Pneumococcal Polysaccharide Vaccine (PPV) Uptake Report

Data collection for England (Survey years 2009, 2010 & 2011)

The collection received approval from the Review of Central Returns Steering Committee (ROCR) under license ROCR/OR/0114/002/VOLU

<table>
<thead>
<tr>
<th>Version</th>
<th>V1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last updated on</td>
<td>23 February 2012</td>
</tr>
<tr>
<td>Status</td>
<td>FINAL</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Report commissioned by DH and written by Fateha Begum &amp; Richard Pebody (HPA)</td>
</tr>
<tr>
<td>Correspondence</td>
<td>61 Colindale Avenue, London NW9 5EQ, England, Tel: +44 (0)20 8327 7807, E-mail: <a href="mailto:pneumococcus@hpa.org.uk">pneumococcus@hpa.org.uk</a></td>
</tr>
</tbody>
</table>
This report describes pneumococcal polysaccharide vaccine (PPV) uptake for 2009, 2010 and 2011, for those aged 65 years and over and in those aged 2 to under 65 years in clinical risk groups in the 2009 survey. Results by age and clinical risk groups at Primary Care Trust (PCT), Strategic Health Authority (SHA) and national levels are described along with comparisons with results from previous surveys.
Table of Contents

1. EXECUTIVE SUMMARY .................................................................................................................. 3
2. INTRODUCTION .............................................................................................................................. 4
3. METHODS ........................................................................................................................................... 5
4. IMMFORM WEBSITE AND THE SURVEY COLLECTIONS .............................................................. 7
5. RESULTS ........................................................................................................................................... 9
   5.1 RESPONSE RATE ....................................................................................................................... 9
   5.2 VACCINE UPTAKE .................................................................................................................... 10
6. DISCUSSION .................................................................................................................................... 13
7. DATA ISSUES/LIMITATIONS .......................................................................................................... 14
8. ACKNOWLEDGEMENTS .................................................................................................................. 16
1. Executive Summary

This report describes pneumococcal polysaccharide vaccine (PPV) uptake for survey years 2009, 2010 and 2011 (with some comparative results from past years), for those aged 65 years and over. The report also describes data on vaccine uptake in those aged 2 to under 65 years in clinical risk groups collected for the 2009 survey.

74.7% of GP practices (6258/8376) in England provided data for the 2009 survey. This was a decrease on the response rate achieved in 2008 at 84.0% and in 2007 at 85.5%. The response rate improved in 2010 with 86.7% of GP practices (7288/8405) returning data on vaccinations administered to end of 31\textsuperscript{st} March 2010. In 2011, the response rate slightly decreased with 84.9% of GP practices returning data (7028/8276) on vaccinations administered to end of 31\textsuperscript{st} March 2011 (see Table 1: ‘Response Rate’ in data tables SET A, B and C). Summary of results are as follows;

The 2009 PPV vaccine uptake collection showed that uptake in those aged 65 years and over who had been vaccinated with PPV up and until 31\textsuperscript{st} March 2009 was 68.2% and from 1\textsuperscript{st} April 2008 to 31\textsuperscript{st} March 2009 was 4.1%. Vaccine uptake in those in a clinical at-risk group aged 2 to 65 years up and until 31\textsuperscript{st} March 2009 was 53.0% and from 1\textsuperscript{st} April 2008 to 31\textsuperscript{st} March 2009 was 3.7%.

The 2010 PPV vaccine uptake collection showed that uptake of PPV in those aged 65 years and over vaccinated up and until 31\textsuperscript{st} March 2010 was 69.4% and from 1\textsuperscript{st} April 2009 to 31\textsuperscript{st} March 2010 was 3.9%.

The 2011 PPV vaccine uptake collection showed that uptake of PPV in those aged 65 years and over vaccinated up and until 31\textsuperscript{st} March 2011 was 70.5% and from 1\textsuperscript{st} April 2010 to 31\textsuperscript{st} March 2011 was 3.8%.

Results by different age and clinical risk groups at Primary Care Trust (PCT), Strategic Health Authority (SHA) and national levels are described in the main report along with comparisons with results from previous surveys.
2. Introduction

Pneumococcal disease is a significant cause of morbidity and mortality. Certain groups namely young children, the elderly and people who are in clinical risk groups, are at risk for severe pneumococcal disease. Since 1992 the 23-valent pneumococcal polysaccharide vaccine (PPV) has been recommended for people in the clinical risk groups and since 2003, the PPV vaccination programme has expanded to include immunisation to all those aged 65 years and over in England.

The national pneumococcal immunisation programme for England was introduced in 2003 and offered PPV vaccination initially to all adults aged 80 years and older. The programme was extended a year later to offer vaccine to those aged 75 years and older and by 2005 the programme included all adults aged 65 years and over (who have not been previously immunised). Monitoring of PPV uptake to evaluate the effectiveness of the programme began with the introduction of an annual survey also in 2003, to collect and measure PPV uptake in the target populations. In 2009 assessment of PPV vaccine uptake in patients aged 2 to under 65 years falling in clinical risk groups was added to the annual survey. The Health Protection Agency (HPA) manages the PPV immunisation surveys and coordinates the collection and reporting of national data on behalf of the Department of Health (DH). The surveys measure the proportion of eligible people that have received PPV at any time and the proportion that received PPV during the previous year, providing an opportunity to assess the delivery of the immunisation programme and also data for epidemiological studies.

---

1 See Green Book chapter 25: ‘Pneumococcal’ updated 13th October 2011
2 See CMO Letter dated 8th August 2003:
www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculat/Lettersandcirculat/Professionall/Chiefmedicalofficerletters/DH_4032608

FINAL v1.0
Last updated 23.02.12
Fateha Begum
3. Methods

2009 survey

For the 2009 survey, data were collected on patients vaccinated anytime up and until 31st March 2009 and in the 12 months between 1st April 2008 and 31st March 2009 in the following age groups:

- 65 years old
- 66 to 74 years
- 75 to 79 years
- 80 years old and over
- 65 years old and over

Data were also collected by gender and were optional data items for GP practices to complete:

- Males aged 65 years and over
- Females aged 65 years and over

Data were also collected on uptake of those in clinical risk groups aged between two and under 65 years on vaccinations administered up to and including 31st March 2009 as optional data items. Clinical risk groups targeted for vaccination in 2009 were similar to the clinical risk groups for seasonal influenza vaccine uptake in 2009, but there were some key differences described below.

<table>
<thead>
<tr>
<th>2009 Pneumococcal Risk Groups</th>
<th>Compared to Seasonal Influenza Risk Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asplenia or Dysfunction of the Spleen</td>
<td>Not a seasonal influenza risk group</td>
</tr>
<tr>
<td>Chronic Respiratory Disease</td>
<td>Same as seasonal influenza risk group</td>
</tr>
<tr>
<td>Chronic Heart Disease</td>
<td>Same as seasonal influenza risk group</td>
</tr>
<tr>
<td>Chronic Kidney Disease</td>
<td>Same as seasonal influenza risk group</td>
</tr>
<tr>
<td>Chronic Liver Disease</td>
<td>Same as seasonal influenza risk group</td>
</tr>
<tr>
<td>Diabetes (requiring insulin or oral hypoglycaemic medication)</td>
<td>Same as seasonal influenza risk group</td>
</tr>
</tbody>
</table>
| Immunosuppression | Same as seasonal influenza risk group.  
Note: Includes individuals with HIV infection, Asplenia or Dysfunction of the Spleen and Bone marrow transplants |
Individuals with HIV infection               Not a seasonal influenza risk group
Individuals with Bone Marrow transplant    Not a seasonal influenza risk group
Individuals with Cochlear Implants         Not a seasonal influenza risk group
Individuals with Cerebrospinal fluid leaks Not a seasonal influenza risk group
Individuals diagnosed with Cancer on or after 01/04/2008 – excluding patients in other risk groups Not a seasonal influenza risk group
Individuals with Asthma on continuous or repeated systemic steroids Excludes individuals in the seasonal influenza Chronic Respiratory risk group
Individuals on continuous or repeated systemic steroids Excludes individuals in the seasonal influenza Immunosuppression risk group

The clinical risk group data were broken down by three age bands:

- 2 to 15 years (i.e. those born on or between 1st April 1991 and 31st March 2007)
- 16 to 64 years (i.e. those born on or between 1st April 1944 and 31st March 1991)
- 65 years and over (i.e. those born on or before 31st March 1944)

**2010 survey**

For the 2010 survey, data were collected on patients aged 65 years and over anytime up and until 31st March 2010 and vaccinated between 1st April 2009 and 31st March 2010 in the following age groups;

- 65 years old
- 66 to 74 years
- 75+ years

**2011 survey**

For the 2011 survey, data were collected on patients aged 65 years and over anytime up and until 31st March 2011 and vaccinated between 1st April 2010 and 31st March 2011 in the same age bands as the 2010 survey.

*No data on the uptake of PPV by patients aged under 65 years in clinical risk groups or by gender were collected for the 2010 and 2011 surveys.*
4. ImmForm website and the Survey Collections

Pneumococcal vaccine uptake data were submitted on-line by GP practices and their respective Primary Care Trusts (PCTs) participating in the pneumococcal uptake collection via ImmForm, a web-based reporting system hosted and managed by the DH. The ImmForm website can be accessed via the following link https://www.immform.dh.gov.uk

Submission of on-line data was facilitated either through an automated data extraction provided by GP IT software suppliers who extract data directly from GP computer systems, or by PRIMIS+ via their CHART tool and MIQUEST queries, or manually by GP practices and/or PCTs. One of the functions of the ImmForm website is to provide a secure platform for vaccine uptake data collection and allows SHAs, PCTs and GPs practices to:

- View and evaluate PPV vaccine uptake rates by each of the cohort target groups broken down further by age band and risk category
- Compare PPV vaccine uptake and performance anonymously with other GP practices/PCTs/SHAs at local, regional and national levels
- Validate the data at point of entry and correct any errors before data submission
- Allow PCTs to view a ‘non-responder’ report, which highlights practices that have failed to submit data, thus allowing them to follow-up with these practices to obtain and submit outstanding data

The HPA coordinates the collection process for the NHS on behalf of DH as well as collating, analysing and reporting of national data in annual reports. ImmForm User Guides written by HPA were produced separately for GP practices and PCTs prior to the start of the campaign to help aid submission and amendment of data as well as provide the rationale and dataset requirement for collection and step-by-step instructions on how to log on to the ImmForm website. These guides and other information materials produced to accompany the Pneumococcal vaccine uptake collection can be accessed via the DH website at the following link:

Data collection period
The 2009 survey opened to GP practices and PCTs on the 3rd August 2009 for submission of data. Due to a delay in acquiring the final READ Codes specification for automated bulk upload extraction, the survey end dates were defined and communicated as the collection progressed. Consequently, the survey remained open until all practices who wished to submit data including for the (optional) extra age bands and new risk groups, had the opportunity to do so; GP practices therefore had until Tuesday 1st December 2009 and PCTs had until Tuesday 8th December 2009 to enter their full data.

The 2010 survey opened to GP practices and PCTs on the 1st August 2010 for submission of data. GP practices initially had between the 1st August and 25th August to submit data with PCTs having an extra four working days until 31st August to submit or amend data on behalf of their practices. However, the GP end date was later extended to Tuesday 7th September 2010 with PCTs having their end date extended to Friday 10th September 2010.

The 2011 survey opened to GP practices and PCTs on the 11th April 2011 for submission of data. GP practices had 15 working days (inclusive) to submit data to end of Thursday 5th May with PCTs having an extra three working days until end of Tuesday 10th May to submit or amend final data on behalf of their practices. The HPA had another four working days after the PCT end date to allow quality assurance of the data to end of Monday 16th May.

Data collected
GP practices provided data on the number of patients registered on the date of data extraction that fell within the defined eligible groups (the denominator) and the number of those vaccinated within each group (the numerator). This system allowed denominator fluctuations as patients joined, left or died during the collection. PRIMIS+ were commissioned to provide the Read Code specification for priority groups for vaccination. These were used to identify patients for immunisation, and were based on those used for the seasonal influenza vaccination programme with some additional changes to take
account of the new risk groups outlined in the risk group comparison table earlier in the report.3

5. Results

The results for the 2009, 2010 & 2011 surveys are as follows:-

5.1 Response rate

2009:
- All 152 PCTs in England responded to the 2009 survey. Of the 8,376 GP practices participating, 6,258 returned data (74.7%). This corresponded to a 10% decrease in response rate compared with the 2008 survey which saw 7,020 out of 8,361 practices returning data. (Table 1 in SET A)
- XML bulk upload comprised 81.3% (5089/6258) of practices returning data compared with 18.7% (1169/6258) of practices who chose to make a manual submission.
- 57% of practices (4760/6258) providing vaccine uptake data for those aged 65 years and over, submitted data for the optional field of gender. (Table 9 in SET A)
- Amongst the Strategic Health Authorities (SHAs), the GP response rate ranged from 61.6% to 87.1%. (Table 2 in SET A)

2010:
- All 152 PCTs in England responded to the 2010 survey. Of the 8,405 GP practices participating, 7,288 returned data (86.7%). This corresponded to more than 10% increase in response rate compared with the 2009 survey. (Table 1 in SET B)
- XML bulk upload comprised 78.6% (5731/7288) of practices returning data compared with 21.4% (1557/7288) of practices who chose to make a manual submission.
- Amongst the SHAs, the GP response rate ranged from 78.3% to 93.9%, with 2 out of the 10 SHAs achieving a GP response rate above 90%. (Table 2 SET B)

2011:
- All 151 PCTs in England responded to the 2011 survey. Of the 8,276 GP practices participating, 7,028 returned data (84.9%). This corresponds to a slight decrease in response rate compared with the 2010 survey. (Table 1 in SET C)
- XML bulk upload comprised 80.4% (5653/7028) of practices returning data compared with 19.6% (1375/7028) of practices who chose to make a manual submission.

---
3 Read codes specifications and other information materials for the Pneumococcal survey are accessible from: http://www.dh.gov.uk/en/Publichealth/Immunisation/Keyvaccineinformation/DH_103944
5.2 Vaccine uptake

2009

Received PPV anytime up and until 31st March 2009
– aged 65 years and over (Table 2 & 3 SET A)

- Vaccine uptake was 68.2% compared with 69.0% in the 2008 survey.
- Uptake ranged from 34.3% to 77.5% between PCTs and 64.8% to 72.3% between SHAs.
- Uptake was highest in those aged 75 to 79 years at 76.9% compared with 33.1% for those who had just turned 65 years, 68.1% for those aged 66 to 74 years and 74.5% for 80 years and over (data from 57% of GP practices).
- Uptake in males was 70.2% and in females it was 68.7%.

Received PPV in the 12 months between 1st April 2008 and 31st March 2009
– aged 65 years and over (Table 2 & 3 SET A)

- Vaccine uptake was 4.1% compared with 4.6% in the 2008 survey. In those turning 65 years in the 12 months prior to 31st March 2009, uptake was 13.5% compared with 18.2% the year before.
- Uptake ranged from 2.1% to 9.4% between PCTs and 3.7% and 4.8% between SHAs.
- Uptake in males was 4.4% and in females it was 4.0%.

Received PPV anytime up and until 31st March 2009
– clinical risk groups aged 2 years and over (Table 4, 5 & 6 SET A)

- Vaccine uptake was 53.0% for patients aged 2 years and over (including those aged 65 years and over at-risk).
- Uptake ranged from 40.4% to 60.7% between PCTs and from 48.5% and 55.3% between SHAs.
- Uptake in different age groups was 12.5% for those aged 2 years to 15 years, 34.4% for those aged 16 to 64 years at-risk and 67.6% for those aged 65 years and over.

Received PPV in the 12 months between 1st April 2008 and 31st March 2009
– clinical at-risk groups aged 2 years and over (Table 4, 5 & 6 SET A)

- For those receiving the vaccine in the last 12 months, uptake was 3.7% in the total number of patients aged 2 years and over (this includes those aged 65 years and over at-risk).
Pneumococcal Polysaccharide Vaccine Uptake Report
Survey years 2009, 2010 & 2011

- Uptake ranged from 1.4% to 9.5% between PCTs and from 3.3% to 4.5% between SHAs.
- Uptake in different age groups was 1.7% for those aged 2 years to 15 years, 4.6% for those aged 16 to 64 years and 3.1% were vaccinated for those aged 65 years and over.

Received PPV – uptake by specific clinical risk groups aged 2 years and over (including 65 years and over at-risk) (Table 7 SET A)

- Uptake in specific clinical risk groups for those aged 2 to 15 years ranged from 6.6% for Chronic Kidney Disease to 70.2% for Cochlear Implants. Uptake in those aged 16 to 64 years ranged from 16.3% for Cerebrospinal Fluid Leaks to 70.5% for Cochlear Implants. Uptake in those aged 65 years and over at risk ranged from 43.6% for Chronic Kidney Disease to 88.4% for Cochlear Implants.  

2010

Received PPV anytime up and until 31st March 2010 – aged 65 years and over (Table 2 & 3 SET B)

- Vaccine uptake was 69.4% compared with 68.2% in the 2009 survey.
- Uptake ranged from 33.4% to 76.4% between PCTs and 63.0% to 72.2% between SHAs.
- Uptake in different age groups saw the highest in those aged 75 years and over at 78.2%, compared with 33.0% for those aged 65 years only and 67.4% for those aged 66 to 74 years.

Received PPV in the 12 months between 1st April 2009 and 31st March 2010 – aged 65 years and over (Table 2 & 3 SET B)

- Vaccine uptake was 3.9% compared with 4.1% in 2009. In those turning 65 years in the 12 months prior to 31st March 2010, uptake was 12.5%, lower compared with the year before (13.5%).
- Uptake ranged from 2.1% to 7.3% between PCTs and 3.6% to 4.1% between SHAs.
- Uptake in different age groups was 5.0% in those aged 66 to 74 years and 1.5% in those aged 75 years and over. Overall, the decrease in uptake for all age groups reflects the continued downward trend observed since 2006.

---

4 These results do not include the last three risk groups shown in Table 7 (SET A); Patients diagnosed with Cancer, Patients with Asthma and Patients on Continuous or repeated systemic steroids. This is due to data from one GP IT supplier being excluded for these risk groups as a result of data validation. Consequently the percentage total number of practices providing information for these risk groups was 17.8% compared with 55.7% for all other risk groups.

FINAL v1.0
Last updated 23.02.12
Fateha Begum
2011

Received PPV anytime up and until 31\textsuperscript{st} March 2011
– aged 65 years and over (Table 2 & 3 SET C)

- Vaccine uptake was 70.5\% compared with 69.4\% in the 2010 survey (a slight increase).
- Uptake ranged from 46.8\% (more than a 10\% increase compared with 2010 uptake) to 76.0\% between PCTs and 65.0\% to 74.5\% between SHAs.
- Uptake in different age groups saw again the highest in those aged 75 years and over at 79.3\%, a percentage increase on the 2010 uptake, compared with 35.1\% for those aged 65 years only (however this was an increase on the 2010 uptake) and 67.1\% for those aged 66 to 74 years.

Received PPV in the 12 months between 1\textsuperscript{st} April 2010 and 31\textsuperscript{st} March 2011
– aged 65 years and over (Table 2 & 3 SET C)

- Vaccine uptake was 3.8\% compared with 3.9\% in 2010 (a slight decrease). In those turning 65 years in the 12 months prior to 31\textsuperscript{st} March 2011, uptake was 14.8\%, an increase on both 2009 and 2010 figures above.
- Uptake ranged from 1.6\% to 7.5\% between PCTs and 3.3\% to 4.3\% between SHAs.
- Uptake in different age groups was 4.8\% in those aged 66 to 74 years and 1.4\% in those aged 75 years and over.
6. Discussion

Participation and Response:

Up to 2011 there have been nine annual surveys collecting national (England) PPV vaccine coverage. GP practice response to the survey has remained consistent with participation at national level of over 80% since 2005 with the exception in 2009 when the rate was 74.7%. Central to the collection is the DH web-based reporting system, ImmForm. The availability and use of fully automated and semi-automated data extraction and entry into ImmForm continues to reduce the burden on practices and PCTs having to extract and collate these data themselves. Validation on data entry helps improve the quality of these data. More widespread use of automated and semi-automated extraction methods in future may lead to increases in the overall response rates and reduced burden on those providing these data.

Those aged 65 years and over:

As expected, the coverage of PPV vaccination in those aged 65 years and over has increased over time from 64% in 2006 to 70.5% in 2011. In addition, whilst these data suggest that many of those eligible for the vaccination do not receive it in the first year they become eligible, vaccine coverage in the older age groups continues to increase each year suggesting that vaccination is being given opportunistically to those over 65 years (in 2009, coverage was 76.9% for the cohort 75 to 79 year olds and 74.5% for the cohort 80 years and over and in 2010 and 2011 for all those aged 75 years and over it was 78.2% and 79.3%, respectively).

Those aged 2 years and over in clinical risk groups (including 65 years and over at risk) - 2009 survey only:

In 2009, the PPV survey was expanded to include an uptake collection by clinical risk groups and in different age groups. Collection of vaccine uptake data by risk group was optional and not every GP practice responding to the 2009 survey provided risk group and/or age data information. Practices that submitted optional risk group data are a subset of the overall responders, in this case 55.7% of the total number of GPs responding
Pneumococcal Polysaccharide Vaccine Uptake Report
Survey years 2009, 2010 & 2011

Vaccine uptake in those aged 2 years and over falling in a clinical risk group (including patients aged 65 years and over at-risk) overall, vaccinated anytime up and until 31 March 2009 was 53.0%. Within this group uptake was lower in the younger age bands for this period; 12.5% for those aged 2 to 15 years at-risk and 34.4% for those aged 16 to 64 years at-risk. For those aged 65 years and over at-risk, uptake was 67.6% compared with 68.2% for those aged 65 years and over as a whole (with or without a risk factor) vaccinated anytime up and until 31 March 2009.

Data comparing PPV uptake with influenza vaccine uptake between clinical risk groups and age groups are given in table 8 (SET A). These show that like influenza vaccine uptake, PPV uptake increases with age. In addition, there are significant differences in PPV uptake between clinical risk groups. For all common clinical risk groups, uptake of the annual influenza vaccination appears to be better than that of the single PPV vaccination but the rank order of level of uptake across the different common risk groups is similar (e.g. it is highest for both in patients with chronic respiratory disease and diabetes and lowest for both in patients with chronic kidney disease and chronic liver disease).

7. Data issues/limitations

2009 Survey

The main issue reported for the 2009 survey was the implementation of the READ Code specification produced by PRIMIS+ to include the new clinical risk groups. The DH commissioned PRIMIS+ to produce a READ Code specification and Logical Query Definition that mapped the risk groups recommended for PPV vaccination in the Green Book to the clinical READ Codes used to record clinical conditions and medication in the electronic patient records of GP practices’ IT systems. In general, the READ Code specification was developed by PRIMIS+ and is available at the following web link:

<table>
<thead>
<tr>
<th>Reference</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 The READ Code specification was developed by PRIMIS+ and is available at the following web link;</td>
<td><a href="http://www.dh.gov.uk/en/Publichealth/Immunisation/Keyvaccineinformation/DH_103944">http://www.dh.gov.uk/en/Publichealth/Immunisation/Keyvaccineinformation/DH_103944</a></td>
</tr>
<tr>
<td>8 READ Codes;</td>
<td><a href="http://www.connectingforhealth.nhs.uk/systemsandservices/data/uktc/readcodes">http://www.connectingforhealth.nhs.uk/systemsandservices/data/uktc/readcodes</a></td>
</tr>
</tbody>
</table>
specification is well defined and has been established over successive flu seasons for the seasonal influenza programme however, the specification was newly developed for 8 out of 14 of the clinical risk groups for the 2009 Pneumococcal survey.

A delay in getting READ Codes specifications finalised for semi-automated/automated bulk uploads due to development time needed to implement the new changes, resulted in some GP IT system suppliers not being able to meet the timelines to provide reporting/data extraction tools that allowed GP practices to run the reports locally and enter their data on the ImmForm website and/or enable data to be automatically extracted on behalf of GP practices. Consequently, over a six-month period from August to December 2009 when the PPV uptake survey was open, GPs and PCTs were instructed to stagger their data submissions according to how quickly reporting tools were made available and which dataset items they wished to enter. Thus, for example, those GPs who were only choosing to submit data for the mandatory fields whether manually or via a semi-automated return could do so as soon as the survey opened, since queries to extract these data items did not require any amendment. In contrast, GPs who chose to submit data for the extra age bands and new risk groups that were optional whether manually or via a semi-automated/automated route, had to wait until the appropriate READ Code specification queries were finalised.

A second issue concerning quality assurance of the clinical risk group data found some discrepancy with data extraction for one GP IT supplier, which resulted in the exclusion of their data for the three risk groups; Patients diagnosed with Cancer, Patients with Asthma and Patients on continuous or repeated systemic steroid use. Consequently, data for these specific risk groups need to be interpreted with caution as it is based on a reduced dataset of approximately 17.8% of GP practices providing information for these optional dataset items in the 2009 survey.

2010 and 2011 Surveys

Overall, both the 2010 and 2011 surveys completed without any major problems. The Pneumococcal Uptake Library produced by PRIMIS+ for the 2010 survey, although
excluded the ‘at risk’ population breakdown (introduced for the 2009 PPV survey), continued to provide this information in the same library tool but as a separate topic. To avoid confusion data providers were informed that the library contained two topics, one for ‘uptake’ reporting and one that includes the ‘at risk’ populations which could be used by GP practices to identify at-risk patients for review but NOT for recall unless their registration lists were first reviewed. This is because the library tool is specifically written for reporting purposes.

Finally, for all surveys, it was again reiterated that the pneumococcal vaccine uptake collection is a **SNAPSHOT** of GP patients vaccinated currently registered at the time of data extraction. Consequently vaccine uptake surveys provided by ImmForm are not designed to support GP payment schemes as uptake surveys track vaccine uptake ONLY during the immunisation period. The data will therefore exclude patients who have received the vaccine but have subsequently died and patients who have since moved. Patients that are vaccinated but have not had their electronic patient record updated by the time of data extraction, will also be excluded.

### 8. Acknowledgements


- Colleagues at the Department of Health for their contribution namely Dr Tom Barlow, Principal Scientist of the Immunisation Branch team and Peter Gates and colleagues of the Immunisation Web Group Programme – Project Manager for the ImmForm website.