



Overview of 2013 Hong Kong Cancer Statistics

Cancer Registration in Hong Kong

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

Since the 1960s, the HKCaR has been providing population-based cancer data for epidemiological research and healthcare service planning in Hong Kong. With the zealous support of healthcare professionals and medical institutions, we have managed to collect high quality cancer data from both 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 relevant cancer data such as cancer staging, cancer treatment modalities, clinicopathological prognostic factors, and clinical cancer outcomes for selected cancers with a view to better contributing towards cancer control.

An interactive web-reporting tool, Cancer Statistics Query System, provides the user with a platform to access data on cancer incidence and mortality for 52 types of cancers collected since 1983. A new data query system for cancer incidence in children and adolescents, based on different classification schemes, offers a comprehensive overview of the local cancer burden in adolescent age groups from 2001. We have also published a series of fact sheets in PDF format which provide statistical summaries and trends of frequently-requested cancer statistics. Further details are available on our web (<http://www3.ha.org.hk/cancereg>).

Dr. Roger K.C. Ngan
Director
Hong Kong Cancer Registry
Hospital Authority

Major Findings in 2013:

- The local cancer burden continues to rise, reaching a new record of 28,936 new cancer cases in 2013 (with 1,088 more cases or an increase of 3.9% compared to 2012).
- The five most commonly diagnosed cancers were those of the colorectum (16.5%), lung (16.0%), breast (12.2%), liver (6.4%) and prostate (5.7%). These 5 leading cancers comprised nearly 60% of all new cancers diagnosed in Hong Kong.
- Compared to 2003, new cases of lung, colorectal, breast and prostate cancers showed a substantial rise largely due to ageing and growing population, while the increase in number of liver cancers was relatively modest. Among the top 5 cancer sites, prostate cancer ranked only 7th in 2003.

Leading cancer types (*both genders combined*)

Rank	Site	No. in 2013	No. in 2003 (<i>rank</i>)
	All sites	28,936	21,289
1	Colorectum	4,769	3,249 (2)
2	Lung	4,631	3,972 (1)
3	Breast	3,544	2,121 (3)
4	Liver	1,852	1,654 (4)
5	Prostate	1,655	826 (7)

- During the past decade (2003-2013), the number of new cancer cases in HK rose at an average annual rate of 3.1% whereas the population grew at an annual rate of 0.7%.
- Colorectal cancer has reclaimed the top spot in the cancer incidence ranking after being overtaken by lung cancer the previous year. It is the second time colorectal cancer became the commonest cancer since 2011.
- Compared to the previous year of 2012, most of the increase in new cancer cases was attributed to the growth in number of cancers of the corpus uteri and thyroid in women, and in non-Hodgkin lymphomas and non-melanoma skin cancers in both genders.
- In 2013, 3,524 women were diagnosed with invasive breast cancer, increased by a mere 0.5% compared to 2012. Since 2003, the number of breast cancer has increased by nearly 70%, significantly higher than the overall average increase of 36%.
- Cancers of corpus uteri and cervix showed a marked increase in new cancer cases, by 16.3% to 942 cases and 10% to 503 cases respectively, compared with 2012. The number of ovarian cancers remained almost unchanged.
- A marked increase of 16.6% was observed for men and 6.5% for women in the number of new cases in non-melanoma skin cancers in 2013 (mainly basal cell carcinoma). Since 2003, the number of new non-melanoma skin cancers has increased by almost double to 997 cases but the number of deaths from this cancer remained low at an average of 22 cases per year, indicating

an overall good prognosis of this cancer.

- Compared with 2012, there has been a sharp rise in the number of cancers in children and adolescents in 2013. A total of 234 cases aged 0 to 19 years were diagnosed of cancer, which increased by 20% compared to 2012. The rise was primarily found in the age group between 0 to 4 years old.
- Cancer was a leading cause of death in Hong Kong, accounting for 31.3% of all deaths in 2013. Altogether 13,589 died from cancer in 2013 (+253 deaths or +1.9% compared to 2012).

Leading cancer deaths (*both genders combined*)

Rank	Site	No. in 2013	No. in 2003 (<i>rank</i>)
	All sites	13,589	11,510
1	Lung	3,867	3,403 (1)
2	Colorectum	1,981	1,537 (2)
3	Liver	1,524	1,412 (3)
4	Stomach	625	680 (4)
5	Breast	600	434 (5)

- The number of cancer deaths in HK rose at an average annual rate of 1.7% 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 and deaths from cancer in the coming years.

Appendix 1 displays the ten most common cancers and cancer killers by gender in 2013.

Cancer and gender

- More men were diagnosed with cancer (14,914) than women (14,022), with a male to female ratio of 1.06 to 1. This ratio was 1.22 to 1 in 2003. With the prevailing trends in incidence and population structure, it will not be surprising the gender ratio will be reversed in the coming 5-10 years.
- More men died from cancer (7,934) than women (5,655), with a male to female ratio of 1.4 to 1.

Cancer and age

- Cancer is primarily a disease of older people. Over 60% of cancers occurred in people over the age of 60.
- Median ages at diagnosis were 67 years in men and 61 years in women.

- Although cancer in children and adolescents (aged 0-19 years) represented a mere 0.8% of all new cancers, it stayed as a significant focus in public health. During the period of 2009-2013, an average of about 200 such cases were diagnosed each year with the most common of these being leukaemias (28.9%), malignant brain tumors (12.7%), germ-cell and gonadal cancers (12.2%), and lymphomas (11%). These 4 common types of cancers constituted nearly two-thirds of all cancers in children and adolescents.
- Cancer was more common in women than in men between 20 and 60 years old, 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 amongst the 20-44 year age group, in which the number of cancers was around 2 times more common in women than in men.

Appendix 2 displays the relative frequency of the five most common cancers by gender and age group in 2013.

- Three-quarters of cancer deaths occurred in people aged 60 or older. The median ages at death due to cancer were 73 years in men and 74 years in women.

Risk of developing of and 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 2013:

- One in 4 men and 1 in 5 women will develop cancer before the age of 75.
- One in 9 men and 1 in 15 women will die from cancer before the age of 75.

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.

Any feedback or queries are welcomed. Please send us an email to cancereq@ha.org.hk.

Appendix 1: Leading Cancer Sites in 2013

10 Most Common Cancers				
Male				
Rank	Site	No. of new cases	Relative frequency	Crude incidence rate*
1	Lung	2,994	20.1%	89.9
2	Colorectum	2,737	18.4%	82.2
3	Prostate	1,655	11.1%	49.7
4	Liver	1,407	9.4%	42.3
5	Stomach	670	4.5%	20.1
6	Nasopharynx	655	4.4%	19.7
7	Non-Hodgkin lymphoma	509	3.4%	15.3
8	Non-melanoma skin	506	3.4%	15.2
9	Lip, oral cavity and pharynx except nasopharynx	409	2.7%	12.3
10	Kidney and other urinary organs except bladder	366	2.5%	11.0
	All sites	14,914	100.0%	447.9
Female				
Rank	Site	No. of new cases	Relative frequency	Crude incidence rate*
1	Breast	3,524	25.1%	91.6
2	Colorectum	2,032	14.5%	52.8
3	Lung	1,637	11.7%	42.5
4	Corpus uteri	942	6.7%	24.5
5	Thyroid	604	4.3%	15.7
6	Ovary etc.	526	3.8%	13.7
7	Cervix	503	3.6%	13.1
8	Non-melanoma skin	491	3.5%	12.8
9	Liver	445	3.2%	11.6
10	Stomach	430	3.1%	11.2
	All sites	14,022	100.0%	364.3
Both Sexes				
Rank	Site	No. of new cases	Relative frequency	Crude incidence rate*
1	Colorectum	4,769	16.5%	66.4
2	Lung	4,631	16.0%	64.5
3	Breast	3,544	12.2%	49.4
4	Liver	1,852	6.4%	25.8
5	Prostate	1,655	5.7%	49.7
6	Stomach	1,100	3.8%	15.3
7	Non-melanoma skin	997	3.4%	13.9
8	Corpus uteri	942	3.3%	24.5
9	Non-Hodgkin lymphoma	877	3.0%	12.2
10	Nasopharynx	841	2.9%	11.7
	All sites	28,936	100.0%	403.1

10 Major Causes of Cancer Deaths				
Male				
Rank	Site	No. of deaths	Relative frequency	Crude mortality rate*
1	Lung	2,491	31.4%	74.8
2	Liver	1,123	14.2%	33.7
3	Colorectum	1,087	13.7%	32.6
4	Stomach	380	4.8%	11.4
5	Prostate	372	4.7%	11.2
6	Pancreas	310	3.9%	9.3
7	Oesophagus	262	3.3%	7.9
8	Nasopharynx	239	3.0%	7.2
9	Non-Hodgkin lymphoma	204	2.6%	6.1
10	Leukaemia	179	2.3%	5.4
	All sites	7,934	100.0%	238.3
Female				
Rank	Site	No. of deaths	Relative frequency	Crude mortality rate*
1	Lung	1,376	24.3%	35.7
2	Colorectum	894	15.8%	23.2
3	Breast	596	10.5%	15.5
4	Liver	401	7.1%	10.4
5	Pancreas	274	4.8%	7.1
6	Stomach	245	4.3%	6.4
7	Ovary etc.	208	3.7%	5.4
8	Non-Hodgkin lymphoma	148	2.6%	3.8
9	Cervix	142	2.5%	3.7
10	Leukaemia	123	2.2%	3.2
	All sites	5,655	100.0%	146.9
Both Sexes				
Rank	Site	No. of deaths	Relative frequency	Crude mortality rate*
1	Lung	3,867	28.5%	53.9
2	Colorectum	1,981	14.6%	27.6
3	Liver	1,524	11.2%	21.2
4	Stomach	625	4.6%	8.7
5	Breast	600	4.4%	8.4
6	Pancreas	584	4.3%	8.1
7	Prostate	372	2.7%	11.2
8	Non-Hodgkin lymphoma	352	2.6%	4.9
9	Oesophagus	329	2.4%	4.6
10	Nasopharynx	312	2.3%	4.3
	All sites	13,589	100.0%	189.3

* 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 2013

Male			Female		
Age 0-19*			Age 0-19*		
Site	No. of cases	% of all sites	Site	No. of cases	% of all sites
Leukaemia	40	33.1%	Leukaemia	25	22.1%
Lymphoma	17	14.0%	Germ-cell and gonadal tumor	18	15.9%
Germ-cell and gonadal tumors	13	10.7%	Carcinomas and epithelial neoplasms	15	13.3%
Carcinomas and epithelial neoplasms	11	9.1%	Brain and spinal tumors	12	10.6%
Brain and spinal tumors	9	7.4%	Sympathetic nervous system tumor	11	9.7%
Sympathetic nervous system tumor	9	7.4%			
All sites	121	100.0%	All sites	113	100.0%
Age 20-44			Age 20-44		
Site	No. of cases	% of all sites	Site	No. of cases	% of all sites
Nasopharynx	152	18.6%	Breast	631	35.5%
Colorectum	115	14.1%	Thyroid	232	13.1%
Liver	64	7.8%	Ovary etc.	140	7.9%
Lung	55	6.7%	Cervix	131	7.4%
Testis	54	6.6%	Colorectum	100	5.6%
All sites	818	100.0%	All sites	1,776	100.0%
Age 45-64			Age 45-64		
Site	No. of cases	% of all sites	Site	No. of cases	% of all sites
Colorectum	1,008	18.6%	Breast	2,057	33.6%
Lung	953	17.6%	Corpus uteri	678	11.1%
Liver	698	12.9%	Colorectum	671	10.9%
Nasopharynx	381	7.0%	Lung	560	9.1%
Prostate	368	6.8%	Ovary etc.	288	4.7%
All sites	5,425	100.0%	All sites	6,129	100.0%
Age 65-74			Age 65-74		
Site	No. of cases	% of all sites	Site	No. of cases	% of all sites
Lung	856	22.7%	Colorectum	420	19.9%
Colorectum	692	18.4%	Breast	399	18.9%
Prostate	622	16.5%	Lung	316	14.9%
Liver	343	9.1%	Liver	123	5.8%
Stomach	172	4.6%	Corpus uteri	95	4.5%
All sites	3,770	100.0%	All sites	2,115	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	1,130	23.6%	Colorectum	841	21.6%
Colorectum	921	19.3%	Lung	689	17.7%
Prostate	660	13.8%	Breast	437	11.2%
Liver	296	6.2%	Non-melanoma skin	264	6.8%
Stomach	273	5.7%	Stomach	180	4.6%
All sites	4,780	100.0%	All sites	3,889	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.