

Summary

Children 12 months of age in Quarter 1-2011

- ❖ **National** immunisation uptake rates were 90% for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, and 89% for MenC₂ and PCV₂.
 - Among the **HSE Areas** the uptake rates for:
D₃, P₃, T₃, Hib₃ and Polio₃ ranged from 87% to 94% and
HepB₃, MenC₂ and PCV₂ uptake rates ranged from 83% to 94%.
 - Among the **Local Health Offices (LHOs)**:
D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ uptake rates ranged from 79% to 95% and
MenC₂ and PCV₂ uptake rates ranged from 79% to 95%
 - The target uptake rate of ≥95% was reached in Dublin South City for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃, in Donegal for PCV₂ and in Laois/Offaly, Clare, Limerick, Tipperary N/East Limerick, Donegal, Carlow/Kilkenny, South Tipperary, Waterford and Wexford for BCG.

Children 24 months of age in Quarter 1-2011

- ❖ 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 also 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 1-2011 were children born between January 1st and March 31st 2009 and are therefore the third 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 1-2011, **national** uptake rates were 95% for D₃, P₃, T₃, Hib₃ and Polio₃, 94% for HepB₃, 91% for MMR₁, 90% for PCV₃, 86% for Hib_b and 83% for MenC₃.

There has been an increase of 3% in the uptake of the MenC₃ since Quarter 3, 2010 when it was just 80%. The low uptake of the Hib booster and relatively low uptake of three doses of pneumococcal conjugate vaccine is also a source of considerable concern. These data indicate children are still 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 fatal 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 possible protection.

- Among the **HSE Areas** the uptake rates for
D₃, P₃, T₃, Hib₃ and Polio₃ ranged from 93-97%,
HepB₃ ranged from 93-97%,
MMR₁ ranged from 88-95%,
PCV₃ ranged from 87-93%,
Hib_b ranged from 77-93% and
MenC₃ ranged from 77-87%.
The target uptake of ≥95% was reached for D₃, P₃, T₃, Hib₃ and Polio₃ in five HSE Areas, for HepB₃ in four HSE Areas and for MMR₁ in one HSE Area.
 - Among the **LHOs**, uptake of
D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ ranged from 89-100%,
MMR₁ ranged from 81-98%,
PCV₃ ranged from 82-99%,
MenC₃ ranged from 71-96% and
Hib_b ranged from 73-97%.
 - The target uptake of ≥95% was reached in
19 LHOs for D₃, P₃, T₃,
18 LHOs for Hib₃ and Polio₃,
17 LHOs for HepB₃,
4 for MMR₁,
2 for Hib_b,
2 for PCV₃ and
1 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 booster vaccination, now given at 13 months of age.

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

The immunisation uptake statistics presented in this report relate to children 12 and 24 months of age in Quarter 1-2011.

The immunisation uptake rates presented in this report for children at 12 months of age in Quarter 1-2011 are children born between 01/01/2010 and 31/03/2010 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 1-2011 are children born between 01/01/2009 and 31/03/2009 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), 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 1-2011 cohort of children at 24 months was therefore the third 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 1-2011 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 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 Q1-2011 are presented by HSE Area in Table 2. National uptake rates were 90% for D₃, P₃, T₃, Hib₃, Polio₃, and HepB₃ and 89% for MenC₂ and PCV₂. The uptake rates for D₃, P₃, T₃, Hib₃ and Polio₃ ranged from 87% 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 83% in the HSE Southern Area to 94% in the HSE Mid Western Area. Six HSE Areas had ≥90% uptake of these vaccines. BCG uptake data were available for five of the eight HSE-Areas. These areas cover over 40% 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 Q1-2011. Compared to Q4-2010, national uptake rates in Q1-2011 for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ increased 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 Q1 2011, compared to the previous quarter, uptake rates: in the HSE-Eastern Area for D₃, P₃, T₃, Hib₃, Polio₃, and PCV₂ increased by 1% and by 2% for HepB₃ and MenC₂; in the HSE-Midland Area increased by 3% for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂ but unchanged for BCG; in the HSE-Mid Western Area decreased by 2% for all vaccines except PCV₂ which decreased by 1% and BCG which was unchanged; in the HSE-North Western Area decreased by 1% for BCG, increased by 1% for HepB₃ and PCV₂ and unchanged for the remainder; in the HSE-South Eastern Area for D₃, P₃, T₃, HepB₃, and BCG increased by 1% while Hib₃, Polio₃, MenC₂ and PCV₂ were unchanged; in the HSE-Southern Area for D₃, P₃, T₃, Polio₃ and HepB₃ increased by 1%, for BCG decreased by 1% and MenC₂ and PCV₂ decreased by 3%; in the HSE-Western Area for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂ 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 67% to 97% with 13 reporting ≥90% uptake and nine reporting uptake of ≥95%.

D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ uptake rates ranged from 79% (Dublin North West) to 95% (Dublin South City). MenC₂ uptake rates ranged from 79% (Dublin North West, West Cork) to 94% (Dublin South City, Longford/Westmeath, Donegal and Roscommon). PCV₂ uptake rates ranged from 79% (Dublin North West) to 95% (Donegal).

The target uptake rate of ≥95% was reached in Dublin South City for D₃, P₃, T₃, Hib₃, Polio₃, and HepB₃, and in Donegal for PCV₂. The target was not reached for MenC₃.

Table 2. Immunisation uptake (%) at 12 months in cohort born 01/01/2010–31/03/2010

HSE Area	No. in cohort*	BCG	D ₃	P ₃	T ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₂	PCV ₂
Eastern	6791	na	89	89	89	89	89	89	89	89
Midland	1167	94	93	93	93	93	93	93	93	93
Mid Western	1412	96	91	91	91	91	91	91	91	92
North Eastern	1949	na	91	91	91	91	91	91	90	90
North Western	908	95	94	94	94	94	94	94	93	94
South Eastern	1868	96	91	91	91	90	90	91	90	91
Southern	2543	87	87	87	87	87	87	87	83	83
Western	1681	na	90	90	90	90	90	90	90	90
Ireland	18319†	93	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 7,899

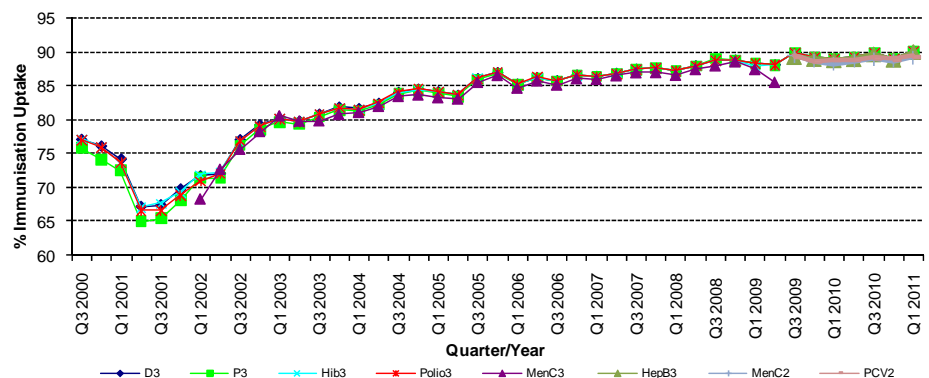


Figure 1. National quarterly immunisation uptake rates at 12 months

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 1-2011 were 94.2% in England, 96.5% in Wales, 97.4% in Northern Ireland and 97.0% in Scotland.¹ MenC₂ uptake was 93.6% in England, 96.3% in Wales, 97.3% in Northern Ireland and 96.9% in Scotland.¹ PCV₂ uptake was 93.8% in England, 96.4% in Wales, 97.5% in Northern Ireland and 97.2% in Scotland.¹ Please see HPA report for caveats to data.¹

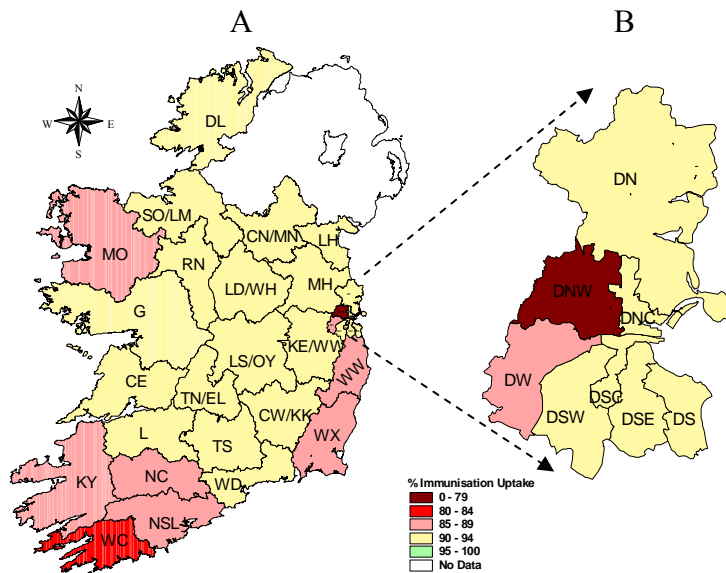


Figure 2. D₃ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2011, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

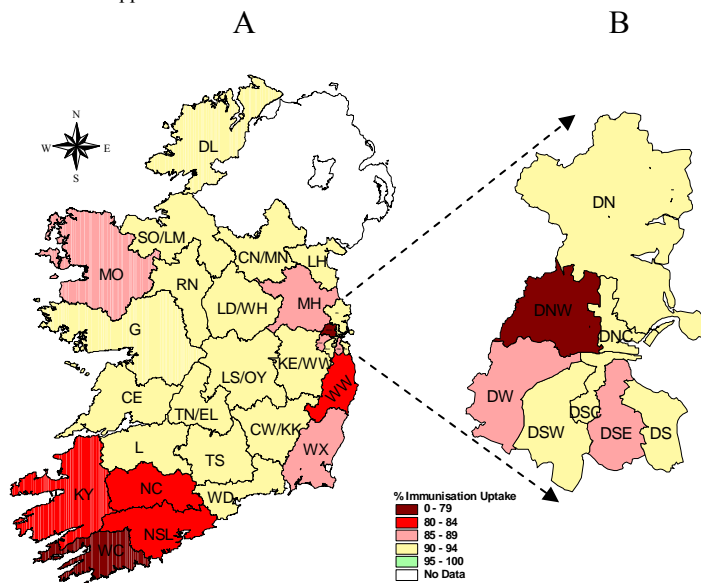


Figure 3. MenC₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2011, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

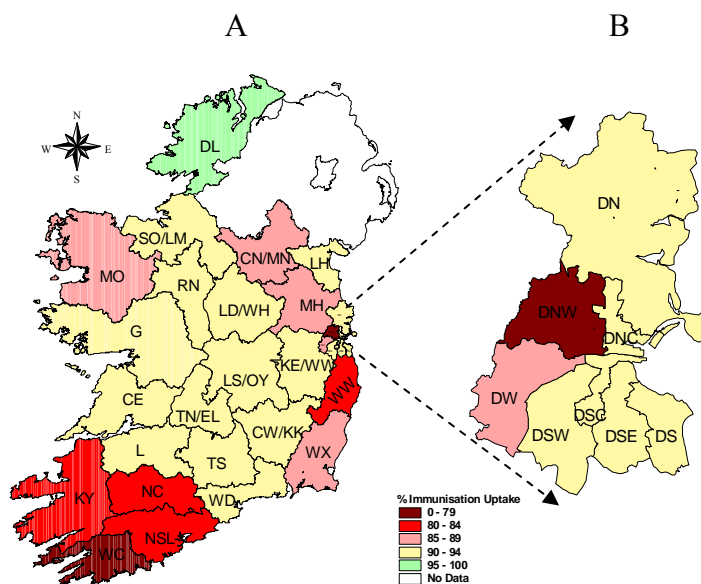


Figure 4. PCV₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2011, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

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 1-2011 were children born between 1st January and 31st March 2009 and are therefore the third 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 Q1-2011 are presented (Table 3). National uptake rates were 95% for D₃, P₃, T₃, Hib₃ and Polio₃, 94% for HepB₃, 91% for MMR₁, 90% for PCV₃, 86% for Hib_b and 83% for MenC₃. Among the HSE Areas the uptake of D₃, P₃, T₃, Hib₃ and Polio₃ ranged from 93-97%, HepB₃ ranged from 93-97%, MMR₁ ranged from 88-95%, PCV₃ ranged from 87-93%, Hib_b ranged from 77-93% and MenC₃ ranged from 77-87%. The target uptake of ≥95% was reached for D₃, P₃, T₃, Hib₃ and Polio₃ in five HSE Areas, for HepB₃ in four HSE Areas and for MMR₁ in one HSE Area.

Table 3. Immunisation uptake (%) at 24 months in cohort born 01/01/2009– 31/03/2009

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	6467	94	94	85	81	93	88	89
Midland	1140	97	97	91	87	97	93	95
Mid Western	1490	96	96	90	86	96	92	93
North Eastern	1949	96	96	90	87	96	93	93
North Western	914	97	96	92	85	96	89	93
South Eastern	2028	95†	94	93	85	94	90	92
Southern	2569	96	95	80	83	94	91	92
Western	1679	93	93	77	77	93	87	88
Ireland	18236	95	95	86	83	94	90	91

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

† Immunisation uptake for Polio₃ in HSE-SE = 94%

Trends

Figure 5 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q1-2011. In Q1-2011, compared to the previous quarter, national uptake rates for D₃, P₃, T₃, Hib₃, Polio₃, MenC₃, PCV₃ and MMR₁ increased by 1%, Hib_b increased by 2% and HepB₃ was unchanged. 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 Q1-2011, compared to the previous quarter, increased by 1% in the HSE-Eastern, Mid Western and Southern Areas, increased by 2% in the HSE-South Eastern Area, increased by 4% in the HSE-Midland Area, increased by 6% in the HSE-North Western Area, and declined by 1% in the HSE-Western Area.

MenC₃ uptake rates in Q1-2011, compared to the previous quarter: increased by 1% in the HSE-South Eastern Area, increased by 2% in the HSE-Southern Area, increased by 4% in the HSE-Midland and North Western Areas, was unchanged in the HSE-Mid Western Area and declined by 2% in HSE Western Area.

LHO uptake

Immunisation uptake rates in children 24 months of age in Q1-2011 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 89-100%, MMR₁ ranged from 81-98%, PCV₃ ranged from 82-99%, MenC₃ ranged from 71-96% and Hib_b ranged from 73-97%.

The target uptake of ≥95% was reached in 19 LHOs for D₃, P₃, T₃, 18 for Hib₃ and Polio₃, 17 LHOs for HepB₃, 4 for MMR₁, 2 for Hib_b, 2 for PCV₃ and 1 for MenC₃.

Of the LHOs 30 had ≥90% uptake of D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃, 22 had ≥90% uptake of MMR₁, 17 had ≥90% uptake of PCV₃, 13 had ≥90% uptake of Hib_b and two had ≥90% uptake of MenC₃.

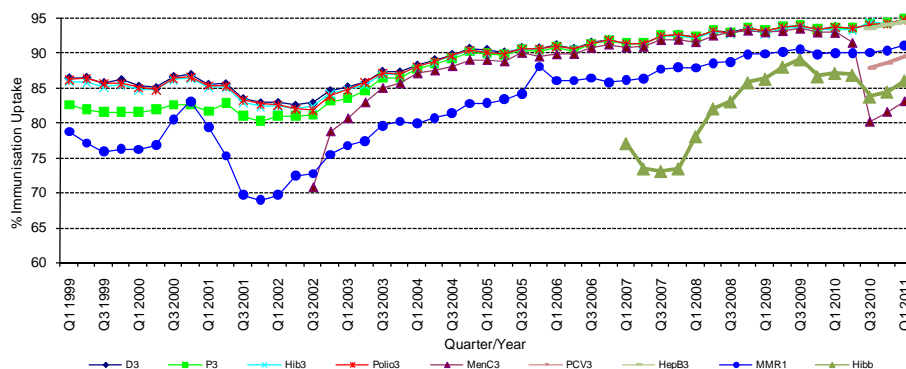


Figure 5. National quarterly immunisation uptake rates at 24 months

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 Q1-2011, vaccination coverage statistics at 24 months for D₃, P₃, T₃, Hib₃ and Polio₃ were 96.1% in England, 97.6% in Wales, 98.9% in Northern Ireland and 98.1% in Scotland.¹ MenC₂ uptake was 95.2% in England, 96.2% in Wales, 97.7% in Northern Ireland and 96.4% in Scotland.¹ PCV booster was 89.7% in England, 91.5% in Wales, 93.5% in Northern Ireland, and 93.6% in Scotland.¹ Hib/MenC booster was 91.7% in England, 93.7% in Wales, 95.9% in Northern Ireland and 94.2% in Scotland.¹ MMR₁ uptake was 89.5% in England, 91.6% in Wales, 93.0% in Northern Ireland and 93.3% in Scotland.¹ Please see HPA report for caveats to data.¹

Conclusions

In Quarter 1-2011, national uptake rates for D₃, P₃, T₃, Hib₃ and Polio₃ reached 95% for the first time. There has been an increase of 3% in the uptake of the MenC₃ since Quarter 3-2010 when it was just 80%. The low uptake of the Hib booster and meningococcal c vaccines and the relatively low uptake of the pneumococcal conjugate vaccine is also a source of considerable concern. These data indicate children are still 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 fatal 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 possible protection.

Acknowledgements

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

References 1. Quarterly vaccination coverage statistics for children aged up to five years in the UK (COVER programme): January–March 2011 Health Protection Report 2011: 5 (Number 25). Available at: <http://www.hpa.org.uk/hpr/archives/2011/hpr2511.pdf> (accessed 20/07/2011)

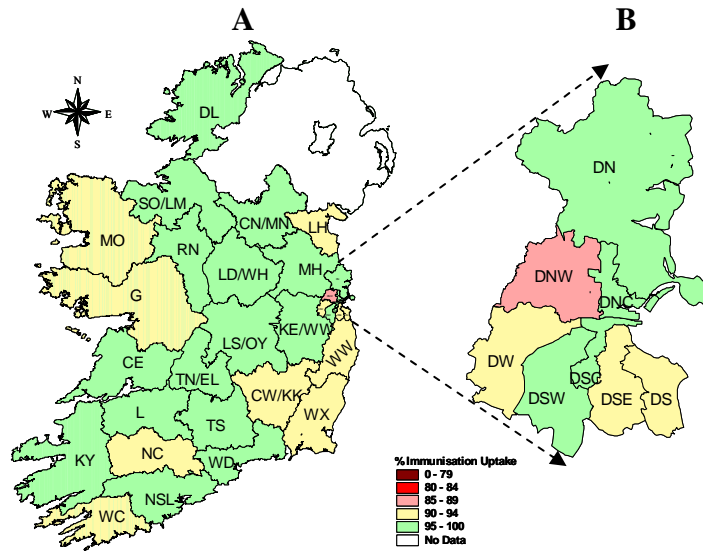


Figure 6. D₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2011, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

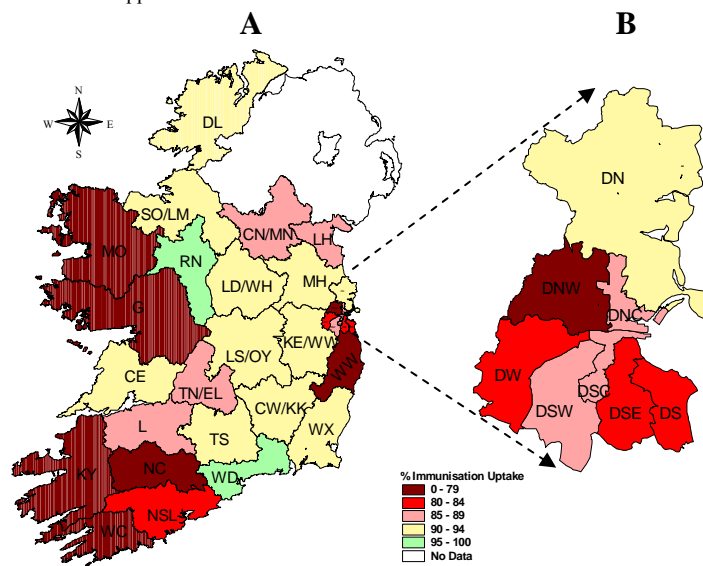


Figure 7. Hib₆ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2011, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

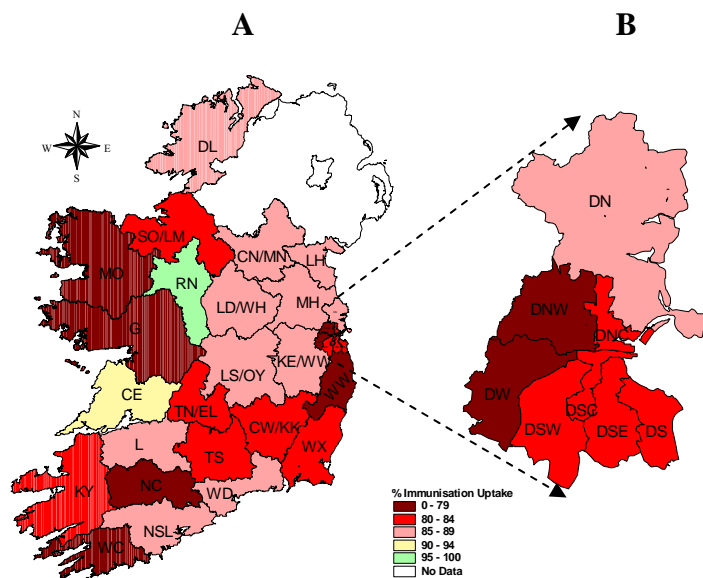


Figure 8. MenC₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2011, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

A

B

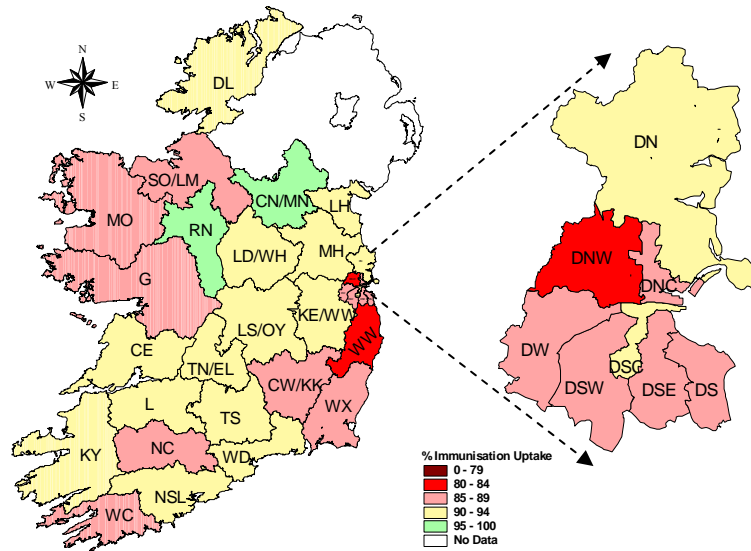


Figure 9. PCV₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2011, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

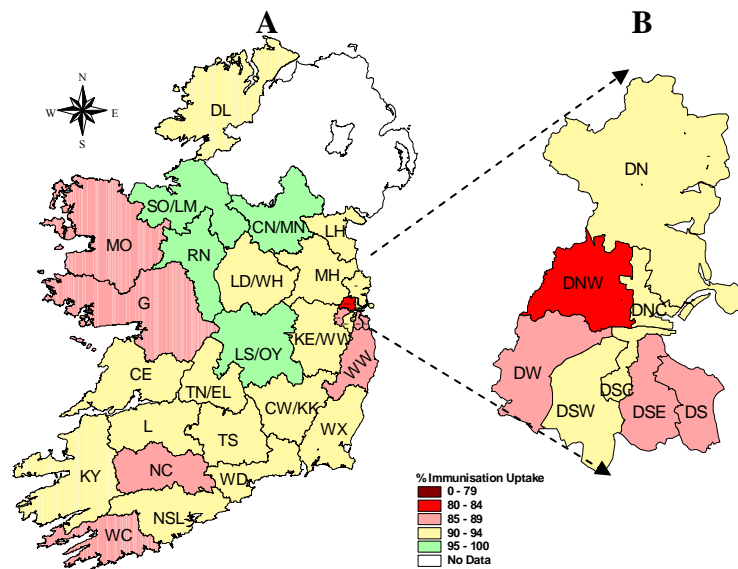


Figure 10. MMR₁ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2011, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Appendix 1

Immunisation Uptake at 12 Months in Cohort Born 01/01/2010-31/03/2010												
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	423	na	92	92	92	92	92	92	92	92
	Dublin South East	na	404	na	90	90	90	90	90	90	89	90
	Dublin South City	na	442	na	95	95	95	95	95	95	94	94
	Dublin South West	na	678	na	91	91	91	91	91	91	91	91
	Dublin West	na	704	na	88	88	88	88	88	88	88	88
	Dublin North West	na	991	na	79	79	79	79	79	79	79	79
	Dublin North Central	na	406	na	92	92	92	92	92	92	92	93
	Dublin North	na	1180	na	93	93	93	93	93	93	93	93
	Kildare/West Wicklow	na	1047	na	92	92	92	92	92	92	91	92
	Wicklow	na	516	na	85	85	85	85	85	85	84	84
HSE-E Total	na	6791	na	89	89	89	89	89	89	89	89	89
Midland	Laois/Offaly	682	682	95	92	92	92	92	92	92	92	92
	Longford/Westmeath	485	485	93	94	94	94	94	94	94	94	94
	HSE-M Total	1167	1167	94	93	93	93	93	93	93	93	93
Mid Western	Clare	419	427	97	92	92	92	92	92	92	91	91
	Limerick	487	500	96	91	91	91	91	91	91	92	93
	Tipperary NR/East Limerick	480	485	96	92	92	92	92	92	92	91	92
	HSE-MW Total	1386	1412	96	91	91	91	91	91	91	91	92
North Eastern	Cavan/Monaghan	na	543	na	91	91	91	91	91	91	90	89
	Louth	na	521	na	93	93	93	93	93	93	91	91
	Meath	na	885	na	90	90	90	90	90	90	89	89
	HSE-NE Total	na	1949	na	91	91	91	91	91	91	90	90
North Western	Donegal	566	566	96	94	94	94	94	94	94	94	95
	Sligo/Leitrim	342	342	94	94	94	94	94	94	94	93	94
	HSE-NW Total	908	908	95	94	94	94	94	94	94	93	94
South Eastern	Carlow/Kilkenny	496	496	95	90	90	90	90	90	90	90	91
	South Tipperary	333	333	96	93	93	93	93	93	93	92	93
	Waterford	502	502	95	92	92	92	92	92	92	91	92
	Wexford	537	537	96	88	88	88	88	88	88	88	89
	HSE-SE Total	1868	1868	96	91	91	91	91	90	90	91	90
Southern	North Cork	410	402	67	87	87	87	87	87	87	84	83
	North South Lee	1514	1501	91	87	87	87	87	87	87	83	83
	West Cork	160	163	80	81	81	81	81	81	82	79	80
	Kerry	486	477	93	88	88	88	89	88	88	84	84
	HSE-S Total	2570	2543	87	87	87	87	87	87	87	83	83
Western	Galway	na	1003	na	90	90	90	90	90	90	90	90
	Mayo	na	466	na	89	89	89	89	89	89	89	89
	Roscommon	na	212	na	93	93	93	93	94	94	94	93
	HSE-W Total	na	1681	na	90	90	90	90	90	90	90	90
Ireland	7899	16370	93	90	90	90	90	90	90	89	89	

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 2011 (i.e. cohort born 01/01/2009-31/03/2009)												
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	409	91	91	91	91	83	91	91	81	88	89
	Dublin South East	365	92	92	92	92	83	92	91	80	86	88
	Dublin South City	420	96	96	96	96	88	96	95	84	90	92
	Dublin South West	635	95	95	95	95	89	95	95	82	89	92
	Dublin West	669	92	92	92	92	82	92	92	78	87	88
	Dublin North West	918	89	89	89	89	77	89	89	73	82	81
	Dublin North Central	400	95	95	95	95	87	95	95	83	86	90
	Dublin North	1093	95	95	95	95	90	95	95	87	91	92
	Kildare/West Wicklow	1040	96	96	96	96	90	96	96	87	91	93
Wicklow	518	93	93	93	93	75	93	93	71	84	85	
HSE-E Total	6467	94	94	94	94	85	94	93	81	88	89	
Midland	Laos/Offaly	652	98	98	98	98	91	98	98	87	94	96
	Longford/Westmeath	488	96	96	96	96	92	96	96	87	92	94
	HSE-M Total	1140	97	97	97	97	91	97	97	87	93	95
Mid Western	Clare	464	96	96	96	96	93	96	96	90	93	94
	Limerick	521	95	95	95	95	88	95	95	85	91	92
	Tipperary NR/East Limerick	505	97	97	97	97	89	97	97	84	92	93
	HSE-MW Total	1490	96	96	96	96	90	96	96	86	92	93
North Eastern	Cavan/Monaghan	541	98	98	98	98	89	98	98	88	95	95
	Louth	534	93	93	93	93	88	93	93	86	92	93
	Meath	874	97	97	97	97	91	97	97	88	93	93
	HSE-NE Total	1949	96	96	96	96	90	96	96	87	93	93
North Western	Donegal	593	97	97	97	96	91	97	95	85	90	92
	Sligo/Leitrim	321	97	97	97	97	93	97	97	84	87	95
	HSE-NW Total	914	97	97	97	96	92	97	96	85	89	93
South Eastern	Carlow/Kilkenny	498	94	94	94	94	93	94	94	84	87	91
	South Tipperary	370	96	96	96	96	94	96	96	81	90	92
	Waterford	514	95	95	95	95	95	94	94	89	93	94
	Wexford	646	93	93	93	93	91	93	93	84	89	91
	HSE-SE Total	2028	95	95	95	94	93	94	94	85	90	92
Southern	North Cork	372	91	91	91	91	76	91	92	78	88	87
	North South Lee	1452	97	97	97	97	83	97	96	87	93	94
	West Cork	202	94	94	94	93	73	94	92	74	86	88
	Kerry	543	95	95	95	94	79	95	93	82	90	91
	HSE-S Total	2569	96	96	96	95	80	96	94	83	91	92
Western	Galway	1040	92	92	92	92	74	92	92	74	85	86
	Mayo	425	93	93	93	93	74	93	93	73	86	87
	Roscommon	214	100	100	100	100	97	100	100	96	99	98
	HSE-W Total	1679	93	93	93	93	77	93	93	77	87	88
Ireland	18236	95	95	95	95	86	95	94	83	90	91	

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