CANCER RESEARCH UK

Together we are beating cancer

March 2026

Estimating how the projected increase in cancer incidence will change future cancer treatment demand in England – exploratory analysis

Contents

About this pack

Reference

This report should be referred to as follows:
Cancer Research UK, 2026. Estimating future cancer treatment demand in England from projected increase in cancer incidence – exploratory analysis.

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Acknowledgements

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Executive summary

Introduction

Cancer incidence in the UK is projected to rise substantially over the next decade. Whilst this is predominantly due to an ageing population, this increase will drive higher demand for cancer services, including treatment. Estimating the change in the demand of primary cancer treatment as a result of the projected rise in cancer incidence is just one of the drivers that needs to be taken into consideration for future service planning. These exploratory analyses aim to provide this baseline, to be used alongside the modelling of other factors, to help inform future planning decisions on workforce training and recruitment, as well as guide investment and changes in cancer services to meet future demand. There are other factors that will lead to changes in the demand for cancer treatments, such as the development of new treatments; better detection and diagnosis of cancer at an early stage of disease; and reductions in unwarranted variation.

Methods

By multiplying projected cancer incidence by current treatment proportions, we have estimated how many patients will receive each primary treatment modality per year based on the projected rise in cancer cases only. Proportional increases by cancer site, age group, gender and diagnosis year have been calculated, with comparisons to 2025 levels.

Results and Discussion

Over the next decade, the projected change in cancer incidence across all cancers is estimated to increase primary treatment demand by nearly 13% for radiotherapy, SACT and surgery, and by 21% for 'other care' by 2035. Prostate cancer is expected to show the largest increase compared with all other cancer sites.

The largest absolute increase in demand for first-line treatments will be for surgery, which will place pressure on theatre capacity and the surgical workforce. In addition, other forms of care are projected to grow at the fastest rate, driven largely by the ageing population. This includes symptom management and palliative care, which will require expanded resources and specialist staff.

Demographic shifts will also contribute to rising demand. There is projected to be a notable increase in contribution from under 50s receiving breast cancer treatment. Most of the projected increase in prostate cancer treatment is driven by men aged 50–79, with nearly all of the growth in surgery coming from this group. It is important to note that the increasing adoption of focal therapies and the continued shift towards active surveillance may moderate these increases over time.

Introduction

Cancer incidence in the UK is projected to rise from over 386,000 cases annually (2017–2019) to more than 505,000 cases by 2038–2040. Whilst this is predominantly due to an ageing population, this increase will be one of several drivers of changing demand for cancer treatment.

These exploratory analyses will help understand how cancer incidence changes will affect future demand for cancer treatment and should be used alongside modelling of other factors.

Patient volumes for tumour resection (surgery), radiotherapy, systemic anti-cancer therapy (SACT) and other treatments have been estimated through to 2035 based on cancer incidence projections.

By multiplying projected cancer incidence by current treatment proportions, we have estimated how cancer incidence alone will be driving changes in how many patients will receive each treatment modality per year. Proportional increases by cancer site, age group, gender and diagnosis year have been calculated, with comparisons to 2025 levels.

Understanding site- or demographic-level changes over time plays a role in helping to inform capacity-building, alongside modelling of other factors that affects changes in treatment.

Methodology

Treatment definitions:

A **tumour resection** is an attempt to surgically remove the whole of the primary tumour.

Radiotherapy includes both curative and palliative external beam radiotherapy procedures, chemoradiotherapy, radiosurgery, radioisotope therapy and brachytherapy.

SACT includes both curative and palliative SACT, chemoradiotherapy, immunotherapy and biological therapies. Hormonal therapy is excluded unless used in combination with other SACT.

The tumours in the '**Other care**' category may have received:

- treatment other than SACT, radiotherapy and tumour resection (such as hormonal therapy or management of symptoms)
- treatment outside of the time frame assessed
- treatment in a private setting
- or there may be data missing from the datasets used.
- for those types where surgery is not defined, other care may also include patients who have undergone tumour resection treatment.

Methodology & Limitations

Incidence projections (Up to 2035) **X** **Treatment proportions (2022 based)**

This analysis has not made any assumptions as to how treatment may change over time through the development of new treatments, nor better detection and diagnosis of cancer which is likely to improve stage at diagnosis, which will affect which treatment options are available. There are many factors that could lead to changes in treatment demand, including reducing unwarranted variation.

We estimated the change in cancer treatment in England over the coming decade driven by the projected rise in cancer incidence only (broken down by age and sex)[1] with the latest data (2022) on the proportion of patients receiving each type of treatment[2].This allowed us to estimate how the change in the number of cases of cancer will affect treatment demand, and which cancer types might see the largest changes. Results are presented for all cancer combined, as well the four most common cancer types in the UK; bowel, breast, lung, and prostate.

This approach only assumes changes in the number of people diagnosed each year, and does not assume any future changes to stage distribution or developments in treatment options beyond those already observed in the incidence projections. The incidence projections do not explicitly model changes in screening uptake, treatment regimens, or risk factor prevalence, but where trends in these factors have affected historical cancer incidence, the incidence projections will extrapolate these trends forward.

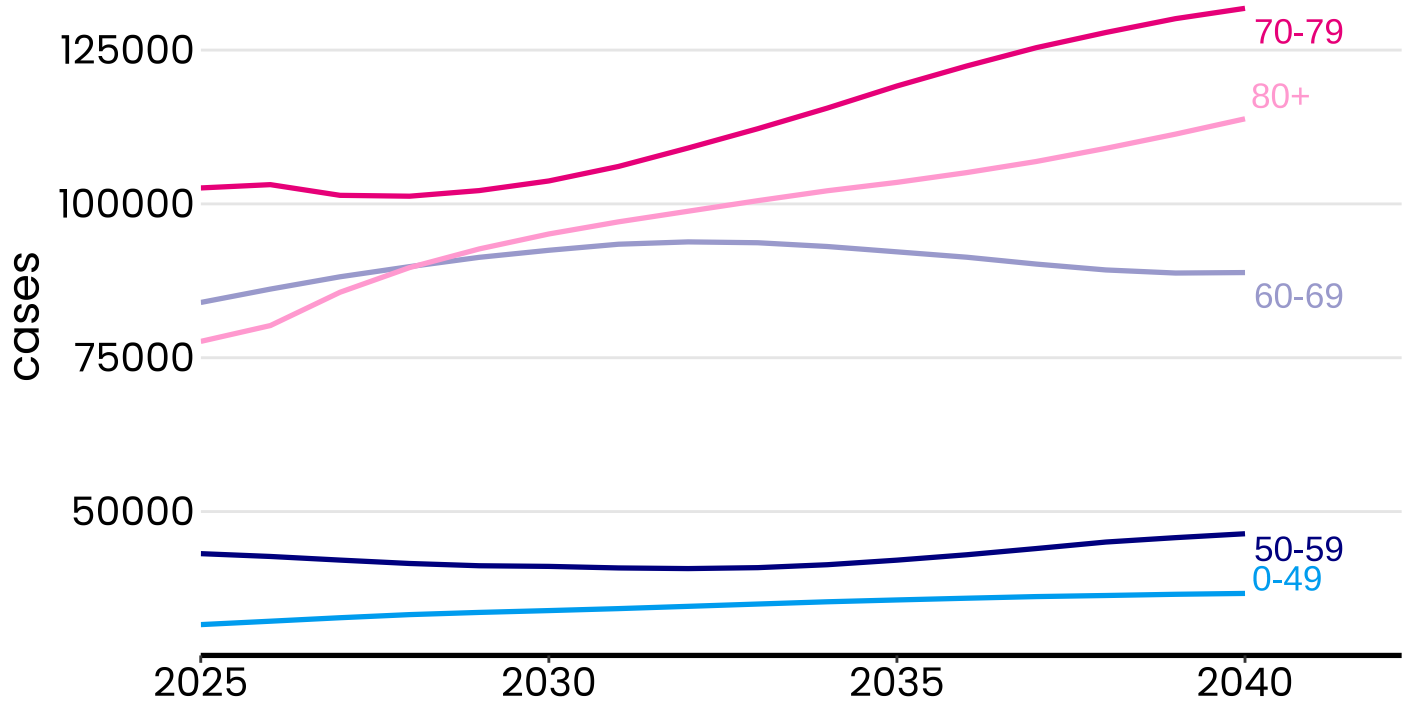
This analysis focuses on the primary treatment given after diagnosis, using the period in which most first-course, adjuvant and neo-adjuvant treatments occur. The length of this period differs by cancer site and treatment type. The treatment dataset records each treatment type independently, so patients who receive multiple treatments may be counted more than once. Therefore, totals by treatment modality should not be used to estimate the number of individual patients.

[1] Calculated by the Cancer Intelligence Team at Cancer Research UK, March 2025. Based on an age-period-cohort modelling approach, described here: Our calculations explained | Cancer Research UK
[2] NDRS. Cancer Treatments 2013-2022. 2025.

Methodology

Projected cancer incidence (All Cancers)

(2022- population based), England, 2025-2040



This chart shows the projected increases in cancer incidence by age group in England's population between 2025 and 2040.

The temporary dip in cancer incidence projections for ages 50–59 around 2030, followed by an increase in 60–69, is driven by demographic shifts from the 1960s baby boom and subsequent lower birth rates in the late 1970s–1980s, as larger cohorts move into older, higher-risk age bands.

RESULTS
All cancers combined projections

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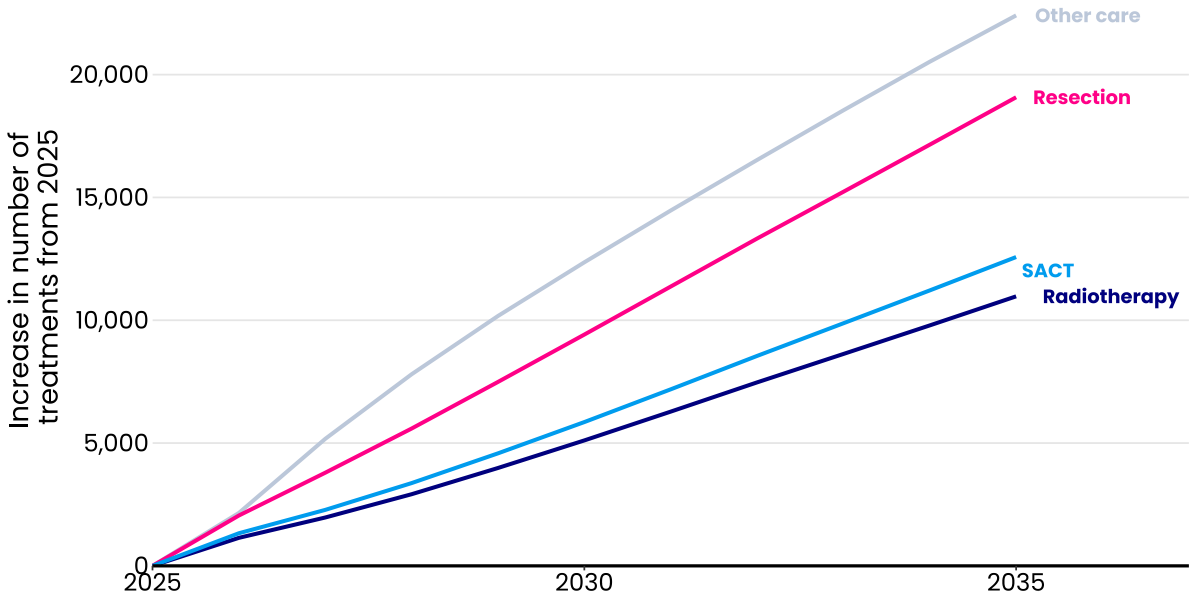
All cancers combined*

*All malignant neoplasms with surgery defined, excluding NMSC

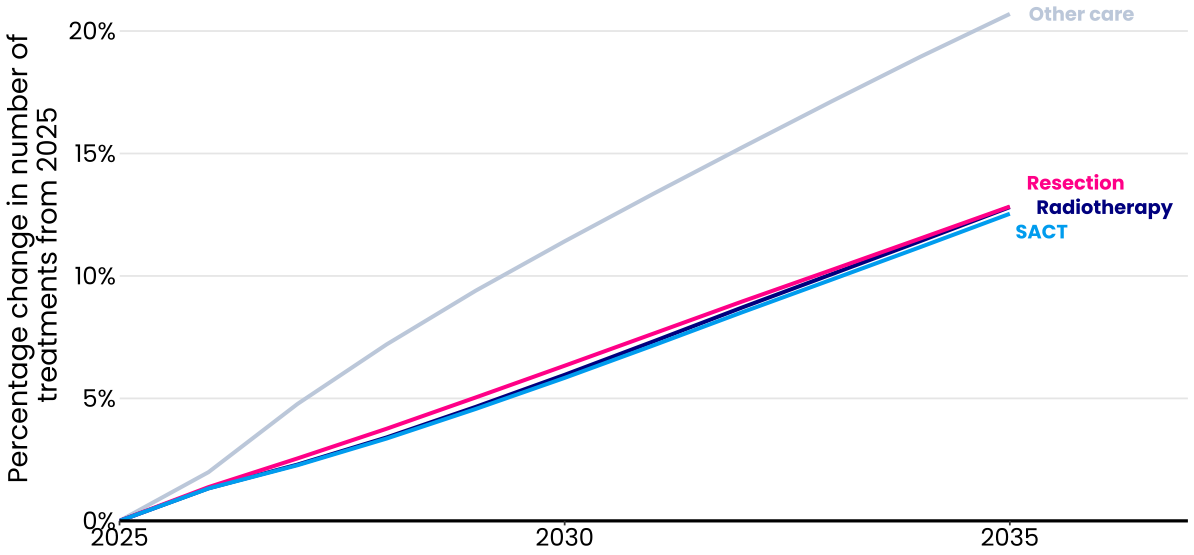
Change in number of all cancer treatments 2025–2035

Crude increase per year in comparison to 2025, due to change in number of diagnosed cases



Percentage change in number of all cancer treatments 2025–2035

Percentage change from 2025, due to change in number of diagnosed cases



Decade Totals

Due to increases in cancer incidence, we estimate that over the next decade, a total of more than 1,000,000 people will need radiotherapy, around 1,170,000 will need SACT, around 1,740,000 will undergo surgery, and around 1,320,000 will require other forms of care as their primary treatment.

Annual Comparison

In 2035, compared to 2025, we project the following increases in primary treatment demand as a result of changing cancer incidence:

- Radiotherapy: around 11,000 patients (+12.8%)
- SACT: around 12,600 patients (+12.5%)
- Surgery: around 19,100 patients (+12.8%)
- Other care: around 22,400 patients (+20.7%)

RESULTS
Site specific projections

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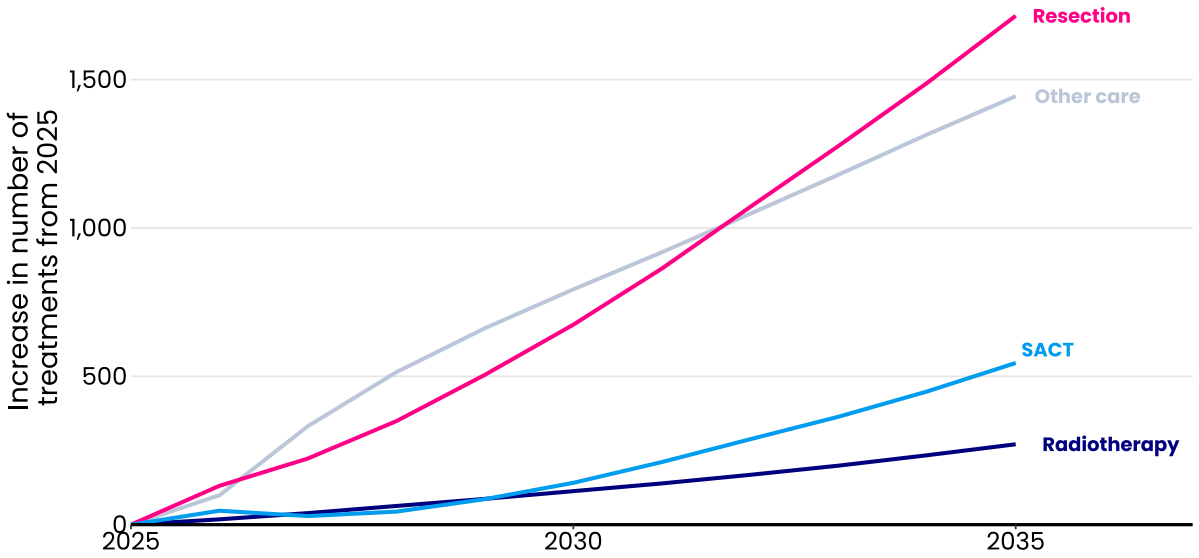
Colorectal (Bowel) cancer

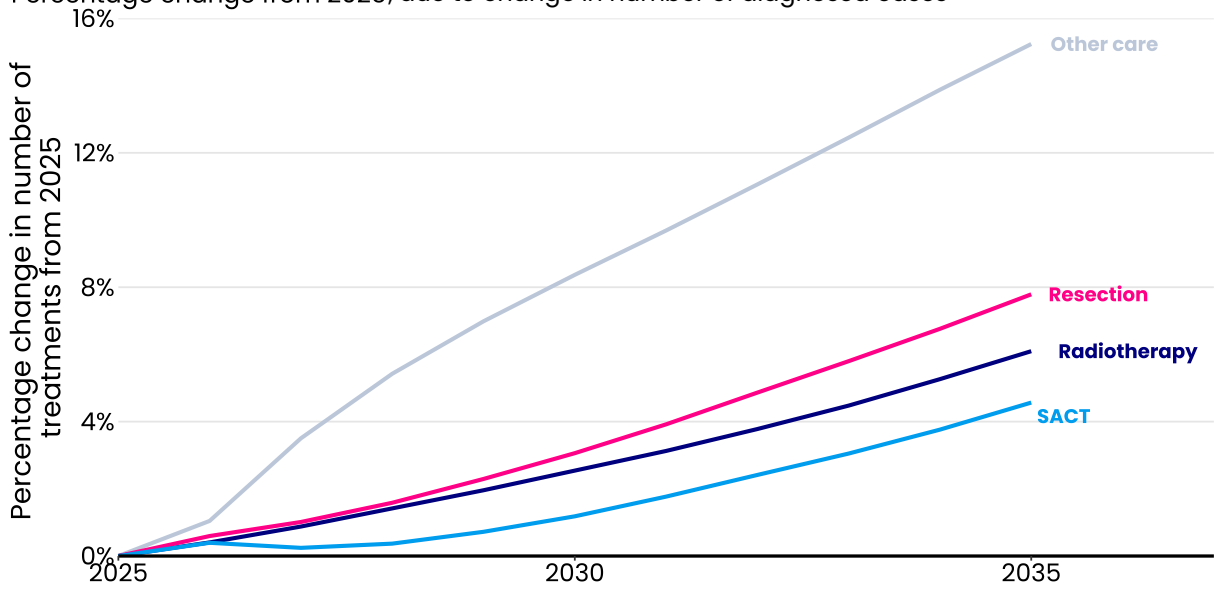
Change in number of colorectal cancer treatments 2025–2035

Crude increase per year in comparison to 2025, due to change in number of diagnosed cases



Percentage change in number of colorectal cancer treatments 2025–2035

Percentage change from 2025, due to change in number of diagnosed cases



Decade Totals

Due to increases in cancer incidence, we project that over the next decade a total of around 50,200 people will need radiotherapy, more than 133,000 will need SACT, more than 250,000 will undergo surgery, and more than 112,000 will require other forms of care as their primary treatment.

Annual Comparison

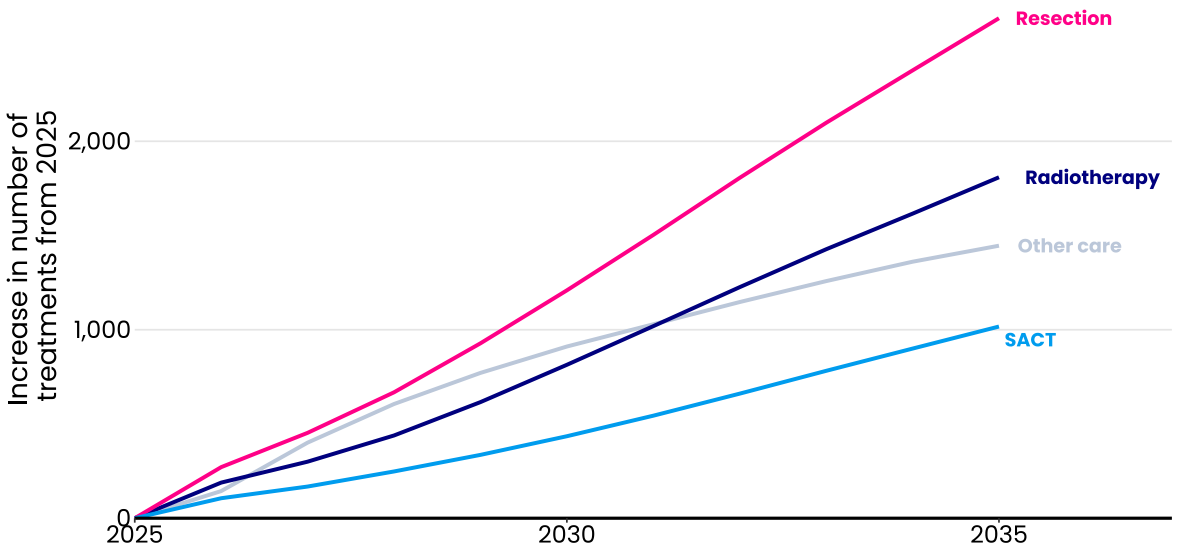
In 2035, compared to 2025, we project the following increases in primary treatment demand as a result of changing cancer incidence:

- Radiotherapy: around 270 patients (+6.1%)
- SACT: around 550 patients (+4.6%)
- Surgery: around 1,700 patients (+7.8%)
- Other care: around 1,400 patients (+15.2%)

Breast cancer

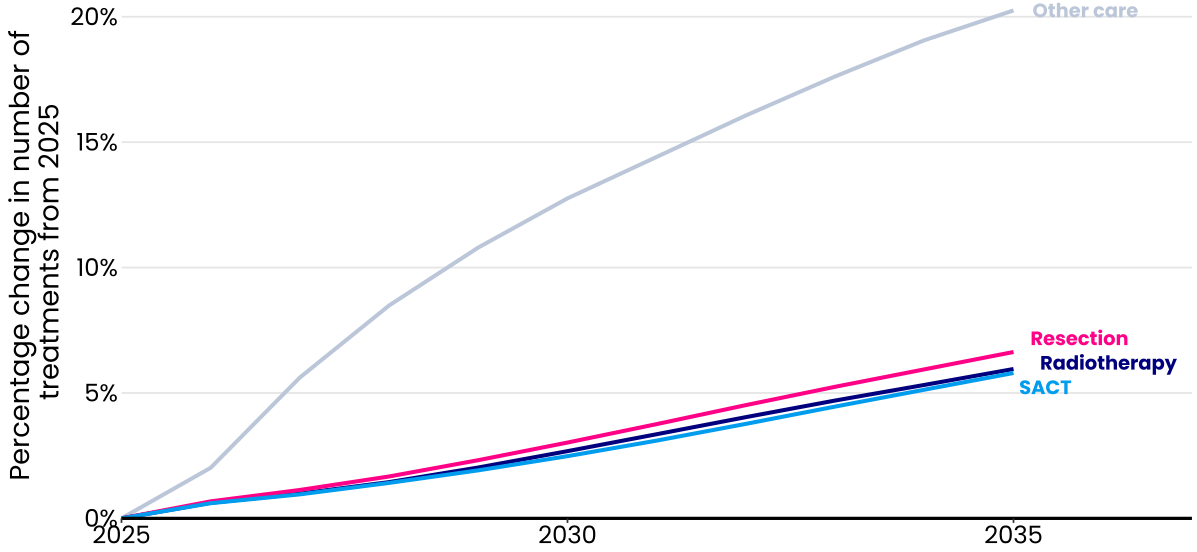
Change in number of breast cancer treatments 2025–2035

Crude increase per year in comparison to 2025, due to change in number of diagnosed cases



Percentage change in number of breast cancer treatments 2025–2035

Percentage change from 2025, due to change in number of diagnosed cases



Decade Totals

Due to increases in cancer incidence, we project that over the next decade a total of more than 343,000 people will need radiotherapy, more than 198,000 will need SACT, around 454,000 will undergo surgery, and around 87,600 will require other forms of care as their primary treatment.

Annual Comparison

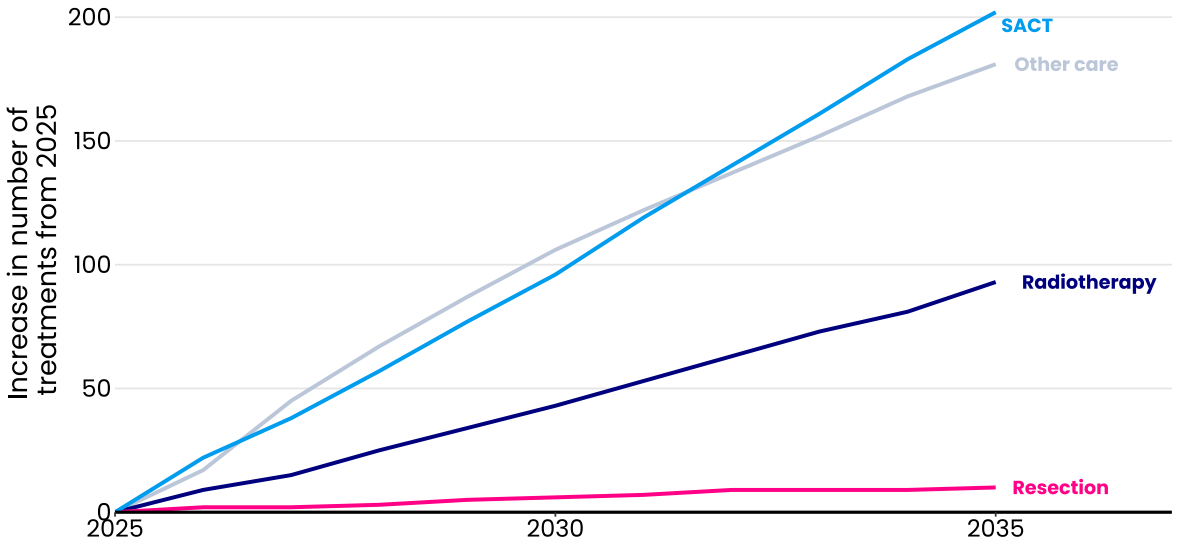
In 2035, compared to 2025, we project the following increases in primary treatment demand as a result of changing cancer incidence:

- Radiotherapy: around 1,800 patients (+6.0%)
- SACT: around 1,000 patients (+5.8%)
- Surgery: around 2,700 patients (+6.6%)
- Other care: around 1,400 patients (+20.3%)

Non-Small Cell Lung cancer

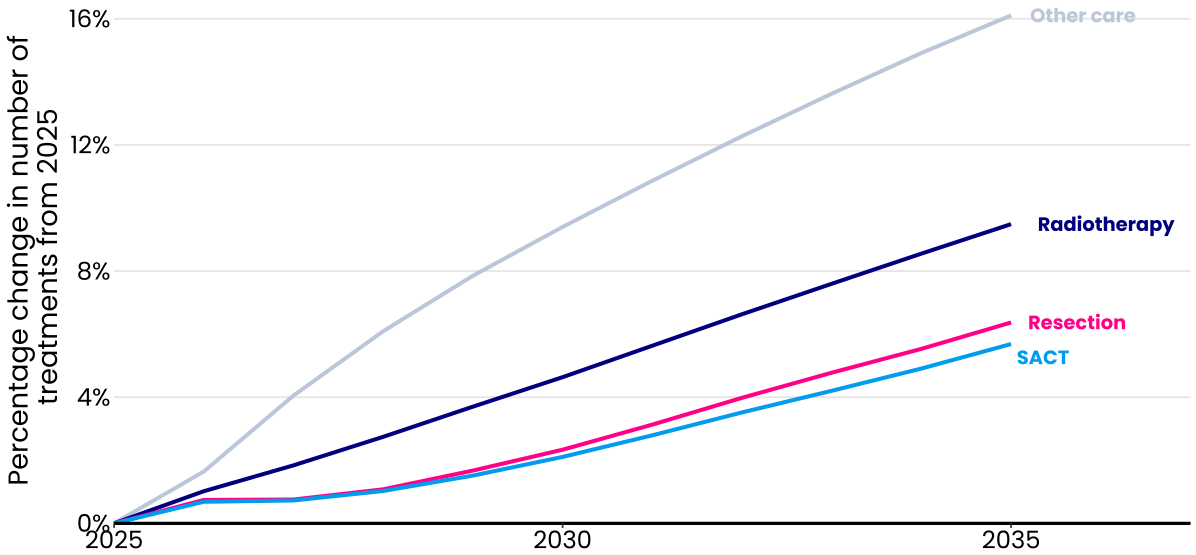
Change in number of lung: small cell lung cancer treatments 2025–2035

Crude increase per year in comparison to 2025, due to change in number of diagnosed cases



Percentage change in number of non-small cell lung cancer treatments 2025–2035

Percentage change from 2025, due to change in number of diagnosed cases



Decade Totals

Due to increases in cancer incidence, we project that over the next decade a total of nearly 111,000 people will need radiotherapy, more than 108,000 will need SACT, around 83,800 will undergo surgery, and around 228,000 will require other forms of care as their primary treatment.

Annual Comparison

In 2035, compared to 2025, we project the following increases in primary treatment demand as a result of changing cancer incidence:

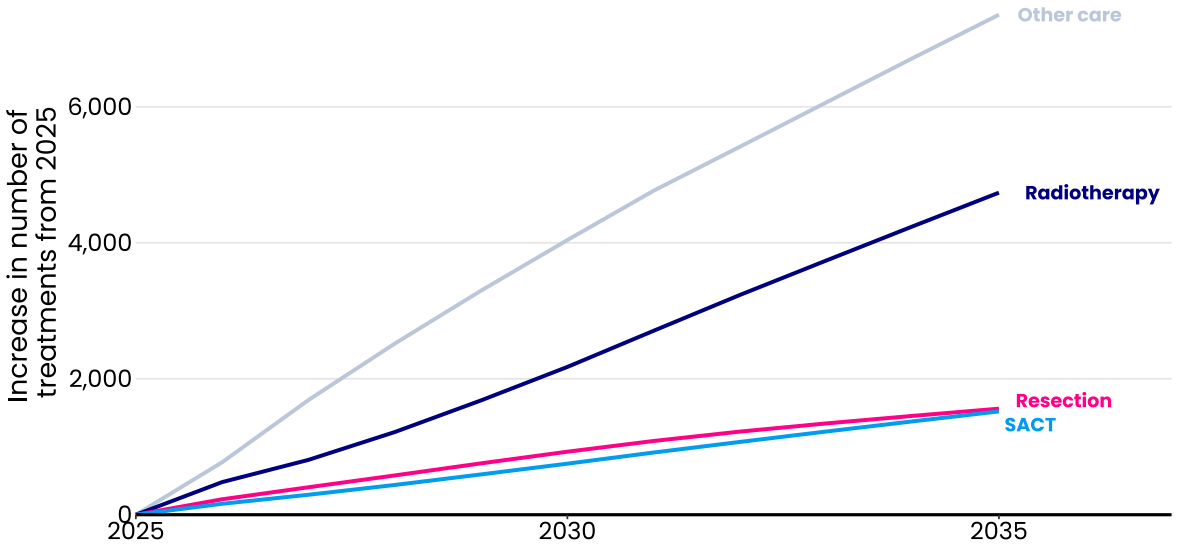
- Radiotherapy: around 910 patients (+9.5%)
- SACT: around 550 patients (+5.7%)
- Surgery: around 470 patients (+6.4%)
- Other care: around 3,100 patients (+16.1%)

Prostate cancer

Among all cancer sites, prostate cancer will see the largest percentage increase in patients treated in 2035 from 2025.

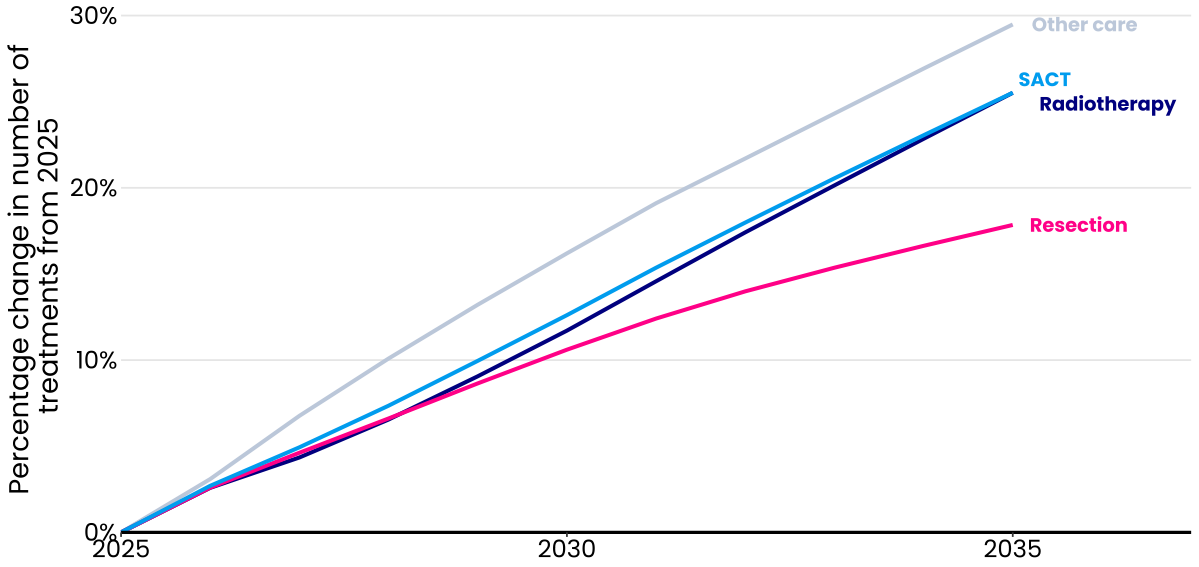
Change in number of prostate cancer treatments 2025–2035

Crude increase per year in comparison to 2025, due to change in number of diagnosed cases



Percentage change in number of prostate cancer treatments 2025–2035

Percentage change from 2025, due to change in number of diagnosed cases



Decade Totals

Due to increases in cancer incidence, we project that over the next decade a total of more than 229,000 people will need radiotherapy, around 73,900 will need SACT, around 106,000 will undergo surgery, and around 317,000 will require other forms of care as their primary treatment.

Annual Comparison

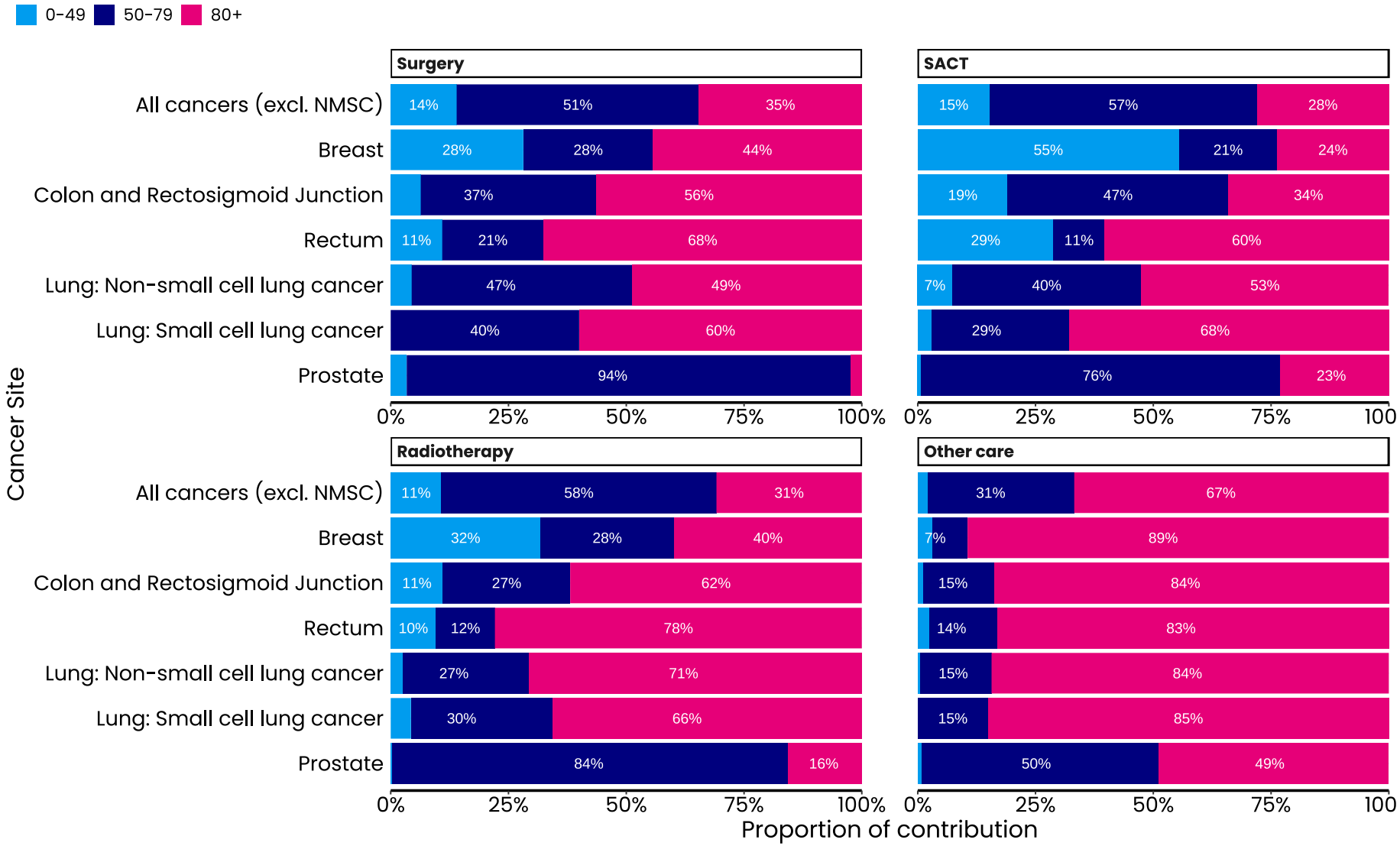
In 2035, compared to 2025, we project the following increases in primary treatment demand as a result of changing cancer incidence:

- Radiotherapy: around 4,700 patients (+25.5%)
- SACT: around 1,500 patients (+25.5%)
- Surgery: around 1,600 patients (+17.8%)
- Other care: around 7,400 patients (+29.5%)

Age breakdown

Age contribution to increase in treatment

Proportion each age group contributes to the increase in the number of treatments between 2025 and 2035



- For all sites except Prostate, individuals aged 80+ will account for the majority of the increase in ‘other care’ as primary treatment

- Breast cancer sees the largest contribution increase from the 0-49 age group.

- For prostate - 50-79 will account for nearly all the increase in surgery, and most of the radiotherapy and SACT. Individuals aged 50-79 and 80+ will contribute equally to the increase in other care.

Summary and Discussion

Scale of demand
Across all cancers, demand for primary treatment driven solely by increased number of cancer cases is estimated to rise by nearly 13% for radiotherapy, SACT and surgery, and by 21% for ‘other care’ by 2035. Prostate cancer is estimated to show the largest increase compared with all other cancer sites.

Incidence Increase Implications for capacity
Largest absolute increase in demand is estimated to be for surgery, which will place pressure on theatre capacity and the surgical workforce. In addition, ‘other forms of care‘ are projected to grow at the fastest rate, driven largely by the ageing population. This includes symptom management and palliative care, which will require expanded resources and specialist staff.

Demographics
There is projected to be a notable increase in contribution from under 50s receiving breast cancer treatment. Most of the increase in prostate cancer treatment will be driven by men aged 50–79, with nearly all of the growth in surgery coming from this group. It is important to note that the increasing adoption of focal therapies and the continued shift towards active surveillance may moderate these increases over time.

These projections are based solely on the rise in cancer incidence and may form the basis for further modelling to help inform decisions on workforce training and recruitment, as well as guide investment and changes in cancer services to meet future demand.

Appendix

Breakdown of Bowel cancer grouping

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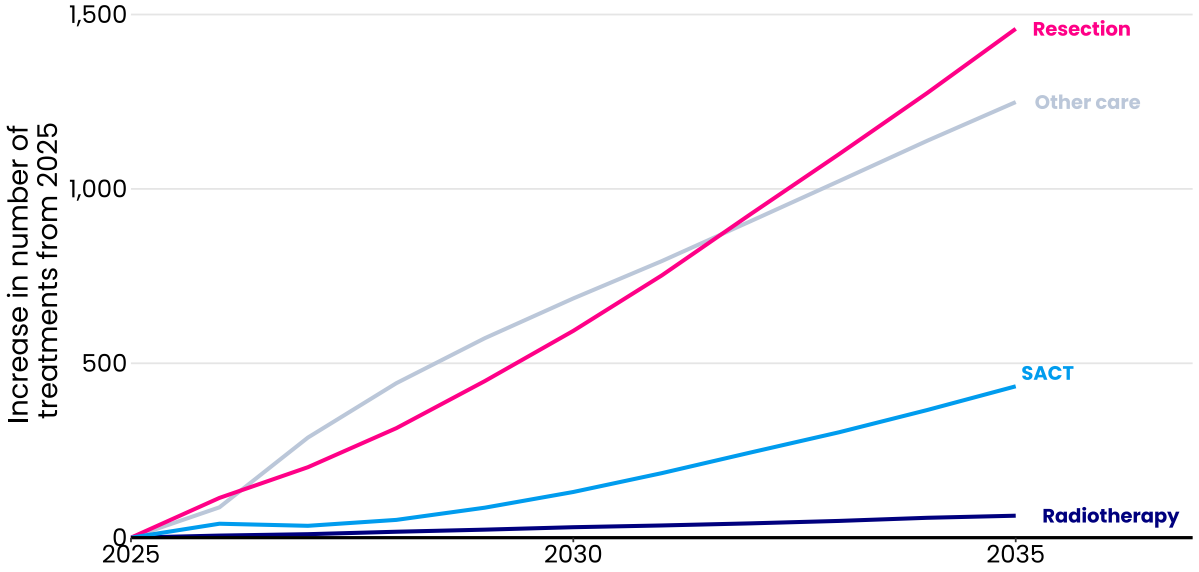
Colon and rectosigmoid junction cancer

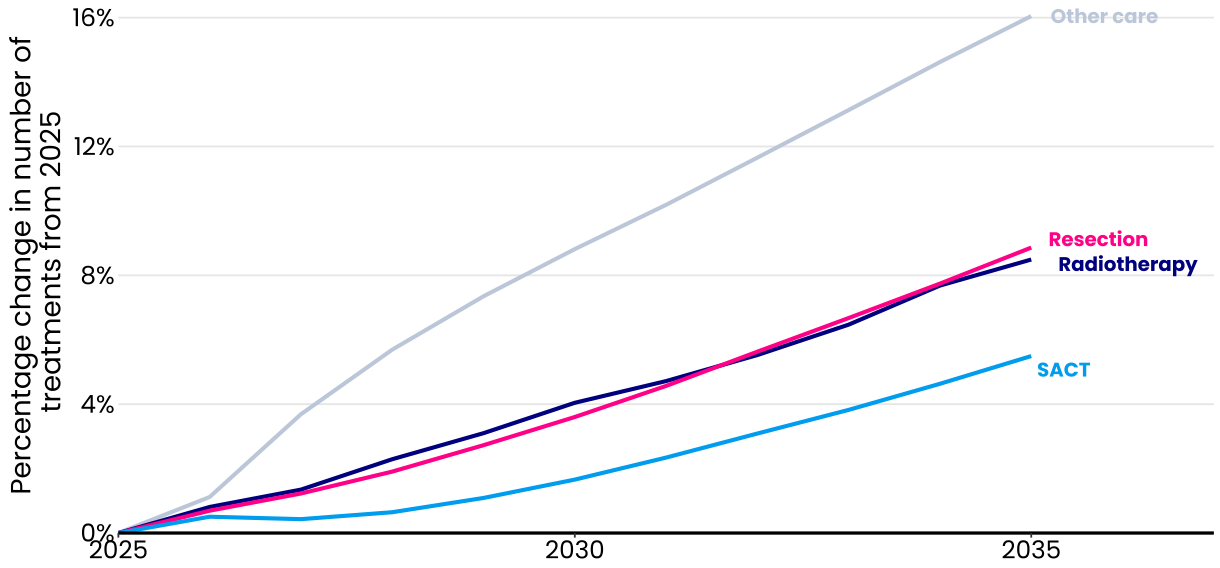
Change in number of colon and rectosigmoid junction cancer treatments 2025–2035

Crude increase per year in comparison to 2025, due to change in number of diagnosed cases



Percentage change in number of colon and rectosigmoid cancer treatments 2025–2035

Percentage change from 2025, due to change in number of diagnosed cases



Decade Totals

Due to increases in cancer incidence, we project that over the next decade a total of around 8,500 people will need radiotherapy, around 88,800 will need SACT, more than 188,000 will undergo surgery, and around 92,800 will require other forms of care as their primary treatment.

Annual Comparison

In 2035, compared to 2025, we project the following increases in primary treatment demand as a result of changing cancer incidence:

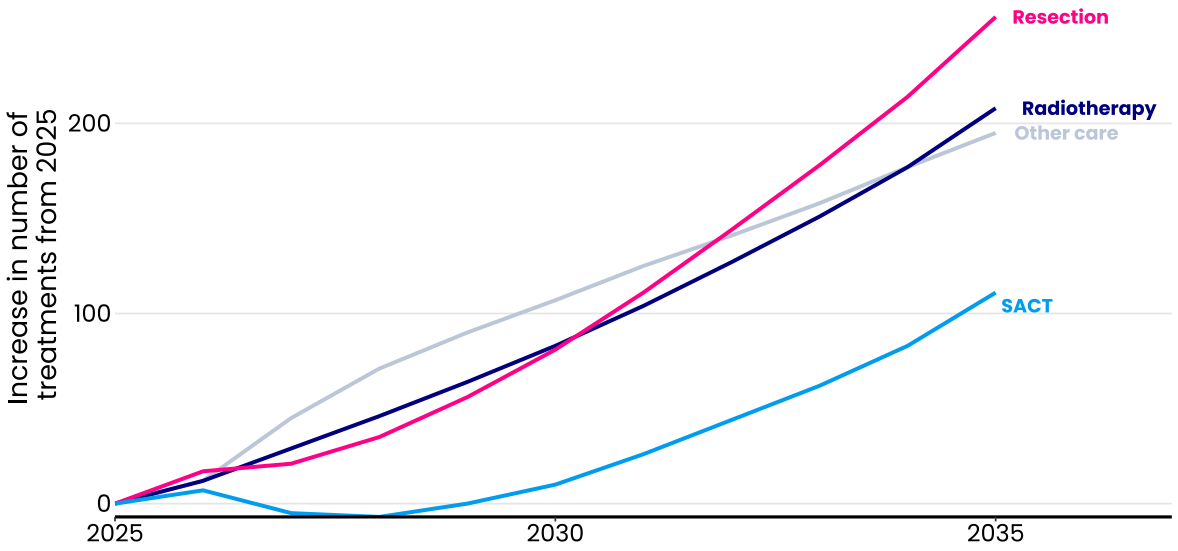
- Radiotherapy: around 65 patients (+8.5%)
- SACT: around 430 patients (+5.5%)
- Surgery: around 1,500 patients (+8.9%)
- Other care: around 1,200 patients (+16.0%)

Rectal cancer

When colorectal cancer is divided into colon cancer, rectosigmoid junction cancer, and rectal cancer, the projected increase in radiotherapy varies by site. Most of the growth is expected to come from rectal cancer, with an estimated cumulative increase of 42,000 treatments compared to 8,000 for colon cancer

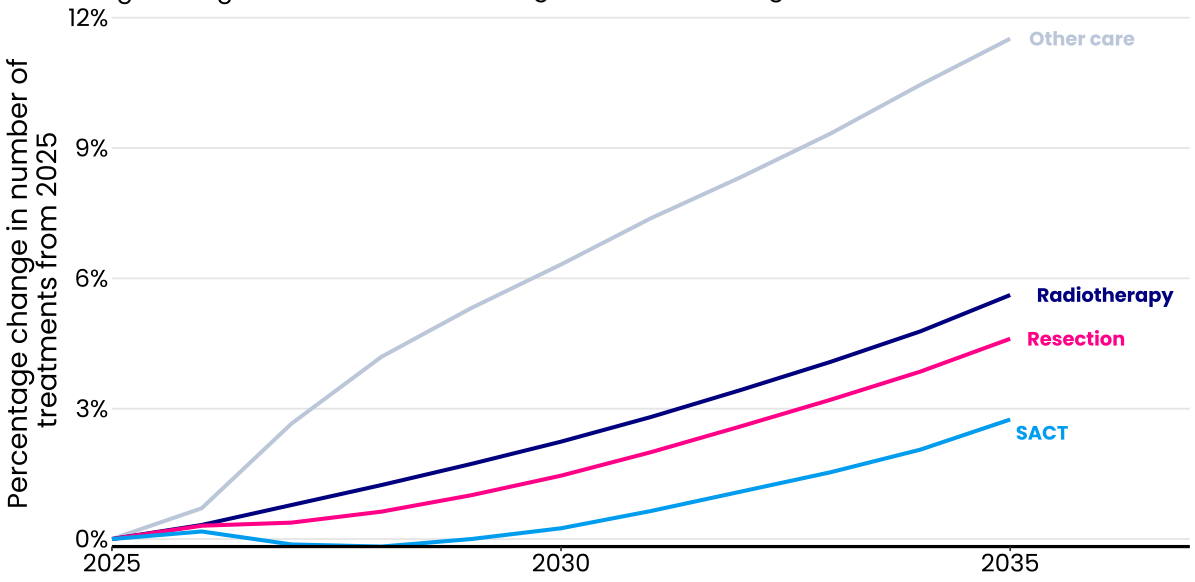
Change in number of rectum cancer treatments 2025–2035

Crude increase per year in comparison to 2025, due to change in number of diagnosed cases



Percentage change in number of rectum cancer treatments 2025–2035

Percentage change from 2025, due to change in number of diagnosed cases



Decade Totals

Due to increases in cancer incidence, we project that over the next decade a total of around 41,700 people will need radiotherapy, around 44,700 will need SACT, around 62,200 will undergo surgery, and around 19,700 will require other forms of care as their primary treatment.

Annual Comparison

In 2035, compared to 2025, we project the following increases in primary treatment demand as a result of changing cancer incidence:

- Radiotherapy: around 210 patients (+5.6%)
- SACT: around 110 patients (+2.8%)
- Surgery: around 260 patients (+4.6%)
- Other care: around 200 patients (+11.5%)