



Health Indicators

December 2005

Catalogue no. 82-221-XIE

Volume 2005, No. 3

Definitions and data sources

Table of Contents

Health status	4
Well-being	4
Self-rated health.....	4
Changes over time in self-rated health.....	4
Self esteem.....	5
Health conditions	5
Body mass index (BMI).....	5
Arthritis/rheumatism.....	5
Diabetes.....	6
Asthma.....	6
High blood pressure.....	6
Chronic pain – affects activities.....	6
Chronic pain – severity.....	6
Depression.....	6
Low birth weight.....	6
Cancer incidence.....	6
Injury hospitalization.....	6
Injuries.....	6
Human function	6
Functional health.....	6
Two-week disability days.....	6
Activity limitation.....	6
Disability-free life expectancy.....	6
Disability-adjusted life expectancy (DALE).....	6
Deaths	6
Infant mortality.....	6
Perinatal mortality.....	6
Life expectancy.....	6
Age-standardized mortality rate – (for provincial level time-series).....	6
Total mortality.....	6
All diseases of the circulatory system deaths.....	6
All malignant neoplasms (cancer) deaths.....	6
All diseases of the respiratory system deaths.....	6
Suicide.....	6

Unintentional injury deaths	6
AIDS deaths	6
Potential Years of Life Lost (PYLL) rate – (for provincial level time-series)	6
Total mortality Potential Years of Life Lost (PYLL)	6
Cancer deaths Potential Years of Life Lost (PYLL)	6
Circulatory disease deaths Potential Years of Life Lost (PYLL)	6
Respiratory disease deaths Potential Years of Life Lost (PYLL)	6
Unintentional injury deaths Potential Years of Life Lost (PYLL)	6
Suicide Potential Years of Life Lost (PYLL)	6
AIDS deaths Potential Years of Life Lost (PYLL)	6
Non-medical determinants of health	6
Health behaviours	6
Smoking status	6
Smoking initiation	6
Changes over time in smoking behaviour	6
Frequency of drinking	6
Leisure-time physical activity	6
Breastfeeding practices	6
Dietary practices	6
Living and working conditions	6
High school graduates	6
Post-secondary graduates	6
Unemployment rate	6
Long-term unemployment rate	6
Low income rate (income for the year prior to the Census)	6
Children in low-income families (income for the year prior to the Census)	6
Average personal income (income for the year prior to the Census)	6
Housing affordability (income for the year prior to the Census)	6
Decision latitude at work	6
Median share of income (income for the year prior to the Census)	6
Government transfer income (income for the year prior to the Census)	6
Owner-occupied dwellings and average dwelling value	6
Crime Incidents	6
Adults and Youth Charged	6
Personal resources	6
Social support (National Population Health Survey)	6
Social support (Canadian Community Health Survey)	6
Life stress (National Population Health Survey)	6
Life stress (Canadian Community Health Survey)	6
Environmental factors	6
Exposure to second-hand smoke at home	6
Exposure to second-hand smoke in vehicles and public places	6
Health system performance	6
Acceptability	6
Patient satisfaction (and quality rating of services received)	6
Accessibility	6
Influenza immunization	6
Screening mammography, women aged 50-69	6
Pap smear, women aged 18-69	6
Appropriateness	6
Caesarean sections	6
Effectiveness	6
Pertussis	6

Measles	6
Tuberculosis	6
HIV	6
Chlamydia	6
Deaths due to medically treatable diseases: Bacterial infections	6
Deaths due to medically treatable diseases: Cervical cancer	6
Deaths due to medically treatable diseases: Hypertensive disease	6
Deaths due to medically treatable diseases: Pneumonia and unspecified bronchitis	6
Ambulatory care sensitive conditions	6
30-day Acute Myocardial Infarction (AMI) in-hospital mortality rate	6
30-day Stroke in-hospital mortality rate	6
Acute Myocardial Infarction (AMI) readmission rate	6
Asthma readmission rate	6
Hysterectomy readmission rate	6
Prostatectomy readmission rate	6
Efficiency	6
Safety	6
Hip fracture hospitalization	6
In-hospital hip fracture	6
Community and health system characteristics	6
Community	6
Population	6
Population density	6
Dependency ratio	6
Urban population	6
Aboriginal population	6
Immigrant population	6
Internal migrant mobility	6
Strong MIZ	6
Lone-parent families	6
Visible minority	6
Teen pregnancy	6
Health system	6
Inflow/outflow ratio	6
Coronary artery bypass graft (CABG)	6
Hip replacement	6
Knee replacement	6
Hysterectomy	6
Contact with alternative health care providers	6
Contact with medical doctors	6
Contact with health professionals about mental health	6
Contact with dental professionals	6
Resources	6
Health expenditure	6
Doctors	6



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Health status

Well-being

Self-rated health

Definition: *Population (aged 12 and over for data from the Canadian Community Health Survey and National Population Health Survey, North component) who rate their own health status as being either excellent, very good, good, fair or poor.*

Self-reported health is an indicator of overall health status. It can reflect aspects of health not captured in other measures, such as: incipient disease, disease severity, aspects of positive health status, physiological and psychological reserves and social and mental function.

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component; Statistics Canada, National Longitudinal Survey of Children and Youth (0 to 11 years of age), 1994/95

Changes over time in self-rated health

Definition: *Changes over time in self-rated health (excellent, very good, good, fair or poor) of the 1994/95 household population aged 12 and over every two years, at each cycle of the National Population Health Survey. Population, age, sex and province are based on the first survey cycle (Cycle 1) in 1994/95.*

Sources: Statistics Canada, National Population Health Survey, 1996/97 and 1998/99 longitudinal full-response data files and, 2000/01 and 2002/03 longitudinal data files

Self esteem

Definition: *Level of perceived self-worth reported by persons aged 12 and over, based on their responses to six questions derived from the self-esteem Rosenberg scale (1969), which has been further factored into one dimension by Pearlin and Schooler (1978). In this publication, a score of 0 to 17 is classified as low self-esteem, 18 to 19 as moderate self-esteem, and 20 to 24 as high self-esteem.*

Source: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, cross sectional sample, health file

Health conditions

Body mass index (BMI)

Note: *Definition change implemented in 2004 to conform with Health Canada guidelines for body weight classification.*

Definition: *Body Mass Index (BMI) is a method of classifying body weight according to health risk. According to World Health Organisation (WHO) and Health Canada guidelines, health risk levels are associated with each of the following BMI categories: normal weight = least health risk; underweight and overweight = increased health risk; obese class I = high health risk; obese class II = very high health risk; obese class III = extremely high health risk.*

BMI is calculated as follows: weight in kilograms divided by height in metres squared.

The index is: under 18.5 (underweight); 18.5-24.9 (normal weight); 25.0-29.9 (overweight); 30.0-34.9 (obese-Class I); 35.0-39.9 (obese-Class II); 40 or greater (obese - Class III). The index is calculated for those aged 18 and over excluding pregnant women and persons less than 3 feet (0.914 metres) tall or greater than 6 feet 11 inches (2.108 metres).

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/1995, 1996/1997 and 1998/1999 cross sectional sample, health file and North component

Arthritis/rheumatism

Definition: *Population aged 12 and over who report that they have been diagnosed by a health professional as having arthritis or rheumatism. Arthritis/rheumatism include both rheumatoid arthritis and osteoarthritis, but excludes fibromyalgia.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Diabetes

Definition: *Population aged 12 and over who report that they have been diagnosed by a health professional as having diabetes.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Asthma

Definition: *Population aged 4 and over (or aged 12 and over for data from the Canadian Community Health Survey and National Population Health Survey, North component) who report that they have been diagnosed by a health professional as having asthma.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component; Statistics Canada, National Longitudinal Survey of Children and Youth (asthma for 4 to 11 years of age), 1994/95

High blood pressure

Definition: *Population aged 12 and over who report that they have been diagnosed by a health professional as having high blood pressure.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Chronic pain – affects activities

Definition: *Population aged 4 and over (or aged 12 and over for data from the Canadian Community Health Survey and National Population Health Survey, health file and North component) who report having pain or discomfort which prevents or limits activities on a continuing basis.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component; Statistics Canada, National Longitudinal Survey of Children and Youth (4 to 11 years of age), 1994/95

Chronic pain – severity

Definition: *Population aged 4 and over (or aged 12 and over for data from the Canadian Community Health Survey and National Population Health Survey, health file and North component) who answered “yes” or “no” when asked if they were usually free of pain or discomfort. Severity of pain is measured as severe, moderate or mild.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component; Statistics Canada, National Longitudinal Survey of Children and Youth (4 to 11 years of age), 1994/95

Depression

Definition: *Population aged 12 and over with the probability of 0.9 or greater of having experienced a major depressive episode in the past 12 months based on responses to the short-form Composite International Diagnostic Interview (CIDI). Respondents are classified according to the probability that they would have been diagnosed as having experienced a major depressive episode in the past 12 months, if they had completed the long-form CIDI.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file; Statistics Canada, National Population Health Survey, 1994/95 and 1996/97, cross sectional sample, health file and North component

Low birth weight

Definition: *Live births less than 2,500 grams, expressed as a percentage of all live births (birth weight known).*

Live births greater than 500 grams and less than 2,500 grams, expressed as a percentage of all live births (birth weight known). (Applies only to a subset of the provincial/territorial time-series data)

Low birth weight is a key determinant of infant survival, health, and development. Low birth weight infants are at a greater risk of having a disability and for diseases such as cerebral palsy, visual problems, learning disabilities and respiratory problems.

Sources: Statistics Canada, Vital Statistics, Birth Database

Cancer incidence

Definition: *Age-standardized rate of new primary sites of cancer (malignant neoplasms) per 100,000 population, for all cancers.*

Specific site codes: colon/rectum (ICD-0-3 C18.0-C18.9, C19.9, C20.9, C26.0), lung (ICD-0-3 C34.0-C34.9), female breast (ICD-0-3 C50.0-C50.9), and prostate (ICD-0-3 C61.9).

Sources: Statistics Canada, Vital Statistics, Cancer Database, Canadian Cancer Registry, and Demography Division (population estimates)

Injury hospitalization

Definition: *Age-standardized rate of acute care hospitalization due to injury resulting from the transfer of energy (excluding poisoning and other non-traumatic injuries), per 100,000 population.*

Cause of injury is reported by the first valid documented external cause of injury code that meets the definition of a traumatic injury and with a diagnosis type of '9':

ICD-9 or ICD-9-CM

E800-E807, E810-E838, E840-E848, E880-E888, E890-E902, E906-E910, E913-E928, E953-E958, E960-E961, E963-E968, E970-E976, E978, E983-E988, E990-E998

ICD-10-CA

V01-V06, V09-V99, W00-W45, W49-W60, W64-W70, W73-W77, W81, W83-W94, W99, X00-X06, X08-X19, X30-X39, X50, X52, X58, X59, X70-X84, X86, X91-X99, Y00-Y05, Y07-Y09, Y20-Y36

This indicator contributes to an understanding of the adequacy and effectiveness of injury prevention efforts, including public education, product development and use, community and road design, and prevention and treatment resources.

Source: Canadian Institute for Health Information, National Trauma Registry

Injuries

Definition: *Population aged 12 and over who sustained injuries in the past 12 months. Includes all injuries serious enough to limit one's normal activities, but does not include repetitive strain injury. For those with more than one injury in the past 12 months, refers to "the most serious injury" as identified by the respondent.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey,

1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Human function

Functional health

Definition: *Population aged 4 and over (or aged 12 and over for data from the Canadian Community Health Survey and National Population Health Survey) reporting measures of overall functional health, based on 8 dimensions of functioning (vision, hearing, speech, mobility, dexterity, feelings, cognition and pain). A score of 0.8 to 1.0 is considered to be very good or perfect health; scores below 0.8 are considered to indicate moderate or severe functional health problems.*

Otherwise known as the Health Utility Index (HUI), this index, developed at McMaster University's Centre for Health Economics and Policy Analysis, is based on the Comprehensive Health Status Measurement System (CHSMS).

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component; Statistics Canada, National Longitudinal Survey of Children and Youth (4 to 11 years of age), 1994/95, 1996/97 and 1998/99

Two-week disability days

Definition: *Population aged 12 and over who stayed in bed or cut down on normal activities because of illness or injury, on one or more days in the past two weeks.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Activity limitation

Note: *Activity limitation data from the National Population Health Survey and the Canadian Community Health Survey are not comparable due to differences in questions and response categories between the two surveys.*

Definition: *Population aged 12 and over who report being limited in selected activities (home, school, work and other) because of a physical condition, mental condition, or health problem which has lasted or is expected to last six months or longer.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file

Disability-free life expectancy

Definition: *Life expectancy is the number of years a person would be expected to live, starting from birth (for life expectancy at birth) or at age 65 (for life expectancy at age 65), on the basis of the mortality statistics for a given observation period.*

Disability-free life expectancy is a more comprehensive indicator than that of life expectancy because it introduces the concept of quality of life. It is used to distinguish between years of life free of any activity limitation and years experienced with at least one activity limitation. To that end, disability-free life expectancy establishes a threshold based on the nature of such limitations. Years of life lived in conditions above this threshold are counted in full. Those lived in conditions below the threshold are not counted. Thus, the emphasis is not exclusively on the length of life, as is the case for life expectancy, but also on the quality of life.

Sources: Statistics Canada, Vital Statistics, Death Database, Demography Division (population estimates), and the 1996 Census (20% sample)

Disability-adjusted life expectancy (DALE)

Definition: *Life expectancy is the number of years a person would be expected to live, starting from birth (for life expectancy at birth) or at age 65 (for life expectancy at age 65), on the basis of the mortality statistics for a given observation period.*

Disability-adjusted life expectancy (DALE) is a more comprehensive indicator than that of life expectancy because it introduces the concept of quality of life. DALE integrates data on mortality, long-term institutionalization and activity limitations in the population and represents a comprehensive index of population health status. Thus, the emphasis is not exclusively on the length of life, but also on the quality of life.

To calculate DALE, a set of weights (relative values) is assigned to four states of health. These states are, in order from greatest to least weight: no activity limitations, activity limitations in leisure activities or transportation, activity limitations at work, home and/or school and institutionalization in a health care facility in order to establish units of equal value. These units are summed to yield a type of “quality-adjusted” life expectancy.

Sources: Statistics Canada, Vital Statistics, Death Database, Demography Division (population estimates), and the 1996 Census (20% sample)

Deaths

Infant mortality

Definition: *Infants who die in the first year of life, expressed as a count and a rate per 1,000 live births.*

A long-established measure, not only of child health, but also of the well-being of a society. Reflects the level of mortality, health status, and health care of a population, and the effectiveness of preventive care and the attention paid to maternal and child health.

Sources: Statistics Canada, Vital Statistics, Birth and Death Databases

Perinatal mortality

Definition: *Count and rate of stillbirths and early neonatal deaths (deaths in the first week of life) per 1,000 total births (includes stillbirths). Stillbirths are defined here as gestational age of 28 or more weeks. Stillbirths with unknown gestational age are excluded.*

The probability that a viable fetus will be stillborn or will die before the end of the first week of life. Reflects standards of obstetric and pediatric care, as well as the effectiveness of public health initiatives.

Sources: Statistics Canada, Vital Statistics, Birth, Death and Stillbirth Databases

Life expectancy

Definition: *Life expectancy is the number of years a person would be expected to live, starting from birth (for life expectancy at birth) and similarly for other age groups, on the basis of the mortality statistics for a given observation period.*

A widely used indicator of the health of a population. Life expectancy measures quantity rather than quality of life.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Age-standardized mortality rate – (for provincial level time-series)

Definition: *Age-standardized rate of death for selected causes per 100,000 population.*

From 1979 to 1999, causes of death were classified according to the International Classification of Disease, Ninth Revision (ICD-9). The year 2000 and subsequent years available are classified according to the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10). Selected causes are defined as follows: Colorectal cancer (ICD-10 C18-C21 or ICD-9 153-154), lung cancer (ICD-10 C33-C34 or ICD-9 162), female breast cancer (ICD-10 C50 females specified or ICD-9 174), prostate cancer (ICD-10 C61 or ICD-9 185), acute myocardial infarction (AMI) (ICD-10 I21-I22 or ICD-9 410), cerebrovascular diseases (ICD-10 I60-I69 or ICD-9 430-438), all stroke (selected cerebrovascular diseases) (ICD-10 I60-I66 or ICD-9 430-432, 434, 436).

Indicates the overall health of the population and is similar to what is measured by life expectancy.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Total mortality

Definition: *Crude rate and age-standardized rate of death from all causes per 100,000 population.*

Indicates the overall health of the population and is similar to what is measured by life expectancy.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

All diseases of the circulatory system deaths

Definition: *Crude rate and age-standardized rate of death from diseases of the circulatory system per 100,000 population: for all diseases of the circulatory system (ICD-10 I00-I99), ischaemic heart disease (ICD-10 I20-I25), cerebrovascular diseases (ICD-10 I60-I69) and all other circulatory diseases (ICD-10 I00-I02, I05-I09, I10-I15, I26-I28, I30-I52, I70-I79, I80-I89, I95-I99).*

Measures long-term success in reducing deaths due to circulatory disease, compared with other regions, provinces, and countries. Lower death rates indicate success in circulatory disease prevention, detection, and treatment.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

All malignant neoplasms (cancer) deaths

Definition: *Crude rate and age-standardized rate of death from cancer per 100,000 population: for all cancers (ICD-10 C00-C97) and for specific sites: colorectal (ICD-10 C18-C21), lung (ICD-10 C33-C34), female breast (ICD-10 C50) female specified (ICD-9 174), and prostate cancer (ICD-10 C61).*

Measures long-term success in reducing deaths due to cancer, compared with other regions, provinces, and countries. Lower death rates indicate success in cancer prevention, detection, and treatment.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

All diseases of the respiratory system deaths

Definition: *Crude rate and age-standardized rate of death from diseases of the respiratory system per 100,000 population: for all respiratory diseases (ICD-10 J00-J99), pneumonia and influenza (ICD-10 J10-J18), bronchitis/ emphysema/asthma (ICD-10 J40-J43, J45-J46) and all other diseases of the respiratory system (ICD-10 J00-J06, J20-J22, J30- J39, J44, J47, J60-J70, J80-J84, J85-J86, J90-J94, J95-J99).*

Measures long-term success in reducing deaths due to respiratory disease, compared with other regions, provinces, and countries. Lower death rates indicate success in respiratory disease prevention, detection, and treatment.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Suicide

Definition: *Crude rate and age-standardized rate of suicide death (ICD-10 X60-X84, Y87.0) per 100,000 population.*

Measures long-term success in reducing suicide, a social as well as a major public health concern.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Unintentional injury deaths

Definition: *Crude rate and age-standardized rate of death from unintentional injuries per 100,000 population. Unintentional (“accidental”) injuries includes injuries due to causes such as motor vehicle collisions, falls, drowning, burns, and poisoning, but not medical misadventures/complications(ICD-10 V01-X59, Y85-Y86).*

Measures long-term success in reducing deaths due to unintentional injuries, compared with other regions, provinces, and countries. Measures the adequacy and effectiveness of injury prevention efforts, including public education, community and road design, prevention, emergency care, and treatment resources.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

AIDS deaths

Definition: *Crude rate and age-standardized rate of deaths due to AIDS and HIV infections (ICD-10 B20-B24) per 100,000 population.*

Measures success in preventing and treating AIDS and HIV (Human Immunodeficiency Virus, the agent that causes AIDS). Information on deaths can be used to estimate the number of persons living with HIV/AIDS, as well as the impact of treatment.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Potential Years of Life Lost (PYLL) rate – (for provincial level time-series)

Definition: *Potential years of life lost (PYLL) is the number of years of life “lost” when a person dies “prematurely” from any cause – before age 75. A person dying at age 25, for example, has lost 50 years of life.*

Potential years of life lost are calculated by taking the median age in each age group, subtracting from 75, and multiplying by the number of deaths in that age group disaggregated by sex and cause of death. These data are presented as a standardized rate per 100,000 population. Causes of death are classified according to the International Classification of Disease (ICD-9) from 1979 to 1999. The year 2000 and subsequent years available are classified according to the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10). Provincial level PYLL was calculated for suicide

and unintentional injuries for the years 2000 and 2001 only. Selected causes are defined as follows: Colorectal cancer (ICD-9 153-154), lung cancer (ICD-9 162), female breast cancer (ICD-9 174), prostate cancer (ICD-9 185), acute myocardial infarction (AMI) (ICD-9 410), cerebrovascular diseases (ICD-9 430-438), all stroke (ICD-9 430-432, 434, 436), unintentional injuries (ICD-10 V01-X59, Y85-Y86 or ICD-9 E800-E929 excluding E870-E879), suicides (ICD-10 X60-X84, Y87 or ICD-9 E950-E959)

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Total mortality Potential Years of Life Lost (PYLL)

Definition: *Potential years of life lost (PYLL) (total mortality) is the number of years of life "lost" when a person dies "prematurely" from any cause – before age 75. A person dying at age 25, for example, has lost 50 years of life.*

Potential years of life lost are calculated by taking the median age in each age group, subtracting from 75, and multiplying by the number of deaths in that age group disaggregated by sex and cause of death. These data are presented as a count (total PYLL) and as a rate per 100,000 population.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Cancer deaths Potential Years of Life Lost (PYLL)

Definition: *Potential years of life lost (PYLL) for all malignant neoplasms (ICD-10 C00-C97) and for specific sites: colorectal (ICD-10 C18-C21), lung (ICD-10 C33-C34), female breast (ICD-10 C50), and prostate cancer (ICD-10 C61). PYLL is the number of years of life "lost" when a person dies "prematurely" from any cancer – before age 75. A person dying at age 25, for example, has lost 50 years of life.*

Potential years of life lost are calculated by taking the median age in each age group, subtracting from 75, and multiplying by the number of deaths in that age group disaggregated by sex and cause of death. These data are presented as a count (total PYLL) and as a rate per 100,000 population.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Circulatory disease deaths Potential Years of Life Lost (PYLL)

Definition: *Potential years of life lost (PYLL) for all circulatory disease deaths (ICD-10 I00-I99) and specific causes: ischaemic heart disease (ICD-10 I20-I25), cerebrovascular diseases (stroke) (ICD-10 I60-I69) and all other circulatory diseases (ICD-10 I00-I02, I05-I09, I10-I15, I26-I28, I30-I52, I70-I79, I80-I89, I95-I99). PYLL is the number of years of life "lost" when a person dies "prematurely" from any circulatory disease – before age 75. A person dying at age 25, for example, has lost 50 years of life.*

Potential years of life lost are calculated by taking the median age in each age group, subtracting from 75, and multiplying by the number of deaths

in that age group disaggregated by sex and cause of death. These data are presented as a count (total PYLL) and as a rate per 100,000 population.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Respiratory disease deaths Potential Years of Life Lost (PYLL)

Definition: *Potential years of life lost (PYLL) for all respiratory disease deaths (ICD-10 J00-J99) and for specific causes: pneumonia and influenza (ICD-10 J10-J18), bronchitis/emphysema/asthma (ICD-10 J40-J43, J45-J46) and all other respiratory diseases (ICD-10 J00-J06, J20-J22, J30-J39, J44, J47, J60-J70, J80- J84, J85-J86, J90-J94, J95-J99). PYLL is the number of years of life "lost" when a person dies "prematurely" from any respiratory disease – before age 75. A person dying at age 25, for example, has lost 50 years of life.*

Potential years of life lost are calculated by taking the median age in each age group, subtracting from 75, and multiplying by the number of deaths in that age group disaggregated by sex and cause of death. These data are presented as a count (total PYLL) and as a rate per 100,000 population.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Unintentional injury deaths Potential Years of Life Lost (PYLL)

Definition: *Potential years of life lost (PYLL) for unintentional injuries (ICD-10 V01-X59, Y85-Y86) is the number of years of life "lost" when a person dies "prematurely" from unintentional injuries – before age 75. A person dying at age 25, for example, has lost 50 years of life.*

Potential years of life lost are calculated by taking the median age in each age group, subtracting from 75, and multiplying by the number of deaths in that age group disaggregated by sex and cause of death. These data are presented as a count (total PYLL) and as a rate per 100,000 population.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Suicide Potential Years of Life Lost (PYLL)

Definition: *Potential years of life lost (PYLL) for suicides (ICD-10 X60-X84, Y87.0) is the number of years of life "lost" when a person dies "prematurely" from suicide – before age 75. A person dying at age 25, for example, has lost 50 years of life.*

Potential years of life lost are calculated by taking the median age in each age group, subtracting from 75, and multiplying by the number of deaths in that age group disaggregated by sex and cause of death. These data are presented as a count (total PYLL) and as a rate per 100,000 population.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

AIDS deaths Potential Years of Life Lost (PYLL)

Definition: *Potential years of life lost (PYLL) for human immunodeficiency virus (HIV) infection deaths (ICD-10 B20-B24) is the number of years of life "lost" when a person dies "prematurely" from AIDS/HIV – before age 75. A person dying at age 25, for example, has lost 50 years of life.*

Potential years of life lost are calculated by taking the median age in each age group, subtracting from 75, and multiplying by the number of deaths in that age group disaggregated by sex and cause of death. These data are presented as a count (total PYLL) and as a rate per 100,000 population.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Non-medical determinants of health

Health behaviours

Smoking status

Definition: *Population aged 12 and over who reported being either a current smoker (daily or occasional) or a non-smoker (former or never smoked).*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Smoking initiation

Definition: *Population aged 12 and over who reported being either a current or former smoker and who reported the age when they smoked their first cigarette.*

Source: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file

Changes over time in smoking behaviour

Definition: *Changes over time in the smoking behaviour of the 1994/95 household population aged 12 and over, at each cycle of the National Population Health Survey (every two years). Population, age, sex and province are based on the first survey cycle in 1994/95. Smokers are those who smoke on either a daily or an occasional basis.*

Sources: Statistics Canada, National Population Health Survey, 1996/97 and 1998/99 longitudinal full-response data files and, 2000/01 and 2002/03 longitudinal data files

Frequency of drinking

Definition: *Population aged 12 and over who are current drinkers and who reported drinking 5 or more drinks on at least one occasion in the past 12 months. 'Heavy drinking' is defined as current drinkers who reported drinking 5 or more drinks on one occasion, 12 or more times a year.*

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file; Statistics Canada, National Population Health Survey, 1996/97 and 1998/99, North component

Leisure-time physical activity

Definition: *Population aged 12 and over reporting level of physical activity, based on their responses to questions about the frequency, duration and intensity of their participation in leisure-time physical activity.*

Respondents are classified as active, moderately active or inactive based on an index of average daily physical activity over the past 3 months. For each leisure time physical activity engaged in by the respondent, an average daily energy expenditure is calculated by multiplying the number of times the activity was performed by the average duration of the activity by the energy cost (kilocalories per kilogram of body weight per hour) of the activity. The index is calculated as the sum of the average daily energy expenditures of all activities. Respondents are classified as follows: 3.0 kcal/kg/day or more = physically active; 1.5 - 2.9 kcal/kg/day = moderately active; less than 1.5 kcal per day = inactive.

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Breastfeeding practices

Note: *Definition change implemented in 2004 to conform with breastfeeding recommendations from Health Canada and the World Health Organization.*

Definition: *The breastfeeding practices of women aged 15 to 55 who had a baby in the previous five years.*

Categories include did not breastfeed, initiated breastfeeding, breastfed for at least four months, breastfed for at least four months exclusively, breastfed for six months, and breastfed for at least six months exclusively. These benchmarks are former (four months exclusive breastfeeding) and current (six months exclusive breastfeeding) Health Canada recommendations.

Initiated breastfeeding refers to women who breastfed or tried to breastfeed their last child even if only for a short time. Exclusive breastfeeding refers to an infant receiving only breast milk, without any additional liquid (even water) or solid food.

Sources: Statistics Canada, Canadian Community Health Survey, 2003

Dietary practices

Definition: *Population aged 12 and over, by the average number of times per day that they consume fruits and vegetables.*

Source: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file

Living and working conditions

High school graduates

Definition: *Population aged 25 to 29 who have a high school graduation certificate.*

A measure of educational attainment and socio-economic status.

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Post-secondary graduates

Definition: *Population aged 25 to 54 who have obtained a post-secondary certificate, diploma, or degree.*

A measure of educational attainment and socio-economic status.

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Unemployment rate

Definition: *Labour force aged 15 and over (and for youths, aged 15 to 24 years) who did not have a job during the reference period.*

The labour force consists of people who are currently employed and people who are unemployed but were available to work in the reference period and had looked for work in the past 4 weeks. The reference period refers to a one-week period (from Sunday to Saturday) that usually includes the 15th day of the month.

A traditional measure of the economy. Unemployed people tend to experience more health problems.

Source: Statistics Canada, Labour Force Survey (special tabulations)

Long-term unemployment rate

Definition: *Labour force aged 15 and over who did not have a job any time during the current or previous year (for example, the years 1995 and 1996 for the 1996 Census).*

The labour force consists of people currently employed and people who are unemployed but were available to start work in the week prior to enumeration and looked for work in the past 4 weeks.

Unemployed people tend to experience more health problems. Long-term unemployment could extend one's susceptibility to poor health.

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Low income rate (income for the year prior to the Census)

Definition: *Population in economic families and unattached individuals with incomes below the Statistics Canada low-income cut-off (LICO). The cut-offs represent levels of income where people spend disproportionate amounts of money for food, shelter, and clothing. LICOs are based on family and*

community size; cut-offs are updated to account for changes in the consumer price index.

The term economic family refers to a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law or adoption.

A widely used measure of socio-economic status. Higher income is associated with better health.

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Children in low-income families (income for the year prior to the Census)

Definition: *Population of children aged 17 and under living in economic families with incomes below Statistics Canada's low-income cut-offs (LICO). The cut-offs represent levels of income where people spend disproportionate amounts of money for food, shelter, and clothing. LICOs are based on family and community size; cut-offs are updated to account for changes in the consumer price index.*

The term economic family refers to a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law or adoption.

A widely used measure of children at risk.

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Average personal income (income for the year prior to the Census)

Definition: *Average personal income (pre-tax, post-transfer) for persons aged 15 and over who reported income.*

Higher income is associated with better health.

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Housing affordability (income for the year prior to the Census)

Definition: *Households (renters, owners, and total) spending 30% or more of total household income on shelter expenses. Shelter expenses include payments for electricity, oil, gas, coal, wood or other fuels, water and other municipal services, monthly mortgage payments, property taxes, condominium fees and rent.*

As a general rule, households are considered to have affordability problems if more than 30% of household income is spent on housing costs. At that level of spending, it is likely that inadequate funds will be available for other necessities such as food, clothing, and transportation. Housing affordability problems affect renters more than owners. Band housing on Indian reserves was not included in the calculation of housing affordability.

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Decision latitude at work

Definition: *Degree of control that individuals have over their work circumstances (who agree or disagree with the statement “I have a lot to say about what happens in my job.” and “My job allows me the freedom to decide how I do my job.”). Refers to population aged 15 to 74 who worked at a job or business at any point in the past 12 months before the interview.*

Source: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, cross sectional sample, health file

Median share of income (income for the year prior to the Census)

Definition: *Proportion of income (from all sources, pre-tax, post-transfer) held by households whose incomes fall below the median household income.*

A proportion of 50% would represent no inequality.

Source: Statistics Canada, 1996 and 2001 Census (20% sample), special tabulations

Government transfer income (income for the year prior to the Census)

Definition: *Proportion of all income that came from government transfers (e.g., Canada or Quebec Pension Plan, Employment Insurance,, etc.) for the population 15 years of age and over.*

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Owner-occupied dwellings and average dwelling value

Definition: *Owner-occupied dwellings is the percentage of private dwellings in which the owner lives (excluding band housing and collective dwellings). Average dwelling value is the average expected value of owner-occupied dwellings (including the value of the land) if the dwellings were to be sold at the time of the Census (excluding dwellings located on farms and reserves).*

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Crime Incidents

Definition: *The number and rate (per 100,000 population) of total Criminal Code offences, violent crimes, property crimes, and other crimes.*

Source: Statistics Canada, Canadian Centre for Justice Statistics, Uniform Crime Reporting Survey

Adults and Youth Charged

Definition: *The number and rate (per 100,000 population) of youths, aged 12 to 17 years, or adults, aged 18 and over, charged with Criminal Code offences by type of offence.*

Source: Statistics Canada, Canadian Centre for Justice Statistics, Uniform Crime Reporting Survey

Personal resources

Social support (National Population Health Survey)

Definition: *Level of perceived social support reported by population aged 12 and over, based on their responses to four questions about having someone to confide in, someone they can count on in a crisis, someone they can count on for advice, and someone who makes them feel loved and cared for. In this publication, a score of 0 was classified as low social support, 1 to 3 as medium social support and 4 as high social support.*

Source: Statistics Canada, National Population Health Survey, 1994/95 and 1996/97, cross sectional sample, health file; Statistics Canada, National Population Health Survey, 1994/95 and 1996/97, cross sectional sample, North component

Social support (Canadian Community Health Survey)

Definition: *Level of perceived social support reported by population aged 12 and over, defined as having emotional or informational support when an individual needs someone to listen or needs to confide in someone. It is based on a list of eight questions that ask people how often they receive certain types of support in certain circumstances. In this publication, a score of 0 to 10 was classified as low social support, 11 to 20 as medium social support and 21 to 32 as high social support.*

Source: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file

Life stress (National Population Health Survey)

Definition: *Level of chronic stress reported by the population aged 18 and over, based on their responses to a series of 17 questions about their personal situation. In this publication, a score of 0 or 1 was low life stress, 2 to 4 was moderate life stress and 5 to 16 was high life stress.*

Source: Statistics Canada, National Population Health Survey, 1994/95 cross sectional sample, health file

Life stress (Canadian Community Health Survey)

Definition: *Population aged 18 and over who reported their level of life stress.*

Source: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file

Environmental factors

Note: Definition for exposure to second-hand smoke was changed in 2004 to reflect changes in questionnaire wording. Data from CCHS 2000/01 are therefore not comparable with data from CCHS 2003.

Exposure to second-hand smoke at home

Definition: *Non-smoking population aged 12 and over who reported that at least one person smokes inside their home every day or almost every day.*

Source: Statistics Canada, Canadian Community Health Survey, 2003, health file

Exposure to second-hand smoke in vehicles and public places

Definition: *Non-smoking population aged 12 and over who reported being exposed to second-hand smoke in private vehicles and/or public places everyday or almost every day during the past month.*

Source: Statistics Canada, Canadian Community Health Survey, 2003, health file

Health system performance

Acceptability

Patient satisfaction (and quality rating of services received)

Definition: *Population aged 15 and over receiving health services in the past 12 months who rate their level of satisfaction with those services as either “very satisfied” or “somewhat satisfied”. Perceived rating of the quality of services received rated as “excellent” or “good” is another component of this indicator. ‘Health services’ are broken down as follows: Overall health care services; hospital care; physician care, community-based care; and telephone health line or tele-health services.*

Source: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file

Accessibility

Influenza immunization

Definition: *Population aged 12 and over (aged 65 and over for data from the National Population Health Survey) who reported when they had their last influenza immunization (flu shot).*

Source: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1996/97, cross sectional sample, health file

Screening mammography, women aged 50-69

Definition: *Women aged 50 to 69 who reported when they had their last mammogram for routine screening or other reasons.*

Screening mammography is an important strategy for early detection of breast cancer.

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1996/97, cross sectional sample, health file

Pap smear, women aged 18-69

Definition: *Women aged 18 to 69 who reported when they had their last Pap smear test.*

Pap tests detect pre-malignant lesions before cancer of the cervix develops.

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Appropriateness

Caesarean sections

Definition: *Proportion of women delivering babies in acute care hospital by caesarean section.*

Method of Calculation

(Number of Caesarean sections/Number of deliveries)*100

Delivery:

I. ICD-9 or ICD-9-CM

Any one diagnosis code of 640-676 and with a fifth digit of '1' or '2'; 650 or V27

II. ICD-10-CA

Any one diagnosis code of O1, O2, O4, O6-O8, O30-O37, O90-O92, O95, O98, O99 with a sixth digit of '1' or '2'; Z37

Deliveries in which an abortive procedure was provided are removed:

I. CCP

Any one procedure code of 78.52, 86.3, 86.4, 87.0, 87.1, or 87.2

II. ICD-9-CM

Any one procedure code of 66.62, 74.3, 74.91, 75.0, 69.51, or 69.0

III. CCI

Any one procedure code of 5.CA.88, 5.CA.89, 5.CA.90, or 5.CA.93

Code may be recorded in any position with cancelled, previous, out-of-hospital, and "abandoned after onset" cases excluded.

Caesarean section (Caesarean section is a subset of deliveries):

I. CCP

Any one procedure of 86.0-86.2, 86.8, or 86.9

II. ICD-9-CM

74.0, 74.1, 74.2, 74.4, or 74.99

III. CCI

5.MD.60

Code may be recorded in any position with cancelled, previous, out-of-hospital, and “abandoned after onset” cases excluded.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

Effectiveness

Pertussis

Definition: *Number of cases of pertussis reported in a given year.*

Source: Health Canada, Population and Public Health Branch, Notifiable Diseases On-Line

Measles

Definition: *Number of cases of measles reported in a given year.*

Source: Health Canada, Population and Public Health Branch, Notifiable Diseases On-Line

Tuberculosis

Definition: *Number of new cases of tuberculosis reported in a given year.*

Source: Health Canada, Population and Public Health Branch, Notifiable Diseases On-Line

HIV

Definition: *Number of new positive HIV cases in a given year. Information is based on those who have been tested for HIV.*

Source: Health Canada, Population and Public Health Branch, HIV and AIDS in Canada: Surveillance Report to June 30, 2000

Chlamydia

Definition: *Number of new cases of chlamydia reported in a given year.*

Source: Health Canada, Population and Public Health Branch, Notifiable Diseases On-Line

Deaths due to medically treatable diseases: Bacterial infections

Definition: *Age-standardized rate of deaths due to bacterial infections (ICD-9 001-005, 020-041, 320, 382, 383, 390-392, 680-686, 711, 730) for persons aged 5 to 64.*

For the specified age groups, the majority of people with such infections should respond adequately to antibiotics if treated promptly and correctly.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Deaths due to medically treatable diseases: Cervical cancer

Definition: *Age-standardized rate of deaths due to cervical cancer (ICD-9 180) for women aged 15 to 64.*

The early detection and treatment of cervical cancer appears to be effective in reducing mortality from this disease.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Deaths due to medically treatable diseases: Hypertensive disease

Definition: *Age-standardized rate of deaths due to hypertensive disease (ICD-9 401-405) for persons aged 35 to 64.*

Intervention on people with hypertensive disease has been shown to decrease morbidity and mortality.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Deaths due to medically treatable diseases: Pneumonia and unspecified bronchitis

Definition: *Age-standardized rate of deaths due to pneumonia and unspecified bronchitis (ICD-9 481-486, 490) for persons aged 5 to 49.*

Most pneumonia should respond adequately to antibiotics. With appropriate care, the survival rate should be high for the specified age groups.

Sources: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Ambulatory care sensitive conditions

Definition: *Age-standardized acute care hospitalization rate for conditions where appropriate ambulatory care prevents or reduces the need for admission to hospital, per 100,000 population under age 75 years.*

This definition of ACSC is based on the work of Billings et al (see Billings J, Zeital L, Lukomnik J, Carey TS, Blank AE, Newman L. Impact of socio-economic status on hospital use in New York City. Health Affairs 1993; Spring:162-173; Billings J, Anderson GM, Newman LS. Recent findings on preventable hospitalizations. Health Affairs 1996; 15(3):239-249.)

Most responsible diagnosis code of:

I. ICD-9 /CCP

- Grand mal status and other epileptic convulsions [345]
- Chronic obstructive pulmonary disease [491, 492, 493.2, 494, 496, 466.0] (include acute bronchitis [466.0] only when a secondary diagnosis* of 491, 492, 494, or 496 is also present). Pneumonia [480, 481, 482, 483, 484, 485, 486] only when a

secondary diagnosis* of COPD [491, 492, 494, or 496] is also present

- Asthma [493.0, 493.1, 493.8, 493.9]
- Congestive heart failure [428.0, 402.9, 518.4] (exclude cases with the following surgical procedures (CCP): 48.1, 49.5, 48.02, 48.03, 49.71, 49.72, 49.73, 49.82, 49.86)
- Hypertension [401.0, 401.9, 402.0, 402.1, 402.9] (exclude cases with the following surgical procedures (CCP): 48.1, 49.5, 48.02, 48.03, 49.71, 49.72, 49.73, 49.82, 49.86)
- Angina [411, 413] (exclude cases with a surgical procedure (any one CCP code of 01.01-01.39, 07.24, 14.01-14.83, 14.88-16.82, 16.89-21.82, 21.89-29.7, 29.82-34.81, 34.89-41.81, 41.83-43.82, 43.84-45.84, 45.88-46.88, 46.90-48.91, 48.99-50.79, 50.91-50.93, 50.96-52.81, 52.89-63.95, 63.97-64.96, 64.98-66.83, 66.89-67.84, 67.89-69.82, 69.89-71.96, 71.98-72.95, 72.97-75.81, 75.89-80.83, 80.89-88.81, 88.89-92.69, 92.80-97.82, or 97.89-98.99)
- Diabetes [250.0, 250.1, 250.2, 250.9]

II. ICD-9-CM

- Grand mal status and other epileptic convulsions [345]
- Chronic obstructive pulmonary disease [491, 492, 493.2, 494, 496, 466.0] (include acute bronchitis [466.0] only when a secondary diagnosis* of 491, 492, 494 or 496 is also present). Pneumonia [480, 481, 482, 483, 484, 485, 486] only when a secondary diagnosis* of COPD [491, 492, 494 or 496] is also present
- Asthma [493.0, 493.1, 493.8, 493.9]
- Congestive heart failure [428.0, 402.01, 402.11, 402.91, 518.4] (exclude cases with the following surgical procedures (ICD-9-CM): 36.01, 36.02, 36.05, 36.1, 37.5, 37.7)
- Hypertension [401.0, 401.9, 402.00, 402.10, 402.90] (exclude cases with the following surgical procedures (ICD-9-CM): 36.01, 36.02, 36.05, 36.1, 37.5, 37.7)
- Angina [411.1, 411.8, 413] (exclude cases with a surgical procedure (any one ICD-9-CM code of 01-86.99)
- Diabetes [250.0, 250.1, 250.2, 250.3, 250.8, 250.9]

III. ICD-10-CA/CCI

- Grand mal status and other epileptic convulsions [G40, G41]
- Chronic obstructive pulmonary disease [J41, J42, J43, J44, J47, J20] (acute bronchitis [J20] only when a secondary diagnosis* of COPD [J41, J42, J43, J44, J47] is also present). Pneumonia [J12, J13, J14, J15, J16, J18] only when a secondary diagnosis* of COPD [J41, J42, J43, J44 or J47] is also present
- Asthma [J45]
- Congestive heart failure [I50, J81] (exclude cases with the following surgical procedures (CCI): 1.IJ.50, 1.HZ.85, 1.IJ.76, 1.HB.53, 1.HD.53, 1.HZ.53, 1.HB.55, 1.HD.55, 1.HZ.55, 1.HB.54, 1.HD.54)
- Hypertension [I10.0, I10.1, I11] (exclude cases with the following surgical procedures (CCI): 1.IJ.50, 1.HZ.85, 1.IJ.76,

1.HB.53, 1.HD.53, 1.HZ.53, 1.HB.55, 1.HD.55, 1.HZ.55,
1.HB.54, 1.HD.54)

- Angina [I20, I23.82, I24.0, I24.8, I24.9] (exclude cases with a surgical procedure: any one CCI procedure of 1*, 2*, 5*)
- Diabetes [E10.1, E10.6, E10.7, E10.9, E11.0, E11.1, E11.6, E11.7, E11.9, E13.0, E13.1, E13.6, E13.7, E13.9, E14.0, E14.1, E14.6, E14.7, E14.9]

* “Secondary diagnosis” refers to a diagnosis other than most responsible

Patients who died before discharge are excluded.

A measure of access to appropriate medical care. While not all admissions for ambulatory care sensitive conditions are avoidable, it is assumed that appropriate prior ambulatory care could prevent the onset of this type of illness or condition, control an acute episodic illness or condition, or manage a chronic disease or condition. A disproportionately high rate is presumed to reflect problems in obtaining access to primary care.

Rates are not comparable to those published by CIHI prior to June 2005 due to a change in the definition. See [Definitions, Data Sources and Rationale](#) from June 2004 for information on how this indicator was previously defined.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

30-day Acute Myocardial Infarction (AMI) in-hospital mortality rate

Definition: *The risk-adjusted rate of all-cause in-hospital death occurring within 30 days of first admission to an acute care hospital with a diagnosis of AMI.*

(Primary ICD-9 or ICD-9-CM diagnosis code of 410 or ICD-10-CA I21, I22. A [technical note](#) for this indicator is available)

To enable comparison across regions, a statistical model was used to adjust for differences in age, sex and co-morbidities. Inter-regional variation in 30-day in-hospital mortality rates may be due to jurisdictional and institutional differences in standards of care, as well as other factors that were not included in the adjustment. These rates should be interpreted with caution due to potential differences in the coding of comorbid conditions across provinces and territories.

Rates for Newfoundland, British Columbia and Quebec are not available due to differences in coding of AMI (Newfoundland), Emergency Room admissions (BC), and diagnosis type (Quebec). Rate for Nunavut is not available due to incomplete data submission.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

30-day Stroke in-hospital mortality rate

Definition: *The risk-adjusted rate of all-cause in-hospital death occurring within 30 days of first admission to an acute care hospital with a diagnosis of stroke.*

(Primary ICD-9 or ICD-9-CM diagnosis code of 430-432, 434, 436 or ICD-10-CA I60-I62, I63.3-I63.5, I63.8, I63.9, I64. A [technical note](#) for this indicator is available.)

To enable comparison across regions, a statistical model was used to adjust for differences in age, sex and co-morbidities. Adjusted mortality rates following stroke may reflect, for example, the underlying effectiveness of treatment and quality of care. Inter-regional variations in rates may be due to jurisdictional and institutional differences in standards of care, as well as other factors that are not included in the adjustment. These rates should be interpreted with caution due to potential differences in the coding of comorbid conditions across provinces and territories.

Rates for British Columbia and Quebec are not available due to differences in coding of Emergency Room admissions (BC) and diagnosis type (Quebec). Rate for Nunavut is not available due to incomplete data submission.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

Acute Myocardial Infarction (AMI) readmission rate

Definition: *The risk-adjusted rate of unplanned readmission following discharge for Acute Myocardial Infarction (AMI). A case is counted as a readmission if it is for a relevant diagnosis and occurs within 28 days after the index AMI episode of care. An episode of care refers to all contiguous in-patient hospitalizations and same-day surgery visits.*

(See [technical note](#) for codes used)

To enable comparison across regions, a statistical model was used to adjust for differences in age, sex and co-morbidities. The risk of readmission following an AMI may be related to the type of drugs prescribed at discharge, patient compliance with post-discharge therapy, the quality of follow-up care in the community, or the availability of appropriate diagnostic or therapeutic technologies during the initial hospital stay. Although readmission for medical conditions can involve factors outside the direct control of the hospital, high rates of readmission act as a signal to hospitals to look more carefully at their practices, including the risk of discharging patients too early and the relationship with community physicians and community-based care. These rates should be interpreted with caution due to potential differences in the coding of comorbid conditions across provinces and territories.

Rates for Newfoundland are not available due to differences in coding of AMI admissions. Rates for Quebec and Manitoba are not available due to differences in data collection. Rate for Nunavut is not available due to incomplete data submission.

Sources: Canadian Institute for Health Information, Discharge Abstract Database, National Ambulatory Care Reporting System

Asthma readmission rate

Definition: *The risk-adjusted rate of unplanned readmission following discharge for Asthma. A case is counted as a readmission if it is for a relevant diagnosis and occurs within 28 days after the index episode of care. An episode of care refers to all contiguous in-patient hospitalizations and same-day surgery visits.*

(See [technical note](#) for codes used.)

To enable comparison across regions, a statistical model was used to adjust for differences in age, sex and co-morbidities. Although readmission for medical conditions may involve factors outside the direct control of the hospital, high rates of readmission act as a signal to hospitals to look more carefully at their practices, including the risk of discharging patients too early and the relationship with community physicians and community-based care. These rates should be interpreted with caution due to potential differences in the coding of comorbid conditions across provinces and territories.

Rates for Quebec and Manitoba are not available due to differences in data collection. Rate for Nunavut is not available due to incomplete data submission.

Sources: Canadian Institute for Health Information, Discharge Abstract Database, National Ambulatory Care Reporting System

Hysterectomy readmission rate

Definition: *The risk-adjusted rate of unplanned readmission following discharge for Hysterectomy. A case is counted as a readmission if it is for a relevant diagnosis and occurs within 7 or 28 days after the index episode of care. An episode of care refers to all contiguous in-patient hospitalizations and same-day surgery visits.*

(See [technical note](#) for codes used.)

To enable comparison across regions, a statistical model was used to adjust for differences in age and co-morbidities. Although readmission for surgery may involve factors outside the direct control of the hospital, high rates of readmission act as a signal to hospitals to look more carefully at their practices, including the risk of discharging patients too early and the relationship with community physicians and community-based care. These rates should be interpreted with caution due to potential differences in the coding of comorbid conditions across provinces and territories.

Rates for Quebec and Manitoba are not available due to differences in data collection. Rate for Nunavut is not available due to incomplete data submission.

Sources: Canadian Institute for Health Information, Discharge Abstract Database, National Ambulatory Care Reporting System

Prostatectomy readmission rate

Definition: *The risk-adjusted rate of unplanned readmission following discharge for Prostatectomy. A case is counted as a readmission if it is for a relevant diagnosis or procedure and occurs within 28 days after the index episode of care. An episode of care refers to all contiguous in-patient hospitalizations and same-day surgery visits.*

(See [technical note](#) for codes used.)

To enable comparison across regions, a statistical model was used to adjust for differences in age and co-morbidities. Although readmission for surgery may involve factors outside the direct control of the hospital, high rates of readmission act as a signal to hospitals to look more carefully at their practices, including the risk of discharging patients too early and the relationship with community physicians and community-based care. These rates should be interpreted with caution due to potential differences in the coding of comorbid conditions across provinces and territories.

Rates for Quebec and Manitoba are not available due to differences in data collection. Rate for Nunavut is not available due to incomplete data submission.

Sources: Canadian Institute for Health Information, Discharge Abstract Database, National Ambulatory Care Reporting System

Efficiency

Safety

Hip fracture hospitalization

Definition: *Age-standardized acute care hospitalization rate for fracture of the hip, per 100,000 population age 65 and over.*

(Most responsible diagnosis code of: ICD-9 or ICD-9-CM 820.0-820.3, 820.8, 820.9 or ICD-10-CA S72.0, S72.1, S72.2)

Hip fractures occur for various reasons including environmental hazards, the prescription of potentially inappropriate psychotropic medications to the ambulatory elderly, and safety issues in long-term care facilities. As well as causing disability or death, hip fractures can have a major impact on independence and quality of life. This measure is based on the number of cases admitted to hospital. Some cases may represent readmissions for additional treatments or transfers from one medical setting to another. Thus, the hospitalization rate may over-estimate the incidence of hip fractures.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

In-hospital hip fracture

Definition: *Risk-adjusted rate of in-hospital hip fracture among acute care inpatients age 65 years and over, per 1,000 discharges.*

(See [technical note](#) for codes used.)

Proposed by the Agency for Healthcare Research and Quality (AHRQ) and based on the Complications Screening Program, this indicator represents a potentially preventable complication resulting from an inpatient stay in an acute care facility. Variation in the rates may be attributed to numerous factors, including hospital processes, environmental safety, and availability of nursing care. High rates may prompt investigation of potential quality of care deficiencies.

Rates for Quebec and Manitoba are not available due to differences in data collection. Rate for Nunavut is not available due to incomplete data submission.

Source: Canadian Institute for Health Information, Discharge Abstract Database

Community and health system characteristics

Community

Population

Definition: *The number of people living in a geographic area by age and sex.*

A population's size and age/sex composition impact the health status of a region and its need for health services. Population data also provide the "denominators" used to calculate rates for most health and social indicators.

Sources: Statistics Canada, Demography Division. Data are derived from the Census and administrative sources on births, deaths, and migration. Population growth for Alberta and British Columbia were supplied by Alberta Health and Wellness and BC Stats respectively.

Population density

Definition: *Number of people per square kilometer. Calculated by dividing the total population by land area.*

Sources: Statistics Canada, 1996 and 2001 Census, and Geography Division (special tabulations)

Dependency ratio

Definition: *The ratio of the combined child population (aged 0 to 14) and elderly population (aged 65 and over) to the working age population (aged 15 to 64). This ratio is usually presented as the number of dependents for every 100 people in the working age population.*

Canadians aged 65 and over and those under age 15 are more likely to be socially and/or economically dependent on working age Canadians, and they may also put certain additional demands on health services.

Sources: Statistics Canada, Demography Division. Data are derived from the Census and administrative sources on births, deaths, and migration.

Urban population

Definition: *People living in urban areas. An urban area is defined as having a minimum population of 1,000 and a population density of 400 people per square kilometre.*

This community characteristic allows users to compare regions with similar proportions of urban/rural population.

Source: Statistics Canada, 1996 and 2001 Census

Aboriginal population

Definition: *Aboriginal people living in a geographic area. Aboriginal people are those persons who reported identifying with at least one Aboriginal group (e.g. North American Indian, Métis or Inuit) and/or those who reported being a Treaty Indian or a Registered Indian as defined by the Indian Act and/or those who were members of an Indian Band or First Nation.*

Health status characteristics and non-medical determinants of Aboriginal people differ from the non-Aboriginal population, for example, infant mortality, unintentional injury deaths, suicides and smoking rates. Knowing the proportion of Aboriginal people in a geographic area provides context to better interpret health indicators.

Sources: Statistics Canada, 1996 and 2001 Census (20% sample), 1996 and 2001 Census Coverage Studies, and Demography Division (population estimates)

Immigrant population

Definition: *All immigrants living in a geographic area, and those immigrants who came to Canada during the 15 years prior to Census Day.*

Canadian, American and Australian studies have shown that immigrants, particularly non-European immigrants, generally have a longer life expectancy and lower risk of certain chronic conditions than the native-born population. However, the Canadian studies have also shown that as the immigrants' period of residence in Canada increases, so does the prevalence of chronic conditions, smoking and disability. Understanding the proportion of immigrants in a geographic area, along with the period of immigration, provides a context for interpreting health indicators.

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Internal migrant mobility

Definition: *Percentage of people that lived in a different Canadian municipality at the time of the previous Census (5-year internal migrants) or one year before the current Census (1-year internal migrants). External migrants who were living outside Canada are excluded.*

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Strong MIZ

Definition: *Strong MIZ (Census Metropolitan Area and Census Agglomeration Influenced Zones) represents the proportion of the population living in Census Metropolitan Areas (CMA), Census Agglomerations (CA) and communities that fall outside CMAs/CAs that have at least 30% of the employed labour force commuting to CMAs/CAs. The larger the proportion, the stronger the relationship between the specific community and a nearby CMA/CA.*

The CMAs and CAs are large urban areas with adjacent urban and rural areas that have a high degree of economic and social integration. These CMAs and CAs are defined around urban areas that have attained certain population thresholds: 100,000 for CMAs and 10,000 for CAs.

Sources: Statistics Canada, 1996 and 2001 Census (20% sample), Geography Division

Lone-parent families

Definition: *Percentage of lone-parent families among all census families living in private households. A census family refers to married or common-law couple or lone parent with at least one never-married son or daughter living in the same household.*

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Visible minority

Definition: *Population belonging to a visible minority group. As defined by the Employment Equity Act (1986), visible minorities are persons (other than Aboriginal people) who are non-caucasian in race or non-white in colour.*

Source: Statistics Canada, 1996 and 2001 Census (20% sample)

Teen pregnancy

Definition: *Number and rate of pregnancies per 1,000 women aged 15 to 19. Pregnancies are composed of live births, induced (therapeutic) abortions and fetal loss, including stillbirths (at least 20 weeks gestation or fetal weight of at least 500 grams) and cases of spontaneous abortion, illegally induced abortion, other and unspecified abortion treated in general and allied hospitals in Canada.*

Sources: Statistics Canada, Vital Statistics, Birth and Stillbirth Databases; Canadian Institute for Health Information, Hospital Morbidity Database, and Therapeutic Abortion Survey

Health system

Inflow/outflow ratio

Definition: *A ratio of the number of separations from acute care hospitals within a given region divided by the number of acute care hospital discharges generated by residents of that region. An overall ratio is calculated for discharges associated with any diagnosis or procedure and separately for coronary artery bypass graft surgery (CABG), hip replacement, knee replacement, and hysterectomy procedures.*

(CABG: CCP code 48.1, ICD-9-CM procedure code 36.1, CCI code 1.IJ.76; Hip replacement: CCP code of 93.51, 93.52, 93.53, or 93.59, ICD-9-CM procedure code of 81.50, 81.51, or 81.53, CCI code of 1.VA.53.LA-PN, 1.VA.53.PN-PN; Knee replacement: CCP code of 93.40 or 93.41, ICD-9-CM procedure code of 81.54 or 81.55, CCI code of

1.VG.53; Hysterectomy: CCP code of 80.3-80.6, ICD-9-CM procedure code of 68.4-68.7, 68.9, CCI code 1.RM.89, 1.RM.91, 5.CA.89.WJ, 5.CA.89.CK, or 5.CA.89.GB)

This indicator reflects the balance between the quantity of hospital stays provided to both residents and non-residents by all acute care hospitals in a given region and the extent of acute care utilization by residents of that region, whether they receive care within or out of the region. A ratio less than one indicates that hospital stays utilized by residents of a region exceeded hospital care provided within that region, suggesting an outflow effect. A ratio greater than one indicates hospital stays provided by a region exceeded the quantity of stays utilized by its residents, suggesting an inflow effect. A ratio of one indicates that the volume of hospital discharges in the region is equivalent to that generated by its residents, suggesting that inflow and outflow activity, if it exists at all, is balanced.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

Coronary artery bypass graft (CABG)

Definition: *Age-standardized rate of coronary artery bypass graft (CABG) surgery performed on inpatients in acute care hospitals per 100,000 population age 20 and over.*

(CCP code 48.1, ICD-9-CM procedure code 36.1, CCI code 1.IJ.76)

As with other types of surgical procedures, variations in CABG surgery rates can be attributed to numerous factors, including differences in population demographics, physician practice patterns, and availability of services. In some cases, coronary angioplasty (an alternative intervention to improve blood flow to the heart muscle) may be used. Variations in the extent of the procedure may result in variations in bypass surgery.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

Hip replacement

Definition: *Age-standardized rate of total unilateral or bilateral hip replacement surgery performed on inpatients in acute care hospitals per 100,000 population.*

(CCP code 93.51, 93.52, 93.53 or 93.59, ICD-9-CM procedure code 81.50, 81.51 or 81.53, CCI code 1.VA.53.LA-PN or 1.VA.53.PN-PN)

Hip replacement surgery has the potential to result in considerable improvement in functional status, pain relief, as well as other gains in health-related quality of life. Over the past two decades, rates of surgery have increased substantially. Wide inter-regional variation in the hip replacement rate may be attributable to numerous factors including the availability of services, provider practice patterns, and patient preferences.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

Knee replacement

Definition: *Age-standardized rate of total unilateral or bilateral knee replacement surgery performed on inpatients in acute care hospitals per 100,000 population.*

(CCP code 93.40 or 93.41, ICD-9-CM procedure code 81.54 or 81.55, CCI code 1.VG.53)

Knee replacement surgery has the potential to result in considerable improvement in functional status, pain relief, as well as other gains in health-related quality of life. Over the past two decades, rates of surgery have increased substantially. Wide inter-regional variation in the knee replacement rate may be attributable to numerous factors including the availability of services, provider practice patterns, and patient preferences.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

Hysterectomy

Definition: *Age-standardized rate for hysterectomy provided to inpatients in acute care hospitals, per 100,000 women age 20 and over.*

(CCP code 80.3-80.6, ICD-9-CM procedure code 68.4-68.7, 68.9 or CCI code 1.RM.89, 1.RM.91, 5.CA.89.WJ, 5.CA.89.CK, or 5.CA.89.GB)

Utilization rates may reflect the level of uncertainty about the appropriate use of this surgical procedure. The “right” level of utilization is not known.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

Contact with alternative health care providers

Definition: *Population aged 12 and over who have consulted with alternative health care providers in the past 12 months.*

Alternative health care providers include: massage therapists, acupuncturists, homeopaths or naturopaths, Feldenkrais or Alexander teachers, relaxation therapists, biofeedback teachers, rolfers, herbalists, reflexologists, spiritual healers, religious healers, etc.

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Contact with medical doctors

Definition: *Population aged 12 and over who have consulted with a medical doctor/pediatrician in the past 12 months.*

Medical doctor includes family or general practitioners as well as specialists such as surgeons, allergists, orthopaedists, gynaecologists, or psychiatrists.

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Contact with health professionals about mental health

Definition: *Population aged 12 and over who have consulted with a health professional about their mental health in the past 12 months.*

Mental health professionals include: family doctors or general practitioners, psychiatrists, psychologists, nurses, social workers and counsellors.

Source: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file; Statistics Canada, National Population Health Survey, 1994/95 and 1996/97, cross sectional sample, North component

Contact with dental professionals

Definition: *Population aged 12 and over who have consulted with a dental professional in the past 12 months.*

Dental professionals include dentists, orthodontists or dental hygienists

Sources: Statistics Canada, Canadian Community Health Survey, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component

Resources

Health expenditure

Definition: *Health expenditure in current dollars; expenditure per capita; percent of Gross Domestic Product; public sector expenditure as a percent of total spending; expenditure by use of funds.*

Source: Canadian Institute for Health Information, National Health Expenditure Database

Doctors

Definition: *Physician counts include all active general practitioners, family practitioners and specialist physicians as of December 31 of the reference year. The data includes physicians in clinical and non-clinical practice and excludes residents and physicians who are not licensed to provide clinical practice and have requested to the Business Information Group that their data not be published. For purposes of reporting, physician specialty classification is based on postgraduate certification credentials achieved in Canada. Physicians designated as **family practitioners** include certificants of the College of Family Physicians of Canada (CCFP and CCFP-Emergency Medicine). **Specialist physicians** include certificants of the Royal College of Physicians and Surgeons of Canada and/or the Collège des médecins du Québec. All other physicians, including non-College of Family Physicians general practitioners, foreign-certified specialists and other non-certified specialists, are included in the **family practice** counts. It is recognized that physician classification in this manner does not necessarily reflect the services provided by individual physicians. The range of services provided by a physician is subject to provincial licensure rules, medical service plan payment arrangements and individual practice choices. Therefore, rates may differ from other publications.*

Physician to population ratios are used to support health human resource planning. While physician density ratios are useful indicators of changes in physician numbers relative to the population, inference from total numbers or ratios as to the adequacy of provider resources should not be made. Various factors influence whether the supply of physicians is appropriate, such as: distribution and location of physicians within a region or province; physician type (i.e., family medicine physicians vs. specialists); level of service provided (full-time vs. part-time); physician age and gender; population's access to hospitals, health care facilities, technology and other types of health care providers; population needs (demographic characteristics and health problems); and society's perceptions and expectations.

Source: Canadian Institute for Health Information, Southam Medical Database

Published by the authority of the Minister responsible for Statistics Canada

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