

Protecting and improving the nation's health

Tuberculosis in England national quarterly report: Q4 2019

1 October to 31 December 2019

Provisional data

About Public Health England

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Background

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

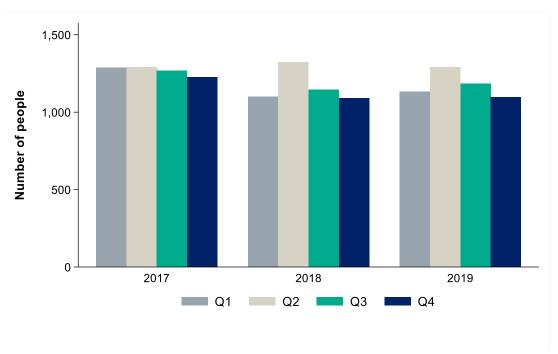
Detailed results for 2019 will be published in the annual report 'Tuberculosis in England: 2019 report' in 2020. The most recent annual report with data up to the end of 2018 is available here.

Please note data for 2019 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 2017 to Q4 2019



In the fourth quarter of 2019 (Q4 2019, 1 October to 31 December), 1,098 people were notified with TB in England. This is a 0.7% increase compared to the same quarter in the previous year (Q4 2018: 1,090). Overall, 4,704 people were notified with TB during 2019, an increase compared to the previous year (2018: 4,655, +1.1%). Exact numbers are shown in Table 1.

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

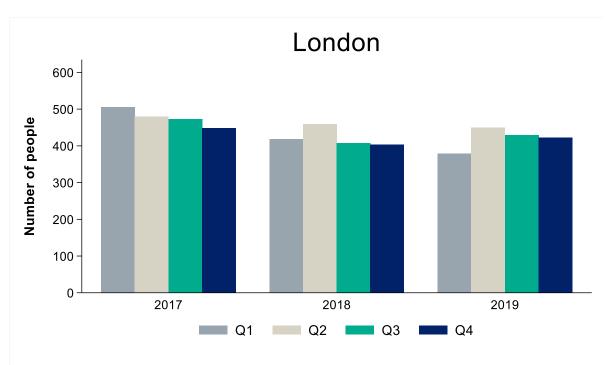


Figure 2: Number of TB notifications by PHE Centre^a, England, Q1 2017 to Q4 2019

In Q4 2019, the number of people notified with TB in:

- West Midlands, South East, East Midlands, South West and North East PHE Centres was lower than in Q4 2018
- London, North West, East of England and Yorkshire and the Humber PHE Centres was higher than in Q4 2018

Overall, in 2019, the number of people notified with TB increased in the South West (+20.0%), East of England (+17.2%), North West (+9.8%) and East Midlands (+2.1%) PHE Centres, compared to the previous year.

^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 2017 to Q4 2019 continued

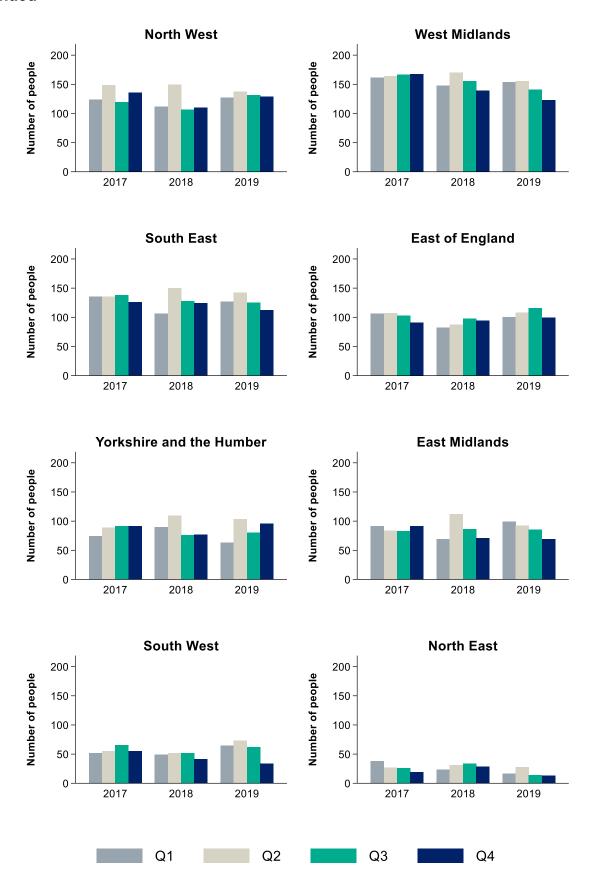


Table 1: Number of TB notifications by PHE Centre, England, Q1 2017 to Q4 2019

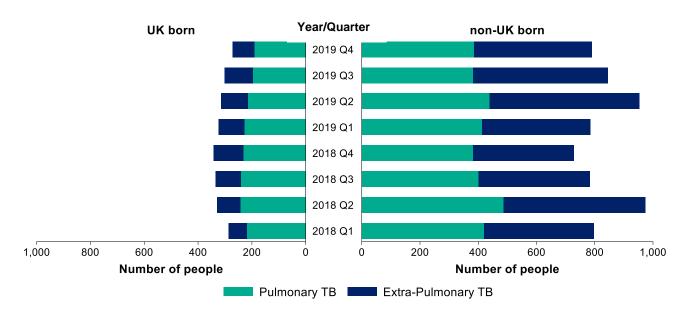
DUE Occurs	2017				2018				2019						
PHE Centre ^a	Q1	Q2	Q2 Q3		Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
London	506	480	473	448	1,907	419	460	408	404	1,691	379	450	430	423	1,682↓
North West	124	149	120	136	529	112	150	107	110	479	127	138	132	129	526↑
West Midlands	162	164	167	168	661	148	170	156	139	613	154	156	141	123	574↓
South East	135	135	138	126	534	106	150	128	124	508	127	142	125	112	506↓
East of England	106	107	103	91	407	82	87	98	94	361	100	108	116	99	423↑
Yorkshire and the Humber	74	89	91	91	345	90	109	76	77	352	63	103	80	96	342↓
East Midlands	91	84	83	91	349	69	112	86	71	338	99	92	85	69	345↑
South West	52	55	66	55	228	49	52	52	42	195	65	73	62	34	234↑
North East	38	27	26	19	110	24	31	34	29	118	17	28	14	13	72↓
England	1,288	1,290	1,267	1,225	5,070	1,099	1,321	1,145	1,090	4,655	1,131	1,290	1,185	1,098	4,704↑

^a Ordered by decreasing total number of people with TB in Q4 2019

^b Arrows show whether there has been a decrease (↓), an increase (↑) or no change (−) in the total number of people notified with TB in each PHE Centre in 2019 compared to 2018

Demographic and clinical characteristics

Figure 3: Number of TB notifications by place of birth and site of disease, England, Q1 2018 to Q4 2019

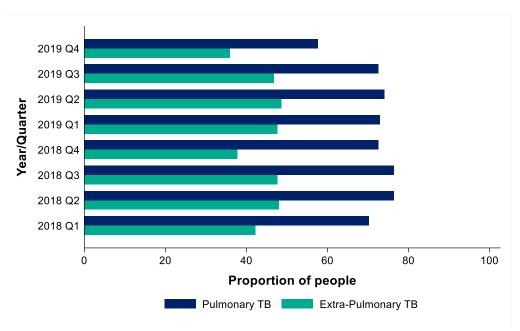


Compared with Q4 2018 (728), in Q4 2019 (792) there was a 8.8% increase in the number of people notified with TB who were born outside the UK. Conversely, the number born in the UK decreased in the same time period (Q4 2018: 344, Q4 2019: 273, -20.6%).

In Q4 2019, the number of people with pulmonary TB accounted for 53.9% (592/1,098) of all people with TB, having decreased from 57.0% in Q4 2018 (621/1,090). For those born outside the UK, this proportion was 48.8% (386/791), whilst the proportion was much higher among people born in the UK (70.2%, 191/272).

Culture confirmation

Figure 4: Proportion of culture confirmation among TB notifications by site of disease, England, Q1 2018 to Q4 2019



Among people with pulmonary TB, the proportion who were culture confirmed decreased from 76.4% in Q3 2018 to 72.6% in Q3 2019. The proportion with culture confirmed extra-pulmonary TB remained stable in the same time period (Q3 2018: 47.6%, Q3 2019: 46.8%).

Please note: Q3 2019 is being compared as the number for Q4 2019 will likely increase as final results for cultures may not yet be available.

In Q3 2019, the largest changes in the proportion of people with culture confirmation for:

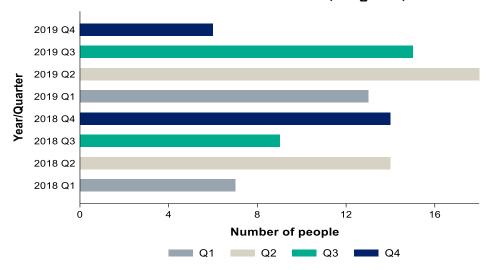
- pulmonary TB were seen in the North East and West Midlands, being higher than in Q3 2018
- pulmonary TB were seen in the North West, East of England amd Yorkshire and the Humber being lower than in Q3 2018
- extra-pulmonary TB were seen in the South West and South East, being higher than in Q3 2018
- extra-pulmonary TB were seen in the East of England and Yorkshire and the Humber, being lower than in Q3 2018

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

Figure 5: Proportion of culture confirmation among TB notifications by site of disease and PHE Centre, Q1 2018 to Q4 2019

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

Figure 6: Number of TB notifications with MDR/RR-TB, England, Q1 2018 to Q4 2019

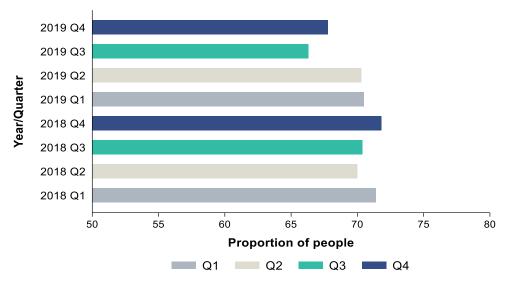


^a Note figure displays numbers rather than proportions due to low number of MDR/RR-TB notifications.

There were 6 people notified in Q4 2019 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

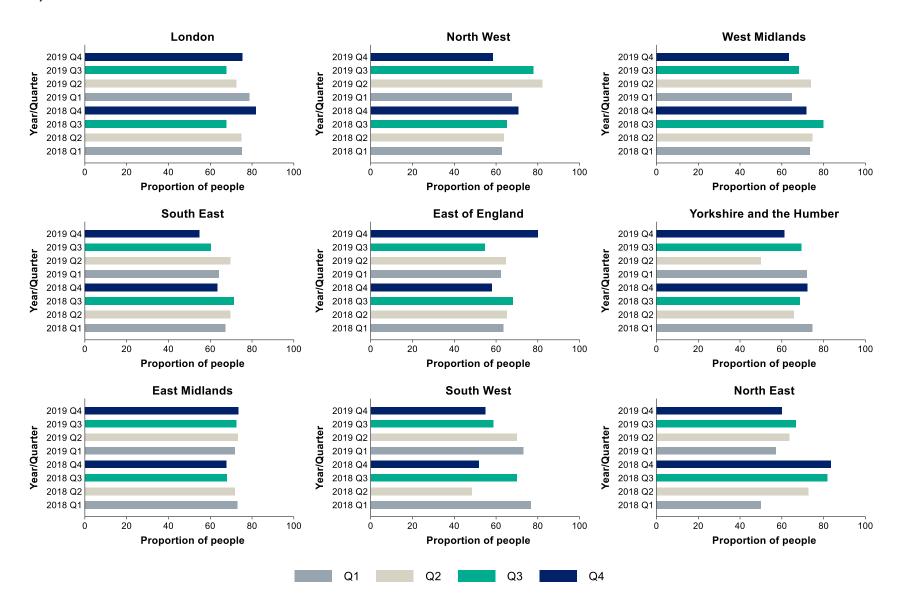
Figure 7: Proportion^a of pulmonary TB notifications starting treatment within 4 months (symptom onset to treatment start), England, Q1 2018 to Q4 2019



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

In Q4 2019, 67.8% of people with pulmonary TB started treatment within 4 months of symptom onset, compared to 71.8% in Q4 2018. 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, Q1 2018 to Q4 2019

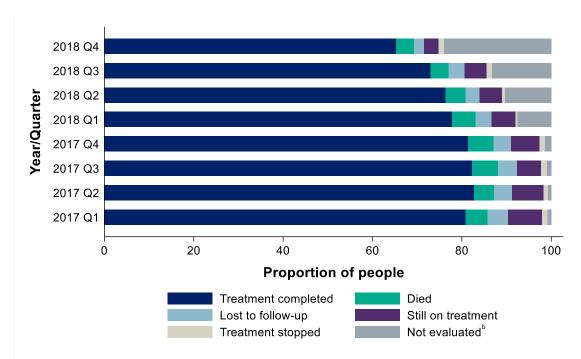


In Q4 2019, the proportion of people with TB who started treatment within 4 months of symptom onset in:

- the East of England and East Midlands was higher than in Q4 2018
- the North East, North West, West Midlands, South East and Yorkshire and the Humber was markedly lower than in Q4 2018

Treatment outcomes

Figure 9: Outcomes at 12 months for people with drug sensitive TB with expected treatment duration <12 months^a, England, Q1 2017 to Q4 2018



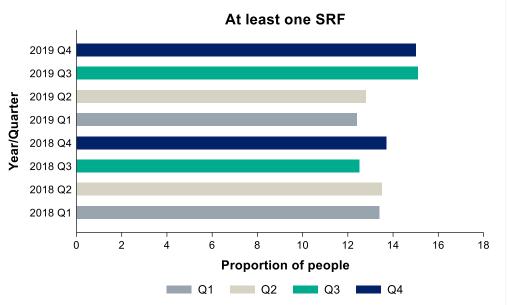
^a Excludes people in the drug resistant cohort and those with CNS, spinal, miliary or cryptic disseminated TB ^b Not evaluated includes unknown and transferred out

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 81.3% for people notified in Q4 2017.

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, Q1 2018 to Q4 2019



^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 Q3 2019, 15.0% of people with TB aged 15 years and older had at least 1 SRF, an increase from 13.7% in Q4 2018, and the second highest quarterly proportion since data collection began in 2010.

In Q4 2019, the proportion of people with TB with:

- current or a history of drug misuse was higher than in Q4 2018
- alcohol misuse was lower than in Q4 2018
- current or a history of homelessness was higher than in Q4 2018
- imprisonment was higher than in Q3 2018

Figure 10: Proportion of TB notifications (≥15 years) with social risk factors, England, Q1 2018 to Q4 2019 continued

