



Overview of Hong Kong Cancer Statistics of 2014

This report summarizes the key cancer statistics of Hong Kong for the year of 2014, which is now available on the website of Hong Kong Cancer Registry (<http://www3.ha.org.hk/cancereg>).

Cancer Registration in Hong Kong

The Hong Kong Cancer Registry (HKCaR) is a population-based cancer registry which is responsible for collecting the basic demographic data, information of the cancer site and cancer histology, of all patients diagnosed with cancer in all the public and private medical institutions in Hong Kong. Vast amount of cancer-related data is collated and uploaded each year into a huge database. The raw data will be validated by various crosschecking procedures via the Cancer Case Audit System, and scrutinized by multiple quality control processes commensurate with the recommendations by the International Agency for Research on Cancer (IARC) of World Health Organization. Once all these necessary procedures are completed, statistics describing the numbers and incidence rates of all types of cancers diagnosed within a calendar year according to age groups and gender will be published on the web on an annual basis.

With the zealous support of healthcare professionals and medical institutions, we have managed to collect high quality cancer data from both the private and public hospitals and laboratories. Although reporting of cancer cases by the medical profession is not mandatory, the completeness of registration by the HKCaR is reckoned to be 98% or higher. As over 85% of the cases can be morphologically verified and the proportion of cancer cases based solely on information from death certificates constituted less than 1% in recent years, the data quality reported by the HKCaR has been rated to be of the highest standard according to the IARC's review.

The increasing availability of electronic clinical data in both the public and private hospitals has certainly enhanced our ability to provide more accurate and complete data in a timely fashion to the public, the medical profession and healthcare administrators. To further leverage on the current core cancer data the HKCaR has been providing, we are piloting the collection of additional pertinent cancer data such as molecular characteristics, cancer stage, types of cancer treatment modalities patients received, clinico-pathological prognostic factors, and clinical cancer outcomes for selected cancers with a view to better serving the medical profession and contributing towards cancer control.

We are also much delighted here to announce the launch of a freshly revamped HKCaR website. We hope the user-friendly website can provide quick access to local cancer statistical data, serving as an information portal to facilitate public education and knowledge transfer, healthcare service planning, and research on cancer. A library of fact sheets we published previously which contain statistical summaries and trends of frequently-requested cancer statistics are also accessible on the website. We certainly cherish feedbacks from readers and visitors to our website, which we believe will help refine and shape our current services.

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Major Findings in 2014:

- The local cancer burden continued to rise, with the number of new cancer cases diagnosed in 2014 reaching a new record of 29,618 (+682 cases or +2.4% compared to 2013).
- The ranking for most of the leading types of cancer remained the same. Cancers of the Colorectum (16.8%), lung (15.8%), breast (13.1%), liver (6.2%) and prostate (5.8%) were the most frequent cancers (in descending order) diagnosed in Hong Kong in 2014. These 5 leading cancers comprised over half (57.7%) of all new cancer cases.
- Compared to a decade earlier, new cases of lung, colorectal, breast and prostate cancers showed a substantial rise, largely due to an ageing and growing population, while the increase in number of liver cancers was relatively modest. Among the top 5 cancer sites, prostate cancer ranked 6th in 2004.

Leading cancer types (*both genders combined*)

Rank	Site	No. in 2014	No. in 2004 (<i>rank</i>)
	All sites	29,618	22,523
1	Colorectum	4,979	3,582 (2)
2	Lung	4,674	4,182 (1)
3	Breast	3,883	2,285 (3)
4	Liver	1,847	1,663 (4)
5	Prostate	1,709	969 (6)

- During the past decade (2004-2014), the number of new cancer cases in HK rose at an average annual rate of 2.8% whereas the population grew at an annual rate of 0.7%.
- It was the second consecutive year colorectal cancer superseded lung cancer to claim the top spot in the overall ranking of number of new cancer cases, and the difference between the two cancers diagnosed in 2014 widened to over 300.
- Compared to 2013, most of the increase in new cancer cases was attributed to the growth of cancers almost exclusively found only in women such as breast, corpus uteri, ovary and thyroid cancers, as well as colorectal cancer in both genders.
- In 2014, 3,868 women were diagnosed of invasive breast cancer, which increased by 9.8% compared to 2013. Since 2004, the number of invasive female breast cancer has increased by 70%, significantly higher than the overall increase of 40% for all female cancers combined.
- Cancers of corpus uteri and ovary showed a marked increase in the number of new cancer cases compared with that of 2013, by 5.8% or almost 1,000 cases and 9.5% or 576 cases respectively. However, the number of cervical cancers dropped by 6.2% to 472 cases in 2014.
- Compared to 2013, there was a marked increase of 22.4% in the number of kidney cancers observed in men, ranking kidney cancer as the ninth most common cancer for men. The increase was much less pronounced (2.5%) in women.

- There has been a drop in the number of cancers diagnosed in children and adolescents in 2014. A total of 196 cases aged from 0 to 19 years were diagnosed of cancer, which decreased by 16% compared to 2013. Cancer at this age was a rare disease and the annual variation in the number of cancer cases of different histological types in this age group could be considerable.
- Cancer is the leading cause of death in Hong Kong. Nearly one of every three deaths in Hong Kong was due to cancer. Altogether 13,803 died from cancer in 2014 (+214 deaths or +1.6% compared to 2013).

Leading cancer deaths (*both genders combined*)

Rank	Site	No. in 2014	No. in 2004 (<i>rank</i>)
	All sites	13,803	11,791
1	Lung	3,866	3,528 (1)
2	Colorectum	2,034	1,538 (2)
3	Liver	1,585	1,417 (3)
4	Stomach	657	659 (4)
5	Breast	610	460 (5)

- The number of cancer deaths in HK rose at an average annual rate of 1.6% in the past decade.
- The increase in the number of new cancer cases and cancer deaths was primarily attributed to an ageing and growing population. As long as the current demographic trends continue in Hong Kong, we shall be witnessing a corresponding increase in the number of new cancer cases in the next few years.

Appendix 1 displays the ten cancers with the largest number of new cases diagnosed and cancer deaths by gender in 2014.

Cancer and gender

- More men were diagnosed with cancer (15,101) than women (14,517), with a male to female ratio of 1.04 to 1. This ratio was 1.18 to 1 in 2004. With the prevailing trends in incidence and population structure, it will not be surprising the gender ratio will be reversed in the coming few years.
- More men died from cancer (8,223) than women (5,580), with a male to female ratio of 1.5 to 1.

Cancer and age

- Cancer is primarily a disease of older people, with 62% of new cancer cases and 77% of cancer deaths occurring in people over the age of 60.
- The median age of patients at diagnosis of cancer was 67 years in men and 61 years in women and the median age at death was 72 years in men and 74 years in women.

- Although cancer in children and adolescents (aged 0-19 years) represented a mere 0.7% of all new cancers, it stayed as a significant focus of attention in the mass media. In recent years (2010-2014), an average of about 200 cancer cases were diagnosed within this age bracket each year. The more common childhood and adolescent cancers were leukaemias (28.1%), malignant brain tumors (12.0%), germ-cell and gonadal cancers (11.7%), and lymphomas (11.2%). These 4 cancers constituted nearly two-thirds of all cancers in children and adolescents.
- Cancer was more common in women than in men between the age group of 20-60 years, mainly due to the relatively high incidence of gender-specific cancers of the breast, cervix, corpus uteri and ovary. The age-specific female preponderance was most apparent in the age group of 20-44 years, in which the number of cancers in women was about twice of that in men.

Appendix 2 displays the relative frequency of the five most common cancers by gender and age groups in 2014.

- Three-quarters of cancer deaths occurred in people aged 60 or older. The median age at death due to cancer was 72 years in men and 74 years in women.

Risk of developing of or dying from cancer before age 75

A person's risk of developing or dying from cancer is age-dependent. Based on the cancer statistics collected in 2014,

- approximately 1 in 4 men and 1 in 5 women will develop cancer before the age of 75.
- approximately 2 in 17 men and 1 in 15 women will die from cancer before the age of 75.

Key Messages

- Close to 30,000 new cancer cases were diagnosed in recent years.
- Colorectal cancer was the leading cancer overall in terms of new cases diagnosed, while lung cancer and breast cancer was the leading cancer in men and women respectively.
- Number of women's cancers was consistently rising, particularly in cancers of the breast, corpus uteri, ovary and thyroid.
- Increase in the number of new cancer cases and cancer deaths was largely due to the ageing and growing population.
- A reversal of gender ratio in the next few years is expected, with females surpassing males in the number of new cancer cases.

Note on the use of data

The numbers of new cases and deaths are important measures of cancer burden on local healthcare system. One should keep in mind that the figures are subject to random fluctuations from year to year. Experience tells us that a more reliable comment of the trend of incidence and mortality can only be made after observing over a longer period of preferably at least 5 years or more.

Appendix 1: Leading Cancer Sites in 2014

10 Most Common Cancers				
Male				
Rank	Site	No. of new cases	Relative frequency	Crude incidence rate*
1	Lung	3,014	20.0%	90.1
2	Colorectum	2,862	19.0%	85.6
3	Prostate	1,709	11.3%	51.1
4	Liver	1,369	9.1%	40.9
5	Stomach	681	4.5%	20.4
6	Nasopharynx	614	4.1%	18.4
7	Non-melanoma skin	516	3.4%	15.4
8	Non-Hodgkin lymphoma	492	3.3%	14.7
9	Kidney and other urinary organs except bladder	448	3.0%	13.4
10	Lip, oral cavity and pharynx except nasopharynx	381	2.5%	11.4
	All sites	15,101	100.0%	451.5
Female				
Rank	Site	No. of new cases	Relative frequency	Crude incidence rate*
1	Breast	3,868	26.6%	99.6
2	Colorectum	2,117	14.6%	54.5
3	Lung	1,660	11.4%	42.7
4	Corpus uteri	997	6.9%	25.7
5	Thyroid	648	4.5%	16.7
6	Ovary etc.	576	4.0%	14.8
7	Liver	478	3.3%	12.3
8	Cervix	472	3.3%	12.1
9	Stomach	465	3.2%	12.0
10	Non-Hodgkin lymphoma	426	2.9%	11.0
	All sites	14,517	100.0%	373.7
Both Sexes				
Rank	Site	No. of new cases	Relative frequency	Crude incidence rate*
1	Colorectum	4,979	16.8%	68.9
2	Lung	4,674	15.8%	64.7
3	Breast	3,883	13.1%	53.7
4	Liver	1,847	6.2%	25.5
5	Prostate	1,709	5.8%	51.1
6	Stomach	1,146	3.9%	15.9
7	Corpus uteri	997	3.4%	25.7
8	Non-melanoma skin	941	3.2%	13.0
9	Non-Hodgkin lymphoma	918	3.1%	12.7
10	Nasopharynx	834	2.8%	11.5
	All sites	29,618	100.0%	409.7

10 Major Causes of Cancer Deaths				
Male				
Rank	Site	No. of deaths	Relative frequency	Crude mortality rate*
1	Lung	2,537	30.9%	75.9
2	Liver	1,149	14.0%	34.4
3	Colorectum	1,139	13.9%	34.1
4	Prostate	398	4.8%	11.9
5	Stomach	394	4.8%	11.8
6	Pancreas	328	4.0%	9.8
7	Oesophagus	254	3.1%	7.6
8	Nasopharynx	237	2.9%	7.1
9	Non-Hodgkin lymphoma	204	2.5%	6.1
10	Leukaemia	191	2.3%	5.7
	All sites	8,223	100.0%	245.9
Female				
Rank	Site	No. of deaths	Relative frequency	Crude mortality rate*
1	Lung	1,329	23.8%	34.2
2	Colorectum	895	16.0%	23.0
3	Breast	604	10.8%	15.5
4	Liver	436	7.8%	11.2
5	Stomach	263	4.7%	6.8
6	Pancreas	248	4.4%	6.4
7	Ovary etc.	179	3.2%	4.6
8	Non-Hodgkin lymphoma	148	2.7%	3.8
9	Cervix	131	2.3%	3.4
10	Leukaemia	125	2.2%	3.2
	All sites	5,580	100.0%	143.6
Both Sexes				
Rank	Site	No. of deaths	Relative frequency	Crude mortality rate*
1	Lung	3,866	28.0%	53.5
2	Colorectum	2,034	14.7%	28.1
3	Liver	1,585	11.5%	21.9
4	Stomach	657	4.8%	9.1
5	Breast	610	4.4%	8.4
6	Pancreas	576	4.2%	8.0
7	Prostate	398	2.9%	11.9
8	Non-Hodgkin lymphoma	352	2.6%	4.9
9	Oesophagus	327	2.4%	4.5
10	Leukaemia	316	2.3%	4.4
	All sites	13,803	100.0%	190.9

All rates are expressed per 100,000, and have been revised based on the population benchmark from the results of the 2016 Population By-census. Rates for gender-specific sites are per 100,000 male or female population.

Statistics on the number of deaths are provided by the Census and Statistics Department and Department of Health of HKSAR.

Appendix 2: Relative Frequency of the Five Most Common Cancers by Gender and Age Group in 2014

Male			Female		
Age 0-19*			Age 0-19*		
Site	No. of cases	% of all sites	Site	No. of cases	% of all sites
Leukaemia	31	28.2%	Carcinomas and epithelial neoplasms	21	24.4%
Lymphoma	16	14.5%	Brain and spinal tumors	14	16.3%
Brain and spinal tumors	14	12.7%	Lymphoma	12	14.0%
Germ-cell and gonadal tumors	10	9.1%	Leukaemia	11	12.8%
Sympathetic nervous system tumor	8	7.3%	Germ-cell and gonadal tumors	8	9.3%
All sites	110	100.0%	All sites	86	100.0%
Age 20-44			Age 20-44		
Site	No. of cases	% of all sites	Site	No. of cases	% of all sites
Nasopharynx	131	16.0%	Breast	663	35.2%
Colorectum	112	13.7%	Thyroid	230	12.2%
Liver	69	8.4%	Ovary etc.	143	7.6%
Testis	60	7.3%	Corpus uteri	141	7.5%
Non-Hodgkin lymphoma	55	6.7%	Cervix	126	6.7%
All sites	818	100.0%	All sites	1,882	100.0%
Age 45-64			Age 45-64		
Site	No. of cases	% of all sites	Site	No. of cases	% of all sites
Colorectum	989	18.5%	Breast	2,241	34.2%
Lung	945	17.7%	Colorectum	741	11.3%
Liver	644	12.0%	Corpus uteri	698	10.7%
Prostate	396	7.4%	Lung	591	9.0%
Nasopharynx	361	6.8%	Ovary etc.	321	4.9%
All sites	5,345	100.0%	All sites	6,549	100.0%
Age 65-74			Age 65-74		
Site	No. of cases	% of all sites	Site	No. of cases	% of all sites
Lung	872	22.1%	Breast	515	22.6%
Colorectum	748	19.0%	Colorectum	404	17.7%
Prostate	662	16.8%	Lung	364	16.0%
Liver	341	8.7%	Liver	117	5.1%
Stomach	192	4.9%	Corpus uteri	100	4.4%
All sites	3,942	100.0%	All sites	2,281	100.0%
Age 75 and Over			Age 75 and Over		
Site	No. of cases	% of all sites	Site	No. of cases	% of all sites
Lung	1,143	23.4%	Colorectum	853	22.9%
Colorectum	1,012	20.7%	Lung	637	17.1%
Prostate	649	13.3%	Breast	448	12.0%
Liver	312	6.4%	Non-melanoma skin	233	6.3%
Stomach	281	5.8%	Liver	213	5.7%
All sites	4,886	100.0%	All sites	3,718	100.0%

Note: Cases with unknown age are not included in the above table.

* The classification of cancers in children and adolescents (0-19 years) is based on the morphology according to the "International Classification for Childhood Cancer 1996, IARC Technical Report No. 29: Lyon, 1996.", rather than the site of tumor.