Avoidable Deaths From Preventable Causes

Name	Avoidable Deaths From Preventable Causes
Short/Other Names	Avoidable Mortality From Preventable Causes
Description	Premature deaths that could potentially have been prevented through primary prevention efforts
	Mortality from preventable causes is a subset of potentially avoidable mortality.
	For further details, please see the General Methodology Notes.
Interpretation	Lower rates are desirable.
	Mortality from preventable causes focuses on premature deaths from conditions that could potentially be avoided through primary prevention efforts, such as lifestyle modifications or population-level interventions (for example, vaccinations and injury prevention). The indicator informs efforts aimed at reducing the number of initial cases, or incidence reduction, as deaths are prevented by avoiding new cases altogether.
HSP Framework Dimension	Health System Outcomes: Improve health status of Canadians
Areas of Need	Not applicable
Geographic Coverage	All provinces/territories
Reporting Level/Disaggregation	National, Province/Territory, Region
Indicator Results	Accessing Indicator Results on Your Health System: In Depth

Identifying Information

Name	Avoidable Deaths From Preventable Causes
Short/Other Names	Avoidable Mortality From Preventable Causes

Indicator Description and Calculation

	Premature deaths that could potentially have been prevented through primary prevention efforts
Description	Mortality from preventable causes is a subset of potentially avoidable mortality.
	For further details, please see the General Methodology Notes.
	Mortality rate:
Calculation: Description	(Number of deaths at age younger than 75 from preventable causes ÷ Total mid-year population younger than age 75) × 100,000 (age-adjusted)
	Potential years of life lost (PYLL):
	(The sum of differences between 75 and age of death from preventable causes ÷ Total mid-year population younger than age 75) × 100,000 (age-adjusted)
Calculation: Geographic Assignment	Place of residence
Calculation: Type of Measurement	Rate - per 100,000; also expressed as PYLL per 100,000 population
Calculation: Adjustment Applied	Age-adjusted
Calculation: Method of Adjustment	Direct Standardization **Standard Population:** Canada 2011
Denominator	**Description:** Total mid-year population younger than age 75
Numerator	**Description:** Mortality rate: Number of deaths at age younger than 75 from preventable causes Potential years of life lost (PYLL): The sum of differences between 75 and age of death from preventable causes **Inclusions:** For the list of preventable causes, refer to the List of conditions for Potentially Avoidable Mortality and Mortality From Preventable and Treatable Causes Indicators document.

Background, Interpretation and Benchmarks

Avoidable mortality indicators provide additional insight into the Canadian health system. These measures can be used to assess the impact of prevention strategies and the outcomes of health policy decisions and health care provision.

Rationale	Avoidable mortality indicators can serve to inform where Canada's health system has made gains and to point to where more work is needed. They can also help to quantify potential gains. For example, in an ideal world where all avoidable mortality in Canada has been eliminated, life expectancy at birth for the years 2006 to 2008 would have been 85.8 years—4.9 years longer than the actual life expectancy of 80.9 years. Three of the 4.9 years would be attributed to eliminating preventable mortality; the other 1.9 years would come from eliminating mortality from treatable causes. Analysis of avoidable mortality highlights the need for prevention. Lower rates are desirable.
Interpretation	Mortality from preventable causes focuses on premature deaths from conditions that could potentially be avoided through primary prevention efforts, such as lifestyle modifications or population-level interventions (for example, vaccinations and injury prevention). The indicator informs efforts aimed at reducing the number of initial cases, or incidence reduction, as deaths are prevented by avoiding new cases altogether.
HSP Framework Dimension	Health System Outcomes: Improve health status of Canadians
Areas of Need	Not applicable
Targets/Benchmarks	Not applicable
References	Australian Government. National Healthcare Agreement: PI 20-Potentially Avoidable Deaths, 2010. http://meteor.aihw.gov.au/content/index.phtml/itemId/394495. Published June 8, 2011. Accessed on October 19, 2011. Ministry of Health. Saving Lives: Amenable Mortality in New Zealand, 1996-2006. Wellington, New Zealand: Ministry of Health; 2010. Nolte E, McKee CM. Does Health Care Save Lives? Avoidable Mortality Revisited. London, UK: The Nuffield Trust; 2004. Office for National Statistics (United Kingdom). Definitions of Avoidable Mortality. http://www.ons.gov.uk/ons/dcp171778_264958.pdf. Published May 15, 2012. Accessed on October 19, 2011. Page A, Tobias M, Wright C, et al. Australian and New Zealand Atlas of Avoidable Mortality. Adelaide, Australia: PHIDU, University of Adelaide; 2006. Rutstein DD, Berenberg W, Chalmers TC, et al. Measuring the Quality of Medical Care: A Clinical Method. *N Engl J Med* 1976(294): 582-588.

Availability of Data Sources and Results

Data Sources	Demography division, Statistics Canada, Vital Statistics - Death Database, Statistics Canada
Available Data Years	**Type of Year:** Calendar **First Available Year:** 2007 **Last Available Year:** 2012
Geographic Coverage	All provinces/territories
Reporting Level/Disaggregation	National, Province/Territory, Region

Result Updates

Update Frequency	Every year
Indicator Results	**Web Tool:** Your Health System: In Depth **URL:** Accessing Indicator Results on Your Health System: In Depth
Updates	Not applicable

Quality Statement

Caveats and Limitations	It is generally acknowledged that not all deaths from potentially avoidable causes can actually be avoided. For example, some deaths from treatable causes may be unavoidable due to late diagnosis or concurrent health problems, while some deaths from preventable causes could be due to unpredictable events against which no protective measures could have been taken. An upper age limit of 75 should not imply that some deaths in the population older than 75 could not be avoided. However, multiple comorbidities are common among older adults, making the assignment of a single cause of death challenging. The indicators will be reviewed periodically to assess the upper age limit and potential new avoidable conditions due to better understanding of disease etiology or advances in treatment.
Trending Issues	Not applicable The indicator is calculated based on three years of pooled data. The reference year reflects the mid-point of a three-year period. Avoidable mortality indicators were developed based on the Australian Potentially Avoidable Deaths indicator and the U.K. Office for National Statistics' list of causes of avoidable mortality, followed by expert review of the diagnosis codes and rationales for including each condition.

Comments Causes of death were assigned to preventable and treatable subcategories based on two main mechanisms of mortality reduction: incidence and case-fatality reduction. These subcategories are mutually exclusive. In cases where a prevention/treatment overlap exists, the case was assigned to the preventable category; the exceptions were ischemic heart disease and stroke, where a random half of cases were assigned as preventable and the other half assigned as treatable. However, the mutually exclusive nature of the subcategories does not imply that all cases assigned to the preventable group do not have a treatable component, and vice versa.

More information about the indicator can be found in the In Focus section of *Health Indicators 2012*, available on CIHI's website (https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC1791).

Indicator results are also available on

- Statistics Canada website (http://www.statcan.gc.ca/pub/82-221-x/2013001/pyll-eng.htm).