

CRUK analysis brief

Cancer Waiting Times Parliamentary term projections

February 2025

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About this document

Reference

This report should be referred to as follows:

Cancer Research UK, 2025. CRUK analysis brief: Cancer Waiting Times
Parliamentary term projections.

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Acknowledgements

We are grateful to the many organisations across the UK which collect, analyse, and share the data which we use, and to the patients and public who consent for their data to be used. Find out more about the sources which are essential for our statistics here <https://www.cancerresearchuk.org/health-professional/cancer-statistics/cancer-stats-explained/data-collection-implications>.

About Cancer Research UK

We're the world's leading cancer charity dedicated to saving and improving lives through research. We fund research into the prevention, detection and treatment of more than 200 types of cancer through the work of over 4,000 scientists, doctors and nurses. In the last 50 years, we've helped double cancer survival in the UK and our research has played a role in more than half of the world's essential cancer drugs. Our vision is a world where everybody lives longer, better lives, free from the fear of cancer.



Cancer Research UK is a registered charity England and Wales (1089464), Scotland (SC041666), the Isle of Man (1103) and Jersey (247).

Abstract and key insights

Understanding future volume on cancer pathways is important from a health systems planning perspective. This project estimates the level of demand the health system could face during the next five years by projecting current Cancer Waiting times metrics in England to the end of the current parliamentary term. Simple linear regression models were used to project urgent referrals, 31-day and 62-day pathways forward to the end of the July 2029. Referrals are estimated to rise by a fifth (21%) from 2023/24 to 2028/29 and projects that there will be 17.2 million urgent suspected cancer referrals over the next five years. The number of patients starting treatment are also set to rise with around 1.53 million people starting treatment following an urgent referral over the next five years. If performance remains as it was in the 6 months from January to June 2024 (65.9% on average), over 300,000 of these patients would not start their treatment within the 62-day target. The number of patients on the 31-day pathway over the next five years is estimated be 1.8 million, a rise of nearly a fifth (18.7%) on the last parliament. This highlights that the number of people referred and patients treated are set to significantly increase over the next five years, which, set against standards not being met, will require innovation to meet cancer waiting time standards and ensure cancer patients do not continue to wait longer than they should for a diagnosis or treatment.

Key insights

- Analysis from Cancer Research UK shows that over the next five years, there are projected to be 17.2 million urgent suspected cancer referrals in England*

* Around 17,204,000 urgent suspected cancer referrals projected in England from July 2024 to June 2029, using NHS England CWT data from October 2009 to June 2024.

- By 2029, there are expected to be 21% more urgent cancer referrals than there were last year. Over the past year there were nearly 3,100,000, whilst in 2029 there are projected to be around 3,750,000. **

**Based on the difference between urgent suspected cancer referrals from July 2023 to June 2024 compared with the projected number of referrals estimated in July 2028 to June 2029.

- More than 300,000 cancer patients in England will begin treatment later than

they should over the next five years if current performance continues, according to analysis from Cancer Research UK.***

***Calculated by modelling the number of patients projected to start treatment on the 62-day pathway, and applying the mean performance figure from the last 6 months of historic data. By calculating the difference between this and how many patients would have started treatment within 62 days if 85% of patients were seen on time, 301,000 are projected to not start treatment within standard from July 2024 to June 2029.

- We project that around 1.8 million patients will start cancer treatment in England between July 2024 and June 2029****

****Around 1.8 million patients calculated from 31-day standard trends from October 2009 to June 2024 projected to July 2024 to June 2029.

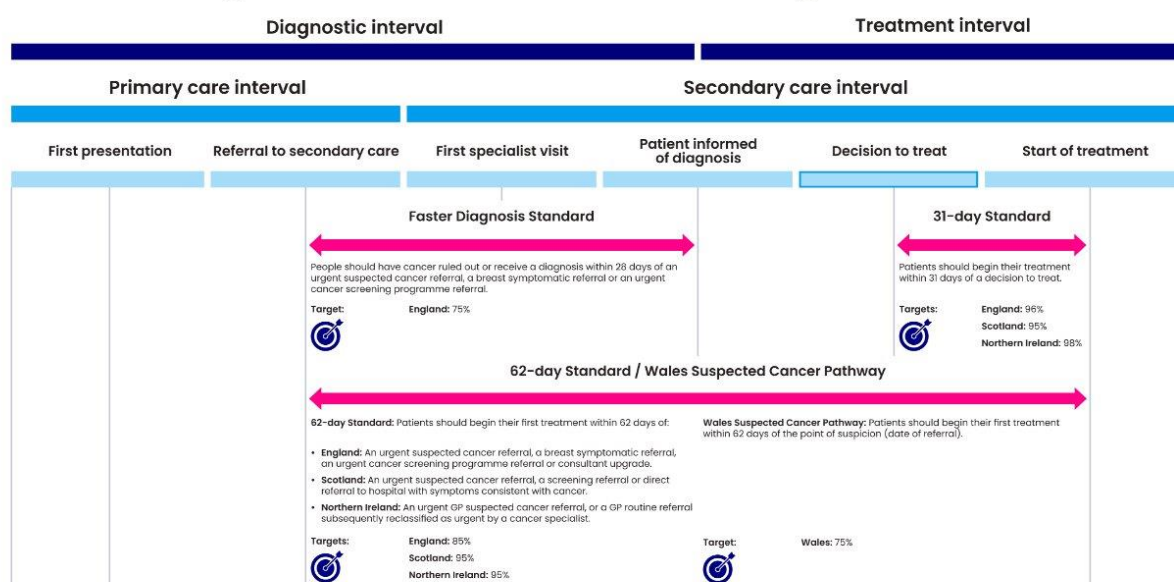
Introduction

There are many Cancer Waiting Times (CWT) metrics in operation across the UK. These metrics show whether the health system is meeting standards set for diagnosing and treating cancer and offer clear expectations to people who are urgently referred for suspected cancer, as well as holding the NHS to account on its performance.

Since October 2023, NHS England have three main metrics: the Faster Diagnosis standard, measuring the interval from urgent suspected cancer referral, a breast symptomatic referral or a urgent cancer screening programme referral to either receiving a diagnosis or ruling out cancer, set at 75% of patients being informed within 28 days; the 31-day standard which measures the interval from a decision to treat to starting treatment, set at 95%; and the 62 day standard, which states that those starting from an urgent suspected cancer referral, a breast symptomatic referral, an urgent cancer screening programme referral or from a consultant upgrade, should start their treatment within 62 days, set at 85%.

Figure 1: Cancer waiting metrics across the UK

Cancer waiting times standards and associated targets across the UK



CWT standard performances have been declining for a long period in England¹ with a further decline caused by COVID-19 pandemic. An understanding of changes to volumes of patients over the next five years is essential to help anticipate future strain on cancer services and help plan capacity-building.

Aims and objectives

1. Objective 1: How is the number of urgent cancer referrals projected to change over the next five years?

This gives an estimate of the size of demand for NHS services over the next 5 years, and in turn what diagnostic testing capacity the health service may need in order to meet this demand.

2. Objective 2: How is the number of people starting treatment on the 31-day pathway projected to change within 5 years?

This projects the number of people starting cancer treatment, via any route to help indicate the required treatment capacity for cancer patients.

3. Objective 3: How will the number of people starting treatment following an urgent cancer referral within the 62-day target increase over the next 5 years, if performance against the standard doesn't change?

Performance against the 62-day target is an important metric, with the standard considered by most clinicians to be a clinically appropriate timeframe for almost all cancers to be diagnosed and treated.² Understanding the number of patients that may be seen outside of the target if current performance continues is important to enable appropriate planning and capacity building, and to show the impact on patients if performance doesn't improve.

Methods

Data showing monthly numbers and performance for the 31-day metric, 62-day metric (urgent referrals only) and number of urgent referrals seen from the earliest date available, October 2009, to June 2024, picked as the 2024 UK general election took place on the in July 2024, was collated from NHS England published data.

Simple linear regression was used with the monthly count (numbers starting treatment or number of referrals) as the dependent variable and the month as the independent variable. We experimented with the start dates of the data inputted into the model to see the effect of more recent data on our model. Models using data starting from October 2009, January 2019 and January 2021 were created, as well as a model using only data from October 2009 to March 2020 to see if there were any pandemic effects (not shown). These models were then used to project counts for the months July 2024 to July 2029, to cover the whole of the next parliament.

Comparisons were made between past and current (projected) parliamentary terms, that is December 2019 to June 2024 with July 2024 to June 2029, as well as between the last year of observed data and last year of projections, that is July 2023 to June 2024 with July 2028 to June 2029.

For the 62-day metric, in order to reasonably project numbers seen within and outside the target we used the most recent 6-month rolling average performance for each metric rather than projecting estimates. This was applied to the projected counts to give an estimate of patient volumes and timeliness. We also created a variable of the number of patients needed to meet the target across the projected time period which is the gap between the target and the 6-month average figure multiplied by the projected count, aggregated.

Analysis was conducted in R (version 4.3.1.).

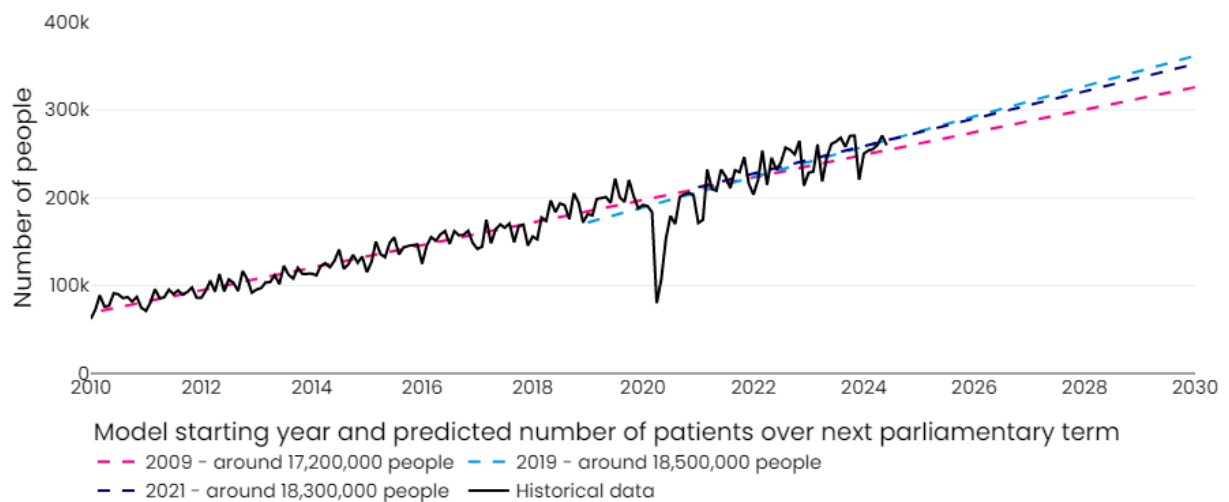
Results

Urgent referrals

We project there to be 17.2 million urgent suspected cancer referrals over the current parliamentary term (from July 2024 to June 2029). This represents a rise of 21% by July 2028 to June 2029 compared to July 2023 to June 2024, from nearly 3.1 million to 3.75 million urgent referrals per year.

Figure 2: Referrals chart

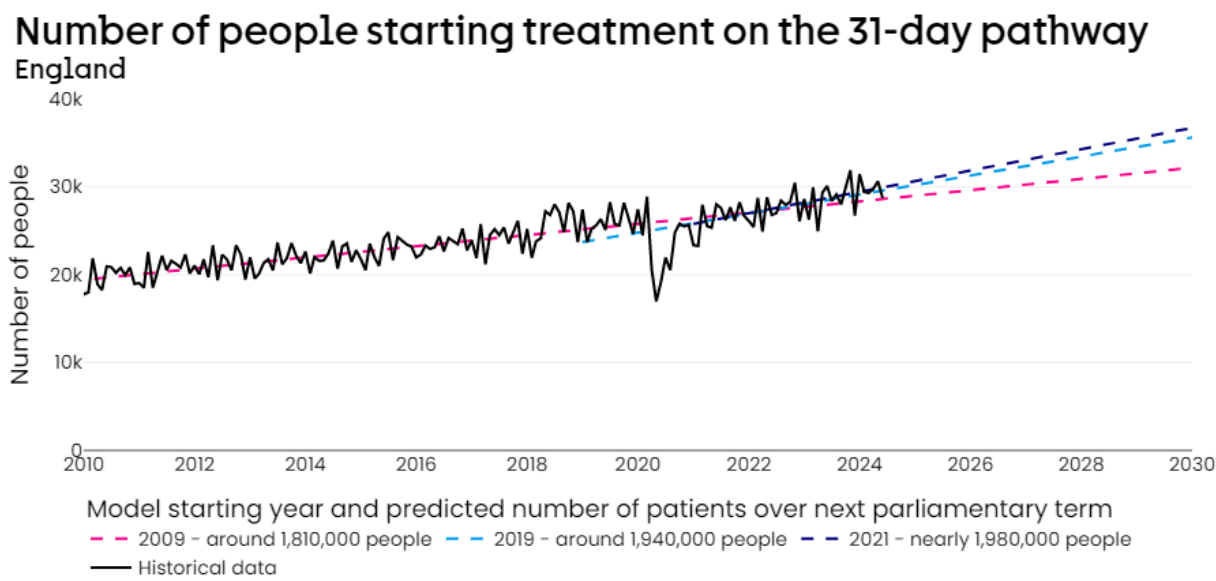
Number of urgent cancer referrals England



31-day

We project that around 1.8 million people will start cancer treatment in England between July 2024 and June 2029. This represents a rise of 18.7% from the last parliamentary term, from 1.47 million people. Over the study period there will be a 6.5% rise of numbers starting treatment on this pathway, from around 353,000 July 2023 to June 2024 compared to around 378,000 people in the period July 2028 to June 2029. In the same period, around 76,000 people will not start their treatment on target, compared to if the 95% target was consistently met.

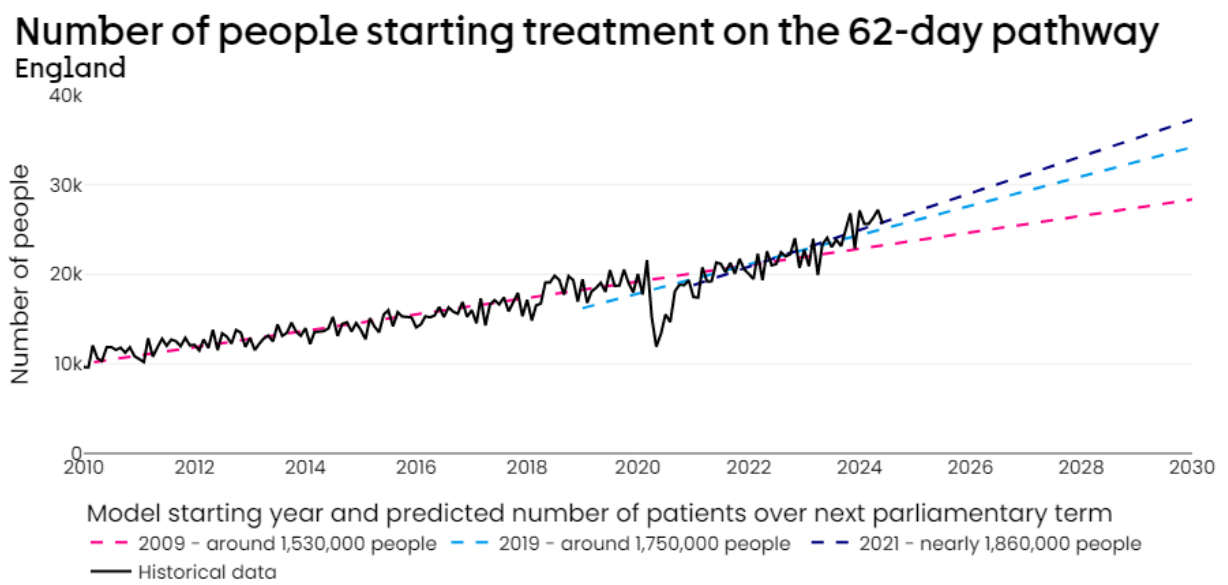
Figure 3: 31-day metric chart



62-day

Around 1,530,000 people will be urgently referred and start treatment on the 62-day pathway in England between July 2024 and June 2029, this includes referrals from urgent suspected, breast symptomatic, urgent cancer screening and consultant upgrade routes. This is a 24.5% rise on the last parliament. Over the study period there will be a rise of 8.1% in number starting treatment from around 302,000 during July 2023 to June 2024 to around 329,000 in July 2028 to June 2029.

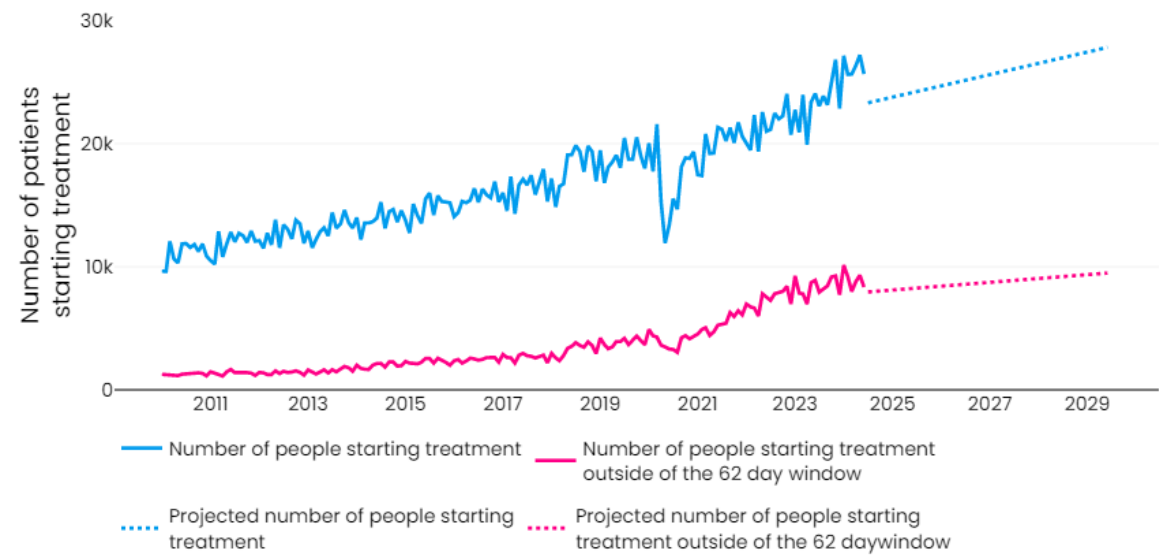
Figure 4: 62-day metric chart



Projections suggest that if current performance rates continue, more than 301,000 patients will wait more than 62-days after an urgent referral to start cancer treatment from July 2024 to June 2029, compared to if the target of 85% was met.

Figure 5: 62-day outside target chart

Number of people starting treatment outside of the 62-day target window England



Discussion

Our analysis shows that there will be a substantial rise in the number of patients on a cancer pathway in England over the next parliamentary term. If the current performance trends for CWT continue, this rise will mean more patients will be seen outside of standard. This underscores the need for appropriate planning so cancer services in England can diagnose, inform and treat patients in a timely manner over the current parliamentary term.

All metrics will see substantial rises in patient volumes highlighting the need for appropriate capacity in primary care, diagnostics and treatment.

This analysis brief projects potential patient volumes across three CWT metrics and estimates future volume based on historic, real-world data. Our analysis considered the potential impact of the COVID-19 pandemic may have had on our modelling. Attempts to mitigate these potential effects by using different start and end time points of historic data ultimately reduced the reliability of the projections instead of increasing them. Simple methodology aids the comprehension and interpretability of findings, hopefully allowing this analysis to act as cautious base case for a continuation-of-current-trends scenario in cancer services planning.

This brief is an estimation based on simple linear modelling. Logical limitations arise due to this including model complexity – we only modelled cases against time, but a more complex model could potentially give more robust estimates by including more independent variables or more advanced regression methods.

Another limitation is that any public health interventions and investment designed to speed up diagnoses or treatment will likely change referral patterns and patient volumes in future years. This model has not tried to take into account any such interventions, for example referral guideline changes, any innovations implemented in the cancer pathway, or any changes to screening programme criteria, as there is not currently strong enough evidence to model any changes like these.

Furthermore, our methodology to estimate number of patients seen outside of standard relies on using the last 6-months average performance as a static multiplier over time in order to keep performance assumptions conservative and reasonable, but this may lead to an underestimation if volumes continue to outpace capacity.

References

¹ Cancer Research UK. Cancer in the UK: Overview 2024. Published February 2024.

² NHS England. Cancer waiting times review: Models of care and measurement: consultation response. August 2023. Available: <https://www.england.nhs.uk/long-read/cancer-waiting-times-review/#:~:text=62%20day%20standard%20are%20considered%20by%20most%20clinicians%20to%20be%20a%20clinically%20appropriate%20timeframe%20for%20almost%20all%20cancers%20to%20be%20diagnosed%20and%20treated>