

## IMMUNISATION AND VACCINATION REPORT

### 1. Purpose of this report

This report provides details of the immunisation and vaccination uptake for childhood immunisation programme and the influenza immunisation programme 2007-2008. There is also a summary of the immunisation training, advice and support service provided by the Health Improvement team.

### 2. Recent developments

The immunisation and cervical screening co-ordinator commenced in post on the 21<sup>st</sup> of January 2008. The Service Level agreement (SLA) with the Birmingham Immunisation Failsafe Unit (BIFU) commenced in September 2007.

### 3. The childhood immunisation programme

The overall aim of the routine childhood immunisation programme is to protect all children from the following preventable childhood infections:

Table 1

Diphtheria	Meningococcal Serogroup C (Men C)
Tetanus	Measles
Pertussis	Mumps
Haemophilus Influenzae type b (Hib)	Rubella
Polio	Pneumococcal

The routine childhood immunisation programme is divided into a primary immunisation course which commences at 2 months of age and a number of booster doses given at the recommended time intervals. The majority of the childhood vaccines are combined products which reduces the number of injections required at each of the scheduled contact points.

The current childhood immunisation programme is detailed in the table 2 below

Table 2

When to immunise	What is given	Total Number of injections
Two months	Diphtheria/Tetanus/acelluar Pertussis/ Inactivated polio/Hib (DTap/IPV/Hib) Pneumococcal (PCV)	2
Three Months	DTap/IPV/Hib Men C	2
Four Months	DTap/IPV/Hib PCV Men C	3
12 months	Hib/Men C	1
13 months	MMR PCV	2
Three years four months to Three years 6 months	dTap/IPV/Hib (currently for the Hib catch up programme) MMR	2
13 to 18 years	Td/IPV	1

#### 4. Childhood Immunisation Uptake

Both the World Health Organisation and the Department of Health recommend a childhood immunisation uptake level of 95%; at this level of uptake "Herd Immunity" is established and facilitates the protection of those individuals who are not vaccinated.

Child Health maintains the childhood immunisation appointment system for the majority of the PCTs practices, a schedule of children who are due an immunisation in the forthcoming month is sent from Child Health to the practice. Immunisation appointments are then either generated by Child Health or by the practice inviting the child to attend for immunisation. As children are vaccinated the person administering the vaccine records on the schedule the date, the name of the vaccine and the batch number. The process requires the schedules be returned to Child Health in order that data input clerks can record that the child has received the vaccine on the Child Health system. The recording of data at Child Health has two key functions:

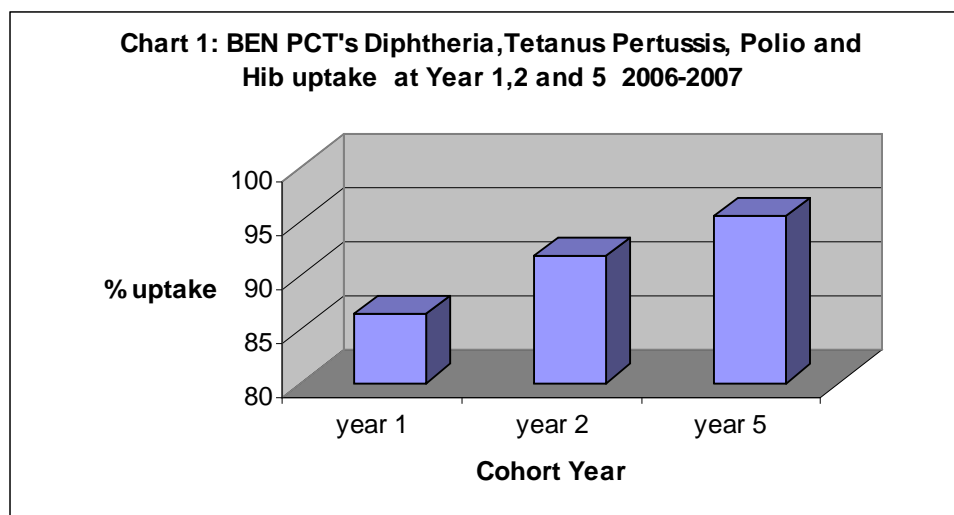
- It provides a central record of the child's immunisation status and minimises the risk of a child being revaccinated with the same vaccine
- Provides a mechanism for collating childhood immunisation uptake data for the HPA

Childhood Immunisation uptake rates are reported quarterly to the Health Protection Agency by Child Health at Springfields- this data is called the National COVER data. The data reports the uptake for the childhood vaccine programme for three age cohorts in each quarter that is children who are one, two and five years of age within the quarter. The three cohorts are called: 1 year cohort, 2 year cohort and 5 year cohort.

The majority of childhood immunisations in BEN PCT are administered in primary care by practice nurse (one practice in the PCT has opted out of delivering the childhood immunisation programme, this practice is covered by a health visiting team).

## 5. BEN PCT's Childhood Immunisation Uptake

Chart 1: BEN PCT's Diphtheria, Tetanus, Polio and Hib uptake at Year 1, 2 and 5 2006-2007



The vaccine Diphtheria, Tetanus, Pertussis, Polio and Hib (DTaP/IPV/Hib) is the 5 in 1 vaccine, Pediacel, which is given at 2, 3 and 4 months of age. The aim as discussed earlier in this paper is to vaccinate 95% of the childhood population, in BEN PCT the uptake at year 1 is 86.4%, in Year 2 93.7% and at year 5 it is 95.5%.

It is anticipated that the main reason that there is a low uptake in year 1 is a data quality issue, mainly that practices do not return the data to child health in time to meet the quarterly return for the national COVER data- this assumption has been confirmed when immunisation uptake data has been shared with practices who appear to have a low uptake but are in receipt of the 90% uptake target payment. There are two target payments for childhood immunisations, set at 70% and 90%, practices claim their payment from Contractor Services, not via child health. Due to a historical anomaly the two computer systems do not communicate- which in effect means that a practice can claim the 90% target payment but not report immunisation activity to Child Health.

A detailed piece of work will commence, focussing in on one locality, to develop a greater understanding of why BEN PCT's uptake in year 1 is low, this will include a monthly review of the immunisation queues in each practice, immunisation capacity within practices and models of good practice across the PCT.

Chart 2: Diphtheria, Tetanus, Pertussis, Polio and Hib uptake at year 1, 2 and 5, 2006-2007, for BEN PCT and Pan Birmingham

When compared with the pan Birmingham uptake for DTaP/IPV/Hib the greatest variation is at year 1.

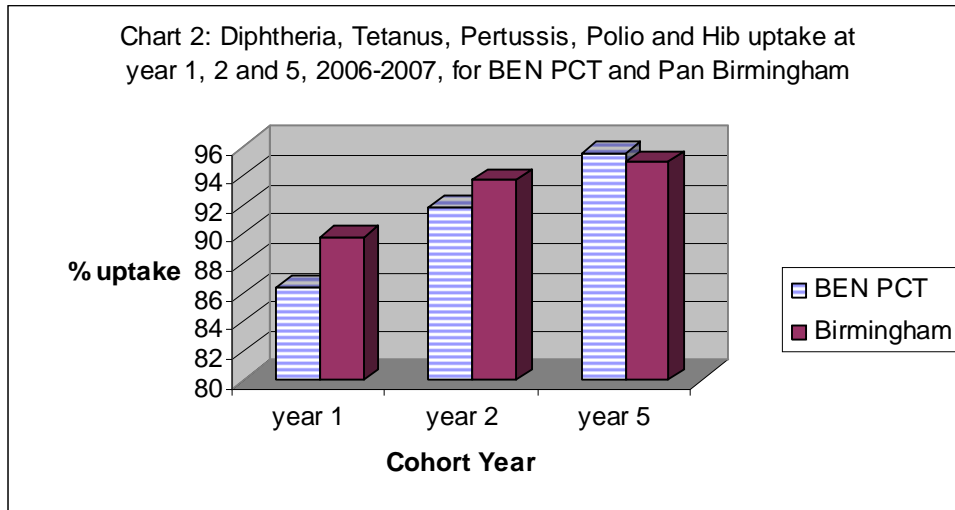


Chart 3: Diphtheria, Tetanus, Pertussis, Polio and Hib at year 1, 2006-2007 for each of the Birmingham PCTs

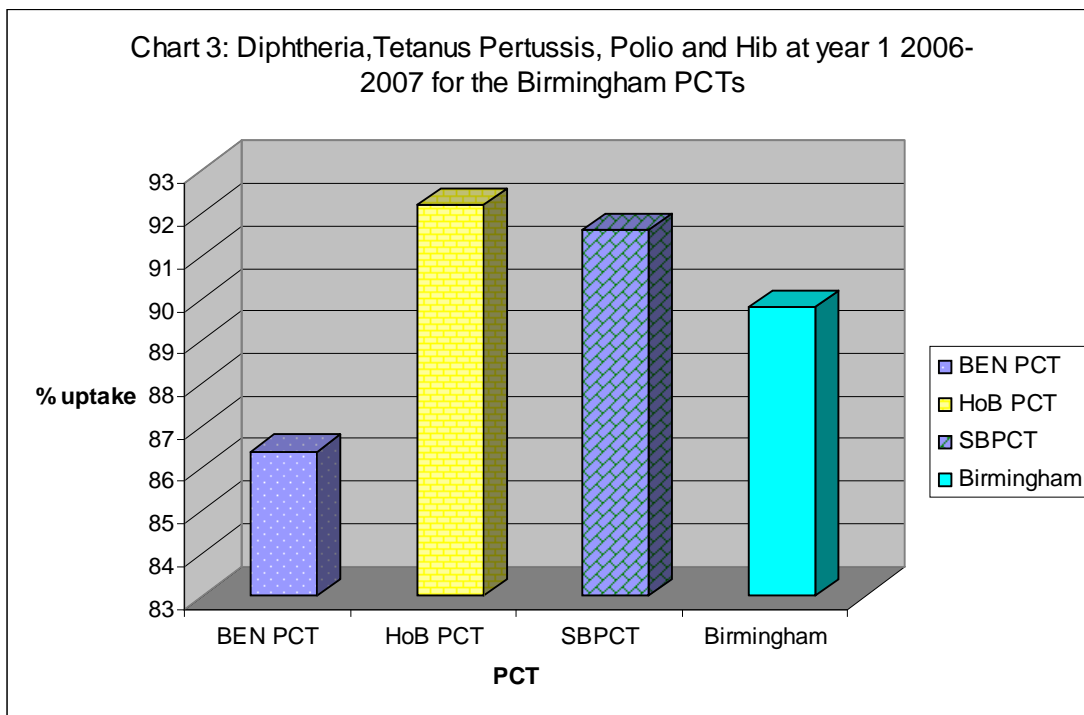
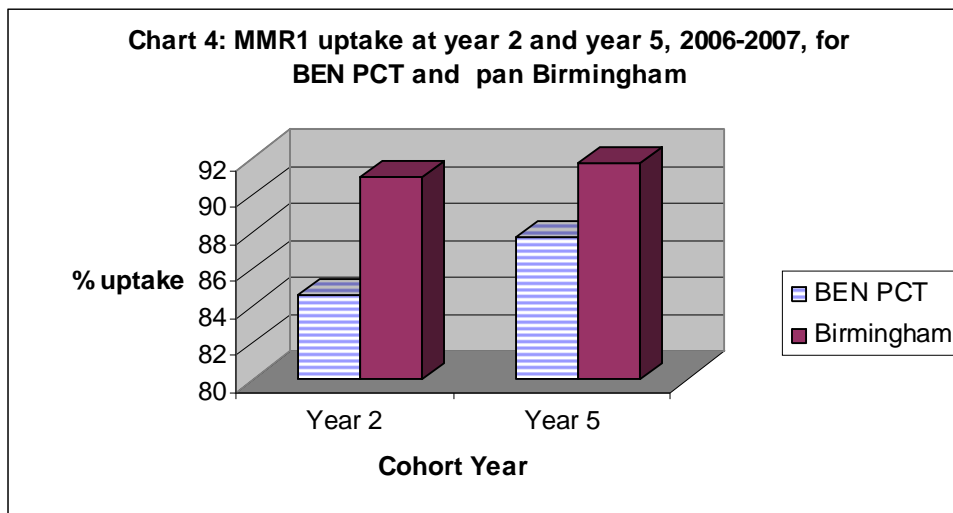


Chart 4: MMR1 uptake at Year 2 and Year 5, 2006-2007, for BEN PCT and pan Birmingham



Two doses of Measles, Mumps and Rubella (MMR) are required to give level protection against the 3 diseases contained in the vaccine. The COVER data relates to the number of children who receive 1 dose of MMR at year 2 and year 5- this is called MMR1. BEN PCT achieves an uptake of 84.6% at year 2 and 91% at year 5.

Uptake data for Quarter 2 01/07/07- 30/09/07

The latest uptake available by GP practice is for quarter 2 July- September 2007. Please see the following charts for each localities uptake by GP for DTaP/IPV/Hib at year 1 and year 2

Chart 5: Bordesley Green, South Yardley and Acocks Green Locality

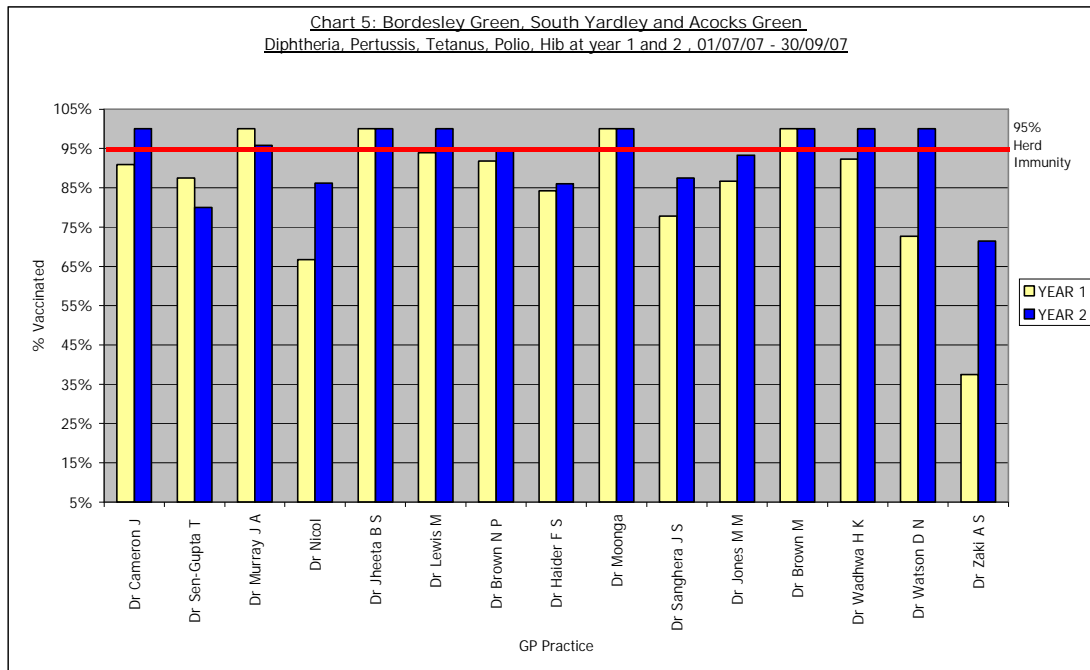


Chart 6: Erdington Locality

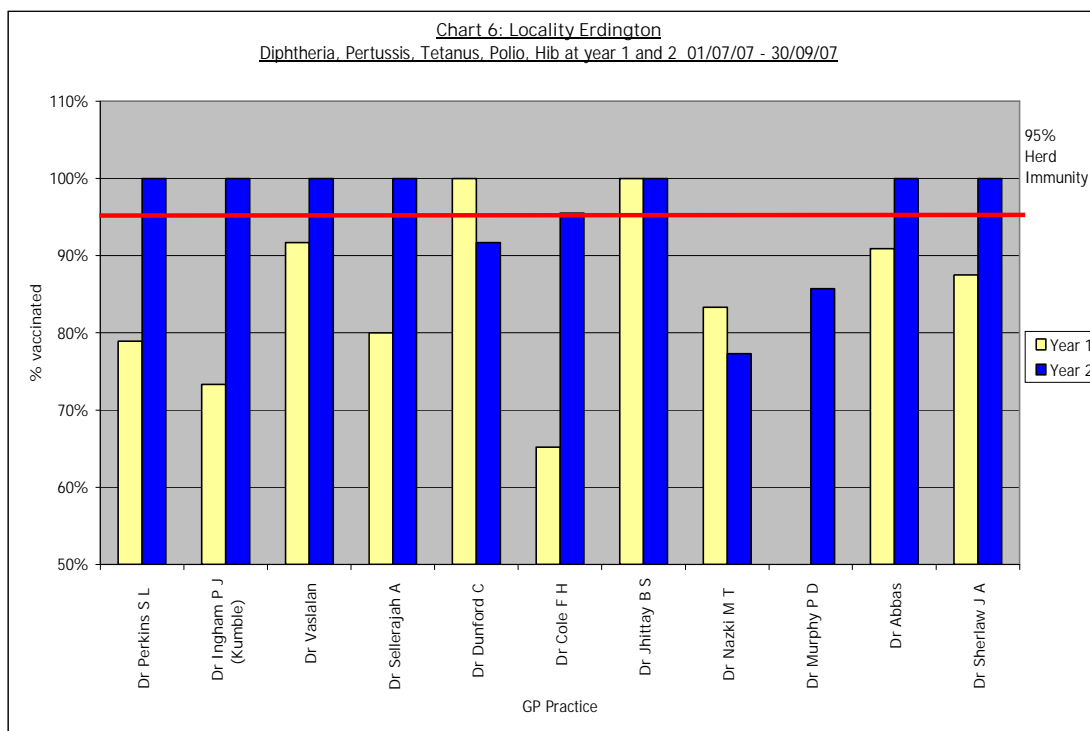


Chart 7: Kingstanding and Oscott Locality

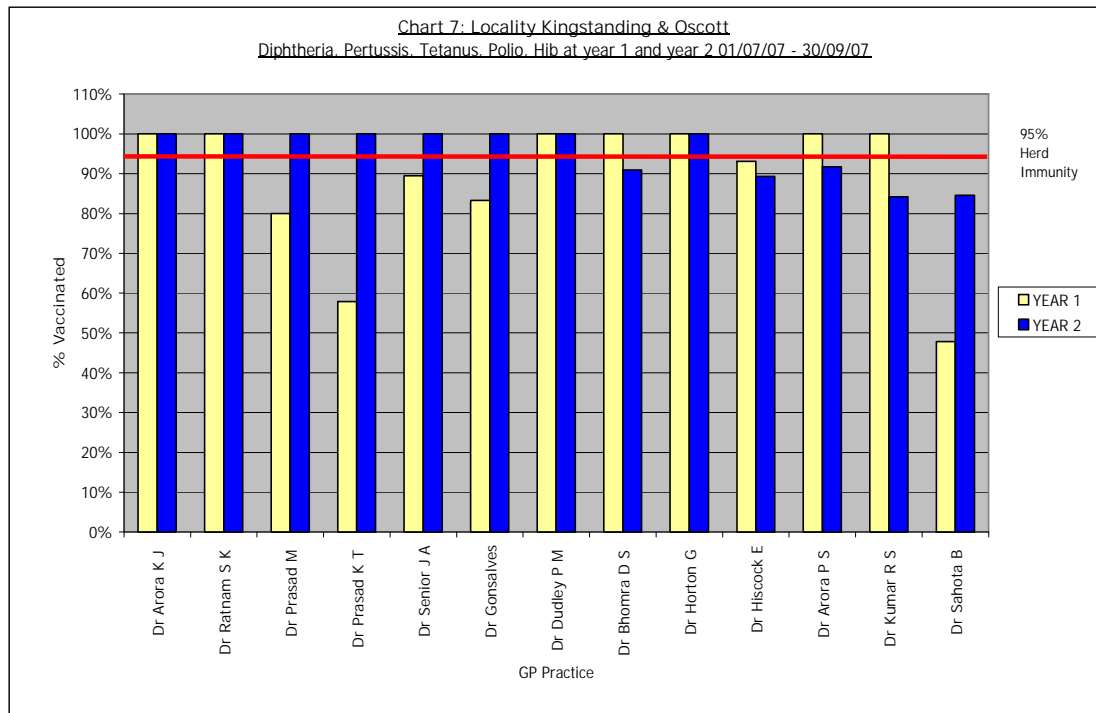


Chart 8: Sheldon, Shard End and Stechford Locality

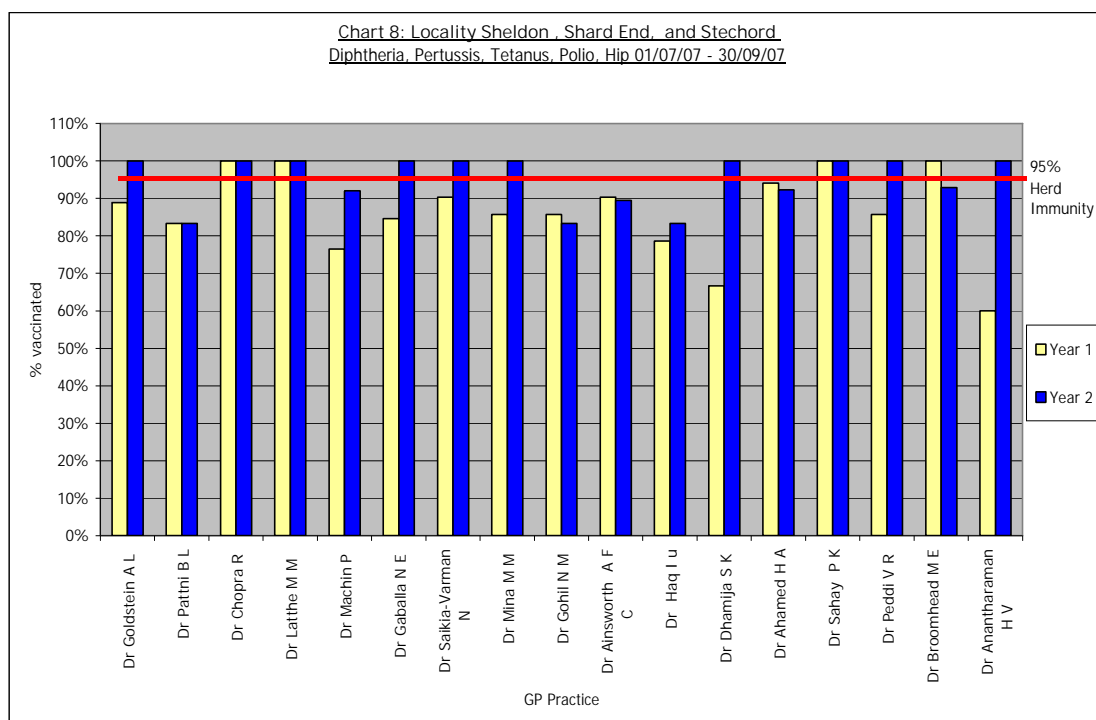


Chart 9: Sutton Locality

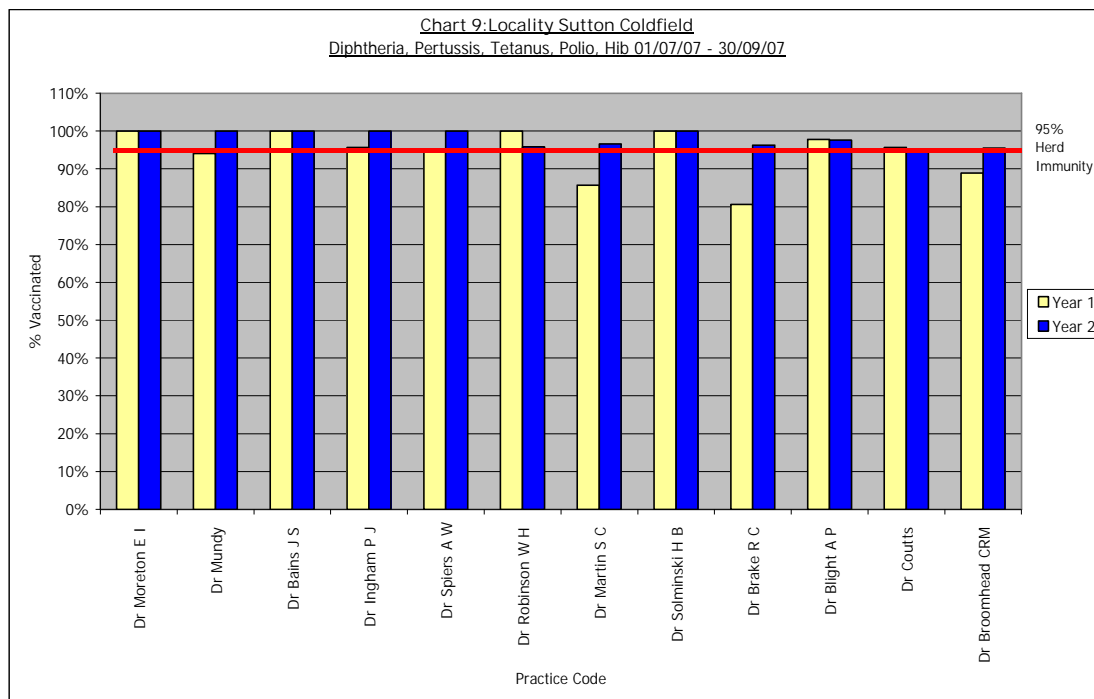
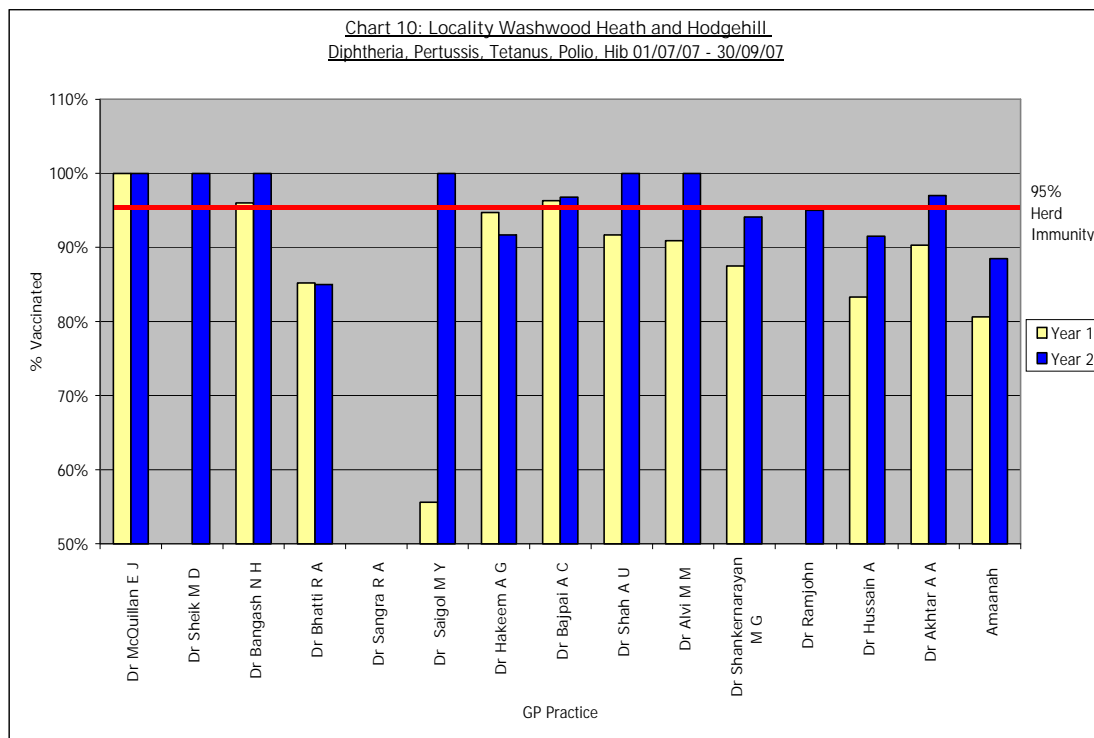


Chart 10: Washwood Heath and Hodge Hill Locality



## 6. Improving the childhood immunisation uptake

A number of initiatives are being implemented with an aim to improve the uptake of childhood immunisation and data quality these include:

### 6.1 Service Level Agreement with the Birmingham Immunisation Failsafe Unit (BIFU)

The SLA was implemented in September 2007, following its presentation at each of the locality commissioning boards.

The key aim of the service is to deliver and maintain an improvement in immunisation uptake in BEN, primarily focussing on MMR. It is recognised that this will have an impact on the primary course data. BIFU utilise the methodology, they have developed to deliver the service, and this includes:

- Utilising information from the Child Health System to create a 'failsafe' database of children who have outstanding immunisations
- Validating the data through a staged process with GP practices
- Generating appointment letters for those children who require immunisation. Each letter has a 'return to sender' label affixed to the envelope to aid the identification of children who have moved
- Monthly follow up process with each practice to identify the outcome of the appointments. Updating of the child health data base at this stage
- Support to immunise persistent defaulters

### Early outcomes from the SLA process with MMR1

Table 3

Month	Total Number of MMR's Outstanding At 22 months of age in BEN PCT	Total Resolved via the SLA process of working with practices	Percentage Resolved by SLA process
Phase 1 1 -30 September 2007	123	84	<b>68%</b>
Phase 2 1-31 October 2007	146	94	<b>64%</b>
Phase 3 1-31 November 2007	110	64	<b>59%</b>
Phase 4 1 -31 December 2007	120	71	<b>59%</b>

### 6.2 Role development in health visiting teams

Community staff nurses within health visiting teams have received training and are developing clinical competence in the administration of childhood immunisations. The staff nurses will work in partnership with GP practices and BIFU to target the vulnerable children who have persistently failed to attend immunisation appointments, and will offer domiciliary access to the vaccines for those children who have been identified via the SLA process. Until the group of staff nurses have gained competence this service is being supported by a health visitor one day a week.

### 6.3 Immunisation Training

The PCT has an in house established immunisation training programme which has been developed over the last eighteen months. The training programme meets the requirements of Health Protection Agency National Core Curriculum for immunisation (2005). The training is available to both PCT employed and practice based staff, neighbouring organisations are requesting to access the training.

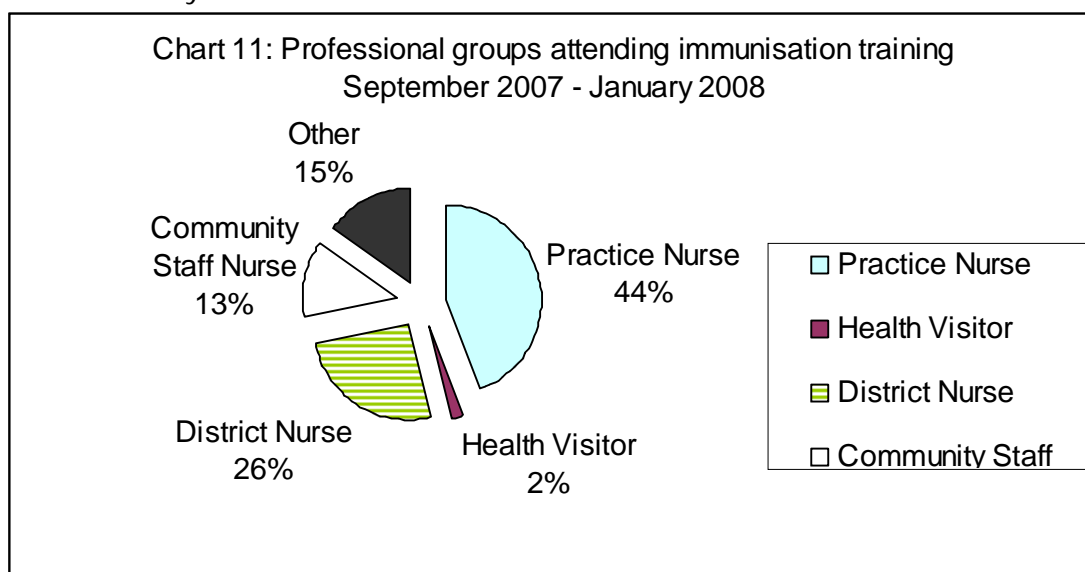
The training programme includes:

- Principles of Immunisation- a full day training
- Childhood Immunisation- a full day training
- Travel Health- half a day
- Seasonal Influenza and pneumococcal- 90 minute session

Additional training sessions are provided as required, for example when the childhood immunisation programme was changed in September 2007 to include the Hib catch up programme; 5 additional 90 minute update sessions were provided by the Nurse Consultant, 83 staff attended, these were primarily practice nurses (47%).

### 6.4 Training evaluation

Chart 11: Professional groups attending immunisation training September 2007- January 2008



## 7. Influenza Immunisation Campaign 2007-2008

### 7.1 The National Context

The national influenza target for the 65 year and over age group is 70%. Currently there is no national target for the under 65 years at risk population. The PCTs influenza uptake was reported monthly from October 2007-February 2008 to the Health Protection Agency via the Health Protection Informatics website. Each month the website is open for data entry for approximately 10 days, during this time period practices can provide the data in one of three ways:

- Automatic upload- only available for practices with EMIS
- Manual data entry by the practice onto the HPI web site
- Manual data entry by health improvement onto the HPI web site

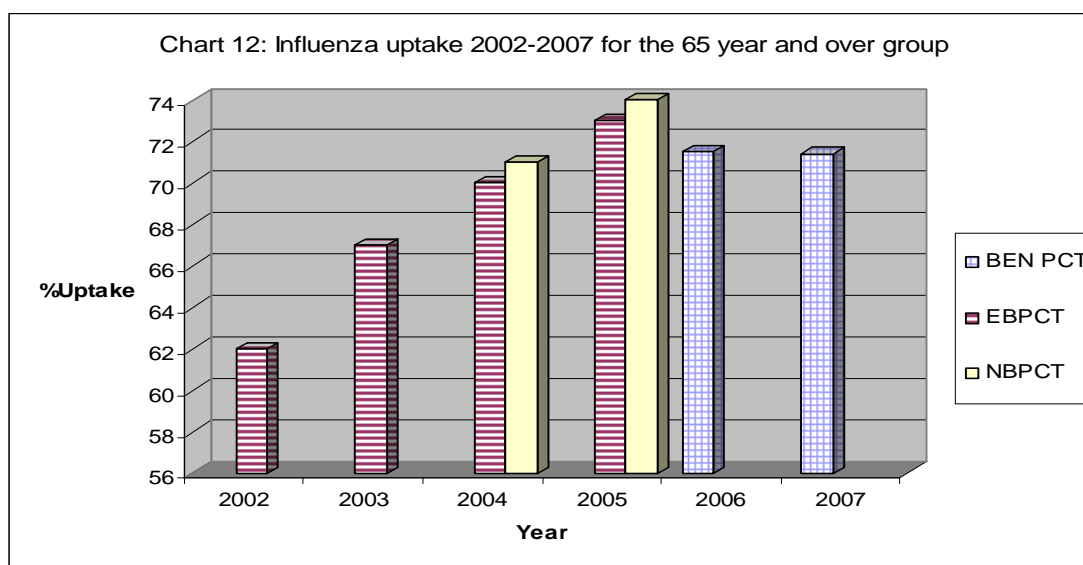
Obtaining the uptake data from practices within the time deadline, requires considerable effort on behalf of both the Health Improvement team and the Primary Care IT facilitators. By the final deadline of February 11<sup>th</sup> all 82 practices reported their flu uptake data. Following the final uptake reporting the data is submitted to finance to inform the practices flu payments.

### 7.2 BEN PCT's uptake

The PCT achieved the national influenza target with an uptake of 71.4% (71.5% 2006-2007) for the 65 years and over population.

The uptake for the under 65 at risk population was 47.6%.

Chart 12 : Ben PCT's influenza uptake for the 65 years and over age group 2002-2007



7.3 Ben PCTs Influenza uptake for the 65 year and over population by commissioning locality

The influenza uptake data is analysed by PCT locality, uptake data is forwarded to the Locality Commissioning Directors, Locality Commissioning Managers and the Health Improvement lead for each locality in December and January. This provides an opportunity for the uptake to be discussed at each of the Locality Commissioning Boards. The following charts provide a breakdown of the uptake data by locality and by practice within each locality.

Chart 13 : Influenza Vaccinations by locality 11<sup>th</sup> February 2008

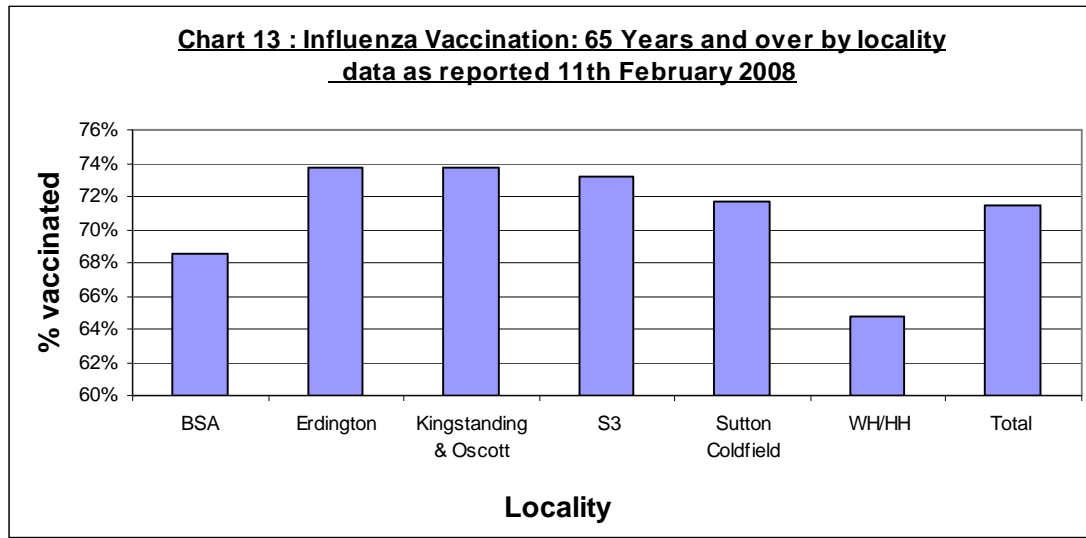


Chart 14: Bordesley Green South Yardley and Acocks Green Locality

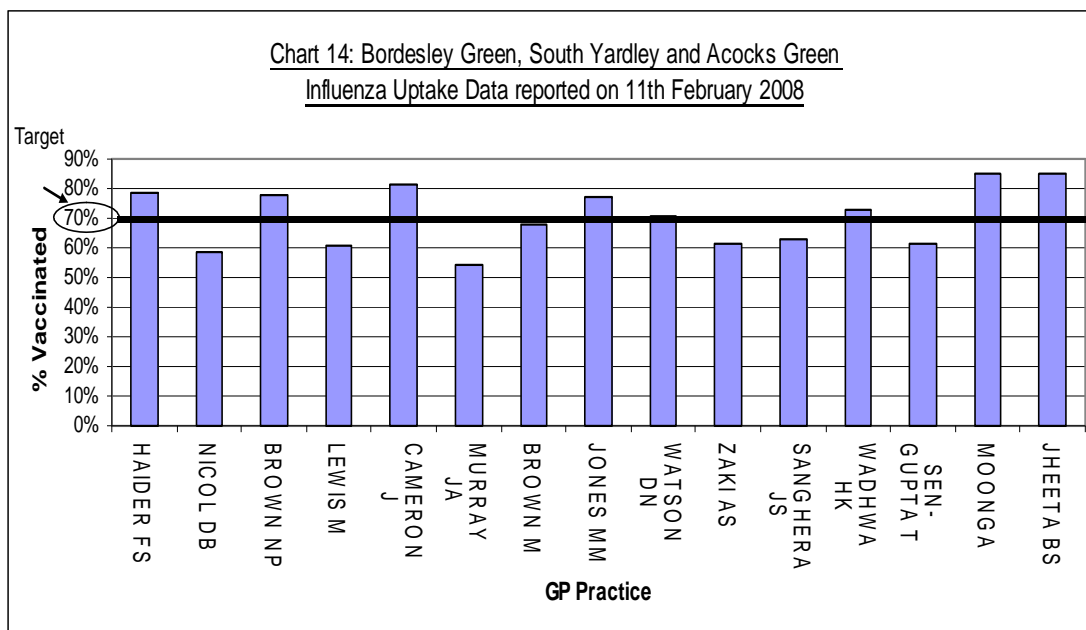


Chart 15: Erdington Locality

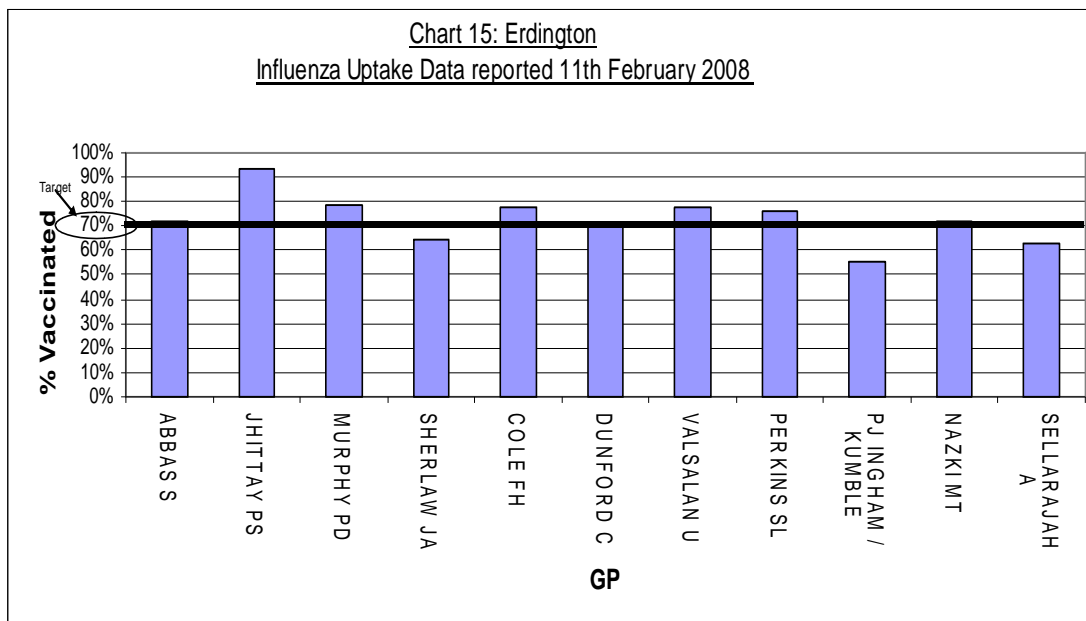


Chart 16: Kingstanding and Oscott Locality

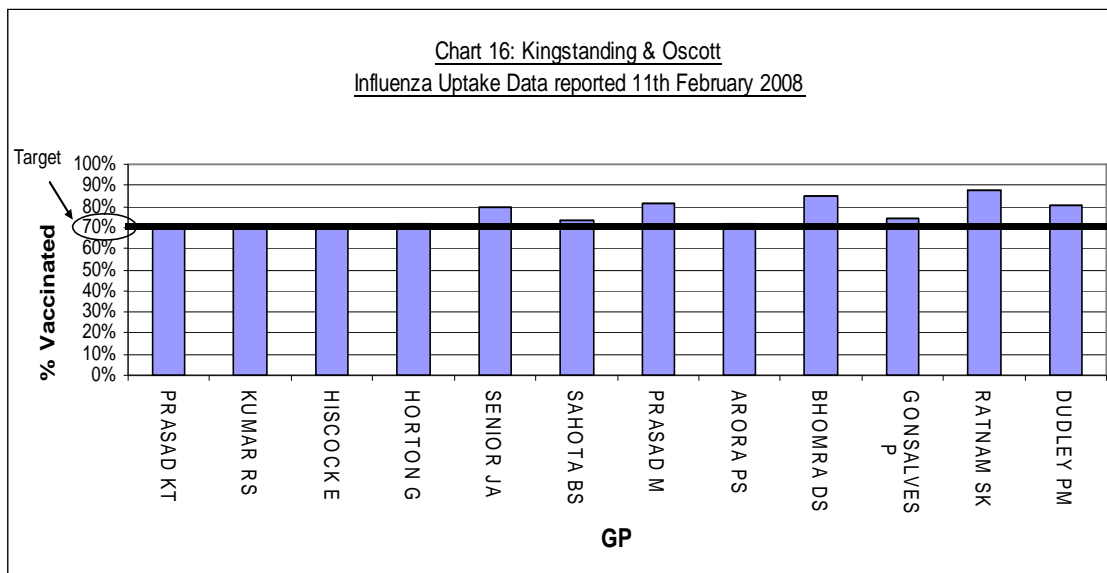


Chart 17: Shard End, Sheldon and Stechford Locality

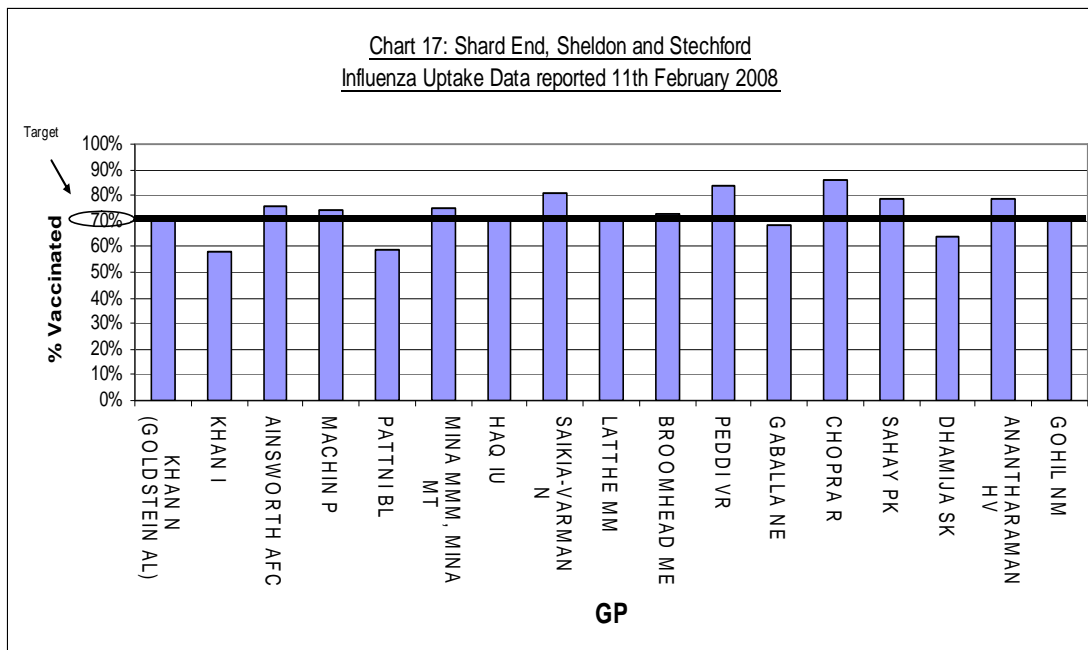


Chart 18: Sutton Locality

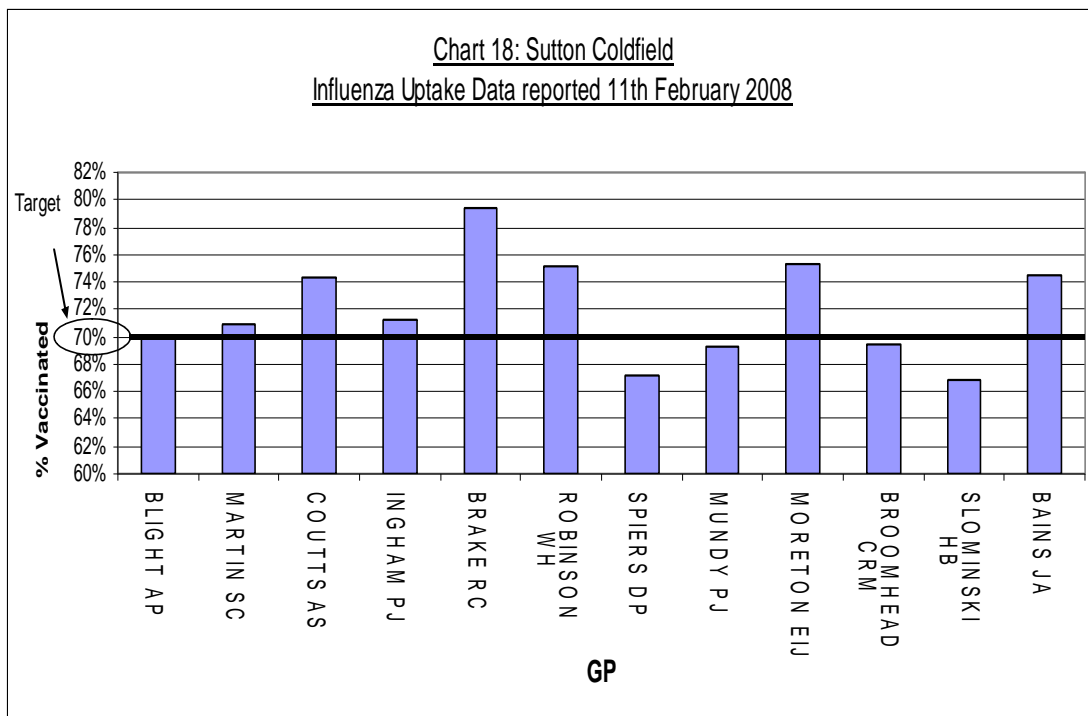
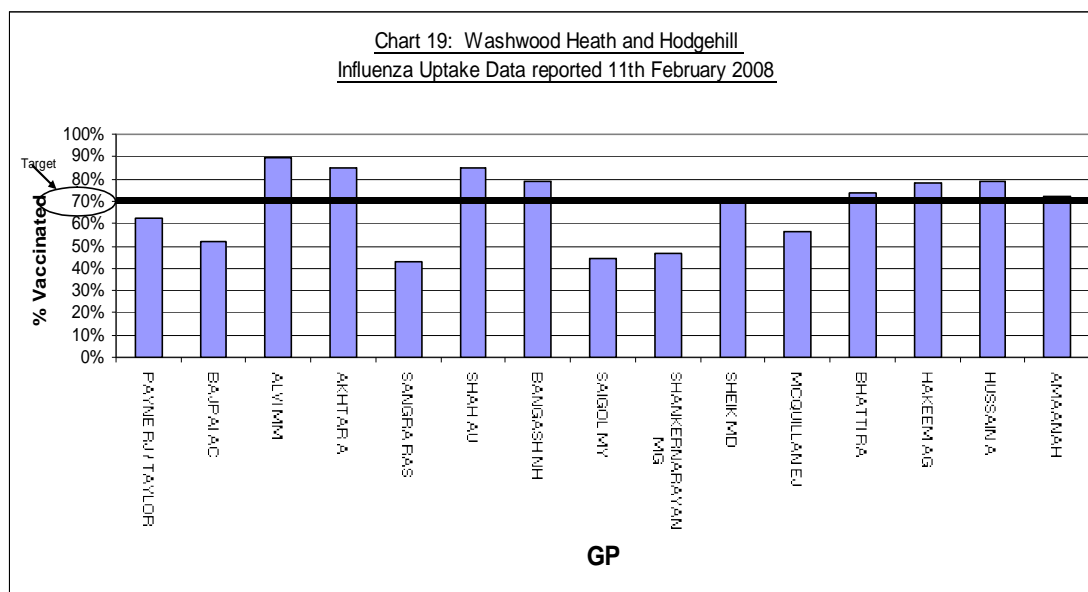


Chart 19 : Washwood Heath and Hodge Hill Locality



## 7.4 Other groups vaccinated

7.4.1 The Enhanced Service for Influenza identifies three additional groups that the PCT reimburse GP practices to vaccinate, these include:

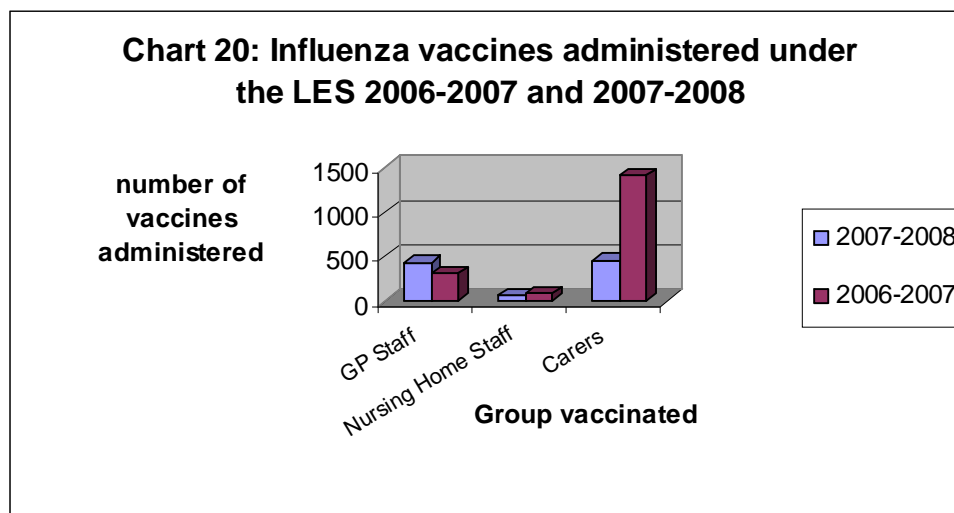
- Practice staff
- Nursing home staff
- carers

Carer's are defined as those individuals who they immunised who did not fall into either of the two target categories, that is 65 years and over or under 65 years at risk.

Table 4: Number of influenza vaccines administered under the LES

Group	Number Immunised
GP Practice staff	438
Nursing Home Staff	62
Carers	451

Chart 20: Influenza vaccines administered under the LES 2006-2007 and 2007-2008



#### 7.4.2 PCT Employees

All PCT employed staff were offered influenza immunisation- the service was commissioned from Occupational Health Services at Heart of England Foundation Trust. Access to the vaccine is promoted via the global e-mail, line managers and at the staff training sessions.

Group	Number Immunised
PCT Employees	299

In the 2006- 2007 campaign 233 PCT accessed the flu vaccine via Occupational Health

#### 7.5 Poultry Workers

The Department of Health continued the policy to offer poultry workers employees in DEFRA registered premises access to the seasonal influenza vaccine as part of the pandemic influenza preparation. There are three registered premises within the PCT boundaries, each was contacted and offered access to the vaccine. One premises refused, two consented. The premises were visited and 17 staff were vaccinated. The data has been supplied to the Department of Health via the HPI web site.

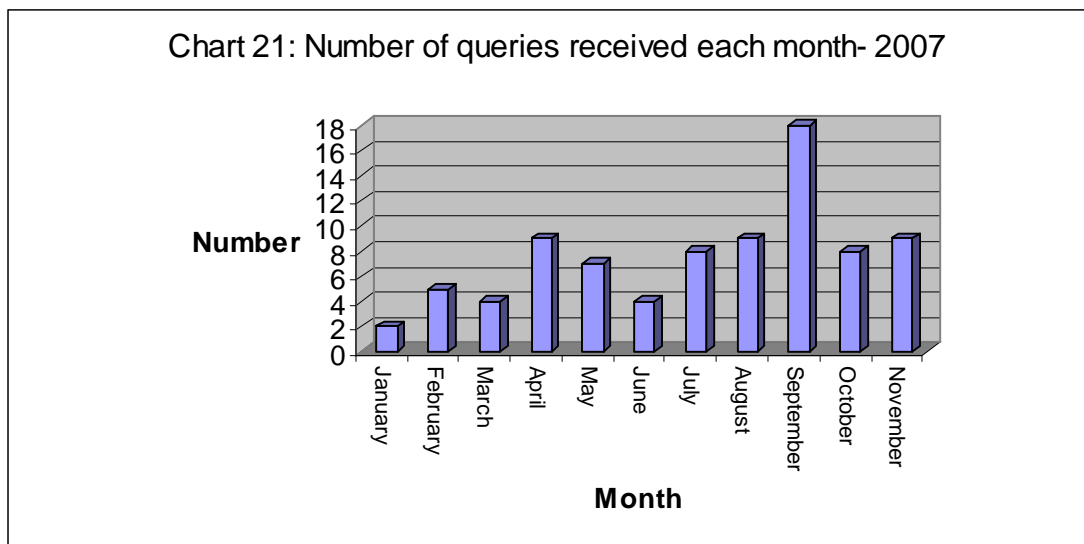
#### 8 Immunisation Queries

All immunisation queries received are recorded on a data base and quarterly reports are presented to the immunisation group.

### 8.1 Number of queries received

83 queries were received from January to December 2007

Chart 21: Number of queries received each month during 2007

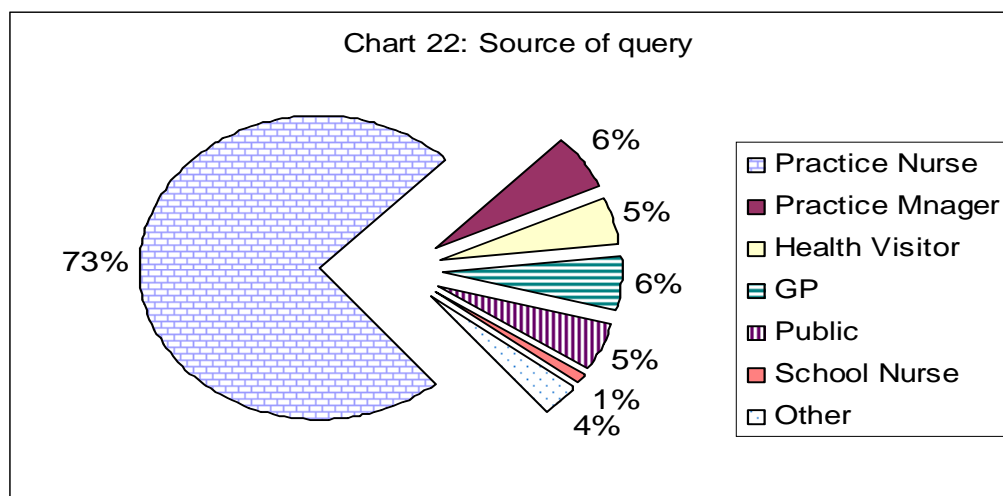


No telephone queries were received in December; however a letter from a local MP regarding access to BCG in school was received and the response drafted.

### 8.2 Source of query

73% of the queries are from practice nurses.

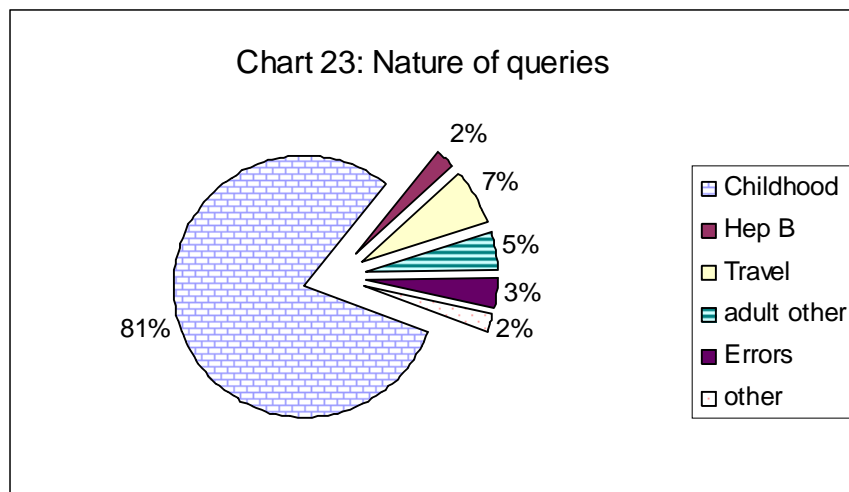
Chart 22 : Source of the query



### 228.3 Nature of the queries

The immunisation queries are grouped by type, please see Chart 23.

Chart 23 : Nature of the queries



81% of the queries relate to the childhood immunisation programme, issues with “catching” children up and bringing children in line with the UK programme. 7% (6) relate to queries about travel vaccines. Adult other (4) includes pneumococcal to adults and immune compromised individuals. Queries from the public included BCG availability and MMR. The errors (3) include the wrong vaccines being given and a cold chain failure.

#### 8.4 Further advice required

7 queries received required advice to be sought from Dr Wood at the Health Protection Agency.

2 queries required advice to be sought from Margaret Savage, Medicines Management.

#### 8.5 Actions following queries

A number of queries early in 2007 identified a need to clarify the new childhood Hib/MEN C vaccination introduced from September 2006 at 12 months, some practices had misunderstood the guidance and had not introduced the vaccine. In partnership with Dr Wood from the HPA a letter was sent to all practices to reinforce the new programme.

Some of the queries received have been incorporated into the childhood immunisation training as case studies- the training has been extended to a full day with greater emphasis on not up to date and new to country children.

## 9 Current issues and service developments

### 9.1 Immunisation Queues

The number of children who are awaiting immunisations, that is who are in a queue is variable across the PCT GP practices; this is being addressed via the immunisation SLA with the Birmingham Immunisation Failsafe Unit. A piece of work will be undertaken within one locality to understand the causes of queues and a model of best practice in how to reduce them will be developed in partnership with practices and then shared across the PCT.

### 9.2 BCG

The national school based BCG programme, was replaced in July 2005 by a risk based programme, the key component of which is the neonatal programme targeted at protecting those children most at risk of exposure to TB. At risk Birmingham neonates are vaccinated at birth within the acute trust, or are referred back for vaccination within the first 3 months of life. All children at school entry are screened for TB risk by the school nursing service. A community BCG clinic will be established at the Saltley Centre for Health where pre school children over 3 months of age, school age children and at risk young adults will be able to access TB skin testing and BCG vaccination where required. Contacts of TB cases are seen at the chest clinic.

### 9.3 School Leaving Booster

Ben PCT currently has 2 service delivery models for the school leaving booster, a GP based programme in the "North" area of the PCT and a school based programme delivered by the school nursing service in the "Eastern" area.

### 9.4 Human Papillomavirus Virus (HPV) Vaccination

9.4.1 The Department of Health have announced that a HPV vaccination programme will be implemented as part of the UK childhood immunisation programme for 12-13 year olds from autumn 2008 and a two year catch up programme from autumn 2009 for girls under 18 years. The vaccine is a 3 dose schedule, with doses at 0, 2 and 6 months.

#### 9.4.2 The impact on BEN PCT

BEN PCT has 23 Secondary schools, with approximately 2130 girls in the current year 7- this equates to 6390 vaccine doses requiring administration in 2008-2009. The current year 7 cohort has a lower number of children than average, therefore planning is being based on a cohort of 3000 12-13 year olds, that is 9000 doses of the HPV vaccine being required to be administered each year.

Alongside the year 8 programme, the catch up programme will start in September 2009, at which time the vaccine will become available for girls in years 12 and 13 (ages 16 – 18 years old). This will continue in 2010 when years 11 and 12 (ages 15 -17 years old) will be offered the vaccine. During the catch up process, it is estimated that 27,000 doses of the HPV vaccine will be required to be administered each year.

**9.4.3** The PCT will be required to submit vaccination uptake data on all HPV vaccination administered, including those administered by GP practices. In brief the data reporting requirements are:

- A monthly data collection commencing October 2008, which will be used for progress checking and vaccine supply. Information we expect to supply is;
  - number of eligible girls
  - number vaccinated
  - number of doses supplied
  - number of doses held in stock
  - number of wasted doses

Plus

- One end of year collection. This will be a full data set and will be used for detailed analysis and publication. Detailed information will include;
  - ethnicity
  - breakdown of vaccinations by location
  - numbers of vaccine doses received by all girls to ensure those who received it late are also captured.

**9.4.5** BEN PCT has established a working group, chaired by Nicola Benge, which is exploring the feasibility of a number of delivery models. A paper containing the options for delivery will be presented to PEC in April/May with a request that the PEC endorse their preferred delivery model.