



Public Health
England

Protecting and improving the nation's health

National Quarterly Report of Tuberculosis in England

Quarter 4 2018 (1 October to 31 December)
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, 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

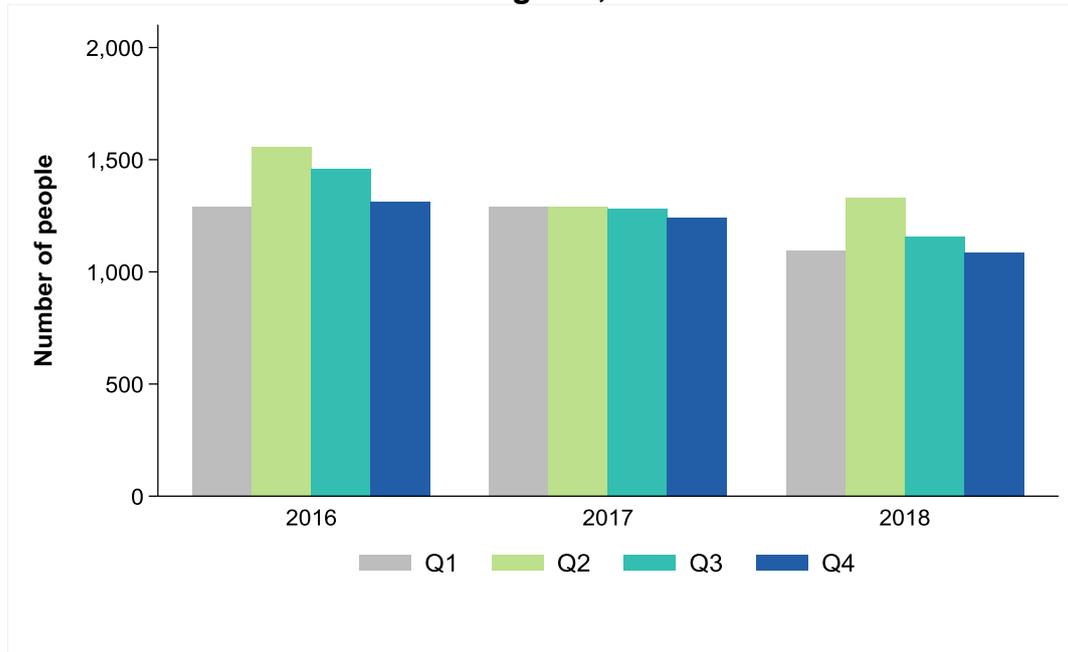
This report presents quarterly data on tuberculosis (TB) case notifications and rates in England. Detailed results for 2018 will be published in the annual report 'Tuberculosis in England' later in 2019. The most recent annual report with data up to the end of 2017 is available [here](#).

Please note data for 2018 are provisional and may be different to that presented in the 2019 TB annual Official Statistics and annual report for which data are cleaned and validated. Rates for 2018 have been calculated using the Office for National Statistics' (ONS) 2017 mid-year population estimates as figures for 2018 have yet to be published.

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, rates and geographical distribution

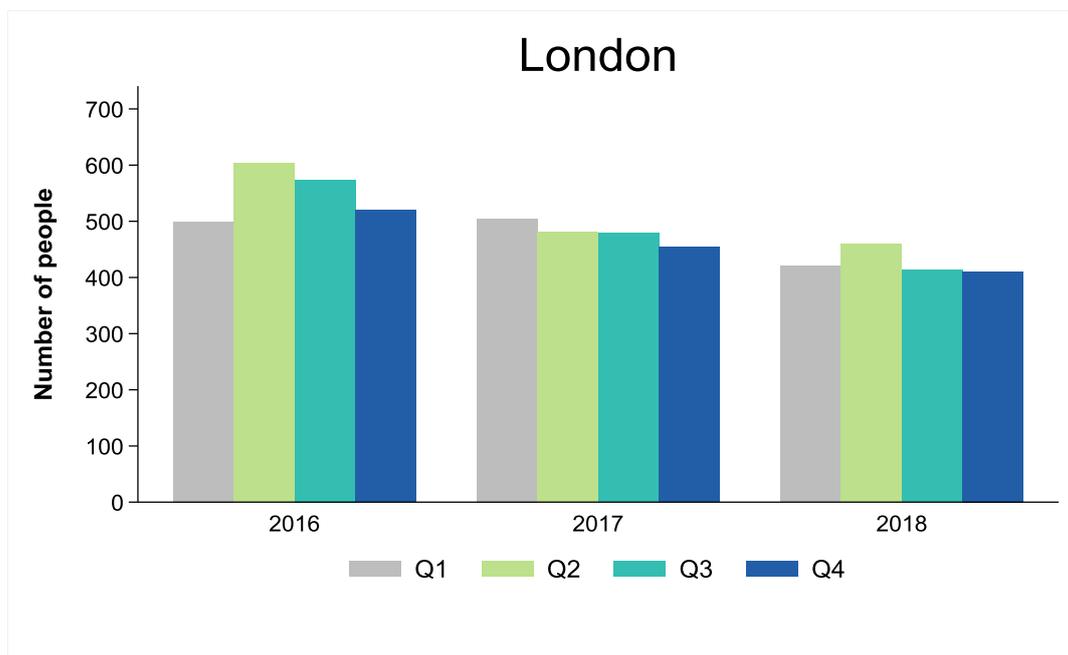
Figure 1: Number of TB notifications in England, Q1 2016 – Q4 2018



In the fourth quarter of 2018 (Q4, 1 October to 31 December), 1,085 people were notified with TB in England. This is a 12.4% decrease in the number compared to Q4 2017. Exact numbers are shown in Table 1 on page 8.

Note that 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 2016 - Q4 2018



^a Note the axes on the London figure are different to that of the other PHECs due to the higher number and rate of TB notifications in London.

In 2018, the number of people notified with TB in:

- the West Midlands, North West, Yorkshire and the Humber, East Midlands, South West and London was lower in Q4 than in Q4 2017
- the East of England and North East was higher in Q4 than in Q4 2017
- the South East in Q4 was the same as in Q4 2017

Figure 2: Number of TB notifications by PHE Centre, England, Q1 2016 - Q4 2018 continued

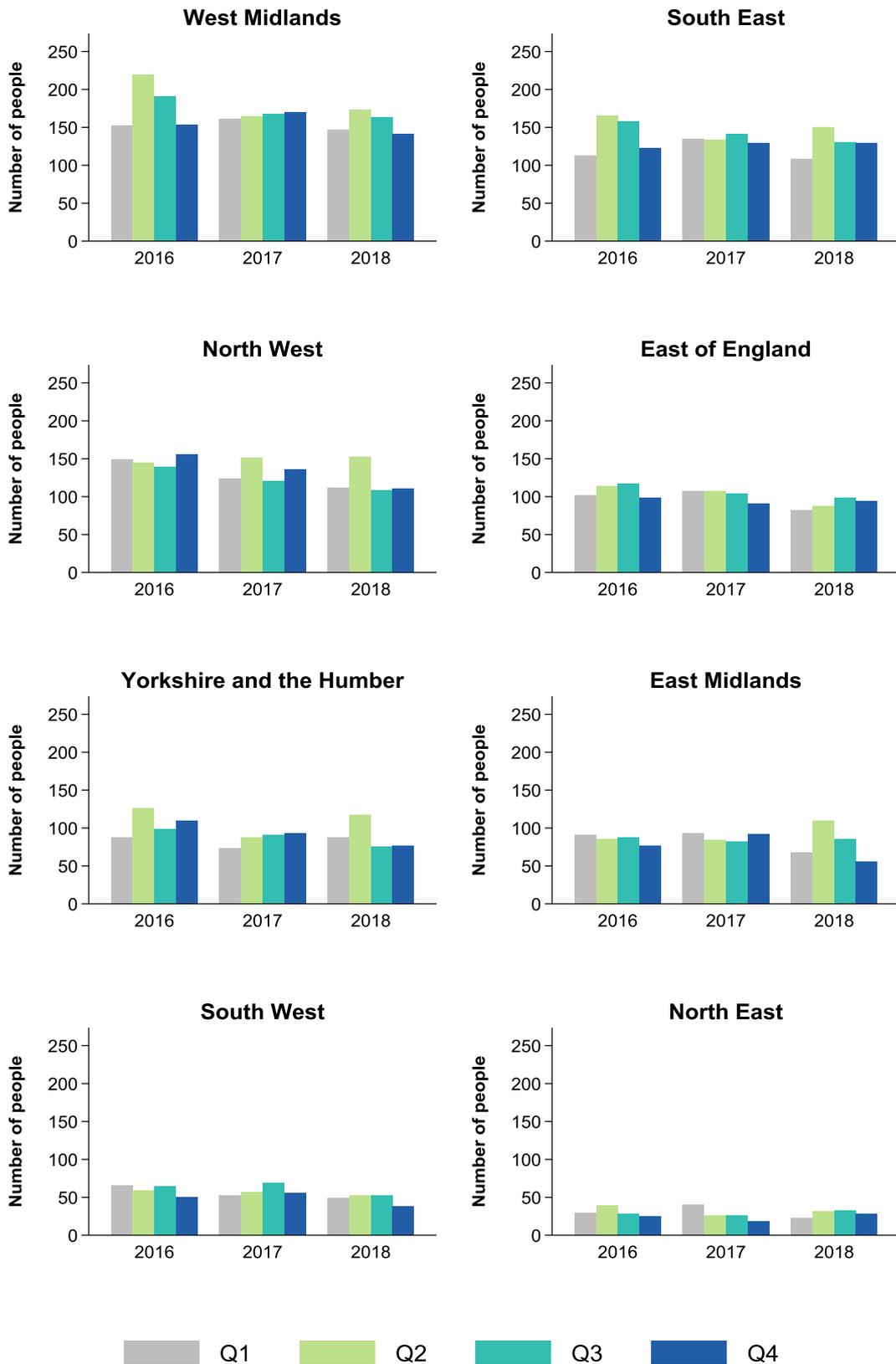


Table 1: Number of TB notifications by PHE Centre, England, Q1 2016 - Q4 2018

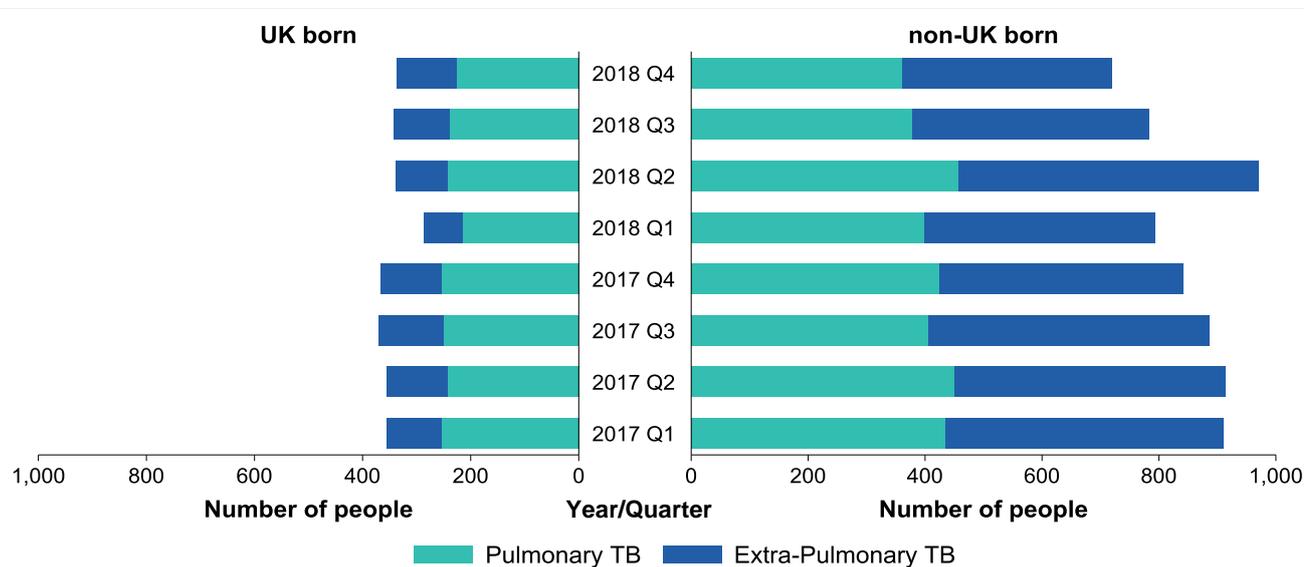
PHEC ^a	2016				2017				2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4 ^b
London	499	603	574	520	505	481	479	454	420	459	413	411 ↓
West Midlands	152	220	191	154	161	164	168	170	147	173	163	141 ↓
South East	113	166	158	123	135	134	141	129	108	150	130	129 -
North West	149	145	139	156	124	151	121	136	112	152	108	111 ↓
East of England	102	114	117	99	107	107	104	91	82	88	98	94 ↑
Yorkshire and the Humber	87	126	98	110	73	88	91	93	87	117	75	77 ↓
East Midlands	91	85	88	77	93	84	82	92	68	109	85	56 ↓
South West	66	59	64	50	52	57	69	56	49	52	52	38 ↓
North East	29	39	28	25	40	26	26	18	23	31	32	28 ↑
England	1,288	1,557	1,457	1,314	1,290	1,292	1,281	1,239	1,096	1,331	1,156	1,085 ↓

^a Ordered by decreasing total number of people with TB in Q4 2018.

^b Arrows show whether there has been a decrease (↓), an increase (↑) or no change (-) in the number of people notified with TB in each PHEC in Q4 2018 compared to Q4 2017.

Demographic and clinical characteristics

Figure 3: Number of TB notifications by place of birth and site of disease, England, Q1 2017 - Q4 2018

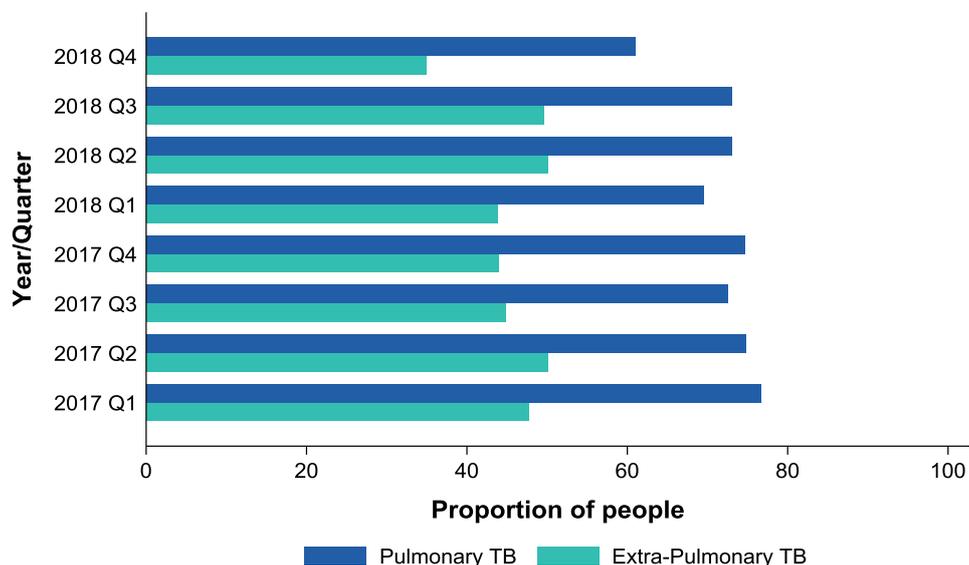


Compared with Q4 2017 (843), in Q4 2018 (721) there was a 14.5% decrease in the number of people notified with TB who were born outside the UK. Conversely, the number born in the UK decreased by 8.4% in the same time period (Q4 2017: 369, Q4 2018: 338).

In Q4 2018, the number of people with pulmonary TB accounted for 55.0% (597/1,085) of all people with TB. For those born outside the UK, this proportion was 50.1% (361/721), whilst the proportion was much higher among people born in the UK (66.9%, 226/338).

Culture confirmation

Figure 4: Proportion of culture confirmation among TB notifications by site of disease, England, Q1 2017 - Q4 2018

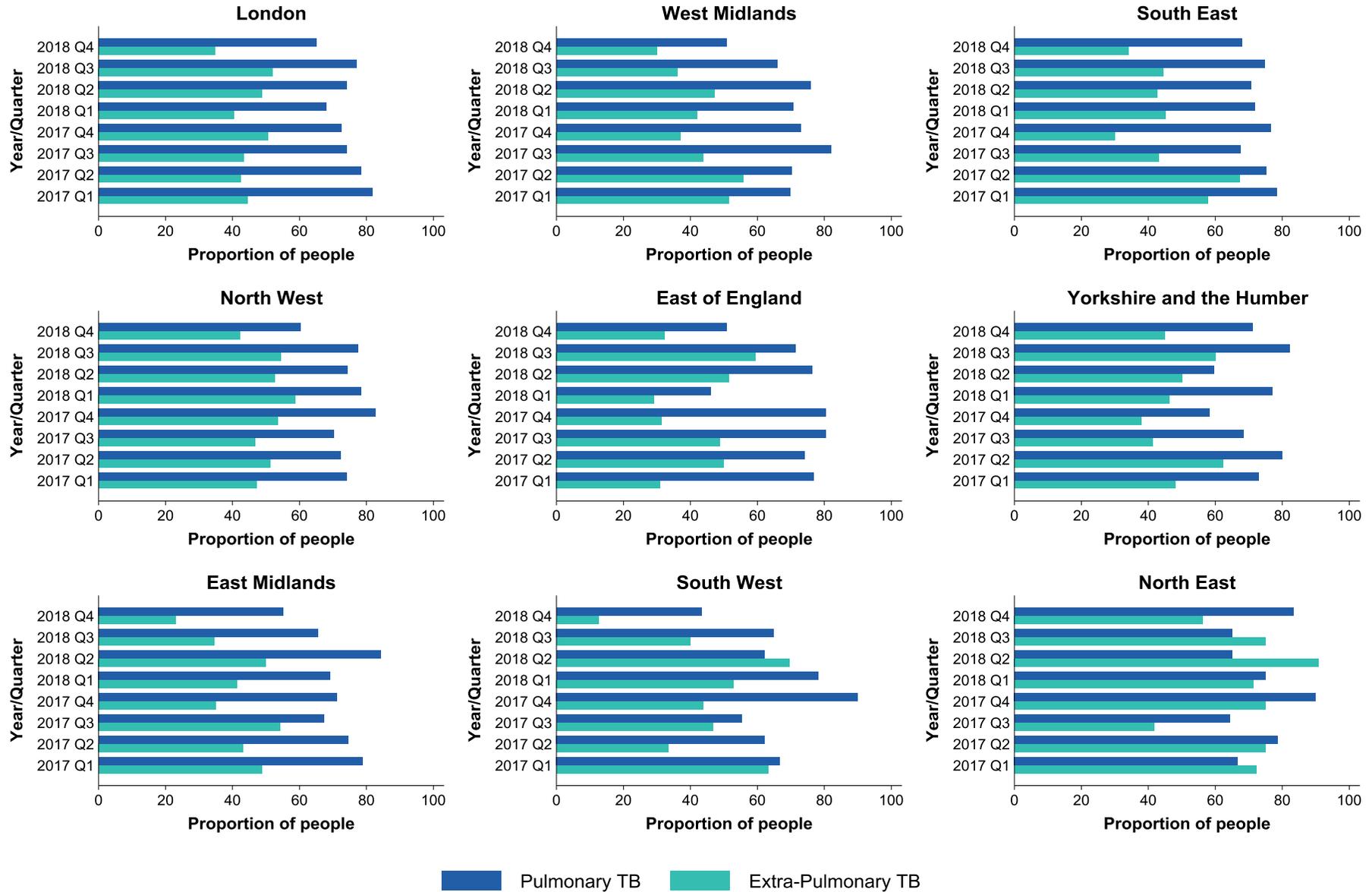


Among people with pulmonary TB, the proportion who were culture confirmed slightly increased from 72.5% in Q3 2017 to 73.0% in Q4 2018. The proportion with culture confirmed extra-pulmonary TB also increased in the same time period (Q3 2017: 44.8%, Q3 2018: 49.6%). Note Q3 is being compared as the number for Q4 2018 will likely increase as final results for cultures may not yet be available.

In 2018, the largest changes in the proportion of people with culture confirmation for:

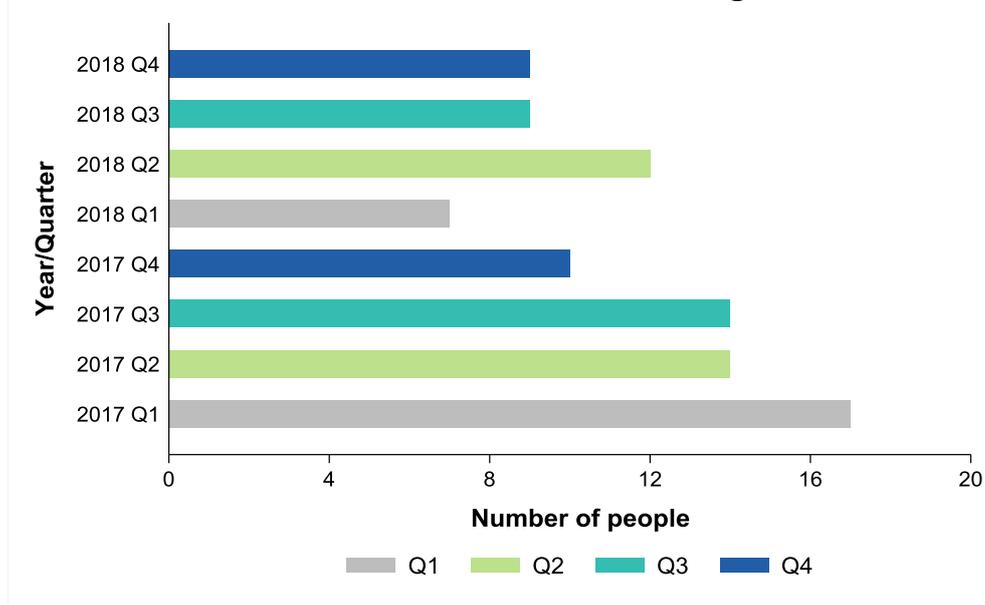
- pulmonary TB were seen in the South West and Yorkshire and the Humber, being higher in Q3 2018 than in Q3 2017
- pulmonary TB were seen in the East of England and West Midlands, being lower in Q3 2018 than in Q3 2017
- extra-pulmonary TB were seen in the East of England, North East and Yorkshire and the Humber, being higher in Q3 2018 than in Q3 2017
- extra-pulmonary TB were seen in the East Midlands and South West, being lower in Q3 2018 than in Q3 2017

Figure 5: Proportion of culture confirmation among TB notifications by site of disease and PHE Centre, Q1 2017 - Q4 2018



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

Figure 6: Number^a of TB notifications with MDR/RR-TB, England, Q1 2017 - Q4 2018

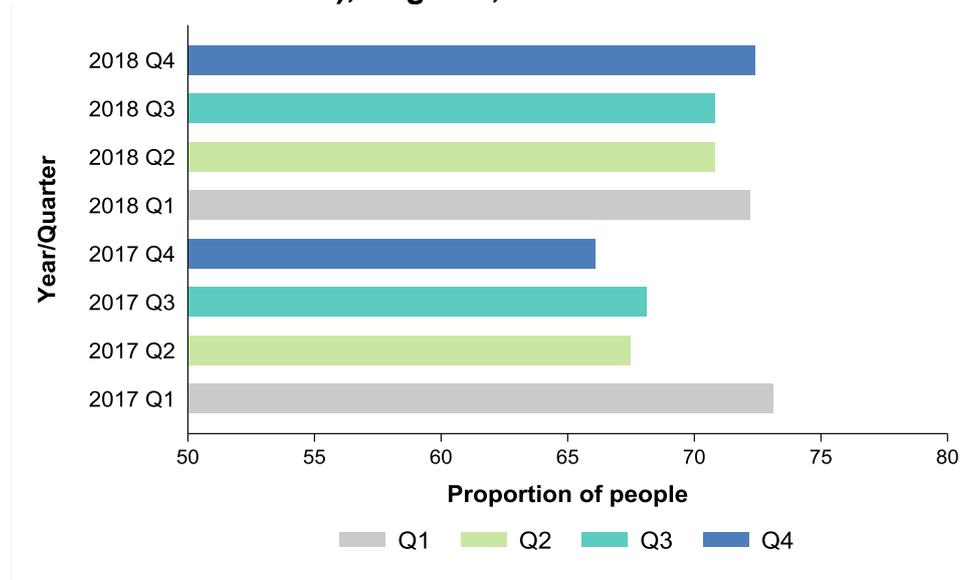


^a Note figure displays numbers rather than proportions due to low number of MDR/RR-TB notifications.

There were 9 people notified in Q4 2018 who were confirmed to have MDR/RR-TB, a decrease from 10 people in Q4 2017. 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 2017 - Q4 2018

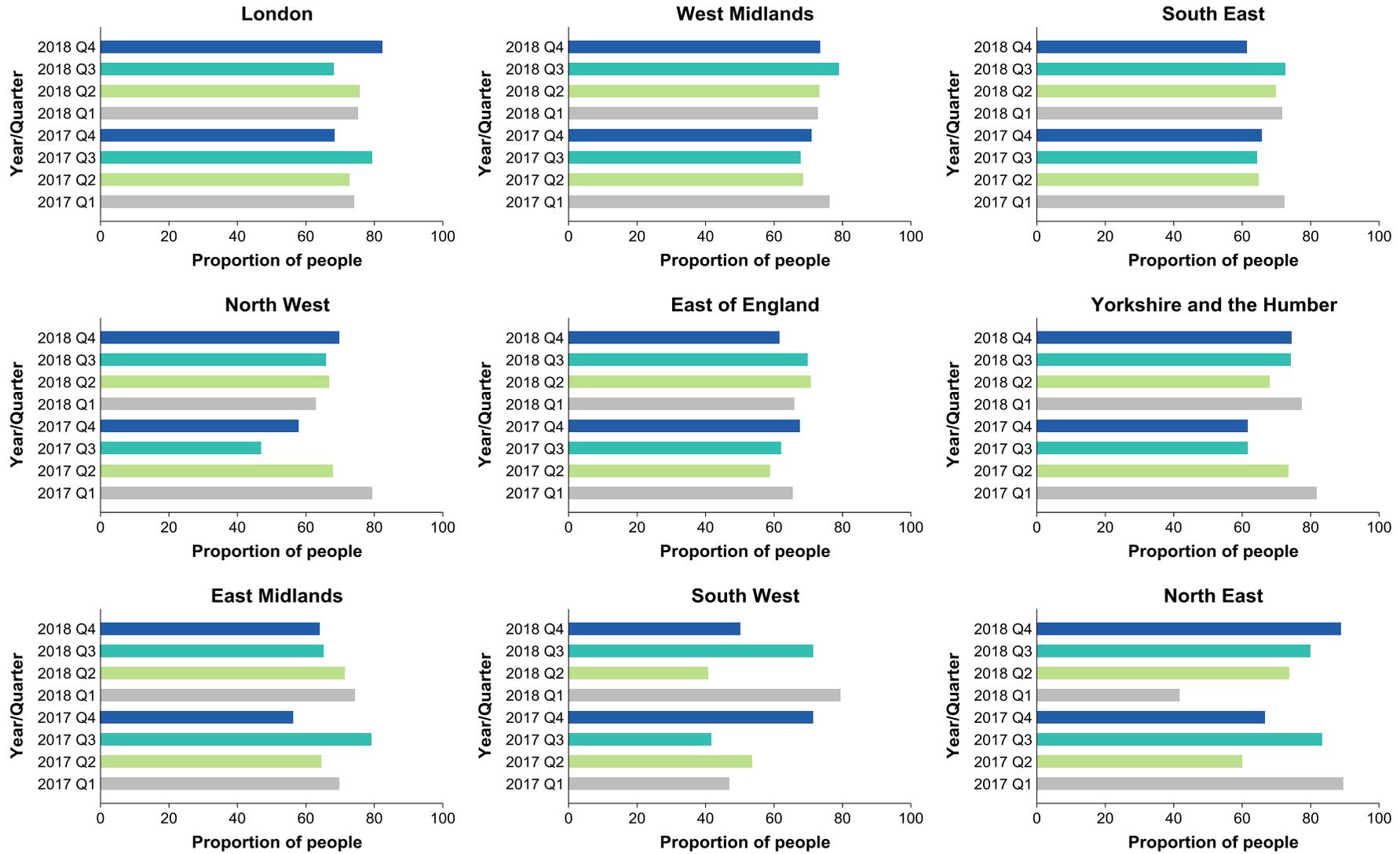


^a Note x-axis is not scaled to start at zero in order to more clearly visualise changes in proportions.

The proportion of people with pulmonary TB who started treatment within 4 months of symptom onset was 72.4% in Q4 2018, an increase from 66.1% in Q4 2017. 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 2017 - Q4 2018



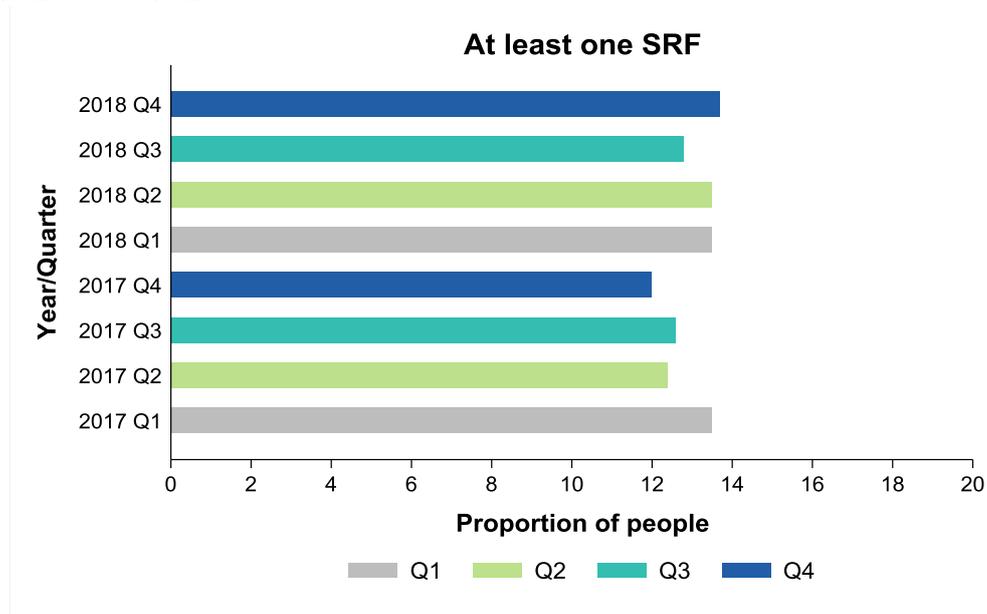
Q1 Q2 Q3 Q4

In 2018, the proportion of people with TB who started treatment within 4 months of symptom onset in:

- the North East, North West, Yorkshire and the Humber and London was markedly higher in Q4 2018 than in Q4 2017
- the South West was markedly lower in Q4 2018 than in Q4 2017

Social risk factors

Figure 9: Proportion of TB notifications (≥15 years) with social risk factors (SRF), England, Q1 2017 - Q4 2018



^a 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 Q4 2018, 13.7% of people with TB aged 15 years and older had at least one SRF, an increase from 12.0% in Q4 2017.

In 2018, the proportion of people with TB with:

- current or a history of drug misuse was slightly higher in Q4 2018 than in Q4 2017
- alcohol misuse was higher in Q4 2018 than in Q4 2017
- current or a history of homelessness was higher in Q4 2018 than in Q4 2017
- imprisonment was slightly lower in Q4 2018 than in Q4 2017

Figure 9: Proportion of TB notifications (≥15 years) with social risk factors, England, Q1 2017 - Q4 2018 continued

