

## Summary

### Children 12 months of age in Quarter 3-2010

- ❖ **National** immunisation uptake rates were 90% 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>, 89% for MenC<sub>2</sub> and PCV<sub>2</sub> and 95% for BCG (BCG data were available for four HSE Areas only which represent approximately 31% of the national birth cohort).
  - 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 87% in the HSE Midland Area to 93% in the HSE North Eastern and North Western Areas. MenC<sub>2</sub> and PCV<sub>2</sub> uptake rates ranged from 85% in the HSE Southern Area to 93% in the HSE North Western Area.
    - Among the **Local Health Offices (LHOs)**:
      - 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 80% to 95%
      - MenC<sub>2</sub> uptake rates ranged from 77% to 95%
      - PCV<sub>2</sub> uptake rates ranged from 75% to 95%
    - The target uptake rate of ≥95% was reached in 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> and in Donegal for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>.

### Children 24 months of age in Quarter 3-2010

- ❖ Since September 1st 2008 the new childhood immunisation schedule has been implemented for children born on or after July 1st 2008 (table 1). Under the new immunisation schedule children are now recommended hepatitis B and pneumococcal conjugate vaccines. In addition, there is a change in timing of the meningococcal serogroup C vaccines and *Haemophilus influenzae* type b booster vaccine. Children that were 24 months of age in Quarter 3-2010 were children born between July 1<sup>st</sup> and September 30<sup>th</sup> 2008 and are therefore the first cohort recommended the new immunisation schedule.

In Quarter 3 2010, **national** uptake rates were 94% for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>, 93% for HepB<sub>3</sub>, 90% for MMR<sub>1</sub>, 88% for PCV<sub>3</sub>, 84% for Hib<sub>b</sub> and 80% for MenC<sub>3</sub>.

This large decline in MenC<sub>3</sub> uptake in Quarter 3-2010 (MenC<sub>3</sub> uptake was 93% in Quarter 1-2010 and 91% in Quarter 2-2010) and the low uptake of the Hib booster and of three doses of pneumococcal conjugate vaccine are a huge cause of concern. These data indicate children are not receiving their meningococcal serogroup C, pneumococcal and *Haemophilus influenzae* type b vaccinations as recommended. Meningococcal serogroup C, pneumococcal and *Haemophilus influenzae* type b infections are all serious, potentially life threatening illnesses. These illnesses can be prevented by vaccination but children need to receive all their recommended doses of vaccines, at the recommended ages, to provide the best protection against these illnesses.

- Among the **HSE Areas** the uptake rates for
  - D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> ranged from 91-96%,
  - HepB<sub>3</sub> ranged from 91-95%,
  - MMR<sub>1</sub> ranged from 86-92%,
  - PCV<sub>3</sub> ranged from 84-92%,
  - Hib<sub>b</sub> ranged from 75-92% and
  - MenC<sub>3</sub> ranged from 75-87%.
 The target uptake of ≥95% was reached for Hib<sub>3</sub> in five HSE Areas, for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub> and Polio<sub>3</sub> in four HSE Areas and for HepB<sub>3</sub> in three HSE Areas.
  - Among the **LHOs**, uptake of
    - Hib<sub>3</sub> ranged from 91-98%,
    - D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub> and Polio<sub>3</sub> ranged from 90-98%,
    - HepB<sub>3</sub> ranged from 87% to 98%,
    - MMR<sub>1</sub> ranged from 81-95%,
    - PCV<sub>3</sub> ranged from 78-95%,
    - Hib<sub>b</sub> ranged from 70-94% and
    - MenC<sub>3</sub> ranged from 69-92%.
  - The target uptake of ≥95% was reached in
    - 19 LHOs for Hib<sub>3</sub>,
    - 17 LHOs for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub> and Polio<sub>3</sub>,
    - 15 LHOs for HepB<sub>3</sub>,
    - 3 for MMR<sub>1</sub>,
    - 1 for PCV<sub>3</sub> and
    - 0 for Hib<sub>b</sub> or MenC<sub>3</sub>.

## Introduction

Since September 1st 2008 the new childhood immunisation schedule has been implemented for children born on or after 1<sup>st</sup> July 2008 (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 vaccination, now given at 2, 4, 6 and 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 3-2010.

The immunisation uptake rates presented in this report for children at 12 months of age in Quarter 3-2010 are children born between 01/07/2009 and 30/09/2009 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 3-2010 are children born between 01/07/2008 and 30/09/2008 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 given after 12 months of age (Hib<sub>b</sub>) and one dose of vaccine against measles, mumps and rubella (MMR<sub>1</sub>). The Quarter 3-2010 cohort of children at 24 months was therefore the first cohort recommended the new immunisation schedule.

The national immunisation uptake statistics, based on available data, for Quarter 3-2010 are presented in this document, the uptake statistics are also presented by HSE Area and Local Health Office (LHO).

**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 Q3-2010 are presented by HSE Area in Table 2. National uptake rates were 90% 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 89% for MenC<sub>2</sub> and PCV<sub>2</sub>. 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 87% in the HSE Midland Area to 93% in the HSE North Eastern and North Western Areas while the uptake rates for MenC<sub>2</sub> and PCV<sub>2</sub> ranged from 85% in the HSE Southern Area to 93% in the HSE North Western Area. Four HSE Areas had ≥90% uptake of these vaccines. BCG uptake data were available for four of the eight HSE-Areas. These areas cover approximately 31% of the national birth cohort. Where data were available, national uptake was 95% for the BCG vaccination.

### National & HSE Area trends

Figure 1 presents the national uptake rates at 12 months for each vaccine from Q3-2000 to Q3-2010. Compared to Q2-2010, national uptake rates in Q3-2010 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> increased by 1% while MenC<sub>2</sub> and PCV<sub>2</sub> were unchanged. Please note: due to incompleteness of data in Q2 2010 (only six Areas were in a position to provide 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> in Q2 2010) these comparisons may not be valid.

In Q3 2010, compared to the previous quarter, uptake rates: in the HSE-Eastern Area 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> increased by 2% and MenC<sub>2</sub> increased by 1%; in the HSE-Mid Western Area were unchanged for all vaccines except BCG which decreased by 3%; in the HSE-North Eastern Area 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> increased by 1%; in the HSE-North Western Area were unchanged for all vaccines except BCG which decreased by 1%; in the HSE-South Eastern Area 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> increased by 2% while BCG was unchanged; in the HSE-Western Area 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> increased by 2% while MenC<sub>2</sub> and PCV<sub>2</sub> increased 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.

All 11 LHOs reporting BCG data had ≥90% uptake with eight reporting uptake of ≥95%.

D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, and Polio<sub>3</sub> uptake rates ranged from 80% (Dublin North West and West Cork) to 95% (Donegal and Roscommon). Hib<sub>3</sub> uptake ranged from 80% (Dublin North West) to 95% (Roscommon). HepB<sub>3</sub> uptake ranged from 80% (Dublin North West and West Cork) to 95% (Roscommon). MenC<sub>2</sub> uptake rates ranged from 77% (West Cork) to 95% (Roscommon). PCV<sub>2</sub> uptake rates ranged from 75% (West Cork) to 95% (Roscommon).

The target uptake rate of ≥95% was reached in 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> and in Donegal for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>.

Twenty LHOs had ≥90% uptake of Hib<sub>3</sub>. Nineteen LHOs had ≥90% uptake of D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub> and Polio<sub>3</sub> and PCV<sub>2</sub>. Eighteen LHOs had ≥90% uptake of HepB<sub>3</sub> and MenC<sub>2</sub>.

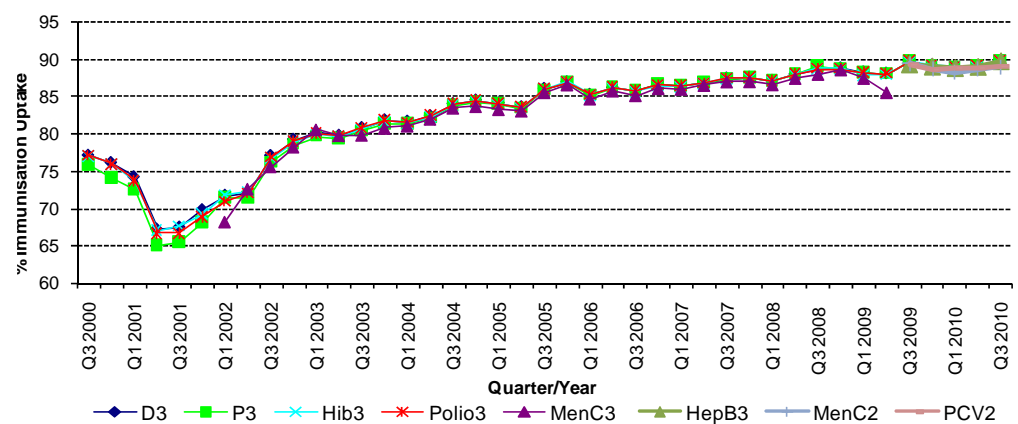
**Table 2.** Immunisation uptake (%) at 12 months in cohort born 01/07/2009–30/09/2009

HSE Area	No. in cohort*	BCG	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>	PCV <sub>2</sub>
Eastern	7078	na	89	89	89	89	89	89	88	89
Midland	1361	92	87	87	87	87	87	87	87	87
Mid Western	1541	96	92	92	92	92	92	92	92	92
North Eastern	2034	na	93	93	93	93	93	93	91	91
North Western	1095	95	93	93	93	93	93	93	93	93
South Eastern	2061	96	91	91	91	91	91	91	91	91
Southern	2737	na	88	88	88	89	88	88	85	85
Western	1811	na	89	89	89	89	89	89	88	89
Ireland	19718†	95	90	90	90	90	90	90	89	89

na = not available at this time

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

†Number in cohort for BCG is 6,061

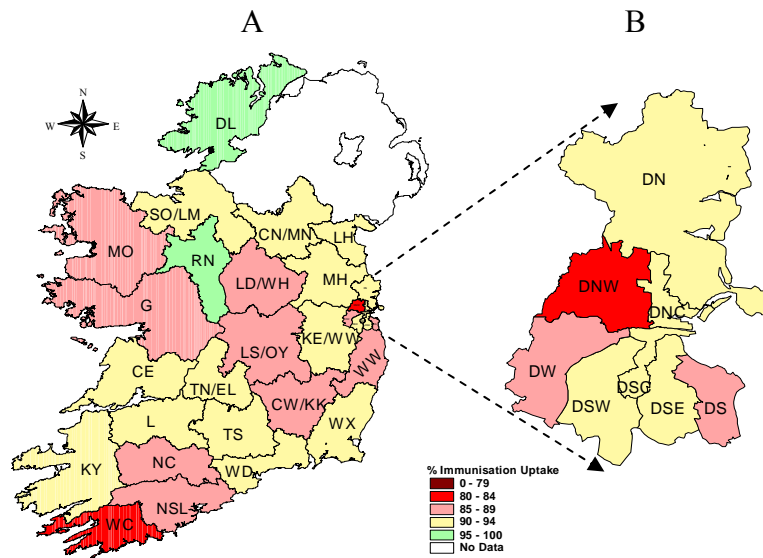


**Figure 1.** National quarterly immunisation uptake rates at 12 months

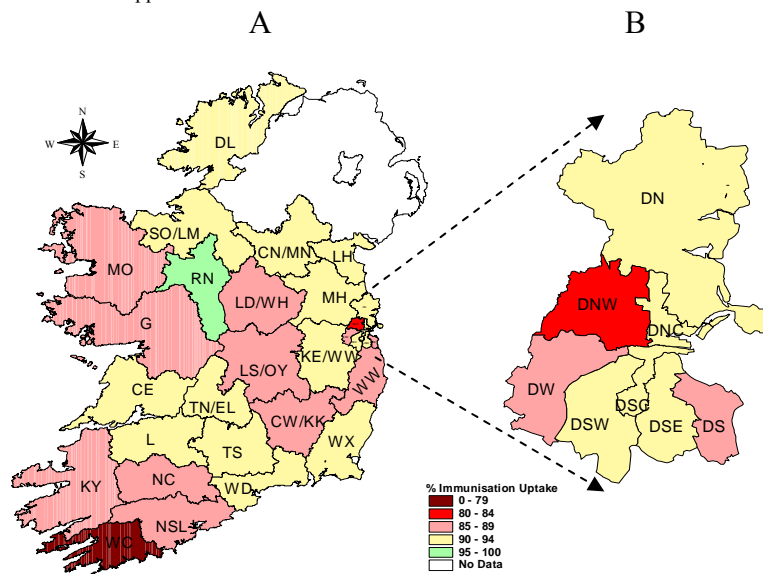
Since T<sub>3</sub> uptake identical to D<sub>3</sub> uptake only D<sub>3</sub> uptake figures presented. The Q3 2008 MenC<sub>3</sub> uptake figure is based on data from six of the eight HSE Areas. The Q1 2009 HSE-Eastern Area D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Polio<sub>3</sub> and MMR<sub>1</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.

### Internationally

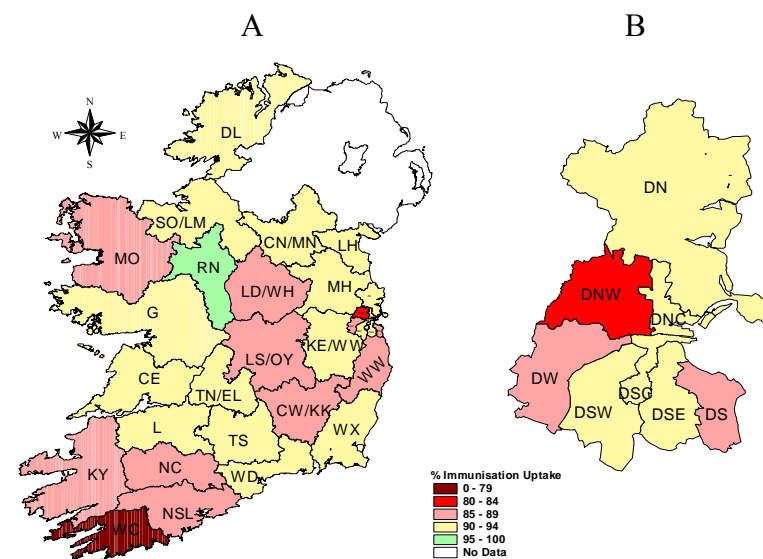
Vaccination coverage statistics for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> for children 12 months of age in Quarter 3-2010 were 93.4% in England, 95.4% in Wales, 97.2% in Northern Ireland and 97.0% in Scotland.<sup>1</sup> MenC<sub>2</sub> uptake was 92.8% in England, 95.2% in Wales, 97.1% in Northern Ireland and 96.7% in Scotland.<sup>1</sup> PCV<sub>2</sub> uptake was 93.0% in England, 95.4% in Wales, 97.2% in Northern Ireland and 97.0% in Scotland.<sup>1</sup> Please see HPA 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 3 2010, 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 2010, 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 3 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

## Immunisation uptake at 24 months

### National and HSE Area uptake

Since September 1st 2008 the new childhood immunisation schedule has been implemented for children born on or after 1<sup>st</sup> July 2008 (table 1). Children 24 months of age in Quarter 3 2010 were children born between 1<sup>st</sup> July and 30<sup>th</sup> September 2008 and are therefore the first cohort recommended the new immunisation schedule. Immunisation uptake rates in children 24 months of age in Q3-2010 are presented (Table 3). National uptake rates were 94% for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>, 93% for HepB<sub>3</sub>, 90% for MMR<sub>1</sub>, 88% for PCV<sub>3</sub>, 84% for Hib<sub>b</sub> and 80% 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> and Polio<sub>3</sub> ranged from 91% to 96%, HepB<sub>3</sub> ranged from 91-95%, MMR<sub>1</sub> ranged from 86-92%, PCV<sub>3</sub> ranged from 84-92%, Hib<sub>b</sub> ranged from 75-92% and MenC<sub>3</sub> ranged from 75-87%. The target uptake of ≥95% reached for Hib<sub>3</sub> in five HSE Areas, for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub> and Polio<sub>3</sub> in four HSE Areas and for HepB<sub>3</sub> in three HSE Areas.

### Trends

Figure 5 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q3-2010. In Q3-2010, compared to the previous quarter, national uptake rates for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Polio<sub>3</sub> and MMR<sub>1</sub> were unchanged, Hib<sub>3</sub> increased by 1%, Hib<sub>b</sub> decreased by 3% and MenC<sub>3</sub> decreased by 11%. As only seven HSE Areas were in a position to provide data in Q2 2010 these comparisons may not be completely valid.

Hib<sub>b</sub> uptake rates in Q3-2010, compared to the previous quarter, increased by 2% in the HSE-Eastern Area, declined by 11% in the HSE-Southern Area, declined by 8% in the HSE-Western Area, declined by 3% in the HSE-Mid Western and South Eastern Areas and declined by 2% in the HSE-North Eastern Area.

MenC<sub>3</sub> uptake rates in Q3-2010, compared to the previous quarter, declined by 18% in the HSE-Southern Area, 17% in the HSE-Western Area, 11% in the HSE-Mid Western and North Western Areas, 10% in the HSE-Eastern Area, 9% in the HSE-South Eastern Area and by 8% in the HSE-North Eastern Area.

### LHO uptake

Immunisation uptake rates in children 24 months of age in Q3-2010 are presented by LHO in Appendix 2. D<sub>3</sub>, Hib<sub>b</sub>, MenC<sub>3</sub>, PCV<sub>3</sub> and MMR<sub>1</sub> immunisation uptake rates are mapped by LHO in figures 6-10.

Among the LHOs, uptake of: Hib<sub>3</sub> ranged from 91-98%, D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub> and Polio<sub>3</sub> ranged from 90-98%; HepB<sub>3</sub> ranged from 87% to 98%, MMR<sub>1</sub> ranged from 81-95%, PCV<sub>3</sub> ranged from 78-95%, Hib<sub>b</sub> ranged from 70-94% and MenC<sub>3</sub> ranged from 69-92%.

19 LHOs had ≥95% uptake of Hib<sub>3</sub>, 17 LHOs had ≥95% uptake of D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub> and Polio<sub>3</sub>, 15 LHOs had ≥95% uptake of HepB<sub>3</sub>, 3 had ≥95% uptake of MMR<sub>1</sub>, 1 had ≥95% uptake of PCV<sub>3</sub> and none had ≥95% uptake of Hib<sub>b</sub> or MenC<sub>3</sub>.

All 31 LHOs had ≥90% uptake of D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>, 30 had ≥90% uptake of HepB<sub>3</sub>, 20 had ≥90% uptake of MMR<sub>1</sub>, 12 had ≥90% uptake of PCV<sub>3</sub>, 9 had ≥90% uptake of Hib<sub>b</sub> and one had ≥90% uptake of MenC<sub>3</sub>.

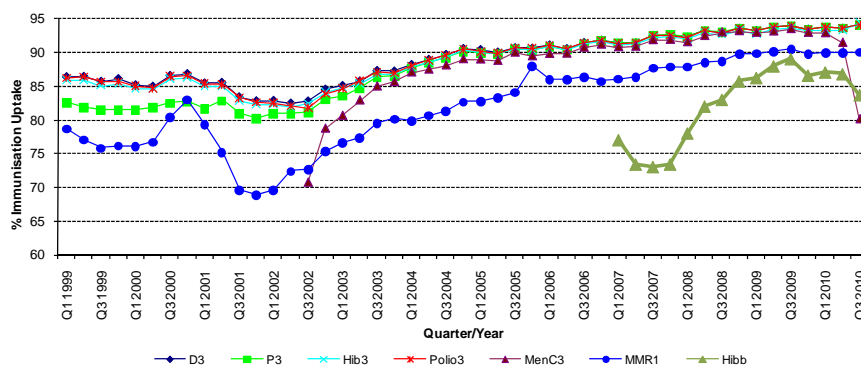
**References** 1. COVER programme: July to September 2010. Health Protection Report 2010: 4 (50). Available at:

<http://www.hpa.org.uk/hpr/archives/2010/hpr5010.pdf> (accessed 14/01/2011)

**Table 3.** Immunisation uptake (%) at 24 months in cohort born 01/07/2008 – 30/09/2008

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>	Hib <sub>b</sub>	MenC <sub>3</sub>	HepB <sub>3</sub>	PCV <sub>3</sub>	MMR <sub>1</sub>
Eastern	7020	94	94	84	79	94	87	90
Midland	1270	91	91	80	80	91	88	88
Mid Western	1531	95	95	87	82	95	91	92
North Eastern	2179	96	96	90	87	95	92	92
North Western	997	96	96	88	81	94	88	92
South Eastern	2204	95	95	92	84	95	90	94
Southern	2700	93	95	76	75	91	85	86
Western	1775	93	93	75	75	93	84	86
<b>Ireland</b>	<b>19676</b>	<b>94</b>	<b>94</b>	<b>84</b>	<b>80</b>	<b>93</b>	<b>88</b>	<b>90</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 figures are based on data from seven of the eight HSE Areas.

### Internationally

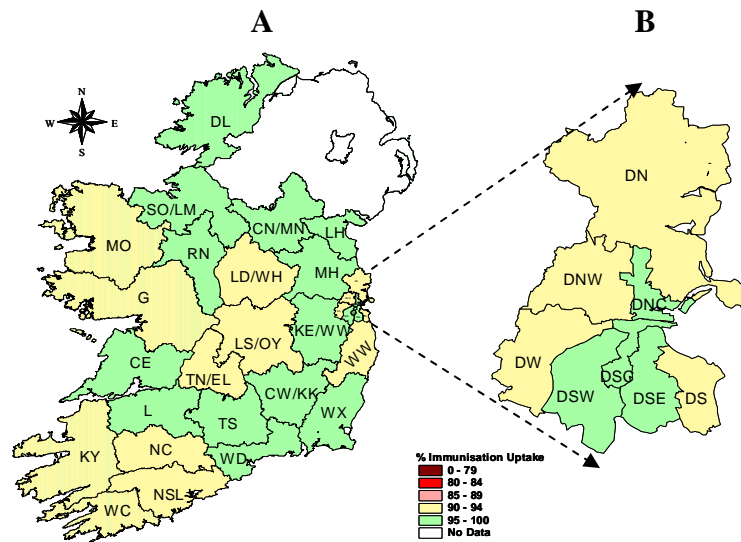
In Q3-2010, vaccination coverage statistics at 24 months for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> were 95.8% in England, 97.5% in Wales, 98.7% in Northern Ireland and 98.2% in Scotland.<sup>1</sup> MenC<sub>2</sub> uptake was 94.8% in England, 96.5% in Wales, 97.2% in Northern Ireland and 96.5% in Scotland.<sup>1</sup> PCV booster was 88.3% in England, 90.9% in Wales, 92.8% in Northern Ireland, and 93.5% in Scotland. Hib/MenC booster was 91.2% in England, 93.6% in Wales, 94.8% in Northern Ireland and 93.2% in Scotland.<sup>1</sup> MMR<sub>1</sub> uptake was 88.3% in England, 91.3% in Wales, 91.9% in Northern Ireland and 93.1% in Scotland.<sup>1</sup> Please see HPA report for caveats to data.<sup>1</sup>

### Conclusions

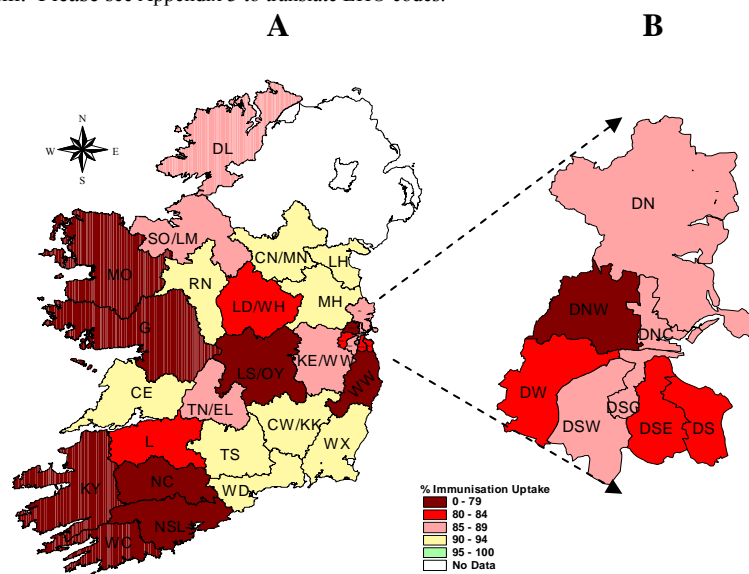
The large decline in MenC<sub>3</sub> uptake in Quarter 3-2010 (MenC<sub>3</sub> uptake was 93% in Quarter 1 2010 and 91% in Quarter 2 2010) and the low uptake of the Hib booster and of three doses of pneumococcal conjugate vaccine are a huge cause of concern. These data indicate children are not receiving their meningococcal serogroup C, pneumococcal and *Haemophilus influenzae* type b vaccinations as recommended. Meningococcal serogroup C, pneumococcal and *Haemophilus influenzae* type b infections are all serious, potentially life threatening illnesses. These illnesses can be prevented by vaccination but children need to receive all their recommended doses of vaccines, at the recommended ages, to provide the best protection against these illnesses.

### Acknowledgements

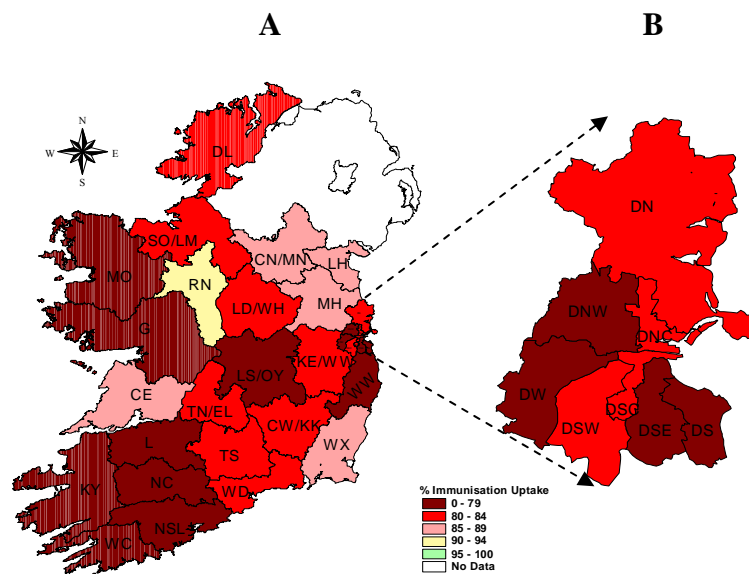
HPSC would like to thank the HSE Areas for providing data and special thanks to the Specialists in Public Health Medicine, Immunisation Co-ordinators, Surveillance Scientists and Systems Analysts for their assistance.



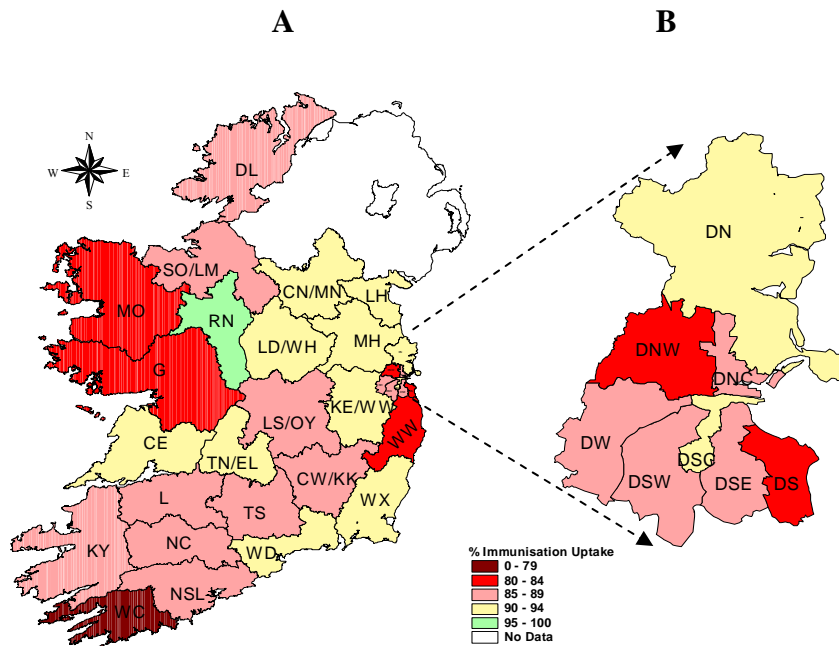
**Figure 6.** D<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



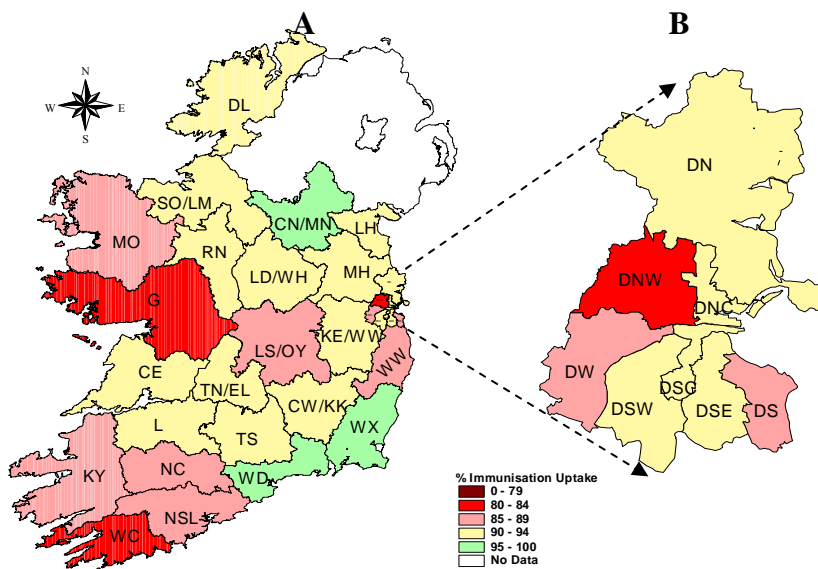
**Figure 7.** Hib<sub>6</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 8.** MenC<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 9.** PCV<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 10.** MMR<sub>1</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

## Appendix 1

Immunisation Uptake at 12 Months in Cohort Born 01/07/2009-30/09/2009												
HSE Area	LHO/HSE Area	No. in cohort for BCG	No. in cohort for other vaccines†	Immunisation Uptake (%) *								
				BCG	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>	PCV <sub>2</sub>
Eastern	Dublin South	na	438	na	88	88	88	88	88	88	88	89
	Dublin South East	na	387	na	91	91	91	91	91	91	91	91
	Dublin South City	na	471	na	93	93	93	93	93	93	93	92
	Dublin South West	na	707	na	93	93	93	93	93	93	92	93
	Dublin West	na	778	na	89	89	89	89	89	89	89	89
	Dublin North West	na	1063	na	80	80	80	80	80	80	80	79
	Dublin North Central	na	466	na	91	91	91	91	91	91	91	90
	Dublin North	na	1149	na	90	90	90	90	90	90	90	90
	Kildare/West Wicklow	na	1119	na	91	91	91	91	91	91	91	90
	Wicklow	na	500	na	86	86	86	86	86	86	86	85
	<b>HSE-E Total</b>	<b>na</b>	<b>7078</b>	<b>na</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>88</b>
Midland	Laos/Offaly	787	787	90	86	86	86	86	86	86	86	86
	Longford/Westmeath	574	574	94	88	88	88	88	88	88	88	88
	<b>HSE-M Total</b>	<b>1361</b>	<b>1361</b>	<b>92</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>
Mid Western	Clare	508	505	97	93	93	93	93	93	93	93	93
	Limerick	535	523	94	92	92	92	92	92	92	92	91
	Tipperary NR/East Limerick	501	513	98	93	93	93	93	93	93	93	92
	<b>HSE-MW Total</b>	<b>1544</b>	<b>1541</b>	<b>96</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>
North Eastern	Cavan/Monaghan	na	561	na	93	93	93	93	93	93	91	91
	Louth	na	539	na	93	93	93	93	93	93	91	91
	Meath	na	934	na	92	92	92	92	92	92	90	90
	<b>HSE-NE Total</b>	<b>na</b>	<b>2034</b>	<b>na</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>91</b>	<b>91</b>
North Western	Donegal	694	694	95	95	95	95	95	95	94	94	94
	Sligo/Leitrim	401	401	96	91	91	91	91	91	90	91	92
	<b>HSE-NW Total</b>	<b>1095</b>	<b>1095</b>	<b>95</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>
South Eastern	Carlow/Kilkenny	525	525	95	89	89	89	89	89	88	89	88
	South Tipperary	405	405	97	92	92	92	92	92	92	92	92
	Waterford	546	546	95	93	93	93	93	93	93	93	93
	Wexford	585	585	98	91	91	91	91	91	91	91	91
	<b>HSE-SE Total</b>	<b>2061</b>	<b>2061</b>	<b>96</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>
Southern	North Cork	na	394	na	86	86	86	86	86	87	85	85
	North South Lee	na	1567	na	89	89	89	89	89	89	86	86
	West Cork	na	231	na	80	80	80	83	80	80	77	75
	Kerry	na	545	na	90	90	90	90	90	89	86	86
	<b>HSE-S Total</b>	<b>na</b>	<b>2737</b>	<b>na</b>	<b>88</b>	<b>88</b>	<b>88</b>	<b>89</b>	<b>88</b>	<b>88</b>	<b>85</b>	<b>85</b>
Western	Galway	na	1059	na	89	89	89	89	89	89	88	90
	Mayo	na	475	na	86	86	86	86	86	86	85	86
	Roscommon	na	277	na	95	95	95	95	95	95	95	95
	<b>HSE-W Total</b>	<b>na</b>	<b>1811</b>	<b>na</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>88</b>	<b>89</b>
	<b>Ireland *</b>	<b>6061</b>	<b>19718</b>	<b>95</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>89</b>	<b>89</b>

na=not available

\*National BCG data based on data from four HSE Areas only

† 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 in Cohort Born 01/07/2008-30/09/2008													
HSE Area	LHO/HSE Area	No. in cohort*	Immunisation Uptake (%)										
			D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Hib <sub>b</sub>	Polio <sub>3</sub>	HepB <sub>3</sub>	MenC <sub>3</sub>	PCV <sub>3</sub>	MMR <sub>1</sub>	
Eastern	Dublin South	401	93	93	93	93	81	93	92	75	82	87	
	Dublin South East	410	97	97	97	97	83	97	96	79	89	93	
	Dublin South City	444	96	96	96	96	89	96	95	84	90	93	
	Dublin South West	627	96	96	96	96	88	96	95	82	89	93	
	Dublin West	794	92	92	92	92	81	92	91	78	86	88	
	Dublin North West	1043	93	93	93	93	79	93	93	75	83	84	
	Dublin North Central	474	95	95	95	95	88	95	95	84	87	91	
	Dublin North	1155	94	94	94	94	87	94	94	84	90	92	
	Kildare/West Wicklow	1117	96	96	96	96	85	96	96	83	90	93	
	Wicklow	555	91	91	91	91	75	91	91	69	84	85	
<b>HSE-E Total</b>	<b>7020</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>84</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>79</b>	<b>87</b>	<b>90</b>	
Midland	Laos/Offaly	723	91	91	91	91	78	91	91	78	88	88	
	Longford/Westmeath	547	91	91	91	91	84	91	91	84	90	90	
	<b>HSE-M Total</b>	<b>1270</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>80</b>	<b>91</b>	<b>91</b>	<b>80</b>	<b>88</b>	<b>88</b>	
Mid Western	Clare	454	96	96	96	96	91	96	95	86	90	94	
	Limerick	548	95	95	95	95	83	95	94	79	89	91	
	Tipperary NR/East Limerick	529	94	94	94	94	87	94	94	82	92	93	
	<b>HSE-MW Total</b>	<b>1531</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>87</b>	<b>95</b>	<b>95</b>	<b>82</b>	<b>91</b>	<b>92</b>	
North Eastern	Cavan/Monaghan	575	96	96	96	96	91	96	95	89	94	95	
	Louth	598	95	95	95	95	91	95	95	87	92	92	
	Meath	1006	96	96	96	96	90	96	95	87	90	91	
	<b>HSE-NE Total</b>	<b>2179</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>90</b>	<b>96</b>	<b>95</b>	<b>87</b>	<b>92</b>	<b>92</b>	
North Western	Donegal	622	96	96	96	96	88	96	95	82	89	92	
	Sligo/Leitrim	375	95	95	95	95	87	95	93	80	86	92	
	<b>HSE-NW Total</b>	<b>997</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>88</b>	<b>96</b>	<b>94</b>	<b>81</b>	<b>88</b>	<b>92</b>	
South Eastern	Carlow/Kilkenny	572	95	95	95	95	91	95	95	82	89	93	
	South Tipperary	386	95	95	95	95	94	95	95	84	89	92	
	Waterford	572	95	95	95	96	92	95	95	84	90	95	
	Wexford	674	96	96	96	96	92	96	96	85	92	95	
	<b>HSE-SE Total</b>	<b>2204</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>92</b>	<b>95</b>	<b>95</b>	<b>84</b>	<b>90</b>	<b>94</b>	
Southern	North Cork	409	93	93	93	95	77	93	93	76	86	86	
	North South Lee	1549	93	93	93	95	76	93	91	75	85	87	
	West Cork	185	90	90	90	92	70	90	87	69	78	81	
	Kerry	557	93	93	93	94	77	93	92	76	86	88	
	<b>HSE-S Total</b>	<b>2700</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>95</b>	<b>76</b>	<b>93</b>	<b>91</b>	<b>75</b>	<b>85</b>	<b>86</b>	
Western	Galway	1059	91	91	91	91	71	91	90	72	82	84	
	Mayo	465	94	94	94	94	74	94	94	72	83	87	
	Roscommon	251	98	98	98	98	92	98	98	92	95	94	
	<b>HSE-W Total</b>	<b>1775</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>75</b>	<b>93</b>	<b>93</b>	<b>75</b>	<b>84</b>	<b>86</b>	
<b>Ireland</b>	<b>19676</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>84</b>	<b>94</b>	<b>93</b>	<b>80</b>	<b>88</b>	<b>90</b>		

na=not available

\*As the denominator/number in cohort varied slightly according to vaccine, 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