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

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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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Introduction

The incidence of cancer continues to rise, both in high-income countries and, especially, in low-income and middle-income countries. Prevention is crucial, but implementation has been slow and incomplete, even in high-income countries. Prevention is a long-term strategy, and not all cancers can be prevented.[1] To reduce cancer mortality, reduction of cancer incidence and improvement of cancer survival are both necessary.

Many patients will continue to be diagnosed with cancer every year for decades to come: an estimated 14 million patients a year worldwide around 2012,[2] with a

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Research in context

Evidence before this study

In 2015, the second cycle of the CONCORD programme (CONCORD-2) established global surveillance of cancer survival as one of the key metrics of the effectiveness of health systems and to inform global policy on cancer control. This was done by analysis of individual records for 25·7 million patients diagnosed with one of ten common cancers during 1995–2009 and followed up to Dec 31, 2009. The data were provided by 279 population-based cancer registries in 67 countries. CONCORD-2 revealed wide differences in cancer survival trends that were attributed to differences in access to early diagnosis and optimal treatment.

Added value of this study

CONCORD-3 covers almost 1 billion people worldwide. It includes 15 common cancers in adults and three common cancers in children. Data quality has improved. The results are timely, published within 3 years of the end of follow-up.

CONCORD-3 updates the worldwide surveillance of cancer survival to 2014. It includes data for over 37·5 million patients diagnosed with cancer during the 15-year period 2000–14. Data were provided by more than 320 population-based cancer registries in 71 countries and territories, including 27 countries of low or middle income; 47 countries provided data with 100% population coverage. The study now 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, together with brain tumours, leukaemias, and lymphomas in both adults and children. These cancers represent 75% of all cancers diagnosed worldwide every year, in both low-income and high-income countries. The use of a similar study design and the same statistical methods as in CONCORD-2 enables the evaluation of survival trends for ten cancers over the 20-year period 1995–2014. For the first time, worldwide trends in survival are also available for cancers of the oesophagus, pancreas, and brain, and lymphomas and leukaemias.

Implications of all the available evidence

The CONCORD programme enables comparative evaluation of the effectiveness of health systems in providing cancer care. It also contributes to the evidence base for global policy on cancer control. CONCORD monitors progress towards the overarching goal of the 2013 World Cancer Declaration, to achieve "major reductions in premature deaths from cancer, and improvements in quality of life and cancer survival" by 2020. It provides evidence to support WHO policy following the Cancer Resolution passed by the World Health Assembly in 2017. The International Atomic Energy Agency's Programme for Action on Cancer Therapy used CONCORD-2 results in 2015 to launch its worldwide campaign to highlight the global divide in cancer survival, and to raise awareness of persistent inequalities in access to life-saving cancer services. The results were used in a *Lancet* Series on women's cancers in 2016. The US Centers for Disease Control and Prevention used the results in a 2017 supplement to the journal *Cancer* to inform cancer control policy designed to reduce racial differences in cancer survival.

CONCORD-3 can be expected to affect cancer control policy worldwide, especially in countries with low survival. The Organisation for Economic Co-operation and Development published a subset of CONCORD-3 results in 2017 as the official benchmark of cancer survival, among their indicators of the quality of health care in 48 countries worldwide. The survival estimates will also form part of the *Lancet Oncology* Commission on childhood cancer in 2018. Future research will include examination of the impact on international differences in cancer survival of stage at diagnosis, compliance with treatment guidelines, and the quality of health care.

50% projected increase to 21·6 million patients a year by 2030.[3] Those patients will all need prompt diagnosis and optimal treatment to improve their survival. Monitoring the effectiveness of national and regional health systems in treating and caring for these patients becomes ever more crucial.

In 2016, the WHO Executive Board recommended strengthening health systems to ensure early diagnosis and accessible, affordable, high-quality care for all patients with cancer.[3] The World Health Assembly followed up with a resolution on cancer control in May, 2017. It included recommendations that national cancer control strategies should aim to reduce late presentation and ensure appropriate treatment and care for potentially curable malignancies such as acute leukaemia in children "to increase survival, reduce mortality and improve quality of life".[4]

President Tabaré Vázquez of Uruguay and WHO Director-General Tedros Ghebreyesus have called for all countries "to provide universal health coverage, thereby ensuring all people can access needed preventive and curative health-care services, without falling into poverty".[5] Their call relates to all non-communicable diseases, including cancer. Population-based cancer survival is one metric that can help evaluate whether all people have access to effective treatment services.

In 2015, the second cycle of the CONCORD programme (CONCORD-2) established global surveillance of cancer survival for the first time,[6] with publication of trends in survival over the 15-year period 1995–2009 among patients diagnosed with cancer in 67 countries, home to two thirds (4·8 billion) of the world's population. In 40 countries, the data had 100% national population coverage. CONCORD-2 incorporated centralised quality control and analysis of individual data for 25 676 887 patients diagnosed with one of the ten common cancers that represented 63% of the global cancer burden in 2009. The 279 population-based

registries covered a combined total population of 896 million people.

The US National Cancer Institute, in an invited commentary[7] for *The Lancet*, noted that the global analyses of cancer survival in CONCORD-2 provided insights from countries with successful cancer control initiatives that could be applied in other regions, and that the availability of better data "provides a clearer picture of the effect of cancer control programmes on the ultimate goal of improving survival and reducing the effect of cancer on the social and economic development of countries".

The US Centers for Disease Control and Prevention described CONCORD-2 as the start of global surveillance of cancer survival,[8] with survival estimates "that can be compared so scientists can begin to determine why survival differs among countries. This could lead to improvements in cancer control programs." The results from CONCORD-2 influenced national cancer control strategy in the UK in July, 2015.[9,10] In September, 2015, the International Atomic Energy Agency's Programme for Action on Cancer Therapy used the results to launch a worldwide campaign[11] to highlight the global divide in cancer survival, and to raise awareness of persistent inequalities in access to life-saving cancer services.[12] Further analyses of survival trends and disparities by race and stage at diagnosis in 37 US states have been included in a supplement to *Cancer*,[13,14] designed to improve cancer control in the USA.

CONCORD-3 updates worldwide surveillance of cancer survival trends to include patients diagnosed up to 2014, with follow-up to Dec 31, 2014. In countries that were already involved, more registries are participating, and eight more countries have joined the programme. Follow-up for patients diagnosed during 2000–09 with one of the ten cancers included in CONCORD-2 has been updated. CONCORD-3 includes data for patients diagnosed during 2000–14 with one of 18 malignancies that represent 75% of the global cancer burden (table 1). In addition to information on stage at diagnosis, we have collected data on tumour grade and the first course of treatment. Findings are published within 3 years of the end of follow-up.

	Overall (n=14 067 894)	More developed regions (n=6 053 621)	Less developed regions (n=8 014 273)
Oesophagus	455 784 (3·2%)	86 144 (1·4%)	369 640 (4·6%)
Stomach	951 594 (6·8%)	274 509 (4·5%)	677 085 (8·4%)
Colorectum	1 360 602 (9·7%)	736 867 (12·2%)	623 735 (7·8%)
Liver	782 451 (5·6%)	134 302 (2·2%)	648 149 (8·1%)
Pancreas	337 872 (2·4%)	187 465 (3·1%)	150 407 (1·9%)
Lung	1 824 701 (13·0%)	758 214 (12·5%)	1 066 487 (13·3%)
Melanoma	232 130 (1·7%)	191 066 (3·2%)	41 064 (0·5%)
Breast (women)	1 671 149 (11·9%)	788 200 (13·0%)	882 949 (11·0%)
Cervix	527 624 (3·8%)	83 078 (1·4%)	444 546 (5·5%)
Ovary	238 719 (1·7%)	99 752 (1·6%)	138 967 (1·7%)
Prostate	1 094 916 (7·8%)	741 966 (12·3%)	352 950 (4·4%)
Brain and central nervous system	256 213 (1·8%)	88 967 (1·5%)	167 246 (2·1%)
Lymphomas	451 691 (3·2%)	219 255 (3·6%)	232 436 (2·9%)
Leukaemias	351 965 (2·5%)	141 274 (2·3%)	210 691 (2·6%)
All index cancers*	10 537 411 (74·9%)	4 531 059 (74·8%)	6 006 352 (74·9%)

Data are from Globocan, 2012.[15] Index cancer refers to a cancer or group of malignancies included in CONCORD-3. More developed regions refers to North America, Europe, Australia, New Zealand, and Japan; all other countries and regions are classified as less developed.[15] These are UN designations intended for statistical convenience and do not reflect a judgment about the stage reached by a particular country or area in the development process.[16] *Excluding non-melanoma skin cancer.

Table 1: **Estimated number of patients diagnosed with an index cancer worldwide each year around 2012**

Methods

Cancer registries

We contacted 412 cancer registries in 85 countries: 20 in Africa (13 countries), 45 in Central and South America (15 countries), 68 in North America (two countries), 80 in Asia (20 countries), 189 in Europe (33 countries), and ten in Oceania (two countries).

When the data call for CONCORD-3 was issued in May, 2016, 12 of the 279 cancer registries that had participated in CONCORD-2 were no longer operational. The registry in Benghazi (Libya) had been disrupted by war, the registry in Macerata (Italy) had ceased operating, the Department of Health had ceased funding the UK National Registry of Childhood Tumours in 2013, and the nine English regional cancer registries had been replaced by a single cancer registry for England in 2013. Of the 267 remaining registries, nine could no longer provide up-to-date follow-up of all registered patients, whereas 13 did not reply to repeated approaches. Data from the Tirol (Austria) registry are no longer reported separately from the Austrian national estimates. In all, 244 (87%) of the 279 registries (63 of the 67 countries) that participated in CONCORD-2 submitted data (appendix p 266).

See Online for appendix

Of the 133 registries that had not previously participated in the CONCORD programme, 108 agreed to do so. Of these, 85 (78%) registries in 12 countries submitted data, whereas 11 were unable to complete follow-up of registered patients with cancer for their vital status, nine made no further contact, and three signed up too late (appendix p 266).

Of the 329 registries that submitted data, seven were excluded because their data were not compliant with the protocol and could not be rectified in time. These exclusions affected the only participating registry or registries from several countries: Tunisia (Central Region), Bosnia and Herzegovina (Republika Srpska), Saudi Arabia, and Serbia (Central Region and Vojvodina). We analysed data provided by 322 cancer registries (81% of the 400 operational registries invited) in 71 countries and territories (appendix p 266), for patients diagnosed with cancer during the 15-year period 2000–14, with data on their vital status at least 5 years after diagnosis, or at Dec 31, 2014.

Eight countries from four world regions are participating in the global surveillance of cancer survival

for the first time: Morocco (Africa); Costa Rica (national), Mexico (children, national), and Peru (Central and South America); Iran, Kuwait (national), and Singapore (national; Asia), and Greece (children, national; Europe).

Ethical approvals

We maintain approvals from the Confidentiality Advisory Group of the UK's statutory Health Research Authority (HRA; reference ECC 3-04(i)/2011; last update March 3, 2017), the National Health Service Research Ethics Service (11/LO/0331; Feb 21, 2017), and the London School of Hygiene & Tropical Medicine (12171; Sept 6, 2017). The HRA also approves the Cancer Survival Group's System-Level Security Policy, governing data security. One investigator (MPC) maintains triennial certification with the Collaborative Institutional Training Initiative in Human Subjects Research for Biomedical Investigators (CITI Program; ID3327653; certification updated May 2, 2016). We maintain statutory or ethical approvals and data sharing agreements, usually with annual renewal, in 85 other jurisdictions participating in the CONCORD programme. Registries in all other jurisdictions obtain local approval. The data belong to the participating registries and are only used for purposes agreed in the CONCORD protocol.

Participants transmit data via a specially configured file transmission utility with 256-bit Advanced Encryption Security. The utility automatically generates a random, strong, one-time password for each data file at the time of transmission, and emails it to a different address. Neither the password nor the address are seen by the sender. This avoids the need for confirmation of passwords by email or telephone. Tumour records are effectively anonymised: they do not contain the patient's name, address, postcode, or any national identity or social security number. All variables are numeric or alphanumeric codes. Each registry is sent a set of unique codes that must be used in naming each cancer data file, including distinct filenames for any retransmission. The codes have no meaning outside of the study. Data files thus contain no information that could be used to identify a person or a cancer registry, and neither the name nor the content of the file would indicate that the file contains cancer data. This enhances security and facilitates efficient handling of thousands of data files.

Protocol

The CONCORD-3 protocol defining the data structure, file transmission procedures, and statistical analyses was expanded and updated from the CONCORD-2 protocol, with the inclusion of variables on five additional cancers or groups of malignancies, tumour grade, and the modality and date of the first course of treatment by surgery, radiotherapy, or systemic therapy.

In a study of this scale, adherence to protocol is crucial. The protocol and analytic approaches were discussed with CONCORD Working Group members from 27 countries at a 1-day meeting in Marrakesh, Morocco, on Oct 17, 2016. The protocol was also discussed at workshops in China, Romania, Russia, Singapore, and the USA (for North America), and in conference calls with Costa Rica, Hong Kong, Malaysia, Mauritius, Mexico, and Mongolia.

English is still a barrier to communication in many countries, so the CONCORD-3 protocol was translated into eight other languages: Arabic, Chinese (Mandarin), French, Italian, Japanese, Portuguese, Russian, and Spanish. Translations were done by native speakers in the CONCORD Central Analytic Team in London or the wider CONCORD Working Group, and checked against the English original by other native speakers. The protocol was made available to participants in all nine languages on the CONCORD website. The Central Analytic Team communicates with participants in six languages.

We examined survival for 18 cancers or groups of malignancies (referred to as index cancers): oesophagus, stomach, colon, rectum, liver, pancreas, lung, melanoma of the skin, breast (women), cervix, ovary, and prostate in adults (15–99 years); brain tumours, myeloid, and lymphoid malignancies in adults; and brain tumours, acute lymphoblastic leukaemia, and lymphomas in children (0–14 years). Collectively, these cancers accounted for about 75% of the estimated number of patients diagnosed with cancer worldwide each year around 2012 (table 1). The overall proportion is very similar in North America, Europe, Australia, New Zealand, and Japan (referred to as developed countries[15]) and in other world regions (referred to as developing countries[15]), but it varies widely between cancers: prostate cancer is proportionately three times more common in developed countries, and cervical cancer is four times more common in developing countries (table 1).

Solid tumours were defined by anatomical site (topography), and the leukaemias, lymphomas, and melanoma of the skin by morphology (table 2). Topography and morphology were coded to the International Classification of Diseases for Oncology (third edition, ICD-O-3),[17] including its first revision.[18] We restricted estimation of survival for melanomas to those arising in the skin, including the skin of the labia majora, vulva, penis, and scrotum (table 2). Melanomas arising in internal organs were included with all other malignancies in those organs. For ovarian cancer, we included the fallopian tube, uterine ligaments, and adnexa, as well as the peritoneum and retroperitoneum, where high-grade serous ovarian carcinomas are often detected.[21] Registries were not asked to select cancers by sex, although some did so. Where datasets did include records for breast cancer in men, the proportion was consistently around 0·7%; these records were excluded. We also excluded small numbers of retroperitoneal malignancies in men, as well as Kaposi's sarcoma, and tumours in solid organs with haemopoietic morphology.

Registries provided data for all haemopoietic malignancies (ICD-O-3 morphology codes in the

	Topography or morphology codes*	Description	Contributing countries and registries							
			2000–04		2005–09		2010–14		Any period (2000–14)	
			Countries	Registries	Countries	Registries	Countries	Registries	Countries	Registries
Oesophagus	C15.0–C15.5, C15.8–C15.9	Oesophagus	55	249	59	287	58	273	60	290
Stomach	C16.0–C16.6, C16.8–C16.9	Stomach	57	252	62	293	60	277	62	294
Colon	C18.0–C18.9, C19.9	Colon and rectosigmoid junction	57	251	64	294	64	280	65	296
Rectum	C20.9, C21.0–C21.2, C21.8	Rectum, anus, and anal canal	56	250	63	292	63	278	64	294
Liver	C22.0–C22.1	Liver and intrahepatic bile ducts	56	250	60	289	60	275	61	291
Pancreas	C25.0–C25.4, C25.7–C25.9	Pancreas	55	249	58	288	58	274	59	290
Lung	C34.0–C34.3, C34.8–C34.9	Lung and bronchus	57	250	61	289	61	275	61	290
Melanoma of the skin	8720–8790 provided topography was C44.0–C44.9, C51.0, C51.9, C60.9, or C63.2	Melanoma of the skin, including skin of labia majora, vulva, penis, and scrotum	55	239	58	278	59	266	59	281
Breast (women)	C50.0–C50.6, C50.8–C50.9	Breast	59	255	64	295	65	282	66	298
Cervix	C53.0–C53.1, C53.8–C53.9	Cervix uteri	57	253	63	293	62	277	64	295
Ovary	C48.0–C48.2, C56.9, C57.0–C57.4, C57.7–C57.9	Ovary, fallopian tube and uterine ligaments, other and unspecified female genital organs, peritoneum, and retroperitoneum	56	249	61	288	59	272	61	289
Prostate	C61.9	Prostate gland	58	249	62	289	62	275	62	290
Brain (adults)	C71.0–C71.9	Brain (adults)	55	247	58	283	58	269	59	286
Myeloid (adults)†	9740, 9741, 9742, 9800, 9801, 9805, 9806, 9807, 9808, 9809, 9840, 9860, 9861, 9863, 9865, 9866, 9867, 9869, 9870, 9871, 9872, 9873, 9874, 9875, 9876, 9891, 9895, 9896, 9897, 9898, 9910, 9911, 9920, 9930, 9931, 9945, 9946, 9950, 9960, 9961, 9962, 9963, 9964, 9975, 9980, 9982, 9983, 9984, 9985, 9986, 9987, 9989, 9991, 9992	All myeloid malignancies	56	249	59	280	60	268	61	286
Lymphoid (adults)†	9590, 9591, 9596, 9597, 9650–9655, 9659, 9661–9665, 9667, 9670, 9671, 9673, 9675, 9678, 9679, 9680, 9684, 9687–9691, 9695, 9698, 9699, 9700–9702, 9705, 9708, 9709, 9712, 9714, 9716–9719, 9725–9729, 9731–9735, 9737, 9738, 9760–9762, 9764, 9811–9818, 9820, 9823, 9826, 9827,9831–9837, 9940, 9948	All lymphoid malignancies	57	250	60	284	61	271	62	289
Brain (children)	C71.0–C71.9	Brain (children)	54	219	58	257	60	245	60	260
Acute lymphoblastic leukaemia (children)‡	9835–9837; plus 9811–9818 provided topography was C42.0, C42.1, C42.3, C42.4, or C80.9	Precursor-cell acute lymphoblastic leukaemia	56	214	60	247	61	233	61	254
Lymphoma (children)‡	9590, 9591, 9596, 9597, 9650–9655, 9659, 9661–9665, 9667, 9670, 9671, 9673, 9675, 9678–9680, 9684, 9687–9691, 9695, 9698–9702, 9705, 9708, 9709, 9712, 9714, 9716–9719, 9725–9729, 9731–9735, 9737, 9738, 9740–9742, 9750–9762, 9764–9769, 9970, 9971; plus 9811–9818 provided topography was not C42.0, C42.1, C42.3, C42.4, or C80.9	All lymphomas	55	214	60	253	62	235	62	257

Some registries contributed data for selected cancers or calendar periods, so the number of participating countries also varies by cancer and calendar period. The number of countries and registries that contributed data at some point during 2000–14 is thus greater than or equal to the number in any 5-year period. *International Classification of Diseases for Oncology (ICD-O-3),[17] including its first revision.[18] †Lymphoid malignancies were defined by HAEMACARE[19] groups 1–19 and myeloid malignancies by HAEMACARE groups 20–25, incorporating morphology codes from the first revision of ICD-O-3. ‡The International Classification of Childhood Cancer (third edition)[20] incorporating morphology codes from the first revision of ICD-O-3[18] was used to define childhood acute lymphoblastic leukaemia (group Ia1) and lymphoma in children (group II).

Table 2: **Definition of malignancies and number of contributing countries and registries by calendar period of diagnosis**

range 9590–9992) in adults and children, to minimise differences in the spectrum of leukaemias and lymphomas submitted for analysis. In consultation with specialists in the HAEMACARE[19] and InterLymph[22,23] groups, we agreed to analyse survival for adults in two broad groups: lymphoid malignancies (HAEMACARE groups 1–19) and myeloid malignancies (groups 20–25; table 2; appendix pp 2–5).

For children, we agreed to present survival estimates separately for acute lymphoblastic leukaemia and lymphomas, based on ICD-O-3 codes, grouped according to the third edition of the International Classification of Childhood Cancer.[20] The first revision of ICD-O-3, published in 2013,[18] introduced eight new entities for acute lymphoblastic leukaemia or lymphoma (morphology codes 9811–9818). These new entities were not used at all by registries in 42 of the 58 countries that submitted data for children diagnosed with acute lymphoblastic leukaemia during 2010–14, and very rarely in eight countries (ie, the combined number of children coded to a new entity was fewer than 100), but the proportions ranged from 11% to 89% in large datasets from Australia, Belgium, Canada, the Netherlands, Puerto Rico, Singapore, Taiwan, and the USA. The overall proportion for all 58 countries combined during 2010–14 was 29% (10 679 of 36 867 children). We therefore included the new entities in all analyses. We included them among the acute lymphoblastic leukaemias if the anatomical site was coded as blood, bone marrow, reticulo-endothelial, or haemopoietic system not otherwise specified (C42.0–42.1, C42.3–42.4), or unknown primary site (C80.9). Otherwise, such malignancies were included with the lymphomas (appendix pp 2–5).

Survival analyses include only primary, invasive malignancies (ICD-O-3 behaviour code 3), except for the brain, where benign tumours (behaviour code 0) are also included. To facilitate quality control and comparison of the intensity of early diagnostic and screening activity, registries were asked to provide data for all registered malignancies at each index site, including those that were benign, of uncertain or borderline malignancy (behaviour code 1), in situ (behaviour code 2), metastatic (behaviour code 6), or uncertain whether primary or metastatic (behaviour code 9).

Registries were asked to provide full dates (day, month, and year) of birth, diagnosis, and death or last known vital status, both for quality control and to enable comparable estimation of survival.[24] Where the day or month of birth, or the day of the date of diagnosis, or the day or month of the date of last known vital status was missing, we used an algorithm (details on request) to standardise the imputation of missing components of dates for all populations.

For the **database of global administrative areas** see http://www.gadm.org/

Participating registries completed a questionnaire on their methods of operation, including data definitions, data collection procedures, coding of anatomical site, morphology and behaviour, the tracing of patients registered with cancer to ascertain their vital status, and how tumour records are linked with data on vital status.

Patients diagnosed with two or more primary cancers at different index sites during 2000–14 were included in the analyses for each cancer—eg, colon cancer in 2005 followed by a breast cancer in 2010. Survival was measured from the date of diagnosis until death, loss to follow-up, or censoring. We retained the most complete record for patients with synchronous primary cancers in the same organ. If a patient was registered with two or more primary malignancies in the same index site during 2000–14 (metachronous primaries), only the first was included in analyses.

North American registries define multiple primary cancers under the rules of the Surveillance Epidemiology and End Results programme.[25] Those rules accept more cancers as new primary cancers than do the rules of the International Association of Cancer Registries (IACR),[26] which are used by most cancer registries in other continents. The North American Association of Central Cancer Registries (NAACCR) kindly updated the program developed for CONCORD-2 to enable all North American registries to recode their entire incidence databases to the IACR multiple primary rules before their datasets for 2000–14 were extracted for CONCORD-3.

Countries and territories were defined by their United Nations (UN) name, continent, and code as of 2015.[16] The names of jurisdictions used in the text, tables, graphics, maps, and appendix are based on those used for statistical purposes by the Statistics Division of the UN Secretariat; similarly, we use the terms "national coverage" to contrast with "regional coverage" for statistical purposes. These designations and the presentation of data here do not imply any assumption regarding the political affiliation of countries or territories, or the expression of any opinion whatsoever on the part of the CONCORD programme concerning the legal status of any country, territory, city, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. Some names have been shortened for convenience (eg, Korea for South Korea): this does not carry any political significance.

Cyprus is a Member State of the European Union, but it is part of Asia. Costa Rica, Cuba, Guadeloupe, Martinique, Mexico, and Puerto Rico (Caribbean and Central America) were grouped with South America as Central and South America. World maps and 29 regional maps were prepared in ArcGIS Release 10.3,[27] using digital boundaries (shapefiles) from the database of global administrative areas (GADM 2.8).

The population coverage of the data from participating registries is given as the proportion of the country or jurisdiction's population, taken from the UN Population Division database for 2014,[28] or from the authorities for Australia, Guadeloupe, Hong Kong, Poland, Portugal, and Taiwan, or the registries concerned. Belarus, Greece, and Mexico provided data only for childhood cancers, so the populations used were for children (0–14 years),

and Mali, Mongolia, and Morocco only provided cancer data for women, so we used the female populations.

Quality control

As for the previous cycle of the CONCORD programme,[6] we carried out data quality checks in three phases: protocol adherence, exclusions, and editorial checks. After each phase, a detailed report was sent to each cancer registry for discussion and correction of data where required.

First, we sent registries a report showing the percentage compliance with the protocol for each of 51 variables in each cancer file. Compliance of less than 100% required correction or resubmission of data. Next, we checked for logical inconsistencies between the variables in each tumour record. Exclusion criteria were defined a priori, on the basis of experience from CONCORD-2, and extended to cover features of some of the five additional cancers such as Ann Arbor stage for the lymphomas and 14 additional variables on tumour grade and treatment. The variables in each record were checked for logical coherence against 20 sets of criteria, including eligibility (eg, age and tumour behaviour), definite errors (eg, sex-site errors, invalid dates, impossible date sequence, and missing vital status), and possible errors, including a wide range of inconsistencies between age, tumour site, and morphology.[6,29] Registries were sent exclusion reports for each index cancer and each calendar period, summarising the number of tumour records with each type of definite or possible error, the number registered from a death certificate only (DCO) or detected at autopsy, and the number and proportion of eligible patients whose data could be included in survival analyses. Registries were invited to request details of tumour records in which errors had been detected. Many registries used this information to update their databases. Where errors in classification, coding, or pathological assignment were identified, registries were asked to correct and resubmit their data.

Finally, we examined the proportion of tumour records with morphological verification of the diagnosis, whether from histology of a biopsy or surgical specimen, cytology of a smear or bone marrow aspirate, or from imaging or biomarkers, including tumours with a specific morphology code. We also examined the proportion of cases with non-specific morphology; the distributions of the day and month of the dates of birth, diagnosis, and last known vital status; and the proportion of patients who died within 30 days, were lost to follow-up, or were censored within 5 years of diagnosis.

Follow-up for vital status

Cancer registries use various methods to determine the vital status (alive, dead, emigrated, or lost to follow-up) of patients registered with cancer.[6] Among 243 registries that provided specific information on follow-up procedures, 242 (99%) determine the vital status of registered patients with cancer using passive follow-up techniques in which tumour registration records are regularly linked to a regional or national index of all death registrations, regardless of the cause of death. Linkages are usually based on a national identity or social security number that is stored in both records. Such linkages are increasingly done electronically, but manual scrutiny of printed lists is still required in places. Tumour records that match to a death record are updated with the date of death. Some registries routinely receive paper or electronic death certificates for their territory but this is insufficient on its own because death certificates that do not mention cancer are rarely included. Transcription errors can arise with identity numbers, so variables such as the name, sex, and date of birth are often used to improve the probability of an accurate match between a cancer record and a death registration.

Many registries use electoral registers, hospital records, or official databases, such as social insurance, health insurance, and driving licences, to determine the date on which a patient was last known or believed to have been alive. Patients recorded as having migrated beyond the registry's jurisdiction, or to another country, might be recorded as lost to follow-up because the patient's eventual death is unlikely to be recorded: they are censored from survival analysis on that date.

Active follow-up techniques are also used by 124 (51%) of the 243 registries, which routinely contact the treating physician, general practitioner, or hospital administration to determine the vital status for each registered patient, often on a quarterly or annual basis. Some registries also determine the vital status by contact with the patient's family, by telephone or home visit, or with the village administration.

Registries were asked to submit data with follow-up for at least 5 years or, for patients diagnosed during 2010–14, until Dec 31, 2014. Registration and follow-up for patients diagnosed in 2000–09 was updated and new datasets were submitted.

Patients registered solely from a death certificate or diagnosed at autopsy were excluded from analyses because their survival time is unknown.

Statistical analysis

Most registries submitted data for patients diagnosed between 2000 and 2014, with follow-up to 2014, although some registries only began operation after 2000 or provided data for less than 15 years. The study design we used to examine survival trends among patients diagnosed in three consecutive 5-year calendar periods was "cohort, cohort, period". We used the cohort approach to estimate survival for patients diagnosed during 2000–04 and 2005–09 and the period approach for patients diagnosed during 2010–14. This design was also used for CONCORD-2,[6] so it enables us to examine global trends in survival over a 20-year period by

including the estimates for patients diagnosed during 1995–99.

The cohort approach is considered the gold standard[30,31] because it provides a survival estimate for a group of patients who were diagnosed during the same year or period, are likely to have been treated in similar fashion, and who have all been followed up for at least the duration of survival required, such as 5 years. This approach to the estimation of survival is easy to interpret, but other approaches are required when some patients have been followed up for less than 5 years.

We used the cohort approach for patients diagnosed in 2000–04 and 2005–09 because in most datasets all patients had been followed up for at least 5 years. We used the period approach[32] for patients diagnosed during 2010–14 because 5 years of follow-up data were not available for all patients. This combination of cohort and period approaches facilitates monitoring of cancer survival trends over an extended time span, from the earliest to the most recent years of cancer registration for which follow-up data are available (appendix p 267).[33]

To ensure comparability of survival trends from 1995,[6] we estimated net survival up to 5 years after diagnosis for both adults and children. Net survival is the cumulative probability of surviving up to a given time since diagnosis (eg, 5 years) after correcting for other causes of death (background mortality). We used the Pohar Perme estimator,[34] which takes unbiased account of the higher competing risks of death in elderly people, implemented with the algorithm stns[35] in Stata (version 14).

To control for the wide differences in background mortality between participating jurisdictions and over time, we produced 6210 life tables of all-cause mortality rates for each calendar year during 2000–14 in the general population of each country or registry territory, by single year of age, by sex, and by race or ethnicity in Australia (Northern Territory: Indigenous or non-Indigenous), Israel (Arab or Jewish), New Zealand (Māori or non-Māori), and Singapore (Chinese, Malay, or Indian). For 127 registries, we obtained complete life tables that did not require interpolation or smoothing for each calendar year in 2000–14.

For 193 registries, the method of life table construction depended on whether we received raw data (numbers of deaths and populations) or mortality rates, and on whether the raw data or the mortality rates were by single year of age (ie, complete) or by 5-year age group (ie, abridged).

For 108 registries, we obtained death and population counts from the registry or the relevant national statistical authority. We derived life tables for 2001 and 2013 if possible, each centred on 3 calendar years of data (eg, 2000–02 or 2012–14) to increase the robustness of the rates. We constructed raw mortality rates from the death and population counts using a Poisson regression model with flexible functions,[36] then smoothed and extended the rates to obtain complete life tables by sex and single year of age up to age 99 years. Life tables for each calendar year in 2002–12 were created by linear interpolation between the 2001 and 2010 life tables.[37] Rather than extrapolate, we used the life table centred on 2001 for 2000, and the life table centred on 2013 for 2014.

For 56 registries that provided abridged mortality rates, or complete mortality rates that were not smoothed, we used the Ewbank relational model[38] with three or four parameters to interpolate (if abridged) and smooth the mortality rates for the registry territory against a high-quality smooth life table for a country with a similar pattern of mortality by age.[39]

Each set of life tables was checked with a standardised statistical summary on the earliest and latest year of available data, showing the data source and the method of construction and smoothing. For each sex and, where relevant, each race or ethnicity, the reports show the life expectancy at birth, the probability of death in the age bands 15–59, 60–84, and 85–99 years, and semi-log plots of the age–mortality rates from 0 to 99 years, showing both the raw datapoints and the final smoothed life-table curve, and the model residuals by age group (appendix pp 268–271).

Collection of authoritative raw data on the numbers of deaths and populations by age, sex, and calendar year or period in participating jurisdictions proved more difficult than in 2013–14. For 29 registries, no reliable data on all-cause mortality could be obtained for the registry territory. We took national life tables published by the UN Population Division[28] and interpolated and extended them to age 99 years with the Elandt-Johnson method.[40]

For the 42 participating states in the USA, we used life tables by state, race, and socioeconomic status, provided by the US National Cancer Institute (Mariotto A; personal communication on Jan 26, 2016).

For each country, registry, and calendar period, we present age-standardised net survival estimates for each cancer at 5 years after diagnosis. For adults, we used the International Cancer Survival Standard (ICSS) weights,[41] in which age at diagnosis is categorised into five groups: 15–44, 45–54, 55–64, 65–74, and 75–99 years and, for prostate cancer, 15–54, 55–64, 65–74, 75–84, and 85–99 years. Of the three sets of ICSS weights, we used group 2 (cancers for which incidence does not increase steeply with age) for melanoma of the skin, cervix uteri, and brain (adults), and group 1 (cancers for which incidence does increase steeply with age) for oesophagus, stomach, colon, rectum, liver, pancreas, lung, breast, ovary, and prostate, and both groups of haemopoietic malignancies. For children, we estimated survival for the age groups 0–4, 5–9, and 10–14 years; we obtained age-standardised estimates by assigning equal weights to the three age-specific estimates.[41,42]

Cumulative survival probabilities in the range 0–1 are presented for convenience as percentages in the range 0–100%. 95% CIs for both unstandardised and

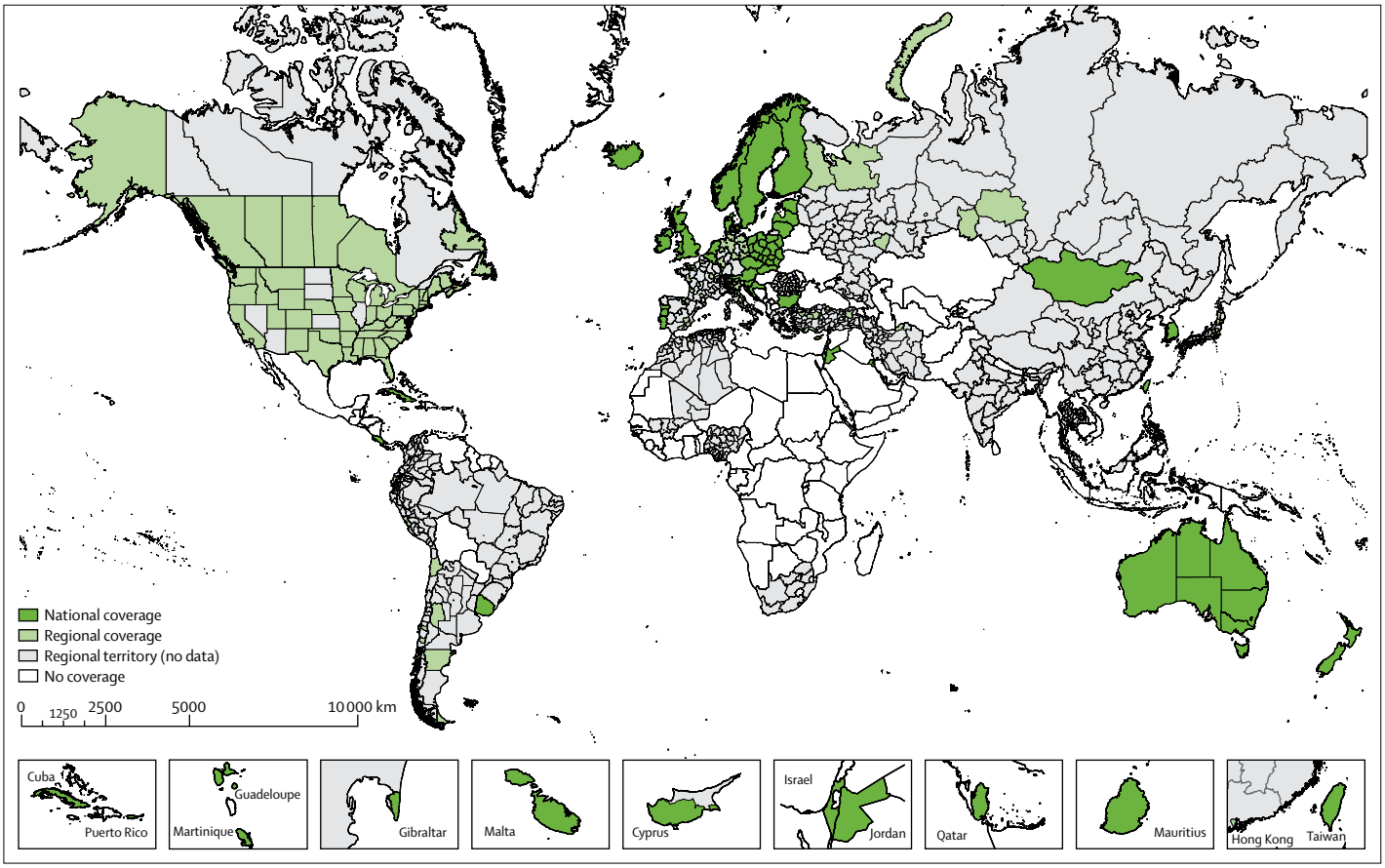

Figure 1: **Participating countries and regions: world (adults)**
Registries in smaller countries are shown in boxes, at different scales. See appendix (pp 178–208) for regional maps and for world map for childhood cancers.

age-standardised survival estimates were derived assuming a normal distribution, truncated to the range 0–100. Standard errors to construct the CIs were derived with the Greenwood method.[43] If no death or censoring occurred within 5 years, or if all patients died within 5 years (survival probability 1 or 0), we obtained a binomial approximation for the lower or upper bound, respectively, of the CI.[30]

We did not estimate survival if fewer than ten patients were available for analysis. If 10–49 patients were available for analysis in a given calendar period, we only estimated survival for all ages combined. If 50 or more patients were available, we attempted survival estimation for each age group. If a single age-specific estimate could not be obtained, we merged the data for adjacent age groups and assigned the combined estimate to both age groups before standardisation for age. If two or more age-specific estimates could not be obtained, we present only the unstandardised estimate for all ages combined. We did not merge data between consecutive calendar periods.

We considered survival estimates as less reliable if 15% or more of patients were lost to follow-up or censored alive within 5 years of diagnosis. For patients diagnosed in 2010 or later, this criterion was applied for patients censored alive before Dec 31, 2014, the study closure date. Estimates are also considered less reliable if 15% or more of patients were registered only from a death certificate or at autopsy and excluded from analysis, because their survival is unknown. Finally, estimates are also considered less reliable if 15% or more of patients were excluded from analysis because one or more dates was incomplete: unknown year of birth, unknown month or year of diagnosis, or unknown year of last known vital status.

The pooled estimates for countries with more than one registry do not include data from registries for which the estimates were less reliable. Less reliable estimates are shown with a flag in figures and tables when they are the only available information from a given country or territory.

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The funding sources played no part in the design, data collection, quality control, analysis, interpretation of the findings, writing of the manuscript, or the decision to submit for publication. The corresponding author had full access to all data and responsibility for submission for publication.

Results

The CONCORD database 2000–14

We analysed data for 322 cancer registries in 71 countries in Africa (eight registries, six countries), Central and South America (33 registries, 13 countries), North America (57 registries, two countries), Asia (66 registries, 17 countries), Europe (149 registries, 31 countries), and Oceania (nine registries, two countries; figure 1).

For 47 countries, data were provided with 100% coverage of the national population: 41 countries for both adults and children, and six for children only (Argentina, Belarus, France, Greece, Mexico, and Switzerland; table 3). In the other countries, population coverage varied from less than 1% in India to 86% in the USA (tables 4, 5). 80 cancer registries joined the CONCORD programme for the first time. The 322 participating registries covered a combined population of almost 1 billion people around 2014 (989 082 244; tables 4, 5). Detailed maps of participating jurisdictions are shown in the appendix (pp 178–208).

Coverage is now national in Australia, and contributions from additional registries increased the population coverage in another 14 of the 25 countries that participated in CONCORD-2 with subnational coverage. These are Africa: Algeria (from 1·6% to 6·0%); Central and South America: Brazil (from 5·7% to 7·7%), Chile (from 5·5% to 13·8%), Colombia (from 6·9% to 9·0%), and Ecuador (from 33·8% to 40·2%); North America: the USA (from 83·2% to 85·8%); Asia: Japan (from 29·2% to 40·6%), Thailand (from 5·9% to 20·3%), and Turkey (from 5.4% to 23·4%); Europe: France (from 18·4% to 21·7%), Italy (from 38·6% to 58·3%), Romania (from 3·1% to 5·0%), Russia (from 0·9% to 5·6%), and Switzerland (from 47·4% to 54·7%); and Oceania: Australia (from 90·8% to 100·0%). International coverage has been reduced by the loss of data from Indonesia (Jakarta) and from four countries in Africa: Gambia, Lesotho, Libya, and Tunisia.

Three of the Polish registries that participated in CONCORD-2 now use a different or anglicised name, changing the alphabetical order in the supplementary tables: Holy Cross (formerly Kielce), Lower Silesia (Wrocław), and Subcarpathia (Podkarpackie). All 16 voivodeships of Poland are now included.

Four registries submitted data with wider territorial coverage than before. The Burgundy (Digestive) registry in France submitted data for both the Saône-et-Loire and the Côte-d'Or departments; in Italy, the Biella registry now covers the Vercelli province as well as Biella, and the Milan registry now covers the Milan province and Lodi as well as the city of Milan; and the Cluj registry in Romania expanded coverage from Cluj county to include Bistrița-Năsăud county.

We received more than 4700 datasets. We examined individual cancer registrations for 42 222 177 patients diagnosed with an index cancer during the period 2000–14 (table 3). Of these, 2 690 466 (6·4%) were for an in-situ cancer, mostly of the cervix (54·6% of 1 708 385 women), melanoma of the skin (27·0% of 2 262 368 patients), breast (10·6% of 7 379 194 women), rectum (4·8% of 1 881 039 patients), colon (4·4% of 4 619 844 adults), or prostate (0·6% of 6 069 870 men; appendix pp 6–101). The proportions of in-situ cancer are not directly comparable between countries because some registries still do not record in-situ malignancies, whereas others did not submit data for cancers for which in-situ malignancy is common. The variation between continents is still of interest: for cervical cancer, it ranged from 2·2% in African registries to 23·6% in Central and South American registries, 37·4% in Asian registries, 66·7% in European registries, and 81·9% in Oceania; US registries did not submit data for in-situ cervical cancers and only three Canadian provinces did so. The proportion of in-situ breast cancers varied from 0·2% in African registries to 4·6% in Central and South America, Asia, Europe, and Oceania, and 17·3% in North America (appendix pp 52–56).

Patients with in-situ cancer were not included in survival analyses. We excluded a further 227 038 (0·5%) patients because the year of birth, the month or year of diagnosis, or the year of last known vital status was unknown; and 527 408 (1·2%) patients because the tumour was not a primary, invasive malignancy (behaviour code 3); or the morphology was that of Kaposi's sarcoma or lymphoma in a solid organ; or for other reasons (table 3). The proportion of records excluded for these reasons is shown for each cancer and each cancer registry in the appendix (pp 6–101).

Of the 38 777 265 patients otherwise eligible for inclusion in survival analyses, we excluded 1 132 833 (2·9%) records because the cancer was registered only from a death certificate or discovered at autopsy (table 3) and a further 131 407 (0·3%) for other reasons. These reasons included definite errors (unknown vital status, unknown sex, sex-site error, and invalid dates or sequence of dates) and possible errors, such as apparent inconsistencies between age, cancer site, and morphology (details on request). For example, we excluded hepatoblastomas in children older than 6 years and multiple myeloma in people aged less than 20 years, unless the record was confirmed as correct by the registry concerned.

Among the 37 513 025 patients available for survival analyses for all cancers combined (96·7% of those eligible for inclusion), pathological evidence of malignancy (histology, cytology, or haematology) was available for 35 502 123 (94·6%). This proportion ranged from 88·6% in Asia, 91·6% in Africa, and 92·4% in Central and South America up to 94–98% in Europe, Oceania, and North America (table 3). Continental variation was much wider for some cancers (appendix pp 6–101).

In what follows, we present results in a similar structure for each group of cancers. Differences between survival estimates are given as the arithmetic difference: for example, 12% is 2% (not 20%) higher than 10%. We use flags in the figures (figures 2, 3) and tables (tables 6, 7) to indiate where survival estimates are based on national

	Calendar period	Patients submitted	Ineligible patients†			Eligible patients	Excluded§		Patients included	Data quality indicators¶			
			Incomplete dates	In situ	Other		DCO	Other		Microscop-ically verified	Non-specific morphology	Lost to follow-up	Censored
Africa		46 627	9·6%	0·4%	1·1%	41 447	0·9%	2·1%	40 197	91·6%	14·1%	7·6%	37·7%
Algerian registries	2000–14	18 157	7·6%	0·1%	1·8%	16 434	1·8%	3·3%	15 602	98·4%	10·2%	0·0%	31·5%
Mali (Bamako)	2010–12	104	41·3%	0·0%	0·0%	61	0·0%	1·6%	60	100·0%	20·0%	0·0%	0·0%
Mauritius*	2005–12	4125	0·0%	0·0%	0·4%	4109	0·0%	3·7%	3959	96·7%	19·8%	0·0%	2·3%
Morocco (Casablanca)	2008–12	4840	1·4%	0·0%	0·1%	4769	0·0%	1·8%	4683	100·0%	2·4%	33·0%	35·6%
Nigeria (Ibadan)	2003–14	11 726	25·4%	1·4%	1·2%	8443	0·9%	1·1%	8274	98·7%	2·0%	0·0%	65·3%
South Africa (Eastern Cape)	2000–14	7675	0·0%	0·0%	0·6%	7631	0·0%	0·2%	7619	62·3%	39·5%	19·7%	40·2%
America (Central and South)		906 076	5·4%	3·1%	0·7%	822 687	13·7%	1·1%	700 946	92·4%	8·0%	5·2%	3·7%
Argentinian registries‡	2000–14	75 167	1·7%	1·5%	0·5%	72 366	10·8%	0·6%	64 151	96·5%	5·7%	0·0%	2·3%
Brazilian registries	2000–14	191 344	18·5%	3·9%	0·5%	147 622	8·0%	0·9%	134 597	90·0%	10·6%	22·9%	0·3%
Chilean registries	2000–12	28 987	0·0%	0·8%	0·7%	28 555	7·6%	0·1%	26 363	86·2%	12·0%	0·0%	13·6%
Colombian registries	2000–14	63 402	3·1%	1·5%	1·2%	59 740	5·0%	0·9%	56 245	89·9%	11·3%	0·0%	21·0%
Costa Rica*	2002–14	72 900	0·0%	4·1%	1·4%	68 900	8·4%	0·8%	62 536	90·1%	13·0%	0·0%	0·0%
Cuba*	2000–12	193 196	0·0%	0·0%	0·2%	192 755	32·3%	2·5%	125 696	91·8%	5·1%	2·6%	0·0%
Ecuadorian registries	2000–14	71 798	7·7%	8·2%	0·8%	59 892	9·8%	1·6%	53 043	92·0%	9·9%	0·3%	2·7%
Guadeloupe*	2008–13	8896	0·0%	12·0%	0·3%	7802	0·0%	0·2%	7787	99·1%	2·1%	0·0%	57·7%
Martinique*	2000–12	16 066	0·0%	0·0%	0·1%	16 053	0·0%	1·7%	15 779	97·3%	0·7%	7·3%	0·1%
Mexico (childhood)‡	2008–14	9749	5·8%	0·0%	9·7%	8236	0·0%	0·5%	8194	99·8%	3·9%	9·3%	7·6%
Peru (Lima)	2010–12	19 078	0·1%	0·0%	0·7%	18 929	8·9%	0·1%	17 226	93·9%	2·9%	0·0%	10·2%
Puerto Rico*	2000–11	118 877	3·7%	3·9%	0·7%	109 001	6·4%	0·3%	101 613	98·4%	3·4%	0·0%	0·0%
Uruguay*	2008–12	36 616	0·0%	9·6%	0·7%	32 836	15·5%	0·1%	27 716	85·0%	15·9%	0·0%	0·0%
America (North)		15 925 870	0·7%	6·8%	0·7%	14 622 183	1·8%	0·3%	14 320 034	97·7%	3·0%	1·4%	0·0%
Canadian registries	2000–14	1 519 461	0·1%	4·9%	0·7%	1 431 975	1·2%	0·4%	1 409 413	94·8%	5·5%	0·0%	0·0%
US registries	2000–14	14 406 409	0·7%	7·0%	0·7%	13 190 208	1·8%	0·3%	12 910 621	98·0%	2·8%	1·5%	0·0%
Asia		6 595 363	0·6%	3·4%	0·4%	6 298 518	4·7%	0·4%	5 976 959	88·6%	11·5%	0·4%	1·0%
Chinese registries	2003–13	610 729	0·8%	0·2%	0·2%	603 861	1·4%	0·1%	594 533	66·2%	41·8%	3·2%	0·1%
Cyprus*	2004–14	25 086	1·4%	2·6%	0·8%	23 880	9·0%	0·5%	21 610	98·9%	1·8%	0·0%	34·8%
Hong Kong*	2005–14	78 127	3·8%	0·0%	0·0%	75 146	0·4%	0·2%	74 721	96·6%	0·0%	5·5%	0·0%
Indian registries	2000–14	5048	3·2%	0·0%	0·0%	4882	1·7%	0·6%	4774	82·1%	25·1%	1·8%	0·1%
Iran (Golestan)	2006–08	1187	0·0%	0·0%	0·5%	1181	8·9%	3·1%	1039	82·1%	17·9%	8·9%	0·0%
Israel*	2000–13	282 191	0·0%	7·3%	2·2%	255 359	4·8%	0·4%	241 881	96·8%	4·2%	0·0%	0·0%
Japanese registries	2000–14	2 237 861	1·0%	4·8%	0·5%	2 096 697	12·4%	0·1%	1 834 894	91·4%	11·3%	0·0%	1·7%
Jordan*	2000–14	43 442	0·2%	1·2%	1·5%	42 179	0·2%	1·6%	41 433	99·1%	3·0%	5·9%	0·0%
Korea*	2000–14	1 770 463	0·5%	0·0%	0·0%	1 762 176	0·0%	0·1%	1 760 804	93·1%	7·8%	0·0%	0·0%
Kuwait*	2000–13	8931	0·0%	1·4%	1·1%	8710	2·3%	0·3%	8484	99·8%	0·4%	1·2%	0·0%
Malaysia (Penang)	2000–13	19 612	0·3%	0·0%	0·1%	19 527	1·6%	2·1%	18 805	94·2%	9·5%	0·0%	13·0%
Mongolia*	2003–14	1025	0·0%	1·1%	0·0%	1014	0·3%	1·2%	999	77·0%	4·1%	7·6%	0·0%
Qatar*	2000–14	7940	0·0%	1·0%	1·0%	7778	1·0%	0·7%	7642	95·4%	6·3%	0·0%	51·0%
Singapore*	2000–14	122 461	0·0%	7·0%	1·9%	111 495	1·1%	0·3%	109 992	91·7%	1·9%	0·0%	0·0%
Taiwan*	2000–14	941 313	0·1%	8·6%	0·1%	859 169	0·0%	0·1%	858 683	86·6%	0·5%	0·0%	0·0%
Thai registries	2000–14	183 776	0·0%	0·3%	0·5%	182 455	3·8%	8·7%	159 528	68·6%	34·0%	0·0%	3·0%
Turkish registries	2000–13	256 171	1·5%	2·7%	0·9%	243 009	1·9%	0·5%	237 137	94·7%	7·9%	0·2%	3·8%

(Table 3 continues on next page)

population coverage, are unstandardised, or are considered less reliable. Where relevant, we mention in the text only reliable, age-standardised survival estimates. Where possible, we also present graphics of national trends in cancer survival over the 20-year period 1995–2014. Estimates for patients diagnosed during 1995–99 are for countries that provided data for one of the ten cancers included in CONCORD-2.[6]

	Calendar period	Patients submitted	Ineligible patients†			Eligible patients	Excluded§		Patients included	Data quality indicators¶			
			Incomplete dates	In situ	Other		DCO	Other		Microscopically verified	Non-specific morphology	Lost to follow-up	Censored
(Continued from previous page)													
Europe		17 057 088	0·1%	7·0%	2·1%	15 481 564	2·8%	0·3%	14 991 316	94·0%	3·9%	0·9%	2·1%
Austria*	2000–14	486 379	0·0%	7·4%	1·2%	444 735	6·1%	1·1%	412 683	98·0%	4·9%	0·0%	0·0%
Belarus (childhood)‡	2000–14	1740	0·0%	0·0%	0·0%	1740	0·6%	2·5%	1687	97·9%	2·5%	1·5%	0·0%
Belgium*	2004–14	616 737	0·0%	11·4%	0·2%	545 373	0·0%	0·2%	544 110	98·4%	2·0%	1·1%	0·0%
Bulgaria*	2000–14	299 563	0·0%	0·0%	0·1%	299 333	8·5%	0·0%	273 868	89·2%	1·4%	0·1%	0·0%
Croatia*	2000–14	246 883	0·0%	3·5%	0·2%	237 793	6·2%	0·1%	222 776	82·9%	0·5%	0·0%	0·0%
Czech Republic*	2000–14	640 594	0·0%	7·5%	1·6%	582 748	1·3%	0·4%	572 368	90·3%	1·5%	0·0%	0·0%
Denmark*	2000–14	366 310	0·0%	0·0%	0·2%	365 525	0·0%	0·1%	365 105	96·3%	6·8%	0·2%	0·0%
Estonia*	2000–12	64 038	0·0%	1·8%	0·7%	62 396	3·9%	0·2%	59 848	89·2%	2·0%	0·3%	0·0%
Finland*	2000–14	328 513	0·6%	5·4%	0·9%	306 077	3·8%	0·1%	294 268	95·8%	3·2%	0·1%	0·0%
French registries‡	2000–12	466 020	0·2%	0·0%	0·3%	463 588	0·0%	0·6%	460 927	96·1%	0·6%	1·8%	0·1%
German registries	2000–14	1 925 070	0·4%	4·5%	1·0%	1 811 465	10·3%	0·2%	1 621 312	97·5%	0·7%	0·3%	17·7%
Gibraltar*	2000–10	732	13·0%	11·7%	1·1%	543	0·2%	1·7%	533	99·6%	0·8%	0·0%	41·7%
Greece (childhood)‡	2000–14	1743	0·6%	0·0%	0·0%	1733	0·0%	0·4%	1726	99·9%	0·1%	0·8%	0·2%
Iceland*	2000–14	15 245	0·0%	1·4%	0·8%	14 918	0·8%	0·1%	14 782	96·5%	3·9%	0·0%	0·0%
Ireland*	2000–13	240 962	0·0%	16·3%	0·9%	199 552	1·5%	0·2%	196 331	92·2%	1·7%	0·0%	0·0%
Italian registries	2000–14	1 452 003	0·0%	1·8%	0·8%	1 414 476	0·7%	0·3%	1 400 117	87·5%	14·1%	0·7%	0·8%
Latvia*	2000–14	97 852	0·0%	0·1%	26·8%	71 511	0·0%	0·6%	71 082	99·8%	1·1%	0·0%	0·0%
Lithuania*	2000–12	154 857	0·0%	4·1%	1·1%	146 896	4·9%	0·2%	139 475	87·6%	1·5%	0·0%	0·3%
Malta*	2000–13	17 625	0·0%	6·9%	1·8%	16 091	3·1%	0·4%	15 518	92·4%	8·9%	0·0%	0·0%
Netherlands*	2000–14	1 047 456	0·0%	3·8%	1·2%	994 826	0·2%	0·6%	987 029	96·2%	4·0%	0·5%	0·0%
Norway*	2000–14	488 733	0·0%	10·3%	32·5%	279 696	0·5%	0·1%	277 991	99·8%	0·4%	0·2%	0·0%
Poland*	2000–14	1 389 978	0·0%	0·1%	0·3%	1 383 780	2·5%	0·3%	1 344 837	91·4%	1·3%	0·0%	0·0%
Portugal*	2000–14	408 523	0·7%	2·7%	1·5%	388 199	0·1%	0·2%	386 853	96·7%	2·7%	1·7%	0·0%
Romania (Cluj)	2006–12	17 740	0·0%	3·1%	1·7%	16 894	16·6%	0·2%	14 060	90·1%	10·7%	0·0%	0·0%
Russian registries	2000–14	252 171	0·0%	0·5%	0·4%	249 928	0·8%	1·0%	245 591	85·4%	4·1%	2·0%	1·3%
Slovakia*	2000–10	180 029	0·0%	4·1%	1·3%	170 269	8·2%	0·1%	156 122	94·0%	6·7%	0·0%	0·0%
Slovenia*	2000–13	124 213	0·0%	13·0%	2·4%	105 052	2·0%	0·0%	102 970	93·5%	0·3%	0·1%	0·0%
Spanish registries	2000–14	417 865	0·3%	6·8%	0·9%	384 586	1·9%	0·2%	376 759	91·7%	2·2%	0·5%	0·5%
Sweden*	2000–14	676 693	0·0%	15·4%	3·0%	551 717	1·1%	0·2%	544 531	98·6%	2·2%	0·2%	0·0%
Swiss registries‡	2000–14	241 610	0·0%	7·9%	2·5%	216 439	1·2%	0·5%	212 695	95·9%	2·4%	4·6%	3·9%
UK*	2000–14	4 389 211	0·1%	13·0%	1·4%	3 753 685	1·8%	0·3%	3 673 362	94·9%	4·5%	1·9%	0·0%
Oceania		1 691 153	0·3%	9·7%	0·7%	1 510 866	1·6%	0·2%	1 483 573	96·5%	3·6%	0·0%	0·0%
Australia*	2000–14	1 443 620	0·3%	11·3%	0·8%	1 263 961	1·4%	0·2%	1 244 350	97·0%	3·0%	0·0%	0·0%
New Zealand*	2000–14	247 533	0·0%	0·0%	0·3%	246 905	2·9%	0·2%	239 223	94·3%	6·3%	0·0%	0·0%
Total		42 222 177	0·5%	6·4%	1·2%	38 777 265	2·9%	0·3%	37 513 025	94·6%	4·9%	1·0%	1·1%

DCO=death certificate only. *Data with 100% coverage of the national population. †Incomplete dates: records in which the year of birth is unknown; or the month or year of diagnosis is unknown; or the year of last known vital status is unknown. In-situ malignancy (ICD-O-3 behaviour code 2): some registries do not register in-situ cancers; other registries did not submit them. Other: records with incomplete data or for tumours that are benign (behaviour code 0, except brain tumours), of uncertain behaviour (behavior code 1), metastatic from another organ (behavior code 6), or unknown if primary or metastatic (behavior code 9); or for patients with age outside the range 0–14 years (children) or 15–99 years (adults); or other conditions. ‡Data with 100% coverage of the national population for childhood malignancies only. §DCO: tumours registered only from a death certificate or detected at autopsy. Sweden does not register DCOs; autopsy-detected cases were not submitted for CONCORD-2 but have been submitted for CONCORD-3. Other: vital status or sex unknown; invalid date or sequence of dates; inconsistency of sex–site, site-morphology, age–site, age-morphology, or age–site-morphology. ¶Non-specific morphology (solid tumours only): ICD-O-3[17,18] morphology code in the range 8000–8005. Censored: patients whose last known vital status is "alive" and who were censored within 5 years of diagnosis or, if diagnosed in 2010 or later, before Dec 31, 2014.

***Table 3*: Data quality indicators: patients diagnosed during 2000–14 by continent and country**

Oesophagus

Results are available for 734 428 adults from 290 registries in 60 countries (table 2, table 4). In 2010–14, 5-year age-standardised net survival was in the range 10–30% in most countries, with a much wider range in Asia (appendix p 248). Most survival estimates were considered reliable (table 6; appendix pp 138–151).

	Population covered	Percentage of national population covered	Number of patients								Total number of patients†
			Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas	Lung	Melanoma of the skin	
Africa	10 533 762	3·5%	3057	1731	2172	1487	869	379	2734	368	40 197
Algerian registries	2 447 075	6·3%	104	1129	1331	827	244	272	1852	248	15 602
Mali (Bamako)	764 245	9·0%	..	..	..	..	..	..	..	..	60
Mauritius*	1 268 567	100·0%	59	494	494	289	27	45	584	4	3959
Morocco (Casablanca)	2 178 083	12·7%	..	..	..	..	..	..	..	..	4683
Nigeria (Ibadan)	2 797 220	1·6%	..	..	230	266	333	..	..	69	8274
South Africa (Eastern Cape)	1 078 572	2·0%	2894	108	117	105	265	62	298	47	7619
America (Central and South)	99 818 363	23·7%	13 528	60 643	82 843	26 424	9019	15 731	53 959	8202	700 946
Argentinian registries‡	3 973 922	9·2%	1152	2686	6076	1959	968	1657	5195	1084	64 151
Brazilian registries	15 882 624	7·7%	6678	15 567	21 984	10 354	858	5520	4884	1424	134 597
Chilean registries	2 459 133	13·8%	918	4423	1949	824	525	793	2166	554	26 363
Colombian registries	4 277 369	9·0%	642	7988	3874	1990	1129	1303	3965	1373	56 245
Costa Rica*	4 757 606	100·0%	528	8577	5438	1926	1239	1188	2688	1432	62 536
Cuba*	11 379 111	100·0%	..	6664	15 047	..	..	..	19 344	..	125 696
Ecuadorian registries	6 398 546	40·2%	486	7210	3203	1622	1502	1069	2641	1080	53 043
Guadeloupe*	450 273	100·0%	119	521	724	210	82	167	308	52	7787
Martinique*	396 425	100·0%	213	973	1305	423	206	473	693	164	15 779
Mexico (childhood)‡	35 188 624	100·0%	..	..	..	..	..	..	..	..	8194
Peru (Lima)	7 548 697	24·4%	..	..	2803	992	..	..	..	..	17 226
Puerto Rico*	3 686 517	100·0%	1743	3900	14 594	3882	2202	1984	6570	1039	101 613
Uruguay*	3 419 516	100·0%	1049	2134	5846	2242	308	1577	5505	..	27 716
America (North)	301 237 785	84·8%	195 255	283 566	1 471 548	461 707	246 966	462 187	2 564 507	678 206	14 320 034
Canadian registries	27 213 277	76·5%	18 788	33 889	166 760	60 958	20 858	41 908	236 434	65 235	1 409 413
US registries	274 024 508	85·8%	176 467	249 677	1 304 788	400 749	226 108	420 279	2 328 073	612 971	12 910 621
Asia	227 771 765	7·2%	206 254	971 935	703 081	361 987	617 479	205 345	950 362	31 314	5 976 959
Chinese registries	31 755 347	2·3%	72 714	92 578	35 001	31 498	74 295	19 110	133 932	1 449	594 533
Cyprus*	1 153 658	100·0%	81	802	2665	788	247	534	2489	589	21 610
Hong Kong*	7 241 700	100·0%	..	..	28 797	12 856	..	..	..	..	74 721
Indian registries	1 005 294	0·1%	269	303	199	191	230	134	850	29	4774
Iran (Golestan)	1 893 646	2·4%	412	353	216	58	..	..	..	..	1039
Israel*	7 939 483	100·0%	1691	9737	33 938	9401	2310	8083	25 347	12 265	241 881
Japanese registries	51 445 407	40·6%	63 631	381 457	247 682	102 776	122 792	79 636	276 444	4018	1 834 894
Jordan*	7 416 083	100·0%	352	1955	5116	1775	606	952	4282	214	41 433
Korea*	50 074 400	100·0%	30 627	396 213	187 078	121 053	214 821	59 357	257 345	5771	1 760 804
Kuwait*	3 753 121	100·0%	90	207	908	330	261	240	559	18	8484
Malaysia (Penang)	1 543 500	5·2%	290	1061	2285	1126	927	539	2863	..	18 805
Mongolia*	1 468 823	100·0%	..	..	..	..	..	..	..	..	999
Qatar*	2 172 065	100·0%	98	361	784	283	438	186	587	55	7642
Singapore*	3 870 700	100·0%	1 434	6822	17 225	6241	7101	3481	17 921	367	109 992
Taiwan*	23 123 866	100·0%	27 680	54 983	108 844	57 163	158 157	22 283	141 108	2988	858 683
Thai registries	13 738 188	20·3%	3344	5321	13 801	6679	30 814	3284	28 865	695	159 528
Turkish registries	18 176 484	23·4%	3541	19 782	18 542	9769	4480	7526	57 770	2856	237 137

(Table 4 continues on next page)

Survival was highest in Japan (36·0%) and Korea (31·3%), and less than 30% in all other countries (table 6; appendix p 210). Survival was in the range 20–30% in ten countries: Puerto Rico; the USA; China and Israel; five European countries (Ireland [northern Europe]; and Belgium, Germany, the Netherlands, and Switzerland [western Europe]); and Australia.

Survival trends from 2000 to 2014 increased by 4–5% in three European countries (Denmark and the UK [northern Europe]; and Germany [western Europe]), and

	Population covered	Percentage of national population covered	Number of patients								Total number of patients†
			Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas	Lung	Melanoma of the skin	
(Continued from previous page)											
Europe	321 365 615	50·0%	294 606	668 096	1 764 170	801 387	283 720	506 723	2 317 434	647 507	14 991 316
Austria*	8 516 916	100·0%	5324	19 308	46 127	23 360	10 570	18 371	56 130	19 150	412 683
Belarus (childhood)‡	1 498 163	100·0%	..	..	..	..	..	..	..	..	1687
Belgium*	11 226 322	100·0%	10 191	15 222	63 540	27 614	7026	15 015	83 551	21 905	544 110
Bulgaria*	7 201 308	100·0%	..	21 404	37 854	22 511	5704	..	50 210	5875	273 868
Croatia*	4 255 853	100·0%	3007	14 589	27 382	15 309	5456	8596	41 744	7848	222 776
Czech Republic*	10 542 666	100·0%	7764	24 157	83 481	34 838	12 056	27 622	93 241	27 800	572 368
Denmark*	5 646 899	100·0%	6556	8022	40 495	22 384	4708	13 279	62 402	24 630	365 105
Estonia*	1 316 203	100·0%	786	5212	6523	3062	903	2698	9201	1983	59 848
Finland*	5 479 660	100·0%	3686	9871	25 374	12 847	5096	12 851	31 950	14 949	294 268
French registries‡	13 891 552	21·7%	9958	13 770	53 149	20 018	14 818	15 328	51 989	13 677	460 927
German registries	29 655 933	36·8%	27 208	75 378	191 396	99 791	28 301	57 498	212 897	78 713	1 621 312
Gibraltar*	31 997	100·0%	12	29	81	21	5	13	63	31	533
Greece (childhood)‡	1 610 335	100·0%	..	..	..	..	..	..	..	..	1726
Iceland*	327 318	100·0%	271	473	1433	580	165	481	2 314	713	14 782
Ireland*	4 675 164	100·0%	4899	6801	21 724	9085	2178	5931	26 838	9470	196 331
Italian registries	34 479 972	57·7%	12 219	80 686	188 983	53 226	63 084	56 698	203 548	46 607	1 400 117
Latvia*	1 989 354	100·0%	1294	6878	7658	4748	464	1072	9691	2503	71 082
Lithuania*	2 916 798	100·0%	2130	11 840	11 148	7694	1776	5421	18 499	3317	139 475
Malta*	417 723	100·0%	184	656	1908	781	152	709	2043	541	15 518
Netherlands*	16 868 020	100·0%	25 342	29 585	126 237	51 839	6397	28 717	159 895	59 088	987 029
Norway*	5 147 970	100·0%	3021	7548	36 646	16 306	1916	6671	33 558	19 994	277 991
Poland*	38 483 957	100·0%	18 959	79 466	140 075	83 669	20 764	47 635	306 136	35 834	1 344 837
Portugal*	10 566 132	100·0%	6122	33 865	57 219	25 989	5107	8303	40 422	9358	386 853
Romania (Cluj)	983 525	5·0%	216	1201	1552	657	547	563	2126	436	14 060
Russian registries	8 081 400	5·6%	6000	31 711	28 946	16 305	3757	10 048	42 434	4914	245 591
Slovakia*	5 422 861	100·0%	2794	9604	23 694	11 066	2741	6624	22 971	6389	156 122
Slovenia*	2 066 068	100·0%	1202	6443	12 376	6682	1964	4073	16 051	5603	102 970
Spanish registries	9 396 745	20·3%	5637	17 844	54 250	18 245	11 848	12 438	54 237	11 028	376 759
Sweden*	9 703 247	100·0%	6233	13 463	55 664	29 777	7242	14 240	51 122	36 921	544 531
Swiss registries‡	4 368 854	53·2%	3583	6135	21 137	8633	5070	7694	27 116	14 893	212 695
UK*	64 596 700	100·0%	120 008	116 935	398 118	174 350	53 905	118 134	605 055	163 337	3 673 362
Oceania	27 952 971	100·0%	21 728	33 411	174 823	67 496	20 311	39 014	162 266	187 512	1 483 573
Australia*	23 457 489	100·0%	17 877	27 952	144 382	56 260	17 281	33 319	136 318	156 302	1 244 350
New Zealand*	4 495 482	100·0%	3851	5459	30 441	11 236	3030	5695	25 948	31 210	239 223
Total	988 680 261	20·2%	734 428	2 019 382	4 198 637	1 720 488	1 178 364	1 229 379	6 051 262	1 553 109	37 513 025

Populations given are for 2014 or nearest available year. Populations for 2014 are from the UN Population Division[28] or national authorities in Australia, Guadeloupe, Hong Kong, Poland, Portugal, and Taiwan (2010). Subnational populations were provided by the registry concerned. Belarus, Greece, and Mexico only provided data for childhood cancers: national populations shown are for children (0–14 years). Mali, Mongolia, and Morocco only provided cancer data for women: national populations shown are for women. Population shown for France excludes Guadeloupe and Martinique. *Data with 100% coverage of the national population. †Total given is for all 18 cancers (see also table 5). ‡Data with 100% coverage of the national population for childhood malignancies only.

Table 4: **Population covered by participating registries (number of people and percentage of national population) and number of adults diagnosed with cancer of the oesophagus, stomach, colon, rectum, liver, pancreas, or lung, or melanoma of the skin during 2000–14 by continent and country**

the USA (appendix p 229). Survival increased by 6–10% in Puerto Rico; China, Israel, Japan, and Singapore; six European countries (Ireland and Norway [northern Europe]; Portugal [southern Europe]; Belgium, the Netherlands, and Switzerland [western Europe]); and Australia. The increase in Korea was 12·7%.

Stomach

Results are available for 2 019 382 adults from 294 registries in 62 countries (table 2, table 4). Age-standardised 5-year net survival was generally in the range 20–40%, with very wide variation in Asia (appendix p 249). Most estimates were considered reliable (table 6; appendix pp 138–151).

In 2010–14, survival was very high in Korea (68·9%) and Japan (60·3%; table 6; appendix p 211). Survival was in the range 30–40% in 16 countries: Canada and the USA; Puerto Rico and Martinique; five Asian countries (Malaysia [Penang] and Singapore [south Asia]; China and Taiwan [east Asia]; and Israel [west Asia]); six European countries (Italy and Portugal [southern Europe]; and Austria, Belgium, Germany, and Switzerland [western Europe]); and Australia (table 6; appendix p 211).

Survival was in the range 20–29% in 24 countries (Mauritius, Kuwait, Turkey, 20 European countries, and New Zealand), and less than 20% in Chile, Ecuador, India (Karunagappally), Thailand, and Bulgaria.

	Population covered	Percentage of national population covered	Number of patients										Total number of patients†
			Breast (women)	Cervix	Ovary	Prostate	Brain (adults)	Myeloid (adults)	Lymphoid (adults)	Brain (children)	Acute lympho-blastic leukaemia (children)	Lymph-oma (children)	
Africa	10 533 762	3·5%	15 117	5017	1010	2726	592	425	2042	179	64	228	40 197
Algerian registries	2 447 075	6·3%	5196	885	423	764	392	290	1376	109	45	115	15 602
Mali (Bamako)	764 245	9·0%	60	..	..	..	..	..	..	..	..	..	60
Mauritius*	1 268 567	100·0%	483	436	244	628	36	42	86	3	..	5	3959
Morocco (Casablanca)	2 178 083	12·7%	4683	..	..	..	..	..	..	..	..	..	4683
Nigeria (Ibadan)	2 797 220	1·6%	3962	1578	225	833	148	76	412	45	12	85	8274
South Africa (Eastern Cape)	1 078 572	2·0%	733	2118	118	501	16	17	168	22	7	23	7619
America (Central and South)	99 818 363	23·7%	159 976	49 067	16 023	115 102	8547	10 842	47 740	4936	13 299	5065	700 946
Argentinian registries‡	3 973 922	9·2%	15 282	2467	1688	7115	1217	1588	4281	2662	5119	1955	64 151
Brazilian registries	15 882 624	7·7%	49 811	3083	1201	7556	1011	852	3270	168	233	143	134 597
Chilean registries	2 459 133	13·8%	3717	1564	698	4816	475	652	1968	83	171	67	26 363
Colombian registries	4 277 369	9·0%	9609	5124	1759	8722	1601	1476	5004	243	306	137	56 245
Costa Rica*	4 757 606	100·0%	12 019	7466	1408	11 345	1067	857	4646	153	456	103	62 536
Cuba*	11 379 111	100·0%	33 313	16 396	4560	21 358	..	..	8451	..	..	563	125 696
Ecuadorian registries	6 398 546	40·2%	8283	5453	1732	7939	1481	1489	6330	324	859	340	53 043
Guadeloupe*	450 273	100·0%	1266	160	110	3389	55	115	480	14	9	6	7787
Martinique*	396 425	100·0%	2279	399	191	6480	182	482	1257	20	29	10	15 779
Mexico (childhood)‡	35 188 624	100·0%	..	..	..	..	..	..	..	1047	5647	1500	8194
Peru (Lima)	7 548 697	24·4%	5590	2917	..	..	..	891	3 653	..	268	112	17 226
Puerto Rico*	3 686 517	100·0%	18 807	2458	1728	29 855	1458	2440	8400	222	202	129	101 613
Uruguay*	3 419 516	100·0%	..	1580	948	6 527	..	..	..	..	..	..	27 716

(Table 5 continues on next page)

	Population covered	Percentage of national population covered	Number of patients										Total number of patients†
			Breast (women)	Cervix	Ovary	Prostate	Brain (adults)	Myeloid (adults)	Lymphoid (adults)	Brain (children)	Acute lympho-blastic leukaemia (children)	Lymph-oma (children)	
(Continued from previous page)													
America (North)	301 237 785	84·8%	2 587 798	163 517	312 954	2 703 952	251 888	508 562	1 356 829	27 157	29 995	13 440	14 320 034
Canadian registries	27 213 277	76·5%	237 321	16 054	31 395	256 736	28 186	49 474	139 370	2196	2712	1139	1 409 413
US registries	274 024 508	85·8%	2 350 477	147 463	281 559	2 447 216	223 702	459 088	1 217 459	24 961	27 283	12 301	12 910 621
Asia	227 771 765	7·2%	726 968	161 620	109 998	397 673	73 306	140 066	293 307	8513	11 371	6380	5 976 959
Chinese registries	31 755 347	2·3%	53 791	13 131	10 517	12 380	11 341	12 171	19 388	526	498	213	594 533
Cyprus*	1 153 658	100·0%	5069	321	553	4088	394	555	2326	14	56	39	21 610
Hong Kong*	7 241 700	100·0%	28 956	4112	..	..	..	..	..	..	..	..	74 721
Indian registries	1 005 294	0·1%	812	753	172	183	162	153	272	18	32	12	4774
Iran (Golestan)	1 893 646	2·4%	..	..	..	..	..	..	..	..	..	..	1039
Israel*	7 939 483	100·0%	51 125	2942	5663	32 503	5235	8375	30 911	843	754	758	241 881
Japanese registries	51 445 407	40·6%	184 372	30 606	31 244	168 505	15 007	37 845	85 640	1293	1438	508	1 834 894
Jordan*	7 416 083	100·0%	11 584	579	..	2457	1483	1917	6511	489	681	480	41 433
Korea*	50 074 400	100·0%	179 520	58 663	28 076	83 892	17 701	42 322	70 594	2333	3389	2049	1 760 804
Kuwait*	3 753 121	100·0%	2568	163	221	509	230	346	1405	49	251	129	8484
Malaysia (Penang)	1 543 500	5·2%	4606	1046	805	915	289	504	1244	84	156	65	18 805
Mongolia*	1 468 823	100·0%	999	..	..	..	..	..	..	..	..	..	999
Qatar*	2 172 065	100·0%	1861	196	214	586	287	489	1042	33	71	71	7642
Singapore*	3 870 700	100·0%	22 473	2943	3514	7991	1202	3339	7187	196	388	167	109 992
Taiwan*	23 123 866	100·0%	116 929	29 214	16 872	52 681	8410	17 813	39 704	1211	1811	832	858 683
Thai registries	13 738 188	20·3%	25 001	12 737	5469	5869	2779	5177	8486	385	605	217	159 528
Turkish registries	18 176 484	23·4%	37 302	4214	6678	25 114	8786	9060	18 597	1039	1241	840	237 137
Europe	321 365 615	50·0%	2 700 348	267 986	399 675	2 355 249	297 032	436 684	1 182 009	24 316	29 544	14 830	14 991 316
Austria*	8 516 916	100·0%	74 818	6455	11 567	75 082	7615	7223	31 583	..	..	..	412 683
Belarus (childhood)‡	1 498 163	100·0%	..	..	..	..	..	..	..	580	740	367	1687
Belgium*	11 226 322	100·0%	111 685	6929	10 447	97 316	9057	19 790	42 772	781	720	549	544 110
Bulgaria*	7 201 308	100·0%	53 605	16 329	12 206	26 190	..	6226	14 919	..	537	298	273 868
Croatia*	4 255 853	100·0%	35 323	5279	7138	22 066	7515	5026	15 421	403	443	231	222 776
Czech Republic*	10 542 666	100·0%	89 989	14 950	18 875	78 581	11 007	9734	36 974	489	531	279	572 368
Denmark*	5 646 899	100·0%	65 840	5755	9024	55 052	8951	8951	27 756	493	574	233	365 105
Estonia*	1 316 203	100·0%	8149	2232	2122	9734	1295	1512	4193	103	93	47	59 848
Finland*	5 479 660	100·0%	62 282	2318	8101	66 706	5953	5573	25 395	503	572	241	294 268
French registries‡	13 891 552	21·7%	82 538	5125	8658	91 806	7532	18 897	41 784	4477	4830	2573	460 927
German registries	29 655 933	36·8%	300 626	24 302	38 064	284 771	27 683	45 934	126 594	691	1019	446	1 621 312
Gibraltar*	31 997	100·0%	169	10	14	62	11	4	8	..	..	..	533

(Table 5 continues on next page)

	Population covered	Percentage of national population covered	Number of patients										Total number of patients†
			Breast (women)	Cervix	Ovary	Prostate	Brain (adults)	Myeloid (adults)	Lymphoid (adults)	Brain (children)	Acute lympho-blastic leukaemia (children)	Lymph-oma (children)	
(Continued from previous page)													
Greece (childhood)‡	1 610 335	100·0%	..	..	..	..	..	..	..	237	1 092	397	1726
Iceland*	327 318	100·0%	2743	225	276	3083	348	433	1167	35	31	11	14 782
Ireland*	4 675 164	100·0%	34 632	3573	4952	37 536	4605	6250	16 806	396	461	194	196 331
Italian registries	34 479 972	57·7%	250 204	13 394	31 025	196 256	28 325	49 653	121 301	1613	2022	1273	1 400 117
Latvia*	1 989 354	100·0%	13 020	3148	3842	10 674	1415	1749	2679	100	147	..	71 082
Lithuania*	2 916 798	100·0%	17 699	6318	5452	30 156	2942	4850	9741	136	250	106	139 475
Malta*	417 723	100·0%	3523	136	547	2069	315	492	1383	24	35	20	15 518
Netherlands*	16 868 020	100·0%	198 074	10 317	19 252	142 578	17 261	30 256	78 420	1428	1588	755	987 029
Norway*	5 147 970	100·0%	43 349	4458	7207	57 657	5647	8374	24 389	484	511	255	277 991
Poland*	38 483 957	100·0%	220 036	48 857	53 462	131 099	37 794	21 008	94 159	2071	2505	1308	1 344 837
Portugal*	10 566 132	100·0%	69 599	9013	6532	64 886	7348	9414	32 024	549	627	476	386 853
Romania (Cluj)	983 525	5·0%	2205	1004	460	1301	291	482	969	19	21	10	14 060
Russian registries	8 081 400	5·6%	41 903	10 897	10 628	20 346	4449	3190	9209	327	320	207	245 591
Slovakia*	5 422 861	100·0%	23 698	6170	5207	14 376	3695	4466	11 821	323	304	179	156 122
Slovenia*	2 066 068	100·0%	15 822	2281	2750	14 932	1943	3026	7498	114	122	88	102 970
Spanish registries	9 396 745	20·3%	56 759	5023	7710	63 237	8685	13 483	31 782	1521	1917	1115	376 759
Sweden*	9 703 247	100·0%	102 483	6816	12 132	139 051	9327	14 280	43 784	761	926	309	544 531
Swiss registries‡	4 368 854	53·2%	39 262	1858	4964	40 528	4102	7175	18 923	565	733	324	212 695
UK*	64 596 700	100·0%	680 313	44 814	97 061	578 118	71 921	129 233	308 555	5093	5873	2539	3 673 362
Oceania	27 952 971	100·0%	232 346	13 537	25 841	290 176	25 294	54 647	129 127	1713	3078	1253	1 483 573
Australia*	23 457 489	100·0%	193 134	11 065	21 124	247 000	21 569	46 955	108 727	1484	2565	1036	1 244 350
New Zealand*	4 495 482	100·0%	39 212	2472	4717	43 176	3725	7692	20 400	229	513	217	239 223
Total	988 680 261	20·2%	6 422 553	660 744	865 501	5 864 878	656 659	1 151 226	3 011 054	66 814	87 351	41 196	37 513 025

Populations given are for 2014 or nearest available year. Populations for 2014 are from the UN Population Division[28] or national authorities in Australia, Guadeloupe, Hong Kong, Poland, Portugal, and Taiwan (2010). Subnational populations were provided by the registry concerned. Belarus, Greece, and Mexico only provided data for childhood cancers: national populations shown are for children (0–14 years). Mali, Mongolia, and Morocco only provided cancer data for women: national populations shown are for women. Population shown for France excludes Guadeloupe and Martinique. *Data with 100% coverage of the national population. †Total is for all 18 cancers (see table 4). ‡Data with 100% coverage of the national population for childhood malignancies only.

Table 5: **Population covered by participating registries (number of people and percentage of national population) and number of patients diagnosed with cancer of the breast (women), cervix, ovary, prostate, or brain, or myeloid or lymphoid malignancies (adults), and brain, acute lymphoblastic leukaemia, or lymphoma (children) during 2000–14 by continent and country**

Survival trends between 1995–99 and 2010–14 were rather flat in most countries (appendix p 230), but after 2000, survival increased by up to 5% in six European countries (Denmark, Lithuania, and the UK [northern Europe]; Poland [eastern Europe]; and Austria and the Netherlands [western Europe]). Over the same 20 years, 5-year survival increased by 6–10% in Canada, Israel, Japan, Estonia, and Ireland, by 11% in the USA and Germany, and by 20% or more in China and Korea.

Colon

Results are available for 4 198 637 adults from 296 registries in 65 countries (tables 2, 4). Survival for colon cancer varied widely, especially in Central and South America, Asia, and Europe (figure 4; appendix p 250). Most estimates were considered reliable (table 6; appendix pp 139–151).

For patients diagnosed during 2010–14, survival was higher than 70% in three countries: Israel, Korea, and Australia. Survival was in the range 60–69% in 25 countries:

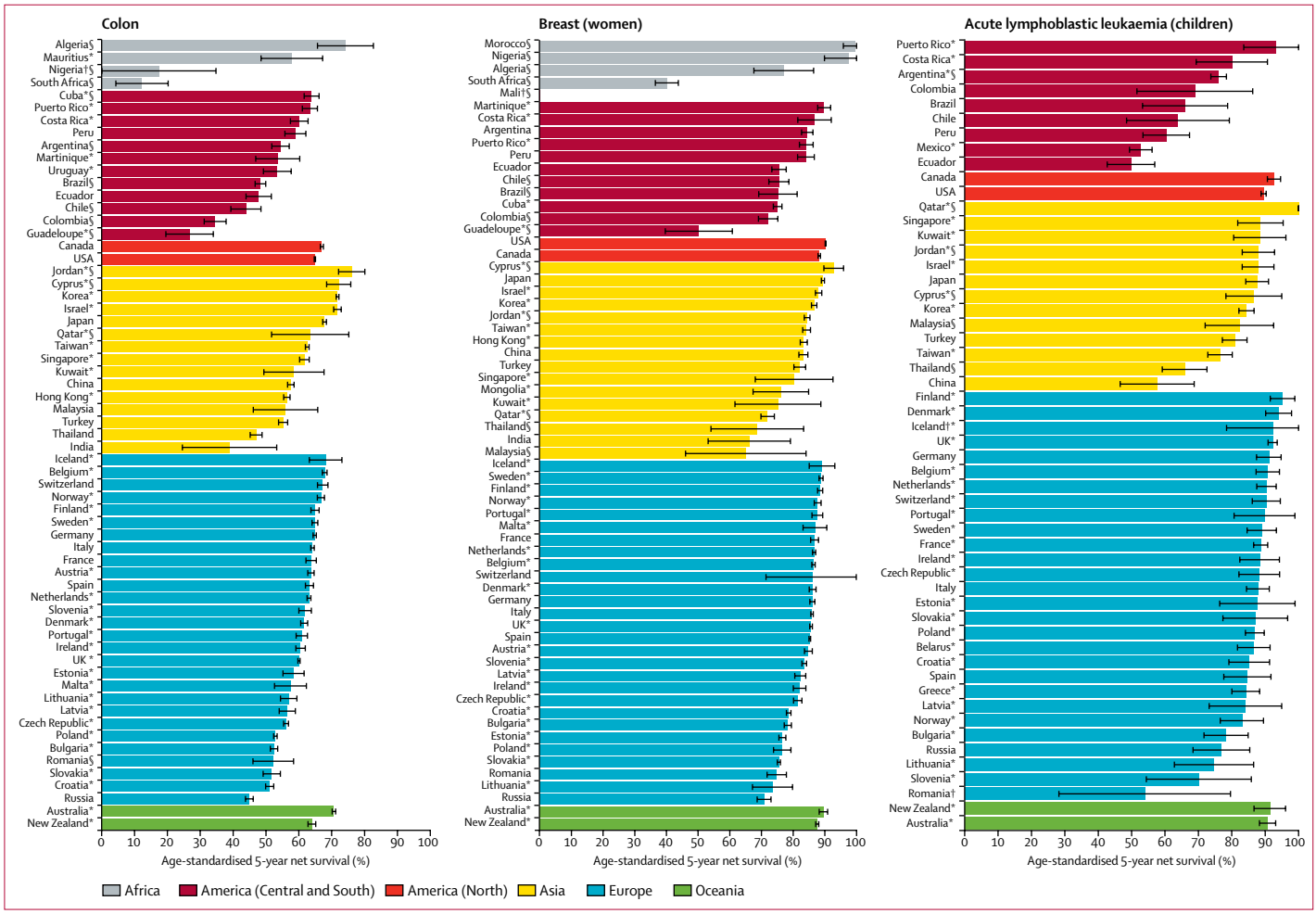

Figure 2: **Global distribution by continent and country of age-standardised 5-year net survival for adults (15–99 years) diagnosed during 2010–14 with colon cancer or breast cancer (women) and children (0–14 years) diagnosed with acute lymphoblastic leukaemia**

Survival estimates for each country are ranked from highest to lowest within each continent. Where data were available for more than one registry in a given country, the survival estimates are derived by pooling the data for that country, but excluding data from registries for which the estimates are considered less reliable. See appendix (pp 209–227) for all 18 cancers included in CONCORD-3 and for each calendar period 2000–04, 2005–09, and 2010–14. *Data with 100% coverage of the national population. †National estimate not age-standardised. §National estimate flagged as less reliable because the only available estimates are from a registry or registries in this category.

Costa Rica and Puerto Rico; Canada and the USA; Japan, Singapore, and Taiwan; 17 European countries (Denmark, Finland, Iceland, Ireland, Norway, Sweden, and the UK [northern Europe]; Italy, Portugal, Slovenia, and Spain [southern Europe]; and Austria, Belgium, France, Germany, the Netherlands, and Switzerland [western Europe]); and New Zealand (table 6; appendix p 212).

Survival ranged from 50% to 60% in 18 countries: Mauritius; three Central and South American countries (Martinique, Peru [Lima], and Uruguay); five Asian countries (Malaysia [Penang; south Asia]; China and Hong Kong [east Asia]; and Kuwait and Turkey [west Asia]); and nine European countries (Estonia, Lithuania, and Latvia [northern Europe]; Croatia and Malta [southern Europe]; and Bulgaria, the Czech Republic, Poland, and Slovakia [eastern Europe]). 5-year net survival was less than 50% in Ecuador, Thailand, Russia, and India (table 6).

Survival trends between 1995–99 and 2000–14 were generally flat or increasing (appendix p 231). 5-year survival increased over this period by 5–10% in 14 countries: Canada; Japan and Taiwan; ten European countries (Estonia, Finland, Ireland, Lithuania, and Sweden [northern Europe]; Italy and Malta [southern Europe]; Austria, France, and the Netherlands [western Europe]); and Australia. Over the same period, survival increased by more than 10% in China, Israel, and Korea, and in 13 European countries (Denmark, Iceland, Latvia, Norway, and the UK [northern Europe]; Portugal, Slovenia, and Spain [southern Europe]; and Bulgaria, the Czech Republic, and Poland [eastern Europe]; and Germany and Switzerland [western Europe]).

Rectum

Results are available for 1720 488 adults from 294 registries in 64 countries (table 2, table 4). Similarly

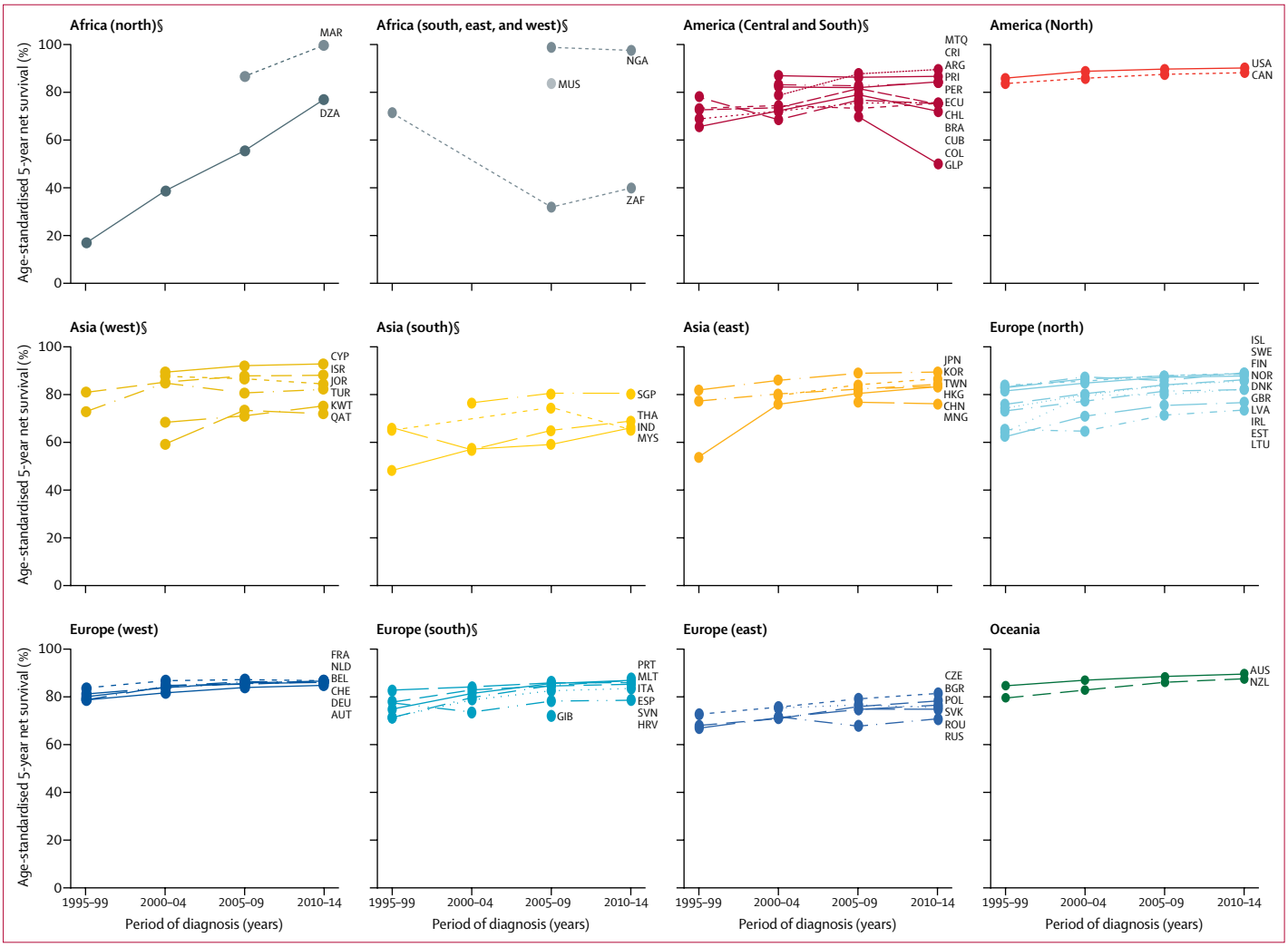

Figure 3: **20-year trends in age-standardised 5-year net survival for women (15–99 years) with breast cancer, by calendar period of diagnosis, continent (or continental region), and country**
Estimates for women diagnosed during 1995–99 are taken from the analyses for CONCORD-2.[6] Where data were available for more than one registry in a given country, the survival estimates are derived by pooling the data for that country, excluding data from registries for which the survival estimates are considered less reliable. See appendix (pp 227–246) for other cancers. Standard International Organization for Standardization abbreviations for country names: Algeria=DZA; Argentina=ARG; Australia=AUS; Austria=AUT; Belgium=BEL; Brazil=BRA; Bulgaria=BGR; Canada=CAN; Chile=CHL; China=CHN; Colombia=COL; Costa Rica=CRI; Croatia=HRV; Cuba=CUB; Cyprus=CYP; Czech Republic=CZE; Denmark=DNK; Ecuador=ECU; Estonia=EST; Finland=FIN; France=FRA; Germany=DEU; Gibraltar=GIB; Guadeloupe=GLP; Hong Kong=HKG; Iceland=ISL; India=IND; Ireland=IRL; Israel=ISR; Italy=ITA; Japan=JPN; Jordan=JOR; Kuwait=KWT; Latvia=LVA; Lithuania=LTU; Malaysia=MYS; Malta=MLT; Martinique=MTQ; Mauritius=MUS; Mongolia=MNG; Morocco=MAR; Netherlands=NLD; New Zealand=NZL; Nigeria=NGA; Norway=NOR; Peru=PER; Poland=POL; Portugal=PRT; Puerto Rico=PRI; Qatar=QAT; Romania=ROU; Russia=RUS; Singapore=SGP; Slovakia=SVK; Slovenia=SVN; South Africa=ZAF; South Korea=KOR; Spain=ESP; Sweden=SWE; Switzerland=CHE; Taiwan=TWN; Thailand=THA; Turkey=TUR; UK=GBR; USA=USA. §Continent or continental region with one or more national estimates flagged as less reliable.

to colon cancer, 5-year net survival for rectal cancer varied widely. The range of survival estimates in Asia for 2010–14 was even wider than that for colon cancer (appendix p 251). Almost all the survival estimates were considered reliable (table 6; appendix pp 139–151).

Survival was higher than 70% in Korea and Australia (table 6). For patients diagnosed during 2010–14, survival was in the range 60–69% in 24 countries: Canada and the USA; four Asian countries (Singapore [south Asia]; Japan and Taiwan [east Asia]; and Israel [west Asia]); 17 European countries (Denmark, Finland, Iceland, Ireland, Norway, Sweden, and the UK [northern Europe]; Italy, Portugal, Slovenia, and Spain [southern Europe]; and Austria, Belgium, France, Germany, the Netherlands, and Switzerland [western Europe]); and New Zealand (table 6; appendix p 213).

Survival was in the range 50–59% in 18 countries: six countries in Central and South America (Argentina, Costa Rica, Martinique, Peru [Lima], Puerto Rico, and Uruguay); five Asian countries (Malaysia [Penang; south Asia]; China and Hong Kong [east Asia]; and Kuwait and Turkey [west Asia]); and six European countries (Estonia, Latvia, and Lithuania [northern Europe]; Malta [southern Europe]; and the Czech Republic and Romania

[Cluj; eastern Europe]). 5-year survival was less than 50% in Slovakia, Poland, Croatia, Bulgaria, Ecuador, Thailand, Russia, and India (table 6).

Survival trends between 1995–99 and 2000–14 were generally increasing, especially since 2000, in Asia, Europe, and Oceania (appendix p 232). Survival increased

	Gastrointestinal cancers						Lung	Melanoma of the skin
	Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas		
Africa								
Algeria (three registries)								
2000–04	..	20·7§ (14·3–27·1)	88·1§ (80·1–96·0)	63·4§ (48·3–78·5)	6·2†§ (0·0–13·7)	8·3†§ (0·0–20·3)	18·0§ (14·0–22·0)	6·9†§ (0·0–18·5)
2005–09	55·4†§ (36·4–74·5)	42·4§ (36·4–48·4)	76·7§ (69·6–83·9)	64·5§ (56·4–72·7)	13·9§ (8·6–19·2)	30·2§ (21·3–39·2)	30·2§ (25·7–34·8)	63·4§ (59·4–67·3)
2010–14	37·3§ (23·4–51·1)	41·6§ (35·5–47·7)	74·2§ (65·7–82·7)	67·3§ (58·0–76·5)	13·5§ (6·9–20·1)	29·8§ (18·7–40·9)	33·7§ (28·5–38·9)	54·9§ (47·3–62·6)
Mali (Bamako)								
2000–04	..	..	..	..	..	..	..	..
2005–09	..	..	..	..	..	..	..	..
2010–14	..	..	..	..	..	..	..	..
Mauritius*								
2000–04	..	..	..	..	..	..	..	..
2005–09	..	44·3 (36·8–51·7)	65·9 (56·7–75·1)	83·6§ (75·0–92·1)	..	..	31·7 (25·9–37·6)	..
2010–14	28·1† (14·6–41·5)	25·7 (18·0–33·3)	57·9 (48·5–67·2)	72·9§ (62·7–83·0)	17·0† (2·6–31·3)	24·5† (11·4–37·6)	20·4 (13·2–27·7)	..
Morocco (Casablanca)								
2000–04	..	..	..	..	..	..	..	..
2005–09	..	..	..	..	..	..	..	..
2010–14	..	..	..	..	..	..	..	..
Nigeria (Ibadan)								
2000–04	..	..	..	..	..	..	..	..
2005–09	..	..	41·2†§ (16·9–65·6)	25·9†§ (0·0–53·7)	..	..		100·0†§ (100·0–100·0)
2010–14	..	..	17·4†§ (0·1–34·8)	16·9†§ (0·0–37·8)	..	..	..	97·7†§ (74·6–100·0)
South Africa (Eastern Cape)								
2000–04	12·1†§ (0·0–27·0)	..	..	..	27·1†§ (0·0–57·1)	..	..	..
2005–09	19·2§ (12·0–26·4)	25·0†§ (6·1–44·0)	31·9†§ (10·7–53·1)	19·9†§ (0·0–46·4)	..	..	16·7†§ (0·8–32·5)	..
2010–14	18·0§ (12·6–23·4)	25·6†§ (7·2–43·9)	12·3§ (4·3–20·2)	9·1†§ (0·0–21·5)	0·0†§ (0·0–0·0)	21·8†§ (0·0–49·5)	15·0§ (6·1–24·0)	16·7†§ (0·0–41·0)
America (Central and South)								
Argentina (five registries)‡								
2000–04	18·7§ (12·7–24·8)	21·7§ (17·1–26·2)	54·2§ (49·7–58·7)	48·9 (41·5–56·3)	14·1§ (6·0–22·1)	9·6§ (5·5–13·6)	19·5§ (15·5–23·5)	68·4 (60·6–76·3)
2005–09	15·0§ (11·4–18·6)	19·3§ (16·9–21·7)	51·2§ (49·0–53·5)	47·5 (43·3–51·7)	11·4§ (8·2–14·5)	8·3§ (6·0–10·7)	12·4§ (10·9–14·0)	68·1 (63·4–72·9)
2010–14	16·4§ (11·9–21·0)	21·5§ (18·5–24·4)	54·4§ (51·8–57·1)	49·9 (45·3–54·4)	12·6§ (8·7–16·6)	11·4§ (8·1–14·6)	13·1§ (11·2–15·1)	71·0 (65·6–76·4)
Brazil (six registries)								
2000–04	10·7§ (9·0–12·4)	19·1§ (17·9–20·3)	44·5§ (42·9–46·0)	37·7§ (35·7–39·6)	15·4§ (10·4–20·5)	3·9§ (3·0–4·9)	10·7 (8·3–13·1)	76·7 (71·5–81·8)
2005–09	12·5§ (10·6–14·5)	24·7§ (23·2–26·2)	50·6§ (49·3–52·0)	45·7§ (43·7–47·8)	9·6§ (6·5–12·8)	9·1§ (7·3–10·9)	7·8 (5·8–9·8)	75·9 (71·7–80·1)
2010–14	9·7§ (7·9–11·4)	20·6§ (18·9–22·2)	48·3§ (46·7–49·9)	42·4§ (40·1–44·6)	11·2§ (7·6–14·7)	9·5§ (7·4–11·5)	8·5 (5·3–11·6)	70·0 (65·4–74·7)

(Table 6 continues on next page)

	Gastrointestinal cancers						Lung	Melanoma of the skin
	Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas		
(Continued from previous page)								
Chile (four registries)								
2000–04	7·0 (3·1–10·9)	14·5 (11·7–17·4)	35·5 (28·6–42·3)	35·9 (26·3–45·5)	3·6†§ (0·0–7·4)	2·2 (0·2–4·2)	7·1§ (4·4–9·8)	57·4 (46·6–68·1)
2005–09	10·8 (7·5–14·1)	16·3 (14·7–18·0)	47·1 (43·1–51·0)	39·5 (33·9–45·0)	2·7§ (1·0–4·4)	3·6 (1·9–5·4)	6·3§ (4·7–7·8)	64·4 (54·4–74·4)
2010–14	8·7 (0·3–17·0)	16·7 (14·2–19·3)	43·9§ (39·3–48·5)	32·7§ (26·6–38·8)	3·7§ (0·7–6·8)	4·4† (1·0–7·8)	4·6§ (3·0–6·2)	59·7§ (49·4–69·9)
Colombia (four registries)								
2000–04	10·7§ (5·6–15·8)	18·4 (16·0–20·9)	45·0 (40·6–49·4)	38·3 (32·9–43·7)	4·8§ (1·8–7·9)	6·4§ (3·5–9·4)	9·4 (7·2–11·5)	63·1§ (57·0–69·1)
2005–09	9·5 (4·6–14·4)	17·7 (16·2–19·3)	41·3 (37·9–44·7)	37·2 (32·7–41·7)	5·4 (3·1–7·7)	3·4 (1·6–5·2)	10·5 (8·5–12·5)	71·3§ (66·2–76·5)
2010–14	10·5§ (3·9–17·1)	17·1§ (15·4–18·8)	34·5§ (31·2–37·9)	38·0§ (33·2–42·8)	5·2§ (2·7–7·8)	5·3§ (2·8–7·8)	8·7§ (6·7–10·6)	65·1§ (59·2–71·1)
Costa Rica*								
2000–04	35·7§ (26·3–45·1)	48·4 (45·5–51·2)	63·8 (59·5–68·1)	48·4 (41·3–55·6)	39·0§ (32·4–45·6)	38·1§ (31·3–44·8)	36·2§ (31·0–41·5)	82·6 (77·2–88·1)
2005–09	19·2§ (11·3–27·1)	38·4 (36·3–40·5)	55·1 (52·2–58·0)	50·2 (45·2–55·2)	23·6§ (18·5–28·7)	23·8§ (19·1–28·6)	22·0§ (19·0–25·1)	76·2 (71·5–80·8)
2010–14	20·9§ (14·3–27·6)	40·6 (38·5–42·7)	60·1 (57·4–62·8)	53·9 (49·2–58·5)	24·1§ (19·7–28·5)	24·5§ (19·5–29·5)	20·1§ (17·1–23·1)	77·2 (72·7–81·7)
Cuba*								
2000–04	..	17·2§ (15·7–18·7)	39·8§ (38·3–41·2)	..	..	..	4·5§ (3·8–5·1)	..
2005–09	..	25·6§ (23·6–27·5)	48·5§ (46·9–50·1)	..	..	..	23·2§ (22·1–24·2)	..
2010–14	..	35·7§ (32·8–38·6)	63·9§ (61·6–66·2)	..	..	..	30·1§ (28·4–31·8)	..
Ecuador (five registries)								
2000–04	20·9† (9·9–31·9)	17·8 (12·3–23·3)	47·7 (41·0–54·4)	38·7 (30·4–47·1)	8·1§ (4·6–11·5)	8·4§ (4·7–12·2)	10·1§ (7·2–13·0)	59·0 (50·9–67·1)
2005–09	7·7 (3·5–11·9)	17·4 (12·0–22·7)	46·7 (42·9–50·5)	43·5 (38·8–48·2)	6·3§ (4·1–8·6)	9·0§ (6·2–11·8)	10·5§ (8·5–12·4)	60·5 (54·5–66·5)
2010–14	12·7 (6·7–18·7)	19·1 (13·1–25·1)	47·8 (43·9–51·6)	44·5 (39·2–49·8)	5·9§ (3·9–7·8)	8·4§ (5·7–11·2)	12·2§ (10·0–14·4)	57·9 (51·6–64·1)
Guadeloupe*								
2000–04	..	..	..	..	..	..	..	..
2005–09	0·0† (0·0–0·1)	11·7§ (5·7–17·7)	30·9§ (23·1–38·7)	21·3§ (8·8–33·8)	9·5†§ (0·0–20·3)	11·2†§ (1·7–20·8)	6·8 (2·3–11·2)	86·2†§ (53·0–100·0)
2010–14	..	11·7§ (6·8–16·6)	26·8§ (19·5–34·0)	35·6§ (22·4–48·8)	3·7†§ (0·0–9·2)	..	4·0§ (0·2–7·7)	14·1†§ (0·0–36·7)
Martinique*								
2000–04	4·2† (0·4–8·1)	29·7 (24·2–35·2)	57·0 (50·4–63·6)	44·1 (35·1–53·1)	12·0 (5·6–18·4)	13·4 (7·8–19·1)	12·5 (7·6–17·4)	81·8†§ (68·5–95·1)
2005–09	4·9 (1·1–8·7)	33·0 (27·5–38·5)	54·9 (49·5–60·3)	54·0 (46·0–62·1)	12·4 (5·6–19·1)	6·9 (3·2–10·5)	14·7 (10·4–18·9)	86·4†§ (74·7–98·2)
2010–14	4·0† (1·8–6·3)	32·1 (24·5–39·6)	53·6 (46·9–60·3)	52·0 (42·2–61·7)	15·6 (7·2–23·9)	11·9 (6·5–17·3)	11·8 (6·4–17·2)	77·8§ (61·3–94·3)
Peru (Lima)								
2000–04	..	..	..	..	..	..	..	..
2005–09	..	..	..	..	..	..	..	..
2010–14	..	..	59·0 (55·8–62·1)	54·8 (50·0–59·5)	..	..	..	..

(Table 6 continues on next page)

	Gastrointestinal cancers						Lung	Melanoma of the skin
	Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas		
(Continued from previous page)								
Puerto Rico*								
2000–04	10·9 (8·5–13·4)	26·6 (24·1–29·1)	60·9 (59·3–62·5)	53·9 (50·9–57·0)	11·8§ (9·0–14·6)	8·8§ (6·3–11·2)	14·7§ (13·1–16·3)	73·3 (68·2–78·4)
2005–09	13·0 (10·1–15·9)	29·9 (27·3–32·5)	62·1 (60·6–63·5)	59·4 (56·6–62·3)	8·7§ (6·9–10·5)	9·0§ (6·9–11·1)	16·0 (14·5–17·5)	75·4 (70·6–80·1)
2010–14	20·4 (14·8–25·9)	34·6 (30·3–39·0)	63·4 (61·1–65·7)	59·0 (54·6–63·4)	14·2§ (10·4–18·0)	10·2§ (7·1–13·3)	17·6 (14·9–20·3)	75·1 (68·2–81·9)
Uruguay*								
2000–04	..	..	..	..	..	..	..	..
2005–09	12·0§ (8·4–15·6)	20·5 (17·5–23·5)	57·7 (55·0–60·4)	50·5 (46·3–54·6)	12·0§ (4·4–19·7)	4·3§ (2·3–6·3)	9·9§ (8·3–11·5)	..
2010–14	8·0§ (5·3–10·7)	18·5§ (15·4–21·5)	53·5 (49·2–57·7)	50·1 (44·8–55·4)	14·3§ (8·0–20·6)	4·4§ (3·0–5·8)	9·0§ (7·4–10·6)	..
America (North)								
Canada (nine registries)								
2000–04	14·5 (13·4–15·6)	25·1 (24·2–26·0)	61·6 (61·1–62·1)	61·9 (61·1–62·8)	17·4 (16·2–18·5)	7·9 (7·3–8·5)	16·3 (15·9–16·6)	87·9 (87·3–88·6)
2005–09	14·7 (13·7–15·7)	26·6 (25·7–27·5)	65·7 (65·2–66·2)	65·5 (64·7–66·3)	19·2 (18·2–20·2)	9·4 (8·8–10·0)	18·5 (18·1–18·8)	88·5 (88·0–89·1)
2010–14	16·1 (15·1–17·1)	29·6 (28·6–30·5)	67·0 (66·5–67·5)	66·8 (66·0–67·5)	18·7 (17·8–19·7)	10·8 (10·2–11·4)	20·6 (20·2–20·9)	89·1 (88·6–89·6)
USA (48 registries)								
2000–04	16·5 (16·1–16·8)	26·2 (25·8–26·5)	64·7 (64·5–64·9)	63·9 (63·5–64·2)	12·5 (12·2–12·8)	7·2 (7·0–7·4)	17·0 (16·9–17·1)	88·9 (88·7–89·1)
2005–09	18·7 (18·4–19·1)	30·1 (29·7–30·4)	65·5 (65·3–65·7)	64·5 (64·1–64·8)	15·6 (15·3–15·9)	8·9 (8·7–9·1)	19·4 (19·3–19·5)	90·4 (90·2–90·6)
2010–14	20·0 (19·6–20·4)	33·1 (32·7–33·4)	64·9 (64·7–65·1)	64·1 (63·7–64·4)	17·4 (17·1–17·7)	11·5 (11·3–11·7)	21·2 (21·1–21·3)	90·8 (90·6–91·0)
Asia								
China (21 registries)								
2000–04	22·9 (22·0–23·9)	30·2 (29·3–31·1)	51·4 (49·6–53·3)	49·5 (47·5–51·4)	11·7 (10·9–12·5)	14·4 (12·8–16·0)	18·7 (18·0–19·4)	35·6 (25·8–45·4)
2005–09	27·1 (26·5–27·7)	33·2 (32·7–33·7)	55·6 (54·6–56·5)	52·5 (51·5–53·6)	11·6 (11·1–12·0)	10·2 (9·4–11·0)	17·7 (17·4–18·1)	45·5 (40·8–50·2)
2010–14	29·7 (29·0–30·4)	35·9 (35·3–36·5)	57·6 (56·6–58·6)	56·9 (55·8–58·0)	14·1 (13·6–14·7)	9·9 (9·1–10·7)	19·8 (19·4–20·2)	49·6 (44·5–54·6)
Cyprus*								
2000–04	..	36·6† (22·2–51·1)	70·7§ (61·8–79·6)	61·9†§ (43·0–80·8)	8·4†§ (0·0–21·0)	12·8†§ (1·7–23·9)	18·3 (12·2–24·3)	89·0†§ (73·6–100·0)
2005–09	47·2†§ (30·5–63·8)	28·1§ (22·9–33·3)	67·6§ (63·9–71·4)	78·3§ (71·3–85·4)	13·3†§ (6·3–20·2)	8·0§ (4·5–11·6)	18·2 (15·6–20·8)	82·1§ (75·8–88·4)
2010–14	39·0†§ (21·8–56·3)	35·6§ (30·0–41·2)	72·1§ (68·5–75·8)	75·9§ (69·6–82·2)	10·6§ (5·8–15·5)	11·6§ (7·7–15·5)	18·7 (16·2–21·2)	79·0§ (73·1–85·0)
Hong Kong*								
2000–04	..	..	..	..	..	..	..	..
2005–09	..	..	56·1 (55·1–57·1)	57·3 (55·8–58·7)	..	..	..	..
2010–14	..	..	56·4 (55·4–57·3)	58·0 (56·6–59·4)	..	..	..	..

(Table 6 continues on next page)

	Gastrointestinal cancers						Lung	Melanoma of the skin
	Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas		
(Continued from previous page)								
India (two registries)								
2000–04	2·9† (0·0–6·4)	6·4 (2·5–10·3)	46·9† (31·9–61·8)	36·9† (16·1–57·8)	2·4† (0·0–6·0)	4·2† (0·0–10·5)	6·9 (2·3–11·5)	..
2005–09	3·4 (0·7–6·0)	9·8 (3·4–16·3)	33·8† (21·1–46·4)	33·6 (20·8–46·3)	3·7 (0·0–7·7)	5·3† (0·0–11·4)	3·5 (1·4–5·7)	..
2010–14	4·1 (0·0–8·5)	8·9 (4·0–13·9)	38·9 (24·6–53·3)	30·0 (20·5–39·5)	6·3† (0·6–11·9)	5·6† (0·0–11·6)	3·7 (1·6–5·7)	61·5† (27·3–95·8)
Iran (Golestan)								
2000–04	..	..	..	..	..	..	..	..
2005–09	7·4 (4·8–10·0)	5·7 (3·3–8·0)	29·1 (20·2–38·0)	26·2† (14·1–38·3)	..	..	..	..
2010–14	..	..	..	..	..	..	..	..
Israel*								
2000–04	17·9 (14·3–21·5)	29·3 (27·6–31·1)	66·5 (65·4–67·6)	62·7 (60·6–64·7)	15·1§ (12·2–17·9)	7·6§ (6·4–8·8)	20·8 (19·8–21·8)	85·6 (84·2–87·0)
2005–09	22·4 (18·6–26·2)	29·8 (28·1–31·5)	71·4 (70·3–72·4)	67·3 (65·3–69·3)	15·6§ (13·1–18·2)	9·2§ (8·0–10·5)	23·8 (22·8–24·8)	88·4 (87·2–89·7)
2010–14	25·8 (21·4–30·2)	32·3 (30·4–34·3)	71·7 (70·6–72·9)	67·8 (65·6–70·0)	18·9§ (15·6–22·2)	12·4§ (10·8–14·0)	26·6 (25·4–27·7)	87·4 (86·1–88·8)
Japan (16 registries)								
2000–04	27·7 (26·4–29·0)	50·5 (50·0–50·9)	63·4 (62·7–64·0)	58·6 (57·6–59·5)	25·7§ (25·1–26·3)	6·9§ (6·4–7·4)	29·3 (28·1–30·5)	68·9 (65·1–72·8)
2005–09	33·3 (32·3–34·2)	57·6 (57·3–57·9)	66·8 (66·3–67·3)	64·0 (63·3–64·6)	28·6§ (28·1–29·1)	7·6§ (7·2–7·9)	29·3 (28·9–29·7)	68·3 (65·6–71·0)
2010–14	36·0 (34·8–37·3)	60·3 (59·9–60·7)	67·8 (67·3–68·4)	64·8 (64·0–65·7)	30·1§ (29·5–30·6)	8·3§ (7·8–8·7)	32·9 (32·3–33·4)	69·0 (66·0–72·0)
Jordan*								
2000–04	52·6§ (41·3–63·9)	76·1§ (69·7–82·5)	86·0§ (81·6–90·5)	79·9§ (71·1–88·8)	71·5§ (58·1–84·9)	66·9§ (52·0–81·8)	42·9§ (38·3–47·4)	68·5†§ (56·4–80·6)
2005–09	53·9§ (43·0–64·8)	64·8§ (58·4–71·3)	80·8§ (77·0–84·7)	76·2§ (67·1–85·3)	64·3§ (54·5–74·1)	32·5§ (25·6–39·4)	44·1§ (39·4–48·7)	63·1†§ (49·3–76·9)
2010–14	41·1§ (30·4–51·9)	55·7§ (48·7–62·6)	76·1§ (72·1–80·1)	73·2§ (65·0–81·4)	40·0§ (28·6–51·3)	24·0§ (18·7–29·3)	28·3§ (24·9–31·6)	55·9§ (41·5–70·4)
Korea*								
2000–04	18·6 (17·6–19·6)	48·6 (48·2–48·9)	60·5 (59·9–61·2)	60·8 (60·0–61·6)	15·3 (15·0–15·7)	7·6 (7·2–8·1)	15·3 (15·0–15·6)	51·4 (48·3–54·4)
2005–09	26·9 (25·8–28·0)	61·1 (60·8–61·5)	68·1 (67·6–68·6)	68·1 (67·5–68·7)	22·4 (22·1–22·8)	8·4 (8·0–8·9)	19·9 (19·6–20·2)	55·3 (52·8–57·7)
2010–14	31·3 (30·3–32·4)	68·9 (68·6–69·2)	71·8 (71·4–72·2)	71·1 (70·6–71·7)	27·2 (26·8–27·6)	10·5 (10·0–10·9)	25·1 (24·8–25·4)	59·9 (57·5–62·2)
Kuwait*								
2000–04	17·6†§ (2·9–32·4)	15·0 (7·1–22·9)	64·8 (53·1–76·5)	59·3 (48·1–70·4)	11·4†§ (3·5–19·2)	11·2†§ (3·1–19·3)	13·3 (8·9–17·7)	..
2005–09	9·5† (0·0–20·6)	13·4 (7·1–19·7)	50·2 (42·7–57·7)	53·3 (42·4–64·2)	12·4† (5·8–19·1)	7·0 (3·0–11·0)	16·3 (11·1–21·5)	..
2010–14	25·4† (10·5–40·4)	22·4 (12·6–32·3)	58·5 (49·4–67·7)	58·2 (48·5–67·9)	18·6 (9·8–27·3)	23·6 (12·0–35·2)	13·4 (8·8–18·0)	..
Malaysia (Penang)								
2000–04	..	..	..	..	..	..	..	..
2005–09	13·2 (6·5–19·9)	23·2 (17·5–29·0)	54·9 (49·2–60·6)	37·3 (30·1–44·5)	6·4 (3·7–9·1)	8·9 (4·5–13·3)	6·8 (4·9–8·7)	..
2010–14	13·7† (3·8–23·6)	30·0 (22·9–37·0)	55·9 (46·1–65·8)	58·0 (46·6–69·4)	9·6† (3·9–15·2)	19·0 (12·0–26·0)	10·1 (7·1–13·2)	..

(Table 6 continues on next page)

	Gastrointestinal cancers						Lung	Melanoma of the skin
	Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas		
(Continued from previous page)								
Mongolia*								
2000–04	..	..	..	..	..	..	..	..
2005–09	..	..	..	..	..	..	..	..
2010–14	..	..	..	..	..	..	..	..
Qatar*								
2000–04	36·1†§ (10·3–61·9)	15·0§ (2·0–28·0)	62·1§ (50·1–74·1)	67·8†§ (48·7–86·9)	7·1§ (2·6–11·5)	9·9†§ (0·0–21·2)	7·4†§ (0·8–14·1)	77·5†§ (48·0–100·0)
2005–09	33·4†§ (9·4–57·5)	22·0§ (12·2–31·7)	64·3§ (47·6–80·9)	60·5§ (46·7–74·3)	10·3†§ (3·2–17·3)	4·2†§ (0·0–10·4)	14·3§ (7·4–21·2)	30·1†§ (0·0–65·3)
2010–14	42·2†§ (9·4–75·0)	17·5§ (9·7–25·3)	63·5§ (51·7–75·2)	43·6§ (31·2–56·1)	27·2§ (12·9–41·5)	16·6§ (7·2–26·1)	17·2§ (10·3–24·2)	99·7†§ (84·7–100·0)
Singapore*								
2000–04	9·0 (6·2–11·8)	25·4 (23·3–27·4)	56·1 (54·4–57·8)	51·4 (48·5–54·2)	13·2 (11·6–14·9)	5·3 (3·6–7·0)	10·3 (9·4–11·2)	62·8 (51·0–74·6)
2005–09	10·5 (7·4–13·5)	27·1 (25·0–29·2)	60·3 (58·7–61·8)	59·0 (56·3–61·8)	20·4 (18·6–22·2)	6·7 (5·1–8·3)	13·0 (12·0–13·9)	59·0 (50·5–67·5)
2010–14	14·8 (11·1–18·4)	30·3 (28·2–32·4)	61·7 (60·2–63·2)	60·5 (58·0–63·0)	24·7 (22·8–26·6)	9·4 (7·6–11·2)	15·5 (14·5–16·5)	60·0 (51·7–68·2)
Taiwan*								
2000–04	13·0 (12·0–13·9)	35·6 (34·8–36·4)	56·8 (56·0–57·5)	57·7 (56·8–58·7)	19·5 (19·1–19·9)	7·0 (6·3–7·7)	11·6 (11·2–12·0)	48·6 (44·6–52·6)
2005–09	13·2 (12·3–14·1)	36·7 (35·9–37·5)	60·4 (59·8–61·0)	61·5 (60·6–62·3)	24·4 (24·0–24·8)	6·5 (5·9–7·1)	16·0 (15·6–16·4)	53·3 (49·7–56·9)
2010–14	15·5 (14·6–16·4)	38·6 (37·8–39·4)	62·6 (62·0–63·1)	62·5 (61·7–63·3)	27·9 (27·5–28·4)	7·7 (7·0–8·3)	20·6 (20·2–21·0)	52·1 (48·5–55·6)
Thailand (six registries)								
2000–04	8·8§ (6·6–11·1)	22·3§ (18·7–25·8)	39·8§ (37·2–42·5)	43·0§ (38·5–47·4)	7·7§ (6·9–8·6)	6·9§ (5·1–8·7)	10·2§ (9·3–11·1)	44·7§ (34·4–55·0)
2005–09	7·8 (5·9–9·7)	16·1 (13·9–18·3)	42·8 (41·1–44·6)	38·6 (36·0–41·1)	7·9 (7·3–8·6)	9·6 (7·7–11·5)	10·3 (9·6–11·1)	37·9§ (30·6–45·2)
2010–14	7·1 (5·1–9·1)	12·5 (10·7–14·3)	47·0 (45·2–48·8)	44·4 (41·8–47·1)	6·9 (6·3–7·5)	6·8 (5·3–8·2)	8·6 (7·9–9·2)	29·9§ (23·7–36·1)
Turkey (nine registries)								
2000–04	14·8§ (9·2–20·4)	21·9§ (18·5–25·4)	52·9§ (49·1–56·7)	48·5 (43·9–53·0)	20·1§ (15·0–25·2)	10·9§ (7·8–14·1)	11·9§ (10·6–13·3)	60·9§ (53·2–68·6)
2005–09	14·7 (12·9–16·5)	21·4 (20·3–22·4)	52·7 (51·3–54·2)	49·3 (47·3–51·3)	14·9 (12·9–17·0)	9·5 (8·4–10·7)	12·7 (12·2–13·2)	57·7 (54·6–60·9)
2010–14	19·0 (16·9–21·1)	24·6 (23·6–25·6)	55·2 (53·8–56·6)	52·6 (50·6–54·5)	15·9 (14·0–17·8)	10·4 (9·3–11·5)	14·9 (14·3–15·4)	60·7 (57·6–63·7)
Europe								
Austria*								
2000–04	16·2 (14·2–18·3)	30·0 (28·7–31·3)	60·7 (59·7–61·7)	60·2 (58·9–61·5)	11·2 (10·0–12·4)	6·7§ (5·9–7·5)	15·4 (14·8–16·0)	83·4 (82·2–84·7)
2005–09	16·8 (15·0–18·7)	34·2 (32·9–35·6)	63·5 (62·5–64·4)	63·5 (62·2–64·8)	14·2§ (12·9–15·6)	8·5 (7·7–9·4)	18·0 (17·4–18·6)	84·6 (83·5–85·8)
2010–14	18·6 (16·6–20·6)	35·4 (34·0–36·9)	63·7 (62·7–64·7)	64·2 (62·9–65·6)	14·8§ (13·4–16·2)	10·5§ (9·5–11·4)	19·7 (19·1–20·4)	87·8 (86·7–88·8)
Belgium*								
2000–04	16·6 (13·8–19·4)	29·3 (26·4–32·2)	64·3 (62·7–66·0)	62·9 (60·4–65·4)	21·3 (16·8–25·8)	8·9 (6·9–10·8)	15·4 (14·4–16·4)	86·3 (83·9–88·7)
2005–09	23·2 (21·7–24·7)	35·8 (34·4–37·1)	65·0 (64·3–65·7)	65·3 (64·3–66·4)	20·6 (19·0–22·3)	10·5 (9·6–11·4)	17·0 (16·5–17·4)	88·9 (87·9–89·8)
2010–14	23·6 (22·1–25·0)	37·5 (36·2–38·9)	67·9 (67·2–68·6)	66·6 (65·6–67·6)	20·7 (19·2–22·2)	12·4 (11·4–13·3)	18·2 (17·7–18·6)	91·0 (90·1–91·8)

(Table 6 continues on next page)

	Gastrointestinal cancers						Lung	Melanoma of the skin
	Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas		
(Continued from previous page)								
Bulgaria*								
2000–04	..	11·2§ (10·3–12·0)	43·9 (42·7–45·2)	37·0 (35·6–38·4)	4·0§ (2·9–5·1)	..	5·8 (5·3–6·3)	50·8 (47·9–53·8)
2005–09	..	13·9 (13·0–14·9)	48·5 (47·4–49·6)	42·1 (40·7–43·5)	4·6§ (3·5–5·6)	..	7·0 (6·5–7·6)	56·0 (53·3–58·6)
2010–14	..	16·0 (14·9–17·0)	52·4 (51·3–53·6)	45·9 (44·4–47·4)	6·5§ (5·1–7·9)	..	7·7 (7·1–8·2)	61·2 (58·8–63·7)
Croatia*								
2000–04	6·8 (4·9–8·7)	19·7 (18·4–20·9)	47·3 (45·9–48·7)	44·4 (42·7–46·1)	9·2§ (7·6–10·7)	9·1 (7·9–10·4)	11·2 (10·5–11·9)	66·4 (64·0–68·8)
2005–09	9·1 (6·9–11·2)	18·9 (17·6–20·2)	49·5 (48·2–50·8)	47·1 (45·5–48·7)	9·2§ (7·7–10·8)	8·2 (7·0–9·4)	10·6 (10·0–11·3)	74·7 (72·7–76·7)
2010–14	8·7 (6·6–10·8)	20·0 (18·6–21·3)	51·1 (49·9–52·4)	48·2 (46·5–49·8)	9·3§ (7·7–10·9)	8·4§ (7·1–9·7)	10·0 (9·3–10·6)	77·2 (75·3–79·1)
Czech Republic*								
2000–04	7·3 (6·0–8·6)	18·7 (17·7–19·7)	48·0 (47·3–48·8)	43·8 (42·6–44·9)	3·0 (2·3–3·6)	3·6 (3·0–4·1)	8·6 (8·2–9·0)	80·7 (79·5–81·8)
2005–09	9·0 (7·5–10·5)	19·3 (18·3–20·3)	52·0 (51·3–52·7)	47·9 (46·8–49·0)	5·3 (4·5–6·2)	4·7 (4·1–5·3)	9·8 (9·4–10·3)	84·6 (83·7–85·6)
2010–14	9·8 (8·3–11·4)	20·6 (19·6–21·6)	56·1 (55·4–56·9)	52·3 (51·2–53·4)	6·7 (5·6–7·7)	6·1 (5·4–6·7)	10·6 (10·2–11·1)	85·7 (84·8–86·6)
Denmark*								
2000–04	8·4 (6·9–9·8)	14·7 (13·2–16·3)	51·5 (50·4–52·6)	53·2 (51·7–54·7)	4·4 (3·1–5·8)	3·8 (3·0–4·5)	9·5 (9·0–10·1)	87·3 (86·0–88·5)
2005–09	10·4 (8·9–11·9)	15·4 (13·9–16·9)	56·5 (55·5–57·6)	59·8 (58·4–61·1)	5·6 (4·2–7·0)	5·6 (4·7–6·4)	12·3 (11·7–12·8)	89·1 (88·1–90·0)
2010–14	13·7 (12·0–15·4)	19·9 (18·1–21·6)	61·6 (60·6–62·7)	64·8 (63·4–66·1)	7·5 (5·9–9·1)	8·0 (7·0–9·1)	16·6 (16·0–17·3)	91·1 (90·2–91·9)
Estonia*								
2000–04	5·7 (2·8–8·6)	22·3 (20·2–24·4)	48·9 (46·2–51·5)	46·4 (42·9–49·9)	5·5§ (2·8–8·3)	4·8 (3·2–6·5)	10·8 (9·5–12·2)	71·4 (67·0–75·8)
2005–09	6·0 (3·5–8·5)	24·2 (22·1–26·4)	53·8 (51·3–56·3)	50·5 (46·9–54·1)	6·5 (3·9–9·2)	5·4 (3·8–7·0)	14·3 (12·6–15·9)	75·2 (71·7–78·8)
2010–14	5·4 (2·3–8·5)	29·2 (26·1–32·3)	58·4 (55·2–61·6)	54·8 (50·1–59·5)	4·2 (1·8–6·6)	10·2 (7·0–13·4)	16·9 (14·9–19·0)	81·8 (77·6–86·0)
Finland*								
2000–04	11·8 (9·5–14·1)	26·0 (24·3–27·6)	61·3 (59·9–62·8)	59·9 (58·0–61·9)	7·1 (5·5–8·8)	4·1 (3·2–4·9)	11·9 (11·0–12·7)	84·8 (83·3–86·4)
2005–09	12·8 (10·6–15·0)	25·1 (23·4–26·8)	63·2 (61·9–64·5)	63·8 (62·0–65·6)	9·1§ (7·3–10·8)	7·3 (6·2–8·5)	12·1 (11·3–13·0)	87·4 (86·2–88·6)
2010–14	12·4 (10·5–14·4)	25·7 (23·9–27·5)	64·9 (63·7–66·2)	64·4 (62·6–66·1)	10·4§ (8·5–12·2)	7·4§ (6·3–8·4)	13·0 (12·1–13·9)	88·7 (87·6–89·8)
France (23 registries)‡								
2000–04	13·0 (11·8–14·2)	26·3 (24·9–27·7)	60·7 (59·8–61·5)	58·3 (56·9–59·6)	14·0 (12·9–15·1)	7·8 (6·9–8·7)	14·1 (13·5–14·6)	89·7 (88·5–90·9)
2005–09	14·9 (13·6–16·1)	27·1 (25·8–28·4)	63·6 (62·8–64·3)	60·7 (59·5–61·9)	16·5 (15·4–17·6)	9·0 (8·2–9·8)	16·2 (15·7–16·7)	90·9 (89·9–91·9)
2010–14	13·9 (11·4–16·4)	26·7 (23·9–29·6)	63·7 (62·2–65·3)	60·9 (58·4–63·4)	18·3 (16·0–20·5)	8·6 (7·0–10·2)	17·3 (16·1–18·5)	90·8 (88·7–92·9)

(Table 6 continues on next page)

	Gastrointestinal cancers						Lung	Melanoma of the skin
	Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas		
(Continued from previous page)								
Germany (ten registries)								
2000–04	16·6 (15·3–17·8)	31·8 (30·0–33·5)	62·0 (61·2–62·8)	60·9 (60·2–61·6)	12·5§ (11·6–13·4)	8·0§ (7·5–8·6)	14·9 (14·3–15·4)	91·0 (90·4–91·6)
2005–09	19·7 (18·8–20·6)	31·4 (30·8–32·0)	64·9 (64·4–65·3)	62·2 (61·6–62·8)	12·9 (11·3–14·5)	9·3 (8·4–10·2)	16·9 (16·5–17·4)	92·0 (91·5–92·6)
2010–14	20·8 (19·8–21·8)	33·5 (32·8–34·2)	64·8 (64·3–65·3)	62·3 (61·6–62·9)	13·0 (10·5–15·5)	10·7 (9·6–11·8)	18·3 (17·9–18·8)	93·1 (92·6–93·6)
Gibraltar*								
2000–04	..	8·0† (0·0–19·9)	38·8† (17·7–59·9)	..	..	..	21·7†§ (0·0–44·9)	65·4† (37·6–93·3)
2005–09	..	39·2†§ (12·8–65·5)	52·3†§ (24·3–80·4)	39·3†§ (7·6–70·9)	..	0·6†§ (0·0–1·9)	19·6†§ (8·0–31·1)	100·0†§ (88·5–100·0)
2010–14	..	..	..	..	..	..	..	..
Iceland*								
2000–04	13·1† (3·8–22·4)	32·9 (24·9–40·9)	61·4 (55·4–67·4)	71·0 (63·0–79·0)	3·9† (0·0–10·0)	4·8 (1·4–8·1)	14·1 (11·2–16·9)	84·5 (77·7–91·3)
2005–09	19·1† (10·4–27·8)	30·3 (21·9–38·6)	64·0 (58·8–69·1)	66·3 (58·2–74·5)	16·0† (6·0–26·1)	0·0 (0·0–0·1)	16·0 (12·9–19·1)	85·4 (79·5–91·3)
2010–14	17·7 (10·5–24·8)	28·1 (20·2–36·1)	68·2 (63·2–73·1)	63·0 (55·5–70·5)	14·3 (6·9–21·7)	0·0† (0·0–0·0)	20·2 (16·9–23·4)	87·5 (82·1–92·9)
Ireland*								
2000–04	12·9 (11·0–14·7)	18·6 (16·7–20·4)	53·3 (51·8–54·7)	51·1 (48·9–53·2)	11·6 (8·7–14·6)	5·7 (4·4–7·0)	10·1 (9·3–10·9)	85·5 (83·6–87·4)
2005–09	17·2 (15·2–19·1)	22·2 (20·4–24·1)	58·4 (57·1–59·7)	57·1 (55·0–59·1)	11·8 (9·4–14·2)	6·9 (5·6–8·2)	13·5 (12·7–14·3)	86·6 (85·1–88·1)
2010–14	20·3 (18·0–22·7)	27·6 (25·4–29·8)	60·5 (59·1–62·0)	61·7 (59·4–64·0)	14·2 (11·2–17·2)	9·6 (7·9–11·4)	17·5 (16·5–18·5)	89·2 (87·7–90·7)
Italy (45 registries)								
2000–04	11·5 (10·5–12·6)	31·6 (30·9–32·2)	59·0 (58·6–59·5)	55·8 (54·9–56·6)	15·9 (15·2–16·5)	6·8 (6·3–7·3)	14·0 (13·7–14·3)	84·1 (83·3–84·8)
2005–09	12·9 (11·9–14·0)	31·1 (30·5–31·7)	64·3 (63·9–64·7)	61·1 (60·4–61·8)	20·0 (19·4–20·6)	7·9 (7·5–8·3)	15·5 (15·2–15·8)	86·0 (85·5–86·6)
2010–14	13·8 (12·3–15·3)	30·5 (29·7–31·3)	64·2 (63·6–64·7)	61·3 (60·3–62·2)	20·3 (19·6–21·1)	9·2 (8·5–9·8)	15·9 (15·5–16·3)	85·7 (85·0–86·5)
Latvia*								
2000–04	6·9 (3·4–10·3)	24·2 (22·2–26·3)	50·5 (47·8–53·3)	39·4 (36·3–42·5)	12·0† (3·8–20·3)	8·8 (5·4–12·1)	17·3 (15·3–19·3)	66·3 (62·0–70·6)
2005–09	10·8 (7·3–14·2)	26·7 (24·6–28·9)	54·0 (51·4–56·5)	46·6 (43·4–49·7)	7·8 (3·8–11·7)	11·2 (7·5–14·8)	19·5 (17·7–21·2)	65·1 (61·1–69·1)
2010–14	6·1 (3·6–8·6)	28·0 (25·7–30·3)	56·5 (54·0–58·9)	53·3 (50·2–56·5)	12·9 (7·7–18·0)	13·7 (9·3–18·1)	20·4 (18·7–22·1)	72·1 (68·3–75·8)
Lithuania*								
2000–04	4·7 (2·9–6·4)	22·0 (20·7–23·3)	44·5 (42·6–46·3)	40·6 (38·4–42·8)	7·9 (5·6–10·2)	6·5 (5·3–7·7)	8·8 (8·0–9·6)	67·2 (63·9–70·6)
2005–09	6·2 (4·2–8·1)	24·9 (23·4–26·4)	51·1 (49·2–53·0)	48·8 (46·6–51·1)	8·3§ (5·9–10·7)	5·4§ (4·3–6·5)	8·8 (8·0–9·7)	70·6 (67·6–73·7)
2010–14	5·6 (3·3–7·8)	27·0 (24·9–29·0)	56·9 (54·4–59·4)	52·7 (49·7–55·7)	8·0§ (5·3–10·7)	7·0§ (5·2–8·8)	9·9 (8·7–11·0)	75·3 (71·8–78·9)
Malta*								
2000–04	7·8† (0·0–15·6)	19·9 (14·6–25·2)	57·0 (51·9–62·2)	55·1 (47·7–62·5)	4·2† (0·0–10·5)	5·9 (3·0–8·7)	9·2 (6·5–12·0)	87·3 (80·0–94·7)
2005–09	6·1† (0·5–11·8)	24·8 (19·3–30·3)	52·9 (48·5–57·4)	53·8 (47·2–60·5)	0·0†§ (0·0–0·0)	2·2§ (0·5–4·0)	11·4 (8·7–14·1)	81·6 (75·2–88·1)
2010–14	11·2† (1·6–20·8)	23·8 (17·5–30·0)	57·5 (52·6–62·3)	56·1 (49·2–62·9)	0·0†§ (0·0–0·0)	5·5§ (2·7–8·3)	14·9 (11·5–18·2)	81·9 (75·6–88·3)

(Table 6 continues on next page)

	Gastrointestinal cancers						Lung	Melanoma of the skin
	Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas		
(Continued from previous page)								
Netherlands*								
2000–04	12·1 (11·2–13·0)	19·7 (18·8–20·6)	58·1 (57·4–58·7)	58·0 (57·0–59·1)	10·1 (8·6–11·7)	3·7 (3·2–4·2)	12·4 (12·1–12·7)	88·4 (87·6–89·2)
2005–09	16·8 (15·8–17·7)	22·9 (22·0–23·9)	60·9 (60·3–61·5)	63·1 (62·2–64·0)	13·4 (11·8–14·9)	5·5 (5·0–6·1)	15·7 (15·3–16·0)	89·8 (89·1–90·4)
2010–14	21·0 (20·0–22·0)	25·0 (24·0–26·0)	63·1 (62·5–63·7)	65·3 (64·5–66·2)	15·8 (14·2–17·4)	7·4 (6·8–8·1)	17·3 (16·9–17·6)	91·0 (90·4–91·6)
Norway*								
2000–04	9·0 (6·7–11·3)	22·4 (20·5–24·2)	60·0 (58·8–61·2)	62·4 (60·8–64·1)	7·9 (5·4–10·3)	5·0 (3·9–6·0)	12·3 (11·5–13·1)	86·4 (85·1–87·6)
2005–09	13·3 (10·8–15·8)	25·3 (23·3–27·4)	64·3 (63·2–65·4)	66·8 (65·1–68·4)	14·2 (11·2–17·2)	6·1 (5·0–7·2)	15·9 (15·1–16·8)	87·3 (86·2–88·3)
2010–14	16·5 (14·0–19·0)	26·5 (24·4–28·6)	66·7 (65·6–67·8)	69·2 (67·6–70·8)	18·7 (15·5–22·0)	9·5 (8·0–11·0)	19·0 (18·1–19·8)	89·3 (88·3–90·3)
Poland (16 registries)*								
2000–04	7·2 (6·3–8·1)	15·9 (15·2–16·5)	45·3 (44·6–45·9)	42·5 (41·8–43·3)	9·5 (8·5–10·5)	8·2 (7·6–8·8)	12·1 (11·8–12·4)	63·2 (62·0–64·4)
2005–09	8·9 (7·9–9·8)	19·9 (19·3–20·4)	51·1 (50·5–51·6)	47·6 (46·9–48·3)	10·7 (9·8–11·7)	9·7 (9·2–10·3)	14·1 (13·8–14·4)	67·1 (66·2–68·1)
2010–14	9·1 (8·1–10·1)	20·9 (20·3–21·4)	52·9 (52·3–53·4)	48·4 (47·7–49·1)	10·8 (9·9–11·8)	8·0 (7·5–8·5)	14·4 (14·1–14·7)	69·8 (68·9–70·7)
Portugal (four registries)*								
2000–04	10·2 (8·6–11·7)	29·8 (28·9–30·8)	56·5 (55·6–57·4)	54·4 (53·1–55·7)	13·6 (11·8–15·5)	8·0 (6·7–9·2)	10·6 (10·0–11·2)	78·8 (76·8–80·7)
2005–09	12·5 (11·0–14·1)	32·4 (31·5–33·3)	61·1 (60·4–61·9)	59·8 (58·7–60·9)	15·3 (13·6–17·0)	10·3 (9·1–11·4)	14·1 (13·5–14·7)	81·7 (80·2–83·2)
2010–14	16·1 (12·0–20·2)	32·2 (30·2–34·2)	60·9 (59·2–62·6)	59·6 (57·1–62·1)	18·7 (14·5–22·9)	10·7 (8·2–13·1)	15·7 (14·3–17·1)	83·7 (80·4–87·0)
Romania (Cluj)								
2000–04	..	..	..	..	..	..	..	..
2005–09	10·2§ (4·4–16·0)	19·3§ (16·0–22·7)	53·5§ (48·9–58·0)	44·8 (38·9–50·8)	4·1§ (1·8–6·4)	4·5§ (2·2–6·7)	7·9§ (6·1–9·6)	68·4 (61·5–75·3)
2010–14	0·0†§ (0·0–0·1)	26·0§ (21·5–30·5)	52·2§ (46·0–58·4)	58·4 (49·8–67·0)	13·2§ (9·2–17·3)	6·0†§ (2·6–9·3)	11·1§ (8·7–13·6)	71·3 (63·0–79·6)
Russia (five registries)								
2000–04	10·9 (8·8–13·0)	22·9 (21·7–24·1)	40·4 (38·9–41·9)	38·5 (36·4–40·6)	7·4 (5·2–9·5)	7·5 (6·0–9·1)	16·8 (15·7–17·8)	64·7 (61·4–68·0)
2005–09	8·6 (7·0–10·2)	20·2 (19·3–21·1)	42·4 (41·2–43·6)	38·9 (37·3–40·5)	5·1 (3·6–6·6)	5·4 (4·5–6·4)	13·9 (13·2–14·6)	63·3 (60·3–66·3)
2010–14	8·6 (7·1–10·1)	21·0 (20·0–21·9)	44·9 (43·8–46·1)	41·9 (40·2–43·5)	6·3 (4·8–7·9)	4·4 (3·7–5·2)	13·7 (13·0–14·4)	66·5 (63·6–69·3)
Slovakia*								
2000–04	5·8§ (3·8–7·9)	20·6§ (19·1–22·0)	50·4 (49·1–51·7)	43·6 (41·7–45·5)	5·6§ (4·1–7·2)	4·8§ (3·8–5·8)	9·5§ (8·7–10·3)	75·0 (72·7–77·3)
2005–09	6·4 (4·7–8·0)	20·9 (19·5–22·4)	51·2 (50·1–52·4)	47·5 (45·8–49·2)	6·1§ (4·8–7·5)	5·8 (4·8–6·7)	10·5 (9·7–11·2)	79·7 (77·7–81·7)
2010–14	6·4 (3·3–9·4)	21·1 (17·8–24·3)	51·8 (49·1–54·4)	48·6 (44·9–52·4)	7·6§ (4·5–10·7)	6·4 (4·4–8·4)	11·2 (9·5–12·8)	78·2 (73·9–82·5)
Slovenia*								
2000–04	8·2 (5·7–10·8)	25·9 (23·8–27·9)	53·6 (51·6–55·6)	48·6 (46·1–51·1)	3·8 (2·2–5·4)	4·7 (3·4–6·1)	9·9 (9·1–10·8)	79·3 (76·7–81·9)
2005–09	9·3 (6·2–12·3)	25·8 (23·7–27·8)	56·2 (54·4–58·0)	57·0 (54·6–59·4)	7·0 (5·2–8·8)	5·7 (4·3–7·1)	12·7 (11·7–13·7)	85·0 (83·0–87·0)
2010–14	8·6 (5·2–11·9)	28·8 (26·4–31·2)	61·9 (60·0–63·8)	60·3 (57·7–62·9)	7·4 (5·3–9·5)	6·6 (4·9–8·4)	14·8 (13·6–16·1)	85·1 (83·0–87·1)

(Table 6 continues on next page)

	Gastrointestinal cancers						Lung	Melanoma of the skin
	Oesophagus	Stomach	Colon	Rectum	Liver	Pancreas		
(Continued from previous page)								
Spain (ten registries)								
2000–04	8·9 (7·5–10·3)	25·7 (24·5–26·9)	56·5 (55·6–57·4)	55·2 (53·7–56·6)	14·4 (13·2–15·7)	5·6 (4·8–6·4)	10·8 (10·4–11·3)	85·3 (83·8–86·8)
2005–09	11·6 (10·2–13·1)	26·7 (25·5–27·9)	61·1 (60·3–61·9)	58·6 (57·3–59·9)	16·3 (15·1–17·4)	6·9 (6·1–7·7)	12·5 (12·0–13·0)	87·1 (85·9–88·3)
2010–14	13·0 (10·6–15·4)	27·6 (25·7–29·5)	63·2 (62·0–64·5)	59·5 (57·4–61·5)	17·3 (15·4–19·2)	7·7 (6·3–9·2)	13·5 (12·7–14·3)	86·8 (84·8–88·7)
Sweden*								
2000–04	11·4 (9·6–13·1)	21·2 (19·8–22·6)	60·2 (59·2–61·2)	59·9 (58·7–61·1)	7·8 (6·4–9·1)	4·9 (4·1–5·8)	13·9 (13·2–14·6)	88·9 (88·1–89·8)
2005–09	13·1 (11·4–14·8)	23·6 (22·1–25·1)	64·2 (63·3–65·2)	63·0 (61·9–64·2)	13·0 (11·4–14·6)	7·9 (6·9–8·9)	16·6 (15·9–17·3)	90·3 (89·5–91·0)
2010–14	14·8 (12·8–16·7)	24·8 (23·3–26·3)	64·9 (64·0–65·8)	64·7 (63·5–65·8)	16·6 (14·9–18·3)	9·7 (8·7–10·8)	19·5 (18·7–20·2)	91·5 (90·9–92·2)
Switzerland (ten registries)‡								
2000–04	16·1 (13·6–18·6)	29·2 (26·9–31·4)	62·8 (61·3–64·3)	59·5 (57·2–61·8)	12·2 (10·3–14·0)	5·6 (4·4–6·9)	14·7 (13·8–15·6)	90·7 (88·4–92·9)
2005–09	20·6 (17·9–23·2)	31·4 (29·0–33·7)	65·1 (63·7–66·6)	65·6 (63·5–67·7)	13·4 (11·6–15·3)	7·0 (5·8–8·2)	17·3 (16·5–18·2)	92·4 (91·3–93·5)
2010–14	23·9 (21·0–26·9)	32·2 (29·9–34·5)	67·3 (65·7–68·9)	67·3 (65·0–69·6)	15·4 (13·5–17·4)	9·4 (7·9–10·8)	20·4 (19·4–21·4)	93·6 (92·4–94·7)
UK (four registries)*								
2000–04	11·5 (11·1–11·9)	16·2 (15·7–16·6)	52·0 (51·6–52·3)	54·6 (54·0–55·1)	7·1 (6·6–7·7)	3·7 (3·4–4·0)	8·3 (8·1–8·5)	86·4 (85·9–86·8)
2005–09	14·0 (13·5–14·4)	19·2 (18·7–19·7)	56·5 (56·2–56·9)	58·7 (58·2–59·2)	9·7 (9·1–10·2)	5·2 (4·9–5·5)	10·1 (9·9–10·3)	89·2 (88·9–89·6)
2010–14	15·7 (15·3–16·1)	20·7 (20·1–21·2)	60·0 (59·7–60·4)	62·5 (62·0–63·0)	13·0 (12·4–13·6)	6·8 (6·5–7·2)	13·3 (13·1–13·5)	90·9 (90·6–91·3)
Oceania								
Australia (eight registries)*								
2000–04	18·0 (16·9–19·2)	27·7 (26·7–28·8)	63·7 (63·2–64·3)	64·4 (63·5–65·2)	14·2 (13·1–15·3)	7·3 (6·7–8·0)	14·8 (14·4–15·2)	92·0 (91·7–92·4)
2005–09	19·9 (18·7–21·0)	29·8 (28·8–30·9)	68·1 (67·6–68·6)	68·6 (67·8–69·5)	17·7 (16·6–18·7)	9·1 (8·5–9·8)	17·1 (16·7–17·5)	92·5 (92·2–92·8)
2010–14	23·7 (22·4–25·0)	31·8 (30·7–32·9)	70·7 (70·1–71·2)	71·0 (70·2–71·9)	19·2 (18·1–20·3)	12·0 (11·2–12·8)	19·4 (19·0–19·9)	92·9 (92·5–93·2)
New Zealand*								
2000–04	11·5 (9·4–13·6)	24·6 (22·4–26·8)	61·4 (60·2–62·7)	60·1 (58·0–62·1)	12·4 (9·9–15·0)	7·0 (5·5–8·5)	11·4 (10·5–12·2)	90·0 (89·1–90·8)
2005–09	14·5 (12·1–16·8)	24·8 (22·5–27·0)	62·8 (61·6–64·0)	63·3 (61·4–65·3)	16·8 (14·4–19·1)	7·7 (6·3–9·0)	12·4 (11·6–13·3)	91·1 (90·3–91·8)
2010–14	15·3 (13·0–17·7)	25·7 (23·5–27·9)	64·0 (62·8–65·1)	66·0 (64·1–67·9)	19·0 (16·7–21·4)	8·1 (6·7–9·6)	15·3 (14·3–16·2)	91·8 (91·1–92·5)

Some registries contributed data for selected cancers or calendar periods. Countries that only provided data for childhood cancers (Belarus, Greece, and Mexico) are not included in this table (see table 7 for childhood cancers). *Data with 100% coverage of the national population. †Survival estimate is not age-standardised. ‡Data with 100% coverage of the national population for childhood malignancies only. §Survival estimate considered less reliable because 15% or more of patients were (1) lost to follow-up or censored alive within 5 years of diagnosis or, if diagnosed in 2010 or later, before Dec 31, 2014; or (2) registered only from a death certificate or at autopsy; or (3) patients with unknown vital status or registered with incomplete dates—ie, unknown year of birth, unknown month or year of diagnosis, or unknown year of last known vital status.

Table 6: **Age-standardised 5-year net survival (%) with 95% CI: adults (15–99 years) diagnosed with one of eight common malignancies (oesophagus, stomach, colon, rectum, liver, pancreas, lung, or melanoma of the skin) by continent, country, and calendar period of diagnosis**

by 5–10% in Japan, Taiwan, and Turkey; Austria, Finland, France, Italy, Malta, and Sweden; and New Zealand.

Over the same period, 5-year survival increased by 10% or more in Canada; Israel and Korea; 16 European countries (Denmark, Estonia, Iceland, Ireland, Latvia, Lithuania, Norway, and the UK [northern Europe]; Portugal and Spain [southern Europe], Bulgaria, the Czech Republic, and Poland [eastern Europe]; and Germany, the

Netherlands, and Switzerland [western Europe]); and Australia. The increase was about 20% or more in China, Korea, and Slovenia.

Liver

Results are available for 1 178 364 adults from 291 registries in 61 countries (tables 2, 4).

5-year net survival was in the range 5–30% throughout 2000–14 (appendix p 252). Estimates are often flagged as less reliable than for other solid tumours (table 6; appendix pp 139–151) because of the exclusion of higher proportions of DCO registrations (table 3; appendix pp 32–36).

For patients diagnosed during 2010–14, age-standardised 5-year net survival was in the range 20–29% only in Korea, Singapore, and Taiwan; and Belgium and Italy. Survival was in the range 10–19% in 27 countries: Canada and the USA; Martinique; three Asian countries (China [east Asia]; and Kuwait and Turkey [west Asia]); 13 European countries (Iceland, Ireland, Latvia, Norway, Sweden, and the UK [northern Europe]; Portugal and Spain [southern Europe]; Poland [eastern Europe]; France, Germany, the Netherlands, and Switzerland [western Europe]); and Australia and New Zealand. 5-year survival was less than 10% in Denmark, Slovenia, Thailand, the Czech Republic, Russia, and Estonia.

In most countries, survival has changed very little during the 20-year period 1995–99 to 2000–14. It increased by 5–10% in Canada and the USA; Japan; eight European countries (Denmark, Ireland, and the UK [northern Europe]; Italy and Spain [southern Europe]; and France, the Netherlands, and Switzerland [western Europe]); and Australia and New Zealand. Survival increased by more than 10% in China, Korea, and Taiwan; and Norway, Portugal, and Sweden.

Pancreas

Results are available for 1 229 379 adults from 290 registries in 59 countries (tables 2, 4).

Age-standardised 5-year net survival estimates were generally in the range 5–15% throughout 2000–14 (appendix p 253). Similarly to liver cancer, some estimates are less reliable (table 6; appendix pp 139–151) owing to the high proportion of DCO registrations (table 3; appendix pp 37–41).

For patients diagnosed during 2010–14, survival was high in Kuwait (23·6%) and Malaysia (Penang; 19·0%; table 6; appendix p 215). Survival was in the range 10–15% in 15 countries: Canada and the USA; Martinique; China, Korea, and Turkey; eight European countries (Estonia, Ireland, Latvia, Norway, and Sweden [northern Europe]; Portugal [southern Europe]; and Belgium and Germany [western Europe]); and Australia. 5-year net survival ranged between 5% and 9% in 14 countries. Survival was very low in Russia (4·4%).

Trends in 5-year survival between 2000–04 and 2010–14 were generally flat, but increases of 3–5% were seen in Canada and the USA; Korea and Singapore; 12 European countries (Denmark, Estonia, Ireland, Latvia, Norway, Sweden, and the UK [northern Europe]; Portugal [southern Europe]; the Czech Republic [eastern Europe]; and Belgium, the Netherlands, and Switzerland [western Europe]); and Australia (appendix p 234).

Lung

Results are available for 6 051 262 adults from 290 registries in 61 countries (tables 2, 4).

Age-standardised 5-year net survival was in the range 10–20% in most countries (table 6; appendix p 254). Most estimates in Central and South America were less reliable owing to the high proportion of DCO registrations excluded from analysis (table 6; appendix pp 152–164), although the proportion of DCOs has generally decreased worldwide (table 3; appendix pp 42–46).

For patients diagnosed during 2010–14, 5-year survival was high in Japan (32·9%). It was in the range 20–30% in 12 countries: Mauritius; Canada and the USA; four Asian countries (China, Korea, and Taiwan [east Asia]; and Israel [west Asia]); and five European countries (Latvia, Iceland, and Sweden [northern Europe]; and Austria and Switzerland [western Europe]; table 6; appendix p 216). In most countries, however, survival was in the range 10–19%: Martinique and Puerto Rico; five Asian countries (Malaysia [Penang] and Singapore [south Asia]; and Cyprus, Kuwait, and Turkey [west Asia]); 21 European countries (Denmark, Estonia, Finland, Ireland, Lithuania, Norway, and the UK [northern Europe]; Croatia, Italy, Malta, Portugal, Slovenia, and Spain [southern Europe]; the Czech Republic, Poland, Russia, and Slovakia [eastern Europe]; and Belgium, France, Germany, and the Netherlands, [western Europe]); and Australia and New Zealand. Survival was less than 10% in Thailand, Brazil, Bulgaria, and India (table 6).

Lung cancer survival trends between 1995–99 and 2000–14 were generally flat, but survival increased by 5–10% in 21 countries: Canada and the USA; Israel, Japan, and Taiwan; 15 European countries (Denmark, Estonia, Iceland, Ireland, Latvia, Norway, Sweden, and the UK [northern Europe]; Portugal and Slovenia [southern Europe]; and Austria, France, Germany, the Netherlands, and Switzerland [western Europe]); and Australia. Survival increased by more than 10% in China and Korea (table 6; appendix p 235).

Melanoma of the skin

Results are available for 1 553 109 adults from 281 registries in 59 countries (tables 2, 4).

Age-standardised 5-year net survival was in the range 60–90% in most countries (appendix p 255). Most estimates were considered reliable (table 6; appendix pp 152–164). For patients diagnosed during 2010–14, 5-year survival estimates exceeded 90% in 11 countries: the USA; eight European countries (Denmark, Sweden, and the UK [northern Europe]; and Belgium, France, Germany, the Netherlands, and Switzerland [western

	Women's cancers			Prostate	Brain (adults)	Haemopoietic malignancies (adults)		Childhood malignancies		
	Breast	Cervix	Ovary			Myeloid	Lymphoid	Brain	Acute lymphoblastic leukaemia	Lymphoma
Africa										
Algeria (three registries)										
2000–04	38·9§ (29·1–48·7)	61·1§ (55·5–66·7)	50·7†§ (35·6–65·8)	89·9†§ (77·8–100·0)	..	21·1†§ (6·0–36·2)	23·3§ (13·8–32·8)	..	30·9†§ (10·1–51·6)	6·0†§ (0·0–15·1)
2005–09	55·6§ (47·4–63·8)	70·7§ (64·5–77·0)	54·3§ (44·7–63·8)	50·3§ (41·0–59·6)	51·9§ (43·4–60·4)	17·1†§ (0·1–34·1)	47·8§ (39·9–55·8)	43·3§ (29·4–57·2)	100·0†§ (100·0–100·0)	78·9†§ (62·5–95·3)
2010–14	77·0§ (68·5–85·6)	72·4§ (66·0–78·7)	66·5§ (53·5–79·5)	64·1§ (56·6–71·6)	46·5§ (37·5–55·5)	17·9§ (5·3–30·6)	59·1§ (49·9–68·3)	54·1§ (39·2–69·0)	..	77·5§ (65·4–89·7)
Mali (Bamako)										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	..	..	..	..	..	..	..	..	..	..
2010–14	0·0†§ (0·0–0·0)	..	..	..	..	..	..	..	..	..
Mauritius*										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	83·6 (75·9–91·3)	80·8 (76·0–85·6)	79·7 (69·6–89·8)	61·8 (54·1–69·4)	..	..	..	..	..	..
2010–14	..	..	..	63·5 (54·7–72·4)	43·7† (25·5–61·9)	50·1† (34·4–65·8)	65·9 (53·4–78·4)	..	..	..
Morocco (Casablanca)										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	86·7§ (71·7–100·0)	..	..	..	..	..	..	..	..	..
2010–14	99·7§ (95·8–100·0)	..	..	..	..	..	..	..	..	..
Nigeria (Ibadan)										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	98·8§ (95·6–100·0)	58·6§ (46·5–70·7)	59·4†§ (24·9–93·9)	73·9§ (50·2–97·6)	88·6†§ (60·4–100·0)	57·4†§ (29·0–85·8)	86·8§ (54·9–100·0)	..	..	51·0§ (31·5–70·6)
2010–14	97·5§ (89·9–100·0)	49·8§ (36·5–63·1)	49·1§ (33·8–64·4)	58·7§ (40·1–77·2)	54·9†§ (19·7–90·0)	28·4†§ (3·0–53·7)	56·4§ (32·2–80·5)	..	..	6·0§ (0·0–13·6)
South Africa (Eastern Cape)										
2000–04	53·0†§ (23·4–82·7)	70·7§ (56·7–84·7)	82·5†§ (42·5–100·0)	77·6†§ (55·0–100·0)	..	..	..	..	..	..
2005–09	32·0§ (23·3–40·7)	40·2§ (32·2–48·1)	81·0†§ (58·8–100·0)	38·6§ (25·1–52·0)	..	..	29·5†§ (10·8–48·2)	..	..	..
2010–14	40·1§ (30·7–49·6)	37·1§ (31·4–42·9)	67·8†§ (47·4–88·2)	37·8§ (25·5–50·1)	51·6†§ (0·6–100·0)	..	47·7†§ (31·1–64·4)	..	..	..
America (Central and South)										
Argentina (five registries)‡										
2000–04	82·3 (79·4–85·2)	58·3 (52·6–64·0)	40·4 (32·4–48·4)	83·5 (78·5–88·6)	29·8§ (22·6–37·0)	47·9 (39·4–56·3)	54·5 (49·1–59·8)	45·1 (41·8–48·3)	65·0 (62·7–67·3)	79·9 (76·7–83·0)
2005–09	82·0 (80·4–83·6)	55·6 (52·0–59·1)	43·2 (38·6–47·9)	83·6 (81·2–86·0)	27·7§ (24·4–31·0)	39·5 (34·5–44·6)	48·8 (45·9–51·6)	56·1 (52·9–59·3)	72·0 (69·7–74·2)	76·9 (73·5–80·3)
2010–14	84·4 (82·6–86·2)	52·7 (48·7–56·7)	38·6 (34·3–42·9)	87·6 (84·9–90·4)	30·7§ (26·8–34·6)	37·4 (32·1–42·6)	48·2 (45·0–51·5)	62·9§ (59·4–66·4)	76·1§ (73·7–78·4)	83·4 (80·1–86·6)
Brazil (six registries)										
2000–04	68·7§ (67·5–69·8)	69·3 (66·1–72·6)	42·1 (36·0–48·1)	90·0 (87·2–92·8)	31·3§ (26·2–36·4)	31·1† (7·3–54·9)	48·2 (43·7–52·6)	55·7 (44·7–66·6)	67·7 (57·8–77·6)	69·2 (57·3–81·1)
2005–09	76·9§ (75·7–78·0)	63·2 (59·9–66·5)	34·1 (29·4–38·9)	92·5 (90·2–94·8)	28·2§ (24·4–32·1)	41·6 (31·4–51·8)	49·4 (45·6–53·2)	34·7 (21·9–47·5)	69·8 (60·0–79·6)	86·3 (77·1–95·5)
2010–14	75·2§ (73·9–76·5)	60·3 (56·3–64·3)	34·9 (29·5–40·3)	91·6 (89·1–94·1)	28·1§ (23·7–32·6)	39·1 (28·7–49·5)	46·2 (42·2–50·2)	28·9 (15·8–41·9)	66·0 (53·3–78·8)	88·2 (78·2–98·3)

(Table 7 continues on next page)

	Women's cancers			Prostate	Brain (adults)	Haemopoietic malignancies (adults)		Childhood malignancies		
	Breast	Cervix	Ovary			Myeloid	Lymphoid	Brain	Acute lymphoblastic leukaemia	Lymphoma
(Continued from previous page)										
Chile (four registries)										
2000–04	74·6 (68·2–81·1)	58·2 (52·3–64·0)	25·8 (18·5–33·1)	82·6 (77·2–88·0)	12·4† (0·0–26·7)	29·1 (19·1–39·1)	28·9 (23·4–34·3)	46·7† (22·7–70·7)	76·7 (65·6–87·7)	70·1† (43·3–96·9)
2005–09	73·5 (68·4–78·6)	57·2 (51·6–62·9)	29·0 (23·3–34·7)	84·4 (80·7–88·1)	21·8 (14·3–29·3)	25·8 (20·8–30·8)	37·1 (33·7–40·5)	56·7† (37·0–76·4)	67·4 (57·3–77·4)	69·7† (51·4–88·0)
2010–14	75·5§ (69·4–81·5)	56·7§ (50·0–63·4)	28·0§ (21·3–34·7)	82·0§ (78·4–85·5)	24·2 (15·2–33·2)	16·5 (11·4–21·6)	32·5 (23·8–41·2)	..	63·9 (48·5–79·3)	..
Colombia (four registries)										
2000–04	72·3 (68·9–75·7)	56·6§ (53·5–59·8)	33·5 (28·0–39·0)	83·6 (80·7–86·5)	23·8 (20·1–27·5)	16·3 (11·4–21·2)	37·2 (33·4–40·9)	44·9§ (32·9–57·0)	52·3 (43·5–61·2)	68·4§ (55·3–81·6)
2005–09	79·1 (76·1–82·0)	55·4 (52·6–58·1)	35·4 (30·3–40·6)	87·8 (85·4–90·3)	27·4 (23·5–31·4)	30·7 (25·7–35·7)	42·3 (39·2–45·4)	33·9§ (23·4–44·5)	57·3 (47·8–66·9)	85·0§ (76·1–93·9)
2010–14	72·1§ (69·0–75·2)	49·4§ (46·5–52·3)	33·3§ (28·2–38·4)	80·3§ (77·6–83·1)	20·8§ (17·1–24·4)	31·8§ (26·6–37·1)	40·3§ (37·0–43·6)	46·9§ (35·9–57·9)	68·9 (51·6–86·3)	..
Costa Rica*										
2000–04	87·0 (83·6–90·3)	84·9§ (81·2–88·6)	54·3 (43·7–64·9)	94·0 (92·0–96·1)	30·8§ (24·9–36·7)	35·0 (25·4–44·6)	50·0 (45·2–54·8)	77·1† (55·1–99·0)	97·8† (93·2–100·0)	..
2005–09	86·4 (84·0–88·7)	78·3§ (75·3–81·3)	47·1 (40·5–53·7)	92·6 (90·9–94·2)	18·9§ (15·1–22·8)	21·2 (15·7–26·7)	50·4 (46·9–53·9)	71·2 (61·2–81·3)	87·4 (82·8–91·9)	93·0 (86·7–99·3)
2010–14	86·7 (84·6–88·9)	78·0§ (74·8–81·2)	56·9 (49·1–64·7)	93·2 (91·5–94·9)	21·5§ (17·5–25·6)	29·4 (23·3–35·4)	52·4 (49·1–55·7)	69·8 (57·8–81·8)	80·0 (69·3–90·7)	93·5 (86·2–100·0)
Cuba*										
2000–04	73·7 (72·2–75·1)	64·1 (62·3–65·9)	29·5 (26·7–32·3)	26·1§ (24·6–27·6)	..	..	44·0§ (41·6–46·5)	..	..	72·4§ (67·1–77·8)
2005–09	81·8 (80·5–83·0)	68·8 (67·0–70·7)	38·4 (35·6–41·3)	53·8§ (52·1–55·6)	..	..	49·4§ (46·7–52·0)	..	..	77·4§ (71·5–83·3)
2010–14	75·1 (73·7–76·5)	72·9 (70·5–75·2)	49·3§ (45·0–53·5)	71·4§ (68·9–74·0)	..	..	60·1§ (56·3–63·8)	..	..	78·5§ (70·5–86·6)
Ecuador (five registries)										
2000–04	72·1 (67·3–76·9)	47·4 (44·1–50·7)	34·5 (26·5–42·5)	85·7 (82·0–89·5)	24·2 (19·4–28·9)	20·5 (12·6–28·4)	33·1 (29·1–37·0)	48·0§ (35·2–60·8)	48·3§ (40·3–56·4)	73·4§ (62·7–84·1)
2005–09	75·7 (72·7–78·7)	50·4 (47·8–52·9)	38·8 (33·1–44·5)	80·7 (78·0–83·5)	20·9 (17·6–24·2)	20·3 (15·5–25·0)	39·4 (36·7–42·0)	31·2 (20·9–41·5)	51·5 (44·9–58·0)	72·2 (63·7–80·7)
2010–14	75·5 (72·4–78·7)	52·0 (49·3–54·7)	37·9 (32·1–43·7)	82·2 (79·4–85·0)	25·8 (22·0–29·6)	24·4 (18·9–29·9)	40·1 (37·4–42·8)	48·2 (35·9–60·5)	49·8 (42·7–56·9)	67·3 (57·4–77·2)
Guadeloupe*										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	69·8§ (60·0–79·7)	20·9†§ (3·3–38·5)	24·2†§ (8·9–39·5)	82·8§ (78·2–87·5)	0·2†§ (0·0–0·6)	37·5†§ (9·8–65·3)	25·7§ (17·3–34·0)	..	..	..
2010–14	50·2§ (39·6–60·8)	19·4§ (9·0–29·9)	29·5†§ (13·8–45·2)	71·4§ (65·5–77·2)	9·6†§ (0·0–19·5)	32·3§ (21·4–43·2)	36·0§ (27·3–44·6)	..	..	..
Martinique*										
2000–04	78·9 (73·5–84·3)	69·7 (62·5–76·9)	29·5 (17·8–41·1)	93·2 (90·5–95·8)	32·6 (22·4–42·8)	46·2 (36·8–55·6)	49·8 (44·1–55·5)	..	77·5† (55·9–99·2)	..
2005–09	87·8 (83·5–92·1)	57·6 (48·9–66·3)	34·0 (24·6–43·4)	97·8 (95·7–99·9)	28·1 (19·9–36·2)	49·7 (41·8–57·6)	48·7 (43·9–53·6)	..	..	..
2010–14	89·8 (84·5–95·1)	57·5 (46·2–68·8)	35·7§ (23·4–48·0)	97·9 (95·1–100·0)	35·8 (26·4–45·3)	47·9 (39·4–56·5)	49·4 (43·3–55·4)	..	..	..

(Table 7 continues on next page)

	Women's cancers			Prostate	Brain (adults)	Haemopoietic malignancies (adults)		Childhood malignancies		
	Breast	Cervix	Ovary			Myeloid	Lymphoid	Brain	Acute lymphoblastic leukaemia	Lymphoma
(Continued from previous page)										
Mexico (childhood)‡										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	..	..	..	..	..	..	..	41·2 (35·1–47·4)	52·5 (49·8–55·2)	75·1§ (70·7–79·5)
2010–14	..	..	..	..	..	..	..	36·5 (30·0–43·0)	52·7 (49·4–56·1)	72·0§ (66·4–77·7)
Peru (Lima)										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	..	..	..	..	..	..	..	..	..	..
2010–14	84·0 (81·4–86·7)	57·2 (54·8–59·6)	..	..	..	36·3§ (29·5–43·0)	46·2§ (42·9–49·6)	..	60·4 (53·4–67·3)	73·4§ (64·8–82·1)
Puerto Rico*										
2000–04	83·4 (81·9–84·9)	60·6 (56·9–64·4)	34·9 (30·8–39·0)	98·7 (97·6–99·7)	31·7§ (28·0–35·4)	25·6§ (21·4–29·8)	49·1 (46·8–51·4)	71·2 (62·1–80·3)	79·3 (70·2–88·4)	94·5 (90·1–98·8)
2005–09	83·0 (81·6–84·4)	58·8 (55·3–62·4)	37·2 (33·4–41·0)	99·0 (98·1–99·9)	34·8 (31·5–38·0)	38·8 (35·6–42·0)	53·5 (51·6–55·4)	76·1 (67·6–84·6)	86·2 (78·1–94·4)	90·9 (83·1–98·7)
2010–14	84·1 (82·0–86·3)	63·5 (57·9–69·1)	37·3 (32·0–42·6)	98·4 (97·0–99·8)	36·3 (31·2–41·4)	44·9 (39·6–50·1)	60·3 (57·2–63·4)	70·5 (56·3–84·7)	93·1 (83·6–100·0)	96·3 (89·9–100·0)
Uruguay*										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	..	55·7 (51·6–59·8)	37·4 (31·9–42·8)	84·7 (82·1–87·3)	..	..	..	..	..	..
2010–14	..	56·5 (51·8–61·1)	37·4§ (31·4–43·4)	86·5 (83·7–89·3)	..	..	..	..	..	..
America (North)										
Canada (nine registries)										
2000–04	85·9 (85·5–86·4)	67·9 (66·4–69·5)	37·6 (36·6–38·6)	93·0 (92·6–93·3)	24·7 (23·4–26·0)	47·5 (46·1–48·8)	60·1 (59·5–60·7)	73·3 (68·2–78·4)	91·0 (88·8–93·3)	89·4 (85·9–92·9)
2005–09	87·6 (87·2–88·0)	66·9 (65·3–68·5)	41·0 (40·0–42·0)	94·2 (93·9–94·5)	29·8 (28·5–31·1)	49·2 (47·9–50·5)	66·0 (65·4–66·5)	72·5 (67·7–77·2)	92·1 (90·0–94·3)	88·5 (84·4–92·5)
2010–14	88·2 (87·8–88·6)	66·6 (65·1–68·1)	40·9 (39·9–41·8)	93·6 (93·3–94·0)	29·9 (28·6–31·1)	50·4 (49·2–51·6)	68·6 (68·1–69·1)	72·7 (68·0–77·4)	92·6 (90·7–94·6)	92·3 (89·1–95·6)
USA (48 registries)										
2000–04	88·9 (88·7–89·0)	64·3 (63·7–64·8)	40·4 (40·0–40·7)	97·5 (97·3–97·6)	26·8 (26·5–27·1)	41·0 (40·7–41·3)	61·2 (61·0–61·4)	72·1 (71·1–73·2)	86·7 (85·8–87·5)	88·5 (87·4–89·6)
2005–09	89·8 (89·6–89·9)	63·0 (62·5–63·5)	42·0 (41·7–42·4)	98·1 (98·0–98·2)	35·1 (34·8–35·4)	45·9 (45·6–46·2)	66·1 (66·0–66·3)	76·8 (75·9–77·7)	88·1 (87·3–88·9)	90·2 (89·2–91·3)
2010–14	90·2 (90·1–90·4)	62·6 (62·0–63·1)	43·4 (43·1–43·8)	97·4 (97·3–97·5)	36·5 (36·1–36·8)	46·7 (46·4–47·0)	68·1 (67·9–68·3)	78·2 (77·3–79·2)	89·5 (88·8–90·3)	94·3 (93·6–95·1)
Asia										
China (21 registries)										
2000–04	75·9 (70·9–80·9)	53·3 (48·1–58·5)	42·4 (38·2–46·6)	57·7 (52·3–63·0)	22·7 (20·5–25·0)	18·6 (15·8–21·5)	33·9 (31·6–36·2)	32·7 (21·0–44·4)	61·8 (46·5–77·2)	44·2† (29·7–58·8)
2005–09	80·4 (79·3–81·5)	63·0 (61·2–64·9)	40·6 (38·8–42·5)	62·5 (59·9–65·1)	26·4 (25·2–27·7)	20·1 (18·7–21·4)	35·4 (34·2–36·6)	39·1 (31·2–47·0)	53·5 (44·6–62·4)	52·3 (39·5–65·0)
2010–14	83·2 (82·1–84·3)	67·6 (65·8–69·5)	41·8 (39·8–43·7)	69·2 (66·4–72·0)	32·0 (30·6–33·5)	24·8 (23·2–26·4)	38·3 (37·0–39·5)	41·1 (32·0–50·1)	57·7 (46·6–68·7)	61·1 (47·5–74·8)

(Table 7 continues on next page)

	Women's cancers			Prostate	Brain (adults)	Haemopoietic malignancies (adults)		Childhood malignancies		
	Breast	Cervix	Ovary			Myeloid	Lymphoid	Brain	Acute lymphoblastic leukaemia	Lymphoma
(Continued from previous page)										
Cyprus*										
2000–04	89·3§ (80·8–97·8)	60·4†§ (41·0–79·8)	42·6†§ (24·6–60·6)	91·0§ (84·0–97·9)	32·1†§ (13·4–50·8)	60·0†§ (39·1–80·9)	61·4§ (52·2–70·6)	..	..	..
2005–09	92·0§ (88·7–95·4)	66·9§ (60·0–73·8)	46·2§ (39·9–52·4)	98·3§ (95·4–100·0)	24·6§ (18·6–30·7)	39·8§ (33·3–46·2)	69·4§ (65·1–73·7)	..	85·2†§ (72·1–98·3)	100·0†§ (86·3–100·0)
2010–14	92·8§ (89·7–95·9)	73·3§ (65·1–81·6)	46·4§ (40·0–52·7)	99·2§ (96·4–100·0)	25·2§ (19·5–31·0)	36·0§ (30·2–41·9)	65·7§ (61·8–69·6)	..	86·6§ (78·2–95·0)	..
Hong Kong*										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	82·2 (80·9–83·5)	66·7 (64·5–69·0)	..	..	..	..	..	..	..	..
2010–14	83·3 (82·1–84·6)	65·8 (63·6–68·1)	..	..	..	..	..	..	..	..
India (two registries)										
2000–04	57·6 (48·1–67·1)	45·2 (34·8–55·6)	25·6† (12·2–39·1)	24·8† (6·3–43·3)	22·4†§ (8·3–36·5)	19·7† (6·3–33·1)	40·6† (28·1–53·1)	..	54·0† (28·3–79·8)	..
2005–09	59·1 (46·6–71·6)	51·6 (40·5–62·6)	13·2 (7·7–18·7)	33·2† (16·3–50·0)	16·7 (10·4–23·0)	6·1 (2·5–9·6)	45·4 (34·2–56·6)	..	75·5† (52·1–99·0)	..
2010–14	66·1 (51·5–80·8)	59·0 (47·5–70·5)	15·6 (10·2–21·1)	44·3 (32·1–56·6)	30·0† (17·5–42·6)	29·0† (16·8–41·3)	45·6 (33·0–58·1)	..	..	..
Iran (Golestan)										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	..	..	..	..	..	..	..	..	..	..
2010–14	..	..	..	..	..	..	..	..	..	..
Israel*										
2000–04	85·1 (84·2–86·1)	65·0 (61·6–68·5)	40·1 (37·8–42·4)	92·5 (91·4–93·6)	29·7 (27·8–31·7)	51·3 (49·1–53·5)	63·7 (62·5–64·9)	74·5 (69·3–79·6)	86·4 (81·6–91·2)	89·1 (84·6–93·5)
2005–09	87·8 (86·8–88·7)	65·9 (62·7–69·1)	43·5 (41·1–45·9)	95·7 (94·7–96·6)	32·3 (30·4–34·3)	43·9 (41·9–46·0)	65·2 (64·1–66·3)	72·0 (67·2–76·9)	86·7 (82·2–91·2)	90·8 (87·3–94·3)
2010–14	88·0 (87·0–89·0)	66·6 (63·2–70·1)	45·0 (42·3–47·7)	95·6 (94·5–96·7)	32·8 (30·6–34·9)	39·7 (37·6–41·9)	65·5 (64·2–66·7)	77·6 (72·6–82·6)	87·9 (83·1–92·6)	92·3 (89·0–95·6)
Japan (16 registries)										
2000–04	85·9 (85·2–86·6)	67·5 (66·3–68·7)	35·5 (33·8–37·2)	85·9 (84·9–87·0)	27·9§ (26·3–29·5)	24·8 (23·4–26·1)	47·5 (46·3–48·7)	65·3 (59·2–71·5)	79·7 (74·9–84·4)	86·0 (80·2–91·7)
2005–09	88·9 (88·4–89·3)	69·2 (68·3–70·1)	43·9 (42·8–45·1)	91·4 (90·8–92·0)	38·5§ (37·2–39·7)	27·5 (26·7–28·3)	52·0 (51·4–52·6)	62·5 (58·1–66·8)	83·7 (80·6–86·9)	84·7 (79·5–89·9)
2010–14	89·4 (88·9–89·9)	71·4 (70·4–72·3)	46·3 (44·9–47·7)	93·0 (92·4–93·6)	46·3§ (44·9–47·7)	33·3 (32·4–34·3)	57·3 (56·5–58·0)	69·6 (64·4–74·7)	87·6 (84·2–91·0)	89·6 (84·2–95·0)
Jordan*										
2000–04	87·6§ (83·5–91·7)	75·6§ (66·8–84·3)	..	88·5§ (83·7–93·3)	55·8§ (49·0–62·6)	57·1§ (48·1–66·1)	76·0§ (69·4–82·6)	73·5§ (65·7–81·3)	75·4§ (69·7–81·2)	92·4§ (88·1–96·6)
2005–09	86·6§ (83·2–90·0)	70·6§ (63·9–77·4)	..	88·6§ (83·3–93·9)	46·7§ (41·1–52·4)	56·5§ (46·9–66·1)	74·6§ (68·3–80·9)	66·0§ (58·6–73·3)	89·2§ (84·8–93·6)	91·1§ (86·4–95·8)
2010–14	84·4§ (80·9–88·0)	56·4§ (48·2–64·6)	..	86·1§ (81·1–91·0)	32·9§ (26·8–39·0)	42·5§ (35·3–49·6)	65·1§ (60·3–69·9)	57·3§ (49·9–64·8)	88·0§ (83·1–92·8)	87·0§ (81·4–92·6)
Korea*										
2000–04	79·5 (78·0–81·0)	76·0 (75·3–76·7)	43·0 (41·2–44·7)	76·0 (74·6–77·5)	27·6 (26·4–28·9)	31·7 (30·4–33·0)	39·8 (38·8–40·8)	54·2 (50·8–57·6)	73·1 (70·4–75·8)	82·4 (79·3–85·4)
2005–09	84·0 (83·0–85·0)	77·0 (76·4–77·7)	44·1 (42·7–45·5)	87·3 (86·5–88·1)	31·9 (30·8–33·0)	41·5 (40·5–42·5)	47·5 (46·7–48·4)	61·4 (58·1–64·7)	78·6 (76·1–81·0)	83·0 (80·0–85·9)
2010–14	86·6 (85·8–87·5)	77·3 (76·6–78·0)	47·5 (46·2–48·9)	89·9 (89·2–90·5)	33·7 (32·6–34·7)	45·9 (44·9–46·8)	52·5 (51·8–53·3)	60·3 (56·9–63·8)	84·4 (82·1–86·7)	91·0 (88·9–93·1)

(Table 7 continues on next page)

	Women's cancers			Prostate	Brain (adults)	Haemopoietic malignancies (adults)		Childhood malignancies		
	Breast	Cervix	Ovary			Myeloid	Lymphoid	Brain	Acute lymphoblastic leukaemia	Lymphoma
(Continued from previous page)										
Kuwait*										
2000–04	68·3 (58·0–78·7)	54·8 (45·2–64·3)	38·9† (26·3–51·5)	78·8† (66·7–90·9)	30·3†§ (19·1–41·5)	38·6 (27·1–50·0)	52·1 (42·9–61·2)	47·1† (24·4–69·8)	76·1§ (65·7–86·5)	93·0 (86·2–99·8)
2005–09	71·0 (63·8–78·2)	73·8† (61·7–86·0)	35·4 (25·2–45·6)	71·9 (63·7–80·0)	24·9 (17·3–32·6)	24·0 (15·9–32·0)	63·2 (55·8–70·7)	59·2† (39·2–79·1)	74·9 (65·6–84·1)	90·7 (83·2–98·2)
2010–14	75·2 (66·4–83·9)	56·6 (44·2–69·0)	35·1 (25·6–44·7)	84·0 (74·1–94·0)	31·8 (23·2–40·4)	25·6 (17·7–33·6)	68·2 (59·5–76·9)	..	88·4 (80·6–96·2)	96·3 (91·4–100·0)
Malaysia (Penang)										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	74·4§ (66·3–82·4)	56·3§ (49·5–63·0)	36·4§ (27·3–45·6)	74·9 (67·5–82·3)	20·5† (10·7–30·4)	20·3 (11·5–29·1)	31·4 (24·7–38·1)	41·3†§ (19·0–63·6)	72·8§ (62·4–83·3)	95·3§ (89·2–100·0)
2010–14	65·0§ (52·1–78·0)	57·1§ (48·3–65·9)	46·8§ (34·5–59·0)	87·7 (80·8–94·5)	28·3† (14·7–42·0)	29·6 (21·2–38·0)	51·3 (39·6–63·1)	63·4†§ (45·7–81·2)	82·3§ (72·0–92·5)	85·0†§ (66·2–100·0)
Mongolia*										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	76·7 (60·0–93·4)	..	..	..	..	..	..	..	..	..
2010–14	76·1 (63·8–88·4)	..	..	..	..	..	..	..	..	..
Qatar*										
2000–04	59·2§ (48·7–69·7)	83·9†§ (68·5–99·2)	47·1†§ (25·1–69·0)	81·5†§ (60·7–100·0)	52·9†§ (34·0–71·9)	63·8†§ (49·8–77·7)	46·5§ (34·5–58·4)	11·1†§ (0·0–27·1)	67·3†§ (44·3–90·3)	69·0§ (52·6–85·4)
2005–09	73·3§ (63·0–83·7)	55·6†§ (35·3–76·0)	62·6†§ (47·5–77·6)	98·2†§ (87·1–100·0)	32·4†§ (19·0–45·8)	52·1†§ (39·7–64·6)	60·3§ (45·9–74·7)	..	82·6†§ (61·2–100·0)	88·5†§ (73·8–100·0)
2010–14	71·9§ (58·4–85·5)	63·5†§ (44·2–82·8)	39·2§ (26·3–52·1)	89·6§ (79·0–100·0)	36·1†§ (20·5–51·7)	56·9§ (42·0–71·9)	75·0§ (58·8–91·2)	65·5†§ (34·5–96·5)	100·0§ (100·0–100·0)	95·3§ (87·3–100·0)
Singapore*										
2000–04	76·3 (73·9–78·7)	68·3 (65·2–71·5)	42·5 (37·9–47·0)	83·4 (80·3–86·5)	26·2 (21·5–30·9)	39·2 (35·1–43·3)	46·0 (43·0–48·9)	60·9 (48·0–73·8)	79·8 (72·3–87·2)	86·9 (77·5–96·3)
2005–09	80·3 (78·3–82·3)	63·3 (60·1–66·6)	46·8 (42·8–50·7)	86·7 (84·5–88·9)	30·3 (26·2–34·4)	43·7 (40·1–47·4)	55·3 (52·7–57·9)	57·5 (45·9–69·0)	90·4 (84·2–96·6)	73·8 (61·6–86·0)
2010–14	80·3 (78·4–82·2)	63·4 (60·2–66·6)	43·9 (40·7–47·0)	87·8 (85·8–89·8)	34·4 (30·6–38·2)	44·1 (41·1–47·1)	58·7 (56·4–61·1)	62·0 (51·4–72·5)	88·6 (81·8–95·4)	92·1 (85·2–99·1)
Taiwan*										
2000–04	80·2 (78·9–81·6)	74·3 (73·4–75·2)	44·1 (41·8–46·4)	75·5 (73·8–77·2)	26·5 (24·8–28·1)	23·1 (21·6–24·6)	40·3 (39·2–41·4)	57·1 (52·4–61·8)	72·1 (68·2–75·9)	80·1 (75·6–84·7)
2005–09	82·2 (81·2–83·2)	73·2 (72·2–74·2)	47·5 (45·5–49·5)	79·8 (78·7–81·0)	27·6 (26·0–29·2)	30·4 (29·1–31·7)	46·8 (45·8–47·8)	58·8 (54·1–63·5)	78·8 (75·3–82·3)	84·0 (79·6–88·4)
2010–14	84·2 (83·3–85·1)	70·0 (68·9–71·1)	48·8 (46·9–50·8)	83·0 (81·9–84·0)	28·4 (26·9–29·9)	33·4 (32·2–34·6)	50·5 (49·6–51·5)	54·8 (49·9–59·6)	76·5 (72·8–80·1)	86·7 (82·5–90·8)
Thailand (six registries)										
2000–04	56·6§ (52·0–61·3)	53·5§ (51·3–55·7)	41·8§ (34·8–48·7)	52·1§ (46·6–57·6)	11·7§ (9·2–14·3)	9·4§ (7·2–11·6)	30·3§ (26·7–34·0)	23·4§ (15·2–31·5)	54·5§ (46·7–62·4)	43·9†§ (27·1–60·8)
2005–09	64·8§ (62·5–67·0)	55·8§ (54·0–57·7)	35·8 (32·3–39·3)	71·8 (69·0–74·7)	17·6 (15·2–20·0)	18·2 (16·0–20·4)	36·1 (33·7–38·4)	38·4 (30·6–46·3)	60·6 (54·2–67·1)	63·7§ (52·3–75·0)
2010–14	68·7§ (66·6–70·8)	53·9§ (52·1–55·8)	37·2 (34·0–40·5)	68·0 (65·2–70·8)	14·7 (12·6–16·9)	25·4 (22·8–28·0)	35·0 (32·8–37·1)	44·5§ (35·9–53·1)	65·9§ (59·2–72·6)	73·9§ (65·0–82·7)

(Table 7 continues on next page)

	Women's cancers			Prostate	Brain (adults)	Haemopoietic malignancies (adults)		Childhood malignancies		
	Breast	Cervix	Ovary			Myeloid	Lymphoid	Brain	Acute lymphoblastic leukaemia	Lymphoma
(Continued from previous page)										
Turkey (nine registries)										
2000–04	84·8 (81·5–88·0)	64·8 (59·7–69·9)	46·1§ (38·3–53·8)	83·4§ (79·3–87·5)	32·1§ (27·9–36·2)	35·9§ (30·6–41·2)	54·3§ (49·6–58·9)	56·8 (46·3–67·2)	72·4 (64·3–80·6)	79·9 (70·9–88·9)
2005–09	80·6 (79·2–82·1)	59·2 (56·5–61·9)	40·0 (37·4–42·6)	81·2 (79·9–82·6)	34·0 (32·4–35·6)	49·0 (46·8–51·2)	50·3 (48·7–51·8)	61·1 (56·2–66·0)	78·7 (74·9–82·6)	85·0 (81·4–88·7)
2010–14	82·1 (80·7–83·5)	60·7 (58·1–63·3)	39·7 (37·3–42·0)	83·8 (82·5–85·1)	35·6 (34·1–37·0)	54·0 (51·8–56·1)	54·5 (53·0–56·1)	62·5 (58·4–66·7)	80·9 (77·2–84·6)	82·9 (79·1–86·7)
Europe										
Austria*										
2000–04	81·7 (80·9–82·4)	65·4 (63·4–67·4)	40·9 (39·4–42·5)	90·1 (89·3–90·8)	24·2 (22·6–25·9)	25·0 (23·1–26·8)	57·6 (56·5–58·7)	..	..	..
2005–09	83·9 (83·2–84·6)	66·0 (63·7–68·2)	41·2 (39·6–42·8)	90·8 (90·1–91·5)	28·5 (26·9–30·1)	29·6 (27·7–31·5)	62·2 (61·1–63·3)	..	..	..
2010–14	84·8 (84·1–85·5)	63·9 (61·6–66·2)	41·0 (39·4–42·7)	90·2 (89·5–90·9)	26·3 (24·7–27·9)	32·0 (30·1–34·0)	63·3 (62·3–64·4)	..	..	..
Belarus (childhood)‡										
2000–04	..	..	..	..	..	..	..	66·1 (59·8–72·3)	78·5 (73·0–83·9)	86·5 (80·7–92·3)
2005–09	..	..	..	..	..	..	..	70·4 (64·0–76·8)	87·0 (81·9–92·2)	84·6 (77·0–92·2)
2010–14	..	..	..	..	..	..	..	68·5 (61·6–75·5)	86·6 (81·7–91·5)	85·2 (78·0–92·4)
Belgium*										
2000–04	84·8 (83·5–86·0)	65·1 (61·1–69·0)	42·7 (39·4–45·9)	92·1 (90·8–93·4)	31·5 (28·5–34·5)	49·7 (46·7–52·7)	65·5 (63·6–67·4)	84·1 (75·6–92·6)	80·4 (69·8–91·0)	94·2 (87·9–100·0)
2005–09	85·3 (84·7–85·8)	65·7 (63·8–67·6)	42·8 (41·3–44·3)	93·2 (92·6–93·7)	31·9 (30·6–33·2)	53·2 (51·9–54·5)	68·0 (67·2–68·8)	75·2 (70·3–80·1)	90·5 (87·0–94·1)	95·6 (92·9–98·2)
2010–14	86·4 (85·9–86·9)	65·4 (63·5–67·2)	43·1 (41·6–44·6)	93·8 (93·2–94·3)	31·2 (29·9–32·5)	55·4 (54·2–56·5)	70·6 (69·8–71·4)	74·5 (70·2–78·9)	90·8 (87·3–94·3)	95·4 (92·7–98·1)
Bulgaria*										
2000–04	70·9 (69·7–72·1)	49·2 (47·6–50·7)	32·9 (30·9–34·9)	49·4 (47·1–51·7)	..	29·9§ (27·2–32·6)	38·1 (36·1–40·0)	..	63·5 (55·5–71·5)	70·7 (62·2–79·2)
2005–09	75·9 (74·8–77·0)	53·2 (51·7–54·7)	33·9 (32·2–35·5)	54·8 (52·7–56·9)	..	40·1 (37·6–42·6)	39·9 (38·1–41·6)	..	74·8 (68·4–81·1)	74·3 (64·9–83·7)
2010–14	78·3 (77·2–79·4)	54·8 (53·3–56·3)	37·3 (35·4–39·1)	68·3 (66·2–70·5)	..	41·6§ (39·2–44·1)	43·5 (41·8–45·2)	..	78·3 (71·7–84·9)	87·7 (80·6–94·9)
Croatia*										
2000–04	73·6 (72·2–75·0)	63·2 (60·6–65·8)	36·9 (34·6–39·2)	65·7 (63·6–67·9)	37·0 (35·1–38·8)	31·1 (28·6–33·6)	42·7 (41·0–44·4)	65·7 (58·3–73·1)	81·7 (74·3–89·1)	76·6 (66·8–86·3)
2005–09	78·2 (77·0–79·4)	64·3 (61·9–66·7)	33·4 (31·3–35·5)	78·3 (76·7–79·9)	39·6 (37·8–41·5)	29·2 (26·8–31·6)	51·0 (49·3–52·6)	75·2 (67·9–82·5)	86·7 (81·1–92·3)	84·6 (76·2–93·0)
2010–14	78·6 (77·4–79·7)	63·2 (60·8–65·6)	36·0 (33·9–38·2)	80·9 (79·3–82·4)	42·2 (40·4–44·0)	32·2 (29·7–34·7)	52·7 (51·1–54·3)	73·4 (65·6–81·3)	85·2 (79·1–91·3)	94·5 (89·1–99·9)
Czech Republic*										
2000–04	75·7 (74·8–76·5)	60·4 (58·9–61·9)	34·3 (33·0–35·5)	71·0 (69·9–72·2)	19·5 (18·2–20·8)	19·9 (18·2–21·7)	49·9 (48·8–51·0)	55·6 (47·9–63·3)	88·0 (82·9–93·1)	89·0 (82·7–95·3)
2005–09	79·1 (78·4–79·9)	62·7 (61·2–64·1)	35·3 (34·0–36·5)	81·5 (80·7–82·3)	22·1 (20·8–23·4)	33·5 (31·8–35·1)	53·2 (52·2–54·3)	64·3 (57·4–71·3)	90·3 (85·6–95·0)	82·9 (73·2–92·5)
2010–14	81·4 (80·7–82·1)	61·0 (59·5–62·4)	36·5 (35·2–37·8)	85·3 (84·6–86·0)	21·4 (20·1–22·7)	36·8 (35·2–38·5)	57·2 (56·1–58·2)	69·7 (63·2–76·2)	88·2 (82·1–94·3)	89·6 (82·5–96·6)

(Table 7 continues on next page)

	Women's cancers			Prostate	Brain (adults)	Haemopoietic malignancies (adults)		Childhood malignancies		
	Breast	Cervix	Ovary			Myeloid	Lymphoid	Brain	Acute lymphoblastic leukaemia	Lymphoma
(Continued from previous page)										
Denmark*										
2000–04	80·3 (79·4–81·2)	63·0 (60·6–65·4)	33·1 (31·4–34·8)	63·6 (62·1–65·1)	30·5 (28·8–32·2)	35·7 (33·6–37·8)	57·7 (56·4–59·0)	68·8 (62·1–75·5)	84·3 (78·6–90·0)	90·2 (82·2–98·2)
2005–09	84·0 (83·2–84·8)	66·7 (64·3–69·1)	37·4 (35·7–39·2)	82·5 (81·6–83·4)	35·1 (33·4–36·7)	45·0 (43·0–47·0)	66·9 (65·7–68·0)	79·4 (72·9–85·8)	93·1 (88·4–97·7)	90·0 (83·1–97·0)
2010–14	86·1 (85·4–86·9)	69·5 (67·0–72·0)	39·7 (37·8–41·6)	85·6 (84·7–86·4)	38·9 (37·3–40·6)	47·6 (45·7–49·6)	70·9 (69·8–72·1)	79·5 (73·3–85·6)	94·0 (90·1–97·9)	93·8 (89·0–98·7)
Estonia*										
2000–04	70·9 (68·2–73·6)	62·3 (58·5–66·1)	31·2 (27·7–34·6)	67·9 (64·5–71·3)	25·2 (21·4–29·0)	36·6 (31·6–41·6)	48·8 (45·6–52·0)	81·2 (69·9–92·5)	63·7 (51·0–76·4)	88·3† (73·4–100·0)
2005–09	75·4 (73·1–77·6)	66·9 (63·4–70·4)	37·2 (33·8–40·7)	83·2 (80·9–85·6)	26·1 (22·6–29·6)	42·4 (38·1–46·8)	53·5 (50·6–56·4)	72·3† (57·9–86·7)	85·4† (73·6–97·1)	85·8† (68·1–100·0)
2010–14	76·6 (73·8–79·3)	66·5 (62·2–70·7)	42·3 (37·4–47·1)	86·3 (83·5–89·0)	31·0 (26·1–36·0)	37·8 (32·1–43·5)	53·8 (50·2–57·4)	64·5 (47·3–81·8)	87·7 (76·4–98·9)	88·0 (73·1–100·0)
Finland*										
2000–04	86·5 (85·5–87·5)	67·8 (64·3–71·3)	41·2 (39·2–43·1)	90·0 (89·1–90·9)	35·4 (33·5–37·4)	40·1§ (37·4–42·8)	56·8 (55·5–58·1)	78·5 (72·5–84·6)	84·7 (78·0–91·4)	90·5 (84·3–96·7)
2005–09	87·7 (86·9–88·5)	65·2 (61·4–69·0)	44·2 (42·2–46·2)	93·4 (92·6–94·1)	35·8 (34·0–37·6)	41·6§ (39·2–44·0)	62·5 (61·2–63·7)	78·0 (71·5–84·5)	88·1 (83·2–92·9)	92·0 (84·5–99·6)
2010–14	88·5 (87·7–89·3)	67·4 (63·8–71·1)	41·1 (39·2–43·0)	93·2 (92·4–93·9)	37·6 (35·7–39·4)	47·2§ (44·7–49·6)	64·4 (63·2–65·5)	75·6 (69·0–82·2)	95·2 (91·5–98·9)	91·2 (84·3–98·1)
France (23 registries)‡										
2000–04	86·8 (86·1–87·4)	61·7 (59·4–64·0)	41·6 (39·8–43·3)	90·1 (89·4–90·8)	21·8 (20·3–23·3)	53·3 (51·9–54·7)	64·4 (63·6–65·3)	67·2 (65·0–69·5)	88·1 (86·4–89·8)	92·7 (90·8–94·6)
2005–09	87·2 (86·6–87·8)	62·1 (60·0–64·2)	42·1 (40·4–43·7)	93·6 (93·1–94·1)	27·2 (25·8–28·7)	54·6 (53·3–55·8)	69·9 (69·1–70·7)	70·8 (68·6–73·0)	90·0 (88·4–91·6)	92·6 (90·6–94·6)
2010–14	86·7 (85·5–88·0)	65·0 (60·3–69·7)	43·5 (40·0–46·9)	93·1 (91·9–94·2)	27·2 (24·2–30·3)	57·5 (54·9–60·1)	69·6 (67·9–71·3)	70·8 (68·1–73·5)	88·6 (86·5–90·8)	94·2 (92·0–96·4)
Germany (ten registries)										
2000–04	83·9 (83·4–84·4)	64·9 (63·8–66·1)	40·8 (39·3–42·2)	90·4 (89·9–90·9)	29·1 (24·8–33·3)	46·0 (43·9–48·1)	61·2 (60·4–62·0)	63·1 (56·0–70·2)	94·0 (90·7–97·3)	90·4 (84·2–96·5)
2005–09	85·6 (85·2–85·9)	65·7 (64·6–66·8)	40·6 (39·6–41·6)	91·8 (91·3–92·2)	27·3 (26·2–28·5)	51·9 (50·7–53·1)	65·7 (65·1–66·3)	67·8 (61·1–74·6)	92·1 (89·2–95·0)	93·8 (88·9–98·8)
2010–14	86·0 (85·7–86·4)	65·2 (64·0–66·4)	41·2 (40·2–42·2)	91·6 (91·2–92·0)	29·6 (28·3–30·9)	54·9 (53·5–56·3)	67·9 (67·3–68·6)	69·5 (61·8–77·2)	91·1 (87·4–94·8)	96·9 (94·2–99·6)
Gibraltar*										
2000–04	79·3†§ (66·5–92·1)	..	..	62·5†§ (31·5–93·5)	..	..	..	..	..	..
2005–09	72·1§ (56·8–87·4)	..	..	42·3†§ (9·1–75·6)	..	..	..	..	..	..
2010–14	..	..	..	..	..	..	..	..	..	..
Greece (childhood)‡										
2000–04	..	..	..	..	..	..	..	..	80·3 (75·3–85·4)	89·2 (82·6–95·8)
2005–09	..	..	..	..	..	..	..	..	84·8 (80·4–89·3)	84·9 (78·3–91·6)
2010–14	..	..	..	..	..	..	..	68·9 (60·3–77·4)	84·2 (80·0–88·3)	87·5 (81·5–93·5)

(Table 7 continues on next page)

	Women's cancers			Prostate	Brain (adults)	Haemopoietic malignancies (adults)		Childhood malignancies		
	Breast	Cervix	Ovary			Myeloid	Lymphoid	Brain	Acute lymphoblastic leukaemia	Lymphoma
(Continued from previous page)										
Iceland*										
2000–04	87·4 (82·9–91·8)	81·8† (72·8–90·8)	39·6 (30·9–48·3)	80·1 (75·5–84·7)	24·1 (19·5–28·6)	48·2 (38·3–58·1)	66·6 (60·4–72·8)	80·0† (56·6–100·0)	..	..
2005–09	85·8 (81·4–90·2)	87·6† (79·5–95·7)	40·9 (31·3–50·5)	89·7 (86·5–92·9)	21·0 (14·3–27·6)	47·9 (39·7–56·1)	67·9 (62·6–73·1)	73·4† (51·8–94·9)	..	..
2010–14	89·1 (85·1–93·1)	80·1† (71·2–89·1)	40·3 (31·2–49·4)	90·8 (87·7–93·9)	29·2 (20·8–37·7)	43·4 (35·8–50·9)	71·5 (66·3–76·6)	90·1† (72·4–100·0)	92·4† (78·4–100·0)	..
Ireland*										
2000–04	77·2 (75·8–78·5)	57·8 (54·1–61·6)	29·4 (27·2–31·7)	83·7 (82·5–84·9)	26·9 (24·9–29·0)	47·6 (44·9–50·2)	55·4 (53·8–57·0)	67·8 (60·0–75·6)	82·9 (76·6–89·2)	97·4 (94·6–100·0)
2005–09	81·4 (80·2–82·6)	58·7 (55·5–61·9)	31·2 (28·9–33·4)	89·7 (88·7–90·7)	30·8 (28·7–33·0)	52·5 (50·1–55·0)	64·2 (62·7–65·7)	68·6 (61·1–76·1)	87·1 (80·9–93·4)	96·2 (92·0–100·0)
2010–14	82·0 (80·7–83·3)	63·6 (60·1–67·2)	32·8 (30·3–35·3)	91·1 (90·1–92·2)	34·5 (32·0–36·9)	53·1 (50·5–55·8)	66·9 (65·3–68·5)	74·0 (66·4–81·5)	88·3 (82·4–94·3)	95·3 (89·6–100·0)
Italy (45 registries)										
2000–04	84·2 (83·8–84·5)	67·3 (66·0–68·7)	37·7 (36·8–38·6)	87·2 (86·7–87·7)	24·1 (23·2–25·1)	46·4 (45·5–47·3)	58·5 (57·9–59·0)	68·5 (64·5–72·5)	82·6 (79·2–86·0)	88·3 (84·9–91·8)
2005–09	85·9 (85·5–86·2)	67·7 (66·5–68·9)	39·3 (38·5–40·1)	89·6 (89·2–90·0)	27·0 (26·2–27·8)	49·2 (48·5–49·9)	61·9 (61·5–62·4)	75·5 (72·3–78·8)	89·2 (86·8–91·6)	89·4 (86·5–92·4)
2010–14	86·0 (85·5–86·4)	66·8 (65·1–68·5)	39·4 (38·3–40·5)	89·5 (89·0–89·9)	28·8 (27·8–29·9)	49·2 (48·2–50·2)	62·6 (61·9–63·2)	74·8 (70·4–79·2)	87·8 (84·4–91·2)	91·6 (87·4–95·7)
Latvia*										
2000–04	79·7 (77·1–82·2)	52·8 (49·0–56·6)	40·3 (36·6–44·0)	69·9 (66·5–73·3)	22·2 (18·8–25·7)	22·2 (18·7–25·7)	59·8 (54·9–64·8)	79·7† (67·1–92·2)	80·5 (70·0–91·0)	..
2005–09	79·9 (77·8–82·1)	57·7 (54·2–61·2)	39·8 (36·5–43·1)	88·8 (86·0–91·6)	23·9 (20·8–27·0)	17·9 (14·4–21·4)	64·7 (60·5–68·9)	72·3† (52·2–92·3)	77·0 (66·4–87·7)	..
2010–14	82·2 (80·3–84·2)	56·0 (52·6–59·5)	45·5 (41·9–49·0)	90·4 (87·6–93·2)	26·1 (22·7–29·5)	21·4 (17·9–25·0)	71·6 (67·8–75·4)	67·1 (51·2–83·1)	84·1 (73·2–94·9)	..
Lithuania*										
2000–04	64·6 (62·9–66·4)	53·8 (51·6–56·0)	30·2 (28·1–32·3)	75·8 (73·7–77·9)	19·4 (17·2–21·6)	25·4 (22·5–28·3)	43·5 (41·5–45·5)	47·5 (36·2–58·8)	74·3 (65·2–83·3)	86·1 (77·2–95·0)
2005–09	71·3 (69·6–73·1)	59·1 (56·9–61·3)	31·6 (29·5–33·8)	93·8 (92·6–95·1)	22·0 (19·7–24·3)	47·5 (45·1–49·9)	50·8 (48·9–52·7)	66·6 (53·4–79·8)	67·7 (56·5–78·8)	79·6† (67·1–92·1)
2010–14	73·5 (71·3–75·7)	59·2 (56·4–62·0)	35·0 (32·0–37·9)	94·3 (92·7–95·8)	23·4§ (20·4–26·4)	52·8 (49·7–56·0)	56·7 (54·0–59·3)	61·8 (44·7–78·9)	74·7 (62·8–86·5)	93·7 (85·9–100·0)
Malta*										
2000–04	79·7 (75·6–83·8)	46·4† (30·8–62·0)	39·6 (31·6–47·5)	81·9 (76·6–87·2)	22·3 (15·2–29·3)	32·7 (24·6–40·8)	43·4 (37·8–49·0)	60·1† (31·7–88·6)	87·5† (71·8–100·0)	..
2005–09	84·8 (81·3–88·2)	65·1† (51·4–78·9)	27·5 (22·0–33·0)	86·4 (81·9–91·0)	20·1 (14·0–26·1)	25·4§ (18·0–32·8)	52·4 (47·3–57·6)	..	93·8† (82·3–100·0)	..
2010–14	86·9 (83·1–90·6)	57·4 (46·8–68·1)	28·0 (21·4–34·6)	88·2 (83·9–92·5)	28·0 (19·7–36·2)	46·3§ (38·3–54·3)	61·9 (55·8–68·0)	..	..	..
Netherlands*										
2000–04	83·9 (83·4–84·4)	66·1 (64·1–68·0)	36·3 (35·1–37·6)	83·4 (82·7–84·1)	21·4 (20·4–22·5)	39·4 (38·2–40·6)	54·7 (53·9–55·4)	62·7 (58·4–67·0)	84·1 (80·7–87·4)	86·5 (81·9–91·2)
2005–09	85·8 (85·3–86·3)	65·5 (63·6–67·3)	37·2 (36·0–38·5)	87·5 (86·9–88·1)	26·3 (25·2–27·3)	49·9 (48·8–51·0)	63·7 (63·0–64·4)	66·0 (61·9–70·1)	89·8 (86·9–92·6)	86·5 (82·3–90·8)
2010–14	86·6 (86·1–87·1)	67·5 (65·6–69·3)	37·5 (36·2–38·7)	88·5 (87·9–89·0)	28·2 (27·2–29·3)	52·2 (51·2–53·2)	66·4 (65·8–67·1)	69·1 (65·1–73·1)	90·4 (87·5–93·3)	87·9 (83·5–92·2)

(Table 7 continues on next page)

	Women's cancers			Prostate	Brain (adults)	Haemopoietic malignancies (adults)		Childhood malignancies		
	Breast	Cervix	Ovary			Myeloid	Lymphoid	Brain	Acute lymphoblastic leukaemia	Lymphoma
(Continued from previous page)										
Norway*										
2000–04	84·7 (83·7–85·8)	70·9 (68·0–73·7)	41·4 (39·3–43·6)	83·8 (82·8–84·9)	32·4 (30·5–34·3)	41·5 (39·2–43·8)	57·5 (56·1–58·8)	79·7 (73·8–85·5)	87·7 (82·4–93·1)	93·3 (87·2–99·4)
2005–09	87·2 (86·1–88·3)	70·7 (67·8–73·6)	42·8 (40·7–45·0)	90·3 (89·5–91·1)	36·7 (34·9–38·5)	50·9 (48·8–53·0)	64·9 (63·7–66·2)	75·9 (69·7–82·1)	84·9 (78·2–91·6)	90·9 (84·3–97·5)
2010–14	87·7 (86·6–88·8)	73·3 (70·3–76·3)	45·5 (43·3–47·7)	92·9 (92·2–93·7)	36·8 (34·9–38·7)	52·7 (50·7–54·7)	68·4 (67·2–69·6)	74·3 (67·6–81·0)	83·0 (76·5–89·5)	95·2 (90·9–99·4)
Poland (16 registries)*										
2000–04	71·3 (70·7–71·9)	51·6 (50·8–52·5)	32·7 (31·9–33·6)	68·8 (67·9–69·7)	26·6 (25·6–27·7)	18·9 (17·9–19·9)	40·3 (39·6–41·0)	62·6 (59·2–66·0)	79·6 (76·3–82·9)	81·7 (77·8–85·6)
2005–09	74·7 (74·2–75·2)	54·4 (53·6–55·3)	35·4 (34·6–36·2)	75·0 (74·4–75·7)	29·0 (28·2–29·8)	26·3 (25·2–27·5)	47·8 (47·2–48·5)	61·7 (58·1–65·3)	84·4 (81·7–87·0)	89·4 (86·4–92·4)
2010–14	76·5 (76·1–77·0)	55·1 (54·2–55·9)	37·5 (36·7–38·3)	78·1 (77·5–78·7)	28·2 (27·4–28·9)	27·3 (26·2–28·4)	52·1 (51·4–52·8)	62·5 (58·7–66·4)	86·9 (84·1–89·7)	92·6 (89·7–95·5)
Portugal (four registries)*										
2000–04	81·6 (80·7–82·5)	60·4 (58·6–62·2)	39·9 (37·7–42·1)	87·2 (86·2–88·1)	22·9 (21·3–24·6)	43·7 (41·6–45·8)	51·3 (50·1–52·6)	62·0 (55·0–69·1)	80·8 (75·3–86·4)	86·2 (81·0–91·4)
2005–09	86·1 (85·3–86·9)	65·3 (63·6–67·0)	41·8 (39·7–44·0)	90·0 (89·3–90·8)	23·8 (22·4–25·3)	49·0 (47·1–50·9)	58·2 (57·1–59·2)	63·1 (56·5–69·7)	84·1 (78·8–89·5)	94·0 (90·1–97·9)
2010–14	87·6 (85·9–89·3)	66·2 (62·6–69·8)	43·6 (38·7–48·4)	90·9 (89·1–92·6)	22·7 (19·7–25·8)	49·8 (45·4–54·2)	59·7 (57·3–62·1)	70·5 (57·0–84·1)	89·8 (80·7–98·9)	94·7 (88·9–100·0)
Romania (Cluj)										
2000–04	..	..	..	..	..	..	..	..	..	..
2005–09	74·8 (70·4–79·3)	61·7 (57·0–66·5)	28·9§ (22·3–35·6)	78·2 (72·5–83·8)	20·4§ (14·0–26·7)	44·9 (37·2–52·5)	47·3 (42·0–52·5)	..	..	..
2010–14	74·8 (68·5–81·1)	65·3 (59·7–70·9)	37·2§ (29·7–44·6)	77·1 (70·0–84·2)	34·0§ (23·8–44·1)	51·5 (42·7–60·3)	40·4 (33·3–47·5)	60·1† (31·6–88·5)	53·9† (28·2–79·6)	..
Russia (five registries)										
2000–04	71·6 (69·8–73·4)	59·8 (57·3–62·2)	38·1 (35·2–41·1)	58·8 (55·4–62·1)	25·2 (21·3–29·0)	33·1 (28·7–37·5)	40·5 (37·4–43·5)	61·2 (50·4–72·0)	71·3 (62·6–80·0)	67·0 (54·9–79·1)
2005–09	67·7 (66·4–69·0)	58·0 (56·0–59·9)	33·2 (31·3–35·0)	68·6 (66·2–71·0)	21·2 (19·2–23·2)	35·3 (31·7–39·0)	42·4 (39·8–45·0)	61·2 (50·3–72·0)	74·2 (65·3–83·0)	73·5 (62·6–84·4)
2010–14	70·8 (69·5–72·1)	57·7 (55·7–59·7)	34·8 (32·8–36·8)	79·3 (77·1–81·5)	22·8 (20·8–24·9)	33·2 (29·8–36·7)	45·5 (42·9–48·2)	61·7 (51·5–71·8)	76·9 (68·4–85·4)	92·1 (84·6–99·6)
Slovakia*										
2000–04	75·3 (73·5–77·2)	61·8 (59·4–64·3)	35·0 (32·4–37·6)	63·6 (61·1–66·0)	22·0§ (20·0–24·0)	35·1§ (32·2–38·1)	46·6 (44·6–48·6)	67·9 (60·5–75·4)	79·2 (71·8–86·5)	83·8 (75·1–92·5)
2005–09	76·6 (75·1–78·2)	58·9 (56·5–61·3)	34·5 (31·7–37·3)	74·4 (72·7–76·2)	27·2 (25·3–29·0)	37·1 (34·8–39·4)	49·6 (48·0–51·2)	70·0 (62·5–77·5)	80·7 (73·8–87·7)	94·6 (90·1–99·1)
2010–14	75·5 (72·4–78·5)	60·5 (56·2–64·9)	33·4 (28·6–38·2)	74·7 (70·9–78·6)	28·5 (24·3–32·8)	37·5 (32·2–42·8)	51·6 (48·0–55·2)	80·6 (69·4–91·7)	87·0 (77·3–96·7)	88·6 (75·4–100·0)
Slovenia*										
2000–04	78·7 (76·9–80·5)	67·2 (63·8–70·7)	37·8 (34·4–41·2)	74·4 (71·9–76·9)	23·0 (19·9–26·1)	42·4 (38·5–46·2)	52·7 (50·2–55·2)	76·5 (66·8–86·3)	89·7 (82·1–97·3)	80·1 (68·7–91·5)
2005–09	82·5 (81·0–84·1)	67·1 (63·3–70·9)	35·4 (32·3–38·4)	83·2 (81·6–84·8)	24·1 (21·2–27·0)	39·8 (36·6–42·9)	56·7 (54·6–58·9)	61·2 (49·2–73·1)	79·1† (67·1–91·1)	100·0† (86·3–100·0)
2010–14	83·5 (81·8–85·2)	65·5 (61·3–69·8)	37·0 (33·4–40·5)	85·0 (83·3–86·7)	24·8 (21·4–28·3)	37·5 (34·2–40·7)	59·0 (56·6–61·3)	60·1 (44·2–76·1)	70·1 (54·4–85·8)	100·0 (100·0–100·0)

(Table 7 continues on next page)

	Women's cancers			Prostate	Brain (adults)	Haemopoietic malignancies (adults)		Childhood malignancies		
	Breast	Cervix	Ovary			Myeloid	Lymphoid	Brain	Acute lymphoblastic leukaemia	Lymphoma
(Continued from previous page)										
Spain (ten registries)										
2000–04	82·9 (82·0–83·8)	63·6 (61·3–65·9)	36·0 (34·1–37·9)	85·0 (84·1–85·9)	21·6 (20·2–23·0)	45·4 (43·6–47·2)	58·2 (57·1–59·3)	63·6 (57·7–69·4)	80·9 (76·3–85·5)	85·8 (80·2–91·4)
2005–09	84·6 (83·8–85·4)	64·5 (62·2–66·8)	37·9 (36·1–39·6)	90·4 (89·7–91·1)	27·2 (25·8–28·7)	52·3 (50·8–53·8)	62·2 (61·3–63·2)	63·4 (58·2–68·6)	80·0 (75·4–84·5)	89·9 (85·9–94·0)
2010–14	85·2 (84·0–86·5)	64·5 (60·8–68·1)	39·8 (36·9–42·7)	89·7 (88·6–90·7)	27·4 (25·2–29·7)	50·0 (47·7–52·3)	62·0 (60·5–63·6)	66·2 (58·0–74·4)	84·7 (77·6–91·7)	92·9 (87·5–98·3)
Sweden*										
2000–04	85·6 (84·9–86·3)	66·9 (64·7–69·1)	43·2 (41·6–44·8)	85·9 (85·3–86·5)	26·5 (25·1–28·0)	30·7 (28·9–32·6)	58·5 (57·6–59·5)	75·9 (70·5–81·3)	86·8 (82·6–90·9)	84·7 (75·8–93·6)
2005–09	87·9 (87·2–88·5)	67·7 (65·6–69·9)	42·9 (41·2–44·6)	90·1 (89·6–90·6)	29·0 (27·5–30·4)	54·6 (53·1–56·1)	64·2 (63·3–65·1)	78·4 (73·2–83·6)	87·1 (82·6–91·5)	88·6 (81·5–95·8)
2010–14	88·8 (88·2–89·4)	68·3 (66·1–70·4)	46·5 (44·8–48·2)	90·7 (90·2–91·2)	31·6 (30·1–33·0)	57·5 (56·0–58·9)	66·7 (65·9–67·6)	79·8 (74·9–84·7)	89·0 (84·6–93·3)	88·0 (80·4–95·7)
Switzerland (ten registries)‡										
2000–04	84·4 (83·3–85·5)	63·4 (58·4–68·4)	36·9 (34·4–39·5)	86·9 (85·8–87·9)	26·4 (23·9–28·8)	46·5 (43·9–49·1)	61·6 (60·1–63·2)	73·7 (67·7–79·8)	87·3 (82·4–92·2)	94·0 (89·5–98·6)
2005–09	86·4 (85·3–87·4)	69·4 (65·1–73·6)	42·0 (39·5–44·4)	88·6 (87·6–89·5)	29·0 (26·7–31·2)	51·6 (49·3–53·9)	70·9 (69·5–72·3)	68·0 (61·2–74·8)	89·2 (84·9–93·4)	94·2 (89·5–98·9)
2010–14	86·2 (85·1–87·3)	71·4 (66·6–76·2)	44·1 (41·3–46·8)	89·2 (88·2–90·3)	29·7 (27·5–31·9)	49·7 (47·2–52·2)	72·0 (70·4–73·5)	71·6 (65·1–78·0)	90·3 (86·1–94·5)	93·6 (88·1–99·1)
UK (four registries)*										
2000–04	79·8 (79·5–80·1)	58·9 (58·0–59·9)	30·2 (29·7–30·7)	81·9 (81·6–82·3)	20·6 (20·1–21·2)	42·3 (41·7–42·9)	54·3 (53·9–54·6)	68·4 (66·2–70·7)	85·9 (84·1–87·7)	86·8 (84·1–89·5)
2005–09	83·8 (83·6–84·1)	61·9 (61·0–62·9)	33·2 (32·6–33·7)	86·7 (86·4–86·9)	23·8 (23·3–24·4)	47·7 (47·1–48·2)	60·7 (60·4–61·1)	69·1 (66·9–71·3)	91·4 (89·9–92·8)	90·6 (88·3–93·0)
2010–14	85·6 (85·4–85·9)	63·8 (62·8–64·7)	36·2 (35·7–36·8)	88·7 (88·5–89·0)	26·3 (25·7–26·8)	48·7 (48·1–49·2)	64·9 (64·6–65·3)	71·9 (69·8–74·0)	92·2 (90·9–93·6)	91·7 (89·7–93·8)
Oceania										
Australia (eight registries)*										
2000–04	87·0 (86·5–87·4)	67·9 (66·1–69·6)	37·3 (36·1–38·6)	87·8 (87·4–88·2)	24·5 (23·5–25·4)	43·3 (42·3–44·3)	61·5 (60·9–62·1)	62·0 (57·7–66·3)	86·5 (83·8–89·1)	91·4 (88·0–94·8)
2005–09	88·5 (88·1–89·0)	67·5 (65·7–69·3)	41·0 (39·8–42·2)	93·2 (92·9–93·5)	28·9 (27·9–29·8)	50·3 (49·4–51·1)	68·1 (67·6–68·7)	60·6 (56·4–64·9)	90·3 (87·9–92·6)	94·2 (91·4–96·9)
2010–14	89·5 (89·1–90·0)	66·4 (64·5–68·2)	42·0 (40·8–43·2)	94·5 (94·1–94·8)	30·2 (29·2–31·2)	51·8 (50·9–52·7)	71·2 (70·6–71·8)	67·1 (62·9–71·4)	90·7 (88·3–93·1)	92·3 (89·2–95·4)
New Zealand*										
2000–04	82·8 (81·6–84·1)	67·4 (63·8–71·1)	38·7 (36·0–41·4)	89·1 (88·1–90·0)	19·0 (16·8–21·2)	40·3 (37·8–42·9)	61·0 (59·6–62·5)	60·2 (50·6–69·8)	85·8 (79·9–91·6)	93·6 (88·7–98·4)
2005–09	86·1 (84·9–87·3)	64·4 (60·4–68·4)	33·4 (31·0–35·9)	89·3 (88·4–90·2)	22·7 (20·4–25·0)	49·7 (47·7–51·8)	63·5 (62·1–64·9)	54·4 (42·9–66·0)	91·2 (86·8–95·6)	93·5 (88·0–99·0)
2010–14	87·6 (86·4–88·7)	67·4 (63·4–71·5)	36·7 (34·1–39·3)	90·3 (89·4–91·1)	23·3 (21·0–25·7)	44·1 (42·1–46·2)	65·6 (64·3–66·9)	58·2 (46·1–70·4)	91·4 (86·7–96·1)	96·6 (92·7–100·0)

Some registries contributed data for selected cancers or calendar periods. *Data with 100% coverage of the national population. †Survival estimate is not age-standardised. ‡Data with 100% coverage of the national population for childhood malignancies only. §Survival estimate considered less reliable because 15% or more of patients were (1) lost to follow-up or censored alive within 5 years of diagnosis or, if diagnosed in 2010 or later, before Dec 31, 2014; or (2) registered only from a death certificate or at autopsy; or (3) patients with unknown vital status or registered with incomplete dates—ie, unknown year of birth, unknown month or year of diagnosis, or unknown year of last known vital status.

Table 7: **Age-standardised 5-year net survival (%) with 95% CI: adults (15–99 years) diagnosed with one of seven common malignancies (breast, cervix, ovary, prostate, brain, myeloid, and lymphoid) and children (0–14 years) diagnosed with one of three common malignancies (brain, acute lymphoblastic leukaemia, and lymphoma) by continent, country, and calendar period of diagnosis**

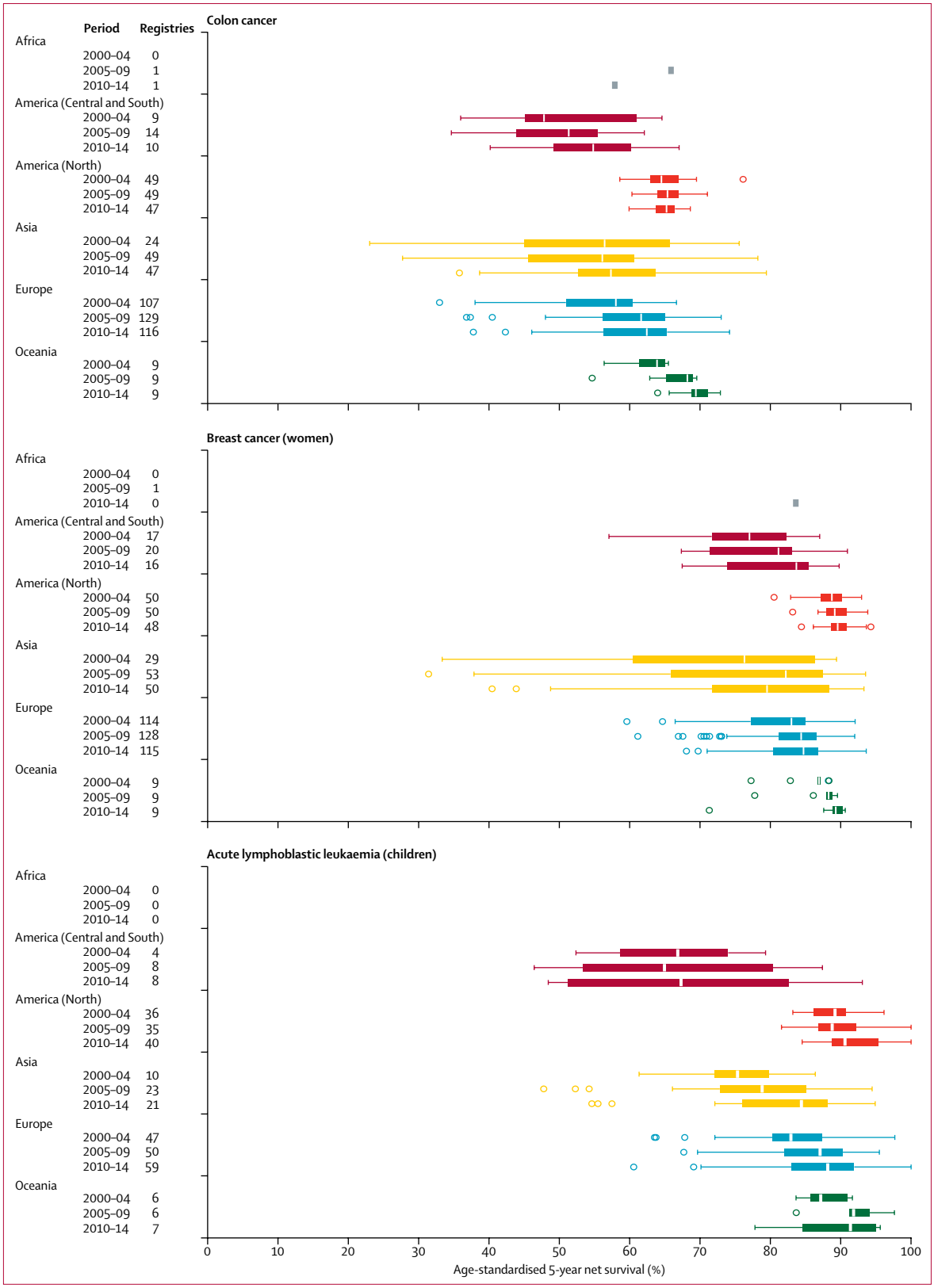

Figure 4: **Global range of age-standardised 5-year net survival estimates for colon cancer, breast cancer (women), and acute lymphoblastic leukaemia (children) among 296 cancer registry populations in 64 countries, by continent and calendar period of diagnosis**

Each box plot shows the range of survival estimates among all cancer registries for which suitable estimates could be obtained for patients diagnosed in each calendar period, in each continent. Survival estimates considered less reliable are not included. The vertical line inside each box represents the median survival estimate among all contributing registries (the central value in the range, or 50th centile). The box covers the IQR between the lower and upper quartiles (25th and 75th centiles). Where there are only a few widely scattered estimates, the median might be close to the lower or upper quartile. The extreme limits of the box plot are 1·5 × IQR below the lower quartile and 1·5 × IQR above the upper quartile. Open circles indicate outlier values, outside this range. See appendix (pp 247–265) for other cancers.

Europe]); and Australia and New Zealand (table 6; appendix p 217).

Survival was in the range 80–89% in 14 countries: Canada; Israel; and 12 European countries (Estonia, Finland, Iceland, Ireland, and Norway [northern Europe]; Italy, Malta, Portugal, Slovenia, and Spain [southern Europe]; the Czech Republic [eastern Europe]; and Austria [western Europe]).

Survival was in the range 70–79% in ten countries: four countries in Central and South America (Argentina, Brazil, Costa Rica, and Puerto Rico); and six European countries (Latvia and Lithuania [northern Europe]; Croatia [southern Europe]; and Poland, Romania [Cluj], and Slovakia [eastern Europe]).

Survival was in the range 60–69% in six countries: four Asian countries (Singapore [south Asia]; Korea and Japan [east Asia]; and Turkey [western Asia]); and Bulgaria and Russia. Survival was less than 60% in Ecuador, China, and Taiwan.

Trends between 2000–04 and 2010–14 were generally stable in North America, Oceania, and Japan, and in several European countries, where 5-year survival was already around 85–90% among patients diagnosed during 2000–04. Survival increased by 5–10% in Korea and in 12 European countries (Denmark, Estonia, Latvia, Lithuania, and the UK [northern Europe]; Croatia, Portugal, and Slovenia [southern Europe]; Bulgaria, the Czech Republic, and Poland [eastern Europe]; and Belgium [western Europe]).

Breast (women)

Results are available for 6 422 553 women from 298 cancer registries in 66 countries (tables 2, 5).

The range of survival estimates is still wide in each continent, apart from North America and Oceania (figure 4; appendix p 256). Most estimates were considered reliable (table 7; appendix pp 152–164).

For women diagnosed during 2010–14, age-standardised 5-year net survival was 85% or higher in 25 countries: Costa Rica and Martinique; Canada and the USA; Israel, Japan, and Korea; 16 European countries (Denmark, Finland, Iceland, Norway, Sweden, and the UK [northern Europe]; Austria, Belgium, France, Germany, the Netherlands, and Switzerland [western Europe]; and Italy, Malta, Portugal, and Spain [southern Europe]); and Australia and New Zealand (table 7; figure 2; appendix p 218).

5-year survival was in the range 80–84% in 12 countries: three countries in Central and South America (Argentina, Peru [Lima], and Puerto Rico); five Asian countries (Singapore [south Asia]; China, Hong Kong, and Taiwan [east Asia]; and Turkey [west Asia]); and four European countries (Ireland [northern Europe]; the Czech Republic and Latvia [eastern Europe]; and Slovenia [southern Europe]). Survival was in the range 70–79% in 12 countries: Cuba and Ecuador; Kuwait and Mongolia; and eight countries in Europe (Estonia and Lithuania [northern Europe]; Croatia [southern Europe]; and Bulgaria, Poland, Romania [Cluj], Russia, and Slovakia [eastern Europe]). Survival was still low in India (Karunagappally; table 7).

5-year net survival continued to increase up to 2010–14 in most countries in Central and South America, east and west Asia, and in all of Europe. Even so, survival remains lower in eastern Europe than in other parts of the continent. In North America and Oceania, 5-year net survival approached 90% (figure 3; appendix p 237).

Cervix

Results are available for 660 744 women from 295 cancer registries in 64 countries (tables 2, 5). The global range in cervical cancer survival is still wide (50–70%), especially in Central and South America, Asia, and Europe (table 7; appendix p 257). Most survival estimates are reliable (appendix pp 152–164).

For women diagnosed during 2010–14, age-standardised 5-year net survival was 70% or higher in seven countries (Japan, Korea, and Taiwan; Denmark, Norway, and Switzerland; and Cuba), of which five had national coverage (table 7; appendix p 219).

Survival was in the range 60–69% in 29 countries: Canada and the USA; Brazil and Puerto Rico; five countries in Asia (China and Hong Kong [east Asia]; Singapore [south Asia]; and Israel and Turkey [west Asia]); 18 countries in Europe; and Australia and New Zealand.

Survival was in the range 50–59% in five countries in Central and South America (Argentina, Ecuador, Martinique, Peru [Lima], and Uruguay); India and Kuwait; and six European countries (Latvia and Lithuania [northern Europe]; Bulgaria, Poland, and Russia [eastern Europe]; and Malta [southern Europe]).

Over the 20 years from 1995 to 2014, 5-year survival has increased by 4–7% in Cuba; Israel, Japan, and Korea; and six European countries (Denmark, Ireland, Lithuania, Norway, and the UK [northern Europe]; and Poland [eastern Europe]; appendix p 238). Survival increased by 8–10% in India; and in Bulgaria, Estonia, and Switzerland. In China, 5-year survival increased by 14·3% from 2000–04 to 2010–14 (table 7).

Ovary

Results are available for 865 501 women from 289 registries in 61 countries (tables 2, 5).

Age-standardised 5-year net survival was mostly in the range 30–50%, with even wider variation in Europe and Asia (appendix p 258). Most survival estimates were reliable (table 7; appendix pp 152–164).

For women diagnosed during 2010–14, 5-year survival was still less than 50% in most countries, except Costa Rica (table 7; appendix pp 220, 239, 258). Survival was in the range 40–49% in 24 countries: in Canada and the USA; seven countries in Asia (Singapore [south Asia]; China, Korea, Japan, and Taiwan [east Asia]; and Israel and Turkey [west Asia]); 14 European countries (Denmark, Estonia, Finland, Iceland, Latvia, Norway, and Sweden [northern Europe]; Portugal and Spain [southern

Europe]; and Austria, Belgium, France, Germany, and Switzerland [western Europe]); and Australia.

Survival was in the range 30–39% in 19 countries: four in Central and South America (Argentina, Brazil, Ecuador, and Puerto Rico); Kuwait and Thailand; 12 European countries (Ireland, Lithuania, and the UK [northern Europe]; Croatia, Italy, and Slovenia [southern Europe]; Bulgaria, the Czech Republic, Poland, Russia, and Slovakia [eastern Europe]; and the Netherlands [western Europe]); and New Zealand. Survival was less than 30% in Malta and less than 20% in India (Karunagappally; table 7).

Survival trends between 1995–99 and 2010–14 were fairly flat in most countries. However, 5-year survival rose by 5–10% in the USA; Israel, Korea, and Taiwan; 11 European countries (Denmark, Iceland, Ireland, Norway, and Sweden [northern Europe]; Portugal and Spain [southern Europe]; Bulgaria and Poland [eastern Europe]; and France and Switzerland [western Europe]); and Australia. Survival increased by more than 10% in Estonia and Latvia, and by 20% in Japan.

Prostate

Results are available for 5 864 878 men from 290 registries in 62 countries (tables 2, 5).

Age-standardised 5-year net survival was in the range 70–100% in most countries (appendix p 259). Most estimates were reliable (table 7; appendix pp 152–164).

For men diagnosed during 2010–14, 5-year survival was approaching 100% in Puerto Rico, Martinique, and the USA. Survival was at least 90% in a further 22 countries: Brazil and Costa Rica; Canada; Israel, Japan, and Korea; 14 European countries (Iceland, Ireland, Finland, Latvia, Lithuania, Norway, and Sweden [northern Europe]; Italy, Portugal, and Spain [southern Europe]; Austria, Belgium, France, and Germany [western Europe]); and Australia and New Zealand.

Survival was in the range 80–89% in 17 countries: Argentina, Ecuador, and Uruguay; five Asian countries (Malaysia [Penang] and Singapore [south Asia]; Taiwan [east Asia]; Kuwait and Turkey [west Asia]); and nine European countries (Denmark, Estonia, and the UK [northern Europe]; Croatia, Malta, and Slovenia [southern Europe]; the Czech Republic [eastern Europe]; and the Netherlands and Switzerland [western Europe]).

Survival approached 80% in Russia, Poland, and Romania (Cluj). It was less than 80% in Slovakia; less than 70% in China, Mauritius, Bulgaria, and Thailand; and less than 50% in India (Karunagappally; table 7).

Over the 20-year period between 1995–99 and 2010–14, age-standardised 5-year net survival rose in most countries. Survival increased by 5–10% in Brazil and Ecuador; Canada; China and Turkey; Austria and Portugal; and New Zealand. During the same period, 5-year survival rose by more than 10% in Israel, Taiwan, and Thailand, and in 12 European countries (Finland, Iceland, Norway, and Sweden [northern Europe]; Croatia, Italy, Malta, and Spain [southern Europe]; and France, Germany, the Netherlands, and Switzerland [western Europe]); and Australia. Survival increased by more than 20% in 13 countries: Japan, Korea, and Malaysia (Penang); and ten European countries (Denmark, Estonia, Ireland, Latvia, Lithuania, and the UK [northern Europe]; Slovenia [southern Europe]; and Bulgaria, the Czech Republic, and Poland [eastern Europe]).

Brain (adults)

Results are available for 656 659 adults from 286 registries in 59 countries (tables 2, 5). Age-standardised 5-year net survival was in the range 20–40% in most countries (appendix p 260). Most estimates were considered reliable (table 7; appendix pp 165–177).

For patients diagnosed during 2010–14, 5-year survival was higher than 40% only in Croatia (table 7). Survival was in the range 30–40% in 20 countries: Canada and the USA; Puerto Rico and Martinique; six Asian countries (Singapore [south Asia]; China and Korea [east Asia]; and Israel, Kuwait, and Turkey [west Asia]); nine European countries (Denmark, Estonia, Finland, Ireland, Norway, and Sweden [northern Europe]; and Belgium, Germany, and Switzerland [western Europe]); and Australia.

Survival was in the range 20–29% in 19 countries: Chile and Ecuador; Taiwan; 15 European countries (Iceland, Latvia, and the UK [northern Europe]; Italy, Malta, Portugal, Slovenia, and Spain [southern Europe]; the Czech Republic, Poland, Russia, and Slovakia [eastern Europe]; and Austria, France, and the Netherlands [western Europe]); and New Zealand (table 7). 5-year survival was 14·7% in Thailand.

Trends in 5-year survival between 2000–04 and 2010–14 were generally rather flat, but survival increased by 3–5% in 12 countries: Martinique; Canada; Israel; eight European countries (Iceland, Latvia, Norway, and Sweden [northern Europe]; Croatia and Italy [southern Europe]; and France and Switzerland [western Europe]); and New Zealand.

Survival increased by 6–10% in a further 12 countries: the USA; China, Korea, and Singapore; and seven European countries (Denmark, Estonia, Ireland, and the UK [northern Europe]; Malta and Spain [southern Europe]; and the Netherlands [western Europe]); and Australia.

Myeloid malignancies

Results are available for 1151226 adults from 286 registries in 61 countries (tables 2, 5).

Age-standardised 5-year net survival was in the range 30–50% in most countries, although lower in Asia (appendix p 261). Most estimates were considered reliable (table 7; appendix pp 165–177).

For patients diagnosed during 2010–14, survival was 55–60% in Belgium, France, Germany, and Sweden; and in the range 50–54% in Canada; Turkey; eight European countries (Ireland, Lithuania, and Norway [northern Europe]; Portugal and Spain [southern Europe]; Romania [Cluj; eastern Europe]; and the Netherlands and Switzerland [western Europe]); and Australia.

5-year survival was in the range 40–49% in 11 countries: the USA; Martinique and Puerto Rico; Israel, Korea, and Singapore; four European countries (Denmark, Iceland, and the UK [northern Europe]; and Italy [southern Europe]); and New Zealand.

Survival was in the range 30–39% in 12 countries: Argentina and Brazil; Japan, Malaysia (Penang), and Taiwan; and seven European countries (Estonia [northern Europe]; Croatia and Slovenia [southern Europe]; the Czech Republic, Russia, and Slovakia [eastern Europe]; and Austria [western Europe]). Survival was less than 30% in Chile and Ecuador; China, Kuwait, and Thailand; and Latvia and Poland.

Over the 15 years between 2000–04 and 2010–14, age-standardised 5-year net survival increased by 5–10% in 14 countries: the USA; China, Japan, Singapore, and Taiwan; eight European countries (Ireland and the UK [northern Europe]; Portugal and Spain [southern Europe]; Poland [eastern Europe]; and Austria, Belgium, and Germany [western Europe]); and Australia. Survival rose by more than 10% in Korea, Denmark, the Netherlands, and Norway.

Survival increased dramatically in Lithuania (27·4%), Sweden (26·8%), and the Czech Republic (16·9%).

Lymphoid malignancies

Results are available for 3 011 054 adults from 289 registries in 62 countries (tables 2, 5).

5-year age-standardised net survival was usually in the range 40–70% in most countries, but lower in Asia and in Central and South America (appendix p 262). Most estimates were considered reliable (table 7; appendix pp 165–177).

For patients diagnosed during 2010–14, 5-year survival was 70% or higher in six European countries (Denmark, Iceland, and Latvia [northern Europe]; and Belgium, France, and Switzerland [western Europe]); and Australia. Survival was in the range 60–69% in Mauritius; Puerto Rico; Canada and the USA; Israel and Kuwait; 12 European countries (Finland, Ireland, Norway, Sweden, and the UK [northern Europe]; Italy, Malta, Portugal, and Spain [southern Europe]; and Austria, Germany, and the Netherlands [western Europe]); and New Zealand.

Survival was 50–59% in 14 countries: Costa Rica; six Asian countries (Malaysia [Penang] and Singapore [south Asia]; Japan, Korea, and Taiwan [east Asia]; and Turkey [west Asia]); and seven European countries (Estonia and Lithuania [northern Europe]; Croatia and Slovenia [southern Europe]; and the Czech Republic, Poland, and Slovakia [eastern Europe]).

Survival was lower than 50% in five countries in Central and South America (Argentina, Brazil, Chile, Ecuador, and Martinique); China, India (Karunagappally), and Thailand; and Bulgaria, Romania (Cluj), and Russia.

5-year survival trends between 2000–04 and 2010–14 were increasing in most countries. Survival increased by 5–10% in 23 countries: Ecuador; Canada and the USA; Japan and Taiwan; 15 European countries (Finland, Estonia, Iceland, and Sweden [northern Europe]; Croatia, Portugal, and Slovenia [southern Europe]; Bulgaria, the Czech Republic, Russia, and Slovakia [eastern Europe]; and Austria, Belgium, France, and Germany [western Europe]); and Australia and New Zealand.

Survival increased by more than 10% in 14 countries: Puerto Rico; Korea, Kuwait, and Singapore; and ten European countries (Denmark, Ireland, Latvia, Lithuania, Norway, and the UK [northern Europe]; Malta [southern Europe]; Poland [eastern Europe]; and the Netherlands and Switzerland [western Europe]).

Brain (children)

Results are available for 66 814 children from 260 registries in 60 countries (tables 2, 5). Age-standardised 5-year net survival was in the range 40–80% in most countries (appendix p 263). Most estimates were reliable (table 7; appendix pp 165–177).

For children diagnosed during 2010–14, age-standardised 5-year net survival was close to 80% in Denmark, Slovakia, and Sweden. Survival was in the range 70–79% in 18 countries: Canada and the USA; Costa Rica and Puerto Rico; Israel and Japan; and 12 European countries (Finland, Ireland, Norway, and the UK [northern Europe]; Croatia, Italy, and Portugal [southern Europe]; the Czech Republic [eastern Europe]; and Belgium, France, Germany, and Switzerland [western Europe]).

Survival was in the range 60–69% in 14 countries: Korea, Singapore, and Turkey; ten European countries (Estonia, Latvia, and Lithuania [northern Europe]; Greece, Slovenia, and Spain [southern Europe]; Belarus, Poland, and Russia [eastern Europe]; and the Netherlands [western Europe]); and Australia. 5-year survival was less than 40% in Brazil and Mexico.

Survival trends between 2000–04 and 2010–14 were generally stable or increasing. 5-year age-standardised survival increased by 5–10% in the USA; China, Korea, and Turkey; six European countries (Ireland [northern Europe]; Croatia, Italy, and Portugal [southern Europe]; and Germany and the Netherlands [western Europe]); and Australia.

Survival increased by 10% or more in four European countries (Denmark and Lithuania [northern Europe]; and the Czech Republic and Slovakia [eastern Europe]).

Acute lymphoblastic leukaemia (children)

Results are available for 87 351 children from 254 registries in 61 countries (tables 2, 5).

The global range in survival was very wide, from 50% to more than 90% (figure 2; appendix pp 226, 264). Most estimates were considered reliable. For children diagnosed during 2010–14, age-standardised 5-year net survival was 90% or more in Puerto Rico; Canada and the USA; eight European countries (Denmark, Finland, and the UK [northern Europe]; Portugal [southern Europe];

Belgium, Germany, the Netherlands, and Switzerland [western Europe]); and Australia and New Zealand.

Survival was in the range 80–89% in Costa Rica; six Asian countries (Singapore [south Asia]; Japan and Korea [east Asia]; and Israel, Kuwait, and Turkey [west Asia]); and 14 European countries (Estonia, Ireland, Latvia, Norway, and Sweden [northern Europe]; Croatia, Greece, Italy, and Spain [southern Europe]; Belarus, the Czech Republic, Poland, and Slovakia [eastern Europe]; and France [western Europe]; table 7; figure 2; appendix p 226).

5-year net survival was still less than 70%, even after adjustment for the very high background mortality in childhood, in Brazil, Chile, Colombia, and Peru (Lima). Survival was less than 60% in China, Ecuador, and Mexico.

In the 20-year period between 1995–99 and 2010–2014, 5-year survival increased by 10% or more in 14 countries: Colombia; five Asian countries (China, Japan, Korea, and Taiwan [east Asia]; and Turkey [west Asia]); eight European countries (Finland, Lithuania, and the UK [northern Europe]; Portugal and Spain [southern Europe]; Belarus and Bulgaria [eastern Europe]; and Belgium [western Europe]; appendix p 245).

Lymphoma (children)

Results are available for 41 196 children from 257 registries in 62 countries (tables 2, 5).

5-year age-standardised net survival was generally in the range 80–95% (table 7; appendix p 265). Most estimates were reliable. For children diagnosed during 2010–14, 5-year survival was at least 90% in 29 countries: Canada and the USA; Costa Rica and Puerto Rico; five Asian countries (Singapore [south Asia]; Japan and Korea [east Asia]; and Israel and Kuwait [west Asia]); 18 European countries (Denmark, Finland, Ireland, Lithuania, Norway, and the UK [northern Europe]; Croatia, Italy, Portugal, Slovenia, and Spain [southern Europe]; the Czech Republic, Poland, and Russia [eastern Europe]; and Belgium, France, Germany, and Switzerland [western Europe]); and Australia and New Zealand. 5-year survival was less than 70% only in Ecuador and China (table 7).

5-year survival trends were generally rather flat over the 15 years between 2000–04 and 2010–14 (appendix p 246), but survival increased by 5–10% in the USA; Korea, Singapore, and Taiwan; and six European countries (the UK and Lithuania [northern Europe]; Portugal and Spain [southern Europe]; Slovakia [eastern Europe]; and Germany [western Europe]).

5-year survival increased by more than 10% in Brazil, Bulgaria, Croatia, and Poland, and by at least 20% in Slovenia and Russia (table 7).

Discussion

CONCORD-3 updates the worldwide surveillance of cancer survival to 2014. It is the largest and most up-to-date study of international cancer survival trends. It includes individual data for more than 37·5 million patients diagnosed with cancer during the 15-year period 2000–14. Data were provided by more than 320 population-based cancer registries in 71 countries and territories, in 47 of which the data covered 100% of the population. The participating countries were home to 67% of the world's population in 2014 (7·3 billion people).[28] The registries record all cancers diagnosed in a combined population of almost 1 billion people, or 14% of the world population. Internationally comparable survival trends are now available for 18 cancers that collectively represent 75% of all cancers diagnosed worldwide every year.

We used a similar design and statistical approach to those used in CONCORD-2[6] to enable evaluation of survival trends for ten cancers over the 20-year period 1995–2014. Worldwide survival trends are also available for the first time for melanoma of the skin and cancers of the oesophagus and pancreas in adults, and for brain tumours and lymphomas in both adults and children.

5-year survival has been recognised by clinicians as an index of the effectiveness of the treatment of cancer for more than 60 years. When applied to hospital case series, it has often been labelled as the 5-year cure rate, because "with so mortal a disease as cancer, those who survive for this length of time can be considered cured".[44] 5-year survival has increased for many cancers since the 1950s, but it remains a widely used benchmark, even though it cannot be directly interpreted as the proportion of patients who are cured.[45]

Population-based cancer survival is increasingly recognised as a key indicator of the overall effectiveness of health systems in managing care and treatment for all patients with cancer.[46,47] Other outcome measures with applications in cancer control include the number of avoidable premature deaths,[48–53] person-years of life lost,[54,55] disability-adjusted life-years lost,[56] and estimates of the proportion of patients with cancer who can be considered to have been cured.[57–61] Cancer survival has applications to cancer control and health policy at the state, national, and global levels, in both high-income and low-income countries.[62]

In some countries, population-based cancer survival estimates might be considered as too high, potentially discouraging ministerial action to improve survival. Estimates showing ethnic or regional variation in cancer survival can be politically sensitive. Survival estimates can also be considered too low if they are seen as a reflection of clinical competence.[63] Low levels of survival in a country or region should not be interpreted as an indicator of the competence of the health professionals who work there. Population-based survival reflects the overall effectiveness of the health service, which depends on much wider issues than the competence of any individual doctor or team.[64–66]

The Organisation for Economic Co-operation and Development (OECD) recently concluded from the wide international variation in cancer survival that many countries could do better in cancer control.[64] It recommended a national cancer plan, adequate funding,

and initiatives for early detection and rapid access to high-quality treatment.[64] The OECD also recommended improving the quality of cancer data to support monitoring improvements in survival.

From 2017, the OECD has included age-standardised 5-year net survival estimates from the CONCORD programme for colorectal and breast cancers in adults and acute lymphoblastic leukaemia in children among the indicators of health-care quality in its biennial and online publications *Health at a Glance*.[67] This is formal recognition of the global coverage, methodological rigour, and international comparability of the CONCORD survival estimates, which will now contribute to the comparative evaluation of health systems performance in 48 countries, including all OECD member countries. The findings will also help to monitor progress toward the overarching goal of the 2013 World Cancer Declaration: to achieve major improvements in cancer survival by 2020.[68]

We carried out extensive checks on data quality and liaised with the cancer registries to resolve problems. Many registries told us that the CONCORD data quality reports helped them to improve their data. Some centres in Nigeria and India have modified hospital admission forms or pathology request forms to capture telephone numbers of patients and their next of kin, to facilitate follow-up of their patients. We extended our programs and reports on data quality control. Rectifying errors or inconsistencies in the data often led to extensive discussion with registry staff and resubmission of data with higher quality.

The quality and completeness of cancer registration data and follow-up vary between countries, and this can affect the comparability of survival estimates. We have provided extensive documentation of data quality with standard indicators[69] for each cancer and each cancer registry (appendix pp 6–101). Survival figures and trends should be interpreted alongside those indicators. The overall proportion of tumour records excluded because of incomplete dates (0·5%) or for other reasons such as missing vital status (1·2%) has remained very low. The overall proportion of cancers registered solely from a DCO or detected at autopsy dropped to 2·9%, but remains high in some countries where cancer registration processes are slow, especially for the more rapidly lethal cancers of the oesophagus, pancreas, and liver. These are well known issues in population-based cancer registration. DCOs can be included in cancer incidence statistics under certain assumptions, but they reflect some underestimation of incidence.[69] By contrast, DCO cases must be excluded from survival analyses, because the patient's survival time is unknown: this tends to inflate survival estimates.[70]

In some countries, survival estimates have fluctuated or declined in successive calendar periods; this is likely to reflect improvements in the completeness of cancer registration data and in the completeness of follow-up for vital status. In Jordan, for example, linkage with the national death index has been insufficient because only about 70% of deaths are certified. Survival estimates were very high for stomach and colorectal cancers and are flagged as less reliable. A recent hospital-based survival study[71] from Jordan suggests that colon cancer survival in Jordan is much lower than the estimates we have obtained. Other countries with incomplete death registration, such as India, follow up their patients actively to determine their vital status.

Despite these problems, we believe our findings represent the best that can be achieved with the available coverage and quality of cancer registration systems and vital statistics systems worldwide. The quality of diagnostic evidence is generally high. Data quality has improved in many countries, with increasing proportions of cases for which the diagnosis was confirmed by pathology, imaging, or biomarkers, and a reduction in the proportion of patients lost to follow-up. Pathological confirmation of a primary, invasive malignancy was available for more than 94% of all patients. The proportion varies widely between countries and for different cancers, but the evidence supporting a cancer diagnosis in routine cancer registry data is far more precise and definitive than for the cause or causes of death recorded on death certificates, from which mortality statistics are derived.[72–75]

In some cases, especially in South America, the improvement in data quality is reflected in survival estimates that are actually lower than those previously published,[6] with fewer DCO registrations and more complete follow-up. In Brazil, for example, improvement in the quality and completeness of the national death registry[76] during 2000–15 has enabled more complete linkage of death records with the cancer registries. In several countries, survival estimates that were flagged as less reliable in CONCORD-2 are now more reliable, even if the survival estimates are lower.

To estimate the global burden of cancer incidence, assumptions are required where no cancer registries exist, usually by modelling incidence and mortality data from other countries in the same world region.[2,77] By contrast, we have made no attempt to model cancer survival in countries or regions where population-based cancer registration data were not available. Cancer survival cannot be estimated or modelled by assuming that the health system is as effective as in some other country for which population-based survival estimates are available. On the contrary, cancer survival estimates are required to assess the overall effectiveness of a country's health system in the first place. For that, cancer registries are essential.

The survival estimates reported here are derived directly from the records of individual patients diagnosed with cancer, and from long-term follow-up to ascertain their vital status, followed by standardised quality control and central analysis. This is not a compilation of published reports or a meta-analysis.

Survival for most cancers remains among the highest in the world in the USA, Canada, Australia, and New Zealand, and in Finland, Iceland, Norway, and Sweden. Publications that showed surprisingly low survival in Denmark[78,79] prompted national cancer plans in 2000, 2005, and 2011 that were all focused on early diagnosis and treatment to improve survival.[80] From 2007, cancer was regarded as an acute life-threatening disease, leading to accelerated cancer-specific pathways for diagnosis, with public monitoring of hospitals' compliance with waiting times. For most cancers, survival has increased more rapidly in Denmark, nearly catching up with the other Nordic countries.[81,82] Norway and Sweden have now established similar pathways for cancer patients.

Cancer survival trends are generally increasing, even for some of the more lethal cancers. In some countries, survival increased by up to 5% for cancers of the liver, pancreas, or lung. For example, survival trends for liver cancer were generally stable during 1995–2014, but survival increased by more than 10% in Korea, Singapore, and Norway.

However, for cancers for which 5-year survival remains extremely low in all countries (eg, pancreatic cancer, in the range 5–15%), international efforts will be required to understand risk factors, improve prevention, and promote earlier diagnosis and better treatment to improve outcomes. International comparisons of survival for pancreatic cancer include both ductal adenocarcinomas and the less common neuroendocrine tumours, for which survival is generally higher. The effect of variation in these proportions will require detailed analysis.

Age-standardised 5-year net survival for stomach cancer was less than 30% in most countries, but high in Korea (68·9%) and Japan (60·3%), where it increased by 10% or more between 2000–04 and 2010–14. This pattern is likely to be associated with long-standing population-based endoscopic screening programmes for early detection of gastric and oesophageal cancers, which are very common. Population awareness is high. Gastric cancer screening in Korea started in 1999 as part of the National Cancer Screening Programme, with biennial contrast radiology or endoscopy for adults aged 40 years or older.[83] This doubles the chances of early diagnosis compared with unscreened patients.[84] Endoscopic resection with clear margins can be curative in stage I oesophageal and gastric cancers (up to 2 cm diameter) if invasion is limited to the superficial submucosa and there is no lymphovascular invasion.[85] By contrast, in countries where gastric cancer is a less serious public health issue, and in the absence of screening, this cancer is often diagnosed at an advanced stage. In Russia in 2015, for example, stomach cancer was most often diagnosed in stage IV (40%), and open laparotomy, chemotherapy, and radiation were required for 22% and 25% of cases in stages II and III, respectively. Screening for oesophageal and gastric cancers should be considered as part of national cancer control plans in countries where these tumours are common, or in high-risk populations.[86]

Survival trends for colorectal cancer were generally flat, or increasing, over the 20 years 1995–2014. Survival for rectal cancer was very similar among the Nordic countries (64–69%) and among most southern European countries (61%).

Survival from melanoma of the skin is generally lower in Asian populations than in the rest of the world. One explanation might be lower public awareness because melanoma is less common in Asian populations, but it could also be that Asian patients typically present with more advanced disease and with acral lentiginous melanoma. This is one of the more lethal subtypes, and it is more common in Asian populations than in western populations.[87] In the CONCORD data (not shown), acral lentiginous melanoma represents 1·2% of all skin melanomas, and 1% in Europe and North America, but 6% in Asia.

The increasing trend in 5-year net survival from breast cancer during the 15 years 1995–2009[6] has continued in most countries up to 2014, but remains lower in India, Thailand, and several of the eastern European countries.

5-year survival from cervical cancer has increased in several European and Asian countries. However, survival can even decline following an increase in diagnostic activity. In North America and Oceania, survival is lower than in other countries due to more intensive screening programmes that detect precancerous cells and in-situ tumours. These can be cured with a range of simple techniques, reducing the incidence of invasive malignancy by removal of the more indolent pre-invasive lesions, whereas the more aggressive tumours are less likely to be detected by screening.

Some of the global range in survival might be attributable to differences in the intensity of diagnostic activity, and to overdiagnosis from the detection of very small or less aggressive tumours that would not have been expected to lead to symptomatic diagnosis or death in the patient's expected lifetime.[88,89] As in CONCORD-2,[6] we were unable to use the proportion of in-situ cancers to compare the intensity of diagnostic activity for solid tumours. Some registries still do not record in-situ tumours and other registries did not submit data for in-situ tumours.

Because screening programmes are only available in wealthier countries, mainly in selected age ranges for cancers of the breast, cervix, and colon, the extent of overdiagnosis seems unlikely to have a large effect on the global range of cancer survival. Measures of overdiagnosis are only available at the population level, so their application in the interpretation of cancer survival patterns would be limited to ecological comparisons, as for gross domestic product (GDP) or total national expenditure on health. By contrast, data on stage at diagnosis are available for individuals. Analyses of the distribution of stage at diagnosis and stage-specific survival will be expected to provide further insight into international variation in cancer survival.[90,91]

Survival from the adult leukaemias up to 2009 in Asian populations was much lower than in Europe, North America, and Oceania.[6] One possible explanation was the relative rarity in Asian populations of chronic lymphocytic leukaemia, which has a relatively good prognosis in western populations. However, survival from chronic lymphocytic leukaemia is also much lower in Taiwan than in the USA,[92] and the findings reported here also show that survival in adults is generally lower in southeast Asia than in other countries, for both myeloid and lymphoid malignancies. The difference between the median of the survival estimates for Asian populations and for other populations narrowed between 2000–04 and 2010–14, for both myeloid and lymphoid malignancies. In most southeast Asian countries, survival for myeloid malignancies has risen by 5–14%, and by 10% or more for lymphoid malignancies.

Survival from brain tumours in children is generally higher than for adults, but the global range is much more pronounced. Some of the international variation in survival from brain tumours might be due to variation in the proportion that are benign. Where benign tumours are registered, the proportion typically ranges up to 10–15% in both adults and children (data not shown). However, some registries do not record benign brain tumours, and this varies both between and within countries. For example, in Australia, benign brain tumours are not registrable in New South Wales or Western Australia (45% of the national population), whereas they comprise up to 5% of brain tumours in Queensland and Victoria, with a similar combined population. The impact of morphology, behaviour, and grade on international patterns of brain tumour survival needs further research.

International variation in survival for childhood lymphoma was less marked than for childhood acute lymphoblastic leukaemia. The marked increase in 5-year survival among children diagnosed with lymphoma in Brazil (from 69·2% in 2000–04 to 88·2% in 2010–14) is likely to reflect a real improvement in diagnosis and treatment.

Cancer kills more than 100 000 children every year, mainly in low-income and middle-income countries,[93] where access to health services is often poor and abandonment of treatment is a major problem.[94,95] Reliable data on the cost and the effectiveness of health services in managing childhood cancer are scarce, yet such data would offer important evidence for countries to compare the impact of their strategies for managing children with cancer.[96] Survival estimates published here for children diagnosed with a brain tumour, lymphoma, or leukaemia will be used in a *Lancet Oncology* Commission on childhood cancer, designed to establish the evidence for investing in effective interventions to reduce the burden of childhood cancer.

Survival trends could not be systematically assessed in Africa. In some registries, the proportion of records with incomplete dates reached up to 40%. Survival estimates for acute lymphoblastic leukaemia in Algeria were considered less reliable because follow-up was less than 5 years for more than 50% of children. For Nigeria (Ibadan) and South Africa (Eastern Cape), data were only available for 12 and seven children, respectively, and survival was not estimated. Where survival could be estimated with some confidence, it was often very low, although survival in Mauritius was generally higher. In Nigeria, for example, there are no trained medical oncologists. Some haematologists and paediatric oncologists administer chemotherapy, but the availability of chemotherapy is limited in both the public and private sectors. Most patients pay out of their own pocket, and the cost is prohibitive. These factors frequently disrupt treatment and are likely to lead to poor outcomes.

To control for background mortality by age and sex, we updated the library of life tables for 1995–2010 by country, registry, race (selected countries), and calendar year to 2014, with a statistical summary for each set of life tables. The updated library is available from the Cancer Survival Group website. In some countries, it has become more difficult to obtain the death and population counts required to construct life tables.

For the **life tables from the CONCORD programme** see http://csg.lshtm.ac.uk/tools-analysis#tools

Survival estimates from CONCORD-2 for cancers of the breast and cervix were used in a recent *Lancet* Series on women's cancers,[97,98] to help to describe trends in the global burden of these cancers. Survival for the 2 million women diagnosed with one of these cancers every year remains highly dependent on the country in which they live. The Series highlighted the urgent need for more cost-effective cancer control strategies in low-income and middle-income countries.

The global economic cost of treating the 12·9 million new patients diagnosed with cancer worldwide in 2009 was estimated at US$285·8 billion.[99] The costs of cancer treatment and care in the USA alone were projected to rise by 23% between 2010 and 2020, from $124·6 to $157·7 billion, solely on the basis of demographic change, and with fixed incidence rates, survival probabilities, and treatment costs.[100] If treatment costs rise by 2% a year in the first and last phases of treatment, the overall cost of treatment and care in the USA could reach $172·8 billion, a 39% increase. If incidence rates continue to rise, the prevalence of cancer survivors will increase further, triggering still further increase in the costs of care.

On the basis of these figures, it seems plausible that the global cost of cancer treatment and care in 2017 must already be substantially higher than $300 billion a year. Spiralling costs[101] threaten the viability of health systems and national economies. Where universal health coverage has not been achieved, the out-of-pocket costs of cancer treatment can lead to financial catastrophe for individuals and families.[3]

The indirect economic costs associated with premature death and lost productivity from the growing cancer

burden have been estimated at $1·16 trillion a year,[3] or approaching 2% of global GDP.[102] The increasing cost and complexity of cancer treatment might require a radical shift in cancer policy, in which inequitable access to affordable cancer treatment ceases to be politically acceptable.[103] Population-based data on cancer survival trends that are comparable within and between countries are part of the evidence base needed to drive such a policy shift.

With this background, cancer registries can be seen as efficient public health instruments, producing a continuous stream of valuable information for cancer control at low cost.[104] In Europe in 2013, the average cost per patient registered, including the registry's costs for personnel, information technology, and infrastructure, was €51 (range €6–213; equivalent to $59 [7–252]). This is less than the typical cost of a chest x-ray. For the population as a whole, the cost was less than €1 ($1·18) per person per year.

In 2015, the UN introduced 17 Sustainable Development Goals (SDGs), aiming to end poverty, protect the planet, and ensure prosperity for all.[105] Goal 3 is "to ensure healthy lives and promote well-being for all at all ages". For this goal, target 3.4 is to reduce "premature" mortality (among people aged 30–70 years) from non-communicable diseases, including cancer, by a third by 2030, through prevention and treatment.[106] The challenge will be to secure overall improvements in health outcomes that do not lead to wider inequalities.[107]

Achieving the SDG target of a one-third reduction in premature mortality by 2030 clearly requires more effective prevention to reduce cancer incidence. However, the 15-year timeframe is short, and achieving the target will also require investment in more effective health systems, to improve survival.[46]

WHO recently called for the development of population-based cancer registries, so that effective policies for cancer control can be founded on accurate data.[3] It also called for stronger civil registration and vital statistics systems. These systems support the basic functions of government and enable measurement of progress towards development goals,[108] yet population coverage is poor in low-income and middle-income countries, and closely related to gross national income.[109]

Most cancer registries establish the vital status of all patients registered with cancer by linkage with vital statistics data (regional or national death indexes). This is known as passive follow-up, although many registries also contact patients' doctors or families directly (active follow-up). For passive follow-up to work, efficient civil registration systems that capture information on all deaths are required. This process underpins the estimation of population-based cancer survival, even though active follow-up can be effective in some populations. Yet cancer registries report increasing difficulty in linking their databases to regional or national death indexes. Legal and administrative obstacles and technical difficulties have all been reported. Some national authorities holding death indexes clearly give very low priority to such linkages.

These problems undermine the public health purpose of cancer registration. Of the 400 operational registries we contacted, more than 20 were unable to follow up all registered patients to ascertain their vital status. This problem arose in 16 countries, including some high-income countries. Some registries were unable to provide survival data at all. In Canada, for example, national coverage of cancer survival statistics was achieved for the first time in CONCORD-2,[6] with data from all 13 provinces and territories for 1995–2009, but several jurisdictions were unable to participate in CONCORD-3 because of legal or administrative difficulties in linking their cancer registry with death records. For eight countries that expressed interest or even submitted data, these difficulties meant that no survival estimates could be produced at all: Benin, Bosnia and Herzegovina, Indonesia, Panama, the Philippines, Saudi Arabia, Serbia, and Tunisia.

It is crucial for national and regional governments to recognise that population-based cancer registries are key policy tools, both to monitor the impact of cancer prevention strategies and to evaluate the effectiveness of the health system for all patients diagnosed with cancer. All registries, especially those in low-income and middle-income countries, need to be given adequate resources to register all patients with cancer in a timely fashion, the right to access up-to-date national and regional death records to establish their vital status, and the legislative stability to operate efficiently over the long term.[110]

Contributors

CA, AB, CAS, and MPC drafted the protocol. CA and MPC obtained statutory and ethical approvals. GAeS, W-QC, GE, SE, CJJ, GHL, AM, TM, OJO, MV, and HKW contributed to data acquisition. CA, VDC, and MPC prepared the life tables. CA, VDC, RH, MM, MN, AB, and MPC had access to all the raw data. CA, VDC, RH, MM, MN, AB, CJJ, and MPC did the data preparation, quality control, and analyses, and CA, VDC, RH, MM, MN, AB, JA, GE, JE, SE, OV, RW, and MPC checked the results. CA and MPC drafted the report. All authors contributed to writing the final report and approved the version to be published. All members of the CONCORD Working Group had access to the results of all steps of data preparation, quality control, and analyses, and contributed to interpretation of the findings.

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We declare no competing interests.

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