

Background

The national immunisation uptake statistics, based on available data, for Quarter 2 2015 are presented in this report. These immunisation uptake statistics relate to children at 12 (born between 01/04/2014 and 30/06/2014) and 24 (born between 01/04/2013 and 30/06/2013) months of age in Quarter 2-2015. These children were recommended the vaccines outlined in table 1. Please note the immunisation schedule changed in 2015 for children born on or after July 1st 2015. Please see the HSE-National Immunisation Office (NIO) website at <http://www.hse.ie/eng/health/immunisation/> for current and detailed information on the Irish primary childhood immunisation schedule and also recommended vaccinations for older children and adults.

For children at 12 months of age in Quarter 2 2015, immunisation uptake rates of 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 are reported.

For children at 24 months of age in Quarter 2 2015, immunisation uptake rates of 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) and one dose of vaccine against measles, mumps and rubella (MMR₁) are reported. One dose of vaccine against *Haemophilus influenzae* type b (Hib_b), one dose of meningococcal group C vaccine (MenC_b) and one dose of pneumococcal conjugate vaccine (PCV_b) given on or after 12 months of age are also reported.

The uptake statistics are also presented in this report by HSE Area and Local Health Office (LHO). While there are 32 LHOs the immunisation uptake data for North Lee and South Lee are reported as a combined figure. The uptake rates presented here were rounded to zero decimal place.

Table 1. Primary childhood immunisation schedule for children born between 01/07/2008 and 30/06/2015

Age	Vaccines
Birth	BCG
2 months	DTaP/Hib/IPV/HepB (6 in 1) + PCV
4 months	DTaP/Hib/IPV/HepB (6 in 1) + MenC
6 months	DTaP/Hib/IPV/HepB (6 in 1) + PCV + MenC
12 months	MMR + PCV
13 months	MenC + Hib

Please note the primary immunisation schedule changed in 2015 for children born on or after 01/07/2015. Please see the HSE-National Immunisation Office (NIO) website at <http://www.hse.ie/eng/health/immunisation/> for current and detailed information on the Irish primary childhood immunisation schedule and also recommended vaccinations for older children and adults

BCG	Bacille Calmette Guerin vaccine
DTaP	Diphtheria, Tetanus and acellular Pertussis vaccine
HepB	Hepatitis B vaccine
Hib	<i>Haemophilus influenzae</i> type b vaccine
IPV	Inactivated Polio Virus vaccine
MenC	Meningococcal group C vaccine
MMR	Measles, Mumps and Rubella vaccine
PCV	Pneumococcal Conjugate Vaccine

Immunisation uptake among children at 12 months of age in Quarter 2-2015

National

- Immunisation uptake rates in children 12 months of age in Q2-2015 are presented by HSE Area in table 2.
National immunisation uptake rates were 92% for D₃, T₃, P₃, Hib₃ and Polio and 91% for HepB₃, PCV₂ and MenC₂.
BCG uptake data were available for 28 LHOs in Q2-2015; these areas cover approximately 90% of the national birth cohort. Where data were available, national uptake was 88% for the BCG vaccination.
- Figure 1 presents the national uptake rates at 12 months for each vaccine from Q3-2000 to Q2-2015. Compared to Q1-2015, national uptake rates in Q2-2015 for D₃, T₃, P₃, Hib₃ and Polio₃ increased by 1% while HepB₃, MenC₂ and PCV₂ were unchanged.

HSE Area

- Among the HSE Areas, the uptake rates for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ ranged from 90-95% and MenC₂ and PCV₂ ranged from 87% to 95%.
The HSE Midland Area reached the target of ≥95% for all vaccines.

Local Health Office (LHO)

- 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.
- The target uptake rate of ≥95% was reached in 8 LHOs for BCG, 4 LHOs for D₃, T₃, P₃, Polio₃ and PCV₂ and in 3 LHOs for Hib₃, HepB₃ and MenC₂.

Table 2. Immunisation uptake (%) at 12 months in cohort born 01/04/2014–30/06/2014

HSE Area	No. in cohort*	BCG [†]	D ₃ T ₃	P ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₂	PCV ₂
Eastern	6193	93	90	90	90	90	90	89	90
Midland	1170	95	95	95	95	95	95	95	95
Mid Western	1208	93	92	92	92	92	92	92	92
North Eastern	1666	na	92	92	92	92	92	92	92
North Western	823	94	93	93	93	93	92	91	93
South Eastern	1779	95	93	93	93	93	93	92	92
Southern	2318	92	90	90	90	90	90	87	87
Western	1557	39	94	94	94	94	94	94	94
Ireland	16714	88	92	92	92	92	91	91	91

na = not available at this time

* The denominator/number in cohort varied slightly according to vaccine. D₃, T₃ and P₃ cohorts are shown here.

† Number in cohort for BCG is 15,063

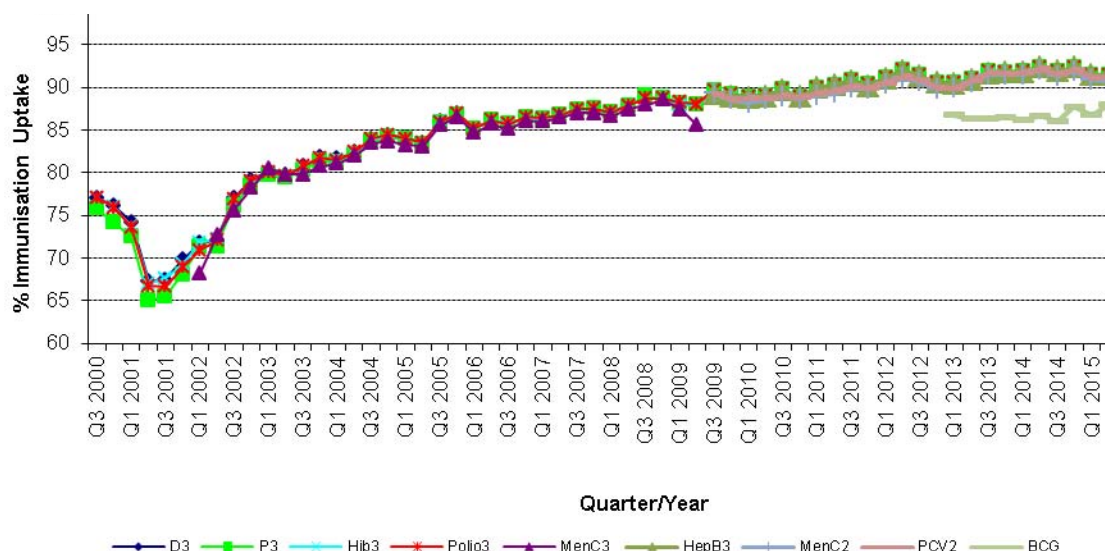


Figure 1. National quarterly immunisation uptake rates at 12 months

Since T₃ uptake is 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. BCG uptake data are only displayed in this graph from Q1 2013 as BCG uptake data were available for only five of the eight HSE-Areas (this includes data from the HSE-Southern Area which relates to Kerry data only) from Q3 2003 to Q2 2009 (except Q3 2004 when HSE-Southern Area data were not available), for three HSE-Areas in Q3 2009, for two HSE-Areas in Q4 2009, for three HSE-Areas in Q1 2010 and Q2 2010, for five HSE-Areas in Q4 2010, Q1 2011 and Q2 2011, for six HSE-Areas in Q3 2011 to Q4 2012 and for seven HSE Areas from Q1 2013. From Q3 2011 to Q3 2014 HSE Western Area BCG data was not available by LHO, uptake was provided for the HSE Western Area as a whole. In Q4 2014 BCG data was available for Galway and Roscommon- the BCG denominator for HSE Western Area in Q4 2014 was the sum of the Galway and Roscommon denominators. In Q1 2015 BCG data was available for Galway, Mayo and Roscommon.

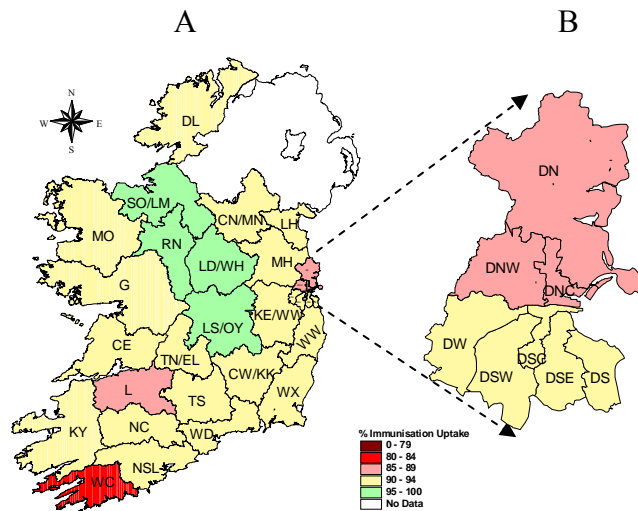


Figure 2. D₃ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2015, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

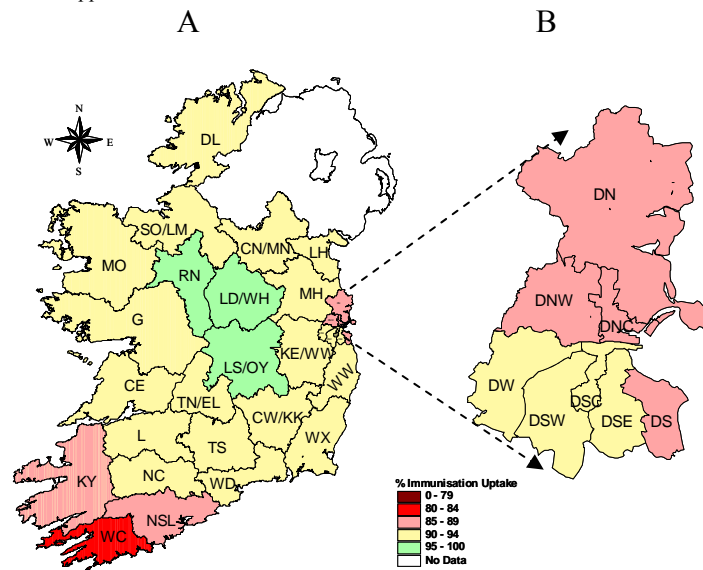


Figure 3. MenC₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2015, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

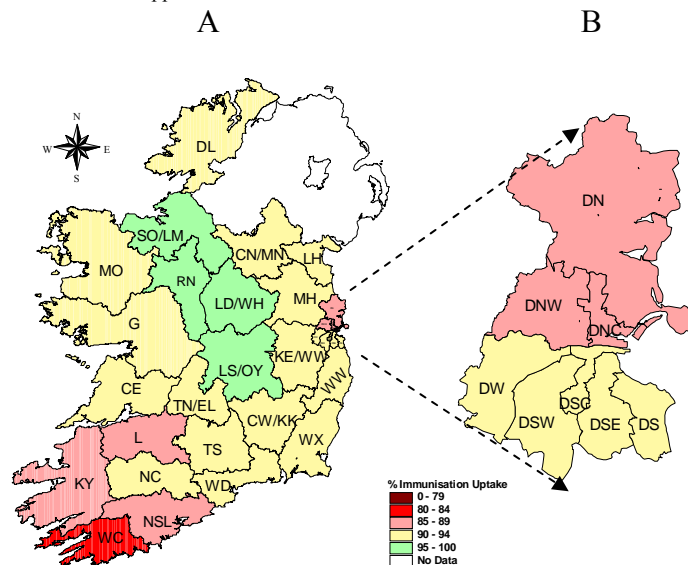


Figure 4. PCV₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2015, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Immunisation uptake among children 24 months of age in Quarter 2-2015

National

- National uptake rates were 95% for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃, 93% for MMR₁, 92% for PCV₃, 91% for Hib_b and 88% for MenC₃ (table 3). Compared to the previous quarter, national uptake rates in Q2-2015 increased by one per cent for MenC₃ and were unchanged for the remainder (figure 5).
- In total, seven of the eight HSE Areas were able to provide uptake data on MenC_b and PCV_b in Q2-2015. These Areas cover approximately 91% of the national birth cohort. Where data were available, national uptake was 90% for MenC_b and 93% for PCV_b. Compared to the previous quarter MenC_b and PCV_b uptake were unchanged (figure 5).
- Figure 5 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q2-2015.

HSE Area

- The target uptake of $\geq 95\%$ was reached for D₃, P₃, T₃, Hib₃, Polio₃ and HepB₃ in six HSE Areas, for Hib_b, PCV₃ and MMR₁ in two HSE Areas, for MenC₃ and PCV_b in one and in none for MenC_b (table 3).

Local Health Office (LHO)

- Immunisation uptake rates in children 24 months of age in Q2-2015 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.
- The target uptake of $\geq 95\%$ was reached in 20 LHOs for HepB₃, 19 LHOs for D₃, T₃, P₃, Hib₃ and Polio₃, 8 for MMR₁ and PCV_b, 7 for Hib_b, 6 for PCV₃, in two for MenC₃ and one for MenC_b.

Table 3. Immunisation uptake (%) at 24 months in cohort born 01/04/2013–30/06/2013

HSE Area	No. in Cohort*	D ₃ /T ₃ /P ₃	Hib ₃	HepB ₃	Polio ₃	Hib _b	MenC ₃	MenC _b	PCV ₃	PCV _b	MMR ₁
Eastern	6365	94	94	94	94	88	86	88	90	92	91
Midland	1028	98	98	98	98	98	92	94	95	97	96
Mid-Western	1315	94	94	94	94	91	89	91	90	92	92
North Eastern	1774	96	96	96	96	91	88	91	92	94	93
North Western	840	97	97	96	97	91	86	91	90	94	93
South Eastern	1779	96	96	96	96	94	89	91	93	94	94
Southern	2381	95	95	95	95	90	87	88	91	92	92
Western	1432	97	97	97	97	95	95	na	97	na	95
Ireland	16914	95	95	95	95	91	88	90	92	93	93

* As the denominator/number in cohort varied slightly according to vaccine D₃, T₃ and P₃ cohorts are shown here

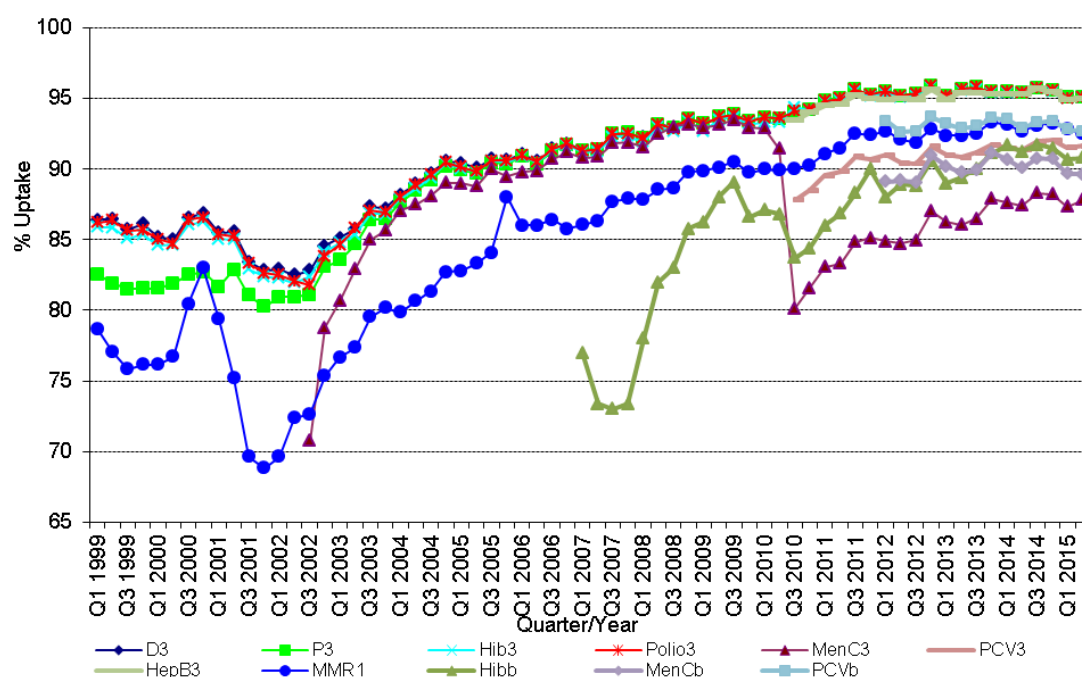


Figure 5. National quarterly immunisation uptake rates at 24 months

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 Hib₃ 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. The MenC₃ and PCV₃ figures are based on data from six of the eight HSE Areas.

Conclusions

In Quarter 2-2015, national uptake rates at 24 months for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ reached the target of $\geq 95\%$. Compared to the previous quarter, national uptake rates at 24 months in Q2-2015 increased by one per cent for MenC₃ and were unchanged for the remainder.

MenC_b and to a lesser extent 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 for their children at this age.

Acknowledgements

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

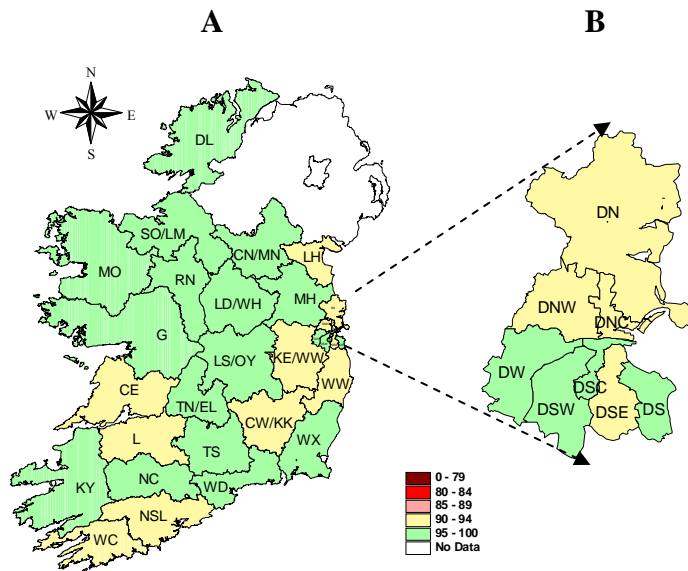


Figure 6. D₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2015, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

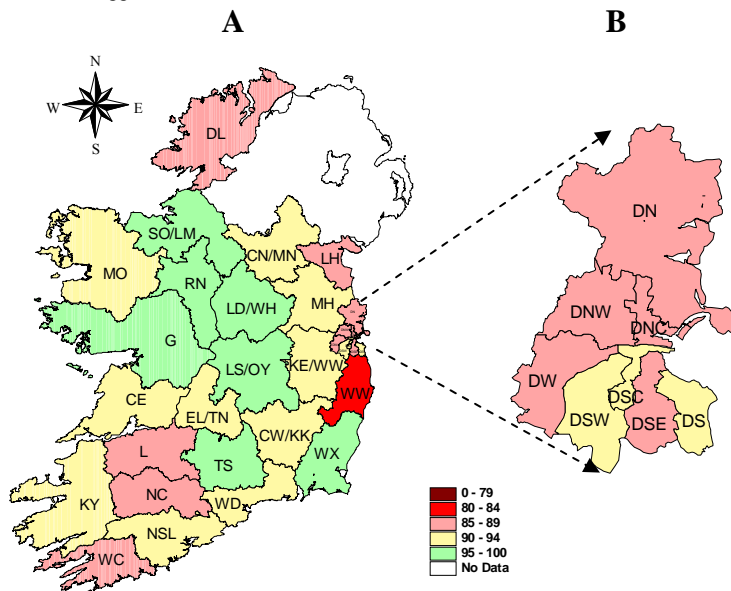


Figure 7. Hib₆ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2015, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

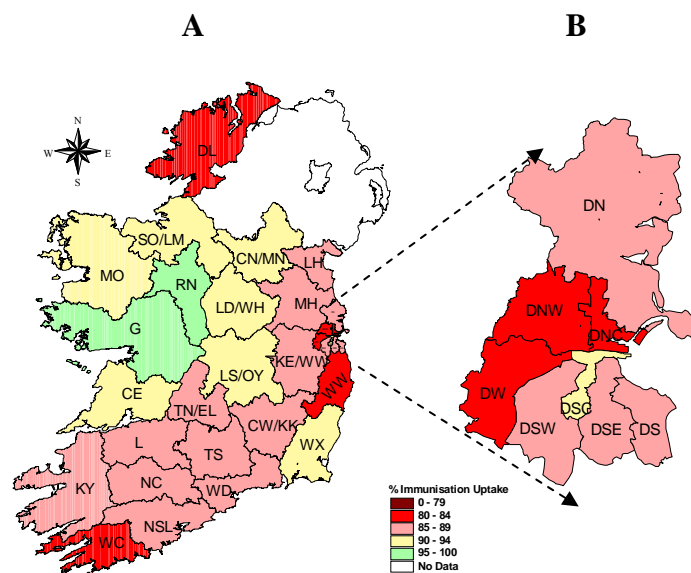


Figure 8. MenC₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2015, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

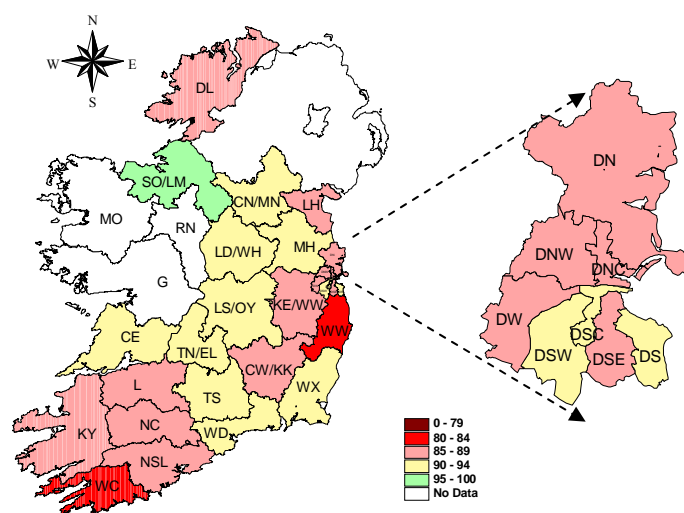


Figure 9. MenC_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2015, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

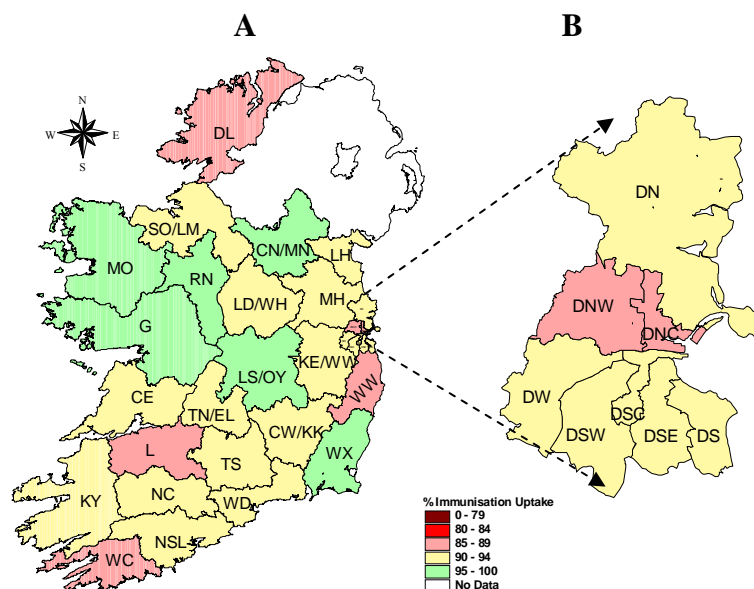


Figure 10. PCV₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2015, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

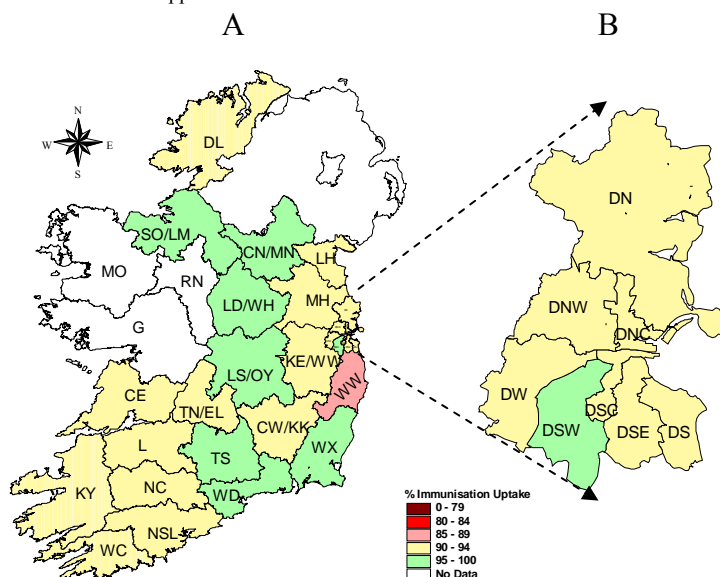


Figure 11. PCV₆ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2015, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

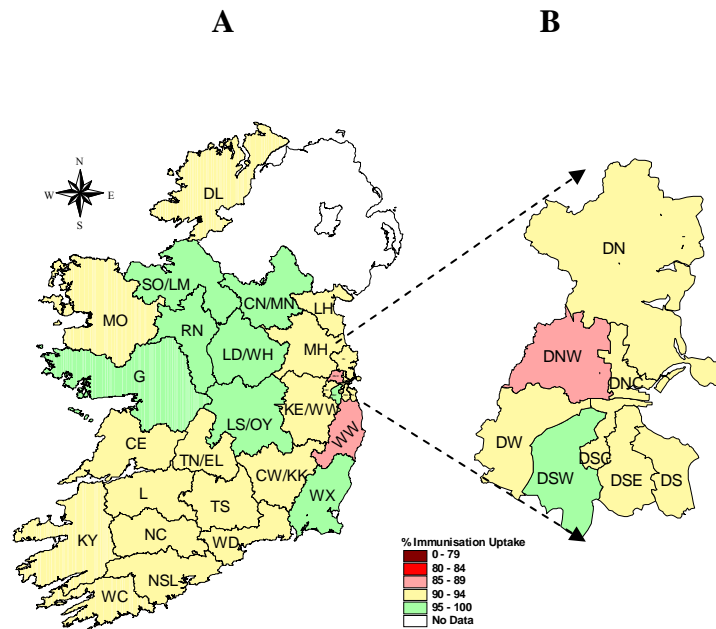


Figure 12. MMR₁ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2015, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Appendix 1

Immunisation Uptake at 12 Months in Cohort Born 01/04/2014-30/06/2014											
HSE Area	LHO/HSE Area	No. in cohort for BCG	No. in cohort for D ₃ , T ₃ & P ₃ *	Immunisation Uptake (%)							
				BCG	D ₃ T ₃	P ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₂	PCV ₂
Eastern	Dublin South	400	400	94	92	92	92	92	92	89	92
	Dublin South East	388	388	94	91	91	91	91	91	91	92
	Dublin South City	414	414	93	91	91	91	91	91	90	91
	Dublin South West	616	616	96	90	90	90	90	90	90	90
	Dublin West	614	614	93	92	92	92	92	92	92	93
	Dublin North West	892	892	91	88	88	88	88	88	88	89
	Dublin North Central	471	471	92	85	85	85	85	85	85	85
	Dublin North	1008	1008	93	89	89	89	89	89	89	89
	Kildare/West Wicklow	943	943	96	91	91	91	91	91	91	91
	Wicklow	447	447	90	91	91	91	91	91	90	90
	HSE-E Total	6193	6193	93	90	90	90	90	90	89	90
Midland	Laois/Offaly	657	657	95	95	95	95	95	95	95	95
	Longford/Westmeath	513	513	95	96	96	96	96	96	96	96
	HSE-M Total	1170	1170	95	95	95	95	95	95	95	95
Mid Western	Clare	335	335	92	92	92	92	92	92	92	93
	Limerick	409	443	95	89	89	89	89	89	90	89
	Tipperary NR/East Limerick	448	430	92	94	94	94	94	94	94	94
	HSE-MW Total	1192	1208	93	92	92	92	92	92	92	92
North Eastern	Cavan/Monaghan	na	413	na	94	94	94	94	94	94	94
	Louth	na	460	na	93	93	93	93	93	93	93
	Meath	na	793	na	91	91	91	91	91	91	91
	HSE-NE Total	na	1666	na	92	92	92	92	92	92	92
North Western	Donegal	498	498	93	92	92	92	92	91	90	92
	Sligo/Leitrim	325	325	95	95	95	94	95	94	93	96
	HSE-NW Total	823	823	94	93	93	93	93	92	91	93
South Eastern	Carlow/Kilkenny	485	485	94	92	92	92	92	92	91	91
	South Tipperary	314	314	97	94	94	94	94	94	93	94
	Waterford	457	457	96	93	93	93	93	93	92	92
	Wexford	523	523	94	93	93	93	93	92	92	93
	HSE-SE Total	1779	1779	95	93	93	93	93	93	92	92
Southern	North Cork	327	325	92	91	91	91	91	91	90	90
	North South Lee	1424	1399	93	90	90	90	90	90	88	88
	West Cork	163	161	91	83	83	83	83	83	80	80
	Kerry	435	433	90	92	92	92	92	92	88	88
	HSE-S Total	2349	2318	92	90	90	90	90	90	87	87
Western	Galway	907	907	12	94	94	94	94	94	94	94
	Mayo	424	424	90	94	94	94	94	94	94	94
	Roscommon	226	226	54	96	96	96	96	96	96	96
	HSE-W Total	1557	1557	39	94	94	94	94	94	94	94
Ireland		15063	16714	88	92	92	92	92	91	91	91

na=not available

* The denominator/number in cohort varied slightly according to vaccine. D₃, T₃ and P₃ cohorts are shown 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 cohort born 01/04/2013-30/06/2013													
HSE Area	LHO/HSE Area	No. in cohort for D ₃ & T ₃ & P ₃ *	Immunisation Uptake (%)										
			D ₃ T ₃	P ₃	Hib ₃	Hib ₆	Polio ₃	HepB ₃	MenC ₃	MenC ₆	PCV ₃	PCV ₆	MVR ₁
Eastern	Dublin South	432	95	95	95	91	95	95	89	92	92	93	93
	Dublin South East	390	94	94	94	88	94	94	86	87	90	92	91
	Dublin South City	447	95	95	95	93	95	95	91	93	92	92	93
	Dublin South West	577	97	97	97	92	97	97	89	92	93	95	95
	Dublin West	703	96	96	96	88	96	96	84	87	90	92	91
	Dublin North West	964	92	92	92	85	92	92	82	85	88	91	89
	Dublin North Central	460	93	93	93	86	93	93	83	85	88	90	91
	Dublin North	1046	93	93	93	88	93	93	86	88	90	91	91
	Kildare/West Wicklow	929	94	94	94	90	94	94	87	89	92	93	92
	Wicklow	417	92	92	92	83	92	92	81	83	86	88	88
	HSE-E Total	6365	94	94	94	88	94	94	86	88	90	92	91
Midland	Laos/Offaly	571	97	97	97	97	97	97	92	94	96	97	96
	Longford/Westmeath	457	98	98	98	98	98	98	92	93	94	96	97
	HSE-M Total	1028	98	98	98	98	98	98	92	94	95	97	96
Mid Western	Clare	410	93	93	93	92	93	93	90	92	91	91	92
	Limerick	455	94	94	94	89	94	94	88	89	89	90	91
	Tipperary NR/East Limerick	450	95	95	95	91	95	95	89	94	91	93	92
	HSE-MW Total	1315	94	94	94	91	94	94	89	91	90	92	92
North Eastern	Cavan/Monaghan	475	97	97	97	94	97	97	91	94	95	97	96
	Louth	487	94	94	94	89	94	94	86	89	91	92	92
	Meath	812	96	96	96	91	96	96	88	91	91	93	93
	HSE-NE Total	1774	96	96	96	91	96	96	88	91	92	94	93
North Western	Donegal	493	96	97	96	87	96	95	81	87	88	92	90
	Sligo/Leitrim	347	97	98	97	97	97	97	92	97	92	97	96
	HSE-NW Total	840	97	97	97	91	97	96	86	91	90	94	93
South Eastern	Carlow/Kilkenny	484	94	94	94	91	94	94	87	89	90	92	92
	South Tipperary	345	98	98	98	96	98	98	88	92	94	95	94
	Waterford	472	95	95	95	92	95	95	87	90	94	95	94
	Wexford	478	97	97	97	95	97	97	93	94	95	96	96
	HSE-SE Total	1779	96	96	96	94	96	96	89	91	93	94	94
Southern	North Cork	333	96	96	96	89	96	96	87	88	90	92	92
	North South Lee	1407	94	94	94	90	94	95	88	89	91	91	92
	West Cork	195	93	93	93	86	93	93	81	84	89	91	90
	Kerry	446	96	96	96	91	96	96	87	89	91	93	92
	HSE-S Total	2381	95	95	95	90	95	95	87	88	91	92	92
Western	Galway	841	98	98	98	96	98	98	96	na	97	na	95
	Mayo	368	96	96	96	90	96	96	90	na	98	na	91
	Roscommon	223	98	98	98	97	98	98	97	na	98	na	97
	HSE-W Total	1432	97	97	97	95	97	97	95	na	97	na	95
Ireland †		16914	95	95	95	91	95	95	88	90	92	93	93

na=not available

*The denominator/number in cohort varied slightly according to vaccine. D₃, T₃ and P₃ cohorts shown here.

Please note while North Lee and South Lee are two separate LHCs 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