

Immunisation uptake report for Ireland

hpsc

A report by the Health Protection Surveillance Centre

Summary

Children 12 months of age in Quarter 1-2013

- National immunisation uptake rates were 91% for D₃, P₃, T₃, Hib₃ and Polio₃ and 90% for HepB₃, MenC₂ and PCV₂. Compared to Q4-2012, national uptake rates in Q1-2013 for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂ were unchanged.
- One HSE Area (Midland Area) reached the target of ≥95% for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂
- Among the Local Health Offices, the target uptake rate of ≥95% was reached in Laois/Offaly, Longford/Westmeath, Clare and Roscommon for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂.
- The HSE-Eastern Area was able to provide BCG data for the first time in Q1 2013 with an uptake of 94%. BCG uptake data were available for seven of the eight HSE Areas in Q1-2013; these areas cover approximately 91% of the national birth cohort. Where data were available, national uptake was 87% for the BCG vaccination.

Children 24 months of age in Quarter 1-2013

- National uptake rates were 95% for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃, 92% for MMR₁, 91% for PCV₃, 89% for Hib_b and 86% for MenC₃.
- Compared to the previous quarter, national uptake rates in Q1 2013 decreased by 1% for all vaccines except Hibb which decreased by 2%.
- The target uptake of \geq 95% was reached for D₃, P₃, T₃, Hib₃ and Polio₃ in six of the eight HSE Areas, for HepB₃ in five of the HSE Areas, for Hib_b in two HSE Areas and for MMR₁ in two HSE Areas. The target uptake of \geq 95% was not reached in any HSE Area for MenC₃ or PCV₃.
- Six of the eight HSE Areas were able to provide uptake data on $MenC_b$ (one dose of MenC at ≥ 12 months of age) and PCV_b (one dose of PCV at ≥ 12 months of age) in Quarter 1 2013. These Areas cover approximately 80% of the national birth cohort. Where data were available, national uptake was 90% for $MenC_b$ and 93% for PCV_b . The target uptake of $\geq 95\%$ was reached for PCV_b in two HSE Areas and in none for $MenC_b$.
- The target uptake of \geq 95% was reached in 22 LHOs for D₃, P₃, T₃, Hib₃ and Polio₃, 20 LHOs for HepB₃, 10 for MMR₁, 8 for PCV_b, 8 for Hib_b, 4 for PCV₃, 3 for MenC_b and in one for MenC₃.

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Introduction

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

Compared to the previous schedule (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 1-2013.

The immunisation uptake rates presented in this report for children at 12 months of age in Quarter 1-2013 are children born between 01/01/2012 and 31/03/2012 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 1-2013 are children born between 01/01/2011 and 31/03/2011 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 on or after 12 months of age (Hib_b), one dose of vaccine against meningococcal group C (MenC_b) on or after twelve months of age, one dose of vaccine against pneumococcal conjugate vaccine (PCV_b) on or after twelve months of age and one dose of vaccine against measles, mumps and rubella (MMR₁). The Quarter 1-2013 cohort of children at 24 months was therefore the elventh 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 1-2013 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 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								
	munisation.ie for complete information on the Irish chil	ldhood immunisation schedule and the								
	uidelines for Ireland.									
BCG	Bacille Calmette Guerin vaccine									
DTaP Hib	Diptheria, Tetanus and acellular Pertussis vaccine									
НерВ	Haemophilus influenzae type b vaccine 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 Q1-2013 are presented by HSE Area in table 2. National uptake rates were 91% for D_3 , P_3 , T_3 , Hib_3 and $Polio_3$ and $Polio_3$ and $Polio_3$ ranged from 89% to 95%, P_3 , P_3 , P_4 , P_5 , P_5 , P_6 , P_7 , P_8

The HSE-Eastern Area was able to provide BCG data for the first time in Q1 2013 with an uptake of 94%. BCG uptake data were available for seven of the eight HSE Areas in Q1-2013; these areas cover approximately 91% of the national birth cohort. Where data were available, national uptake was 87% 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 Q1-2013. Compared to Q4-2012, national uptake rates in Q1-2013 for D_3 , P_3 , T_3 , Hib_3 , $Polio_3$, $HepB_3$, $MenC_2$ and PCV_2 were unchanged.

In Q1-2013, compared to the previous quarter, uptake rates in the: HSE-Eastern Area increased by 1% for all vaccines except MenC₂ and PCV₂ which were unchanged; HSE-Midland Area were unchanged for all vaccines except BCG which decreased by 1%; HSE-Mid Western Area were unchanged for all vaccines except BCG and PCV2 which increased by 1%; HSE-North-Eastern Area decreased by 1% for all vaccines except MenC₂ and PCV₂ which decreased by 2%; HSE-North-Western Area decreased by 1% for all vaccines except HepB3 and MenC2 which decreased by 2%; HSE-South Eastern Area were unchanged except HepB3, MenC2 and PCV₂ which increased by 1%; HSE-Southern Area decreased by 1% for all vaccines except BCG which was unchanged; HSE-Western were unchanged except BCG which increased by 7%, MenC₂ which increased by 1% and PCV₂ decreased by 1%.

LHO uptake

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

Among the 25 LHOs reporting BCG data, BCG uptake ranged from 91% to 98% with 14 reporting uptake of ≥95%.

D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂ uptake rates ranged from 77% (Dublin North West) to 98% (Roscommon).

The target uptake rate of \geq 95% was reached in Laois/Offaly, Longford/Westmeath, Clare and Roscommon for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂.

Twenty-two LHOs had \geq 90% uptake of D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂.

Table 2. Immunisation uptake (%) at 12 months in cohort born 01/01/2012–31/03/2012

HSE Area	No. in cohort*	BCG	D_3T_3	P ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₂	PCV ₂
Eastern	6713	94	89	89	89	89	89	88	88
Midland	1150	95	95	95	95	95	95	95	95
Mid Western	1412	98	93	93	93	93	93	93	93
North Eastern	1777	na	90	90	90	90	90	88	88
North Western	895	95	94	94	94	94	93	93	94
South Eastern	1852	96	93	93	93	93	93	93	93
Southern	2477	94	89	89	89	89	88	86	86
Western	1561	12	92	92	92	92	92	92	91
Ireland	17837	87	91	91	91	91	90	90	90

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 9.384

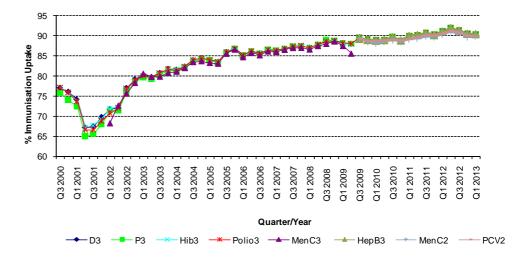


Figure 1. National quarterly immunisation uptake rates at 12 months
Since T_3 uptake identical to D_3 uptake only D_3 uptake figures presented. The Q3-2008 Men C_3 uptake figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area D_3 , P_3 , T_3 , Polio $_3$ and MMR $_1$ uptake figures exclude those born on the 31/03/2007. The Q3-2009 figures are incomplete as two HSE Areas were unable to provide data, two additional areas were unable to provide Men C_2 data and one additional area was unable to provide PCV $_2$ data. The 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. The Q4-2010 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_3 , P_3 , T_3 , Hib_3 and $Polio_3$ for children 12 months of age in Quarter 1-2013 were 94.5% in England, 96.5% in Wales, 97.4% in Northern Ireland and 97.5% in Scotland. 1 Men C_2 uptake was 94.1% in England, 96.3% in Wales, 97.4% in Northern Ireland and 97.1% in Scotland. 1 PCV $_2$ uptake was 94.4% in England, 96.1% in Wales, 97.4% in Northern Ireland and 97.7% in Scotland. 1

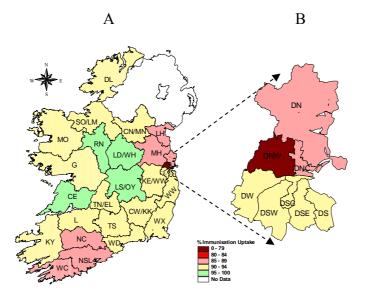


Figure 2. D₃ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

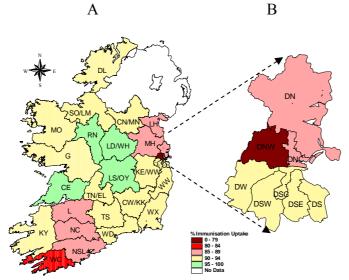


Figure 3. MenC₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

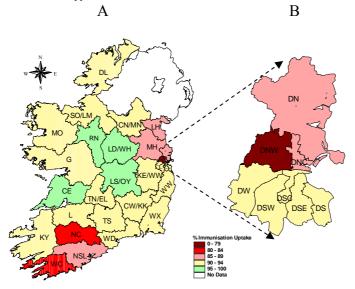


Figure 4. PCV₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Immunisation uptake at 24 months

National and HSE Area uptake

Immunisation uptake rates in children 24 months of age in Q1-2013 are presented (Table 3). National uptake rates were 95% for D_3 , P_3 , T_3 , Hib₃, Polio₃ and HepB₃, 92% for MMR₁, 91% for PCV₃, 89% for Hib_b and 86% for MenC₃. Among the HSE Areas the uptake of D_3 , D_3 , D

Trends

Figure 5 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q1-2013. Compared to the previous quarter, national uptake rates in Q1 decreased by 1% for all vaccines except Hib_b which decreased by 2%.

In Q1-2013, compared to the previous quarter, uptake rates in the: HSE-Eastern Area decreased by 1% for Hib_b, MenC₃, MenC_b, PCV₃, PCV_b and MMR_1 and were unchanged for the remainder of vaccines; HSE-Midland Area decreased by 2% for MenC_b and 1% for PCV_b and were unchanged for the remainder; HSE-Mid Western Area increased by 2% for MenC₃ and by 1% for MenC_b, PCV₃ and MMR₁, were unchanaged from Hib_b and PCV_b and decreased by 1% for the remainder; HSE-North-Eastern Area decreased by 2% for PCV₃ and by 1% for MMR₁ and were unchanged for the remainder; HSE-North-Western Area increased by 3% for MenC₃ and 1% for Hib_b, MenC_b, PCV₃ and MMR₁ and were unchanged for the remainder; HSE-South Eastern Area increased by 1% for Hibb, PCV3, PCVb and MMR1 and were unchanged for the remainder; HSE-Southern Area decreased by 1% for Hib3 and HepB3 and 2% for the remainder; HSE-Western decreased by 10% for Hib_b, 3% for PCV₃, 1% for MenC₃ and 2% for the remainder.

LHO uptake

Immunisation uptake rates in children 24 months of age in Q1-2013 are presented by LHO in Appendix 2. D₃, Hib_b, MenC₃, MenC_b, PCV₃, PCV_b and MMR₁ immunisation uptake rates are mapped by LHO in figures 6-12.

Among the LHOs, uptake of D_3 , T_3 , P_3 , $Polio_3$, Hib_3 and $HepB_3$ ranged from 89-100%, PCV_b ranged from 87-96%, MMR_1 ranged from 86-99%, PCV_3 ranged from 85-99%, $MenC_b$ ranged from 79-96%, Hib_b ranged from 76-99% and $MenC_3$ ranged from 76-97%.

The target uptake of \geq 95% was reached in 22 LHOs for D₃, P₃, T₃, Hib₃ and Polio₃, 20 LHOs for HepB₃, 10 for MMR₁, 8 for PCV_b, 8 for Hib_b, 4 for PCV₃, 3 for MenC_b and in one for MenC₃.

Thirty LHOs had \geq 90% uptake of D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃, 27 had \geq 90% uptake of MMR₁, 23 had \geq 90% uptake of PCV_b, 22 had \geq 90% of PCV₃, 16 had \geq 90% of Hib_b and 15 MenC_b and 11 had \geq 90% uptake of MenC₃.

Table 3. Immunisation uptake (%) at 24 months in cohort born 01/01/2011-31/03/2011

HSE Area	No. in Cohort*	D ₃ /T ₃ /P ₃ /Hib ₃ / Polio ₃	Hibb	HepB ₃	MenC ₃	MenC _b	PCV ₃	PCV _b	MMR_1
Eastern	6573	95	89	95	86	89	90	92	92
Midland	1098	98	98	98	92	93	94	96	97
Mid Western	1411	95	93	95	91	93	93	94	94
North Eastern	1898	94	86	94	83	na	89	na	90
North Western	888	96	93	95	89	94	91	94	94
South Eastern	1882	96	96	96	90	94	94	96	95
Southern	2615	95	84	94	85	87	90	91	91
Western	1648	94	82	94	82	na	89	na	90
Ireland	18013	95	89	95	86	90	91	93	92

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

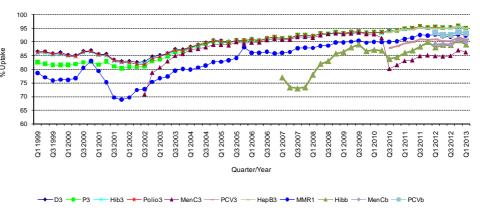


Figure 5. National quarterly immunisation uptake rates at 24 months

Notes: The Q4-2005 MMR, figure is based on data from seven of the eight HSE-Area. The Q1-2006 MMR, 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 MenC₁ figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area J_P, T₁, P₁, Polio₂ and MMR, 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 seven of the eight HSE Areas. The Q1-2010 Hib_b 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 Q1-2013, vaccination coverage statistics at 24 months for D₃, P₃, T₃, Hib₃ and Polio₃ were 96.3% in England, 97.7% in Wales, 98.4% in Northern Ireland and 98.4% in Scotland. MenC₂ uptake was 95.4% in England, 96.8% in Wales, 97.1% in Northern Ireland and 96.7% in Scotland. PCV booster was 92.6% in England, 95.8% in Wales, 95.8% in Northern Ireland and 95.8% in Scotland. Hib/MenC booster was 92.7% in England, 95.1% in Wales, 95.9% in Northern Ireland and 95.9% in Scotland. MMR₁ uptake was 92.2% in England, 95.1% in Wales, 95.3% in Northern Ireland and 95.3% in Scotland. Please see HPA report for caveats.

Conclusions

In Quarter 1-2013, national uptake rates at 24 months for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ reached the target of 95%. Since the introduction of the new childhood schedule in September 2008 MenC₃ and Hib_b 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 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.

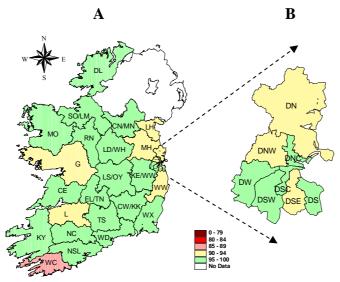


Figure 6. D₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

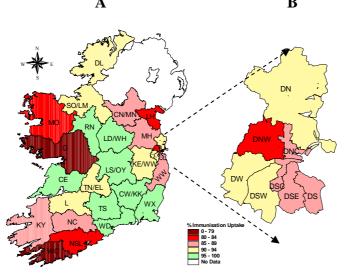


Figure 7. Hib_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

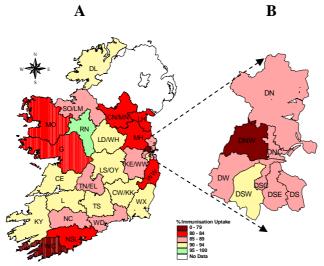


Figure 8. MenC₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

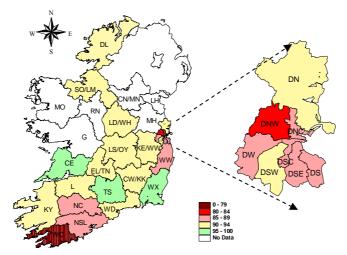


Figure 9. MenC_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

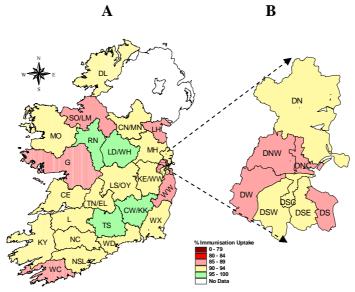


Figure 10. PCV₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

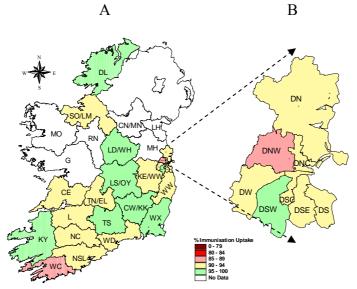


Figure 11. PCV_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

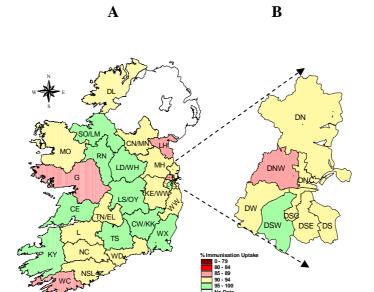


Figure 12. MMR_1 immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2013, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Appendix 1

Immunisation Uptake at 12 Months in Cohort Born 01/01/2012-31/03/2012											
				Immunisation Uptake (%)							
HSE		No. in cohort	No. in cohort for other								
Area	LHO/HSE Area	for BCG	vaccines*	BCG	D_3T_3	P ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₂	PCV ₂
	Dublin South	430	430	93	90	90	90	90	90	90	90
	Dublin South East	418	418	95	91	91	91	91	91	91	91
	Dublin South City	439	439	93	92	92	92	92	92	91	91
	Dublin South West	683	683	95	94	94	94	94	94	93	93
	Dublin West	715	715	93	92	92	92	92	91	91	92
Eastern	Dublin North West	937	937	94	77	77	77	77	77	77	77
	Dublin North Central	501	501	91	86	86	86	86	86	86	86
	Dublin North	1096	1096	95	89	89	89	89	89	88	89
	Kildare/West Wicklow Wicklow	986 508	986 508	94 96	91 90	91 90	91 90	91 90	91 90	92 90	91 90
	HSE-E Total	6713	6713	94	89	89	89	89	89	88	88
	HSE-E TOTAL	0/13	0/13	94	09	09	09	09	09	00	- 00
	Laois/Offaly	642	642	95	95	95	95	95	95	95	95
Midland	Longford/Westmeath	508	508	95	96	96	96	96	96	96	96
muanu	HSE-M Total	1150	1150	95	95	95	95	95	95	95	95
	HOE III TOWN	1100	1100	30	- 50	- 50		1 00	- 50	- 50	- 50
	Clare	440	439	98	96	96	96	96	96	97	97
Mid	Limerick	510	512	98	90	90	90	90	90	89	90
	Tipperary NR/East Limerick	454	461	98	93	93	93	93	93	93	93
	HSE-MW Total	1404	1412	98	93	93	93	93	93	93	93
						- 00			- 00	- 00	
North	Cavan/Monaghan	na	473	na	93	93	93	93	93	91	91
	Louth	na	496	na	89	89	89	89	89	86	86
	Meath	na	808	na	89	89	89	89	89	88	88
	HSE-NE Total	na	1777	na	90	90	90	90	90	88	88
	Donegal	538	538	94	94	94	94	94	93	94	94
North	Sligo/Leitrim	357	357	96	93	93	93	93	93	92	93
Western	HSE-NW Total	895	895	95	94	94	94	94	93	93	94
						•	•	•	•		
	Carlow/Kilkenny	514	514	97	93	93	93	93	93	93	94
South	South Tipperary	339	339	98	93	93	93	93	93	93	93
Eastern	Waterford	474	474	94	91	91	91	91	91	91	91
Lasteill	Wexford	525	525	97	94	94	94	94	94	94	94
	HSE-SE Total	1852	1852	96	93	93	93	93	93	93	93
								-			
	North Cork	398	389	96	86	86	86	86	85	85	84
	North South Lee	1457	1430	94	88	88	88	88	87	85	86
Southern	West Cork	189	189	93	88	88	88	88	88	84	84
	Kerry	478	469	93	94	94	94	94	93	91	90
	HSE-S Total	2522	2477	94	89	89	89	89	88	86	86
	Galway	na	955	na	91	91	91	91	91	91	90
Western	Мауо	na	396	na	91	91	91	91	91	91	90
	Roscommon	na	210	na	98	98	98	98	98	98	98
	HSE-W Total	1561	1561	12	92	92	92	92	92	92	91
	Ireland	9384	17837	87	91	91	91	91	90	90	90

na=not available
* As the denominator/number in cohort varied slightly according to vaccine, most commonly used number is presented here.
Please note w hile 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 01/01/2011-31/03/2011													
				Immunisation Uptake (%)									
		No. in			151		B.C.	IIB			201	DOV.	
HSE Area	LHO/HSE Area	cohort*	D ₃ T ₃	P ₃	Hib ₃	Hibb	Polio ₃	HepB ₃	MenC ₃	MenC _b	PCV ₃	PCV _b	MMR ₁
	Dublin South Dublin South East	433 446	96 91	96 91	96 91	88 89	96 91	96 91	86 86	88 88	89 90	90	90 92
	Dublin South East Dublin South City	378	98	98	98	88	98	98	86	88	92	93	94
	Dublin South West	646	96	96	96	94	96	95	90	93	92	95	96
	Dublin West	694	95	95	95	90	95	95	86	89	89	93	93
Eastern	Dublin North West	986	94	94	94	82	94	94	79	82	87	89	89
	Dublin North Central	412	95	95	95	89	95	95	85	89	89	92	91
	Dublin North	1036	94	94	94	91	94	94	88	91	92	93	93
	Kildare/West Wicklow	1069	96	96	96	91	96	96	88	92	93	94	94
	Wicklow	473	94	94	94	86	94	94	82	86	89	92	91
	HSE-E Total	6573	95	95	95	89	95	95	86	89	90	92	92
	Laois/Offaly	631	99	99	99	99	99	99	92	93	94	96	96
Midland	Longford/Westmeath	467	97	97	97	97	97	97	92	94	95	96	97
maana	HSE-M Total	1098	98	98	98	98	98	98	92	93	94	96	97
							•						
	Clare	430	96	96	96	96	96	96	94	96	94	94	95
Mid	Limerick	527	94	94	94	93	94	94	90	92	93	94	93
Western	Tipperary NR/East Limeric HSE-MW Total	454 1411	96 95	96 95	96 95	91 93	96 95	96 95	89 91	91 93	92 93	94 94	93 94
	H3E-WW TOTAL	1411	93	95	95	93	33	93	31	33	33	34	34
	Cavan/Monaghan	557	95	95	95	86	95	95	83	na	91	na	91
North	Louth	489	90	90	90	84	90	90	81	na	86	na	87
Eastern	Meath	852	94	94	94	86	94	94	84	na	90	na	91
	HSE-NE Total	1898	94	94	94	86	94	94	83	na	89	na	90
N1	Donegal	564	96	96	96	93	96	95	90	94	92	95	93
North Western	Sligo/Leitrim	324	96	96	95	93	96	95	86	94	89	94	95
western	HSE-NW Total	888	96	96	96	93	96	95	89	94	91	94	94
	Carlow/Kilkenny	513 301	96 99	96 99	96 99	95 96	96 98	96 99	90 92	94 95	96 95	96 96	97 95
South	South Tipperary Waterford	511	96	96	96	95	96	96	89	93	93	96	95
Eastern	Wexford	557	96	96	96	97	96	96	91	95	94	96	95
	HSE-SE Total	1882	96	96	96	96	96	96	90	94	94	96	95
	North Cork	362	96	96	95	86	96	94	86	87	90	90	91
	North South Lee	1536	95	95	95	83	95	94	83	86	90	91	91
Southern	West Cork	206	89	89	89	76	89	89	76	79	85	87	86
	Kerry	511	98	98	98	88	98	97	90	93	94	96	95
	HSE-S Total	2615	95	95	95	84	95	94	85	87	90	91	91
	Galway	977	92	92	92	79	92	92	80	na	87	na	87
Wester	Mayo	464	95	95	95	81	95	95	81	na	91	na	92
Western	Roscommon	207	100	100	100	98	100	100	97	na	99	na	99
	HSE-W Total	1648	94	94	94	82	94	94	82	na	89	na	90
	Indian I	10010	0.5	1 05	0.5	- 00	0.5	25	1 00		24		20
na=not availabl	Ireland	18013	95	95	95	89	95	95	86	90	91	93	92

na=not available

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

Please note 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