



Tuberculosis

1. Introduction

Tuberculosis (TB) is an infectious disease caused by bacteria belonging to the *Mycobacterium tuberculosis*. TB can affect the lungs (pulmonary) and other parts of the body (extra-pulmonary), however, only the pulmonary form of TB is infectious. Typical symptoms of pulmonary TB are a chronic cough, fever, night sweats and weight loss. Transmission of TB usually occurs through prolonged close contact with a person with pulmonary TB, via coughing infectious droplets.

Newly diagnosed cases of TB must be reported to public health authorities. While TB is a preventable and treatable disease, treatment regimes need to be completed in order to be effective. Incomplete treatment of TB has led to an increase in multi drug-resistant tuberculosis, a form of TB that does not respond to at least one of the two most effective first-line TB treatment drugs.

TB has re-emerged as a public health problem in the UK over the last two decades and cases continue to increase. London bears the greatest burden, where 38% of all UK cases are reported¹. TB is concentrated in a number of specific high-risk groups, including drug users, homeless communities in urban areas and those born abroad in countries with high rates of TB; rather than being a disease of the general population.

2. The Local Picture

The number of TB notifications has increased in Hounslow in recent years: there were 136 notified cases in 2007, 134 in 2008, 172 in 2009 and 191 in 2010. In both 2009 and 2010, this was significantly higher than North West London. ([Figure 1](#)) The majority of cases were in people who were born outside of the UK and for people in their 20s-30s. ([Figure 2](#)) Rates are highest in Black-African and Other ethnic groups, closely followed by Indian and Pakistani ethnic groups. ([Figure 3](#))

Treatment completion rates in Hounslow are the lowest in North West London, where only 81% of notified cases completed treatment between 2007 and 2009. ([Table 2](#)) In the majority of cases where the patient was born outside the UK, health authorities were notified within 2 years of the patient's arrival in the country. ([Figure 4](#)) The rate of death from TB remains at 2 deaths per 100,000 population. ([Figure 5](#))

The directly-standardised rate of TB notifications was significantly higher in Hounslow Central in 2010, compared with other areas in Hounslow. In 2008, there were significantly more cases in Hounslow West; since then rates remain high, but not significantly so. ([Figure 7](#)) Taking all data from 2007 to 2010 into account, the highest rates of TB notifications overall were in the north-west and centre of the Borough. ([Figure 7](#))

¹ Health Protection Agency (2010) Tuberculosis cases increase in London.
<http://www.hpa.org.uk/ProductsServices/LocalServices/London/LondonPressReleases/lond100324Tuberculosiscasesincrease/>



Approximately 2.8% of Hounslow's population is classified as being students and young professionals, living well, however, this group is overrepresented in the number of people with TB notifications in the Borough. Around 5.4% of those with a TB notification in Hounslow are classified as being from this group. ([Table 1](#))

2.1 *TB Treatment and Control*

2.1.1 *Contact tracing*

Contact tracing is carried out by the TB Specialist Nurses based at West Middlesex University Hospital (WMUH). Approximately 340 contacts were traced in 2009/2010, ranging from 1 to 20 contacts per patient (depending on the case and availability of the contacts). Barriers to contact tracing include incorrect, outdated or no known present address provided by the patient; appointment letters reaching the contact after the appointment date; and late booking of appointments. The use of outreach workers would be very helpful in increasing the number of contacts that could be traced; outreach workers could phone to remind contacts about their appointment and also support TB Nurses during other awareness-related activities.

2.1.2 *BCG Vaccination*

Government policy on BCG vaccination states that all infants aged 0-12 months living in areas where TB incidence is over 40 cases per 100,000 population should receive BCG. The national target of neonatal BCG is to be carried out within a child's first year, in order to achieve a minimum 70% coverage by 4 months and 75% by 12 months (with a view to increasing this to 80% and 90%, respectively). The coverage of BCG vaccination in Hounslow in 2010/11 was 82.6%.

2.1.3 *Treatment Outcomes*

Treatment completion rates in Hounslow are the lowest in North West London. Of the 521 cases reported in 2008 (for whom information on treatment outcomes is complete), 81% completed treatment within 12 months. The most common reasons for patients not completing treatment were: relocation to another area (9%) and death (4.4%), while some patients remain in treatment (4.9%) and others (3.5%) were lost to follow-up. ([Table 2](#))

2.1.4 *Mortality from TB*

There are very few deaths in Hounslow with TB given as the underlying cause, i.e. less than 10 in a three year period. Between 2002–04 and 2008–10, the directly standardised rate of death from TB in the Borough of Hounslow did not rise above 2 deaths per 100,000 population. ([Figure 6](#))

3. **Strategic Leadership and Collaboration**

The TB Service in Hounslow is led by WMUH. The performance of the TB services in Hounslow is monitored by the multi-agency TB Steering Group, which assesses performance against a range of best practice standards. Membership of this group has been widened to best meet the needs of the TB community.

Following a Scrutiny Review in 2010, which considered *i*) TB services (both treatment and prevention) available to residents in Hounslow and *ii*) the development of the London Health Programme's proposed [New Model of Care for TB](#) (developed alongside the [Case For](#)



[Change](#), which described the need to change the way services are being commissioned and delivered), there was coordination in Hounslow to develop a future strategic plan which would align current service provision to the challenges highlighted in the proposed New Model of Care for TB. The Hounslow strategic plan will outline the actions, timescales and resources required to provide effective TB services in the Borough. In particular, the plan will address the challenges of tracing contacts and following up non-compliant or transient patients.

High levels of social housing and overcrowded accommodation in Hounslow contribute to high rates of TB transmission, and this emphasises the need for further effective outreach work and awareness programmes.

4. Priorities

In 2011/12, tuberculosis in Hounslow will be addressed through:

- Seeking funding through London Health Programmes once the New Model of Care for TB is implemented, in order to initiate activities and projects aimed at raising awareness within informal groups, the third sector, and health and social care workers to improve treatment compliance and completion;
- Piloting the TB Screening Scheme in GP practices aimed at new registrations for screening, with successes shared across Hounslow as examples of best practice; and
- Actively seeking funding opportunities for a TB outreach worker (high priority).

5. Summary of Need

The following table summarises the needs in Tuberculosis in the Borough of Hounslow.

SUMMARY OF NEED: CHECKLIST	
Is need increasing over time?	Yes
Is need greater than the London average?	Yes
Is there qualitative intelligence indicating that need is substantially unmet?	Yes
Is there an external inspection or report suggesting need is unmet?	Yes
Are quality indicators worsening over time?	Yes
Are quality indicators worse than the London average?	Yes
Is there an intervention of proven effectiveness to address the need which is not currently delivered in Hounslow (or not delivered enough)?	Yes