

Cancer incidence in Canada, 2017

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Thousands of Canadians are diagnosed with cancer every year. One way to monitor how cancer affects Canadians is to measure cancer incidence in Canada—that is, the number of new cancer cases diagnosed over a certain time period, usually one year. This measurement helps Canadians understand the risk of being diagnosed with cancer, and can be broken down by sex, age and other factors.

In 2017, over 149,000 new cancer cases were diagnosed among people living in Canada, excluding Quebec. This means that there were 529 new cases of cancer diagnosis per 100,000 people in 2017, compared with about 542 new cases per 100,000 people in 2016. In keeping with previous years, the most common types of cancer diagnosed, among all new cancer cases, continued to be breast (12.9%), lung and bronchus (12.2%), prostate (11.8%), colorectal (10.6%) and bladder (5.1%). Together, these five cancer types accounted for over half of all the new cancer diagnoses.

Rates can be adjusted to account for changes in the age structure of the population over time when examining trends in cancer incidence. From 2012 to 2017, the overall cancer incidence rate decreased by 1.2% every year, after accounting for the changing age structure.

In fact, the incidence rates of three of the five most commonly diagnosed cancers decreased in the years leading up to 2017. From 2014 to 2017, the lung and bronchus cancer incidence rate underwent an annual decrease of 4.1%. Similarly, the colorectal cancer incidence rate declined 6.8% annually from 2015 to 2017. The prostate cancer incidence rate also decreased, down an average of 4.3% every year from 2008 to 2017. However, no significant changes were observed for either breast or bladder cancer during this same time period.

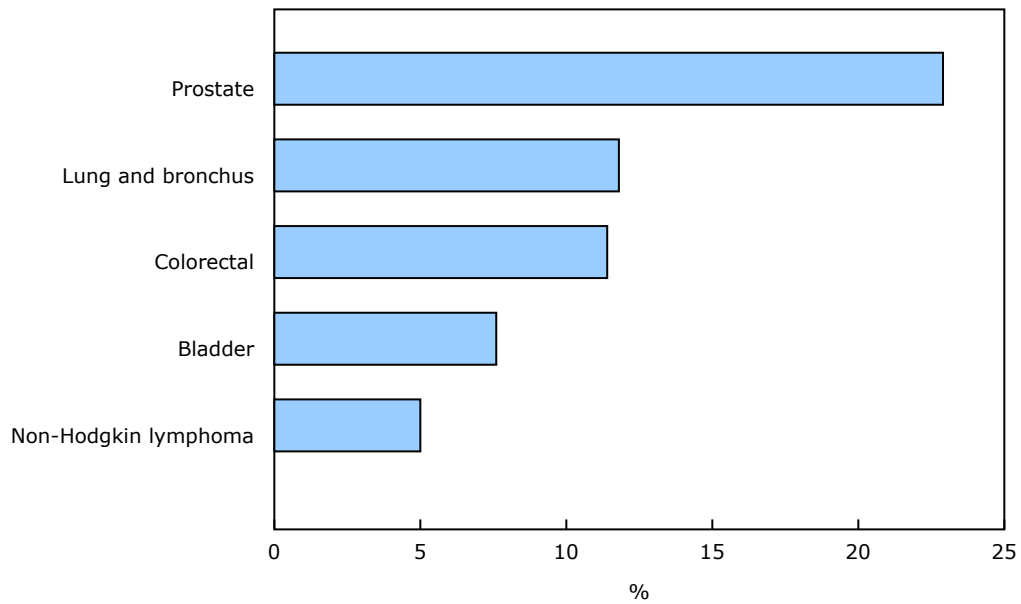
Most common cancers by sex

In general, males are diagnosed with cancer more often than females. In 2017, 77,070 new cases of cancer were diagnosed among males and 72,365 were diagnosed among females. Among both males and females, the five most frequently diagnosed cancers accounted for roughly three in five new cancer cases in 2017.

Among males, the five most commonly diagnosed cancers were prostate (22.9% of all new cases), lung and bronchus (11.8%), colorectal (11.4%), bladder (7.6%), and non-Hodgkin lymphoma (5.0%).



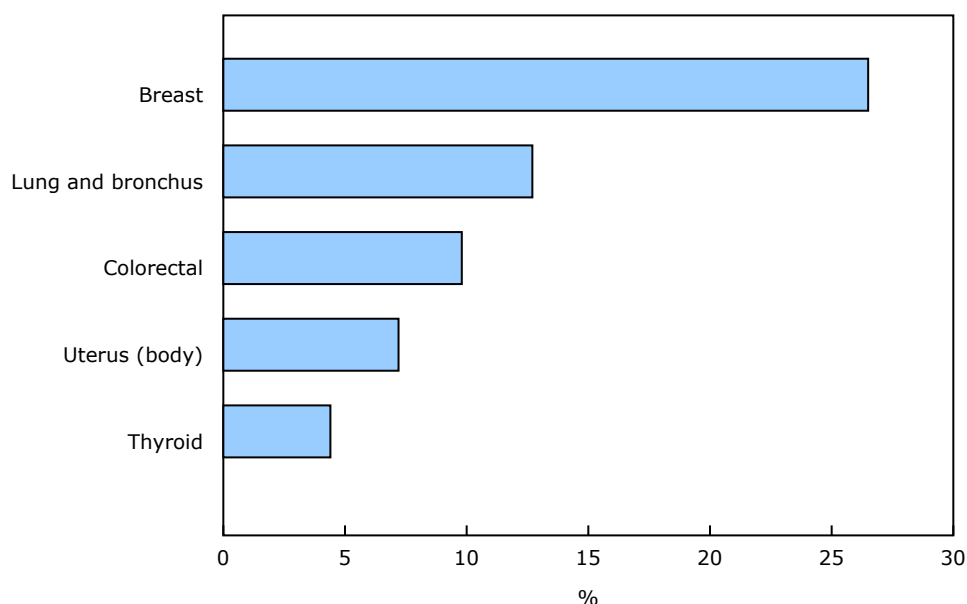
Chart 1
Five most commonly diagnosed cancers among males, Canada (excluding Quebec), 2017



Source(s): Canadian Cancer Registry (3207).

Among females, breast cancer was by far the most frequent diagnosis, accounting for 26.5% of all new cases, followed by lung and bronchus (12.7%), colorectal (9.8%), uterine (7.2%), and thyroid (4.4%).

Chart 2
Five most commonly diagnosed cancers among females, Canada (excluding Quebec), 2017



Source(s): Canadian Cancer Registry (3207).

Certain cancers are more commonly diagnosed among one sex. Over three-quarters of new cases of bladder (77.0%), liver (76.2%) and esophageal (75.8%) cancer were diagnosed in males, as well as a significantly higher proportion of kidney and renal pelvis (65.5%) and stomach (65.0%) cancer cases. Conversely, nearly three in four new cases of thyroid cancer were diagnosed in females (73.3%).

Other cancers had similar counts for both sexes, such as lung and bronchus (49.7% for males and 50.3% for females) and pancreatic cancer (52.6% for males and 47.4% for females).

Cancer by age

Cancer can occur at any age, but it tends to be diagnosed more often in the older segment of the population.

Among all new cancer cases reported in 2017, 58.6% were diagnosed in people aged 65 and older, 36.5% were diagnosed among people aged 40 to 64, and 4.9% were diagnosed in those younger than 40.

The age at which cancer is typically diagnosed varies by cancer type. In 2017, prostate cancer was the most commonly diagnosed cancer in males aged 40 to 64 (22.8%) and 65 and older (24.3%). However, nearly one in five cancer cases diagnosed among males younger than 40 was a case of testicular cancer (19.4%).

For females, the most commonly diagnosed cancer across all age groups was breast cancer. It accounted for approximately one in three cancer cases among females aged 40 to 64 (33.4%) and one in five cancer cases among those younger than 40 (20.5%) and 65 and older (22.1%). The second most frequent diagnosis among females was thyroid cancer (18.7%) for those under 40, uterine cancer (9.3%) for those aged 40 to 64, and lung and bronchus cancer (16.8%) for those aged 65 and older.

Table 1
Rank, number of new cancer cases and percentage of all cases, top five cancers¹ by age group and sex, Canada (excluding Quebec), 2017

	rank	number	% of all cancer cases
Aged 0 to 39			
Both sexes			
All cancers	...	7,270	100.0
Thyroid	1	1,040	14.3
Breast	2	910	12.5
Testis	3	565	7.8
Colorectal	4	475	6.5
Melanomas of the skin	5	490	6.7
Males			
All cancers	...	2,905	100.0
Testis	1	565	19.4
Non-Hodgkin lymphoma	2	245	8.4
Thyroid	3	235	8.1
Colorectal	4	235	8.1
Hodgkin lymphoma	5	230	7.9
Females			
All cancers	...	4,365	100.0
Breast	1	895	20.5
Thyroid	2	815	18.7
Melanomas of the skin	3	325	7.4
Uterus (cervix)	4	320	7.3
Colorectal	5	260	6.0
Aged 40 to 64			
Both sexes			
All cancers	...	54,525	100.0
Breast	1	9,630	17.7
Prostate	2	5,895	10.8
Colorectal	3	5,310	9.7
Lung and bronchus	4	4,795	8.8
Melanomas of the skin	5	2,650	4.9
Males			
All cancers	...	25,835	100.0
Prostate	1	5,895	22.8
Colorectal	2	3,100	12.0
Lung and bronchus	3	2,275	8.8
Kidney and renal pelvis	4	1,410	5.5
Bladder ²	5	1,400	5.4
Females			
All cancers	...	28,690	100.0
Breast	1	9,590	33.4
Uterus (body)	2	2,655	9.3
Lung and bronchus	3	2,515	8.8
Colorectal	4	2,200	7.7
Thyroid	5	1,730	6.0
Aged 65 and older			
Both sexes			
All cancers	...	87,625	100.0
Lung and bronchus	1	13,325	15.2
Prostate	2	11,750	13.4
Colorectal	3	10,075	11.5
Breast	4	8,795	10.0
Bladder ²	5	5,675	6.5

Table 1 - continued

Rank, number of new cancer cases and percentage of all cases, top five cancers¹ by age group and sex, Canada (excluding Quebec), 2017

	rank	number	% of all cancer cases
Males			
All cancers	...	48,330	100.0
Prostate	1	11,750	24.3
Lung and bronchus	2	6,725	13.9
Colorectal	3	5,475	11.3
Bladder ²	4	4,420	9.1
Non-Hodgkin lymphoma	5	2,255	4.7
Females			
All cancers	...	39,295	100.0
Breast	1	8,690	22.1
Lung and bronchus	2	6,620	16.8
Colorectal	3	4,615	11.7
Uterus (body)	4	2,430	6.2
Non-Hodgkin lymphoma	5	1,905	4.8
All Ages			
Both sexes			
All cancers	...	149,435	100.0
Breast	1	19,330	12.9
Lung and bronchus	2	18,220	12.2
Prostate	3	17,650	11.8
Colorectal	4	15,870	10.6
Bladder ²	5	7,600	5.1
Males			
All cancers	...	77,070	100.0
Prostate	1	17,650	22.9
Lung and bronchus	2	9,050	11.7
Colorectal	3	8,805	11.4
Bladder ²	4	5,855	7.6
Non-Hodgkin lymphoma	5	3,875	5.0
Females			
All cancers	...	72,365	100.0
Breast	1	19,175	26.5
Lung and bronchus	2	9,165	12.7
Colorectal	3	7,065	9.8
Uterus (body)	4	5,180	7.2
Non-Hodgkin lymphoma	5	3,115	4.3

... not applicable

1. Excludes the "other, ill-defined and unknown sites" category.

2. Includes *in situ* cases.

Note(s): Cancer case counts in this table have been randomly rounded to a lower or higher multiple of 5 to prevent inappropriate data disclosure. Consequently, rows and columns may not add up as expected.

Source(s): Canadian Cancer Registry (3207).

Note to readers

The Canadian Cancer Registry (CCR) is a population-based registry that includes data collected and reported to Statistics Canada by each Provincial/Territorial Cancer Registry. The goal of the person-based CCR is to collect information about each new primary cancer diagnosed among Canadian residents since 1992.

Cancer incidence refers to the number of new cases of cancer in a population over a given period, usually one year. A new cancer case can be defined either as a patient diagnosed with cancer (person-based incidence) or as a tumour diagnosed within one patient (tumour-based incidence). Since more than one primary tumour can be diagnosed within one person, tumour-based incidence is either equal to or greater than person-based incidence. The estimates presented in tables 13-10-0111-01 and 13-10-0747-01 are tumour-based.

The cancer incidence rate is typically expressed as the number of new cancer cases per 100,000 people.

When trends in cancer incidence are examined, rates can be adjusted to account for changes in the age structure of the population over time. These adjusted rates, called age-standardized incidence rates, indicate whether the risk of being diagnosed with cancer has increased, decreased or remained stable between two time points. The incidence rates were age-standardized using the 2011 Canadian standard population.

Cancer incidence data for Quebec are not available for diagnosis years 2011 and onward. For tables 13-10-0111-01 and 13-10-0747-01, cancer incidence estimates for Canada excluding Quebec were produced for all diagnosis years.

Because the CCR is updated annually with new records and changes to previous records, the incidence for any given diagnosis year may change from one release to the next. In particular, delays in the reporting of new cases to Statistics Canada typically result in undercounts of cases that are more pronounced in the most recently reported diagnosis year. Generally, the reporting delay ranges between 2% and 3%, nationally. In addition, "death certificate only" cases were not reported by Ontario in 2017 or Manitoba since 2013. This would amount to approximately 1,000 more cases for 2017 that are not reflected here, but that will eventually be reported to the CCR. These cases were imputed for the trend analysis presented in the fourth paragraph above. The annual percent change estimates were obtained using the Joinpoint Regression Program of the National Cancer Institute.

The category "all cancers combined" refers to all invasive cancers, excluding non-melanoma skin cancer, but including in situ bladder cancer.

Available tables: [13-10-0111-01](#) and [13-10-0747-01](#).

Definitions, data sources and methods: survey number [3207](#).

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca) or Media Relations (613-951-4636; STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca).