





**Bromley Clinical Commissioning Group** 

# **BROMLEY JOINT** STRATEGIC NEEDS **ASSESSMENT** 2017 **Aspects of Health Protection and Health Improvement**

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## **Health Protection**

South London Health Protection Team (SLHPT) leads Public Health England's (PHE) response to all health related incidents in South London. The team provides specialist support to prevent and reduce the impact of infectious diseases; chemical and radiation hazards and major emergencies. The team specifically investigates and manages health protection incidents and outbreaks of a wide range of infectious diseases.

SLHPT works closely with the Public Health and Environmental Health teams in the London Borough of Bromley, as well as other multidisciplinary colleagues. There is much collaborative proactive work to plan and reduce risks from infectious diseases and other hazards.

# **Summary of Notifiable Diseases Reported to SLHPT**

A wide range of infections are notified to the health protection team. These include meningococcal disease, invasive Group A Streptococcal and pneumococcal disease and VTEC *E coli* infections, all of which can be serious and result in long term complications and poor outcomes.

**Table 1** shows the number of suspected cases reported to SLHPT for Bromley residents in 2016 for a range of infectious diseases with trends in reporting from 2012.

Table 1: Selection of reported cases of clinically suspected infectious disease for LB Bromley 2012-16 (confirmed, probable and possible cases; excludes cases testing negative for the infection)

Infectious disease	2012	2013	2014	2015	2016
Salmonella (species non-typhoid)	22	20	19	29	39
Cryptosporidium	21	8	11	19	27
Measles	18	34	26	19	30
Mumps	56	57	56	34	25
Scarlet Fever	24	23	148	233	228
Tuberculosis	37	32	18	25	15
Whooping cough	41	42	24	50	52
Total	243	238	330	428	447

#### Measles

The UK recently received WHO measles elimination status and so the overall risk of measles to the UK population is low. However, there are ongoing measles outbreaks in Europe and we continue to see cases in unimmunised individuals. People who have recently travelled to or who are planning to travel to Europe, who have not had 2 doses of MMR vaccine are particularly at risk. Limited onward spread of measles may occur in communities with low MMR coverage and in age groups with very close mixing<sup>1</sup>. For example, a rise in cases in 2012/13 occurred amongst those attending music festivals in the UK. Cases were concentrated in the cohort of young people who were babies during the time of the MMR vaccine "scare" and coverage dropped<sup>2</sup>.

**Table 2** shows laboratory confirmed and clinically suspected measles cases reported 2012 - 2016 in the LB Bromley.

Table 2: clinically suspected cases of measles reported in LB Bromley 2012-16

Year	Confirmed	Possible	Probable
2012	<5	15	<5
2013	11	19	<5
2014	<5	25	<5
2015	10	6	<5
2016	5	19	6

Confirmed = laboratory confirmed

Possible and probable = clinical diagnosed infection

Excluded discarded cases = tested negative.

PHE continue to encourage uptake of the measles, mumps and rubella (MMR) vaccine to ensure children and young people are protected.

## **Whooping Cough (Pertussis)**

A national outbreak of pertussis was declared in April 2012. Reported incidence remained raised in 2016 compared to pre-2012 levels but overall, disease levels in 2016 did not reach those seen in 2012<sup>i</sup>.

**Table 3** shows laboratory confirmed and clinically suspected pertussis cases reported 2012 - 2016 in the LB Bromley.

Public Health England travel advice.
<a href="https://www.gov.uk/government/news/measles-outbreaks-in-europe-easter-travel-advice">https://www.gov.uk/government/news/measles-outbreaks-in-europe-easter-travel-advice</a>

<sup>&</sup>lt;sup>2</sup> Health Protection Report volume 11 (2017). https://www.gov.uk/government/publications/health-protection-report-volume-11-2017/hpr-volume-11-number-34-news-29-september

Table 3: Clinically suspected cases of whooping cough reported in LB Bromley 2012-16

Year	Confirmed	Probable	Possible
2012	20	11	10
2013	14	<5	24
2014	14	<5	8
2015	24	13	13
2016	26	18	8

Confirmed = laboratory confirmed

Possible and probable = clinical diagnosed infection

Excluded discarded cases = tested negative.

The prenatal pertussis vaccine programme aims to minimise disease, hospitalisation and deaths in young infants. Vaccine coverage in pregnant women reached 74% in mothers resident in LB Bromley in 2016, in line with that reached in England by December 2016 (at 76.2%).

#### **Scarlet Fever**

Scarlet fever is an infection caused by group A streptococci (GAS) bacteria. It occurs most often in winter and spring and symptoms include a rash, sore throat, flushed cheeks and swollen tongue. As reported last year, there have been three elevated seasons for scarlet fever, with activity peaking in 2015-16. Seasonal activity remains raised but has been lower in 2016-17 and rates have been lower in London compared to those seen in other regions of England<sup>4</sup>.

**Table 4** shows notifications of scarlet fever 2012 – 2016 in LB Bromley.

Table 4: Notification of scarlet fever 2012-16 in LB Bromley

Year	Confirmed	Probable	Possible
2012	-	16	8
2013	-	<5	21
2014	-	83	65
2015	-	225	8
2016	<5	225	<5

Confirmed = laboratory confirmed

Possible and probable = clinical diagnosed infection

Excluded discarded cases = tested negative.

Vaccination is one of the most effective public health interventions in the world for saving lives and promoting good health. It offers safe and effective protection against many major infectious diseases.

An overview of the current NHS vaccination schedule is available here.

The aim of any vaccination programme is to achieve "herd immunity". This refers to the process by which individuals who are not vaccinated or have not developed natural immunity, receive indirect protection from the disease. This occurs when a sufficiently high proportion of individuals in that population are immune or have been vaccinated which reduces the likelihood of the spread of disease. The level of vaccination required to achieve herd immunity varies by disease but the European Region of the World Health Organisation recommends that all European countries should aim for 95% coverage for all childhood vaccination programmes in order to maximise the likelihood of herd immunity being achieved in this population".

Achieving the target level of coverage for many of the vaccination programmes in Bromley remains a challenge. Vaccination coverage in Bromley is one of the public health areas in which the borough performs less well compared to the rest of England and coverage rates for some vaccines are also poorer than the London average.

The table below highlights those vaccination programmes for which the level of coverage in Bromley is currently below target and significantly worse than the England average.

Table 5: Vaccine coverage rates in Bromley for programmes not achieving target coverage 2015/16

	National	% population coverage			Comparative
Vaccine	Coverage	Bromley	London	England	Performance
MMR* 2 doses at age 5 years	Target 95%	84.1	81.7	88.2	Significantly worse than England
PPV	75%	62.9	64.3	69.8	Significantly worse than England and below London Average
Flu age 65+	75%	67.0	65.1	70.5	Significantly worse than England
Flu at risk individuals	55%	45.2	47.1	48.6	Significantly worse than England and below London Average
Flu age 2-4 years	65%	36.7	29.2	38.1	Significantly worse than England
Shingles* age 70+	60%	48.8	47.1	54.9	Significantly worse than England

<sup>\*</sup> Data is for 2015/16, data for 2016/17 not yet available from this source **Source: PHE Public Health Outcomes Framework, Dec 2017** 

The latest data on vaccine coverage, for all programmes, for local areas is published quarterly and is available via this <u>link</u>.

A review of the annual performance of local areas, including regional and national comparisons and trend analysis, is available <a href="here">here</a>.

The reasons for poor vaccine uptake are complex. It can be influenced by factors relating to vaccine programme delivery such as; access, awareness and acceptability and factors relating to the characteristics of the target population such as; socioeconomic status, gender, ethnic group and religious belief<sup>iii</sup>.

#### **Tuberculosis**

The rate of TB remains low across the borough at 6.7 per 100,000 in 2016 and has remained stable in recent years. This is much lower than the 25 per 100,000 for London and below the England average of 10.5 per 100,000. Of those notified in 2014, 100% of patients completed treatment by 12 months iv.

## What this means for residents in Bromley:

Further work is needed to encourage the uptake of childhood immunisations as vaccination rates for several categories, such as MMR, MenC, PCV and HPV, remain below the national recommendation of 95% coverage.

There remains a potential for measles and mumps outbreaks, particularly in older children and young adults due to poor immunisation uptake, as seen in the spike in the rate of confirmed measles cases across South London in 2016.

While the reported incidence of pertussis in Bromley remains raised; it is imperative that the efforts to increase the pertussis immunisation rates, particularly for the maternal pertussis vaccination, are continued.

Uptake of the seasonal flu vaccination in all eligible groups in Bromley is significantly lower than that of England, and a large proportion of at risk individuals remain vulnerable to the serious health effects of flu.

Coverage rates for the Shingles vaccination for older people also remains significantly below the England average with substantial room for improvement.

# **Health Improvement - NHS Health Checks**

# **Overview of the NHS Health Checks Programme**

The NHS Health Checks Programme is a national public health programme aimed at preventing heart disease, stroke, diabetes, chronic kidney disease and vascular dementia.

The NHS Health Check involves an assessment of an individual's level of risk of developing cardiovascular disease. Participants receive personalised advice on how to manage and reduce that risk. Depending on the findings some people may need further investigations and follow up to reduce their risk of developing some of the most disabling, but preventable illnesses.

Individuals aged between 40 and 74 years, without established cardiovascular disease, are eligible to receive an NHS Health Check. This programme runs over a rolling five year period, so 20% of the eligible population should be invited each year.

For 2016-17 the eligible population in Bromley was 95,190 people. The population eligible for an NHS Health Check continuously changes as people age, or develop conditions which exclude them, or move in or out of the borough. Therefore it is important to assess the invitations, uptake and checks received, cumulatively. This is reflected in the Public Health Outcome Framework (PHOF) measures which assess progress since April 2013. The Public Health Outcome Framework Indicators comparing Bromley performance against England and London is shown in **Table 5.** 

Table 6: NHS Health Checks PHOF indicators 2013-14 - 2016-17

2.22	Take up of NHS Health Check by those eligible	Time period	Bromley	London	England
2.22iii	Cumulative percentage of the eligible population aged 40-74 offered an NHS Health Check	2013/14 - 2016/17	85.7	85.0	74.1
2.22iv	Cumulative percentage of the eligible population aged 40-74 offered an NHS Health Check who received an NHS Health Check	2013/14 - 2016/17	39.8	48.1	48.9
2.22v	Cumulative percentage of the eligible population aged 40-74 who received an NHS Health Check	2013/14 - 2016/17	34.1	40.9	36.2

Source: Public Health Outcomes Framework. http://www.phoutcomes.info/

When examining the cumulative coverage of the programme from April 2013, Bromley has a higher percentage of offers than the regional and national average but the uptake against offers is lower than the London and England averages.

Geographical analysis of NHS Healthcheck data on Bromley, highlights variation in the offer and uptake of healthchecks across the borough and enables the identification of areas requiring specific targeting to improve uptake. Coverage of the eligible population offered an NHS Health Check since April 2011 is shown in **Map 1** by Lower Super Output Area (LSOA).

NHS Health Checks

Percetange

57 - 66

66 - 76

76 - 84

84 - 91

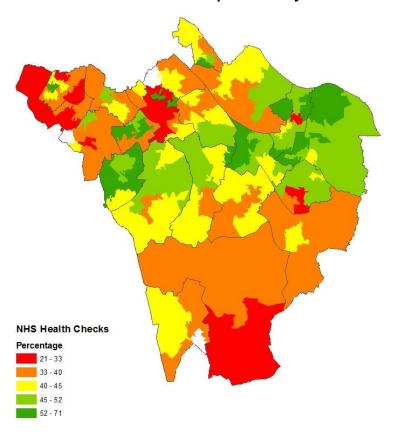
91 - 97

Map 1: Percentage of eligible population at March 2017 who have been OFFERED an NHS Health Check in the previous 6 years

Data excludes Bromley residents registered with an out of area borough GP and one Vision Practice in the North of the Borough whose data was unaccessible Contains Ordnance Survey data © Crown copyright and database right 2014

Source: Bromley NHS Health Check Programme, 2017

Map 2: Percentage of eligible population at March 2017 who have RECEIVED an NHS Health Check in the previous 6 years



Data excludes Bromley residents registered with an out of area borough GP and one Vision Practice in the North of the Borough whose data was unaccessible Contains Ordnance Survey data © Crown copyright and database right 2014

Source: Bromley NHS Health Check Programme, 2017

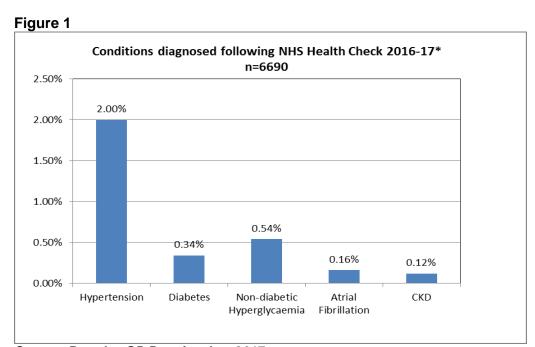
**Map 1** and **2** show that coverage of NHS Health Checks across the borough remains variable. The proportion of eligible people offered a health check appears lower in the north of the borough and in central Bromley but invitation rates are relatively good elsewhere in the borough (**Map 1**).

Patterns of healthcheck uptake are more variable (**Map 2**) with poor rates of uptake more widespread across the borough. It is of note that some of the areas which demonstrate good invitation coverage rates, such as parts of Orpington and Darwin, have relatively poor uptake rates suggesting that there may be an issue with access to the NHS Healthcheck service in these areas.

It should be noted that this data is aggregated over 5 years and performance in some areas may have improved considerably but be masked by previous poor performance.

The NHS Health Check includes a cardiovascular risk assessment tool (Qrisk2) which is used to assess whether an individual is at low, moderate or high risk of developing cardiovascular disease (CVD) in the next 10 years. In 2016-17, 310 (4.6%) individuals were found to have a high cardiovascular risk score. An additional 1,132 (17%) people were assessed as having a moderate 10 year cardiovascular risk score. These 1,442 (21%), individuals should be offered interventions including statin therapy and support with lifestyle behavioural changes, to reduce their risk of developing cardiovascular disease.

The NHS Health Check also identifies individuals eligible for further screening for hypertension (high blood pressure), diabetes, non-diabetic hyperglycaemia (raised blood glucose but not diabetic), chronic kidney disease (CKD) and atrial fibrillation (AF). Early diagnosis of these conditions is beneficial in reducing progression to more severe cardiovascular disease such as heart attacks, stroke and vascular dementia. A number of individuals were diagnosed with conditions for which they can now receive treatment to try to reduce cardiovascular risk and prevent disease progression. These levels are shown in **Figure 1**.



Source: Bromley GP Practice data 2017

<sup>\*</sup>These figures are likely to be an underestimation as there can be a time delay between having an NHS Health Check and making the linked diagnoses as these require further investigation.

At the time of the NHS Health Check, 1,203 (18%) of participants had a raised blood pressure, although not all would be expected to have a diagnosis of hypertension. All those with a high blood pressure should have received a blood test to assess kidney function to identify those with undiagnosed Chronic Kidney Disease (CKD).

The NHS Health Checks programme uses a diabetes filter to identify which patients require a blood test for diabetes risk; the criteria for this includes people with high blood pressure or a body mass index in the obese category. In 2016/17 the assessment of diabetes risk found 243 (3.6%) individuals with an HbA1c blood test in the pre-diabetic range and a further 23 people with undiagnosed diabetes.

The NHS Health Check includes a pulse rhythm check. 108 people were found to have an irregular pulse at their NHS Health Check and required a further test to assess if they had atrial fibrillation, a heart rhythm disorder. Following this 11 people were diagnosed with atrial fibrillation as a result of their NHS Health Check. These individuals are at high risk of stroke and are offered medication which significantly reduces the likelihood of stroke occurring.

All individuals identified with established disease or risk factors should have follow up investigation and assessment, and where appropriate offered interventions to reduce their risk of progression to more serious cardiovascular disease. Improving the outcomes of NHS Healthchecks in the prevention and early identification of risk and diagnosis of high risk conditions is supported by the Public Health England and NHS England Rightcare pathway for CVD prevention.

(https://www.england.nhs.uk/rightcare/products/pathways/cvd-pathway/)

## What this means for residents in Bromley:

As a result of NHS Health Checks in Bromley in 2016/17\*:

- 23 people were diagnosed with diabetes
- 134 people were diagnosed with hypertension
- 11 people were diagnosed with atrial fibrillation
- 8 people were diagnosed with Chronic Kidney Disease

\*Measured at 31.3.17. therefore likely to be an underestimation as some people at risk will be still undergoing investigation and may be diagnosed after this date

A considerable number of people were identified as having risk factors for developing these diseases:

- 1442 people were found to have a moderate or high cardiovascular risk score
- 1203 people had raised blood pressure
- 243 people had pre-diabetes
- 108 were found to have an irregular pulse

There is a continued need to improve the uptake of NHS Health Checks across most areas in the borough particularly the north and central Bromley.

An additional provider has been commissioned to target areas of lower uptake to ensure that variation in uptake does not widen health inequalities across the borough.

In Bromley work to improve the pathways for patients identified at risk of atrial fibrillation, hypertension and diabetes have been prioritised for review to ensure that the opportunities to prevent the onset or progression of disease identified via the NHS Health Check are maximised.

### **Useful References:**

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G.Amirthalingam, et.al. "Sustained Effectiveness of the Maternal Pertussis Immunization Program in England 3 Years Following Introduction *Clinical Infectious Diseases, Volume 63, Issue suppl\_4, 1 December 2016, Pages S236–S243* <a href="https://doi.org/10.1093/cid/ciw559">https://doi.org/10.1093/cid/ciw559</a>

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<sup>&</sup>lt;sup>1</sup> Public Health England. (2017). *Pertussis vaccination programme for pregnant women update: vaccine coverage in England, January to March 2017.* [online] Available at:

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