Meeting	HOSC
Date	14.04.10
Author	Barbara Hardcastle, Public Health Specialist
Subject	Comparative Report on Brighton and Hove City Immunisation
	Uptake Rates

## 1.1. Purpose

The purpose of this paper is to give an over view of the performance of Brighton & Hove City PCT in relation to key immunisations and to compare this against the 2008/09 performance of the South East Coast Health Authority and England. It also provides an update of actions that are currently taking place in the city to improve uptake. Immunisation is a key public health measure in protecting the local population from vaccine preventable illnesses and is one of the PCT's Vital Signs. This paper focuses upon the primary baby immunisations at 2, 3 and 4 months, MMR, preschool booster, HPV and school leaving booster.

### **UK Routine Vaccination Schedule**

### 2 months

## DTaP/IPV/Hib + PCV

**Diphtheria** – Can cause breathing problems, damage the heart and nervous system and in severe cases can kill.

**Tetanus-** Affects the muscles and can cause breathing problems. It can affect the nervous system and in some cases can kill.

**Pertussis** (whooping cough) – Long bouts of coughing may cause choking and make it hard to breathe. Can kill babies under one year old.

**Polio (IPV)** – Attacks the nervous system and can affect chest muscles, permanently paralyse muscles and can kill.

Haemophilus influenzae type b (Hib) – Can cause blood poisoning, pneumonia and meningitis and can kill. Hib only protects against one type of meningitis. Pneumococcal (PCV)- Can cause pneumonia, blood poisoning and meningitis.

#### 3 months

## DTaP/IPV/Hib + MenC

Diphtheria, tetanus, pertussis (whooping cough), polio, haemophilus influenzae type b and meningitis C **Meningitis C** - Meningococcal group C is a type of bacteria that can cause meningitis and blood poisoning. The MenC vaccine does not protect against meningitis caused by other bacteria or by viruses.

4 months	<b>DTaP/IPV/Hib +MenC +PCV</b> Diphtheria, tetanus, pertussis, polio, haemophilus influenzae type b and meningitis C and pneumococcal			
12 months	Hib/MenC Haemophilus influenzae type b and meningitis C			
13 months	MMR +PCV			
	<ul> <li>Measles – Measles causes a high fever and rash. Complications include chest infections, fits, swelling of the brain and brain damage. In can also kill</li> <li>Mumps – Causes fever, headache and painful swollen glands in face, neck and jaw. It can result in deafness, viral meningitis, swelling of the brain and rarely painful swelling of the testicles and ovaries.</li> <li>Rubella – Causes a rash, swollen glands and a sore throat. It can seriously damage the sight, hearing, heart and brain of unborn children.</li> </ul>			
3 years 4 months -5 years	<b>DTaP/IPV or dTaP/IPV + MMR</b> Diphtheria, tetanus, pertussis and polio. Measles, mumps and rubella.			
12-13 years (females)	HPV			
	Human Papilloma Virus – There are over 100 forms of HPV, 13 of which are known to be a cause of cervical cancer.			
13-18 years	<b>Td/IPV</b> Diphtheria, tetanus, polio			
>65 years and at risk groups under 65 years	<b>PPV/influenza</b> Flu and pneumococcal (PPV – Pneumococcal polysaccharide vaccine)			

**1.1.Diphtheria, Tetanus, Polio, Pertussis, Haemophilus influenza type b.** Percentage immunised by 1<sup>st</sup> birthday with DTaP/IPV/Hib



Since April 2003, the uptake for DTaP/IPV/Hib has increased from 85.6% to 89.90% in September 2009.

In 2008/09, out of 3282 eligible children, 2979 were vaccinated for the primary childhood immunisations of diphtheria, tetanus, whooping cough, polio, and Hib. This represented 91% of the eligible child population and was an increase on the uptake in 2007/08 and above the PCT target of 90%. It was just 1% below the regional and England average.

The PCT uptake target for 2009/10 is 91%.

# 1.2.MMR

Percentage immunised by 2<sup>nd</sup> birthday with MMR



Historically MMR uptake has been badly affected by the negative press associated with the combined vaccine as a result of the now discredited Wakefield paper published in the Lancet in the 1998. There is also a strong "natural health" movement in Brighton and Hove which is anti-vaccination in general and anti- MMR in

particular. Since April 2003 first dose MMR uptake has seen a substantial increase in uptake from 67.3% to 84.30% in September 2009.

In 2008/09, out of 3053 eligible children, 2491 were vaccinated for MMR, representing an 81.6% uptake. This was 3% lower than the uptake rate for the region and England. The PCT annual uptake target for 2009/10 is 84%.

# 1.3. Diphtheria, Tetanus, Polio, Haemophilus influenza type b. (preschool booster)

Percentage immunised by 5<sup>th</sup> birthday with DTaP/IPV/Hib



Since January 2007 the uptake of the preschool booster has increased from 69.60% to 79.90% in September 2009.

In 2008/09 there were 2816 children eligible for the vaccine in the city, of whom 2059 were vaccinated, representing a 73.1% uptake which achieved the PCT annual target. In 2008/09 Brighton & Hove City PCT had a lower uptake rate for the preschool booster than both the regional and England averages.

In 2009/10 the annual target will be 76%.

# 1.4.MMR (2<sup>nd</sup> dose)

Percentage immunised by 5<sup>th</sup> birthday with MMR



The uptake for the second dose MMR has increased since April 2003 from 58.70% to 77.40% in September 2009. The MMR catch-up campaign introduced in October 2008 has contributed towards an 8% increase in uptake in one year for the MMR2, as people who had received one or no MMRs were followed up.

In 2008/09 there were 2816 children eligible for vaccination of which 2600 were immunised, representing a 68.8% uptake rate. This exceeded the 2008/09 annual target for the PCT of 62%. Brighton & Hove City PCT had a lower uptake rate for the second MMR dose than both the regional and England average. The PCT annual target for 2009/10 is 69%.

# 1.5. HPV

This is the second year of the HPV vaccination programme for Year 8 girls. Catch-up campaigns are also running for Years 10, 11, 12 and 13 in 2009/10. Years 8, 10 and 11 are school based programmes, the rest are delivered by GP Practices.



Brighton & Hove City PCT had a higher uptake rate for all 3 HPV doses than both the region and England in 2008/09. The Annual PCT Target for 2009/10 is 85%.

# 1.6.Diphtheria, Tetanus, Polio (School Leaving Booster)

The denominator for measuring the uptake of the school leaving booster is ambiguous as it ranges from 13 to 18 years, but in practice invitations for the vaccination are sent out after the 15<sup>th</sup> birthday.

The most recent figure we have for uptake in Year 10 is 59% for those children born between September 1<sup>st</sup> 1992 and August 31<sup>st</sup> 1993 (as at Jan 13<sup>th</sup> 2009).

Unlike other childhood vaccinations in the programme this one is currently delivered by GP Practices. Nationally areas that deliver this vaccination in schools tend to have a higher uptake rate, so the PCT/CYPT will be looking at the possibility of transferring the delivery into schools in 2010.

# 1.7 Immunisation coverage by GP Practice





Preschool booster for 5 year olds by GP Practice 2008/09



The above graphs show the variation in uptake of the first dose MMR and preschool booster vaccines across GP Practices in the city in 2008/09. The variation for some of the highest and lowest uptakes can be accounted for by the nature of the demography of particular practices. For example two local practices have very low numbers of under 5s registered compared to the rest of the practices in the PCT. Therefore a few children can make a large percentage difference in the uptake for these practices. For example one these two practices has the lowest uptake rate for the MMR but one of the highest uptake rates for the Preschool booster.

# 1.8.Seasonal Influenza Vaccination

Vaccination against seasonal flu is offered to all people aged 65 and over and those under 65 in at risk groups. The national target is to achieve at least a 70% uptake rate.

	Over 65s (2008/09)	Over 65s (2009/10)	Under 65 at risk (2008/09)	Under 65 at risk (2009/10)
Brighton & Hove City PCT	71%	67.4%	45.3%	51%
South East Coast	73%	-	-	-
England	74%	-	47.1%	-

In 2008/09 the over 65 coverage was 71% and under 65 at risk was 45.3%. The uptake of the seasonal flu campaign in 2009/10 was affected by the H1N1 swine flu pandemic and the swine flu vaccination programme. This programme targeted at risk groups for vaccination which is reflected in the increased uptake of the seasonal flu vaccine by 51% of the at risk population. In contrast the uptake for over 65s fell to 67.4% in 2009/10. Data for South East Coast and England are not yet available for comparison.

# 2.0. Citizens Panel Results 2009 – Childhood Immunisations

The Citizens Panel survey on immunisation was administered to 821 people in 2009 of whom 24.5% (n=201) had children in the under 18 age group.

- 73% of their children (n=146) had received all the immunisations offered
- 6.5% (n=13) had not had any of the immunisations offered
- 14% (n=28) had some of the immunisations offered
- 75.9% (n=22) to 77.4% (n=24) had received baby immunisations at two, three and four months
- 66.7% (n=18) had received Hib/MenC
- 42.9% (n=12) had received their first MMR
- 28.6% (n=8) had received their Pneumococcal
- 23.1% (n=6) had received their preschool booster and second MMR
- 14.3% (n=2)had received the school leaving booster.

When asked why some or all of the vaccinations had been missed 60% of responders gave the answer "other" to that listed as options in the questionnaire. The other main reasons chosen from the questionnaire list were as follows.

- 22.2% (n=22) responded that they didn't believe MMR was safe
- 20.2% (n=20) were concerned about overloading their child's immune system
- 13.1% (n=13) would rather their children developed immunity as a result of catching the illness.

When asked about the information they had received about immunisation

- 86.7% (n=170) felt they had been given enough information about the illnesses vaccines prevent
- 89.7% (n=174) felt they had been given enough information about the benefits of immunisation for their child
- 78.6% (n=151) felt they had been given enough information about the benefits of immunisation to the community as a whole
- 64.8% (n=125) felt they had been given enough information about the risks of immunisation
- 81.4% (n=158) felt they had been given enough information about the risks of not immunising their child.

# 2.1. Implications of findings

In response to the Citizens Panel report, further work will be developed on communications to ensure parents are better informed of the risks and benefits of immunisation both to their individual children and to the community as a whole. This will also have training implications for Health Visitors and Practice Nurses.

# 3.0. Action Taken To Date

A multiagency Immunisation and Vaccination Group meets on a quarterly basis to review uptake figures. Part of its role is to co-ordinate immunisation programmes across the city and to develop and implement an action plan to increase uptake. The action plan includes issues such as health promotion, communication campaigns and looking at data quality. The group will also be reviewing the NICE Public Health Guidance 21 on "Reducing the differences in uptake of immunisations" (September 2009). It is also looking into appointment systems and waiting lists for vaccination at practice level. The possibility of opportunistic vaccination in A&E, and Walk-in centres, and of at-risk hospital patients are also being considered.

A specialist immunisation team is being developed in CYPT. This will include a specialist nurse who will work with GPs to follow-up people who have missed their immunisations and if necessary provide an outreach vaccination service. They will also follow up hard to reach groups. The team will also review the possibility of transferring the school leaving booster from a GP to a school based programme to help improve uptake.

An MMR catch-up campaign has been running in GP Practices since October 2008 through a Local Enhance Service. This has led to improvements in the uptake rate for MMR and has improved the accuracy of information on patients eligible for vaccination.

The national MMR Roadshow came to Brighton for the day in August 2009 to promote the vaccination; this was set against the background of a measles epidemic in the city in the summer.

The introduction of the TPP data system to CYPT in 2010 is also being used as an opportunity for data reconciliation between the Exeter database on childhood immunisations and the Child Health Data System. A discrepancy of 2,000 children between these two lists has previously been identified. This reconciliation will lead to

a more accurate denominator hence contributing towards an improvement in uptake figures.

In 2009, the 17/18 year old HPV programme in GP Practices was promoted to young women through bespoke invitations.

As well as the routine childhood immunisation programme the PCT is also engaged in completing the HPV catch-up campaign in 2010 and in delivering the swine flu vaccination programme. This has inevitably put extra pressure on local immunisers and the Department of Health has allowed a delay in the submission of routine childhood immunisation, as part of the Directly Enhanced Service Agreement for the national Swine Flu Programme.