7.1.3 Childhood immunisation

Why is this issue important?

Immunisation is an extremely effective public health measure. Nationally it has resulted in a significant reduction in the rate of infectious diseases. Increases in uptake of all vaccines will improve both the health protection of the nation, and morbidity and mortality of individuals.

Diseases for which vaccines are available in the United Kingdom include diphtheria, tetanus, polio, pneumococcal, meningitis C, Haemophilus influenzae, pertussis, measles, mumps, rubella, Hepatitis B and Tuberculosis (with the BCG (bacille Calmette-Guerin) vaccine). Although deaths from vaccine-preventable infections are now rare in the UK, the decreases in uptake of MMR (measles, mumps, rubella) vaccination, for example, have left individuals at risk of potentially fatal infections.

Key outcomes

- ***Population vaccination coverage (Public Health Outcomes Framework)***

Impact in Brighton & Hove

Brighton & Hove is in the lowest quartile for childhood immunisation uptake rates in the South East and is below the national average on all the immunisation indicators within the Public Health Outcomes Framework in 2014/15.[1]

Substantial efforts over the past few years, and the establishment of a Specialist Immunisation Team, has led to an overall increase- Brighton & Hove uptake rates have increased over the past five years for most indicators.

When a sufficient percentage of the population is immune to a disease, through vaccination and/or prior illness, the disease is unable to spread, and those people who are not immune will also be protected. This is known as 'herd immunity' and is particularly important for those who are unable to be vaccinated or who will suffer more severe consequences from catching a disease, for example due to young age or immunosuppression.

To achieve herd immunity, immunisation rates need to reach, and be maintained at, 95%. This figure has not yet been achieved for any childhood vaccination in Brighton & Hove.

Rates remain lower than the national target that 95% of children should receive three primary doses of diphtheria, tetanus, polio and pertussis in the first year of life; that 95% should receive first dose of MMR vaccine by their second birthday; at least 90% of girls aged 12-13 years old should receive a complete course of HPV vaccine.

The Specialist Immunisation Team co-ordinates the Vaccination in Schools Programme which consists of Flu, HPV and School Leaver Booster and Meningitis (MenACWY). From October 2016 all children in school years 1, 2, and 3 will be offered the nasal spray flu vaccination to protect them from influenza.

Table 1: Childhood immunisation uptake rates, 2014/15

	Brighton & Hove	South East	England	Brighton & Hove change 2011/12 to 2014/15
DTaP/IPV/Hib at 1 yr.	91.9%	93.0%	94.2%	+0.7%
1st dose MMR by 2nd birthday	90.0%	91.1%	92.3%	+4.1%
2nd dose MMR by 5th birthday	87.0%	86.8%	88.6%	+10.2%
Preschool booster by 5th birthday (DTaP/IPV)	87.3%	86.9%	88.5%	+1.6%
HPV vaccination coverage- girls 12-13	84.0%	84.6%	86.7%	-0.9%

Source: NHS Immunisation Statistics 2011/12, NHS Information Centre for Health and Social Care and Immunisation Coverage July-September 2012; Health Protection Agency

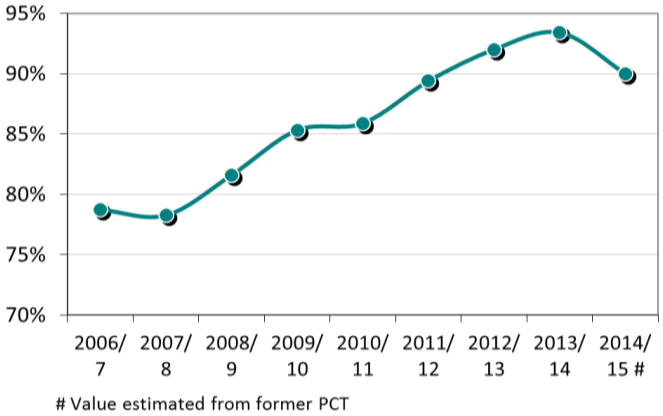
Where we are doing well

MMR immunisation uptake in the under fives has improved in the city in recent years, though there was a slight fall in 2014/15 (Figure 1).

[1] Public Health England. Public Health Outcomes Framework data tool. Available at: http://www.phoutcomes.info/ [Accessed 15/07/2016]

7.1.3 Childhood immunisation

Figure 1: Increase in MMR vaccination rate by age 2 years, 2006/7 to 2014/15



Source: Public health England

Local inequalities

There is currently no local data on immunisation uptake by equality groups, however nationally those who remain incompletely immunised are more likely to live in disadvantaged areas and are less likely to use primary care services. Previous evidence suggested Brighton & Hove has the inverse situation in some wards, where failure to accept vaccination is more a reflection of anti-vaccination views than due to deprivation.[2]

Predicted future need

Not having reached 'herd immunity' levels means there will be an ongoing need to promote existing vaccination programmes to the local population, as well as introducing any new ones that may be approved nationally in the future.

There is an ongoing need for primary care to ensure that newly registered patients among the 14% migrant population of the city[3] have an up-to-date immunisation record, and to recommence the immunisation schedule where this is not known.

What we don't know

There is currently no local data on immunisation uptake by equality groups. Brighton & Hove has a significant minority who oppose immunisation in principle. It is unclear how we could engage more constructively with this group to encourage vaccination uptake.

Key evidence and policy

NICE Public Health Guidance 21 (2009) http://guidance.nice.org.uk/PH21/Guidance/pdf/English provides the evidence base for effective interventions to increase immunisation uptake in the childhood immunisation programme. This includes a benchmark tool against which local action is measured by the Brighton & Hove Immunisation and Vaccination Review Group. The national Joint Committee on Vaccinations and Immunisations (JCVI) reviews the evidence and cost effectiveness of all immunisation programmes.

Recommended future local priorities

1. The responsibility for ensuring delivery of immunisation programmes has moved from the local NHS to a team covering Surrey and Sussex. This shift must not be allowed to compromise improvements made over the past few years.
2. The Specialist Immunisation Team should continue to support GP Practices with data cleansing to ensure accurate uptake records are kept and timely immunisation invitations sent.
3. Primary care needs to gear up to reflect the additional work associated with the new immunisation schedules.
4. Schools need to be engaged to explore the possibility of greater involvement as the settings for some routine immunisations.
5. Further work should be done on opportunistic immunisation and developing outreach services for hard to reach groups.
6. All staff involved with delivering the immunisation programmes should receive up to date training.

Further information

Department of Health: Immunisation against infectious disease: http://www.dh.gov.uk/en/Publichealth/Immunisation/Greenbook/index.htm

Last updated

July 2016

[2] Annual Report of the Director of Public Health 2006.

[3] Office for National Statistics, Estimates of UK population by country of birth, Table B, January 2014 – December 2014. Available at https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/datasets/populationoftheunitedkingdombycountryofbirthandnationalityunderlyingdatasheets [Accessed 05/07/2016]