CITY OF WOLVERHAMPTON COUNCIL

Tuberculosis (TB) in Wolverhampton

Health Scrutiny
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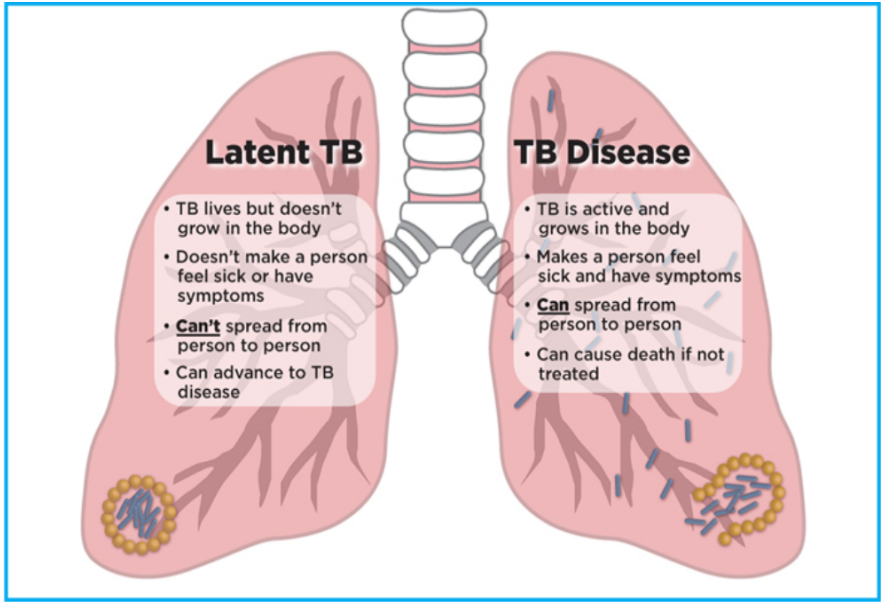
What is TB?

- Tuberculosis (TB) is a serious infectious disease caused by a bacterium, Mycobacterium tuberculosis complex.
- TB is a notifiable disease.
- TB typically affects the lungs, but can affect other parts of the body, such as the lymph nodes (glands), the bones and the brain.
- TB bacteria may not always develop into active TB, this is known as latent TB infection (LTBI).
- When TB does develop, most cases are curable with a six-month course of specific antibiotics.
- Transmission occurs through very close, prolonged contact.

Why is it important?

- Deadly if left untreated.
- Drug resistant TB.
- Preventing onward transmission / outbreaks
- Can impact on individuals / families / communities / settings



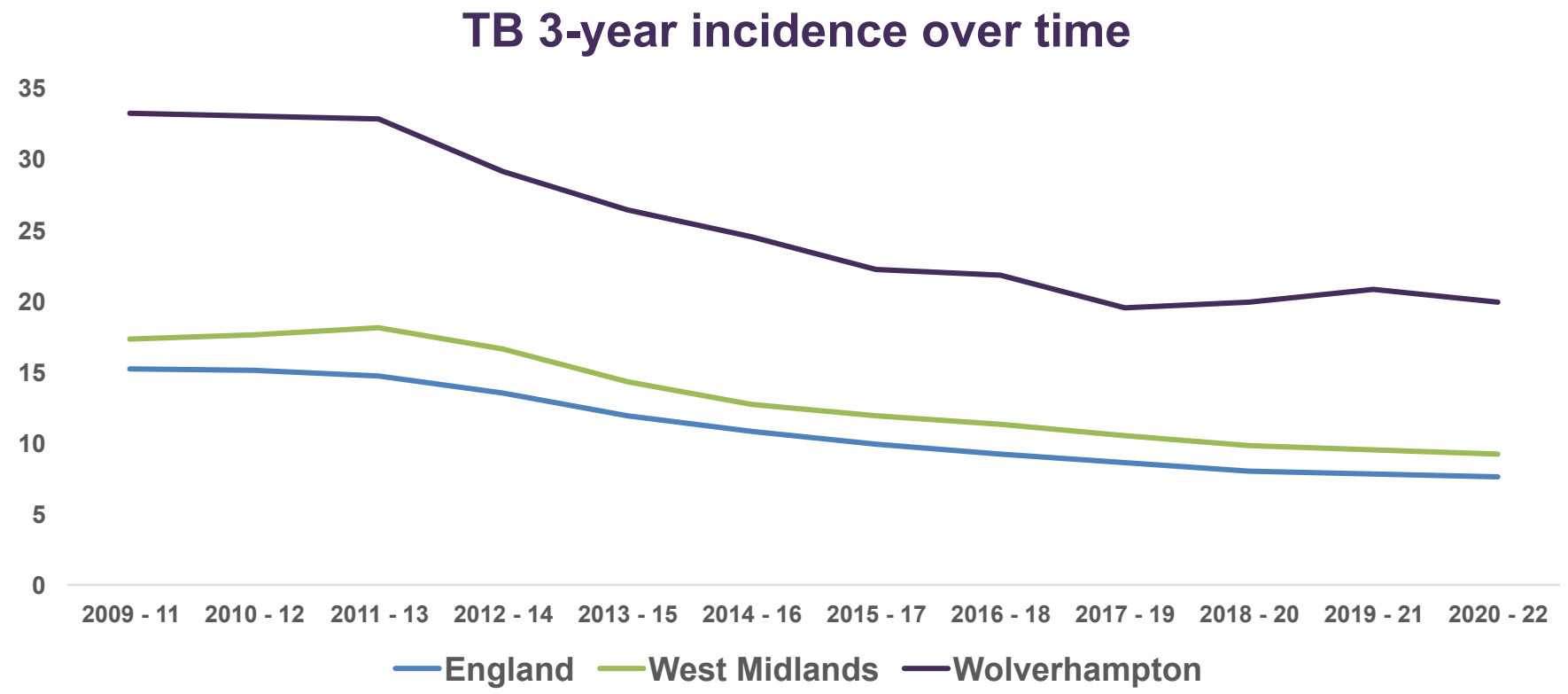
Find ➔ Treat
Contact Trace ➔ Treat
Incident / Outbreak Management
Prevention

Epidemiology

- England is a low incidence country with a 3-year average of 7.7 cases per 100,000 population between 2020-22.
- Significant variation in notification rates between regions; highest in London and lowest in the Northeast and Southwest.
- Highest incidence LA is Newham (41.3) and the lowest is Mid Suffolk (0.3).
- Wolverhampton is comparatively high (19.9).
- Wolverhampton has the highest TB incidence rate in the West Midlands.

Upper Tier LA	Rate per 100,000 (2020-22)
Wolverhampton	**19.9**
Sandwell	19.4
Birmingham	17
Coventry	15.6
Walsall	13.9
Stoke-on-Trent	9.8
Dudley	5.8
Warwickshire	4.6
Telford and Wrekin	4
Staffordshire	3.5
Solihull	3.1
Worcestershire	2.5
Shropshire	2.2
Herefordshire	0.9

Epidemiology



Who is at Risk?

- Men are four times more likely than women to become infected.
- Higher rates are seen in the working age population than other age groups.
- People living in crowded conditions.
- Family members of positive cases are at particular risk due to prolonged contact.

Social Risk Factors

The most deprived 10% of the population have an incidence rate >7 times higher than the least deprived

People born out of the UK have a rate 13 times higher than people born in the UK

Four social risk factors (SRF): alcohol misuse, drug misuse, homelessness, imprisonment

- 13% of cases
- 2.3 times more likely to be lost to follow up
- Twice as likely to die

Characteristics of patients aged 15 years or older in relation to social risk factors, West Midlands, patients diagnosed between 2009 and 2020

Characteristic		Patients with risk factors		Patients with no risk factors	
		Number of patients	Proportion (%)	Number of patients	Proportion (%)
Sex					
	Female	127	15.2	3,099	45.5
	Male	710	84.8	3,708	54.5
Age					
	15 to 44	527	63.0	3,843	56.5
	45 to 64	276	33.0	1,655	24.3
	65+	34	4.1	1,309	19.2
Country of birth					
	Non-UK-born	308	37.1	4,778	70.8
	UK-born	523	62.9	1,972	29.2
Ethnicity					
	White	379	45.3	1,367	20.1
	Black-Caribbean	86	10.3	188	2.8
	Black-African	101	12.1	891	13.1
	Black-Other	12	1.4	43	0.6
	Indian	122	14.6	2,026	29.8
	Pakistani	57	6.8	1,548	22.7
	Bangladeshi	≤5	Suppressed	197	2.9
	Chinese	≤5	Suppressed	55	0.8
	Mixed / Other	65	7.8	444	6.5
	Unknown ethnicity	8	1.0	48	0.7

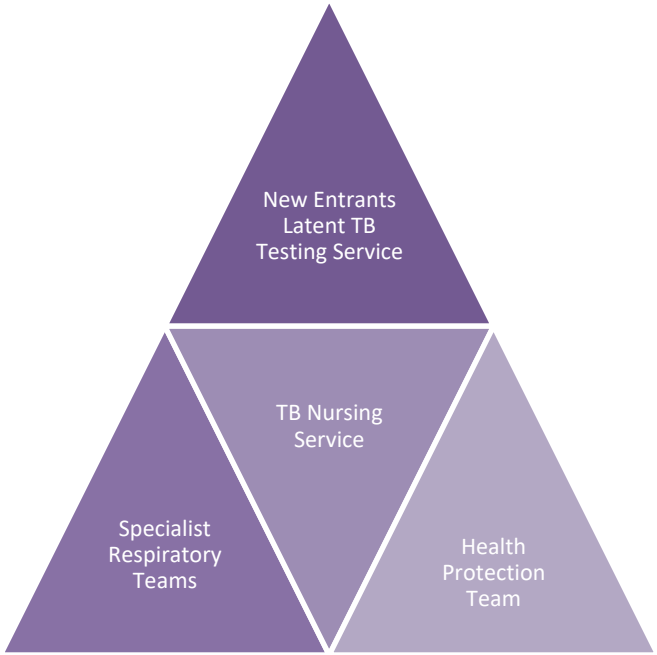
Services & Outcomes

Proportion of drug sensitive TB notifications that had completed a full course of treatment by 12 months was 86% in Wolverhampton compared to 84% in England in 2022.

100% of TB patients were offered HIV testing compared to 98% in England.

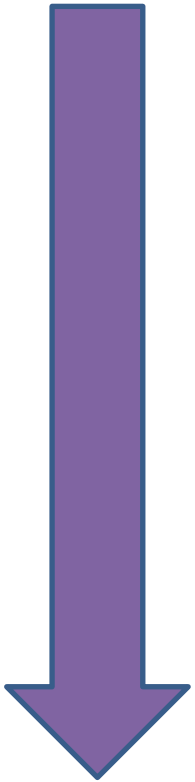
Proportion of culture confirmed TB notifications with drug susceptibility testing reported (first four agents) was 100% in Wolverhampton compared to 97% in England.

Resistance to antibiotics used to treat TB remains stable, with 1.6% of individuals having rifampicin resistant or multidrug resistant TB and 5.9% mono-resistant to isoniazid.



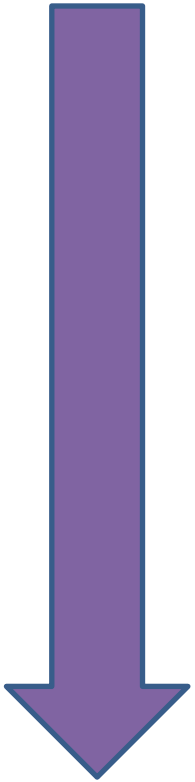
Patient Journey Example – Latent TB

Presentation	• Newly arrived from Afghanistan and eligible for LTBI testing, invited to clinic
Testing	• Patient assessed in clinic and screened
Treatment commenced	• Results reviewed and treatment started. Patient has ongoing reviews by the TB service
Two weeks post treatment	• Repeat bloods taken
Four weeks post treatment	• Patient reviewed and completion date calculated
From 3 months post treatment: Discharged	• Patient reviewed after three months of treatment. Discharged if well, signposting provided.



Patient Journey Example – Active Pulmonary TB

Presentation	• Symptomatic patient is reviewed by GP and referred to the TB team
Within 24 hours of receipt of referral	• Telephone consultation and home visit for assessment and screening
Within 24 hours of positive results	• Antibiotic treatment commenced and support provided. Household contacts identified and referred for screening. Patient isolating
First month of treatment	• Consultations and repeat testing to review progress and antibiotic effectiveness. If sputum sample is negative, isolation is no longer required
From 2 months to 6 months post treatment	• Routine bloods, consultations and x-rays are taken to monitor progress. Antibiotic treatment continues
Discharge	• Patient discharged following treatment completion and after all testing returned negative, no follow up required



Summary

- Wolverhampton is a relatively high TB incidence area in England.
- Higher rates partly due to population make up – diverse population with frequent travel to and from high incidence countries plus high levels of general deprivation.
- Rates have decreased significantly (both locally and nationally) over the last ten years, but the rate of decline has slowed in recent years.
- Anyone can get TB but those most at risk are those in close contact with someone who has TB, people from countries where TB is common and people with weakened immune systems.
- Locally, good quality services are in place to identify and treat people with latent and active TB as well as manage any outbreaks.

References

OHID, 2023, Public health profiles, online: https://fingertips.phe.org.uk/search/Tuberculosis (accessed 4 December 2023)

UKHSA, 2023, Tuberculosis (TB) notifications reported to enhanced TB surveillance systems: UK, 2000 to 2022, online: https://www.gov.uk/government/statistics/tuberculosis-tb-notifications-reported-to-enhanced-tb-surveillance-systems-uk-2000-to-2022 (accessed 4 December 2023).

UKHSA, 2020, Tuberculosis in the West Midlands Annual review (2020 data), online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1097492/TB-west-midlands-2020-data.pdf (accessed 4 December 2024)