (catalogue 82-553); *Selected Infant Mortality and Related Statistics, Canada, 1921-1990* (catalogue 82-549); *Selected Mortality Statistics, Canada, 1921-1990* (catalogue 82-548); and *Longevity and Historic Life Tables (Abridged), Canada and*

the Provinces, 1921-1981 (catalogue 89-506). The official (unabridged) life tables are available in *Life Tables, Canada and Provinces* (catalogue 84-537 for 1990-1992, and catalogue 84-532 for 1975-77, 1980-82 and 1985-87). For an analysis of marriage and divorce trends, see *The Decline of Marriage in Canada, 1981-1991* (catalogue 84-536).

1. Overview

On an average day in Canada in 1996 …

428 couples married[1]

- 317 unions were solemnized by religious officiants, 111 were civil ceremonies
- 282 marriages took place between couples where both parties were marrying for the first time
- in 56 marriages, both spouses were foreign-born[2]
- in 2 marriages both were teenagers

195 divorces were finalized

- 148 divorces were granted to couples where both spouses were in their first marriage
- 15 divorces took place between couples who had both been divorced at least once before
- in 52 divorces, both spouses were in their thirties
- in 5 divorces, both spouses were at least 65 years old or both were younger than 25

1,001 babies were born

- 514 were boys and 487 were girls
- 283 offspring had unmarried mothers (122 in Quebec)
- 60 were born to teenage mothers
- 57 had a low birthweight
- 43 were pre-term
- 117 babies were born to women aged 35 to 39; 17 were born to women 40 years and older
- 24 were in multiple-birth sets
- 6 infants died, another 6 were stillborn

582 persons died

- 305 were male, and 277 female
- 51 men and 92 women were 85 years or older
- 10 males and 5 females were under 25 years of age
- 217 deaths were due to diseases of the circulatory system, including 158 deaths from heart diseases and 43 deaths from cerebrovascular diseases
- 162 deaths were due to cancer, including 43 to lung cancer, 17 to colorectal cancer, 14 to breast cancer, and 10 to prostate cancer
- 52 deaths were due to diseases of the respiratory system, including 26 deaths from chronic obstructive pulmonary diseases and 20 deaths from pneumonia or flu
- 37 deaths resulted from unintentional injuries or violence, including 11 deaths from suicide, 8 deaths from motor vehicle accidents, and 1 death from homicide
- 7 deaths were due to Alzheimer's disease, 5 deaths were directly attributable to alcohol, and 4 resulted from HIV infection

---

[1] See the Glossary on page 145 for an explanation of the terms used in this box.
[2] Marriage statistics published in the *Compendium* include non-residents marrying in Canada (e.g. tourists from abroad).

Table 1.1 Vital statistics summary, Canada, provinces and territories, 1996[1]

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
Marriages													
Number of marriages	156,691	3,194	924	5,392	4,366	23,968	66,208	6,448	5,671	17,283	22,834	197	206
Crude marriage rates[2]	5.2	5.6	6.8	5.7	5.7	3.2	5.9	5.7	5.6	6.2	5.9	6.3	3.1
Total first-marriage rates[2]													
Males	502	563	723	555	562	320	560	574	630	564	529	474	275
Females	536	592	749	585	590	353	595	612	644	604	557	493	284
Divorces													
Number of divorces	71,528	1,060	237	2,228	1,450	18,078	25,035	2,603	2,216	7,509	10,898	115	99
Crude divorce rates[2]	2.4	1.9	1.7	2.4	1.9	2.4	2.2	2.3	2.2	2.7	2.8	3.7	1.5
Total divorce rates[3]	369	263	240	324	259	457	329	309	306	383	450	561	389
Live births													
Number of live births[4]	366,200	5,747	1,694	10,573	8,176	85,226	140,012	15,478	13,300	37,851	46,138	443	1,562
Boys	188,145	2,985	875	5,425	4,211	43,668	71,751	7,908	6,899	19,579	23,798	232	814
Girls	177,930	2,762	819	5,148	3,965	41,449	68,246	7,569	6,401	18,272	22,340	211	748
% with low birthweight	5.8	6.1	5.3	5.4	5.1	5.9	6.0	5.5	5.0	6.1	5.2	4.3	5.5
Crude birth rates[2]	12.2	10.1	12.4	11.2	10.7	11.5	12.4	13.6	13.0	13.6	12.0	14.1	23.4
Total fertility rates	1.59	1.26	1.67	1.49	1.41	1.56	1.57	1.86	1.89	1.72	1.54	1.69	2.71
Life expectancy (in years) at birth[5]													
Males	75.7	75.0	73.9	74.9	75.2	75.2	76.1	75.5	75.5	76.0	76.1	..	..
Females	81.4	80.5	80.7	80.7	81.2	81.5	81.4	80.8	81.4	81.3	81.9	..	..
Stillbirths													
At 20+ weeks of gestation	2,121	25	8	74	42	342	905	119	59	239	295	2	11
At 28+ weeks of gestation	1,246	14	5	32	31	240	531	59	36	137	151	2	8
Stillbirth rates at 28+ weeks[6]	3.4	2.4	2.9	3.0	3.8	2.8	3.8	3.8	2.7	3.6	3.3	4.5	5.1
Infant mortality													
Number of infant deaths	2,051	38	8	59	40	396	802	104	112	236	237	-	19
Infant mortality rates[7]	5.6	6.6	4.7	5.6	4.9	4.6	5.7	6.7	8.4	6.2	5.1	-	12.2
Number of neonatal deaths	1,441	32	8	37	24	290	584	67	76	153	165	-	5
Neonatal mortality rates[7]	3.9	5.6	4.7	3.5	2.9	3.4	4.2	4.3	5.7	4.0	3.6	-	3.2
Number of post-neonatal deaths	610	6	-	22	16	106	218	37	36	83	72	-	14
Post-neonatal mortality rates[7]	1.7	1.0	-	2.1	2.0	1.2	1.6	2.4	2.7	2.2	1.6	-	9.0
Number of perinatal deaths	2,450	40	13	66	51	486	1,014	118	96	265	287	2	12
Perinatal mortality rates[6]	6.7	6.9	7.7	6.2	6.2	5.7	7.2	7.6	7.2	7.0	6.2	4.5	7.6
Deaths													
Number of deaths[8]	212,880	3,928	1,268	7,751	5,896	52,336	79,099	9,497	8,765	16,391	27,536	120	272
Males	111,404	2,164	678	4,007	3,125	27,407	40,673	4,809	4,701	8,796	14,763	88	175
Females	101,476	1,764	590	3,744	2,771	24,929	38,426	4,688	4,064	7,595	12,773	32	97
Crude mortality rates[2]	7.1	6.9	9.3	8.2	7.7	7.1	7.0	8.3	8.6	5.9	7.1	3.8	4.1
Age-standardized mortality rates[9]	654	718	755	700	681	662	649	670	647	643	628	877	982
Males	836	910	1,014	902	886	869	823	841	829	803	793	1,665	1,117
Females	517	562	559	550	528	514	519	541	501	515	495	421	874

[1] *See the Glossary (p. 145) for definitions. Marriage and divorce data are based on the province or territory of occurrence; birth and death data are based on the province or territory of residence. Measures based on small numbers (e.g. for Prince Edward Island, Yukon and the Northwest Territories) should be interpreted with caution.*

[2] *Crude rates and total first-marriage rates are expressed as the number of events per 1,000 population (e.g. the crude marriage rate is the number of marriages per 1,000 population).*

[3] *Total divorce rates are expressed as the number of married couples expected to divorce per 1,000 marriages.*

[4] *Includes 125 births where the sex of the child was unknown (in Quebec, Ontario and Manitoba).*

[5] *Estimated using 1996 death data and abridged life tables.*

[6] *Stillbirth and perinatal mortality rates are expressed as the number of events per 1,000 total births (i.e. live births and stillbirths).*

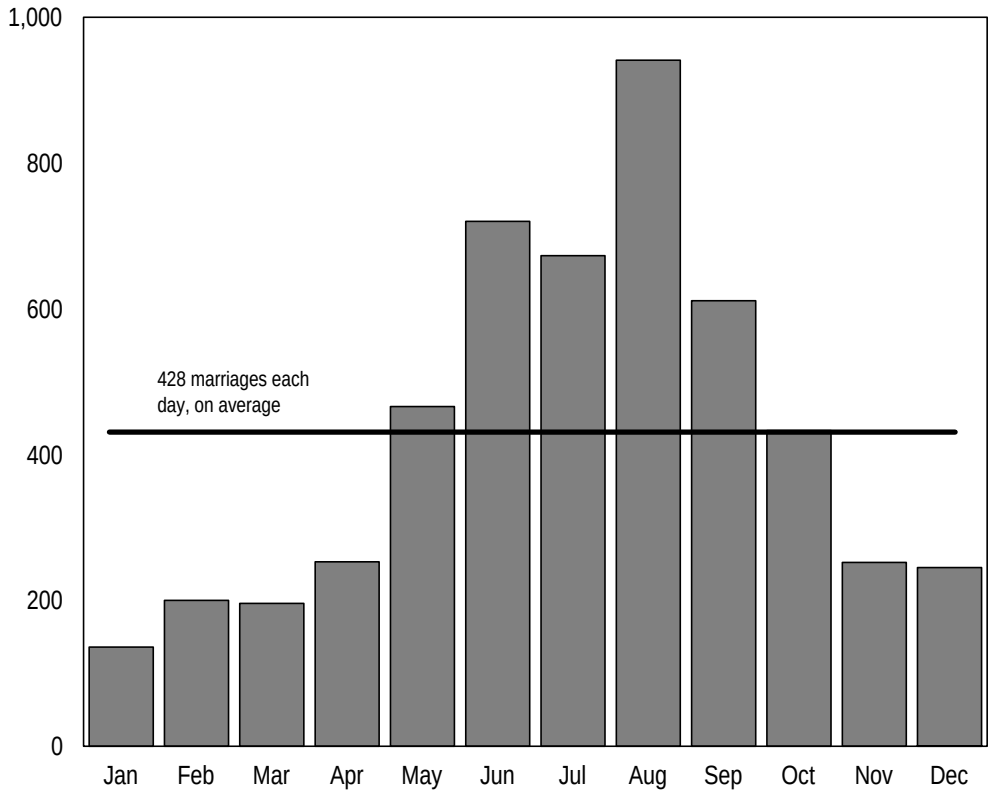
[7] *Infant, neonatal and post-neonatal mortality rates are expressed as the number of events per 1,000 live births.*

[8] *Includes 18 males and 3 females for whom the province or territory of residence was unknown.*

[9] *These rates, which are standardized to the 1991 Canadian population, are expressed as the number of deaths per 100,000 population (see Appendix 4, p. 141).*

2. Marriages

Average daily number of marriages each month in Canada in 1996



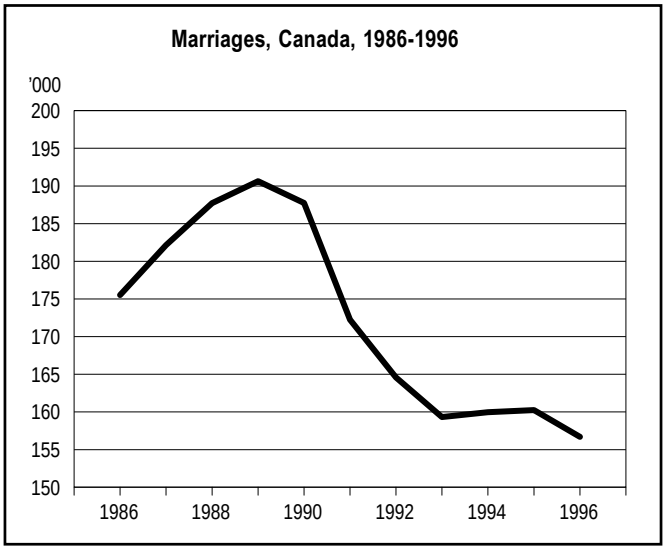
In 1996, well over half (57%) of all marriages occurred in the summer months (from June to September). August was the peak month, followed by June and July. Relatively few people were married in the winter: only 136 marriages, on average, took place each day in January, compared with 941 in August. The weekends celebrating Labour Day in September, the Civic holiday in August (in some provinces), Canada Day in July and St-Jean-Baptiste in June (observed in Quebec) were particularly popular choices in 1996: 19,181 marriages were solemnized on these four weekends alone (12.2% of all marriages that year).

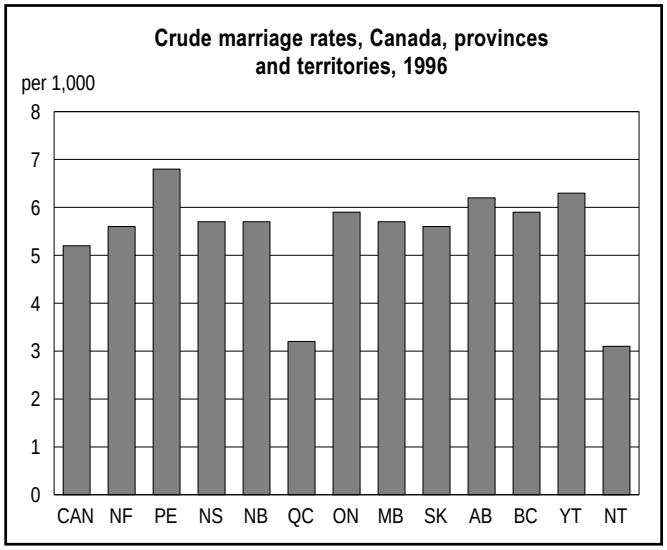
Outside of the summer months, the Victoria Day weekend in May (3,882 marriages) and Thanksgiving weekend in October (3,741 marriages) were the most favoured dates in 1996 (about 5% of 1996 marriages). During the Christmas season (December 20 to 31), 4,617 couples married.

Seven in ten marriages took place on a Saturday (2,142 ceremonies, on average), distantly followed by Friday (374) and Sunday (166). The five most popular days of the year to get married in 1996 were all in August, on Saturdays (22,673 marriages). Two weekdays also stood out: Valentine's Day (623 marriages on a Wednesday in 1996) and Christmas Eve (219 marriages on a Tuesday).

Table 2.1 Marriages and crude marriage rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
						Number of marriages							
1986	175,518	3,421	970	6,445	4,962	33,083	70,839	7,816	6,820	18,896	21,826	183	257
1987	182,151	3,481	924	6,697	4,924	32,616	76,201	7,994	6,853	18,640	23,395	189	237
1988	187,728	3,686	965	6,894	5,292	33,519	78,533	7,908	6,767	19,272	24,461	209	222
1989	190,640	3,905	1,019	6,828	5,254	33,325	80,377	7,800	6,637	19,888	25,170	214	223
1990	187,737	3,791	996	6,386	5,044	32,060	80,097	7,666	6,229	19,806	25,216	218	228
1991	172,251	3,480	876	5,845	4,521	28,922	72,938	7,032	5,923	18,612	23,691	196	215
1992	164,573	3,254	850	5,623	4,313	25,841	70,079	6,899	5,664	17,871	23,749	221	209
1993	159,317	3,163	885	5,403	4,177	25,021	66,575	6,752	5,638	17,860	23,447	180	216
1994	159,958	3,318	850	5,373	4,219	24,986	66,693	6,585	5,689	18,096	23,739	169	241
1995	160,251	3,404	877	5,329	4,252	24,238	67,583	6,703	5,799	18,044	23,597	207	218
1996	156,691	3,194	924	5,392	4,366	23,968	66,208	6,448	5,671	17,283	22,834	197	206
						Crude marriage rates (number of marriages per 1,000 population)							
1986	6.7	5.9	7.5	7.2	6.8	4.9	7.5	7.1	6.6	7.7	7.2	7.4	4.6
1987	6.9	6.0	7.2	7.5	6.7	4.8	7.9	7.3	6.6	7.6	7.6	7.3	4.3
1988	7.0	6.4	7.4	7.7	7.2	4.9	7.9	7.2	6.6	7.8	7.8	7.8	3.9
1989	7.0	6.8	7.8	7.5	7.1	4.8	7.9	7.1	6.5	7.9	7.8	7.8	3.9
1990	6.8	6.5	7.6	7.0	6.8	4.6	7.7	6.9	6.2	7.7	7.6	7.8	3.8
1991	6.1	6.0	6.7	6.4	6.0	4.1	7.0	6.3	5.9	7.2	7.0	6.7	3.5
1992	5.8	5.6	6.5	6.1	5.7	3.6	6.6	6.2	5.6	6.8	6.8	7.3	3.3
1993	5.5	5.4	6.6	5.8	5.5	3.5	6.2	6.0	5.6	6.6	6.6	5.9	3.4
1994	5.5	5.7	6.3	5.8	5.6	3.4	6.1	5.8	5.6	6.7	6.5	5.7	3.7
1995	5.4	5.9	6.5	5.7	5.6	3.3	6.1	5.9	5.7	6.6	6.3	6.8	3.3
1996	5.2	5.6	6.8	5.7	5.7	3.2	5.9	5.7	5.6	6.2	5.9	6.3	3.1

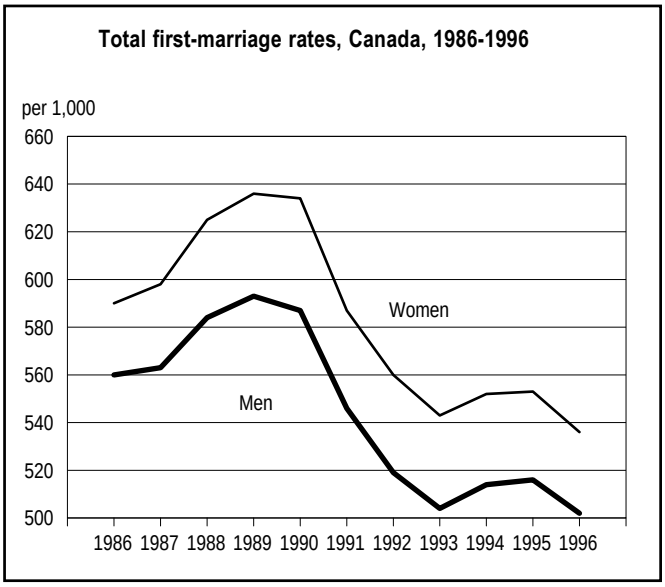


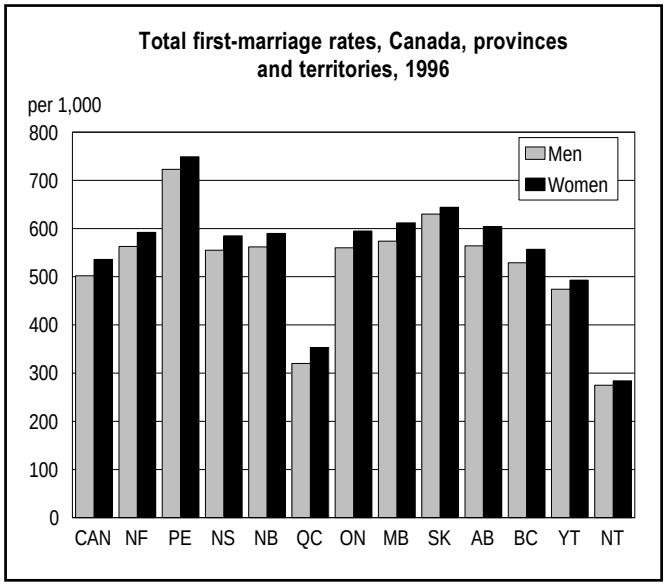


The number of new marriages fell to 156,700 in 1996, down 2% from the previous year and 18% from the 191,000 peak reached in 1989. In fact, the number of marriages taking place in 1996 was the lowest in 30 years, despite significant population growth over this period. This decline is explained by the popularity of common-law relationships, particularly in Quebec, which has the lowest marriage rate of all the provinces.

Table 2.2 Total first-marriage rates by sex, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
Males						**First marriages per 1,000 males aged 15-49**							
1986	560	582	707	596	597	434	623	618	589	568	581	469	346
1987	563	591	674	622	594	423	630	623	596	567	603	446	301
1988	584	626	738	646	651	436	647	625	608	598	639	525	305
1989	593	664	804	647	644	434	657	629	628	626	645	496	303
1990	587	642	765	612	626	415	658	639	614	629	639	522	317
1991	546	593	712	566	571	381	610	591	609	590	598	468	285
1992	519	544	670	542	539	335	580	595	597	581	594	530	271
1993	504	529	702	531	523	326	555	580	605	583	577	403	282
1994	514	565	654	540	537	335	563	583	626	598	577	447	303
1995	516	592	674	543	544	325	572	597	640	606	563	573	289
1996	502	563	723	555	562	320	560	574	630	564	529	474	275
Females						**First marriages per 1,000 females aged 15-49**							
1986	590	576	742	632	624	444	659	660	624	615	617	542	392
1987	598	576	689	657	619	441	675	664	633	613	640	467	346
1988	625	628	745	686	679	459	697	673	645	646	687	618	317
1989	636	670	809	689	682	461	705	683	675	670	696	561	332
1990	634	660	769	652	660	462	703	691	662	675	696	593	330
1991	587	611	722	599	597	424	646	644	645	633	649	515	311
1992	560	570	678	577	570	374	623	639	627	620	632	556	294
1993	543	551	711	562	552	363	596	626	635	619	612	467	308
1994	552	593	656	572	555	372	601	626	653	640	618	464	333
1995	553	623	706	581	571	361	610	645	655	638	596	551	318
1996	536	592	749	585	590	353	595	612	644	604	557	493	284



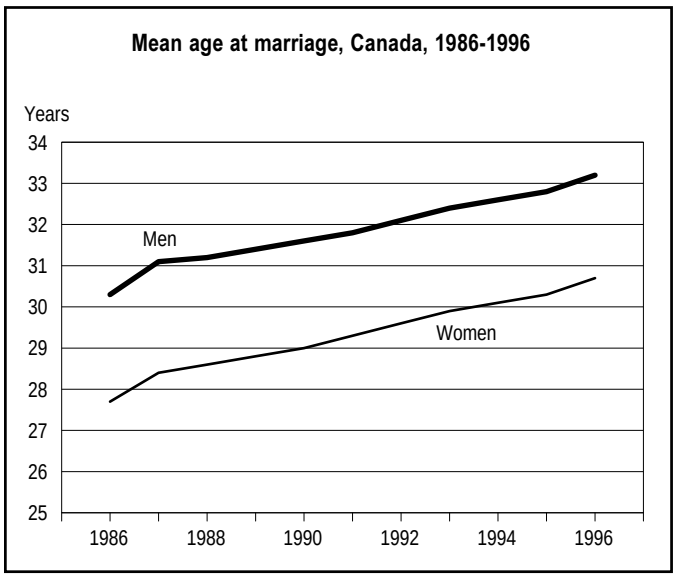


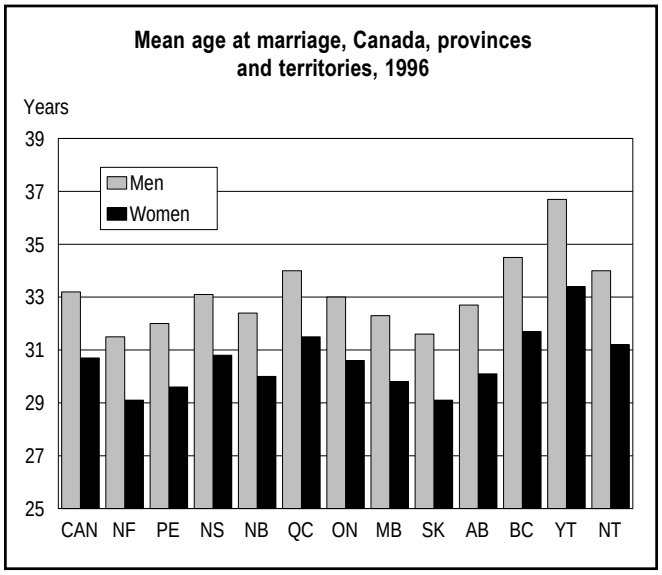
The drop in total first-marriage rates reflects the current trend among a growing number of couples to postpone or avoid marriage altogether. Based on the 1996 rates, only 50% of men and 54% of women will have been married at some time by age 50; in contrast, the 1989 rates were notably higher, at 59% for men and 64% for women. Due to the popularity of common-law relationships in Quebec, only about one-third of the population in this province is expected to first marry before the age of 50 (if the behaviour observed in 1996 remains stable).

Table 2.3 Mean age at marriage by sex, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
Grooms							**Mean age[1]**						
1986	30.3	28.3	28.9	29.8	29.4	30.2	30.3	29.6	29.0	30.0	32.1	32.4	29.6
1987	31.1	28.7	29.6	30.5	30.2	30.7	31.2	30.2	29.8	30.5	32.8	33.7	30.9
1988	31.2	28.8	29.5	30.8	30.3	31.1	31.2	30.5	30.0	30.8	32.7	32.5	30.2
1989	31.4	29.2	29.6	31.0	30.4	31.2	31.3	30.8	30.1	31.1	33.0	34.8	30.5
1990	31.6	29.6	31.1	31.5	30.7	31.4	31.5	30.8	30.5	31.3	33.1	34.9	30.8
1991	31.8	29.7	30.8	31.9	30.8	31.7	31.6	31.2	30.8	31.5	33.3	34.4	30.8
1992	32.1	30.2	31.4	32.2	31.1	32.4	32.1	31.2	31.2	31.6	33.5	34.8	31.3
1993	32.4	30.2	31.4	32.4	31.5	32.8	32.3	31.8	31.2	31.9	33.6	35.4	32.6
1994	32.6	30.4	31.8	32.5	31.9	32.9	32.6	31.6	31.3	32.0	33.6	35.5	32.4
1995	32.8	30.9	32.2	32.8	32.0	33.5	32.7	31.8	31.5	32.2	34.0	33.9	32.9
1996	33.2	31.5	32.0	33.1	32.4	34.0	33.0	32.3	31.6	32.7	34.5	36.7	34.0
Brides													
1986	27.7	25.7	26.5	27.4	26.9	27.7	27.7	27.1	26.4	27.3	29.0	28.7	27.0
1987	28.4	26.2	27.1	28.1	27.7	28.2	28.6	27.7	27.1	27.8	29.8	30.1	27.7
1988	28.6	26.3	27.2	28.4	27.8	28.6	28.7	28.0	27.4	28.1	29.7	28.8	27.7
1989	28.8	26.9	27.6	28.6	27.9	28.8	28.9	28.2	27.5	28.5	30.0	31.3	27.2
1990	29.0	27.1	28.7	29.1	28.4	29.1	29.1	28.3	27.8	28.7	30.1	31.3	28.1
1991	29.3	27.3	28.3	29.5	28.5	29.2	29.3	28.6	28.3	29.0	30.4	31.0	28.0
1992	29.6	27.9	29.0	29.8	28.7	29.9	29.7	28.8	28.5	29.1	30.6	31.4	28.8
1993	29.9	27.9	29.0	30.1	29.0	30.3	29.9	29.2	28.6	29.4	30.8	32.3	29.2
1994	30.1	28.1	29.7	30.1	29.6	30.4	30.2	29.1	28.7	29.4	30.8	31.6	29.5
1995	30.3	28.6	29.7	30.5	29.5	30.9	30.4	29.3	28.9	29.7	31.3	31.9	29.7
1996	30.7	29.1	29.6	30.8	30.0	31.5	30.6	29.8	29.1	30.1	31.7	33.4	31.2

[1] *See the Glossary (p. 149) for the calculation of mean age.*



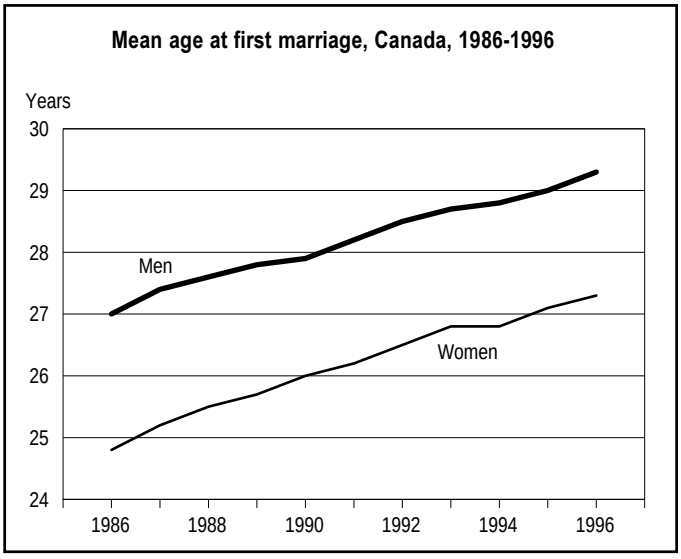


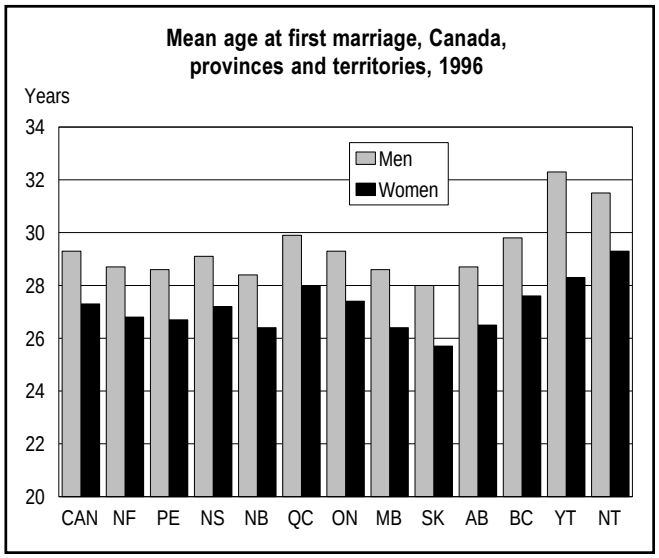
The mean age at marriage, which has been rising steadily for both sexes over the last 10 years, was 33.2 years for men and 30.7 years for women in 1996. On average, grooms were 2.5 years older than brides.

Table 2.4 Mean age at first marriage by sex, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
Grooms							**Mean age[1]**						
1986	27.0	26.1	26.0	26.5	26.3	27.8	26.8	26.6	26.2	26.8	27.6	28.4	28.0
1987	27.4	26.5	26.9	26.9	26.8	28.2	27.2	26.9	26.6	27.2	28.0	28.5	27.6
1988	27.6	26.6	27.2	27.0	27.1	28.5	27.4	27.1	26.9	27.4	28.2	28.8	28.1
1989	27.8	27.0	27.3	27.4	26.9	28.7	27.6	27.3	26.9	27.6	28.3	30.0	28.5
1990	27.9	27.0	27.4	27.6	27.1	28.2	27.9	27.5	27.4	27.8	28.5	30.5	28.6
1991	28.2	27.3	27.9	27.9	27.4	28.3	28.2	27.7	27.5	28.0	28.7	30.5	28.6
1992	28.5	27.6	28.0	28.3	27.5	28.8	28.5	28.0	27.8	28.1	29.1	30.8	28.9
1993	28.7	27.7	28.5	28.4	27.7	29.0	28.7	28.1	27.9	28.4	29.2	30.4	30.5
1994	28.8	27.9	28.3	28.7	28.0	29.3	28.9	28.2	27.9	28.4	29.2	31.1	29.9
1995	29.0	28.4	28.8	28.9	28.2	29.5	29.1	28.4	27.9	28.6	29.5	29.3	30.4
1996	29.3	28.7	28.6	29.1	28.4	29.9	29.3	28.6	28.0	28.7	29.8	32.3	31.5
Brides													
1986	24.8	23.9	24.4	24.5	24.1	25.3	24.9	24.4	23.8	24.4	25.2	25.5	25.4
1987	25.2	24.2	24.7	24.9	24.7	25.7	25.3	24.7	24.2	24.7	25.6	24.9	24.9
1988	25.5	24.5	24.8	25.1	25.0	26.0	25.5	25.0	24.5	25.1	25.8	26.3	25.8
1989	25.7	24.9	25.3	25.4	24.9	26.3	25.8	25.2	24.7	25.3	26.0	26.7	25.6
1990	26.0	25.0	25.4	25.8	25.2	26.4	26.1	25.3	25.0	25.5	26.2	27.8	26.2
1991	26.2	25.2	25.5	26.0	25.4	26.6	26.4	25.6	25.2	25.8	26.6	27.4	26.5
1992	26.5	25.7	25.9	26.2	25.6	27.0	26.7	25.9	25.4	25.9	26.9	27.4	26.5
1993	26.8	25.9	26.2	26.6	25.7	27.3	26.9	26.1	25.5	26.1	27.0	28.7	27.6
1994	26.8	26.0	26.3	26.7	26.0	27.4	27.1	26.1	25.6	26.1	27.1	27.8	27.4
1995	27.1	26.4	26.8	27.0	26.1	27.7	27.2	26.2	25.6	26.3	27.4	27.7	28.0
1996	27.3	26.8	26.7	27.2	26.4	28.0	27.4	26.4	25.7	26.5	27.6	28.3	29.3

[1] *See the Glossary (p. 149) for the calculation of mean age.*

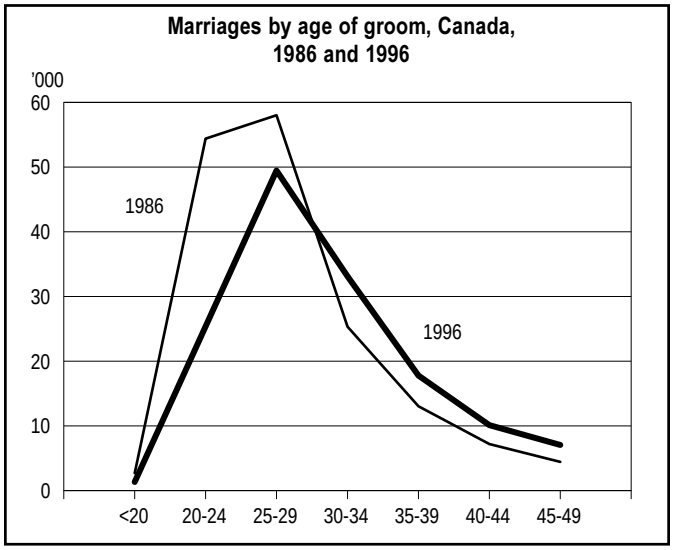


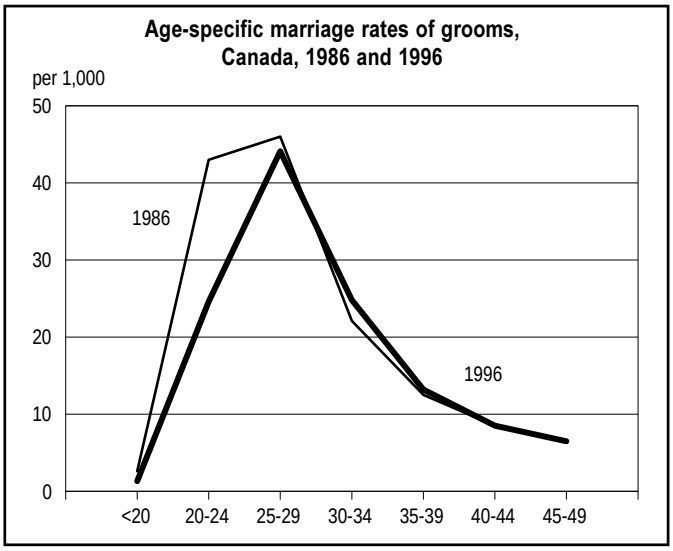


The mean age at first marriage was highest in the territories and Quebec (e.g. 32.3 years for grooms in Yukon and 29.3 years for brides in the Northwest Territories) and lowest in Saskatchewan (28.0 and 25.7 years, respectively). On average, first-time grooms were two years older than first-time brides.

Table 2.5 Marriages and marriage rates by age of groom, Canada, provinces and territories, 1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
Age of groom						**Number of marriages**							
<20	1,343	16	6	15	29	242	499	99	71	204	159	1	2
20-24	25,376	549	186	879	893	3,211	9,998	1,382	1,419	3,485	3,330	17	27
25-29	49,455	1,322	322	1,851	1,507	7,520	21,699	1,930	1,783	4,996	6,436	43	46
30-34	33,108	628	167	1,095	797	5,132	14,754	1,295	1,004	3,448	4,699	41	48
35-39	17,775	264	99	548	392	2,728	7,544	658	507	2,039	2,917	38	41
40-44	10,126	141	48	327	227	1,579	4,108	401	309	1,164	1,788	20	14
45-49	7,064	111	51	250	175	1,215	2,802	227	203	738	1,267	10	15
50-54	4,527	60	14	149	122	815	1,743	169	132	477	826	14	6
55-59	2,735	39	7	90	83	480	1,079	91	75	282	498	6	5
60-64	1,859	16	10	82	37	355	754	65	59	157	319	3	2
65-69	1,356	17	5	46	44	267	515	47	38	125	249	3	-
70-74	975	19	4	30	31	179	368	42	43	92	167	-	-
75+	891	11	5	30	29	150	340	42	28	76	179	1	-
Unknown	101	1	-	-	-	95	5	-	-	-	-	-	-
						Age-specific marriage rates (per 1,000 males)							
<20	1.3	0.7	1.2	0.5	1.1	0.9	1.3	2.5	1.8	2.0	1.2	0.9	0.8
20-24	24.6	22.6	36.8	25.8	30.7	13.2	26.0	33.3	39.9	34.6	25.2	16.0	10.0
25-29	44.1	57.1	65.8	52.5	52.1	28.5	50.5	46.8	55.7	45.5	43.5	35.7	14.0
30-34	24.8	26.7	31.3	26.9	24.5	15.7	28.4	27.2	26.1	27.1	28.2	25.1	13.7
35-39	13.2	11.0	18.4	13.5	12.1	8.0	15.0	13.7	12.1	15.1	17.2	24.2	14.0
40-44	8.5	6.0	9.5	9.0	7.5	5.2	9.5	9.4	8.0	9.9	11.5	13.1	5.8
45-49	6.5	5.2	10.4	7.2	6.1	4.4	7.0	5.9	6.3	7.6	8.7	7.4	7.0
50-54	5.4	3.6	3.7	5.5	5.7	3.6	5.7	5.7	5.5	6.7	7.6	13.3	4.6
55-59	4.1	3.1	2.3	4.2	5.0	2.8	4.3	3.9	3.6	5.0	5.8	10.2	5.3
60-64	3.1	1.5	3.7	4.3	2.5	2.4	3.3	3.0	2.9	3.2	4.0	6.8	2.9
65-69	2.5	1.9	2.1	2.9	3.4	2.0	2.5	2.3	2.0	2.9	3.4	7.1	-
70-74	2.2	2.5	1.9	2.2	2.7	1.7	2.2	2.4	2.5	2.8	2.8	-	-
75+	1.6	1.1	1.6	1.4	1.8	1.2	1.6	1.5	1.0	1.7	2.1	6.5	-

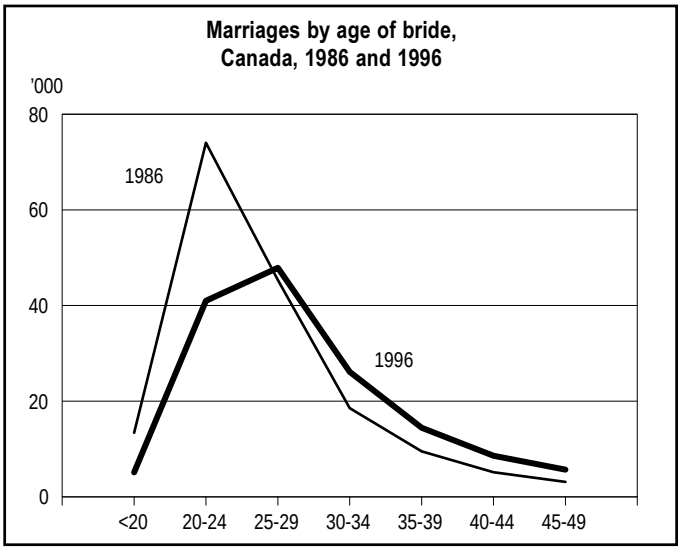


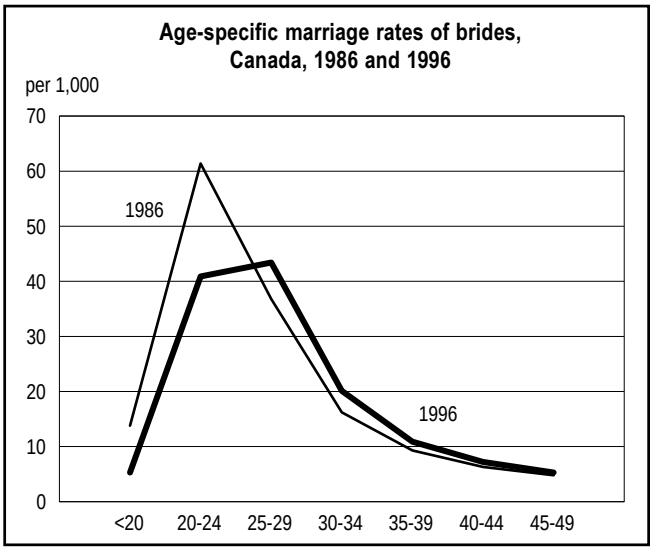


The declining popularity of marriage among young men is evident in both counts and rates. For example, 54,400 men married in 1986 were aged 20-24, compared with only 25,400 in 1996; in a similar fashion, the marriage rate among 20- to 24-year-olds fell steeply during this decade, from 43.0 marriages per 1,000 males to 24.6.

Table 2.6 Marriages and marriage rates by age of bride, Canada, provinces and territories, 1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
Age of bride						**Number of marriages**							
<20	5,130	81	18	89	131	741	1,974	314	281	838	651	6	6
20-24	40,992	950	296	1,467	1,444	5,696	16,478	2,055	2,129	5,135	5,270	38	34
25-29	47,872	1,219	292	1,741	1,299	7,283	21,414	1,800	1,463	4,700	6,548	44	69
30-34	26,146	469	125	857	580	4,041	11,549	935	725	2,677	4,107	43	38
35-39	14,442	166	90	466	339	2,256	6,113	517	412	1,639	2,391	22	31
40-44	8,619	117	49	297	202	1,410	3,427	346	269	967	1,504	15	16
45-49	5,711	90	24	199	155	1,015	2,239	190	158	600	1,022	14	5
50-54	3,174	37	11	113	76	623	1,221	114	88	313	565	9	4
55-59	1,705	22	10	69	46	344	671	53	51	158	276	3	2
60-64	1,085	9	4	34	26	212	440	44	27	99	187	2	1
65-69	792	12	4	36	27	137	307	33	32	72	132	-	-
70-74	560	10	-	16	20	95	230	21	23	54	90	1	-
75+	418	8	1	8	21	77	143	26	13	31	90	-	-
Unknown	45	4	-	-	-	38	2	-	-	-	1	-	-
						Age-specific marriage rates (per 1,000 females)							
<20	5.3	3.6	3.6	2.8	5.0	3.0	5.6	8.1	7.6	8.7	5.4	5.5	2.2
20-24	40.9	41.4	61.7	44.8	51.6	24.2	44.1	52.4	62.3	53.1	39.9	35.3	12.5
25-29	43.4	54.9	60.9	51.8	46.2	28.6	49.8	45.2	45.7	43.9	44.7	36.4	22.4
30-34	20.1	19.9	22.4	21.4	18.1	12.9	22.8	20.4	18.6	21.8	25.0	26.0	11.8
35-39	10.9	6.9	16.1	11.2	10.5	6.8	12.3	11.2	10.1	12.7	14.1	13.1	11.3
40-44	7.2	5.0	10.0	7.9	6.6	4.6	7.7	8.2	7.3	8.5	9.6	10.2	7.4
45-49	5.3	4.3	5.0	5.8	5.5	3.7	5.5	5.1	5.2	6.4	7.2	10.5	3.1
50-54	3.8	2.3	3.1	4.3	3.7	2.7	3.9	3.9	3.7	4.6	5.3	11.6	3.9
55-59	2.5	1.9	3.3	3.2	2.8	1.9	2.6	2.2	2.4	2.9	3.2	8.0	2.6
60-64	1.8	0.9	1.4	1.7	1.7	1.3	1.9	2.0	1.3	2.0	2.4	5.5	1.5
65-69	1.3	1.3	1.6	2.0	1.8	0.9	1.3	1.5	1.6	1.6	1.8	-	-
70-74	1.0	1.2	-	0.9	1.4	0.7	1.1	0.9	1.2	1.4	1.3	5.2	-
75+	0.4	0.5	0.2	0.2	0.8	0.3	0.4	0.6	0.3	0.4	0.7	-	-

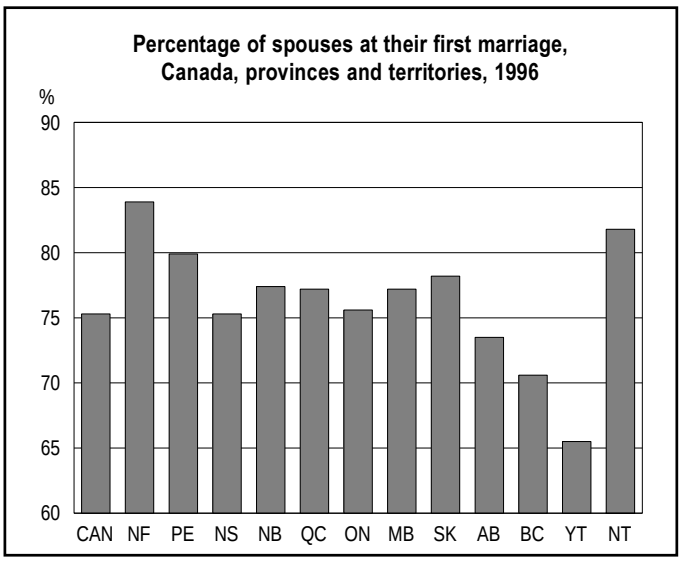




The pattern observed for men in Table 2.5 also applies to women: only 41,000 20- to 24-year-olds married in 1996, compared with 74,000 ten years earlier; during this time frame, the marriage rate among females this age declined sharply from 61.4 marriages per 1,000 to 40.9. The slightly higher marriage rates observed among older women did not compensate for this drop.

Table 2.7 Number and percentage of spouses marrying for the first time, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of spouses at their first marriage						
1986	276,188	6,037	1,641	10,062	8,086	54,965	110,947	12,557	11,104	28,780	31,327	252	430
1987	277,755	6,019	1,510	10,344	7,897	53,702	114,115	12,447	10,932	27,846	32,347	233	363
1988	286,899	6,394	1,610	10,581	8,520	54,674	118,258	12,259	10,760	28,690	34,506	299	348
1989	291,975	6,758	1,706	10,466	8,362	54,203	122,221	12,126	10,631	29,565	35,293	276	368
1990	288,987	6,518	1,584	9,768	7,978	52,341	122,866	12,006	9,906	29,621	35,731	292	376
1991	265,580	6,011	1,445	8,908	7,212	46,954	112,620	10,973	9,337	27,726	33,767	262	365
1992	252,460	5,585	1,356	8,466	6,819	40,960	107,866	10,820	8,946	26,990	34,011	301	340
1993	243,583	5,389	1,417	8,197	6,521	39,261	102,449	10,481	8,887	26,761	33,626	241	353
1994	244,138	5,672	1,346	8,159	6,548	39,539	101,743	10,318	8,991	27,064	34,138	230	390
1995	243,443	5,800	1,382	8,092	6,598	37,949	102,651	10,507	9,054	26,995	33,772	277	366
1996	235,859	5,362	1,476	8,119	6,762	37,005	100,064	9,950	8,868	25,411	32,247	258	337
							Percentage of spouses at their first marriage (%)						
1986	78.7	88.2	84.6	78.1	81.5	83.1	78.3	80.3	81.4	76.2	71.8	68.9	83.7
1987	76.2	86.5	81.7	77.2	80.2	82.3	74.9	77.9	79.8	74.7	69.1	61.6	76.6
1988	76.4	86.7	83.4	76.7	80.5	81.6	75.3	77.5	79.5	74.4	70.5	71.5	78.4
1989	76.6	86.5	83.7	76.6	79.6	81.3	76.0	77.7	80.1	74.3	70.1	64.5	82.5
1990	77.0	86.0	79.5	76.5	79.1	81.6	76.7	78.3	79.5	74.8	70.8	67.0	82.5
1991	77.1	86.4	82.5	76.2	79.8	81.2	77.2	78.0	78.8	74.5	71.3	66.8	84.9
1992	76.7	85.8	79.8	75.3	79.1	79.3	77.0	78.4	79.0	75.5	71.6	68.1	81.3
1993	76.4	85.2	80.1	75.9	78.1	78.5	76.9	77.6	78.8	74.9	71.7	66.9	81.7
1994	76.3	85.5	79.2	75.9	77.6	79.1	76.3	78.3	79.0	74.8	71.9	68.0	80.9
1995	76.0	85.2	78.8	75.9	77.6	78.3	75.9	78.4	78.1	74.8	71.6	66.9	83.9
1996	75.3	83.9	79.9	75.3	77.4	77.2	75.6	77.2	78.2	73.5	70.6	65.5	81.8

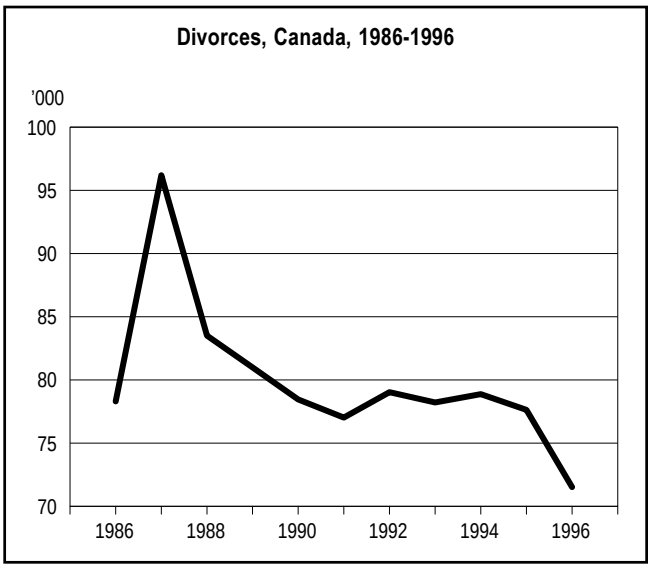


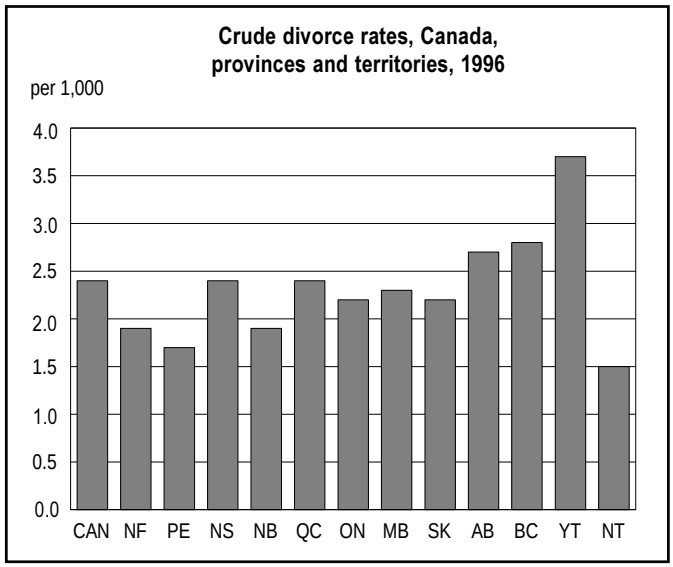
The proportion of spouses getting married for the first time declined noticeably in 1987, due to the liberalization of the *Divorce Act*, and has been declining each year since 1991. (Amendments to the *Divorce Act* in 1986 facilitated marriage dissolution, which in turn augmented the percentage of newlyweds accounted for by previously divorced persons.) The proportion of first-time spouses was highest in Newfoundland and lowest in Yukon.

3. Divorces

Table 3.1 Divorces and crude divorce rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of divorces						
1986	78,304	687	199	2,609	1,729	19,026	27,549	2,982	2,479	9,556	11,299	94	95
1987	96,200	1,117	275	2,759	1,995	22,098	39,095	3,923	2,968	9,535	12,184	142	109
1988	83,507	906	269	2,494	1,673	20,340	32,524	3,102	2,501	8,744	10,760	82	112
1989	80,998	1,005	248	2,527	1,649	19,829	31,298	2,912	2,460	8,237	10,658	82	93
1990	78,463	1,016	281	2,419	1,699	20,474	28,977	2,798	2,364	8,489	9,773	81	92
1991	77,020	912	269	2,280	1,652	20,274	27,694	2,790	2,240	8,388	10,368	67	86
1992	79,034	867	227	2,304	1,633	19,695	30,463	2,657	2,325	8,217	10,431	117	98
1993	78,226	930	227	2,376	1,606	19,662	28,903	2,586	2,239	8,612	10,889	94	102
1994	78,880	933	249	2,286	1,570	18,224	30,718	2,746	2,354	8,174	11,437	97	92
1995	77,636	982	260	2,294	1,456	20,133	29,352	2,677	2,320	7,599	10,357	112	94
1996	71,528	1,060	237	2,228	1,450	18,078	25,035	2,603	2,216	7,509	10,898	115	99
							Crude divorce rates (number of divorces per 1,000 population)						
1986	3.0	1.2	1.5	2.9	2.4	2.8	2.9	2.7	2.4	3.9	3.7	3.8	1.7
1987	3.6	1.9	2.1	3.1	2.7	3.2	4.0	3.6	2.9	3.9	4.0	5.5	2.0
1988	3.1	1.6	2.1	2.8	2.3	3.0	3.3	2.8	2.4	3.6	3.4	3.0	2.0
1989	3.0	1.7	1.9	2.8	2.2	2.9	3.1	2.6	2.4	3.3	3.3	3.0	1.6
1990	2.8	1.8	2.1	2.7	2.3	2.9	2.8	2.5	2.3	3.3	3.0	2.9	1.6
1991	2.7	1.6	2.1	2.5	2.2	2.9	2.6	2.5	2.2	3.2	3.1	2.3	1.4
1992	2.8	1.5	1.7	2.5	2.2	2.8	2.9	2.4	2.3	3.1	3.0	3.9	1.6
1993	2.7	1.6	1.7	2.6	2.1	2.7	2.7	2.3	2.2	3.2	3.0	3.1	1.6
1994	2.7	1.6	1.9	2.4	2.1	2.5	2.8	2.4	2.3	3.0	3.1	3.3	1.4
1995	2.6	1.7	1.9	2.4	1.9	2.7	2.6	2.4	2.3	2.8	2.7	3.7	1.4
1996	2.4	1.9	1.7	2.4	1.9	2.4	2.2	2.3	2.2	2.7	2.8	3.7	1.5



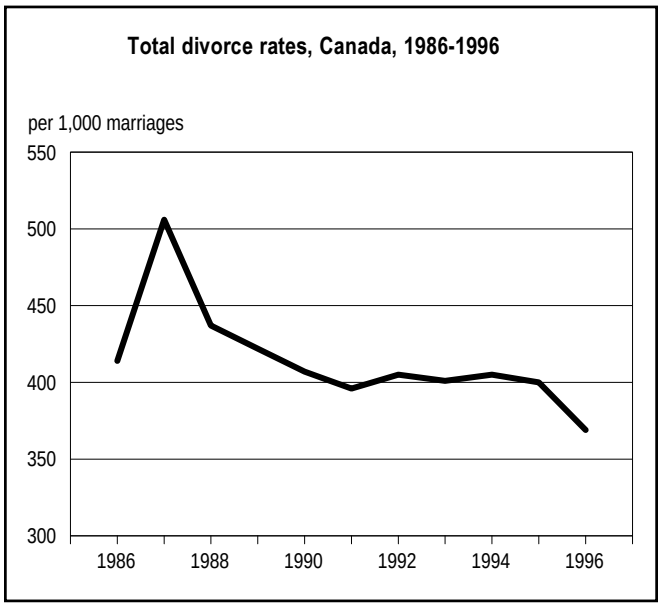


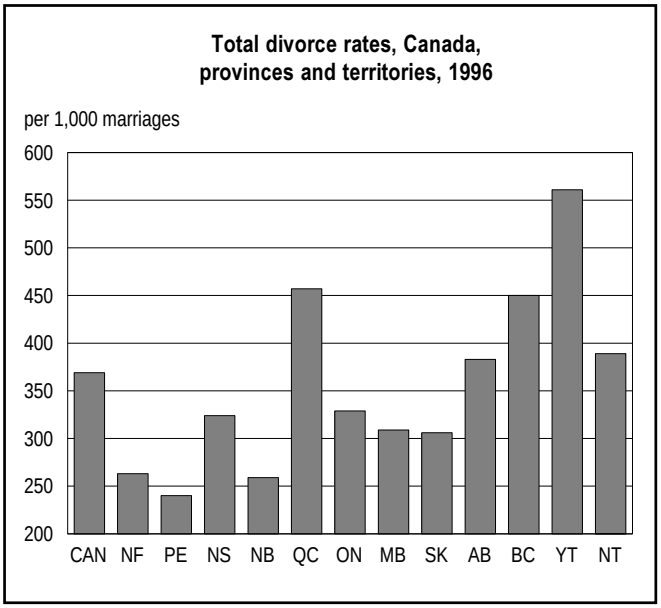
The number of divorces dropped 8% in 1996 to about 71,500, the lowest level since amendments were made to the *Divorce Act* in 1986, allowing divorce after one year of separation instead of three. Ontario and Quebec were largely responsible for the overall drop in divorces in 1996. The reduction in Ontario (down 15%) can be linked to cuts in this province's legal aid program. In contrast with the overall trend for Canada, the number of divorces rose 5% in British Columbia and 8% in Newfoundland.

Table 3.2 Total divorce rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
	Total divorce rates (per 1,000 marriages)[1]												
1986	414	164	217	379	301	401	401	348	317	540	549	513	378
1987	506	273	293	400	349	470	566	453	380	526	579	752	451
1988	437	223	294	362	290	439	463	359	320	478	505	429	439
1989	422	248	255	368	292	437	439	335	320	443	489	436	367
1990	407	252	293	348	299	458	402	323	306	453	441	409	371
1991	396	227	277	324	288	457	376	325	289	443	459	328	327
1992	405	214	227	329	289	454	408	308	305	427	453	582	405
1993	401	229	234	340	282	465	384	305	299	446	467	473	416
1994	405	230	257	329	276	438	406	324	318	422	482	464	382
1995	400	242	261	328	259	500	388	320	317	390	432	555	381
1996	369	263	240	324	259	457	329	309	306	383	450	561	389

[1] *The total divorce rate represents the proportion of married couples who are expected to divorce before their 30th wedding anniversary; for example, a total divorce rate of 369 for Canada in 1996 indicates that 36.9% of marriages are likely to end in divorce within 30 years-if the duration-specific divorce rates calculated for 1996 in Table 3.3 remain stable (see p. 147 in the Glossary for more information on this measure).*





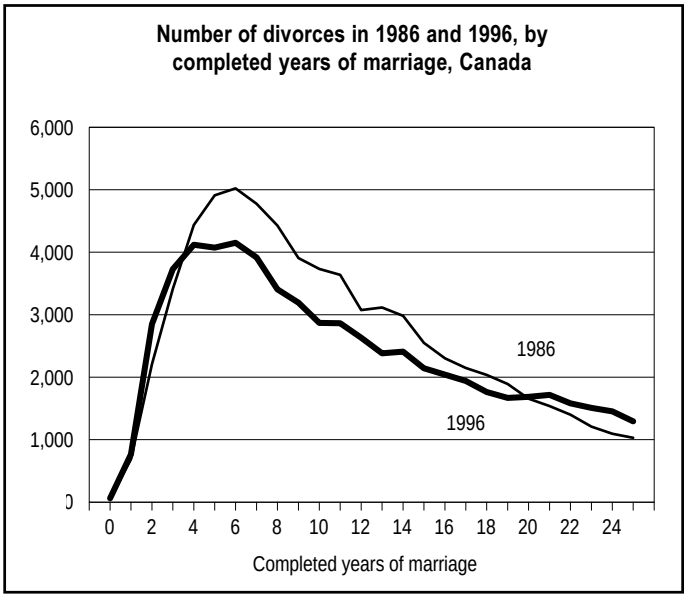
Following the amendments to the *Divorce Act* in 1986, the total divorce rate peaked in 1987, at 506 divorces per 1,000 marriages. The proportion of marriages that end in divorce stabilized between 1992 and 1995, but declined markedly in 1996. The decline in 1996 is linked, in part, to cuts in the Ontario Legal Aid Plan that year.

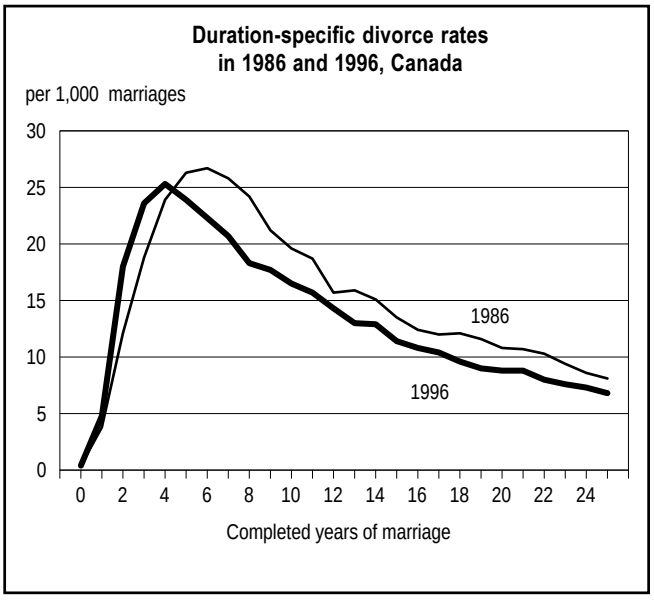
Despite the low proportion of persons who marry in Quebec, this province's total divorce rate remains among the highest in Canada. Yukon registered the highest total divorce rate in 1996, while Prince Edward Island, New Brunswick and Newfoundland recorded the lowest.

Table 3.3 Divorce rates by year of marriage,[1] Canada, provinces and territories, 1996

Year of marriage	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
	1996 divorces per 1,000 marriages												
1996	0.4	-	-	0.7	-	0.7	0.3	0.3	-	0.4	0.5	-	-
1995	4.8	0.3	1.2	1.9	1.9	7.0	3.8	1.5	4.9	7.1	6.7	-	9.2
1994	18.0	10.2	2.4	9.2	8.4	23.5	15.3	14.2	14.5	21.2	24.5	30.7	8.3
1993	23.6	14.6	7.0	17.9	10.4	34.5	20.2	20.6	18.6	24.1	29.0	17.3	32.4
1992	25.3	16.7	9.7	19.0	12.2	36.7	21.6	21.9	21.4	26.8	29.7	51.6	38.3
1991	23.9	15.6	14.1	19.3	18.4	31.5	20.3	20.5	21.3	25.5	29.5	47.6	23.3
1990	22.3	17.5	19.6	19.8	15.7	27.0	19.2	20.1	18.3	24.7	28.9	19.0	35.1
1989	20.7	16.8	20.1	19.7	14.1	24.8	18.2	20.8	19.2	23.1	24.3	48.4	26.9
1988	18.3	17.5	12.8	15.8	16.5	21.8	16.1	16.1	16.1	19.7	22.4	24.8	9.0
1987	17.7	11.8	12.2	16.1	12.6	21.6	15.4	16.0	14.9	18.6	23.1	11.0	33.8
1986	16.5	7.5	9.5	16.5	12.7	18.9	14.8	14.5	14.0	18.4	20.7	39.6	15.6
1985	15.7	14.6	14.0	17.7	12.6	18.5	13.7	13.7	11.7	15.7	19.7	33.6	21.8
1984	14.3	10.6	5.8	15.1	10.5	17.4	12.9	11.9	12.0	13.5	17.6	39.1	7.7
1983	13.0	8.1	9.9	12.5	11.2	15.7	12.1	11.3	12.5	12.3	14.7	12.8	7.0
1982	12.9	9.5	13.2	11.9	9.7	15.2	12.1	11.6	12.8	11.4	14.9	18.4	19.2
1981	11.4	10.1	7.3	9.9	8.5	13.0	10.8	10.5	8.9	11.1	13.2	13.2	7.1
1980	10.8	8.9	4.4	9.0	9.0	12.3	10.3	9.3	8.2	10.1	12.5	20.7	22.3
1979	10.4	7.1	5.7	8.7	8.0	11.9	9.7	9.0	7.1	10.0	13.1	34.3	3.6
1978	9.6	6.1	4.4	9.8	5.9	11.9	9.2	6.5	6.3	9.9	9.5	10.7	9.3
1977	9.0	9.2	4.6	7.7	6.9	11.0	8.0	8.4	7.5	8.9	9.7	5.1	7.5
1976	8.8	7.8	7.4	9.8	6.5	10.4	8.3	5.1	7.4	8.6	9.3	5.4	7.6
1975	8.8	8.5	7.7	8.8	7.7	10.8	7.8	6.9	5.8	8.0	10.1	10.3	-
1974	8.0	6.2	4.1	6.5	6.0	9.3	7.2	7.1	7.0	10.0	8.6	16.4	3.9
1973	7.6	6.1	5.1	6.9	6.4	9.0	7.0	6.1	6.4	6.5	9.4	5.0	17.7
1972	7.3	4.2	9.1	6.8	3.1	8.7	6.5	4.2	7.0	7.8	10.2	5.7	-
1971	6.8	3.7	12.8	6.3	5.9	8.0	6.4	4.4	4.4	6.5	8.7	6.2	4.0

[1] *Also known as duration-specific divorce rates.*

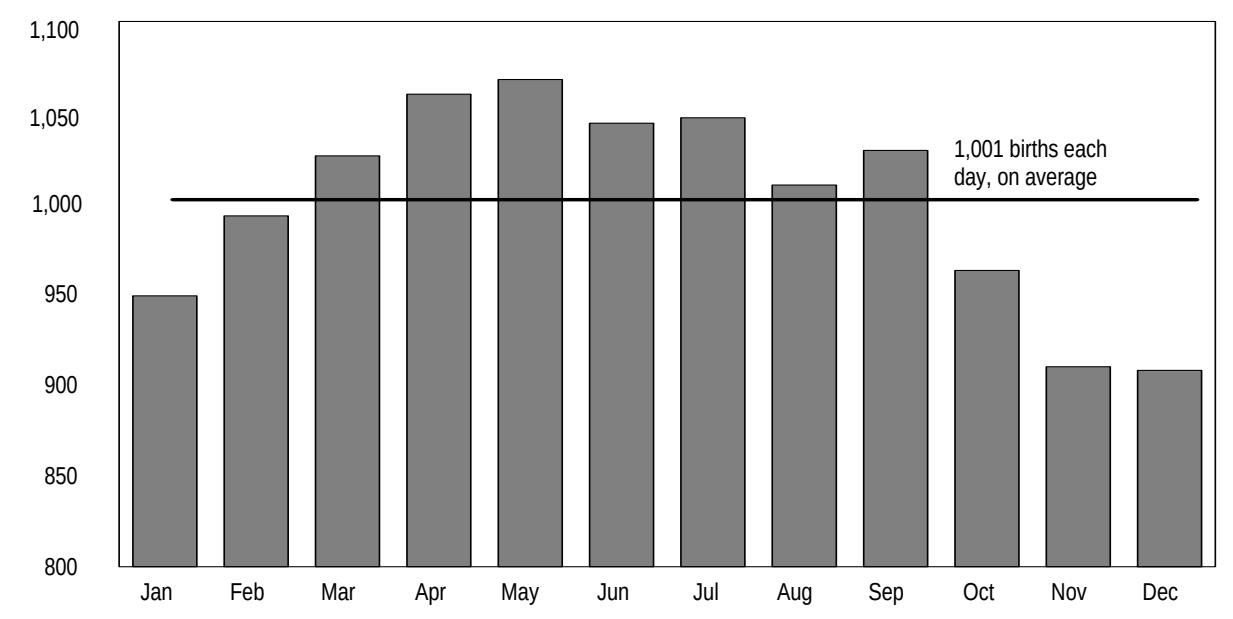




In 1996, divorce rates were peaking after four years of marriage, compared with six years in 1986. Among couples married five or more years, divorce rates were lower in 1996 than 10 years earlier. This trend may be associated with the increasing popularity of common-law relationships, which can delay or supplant marriage.

4. Births

Average daily number of live births each month in Canada in 1996



Average daily number of births

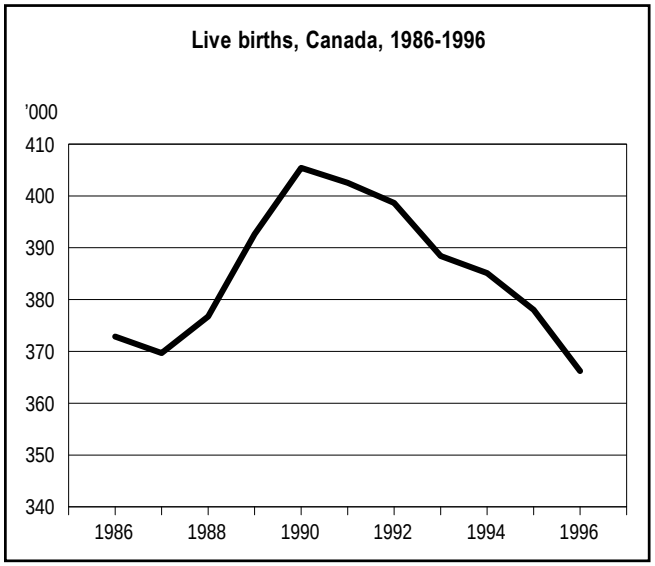
January	949	July	1,047
February	993	August	1,010
March	1,026	September	1,029
April	1,060	October	963
May	1,068	November	910
June	1,044	December	908

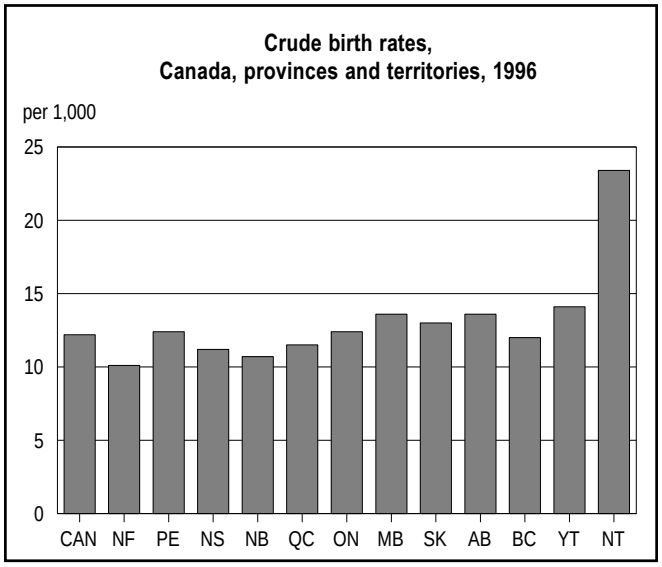
In 1996, 366,200 live births were reported in Canada. This means that 1,001 babies were born each day, on average. There were noticeable seasonal fluctuations in the timing of these births, however. The daily number of births lay above the annual average in the spring and summer months and fell below the average in the fall and early winter months. More specifically, the peak number of births occurred in May (1,068 daily births), closely followed by April. In contrast, just over 900 babies were born each day in November and December. A slight upturn in births occurred in September.

Table 4.1 Live births and crude birth rates, Canada, provinces and territories, 1986-1996

	Canada[1]	NF[2]	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of live births						
1986	372,858	8,100	1,925	12,353	9,787	84,604	133,875	17,008	17,513	43,741	41,965	483	1,504
1987	369,689	7,769	1,954	12,104	9,587	83,761	134,613	16,952	17,034	42,105	41,812	478	1,520
1988	376,755	7,487	1,976	12,176	9,616	86,590	138,060	17,030	16,763	42,053	42,930	521	1,553
1989	392,625	7,762	1,937	12,530	9,666	92,354	145,327	17,321	16,651	43,351	43,768	480	1,478
1990	405,417	7,604	2,014	12,864	9,819	98,015	150,909	17,350	16,090	43,002	45,614	556	1,580
1991	402,533	7,166	1,885	12,016	9,497	97,310	151,478	17,282	15,304	42,776	45,612	568	1,634
1992	398,643	6,918	1,850	11,874	9,389	96,146	150,593	16,590	15,004	42,039	46,156	529	1,554
1993	388,394	6,421	1,754	11,568	9,049	92,391	147,848	16,709	14,269	40,292	46,026	508	1,559
1994	385,114	6,339	1,716	11,099	8,978	90,578	147,068	16,480	14,038	39,796	46,998	442	1,580
1995	378,016	5,859	1,754	10,726	8,563	87,417	146,263	16,113	13,499	38,914	46,820	470	1,613
1996	366,200	5,747	1,694	10,573	8,176	85,226	140,012	15,478	13,300	37,851	46,138	443	1,562
							Crude birth rates (number of live births per 1,000 population)						
1986	14.2	14.0	14.9	13.8	13.4	12.6	14.1	15.5	17.0	17.9	13.9	19.5	27.2
1987	13.9	13.5	15.1	13.5	13.1	12.3	13.9	15.4	16.4	17.2	13.6	18.4	27.3
1988	14.0	13.0	15.2	13.5	13.1	12.6	14.0	15.4	16.2	17.1	13.7	19.4	27.6
1989	14.3	13.4	14.8	13.8	13.1	13.3	14.3	15.7	16.3	17.3	13.6	17.5	25.7
1990	14.6	13.1	15.4	14.1	13.2	14.0	14.6	15.7	15.9	16.8	13.8	19.8	26.6
1991	14.3	12.3	14.4	13.1	12.7	13.7	14.5	15.5	15.2	16.4	13.5	19.5	26.7
1992	14.0	11.9	14.1	12.8	12.5	13.4	14.1	14.8	14.9	15.9	13.3	17.5	24.8
1993	13.4	11.0	13.2	12.4	12.0	12.8	13.7	14.9	14.1	15.0	12.9	16.7	24.5
1994	13.2	10.9	12.8	11.9	11.8	12.4	13.4	14.6	13.9	14.7	12.8	14.9	24.4
1995	12.8	10.1	13.0	11.4	11.3	11.9	13.2	14.2	13.3	14.1	12.4	15.4	24.4
1996	12.2	10.1	12.4	11.2	10.7	11.5	12.4	13.6	13.0	13.6	12.0	14.1	23.4

[1] *Includes births where the mother's province or territory of residence was unknown.*
[2] *Newfoundland figures were adjusted for undercounts for the years 1986 to 1990.*



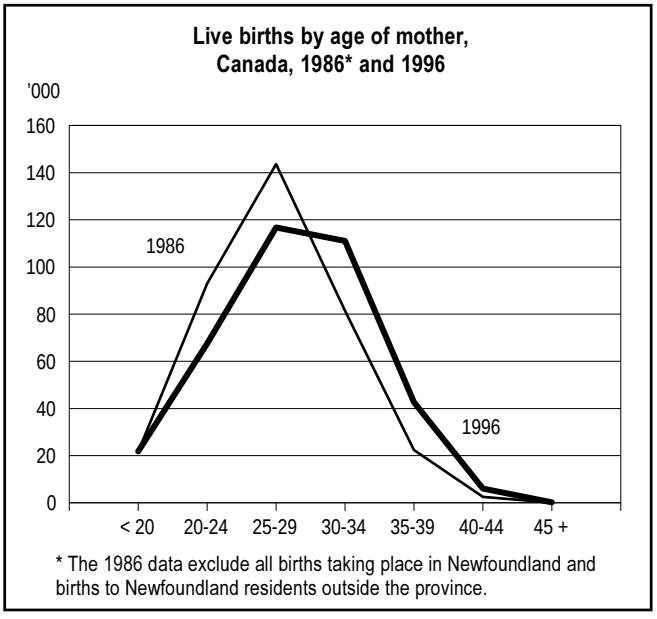


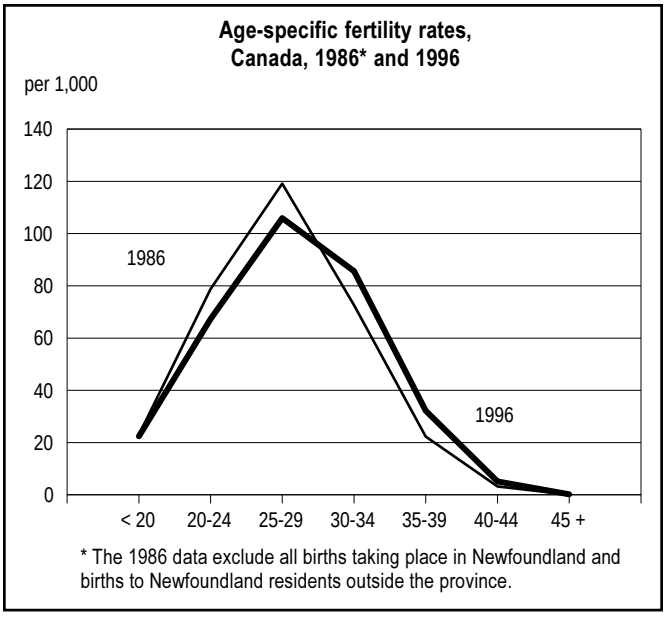
The number of babies born in 1996 (366,200 live births) was down 3.1% from the previous year. Indeed, since 1990 the number of live births has fallen every year (down 9.7% over the 1990-1996 period). Birth rates in 1996 were lowest in Newfoundland, New Brunswick and Nova Scotia (about 10 to 11 per 1,000 population); in contrast, rates were particularly high in the Northwest Territories (23 per 1,000), distantly followed by Yukon (14).

Table 4.2 Live births by age of mother and age-specific fertility rates, Canada, provinces and territories, 1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of live births						
Age of mother													
< 20	21,824	538	146	883	700	4,008	7,018	1,578	1,539	2,736	2,371	32	275
20-24	67,515	1,366	372	2,320	2,061	16,733	21,327	3,564	3,274	7,629	8,341	95	433
25-29	116,723	1,939	549	3,309	2,697	29,182	43,290	4,658	4,131	12,001	14,408	127	432
30-34	111,024	1,468	452	2,939	2,045	25,091	46,685	4,031	3,130	10,711	14,059	122	291
35-39	42,641	392	160	996	601	8,972	18,745	1,409	1,073	4,191	5,939	55	108
40-44	6,057	43	12	121	69	1,182	2,674	230	144	567	982	11	22
45 +	210	1	3	2	3	45	88	6	6	16	38	1	1
Unknown	206	-	-	3	-	13	185	2	3	-	-	-	-
							Age-specific fertility rates (live births per 1,000 women)						
< 20[1]	22.4	24.2	29.0	28.1	26.9	16.3	20.0	40.8	41.9	28.5	19.6	29.4	102.8
20-24	67.3	59.5	77.6	70.9	73.7	71.1	57.1	91.0	95.8	78.9	63.1	88.4	159.1
25-29	105.9	87.2	114.6	98.5	95.9	114.6	100.8	117.0	129.1	112.2	98.3	105.0	140.2
30-34	85.6	62.2	81.1	73.5	63.9	79.7	92.4	88.0	80.5	87.4	85.5	73.7	90.1
35-39	32.2	16.3	28.6	24.0	18.6	26.8	37.9	30.6	26.4	32.4	35.0	32.7	39.2
40-44	5.1	1.8	2.5	3.2	2.2	3.9	6.1	5.4	3.9	5.0	6.3	7.5	10.2
45 +[2]	0.2	0.0	0.6	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.7	0.6

[1] *Live births to women less than 20 years of age per 1,000 women aged 15-19.*
[2] *Live births to women aged 45 years and over per 1,000 women aged 45-49.*



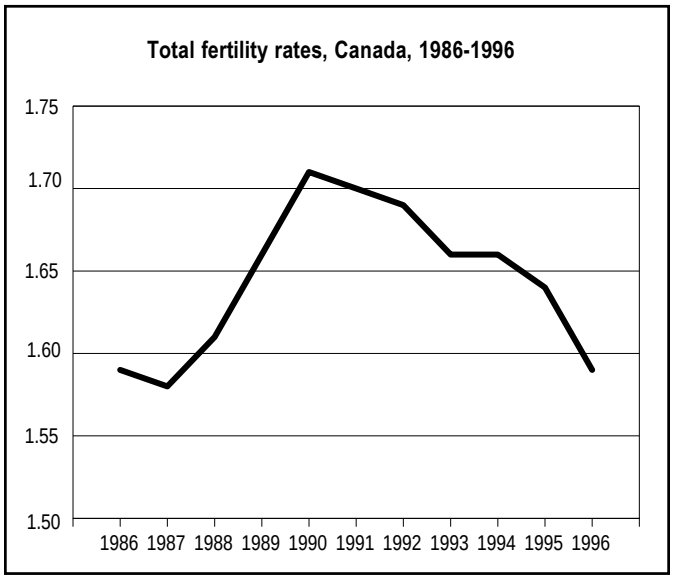


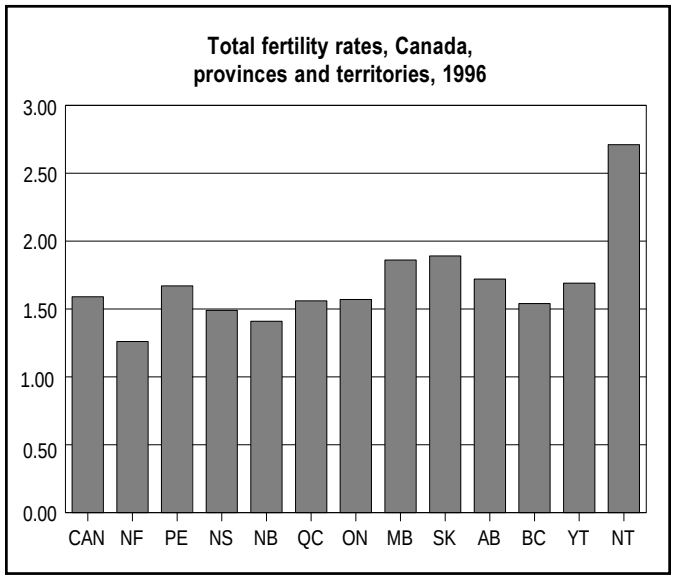
Fertility rates have declined among young women, but risen among those aged 30 and over. From 1986 to 1996, the fertility rate for women aged 20 to 24 fell from 78.8 to 67.3 births per 1,000; in contrast, the rate for women aged 30 to 34 rose from 72.6 to 85.6 per 1,000. These countervailing trends explain the relative stability of the total fertility rate (Table 4.3), and the increasing mean age at childbearing (Table 4.7).

Table 4.3 Total fertility rates, Canada[1], provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
						Average number of live births per woman in a lifetime							
1986	1.59	..	1.78	1.58	1.53	1.38	1.60	1.83	2.02	1.85	1.61	1.92	2.82
1987	1.58	..	1.82	1.55	1.51	1.37	1.58	1.83	1.98	1.82	1.61	1.88	2.83
1988	1.61	..	1.85	1.57	1.53	1.43	1.59	1.85	1.99	1.84	1.64	1.99	2.91
1989	1.66	..	1.83	1.62	1.55	1.53	1.63	1.92	2.05	1.90	1.65	1.86	2.71
1990	1.71	..	1.93	1.68	1.58	1.64	1.67	1.95	2.07	1.89	1.69	2.16	2.80
1991	1.70	1.44	1.85	1.58	1.54	1.65	1.66	1.97	2.03	1.89	1.67	2.14	2.86
1992	1.69	1.40	1.82	1.58	1.54	1.65	1.67	1.92	2.03	1.86	1.65	1.93	2.70
1993	1.66	1.31	1.72	1.56	1.50	1.61	1.64	1.95	1.96	1.79	1.61	1.91	2.68
1994	1.66	1.32	1.68	1.53	1.51	1.61	1.65	1.95	1.96	1.80	1.63	1.73	2.74
1995	1.64	1.25	1.72	1.50	1.46	1.58	1.64	1.92	1.90	1.77	1.60	1.84	2.78
1996	1.59	1.26	1.67	1.49	1.41	1.56	1.57	1.86	1.89	1.72	1.54	1.69	2.71

[1] *The data for 1986 to 1990 exclude all births taking place in Newfoundland and births to Newfoundland residents outside the province.*



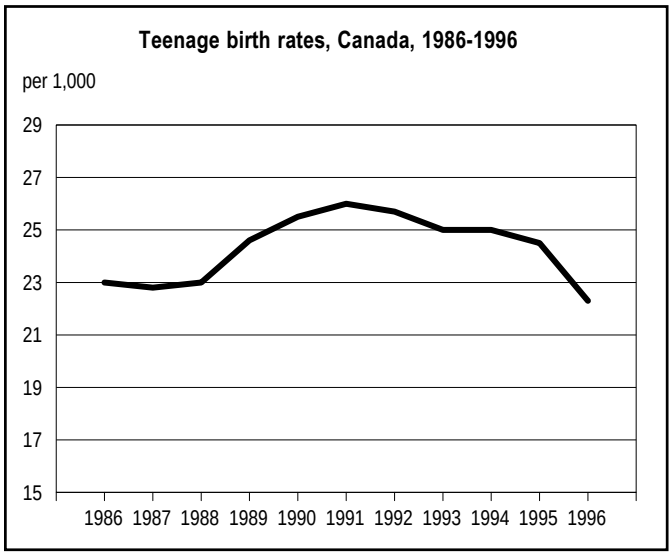


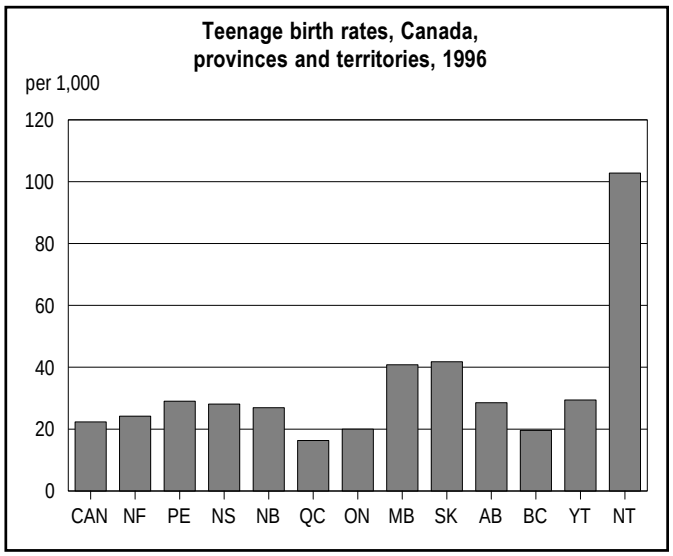
In 1996, the total fertility rate (TFR) ranged from a low of 1.26 in Newfoundland to a high of 2.71 in the Northwest Territories. In general, the lowest rates were registered in the Atlantic provinces, and the highest in the Western provinces. The replacement fertility rate, that is, the rate at which births offset mortality, is approximately 2.1 births in a woman's lifetime. Since at least 1986, the TFRs for all provinces have remained below the replacement rate. Furthermore, since 1990, the average number of live births per woman in Canada has dropped every year (from 1.71 in 1990 to 1.59 in 1996). In 1996, the TFR fell to historic lows in all jurisdictions except Newfoundland, Quebec, Manitoba and the Northwest Territories.

Table 4.4 Live births to teenagers and birth rates, Canada[1], provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of births to females under 20 years[2]						
1986	21,662	..	172	979	865	3,541	6,958	1,536	1,800	3,202	2,291	30	288
1987	21,216	..	167	947	749	3,608	6,757	1,573	1,732	3,103	2,216	49	315
1988	21,304	..	148	1,032	674	3,616	6,769	1,562	1,663	3,060	2,399	45	336
1989	22,697	..	157	1,031	874	3,871	7,267	1,716	1,710	3,188	2,558	39	286
1990	23,415	..	171	1,114	903	4,128	7,538	1,659	1,661	3,324	2,617	54	246
1991	24,445	814	166	1,030	898	3,954	7,615	1,766	1,718	3,457	2,706	42	279
1992	24,248	776	148	999	968	4,117	7,661	1,683	1,668	3,310	2,642	38	238
1993	23,693	661	153	976	875	4,076	7,705	1,734	1,632	3,042	2,539	41	259
1994	23,980	624	149	957	894	4,197	7,769	1,714	1,714	3,070	2,569	43	280
1995	23,657	562	150	873	847	4,140	7,816	1,654	1,632	3,035	2,634	36	278
1996	21,824	538	146	883	700	4,008	7,018	1,578	1,539	2,736	2,371	32	275
							Teenage birth rates (number of births per 1,000 females aged 15 to 19)						
1986	23.0	..	32.5	27.6	29.2	14.9	19.8	36.8	45.9	34.8	21.5	31.6	111.9
1987	22.8	..	32.4	27.0	25.6	15.6	19.3	38.2	44.9	34.4	20.9	50.1	119.5
1988	23.0	..	29.3	29.7	23.1	16.0	19.3	38.2	43.9	34.2	22.5	44.6	128.1
1989	24.6	..	31.4	30.0	29.9	17.2	20.7	42.5	46.1	35.8	24.1	40.7	112.5
1990	25.5	..	34.6	33.1	30.8	18.2	21.6	41.6	45.5	37.4	24.5	57.4	97.9
1991	26.0	31.0	34.4	31.3	30.9	17.4	22.1	44.7	47.0	38.9	25.2	44.7	112.4
1992	25.7	30.4	30.4	31.1	33.9	17.8	22.3	43.0	45.5	36.9	24.3	39.2	96.5
1993	25.0	26.8	30.9	30.8	31.4	17.3	22.4	44.3	44.8	33.6	22.8	42.6	102.9
1994	25.0	26.3	29.5	30.5	32.9	17.5	22.5	43.8	47.0	33.4	22.5	44.0	107.4
1995	24.5	24.6	30.0	27.8	31.9	17.0	22.5	42.5	44.5	32.4	22.5	35.3	103.1
1996	22.3	24.2	29.0	28.1	26.9	16.3	20.0	40.8	41.8	28.5	19.6	29.4	102.8

[1] The data for 1986 to 1990 exclude all births taking place in Newfoundland and births to Newfoundland residents outside the province.
[2] Includes 210 to 265 births each year (between 1986 and 1996) to girls aged 11-14.



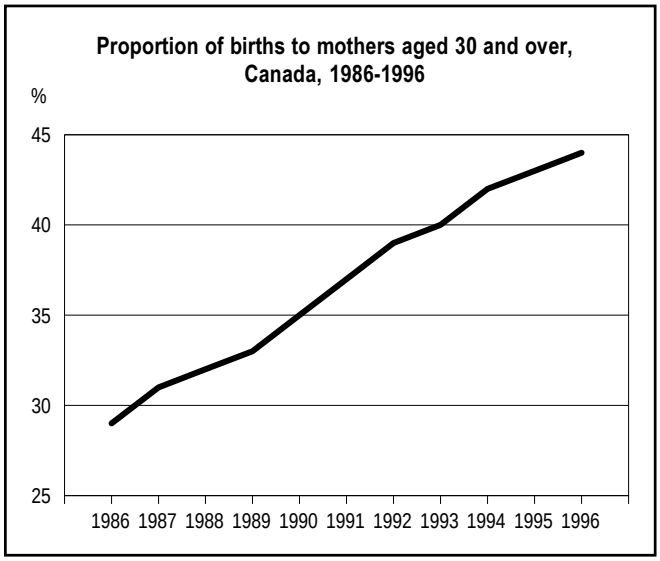


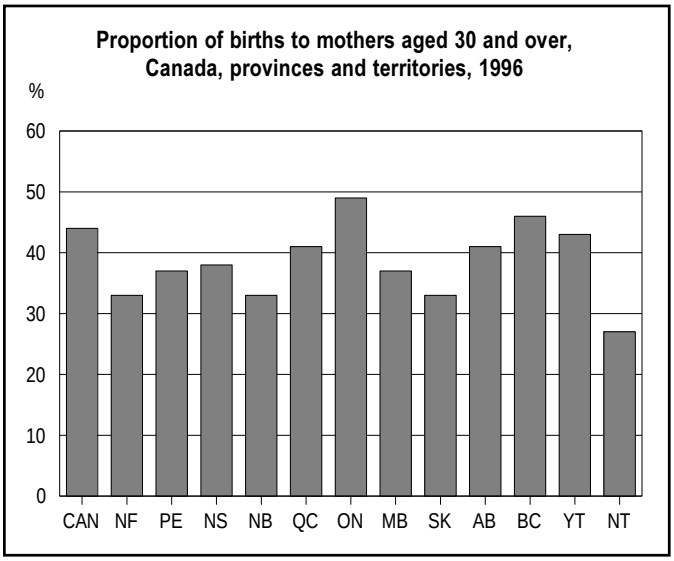
Between 1991 and 1996, the birth rate for teenagers fell from 26.0 per 1,000 to 22.3. Furthermore, the 1996 rate was even lower than the rates seen in the mid-1980s. Teenage birth rates in Manitoba and Saskatchewan were over twice as high as those in Quebec, Ontario and British Columbia. At 103 births per 1,000, teenagers living in the Northwest Territories were, by far, the most likely to become mothers at an early age.

Table 4.5 Live births to mothers aged 30 and over, Canada[1], provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of births to mothers aged 30 and over						
1986	106,474	..	536	3,245	2,094	23,167	42,788	4,642	3,853	12,059	13,607	156	327
1987	111,244	..	526	3,239	2,441	23,959	45,077	4,793	4,101	12,392	14,235	168	313
1988	118,512	..	556	3,375	2,562	25,936	48,245	4,881	4,118	13,014	15,289	182	354
1989	128,328	..	567	3,622	2,330	28,874	52,764	5,258	4,232	14,216	15,983	175	307
1990	138,371	..	607	4,008	2,479	32,223	56,728	5,349	4,444	14,560	17,414	212	347
1991	144,930	1,870	602	3,758	2,460	33,563	59,349	5,469	4,336	14,989	17,932	210	391
1992	150,891	1,842	621	3,910	2,605	34,920	62,122	5,533	4,518	15,467	18,760	208	385
1993	153,798	1,757	594	3,980	2,615	35,311	64,326	5,765	4,427	15,116	19,343	204	360
1994	157,585	1,849	621	3,938	2,616	35,873	65,980	5,796	4,457	15,416	20,408	196	434
1995	160,757	1,782	662	3,951	2,696	35,973	68,683	5,877	4,323	15,357	20,802	199	449
1996	159,932	1,904	627	4,058	2,718	35,290	68,192	5,676	4,353	15,485	21,018	189	422
							Births to mothers aged 30 and over as a proportion of total births (%)						
1986	29	..	28	26	21	27	32	27	22	28	32	32	22
1987	31	..	27	27	25	29	33	28	24	29	34	35	21
1988	32	..	28	28	27	30	35	29	25	31	36	35	23
1989	33	..	29	29	24	31	36	30	25	33	37	36	21
1990	35	..	30	31	25	33	38	31	28	34	38	38	22
1991	37	26	32	31	26	35	40	32	28	35	39	37	24
1992	39	27	34	33	28	36	41	33	30	37	41	39	25
1993	40	27	34	34	29	38	44	35	31	38	42	40	23
1994	42	29	36	35	29	40	45	35	32	39	43	44	27
1995	43	30	38	37	31	41	47	36	32	39	44	42	28
1996	44	33	37	38	33	41	49	37	33	41	46	43	27

[1] *The data for 1986 to 1990 exclude all births taking place in Newfoundland and births to Newfoundland residents outside the province.*





The proportion of births accounted for by older women has been steadily rising in recent years: in 1986, just under 3 in 10 births were to women in their thirties or older; by 1996, over 4 in 10 births were to women this age. This trend may be attributed to rising fertility rates among older women and the fact that the female population has been aging (e.g. in 1986, 18% of females were aged 20-29 and 16% were aged 30-39; by 1996, the corresponding proportions were 14% and 17%).

The most popular names for babies in 1996

The most popular baby names were compiled for all of Canada, and separately for Quebec because of the preponderance of French names in that province. Some of the most frequently chosen names nationally were also common in Quebec (e.g. Nicholas/Nicolas, Sarah and Jessica). Several of the most frequently chosen names in Quebec were either bilingual or traditional English names (e.g. Samuel, Gabriel, William, Audrey and Alexandra).

Names with religious associations remain popular (e.g. Matthew/Mathieu, Daniel, Sarah, Catherine and Rachel). There was a larger number of different names (including variations) given to girls than to boys: across Canada, parents chose over 19,000 different names for girls, compared with over 14,000 names for boys.

Although the most common baby names chosen by Canadians overall also tended to be popular in all the provinces and territories, there were some regional variations. For example, Rebecca, Courtney, Brittany, and Kelsey did not rank among the top 10 girls' names nationally, but they did in several provinces and territories; similarly, Jacob, Jordan, Kyle and Justin were frequent choices for boys.

The most popular names for babies across Canada, by sex[1]

BOYS	Number	GIRLS	Number
MATTHEW	3,617	SARAH	3,109
NICHOLAS	3,292	EMILY	2,776
MICHAEL	2,988	JESSICA	2,585
BRANDON	2,579	MEGAN	2,044
RYAN	2,338	SAMANTHA	1,840
JOSHUA	2,335	ASHLEY	1,629
TYLER	2,124	RACHEL	1,598
CHRISTOPHER	2,068	NICOLE	1,520
DANIEL	1,969	TAYLOR	1,499
ALEXANDER	1,965	ALEXANDRA	1,423
Top 10 names	25,275	Top 10 names	20,023
% of all boys' names[2]	15%	% of all girls' names[2]	13%

The most popular names for babies in Quebec, by sex[3]

BOYS	Number	GIRLS	Number
SAMUEL	846	CATHERINE	458
ALEXANDRE	634	SARAH	455
GABRIEL	590	AUDREY	443
MAXIME	542	ALEXANDRA	371
NICOLAS	476	ÉMILIE	356
KEVIN	451	JESSICA	346
WILLIAM	440	SABRINA	345
MARC	430	CAMILLE	334
MATHIEU	408	MAUDE	283
OLIVIER	407	AMÉLIE	260
Top 10 names	5,224	Top 10 names	3,651
% of all boys' names	25%	% of all girls' names	18%

[1] Includes spelling variations, such as Nickolas, Mikael, Kristopher, Sara, Emilie and Meaghan.

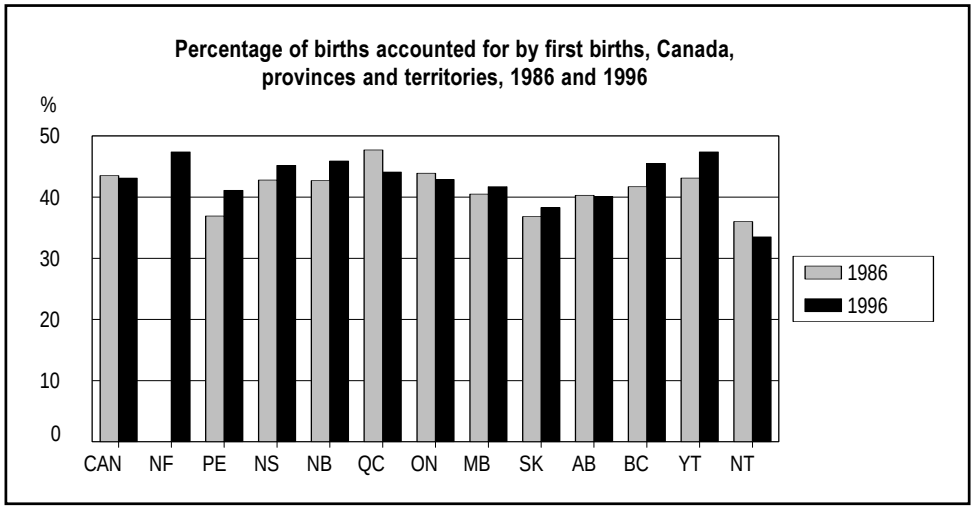
[2] Percentages are based on known names only. The names of the children were unknown for 23,682 boys and 22,264 girls (including 22,682 and 21,318 in Quebec, respectively). In 125 cases, the sex of the child was not stated (109 in Quebec).

[3] Includes spelling variations, such as Nicholas, Keven, Matthieu, Katherine, Jessika and Emily.

Table 4.6 Number and percentage distribution of live births by parity,[1] Canada, provinces and territories, 1986[2] and 1996

Parity	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
						Number of live births, 1986							
1	158,491	..	710	5,292	4,181	40,324	58,743	6,892	6,450	17,634	17,516	208	541
2	130,036	..	686	4,383	3,573	30,437	47,844	5,784	5,725	15,562	15,449	159	434
3	53,364	..	343	1,900	1,499	10,342	19,661	2746	3242	6935	6387	73	236
4	15,589	..	129	547	372	2484	5465	928	1275	2357	1874	24	134
5 +	7,272	..	57	229	161	1017	2161	657	821	1253	739	19	158
Unknown	6	..	-	2	1	-	1	1	-	-	-	-	1
						Percentage distribution, 1986 (%)							
1	43.5	..	36.9	42.8	42.7	47.7	43.9	40.5	36.8	40.3	41.7	43.1	36.0
2	35.7	..	35.6	35.5	36.5	36.0	35.7	34.0	32.7	35.6	36.8	32.9	28.9
3	14.6	..	17.8	15.4	15.3	12.2	14.7	16.1	18.5	15.9	15.2	15.1	15.7
4	4.3	..	6.7	4.4	3.8	2.9	4.1	5.5	7.3	5.4	4.5	5.0	8.9
5+	2.0	..	3.0	1.9	1.6	1.2	1.6	3.9	4.7	2.9	1.8	3.9	10.5
						Number of live births, 1996							
1	157,897	2,724	696	4,774	3,752	37,578	59,952	6,444	5,088	15,171	20,985	210	523
2	129,607	2,165	582	3,728	2,915	30,574	50,532	4,824	4,231	13,307	16,173	140	436
3	52,579	631	273	1,485	1,116	11,947	19,993	2,416	2,320	5,919	6,160	57	262
4	16,744	173	101	386	283	3,504	6,122	1,009	956	2,086	1,936	24	164
5+	9,132	54	42	191	110	1,621	3,211	761	704	1,368	884	12	174
Unknown	241	-	-	9	-	2	202	24	1	-	-	-	3
						Percentage distribution, 1996 (%)							
1	43.1	47.4	41.1	45.2	45.9	44.1	42.9	41.7	38.3	40.1	45.5	47.4	33.5
2	35.4	37.7	34.4	35.3	35.7	35.9	36.1	31.2	31.8	35.2	35.1	31.6	28.0
3	14.4	11.0	16.1	14.1	13.6	14.0	14.3	15.6	17.4	15.6	13.4	12.9	16.8
4	4.6	3.0	6.0	3.7	3.5	4.1	4.4	6.5	7.2	5.5	4.2	5.4	10.5
5+	2.5	0.9	2.5	1.8	1.3	1.9	2.3	4.9	5.3	3.6	1.9	2.7	11.2

[1] *Parity indicates the number of live births a mother has had to date (e.g. a woman of parity 3 has had three liveborn children).*
[2] *The data for 1986 exclude all births taking place in Newfoundland and births to Newfoundland residents outside the province.*

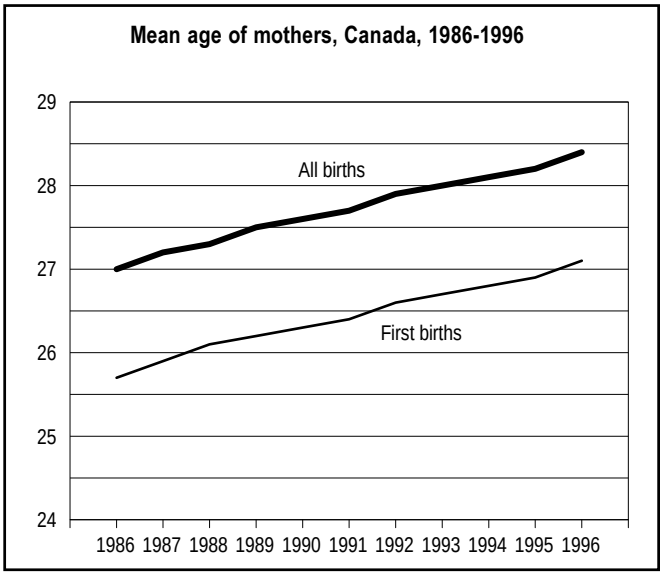


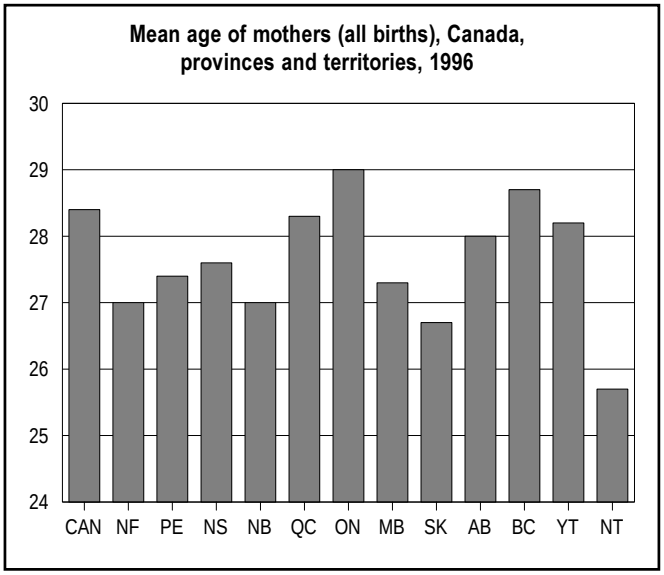
At the national level, the number of live births accounted for by first births remained virtually the same between 1986 and 1996 (about 43%). But in most provinces this proportion rose slightly over this period, while in Quebec it fell from 48% to 44%.

Table 4.7 Mean age at childbearing, all births and first births, Canada[1], provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
All births							**Years**						
1986	27.0	..	26.6	26.4	25.9	27.0	27.3	26.5	25.8	26.6	27.3	27.2	24.9
1987	27.2	..	26.4	26.6	26.4	27.2	27.5	26.6	26.0	26.9	27.5	27.1	24.6
1988	27.3	..	26.7	26.6	26.6	27.3	27.7	26.7	26.1	27.0	27.7	27.2	24.9
1989	27.5	..	26.8	26.7	26.1	27.4	27.9	26.7	26.2	27.2	27.7	27.3	24.9
1990	27.6	..	26.9	26.9	26.3	27.6	28.0	26.9	26.4	27.3	27.9	27.4	25.1
1991	27.7	26.1	27.1	27.0	26.3	27.7	28.2	26.8	26.4	27.3	28.0	27.6	25.3
1992	27.9	26.2	27.2	27.1	26.5	27.9	28.3	27.0	26.6	27.5	28.1	27.9	25.5
1993	28.0	26.4	27.3	27.2	26.6	28.0	28.5	27.1	26.6	27.6	28.3	27.8	25.2
1994	28.1	26.5	27.3	27.3	26.6	28.1	28.6	27.1	26.6	27.7	28.4	28.3	25.6
1995	28.2	26.6	27.5	27.4	26.7	28.2	28.8	27.2	26.6	27.8	28.5	28.1	25.7
1996	28.4	27.0	27.4	27.6	27.0	28.3	29.0	27.3	26.7	28.0	28.7	28.2	25.7
First births													
1986	25.7	..	24.3	24.9	24.2	25.9	26.0	24.9	24.0	25.3	26.0	25.6	22.4
1987	25.9	..	24.3	25.0	24.9	26.1	26.2	25.1	24.2	25.5	26.3	25.7	22.2
1988	26.1	..	24.9	25.1	25.1	26.2	26.5	25.2	24.4	25.7	26.4	25.8	22.2
1989	26.2	..	25.1	25.2	24.6	26.4	26.6	25.2	24.5	25.7	26.5	26.1	23.1
1990	26.3	..	24.9	25.4	24.9	26.5	26.8	25.6	24.6	25.8	26.6	25.7	23.4
1991	26.4	24.3	25.1	25.5	24.9	26.7	26.9	25.4	24.4	25.7	26.7	26.4	23.5
1992	26.6	24.7	25.2	25.7	24.9	26.8	27.1	25.7	24.6	26.0	26.9	26.4	23.6
1993	26.7	24.9	24.8	25.8	25.1	26.9	27.2	25.8	24.7	26.2	27.1	26.4	23.4
1994	26.8	25.0	25.4	25.7	25.2	26.9	27.3	25.8	24.6	26.3	27.3	26.8	23.1
1995	26.9	25.2	25.1	26.0	25.1	26.9	27.5	25.8	24.7	26.4	27.4	26.6	23.6
1996	27.1	25.6	25.5	26.1	25.6	26.9	27.7	25.9	24.8	26.6	27.7	27.2	23.6

[1] *The data for 1986 to 1990 exclude all births taking place in Newfoundland and births to Newfoundland residents outside the province.*



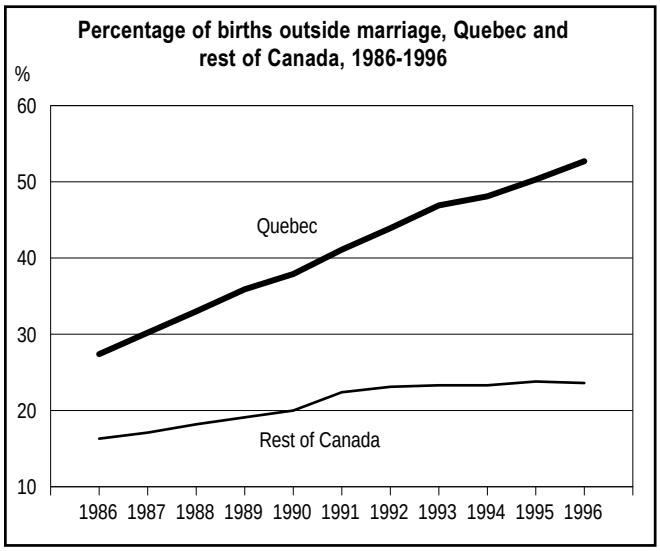


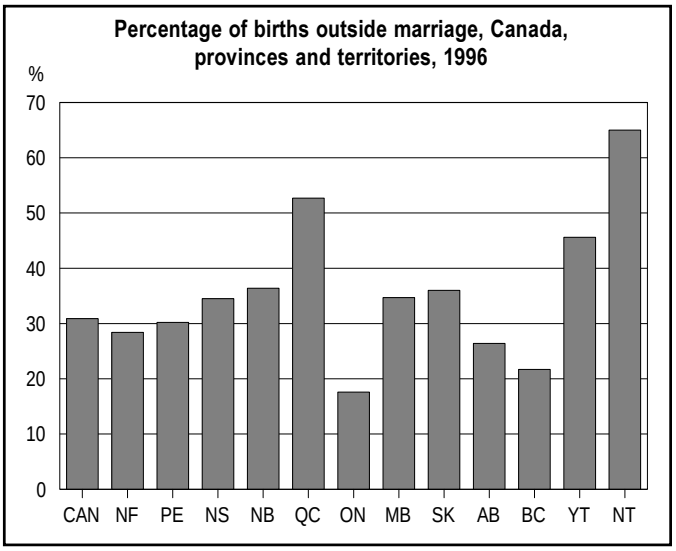
The mean age at which women give birth has been rising since 1975, reflecting their increased enrolment in postsecondary education and greater participation in the labour force, as well as their growing tendency to delay marriage (Table 2.4). More recently, the average age at childbearing increased from 27.0 years in 1986 to 28.4 years in 1996. The mean age at first birth followed the same trend, albeit at younger ages: from 25.7 to 27.1 years between 1986 and 1996. Women in the most populous and urbanized provinces tended to give birth at later ages than their counterparts in the Atlantic and Prairie provinces (e.g. 29.0 years in Ontario in 1996 [all births] versus 26.7 years in Saskatchewan).

Table 4.8 Number and percentage of births to unmarried women, Canada,[1] provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
						Number of live births to unmarried women[2,3]							
1986	68,868	..	321	2,383	2,042	23,120	17,122	3,567	4,022	7,697	7,681	162	751
1987	72,853	..	370	2,425	2,156	25,194	17,553	3,826	4,080	7,947	8,326	152	824
1988	80,052	..	368	2,706	2,374	28,592	19,068	4,145	4,326	8,526	8,905	170	872
1989	89,048	..	383	2,880	2,524	33,135	20,514	4,516	4,535	9,160	10,382	175	844
1990	96,994	..	420	3,281	2,604	37,188	22,562	4,720	4,562	9,740	10,756	232	929
1991	106,064	2,273	445	3,355	2,836	39,628	24,907	5,023	4,686	10,256	11,459	229	967
1992	109,062	2,410	459	3,496	2,964	41,807	24,724	5,125	4,823	10,509	11,626	204	915
1993	106,838	2,296	464	3,566	2,976	42,973	24,148	5,383	4,766	10,388	8,667	224	987
1994	105,987	1,691	503	3,622	3,215	43,523	22,926	5,395	4,763	10,399	8,785	191	974
1995	105,621	1,466	527	3,557	3,128	43,885	22,045	5,503	4,783	10,398	9,097	221	1,010
1996	103,530	1,429	510	3,647	2,977	44,575	20,291	5,372	4,644	9,988	8,889	202	1,006
						Percentage of live births to unmarried women (%)[2]							
1986	18.9	..	16.7	19.3	20.9	27.4	12.8	21.0	23.0	17.6	18.3	34.1	50.2
1987	20.2	..	18.9	20.0	22.5	30.2	13.0	22.6	24.0	18.9	19.9	32.5	54.9
1988	21.7	..	18.6	22.2	24.7	33.0	13.8	24.3	25.8	20.3	20.9	33.7	56.7
1989	23.2	..	19.8	23.2	26.1	35.9	14.1	26.1	27.2	21.2	23.8	36.9	57.7
1990	24.4	..	20.9	25.5	26.5	37.9	15.0	27.2	28.4	22.7	23.6	41.7	58.9
1991	27.0	31.7	23.6	27.9	29.9	41.1	17.4	29.1	30.6	24.0	25.1	40.3	59.2
1992	28.2	34.8	24.8	29.4	31.6	43.9	17.7	30.9	32.1	25.0	25.2	38.6	58.9
1993	29.2	35.8	26.5	30.8	32.9	46.9	18.6	32.2	33.4	25.8	20.6	44.3	63.8
1994	29.6	29.8	29.3	32.6	35.8	48.1	18.2	32.8	35.1	26.2	20.8	43.5	62.0
1995	30.5	28.7	30.1	33.3	36.5	50.3	18.2	34.2	36.5	26.7	21.7	47.5	63.0
1996	30.9	28.4	30.2	34.5	36.4	52.7	17.6	34.7	36.0	26.4	21.7	45.6	65.0

[1] *The data for 1986 to 1990 exclude all births taking place in Newfoundland and births to Newfoundland residents outside the province.*
[2] *Excludes those births where the marital status of the mother was unknown. These were few prior to 1991; since then the number of such births has been increasing, particularly in Ontario (about 25,000 in 1996) and British Columbia (5,000).*
[3] *Includes single (never-married), separated, divorced and widowed women.*

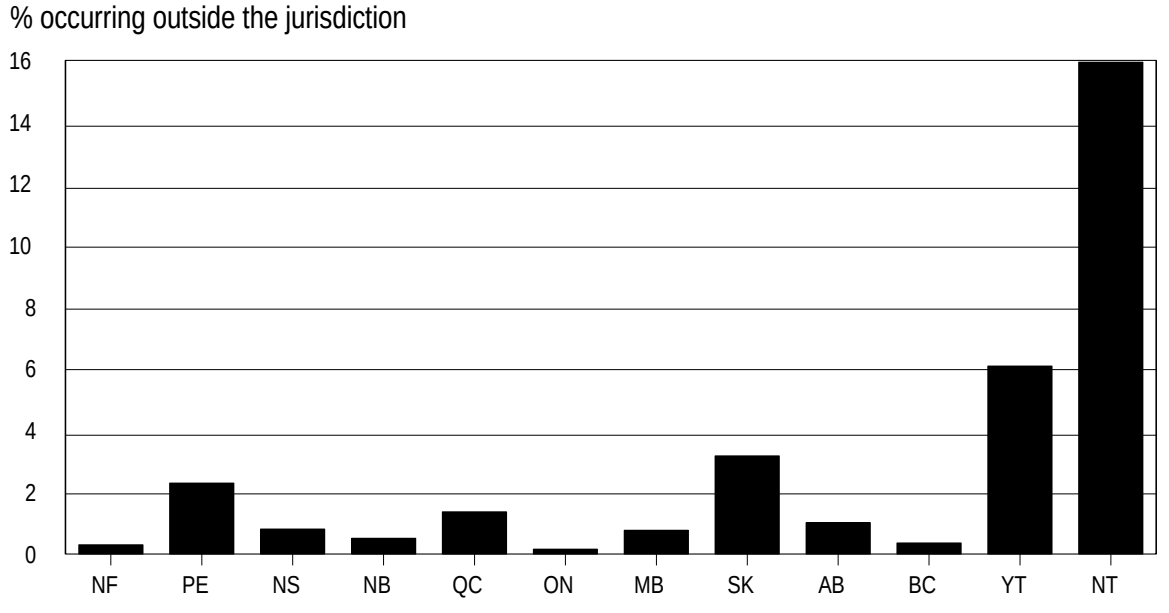




The increasing popularity of common-law relationships as an alternative to marriage has resulted in more children being born to couples who are not legally married, particularly in Quebec. The proportion of births to unmarried women in Quebec grew from 27% in 1986 to 53% in 1996, while it rose from 16% to 24% in the rest of Canada. The proportion of births to unmarried women was also high in both territories.

1996 births occurring outside the mother's province or territory of residence

Province or territory of mother's residence	Total births	Occurring within the jurisdiction	Occurring outside the jurisdiction
NF	5,747	5,730	17
PE	1,694	1,655	39
NS	10,753	10,487	86
NB	8,176	8,134	42
QC	85,226	84,057	1,169
ON	140,012	139,781	231
MB	15,478	15,359	119
SK	13,300	12,877	423
AB	37,851	37,466	385
BC	46,138	45,972	166
YT	443	416	27
NT	1,562	1,313	249

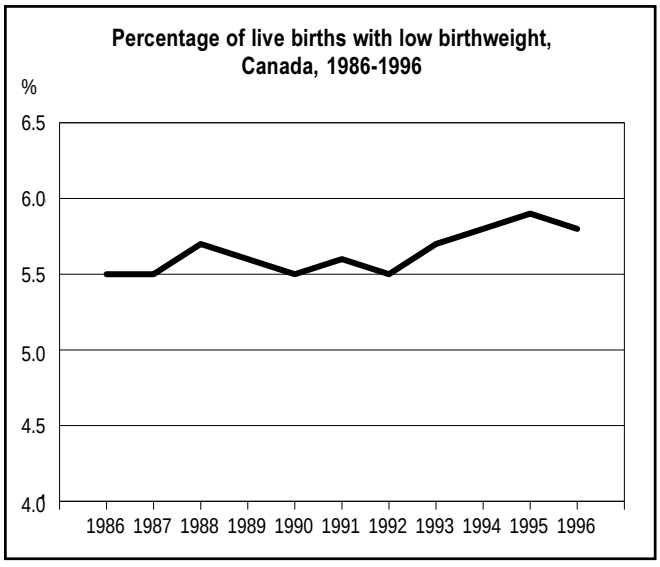


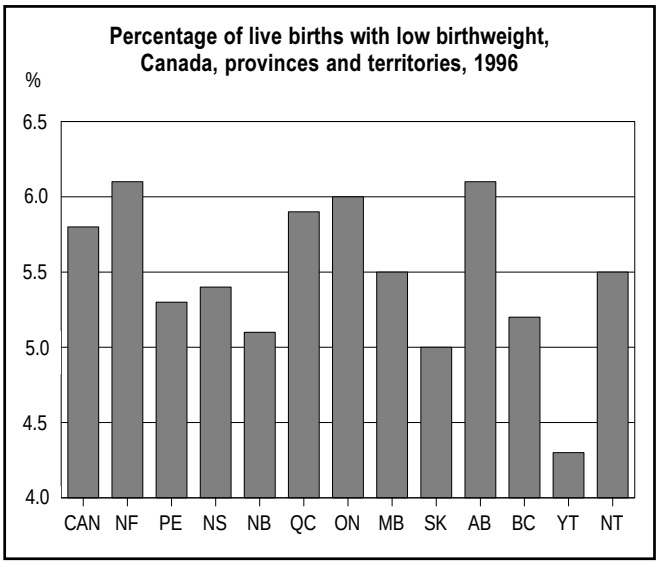
In most provinces in 1996, less than 1% of births occurred outside the mother's province of residence—usually in a neighbouring province or territory. Births were most likely to take place in another jurisdiction when the mother was a resident of the Northwest Territories (16%, mainly in Manitoba and Alberta), or Yukon (6%, mainly in British Columbia and Alberta). Over 3% of babies with mothers living in Saskatchewan were born in Alberta or Manitoba, and just over 2% of those with mothers living in Prince Edward Island were born in Nova Scotia.

Table 4.9 Number and percentage of live births with low birthweight (under 2,500 grams), Canada[1], provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
						Number of live births with low birthweight							
1986	20,032	..	94	693	500	5,242	7,202	903	864	2,404	2,001	32	97
1987	19,994	..	103	671	510	5,069	7,287	930	866	2,300	2,137	30	91
1988	20,809	..	118	727	511	5,384	7,587	927	853	2,429	2,159	16	98
1989	21,303	..	91	687	565	5,528	7,734	865	892	2,545	2,299	19	78
1990	21,963	..	95	755	493	5,817	8,120	951	789	2,532	2,296	29	86
1991	22,316	402	85	687	528	5,654	8,452	928	776	2,462	2,224	31	87
1992	21,818	389	96	663	507	5,422	8,365	837	730	2,447	2,229	32	101
1993	22,011	368	71	676	501	5,220	8,823	897	737	2,280	2,320	32	86
1994	22,168	396	104	613	531	5,360	8,784	871	749	2,242	2,385	26	107
1995	22,085	321	81	639	409	5,200	8,857	886	753	2,330	2,477	20	112
1996	21,025	349	90	571	419	4,920	8,361	845	664	2,300	2,401	19	86
						Percentage of live births with low birthweight (%)[2]							
1986	5.5	..	4.9	5.6	5.1	6.2	5.4	5.3	4.9	5.5	4.8	6.6	6.5
1987	5.5	..	5.3	5.5	5.3	6.1	5.4	5.5	5.1	5.5	5.1	6.3	6.0
1988	5.7	..	6.0	6.0	5.3	6.3	5.5	5.4	5.1	5.8	5.0	3.1	6.3
1989	5.6	..	4.7	5.5	5.8	6.1	5.3	5.0	5.4	5.9	5.3	4.0	5.3
1990	5.5	..	4.7	5.9	5.0	6.0	5.4	5.5	4.9	5.9	5.0	5.2	5.4
1991	5.6	5.6	4.5	5.7	5.6	5.9	5.7	5.4	5.1	5.8	4.9	5.5	5.3
1992	5.5	5.6	5.2	5.6	5.4	5.7	5.6	5.0	4.9	5.8	4.8	6.0	6.5
1993	5.7	5.7	4.1	5.9	5.5	5.7	6.0	5.4	5.2	5.7	5.1	6.3	5.5
1994	5.8	6.3	6.1	5.5	5.9	5.9	6.0	5.3	5.3	5.6	5.1	5.9	6.8
1995	5.9	5.5	4.6	6.0	4.8	6.0	6.1	5.5	5.6	6.0	5.3	4.3	7.0
1996	5.8	6.1	5.3	5.4	5.1	5.9	6.0	5.5	5.0	6.1	5.2	4.3	5.5

[1] *The data for 1986 to 1990 exclude all births taking place in Newfoundland and births to Newfoundland residents outside the province.*
[2] *Excludes births with unknown birthweight.*





The proportion of live births to Canadian residents accounted for by low birthweight (LBW) babies was marginally higher in the mid-1990s than in earlier years. For example, in 1996, 5.8% of babies weighed less than 2,500 grams at birth, compared with 5.5% in 1986. In 1996, the greatest proportion of LBW babies was found in Alberta and Newfoundland (6.1%); the lowest proportion was seen in Yukon (4.3%), followed by Saskatchewan (5.0%).

Table 4.10 Low birthweight (under 2,500 grams), by selected characteristics of mother and child, Canada, 1996

	Births			
	Total	With known birthweight	Known to have low birthweight (LBW)	% of births with known birthweight that were LBW
Total	366,200	364,748	21,025	5.8
Sex				
Male	188,145	187,405	10,008	5.3
Female	177,930	177,228	11,013	6.2
Unknown	125	115	4	3.5
Parity				
1	157,897	157,301	9,833	6.3
2	129,607	129,063	6,568	5.1
3 +	78,455	78,148	4,609	5.9
Unknown	241	236	15	6.4
Mother's age				
< 20	21,824	21,753	1,537	7.1
20-34	295,262	294,050	16,236	5.5
35 +	48,908	48,743	3,240	6.6
Unknown	206	202	12	5.9
Mother's marital status				
Married	231,128	230,461	11,688	5.1
Unmarried[1]	103,530	102,796	6,800	6.6
Unknown	31,542	31,491	2,537	8.1
Mother's birthplace				
Canada	283,683	282,438	15,752	5.6
Elsewhere	78,220	78,071	4,969	6.4
Unknown	4,297	4,239	304	7.2

[1] *Includes women who were single (i.e. never-married), separated, divorced or widowed. Unmarried women in a common-law relationship were also assigned to this category.*

On average, girls weigh less at birth than boys. They are also more likely to be born with a low birthweight (LBW under 2,500 grams): 6.2% of girls born in 1996 were LBW compared with 5.3% of boys. LBW babies have a higher mortality rate than normal weight babies. They are also more susceptible than other children to health problems in infancy.

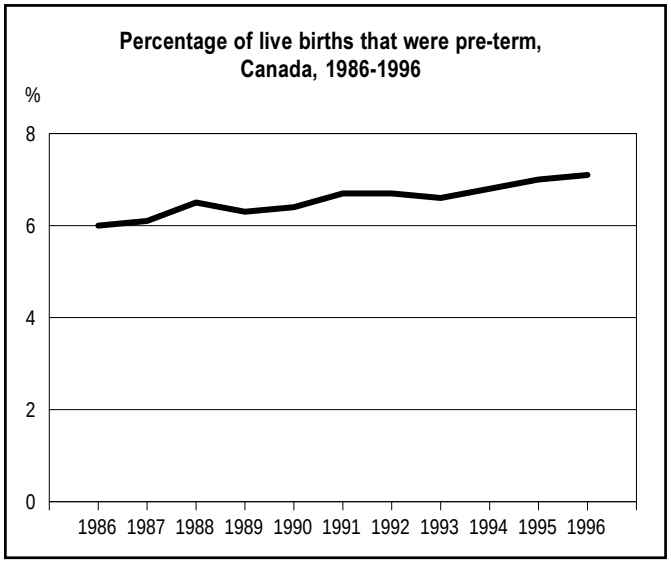
Low birthweight has been associated with several risk factors, including the mother's smoking behaviour during pregnancy and socioeconomic status. Socioeconomic status, in turn, is associated with age, diet, marital status and ethnicity. In the table above, it can be seen that babies born to teenage mothers in 1996 were more likely to have a low birthweight than those born to older mothers (7.1% of births to teenage mothers were LBW, compared with 5.5% of births to mothers aged 20 to 34). The offspring of unmarried women were also more likely to be LBW than those of their married counterparts (6.6% vs. 5.1%), as were the offspring of foreign-born women (6.4%), compared with those of Canadian-born women (5.6%).

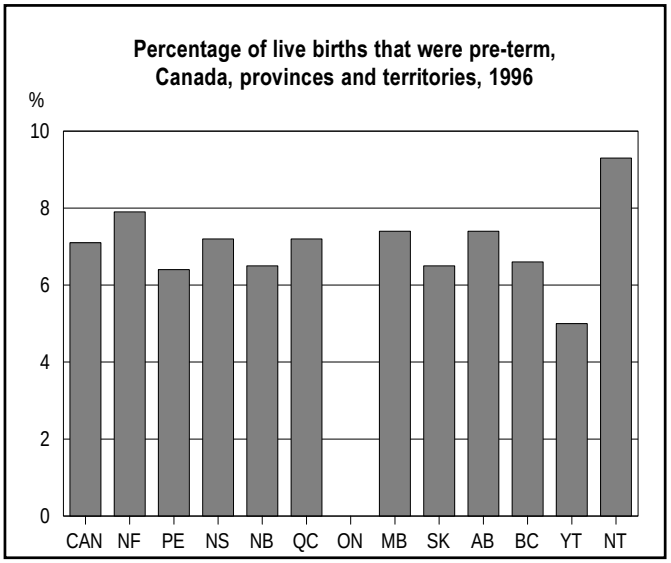
Table 4.11 Number and percentage of pre-term live births (under 37 weeks of gestation), Canada[1], provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of pre-term live births[2]						
1986	21,801	..	88	738	528	5,123	7,704	1,221	1,045	2,773	2,423	42	116
1987	22,148	..	97	704	616	5,239	7,837	1,215	1,057	2,688	2,545	41	109
1988	23,904	..	123	859	603	5,798	8,559	1,233	1,043	2,879	2,626	39	142
1989	23,979	..	119	868	679	5,683	8,657	1,176	1,033	2,848	2,757	39	120
1990	25,139	..	116	976	601	6,355	9,010	1,212	938	2,982	2,778	48	123
1991	16,405	449	101	852	638	6,300	..	1,242	1,039	2,839	2,773	38	134
1992	16,363	484	94	860	601	6,397	..	1,131	935	2,838	2,826	52	145
1993	15,685	420	96	818	630	6,039	..	1,168	894	2,665	2,788	35	132
1994	16,101	445	103	805	647	6,313	..	1,146	902	2,703	2,862	26	149
1995	16,124	418	97	777	515	6,196	..	1,184	960	2,736	3,073	25	143
1996	15,892	453	109	765	533	6,027	..	1,151	866	2,789	3,033	22	144
							Percentage of live births that were pre-term (%)[2]						
1986	6.0	..	4.6	6.0	5.4	6.1	5.8	7.2	6.0	6.3	5.8	8.7	7.7
1987	6.1	..	5.0	5.8	6.4	6.3	5.8	7.2	6.2	6.4	6.1	8.6	7.2
1988	6.5	..	6.2	7.1	6.3	6.8	6.2	7.2	6.2	6.8	6.1	7.5	9.2
1989	6.3	..	6.1	6.9	7.0	6.4	6.0	6.8	6.2	6.6	6.3	8.1	8.2
1990	6.4	..	5.8	7.6	6.1	6.7	6.0	7.0	5.8	6.9	6.1	8.6	7.8
1991	6.7	6.3	5.4	7.1	6.7	6.7	..	7.2	6.8	6.6	6.1	6.7	8.2
1992	6.7	7.0	5.1	7.3	6.4	6.9	..	6.8	6.2	6.8	6.1	9.8	9.3
1993	6.6	6.5	5.5	7.1	7.0	6.7	..	7.0	6.3	6.6	6.1	6.9	8.5
1994	6.8	7.0	6.0	7.3	7.2	7.0	..	7.0	6.4	6.8	6.1	5.9	9.4
1995	7.0	7.1	5.5	7.2	6.0	7.1	..	7.4	7.1	7.0	6.6	5.3	8.9
1996	7.1	7.9	6.4	7.2	6.5	7.2	..	7.4	6.5	7.4	6.6	5.0	9.3

[1] *The national total excludes all births taking place in Newfoundland between 1986 and 1990, all births occurring in Ontario between 1991 and 1996, and births to residents of these two provinces occurring in other jurisdictions in those years. (Ontario data are under review for correction of a reporting problem.)*

[2] *Excludes births with an unknown gestation period.*





The percentage of babies born prematurely has been slowly rising in recent years (from 6.0% in 1986 to 7.1% in 1996). In 1996, this proportion was greater than it was 10 years earlier in all jurisdictions except for Yukon. According to a recent study (Joseph et al., 1998), this trend is mainly due to increases in multiple births, medical interventions, and improved gestational age estimates based on ultrasonic observations.

Table 4.12 Pre-term live births (under 37 weeks of gestation), by selected characteristics of mother and child, Canada (excluding Ontario[1]), 1996

	Births[2]			
	Total	With known gestational age	Known to be pre-term	% of births with known gestational age that were pre-term
Total	226,188	224,520	15,892	7.1
Sex				
Male	116,394	115,562	8,567	7.4
Female	109,684	108,855	7,318	6.7
Unknown	110	103	7	6.8
Parity				
1	97,945	97,217	7,073	7.3
2	79,075	78,519	5,097	6.5
3+	49,129	48,752	3,717	7.6
Unknown	39	32	5	15.6
Mother's age				
< 20	14,806	14,735	1,227	8.3
20-34	183,960	182,560	12,471	6.8
35 +	27,401	27,209	2,194	8.1
Unknown	21	16	-	-
Mother's marital status				
Married	135,984	135,141	8,671	6.4
Unmarried [3]	83,239	82,446	6,521	7.9
Unknown	6,965	6,933	700	10.1
Mother's birthplace				
Canada	187,744	186,390	13,180	7.1
Elsewhere	34,460	34,256	2,432	7.1
Unknown	3,984	3,874	280	7.2

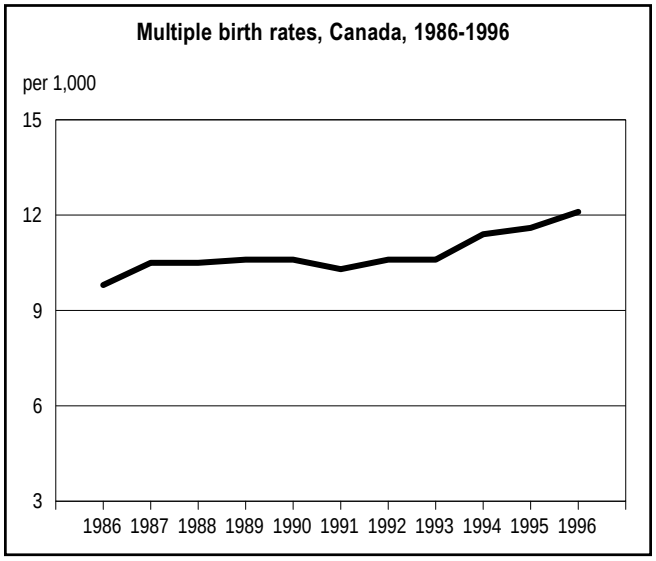
[1] All Ontario births and births to Ontario residents outside the province were excluded since they are under review for correction of a reporting problem.
[2] Excludes births with either an unknown gestation period or an unknown birthweight.
[3] Includes women who were single (i.e. never-married), separated, divorced or widowed. Unmarried women in a common-law relationship were also assigned to this category.

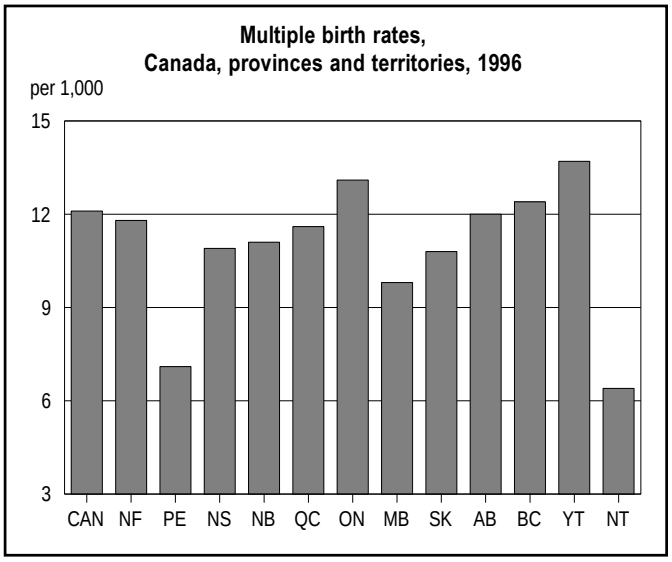
Pre-term babies, that is, babies born before 37 completed weeks of gestation, often have a low birthweight. In 1996, 53% of pre-term babies weighed under 2,500 grams at birth, compared with 2% of all other births. The sociodemographic characteristics of mothers with premature offspring resembled those of mothers with low birthweight babies. For example, 8.3% of births to teenagers were premature, compared with 6.8% of births to women aged 20 to 34. Similarly, babies born to unmarried women were more likely to be pre-term (7.9% of births) than those born to their married counterparts (6.4%). However, the offspring of foreign-born mothers were just as likely to be pre-term as those of Canadian-born mothers (both 7.1%). In 1996, a higher proportion of boys than girls were born prematurely (7.4% of male births, compared with 6.7% of female births).

Table 4.13 Number of multiple birth sets and multiple birth rates, Canada,[1] provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of multiple birth sets[2]						
1986	3,561	..	21	142	85	790	1,327	172	169	418	420	4	13
1987	3,769	..	20	124	87	867	1,396	182	174	447	452	7	13
1988	3,855	..	25	123	94	887	1,455	170	192	427	455	4	23
1989	4,071	..	20	139	108	884	1,646	155	189	467	448	4	11
1990	4,199	..	20	143	105	1,023	1,653	176	162	450	451	5	11
1991	4,107	81	33	130	105	1,007	1,493	182	143	450	466	6	11
1992	4,188	69	13	133	90	1,009	1,567	182	161	484	448	8	24
1993	4,090	65	19	131	89	958	1,509	192	145	444	518	7	13
1994	4,380	70	15	125	100	1,017	1,766	152	156	443	508	3	25
1995	4,362	70	16	117	80	984	1,765	186	150	460	506	7	21
1996	4,410	68	12	115	91	978	1,816	151	143	453	567	6	10
							Multiple birth rates (per 1,000 deliveries)[2]						
1986	9.8	..	11.0	11.5	8.7	9.4	9.9	10.2	9.7	9.6	10.0	8.3	8.6
1987	10.5	..	10.3	10.3	9.1	10.4	10.4	10.8	10.3	10.7	10.8	14.7	8.2
1988	10.5	..	12.7	10.1	9.8	10.3	10.6	10.0	11.5	10.2	10.6	7.7	14.8
1989	10.6	..	10.4	11.1	11.2	9.6	11.4	9.0	11.4	10.8	10.3	8.4	7.0
1990	10.6	..	10.0	11.2	10.7	10.5	11.0	10.2	10.1	10.5	9.9	9.1	6.9
1991	10.3	11.4	17.7	10.9	11.1	10.4	9.9	10.5	9.4	10.5	10.3	10.7	6.7
1992	10.6	10.0	7.0	11.2	9.6	10.6	10.4	11.0	10.7	11.6	9.7	15.3	15.6
1993	10.6	10.2	10.9	11.4	9.9	10.4	10.2	11.5	10.2	11.1	11.3	13.9	8.4
1994	11.4	11.0	8.8	11.4	11.2	11.3	12.1	9.2	11.2	11.2	10.8	6.8	15.9
1995	11.6	11.9	9.1	10.9	9.4	11.3	12.1	11.6	11.2	11.9	10.8	15.0	12.8
1996	12.1	11.8	7.1	10.9	11.1	11.6	13.1	9.8	10.8	12.0	12.4	13.7	6.4

[1] *The data for 1986 to 1990 exclude all births taking place in Newfoundland and births to Newfoundland residents outside the province.*
[2] *The delivery of more than one fetus, either live or stillborn (e.g. twins, triplets).*





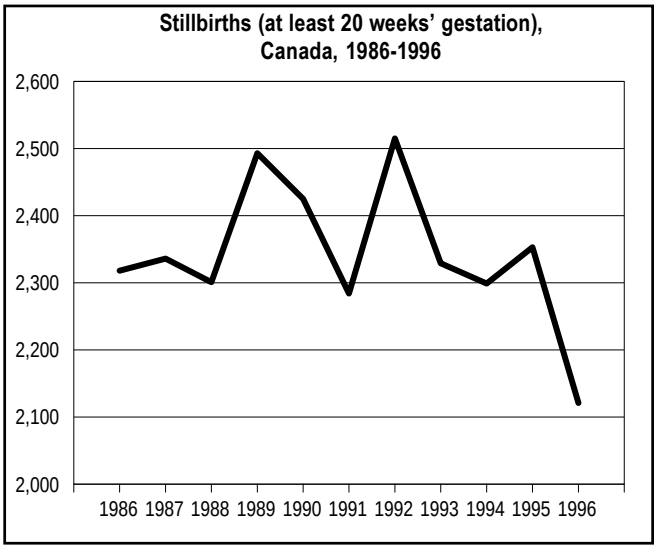
Despite a declining number of births between 1986 and 1996 (Table 4.1), the number of multiple birth sets increased 22% nationally over this period (excluding Newfoundland). As a result, the multiple birth rate was up to 12.1 per 1,000 deliveries in 1996. Among the provinces, the 1996 rates were highest in Ontario (13.1) and British Columbia (12.4), and lowest in Prince Edward Island (7.1) and Manitoba (9.8). The use and success of assisted pregnancy techniques may be contributing to the recent trends noted here.

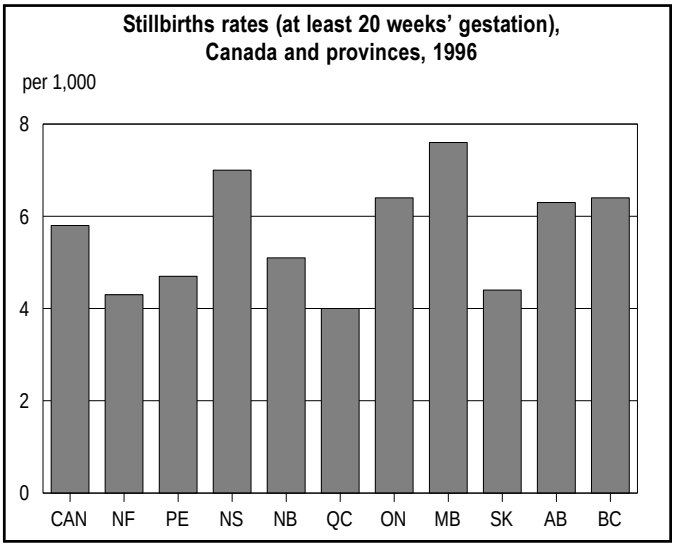
5. Fetal and infant mortality

Table 5.1 Stillbirths of 20 or more weeks' gestation and stillbirth rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of stillbirths of 20 or more weeks' gestation[1]						
1986	2,318	45	10	98	72	439	850	98	108	262	310	4	22
1987	2,336	44	13	98	46	465	905	114	95	257	279	6	14
1988	2,301	40	17	69	41	402	923	99	94	300	294	3	19
1989	2,493	40	8	108	46	463	999	124	96	256	324	2	27
1990	2,425	39	11	80	62	433	969	113	102	298	302	1	15
1991	2,284	45	15	61	51	475	798	115	100	312	294	1	17
1992	2,515	37	14	85	52	432	1,068	139	97	279	298	3	11
1993	2,329	34	8	58	49	404	970	138	94	268	293	4	9
1994	2,299	37	13	66	59	369	945	132	82	267	306	1	22
1995	2,353	30	13	82	32	386	977	127	82	262	348	3	11
1996	2,121	25	8	74	42	342	905	119	59	239	295	2	11
							Stillbirth rates at 20 or more weeks' gestation (per 1,000 total births[2])						
1986	6.2	5.5	5.2	7.9	7.3	5.2	6.3	5.7	6.1	6.0	7.3	8.2	14.4
1987	6.3	5.6	6.6	8.0	4.8	5.5	6.7	6.7	5.5	6.1	6.6	12.4	9.1
1988	6.1	5.3	8.5	5.6	4.2	4.6	6.6	5.8	5.6	7.1	6.8	5.7	12.1
1989	6.3	5.1	4.1	8.5	4.7	5.0	6.8	7.1	5.7	5.9	7.3	4.1	17.9
1990	5.9	5.1	5.4	6.2	6.3	4.4	6.4	6.5	6.3	6.9	6.6	1.8	9.4
1991	5.6	6.2	7.9	5.1	5.3	4.9	5.2	6.6	6.5	7.2	6.4	1.8	10.3
1992	6.3	5.3	7.5	7.1	5.5	4.5	7.0	8.3	6.4	6.6	6.4	5.6	7.0
1993	6.0	5.3	4.5	5.0	5.4	4.4	6.5	8.2	6.5	6.6	6.3	7.8	5.7
1994	5.9	5.8	7.5	5.9	6.5	4.1	6.4	7.9	5.8	6.7	6.5	2.3	13.7
1995	6.2	5.1	7.4	7.6	3.7	4.4	6.6	7.8	6.0	6.7	7.4	6.3	6.8
1996	5.8	4.3	4.7	7.0	5.1	4.0	6.4	7.6	4.4	6.3	6.4	4.5	7.0

[1] *Includes stillbirths with an unknown gestation period. In Quebec and Saskatchewan, only stillbirths of 500 or more grams must be reported.*
[2] *Total births comprise live births and stillbirths with 20 or more weeks of gestation or unknown gestation.*



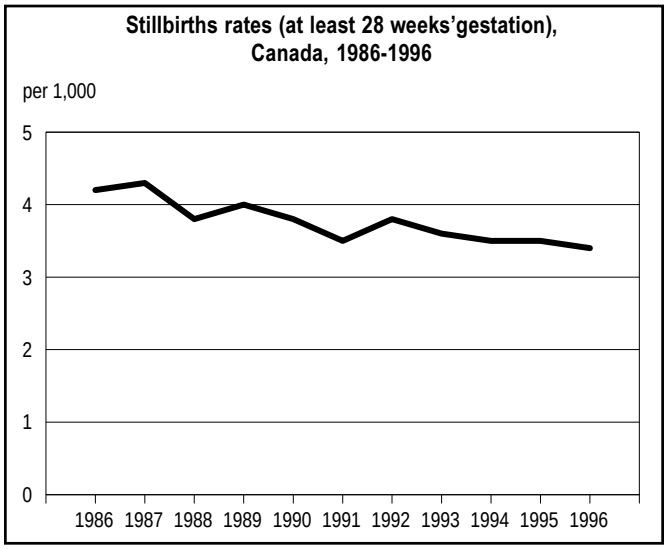


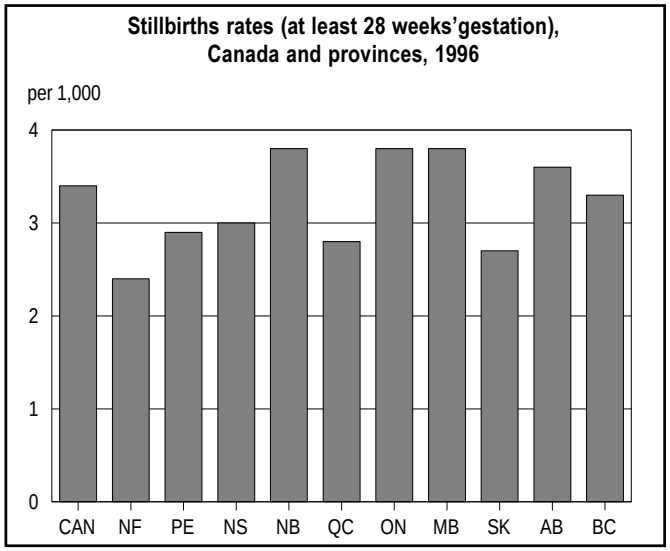
Between 1986 and 1995, the number of stillbirths with at least 20 weeks of gestation averaged 2,365 annually. In 1996, it dropped 10% to 2,121. In general, stillbirth data at 20 or more weeks' gestation should be interpreted cautiously. Year-to-year fluctuations may be explained, in part, by reporting variations: the distinction between a stillbirth and a live birth surviving for only a very short period after birth can be very tenuous; it can also be reported differently depending on the attendant and hospital setting. Occasionally a new trend can be traced to a change in a jurisdiction's definition of a stillbirth (see pp. 151-2 in the Glossary). Finally, interprovincial variations in stillbirth rates at 20 or more weeks' gestation may reflect differences in stillbirth definitions between jurisdictions.

Table 5.2 Stillbirths of 28 or more weeks' gestation and stillbirth rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
						Number of stillbirths of 28 or more weeks' gestation[1]							
1986	1,574	40	8	64	57	299	594	62	70	178	185	2	15
1987	1,584	30	8	70	37	344	609	74	67	175	158	1	11
1988	1,435	25	11	42	35	265	590	63	62	163	164	2	13
1989	1,593	33	5	76	32	322	634	74	65	169	164	1	18
1990	1,559	35	7	57	47	305	615	76	62	175	168	1	11
1991	1,396	33	12	39	35	331	475	68	64	167	160	1	11
1992	1,512	24	11	59	42	291	623	65	59	165	166	2	5
1993	1,419	27	4	46	38	298	575	78	60	157	127	3	6
1994	1,371	22	9	43	37	256	558	62	63	156	151	1	13
1995	1,323	21	10	35	28	245	558	62	57	146	150	3	8
1996	1,246	14	5	32	31	240	531	59	36	137	151	2	8
						Stillbirth rates at 28 or more weeks' gestation (per 1,000 total births[2])							
1986	4.2	4.9	4.1	5.2	5.8	3.5	4.4	3.6	4.0	4.1	4.4	4.1	9.9
1987	4.3	3.8	4.1	5.7	3.8	4.1	4.5	4.3	3.9	4.1	3.8	2.1	7.2
1988	3.8	3.3	5.5	3.4	3.6	3.1	4.3	3.7	3.7	3.9	3.8	3.8	8.3
1989	4.0	4.2	2.6	6.0	3.3	3.5	4.3	4.3	3.9	3.9	3.7	2.1	12.0
1990	3.8	4.6	3.5	4.4	4.8	3.1	4.1	4.4	3.8	4.1	3.7	1.8	6.9
1991	3.5	4.6	6.3	3.2	3.7	3.4	3.1	3.9	4.2	3.9	3.5	1.8	6.7
1992	3.8	3.5	5.9	4.9	4.5	3.0	4.1	3.9	3.9	3.9	3.6	3.8	3.2
1993	3.6	4.2	2.3	4.0	4.2	3.2	3.9	4.6	4.2	3.9	2.8	5.9	3.8
1994	3.5	3.5	5.2	3.9	4.1	2.8	3.8	3.7	4.5	3.9	3.2	2.3	8.2
1995	3.5	3.6	5.7	3.3	3.3	2.8	3.8	3.8	4.2	3.7	3.2	6.3	4.9
1996	3.4	2.4	2.9	3.0	3.8	2.8	3.8	3.8	2.7	3.6	3.3	4.5	5.1

[1] *Excludes stillbirths with an unknown gestation period.*
[2] *Total births comprise live births and stillbirths with 28 or more weeks of gestation.*

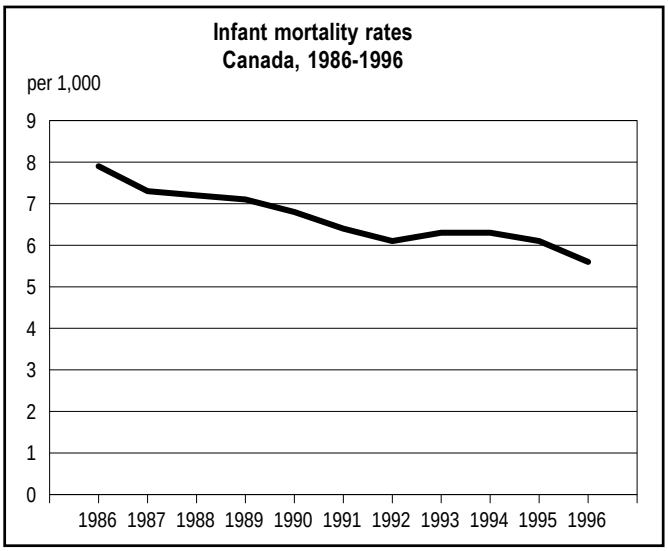


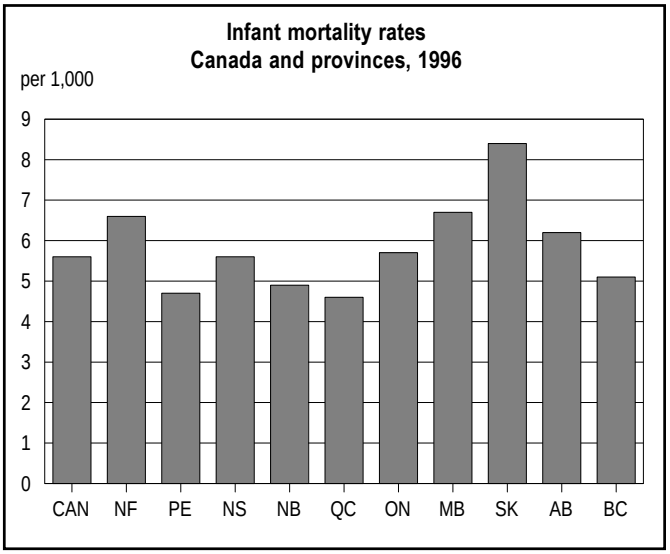


Although stillbirth rates based on a gestation period of 28 or more weeks fluctuated between 1986 and 1996, the overall trend was that of a slow decline: from a peak of 4.3 stillbirths per 1,000 live births in 1987 down to 3.4 stillbirths in 1996. Rates across Canada varied from 2.4 per 1,000 in Newfoundland to 5.1 in the Northwest Territories. (Trends and jurisdictional differences in stillbirth rates at 28 or more weeks' gestation were not affected by reporting variations or changing definitions.)

Table 5.3 Infant deaths and infant mortality rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of infant deaths						
1986	2,938	65	13	104	81	604	969	157	157	393	355	12	28
1987	2,706	59	13	90	67	594	888	142	155	315	359	5	19
1988	2,705	70	14	79	69	563	910	132	140	347	362	3	16
1989	2,795	64	12	73	69	632	985	115	134	325	360	2	24
1990	2,766	70	12	81	71	612	946	138	123	346	344	4	19
1991	2,573	56	13	69	58	578	953	111	126	285	298	6	20
1992	2,431	49	3	71	59	522	886	113	110	304	286	2	26
1993	2,448	50	16	82	65	529	922	118	115	268	264	4	15
1994	2,417	52	11	67	48	506	878	115	125	294	297	1	23
1995	2,321	46	8	52	41	477	870	123	123	274	280	6	21
1996	2,051	38	8	59	40	396	802	104	112	236	237	-	19
							Infant mortality rates (per 1,000 live births)						
1986	7.9	8.0	6.8	8.4	8.3	7.1	7.2	9.2	9.0	9.0	8.5	24.8	18.6
1987	7.3	7.6	6.7	7.4	7.0	7.1	6.6	8.4	9.1	7.5	8.6	10.5	12.5
1988	7.2	9.3	7.1	6.5	7.2	6.5	6.6	7.8	8.4	8.3	8.4	5.8	10.3
1989	7.1	8.2	6.2	5.8	7.1	6.8	6.8	6.6	8.0	7.5	8.2	4.2	16.2
1990	6.8	9.2	6.0	6.3	7.2	6.2	6.3	8.0	7.6	8.0	7.5	7.2	12.0
1991	6.4	7.8	6.9	5.7	6.1	5.9	6.3	6.4	8.2	6.7	6.5	10.6	12.2
1992	6.1	7.1	1.6	6.0	6.3	5.4	5.9	6.8	7.3	7.2	6.2	3.8	16.7
1993	6.3	7.8	9.1	7.1	7.2	5.7	6.2	7.1	8.1	6.7	5.7	7.9	9.6
1994	6.3	8.2	6.4	6.0	5.3	5.6	6.0	7.0	8.9	7.4	6.3	2.3	14.6
1995	6.1	7.9	4.6	4.8	4.8	5.5	5.9	7.6	9.1	7.0	6.0	12.8	13.0
1996	5.6	6.6	4.7	5.6	4.9	4.6	5.7	6.7	8.4	6.2	5.1	-	12.2

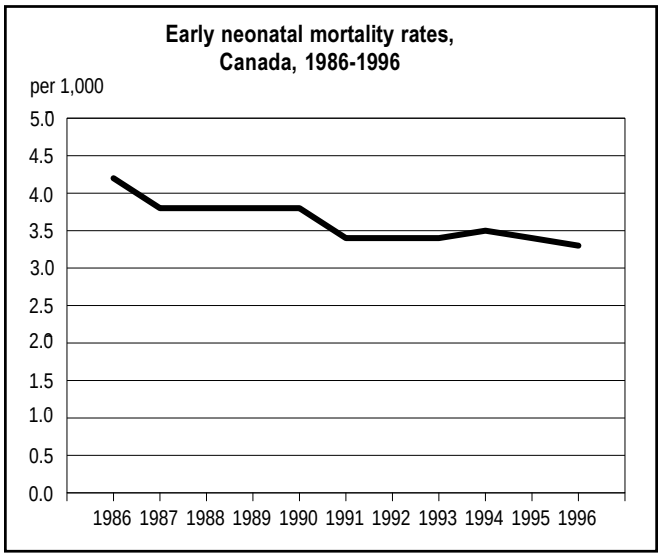


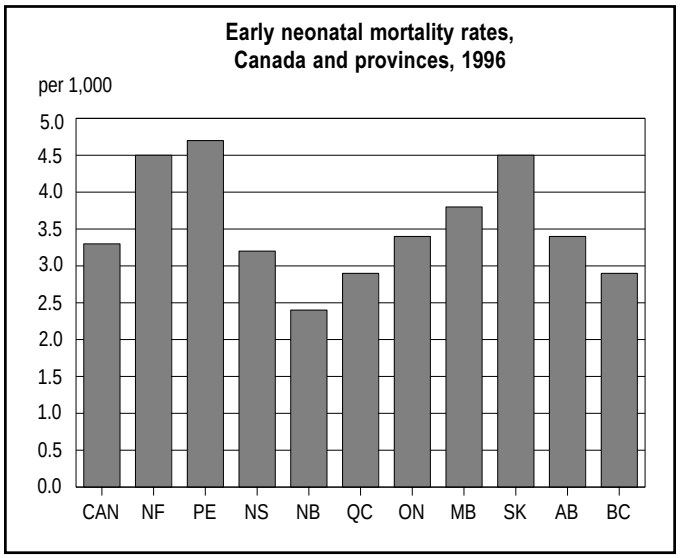


Since 1962, the infant mortality rate (IMR) has dropped every year, barring a slight gain in 1993 which was maintained the following year. In 1996, Canada's IMR fell below 6 infant deaths per 1,000 live births for the first time. That year, provincial IMRs ranged from a low of 4.6 infant deaths per 1,000 live births in Quebec to a high of 8.4 deaths in Saskatchewan. IMRs have been consistently high in the Northwest Territories.

Table 5.4 Early neonatal deaths and early neonatal mortality rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of early neonatal deaths						
1986	1,577	34	6	59	42	379	539	92	73	168	174	5	6
1987	1,403	27	12	48	33	340	482	80	68	144	160	1	8
1988	1,440	40	9	39	33	328	500	68	68	155	192	1	7
1989	1,509	41	6	40	42	364	546	57	64	147	191	1	10
1990	1,530	45	5	42	43	350	553	71	52	168	195	1	5
1991	1,361	30	6	39	19	326	545	60	59	115	148	5	9
1992	1,342	34	-	41	35	293	503	61	47	164	155	1	8
1993	1,332	29	5	51	31	297	534	60	55	135	126	3	6
1994	1,347	27	7	35	28	284	509	61	63	144	180	1	8
1995	1,295	28	6	35	17	275	489	63	60	157	159	1	5
1996	1,204	26	8	34	20	246	483	59	60	128	136	-	4
							Early neonatal mortality rates (per 1,000 live births)						
1986	4.2	4.2	3.1	4.8	4.3	4.5	4.0	5.4	4.2	3.8	4.1	10.4	4.0
1987	3.8	3.5	6.1	4.0	3.4	4.1	3.6	4.7	4.0	3.4	3.8	2.1	5.3
1988	3.8	5.3	4.6	3.2	3.4	3.8	3.6	4.0	4.1	3.7	4.5	1.9	4.5
1989	3.8	5.3	3.1	3.2	4.3	3.9	3.8	3.3	3.8	3.4	4.4	2.1	6.8
1990	3.8	5.9	2.5	3.3	4.4	3.6	3.7	4.1	3.2	3.9	4.3	1.8	3.2
1991	3.4	4.2	3.2	3.2	2.0	3.4	3.6	3.5	3.9	2.7	3.2	8.8	5.5
1992	3.4	4.9	-	3.5	3.7	3.0	3.3	3.7	3.1	3.9	3.4	1.9	5.1
1993	3.4	4.5	2.9	4.4	3.4	3.2	3.6	3.6	3.9	3.4	2.7	5.9	3.8
1994	3.5	4.3	4.1	3.2	3.1	3.1	3.5	3.7	4.5	3.6	3.8	2.3	5.1
1995	3.4	4.8	3.4	3.3	2.0	3.1	3.3	3.9	4.4	4.0	3.4	2.1	3.1
1996	3.3	4.5	4.7	3.2	2.4	2.9	3.4	3.8	4.5	3.4	2.9	-	2.6

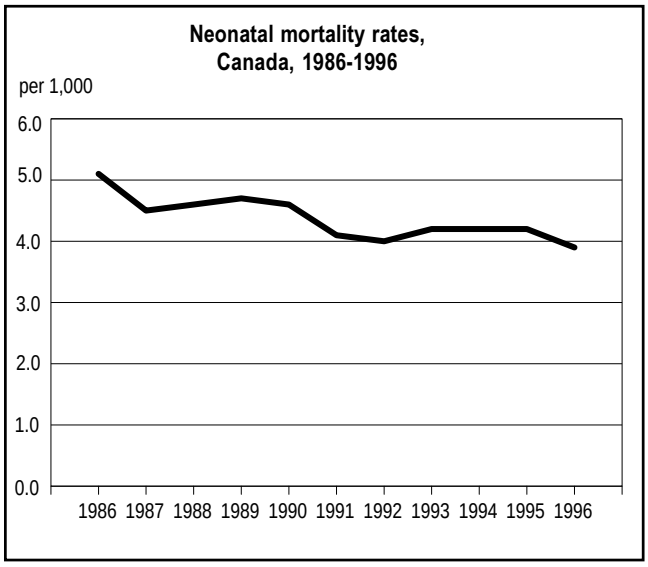


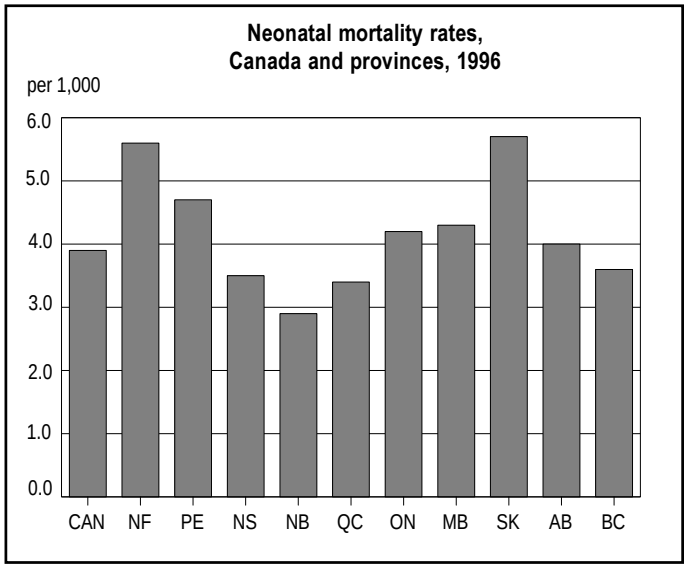


Over half of all infant deaths occur during the first week of life, as a result of perinatal conditions and congenital anomalies. In 1996, the early neonatal mortality rate was down to 3.3 infant deaths per 1,000 live births. Falling early neonatal mortality rates may reflect medical advances in caring for premature babies and improvements in the survival rates of newborns with anomalies. The lowest mortality rates in 1996 were found in New Brunswick and the Northwest Territories (2.4 and 2.6 deaths per 1,000, respectively); the highest rates were in Prince Edward Island, Newfoundland and Saskatchewan (4.5 to 4.7 per 1,000).

Table 5.5 Neonatal deaths and neonatal mortality rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of neonatal deaths						
1986	1,909	43	9	76	56	444	645	105	96	214	205	5	11
1987	1,679	33	12	55	43	399	566	97	87	180	197	1	9
1988	1,719	49	10	51	41	390	594	81	84	189	222	1	7
1989	1,828	50	7	48	50	437	670	64	81	184	222	1	14
1990	1,869	47	8	50	51	430	672	85	68	217	234	1	6
1991	1,638	33	6	46	34	393	651	66	76	146	172	5	10
1992	1,579	39	2	44	44	344	596	70	56	194	178	1	11
1993	1,613	34	9	58	43	354	647	80	68	162	147	3	8
1994	1,634	36	7	45	33	347	618	72	76	188	203	1	8
1995	1,584	34	7	41	21	339	608	81	74	188	183	2	6
1996	1,441	32	8	37	24	290	584	67	76	153	165	-	5
							Neonatal mortality rates (per 1,000 live births)						
1986	5.1	5.3	4.7	6.2	5.7	5.2	4.8	6.2	5.5	4.9	4.9	10.4	7.3
1987	4.5	4.2	6.1	4.5	4.5	4.8	4.2	5.7	5.1	4.3	4.7	2.1	5.9
1988	4.6	6.5	5.1	4.2	4.3	4.5	4.3	4.8	5.0	4.5	5.2	1.9	4.5
1989	4.7	6.4	3.6	3.8	5.2	4.7	4.6	3.7	4.9	4.2	5.1	2.1	9.5
1990	4.6	6.2	4.0	3.9	5.2	4.4	4.5	4.9	4.2	5.0	5.1	1.8	3.8
1991	4.1	4.6	3.2	3.8	3.6	4.0	4.3	3.8	5.0	3.4	3.8	8.8	6.1
1992	4.0	5.6	1.1	3.7	4.7	3.6	4.0	4.2	3.7	4.6	3.9	1.9	7.1
1993	4.2	5.3	5.1	5.0	4.8	3.8	4.4	4.8	4.8	4.0	3.2	5.9	5.1
1994	4.2	5.7	4.1	4.1	3.7	3.8	4.2	4.4	5.4	4.7	4.3	2.3	5.1
1995	4.2	5.8	4.0	3.8	2.5	3.9	4.2	5.0	5.5	4.8	3.9	4.3	3.7
1996	3.9	5.6	4.7	3.5	2.9	3.4	4.2	4.3	5.7	4.0	3.6	-	3.2

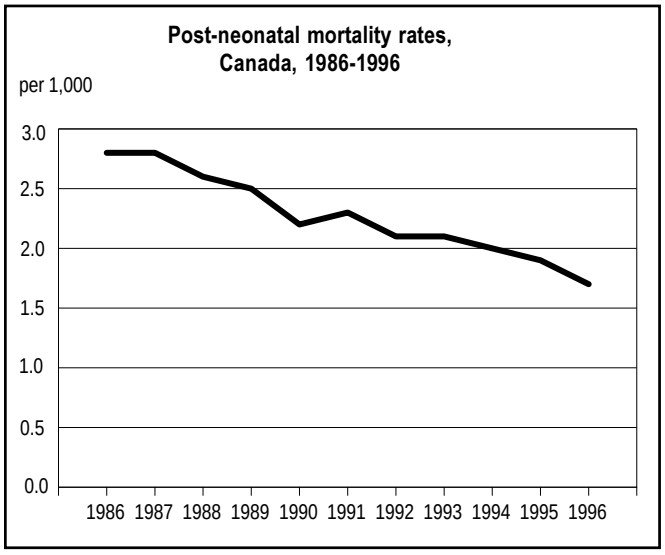


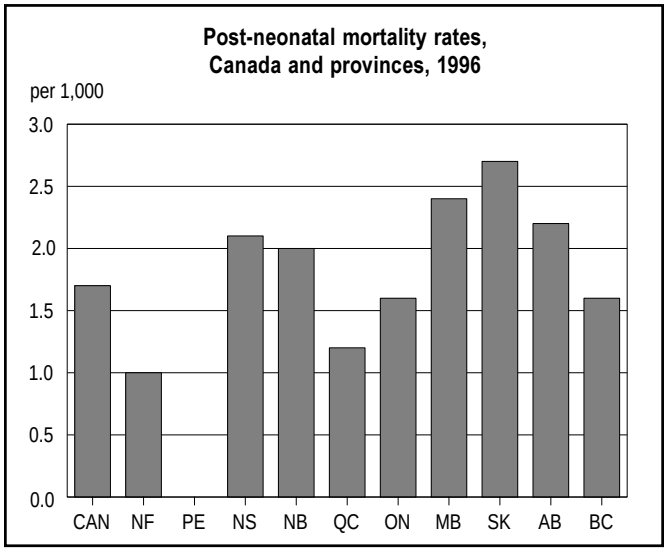


The trends observed in neonatal mortality rates over time and across the provinces and territories resemble those for early neonatal mortality rates (Table 5.4). In 1996, 84% of neonatal deaths occurred within the first week of life (data not shown).

Table 5.6 Post-neonatal deaths and post-neonatal mortality rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of post-neonatal deaths						
1986	1,029	22	4	28	25	160	324	52	61	179	150	7	17
1987	1,027	26	1	35	24	195	322	45	68	135	162	4	10
1988	986	21	4	28	28	173	316	51	56	158	140	2	9
1989	967	14	5	25	19	195	315	51	53	141	138	1	10
1990	897	23	4	31	20	182	274	53	55	129	110	3	13
1991	935	23	7	23	24	185	302	45	50	139	126	1	10
1992	852	10	1	27	15	178	290	43	54	110	108	1	15
1993	835	16	7	24	22	175	275	38	47	106	117	1	7
1994	783	16	4	22	15	159	260	43	49	106	94	-	15
1995	737	12	1	11	20	138	262	42	49	86	97	4	15
1996	610	6	-	22	16	106	218	37	36	83	72	-	14
							Post-neonatal mortality rates (per 1,000 live births)						
1986	2.8	2.7	2.1	2.3	2.6	1.9	2.4	3.1	3.5	4.1	3.6	14.5	11.3
1987	2.8	3.3	0.5	2.9	2.5	2.3	2.4	2.7	4.0	3.2	3.9	8.4	6.6
1988	2.6	2.8	2.0	2.3	2.9	2.0	2.3	3.0	3.3	3.8	3.3	3.8	5.8
1989	2.5	1.8	2.6	2.0	2.0	2.1	2.2	2.9	3.2	3.3	3.2	2.1	6.8
1990	2.2	3.0	2.0	2.4	2.0	1.9	1.8	3.1	3.4	3.0	2.4	5.4	8.2
1991	2.3	3.2	3.7	1.9	2.5	1.9	2.0	2.6	3.3	3.2	2.8	1.8	6.1
1992	2.1	1.4	0.5	2.3	1.6	1.9	1.9	2.6	3.6	2.6	2.3	1.9	9.7
1993	2.1	2.5	4.0	2.1	2.4	1.9	1.9	2.3	3.3	2.6	2.5	2.0	4.5
1994	2.0	2.5	2.3	2.0	1.7	1.8	1.8	2.6	3.5	2.7	2.0	-	9.5
1995	1.9	2.0	0.6	1.0	2.3	1.6	1.8	2.6	3.6	2.2	2.1	8.5	9.3
1996	1.7	1.0	-	2.1	2.0	1.2	1.6	2.4	2.7	2.2	1.6	-	9.0

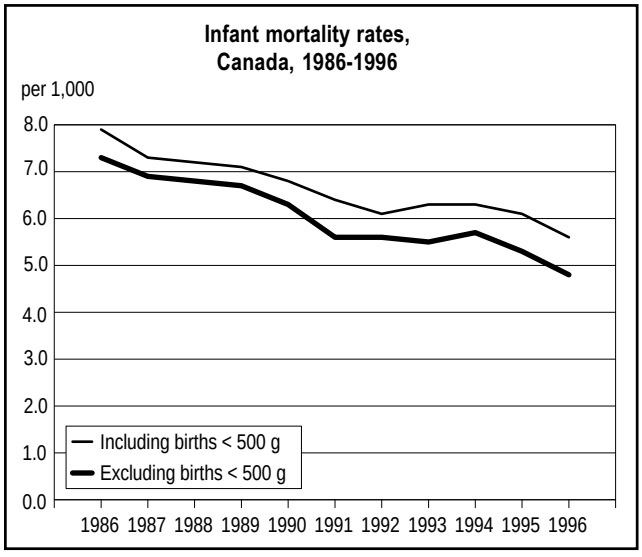


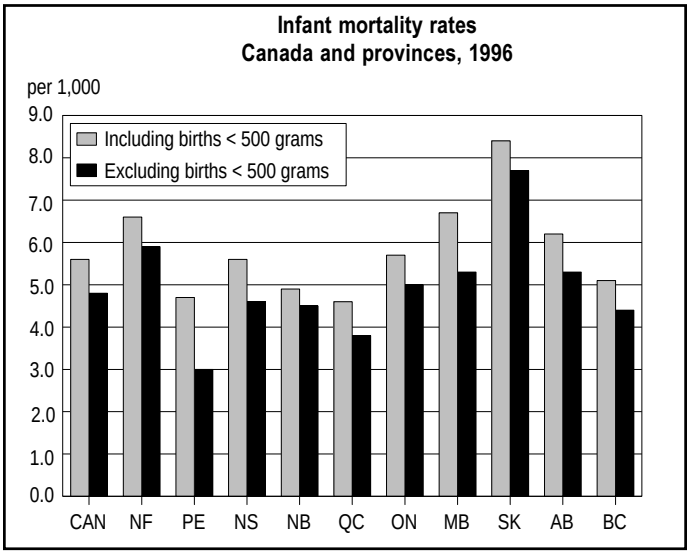


Between 1986 and 1996, the post-neonatal death rate fell from 2.8 per 1,000 live births to 1.7. With the near-disappearance of infant deaths due to infectious diseases, SIDS (sudden infant death syndrome), congenital anomalies, perinatal conditions and injuries were the leading causes of death in the post-neonatal period. Death rates in 1996 were relatively low in Newfoundland and Quebec, but high in the Northwest Territories (over five times the national average).

Table 5.7 Infant deaths and infant mortality rates (excluding births under 500 grams), Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
						Number of infant deaths (excluding births under 500 grams)							
1986	2,718	65	13	90	77	557	908	145	149	356	320	11	27
1987	2,536	59	12	78	61	557	820	129	148	312	336	5	19
1988	2,549	70	12	72	66	537	857	117	132	343	325	3	15
1989	2,647	64	12	67	64	597	932	106	122	325	333	2	23
1990	2,537	70	12	74	62	549	894	126	111	304	315	3	17
1991	2,245	49	12	61	53	513	778	100	117	257	281	5	19
1992	2,229	46	3	64	52	481	820	97	105	275	258	2	26
1993	2,126	44	16	67	62	483	759	100	100	235	242	3	15
1994	2,196	47	11	57	44	470	808	90	117	252	277	-	23
1995	1,988	43	8	40	35	421	724	102	113	229	247	5	21
1996	1,758	34	5	49	37	327	700	82	102	200	204	-	18
						Infant mortality rates (per 1,000 live births)							
1986	7.3	8.0	6.8	7.3	7.9	6.6	6.8	8.5	8.5	8.1	7.6	22.8	18.0
1987	6.9	7.6	6.1	6.5	6.4	6.7	6.1	7.6	8.7	7.4	8.0	10.5	12.5
1988	6.8	9.3	6.1	5.9	6.9	6.2	6.2	6.9	7.9	8.2	7.6	5.8	9.7
1989	6.7	8.2	6.2	5.3	6.6	6.5	6.4	6.1	7.3	7.5	7.6	4.2	15.6
1990	6.3	9.2	6.0	5.8	6.3	5.6	5.9	7.3	6.9	7.1	6.9	5.4	10.8
1991	5.6	6.8	6.4	5.1	5.6	5.3	5.1	5.8	7.6	6.0	6.2	8.8	11.6
1992	5.6	6.7	1.6	5.4	5.5	5.0	5.4	5.9	7.0	6.5	5.6	3.8	16.7
1993	5.5	6.9	9.1	5.8	6.9	5.2	5.1	6.0	7.0	5.8	5.3	5.9	9.6
1994	5.7	7.4	6.4	5.1	4.9	5.2	5.5	5.5	8.3	6.3	5.9	0.0	14.6
1995	5.3	7.3	4.6	3.7	4.1	4.8	5.0	6.3	8.4	5.9	5.3	10.7	13.0
1996	4.8	5.9	3.0	4.6	4.5	3.8	5.0	5.3	7.7	5.3	4.4	0.0	11.5



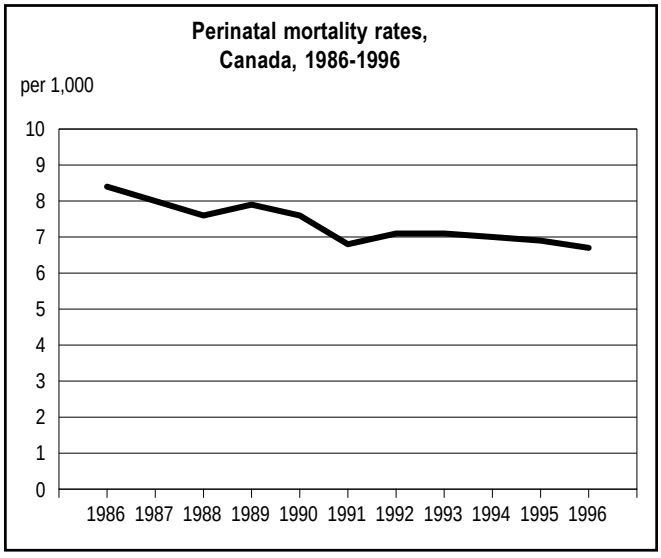


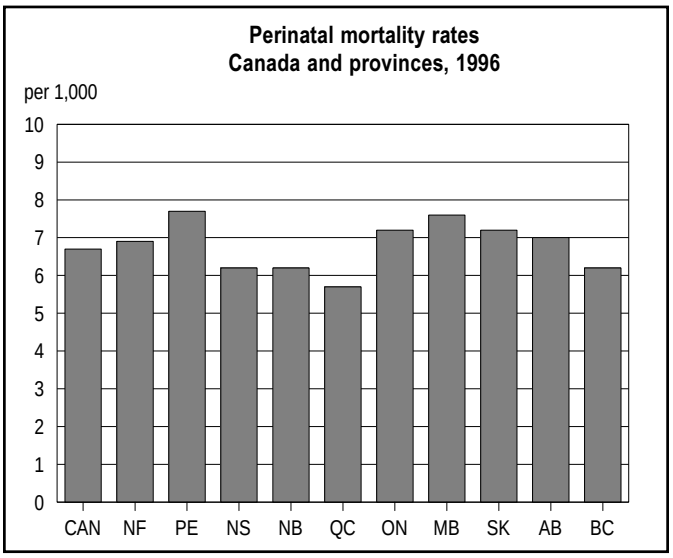
Because of possible provincial and territorial differences in the registration of live births of extremely low birthweight (under 500 grams) in earlier years, and the significantly reduced chances of survival of such infants, they may be excluded from the calculation of infant mortality rates (shown in Table 5.3) to allow for better comparisons over time and across jurisdictions. Although their exclusion reduces the infant mortality rate by an amount ranging from 0.4 to 0.8 deaths per 1,000 live births, the 1986-1996 trend is maintained, as are interprovincial differences.

Table 5.8 Perinatal deaths and perinatal mortality rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of perinatal deaths[1]						
1986	3,151	74	14	123	99	678	1,133	154	143	346	359	7	21
1987	2,987	57	20	118	70	684	1,091	154	135	319	318	2	19
1988	2,875	65	20	81	68	593	1,090	131	130	318	356	3	20
1989	3,102	74	11	116	74	686	1,180	131	129	316	355	2	28
1990	3,089	80	12	99	90	655	1,168	147	114	343	363	2	16
1991	2,757	63	18	78	54	657	1,020	128	123	282	308	6	20
1992	2,854	58	11	100	77	584	1,126	126	106	329	321	3	13
1993	2,751	56	9	97	69	595	1,109	138	115	292	253	6	12
1994	2,718	49	16	78	65	540	1,067	123	126	300	331	2	21
1995	2,618	49	16	70	45	520	1,047	125	117	303	309	4	13
1996	2,450	40	13	66	51	486	1,014	118	96	265	287	2	12
							Perinatal mortality rates (per 1,000 total births[2])						
1986	8.4	9.1	7.2	9.9	10.1	8.0	8.4	9.0	8.1	7.9	8.5	14.4	13.8
1987	8.0	7.3	10.2	9.7	7.3	8.1	8.1	9.0	7.9	7.5	7.6	4.2	12.4
1988	7.6	8.7	10.1	6.6	7.0	6.8	7.9	7.7	7.7	7.5	8.3	5.7	12.8
1989	7.9	9.5	5.7	9.2	7.6	7.4	8.1	7.5	7.7	7.3	8.1	4.2	18.7
1990	7.6	10.5	5.9	7.7	9.1	6.7	7.7	8.4	7.1	7.9	7.9	3.6	10.1
1991	6.8	8.8	9.5	6.5	5.7	6.7	6.7	7.4	8.0	6.6	6.7	10.5	12.2
1992	7.1	8.4	5.9	8.4	8.2	6.1	7.4	7.6	7.0	7.8	6.9	5.6	8.3
1993	7.1	8.7	5.1	8.4	7.6	6.4	7.5	8.2	8.0	7.2	5.5	11.7	7.7
1994	7.0	7.7	9.3	7.0	7.2	5.9	7.2	7.4	8.9	7.5	7.0	4.5	13.2
1995	6.9	8.3	9.1	6.5	5.2	5.9	7.1	7.7	8.6	7.8	6.6	8.5	8.0
1996	6.7	6.9	7.7	6.2	6.2	5.7	7.2	7.6	7.2	7.0	6.2	4.5	7.6

[1] *Excludes stillbirths with a gestation period under 28 weeks or an unknown gestation period.*
[2] *Total births comprise live births and stillbirths with 28 or more weeks of gestation.*





Perinatal mortality comprises stillbirths with 28 or more weeks of gestation and early neonatal deaths. The downward trend observed here reflects similar trends in Tables 5.2 and 5.4. In 1996, stillbirths accounted for 51% of perinatal deaths, and early neonatal mortality, 49%.

Table 5.9 Selected causes of infant deaths and stillbirths, Canada, 1996

	Infant deaths		Infant deaths by age			Stillbirths[1]	
	Number	Mortality rates[2]	0-6 days (early neonatal)	7-27 days (late neonatal)	28-364 days (post-neonatal)	Number	Mortality rates[3]
Total	**2051**	**5.60**	**1,204**	**237**	**610**	**1,246**	**3.39**
Perinatal conditions (ICD-9: 760-779.8)	943	2.58	797	98	48	830	2.26
Congenital anomalies (740-759)	575	1.57	331	103	141	99	0.27
SIDS (798.0)	166	0.45	3	6	157	..	..
Injuries (E800-E999)	47	0.13	1	4	42	-	-
All other specified causes	228	0.62	44	18	166	7	0.02
Unspecified causes, perinatal (779.9)	5	0.01	4	1	-	310	0.84
Unknown and other unspecified causes (799.9)	87	0.24	24	7	56	-	-

[1] *Stillbirths with 28 or more weeks of gestation; excludes stillbirths with unknown gestation.*
[2] *Per 1,000 live births.*
[3] *Per 1,000 total births.*

The leading causes of infant death vary within the first year of life. In 1996, the cause of death was specified in 1,176 out of 1,204 early neonatal cases (infant deaths at 0 to 6 days of age). Most (68%) of these specified deaths were due to perinatal conditions. Perinatal conditions include respiratory distress syndrome and other respiratory conditions, disorders related to short gestation and low birthweight, complications of placenta, cord and membranes, and birth asphyxia. Congenital anomalies accounted for almost all of the remaining early neonatal deaths.

Among infants aged 7 to 27 days (the late neonatal period), congenital anomalies were the most frequent cause of death; these most often involved the heart and circulatory systems. Perinatal conditions, such as infections, were a close second leading cause of death in this age range.

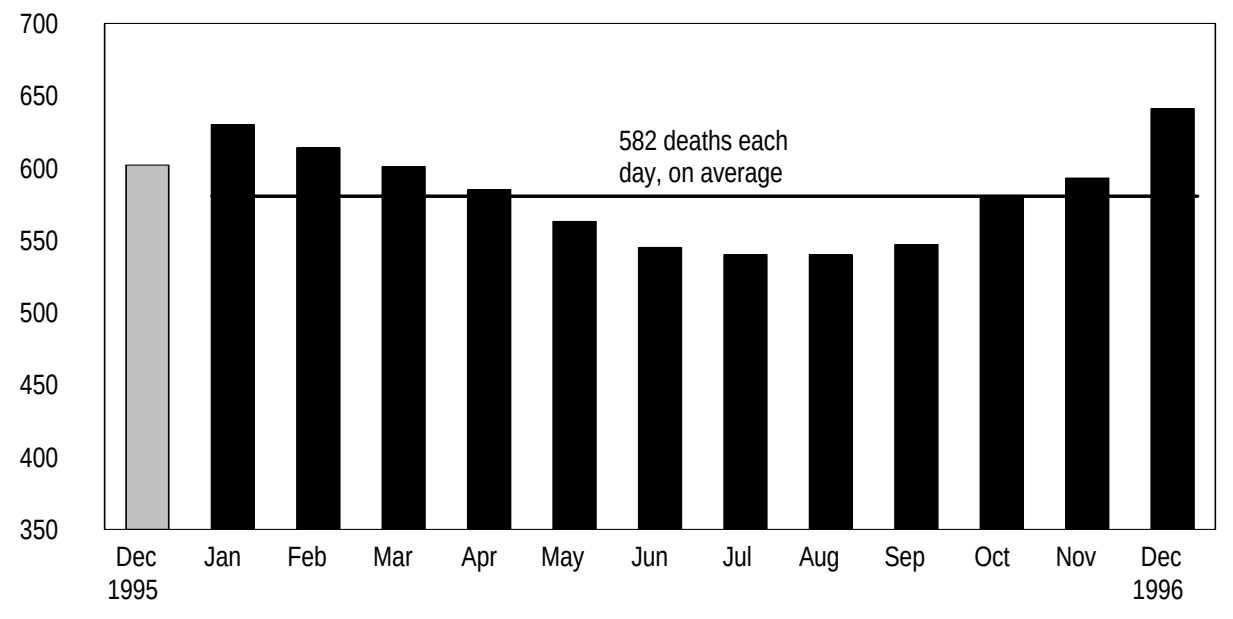
Among infants aged 28 to 364 days (the post-neonatal period), sudden infant death syndrome (SIDS) emerges as the leading cause of death, accounting for 28% of the 554 cause-specified post-neonatal deaths reported in 1996. Another 25% of specified post-neonatal deaths were attributed to congenital anomalies. In 8% of cases, death was due to fatal injuries.

Most (89%) of the 936 cause-specified stillbirths were associated with perinatal conditions. A substantial share of stillbirths of 28 or more weeks' gestation was attributed to unspecified perinatal causes (25% of 1,246 stillbirths in 1996).

Only one infant died of AIDS in 1996, compared with five the previous year.

6. Total mortality

Average daily number of deaths each month in Canada in 1996



In 1996, 582 Canadians died each day, on average. The number of deaths fluctuated with the seasons, however. People were somewhat more likely to die during the winter months (612 persons died each day, on average, between December 1, 1995 and March 31, 1996) than in the summer (543 daily deaths between June 1, and September 30, 1996).

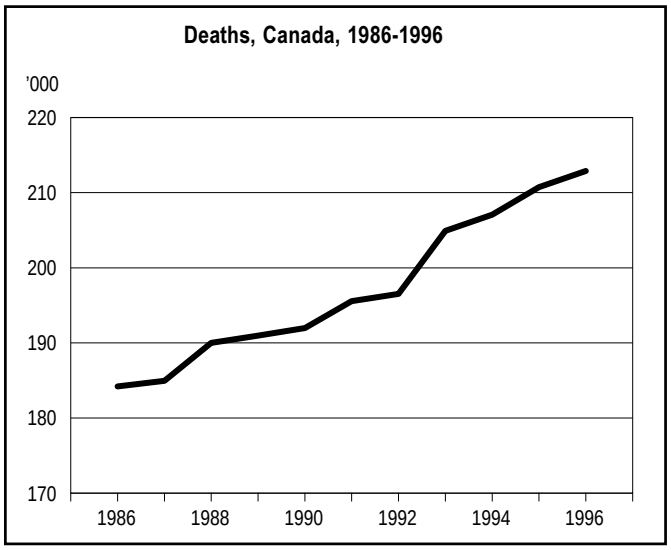
It has been shown that during the winter season, the number of deaths in Canada usually peaks in January (Trudeau, 1997). Exposure to sources of infection may be more common in the winter, when people spend more time indoors in close contact with others. More specifically, the winter rise in mortality has been attributed, in part, to the increased prevalence of influenza, pneumonia and other lung diseases at this time of year, which may directly cause death or trigger death through other means (e.g. heart failure).

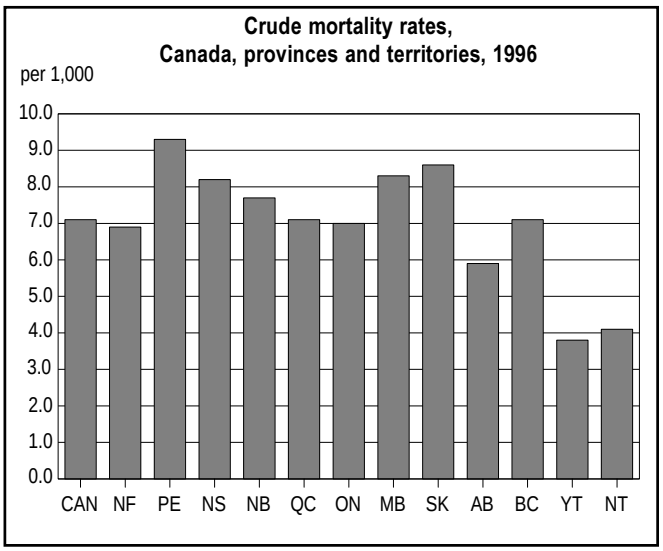
In addition to seasonal fluctuations, the number of decedents varied slightly with the days of the week: in 1996, the average daily number of deaths ranged from 575 on Thursdays to 587 on Saturdays (data not shown).

Table 6.1 Deaths and crude mortality rates, Canada, provinces and territories, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of deaths						
1986	184,224	3,540	1,121	7,255	5,458	46,892	67,865	8,911	8,061	13,560	21,213	113	235
1987[1]	184,953	3,629	1,115	7,112	5,408	47,616	68,119	8,710	7,808	13,316	21,814	108	197
1988	190,011	3,591	1,112	7,412	5,450	47,771	70,679	9,100	8,100	13,894	22,546	136	220
1989	190,965	3,718	1,089	7,516	5,496	48,305	70,907	8,819	7,920	13,854	22,997	95	249
1990	191,973	3,884	1,143	7,388	5,426	48,420	70,818	8,863	8,044	14,068	23,577	115	227
1991[1]	195,569	3,798	1,188	7,255	5,469	49,121	72,917	8,943	8,098	14,451	23,977	114	237
1992	196,535	3,798	1,114	7,544	5,609	48,824	73,206	8,980	7,793	14,679	24,615	117	256
1993	204,912	3,890	1,145	7,559	5,806	51,711	75,853	9,299	8,164	15,338	25,764	123	260
1994	207,077	4,050	1,114	7,770	5,917	51,366	77,487	9,148	8,308	15,613	25,939	124	241
1995	210,733	3,935	1,153	7,687	5,938	52,734	78,479	9,658	8,495	15,895	26,375	157	227
1996[1]	212,880	3,928	1,268	7,751	5,896	52,336	79,099	9,497	8,765	16,391	27,536	120	272
							Crude mortality rates (number of deaths per 1,000 population)						
1986	7.0	6.1	8.7	8.1	7.5	7.0	7.2	8.1	7.8	5.6	7.0	4.6	4.2
1987	7.0	6.3	8.6	7.9	7.4	7.0	7.0	7.9	7.5	5.4	7.1	4.2	3.5
1988	7.1	6.2	8.6	8.2	7.4	7.0	7.2	8.2	7.9	5.6	7.2	5.1	3.9
1989	7.0	6.4	8.3	8.3	7.4	7.0	7.0	8.0	7.7	5.5	7.2	3.5	4.3
1990	6.9	6.7	8.7	8.1	7.3	6.9	6.8	8.0	8.0	5.5	7.1	4.1	3.8
1991	7.0	6.5	9.1	7.9	7.3	6.9	7.0	8.0	8.0	5.6	7.1	3.9	3.9
1992	6.9	6.5	8.5	8.2	7.4	6.8	6.9	8.0	7.7	5.5	7.1	3.9	4.1
1993	7.1	6.7	8.6	8.1	7.7	7.1	7.0	8.3	8.1	5.7	7.2	4.0	4.1
1994	7.1	7.0	8.3	8.3	7.8	7.0	7.1	8.1	8.2	5.7	7.1	4.2	3.7
1995	7.1	6.8	8.5	8.2	7.8	7.2	7.1	8.5	8.4	5.8	7.0	5.2	3.4
1996	7.1	6.9	9.3	8.2	7.7	7.1	7.0	8.3	8.6	5.9	7.1	3.8	4.1

[1] *The national total includes residents of Canada who died in Canada or the United States and for whom the province of residence was unknown.*





The annual number of deaths usually rises every year, because of growth in both the total population and the number of elderly persons. The increase was particularly important in 1993 (up 4%), following a flu epidemic among the elderly; in comparison, mortality rose only 1% in 1996, because of gains in life expectancy, particularly among men (Table 6.4). In 1996, crude mortality rates were highest in Prince Edward Island, Saskatchewan, Manitoba and Nova Scotia, and lowest in Yukon and the Northwest Territories (reflecting the youth of the population in these two northern regions).

Table 6.2 Male deaths and mortality rates by age, Canada, provinces and territories, 1996[1]

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of deaths[2]						
All ages	**111,404**	**2,164**	**678**	**4,007**	**3,125**	**27,407**	**40,673**	**4,809**	**4,701**	**8,796**	**14,763**	**88**	**175**
<1	1,155	20	3	30	23	221	461	62	56	137	133	-	9
1-4	257	2	1	7	5	56	95	16	15	27	28	-	5
5-9	158	4	-	12	2	45	43	9	9	13	18	-	3
10-14	206	3	-	6	7	51	69	13	12	18	26	1	-
15-19	730	9	6	17	18	241	193	34	28	92	85	2	5
20-24	1,034	23	2	27	37	262	285	47	47	130	160	2	12
25-29	1,112	28	2	36	18	290	340	44	45	107	185	2	14
30-34	1,641	23	4	49	38	400	535	56	58	165	303	1	8
35-39	2,104	26	11	67	46	567	718	68	53	206	328	3	11
40-44	2,564	52	16	80	61	691	867	80	88	239	379	4	7
45-49	3,210	62	17	99	90	841	1,100	103	102	296	488	7	5
50-54	4,141	91	25	163	102	1,143	1,441	159	111	327	560	9	9
55-59	5,412	98	30	172	148	1,500	1,967	207	187	430	655	3	15
60-64	8,158	150	51	319	220	2,195	2,979	304	269	668	985	5	12
65-69	12,237	236	68	409	334	3,303	4,593	473	409	920	1,456	13	18
70-74	15,935	314	93	550	443	4,188	6,119	589	585	1,123	1,908	11	9
75-79	16,416	358	102	634	525	3,927	6,054	763	723	1,193	2,118	7	9
80-84	16,344	362	106	652	450	3,699	6,031	786	772	1,211	2,253	8	11
85-89	11,333	201	91	403	357	2,380	4,171	563	634	887	1,627	8	11
90+	7,254	101	49	275	201	1,407	2,611	433	498	607	1,068	2	2
Unknown	3	1	1	-	-	-	1	-	-	-	-	-	-
							Age-specific mortality rates (deaths per 1,000 males)						
All ages	**7.5**	**7.6**	**10.0**	**8.6**	**8.3**	**7.5**	**7.3**	**8.5**	**9.3**	**6.3**	**7.7**	**5.5**	**5.0**
<1	6.1	6.7	3.4	5.5	5.5	5.1	6.4	7.8	8.1	7.0	5.6	-	11.1
1-4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.3	0.3	-	1.7
5-9	0.2	0.2	-	0.4	0.1	0.2	0.1	0.2	0.2	0.1	0.1	-	0.7
10-14	0.2	0.1	-	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.8	-
15-19	0.7	0.4	1.2	0.5	0.7	0.9	0.5	0.9	0.7	0.9	0.7	1.8	1.9
20-24	1.0	0.9	0.4	0.8	1.3	1.1	0.7	1.1	1.3	1.3	1.2	1.9	4.4
25-29	1.0	1.2	0.4	1.0	0.6	1.1	0.8	1.1	1.4	1.0	1.3	1.7	4.3
30-34	1.2	1.0	0.7	1.2	1.2	1.2	1.0	1.2	1.5	1.3	1.8	0.6	2.3
35-39	1.6	1.1	2.0	1.6	1.4	1.7	1.4	1.4	1.3	1.5	1.9	1.9	3.7
40-44	2.2	2.2	3.2	2.2	2.0	2.3	2.0	1.9	2.3	2.0	2.4	2.6	2.9
45-49	3.0	2.9	3.5	2.8	3.1	3.0	2.7	2.7	3.2	3.0	3.3	5.2	2.3
50-54	4.9	5.5	6.7	6.0	4.8	5.1	4.7	5.4	4.6	4.6	5.1	8.6	6.8
55-59	8.2	7.8	10.0	8.1	8.9	8.7	7.9	8.8	9.1	7.7	7.6	5.1	16.0
60-64	13.7	14.2	19.0	16.9	15.0	14.5	13.1	13.8	13.3	13.6	12.4	11.4	17.5
65-69	22.8	25.8	28.2	25.4	25.8	24.8	22.2	23.5	21.1	21.5	20.1	30.7	37.7
70-74	36.7	42.1	45.2	40.6	39.2	40.1	36.7	33.3	34.3	34.0	31.8	49.8	38.3
75-79	56.7	65.8	68.5	60.9	64.3	59.8	56.2	58.3	55.2	53.3	50.9	64.2	77.6
80-84	93.5	114.2	114.6	102.9	91.7	97.8	94.1	91.2	86.3	90.2	85.5	333.3	102.8
85-89	146.0	151.5	193.6	140.0	164.7	143.4	149.3	138.5	143.3	143.7	141.4	727.3	180.3
90+	227.3	220.0	251.3	253.2	228.1	208.8	233.5	256.8	248.0	206.0	226.8	222.2	125.0

[1] *Charts and highlights are on page 52.*

[2] *The Canada total for some age groups includes males for whom the province or territory of death was unknown.*

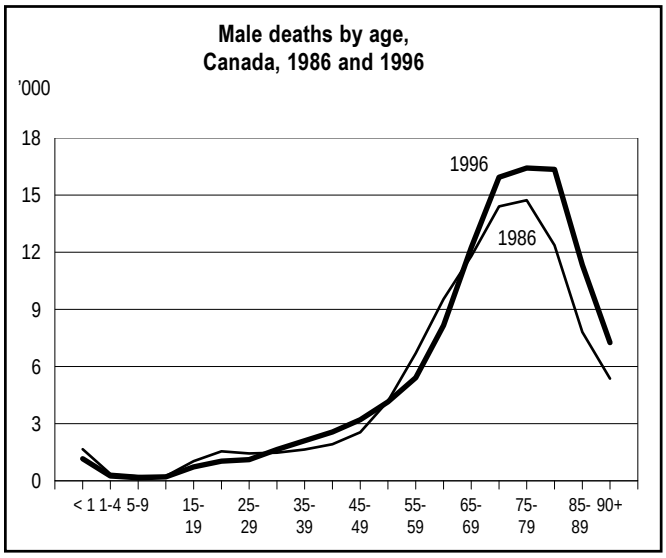
Table 6.3 Female deaths and mortality rates by age, Canada, provinces and territories, 1996[1]

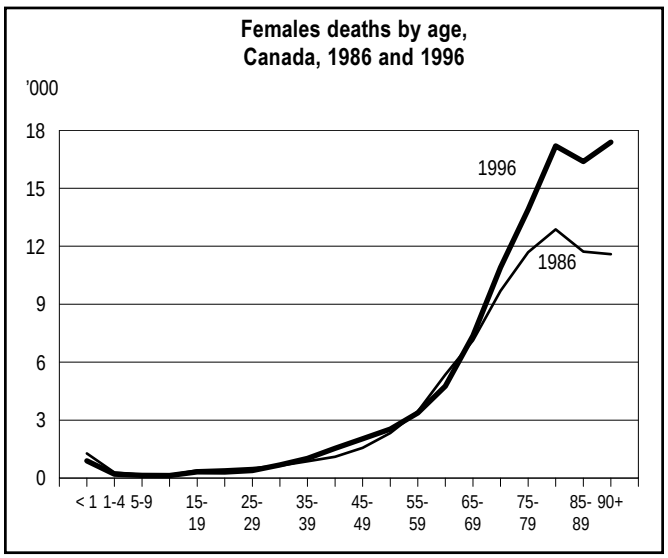
	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Number of deaths[2]						
All ages	**101,476**	**1,764**	**590**	**3,744**	**2,771**	**24,929**	**38,426**	**4,688**	**4,064**	**7,595**	**12,773**	**32**	**97**
<1	896	18	5	29	17	175	341	42	56	99	104	-	10
1-4	204	4	-	4	6	48	74	16	11	17	21	-	3
5-9	139	6	-	4	5	31	46	10	11	8	17	-	1
10-14	133	3	1	3	2	35	43	7	6	12	20	-	1
15-19	319	3	-	10	11	84	86	7	13	49	51	3	2
20-24	318	4	4	15	8	74	105	10	17	35	45	-	1
25-29	393	2	-	14	11	94	134	23	12	39	60	-	4
30-34	682	18	1	18	5	173	236	29	21	74	101	1	5
35-39	1,016	18	2	38	20	276	356	39	39	115	110	1	2
40-44	1,542	24	5	53	39	425	504	52	56	170	209	2	3
45-49	2,034	42	8	61	47	582	731	76	66	174	244	1	2
50-54	2,532	53	13	85	53	708	906	90	81	237	298	3	5
55-59	3,371	63	20	117	96	845	1,300	137	86	296	402	3	6
60-64	4,757	96	21	158	148	1,258	1,807	197	163	365	534	2	8
65-69	7,375	124	27	283	199	1,962	2,772	305	239	557	899	2	5
70-74	10,896	187	64	374	299	2,821	4,242	458	364	790	1,284	5	7
75-79	13,904	261	73	495	382	3,481	5,245	637	548	937	1,833	2	9
80-84	17,187	337	106	678	497	4,141	6,478	842	675	1,179	2,242	4	8
85-89	16,387	258	125	585	436	3,942	6,244	769	722	1,186	2,109	1	10
90+	17,390	243	115	720	490	3,774	6,775	942	878	1,256	2,190	2	5
Unknown	1	-	-	-	-	-	1	-	-	-	-	-	-
							Age-specific mortality rates (deaths per 1,000 females)						
All ages	**6.7**	**6.2**	**8.5**	**7.8**	**7.2**	**6.7**	**6.7**	**8.2**	**7.9**	**5.5**	**6.6**	**2.1**	**3.0**
<1	5.0	6.5	6.1	5.6	4.3	4.2	5.0	5.5	8.7	5.4	4.7	-	13.4
1-4	0.3	0.3	-	0.2	0.3	0.3	0.3	0.5	0.4	0.2	0.2	-	1.1
5-9	0.1	0.3	-	0.1	0.2	0.1	0.1	0.2	0.3	0.1	0.1	-	0.3
10-14	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	-	0.3
15-19	0.3	0.1	-	0.3	0.4	0.3	0.2	0.2	0.4	0.5	0.4	2.8	0.7
20-24	0.3	0.2	0.8	0.5	0.3	0.3	0.3	0.3	0.5	0.4	0.3	-	0.4
25-29	0.4	0.1	-	0.4	0.4	0.4	0.3	0.6	0.4	0.4	0.4	-	1.3
30-34	0.5	0.8	0.2	0.5	0.2	0.5	0.5	0.6	0.5	0.6	0.6	0.6	1.5
35-39	0.8	0.7	0.4	0.9	0.6	0.8	0.7	0.8	1.0	0.9	0.6	0.6	0.7
40-44	1.3	1.0	1.0	1.4	1.3	1.4	1.1	1.2	1.5	1.5	1.3	1.4	1.4
45-49	1.9	2.0	1.7	1.8	1.7	2.1	1.8	2.0	2.2	1.9	1.7	0.7	1.2
50-54	3.0	3.3	3.6	3.2	2.6	3.1	2.9	3.1	3.4	3.5	2.8	3.9	4.9
55-59	5.0	5.3	6.7	5.5	5.8	4.7	5.1	5.7	4.1	5.5	4.7	8.0	7.9
60-64	7.7	9.3	7.4	8.1	9.7	7.7	7.6	8.8	8.0	7.5	7.0	5.5	12.1
65-69	12.4	12.9	10.7	15.3	13.4	12.5	12.2	13.5	11.6	12.5	12.0	7.5	10.7
70-74	19.9	22.1	27.1	21.7	21.0	20.3	20.0	20.3	18.2	20.1	17.9	25.9	29.7
75-79	33.5	37.1	33.9	33.1	33.8	33.8	34.1	34.6	31.2	30.9	32.4	17.1	63.4
80-84	58.7	69.8	62.6	63.2	61.8	58.4	60.5	60.0	49.9	55.2	55.3	72.7	108.1
85-89	101.3	104.4	135.7	101.3	93.5	99.9	104.1	100.5	93.5	102.0	98.0	37.0	322.6
90+	197.3	204.5	200.0	210.3	200.1	184.0	202.6	202.0	203.6	195.2	198.0	95.2	119.0

[1] *Charts and highlights are on page 52.*
[2] *The Canada total for some age groups includes females for whom the province or territory of death was unknown.*

Charts and highlights for Tables 6.2 and 6.3

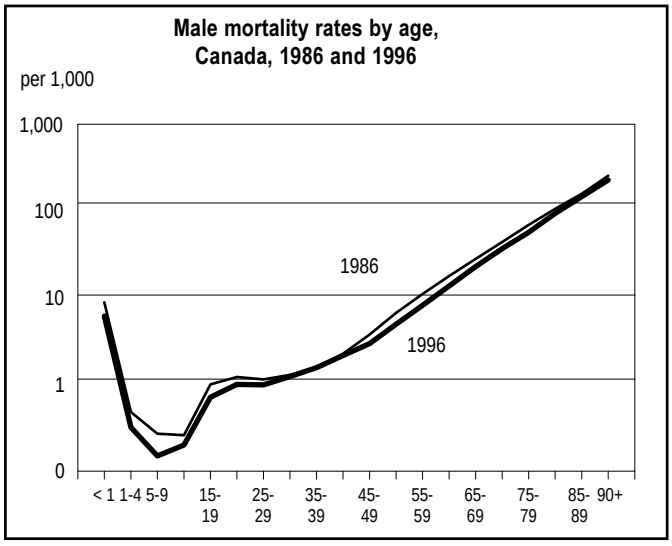
Male and female deaths and mortality rates by age, Canada, provinces and territories, 1996

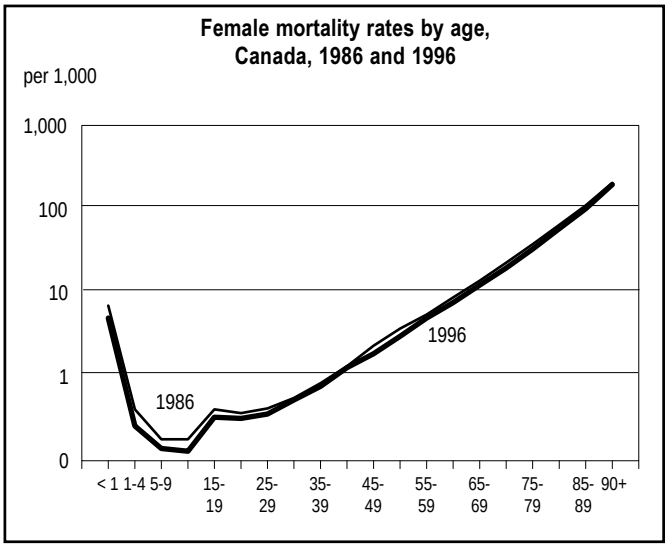




In 1996, half of the women who died were in their eighties or older, compared with one-third of the men.

Among both sexes, the number of deaths rose substantially between 1986 and 1996, reflecting the aging of the Canadian population and the increasing number of persons living in Canada generally (due to immigration).



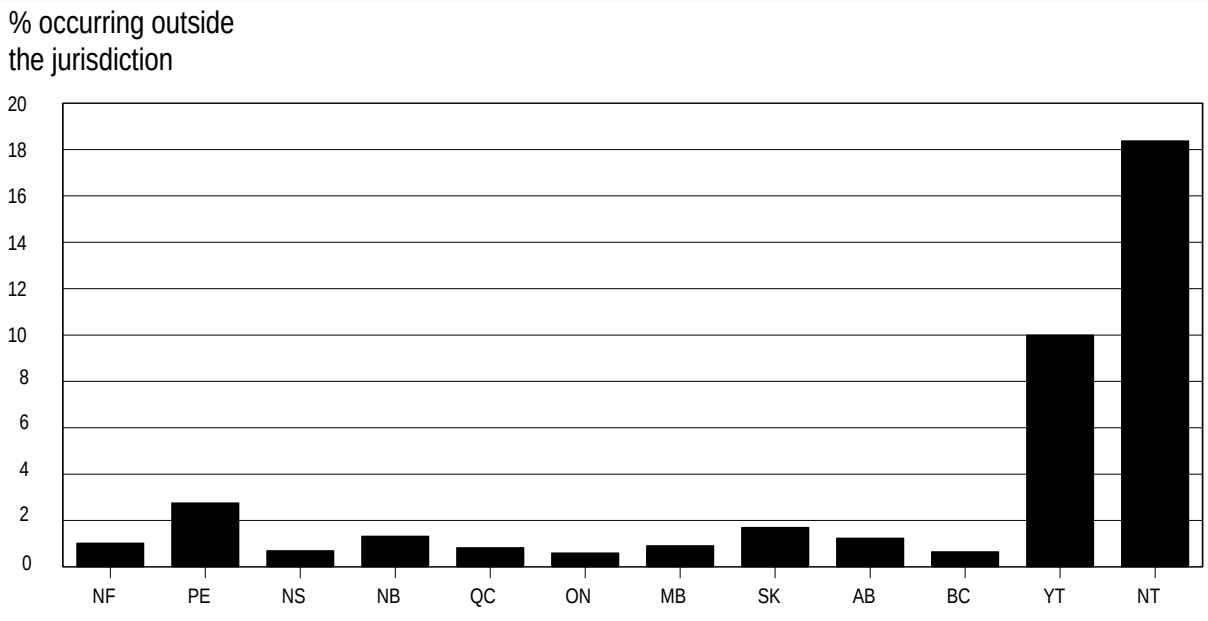


Among both sexes, there was a relatively high mortality rate in the first year of life, which then quickly fell and remained low until the teenage years. Between the ages of 15 and 39, death rates were over twice as high for males than females. The adult mortality rate didn't begin to exceed the infant rate until the late fifties. Beyond that, it rose steadily–to peak at 227 deaths per 1,000 males and 197 deaths per 1,000 females in the 90 and over age group.

Since 1986, important declines in mortality rates have occurred among infants of either sex, men aged 55 and over, and women aged 70 and over. Lesser improvements have also been noted in other age groups.

1996 deaths occurring outside the decedent's province or territory of residence

Province or territory of decedent's residence	Total deaths	Occurring within the jurisdiction	Occurring outside the jurisdiction
NF	3,928	3,888	40
PE	1,268	1,233	35
NS	7,751	7,697	54
NB	5,896	5,818	78
QC	52,336	51,899	437
ON	79,099	78,627	472
MB	9,497	9,411	86
SK	8,765	8,616	49
AB	16,391	16,188	203
BC	27,536	27,356	180
YT	120	108	12
NT	272	222	50
Unknown	21	..	..



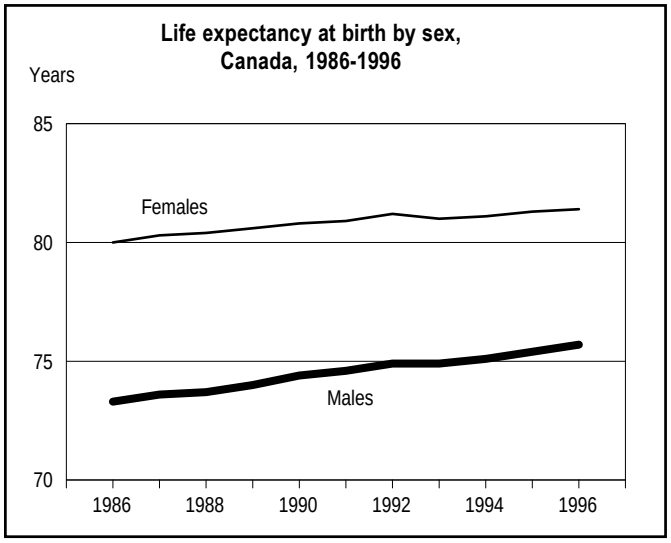
In half of the provinces, less than 1% of 1996 deaths occurred outside of the decedent's province of residence; in the remaining provinces, 1% to 3% of deaths took place elsewhere–usually in a neighbouring province or territory. Death was most likely to happen in another jurisdiction when the decedent had been a resident of the Northwest Territories (over 18% of decedents, who mainly died in Alberta, Manitoba and Quebec) or Yukon (10%, mainly in British Columbia). Because the territories are sparsely populated, persons with severe illnesses or injuries are often airlifted to a medical centre in an adjacent province.

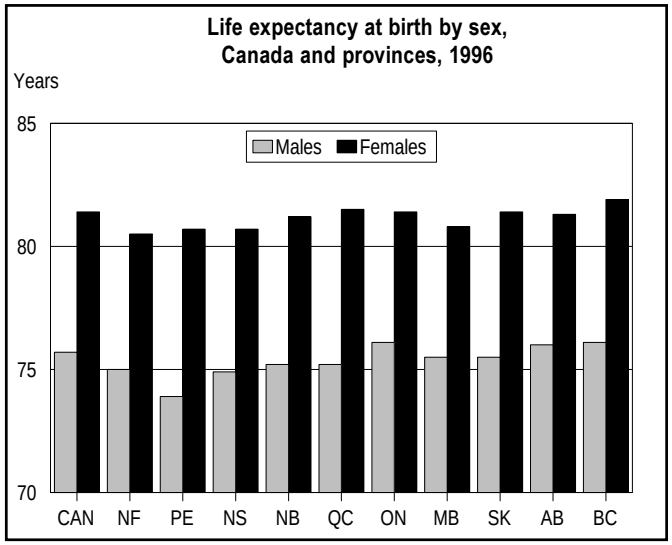
In 1996, 349 Canadians died in the United States. Most of them had been living in Ontario (199, accounting for 42% of deaths occurring outside that province) or Quebec (89, accounting for 20% of out-of-province deaths); in 21 cases, the province or territory of residence of the deceased was unknown.

Table 6.4 Life expectancy at birth[1] by sex, Canada[2] and provinces, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC
						Years					
Males											
1986	73.3	73.5	71.9	72.5	72.5	72.3	73.8	73.2	73.5	73.6	74.6
1987	73.6	72.7	73.8	72.8	73.0	72.3	74.2	73.6	74.4	74.2	74.6
1988	73.7	73.5	73.3	72.8	73.2	72.8	74.1	73.2	73.9	74.1	74.6
1989	74.0	73.3	73.0	72.9	73.7	72.9	74.5	74.0	74.7	74.6	74.8
1990	74.4	73.1	73.1	73.5	74.0	73.4	74.9	74.5	74.9	74.8	75.1
1991	74.6	73.9	72.5	73.9	74.4	73.7	75.0	74.6	75.0	75.0	75.3
1992	74.9	74.4	74.1	73.8	74.3	74.3	75.2	74.7	75.9	75.4	75.4
1993	74.9	73.9	74.3	74.3	74.4	74.0	75.3	74.6	75.4	75.6	75.4
1994	75.1	73.9	74.8	74.2	74.8	74.5	75.5	75.0	75.2	75.5	75.8
1995	75.4	74.4	74.1	74.9	74.2	74.6	75.8	74.8	74.9	75.8	76.2
1996	75.7	75.0	73.9	74.9	75.2	75.2	76.1	75.5	75.5	76.0	76.1
Females											
1986	80.0	79.1	80.1	79.6	80.0	79.6	80.0	79.9	80.6	80.0	80.8
1987	80.3	79.6	80.8	79.9	80.3	79.9	80.3	80.1	80.8	80.7	81.0
1988	80.4	79.2	81.2	79.6	80.7	80.1	80.4	80.4	81.1	80.5	80.9
1989	80.6	79.5	81.3	79.9	80.3	80.4	80.5	80.6	81.6	80.9	81.1
1990	80.8	79.3	80.5	79.9	80.7	80.7	80.9	80.5	81.2	81.2	81.1
1991	80.9	79.7	80.8	80.7	81.0	80.9	80.8	80.6	81.4	81.2	81.5
1992	81.2	79.7	81.3	80.4	81.1	81.2	81.2	81.2	82.1	81.2	81.7
1993	81.0	80.2	80.1	80.6	80.6	80.9	81.0	80.7	81.8	81.0	81.4
1994	81.1	79.8	81.3	80.4	80.6	81.2	81.1	80.8	81.8	81.4	81.4
1995	81.3	80.6	81.5	80.8	81.5	81.3	81.2	80.5	81.6	81.5	81.9
1996	81.4	80.5	80.7	80.7	81.2	81.5	81.4	80.8	81.4	81.3	81.9

[1] *Derived from abridged life tables using Greville's method (Greville, 1943) and one year of mortality data.*
[2] *Canada includes Yukon and the Northwest Territories.*



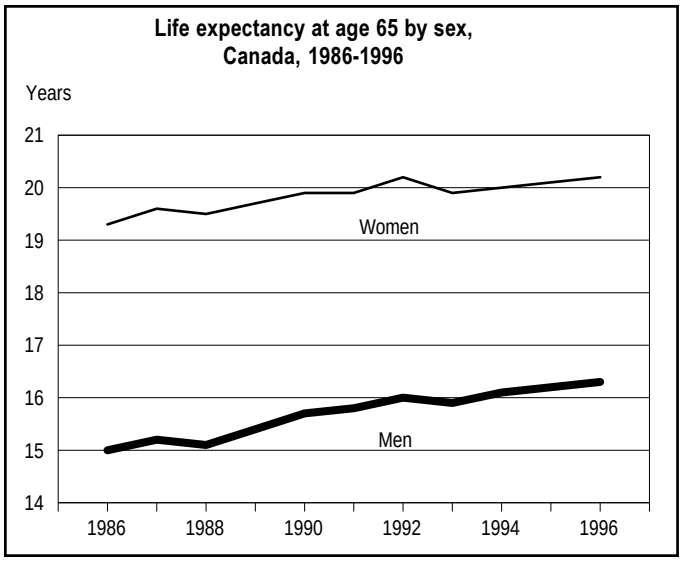


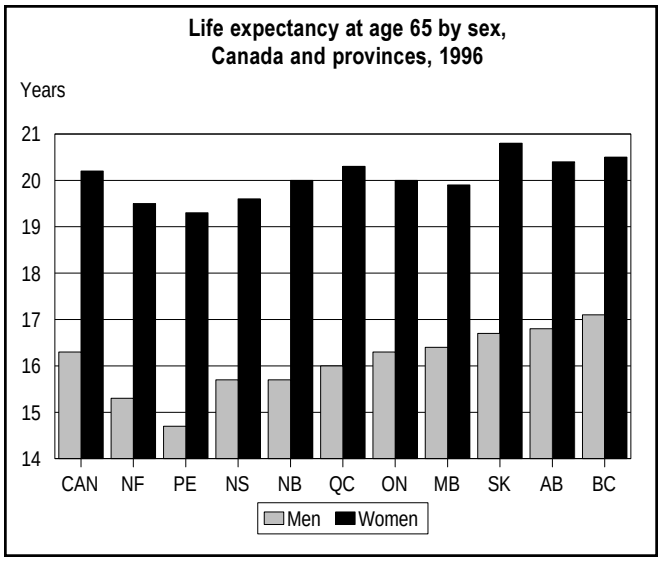
Between 1986 and 1996, life expectancy at birth increased 2.4 years for males and 1.4 years for females. As a result, the gap in life expectancy between the sexes narrowed from 6.7 to 5.7 years. Residents of the Atlantic provinces tended to have a lower life expectancy at birth than those living in Ontario and the western provinces. In 1996, life expectancy among Canadian males at birth ranged from a low of 73.9 years in Prince Edward Island to a high of 76.1 years in Ontario and British Columbia. The corresponding estimates for females were 80.5 years in Newfoundland and 81.9 years in British Columbia.

Table 6.5 Life expectancy at age 65[1] by sex, Canada[2] and provinces, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC
						Years					
Males											
1986	15.0	14.6	15.3	14.4	14.7	14.2	15.1	15.1	15.9	15.7	16.1
1987	15.2	14.5	14.5	14.9	15.2	14.4	15.2	15.4	16.6	15.9	16.2
1988	15.1	15.2	14.7	14.6	15.0	14.5	15.0	15.2	15.9	15.7	16.2
1989	15.4	14.7	15.2	14.6	15.3	14.7	15.4	15.7	16.1	15.9	16.4
1990	15.7	14.4	15.5	15.1	15.5	15.0	15.8	15.8	16.4	16.2	16.6
1991	15.8	15.0	14.3	15.3	15.5	15.1	15.8	16.0	16.4	16.2	16.6
1992	16.0	15.1	15.7	14.9	15.7	15.5	16.0	15.9	16.7	16.6	16.8
1993	15.9	14.8	15.2	15.0	15.7	15.3	16.0	15.8	16.5	16.4	16.7
1994	16.1	15.0	15.9	15.0	15.4	15.6	16.0	16.3	16.9	16.5	17.1
1995	16.2	15.1	15.4	15.3	15.6	15.7	16.2	15.9	16.7	16.7	17.2
1996	16.3	15.3	14.7	15.7	15.7	16.0	16.3	16.4	16.7	16.8	17.1
Females											
1986	19.3	18.3	19.5	18.9	19.3	18.9	19.1	19.7	20.3	19.6	20.2
1987	19.6	19.0	19.7	19.2	19.4	19.2	19.5	20.0	20.2	20.2	20.1
1988	19.5	18.5	19.9	19.2	19.7	19.3	19.4	19.8	20.6	19.8	20.1
1989	19.7	18.9	20.4	19.1	19.6	19.6	19.5	19.9	20.8	20.2	20.2
1990	19.9	18.4	19.4	19.2	19.9	19.8	19.8	20.0	20.5	20.4	20.2
1991	19.9	18.5	19.8	19.7	20.2	19.9	19.7	19.9	20.7	20.3	20.3
1992	20.2	18.8	19.6	19.5	20.1	20.2	20.0	20.2	21.3	20.6	20.5
1993	19.9	19.2	20.0	19.6	19.5	19.7	19.8	20.1	21.2	20.2	20.3
1994	20.0	18.9	20.1	19.5	19.7	20.1	19.7	20.3	20.9	20.5	20.4
1995	20.1	19.3	20.4	19.8	20.1	20.0	19.9	20.0	21.0	20.3	20.6
1996	20.2	19.5	19.3	19.6	20.0	20.3	20.0	19.9	20.8	20.4	20.5

[1] *Derived from abridged life tables using Greville's method (Greville, 1943) and one year of mortality data.*
[2] *Canada includes Yukon and the Northwest Territories.*



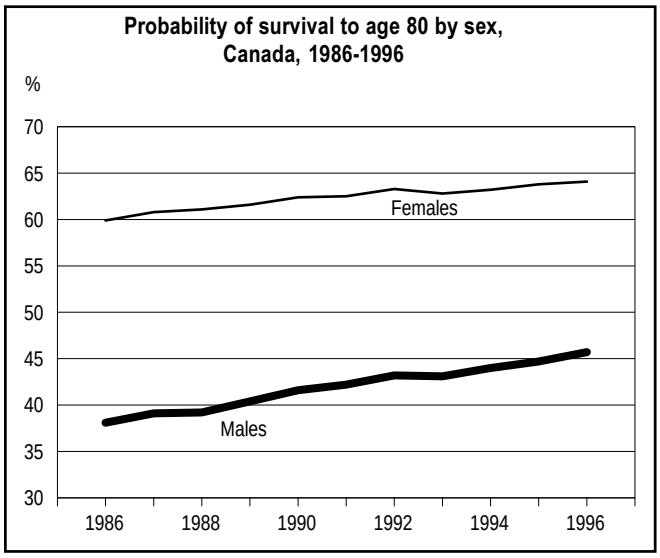


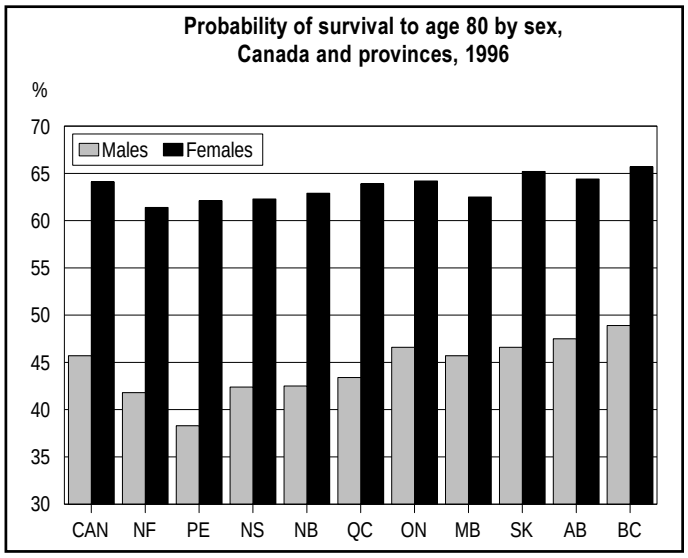
The trends observed for life expectancy at birth apply to life expectancy at age 65. Between 1986 and 1996, life expectancy at age 65 increased 1.3 years for men and 0.9 years for women. The gap between the sexes narrowed from 4.3 to 3.9 years over this period.

Table 6.6 Probability of survival[1] from birth to age 80 by sex, Canada[2] and provinces, 1986-1996

	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC
						%					
Males											
1986	38.1	36.5	37.3	34.0	35.8	34.2	39.0	38.8	41.0	40.6	43.2
1987	39.1	35.8	39.1	37.0	37.7	34.4	39.6	40.1	44.1	42.5	43.9
1988	39.2	37.7	37.0	35.8	38.9	35.9	39.3	38.9	42.7	41.9	44.1
1989	40.4	38.1	38.2	36.0	40.1	36.7	40.9	41.7	43.8	43.1	45.0
1990	41.6	37.6	39.3	38.2	41.0	37.7	42.3	42.6	45.7	44.1	46.2
1991	42.2	38.4	34.5	39.1	40.3	38.6	43.0	43.1	45.4	45.2	46.3
1992	43.2	39.2	40.3	39.0	41.3	40.5	43.7	42.9	47.4	46.1	46.5
1993	43.1	38.1	40.8	39.8	42.1	39.8	43.8	42.8	46.2	45.6	47.1
1994	44.0	39.0	44.2	40.0	41.6	41.0	44.5	44.0	46.5	46.5	48.3
1995	44.7	40.3	39.5	41.0	41.4	41.7	45.5	43.6	45.7	47.5	48.8
1996	45.7	41.8	38.3	42.4	42.5	43.4	46.6	45.7	46.6	47.5	48.9
Females											
1986	59.9	55.8	60.3	57.7	60.2	58.6	59.5	61.2	63.7	60.7	63.0
1987	60.8	58.6	63.6	58.6	60.4	59.1	60.3	61.1	64.3	63.1	64.2
1988	61.1	57.3	62.8	57.4	62.1	59.9	60.8	61.3	65.7	62.5	63.3
1989	61.6	58.3	64.4	59.0	60.3	60.9	61.1	62.3	66.1	63.0	63.6
1990	62.4	58.2	62.7	59.5	62.4	61.7	62.3	61.8	65.6	64.3	63.6
1991	62.5	57.4	63.0	60.4	63.6	62.1	62.0	62.1	64.9	63.7	64.8
1992	63.3	58.2	60.3	59.9	62.7	62.6	63.0	63.3	67.0	65.0	65.8
1993	62.8	60.0	62.0	60.0	62.4	62.0	62.7	63.0	65.9	63.6	64.6
1994	63.2	59.4	62.3	60.0	61.6	63.3	62.8	62.2	66.6	64.6	64.8
1995	63.8	60.3	64.6	62.1	63.4	63.6	63.6	62.4	65.7	64.4	65.7
1996	64.1	61.4	62.1	62.3	62.9	63.9	64.2	62.5	65.2	64.4	65.7

[1] *Derived from abridged life tables using Greville's method (Greville, 1943) and one year of mortality data.*
[2] *Canada includes Yukon and the Northwest Territories.*





The probability of survival from birth to age 80 has been rising most years for both sexes. The gap in life expectancy between males and females has remained wide, however: almost two in three females born in 1996 were expected to live until their ninth decade, compared with less than half of males.

7. Causes of death

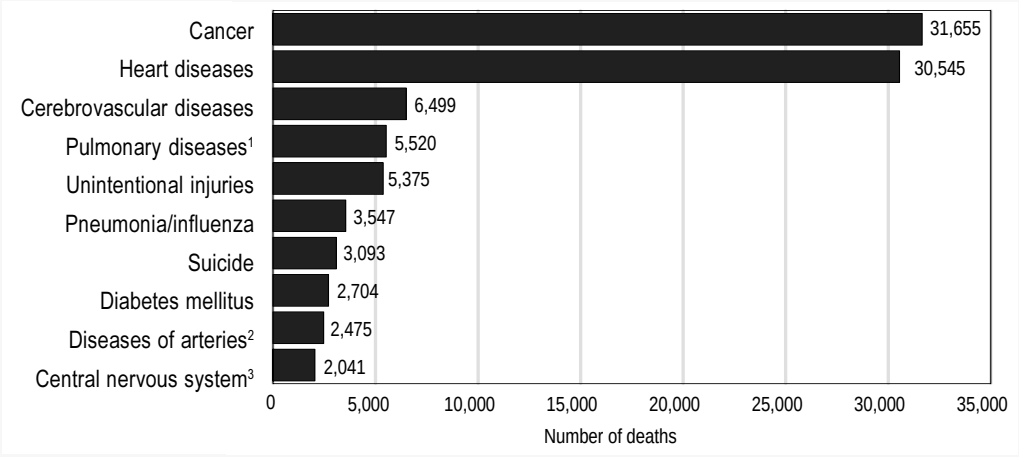
The top 10 leading causes of death for males and females in 1996

For both males and females, the top 10 leading causes of death accounted for 84% of total deaths in 1996. The top three causes–cancer and heart diseases, distantly followed by cerebrovascular diseases (mainly stroke)–were identical for both sexes. The proportion of deaths attributed to cancer and heart diseases was marginally higher for males (56%) than females (54%). The latter were more likely to die from cerebrovascular diseases, however (9% of females versus 6% of males).

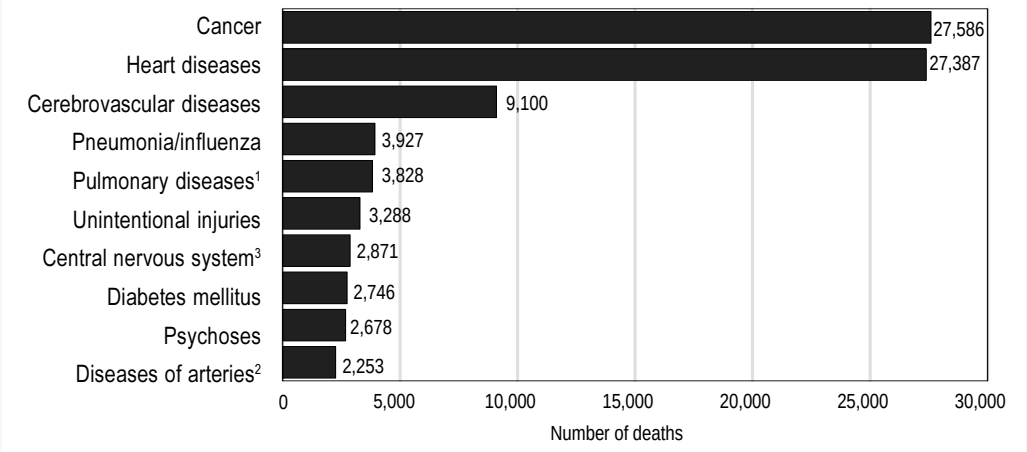
Six of the seven remaining causes shown below were also the same for both sexes, but the ranking differed. For example, deaths due to pneumonia and influenza ranked fourth in importance for females, but sixth for males. Mortality from hereditary and degenerative diseases of the central nervous system (such as Alzheimer's disease) was also more widespread among females.

Suicide, the seventh leading cause of death among males, did not register among the top 10 causes for females. Conversely, deaths traced to psychoses were common enough among females to be included below.

Males



Females



[1] Chronic obstructive pulmonary diseases and allied conditions.
[2] Includes diseases of arterioles and capillaries.
[3] Hereditary and degenerative diseases of the central nervous system.

Highlights - Leading causes of death and age-standardized mortality rates by sex

- Since 1981, the total number of deaths in Canada has been rising every year, mainly because of population growth and aging.

- Between 1995 and 1996, the number of deaths increased 1%, from 210,733 to 212,880 (Table 6.1). There was virtually no change in the number of male deaths during this period (about 111,400 both years); in contrast, female deaths increased 2.2% (from 99,300 to 101,500).

- Despite a rise in the number of female deaths, age-standardized mortality rates (ASMRs) improved for both sexes. Specifically, the ASMR (adjusted to remove the effect of the growing proportion of elderly persons) fell from 859 deaths per 100,000 males in 1995 to 837 deaths in 1996, and from 523 deaths per 100,000 females, to 517 (Figure 7.1).[1]

- Deaths due to cancer and heart diseases combined accounted for over half (55%) of all deaths reported in 1996.[2] Over half (52%) of all cancer deaths were due to malignancies of the lung, colon, female breast or prostate.

- In 1996, the age-standardized mortality rate among men declined for most leading causes, including cancer (in particular, lung, prostate and colorectal), heart diseases, cerebrovascular diseases, unintentional injuries, suicides and HIV infection. Nevertheless, men remained more likely than women to die from these illnesses. For example, 231 men per 100,000 died of cancer, compared with 153 women (Figure 7.2).

- The picture for women in 1996 was somewhat less favourable. Declines were observed in mortality from heart diseases, cerebrovascular diseases and unintentional injuries, but deaths due to cancer (particularly lung) and suicide rose. Furthermore, since 1993, more women have died from lung cancer than breast cancer (Figures 7.3 and 7.5). The increase in lung cancer among women is related to an elevated prevalence of female smokers in previous decades. Although the 1996 mortality rate for lung cancer was twice as high among males than females, ASMRs by sex have been converging since the late 1970s (when the ASMR for men was over four times that for women).

- Long-term trends in mortality rates for chronic obstructive pulmonary diseases and allied conditions (COPD) parallel those of lung cancer. For example, the 1996 COPD mortality rate for men was almost identical to the 1979 rate (about 43 deaths per 100,000), while the rate for women nearly doubled from 10 to 19 over this period (Figure 7.16). The corresponding rates for lung cancer were 72 deaths per 100,000 males for both years, versus 16 and 33 deaths per 100,000 females in 1979 and 1996. COPD, the fourth-ranking cause of death, includes diseases such as chronic

[1] *All mortality rates in this publication have been standardized to the 1991 Canadian population.*
[2] *The methodology underlying the selection of leading causes is described in Appendix 3 (p. 138).*

bronchitis and emphysema (both associated with smoking) and asthma.

- Mortality rates related to diseases of the circulatory system (Figure 7.8) have dropped substantially over the years, notably for heart diseases (Figure 7.9), cerebrovascular diseases (Figure 7.14), and diseases of the arteries, arterioles and capillaries (Figure 7.25). These developments are consistent with a broader awareness of modifiable risk factors (e.g. smoking), greater emphasis on prevention practices, and improved medical treatments.

- Although the mortality rate from heart diseases has always been higher for men than women, it has fallen significantly for both sexes since the late 1970s. Almost 4 in 10 deaths attributed to heart diseases in 1996 were due to acute myocardial infarction (AMI). The ASMR for AMI among men declined 56% during the 1979-1996 period (from 215 to 94 deaths per 100,000), while that among women decreased 50% (from 94 to 47, Figure 7.11). In contrast, ASMRs associated with heart failure changed little over this time frame (Figure 7.12).

- Improvements in mortality due to cerebrovascular diseases between 1979 and 1996 were evidenced by ASMR reductions exceeding 40% for both men and women (to 51 and 43 deaths per 100,000, respectively.

- ASMRs associated with diseases of the arteries, arterioles and capillaries have dropped about 50% for both sexes since 1979. Four in ten such deaths in 1996 were caused by aortic aneurysms, and three in ten by atherosclerosis (i.e. cholesterol deposits in the arteries). Mortality rates due to atherosclerosis have plummeted for both sexes over the years (from 21 to 5 deaths per 100,000 males, and 16 to 4 deaths per 100,000 women, Figure 7.27). In comparison, mortality rates from aortic aneurysms have fallen only slightly for men and remained static for women (Figure 7.26).

- Unintentional injuries ranked as the fifth leading cause of death in 1996. Two-thirds of these accidental deaths (Figure 7.18) were due to motor vehicle accidents (Figure 7.19) or falls (Figure 7.20). Although males accounted for the majority (62%) of fatal accidents that year, their ASMRs in this category have been dropping since the late 1970s (from 73 to 38 deaths per 100,000 males between 1979 and 1996).

- Mortality rates associated with pneumonia and influenza have consistently been greater for men than women over the years (for example, 29 deaths per 100,000 males in 1996 versus 18 per 100,000 females; Figure 7.21); however, the rates appear to have been slowly dropping for men since the late 1980s, while remaining stable for women.

- In contrast, ASMRs related to diabetes mellitus, which were roughly the same for both sexes in the late 1970s, have been slowly rising for men since then (from 15 to 20 deaths per 100,000 between 1979 and 1996), while the mortality rate for women has remained stable (Figure 7.22).

- The 4,900 deaths attributed to hereditary and degenerative diseases of the central nervous system (CNS) in 1996 accounted for only 2% of total deaths that year.

However mortality rates have risen dramatically for both sexes since the late 1970s, almost tripling for men and quadrupling for women (Figure 7.23). Disorders classified to this group include Alzheimer's disease, Huntington's chorea, diseases of the spinal cord, Parkinson's disease, and other cerebral degenerations.

- Alzheimer's disease (AD) accounted for over half of all deaths classified to CNS in 1996. Since 1979, the mortality rate from AD has surged from 0.4 deaths per 100,000 for both sexes to 7 and 8 deaths among males and females, respectively in 1996 (Figure 7.24). This increase may reflect diagnostic improvements by health care professionals.
- Mortality rates are also rising for psychoses. This group of mental disorders includes various forms of dementia, schizophrenia, alcoholic psychoses, manic depression and paranoia. In 1979, only 3 per 100,000 males and 2 per 100,000 females died of these ailments. By 1996, ASMRs were up to 11 and 12, respectively (Figure 7.28). In contrast, mortality rates from neurotic, personality and other nonpsychotic mental disorders were fairly stable over these years (Figure 7.33). (Most of these latter deaths were due to alcohol, tobacco and drug abuse, or brain damage.)
- Men are more likely than women to die from chronic liver diseases and cirrhosis. The gap between the sexes narrowed between 1979 and 1996, however, as the mortality rates of males fell more steeply than those of females (from 17 to 10 per 100,000 males, versus 8 to 4 per 100,000 females; Figure 7.31).
- A substantial drop recently took place in the number of Canadian residents dying from HIV infection: 1,306 died in 1996, compared with 1,764 in 1995 (down 26%). This represents the first significant reduction in HIV-related mortality rates recorded in Canada (Figure 7.32), and is likely due to advances in treatment modalities. Men continue to account for the vast majority of deaths (92% in 1996).

Interprovincial variations

In general, age-standardized mortality rates tend to be highest in Yukon and the Northwest Territories, followed by Prince Edward Island. But these rates should be interpreted with caution, because small population counts in these jurisdictions combined with modest annual variations in the number of deaths can translate into relatively large ASMR changes. For this reason, the following highlights (and the charts in this chapter) are based on provincial data only.

- Of all provinces in 1996, Quebec reported the highest mortality rates from lung and colorectal cancer; ASMRs for these diseases were lowest in Alberta (lung) and British Columbia (colorectal). Breast cancer ASMRs were relatively high in New Brunswick and low in Saskatchewan, while prostate cancer mortality rates were somewhat elevated in Saskatchewan and low in Newfoundland.
- Newfoundland and Prince Edward Island registered the highest mortality rates for circulatory system disorders, that is, heart ailments, cerebrovascular diseases and diseases of the arteries, arterioles and capillaries. ASMRs for atherosclerosis were notably higher in Alberta than elsewhere, however (7 per 100,000 compared with 4 for Canada as a whole).

- Mortality rates from Alzheimer's disease were below the national average for all provinces west of Ontario in both 1995 and 1996.

- Newfoundland registered extremely low ASMRs from neurotic, personality and other nonpsychotic mental disorders during these two years.

- In 1996, the mortality rate for suicide declined in all provinces except Saskatchewan and Quebec. Quebec's rate not only remained the highest of all the provinces that year, but surpassed others by an even larger margin than in 1995. ASMRs associated with psychoses were also highest in Quebec in these two years.

- HIV mortality rates were highest in British Columbia, Quebec and Ontario, reflecting the relatively high prevalence of this disease in Vancouver, Montreal and Toronto.

Table 7.1 Leading causes of death and age-standardized mortality rates by sex, Canada, 1996

Cause of death (ICD-9 codes)	Rank[1]	Number [2]	%	Mortality rate [3]		
				Total	Males	Females
All causes (001-799, E800-E999)		**212,880**	**100.0**	**654.4**	**836.5**	**516.9**
All cancers (140-208)	**1**	**59,241**	**27.8**	**184.8**	**231.3**	**153.0**
Cancer of trachea, bronchus and lung (162)		15,708	7.4	49.5	71.5	33.3
Cancer of colon, rectum, rectosigmoid junction and anus (153-154)		6,158	2.9	19.1	23.8	15.5
Cancer of female breast (174)		5,074	2.4	15.7	...	28.6
Cancer of prostate (185)		3,588	1.7	10.9	28.2	...
Cancer of pancreas (157)		2,991	1.4	9.3	10.7	8.2
Non-Hodgkin's lymphoma (200, 202)		2,200	1.0	6.9	8.3	5.7
Cancer of stomach (151)		2,077	1.0	6.4	9.3	4.3
Leukaemia (204-208)		2,075	1.0	6.5	8.7	4.9
Cancer of liver, gallbladder and bile ducts (155-156)		1,705	0.8	5.3	6.9	4.0
Cancer of brain and central nervous system (191-192)		1,491	0.7	4.8	5.8	3.9
Cancer of ovary and other uterine adnexa (183)		1,419	0.7	4.4	...	8.1
Cancer of kidney and other urinary organs (189)		1,290	0.6	4.0	5.5	2.8
Diseases of the circulatory system (390-459)		**79,462**	**37.3**	**240.2**	**306.9**	**188.8**
Heart diseases (391, 392.0, 393-398, 402, 404, 410-416, 420-429)	**2**	**57,932**	**27.2**	**175.6**	**232.6**	**131.7**
Ischemic heart disease (410-414)		44,024	20.7	133.7	183.6	95.2
Acute myocardial infarction (410)		22,211	10.4	68.0	94.3	47.4
Old myocardial infarction and other forms of chronic ischemic heart disease (412,414)		20,936	9.8	63.1	85.7	45.9
Heart failure (428)		4,580	2.2	13.5	15.7	12.1
Cardiac dysrhythmias (427)		3,538	1.7	10.6	12.4	9.3
Cerebrovascular diseases (430-438)	**3**	**15,599**	**7.3**	**46.7**	**51.1**	**43.1**
Intracerebral and other intracranial hemorrhage (431-432)		2,075	1.0	6.4	7.5	5.5
Chronic obstructive pulmonary diseases and allied conditions (490-496)	**4**	**9,348**	**4.4**	**28.4**	**43.4**	**19.5**
Chronic airways obstruction, not elsewhere classified (496)		7,199	3.4	21.8	34.5	14.3
Unintentional injuries (E800-E949)	**5**	**8,663**	**4.1**	**27.7**	**38.4**	**17.8**
Motor vehicle accidents (E810-E825, E929.0)		3,088	1.5	10.3	14.9	6.1
Accidental falls (E880-E888, E929.3)		2,701	1.3	8.0	9.6	6.7
Pneumonia and influenza (480-487)	**6**	**7,474**	**3.5**	**22.1**	**29.2**	**17.8**
Pneumonia (480-486)		7,292	3.4	21.6	28.6	17.3
Diabetes mellitus (250)	**7**	**5,450**	**2.6**	**16.7**	**20.4**	**14.0**
Hereditary and degenerative diseases of the central nervous system (330-337)	**8**	**4,912**	**2.3**	**14.7**	**16.2**	**13.6**
Alzheimer's disease (331.0)		2,688	1.3	7.9	7.1	8.2
Diseases of arteries, arterioles and capillaries (440-448)	**9**	**4,728**	**2.2**	**14.3**	**19.3**	**10.7**
Aortic aneurysm (441)		2,085	1.0	6.4	10.0	3.8
Atherosclerosis (440)		1,439	0.7	4.2	4.6	3.9
Psychoses (290-299)	**10**	**4,023**	**1.9**	**11.7**	**11.4**	**11.7**
Senile and presenile organic psychotic conditions (290)		2,224	1.0	6.5	6.3	6.5
Suicide (E950-E959)	**11**	**3,941**	**1.9**	**13.0**	**20.8**	**5.5**
Nephritis, nephrotic syndrome and nephrosis (580-589)	**12**	**2,692**	**1.3**	**8.1**	**10.8**	**6.5**
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause (584-586, 588-589)		2,561	1.2	7.7	10.3	6.1
Chronic liver diseases and cirrhosis (571)	**13**	**2,115**	**1.0**	**6.7**	**9.9**	**3.9**
Human immunodeficiency virus (HIV) infection (042-044)	**14**	**1,306**	**0.6**	**4.2**	**7.7**	**0.7**
Neurotic disorders, personality disorders and other nonpsychotic mental disorders (300-316)	**15**	**1,237**	**0.6**	**3.8**	**5.1**	**2.5**

[1] *See Appendix 3 (p. 138) for a description of the methodology underlying the ranking.*

[2] *The age of the deceased is unknown for four deaths assigned to ICD cause groupings comprising codes 410, E813, E860, and E968. These persons are included in the number of deaths shown, but excluded from the relevant ASMR calculations.*

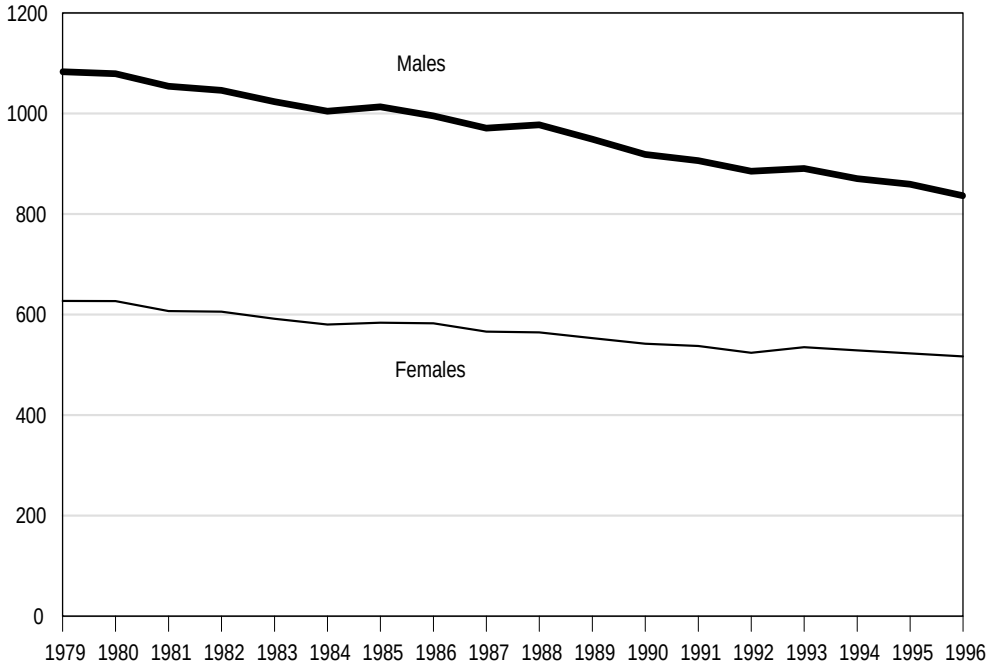
[3] *Age-standardized mortality rates (ASMRs) per 100,000 population (standardized to the 1991 Canadian population). See Appendix 4 (p. 141) for the calculation method.*

Figure 7.1 All causes (ICD-9: 001-799; E800-E999)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

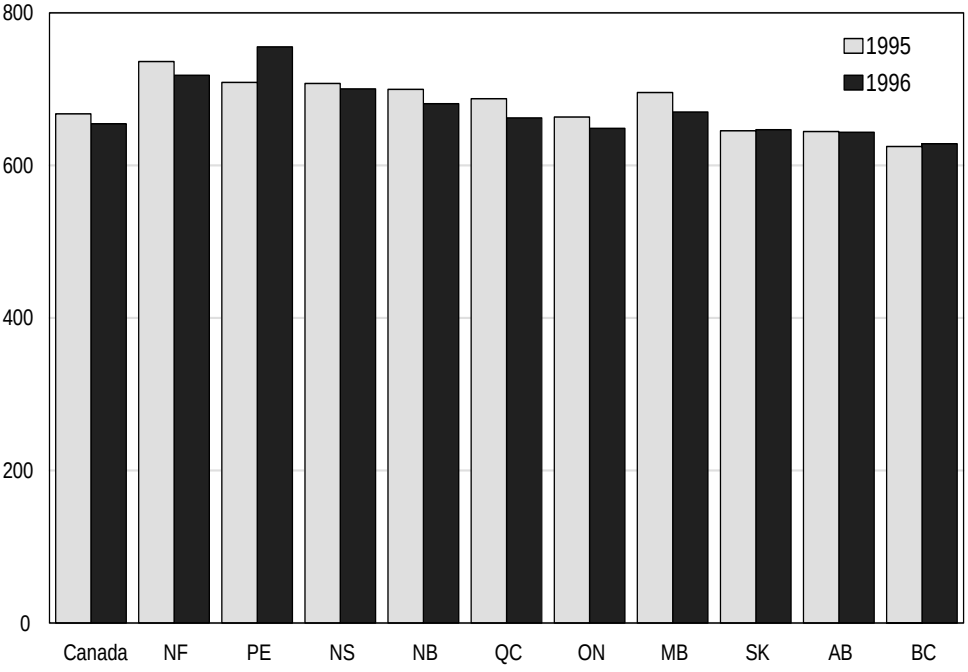
Year	Males	Females
1979	1083.0	627.0
1980	1079.1	626.6
1981	1054.1	606.7
1982	1046.0	605.6
1983	1023.5	591.4
1984	1004.5	580.3
1985	1013.1	583.6
1986	995.3	582.7
1987	970.7	566.1
1988	977.4	564.7
1989	948.7	553.3
1990	918.7	541.9
1991	906.4	537.6
1992	885.2	523.9
1993	890.7	535.0
1994	870.4	528.9
1995	859.4	522.7
1996	836.5	516.9

By sex, Canada, 1979-1996



	1995	1996
Canada	667.5	654.4
NF	736.2	718.1
PE	708.9	755.3
NS	707.4	700.2
NB	699.8	680.9
QC	687.4	662.1
ON	663.4	648.5
MB	695.5	669.9
SK	645.4	646.7
AB	644.3	643.4
BC	624.8	628.2
YT	1050.7	877.2
NT	874.0	981.8

By province, 1995 and 1996



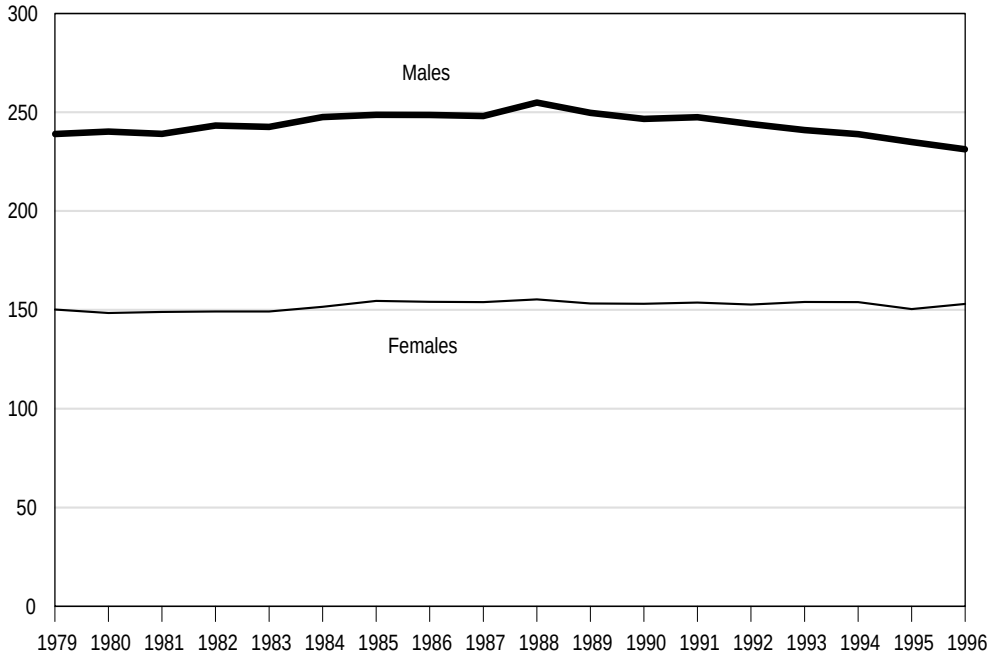
[1] *Standardized to the 1991 Canadian population.*

Figure 7.2 All cancers (ICD-9: 140-208)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

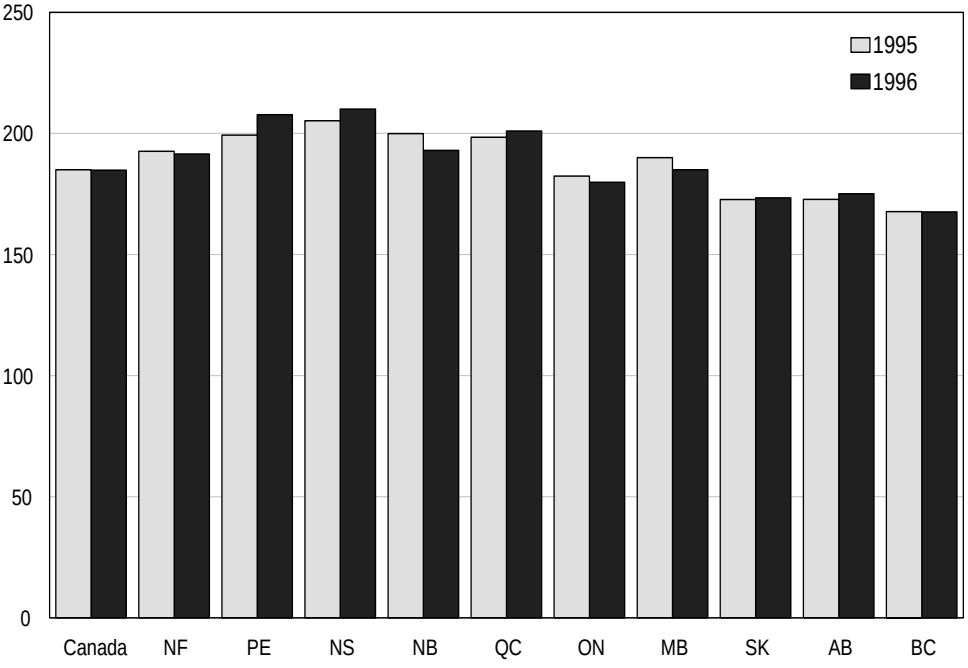
Year	Males	Females
1979	239.0	150.2
1980	240.2	148.4
1981	239.1	148.9
1982	243.3	149.2
1983	242.6	149.2
1984	247.6	151.6
1985	248.7	154.5
1986	248.6	154.1
1987	248.1	153.9
1988	254.9	155.3
1989	249.7	153.2
1990	246.6	153.1
1991	247.5	153.7
1992	244.0	152.7
1993	241.0	154.0
1994	238.9	153.9
1995	234.9	150.4
1996	231.3	153.0

By sex, Canada, 1979-1996



	1995	1996
Canada	185.0	184.8
NF	192.6	191.5
PE	199.3	207.7
NS	205.2	210.0
NB	199.9	193.0
QC	198.4	201.0
ON	182.4	179.8
MB	190.0	185.0
SK	172.7	173.4
AB	172.8	175.1
BC	167.7	167.6
YT	220.1	219.9
NT	226.2	284.4

By province, 1995 and 1996



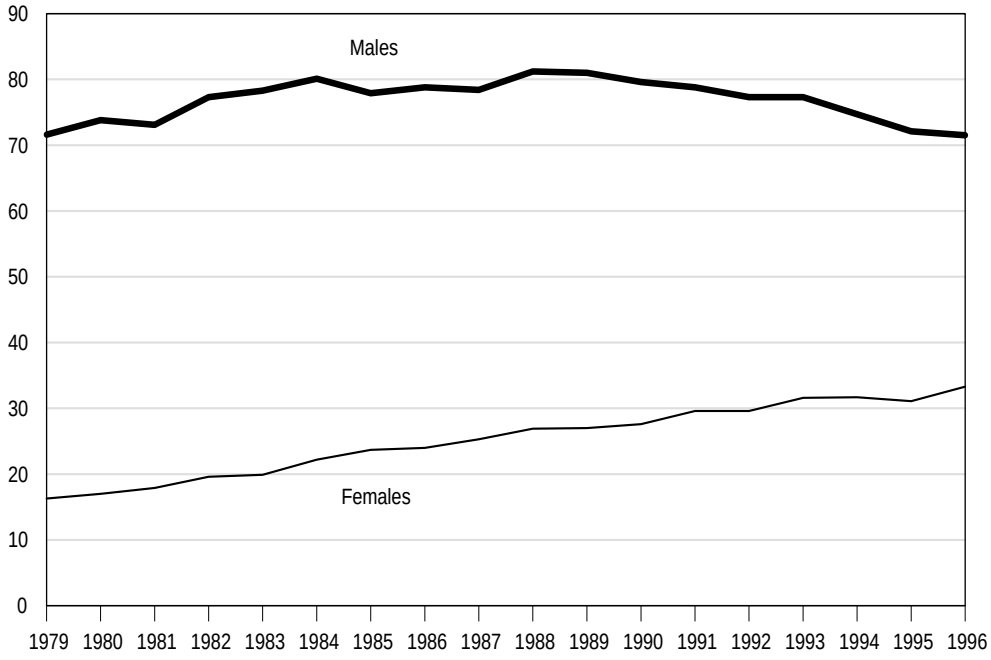
[1] *Standardized to the 1991 Canadian population.*

Figure 7.3 Cancer of trachea, bronchus and lung (ICD-9: 162)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

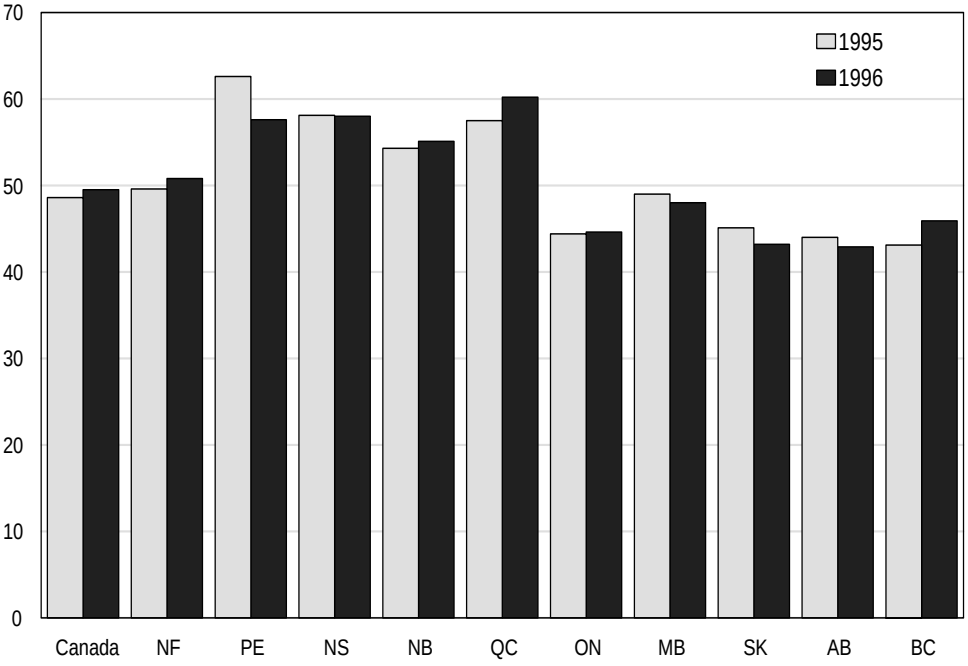
Year	Males	Females
1979	71.6	16.3
1980	73.8	17.0
1981	73.1	17.9
1982	77.3	19.6
1983	78.3	19.9
1984	80.1	22.2
1985	77.9	23.7
1986	78.8	24.0
1987	78.4	25.3
1988	81.2	26.9
1989	81.0	27.0
1990	79.6	27.6
1991	78.8	29.6
1992	77.3	29.6
1993	77.3	31.6
1994	74.7	31.7
1995	72.1	31.1
1996	71.5	33.3

By sex, Canada, 1979-1996



	1995	1996
Canada	48.6	49.5
NF	49.6	50.8
PE	62.6	57.6
NS	58.1	58.0
NB	54.3	55.1
QC	57.5	60.2
ON	44.4	44.6
MB	49.0	48.0
SK	45.1	43.2
AB	44.0	42.9
BC	43.1	45.9
YT	69.8	86.7
NT	86.0	58.2

By province, 1995 and 1996



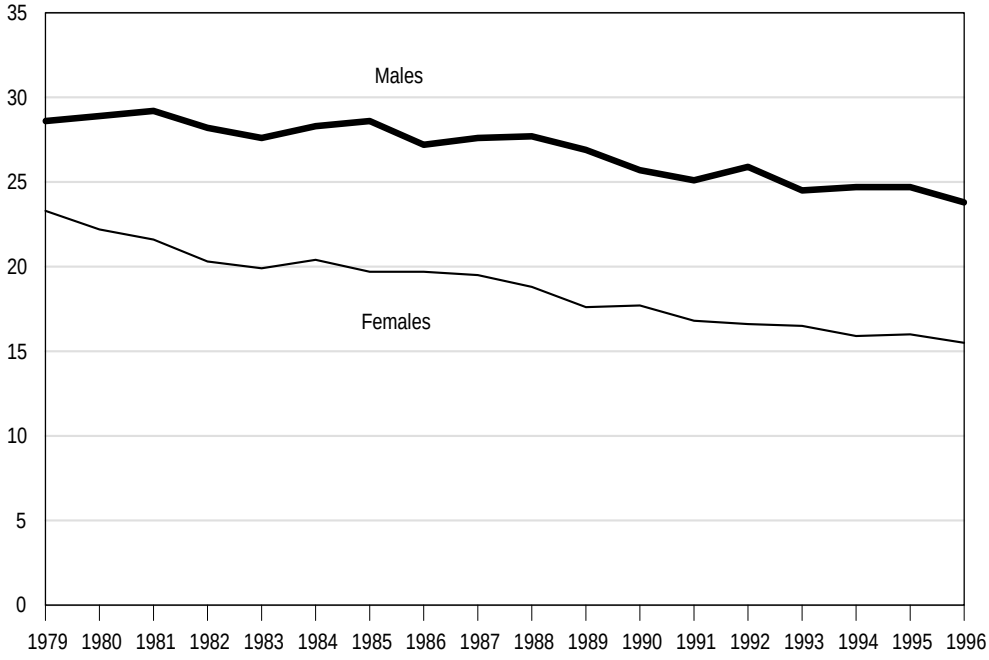
[1] *Standardized to the 1991 Canadian population.*

Figure 7.4 Cancer of colon, rectum, rectosigmoid junction and anus (ICD-9: 153-154)[1]

Age-standardized[2] mortality rates by sex (deaths per 100,000 population)

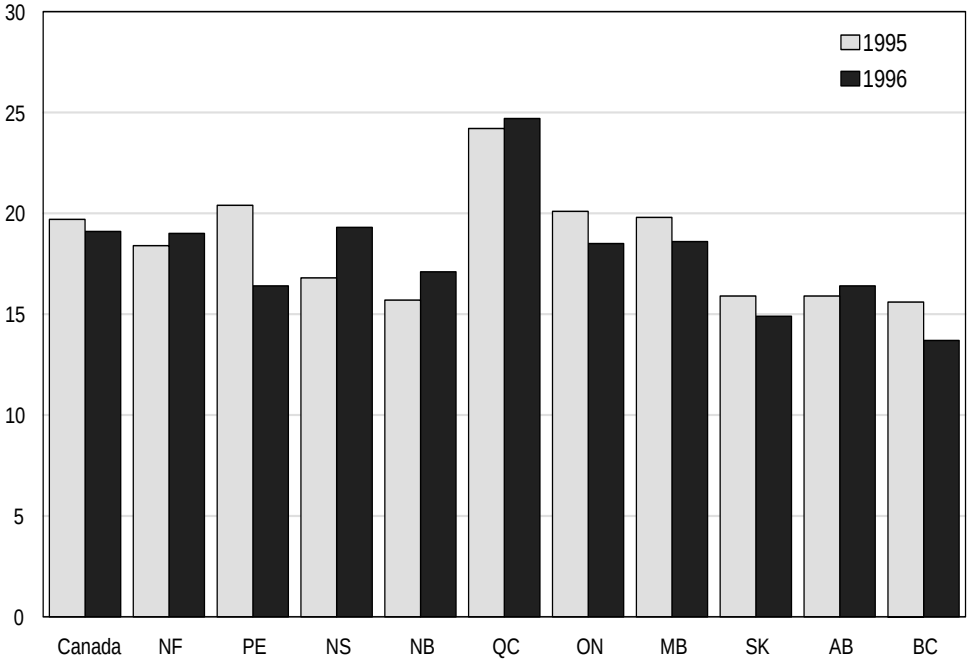
Year	Males	Females
1979	28.6	23.3
1980	28.9	22.2
1981	29.2	21.6
1982	28.2	20.3
1983	27.6	19.9
1984	28.3	20.4
1985	28.6	19.7
1986	27.2	19.7
1987	27.6	19.5
1988	27.7	18.8
1989	26.9	17.6
1990	25.7	17.7
1991	25.1	16.8
1992	25.9	16.6
1993	24.5	16.5
1994	24.7	15.9
1995	24.7	16.0
1996	23.8	15.5

By sex, Canada, 1979-1996



	1995	1996
Canada	19.7	19.1
NF	18.4	19.0
PE	20.4	16.4
NS	16.8	19.3
NB	15.7	17.1
QC	24.2	24.7
ON	20.1	18.5
MB	19.8	18.6
SK	15.9	14.9
AB	15.9	16.4
BC	15.6	13.7
YT	52.4	0.0
NT	26.5	30.5

By province, 1995 and 1996



[1] Also known as colorectal cancer.

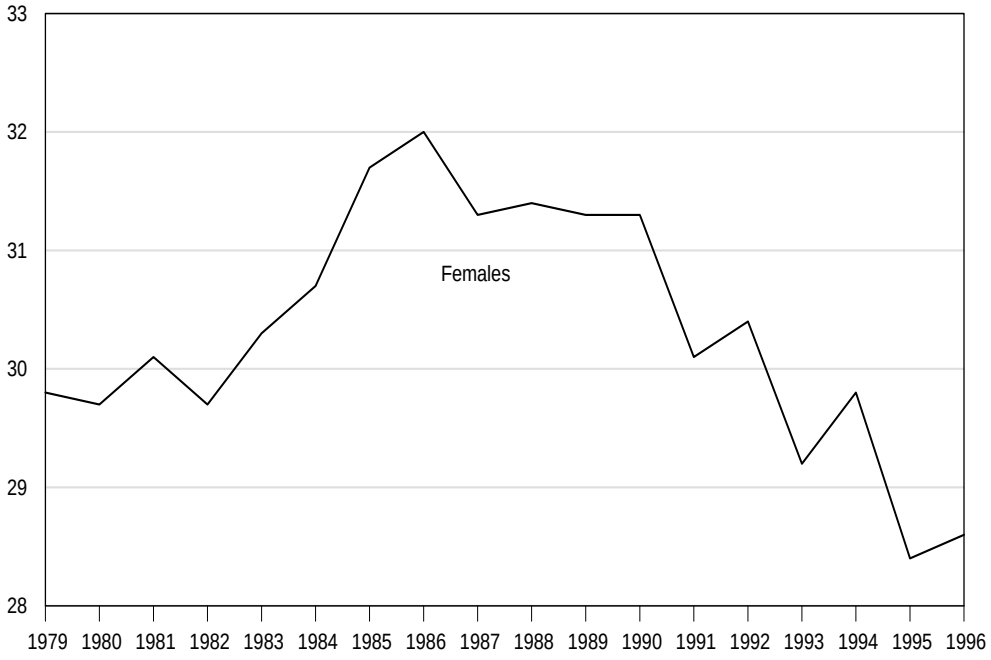
[2] Standardized to the 1991 Canadian population.

Figure 7.5 Cancer of female breast (ICD-9: 174)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

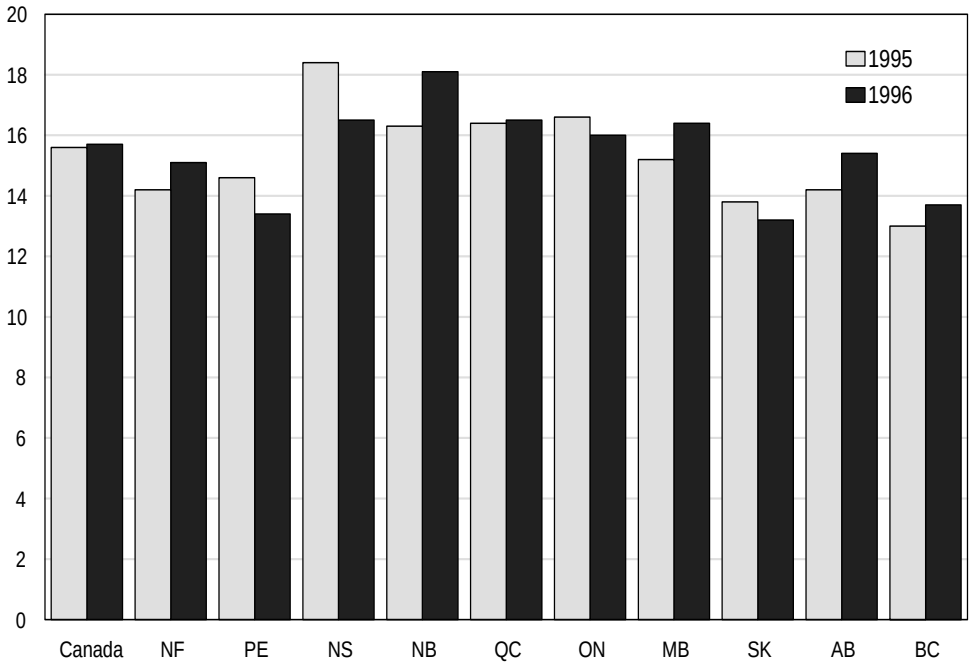
Year	Males	Females[2]
1979	...	29.8
1980	...	29.7
1981	...	30.1
1982	...	29.7
1983	...	30.3
1984	...	30.7
1985	...	31.7
1986	...	32.0
1987	...	31.3
1988	...	31.4
1989	...	31.3
1990	...	31.3
1991	...	30.1
1992	...	30.4
1993	...	29.2
1994	...	29.8
1995	...	28.4
1996	...	28.6

By sex, Canada, 1979-1996



	1995[3]	1996[3]
Canada	15.6	15.7
NF	14.2	15.1
PE	14.6	13.4
NS	18.4	16.5
NB	16.3	18.1
QC	16.4	16.5
ON	16.6	16.0
MB	15.2	16.4
SK	13.8	13.2
AB	14.2	15.4
BC	13.0	13.7
YT	13.2	4.6
NT	8.5	5.5

By province, 1995 and 1996



[1] *Standardized to the 1991 Canadian population.*
[2] *Deaths per 100,000 females.*
[3] *Deaths per 100,000 population.*

Figure 7.6 Cancer of prostate (ICD-9: 185)

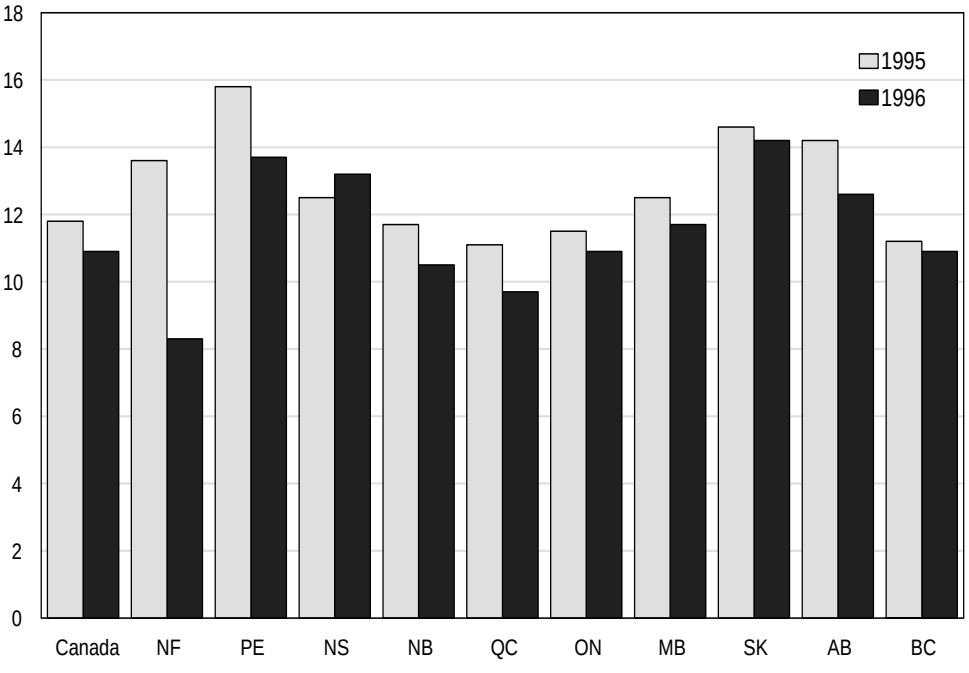
Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

Year	Males[2]	Females
1979	26.7	...
1980	25.7	...
1981	27.2	...
1982	26.0	...
1983	26.7	...
1984	27.4	...
1985	28.9	...
1986	29.4	...
1987	29.4	...
1988	30.8	...
1989	29.9	...
1990	30.1	...
1991	31.3	...
1992	31.0	...
1993	30.9	...
1994	30.3	...
1995	30.4	...
1996	28.2	...

By sex, Canada, 1979-1996

	1995[3]	1996[3]
Canada	11.8	10.9
NF	13.6	8.3
PE	15.8	13.7
NS	12.5	13.2
NB	11.7	10.5
QC	11.1	9.7
ON	11.5	10.9
MB	12.5	11.7
SK	14.6	14.2
AB	14.2	12.6
BC	11.2	10.9
YT	16.2	34.9
NT	18.6	12.7

By province, 1995 and 1996



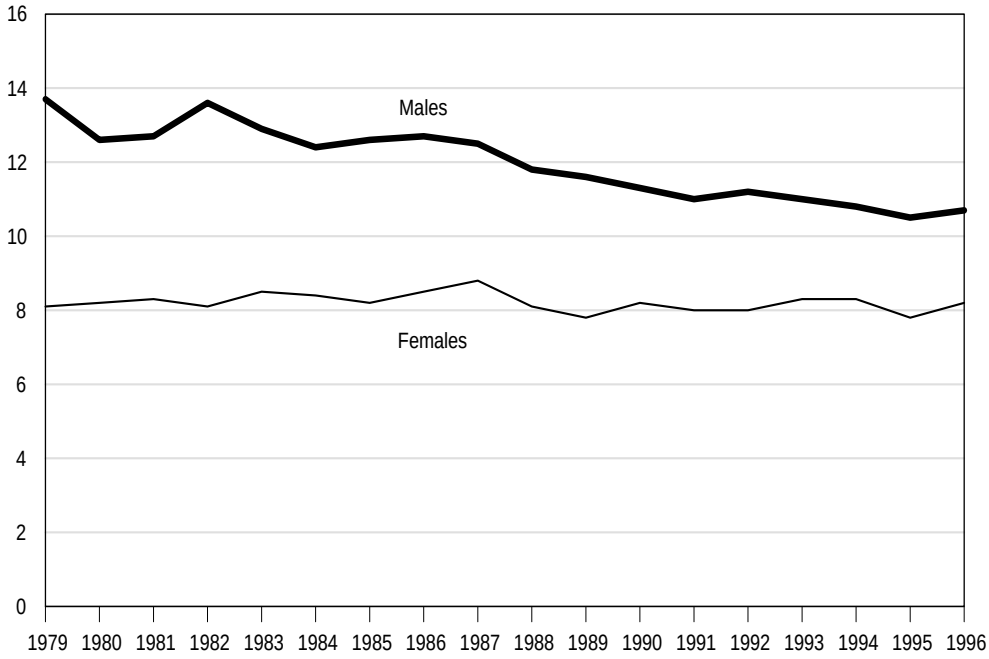
[1] *Standardized to the 1991 Canadian population.*
[2] *Deaths per 100,000 males.*
[3] *Deaths per 100,000 population.*

Figure 7.7 Cancer of pancreas (ICD-9: 157)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

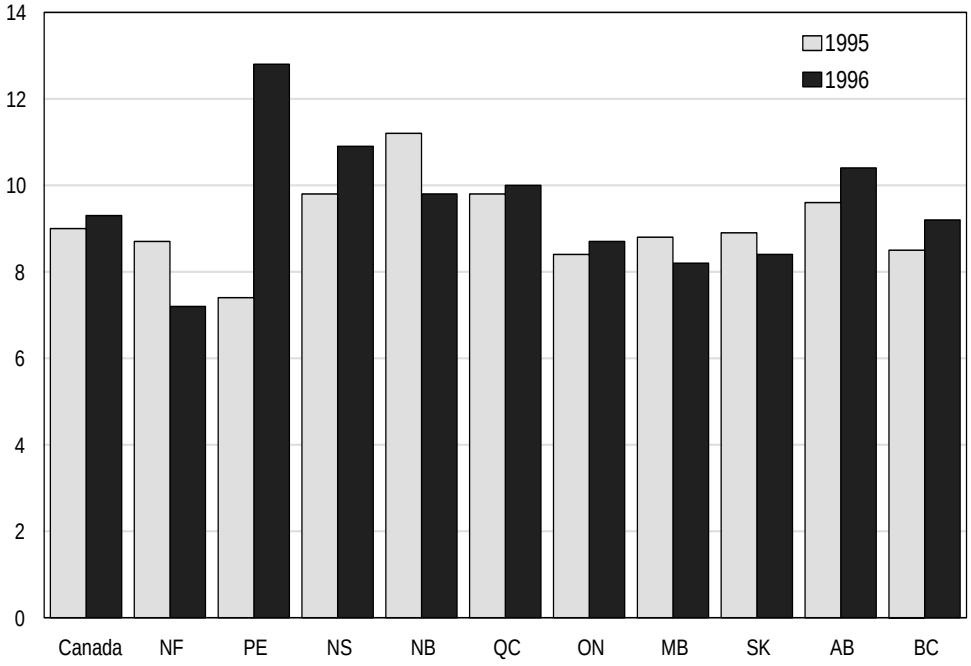
Year	Males	Females
1979	13.7	8.1
1980	12.6	8.2
1981	12.7	8.3
1982	13.6	8.1
1983	12.9	8.5
1984	12.4	8.4
1985	12.6	8.2
1986	12.7	8.5
1987	12.5	8.8
1988	11.8	8.1
1989	11.6	7.8
1990	11.3	8.2
1991	11.0	8.0
1992	11.2	8.0
1993	11.0	8.3
1994	10.8	8.3
1995	10.5	7.8
1996	10.7	8.2

By sex, Canada, 1979-1996



	1995	1996
Canada	9.0	9.3
NF	8.7	7.2
PE	7.4	12.8
NS	9.8	10.9
NB	11.2	9.8
QC	9.8	10.0
ON	8.4	8.7
MB	8.8	8.2
SK	8.9	8.4
AB	9.6	10.4
BC	8.5	9.2
YT	7.6	17.3
NT	10.6	41.8

By province, 1995 and 1996



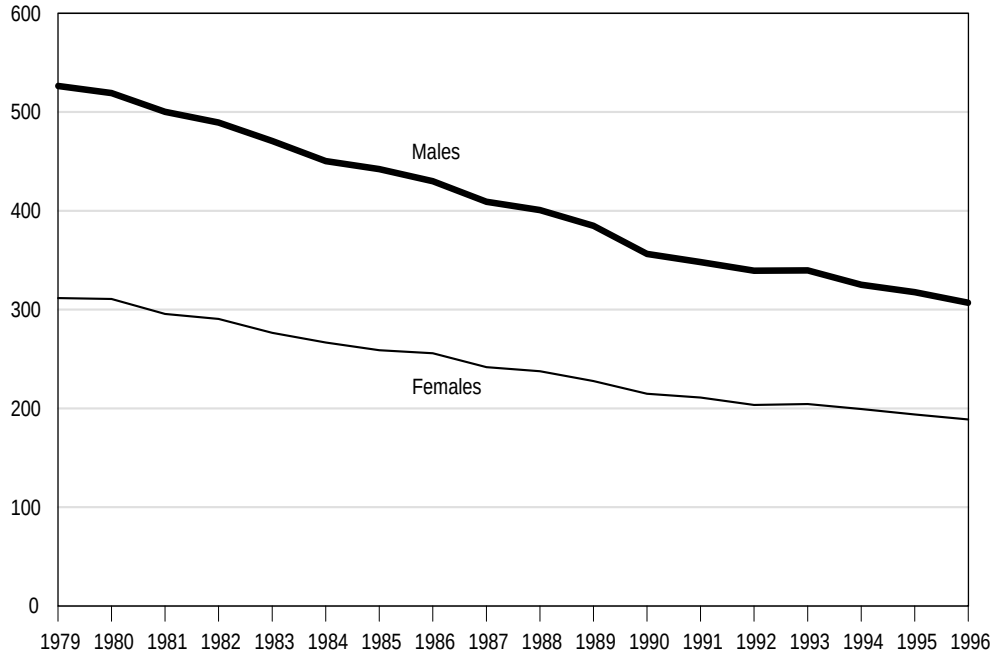
[1] *Standardized to the 1991 Canadian population.*

Figure 7.8 Diseases of the circulatory system (ICD-9: 390-459)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

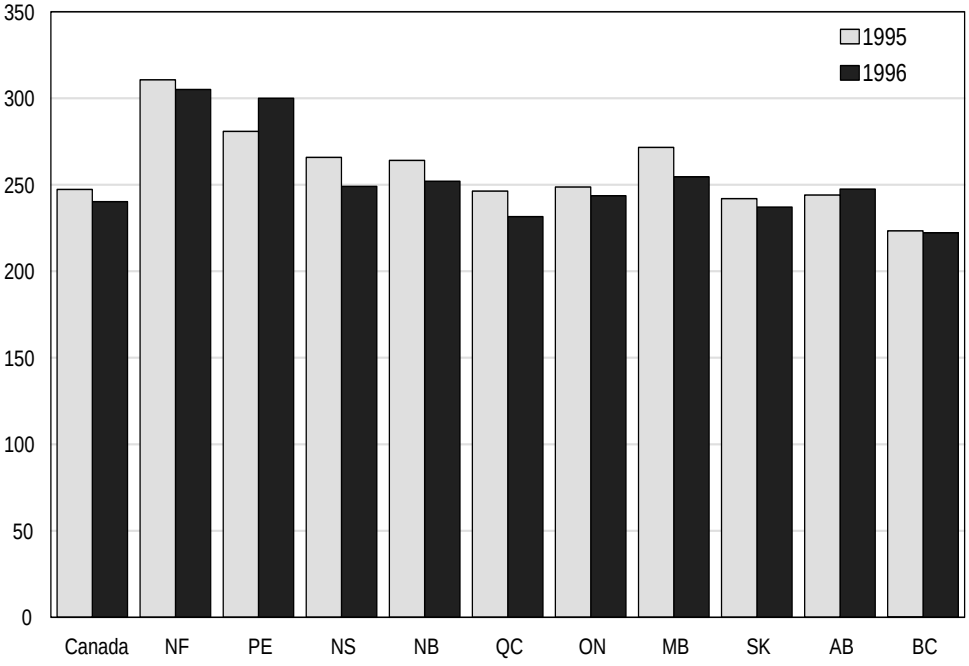
Year	Males	Females
1979	526.4	311.7
1980	519.1	310.7
1981	500.2	295.6
1982	489.3	290.5
1983	470.6	276.4
1984	450.2	266.7
1985	442.2	258.8
1986	430.0	255.8
1987	409.1	241.8
1988	400.7	237.7
1989	384.8	227.6
1990	356.3	214.8
1991	348.1	211.0
1992	339.3	203.6
1993	339.7	204.4
1994	325.2	199.3
1995	317.6	193.9
1996	306.9	188.8

By sex, Canada, 1979-1996



	1995	1996
Canada	247.3	240.2
NF	310.6	305.0
PE	280.8	300.0
NS	265.8	249.0
NB	264.1	252.0
QC	246.3	231.6
ON	248.7	243.6
MB	271.6	254.5
SK	242.0	237.1
AB	244.0	247.5
BC	223.3	222.2
YT	414.6	255.1
NT	194.4	241.6

By province, 1995 and 1996



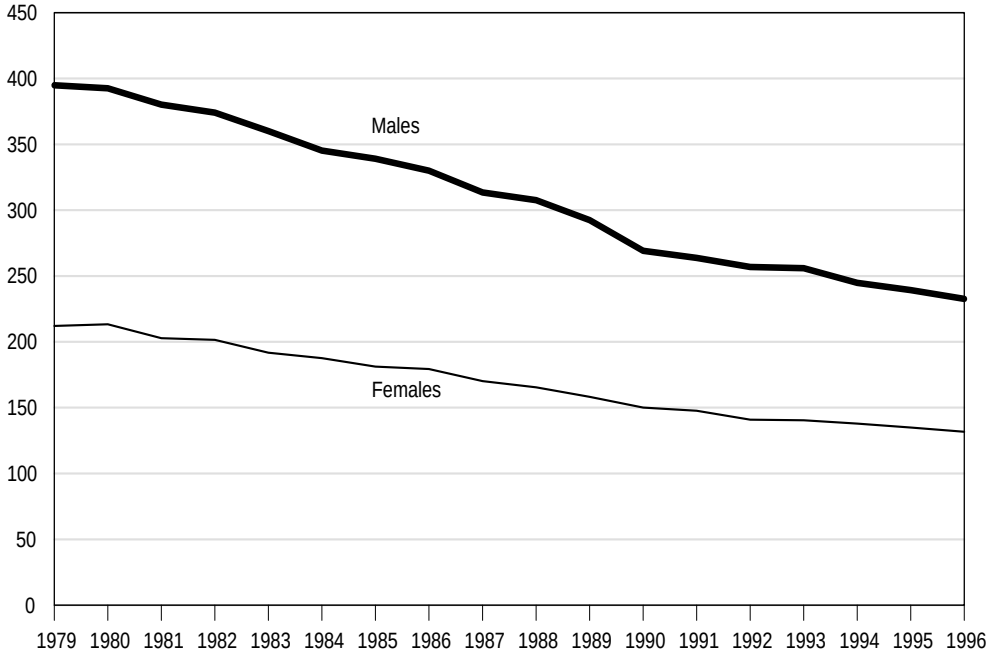
[1] *Standardized to the 1991 Canadian population.*

Figure 7.9 Heart diseases (ICD-9: 391, 392.0, 393-398, 402, 404, 410-416, 420-429)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

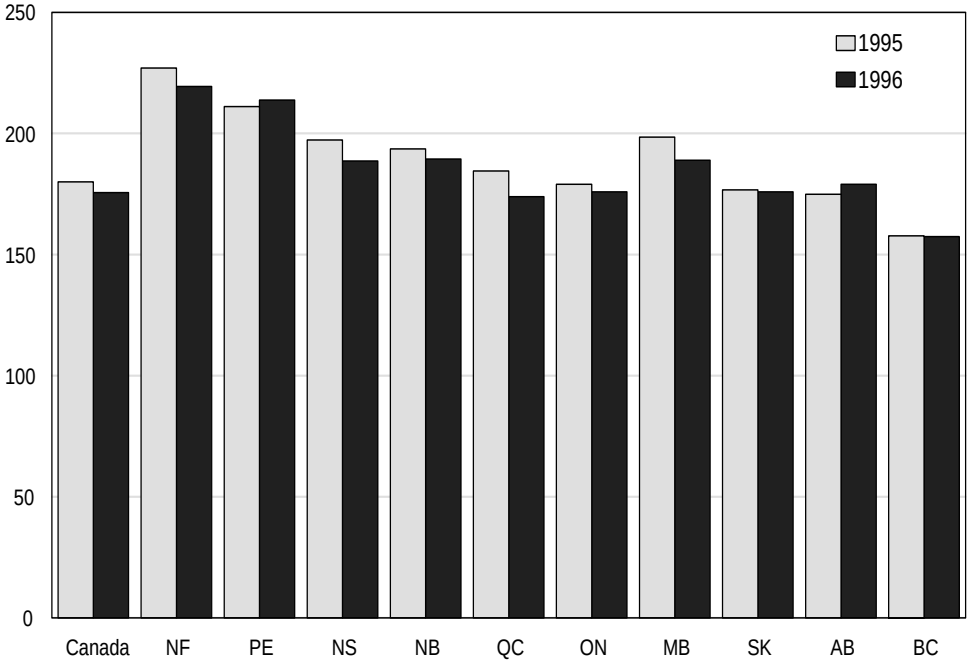
Year	Males	Females
1979	394.8	212.1
1980	392.6	213.3
1981	380.1	202.7
1982	374.0	201.5
1983	360.1	191.8
1984	345.3	187.6
1985	339.0	181.2
1986	330.0	179.3
1987	313.4	170.1
1988	307.6	165.4
1989	292.4	158.2
1990	269.1	150.1
1991	263.7	147.6
1992	256.8	140.8
1993	255.9	140.4
1994	244.8	137.9
1995	239.2	134.9
1996	232.6	131.7

By sex, Canada, 1979-1996



	1995	1996
Canada	180.0	175.6
NF	227.0	219.4
PE	211.1	213.8
NS	197.3	188.6
NB	193.6	189.4
QC	184.5	173.9
ON	179.0	175.9
MB	198.5	188.9
SK	176.7	175.9
AB	174.9	179.0
BC	157.7	157.4
YT	310.5	231.0
NT	142.1	195.0

By province, 1995 and 1996



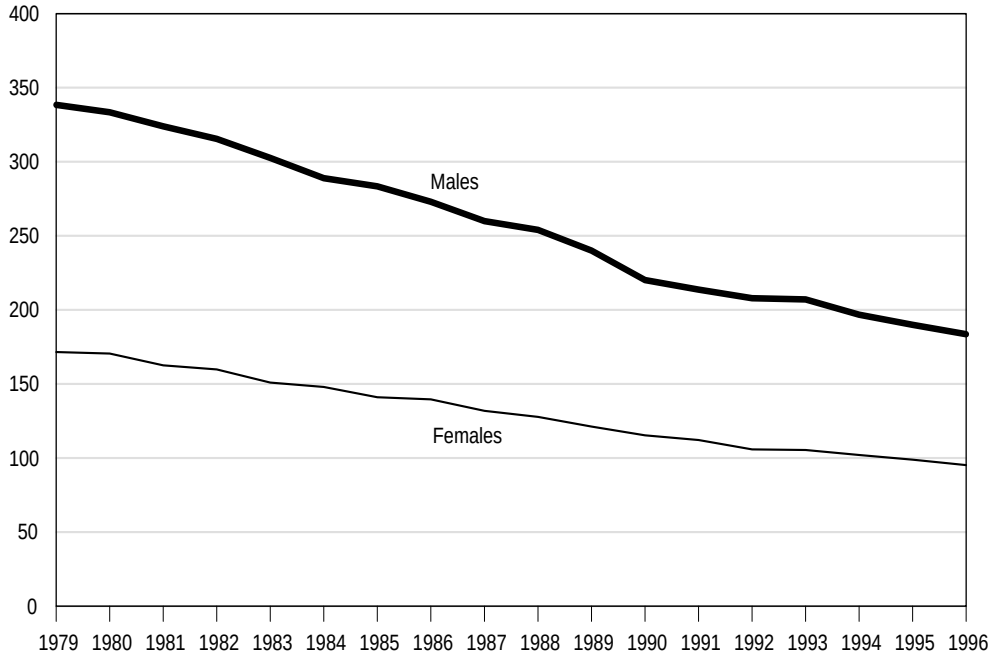
[1] *Standardized to the 1991 Canadian population.*

Figure 7.10 Ischemic heart disease (ICD-9: 410-414)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

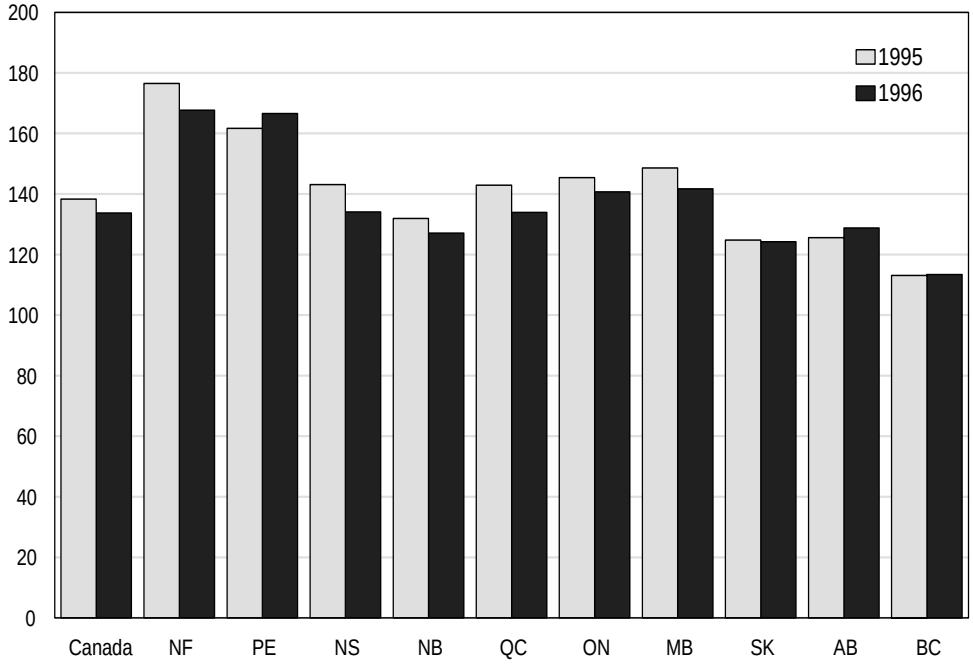
Year	Males	Females
1979	338.4	171.5
1980	333.4	170.5
1981	323.9	162.6
1982	315.4	159.8
1983	302.6	150.9
1984	288.9	148.0
1985	283.4	141.1
1986	273.0	139.6
1987	259.9	131.9
1988	254.0	127.8
1989	240.0	121.3
1990	220.2	115.3
1991	213.7	112.2
1992	207.9	105.9
1993	207.1	105.5
1994	196.8	102.0
1995	189.9	98.9
1996	183.6	95.2

By sex, Canada, 1979-1996



	1995	1996
Canada	138.3	133.7
NF	176.5	167.7
PE	161.7	166.6
NS	143.1	134.1
NB	131.9	127.1
QC	142.9	133.9
ON	145.4	140.7
MB	148.6	141.7
SK	124.8	124.2
AB	125.6	128.8
BC	113.1	113.4
YT	204.2	136.4
NT	82.9	77.0

By province, 1995 and 1996



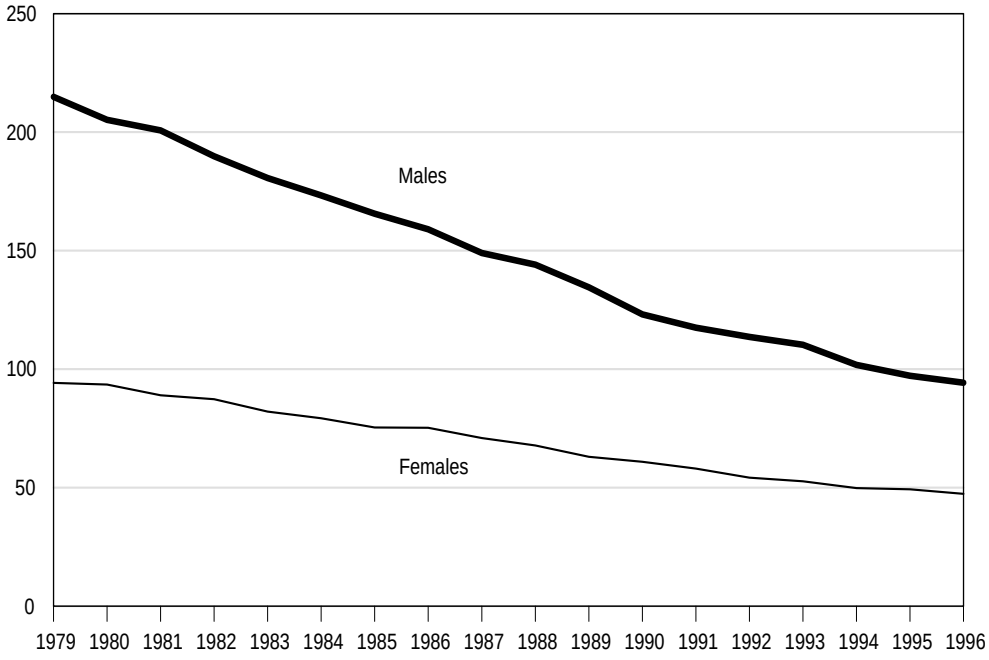
[1] *Standardized to the 1991 Canadian population.*

Figure 7.11 Acute myocardial infarction (ICD-9: 410)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

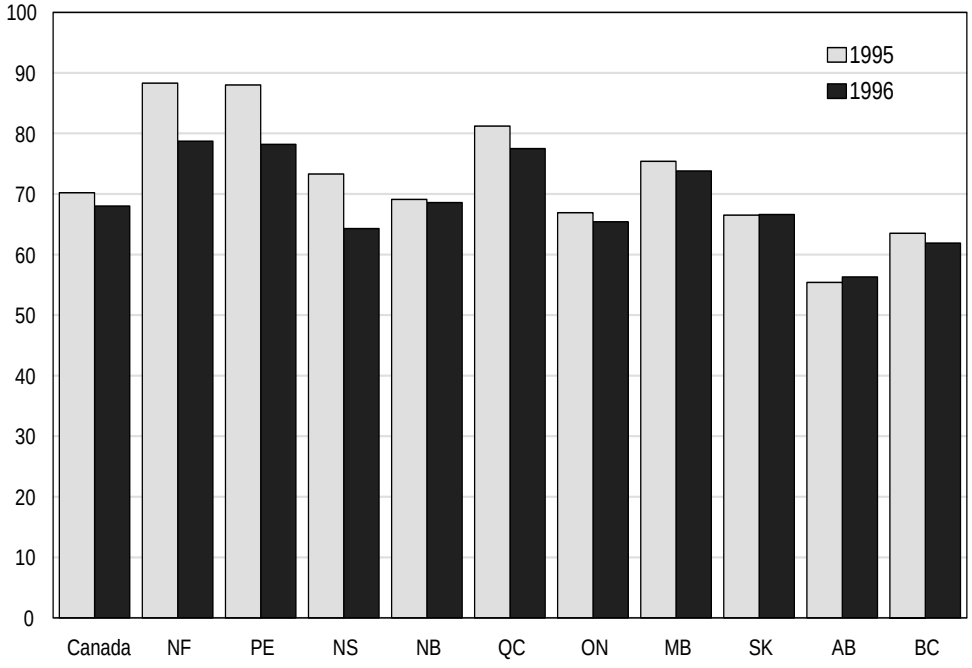
Year	Males	Females
1979	214.9	94.2
1980	205.2	93.5
1981	200.7	89.0
1982	189.8	87.3
1983	180.6	82.1
1984	173.3	79.3
1985	165.6	75.4
1986	159.0	75.3
1987	149.0	70.9
1988	144.1	67.8
1989	134.5	63.0
1990	123.1	60.9
1991	117.5	58.0
1992	113.6	54.2
1993	110.3	52.7
1994	101.8	49.8
1995	97.2	49.3
1996	94.3	47.4

By sex, Canada, 1979-1996



	1995	1996
Canada	70.2	68.0
NF	88.3	78.7
PE	88.0	78.2
NS	73.3	64.3
NB	69.1	68.6
QC	81.2	77.5
ON	66.9	65.4
MB	75.4	73.8
SK	66.5	66.6
AB	55.4	56.3
BC	63.5	61.9
YT	72.6	100.3
NT	34.4	25.8

By province, 1995 and 1996



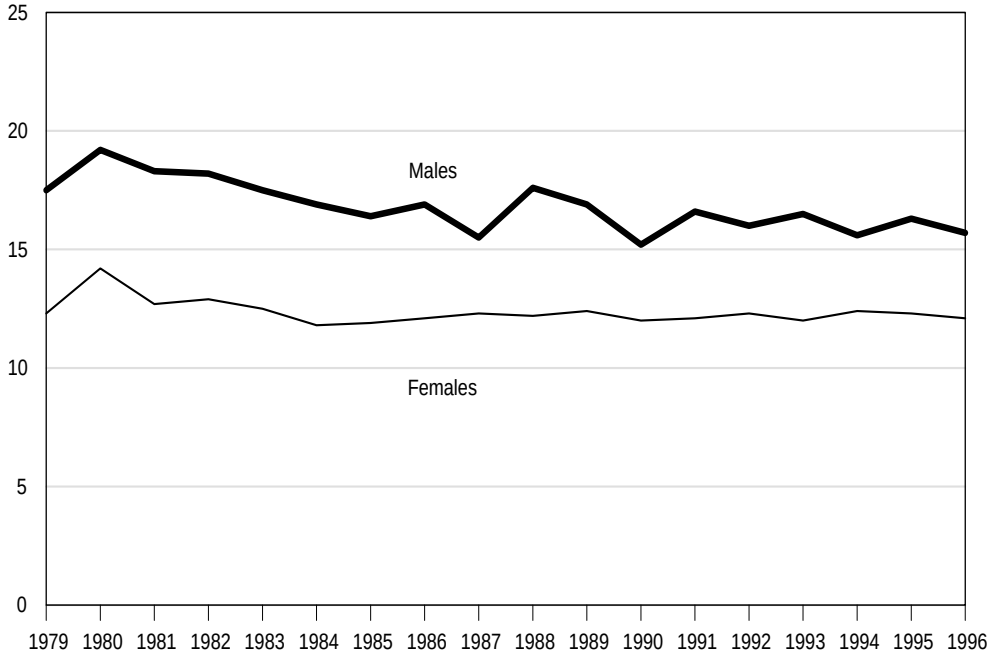
[1] *Standardized to the 1991 Canadian population.*

Figure 7.12 Heart failure (ICD-9: 428)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

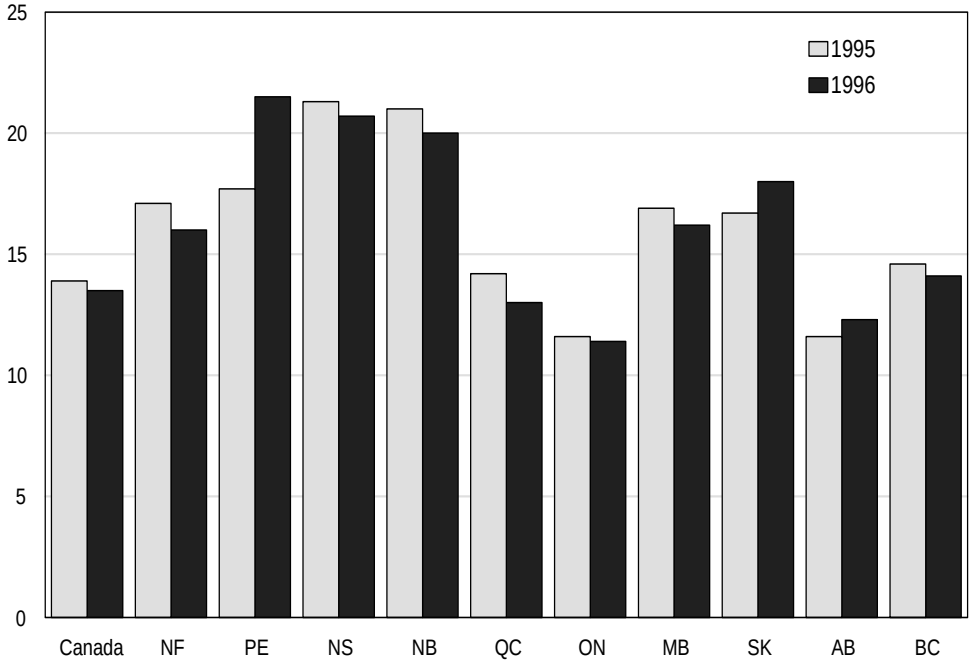
Year	Males	Females
1979	17.5	12.3
1980	19.2	14.2
1981	18.3	12.7
1982	18.2	12.9
1983	17.5	12.5
1984	16.9	11.8
1985	16.4	11.9
1986	16.9	12.1
1987	15.5	12.3
1988	17.6	12.2
1989	16.9	12.4
1990	15.2	12.0
1991	16.6	12.1
1992	16.0	12.3
1993	16.5	12.0
1994	15.6	12.4
1995	16.3	12.3
1996	15.7	12.1

By sex, Canada, 1979-1996



	1995	1996
Canada	13.9	13.5
NF	17.1	16.0
PE	17.7	21.5
NS	21.3	20.7
NB	21.0	20.0
QC	14.2	13.0
ON	11.6	11.4
MB	16.9	16.2
SK	16.7	18.0
AB	11.6	12.3
BC	14.6	14.1
YT	12.1	5.6
NT	25.1	45.6

By province, 1995 and 1996



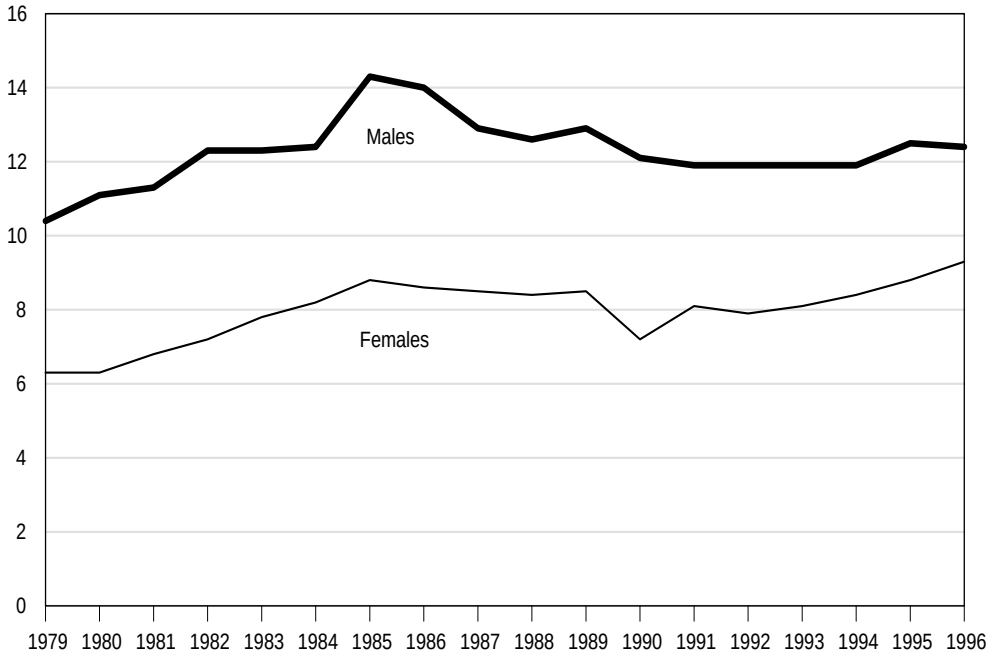
[1] *Standardized to the 1991 Canadian population.*

Figure 7.13 Cardiac dysrhythmias (ICD-9: 427)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

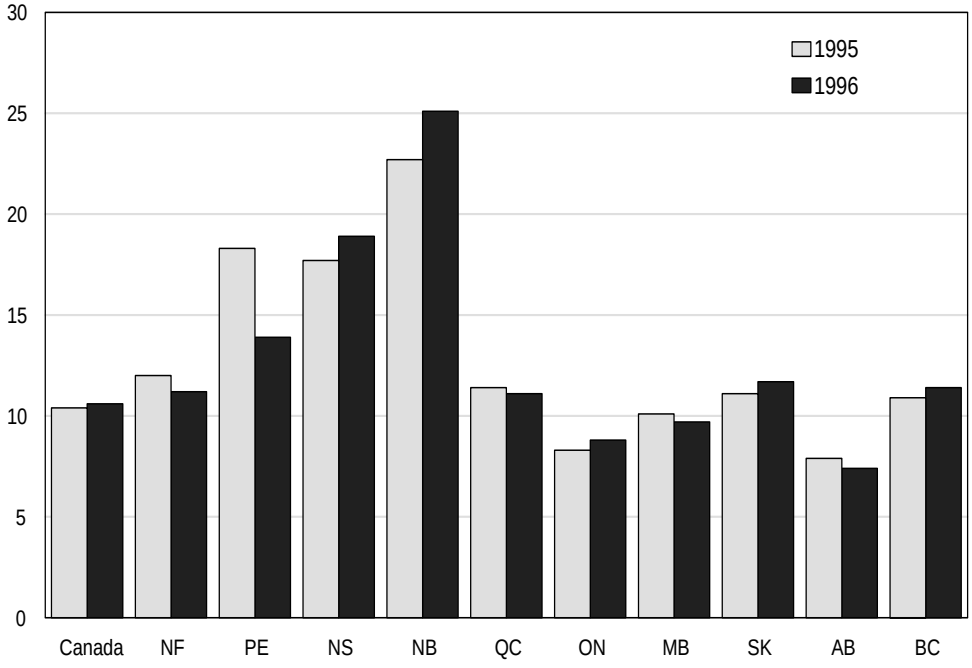
Year	Males	Females
1979	10.4	6.3
1980	11.1	6.3
1981	11.3	6.8
1982	12.3	7.2
1983	12.3	7.8
1984	12.4	8.2
1985	14.3	8.8
1986	14.0	8.6
1987	12.9	8.5
1988	12.6	8.4
1989	12.9	8.5
1990	12.1	7.2
1991	11.9	8.1
1992	11.9	7.9
1993	11.9	8.1
1994	11.9	8.4
1995	12.5	8.8
1996	12.4	9.3

By sex, Canada, 1979-1996



	1995	1996
Canada	10.4	10.6
NF	12.0	11.2
PE	18.3	13.9
NS	17.7	18.9
NB	22.7	25.1
QC	11.4	11.1
ON	8.3	8.8
MB	10.1	9.7
SK	11.1	11.7
AB	7.9	7.4
BC	10.9	11.4
YT	12.1	0.0
NT	12.7	37.0

By province, 1995 and 1996



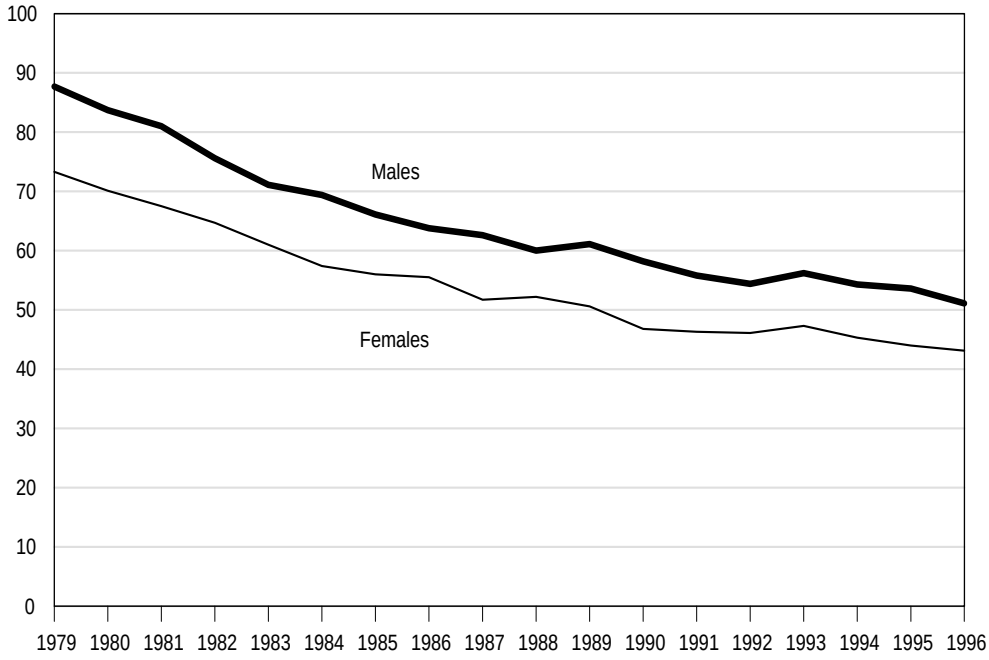
[1] *Standardized to the 1991 Canadian population.*

Figure 7.14 Cerebrovascular diseases (ICD-9: 430-438)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

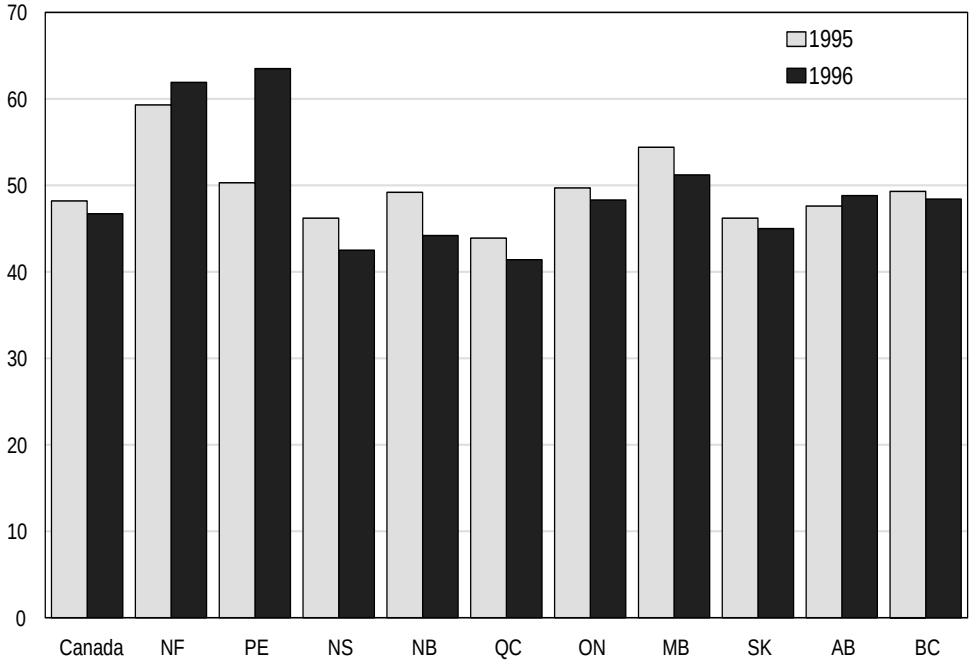
Year	Males	Females
1979	87.7	73.3
1980	83.7	70.1
1981	81.0	67.5
1982	75.6	64.7
1983	71.1	61.0
1984	69.4	57.4
1985	66.1	56.0
1986	63.8	55.5
1987	62.6	51.7
1988	60.0	52.2
1989	61.1	50.6
1990	58.2	46.8
1991	55.8	46.3
1992	54.4	46.1
1993	56.2	47.3
1994	54.3	45.3
1995	53.6	44.0
1996	51.1	43.1

By sex, Canada, 1979-1996



	1995	1996
Canada	48.2	46.7
NF	59.3	61.9
PE	50.3	63.5
NS	46.2	42.5
NB	49.2	44.2
QC	43.9	41.4
ON	49.7	48.3
MB	54.4	51.2
SK	46.2	45.0
AB	47.6	48.8
BC	49.3	48.4
YT	63.9	9.8
NT	43.6	45.2

By province, 1995 and 1996



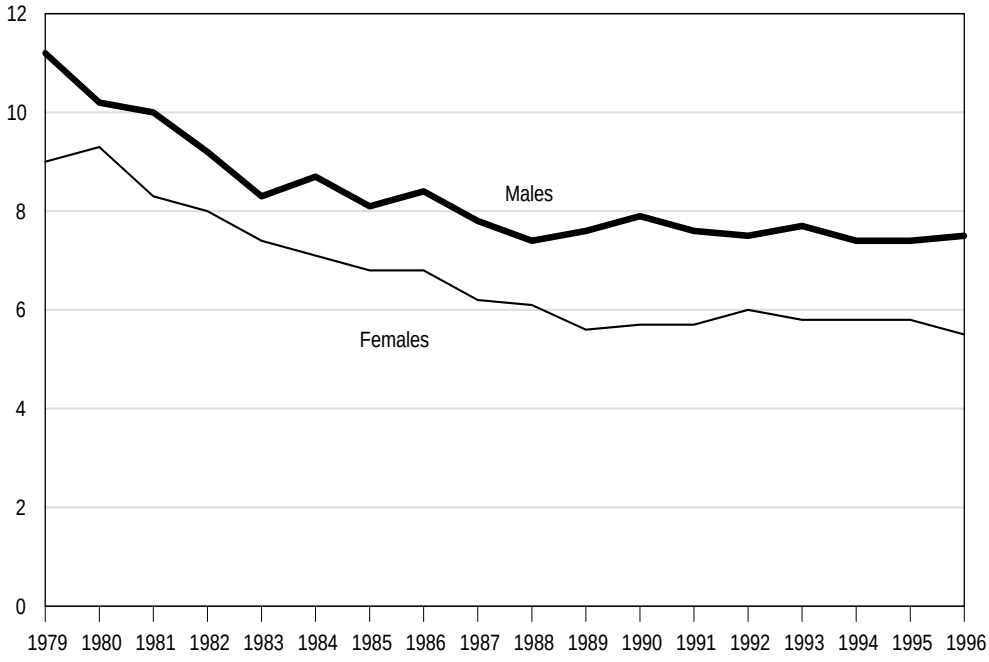
[1] *Standardized to the 1991 Canadian population.*

Figure 7.15 Intracerebral and other intracranial hemorrhage (ICD-9: 431-432)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

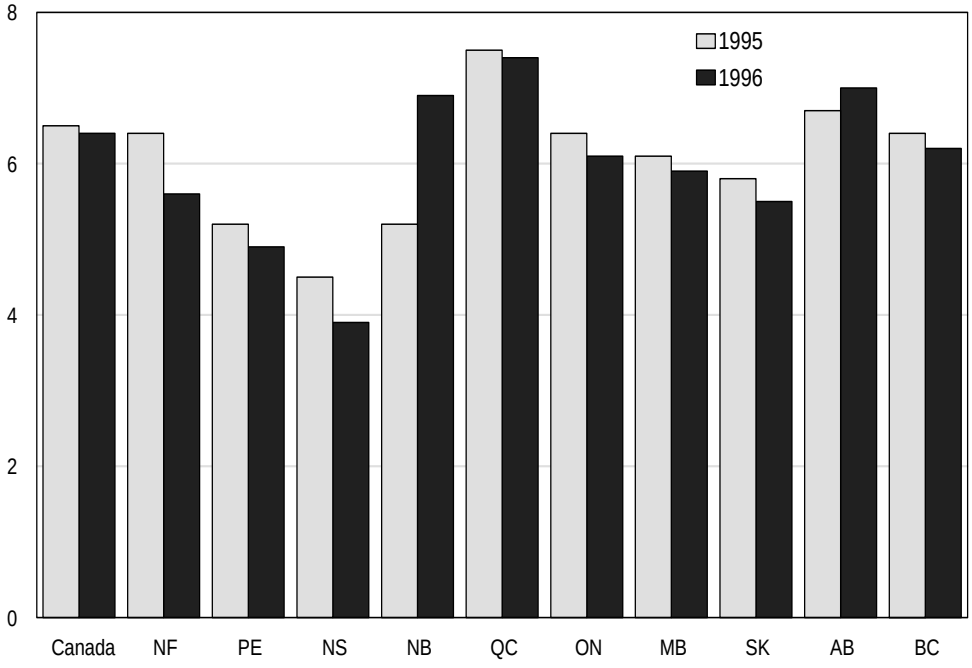
Year	Males	Females
1979	11.2	9.0
1980	10.2	9.3
1981	10.0	8.3
1982	9.2	8.0
1983	8.3	7.4
1984	8.7	7.1
1985	8.1	6.8
1986	8.4	6.8
1987	7.8	6.2
1988	7.4	6.1
1989	7.6	5.6
1990	7.9	5.7
1991	7.6	5.7
1992	7.5	6.0
1993	7.7	5.8
1994	7.4	5.8
1995	7.4	5.8
1996	7.5	5.5

By sex, Canada, 1979-1996



	1995	1996
Canada	6.5	6.4
NF	6.4	5.6
PE	5.2	4.9
NS	4.5	3.9
NB	5.2	6.9
QC	7.5	7.4
ON	6.4	6.1
MB	6.1	5.9
SK	5.8	5.5
AB	6.7	7.0
BC	6.4	6.2
YT	4.9	0.0
NT	9.8	5.1

By province, 1995 and 1996



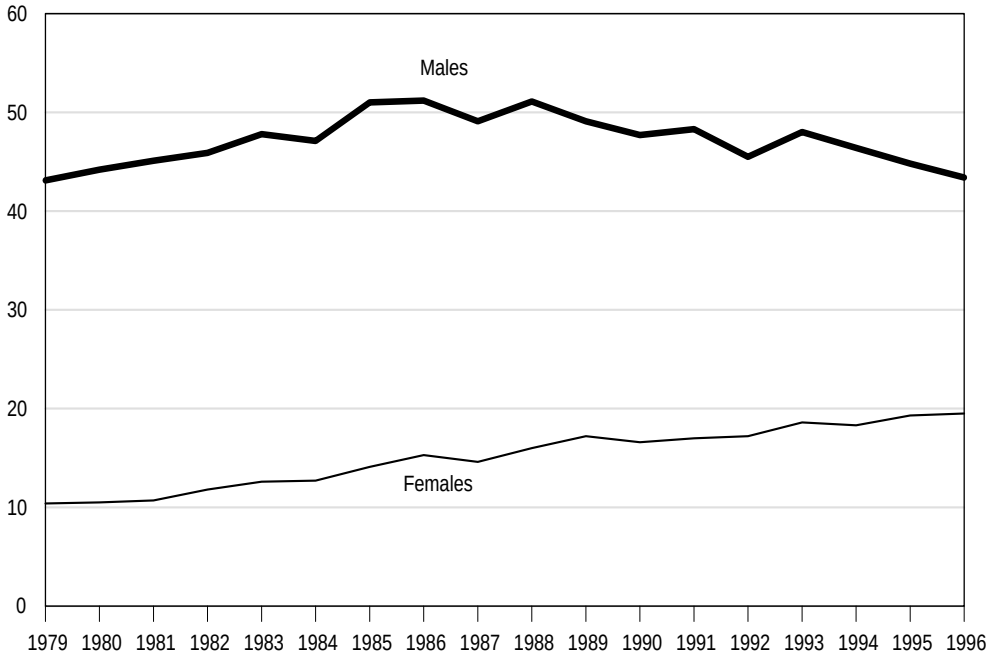
[1] *Standardized to the 1991 Canadian population.*

Figure 7.16 Chronic obstructive pulmonary diseases and allied conditions (ICD-9: 490-496)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

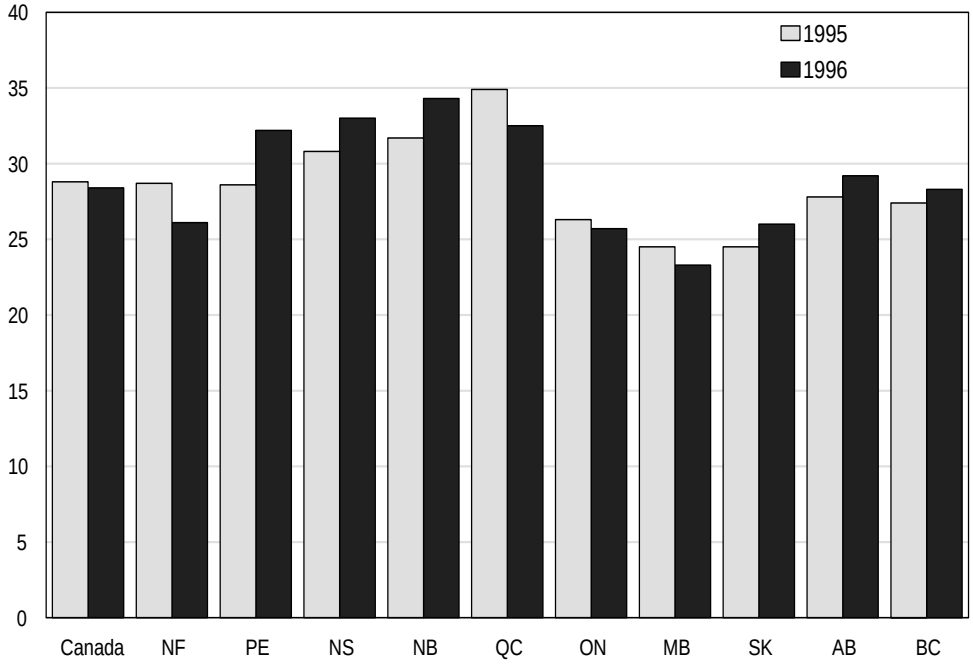
Year	Males	Females
1979	43.1	10.4
1980	44.2	10.5
1981	45.1	10.7
1982	45.9	11.8
1983	47.8	12.6
1984	47.1	12.7
1985	51.0	14.1
1986	51.2	15.3
1987	49.1	14.6
1988	51.1	16.0
1989	49.1	17.2
1990	47.7	16.6
1991	48.3	17.0
1992	45.5	17.2
1993	48.0	18.6
1994	46.4	18.3
1995	44.8	19.3
1996	43.4	19.5

By sex, Canada, 1979-1996



	1995	1996
Canada	28.8	28.4
NF	28.7	26.1
PE	28.6	32.2
NS	30.8	33.0
NB	31.7	34.3
QC	34.9	32.5
ON	26.3	25.7
MB	24.5	23.3
SK	24.5	26.0
AB	27.8	29.2
BC	27.4	28.3
YT	58.1	28.1
NT	103.4	73.9

By province, 1995 and 1996

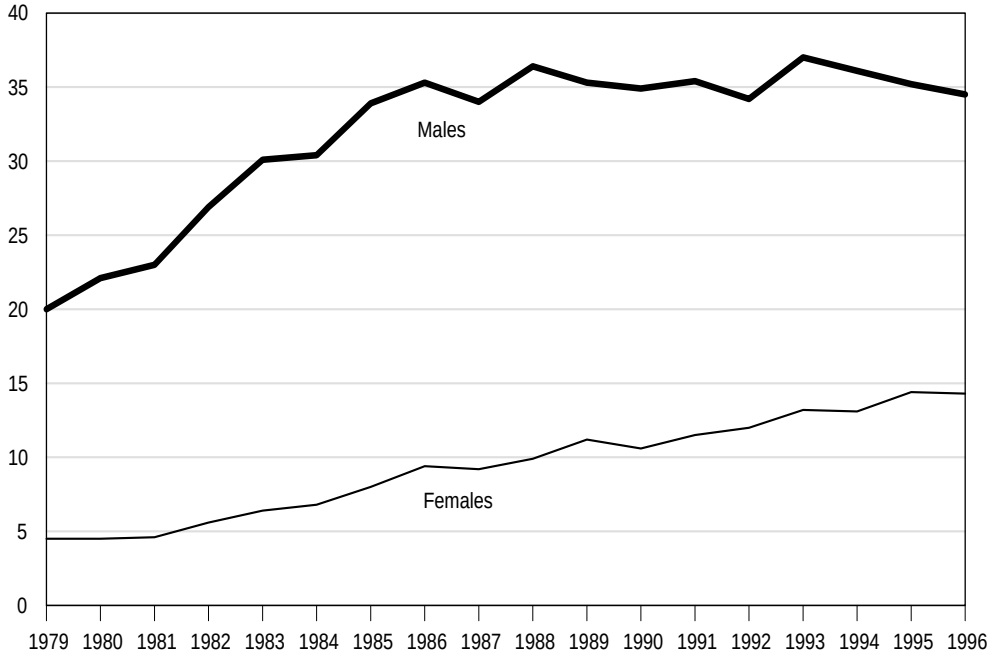


[1] *Standardized to the 1991 Canadian population.*

Figure 7.17 Chronic airways obstruction, not elsewhere classified (ICD-9: 496)
Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

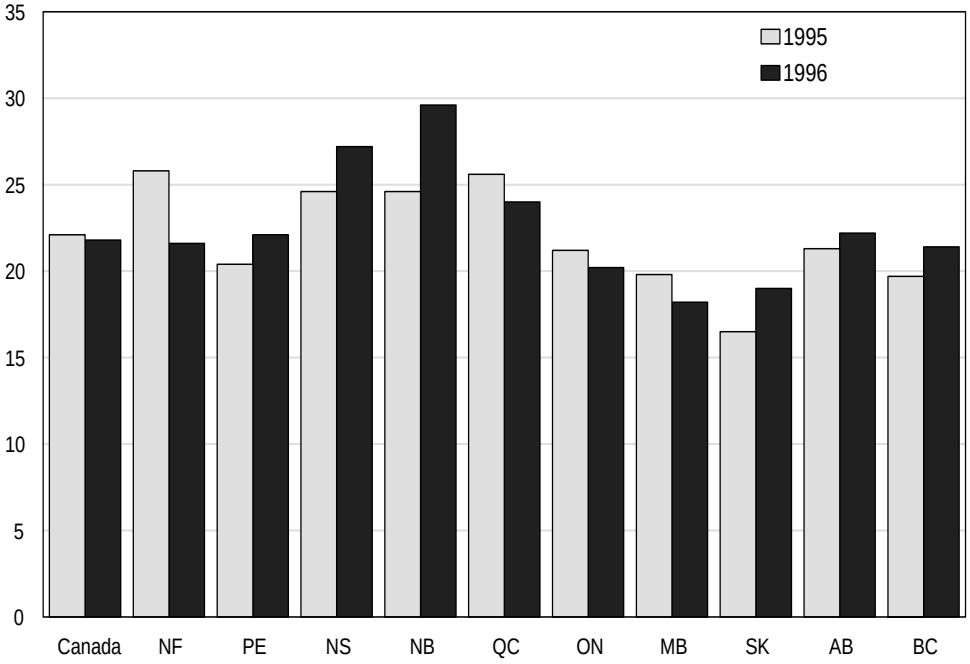
Year	Males	Females
1979	20.0	4.5
1980	22.1	4.5
1981	23.0	4.6
1982	26.9	5.6
1983	30.1	6.4
1984	30.4	6.8
1985	33.9	8.0
1986	35.3	9.4
1987	34.0	9.2
1988	36.4	9.9
1989	35.3	11.2
1990	34.9	10.6
1991	35.4	11.5
1992	34.2	12.0
1993	37.0	13.2
1994	36.1	13.1
1995	35.2	14.4
1996	34.5	14.3

By sex, Canada, 1979-1996



	1995	1996
Canada	22.1	21.8
NF	25.8	21.6
PE	20.4	22.1
NS	24.6	27.2
NB	24.6	29.6
QC	25.6	24.0
ON	21.2	20.2
MB	19.8	18.2
SK	16.5	19.0
AB	21.3	22.2
BC	19.7	21.4
YT	58.1	18.3
NT	91.2	61.3

By province, 1995 and 1996



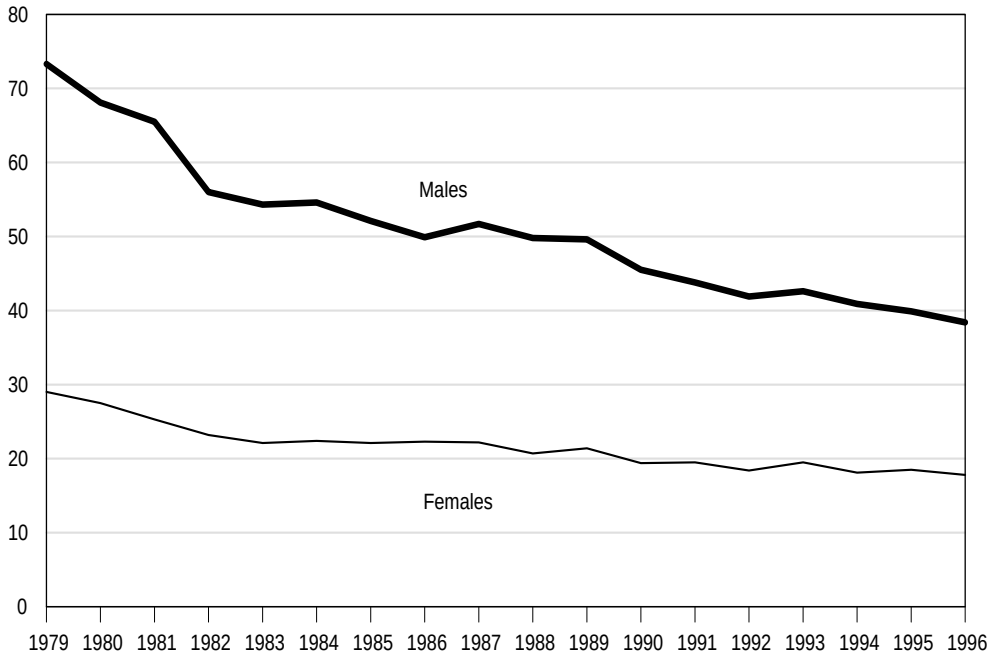
[1] *Standardized to the 1991 Canadian population.*

Figure 7.18 Unintentional injuries (ICD-9: E800-E949)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

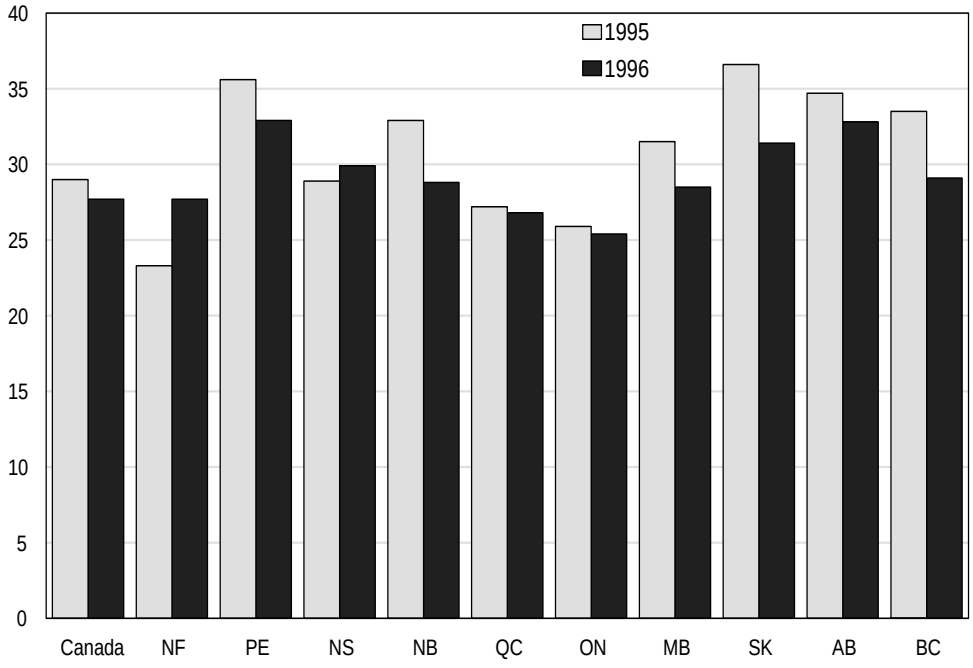
Year	Males	Females
1979	73.3	29.0
1980	68.1	27.5
1981	65.5	25.3
1982	56.0	23.2
1983	54.3	22.1
1984	54.6	22.4
1985	52.1	22.1
1986	49.9	22.3
1987	51.7	22.2
1988	49.8	20.7
1989	49.6	21.4
1990	45.5	19.4
1991	43.8	19.5
1992	41.9	18.4
1993	42.6	19.5
1994	40.9	18.1
1995	39.9	18.5
1996	38.4	17.8

By sex, Canada, 1979-1996



	1995	1996
Canada	29.0	27.7
NF	23.3	27.7
PE	35.6	32.9
NS	28.9	29.9
NB	32.9	28.8
QC	27.2	26.8
ON	25.9	25.4
MB	31.5	28.5
SK	36.6	31.4
AB	34.7	32.8
BC	33.5	29.1
YT	72.6	91.3
NT	69.7	81.9

By province, 1995 and 1996



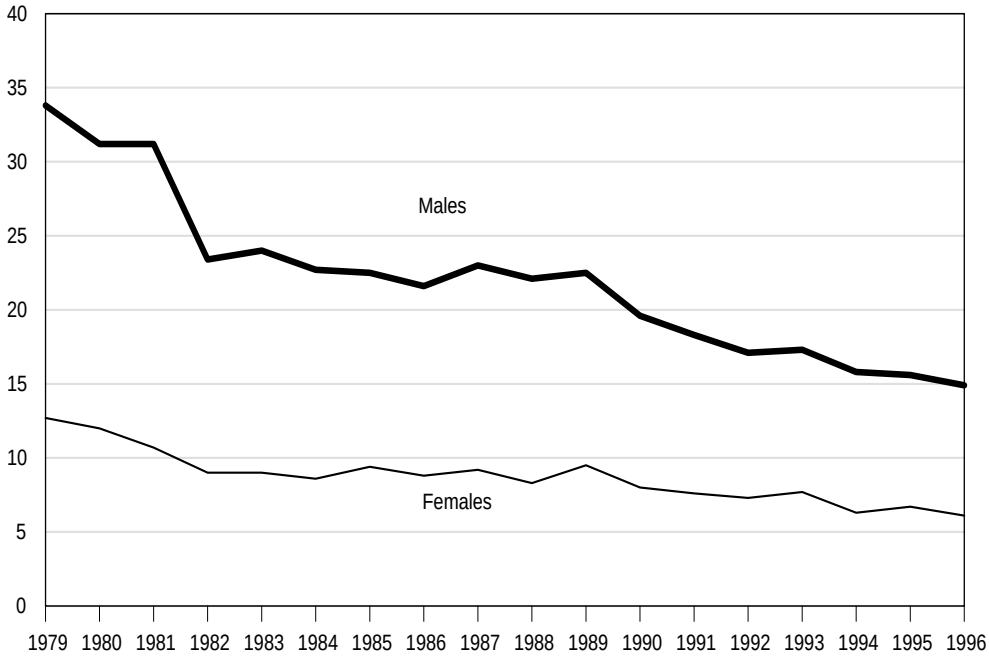
[1] *Standardized to the 1991 Canadian population.*

Figure 7.19 Motor vehicle accidents (ICD-9: E810-E825, E929.0)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

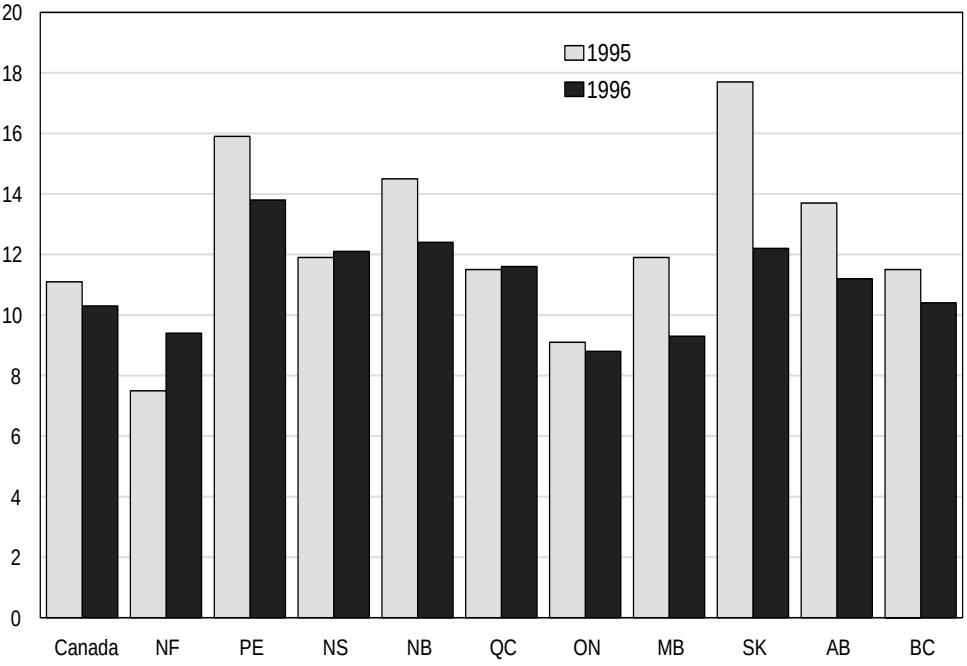
Year	Males	Females
1979	33.8	12.7
1980	31.2	12.0
1981	31.2	10.7
1982	23.4	9.0
1983	24.0	9.0
1984	22.7	8.6
1985	22.5	9.4
1986	21.6	8.8
1987	23.0	9.2
1988	22.1	8.3
1989	22.5	9.5
1990	19.6	8.0
1991	18.3	7.6
1992	17.1	7.3
1993	17.3	7.7
1994	15.8	6.3
1995	15.6	6.7
1996	14.9	6.1

By sex, Canada, 1979-1996



	1995	1996
Canada	11.1	10.3
NF	7.5	9.4
PE	15.9	13.8
NS	11.9	12.1
NB	14.5	12.4
QC	11.5	11.6
ON	9.1	8.8
MB	11.9	9.3
SK	17.7	12.2
AB	13.7	11.2
BC	11.5	10.4
YT	38.8	28.6
NT	10.6	28.0

By province, 1995 and 1996



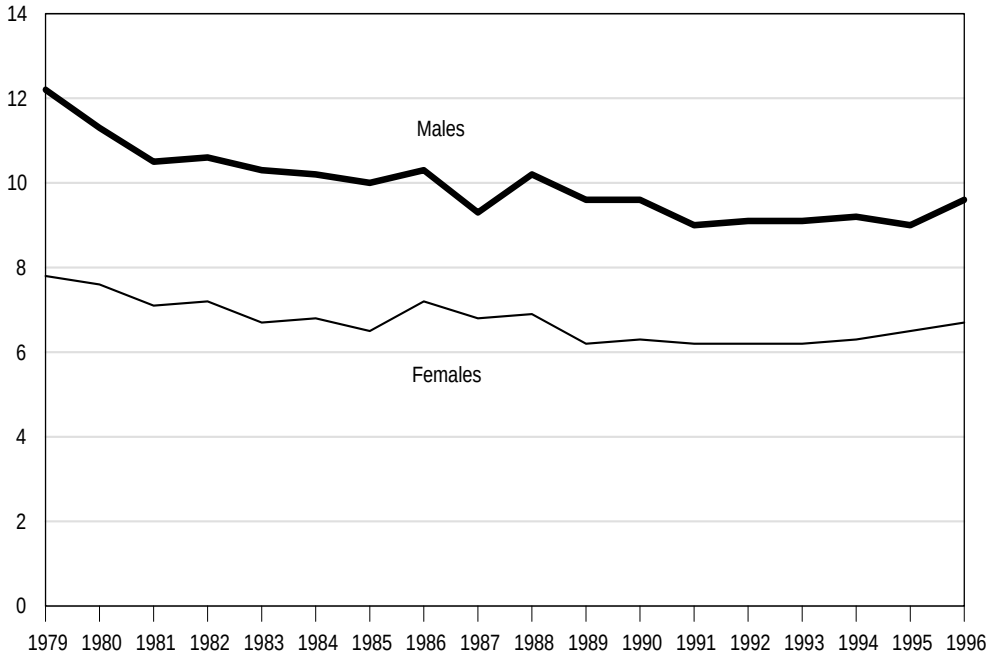
[1] *Standardized to the 1991 Canadian population.*

Figure 7.20 Accidental falls (ICD-9: E880-E888, E929.3)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

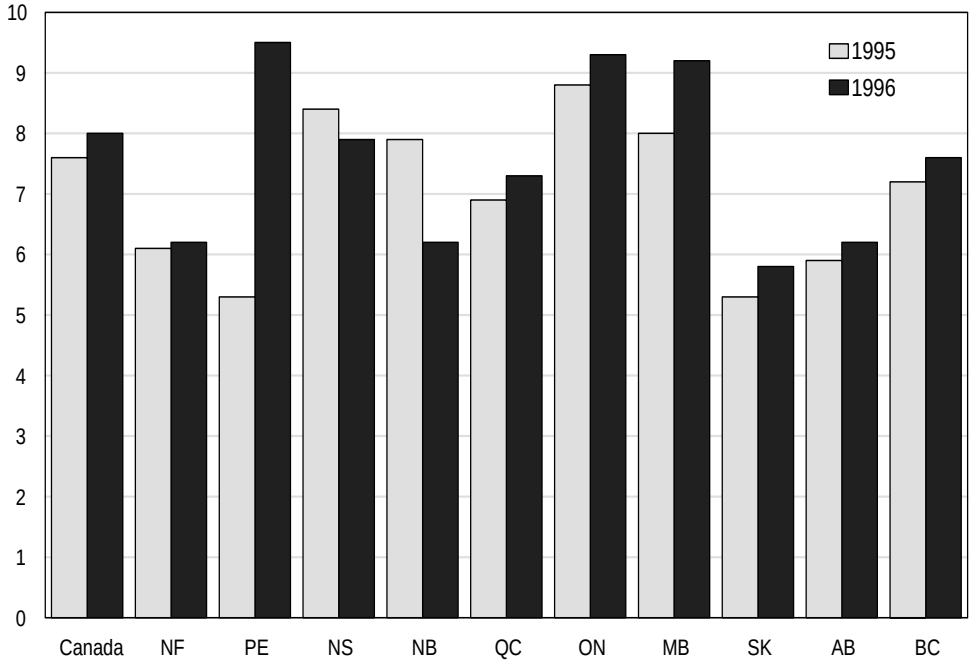
Year	Males	Females
1979	12.2	7.8
1980	11.3	7.6
1981	10.5	7.1
1982	10.6	7.2
1983	10.3	6.7
1984	10.2	6.8
1985	10.0	6.5
1986	10.3	7.2
1987	9.3	6.8
1988	10.2	6.9
1989	9.6	6.2
1990	9.6	6.3
1991	9.0	6.2
1992	9.1	6.2
1993	9.1	6.2
1994	9.2	6.3
1995	9.0	6.5
1996	9.6	6.7

By sex, Canada, 1979-1996



	1995	1996
Canada	7.6	8.0
NF	6.1	6.2
PE	5.3	9.5
NS	8.4	7.9
NB	7.9	6.2
QC	6.9	7.3
ON	8.8	9.3
MB	8.0	9.2
SK	5.3	5.8
AB	5.9	6.2
BC	7.2	7.6
YT	0.0	4.7
NT	17.2	13.4

By province, 1995 and 1996



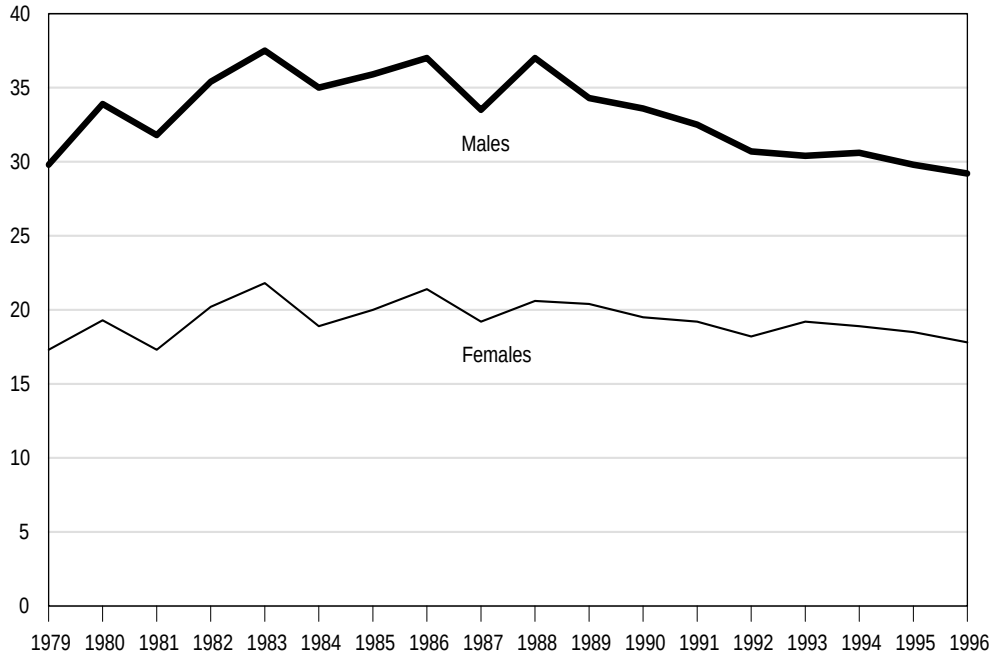
[1] *Standardized to the 1991 Canadian population.*

Figure 7.21 Pneumonia and influenza (ICD-9: 480-487)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

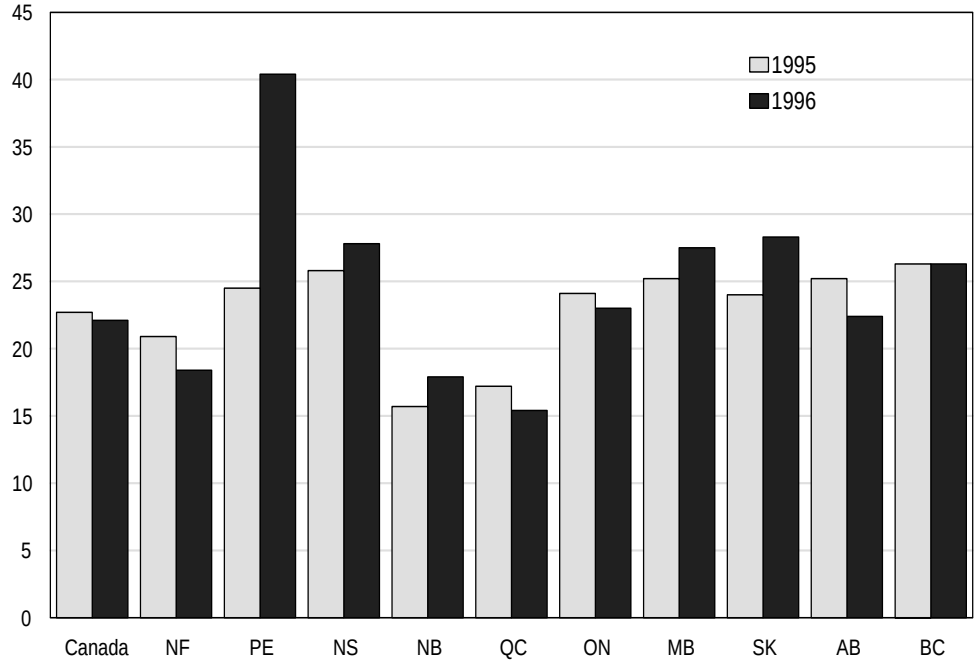
Year	Males	Females
1979	29.8	17.3
1980	33.9	19.3
1981	31.8	17.3
1982	35.4	20.2
1983	37.5	21.8
1984	35.0	18.9
1985	35.9	20.0
1986	37.0	21.4
1987	33.5	19.2
1988	37.0	20.6
1989	34.3	20.4
1990	33.6	19.5
1991	32.5	19.2
1992	30.7	18.2
1993	30.4	19.2
1994	30.6	18.9
1995	29.8	18.5
1996	29.2	17.8

By sex, Canada, 1979-1996



	1995	1996
Canada	22.7	22.1
NF	20.9	18.4
PE	24.5	40.4
NS	25.8	27.8
NB	15.7	17.9
QC	17.2	15.4
ON	24.1	23.0
MB	25.2	27.5
SK	24.0	28.3
AB	25.2	22.4
BC	26.3	26.3
YT	24.2	18.0
NT	40.3	71.3

By province, 1995 and 1996



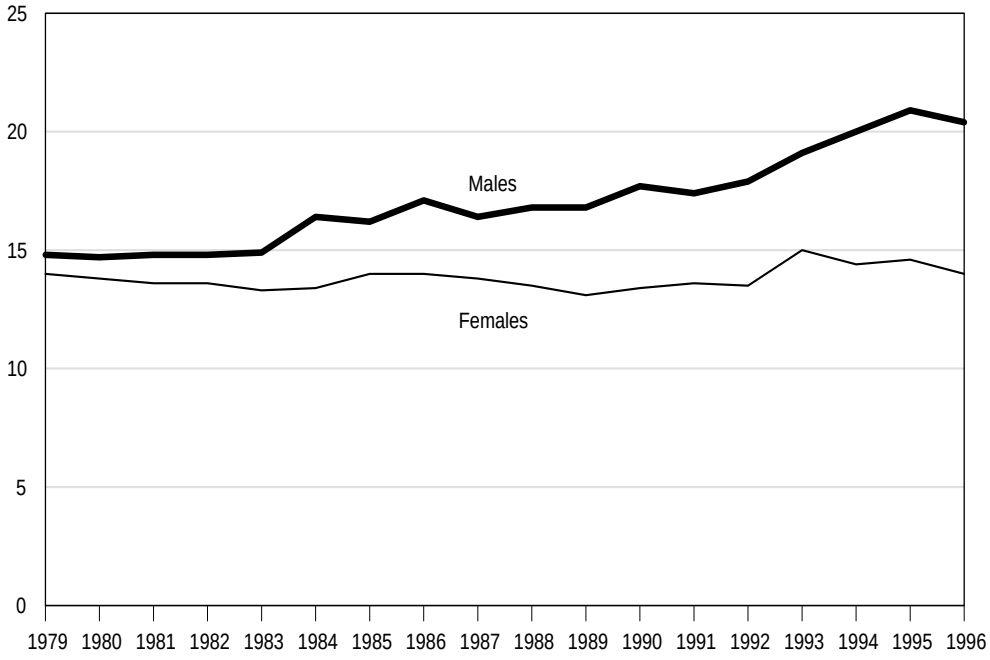
[1] *Standardized to the 1991 Canadian population.*

Figure 7.22 Diabetes mellitus (ICD-9: 250)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

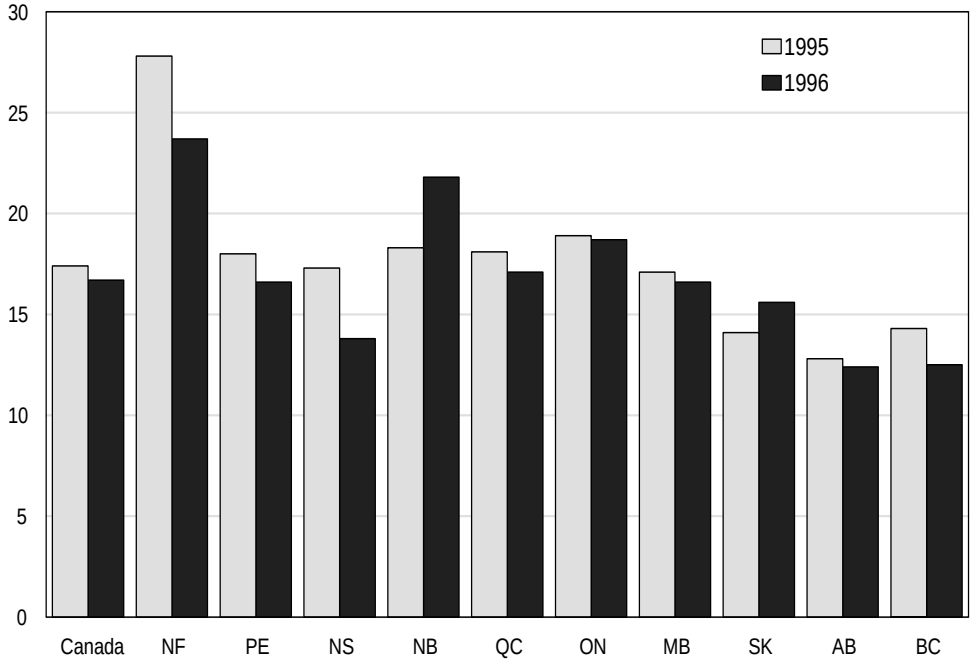
Year	Males	Females
1979	14.8	14.0
1980	14.7	13.8
1981	14.8	13.6
1982	14.8	13.6
1983	14.9	13.3
1984	16.4	13.4
1985	16.2	14.0
1986	17.1	14.0
1987	16.4	13.8
1988	16.8	13.5
1989	16.8	13.1
1990	17.7	13.4
1991	17.4	13.6
1992	17.9	13.5
1993	19.1	15.0
1994	20.0	14.4
1995	20.9	14.6
1996	20.4	14.0

By sex, Canada, 1979-1996



	1995	1996
Canada	17.4	16.7
NF	27.8	23.7
PE	18.0	16.6
NS	17.3	13.8
NB	18.3	21.8
QC	18.1	17.1
ON	18.9	18.7
MB	17.1	16.6
SK	14.1	15.6
AB	12.8	12.4
BC	14.3	12.5
YT	26.6	23.3
NT	7.7	3.1

By province, 1995 and 1996



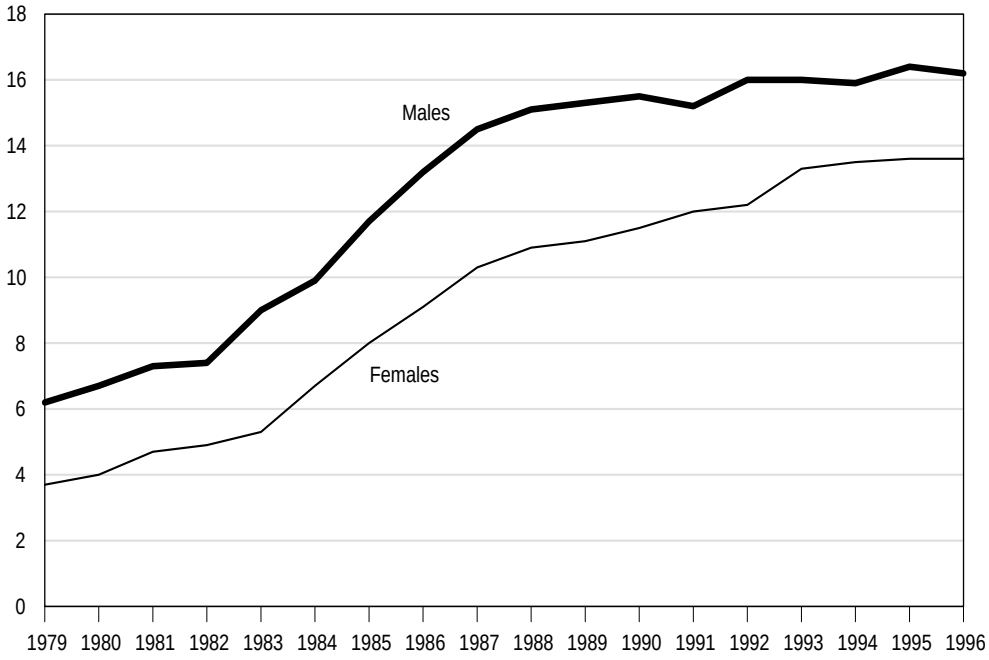
[1] *Standardized to the 1991 Canadian population.*

Figure 7.23 Hereditary and degenerative diseases of the central nervous system (ICD-9: 330-337)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

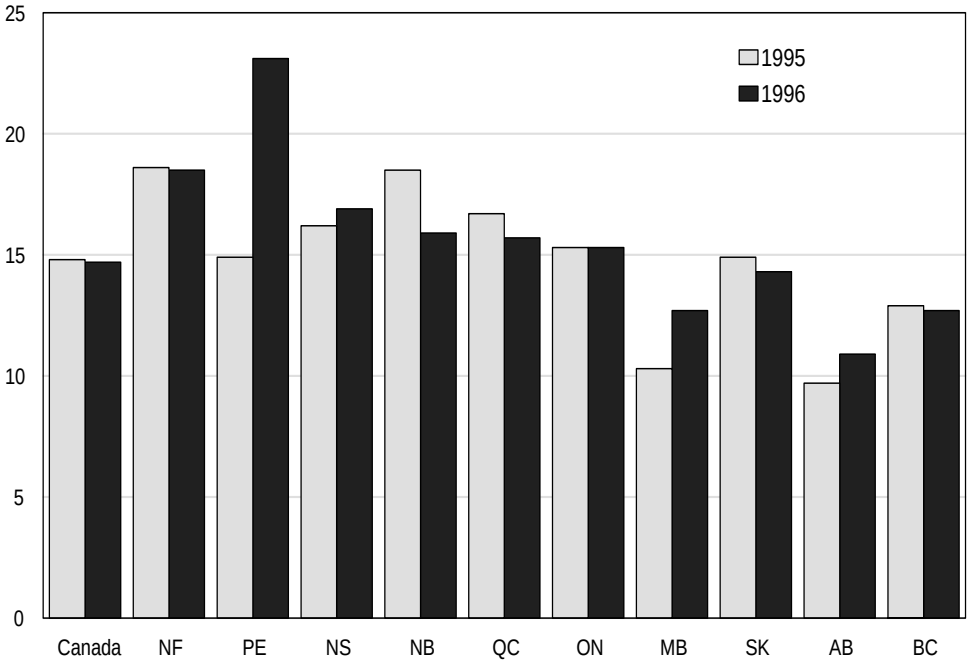
Year	Males	Females
1979	6.2	3.7
1980	6.7	4.0
1981	7.3	4.7
1982	7.4	4.9
1983	9.0	5.3
1984	9.9	6.7
1985	11.7	8.0
1986	13.2	9.1
1987	14.5	10.3
1988	15.1	10.9
1989	15.3	11.1
1990	15.5	11.5
1991	15.2	12.0
1992	16.0	12.2
1993	16.0	13.3
1994	15.9	13.5
1995	16.4	13.6
1996	16.2	13.6

By sex, Canada, 1979-1996



	1995	1996
Canada	14.8	14.7
NF	18.6	18.5
PE	14.9	23.1
NS	16.2	16.9
NB	18.5	15.9
QC	16.7	15.7
ON	15.3	15.3
MB	10.3	12.7
SK	14.9	14.3
AB	9.7	10.9
BC	12.9	12.7
YT	18.8	35.2
NT	9.8	6.1

By province, 1995 and 1996



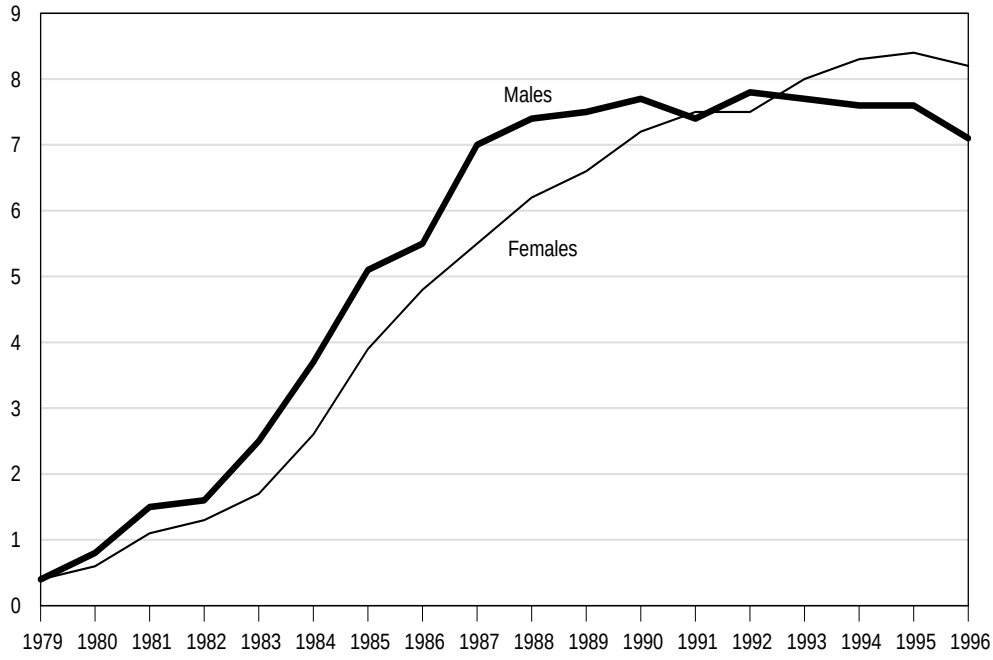
[1] *Standardized to the 1991 Canadian population.*

Figure 7.24 Alzheimer's disease (ICD-9: 331.0)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

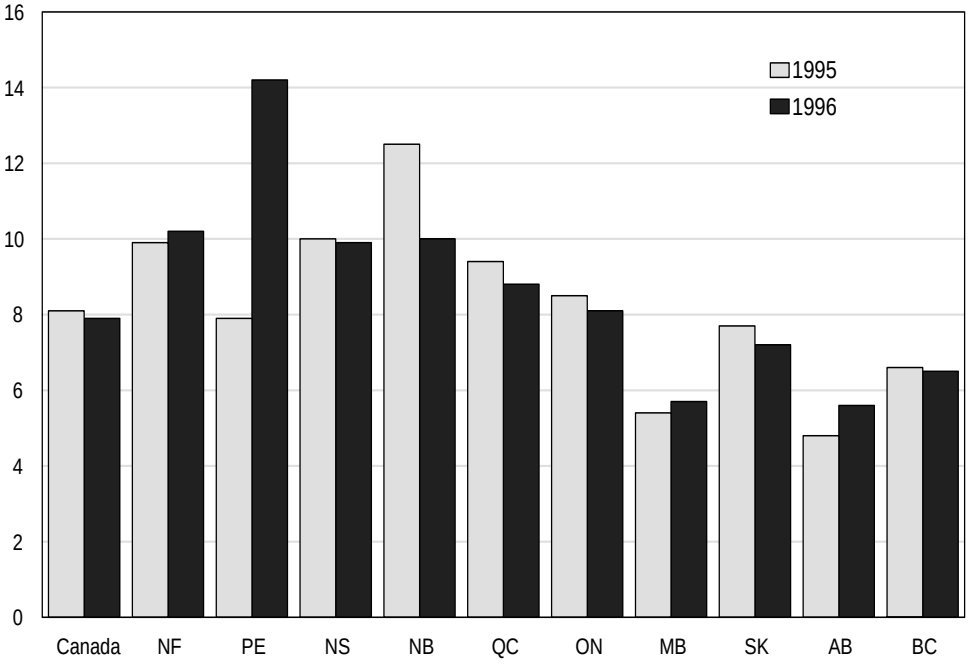
Year	Males	Females
1979	0.4	0.4
1980	0.8	0.6
1981	1.5	1.1
1982	1.6	1.3
1983	2.5	1.7
1984	3.7	2.6
1985	5.1	3.9
1986	5.5	4.8
1987	7.0	5.5
1988	7.4	6.2
1989	7.5	6.6
1990	7.7	7.2
1991	7.4	7.5
1992	7.8	7.5
1993	7.7	8.0
1994	7.6	8.3
1995	7.6	8.4
1996	7.1	8.2

By sex, Canada, 1979-1996



	1995	1996
Canada	8.1	7.9
NF	9.9	10.2
PE	7.9	14.2
NS	10.0	9.9
NB	12.5	10.0
QC	9.4	8.8
ON	8.5	8.1
MB	5.4	5.7
SK	7.7	7.2
AB	4.8	5.6
BC	6.6	6.5
YT	16.2	35.2
NT	7.7	0.0

By province, 1995 and 1996



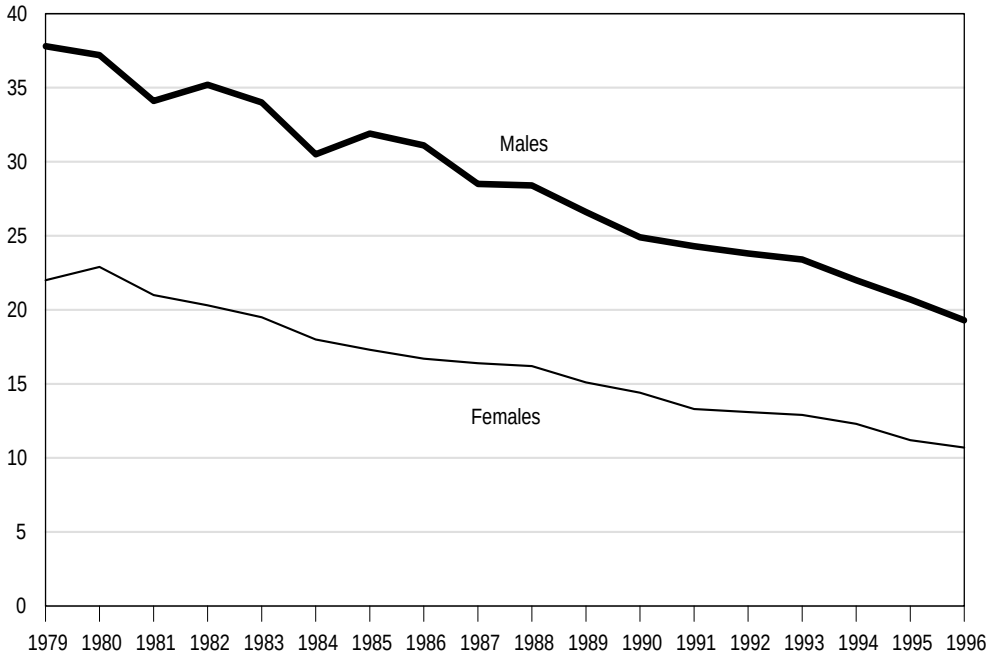
[1] *Standardized to the 1991 Canadian population.*

Figure 7.25 Diseases of arteries, arterioles and capillaries (ICD-9: 440-448)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

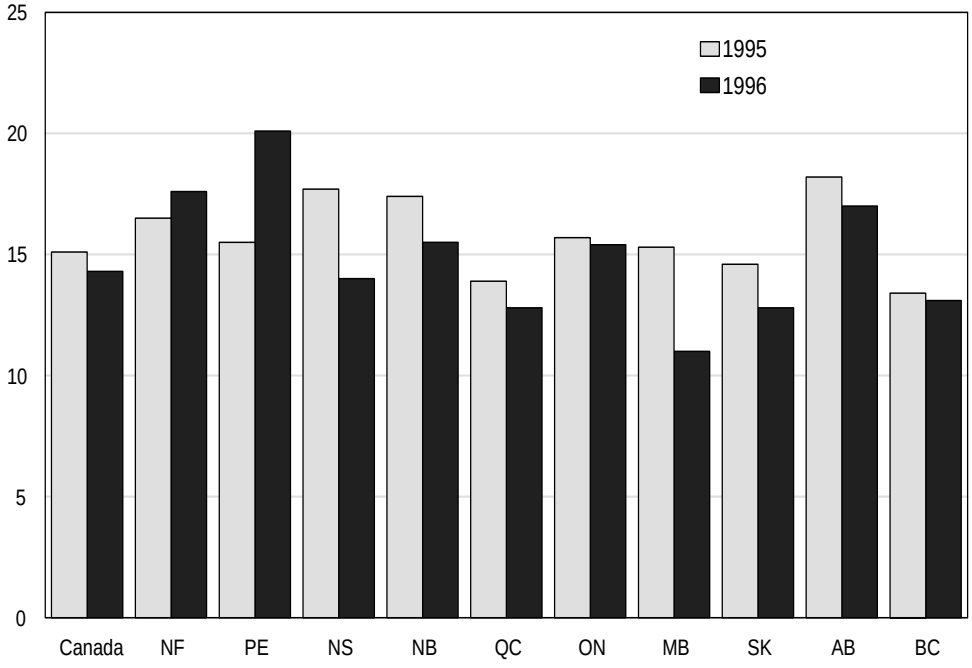
Year	Males	Females
1979	37.8	22.0
1980	37.2	22.9
1981	34.1	21.0
1982	35.2	20.3
1983	34.0	19.5
1984	30.5	18.0
1985	31.9	17.3
1986	31.1	16.7
1987	28.5	16.4
1988	28.4	16.2
1989	26.6	15.1
1990	24.9	14.4
1991	24.3	13.3
1992	23.8	13.1
1993	23.4	12.9
1994	22.0	12.3
1995	20.7	11.2
1996	19.3	10.7

By sex, Canada, 1979-1996



	1995	1996
Canada	15.1	14.3
NF	16.5	17.6
PE	15.5	20.1
NS	17.7	14.0
NB	17.4	15.5
QC	13.9	12.8
ON	15.7	15.4
MB	15.3	11.0
SK	14.6	12.8
AB	18.2	17.0
BC	13.4	13.1
YT	37.2	0.0
NT	4.4	1.4

By province, 1995 and 1996



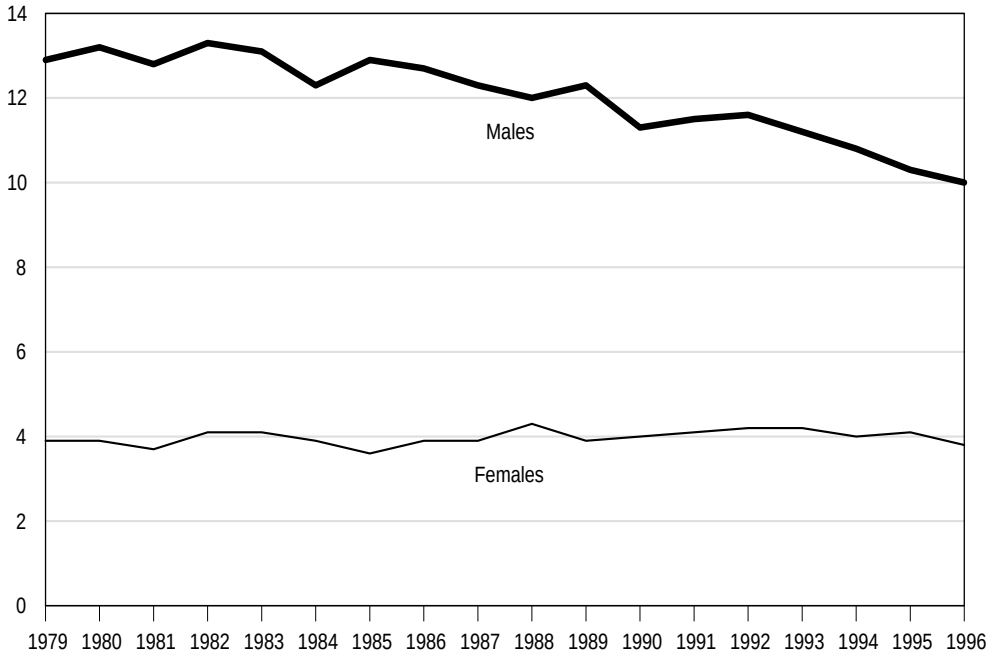
[1] *Standardized to the 1991 Canadian population.*

Figure 7.26 Aortic aneurysm (ICD-9: 441)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

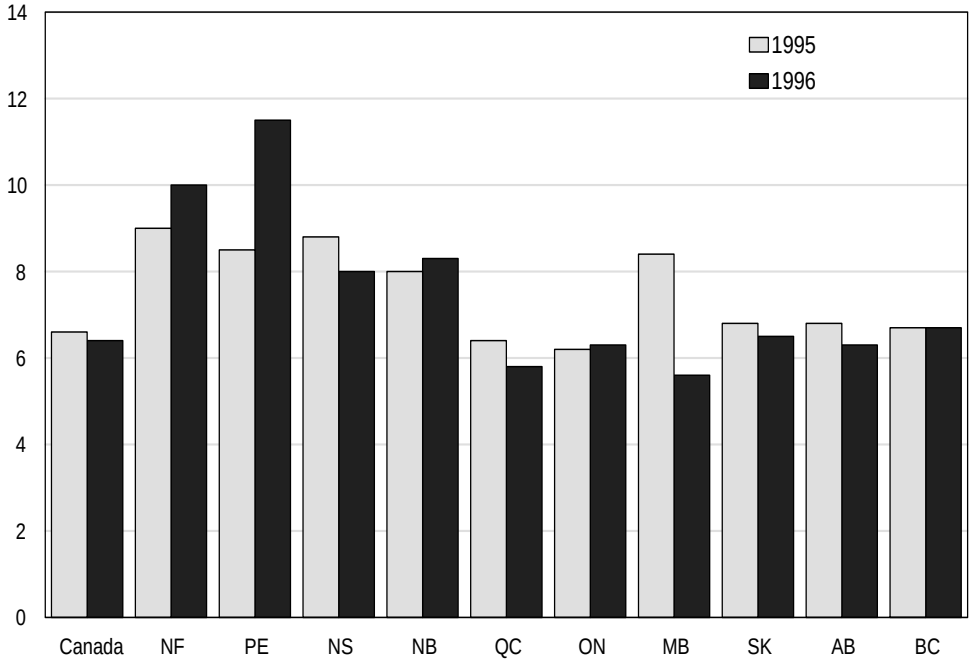
Year	Males	Females
1979	12.9	3.9
1980	13.2	3.9
1981	12.8	3.7
1982	13.3	4.1
1983	13.1	4.1
1984	12.3	3.9
1985	12.9	3.6
1986	12.7	3.9
1987	12.3	3.9
1988	12.0	4.3
1989	12.3	3.9
1990	11.3	4.0
1991	11.5	4.1
1992	11.6	4.2
1993	11.2	4.2
1994	10.8	4.0
1995	10.3	4.1
1996	10.0	3.8

By sex, Canada, 1979-1996



	1995	1996
Canada	6.6	6.4
NF	9.0	10.0
PE	8.5	11.5
NS	8.8	8.0
NB	8.0	8.3
QC	6.4	5.8
ON	6.2	6.3
MB	8.4	5.6
SK	6.8	6.5
AB	6.8	6.3
BC	6.7	6.7
YT	26.2	0.0
NT	4.4	0.0

By province, 1995 and 1996



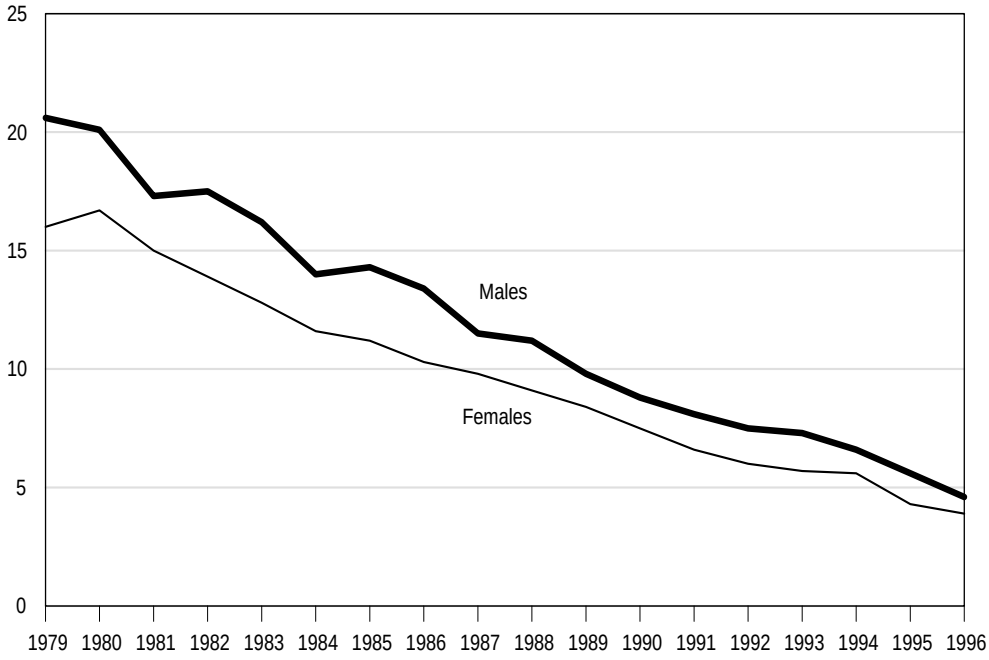
[1] *Standardized to the 1991 Canadian population.*

Figure 7.27 Atherosclerosis (ICD-9: 440)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

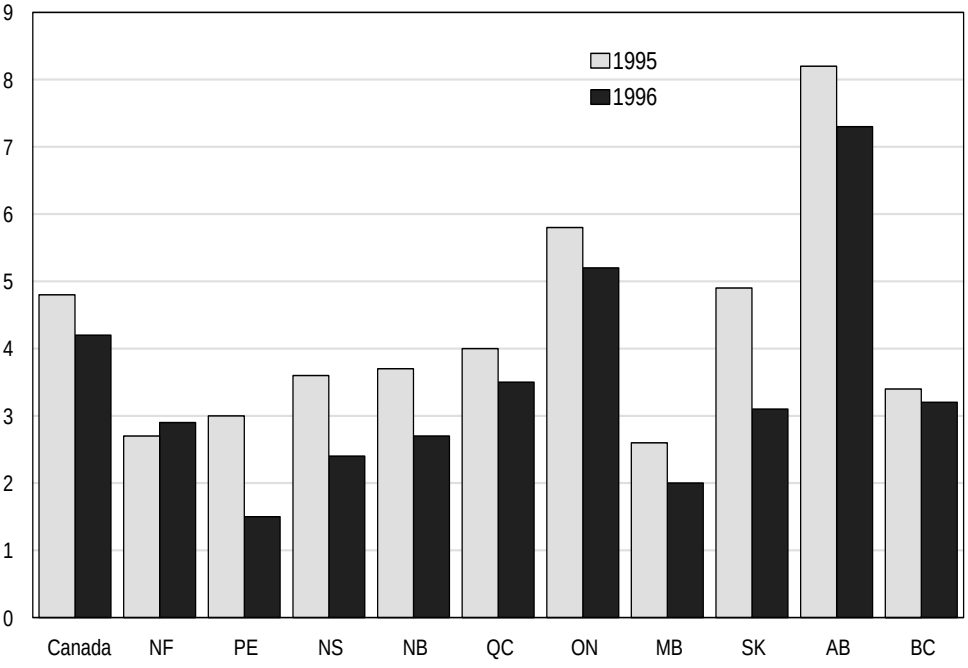
Year	Males	Females
1979	20.6	16.0
1980	20.1	16.7
1981	17.3	15.0
1982	17.5	13.9
1983	16.2	12.8
1984	14.0	11.6
1985	14.3	11.2
1986	13.4	10.3
1987	11.5	9.8
1988	11.2	9.1
1989	9.8	8.4
1990	8.8	7.5
1991	8.1	6.6
1992	7.5	6.0
1993	7.3	5.7
1994	6.6	5.6
1995	5.6	4.3
1996	4.6	3.9

By sex, Canada, 1979-1996



	1995	1996
Canada	4.8	4.2
NF	2.7	2.9
PE	3.0	1.5
NS	3.6	2.4
NB	3.7	2.7
QC	4.0	3.5
ON	5.8	5.2
MB	2.6	2.0
SK	4.9	3.1
AB	8.2	7.3
BC	3.4	3.2
YT	0.0	0.0
NT	0.0	0.0

By province, 1995 and 1996



[1] *Standardized to the 1991 Canadian population.*

Figure 7.28 Psychoses (ICD-9: 290-299)

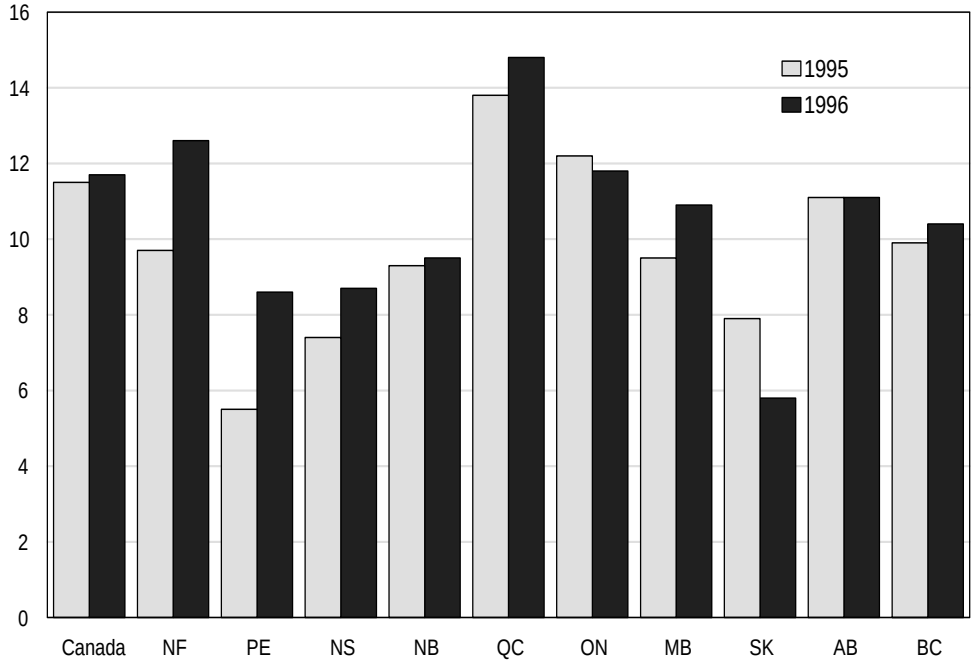
Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

Year	Males	Females
1979	3.0	1.9
1980	3.0	2.2
1981	3.1	2.4
1982	4.3	3.2
1983	3.9	3.0
1984	4.6	3.3
1985	5.2	4.0
1986	5.2	4.6
1987	5.2	4.6
1988	5.7	4.7
1989	6.3	5.3
1990	6.7	6.3
1991	7.8	6.8
1992	8.0	7.8
1993	9.8	8.4
1994	10.2	10.1
1995	11.1	11.5
1996	11.4	11.7

By sex, Canada, 1979-1996

	1995	1996
Canada	11.5	11.7
NF	9.7	12.6
PE	5.5	8.6
NS	7.4	8.7
NB	9.3	9.5
QC	13.8	14.8
ON	12.2	11.8
MB	9.5	10.9
SK	7.9	5.8
AB	11.1	11.1
BC	9.9	10.4
YT	0.0	8.1
NT	0.0	7.4

By province, 1995 and 1996



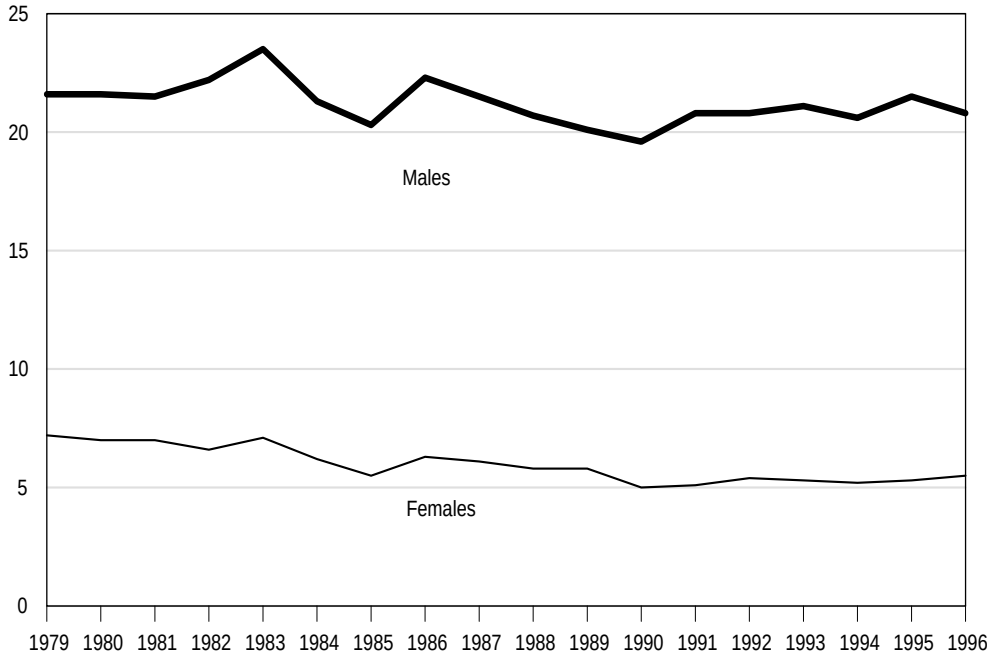
[1] *Standardized to the 1991 Canadian population.*

Figure 7.29 Suicide (ICD-9: E950-E959)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

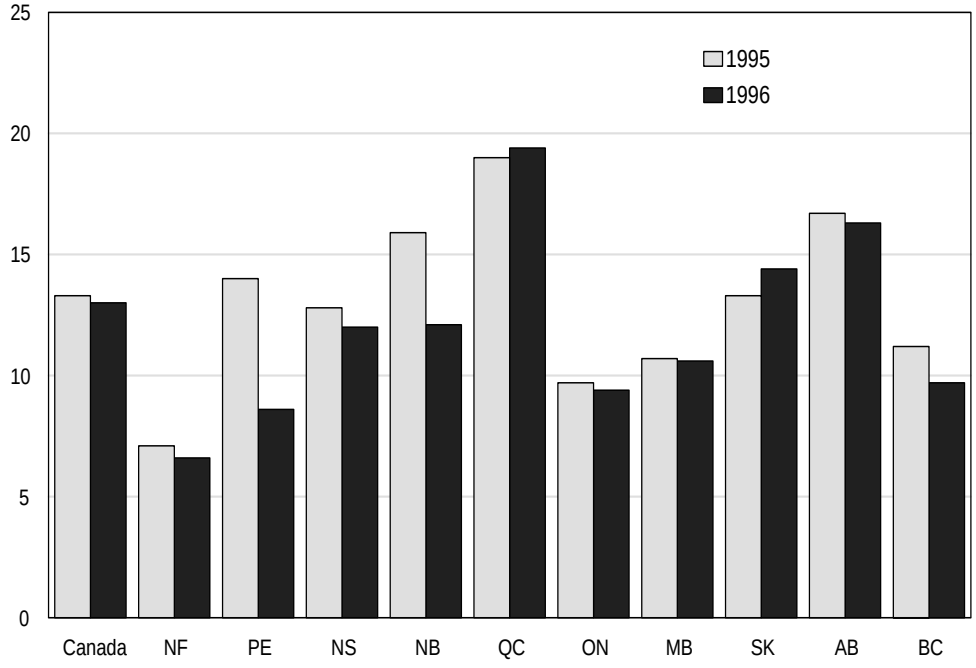
Year	Males	Females
1979	21.6	7.2
1980	21.6	7.0
1981	21.5	7.0
1982	22.2	6.6
1983	23.5	7.1
1984	21.3	6.2
1985	20.3	5.5
1986	22.3	6.3
1987	21.5	6.1
1988	20.7	5.8
1989	20.1	5.8
1990	19.6	5.0
1991	20.8	5.1
1992	20.8	5.4
1993	21.1	5.3
1994	20.6	5.2
1995	21.5	5.3
1996	20.8	5.5

By sex, Canada, 1979-1996



	1995	1996
Canada	13.3	13.0
NF	7.1	6.6
PE	14.0	8.6
NS	12.8	12.0
NB	15.9	12.1
QC	19.0	19.4
ON	9.7	9.4
MB	10.7	10.6
SK	13.3	14.4
AB	16.7	16.3
BC	11.2	9.7
YT	25.3	31.1
NT	21.3	32.0

By province, 1995 and 1996



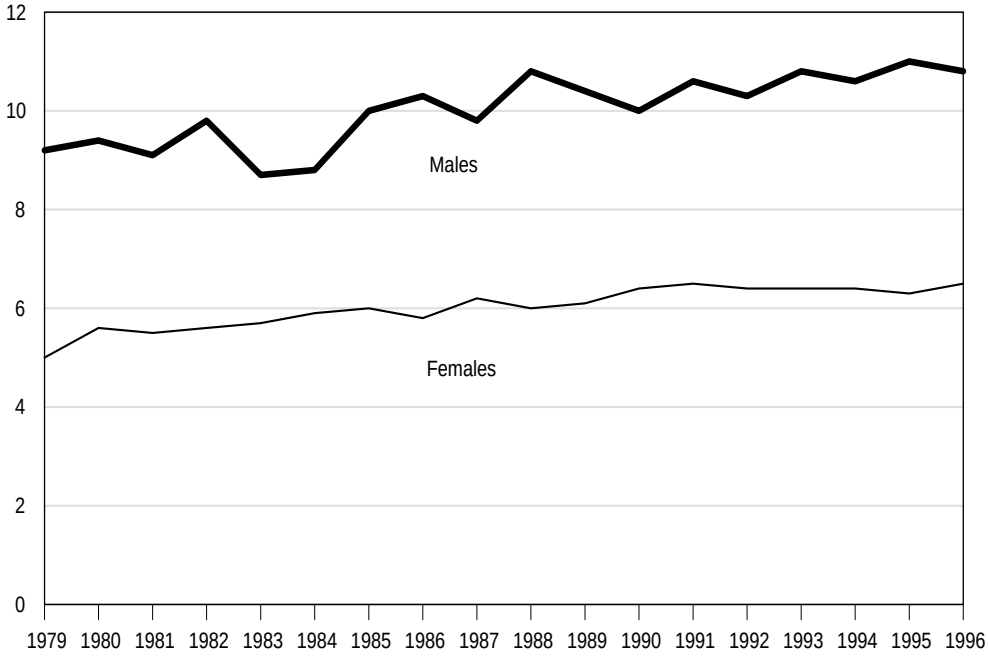
[1] *Standardized to the 1991 Canadian population.*

Figure 7.30 Nephritis, nephrotic syndrome and nephrosis (ICD-9: 580-589)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

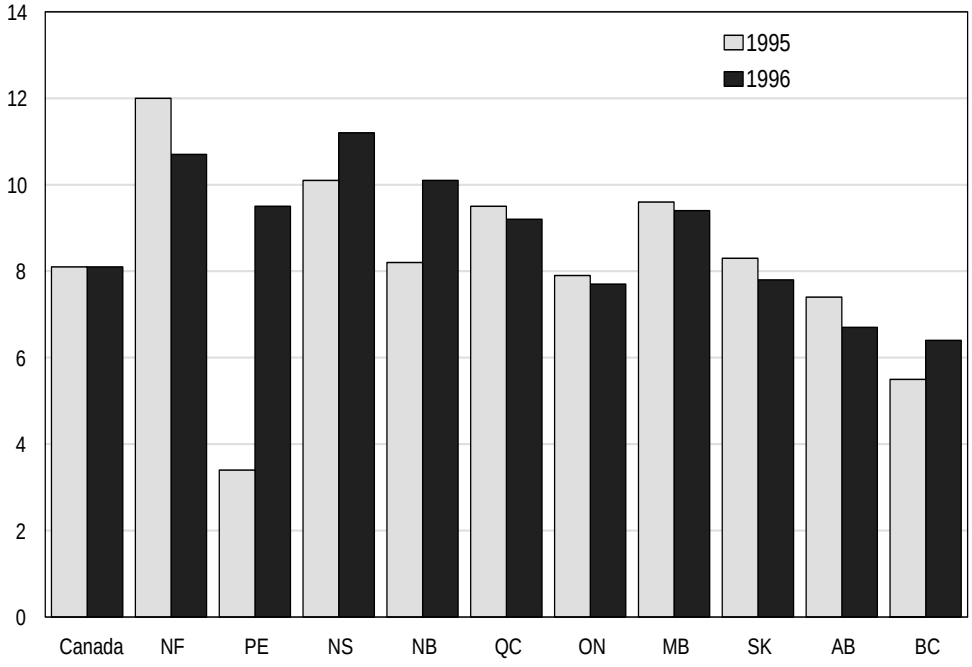
Year	Males	Females
1979	9.2	5.0
1980	9.4	5.6
1981	9.1	5.5
1982	9.8	5.6
1983	8.7	5.7
1984	8.8	5.9
1985	10.0	6.0
1986	10.3	5.8
1987	9.8	6.2
1988	10.8	6.0
1989	10.4	6.1
1990	10.0	6.4
1991	10.6	6.5
1992	10.3	6.4
1993	10.8	6.4
1994	10.6	6.4
1995	11.0	6.3
1996	10.8	6.5

By sex, Canada, 1979-1996



	1995	1996
Canada	8.1	8.1
NF	12.0	10.7
PE	3.4	9.5
NS	10.1	11.2
NB	8.2	10.1
QC	9.5	9.2
ON	7.9	7.7
MB	9.6	9.4
SK	8.3	7.8
AB	7.4	6.7
BC	5.5	6.4
YT	0.0	25.2
NT	0.0	7.5

By province, 1995 and 1996



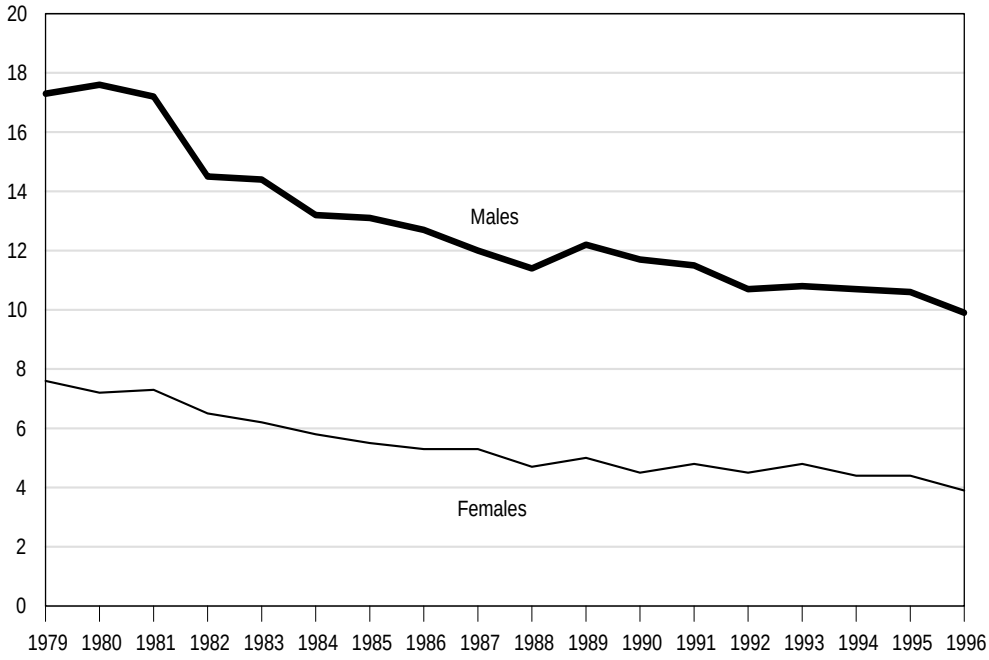
[1] *Standardized to the 1991 Canadian population.*

Figure 7.31 Chronic liver diseases and cirrhosis (ICD-9: 571)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

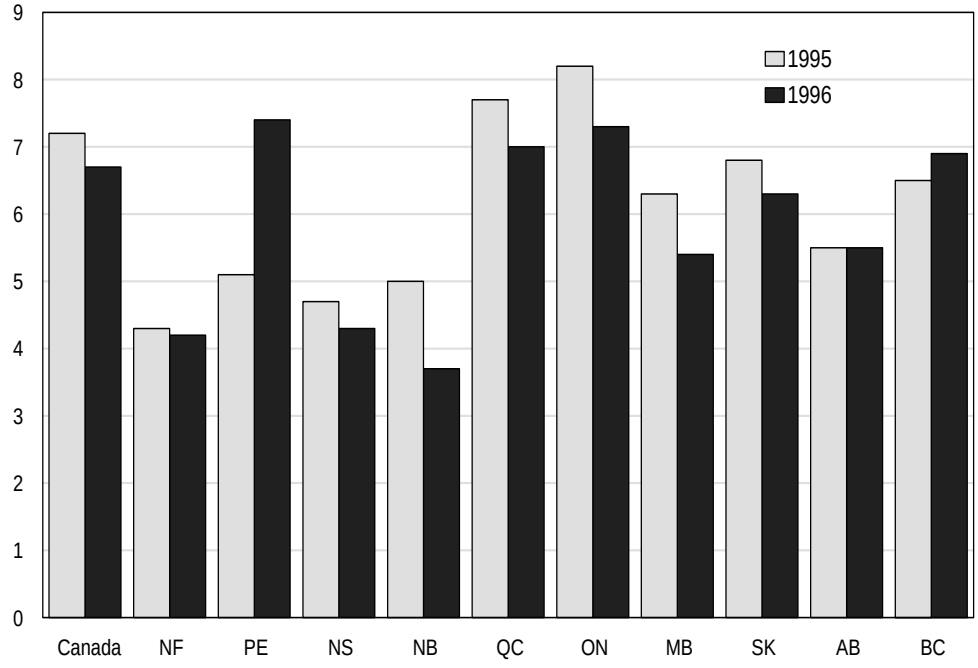
Year	Males	Females
1979	17.3	7.6
1980	17.6	7.2
1981	17.2	7.3
1982	14.5	6.5
1983	14.4	6.2
1984	13.2	5.8
1985	13.1	5.5
1986	12.7	5.3
1987	12.0	5.3
1988	11.4	4.7
1989	12.2	5.0
1990	11.7	4.5
1991	11.5	4.8
1992	10.7	4.5
1993	10.8	4.8
1994	10.7	4.4
1995	10.6	4.4
1996	9.9	3.9

By sex, Canada, 1979-1996



	1995	1996
Canada	7.2	6.7
NF	4.3	4.2
PE	5.1	7.4
NS	4.7	4.3
NB	5.0	3.7
QC	7.7	7.0
ON	8.2	7.3
MB	6.3	5.4
SK	6.8	6.3
AB	5.5	5.5
BC	6.5	6.9
YT	16.3	13.5
NT	8.5	7.8

By province, 1995 and 1996



[1] *Standardized to the 1991 Canadian population.*

Figure 7.32 Human immunodeficiency virus (HIV) infection (ICD-9: 042-044)

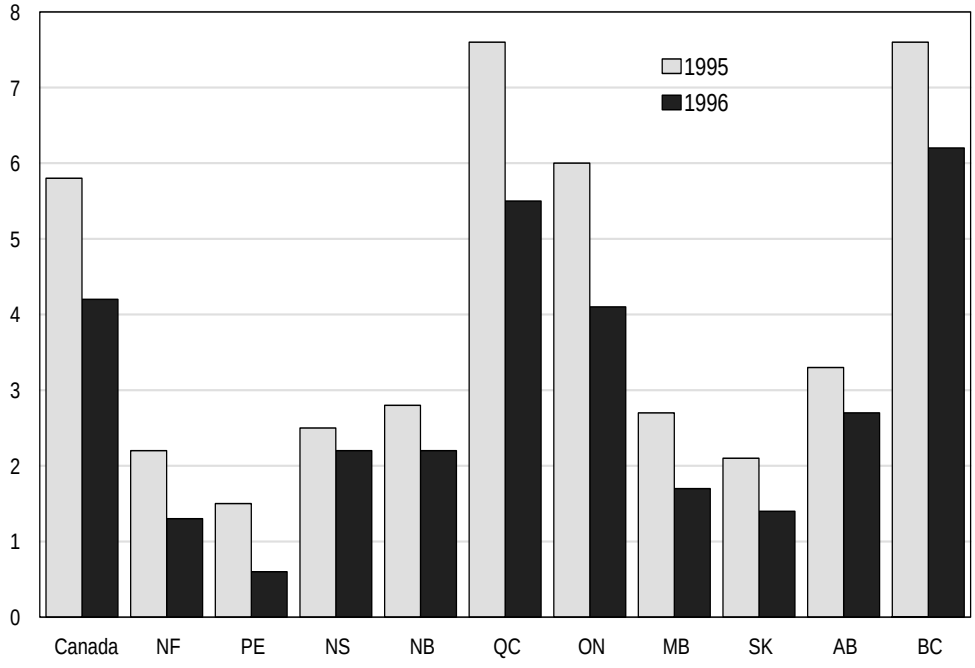
Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

Year	Males	Females
1979	...	...
1980	...	...
1981	...	...
1982	...	...
1983	...	...
1984	...	...
1985	...	...
1986	...	...
1987	3.8	0.3
1988	4.7	0.4
1989	5.9	0.4
1990	6.8	0.3
1991	7.8	0.5
1992	8.9	0.5
1993	10.0	0.6
1994	9.9	1.0
1995	10.7	0.9
1996	7.7	0.7

By sex, Canada, 1979-1996

	1995	1996
Canada	5.8	4.2
NF	2.2	1.3
PE	1.5	0.6
NS	2.5	2.2
NB	2.8	2.2
QC	7.6	5.5
ON	6.0	4.1
MB	2.7	1.7
SK	2.1	1.4
AB	3.3	2.7
BC	7.6	6.2
YT	0.0	0.0
NT	2.2	3.8

By province, 1995 and 1996



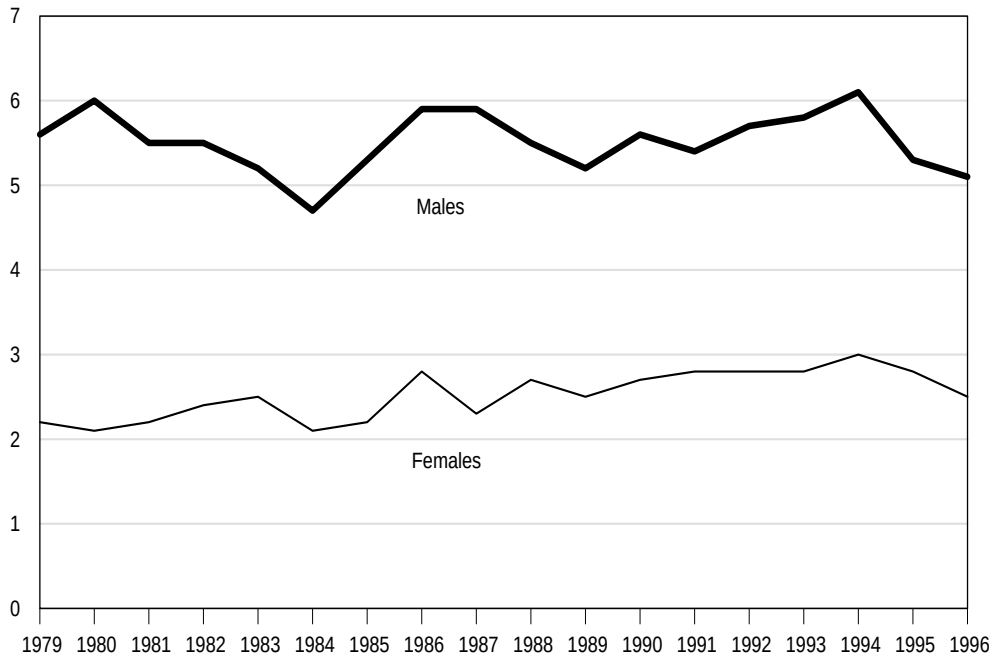
[1] *Standardized to the 1991 Canadian population.*

Figure 7.33 Neurotic disorders, personality disorders and other nonpsychotic mental disorders (ICD-9: 300-316)

Age-standardized[1] mortality rates by sex (deaths per 100,000 population)

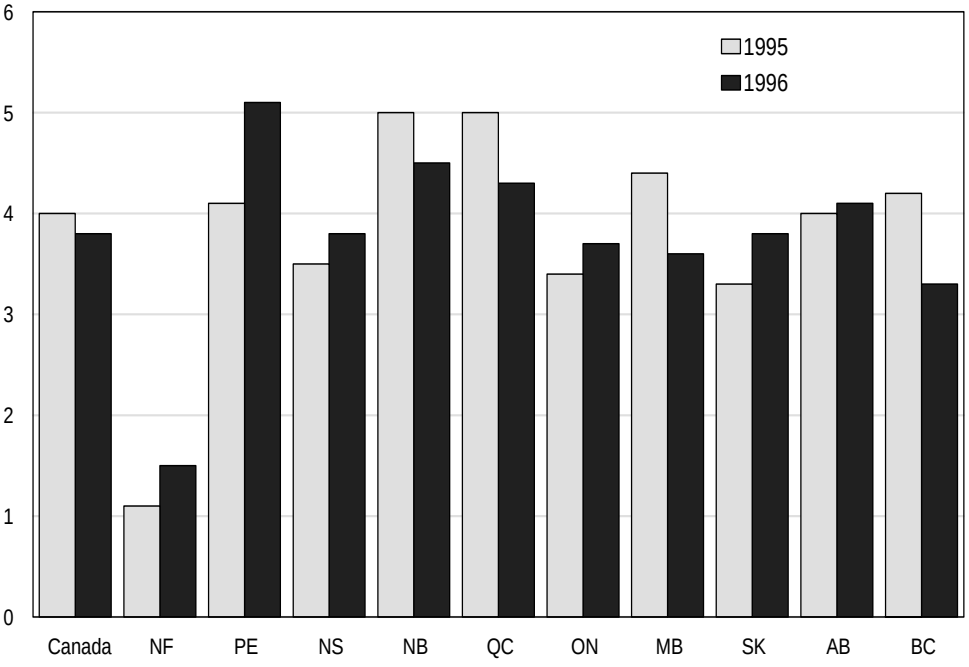
Year	Males	Females
1979	5.6	2.2
1980	6.0	2.1
1981	5.5	2.2
1982	5.5	2.4
1983	5.2	2.5
1984	4.7	2.1
1985	5.3	2.2
1986	5.9	2.8
1987	5.9	2.3
1988	5.5	2.7
1989	5.2	2.5
1990	5.6	2.7
1991	5.4	2.8
1992	5.7	2.8
1993	5.8	2.8
1994	6.1	3.0
1995	5.3	2.8
1996	5.1	2.5

By sex, Canada, 1979-1996



	1995	1996
Canada	4.0	3.8
NF	1.1	1.5
PE	4.1	5.1
NS	3.5	3.8
NB	5.0	4.5
QC	5.0	4.3
ON	3.4	3.7
MB	4.4	3.6
SK	3.3	3.8
AB	4.0	4.1
BC	4.2	3.3
YT	15.9	36.5
NT	19.5	1.5

By province, 1995 and 1996



[1] *Standardized to the 1991 Canadian population.*

Highlights - Leading causes of death by age and sex

Table 7.2 lists the leading causes of death in 1996 for people in eight specific age groups.[1] The ranking is based on the total number of deaths recorded for both sexes combined in each age range.

- In 1996, more men than women died at all ages below the oldest age group (85 years and over). In particular, many more men than women died at ages 45 to 74 (49,100 males versus 31,000 females). In contrast, female deaths vastly outnumbered those of their male counterparts in the 85 and older group (33,800 versus 18,600, respectively).

- About 10% of the 111,400 male deaths reported in 1996 and 6% of the 101,500 female deaths occurred before age 45. In most of these cases, the decedent was aged 25 to 44. Nevertheless, mortality among infants (under one year) was much higher than that among children aged 1 to 14 years (2,100 compared with 1,100, respectively).

- Deaths due to certain conditions originating in the perinatal period (in the late fetal period or within the first week after birth) or to congenital anomalies accounted for three-quarters of infant mortality.

- Unintentional injuries (accidents) were the leading cause of death for both boys (37% of deaths) and girls (29%) aged 1 to 14. Cancer and congenital anomalies combined accounted for an additional 25% and 30% of deaths, respectively. Although the data are not shown here, suicide, the fourth leading cause of death in this age group, occurred mainly among 10- to 14-year-olds: 9% of the boys and 7% of the girls in this age range who died had committed suicide.

- Unintentional injuries were also responsible for a particularly high proportion of deaths among persons aged 15 to 24 (45% of male and 42% of female mortality). Suicide was the second leading cause of death (28% of male and 14% of female mortality). Males accounted for almost three-quarters of all deaths in this age group.

- Cancer was the leading cause of death for all persons aged 25 to 44. However, the majority of cancer deaths at these ages occurred among females: almost 4 in 10 female deaths were due to cancer, compared with only 13% of male deaths. Death from unintentional injuries continued to predominate among men (over 1 in 5 deaths in this age group), closely followed by suicide. The total number of deaths due to suicide (1,770 for both sexes combined) was almost twice that from HIV (904), the fifth leading cause of death among 25- to 44-year-olds.

- Among middle-aged Canadians (45- to 64-year-olds) and "young" seniors (65- to 74-year-olds) cancer was the most common cause of death for both sexes, followed by heart diseases. Although more middle-aged men than women died from cancer

[1] *The causes of death were grouped as described in Appendix 3 (p. 138).*

(7,900 versus 7,000), the proportion of female deaths due to this disease was much higher (55%) than that of males (38%). In contrast, middle-aged men were at much greater risk than women of dying from heart diseases: 27% versus 14%, respectively.

- For both men and women aged 75 and older, the leading cause of death was some form of heart disease (about one in three deaths)–supplanting cancer, which fell to second place. Cerebrovascular diseases (e.g. stroke) and pulmonary diseases were also common causes of death among the elderly.

- Persons aged 85 years and over accounted for 17% of all deaths to males in 1996, and 33% of all deaths to females. This differential reflects the higher probability of women surviving to advanced ages.

Table 7.2 Leading causes of death by age and sex, Canada, 1996

Rank[1]	Cause of death (ICD-9 codes)[2]	Males		Females	
		Deaths	%	Deaths	%
	Under 1 year				
	Total	**1,155**	**100.0**	**896**	**100.0**
1	Certain conditions originating in the perinatal period (760-779)	544	47.1	404	45.1
2	Congenital anomalies (740-759)	313	27.1	262	29.2
3	Heart diseases (391, 392.0, 393-398, 402, 404, 410-416, 420-429)	12	1.0	21	2.3
4	Unintentional injuries (E800-E949)	17	1.5	11	1.2
5	Pneumonia and influenza (480-487)	8	0.7	13	1.5
6	Hereditary and degenerative diseases of the central nervous system (330-337)	7	0.6	6	0.7
7	Cancer (140-208)	4	0.3	6	0.7
	Other causes	250	21.6	173	19.3
	1 to 14 years				
	Total	**621**	**100.0**	**476**	**100.0**
1	Unintentional injuries	228	36.7	140	29.4
2	Cancer	95	15.3	84	17.6
3	Congenital anomalies	59	9.5	61	12.8
4	Suicide (E950-E959)	32	5.2	9	1.9
5	Heart diseases	18	2.9	14	2.9
6	Hereditary and degenerative diseases of the central nervous system	15	2.4	12	2.5
7	Pneumonia and influenza	13	2.1	6	1.3
	Other causes	161	25.9	150	31.5
	15 to 24 years				
	Total	**1,764**	**100.0**	**637**	**100.0**
1	Unintentional injuries	801	45.4	267	41.9
2	Suicide	490	27.8	91	14.3
3	Cancer	98	5.6	56	8.8
4	Heart diseases	35	2.0	18	2.8
5	Congenital anomalies	26	1.5	15	2.4
6	Human immunodeficiency virus (HIV) infection (042-044)	12	0.7	4	0.6
7	Cerebrovascular diseases (430-438)	10	0.6	5	0.8
	Other causes	292	16.6	181	28.4
	25 to 44 years				
	Total	**7,421**	**100.0**	**3,633**	**100.0**
1	Cancer	986	13.3	1,394	38.3
2	Unintentional injuries	1,594	21.5	442	12.2
3	Suicide	1,390	18.7	380	10.5
4	Heart diseases	702	9.5	252	6.9
5	Human immunodeficiency virus (HIV) infection	821	11.1	83	2.3
6	Cerebrovascular diseases	106	1.4	129	3.6
7	Chronic liver diseases and cirrhosis (571)	128	1.7	55	1.5
	Other causes	1,694	22.8	898	24.7

[1] Ranked according to the total number of deaths for both sexes within an age group.

[2] Three males (ICD 410, E813 and E968) and one female (ICD E860) are excluded from this table because their age is unknown.

Table 7.2 Leading causes of death by age and sex, Canada, 1996 – concluded

Rank[1]	Cause of death (ICD-9 codes)[2]	Males		Females	
		Deaths	%	Deaths	%
	45 to 64 years				
	Total	**20,921**	**100.0**	**12,694**	**100.0**
1	Cancer	7,916	37.8	6,965	54.9
2	Heart diseases	5,566	26.6	1,798	14.2
3	Unintentional injuries	988	4.7	377	3.0
4	Cerebrovascular diseases	673	3.2	489	3.9
5	Suicide	786	3.8	274	2.2
6	Chronic liver diseases and cirrhosis	562	2.7	218	1.7
7	Diabetes mellitus (250)	471	2.3	307	2.4
	Other causes	3,959	18.9	2,266	17.9
	65 to 74 years				
	Total	**28,172**	**100.0**	**18,271**	**100.0**
1	Cancer	10,464	37.1	7,603	41.6
2	Heart diseases	8,236	29.2	4,236	23.2
3	Cerebrovascular diseases	1,490	5.3	1,162	6.4
4	Chronic obstructive pulmonary diseases and allied conditions (490-496)	1,440	5.1	932	5.1
5	Diabetes mellitus	819	2.9	631	3.5
6	Diseases of arteries, arterioles and capillaries (440-448)	675	2.4	336	1.8
7	Pneumonia and influenza	521	1.8	336	1.8
	Other causes	4,527	16.1	3,035	16.6
	75 to 84 years				
	Total	**32,760**	**100.0**	**31,091**	**100.0**
1	Heart diseases	10,144	31.0	9,501	30.6
2	Cancer	8,887	21.7	7,609	24.5
3	Cerebrovascular diseases	2,558	7.8	3,159	10.2
4	Chronic obstructive pulmonary diseases and allied conditions	2,316	7.1	1,534	4.9
5	Pneumonia and influenza	1,301	4.0	1,088	3.5
6	Hereditary and degenerative diseases of the central nervous system	856	2.6	1,062	3.4
7	Diabetes mellitus	903	2.8	983	3.2
	Other causes	5,795	17.7	6,155	19.8
	85 years and older				
	Total	**18,587**	**100.0**	**33,777**	**100.0**
1	Heart diseases	5,831	31.4	11,547	34.2
2	Cancer	3,205	17.2	3,869	11.5
3	Cerebrovascular diseases	1,657	8.9	4,147	12.3
4	Pneumonia and influenza	1,343	7.2	2,301	6.8
5	Psychoses (290-299)	624	3.4	1,757	5.2
6	Chronic obstructive pulmonary diseases and allied conditions	1,324	7.1	1,022	3.0
7	Hereditary and degenerative diseases of the central nervous system	572	3.1	1,269	3.8
	Other causes	4,031	31.7	7,865	23.3

[1] Ranked according to the total number of deaths for both sexes within an age group.
[2] Three males (ICD 410, E813 and E968) and one female (ICD E860) are excluded from this table because their age is unknown.

Highlights - Deaths due to external causes

Table 7.3 details the number of deaths due to external causes, including injuries due to transport accidents, falls, poisoning, suffocation, firearms, fires, natural factors, adverse effects related to medical care, and other factors.[1] Such deaths account for a substantial proportion of total mortality each year (over 6% in 1996). Each of these causes is further classified by the intent of injury, that is, unintentional injury, suicide, homicide, other, and undetermined.[2] Many fatalities due to external causes are preventable through public education and injury prevention programs. Data specific to these deaths may be useful for the development and evaluation of such programs.

- In 1996, nearly 13,500 deaths were attributed to external causes. Although most of these fatalities were unintentional (64%), a substantial number were due to suicide (29%). Relatively few deaths were ascribed to homicide (4%), while the number resulting from legal interventions was "negligible." In less than 3% of cases, it was unclear whether the death was accidentally or purposely inflicted.

- Almost one in four deaths due to external causes was the result of a transport accident (3,200 deaths). Most of these occurred on public roads (2,900 deaths due to traffic accidents) and involved collisions between motor vehicles (such as automobiles, buses, motorcycles, and construction or farm machinery) and other motor vehicles, pedestrians, cyclists or other objects (such as abutments and animals). Virtually all transport accident deaths were classified as unintentional.

- Just over 2,900 persons died from falls. In 45% of the cases, the nature of the injury resulting in death was a fracture from an unspecified cause. Although most falls were unintentional, 7% of decedents deliberately jumped from a high place. In 1996, 86% of deaths resulting from unintentional falls occurred among persons aged 70 and over. (Unintentional falls tend to happen on stairs or steps, or result from slipping, tripping or stumbling on the same level, or falling from one level to another.)

- Poisoning was the third most common external cause of death, accounting for one in seven (about 1,900) of these fatalities. Most poisonings (63%) involved some form of drug overdose, including the fatal ingestion of analgesics (e.g. heroin or morphine), cardiovascular medication, or drugs acting on the nervous system (e.g. cocaine). About 28% of all poisoning fatalities were caused by carbon monoxide (from motor vehicle exhaust or some other source). Over half of all fatal poisoning cases were judged to be self-inflicted. In another 10% of cases, it was unclear whether the poisoning was intentional or not.

---

[1] Appendix 5 (p. 142) contains the ICD-9 codes used to tabulate the data in Table 7.3.

[2] Some death counts in Table 7.3 may be underestimated because they have been assigned to an unspecified or undetermined category. Furthermore, in the case of some accidents, suicides and homicides, the cause (or intent) of death may be impossible to determine, or require many months of investigation. As a result, death counts found here may not reflect the latest data available from Coroners' offices (Young and Wagner, 1994).

- Almost as many people died as a result of suffocation as from poisoning. Three-quarters of the people who suffocated to death did so by hanging or strangulation. The vast majority of suffocation deaths were self-inflicted. (Suffocation accounted for 36% of all suicides in 1996.)

- The use of firearms, such as hand guns, shotguns and hunting rifles, was instrumental in over 1,100 deaths in 1996. Most (78%) such fatalities were self-inflicted; however, in 16% of the cases, the death was a homicide.

- Although most drownings were unintentional (69%), suicide accounted for a substantial proportion (24%) of the 648 such deaths occurring in 1996. Accidental drownings tend to occur during recreational activities, such as swimming, and often involve some form of water transport (e.g. accidental submersion of watercraft or fall overboard). In 30 cases, drowning occurred in a bathtub.

- About 6% of deaths attributed to external causes were due to fires or burns (mainly unintentional conflagrations in private dwellings), cutting/piercing instruments (mostly involved in homicides or suicides), being struck by or against objects by accident or on purpose (i.e. homicidal assault), natural or environmental factors (e.g. exposure to excessive cold), machinery (including agricultural, lifting and excavating machines), and child battering or other maltreatment.

- Fewer than 2% of deaths from external causes were due to adverse effects–that is, abnormal reactions, complications or misadventures to patients–arising from surgical or medical procedures, or drugs in therapeutic use.

Table 7.3 Number of deaths from external causes of injury and poisoning (E800-E999), Canada, 1996[1]

Mechanism or cause of injury	Total	Intent of injury[2]				
		Unintentional	Suicide	Homicide	Other[3]	Undetermined[4]
All external causes	**13,462**	**8,663**	**3,941**	**511**	**7**	**340**
All injuries	*13,236*	*8,437*	*3,941*	*511*	*7*	*340*
Transport accidents	**3,226**	**3,203**	**20**	**..**	**..**	**3**
Motor vehicle traffic accidents[5]	2,905	2,905	..	..	..	..
Occupant of motor vehicle[6] (other than motorcycle)	1,420	1,420	..	..	..	..
Pedestrian	447	447	..	..	..	..
Motorcyclist[6]	94	94	..	..	..	..
Pedal cyclist[6]	54	54	..	..	..	..
Other person[7]	2	2	..	..	..	..
Unspecified person[8]	888	888	..	..	..	..
Other transport accidents[9]	251	251	..	..	..	..
Motor-driven snow vehicle	76	76	..	..	..	..
Air and space transport	56	56	0	..	..	0
Pedestrian, other[10]	45	45	..	..	..	..
Other off-road motor vehicle	24	24	..	..	..	..
Water transport[11]	16	16	..	..	..	..
Railway	11	11	..	..	..	..
Pedal cyclist, other	6	6	..	..	..	..
Other or unspecified	17	17	..	..	..	..
Late effects of motor vehicle accidents	47	47	..	..	..	..
Crashing of motor vehicle	23	..	20	..	..	3
Falls	**2,930**	**2,701**	**204**	**2**	**..**	**23**
Fracture, cause unspecified	1,297	1,297	..	..	..	..
Jumping/pushing/falling from high place	229	..	204	2	..	23
Other or unspecified	1,404	1,404	..	..	..	..
Poisoning	**1,927**	**692**	**1,047**	**0**	**0**	**188**
Drugs and medication[12]	1,217	548	525	0	..	144
Motor vehicle exhaust	351	24	310	..	..	17
Other carbon monoxide	203	23	167	..	..	13
Alcohol	60	60	..	..	..	..
Other or unspecified	96	37	45	..	..	14
Suffocation	**1,859**	**387**	**1,414**	**45**	**..**	**13**
By hanging/strangulation	1,483	76	1,355	45	..	7
Inhalation/ingestion of food	151	151	..	..	..	..
Inhalation/ingestion of other object	132	132	..	..	..	..
By plastic bag	42	2	40	..	..	0
In bed or cradle	10	10	..	..	..	..
Other or unspecified	41	16	19	..	..	6
Firearms	**1,131**	**46**	**881**	**177**	**6**	**21**
Drowning/submersion	**648**	**448**	**154**	**4**	**..**	**42**
Accidental drowning/submersion	448	448	…	…	..	…
While engaged in sports/recreation	88	88	…	…	..	…
Accident to watercraft causing submersion	52	52	…	…	..	…
Other submersion/drowning accident in water transport	52	52	…	…	..	…
In bathtub	30	30	…	…	..	…
Other or unspecified	226	226	…	…	..	…
Other drowning/submersion	200	…	154	4	..	42

Table 7.3 Number of deaths from external causes of injury and poisoning (E800-E999), Canada, 1996[1] – concluded

Mechanism or cause of injury	Total	Intent of injury[2]				
		Unintentional	Suicide	Homicide	Other[3]	Undetermined[4]
Fires/burns	**337**	**288**	**34**	**6**	**..**	**9**
Accidental fires/burns	288	288	…	…	..	…
Conflagration in private dwelling	208	208	…	…	..	…
Other or unspecified conflagration	71	71	…	…	..	…
Hot substance/object, caustic/corrosive material, steam	9	9	…	…	..	…
Other fires/burns	49	…	34	6	..	9
Cutting/piercing instruments	**250**	**10**	**87**	**151**	**0**	**2**
Struck by, against	**157**	**104**	**..**	**53**	**0**	**..**
Natural/environmental factors	**145**	**140**	**1**	**..**	**..**	**4**
Excessive cold	98	93	1	..	..	4
Bites and stings	3	3	..	..	..	..
Other or unspecified	44	44	..	..	..	..
Machinery	**99**	**99**	**..**	**..**	**..**	**..**
Agricultural	40	40	..	..	..	..
Lifting	17	17	..	..	..	..
Earth moving, scraping and other excavating	10	10	..	..	..	..
Other or unspecified	32	32	..	..	..	..
Child battering and other maltreatment	**14**	**..**	**..**	**14**	**..**	**..**
Other specified and classifiable[13]	**131**	**53**	**73**	**3**	**0**	**2**
Other specified, not elsewhere classifiable	**67**	**9**	**13**	**23**	**1**	**21**
Unspecified	**315**	**257**	**13**	**33**	**0**	**12**
Adverse effects	*226*	*226*	..	..	..	..
Abnormal reactions or later complications related to surgical/medical procedures[14]	**153**	**153**	**..**	**..**	**..**	**..**
Misadventures to patients during surgical/medical care[15]	**39**	**39**	**..**	**..**	**..**	**..**
Drugs in therapeutic use	**34**	**34**	**..**	**..**	**..**	**..**

[1] Appendix 5 (p. 142) contains the ICD-9 codes used to tabulate the data in this table.
[2] The ".." symbol indicates that data are not available due to ICD-9 limitations; "…" indicates that the data are inappropriate or inapplicable.
[3] Deaths arising from legal interventions and war operations.
[4] Undetermined if accidentally or purposely inflicted.
[5] Motor vehicle traffic accidents take place on public roads; accidents in private driveways, parking lots, fields, air, water, and roads found on farms, airfields, mines, etc. are classified elsewhere.
[6] Includes drivers and passengers.
[7] Includes occupants of streetcars and animal-drawn vehicles, riders of animals, and other persons.
[8] This category is used when the deceased has not been identified as a driver or passenger.
[9] Includes railway accidents, motor vehicle non-trafffic accidents, other road vehicle non-traffic accidents, some water transport accidents, and vehicle accidents not elsewhere classifiable.
[10] Includes 23 pedestrians hit by rolling stock (i.e. railway trains) and 17 involving motor vehicle non-traffic accidents.
[11] Excluding accidents to watercraft causing submersion, and other accidental submersion or drowning in water transport accidents.
[12] Includes drug overdose, wrong drug given/taken, drug taken inadvertently, and drug-use accidents in surgical/medical procedures. Excludes occurrences of correct medication having been properly administered but causing adverse effects (classified to E930-E949).
[13] Most deaths were due to jumping or lying before a moving object (67) and accidents caused by an electric current (27).
[14] For example, a surgical implant of a cardiac pacemaker or heart valve, a limb amputation, bypass surgery.
[15] For example, an accidental cut, perforation or hemorrhage during a surgical operation.

8. Vital statistics by census division

INTRODUCTION

Birth, death and marriage are major life events. Such occurrences are not uniformly distributed across Canada's regions, however; variations also exist within regions. Physical geography, human settlement factors, and demographic, socio-economic and cultural differences among Canadians all contribute to these variations. The maps in this chapter demonstrate the spatial differences in the propensity to marry and have children. They also show distinctive patterns with respect to low birthweight and infant and age-standardized mortality.

Data are displayed by census division (CD). CDs are administrative areas, usually established by provincial law, which lie between the municipal and provincial levels, such as counties, regional districts and regional municipalities. Provinces without such areas (Newfoundland, Manitoba, Saskatchewan and Alberta) have CDs created by Statistics Canada, in consultation with the provinces, for the dissemination of statistical data. In Yukon, the entire territory comprises one CD.

Six choropleth (thematic) maps (8.1 to 8.6), which focus on the more densely populated southern regions of the country, illustrate spatial variations in marriage rates as well as fertility, low birthweight and mortality rates for the 1994-1996 period.[1] Highlights pertaining to the subject matter displayed are incorporated within each map. The data for all 288 CDs in Canada can be found in Table 8.1. Maps 8.7 to 8.9 illustrate the location of these CDs (two are inset maps, which show CD numbering for regions with high population concentrations).[2]

Choropleth mapping

Choropleth maps feature area symbols (e.g. light versus dark shading), which are applied to geographic areas (in this instance, population ecumenes[3]), based on the magnitude of statistics (e.g. high vs. low mortality rates) in those areas. This technique is particularly useful for rate data, which can be easily collapsed into ranges. Range limits for the maps shown here use the Canadian average for one limit and "natural breaks" for the remaining limits.

A limitation of choropleth mapping by CD is that values shown appear to be uniformly spread over the entire CD. This can create an erroneous impression since, in many cases, large areas within a CD are sparsely populated. To deal with this problem, the shading in Maps 8.1 to 8.6 has been restricted to population ecumenes, rather than entire CDs.

---

[1] *Because rates in CDs with small populations are subject to wide fluctuations from year to year, three years of data were used to provide greater stability. The rates were standardized to the 1995 estimated population for Canada.*

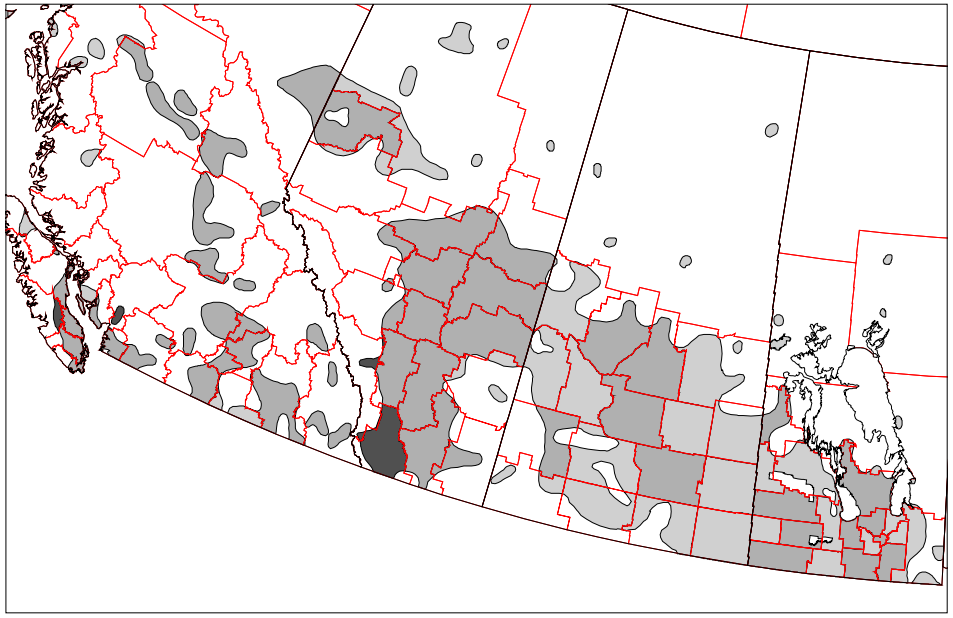
[2] *Boundaries may change from one census to the next. The CD boundaries used in this publication reflect those in effect January 1, 1996.*

[3] *A population ecumene is an area of inhabited land where people have made their permanent home. Areas with a minimum population density of 0.4 persons per square kilometre (about 1 person per square mile) are aggregated into ecumenes. For more information on census geography, see the* 1996 Census Dictionary *(catalogue 92-351), published by Statistics Canada.*

Mapping data sources

The Universal Transverse Mercator map projection, based on the North American Datum of 1927, was used to create the maps in this publication. Digital cartographic files (DCFs) for provinces, territories, CDs and population ecumenes were obtained from Statistics Canada's Geography Division. DCFs, commonly used for thematic mapping, are computer files that depict the boundaries of standard geographic areas, including modifications for shorelines and lakes. This information can be used in conjunction with census of population data and vital statistics to produce thematic maps such as those found in this chapter.

Western Canada



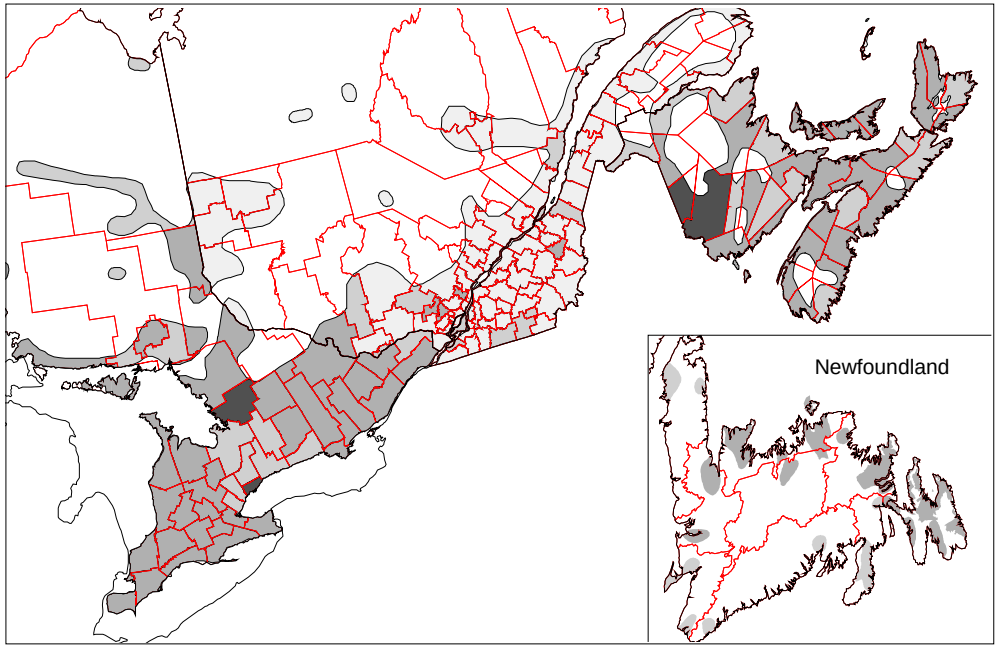
Map 8.1
Crude marriage rates by census division, 1994-1996 averages, Canada

Number of marriages per 1,000 population

- 7.1 - 36.5
- 5.5 - 7.0
- 3.6 - 5.4
- 1.2 - 3.5
- Sparsely populated

Canadian average: 5.4

Central and Eastern Canada



The crude marriage rate (CMR) is calculated as the annual number of marriages occurring in a jurisdiction per 1,000 population.* Many factors contribute to the regional variations seen here, including the age structure of the local population, cultural attitudes towards marriage, religious beliefs and socioeconomic factors.

A striking pattern is seen in Quebec, where the majority of census divisions (CDs) exhibited low marriages rates in the 1994-1996 period. This phenomenon was due to the high proportion of Quebec couples in common-law relationships (43% in 1996).

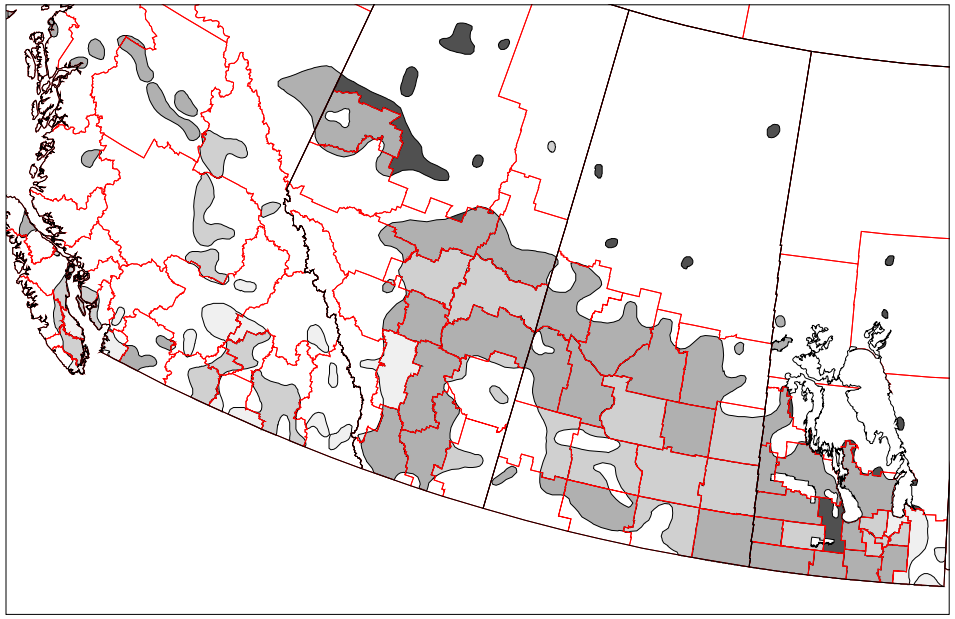
A number of well-known tourist and resort areas showed high marriage rates, although their populations were small. These locations appear to be popular wedding sites for both Canadians and foreign visitors. For example, CMRs were particularly high in Alberta's Division No. 15, which contains Banff National Park (37 marriages per 1,000 population), the Mount Whistler resort area in British Columbia's Squamish-Lilloet Regional District (10 per 1,000), and Ontario's Muskoka District (8 per 1,000).

Metropolitan Toronto also exhibited a relatively high CMR over the three-year period examined (7 per 1,000). This finding may be related to the high proportion of immigrants living in this area.

* Although the resident population was used as the denominator in this calculation, the bride and groom did not necessarily live in the CD where the wedding took place. Thus, this CMR is a ratio rather than a rate.

Sources: Digital cartographic files from Geography Division and vital statistics data from Health Statistics Division, Statistics Canada

Western Canada



Map 8.2
Total fertility rates by census division, 1994-1996 averages, Canada

Average number of live births per woman

- 2.56 - 4.22
- 1.90 - 2.55
- 1.64 - 1.89
- 1.07 - 1.63
- Sparsely populated

Canadian average: 1.63

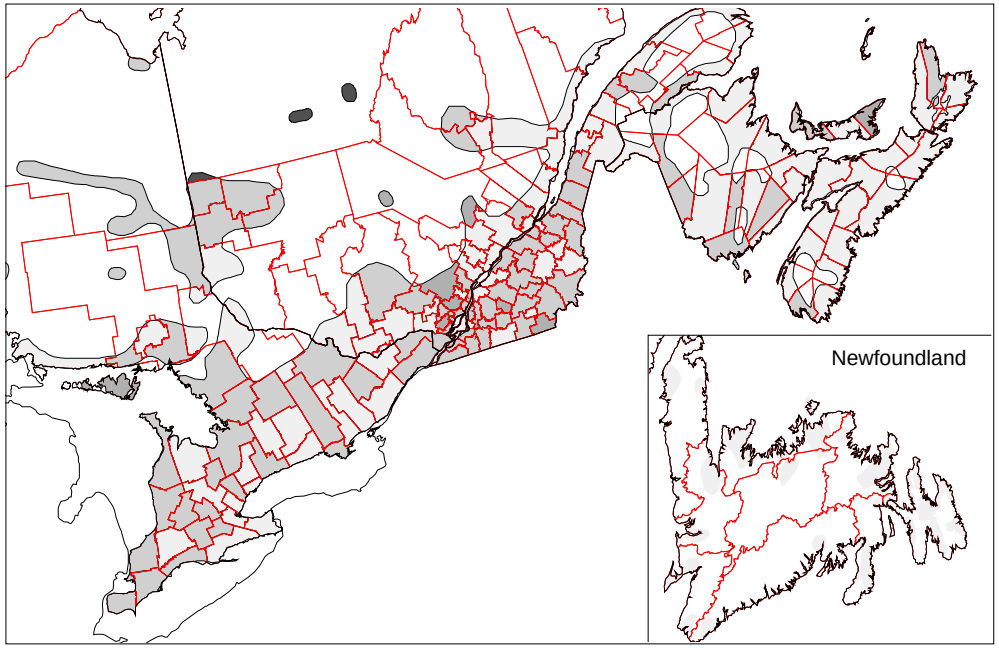
The total fertility rate (TFR) is expressed as the total number of live births a woman can be expected to have in her lifetime (based on 1994-1996 fertility patterns). TFRs have been dropping in Canada as women continue to delay childbirth (until age 27 for the first birth, on average, in 1996) and have fewer children over their lifetime. In the 1994-1996 period, 4 in 10 census divisions had fertility rates at or below the Canadian average of 1.63 births per woman.

In general, TFRs were highest in the western provinces of Alberta, Saskatchewan and Manitoba. In contrast, lower-than-average TFRs tended to occur in the eastern provinces, particularly Newfoundland, Nova Scotia and, to a lesser extent, New Brunswick.

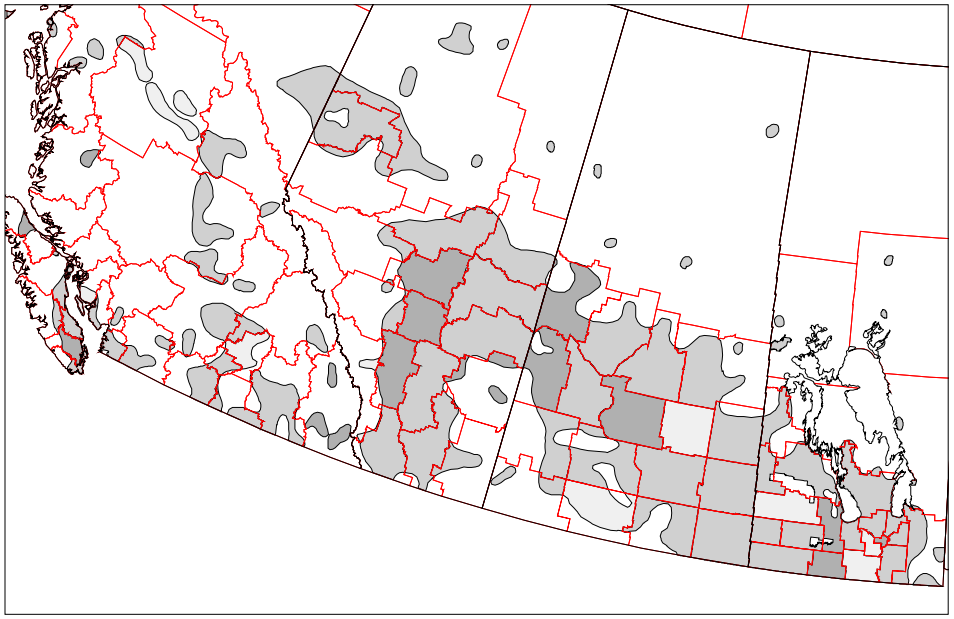
The highest TFRs (2.56 to 4.22 births per woman) were in northern Alberta, Saskatchewan and Quebec, and in Manitoba. These relatively high rates appear to reflect the high fertility of the Aboriginal populations in these regions.

Sources: Digital cartographic files from Geography Division and vital statistics data from Health Statistics Division, Statistics Canada

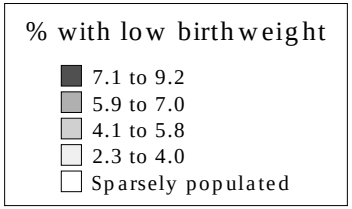
Central and Eastern Canada



Western Canada

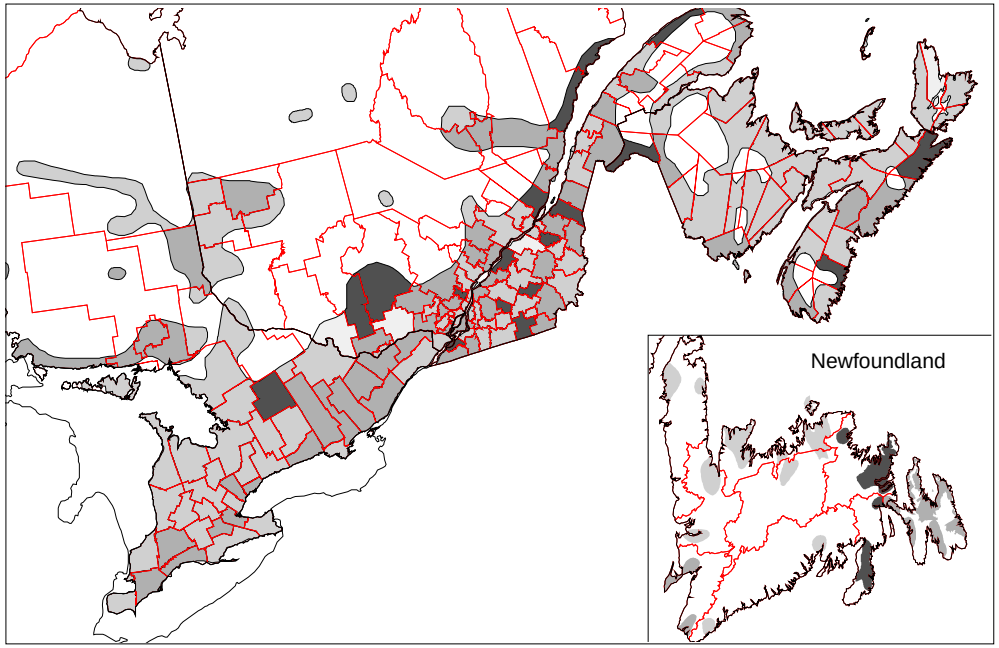


Map 8.3
Percentage of live births with low birthweight (under 2,500 grams), by census division, 1994-1996 averages, Canada



Canadian average: 5.8%

Central and Eastern Canada



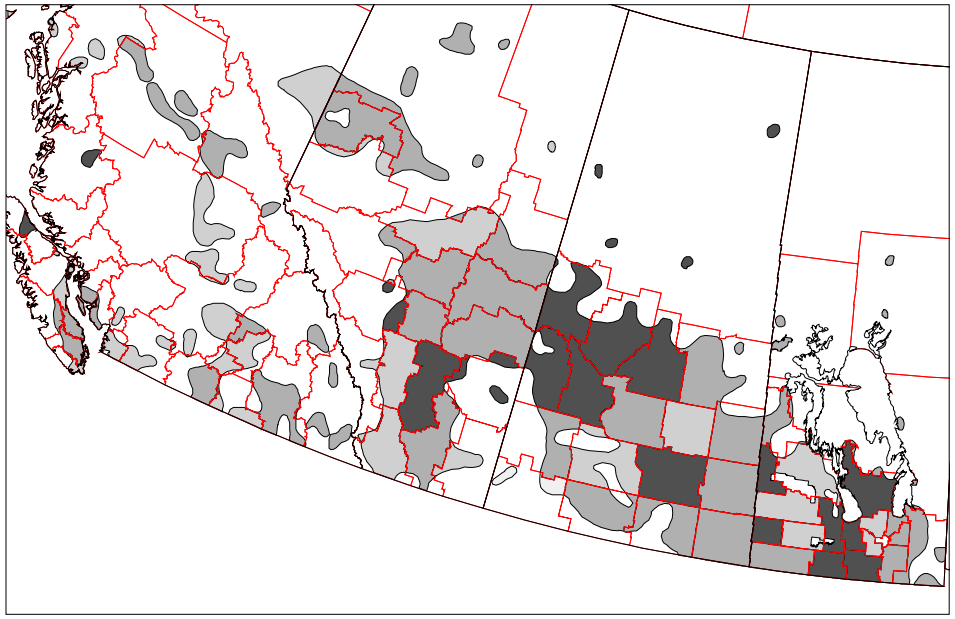
Infants weighing less than 2,500 grams at birth are considered to be of low birthweight (LBW). The percentage of births with a low birthweight is an internationally recognized health status indicator. Canada's LBW rate is relatively low, compared with most other Organisation for Economic Co-operation and Development (OECD) countries (data not shown).

LBW may result from intrauterine growth restriction and/or preterm birth. This measure is influenced by many factors, such as the mother's age, parity, educational attainment, income, diet and smoking history.

From 1994 to 1996, the percentage of live births with LBW was above the Canadian average (5.8%) in one-third of CDs. However, across southern Canada there was a distinct east-to-west differential. LBW percentages were highest (7.1% to 9.2%) in CDs located in rural areas of Ontario, Quebec and Atlantic Canada.

Sources: Digital cartographic files from Geography Division and vital statistics data from Health Statistics Division, Statistics Canada

Western Canada



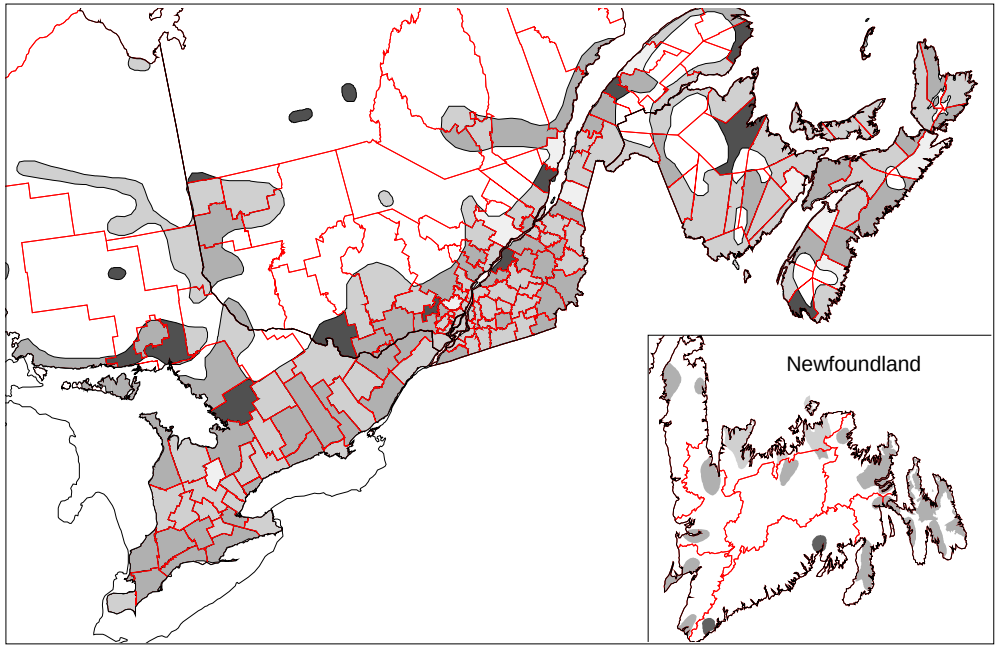
Map 8.4
Infant mortality rates by census division, 1994-1996 averages, Canada

Number of infant deaths per 1,000 live births

- 9.3 - 24.0
- 6.1 - 9.2
- 2.6 - 6.0
- 0.0 - 2.5
- Sparsely populated

Canadian average: 6.0

Central and Eastern Canada

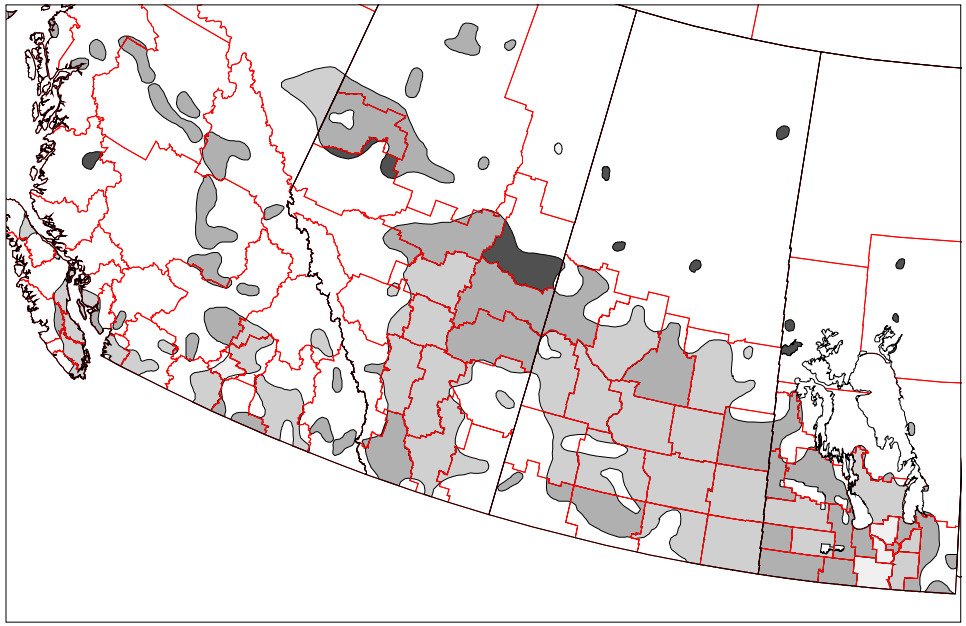


In 1996, Canada's infant mortality rate (IMR) was among the lowest in the world. Nevertheless, there was considerable regional variation across the country. The highest rates were found mainly in Manitoba, Saskatchewan and Quebec. Most of the CDs with IMRs below 2.6 were in Quebec or Nova Scotia.

Infant mortality has been linked to a number of factors, including the child's sex and birthweight, as well as the mother's age, marital status, socio-economic status and parity. The proximity to health care centres may also be related to IMRs.

Sources: Digital cartographic files from Geography Division and vital statistics data from Health Statistics Division, Statistics Canada

Western Canada



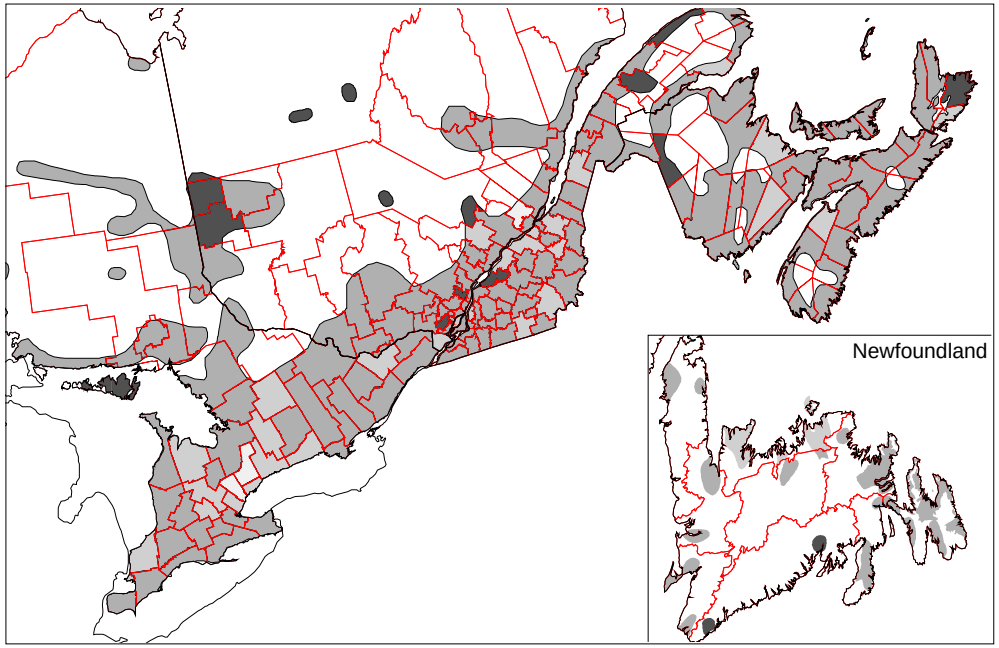
Map 8.5
Age-standardized mortality rates for males by census division, 1994-1996 averages, Canada

Number of deaths per 100,000 males

- 1,093.1 - 2,242.6
- 853.6 - 1,093.0
- 711.1 - 853.5
- 491.3 - 711.0
- Sparsely populated

Canadian average: 853.5

Central and Eastern Canada



An age-standardized mortality rate (ASMR) is a weighted average of age-specific mortality rates calculated for a particular time frame and geographic location.* ASMRs enable comparisons to be made between time periods and/or across regions.

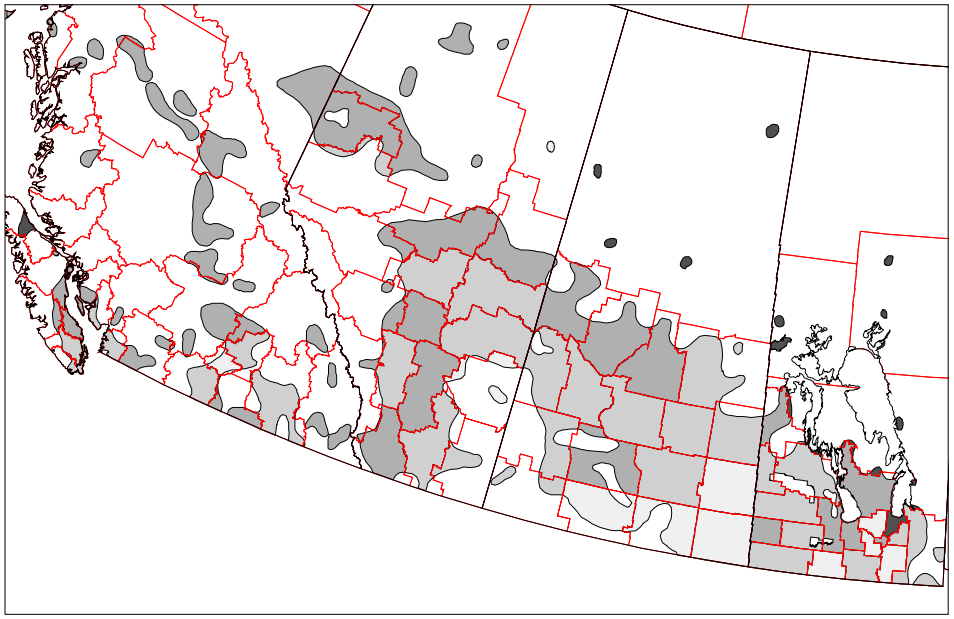
In the mid-1990s, 24 CDs had ASMRs in the highest range category (at least 1,093.1 deaths per 100,000 males). Nine of these were located in Quebec, including Le Haut-Saint-Maurice and Mirabel. Rates were also high in the northern regions of Manitoba and Saskatchewan and in central Alberta.

CDs with the lowest rates were found in southern Manitoba and northeastern Alberta. In the more populous regions of the country, rates were also low in Ontario's York and Peel Regional Municipalities, British Columbia's Stikine Region, and Quebec's La Jacques-Cartier CD.

* The rates on this map were standardized to the 1991 Canadian population (both sexes combined).

Sources: Digital cartographic files from Geography Division and vital statistics data from Health Statistics Division, Statistics Canada

Western Canada



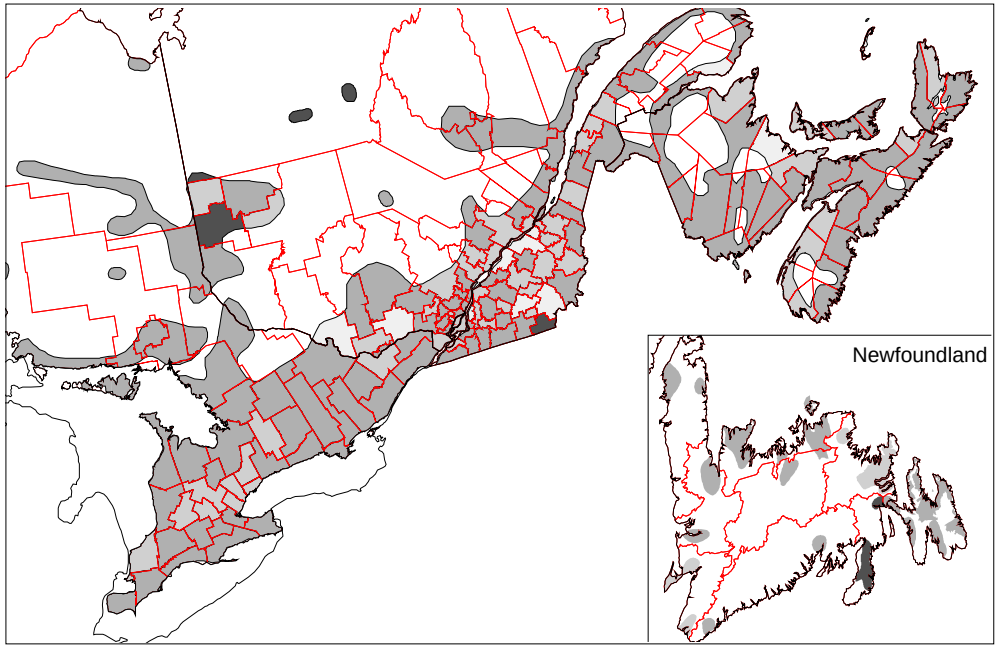
Map 8.6
Age-standardized mortality rates for females by census division, 1994-1996 averages, Canada

Number of deaths per 100,000 females

- 692.1 - 3,416.9
- 522.7 - 692.0
- 460.1 - 522.6
- 309.8 - 460.0
- Sparsely populated

Canadian average: 522.6

Central and Eastern Canada



An age-standardized mortality rate (ASMR) is a weighted average of age-specific mortality rates calculated for a particular time frame and geographic location.*

The highest ASMRs for women were found in Quebec's Coaticook and Rouyn-Noranda CDs (over 1,000 deaths per 100,000 females). Rates were also high in northern parts of Manitoba and Saskatchewan.

Mortality rates for females were lowest in Manitoba's southern CDs, British Columbia's Stikine Region and Quebec's Pontiac and Becancour CDs. ASMRs were also low in southeastern Alberta and southern Saskatchewan.

* The rates on this map were standardized to the 1991 Canadian population (both sexes combined).

Sources: Digital cartographic files from Geography Division and vital statistics data from Health Statistics Division, Statistics Canada

Table 8.1 Selected vital statistics by census division, Canada, 1996 and 1994-1996[1]

Census division (CD)[4]		1996					1994-1996 period[2]						
		Numbers					Rates					ASMR[3]	
		Population[5]	Marriages	Births	Deaths	Infant deaths	CMR[6]	TFR[7]	LBW[8]	IMR[9]	Total	Males	Females
Total		28,846,761	156,690	366,124	212,703	2,043	5.4	1.63	5.8	6.0	665.1	853.5	522.6
Newfoundland													
01	Division No. 1	251,523	1,470	2,702	1,792	12	5.8	1.26	5.9	6.7	742.8	984.6	569.1
02	Division No. 2	27,723	150	264	213	1	5.2	1.39	7.1	8.3	847.5	1015.4	716.6
03	Division No. 3	22,459	145	192	157	0	5.3	1.09	4.5	9.4	887.9	1127.6	689.0
04	Division No. 4	24,824	120	230	156	2	5.3	1.36	6.1	6.4	725.6	977.0	517.3
05	Division No. 5	44,319	272	468	313	3	6.6	1.36	5.7	9.1	727.8	942.7	567.7
06	Division No. 6	39,118	241	406	295	4	6.8	1.25	5.7	8.3	773.6	947.4	642.8
07	Division No. 7	41,534	246	372	343	2	5.6	1.20	7.8	6.8	677.8	868.0	501.4
08	Division No. 8	48,247	294	458	358	6	5.7	1.18	5.3	5.6	720.2	842.8	600.3
09	Division No. 9	22,855	111	212	165	1	4.3	1.07	5.5	7.5	733.0	871.1	587.6
10	Division No. 10	29,190	145	443	136	7	4.6	1.62	5.7	12.9	882.2	1085.1	679.1
Prince Edward Island													
01	Kings Co.	19,561	120	260	199	1	5.7	1.94	4.6	3.9	775.9	1040.4	551.3
02	Queens Co.	70,430	461	880	661	4	6.6	1.62	5.5	5.6	733.7	982.0	569.3
03	Prince Co.	44,566	343	554	407	3	6.8	1.71	5.4	5.3	667.7	957.7	466.5
Nova Scotia													
01	Shelburne Co.	17,002	87	172	177	1	5.3	1.60	4.3	5.1	759.5	953.2	589.5
02	Yarmouth Co.	27,310	188	347	253	6	6.7	1.68	6.6	10.7	652.0	906.9	493.9
03	Digby Co.	20,500	114	202	226	0	5.9	1.35	6.0	3.4	675.2	911.3	485.0
04	Queens Co.	12,417	80	112	145	0	6.0	1.44	7.3	0.0	790.6	996.1	630.6
05	Annapolis Co.	22,324	123	208	247	0	6.0	1.59	5.1	7.7	691.2	931.2	514.8
06	Lunenburg Co.	47,561	310	445	492	5	5.8	1.36	5.3	7.5	711.3	939.5	548.9
07	Kings Co.	59,193	363	718	428	1	6.1	1.57	4.9	2.3	612.9	801.7	478.3
08	Hants Co.	39,483	196	494	292	3	5.0	1.60	6.6	5.6	720.8	928.0	568.0
09	Halifax Co.	342,966	2,039	4,378	2,298	26	5.7	1.45	5.9	6.1	690.1	882.9	553.5
10	Colchester Co.	49,262	300	574	409	4	5.8	1.62	5.1	4.5	686.2	886.2	545.2
11	Cumberland Co.	33,804	221	354	403	1	6.1	1.58	5.8	6.7	765.0	1002.0	598.9
12	Pictou Co.	48,718	296	526	488	3	6.1	1.56	5.2	3.1	700.1	909.8	536.7
13	Guysborough Co.	10,917	56	93	101	0	5.3	1.43	7.1	0.0	764.1	1012.2	566.4
14	Antigonish Co.	19,554	108	217	138	3	4.9	1.62	5.0	8.8	677.0	902.6	521.3
15	Inverness Co.	20,918	131	250	203	0	6.2	1.61	4.3	5.9	784.3	1049.8	597.1
16	Richmond Co.	11,022	77	98	104	0	5.8	1.47	5.0	6.2	648.6	772.9	535.1
17	Cape Breton Co.	117,849	648	1,284	1,202	4	5.3	1.58	5.3	4.0	826.7	1111.5	628.5
18	Victoria Co.	8,482	55	101	91	1	5.7	1.75	3.7	6.6	702.3	963.7	514.5
New Brunswick													
01	Saint John Co.	79,302	551	980	793	3	6.9	1.57	5.5	4.1	774.5	1028.0	614.1
02	Charlotte Co.	27,335	186	342	280	2	7.0	1.77	6.1	5.6	718.6	951.0	538.5
03	Sunbury Co.	25,358	78	371	114	0	3.9	1.79	4.7	4.5	778.8	1067.9	672.1
04	Queens Co.	12,470	81	119	149	2	5.7	1.35	5.6	8.8	803.1	1057.9	595.4
05	Kings Co.	64,724	367	819	384	3	5.2	1.68	5.0	4.5	654.3	814.7	542.1
06	Albert Co.	26,492	139	269	176	1	5.3	1.37	5.1	2.5	682.1	869.5	547.3
07	Westmorland Co.	120,531	768	1,305	964	7	6.1	1.36	5.7	5.0	637.8	864.1	486.7
08	Kent Co.	32,094	141	324	248	2	4.4	1.43	4.6	2.9	601.3	782.9	431.6
09	Northumberland Co.	52,153	363	592	422	3	6.3	1.47	4.3	10.1	752.9	990.1	558.8
10	York Co.	85,719	678	1,018	666	4	7.1	1.49	5.1	2.8	681.1	879.8	537.5
11	Carleton Co.	26,910	205	326	250	3	7.6	1.75	4.4	5.8	693.8	893.7	527.8
12	Victoria Co.	21,929	139	280	204	2	5.5	1.69	5.9	7.1	843.7	1176.0	582.3
13	Madawaska Co.	36,814	160	305	301	2	3.9	1.23	7.1	6.0	748.8	975.4	578.2
14	Restigouche Co.	38,701	155	344	317	0	3.9	1.37	4.7	5.0	738.3	964.7	558.9
15	Gloucester Co.	87,601	355	782	624	6	3.8	1.24	5.5	5.0	664.6	887.8	486.8

Table 8.1 Selected vital statistics by census division, Canada, 1996 and 1994-1996[1] - continued

Census division (CD)[4]		1996					1994-1996 period[2]						
		Numbers					Rates				ASMR[3]		
		Population[5]	Marriages	Births	Deaths	Infant deaths	CMR[6]	TFR[7]	LBW[8]	IMR[9]	Total	Males	Females
Quebec													
01	Les Îles-de-La-Madeleine	13,802	45	142	102	2	2.7	1.28	4.8	6.8	683.1	949.6	431.7
02	Pabok	21,340	69	209	161	1	3.1	1.36	6.7	9.4	685.1	861.1	525.5
03	La Côte-de-Gaspé	20,851	38	203	167	1	2.2	1.36	6.5	6.5	791.5	1028.1	581.4
04	Denis-Riverin	13,733	27	147	149	2	1.8	1.56	8.2	4.7	855.5	1153.1	620.4
05	Bonaventure	19,550	58	197	160	0	2.6	1.60	4.5	3.3	609.0	791.0	449.7
06	Avignon	15,898	26	171	132	1	1.8	1.73	4.9	3.6	722.2	874.7	600.3
07	La Matapédia	20,883	43	220	183	2	2.2	1.72	6.2	8.6	741.0	1198.8	566.7
08	Matane	23,723	43	201	209	0	2.1	1.36	5.2	1.6	763.5	995.9	577.6
09	La Mitis	20,160	57	222	168	2	2.5	1.70	4.7	10.9	724.1	972.2	530.2
10	Rimouski-Neigette	52,677	126	533	350	3	3.1	1.43	6.3	8.8	652.2	891.4	518.1
11	Les Basques	10,204	17	76	95	0	2.2	1.41	4.3	8.6	663.5	885.6	518.6
12	Rivière-du-Loup	32,120	98	286	242	1	3.0	1.52	5.3	5.4	653.3	926.4	484.3
13	Témiscouata	23,082	52	219	210	1	2.1	1.63	6.9	5.8	701.6	865.0	563.4
14	Kamouraska	23,215	41	214	195	0	2.1	1.68	5.6	2.8	671.9	816.5	558.5
15	Charlevoix-Est	16,941	68	199	135	0	3.8	1.53	6.4	2.0	763.1	1061.7	573.5
16	Charlevoix	13,437	41	99	122	1	2.6	1.23	6.6	12.3	707.3	989.1	537.2
17	L'Islet	19,823	44	200	157	1	2.2	1.66	5.9	1.6	665.4	961.7	470.7
18	Montmagny	23,794	82	263	220	3	3.9	1.69	8.9	8.0	763.8	1015.0	561.9
19	Bellechasse	29,674	62	298	258	3	2.2	1.66	6.2	4.3	646.2	839.4	485.6
20	L'Île-d'Orléans	6,892	37	78	56	0	4.0	1.63	2.3	4.5	667.0	858.4	588.4
21	La Côte-de-Beaupré	21,632	73	217	200	1	3.0	1.40	7.2	3.0	751.2	1070.8	551.3
22	La Jacques-Cartier	24,819	60	382	89	2	2.4	1.88	4.9	5.9	614.3	702.3	541.3
23	C-U-de-Québec	504,605	1,645	5,162	3,881	28	3.3	1.32	5.3	6.1	662.6	925.8	498.1
24	Desjardins	51,222	87	508	402	2	1.9	1.37	4.4	3.8	654.3	963.5	494.0
25	Les Chutes-de-la-Chaudière	75,598	75	1,053	284	3	1.2	1.72	5.1	3.1	596.7	827.9	432.3
26	La Nouvelle-Beauce	25,058	91	303	176	2	3.0	1.68	7.9	3.2	722.3	1092.4	488.9
27	Robert-Cliche	18,712	108	190	111	1	5.6	1.60	4.8	7.1	611.0	767.4	472.7
28	Les Etchemins	18,356	39	199	147	0	2.6	1.71	6.5	5.1	747.5	1024.0	544.0
29	Beauce-Sartigan	46,318	136	575	290	2	2.8	1.62	4.9	3.5	677.1	930.4	491.0
30	Le Granit	21,287	56	218	168	0	2.8	1.70	5.0	7.3	733.2	949.7	537.9
31	L'Amiante	45,020	125	374	386	3	2.9	1.51	6.5	6.1	694.1	933.9	508.8
32	L'Érable	24,684	53	279	217	3	2.2	1.88	5.6	7.8	707.6	988.8	541.2
33	Lotbinière	26,921	69	304	195	1	2.2	1.75	3.6	7.3	606.3	796.8	436.8
34	Portneuf	45,185	85	468	355	1	1.9	1.51	5.7	1.4	670.9	867.4	520.8
35	Mékinac	13,480	23	102	132	0	1.8	1.44	6.1	3.1	653.4	831.7	535.1
36	Le Centre-de-la-Mauricie	67,103	181	565	616	5	2.7	1.51	6.0	7.1	709.2	980.2	517.2
37	Francheville	140,541	378	1,452	1,078	7	2.8	1.54	6.2	5.3	671.0	918.9	500.2
38	Bécancour	19,683	42	189	146	2	1.8	1.88	7.6	11.9	601.7	836.7	396.1
39	Arthabaska	62,917	195	712	463	3	2.9	1.74	5.2	5.8	667.7	902.9	494.6
40	Asbestos	15,005	28	129	125	0	2.2	1.71	7.9	4.8	661.9	916.0	504.7
41	Le Haut-Saint-François	21,946	49	288	152	2	2.2	1.89	6.7	6.3	617.0	842.0	430.8
42	Le Val-Saint-François	33,422	76	360	228	2	2.4	1.86	5.8	4.8	640.0	910.2	459.8
43	Sherbrooke	132,430	519	1,690	979	6	4.0	1.56	5.8	4.1	646.8	876.0	508.6
44	Coaticook	15,919	25	178	130	3	1.8	1.98	6.3	6.9	793.6	890.5	3416.9
45	Memphrémagog	38,461	177	431	324	1	4.4	1.77	8.9	3.7	644.5	785.3	529.2
46	Brome-Missisquoi	45,987	220	445	433	2	4.5	1.55	5.1	4.9	756.3	1001.5	575.1
47	La Haute-Yamaska	77,006	299	877	506	2	3.5	1.64	5.7	6.4	692.9	905.3	547.4

Table 8.1 Selected vital statistics by census division, Canada, 1996 and 1994-1996[1] - continued

Census division (CD)[4]		1996					1994-1996 period[2]						
		Numbers					Rates				ASMR[3]		
		Population[5]	Marriages	Births	Deaths	Infant deaths	CMR[6]	TFR[7]	LBW[8]	IMR[9]	Total	Males	Females
Quebec, continued													
48	Acton	15,303	27	199	107	2	1.7	1.93	7.9	5.0	648.4	913.3	478.1
49	Drummond	84,250	274	908	677	5	3.1	1.70	5.6	4.4	705.4	919.7	540.4
50	Nicolet-Yamaska	23,673	46	246	229	2	2.1	1.60	6.5	7.9	714.3	1112.6	526.8
51	Maskinongé	23,791	52	209	203	0	1.9	1.46	5.5	6.1	681.7	940.9	495.6
52	D'Autray	37,553	61	465	349	1	1.7	1.75	4.7	5.1	810.7	1046.4	621.7
53	Le Bas-Richelieu	52,288	151	462	453	3	2.8	1.40	6.1	4.3	701.9	949.8	522.4
54	Les Maskoutains	78,754	250	936	639	3	3.4	1.66	6.3	2.9	675.5	909.4	531.6
55	Rouville	33,090	58	416	188	2	2.1	1.73	4.8	5.5	683.6	861.3	510.6
56	Le Haut-Richelieu	97,539	320	1,160	671	1	3.5	1.66	5.6	3.3	713.7	896.5	577.3
57	La Vallée-du-Richelieu	113,832	324	1,354	547	2	2.8	1.68	4.6	3.3	657.8	861.0	519.2
58	Champlain	314,306	1,046	3,620	1,896	17	3.2	1.44	6.1	4.0	669.2	889.7	529.2
59	Lajemmerais	95,618	190	1,225	376	5	1.8	1.68	5.0	5.6	575.3	761.9	452.5
60	L'Assomption	102,188	150	1,286	465	6	1.4	1.69	5.5	5.1	703.3	919.4	544.8
61	Joliette	52,845	350	553	454	4	6.5	1.62	7.9	5.8	770.9	1148.5	542.7
62	Matawinie	41,322	111	452	312	2	2.6	2.06	7.0	7.2	667.1	867.9	490.5
63	Montcalm	38,053	85	509	302	2	2.2	1.94	6.4	2.0	776.1	940.3	618.2
64	Les Moulins	103,213	153	1,445	362	7	1.4	1.76	5.5	5.1	707.6	867.9	574.7
65	Laval	330,393	1,094	3,983	2,133	13	3.1	1.60	5.8	3.8	635.7	841.5	502.3
66	C-U-de-Montréal	1,775,846	7,702	22,702	15,579	94	4.4	1.57	6.1	5.4	663.3	874.5	517.8
67	Roussillon	132,167	285	1,862	728	3	2.0	1.74	5.4	3.9	722.5	906.7	584.5
68	Les Jardins-de-Napierville	22,936	49	298	143	2	2.2	1.76	6.2	5.8	701.3	868.8	576.9
69	Le Haut-Saint-Laurent	22,007	76	268	220	3	3.1	1.75	6.0	6.3	746.1	861.5	637.8
70	Beauharnois-Salaberry	59,769	288	646	484	1	4.6	1.66	8.3	2.9	677.6	961.4	493.4
71	Vaudreuil-Soulanges	95,318	328	1,400	548	11	3.0	1.82	5.7	5.4	648.9	815.8	522.2
72	Deux-Montagnes	78,960	176	1,015	434	6	2.1	1.73	6.4	3.7	765.8	897.0	662.2
73	Thérèse-de-Blainville	119,240	197	1,771	492	8	1.8	1.84	5.0	3.4	678.6	942.4	517.1
74	Mirabel	22,689	68	414	120	3	2.6	1.97	4.4	5.8	818.5	1415.6	644.5
75	La Rivière-du-Nord	83,773	537	1,063	562	4	5.9	1.76	7.0	7.3	795.9	1024.4	627.2
76	Argenteuil	28,505	83	290	257	3	3.2	1.24	6.0	9.1	759.7	960.0	609.1
77	Les Pays-d'en-Haut	28,237	152	248	235	1	5.6	1.55	5.7	10.1	695.8	909.1	518.2
78	Les Laurentides	36,335	166	397	332	1	4.0	1.66	6.2	6.0	780.9	925.3	647.7
79	Antoine-Labelle	33,904	116	337	286	1	3.2	1.67	7.3	4.7	758.8	1022.6	535.8
80	Papineau	20,332	84	198	146	1	3.2	1.42	3.8	7.2	641.5	889.1	432.6
81	C-U-de-l'Outaouais	217,609	827	2,838	1,269	17	3.6	1.33	5.6	6.9	740.1	972.4	585.7
82	Les Collines-de-l'Outaouais	33,662	88	420	143	1	2.6	1.51	6.4	6.3	667.2	896.4	481.6
83	La Vallée-de-la-Gatineau	20,262	84	239	175	1	4.2	1.60	7.4	5.8	788.0	1037.7	585.9
84	Pontiac	15,576	104	155	148	1	6.2	1.26	3.4	10.6	641.1	924.5	394.0
85	Témiscamingue	18,027	63	224	142	2	3.2	1.53	4.6	6.4	729.3	917.3	557.2
86	Rouyn-Noranda	42,638	125	561	324	5	3.4	1.70	5.6	8.2	1018.6	1164.9	1010.4
87	Abitibi-Ouest	23,571	61	287	174	2	2.6	1.80	5.8	5.6	739.0	1289.2	519.8
88	Abitibi	25,280	89	352	156	2	2.9	1.87	6.1	3.8	740.0	959.1	551.6
89	Vallée-de-l'Or	44,389	117	578	304	2	2.8	1.78	5.4	4.6	766.1	1080.4	511.6
90	Le Haut-Saint-Maurice	16,293	45	222	124	1	2.4	1.97	5.4	3.1	909.9	2242.6	664.2
91	Le Domaine-du-Roy	33,860	90	381	229	3	2.7	1.74	6.5	6.7	723.5	980.3	531.2
92	Maria-Chapdelaine	28,045	81	298	192	1	3.1	1.72	5.2	4.3	748.1	1026.4	532.3
93	Lac-Saint-Jean-Est	52,401	180	559	375	2	3.3	1.63	5.9	4.1	769.5	983.7	601.3
94	Le Fjord-du-Saguenay	172,343	583	1,837	1,227	10	3.3	1.55	6.6	6.7	757.1	996.3	577.9
95	La Haute-Côte-Nord	13,439	29	141	107	3	2.3	1.45	7.6	8.9	752.5	948.9	576.7

Table 8.1 Selected vital statistics by census division, Canada, 1996 and 1994-1996[1] - continued

Census division (CD)[4]		1996					1994-1996 period[2]						
		Numbers					Rates				ASMR[3]		
		Population[5]	Marriages	Births	Deaths	Infant deaths	CMR[6]	TFR[7]	LBW[8]	IMR[9]	Total	Males	Females
Quebec, continued													
96	Manicouagan	36,271	73	432	171	2	2.2	1.52	8.1	8.3	750.4	983.3	568.1
97	Sept-Rivières - Caniapiscau	40,905	127	545	198	3	2.6	1.67	7.2	8.4	734.7	1032.6	495.5
98	Minganie - Basse-Côte-Nord	12,684	33	173	79	0	2.4	1.51	5.4	3.9	721.0	877.7	568.8
99	Nord-du-Québec	38,395	132	813	165	11	3.3	2.73	5.4	10.5	1019.4	1233.2	844.7
Ontario													
01	Stormont, Dundas and Glengarry UC	111,301	624	1,241	1,064	6	5.8	1.68	5.8	5.0	724.4	939.9	574.9
02	Prescott and Russell UC	74,013	372	915	544	8	4.5	1.74	6.8	8.5	827.9	1011.2	672.8
06	Ottawa-Carleton RM	721,136	4,259	8,818	4,482	46	5.7	1.44	5.9	6.1	610.8	772.2	500.1
07	Leeds and Grenville UC	96,284	649	1,041	996	8	6.4	1.63	6.1	6.7	800.9	994.5	649.1
09	Lanark Co.	59,845	410	652	562	3	6.2	1.67	5.9	4.8	770.9	1027.3	594.4
10	Frontenac Co.	136,365	898	1,522	1,154	10	6.5	1.49	6.2	5.6	707.8	919.1	558.5
11	Lennox and Addington Co.	39,203	270	410	349	5	6.6	1.63	6.5	8.6	749.4	981.4	613.9
12	Hastings Co.	118,744	826	1,478	1,160	14	6.3	1.68	6.1	9.0	751.3	976.2	587.0
13	Prince Edward Co.	25,046	168	191	308	2	6.7	1.64	5.1	5.5	772.0	989.6	589.3
14	Northumberland Co.	81,792	479	771	806	3	5.4	1.49	6.4	6.2	689.6	836.1	580.5
15	Peterborough Co.	123,448	812	1,299	1,262	10	6.3	1.57	4.8	6.1	697.5	906.0	544.6
16	Victoria Co.	67,926	358	712	628	6	4.8	1.54	5.4	5.4	617.1	743.6	498.8
18	Durham RM	458,616	1,987	6,479	2,592	29	4.2	1.73	5.6	4.4	667.4	839.1	547.0
19	York RM	592,445	3,201	7,400	2,676	25	5.2	1.53	5.5	4.3	568.0	674.9	486.5
20	Toronto MM	2,385,421	16,673	33,782	17,586	216	7.2	1.62	7.0	6.3	605.9	773.6	476.8
21	Peel RM	852,526	4,346	13,588	3,473	73	5.1	1.73	6.2	5.2	580.9	709.2	482.0
22	Dufferin Co.	45,657	287	690	289	0	5.5	1.87	5.6	2.5	741.0	923.7	606.4
23	Wellington Co.	171,395	957	2,297	1,215	18	5.6	1.63	4.6	5.9	642.2	828.2	512.5
24	Halton RM	339,875	1,690	4,306	1,920	22	4.8	1.61	5.2	4.3	593.1	740.3	484.2
25	Hamilton-Wentworth RM	467,799	3,004	5,855	3,907	26	6.2	1.61	6.3	6.9	700.9	882.2	564.4
26	Niagara RM	403,504	2,919	4,516	3,702	23	6.8	1.56	5.2	5.8	696.0	876.7	561.3
28	Haldimand-Norfolk RM	102,575	635	1,124	973	9	6.0	1.60	5.6	8.0	759.8	986.7	595.5
29	Brant Co.	114,564	670	1,591	1,071	9	5.5	1.76	6.5	4.8	714.9	905.2	577.0
30	Waterloo RM	405,435	2,545	5,749	2,713	20	5.9	1.67	5.0	4.9	653.5	846.8	520.1
31	Perth Co.	72,106	493	935	631	4	6.7	1.85	4.3	3.4	667.2	884.7	519.7
32	Oxford Co.	97,142	615	1,319	854	8	6.4	1.85	5.4	6.5	690.2	897.3	553.7
34	Elgin Co.	79,159	493	1,017	748	11	5.9	1.73	6.6	7.2	714.2	938.2	554.2
36	Kent Co.	109,650	772	1,403	1,119	11	6.7	1.73	6.2	6.3	805.1	1074.0	630.0
37	Essex Co.	350,329	2,257	4,584	2,935	20	6.3	1.69	5.7	4.8	714.0	928.6	560.6
38	Lambton Co.	128,975	794	1,399	1,051	6	5.6	1.64	5.8	6.8	639.6	811.7	503.0
39	Middlesex Co.	389,616	2,447	4,954	2,865	29	6.1	1.58	6.1	6.2	686.9	903.9	536.2
40	Huron Co.	60,220	372	654	605	3	6.0	1.79	4.7	5.9	679.8	858.3	542.9
41	Bruce Co.	65,680	400	726	646	4	6.1	1.88	4.8	6.6	808.1	1059.6	631.0
42	Grey Co.	87,632	521	837	905	6	5.9	1.63	5.7	5.3	699.4	851.8	575.8
43	Simcoe Co.	329,865	1,809	4,215	2,543	25	5.3	1.73	5.5	6.1	698.0	879.6	553.7
44	Muskoka DM	50,463	465	487	507	6	8.4	1.65	5.3	10.6	738.3	953.5	569.2
46	Haliburton Co.	15,321	101	98	155	0	6.3	1.70	7.1	5.1	648.7	776.4	538.4
47	Renfrew Co.	96,224	638	1,194	883	6	6.1	1.71	4.6	5.7	703.5	907.7	551.5
48	Nipissing District	84,832	579	920	801	7	6.4	1.52	5.6	4.4	791.6	1023.7	614.5
49	Parry Sound District	39,906	282	394	439	4	6.4	1.70	5.0	7.3	719.9	957.2	530.6
51	Manitoulin District	11,413	106	144	146	2	6.5	1.94	5.2	6.3	910.0	1234.4	647.5
52	Sudbury District	25,457	134	268	181	2	4.7	1.67	6.1	9.8	815.6	1031.1	638.4

Table 8.1 Selected vital statistics by census division, Canada, 1996 and 1994-1996[1] - continued

Census division (CD)[4]		1996					1994-1996 period[2]						
		Numbers					Rates				ASMR[3]		
		Population[5]	Marriages	Births	Deaths	Infant deaths	CMR[6]	TFR[7]	LBW[8]	IMR[9]	Total	Males	Females
Ontario, continued													
53	Sudbury RM	164,049	1,002	1,782	1,243	14	6.0	1.38	6.1	7.7	768.8	993.2	603.4
54	Timiskaming District	37,807	228	426	394	3	5.7	1.79	6.2	5.1	834.3	1036.5	691.9
56	Cochrane District	93,240	501	1,149	710	2	5.4	1.68	5.6	4.1	808.3	1045.7	619.2
57	Algoma District	125,455	792	1,338	1,143	8	5.8	1.53	6.7	6.7	759.0	958.3	602.8
58	Thunder Bay District	157,619	880	1,899	1,375	14	5.6	1.57	5.7	8.3	771.5	960.7	623.9
59	Rainy River District	23,163	128	284	234	1	5.0	1.78	4.7	5.3	741.3	990.9	556.9
60	Kenora District	63,335	360	1,134	503	9	5.5	2.21	4.7	10.2	830.6	1053.1	642.3
Manitoba													
01	Division No. 1	16,233	87	114	125	1	4.8	1.60	5.1	8.8	692.1	1011.9	498.5
02	Division No. 2	48,039	318	754	278	5	6.2	2.16	5.0	6.3	621.6	845.8	441.2
03	Division No. 3	40,485	279	610	364	6	6.5	2.27	3.6	10.7	589.4	711.0	489.7
04	Division No. 4	10,411	45	120	102	3	5.1	2.28	6.1	10.2	636.5	917.1	414.7
05	Division No. 5	14,766	86	157	192	1	5.6	1.92	5.2	8.4	690.3	884.0	521.8
06	Division No. 6	10,510	49	136	117	1	5.3	2.25	4.3	11.8	739.0	907.3	596.0
07	Division No. 7	57,219	370	718	542	2	6.2	1.73	4.6	4.5	634.4	788.2	521.5
08	Division No. 8	14,891	86	239	127	1	5.1	2.78	7.0	9.8	724.7	879.2	587.6
09	Division No. 9	23,195	128	345	231	3	5.6	2.04	4.5	9.6	744.2	938.4	604.5
10	Division No. 10	8,901	38	119	17	1	4.0	1.83	4.0	5.3	391.3	491.3	309.8
11	Division No. 11	620,064	3,663	8,221	5,226	53	6.0	1.71	5.9	6.0	665.4	858.0	533.9
12	Division No. 12	18,708	86	203	140	1	4.4	1.72	5.3	6.5	661.9	844.3	499.9
13	Division No. 13	39,422	224	438	411	5	5.0	1.63	5.1	7.4	853.1	1001.2	755.9
14	Division No. 14	17,054	99	194	100	0	5.6	1.87	4.5	5.2	544.5	650.8	444.3
15	Division No. 15	22,477	136	201	283	1	6.0	1.99	3.1	5.9	633.5	811.7	483.9
16	Division No. 16	10,690	49	144	143	2	4.8	2.43	4.3	16.7	742.7	1010.2	493.4
17	Division No. 17	23,975	114	254	321	1	5.0	1.95	5.6	3.8	677.0	879.5	518.3
18	Division No. 18	22,278	127	300	215	2	5.9	2.33	5.8	12.6	724.8	848.9	610.7
19	Division No. 19	14,722	63	408	74	3	4.2	4.22	5.5	7.7	927.6	1056.6	782.5
20	Division No. 20	11,446	86	137	136	1	6.5	2.07	4.3	7.2	717.2	941.1	530.9
21	Division No. 21	23,150	122	429	165	3	5.0	2.38	4.9	7.0	1043.6	1315.0	854.8
22	Division No. 22	35,584	170	1,004	141	7	4.9	3.17	4.8	9.1	1000.7	1359.8	798.6
23	Division No. 23	9,678	23	232	46	1	3.0	3.37	4.4	18.9	1124.2	1445.1	860.8
Saskatchewan													
01	Division No. 1	32,291	172	396	306	4	5.2	2.04	4.2	7.7	580.1	768.7	410.6
02	Division No. 2	23,121	119	240	304	4	4.8	1.80	4.9	8.2	621.3	820.6	454.8
03	Division No. 3	16,469	65	180	186	1	4.5	2.00	3.2	7.5	639.6	869.1	442.7
04	Division No. 4	12,313	59	144	127	0	4.9	1.99	5.7	2.3	639.0	889.7	489.3
05	Division No. 5	35,032	164	371	447	2	5.0	1.71	4.5	8.3	615.8	802.3	454.5
06	Division No. 6	220,602	1,236	2,787	1,674	26	5.6	1.69	5.2	9.6	629.4	851.2	475.1
07	Division No. 7	49,297	280	548	498	4	5.3	1.74	5.0	4.1	675.0	844.2	542.1
08	Division No. 8	31,643	169	349	312	2	5.5	1.76	4.2	7.1	610.1	771.8	472.4
09	Division No. 9	38,562	230	393	554	3	5.3	1.73	4.4	6.2	668.3	872.5	505.3
10	Division No. 10	20,770	102	213	237	1	4.3	1.91	3.7	4.6	617.4	761.6	479.2
11	Division No. 11	231,970	1,580	3,318	1,673	21	6.6	1.78	6.0	8.3	615.3	801.9	479.7
12	Division No. 12	24,454	110	278	213	2	4.5	1.91	5.7	10.8	605.1	736.5	488.1
13	Division No. 13	24,858	120	317	224	3	5.1	2.19	6.4	14.2	627.3	795.6	476.9
14	Division No. 14	40,799	232	459	461	3	5.1	2.12	4.5	6.7	670.3	844.3	515.8
15	Division No. 15	80,666	484	1,118	763	10	6.2	2.13	5.7	10.4	692.6	865.7	552.4
16	Division No. 16	37,758	220	576	367	6	5.7	2.23	5.5	10.3	661.1	803.1	533.5
17	Division No. 17	38,528	210	775	280	10	5.2	2.55	6.0	10.7	719.3	933.1	534.0
18	Division No. 18	31,104	118	838	136	10	4.2	3.54	4.6	10.0	998.8	1231.0	794.7

Table 8.1 Selected vital statistics by census division, Canada, 1996 and 1994-1996[1] - continued

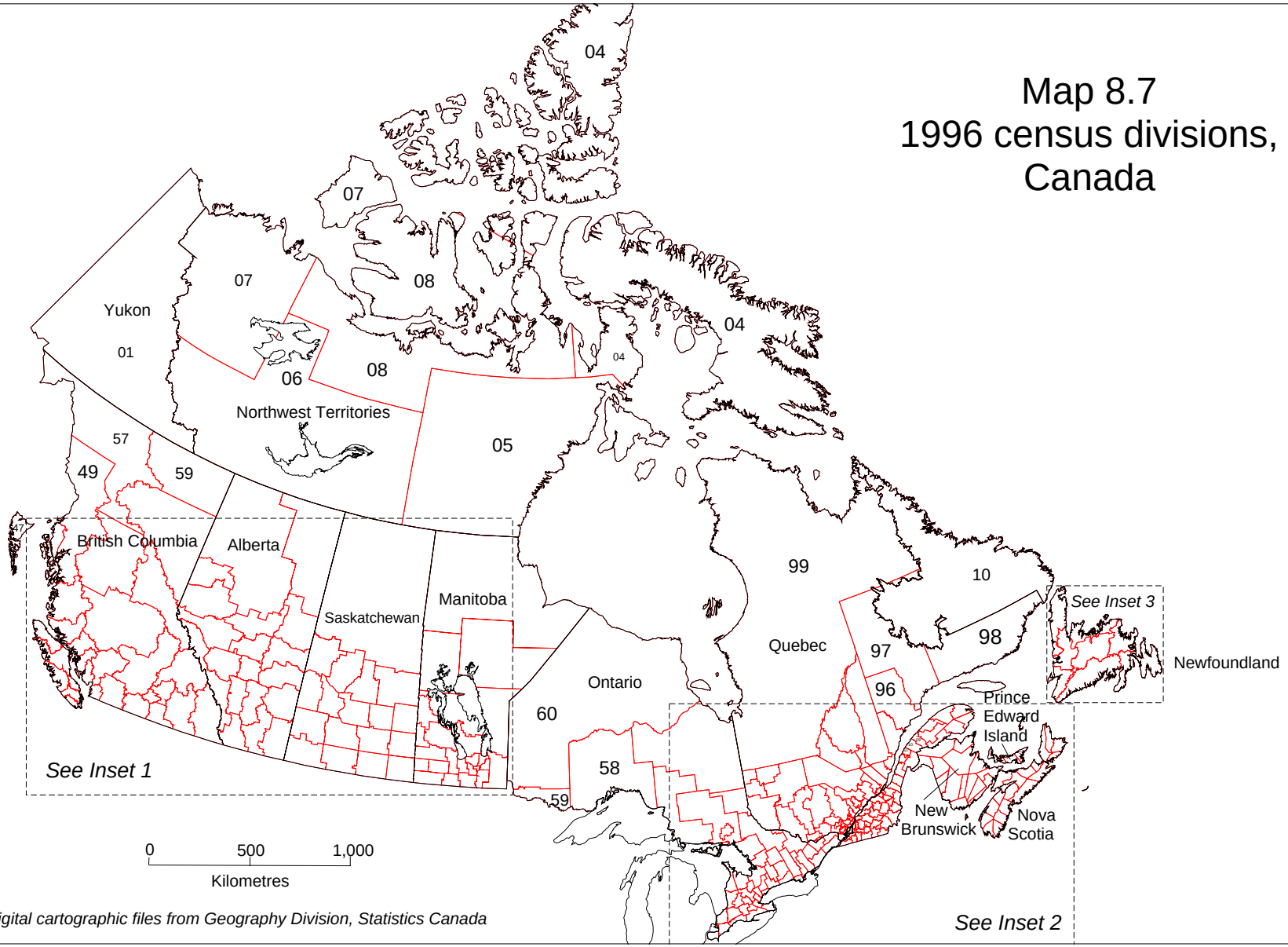
Census division (CD)[4]		1996					1994-1996 period[2]						
		Numbers					Rates				ASMR[3]		
		Population[5]	Marriages	Births	Deaths	Infant deaths	CMR[6]	TFR[7]	LBW[8]	IMR[9]	Total	Males	Females
Alberta													
01	Division No. 1	62,330	424	804	479	5	6.7	1.78	5.3	5.7	626.9	780.9	499.5
02	Division No. 2	125,179	806	1,788	969	18	6.2	1.94	5.7	9.1	649.1	815.7	514.2
03	Division No. 3	37,764	454	595	320	0	12.1	2.46	5.4	5.4	732.5	899.6	592.9
04	Division No. 4	12,046	63	156	97	2	4.9	1.75	6.6	12.0	616.9	815.9	430.1
05	Division No. 5	43,565	265	637	344	6	6.1	2.21	5.3	9.5	693.9	849.7	560.9
06	Division No. 6	880,859	5,241	12,028	4,712	61	6.1	1.59	6.4	6.0	608.4	761.9	493.7
07	Division No. 7	41,169	228	568	367	1	5.9	2.08	4.6	6.9	684.2	889.9	504.3
08	Division No. 8	133,592	901	2,010	872	12	6.8	1.99	6.6	6.9	678.7	853.5	554.9
09	Division No. 9	18,196	119	272	111	3	6.2	2.10	5.6	12.4	668.5	843.2	523.5
10	Division No. 10	80,028	479	923	818	9	6.1	1.84	4.5	8.4	675.3	877.1	500.3
11	Division No. 11	898,888	5,439	12,003	5,209	71	6.1	1.67	6.0	7.0	630.0	799.8	499.1
12	Division No. 12	56,499	310	994	396	8	6.1	2.41	5.2	8.0	861.4	1124.3	652.7
13	Division No. 13	62,569	349	842	545	4	5.5	2.05	5.3	5.8	766.9	932.4	610.5
14	Division No. 14	27,452	177	403	135	1	6.0	2.01	5.1	7.3	775.1	1077.8	553.2
15	Division No. 15	30,800	1,071	408	153	1	36.5	1.58	3.8	5.6	767.5	946.8	660.1
16	Division No. 16	36,494	154	631	83	3	4.0	1.71	4.7	5.4	522.4	631.4	400.4
17	Division No. 17	54,709	285	1,282	252	18	5.2	3.06	5.2	9.0	779.9	928.1	634.6
18	Division No. 18	15,022	62	265	70	2	4.7	2.29	4.3	5.2	1276.6	2020.5	501.5
19	Division No. 19	79,665	456	1,202	445	11	6.2	1.94	5.1	7.9	723.1	925.4	544.7
British Columbia													
01	East Kootenay RD	56,366	378	596	401	4	6.6	1.60	6.3	9.1	695.1	871.3	550.8
03	Central Kootenay RD	58,099	344	586	480	4	5.9	1.68	5.0	8.2	648.9	811.2	504.1
05	Kootenay Boundary RD	32,906	172	298	361	1	5.0	1.51	5.6	4.3	724.5	940.9	558.1
07	Okanagan-Similkameen RD	75,933	485	723	919	8	6.1	1.73	5.7	7.5	624.3	770.0	503.7
09	Fraser Valley RD	222,397	1,296	3,250	1,774	9	5.8	2.05	5.0	5.0	652.2	774.6	543.0
15	Greater Vancouver RD	1,831,665	10,860	23,299	12,650	112	6.2	1.49	5.4	5.7	609.6	781.0	475.4
17	Capital RD	317,989	2,214	3,098	3,190	13	7.0	1.34	4.8	4.7	602.3	750.0	492.5
19	Cowichan Valley RD	70,978	453	894	558	6	6.4	1.85	5.9	8.2	644.1	828.7	492.0
21	Nanaimo RD	121,783	713	1,301	1,081	7	5.9	1.58	5.3	6.5	661.5	840.9	529.4
23	Alberni-Clayoquot RD	31,652	258	406	242	3	7.5	1.87	4.3	6.3	794.9	975.8	640.9
25	Comox-Strathcona RD	97,666	600	1,131	681	4	6.1	1.65	4.6	5.0	668.1	829.5	532.9
27	Powell River RD	19,936	114	195	174	4	5.4	1.69	3.2	7.6	644.6	782.5	526.8
29	Sunshine Coast RD	24,914	149	276	252	2	5.9	1.85	4.2	7.5	664.3	908.8	500.3
31	Squamish-Lillooet RD	29,401	342	472	144	2	9.9	1.63	5.6	2.9	750.5	964.2	607.3
33	Thompson-Nicola RD	118,801	712	1,417	804	9	6.1	1.62	5.3	4.9	717.9	918.3	550.9
35	Central Okanagan RD	136,541	878	1,467	1,067	7	6.1	1.65	5.5	5.0	553.7	707.9	424.1
37	North Okanagan RD	71,607	452	793	627	5	6.1	1.69	3.4	5.0	634.5	782.0	513.2
39	Columbia-Shuswap RD	48,116	345	480	342	1	6.9	1.60	5.5	6.1	654.1	775.3	543.1
41	Cariboo RD	66,475	413	911	416	5	6.1	1.89	5.3	4.8	691.3	864.8	556.8
43	Mount Waddington RD	14,601	63	235	57	2	4.5	1.93	6.0	14.8	817.2	773.2	860.5
45	Central Coast RD	3,921	22	56	21	1	4.9	2.18	6.4	16.0	936.8	1239.8	687.8
47	Skeena-Queen Charlotte RD	24,795	112	393	119	3	4.9	2.09	4.9	5.4	781.2	1033.9	600.5
49	Kitimat-Stikine RD	43,618	230	710	179	2	4.9	1.91	4.9	5.9	721.6	911.3	603.9
51	Bulkley-Nechako RD	41,642	226	712	196	1	5.5	2.13	3.6	6.7	739.4	931.5	566.5
53	Fraser-Fort George RD	98,974	621	1,380	493	15	6.3	1.70	5.4	7.3	778.0	983.6	600.8
55	Peace River RD	56,477	341	900	274	4	6.2	2.02	4.4	4.7	716.2	832.4	598.9
57	Stikine Region	1,391	7	25	8	0	5.3	1.69	3.2	0.0	519.1	676.0	379.1
59	Fort Nelson-Liard RD	5,856	34	132	20	3	5.7	2.42	7.6	20.3	1024.5	1601.5	1189.7
Yukon													
01	Yukon	30,766	197	443	120	0	6.3	1.76	4.8	5.2	978.1	1389.4	631.8

Table 8.1 Selected vital statistics by census division, Canada, 1996 and 1994-1996[1] - concluded

Census division (CD)[4]		1996					1994-1996 period[2]						
		Numbers					Rates				ASMR[3]		
		Population[5]	Marriages	Births	Deaths	Infant deaths	CMR[6]	TFR[7]	LBW[8]	IMR[9]	Total	Males	Females
Northwest Territories													
04	Baffin Region	13,218	24	370	65	7	2.3	3.35	9.2	15.6	1515.6	1729.0	1353.5
05	Keewatin Region	6,868	36	243	33	4	3.4	3.63	7.7	24.0	944.0	879.5	978.2
06	Fort Smith Region	30,225	117	584	109	0	3.9	2.12	5.0	5.5	941.1	1147.2	751.5
07	Inuvik Region	9,024	23	219	41	3	3.7	2.82	4.2	15.7	849.0	1041.8	683.7
08	Kitikmeot Region	5,067	6	145	23	4	1.9	3.13	5.7	17.3	783.9	1055.0	535.7

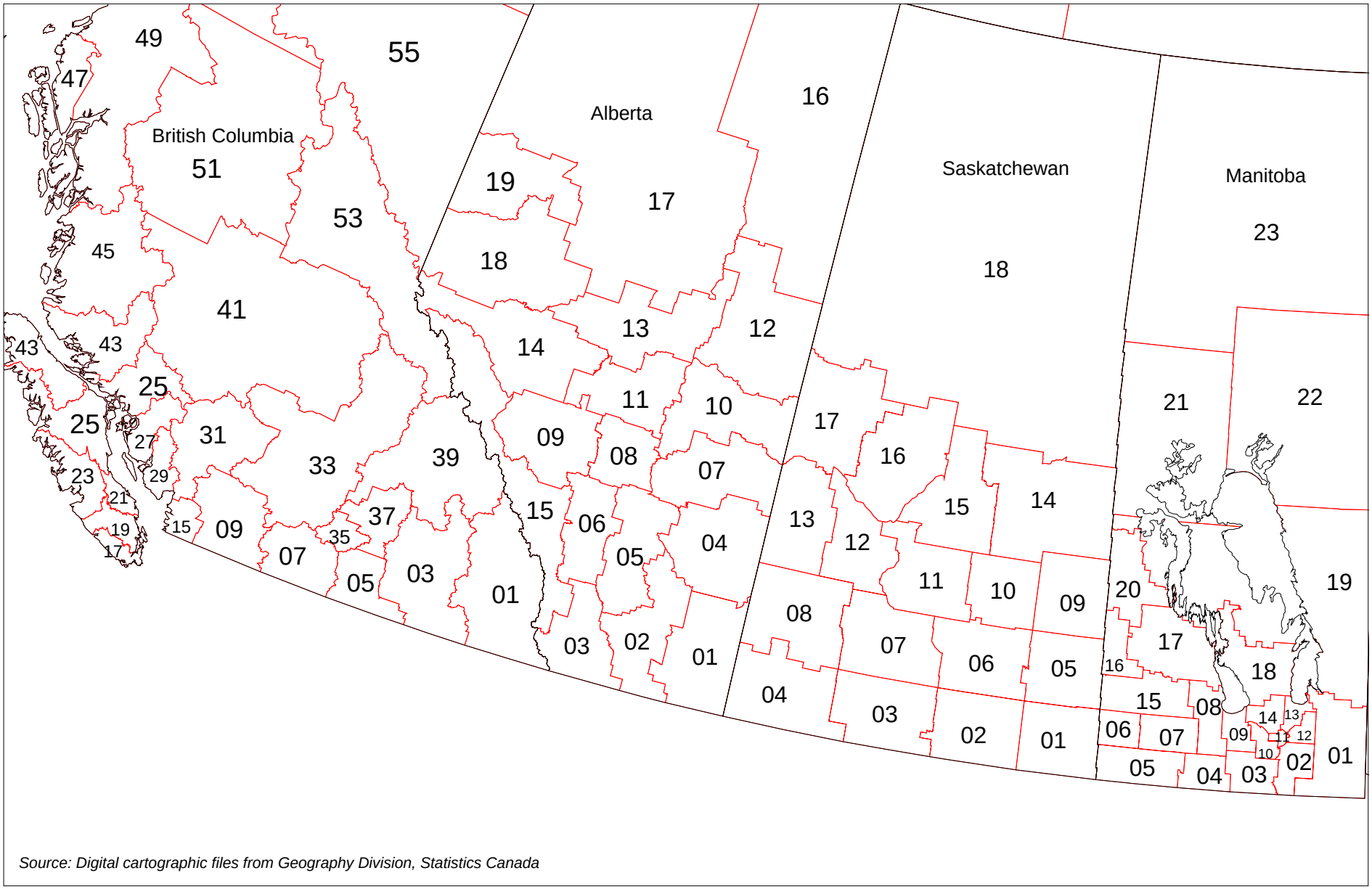
[1] *Data pertaining to marriages, births and deaths exclude cases where the CD of occurrence (in the case of marriages) or residence (births and deaths) was unknown.*
[2] *Rates were calculated using a three-year average in the numerator and the 1995 population estimate in the denominator.*
[3] *Age-standardized mortality rate (ASMR): number of deaths per 100,000 population (standardized to the 1995 population).*
[4] *The abbreviations in this table are as shown in parentheses: Census Division (CD), County (Co.), Communauté-Urbaine (C-U), United Counties (UC), Metropolitan Municipality (MM), Regional Municipality (RM), District Municipality (DM), Regional District (RD).*
[5] *Based on unadjusted 1996 Census of Population counts.*
[6] *Crude marriage rate (CMR): the number of marriages per 1,000 population.*
[7] *Total fertility rate (TFR): the average number of live births a woman can be expected to have in her lifetime.*
[8] *Low birthweight (LBW) rate: the percentage of live births under 2,500 grams.*
[9] *Infant mortality rate (IMR): the number of infant deaths per 1,000 live births.*

Map 8.7
1996 census divisions, Canada



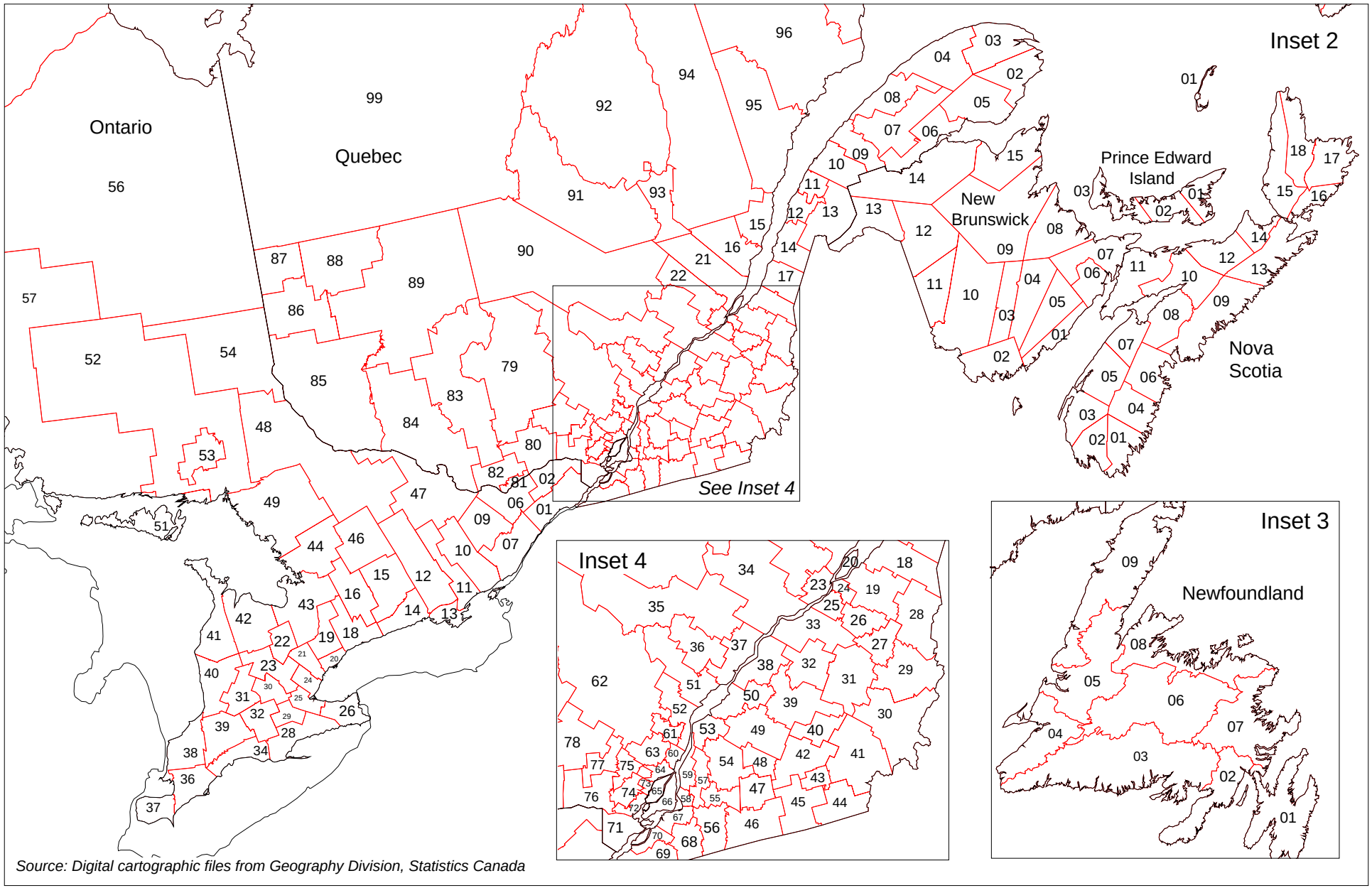
Source: Digital cartographic files from Geography Division, Statistics Canada

Map 8.8 - 1996 census divisions, Western Canada (Inset 1)



Source: Digital cartographic files from Geography Division, Statistics Canada

Map 8.9 - 1996 census divisions, Central and Eastern Canada (Insets 2, 3 and 4)



Source: Digital cartographic files from Geography Division, Statistics Canada

9. International comparisons

HIGHLIGHTS

Marriage

- Since 1970, the crude marriage rate has declined in most industrialized countries (from 8.8 marriages per 1,000 Canadians to 5.2 in 1996). This may be attributed to several factors, including the increased prevalence of common-law unions, the widespread availability of contraceptive techniques, the growing financial independence of women and, in many countries, population aging.

- In recent years, Canadian marriage rates have been much lower than those reported by the United States, Turkey, Korea and Mexico. The lowest crude rates among OECD countries in 1996 were recorded in Sweden (only 3.8), Greece, Ireland and Italy.

- The relative position of Canada's crude marriage rate among the 29 OECD countries found in Table 9.1 has fluctuated substantially over the years. In 1980, Canada's marriage rate was the 4th highest among OECD countries. By 1993, the country's ranking had dropped to 17th place. Since then, Canada's ranking among OECD countries has been rising (to 11th place in 1996).

Fertility

- The total fertility rate (TFR) is expressed as the average number of live births per woman in a lifetime, based on current age-specific fertility rates. In 1996, all of the OECD member countries listed in Table 9.2, except Mexico, Iceland and possibly Turkey, had total fertility rates below replacement. (In developed countries, births offset mortality when the TFR is approximately 2.1.) This decline is likely related to socioeconomic changes that have taken place in recent decades, including the growing availability of contraceptives, improvements in the status of women and delayed childbearing.

- In 1996, total fertility rates in at least 13 OECD countries exceeded the Canadian rate (1.59). The lowest fertility rates among the 29 OECD countries were seen in Spain (1.15), the Czech Republic, Italy, Germany and Greece.

Infant mortality

- Although all OECD countries have achieved dramatic declines in infant mortality since 1970, infant mortality rates remain relatively high in Turkey (42.2 deaths per 1,000 live births in 1996), Mexico, Poland, Hungary and Korea. The lowest rates in 1996 were found in Iceland (3.7), Japan and the Scandinavian countries (Table 9.3).

- Between 1970 and 1996, Canada's infant mortality rate dropped 70%, from 18.8 deaths per 1,000 live births to 5.6 deaths. Its relative position among the OECD countries has deteriorated since 1990, however. That year, Canada's infant mortality rate was the 5th lowest of the OECD countries (only Japan, Iceland and two

Scandinavian countries had lower rates); by 1996, Canada's ranking had eroded to 15th place (behind Japan and 13 European countries).

Life expectancy

- Gains in life expectancy at birth continue to be made in most OECD countries. Declining infant death rates and reduced mortality from diseases primarily found among older men and women (e.g. heart and cerebrovascular diseases, and some cancers) have both contributed to higher life expectancies.

- Between 1971 and 1996, life expectancy at birth increased 6.3 years for Canadian males, and 4.9 years for their female counterparts (Table 9.4). Although women had a greater life expectancy than men throughout the period, the gap between the sexes narrowed from 7.4 years in 1976 to 5.7 years in 1996. A similar trend has been observed in many OECD countries.

- In 1996, the life expectancy of Canadian men (75.7 years) was exceeded only by those living in Japan (77.0 years), Sweden and Iceland; similarly, the life expectancy of Canadian women (81.4 years) was surpassed only by those in Japan (83.6), France, Switzerland, Spain and Sweden.

- Life expectancy at birth was shortest among Turkish, Hungarian and Polish men (ranging from 65.9 to 67.8 years), and Turkish, Hungarian and Mexican women (from 70.5 to 76.5 years).

Age-standardized mortality

- Among the 28 reporting OECD countries in Table 9.5, Canada's age-standardized mortality rate (ASMR) for all causes combined was the fourth lowest for men (549.5 deaths per 100,000 Canadian males in 1995) and seventh lowest for women (330.3 per 100,000 females). In comparison, ASMRs for men in other countries ranged from a low of 480.8 per 100,000 in Iceland (1994 data) to a high of 1,136.1 in Hungary (1995), while ASMRs for women varied from 265.3 per 100,000 in Japan (1994) to 588.8 in Hungary. (All of the rates in this section are standardized to the world population.)

- The picture was somewhat different when more specific causes of death were examined. For example, the age-standardized mortality rate associated with cancer of the trachea, bronchus and lung among Canadian women was the third highest of the OECD countries (22.6 per 100,000), surpassed only by Denmark (28.1 per 100,000 in 1995) and the United States (26.4 in 1994). In marked contrast, only 3.8 deaths per 100,000 were reported among Spanish women (in 1994). Mortality rates for this type of cancer among Canadian men (48.9 per 100,000) lay in the middle of the range for OECD countries.

- Canada's ASMRs for circulatory system diseases were among the lowest of the OECD countries, for both sexes. Although Japan's rate was the lowest reported for

men (139.9 per 100,000), Canada's ASMR ranked fourth (185.7 per 100,000 males); the highest rate was found among Hungarian men (483.4 per 100,000). In a similar fashion, the ASMR for Canadian women was third lowest (106.5 per 100,000), and that for Hungarian women, highest (285.4); however, French women benefited from the lowest rate, at 79.1 per 100,000 (in 1994).

- Age-standardized suicide rates were substantially higher for men than women in all OECD countries; moreover, the rates for men varied more than those of women. Men's rates ranged from a low of 4.6 per 100,000 in Greece (in 1995) to a high of 39.7 per 100,000 in Hungary. The rate for Canadian men lay in the middle of this range, at 18.6. In contrast, suicide rates among women were as low as 0.9 per 100,000 in Mexico (1995) and Greece, and only as high as 10.8 in Hungary. At 4.7, the rate for Canadian women lay in the middle of the female range. Suicide rates for both Canadian men and women were very similar to those of Australians (in 1994) and New Zealanders (in 1993).

Table 9.1 Crude marriage rates in OECD[1] member countries, selected years, 1970-1996

Country	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996
	Number of marriages per 1,000 population										
Canada	8.8	8.5	7.8	7.1	6.8	6.1	5.8	5.5	5.5	5.4	5.2
Australia	9.3	7.5	7.4	7.2	6.9	6.6	6.6	6.4	6.2	6.1	5.8
Austria	..	6.1	6.1	5.9	5.9	5.6	5.8	5.6	5.4	5.3	5.2
Belgium	7.6	7.3	6.7	5.8	6.5	6.1	5.8	5.4	5.1	5.1	5.0
Czech Republic	..	..	..	..	..	7.0	7.2	6.4	5.7	5.3	5.2
Denmark	7.4	6.3	5.2	5.7	6.1	6.0	6.2	6.1	6.8	6.6	6.8
Finland	8.8	6.7	6.1	5.3	5.0	4.7	4.6	4.9	4.9	4.6	4.8
France	7.8	7.3	6.2	4.9	5.1	4.9	4.7	4.4	4.4	4.4	4.8
Germany	7.3	6.3	5.9	6.0	6.5	5.7	5.6	5.5	5.4	5.3	5.2
Greece	7.7	8.4	6.5	6.4	5.9	6.4	4.7	6.0	5.4	6.1	4.5
Hungary	9.3	9.9	7.5	6.9	6.4	5.9	5.5	5.3	5.3	5.2	4.9
Iceland	..	7.7	5.7	5.2	4.5	4.8	4.8	..	4.6	4.6	5.0
Ireland	7.1	6.7	6.4	5.3	5.1	4.9	4.7	4.7	4.5	4.3	4.6
Italy	7.4	6.7	5.7	5.2	5.4	5.5	5.5	5.3	5.0	4.9	4.7
Japan	10.0	8.4	6.6	6.1	5.8	6.0	6.1	6.4	6.3	6.3	6.3
Korea	..	8.0	9.7	9.1	8.9	9.3	9.4	8.6	8.2	7.1	..
Luxembourg	..	6.8	5.9	5.3	6.1	6.7	6.4	6.0	5.8	5.1	5.1
Mexico	7.0	7.8	7.2	7.3	7.5	7.4	7.5	7.2	7.2	7.3	7.7
Netherlands	9.5	7.3	6.4	5.7	6.4	6.3	6.2	5.8	5.4	5.3	5.4
New Zealand	9.2	8.0	7.4	7.6	6.9	6.8	6.4	6.4	6.3	..	5.8
Norway	7.6	6.5	5.4	4.9	5.2	4.7	4.5	4.5	4.6	..	..
Poland	8.6	9.7	8.6	7.2	6.7	6.1	5.7	5.4	5.4	5.4	5.3
Portugal	..	11.3	7.4	6.7	7.3	7.3	7.1	6.9	..	6.6	6.5
Spain	7.4	7.6	6.8	5.0	5.6	5.6	5.6	5.2	5.0	5.0	5.0
Sweden	5.4	5.4	4.5	4.6	4.7	4.3	4.3	3.9	3.9	3.8	3.8
Switzerland	7.4	5.5	5.7	6.0	6.9	7.0	6.6	6.2	6.1	5.8	5.7
Turkey	..	3.4	3.7	7.3	8.2	8.0	7.5	7.7	7.6	7.5	..
United Kingdom	..	7.7	7.4	6.9	6.5	6.0	6.1	5.9	5.7	5.7	..
United States	10.5	10.0	10.5	10.1	9.8	9.4	9.2	9.0	9.1	8.9	8.8

[1] *Organisation for Economic Co-operation and Development.*
Sources: United Nations: Demographic Year Book, 1990, 1993, 1995 *and* 1996*; Statistics Canada: catalogue 91-209, 1997 and catalogue 84-212, 1995.*

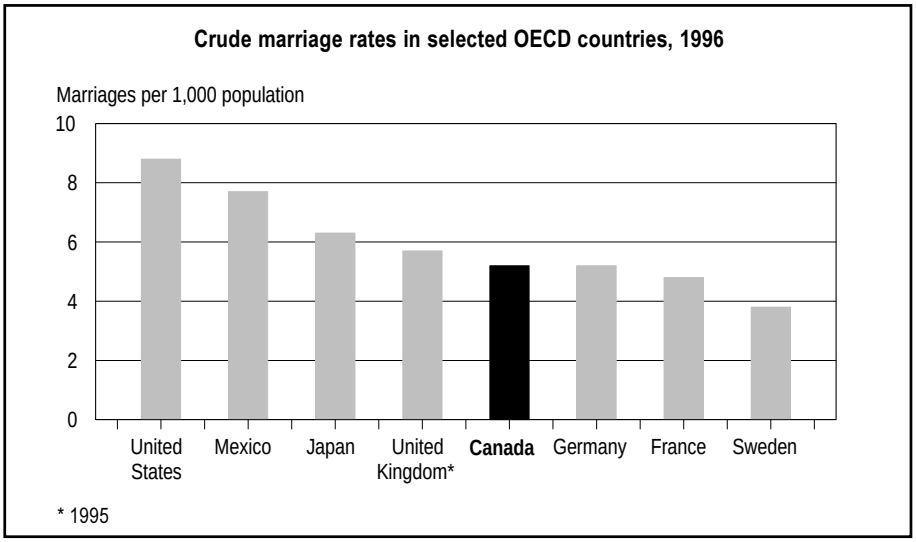


Table 9.2 Total fertility rates in OECD[1] member countries, selected years, 1970-1996

Country	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996
	Average number of live births per woman in a lifetime										
Canada	**2.33**	**1.81**	**1.68**	**1.61**	**1.71**	**1.70**	**1.69**	**1.66**	**1.66**	**1.64**	**1.59**
Australia	2.86	2.22	1.90	1.89	1.91	1.86	1.90	1.87	1.85	1.82	1.79
Austria	2.29	1.83	1.65	1.47	1.45	1.50	1.51	1.51	1.44	1.39	1.42
Belgium	2.25	1.74	1.67	1.51	1.62	1.57	1.56	1.61	1.55	1.57	1.59
Czech Republic	1.93	2.43	2.07	1.95	1.89	1.86	1.72	1.67	1.44	1.28	1.18
Denmark	1.95	1.92	1.55	1.45	1.67	1.68	1.76	1.75	1.81	1.79	1.75
Finland	1.83	1.69	1.63	1.64	1.79	1.79	1.85	1.81	1.85	1.84	1.76
France	2.47	1.93	1.95	1.82	1.80	1.77	1.73	1.65	1.65	1.66	1.72
Germany	2.02	1.45	1.44	1.28	1.45	1.33	1.29	1.28	1.24	1.25	1.29
Greece	2.43	2.28	2.23	1.68	1.43	1.38	1.39	1.34	1.36	1.32	1.31
Hungary	2.00	2.40	1.90	1.80	1.80	1.90	1.80	1.70	1.64	1.57	1.46
Iceland	2.81	2.65	2.48	1.93	2.31	2.19	2.21	2.22	2.14	2.08	2.09
Ireland	4.03	3.53	3.23	2.50	2.12	2.08	1.99	1.92	1.86	1.87	1.91
Italy	2.43	2.21	1.69	1.41	1.31	1.30	1.26	1.21	1.19	1.22	1.22
Japan	2.13	1.91	1.75	1.76	1.54	1.53	1.50	1.46	1.45	1.43	1.43
Korea	4.50	3.40	2.80	1.70	1.60	1.70	1.80	1.70	1.70	1.70	..
Luxembourg	1.97	1.52	1.50	1.38	1.62	1.64	1.65	1.70	1.72	1.71	1.76
Mexico	6.63	5.84	4.80	3.95	3.31	3.20	3.08	2.99	2.90	2.81	2.73
Netherlands	2.57	1.66	1.59	1.51	1.62	1.61	1.59	1.57	1.56	1.58	1.52
New Zealand	3.17	2.37	2.03	1.93	2.18	2.16	2.12	2.10	2.04	2.03	..
Norway	2.50	1.98	1.72	1.68	1.93	1.92	1.88	1.86	1.87	1.85	1.89
Poland	2.20	2.27	2.28	2.33	2.04	2.05	1.93	1.85	1.80	1.61	1.60
Portugal	2.76	2.52	2.19	1.70	1.43	1.42	1.48	1.53	1.44	1.45	1.40
Spain	2.84	2.79	2.22	1.63	1.36	1.28	1.23	1.24	1.22	1.24	1.15
Sweden	1.94	1.78	1.68	1.73	2.14	2.12	2.09	2.00	1.89	1.74	1.61
Switzerland	2.10	1.61	1.55	1.52	1.59	1.58	1.58	1.51	1.49	1.48	1.50
Turkey	5.05	4.53	4.22	3.93	3.64	3.58	3.50	2.70	2.69	..	..
United Kingdom	2.43	1.81	1.89	1.80	1.84	1.82	1.79	1.82	1.75	1.73	1.70
United States	2.48	1.77	1.84	1.84	1.90	1.80	2.01	2.00	2.00	2.03	2.00

[1] *Organisation for Economic Co-operation and Development.*
Sources: OECD: Health Data, 1998*; Statistics Canada: catalogue 91-209, 1997 and catalogue 84-210, 1995; Institut national d'études démographiques (INSE):* Population*, nº 5, 1997.*

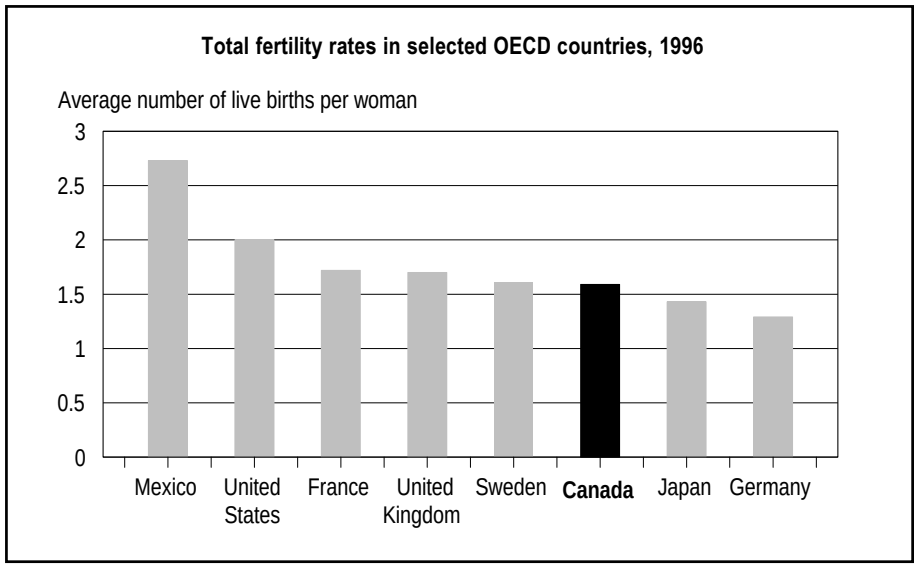


Table 9.3 Infant mortality rates in OECD[1] member countries, selected years, 1970-1996

Country	1970	1975	1980[2]	1985	1990	1991	1992	1993	1994	1995	1996
	Number of deaths per 1,000 live births										
Canada	**18.8**	**13.6**	**10.4**	**7.9**	**6.8**	**6.4**	**6.1**	**6.3**	**6.3**	**6.1**	**5.6**
Australia	17.9	14.3	10.7	9.9	8.2	7.1	7.0	6.1	5.9	5.7	5.8
Austria	25.9	20.5	14.3	11.2	7.8	7.5	7.5	6.5	6.3	5.4	5.1
Belgium	21.1	16.1	12.1	9.8	8.0	8.4	8.2	8.0	7.6	7.0	6.0
Czech Republic	20.2	19.4	16.9	12.5	10.8	10.4	9.9	8.5	7.9	7.7	6.0
Denmark	14.2	10.4	8.4	7.9	7.5	7.3	6.6	5.4	5.5	5.4	5.2
Finland	13.2	10.0	7.6	6.3	5.6	5.8	5.2	4.4	4.6	4.0	4.0
France	18.2	13.8	10.0	8.3	7.3	7.3	6.8	6.5	5.9	4.9	4.9
Germany	23.6	19.8	12.6	8.9	7.0	6.9	6.2	5.8	5.6	5.3	5.0
Greece	29.6	24.0	17.9	14.1	9.7	9.0	8.4	8.5	7.9	8.2	7.3
Hungary	36.0	33.0	23.0	20.0	15.0	16.0	14.0	13.0	12.0	11.0	10.6
Iceland	13.2	12.5	7.7	4.9	5.9	5.5	4.8	4.8	3.4	6.1	3.7
Ireland	19.5	17.5	11.1	8.9	8.2	8.2	6.6	5.9	5.9	6.3	5.5
Italy	29.6	21.2	14.6	10.5	8.2	8.1	7.9	7.3	6.6	6.2	5.8
Japan	13.1	10.0	7.5	5.5	4.6	4.4	4.5	4.3	4.2	4.3	3.8
Korea	45.0	..	17.0	13.0	13.0	10.0	9.0	9.0	9.0	9.0	9.0
Luxembourg	24.9	14.8	11.5	9.0	7.4	9.2	8.5	6.0	5.3	5.0	4.9
Mexico	68.0	49.0	40.0	28.0	24.0	21.0	19.0	17.0	17.0	17.0	17.0
Netherlands	12.7	10.6	8.6	8.0	7.1	6.5	6.3	6.3	5.7	5.5	5.2
New Zealand	16.8	15.9	12.9	10.8	8.4	8.3	7.3	7.3	7.2	7.0	7.4
Norway	12.7	11.1	8.1	8.5	7.0	6.4	5.9	5.1	5.2	4.0	4.0
Poland	..	..	25.5	..	19.3	18.2	17.3	16.1	15.1	13.6	12.3
Portugal	55.1	38.9	24.3	17.8	11.0	10.8	9.3	8.7	7.9	7.4	6.9
Spain	26.3	18.8	12.3	8.9	7.6	7.2	7.1	6.8	6.0	5.5	5.0
Sweden	11.0	8.6	6.9	6.8	6.0	6.1	5.3	4.8	4.4	4.1	4.0
Switzerland	15.1	10.7	9.1	6.9	6.8	6.2	6.4	5.6	5.1	5.0	4.7
Turkey	151.0	128.6	95.3	75.3	59.3	56.5	54.0	52.6	46.8	44.4	42.2
United Kingdom	18.5	16.0	12.1	9.4	7.9	7.4	6.6	6.3	6.2	6.0	6.1
United States	20.0	16.1	12.6	10.6	9.2	8.9	8.5	8.4	8.0	8.0	7.8

[1] *Organisation for Economic Co-operation and Development.*
[2] *1981 data for Korea.*
Sources: OECD: Health Data, 1998*; Statistics Canada: catalogue 84-210, 1995.*

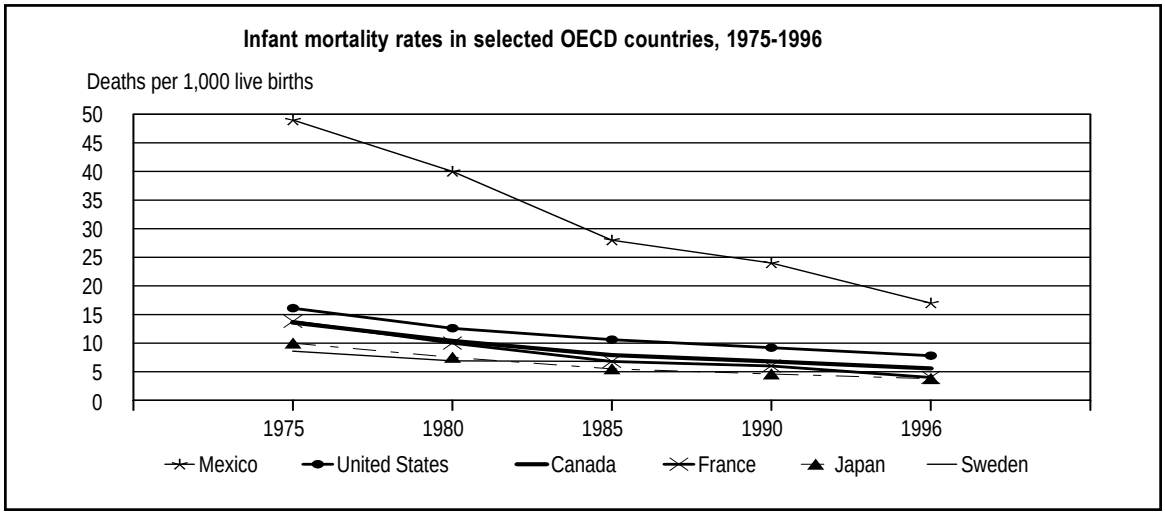
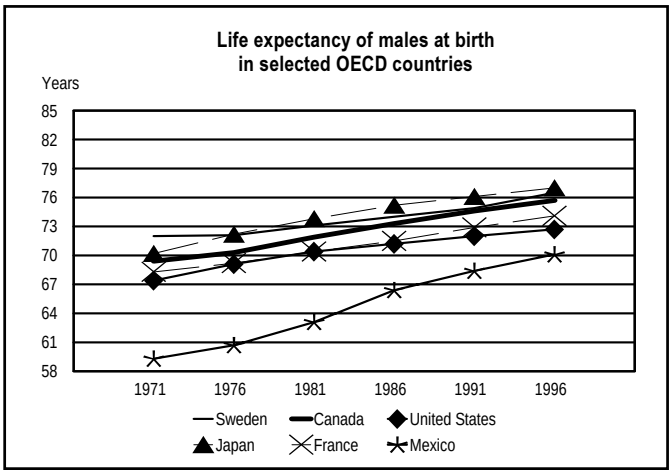


Table 9.4 Life expectancy at birth in OECD[1] member countries by sex, selected years, 1971-1996

Country	1971[2]		1976[3]		1981[4]		1986[5]		1991[6]		1996[7]	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
	Years											
Canada[8]	**69.4**	**76.5**	**70.3**	**77.7**	**71.9**	**79.1**	**73.3**	**80.0**	**74.6**	**80.9**	**75.7**	**81.4**
Australia	68.3	74.9	69.3	76.3	71.4	78.4	72.9	79.2	74.4	80.4	75.2	81.1
Austria	66.6	73.7	68.2	75.0	69.3	76.4	71.0	77.7	72.4	79.1	73.9	80.2
Belgium	67.8	74.2	68.7	75.5	70.0	76.8	70.9	77.7	72.8	79.5	74.3	81.0
Czech Republic	66.2	73.3	67.1	74.1	67.2	74.3	67.5	74.6	68.2	75.7	70.5	77.2
Denmark	70.7	76.1	71.2	77.1	71.4	77.4	71.6	77.5	72.2	77.7	72.8	78.0
Finland	65.9	74.2	67.5	76.1	69.5	77.8	70.5	78.7	71.4	79.3	73.0	80.5
France	68.3	75.9	69.2	77.2	70.4	78.5	71.5	79.7	72.9	81.1	74.1	82.0
Germany	67.4	73.8	68.6	75.1	70.2	76.8	71.8	78.3	72.2	78.7	73.6	79.9
Greece	70.1	73.6	..	..	72.2	76.6	74.1	78.7	74.6	79.7	75.1	80.4
Hungary	66.1	72.0	66.6	72.5	65.5	72.9	65.3	73.2	65.0	73.8	66.6	74.7
Iceland	..	..	73.0	79.2	73.9	79.4	75.0	80.4	75.1	80.8	76.2	80.6
Ireland	68.5	73.2	68.1	74.9	70.1	75.6	70.8	76.4	72.2	77.7	73.2	78.5
Italy	69.0	74.9	69.6	76.0	70.9	77.6	72.3	78.7	73.6	80.2	74.9	81.3
Japan	70.2	75.6	72.2	77.4	73.8	79.1	75.2	80.9	76.1	82.1	77.0	83.6
Korea	59.8	66.7	62.7	69.1	63.8	72.2	66.0	74.1	67.7	75.7	69.5	77.4
Luxembourg	67.0	73.9	68.0	75.1	70.0	76.7	70.6	77.9	72.0	79.1	73.0	80.0
Mexico	59.3	64.2	60.7	66.8	63.1	70.2	66.4	72.8	68.4	74.7	70.1	76.5
Netherlands	71.0	76.7	71.5	78.0	72.7	79.3	73.1	79.6	74.1	80.2	74.7	80.4
New Zealand	68.6	74.6	69.0	75.4	70.4	76.4	71.1	77.1	72.9	78.7	74.3	79.8
Norway	71.2	77.4	72.0	78.2	72.6	79.3	72.9	79.8	74.0	80.1	75.4	81.1
Poland	66.1	73.3	66.9	74.6	67.1	75.2	66.8	75.1	66.1	75.3	67.8	76.8
Portugal	65.3	71.0	65.4	73.0	68.9	76.6	70.2	77.1	69.8	77.3	71.2	78.5
Spain	69.6	75.1	70.4	76.2	72.5	78.6	73.3	79.7	73.4	80.6	74.4	81.6
Sweden	72.0	77.3	72.1	77.9	73.1	79.1	74.0	80.0	74.9	80.5	76.5	81.5
Switzerland	70.1	76.6	71.6	78.1	72.4	79.0	73.6	80.3	74.1	80.9	75.7	81.9
Turkey	55.8	59.9	58.2	64.3	60.7	65.4	63.2	68.1	64.1	68.4	65.9	70.5
United Kingdom	68.8	75.0	70.0	75.5	70.8	76.8	71.9	77.6	73.2	78.7	74.4	79.3
United States	67.4	75.0	69.1	76.8	70.4	77.8	71.2	78.2	72.0	78.9	72.7	79.4

[1] *Organisation for Economic Co-operation and Development.*
[2] *Life expectancy in 1970 for Greece, Ireland, Korea, Portugal and Spain, and 1973 for Turkey.*
[3] *Life expectancy in 1975 for Greece and Spain, 1974 for females in the United Kingdom, 1978 for Ireland and Turkey, and 1979 for Korea.*
[4] *Life expectancy in 1980 for Spain and 1983 for Korea and Turkey.*
[5] *Life expectancy in 1985 for Spain, 1987 for males in Greece and Korea, and 1988 for Turkey.*
[6] *Life expectancy in 1990 for Turkey.*
[7] *Life expectancy in 1995 for Korea.*
[8] *Estimates for 1996 are based on one year of data only.*

Sources: OECD: Health Data, 1998*; Statistics Canada: catalogue 84-210, 1995; UK data: http://www.statistics.gov/stats/ukinfigs/pop.htm.*



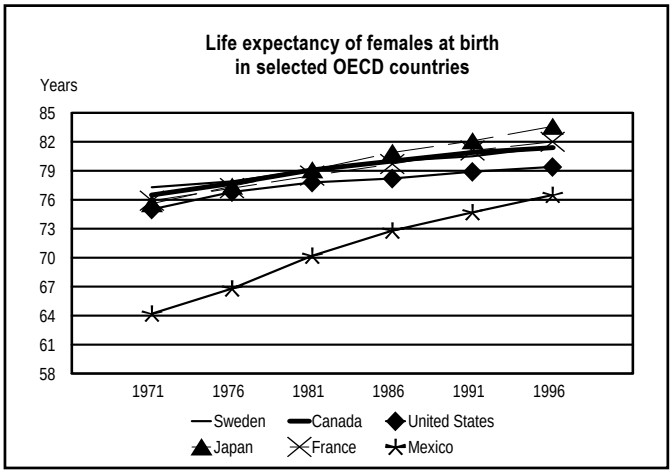


Table 9.5 Age-standardized mortality rates in OECD[1] member countries by sex, selected causes, 1992-1995

Country (year)	All causes		All cancers		Cancer of trachea, bronchus and lung		Diseases of the circulatory system	
	Men	Women	Men	Women	Men	Women	Men	Women
	Age-standardized mortality rates (deaths per 100,000 population)[2]							
Canada (1995)	**549.5**	**330.3**	**154.9**	**104.9**	**48.9**	**22.6**	**185.7**	**106.5**
Australia (1994)	564.7	337.0	161.3	99.3	40.2	13.6	212.8	130.0
Austria (1995)	638.6	363.9	162.2	102.0	40.8	9.6	278.5	171.0
Belgium (1992)	670.5	373.1	196.5	105.0	71.5	9.2	208.0	121.8
Czech Republic (1995)[3]	877.7	501.2	229.7	127.9	69.7	11.6	433.1	262.0
Denmark (1995) [3]	692.9	451.7	178.7	142.5	49.7	28.1	245.3	142.1
Finland (1995)	680.4	356.5	141.8	86.5	41.3	7.0	292.4	151.0
France (1994)	586.3	291.1	189.3	84.9	46.3	5.8	144.7	79.1
Germany (1995)	657.7	373.5	171.9	104.3	46.6	9.2	266.4	157.4
Greece (1995)	555.6	352.5	147.2	77.4	49.4	7.2	229.6	169.7
Hungary (1995)	1136.1	588.8	266.4	139.1	83.7	18.9	483.4	285.4
Iceland (1994)	480.8	328.1	..	..	..	..	..	..
Ireland (1993)	724.6	442.2	177.5	120.7	47.2	17.5	316.0	178.5
Italy (1993)	591.7	337.0	182.7	96.4	55.3	7.7	208.6	132.3
Japan (1994)	492.7	265.3	149.0	74.1	31.2	8.4	139.9	88.2
Korea (1995) [3]	811.9	420.1	189.9	76.0	40.0	9.1	199.0	129.1
Luxembourg (1995)	644.2	339.3	194.8	96.2	58.1	9.0	225.7	127.3
Mexico (1995)	795.9	554.3	85.4	78.9	16.2	5.9	191.7	159.7
Netherlands (1995)	605.6	354.8	181.0	106.8	61.2	13.8	216.8	118.3
New Zealand (1993)	637.7	405.8	170.3	122.3	40.0	17.7	258.0	156.1
Norway (1994)	583.9	345.5	148.0	104.1	32.0	13.5	235.7	124.8
Poland (1995)	963.8	508.5	206.3	108.0	72.2	11.3	428.2	245.9
Portugal (1995)	751.1	421.8	154.8	84.7	28.7	4.8	247.0	170.0
Spain (1994)	589.0	313.4	172.9	80.3	48.5	3.8	176.5	115.4
Sweden (1995)	521.8	317.5	123.0	95.8	22.4	12.2	233.7	123.8
Switzerland (1994)	552.1	307.1	160.2	92.7	40.3	9.7	190.4	110.1
Turkey	..	..	..	..	..	..	..	..
United Kingdom (1995)	626.2	395.5	166.8	117.5	47.7	20.6	253.2	144.0
United States (1994)	669.4	402.5	160.6	109.9	54.2	26.4	241.2	144.7

[1] *Organisation for Economic Co-operation and Development.*
[2] *Age-standardized mortality rates (ASMRs) are standardized to the world population.*
[3] *Cause of death coding based on the* International Statistical Classification of Diseases and Related Health Problems, Tenth Revision *(ICD-10).*
Sources: World Health Organization: World Health Statistics, 1996 *and* World Health Statistics, 1995.

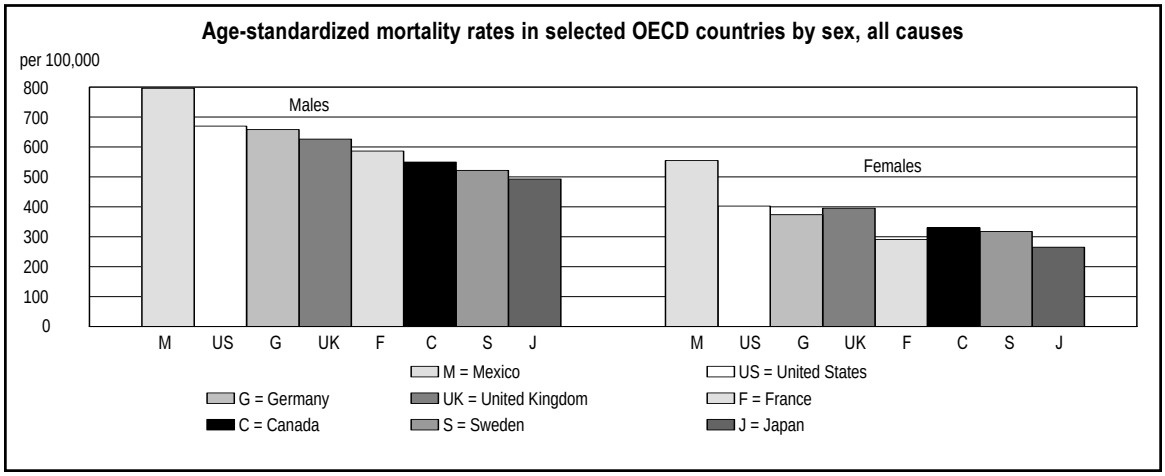
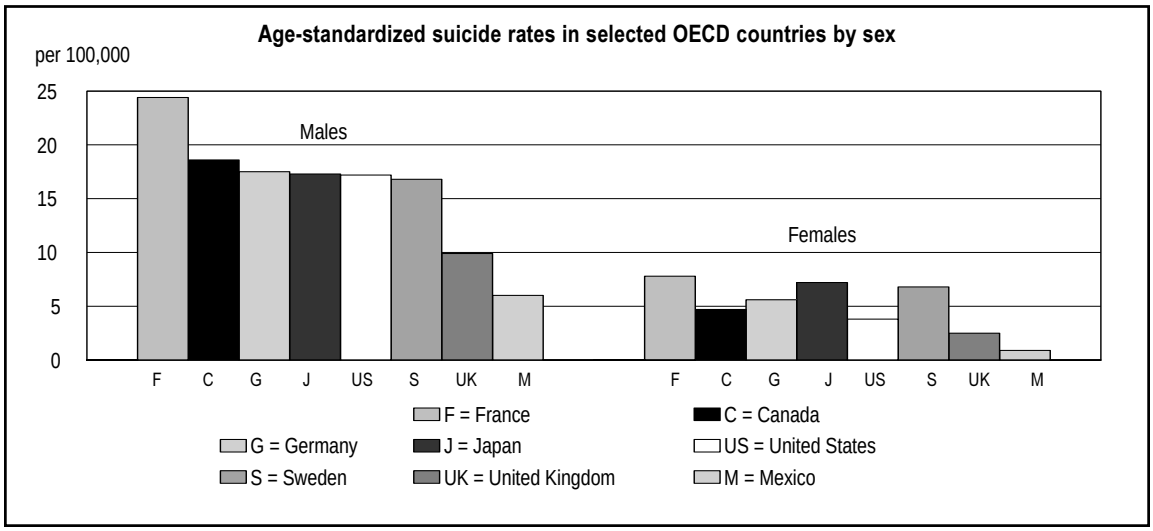


Table 9.5 Age-standardized mortality rates in OECD[1] member countries by sex, selected causes, 1992-1995 - concluded

Country (year)	Diseases of the respiratory system		External causes[2]		Suicide		Homicide	
	Men	Women	Men	Women	Men	Women	Men	Women
	Age-standardized mortality rates (deaths per 100,000 population)[3]							
Canada (1995)	**45.3**	**24.5**	**54.5**	**20.3**	**18.6**	**4.7**	**2.1**	**1.0**
Australia (1994)	45.4	23.1	51.5	17.9	18.5	4.0	2.2	1.3
Austria (1995)	28.8	11.9	71.5	21.9	26.8	7.3	1.1	0.9
Belgium (1992)	63.5	20.9	67.1	27.5	20.8	7.8	2.0	1.0
Czech Republic (1995) [4]	39.0	19.3	86.1	33.6	21.0	5.8	2.3	1.1
Denmark (1995) [4]	55.5	38.3	60.2	27.2	18.6	7.4	1.4	0.8
Finland (1995)	52.3	21.0	100.8	29.1	35.8	9.7	3.5	1.9
France (1994)	35.2	15.4	75.1	29.5	24.4	7.8	1.4	0.7
Germany (1995)	43.1	17.2	50.5	18.8	17.5	5.6	1.4	0.8
Greece (1995)	28.8	17.4	54.4	16.0	4.6	0.9	1.6	0.6
Hungary (1995)	54.9	21.3	118.5	41.5	39.7	10.8	4.2	1.8
Iceland (1994)	..	..	..	..	..	..	..	..
Ireland (1993)	91.3	54.7	47.7	16.9	13.9	3.5	1.0	0.3
Italy (1993)	35.8	13.3	48.4	17.3	9.3	2.7	2.5	0.5
Japan (1994)	66.0	27.1	51.3	19.7	17.3	7.2	..	..
Korea (1995) [4]	44.0	18.8	109.8	40.3	14.2	5.9	2.0	1.2
Luxembourg (1995)	46.6	19.4	68.2	25.9	18.1	6.6	0.8	0.5
Mexico (1995)	82.4	56.1	114.6	25.9	6.0	0.9	32.9	3.4
Netherlands (1995)	56.0	24.3	32.7	15.3	10.5	5.1	1.4	0.9
New Zealand (1993)	57.7	34.3	67.0	23.9	18.7	4.9	..	..
Norway (1994)	46.4	29.0	48.8	19.2	15.5	5.8	0.7	0.7
Poland (1995)	38.0	13.7	103.2	26.3	21.5	3.9	3.7	1.3
Portugal (1995)	58.1	25.3	76.8	22.5	9.2	3.1	2.2	1.1
Spain (1994)	54.6	19.5	51.5	14.5	9.7	2.5	1.2	0.4
Sweden (1995)	33.6	20.5	46.6	18.4	16.8	6.8	1.2	0.7
Switzerland (1994)	37.4	16.5	68.6	27.3	24.6	8.7	..	..
Turkey	..	..	..	..	..	..	..	..
United Kingdom (1995)	82.9	52.0	35.6	13.1	9.9	2.5	1.4	0.5
United States (1994)	54.3	33.5	76.5	25.5	17.2	3.8	14.9	3.8

[1] *Organisation for Economic Co-operation and Development.*
[2] *Includes accidental death, suicide, homicide, death due to drugs causing adverse effects in therapeutic use, and misadventures to patients during medical care.*
[3] *Age-standardized mortality rates (ASMRs) are standardized to the world population.*
[4] *Cause of death coding based on the* International Statistical Classification of Diseases and Related Health Problems, Tenth Revision *(ICD-10).*
Sources: World Health Organization: World Health Statistics, 1996 *and* World Health Statistics, 1995.



10. Appendices

Appendix 1: Adjusted population estimates by age and sex, Canada, provinces and territories, July 1, 1996[1]

Age	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
Both sexes													
Total	29,969,209	571,657	136,743	943,219	762,031	7,388,028	11,258,391	1,140,402	1,019,632	2,793,263	3,857,595	31,402	66,846
< 1[2]	366,191	5,747	1,694	10,564	8,176	85,226	140,012	15,478	13,300	37,851	46,138	443	1,562
1 - 4[2]	1,585,107	25,638	7,240	45,357	36,662	374,664	604,032	66,517	57,677	162,321	197,086	2,101	5,812
5 - 9	2,016,687	36,726	9,975	63,115	49,247	462,449	762,077	82,884	79,435	212,170	248,209	2,350	8,050
10 - 14	2,020,407	42,919	10,125	63,715	52,138	466,075	746,949	80,912	81,920	213,320	253,729	2,418	6,187
15 - 19	2,003,701	44,987	10,026	63,479	53,350	502,771	721,648	78,377	76,430	196,943	248,151	2,226	5,313
20 - 24	2,037,410	47,284	9,845	66,730	57,044	479,478	757,521	80,725	69,712	197,351	264,157	2,138	5,425
25 - 29	2,225,374	45,398	9,686	68,835	57,013	519,856	859,537	81,072	64,011	216,754	294,431	2,414	6,367
30 - 34	2,633,304	47,150	10,911	80,655	64,558	643,223	1,024,709	93,500	77,386	249,969	331,222	3,292	6,729
35 - 39	2,668,159	48,044	10,962	82,110	64,626	675,419	997,797	94,188	82,674	264,157	339,240	3,251	5,691
40 - 44	2,388,840	46,962	9,928	73,845	61,076	610,024	875,483	84,975	75,486	231,305	312,180	3,000	4,576
45 - 49	2,159,929	42,590	9,707	69,274	56,885	553,417	805,011	75,775	62,745	190,385	287,703	2,696	3,741
50 - 54	1,672,611	32,389	7,339	53,521	42,187	455,197	617,120	58,695	47,846	139,202	214,947	1,824	2,344
55 - 59	1,333,144	24,388	6,006	42,647	33,225	349,889	503,965	47,643	41,821	109,679	171,218	966	1,697
60 - 64	1,214,630	20,899	5,529	38,410	29,984	315,596	463,389	44,505	40,627	97,676	155,863	805	1,347
65 - 69	1,130,336	18,713	4,925	34,559	27,765	290,411	434,743	42,670	39,921	87,308	147,685	691	945
70 - 74	981,384	15,908	4,421	30,810	25,517	243,490	378,980	40,261	37,028	72,232	131,852	414	471
75 - 79	704,909	12,472	3,646	25,364	19,470	168,782	261,699	31,516	30,670	52,703	98,103	226	258
80 - 84	467,590	7,998	2,617	17,063	12,947	108,765	171,182	22,642	22,478	34,761	66,877	79	181
85 - 89	239,453	3,798	1,391	8,656	6,831	56,044	87,916	11,717	12,145	17,794	33,031	38	92
90 +	120,043	1,647	770	4,510	3,330	27,252	44,621	6,350	6,320	9,382	15,773	30	58
Males													
Total	14,847,259	285,983	67,552	464,756	377,213	3,642,219	5,563,341	565,721	506,611	1,405,899	1,917,135	16,126	34,703
< 1[2]	188,206	2,985	875	5,421	4,211	43,724	71,759	7,909	6,899	19,579	23,798	232	814
1 - 4[2]	811,949	13,088	3,769	23,387	18,621	191,705	309,568	33,904	29,174	83,159	101,571	1,014	2,989
5 - 9	1,031,772	18,809	5,082	32,424	25,297	236,621	390,017	42,718	40,465	108,584	126,355	1,278	4,122
10 - 14	1,032,343	21,805	5,220	32,395	26,544	237,797	382,071	41,682	41,634	109,227	129,529	1,231	3,208
15 - 19	1,026,720	22,714	4,999	32,058	27,369	257,369	370,776	39,672	39,651	100,861	127,476	1,136	2,639
20 - 24	1,033,876	24,334	5,049	34,016	29,072	244,138	383,831	41,544	35,521	100,655	131,950	1,063	2,703
25 - 29	1,122,296	23,166	4,895	35,228	28,900	265,077	429,698	41,268	32,012	109,757	147,805	1,205	3,285
30 - 34	1,334,993	23,537	5,336	40,674	32,573	328,377	518,949	47,675	38,489	127,424	166,822	1,636	3,501
35 - 39	1,344,889	23,984	5,367	40,625	32,348	340,887	502,685	48,137	41,983	134,985	169,381	1,570	2,937
40 - 44	1,192,488	23,492	5,049	36,209	30,277	305,473	433,204	42,537	38,758	117,996	155,545	1,527	2,421
45 - 49	1,085,246	21,514	4,923	34,759	28,855	277,056	401,368	38,288	32,197	97,107	145,690	1,359	2,130
50 - 54	838,538	16,487	3,755	27,080	21,455	225,808	307,955	29,479	24,044	70,990	109,118	1,049	1,318
55 - 59	662,392	12,502	3,002	21,257	16,669	171,915	249,445	23,586	20,630	55,845	86,013	590	938
60 - 64	597,106	10,568	2,684	18,859	14,660	151,652	226,865	22,012	20,239	49,056	79,387	439	685
65 - 69	536,934	9,136	2,409	16,107	12,930	133,312	207,318	20,138	19,385	42,712	72,586	423	478
70 - 74	433,918	7,463	2,058	13,548	11,312	104,477	166,881	17,707	17,057	33,019	59,940	221	235
75 - 79	289,300	5,443	1,490	10,410	8,163	65,663	107,727	13,095	13,094	22,403	41,587	109	116
80 - 84	174,754	3,170	925	6,334	4,909	37,839	64,099	8,618	8,946	13,421	26,362	24	107
85 - 89	77,624	1,327	470	2,879	2,167	16,592	27,944	4,066	4,425	6,172	11,510	11	61
90 +	31,915	459	195	1,086	881	6,737	11,181	1,686	2,008	2,947	4,710	9	16
Females													
Total	15,121,950	285,674	69,191	478,463	384,818	3,745,809	5,695,050	574,681	513,021	1,387,364	1,940,460	15,276	32,143
< 1[2]	177,985	2,762	819	5,143	3,965	41,502	68,253	7,569	6,401	18,272	22,340	211	748
1 - 4[2]	773,158	12,550	3,471	21,970	18,041	182,959	294,464	32,613	28,503	79,162	95,515	1,087	2,823
5 - 9	984,915	17,917	4,893	30,691	23,950	225,828	372,060	40,166	38,970	103,586	121,854	1,072	3,928
10 - 14	988,064	21,114	4,905	31,320	25,594	228,278	364,878	39,230	40,286	104,093	124,200	1,187	2,979
15 - 19	976,981	22,273	5,027	31,421	25,981	245,402	350,872	38,705	36,779	96,082	120,675	1,090	2,674
20 - 24	1,003,534	22,950	4,796	32,714	27,972	235,340	373,690	39,181	34,191	96,696	132,207	1,075	2,722
25 - 29	1,103,078	22,232	4,791	33,607	28,113	254,779	429,839	39,804	31,999	106,997	146,626	1,209	3,082
30 - 34	1,298,311	23,613	5,575	39,981	31,985	314,846	505,760	45,825	38,897	122,545	164,400	1,656	3,228
35 - 39	1,323,270	24,060	5,595	41,485	32,278	334,532	495,112	46,051	40,691	129,172	169,859	1,681	2,754
40 - 44	1,196,352	23,470	4,879	37,636	30,799	304,551	442,279	42,438	36,728	113,309	156,635	1,473	2,155
45 - 49	1,074,683	21,076	4,784	34,515	28,030	276,361	403,643	37,487	30,548	93,278	142,013	1,337	1,611
50 - 54	834,073	15,902	3,584	26,441	20,732	229,389	309,165	29,216	23,802	68,212	105,829	775	1,026
55 - 59	670,752	11,886	3,004	21,390	16,556	177,974	254,520	24,057	21,191	53,834	85,205	376	759
60 - 64	617,524	10,331	2,845	19,551	15,324	163,944	236,524	22,493	20,388	48,620	76,476	366	662
65 - 69	593,402	9,577	2,516	18,452	14,835	157,099	227,425	22,532	20,536	44,596	75,099	268	467
70 - 74	547,466	8,445	2,363	17,262	14,205	139,013	212,099	22,554	19,971	39,213	71,912	193	236
75 - 79	415,609	7,029	2,156	14,954	11,307	103,119	153,972	18,421	17,576	30,300	56,516	117	142
80 - 84	292,836	4,828	1,692	10,729	8,038	70,926	107,083	14,024	13,532	21,340	40,515	55	74
85 - 89	161,829	2,471	921	5,777	4,664	39,452	59,972	7,651	7,720	11,622	21,521	27	31
90 +	88,128	1,188	575	3,424	2,449	20,515	33,440	4,664	4,312	6,435	11,063	21	42

[1] These population estimates, which are based on the 1991 Census, are adjusted for net census undercoverage and include non-permanent residents.
[2] 1996 population counts for the "< 1" and "1-4" age categories were adjusted for new births by Health Statistics Division.
Sources: Annual Demographic Statistics, 1997 *(Catalogue 91-213-XPB) and Health Statistics Division, Statistics Canada*

Appendix 2: Adjusted population estimates by sex, Canada, provinces and territories, July 1, 1986-1996[1]

Year	Canada	NF	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT
							Both sexes						
1986	26,203,819	578,083	128,832	892,140	727,660	6,733,782	9,477,181	1,094,049	1,032,879	2,438,703	3,020,374	24,761	55,375
1987	26,549,745	576,535	129,019	896,275	730,473	6,805,945	9,684,852	1,100,524	1,036,432	2,443,493	3,064,557	25,981	55,659
1988	26,894,785	576,200	129,744	900,237	733,060	6,860,428	9,884,365	1,104,668	1,031,717	2,463,022	3,128,197	26,886	56,261
1989	27,379,348	577,425	130,567	906,728	737,994	6,948,030	10,151,002	1,106,208	1,022,954	2,504,337	3,209,195	27,376	57,532
1990	27,790,593	578,884	131,037	912,510	742,955	7,020,654	10,341,419	1,108,382	1,010,825	2,556,405	3,300,142	28,026	59,354
1991	28,120,065	580,327	130,826	917,946	748,545	7,080,604	10,471,466	1,112,468	1,006,314	2,601,289	3,379,827	29,149	61,304
1992	28,542,213	583,382	131,631	924,623	752,962	7,161,244	10,646,359	1,117,563	1,008,004	2,646,752	3,476,868	30,268	62,557
1993	28,946,768	584,203	133,173	930,358	755,510	7,238,551	10,815,393	1,124,096	1,010,807	2,685,972	3,574,601	30,442	63,662
1994	29,255,599	581,242	134,554	933,857	757,661	7,288,815	10,937,058	1,129,486	1,012,156	2,715,554	3,670,825	29,658	64,733
1995	29,617,448	577,472	135,366	938,453	759,893	7,341,259	11,098,109	1,135,589	1,015,214	2,753,329	3,766,221	30,464	66,079
1996	29,969,209	571,657	136,743	943,219	762,031	7,388,028	11,258,391	1,140,402	1,019,632	2,793,263	3,857,595	31,402	66,846
							Males						
1986	13,012,940	290,044	64,174	442,743	361,750	3,324,228	4,690,442	542,435	517,426	1,233,025	1,504,315	13,080	29,278
1987	13,179,630	289,269	64,182	444,369	362,981	3,358,707	4,791,619	545,787	518,716	1,234,790	1,526,156	13,697	29,357
1988	13,345,972	289,102	64,457	445,905	364,099	3,384,439	4,888,692	547,984	515,869	1,243,997	1,557,681	14,144	29,603
1989	13,581,439	289,718	64,780	448,689	366,381	3,426,486	5,018,887	548,890	511,005	1,264,191	1,597,841	14,372	30,199
1990	13,780,688	290,452	64,927	451,117	368,675	3,461,119	5,111,321	550,111	504,468	1,289,789	1,642,946	14,683	31,080
1991	13,939,408	291,220	64,746	453,361	371,256	3,489,555	5,173,825	552,299	501,760	1,311,692	1,682,437	15,239	32,018
1992	14,149,703	293,165	65,053	456,540	373,287	3,530,699	5,262,887	554,712	502,389	1,333,441	1,729,083	15,768	32,679
1993	14,349,472	293,559	65,894	459,358	374,544	3,569,960	5,346,846	557,843	503,648	1,352,009	1,776,817	15,844	33,150
1994	14,497,244	291,766	66,496	460,911	375,474	3,592,628	5,404,656	560,345	503,588	1,367,378	1,825,103	15,232	33,667
1995	14,676,631	289,448	66,846	462,717	376,311	3,619,055	5,485,149	563,445	504,590	1,386,316	1,872,780	15,623	34,351
1996	14,847,259	285,983	67,552	464,756	377,213	3,642,219	5,563,341	565,721	506,611	1,405,899	1,917,135	16,126	34,703
							Females						
1986	13,190,879	288,039	64,658	449,397	365,910	3,409,554	4,786,739	551,614	515,453	1,205,678	1,516,059	11,681	26,097
1987	13,370,115	287,266	64,837	451,906	367,492	3,447,238	4,893,233	554,737	517,716	1,208,703	1,538,401	12,284	26,302
1988	13,548,813	287,098	65,287	454,332	368,961	3,475,989	4,995,673	556,684	515,848	1,219,025	1,570,516	12,742	26,658
1989	13,797,909	287,707	65,787	458,039	371,613	3,521,544	5,132,115	557,318	511,949	1,240,146	1,611,354	13,004	27,333
1990	14,009,905	288,432	66,110	461,393	374,280	3,559,535	5,230,098	558,271	506,357	1,266,616	1,657,196	13,343	28,274
1991	14,180,657	289,107	66,080	464,585	377,289	3,591,049	5,297,641	560,169	504,554	1,289,597	1,697,390	13,910	29,286
1992	14,392,510	290,217	66,578	468,083	379,675	3,630,545	5,383,472	562,851	505,615	1,313,311	1,747,785	14,500	29,878
1993	14,597,296	290,644	67,279	471,000	380,966	3,668,591	5,468,547	566,253	507,159	1,333,963	1,797,784	14,598	30,512
1994	14,758,355	289,476	68,058	472,946	382,187	3,696,187	5,532,402	569,141	508,568	1,348,176	1,845,722	14,426	31,066
1995	14,940,817	288,024	68,520	475,736	383,582	3,722,204	5,612,960	572,144	510,624	1,367,013	1,893,441	14,841	31,728
1996	15,121,950	285,674	69,191	478,463	384,818	3,745,809	5,695,050	574,681	513,021	1,387,364	1,940,460	15,276	32,143

[1] These population estimates, which are based on the 1991 Census, are adjusted for net census undercoverage and include non-permanent residents.
Source: Demography Division, Statistics Canada

Appendix 3: Methodology to determine the leading causes of death

The main difficulty in identifying the leading causes of death is determining the level of specificity or aggregation of causes desired for ranking.[1] The number of causes to be ranked must be manageable, and their nature meaningful. In some cases, however, more detailed information on the components comprising the major causes is also of interest. For example, cancers and diseases of the circulatory system accounted for nearly two-thirds of all deaths in 1996. Because these two broad groupings contain diseases that differ markedly from one another in terms of etiology, treatment modalities and outcome, the presentation of more detailed data is warranted. As a rule, a specific cause of death should be identified if it accounts for a substantial proportion of total mortality during a time period, or if it is deemed particularly important for other reasons (such as HIV infection, a contagious and deadly disease).

The methodology for deriving the leading causes of death found in this publication can be summarized as follows: 1) determining the groupings of causes to be considered for ranking, 2) ranking the selected causes according to the number of deaths attributed to each cause, and 3) selecting the number of causes to be retained for publication.

Step 1 – Grouping causes

The starting point in determining the causes of death to be ranked is the American List of 72 selected causes of death. This template was chosen because: 1) it is based on the abbreviated list of causes of death (known as the A-List[2]), which is used in Statistics Canada's *Mortality - Summary list of causes*[3]; 2) all ICD-9 codes are accounted for; and 3) most of the 15 leading causes in our final ranking can be compared with identical or similar aggregations found in the American List.

The next step was to disaggregate certain causes rolled up in grouped or residual categories in the American List, to better reflect the current needs of Canadian mortality data users. (For example, the American List collapses male and female breast cancer into one category, whereas the *Compendium* contains data specific to female breast cancer.) Minor adjustments were also made to several other categories. As a result, the original American List of 72 causes was augmented to 114 more specific causes of death.

Throughout this exercise, attempts were made to remain as consistent as possible with the A-List, but this was not always possible. The following exceptions were incorporated in the *Compendium*:

---

[1] *In this application, ranking is based on the number of deaths attributed to a specific cause or group of causes. For each death, only one underlying cause is tabulated.*

[2] *The A-List aggregates approximately 900 three-digit codes from the* International Classification of Diseases, 1975 Revision *(ICD-9) into 282 groups.*

[3] *This publication (Statistics Canada, catalogue 84-209-XPB) has been replaced by a similar product for the years 1996 and 1997, catalogued to 84F0209XPB.*

1) Human immunodeficiency virus (HIV) infection (ICD-9 codes 042-044) appears as a separate category in the list of leading causes of death because of the discovery and growing importance of this disease complex in recent years.[4] In the A-List, these codes are assigned to the residual category "other viral diseases" (A23).

2) The A-List category for cancers "of other parts of uterus" (A-List code A66), which refers to parts other than the cervix uteri, is equivalent to ICD-9 codes 179, 181 and 182. The *Compendium* omits ICD-9 code 181 (cancer of the placenta) from this grouping, leaving codes 179 and 182, which represent cancer of the body of the uterus. This exclusion improves data comparability with Statistics Canada's cancer-related publications.[5]

3) The A-List contains the grouping "other hereditary and degenerative diseases of the central nervous system" (code A120), which incorporates Alzheimer's disease (ICD-9 code 331.0). A separate category for this disease is warranted because of the relatively high number of deaths attributed to it and its increasing importance as a morbid condition (due to population aging and improved diagnostic procedures).

4) The A-List contains a residual category "all other and ill-defined forms of heart disease" (A148), which includes cardiac dysrhythmias (ICD-9 code 427). The *Compendium* classification specifically identifies cardiac dysrhythmias because of the significant number of deaths attributed to this cause.

5) In the A-List, the grouping "motor vehicle accidents" (AE235-AE241) is equivalent to ICD-9 codes E810-E825. The *Compendium* list also includes E929.0 "late effects of motor vehicle accident," for completeness.

6) In a similar fashion, the *Compendium* component category "accidental falls" (ICD-9 codes E880-E888) also includes "late effects of accidental fall" (ICD-9 E929.3), which is omitted from the A-List (AE250-AE252).

Steps 2 and 3 – Ranking and selection of leading causes

From the 114 cause-of-death aggregations derived in Step 1, 25 leading causes of death, deemed to be of comparable importance in terms of morbidity, were selected or derived for closer examination, as were 45 component causes. More specifically, 37 of the 114 aggregations were rejected for ranking purposes, 14 were deemed to be leading causes without further aggregation, and 63 were rolled up into 11 leading causes, 45 component causes, and 4 sub-component causes.[6]

---

[4] *HIV was not recognized as a disease when the ICD-9 Classification was implemented in 1979.*

[5] *This disease group does not appear in the* Compendium*'s leading causes of death list (Table 7.1) because of the relatively low number of deaths (620) reported in 1996.*

[6] *Because of the high number of deaths ascribed to ischemic heart disease, this component cause was further disaggregated into four sub-component causes.*

Fifteen of the 25 leading causes of death identified above were retained for publication, as were 25 component causes and 2 sub-component causes.[7] The leading causes, which are assigned rankings in Table 7.1, range from all cancers (accounting for 59,241 deaths in 1996) to neurotic disorders, personality disorders and other non-psychotic mental disorders (1,237 deaths). All of the component causes and sub-component categories in the table show a greater number of deaths than the 15th ranked leading cause.[8]

[7] *The total number of deaths attributed to each leading cause in Table 7.1 is greater than that of their respective component causes combined since only the more important component causes were retained.*

[8] *It is important to note that the groupings in Table 7.1 are, to some degree, arbitrary. In other words, the rankings seen here could change if a different classification were used. For example, some data users might wish to combine heart diseases, cerebrovascular diseases, and diseases of the arteries, arterioles and capillaries into a single category (i.e. diseases of the circulatory system); in this instance, the new aggregation would rank as the number one cause of death, and cancer would fall to second place.*

Appendix 4: Calculation of age-standardized mortality rates (ASMRs)

The formula for an age-standardized mortality rate r is expressed as follows:

$$r = \sum_{i=1}^{20} \left(\frac{d_i}{p_i} \right) W_i$$

where, for age group i, d_i is the age-sex-specific death count for a given cause of death and geographical area, p_i is the population size of that age-sex group in that same geographical area, and W_i is the weight for that age group (based on the Standard population of both sexes combined). Note that the same weight is used for each sex. To yield a rate per 100,000 population (or per 100,000 men or women), r is multiplied by 100,000.

Standard population by age group, Canada, July 1, 1991

Age group (i)	Age group (in years)	Standard population (both sexes)	Weight (W_i)
	All ages	**28,120,065**	**1.0000**
1	< 1	403,061	0.0143
2	1- 4	1,550,285	0.0552
3	5- 9	1,953,045	0.0695
4	10-14	1,913,115	0.0680
5	15-19	1,926,090	0.0685
6	20-24	2,109,452	0.0750
7	25-29	2,529,239	0.0899
8	30-34	2,598,289	0.0924
9	35-39	2,344,872	0.0834
10	40-44	2,138,891	0.0761
11	45-49	1,674,153	0.0595
12	50-54	1,339,902	0.0477
13	55-59	1,238,441	0.0440
14	60-64	1,190,217	0.0423
15	65-69	1,084,588	0.0386
16	70-74	834,024	0.0297
17	75-79	622,221	0.0221
18	80-84	382,303	0.0136
19	85-89	192,410	0.0068
20	90+	95,467	0.0034

Appendix 5: ICD-9 codes used to tabulate deaths from external causes of injury and poisoning[1]

Mechanism or cause of injury	Intent of injury				
	Unintentional	Suicide	Homicide	Other[2]	Undetermined[3]
All external causes	**E800-E949**	**E950-E959**	**E960-969**	**E970-E978, E990-E999**	**E980-E989**
All injuries	*E800-E869,E880-E929*	*E950-E959*	*E960-E969*	*E970-E978, E990-E999*	*E980-E989*
Transport accidents	E800-E829,E831,E833-E848, E929.0	E958(.5,.6)	..	..	E988(.5,.6)
Motor vehicle traffic accidents	E810-E819	..	..	..	..
Occupant of motor vehicle (other than motorcycle)	E810(.0,. 1)-E819(.0,. 1)	..	..	..	..
Pedestrian	E810(.7)-E819(.7)	..	..	..	..
Motorcyclist	E810(.2,.3)-E819(.2,.3)	..	..	..	..
Pedal cyclist	E810(.6)-E819(.6)	..	..	..	..
Other person	E810(.4,.5,.8)-E819(.4,.5,.8)	..	..	..	..
Unspecified person	E810(.9)-E819(.9)	..	..	..	..
Other transport accidents	E800-E807,E820-E829,E831, E833-E848	..	..	..	..
Motor-driven snow vehicle	E820(.0-.5,.8,.9)	..	..	..	..
Air and space transport	E840-E845	E958.6	..	..	E988.6
Pedestrian, other	E800(.2)-E807(.2),E820(.7)-E825(.7), E826(.0)-E829(.0)	..	..	..	..
Other off-road motor vehicle	E821(.0-.5,.8,.9)	..	..	..	..
Water transport	E831,E833-E838	..	..	..	..
Railway	E800(.0,.1,.8,.9)-E807(.0,.1,.8,.9)	..	..	..	..
Pedal cyclist, other	E800(.3)-E807(.3), E820(.6)-E825(.6), E826(.1,.9), E827(.1)-E829(.1)	..	..	..	..
Other or unspecified	E822(.0-.5,.8,.9)-E825(.0-.5, .8,.9),E826(.2-.8),E827(.2-.9)-E829(.2-.9),E846-E848	..	..	..	..
Late effects of motor vehicle accidents	E929.0	..	..	..	..
Crashing of motor vehicle	..	E958.5	..	..	E988.5
Falls	E880-E888,E929.3	E957	E968.1	..	E987
Fracture, cause unspecified	E887	..	..	..	..
Jumping/pushing/falling from high place	..	E957	E968.1	..	E987
Other or unspecified	E880-E886,E888,E929.3	..	..	..	..
Poisoning	E850-E869,E929.2	E950-952	E962	E972	E980-E982
Drugs and medication	E850-E858	E950(.0-.5)	E962.0	..	E980(.0-.5)
Motor vehicle exhaust	E868.2	E952.0	..	..	E982.0
Other carbon monoxide	E868(.3,.8,.9)	E952.1	..	..	E982.1
Alcohol	E860	..	..	..	..
Other or unspecified	E861-E867,E869,E868(.0,.1), E929.2	E950(.6-.9), E951(.0-.8), E952(.8,.9)	E962(.1-.9)	..	E980(.6-.9), E981, E982(.8,.9)
Suffocation	E911-E913	E953	E963	..	E983
By hanging/strangulation	E913.8	E953.0	E963	..	E983.0
Inhalation/ingestion of food	E911	..	..	..	..
Inhalation/ingestion of other object	E912	..	..	..	..
By plastic bag	E913.1	E953.1	..	..	E983.1
In bed or cradle	E913.0	..	..	..	..
Other or unspecified	E913(.2-.7,.9)	E953(.8,.9)	..	..	E983(.8,.9)
Firearms	E922	E955(.0-.4)	E965(.0-.4)	E970	E985(.0-.4)

Appendix 5: ICD-9 codes used to tabulate deaths from external causes of injury and poisoning[1] – continued

Mechanism or cause of injury	Intent of injury				
	Unintentional	Suicide	Homicide	Other[2]	Undetermined[3]
Drowning/submersion	E830,E832, E910	E954	E964	..	E984
Accidental drowning/submersion	E830,E832,E910	…	…	..	…
While engaged in sports/recreation	E910.0-E910.2	…	…	..	…
Accident to watercraft causing submersion	E830	…	…	..	…
Other submersion/drowning accident in water transport	E832	…	…	..	…
In bathtub	E910.4	…	…	..	…
Other or unspecified	E910(.3,.8,.9)	…	…	..	…
Other drowning/submersion	…	E954	E964	..	E984
Fires/burns	E890-E899, E924,E929.4	E958 (.1,.2,.7)	E961, E968(.0,.3)	..	E988(.1,.2,.7)
Accidental fires/burns	E890-E899, E924,E929.4	…	…	..	…
Conflagration in private dwelling	E890	…	…	..	…
Other or unspecified conflagration	E891-E899,E929.4	…	…	..	…
Hot substance/object,caustic/ corrosive material, steam	E924	…	…	..	…
Other fires/burns	…	E958(.1,.2,.7)	E961, E968(.0,.3)	..	E988(.1,.2,.7)
Cutting/piercing instruments	E920	E956	E966	E974	E986
Struck by, against	E916-E917	..	E960.0,E968.2	E973,E975	..
Natural/environmental factors	E900-E909,E928(.0-.2),E929.5	E958.3	..	..	E988.3
Excessive cold	E901	E958.3	..	..	E988.3
Bites and stings	E905(.0-.6,.9), E906(.0-.4,.9)	..	..	..	..
Other or unspecified	E900,E902-E904,E905(.7,.8), E906.8,E907-E909,E928(.0-.2), E929.5	..	..	..	..
Machinery	E919	..	..	..	..
Agricultural	E919.0	..	..	..	..
Lifting	E919.2	..	..	..	..
Earth moving, scraping, and other excavating	E919.7	..	..	..	..
Other or unspecified	E919(.1,.3-.6,.8,.9)	..	..	..	..
Child battering and other maltreatment	..	..	E967	..	..
Other specified and classifiable	E914, E915, E918, E921, E923, E925-E927, E929.1	E955(.5,.9), E958(.0,.4)	E960. 1, E965(.5-.9), E968.4	E971, E978, E990-E994, E996, E997(.0-.2)	E985.5, E988(.0,.4)
Other specified, not elsewhere classifiable	E928.8, E929.8	E958.8, E959	E968.8, E969	E977,E995, E997.8, E998,E999	E988.8, E989
Unspecified	E928.9, E929.9	E958.9	E968.9	E976,E997.9	E988.9

Appendix 5: ICD-9 codes used to tabulate deaths from external causes of injury and poisoning[1] – concluded

Mechanism or cause of injury	Intent of injury				
	Unintentional	Suicide	Homicide	Other[2]	Undetermined[3]
Adverse effects	*E870-E879, E930-E949*	..	..	..	..
Abnormal reactions or later complications related to surgical/medical procedures	E878-E879	..	..	..	..
Misadventures to patients during surgical/medical care	E870-E876	..	..	..	..
Drugs in therapeutic use	E930-E949	..	..	..	..

[1] ICD codes used to tabulate deaths in Table 7.3. The groupings in this table were adapted from a framework developed by the U.S. Centers for Disease Control and Prevention in collaboration with the American Public Health Association. The major differences between the original framework and the one in this publication are the following: a number of summary cause categories have been disaggregated to provide more detailed information; "fracture, cause unspecified" (E887) has been removed from the residual "unspecified" category and added to "falls" (the vast majority of decedents coded to E887 are elderly persons who have likely sustained their injuries through a fall); late effects of motor vehicle accidents, accidental poisoning, accidental falls, accidents caused by fire, and those due to natural and environmental factors (E929.0,.2-.5) have been transferred from "other specified and classifiable" to more detailed categories (e.g. "other or unspecified conflagration"); suicides and undetermined deaths from "crashing of motor vehicle" (E958.5 and E988.5) have been removed from motor vehicle traffic accidents and are shown as a separate category (because such deaths do not necessarily occur on public roads, and they may involve vehicles found in the "other transport accidents" grouping); "child battering and other maltreatment" (E967) has been removed from "other specified and classifiable" and assigned its own category; new aggregates have been created for all transport accidents, accidental versus other drowning/submersion deaths, and accidental versus other fires/burns; deaths due to overexertion (E927) have been incorporated into "other specified and classifiable" (only two deaths in 1996).

[2] Deaths arising from legal intervention and war operations.

[3] Undetermined if accidentally or purposely inflicted.

.. Indicates that ICD-9 codes do not exist for these categories; for example, the death of a pedestrian committing suicide by deliberately jumping in front of a bus moving in traffic would be coded to ICD E958.0 (suicide and self-inflicted injury by jumping or lying before moving object) - not ICD 814.7 (motor vehicle traffic accident involving collision with pedestrian).

... Indicates that data are inappropriate or inapplicable.

11. Glossary

GLOSSARY

Age Refers to the age attained at the last birthday preceding the event. In the case of infant mortality, the completed number of months (or minutes, hours or days) since birth.

Birth rates The *crude birth rate* is the number of live births per 1,000 population. The *teenage birth rate* is the number of live births to females under 20 years of age per 1,000 females aged 15 to 19.

Birthweight The first weight of the fetus or newborn obtained immediately after birth, expressed in grams. *Normal birthweight* ranges from 2,500 to 4,499 grams.

- *Low birthweight:* Birthweight under 2,500 grams.
- *Very low birthweight:* Birthweight under 1,500 grams.
- *Extremely low birthweight:* Birthweight under 1,000 grams.
- *High birthweight:* Birthweight of 4,500 or more grams.

Census division (CD) Administrative geographic area, generally established by provincial law, which lies between the municipal and provincial levels. CDs can be counties, regional districts, regional municipalities or some other type of provincially legislated area. In jurisdictions without such areas (Newfoundland, Manitoba, Saskatchewan and Alberta), CDs have been created by Statistics Canada (in conjunction with these provinces) for the dissemination of statistical data. In Yukon, the entire territory comprises one CD.

Completed years of marriage The time elapsed (in years) between the date the marriage took place and the date the divorce decree was granted (e.g. a couple who married in 1986 and divorced in 1996 is deemed to have been married 10 years). This measure incorporates only those marriages ending in divorce.

Death The permanent disappearance of all evidence of life at any time after a live birth has taken place. Stillbirths are excluded from mortality statistics unless otherwise indicated. In this publication, the geographic distribution of deaths is based on an individual's usual place of residence.

- *Infant death:* Death of a child under one year of age.
- *Early neonatal death:* Death of a child under one week of age (0-6 days).
- *Neonatal death:* Death of a child under four weeks of age (0-27 days).
- *Perinatal death:* Death of a child under one week of age or a stillborn of 28 or more weeks of gestation. Excludes stillbirths of unknown gestational age.
- *Post-neonatal death:* Death of a child under one year of age but at least 28 days old.

Death directly attributed to alcohol When the underlying cause of death is classified to one of the following categories (ICD-9 codes are shown in parentheses): alcoholic psychoses (291); alcohol dependence syndrome (303); nondependent abuse of alcohol (305.0); alcoholic polyneuropathy (357.5); alcoholic cardiomyopathy (425.5); alcoholic gastritis (535.3); alcoholic fatty liver (571.0); acute alcoholic hepatitis (571.1); alcoholic cirrhosis of liver (571.2); alcoholic liver damage, unspecified (571.3); excessive blood level of alcohol (790.3); or accidental poisoning by alcohol, not elsewhere classified (E860).

Delivery A delivery may consist of one or more liveborn or stillborn fetuses. The number of deliveries in a given period will be equal to or less than the number of total births because multiple births (twins, triplets or higher-order births) are counted as single deliveries.

Divorce The legal dissolution of a legal marriage. Divorce data are presented here on the basis of the province or territory where the decree was granted.

Divorce rates

- *Crude divorce rate:* The number of divorces per 1,000 population.

- *Duration-specific divorce rate:* The divorce rate in a particular year for a specific marriage cohort. For example, the 1996 divorce rate for persons married in 1986 (i.e. the 1986 marriage cohort) is calculated by dividing the number of 1996 divorces granted to persons married in 1986 by the number of marriages performed in 1986. When multiplied by 1,000, the result is expressed as the number of 1996 divorces per 1,000 1986 marriages. (This rate incorporates a bias of unknown magnitude due to the death of some spouses during the period as well as in- and out-migration, that is, persons moving from one province or territory to another, or to or from Canada. Divorces lacking year of marriage data were distributed on the basis of divorces with known years of marriage.)

- *Total divorce rate (TDR):* The sum of duration-specific divorce rates. In this publication, the summation goes back 30 years; that is, it accumulates divorce rates pertaining to marriages which took place between 1967 and 1996. This measure is expressed as the proportion of married couples who are expected to divorce before their 30th wedding anniversary, given the duration-specific divorce rates calculated for 1996 (e.g. the 1996 Quebec TDR of 457 per 1,000 marriages indicates that 45.7% of marriages performed in Quebec will end in divorce before the 30th wedding anniversary, if the conditions observed in 1996 remain stable).

Fertility rates

- *Age-specific fertility rate (ASFR):* The number of live births per 1,000 women in a specific age group. Five-year age groups were used in these tabulations (ranging from 15-19 to 45-49 years). Births to females under age 15 were assigned to the 15-19 group; births to females over 49 were aggregated with the 45-49 group.

- *Total fertility rate (TFR):* The average number of live births a woman can be expected to have in her lifetime, based on the age-specific fertility rates (ASFR) of a given year. The TFR for 1996 = [($ASFR_{1996}$ of 15- to 19-year-olds + $ASFR_{1996}$ of 20- to 24-year-olds + … + $ASFR_{1996}$ of 45- to 49-year-olds)] multiplied by 5 (i.e. the number of years in each age group).

Gestational age The interval, in completed weeks, between the first day of the mother's last menstrual period and the day of delivery. It can also be any estimate of that interval, based on ultrasound, a physical examination, or other method. Canadian birth registration documents do not specify how the gestational age was calculated. *Pre-term* refers to a period of gestation under 37 completed weeks; *term*, 37 through 41 completed weeks; and *post-term*, 42 or more completed weeks.

ICD-9 codes *International Classification of Diseases* (ICD) codes, 9th revision, established by the World Health Organization in 1975, and used for the classification of deaths in Canada since 1979. The ICD manual (WHO, 1977) assigns codes to specific diseases, injuries and causes of death. Beginning in the year 2000, deaths in Canada will be coded according to the 10th revision of the classification, referred to as ICD-10 (WHO, 1992).

Leading causes of death Refers to the main causes of death in terms of frequency of occurrence, using meaningful aggregations of specific causes. (An example of a meaningful aggregation is "death due to heart diseases," which comprises a number of different conditions, such as acute myocardial infarction and cardiomyopathy.) A specific cause of death is not aggregated with others if the number of deaths attributed to that cause is particularly high, or its importance as a morbid condition warrants a ranking of its own (e.g. suicide, HIV infection).

Life expectancy The average number of remaining years of life, at birth or other ages, based on a set of age-specific mortality rates calculated for a given year.

Live birth The complete expulsion or extraction from its mother of a product of conception, regardless of the duration of pregnancy, which subsequently breathes or shows any other evidence of life, such as heartbeat, pulsation of umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. The birth data in this publication have been compiled on the basis of the mother's usual place of residence.

Live birth order The live birth order of a newborn is equal to the number of previous live births to the same mother plus one (the firstborn has a birth order of 1, the second has a birth order of 2, etc.). Children who were born alive but subsequently died maintain their birth order. Stillbirths are excluded.

Marital status Refers to the legal conjugal status at the time of the event. Persons in common-law relationships are assigned to their legal marital status category. A *single* person is one who has never been married, or a person whose marriage has been annulled and who has not remarried. A *separated* person is legally married but is not living with his or her spouse because the couple no longer wants to live together. A *divorced*

person is one who has obtained a legal divorce and has not remarried. A *married* person is one who is legally married and not separated. A person whose spouse has died and who has not remarried is *widowed*.

Marital status just prior to marriage Used in the context of divorce statistics, this refers to the marital status of an individual immediately before the marriage to which the divorce decree relates. Persons must have been single (never-married), divorced or widowed.

Marriage The legal union of two persons of the opposite sex. Common-law relationships are excluded. The marriage data in this publication are presented by place of occurrence, that is, the province, territory or census division where the marriage took place.

Marriage rates

- *Crude marriage rate:* The number of marriages per 1,000 population.

- *Age-specific marriage rate (AMR):* The number of marriages per 1,000 males or females in a specific age group. Among persons under 20 years of age, the rate is per 1,000 persons aged 15-19. (In cases where the age of the bride or groom was unknown, the data were distributed across known age categories.)

- *Total first-marriage rate (TFMR):* The sum of age-specific marriage rates (AMRs) for never-married 15- to 49-year-olds. The TFMR for 1996 = [(AMR_{1996} of never-married 15- to 19-year-olds + AMR_{1996} of never-married 20- to 24-year-olds + … + AMR_{1996} of never-married 45- to 49-year-olds)] multiplied by 5 (i.e. the number of years in each age group). This measure can be interpreted as the proportion of men (or women) who are expected to first marry before their 50th birthday (based on the marriage rates calculated for a particular year). (In cases where the age of the bride or groom was unknown, the data were distributed across known age categories.)

Mean age at childbearing The mean (or average) is a measure of central tendency. The mean age at childbearing in a jurisdiction (e.g. a province) was calculated by adding a half year to the mother's age at her last birthday and multiplying that figure by the number of births occurring at that age (e.g. 101 births were reported by women aged 40 in Manitoba in 1996, for a product of 101 x 40.5 = 4,090.5), summing those values, and then dividing the sum by the total number of births in that jurisdiction. A half year is added to the mother's age because, in this example, most 40-year-old women would have been between their 40th and 41st birthday at the time of their child's birth; that is, an extra half year is a better approximation of the average age of 40-year-olds. The *mean age at childbearing (first births)*, calculated in a similar fashion, was based on first births only.

Mean age at marriage The mean age at marriage for brides or grooms in a jurisdiction was calculated by adding a half year to the bride or groom's age at their last birthday and multiplying the result by the number of marriages occurring at that bride or groom's age,

summing those values, and then dividing the sum by the total number of marriages in that jurisdiction. The *mean age at first marriage,* calculated in a similar fashion, was based on first marriages only.

Median The median is another measure of central tendency. It is the middle value in a set of ordered numbers (e.g. brides' ages ranked from youngest to oldest). In the case of an even number of observations, the median is the average of the two middle values.

Mortality rates

- *Crude mortality rate:* The number of deaths per 1,000 population.
- *Age-specific mortality rate:* The number of deaths per 1,000 population in a specific age group in a given year. Rates calculated for males and females separately are known as age–sex–specific mortality rates.
- *Age-standardized mortality rate (ASMR):* The ASMR is a weighted average of age-specific mortality rates, which enables more meaningful comparisons across regions and time periods. In this publication, the weights are based on the age distribution of the 1991 Canadian population (which serve as a standard), both sexes together, across 20 age groups. ASMRs are presented by province and territory per 100,000 population (both sexes combined) and by year for each sex (i.e. per 100,000 males or females). (Appendix 4 [p. 141] contains the standard population, the weights and the formula used to calculate age-standardized mortality rates.)
- *Infant mortality rate:* The number of infant deaths per 1,000 live births.
- *Early neonatal mortality rate:* The number of early neonatal deaths per 1,000 live births.
- *Neonatal mortality rate:* The number of neonatal deaths per 1,000 live births.
- *Perinatal mortality rate:* The number of perinatal deaths per 1,000 total births (i.e. live births and stillbirths).
- *Post-neonatal mortality rate:* The number of post-neonatal deaths per 1,000 live births.
- *Stillbirth rate:* The number of stillbirths per 1,000 total births (live births and stillbirths).

Multiple birth set A delivery that results in more than one birth, whether liveborn or stillborn.

MVA death Death due to a motor vehicle traffic accident (ICD-9 codes E810 to E819), a motor vehicle nontraffic accident (E820-E825), or the late effects of a motor vehicle accident (E929.0). Includes motor vehicle collisions with other motor vehicles, trains, other vehicles, and pedestrians; accidents due to loss of control; accidents while boarding a motor vehicle; accidental falls from a vehicle in motion; accidental poisoning from exhaust fumes; and other accidents involving motor vehicles, including motor-driven snow vehicles and other off-road motor vehicles.

Parity The number of live births a woman has had to date, excluding stillbirths. A woman with zero parity has had no live births; a woman of parity 1 has had one live birth, of parity 2, two live births, and so on. In the case of a first delivery resulting in live twins, the woman has a parity of 1 after the first twin is born and a parity of 2 after the second twin is born.

Pre-term (premature) birth Birth occurring before 37 completed weeks of gestation.

Place of occurrence The province, territory or census division (CD) where the event took place.

Population Persons whose usual place of residence is somewhere in Canada, including Canadian government employees stationed abroad and their families, members of the Canadian Armed Forces stationed abroad and their families, crews of Canadian merchant vessels, and non-permanent residents of Canada.

Adjusted population estimates are used in vital statistics to better reflect Canada's population; these estimates include upward adjustments for net census undercoverage and non-permanent residents. The reference date for these annual estimates is July 1.

The population estimates used to calculate the rates in this publication can be found in Appendices 1 and 2 (pp. 136-7) as well as in *Annual Demographic Statistics*, Statistics Canada, catalogue 91-213. Because population estimates are frequently revised by Demography Division, those shown here may differ from other published estimates.

Provinces and territories Canadian provinces and territories are abbreviated in the tables and charts as follows: NF (Newfoundland), PE (Prince Edward Island), NS (Nova Scotia), NB (New Brunswick), QC (Quebec), ON (Ontario), MB (Manitoba), SK (Saskatchewan), AB (Alberta), BC (British Columbia), YT (Yukon) and NT (Northwest Territories). Estimates at the Canada (CAN) level include the territories, even when they are not shown separately. Data on marriages and divorces are shown by place of occurrence; those on births, stillbirths and deaths, by usual place of residence (of the mother, in the case of births and stillbirths).

Standard population Refers to a reference population with a known age distribution. In this publication, 1991 Canadian population estimates were used to calculate age-standardized mortality rates (ASMRs, see Appendix 4 on p. 141). The use of a standard population results in more meaningful mortality rate comparisons, because it adjusts for variations in population age distributions over time and across different geographic areas.

Stillbirth The complete expulsion or extraction from its mother of a product of conception, which did not at any time after birth breathe or show any other sign of life.

Most provinces and both territories require a stillbirth with a gestational age of at least 20 weeks *or* a birthweight of at least 500 grams to be reported. In Quebec and Saskatchewan (and New Brunswick, prior to November 1996), only stillbirths weighing 500 or more grams must be reported, regardless of the gestation period. Until 1997, a gestation period of at least 20 weeks was required in Prince Edward Island, regardless of birthweight.

Because of these differences in reporting requirements, stillbirth data in the *Compendium* are presented for two gestation periods: 20 or more weeks (including stillbirths with an unknown gestation period), and 28 or more weeks (excluding the unknowns). Stillbirth data were compiled according to the mother's usual place of residence.

Stillbirth rate See *Mortality rates.*

Total births The total number of live births and stillbirths.

Underlying cause of death The disease or injury that initiated the sequence of morbid events leading directly to death, or the circumstances of the accident or violence that produced the fatal injury.

Vital statistics Information collected, compiled and published on vital events such as live births, stillbirths, deaths, marriages and divorces. Most of the information originates from the mandatory registration of these events at the provincial or territorial level. However, divorce statistics are supplied by the federal Department of Justice Canada.

12. References

References

British Columbia Vital Statistics Agency (BCVSA). *Selected Vital Statistics and Health Status Indicators, Annual Report 1996*. Victoria, 1997.

Fair M. The development of national vital statistics in Canada: part 1–from 1605 to 1945. *Health Reports* (Statistics Canada, catalogue 82-003) 1994:6(3):355-375.

Grebenik E, Hill A. *International Demographic Terminology: Fertility, Family Planning and Nuptiality*. International Union for the Scientific Study of Population (IUSSP) Papers. Liège (Belgium), 1974.

Greville TNE. Short methods of constructing abridged life tables. *The Record of the American Institute of Actuaries* 1943;32(65):29-62.

Joseph KS, Kramer MS, Marcoux S, *et al*. Determinants of preterm birth rates in Canada from 1981 through 1983 and from 1992 through 1994. *N Engl J Med* 1998;339:1434-9.

Millar WJ, Wadhera S, Nimrod C. Multiple births: trends and patterns in Canada, 1974-1990. *Health Reports* (Statistics Canada, catalogue 82-003) 1992:4(3):223-250.

Nagnur D. *Longevity and Historical Life Tables (Abridged), Canada and the Provinces, 1921-1981* (Statistics Canada, uncatalogued). Ottawa, 1986.

Nagnur DG *et al. Quality Assessment Study of Cause of Death Coding, Data Years 1979 and 1980* (Statistics Canada, uncatalogued). Ottawa, n.d.

Nagnur DG, Currie SG, Heath B. *Quality Assessment of Vital Statistics (A Pilot Study)* (Statistics Canada, uncatalogued). Ottawa, 1981.

Nault F, Bélanger A. *The Decline in Marriage in Canada, 1981 to 1991* (Statistics Canada, catalogue 84-536). Ottawa, 1996.

Statistics Canada. *Annual Demographic Statistics, 1997* (catalogue 91-213). Ottawa, 1998.

Statistics Canada. *Births and Deaths, 1995* (catalogue 84-210). Ottawa, 1997.

Statistics Canada. *Causes of Death, 1995* (catalogue 84-208). Ottawa, 1997.

Statistics Canada. *1996 Census Dictionary* (catalogue 92-351). Ottawa, 1997.

Statistics Canada. *Divorces, 1995* (catalogue 84-213). Ottawa, 1997.

Statistics Canada. *General Summary of Vital Statistics, 1995* (Item 84F0001). Ottawa, 1997.

Statistics Canada. *Health Indicators* (catalogue 82-221XCB). Ottawa, 1999.

Statistics Canada. *Life Tables, Canada and Provinces* (catalogue 84-537 for 1990-1992 [pub. 1995], catalogue 84-532 for 1975-77, 1980-82 and 1985-87 [n.d.]). Ottawa.

Statistics Canada. *Marriages, 1995* (catalogue 84-212). Ottawa, 1996.

Statistics Canada. *Mortality—Summary List of Causes, 1995* (catalogue 84-209). Ottawa, 1997.

Statistics Canada. *Standard Geographical Classification* [1971, 1976, 1981, 1986, 1991 and 1996] (catalogue 12-571). Ottawa.

Statistics Canada. *The Leading Causes of Death at Different Ages, Canada, 1995* (catalogue 84-503). Ottawa, 1997.

Trudeau R. Monthly and daily patterns of death. *Health Reports* (Statistics Canada, catalogue 82-003) 1997:9(1);43-50.

United Nations. *Principles and Recommendations for a Vital Statistics System.* Statistical Papers, Series M, No. 19, Rev. 1. New York, 1973.

Wadhera S. *Selected Birth and Fertility Statistics, Canada, 1921-1990* (Statistics Canada, catalogue 82-553). Ottawa, 1993.

Wadhera S. *Selected Infant Mortality and Related Statistics, Canada, 1921-1990* (Statistics Canada, catalogue 82-549). Ottawa, 1993.

Wadhera S. *Selected Mortality Statistics, Canada, 1921-1990* (Statistics Canada, catalogue 82-548). Ottawa, 1994.

Wilkins K. Comment on "Speaking for the dead to protect the living: the role of the coroner in Ontario." *Health Reports* (Statistics Canada, catalogue 82-003) 1994:6(3);353.

World Health Organization (WHO). *International Classification of Diseases, 1975 Revision, Volume 1 (ICD-9)*. Geneva, 1977.

World Health Organization (WHO). *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Volume 1*. Geneva, 1992.

World Health Organization (WHO). *World Health Statistics Annual, 1996*. Geneva, 1998.

World Health Organization (WHO). *World Health Statistics Annual, 1995*. Geneva, 1995.

Young JG, Wagner JM. Speaking for the dead to protect the living: the role of the coroner in Ontario. *Health Reports* 1994:6(3);339-352 (Statistics Canada, catalogue 82-003).