ICBP

International Cancer
Benchmarking Partnership

Evidence for policy and practice

October 2016

Table of contents

CANCER RESEARCH UK

This report was designed and produced by Cancer Research UK.

Foreword from the Chairs

The International Cancer Benchmarking Partnership (ICBP) continues to deliver evidence to guide cancer policy and practice in member countries across our partnership. To date, findings from the ICBP have informed cancer control plans, helped to design public awareness campaigns and improve diagnostic pathways across a number of jurisdictions, with real potential for improving outcomes for cancer patients.

A highlight of our research was showing a correlation between cancer survival and the readiness of primary care physicians to investigate symptoms at the patient's first consultation. This is the first time ICBP research has identified a factor that appears to explain some of the differences in international survival. ICBP's research with the public has not supported our prior hypothesis that variation in public knowledge of cancer warning signs contributes significantly to survival differences, but indicated that cultural differences in barriers to presentation could be playing a role. An upcoming publication will highlight that differences in time intervals between symptom onset and treatment may also contribute to these variations.

Building on the success of the first phase of the partnership, we are moving forward with expansion plans – adding new tumour sites to our research and welcoming new partners. We've developed an exciting new research programme in consultation with clinicians, academics, cancer data experts and policy decision makers.

Accurate survival data is vital to ICBP research. To keep our survival benchmark up to date and robust, the International Agency for Research on Cancer (IARC) has been commissioned to review the methods used and deliver an updated benchmark from 1995-2014 across eight cancer sites – lung, ovary, pancreas, liver, oesophagus, stomach, colon and rectum. The updated benchmark will underpin new studies that will continue to explore factors that may be driving differences in international survival.

Cancer Research UK will deliver analyses on factors impacting access to diagnostics and optimal treatments. This follows up on insights from previous ICBP research, which suggests that these could be contributing to observed survival variations. We will also commission studies to explore how differences in cancer patient pathways and the structure and organisation of health systems might have an impact.

We would like to thank all of our partners, who make this multi-disciplinary and international collaboration possible. The ICBP is set to continue to produce world leading policy research that has the potential to guide efforts to improve cancer patient care across the world.

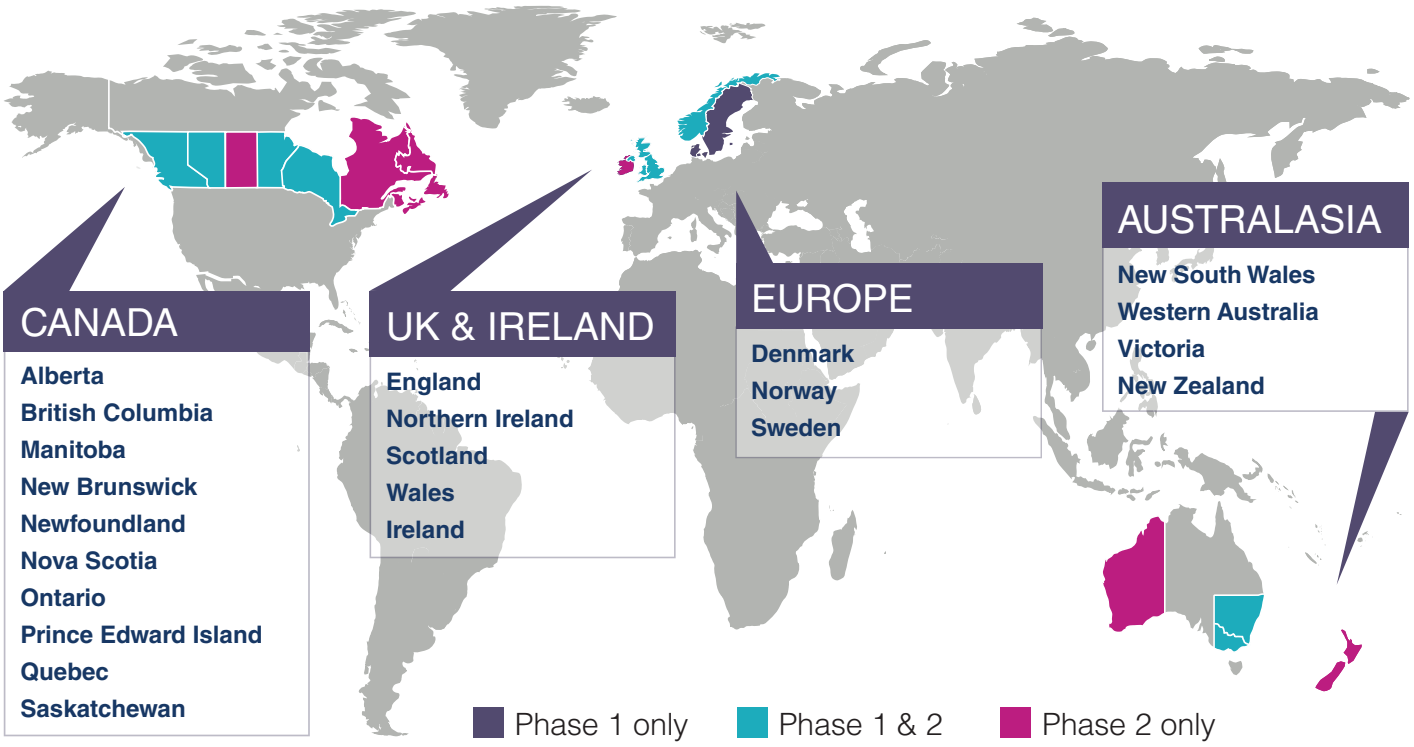
Sincerely

Dr Heather Bryant
ICBP Chair

Professor David Currow
ICBP Deputy Chair

What is the International Cancer Benchmarking Partnership?

The International Cancer Benchmarking Partnership (ICBP) is a unique and innovative collaboration that brings together clinicians, policymakers, researchers and cancer data experts.[1] It aims to measure international differences in cancer survival and crucially, identify factors that might be driving these differences.



The ICBP produces high quality research to help identify best international practice and optimise cancer services, ultimately helping to improve policy outcomes for cancer patients. Our research has provided new evidence that has informed cancer control plans and has underpinned the development and design of cancer patient pathways. Moreover, it has led to improvements in cancer data completeness and availability in Australia, Canada and the UK.

ICBP researchers have pioneered a range of methods and research tools to enable robust international comparisons – with 13 core peer reviewed papers published and more in the pipeline. An additional 26 peer reviewed papers have been published using ICBP data or research tools. So far, ICBP papers have been cited over 1,600 times.

As a truly global initiative, 22 jurisdictions in 8 countries, across 3 continents are participating across both phases. Each participating jurisdiction has had up-to-date, long-established and high quality population-based cancer registry data, comparable levels of spending on health, and universal access to healthcare.

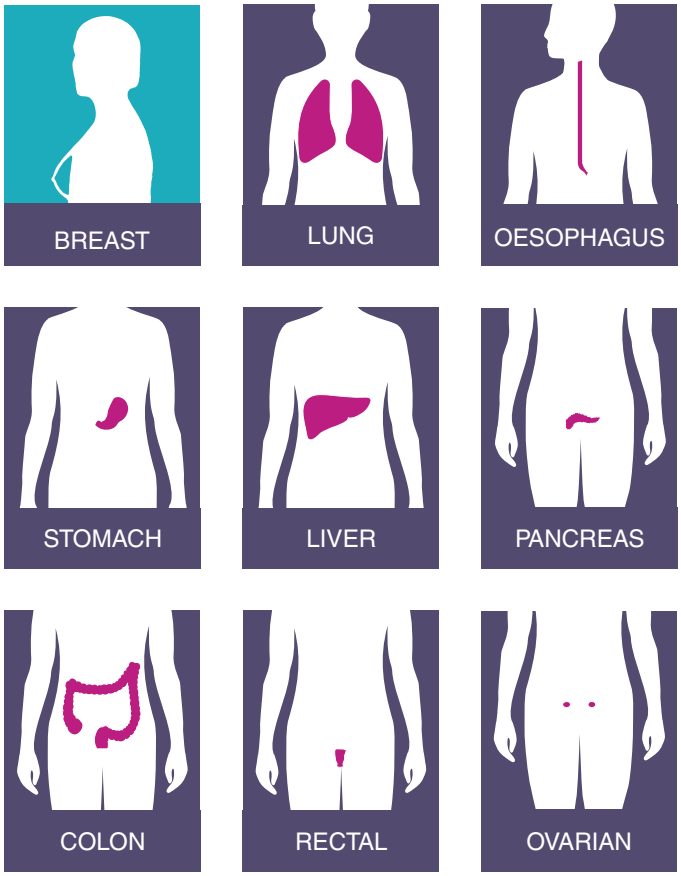
Our unique research programme uses a range of data sources to explore factors that could be driving international cancer survival variation.

Phase 1 of the ICBP focussed on breast, lung, colorectal and ovarian cancer. Phase 2 of the ICBP, now underway, has expanded from four to eight cancers to include lung, colon, rectum, ovarian, oesophageal, liver, pancreatic and stomach cancer.

The International Agency for Research on Cancer (IARC) has been commissioned by the ICBP Programme Board to deliver the most up-to-date and robust international cancer survival benchmark for phase 2.

Two supplementary analyses will explore adherence to international cancer coding frameworks, as well as the impact of local registration practices on short-term survival. This builds on work carried out in phase 1 and will ensure we have robust methodologies for international comparisons.

Alongside work to update the international cancer survival benchmark, further in-depth analyses will be undertaken to build on findings from phase 1. These should generate new insights and a deeper understanding of the critical aspects of policy and clinical practice that have the potential to improve cancer outcomes and patient care. In phase 2 we are focussing on cancer patient pathways, the structure of health systems, access to diagnostics and access to optimal treatments.



PHASE 1

- **International cancer survival benchmark (patients diagnosed 1995-2007) for 4 cancer types**
- **Public awareness, beliefs and attitudes to cancer**
- **Role of primary care practitioners in diagnosis**
- **Measuring time intervals from symptoms to diagnosis and treatment**
- **Exploring factors that may impact short term survival**

PHASE 2

- **International cancer survival benchmark (patients diagnosed 1995-2014) for 8 cancer types**
- **Access to diagnostic and post-diagnostic tests**
- **Access to optimal treatments**
- **Cancer patient pathways**
- **Organisation and structure of health systems**

ICBP impacts

ICBP findings have impacted on policy and practice across the partnership. Learning from the experience of others, sharing ideas and good practice are key benefits of the partnership. To date, the ICBP has provided evidence which has informed cancer plans, identified priorities for new cancer control initiatives, provided evidence for public awareness campaigns and improved cancer data completeness across several jurisdictions.

Australia

New South Wales

- Underpinned projects improving cancer data completeness and availability.
- Improved cancer registry practices based on findings from the partnership.
- Insights informed the choice of cancers with special emphasis in the New South Wales cancer plan, starting 2016.

Victoria

- Informed the Victorian Cancer Plan (2016-2020).
- Prompted a review of ovarian cancer treatment practices and the cancer registration process.
- Supported state-wide implementation of an ovarian cancer optimal care pathway.

Canada

Ontario

- Underpinned projects improving cancer data completeness and availability.
- Further analyses have validated findings using administrative data and deepened understanding.
- Provided local evidence to the Cancer Care Ontario Clinical Council which develops cancer system strategy and the provincial cancer plan.

Alberta

- Provided evidence to support the establishment of a Rapid Access Clinic for lung cancer.

Manitoba

- Prompted a programme of research into ovarian cancer.
- Increased engagement within the primary care community on topics related to cancer, particularly differences in referral to specialists.
- Confirmed evidence underpinning Manitoba's 'InSixty' initiative aimed at reducing the time cancer is first suspected to the time it is treated to 60 days or less.
- Provided a patient voice to the local cancer patient journey initiative, hearing how patients describe their successes and challenges with the system.

ICBP impacts

United Kingdom

England

- Provided new evidence for cancer plans and identified priorities for new initiatives.
- Confirmed evidence underpinning public awareness campaigns.
- Contributed evidence for the ACE (accelerate, coordinate, evaluate) programme, exploring innovative diagnostic referral pathways.
- Underpinned projects improving cancer data completeness and availability.

Scotland

- Provided evidence for Scotland's new cancer strategy.
- Provided evidence to the Scottish Primary Care Cancer Group and the Scottish Clinical Imaging Network to improve direct access to imaging for primary care practitioners.

Wales

- Prompted a lung cancer initiative to improve outcomes by taking a cross-pathway approach.
- Led to a study tour to Denmark to learn more about improvements in access to diagnostics which provided additional evidence to establish pilots to improve diagnosis in Wales.
- Ovarian cancer awareness evidence in Wales contributed to the development of the equivalent English regional 'Be Clear on Cancer' campaign.

Northern Ireland

- Developed a mechanism for the cancer registry to receive data on comorbidities that have caused hospital admissions for cancer patients.
- Provided insights for public awareness campaigns.

Scandinavia

Norway

- Supported more user-oriented cancer care, improving diagnostic capacity and early cancer prevention as part of the Norwegian Cancer Plan (2013-2017).
- Confirmed evidence from the Norwegian Board of Health Supervision that late diagnosis is a key issue in cancer care in Norway.
- Provided new evidence of the need for improved and targeted initiatives to enhance public awareness about melanoma.

Sweden

- Provided evidence towards a major effort to reduce waiting times, with additional funding from the national government.
- Provided a stimulus for a continuous focus on improvement around breast cancer and led to the development of a colorectal cancer patient reported experience questionnaire.
- Provided insights which initiated discussion about public awareness campaigns.
- Contributed to a renewed assessment of data quality in the Swedish cancer register, in particular around death certificate only cases.

Denmark

- Provided evidence about stage registration and stage at treatment which underpinned a focus on earlier and faster cancer diagnosis. This is a shared priority for politicians, policymakers, clinicians and patient advocates.
- Provided insights for public awareness campaigns and highlighted the impact of social inequalities.
- Provided evidence for initiatives in the third and fourth national cancer action plans.
- Provided evidence to support the Danish 3-legged strategy highlighting that primary care practitioners need better and faster access to investigations.

International cancer survival comparisons

Cancer survival is a key measure of the effectiveness of a healthcare system and the care provided to patients. International and/or regional differences in cancer survival are a powerful tool to assess and guide cancer control strategies.

A team led by Professor Michel Coleman (London School of Hygiene and Tropical Medicine, UK), produced the survival comparisons that have underpinned ICBP research to date.

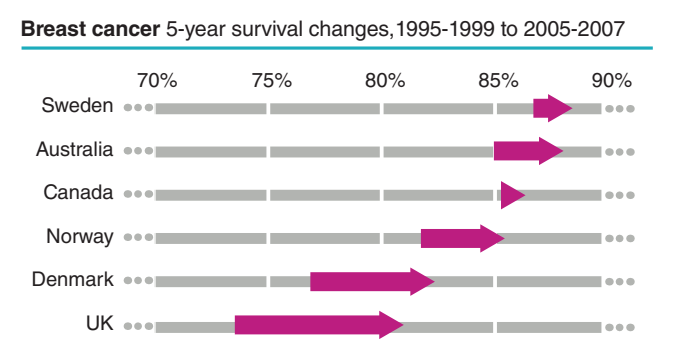
Survival data from more than 2.4 million breast, colorectal, lung and ovarian cancer patients, diagnosed between 1995-2007, was collected and compared across all ICBP jurisdictions.[2] A novel algorithm was developed that for the first time made it possible to produce international comparisons of stage at diagnosis and survival by stage using routinely collected data – in spite of differences in the coding frameworks used.

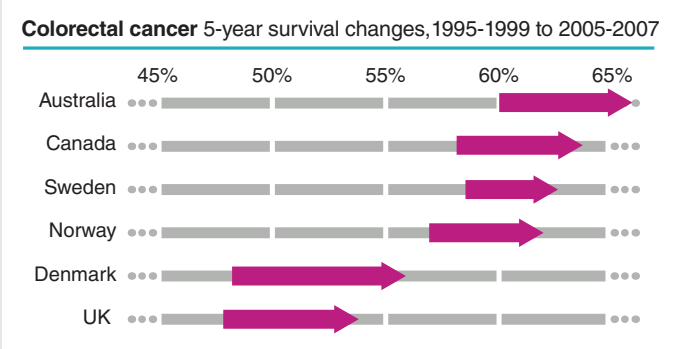
Headline findings

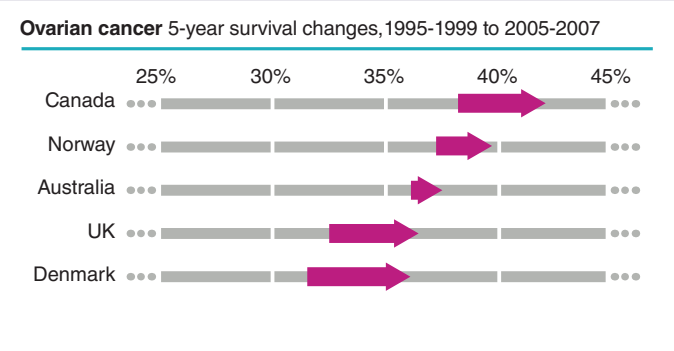
For breast, colorectal, lung and ovarian cancer, survival was higher in Australia, Canada, and Sweden, intermediate in Norway, and lower in Denmark and the UK.[2] Differences in survival remain despite cancer survival improving in all ICBP countries. The survival 'gap' between the best performing countries and the lowest remains largely unchanged – except for breast cancer, where the UK is narrowing the gap.

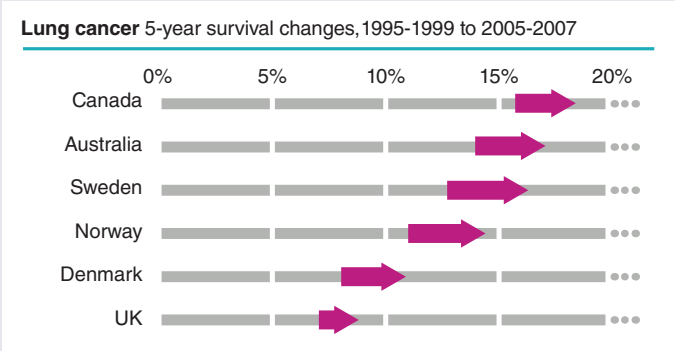
Differences in stage at diagnosis and access to optimal treatment are likely to be contributing to international differences in survival.[3-7] Significant differences were observed when comparing stage distribution and stage-specific survival between age groups. These trends may be linked to existing screening programmes and availability of guidelines for older patient populations. There was variability across jurisdictions in the completeness of stage. Missing stage data was highlighted as a particular issue for older age groups.

5-year age-standardised relative survival









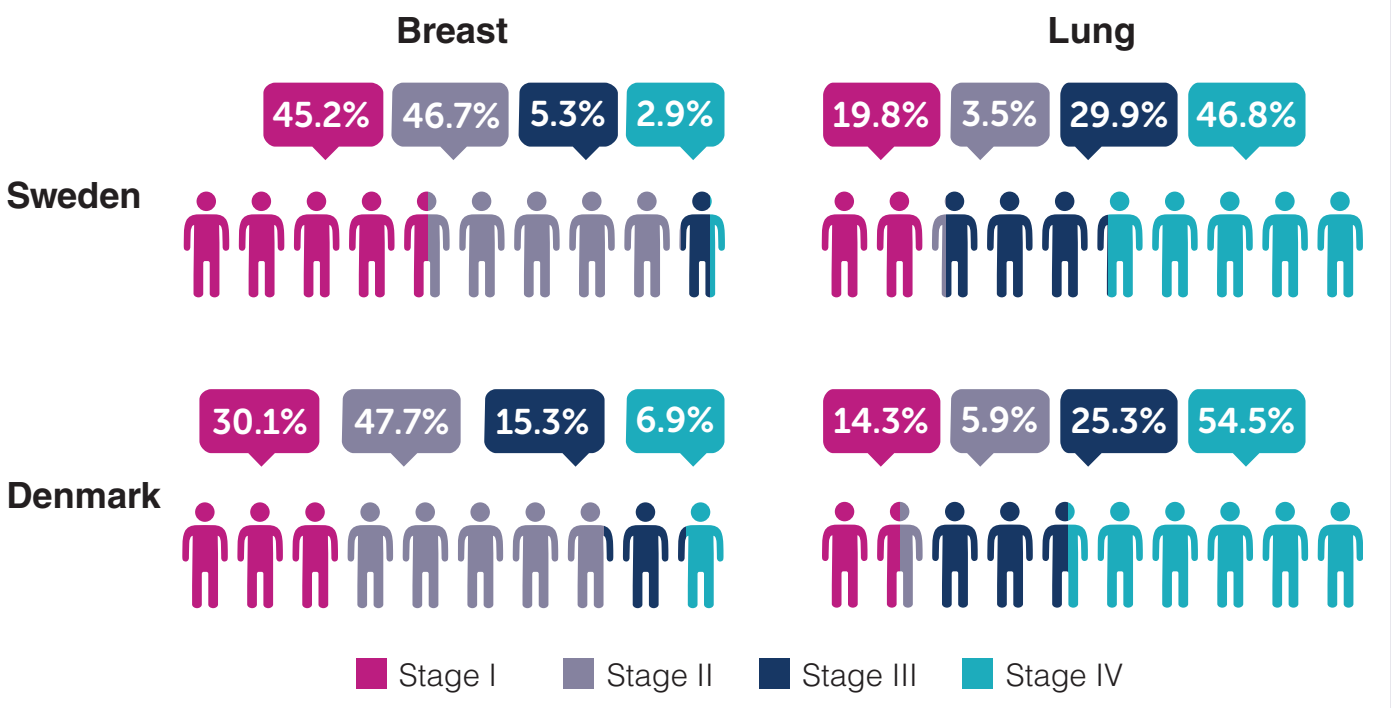
Country focus: **Denmark**

- Has among the lowest survival estimates for the four cancer types. Only the UK reports lower survival than Denmark.[2]
- Reported improvements in survival across each cancer type between 1995-2007. Both colorectal and ovarian cancer had the greatest improvement for 1-year and 5-year survival.
- Breast and colorectal cancer had the greatest improvement for 5-year survival for patients who survive more than one year (i.e. conditional survival).[3-6]
- Has poor stage distribution with more people diagnosed with stage IV (TNM) breast and lung cancer than any other jurisdiction.[5,6]

Country focus: **Sweden**

- Has among the highest survival estimates out of all the ICBP jurisdictions, reporting the highest 1-year survival for breast and lung cancer.[2]
- Potentially reached the so-called 'ceiling effect' for breast cancer, as survival was close to 100% at 1-year and 82-90% at 5-year survival for patients who survive more than one year (i.e. conditional survival).[2]
- Has a favourable breast cancer stage distribution (TNM) with more people diagnosed at early stages than any other jurisdiction, but an adverse lung cancer stage distribution with more people diagnosed at later stages (similar to that observed in other ICBP countries).[5,6]

Comparison of stage distribution for breast and lung cancers in Sweden and Denmark
Stage distribution was calculated using TNM classification



Public awareness, beliefs and attitudes to cancer

People with low cancer awareness and negative beliefs about cancer outcomes were hypothesised to be more likely to delay seeking medical help for suspicious symptoms. In turn, this may lead to more advanced stage at diagnosis and poorer survival.

Professor Jane Wardle (University College London, UK) and Professor Amanda Ramirez (King's College London, UK) led the research team investigating the general public's awareness, attitudes and beliefs about cancer.

The team developed a large international survey to measure awareness and beliefs about cancer (ABC measure) to which over 19,000 members of the general public responded.[8] The sample was restricted to men and women in member countries aged 50 years or over, among whom cancer is more common.

The survey asked respondents questions exploring:

- Knowledge of cancer risks.
- Awareness of specific signs and symptoms that could be caused by cancer.
- What they might do if they developed signs or symptoms.
- Their beliefs about the chances of surviving cancer.

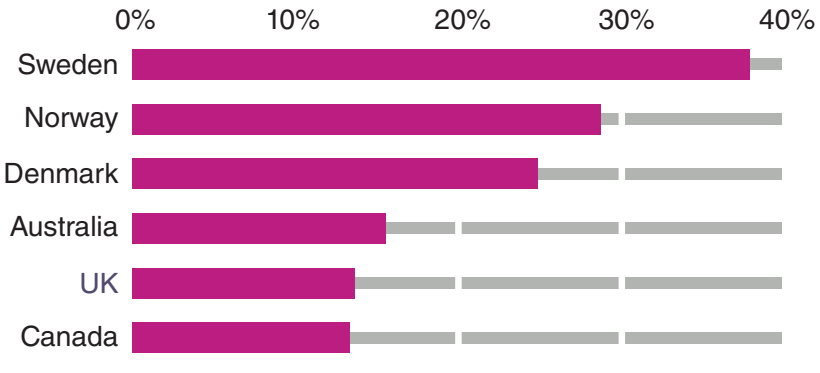
Headline findings

This study was the first robust international comparison of population awareness and beliefs about cancer. Results show there was a similar level of awareness of cancer symptoms and generally positive beliefs about cancer across all jurisdictions. On average, respondents from all ICBP countries recognised 8 out of 11 cancer symptoms.[9]

Awareness that cancer risk increases with age was low across all jurisdictions. Swedish respondents had the highest awareness of age as a risk factor, however, at 37.8% this is still relatively low.

On average, nearly a quarter of respondents from all jurisdictions reported they would be put off going to the doctor as they would be 'worried about what the doctor might find' or they would be 'too busy to make time to go to the doctor'.

Awareness that cancer risk increases with age



Proportion of respondents who said that 70-year olds are most likely to be diagnosed with cancer (rather than 30-year olds, 50-year olds or people of any age)

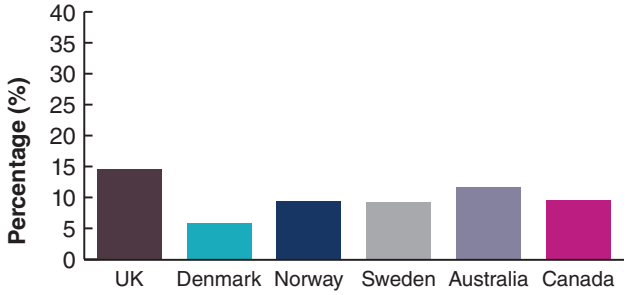
Country focus: **UK (England, Northern Ireland, Wales)**

- UK respondents most frequently reported barriers to seeing the doctor with a symptom that might be serious.[9]
- Current smokers had more pessimistic views about cancer outcomes and early detection.[11]
- Had low awareness of ovarian cancer symptoms in Wales, where this was associated with older age, being single, having lower education and lack of personal experience of ovarian cancer.[12]
- The most deprived respondents were more negative about cancer belief statements.[13]

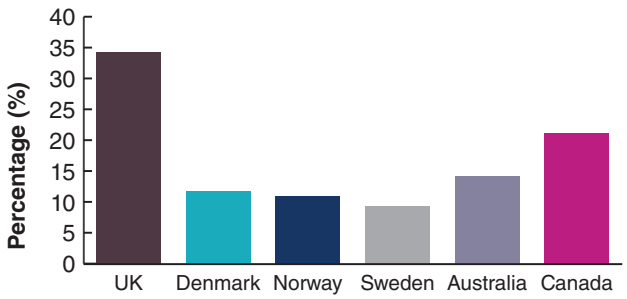
Country focus: **Norway**

- Norwegian respondents were the most positive about cancer outcomes; more than 9 in 10 respondents agreed that 'cancer can often be cured'.[9]
- Least likely to have worries regarding 'what the doctor might find'.[9]
- Had low awareness of risk factors of melanoma such as 'use of sunbed' and 'sunburn in childhood', particularly in men.[10]

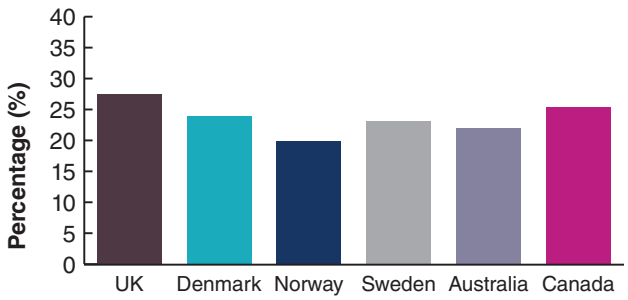
Barriers to symptomatic presentation: "Would any of these put you off going to the doctor with a symptom that might be serious?"



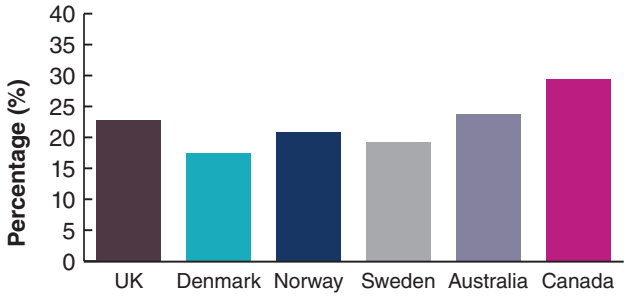
"I would be too embarrassed"



"I would be worried about wasting the doctor's time"



"I would be worried about what a doctor might find"



"I am too busy to make time to go to the doctor"

The role of primary care practitioners in diagnosing cancer

Differences in healthcare systems could affect the time it takes to be diagnosed after presenting to primary care with symptoms, leading to later diagnosis and lower survival.

Dr Peter Rose (Oxford University, UK) led an international team of academic primary care practitioners (PCPs) to explore the central role of primary care in cancer diagnosis. Nearly 2,800 PCPs in 11 jurisdictions completed an online survey to identify any international differences in the management of patients.[14,15]

The survey consisted of two parts:

- Patient scenarios – respondents indicated how they would manage patients presenting with low risk symptoms that could be indicative of cancer.
- The local health system – respondents provided information on the health framework they work within, including average length of consultations, direct access to diagnostic tests, waiting times for tests and results and availability of advice from secondary care.

To complement the survey findings and provide greater local context, a health systems mapping exercise was led by Professor Greg Rubin (Durham University, UK) working with key informants in each jurisdiction.[16]

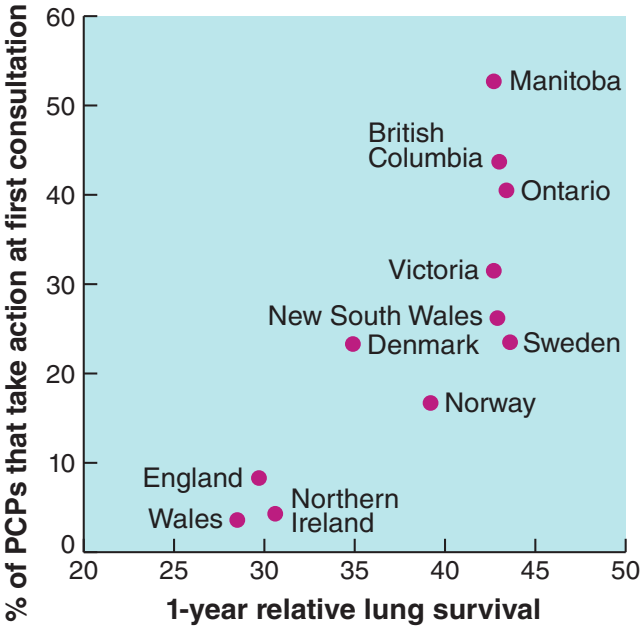
Headline findings

This innovative study is the first to identify factors that could partly explain international cancer survival differences.

The analysis demonstrated a correlation between the readiness of PCPs to investigate potential cancer symptoms at the patient's first consultation and ovarian, lung and colorectal cancer survival.[15]

The readiness of PCPs to investigate correlated with 1-year survival in 4 out of 5 patient scenarios. The readiness of PCPs to investigate also correlated with 5-year survival for patients who survive more than one year in 3 out of 5 patient scenarios.

Although it did not explain the correlation between survival and readiness to refer or investigate, the analysis highlighted variations in access to diagnostic tests between jurisdictions. Direct access to endoscopy was less common in Canada, while in the UK and Denmark access to CT and MRI was comparatively low. More than 7 out of 10 PCPs across all jurisdictions reported direct access to blood tests for cancer diagnosis, plain X-rays and ultrasounds. No consistent association was found between the readiness to refer and health system factors that may influence PCP behaviour.[15]



Readiness of PCPs to investigate low risk symptoms that could be indicative of lung cancer and 1-year relative survival.

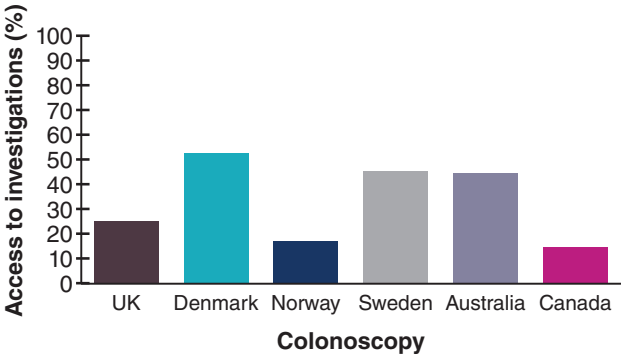
Country focus: **UK (England, Northern Ireland, Wales)**

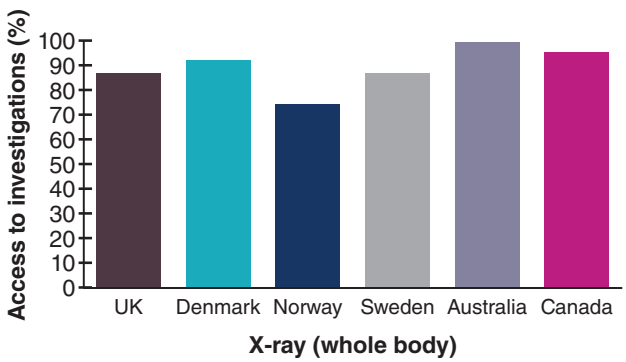
- UK PCPs have the lowest readiness to refer or investigate a patient's symptoms at the first opportunity, correlating with low cancer survival rates.[15]
- More than one quarter of UK PCPs refer to urgent referral guidelines for suspected cancer 'usually' or 'always' and around 1 in 10 said they 'rarely' or 'never' acted outside of them. However, 9 out of 10 would ignore guidance if they thought a patient had cancer but their symptom profile did not fit the urgent referral criteria.[17]
- UK PCPs have among the lowest level of access to specialist advice (within 48 hours) compared to their peers in other jurisdictions.[15]

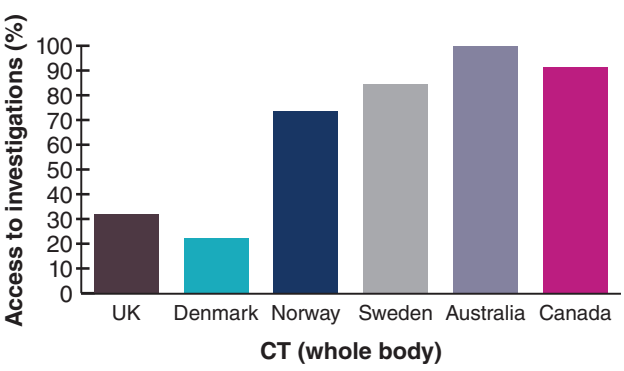
Country focus: **Australia (Victoria, New South Wales)**

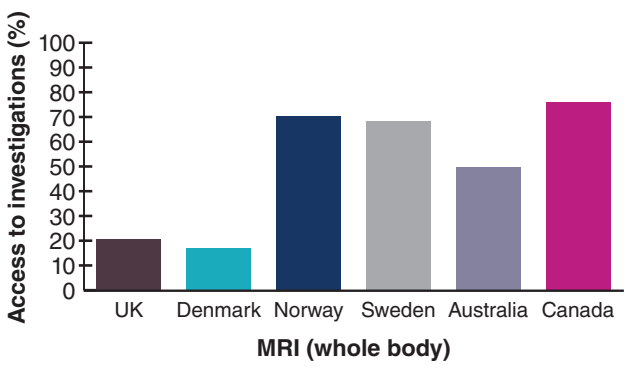
- Australian PCPs reported the highest access to blood tests and whole body imaging (CTs, X-rays and ultrasounds) compared to other jurisdictions.[15]
- Victorian PCPs reported higher access to investigations than PCPs in New South Wales.[15]
- Australian PCPs reported the shortest waiting times for tests and results, and total waiting times for imaging tests (X-rays, CT, MRI and ultrasound tests) compared to all other jurisdictions.[15]
- Average wait times in New South Wales were marginally better compared to Victoria for imaging waiting times. Victoria reported shorter endoscopy waiting times.[15]

Access to investigations









Measuring time intervals from diagnosis to treatment

Differences in time intervals from first symptom until diagnosis and treatment between jurisdictions could affect the outcomes of patients with suspected cancer.

Professor Peter Vedsted (Aarhus University, Denmark), Professor David Weller (Edinburgh University, UK) and Professor Usha Menon (University College London, UK) led a team comparing time intervals from a patient first noticing symptoms to diagnosis and treatment, and described routes to diagnosis.

The team developed validated patient, primary care practitioner (PCP) and cancer treatment specialist (CTS) questionnaires to gather information on key milestones within the patient journey.[18] Newly diagnosed patients (3-6 months after diagnosis), their PCPs and CTSs were surveyed requesting information on areas including:

- Specific time intervals and details of a patient's route to diagnosis and treatment.
- The number of times a patient saw a healthcare professional before diagnosis.
- The nature of any referrals and diagnostic tests carried out.

Preliminary findings

Over 6,300 newly diagnosed breast and colorectal patients, 40 years or older were recruited for the study across ten jurisdictions – Australia (Victoria), Canada (Manitoba, Ontario), Denmark, Norway, Sweden and the UK (England, Wales, Scotland and Northern Ireland). Around the same number of PCP and CTS questionnaire were also received. Patients were recruited whether they were diagnosed via a screening programme or after presenting to a doctor with symptoms.[19,20]

Intervals for colorectal cancer patients were more variable between participating jurisdictions and more often longer than for breast cancer. The number of days from noticing a symptom to presenting to a doctor (patient interval) was approximately three times longer for colorectal than for breast patients. This may be a reflection of the physical change that often presents as a symptom for breast cancer. Over 6 in 10 patients presented to their doctor with a lump, swelling or thickening of the breast. Colorectal cancer symptoms are often vague and harder to diagnose. Approximately 3 in 10 patients with colorectal cancer reported blood in their stool, a change in bowel habits or fatigue.[19,20]

For symptomatic patients, the time from first presentation to primary care until the date of diagnosis (diagnostic interval) was much longer for patients with colorectal cancer compared to breast cancer. The interval from the date of diagnosis to the date of treatment (treatment interval) was similar for breast and colorectal patients.

For symptomatic patients, the time from the first symptom to the date of treatment (total interval) is longer for colorectal than for breast cancer in most jurisdictions.

The results from this study will enable participating jurisdictions to compare how patient, primary care and diagnostic factors impact on cancer services locally and how these contribute to international survival differences.

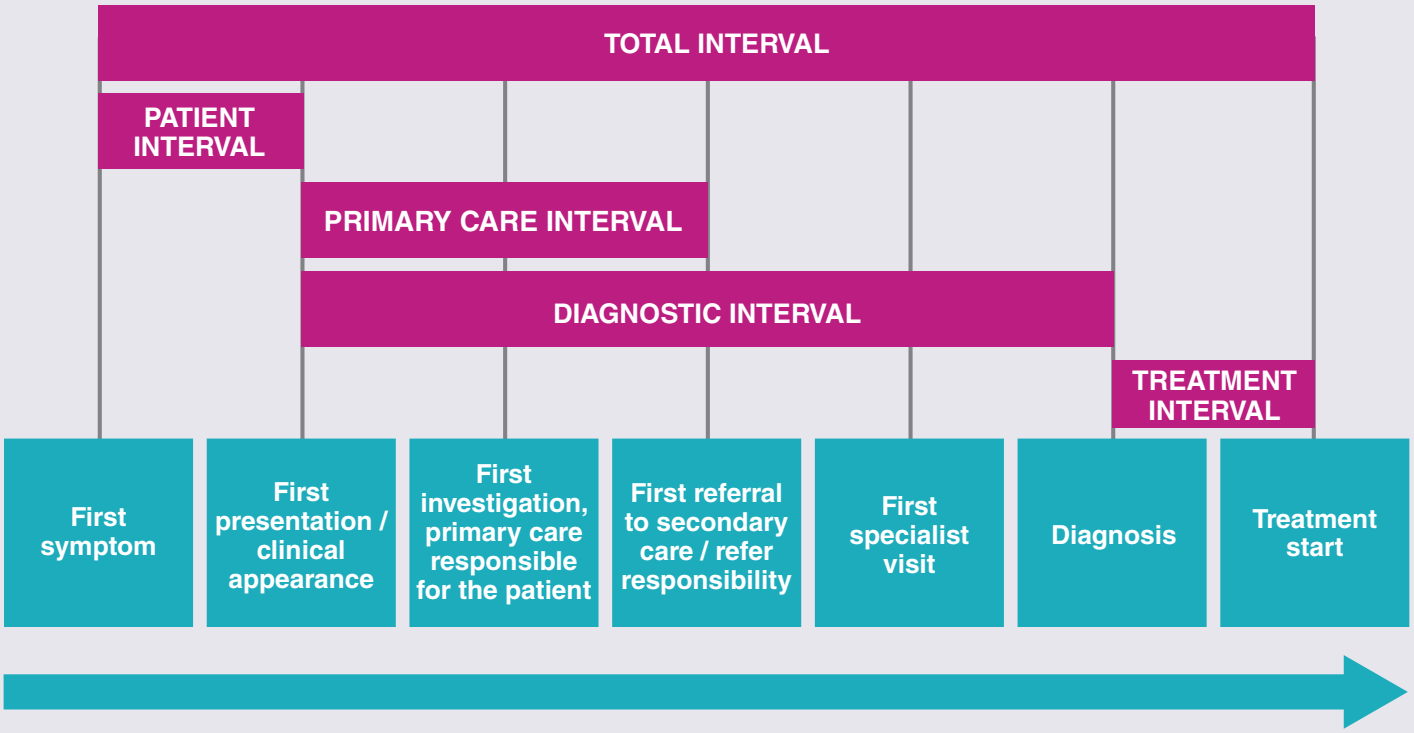
Country focus: **Denmark**

- Across all jurisdictions, Denmark had the highest proportion of current smokers.[19,20]
- At the time patients were recruited into the study, Denmark did not have a national colorectal screening programme, although pilots were in progress. A national programme was introduced in March 2014 and will be fully rolled out by April 2018.
- The results of this study provide further insights about the impact of reforms introduced in 2009 to improve access to and the timeliness of cancer diagnosis.

Country focus: **Canada** **(Manitoba, Ontario)**

- Ontario recruited over 2,000 breast and colorectal patients for this study and plan to undertake additional local analyses using their data.[20]
- Preliminary findings suggest that PCP's in Ontario are responsible for more of the diagnostic interval than their peers in other jurisdictions.[19,20]
- Manitoba recruited over 930 breast, colorectal, lung and ovarian cancer patients for this study. Manitoba and Ontario will collaborate to interpret the analyses in a Canadian context.[19,20]

Definition of intervals for symptomatic patients



Exploring factors that may impact short term survival

The cancer survival benchmarking study highlighted that international variation in short-term survival (i.e. up to 1-year) might be partly explained by data collection practices or comorbidities.

An international team, led by Dr Jem Rashbass and Dr Michael Eden (Public Health England, UK) and Professor Eva Morris (University of Leeds, UK) explored this topic.

They worked on two hypotheses:

- Patients who die shortly after diagnosis may be more likely to be living with one or more health condition(s) (comorbidities) which could affect the treatment they receive and their chances of surviving.
- High quality cancer registration is essential for the calculation of cancer survival rates which underpin the core benchmark study. Differences in how data is collected and captured within cancer registries could be contributing to variations in 1-year survival calculations.

Cancer registration practice

Semi-structured interviews were conducted with key informants (face-to-face and by telephone). Variation in practices, data sources and definitions used to register cancer patients were documented for each jurisdiction.[21]

Important differences were found in definitions of the date of diagnosis used, the handling of death certificate only cases and registration of multiple primaries. The extent to which these differences affect 1-year survival calculations was estimated.

Preliminary findings

The unpublished results suggest that differences in cancer registration practices do impact on 1-year survival calculations. The estimated impact varies by cancer site and by jurisdiction. The survival gap bridged between jurisdictions with the highest and lowest 1-year survival ranges up to 30%.[21]

These differences demonstrate that survival calculations are sensitive to the availability and use of data sources, and the interpretation of variables such as dates.

These findings have implications for existing efforts to ensure consistent registration practices and common definitions are applied to enable robust international comparisons. In the meantime, further research is required to confirm how international survival comparisons should adjust for differences in cancer registration practices that impact on 1-year survival.

Country focus (cancer registration): **Sweden**

- Sweden has the highest 1-year survival for lung and breast cancer out of all the ICBP jurisdictions.[2]
- Cases notified via death certificate only are not routinely followed up in Sweden, this could inflate 1-year survival calculations.[21]

Comorbidities

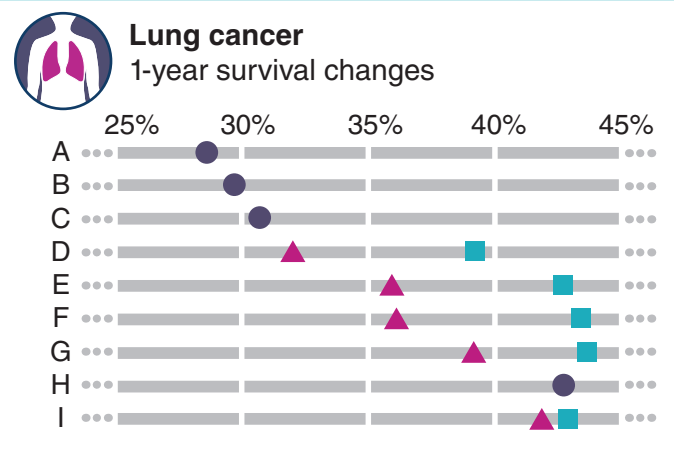
Cancer registry records for lung cancer patients diagnosed between 2009 and 2012 were linked with routine hospital admission datasets in Australia (New South Wales and Victoria), Canada (Alberta and Ontario), Norway and the UK. The aim was to determine if it was feasible to generate comparable data on the number of lung cancer patients living with one or more health conditions (comorbidity).[22]

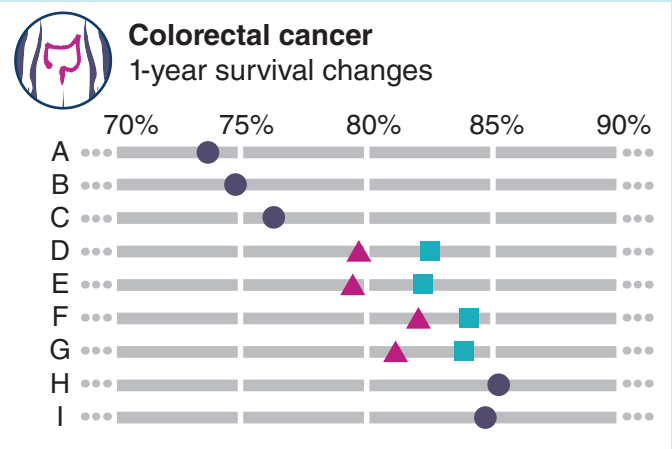
Three measures of comorbidity were derived, the Charlson score, the Elixhauser score and total hospital stay based on each patient's hospital admissions in the three years prior to their lung cancer diagnosis. Analyses then explored whether these scores were comparable and robust enough to investigate whether the international differences we see in survival were explained by levels of comorbidity in each country's lung cancer population.

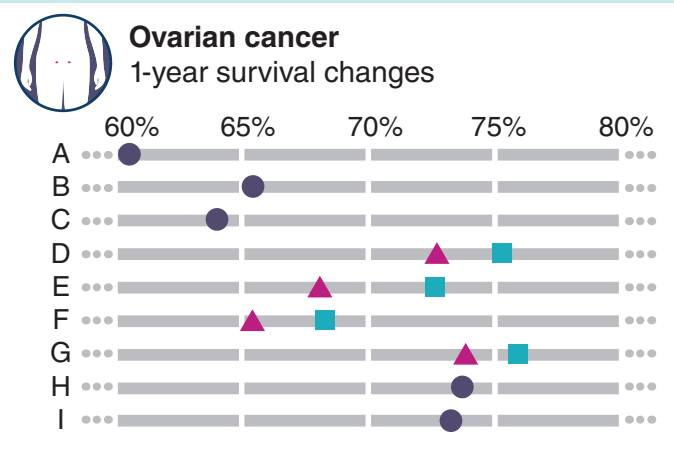
Preliminary findings

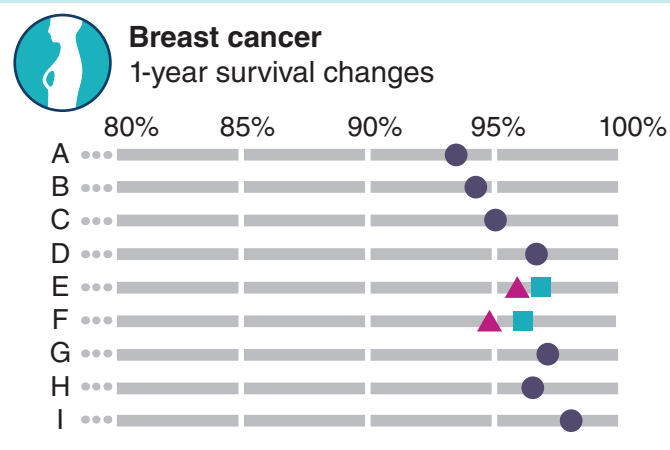
This is the first study to demonstrate that it is possible to generate comorbidity scores across multiple jurisdictions using linked routine population-based datasets. These scores predicted short-term survival within each jurisdiction. Hospital admission patterns and coding practices varied considerably between each jurisdiction and this limited the comparability of the comorbidity scores. Further work is required to standardise comorbidity data collections to enable investigations about the impact on international cancer survival differences.

Differences in cancer registration practice: adjusted and unadjusted 1-year relative survival estimate by tumour site and anonymised ICBP jurisdictions









Unchanged Adjusted Unadjusted

How is the ICBP governed?

The strategic direction of the partnership is set by an international programme board, comprising representatives from all jurisdictions:

Heather Bryant, Canadian Partnership Against Cancer, Toronto, Canada (Chair)

David Currow, Cancer Institute New South Wales, Sydney, Australia (Deputy Chair)

Violet Platt, Department of Health, Western Australia, Perth, Australia

Nicola Quin, Cancer Council Victoria, Melbourne, Australia

David Ransom, Department of Health, Western Australia, Perth, Australia

Robert Thomas, Department of Health Victoria, Melbourne, Australia

Kathryn Whitfield, Department of Health Victoria, Melbourne, Australia

Nicole Mittmann, Cancer Care Ontario, Toronto, Canada

Sri Navaratnam, Cancer Care Manitoba, Winnipeg, Canada

Søren Brostrøm, Danish Health Authority, Copenhagen, Denmark

Kerri Clough-Gorr, National Cancer Registry, Cork, Ireland

Claire Austin, Cancer Society of New Zealand, Wellington, New Zealand

Christopher Jackson, Southern District Health Board, Dunedin, New Zealand

Stein Kaasa, University Hospital Oslo, Norway

Gunilla Gunnarsson, Swedish Association of Local Authorities and Regions, Stockholm, Sweden

Anna Gavin, Northern Ireland Cancer Registry, Queens University, Belfast, UK

Jane Hanson, Welsh Cancer National Specialist Advisory Group, Public Health Wales, Cardiff, UK

Christopher Harrison, National Clinical Director for Cancer, NHS England, London, UK

Sara Hiom, Cancer Research UK, London, UK

Aileen Keel, Scottish Government, Edinburgh, UK

The board also oversees the partnership's research, which in turn is led by academic chairs working closely with collaborators across all jurisdictions. Academic reference groups and clinical committees provide additional independent input into research proposals and analyses. Cancer Research UK provides programme management to the partnership.

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Our collaborators and funders

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Cancer Control Alberta (Canada)
Cancer Council Victoria (Australia)
Cancer Institute New South Wales (Australia)
Cancer Research UK (UK)
Cancer Society of New Zealand (New Zealand)
CancerCare Manitoba (Canada)
Cardiff University (UK)
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Danish Health Authority (Denmark)
Department of Health (UK)
Department of Health and Human Services, Victoria (Australia)
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Grwp Cynghori Arbenigol Cenedlaethol Canser – Cancer National Specialist Advisory Group (UK)
Guidelines and Audit Implementation Network (GAIN) (UK)
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United Kingdom Association of Cancer Registries (UK)
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Information

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