



# 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

Claudia Allemani, Tomohiro Matsuda, Veronica Di Carlo, Rhea Harewood, Melissa Matz, Maja Nikšić, Audrey Bonaventure, Mikhail Valkov, Christopher J Johnson, Jacques Estève, Olufemi J Ogunbiyi, Gulnar Azevedo e Silva, Wan-Qing Chen, Sultan Eser, Gerda Engholm, Charles A Stiller, Alain Monnereau, Ryan R Woods, Otto Visser, Gek Hsiang Lim, Joanne Aitken, Hannah K Weir, Michel P Coleman, CONCORD Working Group\*

## Summary

**Background** In 2015, the second cycle of the CONCORD programme established global surveillance of cancer survival as a metric of the effectiveness of health systems and to inform global policy on cancer control. CONCORD-3 updates the worldwide surveillance of cancer survival to 2014.

**Methods** CONCORD-3 includes individual records for 37·5 million patients diagnosed with cancer during the 15-year period 2000–14. Data were provided by 322 population-based cancer registries in 71 countries and territories, 47 of which provided data with 100% population coverage. The study includes 18 cancers or groups of cancers: oesophagus, stomach, colon, rectum, liver, pancreas, lung, breast (women), cervix, ovary, prostate, and melanoma of the skin in adults, and brain tumours, leukaemias, and lymphomas in both adults and children. Standardised quality control procedures were applied; errors were rectified by the registry concerned. We estimated 5-year net survival. Estimates were age-standardised with the International Cancer Survival Standard weights.

**Findings** For most cancers, 5-year net survival remains among the highest in the world in the USA and Canada, in Australia and New Zealand, and in Finland, Iceland, Norway, and Sweden. For many cancers, Denmark is closing the survival gap with the other Nordic countries. Survival trends are generally increasing, even for some of the more lethal cancers: in some countries, survival has increased by up to 5% for cancers of the liver, pancreas, and lung. For women diagnosed during 2010–14, 5-year survival for breast cancer is now 89·5% in Australia and 90·2% in the USA, but international differences remain very wide, with levels as low as 66·1% in India. For gastrointestinal cancers, the highest levels of 5-year survival are seen in southeast Asia: in South Korea for cancers of the stomach (68·9%), colon (71·8%), and rectum (71·1%); in Japan for oesophageal cancer (36·0%); and in Taiwan for liver cancer (27·9%). By contrast, in the same world region, survival is generally lower than elsewhere for melanoma of the skin (59·9% in South Korea, 52·1% in Taiwan, and 49·6% in China), and for both lymphoid malignancies (52·5%, 50·5%, and 38·3%) and myeloid malignancies (45·9%, 33·4%, and 24·8%). For children diagnosed during 2010–14, 5-year survival for acute lymphoblastic leukaemia ranged from 49·8% in Ecuador to 95·2% in Finland. 5-year survival from brain tumours in children is higher than for adults but the global range is very wide (from 28·9% in Brazil to nearly 80% in Sweden and Denmark).

**Interpretation** The CONCORD programme enables timely comparisons of the overall effectiveness of health systems in providing care for 18 cancers that collectively represent 75% of all cancers diagnosed worldwide every year. It contributes to the evidence base for global policy on cancer control. Since 2017, the Organisation for Economic Co-operation and Development has used findings from the CONCORD programme as the official benchmark of cancer survival, among their indicators of the quality of health care in 48 countries worldwide. Governments must recognise population-based cancer registries as key policy tools that can be used to evaluate both the impact of cancer prevention strategies and the effectiveness of health systems for all patients diagnosed with cancer.

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\*Members are listed at the end of the Article

Cancer Survival Group,  
Department of  
Non-Communicable Disease  
Epidemiology, London School  
of Hygiene & Tropical Medicine,  
London, UK (C Allemani PhD,  
V Di Carlo MSc, R Harewood MSc,  
M Matz PhD, M Nikšić PhD,  
A Bonaventure MD,  
Prof M P Coleman BM BCh);  
Population-based Cancer  
Registry Section, Division of  
Surveillance, Center for Cancer  
Control and Information  
Services, National Cancer  
Center, Tokyo, Japan  
(T Matsuda PhD); Department  
of Radiology, Radiotherapy  
and Oncology, Northern State  
Medical University,  
Arkhangelsk, Russia  
(Prof M Valkov MD); Cancer Data  
Registry of Idaho, Boise, ID,  
USA (C J Johnson MPH);  
Department of Biostatistics,  
Université Claude Bernard,  
Lyon, France (Prof J Estève PhD);  
Ibadan Cancer Registry,  
University City College  
Hospital, Ibadan, Dyo State,  
Nigeria  
(Prof O J Ogunbiyi MBBS);  
Department of Epidemiology,  
Universidade do Estado do Rio  
de Janeiro, Maracanã, Rio de  
Janeiro, Brazil  
(Prof G Azevedo e Silva PhD);  
National Office for Cancer  
Prevention and Control and  
National Central Cancer  
Registry, National Cancer  
Center, Beijing, China  
(W-Q Chen PhD); Department  
of Public Health, Balikesir  
University, Balikesir, Turkey