

GLOSSARY

ACE Inhibitors

Angiotensin converting enzyme inhibitors.

Access

In the context of this publication, the ability to receive health care services without barriers.

Acute

An effect on health that happens rapidly; in the context of acute diabetic complications, consequences of diabetes that occur over a short period of time and are fully reversible.

Acute Care Hospital

An institution that provides in-hospital medical or surgical treatment

Acute Myocardial Infarction (AMI)

Also called a heart attack. This occurs when a blood clot completely blocks one of the arteries that provide oxygen-rich blood to the heart muscle.

Adjusted Rate

A rate that controls for a particular set of characteristics within a study population that may be related to the outcome of interest (e.g. age and sex); allows for comparisons across areas or institutions with different population characteristics.

Administrative Data

Information that is primarily collected for record keeping, finances or purposes other than research.

Aggregated Data

A dataset wherein individual records are combined, usually by age and/or sex. Once data are aggregated, it is not possible to identify the results for an individual person.

Alberta Physician Claims Data

A dataset that contains information from when physicians submit claims for reimbursement for services provided. Three diagnostic codes are included in addition to other information.

Alternative Relationship Plan (ARP)

Formerly known as Alternate Payment Plans (APPs), the ARP is an agreement developed in 2003 between Alberta Health and Wellness, the Alberta Medical Association and the Regional Health Authorities. The ARP is a voluntary reimbursement plan designed to provide physicians with fair and equitable payment while promoting best practices, high standards of care and providing patient satisfaction.

Ambulatory Care

Medical care, provided in a clinic or office, where the patient is not admitted to hospital.

Ambulatory Care Classification System (ACCS)

Facility-based ambulatory care information developed in 1998. Contains data for same-day surgery, day procedures, diagnoses and emergency department visits. This database was used when reporting emergency department encounters for different conditions in this *Atlas*.

Angina

A type of chest pain that occurs when there is not enough blood flow to the heart muscle. This is usually the result of a narrowing of the arteries that supply blood to the heart.

Angiography (see Coronary Angiography)

The X-ray visualization of the internal anatomy of the heart and blood vessels after a dye is injected into the coronary arteries.

Acute Ischemic Stroke (AIS)

A sudden loss of brain function(s) due to disturbance in the blood supply to the brain caused by the formation or presence of a blood clot within a blood vessel or an embolus (an abnormal particle; e.g. air bubble).

Atherosclerosis

The build-up of fat, calcium and other substances under the inner lining of an artery. Atherosclerosis may cause the arteries to the heart to become narrower, leading to angina or a heart attack.

Beta-Blockers (or Beta-Adrenergic Receptor Blocking Agents)

A class of drugs used for the treatment of hypertension, heart attacks, angina and heart failure; reduces stress on the heart by slowing down the heart rate, thus reducing the oxygen requirement.

Bias

Systematic deviation from the truth.

Body Mass Index (BMI)

A method of assessing body weight while taking height into account; calculated by dividing weight by height squared ($\text{wt [kg]} / \text{ht [meters]}^2$). A BMI score between 20-25 is considered healthiest on average; over 27 is considered overweight; 30 is the threshold for obesity.

Burden of Illness

The short- and long-term physical, emotional, social, financial, familial and societal effects associated with a particular illness or condition; provides an estimation of the overall scope and impact of a particular disease.

Canadian Classification of Procedures (CCP)

A coding system used in many administrative databases for classifying surgical and medical procedures; developed by Statistics Canada in 1987.

Canadian Institute for Health Information (CIHI)

A federally chartered but independent, non-profit organization that collects and processes health data from a number of sources, particularly from hospitals. All Canadian hospitals are required to submit demographic and clinical information about all hospital admissions and discharges. CIHI assembles these data into a Discharge Abstract Database (DAD), which is the data source for many analyses.

Canadian Organ Replacement Registry (CORR)

A database that contains information on the use and outcomes of vital organ transplantation and renal dialysis activities in Canada.

Cataract

Opacity of the lens or capsule of the eye, causing impairment of vision or blindness.

Cellulitis

A bacterial infection of the deepest layer of the skin when bacteria enters the body through a break in the skin. Usually only the top layer of the skin is infected which resolves with proper care. But with cellulitis, the deep skin tissues become red, hot, irritated and painful.

Comorbid Conditions or Illnesses (also called Comorbidity)

A set of medical conditions present in an individual, other than the condition of primary interest.

Confidence Interval

An indication of the precision of a population value; wider intervals indicate lesser precision while narrower intervals indicate greater precision.

Coronary Angiography

The X-ray visualization of the internal anatomy of the heart and blood vessels after a dye is injected into the coronary arteries.

Coronary Artery Bypass Graft (CABG) Surgery

An open-heart surgical procedure that helps to improve blood circulation for patients with blockages of the coronary arteries of the heart.

Coronary Artery Disease (CAD) (also Ischemic Heart Disease)

Atherosclerosis involving the arteries to the heart. This

causes narrowing of the arteries leading to angina or a heart attack.

Coronary Revascularization

A procedure that aims to restore the blood flow through the arteries to the heart with either CABG or coronary angioplasty.

Cross-Sectional Analyses

Analyses that examine the presence of diseases and other variables of interest as they exist in a defined population at a single point in time.

Crude Mortality Rate

A mortality rate that is not adjusted.

Diabetes Mellitus (DM)

A disease characterized by an elevation in blood sugar that can lead to many long-term complications. DM is diagnosed by the presence of one of the following: (1) fasting plasma glucose >7 mmol/L; (2) symptoms of DM (increased thirst and/or urination, fatigue, unexplained weight loss) plus a casual (non-fasting) plasma glucose >11.1 mmol/L; or (3) plasma glucose in the 2-hour sample of an oral glucose tolerance test (OGTT) >11.1 mmol/L.

Diabetic Ketoacidosis (DKA)

An acute and potentially life-threatening complication of DM resulting in elevated blood sugar levels, dehydration, ketone production, and other metabolic abnormalities; can be the first sign of DM, or may be triggered by another illness or poor adherence with DM medications in persons with pre-existing type 1 DM, or occasionally in the setting of type 2 DM.

Diabetic Peripheral Neuropathy (DPN)

DPN is peripheral nerve damage caused by diabetes, usually causing numbness and weakness.

Diabetic Retinopathy (DR)

Retinal changes in persons with diabetes marked by hemorrhages or microaneurysms or sharply-defined waxy deposits which can impair vision or cause blindness (most patients with mild DR do not suffer loss of vision).

Dialysis (also Renal or Kidney Dialysis)

A life-saving treatment that individuals with end stage renal/kidney disease (see below) need on a regular basis in order to clean toxins out of the blood. Two forms of dialysis can be used: hemodialysis, which requires using a dialysis machine to clean the blood directly (usually every 2 to 3 days), and peritoneal dialysis which involves exchanging fluid into and out of the abdomen (usually several times per day).

Direct Standardization (also see Adjusted Rate)

A statistical method whereby the specific rates in a study population are adjusted for differences in population composition; the rate represents what the crude

rate would have been in the study population if the population had the same distribution as the standard population (with respect to the variables for which the standardization is carried out).

Discharge Abstract Database (Inpatient Hospital Data)

Administrative data from hospitals. Hospitals prepare a discharge summary containing information retrieved from patient charts (for those patients assigned to an inpatient bed). These data contain clinical information (diagnoses and procedures), which is sent by all provinces to CIHI.

End Stage Renal Disease (ESRD)

A condition in which the kidneys are functioning at a very low level. The kidneys are no longer able to remove toxins from the blood and dialysis or transplantation is required.

Epidemiology

The study of the distribution and determinants of health related states or events in specified populations, and the application of this study to prevent or treat health problems.

Epiretinal Membrane

A thin membrane that is often located over the macula that can reduce vision. It is most commonly composed of residual cortical vitreous with associated inflammatory cells.

Euglycemia

Normal concentration of glucose in the blood. Also called normoglycemia.

Fee-For-Service

The reimbursement scheme by which the Alberta Health and Wellness pays physicians for services provided. The claims that physicians submit for payment under this plan are documented in a database, and can be used to track service provision.

First Nations

A term of ethnicity used in Canada. It refers to Indigenous of North America located in what is now Canada, and their descendants, who are not Inuit or Métis.

Gestational Diabetes (GD)

Diabetes that develops during pregnancy and resolves after the baby is born.

Glaucoma

Caused by impaired absorption of the aqueous humour (gel-like liquid in the eye itself) causing increased intraocular pressure (pressure within the eye) which produces gradual vision loss with reduced nighttime vision.

Glycated (Glycosylated) Hemoglobin (A1c)

A laboratory test that reflects the average glucose level over a two to three month period.

Glycemic Control

The level of blood sugar control obtained. Recommended targets in the 2003 CDA Guidelines include a fasting blood sugar of 4.0–7.0 mmol/L, a blood sugar 1–2 hours after meals of 5.0–11.0 mmol/L, and a glycated hemoglobin (A1c) that is $\leq 7\%$ in order to reduce the risk of microvascular and macrovascular complications.

Health Promotion

Defined by the World Health Organization as a “process of enabling people to increase control over, and improve, their health”.

Health-Related Quality of Life (HRQL)

Measures various components of well-being including physical, mental, emotional, and social functioning.

Heart Failure (HF)

A condition where the heart fails to pump vigorously enough to meet the needs of the body; may cause fluid to back up into the lungs.

Hemodialysis

Treatment done when a patient's own kidneys no longer function; the patient's blood is circulated outside the body along an artificial membrane within a dialysis machine which cleans the blood of toxins and removes excess fluid.

Hemorrhagic Stroke

Stroke caused by the rupture of a blood vessel with bleeding into the tissue of the brain. For example, an intracerebral hemorrhage or a subarachnoid hemorrhage.

Hyperglycemia

Abnormally high blood sugar level.

Hyperglycemic Emergencies

Diabetic ketoacidosis or hyperosmolar nonketotic coma.

Hyperlipidemia

A general term for high concentrations of lipids or fat substances (e.g., cholesterol) in the blood.

Hyperosmolar Nonketotic Coma (HNKS)

An acute and potentially life-threatening complication of DM resulting in severely elevated blood sugar levels, dehydration, and other metabolic abnormalities; can be the first sign of DM, or may be triggered by another illness or poor adherence with DM medications in persons with pre-existing type 2 DM.

Hypertension

Elevated blood pressure.

Hypoglycemia

Low blood sugar levels; patients who use insulin or antihyperglycemic medications are at an increased risk for developing hypoglycemia, as a side-effect of the medications.

Impaired Fasting Glucose (IFG)

A condition in which fasting blood glucose levels are above normal (between 6.1 and 6.9 mmol/L according to the 2003 CDA guidelines), but not yet within the diabetic range (>7.0 mmol/L).

Impaired Glucose Tolerance (IGT)

A condition in which blood glucose levels two hours after an oral glucose tolerance test are above normal (between 7.8 and 11.0 mmol/L), but not yet within the diabetic range (≥ 11.1 mmol/L). Up to five percent of people with IGT develop diabetes each year.

Incidence

A rate that describes the frequency of new cases of a given condition over a specific time period (usually one year).

Incident Cases

New cases of a given condition, in a specified population.

International Classification of Diseases (ICD)

Derived from ICD-9-CM and ICD-10-CA, a set of internationally accepted codes for classification of medical diagnoses, conditions and procedures; medical records staff use these codes when transcribing from medical charts to the hospital database that is submitted to CIHI.

Intracerebral Hemorrhage (ICH)

A stroke caused when a defective artery in the brain bursts, flooding the surrounding tissue with blood.

Intravitreal Triamcinolone Injection

A steroid that is injected into the vitreous cavity to reduce macular edema. It is associated with a high risk of increased intraocular pressure post injection

Ischemic Heart Disease (IHD) (see Coronary Artery Disease)

Atherosclerosis involving the arteries to the heart. This causes narrowing of the arteries leading to angina or a heart attack.

Length of Stay (LOS)

The number of days spent in hospital for a particular procedure or illness.

Lipid-Lowering Medications

Classes of drugs used to treat hyperlipidemia, including HMG CoA reductase inhibitors (also known as statins), binding resins and fibrates.

Lower Limb Amputation

Surgical amputation of the leg, foot or toe.

Macrovascular Disease

Damage to large blood vessels associated with diabetes. Macrovascular disease includes coronary heart disease (CHD), stroke and peripheral vascular disease (PVD).

Macular Hole

Full thickness hole in the retina most commonly found in women older than 60 years of age. It is treated with vitrectomy, membrane peeling and gas injection.

Major Amputations

Amputation performed between the ankle and the thigh.

Mean

The sum of the values in a sample divided by the number of values; also known as the average.

Median

The middle observation or the one that divides a distribution into two equal halves; also known as the 50th percentile.

Microvascular Disease

Damage to small blood vessels associated with diabetes. Microvascular disease affects the kidneys, peripheral nerves and eyes in people with diabetes.

Minor Amputations

Amputations at the level of the foot or below.

Morbidity

an overall term to describe non-fatal consequences of an illness; often refers to the extent of hospitalization, symptom burden or disability within a population.

Mortality Rate

The number of deaths in a given population divided by the number of people alive within that population; may be adjusted for age, sex or other sets of risk factors.

Most Responsible Diagnosis

For a given hospitalization, the condition that accounts for the majority of the days spent in hospital; used for administrative purposes.

National Diabetes Surveillance System (NDSS)

An initiative involving provinces, territories and Aboriginal groups in diabetes surveillance by using administrative data to conduct analyses using common definitions; allows the data to be meaningfully aggregated to provide a national profile of diabetes.

Neovascular Glaucoma

A secondary mixed-mechanism glaucoma due to the growth of neovascular tissue across the trabecular meshwork. This results in elevated intraocular pressure, which, if untreated, will lead to characteristic glaucomatous optic neuropathy with associated visual field defects.

Nephropathy

Any disease of the kidney.

Normotension

normal blood pressure.

Outcome

The factor that is being studied such as death or hospitalization.

Outpatient Care

Health care delivered to patients outside the context of hospital admission; in outpatient clinics, walk-in clinics and ambulatory clinics.

Percutaneous Coronary Intervention (PCI) (also called Coronary Angioplasty or Angioplasty)

A catheter-based procedure in which a thin tube (catheter) is inserted through an artery in the arm or groin and threaded up through the artery to the heart. Diagnostic and treatment procedures can be performed through the catheter using special instruments to restore normal blood flow.

Peripheral Arterial Disease (PAD)

Narrowing of the arteries in the feet, legs, abdomen, pelvis, arms, or neck. PAD can result in a broad spectrum of functional impairment, from a decrease in pain-free walking distance to amputation. In this *Atlas*, we report on PAD affecting the lower extremities.

Peritoneal Dialysis

A type of treatment used when a person's kidneys fail; the removal of fluid and toxins by exchanging fluid into and out of the abdomen, using the body's own peritoneal membrane.

Pharmacotherapy

The treatment of disease using drugs.

Pre-Diabetes

Impaired fasting glucose (IFG) or impaired glucose tolerance (IGT) are commonly referred to as pre-diabetes.

Prevalence

The proportion of people in a population who have a particular condition at a given point or period in time.

Prevalent Cases

All persons with the condition of interest at a point in time (contrasts with incident cases which includes only those newly-diagnosed).

Primary Care

Health care that is delivered by family or general "front line" practitioners.

Proliferative Retinopathy

A severe form of diabetic retinopathy characterized by the growth of abnormal new blood vessels on the retina, extending into the vitreous humour; may lead to loss of vision.

Rate Ratio

The ratio of two rates. In epidemiologic terms, it is the comparison of the rate in the population with the disease of interest to the rate in the population without the disease of interest.

Resource Intensity Weight (RIW)

This value indicates the expected relationships of costs between patient types. RIW is a value of each case compared to the average case, which has been assigned a value of 1.

Retinal (Eye) Examinations

Microvascular disease in DM can be directly visualized at the back of the eye on clinical examination; screening for diabetic retinopathy should involve a dilated examination of the retina by an experienced health professional. In this *Atlas*, we report on eye examinations by ophthalmologists.

Retinal Laser Treatment (Retinal Photocoagulation)

Performed using laser technology; early treatment with this technique decreases the risk of severe vision loss from proliferative diabetic retinopathy and macular edema; the effectiveness of treatment is best before vision loss occurs and falls sharply if applied later.

Retinopathy

Non-inflammatory degenerative disease of the retina.

Revascularization

A procedure that aims to restore the blood flow through the arteries by making the diameter of the arteries larger or by bypassing the affected area.

Rhegmatogenous Retinal Detachment

A detachment of the retina due to a tear or hole. This is often treated with vitrectomy, laser and gas injection.

Risk Factor

A characteristic that is more prevalent among the people who have a particular disease or outcome than those who do not.

Screening

An initial examination in which identification of unrecognized disease(s) or conditions are attempted by using tests, procedures or examinations (for example, taking blood pressure to determine if an individual has hypertension).

Sensitivity

The probability that a diagnostic test is positive in patients who have the disease/condition; a measure of a test's capacity to detect all cases.

Skin and Soft Tissue Infections

Includes foot ulcers and other localized infections.

Socioeconomic Status

A label that describes a combination of social and economic factors, such as education and income.

Specific Rate

Rate of an event in a specific sub-population (e.g., sex-specific AMI rates will provide rates of AMI in men and women separately).

Specificity

The probability that a diagnostic test is negative in patients who do not have the disease/condition; a test with low false-positive rate is specific.

Statins

Synthetically-derived cholesterol-lowering agents

Status Aboriginal

Aboriginals are the descendants of the original inhabitants of North America. The Canadian Constitution recognizes three groups of Aboriginal people – Indians, Métis and Inuit. A Status Aboriginal or a Status Indian is a person who is registered as an Indian under the Indian Act.

For the purposes of this *Atlas*, any individual in Alberta with a Status Aboriginal identifier (First Nations or Inuit) was classified as “Status Aboriginal” with all other individuals classified as the “general population.”

Stroke

The sudden development of focal neurological deficits usually related to impaired cerebral blood flow; also called a cerebrovascular accident (CVA). Strokes can be either hemorrhagic (caused by bleeding into the brain) or ischemic (caused by blockages in the blood vessels to the brain).

Subarachnoid Hemorrhage (SAH)

A sudden bleeding into the subarachnoid space (space within the spinal column that contains the spinal fluid).

Transient Ischemic Attack (TIA)

A brief episode of cerebral ischemia (deficient supply of blood to the brain) that is usually characterized by temporary blurring of vision, slurring of speech, numbness, paralysis, or syncope and that is often predictive of a serious stroke.

Ulcer/Ulceration

A break in the skin or a deep sore. Ulcers can become infected and lead to serious problems such as gangrene and amputation.

Unstable Angina (UA)

A change in the usual pattern of angina. Blood flow to the heart has become more inadequate, either because the main artery to the heart has become narrower, or because the demand for oxygen to the heart has increased, leading to more severe or frequent symptoms.

Vital Statistics

A registry of Canadian births and deaths that is compiled by the Registrar General of Canada.

Vitrectomy

Surgical procedure that uses an instrument that cuts and removes the vitreous liquid of the eye and replaces the liquid with saline or another fluid. Typically used in the setting of vitreous hemorrhage.

References

1. Last JM. A dictionary of epidemiology. 2nd ed. Toronto: Oxford University Press; 1988.
2. Wyngaarden JB, Smith LH, editors. Cecil textbook of medicine. 18th ed. Toronto: WB Saunders; 1988.
3. Tang TA, Secic M. How to report statistics in medicine. Annotated guidelines for authors, editors, and reviewers. Philadelphia: American College of Physicians; 1997.
4. Dawson-Saunders B, Trapp RG. Basic and clinical biostatistics. Norwalk (CT): Appleton and Lang; 1990.
5. Hennekens CH, Buring JE. Epidemiology and medicine. Mayrent SL, editor. Boston: Little, Brown and Company; 1987.
6. Institute for Clinical Evaluative Sciences. Diabetes in Ontario: an ICES practice atlas. Ontario: Institute for Clinical Evaluative Sciences; 2003.
7. Indian and Northern Affairs Canada, Aboriginal Peoples and Communities: Terminology. 2009 [cited 2009 Aug 10]. Available from: <http://www.ainc-inac.gc.ca/login.ezproxy.library.ualberta.ca/ap/tln-eng.asp>.
8. MedlinePlus: medical dictionary. 2009 [cited 2009 Aug 10]. Available from: <http://www.nlm.nih.gov/login.ezproxy.library.ualberta.ca/medlineplus/mplusdictionary.html>.
9. Connolly A, Feldmann E, Hanley Dea. American Stroke Association: updated guidelines advise new treatments for brain hemorrhage. 2009 [cited 2009 Aug 10]. Available from: <http://www.strokeassociation.org/presenter.jhtml?identifier=3047356>.
10. Canadian Institute for Health Information. DAD resource intensity weight and expected length of stay 2008. 2009 [cited 2009 Aug 11]. Available from: http://secure.cihi.ca/login.ezproxy.library.ualberta.ca/cihiweb/disPage.jsp?cw_page=bl_dad_11aug2008_e.
11. Government of Alberta: Health and Wellness. Health professional resources Alberta Health and Wellness: resources for health professionals. 2009 [cited 2009 Aug 11]. Available from: <http://www.health.alberta.ca/login.ezproxy.library.ualberta.ca/professionals/alternate-relationship-plans.html>.
12. Canadian Diabetes Association. Diabetes dictionary. 2005-2009 [cited 2009 Aug 11]. Available from: <http://www.diabetes.ca/about-diabetes/what/dictionary>.
13. Medline. Cellulitis: MedlinePlus. 2009 [cited 2009 Aug 11]. Available from: <http://www.nlm.nih.gov/login.ezproxy.library.ualberta.ca/medlineplus/cellulitis.html>.

ABBREVIATIONS

ACS	Acute Coronary Syndrome	GP	General Practitioner
ADSS	Alberta Diabetes Surveillance System	HF	Heart Failure
AHW	Alberta Health and Wellness	HT	Hypertension
AHS	Alberta Health Services	ICD	International Classification of Diseases
AIS	Acute Ischemic Stroke	ICD-10-CA	International Classification of Diseases-10- Canadian Enhancement
AMI	Acute Myocardial Infarction	ICES	Institute for Clinical Evaluative Sciences
APP	Alternate Payment Plans	ICH	Intracerebral Hemorrhage
ARP	Alternate Relationship Plans	IOP	Intra-ocular Pressure
ASA	Aspirin or acetylsalicylic acid	NDSS	National Diabetes Surveillance System
CABG	Coronary Artery Bypass Graft	PAD	Peripheral Arterial Disease
CIHI	Canadian Institute for Health Information	PCI	Percutaneous Coronary Intervention
CPWC	Cost per Weighted Case	RIW	Resource Intensity Weight
CVD	Cardiovascular Disease	SA	Status Aboriginal
DAD	Discharge Abstract Database	SAH	Sub-arachnoid Hemorrhage
DM	Diabetes Mellitus	SES	Socioeconomic Status
DPN	Diabetic Peripheral Neuropathy	TIA	Transient Ischemic Attack
DR	Diabetic Retinopathy		
ED	Emergency Department		
ESRD	End Stage Renal Disease		
FFS	Fee for Service		

