

Health Protection: Enhanced Tuberculosis (TB) Surveillance

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Enhanced Tuberculosis Surveillance (ETS) Dataset Facts

- ETS began on 1st January 1999 in England and Wales
- The minimum dataset includes notification details as well as demographic, clinical and microbiological information
- Data is collated at the Centre for Infection (CFI) at the HPA
- TB cases are matched with lab data from the UK Mycobacterial Network (MycobNet) in order to improve completeness
- ETS provides an annual corrected analysis of reports by age, sex, ethnic group, country of birth, site of disease and NHS region

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Key Messages

- The rate of tuberculosis (TB) in the North West is consistently lower than the rate for England.
- There is a stronger correlation between rates of TB and deprivation in the North West with nine times more TB in the most deprived areas compared with the most affluent.
- Geodemographic lifestyle also affects TB rates, with 'Multicultural Centres' and 'New Starters' having a higher rate than their poverty rank would suggest.

Introduction

The Health Protection Agency (HPA) is an independent body whose aim is to protect the health of the population in England and Wales, by providing support and up-to-date and impartial advice to the Government, health professionals and the public. Their target is to reduce the impact of infectious diseases and exposure to chemicals, poisons and radiological hazards on public health. In the North West this is achieved through a network of local Health Protection Units and a region-wide epidemiological service. This report presents an analysis of data contained in the Enhanced Tuberculosis Surveillance (ETS) dataset, with a focus on the effect of deprivation and lifestyle groupings on TB rates.

TB Incidence Rates

When ETS began in 1999 the TB incidence rates for the North West and England and Wales were very similar at 10.1 per 100,000 in the North West and 11.0 per 100,000 in England and Wales. Figure 1 shows that the TB incidence rate in England and Wales has been steadily increasing since 2000 with the most currently available rate being 15.1 per 100,000 in 2005. Conversely, the TB rate in the North West has slightly decreased from 10.1 to 8.6 per 100,000 over the same time period. However, the rate obtained from the 2005 provisional data for the North West illustrates an increase from 2004 of approximately 31%.

Interactive maps of TB rates by Primary Care Trust (PCT) and Local Authority (LA) are available on the HPA NW website (accessed from www.hpa-nw.org.uk/InstantAtlas.htm).



Figure 1: TB Rate for the North West and England and Wales 2000-2005

TB and Deprivation

The Indices of Multiple Deprivation (IMD) 2004 for England and Wales is a composite ‘multiple deprivation’ score from seven distinct domains². The IMD gives both a score and ranking for individual Lower Super Output Areas (LSOAs) and an average score for each LA. The LSOAs are derived by the Office for National Statistics. Over 50% of the North West population fall within the two most deprived national quintiles and nearly one third are in the most deprived quintile. Through assigning the postcode data from the ETS database it has been possible to analyse the influence of deprivation on TB incidence. As a complete postcode was needed to assign each patient to a LSOA for the analysis, 104 (2.5%) patients on the database have been excluded. In total, 3,624 patients are included within the analysis. Figure 2 displays both the standardised rates and the 95% confidence intervals for each deprivation quintile. It shows that there is a strong relationship between TB and deprivation, with a nine times higher rate of occurrence of TB in the most deprived quintile compared with the least deprived quintile. There is a substantial increase between the rate in the second most deprived quintile and the most deprived quintile.

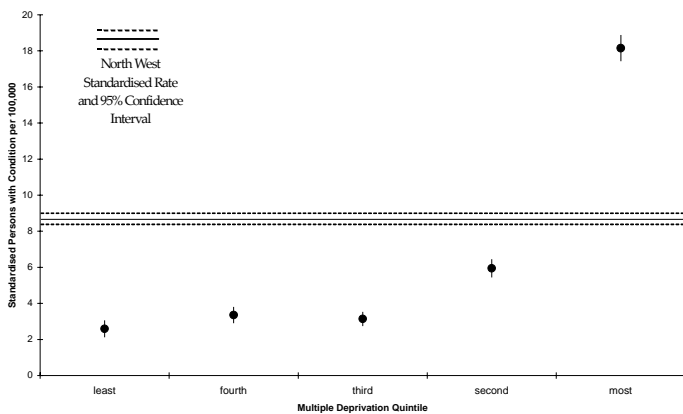


Figure 2: Rates of TB Incidence 2000-05 by IMD 2004

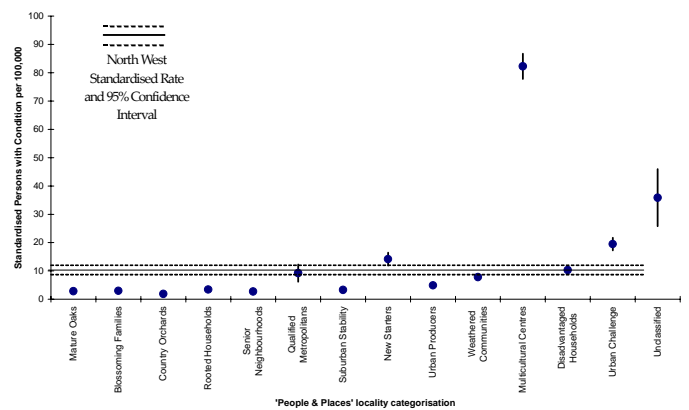


Figure 3: Rates of TB Incidence 2000-05 by P2 People & Places

TB and Geodemographic Lifestyles

Geodemographic lifestyle classifications cluster together local areas where resident populations have similar characteristics. Such lifestyle groupings offer an alternative regional breakdown to those of deprivation quintiles. This report uses geodemographic lifestyle classifications³ to illustrate regional inequalities in health. These classifications have been ordered in relation to a poverty index. Around half of the North West population fall evenly into the categories of ‘Rooted Households’, ‘Suburban Stability’ and ‘Urban Producers’. Around 20% of the population are classified within the three most affluent groups, and 15% within the most disadvantaged groups. Figure 3 shows a similar pattern to Figure 2 with the TB rate increasing as the poverty index increases. The increase in incidence for those living in ‘Multicultural Centres’ is extremely prominent compared to the other lifestyle groups. The ‘New Starters’ population also has almost double the rate than its poverty rank would suggest. This pattern with ‘New Starters’ has been previously noted for a wide range of conditions including alcohol related conditions and mental health conditions (see ‘Where Wealth Means Health’, www.nwph.net/nwpho/publications). The reason for this is unknown, and further examination of the demographic profiles of ‘New Starters’ neighbourhoods is needed to provide an explanation. In the 2000-2002 year band, ‘Qualified Metropolitan’ also have a higher rate than expected. The increase in incidence of TB is due to a large number of factors. These factors include migration from high incidence countries, homelessness, HIV co-infection and possibly improvement in reporting following the introduction of ETS. There are currently national and regional strategies in place in recognition of the growing problem of TB.

² These include: health deprivation and disability; employment; income; education, skills and training; living environment; barriers to housing and services.

³ P2 People & Places © Beacon Dodsworth 2004-2005: www.p2peopleandplaces.co.uk

All data outlined in this report for North West LAs and further information can be found at www.nwpho.org.uk/monthly/nov06b
 Enhanced Surveillance for TB is available at: www.hpa-nw.org.uk/WebSurv.htm (requires registration), allowing users to interrogate the dataset and produce charts and tables of aggregated data.
 Background information, data and guidance on TB nationally is available at: www.hpa.org.uk/infections/topics_az/tb/menu.htm