

Summary

Children 12 months of age in Quarter 4-2010

- ❖ **National** immunisation uptake rates were 89% for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂.
 - Among the **HSE Areas** the uptake rates for:
 - D₃, P₃, T₃, Hib₃ and Polio₃ ranged from 86% to 94% and
 - HepB₃, MenC₂ and PCV₂ uptake rates ranged from 86% to 93%.
 - Among the **Local Health Offices (LHOs)**:
 - D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ uptake rates ranged from 78% to 96% and
 - MenC₂ and PCV₂ uptake rates ranged from 78% to 95%
 - The target uptake rate of ≥95% was reached in Sligo/Leitrim for all vaccines, in Roscommon for PCV₂ and in Laois/Offaly, Clare, Limerick, Tipperary N/East Limerick, Donegal, Sligo/Leitrim, South Tipperary and Wexford for BCG.

Children 24 months of age in Quarter 4-2010

- ❖ 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 4-2010 were children born between October 1st and December 31st 2008 and are therefore the second 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.)

In Quarter 4 2010, **national** uptake rates were 94% for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃, 90% for MMR₁, 89% for PCV₃, 84% for Hib_b and 82% for MenC₃.

This large decline in MenC₃ uptake in Quarters 3 and 4-2010 compared to previous quarters (MenC₃ uptake was 93% in Quarter 1-2010, 91% in Quarter 2-2010, 80% in Quarter 3-2010 and 82% in Quarter 4-2010) and the low uptake of the Hib booster and relatively low uptake of three doses of pneumococcal conjugate vaccine cause 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
 - D₃, P₃, T₃, Hib₃ and Polio₃ ranged from 93-96%,
 - HepB₃ ranged from 93-95%,
 - MMR₁ ranged from 88-93%,
 - PCV₃ ranged from 87-91%,
 - Hib_b ranged from 78-91% and
 - MenC₃ ranged from 79-86%.
 The target uptake of ≥95% was reached for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ in three HSE Areas.
- Among the **LHOs**, uptake of
 - D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ ranged from 87-98%,
 - MMR₁ ranged from 75-96%,
 - PCV₃ ranged from 71-97%,
 - MenC₃ ranged from 64-94% and
 - Hib_b ranged from 62-96%.
- The target uptake of ≥95% was reached in
 - 14 LHOs for D₃, P₃, T₃, Hib₃ and Polio₃,
 - 13 LHOs for HepB₃,
 - 3 for MMR₁,
 - 2 for Hib_b,
 - 1 for PCV₃ and
 - 0 for MenC₃.

Introduction

Since September 1st 2008 the new childhood immunisation schedule has been implemented for children born on or after 1st July 2008 (table 1).

The changes to the primary schedule for children born on or after 1st 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 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 4-2010.

The immunisation uptake rates presented in this report for children at 12 months of age in Quarter 4-2010 are children born between 01/10/2009 and 31/12/2009 and who have received three doses of vaccines against diphtheria (D₃), pertussis (P₃), tetanus (T₃), *Haemophilus influenzae* type b (Hib₃), polio (Polio₃), hepatitis B (HepB₃), two doses of meningococcal serogroup C conjugate vaccine (MenC₂), two doses of pneumococcal conjugate vaccine (PCV₂) and one dose of BCG vaccine.

The immunisation uptake rates presented in this report for children at 24 months of age in Quarter 4-2010 are children born between 01/10/2008 and 31/12/2008 and who have received three doses of vaccines against diphtheria (D₃), pertussis (P₃), tetanus (T₃), *Haemophilus influenzae* type b (Hib₃), polio (Polio₃), hepatitis B (HepB₃), meningococcal group C (MenC₃) and pneumococcal conjugate vaccine (PCV₃), one booster dose of vaccine against *Haemophilus influenzae* type b given after 12 months of age (Hib_b) and one dose of vaccine against measles, mumps and rubella (MMR₁). The Quarter 4-2010 cohort of children at 24 months was therefore the second 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 4-2010 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 LHO's 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 1st 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 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 Q4-2010 are presented by HSE Area in Table 2. National uptake rates were 89% for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂. The uptake rates for D₃, P₃, T₃, Hib₃ and Polio₃ ranged from 86% in the HSE Southern Area to 94% in the HSE North Western Area while the uptake rates for HepB₃, MenC₂ and PCV₂ uptake rates ranged from 86% in the HSE Southern Area to 93% in the HSE Mid Western and North Western Areas. Four HSE Areas had ≥90% uptake of these vaccines. BCG uptake data were available for five of the eight HSE-Areas. These areas cover approximately 50% of the national birth cohort. Where data were available, national uptake was 93% 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 Q4-2010. Compared to Q3-2010, national uptake rates in Q4-2010 for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ decreased by 1% while MenC₂ and PCV₂ were unchanged. Please note: due to incompleteness of data in Q4 2010 (only seven Areas were in a position to provide data in Q4 2010) these comparisons may not be valid.

In Q4 2010, compared to the previous quarter, uptake rates: in the HSE-Eastern Area for D₃, P₃, T₃, Hib₃, Polio₃, PCV₂ and MenC₂ decreased by 1% and HepB₃ decreased by 2%; in the HSE-Midland Area increased by 3% for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂ and by 2% for BCG; in the HSE-Mid Western Area increased by 1% for all vaccines except BCG which was unchanged; in the HSE-North Western Area increased by 1% for BCG, D₃, P₃, T₃, Hib₃ and Polio₃ but were unchanged for the remainder; in the HSE-South Eastern Area for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and BCG decreased by 1% while PCV₂ was unchanged; in the HSE-Southern Area for D₃, P₃, T₃, Polio₃ and HepB₃ decreased by 2%, for Hib₃ decreased by 3% and MenC₂ and PCV₂ increased by 1%; in the HSE-Western Area for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃ and PCV₂ were unchanged while MenC₂ increased by 1%.

LHO uptake

The immunisation uptake rates by LHO are shown in appendix 1. D₃, MenC₂ and PCV₂ immunisation uptake rates are mapped by LHO in figures 2-4.

Among the 15 LHOs reporting BCG data, BCG uptake ranged from 74% to 98% with 13 reporting ≥90% uptake and eight reporting uptake of ≥95%.

D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ uptake rates ranged from 78% (Dublin North West) to 96% (Sligo/Leitrim). MenC₂ uptake rates ranged from 78% (Dublin North West) to 95% (Sligo/Leitrim). PCV₂ uptake rates ranged from 78% (West Cork) to 95% (Sligo/Leitrim and Roscommon).

The target uptake rate of ≥95% was reached in Sligo/Leitrim for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂ and in Roscommon for PCV₂.

Fourteen LHOs had ≥90% uptake of D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂.

Table 2. Immunisation uptake (%) at 12 months in cohort born 01/10/2009–31/12/2009

HSE Area	No. in cohort*	BCG	D ₃	P ₃	T ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₂	PCV ₂
Eastern	6852	na	88	88	88	88	88	87	87	88
Midland	1273	94	90	90	90	90	90	90	90	90
Mid Western	1553	96	93	93	93	93	93	93	93	93
North Eastern	na	na	na	na	na	na	na	na	na	na
North Western	992	96	94	94	94	94	94	93	93	93
South Eastern	2070	95	90	90	90	90	90	90	90	91
Southern	2599	88	86	86	86	86	86	86	86	86
Western	1688	na	89	89	89	89	89	89	89	89
Ireland	17027†	93	89	89	89	89	89	89	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 8,510

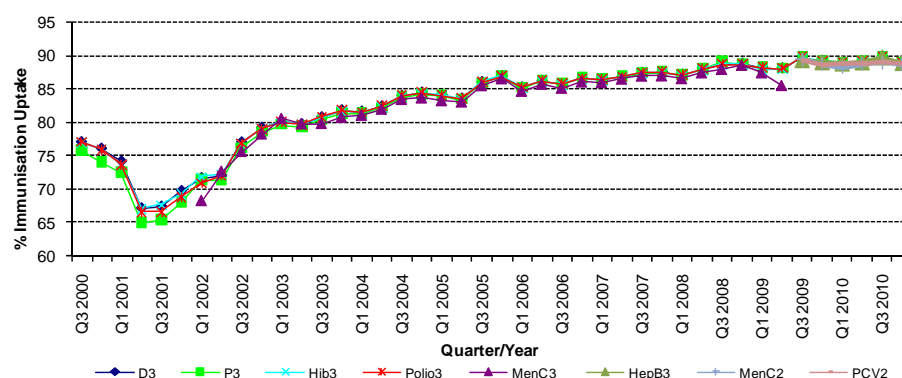


Figure 1. National quarterly immunisation uptake rates at 12 months

Since T₃ uptake identical to D₃ uptake only D₃ uptake figures presented. The Q3 2008 MenC₃ uptake figure is based on data from six of the eight HSE Areas. The Q1 2009 HSE-Eastern Area D₃, P₃, T₃, Polio₃ and MMR₁ 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 MenC₂ data and one additional area was unable to provide PCV₂ 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 MenC₂ 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 D₃, P₃, T₃, Hib₃ and Polio₃ for children 12 months of age in Quarter 4-2010 were 93.9% in England, 95.9% in Wales, 97.1% in Northern Ireland and 97.3% in Scotland.¹ MenC₂ uptake was 93.4% in England, 95.5% in Wales, 97.0% in Northern Ireland and 97.0% in Scotland.¹ PCV₂ uptake was 93.5% in England, 95.7% in Wales, 97.3% in Northern Ireland and 97.4% in Scotland.¹ Please see HPA report for caveats to data.¹

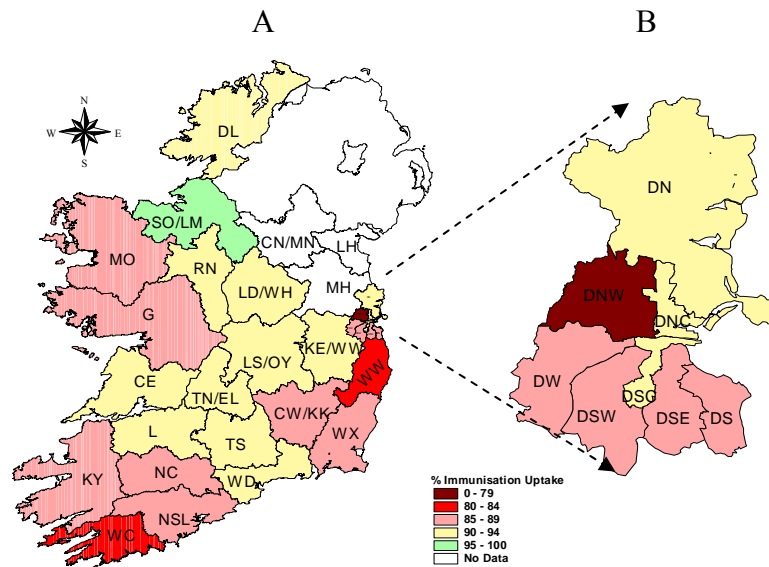


Figure 2. D₃ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 4 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

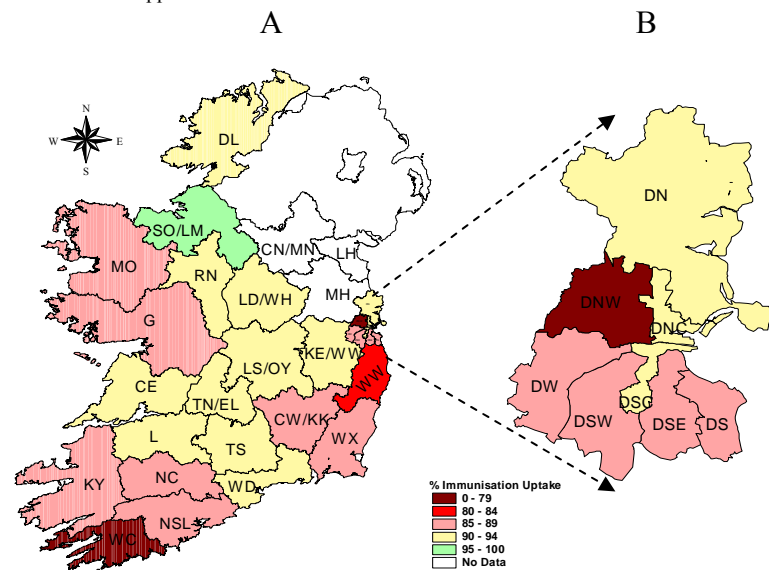


Figure 3. MenC₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 4 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

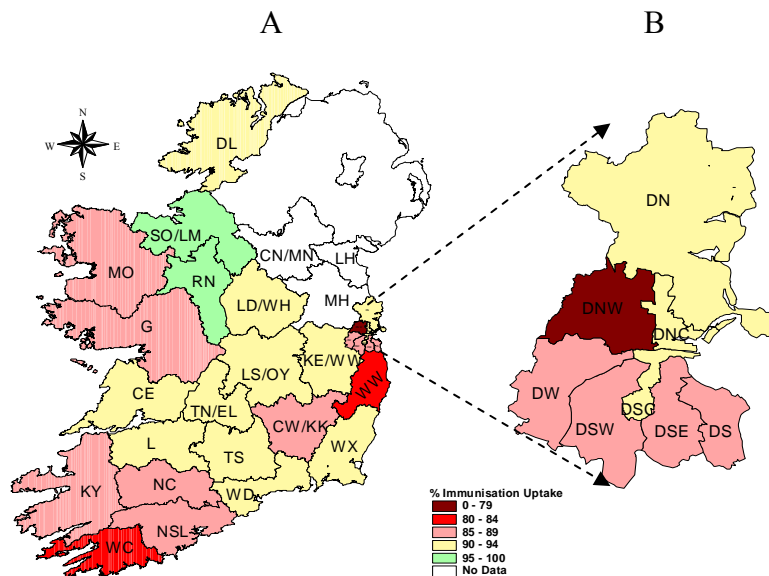


Figure 4. PCV₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 4 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

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 1st July 2008 (table 1). Children 24 months of age in Quarter 4 2010 were children born between 1st October and 31st December 2008 and are therefore the second cohort recommended the new immunisation schedule. (Children 24 months of age in Quarter 3 2010 were children born between 1st July and 30th September 2008 and were therefore the first cohort recommended the new immunisation schedule.) Immunisation uptake rates in children 24 months of age in Q4-2010 are presented (Table 3). National uptake rates were 94% for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃, 90% for MMR₁, 89% for PCV₃, 84% for Hib_b and 82% for MenC₃. Among the HSE Areas the uptake of D₃, P₃, T₃, Hib₃ and Polio₃ ranged from 93-96%, HepB₃ ranged from 93-95%, MMR₁ ranged from 88-93%, PCV₃ ranged from 87-91%, Hib_b ranged from 78-91% and MenC₃ ranged from 79-86%. The target uptake of ≥95% was reached for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ in three HSE Areas.

Table 3. Immunisation uptake (%) at 24 months in cohort born 01/10/2008 – 31/12/2008

HSE Area	No. in Cohort	D ₃ /T ₃ /P ₃ /Polio ₃	Hib ₃	Hib _b	MenC ₃	HepB ₃	PCV ₃	MMR ₁
Eastern	6720	94	94	84	81	94	88	90
Midland	1287	95	95	87	83	95	90	91
Mid Western	1470	95	95	89	86	95	91	93
North Eastern	na	na	na	na	na	na	na	na
North Western	970	96	96	86	81	95	89	92
South Eastern	2055	94	94	91	84	94	90	93
Southern	2589	93	93	79	81	93	88	89
Western	1803	94	94	78	79	94	87	88
Ireland	16894	94	94	84	82	94	89	90

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

Trends

Figure 5 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q4-2010. In Q4-2010, compared to the previous quarter, national uptake rates for D₃, P₃, T₃, Hib₃, Hib_b, Polio₃ and MMR₁ were unchanged, HepB₃ and PCV₃ increased by 1% and MenC₃ increased by 2%. As only seven HSE Areas were in a position to provide data in Q4 2010 these comparisons may not be completely valid.

Hib_b uptake rates in Q4-2010, compared to the previous quarter, were unchanged in the HSE-Eastern Area, increased by 7% in the HSE-Midland Area, increased by 2% in the HSE-Mid Western Area, declined by 2% in the HSE-North Western Area, declined by 1% in the HSE-South Eastern Area, increased by 3% in the HSE-Southern and Western Areas.

MenC₃ uptake rates in Q4-2010, compared to the previous quarter, increased by 3% in the HSE-Eastern and Midland Areas, increased by 4% in the HSE-Mid Western and Western Areas, were unchanged in the HSE-North Western and South Eastern Areas and increased by 6% in the HSE-Southern Area.

LHO uptake

Immunisation uptake rates in children 24 months of age in Q4-2010 are presented by LHO in Appendix 2. D₃, Hib_b, MenC₃, PCV₃ and MMR₁ immunisation uptake rates are mapped by LHO in figures 6-10.

Among the LHOs, uptake of D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ ranged from 87-98%, MMR₁ ranged from 75-96%, PCV₃ ranged from 71-97%, MenC₃ ranged from 64-94% and Hib_b ranged from 62-96%.

The target uptake of ≥95% was reached in 14 LHOs for D₃, P₃, T₃, Hib₃ and Polio₃, 13 LHOs for HepB₃, 3 for MMR₁, 2 for Hib_b, 1 for PCV₃ and in none for MenC₃.

Of the 28 LHOs reporting data 27 had ≥90% uptake of D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃, 19 had ≥90% uptake of MMR₁, 13 had ≥90% uptake of PCV₃, 5 had ≥90% uptake of Hib_b and one had ≥90% uptake of MenC₃.

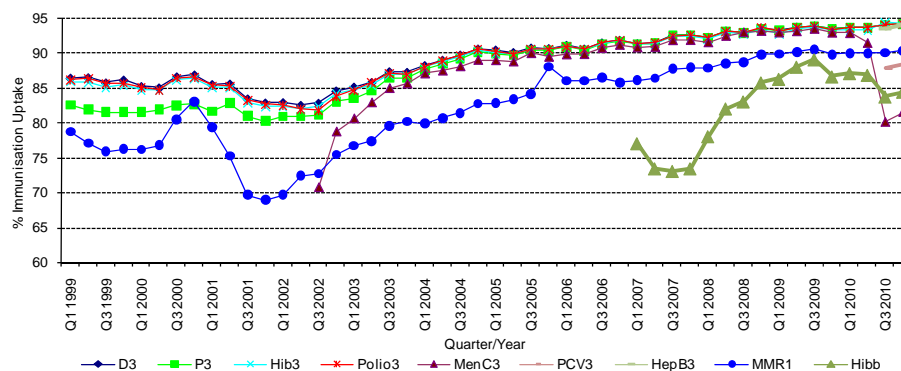


Figure 5. National quarterly immunisation uptake rates at 24 months

Notes: The Q4-2005 MMR₁ figure is based on data from seven of the eight HSE-Areas. The Q1-2006 MMR₁ figure includes the HSE-Eastern Area figure that is an estimate only. The Q1-2007, Q3-2007, Q2-2008 and Q3-2008 Hib_b figures are based on data from seven of the eight HSE Areas. In Q1-2008 the HSE-SE changed their Hib_b data extraction method compared to previous quarters; in Q1-2008 the uptake of Hib_b in the HSE-SE was 83% compared to 53% in Q4-2007. The Q3-2008 MenC₃ figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area D₃, P₃, T₃, Polio₃ and MMR₁ uptake figures exclude those born on the 31/03/2007. The Q2-2009 HSE-Eastern Area Hib_b 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_b 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_b 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 Q4-2010, vaccination coverage statistics at 24 months for D₃, P₃, T₃, Hib₃ and Polio₃ were 96.0% in England, 97.3% in Wales, 98.5% in Northern Ireland and 98.3% in Scotland.¹ MenC₂ uptake was 95.0% in England, 96.1% in Wales, 96.8% in Northern Ireland and 96.6% in Scotland.¹ PCV booster was 89.0% in England, 91.3% in Wales, 92.4% in Northern Ireland, and 93.0% in Scotland. Hib/MenC booster was 91.3% in England, 93.4% in Wales, 93.4% in Northern Ireland and 93.6% in Scotland.¹ MMR₁ uptake was 88.9% in England, 91.2% in Wales, 91.8% in Northern Ireland and 92.7% in Scotland.¹ Please see HPA report for caveats to data.¹

Conclusions

The large decline in MenC₃ uptake in Quarters 3 and 4-2010 compared to previous quarters (MenC₃ uptake was 93% in Quarter 1-2010, 91% in Quarter 2-2010, 80% in Quarter 3-2010 and 82% in Quarter 4-2010) and the low uptake of the Hib booster and relatively low uptake of three doses of pneumococcal conjugate vaccine cause concern. These data indicate children are not receiving their meningococcal serogroup C, pneumococcal and *Haemophilus influenzae* type b vaccinations as recommended. These vaccines prevent serious disease 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.

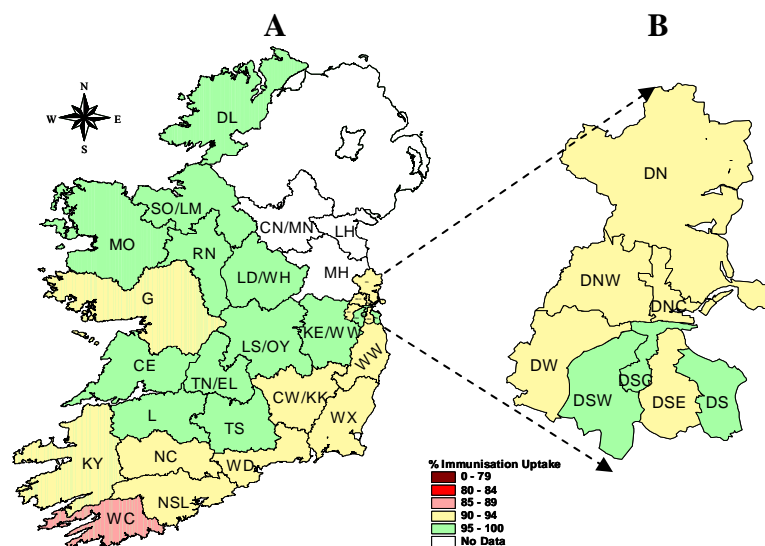


Figure 6. D₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

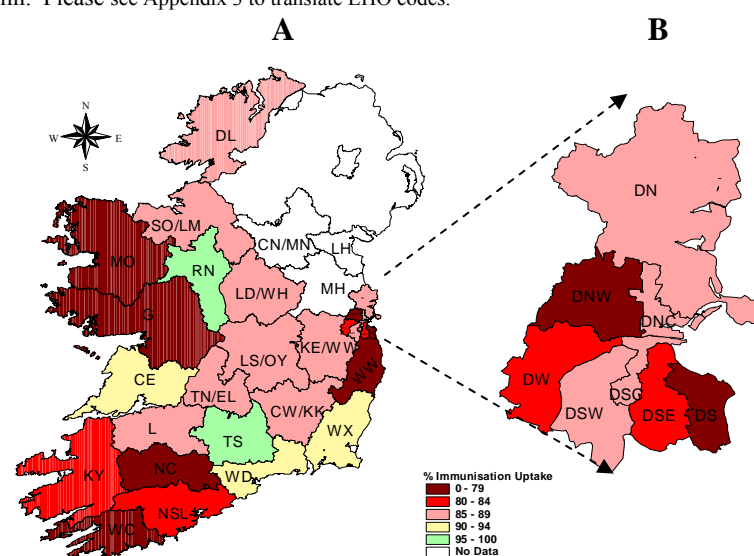


Figure 7. Hib₆ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

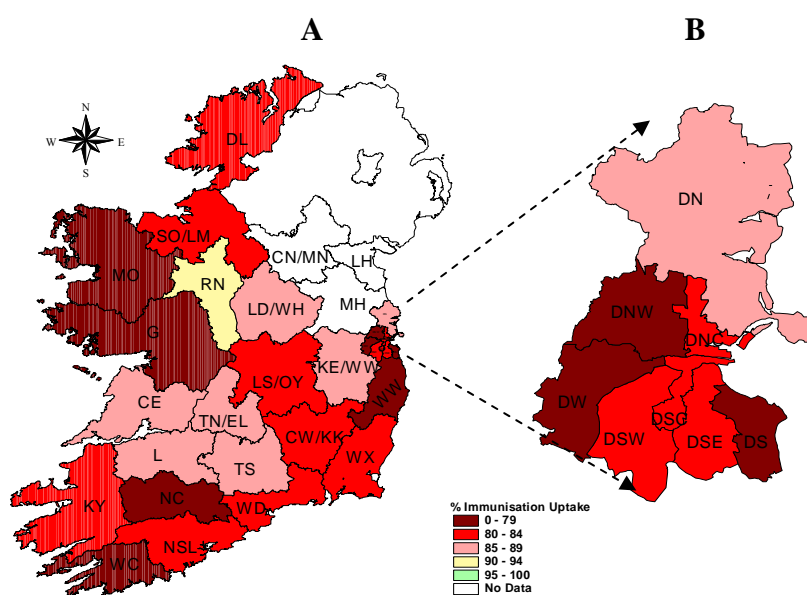


Figure 8. MenC₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

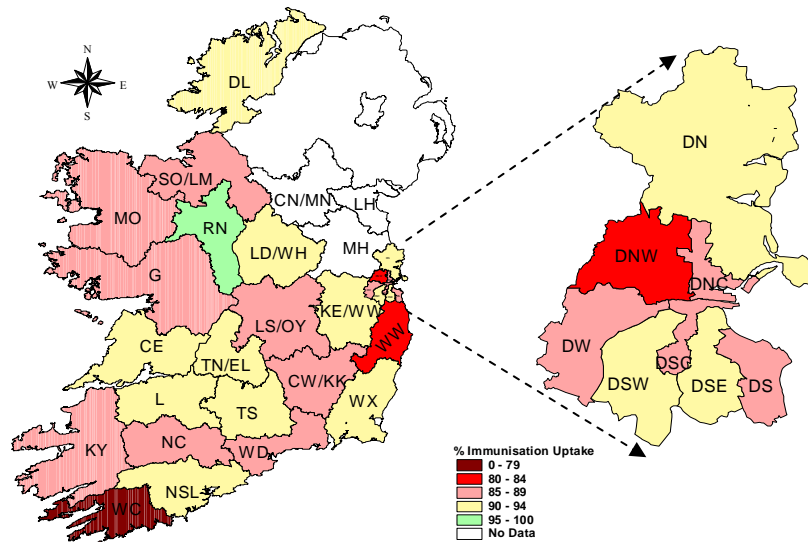


Figure 9. PCV₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

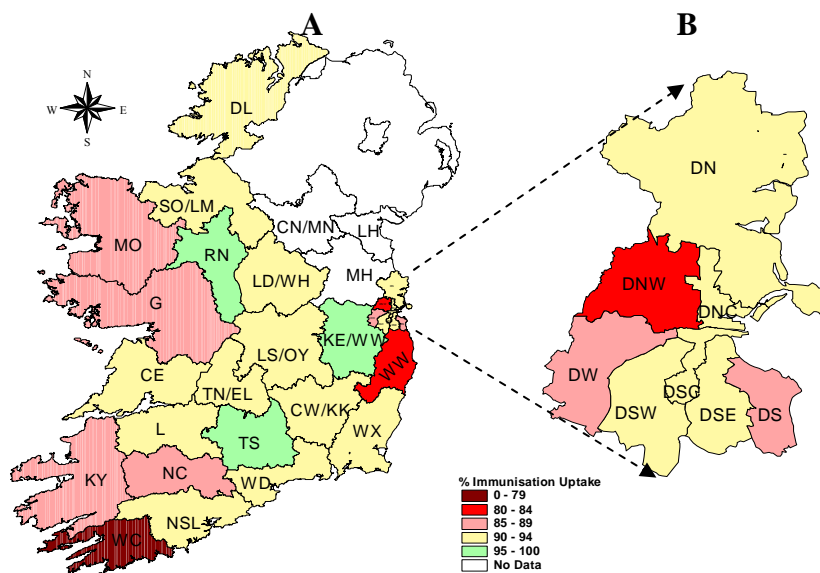


Figure 10. MMR₁ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4 2010, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Appendix 1

Immunisation Uptake at 12 Months in Cohort Born 01/10/2009-31/12/2009												
HSE Area	LHO/HSE Area	No. in cohort for BCG	No. in cohort for other vaccines [†]	Immunisation Uptake (%) *								
				BCG	D ₃	P ₃	T ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₂	PCV ₂
Eastern	Dublin South	na	445	na	87	87	87	87	87	87	87	86
	Dublin South East	na	403	na	86	86	86	86	86	86	86	86
	Dublin South City	na	450	na	92	92	92	92	92	92	91	92
	Dublin South West	na	647	na	88	88	88	88	88	88	88	89
	Dublin West	na	758	na	87	87	87	87	87	87	87	87
	Dublin North West	na	941	na	78	78	78	78	78	78	78	78
	Dublin North Central	na	467	na	90	90	90	90	90	90	90	90
	Dublin North	na	1134	na	90	90	90	90	90	90	90	91
	Kildare/West Wicklow	na	1079	na	92	92	92	92	92	92	92	92
	Wicklow	na	528	na	83	83	83	83	83	83	83	83
	HSE-E Total	na	6852	na	88	88	88	88	88	87	87	88
Midland	Laois/Offaly	710	710	95	90	90	90	90	90	90	90	90
	Longford/Westmeath	563	563	92	91	91	91	91	91	91	91	91
	HSE-M Total	1273	1273	94	90	90	90	90	90	90	90	90
Mid Western	Clare	468	462	98	94	94	94	93	94	94	93	94
	Limerick	548	548	96	92	92	92	92	92	92	92	92
	Tipperary NR/East Limerick	548	543	96	93	93	93	93	93	93	93	93
	HSE-MW Total	1564	1553	96	93	93	93	93	93	93	93	93
North Eastern	Cavan/Monaghan	na	na	na	na	na	na	na	na	na	na	na
	Louth	na	na	na	na	na	na	na	na	na	na	na
	Meath	na	na	na	na	na	na	na	na	na	na	na
	HSE-NE Total	na	na	na	na	na	na	na	na	na	na	na
North Western	Donegal	602	602	95	92	92	92	92	92	92	92	92
	Sligo/Leitrim	390	390	97	96	96	96	96	96	96	95	95
	HSE-NW Total	992	992	96	94	94	94	94	94	93	93	93
South Eastern	Carlow/Kilkenny	541	541	94	87	87	87	87	87	87	87	88
	South Tipperary	407	407	96	92	92	92	92	92	92	91	92
	Waterford	547	547	93	93	93	93	93	93	93	93	93
	Wexford	575	575	97	89	89	89	89	89	89	89	90
	HSE-SE Total	2070	2070	95	90	90	90	90	90	90	90	91
Southern	North Cork	396	393	74	87	87	87	88	87	88	88	88
	North South Lee	1485	1481	91	87	87	87	87	87	87	86	86
	West Cork	195	195	87	82	82	82	81	82	82	79	83
	Kerry	535	530	90	87	87	87	87	87	87	86	87
	HSE-S Total	2611	2599	88	86	86	86	86	86	86	86	86
Western	Galway	na	983	na	89	89	89	89	89	89	89	89
	Mayo	na	454	na	88	88	88	88	88	88	87	88
	Roscommon	na	251	na	94	94	94	94	94	94	94	95
	HSE-W Total	na	1688	na	89	89	89	89	89	89	89	89
Ireland *		8510	17027	93	89	89	89	89	89	89	89	89

na=not available

*The national data are incomplete as the HSE-North Eastern Area were unable to provide data and BCG data were only available from five of the HSE Areas

† 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 01/10/2008-31/12/2008												
HSE Area	LHO/HSE Area	No. in cohort †	Immunisation Uptake (%) *									
			D ₃	P ₃	T ₃	Hib ₃	Hib _b	Polio ₃	HepB ₃	MenC ₃	PCV ₃	MMR ₁
Eastern	Dublin South	408	95	95	95	95	76	95	95	71	85	88
	Dublin South East	369	94	94	94	94	82	94	93	81	90	92
	Dublin South City	445	96	96	96	96	87	96	95	83	89	93
	Dublin South West	669	95	95	95	95	87	95	94	83	90	92
	Dublin West	697	93	93	93	93	84	93	93	78	87	89
	Dublin North West	942	92	92	92	92	79	92	91	75	82	83
	Dublin North Central	446	93	93	93	93	87	93	92	81	86	90
	Dublin North	1098	94	94	94	94	87	94	94	85	90	92
	Kildare/West Wicklow	1092	97	97	97	97	89	97	97	88	93	95
	Wicklow	554	93	93	93	93	79	93	92	74	81	83
	HSE-E Total	6720	94	94	94	94	84	94	94	81	88	90
Midland	Laos/Offaly	734	95	95	95	95	87	95	95	81	88	90
	Longford/Westmeath	553	96	96	96	96	87	96	96	85	92	92
	HSE-M Total	1287	95	95	95	95	87	95	95	83	90	91
Mid Western	Clare	464	95	95	95	95	90	95	95	86	90	92
	Limerick	513	95	95	95	95	89	95	95	87	93	94
	Tipperary NR/East Limerick	493	96	96	96	96	89	96	96	86	92	93
	HSE-MW Total	1470	95	95	95	95	89	95	95	86	91	93
North Eastern	Cavan/Monaghan	na	na	na	na	na	na	na	na	na	na	na
	Louth	na	na	na	na	na	na	na	na	na	na	na
	Meath	na	na	na	na	na	na	na	na	na	na	na
	HSE-NE Total	na	na	na	na	na	na	na	na	na	na	na
North Western	Donegal	599	96	96	96	96	85	96	95	82	90	91
	Sligo/Leitrim	371	96	96	96	96	88	96	95	81	87	94
	HSE-NW Total	970	96	96	96	96	86	96	95	81	89	92
South Eastern	Carlow/Kilkenny	552	94	94	94	93	87	94	93	80	89	92
	South Tipperary	359	97	97	97	97	96	97	97	89	94	96
	Waterford	558	92	92	92	92	92	92	92	84	89	91
	Wexford	586	94	94	94	94	90	94	94	83	90	92
	HSE-SE Total	2055	94	94	94	94	91	94	94	84	90	93
Southern	North Cork	400	92	92	92	92	78	92	92	78	86	88
	North South Lee	1467	94	94	94	94	80	94	93	83	91	92
	West Cork	198	87	87	87	87	62	87	87	64	71	75
	Kerry	524	94	94	94	94	81	94	94	83	89	87
	HSE-S Total	2589	93	93	93	93	79	93	93	81	88	89
Western	Galway	1063	92	92	92	92	76	92	92	77	85	86
	Mayo	489	95	95	95	95	75	95	95	76	85	86
	Roscommon	251	98	98	98	98	95	98	98	94	97	96
	HSE-W Total	1803	94	94	94	94	78	94	94	79	87	88
Ireland *		16894	94	94	94	94	84	94	94	82	89	90

na=not available

*The national data are incomplete as the HSE-North Eastern Area were unable to provide data.

†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