

Using the NDRS National Radiotherapy Dataset to improve

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Feb 2024

The Radiotherapy Dataset (RTDS)

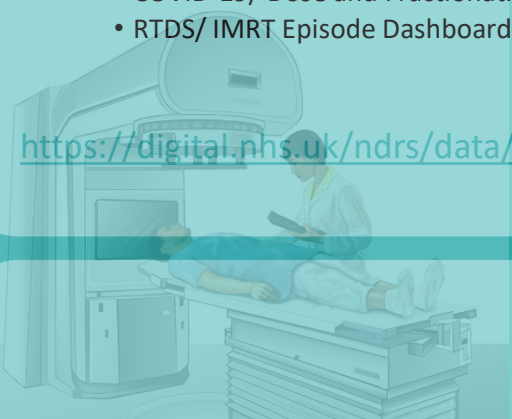
NDRS site

Publicly available content

- **Background** information
- Data submission information
- **Bitesize series** – video guide of available content
- Dashboards:
 - COVID-19/ Dose and Fractionation Dashboard
 - RTDS/ IMRT Episode Dashboard



<https://digital.nhs.uk/ndrs/data/data-sets/rtds>



Data Access Request Service (DARS)

For other data requests/ bespoke analysis contact the Data Access Request Service (DARS).

Applications should be made online:

<https://digital.nhs.uk/services/data-access-request-service-dars/data-access-request-service-dars-process>

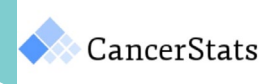
How to Access RTDS data

Publicly available:
NDRS website

Secure access only:
Cancer Stats 2

Bespoke data requests:
DARS request

Analytical outputs:
Publications & Contributions



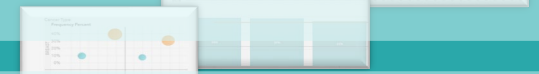
Cancer Stats 2 site

Permission required to access

Suite of 8 dynamic reports including:

- **Events**; Attendance, Episode and Prescription
- **Machine attendance** information for;
 - Linac, Brachy & Kilovoltage machines
- **Working day profile** - machine attendances
- **Dose and fractionation** details
- Plus others; IMRT, HRG and Quality Dashboard

<https://cancerstats.ndrs.nhs.uk/>



Analytical outputs

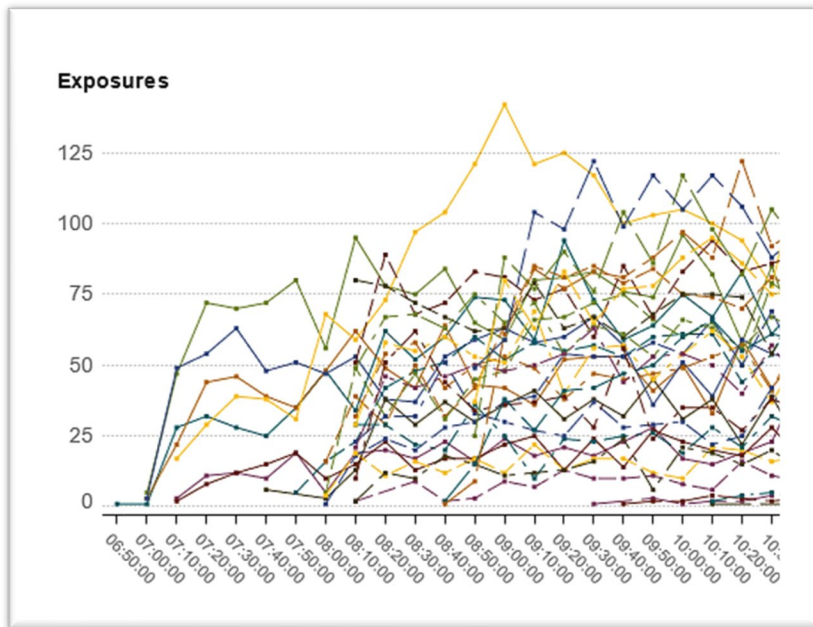
- Specialised services Quality Dashboard (SSQD) metrics
- Contribution to the Health economics in Radio-Oncology (HERO) project
- Out for comment- **90-day and 30-day mortality**
- Examples of RTDS used in **published analysis**:
 - The impact of the COVID-19 pandemic on radiotherapy services in England, UK: a population-based study. (Spencer et al. 2021)
 - Stereotactic Ablative Body Radiotherapy Versus Radical Radiotherapy: Comparing Real-World Outcomes in Stage I Lung Cancer (Phillips et al. 2019)



Output examples– CS2

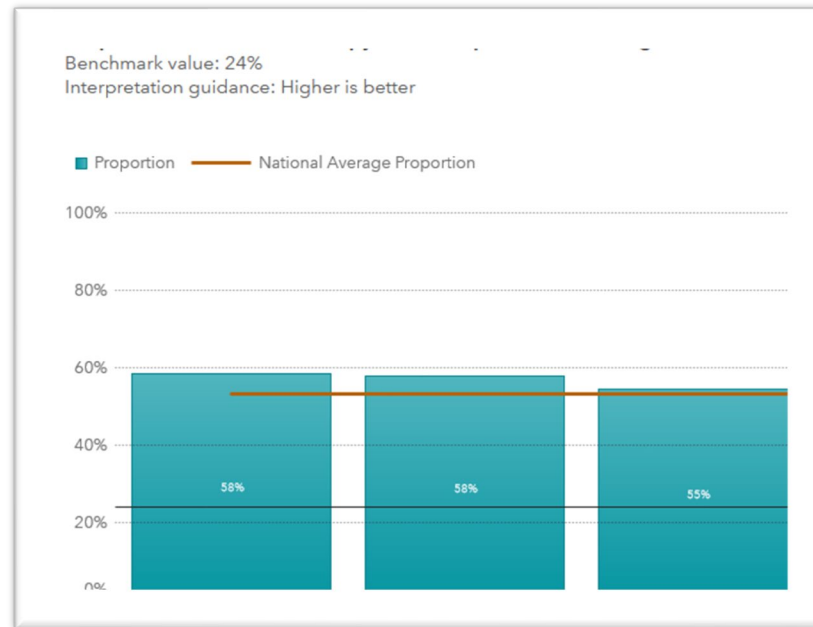
Radiotherapy machines – Working day profile.

Number of exposures over time (different machines have different colours).



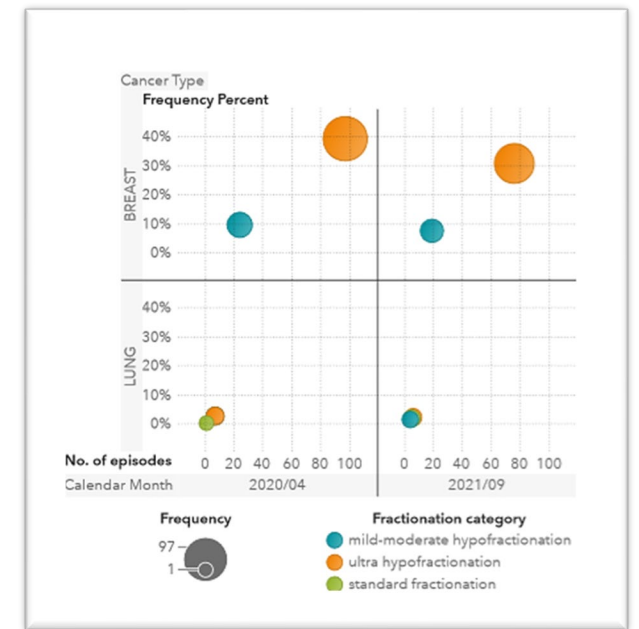
Quality Dashboard – RAD14

Proportion of radical episodes receiving IMRT (excluding breast). Y-Axis would normally be trust name.



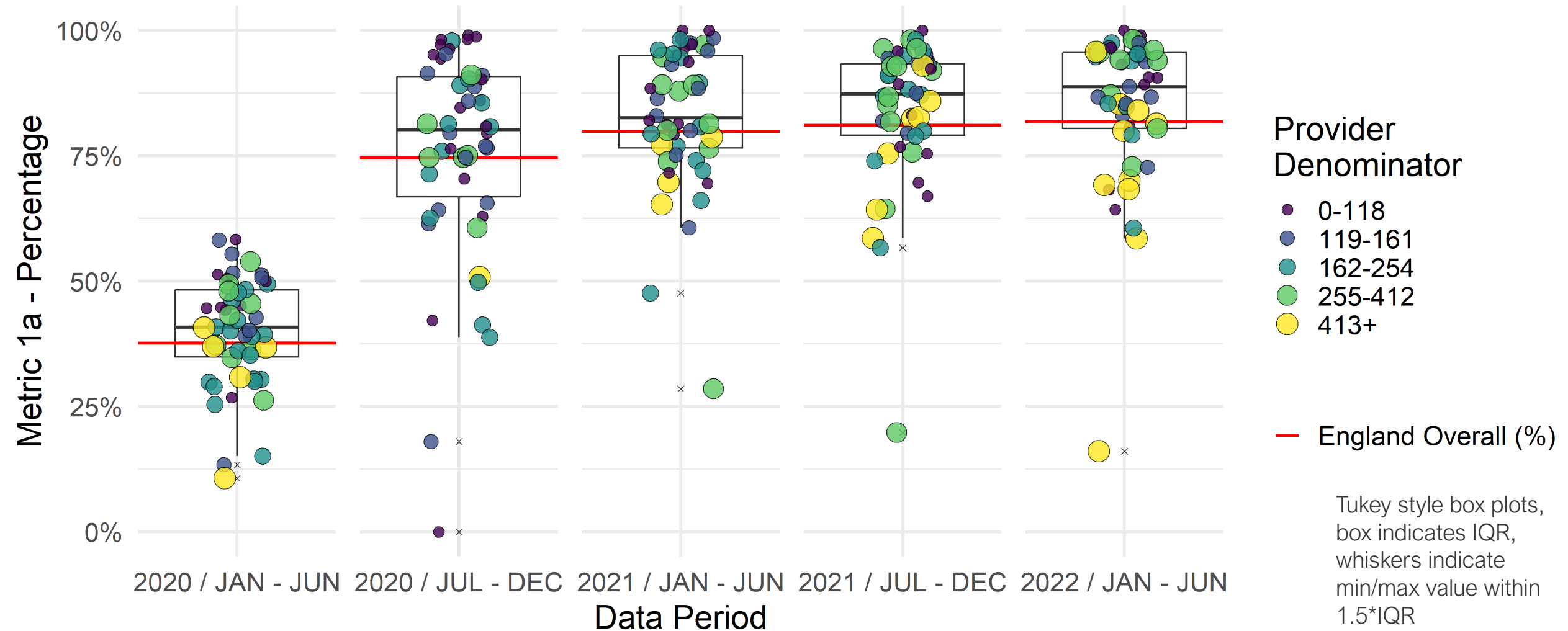
Dose and Fractionation – Activity by dose fractionation.

Proportion by month (not all data shown).

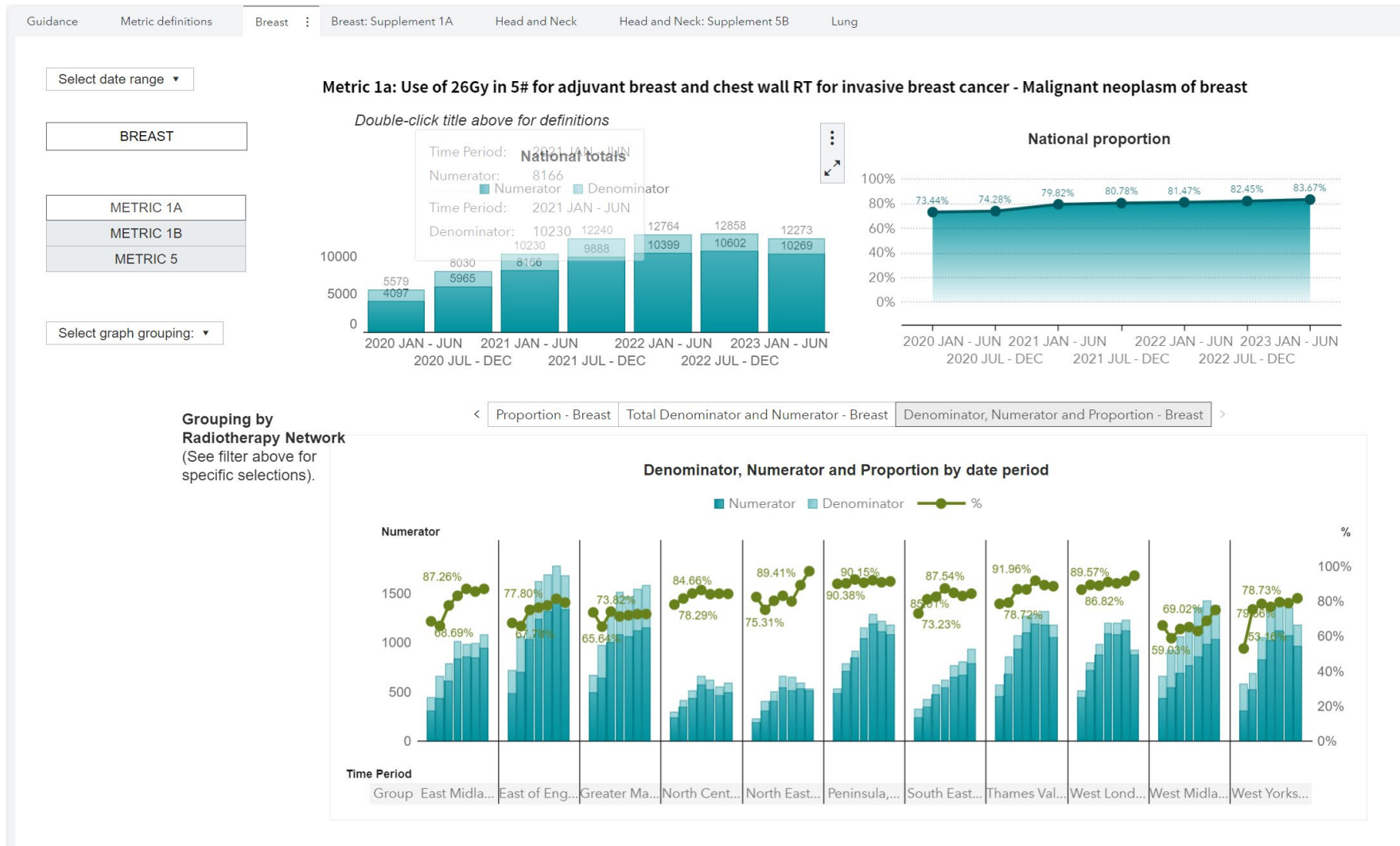


Use of 26Gy in 5# for adjuvant breast and chest wall RT for invasive breast cancer

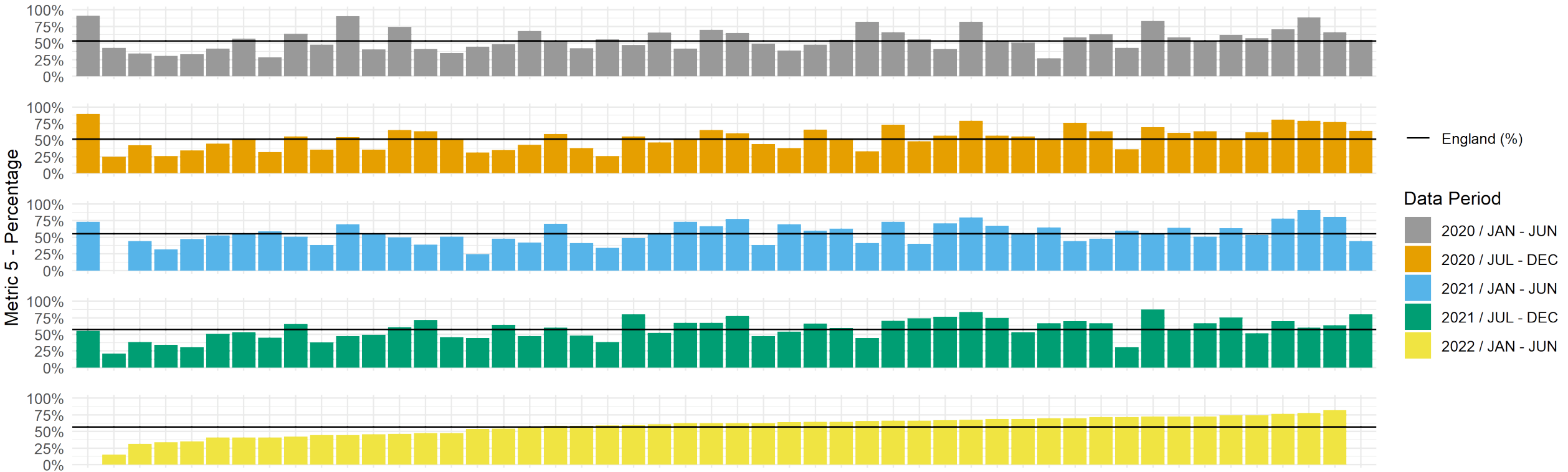
Metric 1a by data period



Cancerstats2 updated data

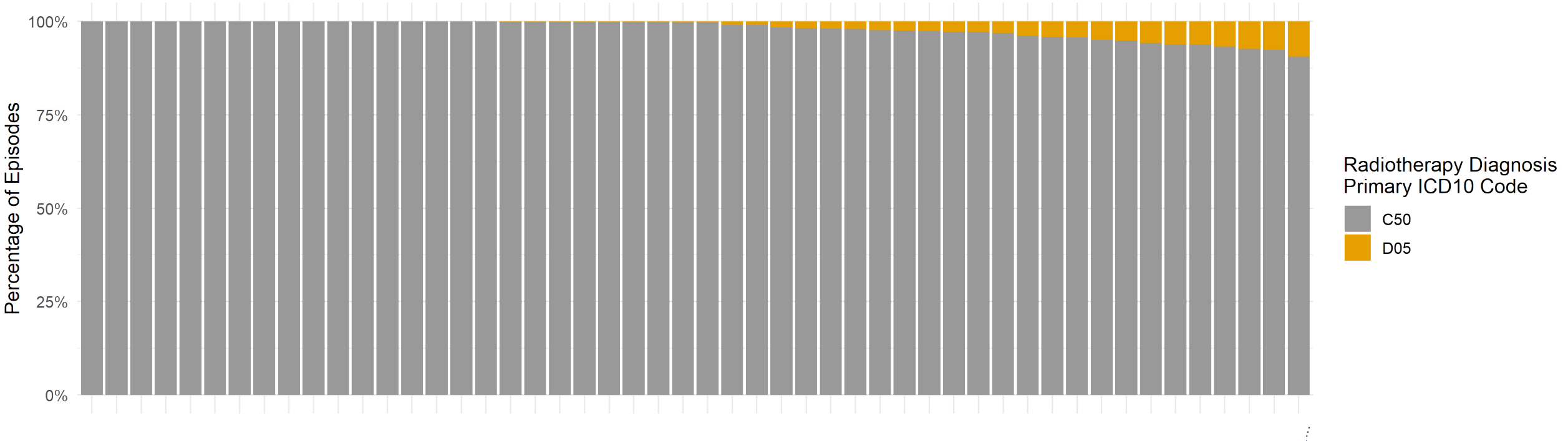


Use of radiotherapy boost in women <50



Recording of DCIS in the RTDS

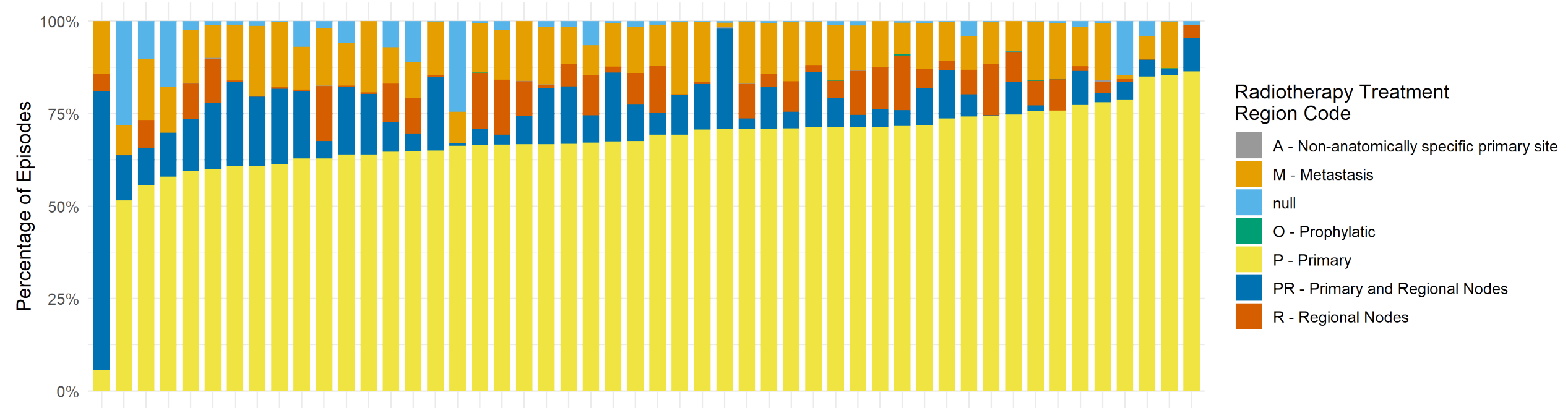
Diagnosis Primary ICD10 Code by Provider



*Radical radiotherapy episodes for C50 and D05, starting between 1 Jan 2020 and 30 Jun 2022

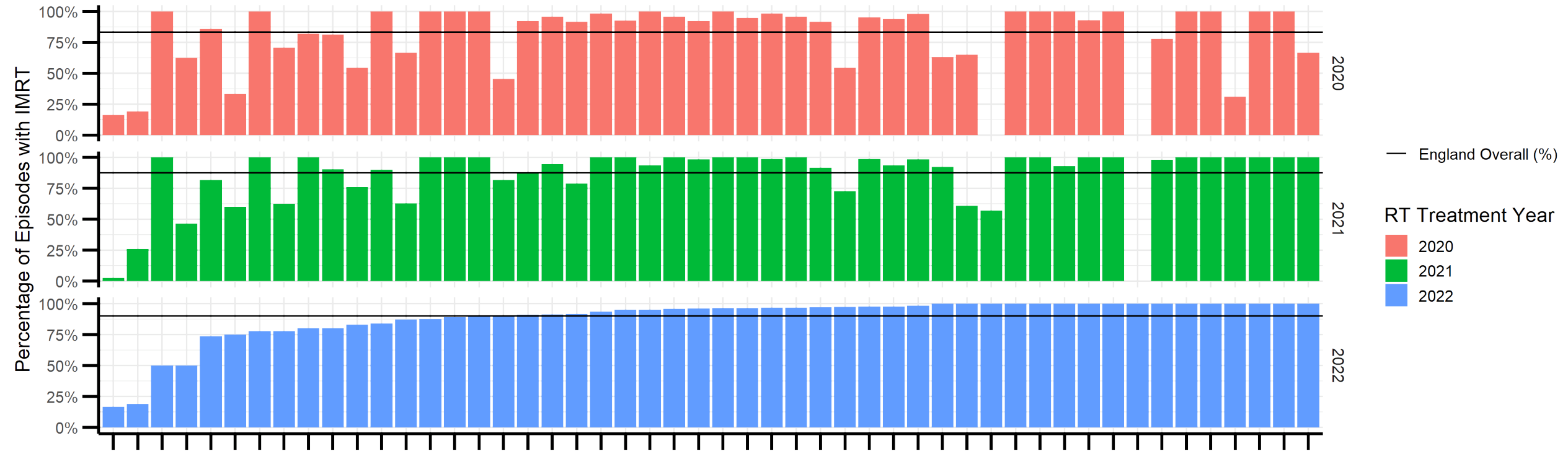
Data Quality Details: Treatment Region

Radiotherapy Treatment Region by Provider

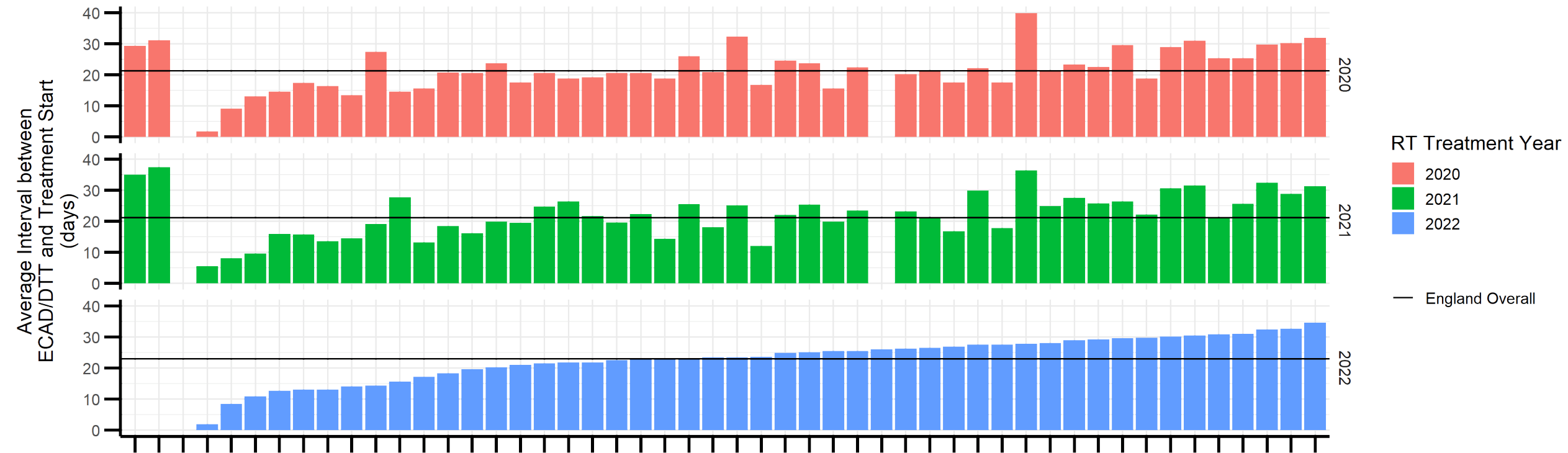


* Radiotherapy episodes for C50 and D05, all intent, starting between 1 Jan 202 and 30 Jun 2022

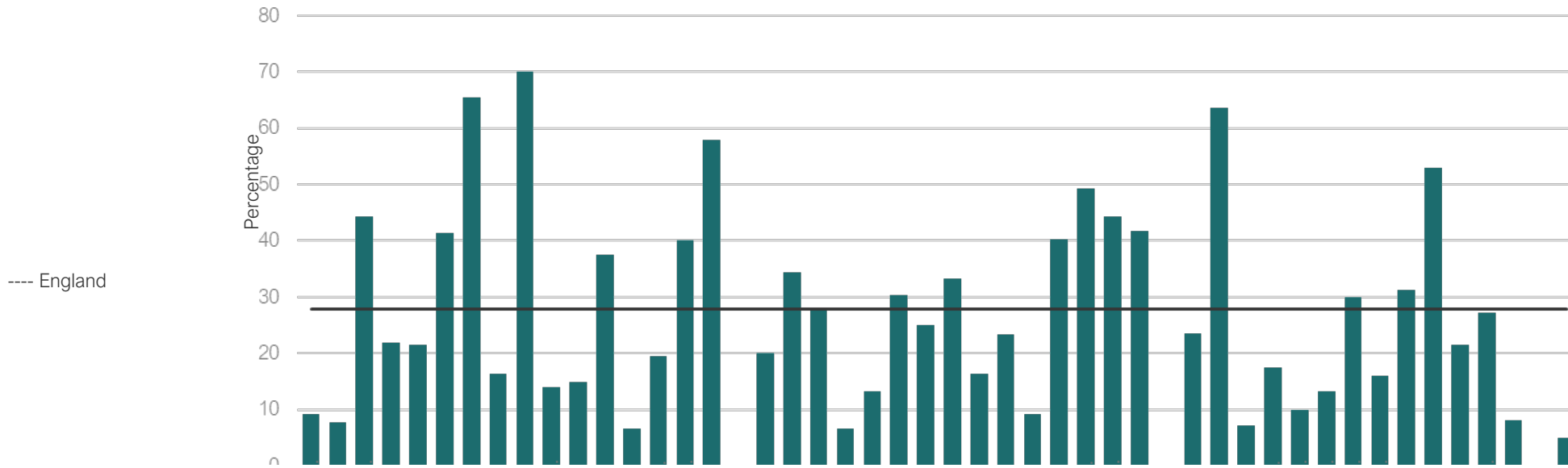
Use of IMRT/Rotational IMRT for radical OG radiotherapy



Decision to treat to treatment start date – radical OG

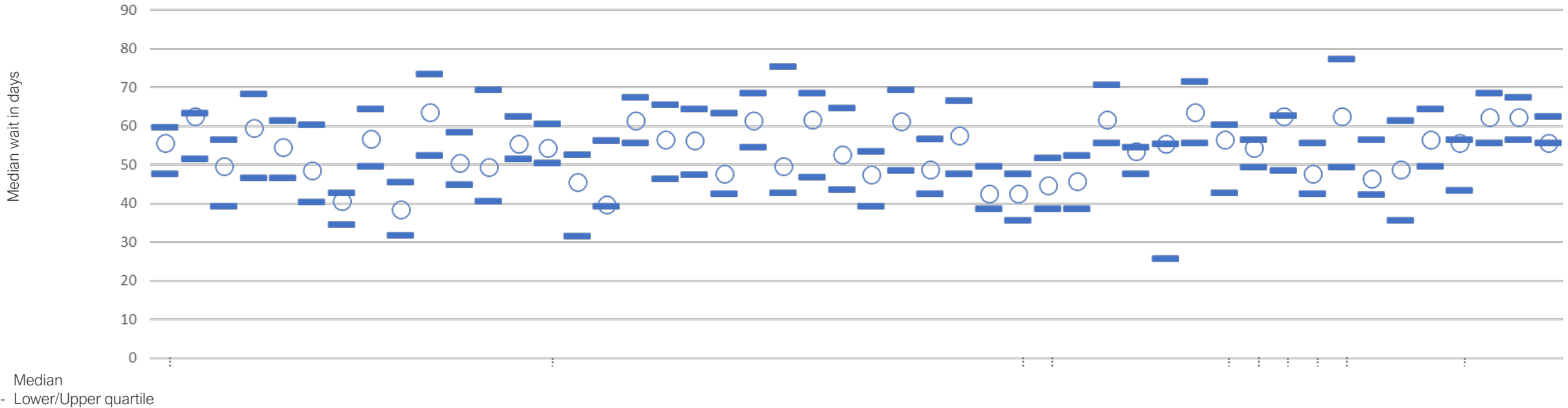


Time from surgery to radiotherapy in Adjuvant head and neck cancer radiotherapy (% within 6 weeks)



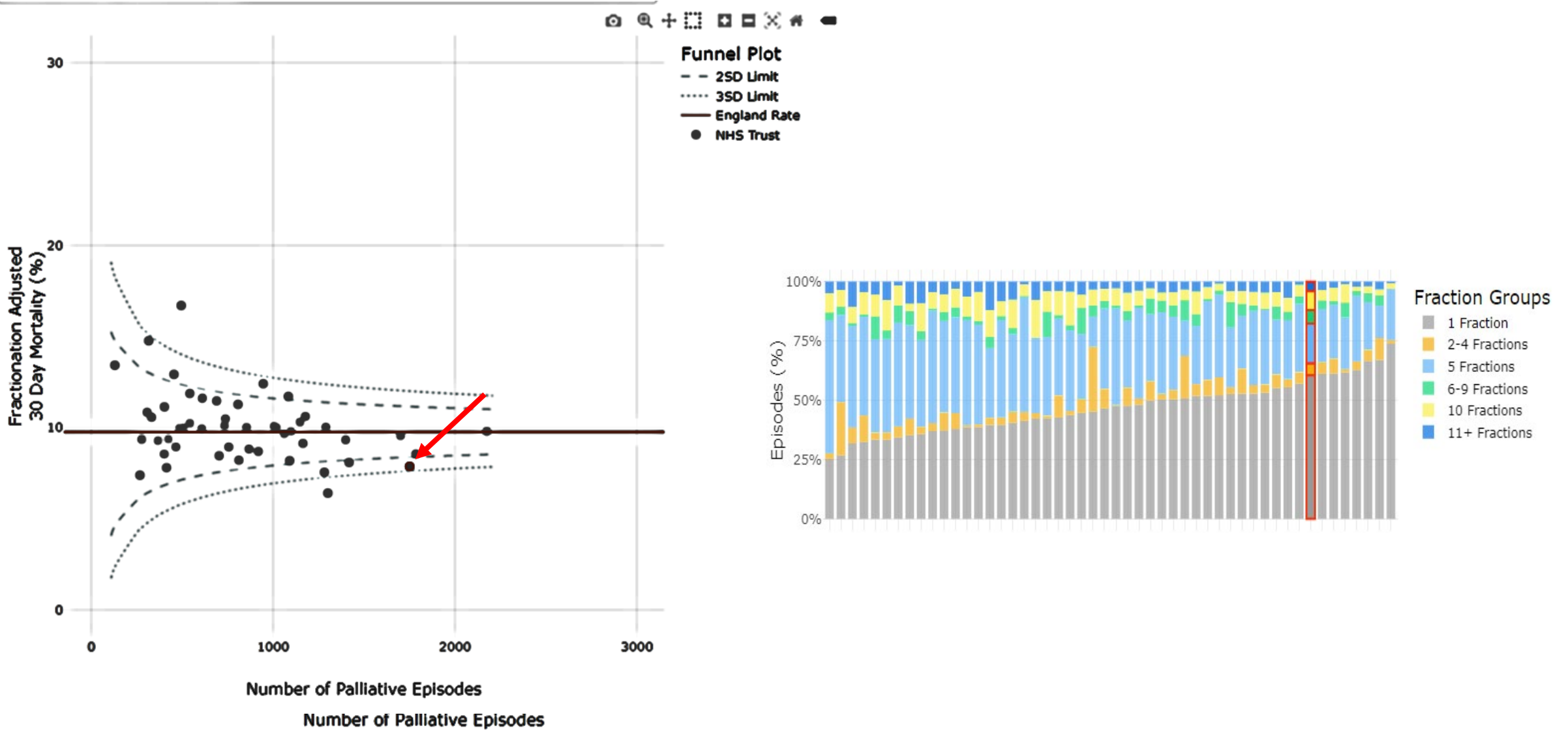
Data period	England (%)	Lowest provider*	Highest provider
2020	27.9	0.0	70.0

Time from surgery to radiotherapy in Adjuvant head and neck cancer radiotherapy (median and IQR)

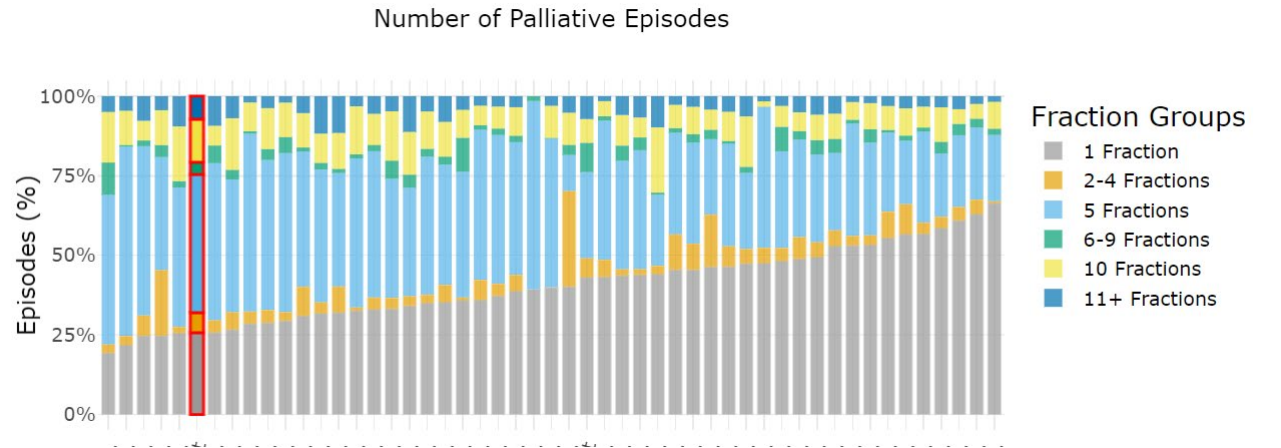
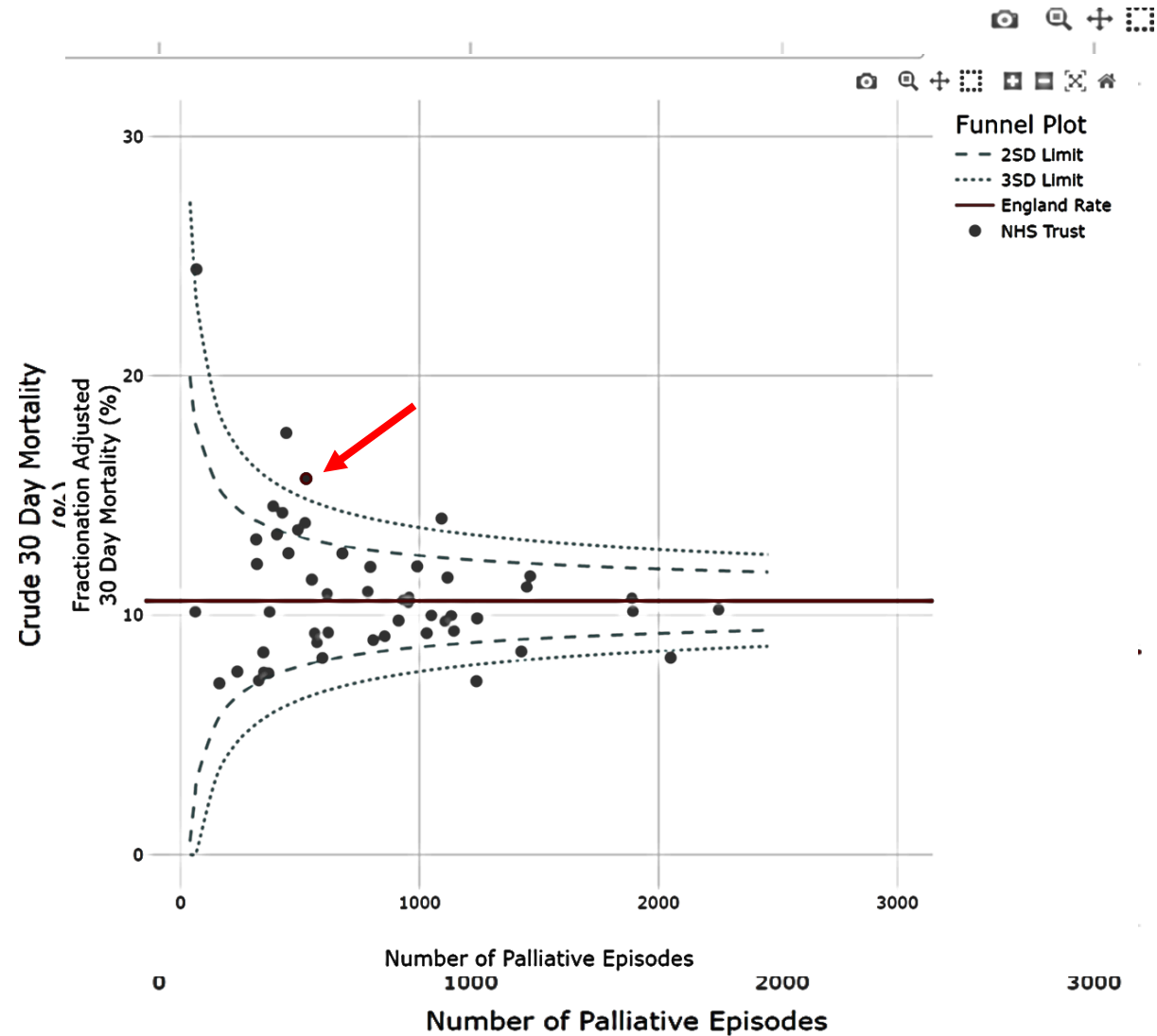


Data period	Shortest provider	Longest provider	Median
2020	38.4	63.7	55.1

30 day mortality - 2020-2021

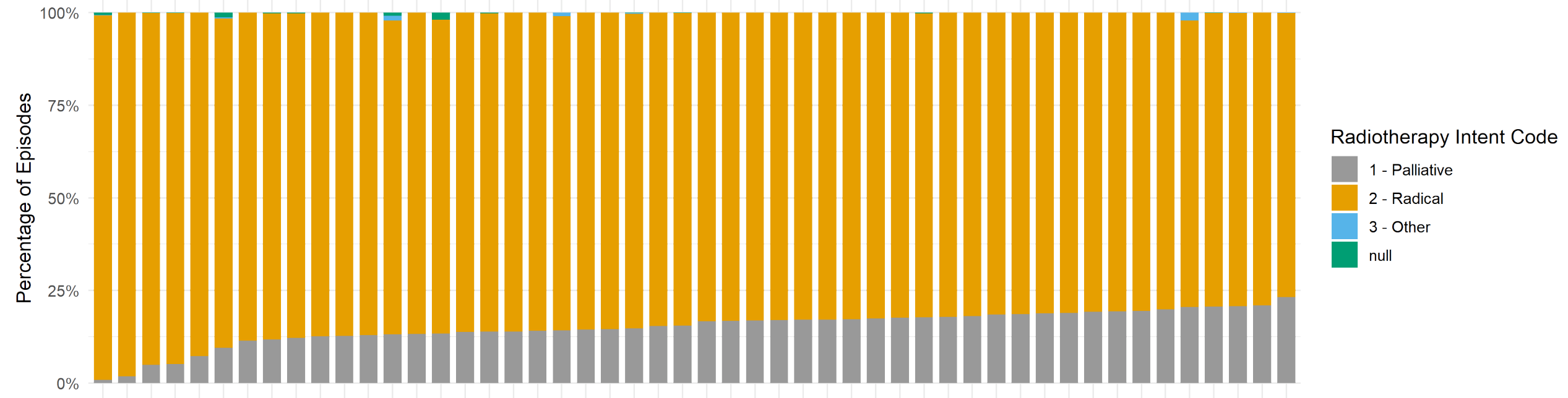


30 day mortality - 2020-2021



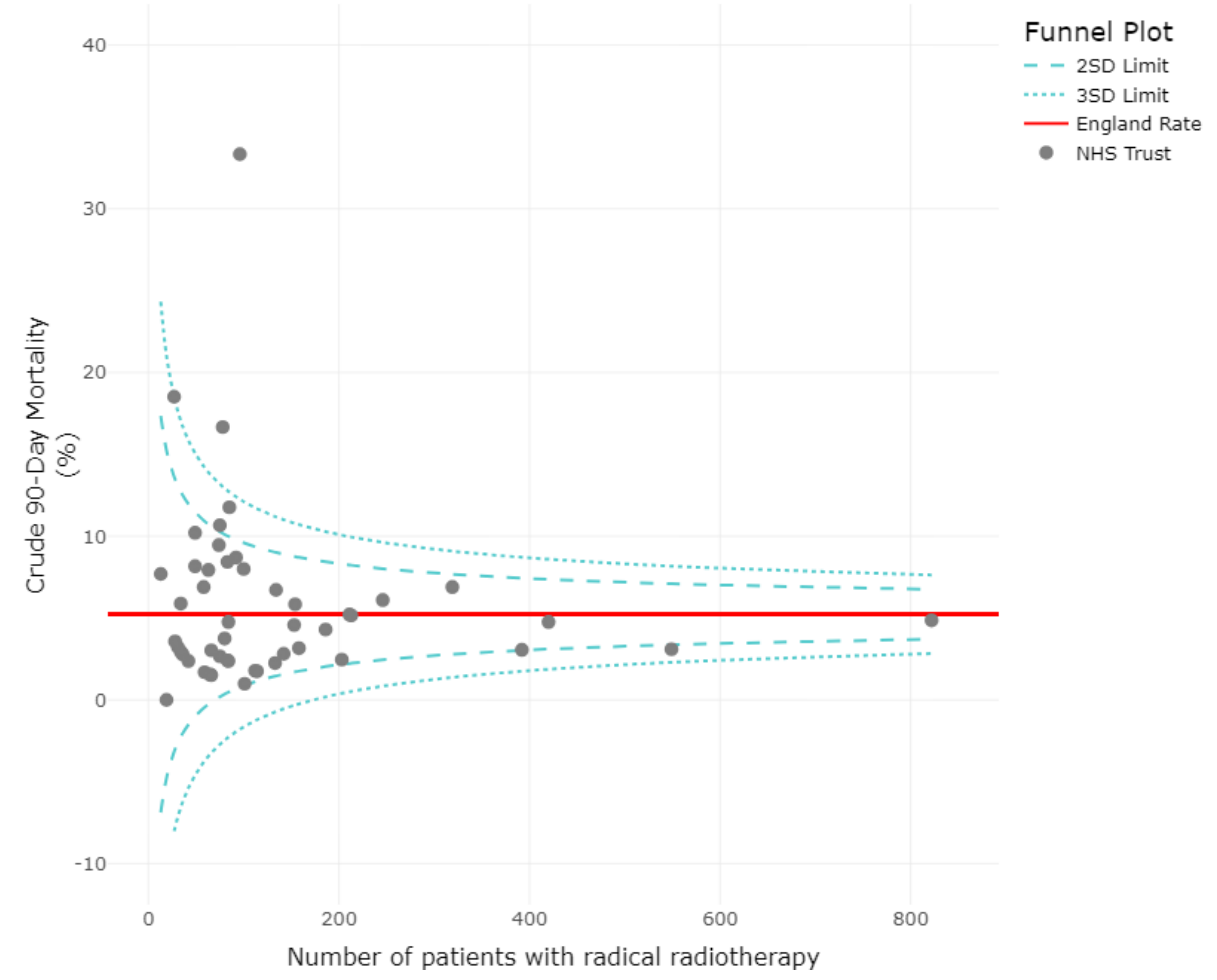
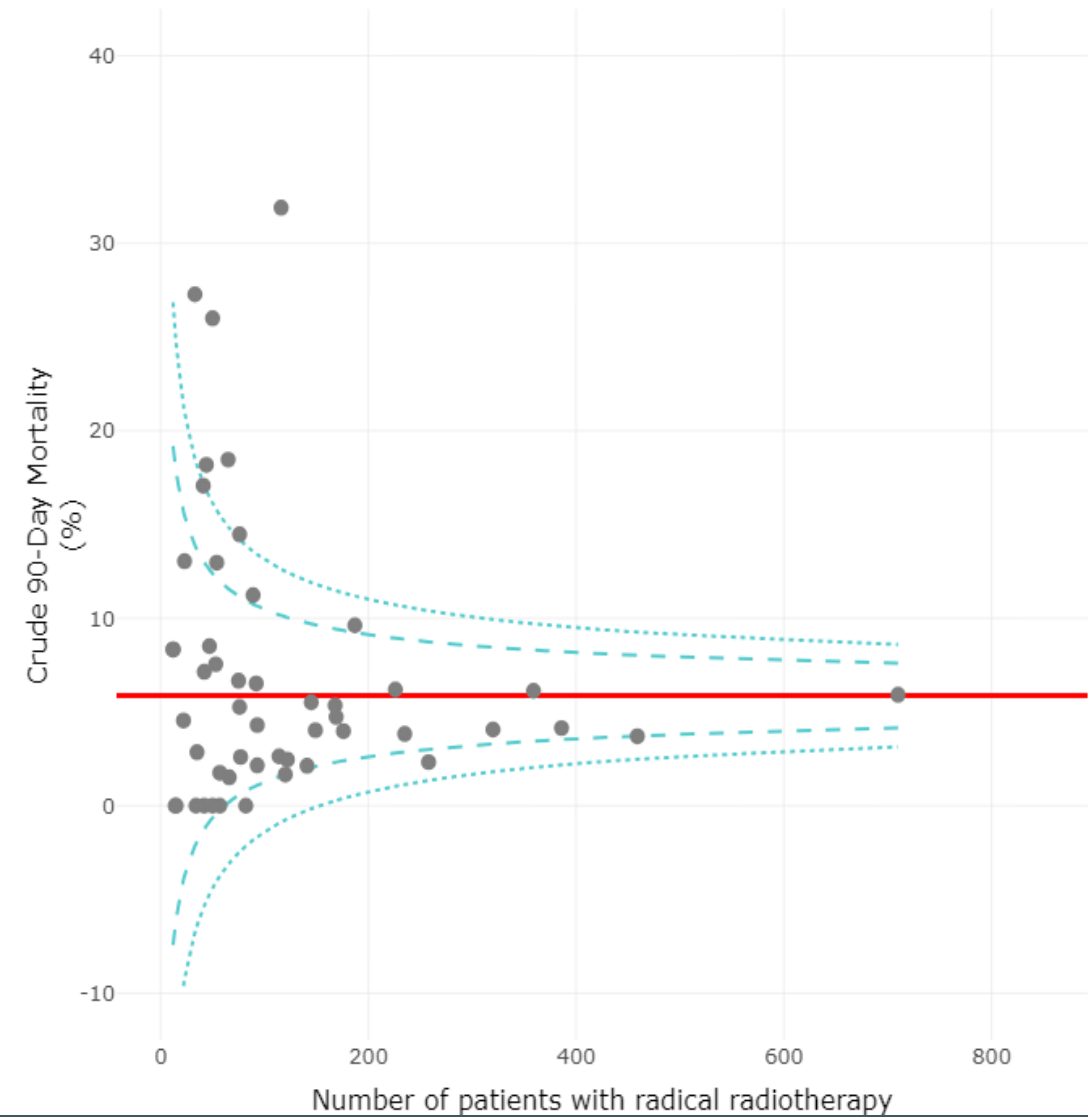
Data Quality Details: Radiotherapy Intent

Radiotherapy Intent by Provider



*Radiotherapy episodes for C50 and D05, all intent, starting between 1 Jan 2020 and 30 Jun 2022

Lung cancer 90-day mortality: 2020/21 and 2021/22



Conclusions

- Extensive opportunities to support clinical audit and service improvement
- Cancerstats2 login available on request (<https://cancerstats.ndrs.nhs.uk/>)
- Ideal for demonstrating engagement with outcomes/audit for appraisal.
- Starting to see improvement based on early feedback of results
- Using these data reveals the extent of data quality issues
- Help us to help you!

Thank you!