

HEALTH PROTECTION – Infectious Disease Fact Sheet

Background

Infectious diseases are those caused by organisms including viruses, bacteria, fungi and protozoa. Each infectious disease has a characteristic clinical presentation. Public Health has a role in controlling infectious disease because for some infections, action can be taken that reduces an individual's risk of becoming infected (e.g. vaccination) or reduces the risk of developing disease once infected.

Public Health England is the executive agency in the Department of Health that has the responsibility to protect the public's health, from infectious disease and other hazards to health. In Sutton this work is performed by the South West London Health Protection Team.

The Government is focused on increasing rates of vaccination to reduce rates of vaccine preventable infections (see **Immunisation in Children Fact Sheet**) and to reduce the rates of infections acquired in hospital to reduce the burden of ill health in this setting.

This Fact Sheet focuses on the most common infections seen in Sutton for which we undertake Public Health action, and vaccine-preventable conditions. Information about sexually transmitted infections, HIV, tuberculosis and influenza is presented in separate Fact Sheets.

The Local Picture

a) Vaccine preventable infections

There were cases of many vaccine preventable diseases in Sutton between 2011-2013. Compared to the six local authorities in South West London, in 2013, Sutton had the lowest rate of measles and meningococcal disease, the second lowest rate of whooping cough and acute Hepatitis B and the third lowest rate mumps and the fourth lowest rate of hepatitis A. Sutton had the highest rate of hepatitis A, even though the number of cases was low.

b) Gastrointestinal disease

There were 15 outbreaks of gastroenteritis in establishments in Sutton in 2013. The majority of these were caused by norovirus and occurred in healthcare settings. Sutton had the highest rate of Campylobacter and Salmonella in South West London.

c) TB

Fig. 1 shows that the incidence of TB in Sutton is similar to England and statistically lower than London with a crude rate of 13.3 per 100,000 population in 2012-14. This rate is similar to England (13.5), but is lower than for London (35.4). Rates have remained fairly level over time.

Fig. 1: Incidence of TB in Sutton

Fig. 2: Trend in treatment completion for TB, Sutton compared with London and England

Fig. 3 shows that the TB treatment completion rate for Sutton was 95.8%, which is statistically similar to England (84.8%) and London (86.1%). Rates of completion have improved in the latest time period.

Fig. 3: TB Treatment Completion

Fig. 4: Trend in treatment completion for TB, Sutton compared with London and England

Progress in Sutton

The statistics in the previous 'Local Picture' section indicate that Sutton has comparatively lower incidence of many infectious diseases compared to London and England. Further, our incidence of TB is low compared to London.

However, with regard to vaccine preventable disease, (as described in the Fact Sheet on **Immunisation in Childhood**), despite improvements, Sutton's coverage remains lower than would be expected for childhood immunisations. The lead responsible agency is NHS England (NHSE) but it is generally accepted that more local initiatives are needed. It is known that there is under recording of immunisation in Sutton due to historically poor information systems. This data accuracy needs to be addressed at the same time as aiming to improve coverage on the ground via collaborative work with front line staff.

What works

Vaccine preventable infections

Vaccination coverage is closely correlated with levels of disease. Monitoring coverage identifies possible drops in immunity before levels of disease rise (NICE).¹

Gastrointestinal disease - Norovirus

Norovirus is easily spread. One of the most effective preventive measures is thorough hand washing before handling food. For those with norovirus, advice is to avoid preparing food and avoid direct contact with others for at least 48 hours after symptoms disappear.

Measures to help prevent the virus spreading are to:

- Wash hands frequently
- Not share towels and flannels
- Disinfect surfaces that an infected person has touched

Healthcare associated infections

NHS Choices provides practical information for staff, patients and visitors on MRSA infection.² As for norovirus, effective measures for preventing the spread is thorough hand washing for all, together with isolation of infected patients and maintaining a clean and dry hospital environment. For E. coli, again scrupulous hand washing and thorough cooking of food is important to prevent transmission.³

TB re-emerged as a serious public health problem in the UK over the last two decades, with incidence rising above the European average. Timely and fully completed treatment for TB is key to saving lives and preventing long-term ill health, as well as reducing the number of new infections and preventing the development of drug resistance. Dropping out of treatment before it is completed can contribute to drug-resistant TB. Preventing the development of

¹ NICE Guidance. NICE guidance and public health outcomes.

<https://www.nice.org.uk/advice/lgb5/chapter/rationale-for-the-indicators>

² NHS Choices. MRSA Infection Prevention.

<http://www.nhs.uk/Conditions/MRSA/Pages/Prevention.aspx>

³ NHS Choices. Facts about E. Coli. <http://www.nhs.uk/news/2009/09September/Pages/EcoliQA.aspx>

drug resistant TB is particularly important as it has more severe health consequences and is considerably more expensive to treat.

Key indicators and targets

Relevant indicators from the Public Health Outcomes Framework

<http://www.phoutcomes.info/>

Health Protection Domain

- 3.02 - Chlamydia detection rate
- 3.03i - Population vaccination coverage - Hepatitis B (1 year old)
- 3.03i - Population vaccination coverage - Hepatitis B (2 years old)
- 3.03iii - Population vaccination coverage - DTaP / IPV / Hib (1 year old)
- 3.03iii - Population vaccination coverage - DTaP / IPV / Hib (2 years old)
- 3.03iv - Population vaccination coverage – Men C
- 3.03v - Population vaccination coverage - PCV
- 3.03vi - Population vaccination coverage - Hib / Men C booster (2 years old)
- 3.03vi - Population vaccination coverage - Hib / Men C booster (5 years)
- 3.03vii - Population vaccination coverage - PCV booster
- 3.03viii - Population vaccination coverage - MMR for one dose (2 years old)
- 3.03ix - Population vaccination coverage - MMR for one dose (5 years old)
- 3.03x - Population vaccination coverage - MMR for two doses (5 years old)
- 3.03xii - Population vaccination coverage - HPV
- 3.03xiv - Population vaccination coverage - Flu (aged 65+)
- 3.03xv - Population vaccination coverage - Flu (at risk individuals)
- 3.04 - HIV late diagnosis
- 3.05i - Treatment completion for TB
- 3.05ii - Incidence of TB

Links to further information

See also Factsheets on **Immunisation in Childhood**, **Sexual Health** and **Flu (influenza)**.

Priorities for Sutton

Despite improvements, Sutton's coverage remains lower than expected for childhood immunisations. Given Sutton's demographic profile compared to other areas and relative deprivation ranking, higher rather than lower rates than average would be expected.

A priority is to increase the proportion of the population protected by vaccination. This is a lead role for Public Health England and NHS England but the London Borough of Sutton and Sutton CCG are re-examining what is required locally.