Overview of 2011 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 histology of all cancer 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 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 services 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 more. As over 85% of the cases can be morphologically verified and the proportion of cases based solely on information from death certificates is less than 1% in recent years, the data quality reported by the HKCaR is considered 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 current core cancer data the HKCaR has been providing, we are piloting the collection of additional relevant cancer data such as cancer staging, history of receiving various treatment modalities, prognostic factors, and cancer outcomes for selected cancers with a view to better contributing towards cancer control.

Further details are available on our web (http://www.ha.org.hk/cancereg). A web-reporting tool, Cancer Statistics Query System, is also available to allow users to select and download various figures and tables related to cancer incidence and mortality in Hong Kong.

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Major findings in 2011:

- 26,998 new cases were diagnosed with malignancy (+608 new cases or increased by 2.3% compared to 2010).

- The five most common cancers in 2011 were colorectum (16.5%), lung (16.3%), breast (12.7%), liver (6.9%) and prostate (6.1%).

Leading cancer types *(both genders combined)*

Rank	Site	No. in 2011	No. in 2001 *(rank)*
	All sites	**26,998**	**21,404**
1	Colorectum	4,450	3,284 *(2)*
2	Lung	4,401	3,822 *(1)*
3	Breast	3,440	2,016 *(3)*
4	Liver	1,858	1,637 *(4)*
5	Prostate	1,644	786 *(7)*

- Colorectal cancer has overtaken lung cancer for the first time to become the most common cancer in Hong Kong.

- Most of the increase was attributed to the growing number of increase in breast, thyroid and ovarian cancers in women and prostate cancer in men.

- Number of invasive breast cancer in women increased by 13.4% to 3,419 cases in 2011 compared to the previous year. There were a further 484 cases of in-situ breast cancer reported during 2011. The reporting of in-situ incidence of breast cancer will be of interest in monitoring the number of pre-malignant abnormalities.

- Number of thyroid and ovarian cancers in women in 2011 also increased by 8.9% to 549 and 11.1% to 520 cases respectively. Thyroid cancer was the 9th most common cancer in women in 2001 and became the 5th most common cancer in 2011.

- In men, prostate cancer increased by 10.2% to 1,644 cases in 2011. The number has almost doubled in the past decade.

- During the past decade (2001-2011), the number of cancers in HK rose at an average annual rate of 2.3% whereas the population grew at an annual rate of 0.5%.

- Cancer is a leading cause of death in Hong Kong, accounting for 31.4% of all deaths in 2011. Altogether 13,241 died from cancer in 2011 (+165 deaths or 1.3%).

Leading cancer deaths *(both genders combined)*

Rank	Site	No. in 2011	No. in 2001 *(rank)*
	All sites	**13,241**	**11,406**
1	Lung	3,789	3,269 *(1)*
2	Colorectum	1,904	1,416 *(3)*
3	Liver	1,536	1,424 *(2)*
4	Stomach	687	683 *(4)*
5	Breast	554	393 *(5)*

- The number of cancer deaths in HK rose at an average annual rate of 1.5% in the past decade.

- The increase in the number of cancer cases and deaths is primarily the result of an ageing and growing population. As long as current demographic trends continue, there will be a corresponding increase in the number of new cases and deaths from cancer.

Appendix 1 displays the ten most common cancers and cancer killers by gender in 2011.

Cancer and gender

- More men were diagnosed with cancer (14,024) than women (12,974) in the ratio of 1.08 to 1.

- More men died from cancer (7,936) than women (5,305) in the ratio of 1.50 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 68 years in men and 61 years in women.

- Less than 1% of cancers occurred before the age of 20, with the most common of these being leukaemia (60 cases or 31.2% of all cancers in children and adolescents).

- In younger age groups of people diagnosed with cancer at 20-44 years and 45-64 years, there were more females than males, mainly due to the relatively high incidence of gender-specific cancers of the breast, cervix, corpus uteri and ovary in the 2 relatively younger age groups. Appendix 2 displays the relative frequency of the five most common cancers by gender and age Group in 2011.

- Three-quarters of cancer deaths occurred in people aged 60 or older.

- Median ages at death due to cancer were 72 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 dependent on age:

- One in 4 men and 1 in 5 women will develop cancer before the age of 75.
- One in 8 men and 1 in 14 women will die from cancer before the age of 75.

Caution

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 cancereg@ha.org.hk.

Appendix 1: Leading Cancer Sites in 2011

10 Most Common Cancers

Male

Rank	Site	No. of new cases	Relative frequency	Crude incidence rate*
1	Lung	2,859	20.4%	86.6
2	Colorectum	2,534	18.1%	76.7
3	Prostate	1,644	11.7%	49.8
4	Liver	1,399	10.0%	42.4
5	Stomach	668	4.8%	20.2
6	Nasopharynx	632	4.5%	19.1
7	Non-Hodgkin lymphoma	404	2.9%	12.2
8	Non-melanoma skin	403	2.9%	12.2
9	Kidney and other urinary organs except bladder	352	2.5%	10.7
10	Oesophagus	332	2.4%	10.1
	All sites	**14,024**	**100.0%**	**424.6**

Female

Rank	Site	No. of new cases	Relative frequency	Crude incidence rate*
1	Breast	3,419	26.4%	90.7
2	Colorectum	1,916	14.8%	50.8
3	Lung	1,542	11.9%	40.9
4	Corpus uteri	685	5.3%	18.2
5	Thyroid	549	4.2%	14.6
6	Ovary etc.	520	4.0%	13.8
7	Liver	459	3.5%	12.2
8	Stomach	433	3.3%	11.5
9	Cervix	391	3.0%	10.4
10	Non-melanoma skin	371	2.9%	9.8
	All sites	**12,974**	**100.0%**	**344.3**

Both Sexes

Rank	Site	No. of new cases	Relative frequency	Crude incidence rate*
1	Colorectum	4,450	16.5%	62.9
2	Lung	4,401	16.3%	62.2
3	Breast	3,440	12.7%	48.6
4	Liver	1,858	6.9%	26.3
5	Prostate	1,644	6.1%	49.8
6	Stomach	1,101	4.1%	15.6
7	Nasopharynx	862	3.2%	12.2
8	Non-melanoma skin	774	2.9%	10.9
9	Non-Hodgkin lymphoma	765	2.8%	10.8
10	Thyroid	697	2.6%	9.9
	All sites	**26,998**	**100.0%**	**381.8**

10 Major Causes of Cancer Deaths

Male

Rank	Site	No. of deaths	Relative frequency	Crude mortality rate*
1	Lung	2,525	31.8%	76.4
2	Liver	1,140	14.4%	34.5
3	Colorectum	1,081	13.6%	32.7
4	Stomach	409	5.2%	12.4
5	Prostate	299	3.8%	9.1
6	Oesophagus	285	3.6%	8.6
7	Nasopharynx	284	3.6%	8.6
8	Pancreas	278	3.5%	8.4
9	Leukaemia	187	2.4%	5.7
10	Non-Hodgkin lymphoma	167	2.1%	5.1
	All sites	**7,936**	**100.0%**	**240.3**

Female

Rank	Site	No. of deaths	Relative frequency	Crude mortality rate*
1	Lung	1,264	23.8%	33.5
2	Colorectum	823	15.5%	21.8
3	Breast	552	10.4%	14.6
4	Liver	396	7.5%	10.5
5	Stomach	278	5.2%	7.4
6	Pancreas	230	4.3%	6.1
7	Ovary etc.	180	3.4%	4.8
8	Cervix	151	2.8%	4.0
9	Non-Hodgkin lymphoma	142	2.7%	3.8
10	Leukaemia	142	2.7%	3.8
	All sites	**5,305**	**100.0%**	**140.8**

Both Sexes

Rank	Site	No. of deaths	Relative frequency	Crude mortality rate*
1	Lung	3,789	28.6%	53.6
2	Colorectum	1,904	14.4%	26.9
3	Liver	1,536	11.6%	21.7
4	Stomach	687	5.2%	9.7
5	Breast	554	4.2%	7.8
6	Pancreas	508	3.8%	7.2
7	Nasopharynx	352	2.7%	5.0
8	Oesophagus	337	2.5%	4.8
9	Leukaemia	329	2.5%	4.7
10	Non-Hodgkin lymphoma	309	2.3%	4.4
	All sites	**13,241**	**100.0%**	**187.2**

* All rates are expressed per 100,000. 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 2011

Male

Age 0-19*

Site	No. of cases	% of all sites
Leukaemia	36	37.1%
Brain and spinal tumors	12	12.4%
Soft tissue sarcoma	8	8.2%
Lymphoma	7	7.2%
Germ-cell and gonadal tumors	6	6.2%
Liver tumor	6	6.2%
Sympathetic nervous system tumor	6	6.2%
All sites	**97**	**100.0%**

Age 20-44

Site	No. of cases	% of all sites
Nasopharynx	141	19.3%
Liver	85	11.6%
Colorectum	74	10.1%
Non-Hodgkin lymphoma	47	6.4%
Testis	45	6.1%
All sites	**732**	**100.0%**

Age 45-64

Site	No. of cases	% of all sites
Lung	934	18.1%
Colorectum	927	17.9%
Liver	694	13.4%
Prostate	377	7.3%
Nasopharynx	375	7.2%
All sites	**5,173**	**100.0%**

Age 65-74

Site	No. of cases	% of all sites
Lung	766	22.5%
Prostate	621	18.3%
Colorectum	601	17.7%
Liver	306	9.0%
Stomach	159	4.7%
All sites	**3,399**	**100.0%**

Age 75 and Over

Site	No. of cases	% of all sites
Lung	1,115	24.1%
Colorectum	932	20.2%
Prostate	644	13.9%
Liver	308	6.7%
Stomach	266	5.8%
All sites	**4,622**	**100.0%**

Female

Age 0-19*

Site	No. of cases	% of all sites
Leukaemia	24	25.3%
Carcinomas and epithelial neoplasms	18	18.9%
Brain and spinal tumors	16	16.8%
Germ-cell and gonadal tumors	12	12.6%
Lymphoma	11	11.6%
All sites	**95**	**100.0%**

Age 20-44

Site	No. of cases	% of all sites
Breast	626	35.4%
Thyroid	198	11.2%
Ovary etc.	136	7.7%
Cervix	120	6.8%
Corpus uteri	97	5.5%
All sites	**1,768**	**100.0%**

Age 45-64

Site	No. of cases	% of all sites
Breast	1,975	35.2%
Colorectum	649	11.6%
Lung	532	9.5%
Corpus uteri	472	8.4%
Thyroid	272	4.9%
All sites	**5,608**	**100.0%**

Age 65-74

Site	No. of cases	% of all sites
Breast	395	20.7%
Colorectum	349	18.3%
Lung	301	15.8%
Liver	110	5.8%
Stomach	62	3.3%
Pancreas	62	3.3%
All sites	**1,904**	**100.0%**

Age 75 and Over

Site	No. of cases	% of all sites
Colorectum	822	22.8%
Lung	643	17.9%
Breast	423	11.8%
Liver	202	5.6%
Non-melanoma skin	192	5.3%
All sites	**3,598**	**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) was based on the histology rather than, as for adults, the site of the tumor according to the "International Classification for Childhood Cancer 1996", IARC Technical Report No. 29: Lyon, 1996.