



IMMUNISATION UPTAKE IN PETERBOROUGH

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Report: of Peterborough Immunisation Task and Finish Group

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1. Introduction

1.1. Following recent concern about low uptakes for some vaccination programmes in Peterborough, Peterborough Local Authority, Public Health England and NHS England set up a Steering Task and Finish Group. The Immunisation Task and Finish subgroup was subsequently set up. This paper presents the findings of the Immunisation subgroup. Data is presented on Immunisation uptakes in Peterborough, specifically for childhood primary vaccinations and parental pertussis programme for pregnant women. This paper describes the background, methodology, data findings, key themes identified as barriers to uptakes, and discussion. The paper summaries its findings and makes recommendations.

2. Background

2.1. The Immunisation 'Task and Finish Group' was set up in February 2015. Membership from key partners¹ including; Public Health England, Primary Care, Local Authority, Cambridgeshire and Peterborough Foundation Trust (CPFT), Cambridgeshire and Peterborough CCG, Peterborough and Stamford Hospital Foundation Trust. Terms of Reference² for the Task and Finish group agreed and meeting dates.

¹ Full list of membership Appendix 4

² TOR see appendix 4

3. Methodology

3.1. The methodology combined both quantitative and qualitative data.

- Quantitative data collected from COVER and Immform.
- Qualitative data collected from interviews and surveys from health professionals, including practice managers, midwives, health visitors, practice nurses, GP, children centre staff, parents and clients.
- Data from existing research including a local audit undertaken in 2012 on 'MMR and non-attendees³' and a literature review of published studies on improving immunisation uptakes.
- Expert views from members of the Task and Finish group.

4. Data Findings

Childhood Primary Immunisation uptakes

4.1. Childhood uptakes are outlined in Appendix 1. Data for childhood immunisations are made available through COVER and via NHS England Midlands and East Analytical Service.

4.2. Generally the uptake of childhood immunisations in Peterborough is lower than East Anglia in all quarters for 2013/14 and 2014/15 year to date for all age cohorts and most immunisations. The target for childhood immunisation uptake is 95%.

4.3. 12 month PCV immunisations in Peterborough are lower than in East Anglia as a whole in each quarter and for 12 month DTaP, IPV and Hib all quarters but 1 (Q1 2014/15) were lower. For immunisations in the 12 month cohort there are data submissions issues with Men C.

4.4. 24 month PCV immunisations in Peterborough are lower than East Anglia in all quarters. Quarter 1 2014/15 sees Peterborough with a higher percentage of

³ Local audit in 2012 on MMR and not attendees n=64 responses from nurses, n=15 no reply, n=49 parents replied

children immunised for MMR and Hib and Men C than East Anglia. For all other quarters for these vaccines Peterborough has lower uptake than East Anglia. Peterborough has a higher uptake than East Anglia for DTaP, IPV and Hib in all quarters but Q1 2013/14. This shows a different pattern than for DTaP from the 12 month and 5 year cohorts.

- 4.5. For the 5 year cohort for DTaP and polio all quarters show a lower uptake in Peterborough than East Anglia. DTaP/ IPV booster in the Peterborough 5 year cohort show that all quarters have an uptake lower than East Anglia. There are only data for the 5 year cohort Pertussis (whooping cough) for 2014/15 and again Peterborough has a lower uptake than East Anglia. All quarters for MMR in the 5 year cohort show Peterborough with a lower uptake than East Anglia as a whole. For Hib and Men C Peterborough has a lower uptake rate than East Anglia for all quarters in 2013/14 and the first two quarters in 2014/15.
- 4.6. The uptake data for Peterborough (and East of England) are shown in Appendix 1 charts 1-12. Note for data: caution that the charts' axes do not always cross at zero.

Immunisation uptake by Practice

- 4.7. Childhood immunisation uptake varies significantly between Peterborough practices. The uptakes for each immunisation programme has been plotted on a funnel plot to show that some practices are outliers based on their percentage uptake and the eligible population for that immunisation (Appendix 1 chart 13-23). 2 standard deviations from the mean are the same as 95.5 to 99.7% confidence intervals so we are at least 95.5% confident that the practice's variation is significantly lower than other practices in Peterborough. 3 standard deviations from the mean are the same as 99.7% confidence intervals so we are 99.7% or more certain that the variation from Peterborough is lower for these practices.
- 4.8. The data for aged 12 month Men C is not complete and so there is no funnel plot for this immunisation.

4.9. Appendix 1 Table 1 shows the percentage uptake range for each immunisation and the number and percentage of practices that have reached the 95% target. All vaccinations have an upper range of 100% uptake except Men C in the 12 month cohort.

4.10. Practice level data range from 67 – 100% for the different immunisations and cohorts. 1 practice has achieved 100% uptake in all immunisations.

Data caveats for childhood primary immunisations:

- Data submission issues for Men C in the 12 month cohort.
- 2013/14 data are from COVER statistics at <https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2013-to-2014-quarterly-figures>. 2014/15 figures are from NHS England Analytical Service.
- Practice level chart and table data are only available for 2014/15 year to date.

Childhood Primary Immunisations compared with local authorities

4.11. A comparison of uptake rates for the childhood immunisations has been analysed for all local authorities (LAs) that are Nearest Neighbour comparators for Peterborough (Appendix 2). Nearest Neighbours are calculated by Chartered Institute of Public Finance and Accountancy (CIPFA).

4.12. The comparators for Peterborough are shown in Table 1 Appendix 2 and the charts by immunisation type and age group are shown in charts 1 to 11 Appendix 2. Milton Keynes data are not available for these data due to issues of coterminosity between health and local government.

4.13. Peterborough is the worst performing LA for 6 of the immunisations, is the second worst performing LA for 4 immunisations and third worst for one immunisation. The target for childhood immunisations is 95% uptake (Appendix 2 shown on each chart by the red line). There are only 2 immunisations where the 95% target has been met by Peterborough for 24 month DTaP, IPV and Hib and 5 year DTaP and Polio.

Childhood Immunisations and Deprivation (IMD 2010)

- 4.14. Correlation between all the childhood immunisations and deprivation show that there is greater uptake of immunisations in less deprived areas. However, the R2 value is low in each case (less than or equal to 0.3) showing that the correlation is weak. (N.B. the R2 value calculation includes the CCG value.) As the correlation is weak plotting these data on funnel plots may help identify outliers although this will not take in to account deprivation. In all cases there is lower uptake in the more deprived areas although correlation is **weak**.

Surveys and Audits

The following section outlines some of the main issues highlighted in the surveys and interviews.

- 4.15. Practice nurse [1] *“We have quite a large population of travellers who often do not believe in vaccinations or want to have their children immunised. Families within the area move around frequently. Their base may be Peterborough but they are often staying with family in other regions. There is also quite a large eastern European population whose children have often started their vaccinations in another country and cannot always understand why they have to have more vaccinations when they move to the England. Some parents are illiterate”*
- 4.16. Practice nurse [1] reasons given by parents for non-attendance: forgot appointment, fear of side effects, vaccine not protective, and parent did not understand letter.
- 4.17. Practice nurse [2] survey, parent declined Prevenar vaccine because parent said she was “unsure how long protection would last”. A few parents asking for single MMR because of fear of MMR and autism or parent has knowledge of another child affected after MMR.

- 4.18. Practice nurse [3] reported all 10 non attendees at recent immunisation clinic were Eastern European families, all reported their child had vaccine in own country of origin, but no documents.
- 4.19. Practice nurse [2] reported pregnant ladies saying they were unaware of the prenatal pertussis vaccine programme.
- 4.20. Practice manager [1] reported many non-attendees are families from Eastern Europe. Surgery has dedicated staff to follow up non attendees, but families are difficult to contact as they move and change addresses, and return to country of origin for long periods. Same issues with the prenatal pertussis for pregnant women.
- 4.21. Survey of children centre (Paston/Orton), n=34 parents, n=30 had child immunised, n=4 not immunised. Out of the 4 not immunised, n=3 *'fear of side effect'*, n=2 *'did not feel the vaccine is protective'*, n=1 replied *"not sure if they can be trusted in long run side effects, too many new ones that we won't know about the effects for years or even if they will be effective"*. Children centre parent survey, one parent had child immunised except for the MMR, because parent *"know of families who have been affected by vaccine side effects."*
- 4.22. Children centre staff survey reasons given out of 7 responses, 57% n=4 forgot appointment, 42% n=3 MMR risk outweigh benefit of vaccine, 42% n=3 wrong address/details, 42% n=3 did not understand appointment [language], 28.5% n=2 did not know about appointment, not convenient, and fear of side effects, n=1 did not think vaccine effective. Children centre staff also commented reasons for parents not attending immunisation clinics as: *"chaotic family, can't manage to keep appointments"*, *"too many other issues going on e. g. financial, housing, domestic violence, mental health, drug use, vaccine not a priority"*.
- 4.23. Children centre staff asked what they could do to encourage parents, staff replied: *"posters promoting benefits of vaccinations"*, *"staff knowledge how to make appointment"*, *"staff sharing information how they got their own child vaccinated"*,

“information in different languages”, “family support workers encourage parents to take child to appointment.”

- 4.24. Health visitor [1] *“I think the problems are centred around the issue of language and lack of understanding of the UK system and transient populations, in Central ward we are constantly chasing families from one address to another, often within weeks of them first transferring to area. They don’t understand the letters sent to them as they are in English, don’t specify which vaccines and are confusing...often they question why we are repeating vaccines when actually we are completing courses or adding missing vaccines.” “Another issue is the part time opening on my patch.... clients find it difficult to contact the surgery.”*
- 4.25. Health visitor [2] *“As health visitors we don’t see the pre-school age children as much so maybe some sort of training or posters in preschool...I don’t know whether uptake used to be better when health visitors did imms with practice nurses..?”*
- 4.26. Health Visitor [3] *“my belief is many families are coming in from outside the UK, our immunisation schedule may be very different they do not always seem to see the importance of pre-school boosters...I did find that many Eastern European families appeared sceptical about the Men C vaccine.” I used to do home immunisations for those who couldn’t attend in [other area] and found it useful digging out safeguarding ..getting children into nursery point of view..” “Would be good idea if child health informs health visitor when they suspend a child”.*
- 4.27. Health Visitor [4] *one surgery ran out of vaccines and had to cancel booked clinic, the surgery has lot of children from abroad, health visitor told the child is away back in a month but when HV visits same thing happens and they never see the child.*
- 4.28. Local Peterborough MMR audit 2012, follow up non attendees by practice nurses n=64 response n=15 not able to contact parent, n=49 parents contacted:

Reasons given by parent for non-attendance of MMR	% [out of n=49]
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appointment 2012	
Parent forgot appointment	24%
Child ill	12%
Did not know about appointment	8.1%
Date/time not convenient	8.1%
Fear of side effects	6.1%
Wrong address/details	6.1%
Out of country	4%
MMR risk outweighs benefit of vaccine	4%
Travelling family	2%
Wants single MMR	2%
Venue not convenient	2%
Vaccine not effective	2%

Prenatal Pertussis

4.29. Practice level data is only available for the current financial year by GP practice for Prenatal Pertussis. 2013/14 data are for the Cambridgeshire and Peterborough CCG as a whole and don't show the split for Peterborough practices only. Data are reported monthly via ImmForm. In 2013/14 the process of submitting data was manual and some practices were unable to submit data but the process changed for 2014/15 and has become automated. The data are shown in tables 1 to 3 (Appendix 4). There is no target *per se* but clinically all pregnant women ought to be immunised.

4.30. Tables 1 and 2 (Appendix 3) show the uptake and coverage percentages for 2013/14 by quarter. Uptake is the proportion of women who were vaccinated of all the women in the eligible cohort and coverage is the proportion of women vaccinated of the GP practices that entered data (i.e. the denominator population will reduce so coverage rates are usually slightly higher).

4.31. There is a range of uptake percentages from 0% to 87.5% in Peterborough practices but the Peterborough uptake as a whole is 40.3% compared with the CCG at 51.4%. 15 of the 27 Peterborough practices have uptake lower than the CCG. Only 6 practices have an uptake rate more than that of East Anglia as a whole.

4.32. If the uptake in Peterborough was the same as the CCG as a whole, there would need to be approximately an additional **240** women immunised each year. In some practices this is as many as 15 per quarter but 9 practices would not need to do additional immunisations. It is important to note that where a practice has no eligible women in the quarter their data will show as zero which can be misleading in uptake figures.

Prenatal Pertussis vaccination and Deprivation (IMD 2010)

4.33. Whilst the correlation between uptake and deprivation (IMD2010 based on 2012 practice populations) is not strong ($R^2 = 0.1$) the analysis does show that there is greater uptake where there are less deprived populations.

Prenatal Pertussis Data caveats:

- One practice noted issues submitting data to ImmForm and therefore the data show zeroes. It is also important to note that at a practice level numbers of pregnant women is relatively low and when looking at these data especially by quarter there will be fluctuation in the percentage uptake.
- Whilst there were 6 practices that either did not immunise any patients or did not upload the data (2013/14 was a manual upload process but for 2014/15 it is automatic) the uptake was higher for Peterborough as a whole, for the CCG and for East Anglia. There has been a drop of 15.5 percentage points for Peterborough between 2013/14 and 2014/15 year to date. Cambridgeshire and Peterborough CCG has dropped by 11.8 percentage points and East Anglia by 8.2 percentage points (percentage points are the difference between the percentages and are not the percentages in their own right). 15 individual practices had a drop in their uptake rate but 11 have improved, 1 practice has stayed the same but reporting zeroes. The change in uptake is shown in table 3 Appendix 3.
- When comparing the 2013/14 and 2014/15 year to date data it is important to remember that there are slight differences to the data. From April 2014 the denominator was changed to be based on birth date rather than expected delivery date. The numerator should still be the same as based on the immunisation being

recorded as given or declined within the clinical system. The numerator and denominator populations are slightly different cohorts at the time of reporting uptake (doses given in time period reported of the number of women with an appropriate delivery date/ estimated delivery date).

- By directly comparing the full year data for 2013/14 with the year to date data for 2014/15 we assume that the number of women expecting is consistent throughout the year.

Surveys and Audits

The following section outlines some of the main issues highlighted in the surveys and interviews

- 4.34. Practice nurse [2] reported pregnant ladies saying they were unaware of the prenatal pertussis vaccine programme.
- 4.35. Practice manager [1] reported many non-attendees are families from Eastern Europe. Surgery has dedicated staff to follow up non attendees, but families are difficult to contact as they move and change addresses, and return to country of origin for long periods. Same issues with the prenatal pertussis for pregnant women.
- 4.36. Midwife team leader [1] *the midwife discusses the vaccines [with ladies] and believes the majority of ladies accept. Paston surgery sends out a letter monthly inviting ladies to attend.*

4.37. Senior midwife [2] *Thistlemoor surgery contacts their patients by telephone or text and it is recorded on SystemOne if declined or accepted. All community midwives discuss with women at their 16 week and 25 week appointment.*

5. Potential Barriers to uptakes

5.1. Using grounded theory approach⁴ qualitative data were collected from health professionals and clients using surveys and interviews⁵. Three of the outlier practices were contacted and interviews undertaken with staff including practice managers, practice nurses and GP. The emerging data were highlighting similar themes. Once there are no new themes emerging from the data it means it is saturated.

6. Barriers to uptakes: Key Themes

6.1. The data collection findings were discussed with the members of the Task and Finish group. The data were collated and the main issues highlighted can be categorised into several themes:

- Access
- Demographics
- Changing to UK schedule
- Parent Health Beliefs
- Data Quality

7. Further detailed analysis

7.1. Following the initial collection of data, further detailed data collection and analysis were undertaken. One of the emerging themes included lower uptake in Eastern European families.

⁴ Grounded theory is the generation of theory from data of social research, it starts with an area of inquiry and allows whatever is theoretically relevant to emerge, rather than to begin with a theory and to test it: Glaser B. G and Straus AL (1967).

⁵ See appendix 5 for example of template used, used as prompt for interviews

7.2. Further analysis was undertaken on one outlier practice which showed registered population as 43% 'White other' group, Asian 24.3% and White British 17.3%. It is difficult to test the hypothesis that Eastern European families have a lower immunisation uptake, because individuals from Eastern Europe are included in the 'White Other' category, which means it is not possible to distinguish those White but not from Eastern Europe.

7.3. An alternative way to test this hypothesis is to use main language spoken as a close proxy, specifically to look at 'Main language spoken by immunisation uptake'. This data was collected from one practice. This showed that there are some groups whose main language is not English uptake is lower and range from 0.1% to 8% uptake of any immunisation compared to 20.7% English language and any immunisation. This is worthy of further research.

8. Barriers to uptakes and potential solutions: Discussion

Access

8.1. One of the issues identified was that a significant number of children had not been invited for their immunisations⁶. The current policy is that any child who does not attend two appointments is temporarily suspended from being scheduled. This temporary suspension is then lifted every 2-3 months. However, it emerged that the suspension list had not been lifted for a period of approximately 6 months; this affected an estimated 1,500 children. This system failure would have had an impact on the uptake figures. This incident was escalated to commissioners. Child Health Record Department immediately lifted these suspensions.

⁶ The CHR D identified estimated 1,500 children not lifted from suspensions, this was escalated as an incident, as outside terms of reference for task and finish group, the suspensions were lifted immediately. This means some children would not have received an invitation to attend immunisation.

⁶

- 8.2. Waiting list for childhood immunisations impact on uptakes. Waiting list fluctuates, however, in Peterborough in Jan 2014 estimated 298 children on waiting list. Practices should have zero children waiting. Where a waiting list exists, priority is given to primaries, Hep B and MMR, followed by other vaccinations, and pre-school booster is the last priority. Pre-school booster has the lowest uptakes out of all the childhood immunisation programmes. Hence, it is important to ensure waiting lists are reduced.
- 8.3. Qualitative evidence highlighted difficulty understanding the appointment letter/invitation particularly for some parents whose first language is not English or who are illiterate. One practice reported having a significant traveller population, some of whom are illiterate.
- 8.4. Anecdotal evidence from health visitors in Central area highlighted difficulty for some parents to access immunisation appointments because some local surgeries only open part time. Other issues highlighted by health visitors and practice nurses are that parents are reluctant to take their child out of school, if the appointment clashes with school/term times. As the data shows that the pre-school booster has a significantly lower uptake, it is likely to affect those parents whose child is at school. One possible solution is to ensure immunisation clinics are offered out of school hours.
- 8.5. Currently NHS England commissions primary care to deliver the prenatal pertussis vaccination to pregnant women. However, the main health professional involved in the pregnant women's care is the midwife. Midwives are employed by the local acute trust [Peterborough and Stamford Hospital Foundation Trust]. PSHFT are not commissioned to administer prenatal pertussis vaccination to pregnant women.
- 8.6. Currently, midwives discuss the prenatal pertussis programme with pregnant women at their 16 week and 25 week appointment, midwives then signpost women to their local GP. Practice varies, some GP practices telephone or text the pregnant women inviting them for vaccination, some send letters, whereas others do not target specifically but expect women to contact the surgery.

8.7. Perceptions differ about the information given to pregnant women between midwives and pregnant women. Whereas midwives report they discuss pertussis with women, some pregnant women have reported they did not know about the prenatal pertussis programme. Even if the reality is that pregnant women are given the information, they may not recall this. Potential solutions should include reiterating the prenatal pertussis programme through health promotion campaign.

Demographics

8.8. A key recurring theme from the qualitative evidence is that many Eastern European families' frequently move address or spend long periods returning to their country of origin. As such practices report that it is difficult or almost impossible to contact these families to arrange or follow up their non-attendance at immunisation appointments. For example, one practice reported they have a dedicated member of staff to follow up non attendees, but with little success.

8.9. Health visitors have visited family addresses, to be informed that the child has moved abroad to the family country of origin for a 'few weeks', but unknown when they will be back.

8.10. Potential solutions include offering opportunistic appointments and flexible clinics. It is important to inform CHRD of any unscheduled appointment to avoid CHRD sending a duplicate appointment [thus wasting a slot]. The other important issue is that immunisations can only be given within certain time frames, i.e for childhood vaccinations there is a schedule and a requirement for a certain gap between vaccinations, similarly prenatal pertussis can only be given from 28 weeks gestation, so these time frames may limit opportunistic appointments.

Changing to UK schedule

8.11. Qualitative evidence from a number of health professionals reported that there are a significant number of families whose child has already had vaccinations

in their country of origin, but the family are not able to give a reliable history⁷ or documentation. The problem is that these vaccinations cannot be 'counted' in the numerator as being given. However, because these children remain in the denominator it has a negative impact on percentage uptakes. Under current guidance this situation is 'stale mate', because parents firmly believe that their child has had the vaccines, and do not wish to give any further doses, but without documentation [date/name of vaccine] it cannot be counted. Potential solutions are to encourage parents to find the documented evidence from their country of origin.

- 8.12. The surveys and audit only found a few parents sighting having or wishing to have the single MMR as reason why they did not attend MMR appointment. However, it is noteworthy that if parents have their child vaccinated with single MMR, it is not counted as given⁸, and therefore, the child will remain in the denominator.

Parent Health Beliefs

- 8.13. Qualitative evidence from parents interviewed in children's centres, identified some parents are fearful of vaccine side effects, some parents are unsure if vaccines are effective. There are still a few parents believing that MMR is linked to autism despite this being disputed and no evidence linking MMR with autism. Potential solutions should include reiterating the key health messages about vaccine safety.
- 8.14. Surveys and the local 2012 MMR audit⁹ showed the main reasons for non-attendance of the childhood vaccinations and MMR appointment included 'forgot appointment', 'did not know' or 'understand appointment'. Currently invitation letters from CHRD are written in English. Potential solutions for increasing immunisation uptake should include strategies for inviting parents/pregnant women whose first language is not English and/or who may be illiterate.

⁷ Reliable history is required to document vaccine given according to the Green Book www.dh.gov

⁸ The DH guidance is that single MMR is not recognised in the UK, not licenced and unknown of efficacy, therefore cannot be counted towards full protection for Measles/Mumps/Rubella

⁹ Local Peterborough audit 2012, non-attendees for MMR vaccine, parents contacted by practice nurse

Data Quality

8.15. One of the issues highlighted is children or pregnant women who are still registered with a practice but who are either out of the country for long periods or have left the country i.e 'Ghost patients' on GP systems. Unless 'Ghost patients' are deducted they will still be included in the denominator for immunisations because they are registered population, but if these individuals are not in UK or abroad for long periods they will not be able to access immunisation services. This in turn will have a negative impact the uptakes.

8.16. There is a potential conflict of interest in relation to 'Ghost patients', because payment to practices is based on the number of their registered population. In addition, there are potential ethical dilemmas, if a practice deducts the 'Ghost patient', but then the child/pregnant woman returns to the UK/local area, they may miss receiving important health information or immunisation appointments.

8.17. Accurate data collection relies upon accurate coding of denominators in practices. One of the issues has been the recording of denominator for prenatal pertussis. Previously the denominator used was the Estimated Date of Delivery EDD, this has now changed and is the Date of Delivery DD. One of the difficulties for practices is to ensure the status of the pregnant woman is up to date. Evidence collected suggested that some practices have been unable to report uptakes of prenatal pertussis due to lack of denominator. Since the introduction of DD as the denominator, this is now collected via Immform automatically from practices (sentinel).

9. Summary

9.1. This paper has presented data on childhood immunisations and prenatal pertussis; it shows that Peterborough has a lower uptake than the average in East Anglia, and lower uptakes than statistical neighbouring local authorities. The pre-school booster age 5years is the lowest uptakes out of all the childhood immunisations. There is significant variation in uptakes amongst Peterborough practices, some practices are

significant outliers. The correlation between childhood immunisation and prenatal pertussis with deprivation is weak.

9.2. Data were gathered from a variety of sources, to identify barriers to uptakes and potential solutions, this has shown some key themes emerging: Access, demographics [Eastern European and traveller families], changing to UK schedule, parent health beliefs and data quality.

9.3. Possible solutions have been discussed. Key recommendations are detailed below.

10. Key Recommendations

Themes	Recommendations
Improving Access to immunisations	
1.Access	<ol style="list-style-type: none"> 1. Ensure CHIS have a robust process/procedure in place to lift suspensions on child immunisation non attendees regularly 2. Ensure all non-attendees are followed up by practice, by creating 'red flag' system on GP systems, when child fails to attend [DNA]. 3. CHIS to send 'task' to named health visitor or school nurse if child DNA's 4. Reduce waiting list, CHRD contact practices with waiting list to arrange increase in clinic capacity 5. Ensure invitations/letters have contact details for those whose first language is not English 6. Invitations by telephone for those parents who are illiterate

	<p>7. Practices to consider opportunistic appointments for frequent non attendees, if used, practice to inform CHIS within 24 hours, to avoid duplication of appointment being sent.</p> <p>8. Practices to consider holding clinics out of hours</p> <p>9. LA Public Health to Provide information to Nurseries to give to parents</p> <p>10. Practices to consider sending targeted letters to eligible pregnant women</p> <p>11. Commissioners to consider commissioning midwifery services to deliver prenatal pertussis vaccination programme</p> <p>12. Midwifery services and practices to work together to consider holding antenatal clinics within surgeries</p>
Addressing inequalities in health	
2.Demographics	13. Further research project with LA PH team and community leaders for Eastern European families and traveller families, looking at access to immunisation services
3.Changing to UK schedule	<p>14. Practices to request immunisation documentation at 'new patient registration', as part of requirement</p> <p>15. Practices to reiterate importance of family informing practice of any change in contact details, practice to check details as each contact</p>
Increasing parents awareness and knowledge of the benefits of vaccinations	
4.Parent health beliefs	<p>16. Health Promotion campaign to reiterate safety of vaccines, use of various medium/face book/local radio/children centres to promote vaccinations</p> <p>17. Practices to send reminder to parents before appointment</p> <p>18. CHIS to reiterate importance of keeping appointment in the invitation</p>
Improving data quality	
5.Data Quality	<p>19. Practices to ensure accurate GP practice list, deduct Ghost patients [as per policy]</p> <p>21. Practices to ensure accurate data base of eligible pregnant women</p>
Evaluation	

6. Evaluation and Review post implementation	22. Review immunisation uptakes in 12 months following implementation of key recommendations
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20. Conclusion

20.1. This report has presented immunisation data on childhood vaccination programmes and the Prenatal Pertussis programme in Peterborough for 2013-2015 to date. The data shows the uptakes are lower than average compared to East Anglia and worse than other local authorities. There is significant variation between practices in Peterborough. Those practices which are outliers have highlighted several recurring themes as potential barriers to immunisation uptakes. These include: access, specific demographic characteristics, parental health beliefs, and data quality issues. This report proposes some key recommendations to address the low uptake of immunisations in Peterborough. It is recommended that a review is undertaken of immunisation uptakes in 12 months post implementation.



APPENDICES

Report: Immunisation uptake in Peterborough

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Appendix 1

Chart 1: 12 month DTaP, IPV and Hib 2013/14 and 2014/15 year to date

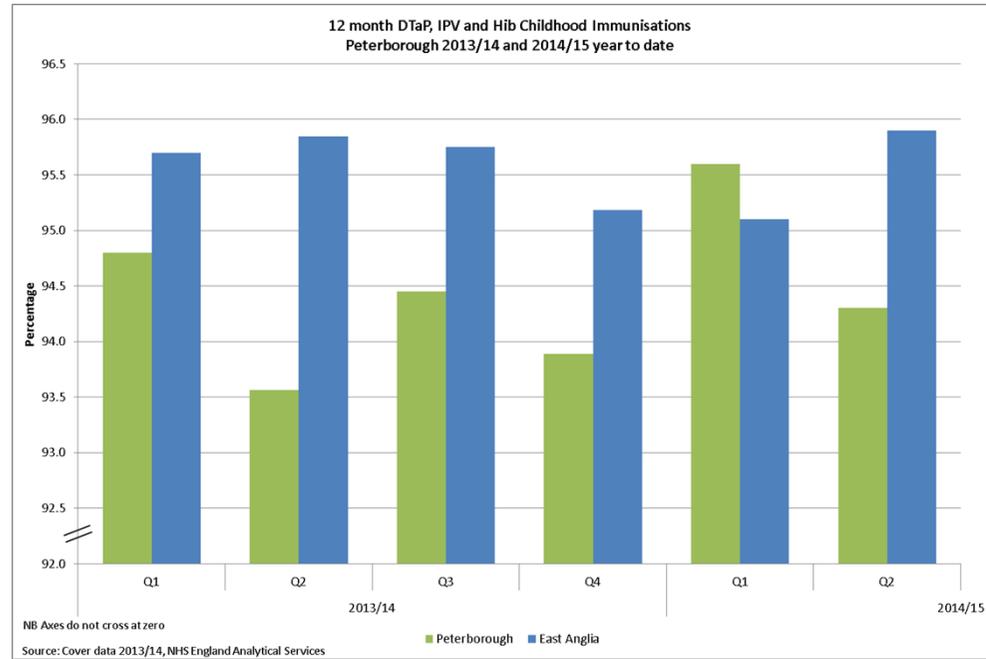
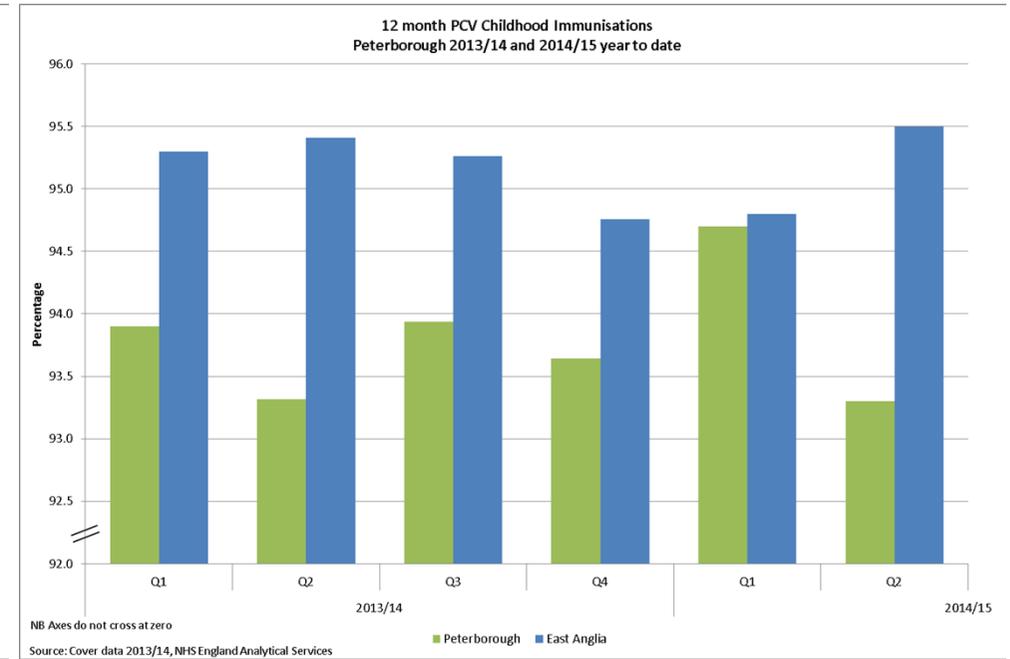


Chart 2: 12 month PCV 2013/14 and 2014/15 year to date



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Chart 3: 12 month Men C 2013/14 and 2014/15 year to date

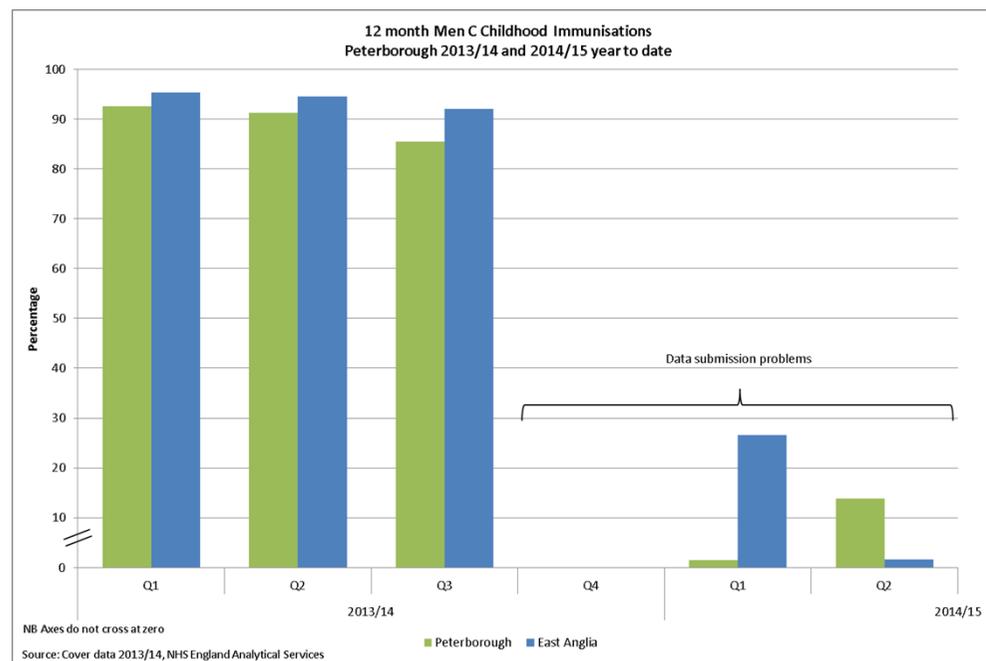
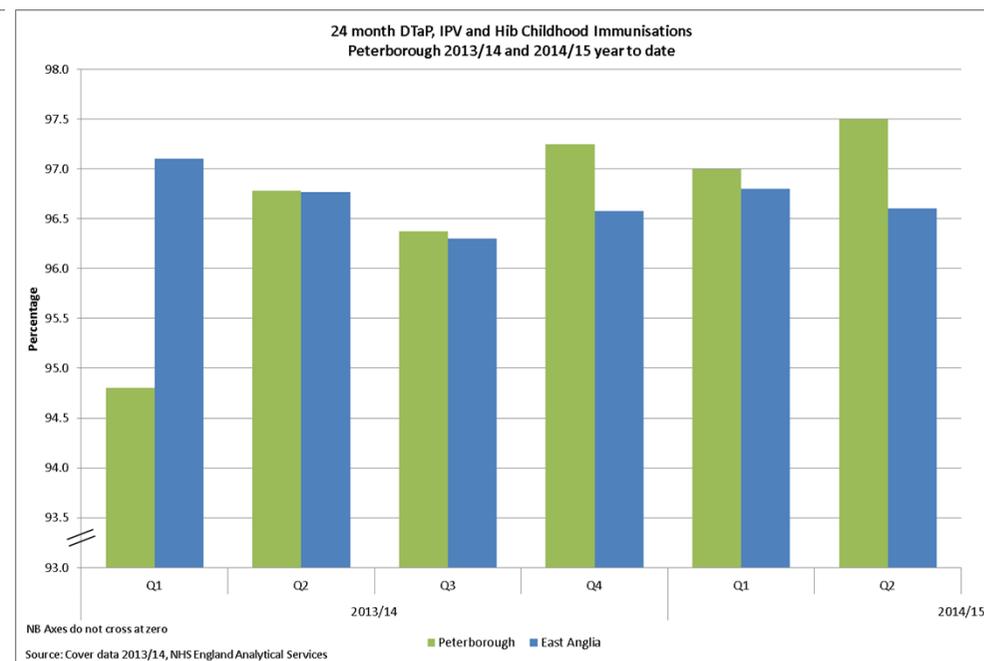


Chart 4: 24 month DTaP, IPV and Hib 2013/14 and 2014/15 year to date



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Chart 5: 24 month PCV 2013/14 and 2014/15 year to date

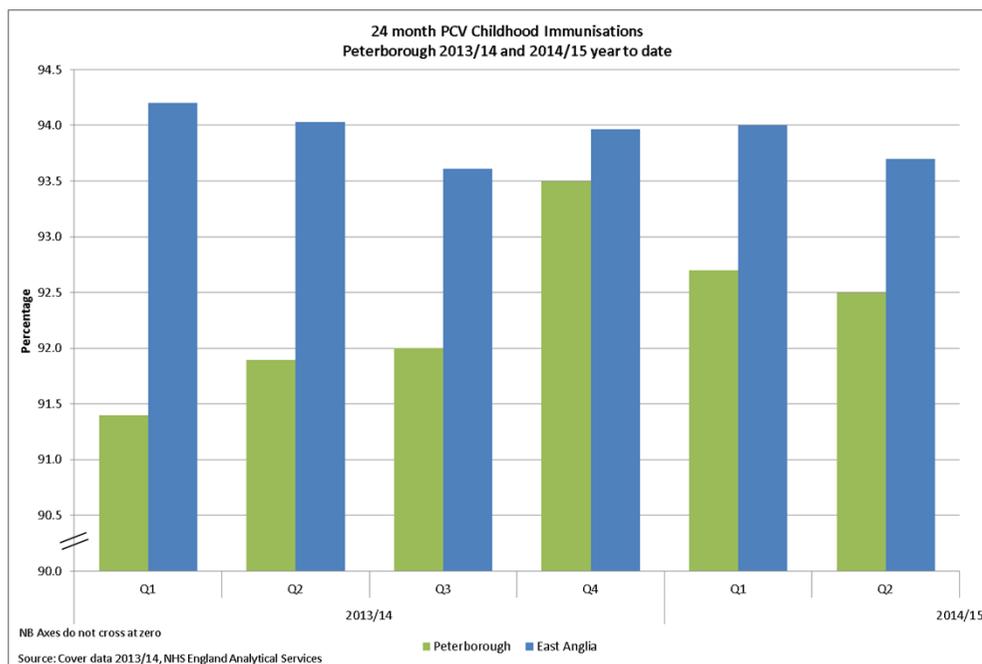
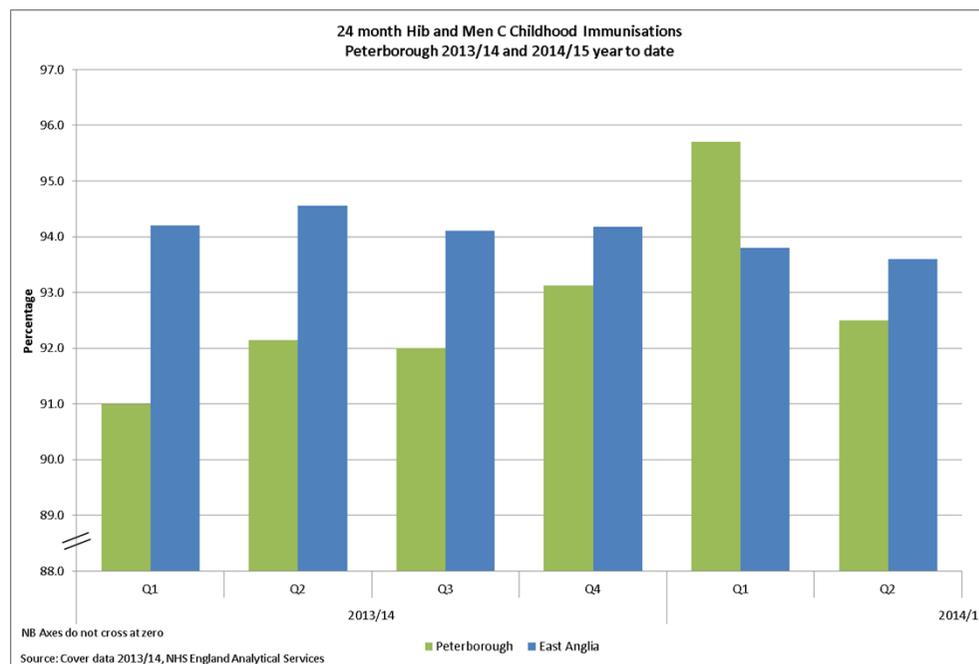


Chart 6: 24 month Hib and Men C 2013/14 and 2014/15 year to date



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Chart 7: 24 month MMR 2013/14 and 2014/15 year to date

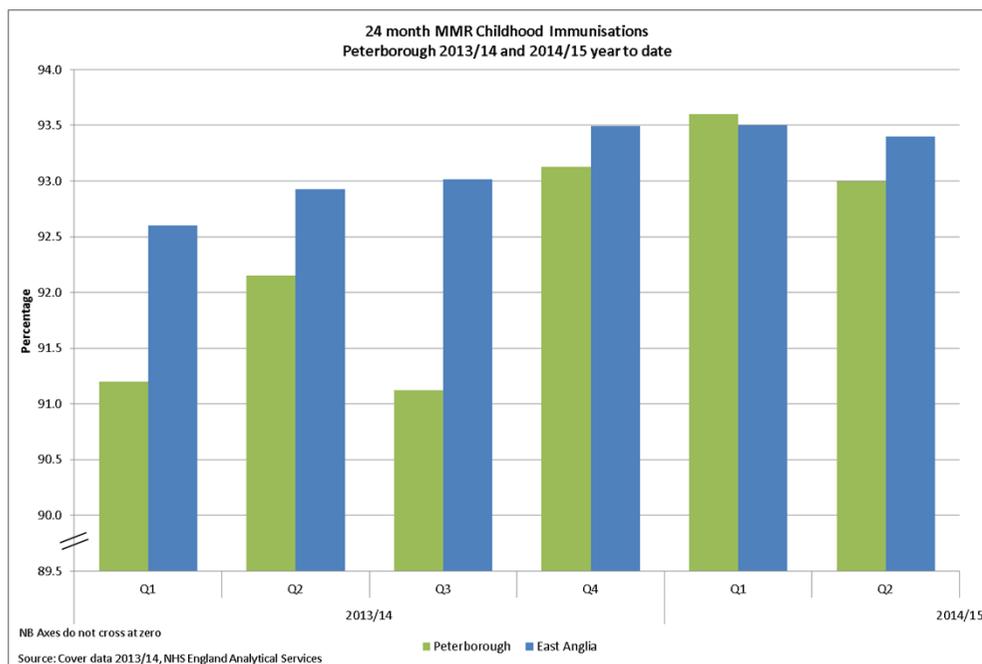
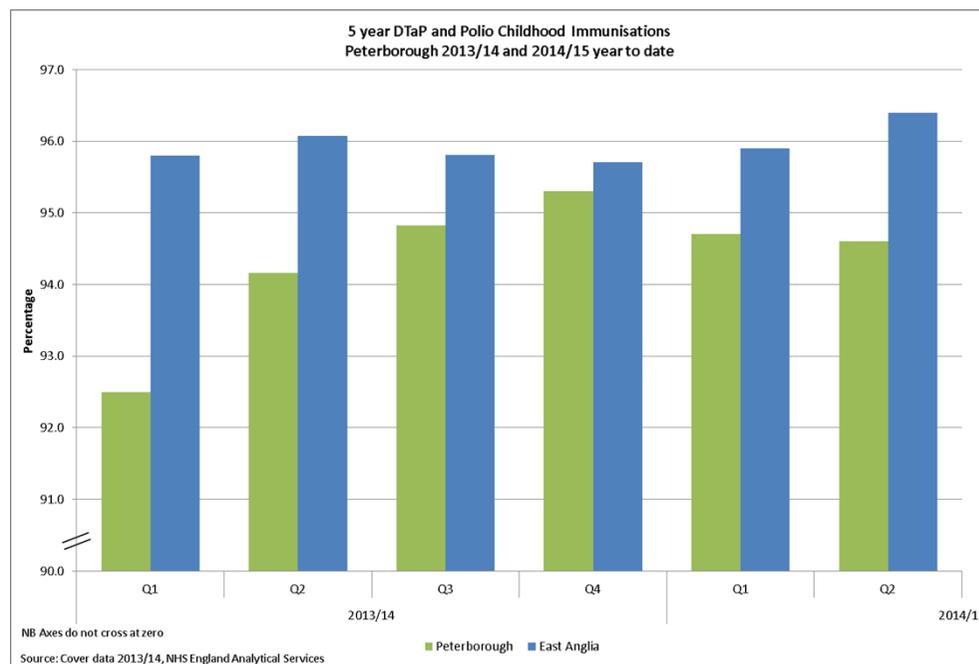


Chart 8: 5 year DTaP and Polio 2013/14 and 2014/15 year to date



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Chart 9: 5 year Pertussis 2013/14 and 2014/15 year to date

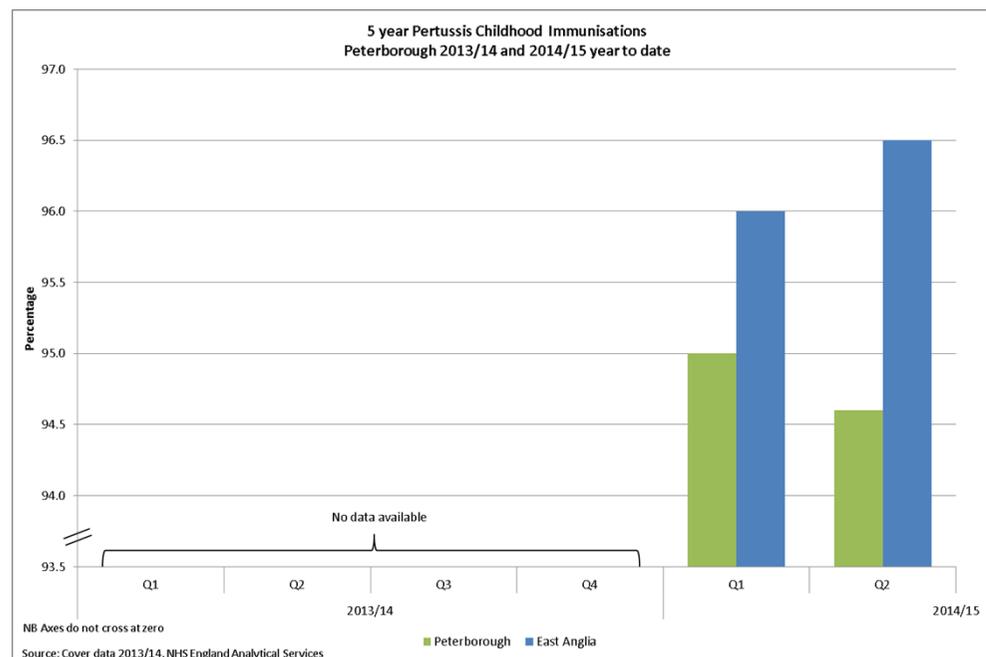
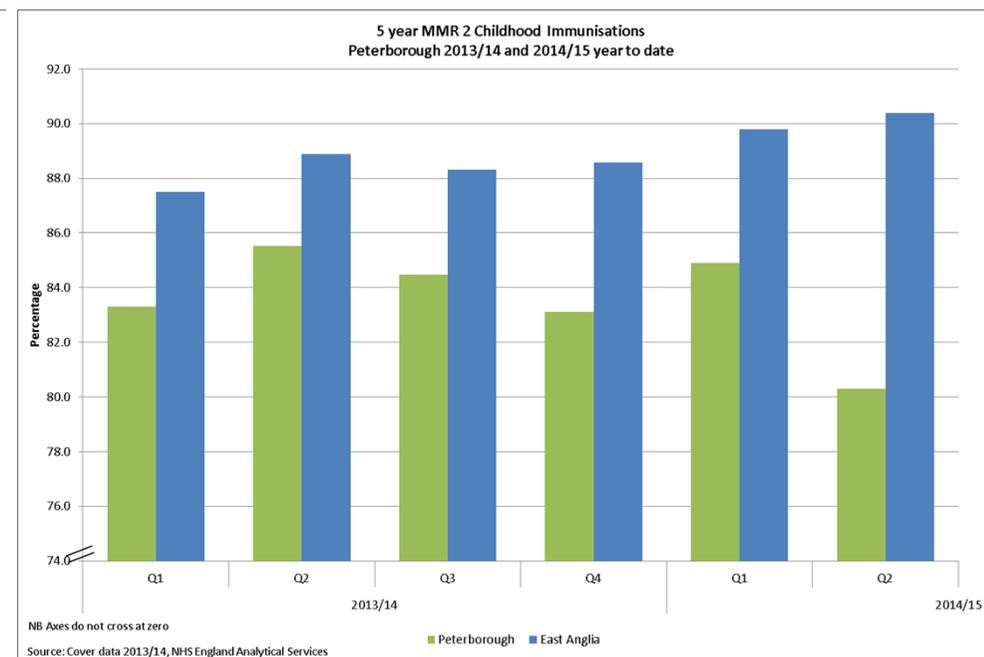


Chart 10: 5 year MMR 2013/14 and 2014/15 year to date



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Chart 11: 5 year DTaP and IPV 2013/14 and 2014/15 year to date

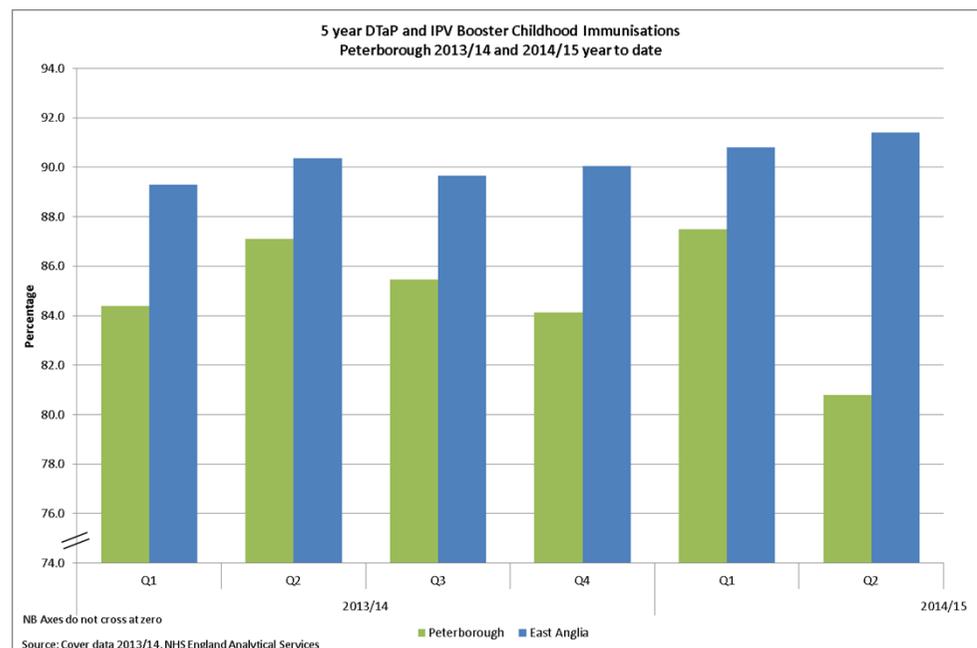
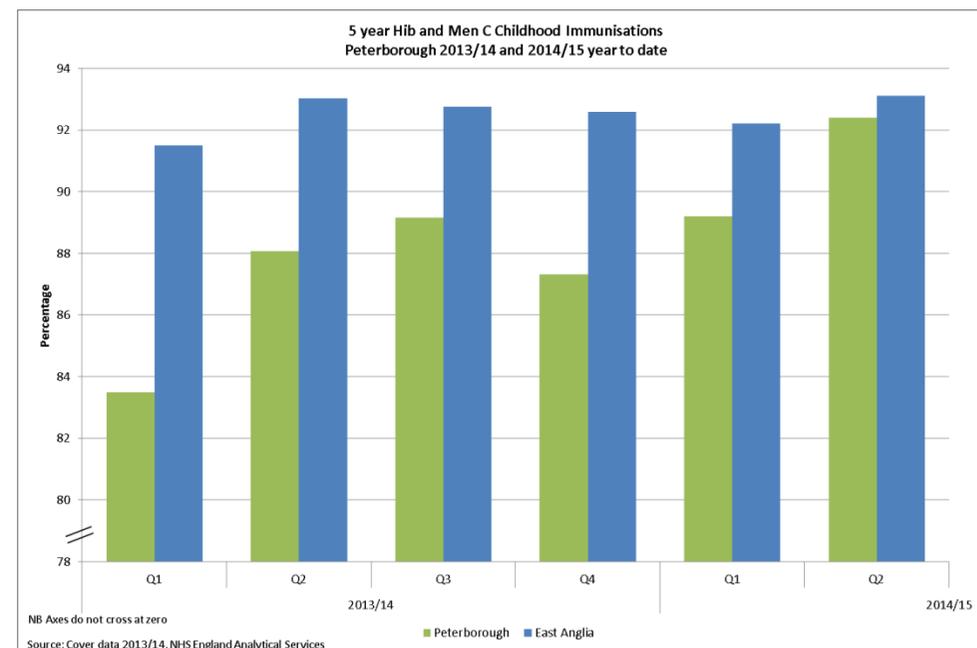


Chart 12: 5 year Hib and Men C 2013/14 and 2014/15 year to date



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Chart 13

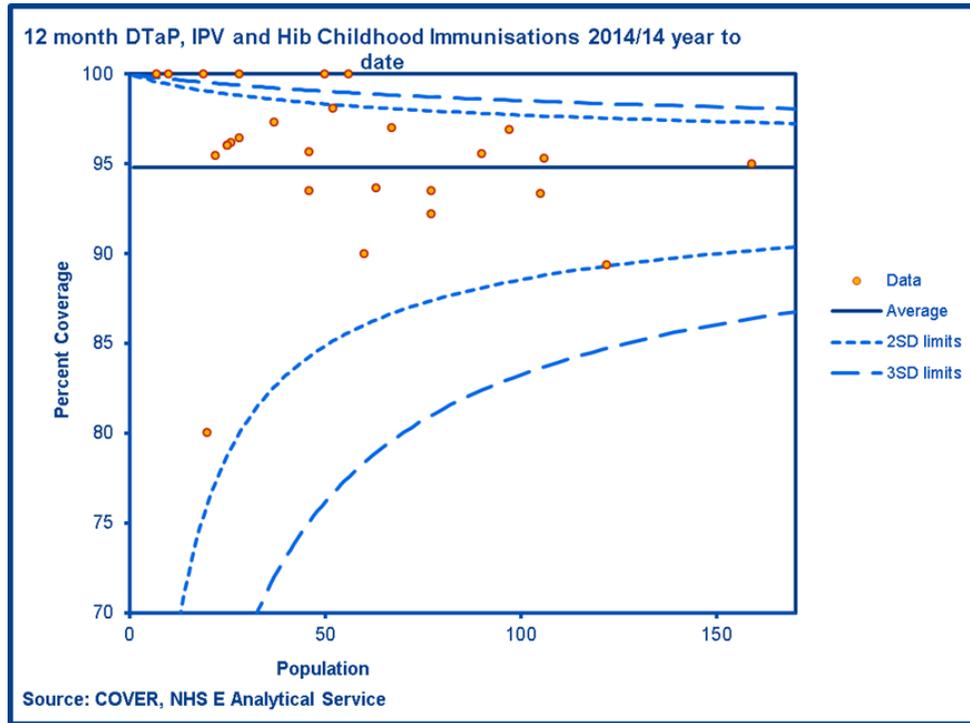
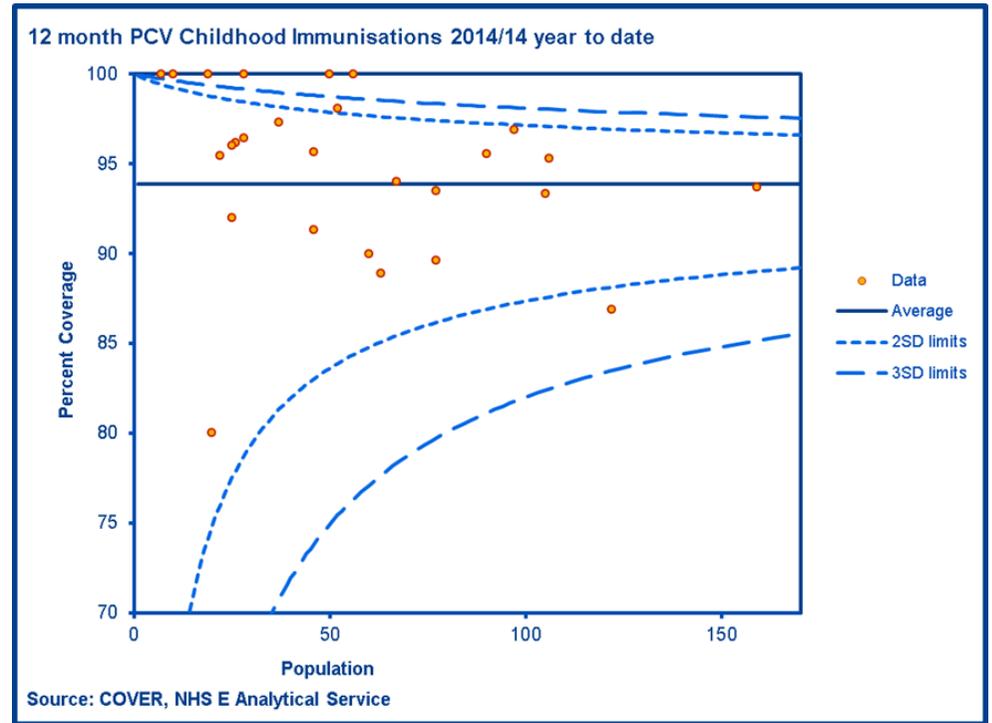


Chart 14



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Chart 15

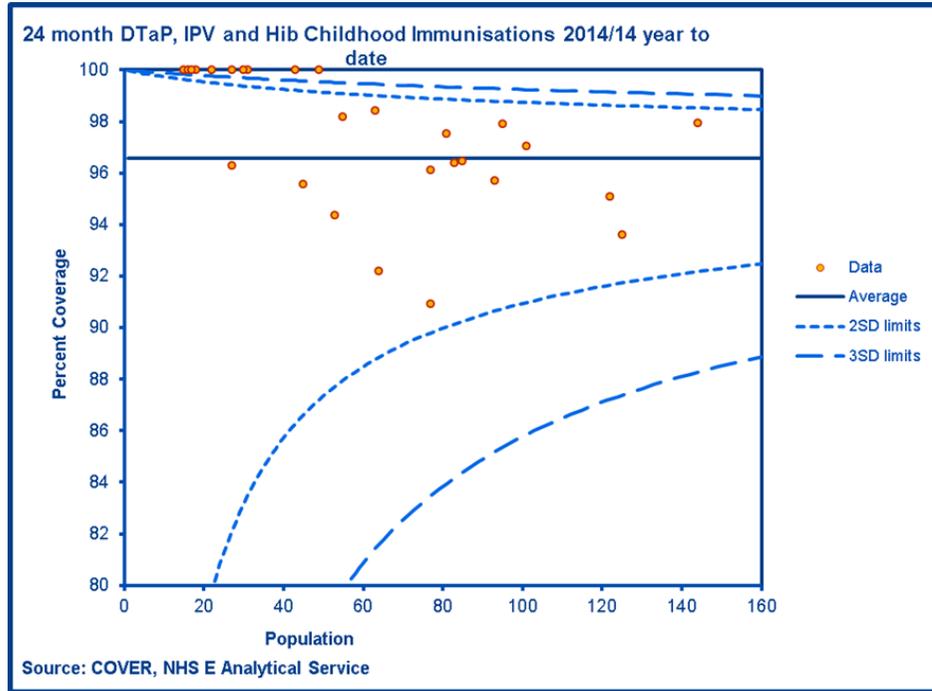
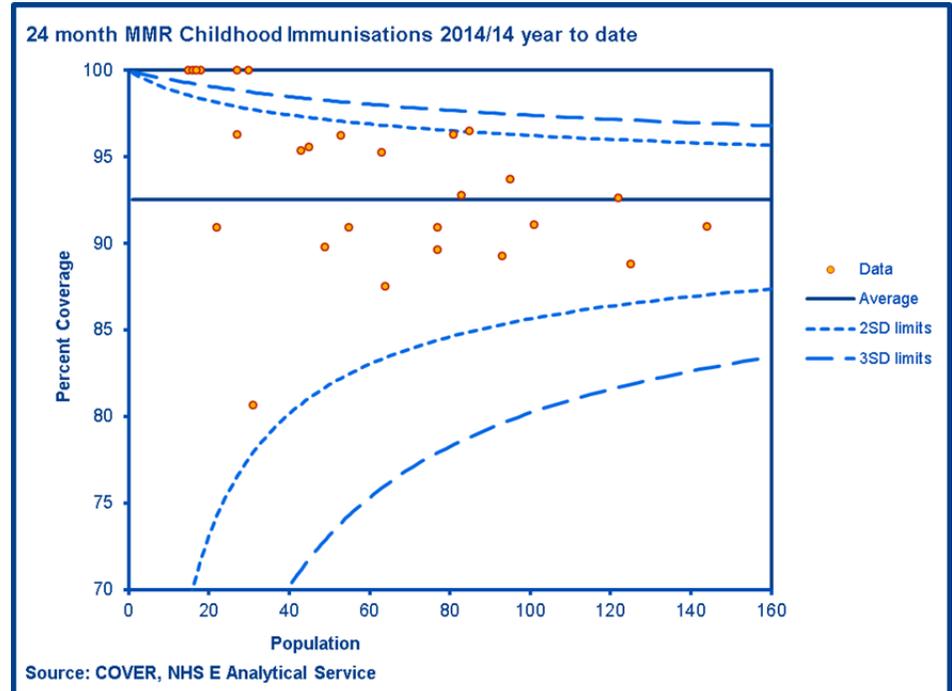


Chart 16



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Chart 17

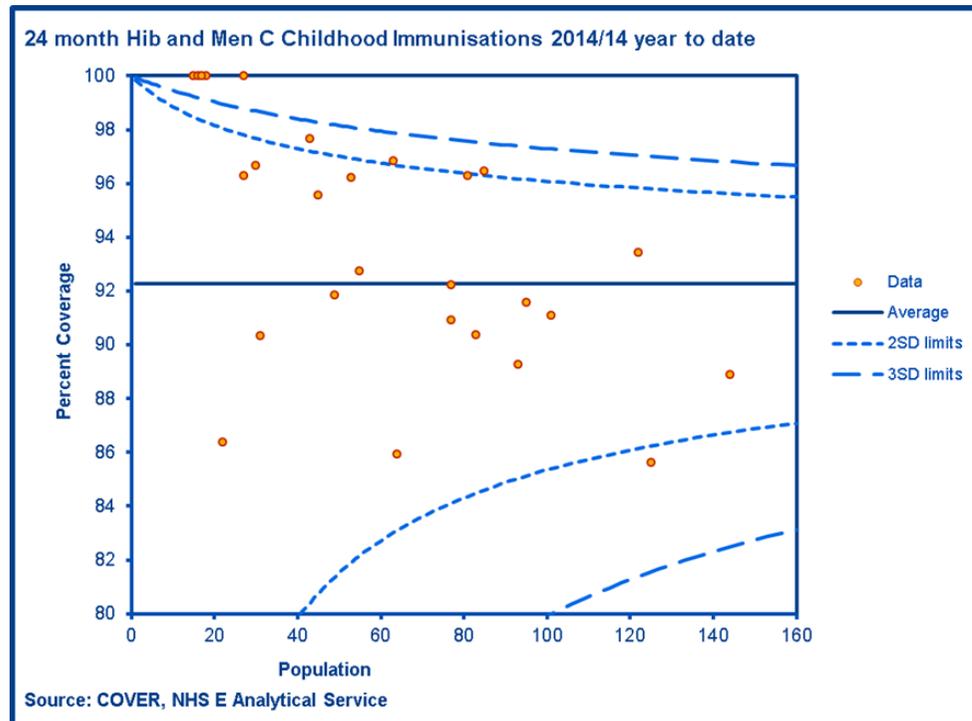
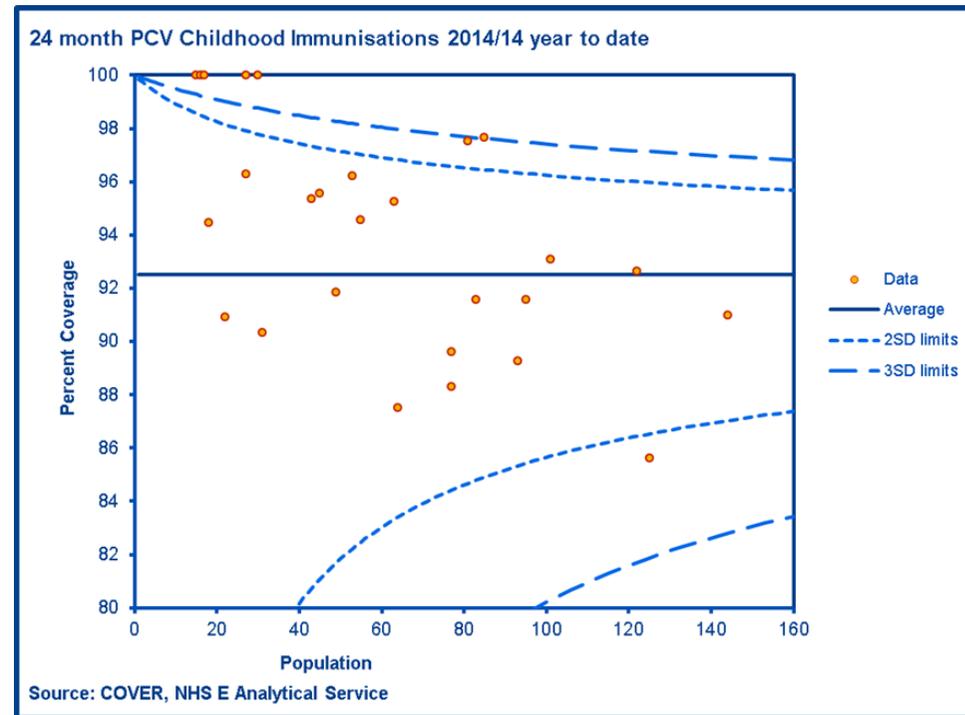


Chart 18



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Chart 19

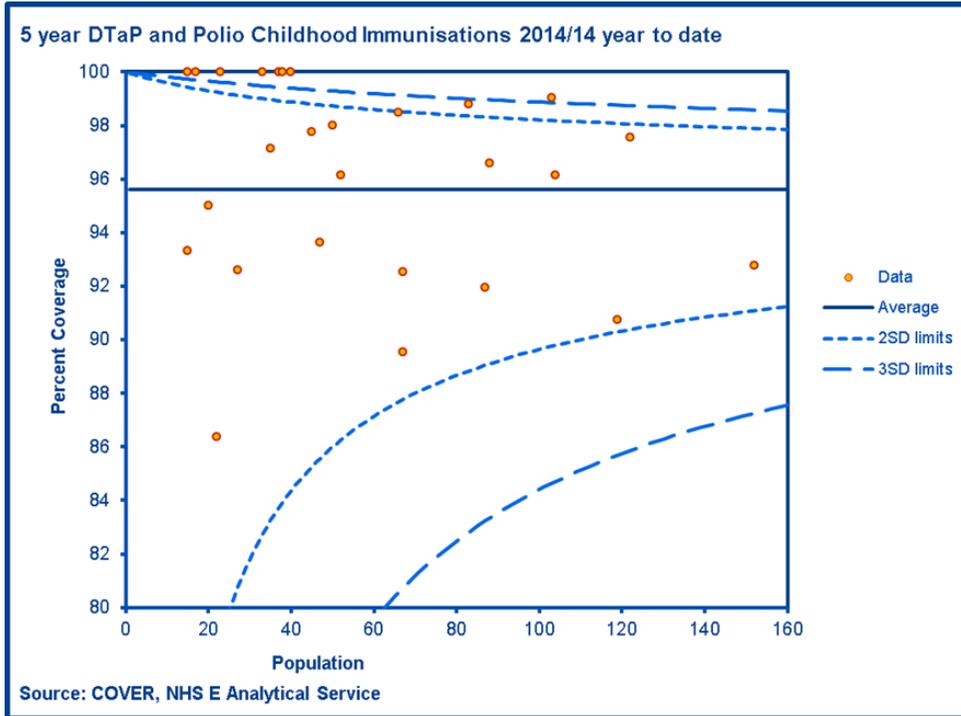
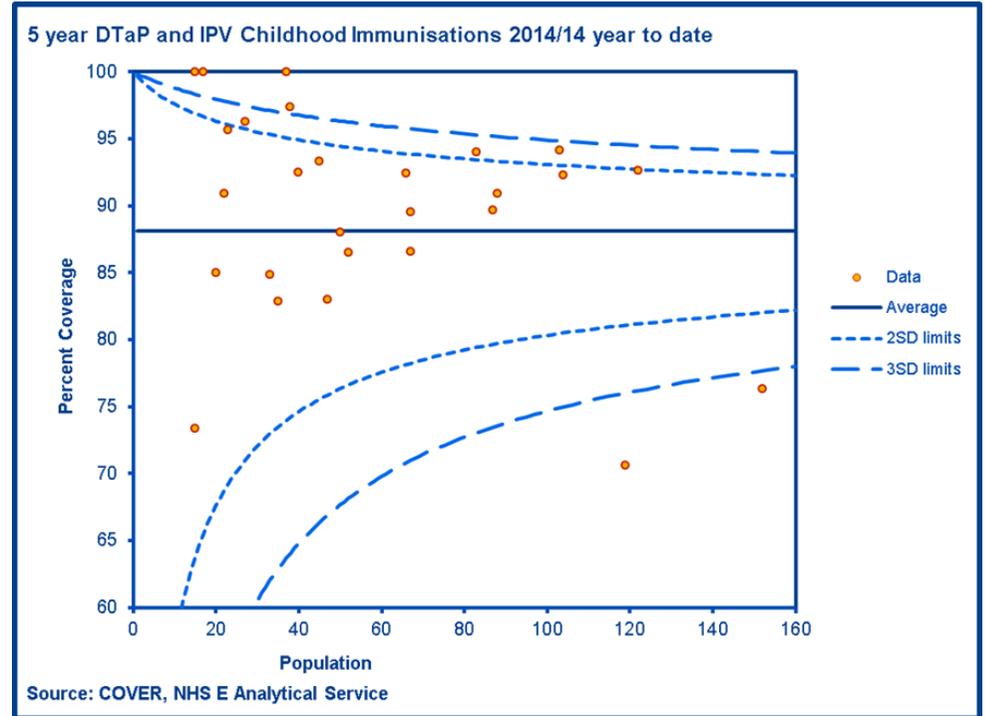


Chart 20



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Chart 21

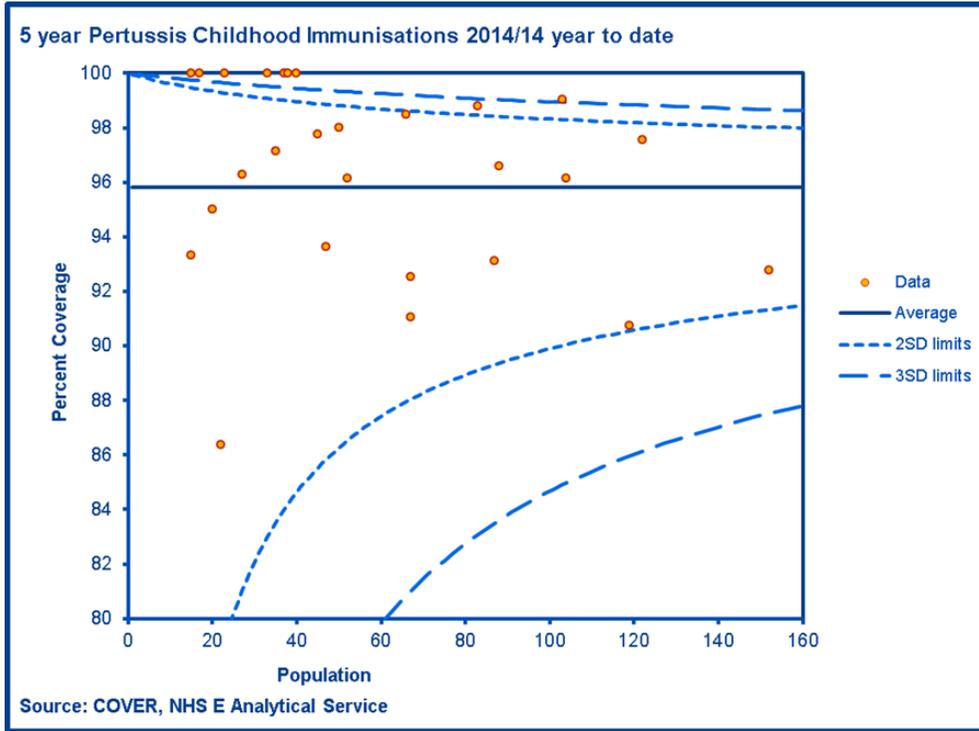
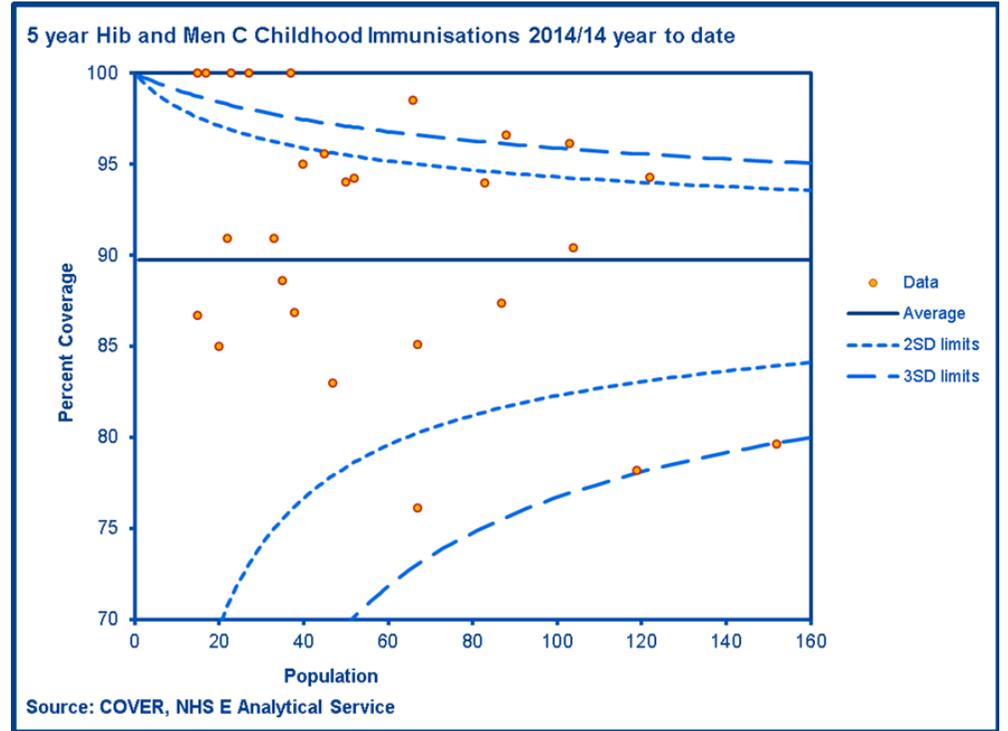


Chart 22



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Chart 23

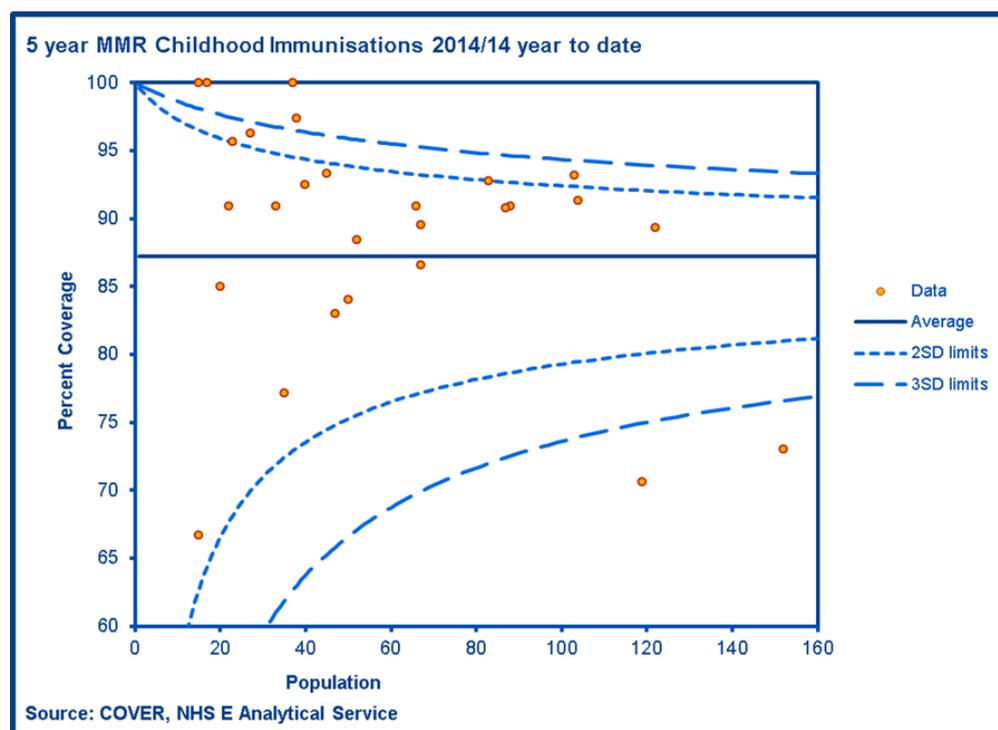


Table 1: Uptake range of immunisations for GP Practices and the proportion that have achieved the 95% target Quarter 2 2014/5

		Uptake range (percentage)	Number of Practices under 95% (of 28)	Percentage of practices with an uptake under 95%
12month	12m_DTaP/IPV/Hib%	83 - 100	15	53.6%
	12m MenC*	63 - 100	28	100.0%
	12m_PCV%	83 - 100	16	57.1%
24month	24m_DTaP/IPV/Hib%	89 - 100	6	21.4%
	24m_PCVB%	75 - 100	3	10.7%
	24m_HibMenC%	85 - 100	14	50.0%
	24m_MMR1%	83 - 100	14	50.0%
5years	5y_DTaP/Pol%	83 - 100	3	10.7%
	5y_Pertussis	83 - 100	2	7.1%
	5y_MMR2%	60 - 100	14	50.0%
	5y_DTaP/IPVBooster%	60 - 100	16	57.1%
	5y_HibMenCB	83 - 100	8	28.6%

2014/15 calculated from CCG data for Peterborough only practices

2014/15 data from NHS England Analytical Service

*Data submission problems

Appendix 2 Childhood Immunisations comparison LA: Charts and Tables

Table 1: CIPFA: Nearest Neighbour Comparators for Peterborough

Peterborough	Milton Keynes
Swindon	Kirklees
Derby	Warrington
Calderdale	Oldham
Coventry	Stockton-On-Tees
Bolton	Darlington
Rochdale	Dudley
Telford & Wrekin	Tameside

Chart 1: 12 month DTaP, IPV and Hib

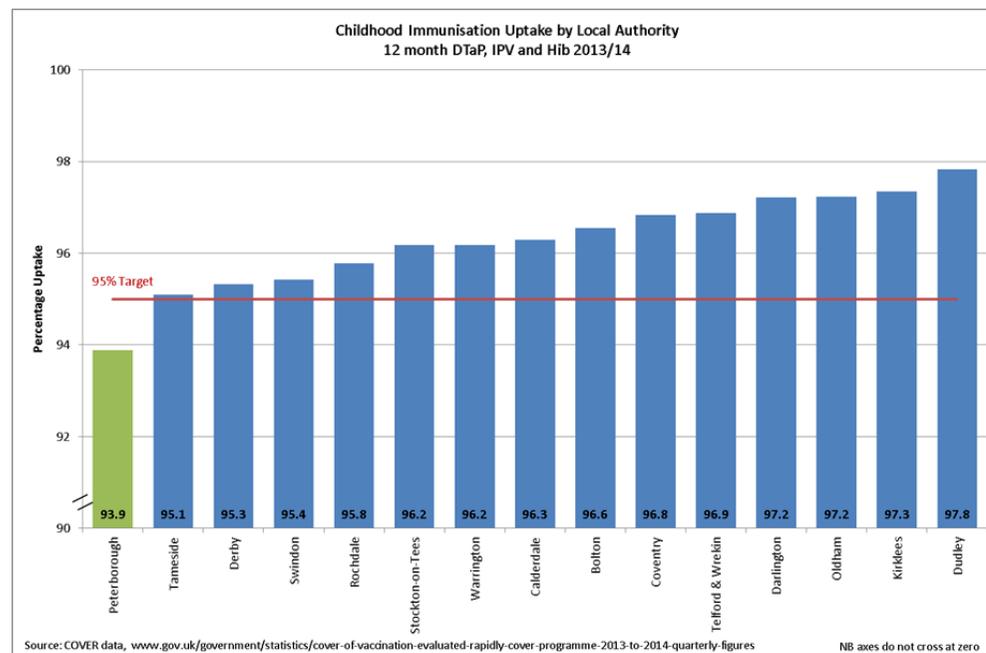
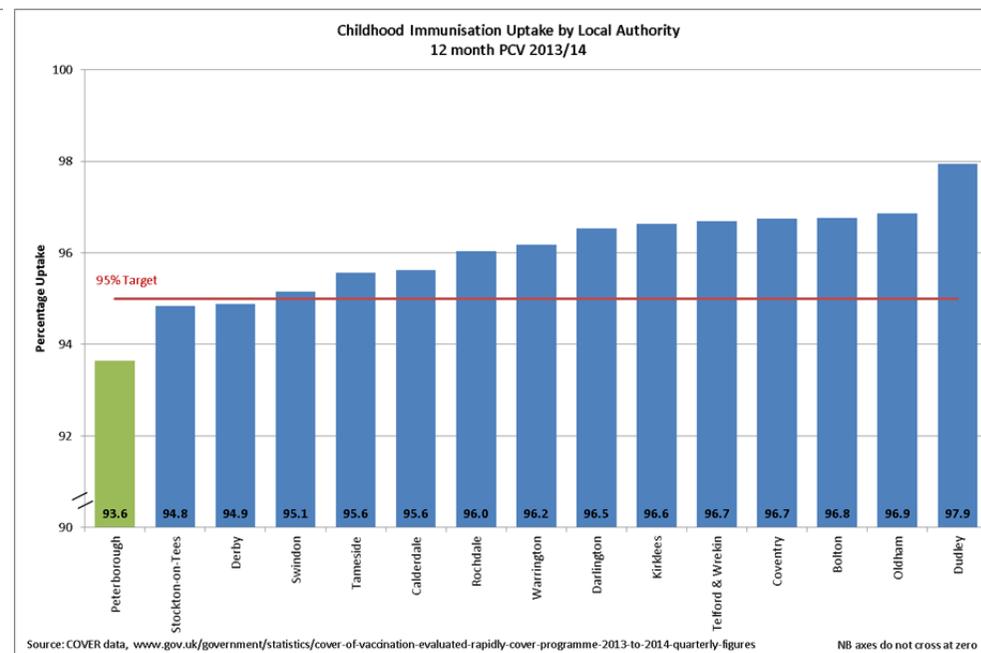


Chart 2: 12 month PCV



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Chart 3: 24 Month DTaP, IPV and Hib

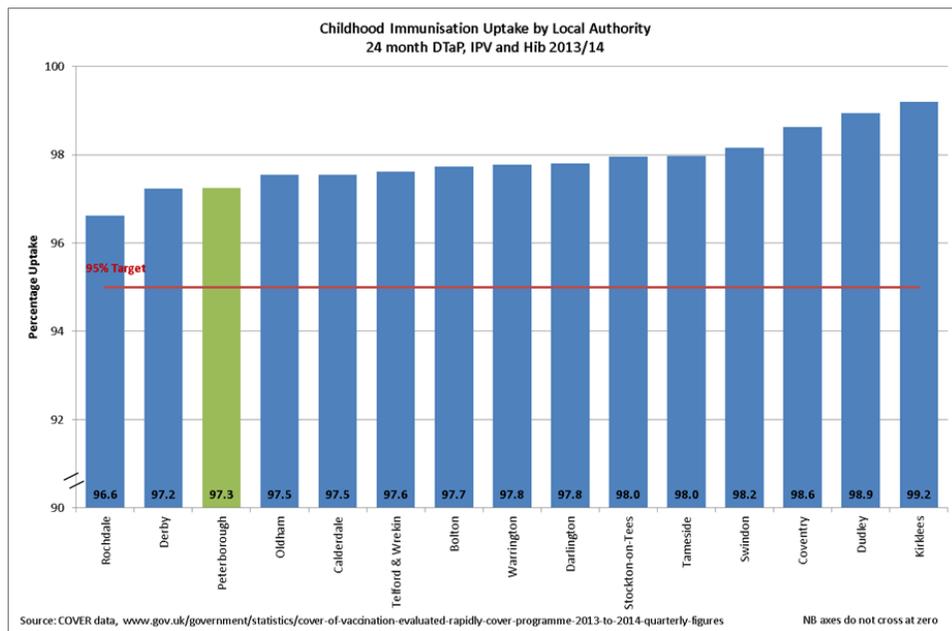
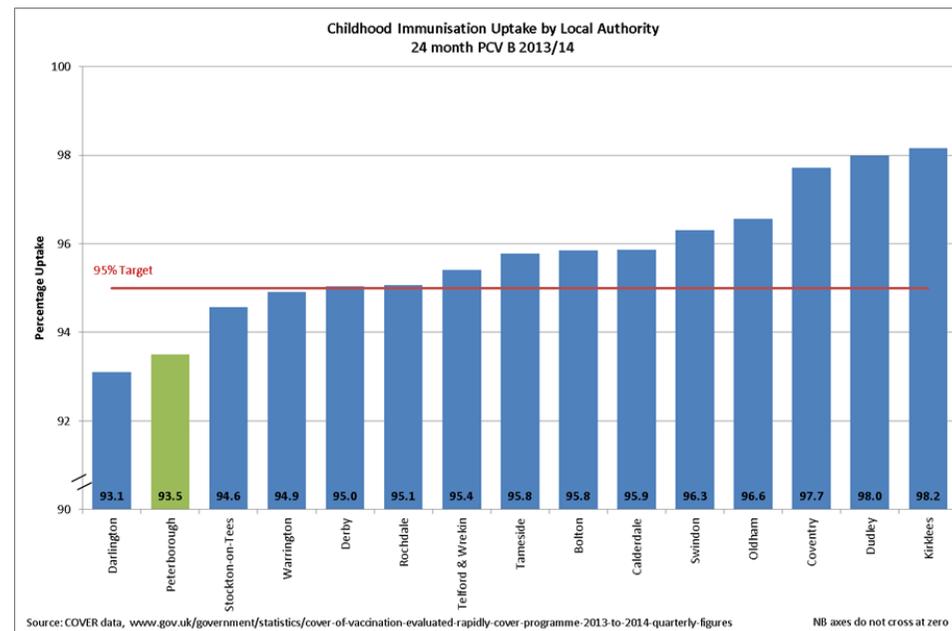


Chart 4: 24 Month PCV B



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Chart 5: 24 Month Hib and Men C

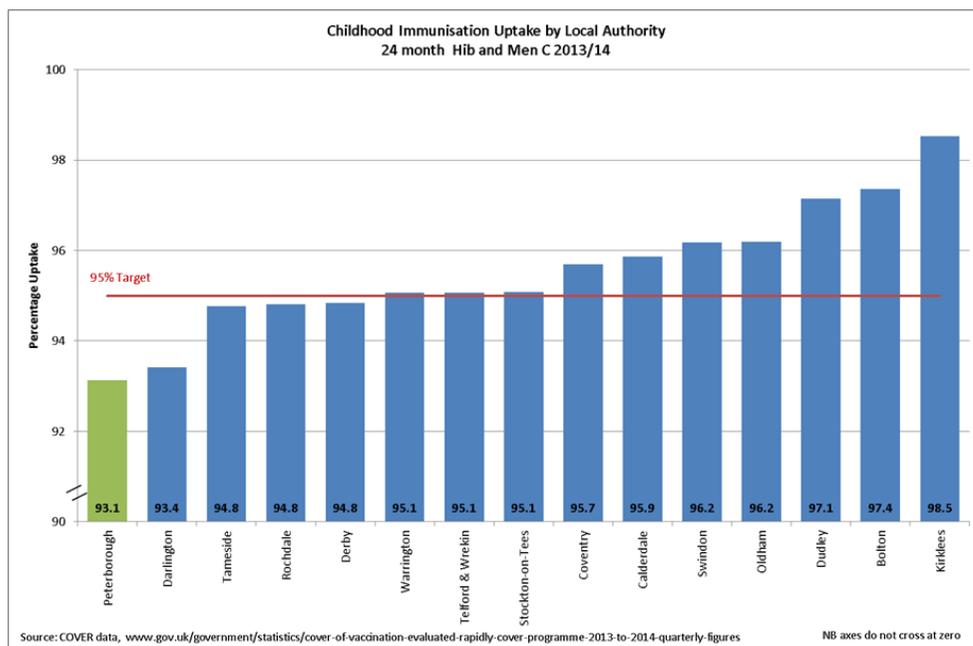


Chart 6: 24 Month MMR 1

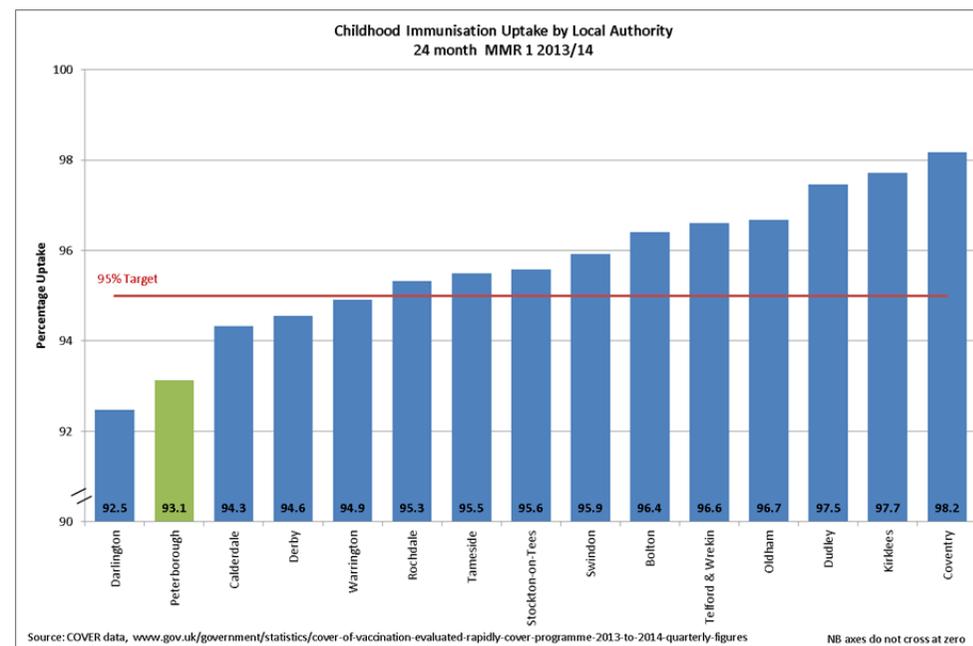


Chart 7: 5 Year DTaP and IPV

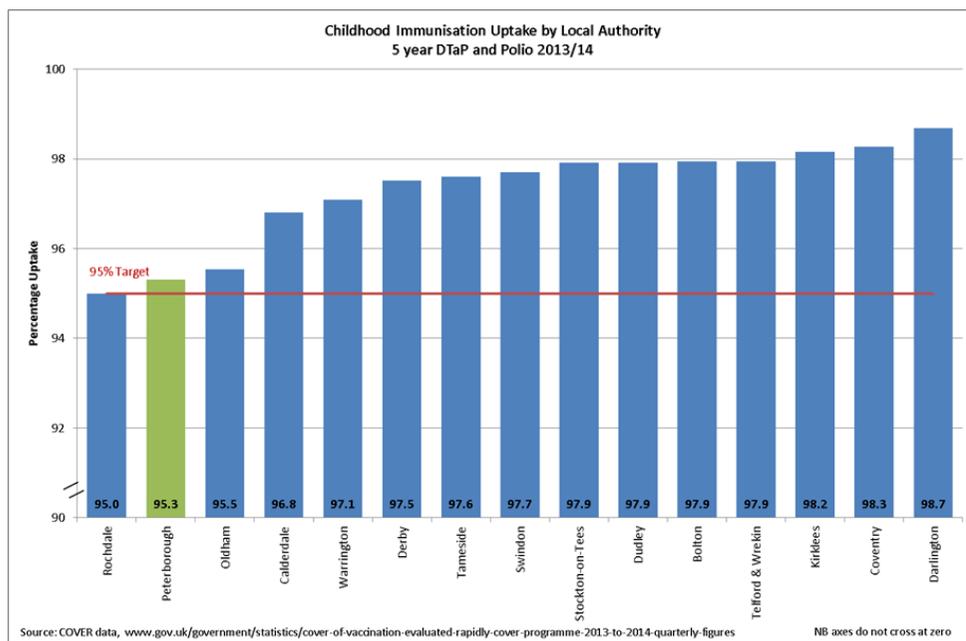
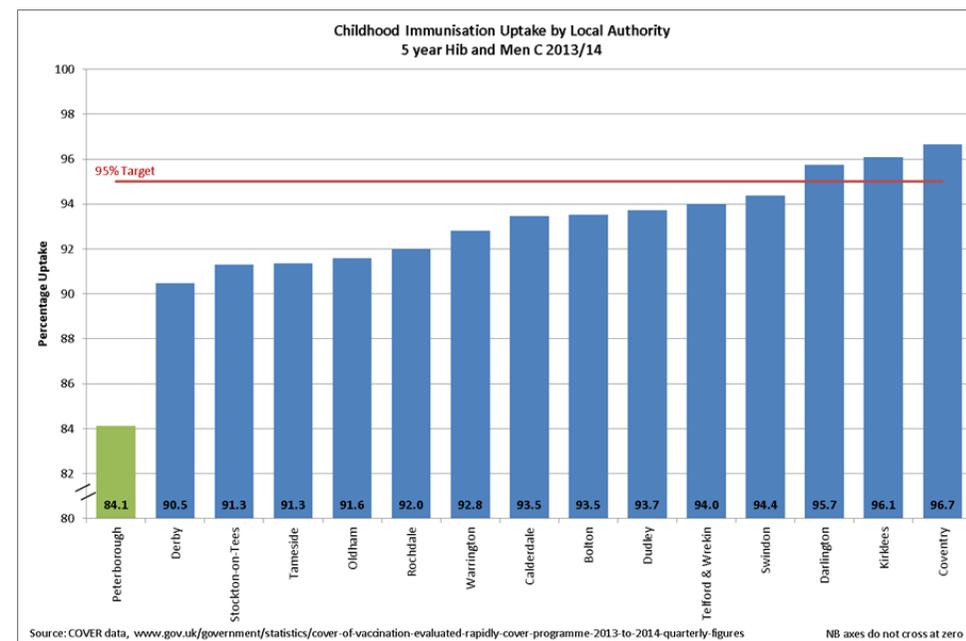


Chart 8: 5 Year DTaP and IPV



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Chart 9: 5 Year MMR 1

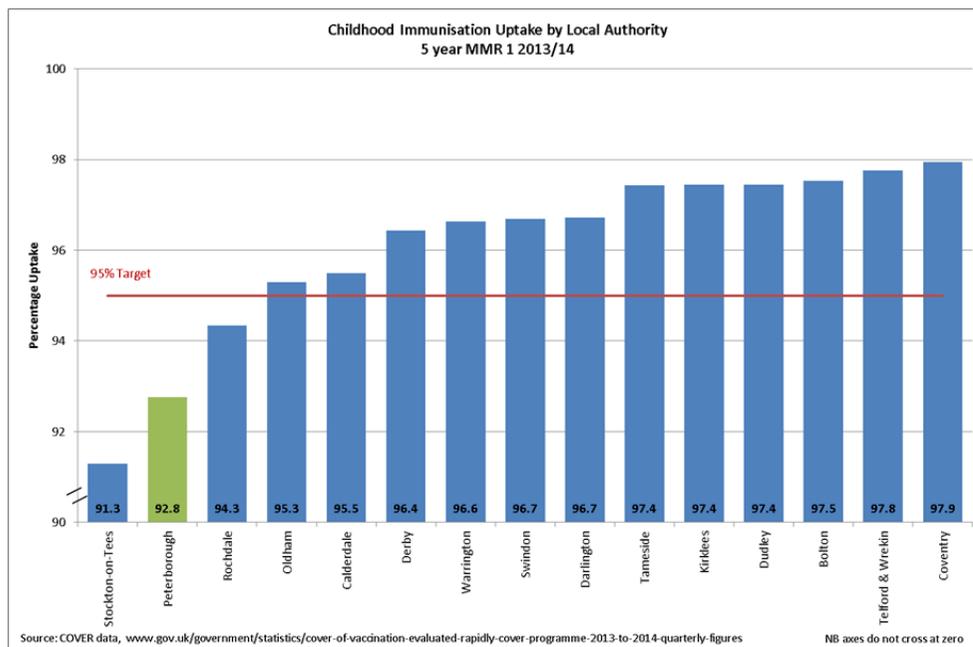
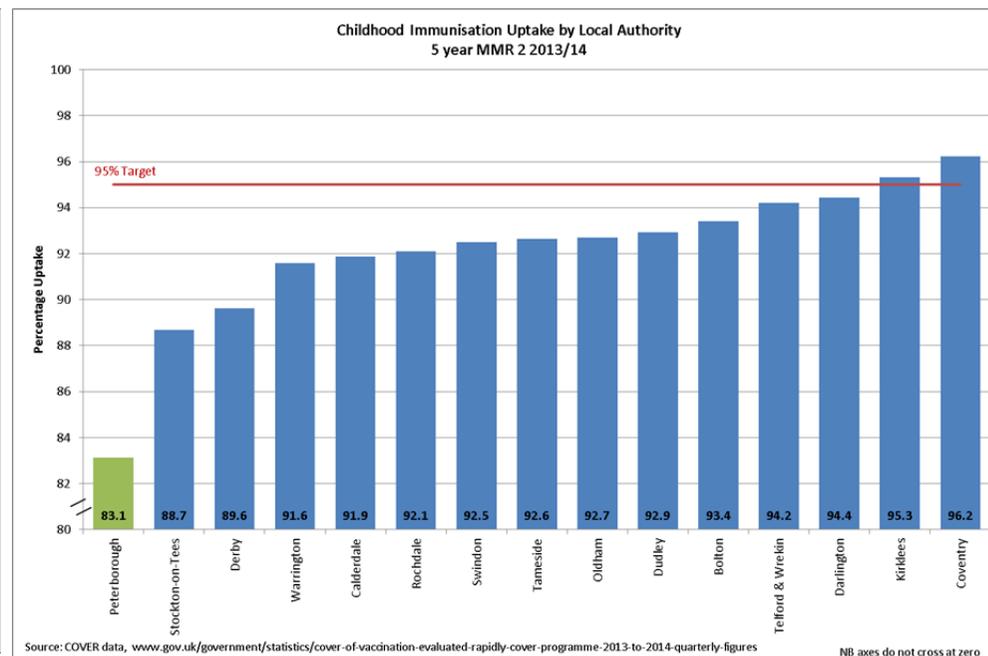
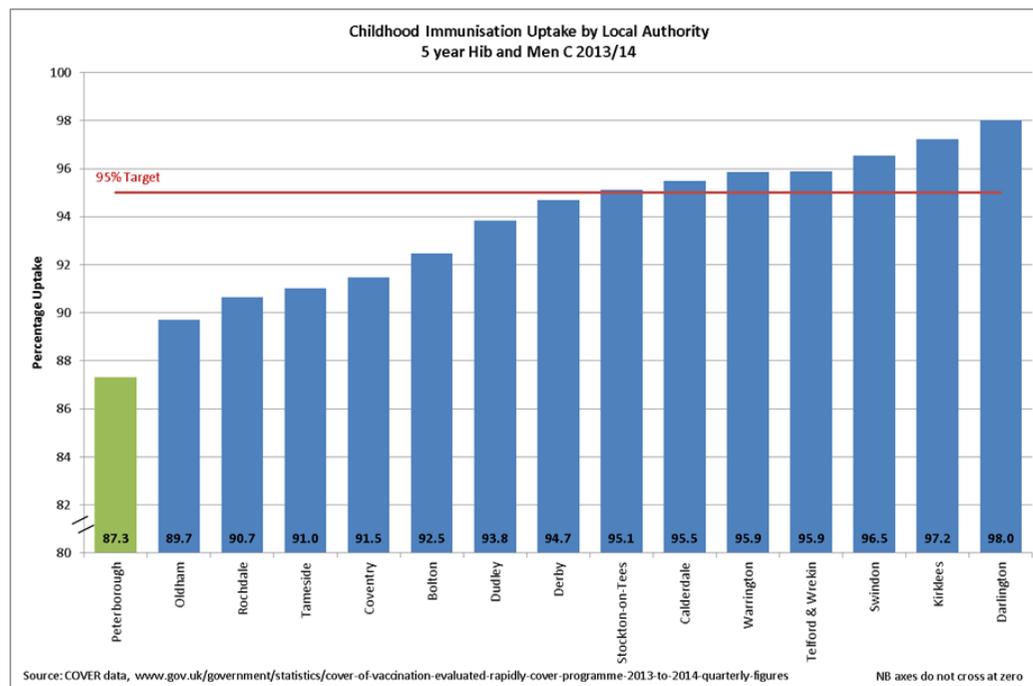


Chart 10: 5 Year MMR 2



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Chart 11: 5 Year Hib and Men C



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Appendix 3: Prenatal Pertussis: Charts and Tables

Table 1: Prenatal Pertussis Uptake and Coverage Rates 2013/14

Prenatal Pertussis 2013/14												
	Q1 2103 %			Q2 2013 %			Q3 2013 %			Q4 2013/14 %		
	April 2013	May 2013	June 2013	July 2013	Aug 2013	Sept 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014	March 2014
CCG % uptake	63.8	60.4	60.0	60.8	65.0	61.3	58.7	62.6	64.5	69.1	66.0	69.1
CCG % coverage	63.0	64.8	55.6	70.4	72.2	73.8	79.4	79.4	79.4	79.4	79.4	79.4
East Anglia uptake %	65.9	66.6	62.0	64.7	66.5	63.9	64.4	68.1	70.3	70.7	68.7	69.4
East Anglia Coverage %	65.6	64.6	63.3	62.2	62.2	73.6	76.4	74.6	69.8	67.0	67.0	67.7
Coverage is % of practices submitting data												

Source Immform

Table 2: Prenatal Pertussis Uptake and Coverage Rates 2014/15 year to date

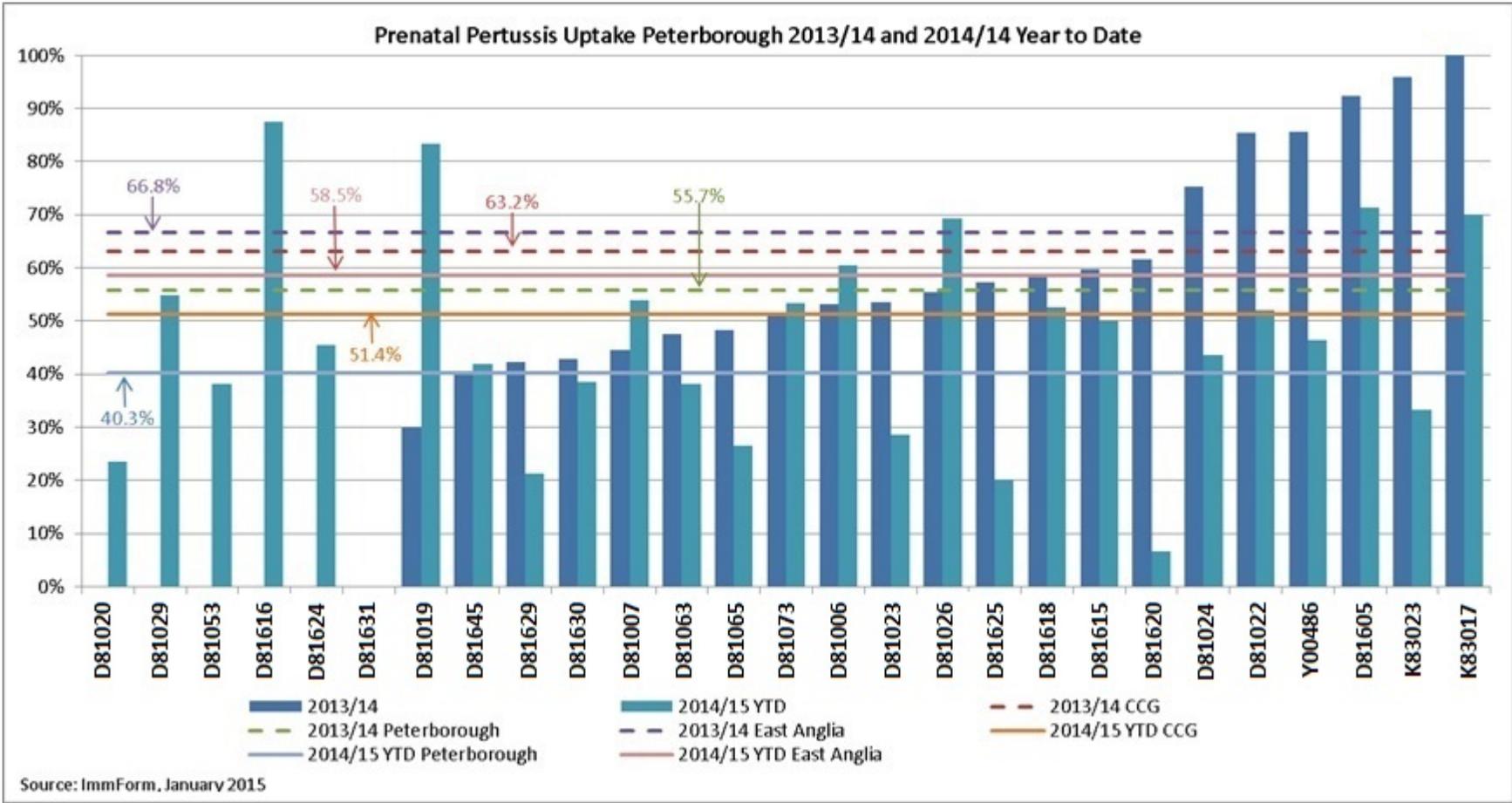
Pertussis in Pregnant women 2014/15												
	Q1 2014 %			Q2 2014 %			Q3 2014 %			Q4 2014/15 %		
	April 2014	May 2014	June 2014	July 2014	Aug 2014	Sept 2014	Oct 2014	Nov 2014	Dec 2014	Jan 2015	Feb 2015	Mar 2015
CCG % uptake	58.6	53.0	51.6	48.5	48.1	51.3	52.0	50.8	n/a	n/a	n/a	n/a
CCG % coverage	72.9	74.8	75.7	75.7	86.9	88.8	91.6	91.6	n/a	n/a	n/a	n/a
East Anglia uptake %	63.8	63.3	60.5	57.2	55.5	58.3	60.3	60.8	n/a	n/a	n/a	n/a
East Anglia Coverage %	65.2	68.3	70.9	70.9	91.7	92.0	93.4	93.8	n/a	n/a	n/a	n/a
Coverage is % of practices submitting data												

Source Immform accessed 13/1/15, n/a = not available

Table 3: Change in Uptake by GP Practice for Prenatal Pertussis

Practice	2013/14	2014/15 YTD	Difference	Practice	2013/14	2014/15 YTD	Difference
D81020	0.0%	23.5%	23.5	D81023	53.6%	28.7%	-24.9
D81029	0.0%	54.9%	54.9	D81026	55.4%	69.2%	13.8
D81053	0.0%	38.2%	38.2	D81625	57.3%	20.1%	-37.1
D81616	0.0%	87.5%	87.5	D81618	58.6%	52.6%	-6.0
D81624	0.0%	45.5%	45.5	D81615	59.7%	50.0%	-9.7
D81631	0.0%	0.0%	0.0	D81620	61.5%	6.7%	-54.9
D81019	30.0%	83.3%	53.3	D81024	75.3%	43.5%	-31.8
D81645	40.0%	41.9%	1.9	D81022	85.5%	52.1%	-33.4
D81629	42.3%	21.2%	-21.1	Y00486	85.7%	46.5%	-39.2
D81630	42.9%	38.6%	-4.3	D81605	92.3%	71.4%	-20.9
D81007	44.5%	53.8%	9.3	K83023	96.0%	33.3%	-62.7
D81063	47.6%	38.1%	-9.5	K83017	100.0%	70.0%	-30.0
D81065	48.2%	26.5%	-21.7	Peterborough	55.7%	40.3%	-15.5
D81073	51.6%	53.3%	1.8	Cambridgeshire and Peterborough CCG	63.2%	51.4%	-11.8
D81006	53.2%	60.5%	7.2	East Anglia	66.8%	58.5%	-8.2

Chart 1: Prenatal Pertussis Uptake by Practice 2013/14 and 2014/15 Year to Date



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Appendix 4



TERMS OF REFERENCE

Integrated Peterborough City Council, NHS England, Public Health England and Peterborough LCG Health Improvement/ Immunisation Task and Finish Subgroup

KEY DETAILS:

Document Type:	Peterborough Immunisation Task and Finish Subgroup
Date document valid from:	Feb 2015
Document review due date:	March 2015

AUDIT TRAIL:

Date reviewed	Version number	Date achieved
3.2.15	1	
Date agreed	Version number	
Details of most recent review: (Outline main changes made to document)		
Signature of the Task and Finish Subgroup Chair: Print Name: Dr Karen Lake Post Held: SIC Date: 3.2.15		

Purpose and Scope

To develop a shared understanding of the uptake and delivery in Peterborough of the national childhood immunisation programmes, specifically Prenatal Pertussis, MMR and preschool booster.

Aim

The aim of the Task and Finish subgroup is to identify local issues relating to the low uptake of childhood immunisations and Prenatal Pertussis; in addition, to identify potential solutions and to make recommendations to resolve barriers to uptake of immunisations.

Objectives

To produce a report describing the coverage and uptake of immunisations in Peterborough, any potential barriers to uptake, an action plan with key recommendations and associated costs.

The Task and Finish subgroup will report to the Task and Finish Steering Group. The final report and action plan will be agreed by the Health and Wellbeing Board.

Authority

The Task and Finish subgroup is authorised by NHS England East Anglia Area Team and Peterborough Local Authority via the Health and Wellbeing Programme Board.

Meeting Frequency and Time Scales

The Task and Finish subgroup will establish a plan of meetings to synchronise with the key delivery milestones of the project.

The process is expected to be completed by **31st March 2015, initial presentation on 26th March.**

The frequency of meetings will be total of 3 meetings, for approx. one hour, in Feb/March 2015.

This may be reviewed at any time and additional meetings will be called to meet the demands of the project.

In addition, group members will need to be able to deal in a timely manner with the reading of draft documents as well as advising with the production of any consultation documents.

Membership of Subgroup

Dr Karen Lake [chair]	Public Health Screening and Immunisation Coordinator [PHE/NHS England]
Janet Dullaghan	Head of Commissioning Children health and well-being [PCC]
Sarah Kennedy	Practice Manager [Millfield]
Jane Robinson	Interim Public Health Analyst [PHE]
Dr H Mistry	LCG clinical governance lead [CCG]
Dr Malcolm Bishop	GP [CCG]
Teresa Casey	Practice Nurse [Bretton]
Angela Jeffers	Outpatient Lead Midwife [PSHFT]
Angela Rees	Service Manager Universal [CPFT]
Kelly Horn	Manager CHIS [CPFT]
Charlie Young	Clinical Information Facilitator [CCG]
Sharon Egdell	Senior Health Protection Nurse [PHE]
Correspondence	
Dr Shyla Thomas	Screening and immunisation Lead [PHE/NHSE]
Dr Colin Uju	Screening and immunisation Manager [PHE/NHSE]
Dr Anne McConville	Interim Consultant Public Health [PCC]

For the Task and Finish subgroup meeting quorum to be achieved, a minimum of 50% of members should be present or participate in the meeting by telephone.

Reporting Arrangements -The action points of the Task and Finish subgroup shall be formally recorded.

1. In your experience, what are the main reasons that families give for non-attendance for their child MMR immunisations?

Circle any responses given

1. Did not know about appointment
2. Forgot appointment
3. Not convenient
4. Venue not convenient/easy access
5. Fear of side effects
6. Parent does not think vaccine is protective
7. Parent thinks risk of infection risk outweigh benefits of vaccine
8. Wrong address/parent details on system
9. Did not understand appointment information [language or other]
10. Parent had single MMR vaccines

Any other reasons?

Appendix 5: Example of Survey template

2. In your experience what are the main reasons that parents do not have their child vaccinated with MMR?
3. In your experience what can practices do to encourage parents to bring their child to be vaccinated?
4. Does your practice contact parents that do not attend their vaccine appointment?

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