



UK Health  
Security  
Agency

# Tuberculosis in England

## National quarterly report: Q3 2021

1 July to 30 September 2021

Provisional data

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## Background

This report presents quarterly data on tuberculosis (TB) case notifications in England.

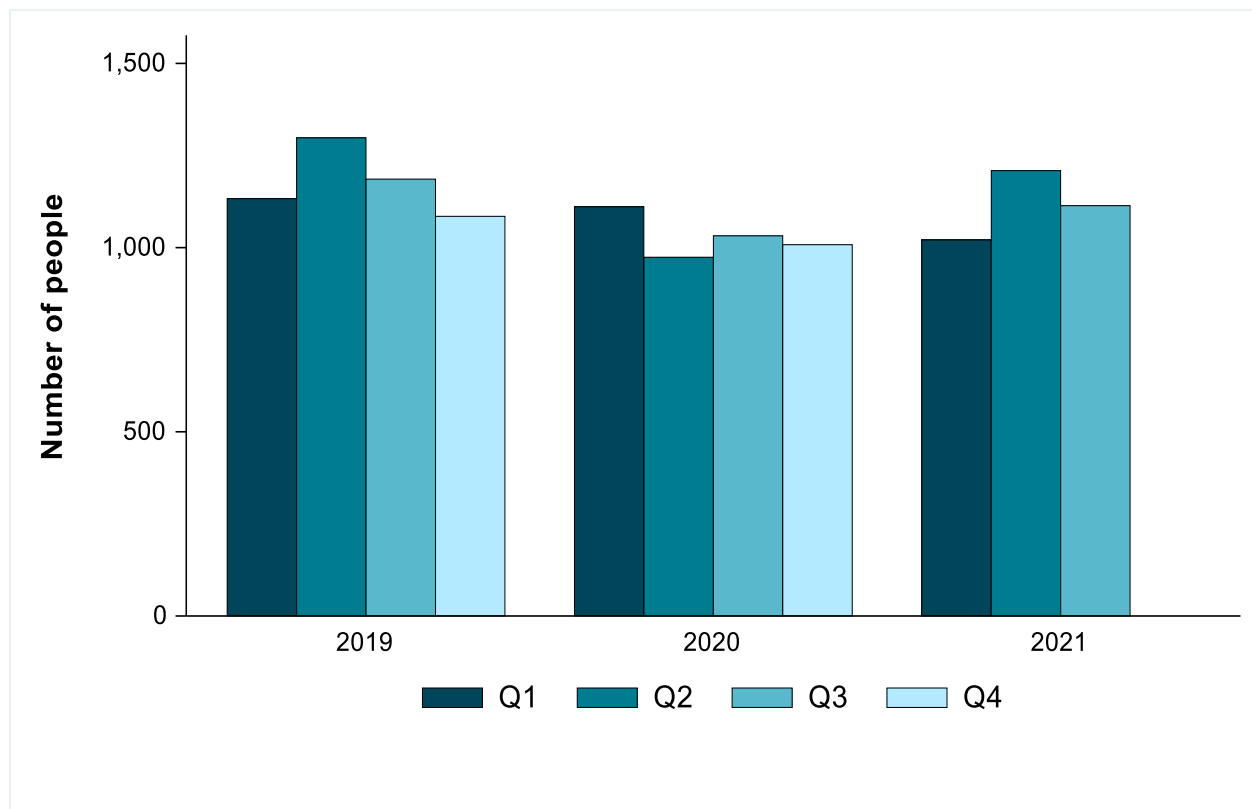
Detailed results for data up to the end of 2020 will be published in the annual report 'Tuberculosis in England: 2021 report' in 2021. The most recent annual report with data up to the end of 2019 is available on the [Tuberculosis in England webpage](#).

Please note: data for 2021 is provisional and subject to validation and should be interpreted with caution.

This report aims to provide timely and up-to-date figures of key epidemiological indicators to inform ongoing TB control efforts in England.

# Overall numbers and geographical distribution

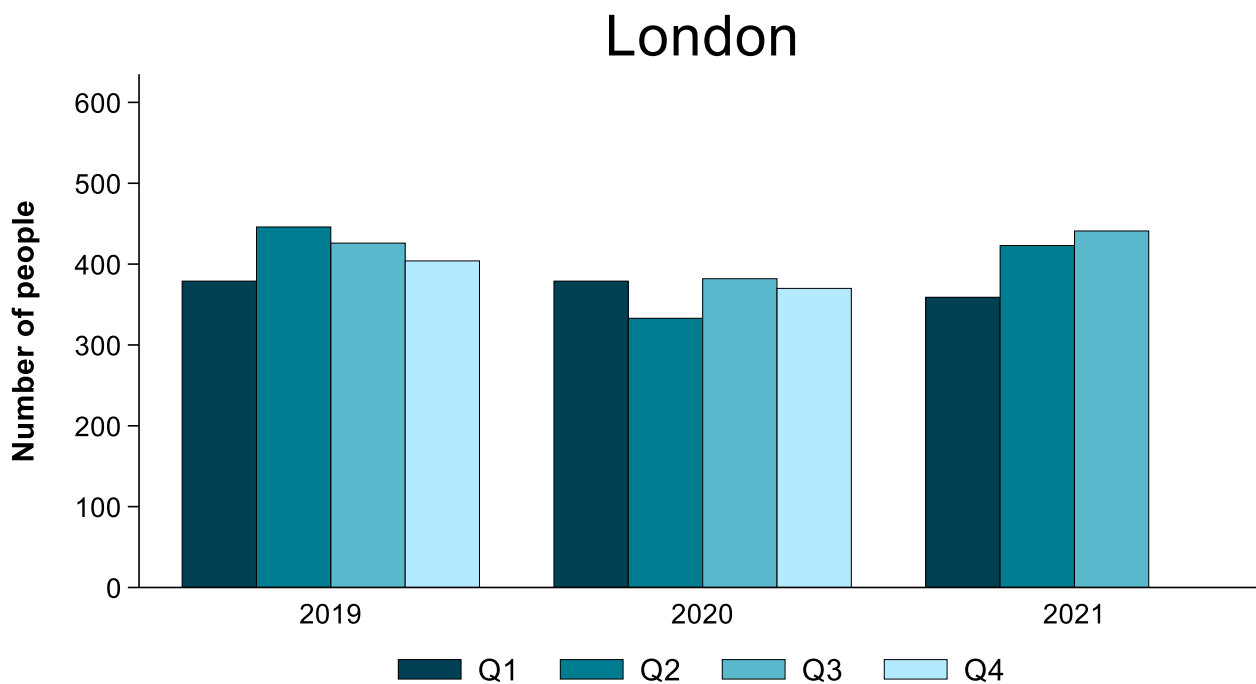
Figure 1: Number of TB notifications in England, Q1 2019 to Q3 2021



In the third quarter of 2021 (Q3 2021, 1 July to 30 September 2021), 1,114 people were notified with TB in England. This is a 7.9% increase compared to the same quarter in the previous year (Q3 2020: 1,032). Exact numbers are shown in Table 1.

Please note: due to the seasonality of TB notifications the most recent quarter is being compared to the same quarter in the previous year rather than to the previous quarter.

**Figure 2: Number of TB notifications by PHE centre<sup>a</sup>, England, Q1 2019 to Q3 2021**

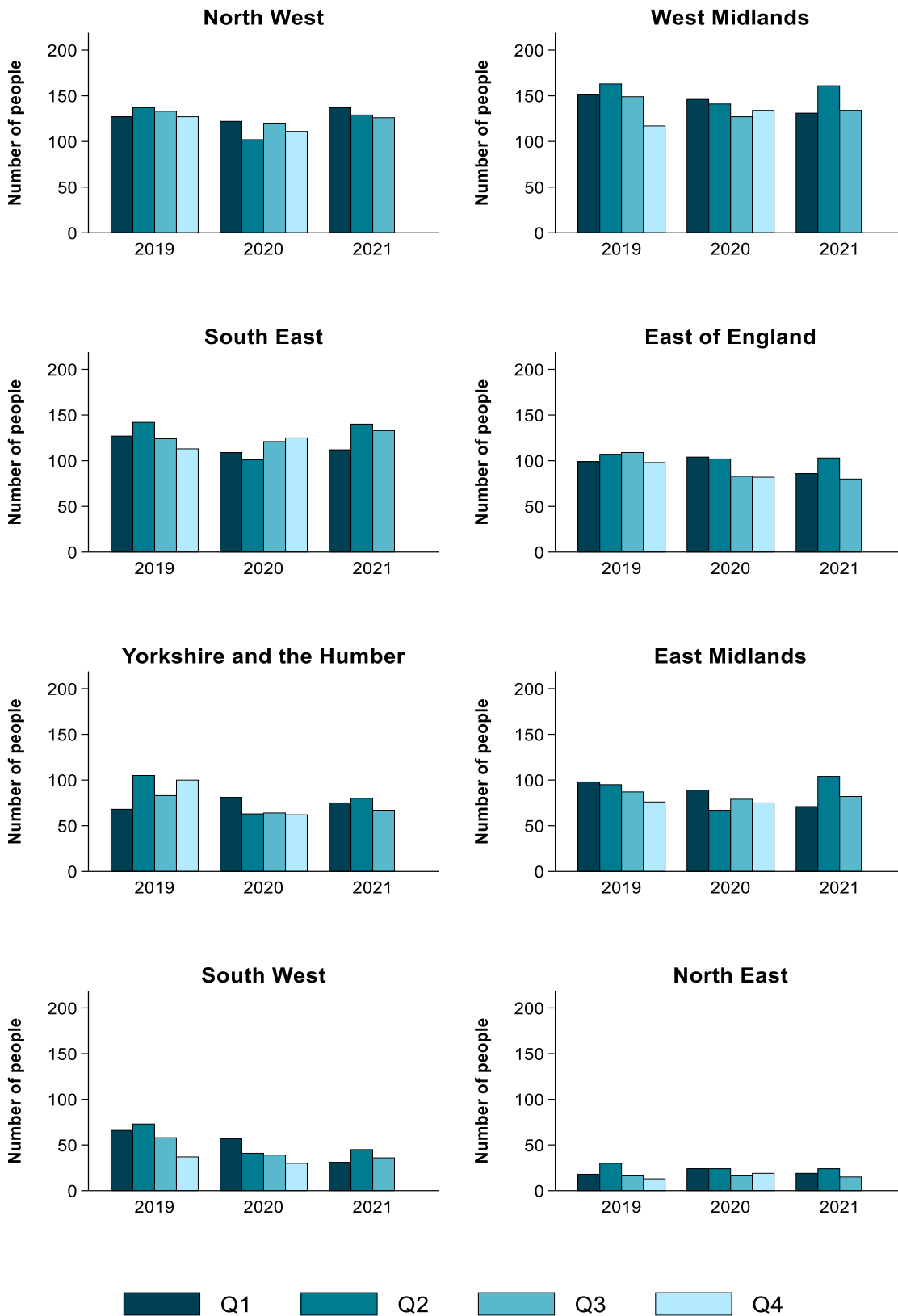


<sup>a</sup> Note the axes on the London figure are different to that of the other PHE centres due to the higher number of TB notifications in London.

In Q3 2021, the number of people notified with TB in:

- most PHE centres increased compared to Q3 2020 apart from the North East and South West (a -11.8% and -2.7% reduction respectively) and the East of England which reported no change
- the London region had the largest increase in numbers (+13.7%) followed by the West Midlands (+11.7%) compared to Q3 2020

**Figure 2: Number of TB notifications by PHE centre, England, Q1 2019 to Q3 2021 continued**



**Table 1: Number of TB notifications by PHE centre, England, Q1 2019 to Q3 2021**

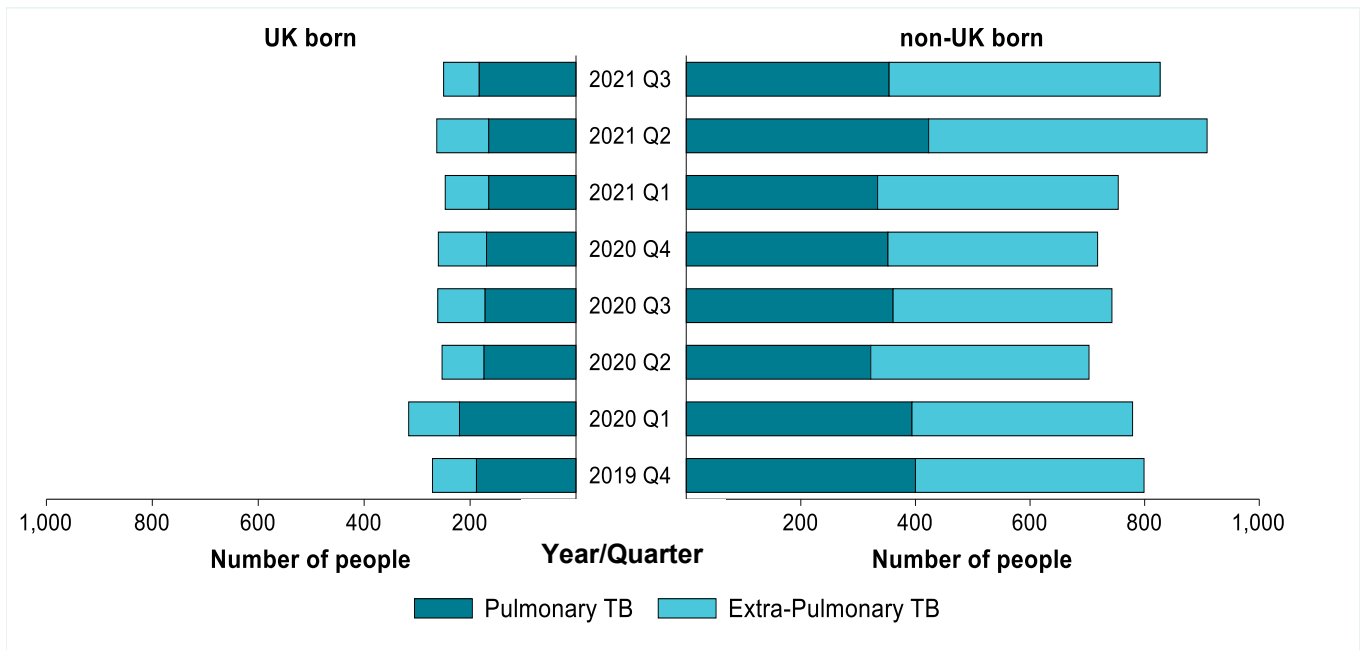
PHEC	2019					2020					2021				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
London	379	448	427	411	1665	385	338	388	379	1490	359	423	441 ↑		1,223
West Midlands	152	158	144	120	574	146	138	120	126	530	131	161	134 ↑		426
South East	127	142	124	115	508	108	104	121	125	458	112	140	133 ↑		385
North West	127	137	133	128	525	125	105	121	115	466	137	129	126 ↑		392
East of England	100	107	114	101	422	109	102	82	78	371	71	104	82 -		257
East Midlands	98	94	87	77	356	89	65	78	69	301	86	103	80 ↑		269
Yorkshire and the Humber	67	106	84	101	358	85	64	62	57	268	75	80	67 ↑		222
South West	66	73	59	40	238	58	42	37	27	164	31	45	36 ↓		112
North East	18	30	18	13	79	24	24	17	18	83	19	24	15 ↓		58
England	1,134	1,295	1,190	1,106	4,725	1,129	982	1,026	994	4,131	1,021	1,209	1,114		3,344

<sup>a</sup> Ordered by decreasing total number of people with TB in Q3 2021

<sup>b</sup> Arrows show whether there has been a decrease (↓), an increase (↑) or no change (-) in the number of people notified with TB in each PHE centre in Q3 2021 compared to Q3 2020

# Demographic and clinical characteristics

**Figure 3: Number of TB notifications by place of birth and site of disease, England, Q4 2019 to Q3 2021**



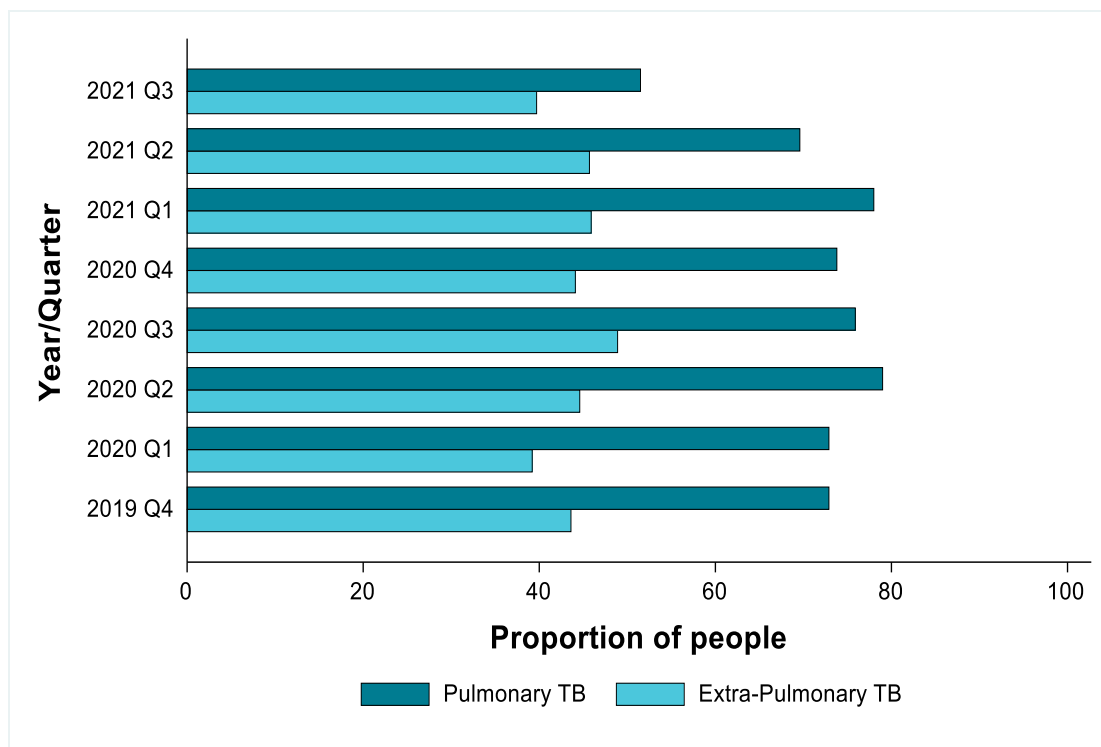
Compared with Q3 2020 (743 cases), in Q3 2021 (832 cases) there was a 12.0% increase in the number of people notified with TB who were born outside the UK. The number born in the UK decreased in the same time period (Q3 2020: 261 cases, Q3 2021: 251 cases, -3.8%).

In Q3 2021, the number of people with pulmonary TB accounted for 49.8% (n= 555/1,114) of all people with TB, decreasing from 53.4% in Q3 2020 (n=551/1,031). For those born outside the UK, this proportion was 48.6% (n=361/743), whilst the proportion was much higher among people born in the UK (65.9%, n=172/261).



## Culture confirmation

**Figure 4: Proportion of culture confirmation among TB notifications by site of disease, England, Q4 2019 to Q3 2021**



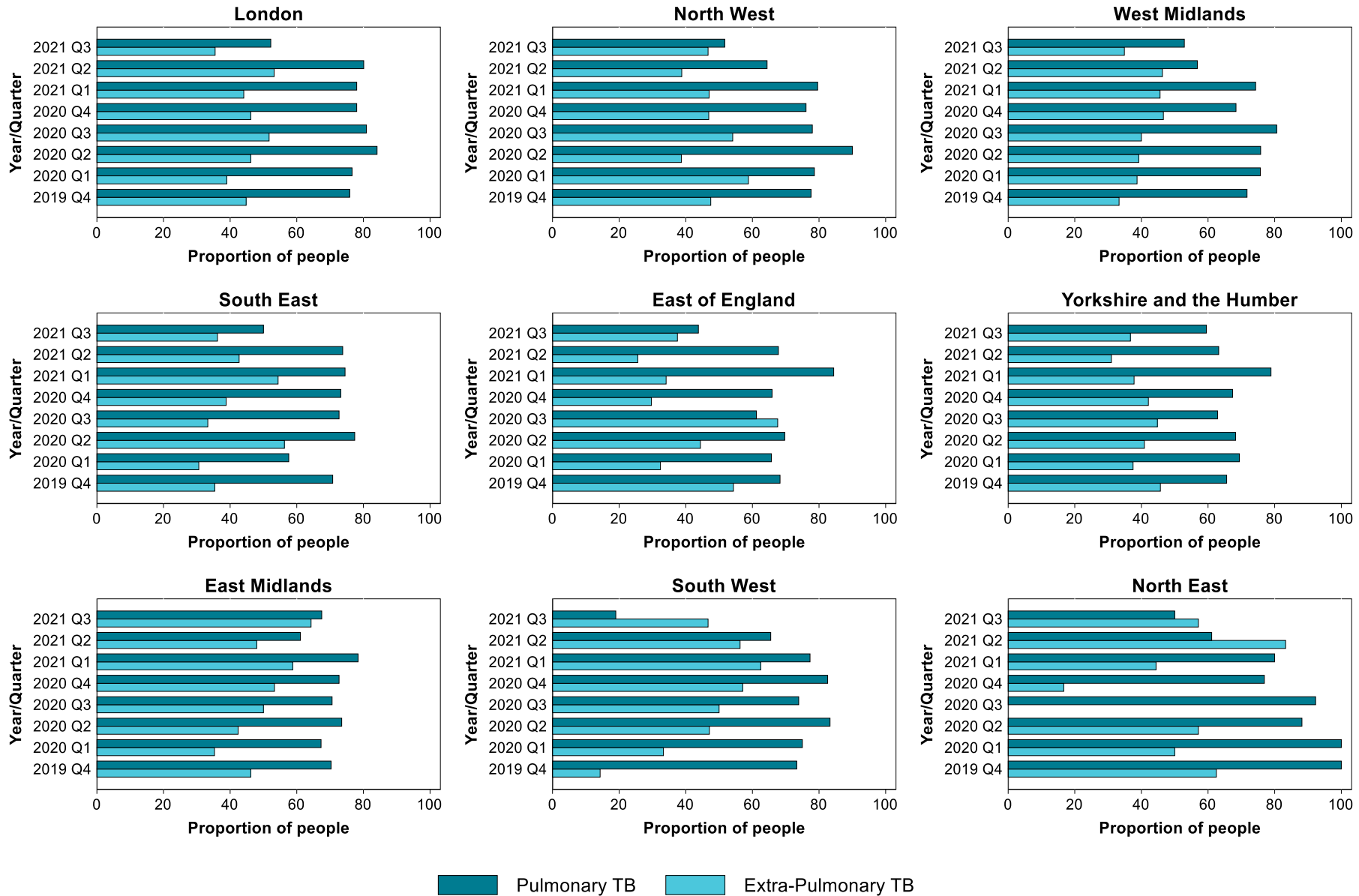
Among people with pulmonary TB, the proportion who were culture confirmed decreased slightly between Q2 2021 and Q2 2020 (69.6% versus 79.0%, respectively). The proportion with culture confirmed extra-pulmonary TB also increased slightly over the same time period (Q2 2021: 45.2%, Q2 2020: 44.6%).

Please note: Q2 2021 is being compared as the number for Q3 2021 will likely increase as final results for cultures may not yet be available.

In Q2 2021, the largest changes in the proportion of people with culture confirmation for:

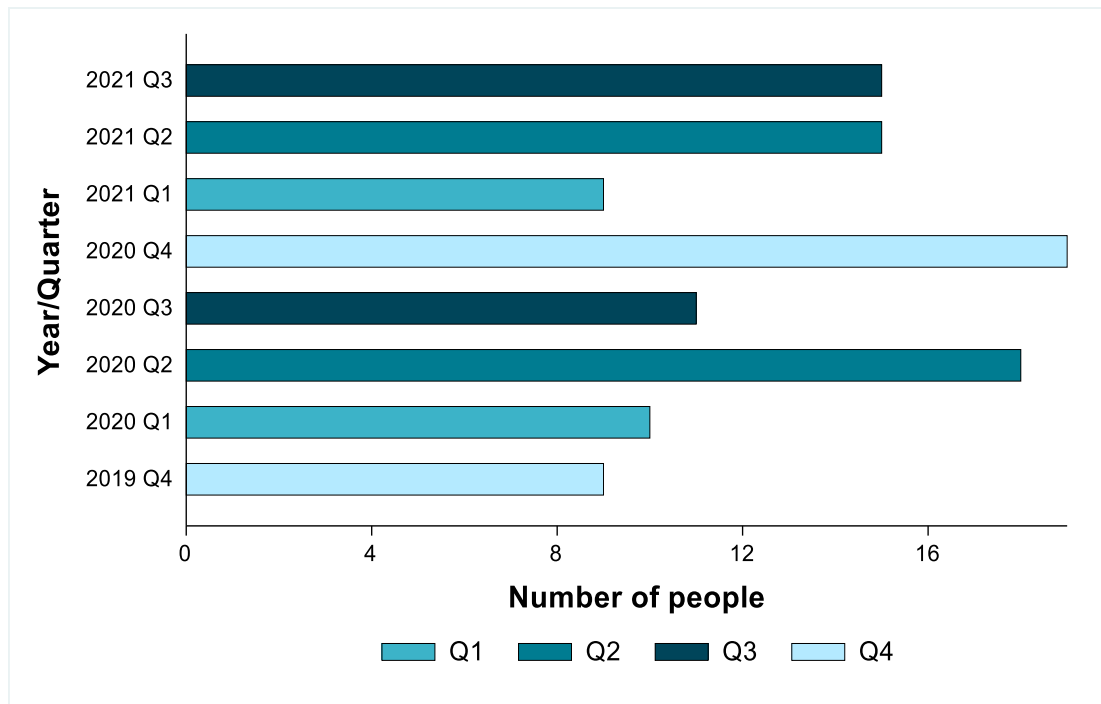
- pulmonary TB were seen in the London and the South West, being lower than in Q2 2020
- extra-pulmonary TB were seen in the North East, being higher than in Q2 2020
- extra-pulmonary TB were seen in the East of England, being lower than in Q2 2020

**Figure 5: Proportion of culture confirmation among TB notifications by site of disease and PHE centre, Q4 2019 to Q3 2021**



# Multi-drug resistant/rifampicin resistant (MDR/RR) TB

Figure 6: Number<sup>a</sup> of TB notifications with MDR/RR-TB, England, Q4 2019 to Q3 2021

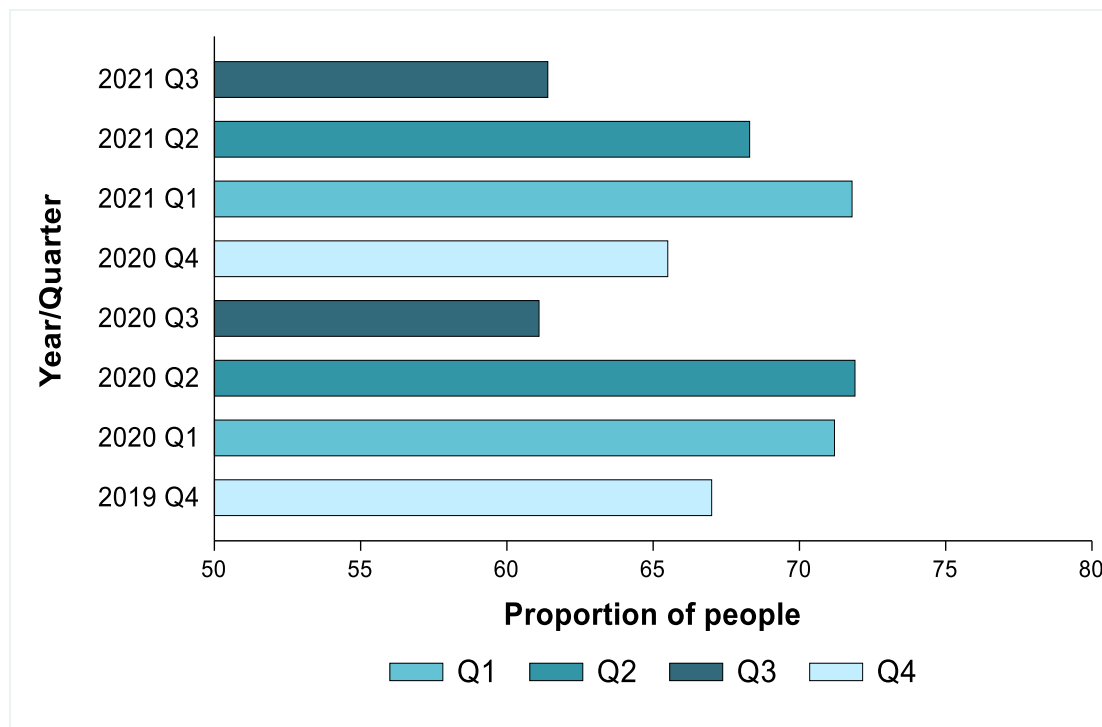


<sup>a</sup> Note figure displays numbers rather than proportions due to low number of MDR/RR-TB notifications.

There were 15 people notified in Q3 2021 with confirmed MDR/RR-TB. Overall, 58 people were notified with MDR/RR-TB since Q4 2020, compared to 48 in the previous 12 month period. Numbers may increase as final results for cultures in the most recent quarters may not yet be available.

## Treatment delays

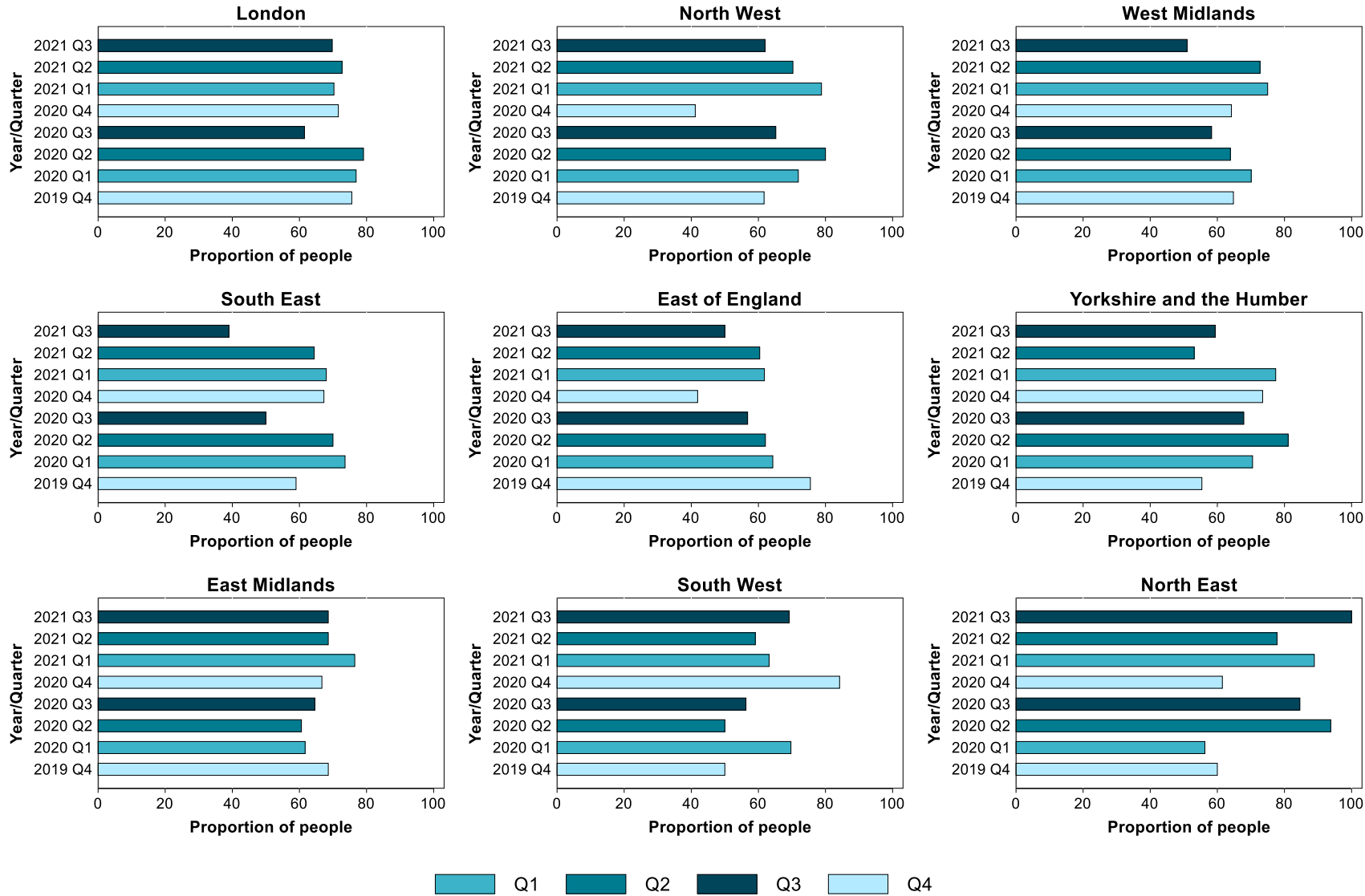
**Figure 7: Proportion<sup>a</sup> of pulmonary TB notifications starting treatment within 4 months (symptom onset to treatment start), England, Q4 2019 to Q3 2021**



<sup>a</sup> Note x-axis is not scaled to start at zero to improve data visualisation.

In Q3 2021, 61.4% of people with pulmonary TB started treatment within 4 months of symptom onset, compared to 61.1% in Q3 2020. This proportion will likely increase as some people in the most recent quarter are yet to begin treatment.

**Figure 8: Proportion of pulmonary TB notifications starting treatment within 4 months (symptom onset to treatment start) by PHE centre, Q4 2019 to Q3 2021**

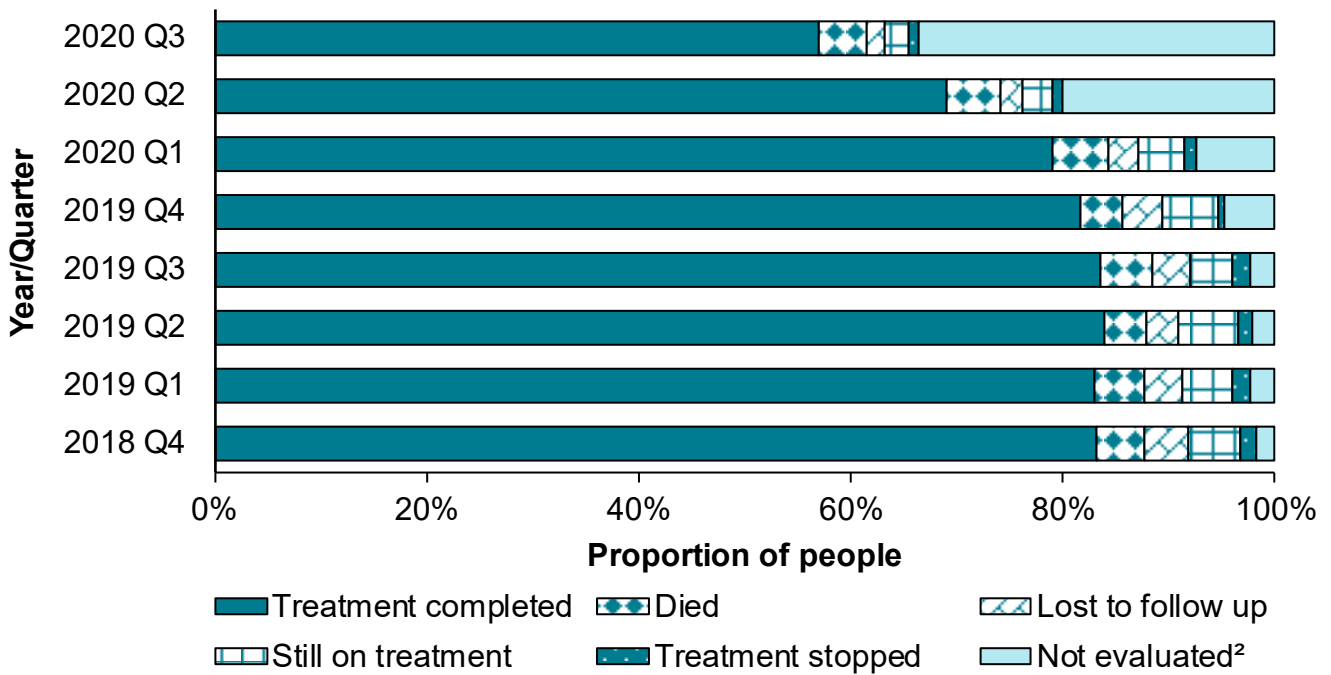


In Q3 2021, the proportion of people with TB who started treatment within 4 months of symptom onset in:

- London, the South West, East Midlands and North East was higher than in Q3 2020
- South East, Yorkshire and the Humber, West Midlands, North West and South West was lower than in Q3 2020

# Treatment outcomes

**Figure 9: Outcomes at 12 months for people with drug sensitive TB with expected treatment duration <12 months<sup>1</sup>, England, Q4 2018 to Q3 2021**



<sup>1</sup> Excludes people in the drug resistant cohort and those with CNS, spinal, miliary or cryptic disseminated TB

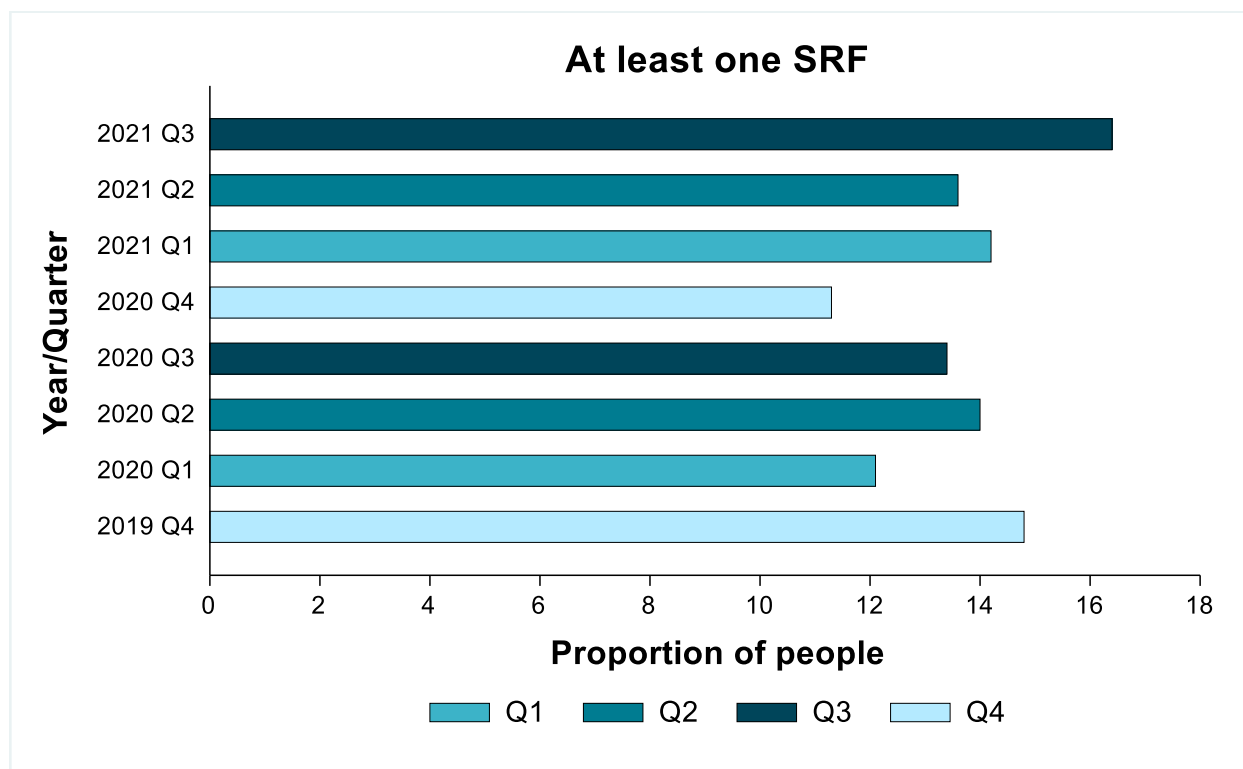
<sup>2</sup> Not evaluated includes unknown and transferred out

The proportion of people with drug sensitive TB (with an expected treatment duration of less than 12 months) who completed treatment at 12 months was 83.5% for people notified in Q3 2019.

Please note: the latest 3 quarters tend to show a high proportion of people with treatment outcomes recorded as “not evaluated” despite having started at least 12 months previously. This reflects a delay in reporting the final outcome. The proportion not evaluated is expected to decrease with time.

## Social risk factors

**Figure 10: Proportion of TB notifications (≥15 years) with social risk factors (SRF)<sup>a</sup>, England, Q4 2019 to Q3 2021**



<sup>a</sup> Note the axes on the figure for people with at least one SRF are different to that for individual SRFs due to the higher proportion of people with at least one SRF

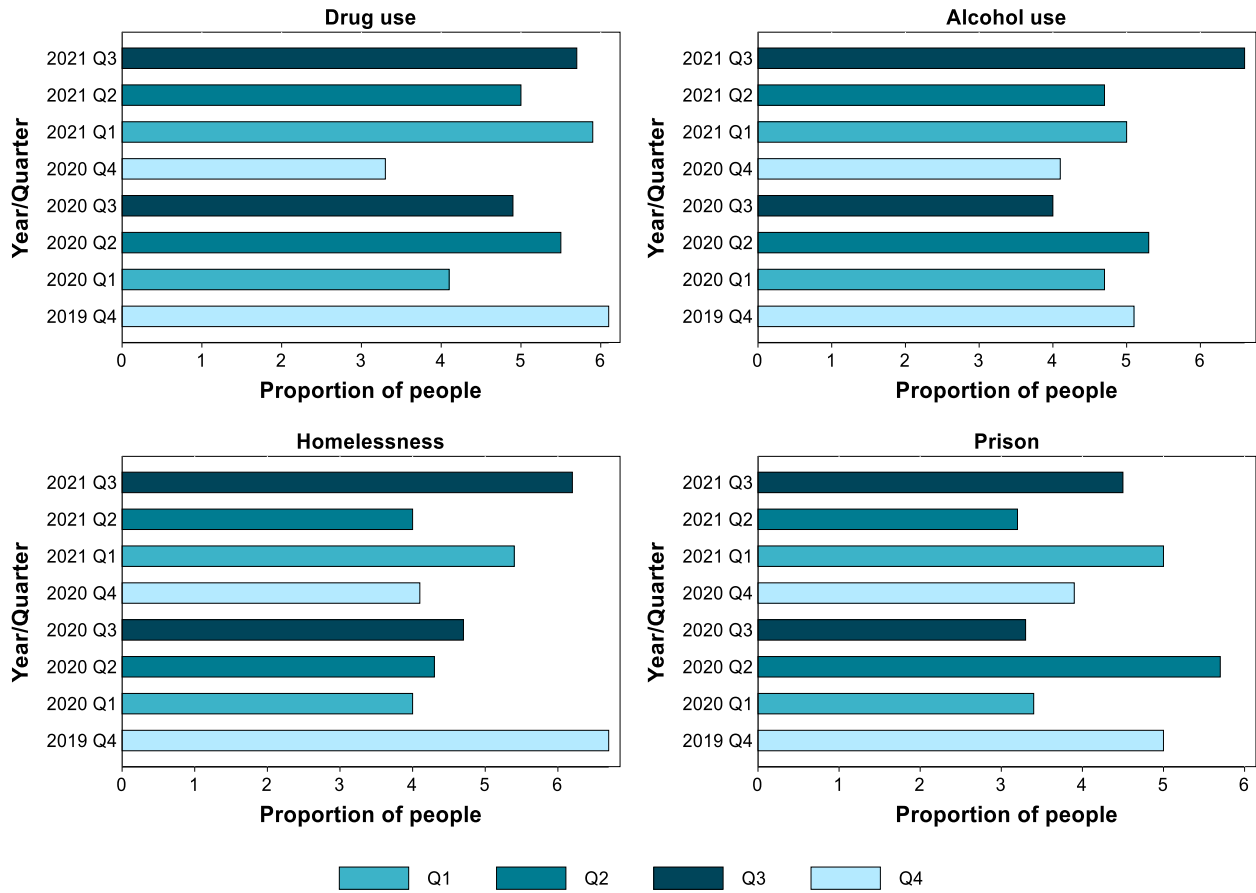
In Q3 2021, 16.4% of people with TB aged 15 years and older had at least one SRF, an increase from 13.4% in Q3 2020.

In Q3 2021, the proportion of people with TB with:

- current or a history of drug misuse was higher than in Q3 2020
- alcohol misuse was higher than in Q3 2020
- current or a history of homelessness was higher than in Q3 2020
- imprisonment was higher than in Q3 2020



**Figure 10: Proportion of TB notifications (≥15 years) with social risk factors, England, Q4 2019 to Q3 2021 continued**



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Published: October 2021  
Gateway number: GOV-10080



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