Cancer Survival Indicators for Clinical Commissioning Groups in England

Prepared by:

Feasibility Study

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BACKGROUND

A national cancer survival index was developed by the Cancer Survival Group in 2007 to support Cancer Research UK's ten strategic goals for 2020¹. It was updated in 2009. The construction of these indexes was designed to address a specific question from Cancer Research UK: can cancer survival, say, at five years since diagnosis, be summarised by a single measure, which can then be used to monitor progress based on time trends? Beyond purely statistical issues, this requirement imposes constraints of robustness, comparability over time, and interpretability. The cancer survival index we developed has since been applied in several settings, in particular to examine geographical and temporal variations in cancer survival at Primary Care Trust level ²⁻⁴.

WORK SPECIFICATION

The Cancer Survival Group has been commissioned by the Department of Health of England to deliver, by 31 March 2013, a methodological report on the extent to which the Clinical Commissioning Groups (CCGs) that will come into formal existence on 1 April 2013 could reliably be used as the geographic basis for the construction of a cancer survival index. The principles underlying the cancer survival index that will be examined in this report are the same as those follow developed for the national cancer survival indices mentioned above.

It is important to highlight that, because of the extremely large number of estimates that are required to construct survival indices for each and every CCG, the challenge was to find an approach that is not only statistically robust, but is also feasible for routine use.

ADULT CANCER SURVIVAL INDICATOR

MATERIALS AND METHODS

Data

Cancer registration data and deaths

This feasibility study is based on data provided by the National Cancer Registry at the Office for National Statistics (ONS). Individual tumour records for all adults (aged 15-99 years) diagnosed with a first, primary, invasive malignancy in England during 1996-2010 were extracted on 18 May 2012 ⁵.

The National Health Service Central Register routinely updates the individual tumour registration records with information on each patient's vital status (alive, dead or not traced). The vital status was updated for all these patients on 31 December 2011 and it was known for 99.9% of these patients.

Prostate cancer was excluded from all analyses at the request of the Department of Health, because it is more difficult to interpret survival trends for this cancer since the introduction of the PSA test. Our previous work has shown that whilst this does affect the level of the index, and makes it somewhat more difficult to describe as an "all-cancers survival index", this exclusion does not appear to alter substantially the geographic distribution of the index. After exclusion of prostate cancer, cancers of colorectum, lung and breast (in women) account for 49% of all cancers (excluding prostate) in England. The analysis was based on four separate datasets: colon and rectum combined, lung, breast (women), and all others cancers combined in a single dataset.

Population life tables

Life tables are required for the estimation of cancer survival, in order to account correctly for the expected survival in the general population. The complete life tables that we used comprise a set of all-cause mortality rates per 100,000 population in England by single year of age (0-99 years), sex, Government Office Region (GOR) and deprivation quintile, for each calendar year ⁶.

Geographic units of analysis

This report is based on the new geographic units of the English health system: the 211 Clinical Commissioning Groups (CCGs). For this feasibility analysis, an approximate 10% sample of 22 CCGs was selected to cover a wide range of the annual number of cancer patients (low, medium and high). The populations of these areas were not available to us, but at a first approximation (assuming equal cancer incidence), this will be proportional to the annual number of cancer diagnoses among residents in each territory. This selection was based on mapping the provisional CCG boundaries, provided by ONS, to the cancer data on the basis of the postcode of residence at diagnosis. Updated boundaries will become available shortly, but they are not expected to alter greatly the populations attributed to the CCGs, or the conclusions we draw from these analyses. The selected CCGs were:

NHS Bradford City CCG
NHS Bury CCG
NHS Hastings & Rother CCG
NHS Herts Valleys CCG

NHS Cambridgeshire and Peterborough CCG NHS Newark & Sherwood CCG

NHS Coastal West Sussex CCG NHS North East Hampshire and Farnham CCG

NHS Corby CCGNHS Oxfordshire CCGNHS Crawley CCGNHS Portsmouth CCGNHS Darlington CCGNHS Salford CCG

NHS Dorset CCG

NHS South Reading CCG

NHS East Leicestershire and Rutland CCG

NHS Erewash CCG

NHS Vale Royal CCG

NHS Gloucestershire CCG

NHS West Hampshire CCG

In the tables of results, the names of each CCG have been randomly replaced by a letter ("A", "B", etc.), because this is a feasibility study, not a report designed for managerial use. In any case, CCGs cannot be responsible for outcomes that predate their existence.

Analytic strategy

CCG and national cancer survival indices

The principles behind a single index of cancer survival, as used in this report, were established in 2007. At that time, Cancer Research UK was interested in summarising cancer survival at the national level, say, at five years since diagnosis, by a single measure of progress that could then be monitored over time. The cancer survival index was later used to examine geographical and temporal variations in cancer survival at PCT level.

To build a single index of cancer survival, separate estimates of survival are required for each combination of:

- Geographic area (here, the CCG)
- Cancer or group of cancers, defined here as
 - o Breast (women)
 - o Colon and rectum combined
 - o Lung
 - All other cancers combined (except prostate)
- Age group: we used two different configurations:
 - o Configuration 1: 15-44, 45-54, 55-64, 65-74, 75-99
 - o Configuration 2: 15-49, 50-69, 70-99
- Sex
 - Male
 - o Female
- Year of diagnosis
 - o Individual years in 1996-2010 for the one-year survival indices
 - o Individual years in 1996-2007 for the five-year survival index, to allow for a potential five-year follow-up period for all patients.

As an example, in order to construct an all-cancer survival index for a single CCG, based on the first configuration of age groups, we require **525** survival estimates for each combination of age-group (5), sex (2, except for breast cancer), group of cancers (4), and calendar year (15).

The index is then constructed as a weighted sum of these survival estimates. The weights are chosen to keep the age- and sex-specific proportion of cases in a given cancer group constant over time. This means that the index is not affected by changes over time or geographical differences between CCGs in the distribution of incident cancers. An alternative view would be that the index is standardised for the distributions of age, sex and cancer site.

In other words, the survival index will only change over time (or vary between CCGs) if the levels of survival for a particular cancer or age group change over time (or differ between CCGs).

We have attempted to construct eight separate cancer survival indexes, four at the level of the CCG and four at the national level:

- 1. *CCG* index at *one* year after diagnosis for *all cancers* combined
- 2. **CCG** index at **five** years after diagnosis for **all cancers** combined
- 3. National index at one year after diagnosis for all cancers combined
- 4. National index at five years after diagnosis for all cancers combined
- 5. **CCG** index at **one** year after diagnosis for **three cancers combined**: **breast (women)**, **colon and rectum**. **and luna**
- 6. **CCG** index at **five** years after diagnosis for **three** cancers combined: breast (women), colon and rectum, and lung

- 7. National index at one year after diagnosis for three cancers combined: breast (women), colon and rectum, and lung
- 8. **National** index at **five** years after diagnosis for **three cancers combined: breast (women), colon and rectum, and lung**

Statistical methods

The cancer survival indices constructed are based on net survival, which is the technical term used to describe the survival of cancer patients in the hypothetical situation of the absence of competing causes of death. Within the relative survival setting (i.e. without reliable information on individual cause of death), the excess (cancer-related) mortality is estimated by adjusting the observed (all-cause) mortality for the expected (background) mortality. The background mortality is derived from life tables that reflect the all-cause mortality in the populations from which the cancer patients originate.

Unbiased estimation of net survival requires the informative censoring bias to be corrected for. Informative censoring means that death from cancer is less likely to be observed for certain categories of patients. Within the relative survival setting, unbiased estimates of net survival are obtained with the non-parametric Pohar-Perme estimator ⁷ or a modelling approach ^{8,9}. In order to account for the informative censoring due to for example age, the latter approach consists in modelling age carefully. Univariable or descriptive approaches such as the Pohar-Perme estimator are not viable with sparse data because they lead to very unstable survival estimates and a high proportion of missing estimates for certain age groups and cancers. Instead, we used flexible parametric regression models for the excess mortality hazard. This is currently the only validated approach available to produce such routine survival indicators. Both age and year of diagnosis were modelled continuously with cubic splines, in order to minimise the number of missing survival estimates for each combination of cancer, age, sex, year and CCG, and to improve the reliability of the estimates, despite the sparseness of the data. Time dependence of the excess hazard of age and year was also considered if necessary. Selection of the 'best' model was based on the Akaike Information Criterion ¹⁰. The models were applied independently for each of the 22 selected CCGs. Background mortality was taken from annual life tables for each of five deprivation categories and each of the 9 regions of England. The model-based standard errors of the survival estimates were derived from 15 years of incidence data, so the overall fit of each model, given the data, was good: this produced relatively small standard errors, considering the sparseness of the data. Such standard errors do not reflect the internal reliability of the estimates accurately and they will not be reported here.

RESULTS

Scenario 1 (based on age-group configuration 1)

Within this more detailed configuration of age groups, we first analysed the survival index at one year since diagnosis.

The statistical reliability of net survival estimates depends strongly on the number of events (deaths) that contribute to the estimate. In turn, this depends on both the number of patients who are diagnosed (the incidence rate, and the size and age(-sex) distribution of the underlying population) and the lethality of the tumour, which also varies with age and sex, and over time, as well as between geographic areas. The range and variability in the numbers of cases and deaths included in the analyses for each combination of age-

group, sex and cancer in each CCG are important guides to the precision of the net survival estimates, and in turn to the reliability of the indicators as comparative measures of performance.

For many of the 22 CCGs in our sample, the total number of cases (even over 15 years of incidence combined) was very low, around or below 50, especially for the age group 15-44 years. This was so for 14 of the 22 CCGs for colorectal cancer, 20 for lung cancer and 1 for breast cancer (Table 1). Combining the two younger age groups would not have helped much. For colorectal cancer, the situation was similar in the next age group (45-54) in 7 out of the same 14 CCGs. Comparable patterns were found in 7 of the same 20 CCGs for lung cancer, and in the same CCG for breast cancer.

Further, during certain years, not a single patient aged 15-44 years was recorded as having been diagnosed with colorectal cancer in 13 of the 22 CCGs or with lung cancer in 17 of the 22 CCGs. Within certain of the CCGs, there was no patient aged 15-44 years in up to 7 of the 15 calendar years for colorectal cancer and up to 11 of the 15 calendar years for lung cancer.

It should be remembered that we selected some of the smallest and largest CCGs in order to test the feasibility of the indices for all CCGs: if the index (or indices) are statistically viable for these CCGs, we can be confident that they will be generally viable for all CCGs. The proportion of CCGs for which we encountered difficulties (e.g. 17 of 22 CCGs for lung cancer) should not therefore be assumed to be applicable to all CCGs.

We needed to produce survival estimates for each cancer, age group, sex and calendar year for each CCG. Therefore, for each age group and for each cancer or group of cancers, we then examined each of the 660 combinations of CCG (22), sex (2) and calendar year of diagnosis (15) to determine how many of these combinations only had zero, one, or two or more deaths to be included in survival analyses. For breast cancer in women, there were 330 combinations. We did this separately for deaths up to one year after diagnosis and for deaths between the first and fifth anniversaries of diagnosis.

The number and proportion of such combinations (CCG, sex, year) in each age group that contained 0, 1 or 2 or more deaths are shown in Tables 2 and 3. For cancers of the colorectum, lung and breast, more than two-thirds of the combinations of sex, calendar year and CCG contained no death within one year of diagnosis in the age group 15-44 years. No deaths were recorded in half the combinations for the age group 45-54 years (Table 2). Very high proportions of the combinations (67% for colorectum, 86% for lung) did still not contain any death between one and five years after diagnosis for the age group 15-44 years (Table 3).

Despite this very adverse context, estimation of net survival was still possible if a specific cell of the analysis (CCG, cancer, age group, sex, year of diagnosis) contained at least one patient (regardless of whether a death occurred), because age and year were modelled as continuous variables. However, survival estimates were still missing for 668 (5.8%) out of the 11,550 possible combinations of cancer (4), age (5), sex (2 except for breast cancer), year (15) and CCG (22). Almost all these missing estimates arose for colorectal (8.1% of the combinations) and lung (12.1%) cancers.

Based on these results, a survival index based on this configuration of vie age groups did not look feasible. We focussed our remaining investigations only on the broader configuration of 3 age groups.

Scenario 2 - based on age-group configuration 2

We consider one-year survival, first at CCG level, then at national level. We then turn to five-year survival, again first at CCG level, then at national level.

CCG level: one-year net survival index

For each cancer or group of cancers, the vast majority of the combinations of CCG, sex and year of diagnosis for which no death was reported within one year of diagnosis arose in the youngest age group, 15-49 years (Table 4, first row in each block). In this age group, no death was seen in almost two thirds (62%) of the combinations for colorectal cancer and about a third (35%) for lung cancer.

We were nevertheless able to estimate one-year survival in 96.8% of the 6,930 combinations by cancer (4), CCG (22), age group (3), sex (2 except for breast) and year of diagnosis (15) (data not shown). The 240 (3.2%) cells for which no one-year survival estimate could be obtained were almost exclusively those for patients aged 15-49 years diagnosed with colorectal (83) or lung cancer (153).

• Spatial variation in cancer-specific survival estimates between the 22 selected CCGs

The distributions of survival estimates by sex and CCG in any given year illustrate the variability of these estimates between CCGs. These distributions were consistent over time, so only 'box plots' are presented for the selected years 1996, 2003 and 2010 (Figures 1).

Each box plot shows the median value, the inter-quartile range (the 'box', which covers the 50% of all values that lie between the 25th and 75th centiles) and approximate 95% confidence limits; extreme outliers are shown as separate dots.

In each calendar year, the range of CCG estimates for lung cancer was just under 40% among patients aged 15-49 years, far above the expected variation. A similar pattern, although less marked, was observed for patients diagnosed with colorectal cancer aged 70-99 years.

Temporal stability of survival estimates for each CCG over the 15 years 1996-2010

o Cancer-specific (colorectum, lung, breast, others) – all ages combined

For cancers of the lung and breast, and for all other cancers combined, trends in the survival index over the 15 incidence years were essentially monotone. For colorectal cancer and in a few of the 22 CCGs, temporal instability was more apparent, with year-on-year absolute changes of up to 4% in the survival index for all ages combined (data not shown).

Colorectal cancer: survival estimates for the age group 50-69 years were generally stable over time. For both younger (15-49 years) and older patients (70-99 years), temporal instability was more marked, with absolute year-to-year changes in excess of 5% in some CCGs (data not shown).

Lung cancer: temporal trends in survival were very stable for ages 50-69 and 70-99 years. Year-to-year fluctuations reached 10% for patients aged 15-49 years (data not shown).

Breast cancer: estimates were very stable over time for women aged 15-49 and 50-69 years. Since almost all the one-year survival estimates exceeded 90%, a ceiling effect may partially explain this stability. By contrast,

wider year-to-year variation (greater than 2%) was observed among women aged 70-99 years for about a third of the 22 CCGs (data not shown).

All other cancers combined: the age-specific trends were very similar to those observed for breast cancer, despite lower levels of survival (data not shown).

o Overall (all cancers combined) survival indices

In each of the 22 CCGs, the trend in the overall (all-cancers) survival index over the 15 calendar years 1996-2010 was essentially monotone. Patterns by age group were also fairly steady for most of the 22 CCGs (Figure 2).

o Three-cancer survival indices

For all the CCGs, the trend in the three-cancer survival index was almost identical to the trend in the overall survival index. Steady upward trends were observed over the 15 incidence years. The level of the three-cancer survival index was also very similar to the overall (all-cancers) survival index, both for all ages combined and for each of the three age groups (Figure 3).

National level: one-year net survival index

As expected, the national cancer survival index was very stable, both for the overall (all-cancers) and the three-cancers combined indexes (Figure 4). With the whole of England as the geographic unit, it was possible to obtain stable estimates of one-year net survival for every combination of sex, age group, cancer group and calendar year.

Trends in one-year survival over the 15 years of incidence were very similar for the all-cancers index and the three cancers index. The one-year survival index for all cancers combined rose steadily from 60% in 1996 to 68% in 2010 (Figure 4, left-hand panel). The one-year survival index for the three cancers combined rose from 58% in 1996 to 66% in 2010 (Figure 4, right-hand panel).

CCG level: five-year net survival index

Five-year survival was only estimated in 66% of the 5,544 combinations by CCG, cancer, age, sex and year (in this case only for the 12 years 1996-2007). The 1,901 (34%) cells with no five-year survival estimate occurred almost exclusively for patients aged 15-49 years (1,049) who were diagnosed with colorectal (448) or lung cancer (514).

Given the high proportion of missing survival estimates, it was not possible to construct an overall survival index at five years after diagnosis.

Similarly, it was not possible to construct a three-cancer survival index at the CCG-level given the high proportion of missing survival estimates, again mainly for colorectal and lung cancers.

National level: five-year net survival index

For England as a whole, it was possible to estimate five-year net survival for every combination of sex, age group, cancer group and the 12 calendar years 1996-2007.

Trends in the national index of five-year all-cancers survival over the period 1996-2007 were stable, and very similar to those seen for the national index for one-year survival. The all-cancers five-year survival index rose steadily from 34% in 1996 to 40% in 2007 (Figure 5, left-hand panel), and from 30% in 1996 to 36% in 2007 for the three-cancers index (Figure 5, right-hand panel).

SUMMARY OF THE RESULTS

CCG-level: one-year net survival index

Estimating a one-year net survival index at CCG level with <u>five age groups</u> was not feasible for a high proportion of combinations by CCG, cancer, sex, age and year of diagnosis, even when cancer groups were limited to colorectum, lung, breast (women), and all other cancers combined.

The number of missing estimates at CCG level was dramatically reduced by switching to just <u>three broad age</u> <u>groups</u>.

The following discussion is restricted to survival indices based on three age groups.

Although the age-specific survival estimates were unstable in many CCGs for all four cancer groups, particularly colorectal and lung cancers, we noticed that:

- Estimates of the overall (all-cancers) one-year survival index were very stable over the 15 years 1996-2010, both for all ages combined and for each of the three broad age groups
- Estimates of the three-cancers survival index at one year since diagnosis were very similar to those
 for the overall index, again with very stable trends for all ages combined and for each of the three
 specific age groups.

National level: one-year net survival index

Both the all-cancers and three-cancers indices were stable, with a steady increase over the 15-year period 1996-2010.

CCG level: five-year net survival index

Estimating a five-year net survival index at the level of the CCG was not possible, either for all cancers combined or for the three common cancers combined, even when the age configuration was restricted to three broad age groups.

National level: five-year net survival index

As with the one-year national survival indices, the five-year survival indices were stable, with a steady increase in survival over the 12 years 1996-2007, both for all cancers combined and for the three common cancers combined.

RECOMMENDATIONS

- 1. CCGs **CAN BE** be used to construct a **ROBUST** overall (**all-cancers**) **combined** cancer survival index at **ONE year** since diagnosis.
- 2. CCGs **CAN BE** used to construct a **ROBUST** three-cancers combined (breast (women), colorectum and lung) cancer survival index at **ONE** year since diagnosis.

We note that when trying to construct the overall survival index, we found circa 3.2% of missing estimates for any combination of cancer, age, sex, year and CCG. Since one of the main requirements for the construction of the cancer survival index is that an estimate has to exist for all the combinations, we suggest two possibilities in order to allow for the construction of the overall indexes at **ONE** year since diagnosis, without loss of reliability or precision of the index:

- a. Replace the missing estimate for a given CCG by the estimate of a merged age group, say, instead of 15-49 and 50-69, use an estimate for the age-group 15-69; alternatively, replace the missing estimate by the estimate for the nearest age group that it is possible to make for that same CCG.
- b. Replace the missing estimate for a given CCG by the corresponding age-, sex-, cancer-, and year-specific estimate at national level.

These two suggestions to replace the missing estimates are far from ideal, but given the current statistical methodology for cancer survival, these are the best approaches to handle the small-area estimation problem routinely, at least until more adequate methods have been developed.

- 3. CCGs **SHOULD NOT** be used to construct an **overall combined** cancer survival index at **FIVE years** since diagnosis.
- 4. CCGs **SHOULD NOT** be used to construct a **three-cancers combined** (breast (women), colorectum and lung) cancer survival index at **FIVE years** since diagnosis.

We emphasise firmly that the suggestions made above to replace the missing estimates for the one-year indices are **NOT** valid for the five-year index. This is due to the extremely high proportion of missing estimates (circa 66%) for any combination of cancer, age, sex, year and CCG. Replacing such a high proportion of missing estimates can seriously bias the survival level for any given CCG.

- 5. **ROBUST national cancer survival indices CAN** be constructed for both one and five years after diagnosis for all cancers combined.
- 6. **ROBUST national cancer survival indices CAN** be constructed for both one and five years after diagnosis for three cancers combined (breast (women), colorectum and lung).

FURTHER CAUTIONS IN INTERPRETATION

This report has focused strictly on statistical aspects of the feasibility of certain indices of cancer survival, at the geographic level of the Clinical Commissioning Groups that are being introduced in England on 1 April 2013.

We have adopted the standard approaches used in many countries world-wide to estimate cancer survival for resident populations based on geographic territories, as used over many years to assist health service organisations that are responsible for the planning, delivery and evaluation of health care for all members of that resident population. CCGs are list-based organisations.

Our results do not imply that the cancer survival indices we have examined would necessarily have any valid interpretation in terms of health policy. To enable such interpretation, the 'catchment population' (or combined GP practice lists) for each CCG would need to correspond very closely to the resident population of the territory that has been designated for that CCG. Such a condition has yet to be demonstrated.

CHILDHOOD CANCER SURVIVAL INDICATOR

Data

Data were extracted from the National Registry of Childhood Tumours for 21,871 children (0-14 years) who were resident in England when diagnosed during 1990-2006 with a malignant neoplasm or a non-malignant CNS tumour included in the International Classification of Childhood Cancer (third edition¹¹). Death-certificate-only (DCO) cases were excluded (N = 74), leaving 21,797 cases for analysis. Follow-up was complete to 31 October 2012, via routine receipt of death certificates and flagging at the NHS Central Register (NHSCR), except for 72 patients who could not be traced at NHSCR and 196 patients who had emigrated. Untraced cases were censored at the date of last follow-up if known, or at the date of diagnosis, whilst those who had emigrated were censored on the date of "embarkation".

Results

Comparison of age-standardised and crude survival for childhood cancer in England, 1990-2006

Actuarial 5-year observed survival by calendar year of diagnosis for children aged 0-4, 5-9, 10-14 and 0-14 years at diagnosis is shown in Table 6. Trends by age group, and for all ages combined, are shown in Figures 6 and 7. Age-standardised survival estimates were constructed with equal weights for the three age groups 0-4, 5-9 and 10-14 years: these are in effect the simple arithmetic mean of the age-specific survival estimates (Table 6).

The absolute difference between crude (unstandardised) and age-standardised 5-year survival estimates was less than 1% in every year of the period 1990-2006, and less than 0.5% for 14 of those 17 years. The absolute difference between the paired survival estimates (age-standardised survival minus crude survival) was positive for 11 of the 17 years and negative for 6 years, ranging from -0.78% (2003) to +0.77% (1991).

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Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Table 2

Number of deaths (0, 1, 2 or more) within one year of diagnosis: distribution among all possible combinations of age group (5), sex (2 except for breast cancer), calendar year (15) and CCG (22): selected cancers, England, 1996-2010 (age-group configuration 1)

Table 3

Number of deaths (0, 1, 2 or more) between the first and fifth anniversaries of diagnosis: distribution among all possible combinations of age group (5), sex (2 except for breast cancer), calendar year (15) and CCG (22): selected cancers, England, 1996-2010 (age-group configuration 1)

Table 4

Number of deaths (0, 1, 2 or more) within one year of diagnosis: distribution among all possible combinations of age group (3), sex (2 except for breast cancer), calendar year (15) and CCG (22): selected cancers, England, 1996-2010 (age-group configuration 2)

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Table 6

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Figure 1

Distribution (box-plots) of estimates of one-year net survival by age group (3) and cancer: selected years, England, 22 selected CCGs (age-group configuration 2)

Each box plot shows the median value, the inter-quartile range (the 'box', which covers the 50% of all values that lie between the 25th and 75th centiles) and approximate 95% confidence limits; extreme outliers are shown as separate dots.

Figure 2

Clinical Commissioning Groups: Temporal trends in the one-year survival index, all cancers combined, for all ages (top left panel) and for three broad age groups: 22 selected CCGs, England, 1996-2010

Figure 3

Clinical Commissioning Groups: Temporal trends in the one-year survival index, three common cancers combined, for all ages (top left panel) and for three broad age groups: 22 selected CCGs, England, 1996-2010

Figure 4

England (left-hand panel): Temporal trends in the **one-year** survival index, **all cancers combined**, for three broad age groups and all ages combined: England, 1996-2010

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Figure 5

England (left-hand panel): Temporal trends in the **five-year** survival index, **all cancers combined** for three broad age groups and all ages combined: England, 1996-2007

England (right-hand panel): Temporal trends in the **five-year** survival index, **three common cancers** combined, for three broad age groups and all ages combined: England, 1996-2007

Figure 6

Childhood cancer: trends in 5-year crude and age-standardised survival (%) for children (0-14 years) diagnosed in England during 1990-2006, by year of diagnosis

Figure 7

Childhood cancer: trends in 5-year survival (%) for children (0-14 years) diagnosed in England during 1990-2006, by year of diagnosis and age group

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Breast	Α	15-44	8	9	6	11	7	9	7	8	9	8	7	8	9	2	4	112
		45-54	16	6	23	15	12	24	9	12	13	20	21	9	26	10	17	233
		55-64	12	6	23	19	11	15	10	10	8	22	6	13	29	9	22	215
		65-74	11	8	16	6	9	10	12	9	9	25	9	16	13	9	19	181
		75+	16	9	21	14	16	17	21	19	10	21	17	18	16	18	8	241
		All ages	63	38	89	65	55	75	59	58	49	96	60	64	93	48	70	982
	В	15-44	13	11	10	16	13	15	17	12	13	17	8	15	12	14	22	208
		45-54	27	25	19	23	21	35	21	32	30	22	27	16	17	37	27	379
		55-64	21	23	29	28	30	29	43	31	31	41	30	32	25	35	48	476
		65-74	30	21	28	16	23	22	22	26	29	19	25	28	26	22	21	358
		75+	25	29	18	27	24	27	28	26	28	23	28	26	31	27	31	398
		All ages	116	109	104	110	111	128	131	127	131	122	118	117	111	135	149	1,819
	С	15-44	10	14	24	8	12	22	14	12	18	17	19	17	13	24	17	241
		45-54	28	33	29	30	22	22	31	19	21	32	29	34	22	24	31	407
		55-64	24	26	18	43	31	16	37	31	32	42	33	40	40	36	27	476
		65-74	29	15	20	22	32	17	25	28	28	28	37	24	35	31	26	397
		75+	38	39	38	37	30	40	40	30	29	29	31	32	32	34	28	507
		All ages	129	127	129	140	127	117	147	120	128	148	149	147	142	149	129	2,028
	D	15-44	5	6	10	8	6	13	8	10	8	9	6	3	8	16	7	123
		45-54	8	24	6	17	12	7	12	14	12	7	20	7	11	18	9	184
		55-64	5	18	9	14	22	7	15	26	7	22	26	4	14	32	12	233
		65-74	7	8	20	12	15	12	12	24	11	11	20	5	12	24	3	196
		75+	11	8	9	14	17	12	10	6	13	9	16	7	21	17	17	187
		All ages	36	64	54	65	72	51	57	80	51	58	88	26	66	107	48	923
	E	15-44	2	3	4	2	2	3	6	1	3	1	2	2	5	6	7	49
		45-54	5	3	4	5	1	5	6	1	3	2	4	4	3	3	4	53
		55-64	2	5	5	6	4	2	6	2	5	12	1	4	6	3	1	64
		65-74	3	2	6	5	1	4	3	5	2	3	4	7	8	1	4	58
		75+	11	4	4	7	10	8	2	7	3	3	3	6	6	5	4	83
		All ages	23	17	23	25	18	22	23	16	16	21	14	23	28	18	20	307
	F	15-44	6	4	4	2	4	2	6	5	10	6	3	12	3	4	6	77
		45-54	6	9	5	5	14	3	4	6	3	12	8	2	9	6	12	104
		55-64	6	7	5	4	14	7	10	14	6	19	7	2	20	8	5	134
		65-74	3	3	3	8	5	4	3	9	9	14	8	5	11	9	6	100
		75+	5	2	8	10	2	9	4	11	7	8	5	10	9	4	8	102
		All ages	26	25	25	29	39	25	27	45	35	59	31	31	52	31	37	517
	G	15-44	22	23	17	27	17	21	18	26	31	26	24	20	24	24	33	353
		45-54	34	44	31	57	48	40	62	35	40	59	33	42	61	40	54	680
		55-64	37	34	35	56	43	38	78	51	49	89	47	47	85	43	42	774
		65-74	31	29	33	41	34	41	49	51	21	68	50	41	79	50	54	672
		75+	33	25	33	49	38	45	52	44	50	57	54	53	49	43	65	690
		All ages	157	155	149	230	180	185	259	207	191	299	208	203	298	200	248	3,169

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Breast	Н	15-44	13	8	6	5	6	5	3	8	14	11	6	5	7	8	4	109
		45-54	14	8	15	8	13	13	10	13	12	13	6	15	9	17	17	183
		55-64	13	15	12	9	16	12	16	20	17	19	18	18	16	14	12	227
		65-74	7	7	6	14	10	7	14	15	11	12	10	11	16	10	18	168
		75+	18	9	7	11	11	20	12	14	18	18	9	11	13	20	14	205
		All ages	65	47	46	47	56	57	55	70	72	73	49	60	61	69	65	892
	- 1	15-44	7	6	8	8	2	9	7	7	10	11	11	5	12	8	9	120
		45-54	20	20	15	15	17	16	12	16	23	18	20	25	10	15	21	263
		55-64	11	10	15	16	22	19	16	24	31	14	22	30	14	22	30	296
		65-74	15	10	17	14	14	10	9	18	15	9	15	13	10	19	18	206
		75+	9	14	12	11	13	20	12	13	17	12	22	13	19	32	24	243
		All ages	62	60	67	64	68	74	56	78	96	64	90	86	65	96	102	1,128
	J	15-44	63	59	49	64	45	69	61	65	73	68	76	74	59	73	66	964
		45-54	109	118	101	112	138	147	110	122	121	117	104	114	129	136	128	1,806
		55-64	78	78	106	119	104	84	161	183	129	154	137	131	126	177	160	1,927
		65-74	66	68	75	84	80	79	94	113	148	104	104	111	129	129	98	1,482
		75+	85	91	104	123	107	118	131	111	123	139	129	125	128	130	123	1,767
		All ages	401	414	435	502	474	497	557	594	594	582	550	555	571	645	575	7,946
	K	15-44	39	41	54	42	43	42	43	45	46	40	51	38	34	39	55	652
		45-54	79	92	86	109	82	67	78	81	66	67	78	76	88	106	107	1,262
		55-64	83	84	68	86	98	51	103	93	78	99	84	90	92	94	98	1,301
		65-74	70	74	53	72	62	63	67	48	63	85	74	77	76	60	79	1,023
		75+	81	80	98	63	76	92	66	87	84	112	105	84	98	106	88	1,320
		All ages	352	371	359	372	361	315	357	354	337	403	392	365	388	405	427	5,558
	L	15-44	28	31	37	32	43	30	41	34	31	35	28	33	31	35	28	497
		45-54	55	55	76	65	70	68	69	68	57	60	59	45	68	70	69	954
		55-64	81	62	91	77	82	95	113	74	72	94	80	84	112	100	85	1,302
		65-74	76	93	77	68	59	87	69	72	75	71	115	81	102	88	77	1,210
		75+	113	105	114	100	129	129	121	118	93	107	100	112	122	103	116	1,682
		All ages	353	346	395	342	383	409	413	366	328	367	382	355	435	396	375	5,645
	M	15-44	9	6	7	7	9	7	7	7	13	5	11	9	6	8	11	122
		45-54	10	10	8	6	16	9	9	10	5	9	24	13	17	21	8	175
		55-64	4	22	6	11	15	6	13	14	8	13	18	11	19	22	11	193
		65-74	13	16	10	7	12	16	9	13	6	12	11	3	13	14	10	165
		75+	11	12	7	8	12	10	8	11	12	16	11	14	12	19	16	179
		All ages	47	66	38	39	64	48	46	55	44	55	75	50	67	84	56	834
	N	15-44	12	5	7	8	19	17	21	9	11	12	13	15	11	10	12	182
		45-54	22	23	23	26	14	22	28	26	22	20	20	23	25	24	25	343
		55-64	27	23	26	41	33	34	17	24	42	39	36	37	31	55	35	500
		65-74	35	34	25	27	39	25	29	35	27	33	24	32	27	35	28	455
		75+	34	38	35	21	36	47	34	46	32	54	37	44	41	35	51	585
		All ages	130	123	116	123	141	145	129	140	134	158	130	151	135	159	151	2,065

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Breast	0	15-44	8	12	4	9	6	5	5	9	9	5	8	5	9	8	11	113
		45-54	14	15	22	26	15	6	12	19	12	19	18	14	16	13	16	237
		55-64	14	14	9	23	10	9	21	21	8	22	15	14	17	17	8	222
		65-74	8	11	14	11	5	7	13	17	15	17	12	6	12	13	7	168
		75+	10	12	10	5	9	9	9	8	11	12	14	18	15	6	14	162
		All ages	54	64	59	74	45	36	60	74	55	75	67	57	69	57	56	902
	P	15-44	55	42	50	46	49	52	57	39	61	55	45	59	54	55	47	766
		45-54	95	81	84	104	92	102	110	112	84	82	88	80	112	100	116	1,442
		55-64	62	69	76	106	90	96	114	128	125	110	112	105	109	105	119	1,526
		65-74	66	60	69	80	67	59	81	71	60	108	101	100	91	81	91	1,185
		75+	72	92	92	95	77	80	85	85	102	111	85	96	104	99	87	1,362
		All ages	350	344	371	431	375	389	447	435	432	466	431	440	470	440	460	6,281
	Q	15-44	18	14	7	10	13	13	15	15	13	8	13	8	17	13	12	189
		45-54	26	19	20	14	21	22	18	21	25	19	25	29	23	13	41	336
		55-64	25	25	32	22	19	26	31	15	41	22	20	38	22	23	37	398
		65-74	23	22	20	21	13	20	14	19	27	23	10	34	25	25	31	327
		75+	40	35	34	31	30	34	30	27	23	25	28	35	29	27	27	455
		All ages	132	115	113	98	96	115	108	97	129	97	96	144	116	101	148	1,705
	R	15-44	11	9	10	9	8	8	11	5	10	4	7	8	4	5	10	119
		45-54	11	14	5	11	5	8	6	13	6	9	6	7	17	9	14	141
		55-64	9	9	10	10	7	13	8	13	15	11	10	8	17	4	11	155
		65-74	9	6	5	12	5	7	4	10	6	9	6	9	8	8	15	119
		75+	7	15	8	12	13	8	10	6	9	12	13	16	8	11	9	157
		All ages	47	53	38	54	38	44	39	47	46	45	42	48	54	37	59	691
	S	15-44	38	26	31	35	45	43	27	41	52	33	40	35	33	29	45	553
		45-54	81	89	87	79	85	87	70	85	66	82	81	53	83	82	72	1,182
		55-64	85	82	82	85	98	71	86	109	96	101	122	96	115	105	90	1,423
		65-74	86	74	59	76	80	54	67	76	67	101	91	72	101	98	65	1,167
		75+	112	84	72	85	81	81	100	81	101	95	101	106	88	106	110	1,403
		All ages	402	355	331	360	389	336	350	392	382	412	435	362	420	420	382	5,728
	Т	15-44	52	45	51	36	52	45	50	57	54	62	63	66	47	46	56	782
		45-54	121	128	99	126	96	114	115	112	89	95	110	99	100	108	119	1,631
		55-64	110	95	117	138	131	143	168	156	145	122	154	154	142	143	145	2,063
		65-74	133	116	124	152	113	124	116	124	100	148	136	143	110	106	122	1,867
		75+	201	173	150	175	187	197	155	185	179	157	166	146	190	165	176	2,602
		All ages	617	557	541	627	579	623	604	634	567	584	629	608	589	568	618	8,945
	U	15-44	46	32	36	50	59	47	51	41	46	56	45	45	46	42	42	684
		45-54	80	81	91	97	86	90	68	80	86	89	96	71	77	85	125	1,302
		55-64	69	72	88	102	78	98	114	124	114	98	115	122	98	91	118	1,501
		65-74	66	59	87	72	73	79	68	95	90	80	71	96	90	86	97	1,209
		75+	86	90	95	112	103	108	116	122	80	101	90	92	117	117	115	1,544
		All ages	347	334	397	433	399	422	417	462	416	424	417	426	428	421	497	6,240

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
	V	15-44	7	16	14	11	11	13	19	17	20	15	18	23	9	16	17	226
		45-54	22	41	28	24	32	25	23	20	22	30	32	32	29	27	34	421
		55-64	22	39	31	17	37	40	17	40	44	24	29	39	42	29	25	475
		65-74	15	22	14	21	21	21	27	18	24	28	20	22	22	14	23	312
		75+	8	24	23	19	20	20	26	20	26	27	22	23	26	24	33	341
		All ages	74	142	110	92	121	119	112	115	136	124	121	139	128	110	132	1,775
Colorectum	Α	15-44	3	2	0	2	3	0	1	0	1	0	0	1	0	4	3	20
		45-54	6	1	4	4	3	7	3	3	5	6	5	5	6	3	4	65
		55-64	9	6	9	5	11	15	6	9	9	13	9	21	14	14	13	163
		65-74	20	22	28	14	18	18	20	13	20	12	17	14	20	14	12	262
		75+	23	19	39	19	28	29	19	30	27	17	25	24	19	16	36	370
		All ages	61	50	80	44	63	69	49	55	62	48	56	65	59	51	68	880
	В	15-44	1	2	2	5	2	4	2	3	2	4	7	5	4	2	6	51
		45-54	6	9	7	12	3	4	8	6	7	9	7	13	4	6	10	111
		55-64	17	14	17	22	19	16	12	19	16	26	14	22	23	33	23	293
		65-74	30	51	20	37	28	30	28	31	36	28	25	35	34	22	33	468
		75+	30	33	37	38	39	37	41	39	40	36	36	43	26	33	49	557
		All ages	84	109	83	114	91	91	91	98	101	103	89	118	91	96	121	1,480
	С	15-44	4	3	5	2	5	2	0	2	2	4	4	4	3	7	2	49
		45-54	9	3	10	13	5	9	7	8	10	9	8	10	9	10	12	132
		55-64	32	24	17	21	20	21	15	15	29	14	26	26	27	18	28	333
		65-74	38	34	34	27	28	33	27	43	47	40	41	52	36	35	29	544
		75+	51	50	48	37	35	45	24	51	28	36	47	54	52	38	40	636
		All ages	134	114	114	100	93	110	73	119	116	103	126	146	127	108	111	1,694
	D	15-44	0	0	2	0	0	1	1	2	0	0	0	1	1	2	4	14
		45-54	3	2	2	4	5	4	5	4	3	3	2	1	2	5	3	48
		55-64	12	9	8	11	11	11	6	9	13	9	10	6	7	16	11	149
		65-74	20	21	15	6	18	23	16	11	25	7	14	11	11	18	14	230
		75+	15	14	19	17	23	13	13	18	10	16	24	16	24	17	26	265
	_	All ages	50	46	46	38	57	52	41	44	51	35	50	35	45	58	58	706
	E	15-44	0	0	2	1	0	2	1	2	1	1	1	1	1	4	1	18
		45-54	2	1	1	1	1	1	1	1	0	4	3	2	2	2	1	23
		55-64	5	7	5	3	8	3	4	1	1	1	1	1	3	3	6	52
		65-74	5	2	3	5	10	7	7	7	4	6	6	10	4	6	5	87
		75+	6	12	9	8	12	17	10	10	6	6	8	5	2	8	5	124
		All ages	18	22	20	18	31	30	23	21	12	18	19	19	12	23	18	304
	F	15-44	0	2	1	2	0	0	1	0	1	1	2	1	2	0	0	13
		45-54	4	4	0	2	7	2	1	3	5	2	4	2	2	3	0	41
		55-64	5	4	6	6	3	9	13	3	9	5	4	5	6	4	8	90
		65-74	7	7	13	9	9	7	9	6	7	9	12	6	7	12	7	127
		75+	11	7	15	11	9	7	8	14	10	17	11	13	11	10	22	176
		All ages	27	24	35	30	28	25	32	26	32	34	33	27	28	29	37	447

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Voor	Λŧ	diad	nosis

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Colorectum	G	15-44	2	5	5	4	5	3	4	8	5	4	2	3	6	6	5	67
		45-54	12	14	11	9	17	6	10	8	20	12	8	16	14	9	8	174
		55-64	22	26	26	29	23	33	23	33	29	37	31	30	42	28	32	444
		65-74	44	40	51	56	45	36	43	45	36	48	33	41	50	64	38	670
		75+	60	66	46	62	56	54	54	62	78	69	76	67	83	84	71	988
		All ages	140	151	139	160	146	132	134	156	168	170	150	157	195	191	154	2,343
	н	15-44	1	1	2	3	1	3	1	0	2	0	1	1	0	0	3	19
		45-54	3	5	3	6	2	1	2	5	2	4	3	1	0	4	4	45
		55-64	11	9	6	15	9	10	5	9	5	7	11	10	11	19	19	156
		65-74	14	13	16	13	9	9	12	11	15	15	13	14	20	17	12	203
		75+	20	14	19	11	17	17	18	19	20	23	30	28	17	26	20	299
		All ages	49	42	46	48	38	40	38	44	44	49	58	54	48	66	58	722
	1	15-44	1	2	0	1	0	1	2	1	1	1	1	1	1	0	3	16
		45-54	3	2	2	8	6	1	4	4	3	5	3	7	5	6	7	66
		55-64	12	6	8	13	9	12	10	14	14	17	15	14	12	16	22	194
		65-74	16	13	19	18	14	14	16	15	23	20	19	19	28	28	32	294
		75+	23	25	17	25	28	23	17	24	32	21	26	24	31	26	37	379
		All ages	55	48	46	65	57	51	49	58	73	64	64	65	77	76	101	949
	J	15-44	8	5	14	4	15	7	13	15	9	14	15	18	16	13	8	174
		45-54	29	36	33	22	21	30	31	20	24	34	31	26	26	27	27	417
		55-64	63	74	56	68	75	66	74	73	91	65	74	85	100	90	103	1,157
		65-74	111	95	111	112	112	107	122	134	102	112	130	109	135	151	163	1,806
		75+	138	153	170	162	152	180	161	180	196	216	189	223	246	248	248	2,862
		All ages	349	363	384	368	375	390	401	422	422	441	439	461	523	529	549	6,416
	K	15-44	8	13	5	8	5	2	5	4	6	7	11	8	4	5	5	96
		45-54	18	27	21	22	21	19	18	14	16	19	17	21	15	10	20	278
		55-64	46	37	38	47	32	38	46	43	44	52	43	54	60	53	61	694
		65-74	74	84	91	77	60	70	62	67	71	77	78	76	93	88	71	1,139
		75+	83	93	95	93	96	114	97	95	93	143	128	141	128	148	140	1,687
		All ages	229	254	250	247	214	243	228	223	230	298	277	300	300	304	297	3,894
	L	15-44	6	7	5	6	5	13	7	3	6	5	2	4	2	9	8	88
		45-54	17	24	15	17	14	15	6	11	13	14	20	18	18	16	13	231
		55-64	37	44	39	49	42	33	35	43	43	44	47	65	46	44	55	666
		65-74	91	82	90	91	79	81	100	81	90	107	76	89	110	84	89	1,340
		75+	165	142	187	155	142	157	159	151	168	158	160	162	193	160	161	2,420
		All ages	316	299	336	318	282	299	307	289	320	328	305	338	369	313	326	4,745
	М	15-44	3	2	2	0	2	1	2	0	2	2	4	1	3	1	0	25
		45-54	2	2	3	2	1	1	4	2	2	7	4	3	6	3	3	45
		55-64	7	13	3	7	5	5	6	8	6	5	8	6	10	11	8	108
		65-74	11	23	19	9	13	9	10	7	13	9	10	12	15	8	7	175
		75+	9	13	13	19	19	18	20	13	21	17	12	18	20	20	18	250
		All ages	32	53	40	37	40	34	42	30	44	40	38	40	54	43	36	603

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Colorectum	N	15-44	3	1	1	1	2	3	3	3	1	0	1	1	4	1	2	27
		45-54	8	6	5	10	7	7	1	3	7	2	8	12	3	6	9	94
		55-64	14	11	11	20	18	20	18	14	14	18	19	18	28	13	20	256
		65-74	25	37	33	44	37	33	25	33	26	32	35	35	43	28	46	512
		75+	33	59	56	60	71	41	43	65	49	59	68	55	63	56	75	853
		All ages	83	114	106	135	135	104	90	118	97	111	131	121	141	104	152	1,742
	0	15-44	1	2	0	0	1	4	1	3	2	1	1	2	2	3	2	25
		45-54	1	5	3	1	4	2	3	6	1	4	3	1	2	3	3	42
		55-64	9	9	8	9	8	13	9	6	9	5	9	8	9	13	9	133
		65-74	7	17	14	19	11	17	12	18	14	15	11	11	7	16	13	202
		75+	16	20	21	24	14	9	12	7	23	18	17	17	12	30	25	265
		All ages	34	53	46	53	38	45	37	40	49	43	41	39	32	65	52	667
	P	15-44	11	7	2	10	6	7	9	3	10	6	10	15	18	19	9	142
		45-54	30	20	18	21	29	16	18	22	21	20	22	18	20	27	25	327
		55-64	58	52	49	51	54	45	46	49	63	86	50	68	49	80	67	867
		65-74	75	76	107	91	90	74	87	91	96	81	86	86	115	87	104	1,346
		75+	118	110	127	111	113	120	129	123	151	146	162	151	165	129	147	2,002
		All ages	292	265	303	284	292	262	289	288	341	339	330	338	367	342	352	4,684
	Q	15-44	1	3	1	2	4	4	7	3	5	0	3	5	6	3	7	54
		45-54	4	3	1	9	6	5	6	1	4	8	7	4	7	5	9	79
		55-64	14	15	16	18	11	14	27	9	15	26	24	20	18	17	11	255
		65-74	34	24	24	19	24	21	21	20	25	32	29	19	19	24	22	357
		75+	53	54	24	31	34	44	47	47	40	37	43	48	31	49	36	618
		All ages	106	99	66	79	79	88	108	80	89	103	106	96	81	98	85	1,363
	R	15-44	0	2	2	2	1	3	3	3	2	0	3	1	1	3	2	28
		45-54	0	1	1	3	4	2	1	5	3	1	0	2	1	2	0	26
		55-64	3	5	6	6	4	5	5	2	7	4	12	8	6	5	5	83
		65-74	13	9	12	11	14	7	6	14	11	12	13	12	10	5	3	152
		75+	24	12	13	20	15	13	18	18	17	21	15	16	18	16	12	248
		All ages	40	29	34	42	38	30	33	42	40	38	43	39	36	31	22	537
	S	15-44	11	3	10	8	10	5	7	8	6	3	11	7	5	8	5	107
		45-54	23	20	21	22	20	24	14	20	14	25	20	24	19	19	18	303
		55-64	54	37	58	37	58	46	47	56	52	50	62	56	67	64	59	803
		65-74	91	94	77	87	99	102	97	83	90	66	101	92	101	80	115	1,375
		75+	139	120	91	118	113	139	143	125	137	146	152	138	179	140	147	2,027
		All ages	318	274	257	272	300	316	308	292	299	290	346	317	371	311	344	4,615
	Т	15-44	5	6	4	12	10	13	8	8	7	10	13	13	13	16	9	147
		45-54	23	32	30	23	26	36	20	27	32	24	24	29	19	31	31	407
		55-64	91	81	61	54	78	54	72	71	63	80	84	67	94	87	87	1,124
		65-74	156	166	148	131	158	135	142	147	142	143	128	126	141	149	163	2,175
		75+	234	242	233	235	206	261	234	249	231	249	254	240	240	263	238	3,609
		All ages	509	527	476	455	478	499	476	502	475	506	503	475	507	546	528	7,462

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Colorectum	U	15-44	8	4	8	9	12	5	7	7	8	4	8	7	10	14	15	126
		45-54	17	33	26	27	14	23	19	20	22	19	18	28	21	20	23	330
		55-64	56	50	55	66	47	49	39	55	55	62	62	78	70	66	67	877
		65-74	106	96	92	95	87	97	67	81	101	96	100	121	108	103	120	1,470
		75+	129	131	144	136	143	127	130	143	161	158	150	157	173	172	165	2,219
		All ages	316	314	325	333	303	301	262	306	347	339	338	391	382	375	390	5,022
	V	15-44	3	6	2	0	1	1	3	3	3	2	7	2	4	9	4	50
		45-54	7	5	6	5	6	8	5	8	6	5	5	6	13	6	9	100
		55-64	9	10	19	13	17	14	17	8	13	19	16	19	19	18	25	236
		65-74	17	40	28	21	23	23	23	34	23	31	29	21	34	45	26	418
		75+	21	49	26	32	47	33	42	21	32	26	43	40	42	41	33	528
		All ages	57	110	81	71	94	79	90	74	77	83	100	88	112	119	97	1,332
Lung	Α	15-44	0	0	1	1	0	3	1	2	0	1	1	0	0	0	0	10
		45-54	5	5	4	8	5	2	1	3	7	4	2	2	6	2	5	61
		55-64	9	10	8	19	16	11	11	14	10	13	16	10	17	8	11	183
		65-74	41	25	24	37	26	42	27	19	25	20	20	13	23	31	19	392
		75+	17	24	32	28	30	24	31	40	26	24	23	38	33	31	26	427
		All ages	72	64	69	93	77	82	71	78	68	62	62	63	79	72	61	1,073
	В	15-44	1	0	3	1	3	4	1	0	2	2	3	0	0	1	1	22
		45-54	8	10	5	10	8	8	5	7	6	10	5	6	7	10	9	114
		55-64	18	20	22	21	18	26	29	24	21	33	34	12	17	19	25	339
		65-74	40	31	29	33	37	39	24	37	34	33	33	41	29	32	45	517
		75+	53	45	34	28	40	41	35	45	50	46	49	29	33	42	48	618
		All ages	120	106	93	93	106	118	94	113	113	124	124	88	86	104	128	1,610
	C	15-44	2	1	3	0	2	2	0	2	2	0	3	1	3	3	2	26
		45-54	15	17	8	11	9	15	7	10	15	10	6	4	6	7	14	154
		55-64	48	38	36	33	42	37	14	25	30	33	43	34	31	30	38	512
		65-74	93	78	86	65	66	67	44	60	59	73	66	52	41	64	51	965
		75+	68	87	68	64	46	64	40	62	71	79	65	55	41	79	71	960
		All ages	226	221	201	173	165	185	105	159	177	195	183	146	122	183	176	2,617
	D	15-44	0	2	0	2	3	1	1	1	0	0	0	0	0	3	0	13
		45-54	3	3	5	3	3	6	1	2	2	5	3	2	2	5	5	50
		55-64	10	6	10	17	8	9	5	7	9	9	4	8	2	13	13	130
		65-74	25	27	22	25	17	16	11	19	11	15	24	13	13	20	9	267
		75+	17	20	16	19	16	17	19	18	22	19	27	18	22	13	34	297
		All ages	55	58	53	66	47	49	37	47	44	48	58	41	39	54	61	757
	E	15-44	0	0	1	0	1	3	1	0	0	0	0	0	1	0	1	8
		45-54	5	0	4	1	2	3	5	1	1	3	2	3	2	0	4	36
		55-64	9	11	11	6	11	8	7	12	9	5	3	1	6	3	5	107
		65-74	11	17	11	15	13	8	12	13	8	7	7	13	6	11	14	166
		75+	11	14	19	9	13	13	9	15	13	13	6	13	11	16	17	192
		All ages	36	42	46	31	40	35	34	41	31	28	18	30	26	30	41	509

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
.ung	F	15-44	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4
		45-54	2	6	5	1	3	4	4	0	3	4	4	2	5	4	2	49
		55-64	7	9	8	8	8	14	13	6	9	18	5	12	10	10	5	142
		65-74	20	10	12	16	9	16	13	12	19	18	21	16	16	17	27	242
		75+	15	11	6	14	15	12	14	13	17	17	17	19	17	8	15	210
		All ages	44	36	31	39	35	46	44	31	48	58	47	49	49	40	50	647
	G	15-44	2	3	1	1	2	1	0	3	0	1	1	4	0	1	3	23
		45-54	6	5	11	7	6	11	9	9	12	6	9	9	11	10	8	129
		55-64	35	20	16	19	20	20	20	26	33	24	23	32	34	19	33	374
		65-74	40	45	41	49	58	39	42	47	59	42	44	45	43	39	51	684
		75+	25	42	45	36	44	51	31	53	67	67	58	82	67	60	65	793
		All ages	108	115	114	112	130	122	102	138	171	140	135	172	155	129	160	2,003
	Н	15-44	0	0	1	2	1	0	0	1	0	2	0	1	0	1	1	10
		45-54	4	4	4	5	2	2	2	3	3	2	2	4	3	3	3	46
		55-64	8	8	7	10	11	8	13	13	11	12	10	14	10	9	8	152
		65-74	23	20	25	28	23	15	17	16	17	18	17	19	14	18	23	293
		75+	10	13	15	13	18	21	18	18	24	27	18	23	17	19	24	278
		All ages	45	45	52	58	55	46	50	51	55	61	47	61	44	50	59	779
	1	15-44	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	4
		45-54	4	4	4	4	6	7	0	5	1	4	3	4	3	4	3	56
		55-64	12	7	8	6	9	13	10	17	12	14	19	9	17	12	11	176
		65-74	17	15	23	16	19	26	17	19	28	14	21	30	22	17	25	309
		75+	21	26	21	19	16	27	22	39	37	20	28	35	23	28	33	395
		All ages	55	53	56	46	50	73	50	80	78	52	71	78	65	61	72	940
	J	15-44	4	6	1	2	3	5	4	3	4	2	8	3	3	5	7	60
		45-54	29	23	26	23	31	27	19	25	21	24	24	32	26	23	20	373
		55-64	51	58	67	56	62	55	70	62	72	83	62	92	92	72	87	1,041
		65-74	153	130	110	119	106	123	100	108	125	147	131	135	132	114	127	1,860
		75+	136	152	116	140	121	141	135	160	188	162	211	177	190	191	187	2,407
		All ages	373	369	320	340	323	351	328	358	410	418	436	439	443	405	428	5,741
	K	15-44	4	1	5	5	0	1	5	2	5	4	4	6	2	5	0	49
		45-54	11	14	12	23	10	13	16	9	7	7	20	19	12	18	12	203
		55-64	34	33	38	41	32	46	35	41	31	49	43	55	50	52	48	628
		65-74	83	83	91	79	77	78	84	55	51	97	81	85	72	66	74	1,156
		75+	63	76	80	100	91	97	112	92	80	138	128	135	144	122	138	1,596
		All ages	195	207	226	248	210	235	252	199	174	295	276	300	280	263	272	3,632
	L	15-44	3	2	1	5	2	4	3	5	4	2	2	2	4	3	1	43
		45-54	9	8	18	15	12	10	15	16	15	10	10	13	13	6	14	184
		55-64	34	30	43	27	23	46	51	47	57	48	41	48	58	49	51	653
		65-74	94	92	95	82	87	83	72	66	79	75	86	77	84	82	64	1,218
		75+	106	98	143	104	121	133	112	109	128	151	127	127	135	150	101	1,845
		All ages	246	230	300	233	245	276	253	243	283	286	266	267	294	290	231	3,943

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
.ung	М	15-44	0	0	2	1	0	0	0	2	1	2	0	0	1	2	0	11
		45-54	1	0	3	4	4	0	1	4	3	3	4	2	1	4	2	36
		55-64	2	8	3	8	10	7	9	7	6	2	3	5	4	13	12	99
		65-74	16	12	21	24	18	15	13	10	15	12	15	12	13	12	6	214
		75+	13	8	21	15	19	20	14	17	24	27	15	24	23	24	19	283
		All ages	32	28	50	52	51	42	37	40	49	46	37	43	42	55	39	643
	N	15-44	0	1	0	2	1	3	2	1	0	0	2	0	1	2	0	15
		45-54	5	7	5	2	8	5	5	7	7	7	5	5	9	7	5	89
		55-64	16	13	11	16	17	17	22	20	18	29	29	24	31	22	23	308
		65-74	23	33	44	43	35	23	39	36	38	29	41	39	34	36	29	522
		75+	39	34	35	40	47	43	50	50	41	51	49	51	57	53	49	689
		All ages	83	88	95	103	108	91	118	114	104	116	126	119	132	120	106	1,623
	0	15-44	1	3	1	1	0	1	0	0	0	0	2	0	0	0	0	9
		45-54	2	4	5	7	1	0	1	2	8	2	7	6	2	2	1	50
		55-64	3	9	2	6	10	9	9	5	4	5	10	5	9	10	7	103
		65-74	7	16	9	14	10	13	11	12	14	13	11	11	10	8	13	172
		75+	12	7	14	13	7	17	17	22	11	13	13	15	12	16	22	211
		All ages	25	39	31	41	28	40	38	41	37	33	43	37	33	36	43	545
	P	15-44	0	1	4	3	5	5	0	2	6	4	5	3	4	1	1	44
		45-54	16	12	18	11	19	11	8	16	16	13	15	14	14	9	19	211
		55-64	52	30	51	40	37	39	44	41	51	41	52	57	43	51	57	686
		65-74	99	98	84	105	87	100	84	77	64	67	68	76	92	94	89	1,284
		75+	103	102	107	122	81	86	105	97	91	94	123	104	138	117	110	1,580
		All ages	270	243	264	281	229	241	241	233	228	219	263	254	291	272	276	3,805
	Q	15-44	3	2	0	2	1	0	3	3	0	1	2	0	1	2	1	21
		45-54	8	9	4	7	1	4	13	6	8	5	8	3	11	7	3	97
		55-64	22	14	17	16	12	13	19	23	16	15	25	19	17	16	19	263
		65-74	39	43	29	41	28	28	29	24	21	41	30	40	25	23	51	492
		75+	40	42	29	36	24	31	32	38	40	41	50	44	58	53	32	590
		All ages	112	110	79	102	66	76	96	94	85	103	115	106	112	101	106	1,463
	R	15-44	1	0	0	0	1	1	0	0	0	0	2	0	3	0	1	9
		45-54	3	3	0	3	3	6	5	1	3	3	5	5	1	0	2	43
		55-64	8	8	8	5	11	9	10	4	10	6	7	3	2	10	8	109
		65-74	16	16	7	14	5	8	10	19	15	13	10	9	8	16	15	181
		75+	11	16	20	12	18	17	21	16	18	10	34	17	10	8	15	243
		All ages	39	43	35	34	38	41	46	40	46	32	58	34	24	34	41	585
	S	15-44	2	4	2	3	5	1	3	3	2	4	4	2	6	4	2	47
		45-54	8	15	7	17	18	19	12	7	17	15	8	17	9	7	13	189
		55-64	42	40	22	21	37	33	39	36	42	41	38	46	42	50	44	573
		65-74	80	78	60	73	67	69	81	75	46	54	66	57	84	84	64	1,038
		75+	89	92	54	93	78	108	95	99	83	96	108	126	108	103	109	1,441
		All ages	221	229	145	207	205	230	230	220	190	210	224	248	249	248	232	3,288

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Voor	Λŧ	diad	nosis

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Lung	Т	15-44	3	4	6	2	4	3	4	3	7	1	2	1	6	3	4	53
		45-54	19	20	26	22	18	21	25	15	23	24	26	20	27	11	15	312
		55-64	48	42	46	46	58	76	56	62	57	60	80	64	78	78	72	923
		65-74	148	127	96	116	109	135	122	132	98	119	116	97	116	112	138	1,781
		75+	168	167	109	160	157	175	198	195	158	147	195	198	191	190	199	2,607
		All ages	386	360	283	346	346	410	405	407	343	351	419	380	418	394	428	5,676
	U	15-44	3	2	2	2	4	4	2	1	3	1	3	4	4	4	4	43
		45-54	15	16	18	17	21	17	14	12	8	13	17	13	10	10	24	225
		55-64	44	42	43	25	48	44	48	44	42	38	49	46	52	53	53	671
		65-74	91	83	72	81	71	85	68	73	75	70	84	85	96	71	96	1,201
		75+	119	87	75	106	95	94	77	117	98	86	130	123	155	132	107	1,601
		All ages	272	230	210	231	239	244	209	247	226	208	283	271	317	270	284	3,741
	V	15-44	4	2	1	1	3	1	0	1	3	1	0	0	0	0	1	18
		45-54	3	9	3	8	6	8	2	3	5	4	6	6	6	10	11	90
		55-64	9	18	14	15	13	16	18	20	9	12	19	19	17	14	18	231
		65-74	25	24	17	21	27	18	24	26	23	22	27	27	27	26	36	370
		75+	18	33	17	31	30	27	29	30	34	34	37	36	31	30	39	456
		All ages	59	86	52	76	79	70	73	80	74	73	89	88	81	80	105	1,165
Other cancers	Α	15-44	16	25	18	20	31	25	23	25	18	26	28	19	24	31	20	349
Other cancers		45-54	20	20	15	23	30	23	23 17	32	21	28	21	22	23	23	16	334
		55-64	32	38	41	32	43	37	41	45	38	23	39	26	46	49	40	570
		65-74	66	47	67	57	36	49	37	43	44	43	36	36	66	50	62	739
		75+	65	65	58	67	76	71	70	82	61	66	69	75	58	78	59	1,020
		All ages	199	1 95	199	199	216	205	188	227	182	186	193	178	217	231	197	3,012
	В	15-44	33	37	38	42	35	27	33	29	37	37	51	44	37	53	34	567
	ь	45-54	35 35	40	37	25	41	36	33 37	25	27	29	32	41	37 47	46	44	542
		55-64	60	65	54	46	69	61	67	65	75	59	79	64	80	81	95	1,020
		65-74	65	77	86	86	79	77	62	80	66	79	93	78	79	83	93 97	1,187
		75+	110	101	100	109	86	110	106	88	86	88	93 115	75 75	91	101	122	1,488
		All ages	303	320	315	308	310	311	305	2 87	291	292	370	302	334	364	392	4,804
	С	15-44	65	4 5	46	42	32	40	28	36	46	47	69	51	65	49	69	730
	·	45-54	49	54	40	60	31	37	30	51	41	35	46	53	60	56	56	699
		55-64	80	76	87	84	62	70	54	107	88	79	107	95	94	78	89	1,250
		65-74	132	104	116	95	84	98	74	107	92	106	112	107	143	116	119	1,605
		75+	155	120	113	131	135	111	85	139	116	111	121	111	124	152	144	1,868
		75∓ All ages	481	399	402	412	344	356	271	440	383	378	455	417	486	451	477	6,152
	D	15-44	18	18	13	20	13	18	10	12	22	10	25	11	17	24	37	268
	b	45-54	29	22	13 37	20	15	18	10 17	21	22 14	24	20	14	22	22	26	321
		45-54 55-64	32	22 24	33	20 26	35	18 42	32	21	14 25	24 28	39	14 34	42	22 41	26 58	515
		55-64 65-74	32 37	24 40	33 44			42 46	50			28 37			42 52		58 65	
						43	43 47			23	30		42 50	24		53 70		629 803
		75+	40 156	51 155	54 191	53 163		64 188	57 166	45 135	48	45 144	50 176	44 127	51	79	74 360	802
		All ages	156	155	181	162	153	188	166	125	139	144	176	127	184	219	260	2,535

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

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Voor	Λt	diagr	nocic

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Other cancers	E	15-44	9	8	13	13	9	12	9	14	14	23	11	12	12	13	21	193
		45-54	9	8	9	7	7	6	9	8	11	9	16	10	16	10	8	143
		55-64	13	20	18	16	19	17	20	13	12	12	12	14	19	16	13	234
		65-74	20	24	19	16	13	28	27	20	24	14	16	10	17	18	13	279
		75+	26	30	20	23	25	29	19	32	29	27	29	24	25	17	22	377
		All ages	77	90	79	75	73	92	84	87	90	85	84	70	89	74	77	1,226
	F	15-44	6	21	12	12	13	16	16	9	16	8	10	19	14	16	15	203
		45-54	11	8	6	9	9	11	14	12	15	8	13	16	17	10	15	174
		55-64	19	15	18	28	22	25	22	19	29	22	18	28	29	15	27	336
		65-74	23	37	29	31	21	26	29	23	22	28	31	23	28	33	28	412
		75+	19	16	38	26	21	21	26	26	28	24	35	24	33	38	27	402
		All ages	78	97	103	106	86	99	107	89	110	90	107	110	121	112	112	1,527
	G	15-44	54	45	52	44	52	52	56	60	63	59	64	67	66	58	58	850
		45-54	58	46	52	54	57	58	49	53	51	62	57	72	64	70	73	876
		55-64	83	79	81	76	110	98	97	111	114	125	114	120	139	137	120	1,604
		65-74	117	139	113	129	120	126	144	135	131	119	140	140	163	152	167	2,035
		75+	130	149	145	144	177	168	194	177	188	202	190	204	225	211	193	2,697
		All ages	442	458	443	447	516	502	540	536	547	567	565	603	657	628	611	8,062
	Н	15-44	26	15	14	20	19	14	15	21	25	23	25	20	24	31	21	313
		45-54	16	19	21	22	12	18	15	10	23	25	25	21	10	23	22	282
		55-64	31	38	19	28	28	25	27	29	32	35	37	43	38	49	43	502
		65-74	41	38	43	48	36	32	36	45	46	49	50	46	50	48	58	666
		75+	59	56	47	59	59	47	58	60	52	53	72	68	48	73	54	865
		All ages	173	166	144	177	154	136	151	165	178	185	209	198	170	224	198	2,628
	- 1	15-44	17	24	16	11	18	13	19	13	23	22	28	29	21	21	26	301
		45-54	22	25	16	11	29	27	20	19	20	27	20	27	18	20	34	335
		55-64	36	30	35	28	40	55	30	53	38	43	67	55	69	49	63	691
		65-74	55	54	69	49	42	49	55	51	44	75	65	51	79	64	62	864
		75+	64	60	62	44	63	60	62	71	77	78	76	73	79	88	74	1,031
		All ages	194	193	198	143	192	204	186	207	202	245	256	235	266	242	259	3,222
	J	15-44	136	123	132	141	128	158	142	169	161	165	179	169	197	187	201	2,388
		45-54	129	108	147	120	161	135	154	148	168	170	149	157	182	179	174	2,281
		55-64	205	203	219	194	242	236	223	279	275	285	333	346	340	356	370	4,106
		65-74	290	307	282	268	338	334	334	329	321	368	379	361	440	411	412	5,174
		75+	341	350	408	354	417	394	453	421	438	486	496	556	559	559	566	6,798
		All ages	1,101	1,091	1,188	1,077	1,286	1,257	1,306	1,346	1,363	1,474	1,536	1,589	1,718	1,692	1,723	20,747
	K	15-44	92	97	102	86	87	93	88	80	74	105	84	92	105	119	97	1,401
		45-54	84	96	94	83	82	92	96	74	73	75	96	115	112	113	113	1,398
		55-64	129	121	104	143	130	143	124	144	127	180	166	190	207	191	194	2,293
		65-74	225	197	159	168	224	187	193	192	155	243	213	236	215	240	237	3,084
		75+	237	219	204	228	316	280	257	225	233	353	414	345	402	363	355	4,431
		All ages	767	730	663	708	839	795	758	715	662	956	973	978	1,041	1,026	996	12,607

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Other cancers	L	15-44	70	89	59	51	81	69	63	67	106	79	92	80	82	67	79	1,134
		45-54	99	71	79	84	83	92	101	80	77	84	86	99	97	78	94	1,304
		55-64	131	139	116	174	157	198	204	194	176	198	197	215	202	204	208	2,713
		65-74	245	235	227	277	223	258	300	287	277	262	253	258	252	275	280	3,909
		75+	332	365	406	406	434	457	494	450	437	418	462	416	461	397	454	6,389
		All ages	877	899	887	992	978	1,074	1,162	1,078	1,073	1,041	1,090	1,068	1,094	1,021	1,115	15,449
	М	15-44	16	18	17	18	16	12	12	17	22	18	33	15	18	21	24	277
		45-54	15	12	18	20	19	16	19	23	18	19	17	22	15	18	18	269
		55-64	25	26	30	17	26	25	24	27	30	25	27	29	28	28	35	402
		65-74	42	45	48	34	51	47	29	35	34	23	39	35	26	24	34	546
		75+	34	50	39	49	45	40	49	53	50	64	70	60	64	44	70	781
		All ages	132	151	152	138	157	140	133	155	154	149	186	161	151	135	181	2,275
	N	15-44	24	26	29	30	19	17	16	22	14	17	29	33	41	30	34	381
		45-54	22	29	39	30	24	36	23	31	34	30	29	42	39	38	54	500
		55-64	40	53	70	54	49	46	57	50	54	69	79	76	74	86	81	938
		65-74	65	88	97	89	87	104	85	66	73	76	106	95	104	116	108	1,359
		75+	117	134	148	129	125	135	160	175	137	146	188	184	203	180	177	2,338
		All ages	268	330	383	332	304	338	341	344	312	338	431	430	461	450	454	5,516
	0	15-44	18	13	16	19	16	12	21	15	14	21	16	22	20	18	21	262
		45-54	17	18	15	13	14	22	13	16	16	13	21	19	19	18	19	253
		55-64	29	37	29	35	35	32	27	25	34	28	38	34	38	34	52	507
		65-74	35	37	38	28	28	44	44	32	33	45	36	42	41	37	37	557
		75+	27	28	30	45	43	43	35	36	49	49	50	53	44	36	56	624
		All ages	126	133	128	140	136	153	140	124	146	156	161	170	162	143	185	2,203
	P	15-44	123	142	138	159	153	151	125	135	162	184	158	147	179	137	152	2,245
		45-54	124	118	109	132	119	133	124	101	130	117	145	138	166	157	152	1,965
		55-64	166	188	181	184	199	178	209	191	204	213	250	291	280	245	224	3,203
		65-74	244	231	265	244	236	261	263	263	271	302	332	286	310	278	276	4,062
		75+	307	310	322	309	310	347	348	323	347	368	401	371	425	409	419	5,316
		All ages	964	989	1,015	1,028	1,017	1,070	1,069	1,013	1,114	1,184	1,286	1,233	1,360	1,226	1,223	16,791
	Q	15-44	44	62	43	52	38	39	52	36	53	48	59	59	48	57	45	735
		45-54	41	34	29	55	34	45	35	32	45	32	37	41	35	56	48	599
		55-64	68	62	42	68	55	63	78	64	56	67	52	63	76	63	63	940
		65-74	119	116	48	88	88	90	81	66	80	85	95	85	89	76	88	1,294
		75+	136	135	97	160	117	139	118	131	114	95	129	129	116	113	96	1,825
		All ages	408	409	259	423	332	376	364	329	348	327	372	377	364	365	340	5,393
	R	15-44	13	20	16	41	19	23	22	22	21	29	18	26	25	20	28	343
		45-54	12	20	9	22	10	15	13	12	16	16	19	17	17	23	17	238
		55-64	23	11	20	25	16	25	26	33	22	19	23	21	25	21	21	331
		65-74	31	34	31	25	39	28	29	25	31	34	25	27	20	36	26	441
		75+	39	29	50	48	38	35	43	50	43	44	41	31	56	38	40	625
		All ages	118	114	126	161	122	126	133	142	133	142	126	122	143	138	132	1,978

Table 1. Number of cancer patients included in survival analyses, by calendar year of diagnosis 1996-2010 and age group: selected cancers and selected Clinical Commissioning Groups (CCG), England

Cancer	CCG	Age group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Other cancers	S	15-44	83	114	100	102	125	125	100	89	106	127	113	118	129	113	130	1,674
		45-54	116	107	106	106	115	125	130	113	117	100	114	99	116	116	116	1,696
		55-64	165	157	154	176	189	180	190	202	180	205	245	227	242	239	233	2,984
		65-74	288	251	230	243	271	257	247	243	240	241	237	265	296	285	293	3,887
		75+	329	328	265	301	340	353	339	294	383	352	371	394	399	410	449	5,307
		All ages	981	957	855	928	1,040	1,040	1,006	941	1,026	1,025	1,080	1,103	1,182	1,163	1,221	15,548
	Т	15-44	120	112	125	138	130	142	118	132	130	132	155	160	160	170	142	2,066
		45-54	158	144	142	134	162	166	156	156	145	145	154	135	163	171	168	2,299
		55-64	232	261	249	234	261	243	287	292	303	326	321	331	325	293	328	4,286
		65-74	469	461	383	392	418	406	415	412	423	421	439	423	413	444	440	6,359
		75+	645	648	510	635	583	640	656	682	664	621	673	704	677	679	685	9,702
		All ages	1,624	1,626	1,409	1,533	1,554	1,597	1,632	1,674	1,665	1,645	1,742	1,753	1,738	1,757	1,763	24,712
	U	15-44	94	87	97	101	127	102	99	91	104	102	121	130	136	113	116	1,620
		45-54	84	123	111	123	118	106	123	108	137	116	127	137	120	128	135	1,796
		55-64	133	177	179	223	188	203	191	209	197	254	260	215	254	215	253	3,151
		65-74	228	316	248	287	249	265	238	263	277	265	271	293	321	302	330	4,153
		75+	279	376	332	344	336	383	327	414	412	334	434	412	412	426	385	5,606
		All ages	818	1,079	967	1,078	1,018	1,059	978	1,085	1,127	1,071	1,213	1,187	1,243	1,184	1,219	16,326
	V	15-44	27	42	36	35	36	31	33	42	40	36	53	49	54	50	46	610
		45-54	34	57	36	34	31	41	33	29	35	43	43	55	41	46	38	596
		55-64	55	73	56	54	69	68	68	55	51	77	53	81	82	79	78	999
		65-74	48	75	68	65	68	77	89	88	71	70	76	91	83	87	71	1,127
		75+	59	118	80	80	94	88	97	85	102	92	118	109	118	117	122	1,479
		All ages	223	365	276	268	298	305	320	299	299	318	343	385	378	379	355	4,811
		Total	20,866	21,234	20,479	21,473	21,460	22,048	21,907	22,355	22,436	23,471	24,550	24,296	25,683	25,089	25,649	342,996

Table 2Number of deaths (0, 1, 2 or more) within one year of diagnosis: distribution among all possible combinations of age group (5), sex (2 except for breast cancer), calendar year (15) and CCG (22): selected cancers, England, 1996-2010 (age-group configuration 1)

Breast cancer					Age grou	ıp					
Number of deaths	15	-44	45	-54	55	-64	65	-74	7	5+	Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
0	223	68	164	50	126	38	71	22	16	5	600
1	70	21	94	28	77	23	81	25	29	9	351
2+	37	11	72	22	127	38	178	54	285	86	699
Total	330	100	330	100	330	100	330	100	330	100	1.650

Colorectum cancer					Age grou	р					
Number of deaths	15	-44	45	-54	55	-64	65	-74	7	5+	Total
	No.	%	No.	%	No.	%	No.	%	No.	%	_
0	508	77	341	52	151	23	67	10	9	1	1,076
1	122	18	181	27	153	23	96	15	23	3	575
2+	30	5	138	21	356	54	497	75	628	95	1,649
Total	660	100	660	100	660	100	660	100	660	100	3,300

Lung cancer					Age grou	р					
Number of deaths	15	-44	45	-54	55	-64	65	-74	7	5+	Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
0	439	67	108	16	26	4	3	0	0	0	576
1	165	25	162	25	50	8	11	2	3	0	391
2+	56	8	390	59	584	88	646	98	657	100	2,333
Total	660	100	660	100	660	100	660	100	660	100	3,300

Other cancers					Age grou	р					
Number of deaths	15	-44	45	-54	55	-64	65	-74	7	5+	Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
0	131	20	52	8	6	1	1	0	1	0	191
1	143	22	58	9	17	3	8	1	0	0	226
2+	386	58	550	83	637	97	651	99	659	100	2,883
Total	660	100	660	100	660	100	660	100	660	100	3,300

Table 3Number of deaths (0, 1, 2 or more) between the first and fifth anniversaries of diagnosis: distribution among all possible combinations of age group (5), sex (2 except for breast cancer), calendar year (15) and CCG (22): selected cancers, England, 1996-2010 (age-group configuration 1)

Breast cancer					Age grou	ıp					
Number of deaths	15	-44	45	-54	55	-64	65	-74	7	5+	Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
0	81	25	70	21	59	18	41	12	15	5	266
1	73	22	59	18	59	18	57	17	20	6	268
2+	176	53	201	61	212	64	232	70	295	89	1,116
Total	330	100	330	100	330	100	330	100	330	100	1.650

Colorectum cancer					Age grou	р					
Number of deaths	15	-44	45	-54	55	-64	65	-74	7	5+	Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
0	444	67	316	48	148	22	79	12	39	6	1,026
1	160	24	162	25	164	25	119	18	83	13	688
2+	56	8	182	28	348	53	462	70	538	82	1,586
Total	660	100	660	100	660	100	660	100	660	100	3,300

Lung cancer					Age grou	р					
Number of deaths	15	-44	45	-54	55	-64	65	-74	7	5+	Total
	No.	%	No.	%	No.	%	No.	%	No.	%	 '
0	568	86	321	49	138	21	71	11	112	17	1,210
1	85	13	191	29	148	22	114	17	105	16	643
2+	7	1	148	22	374	57	475	72	443	67	1,447
Total	660	100	660	100	660	100	660	100	660	100	3,300

Other cancers					Age grou	р					
Number of deaths	15	-44	45	-54	55	-64	65	-74	7	5+	Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
0	154	23	85	13	24	4	19	3	10	2	292
1	131	20	104	16	55	8	29	4	27	4	346
2+	375	57	471	71	581	88	612	93	623	94	2,662
Total	660	100	660	100	660	100	660	100	660	100	3,300

Table 4Number of deaths (0, 1, 2 or more) within one year of diagnosis: distribution among all possible combinations of age group (3), sex (2 except for breast cancer), calendar year (15) and CCG (22): selected cancers, England, 1996-2010 (age-group configuration 2)

Breast cancer							
Number of deaths	15-49		50-69		70-99		Total
	No.	%	No.	%	No.	%	_
0	174	53	62	19	12	4	248
1	87	26	64	19	20	6	171
2+	69	21	204	62	298	90	571
Total	330	100	330	100	330	100	990

Colorectum cancer							
Number of deaths	15	-49	50-69		70-99		Total
	No.	%	No.	%	No.	%	_
0	412	62	61	9	5	1	478
1	157	24	96	15	15	2	268
2+	91	14	503	76	640	97	1,234
Total	660	100	660	100	660	100	1,980

Lung cancer							
Number of deaths	15-49		50-69		70-99		Total
	No.	%	No.	%	No.	%	
0	230	35	3	0	0	0	233
1	205	31	9	1	0	0	214
2+	225	34	648	98	660	100	1,533
Total	660	100	660	100	660	100	1,980

Other cancers							
Number of deaths	15	-49	50-69		70-99		Total
	No.	%	No.	%	No.	%	
0	59	9	1	0	0	0	60
1	93	14	1	0	1	0	95
2+	508	77	658	100	659	100	1,825
Total	660	100	660	100	660	100	1,980

Table 5Number of deaths (0, 1, 2 or more) between the first and fifth anniversaries of diagnosis: distribution among all possible combinations of age group (3), sex (2 except for breast cancer), calendar year (15) and CCG (22): selected cancers, England, 1996-2010 (age-group configuration 2)

Breast cancer							
Number of deaths	15-49		50	-69	70-99		Total
	No.	%	No.	%	No.	%	_
0	50	15	30	9	10	3	90
1	57	17	31	9	16	5	104
2+	223	68	269	82	304	92	796
Total	330	100	330	100	330	100	990

Colorectum cancer							
Number of deaths	15	-49	50-69		70	Total	
	No.	%	No.	%	No.	%	_
0	346	52	65	10	21	3	432
1	177	27	100	15	59	9	336
2+	137	21	495	75	580	88	1,212
Total	660	100	660	100	660	100	1,980

Lung cancer							
Number of deaths	15-49		50-69		70-99		Total
	No.	%	No.	%	No.	%	
0	452	68	50	8	56	8	558
1	154	23	93	14	74	11	321
2+	54	8	517	78	530	80	1,101
Total	660	100	660	100	660	100	1,980

Other cancers							
Number of deaths	15-49		50	-69	70-99		Total
	No.	%	No.	%	No.	%	_
0	89	13	6	1	5	1	100
1	105	16	17	3	8	1	130
2+	466	71	637	97	647	98	1,750
Total	660	100	660	100	660	100	1,980

Table 6Survival of children (0-14 years) diagnosed with cancer in England during 1990-2006, by year of diagnosis.
Number of cases (N) and 5-year survival (percent: 5y%) for children diagnosed at age 0-4, 5-9, 10-14 and 0-14, with age-standardised average of survival for 5-year age groups (equal weights)

Year of	0)-4	5-9		10-14		5-9 10-14		All ages (0-14) 5y%		Age-standardised 5y% (equal	
diagnosis	N	5y%	N	5y%	N	5y%	N	crude				
1990	578	66.52	322	66.46	302	66.73	1,202	66.56	66.57			
1991	602	68.89	304	69.44	256	75.30	1,162	70.44	71.21			
1992	571	75.07	321	70.76	314	69.72	1,206	72.54	71.85			
1993	593	75.04	330	74.39	325	70.81	1,248	73.78	73.41			
1994	577	72.24	346	77.17	344	74.71	1,267	74.25	74.71			
1995	557	73.79	343	76.48	387	70.53	1,287	73.46	73.60			
1996	596	73.21	358	81.01	319	73.35	1,273	75.44	75.86			
1997	564	75.22	367	73.96	361	81.44	1,292	76.61	76.87			
1998	602	76.04	346	77.13	316	77.43	1,264	76.63	76.87			
1999	589	73.94	363	74.54	351	72.56	1,303	73.73	73.68			
2000	566	80.74	344	79.59	350	80.17	1,260	80.27	80.17			
2001	563	76.90	343	78.42	401	76.30	1,307	77.11	77.21			
2002	628	80.57	369	77.46	426	77.42	1,423	78.82	78.48			
2003	591	79.65	329	75.26	361	71.08	1,281	76.11	75.33			
2004	558	79.14	360	81.57	422	81.24	1,340	80.45	80.65			
2005	601	78.44	337	78.56	391	84.23	1,329	80.17	80.41			
2006	598	78.99	324	83.54	429	81.31	1,351	80.81	81.28			

Figure 1
Distribution (box-plots) of estimates of one-year net survival by age group (3) and cancer: selected years, England, 22 selected CCGs (age-group configuration 2)

Each box plot shows the median value, the inter-quartile range (the 'box', which covers the 50% of all values that lie between the 25th and 75th centiles) and approximate 95% confidence limits; extreme outliers are shown as separate dots.

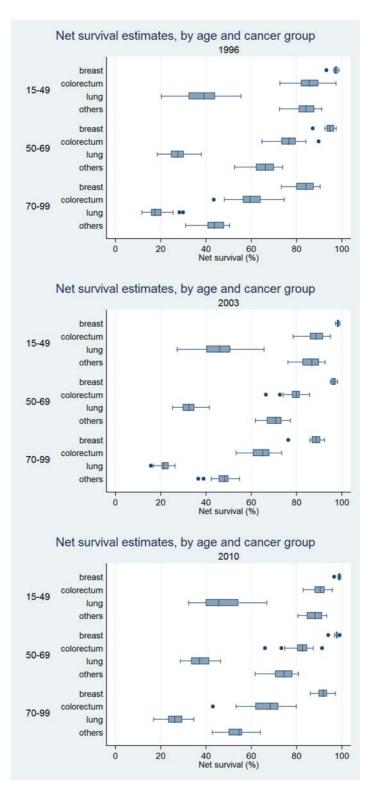


Figure 2 Clinical Commissioning Groups: Temporal trends in the one-year survival index, all cancers combined, for all ages (top left panel) and for three broad age groups: 22 selected CCGs, England, 1996-2010

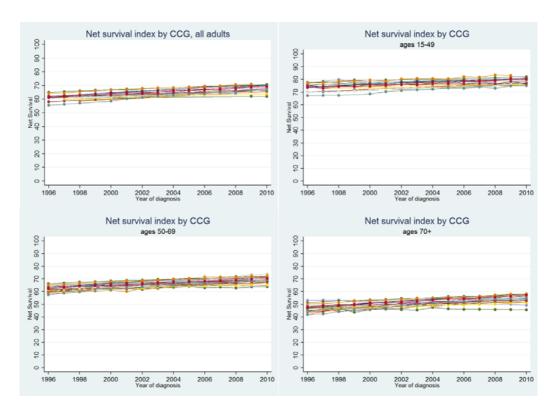


Figure 3
Clinical Commissioning Groups: Temporal trends in the one-year survival index, three common cancers combined, for all ages (top left panel) and for three broad age groups: 22 selected CCGs, England, 1996-2010

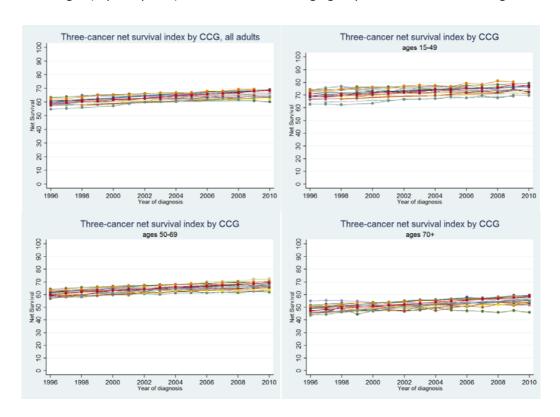


Figure 4

England (left-hand nanel): Temporal trends in the one-year survival index all cancer.

England (left-hand panel): Temporal trends in the **one-year** survival index, **all cancers combined** for three broad age groups and all ages combined: England, 1996-2010

England (right-hand panel): Temporal trends in the **one-year** survival index, **three common cancers** combined, for three broad age groups and all ages combined: England, 1996-2010

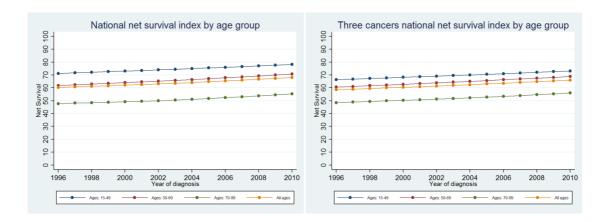


Figure 5
England (left-hand panel): Temporal trends in the five-year survival index, all cancers combined for three broad age groups and all ages combined: England, 1996-2007

England (right-hand panel): Temporal trends in the **five-year** survival index, **three common cancers** combined, for three broad age groups and all ages combined: England, 1996-2007

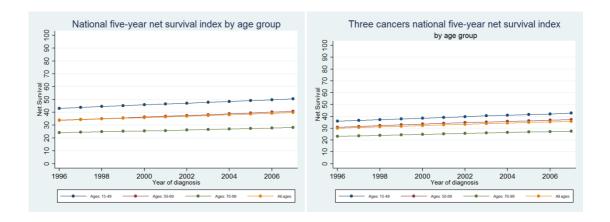


Figure 6Childhood cancer: trends in 5-year crude and age-standardised survival (%) for children (0-14 years) diagnosed in England during 1990-2006, by year of diagnosis

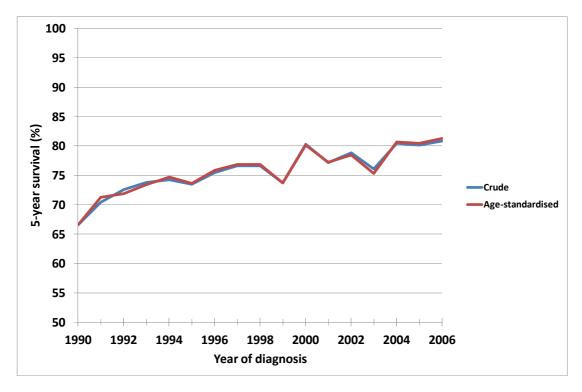


Figure 7
Childhood cancer: trends in 5-year survival (%) for children (0-14 years) diagnosed in England during 1990-2006, by year of diagnosis and age group

