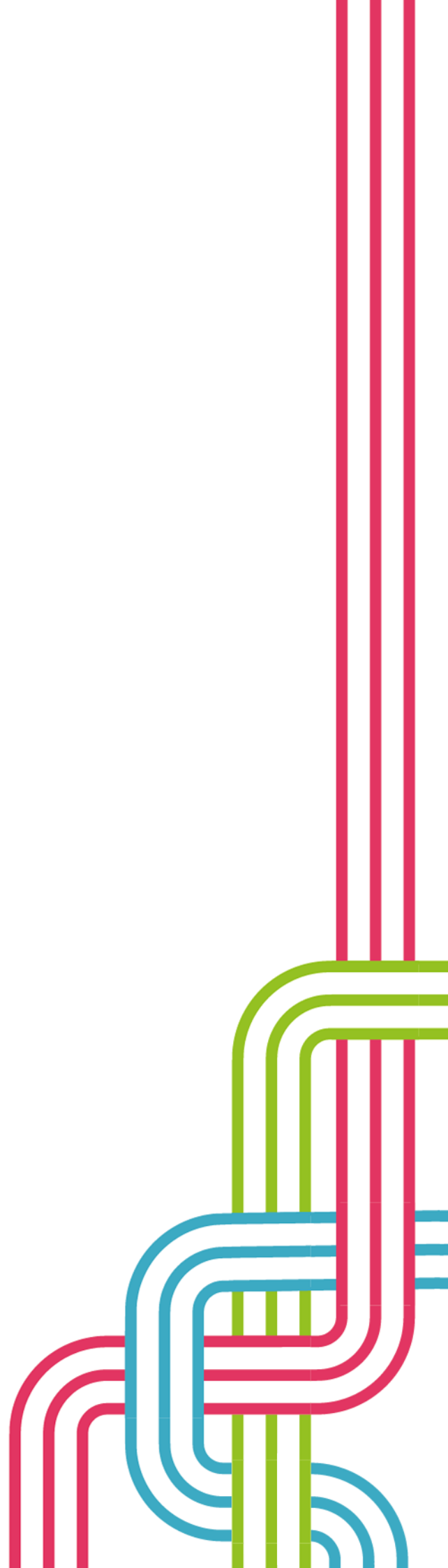


Childhood cancer

Suffolk

2023



Contents

Key points.....	2
An introduction to childhood cancer.....	2
Childhood cancer incidence	3
Incidence trend	4
Difference by age and sex.....	5
Cancer types	6
Childhood cancer diagnosis.....	7
Childhood cancer survival.....	7
Childhood cancer mortality	7
Mortality trend	8
Difference by age and sex.....	8
Cancer types	8
References.....	9

Key points

1. Childhood cancer accounts for a very small proportion of all cancer cases. In 2020, childhood cancer incidence for 0-14 year olds accounted for 0.4% of all tumours in England.
2. Sub-ICB level data is available for cancer incidence rates per 100,000 for individuals aged under 25. Suffolk and North East Essex ICB and Norfolk and Waveney ICB both have statistically similar cancer incidence rates to England in 2020.
3. For 0-14 year olds in 2020, the most common cancer type was leukaemia, followed by lymphoid leukaemia. Brain cancer and non-Hodgkin lymphoma were also in the top 4 tumour types for childhood cancer incidence rates.
4. Childhood cancer 5-year survival in England has statistically significantly improved from 77.1% in 2001 to 85.5% in 2018, with many of these children being cured.
5. Childhood cancer in England accounted for less than 0.1% of all cancer deaths in 2020. The tumour types that caused the highest number of childhood cancer deaths were brain cancer, leukaemia, lymphoid leukaemia and adrenal gland cancer.

An introduction to childhood cancer

Childhood cancer is rare, with around 1,500 new cases diagnosed each year in England for children aged 0-14¹. In England in 2020, there were 1,441 tumours for children aged 0-14, accounting for 0.4% of all tumours nationally².

Childhood cancer survival has more than doubled since the 1970s in the UK. In the 1970s, 1 in 3 children diagnosed with cancer survived for more than 10 years – this has now increased to

around 8 in 10 (80%)³. Many young people who do survive also experience long-term side effects from their treatment⁴.

The NHS long term plan references children and young people with cancer, stating that survival rates for children with cancer has doubled over the past 40 years. The plan also states that because child mortality has fallen for other conditions, cancer is now the biggest cause of premature death among children and young people aged between 5-14⁵. The NHS has committed from 2019 to offer all children with cancer whole genome sequencing, as well as providing all boys aged 12 and 13 vaccinations against HPV related diseases such as oral, throat and anal cancer⁵ (girls in Suffolk are already offered this vaccine at age 12/13, with a 73.3% coverage in Suffolk in 2021/22⁶).

Risk factors for children's cancers are not well understood, due to the rarity and the various types. Known risk factors include medical conditions, problems with development in the womb, exposure to infections and radiation, as well as previous cancer treatments⁷.

This profile outlines an overview of childhood cancer in England, and where possible (due to data suppression) childhood cancer in Suffolk and North East Essex ICB and Norfolk and Waveney ICB. This profile covers:

- [Childhood cancer incidence](#)
- [Childhood cancer diagnosis](#)
- [Childhood cancer survival](#)
- [Childhood cancer mortality](#)

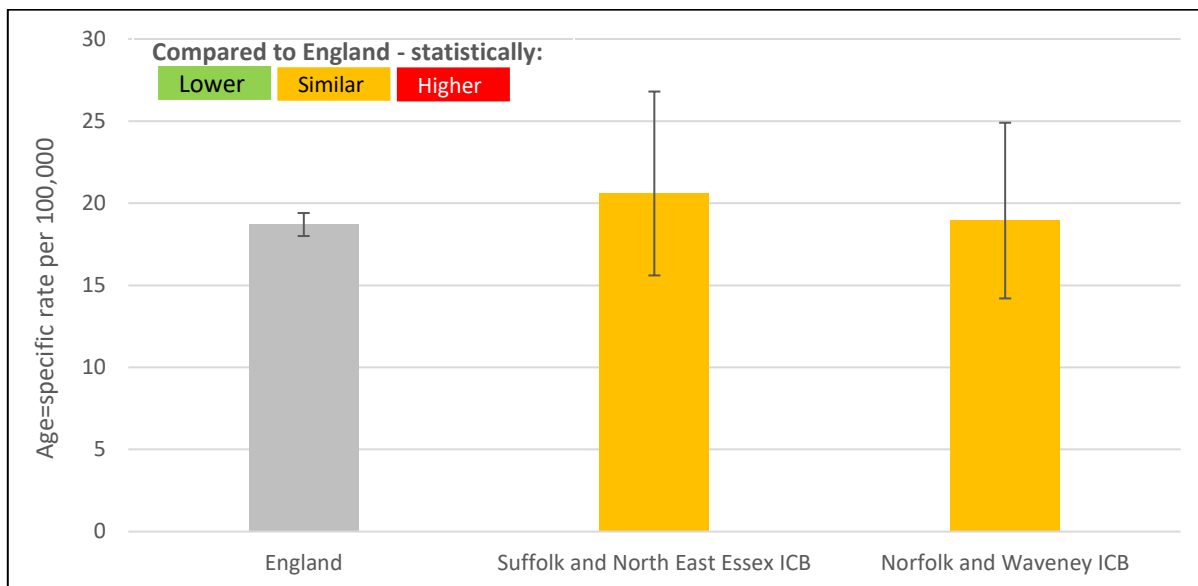
Childhood cancer incidence

Children and young people get different types of cancers to adults and are generally more treatable. For adults, the most common cancers are lung, breast, and bowel cancers. The most common cancers in children are leukaemia, brain cancers and Non-Hodgkin Lymphoma.

CancerData provides childhood cancer data for England with further age breakdowns (under 1, 1 to 4, 5 to 9, 10 to 14, 15 to 19 and 20 to 24). However, sub-ICB level data is only available grouped for under 25s.

At 18.7 cases per 100,000 in 2020, childhood cancer for under 25s is comparatively small compared to the rate for all ages in 2020 – 722.5 per 100,000. Both Suffolk and North East Essex ICB (20.6 per 100,000, 56 total cases) and Norfolk and Waveney ICB (19.0 per 100,000, 52 total cases) have a statistically similar rate of under 25 cancer incidence compared to the England average.

Figure 1. Age-specific childhood all malignant cancers (under 25 years of age) incidence rates per 100,000 for Suffolk and North East Essex and Norfolk and Waveney ICBs, compared to England, 2020.



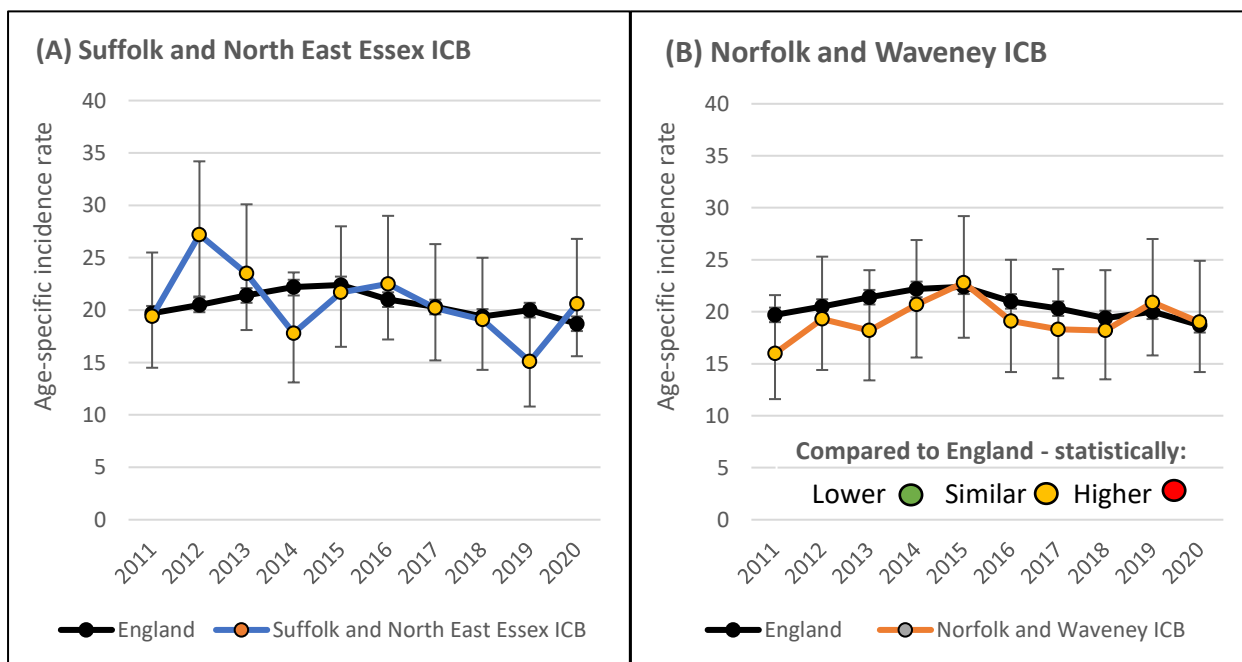
Source: [CancerData](#)

Incidence trend

Childhood cancer (under 25 years of age) incidence rates have remained statistically similar between 2011-2020 for all of the below geographies:

- England – 19.7 per 100,000 in 2011 (3,208 cases) to 18.7 per 100,000 in 2020 (3,141 cases)
- SNEE ICB – 19.4 per 100,000 in 2011 (52 cases) to 20.6 per 100,000 in 2020 (56 cases)
- Norfolk and Waveney ICB – 16.0 per 100,000 in 2011 (43 cases) to 19.0 per 100,000 in 2020 (52 cases).

Figure 2. Age-specific childhood all malignant cancers (under 25 years of age) incidence rates per 100,000 for Suffolk and North East Essex (A) and Norfolk and Waveney (B) ICBs, compared to England, between 2011 to 2020.



Source: [CancerData](#)

Difference by age and sex

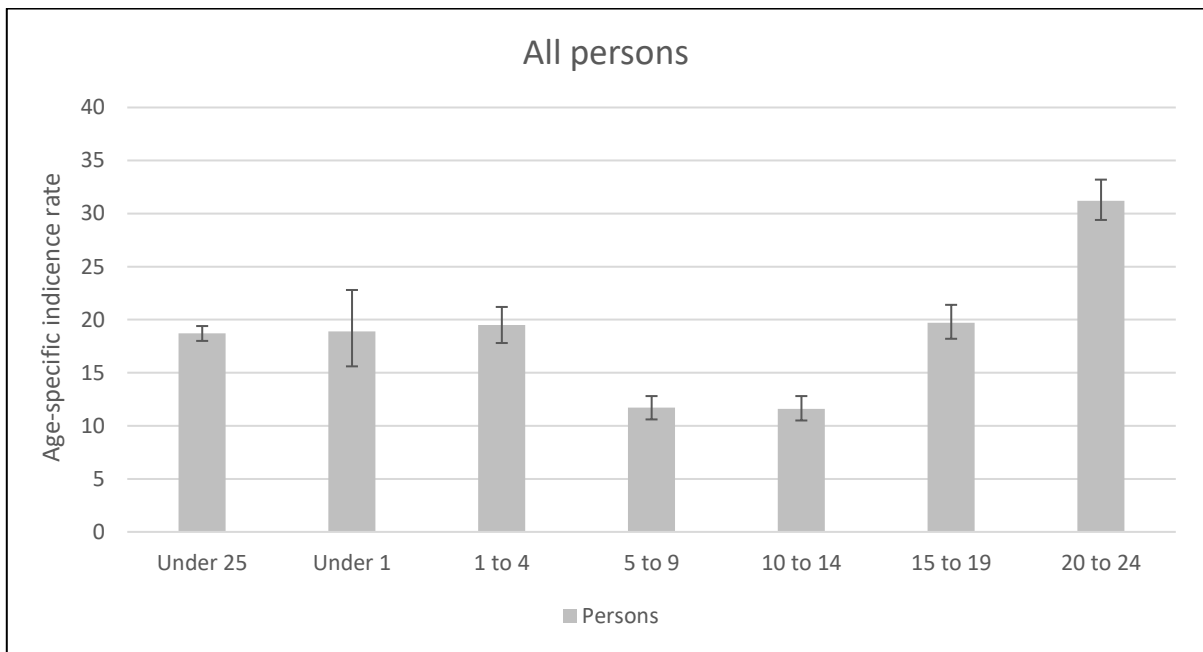
Because of the small number of childhood cancer cases, the below analysis for age and sex only uses England data. Sub-ICB data is too small and encounters data suppression issues.

For girls aged 0-14 in England in 2020, there were 637 tumours diagnosed. For boys aged 0-14 in the same year, there were 804 tumours diagnosed.

Boys and girls within each of the below age grouping have statistically similar incidence rates to each other.

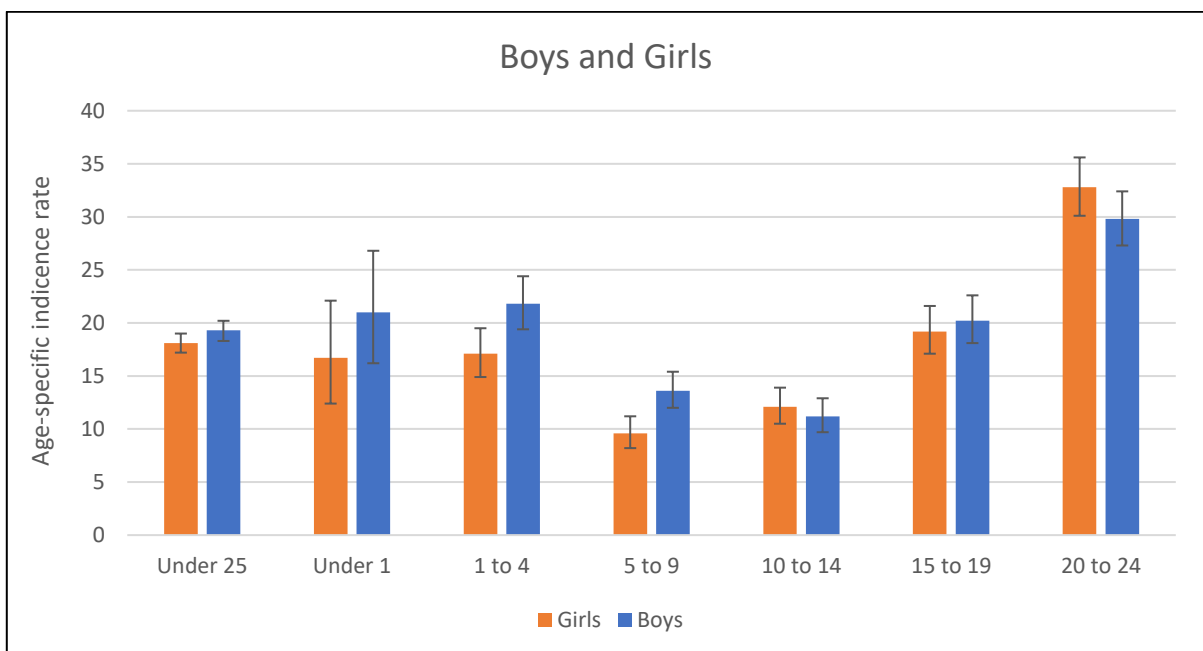
In the below figure in 2020, cancer incidence was highest in the 20- to 24-year-old group for boys (29.8 per 100,000), girls (32.8 per 100,000), and all persons (31.2 per 100,000).

Figure 3. Age-specific childhood all malignant cancers for under 25 years of age and selected age groupings, incidence rates per 100,000 for all persons in England, 2020.



Source: [CancerData](#)

Figure 4. Age-specific childhood all malignant cancers for under 25 years of age and selected age groupings, incidence rates per 100,000 for boys and girls in England, 2020.



Source: [CancerData](#)

Cancer types

Due to data suppression, rates for different tumour types for the under 25 population at ICB level only provides these unsuppressed rates for Suffolk and North East Essex ICB in 2020:

- Leukaemia: 5.2 per 100,000 – 14 total tumours.
- Non-Hodgkin lymphoma – 1.5 per 100,000 – 4 total tumours.

And for Norfolk and Waveney ICB in 2020:

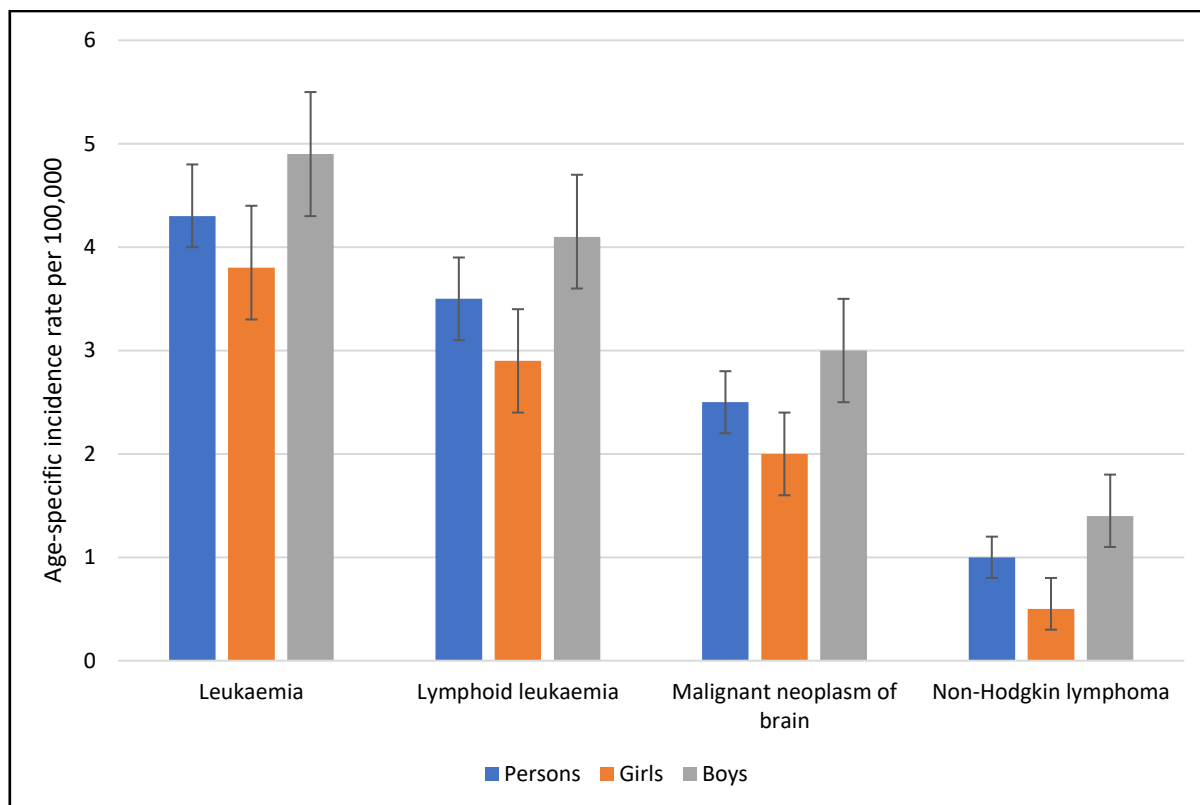
- Leukaemia: 4.7 per 100,000 – 13 total tumours.
- Malignant neoplasm of kidney, except renal pelvis 1.1 per 100,000 – 3 total tumours.

National cancer data in 2020 allows for breakdown of cancer incidence by tumour type for 0-14 year olds. The three most common cancers in England for 0-14 year olds in 2020 were:

- Leukaemia: 4.3 per 100,000 – 444 total tumours.
- Lymphoid leukaemia: 3.5 per 100,000 – 356 total tumours.
- Malignant neoplasm of brain: 2.5 per 100,000 – 257 total tumours.
- Non-Hodgkin lymphoma: 1.0 per 100,000 – 101 total tumours

For all persons, Leukaemia had the statistically significantly, highest incidence rate of all cancer types for children aged 0-14 in 2020 in England. For the four most common cancer types, boys had a statistically significantly higher incidence rate than girls for lymphoid leukaemia, malignant neoplasm of the brain and Non-Hodgkin lymphoma. Boys and girls had statistically similar incidence rates per 100,000 for leukaemia in England in 2020.

Figure 5. The four most common cancer types for 0–14-year-olds in England, incidence rates per 100,000 for all persons, boys, and girls, 2020.



Source: [CancerData](#)

Childhood cancer diagnosis

Cancer symptoms can be very similar to other childhood illnesses, with many not usually cancer. Children should be taken to their doctor for various symptoms, such as an unexplained lump, unexplained seizures, frequent infections or flu-like symptoms and persistent abdominal pain. A full list of potential symptoms can be seen on [Cancer Research UK: signs and symptoms of cancer in children](#).

There are general guidelines for all suspected childhood cancer referrals that a child should see a specialist within two weeks of going to the GP if they have symptoms that could be due to cancer.

Some children can get diagnosed with cancer during tests for other conditions, or after needing to go to Accident and Emergency (A&E) after sudden symptoms present^{8,9}.

Childhood cancer survival

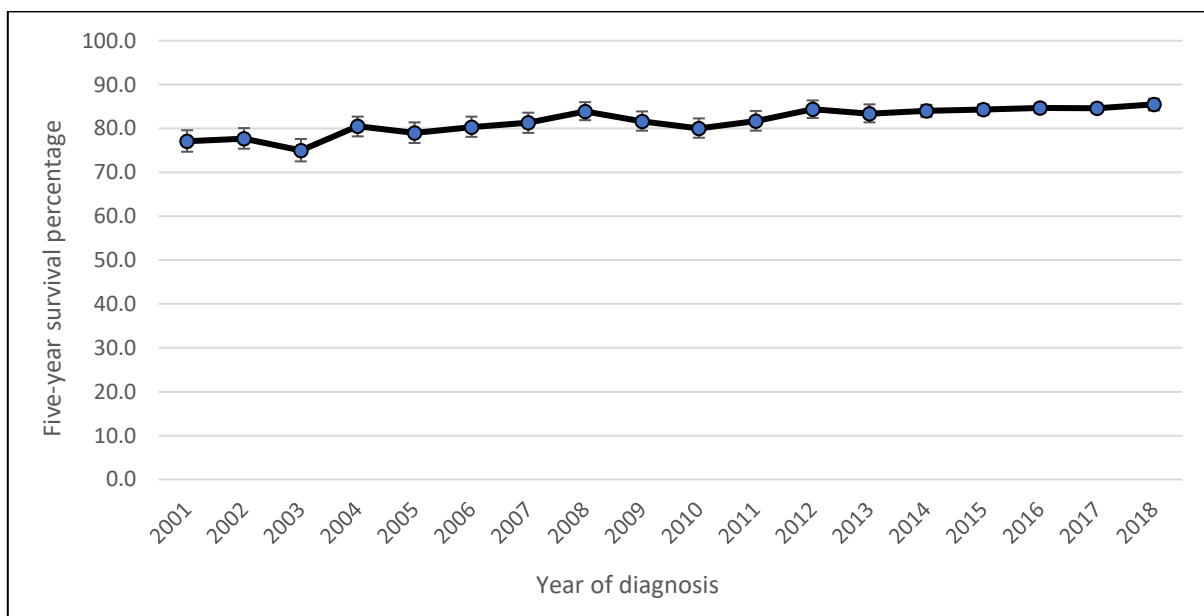
Childhood cancer survival outcomes have improved in recent years. While there have been improvements, cancer remains the most common cause of childhood death outside of infancy.

More than eight in ten young people diagnosed with cancer survive for at least five years, and many are cured.

Survival varies with age at diagnosis and the age profile of patients can change over time. The data used below is age-standardised for England's five-year survival percentage for all children aged between 0-14 years diagnosed with cancer between 2001 to 2018.

In 2001, 77.1% of 0-14 year olds with cancer in England survived for at least five years. This percentage has statistically significantly increased to 85.5% in 2018.

Figure 6. Five-year survival percentage (age-standardised) for children (aged 0-14 years) with cancer in England, between 2001 to 2018.



Source: [Childhood Cancer Survival in England](#).

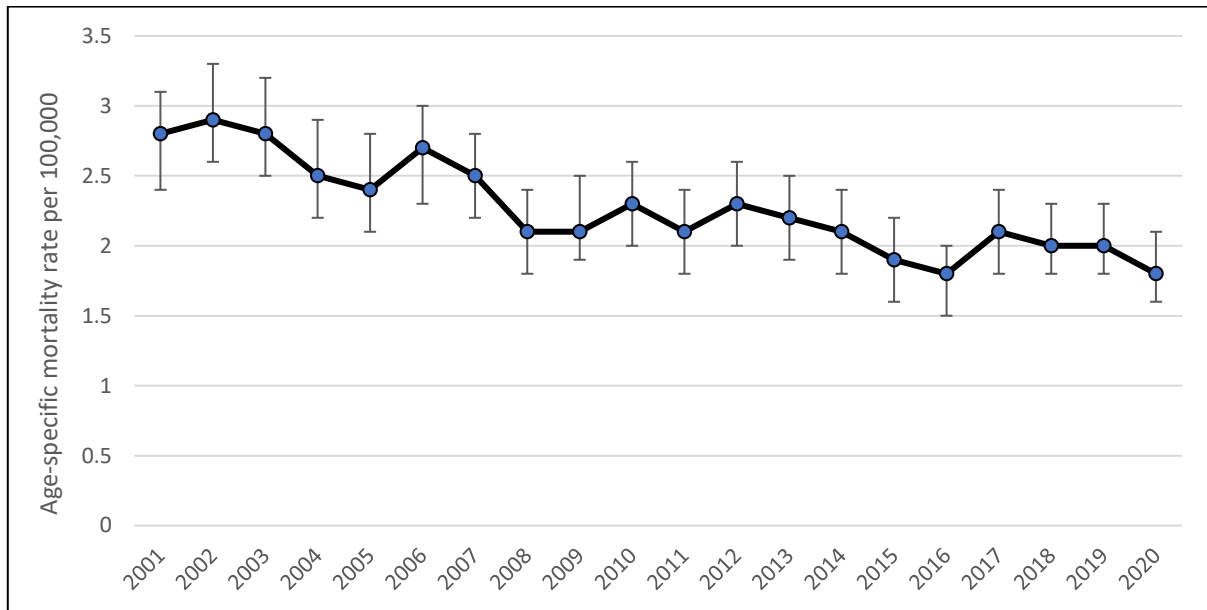
Childhood cancer mortality

In England in 2020, there were 187 deaths from cancers for children aged between 0-14. Childhood cancer deaths accounted for 0.1% of all cancer deaths (138,028 deaths) in England in 2020. Because of small numbers and data suppression, the below figures display data for childhood cancer mortality in England and not at lower geographies.

Mortality trend

Childhood (ages 0-14) cancer mortality has statistically significantly decreased from 2.8 per 100,000 in 2001 (256 deaths) to 1.8 per 100,000 (187 deaths) in 2020.

Figure 7. Age-specific childhood (age 0-14) cancer mortality rates per 100,000 in England, between 2001 to 2020.

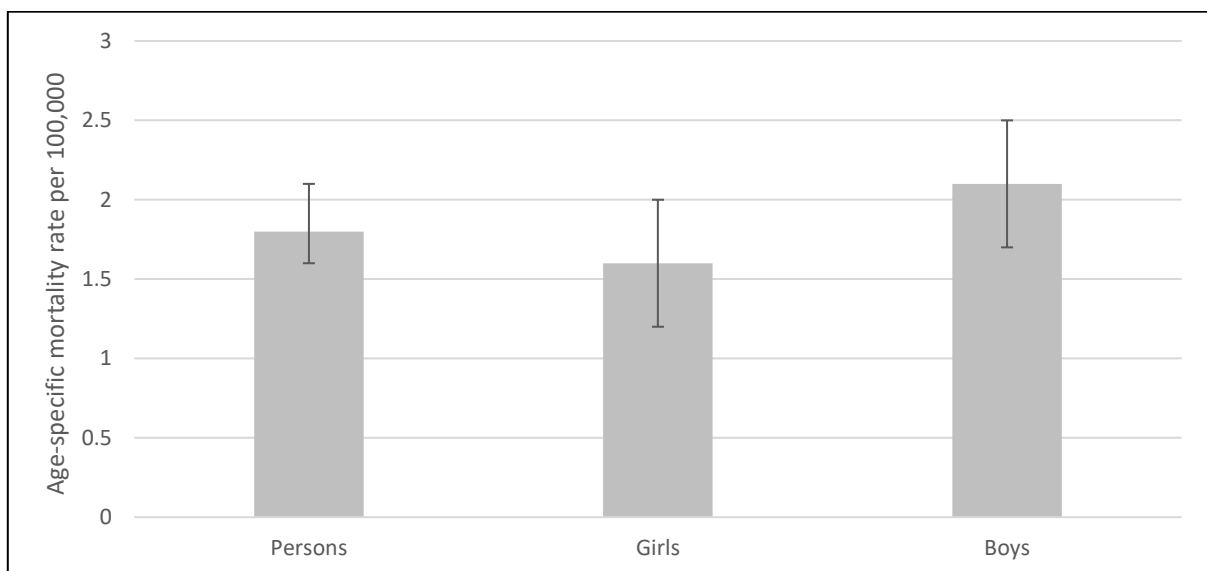


Source: [CancerData](#)

Difference by age and sex

Of the 187 childhood cancer deaths in 2020, 109 were for boys, and 78 were for girls. Both girls and boys between the age of 0-14 had a statistically similar mortality rate per 100,000 from cancer.

Figure 8. Age-specific childhood (age 0-14) cancer mortality rates per 100,000 in England, for all persons, boys, and girls, 2020.



Source: [CancerData](#)

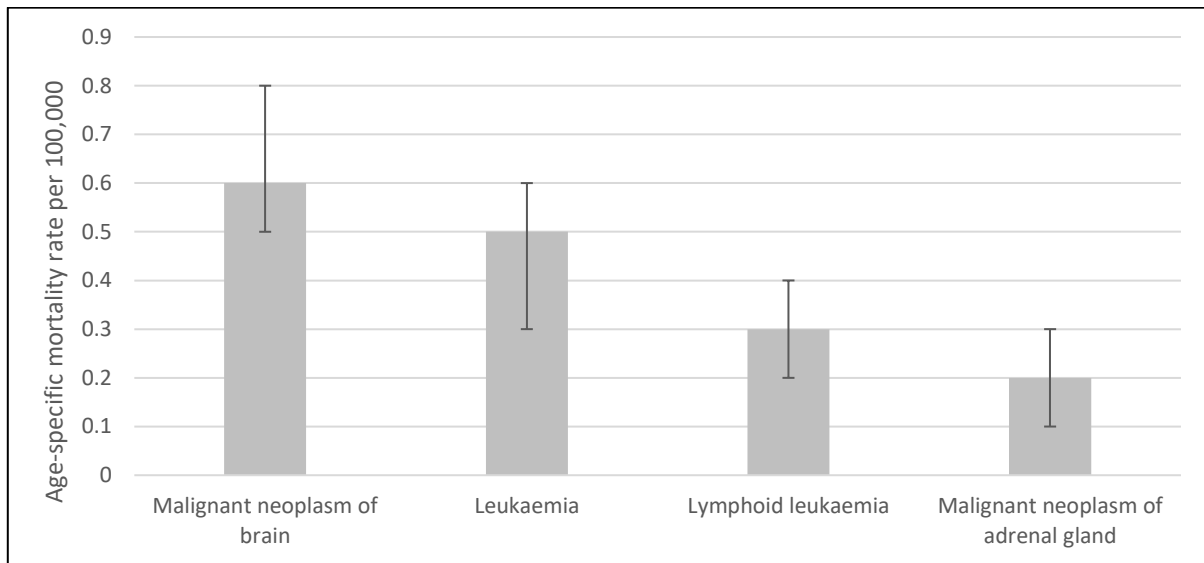
Cancer types

In England in 2020, these four cancer types caused the highest number of childhood cancer deaths:

- Malignant neoplasm of brain: 61 deaths, rate of 0.6 per 100,000.
- Leukaemia: 47 deaths, rate of 0.5 per 100,000.

- Lymphoid leukaemia: 32 deaths, rate of 0.3 per 100,000.
- Malignant neoplasm of adrenal gland: 16 deaths, 0.2 per 100,000.

Figure 9. Age-specific childhood (age 0-14) cancer mortality rates per 100,000 in England for the four most common cancers causing mortality, all persons, 2020.



Source: [CancerData](#)

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