

# How many years of life are potentially lost due to cancer?

Potential years of life lost (PYLL) is an estimate of the average number of years of life lost due to premature death. It provides an alternative measure to death rates by taking into account average life expectancy and giving more weight to deaths that occur among younger people.

In 2009, cancer was the leading cause of premature death for both men and women in Canada, representing 33% of the PYLL due to disease as compared to 11 other causes of premature death (Figure W1).

Table W1 illustrates that, in 2009, Canadians lost 1,110,400 potential years as a result of cancer. Lung cancer was responsible for 300,900 PYLL, representing 27% of the premature death caused by cancer. For men in 2009, the three leading causes of cancer death were from lung, colorectal and prostate cancers, which accounted for 47% of the PYLL due to cancer in men. The three leading causes of cancer deaths for women were from lung, breast and colorectal cancers, which accounted for 53% of PYLL due to cancer in women. The ranking of these cancers for men and women with respect to PYLL has been the same for several years.

For women, however, the PYLL due to lung cancer, which is greater than for breast cancer, reflects the high rate of lung cancer mortality among women aged 50 to 79. Among men, the PYLL due to lung cancer is more than four times higher than for prostate cancer, signaling the higher mortality rate for lung cancer and the younger age at which men develop and die from this disease.

Generally, PYLL is higher for cancers that are more common, have an earlier age of onset, and more

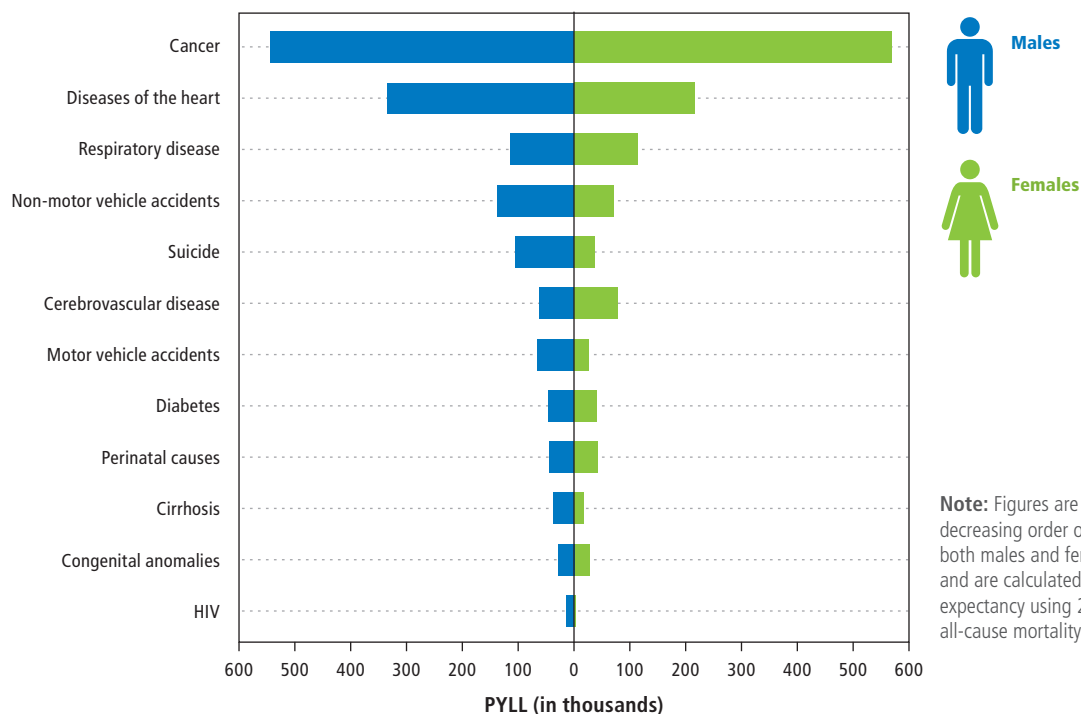
quickly lead to death. With regard to the most common cancers in women and men, the PYLL from female breast cancer (94,700) far exceeds the PYLL from prostate cancer (35,600), reflecting the relatively younger age at which women die from breast cancer.

Although the number of men who die from cancer each year exceeds that of women, the PYLL due to

cancer for women (569,000) is slightly higher than that for men (541,400). This is because women generally live longer than men, and some of the deaths due to female cancers occur at younger ages.

See Figure A in [Canadian Cancer Statistics 2013](#) for the proportion of deaths due to cancer and other causes in Canada in 2009.

**FIGURE W1** Selected causes of death and their associated potential years of life lost (PYLL), Canada, 2009



**Note:** Figures are displayed in decreasing order of total PYLL for both males and females combined and are calculated based on life expectancy using 2006–2008 all-cause mortality rates.

**Analysis by:** Chronic Disease Surveillance and Monitoring Division, CCDP, Public Health Agency of Canada  
**Data source:** Canadian Vital Statistics Death database at Statistics Canada

## How many years of life are potentially lost due to cancer?

**TABLE W1** Potential years of life lost due to cancer, Canada, 2009

	Total		Males		Females	
	Years of life lost	% of all cancers	Years of life lost	% of all cancers	Years of life lost	% of all cancers
<b>All causes of death (incl. cancer)</b>	3,395,200	—	1,815,400	—	1,579,800	—
<b>All cancers</b>	1,110,400	100	541,400	100	569,000	100
Lung	300,900	27.1	152,200	28.1	148,700	26.1
Colorectal	121,900	11.0	65,100	12.0	56,800	10.0
Breast	95,400	8.6	720	0.1	94,700	16.6
Pancreas	60,700	5.5	30,500	5.6	30,300	5.3
Brain	42,300	3.8	24,300	4.5	17,900	3.2
Leukemia	39,700	3.6	21,900	4.1	17,800	3.1
Non-Hodgkin lymphoma	39,200	3.5	21,300	3.9	17,900	3.2
Prostate	35,600	3.2	35,600	6.6	—	—
Ovary	29,600	2.7	—	—	29,600	5.2
Stomach	29,500	2.7	18,000	3.3	11,500	2.0
Esophagus	27,100	2.4	20,500	3.8	6,500	1.1
Kidney	24,700	2.2	15,200	2.8	9,600	1.7
Bladder	22,200	2.0	15,100	2.8	7,200	1.3
Melanoma	19,700	1.8	11,800	2.2	8,000	1.4
Multiple myeloma	18,300	1.6	9,500	1.8	8,800	1.5
Oral	18,200	1.6	12,400	2.3	5,800	1.0
Body of uterus	14,900	1.3	—	—	14,900	2.6
Liver	14,700	1.3	11,200	2.1	3,500	0.6
Cervix	9,500	0.9	—	—	9,500	1.7
Larynx	6,500	0.6	5,300	1.0	1,200	0.2
Hodgkin lymphoma	3,200	0.3	1,750	0.3	1,450	0.3
Thyroid	2,600	0.2	1,250	0.2	1,350	0.2
Testis	910	0.1	910	0.2	—	—

— Not applicable.

**Note:** Values are ranked in order of total PYLL for both sexes combined and are calculated based on life expectancy using 2006–2008 all-cause mortality rates. Years of life lost and percentages for specific cancers will not add to the “All cancers” total due to the absence from this table of other cancer types.

**Analysis by:** Chronic Disease Surveillance and Monitoring Division, CCDP, Public Health Agency of Canada

**Data source:** Canadian Vital Statistics Death database at Statistics Canada