

**For information
on 25 June 2019**

**Legislative Council Panel on Health Services
Subcommittee on Issues Relating to the Support for Cancer Patients**

Cancer Surveillance System

PURPOSE

This paper briefs Members on the current situation of cancer in Hong Kong and the role of Hong Kong Cancer Registry (“HKCaR”) in the local cancer surveillance system.

BACKGROUND

Current Situation of Cancer in Hong Kong

2. Cancer is a major public health issue in Hong Kong. In 2016, there were 31 468 newly diagnosed cancer cases and the most common cancers were colorectal cancer (17.3%), lung cancer (15.7%), breast cancer (13.1%), prostate cancer (6.1%) and liver cancer (5.8%). Cancer is the top killer in Hong Kong. In 2017, there were 14 354 cancer deaths and the leading five causes of cancer deaths were lung cancer (27.1%), colorectal cancer (14.9%), liver cancer (10.8%), breast cancer (5.0%) and pancreatic cancer (4.8%).

3. In view of a growing and ageing population, the number of new cancer cases is expected to rise continuously and is posing an increasing burden to the healthcare system of Hong Kong. The number of new cancer cases aged 20 or above in 1991 to 2016 and projections up to 2030 are shown in **Annex A**. Nonetheless, the age-standardised incidence (“ASI”) rate for all cancers, which measures the risk of developing cancer after accounting for the influence of age, has been falling in males while the initial decline of ASI in females observed in the early years has reverted

to an upward trend in the last decade. The age-standardised mortality rates have been decreasing for both genders. The age-standardised incidence and mortality rates of all cancers in 1991 to 2017 are shown in **Annex B**.

CANCER SURVEILLANCE SYSTEM

Hong Kong Cancer Registry

4. The HKCaR was established in 1963 as a population-based cancer registry in Hong Kong. It is a voting member of the International Association of Cancer Registries. The HKCaR is given mandate to collect the basic demographic data, information on the topography and histology of all cancers diagnosed in Hong Kong. In addition, collection of information on staging, initial treatment and survival data has commenced for specific cancers in recent years. Analyses of these information provide surveillance data on incidence, mortality, trends and projections of different cancers in Hong Kong.

5. The HKCaR collates a vast amount of cancer-related data every year. The raw data is validated by various crosschecking procedures and scrutinized by multiple quality control processes commensurate with the recommendations by the International Agency for Research on Cancer (“IARC”) of World Health Organization. Queries and unusual cases are referred to clinical oncologists for revalidation. Upon completion of the necessary validation and processing procedures, 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 HKCaR’s website on an annual basis. The website serves as an information platform to facilitate public education and knowledge transfer, healthcare service planning, and research on cancer. The HKCaR’s website currently receives around 3 000 visitors per month. Moreover, annual reports are submitted to the Cancer Coordinating Committee, chaired by the Secretary for Food and Health, for expert review.

6. With the full support of healthcare professionals and medical institutions, the HKCaR has managed to collect high quality cancer data from both private and public hospitals in Hong Kong. The completeness

of registration by the HKCaR is reckoned to be 97% or higher although notification from medical practitioners is not mandatory. As close to 90% of the cases can be morphologically verified and the proportion of cancer cases based solely on information from death certificates constituted less than 0.5% 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.

7. The HKCaR also supports the evaluation work of screening programmes such as the Colorectal Cancer Screening Programme and Cervical Screening Programme, and the breast cancer research commissioned by the Food and Health Bureau to develop breast cancer risk-prediction model for women in Hong Kong. Accordingly, the HKCaR has developed colorectal and breast cancer-specific registries to collect and compile comprehensive clinical and outcome data on these two cancers.

8. Over the past years, the HKCaR has also participated in a number of research studies with several articles published in the local and international peer-reviewed scientific journals (at [Annex C](#)). It is one of the missions of the HKCaR to contribute to the public health services and epidemiological research, reflecting the HKCaR's commitment to serving the community.

9. Cancer survival, incidence and mortality are three key elements for evaluation of the overall effectiveness of cancer control and care management in the territory. Currently, the HKCaR has yet to routinely provide stage-specific cancer survival rates for common cancers in Hong Kong. The HKCaR aims to expand its role to develop a local cancer surveillance system to report survival data on a regular basis. Such information is essential for the corresponding stakeholders, such as healthcare professionals, researchers, policy makers, in making decisions for better cancer control.

WAY FORWARD

10. Cancer data is crucial to the monitoring of the burden of cancer in a population. The availability of more comprehensive cancer data is

essential to the planning of cancer services across the territory and assessment of the impact of local cancer control programmes at population level.

11. The HKCaR, as the Government-recognised agency tasked to provide wide-spectrum surveillance data, will expand its role in surveillance of cancers by improving the use, efficiency, and reporting system as well as extending the scope of cancer data.

12. The HKCaR aims to shorten the current time lag in the reporting of annual cancer statistics. In addition, the HKCaR will enhance the data collection of more prevalent cancers and improve the comprehensiveness of the data by providing staging information, survival rates and specific clinicopathological data. The HKCaR will work closely with cancer experts with a view to providing complete and accurate staging information for the prevalent cancers in Hong Kong.

13. Besides, the HKCaR has been building partnership with private healthcare service providers to compile and sustain high coverage of cancer data in Hong Kong. To this end, the HKCaR has reached agreement with private hospitals who will support and contribute data to the HKCaR, an official territory-wide surveillance system.

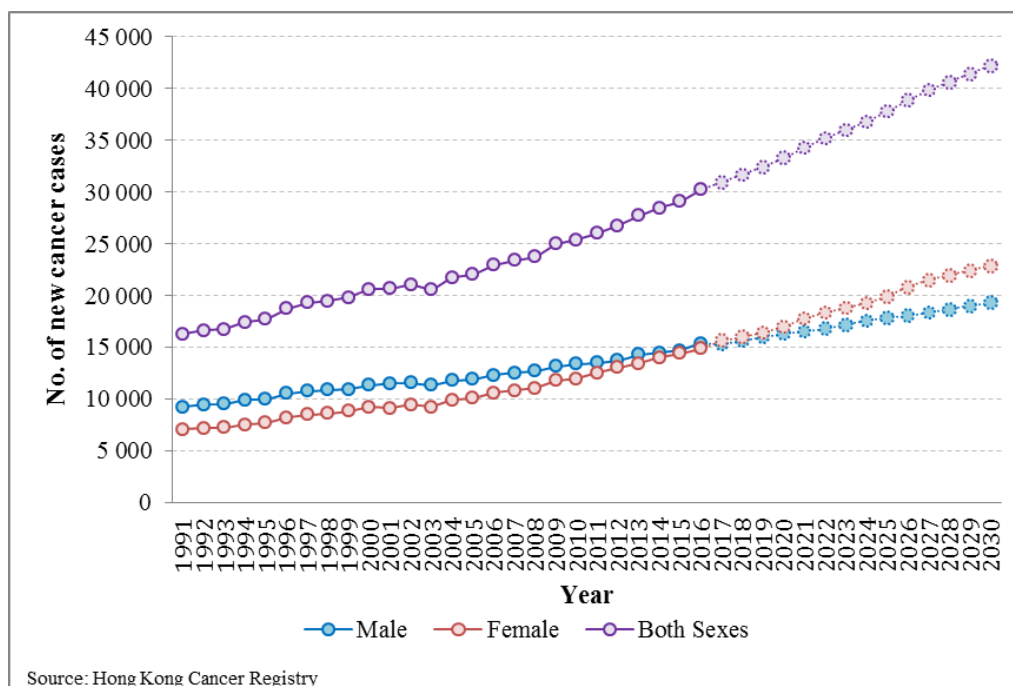
14. The HKCaR will also provide greater access to cancer surveillance data. The cancer information system of the HKCaR will transform complete, timely and high-quality data of different levels into valuable information that is easily accessible. Such information will be disseminated to policy makers, researchers and healthcare providers to support public health, healthcare planning and research. The access to the cancer data would be expanded through a dedicated website, including the creation of fact sheet, bulletin and interactive access to databases for local cancer surveillance. This will also facilitate the general public's understanding on the status and burden of cancer in Hong Kong.

ADVICE SOUGHT

15. Members are invited to note the contents of the paper.

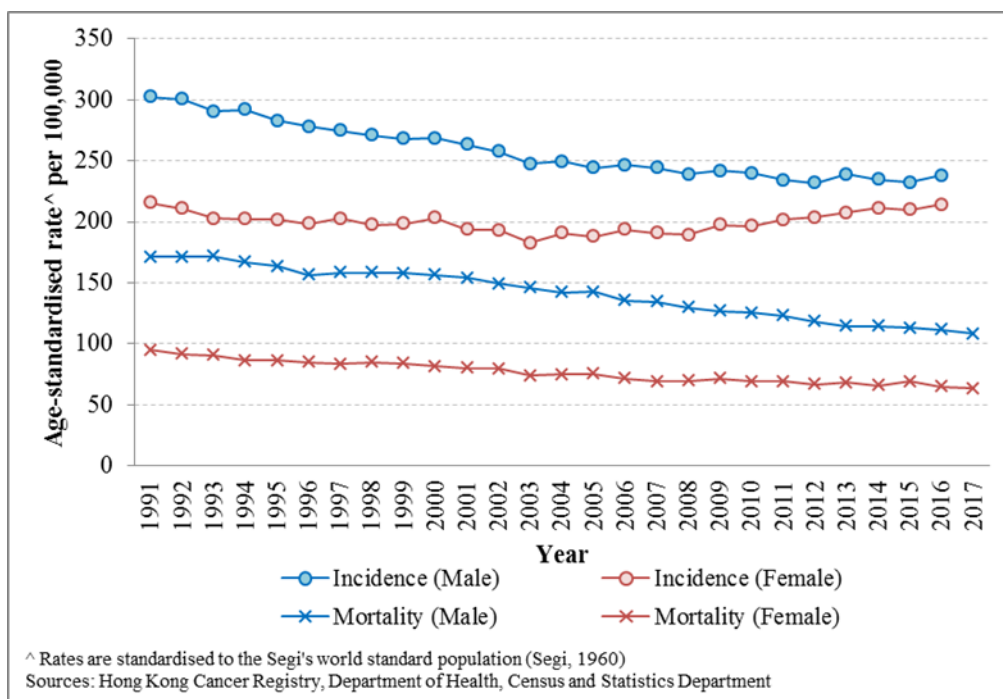
**Food and Health Bureau
Hospital Authority
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Number of new cancer cases in aged 20 or above in 1991 to 2016 and projections to 2030¹



¹ Due to the classification of children and adolescent cancers (age<20) is different from that of adult cancers; and, typically, non-melanoma skin cancers (“NMSC”) are mostly curable with early diagnosis and the registrations for NMSC are likely to be less complete and less accurate than other cancer sites across time, these two categories are excluded in the projection of cancer incidence.

Age-Standardised Incidence and Mortality Rates of All Cancers by Sex



**List of Publications of Research Studies
Participated by the Hong Kong Cancer Registry**

1. JCH Chow, KH Au, OWK Mang, KM Cheung, RKC Ngan. Risk, pattern and survival impact of second primary tumors in patients with nasopharyngeal carcinoma following definitive intensity-modulated radiotherapy. *Asia Pac J Clin Oncol*. 2019; 15(1): 48-55.
2. C Allemani, T Matsuda, VD Carlo, R Harewood, M Matz, M Nikšić, A Bonaventure, M Valkov, CJ Johnson, J Estève, OJ Ogunbiyi, GA Silva, WQ Chen, S Eser, G Engholm, CA Stiller, A Monnereau, R Woods, O Visser, GH Lim, J Aitken, HK Weir, MP Coleman, CONCORD Working Group* (Hong Kong: WK Mang, KC Ngan). Global surveillance of trends in cancer survival 2000–14 (CONCORD-3): analysis of individual records for 37,513,025 patients diagnosed with one of 18 cancers from 322 population-based registries in 71 countries. *Lancet* 2018; 391: 1023–75.
3. KH Au, RKC Ngan, AWY Ng, DMC Poon, WT Ng, KT Yuen, VHF Lee, SY Tung, ATC Chan, ACK Cheng, AWM Lee, DLW Kwong, AHP Tam. Treatment outcomes of nasopharyngeal carcinoma in modern era after intensity modulated radiotherapy (IMRT) in Hong Kong: A report of 3328 patients (HKNPCSG1301 study). *Oral Oncol* 2018; 77: 16–21.
4. H Sung, PS Rosenberg, WQ Chen, Hartman M, WY Lim, KS Chia, OWK Mang, LA Tse, WF Anderson, XR Yang. The impact of breast cancer-specific birth-cohort effects among younger and older Chinese populations . *Int J Cancer*. 2016 Mar 17.
5. BA Bassig, WY Au, O Mang, R Ngan, LM Mortona, DKM Ip, W Hu, T Zheng, WJ Seow, J Xu, Q Lan, N Rothman. q-specific incidence rates of lymphoid malignancies in Hong Kong compared to the United States, 2001–2010. *Cancer Epidemiology* 2016; 42: 15-23.
6. AKwong, OWK Mang, AHP Tam, F Wong, The Hong Kong Breast Cancer Research Group, Stephen CK Law, and Roger KC Ngan. Breast

cancer in Hong Kong, Southern China: The population-based, ten-year analysis of epidemiological characteristics, stage-specific, cancer-specific, & disease-free survival in breast cancer patients: 1997–2006. *Cancer Res* 2015;75(9 Suppl):Abstract nr P3-07-32.

7. H Sung, PS Rosenberg, WQ Chen, M Hartman, WY Lim, KS Chia, RKC Ngan, OWK Mang, CJ Chiang, D Kang, LA TSE, WF Anderson, XR Yang. Female breast cancer incidence among Asian and Western populations: more similar than expected. *J Natl Cancer Inst* 2015; 107(7): djv107.

8. RKC Ngan. Breast cancers in Hong Kong – an overview from the Hong Kong Cancer Registry. *Hong Kong Medical Diary* 2015 Sep; 20(9)4-5.

9. C Allemani, HK Weir, H Carreira, R Harewood, D Spika, XS Wang, F Bannon, JV Ahn, CJ Johnson, A Bonaventure, RM Gragera, C Stiller, GA eSilva, WQ Chen, OJ Ogunbiyi, B Rachet, MJ Soeberg, H You, T Matsuda, M Bielska-Lasota, H Storm, TC Tucker, MP Coleman, and the CONCORD Working Group (Hong Kong: WK Mang, KC Ngan). Global surveillance of cancer survival 1995–2009: Analysis of Individual Data for 25,676,887 patients from 279 population-based registries in 67 countries (CONCORD-2). *Lancet* 2015;385(9972):977-1010.