



Immunisation uptake report for Ireland



A report by the Health Protection Surveillance Centre

Summary

Children 12 months of age in Quarter 2-2012

- National immunisation uptake rates were 92% for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ and 91% for PCV₂ and MenC₂. Compared to Q1-2012, national uptake rates in Q2-2012 for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃ and MenC₂ increased by 1% while PCV₂ was unchanged.
- Among the HSE Areas, the uptake rates for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ ranged from 91% to 95% and MenC₂ and PCV₂ ranged from 88% to 95%. The HSE-Midland, Mid-Western and North-Western Areas reached the target of ≥95% for all vaccines.
- Among the Local Health Offices, the target uptake rate of ≥95% was reached in Dublin South City, Sligo/Leitrim, Longford/Westmeath, Limerick, Tipperary NE/East Limerick and Roscommon for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂ and in Donegal for D₃, P₃, T₃, Hib₃, Polio₃ and MenC₂.

Children 24 months of age in Quarter 2-2012

- National uptake rates were 95% for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃, 92% for MMR₁, 90% for PCV₃, 89% for Hib_b and 85% for MenC₃. 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 2 2012. These Areas cover approximately 80% of the national birth cohort. Where data were available, national uptake was unchanged compared to Q1-2012, 89% for MenC_b and 93% for PCV_b.
 - Compared to the previous quarter, national uptake rates in Q2 2012 for: MMR_1 and PCV_3 decreased by 1%, Hib_b increased by 1% while D_3 , P_3 , T_3 , Hib_3 , $Polio_3$, $HepB_3$, $MenC_b$, $MenC_3$ and PCV_b were unchanged.
- The target uptake of \geq 95% was reached for D₃, P₃, T₃, Hib₃, HepB₃ and Polio₃ in five of the eight HSE Areas, for MMR₁ and PCV_b in two HSE Areas and for Hib_b and MenC_b in one HSE Area. The target uptake of \geq 95% was not reached in any HSE Area for MenC₃ or PCV₃.
- The target uptake of ≥95% was reached in 23 LHOs for D₃, P₃, T₃, and Polio₃, 22 LHOs for Hib₃ and HepB₃, 9 for PCV_b, 7 for MMR₁, 6 for Hib_b, 4 for MenC_b. 1 for PCV₃ and in none 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 2-2012.

The immunisation uptake rates presented in this report for children at 12 months of age in Quarter 2-2012 are children born between 01/04/2011 and 30/06/2011 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), 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 2-2012 are children born between 01/04/2010 and 30/06/2010 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), 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 2-2012 cohort of children at 24 months was therefore the eighth 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 2-2012 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	e in Primary Childhood Immunisation Schedule (i	introduced on September 1 st 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	dhood immunisation schedule and the							
immunisation guide									
BCG	Bacille Calmette Guerin vaccine								
DTaP	Diptheria, Tetanus and acellular Pertussis vaccine								
Hib	Haemophilus influenzae 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 Q2-2012 are presented by HSE Area in table 2. National uptake rates were 92% for D_3 , P_3 , T_3 , Hib_3 , $Polio_3$, $HepB_3$, and 91% for PCV_2 and $MenC_2$. Among the HSE Areas the uptake rates for D_3 , P_3 , T_3 , Hib_3 , $Polio_3$ and $HepB_3$ ranged from 91% to 95% and $MenC_2$ and PCV_2 ranged from 88% to 95%. Seven HSE Areas had \geq 90% uptake of these vaccines.

BCG uptake data were available for six of the eight HSE Areas in Q2-2012; these areas cover approximately 53% of the national birth cohort. Where data were available, national uptake was 80% for the BCG vaccination. This is unchanged compared to the previous quarter.

National & HSE Area trends

Figure 1 presents the national uptake rates at 12 months for each vaccine from Q3-2000 to Q2-2012. Compared to Q1-2012, national uptake rates in Q2-2012 for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃ and MenC₂ increased by 1% while PCV₂ was unchanged.

In Q2-2012, the HSE-Midland Area reached the target of 95% for all vaccines. The HSE-Midland Area also previously reached the target for all vaccines in Q1-2012 and Q3-2011. In Q2-2012, the HSE-Mid-Western and North Western Areas reached the target of 95% for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, PCV₂ and MenC₂ for the first time.

In Q2-2012, compared to the previous quarter, uptake rates in the: HSE-Eastern Area increased by 1% for all vaccines; HSE-Midland Area decreased by 1% for all vaccines (BCG remained the same at 96%); HSE-Mid Western Area increased by 1% for all vaccines except BCG which declined by 1%; HSE-North-Eastern Area increased by 3% for all vaccines; HSE-North-Western Area increased by 1% except for BCG which decreased by 1%; HSE-South Eastern Area declined by 1-2% except for BCG with increased by 1%; HSE-Southern Area increased by 1-2%; HSE-Western increased by 1% except BCG which remained unchanged.

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 15 LHOs reporting BCG data, BCG uptake ranged from 92% to 98% with 11 reporting uptake of ≥95%.

D₃, P₃, T₃, Polio₃ HepB₃ uptake rates ranged from 84% (West Cork) to 96% (Dublin South City, Longford/Westmeath, Limerick and Roscommon). Hib3 uptake rates ranged from 83% (West Cork) to 96% (Dublin South City, Longford/Westmeath, Limerick, Roscommon). MenC₂ uptake rates ranged from 82% (West Cork) to 96% (Longford/Westmeath, Limerick Tipperary N/East Limerick). PCV2 uptake rates ranged from 83% (West Cork) to 97% (Roscommon).

The target uptake rate of ≥95% was reached in Dublin South City, Longford/Westmeath, Limerick, Tipperary North/East Limerick, Sligo/Leitrim, and Roscommon for D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC₂ and PCV₂; and in Donegal for D₃, P₃, T₃, Hib₃, Polio₃, and MenC₂

Twenty three 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 01/04/2011-30/06/2011

HSE Area	No. in cohort*	BCG	D_3T_3	P ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₂	PCV ₂
Eastern	6789	na	91	91	91	91	91	91	91
Midland	1263	96	95	95	95	95	95	95	95
Mid Western	1390	96	95	95	95	95	95	95	95
North Eastern	2060	na	92	92	92	92	92	90	90
North Western	891	96	95	95	95	95	95	95	95
South Eastern	1953	97	92	92	92	92	92	91	92
Southern	2554	94	92	92	92	92	91	88	88
Western	1669	5	91	91	91	91	91	90	91
Ireland	18569	80	92	92	92	92	92	91	91

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 9,770

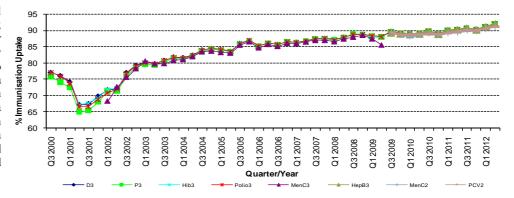


Figure 1. National quarterly immunisation uptake rates at 12 months Since T_3 uptake identical to D_3 uptake only D_3 uptake figures presented. The Q3-2008 Men C_3 uptake figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area D_3 , P_3 , T_3 , Polio₃ and MMR₁ uptake figures 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 Men C_2 data and one additional area was unable to provide PCV_2 data. The PCV_2 data are two HSE Areas were unable to provide data and three were unable to provide PCV_2 data. The PCV_2 data are incomplete as two HSE Areas were unable to provide data. The PCV_2 data are incomplete as two HSE Areas were unable to provide data. The PCV_2 data. The PCV_2 data are incomplete as two HSE Areas

Internationally

Vaccination coverage statistics for D_3 , P_3 , T_3 , Hib_3 and $Polio_3$ for children 12 months of age in Quarter 2-2012 were 94.6% in England, 96.0% in Wales, 97.3% in Northern Ireland and 97.3% in Scotland. MenC₂ uptake was 93.9% in England, 95.9% in Wales, 97.3% in Northern Ireland and 97.1% in Scotland. PCV₂ uptake was 94.3% in England, 95.5% in Wales, 97.5% in Northern Ireland and 97.5% in Scotland.

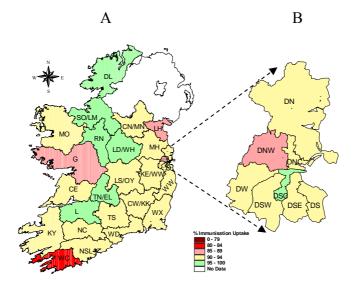


Figure 2. D₃ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

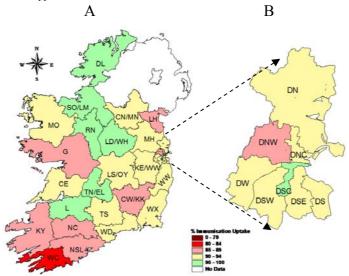


Figure 3. MenC₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

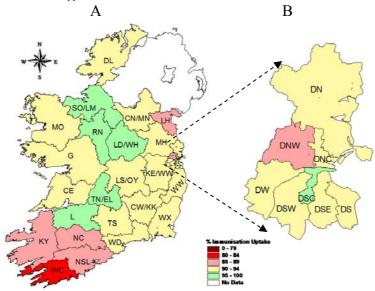


Figure 4. PCV₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Immunisation uptake at 24 months

National and HSE Area uptake

Immunisation uptake rates in children 24 months of age in Q2-2012 are presented (Table 3). National uptake rates were 95% for D_3 , P_3 , T_3 , Hib₃, Polio₃ and HepB₃, 92% for MMR₁, 90% for PCV₃, 89% for Hib_b and 85% for MenC₃. Among the HSE Areas the uptake of D_3 , P_3 , T_3 , Hib₃, Polio₃ and HepB₃ ranged from 94-98%, MMR₁ ranged from 90-96%, PCV₃ ranged from 88-93%, Hib_b ranged from 85-98% and MenC₃ ranged from 82-91%. The target uptake of \geq 95% was reached for D_3 , P_3 , T_3 , Hib₃, HepB₃ and Polio₃ in five of the eight HSE Areas, for MMR₁ in two HSE Areas and for Hib_b in one HSE Area. Six of the eight HSE Areas were able to provide uptake data on MenC_b (one dose of MenC at \geq 12 months of age) and PCV_b (one dose of PCV at \geq 12 months of age) in Quarter 2 2012. These Areas cover approximately 80% of the national birth cohort. Where data were available, national uptake was 89% for MenC_b and 93% for PCV_b. The target uptake of \geq 95% was reached for PCV_b in two HSE Areas and for MenC_b in one HSE Area.

Trends

Figure 5 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q2-2012. Compared to the previous quarter, national uptake rates in Q2 2012 for: MMR₁ and PCV₃ decreased by 1%, Hib_b increased by 1% while D₃, P₃, T₃, Hib₃, Polio₃, HepB₃, MenC_b, MenC₃ and PCV_b were unchanged.

 ${\rm Hib_b}$ uptake rates in Q2-2012, compared to the previous quarter: increased in the HSE-Western Area (by 8%), in the HSE-Mid Western (by 2%) and the HSE-Southern (by 1%) Areas; decreased in the HSE-North Eastern (by 1%) and HSE-South Eastern (by 1%) Areas; and were unchanged in the HSE- Eastern, HSE-Midlands and HSE-North Western Areas.

MenC₃ uptake rates in Q2-2012, compared to the previous quarter: increased in the HSE-Mid Western (by 2%) and HSE-Southern (by 1%) Areas, decreased in the HSE-Eastern, HSE-Midland (by 1%), and HSE-South Eastern (by 2%) Areas and were unchanged in the remaining Areas.

LHO uptake

Immunisation uptake rates in children 24 months of age in Q2-2012 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 , Polio₃ and HepB₃ ranged from 90-98%, Hib₃ ranged from 89-98%, MMR₁ ranged from 81-96%, PCV₃ ranged from 79-97%, PCV_b ranged from 81-97%, MenC₃ ranged from 65-94% MenC_b ranged from 68-96% and Hib_b ranged from 68-98%.

The target uptake of \geq 95% was reached in 23 LHOs for D₃, P₃, T₃, and Polio₃, 22 LHOs for Hib₃ and HepB₃, 9 for PCV_b, 7 for MMR₁, 6 for Hib_b, 4 for MenC_b, 1 for PCV₃ the target uptake of \geq 95% was not reached in any LHO for MenC₃.

All LHOs had \geq 90% uptake of D₃, P₃, T₃, Polio₃ and HepB₃, 30 had \geq 90% uptake of Hib₃, 26 had \geq 90% uptake of MMR₁, 23 had \geq 90% uptake of PCV_b, 22 had \geq 90% uptake of PCV₃, 15 had \geq 90% of Hib_b, 13 had \geq 90% uptake of MenC_b and five had \geq 90% uptake of MenC₃.

Table 3. *Immunisation uptake (%) at 24 months in cohort born 01/04/2010–30/06/2010*

HSE Area	No. in Cohort*	D ₃ /T ₃ /P ₃ / Polio ₃	Hibb	Hib ₃ /H epB ₃	MenC ₃	MenC _b	PCV ₃	PCV _b	MMR ₁
Eastern	6823	94	87	94	83	87	88	91	91
Midland	1238	98	98	98	91	96	93	95	96
Mid Western	1430	94	90	94	86	90	92	93	93
North Eastern	2024	96	86	96	84	na	91	na	91
North Western	1004	98	92	97	87	93	92	97	95
South Eastern	1967	96	94	96	86	92	92	94	94
Southern	2502	96	85	95	86	89	91	92	93
Western	1669	94	90	94	82	na	91	na	90
Ireland	18657	95	89	95	85	89	90	93	92

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

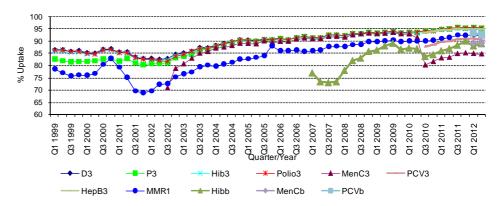


Figure 5. National quarterly immunisation uptake rates at 24 months

Notes: The Q4-2005 MMR, figure is based on data from seven of the eight HSE-Areas. The Q1-2006 MMR, figure includes the HSE-Eastern Area figure that is an estimate only. The Q1-2007, Q3-2008 and Q3-2008 Hib, figures are based on data from seven of the eight HSE Areas. In Q1-2008 the HSE-SE changed their Hib, data extraction method compared to previous quarters; in Q1-2008 the uptake of Hib, in the HSE-SE was 83% compared to 53% in Q4-2007. The Q3-2009 MenC₃ figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area D₃ P₃, T₃, Polio₃ and MMR, uptake figures exclude those born on the 31/03/2007. The Q3-2009 HSE-Eastern Area Hib, uptake figures from Dublin North. The Q4-2009 figures are based on data from seven of the eight HSE Areas. The Q4-2009 Hib, 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, figures also exclude uptake figures from Dublin North. The Q2-2001 figures are based on data from seven of the eight HSE Areas.

Internationally

In Q2-2012, vaccination coverage statistics at 24 months for D₃, P₃, T₃, Hib₃ and Polio₃ were 96.3% in England, 97.8% in Wales, 98.6% in Northern Ireland and 98.2% in Scotland. MenC₂ uptake was 95.2% in England, 96.6% in Wales, 97.1% in Northern Ireland and 96.4% in Scotland. PCV booster was 92.6% in England, 95.4% in Wales, 95.8% in Northern Ireland and 95.7% in Scotland. Hib/MenC booster was 92.8% in England, 94.5% in Wales, 95.7% in Northern Ireland and 95.9% in Scotland. MMR₁ uptake was 92.3% in England, 94.5% in Wales, 95.3% in Northern Ireland and 94.9% in Scotland. In Scotland.

Conclusions

In Quarter 2-2012, national uptake rates at 24 months for D_3 , P_3 , T_3 , Hib_3 , $Polio_3$ and $HepB_3$ reached the target of $\geq 95\%$. In Quarter 2-2012, compared to the previous quarter, Hib_b increased by 1% and MMR_1 and PCV_3 uptake decreased by one percent. Since the introduction of the new childhood schedule in September 2008 $MenC_3$ and Hib_b uptake are considerably 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.

References 1. Quarterly vaccination coverage statistics for children aged up to five years in the UK (COVER programme): April to June 2012 Health Protection Report 2012: 6 (Number 39). Available at: http://www.hpa.org.uk/hpr/infections/immunisation.htm (accessed 26/11/2012)

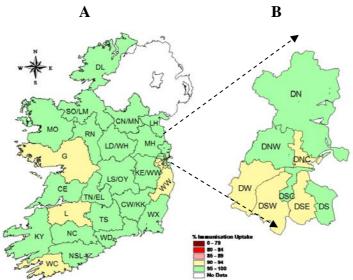


Figure 6. D₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

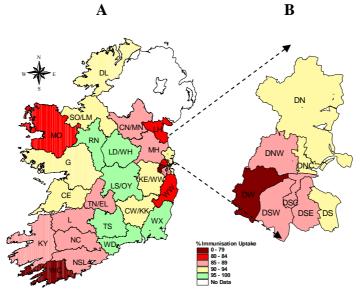


Figure 7. Hib_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

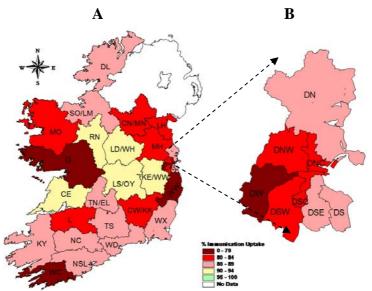


Figure 8. MenC₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

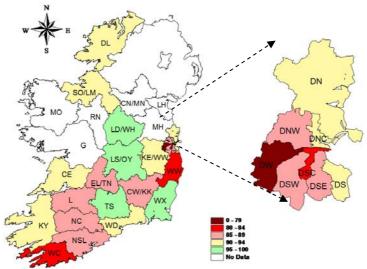


Figure 9. MenC_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

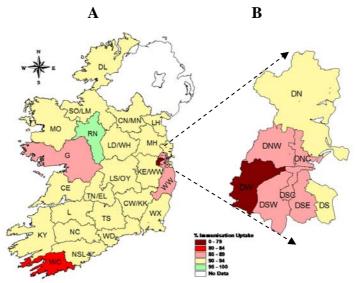


Figure 10. PCV₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

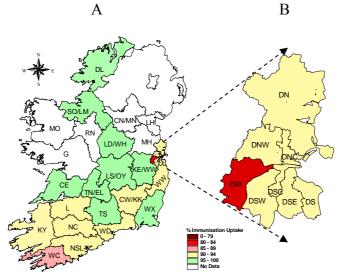


Figure 11. PCV_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

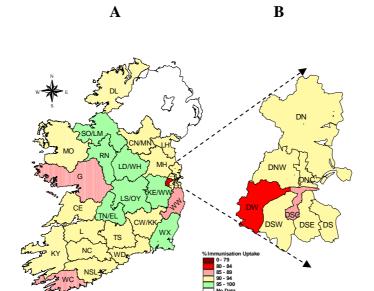


Figure 12. MMR_1 immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2012, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Appendix 1

			take at 12 M								
HSE		No. in cohort	No. in cohort	DCC	рт		unisatio			ManC	PCV ₂
Area	LHO/HSE Area	for BCG	vaccines	BCG	D ₃ T ₃	P ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₂	
	Dublin South	na	433	na	93	93	93	93	93	93	93
	Dublin South East	na	459	na	91	91	91	91	91	91	91
	Dublin South City	na	444	na	96	96	96	96	96	95	96
	Dublin South West	na	690	na	93	93	93	93	92	92	93
-	Dublin West	na	703 982	na	90 86	90 86	90 86	90 86	90 86	90 86	90
Eastern	Dublin North West	na		na	94	94	94	94	94		94
	Dublin North Central Dublin North	na na	453 1116	na na	91	94	94	94	94	93 91	94
	Kildare/West Wicklow		1050		92	92	92	92	92	91	92
	Wicklow	na	459	na na	90	92	90	90	90	90	90
	HSE-E Total	na na	6789		90	90	90	90	90	90	90
	HSE-E Total	па	6769	na	91	91	91	91	91	91	91
	Laois/Offaly	742	742	96	94	94	94	94	94	94	94
Midland	Longford/Westmeath	521	521	95	96	96	96	96	96	96	96
	HSE-M Total	1263	1263	96	95	95	95	95	95	95	95
	Clare	433	437	96	93	93	93	93	93	92	93
Mid	Limerick	470	472	98	96	96	96	96	96	96	95
Western	Tipperary NR/East Limerick	485	481	95	95	95	95	95	95	96	96
	HSE-MW Total	1388	1390	96	95	95	95	95	95	95	95
	Cavan/Monaghan	na	569	na	94	94	94	94	94	92	92
North	Louth	na	530	na	88	88	88	88	88	86	85
Eastern	Meath	na	961	na	92	92	92	92	92	91	91
	HSE-NE Total	na	2060	na	92	92	92	92	92	90	90
							•	•			
N a wile	Donegal	578	578	96	95	95	95	95	94	95	94
North	Sligo/Leitrim	313	313	97	95	95	95	95	95	95	95
Western	HSE-NW Total	891	891	96	95	95	95	95	95	95	95
						•	•	•	•		
	Carlow/Kilkenny	521	521	98	90	90	90	90	90	89	91
South	South Tipperary	398	398	98	94	94	94	94	94	93	93
Eastern	Waterford	476	476	96	93	93	93	93	93	93	94
Lastern	Wexford	558	558	94	91	91	91	91	90	90	91
	HSE-SE Total	1953	1953	97	92	92	92	92	92	91	92
	North Cork	389	384	92	91	91	91	91	91	89	89
	North South Lee	1512	1477	95	93	93	93	93	92	89	89
Southern	West Cork	184	182	93	84	84	83	84	84	82	83
	Kerry	521	511	94	91	91	91	91	91	87	86
	HSE-S Total	2606	2554	94	92	92	92	92	91	88	88
	Colway	w	002	n=	90	60	I 60	00	60	00	00
	Galway	na	993	na	89	89	89	89	89	89	90
Western	Mayo	na	438	na	91	91	91	91	91	90	91
	Roscommon	na 1660	238	na E	96	96 91	96 91	96	96 91	95	97 91
	HSE-W Total	1669	1669	5	91	91	91	91	91	90	91

Please note w hile North Lee and South Lee are two separate LHOs their combined immunisation uptake data are reported here.

na=not available
* As the denominator/number in cohort varied slightly according to vaccine, most commonly used number is presented here.

Appendix 2

Immunisation uptake (%) at 24 months of age in cohort born 01/04/2010-30/06/2010													
	Immunisation Uptake (%)												
				immunisation Optake (76)									
		No. in											
HSE Area	LHO/HSE Area	cohort*	D_3T_3	P ₃	Hib ₃	Hib _b	Polio ₃	HepB ₃	MenC ₃	MenC _b	PCV ₃	PCV _b	MMR ₁
	Dublin South	438	95	95	95	90	95	95	87	90	92	93	92
	Dublin South East	414	90	90	90	88	90	90	86	87	89	90	90
	Dublin South City	483	96	96	96	85	96	95	81	84	87	90	89
	Dublin South West	692	94	94	94	89	94	94	82	89	88	93	92
	Dublin West	735	90	90	90	68	90	90	65	68	79	81	81
Eastern	Dublin North West	974	95	95	95	87	95	95	83	87	89	91	91
	Dublin North Central	436	94	94	94	90	94	94	84	90	87	92	92
	Dublin North	1053	95	95	95	91	95	95	87	91	91	93	93
	Kildare/West Wicklow	1077	96	96	96	93	96	96	90	93	92	95	95
	Wicklow	521	94	94	94	83	94	94	79	83	87	90	89
	HSE-E Total	6823	94	94	94	87	94	94	83	87	88	91	91
	Laois/Offaly	706	98	98	98	98	98	98	91	96	93	95	96
Midland	Longford/Westmeath	532	97	97	97	97	97	97	91	95	93	95	96
	HSE-M Total	1238	98	98	98	98	98	98	91	96	93	95	96
	Clare	422	95	95	95	94	95	95	90	94	93	95	94
Mid	Limerick	510	92	92	92	88	92	92	84	88	90	90	90
Western	Tipperary NR/East Limeric	498	96	96	96	89	96	96	86	89	93	95	95
	HSE-MW Total	1430	94	94	94	90	94	94	86	90	92	93	93
					•				•				
	Cavan/Monaghan	557	96	96	96	88	96	96	84	na	92	na	93
North	Louth	524	95	95	95	84	95	95	82	na	90	na	91
Eastern	Meath	943	96	96	96	87	96	96	84	na	91	na	90
	HSE-NE Total	2024	96	96	96	86	96	96	84	na	91	na	91
N a mt la	Donegal	607	98	98	98	92	98	97	87	93	93	97	94
North Western	Sligo/Leitrim	397	97	97	96	92	97	97	87	92	91	96	96
western	HSE-NW Total	1004	98	98	97	92	98	97	87	93	92	97	95
					•								
	Carlow/Kilkenny	526	95	95	95	90	95	95	84	89	90	92	94
Caush	South Tipperary	370	98	98	98	97	98	98	88	95	94	96	94
South Eastern	Waterford	510	96	96	96	95	96	96	86	92	94	94	94
Eastern	Wexford	561	97	97	97	96	97	97	89	95	93	95	95
	HSE-SE Total	1967	96	96	96	94	96	96	86	92	92	94	94
						·	·						
	North Cork	375	95	95	94	85	95	93	85	87	90	90	91
	North South Lee	1465	97	97	96	85	97	96	87	89	92	94	94
Southern	West Cork	195	90	90	89	73	90	91	74	84	81	87	86
	Kerry	467	97	97	96	88	97	95	89	93	91	93	93
	HSE-S Total	2502	96	96	95	85	96	95	86	89	91	92	93
	•												
	Galway	1036	93	93	93	93	93	93	79	na	89	na	89
	Mayo	396	96	96	96	81	96	96	82	na	91	na	91
Western	Roscommon	237	97	97	97	95	97	97	94	na	97	na	95
	HSE-W Total	1669	94	94	94	90	94	94	82	na	91	na	90
	Ireland	18657	95	95	95	89	95	95	85	89	90	93	92
na=not availabl						•							

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