

## Summary

### Children 12 months of age in Quarter 4-2013

- National immunisation uptake rates were 92% 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>, PCV<sub>2</sub> and MenC<sub>2</sub>. Compared to Q3-2013, national uptake rates in Q4-2013 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>, and PCV<sub>2</sub> were unchanged while MenC<sub>2</sub> increased by 1%.
- The HSE Midland Area reached the target of  $\geq 95\%$  for all vaccines.
- Among the Local Health Offices (LHOs), the target uptake rate of  $\geq 95\%$  was reached in four LHOs 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> and in one for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, MenC<sub>2</sub> and PCV<sub>2</sub>.
- BCG uptake data were available for seven of the eight HSE Areas in Q4-2013; these areas cover approximately 90% of the national birth cohort. Where data were available, national uptake was 87% for the BCG vaccination. This is an increase of 1% compared to Q3-2013. The target uptake of  $\geq 95\%$  was reached in 15 LHOs.

### Children 24 months of age in Quarter 4-2013

- National uptake rates were 95% 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>, 93% for MMR<sub>1</sub>, 92% for PCV<sub>3</sub>, 91% for Hib<sub>b</sub> (one dose of Hib at  $\geq 12$  months of age) and 88% for MenC<sub>3</sub>. Compared to the previous quarter, national uptake rates in Q4-2013 increased by 2% for MenC<sub>3</sub>, increased by 1% for Hib<sub>b</sub>, and PCV<sub>3</sub>, decreased by 1% for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> and were unchanged for HepB<sub>3</sub> and MMR<sub>1</sub>.
- 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>, Polio<sub>3</sub> and HepB<sub>3</sub> in seven of the HSE Areas, for Hib<sub>b</sub> in three HSE Areas, for MMR<sub>1</sub> in two HSE Areas and in none for MenC<sub>3</sub> or PCV<sub>3</sub>.
- 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 Q4-2013. These Areas cover approximately 81% of the national birth cohort. Where data were available, national uptake was 91% for MenC<sub>b</sub> and 94% for PCV<sub>b</sub>. The target uptake of  $\geq 95\%$  was reached for PCV<sub>b</sub> in two HSE Areas and in none for MenC<sub>b</sub>.
- 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>, Polio<sub>3</sub> and HepB<sub>3</sub>, 10 for PCV<sub>b</sub>, 9 for Hib<sub>b</sub> and MMR<sub>1</sub>, 4 for MenC<sub>b</sub>, 3 for PCV<sub>3</sub> and in one for MenC<sub>3</sub>.

## 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](http://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 4-2013.

The immunisation uptake rates presented in this report for children at 12 months of age in Quarter 4-2013 are children born between 01/10/2012 and 31/12/2012 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 4-2013 are children born between 01/10/2011 and 31/12/2011 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>), meningococcal group C (MenC<sub>3</sub>) and pneumococcal conjugate vaccine (PCV<sub>3</sub>) and one dose of vaccine against measles, mumps and rubella (MMR<sub>1</sub>). As one dose of vaccine against *Haemophilus influenzae* type b, one dose of meningococcal group C vaccine and one dose of pneumococcal conjugate vaccine given on or after 12 months of age provide protection against these diseases, regardless of the number of previous doses, uptake of one dose of vaccine against *Haemophilus influenzae* type b on or after 12 months of age (Hib<sub>b</sub>), uptake of one dose of meningococcal group C (MenC<sub>b</sub>) on or after twelve months of age and uptake of one dose of pneumococcal conjugate vaccine (PCV<sub>b</sub>) on or after twelve months of age are also measured for this cohort of children. The Quarter 4-2013 cohort of children at 24 months are the fourteenth 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 4-2013 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.

**Table 1.** Change in Primary Childhood Immunisation Schedule (introduced on September 1<sup>st</sup> 2008)

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

Please see [www.immunisation.ie](http://www.immunisation.ie) for complete information on the Irish childhood immunisation schedule and the immunisation guidelines for Ireland.

BCG	Bacille Calmette Guerin vaccine
DTaP	Diphtheria, Tetanus and acellular Pertussis vaccine
Hib	<i>Haemophilus influenzae</i> type b vaccine
HepB	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 Q4-2013 are presented by HSE Area in table 2. National uptake rates were 92% 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>. 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 89-95% and MenC<sub>2</sub> and PCV<sub>2</sub> ranged from 88% to 95%. The HSE Midland Area reached the target of  $\geq 95\%$  for all vaccines.

BCG uptake data were available for seven of the eight HSE Areas in Q4-2013; these areas cover approximately 90% of the national birth cohort. Where data were available, national uptake was 87% for the BCG vaccination, an increase of 1% from the previous quarter. The target uptake of  $\geq 95\%$  was reached in the HSE Midland, Mid Western, North Western and South Eastern Areas (Appendix 1).

### National & HSE Area trends

Figure 1 presents the national uptake rates at 12 months for each vaccine from Q3-2000 to Q4-2013. Compared to Q3-2013, national uptake rates in Q4-2013 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>, and PCV<sub>2</sub> were unchanged while MenC<sub>2</sub> increased by 1%.

In Q4-2013, compared to the previous quarter, uptake rates in the: HSE-Eastern Area increased by 1% except for MenC<sub>2</sub> which were unchanged; HSE-Midland Area were unchanged for all vaccines; HSE-Mid Western Area decreased by 1-2% for all vaccines; HSE-North-Eastern Area increased by 4% 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> and increased by 3% for PCV<sub>2</sub> and by 2% for MenC<sub>2</sub>; HSE-North-Western Area decreased by 1% for all vaccines; HSE-South Eastern Area decreased by 1% for all vaccines except BCG which increased by 1%; HSE-Southern Area decreased by 2% for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, and Polio<sub>3</sub>, decreased by 1% for HepB<sub>3</sub> and were unchanged for the remainder; HSE-Western were unchanged for all vaccines except BCG which increased by 3% and PCV<sub>2</sub> which decreased by 1%.

### LHO uptake

The immunisation uptake rates by LHO are shown in appendix 1. D<sub>3</sub>, MenC<sub>2</sub> and PCV<sub>2</sub> immunisation uptake rates are mapped by LHO in figures 2-4.

Among the 25 LHOs reporting BCG data, BCG uptake ranged from 92% to 99% with 15 reporting uptake of  $\geq 95\%$ .

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> uptake rates ranged from 87% (West Cork) to 96% (Dublin South City). MenC<sub>2</sub> uptake rates ranged from 85% (West Cork) to 96% (Dublin South City). PCV<sub>2</sub> uptake rates ranged from 86% (West Cork) to 96% (Dublin South City).

The target uptake rate of  $\geq 95\%$  was reached in 5 LHOs for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, PCV<sub>2</sub> and MenC<sub>2</sub> and in 4 for HepB<sub>3</sub>.

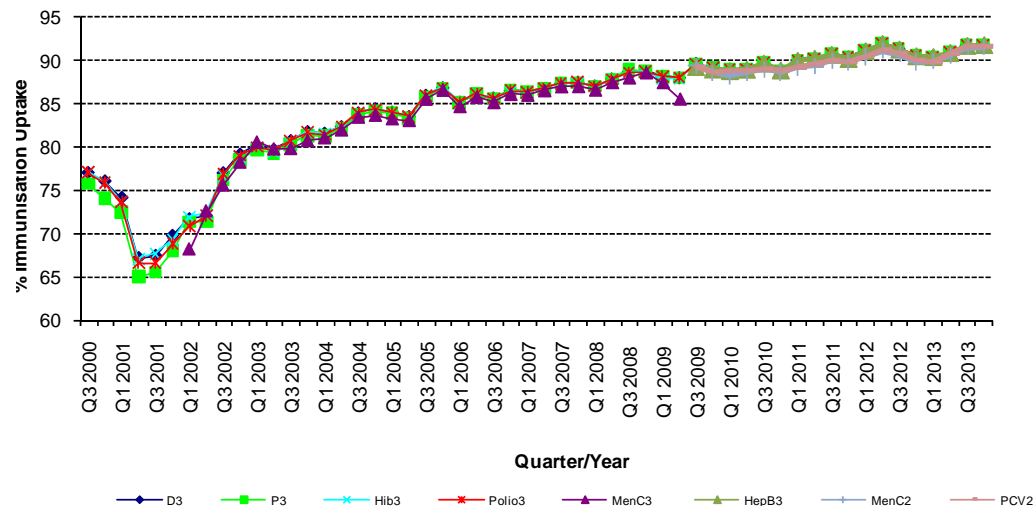
Twenty-six LHOs had  $\geq 90\%$  uptake of PCV<sub>2</sub>; 25 LHOs had  $\geq 90\%$  uptake of D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub>; and 24 LHOs had  $\geq 90\%$  uptake of MenC<sub>2</sub>.

**Table 2.** Immunisation uptake (%) at 12 months in cohort born 01/10/2012–31/12/2012

HSE Area	No. in cohort*	BCG	D <sub>3</sub> T <sub>3</sub>	P <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	HepB <sub>3</sub>	MenC <sub>2</sub>	PCV <sub>2</sub>
Eastern	6634	94	92	92	92	92	92	91	92
Midland	1156	96	95	95	95	95	95	95	95
Mid Western	1374	96	93	93	92	93	92	93	93
North Eastern	1819	na	92	92	92	92	92	91	92
North Western	860	95	94	94	94	94	93	93	94
South Eastern	1788	97	92	92	92	92	92	92	92
Southern	2491	93	89	89	89	89	89	88	88
Western	1618	15	93	93	93	93	93	93	93
Ireland	17740 <sup>†</sup>	87	92	92	92	92	92	92	92

na = not available at this time

\*As the denominator/number in cohort varied slightly according to vaccine, most commonly used number is presented here. <sup>†</sup>Number in cohort for BCG is 15,915

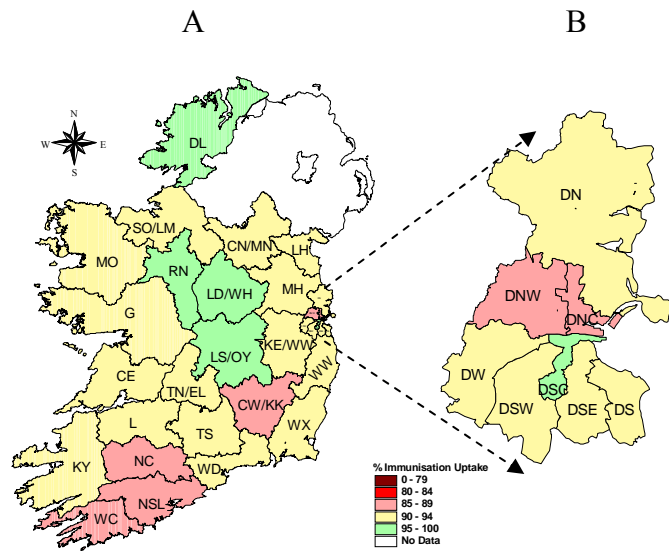


**Figure 1.** National quarterly immunisation uptake rates at 12 months

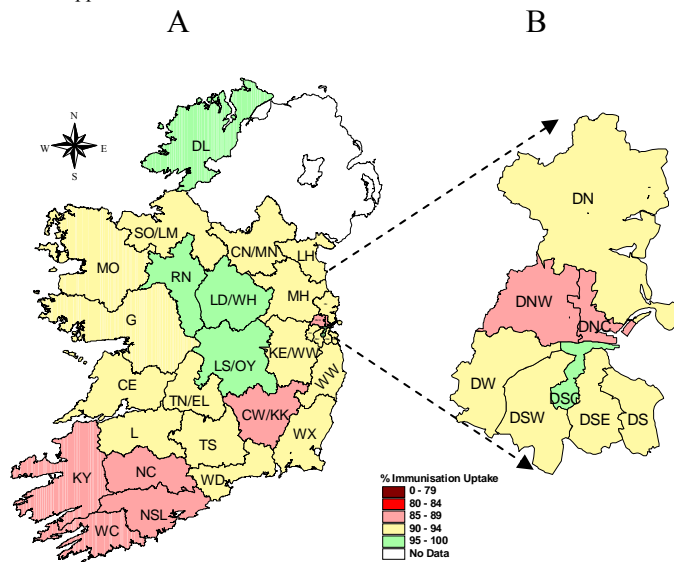
Since T<sub>3</sub> uptake identical to D<sub>3</sub> uptake only D<sub>3</sub> uptake figures presented. The Q3-2008 MenC<sub>3</sub> uptake figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Polio<sub>3</sub> and MMR<sub>1</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 MenC<sub>2</sub> data and one additional area was unable to provide PCV<sub>2</sub> data. The Q4-2009 figures are incomplete as three HSE Areas were unable to provide data. The Q1-2010 figures are incomplete as two HSE Areas were unable to provide data and three were unable to provide MenC<sub>2</sub> data. The Q2-2010 figures are incomplete as two HSE Areas were unable to provide data. The Q4-2010 figures are incomplete as one HSE Area was unable to provide data.

### Internationally

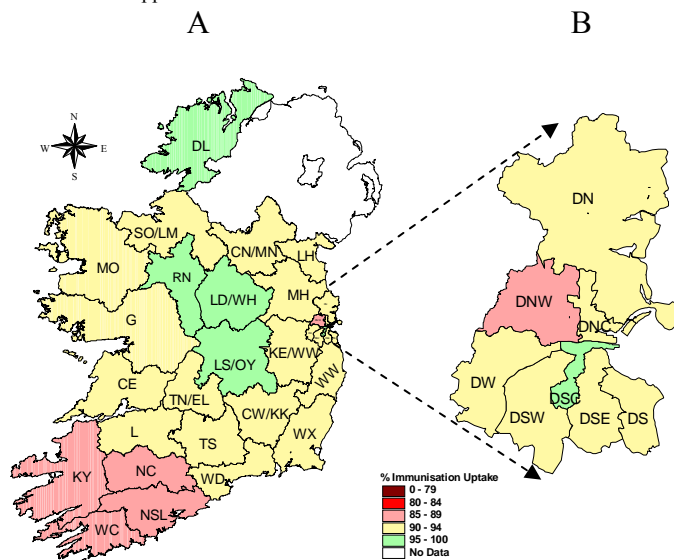
Vaccination coverage statistics for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> for children 12 months of age in Quarter 4-2013 were 94.4% in England, 96.5% in Wales, 97.2% in Northern Ireland and 97.7% in Scotland.<sup>1</sup> MenC<sub>2</sub> uptake was 91.8% in England, 93.5% in Wales, 94.1% in Northern Ireland and 93.7% in Scotland.<sup>1</sup> PCV<sub>2</sub> uptake was 94.1% in England, 96.2% in Wales, 97.2% in Northern Ireland and 97.8% in Scotland.<sup>1</sup> Please see the Health Protection Report for caveats to data.<sup>1</sup>



**Figure 2.** D<sub>3</sub> immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 4-2013, 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 4-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 4.** PCV<sub>2</sub> immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 4-2013, 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 Q4-2013 are presented (Table 3). National uptake rates were 95% 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>, 93% for MMR<sub>1</sub>, 92% for PCV<sub>3</sub>, 91% for Hib<sub>b</sub> (one dose of Hib at ≥12 months of age) and 88% for MenC<sub>3</sub>. Among the HSE Areas the uptake of 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 94-97%, MMR<sub>1</sub> ranged from 92-96%, PCV<sub>3</sub> ranged from 89-94%, MenC<sub>3</sub> ranged from 84-92% and Hib<sub>b</sub> ranged from 83-97%. The target uptake of ≥95% was reached 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> in seven of the HSE Areas, for Hib<sub>b</sub> in three HSE Areas, for MMR<sub>1</sub> in two HSE Areas and in none for MenC<sub>3</sub> or PCV<sub>3</sub>. Six of the eight HSE Areas were able to provide uptake data on MenC<sub>b</sub> (one dose of MenC at ≥12 months of age) and PCV<sub>b</sub> (one dose of PCV at ≥12 months of age) in Quarter 4-2013. These Areas cover approximately 81% of the national birth cohort. Where data were available, national uptake was 91% for MenC<sub>b</sub> and 94% for PCV<sub>b</sub>. The target uptake of ≥95% was reached for PCV<sub>b</sub> in two HSE Areas and in none for MenC<sub>b</sub>.

## National & HSE Area trends

Figure 5 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q4-2013. Compared to the previous quarter, national uptake rates in Q4-2013 decreased by 1% for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>; increased by 1% for Hib<sub>b</sub>, MenC<sub>b</sub>, PCV<sub>3</sub> and PCV<sub>b</sub>; increased by 2% for MenC<sub>3</sub> and was unchanged for HepB<sub>3</sub> and MMR<sub>1</sub>.

In Q4-2013, compared to the previous quarter, uptake rates in the: HSE-Eastern Area increased for MenC<sub>b</sub> by 3%, Hib<sub>b</sub>, MenC<sub>3</sub>, PCV<sub>3</sub> and PCV<sub>b</sub> by 2% and MMR<sub>1</sub> by 1% but were unchanged for the remainder; HSE-Midland Area increased by 2% for MenC<sub>3</sub> and MenC<sub>b</sub>, increased by 1% for PCV<sub>3</sub>, were unchanged for PCV<sub>b</sub> and MMR<sub>1</sub> while the remainder decreased by 1%; HSE-Mid Western Area increased by 1% for Hib<sub>b</sub>, MenC<sub>3</sub> and MenC<sub>b</sub>, decreased by 2% for PCV<sub>b</sub> and decreased by 1% for the remainder; HSE-North-Eastern Area increased by 4% for Hib<sub>b</sub> and MenC<sub>3</sub>, by 2% for MMR<sub>1</sub> and by 1% 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> and PCV<sub>3</sub>; HSE-North-Western Area increased for MenC<sub>3</sub> (by 2%), for Hib<sub>b</sub>, MenC<sub>b</sub>, PCV<sub>3</sub> and PCV<sub>b</sub> (by 1%) and were unchanged for the remainder; HSE-South Eastern Area decreased by 1% for all vaccines except HepB<sub>3</sub> and MenC<sub>3</sub> which were unchanged; HSE-Southern Area decreased by 3% for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub> and Polio<sub>3</sub>, by 2% for Hib<sub>3</sub>, by 1% for Hib<sub>b</sub>, HepB<sub>3</sub>, MenC<sub>3</sub> and PCV<sub>3</sub> and were unchanged for the remainder; HSE-Western Area increased for MMR<sub>1</sub> (by 3%), and PCV<sub>3</sub> (by 1%) and were unchanged for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, Hib<sub>b</sub>, HepB<sub>3</sub> and MenC<sub>3</sub>.

## LHO uptake

Immunisation uptake rates in children 24 months of age in Q4-2013 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 91-100%, HepB<sub>3</sub> ranged from 91-99%, Hib<sub>3</sub> ranged from 90-100%, MMR<sub>1</sub> ranged from 90-98%, PCV<sub>b</sub> ranged from 89-97%, PCV<sub>3</sub> ranged from 82-99%, MenC<sub>b</sub> ranged from 80-95%, Hib<sub>b</sub> ranged from 74-99% and MenC<sub>3</sub> ranged from 73-98%.

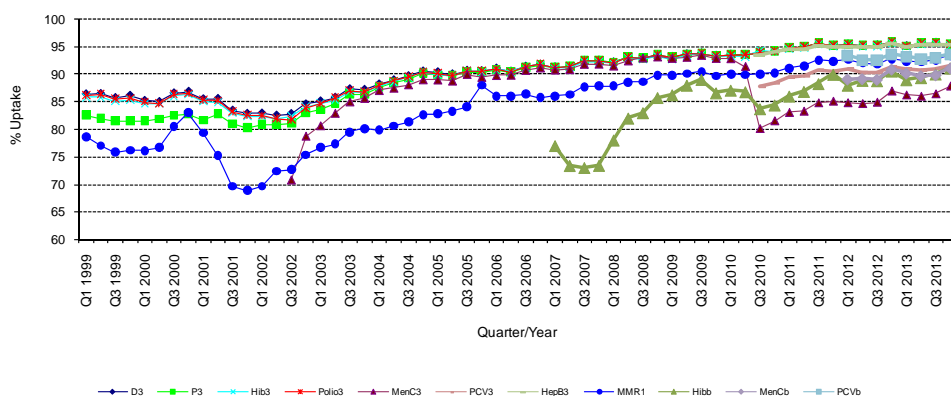
The target uptake of ≥95% was reached in 22 LHOs for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, HepB<sub>3</sub> and Polio<sub>3</sub>, 10 for PCV<sub>b</sub>, 9 for Hib<sub>b</sub> and MMR<sub>1</sub>, 4 for MenC<sub>b</sub>, 3 for PCV<sub>3</sub> and in one for MenC<sub>3</sub>.

All LHOs had ≥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> and MMR<sub>1</sub>, 26 had ≥90% of PCV<sub>3</sub>, 24 had ≥90% uptake of PCV<sub>b</sub>, 23 had ≥90% of Hib<sub>b</sub>, 21 had ≥90% of MenC<sub>b</sub> and 10 had ≥90% uptake of MenC<sub>3</sub>.

**Table 3.** Immunisation uptake (%) at 24 months in cohort born 01/10/2011–31/12/2011

HSE Area	No. in Cohort*	D <sub>3</sub> /T <sub>3</sub> /P <sub>3</sub> Hib <sub>3</sub> /Po lio <sub>3</sub>	Hib <sub>b</sub>	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	6891	95	91	95	88	91	92	94	93
Midland	1112	97	97	97	92	94	94	96	96
Mid Western	1431	95	92	95	89	92	92	93	93
North Eastern	1913	95	89	95	86	na	90	na	92
North Western	936	97	94	96	88	94	91	96	94
South Eastern	1842	96	95	96	90	93	93	94	94
Southern	2571	94	83	94	84	87	89	91	92
Western	1627	96	96	96	89	na	94	na	95
<b>Ireland</b>	<b>18323</b>	<b>95</b>	<b>91</b>	<b>95</b>	<b>88</b>	<b>91</b>	<b>92</b>	<b>94</b>	<b>93</b>

\* 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<sub>1</sub> figure is based on data from seven of the eight HSE Areas. The Q1-2006 MMR<sub>1</sub> figure includes the HSE-Eastern Area figure that is an estimate only. The Q1-2007, Q3-2007, Q2-2008 and Q3-2008 Hib<sub>b</sub> figures are based on data from seven of the eight HSE Areas. In Q1-2008 the HSE-SE changed their Hib<sub>b</sub> data extraction method compared to previous quarters; in Q1-2008 the uptake of Hib<sub>b</sub> 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 D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Polio<sub>3</sub> and MMR<sub>1</sub> uptake figures exclude those born on the 31/03/2007. The Q2-2009 HSE-Eastern Area Hib<sub>b</sub> 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 Hib<sub>b</sub> 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 Hib<sub>b</sub> figures also exclude uptake figures from Dublin North. The Q2-2010 and Q4-2010 figures are based on data from seven of the eight HSE Areas.

## Internationally

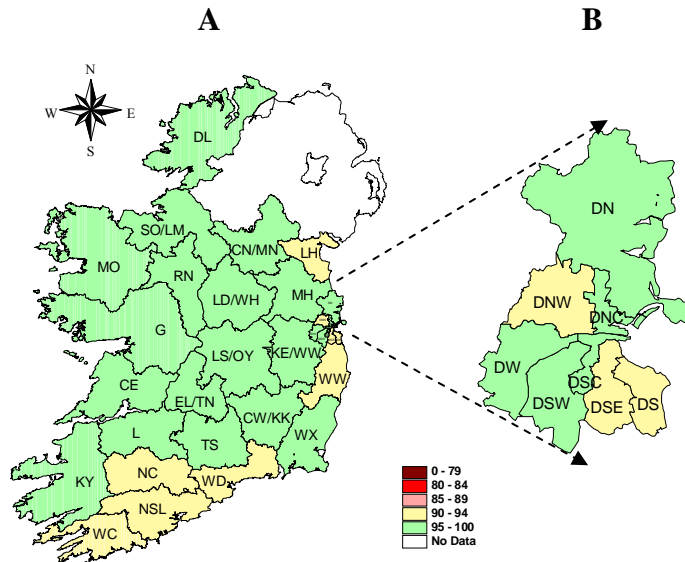
In Q4-2013, vaccination coverage statistics at 24 months for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> were 96.3% in England, 97.8% in Wales, 98.6% in Northern Ireland and 98.2% in Scotland.<sup>1</sup> PCV booster was 92.8% in England, 96.0% in Wales, 96.3% in Northern Ireland and 95.6% in Scotland. Hib/MenC booster was 92.7% in England, 95.4% in Wales, 96.5% in Northern Ireland and 95.7% in Scotland.<sup>1</sup> MMR<sub>1</sub> uptake was 92.9% in England, 96.6% in Wales, 96.3% in Northern Ireland and 95.6% in Scotland.<sup>1</sup> Please see HPA report for caveats.<sup>1</sup>

## Conclusions

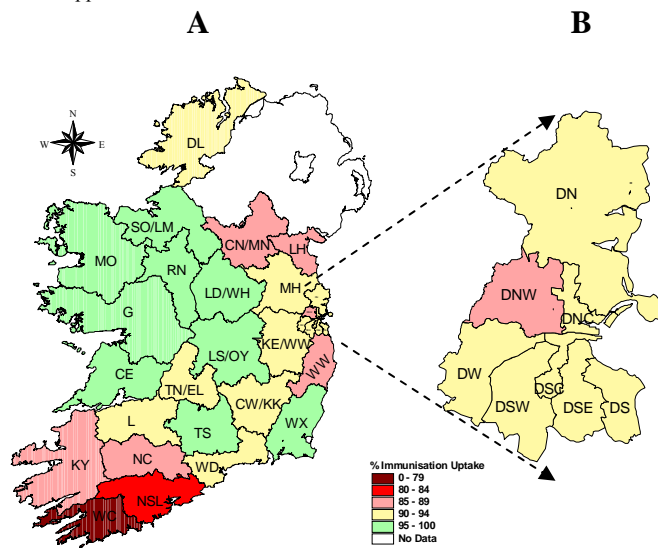
In Quarter 4-2013, national uptake rates at 24 months for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub> reached the target of ≥95%. Since the introduction of the new childhood schedule in September 2008 MenC<sub>3</sub> and Hib<sub>b</sub> uptake are 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 for their children at this age.

## Acknowledgements

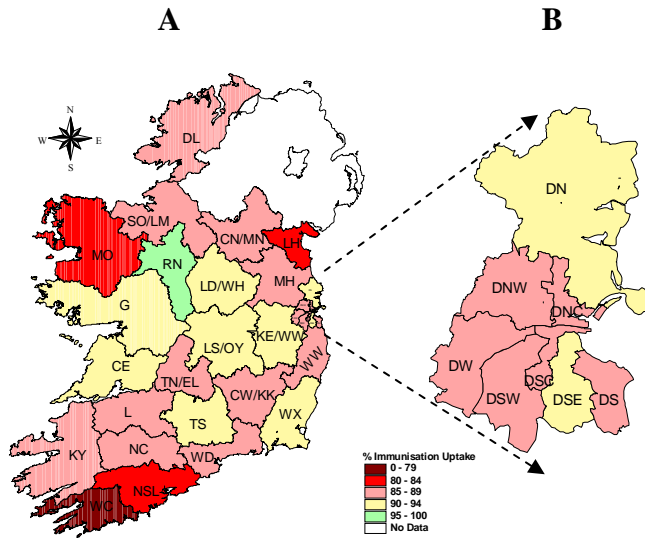
HPSC would like to thank the HSE Areas for providing data and special thanks to the Specialists in Public Health Medicine, Immunisation Co-ordinators, Surveillance Scientists and Systems Analysts for their assistance.



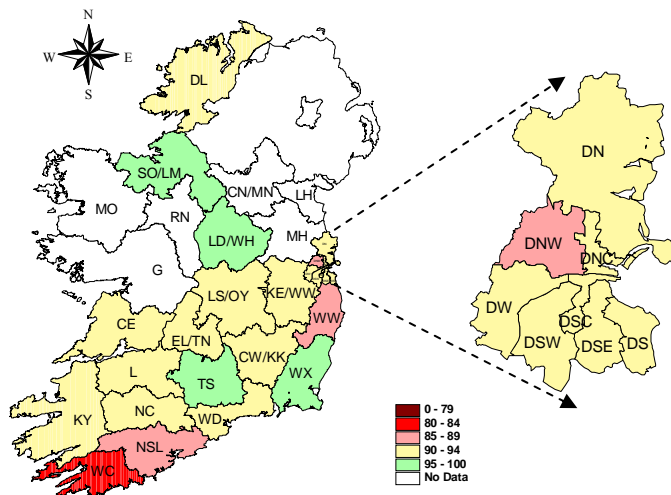
**Figure 6.** D<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



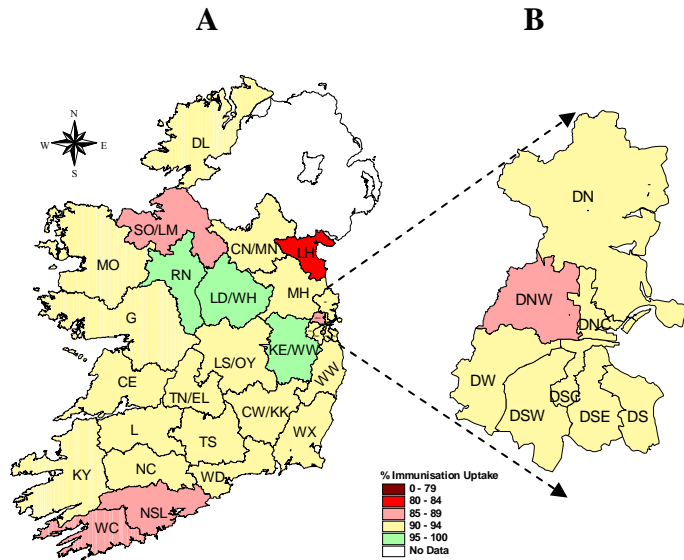
**Figure 7.** Hib<sub>6</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



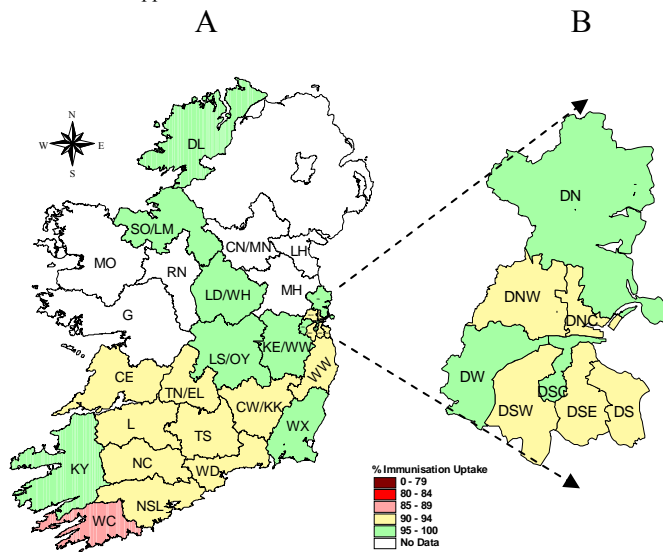
**Figure 8.** MenC<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 9.** MenC<sub>b</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

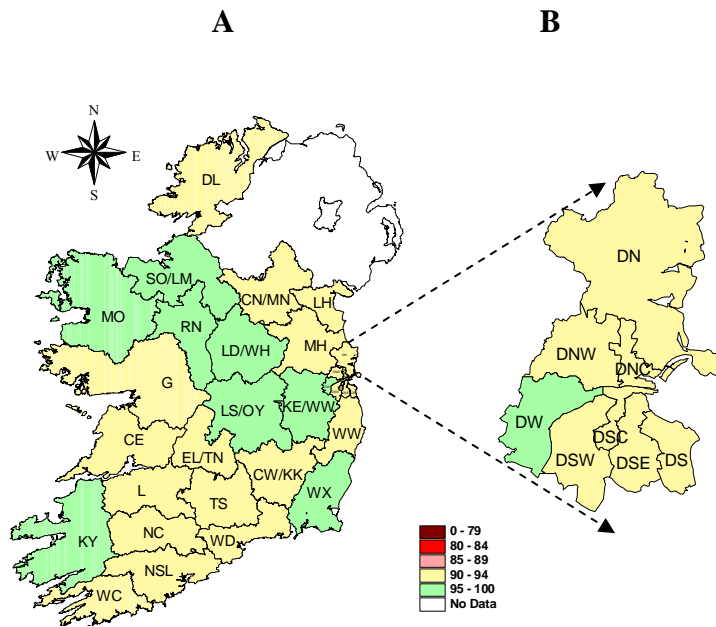


**Figure 10.** PCV<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 11.** PCV<sub>6</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.





**Figure 12.** MMR<sub>1</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

## Appendix 1

Immunisation Uptake at 12 Months in Cohort Born 01/10/2012-31/12/2012											
HSE Area	LHO/HSE Area	No. in cohort for BCG	No. in cohort for other vaccines*	Immunisation Uptake (%)							
				BCG	D <sub>3</sub> T <sub>3</sub>	P <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	HepB <sub>3</sub>	MenC <sub>2</sub>	PCV <sub>2</sub>
Eastern	Dublin South	416	416	92	94	94	94	94	94	93	94
	Dublin South East	402	402	95	92	92	92	92	92	92	92
	Dublin South City	457	457	95	96	96	96	96	96	96	96
	Dublin South West	647	647	95	93	93	93	93	92	92	93
	Dublin West	705	705	94	94	94	94	94	94	93	93
	Dublin North West	993	993	93	88	88	88	88	88	88	88
	Dublin North Central	491	491	93	89	89	89	89	89	89	90
	Dublin North	1084	1084	94	92	92	92	92	92	92	92
	Kildare/West Wicklow	979	979	96	91	91	91	91	91	91	91
Wicklow	460	460	93	92	92	92	92	92	92	92	
<b>HSE-E Total</b>	<b>6634</b>	<b>6634</b>	<b>94</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>91</b>	<b>92</b>
Midland	Laois/Offaly	640	640	96	95	95	95	95	95	95	95
	Longford/Westmeath	516	516	95	95	95	95	95	95	95	95
	<b>HSE-M Total</b>	<b>1156</b>	<b>1156</b>	<b>96</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>
Mid Western	Clare	418	428	96	92	92	92	92	92	93	93
	Limerick	450	469	98	91	91	91	91	91	91	91
	Tipperary NR/East Limerick	479	477	96	94	94	94	94	94	94	94
	<b>HSE-MW Total</b>	<b>1347</b>	<b>1374</b>	<b>96</b>	<b>93</b>	<b>93</b>	<b>92</b>	<b>93</b>	<b>92</b>	<b>93</b>	<b>93</b>
North Eastern	Cavan/Monaghan	na	512	na	94	94	94	94	94	93	94
	Louth	na	478	na	91	91	91	91	91	90	90
	Meath	na	829	na	91	91	91	91	91	91	91
	<b>HSE-NE Total</b>	<b>na</b>	<b>1819</b>	<b>na</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>91</b>	<b>92</b>
North Western	Donegal	526	526	95	95	95	95	95	94	95	95
	Sligo/Leitrim	334	334	95	93	93	92	93	93	91	93
	<b>HSE-NW Total</b>	<b>860</b>	<b>860</b>	<b>95</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>93</b>	<b>93</b>	<b>94</b>
South Eastern	Carlow/Kilkenny	453	453	98	89	89	89	89	89	89	90
	South Tipperary	348	348	99	93	93	93	93	93	93	93
	Waterford	441	441	93	93	93	93	93	93	93	93
	Wexford	546	546	97	92	92	92	92	92	92	92
	<b>HSE-SE Total</b>	<b>1788</b>	<b>1788</b>	<b>97</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>
Southern	North Cork	401	400	95	89	89	89	89	89	89	89
	North South Lee	1405	1389	92	89	89	89	89	89	88	87
	West Cork	194	194	93	87	87	87	87	87	85	86
	Kerry	512	508	94	91	91	91	91	91	89	88
	<b>HSE-S Total</b>	<b>2512</b>	<b>2491</b>	<b>93</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>88</b>	<b>88</b>
Western	Galway	na	967	na	94	94	94	94	94	93	94
	Mayo	na	425	na	90	90	90	90	90	91	91
	Roscommon	na	226	na	95	95	95	95	95	95	95
	<b>HSE-W Total</b>	<b>1618</b>	<b>1618</b>	<b>15</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>
<b>Ireland</b>	<b>15915</b>	<b>17740</b>	<b>87</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	

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

Immunisation uptake (%) at 24 months of age in cohort born 01/10/2011-31/12/2011													
HSE Area	LHO/HSE Area	No. in cohort*	Immunisation Uptake (%)										
			D <sub>3</sub> T <sub>3</sub>	P <sub>3</sub>	Hib <sub>3</sub>	Hib <sub>6</sub>	Polio <sub>3</sub>	HepB <sub>3</sub>	MenC <sub>3</sub>	MenC <sub>6</sub>	PCV <sub>3</sub>	PCV <sub>6</sub>	MMR <sub>1</sub>
Eastern	Dublin South	459	94	94	94	90	94	94	85	90	91	94	91
	Dublin South East	414	93	93	93	92	93	93	90	92	92	92	92
	Dublin South City	457	96	96	96	92	96	96	88	92	92	95	94
	Dublin South West	721	97	97	97	93	97	97	88	93	91	94	94
	Dublin West	760	97	97	97	92	97	96	88	91	92	95	95
	Dublin North West	970	92	92	92	88	92	92	86	88	89	90	90
	Dublin North Central	499	95	95	95	90	95	95	85	90	90	92	92
	Dublin North	1154	96	96	96	92	96	96	91	92	94	95	94
	Kildare/West Wicklow	972	97	97	97	94	97	97	91	94	95	96	95
	Wicklow	485	94	94	94	89	94	94	85	89	91	93	92
<b>HSE-E Total</b>	<b>6891</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>91</b>	<b>95</b>	<b>95</b>	<b>88</b>	<b>91</b>	<b>92</b>	<b>94</b>	<b>93</b>	
Midland	Laois/Offaly	629	97	97	97	97	97	97	91	94	94	95	96
	Longford/Westmeath	483	98	98	98	98	98	98	93	95	95	97	96
	<b>HSE-M Total</b>	<b>1112</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>92</b>	<b>94</b>	<b>94</b>	<b>96</b>	<b>96</b>
Mid Western	Clare	442	95	95	95	95	95	95	92	94	92	93	93
	Limerick	504	95	95	95	91	95	95	88	90	93	94	94
	Tipperary NR/East Limeric	485	95	95	95	91	95	95	88	91	92	93	93
	<b>HSE-MW Total</b>	<b>1431</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>92</b>	<b>95</b>	<b>95</b>	<b>89</b>	<b>92</b>	<b>92</b>	<b>93</b>	<b>93</b>
North Eastern	Cavan/Monaghan	504	96	96	96	89	96	96	87	na	92	na	93
	Louth	471	93	93	93	86	93	93	82	na	82	na	90
	Meath	938	96	96	96	90	96	96	88	na	93	na	93
	<b>HSE-NE Total</b>	<b>1913</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>89</b>	<b>95</b>	<b>95</b>	<b>86</b>	<b>na</b>	<b>90</b>	<b>na</b>	<b>92</b>
North Western	Donegal	553	96	96	96	93	97	95	89	93	92	96	93
	Sligo/Leitrim	363	98	98	98	96	98	98	86	95	89	96	96
	<b>HSE-NW Total</b>	<b>936</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>94</b>	<b>97</b>	<b>96</b>	<b>88</b>	<b>94</b>	<b>91</b>	<b>96</b>	<b>94</b>
South Eastern	Carlow/Kilkenny	521	96	96	96	93	96	96	89	93	92	94	93
	South Tipperary	309	96	96	96	96	96	96	91	95	94	94	94
	Waterford	479	94	94	94	82	94	94	88	91	94	94	94
	Wexford	533	97	97	97	98	97	98	92	95	94	96	95
	<b>HSE-SE Total</b>	<b>1842</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>95</b>	<b>96</b>	<b>96</b>	<b>90</b>	<b>93</b>	<b>93</b>	<b>94</b>	<b>94</b>
Southern	North Cork	371	94	94	94	87	94	94	88	90	91	90	93
	North South Lee	1515	94	94	93	82	94	94	83	86	88	90	91
	West Cork	195	91	91	90	74	91	91	73	80	87	89	92
	Kerry	490	97	97	97	86	97	97	87	92	93	95	95
	<b>HSE-S Total</b>	<b>2571</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>83</b>	<b>94</b>	<b>94</b>	<b>84</b>	<b>87</b>	<b>89</b>	<b>91</b>	<b>92</b>
Western	Galway	966	96	96	96	96	96	96	91	na	94	na	94
	Mayo	436	96	96	96	96	96	96	82	na	91	na	96
	Roscommon	225	100	100	100	99	100	99	98	na	99	na	98
	<b>HSE-W Total</b>	<b>1627</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>89</b>	<b>na</b>	<b>94</b>	<b>na</b>	<b>95</b>
<b>Ireland</b>	<b>18323</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>91</b>	<b>95</b>	<b>95</b>	<b>88</b>	<b>91</b>	<b>92</b>	<b>94</b>	<b>93</b>	

na=not available

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

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