

# Cancer registry data for China, 2010

David Roder

Cancer Epidemiology & Population Health, University of South Australia, South Australia, Australia

Correspondence to: David Roder, Professor. Cancer Epidemiology & Population Health, University of South Australia, GPO Box 2471, Adelaide, Australia 5001. Email: David.Roder@unisa.edu.au.

Submitted May 01, 2014. Accepted for publication May 08, 2014.

doi: 10.3978/j.issn.2305-5839.2014.05.03

The National Cancer Registry (NCCR) Program of China was established in 2008 to support local registry developments and operations through central financing, regulation and support. The rate of progress in registry development since then has been remarkable by any yardstick. Fifty four registries were established in 2009, and then many more, such that 222 registries were operating by 2012, covering a population of around 200 million people. This compares with closer to 110 million who were being covered by existing registries 2008. Today there are over 250 cancer registries operating in China's 31 provinces and municipalities.

The NCCR Program development reflects national and local needs for comparable incidence, mortality and survival data for indicating geographic differences in cancer patterns and service needs and for guiding and evaluating the country's cancer control effort. Although initial emphasis was placed on population coverage, leading to all provinces being included along with around 15% of the population, NCCR Program emphasis has also been on data standardization and quality improvement. Approximately 70% of registry datasets were submitted to the NCCR that met national quality requirements for inclusion in the 2010 national report. Other registry datasets will be eligible for inclusion when their standards meet national requirements.

The aim of the NCCR Program is to further standardize and institutionalize registry workflow and data quality by 2015, in accordance with national requirements, and to have both representative national and regional data of a high quality available across the country by 2020. Quality indicators include internationally accepted ones, such as percentages of cases morphologically verified, percentages registered on basis of death certificate information only, and mortality to incidence ratios. Quality control indices relate to data comparability,

completeness, validity and timeliness and draw on standard reference texts on data quality used by other cancer registries around the world [including: Bray *et al.*, 2009 (1); Parkin *et al.*, 1994 (2)]. Standard tools, such as the IARC/IACR check program, are used to monitor data quality. Only registry datasets that meet a nationally defined acceptable standard are used to generate national cancer estimates.

The National Registry submitted data from 26 registries for inclusion in the Cancer Incidence in Five Continents (CI5) report of 2003-2007 incidence data, of which 12 on the Chinese mainland were accepted for inclusion. Following establishment of the National Registry Program in 2008, there has been a much increased emphasis on data quality, so outcomes of subsequent submissions to CI5 are likely to show considerable gains. In addition, apart from incidence and mortality data, NCCR has commenced data collection on survival from selected registries as a participant in the CONCORD II international survival study.

Data collection processes include both active and passive reporting. As for other registries, an emphasis is placed on reporting from multiple data sources to gain completeness. Conventional ICD coding classifications are followed. Apart from invasive cancers, data are collected on benign neoplasms and those of uncertain behaviour of the meninges, brain and other central nervous system. Data for 2009 and 2010 show relatively stable cancer patterns by indicating leading incidence cancers to be those with a primary site of lung, female breast, stomach, liver, oesophagus, colon/rectum and cervix, and leading causes of cancer death to include cancers of the lung, liver, stomach, oesophagus, colon/rectum, female breast and pancreas. Marked regional differences are evident, with policy implications.

It is clear that outstanding progress has been made by the NCCR Program in the short time since its establishment

in 2008 in increasing cancer registry population coverage and in developing and implementing rigorous data quality standards. It is a positive feature that the Program is pursuing internationally accepted standards, using recognized international in addition to Chinese reference populations for standardization of cancer rates, and well accepted measures of data quality. Its participation in international CI5 initiatives and in survival benchmarking will add enormous value. In this way, China will contribute to, and likely gain significantly from international benchmarking, and stand to obtain data of a high quality to direct its cancer control efforts.

**Cite this article as:** Roder D. Cancer registry data for China, 2010. *Ann Transl Med* 2014 May 08. doi: 10.3978/j.issn.2305-5839.2014.05.03

## Acknowledgements

*Disclosure:* The author declares no conflict of interest.

## References

1. Bray F, Parkin DM. Evaluation of data quality in the cancer registry: principles and methods. Part I: comparability, validity and timeliness. *Eur J Cancer* 2009;45:747-55.
2. Parkin DM, Chen VW, Ferlay J, et al. Comparability and Quality Control in Cancer Registration. IARC Technical Report No. 19. Lyon: IARC, 1994.