Tuberculosis in England

National quarterly report: Q2 2021
1 April to 30 June 2021

Provisional data
# Contents

- Background ........................................................................................................... 3
- Overall numbers and geographical distribution ....................................................... 4
- Demographic and clinical characteristics .................................................................. 8
- Culture confirmation .................................................................................................. 9
- Multi-drug resistant/rifampicin resistant (MDR/RR) TB .......................................... 11
- Treatment delays ..................................................................................................... 12
- Treatment outcomes ............................................................................................... 15
- Social risk factors .................................................................................................... 16
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 2020 and 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 Q2 2021

In the second quarter of 2021 (Q2 2021, 1 April to 30 June), 1,213 people were notified with TB in England. This is a 24.5% increase compared to the same quarter in the previous year (Q2 2020: 974). 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\textsuperscript{a}, England, Q1 2019 to Q2 2021

\textsuperscript{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.

In Q2 2021, the number of people notified with TB in:

- all PHE Centres increased compared to Q2 2020, except for the East of England (no change) and the North East (-4.2%)
- the East Midlands had the largest increase in numbers (+52.2%) followed by the South East (+41.6%) compared to Q2 2020
Figure 2: Number of TB notifications by PHE Centre, England, Q1 2019 to Q2 2021 continued
Table 1: Number of TB notifications by PHE Centre, England, Q1 2019 to Q2 2021

<table>
<thead>
<tr>
<th>PHEC(^a)</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>London</td>
<td>379</td>
<td>446</td>
<td>426</td>
</tr>
<tr>
<td>West Midlands</td>
<td>151</td>
<td>163</td>
<td>149</td>
</tr>
<tr>
<td>South East</td>
<td>127</td>
<td>142</td>
<td>124</td>
</tr>
<tr>
<td>North West</td>
<td>127</td>
<td>137</td>
<td>133</td>
</tr>
<tr>
<td>East Midlands</td>
<td>98</td>
<td>95</td>
<td>87</td>
</tr>
<tr>
<td>East of England</td>
<td>99</td>
<td>107</td>
<td>109</td>
</tr>
<tr>
<td>Yorkshire and the Humber</td>
<td>68</td>
<td>105</td>
<td>83</td>
</tr>
<tr>
<td>South West</td>
<td>66</td>
<td>73</td>
<td>58</td>
</tr>
<tr>
<td>North East</td>
<td>18</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td><strong>England</strong></td>
<td>1133</td>
<td>1298</td>
<td>1186</td>
</tr>
</tbody>
</table>

\(^{a}\) Ordered by decreasing total number of people with TB in Q2 2021

\(^{b}\) 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 2021 compared to Q2 2020
Demographic and clinical characteristics

Figure 3: Number of TB notifications by place of birth and site of disease, England, Q3 2019 to Q2 2021

Compared with Q2 2020 (703), in Q2 2021 (919) there was a 30.7% increase in the number of people notified with TB who were born outside the UK. The number born in the UK also increased in the same time period, however, to a much lesser extent (Q2 2020: 253, Q2 2021: 264, +4.4%).

In Q2 2021, the number of people with pulmonary TB accounted for 50.1% (608/1,213) of all people with TB, having slightly decreased from 51.4% in Q2 2020 (501/974). For those born outside the UK, this proportion was 46.1% (424/919), whilst the proportion was much higher among people born in the UK (62.9%, 166/264).
Culture confirmation

Figure 4: Proportion of culture confirmation among TB notifications by site of disease, England, Q3 2019 to Q2 2021

Among people with pulmonary TB, the proportion who were culture confirmed increased slightly between Q1 2021 and Q1 2020 (74.9% versus 72.9%, respectively). The proportion with culture confirmed extra-pulmonary TB also increased over the same time period (Q1 2021: 44.0%, Q1 2020: 39.2%).

Please note: Q1 2021 is being compared as the number for Q2 2021 will likely increase as final results for cultures may not yet be available.

In Q1 2021, the largest changes in the proportion of people with culture confirmation for:

- pulmonary TB were seen in the East of England, being higher than in Q1 2020
- pulmonary TB were seen in the North West, being lower than in Q1 2020
- extra-pulmonary TB were seen in the South West, being higher than in Q1 2020
- extra-pulmonary TB were seen in the North West, being lower than in Q1 2020
Figure 5: Proportion of culture confirmation among TB notifications by site of disease and PHE Centre, Q3 2019 to Q2 2021
Multi-drug resistant/rifampicin resistant (MDR/RR) TB

Figure 6: Number\(^a\) of TB notifications with MDR/RR-TB, England, Q3 2019 to Q2 2021

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

There were 9 people notified in Q2 2021 with confirmed MDR/RR-TB. Overall, 48 people were notified with MDR/RR-TB since Q3 2020, compared to 52 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\textsuperscript{a} of pulmonary TB notifications starting treatment within 4 months (symptom onset to treatment start), England, Q3 2019 to Q2 2021

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure7.png}
\caption{Proportion\textsuperscript{a} of pulmonary TB notifications starting treatment within 4 months (symptom onset to treatment start), England, Q3 2019 to Q2 2021}
\end{figure}

\textsuperscript{a} Note x-axis is not scaled to start at zero to improve data visualisation.

In Q2 2021, 68.2\% of people with pulmonary TB started treatment within 4 months of symptom onset, compared to 71.9\% in Q2 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, Q3 2019 to Q2 2021
In Q2 2021, the proportion of people with TB who started treatment within 4 months of symptom onset in:

- the South West, East Midlands and West Midlands was higher than in Q2 2020
- Yorkshire and the Humber and the North East was notably lower than in Q2 2020
Treatment outcomes

Figure 9: Outcomes at 12 months for people with drug sensitive TB with expected treatment duration <12 months\(^1\), England, Q3 2018 to Q2 2020

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 66.3% for people notified in Q2 2019.

Please note: the latest three 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.

\(^1\) Excludes people in the drug resistant cohort and those with CNS, spinal, miliary or cryptic disseminated TB

\(^2\) Not evaluated includes unknown and transferred out
Social risk factors

**Figure 10: Proportion of TB notifications (≥15 years) with social risk factors (SRF)\(^a\), England, Q3 2019 to Q2 2021**

![Bar chart showing proportions of people with social risk factors by quarter from 2019 Q3 to 2021 Q2.](chart)

\(^a\) 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 Q2 2021, 13.6% of people with TB aged 15 years and older had at least one SRF, a slight decrease from 14.0% in Q2 2020.

In Q2 2021, the proportion of people with TB with:

- current or a history of drug misuse was lower than in Q2 2020
- alcohol misuse was lower than in Q2 2020
- current or a history of homelessness was lower than in Q2 2020
- imprisonment was notably lower than in Q2 2020
Figure 10: Proportion of TB notifications (≥15 years) with social risk factors, England, Q3 2019 to Q2 2021 continued
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.

Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000

www.gov.uk/phe
Twitter: @PHE_uk
www.facebook.com/PublicHealthEngland

© Crown copyright 2021

Prepared by: TB Unit
For queries relating to this document, please contact: TBSection@phe.gov.uk

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit OGL. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published July 2021
PHE gateway number: GOV-9109

PHE supports the UN Sustainable Development Goals