

Protecting and improving the nation's health

# **Tuberculosis in England**

National quarterly report: Q2 2020

1 April to 30 June 2020

Provisional data

# About Public Health England

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# Background

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

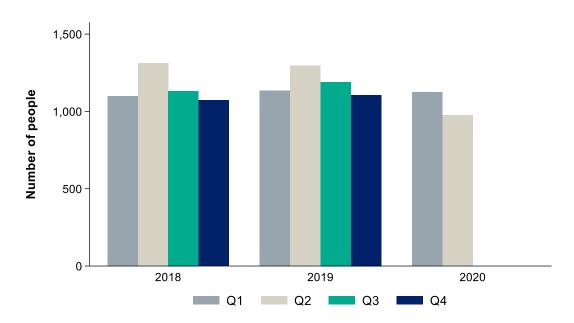
Detailed results for 2019 will be published in the annual report 'Tuberculosis in England: 2019 report' in 2020. The most recent annual report with data up to the end of 2018 is available here.

Please note data for 2019 and 2020 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

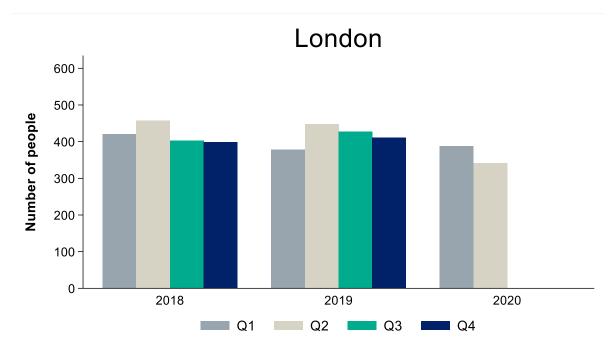
Figure 1: Number of TB notifications in England, Q1 2018 to Q2 2020



In the second quarter of 2020 (Q2 2020, 1 April to 30 June), 976 people were notified with TB in England. This is a 24.6% decrease compared to the same quarter in the previous year (Q2 2019: 1,295). 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 2018 to Q2 2020



<sup>&</sup>lt;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 Q2 2020, the number of people notified with TB in:

- all PHE Centres was lower than in Q2 2019
- the South West had the largest decline (47.9%) whilst the East of England had the smallest decline in numbers (5.6%) compared to Q2 2019

Figure 2: Number of TB notifications by PHE Centre, England, Q1 2018 to Q2 2020 continued

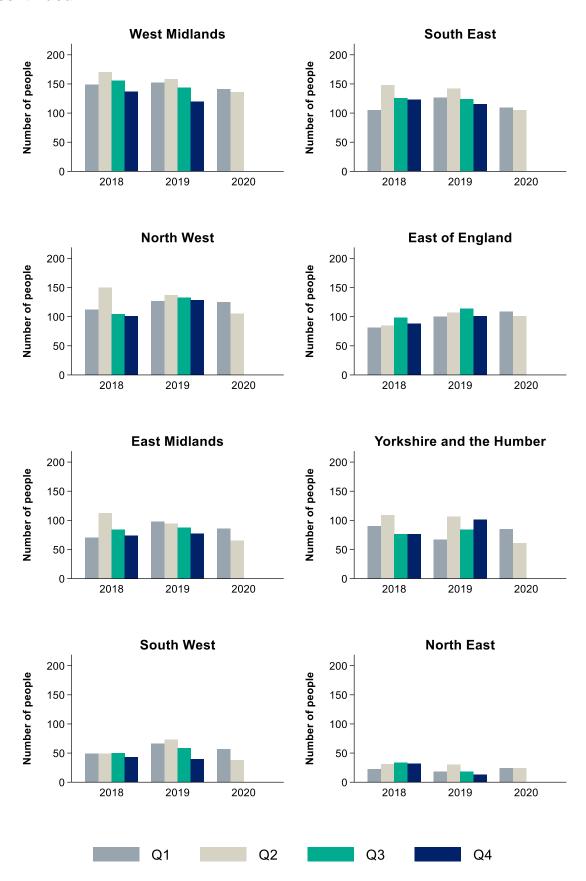


Table 1: Number of TB notifications by PHE Centre, England, Q1 2018 to Q2 2020

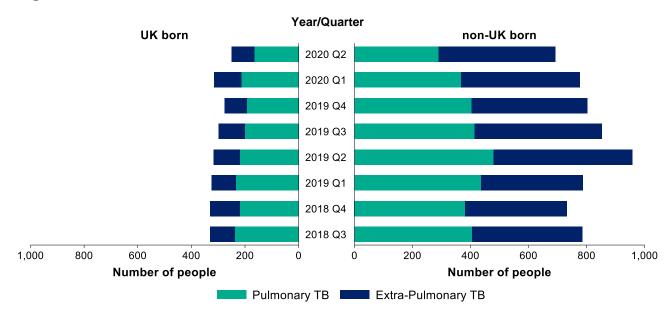
PHECa	2018				2019					2020			
PHEC	Q1	Q2	Q3 Q4		Total	Q1	Q2	Q3	Q4	Total	Q1	Q2 <sup>b</sup>	Total
London	420	457	403	399	1,679	379	448	427	411	1,665	388	341↓	729
West Midlands	149	170	156	137	612	152	158	144	120	574	141	136↓	277
South East	105	148	126	123	502	127	142	124	115	508	109	105↓	214
North West	112	150	104	101	467	127	137	133	128	525	125	105↓	230
East of England	81	85	98	88	352	100	107	114	101	422	109	101↓	210
East Midlands	70	112	84	74	340	98	94	87	77	356	86	65↓	151
Yorkshire and the Humber	90	109	76	76	351	67	106	84	101	358	85	61↓	146
South West	49	49	50	43	191	66	73	59	40	238	57	38↓	95
North East	23	31	34	32	120	18	30	18	13	79	24	24↓	48
England	1,099	1,311	1,131	1,073	4,614	1,134	1,295	1,190	1,106	4,725	1,124	976↓	2,100

<sup>&</sup>lt;sup>a</sup> Ordered by decreasing total number of people with TB in Q2 2020

b 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 Q2 2020 compared to Q2 2019

### Demographic and clinical characteristics

Figure 3: Number of TB notifications by place of birth and site of disease, England, Q3 2018 to Q2 2020

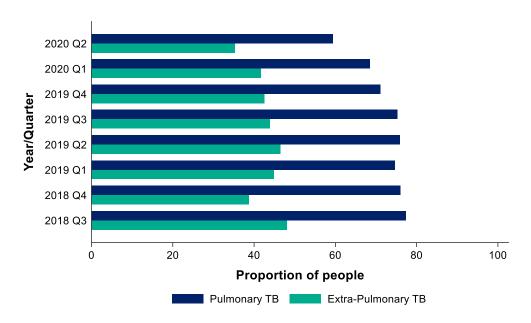


Compared with Q2 2019 (958), in Q2 2020 (693) there was a 27.7% decrease in the number of people notified with TB who were born outside the UK. Similarly, the number born in the UK decreased in the same time period (Q2 2019: 318, Q2 2020: 250, -21.4%).

In Q2 2020, the number of people with pulmonary TB accounted for 42.0% (410/976) of all people with TB, having decreased from 55.1% in Q2 2019 (714/1,295). For those born outside the UK, this proportion was 42.0% (291/693), whilst the proportion was much higher among people born in the UK (66.4%, 166/250).

#### Culture confirmation

Figure 4: Proportion of culture confirmation among TB notifications by site of disease, England, Q3 2018 to Q2 2020



Among people with pulmonary TB, the proportion who were culture confirmed decreased from 74.6% in Q1 2019 to 68.5% in Q1 2020. The proportion with culture confirmed extra-pulmonary TB also decreased in the same time period (Q1 2019: 44.9%, Q1 2020: 41.7%).

Please note: Q1 2020 is being compared as the number for Q2 2020 will likely increase as final results for cultures may not yet be available.

In Q1 2020, the largest changes in the proportion of people with culture confirmation for:

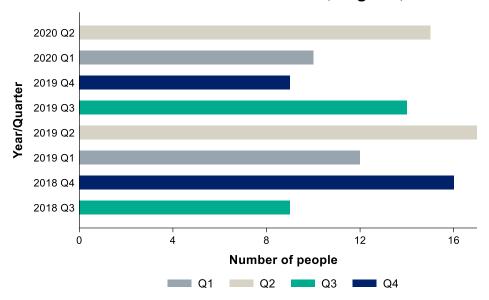
- pulmonary TB were seen in the West Midlands, being higher than in Q1 2019
- pulmonary TB were seen in the East of England and the South East, being lower than in Q1 2019
- extra-pulmonary TB were seen in the North West, being higher than in Q1 2019
- extra-pulmonary TB were seen in Yorkshire and the Humber and the South East, being lower than in Q1 2019

**South East West Midlands** London 2020 Q2 2020 Q2 2020 Q2 2020 Q1 2020 Q1 2020 Q1 Year/Quarter Year/Quarter Year/Quarter 2019 Q4 2019 Q4 2019 Q4 2019 Q3 2019 Q3 2019 Q3 2019 Q2 2019 Q2 2019 Q2 2019 Q1 2019 Q1 2019 Q1 2018 Q4 2018 Q4 2018 Q4 2018 Q3 2018 Q3 2018 Q3 0 20 40 60 80 100 0 20 40 60 80 100 0 20 40 60 80 100 Proportion of people Proportion of people Proportion of people **East of England North West East Midlands** 2020 Q2 2020 Q2 2020 Q2 2020 Q1 2020 Q1 2020 Q1 Year/Quarter Year/Quarter 2019 Q4 2019 Q4 2019 Q4 2019 Q3 2019 Q3 2019 Q3 2019 Q2 2019 Q2 2019 Q2 2019 Q1 2019 Q1 2019 Q1 2018 Q4 2018 Q4 2018 Q4 2018 Q3 2018 Q3 2018 Q3 0 20 40 60 80 100 0 20 40 60 80 100 0 20 40 60 80 100 Proportion of people Proportion of people Proportion of people Yorkshire and the Humber **South West** North East 2020 Q2 2020 Q2 2020 Q2 2020 Q1 2020 Q1 2020 Q1 Year/Quarter Year/Quarter Year/Quarter 2019 Q4 2019 Q4 2019 Q4 2019 Q3 2019 Q3 2019 Q3 2019 Q2 2019 Q2 2019 Q2 2019 Q1 2019 Q1 2019 Q1 2018 Q4 2018 Q4 2018 Q4 2018 Q3 2018 Q3 2018 Q3 20 40 60 80 100 20 40 60 80 100 20 40 60 80 100 0 0 0 Proportion of people Proportion of people Proportion of people Pulmonary TB Extra-Pulmonary TB

Figure 5: Proportion of culture confirmation among TB notifications by site of disease and PHE Centre, Q3 2018 to Q2 2020

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

Figure 6: Number of TB notifications with MDR/RR-TB, England, Q3 2018 to Q2 2020

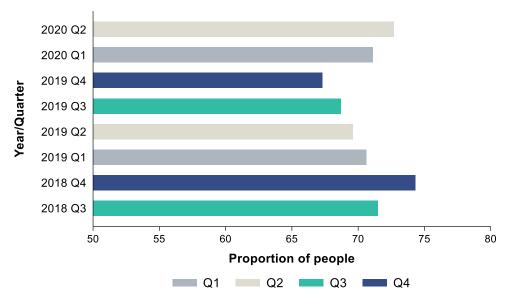


<sup>&</sup>lt;sup>a</sup> Note figure displays numbers rather than proportions due to low number of MDR/RR-TB notifications.

There were 15 people notified in Q2 2020 with confirmed MDR/RR-TB. Overall, 52 people were notified with MDR/RR-TB in 2019, compared to 46 in the previous year. Numbers may increase as final results for cultures in the most recent quarters may not yet be available.

## Treatment delays

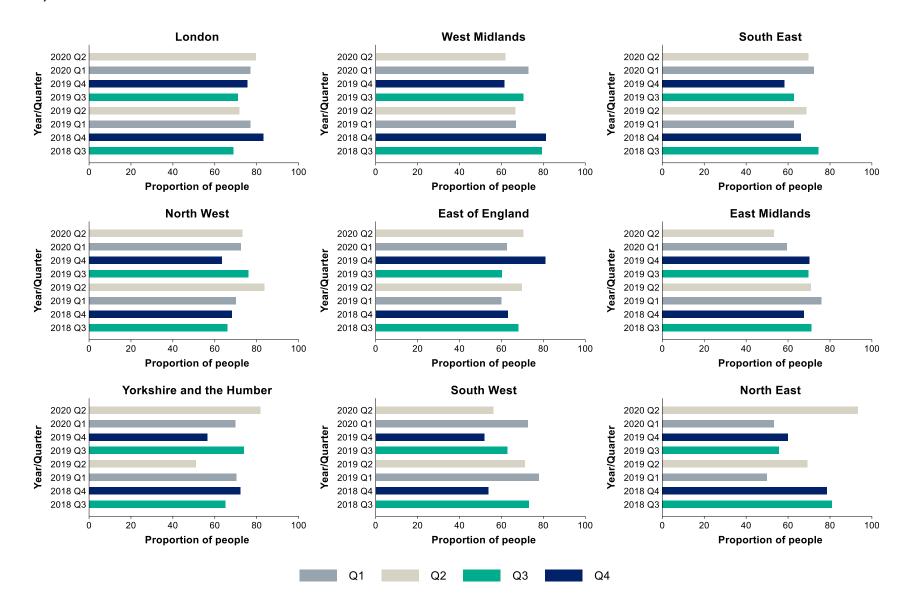
Figure 7: Proportion<sup>a</sup> of pulmonary TB notifications starting treatment within 4 months (symptom onset to treatment start), England, Q3 2018 to Q2 2020



<sup>&</sup>lt;sup>a</sup> Note x-axis is not scaled to start at zero in order to more clearly visualise changes in proportions.

In Q2 2020, 72.7% of people with pulmonary TB started treatment within 4 months of symptom onset, compared to 69.6% in Q2 2019. 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, Q3 2018 to Q2 2020

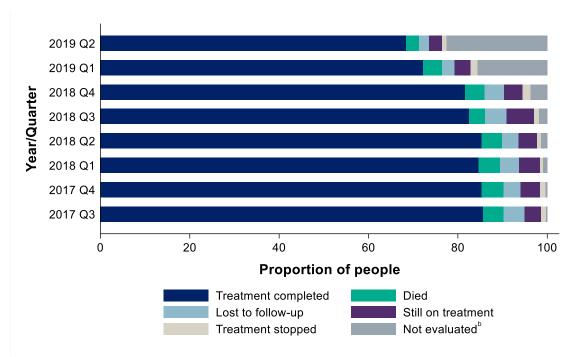


In Q2 2020, the proportion of people with TB who started treatment within 4 months of symptom onset in:

- the East Midlands, South West and North West was significantly higher than in Q2 2019
- Yorkshire and the Humber and North East was significantly lower than in Q2 2019

#### Treatment outcomes

Figure 9: Outcomes at 12 months for people with drug sensitive TB with expected treatment duration <12 months<sup>a</sup>, England, Q3 2017 to Q2 2019



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

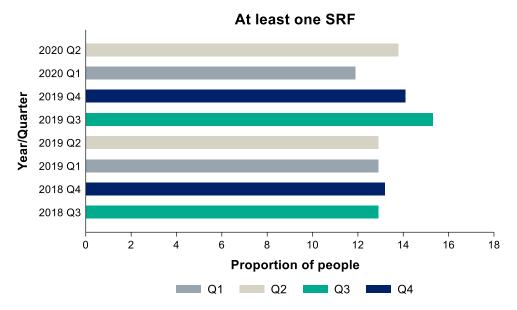
The proportion of people with drug sensitive TB (with an expected treatment duration of less than 12 months) who completed treatment at 12 months was 85.3% for people notified in Q2 2018.

Please note: the latest three quarters 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.

<sup>&</sup>lt;sup>b</sup> Not evaluated includes unknown and transferred out

#### Social risk factors

Figure 10: Proportion of TB notifications (≥15 years) with social risk factors (SRF), England, Q3 2018 to Q2 2020



<sup>&</sup>lt;sup>a</sup> Note the axes on the figure for people with at least 1 SRF are different to that for individual SRFs due to the higher proportion of people with at least 1 SRF.

In Q2 2020, 13.8% of people with TB aged 15 years and older had at least 1 SRF, an increase from 12.9% in Q2 2019.

In Q2 2020, the proportion of people with TB with:

- current or a history of drug misuse was higher than in Q2 2019
- alcohol misuse was higher than in Q2 2019
- current or a history of homelessness was lower than in Q2 2019
- imprisonment was higher than in Q2 2019

Figure 10: Proportion of TB notifications (≥15 years) with social risk factors, England, Q3 2018 to Q2 2020 continued

