Northern Queensland Cancer statistics

Cancer Council Queensland

Cancer in Northern Queensland

The CCQ region of North Queensland covers nearly one fifth of Queensland (17% or 294,000 km², stretching from Townsville in the east to the Northern Territory border in the west. In 2017 it had a population of 273,633, which was 5.6% of Queensland's total population.

The major population centres are Townsville, Mount Isa, Ingham and Charters Towers, with significant industries of the region including tourism, mining, cattle grazing and sugar cane farming.

The nearest radiation treatment centre for cancer patients in North Queensland is Townsville. Additional radiation treatment centres are located in Cairns and Mackay (opened in 2018).

Region Characteristics (2017 data unless otherwise specified)	Northern Queensland	Queensland
Per cent of population who ...		
… are female	49.5%	50.4%
… are aged 50 years and over	22.3%	22.8%
… are Indigenous (2016)	10.2%	4.6%
… speak another language at home	7.1%	12.1%
… live in remote areas	11.5%	2.1%
… live within 2 hours drive of radiation treatment	82.9%	89.3%
… live more than 6 hours drive from radiation treatment	9.0%	1.9%
… live in disadvantaged areas	22.5%	18.1%
… live in affluent areas	12.1%	18.7%

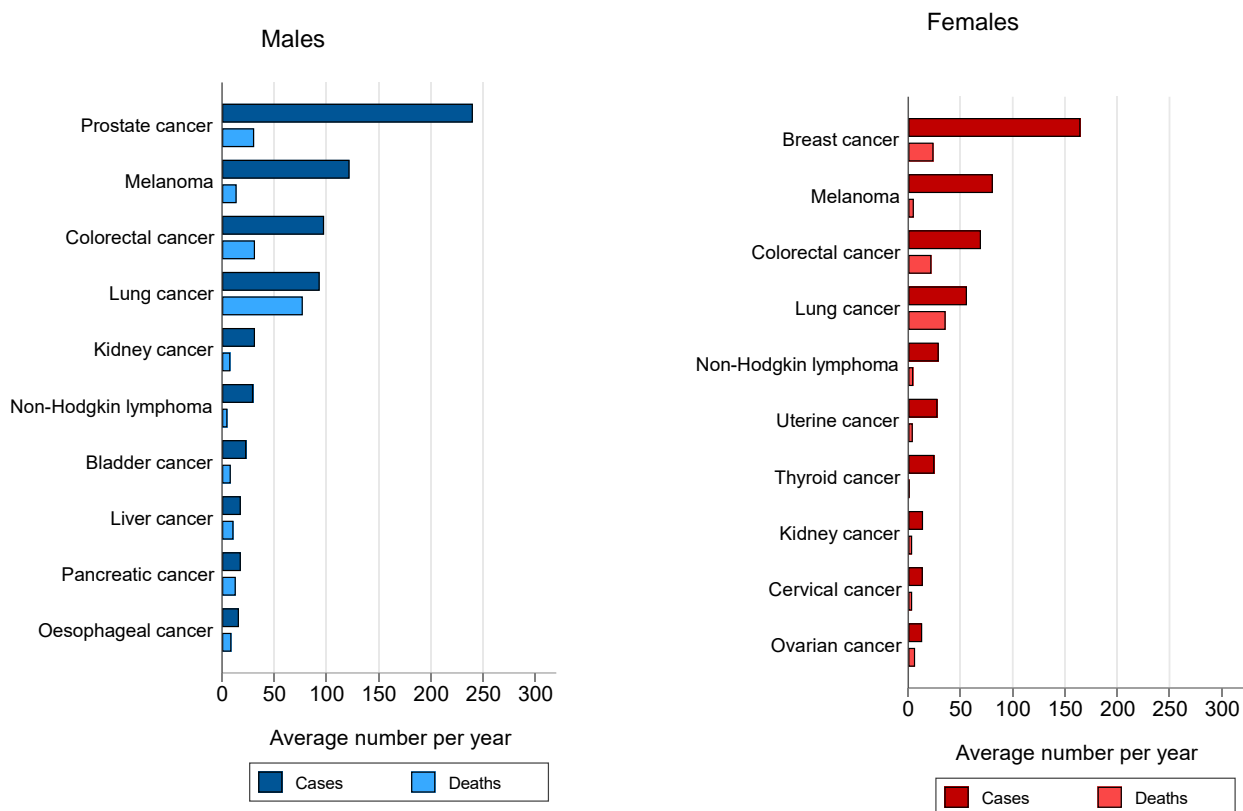| All Cancers* Northern Queensland	Male	Female	Persons[1]
Number of new cases per year:	928	660	1588
Chance of diagnosis by age 80:[2]	1 in 1.9	1 in 2.7	1 in 2.2
Median age at diagnosis:	67 yrs	64 yrs	66 yrs
Five-year relative survival:	70%	73%	71%
Number of deaths per year:	287	183	471
Percent deaths before age 80:	73%	68%	71%

Number diagnosed by year
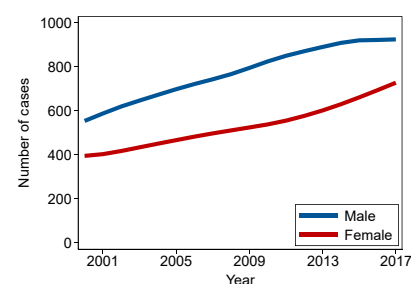
*See notes on page 4 for more details
1. Persons data may not equal the sum of males and females due to rounding.
2. Cancers with a lifetime risk above 1 in 5 have the value provided to one decimal point.
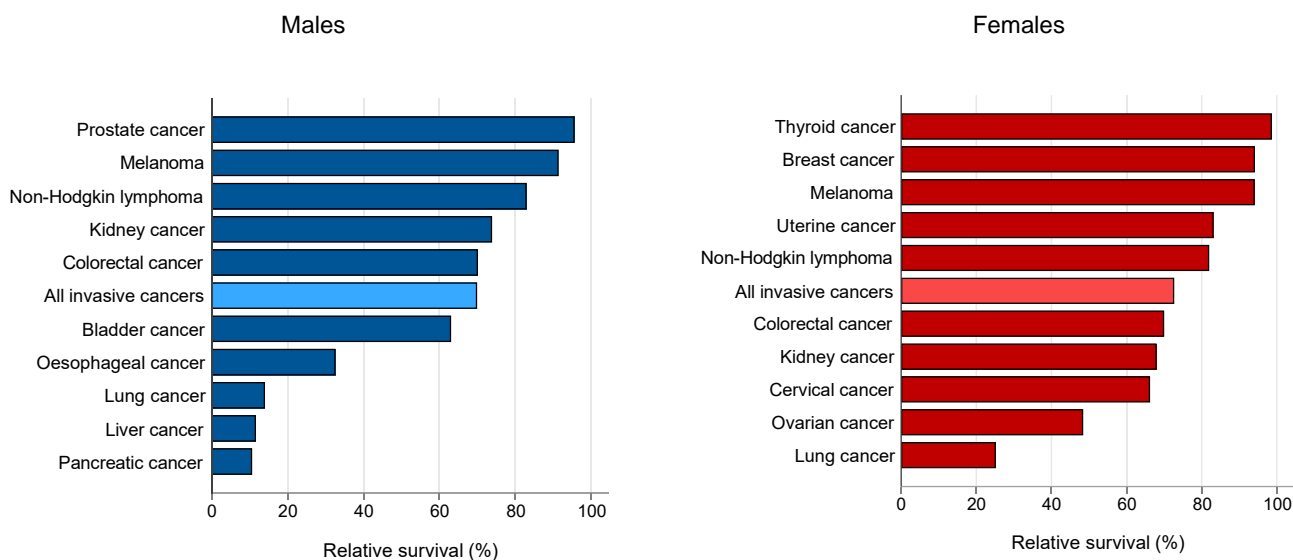
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The 10 most common cancers diagnosed in Northern Queensland by sex, 2013-2017

Males

Prostate cancer
Melanoma
Colorectal cancer
Lung cancer
Kidney cancer
Non-Hodgkin lymphoma
Bladder cancer
Liver cancer
Pancreatic cancer
Oesophageal cancer

0   50   100 150 200 250 300
Average number per year

■ Cases   ■ Deaths

Females

Breast cancer
Melanoma
Colorectal cancer
Lung cancer
Non-Hodgkin lymphoma
Uterine cancer
Thyroid cancer
Kidney cancer
Cervical cancer
Ovarian cancer

0   50   100 150 200 250 300
Average number per year

■ Cases   ■ Deaths

Five-year relative survival in Northern Queensland by type of cancer and sex, 2013-2017

Males

Prostate cancer
Melanoma
Non-Hodgkin lymphoma
Kidney cancer
Colorectal cancer
All invasive cancers
Bladder cancer
Oesophageal cancer
Lung cancer
Liver cancer
Pancreatic cancer

0   20   40   60   80   100
Relative survival (%)

Females

Thyroid cancer
Breast cancer
Melanoma
Uterine cancer
Non-Hodgkin lymphoma
All invasive cancers
Colorectal cancer
Kidney cancer
Cervical cancer
Ovarian cancer
Lung cancer

0   20   40   60   80   100
Relative survival (%)

Note: Relative survival calculated using the period method, for persons aged 0-89 years at diagnosis.
Data are for "at risk" cases in the period 2013-2017.

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## Facts about the most common cancers in Northern Queensland

Colorectal Cancer

	Male	Female	Persons[1]	Number diagnosed by year
Number of new cases per year:	98	70	167	
Chance of diagnosis by age 80:	1 in 13	1 in 20	1 in 16	
Median age at diagnosis:	69 yrs	69 yrs	69 yrs	
Five-year relative survival:	70%	70%	70%	
Number of deaths per year:	32	22	54	
Percent deaths before age 80:	73%	57%	66%	
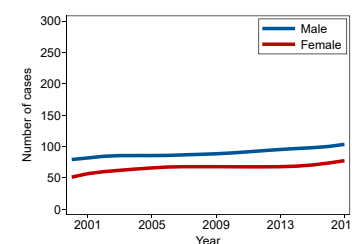
Lung Cancer

	Male	Female	Persons[1]
Number of new cases per year:	94	56	150
Chance of diagnosis by age 80:	1 in 14	1 in 24	1 in 18
Median age at diagnosis:	70 yrs	69 yrs	69 yrs
Five-year relative survival:	14%	25%	18%
Number of deaths per year:	77	36	113
Percent deaths before age 80:	79%	76%	78%
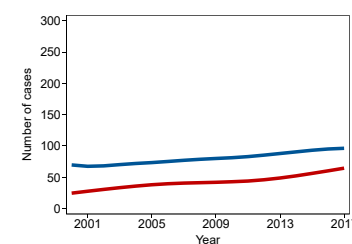
Melanoma

|	Male	Female	Persons[1]
Number of new cases per year:	122	81	203
Chance of diagnosis by age 85:	1 in 12	1 in 19	1 in 15
Median age at diagnosis:	63 yrs	57 yrs	61 yrs
Five-year relative survival:	91%	94%	92%
Number of deaths per year:	14	5	19
Percent deaths before age 80:	64%	67%	65%
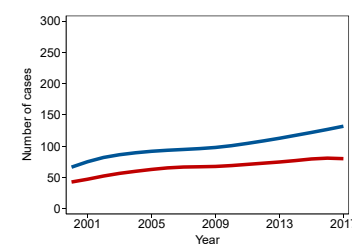


Female Breast Cancer

	Female
Number of new cases per year:	165
Chance of diagnosis by age 80:	1 in 9
Median age at diagnosis:	60 yrs
Five-year relative survival:	94%
Number of deaths per year:	24
Percent deaths before age 80:	76%
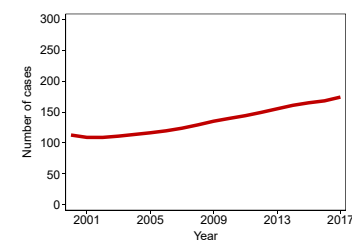
Prostate Cancer

	Male
Number of new cases per year:	240
Chance of diagnosis by age 80:	1 in 5
Median age at diagnosis:	68 yrs
Five-year relative survival:	96%
Number of deaths per year:	31
Percent deaths before age 80:	55%
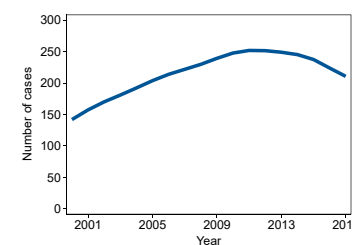
See notes on page 4 for more details. Cancers with a lifetime risk above 1 in 5 have the value provided to one decimal point.

1. Persons data may not equal the sum of males and females due to rounding.

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More details on the top 10 cancers diagnosed in Northern Queensland					
	Incidence[a]		Five-year relative survival[c] (%)	Mortality[a]	
Type of cancer	Average number per year	Annual rate[b] (per 100,000)		Average number per year	Annual rate[b] (per 100,000)
Males					
All invasive cancers	928	678 [659,699]	70 [68,72]	287	224 [213,237]
Prostate cancer	240	169 [159,179]	96 [93,98]	31	26 [22,30]
Melanoma	122	90 [83,97]	91 [87,95]	14	12 [9,15]
Colorectal cancer	98	73 [67,80]	70 [65,75]	32	25 [21,29]
Lung cancer	94	70 [64,77]	14 [11,18]	77	59 [53,65]
Kidney cancer	32	23 [19,27]	74 [64,82]	8	6 [4,9]
Non-Hodgkin lymphoma	30	22 [18,26]	83 [73,90]	5	4 [3,6]
Bladder cancer	23	18 [15,22]	63 [51,74]	8	7 [5,9]
Liver cancer	18	13 [10,16]	12 [5,21]	11	8 [6,10]
Pancreatic cancer	18	14 [11,17]	11 [5,20]	13	10 [8,13]
Oesophageal cancer	16	11 [9,14]	33 [21,45]	9	6 [5,9]
Females					
All invasive cancers	660	474 [458,490]	73 [71,74]	183	130 [121,138]
Breast cancer	165	119 [111,127]	94 [92,96]	24	17 [14,21]
Melanoma	81	59 [53,65]	94 [90,97]	5	4 [3,6]
Colorectal cancer	70	50 [45,55]	70 [64,76]	22	15 [13,19]
Lung cancer	56	40 [35,45]	25 [19,31]	36	25 [22,29]
Non-Hodgkin lymphoma	29	21 [17,24]	82 [71,90]	**	**
Uterine cancer	28	20 [16,23]	83 [74,90]	**	**
Thyroid cancer	25	18 [15,22]	99 [92,101]	**	**
Kidney cancer	14	10 [8,13]	68 [52,80]	**	**
Cervical cancer	14	11 [8,14]	66 [53,77]	**	**
Ovarian cancer	13	10 [7,12]	48 [35,61]	7	5 [3,7]
All invasive cancers					
All invasive cancers	1588	573 [560,586]	71 [70,72]	471	174 [167,181]
Prostate cancer	240	n.a.	96 [93,98]	31	n.a.
Melanoma	203	74 [69,78]	92 [90,95]	19	7 [6,9]
Colorectal cancer	167	61 [57,66]	70 [66,74]	54	20 [18,23]
Female breast cancer	165	n.a.	94 [92,96]	24	n.a.
Lung cancer	150	54 [50,58]	18 [15,21]	113	41 [38,45]
Non-Hodgkin lymphoma	59	21 [19,24]	83 [76,88]	**	**
Kidney cancer	46	16 [14,19]	72 [64,79]	**	**
Thyroid cancer	34	12 [11,15]	100 [94,102]	**	**
Bladder cancer	32	12 [10,14]	60 [50,69]	12	4 [3,6]
Pancreatic cancer	31	11 [10,13]	14 [8,22]	22	8 [7,10]

Notes:
a. Incidence and mortality data are averaged over the 5 year period from 2013-2017.
b. Incidence and mortality rates have been directly age-standardised to the 2001 Australian Standard population, with 95% confidence intervals shown in brackets.
c. Five-year relative survival calculated using the period method, for persons aged 0-89 years at diagnosis, with 95% confidence intervals shown in brackets. Estimates are for "at risk" cases in the period 2013-2017
d. Persons data may not equal the sum of males and females due to rounding.

Symbols:
** Incidence or mortality counts that averaged less than five per year (and the corresponding rates) have been suppressed to protect confidentiality. Counts and rates for persons have also been suppressed when necessary.

n.a. = not applicable (rates for persons not applicable for sex-specific cancers).

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Methodology

1. All cancer data are sourced from the Queensland Cancer Register. The access and use of these data for reporting purposes is subject to strict confidentiality and privacy constraints.
2. Census and population data were obtained from the Australian Bureau of Statistics.
3. Population death data used in relative survival calculations were obtained from the Australian Coordinating Registry of Births, Deaths and Marriages.
4. All calculations were performed using Stata v16.1.
5. Trend lines for incidence numbers have been smoothed using the 'Lowess' method.
6. Remote areas are defined by the Remoteness Areas 2016 classification (combines Remote and Very Remote).
7. Travelling times to radiation treatment are calculated using spatial and road network software, and are approximate based on the shortest road distances at the recommended speed limits.
8. 'Affluent areas' are the 20% of most advantaged Statistical Areas 2 (SA2s) and 'Disadvantaged areas' are the 20% of most disadvantaged SA2s as defined by the 2016 SEIFA Index of Advantage and Disadvantage obtained from the Australian Bureau of Statistics.
9. Relative survival compares overall survival among those diagnosed with cancer to the expected survival of the general population, taking into account age, sex and year of diagnosis.

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