

# Immunisation uptake report for Ireland



O3-2012

A report by the Health Protection Surveillance Centre

## **Summary**

### Children 12 months of age in Quarter 3-2012

- National immunisation uptake rates were 91% for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, HepB<sub>3</sub>, MenC<sub>2</sub> and PCV<sub>2</sub>. Compared to Q2-2012, national uptake rates in Q3-2012 for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub> decreased by 1% while MenC<sub>2</sub> and PCV<sub>2</sub> were unchanged.
- Among the HSE Areas, the uptake rates for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub> ranged from 90% to 94% and MenC<sub>2</sub> and PCV<sub>2</sub> ranged from 89% to 94%.
- Among the Local Health Offices, the target uptake rate of ≥95% was reached in Tipperary NE/East Limerick, Tipperary South and Roscommon for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, HepB<sub>3</sub>, MenC<sub>2</sub> and PCV<sub>2</sub>.

#### Children 24 months of age in Quarter 3-2012

■ National uptake rates were 95% for  $D_3$ ,  $P_3$ ,  $T_3$ ,  $Hib_3$ ,  $Polio_3$  and  $HepB_3$ , 92% for  $MMR_1$ , 90% for  $PCV_3$ , 89% for  $Hib_b$  and 85% for  $MenC_3$ . Six of the eight HSE Areas were able to provide uptake data on  $MenC_b$  (one dose of MenC at  $\geq 12$  months of age) and  $PCV_b$  (one dose of PCV at  $\geq 12$  months of age) in Quarter 3 2012. These Areas cover approximately 83% of the national birth cohort. Where data were available, national uptake was 89% for  $MenC_b$  and 93% for  $PCV_b$ .

Compared to the previous quarter, national uptake rates in Quarter 3 2012 were unchanged.

- The target uptake of  $\geq$ 95% was reached for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> in seven of the eight HSE Areas, for HepB<sub>3</sub> in six HSE Areas, for PCV<sub>b</sub> in two HSE Areas and for MMR<sub>1</sub> and Hib<sub>b</sub> in one HSE Area. The target uptake of  $\geq$ 95% was not reached in any HSE Area for MenC<sub>3</sub>, MenC<sub>b</sub> or PCV<sub>3</sub>.
- The target uptake of ≥95% was reached in 22 LHOs for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>, 20 LHOs for HepB<sub>3</sub>, 6 for Hib<sub>b</sub>, 5 for PCV<sub>b</sub> and MMR<sub>1</sub>, 2 for MenC<sub>b</sub> and PCV<sub>3</sub> and in none for MenC<sub>3</sub>.

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### Introduction

Since September 1st 2008, the childhood immunisation schedule outlined in table 1 has been implemented for children born on or after 1<sup>st</sup> July 2008.

Compared to the previous schedule (table 1), the changes to the primary schedule for children born on or after 1<sup>st</sup> July 2008 include; Introduction of a hepatitis B vaccine (as part of a 6 in 1 vaccine) given at 2, 4 and 6 months of age

Introduction of pneumococcal conjugate vaccine given at 2, 6 and 12 months of age

Change in timing of meningococcal serogroup C conjugate vaccination, now given at 4, 6 and 13 months of age

Change in timing of the *Haemophilus influenzae* type b booster vaccination, now given at 13 months of age.

Please see www.immunisation.ie for complete information on the Irish childhood immunisation schedule.

The immunisation uptake statistics presented in this report relate to children 12 and 24 months of age in Quarter 3-2012.

The immunisation uptake rates presented in this report for children at 12 months of age in Quarter 3-2012 are children born between 01/07/2011 and 30/09/2011 and who have received three doses of vaccines against diphtheria (D<sub>3</sub>), pertussis (P<sub>3</sub>), tetanus (T<sub>3</sub>), *Haemophilus influenzae* type b (Hib<sub>3</sub>), polio (Polio<sub>3</sub>), hepatitis B (HepB<sub>3</sub>), two doses of meningococcal serogroup C conjugate vaccine (MenC<sub>2</sub>), two doses of pneumococcal conjugate vaccine (PCV<sub>2</sub>) and one dose of BCG vaccine.

The immunisation uptake rates presented in this report for children at 24 months of age in Quarter 3-2012 are children born between 01/07/2010 and 30/09/2010 and who have received three doses of vaccines against diphtheria (D<sub>3</sub>), pertussis (P<sub>3</sub>), tetanus (T<sub>3</sub>), *Haemophilus influenzae* type b (Hib<sub>3</sub>), polio (Polio<sub>3</sub>), hepatitis B (HepB<sub>3</sub>), meningococcal group C (MenC<sub>3</sub>) and pneumococcal conjugate vaccine (PCV<sub>3</sub>), one booster dose of vaccine against *Haemophilus influenzae* type b on or after 12 months of age (Hib<sub>b</sub>), one dose of vaccine against meningococcal group C (MenC<sub>b</sub>) on or after twelve months of age, one dose of vaccine against pneumococcal conjugate vaccine (PCV<sub>b</sub>) on or after twelve months of age and one dose of vaccine against measles, mumps and rubella (MMR<sub>1</sub>). The Quarter 3-2012 cohort of children at 24 months was therefore the ninth cohort recommended the new immunisation schedule. (Children that were 24 months of age in Quarter 3-2010 were children born between July 1st and September 30th 2008 and were therefore the first cohort recommended the new immunisation schedule.)

The national immunisation uptake statistics, based on available data, for Quarter 3-2012 are presented in this document, the uptake statistics are also presented by HSE Area and Local Health Office (LHO).

The uptake rates presented here were rounded to zero decimal place.

While there are 32 LHOs the immunisation uptake data for North Lee and South Lee are combined in this report.

Age	Children born before 01/07/2008	Children born on or after 01/07/2008							
Birth	BCG	BCG							
2 months	DTaP/Hib/IPV + MenC	DTaP/Hib/IPV/HepB + PCV							
4 months	DTaP/Hib/IPV + MenC	DTaP/Hib/IPV/HepB + MenC							
6 months	DTaP/Hib/IPV + MenC	DTaP/Hib/IPV/HepB + PCV + MenC							
12 months	MMR + Hib	MMR + PCV							
13 months	-	MenC + Hib							
	munisation.ie for complete information on the Irish ch	ildhood immunisation schedule and the							
immunisation guid BCG	Bacille Calmette Guerin vaccine								
DTaP	Diptheria, Tetanus and acellular Pertussis vaccine								
Hib	Haemophilus influenzae type b vaccine								
НерВ	Hepatitis B vaccine								
IPV	Inactivate Polio Virus vaccine								
MMR	Measles, Mumps and Rubella vaccine								
MenC	Meningococcal group C vaccine								
PCV	Pneumococcal Conjugate Vaccine								

### Immunisation uptake at 12 months

### National and HSE Area uptake

Immunisation uptake rates in children 12 months of age in Q3-2012 are presented by HSE Area in table 2. National uptake rates were 91% for  $D_3$ ,  $P_3$ ,  $T_3$ ,  $Hib_3$ ,  $Polio_3$ ,  $HepB_3$ ,  $PCV_2$  and  $MenC_2$ . Among the HSE Areas, the uptake rates for  $D_3$ ,  $P_3$ ,  $T_3$ ,  $Hib_3$ ,  $Polio_3$  and  $HepB_3$  ranged from 90% to 94% and  $MenC_2$  and  $PCV_2$  ranged from 89% to 94%. Seven HSE Areas had  $\geq$ 90% uptake of these vaccines.

BCG uptake data were available for six of the eight HSE Areas in Q3-2012; these areas cover approximately 52% of the national birth cohort. Where data were available, national uptake was 80% for the BCG vaccination. This is unchanged compared to the previous quarter.

#### National & HSE Area trends

Figure 1 presents the national uptake rates at 12 months for each vaccine from Q3-2000 to Q3-2012. Compared to Q2-2012, national uptake rates in Q3-2012 for  $D_3$ ,  $P_3$ ,  $T_3$ ,  $Hib_3$ ,  $Polio_3$  and  $HepB_3$  decreased by 1% while  $MenC_2$  and  $PCV_2$  were unchanged.

In Q3-2012, compared to the previous quarter, uptake rates in the: HSE-Eastern Area decreased by 1% for all vaccines; HSE-Midland Area decreased by 4% for all vaccines except BCG which decreased by 1%; HSE-Mid Western Area decreased by 1% for all vaccines except BCG which increased by 2%; HSE-North-Eastern Area increased by 1% for all vaccines; HSE-North-Western Area decreased by 3% except for BCG which decreased by 1%; HSE-South Eastern Area increased by 1-2% except for BCG which decreased by 1%; HSE-Southern Area were unchanged for most vaccines except BCG, MenC<sub>2</sub> and PCV<sub>2</sub> which increased by 1%; HSE-Western were unchanged except BCG and HepB<sub>3</sub> which declined by 1%.

### LHO uptake

The immunisation uptake rates by LHO are shown in appendix 1.  $D_3$ ,  $MenC_2$  and  $PCV_2$  immunisation uptake rates are mapped by LHO in figures 2-4.

Among the 15 LHOs reporting BCG data, BCG uptake ranged from 94% to 99% with 12 reporting uptake of ≥95%.

D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and MenC<sub>2</sub> uptake rates ranged from 83% (Dublin North West) to 97% (Roscommon). HepB<sub>3</sub> ranged from 83% (Dublin North West) to 96% (Roscommon). PCV<sub>2</sub> uptake rates ranged from 82% (Dublin North West) to 99% (Roscommon).

The target uptake rate of  $\geq$ 95% was reached in Tipperary NR/East Limerick, Tipperary South and Roscommon for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, HepB<sub>3</sub>, MenC<sub>2</sub> and PCV<sub>2</sub>.

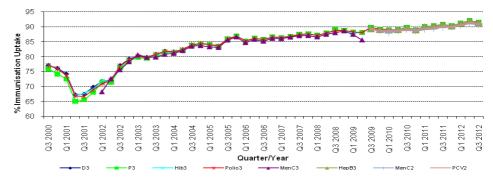
Twenty two LHOs had  $\geq$ 90% uptake of D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, HepB<sub>3</sub>, MenC<sub>2</sub> and PCV<sub>2</sub>.

Table 2. Immunisation uptake (%) at 12 months in cohort born 01/07/2011–30/09/2011

HSE Area	No. in cohort*	BCG	$D_3T_3$	<b>P</b> <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	HepB <sub>3</sub>	MenC <sub>2</sub>	PCV <sub>2</sub>
Eastern	7085	na	90	90	90	90	90	90	90
Midland	1137	95	91	91	91	91	91	91	91
Mid Western	1544	98	94	94	94	94	94	94	94
North Eastern	2119	na	93	93	93	93	93	91	91
North Western	976	95	92	92	92	92	92	92	92
South Eastern	2065	96	93	93	93	93	93	93	93
Southern	2594	95	92	92	92	92	91	89	89
Western	1727	4	91	91	91	91	90	90	91
Ireland	19247	80	91	91	91	91	91	91	91

na = not available at this time

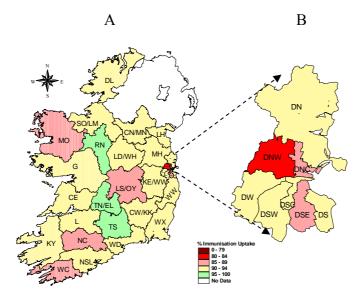
<sup>\*</sup>As the denominator/number in cohort varied slightly according to vaccine, most commonly used number is presented here. †Number in cohort for BCG is 10,093



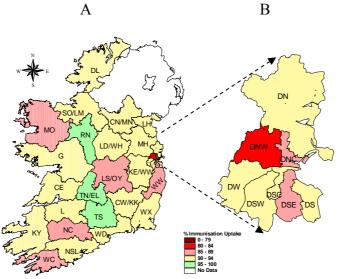
**Figure 1.** National quarterly immunisation uptake rates at 12 months Since  $T_3$  uptake identical to  $D_3$  uptake only  $D_3$  uptake figures presented. The Q3-2008 Men $C_3$  uptake figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area  $D_3$ ,  $P_3$ ,  $T_3$ , Polio<sub>3</sub> and MMR<sub>1</sub> uptake figures exclude those born on the 31/03/2007. The Q3-2009 figures are incomplete as two HSE Areas were unable to provide data, two additional areas were unable to provide Men $C_2$  data and one additional area was unable to provide  $PCV_2$  data. The  $PCV_2$  data are two HSE Areas were unable to provide data and three were unable to provide  $PCV_2$  data. The  $PCV_2$  data are incomplete as two HSE Areas were unable to provide data. The  $PCV_2$  data are incomplete as two HSE Areas were unable to provide data. The  $PCV_2$  data are incomplete as two HSE Areas

#### Internationally

Vaccination coverage statistics for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> for children 12 months of age in Quarter 3-2012 were 94.6% in England, 96.4% in Wales, 97.3% in Northern Ireland and 97.4% in Scotland. MenC<sub>2</sub> uptake was 94.0% in England, 96.2% in Wales, 97.3% in Northern Ireland and 97.1% in Scotland. PCV<sub>2</sub> uptake was 94.4% in England, 96.0% in Wales, 97.4% in Northern Ireland and 97.5% in Scotland.



**Figure 2.** D<sub>3</sub> immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 3.** MenC<sub>2</sub> immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

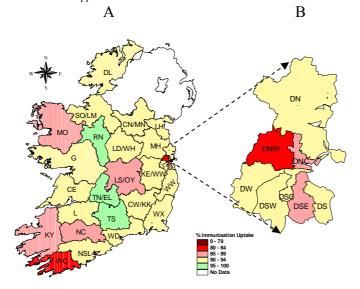


Figure 4.  $PCV_2$  immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

### Immunisation uptake at 24 months

### National and HSE Area uptake

Immunisation uptake rates in children 24 months of age in Q3-2012 are presented (Table 3). National uptake rates were 95% for  $D_3$ ,  $P_3$ ,  $T_3$ , Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub>, 92% for MMR<sub>1</sub>, 90% for PCV<sub>3</sub>, 89% for Hib<sub>b</sub> and 85% for MenC<sub>3</sub>. Among the HSE Areas the uptake of  $D_3$ ,  $P_3$ ,  $T_3$ , Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub> ranged from 94-97%, MMR<sub>1</sub> ranged from 90-95%, PCV<sub>3</sub> ranged from 89-94%, Hib<sub>b</sub> ranged from 85-95% and MenC<sub>3</sub> ranged from 83-90%. The target uptake of  $\geq$ 95% was reached for  $D_3$ ,  $P_3$ ,  $T_3$ , Hib<sub>3</sub> and Polio<sub>3</sub> in seven of the eight HSE Areas, for HepB<sub>3</sub> in six HSE Areas and for MMR<sub>1</sub> and Hib<sub>b</sub> in one HSE Area. Six of the eight HSE Areas were able to provide uptake data on MenC<sub>b</sub> (one dose of MenC at  $\geq$ 12 months of age) and PCV<sub>b</sub> (one dose of PCV at  $\geq$ 12 months of age) in Quarter 3 2012. These Areas cover approximately 83% of the national birth cohort. Where data were available, national uptake was 89% for MenC<sub>b</sub> and 93% for PCV<sub>b</sub>. The target uptake of  $\geq$ 95% was reached for PCV<sub>b</sub> in two HSE Areas and but was not reached in any HSE Area for MenC<sub>b</sub>.

#### **Trends**

Figure 5 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q3-2012. Compared to the previous quarter, national uptake rates in Q3 were unchanged.

In Q3-2012, compared to the previous quarter, uptake rates in the: HSE-Eastern Area increased by 1% for PCV3 and PCVb and were unchanged for the remainder of vaccines; HSE-Midland Area decreased by 2-3% for all vaccines except PCV<sub>3</sub> which was unchanged; HSE-Mid Western Area increased by 2% for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub>, decreased by 1% for Hib<sub>b</sub>, MenC<sub>3</sub>, MenC<sub>b</sub>, PCV<sub>3</sub> and MMR<sub>1</sub> and was unchanged for PCV<sub>b</sub>; HSE-North-Eastern Area decreased by 1% for all vaccines except for Hibb, MenC3, and MMR1 which were unchanged; HSE-North-Western Area decreased by 1-3% except for Hib3 which was unchanged and Hib<sub>b</sub> and MenC<sub>b</sub> which increased by 1%; HSE-South Eastern Area increased by 1-2% except for Hibb which was unchanged and MenC<sub>3</sub> which increased by 4%; HSE-Southern Area was unchanged for most vaccines except HepB<sub>3</sub> decreased by 1% and PCV<sub>b</sub> increased by 1%; HSE-Western increased by 1-2% except MMR<sub>1</sub> which was unchanged and PCV<sub>3</sub> which decreased by 1%.

#### LHO uptake

Immunisation uptake rates in children 24 months of age in Q3-2012 are presented by LHO in Appendix 2. D<sub>3</sub>, Hib<sub>b</sub>, MenC<sub>3</sub>, MenC<sub>b</sub>, PCV<sub>3</sub>, PCV<sub>b</sub> and MMR<sub>1</sub> immunisation uptake rates are mapped by LHO in figures 6-12.

Among the LHOs, uptake of D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub> and Polio<sub>3</sub> ranged from 89-99%, HepB<sub>3</sub> ranged from 88-98%, Hib<sub>3</sub> ranged from 88-99%, MMR<sub>1</sub> ranged from 86-96%, PCV<sub>3</sub> ranged from 83-97%, PCV<sub>b</sub> ranged from 84-96%, MenC<sub>3</sub> ranged from 76-94% MenC<sub>b</sub> ranged from 81-95% and Hib<sub>b</sub> ranged from 79-97%.

The target uptake of  $\geq$ 95% was reached in 22 LHOs for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>, 20 LHOs for HepB<sub>3</sub>, 6 for Hib<sub>b</sub>, 5 for PCV<sub>b</sub> and MMR<sub>1</sub>, 2 for MenC<sub>b</sub> and PCV<sub>3</sub> and in none for MenC<sub>3</sub>.

Thirty LHOs had  $\geq 90\%$  uptake of  $D_3$ ,  $P_3$ ,  $T_3$ , Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub>, 23 had  $\geq 90\%$  uptake of MMR<sub>1</sub> and PCV<sub>b</sub>, 20 had  $\geq 90\%$  uptake of PCV<sub>3</sub>, 14 had  $\geq 90\%$  of Hib<sub>b</sub> and MenC<sub>b</sub> and five had  $\geq 90\%$  uptake of MenC<sub>3</sub>.

**Table 3.** *Immunisation uptake* (%) at 24 months in cohort born 01/07/2010–30/09/2010

HSE Area	No. in Cohort*	D <sub>3</sub> /T <sub>3</sub> /P <sub>3</sub> / Polio <sub>3</sub>	Hib <sub>3</sub>	Hibb	HepB <sub>3</sub>	MenC <sub>3</sub>	MenC <sub>b</sub>	PCV <sub>3</sub>	PCV <sub>b</sub>	MMR <sub>1</sub>
Eastern	7046	94	94	87	94	83	87	89	92	91
Midland	1238	95	95	95	95	89	93	93	93	93
Mid Western	1514	96	96	89	96	85	89	91	93	92
North Eastern	1385	95	95	86	95	84	na	90	na	91
North Western	948	97	97	93	96	86	94	89	95	92
South Eastern	2008	97	97	94	97	90	93	94	95	95
Southern	2602	96	95	85	94	86	89	91	93	93
Western	1811	96	96	92	96	83	na	89	na	90
Ireland	18552	95	95	89	95	85	89	90	93	92

<sup>\*</sup> As the denominator/number in cohort varied slightly according to vaccine, most commonly used number is presented here.

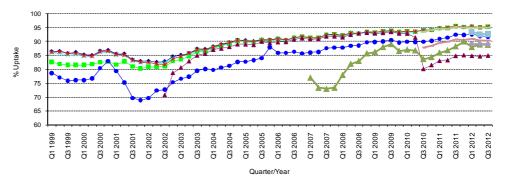


Figure 5. National quarterly immunisation uptake rates at 24 months

Notes: The Q4-2005 MMR, figure is based on data from seven of the eight HSE-Areas. The Q1-2006 MMR, figure includes the HSE-Eastern Area figure that is an estimate only. The Q1-2007, Q3-2008 and Q3-2008 Hilb, figures are based on data from seven of the eight HSE Areas. In Q1-2008 the HSE-SE changed their Hilb, data extraction method compared to previous quarters; in Q1-2008 the uptake of Hilb, in the HSE-SE was 83% compared to 53% in Q4-2007. The Q3-2008 MenC<sub>3</sub> figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area D3, P3, T3, Polio3 and MMR, uptake figures exclude those born on the 31/03/2007. The Q2-2009 HSE-Eastern Area Hilb, uptake figures exclude uptake figures from Dublin North. The Q4-2009 figures are based on data from seven of the eight HSE Areas. The Q4-2009 Hilb, figures also exclude uptake figures from Dublin North. The Q1-2010 figures are based on data from six of the eight HSE Areas. The Q1-2010 Hilb, figures also exclude uptake figures from Dublin North. The Q2-2010 figures are based on data from seven of the eight HSE Areas.

### Internationally

In Q3-2012, vaccination coverage statistics at 24 months for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> were 96.3% in England, 97.7% in Wales, 98.6% in Northern Ireland and 98.2% in Scotland.<sup>1</sup> MenC<sub>2</sub> uptake was 95.2% in England, 96.7% in Wales, 97.2% in Northern Ireland and 96.4% in Scotland.<sup>1</sup> PCV booster was 92.4% in England, 95.1% in Wales, 95.5% in Northern Ireland and 95.5% in Scotland. Hib/MenC booster was 92.6% in England, 94.5% in Wales, 95.7% in Northern Ireland and 95.7% in Scotland.<sup>1</sup> MMR<sub>1</sub> uptake was 92.2% in England, 94.2% in Wales, 95.4% in Northern Ireland and 94.8% in Scotland.<sup>1</sup> Please see HPA report for caveats.<sup>1</sup>

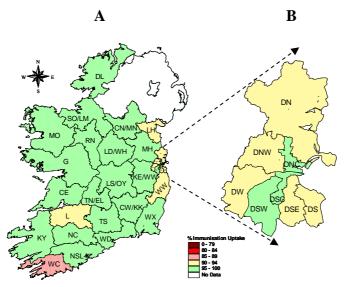
### **Conclusions**

In Quarter 3-2012, national uptake rates at 24 months for  $D_3$ ,  $P_3$ ,  $T_3$ ,  $Hib_3$ ,  $Polio_3$  and  $HepB_3$  reached the target of  $\geq$ 95%. Since the introduction of the new childhood schedule in September 2008  $MenC_3$  and  $Hib_b$  uptake are considerably lower than the uptake of the other recommended vaccines both of which should be given at 13 months of age suggesting that parents are less likely to get the necessary vaccines at this age.

#### Acknowledgements

HPSC would like to thank the HSE Areas for providing data and special thanks to the Specialists in Public Health Medicine, Immunisation Co-ordinators, Surveillance Scientists and Systems Analysts for their assistance.

References 1. Quarterly vaccination coverage statistics for children aged up to five years in the UK (COVER programme): July to September 2012 Health Protection Report 2012: 6 (Number 50). Available at: <a href="http://www.hpa.org.uk/hpr/archives/2012/hpr5012">http://www.hpa.org.uk/hpr/archives/2012/hpr5012</a> cover.pdf (acessed 01/02/2013)



**Figure 6.** D<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

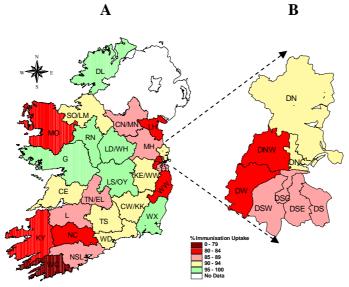
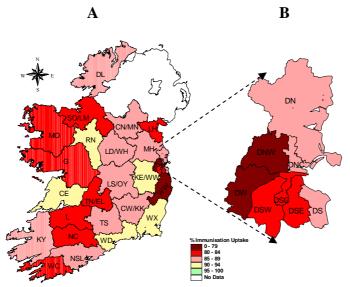


Figure 7.  $Hib_b$  immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 8.** MenC<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

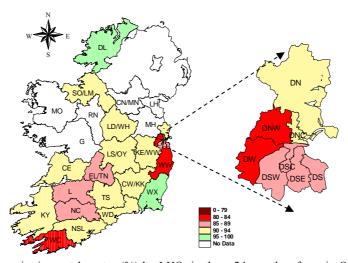
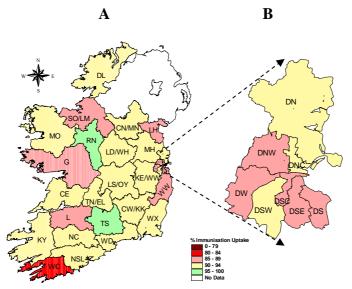
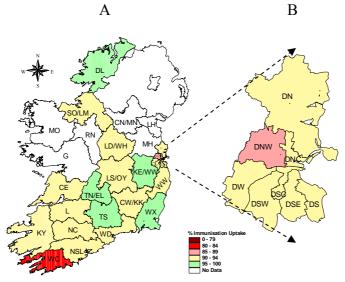


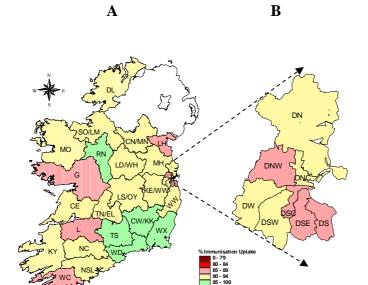
Figure 9.  $MenC_b$  immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 10.** PCV<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 11.** PCV<sub>b</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



B

**Figure 12.** MMR<sub>1</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

## Appendix 1

	illilliulis	alion op	take at 12 M	onuis in	Conon					_	
Immunisation Uptake (%)									(%)		
		No. in	No. in cohort								
HSE		cohort	for other		ь.	_	Hib₃	Polio <sub>3</sub>	HamB	MenC <sub>2</sub>	PCV <sub>2</sub>
Area	LHO/HSE Area	for BCG	vaccines	BCG	D <sub>3</sub> T <sub>3</sub>	P <sub>3</sub>	- 3		HepB <sub>3</sub>		_
	Dublin South	na	455	na	93	93	93	93	93	93	94
	Dublin South East	na	446	na	89	89	89	89	89	88	88
	Dublin South City	na	481	na	92	92	92	92	92	92	92
	Dublin South West	na	737	na	92	92 91	92 91	92	92 91	92	93 91
F	Dublin West	na	733	na	91			91	• •	91	
Eastern	Dublin North West Dublin North Central	na	1074 470	na	83 89	83 89	83 89	83	83 89	83 89	82 89
		na		na				89			-
	Dublin North	na	1130 1082	na	91 93	91 93	91 93	91 93	91 93	91 93	91 93
	Kildare/West Wicklow Wicklow	na	477	na		90	90		90		90
	HSE-E Total	na	7085	na	90 <b>90</b>	90	90	90	90	89	90
	HSE-E Total	na	7085	na	90	90	90	90	90	90	90
	1 ! - ! 0 # - !	050	CEO	05	00	60	00	I 60			60
	Laois/Offaly	653	653	95	89	89	89	89	89	89	89
widland	Longford/Westmeath	484	484	95	93	93 <b>91</b>	93 <b>91</b>	93	93	93	93 <b>91</b>
	HSE-M Total	1137	1137	95	91	91	91	91	91	91	91
	le:	4									
	Clare	442	444	98	94	94	94	94	94	94	94
Mid	Limerick	567	570	99	93	93	93	93	93	92	93
Western	Tipperary NR/East Limerick	527	530	98	95	95	95	95	95	95	95
	HSE-MW Total	1536	1544	98	94	94	94	94	94	94	94
North	Cavan/Monaghan	na	633	na	93	93	93	93	93	91	91
	Louth	na	523	na	93	93	93	93	93	90	91
Eastern	Meath	na	963	na	92	92	92	92	92	90	90
	HSE-NE Total	na	2119	na	93	93	93	93	93	91	91
North	Donegal	597	597	94	92	92	92	92	92	92	92
Western	Sligo/Leitrim	379	379	97	93	93	93	93	93	92	93
Westelli	HSE-NW Total	976	976	95	92	92	92	92	92	92	92
	Carlow/Kilkenny	550	550	97	92	92	92	92	92	92	93
South	South Tipperary	386	386	99	95	95	95	95	95	95	95
Eastern	Waterford	520	520	94	92	92	92	92	92	92	93
⊏astern	Wexford	609	609	97	93	93	93	93	93	92	93
	HSE-SE Total	2065	2065	96	93	93	93	93	93	93	93
	North Cork	392	381	96	89	89	89	89	88	87	87
	North South Lee	1553	1513	96	93	93	93	93	92	90	90
Southern	West Cork	184	182	95	88	88	87	88	87	85	83
	Kerry	523	518	93	92	92	92	92	92	90	89
	HSE-S Total	2652	2594	95	92	92	92	92	91	89	89
							•				
	Galway	na	1045	na	90	90	90	90	90	90	90
	Mayo	na	434	na	89	89	89	89	89	88	89
Western	Roscommon	na	248	na	97	97	97	97	96	97	99
	HSE-W Total	1727	1727	4	91	91	91	91	90	90	91
				•	•						

na=not available

\* As the denominator/number in cohort varied slightly according to vaccine, most commonly used number is presented here.

Please note while North Lee and South Lee are two separate LHOs their combined immunisation uptake data are reported here.

## Appendix 2

Institution			Immunis	sation unta	ake (%) at	24 month	s of age in	cohort ho	rn 01/07/2	010-30/09/	/2010			
HSE Area														
HSE Area   LHOINES Area   Cohort   DaTs   Ps   Hib.   Hib.   Polico   Hep8s   MenCo,   MenCo,   PCVs   MMR,														
HISCARDA   COLONITY   COLONITY														i
Dublin South				ь.	_	166	11114	D-U-		M0	M0	DOV	DCV/	MMD
Dublin South East	HSE Area					•		·		·		•		
Dublin South Vest   454   96   96   96   96   85   87   96   80   85   87   90   80   80   85   87   90   94   94   94   94   94   94   94														
Bases														
Eastern   Dublin Worth West   1043   93   93   93   93   92   93   93   9														
Bublin North West														
Dublin North Central   441   96   96   96   90   96   96   86   90   90   93   93   92	Eastern													
Dublin North   1118   94   94   94   99   96   96   96   90   91   93   92   95   94   94   94   94   94   96   96   96	Lastern													
Riddard/West Wicklow   1128   96   96   96   94   94   96   96   90   94   92   95   95   94   178   181   189   91   90   90   185   18														
Wicklow   558   94   94   94   82   94   94   78   81   89   91   90     HSEE Total   7046   94   94   94   87   94   94   83   87   89   92   91     Midland   Laois/Offaly   695   95   95   95   95   95   95   89   93   93   93   93   93     Midland   Laois/Offaly   695   95   95   95   95   95   95   9									-					
HSE-E Total   HSS   Total   Total   Total   Total   HSS   Total   Total   Total   Total   HSS   Total   Total   Total   HSS   Total   Total														
Midland   Laois/Offaly   695   95   95   95   95   95   95   9			7046	94	94	94	87	94	94	83	87	89	92	91
Midland   Longford/Westmeath   543   96   96   96   96   96   96   89   93   93   93   93   93   93   93			-		•	•	•	•						
HSEM Total   1238   95   95   95   95   95   95   95   89   93   93   93   93   93   93   93		Laois/Offaly	695	95	95	95	95	95	95	89	93	93	93	94
Clare	Midland	Longford/Westmeath	543	96	96	96	96	96	96	89	93	93	94	93
Michael   Limerick   532   94   94   94   86   94   94   83   86   89   90   89   89   152   96   96   96   88   96   96   84   87   92   95   94   94   83   86   89   90   89   89   89   89   89   89		HSE-M Total	1238	95	95	95	95	95	95	89	93	93	93	93
Michael   Limerick   532   94   94   94   86   94   94   83   86   89   90   89   89   152   96   96   96   88   96   96   84   87   92   95   94   94   83   86   89   90   89   89   89   89   89   89														
Western   Tipperary NR/East Limeric   552   96   96   96   88   96   96   84   87   92   95   94		Clare	430	96	96	96	93	96	96	91	93	93	94	93
HSE-MW Total   1514   96   96   96   89   96   96   85   89   91   93   92														
Cavan/Monaghan   386   96   96   96   88   96   96   86   na   93   na   93   81   93   93   93   93   93   93   93   9	Western										-			
North Eastern   Hoth   Hoth		HSE-MW Total	1514	96	96	96	89	96	96	85	89	91	93	92
North   Eastern   Meath   363   93   93   93   93   93   95   95   85   na   90   na   92														
Eastern   Meath   636   95   95   95   95   89   95   95   86   95   95   84   na   90   na   92														
HSE-NE Total   1385   95   95   95   86   95   95   84   na   90   na   91														
North Western   Donegal   591   97   97   96   95   97   96   89   95   91   95   92   97   96   89   95   91   95   92   97   96   86   94   93   87   94   94   95   95   95   95   95   95	Eastern													
Silgo/Leitrim   357   97   97   97   92   97   96   82   93   87   94   93     HSE-NW Total   948   97   97   97   93   97   96   86   94   89   95   92		HSE-NE Total	1385	95	95	95	86	95	95	84	na	90	na	91
Silgo/Leitrim   357   97   97   97   92   97   96   82   93   87   94   93     HSE-NW Total   948   97   97   97   93   97   96   86   94   89   95   92		In	501				05				0.5		0.5	
HSE-NW Total   948   97   97   97   93   97   96   86   94   89   95   92	North													
Carlow/Kilkenny   548   97   97   97   94   97   97   86   94   93   94   95	Western													
South Tipperary   352   97   97   97   93   97   97   89   92   95   95   96   96   96   96   96   96		HSE-NW TOTAL	948	97	97	97	93	97	96	86	94	89	95	92
South Tipperary   352   97   97   97   93   97   97   89   92   95   95   96   96   96   96   96   96		Carlow/Kilkanny	E/10	07	0.7	07	04	07	07	96	04	02	04	OF.
Waterford   S26   96   96   96   93   96   96   91   92   94   94   95														
North Cork   401   97   97   96   83   97   94   84   86   90   91   91														
HSE-SE Total   2008   97   97   97   94   97   97   90   93   94   95   95   95	Eastern											-		
North Cork														
North South Lee         1517         97         97         95         86         97         94         87         90         93         94         94           West Cork         197         89         89         88         79         89         88         80         82         83         84         86           Kerry         487         97         97         96         84         97         95         87         91         91         94         93           HSE-S Total         2602         96         96         95         85         96         94         86         89         91         93         93           Western         Mayo         468         96         96         95         95         95         95         80         na         87         na         88           Western         Mayo         468         96         96         96         82         96         96         83         na         91         na         90           Roscommon         239         99         99         99         99         98         94         na         97         na         95					-									
Southern         West Cork         197         89         89         88         79         89         88         80         82         83         84         86           Kerry         487         97         97         96         84         97         95         87         91         91         94         93           HSE-S Total         2602         96         96         95         85         96         94         86         89         91         93         93           Western           Galway         1104         95         95         95         95         95         80         na         87         na         88           Mayo         468         96         96         96         82         96         96         83         na         91         na         90           Roscommon         239         99         99         99         95         99         98         94         na         97         na         95           HSE-W Total         1811         96         96         96         92         96         96         83         na         89         na		North Cork	401	97	97	96	83	97	94	84	86	90	91	91
Kerry         487         97         97         96         84         97         95         87         91         91         94         93           HSE-S Total         2602         96         96         95         85         96         94         86         89         91         93         93           Western         Galway         1104         95         95         95         95         95         80         na         87         na         88           Mayo         468         96         96         96         82         96         96         83         na         91         na         90           Roscommon         239         99         99         99         95         99         98         94         na         97         na         95           HSE-W Total         1811         96         96         96         92         96         96         83         na         89         na         90           Ireland         18552         95         95         95         89         95         95         85         89         90         93         92			1517	97	97	95	86	97	94	87	90	93	94	94
HSE-S Total   2602   96   96   95   85   96   94   86   89   91   93   93   93   94   95   95   95   95   95   95   95	Southern	West Cork	197	89	89	88	79	89	88	80	82	83		86
Western         Galway         1104         95         95         95         95         95         80         na         87         na         88           Mayo         468         96         96         96         82         96         96         83         na         91         na         90           Roscommon         239         99         99         99         95         99         98         94         na         97         na         95           HSE-W Total         1811         96         96         96         92         96         96         83         na         89         na         90           Ireland         18552         95         95         95         89         95         95         85         89         90         93         92		Kerry	-											
Mayo         468         96         96         96         82         96         96         83         na         91         na         90           Roscommon         239         99         99         99         95         99         98         94         na         97         na         95           HSE-W Total         1811         96         96         96         92         96         96         83         na         89         na         90           Ireland         18552         95         95         95         89         95         95         85         89         90         93         92		HSE-S Total	2602	96	96	95	85	96	94	86	89	91	93	93
Mayo         468         96         96         96         82         96         96         83         na         91         na         90           Roscommon         239         99         99         99         95         99         98         94         na         97         na         95           HSE-W Total         1811         96         96         96         92         96         96         83         na         89         na         90           Ireland         18552         95         95         95         89         95         95         85         89         90         93         92														
Roscommon         239         99         99         99         95         99         98         94         na         97         na         95           HSE-W Total         1811         96         96         92         96         96         83         na         89         na         90           Ireland         18552         95         95         95         89         95         95         89         90         93         92														
Roscommon   239   99   99   95   99   98   94   na   97   na   95   95   HSE-W Total   1811   96   96   96   92   96   96   83   na   89   na   90   90   91   92   93   94   95   95   95   95   95   95   95	Western													
Ireland 18552 95 95 95 89 95 95 85 89 90 93 92														
		HSE-W Total	1811	96	96	96	92	96	96	83	na	89	na	90
na=not available			18552	95	95	95	89	95	95	85	89	90	93	92

na=not available

\*As the denominator/number in cohort varied slighly according to vaccine. The most commonly used number is reported here.

Please note w hile North Lee and South Lee are two separate LHOs their combined immunisation uptake data are reported here.

## Appendix 3

Local Health Office (LHO) Abbreviations (used in maps in this report)	Local Health Office (LHO)
CE	Clare
CN/MN	Cavan/Monaghan
CW/KK	Carlow/Kilkenny
DL	Donegal
DN	Dublin North
DNC	Dublin North Central
DNW	Dublin North West
DS	Dublin South
DSC	Dublin South City
DSE	Dublin South East
DSW	Dublin South West
DW	Dublin West
G	Galway
KE/WW	Kildare/West Wicklow
KY	Kerry
L	Limerick
LD/WD	Longford/Westmeath
LH	Louth
LS/OY	Laois/Offaly
MH	Meath
MO	Mayo
NC	North Cork
NSL*	North South Lee*
RN	Roscommon
SO/LM	Sligo/Leitrim
TN/EL	Tipperary North /East Limerick
TS	South Tipperary
WC	West Cork
WD	Waterford
WX	Wexford
WW	Wicklow

<sup>\*</sup>Please note while North Lee and South Lee are two separate LHOs their combined immunisation uptake data are reported here