

Background

The national immunisation uptake statistics, based on available data, for Quarter 4 2016 are presented in this report. These immunisation uptake statistics relate to children at 12 (born between 01/10/2015 and 31/12/2015) and 24 (born between 01/10/2014 and 31/12/2014) months of age in Quarter 4-2016. These children were recommended the vaccines outlined in table 1. The immunisation schedule changed in 2015 for children born on or after July 1st 2015 after the National Immunisation Advisory Committee (NIAC) recommended changing the meningococcal C (MenC) immunisation schedule in the primary childhood programme from three doses at 4, 6 and 13 months to two doses at 4 and 13 months because of evidence that a single dose of MenC vaccine provides protection for the first year of life. Please note the immunisation schedule changed in 2016 for children born on or after October 1st 2016. Please see the HSE-National Immunisation Office (NIO) website at <http://www.immunisation.ie> 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 4 2016, 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), one dose of meningococcal serogroup C conjugate vaccine (MenC₁), two doses of pneumococcal conjugate vaccine (PCV₂) and one dose of BCG vaccine are reported.

For children at 24 months of age in Quarter 4 2016, 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 Community Healthcare Organisation (CHO) 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 30/09/2016

Age	Children born 01/07/2008 to 30/06/2015	Children born 01/07/2015 to 30/09/2016
Birth	BCG	BCG
2 months	DTaP/Hib/IPV/HepB (6 in 1) + PCV	DTaP/Hib/IPV/HepB (6 in 1) + PCV
4 months	DTaP/Hib/IPV/HepB (6 in 1) + MenC	DTaP/Hib/IPV/HepB (6 in 1) + MenC
6 months	DTaP/Hib/IPV/HepB (6 in 1) + PCV + MenC	DTaP/Hib/IPV/HepB (6 in 1) + PCV
12 months	MMR + PCV	MMR + PCV
13 months	MenC + Hib	MenC + Hib

Please note the primary immunisation schedule changed in 2015 for children born on or after 01/07/2015 and changed in 2016 for children born on or after October 1st 2016. Please see the HSE-National Immunisation Office (NIO) website at <http://www.immunisation.ie> 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 4-2016

National

- The immunisation schedule changed in 2015 for children born on or after July 1st 2015 after the NIAC recommended changing the meningococcal C (MenC) immunisation schedule in the primary childhood programme from three doses at 4, 6 and 13 months to two doses at 4 and 13 months because of evidence that a single dose of MenC vaccine provides protection for the first year of life. Hence, since Quarter 3 2016, MenC₁ is now measured at 12 months of age.
- Immunisation uptake rates in children 12 months of age in Q4-2016 are presented by Community Healthcare Organisation (CHO) in table 2. National immunisation uptake rates were 91% for D₃, T₃, P₃, Hib₃, Polio₃, HepB₃ and PCV₂ and 95% for MenC₁.
- BCG vaccine stock in all areas expired at the end of April 2015. The HSE continues to experience ongoing delays with the supply of BCG vaccine. This continues to be a Europe wide issue. The number of cases of TB has been steadily falling in Ireland. The number of cases of TB for the years 2014 and 2015 was at the lowest level since records began. Most European countries do not give BCG vaccine to all babies. The National Immunisation Advisory Committee (NIAC), an independent expert group on immunisation and the Health Information and Quality Authority (HIQA) have both recommended that BCG vaccine does not now need to be given routinely to all babies in Ireland. Please see <http://www.hse.ie/eng/health/immunisation/pubinfo/babychildimm/vaccprevdisease/tb/> for further information.
- Figure 1 presents the national uptake rates at 12 months for each vaccine from Q3-2000 to Q4-2016. Compared to Q3-2016, national uptake rates in Q4-2016 for D₃, T₃, P₃, Hib₃, Polio₃, HepB₃ and PCV₂ were unchanged while MenC₁ increased by 1% (figure 1).

Community Healthcare Organisation (CHO)

- Among the CHOs, the uptake rates for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ ranged from 89% to 94%, PCV₂ ranged from 87% to 95%, and MenC₁ ranged from 92% to 96%.

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 four LHOs for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃, five for PCV₂ and in 22 LHOs for MenC₁.

Table 2. Immunisation uptake (%) at 12 months in cohort born 01/10/2015–31/12/2015

Community Healthcare Organisation/LHO*	No. in cohort [#]	BCG	D ₃ T ₃	P ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₁	PCV ₂
CHO1 (CN/MN, DL, SO/LM)	1259	0†	93	93	93	93	93	96	93
CHO2 (G, MO, RN)	1480	0	94	94	94	94	94	96	94
CHO3 (CE, L, TN)	1324	0	91	91	91	91	91	94	91
CHO4 (NC, NSL, WC, KY)	2335	0	90	90	90	90	90	95	87
CHO5 (CW/KK, TS, WD, WX)	1676	0.1	92	92	92	92	92	95	91
CHO6 (DS, DSE, WW)	1223	0	91	91	91	91	91	95	91
CHO7 (DSC, DSW, DW, KE)	2583	0.1	92	92	92	92	92	96	92
CHO8 (LS/OY, LD/WH, LH, MH)	2240	0†	92	92	92	92	92	95	92
CHO9 (DNW, DNC, DN)	2397	0	89	89	89	89	89	92	89
Ireland	16517†	0†	91	91	91	91	91	95	91

na = not available at this time

*Shown in brackets are the LHOs in each CHO. Please see Appendix 3 to translate LHO codes. The geographical boundaries of the CHOs are shown at http://www.hse.ie/eng/services/publications/corporate/CHO_Chapter_1.pdf

[#] The denominator/number in cohort varied slightly according to vaccine. D₃T₃ cohorts are shown here.

†Number in cohort for BCG is 14,755. BCG data are unavailable for the former HSE North Eastern Area i.e. CN/MN, LH, MH; therefore CHO1 and CHO8 BCG data are incomplete. At the time of writing of this report the HSE continues to experience on-going delays with the supply of BCG vaccine. This continues to be a Europe wide issue. See point 3 above regarding BCG vaccine stock in Ireland.

Immunisation uptake among children at 12 months of age in Quarter 4-2016

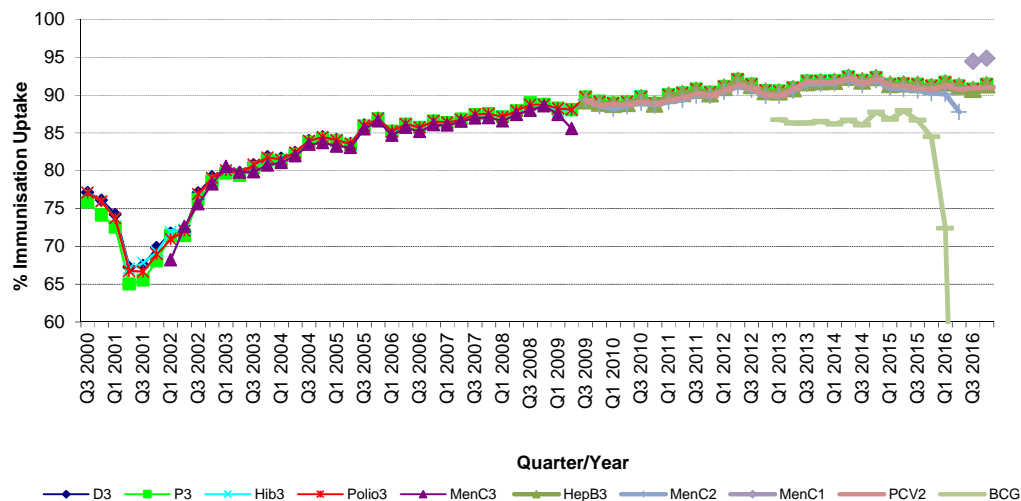


Figure 1. National quarterly immunisation uptake rates at 12 months

X-axis ranges from 60-100%.

See point 3 on the previous page regarding BCG vaccine stock in Ireland.

Since T_3 uptake is identical to D_3 uptake only D_3 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 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 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 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. Since Q1 2015 BCG data was available for Galway, Mayo and Roscommon LHOs.

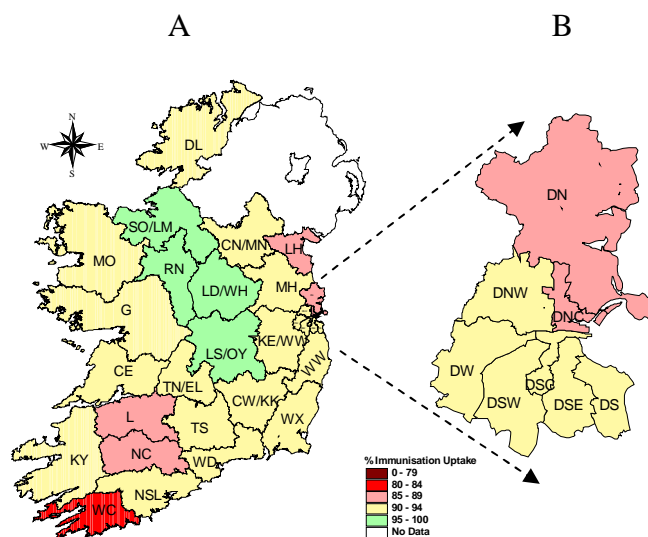


Figure 2. D₃ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 4-2016, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

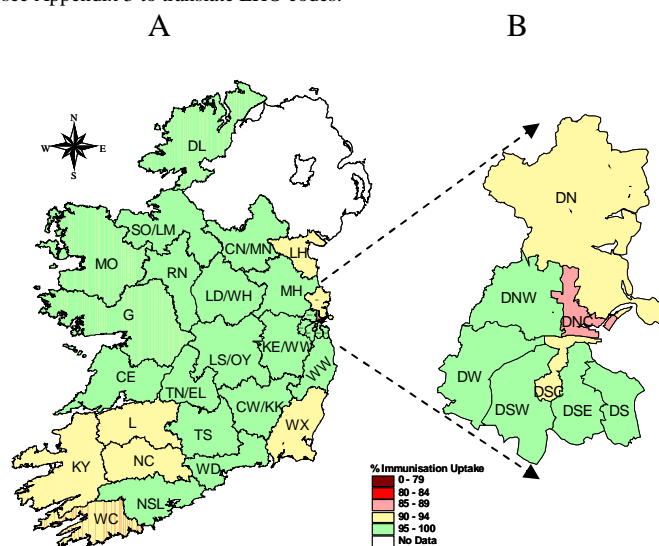


Figure 3. MenC₁ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 4-2016, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

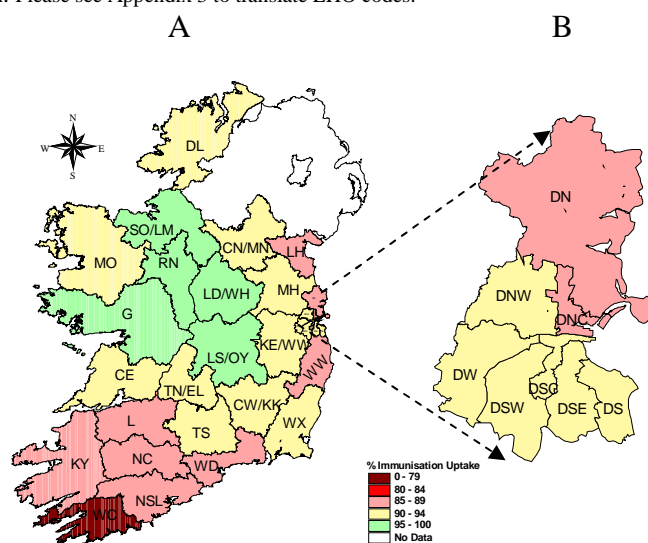


Figure 4. PCV₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 4-2016, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Immunisation uptake among children 24 months of age in Quarter 4-2016

National

- National uptake rates were 95% for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃, 92% for MMR₁, 91% for Hib_b and PCV₃ and 87% for MenC₃ (table 3). Compared to the previous quarter, national uptake rates in Q4-2016 were unchanged for these vaccines (figure 5).
- In total, eight of the nine CHOs were able to provide uptake data on MenC_b and PCV_b in Q4-2016. 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 uptake increased by 1% (figure 5).
- Figure 5 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q4-2016.

Community Healthcare Organisations (CHOs)

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

Local Health Office (LHO)

- Immunisation uptake rates in children 24 months of age in Q4-2016 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 95% was reached in 20 LHOs for D₃, T₃, P₃, Hib₃ and Polio₃, 18 for HepB₃, 10 for MMR₁, 9 for PCV_b, 5 for Hib_b, 4 for PCV₃, 2 for MenC_b and 1 for MenC₃.

Table 3. Immunisation uptake (%) at 24 months in cohort born 01/10/2014–31/12/2014

Community Healthcare Organisation/LHO	No. in Cohort*	D ₃ /T ₃ /P ₃ /Polio ₃	Hib ₃	Hib _b	HepB ₃	MenC ₃	MenC _b	PCV ₃	PCV _b	MMR ₁
CHO1 (CN/MN, DL, SO/LM)	1330	96	96	90	95	85	90	90	94	93
CHO2 (G, MO, RN)	1498	98	98	94	98	94	na	97	na	96
CHO3 (CE, L, TN)	1304	93	93	90	93	87	90	91	92	92
CHO4 (NC, NSL, WC, KY)	2362	94	94	90	94	86	88	90	91	88
CHO5 (CW/KK, TS, WD, WX)	1802	95	95	91	95	87	90	93	94	94
CHO6 (DS, DSE, WW)	1319	96	96	91	96	89	91	92	93	93
CHO7 (DSC, DSW, DW, KE)	2701	95	95	91	95	87	90	91	93	93
CHO8 (LS/OY, LD/WH, LH, MH)	2299	95	95	92	95	88	91	91	94	93
CHO9 (DNW, DNC, DN)	2413	92	92	88	92	85	88	89	91	90
Ireland	17028	95	95	91	95	87	90	91	93	92

Please see Appendix 3 to translate LHO codes

na = not available

* As the denominator/number in cohort varied slightly according to vaccine D₃T₃ cohorts are shown here

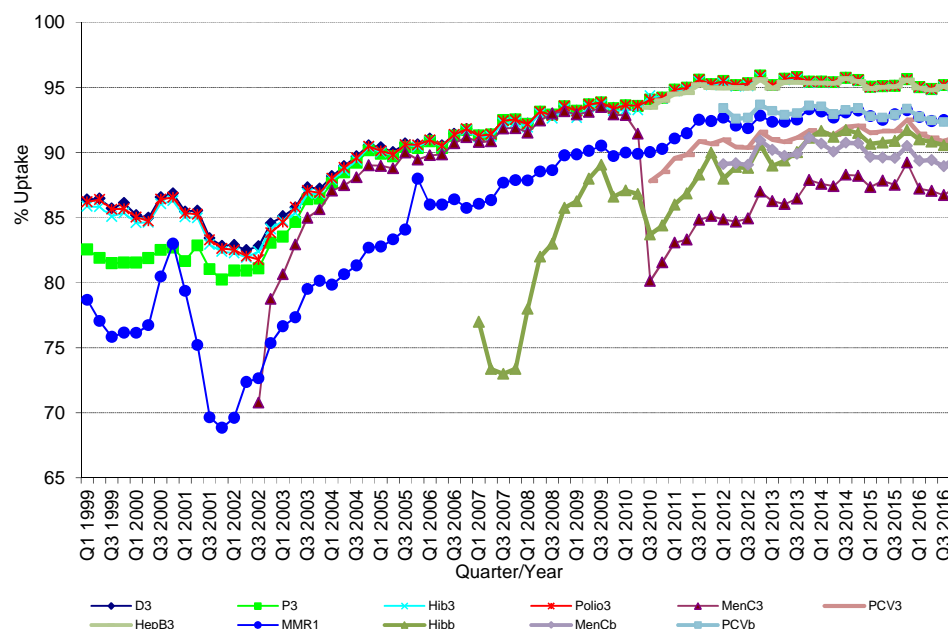


Figure 5. National quarterly immunisation uptake rates at 24 months

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 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. MenC_b and PCV_b data are only available for 6 of the 8 HSE Areas from Q1 2012 to Q4 2014 and for 7 HSE Areas since Q1 2015.

Conclusions

In Quarter 4-2016, national uptake rates at 24 months for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ reached the target of 95%. Uptake of the remaining vaccines are lower; doses of these remaining vaccines are given at 12 and 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 all those involved in childhood immunisation including the General Practitioners, Practice Nurses, HSE Areas, Public Health Nurses, Immunisation Co-ordinators, Specialists in Public Health Medicine, Surveillance Scientists and Systems Analysts for their assistance.

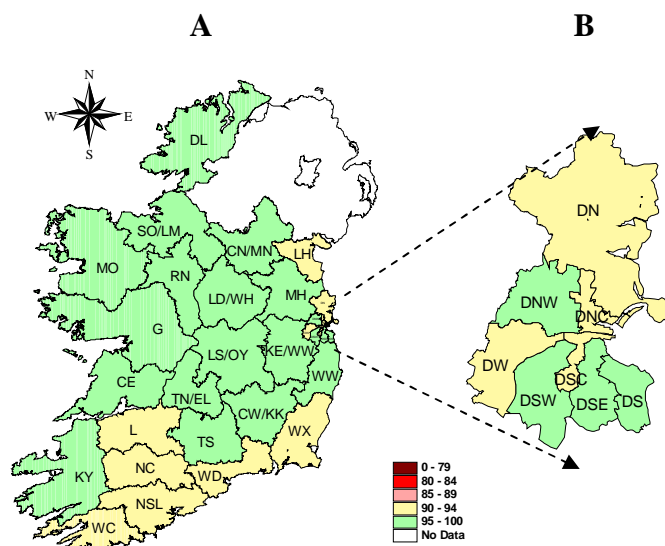


Figure 6. D₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2016, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

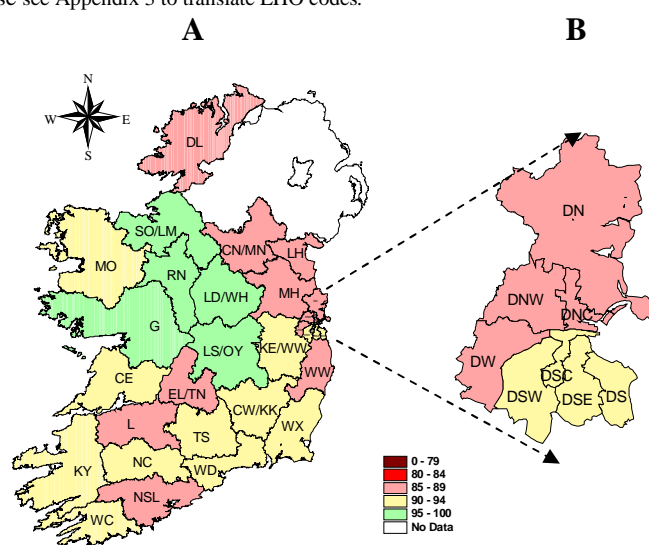


Figure 7. Hib immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2016, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

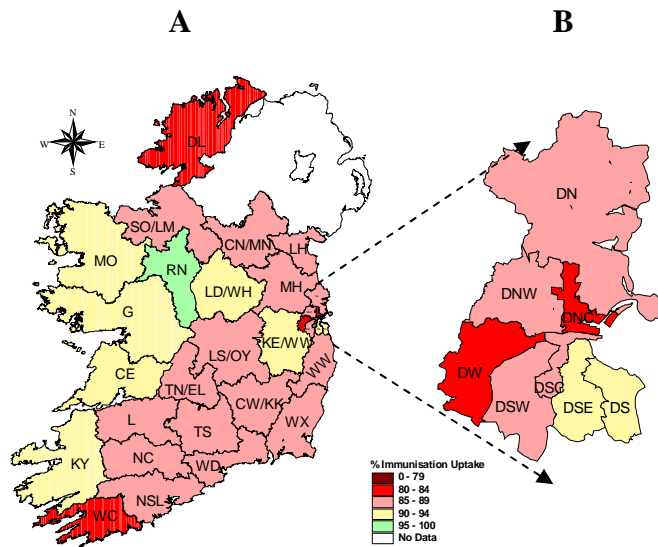


Figure 8. MenC₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2016, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

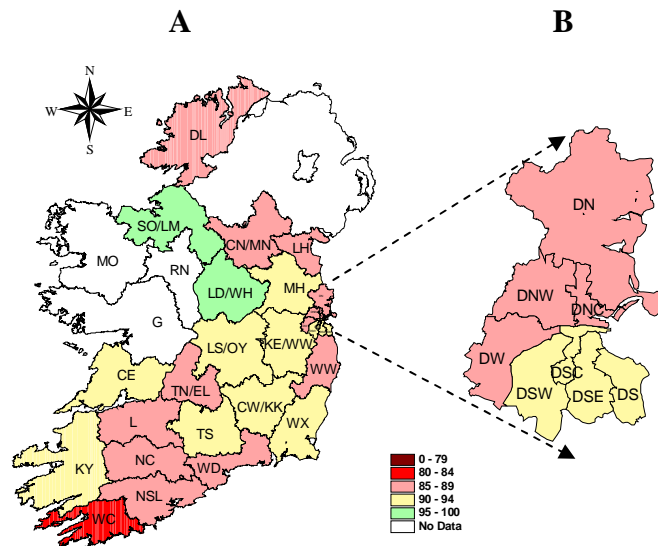


Figure 9. MenC_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2016, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

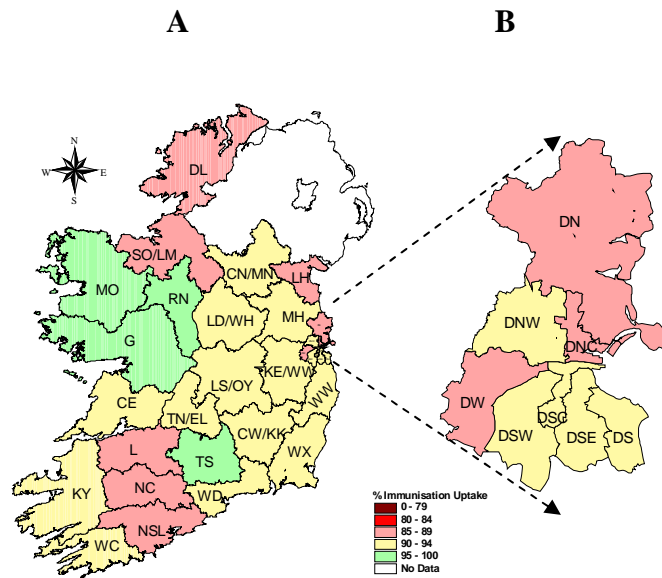


Figure 10. PCV₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2016, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

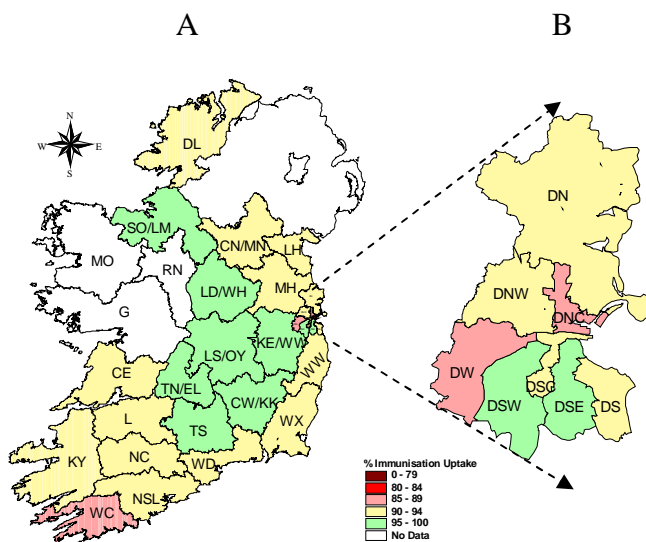


Figure 11. PCV₆ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2016, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

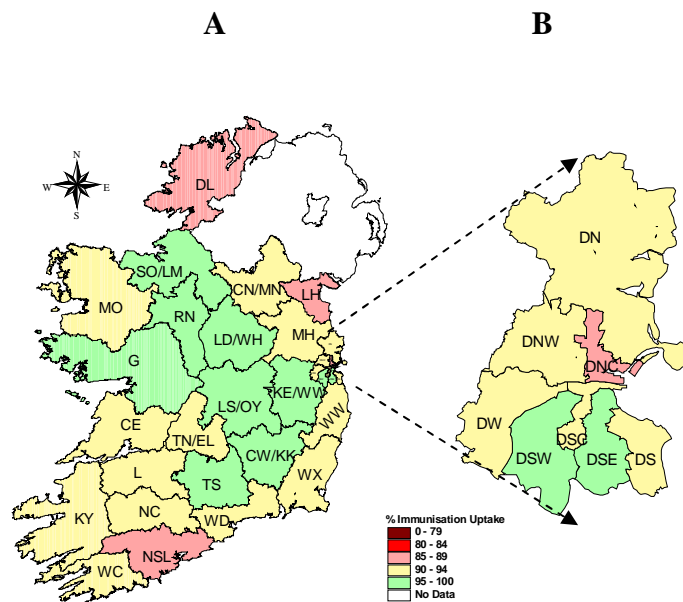


Figure 12. MMR₁ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 4-2016, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Appendix 1

Immunisation uptake (%) at 12 months of age in cohort born 01/10/2015-31/12/2015											
Community Healthcare Organisation (CHO)	LHO/CHO	No. in cohort for BCG*	No. in cohort for D ₃ T ₃ #	Immunisation Uptake (%)							
				BCG*	D ₃ T ₃	P ₃	Hib ₃	Polio ₃	HepB ₃	MenC ₁	PCV ₂
CHO1	Cavan/Monaghan	na	480	na	92	92	92	92	92	97	93
	Donegal	496	496	0.0	93	93	93	93	92	95	92
	Sligo/Leitrim	283	283	0.0	96	96	96	96	95	98	95
	CHO1 Total*	779	1259	0.0	93	93	93	93	93	96	93
CHO2	Galway	836	836	0.0	94	94	94	94	94	96	95
	Mayo	419	419	0.0	92	92	92	92	92	97	92
	Roscommon	225	225	0.0	95	95	95	95	95	96	95
	CHO2 Total	1480	1480	0.0	94	94	94	94	94	96	94
CHO3	Clare	405	414	0.0	93	93	93	93	93	95	93
	Limerick	415	494	0.0	88	88	88	88	88	92	88
	Tipperary NR/East Limerick	409	416	0.0	93	93	93	93	93	96	93
	CHO3 Total	1229	1324	0.0	91	91	91	91	91	94	91
CHO4	North Cork	337	332	0.0	89	89	89	89	89	93	86
	North South Lee	1376	1370	0.0	91	91	91	91	91	96	89
	West Cork	191	192	0.0	82	82	82	82	82	90	79
	Kerry	445	441	0.0	93	93	93	93	93	94	88
	CHO4 Total	2349	2335	0.0	90	90	90	90	90	95	87
CHO5	Carlow/Kilkenny	458	458	0.0	93	93	93	93	93	97	93
	South Tipperary	283	283	0.4	94	94	94	94	94	97	93
	Waterford	433	433	0.0	91	91	91	91	91	95	89
	Wexford	502	502	0.0	91	91	91	91	91	94	91
	CHO5 Total	1676	1676	0.1	92	92	92	92	92	95	91
CHO6	Dublin South	411	411	0.0	92	92	92	92	92	95	91
	Dublin South East	400	400	0.0	92	92	92	92	92	95	92
	Wicklow	412	412	0.0	90	90	90	90	90	96	89
	CHO6 Total	1223	1223	0.0	91	91	91	91	91	95	91
CHO7	Dublin South City	462	462	0.4	90	90	90	90	90	94	90
	Dublin South West	580	580	0.0	94	94	94	94	94	97	94
	Dublin West	655	655	0.2	90	90	90	90	90	95	90
	Kildare/West Wicklow	886	886	0.0	94	94	94	94	94	96	93
	CHO7 Total	2583	2583	0.1	92	92	92	92	92	96	92
CHO8	Laois/Offaly	575	575	0.0	95	95	95	95	95	95	95
	Longford/Westmeath	464	464	0.0	96	96	96	96	96	96	96
	Louth	na	454	na	87	87	87	87	87	94	88
	Meath	na	747	na	90	90	90	90	90	95	91
	CHO8 Total*	1039	2240	0.0	92	92	92	92	92	95	92
CHO9	Dublin North West	865	865	0.0	91	91	91	91	91	95	91
	Dublin North Central	503	503	0.0	87	87	87	87	87	89	87
	Dublin North	1029	1029	0.0	89	89	89	89	89	92	89
	CHO9 Total	2397	2397	0.0	89	89	89	89	89	92	89
Ireland *		14755	16517	0.0	91	91	91	91	91	95	91

na=not available

*BCG data were unavailable for Cavan/Monaghan, Louth and Meath

BCG vaccine stock in all areas expired at the end of April 2015. The HSE continues to experience ongoing delays with the supply of BCG vaccine. This continues to be a Europe wide issue. The number of cases of TB has been steadily falling in Ireland. The number of cases of TB for the years 2014 and 2015 was at the lowest level since records began. Most European countries do not give BCG vaccine to all babies. The National Immunisation Advisory Committee (NIAC), an independent expert group on immunisation and the Health Information and Quality Authority (HIQA) have both recommended that BCG vaccine does not now need to be given routinely to all babies in Ireland. Please see <http://www.hse.ie/eng/health/immunisation/pubinfo/babychildimm/vaccprevdisease/tb/> for further information.

#The denominator/number in cohort varied slightly according to vaccine. D₃T₃ cohort shown here.

Appendix 2

Immunisation uptake (%) at 24 months of age in cohort born 01/10/2014-31/12/2014													
Community Healthcare Organisation (CHO)	LHO/CHO	No. in cohort for D ₃ T ₃ *	Immunisation Uptake (%)										
			D ₃ T ₃	P ₃	Hib ₃	Hib _b	Polio ₃	HepB ₃	MenC ₃	MenC _b	PCV ₃	PCV _b	MMR ₁
CHO1	Cavan/Monaghan	519	97	97	97	87	97	97	85	88	93	94	93
	Donegal	482	95	95	95	89	95	92	83	88	89	93	89
	Sligo/Leitrim	329	97	97	96	97	98	97	86	97	89	95	97
	CHO1 Total	1330	96	96	96	90	96	95	85	90	90	94	93
CHO2	Galway	866	98	98	98	95	98	98	94	na	96	na	96
	Mayo	421	97	97	97	90	97	97	90	na	96	na	93
	Roscommon	211	99	99	99	98	99	99	98	na	99	na	98
	CHO2 Total	1498	98	98	98	94	98	98	94	na	97	na	96
CHO3	Clare	358	95	95	95	93	95	95	90	93	91	92	93
	Limerick	485	90	90	90	88	90	90	86	89	88	90	90
	Tipperary NR/East Limerick	461	95	95	95	88	95	95	86	88	94	95	93
	CHO3 Total	1304	93	93	93	90	93	93	87	90	91	92	92
CHO4	North Cork	358	93	93	93	90	93	93	86	87	89	91	91
	North South Lee	1386	94	94	93	88	94	94	85	87	89	91	85
	West Cork	172	91	91	91	90	91	92	84	84	90	88	90
	Kerry	446	96	96	96	93	96	96	90	92	93	93	94
	CHO4 Total	2362	94	94	94	90	94	94	86	88	90	91	88
CHO5	Carlow/Kilkenny	514	96	96	96	90	96	96	86	90	92	96	95
	South Tipperary	311	96	96	96	93	96	96	89	93	96	97	97
	Waterford	436	94	94	95	90	94	94	86	89	90	92	92
	Wexford	541	94	94	94	91	94	94	88	91	93	94	94
	CHO5 Total	1802	95	95	95	91	95	95	87	90	93	94	94
CHO6	Dublin South	422	95	95	95	93	95	95	91	92	92	92	93
	Dublin South East	450	96	96	96	92	96	96	92	93	94	95	95
	Wicklow	447	96	96	96	88	96	96	85	87	90	92	92
	CHO6 Total	1319	96	96	96	91	96	96	89	91	92	93	93
CHO7	Dublin South City	406	94	94	94	90	94	94	88	90	90	92	91
	Dublin South West	624	97	97	97	93	97	97	88	93	92	96	95
	Dublin West	699	93	93	93	86	93	93	81	85	87	89	90
	Kildare/West Wicklow	972	96	96	96	93	96	96	91	93	94	95	95
	CHO7 Total	2701	95	95	95	91	95	95	87	90	91	93	93
CHO8	Laois/Offaly	636	96	96	96	96	96	96	89	91	91	95	95
	Longford/Westmeath	451	98	98	98	98	98	98	91	95	94	96	95
	Louth	435	92	92	92	87	92	92	85	88	89	92	89
	Meath	777	95	95	95	89	95	95	88	90	90	92	91
	CHO8 Total	2299	95	95	95	92	95	95	88	91	91	94	93
CHO9	Dublin North West	886	95	95	95	89	95	94	86	89	91	92	92
	Dublin North Central	460	92	92	92	85	92	92	81	85	85	89	87
	Dublin North	1067	91	91	91	88	91	91	86	88	89	90	91
	CHO9 Total	2413	92	92	92	88	92	92	85	88	89	91	90
Ireland		17028	95	95	95	91	95	95	87	90	91	93	92

na=not available

*The denominator/number in cohort varied slightly according to vaccine. D₃T₃ cohorts shown 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