

Title: Tuberculosis in the UK

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Tuberculosis (TB) is the world's oldest pandemic, accounting for an estimated 1 billion deaths in the past two centuries.[1] In 2024, 5,480 people became unwell with TB in England - a 13% increase from 2023, reflecting rising numbers across the UK since 2021.[2] The World Health Organization (WHO) End TB strategy aims to eliminate TB by 2050.[3] The "TB Action Plan for England, 2021-2026" commits us to this [4]. But with an 18% annual reduction needed, is this goal achievable?

On 6 February 2024, we convened over 500 stakeholders representing health and social care workers, academics, public health officials, policymakers, commissioners and people affected by TB, to explore challenges and solutions to TB elimination in the UK.

Prevention and screening

TB exists on a spectrum between asymptomatic latent infection (LTBI) and active disease. Approximately 80% of active TB in the UK occurs among people originally born overseas.[5] People living with HIV, poverty, homelessness and incarceration are also at increased risk. [6] Policies to prevent and treat TB in these populations are key to elimination.

Pre-entry screening for TB aims to detect active pulmonary disease. In 2023, 500 people were identified through this visa-aligned programme and treated before arrival in the UK. This approach misses thousands who could be screened for LTBI or asymptomatic disease. Before expanding this policy, harms associated with limiting autonomy and freedom of movement must be considered, particularly given the relatively poor predictive value of current tests to identify who will progress from LTBI to disease.[7]

In the UK, identifying and treating people with LTBI from high-burden TB countries is effective, reducing the risk of active TB by 85%.[8] However, in 2023, NHS services were commissioned to screen just 11.5% of the eligible population. Coverage is patchy, based on 2015 data and with gaps across integrated care boards. TB distribution in the UK has changed following both the introduction of policies to disperse people seeking asylum, [9] and increased migration from higher TB burden countries to fill UK labour shortages.[10] Low-incidence areas with small services, especially rural ones, have been hit hardest, facing proportionally larger caseloads. One solution would involve expanding occupation-based screening beyond healthcare services, shifting costs from the NHS to employers.

Healthcare access

The NHS is under enormous pressure, limiting availability and responsiveness.[11] TB services are overstretched. [12] Systems are not designed to support people who frequently move, or are moved, across administrative borders. Broader policies restricting healthcare access for migrants create further barriers and delays in treatment. [13]

TB is linked to conditions of poverty. People who become unwell with TB face stigma, financial precarity, digital exclusion, language barriers and housing insecurity.[14] People need support networks that provide a scaffolding for them to receive the health and social care required to complete treatment successfully.

Mechanisms to improve communication across administrative borders (including stronger IT linkage between primary and secondary services) and related government departments, are vital for efficient, joined-up care. However, to preserve trust – crucial for effective healthcare - systems must maintain a firewall between health services and immigration enforcement.

Once people develop symptoms, diagnosis requires us to 'think TB' -- awareness and education are key. Diagnosis is further hindered by lack of access to rapid molecular tests. Treatment remains arduous but promising recent advances include an all-oral 6-month regimen for drug-resistant TB (compared to a previous 18-24 months which included injections), a 4-month course for drug sensitive TB (in children and adults) and a 1-month preventive treatment.[15] Despite UK research driving these innovations, the UK has limited access to rifapentine - a central component of shorter treatment and prevention regimens. Stock-outs of fixed-dose combinations of anti-TB drugs, which reduce pill burden, are common, particularly since Brexit, and paediatric formulations are urgently needed. [16]

The Case for Investment

TB is one of the top 12 best global investments.[17] Each person with untreated infectious TB can spread it to 10-15 people yearly. Treatment delay leads to increased morbidity, mortality, and transmission. Every US\$1 in care and prevention delivers up to US\$46 by saving lives and increasing economic productivity. Strengthening TB services is an investment in pandemic preparedness and a strong NHS and can bolster economic growth in line with the UK government's mission-led agenda.

Beyond the UK, elimination will not succeed without overseas investment. With the USA withdrawing funding from both WHO and USAID, the UK's contribution is needed now more than ever. The financial and human costs of inaction are clear.

Conclusion

The case for investment is solid, yet insufficient resources leave UK communities at risk. A recent *Getting It Right First Time* (GIRFT) evaluation of TB services will offer recommendations,[18] but without action, TB rates will continue to rise.

If the UK is serious about elimination, three priorities must be addressed: expand screening; secure access to drugs such as rifapentine; and invest in TB services to improve early detection and treatment support. We have the expertise and commitment [19] to succeed—we need the political leadership to match.

References

1. Daniel TM. The history of tuberculosis. *Respir Med* 2006;100:1862-70. doi:10.1016/j.rmed.2006.08.006
2. UK Health Security Agency. National quarterly report of tuberculosis in England: quarter 4, 2024, provisional data. UKHSA, 2024 [cited 2025 Mar 7]. Available from: <https://www.gov.uk/government/statistics/tuberculosis-in-england-national-quarterly-reports/national-quarterly-report-of-tuberculosis-in-england-quarter-4-2024-provisional-data>
3. World Health Organization. End TB Strategy. Geneva: WHO, 2015 [cited 2025 Mar 7]. Available from: <https://www.who.int/teams/global-tuberculosis-programme/the-end-tb-strategy>
4. Department of Health and Social Care. TB Action Plan for England 2021-2026. London: DHSC, 2021 [cited 2025 Mar 7]. Available from: <https://www.gov.uk/government/publications/tuberculosis-tb-action-plan-for->

[england/tuberculosis-tb-action-plan-for-england-2021-to-2026#:~:text=The%20aim%20of%20the%20tuberculosis,\(%20COVID%2D19%20\)%20pandemic.](#)

5. Tuberculosis in England, 2024 report, UKHSA, 2023 [cited 2025 Mar 7]. Available from: <https://www.gov.uk/government/publications/tuberculosis-in-england-2024-report>
6. Tuberculosis: what are the risk factors? National Institute for Health and Care Excellence, 2023 [cited 2025 Mar 7]. Available from: <https://cks.nice.org.uk/topics/tuberculosis/background-information/risk-factors/>.
7. Hamada Y, Gupta RK, Quartagno M, et al. Predictive performance of interferon-gamma release assays and the tuberculin skin test for incident tuberculosis: an individual participant data meta-analysis. *EClinicalMedicine* 2023;56:101815. doi:10.1016/j.eclinm.2022.101815.
8. Berrocal-Almanza L, Harris RJ, Collin SM, et al. Effectiveness of nationwide programmatic testing and treatment for latent tuberculosis infection in migrants in England: a retrospective, population-based cohort study. *Lancet Public Health* 2022;7:e873-82. doi:10.1016/S2468-2667(22)00198-3
9. Potter JL, Meier I. Distanciation as a technology of control in the UK hostile environment. *Crit Soc Policy* 2024;44:263-84. doi:10.1177/02610183231223952
10. Sumption M. Labour immigration after Brexit: trade-offs and policy options. *Oxford Rev Econ Policy* 2019;35:56-78. doi:10.1093/oxrep/gry024
11. Department of Health and Social Care. Road to recovery: the government's 2025 mandate to NHS England. London: DHSC, 2025 [cited 2025 Mar 7]. Available from: <https://www.gov.uk/government/publications/road-to-recovery-the-governments-2025-mandate-to-nhs-england/road-to-recovery-the-governments-2025-mandate-to-nhs-england>
12. Morrison H, Perrin F, Dedicoat M, et al. Impact of COVID-19 on NHS tuberculosis services: Results of a UK-wide survey. *J Infect* 2023;87:59-61. doi:10.1016/j.jinf.2023.04.004
13. Potter JL, Burman M, Tweed CD, et al. The NHS visitor and migrant cost recovery programme - a threat to health? *BMC Public Health* 2020;20:407. doi:10.1186/s12889-020-08524-9
14. de Vries SG, Cremers AL, Heuvelings CC, et al. Barriers and facilitators to the uptake of tuberculosis diagnostic and treatment services by hard-to-reach populations in countries of low and medium tuberculosis incidence: a systematic review of qualitative literature. *Lancet Infect Dis*. 2017;17:e128-e143. doi:10.1016/S1473-3099(16)30531-X.
15. Yates TA, Barnes S, Dedicoat M, et al. Drug-resistant tuberculosis treatments, the case for a phase III platform trial. *Bull World Health Organ* 2024;102:657-64. doi:10.2471/BLT.23.290948
16. Royal Pharmaceutical Society. Medicines shortages [Internet]. London: RPS; 2024 [cited 2025 Mar 7]. Available from: <https://www.rpharms.com/medicinesshortages>
17. Pretorius C, Arinaminpathy N, Mandal S, et al. One million lives saved per year: a cost-benefit analysis of the Global Plan to End Tuberculosis, 2023-2030 and beyond. *J Benefit Cost Anal* 2023;14(S1):337-354. doi.org/10.1017/bca.2023.13
18. Briggs T. Getting It Right First Time (GIRFT). *Bull R Coll Surg Engl* 2017;99:196-7.

19. UK Academics & Professionals to End TB. [Internet]. [cited 2025 Mar 7]. Available from: <https://www.ukaptb.org/>

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