

Protecting and improving the nation's health

Tuberculosis in England

National quarterly report: Q1 2020

1 January to 31 March 2020

Provisional data

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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Background

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

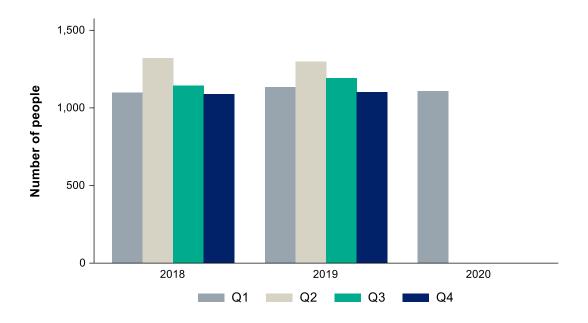
Detailed results for 2019 will be published in the annual report 'Tuberculosis in England: 2019 report' in 2020. The most recent annual report with data up to the end of 2018 is available here.

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 Q1 2020



In the first quarter of 2020 (Q1 2020, 1 January to 31 March), 1,107 people were notified with TB in England. This is a 2.4% decrease compared to the same quarter in the previous year (Q1 2019: 1,134). 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^a, England, Q1 2018 to Q1 2020

In Q1 2020, the number of people notified with TB in:

- West Midlands, South East, East Midlands and South West PHE Centres was lower than in Q1 2019
- London, East of England, Yorkshire and the Humber and North East PHE Centres was higher than in Q1 2019
- North West PHE Centre was the same as in Q1 2019

^a 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.

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

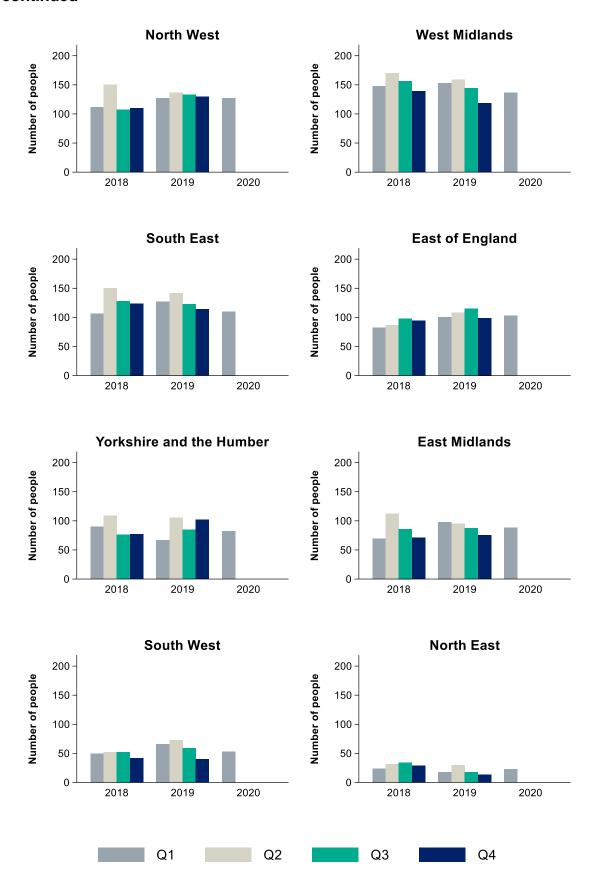


Table 1: Number of TB notifications by PHE Centre, England, Q1 2018 to Q1 2020

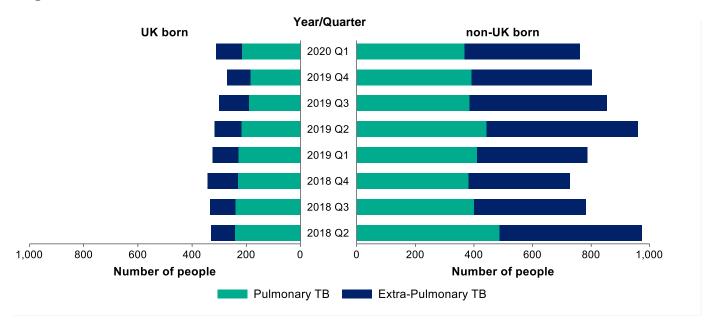
PHEC ^a	2018				2019					2020	
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1 ^b
London	419	460	408	404	1,691	379	448	429	411	1,667	385 ↑
West Midlands	148	170	156	139	613	153	159	144	119	575	137 ↓
North West	112	150	107	110	479	127	137	133	130	527	127 -
South East	106	150	128	124	508	127	142	123	114	506	110 ↓
East of England	82	87	98	94	361	100	108	115	99	422	103 ↑
East Midlands	69	112	86	70	337	98	95	87	75	355	88 🗸
Yorkshire and the Humber	90	109	76	77	352	67	105	85	102	359	81 🛧
South West	49	52	52	42	195	66	73	59	40	238	53 ↓
North East	24	31	34	29	118	17	30	18	13	78	23 🛧
England	1,099	1,321	1,145	1,089	4,654	1,134	1,297	1,193	1,103	4,727	1,107 ↓

^a Ordered by decreasing total number of people with TB in Q1 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 Q1 2020 compared to Q1 2019

Demographic and clinical characteristics

Figure 3: Number of TB notifications by place of birth and site of disease, England, Q2 2018 to Q1 2020

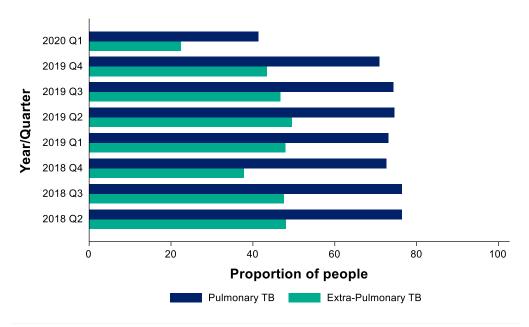


Compared with Q1 2019 (787), in Q1 2020 (761) there was a 3.3% decrease in the number of people notified with TB who were born outside the UK. Similarly, the number born in the UK decreased in the same time period (Q1 2019: 325, Q1 2020: 310, -4.6%).

In Q1 2020, the number of people with pulmonary TB accounted for 54.4% (583/1,071) of all people with TB, having decreased from 57.6% in Q1 2019 (640/1,112). For those born outside the UK, this proportion was 48.4% (368/761), whilst the proportion was much higher among people born in the UK (69.4%, 215/310).

Culture confirmation

Figure 4: Proportion of culture confirmation among TB notifications by site of disease, England, Q2 2018 to Q1 2020



Among people with pulmonary TB, the proportion who were culture confirmed decreased from 72.6% in Q4 2018 to 70.9% in Q4 2019. The proportion with culture confirmed extra-pulmonary TB substantially increased in the same time period (Q4 2018: 37.8%, Q4 2019: 43.4%).

Please note: Q4 2019 is being compared as the number for Q1 2020 will likely increase as final results for cultures may not yet be available.

In Q4 2019, the largest changes in the proportion of people with culture confirmation for:

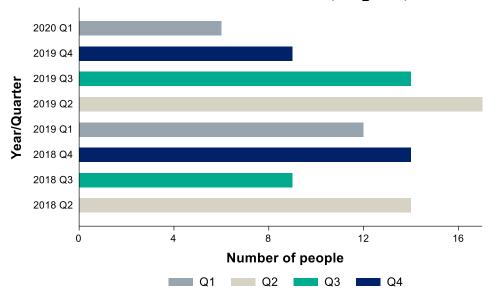
- pulmonary TB were seen in the South West and East of England, being higher than in Q4 2018
- pulmonary TB were seen in the Yorkshire and the Humber and the South East being lower than in Q4 2018
- extra-pulmonary TB were seen in the East of England and East Midlands, being higher than in Q4 2018
- extra-pulmonary TB were seen in the South West, being lower than in Q4 2018

London **North West West Midlands** 2020 Q1 2020 Q1 2020 Q1 2019 Q4 2019 Q4 2019 Q4 Year/Quarter Year/Quarter 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 2018 Q2 2018 Q2 2018 Q2 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 South East** Yorkshire and the Humber 2020 Q1 2020 Q1 2020 Q1 2019 Q4 2019 Q4 2019 Q4 Year/Quarter Year/Quarter 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 2018 Q2 2018 Q2 2018 Q2 2018 Q1 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 Midlands South West North East** 2020 Q1 2020 Q1 2020 Q1 2019 Q4 2019 Q4 2019 Q4 Year/Quarter Year/Quarter 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 2018 Q2 2018 Q2 2018 Q2 0 20 40 60 80 100 20 40 60 80 100 20 40 60 80 100 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, Q2 2018 to Q1 2020

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

Figure 6: Number of TB notifications with MDR/RR-TB, England, Q2 2018 to Q1 2020

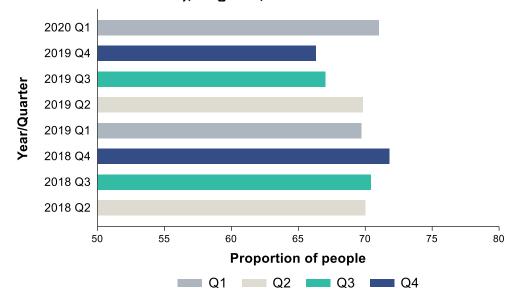


^a Note figure displays numbers rather than proportions due to low number of MDR/RR-TB notifications.

There were 6 people notified in Q1 2020 who were confirmed to have MDR/RR-TB. Overall, 52 people were notified with MDR/RR-TB in 2019, compared to 44 in the previous year. Numbers may increase as final results for cultures in the most recent quarters may not yet be available.

Treatment delays

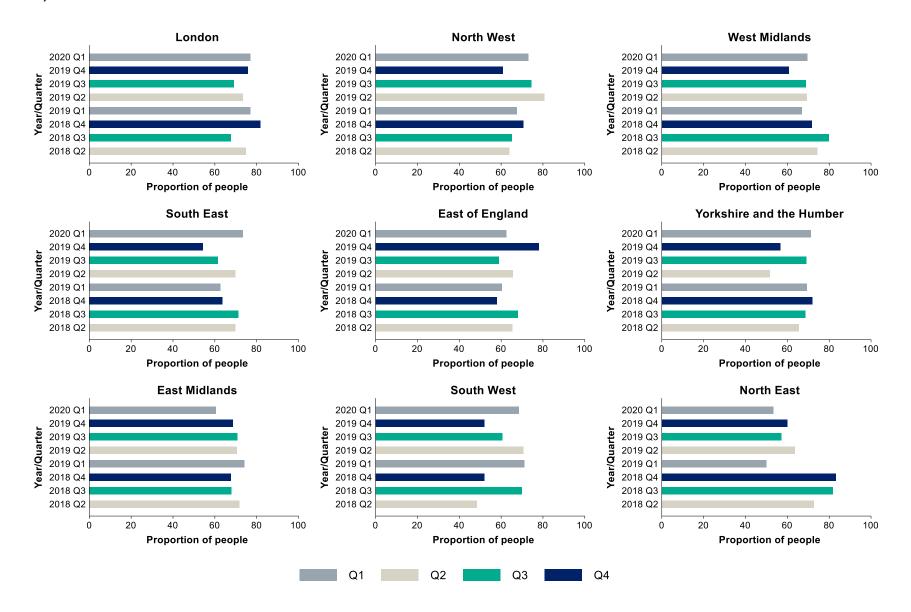
Figure 7: Proportion^a of pulmonary TB notifications starting treatment within 4 months (symptom onset to treatment start), England, Q2 2018 to Q1 2020



^a Note x-axis is not scaled to start at zero in order to more clearly visualise changes in proportions.

In Q1 2020, 71.0% of people with pulmonary TB started treatment within 4 months of symptom onset, compared to 69.7% in Q1 2019. This proportion will likely increase as some people in the most recent guarter 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, Q2 2018 to Q1 2020

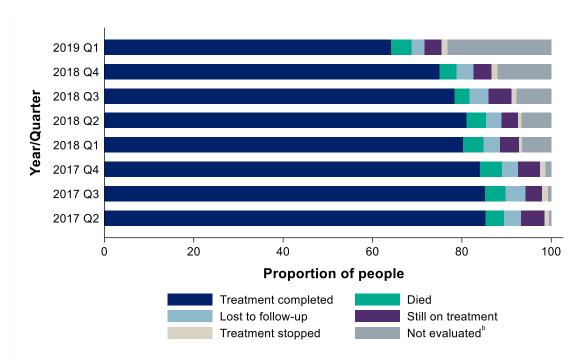


In Q1 2020, the proportion of people with TB who started treatment within 4 months of symptom onset in:

- the East Midlands and South West was higher than in Q1 2019
- the South East, North West, North East, West Midlands and East of England was lower than in Q1 2019

Treatment outcomes

Figure 9: Outcomes at 12 months for people with drug sensitive TB with expected treatment duration <12 months^a, England, Q2 2017 to Q1 2019



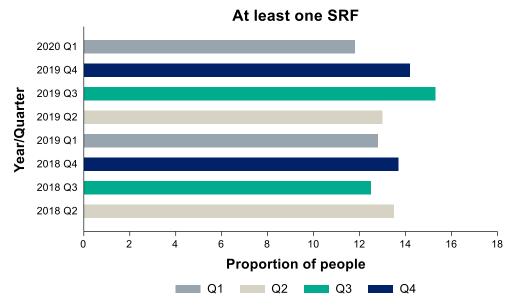
^a Excludes people in the drug resistant cohort and those with CNS, spinal, miliary or cryptic disseminated TB ^b Not evaluated includes unknown and transferred out

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 80.3% for people notified in Q1 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.

Social risk factors

Figure 10: Proportion of TB notifications (≥15 years) with social risk factors (SRF), England, Q2 2018 to Q1 2020



^a 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 Q1 2020, 11.8% of people with TB aged 15 years and older had at least 1 SRF, a decrease from 12.8% in Q1 2019.

In Q1 2020, the proportion of people with TB with:

- current or a history of drug misuse was lower than in Q1 2019
- alcohol misuse was higher than in Q1 2019
- current or a history of homelessness was lower than in Q1 2019
- imprisonment was higher than in Q1 2019

Figure 10: Proportion of TB notifications (≥15 years) with social risk factors, England, Q2 2018 to Q1 2020 continued

