

Tuberculosis: *Factsheet*

Tower Hamlets Joint Strategic Needs Assessment 2016/7

UPDATED

QUARTER 3 16/17

Executive Summary

This fact sheet describes Tuberculosis in terms of the burden of disease, national policy and local strategies for reduction.

Tuberculosis (TB) is a disease of poverty. It is common in Sub-Sahara Africa, South Asia and Eastern Europe, and individuals born in these regions are at greater risk of TB disease. Social risk factors (present in 1 in 10 people with TB in the UK) include homelessness, problem drug or alcohol use and imprisonment.

The incidence of TB in the UK is high compared to other Western European countries (5,758 cases in 2015, 10.5 cases per 100,000), particularly in London, which accounts for around a third of all TB cases (incidence of 30.4 per 100,000). TB incidences are highest in the most deprived London boroughs, including Tower Hamlets, which has many individuals at higher risk of TB due to its diverse population and the high prevalence of social risk factors. Although there has been a year on year decline in the incidence of TB over the last four years it disproportionately affects those with most complex needs and 73% of all TB cases notified in 2015 (4,087) were born abroad with 60% having lived in the UK more than six years.

There are challenges in ensuring early TB diagnosis and in supporting people to complete treatment courses, which may take many months. These challenges are accentuated in those with social risk factors. However, these problems are important to overcome to ensure that TB does not increase, does not become resistant to treatment, and that deaths from TB are reduced in the UK.

In order to address this, a national collaborative TB Strategy for England between 2015 and 2020 has been developed. TB control boards working across organizations will oversee interventions aimed to promote early diagnosis, complete treatment courses, maximize vaccination coverage and reduce the burden in disadvantaged groups. Working in partnership to implement national policy and direct local strategies in Tower Hamlets is essential to reduce this burden.

Recommendations

- Reducing tuberculosis by addressing the wider determinants of health as outlined in the [Marmot report](#).
- Participation in the TB control board
- Public engagement to give accurate information about TB and use of published [TB support materials](#).
- Promote completion of treatment through outreach work in hard-to-reach groups
- Finding TB in underserved communities
- Effective roll out of the systematic latent TB testing programme
- Review recommendations re new born universal BCG screening

1. What is Tuberculosis (TB)?

- Tuberculosis (TB) is an infectious disease caused by bacteria (*Mycobacterium tuberculosis*). TB usually causes disease in the lungs (pulmonary), but it can also affect other parts of the body (extra-pulmonary). Transmission occurs through coughing infectious droplets, and usually requires prolonged close contact (such as those living in the same household).

- TB is an important public health problem because it is a serious, potentially fatal disease, often affecting the most disadvantaged in society.
- TB is associated with social risk factors (homelessness, problem drug or alcohol use and imprisonment) and incidence is higher in those born in Sub-Sahara Africa, South Asia and Eastern Europe.
- TB causes long-term illness, and death, often in the most disadvantaged individuals.

2. What is the Policy Context?

Public Health England and NHS England have designed a nation collaborative TB Strategy for England 2015-2020. As part of this, TB control boards, which will include specialist commissioning, representation from PHE, NHS England, CCGs, Local Authority Directorate of Public Health and Social care, the NHS and the third sector will be put in place. Improvements to bring about a sustained decline in TB in England are across ten key areas:

1. Improving access and early diagnostics
2. High quality diagnostics
3. High quality treatment and care services
4. Contact tracing
5. Vaccination, as described in the ([Green Book \(Chapter 32\)](#)); and this [patient information leaflet on BCG in neonates](#)
6. Tackling drug resistance
7. Tackling TB in underserved populations
8. New entrant screening for LTBI
9. Effective surveillance and monitoring
10. Workforce strategy

A TB control board for London has been established, this includes all agencies involved in preventing, controlling and treating TB. It ensures the functions of health improvement, health protection and service provision are considered together rather than in isolation.

3. What are the effective interventions?

The interventions known to be effective include the ten factors listed above. It is important to have prompt diagnosis (to reduce transmission), contact tracing to identify others with infection, and prevention through immunisation (BCG increases a person's immunity to TB, providing 70-80% effective prevention against severe disease, such as TB meningitis and disseminated TB in children). It does not prevent primary infection and it does not prevent reactivation of latent pulmonary TB. Accessing "hard to reach" populations increases diagnosis, treatment completion and reduces drug resistance development.

Guidance includes:

- Policy for TB is informed by health intelligence and an [annual report on TB in the UK](#) is published by [Public Health England](#) as well as a report specifically on [TB in London](#).
- Public Health England and NHS England have published a **Collaborative TB Strategy for England 2015-2020**, which sets out the improvements needed for a sustained decline in TB in England, and the mechanisms by which these should be achieved. One of the assessments likely to feed into this is the [Pan-London tuberculosis services: a service evaluation](#) (2012). They conclude: *"More consistent strategic planning/co-ordination and sharing of best practice is needed, together with a review of pan-London TB workforce development strategy, encompassing changing professional roles, skills development needs and patient pathways."*
- The [National Institute for Clinical excellence \(NICE\)](#) has published guidelines (NG33) updated in May 2016 which replaces previous guidance CG117 and PH37.

- The [Royal College of Nursing](#) has published clinical guidelines on [Tuberculosis case management and cohort review](#)

Cochrane reviews (<http://www.cochrane.org/>)

There are systematic reviews relating to many topics on TB. These include:

- [Patient education and counselling for promoting adherence to treatment for tuberculosis](#)
- [Directly observed therapy for treating tuberculosis](#)
- [Reminder systems and late patient tracers in the diagnosis and management of tuberculosis](#)
- [Active case finding in contacts of people with tuberculosis](#)

Cost-effectiveness

- [A pragmatic approach to measuring, monitoring and evaluating interventions for improved tuberculosis case detection.](#)
- [Systematic review and meta-analysis of the current evidence on the duration of protection by bacillus Calmette-Guérin vaccination against tuberculosis.](#)
- [Rapid diagnostics of tuberculosis and drug resistance in the industrialized world: clinical and public health benefits and barriers to implementation.](#)

4. What is the local picture?

The TB incidence in Tower Hamlets has been declining, reducing from 64.7 per 100,000 in 2010 to 32.5 per 100,000 (2013-2015). This likely reflects changing demographics. There are continued pockets of high incidence in areas with greater deprivation ; for example the North East and North West sectors.

The incidence of TB is higher in LBTH than in London, where the incidence is 30.4 per 100,000 overall and the England average of 10.5 per 100,000. Now tenth highest in London from a previous position of third in 2013 there have been increases and decreases across the 33 London boroughs reflecting continual demographic changes. In the neighboring borough of Newham, TB incidence is the highest in London (85.6 per 100,000 population), in Waltham Forest 37.8 per 100,000 and Redbridge 44.9 and in Hackney 27.7 per 100,000 population. Future trends depend on the effectiveness of interventions (prevention and control), with the aim of the London TB control board being to achieve a reduction the London TB rate of 50% by 2020.

There are on average 92 people who have TB diagnosed in a year in Tower Hamlets, of which around 8 will die. People with TB are more often males (aged 20-39) and the majority were born abroad: only 8% were recent migrants, while 29% were in the UK for more than 10 years before they were diagnosed with TB. Over half of all people diagnosed with TB were Bangladeshi and 86% of these people were born in Bangladesh.

Around 8% of adults with TB in LBTH have a social risk factor. These individuals are less likely to complete treatment, which means increased TB transmission in the community and increased drug resistance. As well as the health and social costs of further infection, a case of drug resistant TB is estimated to cost £50,000-75,000 to treat compared to £5000 for a standard case.

5. What is being done locally to address this issue?

Prevention

- Education and training for providers to increased BCG vaccination coverage.
- Awareness raising with front line staff, community leaders and residents and hostels.

Finding cases and completing treatment

- Re-Procurement of the TB outreach service targeting the health and social needs of hard-to-reach

- London Find and Treat service case finding and supporting treatment completion
Specialised care
- Bart's Health forms the largest TB service in Europe and treats one in five of all TB cases diagnosed in London. The TB control Nurse Specialist works with this service and plays a key role in managing patients (adults and children) with active or latent TB in accordance to agreed protocols. The importance of activities such as home visits, directly observed therapy, follow-up phone calls, clinic visits, and the availability of walk-in services in achieving adherence and treatment completions is well established.

6. What evidence is there that we are making a difference?

Prevention

- The TB incidence in Tower Hamlets has been declining, reducing from 64.7 per 100,000 in 2010 to 32.5 per 100,000 (2013-2015)
- Coverage levels of BCG vaccination, from GP registers are currently for Q1 2016-17 is 92.3%

Completion of treatment

- Completion of treatment in Tower Hamlets has been increasing; from 80% in 2009 to 91% to 83.9% . This is below the completion rate for London (86.1%) and England (84.8%).

7. What is the perspective of the public?

TB is a disease that is often thought by the public to no longer be a public health problem and residents are surprised by the high rates in London compared to the rest of England and Europe. It is regarded with stigma and there are misconceptions about the possibility of successful outcomes.

Amongst health professionals knowledge is relatively good, but symptoms can be confused with other pathologies.

In terms of TB services there is need for more systematic user involvement.

8. What more do we need to know?

Public health intelligence:

- We need more complete data on the people with TB in Tower Hamlets and their risk factors.
- Improved molecular diagnostics will allow assessment of ongoing transmission of TB in communities

TB Prevention and control:

- It is difficult to quantify the impact of the TB outreach service on TB control. The service needs to revise its objectives and adopt performance measures that demonstrate the service is meeting best practice standards.

9. What are the priorities for improvement?

- Reducing TB depends on action at international, national and local levels. In the broadest sense it depends on reducing the inequalities for improved health, as outlined in the [Marmot report](#).
- The prevention and control of Tuberculosis in London is in the process of being reorganized and LBTH is likely to fall under a larger TB control board within Greater London. Participation in this process is essential to share local experience and ensure services meet the needs of LBTH
- Public engagement to educate people about tuberculosis is needed, so that it can be better understood, with associated increases in diagnosis and treatment
- Ensuring that those who are most at risk, and hardest-to-reach are diagnosed and treated for tuberculosis. This reduces inequalities in access to care and will reduce TB deaths. It will also reduce transmission and the development of drug resistance in TB.

10. Contacts / Stakeholder Involvement

Contacts

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Stakeholders:

[Tower Hamlets care commissioning group](#)

[NHS Barts/ Chest Clinic](#)

[London TB Control Board](#)