

Immunisation uptake at 12 and 24 months of age, Quarter 2 2019

December 2019

Key Facts

Immunisation uptake rates in children 12 months of age in Quarter 2-2019

- National immunisation uptake rates were (and changes compared to Quarter 1 2019)
 - 92% for MenB₂ (unchanged)
 - 90% for D₃, T₃, P₃, Polio₃, and PCV₂ (1%)
 - 89% for Hib₃, HepB₃, MenC₁, and Rota₂ (unchanged)
- Among the Local Health Offices, the target uptake rate of 95% was reached in Quarter 2 2019 in
 - Laois/Offaly and Longford/Westmeath for all vaccines except Rota₂ (and BCG)
 - Mayo for MenB₂, PCV₂ and Rota₂
 - Cavan/Monaghan, Roscommon and Clare for MenB₂

Immunisation uptake rates in children 24 months of age in Quarter 2-2019

- National uptake rates in Q2 2019 were- and changes compared to Quarter 1-2019:
 - 94% for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ (1%);
 - 91% for MMR₁ and MenB_{complete} (unchanged);
 - 90% for Hib_b (2%), MenB₃ (1%) and Rota₂ (unchanged);
 - 89% for MenC_{b-} (1%);
 - 88% for PCV_{b-} (1%);
 - 87% for Hib₄₋ (3%);
 - 86% for PCV₃ (1%) and MenC₂ (2%);

MenB_{complete} rates based on data from 20 LHOs in Q2 and 25 LHOs in Q1;
Hib_b rates based on data from 28 LHOs in Q2 and 31 LHOs in Q1;
Hib₄ rates based on data from 18 LHOs in Q2 and 14 LHOs in Q1;
MenC₂ rates based on data from 14 LHOs in Q2 and 10 LHOs in Q1;
Remainder based on data from 31 LHOs.
- D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ uptake rates improved by 1% to 94% in Quarter 2 2019, however, they are now below the target rate of 95% for the fifth quarter in a row.
- MMR₁ was unchanged compared to the previous quarter, however, prior to this MMR₁ was previously 91% in Quarter 2 2011.
- While both PCV₃ and PCV_b improved by 1% in Quarter 2 2019 compared to the previous quarter they had both declined in Quarter 3 2018, Quarter 4 2018 and Quarter 1 2019 with both now 5% lower in Quarter 2 2019 compared to Quarter 2 2018.
- While uptake rates of D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ were 94% uptake of the remaining vaccines in Quarter 2 2019 are lower. Doses of these remaining vaccines (except Rota₂) are given at 12 and 13 months of age suggesting that parents are less likely to get the recommended vaccines for their children at this age.

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Introduction

The national immunisation uptake statistics, based on available data, for Quarter 2 2019 are presented in this report. These immunisation uptake statistics relate to children at 12 (born between 01/04/2018 and 30/06/2018) and 24 (born between 01/04/2017 and 30/06/2017) months of age in Quarter 2-2019. These children were recommended the vaccines outlined in the right hand section of table 1. The latest immunisation schedule was introduced for babies born on or after October 1st 2016. Changes to the schedule included the introduction of the Meningococcal group B and Rotavirus vaccines, a change in the recommended timing of the first MenC vaccine, a change in the recommended timing of the third PCV vaccine and introduction of a combined Hib/MenC vaccine at 13 months instead of the previous separate single doses of these vaccines. Changes to the schedule are outlined in Table 1. The Quarter 2 2019 12 month cohort are the seventh 12 month cohort recommended this immunisation schedule and the Quarter 2 2019 24 month cohort are the third 24 month cohort recommended the new schedule.

Further vaccinations are recommended for older children and adults. Please see the HSE-National Immunisation Office website at www.immunisation.ie for current and detailed information on the Irish primary childhood immunisation schedule and also recommended vaccinations for older children and adults.

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.

For children at 12 months of age in Quarter 2 2019, 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 pneumococcal conjugate vaccine (PCV₂), two doses of meningococcal serogroup B vaccine (MenB₂), two doses of rotavirus vaccine (Rota₂), one dose of meningococcal serogroup C conjugate vaccine (MenC₁) and one dose of BCG vaccine are reported. The BCG vaccine stock in all areas expired at the end of April 2015. Please see <https://www.hse.ie/eng/health/immunisation/news/bcg17.html> for further information.

For children at 24 months of age in Quarter 2 2019, 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), pneumococcal conjugate vaccine (PCV₃)*, meningococcal group B (MenB₃)*, two doses of vaccine against meningococcal group C (MenC₂)* and rotavirus (Rota₂)*, four doses of vaccines against *Haemophilus influenzae* type b (Hib₄)* 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. MenB_{complete} data was not flagged prior to Quarter 4 2018 with the Community Healthcare Organisations to be provided, and as a result some were not in a position to provide it. MenB_{complete} are those given MenB₃ plus those given two doses with the first given on or after 10 months of age and the second dose two or more months later i.e. they are completely vaccinated against MenB.

*For a more detailed description of the measures of vaccine coverage requested since Quarter 4 2018 please see Appendix 2.

Table 1. Irish primary childhood immunisation schedules for children born from 01/07/2015

Age	Children born 01/07/2015 to 30/09/2016	Children born from 01/10/2016
Birth	BCG	BCG
2 months	DTaP/Hib/IPV/HepB (6 in 1) + PCV	DTaP/Hib/IPV/HepB (6 in 1) + PCV+ MenB+ Rota
4 months	DTaP/Hib/IPV/HepB (6 in 1) + MenC	DTaP/Hib/IPV/HepB (6 in 1) + MenB+ Rota
6 months	DTaP/Hib/IPV/HepB (6 in 1) + PCV	DTaP/Hib/IPV/HepB (6 in 1) + PCV+ MenC
12 months	MMR + PCV	MMR + MenB
13 months	MenC + Hib	Hib/MenC+ PCV

Please see the HSE-National Immunisation Office (NIO) website at www.immunisation.ie for current and detailed information on the Irish primary childhood immunisation schedule, also recommended vaccinations for older children and adults and previous immunisation schedules.

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
MenB	Meningococcal group B vaccine
MenC	Meningococcal group C vaccine
MMR	Measles, Mumps and Rubella vaccine
PCV	Pneumococcal Conjugate Vaccine (13 valent vaccine recommended for babies born since 01/10/2010; and 7 valent vaccine prior to this)
Rota	Rotavirus oral vaccine

Caveats to data

The uptake rates are presented to zero decimal places.

The former HSE-SE and HSE-S provide uptake on those at 12 and 24 months of age, while the remaining areas provided uptake in the relevant birth cohorts at the time the local report is run. In Quarter 2 2019 the former HSE-NW (i.e. Donegal and Sligo/Leitrim) provided both uptake rates on those at 12 and 24 months of age and also rates at the time the report was run. The Quarter 2 2019 HSE-NW uptake rates at 12 and 24 months of age are included here, however, these rates are lower by approximately 3% (at 12 months) and some are lower by approximately 1% (at 24 months) .

In Quarter 2 2019 CHO2 indicated their Community PAS system is unable to report on Hib_b and MenC₂ at 24 months as required by HPSC and did not report Hib₄ and MenB_{complete} at 24 months due to concerns over the accuracy of the denominator. In Quarter 2 2019, CHO3 and the former HSE-NW reported caveats to their data.

Due to changes in the Irish primary childhood immunisation schedule (table 1) MenB₃, (and Rota₂) for children at 24 months of age was first requested in Quarter 4 2018. MenB_{complete} was also requested in Quarter 4 2018 but was not previously flagged with the CHOs to be provided and as a result not all were in a position to provide it. MenB_{complete} data was reported for 20 LHOs in Quarter 2 2019 and 25 LHOs in Quarter 1 2019. In Quarter 2 2019 an additional 5 LHOs (former HSE-NE and HSE-NW) reported MenB_{complete} data but as these included children who had received two doses at any age before 24 months they were excluded here from the national MenB_{complete} data.

Hib₄ was requested in Quarter 4 2018 but not in previous quarters. Hib₄ was reported for 18 LHOs in Quarter 2 2019 and for 14 LHOs in Quarter 1 2019.

For children born on or after October 1st 2016 (Quarter 4 2018 24 month cohort) the combined Hib/MenC vaccine was introduced and recommended at 13 months of age. Since Quarter 4 2018 not all areas are in a position to provide MenC₂ data as not all databases/reports were configured to count the combined Hib/MenC vaccine where it is the second dose of MenC. MenC₂ was reported for 14 LHOs in Quarter 2, and for 10 LHOs in Quarter 1 2019.

Uptake rates

Immunisation uptake rates at 12 months

National

- National immunisation uptake rates in Quarter 2 2019 were (and changes compared to Q1 2019):
 - 92% for MenB₂ (unchanged)
 - 90% for D₃, T₃, P₃, Polio₃, and PCV₂ (1%)
 - 89% Hib₃, HepB₃, MenC₁, and Rota₂ (unchanged)
- Uptake rates at 12 months by quarter are shown in Figure 1.
- This is the seventh 12 month cohort recommended the new immunisation schedule. The new immunisation schedule and changes in the schedule are shown in Table 1. The Q4 2017 12 month cohort were the first cohort recommended the new schedule. In Q4 2017, compared to Q2 2017, uptake rates at 12 months of age for MenC₁ had declined by 6%, PCV₂ declined by 3% and D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ rates declined by 2%.
- In Q2 2019, compared to Q2 2017, MenC₁ was 5% lower, Hib₃ and HepB₃ were 2% lower and D₃, T₃, P₃, Polio₃, and PCV₂ were 1% lower.
- MenC previously declined in Q3 2010 for those at 24 months of age (and there was low uptake of Hib_b). These were the first cohort recommended hepatitis B and pneumococcal conjugate vaccines. In addition, there was a change in timing of the meningococcal serogroup C vaccines and *Haemophilus influenzae* type b booster vaccine for this cohort. The Q3 2010 report is <https://www.hpsc.ie/a-z/vaccinepreventable/vaccination/immunisationuptakestatistics/immunisationuptakestatisticsat12and24monthsofage/quarterlyreports/2010/File,12327,en.pdf> . The reasons for this decline and actions taken are described <https://ndsc.newsweaver.ie/epiinsight/1i8qi6mq9g3?a=1&p=17742945&t=17517774>

Community Healthcare Organisation (CHO)

- Among the CHOs, the uptake rates for MenB₂ ranged from 89% to 95%, for MenC₁ and PCV₂ ranged from 85-93%, for Rota₂ ranged from 86% to 94%, and for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ ranged from 85% to 93% and (table 2).

Table 2. Immunisation uptake (%) at 12 months of age in Quarter 2 2019, cohort born 01/04/2018-30/06/2018, by LHO and CHO in Ireland

Community Healthcare Organisation (CHO)	Local Health Office*/CHO	Number in cohort for BCG	Number in cohort for D ₃ T ₃ †	Immunisation Uptake (%)									
				BCG‡	DT ₃ §	P ₃	Hib ₃	Polio ₃	HepB ₃	MenB ₂	MenC ₁	PCV ₂	Rota ₂
CHO1	Cavan/Monaghan	na	480	na	93	93	93	93	93	96	93	93	90
	Donegal	474	474	0	86	86	86	86	86	93	86	87	83
	Sligo/Leitrim	289	289	0	88	88	88	88	88	94	88	88	86
	CHO1 Total	763	1243	0	89	89	89	89	89	94	89	89	86
CHO2	Galway	801	801	0	92	92	92	92	92	94	91	92	94
	Mayo	335	335	0	91	91	91	91	91	96	93	96	95
	Roscommon	179	179	0	94	94	94	94	94	95	94	94	94
	CHO2 Total	1315	1315	0	92	92	92	92	92	95	92	93	94
CHO3	Clare	377	377	0	93	93	93	93	93	95	91	93	92
	Limerick	448	448	0	89	89	89	89	89	94	89	89	88
	Tipperary NR/EL	381	381	0	91	91	91	91	91	94	91	91	92
	CHO3 Total	1206	1206	0	91	91	91	91	91	94	90	91	91
CHO4	North Cork	292	292	0	86	86	86	86	86	91	87	88	86
	North South Lee	1254	1254	0	91	91	91	91	91	94	91	91	89
	West Cork	144	144	0	85	85	85	85	85	86	84	84	78
	Kerry	409	409	0	85	85	85	85	85	90	85	84	83
CHO4 Total	2099	2099	0	89	89	89	89	89	93	89	89	86	
CHO5	Carlow/Kilkenny	427	427	0.0	91	91	91	91	91	94	91	91	86
	South Tipperary	271	271	0.4	90	90	90	90	90	94	89	90	90
	Waterford	392	392	0.0	90	90	90	90	90	93	90	90	90
	Wexford	429	429	0.0	91	91	91	91	91	93	90	90	87
CHO5 Total	1519	1519	0.1	91	91	91	91	91	94	90	90	88	
CHO6	Dublin South	386	386	0	92	92	92	92	92	94	92	92	92
	Dublin South East	357	357	0	89	89	89	89	89	92	90	90	90
	Wicklow	425	425	0	84	84	84	84	84	87	85	84	83
	CHO6 Total	1168	1168	0	88	88	88	88	88	91	89	88	88
CHO7	Dublin South City	384	384	0	90	90	90	90	90	92	90	90	91
	Dublin South West	541	541	0	88	88	88	88	88	89	89	89	86
	Dublin West	590	590	0	85	85	85	85	85	89	86	85	86
	Kildare/West	838	838	0	91	91	91	91	91	93	91	91	90
CHO7 Total	2353	2353	0	89	89	89	89	89	91	89	89	88	
CHO8	Laois/Offaly	590	590	0	95	95	95	95	95	95	95	95	92
	Longford/Westmeath	464	464	0	95	95	95	95	95	95	95	95	92
	Louth	na	390	na	92	92	92	92	92	94	92	92	89
	Meath	na	679	na	89	89	89	89	89	93	89	89	92
CHO8 Total	1054	2123	0	93	93	93	93	93	94	93	93	92	
CHO9	Dublin North West	766	766	0	89	89	89	89	89	91	88	88	87
	Dublin North Central	421	421	0	85	85	85	85	85	88	85	85	87
	Dublin North	926	926	0	83	83	83	83	83	87	83	83	85
	CHO9 Total	2113	2113	0	85	85	85	85	85	89	85	85	86
Ireland	13590	15139	0.01	90	90	89	90	89	92	89	90	89	

While North Lee and South Lee are two separate LHOs their combined immunisation uptake data are reported here.

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

‡BCG vaccine stock in all areas expired at the end of April 2015. For further information please see

<http://www.hse.ie/eng/health/immunisation/news/BCG17.html>

na=not available

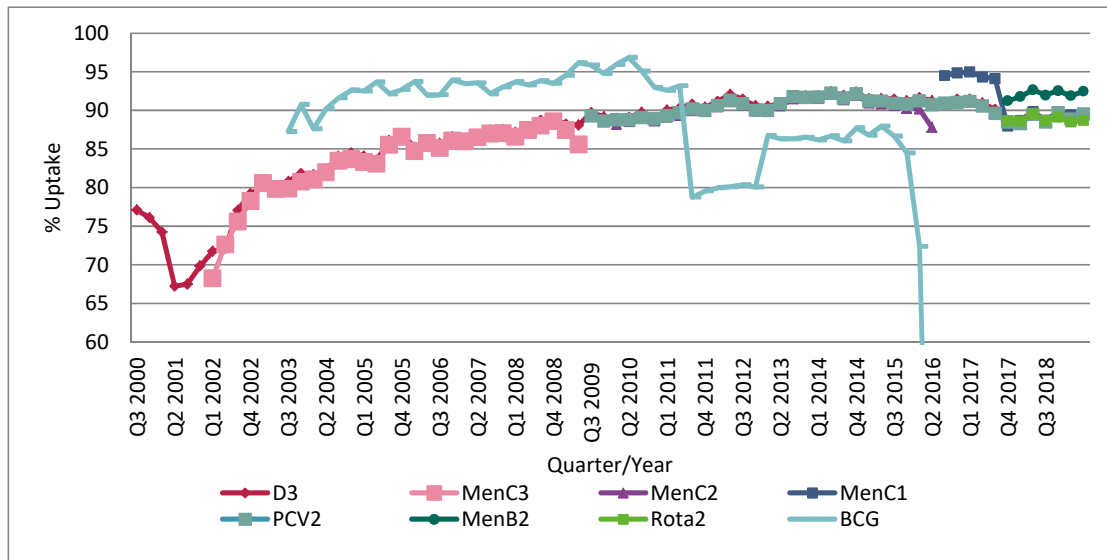


Figure 1. National quarterly immunisation uptake rates at 12 months

X-axis ranges from 60-100%.

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. Since Q1 2015 BCG data was available for Galway, Mayo and Roscommon LHOs. See page 2 regarding BCG vaccine stock in Ireland since April 2015. Q1-Q4 2018 CN/MN, LH and MH data were not available at the time of data extraction for the report.

Local Health Office (LHO)

- The immunisation uptake rates by LHO are shown in Table 2.
- D₃, MenB₂, MenC₁, PCV₂, and Rota₂ immunisation uptake rates are mapped by LHO in figures 2-6.
- The immunisation uptake rates by Quarter and LHO are available in tables and graphs at <https://www.hpsc.ie/a-z/vaccinepreventable/vaccination/immunisationuptakestatistics/immunisationuptakestatisticsat12and24monthsofage/>
- Among the Local Health Offices, the target uptake rate of 95% was reached in Q2 2019 in
 - Laois/Offaly and Longford/Westmeath for all vaccines except Rota₂ (and BCG)
 - Mayo for MenB₂, PCV₂ and Rota₂
 - Cavan/Monaghan, Roscommon and Clare for MenB₂

Changes in uptake in Quarter 2 2019

- Among 31 LHOs in Q2 2019 and Q1 2019, 28 LHOs in Q1-Q4 2018 and 31 LHOs in Q3-Q4 2017:
 - D₃ uptake was ≥90% in 17 LHOs in Q2 2019, compared to 15 LHOs in Q1 2019, 13 LHOs in Q4 2018 and Q3 2018, 17 LHOs in Q2 2018, 11 LHOs in Q1 2018, 15 LHOs in Q4 2017 and 20 LHOs in Q3 2017.
 - MenC₁ uptake was ≥90% in 17 LHOs in Q2 2019, compared to 17 LHOs in Q1 2019, 13 LHOs in Q4 2018, 14 LHOs in Q3 2018, 17 LHOs in Q2 2018, 13 LHOs in Q1 2018, 15 LHOs in Q4 2017 and 30 LHOs in Q3 2017.
 - PCV₂ uptake was ≥90% in 18 of the LHOs in Q2 2019, compared to 13 of the LHOs in Q1 2019, 13 LHOs in Q4 2018, 12 of the LHOs in Q3 2018, 16 of the LHOs in Q2 2018, 10 LHOs in Q1 2018, 14 LHOs in Q4 2018 and 18 LHOs in Q3 2017.
 - MenB₂ uptake was ≥90% in 25 LHOs in Q2 2019, compared to 25 LHOs in Q1 2019, 23 LHOs in Q4 2018, 21 LHOs in Q3 2018, 26 LHOs in Q2 2018, 18 LHOs in Q1 2018 and 25 in Q4 2017.
 - Rota₂ uptake was ≥90% in 15 LHOs in Q2 2019, compared to 11 LHOs in Q1 2019, 13 LHOs in Q4 2018, 12 LHOs in Q3 2018, 16 LHOs in Q2 2018, 10 LHOs in Q1 2018 and 11 in Q4 2017.
- Uptake rates among some of the LHOs in Q2 2019 (and compared to Q1 2019 unless otherwise stated) are described below:
 - Donegal and Sligo/Letitrim data are the uptake rates at 12 months of age; in previous quarters uptake rates were for the relevant birth cohort at the time the report was run.
 - Donegal uptake rates were 1-2% lower (except MenB₂ and Rota₂) compared to Q1 2019
 - Sligo/Leitrim uptake rates were 4-6% lower (except MenB₂ was unchanged) compared to Q1 2019 and 7-9% lower compared to Q2 2017.
 - Roscommon uptake rates were <95% for most vaccines (except MenB₂ and Rota₂) in Q1 2019 and Q2 2019
 - West Cork uptake rates in Q2 2019 ranged from 78% (for Rota₂) to 86% (for MenB₂).
 - Kerry uptake rates were 83-90% with D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ 6% lower (at 85%) in Q2 2019 compared to Q2 2018 (91%) and 5% lower compared to Q2 2017 (90%).
 - Waterford uptake rates improved by 2-5% compared to Q1 2019 with D₃, T₃, P₃, Hib₃, Polio₃, HepB₃, MenC₁ and PCV₂ ≥90% for the first time since Q3 2017
 - Wicklow uptake rates were 83-87% and are <90% since Q3 2017
 - Dublin North uptake rates are 2% lower with D₃, T₃, P₃, Hib₃, Polio₃, the lowest they have been since LHO data were first collected nationally by HPSC in 2007 and the PCV₂ uptake rate is the lowest since the introduction of the vaccine.

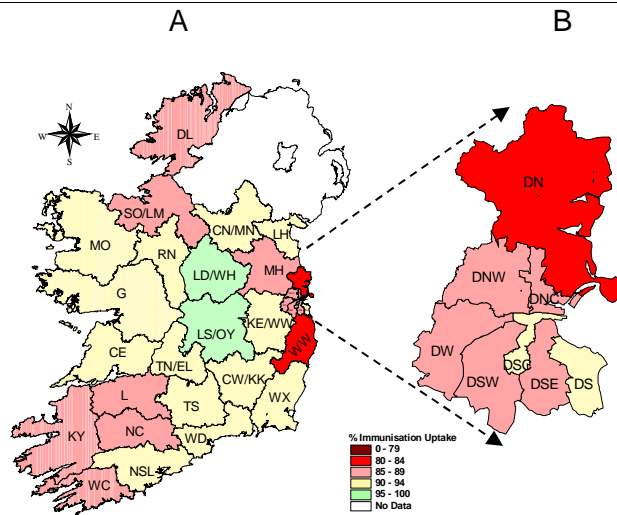


Figure 2. D₃ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

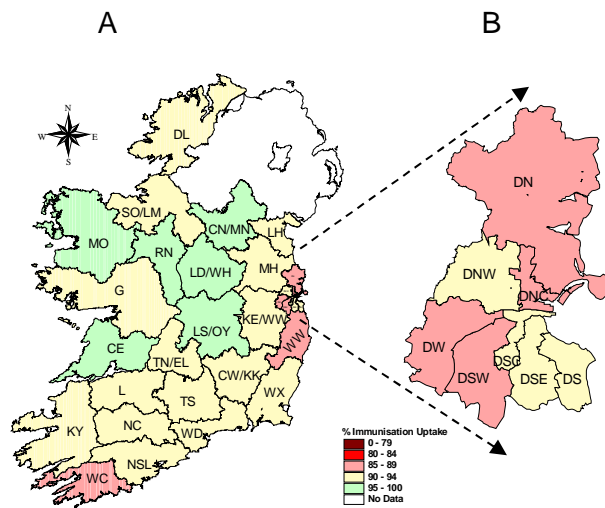


Figure 3. MenB₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

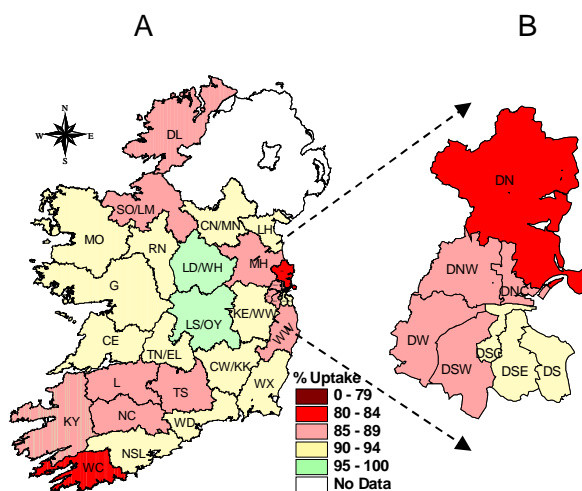


Figure 4. MenC₁ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

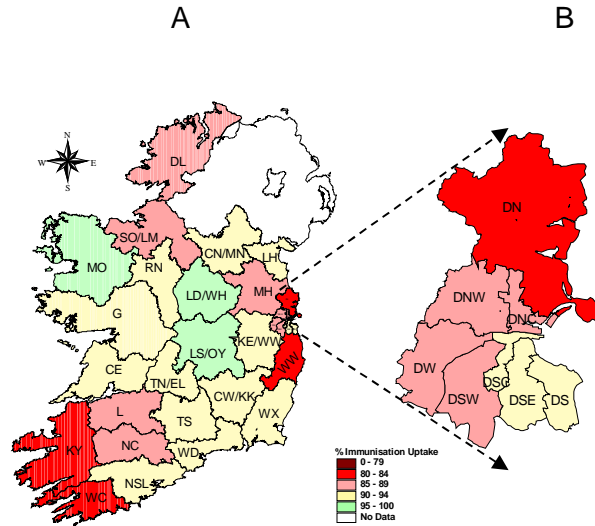


Figure 5. PCV₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

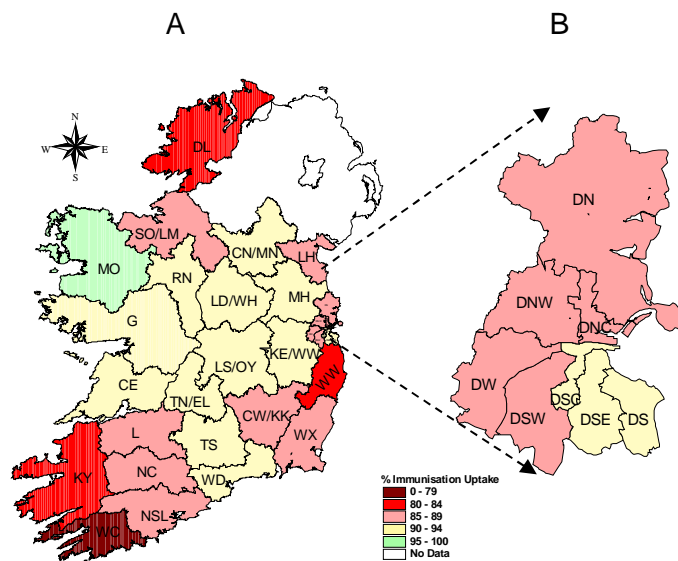


Figure 6. Rota₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Immunisation uptake among children 24 months of age in Quarter 2-2019

National

- National uptake rates in Q2 2019 were- and changes compared to Q1-2019 (figure 1):

94% for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ (1%);

91% for MMR₁ and *MenB_{complete}* (unchanged);

90% for Hib_b (2%), MenB₃ (1%) and Rota₂ (unchanged);

89% for MenC_{b-} (1%);

88% for PCV_{b-} (1%);

87% for *Hib₄₋* (3%);

86% for PCV₃ (1%) and *MenC₂* (2%);

MenB_{complete} rate based on data from only 20 LHOs in Q2, 25 LHOs in Q1 and 21 LHOs in Q4;

MenC₂ rate based on data from only 14 LHOs in Q2, 10 LHOs in Q1 and 7 LHOs in Q4;

Hib₄ rate based on data from only 18 LHOs in Q2, 14 LHOs in Q1 and 15 LHOs in Q4;

Hib_b rate based on data from only 28 LHOs in Q2 and 31 LHOs in Q1.

- This Q2 2019 24 month cohort was 12 months of age in Q2 2018. The uptake rates at 12 months of age in Q2 2018 compared to Q1 2018 improved by 1%. At 12 months in Q2 2018 D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenC₁/Rota₂ uptake rates were 90%, PCV₂ was 89% and MenB₂ was 93%.
- Q2 2019 24 month uptake rates compared to Q1 2019 unless otherwise stated and based on available data:
 - Compared to the previous quarter national uptake rates in Q2-2019 for D₃, T₃, P₃, Hib₃, Polio₃, and HepB₃ improved by 1% to 94%. This is the fifth quarter (Q2 2018-Q2 2019) since 2010 that D₃, T₃, P₃, Hib₃ and Polio₃ did not reach the target of 95% at 24 months. In Q2 2019, D₃ uptake rates increased in 15 LHOs by 1-4%, were unchanged in five and declined by 1-5% in 11 LHOs. In Q2 2019, the lowest uptakes were in WW (85%) and the highest were in Longford/Westmeath (98%).
 - Hib₄ uptake was 91-93% in the LHOs of CHO4 and Laois-Offaly/Longford-Westmeath and 81-87% in the LHOs of CHO5. The remaining Hib₄ data has caveats or are from a similar database to those who reported caveats; all LHOs reporting data are included here. Hib₄ was 87% in Q2 2019 (and based on 18 LHOs data) compared to 84% in Q1 2019 (based on data from 14 LHOs). In Q2 2019 uptake was as low as 77% (Donegal) and was <90% in 12 of the 18 LHOs reporting data.
 - Compared to Q1 2019 Hib_b improved by 2% to 90% in Q2 2019; it had declined by 2% in Q1 2019 to 88%. In Q2 2019, Hib_b declined in 10 LHOs by 1-5%, 3 were unchanged and increased by 1-19% in 15 LHOs; Hib_b improved

by 10% in North Cork (to 99%) and North South Lee (to 97%), by 19% in West Cork (to 98%) and by 8% in Kerry (to 94%). These large increases seen for Hib_b were not observed for other vaccines in North Cork, North South Lee and Kerry (see LHO section below).

- In Q2 2019 MenB₃ was 90% compared to 89% in Q1 2019. In Q2 2019, MenB₃ declined by 1-3% in 10 LHOs, was unchanged in 7 LHOs, and increased by 1-8% in 14 LHOs. Among the LHOs MenB₃ ranged from lows of 81% in Wicklow, 84% in Donegal, and 86% in Dublin West to a high of 94% in Mayo, Laois/Offaly and Longford/Westmeath.
- In Q2 2019 MenC₂ uptake was 88-90% in the LHOs of CHO4 and Longford/Westmeath and Laois/Offaly.
The MenC₂ figures from other areas are difficult to interpret due to reported caveats, for some it is not clear if it is definitely uptake of two doses and a number of areas are not in a position to report it. MenC₂ uptake was reported for 14 LHOs in Q2 2019 and their combined uptake was 86%, for 10 LHOs in Q1 2019 and their combined uptake was 88% and for seven LHOs in Q4 2018 and their combined uptake was 90%.
Of the 14 LHOs reporting data in Q2 2019, the lowest uptake was in Donegal (77%) and the highest was in Longford/Westmeath (90%); 13 of the 14 had uptakes of <90%.
- MenC_b improved by 1% in Q2 2019; in Q1 2019 MenC_b had declined by 2% compared to Q4 2018.
In Q2 2019, MenC_b declined by 1-7% in 13 of the LHOs reporting data, were unchanged in four LHOs, and increased by 1-9% in 14 LHOs. The largest declines were in Roscommon (-7%) and Dublin South West (-5%) and the largest improvements were in West Cork (9%) and Wicklow (7%) and Dublin North Central (7%).
In Q2 2019, the lowest uptakes were in Donegal (83%), Wicklow (82%) and Dublin West (81%) while the highest was in Longford/Westmeath (95%).
- Compared to the previous quarter national uptake rates in Q2 2019 for PCV₃ (86%) and PCV_b (88%) improved by 1%, however, they are both 5% lower compared to Q2 2018.
PCV₃ and PCV_b had declined in Q1 2019 (by 2-3%), in Q4 2018 (by 2-3%) and in Q3 2018 (by 1%).
PCV₃ was 86% in Q2 2019, 85% in Q1 2019 but was 88-93% prior to this.
PCV_b was 88% in Q2 2019, 87% in Q1 2019. Prior to Q4 2018 PCV_b uptake was between 92-94%.
In Q2 2019 compared to Q1 2019 PCV₃ declined in 13 LHOs by 1-3%, were unchanged in two, and increased by 1-11% in 16 LHOs; the largest increase (11%) was in West Cork.
In Q2 2019, the lowest uptake rates (77%) of PCV₃ were in Donegal, Wicklow, and Dublin West and the highest were in CHO2 (95-97%).

In Q2 2019, the lowest uptake rate (79%) of PCV_b was in Dublin West and the highest in Mayo and Roscommon (95%).

In Q2 2019 compared to Q1 2019, PCV_b declined in 12 LHOs by 1-5%, were unchanged in 2 LHOs, and increased by 1-6% in 17 LHOs.

- Rota₂ was 90% in both Q2 2019 and Q1 2019. Rota₂ ranged from lows of 81% in Donegal and 83% in Wicklow to a high of 96% in the LHOs in CHO2.

- MMR₁ was 91% in Q2 2019, unchanged compared to Q1 2019. MMR₁ had declined by 1% in Q1 2019 to 91%; it was previously 91% in Q1 2011.
In Q2 2019 compared to Q1 2019 MMR₁ declined in 11 LHOs by 1-4%, were unchanged in 6 LHOs and increased by 1-10% in 14 LHOs with 4% decline in DSW and Roscommon and 10% increase in West Cork.
Six LHOs had <90% uptake of MMR₁ namely Cavan/Monaghan, Donegal, Wicklow, Dublin West, Meath and Dublin North while three reached or exceeded the 95% target namely West Cork, Laois/Offaly and Longford/Westmeath.
Uptake ranged from a low of 84% (in Wicklow) to a high of 96% (in West Cork).

- Figure 7 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q2-2019.

Table 3. Immunisation uptake (%) at 24 months of age in Quarter 2 2019, cohort born 01/04/2017-30/06/2017, by LHO and CHO in Ireland

Community Healthcare Organisation (CHO)	Local Health Office/CHO	No. in cohort for D ₃ [†]	Immunisation Uptake (%)*											
			DT ₃ [‡]	HepB ₃	Hib ₄	Hib _b	MenB ₃	MenB complete	MenC ₂	MenC _b	PCV ₃	PCV _b	Rota ₂	MMR ₁
CHO1	Cavan/Monaghan	473	93	93	83	87	88	na	83	87	86	85	88	89
	Donegal	475	90	89	77	84	84	na	77	83	77	83	81	86
	Sligo/Leitrim	304	95	95	85	90	90	na	85	88	86	89	90	91
	CHO1 Total	1252	92	92	81	87	87	na	82	86	82	85	86	89
CHO2	Galway	810	94	94	na	na	92	na	na	88	95	88	96	93
	Mayo	389	95	95	na	na	94	na	na	90	96	95	96	92
	Roscommon	194	95	95	na	na	93	na	na	89	97	95	96	93
	CHO2 Total	1393	95	95	na	na	92	na	na	89	96	91	96	93
CHO3	Clare	370	97	96	89	94	92	na	89	93	89	93	91	93
	Limerick	447	95	94	89	92	91	na	88	92	87	90	90	91
	Tipperary	422	93	93	84	91	91	na	84	90	84	89	88	91
	CHO3 Total	1239	95	95	87	92	91	na	87	92	87	90	90	92
CHO4	North Cork	313	95	95	92	99	91	92	88	94	90	92	89	93
	North South Lee	1270	94	95	92	97	92	93	88	93	88	90	91	92
	West Cork	178	93	93	92	98	92	94	88	94	90	90	85	96
	Kerry	412	94	94	91	94	89	91	89	93	88	90	87	93
	CHO4 Total	2173	94	94	92	97	91	93	88	93	89	91	89	93
CHO5	Carlow/Kilkenny	399	92	93	81	87	90	92	na	87	84	86	88	91
	South Tipperary	306	95	95	87	90	92	92	na	90	87	90	92	93
	Waterford	411	92	92	84	90	88	90	na	89	86	89	87	91
	Wexford	473	95	95	86	89	92	93	na	89	87	89	92	92
	CHO5 Total	1589	94	94	84	89	90	92	na	89	86	89	90	92
CHO6	Dublin South	408	92	92	na	93	87	88	na	92	89	90	90	91
	Dublin South East	363	94	94	na	87	88	88	na	87	84	87	93	91
	Wicklow	426	85	85	na	82	81	82	na	82	77	80	83	84
	CHO6 Total	1197	90	90	na	87	85	86	na	87	83	85	88	88
CHO7	Dublin South City	363	94	94	na	90	90	91	na	90	88	89	93	92
	Dublin South West	549	94	94	na	87	87	89	na	86	82	84	91	90
	Dublin West	554	91	91	na	82	86	87	na	81	77	79	91	87
	Kildare/West Wicklow	849	95	95	na	90	90	91	na	89	86	88	92	92
	CHO7 Total	2315	94	94	na	87	88	90	na	87	83	85	92	90
CHO8	Laois/Offaly	550	97	97	93	94	94	95	89	93	90	91	93	95
	Longford/Westmeath	453	98	98	92	96	94	96	90	95	90	93	91	95
	Louth	397	93	93	82	87	88	na	82	87	81	81	90	90
	Meath	724	94	94	84	87	89	na	84	87	84	83	91	89
	CHO8 Total	2124	95	95	88	91	91	95	86	90	86	87	91	92
CHO9	Dublin North West	718	94	94	na	90	90	91	na	89	86	88	92	93
	Dublin North Central	386	96	96	na	93	89	91	na	92	86	88	92	93
	Dublin North	944	90	90	na	88	87	88	na	87	82	84	88	89
	CHO9 Total	2048	93	93	na	90	88	90	na	89	84	86	90	91
Ireland		15330	94	94	87	90	90	91	86	89	86	88	90	91

*Please see the Caveats to Data section for information on data completeness and caveats

†As the denominator/number in cohort varied slightly according to vaccine the D₃ cohort is shown here

‡ Since P₃, Hib₃ and Polio₃ uptake very similar to DT₃ uptake only D₃ uptake figures are presented

While North Lee and South Lee are two separate Local Health Offices their combined immunisation uptake data are reported here

Community Healthcare Organisations (CHOs)

- The target uptake of 95% was reached in only three CHOs for D₃, P₃, T₃, Hib₃, Polio₃, and HepB₃, and one for Hib_b, MenB_{complete}, PCV₃, and Rota₂, and in none for the remainder (table 3).

Local Health Office (LHO)

- Immunisation uptake rates in children 24 months of age in Q2-2019 are presented by LHO in Table 3.
- Immunisation uptake rates of some vaccines/measures of coverage are mapped by LHO in figures 8-18.
- In Q2 2019, among 31 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 12 LHOs for D₃, T₃, P₃, Hib₃, Polio₃, and HepB₃, 4 for Hib_b (of 28), 3 for MMR₁, Rota₂ and PCV₃, 2 for MenB_{complete} (of 20) and PCV_b, 1 for MenC_b, and in none for Hib₄ (of 18), MenB₃ and MenC₂ (of 14).
 - In comparison, among LHOs reporting data:
 - in Q1 2019, among 31 LHOs unless otherwise stated, the target uptake of 95% was reached in 14 LHOs for D₃, T₃, P₃, Hib₃, and Polio₃, 13 for HepB₃, 5 for MenB_{complete} (of 25), 4 for MMR₁ and Rota₂, 3 for Hib_b, MenB₃ and PCV₃, 2 for MenC_b, 1 for MenC₂ (of 10), and PCV_b and in none for Hib₄ (of 14).
 - in Q4 2018, among 28 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 14 LHOs for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃, 7 for MMR₁, 6 for Hib_b, 4 for MenC_b, 3 for PCV₃ and Rota₂, 2 for MenB₃ and MenB_{complete} (of 21), and 1 for Hib₄ (of 15), MenC₂ (of 7) and PCV_b.
 - in Q3 2018, among 28 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 17 LHOs for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃, 9 for MMR₁, 7 for PCV_b, 5 for Hib_b, 3 for MenC₂ and PCV₃ and 1 for MenC_b.
 - in Q2 2018, among 28 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 16 LHOs for D₃, T₃, P₃, Hib₃ and Polio₃, 14 for HepB₃, 8 for PCV_b, 5 for MMR₁, 3 for PCV₃, 2 for Hib_b, 1 for MenC₂ and none for MenC_b.
 - in Q1 2018, among 28 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 17 LHOs for D₃, T₃, P₃, Hib₃ and Polio₃, 16 for HepB₃, 10 for MMR₁, 8 for PCV_b, 4 for Hib_b and PCV₃, 1 for MenC_b, and none for MenC₂.

- The immunisation uptake rates by Quarter and LHO are available at www.hpsc.ie
- Changes in uptake by LHO in Q2 2019 compared to Q1 2019 (unless otherwise stated):
 - **CHO1**
 - Cavan/Monaghan rates declined by 1-5% except PCV₃ improved by 2%. Uptake rates ranged from 83% for Hib₄ and MenC₂ to 93% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃. MMR₁ was 89%; since LHO data was first collected nationally in 2007 by HPSC MMR₁ was only previously 89% in Q3 2008 in Cavan/Monaghan. No vaccine reached the target of $\geq 95\%$ in Q2 2019.
 - Donegal uptake rates presented here for Q2 2019 are at 24 months of age. In previous quarters Donegal uptake rates were in the relevant birth cohort at the time the uptake report was run. Donegal PCV_b improved by 3%, MenB₃ and PCV₃ improved by 2%, Hib₄/Hib_b/MenC₂/MenC_b/MMR₁ improved by 1%, HepB₃ was unchanged, D₃/T₃/P₃/Hib₃/Polio₃/Rota₂ declined by 1%. Uptake rates ranged from 77% (for Hib₄/MenC₂/PCV₃) to 90% (for D₃/T₃/P₃/Hib₃/Polio₃) in Q2 2019. No vaccine reached the target of $\geq 95\%$ in Q2 2019. This is the fourth quarter in a row that D₃/T₃/P₃/Hib₃/Polio₃ were below 95% and are their lowest (90%) since LHO data were included in the national reports in 2007.
 - Sligo/Leitrim uptake rates presented here for Q2 2019 are at 24 months of age. In previous quarters Sligo/Leitrim uptake rates were in the relevant birth cohort at the time the uptake report was run. Sligo/Leitrim HepB₃, Hib_b and PCV_b declined by 1%, MenC_b and MMR₁ declined by 3%, D₃/T₃/P₃/Hib₃/Polio₃ declined by 2%, Hib₄ and PCV₃ improved by 1%, MenB₃ improved by 2%, Rota₂ improved by 3% and MenC₂ was unchanged. Uptake rates ranged from 85% (for Hib₄ and MenC₂) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃)
 - **CHO2**
 - MenB_{complete} data was not previously flagged with the CHOs to be provided, and as a result CHO2 were not in a position to provide it. In Q2 2019 CHO2 could not provide Hib₄ or MenB_{complete} as concern was expressed as to the accuracy of the statistics denominator and stated unable to provide Hib_b or MenC₂ as requested by HPSC.
 - Galway uptake rates all declined by 2-4% except Rota₂ was unchanged. Uptake rates ranged from 88% (for MenC_b/PCV_b) to 96% for (Rota₂). PCV₃ and Rota₂ reached the target of $\geq 95\%$ in Q2 2019.
 - Mayo MenB₃ and PCV₃ improved by 3%, Rota₂ declined by 2%, MenC_b and PCV₃ declined by 1%, while the remainder were unchanged.

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₃/PCV_b/Rota₂ were all \geq target of 95%.
Uptake rates ranged from 90% (for MenC_b) to 96% (for PCV₃/Rota₂).

- Roscommon MenC_b declined by 7% (to 89%), while the remainder declined by 1-4%.

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₃/PCV_b/Rota₂ were all \geq target of 95%.
Uptake rates ranged from 89% (for MenC_b) to 97% (for PCV₃).

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₃/PCV_b/Rota₂ were all \geq target of 95%.

o CHO3

- o MenB_{complete} data was not previously flagged with the CHOs to be provided, and as a result CHO3 were not in a position to provide it. Hib₄ and MenC₂ were not reported in Q1 2019 and Q4 2018 but are included in Q2 2019 with caveats.

- o Clare D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB₃/PCV₃/PCV_b improved by 1-2%, Hib_b declined by 2%, MenC_b declined by 1%, while the remainder (that were reported in both Q1 and Q2) were unchanged.

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ were all \geq target of 95%.

Uptake rates ranged from 89% (for Hib₄/MenC₂/PCV₃) to 97% (for D₃/T₃/P₃/Hib₃/Polio₃).

- o Limerick D₃/T₃/P₃/Hib₃/Polio₃ were unchanged while the remainder that were reported in both quarters declined by 1-3%.

D₃/T₃/P₃/Hib₃/Polio₃ were all \geq target of 95%.

Uptake rates ranged from 87% (for PCV₃) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃).

- o Tipperary NR/East Limerick rates were unchanged or improved or declined by 1%.

None of the vaccine rates reached the target of 95% in this quarter.

Uptake rates ranged from 84% (for Hib₄/MenC₂/PCV₃) to 93% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

o CHO4

- o CHO4 MenC₂ and Hib₄ data available in Q2 2019 but unavailable in Q1 2019.

- o North Cork Hib_b improved by 10% (to 99%), MenC_b improved by 2%, PCV₃/PCV_b/MMR₁ improved by 1% while

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB₃/MenB_{complete}/Rota₂ declined by 1-2%,

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b reached the target of 95%.

Uptake rates ranged from 88% (for MenC₂) to 99% (for Hib_b).

- o North South Lee Hib_b improved by 10%, MenC_b improved by 5%, PCV₃/PCV_b improved by 2%, MMR₁ improved by 1%,

D₃/T₃/P₃/Hib₃/Polio₃/Rota₂ declined by 1%, while HepB₃/MenB₃/MenB_{complete} was unchanged.

Hib_b and HepB₃ was \geq target of 95%.

Uptake rates ranged from 88% (for MenC₂/PCV₃) to 97% (for Hib_b).

- o West Cork uptake rates improved by 2-19% except Rota₂ was unchanged.

Hib_b improved by 19%, MMR₁ by 10%, PCV₃ by 11%, MenB_{complete}/MenC_b by 9%, MenB₃ by 8%, PCV_b by 6%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ improved by 2% and Rota₂ was unchanged.

(West Cork uptake had declined by 4-10% in Q1 2019 compared to Q4 2018, increased by 1-6% in Q4 compared to Q3, had decreased by 4-8% in Q3 compared to Q2 and in Q2 compared to Q1 it had increased by 2-8%).

Hib_b and MMR₁ were >= target of 95%.

This is the first time since LHO data were collated nationally in 2007 by HPSC that West Cork MMR₁ was >= target of 95%.

Uptake rates ranged from 85% (for Rota₂) to 96% (for MMR₁).

- Kerry Hib_b improved by 8%, MenC_b improved by 6%, PCV₃ and MMR₁ improved by 3%, PCV_b improved by 2%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB_{complete}/Rota₂ were unchanged, while MenB₃ declined by 1%.

No vaccine reached the target of 95% in this quarter.

This is the third consecutive quarter that D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ were below the target of 95%.

Uptake rates ranged from 87% (for Rota₂) to 94% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

○ CHO5

- CHO5 MenC₂ data were unavailable.

- Carlow/Kilkenny rates improved by 2-4%.

No vaccine reached the target of 95% in this quarter.

Uptake rates range from 81% (for Hib₄) to 93% (for Hib₃/HepB₃).

- Tipperary South uptake rates declined by 1-3% except Hib₄ improved by 2% and Rota₂ was unchanged.

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ were all >= target of 95%.

Uptake rates ranged from 87% (for Hib₄/PCV₃) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

- Waterford uptake rates improved by 2-6%.

No vaccine reached the target of 95% in this quarter.

Uptake rates ranged from 84% (for Hib₄) to 92% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

- Wexford improved by 1-5% except MMR₁ declined by 1%.

Uptake rates ranged from 86% (for Hib₄) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

○ CHO6

- MenC₂ and Hib₄ data were unavailable.

- Dublin South Hib_b rates improved by 4%, MenC_b/PCV₃/PCV_b improved by 3%, Rota₂ improved by 2%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ improved by 1%, MenB_{complete} declined by 2%, MenB₃ declined by 1% while MMR₁ was unchanged.

No vaccine reached the target of 95%.

Uptake rates ranged from 87% (for MenB₃) to 93% (for Hib_b).

- Dublin South East MenB₃/Rota₂ improved by 3%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MMR₁ improved by 2%, PCV_b improved by 1%, Hib_b/MenB_{complete}/MenC_b/PCV₃ were unchanged.
No vaccine reached the target of 95% in this quarter.
Uptake rates ranged from 84% (for PCV₃) to 94% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
- Wicklow rates improved by 1-7%.
Wicklow rates had declined by 4-10% in Q1 2019 compared to Q4 2018.
No vaccine reached the target of 95% in Q2 2019 and all were ≤85%.
Uptake rates ranging from 77% (for PCV₃) to 85% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
- **CHO7**
 - MenC₂ and Hib₄ data were unavailable.
 - Dublin South City Rota₂ improved by 2%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB_{complete}/PCV₃/PCV_b/MMR₁ improved by 1%, Hib_b declined by 1% while the remainder were unchanged.
No vaccine reached the target of ≥ 95%.
Uptake rates ranged from 88% (for PCV₃) to 94% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - Dublin South West Hib_b/MenC_b/PCV_b declined by 5%, MMR₁ declined by 4%, PCV₃ declined by 3%, MenB₃ declined by 2%, D₃/T₃/P₃/Hib₃/Polio₃/MenB_{complete} declined by 1%, while HepB₃ and Rota₂ was unchanged.
No vaccine reached the target of ≥ 95%.
This is the first time since 2012 that D₃/T₃/P₃/Hib₃/Polio₃/ were less than the 95% target and that Hib_b was 87%; it is the lowest MenC_b has been since it was first collected in 2012; the lowest MMR₁ since Q1 2007 and the lowest ever for PCV₃/PCV_b.
Uptake rates ranged from 82% (for PCV₃) to 94% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - Dublin West PCV_b declined by 4%, Hib_b/MenC_b/PCV₃ declined by 3%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB₃/MenB_{complete}/Rota₂ improved by 1% while MMR₁ was unchanged.
No vaccine reached the target of 95% in this quarter.
Uptake rates ranged from 77% (for PCV₃) to 91% for (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Rota₂).
 - Kildare Hib_b/MenC_b/PCV₃/PCV_b declined by 1-2%, MenB₃/MenB_{complete} were unchanged, MMR₁ improved by 1%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Rota₂ improved by 2%.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ reached the target of 95% in this quarter, the first time since Q4 2017.
Uptake rates ranged from 86% (for PCV₃) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
PCV₃ is the lowest since it was introduced.

○ **CHO8**

- Laois/Offaly Hib₄ improved by 2%, Rota₂ declined by 3%, MenC₂ declined by 2%, MenB₃/MenB_{complete}/MenC_b/PCV₃/PCV_b/MMR₁ declined by 1%, while D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b were unchanged.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB_{complete}/MMR₁ reached the target of >= 95% in this quarter.
Uptake rates ranged from 89% (for MenC₂) to 97% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
- Longford/Westmeath uptake rates for PCV₃ declined by 2%, MenC₂ and MMR₁ declined by 1%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b improved by 2% while the remainder were unchanged.
Uptake rates ranged from 90% (for MenC₂/PCV₃) to 98% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b/MenC_b/MenB_{complete}/MMR₁ reached the target of >=95%.
- Louth MenC_b improved by 5%, Hib_b improved by 2%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Rota₂/MMR₁ improved by 1%, MenB₃ was unchanged, Hib₄/PCV₃ declined by 1%, MenC₂ declined by 3% and PCV_b declined by 2%.
No vaccine reached the target of 95% in this quarter.
Uptake rates ranged from 81% (for PCV_b/PCV₃) to 93% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃.
- Meath uptake rates improved from 1-5%.
No vaccine reached the target of 95% in this quarter.
Uptake rates ranged from 83% (for PCV_b) to 94% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃.

○ **CHO9**

- MenC₂ and Hib₄ data were unavailable.
- Dublin North West D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b/MenC_b/Rota₂/ declined by 1-2%, MenB₃/MenB_{complete}/PCV₃/PCV_b were unchanged while MMR₁ improved by 1%.
No vaccine reached the target of >=95%. In the previous six quarters D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ had reached the target of >=95%.
Uptake rates ranged from 86% (for PCV₃) to 94% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃.
- Dublin North Central uptake rates improved by 1-7% except MMR₁ was unchanged.
Uptake rates had declined by 1-9% last quarter.
Uptake rates ranged from 86% (for PCV₃) to 96% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ reached the target of >=95%.
- Dublin North D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₃/PCV_b declined by 1%, Hib_b improved by 2%, MenC_b improved by 1%, while the remainder were unchanged.

No vaccine reached the target of 95% in this quarter.

Uptake rates ranged from 82% (for PCV₃) to 90% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

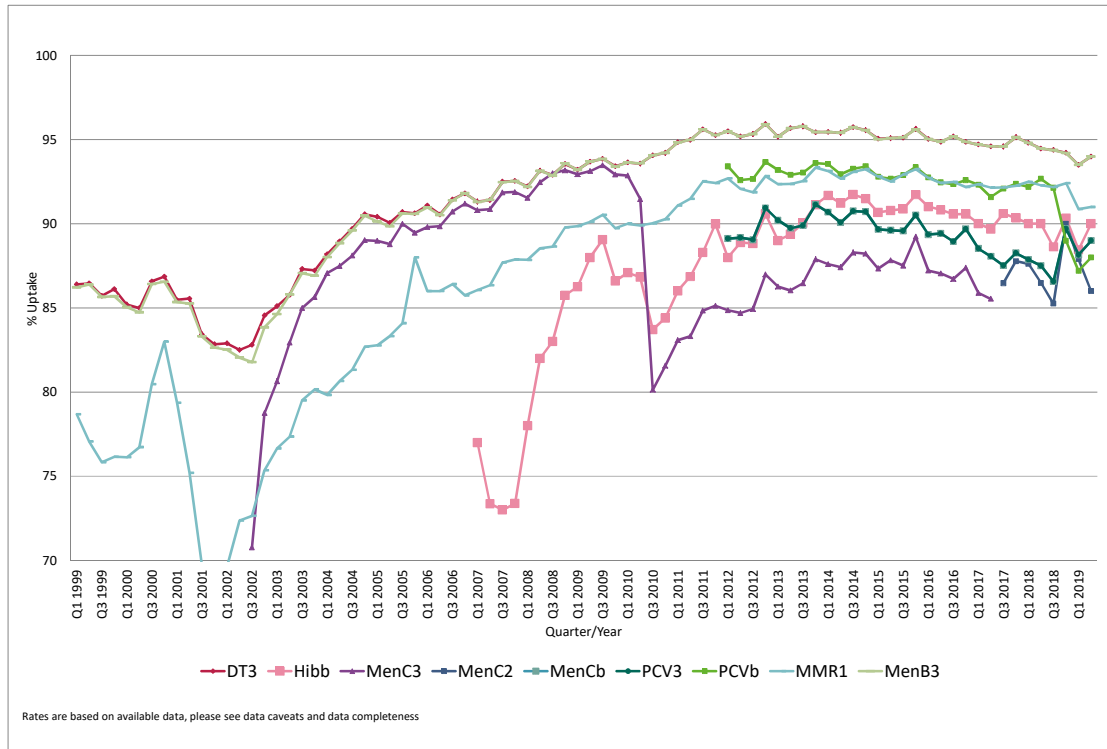


Figure 7. National quarterly immunisation uptake rates at 24 months

Notes: The Q1-2005 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, T₃, P₃, 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. MenC₃ and PCV_b data were only available for 6 of the 8 HSE Areas from Q1 2012 to Q4 2014. MenC₃ and PCV_b data were only available for 8 CHOs from Q1 2015-Q1 2017 but are available for all since Q2 2017. Q2 2017 CHO3 Hib_b figures were unavailable. CN/MN, LH and MH Q1, Q2 & Q3 2018 data were unavailable. For children born on or after 1st October 2016 (Quarter 4 2018 24 month cohort) the combined Hib/MenC vaccine is recommended at 13 months. For children born prior to the 1st October 2016 individual Hib and MenC vaccines were recommended. However, some children in these cohorts (born prior to the 1st October 2016) were given the combined Hib/MenC vaccine but the databases/reports were not always configured to include the combined Hib/MenC vaccine in the uptake statistics. Prior to Q3 2018 the combined Hib/MenC booster was not counted in the MenC₃ uptake statistics **except** in CHO4 and it was not counted in the MenC₃ and Hib_b uptake statistics in CHO2/3/6/7/8/9. In Q3 2018 the combined Hib/MenC booster was not counted in the MenC₃ uptake statistics in CHO3/6/7/9 and it was not counted in the MenC₃/Hib_b statistics in CHO6/7/9. MenC₃ uptake was available for only 7 LHOs in Q4 2018 and 10 in Q1 2019. Please see the Caveats to Data section of this report for caveats to Q2 2019 data.

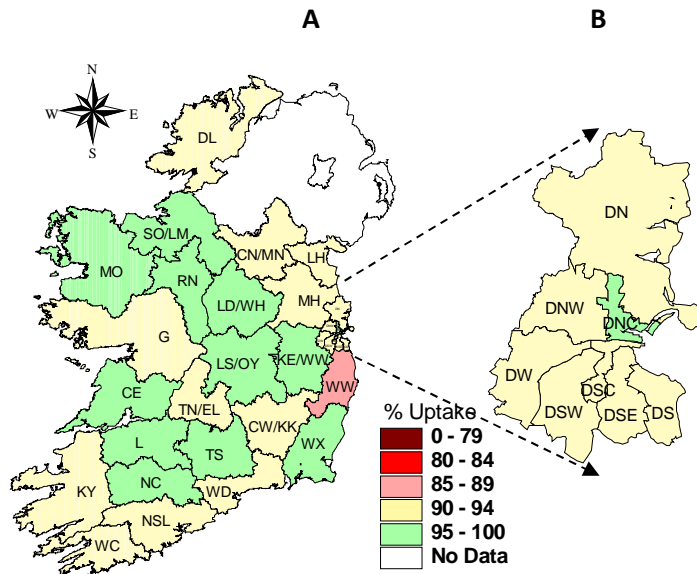


Figure 8. D₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

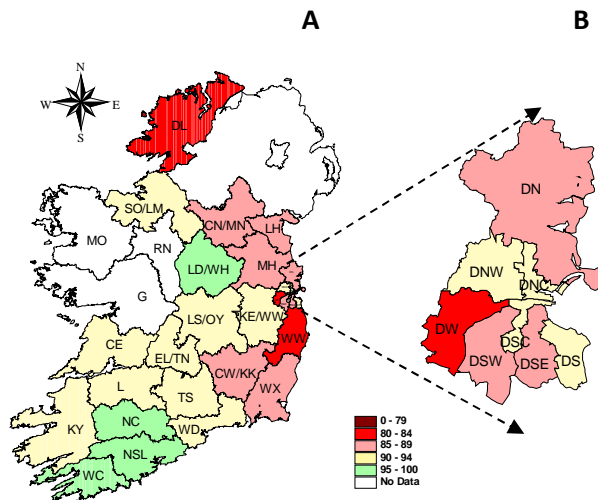


Figure 9. Hib₆ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

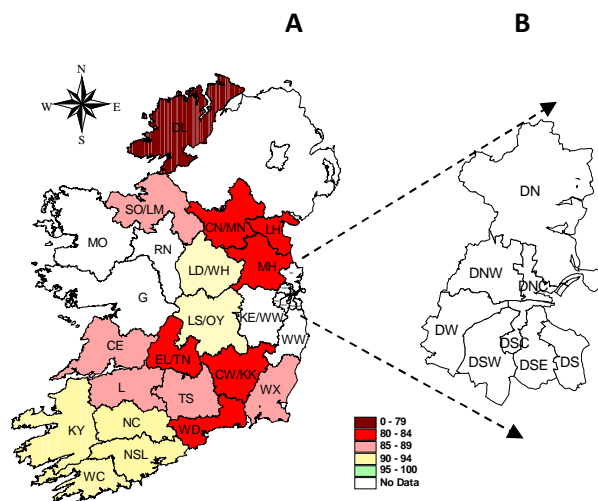


Figure 10. Hib₄ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

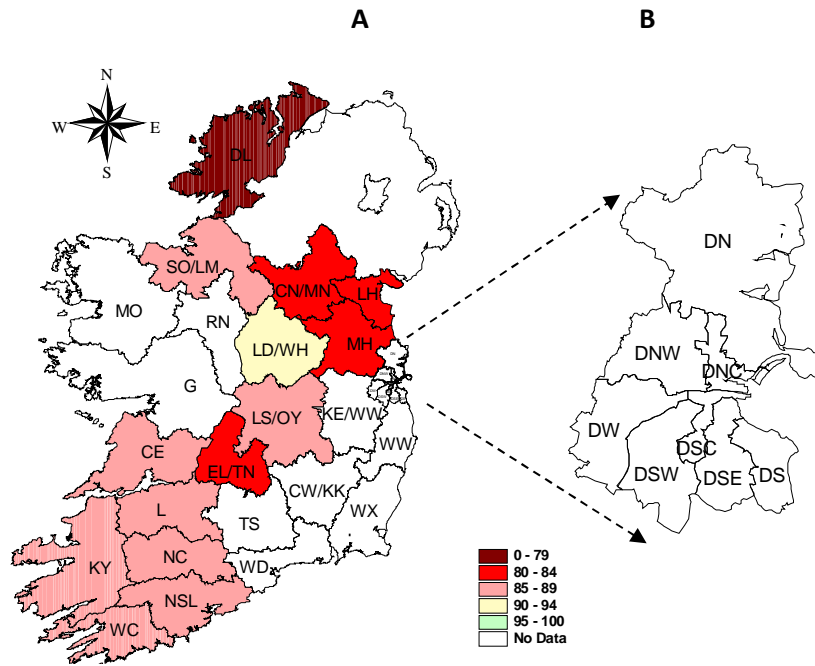


Figure 11. MenC₂ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

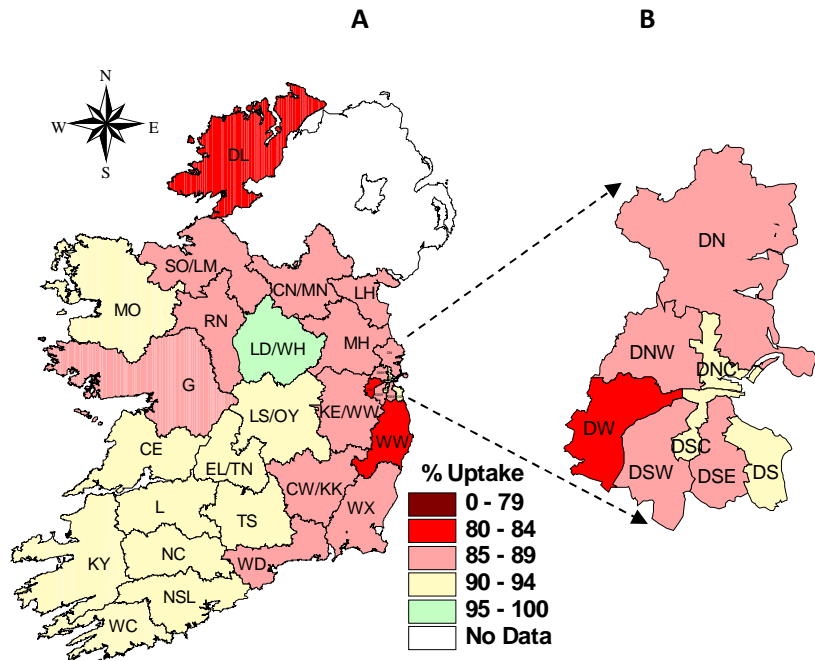


Figure 12. MenC_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

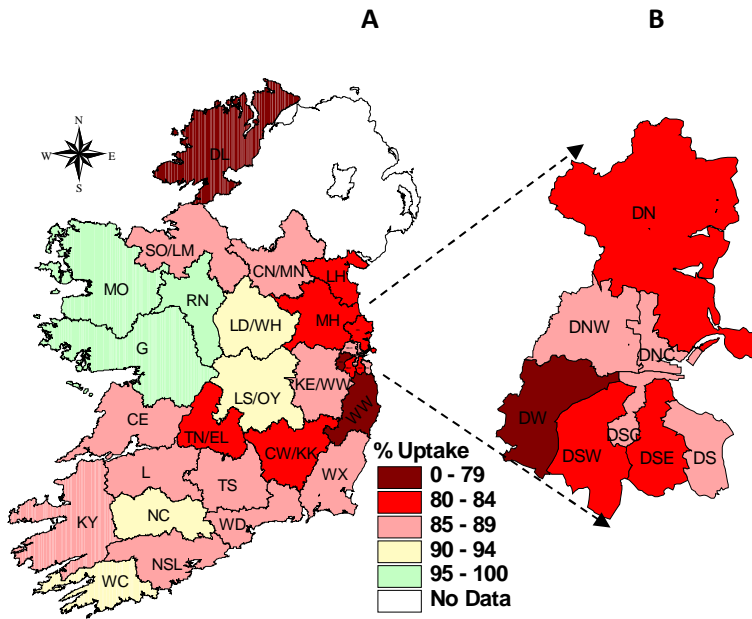


Figure 13. PCV₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

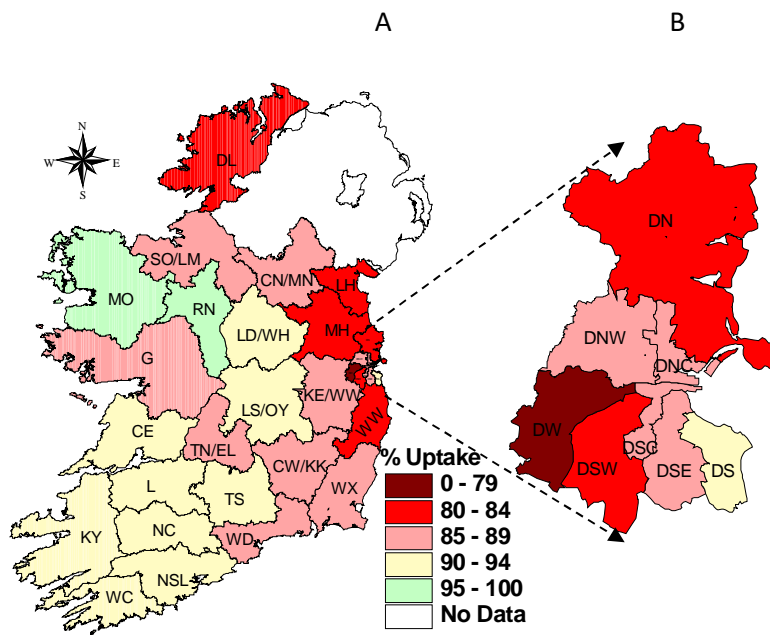


Figure 14. PCV_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

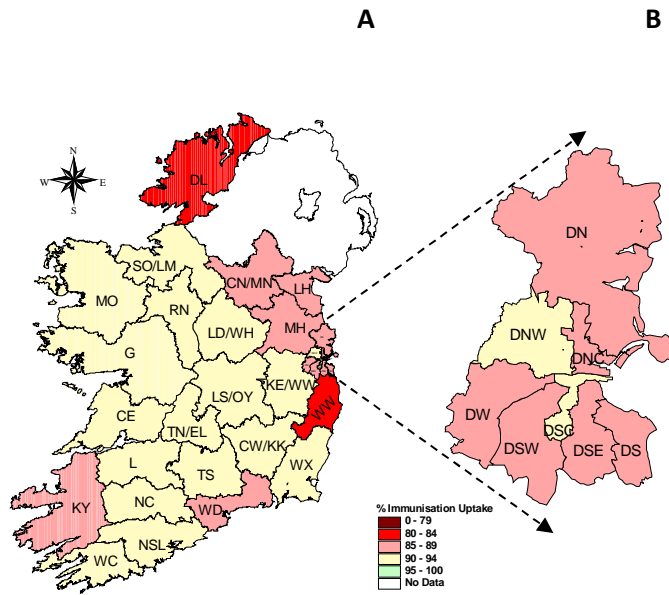


Figure 15. MenB₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

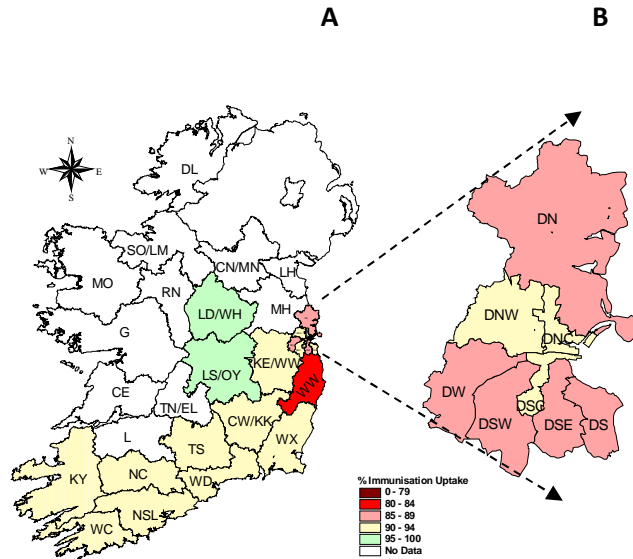


Figure 16. MenB_{complete} immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

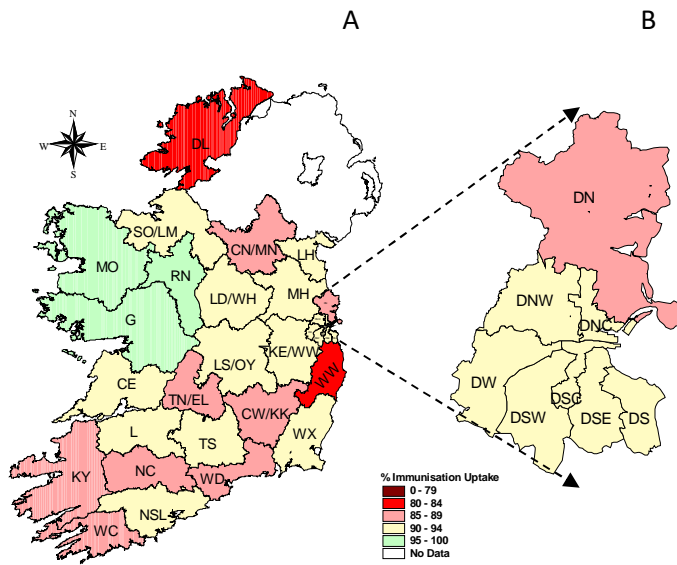


Figure 17. Rota₂ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

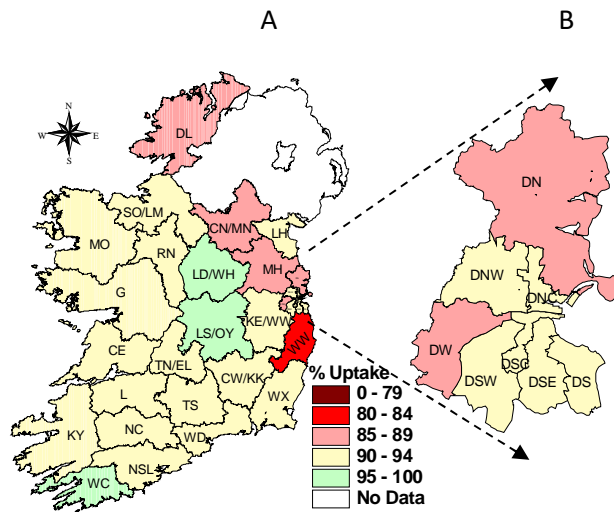


Figure 18. MMR₁ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 2-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Further information available on HPSC website

On the HPSC website under *Topics A-Z* and under the heading *immunisation uptake statistics* further data are available. Included on the website are the LHO, CHO and national data by quarter <https://www.hpsc.ie/a-z/vaccinepreventable/vaccination/immunisationuptakestatistics/immunisationuptakestatisticsat12and24monthsofage/>

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Report prepared by:

Sarah Gee and Suzanne Cotter, HPSC

Appendix 1. Local Health Office (LHO) abbreviations used in this chapter

Local Health Office Abbreviations	Local Health Office
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

*While North Lee and South Lee are two separate LHOs their combined immunisation uptake data are reported here

Appendix 2. Measures of vaccine coverage requested since Quarter 4 2018

Vaccine
24 months
D3, T3, P3, Hib3, Polio3, HepB3, -three doses of each of the vaccines D, T, P, Hib, Polio, HepB, before their 2nd birthday;
Hib4-four doses of Hib with the first three doses given before 1st birthday and the 4th dose given on or after first birthday and before 2nd birthday. A dose of Hib includes Hib given as part of 5:1, 6:1, stand alone Hib, combined Hib/MenC vaccine etc;
Hibb- one dose of Hib (any dose of Hib e.g. as part of 5:1, 6:1, stand alone Hib, combined Hib/MenC vaccine etc) on or after 1st birthday (irrespective of the number of doses before that age) and before 2nd birthday;
MenB3-three doses of MenB with the first two doses given before 1st birthday and the 3rd dose given on or after first birthday and before 2nd birthday;
MenB2-two doses of MenB on or after 10 months of age and before 2nd birthday with doses 2 months apart;
MenBcomplete-MenB3 and MenB2 i.e. children who are completely vaccinated with MenB. MenB3 and MenB2 are defined above.
MenC2-two doses of MenC with the first dose given before 1st birthday and the 2nd dose given on or after first birthday and before 2nd birthday. A dose of MenC is a MenC dose given as part of the combined Hib/MenC vaccine or as a single MenC vaccine;
MenCb- one dose of MenC on or after 1st birthday (irrespective of the number of doses before that age) and before 2nd birthday. A dose of MenC is a MenC dose given as part of the combined Hib/MenC vaccine or as a single MenC vaccine;
PCV3-three doses of PCV with the first two doses given before 1st birthday and the 3rd dose given on or after first birthday and before 2nd birthday;
PCVb- one dose of PCV on or after 1st birthday (irrespective of the number of doses before that age) and before 2nd birthday;
Rota2- two doses of Rota before 8 months and 0 days;
MMR1- one dose of MMR on or after 1st birthday and before 2nd birthday (i.e. excludes MMR given before 1st birthday);
* No. eligible children = No. children born + No. moved in - (No. deceased + No. moved out)
Number of eligible children is the number of eligible children reaching their 2nd birthday during the quarter specified.
** % immunised = (No. immunised /No. eligible children) x 100
12 MONTHS
BCG- one dose of BCG at birth;
D3, T3, P3, Hib3, Polio3, HepB3-three doses of D, T, P, Hib, Polio, HepB, respectively, before their first birthday;
MenB2- two doses of MenB before their first birthday;
MenC1 - one dose of MenC before their first birthday;
PCV2- two doses of PCV before their first birthday;
Rota2- two doses of Rota before 8 months and 0 days.
* No. eligible children = No. children born + No. moved in - (No. deceased + No. moved out)
Number of eligible children is the number of eligible children reaching their 1st birthday during the quarter specified.
** % immunised = (No. immunised /No. eligible children) x 100