



Public Health
England



13-24 year olds with cancer in England

Incidence, mortality and survival

National Cancer Registration and Analysis Service in collaboration with Teenage Cancer Trust

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Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000
www.gov.uk/phe
Twitter: [@PHE_uk](https://twitter.com/PHE_uk)
Facebook: www.facebook.com/PublicHealthEngland

For queries relating to this document, please contact: ncrasenquiries@phe.gov.uk



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NCRAS-Teenage Cancer Trust partnership: working together to make a difference to the lives of young people with cancer

Teenage Cancer Trust is the only UK charity dedicated to improving the quality of life and outcomes for the 7 young people aged between 13 and 24 diagnosed with cancer every day. Teenage Cancer Trust fund specialist units within NHS hospitals that bring young people together to be treated and supported by dedicated staff, including specialist nurses and youth support co-ordinators. We now have 28 units across the UK and fund over 75 specialist staff posts. Teenage Cancer Trust also educate young people about the signs of cancer, seeking to increase their knowledge and to significantly improve their diagnosis experience. We are currently providing our Education and Awareness presentations to 25% of all secondary schools in the UK.

In 2016, Teenage Cancer Trust agreed to fund a data analyst hosted by the National Cancer Registration and Analysis Service (NCRAS) in Public Health England (PHE) to gain a greater understanding of the current cancer landscape of teenagers and young adults. Our aim is to use the data already collected by NCRAS to publish up to date statistics, analyse trends and share finding with partners to improve cancer services and awareness. We report here incidence, mortality and survival for 13-24 years old who were diagnosed in England up to the end of 2015.

About the data

Age

The teenage and young adult (TYA) age group is not clearly defined, with variation seen both in the age range and the cancer sites included when counting cancer. The age group 15-24 is useful as it covers the standard 5-year age bands used when reporting populations, whereas NHS care is typically delivered either to 0-15 or 16-24 year-old populations. There is no international consensus on the most appropriate definition of the TYA or adolescent and young adult (AYA) population: data are also quoted for 15-29 or 15-39 age groups. However, for the purpose of this report the age range will follow that used by Teenage Cancer Trust. Teenage Cancer Trust supports young people aged between 13 and 24 years.

We have also broken down some reporting into smaller age groups to reflect recommendations of where TYA patients are treated according to their age: the care of patients aged 13-15 is almost always directed by a paediatric oncology Principal Treatment Centre (PTC). Patients aged 15-18 should have their care managed at a PTC for TYA cancers and those aged 19-24 should be given the choice of whether they are managed at a PTC or a centre closer to their home.

Diagnostic groups

For adults, cancer statistics are largely classified according to the topography code indicating the site of the tumour in the body using schemes such as the 10th revision of the International Classification of Diseases (ICD-10). The types of cancer that affect TYA patients are different to those diagnosed in older adults and are more usefully presented in terms of morphology, indicating the cell and tissue types from which the cancer originates and what type of cancer it is (eg carcinoma, sarcoma, leukaemia or lymphoma). For this purpose a diagnostic classification scheme was developed by Birch et al¹, combining the International Classification of Diseases for Oncology version 2 (ICD-O2) registered site and morphology code.

This TYA classification system, with minor amendments, can be found in Appendix 1. This scheme is similar to the International Classification for Childhood Cancer (ICCC), but more appropriately grouped for the distribution of cancers found in the TYA age range.

In this report, TYA cancer was defined as all invasive tumours (ICD10 C00-C97) and benign/uncertain brain, other CNS and intracranial tumours (ICD-10 D32-D33, D35.2-D35.4, D42-D43 and D44.3-D44.5) diagnosed in 13-24 year olds. Non-melanoma skin

cancers (NMSC) (ICD-10 C44) is very common in the adult population and the cases notified to the national registry are known to be under-estimated and unreliable for comparison purposes due to varied recording practices. In the TYA population the incidence of NMSC is thought to be low and was therefore included in this report.

Methodology

Information on young people aged 13-24 years diagnosed in England between 2001 and 2015 were extracted from the National Cancer Registration and Analysis Service (NCRAS). Registrations designated as death certificate only (DCO) accounted for 0.2% of cases (n=54). Those registrations that could not be assigned according to the Birch classification (<0.1%, n=2) were excluded from all analysis.

Cases of cancer were counted separately for each primary tumour. One person may be diagnosed with more than one tumour and would then appear twice in incidence statistics. However this is rare in the 13-24 year old age group: 98.7% of patients in this dataset had only one tumour. Recurrences of a previous cancer were not counted as new cases.

Cancer is relatively rare in TYA compared with the adult population: less than 1% of all cancers are diagnosed in 13-24 year olds. In this report rates are quoted per million rather than per 100,000 population. The 95% confidence intervals (CIs) were calculated using Byar's approximation.

To study regional variation we assigned cases by postcode at diagnosis to National Cancer Vanguard and Cancer Alliances (NCVCA), geographically defined English regions established by NHS England in 2016 with a remit to transform diagnosis and treatment in their local areas². Current NCVCA boundaries, supplied by ONS³, were applied for the analysis by geographical region to enable consistent comparison over time. In this report NCVCA will be referred to as Cancer Alliances.

The population-weighted quintile of the income domain from the Indices of Multiple Deprivation (IMD2015)⁴ was derived by assigning each tumour to the deprivation category of their Lower Super Output Areas (LSOAs) using the postcode of residence at time of diagnosis.

Mortality rates were calculated for people aged between 13 and 24 years at time of death who were resident in England at diagnosis and died between 2001 and 2015. Only the first tumour for each patient with a cancer cause of death that best matched the diagnosis ICD-10 code was included in the calculation of mortality rates. Cause of death was derived from Medical Certificates of the Cause of Death (MCCD), obtained from ONS. Tumours were classified according to the Birch classification.

One and five-year survival was estimated using the Kaplan Meier (KM) method⁵ in Stata version 13.1⁶ using the STSET command. KM is a good estimator for survival for ages below 18 years old due to fewer non-cancer deaths in cancer patients. Above the age of 18 survival estimates are slightly artificially lowered by the rise in mortality through suicide and transport accidents in the general population. Each case was censored for follow-up at 31 December 2016 or at death (from any cause) if earlier. DCO cases were excluded.

Patients with a recorded survival time of zero (date of diagnosis is the same as the date of the death) but are not DCO registrations were included by adding one day to the recorded date of death. One-year survival was assessed for the years 2001-05, 2006-10 and 2011-15; five-year survival for the years 2001-05 and 2007-11.

Incidence

England

Cancer in 13-24 year olds is rare: on average 2,397 cases were diagnosed annually between 2013 and 2015. This age group made up only 0.75% of all cancers, excluding NMSC, diagnosed in England during the same period. The incidence of cancer for young women was significantly higher than in young men (Table 1).

Table 1. Average annual number of cases and crude incidence rates per 1,000,000 population for 13-24 year olds in England, 2013-15

	Average annual cases	Crude rate per million	95% CIs
Male	1,162	283	274 – 292
Female	1,235	315	305 – 325
Persons	2,397	298	292 – 305

By age

The incidence for all cancers combined in 13-24 year olds increased with age (Figure 1) with more than two thirds diagnosed in 19-24 year olds (Table 2). However, the age distributions vary significantly depending on cancer type; some cancers have relatively even incidence across all ages, some become more common with increasing age, others less common. Detailed figures can be found in the Appendix.

Table 2. Average annual number of cases and crude incidence rates per 1,000,000 population by age group in England, 2013-15

	Average annual cases	Crude rate per million	95% CIs
13-15	313	171	161 – 183
16-18	465	240	227 – 252
19-24	1,620	379	369 – 390
13-24	2,397	298	292 – 305

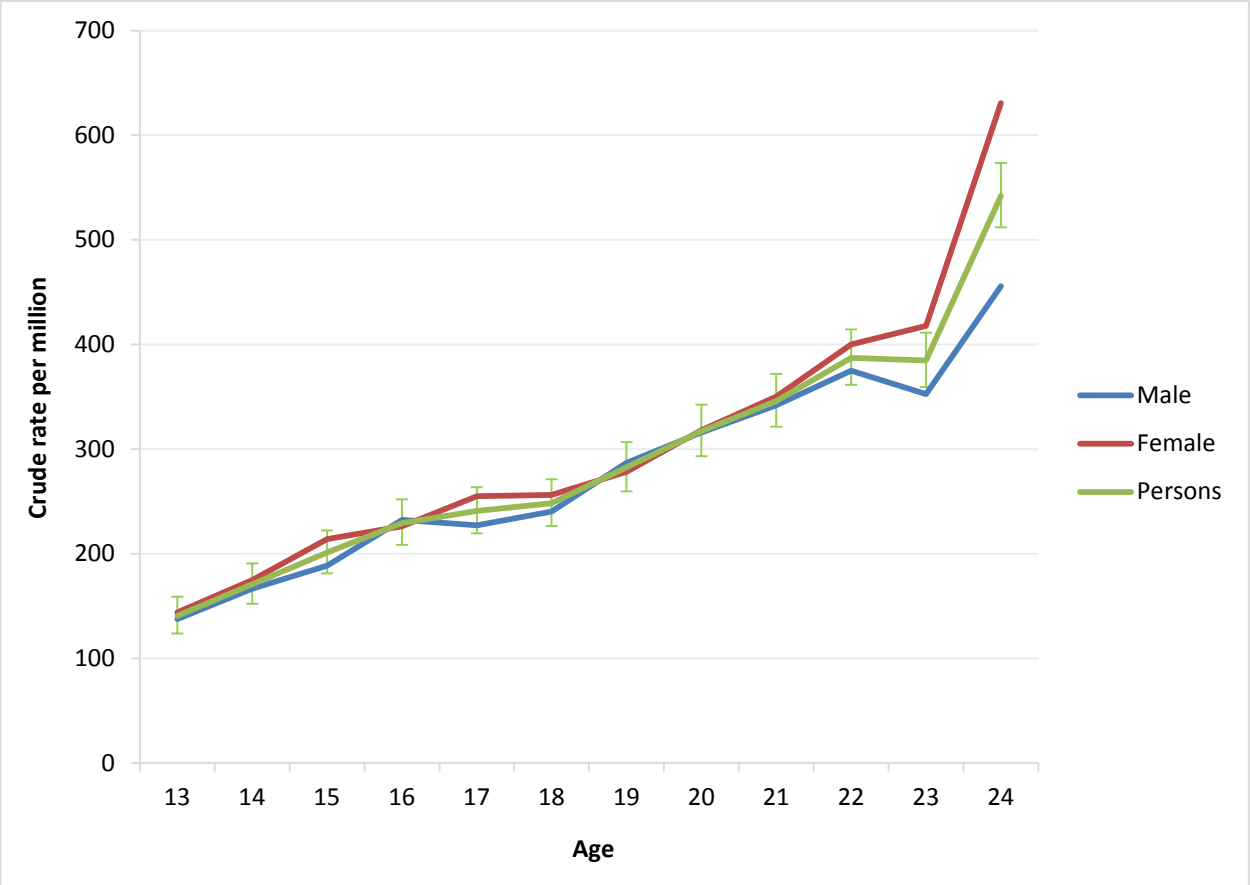


Figure 1. Crude incidence rate per 1,000,000 population by age at diagnosis, 2013-15.

By diagnostic group

The distribution of cancers by broad diagnostic group is shown in Figure 2. Overall in the 13-24 year old age group the most common diagnostic group was carcinomas (24%); followed by lymphomas (19%), central nervous system (14%), skin (12%), germ cell (12%) and leukaemias (8%). However, when comparing between the sexes the distribution is different. For males, germ cell tumours (21%) were the most common, testicular cancer making up 93% of these. For females, carcinomas (36%) were much more frequent. Rates for thyroid carcinomas and carcinomas of the colon and rectum rates were much higher when compared to males. There were also high rates of the female specific carcinomas, predominantly cervix and ovary. Skin cancer rates were also significantly higher in females when compared to males. The average number of cases per year and crude rates for each cancer sub-group are shown in detail by age group in Appendix 2, 3a (males) and 3b (females).

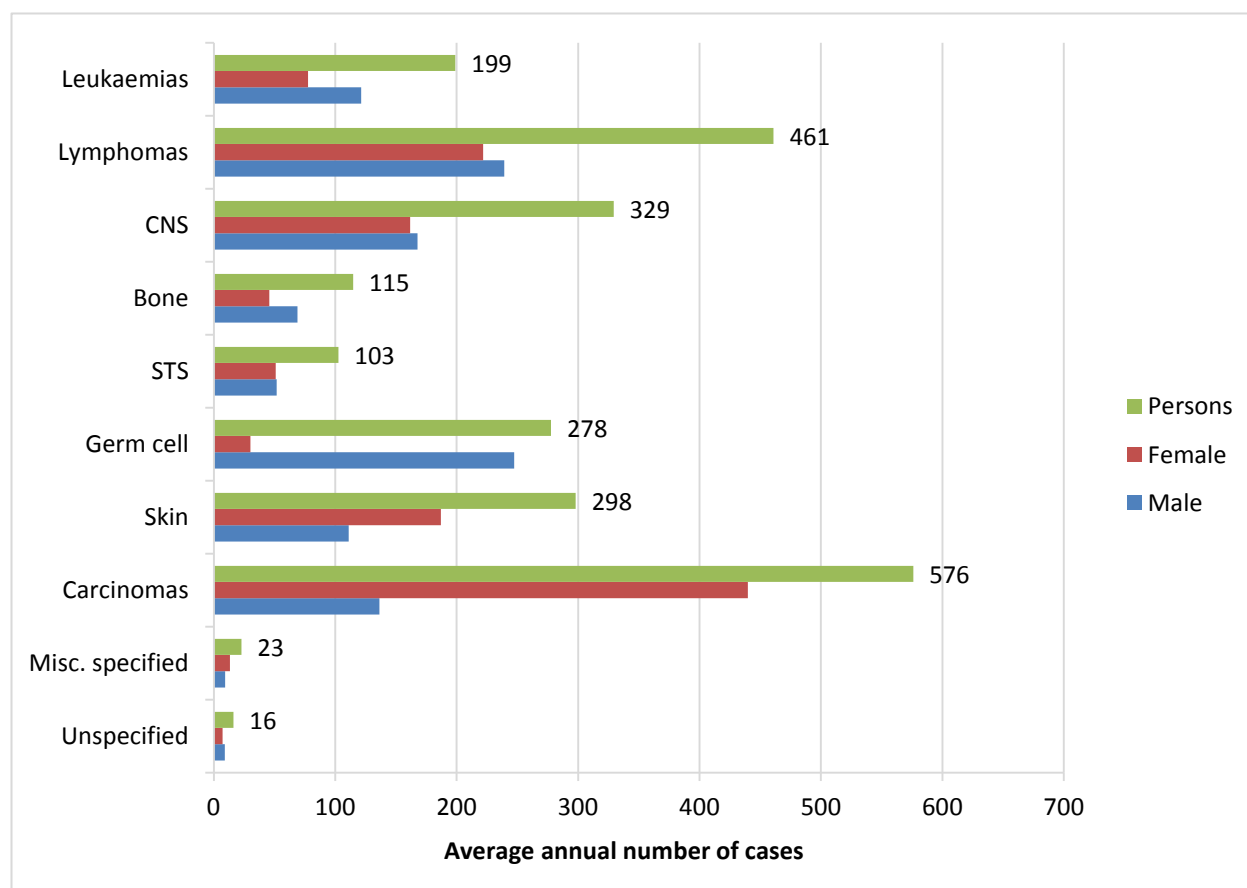


Figure 2. Average annual number of cases by broad Birch diagnostic group for 13-24 year olds, 2013-15

The 10 most common cancers in males and females, broken down by subgroup, are shown in Figure 3 and Figure 4. The testicular germ cell subgroup was the most common subtype in males. In females, thyroid, ovarian, cervical and colorectal carcinomas were more common than in males along with higher rates of skin cancers.

ALL, NHL, HL, melanoma, skin carcinoma and carcinoma of the colon and rectum were among the most common subtypes for both sexes.

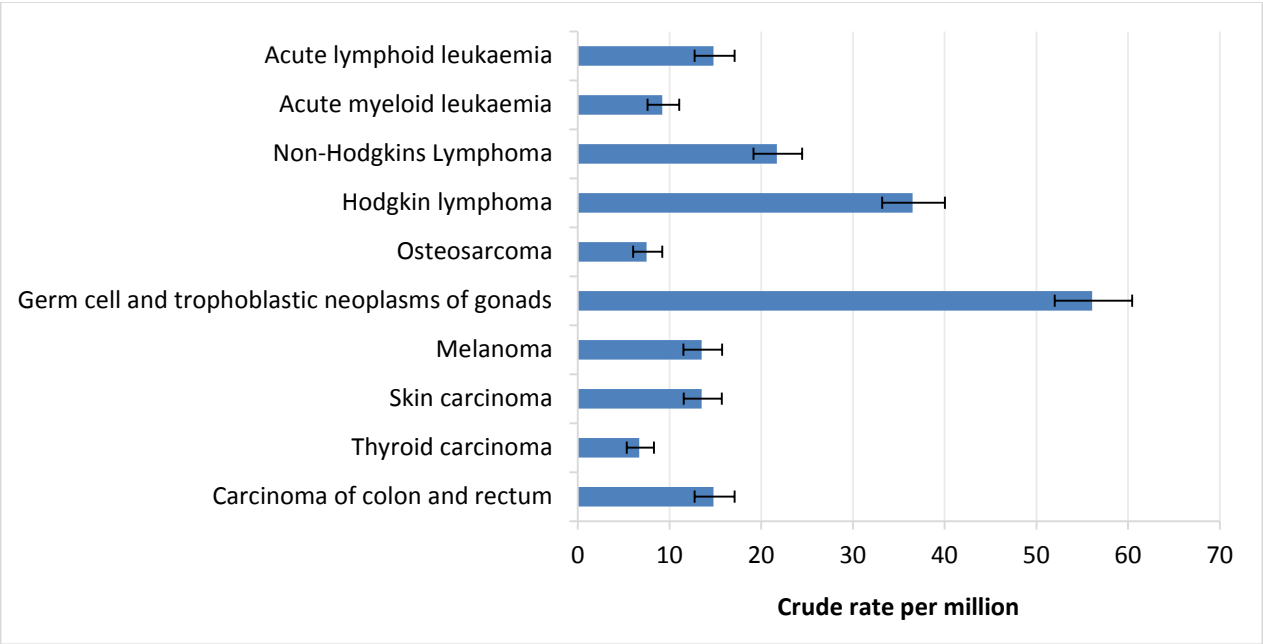


Figure 3. Crude incidence rates per 1,000,000 population for the ten most common cancer subgroups in males aged 13-24 years, 2013-15

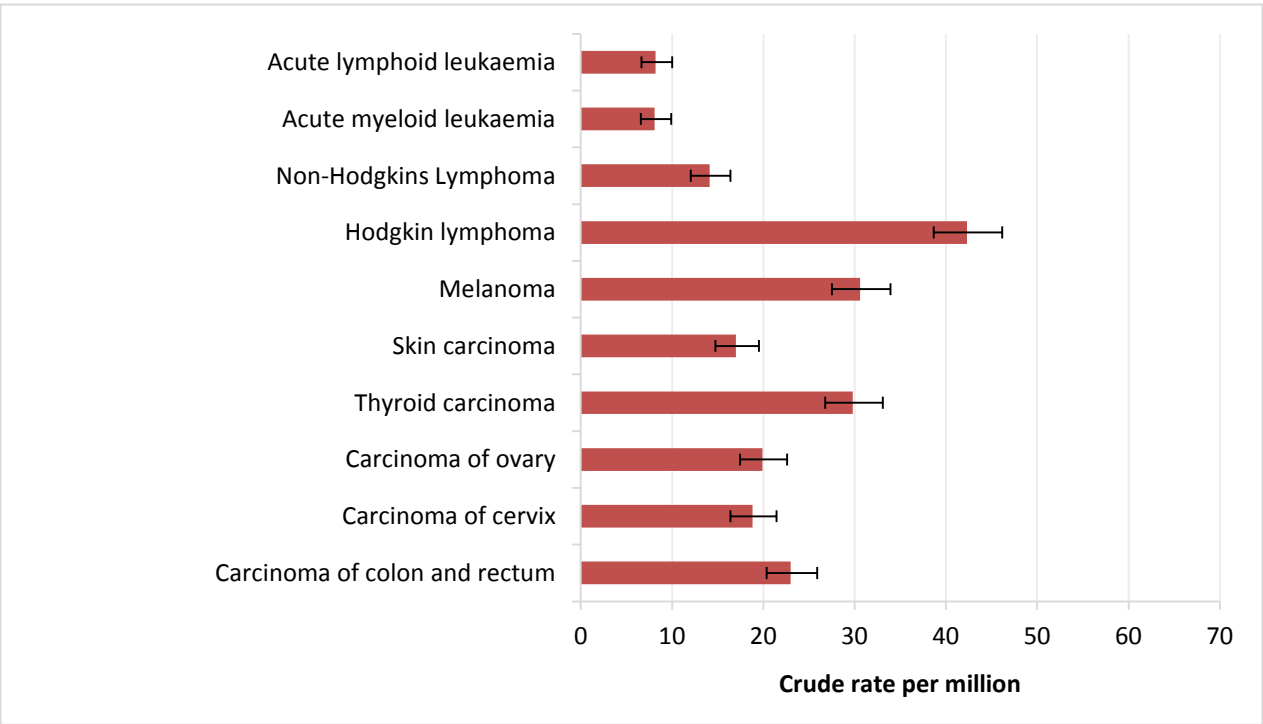


Figure 4. Crude incidence rates per 1,000,000 population for the ten most common cancer subgroups in females aged 13-24 years, 2013-15

Cancer Alliances

The lookup tables (April 2017) for Cancer Alliances and LSOAs within them were supplied by ONS and used to determine the rates of cancers in the different age bands in 13-24 year olds. The average annual number of cases diagnosed in each region, assigned to a Cancer Alliance, are shown in Figure 5. There was a very large variation in the number of cases diagnosed in each Cancer Alliance with West Midlands and East of England having much larger burdens in this age group. However, this is heavily dependent on the size of the population within the Cancer Alliance.

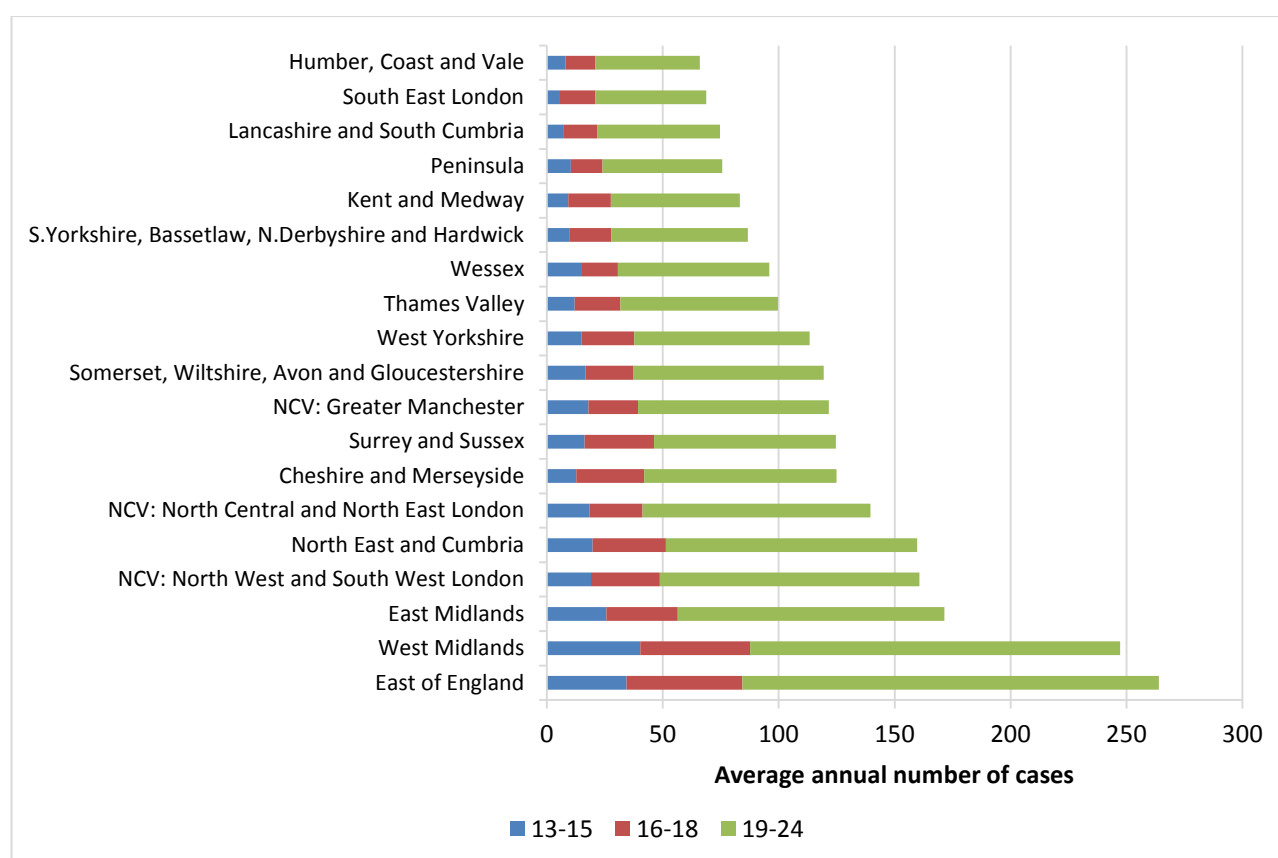


Figure 5. Average annual number of cases by Cancer Alliance and age group, 2013-15

When comparing the crude rates, which take into account the population of 13-24 year olds, there was much less variation between regions (Figure 6). For 13-15 year olds, the regions with highest incidence rates, West Midlands (201.0 per 1,000,000 persons) and North East and Cumbria (198.6), were almost double than those with the lowest rates, South East London (103 per 1,000,000 person years) and Lancashire and South Cumbria (123.6). For 16-18 year olds, Wessex (179.0) and National Cancer Vanguard: North Central and North East London (202.3) had the lowest rates, with the highest in Cheshire and Merseyside (335.6) and North East and Cumbria (430.45). For 19-24 year olds Wessex (322.9) and East Midlands (329.6) had the lowest rates, with the highest in the National Cancer Vanguard: North West and South West London (443.0) and Cheshire and Merseyside (430.5).

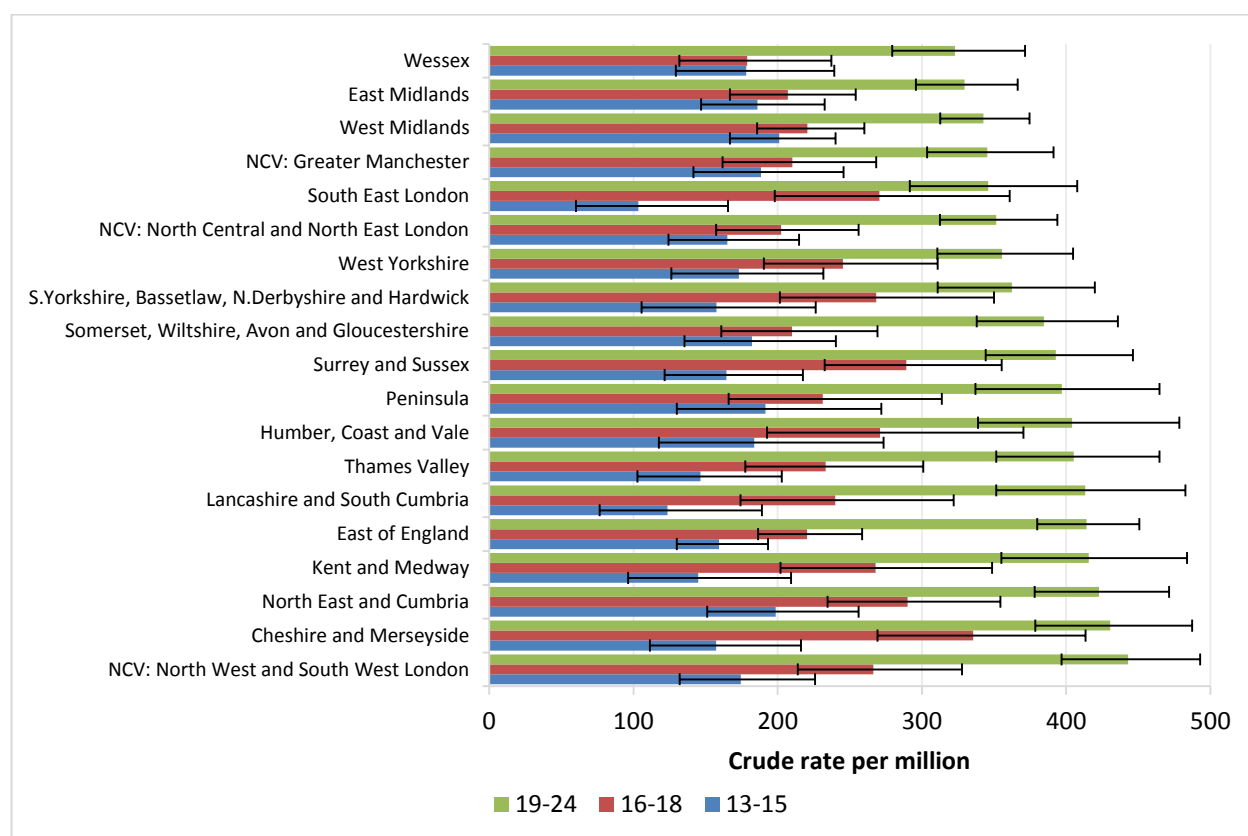


Figure 6. Crude incidence rates per 1,000,000 population by Cancer Alliance and age group, 2013-15

Trends

The age specific rates of all cancers combined in 13-24 year olds has increased in England from 233.1 per million in 2001 to 299.7 per million in 2015. The trends in incidence for males and females are shown in Figure 7. Cancer incidence in females has been higher than in males since 2012.

The age group that has seen the largest increase in cancer incidence has been 19-24 year olds (Figure 8). When broken down by diagnostic group there was little variation over time, with the exception of carcinomas which has seen a large increase in incidence and overtook lymphomas to become the most common cancer group in TYAs since 2011 (Figure 9). This increase has largely been in thyroid carcinomas and to a smaller extent in ovarian and cervical carcinomas. The reclassification of appendiceal carcinoids to malignant tumours since 2011 has contributed to a large increase in the colon and rectum carcinomas incidence.

A near doubling in TYA thyroid cancer cases was almost exclusively due to a rise in the incidence of papillary thyroid cancer, and is part of a continuing worldwide phenomenon of increasing thyroid cancer incidence evident since the 1970s⁷. In the US, overdiagnosis of small, indolent and asymptomatic tumours is believed to explain most of the increase in AYA thyroid carcinoma since 2000⁸, although over the longer period 1984-2010 there were significant trends for tumours of all sizes⁹.

Increases in carcinomas of the colon and rectum were almost entirely found in ICD-10 C18.1 (malignant neoplasm of appendix). This increase is a result of a change in coding of appendiceal carcinoid tumours in 2011 from non-malignant to malignant. For this reason incidence and survival trends of colorectal cancers should not be directly compared before and after 2011 without first excluding appendiceal carcinoids.

We observed a dramatic increase in cervical cancer in young women aged 24. This trend in English cervical cancer incidence has been reported recently and is limited to FIGO stage IA and IB cancers¹⁰. It coincides with a lowering of the age at first invitation to cervical cancer screening in 2012 from 25 years to 24.5 years to increase the proportion of young women screened as close as possible to their 25th birthday¹⁰. In parallel, there has also been a trend of increasing cervical cancer diagnosis in young women aged 25 to 30 in England since approximately 2006¹⁰. The rise has been linked to aetiological factors for transmission of the human papilloma virus (HPV) such as reductions in the age at first sexual intercourse and rising rates of sexually transmitted infections in young women¹¹, combined with the introduction of nationwide cervical cancer screening from the age of 25 years from 2004. HPV vaccination in school-age girls is expected to lead to a reduction in cervical cancer incidence; that reduction is not yet evident.

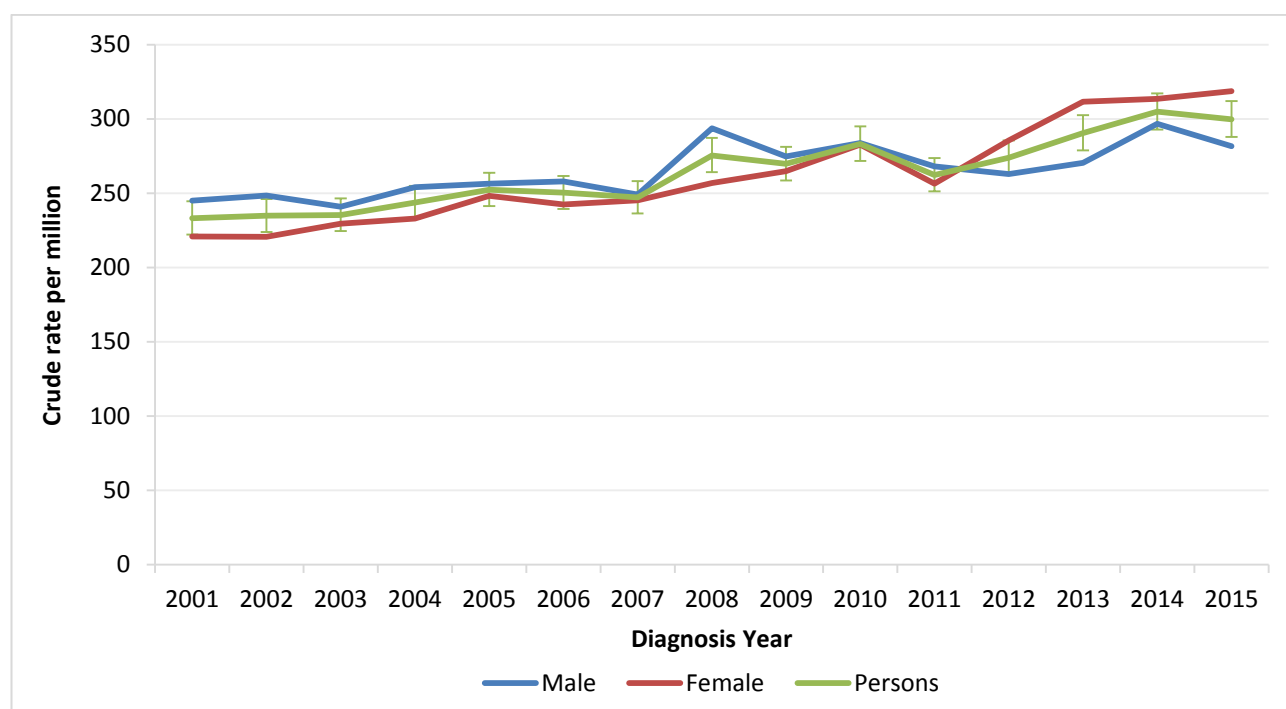


Figure 7. Crude incidence rates per 1,000,000 population by year of diagnosis and sex

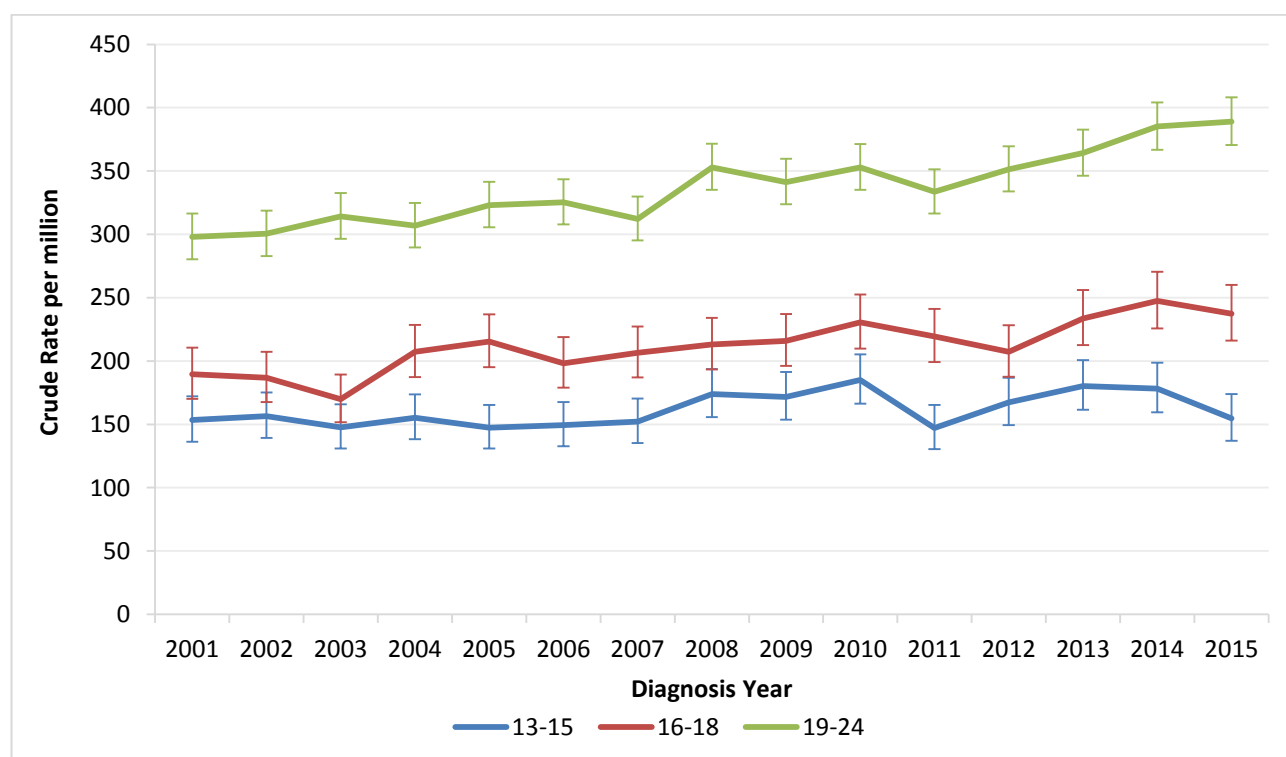


Figure 8. Crude incidence rates per 1,000,000 population by year of diagnosis and age group

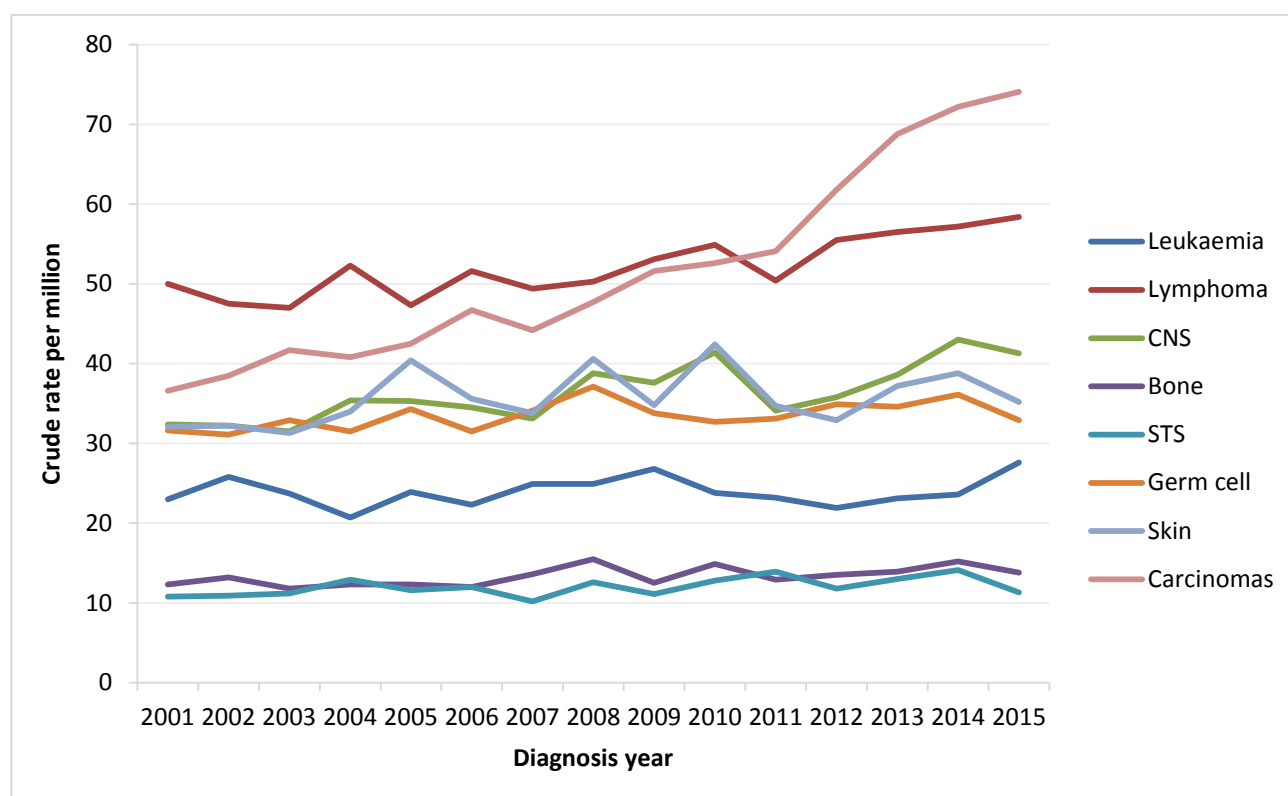


Figure 9. Crude incidence rates per 1,000,000 population by year of diagnosis and broad Birch diagnostic group

Deprivation

Each cancer patient in the study was assigned a deprivation quintile based on their postcode at diagnosis. The income score of the IMD2015 along with the mid-2012 population estimates were used to calculate the population weighted quintile of income-related deprivation. This quintile is based on all ages of the population.

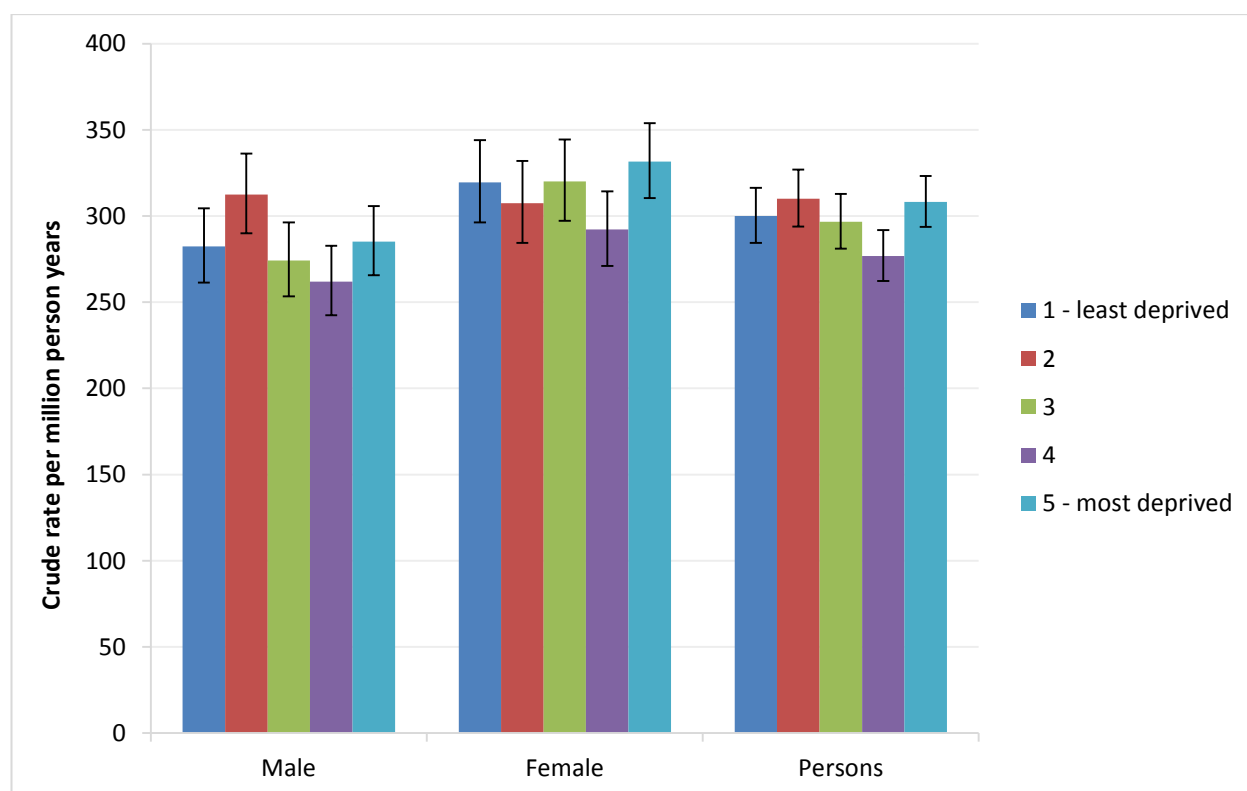


Figure 10. Crude incidence rates per 1,000,000 population for 13-24 year olds by deprivation quintile, 2013-15.

Figure 10 shows significantly higher incidence in quintile 2 when compared to quintile 4 for males (Q2: 312.5 [95% CI 290.0-336.3], Q4: 262.0 [95% CI 242.4-282.8]) and persons (Q2: 310.1 [95% CI 293.9-326.9], Q4: 276.8 [95% CI 262.4-291.8]).

There were significant differences in incidence rates between deprivation quintiles for the following diagnostic groups: leukaemias, skin cancers and carcinomas (Figure 11). The incidence rate for leukaemias was significantly higher in quintile 2 (Q2: 29.6 [95% CI 24.8-35.1]) when compared to quintile 4 (Q4: 19.5 [95% CI 15.8-23.8]). The incidence rate for skin cancers was significantly higher in the 2 least-deprived quintiles (Q1: 45.1 [95% CI 39.2-51.7]), Q2: 43.8 [95% CI 37.9-50.4]) when compared to the 2 most-deprived quintiles (Q4: 28.8 [95% CI 24.3-33.9], Q5: 33.0 [95% CI 28.4-38.2]). The incidence rate for carcinomas was significantly higher in the 2 most-deprived quintiles (Q4: 78.1 [95% CI 70.5-86.3], Q5: 79.3 [95% CI 72.0-87.1]) when compared to the least-deprived quintile (Q1: 59.4 [95% CI 52.6-66.9]).

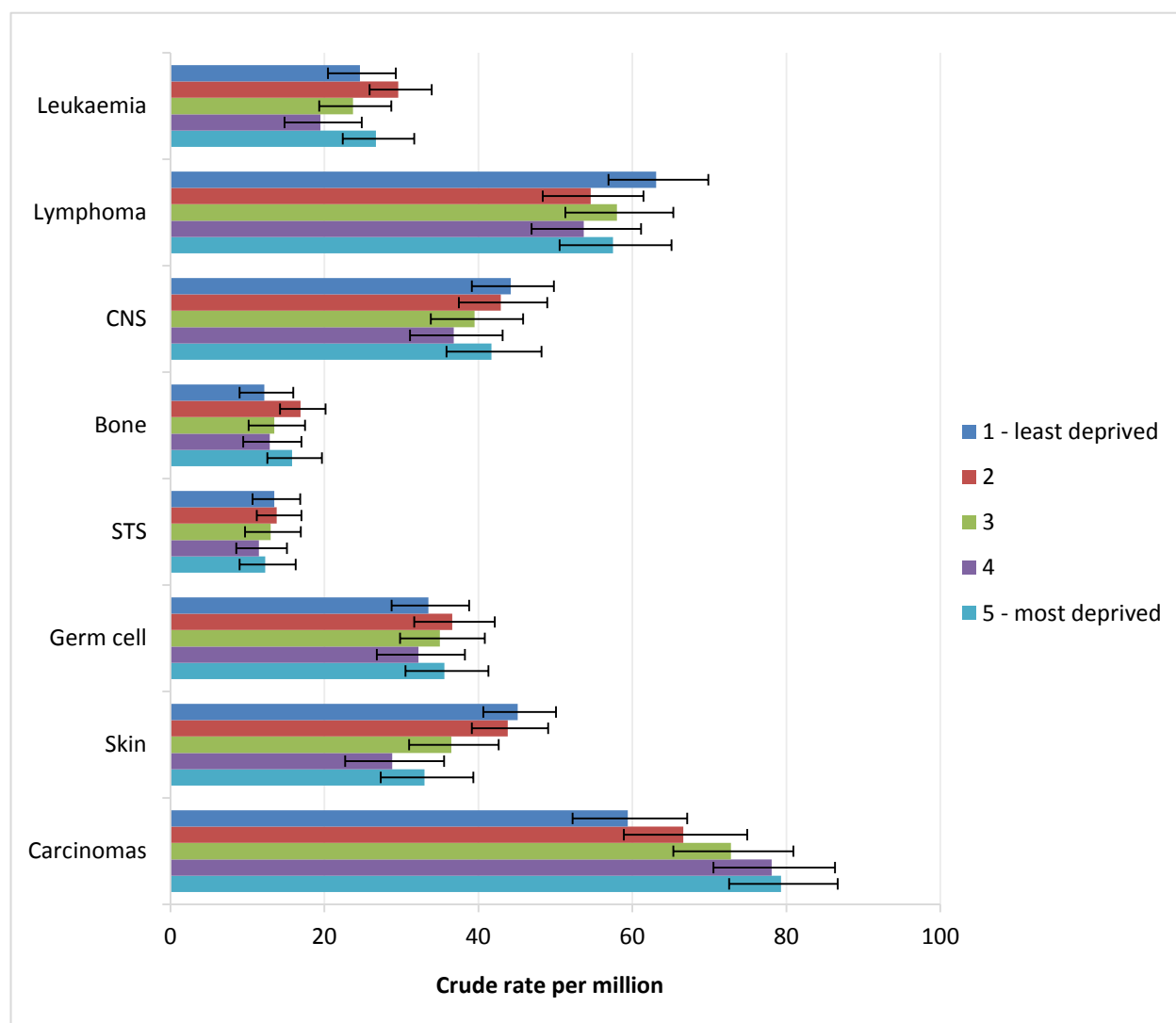


Figure 11. Crude incidence rates per 1,000,000 population for 13 to 24 year olds by deprivation quintile and broad Birch diagnostic group, 2013-15.

Mortality

For deaths between 2001 and 2015, there was agreement between the registered site code and the broad cancer site code recorded on the MCCD in 3,615 (91.1%) of cases. For 355 cases the broad cancer sites recorded in the registry and in the MCCD were different. For all cases the cancer registry diagnosis was used. The greatest disparity was for cases recorded in the MCCD with ill-defined sites or unknown primary malignancy codes where only 23% and 31% respectively matched the cancer registry cancer. For the most recent years more males died of cancer each year than females although there was no significant difference in the crude rates (Table 3).

Table 3. Average annual number of deaths and crude mortality rates per 1,000,000 population for 13-24 year olds in England, 2013-15

	Annual annual deaths	Crude rate per million	95% CIs
Male	142	35	31 – 38
Female	113	29	26 – 32
Persons	255	32	30 – 34

By age

The all cancers mortality 13-24 year olds generally increased with age (Figure 12) with the majority of deaths from cancers occurring between the 19-24 age group (Table 4). However, the age distributions vary significantly depending on cancer subtype with some plateauing and decreasing with age, which can be seen in detail in the Appendix.

Table 4. Average annual number of deaths and crude mortality rates per 1,000,000 population by age group at death in England, 2013-15

	Annual annual deaths	Crude rate per million	95% CIs
13-15	36	20	16 – 24
16-18	57	30	25 – 34
19-24	162	38	35 – 41
13-24	255	32	30 – 34

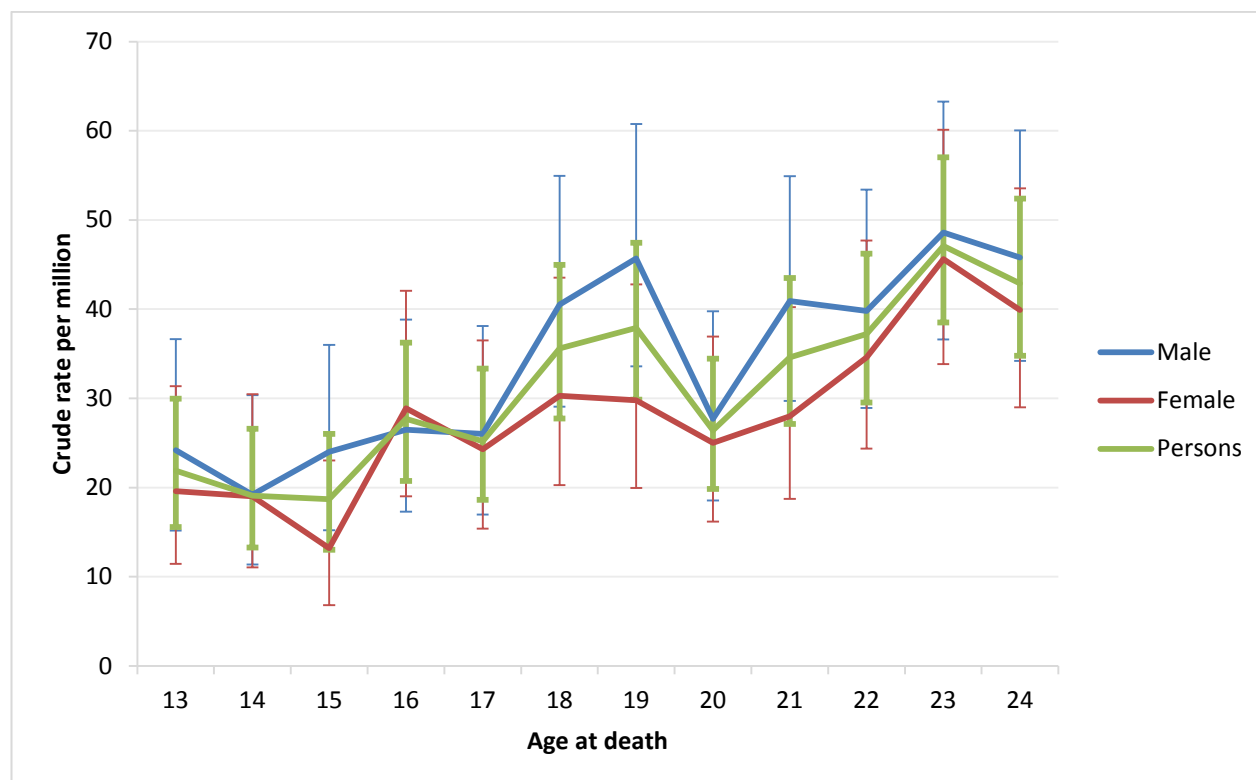


Figure 12. Crude mortality rates per 1,000,000 population by age at death, 2013-15

By diagnostic group

The distribution of cancers by diagnostic group is shown in Figure 13. The largest number of deaths were from CNS tumours followed by malignant bone tumours, leukaemias and carcinomas. The average number of cases per year and age specific rates for each individual sub-group are shown in detail by age group in Appendix 4, 5a (males) and 5b (females).

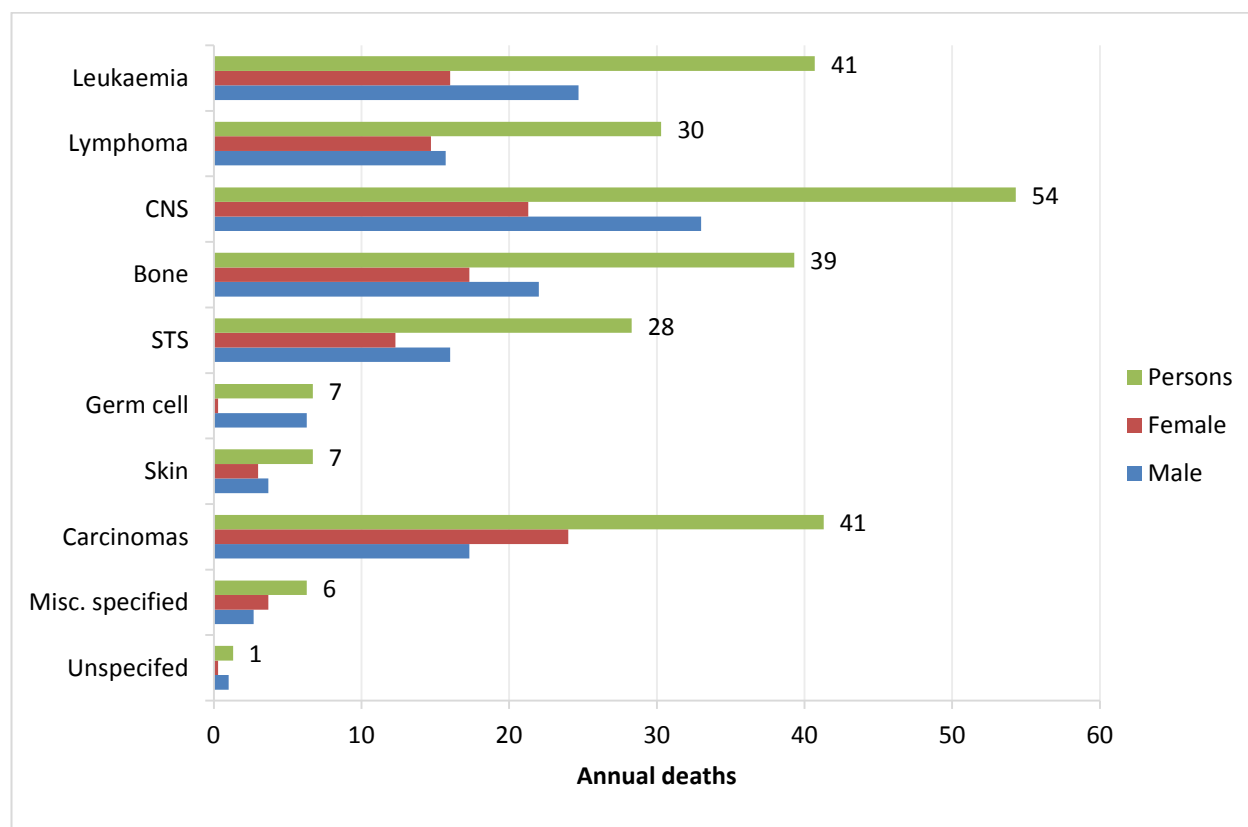


Figure 13. Average annual number of deaths by broad Birch diagnostic group, 2013-15

The 10 cancers with the most deaths in males and females, broken down by subgroup, can be found in Figure 14 and Figure 15.

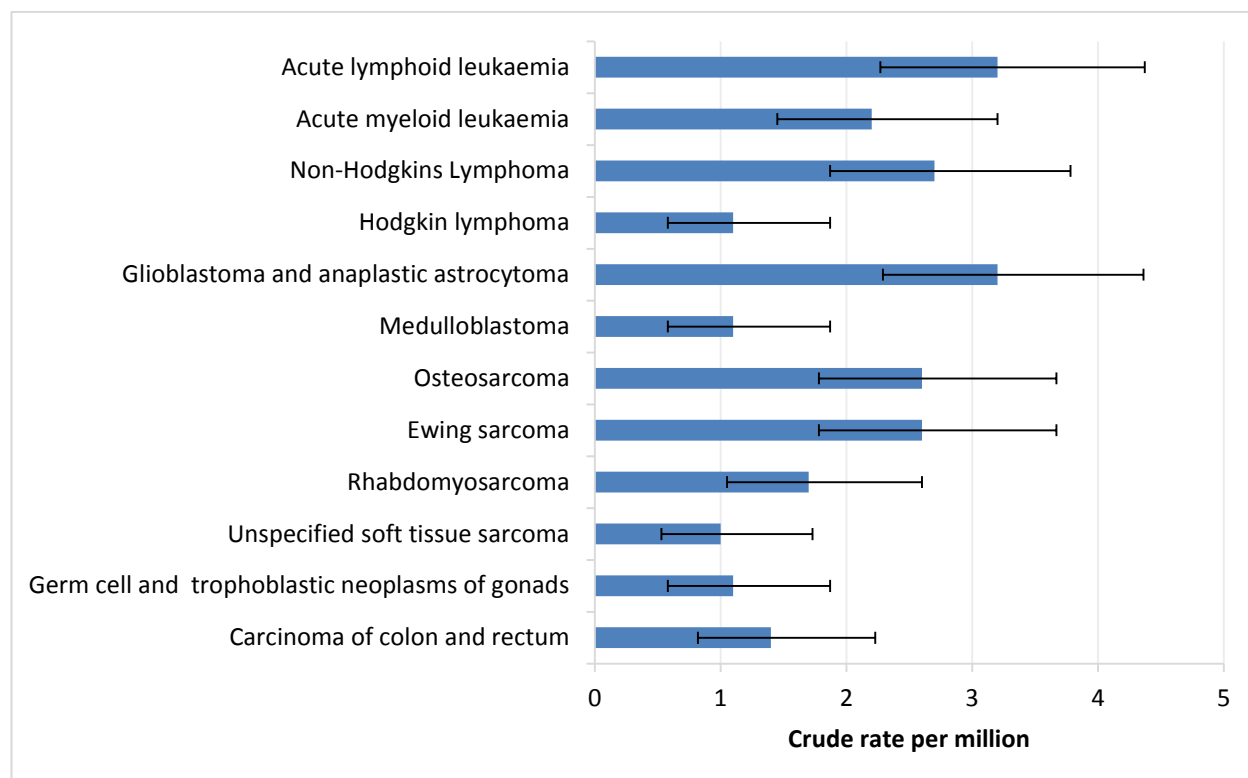


Figure 14. Crude mortality rates per 1,000,000 population for the ten most common cancer subgroups in males aged 13-24 years at death, 2013-15

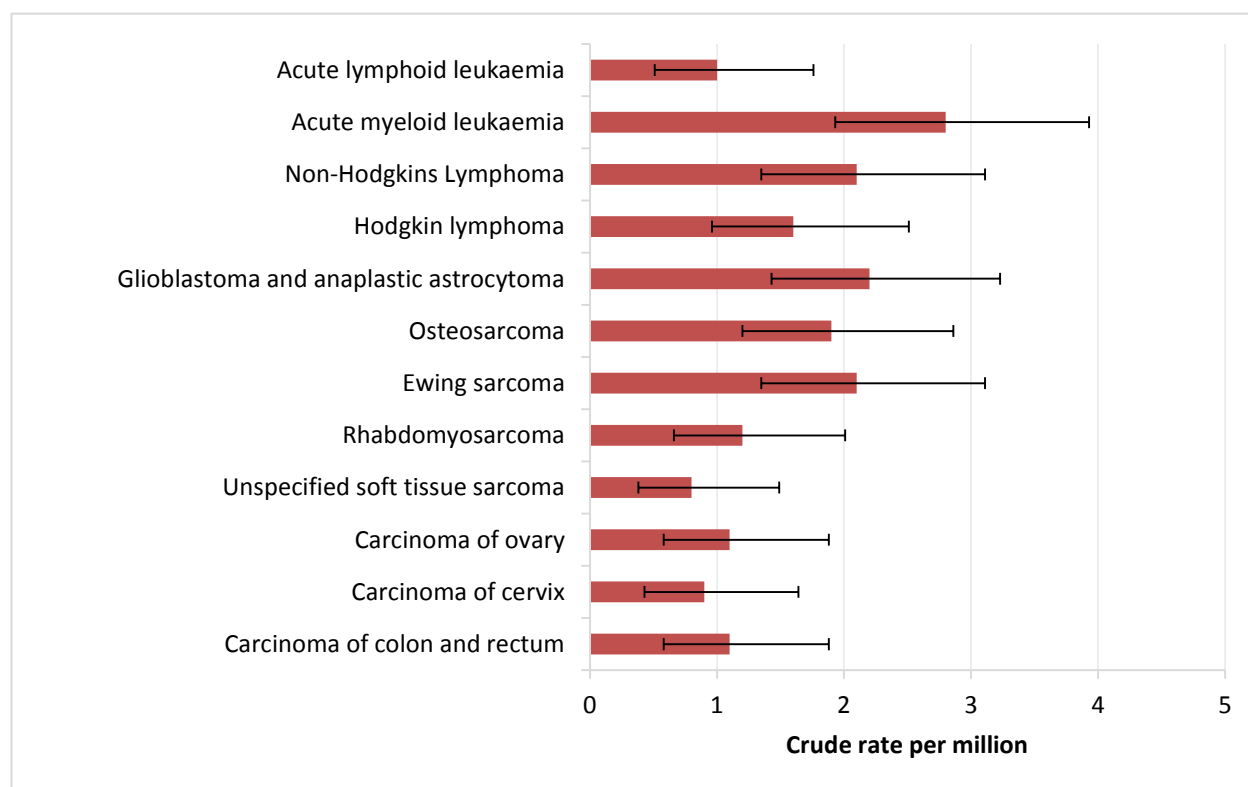


Figure 15. Crude mortality rates per 1,000,000 population for the ten most common cancer subgroups in females aged 13-24 years at death, 2013-15

Cancer Alliances

As expected, the areas assigned to each Cancer Alliance with the highest incidence of TYA cancer also had the highest number of deaths due to cancer but there was some variation in the ratio of deaths between the 3 age bands (Figure 16). There were no significant differences in crude mortality rates between any of the Cancer Alliances (Figure 17).

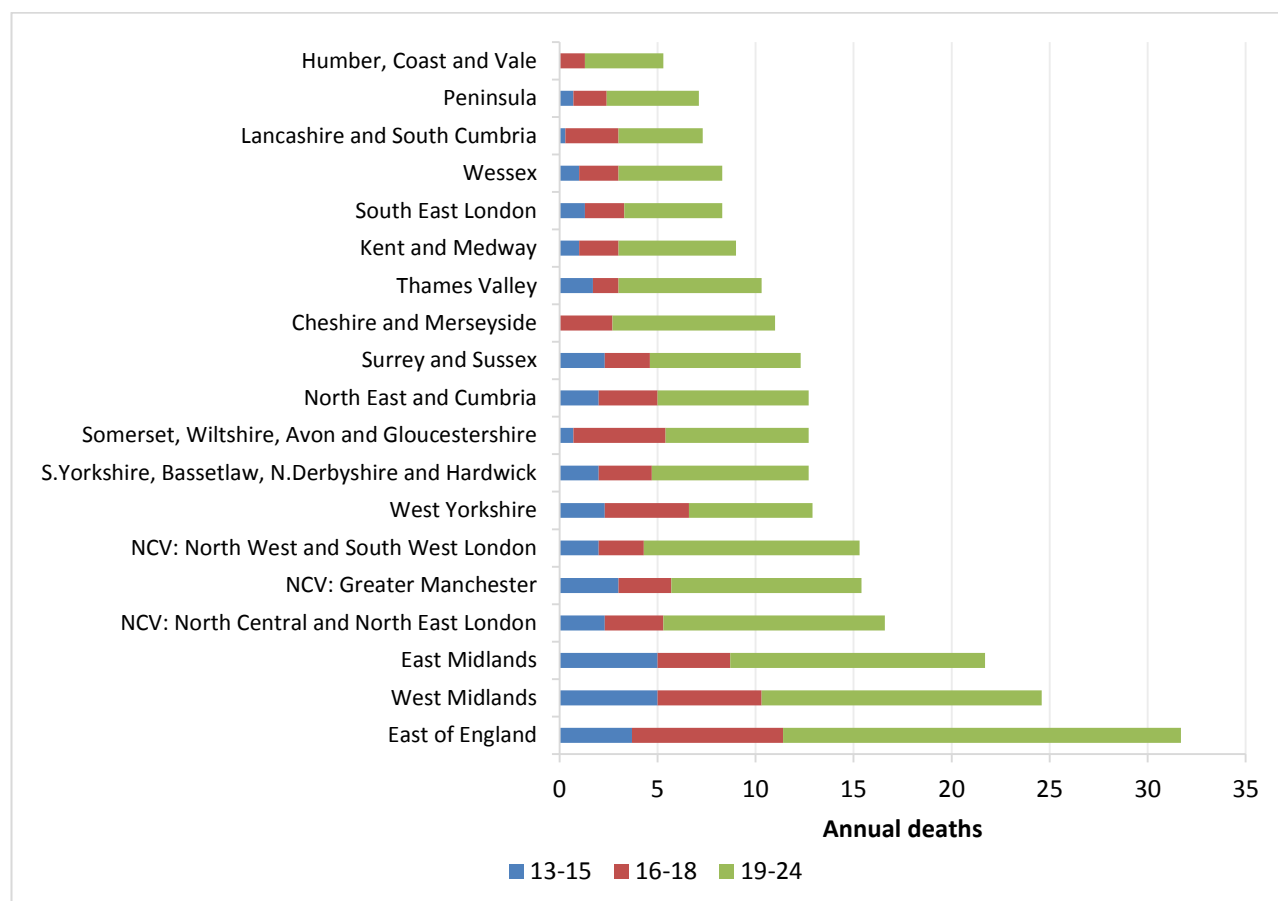


Figure 16. Average annual number of deaths by Cancer Alliance and age group at death, 2013-15

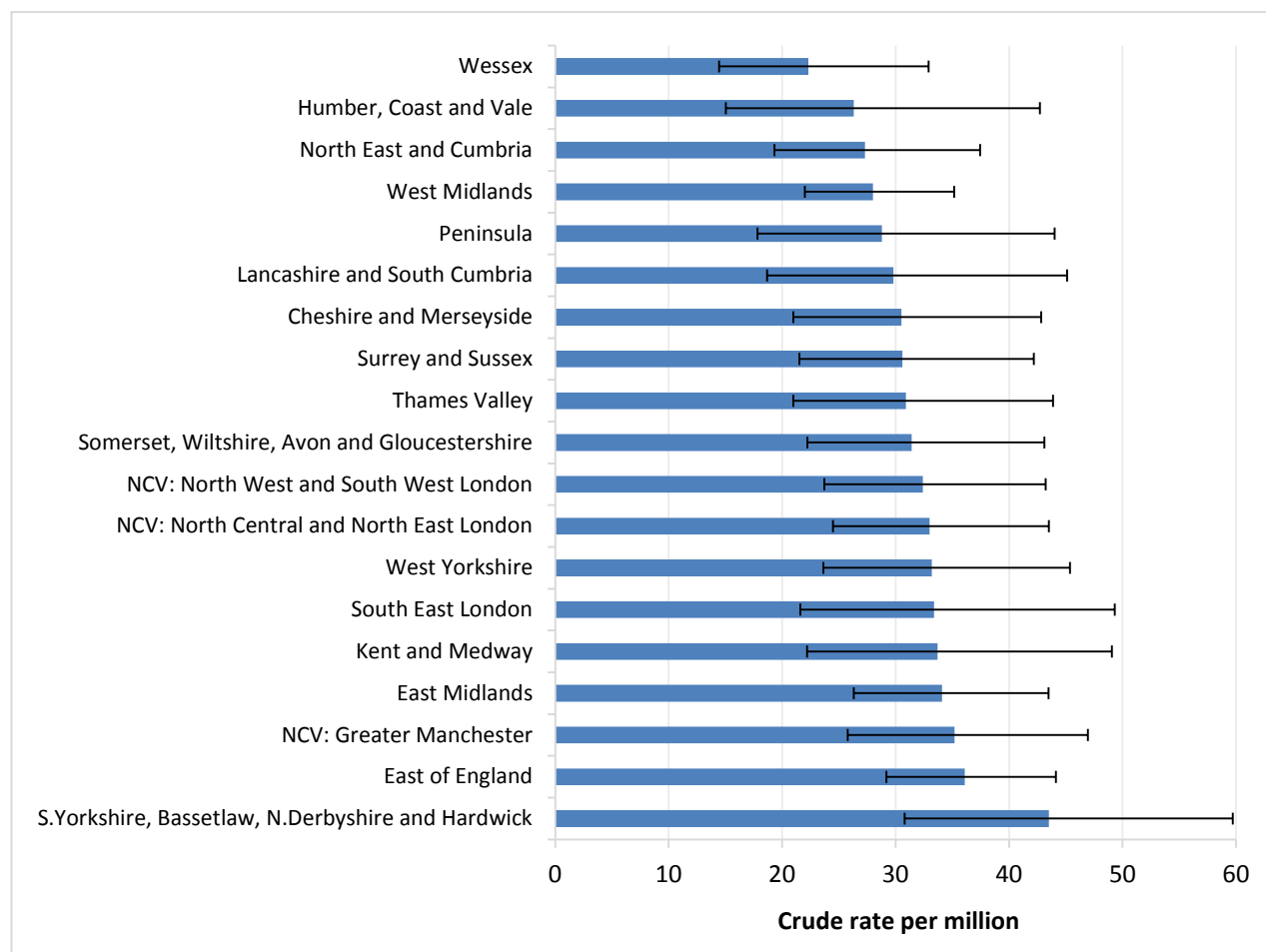


Figure 17. Crude mortality rates per 1,000,000 population for those aged 13-24 years at death, 2013-15

Trends

In contrast to incidence, the age-specific mortality rates of all cancers combined in 13-24 year olds have decreased from 2001 to 2015 as seen in Figure 18.

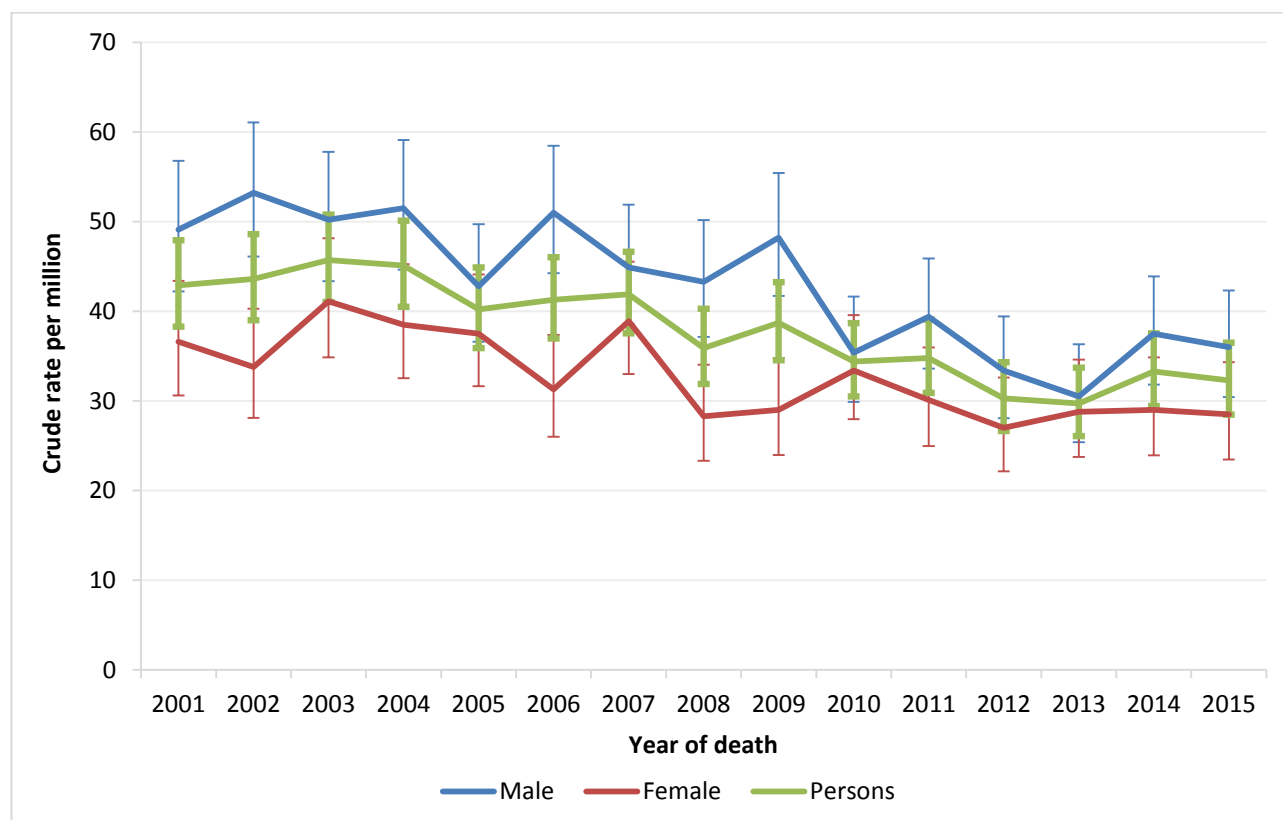


Figure 18. Crude mortality rates per 1,000,000 population for 13-24 year olds by year of death

Mortality has decreased over time in all 3 age bands (Figure 19). The largest reduction in mortality between 2001 and 2015 has been in the leukaemia diagnostic group with reductions also seen in CNS tumours, bone and lymphoma (Figure 20).

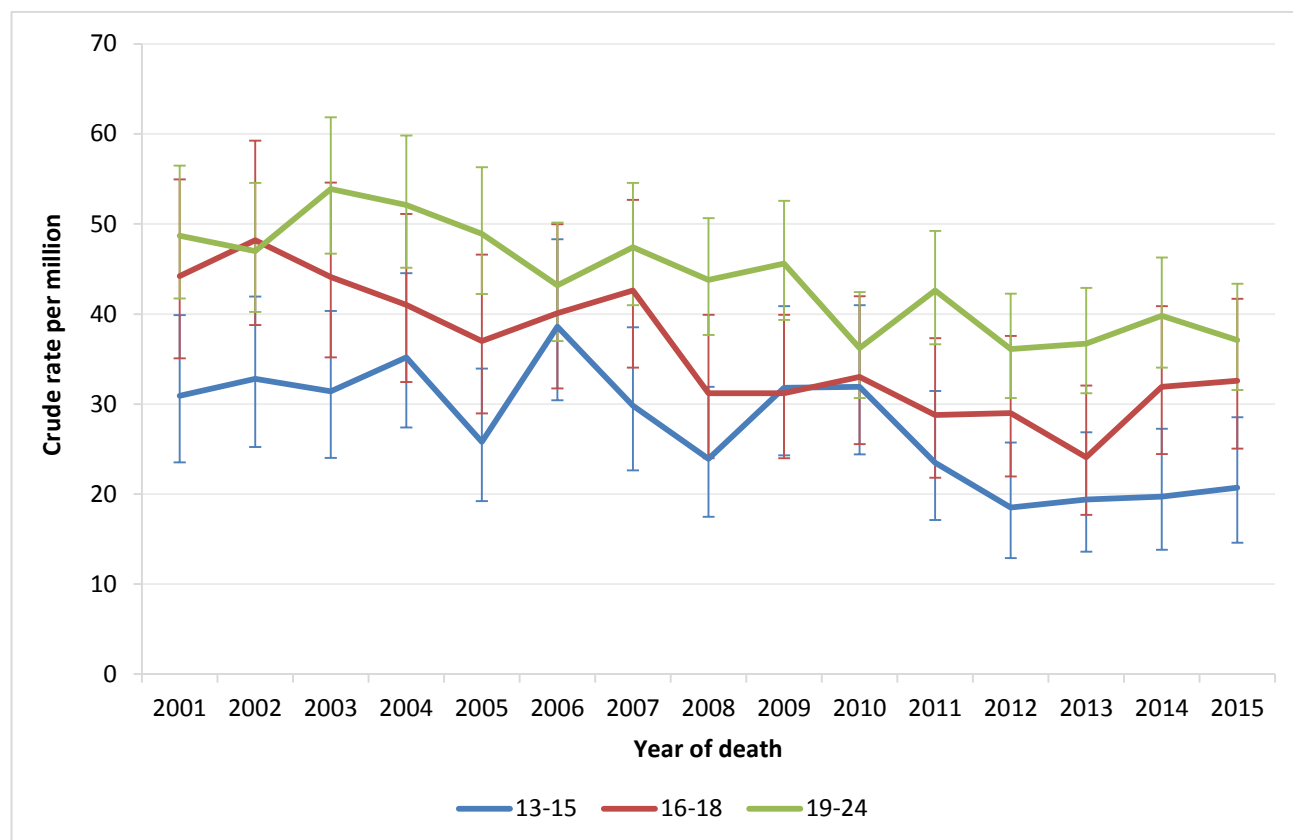


Figure 19. Crude mortality rates per 1,000,000 population by age group and year of death

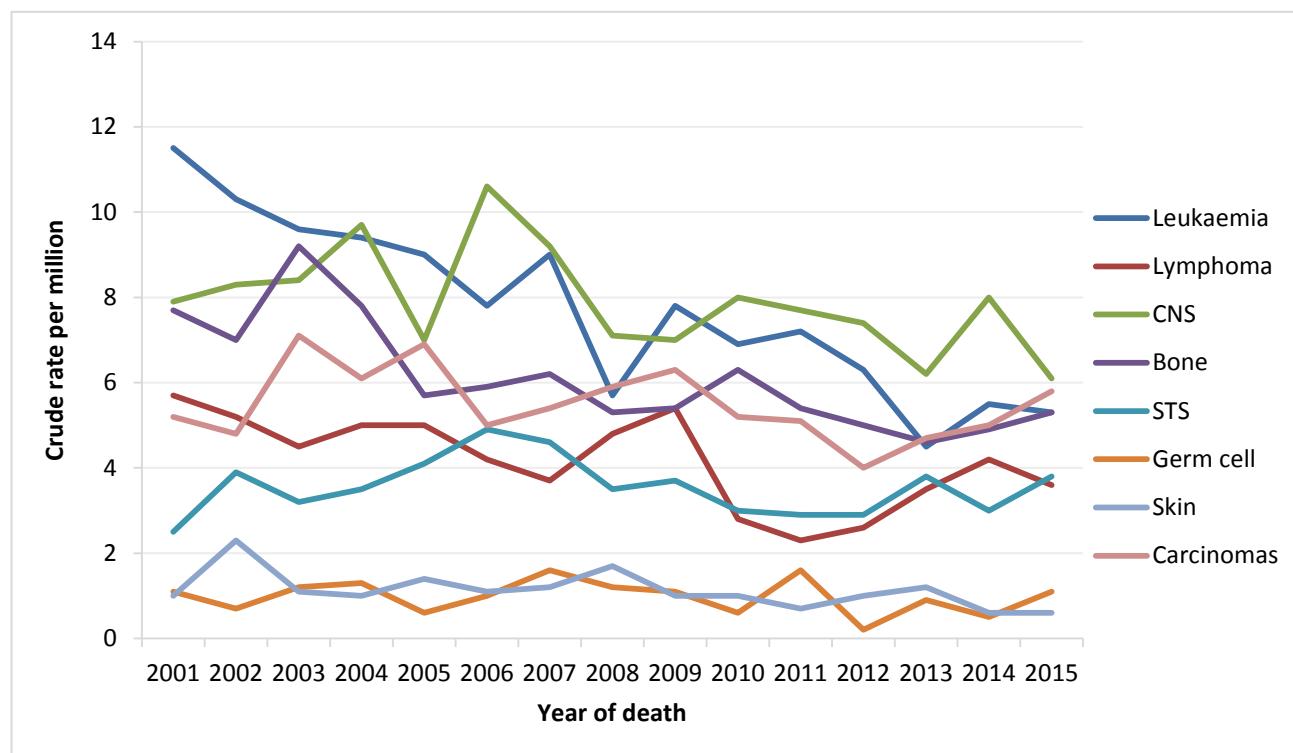


Figure 20. Crude mortality rates per 1,000,000 population by year of death and broad Birch diagnostic group

Deprivation

There were no significant difference in mortality rates between the different deprivation quintiles in 13-24 year olds, by sex (Figure 21) or diagnostic group (Figure 22).

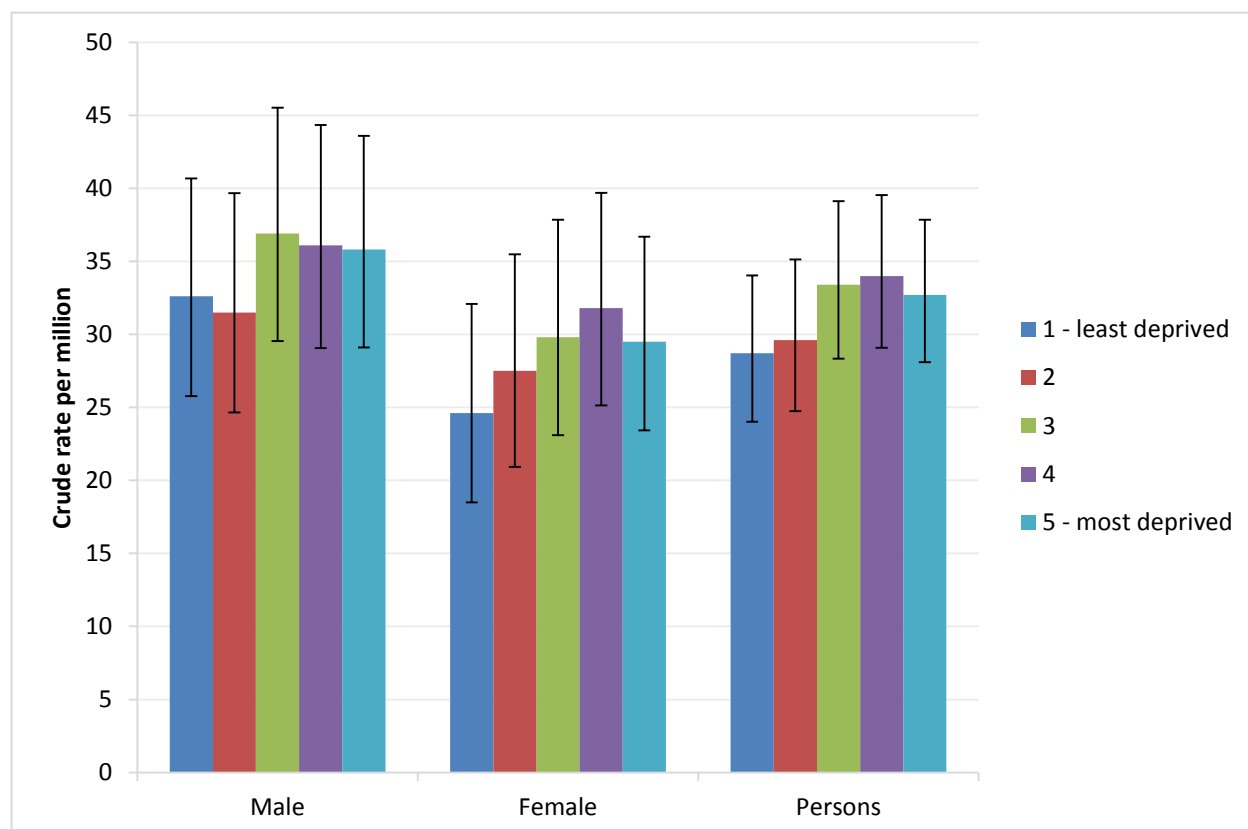


Figure 21. Crude mortality rates per 1,000,000 population by deprivation quintile for those aged 13-24 at time of death, 2013-15

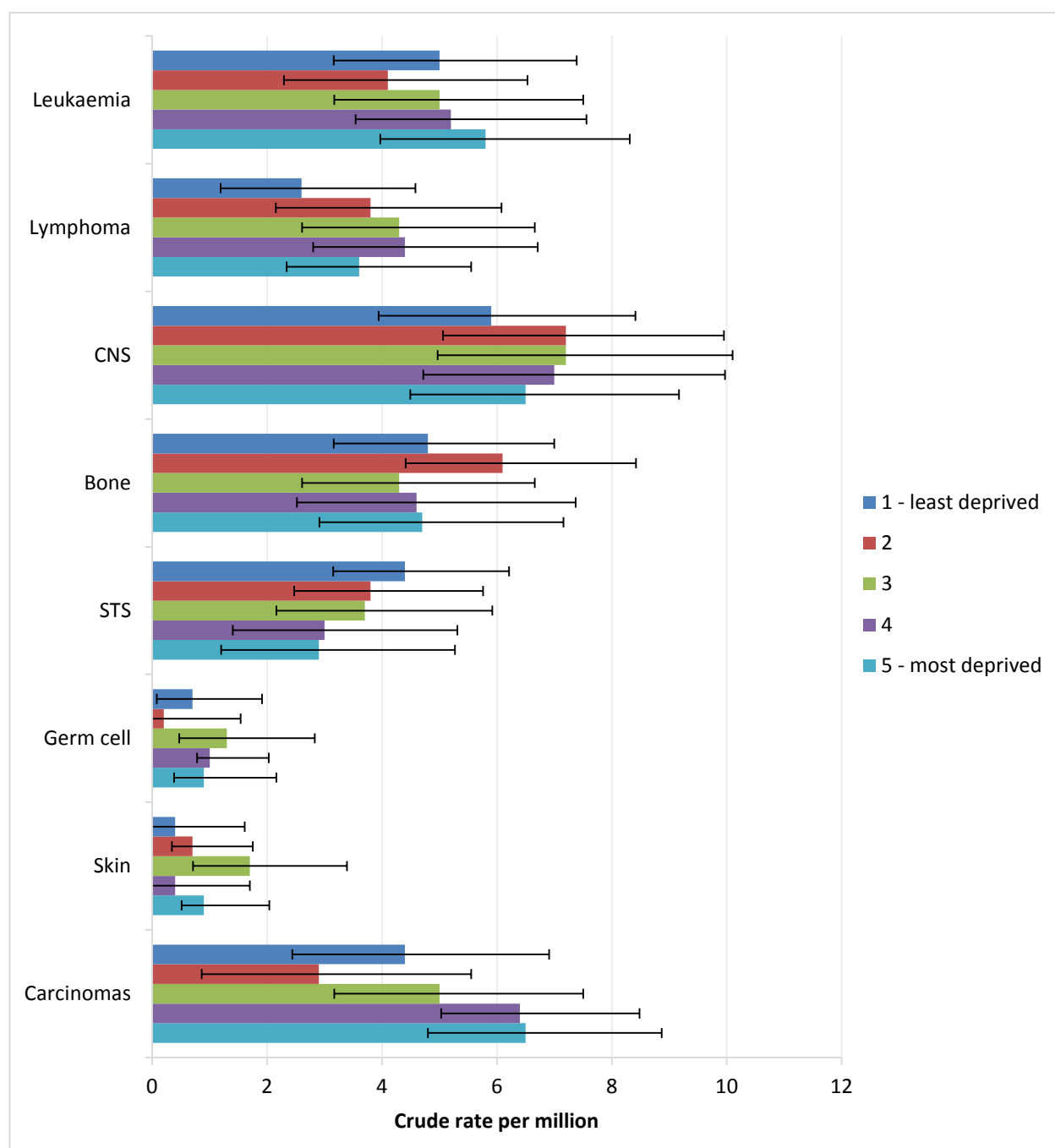


Figure 22. Crude mortality rates per 1,000,000 population by deprivation quintile and diagnostic group for those aged 13-24 at time of death, 2013-15

Survival

For 13-24 year olds diagnosed in England between 2007-11, five-year survival for females was 87%, compared to 84% for males. This is an improvement from 2001-05, where survival was 83% and 80% for females and males, respectively. Figure 23 shows the Kaplan-Meier survival curve up to 5 years from diagnosis for TYA cancer patients by sex, indexed by cancer type.

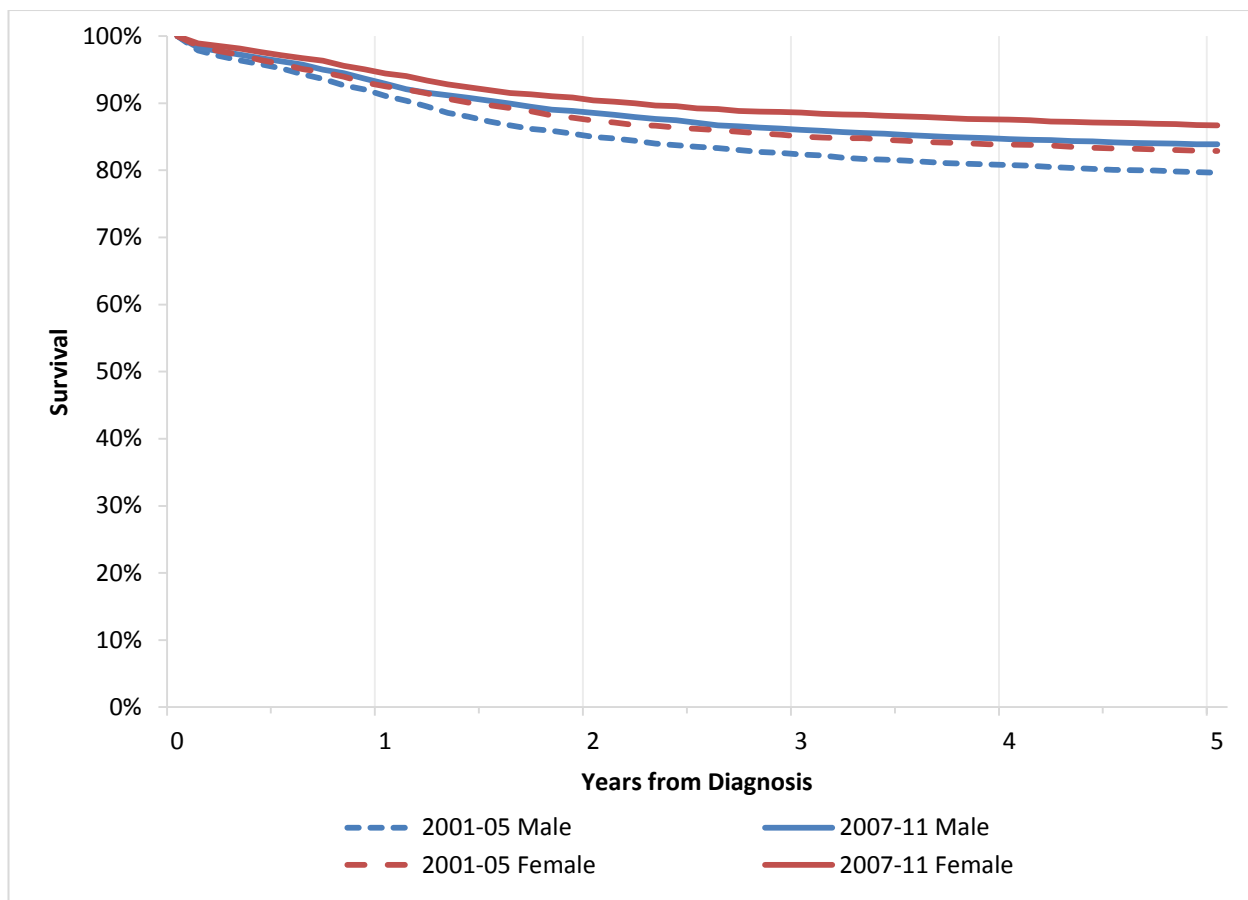


Figure 23. Kaplan-Meier survival curve for 13-24 year olds by diagnosis year and sex

By age

For patients diagnosed with cancer between 2007 and 2011, five-year survival was significantly higher for females between the ages of 19-24 at diagnosis when compared to males (Figure 24).

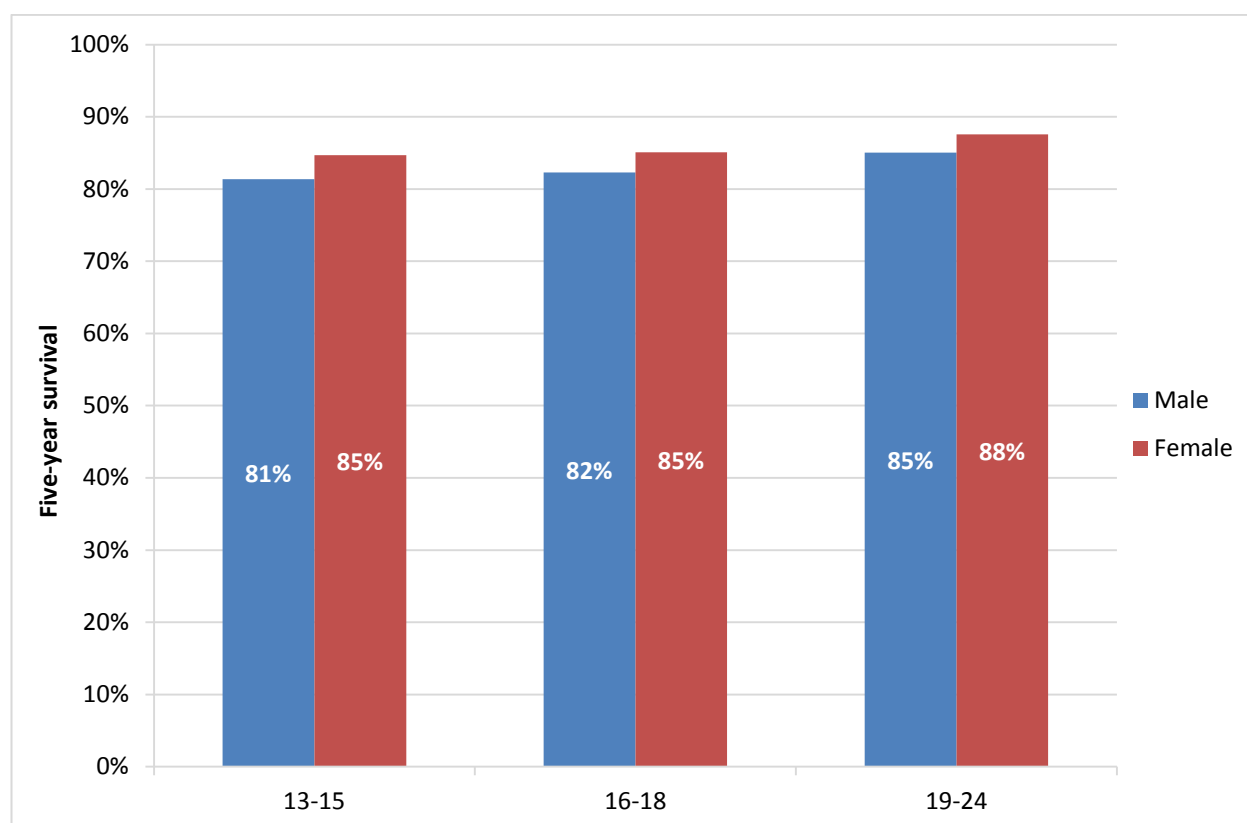


Figure 24. Kaplan-Meier five-year survival by age group and sex for 13-24 year olds diagnosed in 2007-11

By diagnostic group

Only cancer diagnostic groups and subgroups with over 100 cases are reported here to maintain stability in the Kaplan-Meier estimation. Five-year survival varied considerably between cancer types (Figure 25). For those diagnosed between 2007 and 2011, Hodgkin lymphoma, germ cell neoplasms of gonads, melanoma, skin carcinoma, thyroid carcinoma, carcinoma of ovary and other specified intracranial and intraspinal CNS tumours all had five-year survival above 90%. No significant difference in survival were seen between males and females, except in soft tissue sarcomas, CNS tumours and carcinomas where females had significantly higher survival than males.

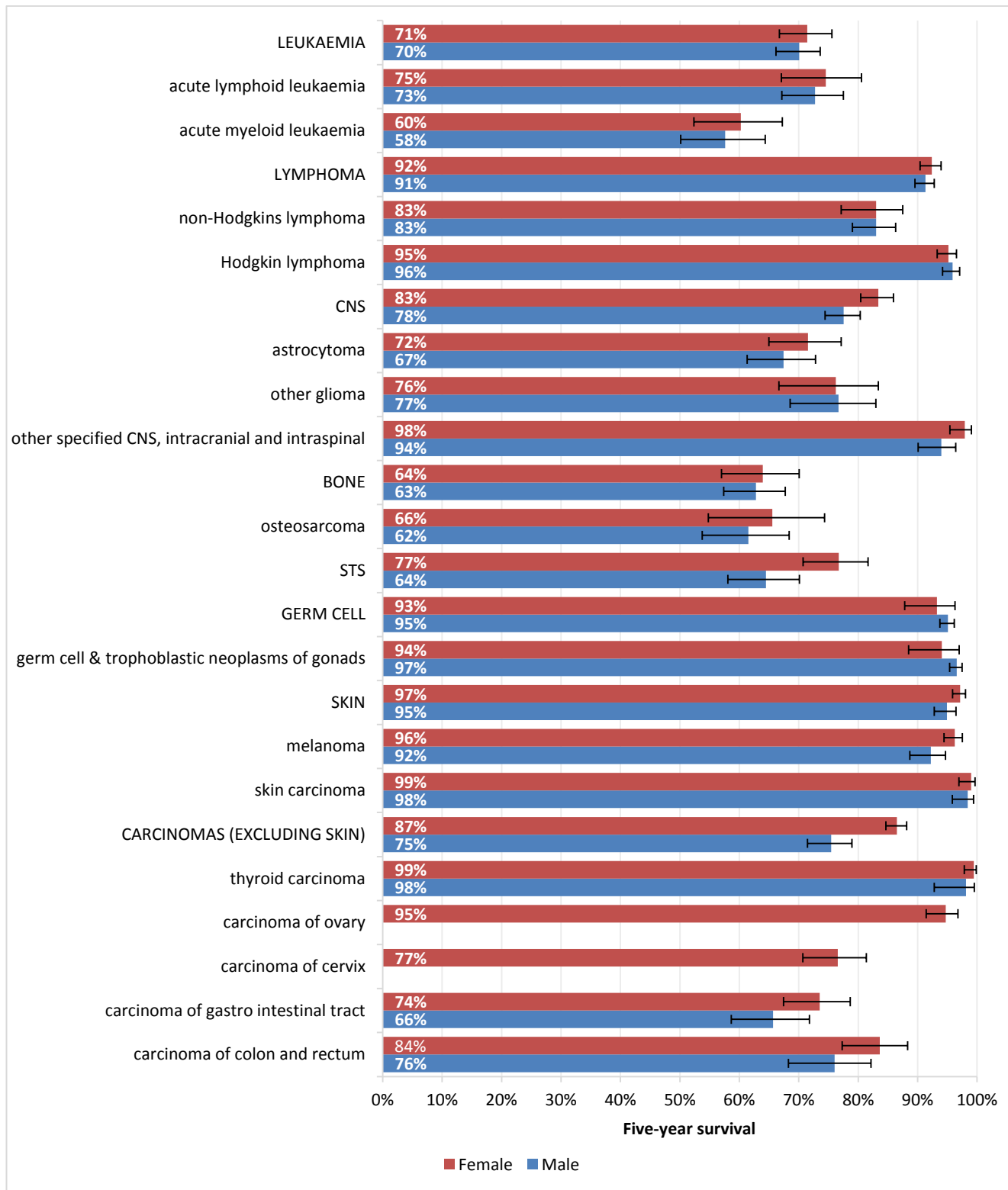


Figure 25. Kaplan-Meier five-year survival by Birch diagnostic group for 13-24 years olds diagnosed in 2007-11

Cancer Alliances and National Cancer Vanguard:

Five-year survival of 13-24 year olds improved significantly from 2001-05 to 2007-11 in the following geographical areas assigned to a Cancer Alliances: Surrey and Sussex, Cheshire and Merseyside and National Cancer Vanguard: Greater Manchester (Figure 26). Patients in the Thames Valley had significantly higher five-year survival than 9 of the other Cancer Alliances for TYAs diagnosed between 2007-2011. These differences may be statistically significant, but without taking into account the distribution of gender, cancer types, ethnicity and deprivation between the Cancer Alliances it is not possible to say these are representative of the services within them.

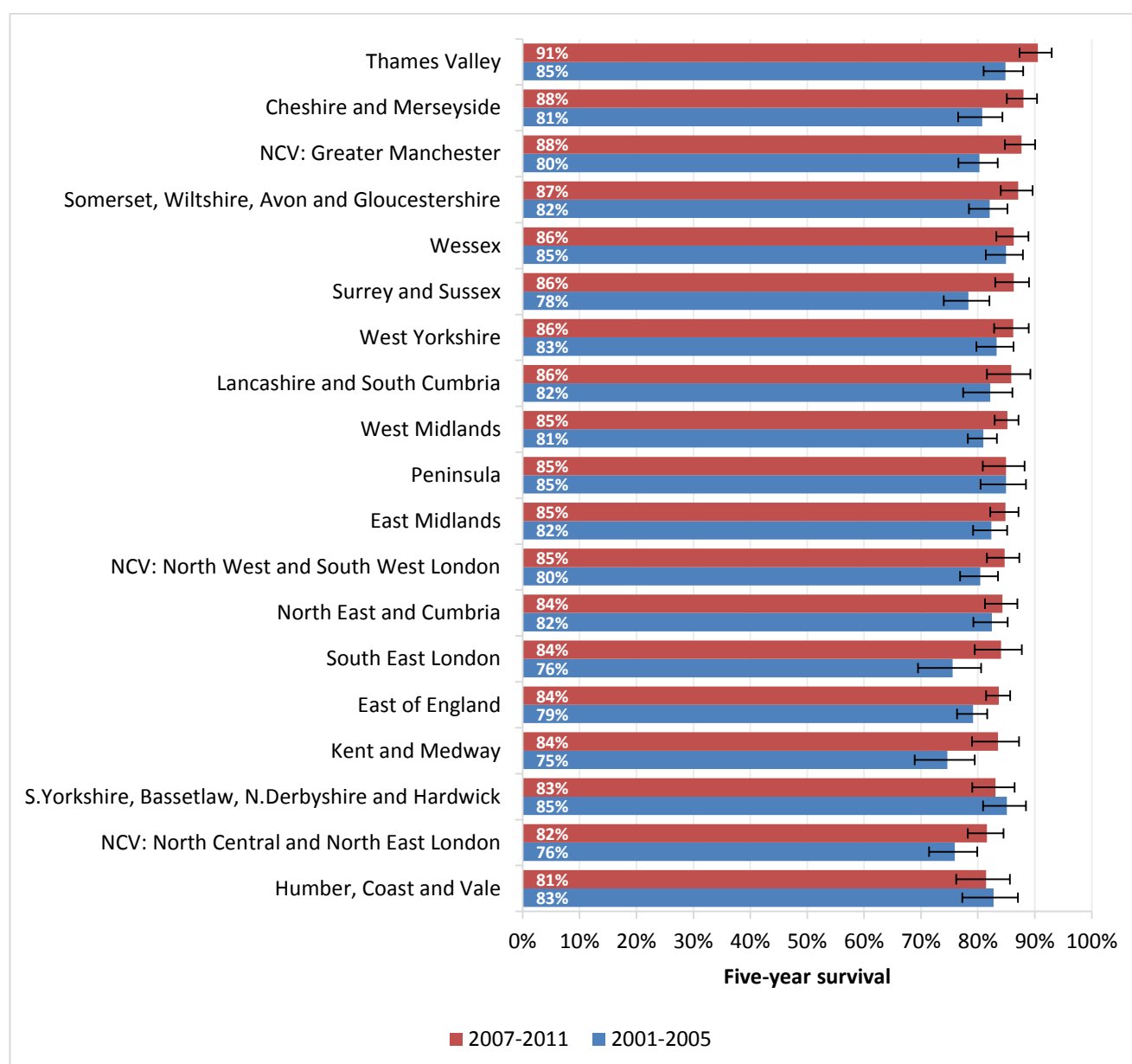


Figure 26. Five-year survival by Cancer Alliance for 13-24 year olds diagnosed in 2007-11 and 2001-05.

Trends

There was significant improvement in five-year survival in the leukaemia, lymphoma, bone and carcinoma cancer types for TYAs diagnosed between 2001-05 and 2007-11 (Figure 28).

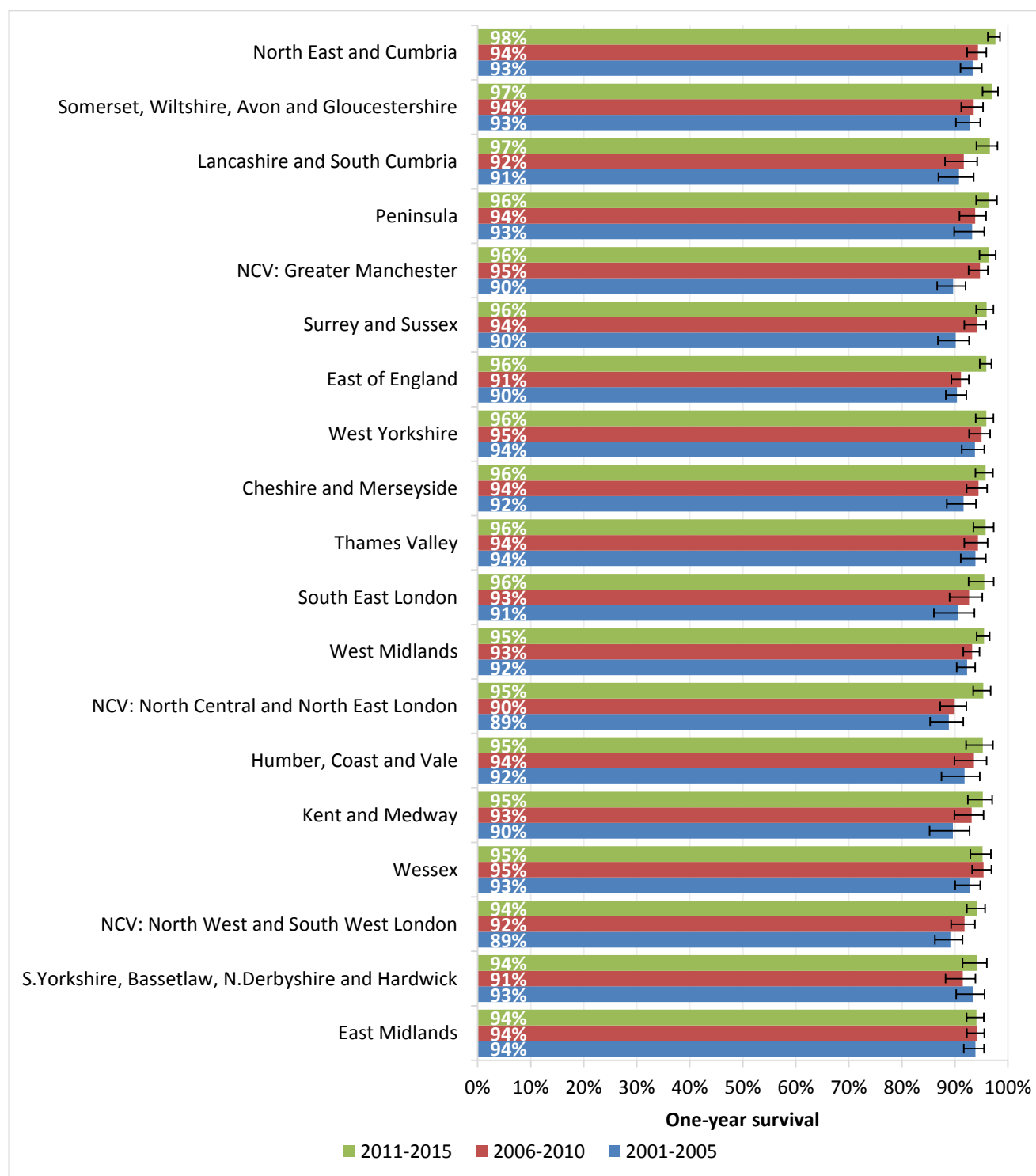


Figure 27. One-year survival trends by Cancer Alliance for 13-24 year olds diagnosed from 2001-05 to 2011-15

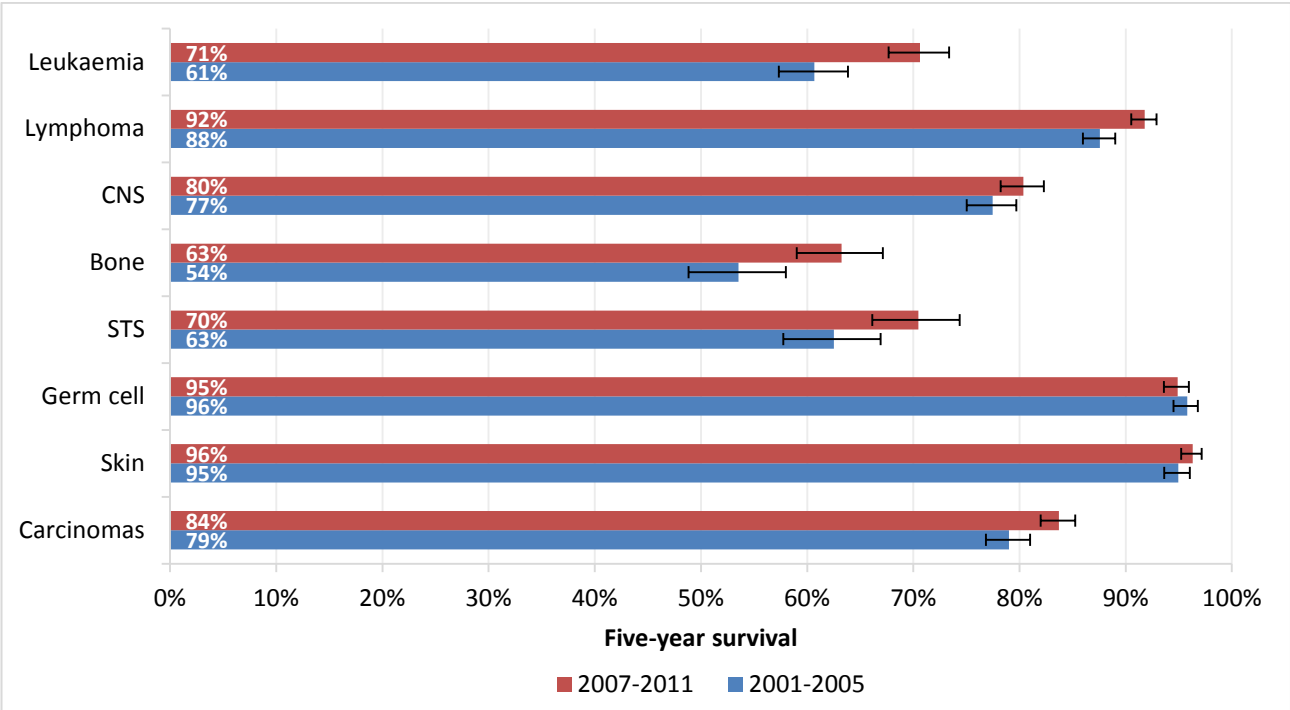


Figure 28. Five-year survival by Birch diagnostic group for 13-24 year olds diagnosed in 2001-05 and 2007-11

There was significant improvement in one-year survival in the leukaemia, lymphoma, CNS, bone and carcinoma cancer types between 2001-05 and 2011-15 (Figure 29).

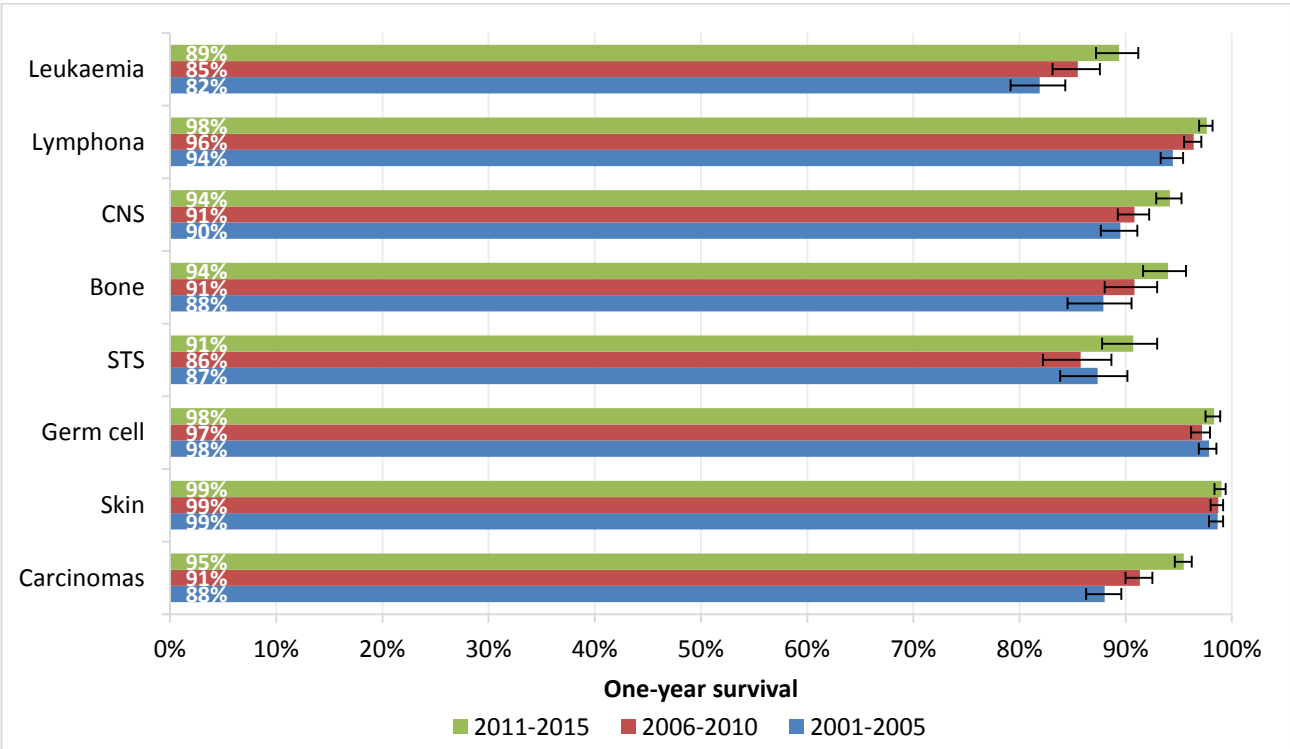


Figure 29. One-year survival trends by Birch diagnostic group for 13-24 year olds diagnosed from 2001-05 to 2011-15

Deprivation

Patients aged 13-24 years diagnosed between 2007 and 2011 in the least deprived quintile had significantly higher five-year survival than those in quintile 2 and in the 2 most deprived quintiles (Table 5). There were no significant differences in survival between the other quintiles.

Table 5. Five-year survival by deprivation quintile, age at diagnosis 13-24, diagnosis years 2007-11

Deprivation Quintile	Five-year survival	95% CIs
1 - least deprived	88%	87% - 90%
2	85%	83% - 86%
3	86%	84% - 87%
4	84%	82% - 85%
5 - most deprived	84%	82% - 85%

Appendix 1: Classification Scheme for cancers in 15-24 year olds, version 12

Professor J.M. Birch, Dr AM Kelsey, Dr Robert Alston.

GROUP 1 – Leukaemias

- 1.1. Acute lymphoid leukaemia (ALL)
- 1.2. Acute myeloid leukaemia (AML)
- 1.3. Chronic myeloid leukaemia (CML)
- 1.4. Other and unspecified leukaemias (Other Leuk)
 - 1.4.1. Other and unspecified lymphoid leukaemias
 - 1.4.2. Other and unspecified myeloid leukaemias
 - 1.4.3. Other specified leukaemias, NEC
 - 1.4.4. Unspecified leukaemias

GROUP 2 – Lymphomas

- 2.1. Non-Hodgkin lymphoma (NHL)
 - 2.1.1. Non-Hodgkin lymphoma, specified subtype
 - 2.1.2. Non-Hodgkin lymphoma, subtype not specified
- 2.2. Hodgkin lymphoma (HL)
 - 2.2.1. Hodgkin lymphoma, specified subtype
 - 2.2.2. Hodgkin lymphoma, subtype not specified

GROUP 3 – CNS and other intracranial and intraspinal neoplasms (CNS)

- 3.1. Astrocytoma
 - 3.1.1. Pilocytic astrocytoma
 - 3.1.2. Other low grade astrocytoma
 - 3.1.3. Glioblastoma and anaplastic astrocytoma
 - 3.1.4. Astrocytoma not otherwise specified
- 3.2. Other gliomas
 - 3.2.1. Oligodendroglioma
 - 3.2.2. Other specified glioma
 - 3.2.3. Glioma NOS
- 3.3. Ependymoma
- 3.4. Embryonal
 - 3.4.1. Medulloblastoma
 - 3.4.2. Supratentorial primitive neuroectodermal tumours (PNET)
 - 3.4.3. Atypical Teratoid/Rhabdoid Tumour (ATRT)
- 3.5. Other specified intracranial and intraspinal neoplasms (Other CNS)
 - 3.5.1. Craniopharyngioma

- 3.5.2 Pituitary tumours
- 3.5.3 Pineal tumours
- 3.5.4 Choroid plexus tumours
- 3.5.5 Meningioma
- 3.5.6 Nerve sheath tumour of the brain
- 3.5.7 Other specified tumours
- 3.6 Unspecified intracranial and intraspinal neoplasms tumours
 - 3.6.1 Unspecified malignant intracranial and intraspinal neoplasms
 - 3.6.2 Unspecified non-malignant intracranial and intraspinal neoplasms

GROUP 4 – Osseous and chondromatous neoplasms, Ewing tumour and other neoplasms of bone (Bone)

- 4.1. Osteosarcoma
- 4.2. Chondrosarcoma
- 4.3. Ewing sarcoma
 - 4.3.1. Ewing sarcoma of bone
 - 4.3.2. Extraskkeletal Ewing sarcoma
 - 4.3.3. Ewing sarcoma of unknown site
- 4.4. Other specified and unspecified bone tumours (Other bone tumours)
 - 4.4.1. Other specified bone tumours
 - 4.4.2. Unspecified bone tumours

GROUP 5 – Soft tissue sarcomas (STS)

- 5.1. Fibromatous neoplasms (Fibrosarcoma)
 - 5.1.1. Fibrosarcoma
 - 5.1.2. Malignant fibrous histiocytoma
 - 5.1.3. Dermatofibrosarcoma
- 5.2. Rhabdomyosarcoma
- 5.3. Other specified soft tissue sarcomas
 - 5.3.1. Liposarcoma
 - 5.3.2. Leiomyosarcoma
 - 5.3.3. Synovial sarcoma
 - 5.3.4. Clear cell sarcoma
 - 5.3.5. Blood vessel tumours
 - 5.3.6. Nerve sheath tumours
 - 5.3.7. Alveolar soft part sarcoma
 - 5.3.8. Miscellaneous specified soft tissue sarcoma
- 5.4. Unspecified soft tissue sarcomas

GROUP 6 – Germ Cell and Trophoblastic Neoplasms (Germ cell tumours)

- 6.1. Gonadal germ cell and trophoblastic neoplasms
- 6.2. Germ cell and trophoblastic neoplasms of non-gonadal sites
 - 6.2.1. Intracranial germ cell and trophoblastic tumours

6.2.2. Other non-gonadal germ cell and trophoblastic tumours

GROUP 7 – Melanoma and Skin Carcinoma

- 7.1. Melanoma
- 7.2. Skin carcinoma

GROUP 8 – Carcinomas (except of skin)

- 8.1. Carcinoma of thyroid
- 8.2. Other carcinoma of head and neck
 - 8.2.1. Nasopharyngeal carcinoma
 - 8.2.2. Carcinoma of other sites in lip oral cavity and pharynx
 - 8.2.3. Carcinoma of nasal cavity, middle ear, sinuses, larynx and other ill-defined sites in head and neck
- 8.3. Carcinoma of trachea, bronchus, lung and pleura
- 8.4. Carcinoma of breast
- 8.5. Carcinoma of genito-urinary (GU) tract
 - 8.5.1. Carcinoma of kidney
 - 8.5.2. Carcinoma of bladder
 - 8.5.3. Carcinoma of ovary
 - 8.5.4. Carcinoma of cervix
 - 8.5.5. Carcinoma of other and ill-defined sites in GU
- 8.6. Carcinoma of gastro-intestinal (GI) tract
 - 8.6.1. Carcinoma of colon and rectum
 - 8.6.2. Carcinoma of stomach
 - 8.6.3. Carcinoma of liver and intrahepatic bile ducts
 - 8.6.4. Carcinoma of pancreas
 - 8.6.5. Carcinoma of other and ill-defined sites in GI tract
- 8.7. Carcinomas of other and ill-defined sites not elsewhere classified (NEC)
 - 8.7.1. Adrenocortical carcinoma
 - 8.7.2. Other carcinomas NEC

GROUP 9 – Miscellaneous Specified Neoplasms NEC

- 9.1. Embryonal tumours NEC
 - 9.1.1. Wilms tumour
 - 9.1.2. Neuroblastoma
 - 9.1.3. Other embryonal tumours NEC
- 9.2. Other rare miscellaneous specified neoplasms
 - 9.2.1. Paraganglioma and glomus tumours
 - 9.2.1. Other specified gonadal tumours NEC
 - 9.2.2. Myeloma, mast cell tumours and miscellaneous reticuloendothelial neoplasms NEC
 - 9.2.3. Other specified neoplasms NEC

GROUP 10 – Unspecified Malignant Neoplasms NEC

Appendix 2: Average annual number of new cases diagnosed in 13-24 year olds in England, 2013-15

	Male				Female			
	13-15	16-18	19-24	13-24	13-15	16-18	19-24	13-24
ALL CANCERS	154	232.7	775.3	1162	158.7	232.3	844.3	1235.3
1 LEUKAEMIA	33.3	30.3	57.7	121.3	20.3	19.3	38	77.7
1.1 Acute lymphoid leukaemia	24.3	16.3	20.3	61	13	10	9.3	32.3
1.2 Acute myeloid leukaemia	6.7	8.3	22.7	37.7	5.3	7	19.3	31.7
1.3 Chronic myeloid leukaemia	0.7	2.3	10.7	13.7	1.3	2	7.3	10.7
1.4 Other and unspecified leukaemias	1.7	3.3	4	9	0.7	0.3	2	3
2 LYMPHOMA	33.7	54.3	151.3	239.3	28	52	141.7	221.7
2.1 Non-Hodgkins Lymphoma	15.7	19.3	54.3	89.3	7	9.7	38.7	55.3
2.2 Hodgkin lymphoma	18	35	97	150	21	42.3	103	166.3
3 CNS	36.3	34.3	97	167.7	37.3	37.3	87	161.7
3.1 Astrocytoma	14	11.3	33	58.3	12.7	9	24.3	46
3.1.1 Pilocytic astrocytoma	8	5	9	22	6.7	3	6.7	16.3
3.1.2 Other specified low grade astrocytic tumours	0.7	0.7	0.7	2	1.3	1	1.3	3.7
3.1.3 Glioblastoma and anaplastic astrocytoma	3	3	13.3	19.3	2.7	4.7	9	16.3
3.1.4 Astrocytoma, NOS	2.3	2.7	10	15	2	0.3	7.3	9.7
3.2 Other glioma	7	6	16.3	29.3	5.7	4.7	12	22.3
3.2.1 Oligodendroglioma	1	1.3	3	5.3		1.3	3.7	5
3.2.2 Other specified glioma	4	2.7	8.7	15.3	4.3	2.3	6	12.7
3.2.3 Glioma, NOS	2	2	4.7	8.7	1.3	1	2.3	4.7
3.3 Ependymoma	0.7	4	2.7	7.3	2	2.7	2.3	7

	Male				Female			
	13-15	16-18	19-24	13-24	13-15	16-18	19-24	13-24
3.4 Embryonal	4		4	8	0.7	2.3	2.3	5.3
3.4.1 Medulloblastoma	3		2.7	5.7	0.3	0.3	1.7	2.3
3.4.2 Supratentorial PNET	0.7		1	1.7	0.3	1.3	0.7	2.3
3.4.3 ATRT	0.3		0.3	0.7		0.7		0.7
3.5 Other specified CNS, intracranial and intraspinal	8.7	10.7	35.7	55	13.3	16.3	39.3	69
3.5.1 Craniopharyngioma	1.7	1	2.3	5	2.7	1.3	1.7	5.7
3.5.2 Other Pituitary tumours	1.7	0.7	10.3	12.7	1.7	5.3	15	22
3.5.3 Pineal tumours	0.7	0.3	2	3	0.3		0.7	1
3.5.4 Choroid plexus tumours	0.3	0.3	0.3	1	0.3	0.3	0.3	1
3.5.5 Meningioma	0.3	2	4	6.3	2.7	2.3	6	11
3.5.6 Nerve sheath tumours of CNS	2.3	3	8	13.3	4.7	3	9.3	17
3.5.7 Other specified intracranial and intraspinal neoplasms	1.7	3.3	8.7	13.7	1	4	6.3	11.3
3.6 Unspecified intracranial and intraspinal neoplasms	2	2.3	5.3	9.7	3	2.3	6.7	12
3.6.1 Unspecified malignant intracranial and intraspinal neoplasms		0.7	1.3	2	0.3	0.7	1.7	2.7
3.6.2 Unspecified benign and borderline intracranial and intraspinal neoplasms	2	1.7	4	7.7	2.7	1.7	5	9.3
4 BONE	18.7	19.7	30.7	69	14.7	14.7	16.3	45.7
4.1 Osteosarcoma	9.7	10	11.3	31	7.3	5.3	4.7	17.3
4.2 Chondrosarcoma	0.3	1.3	6	7.7	0.7	1.3	3.3	5.3
4.3 Ewing sarcoma	7.3	7	9.7	24	5.3	6	7	18.3
4.4 Other specified and unspecified bone tumours	1.3	1.3	3.7	6.3	1.3	2	1.3	4.7
5 STS	8.3	16	27.3	51.7	11.7	11.3	28	51
5.1 Fibromatous neoplasms	1.7	2	4	7.7	2.7	2.7	5.3	10.7
5.1.1 Fibrosarcoma	1	0.3	0.7	2	0.3	0.7	2.3	3.3
5.1.3 Dermatofibrosarcoma	0.7	1.7	3.3	5.7	2.3	2	3	7.3

	Male				Female			
	13-15	16-18	19-24	13-24	13-15	16-18	19-24	13-24
5.2 Rhabdomyosarcoma	3.3	5.7	4.7	13.7	4	4.3	2.7	11
5.3 Other specified soft tissue sarcoma	1.7	5.7	14	21.3	4	4	14	22
5.3.1 Liposarcoma		0.3	2	2.3	0.3	0.7	3.3	4.3
5.3.2 Leiomyosarcoma	0.3		1.7	2	1.3	1	1.7	4
5.3.3 Synovial sarcoma	0.7	2	3.3	6	1.7	0.7	4	6.3
5.3.4 Clear cell sarcoma			1	1			0.3	0.3
5.3.5 Blood vessel tumours			2	2		0.3	1	1.3
5.3.6 Nerve sheath tumours	0.7	2	1.7	4.3	0.7	0.3	2.3	3.3
5.3.7 Alveolar soft part sarcoma			0.3	0.3		0.3	0.3	0.7
5.3.8 Other Specified		1.3	2	3.3		0.7	1	1.7
5.4 Unspecified soft tissue sarcoma	1.7	2.7	4.7	9	1	0.3	6	7.3
6 GERM CELL	6	33.3	208	247.3	5.7	7	17.7	30.3
6.1 Germ cell and trophoblastic neoplasms of gonads	2.7	30	198	230.7	5.7	6.7	15.3	27.7
6.2 Germ cell and trophoblastic neoplasms of non-gonadal sites	3.3	3.3	10	16.7		0.3	2.3	2.7
6.2.1 Intracranial germ cell	2.7	2	4.3	9				
6.2.2 Other non-gonadal sites	0.7	1.3	5.7	7.7		0.3	2.3	2.7
7 SKIN	3.7	12.7	94.7	111	7.3	24.7	155	187
7.1 Melanoma	0.7	6.7	48.3	55.7	3.7	16.3	100.3	120.3
7.2 Skin carcinoma	3	6	46.3	55.3	3.7	8.3	54.7	66.7
8 CARCINOMAS	12	28	96.3	136.3	30.3	61.3	348	439.7
8.1 Thyroid carcinoma	1.7	3.3	22.3	27.3	7.7	18	91.3	117
8.2 Other carcinoma of head and neck	2	4.3	10	16.3	5.3	3.3	11.7	20.3
8.2.1 Nasopharyngeal carcinoma	0.7	1.7	1.3	3.7	1	0.7	1.3	3
8.2.2 Other sites in lip, oral cavity and pharynx	1.3	2.7	7	11	4	2.3	9.7	16
8.2.3 Nasal cavity, middle ear, sinuses, larynx and other and ill-defined head and neck			1.7	1.7	0.3	0.3	0.7	1.3

13-24 year olds with cancer in England: incidence, mortality and survival

	Male				Female			
	13-15	16-18	19-24	13-24	13-15	16-18	19-24	13-24
8.3 Carcinomas of trachea, bronchus and lung	0.7	0.7	4.3	5.7	1	1	6.3	8.3
8.4 Carcinoma of breast			0.3	0.3		0.3	23	23.3
8.5 Carcinoma GU tract		1	7	8	3.3	11.7	145.3	160.3
8.5.1 Carcinoma of kidney		1	5.3	6.3	0.7	0.3	5.7	6.7
8.5.2 Carcinoma bladder			0.7	0.7				
8.5.3 Carcinoma of ovary					2.7	10.7	64.7	78
8.5.4 Carcinoma of cervix						0.3	73.3	73.7
8.5.5 Carcinoma of other & ill-defined sites in GU tract			1	1		0.3	1.7	2
8.6 Carcinoma GI tract	7.3	17.7	48	73	12.3	26.7	67	106
8.6.1 Carcinoma of colon and rectum	7	15.7	38.3	61	11.3	24.3	54.7	90.3
8.6.2 Carcinoma stomach			2.7	2.7		0.7	4.3	5
8.6.3 Carcinoma of liver and intrahepatic bile ducts		1.3	3.3	4.7		0.7	2.3	3
8.6.4 Carcinoma pancreas	0.3	0.7	1	2	1	0.7	4	5.7
8.6.5 Carcinoma of other & ill-defined sites in GI tract			2.7	2.7		0.3	1.7	2
8.7 Carcinomas of other and ill-defined sites NEC	0.3	1	4.3	5.7	0.7	0.3	3.3	4.3
8.7.1 Adrenocortical carcinoma		0.3		0.3	0.3			0.3
8.7.2 Carcinoma of other and ill-defined sites, NEC	0.3	0.7	4.3	5.3	0.3	0.3	3.3	4
9 MISCELLANEOUS SPECIFIED	1.3	3.3	4.7	9.3	2.3	3	8	13.3
9.1 Other paediatric and embryonal tumours NEC	0.3	1	1	2.3	1.7	0.7	2.3	4.7
9.1.1 Wilms tumours		0.3		0.3	0.7		0.7	1.3
9.1.2 Neuroblastoma	0.3	0.3		0.7	0.3	0.3	0.7	1.3
9.1.3 Other paediatric and embryonal, NEC		0.3	1	1.3	0.7	0.3	1	2
9.2 Other specified neoplasms NEC	1	2.3	3.7	7	0.7	2.3	5.7	8.7
9.2.1 Paraganglioma and glomus	0.3	0.3	1.3	2	0.7	0.3	1	2
9.2.2 Other specified gonadal tumours	0.3	0.7	1	2		0.7	1.7	2.3
9.2.3 Myeloma, mast cell tumours and miscellaneous	0.3	1	1.3	2.7		0.7	1.3	2

13-24 year olds with cancer in England: incidence, mortality and survival

	Male				Female			
	13-15	16-18	19-24	13-24	13-15	16-18	19-24	13-24
lymphoreticular neoplasms NEC								
9.2.4 Other specified neoplasms NEC		0.3		0.3		0.7	1.7	2.3
10 UNSPECIFIED	0.7	0.7	7.7	9	1	1.7	4.7	7.3

*Due to rounding, some totals may not correspond with the sum of the separate figures.

Appendix 3a: Crude incidence rates per one million population for males aged 13-24 years diagnosed in England by age group, 2013-15 (with 95% confidence intervals)

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
ALL CANCERS	164.7	150 - 180.5	233.3	216.3 - 251.3	356.3	342 - 371.1	282.8	273.5 - 292.4
1 LEUKAEMIA	35.7	29 - 43.4	30.4	24.5 - 37.3	26.5	22.7 - 30.8	29.5	26.6 - 32.7
1.1 Acute lymphoid leukaemia	26	20.4 - 32.7	16.4	12.1 - 21.7	9.3	7.2 - 12	14.8	12.8 - 17.2
1.2 Acute myeloid leukaemia	7.1	4.4 - 11	8.4	5.4 - 12.3	10.4	8.1 - 13.2	9.2	7.6 - 11
1.3 Chronic myeloid leukaemia	0.7	0.1 - 2.6	2.3	0.9 - 4.8	4.9	3.4 - 6.9	3.3	2.4 - 4.5
1.4 Other and unspecified leukaemias	1.8	0.6 - 4.2	3.3	1.6 - 6.2	1.8	1 - 3.2	2.2	1.4 - 3.2
2 LYMPHOMA	36	29.3 - 43.8	54.5	46.4 - 63.5	69.5	63.3 - 76.3	58.3	54.1 - 62.7
2.1 Non-Hodgkins Lymphoma	16.8	12.3 - 22.3	19.4	14.7 - 25.1	25	21.3 - 29.1	21.7	19.2 - 24.5
2.2 Hodgkin lymphoma	19.3	14.5 - 25.1	35.1	28.7 - 42.5	44.6	39.6 - 50	36.5	33.2 - 40.1
3 CNS	38.9	31.9 - 46.9	34.4	28.1 - 41.8	44.6	39.6 - 50	40.8	37.3 - 44.5
3.1 Astrocytoma	15	10.8 - 20.2	11.4	7.9 - 15.9	15.2	12.3 - 18.5	14.2	12.2 - 16.5
3.1.1 Pilocytic astrocytoma	8.6	5.5 - 12.7	5	2.8 - 8.3	4.1	2.7 - 6	5.4	4.1 - 6.8
3.1.2 Other specified low grade astrocytic tumours	0.7	0.1 - 2.6	0.7	0.1 - 2.4	0.3	0 - 1.1	0.5	0.2 - 1.1
3.1.3 Glioblastoma and anaplastic astrocytoma	3.2	1.5 - 6.1	3	1.4 - 5.7	6.1	4.4 - 8.3	4.7	3.6 - 6.1
3.1.4 Astrocytoma, NOS	2.5	1 - 5.1	2.7	1.2 - 5.3	4.6	3.1 - 6.6	3.7	2.7 - 4.9
3.2 Other glioma	7.5	4.6 - 11.5	6	3.6 - 9.5	7.5	5.6 - 9.9	7.1	5.7 - 8.8
3.2.1 Oligodendroglioma	1.1	0.2 - 3.1	1.3	0.4 - 3.4	1.4	0.6 - 2.6	1.3	0.7 - 2.1
3.2.2 Other specified glioma	4.3	2.2 - 7.5	2.7	1.2 - 5.3	4	2.6 - 5.8	3.7	2.7 - 5

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
3.2.3 Glioma, NOS	2.1	0.8 - 4.7	2	0.7 - 4.4	2.1	1.2 - 3.6	2.1	1.4 - 3.1
3.3 Ependymoma	0.7	0.1 - 2.6	4	2.1 - 7	1.2	0.5 - 2.4	1.8	1.1 - 2.7
3.4 Embryonal	4.3	2.2 - 7.5			1.8	1 - 3.2	1.9	1.3 - 2.9
3.4.1 Medulloblastoma	3.2	1.5 - 6.1			1.2	0.5 - 2.4	1.4	0.8 - 2.2
3.4.2 Supratentorial PNET	0.7	0.1 - 2.6			0.5	0.1 - 1.3	0.4	0.1 - 1
3.4.3 ATRT	0.4	0 - 2			0.2	0 - 0.9	0.2	0 - 0.6
3.5 Other specified CNS, intracranial and intraspinal	9.3	6.1 - 13.6	10.7	7.3 - 15.1	16.4	13.4 - 19.8	13.4	11.4 - 15.6
3.5.1 Craniopharyngioma	1.8	0.6 - 4.2	1	0.2 - 2.9	1.1	0.4 - 2.2	1.2	0.7 - 2
3.5.2 Other Pituitary tumours	1.8	0.6 - 4.2	0.7	0.1 - 2.4	4.7	3.2 - 6.7	3.1	2.2 - 4.2
3.5.3 Pineal tumours	0.7	0.1 - 2.6	0.3	0 - 1.9	0.9	0.3 - 2	0.7	0.3 - 1.4
3.5.4 Choroid plexus tumours	0.4	0 - 2	0.3	0 - 1.9	0.2	0 - 0.9	0.2	0.1 - 0.7
3.5.5 Meningioma	0.4	0 - 2	2	0.7 - 4.4	1.8	1 - 3.2	1.5	0.9 - 2.4
3.5.6 Nerve sheath tumours of CNS	2.5	1 - 5.1	3	1.4 - 5.7	3.7	2.4 - 5.5	3.2	2.3 - 4.4
3.5.7 Other specified intracranial and intraspinal neoplasms	1.8	0.6 - 4.2	3.3	1.6 - 6.2	4	2.6 - 5.8	3.3	2.4 - 4.5
3.6 Unspecified intracranial and intraspinal neoplasms	2.1	0.8 - 4.7	2.3	0.9 - 4.8	2.5	1.4 - 4	2.4	1.6 - 3.4
3.6.1 Unspecified malignant intracranial and intraspinal neoplasms			0.7	0.1 - 2.4	0.6	0.2 - 1.6	0.5	0.2 - 1.1
3.6.2 Unspecified benign and borderline intracranial and intraspinal neoplasms	2.1	0.8 - 4.7	1.7	0.5 - 3.9	1.8	1 - 3.2	1.9	1.2 - 2.8
4 BONE	20	15.1 - 25.9	19.7	15 - 25.4	14.1	11.4 - 17.3	16.8	14.6 - 19.3
4.1 Osteosarcoma	10.3	6.9 - 14.9	10	6.8 - 14.3	5.2	3.6 - 7.3	7.5	6.1 - 9.2
4.2 Chondrosarcoma	0.4	0 - 2	1.3	0.4 - 3.4	2.8	1.6 - 4.4	1.9	1.2 - 2.8
4.3 Ewing sarcoma	7.8	4.9 - 11.9	7	4.3 - 10.7	4.4	3 - 6.4	5.8	4.6 - 7.4
4.4 Other specified and unspecified bone tumours	1.4	0.4 - 3.7	1.3	0.4 - 3.4	1.7	0.8 - 3	1.5	0.9 - 2.4
5 STS	8.9	5.8 - 13.2	16	11.8 - 21.3	12.6	10 - 15.6	12.6	10.7 - 14.7

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
5.1 Fibromatous neoplasms	1.8	0.6 - 4.2	2	0.7 - 4.4	1.8	1 - 3.2	1.9	1.2 - 2.8
5.1.1 Fibrosarcoma	1.1	0.2 - 3.1	0.3	0 - 1.9	0.3	0 - 1.1	0.5	0.2 - 1.1
5.1.3 Dermatofibrosarcoma	0.7	0.1 - 2.6	1.7	0.5 - 3.9	1.5	0.7 - 2.8	1.4	0.8 - 2.2
5.2 Rhabdomyosarcoma	3.6	1.7 - 6.6	5.7	3.3 - 9.1	2.1	1.2 - 3.6	3.3	2.4 - 4.5
5.3 Other specified soft tissue sarcoma	1.8	0.6 - 4.2	5.7	3.3 - 9.1	6.4	4.6 - 8.7	5.2	4 - 6.6
5.3.1 Liposarcoma			0.3	0 - 1.9	0.9	0.3 - 2	0.6	0.2 - 1.2
5.3.2 Leiomyosarcoma	0.4	0 - 2			0.8	0.3 - 1.8	0.5	0.2 - 1.1
5.3.3 Synovial sarcoma	0.7	0.1 - 2.6	2	0.7 - 4.4	1.5	0.7 - 2.8	1.5	0.9 - 2.3
5.3.4 Clear cell sarcoma					0.5	0.1 - 1.3	0.2	0.1 - 0.7
5.3.5 Blood vessel tumours					0.9	0.3 - 2	0.5	0.2 - 1.1
5.3.6 Nerve sheath tumours	0.7	0.1 - 2.6	2	0.7 - 4.4	0.8	0.3 - 1.8	1.1	0.6 - 1.8
5.3.7 Alveolar soft part sarcoma					0.2	0 - 0.9	0.1	0 - 0.5
5.3.8 Other Specified			1.3	0.4 - 3.4	0.9	0.3 - 2	0.8	0.4 - 1.5
5.4 Unspecified soft tissue sarcoma	1.8	0.6 - 4.2	2.7	1.2 - 5.3	2.1	1.2 - 3.6	2.2	1.4 - 3.2
6 GERM CELL	6.4	3.8 - 10.1	33.4	27.2 - 40.7	95.6	88.2 - 103.4	60.2	56 - 64.7
6.1 Germ cell and trophoblastic neoplasms of gonads	2.9	1.2 - 5.6	30.1	24.2 - 37	91	83.8 - 98.6	56.1	52 - 60.5
6.2 Germ cell and trophoblastic neoplasms of non-gonadal sites	3.6	1.7 - 6.6	3.3	1.6 - 6.2	4.6	3.1 - 6.6	4.1	3 - 5.4
6.2.1 Intracranial germ cell	2.9	1.2 - 5.6	2	0.7 - 4.4	2	1.1 - 3.4	2.2	1.4 - 3.2
6.2.2 Other non-gonadal sites	0.7	0.1 - 2.6	1.3	0.4 - 3.4	2.6	1.5 - 4.2	1.9	1.2 - 2.8
7 SKIN	3.9	2 - 7	12.7	9 - 17.4	43.5	38.6 - 48.9	27	24.2 - 30.1
7.1 Melanoma	0.7	0.1 - 2.6	6.7	4.1 - 10.3	22.2	18.7 - 26.1	13.5	11.6 - 15.8
7.2 Skin carcinoma	3.2	1.5 - 6.1	6	3.6 - 9.5	21.3	17.9 - 25.1	13.5	11.5 - 15.7
8 CARCINOMAS	12.8	9 - 17.8	28.1	22.4 - 34.8	44.3	39.3 - 49.7	33.2	30.1 - 36.6
8.1 Thyroid carcinoma	1.8	0.6 - 4.2	3.3	1.6 - 6.2	10.3	8 - 13	6.7	5.3 - 8.3

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
8.2 Other carcinoma of head and neck	2.1	0.8 - 4.7	4.3	2.3 - 7.4	4.6	3.1 - 6.6	4	2.9 - 5.3
8.2.1 Nasopharyngeal carcinoma	0.7	0.1 - 2.6	1.7	0.5 - 3.9	0.6	0.2 - 1.6	0.9	0.4 - 1.6
8.2.2 Other sites in lip, oral cavity and pharynx	1.4	0.4 - 3.7	2.7	1.2 - 5.3	3.2	2 - 4.9	2.7	1.8 - 3.8
8.2.3 Nasal cavity, middle ear, sinuses, larynx and other and ill-defined head and neck					0.8	0.3 - 1.8	0.4	0.1 - 1
8.3 Carcinomas of trachea, bronchus and lung	0.7	0.1 - 2.6	0.7	0.1 - 2.4	2	1.1 - 3.4	1.4	0.8 - 2.2
8.4 Carcinoma of breast					0.2	0 - 0.9	0.1	0 - 0.5
8.5 Carcinoma GU tract			1	0.2 - 2.9	3.2	2 - 4.9	1.9	1.3 - 2.9
8.5.1 Carcinoma of kidney			1	0.2 - 2.9	2.5	1.4 - 4	1.5	0.9 - 2.4
8.5.2 Carcinoma bladder					0.3	0 - 1.1	0.2	0 - 0.6
8.5.5 Carcinoma of other and ill-defined sites in GU tract					0.5	0.1 - 1.3	0.2	0.1 - 0.7
8.6 Carcinoma GI tract	7.8	4.9 - 11.9	17.7	13.3 - 23.2	22.1	18.6 - 26	17.8	15.5 - 20.3
8.6.1 Carcinoma of colon and rectum	7.5	4.6 - 11.5	15.7	11.5 - 20.9	17.6	14.5 - 21.2	14.8	12.8 - 17.2
8.6.2 Carcinoma stomach					1.2	0.5 - 2.4	0.6	0.3 - 1.3
8.6.3 Carcinoma of liver and intrahepatic bile ducts			1.3	0.4 - 3.4	1.5	0.7 - 2.8	1.1	0.6 - 1.9
8.6.4 Carcinoma pancreas	0.4	0 - 2	0.7	0.1 - 2.4	0.5	0.1 - 1.3	0.5	0.2 - 1.1
8.6.5 Carcinoma of other and ill-defined sites in GI tract					1.2	0.5 - 2.4	0.6	0.3 - 1.3
8.7 Carcinomas of other and ill-defined sites NEC	0.4	0 - 2	1	0.2 - 2.9	2	1.1 - 3.4	1.4	0.8 - 2.2
8.7.1 Adrenocortical carcinoma			0.3	0 - 1.9			0.1	0 - 0.5
8.7.2 Carcinoma of other and ill-defined sites, NEC	0.4	0 - 2	0.7	0.1 - 2.4	2	1.1 - 3.4	1.3	0.7 - 2.1
9 MISCELLANEOUS SPECIFIED	1.4	0.4 - 3.7	3.3	1.6 - 6.2	2.1	1.2 - 3.6	2.3	1.5 - 3.3
9.1 Other paediatric and embryonal tumours NEC	0.4	0 - 2	1	0.2 - 2.9	0.5	0.1 - 1.3	0.6	0.2 - 1.2
9.1.1 Wilms tumours		0 - 0	0.3	0 - 1.9			0.1	0 - 0.5
9.1.2 Neuroblastoma	0.4	0 - 2	0.3	0 - 1.9			0.2	0 - 0.6
9.1.3 Other paediatric and embryonal, NEC			0.3	0 - 1.9	0.5	0.1 - 1.3	0.3	0.1 - 0.8

13-24 year olds with cancer in England: incidence, mortality and survival

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
9.2 Other specified neoplasms NEC	1.1	0.2 - 3.1	2.3	0.9 - 4.8	1.7	0.8 - 3	1.7	1.1 - 2.6
9.2.1 Paraganglioma and glomus	0.4	0 - 2	0.3	0 - 1.9	0.6	0.2 - 1.6	0.5	0.2 - 1.1
9.2.2 Other specified gonadal tumours	0.4	0 - 2	0.7	0.1 - 2.4	0.5	0.1 - 1.3	0.5	0.2 - 1.1
9.2.3 Myeloma, mast cell tumours and miscellaneous lymphoreticular neoplasms NEC	0.4	0 - 2	1	0.2 - 2.9	0.6	0.2 - 1.6	0.6	0.3 - 1.3
9.2.4 Other specified neoplasms NEC			0.3	0 - 1.9			0.1	0 - 0.5
10 UNSPECIFIED	0.7	0.08 - 2.57	0.7	0.08 - 2.41	3.5	2.23 - 5.29	2.2	1.44 - 3.19

Appendix 3b: Crude incidence rates per one million population for females aged 13-24 years diagnosed in England by age group, 2013-15 (with 95% confidence intervals)

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
ALL CANCERS	178.1	162.4 - 194.8	246	228.1 - 265	403.5	387.9 - 419.5	314.5	304.5 - 324.8
1 LEUKAEMIA	22.8	17.5 - 29.3	20.5	15.5 - 26.5	18.2	15 - 21.8	19.8	17.3 - 22.5
1.1 Acute lymphoid leukaemia	14.6	10.4 - 20	10.6	7.1 - 15.1	4.5	3 - 6.5	8.2	6.7 - 10
1.2 Acute myeloid leukaemia	6	3.4 - 9.7	7.4	4.6 - 11.3	9.2	7 - 11.9	8.1	6.5 - 9.9
1.3 Chronic myeloid leukaemia	1.5	0.4 - 3.8	2.1	0.8 - 4.6	3.5	2.2 - 5.3	2.7	1.9 - 3.8
1.4 Other and unspecified leukaemias	0.7	0.1 - 2.7	0.4	0 - 2	1	0.4 - 2.1	0.8	0.4 - 1.5
2 LYMPHOMA	31.4	25.1 - 38.9	55.1	46.8 - 64.4	67.7	61.4 - 74.5	56.4	52.2 - 60.9
2.1 Non-Hodgkin's Lymphoma	7.9	4.9 - 12	10.2	6.9 - 14.7	18.5	15.3 - 22.2	14.1	12 - 16.4
2.2 Hodgkin lymphoma	23.6	18.1 - 30.2	44.8	37.4 - 53.3	49.2	43.9 - 55	42.3	38.7 - 46.2
3 CNS	41.9	34.5 - 50.4	39.5	32.6 - 47.6	41.6	36.7 - 46.9	41.2	37.6 - 45
3.1 Astrocytoma	14.2	10.1 - 19.5	9.5	6.3 - 13.9	11.6	9.1 - 14.6	11.7	9.8 - 13.8
3.1.1 Pilocytic astrocytoma	7.5	4.6 - 11.6	3.2	1.5 - 6	3.2	2 - 4.9	4.2	3.1 - 5.5
3.1.2 Other specified low grade astrocytic tumours	1.5	0.4 - 3.8	1.1	0.2 - 3.1	0.6	0.2 - 1.6	0.9	0.5 - 1.7
3.1.3 Glioblastoma and anaplastic astrocytoma	3	1.3 - 5.9	4.9	2.7 - 8.3	4.3	2.8 - 6.3	4.2	3.1 - 5.5
3.1.4 Astrocytoma, NOS	2.2	0.8 - 4.9	0.4	0 - 2	3.5	2.2 - 5.3	2.5	1.7 - 3.5
3.2 Other glioma	6.4	3.7 - 10.2	4.9	2.7 - 8.3	5.7	4 - 7.9	5.7	4.4 - 7.2
3.2.1 Oligodendroglioma		0 - 0	1.4	0.4 - 3.6	1.8	0.9 - 3.1	1.3	0.7 - 2.1
3.2.2 Other specified glioma	4.9	2.6 - 8.3	2.5	1 - 5.1	2.9	1.7 - 4.5	3.2	2.3 - 4.4

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
3.2.3 Glioma, NOS	1.5	0.4 - 3.8	1.1	0.2 - 3.1	1.1	0.5 - 2.3	1.2	0.7 - 2
3.3 Ependymoma	2.2	0.8 - 4.9	2.8	1.2 - 5.6	1.1	0.5 - 2.3	1.8	1.1 - 2.7
3.4 Embryonal	0.7	0.1 - 2.7	2.5	1 - 5.1	1.1	0.5 - 2.3	1.4	0.8 - 2.2
3.4.1 Medulloblastoma	0.4	0 - 2.1	0.4	0 - 2	0.8	0.3 - 1.9	0.6	0.2 - 1.2
3.4.2 Supratentorial PNET	0.4	0 - 2.1	1.4	0.4 - 3.6	0.3	0 - 1.2	0.6	0.2 - 1.2
3.4.3 ATRT			0.7	0.1 - 2.6			0.2	0 - 0.6
3.5 Other specified CNS, intracranial and intraspinal	15	10.7 - 20.4	17.3	12.8 - 22.9	18.8	15.6 - 22.5	17.6	15.3 - 20.1
3.5.1 Craniopharyngioma	3	1.3 - 5.9	1.4	0.4 - 3.6	0.8	0.3 - 1.9	1.4	0.8 - 2.3
3.5.2 Other Pituitary tumours	1.9	0.6 - 4.4	5.6	3.2 - 9.2	7.2	5.2 - 9.6	5.6	4.3 - 7.1
3.5.3 Pineal tumours	0.4	0 - 2.1		0 - 0	0.3	0 - 1.2	0.3	0.1 - 0.7
3.5.4 Choroid plexus tumours	0.4	0 - 2.1	0.4	0 - 2	0.2	0 - 0.9	0.3	0.1 - 0.7
3.5.5 Meningioma	3	1.3 - 5.9	2.5	1 - 5.1	2.9	1.7 - 4.5	2.8	1.9 - 3.9
3.5.6 Nerve sheath tumours of CNS	5.2	2.9 - 8.8	3.2	1.5 - 6	4.5	3 - 6.5	4.3	3.2 - 5.7
3.5.7 Other specified intracranial and intraspinal neoplasms	1.1	0.2 - 3.3	4.2	2.2 - 7.4	3	1.8 - 4.7	2.9	2 - 4
3.6 Unspecified intracranial and intraspinal neoplasms	3.4	1.5 - 6.4	2.5	1 - 5.1	3.2	2 - 4.9	3.1	2.1 - 4.2
3.6.1 Unspecified malignant intracranial and intraspinal neoplasms	0.4	0 - 2.1	0.7	0.1 - 2.6	0.8	0.3 - 1.9	0.7	0.3 - 1.3
3.6.2 Unspecified benign and borderline intracranial and intraspinal neoplasms	3	1.3 - 5.9	1.8	0.6 - 4.1	2.4	1.3 - 3.9	2.4	1.6 - 3.4
4 BONE	16.5	12 - 22.1	15.5	11.3 - 20.9	7.8	5.8 - 10.3	11.6	9.8 - 13.7
4.1 Osteosarcoma	8.2	5.2 - 12.5	5.6	3.2 - 9.2	2.2	1.2 - 3.7	4.4	3.3 - 5.8
4.2 Chondrosarcoma	0.7	0.1 - 2.7	1.4	0.4 - 3.6	1.6	0.8 - 2.9	1.4	0.8 - 2.2
4.3 Ewing sarcoma	6	3.4 - 9.7	6.4	3.8 - 10	3.3	2.1 - 5.1	4.7	3.5 - 6.1
4.4 Other specified and unspecified bone tumours	1.5	0.4 - 3.8	2.1	0.8 - 4.6	0.6	0.2 - 1.6	1.2	0.7 - 2
5 STS	13.1	9.1 - 18.2	12	8.3 - 16.8	13.4	10.7 - 16.6	13	11 - 15.2
5.1 Fibromatous neoplasms	3	1.3 - 5.9	2.8	1.2 - 5.6	2.5	1.5 - 4.1	2.7	1.9 - 3.8

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
5.1.1 Fibrosarcoma	0.4	0 - 2.1	0.7	0.1 - 2.6	1.1	0.5 - 2.3	0.8	0.4 - 1.6
5.1.3 Dermatofibrosarcoma	2.6	1.1 - 5.4	2.1	0.8 - 4.6	1.4	0.7 - 2.7	1.9	1.2 - 2.8
5.2 Rhabdomyosarcoma	4.5	2.3 - 7.8	4.6	2.4 - 7.9	1.3	0.6 - 2.5	2.8	1.9 - 3.9
5.3 Other specified soft tissue sarcoma	4.5	2.3 - 7.8	4.2	2.2 - 7.4	6.7	4.8 - 9	5.6	4.3 - 7.1
5.3.1 Liposarcoma	0.4	0 - 2.1	0.7	0.1 - 2.6	1.6	0.8 - 2.9	1.1	0.6 - 1.9
5.3.2 Leiomyosarcoma	1.5	0.4 - 3.8	1.1	0.2 - 3.1	0.8	0.3 - 1.9	1	0.5 - 1.8
5.3.3 Synovial sarcoma	1.9	0.6 - 4.4	0.7	0.1 - 2.6	1.9	1 - 3.3	1.6	1 - 2.5
5.3.4 Clear cell sarcoma					0.2	0 - 0.9	0.1	0 - 0.5
5.3.5 Blood vessel tumours			0.4	0 - 2	0.5	0.1 - 1.4	0.3	0.1 - 0.9
5.3.6 Nerve sheath tumours	0.7	0.1 - 2.7	0.4	0 - 2	1.1	0.5 - 2.3	0.8	0.4 - 1.6
5.3.7 Alveolar soft part sarcoma			0.4	0 - 2	0.2	0 - 0.9	0.2	0 - 0.6
5.3.8 Other Specified			0.7	0.1 - 2.6	0.5	0.1 - 1.4	0.4	0.1 - 1
5.4 Unspecified soft tissue sarcoma	1.1	0.2 - 3.3	0.4	0 - 2	2.9	1.7 - 4.5	1.9	1.2 - 2.8
6 GERM CELL	6.4	3.7 - 10.2	7.4	4.6 - 11.3	8.4	6.3 - 11	7.7	6.2 - 9.5
6.1 Germ cell and trophoblastic neoplasms of gonads	6.4	3.7 - 10.2	7.1	4.3 - 10.9	7.3	5.4 - 9.8	7	5.6 - 8.7
6.2 Germ cell and trophoblastic neoplasms of non-gonadal sites			0.4	0 - 2	1.1	0.5 - 2.3	0.7	0.3 - 1.3
6.2.2 Other non-gonadal sites			0.4	0 - 2	1.1	0.5 - 2.3	0.7	0.3 - 1.3
7 SKIN	8.2	5.2 - 12.5	26.1	20.5 - 32.8	74.1	67.5 - 81.1	47.6	43.8 - 51.7
7.1 Melanoma	4.1	2.1 - 7.4	17.3	12.8 - 22.9	47.9	42.7 - 53.7	30.6	27.6 - 34
7.2 Skin carcinoma	4.1	2.1 - 7.4	8.8	5.7 - 13	26.1	22.3 - 30.4	17	14.7 - 19.5
8 CARCINOMAS	34	27.4 - 41.8	64.9	55.9 - 75	166.3	156.4 - 176.7	111.9	106 - 118.1
8.1 Thyroid carcinoma	8.6	5.5 - 12.9	19.1	14.3 - 24.9	43.6	38.6 - 49.1	29.8	26.8 - 33.1
8.2 Other carcinoma of head and neck	6	3.4 - 9.7	3.5	1.7 - 6.5	5.6	3.9 - 7.8	5.2	4 - 6.7
8.2.1 Nasopharyngeal carcinoma	1.1	0.2 - 3.3	0.7	0.1 - 2.6	0.6	0.2 - 1.6	0.8	0.4 - 1.5
8.2.2 Other sites in lip, oral cavity and pharynx	4.5	2.3 - 7.8	2.5	1 - 5.1	4.6	3.1 - 6.6	4.1	3 - 5.4

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
8.2.3 Nasal cavity, middle ear, sinuses, larynx and other and ill-defined head and neck	0.4	0 - 2.1	0.4	0 - 2	0.3	0 - 1.2	0.3	0.1 - 0.9
8.3 Carcinomas of trachea, bronchus and lung	1.1	0.2 - 3.3	1.1	0.2 - 3.1	3	1.8 - 4.7	2.1	1.4 - 3.1
8.4 Carcinoma of breast		0 - 0	0.4	0 - 2	11	8.6 - 13.9	5.9	4.6 - 7.5
8.5 Carcinoma GU tract	3.7	1.8 - 6.9	12.4	8.6 - 17.2	69.5	63.1 - 76.3	40.8	37.3 - 44.6
8.5.1 Carcinoma of kidney	0.7	0.1 - 2.7	0.4	0 - 2	2.7	1.6 - 4.3	1.7	1 - 2.6
8.5.3 Carcinoma of ovary	3	1.3 - 5.9	11.3	7.7 - 16	30.9	26.7 - 35.6	19.9	17.4 - 22.6
8.5.4 Carcinoma of cervix			0.4	0 - 2	35	30.6 - 40	18.8	16.4 - 21.4
8.5.5 Carcinoma of other and ill-defined sites in GU tract		0 - 0	0.4	0 - 2	0.8	0.3 - 1.9	0.5	0.2 - 1.1
8.6 Carcinoma GI tract	13.8	9.7 - 19.1	28.2	22.4 - 35.1	32	27.8 - 36.8	27	24.1 - 30.1
8.6.1 Carcinoma of colon and rectum	12.7	8.8 - 17.8	25.8	20.2 - 32.4	26.1	22.3 - 30.4	23	20.3 - 25.9
8.6.2 Carcinoma stomach			0.7	0.1 - 2.6	2.1	1.1 - 3.5	1.3	0.7 - 2.1
8.6.3 Carcinoma of liver and intrahepatic bile ducts			0.7	0.1 - 2.6	1.1	0.5 - 2.3	0.8	0.4 - 1.5
8.6.4 Carcinoma pancreas	1.1	0.2 - 3.3	0.7	0.1 - 2.6	1.9	1 - 3.3	1.4	0.8 - 2.3
8.6.5 Carcinoma of other and ill-defined sites in GI tract			0.4	0 - 2	0.8	0.3 - 1.9	0.5	0.2 - 1.1
8.7 Carcinomas of other and ill-defined sites NEC	0.7	0.1 - 2.7	0.4	0 - 2	1.6	0.8 - 2.9	1.1	0.6 - 1.9
8.7.1 Adrenocortical carcinoma	0.4	0 - 2.1					0.1	0 - 0.5
8.7.2 Carcinoma of other and ill-defined sites, NEC	0.4	0 - 2.1	0.4	0 - 2	1.6	0.8 - 2.9	1	0.5 - 1.8
9 MISCELLANEOUS SPECIFIED	2.6	1.1 - 5.4	3.2	1.5 - 6	3.8	2.5 - 5.7	3.4	2.4 - 4.6
9.1 Other paediatric and embryonal tumours NEC	1.9	0.6 - 4.4	0.7	0.1 - 2.6	1.1	0.5 - 2.3	1.2	0.7 - 2
9.1.1 Wilms tumours	0.7	0.1 - 2.7		0 - 0	0.3	0 - 1.2	0.3	0.1 - 0.9
9.1.2 Neuroblastoma	0.4	0 - 2.1	0.4	0 - 2	0.3	0 - 1.2	0.3	0.1 - 0.9
9.1.3 Other paediatric and embryonal, NEC	0.7	0.1 - 2.7	0.4	0 - 2	0.5	0.1 - 1.4	0.5	0.2 - 1.1
9.2 Other specified neoplasms NEC	0.7	0.1 - 2.7	2.5	1 - 5.1	2.7	1.6 - 4.3	2.2	1.4 - 3.2
9.2.1 Paraganglioma and glomus	0.7	0.1 - 2.7	0.4	0 - 2	0.5	0.1 - 1.4	0.5	0.2 - 1.1
9.2.2 Other specified gonadal tumours			0.7	0.1 - 2.6	0.8	0.3 - 1.9	0.6	0.2 - 1.2

13-24 year olds with cancer in England: incidence, mortality and survival

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
9.2.3 Myeloma, mast cell tumours and miscellaneous lymphoreticular neoplasms NEC			0.7	0.1 - 2.6	0.6	0.2 - 1.6	0.5	0.2 - 1.1
9.2.4 Other specified neoplasms NEC			0.7	0.1 - 2.6	0.8	0.3 - 1.9	0.6	0.2 - 1.2
10 UNSPECIFIED	1.1	0.23 - 3.28	1.8	0.57 - 4.12	2.2	1.22 - 3.74	1.9	1.17 - 2.83

Appendix 4: Average annual number of deaths from cancer for those aged 13-24 years at time of death in England, 2013-15

	Male				Female			
	13-15	16-18	19-24	13-24	13-15	16-18	19-24	13-24
ALL CANCERS	21	31	90.3	142.3	15.3	26.3	71.3	113
1 LEUKAEMIA	4.7	5.7	14.3	24.7	4	4	8	16
1.1 Acute lymphoid leukaemia	1.3	4	8	13.3	1.3	1	1.7	4
1.2 Acute myeloid leukaemia	2.3	1.3	5.3	9	2.3	3	5.7	11
1.3 Chronic myeloid leukaemia			0.7	0.7	0.3			0.3
1.4 Other and unspecified leukaemias	1	0.3	0.3	1.7			0.7	0.7
2 LYMPHOMA	1.7	4	10	15.7	1	2.3	11.3	14.7
2.1 Non-Hodgkins Lymphoma	1.3	2.7	7	11	0.7	1.3	6.3	8.3
2.2 Hodgkin lymphoma	0.3	1.3	3	4.7	0.3	1	5	6.3
3 CNS	6	7	20	33	3.7	6.3	11.3	21.3
3.1 Astrocytoma	2	5.3	12.7	20	2	3.3	6.7	12
3.1.2 Other specified low grade astrocytic tumours		0.3	0.7	1				
3.1.3 Glioblastoma and anaplastic astrocytoma	1	3.7	8.3	13	1.3	2.7	4.7	8.7
3.1.4 Astrocytoma, NOS		0.7	2	2.7	0.3	0.3	1.7	2.3
3.2 Other glioma	1.7	0.7	2	4.3	0.3	0.7	1.3	2.3
3.2.2 Other specified glioma	0.3	0.3		0.7			0.7	0.7
3.2.3 Glioma, NOS	1.3		2	3.3	0.3	0.7	0.7	1.7
3.3 Ependymoma			0.7	0.7	1.3	0.3	0.3	2

	Male				Female			
	13-15	16-18	19-24	13-24	13-15	16-18	19-24	13-24
3.4 Embryonal	2	0.7	3	5.7		1	1.3	2.3
3.4.1 Medulloblastoma	1.7	0.7	2.3	4.7		0.3	1	1.3
3.4.2 Supratentorial PNET	0.3		0.7	1		0.3	0.3	0.7
3.4.3 ATRT						0.3		0.3
3.5 Other specified CNS, intracranial and intraspinal		0.3	1.3	1.7		1	0.7	1.7
3.5.1 Craniopharyngioma						0.7	0.3	1
3.5.5 Meningioma							0.3	0.3
3.5.7 Other specified intracranial and intraspinal neoplasms		0.3	0.3	0.7				
3.6 Unspecified intracranial and intraspinal neoplasms	0.3		0.3	0.7			1	1
3.6.1 Unspecified malignant intracranial and intraspinal neoplasms							0.3	0.3
3.6.2 Unspecified benign and borderline intracranial and intraspinal neoplasms	0.3		0.3	0.7			0.7	0.7
4 BONE	5.7	5.7	10.7	22	2.7	6.7	8	17.3
4.1 Osteosarcoma	3	3.3	4.3	10.7	1.7	2	3.7	7.3
4.3 Ewing sarcoma	2.7	2.3	5.7	10.7	0.7	3.7	4	8.3
4.4 Other specified and unspecified bone tumours			0.7	0.7	0.3	0.7	0.3	1.3
5 STS	1.7	4	10.3	16	1	3	8.3	12.3
5.1 Fibromatous neoplasms							0.3	0.3
5.1.1 Fibrosarcoma							0.3	0.3
5.2 Rhabdomyosarcoma	1.3	2.3	3.3	7	1	2.7	1	4.7
5.3 Other specified soft tissue sarcoma	0.3	1.3	3.3	5		0.3	4	4.3
5.3.1 Liposarcoma			0.3	0.3			1	1
5.3.3 Synovial sarcoma		0.3	0.7	1			0.7	0.7
5.3.5 Blood vessel tumours			0.7	0.7			0.7	0.7
5.3.6 Nerve sheath tumours	0.3	0.7	1.3	2.3			1.3	1.3

	Male				Female			
	13-15	16-18	19-24	13-24	13-15	16-18	19-24	13-24
5.3.8 Other Specified		0.3	0.3	0.7			0.3	0.3
5.4 Unspecified soft tissue sarcoma		0.3	3.7	4			3	3
6 GERM CELL	0.3	1.7	4.3	6.3			0.3	0.3
6.1 Germ cell and trophoblastic neoplasms of gonads		1	3.7	4.7			0.3	0.3
6.2 Germ cell and trophoblastic neoplasms of non-gonadal sites	0.3	0.7	0.7	1.7				
6.2.1 Intracranial germ cell	0.3			0.3				
6.2.2 Other non-gonadal sites		0.7	0.7	1.3				
7 SKIN	0.3	0.7	2.7	3.7		0.3	2.7	3
7.1 Melanoma	0.3	0.3	2.7	3.3		0.3	2.3	2.7
8 CARCINOMAS	0.3	1.3	15.7	17.3	1.7	2.3	20	24
8.2 Other carcinoma of head and neck			1.3	1.3		0.3	0.7	1
8.2.1 Nasopharyngeal carcinoma			0.7	0.7		0.3		0.3
8.2.2 Other sites in lip, oral cavity and pharynx			0.7	0.7				
8.2.3 Nasal cavity, middle ear, sinuses, larynx and other and ill-defined head and neck							0.7	0.7
8.3 Carcinomas of trachea, bronchus and lung			1.3	1.3			1.7	1.7
8.4 Carcinoma of breast							1.3	1.3
8.5 Carcinoma GU tract			2.7	2.7	0.7	0.3	8	9
8.5.1 Carcinoma of kidney			2	2	0.3			0.3
8.5.2 Carcinoma bladder			0.7	0.7				
8.5.3 Carcinoma of ovary					0.3	0.3	3.7	4.3
8.5.4 Carcinoma of cervix							3.7	3.7
8.6 Carcinoma GI tract	0.3	0.7	9.7	10.7	0.3	1.7	7	9
8.6.1 Carcinoma of colon and rectum		0.3	5.3	5.7		0.7	3.7	4.3
8.6.2 Carcinoma stomach			1	1		1	0.7	1.7

	Male				Female			
	13-15	16-18	19-24	13-24	13-15	16-18	19-24	13-24
8.6.3 Carcinoma of liver and intrahepatic bile ducts	0.3	0.3	1.3	2	0.3		2.3	2.7
8.6.4 Carcinoma pancreas			0.7	0.7			0.3	0.3
8.6.5 Carcinoma of other and ill-defined sites in GI tract			1.3	1.3				
8.7 Carcinomas of other and ill-defined sites NEC		0.3	0.7	1	0.3		1.3	1.7
8.7.2 Carcinoma of other and ill-defined sites, NEC		0.3	0.7	1	0.3		1	1.3
9 MISCELLANEOUS SPECIFIED	0.3	1	1.3	2.7	1.3	1.3	1	3.7
9.1 Other paediatric and embryonal tumours NEC	0.3	1	1.3	2.7	1	1	0.3	2.3
9.1.1 Wilms tumours	0.3	0.7		1	0.7	0.3		1
9.1.2 Neuroblastoma		0.3	0.3	0.7	0.3	0.3	0.3	1
9.1.3 Other paediatric and embryonal, NEC			1	1		0.3		0.3
9.2 Other specified neoplasms NEC					0.3	0.3	0.7	1.3
9.2.1 Paraganglioma and glomus					0.3	0.3		0.7
10 UNSPECIFIED			1	1			0.3	0.3

*Due to rounding, some totals may not correspond with the sum of the separate figures.

Appendix 5a: Crude mortality rates per one million population for males aged 13-24 years at time of death in England, 2013-15 (with 95% confidence intervals)

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
ALL CANCERS	22.5	17.3 - 28.7	31.1	25.1 - 38.1	41.5	36.7 - 46.8	34.6	31.4 - 38.1
1 LEUKAEMIA	5.0	2.7 - 8.4	5.7	3.3 - 9.1	6.6	4.8 - 8.9	6.0	4.7 - 7.5
1.1 Acute lymphoid leukaemia	1.4	0.4 - 3.7	4.0	2.1 - 7	3.7	2.4 - 5.5	3.2	2.3 - 4.4
1.2 Acute myeloid leukaemia	2.5	1 - 5.1	1.3	0.4 - 3.4	2.5	1.4 - 4	2.2	1.4 - 3.2
1.3 Chronic myeloid leukaemia					0.3	0 - 1.1	0.2	0 - 0.6
1.4 Other and unspecified leukaemias	1.1	0.2 - 3.1	0.3	0 - 1.9	0.2	0 - 0.9	0.4	0.1 - 1
2 LYMPHOMA	1.8	0.6 - 4.2	4.0	2.1 - 7	4.6	3.1 - 6.6	3.8	2.8 - 5.1
2.1 Non-Hodgkins Lymphoma	1.4	0.4 - 3.7	2.7	1.2 - 5.3	3.2	2 - 4.9	2.7	1.8 - 3.8
2.2 Hodgkin lymphoma	0.4	0 - 2	1.3	0.4 - 3.4	1.4	0.6 - 2.6	1.1	0.6 - 1.9
3 CNS	6.4	3.8 - 10.1	7.0	4.3 - 10.7	9.2	7 - 11.8	8.0	6.5 - 9.8
3.1 Astrocytoma	2.1	0.8 - 4.7	5.3	3.1 - 8.7	5.8	4.1 - 8	4.9	3.7 - 6.3
3.1.2 Other specified low grade astrocytic tumours			0.3	0 - 1.9	0.3	0 - 1.1	0.2	0.1 - 0.7
3.1.3 Glioblastoma and anaplastic astrocytoma	1.1	0.2 - 3.1	3.7	1.8 - 6.6	3.8	2.5 - 5.7	3.2	2.3 - 4.3
3.1.4 Astrocytoma, NOS			0.7	0.1 - 2.4	0.9	0.3 - 2	0.6	0.3 - 1.3
3.2 Other glioma	1.8	0.6 - 4.2	0.7	0.1 - 2.4	0.9	0.3 - 2	1.1	0.6 - 1.8
3.2.2 Other specified glioma	0.4	0 - 2	0.3	0 - 1.9			0.2	0 - 0.6
3.2.3 Glioma, NOS	1.4	0.4 - 3.7			0.9	0.3 - 2	0.8	0.4 - 1.5
3.3 Ependymoma	2.1	0.8 - 4.7	0.7	0.1 - 2.4	1.4	0.6 - 2.6	1.4	0.8 - 2.2

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
3.4 Embryonal	1.8	0.6 - 4.2	0.7	0.1 - 2.4	1.1	0.4 - 2.2	1.1	0.6 - 1.9
3.4.1 Medulloblastoma	0.4	0 - 2			0.3	0 - 1.1	0.2	0.1 - 0.7
3.4.2 Supratentorial primitive neuroectodermal tumours (PNET)			0.3	0 - 1.9	0.6	0.2 - 1.6	0.4	0.1 - 1
3.5 Other specified CNS, intracranial and intraspinal			0.3	0 - 1.9	0.2	0 - 0.9	0.2	0 - 0.6
3.5.7 Other specified intracranial and intraspinal neoplasms	0.4	0 - 2			0.2	0 - 0.9	0.2	0 - 0.6
3.6 Unspecified intracranial and intraspinal neoplasms	0.4	0 - 2			0.2	0 - 0.9	0.2	0 - 0.6
3.6.2 Unspecified benign and borderline intracranial and intraspinal neoplasms	1.8	0.6 - 4.2	0.7	0.1 - 2.4	1.1	0.4 - 2.2	1.1	0.6 - 1.9
4 BONE	6.1	3.5 - 9.7	5.7	3.3 - 9.1	4.9	3.4 - 6.9	5.4	4.1 - 6.8
4.1 Osteosarcoma	3.2	1.5 - 6.1	3.3	1.6 - 6.2	2.0	1.1 - 3.4	2.6	1.8 - 3.7
4.3 Ewing sarcoma	2.9	1.2 - 5.6	2.3	0.9 - 4.8	2.6	1.5 - 4.2	2.6	1.8 - 3.7
4.4 Other specified and unspecified bone tumours					0.3	0 - 1.1	0.2	0 - 0.6
5 STS	1.8	0.6 - 4.2	4.0	2.1 - 7	4.7	3.2 - 6.7	3.9	2.9 - 5.2
5.2 Rhabdomyosarcoma	1.4	0.4 - 3.7	2.3	0.9 - 4.8	1.5	0.7 - 2.8	1.7	1.1 - 2.6
5.3 Other specified soft tissue sarcoma	0.4	0 - 2	1.3	0.4 - 3.4	1.5	0.7 - 2.8	1.2	0.7 - 2
5.3.1 Liposarcoma					0.2	0 - 0.9	0.1	0 - 0.5
5.3.3 Synovial sarcoma			0.3	0 - 1.9	0.3	0 - 1.1	0.2	0.1 - 0.7
5.3.5 Blood vessel tumours					0.3	0 - 1.1	0.2	0 - 0.6
5.3.6 Nerve sheath tumours	0.4	0 - 2	0.7	0.1 - 2.4	0.6	0.2 - 1.6	0.6	0.2 - 1.2
5.3.8 Other Specified			0.3	0 - 1.9	0.2	0 - 0.9	0.2	0 - 0.6
5.4 Unspecified soft tissue sarcoma			0.3	0 - 1.9	1.7	0.8 - 3	1.0	0.5 - 1.7
6 GERM CELL	0.4	0 - 2	1.7	0.5 - 3.9	2.0	1.1 - 3.4	1.5	0.9 - 2.4
6.1 Germ cell and trophoblastic neoplasms of gonads			1.0	0.2 - 2.9	1.7	0.8 - 3	1.1	0.6 - 1.9
6.2 Germ cell and trophoblastic neoplasms of non-gonadal sites	0.4	0 - 2	0.7	0.1 - 2.4	0.3	0 - 1.1	0.4	0.1 - 1
6.2.1 Intracranial germ cell	0.4	0 - 2					0.1	0 - 0.5
6.2.2 Other non-gonadal sites			0.7	0.1 - 2.4	0.3	0 - 1.1	0.3	0.1 - 0.8

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
7 SKIN	0.4	0 - 2	0.7	0.1 - 2.4	1.2	0.5 - 2.4	0.9	0.4 - 1.6
7.1 Melanoma	0.4	0 - 2	0.3	0 - 1.9	1.2	0.5 - 2.4	0.8	0.4 - 1.5
8 CARCINOMAS	0.4	0 - 2	1.3	0.4 - 3.4	7.2	5.3 - 9.6	4.2	3.2 - 5.5
8.2 Other carcinoma of head and neck					0.6	0.2 - 1.6	0.3	0.1 - 0.8
8.2.1 Nasopharyngeal carcinoma					0.3	0 - 1.1	0.2	0 - 0.6
8.2.2 Other sites in lip, oral cavity and pharynx					0.3	0 - 1.1	0.2	0 - 0.6
8.3 Carcinomas of trachea, bronchus and lung					0.6	0.2 - 1.6	0.3	0.1 - 0.8
8.5 Carcinoma GU tract					1.2	0.5 - 2.4	0.6	0.3 - 1.3
8.5.1 Carcinoma of kidney					0.9	0.3 - 2	0.5	0.2 - 1.1
8.5.2 Carcinoma bladder					0.3	0 - 1.1	0.2	0 - 0.6
8.6 Carcinoma GI tract	0.4	0 - 2	0.7	0.1 - 2.4	4.4	3 - 6.4	2.6	1.8 - 3.7
8.6.1 Carcinoma of colon and rectum			0.3	0 - 1.9	2.5	1.4 - 4	1.4	0.8 - 2.2
8.6.2 Carcinoma stomach					0.5	0.1 - 1.3	0.2	0.1 - 0.7
8.6.3 Carcinoma of liver and intrahepatic bile ducts	0.4	0 - 2	0.3	0 - 1.9	0.6	0.2 - 1.6	0.5	0.2 - 1.1
8.6.4 Carcinoma pancreas					0.3	0 - 1.1	0.2	0 - 0.6
8.6.5 Carcinoma of other and ill-defined sites in GI tract					0.6	0.2 - 1.6	0.3	0.1 - 0.8
8.7 Carcinomas of other and ill-defined sites NEC			0.3	0 - 1.9	0.3	0 - 1.1	0.2	0.1 - 0.7
8.7.2 Carcinoma of other and ill-defined sites, NEC			0.3	0 - 1.9	0.3	0 - 1.1	0.2	0.1 - 0.7
9 MISCELLANEOUS SPECIFIED	0.4	0 - 2	1.0	0.2 - 2.9	0.6	0.2 - 1.6	0.6	0.3 - 1.3
9.1 Other paediatric and embryonal tumours NEC	0.4	0 - 2	1.0	0.2 - 2.9	0.6	0.2 - 1.6	0.6	0.3 - 1.3
9.1.1 Wilms tumours	0.4	0 - 2	0.7	0.1 - 2.4			0.2	0.1 - 0.7
9.1.2 Neuroblastoma			0.3	0 - 1.9	0.2	0 - 0.9	0.2	0 - 0.6
9.1.3 Other paediatric and embryonal, NEC					0.5	0.1 - 1.3	0.2	0.1 - 0.7
10 UNSPECIFIED					0.5	0.1 - 1.3	0.2	0.1 - 0.7

Appendix 5b: Crude mortality rates per one million population for females aged 13-24 years at time of death in England, 2013-15 (with 95% confidence intervals)

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
ALL CANCERS	17.2	12.6 - 23.0	27.9	22.1 - 34.8	34.1	29.7 - 39.0	28.8	25.8 - 32.0
1 LEUKAEMIA	4.5	2.3 - 7.8	4.2	2.2 - 7.4	3.8	2.5 - 5.7	4.1	3 - 5.4
1.1 Acute lymphoid leukaemia	1.5	0.4 - 3.8	1.1	0.2 - 3.1	0.8	0.3 - 1.9	1.0	0.5 - 1.8
1.2 Acute myeloid leukaemia	2.6	1.1 - 5.4	3.2	1.5 - 6	2.7	1.6 - 4.3	2.8	1.9 - 3.9
1.4 Other and unspecified leukaemias	0.4	0 - 2.1					0.1	0 - 0.5
2 LYMPHOMA	1.1	0.2 - 3.3	2.5	1 - 5.1	5.4	3.8 - 7.6	3.7	2.7 - 5
2.1 Non-Hodgkins Lymphoma	0.7	0.1 - 2.7	1.4	0.4 - 3.6	3.0	1.8 - 4.7	2.1	1.4 - 3.1
2.2 Hodgkin lymphoma	0.4	0 - 2.1	1.1	0.2 - 3.1	2.4	1.3 - 3.9	1.6	1 - 2.5
3 CNS	4.1	2.1 - 7.4	6.7	4 - 10.5	5.4	3.8 - 7.6	5.4	4.2 - 6.9
3.1 Astrocytoma	2.2	0.8 - 4.9	3.5	1.7 - 6.5	3.2	2 - 4.9	3.1	2.1 - 4.2
3.1.3 Glioblastoma and anaplastic astrocytoma	1.5	0.4 - 3.8	2.8	1.2 - 5.6	2.2	1.2 - 3.7	2.2	1.4 - 3.2
3.1.4 Astrocytoma, NOS	0.4	0 - 2.1	0.4	0 - 2	0.8	0.3 - 1.9	0.6	0.2 - 1.2
3.2 Other glioma	0.4	0 - 2.1	0.7	0.1 - 2.6	0.6	0.2 - 1.6	0.6	0.2 - 1.2
3.2.2 Other specified glioma		0 - 0		0 - 0	0.3	0 - 1.2	0.2	0 - 0.6
3.2.3 Glioma, NOS	0.4	0 - 2.1	0.7	0.1 - 2.6	0.3	0 - 1.2	0.4	0.1 - 1
3.3 Ependymoma	1.5	0.4 - 3.8	0.4	0 - 2	0.2	0 - 0.9	0.5	0.2 - 1.1
3.4 Embryonal			1.1	0.2 - 3.1	0.6	0.2 - 1.6	0.6	0.2 - 1.2
3.4.1 Medulloblastoma			0.4	0 - 2	0.5	0.1 - 1.4	0.3	0.1 - 0.9

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
3.4.2 Supratentorial PNET			0.4	0 - 2	0.2	0 - 0.9	0.2	0 - 0.6
3.4.3 ATRT			0.4	0 - 2		0 - 0	0.1	0 - 0.5
3.5 Other specified CNS, intracranial and intraspinal			1.1	0.2 - 3.1	0.3	0 - 1.2	0.4	0.1 - 1
3.5.1 Craniopharyngioma			0.7	0.1 - 2.6	0.2	0 - 0.9	0.3	0.1 - 0.7
3.5.5 Meningioma				0 - 0	0.2	0 - 0.9	0.1	0 - 0.5
3.6 Unspecified intracranial and intraspinal neoplasms				0 - 0	0.5	0.1 - 1.4	0.3	0.1 - 0.7
3.6.1 Unspecified malignant intracranial and intraspinal neoplasms				0 - 0	0.2	0 - 0.9	0.1	0 - 0.5
3.6.2 Unspecified benign and borderline intracranial and intraspinal neoplasms				0 - 0	0.3	0 - 1.2	0.2	0 - 0.6
4 BONE	3.0	1.3 - 5.9	7.1	4.3 - 10.9	3.8	2.5 - 5.7	4.4	3.3 - 5.8
4.1 Osteosarcoma	1.9	0.6 - 4.4	2.1	0.8 - 4.6	1.8	0.9 - 3.1	1.9	1.2 - 2.8
4.3 Ewing sarcoma	0.7	0.1 - 2.7	3.9	1.9 - 7	1.9	1 - 3.3	2.1	1.4 - 3.1
4.4 Other specified and unspecified bone tumours	0.4	0 - 2.1	0.7	0.1 - 2.6	0.2	0 - 0.9	0.3	0.1 - 0.9
5 STS	1.1	0.2 - 3.3	3.2	1.5 - 6	4.0	2.6 - 5.9	3.1	2.2 - 4.3
5.1 Fibromatous neoplasms					0.2	0 - 0.9	0.1	0 - 0.5
5.1.1 Fibrosarcoma					0.2	0 - 0.9	0.1	0 - 0.5
5.2 Rhabdomyosarcoma	1.1	0.2 - 3.3	2.8	1.2 - 5.6	0.5	0.1 - 1.4	1.2	0.7 - 2
5.3 Other specified soft tissue sarcoma			0.4	0 - 2	1.9	1 - 3.3	1.1	0.6 - 1.9
5.3.1 Liposarcoma					0.5	0.1 - 1.4	0.3	0.1 - 0.7
5.3.3 Synovial sarcoma					0.3	0 - 1.2	0.2	0 - 0.6
5.3.5 Blood vessel tumours					0.3	0 - 1.2	0.2	0 - 0.6
5.3.6 Nerve sheath tumours					0.6	0.2 - 1.6	0.3	0.1 - 0.9
5.3.8 Other Specified					0.2	0 - 0.9	0.1	0 - 0.5
5.4 Unspecified soft tissue sarcoma					1.4	0.7 - 2.7	0.8	0.4 - 1.5
6 GERM CELL					0.2	0 - 0.9	0.1	0 - 0.5
6.1 Germ cell and trophoblastic neoplasms of gonads					0.2	0 - 0.9	0.1	0 - 0.5

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
7 SKIN			0.4	0 - 2	1.3	0.6 - 2.5	0.8	0.4 - 1.5
7.1 Melanoma			0.4	0 - 2	1.1	0.5 - 2.3	0.7	0.3 - 1.3
8 CARCINOMAS	1.9	0.6 - 4.4	2.5	1 - 5.1	9.6	7.3 - 12.3	6.1	4.8 - 7.7
8.2 Other carcinoma of head and neck			0.4	0 - 2	0.3	0 - 1.2	0.3	0.1 - 0.7
8.2.1 Nasopharyngeal carcinoma			0.4	0 - 2			0.1	0 - 0.5
8.2.3 Nasal cavity, middle ear, sinuses, larynx and other and ill-defined head and neck					0.3	0 - 1.2	0.2	0 - 0.6
8.3 Carcinomas of trachea, bronchus and lung					0.8	0.3 - 1.9	0.4	0.1 - 1
8.4 Carcinoma of breast					0.6	0.2 - 1.6	0.3	0.1 - 0.9
8.5 Carcinoma GU tract	0.7	0.1 - 2.7	0.4	0 - 2	3.8	2.5 - 5.7	2.3	1.5 - 3.3
8.5.1 Carcinoma of kidney	0.4	0 - 2.1					0.1	0 - 0.5
8.5.3 Carcinoma of ovary	0.4	0 - 2.1	0.4	0 - 2	1.8	0.9 - 3.1	1.1	0.6 - 1.9
8.5.4 Carcinoma of cervix					1.8	0.9 - 3.1	0.9	0.5 - 1.7
8.6 Carcinoma GI tract	0.4	0 - 2.1	1.8	0.6 - 4.1	3.3	2.1 - 5.1	2.3	1.5 - 3.3
8.6.1 Carcinoma of colon and rectum			0.7	0.1 - 2.6	1.8	0.9 - 3.1	1.1	0.6 - 1.9
8.6.2 Carcinoma stomach			1.1	0.2 - 3.1	0.3	0 - 1.2	0.4	0.1 - 1
8.6.3 Carcinoma of liver and intrahepatic bile ducts	0.4	0 - 2.1			1.1	0.5 - 2.3	0.7	0.3 - 1.3
8.6.4 Carcinoma pancreas					0.2	0 - 0.9	0.1	0 - 0.5
8.7 Carcinomas of other and ill-defined sites NEC	0.4	0 - 2.1			0.6	0.2 - 1.6	0.4	0.1 - 1
8.7.2 Carcinoma of other and ill-defined sites, NEC	0.4	0 - 2.1			0.5	0.1 - 1.4	0.3	0.1 - 0.9
9 MISCELLANEOUS SPECIFIED	1.5	0.4 - 3.8	1.4	0.4 - 3.6	0.5	0.1 - 1.4	0.9	0.5 - 1.7
9.1 Other paediatric and embryonal tumours NEC	1.1	0.2 - 3.3	1.1	0.2 - 3.1	0.2	0 - 0.9	0.6	0.2 - 1.2
9.1.1 Wilms tumours	0.7	0.1 - 2.7	0.4	0 - 2		0 - 0	0.3	0.1 - 0.7
9.1.2 Neuroblastoma	0.4	0 - 2.1	0.4	0 - 2	0.2	0 - 0.9	0.3	0.1 - 0.7
9.1.3 Other paediatric and embryonal, NEC			0.4	0 - 2			0.1	0 - 0.5
9.2 Other specified neoplasms NEC	0.4	0 - 2.1	0.4	0 - 2	0.3	0 - 1.2	0.3	0.1 - 0.9

13-24 year olds with cancer in England: incidence, mortality and survival

	13-15		16-18		19-24		13-24	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
9.2.1 Paraganglioma and glomus	0.4	0 - 2.1	0.4	0 - 2			0.2	0 - 0.6
10 UNSPECIFIED					0.2	0 - 0.9	0.1	0 - 0.5

References

1. Barr RD, Holowaty EJ, Birch JM. Classification schemes for tumors diagnosed in adolescents and young adults. *Cancer*. 2006;106(7):1425-30.
2. NHS England. Delivering World-Class Cancer Outcomes: Guidance for Cancer Alliances and the National Cancer Vanguard [Internet]. 2016. Available from: www.england.nhs.uk/wp-content/uploads/2017/02/cancer-alliance-guidance.pdf
3. Office for National Statistics. Open Geography Portal. Available from: geoportal.statistics.gov.uk
4. The English Indices of Deprivation 2015 [Internet]. Communities and Local Government (2015) Available from: www.gov.uk/government/statistics/english-indices-of-deprivation-2015
5. Kaplan EL, Meier P. Nonparametric estimation from incomplete observations. *J Amer Statist Assocn*. 1958;53:457-81.
6. Clerc-Urnes et al. *The Stata Journal* (2014) 14: 87-102. Available from: www.stata-journal.com/article.html?article=st0326
7. Kilfoy, B.A., et al., International patterns and trends in thyroid cancer incidence, 1973-2002. *Cancer Causes Control*, 2009. 20(5): p. 525-31.
8. Barr, R.D., et al., Incidence and incidence trends of the most frequent cancers in adolescent and young adult Americans, including 'nonmalignant/noninvasive' tumors. *Cancer*, 2016. 122(7): p. 1000-8.
9. Vergamini, L.B., et al., Increase in the incidence of differentiated thyroid carcinoma in children, adolescents, and young adults: a population-based study. *J Pediatr*, 2014. 164(6): p. 1481-5.
10. Castanon, A. and P. Sasieni, Is the recent increase in cervical cancer in women aged 20-24 years in England a cause for concern? *Prev Med*, 2018. 107: p. 21-28.
11. Tripp, J. and R. Viner, Sexual health, contraception, and teenage pregnancy. *BMJ*, 2005. 330(7491): p. 590-3.