

Summary

Children 12 months of age in Quarter 3-2018

- National immunisation uptake rates, based on available data, were
92% for MenB₂,
89% for D₃, T₃, P₃, Hib₃, Polio₃, HepB₃, Rota₂ and MenC₁ and
88% for PCV₂.
- The national uptake rates decreased by 1% in Quarter 3 compared to Quarter 2 but were identical to Quarter 1.
- New vaccine schedule was introduced for children born on or after October 2016.
The Q4 2017 12 month cohort were born between October and December 2016 and so were the first cohort recommended the new schedule.
Q3 2017 12 month cohort were recommended the previous schedule.
In Q3 2018, compared to Q3 2017, MenC₁ was 5% lower, PCV₂ 2% lower and D₃, T₃, P₃, Hib₃, Polio₃, HepB₃ were 1% lower.
In Q3 2018, compared to Q4 2017, MenC₁ and MenB₂ are 1% higher while the rest are unchanged.
- MenC₁ at 12 months was 89% in Quarter 3 2018 which is 5-6% lower compared to Quarters 1-3 2017. This decline is a concern as it leaves children vulnerable to preventable meningococcal serogroup C infection.
- Among the Local Health Offices, the target uptake rate of 95% was reached in Q3 2018 in
Roscommon for PCV₂, MenB₂ and Rota₂,
Mayo for MenB₂ and Rota₂ and in
Galway, Tipperary South and Wexford for MenB₂.

Children 24 months of age in Quarter 3-2018

- National uptake rates, based on available data, were
94% for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃,
92% for PCV_b and MMR₁,
90% for PCV₃,
89% for Hib_b,
87% for MenC_b and
85% for MenC₂.
- Compared to the previous quarter national uptake rates in Q3-2018 for Hib_b, MenC₂, MenC_b, PCV₃ and PCV_b declined by 1%.
Some children in this Q3 2018 cohort were given a dose of the combined Hib/MenC vaccine at 13 months instead of the recommended individual Hib and MenC vaccines. As these children were in a cohort not recommended the combined Hib/MenC vaccine some of the databases/reports were not configured to include these in the uptake statistics for MenC₂, MenC_b and Hib_b. So the decline in MenC₂, Hib_b and MenC_b may be partly a reporting issue. However, PCV₃ and PCV_b also declined by 1% in Q3.
- D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ were 94% in Q3 2018 and also in the previous quarter.
This is the second time since 2010 that D₃, T₃, P₃, Hib₃ and Polio₃ did not reach the target of 95% at 24 months.
- While uptake of D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ were 94% uptake of the remaining vaccines in Q3 2018 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 recommended vaccines for their children at this age.

Background

The national immunisation uptake statistics, based on available data, for Quarter 3 2018 are presented in this report. These immunisation uptake statistics relate to children at 12 (born between 01/07/2017 and 30/09/2017) and 24 (born between 01/07/2016 and 30/09/2016) months of age in Quarter 3-2018. These children were recommended the vaccines outlined in table 1. The immunisation schedule changed in 2016 for children born on or after October 1st 2016 after the National Immunisation Advisory Committee (NIAC) recommended meningococcal B (MenB) and rotavirus (Rota) vaccines (table 1). There is a change in timing of MenC with MenC now recommended at 6 months of age; in previous schedule MenC was recommended at 4 months (Table 1). A combined Hib/MenC dose and a PCV dose are now recommended at 13 months (Table 1).

For children at 12 months of age in Quarter 3 2018, 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.

For children at 24 months of age in Quarter 3 2018, 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) and pneumococcal conjugate vaccine (PCV₃), two doses of vaccine against meningococcal group C (MenC₂) 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. Cavan/Monaghan, Louth and Meath accurate data were not available in Q3 2018 and are not included in any of the figures/data in this report.

Table 1. Primary childhood immunisation schedule for children born since 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 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 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
MenB	Meningococcal group B vaccine
MenC	Meningococcal group C vaccine
MMR	Measles, Mumps and Rubella vaccine
PCV	Pneumococcal Conjugate Vaccine
Rota	Rotavirus oral vaccine

Immunisation uptake among children at 12 months of age in Quarter 3-2018

National

- National immunisation uptake rates were 92% for MenB₂ and 89% for D₃, T₃, P₃, Hib₃, Polio₃, HepB₃, Rota₂ and MenC₁ and 88% for PCV₂ (table 2). All figures/data presented here do not include the Cavan/Monaghan, Meath and Louth data.
- Compared to the previous quarter and based on available data, the national uptake rate in Q3-2018 for all vaccines (except BCG) decreased by 1% but were identical to Q1 (figure 1).
- This is the fourth cohort recommended the new immunisation schedule. The new immunisation schedule and changes in the schedule are shown in Table 1. MenB and Rota vaccines are now recommended. There is a change in timing of MenC with MenC now recommended at 6 months of age; in previous schedule MenC was recommended at 4 months (Table 1). A combined Hib/MenC dose and a PCV dose are now recommended at 13 months (Table 1).
- MenC₁ uptake is 5-6% lower compared to Quarters 1-3 2017. 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 [here](#). The reasons for this decline and actions taken are described [here](#).
- The BCG vaccine stock in all areas expired at the end of April 2015 so BCG vaccination clinics in HSE Clinics and Maternity hospitals have been postponed until new stock arrives. The licensed vaccine manufacturer has informed the HSE that BCG vaccine will not be delivered into Ireland until further notice and no alternative licensed supplier has been found. Please see <https://www.hse.ie/eng/health/immunisation/news/bcg17.html> for further information.

Community Healthcare Organisation (CHO)

- Among the CHOs, the uptake rates for Rota₂ ranged from 83% to 92%, D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃, MenC₁ and PCV₂ ranged from 86% to 94% and MenB₂ ranged from 89% to 95% (table 2). Note these comparisons include the CHO1 and CHO8 data which are incomplete.

Local Health Office (LHO)

- The immunisation uptake rates by LHO are shown in appendix 1.
- D₃, MenC₁, PCV₂, MenB₂ and Rota₂ immunisation uptake rates are mapped by LHO in figures 2-6.
- The immunisation uptake rates by Quarter and LHO are available [here](#) (tables) and [here](#) (graphs).

Changes in uptake in Q3 2018 compared to the previous quarter (unless stated otherwise)

- Among 28 LHOs i.e. excluding the CN/MN, LH and MH LHOs for Q1-3 2018 and Q3-Q4 2017:
 - D₃ uptake (figure 2) was >=90% in 13 LHOs in Q3 2018, compared to 17 LHOs in Q2 2018, 11 LHOs in Q1 2018, 14 LHOs in Q4 2017 and 18 LHOs in Q3 2017.
 - MenC₁ uptake (figure 3) was >=90% in 14 LHOs in Q3 2018, compared to 17 LHOs in Q2 2018, 13 LHOs in Q1 2018, 15 LHOs in Q4 2017 and 27 LHOs in Q3 2017.
 - PCV₂ uptake (figure 4) was >=90% in 12 of the LHOs in Q3 2018, compared to 16 of the LHOs in Q2 2018, 10 LHOs in Q1 2018, 13 LHOs in Q4 2018 and 16 LHOs in Q3 2017.
 - MenB₂ uptake (figure 5) was >=90% in 21 LHOs in Q3 2018, compared to 26 LHOs in Q2 2018, 18 LHOs in Q1 2018 and 22 in Q4 2017.
 - Rota₂ uptake (figure 6) was >=90% in 12 LHOs in Q3 2018, compared to 16 LHOs in Q2 2018, 10 LHOs in Q1 2018 and 11 in Q4 2017.
- Changes in uptake by LHO in Q3 2018 compared to Q2 2018 (except BCG):
 - CHO1
 - CN/MN data were not available for Q3 2018
 - Donegal uptake of all vaccines decreased by 1-2% compared to Q2 except for MenB₂ which increased by 1%. Donegal uptake of all vaccines is 4-7% lower in Q3 2018 compared to Q4 2017. In Q3 2018 uptake rates ranged from 80% (for Rota₂) to 88% (for MenB₂).
 - SO/LM uptake decreased by 1-3%. In Q3 2018 uptake rates are 6-7% lower compared to Q3 2017. In Q3 2018 uptake rates ranged from 88% (for Rota₂) to 92% (for PCV₂).
 - CHO2
 - G uptake increased by 2% except for Rota₂ which was unchanged. In Q3 2018 uptake rates ranged from 90% (for Rota₂) to 95% (for MenB₂).
 - MO MenC₁ and MenB₂ uptake declined by 1%, PCV₂ and Rota₂ increased by 1% and the remainder were unchanged. In Q3 2018 uptake rates ranged from 92% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃) to 96% (for Rota₂).
 - RN MenC₁ uptake increased by 2%, Rota₂ increased by 1% while the remainder were unchanged. In Q3 2018 uptake rates ranged from 94% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenC₁) to 96% (for Rota₂).
 - CHO3
 - CE uptake decreased by 1-3% for all vaccines. In Q3 2018 uptake rates ranged from 89% (for Rota₂) to 94% (for MenB₂).

- L Rota₂ uptake increased by 2%, MenB₂ was unchanged while the remainder declined by 1%.
In Q3 2018 uptake rates ranged from 88% (for MenC₁) to 94% (for MenB₂).
 - EL/TN uptake increased by 1-4% except MenB₂ which declined by 1%.
In Q3 2018 Rota₂ uptake was 90% compared to 91% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃.
In Q3 2018 uptake rates ranged from 90% (for Rota₂) to 94% (for MenB₂).
 - CHO4
 - NC MenC₁, PCV₂, MenB₂ and Rota₂ uptake increased by 3-5% while the remainder increased by 1%.
In Q3 2018 uptake rates ranged from 88% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₂) to 94% (for MenB₂).
 - NSL PCV₂, MenB₂ and Rota₂ increased by 1%, MenC₁ was unchanged while the remainder declined by 1%.
In Q3 2018 uptake rates ranged from 86% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₂) to 94% (for MenB₂).
 - WC uptake decreased by 1-2% except Rota₂ was unchanged.
In Q3 2018 uptake rates ranged from 82% (for PCV₂) to 89% (for MenB₂).
 - KY D₃/T₃/P₃/Hib₃/Polio₃/ uptake decreased by 4%, HepB₃ and MenC₁ declined by 3%, MenB₂ and Rota₂ declined by 1% while PCV₂ was unchanged.
Rota₂ was 1% lower compared to D₃/T₃/P₃/Hib₃/Polio₃
In Q3 2018 uptake rates ranged from 86% (for Rota₂) to 91% (for MenB₂).
 - CHO5
 - CW/KK MenB₂ uptake declined by 4%, MenC₁ and Rota₂ declined by 3%, PCV₂ declined by 2% and D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ declined by 1%..
In Q3 2018 uptake rates ranged from 84% (MenC₁ and PCV₂) to 89% (MenB₂).
 - TS Rota₂ uptake increased by 1%, PCV₂ declined by 1% while the remainder were unchanged.
In Q3 2018 uptake rates ranged from 91% (for PCV₂) to 96% (for MenB₂).
 - WD MenC₁ and MenB₂ uptake increased by 1%, Rota₂ uptake decreased by 2%, PCV₂ was unchanged while the remainder decreased by 1%.
In Q3 2018 uptake rates ranged from 86% (for Rota₂) to 92% (for MenB₂).
 - WX uptake increased by 1-3%.
In Q3 2018 uptake rates ranged from 92% (for Rota₂) to 96% (for MenB₂).
 - CHO6
 - DS uptake rates were unchanged except PCV₂ declined by 2% and Rota₂ declined by 1%.
In Q3 2018 uptake rates ranged from 89% (for Rota₂ and PCV₂) to 92% (for MenB₂).
 - DSE uptake rates declined by 2% except PCV₂ and MenB₂ were unchanged.
In Q3 2018 uptake rates ranged from 91% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenC₁/Rota₂) to 94% (for MenB₂).
 - WW uptake decreased by 1-3% with uptake rates ranging from 81% (for Rota₂) to 83% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB₂).
 - CHO7
 - DSC uptake decreased by 5-6% for all vaccines.
In Q3 2018 uptake rates ranged from 87% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₂/MenC₁) to 90% (for MenB₂).
 - DSW MenC₁ and MenB₂ uptake was unchanged, Rota₂ increased by 1% while the remainder declined by 1%.
In Q3 2018 uptake rates ranged from 87% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₂/MenC₁) to 91% (for MenB₂).
 - DW uptake decreased by 1-3% while MenB₂ was unchanged.
In Q3 2018 uptake rates ranged from 85% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₂/MenC₁) to 90% (for MenB₂).
 - KE/WW uptake decreased by 1-2% for all vaccines.
In Q3 2018 uptake rates ranged from 90% (for all except MenB₂) to 93% (for MenB₂).
 - CHO8
 - LS/OY uptake increased by 2% for all vaccines except MenB₂ declined by 1% and Rota₂ was unchanged.
In Q3 2018 uptake rates ranged from 91% (for Rota₂) to 94% (for all other vaccines).
 - LD/WH uptake decreased by 2% for all vaccines.
In Q3 2018 uptake rates ranged from 89% (for Rota₂) to 94% (for MenB₂).
 - Q2 2018 data for Louth and Meath (and CN/MN) were not available.
 - CHO9
 - DNW uptake decreased by 4-5% for all vaccines. It had increased by 5-6% (to 91-94%) in Q2.
In Q3 2018 uptake rates ranged from 86% (for Rota₂) to 89% (for MenB₂).
 - DNC uptake decreased by 6-10% for all vaccines in Q3. In Q2 compared to Q1 uptake had increased by 8-12%.

In Q3 2018 uptake rates ranged from 86% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃) to 89% (for MenB₂).

- DN uptake was unchanged except MenC₁ declined by 1%, MenB₂ declined by 2% and increased by 1% for PCV₂.

In Q3 2018 uptake rates ranged from 85% (for MenC₁) to 88% (for MenB₂).

Table 2. Immunisation uptake (%) at 12 months in cohort born 01/07/2017–30/09/2017

Community Healthcare Organisation/LHO*	No. in cohort [#]	BCG [†]	D ₃ T ₃ P ₃ /Hib ₃ Polio ₃	HepB ₃	MenC ₁	PCV ₂	MenB ₂	Rota ₂
CHO1 (CN/MN [§] , DL, SO/LM)	830	0.0†	88	87	87	88	89	83
CHO2 (G, MO, RN)	1481	0.0	92	92	93	93	95	92
CHO3 (CE, L, TN)	1306	0.0	90	90	90	90	94	90
CHO4 (NC, NSL, WC, KY)	2198	0.0	86	86	87	86	93	89
CHO5 (CW/KK, TS, WD, WX)	1629	0.1	90	90	90	89	93	89
CHO6 (DS, DSE, WW)	1241	0.0	88	88	88	87	89	87
CHO7 (DSC, DSW, DW, KE)	2565	0.0	88	88	88	87	92	89
CHO8 (LS/OY, LD/WH, LH [§] , MH [§])	1026	0.0†	94	94	94	94	94	90
CHO9 (DNW, DNC, DN)	2234	0.0	86	86	86	86	89	87
Ireland	14512†	0.01†	89	89	89	88	92	89

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 14441. 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 5 on previous page regarding BCG vaccine stock in Ireland.

[§]Cavan/Monaghan, Louth and Meath accurate data for all vaccines were not available in Q3 2018 and so are not included in this report.

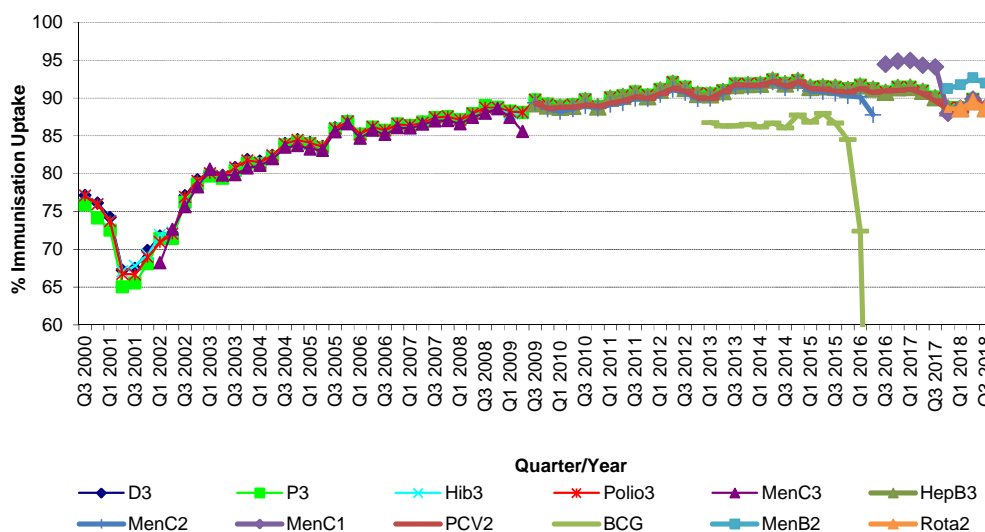


Figure 1. National quarterly immunisation uptake rates at 12 months

X-axis ranges from 60-100%.

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. 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, Q2 and Q3 2018 CN/MN, LH and MH data were not available.

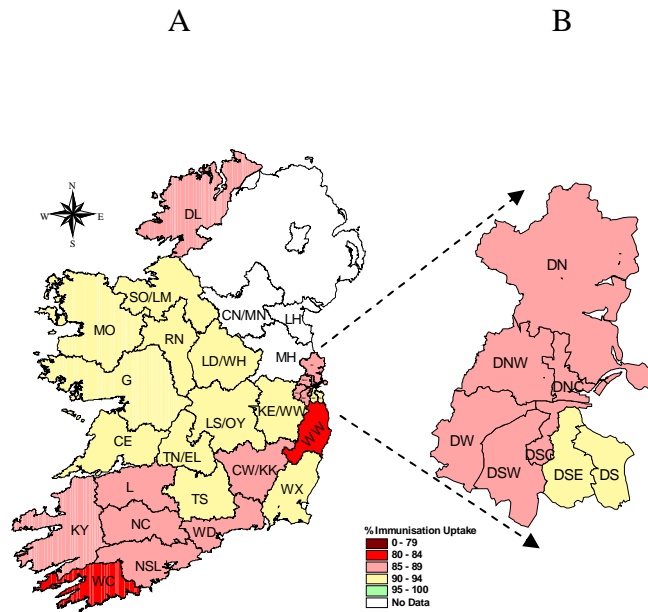


Figure 2. D₃ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

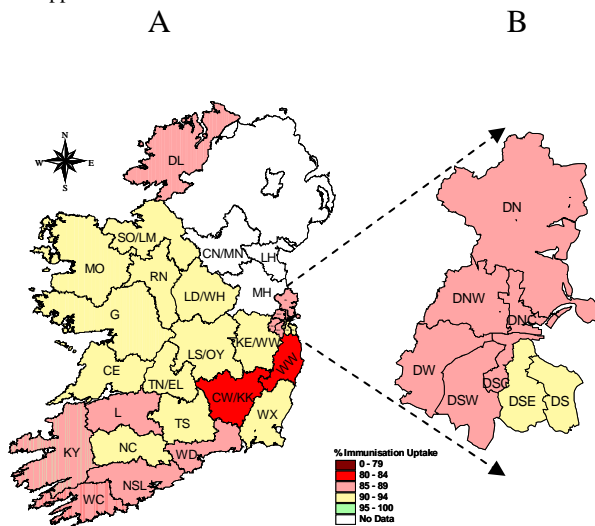


Figure 3. MenC₁ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

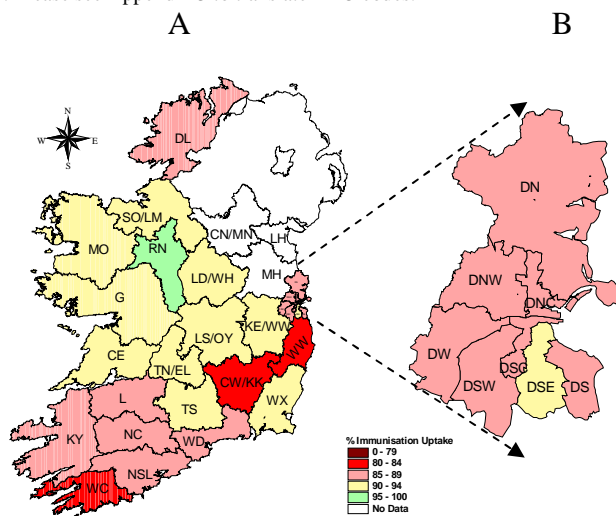


Figure 4. PCV₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

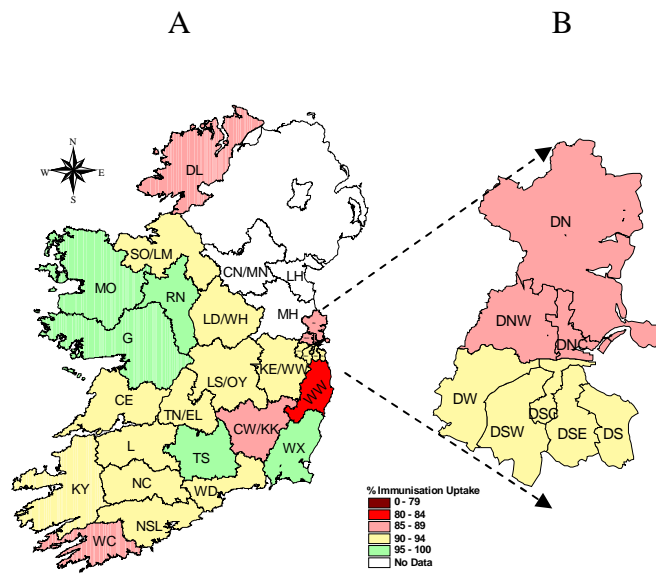


Figure 5. MenB₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

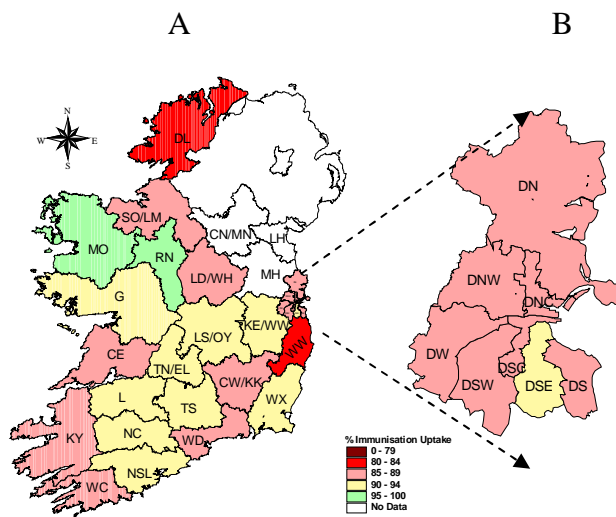


Figure 6. Rota₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Immunisation uptake among children 24 months of age in Quarter 3-2018

National

- National uptake rates were 94% for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃, 92% for PCV_b and MMR₁, 90% for PCV₃, 89% for Hib_b, 87% for MenC_b and 85% for MenC₂ (table 3).
All the figures/data described here for Q3 2018 do not include the Cavan/Monaghan, Meath and Louth data as accurate data were not available for these LHOs.
- Compared to the previous quarter national uptake rates in Q3-2018 for D₃, T₃, P₃, Hib₃, Polio₃, HepB₃ and MMR₁ were unchanged while Hib_b, MenC₂, MenC_b, PCV₃ and PCV_b declined by 1% (figure 7). These comparisons are based on available data.
- This cohort and the previous 24 month cohorts were recommended individual Hib and MenC vaccines at 13 months. For children born on or after October 1st 2016 (Quarter 4 2018 i.e. next quarter) the combined Hib/MenC vaccine was introduced. However, the combined Hib/MenC vaccine was given to some children in these earlier cohorts but the databases/reports were not always configured to report on the combined Hib/MenC for these cohorts. Some of the databases/reports were subsequently configured/amended to include these but not all. The 2% decline in MenC₂ seen in Quarter 2 2018 may be wholly or in part due to children receiving the combined Hib/MenC booster not being counted in the uptake data. While attempts were made to include these children in the Quarter 3 MenC₂, Hib_b and MenC_b figures not all are. As mentioned above Hib_b, MenC₂, MenC_b, PCV₃ and PCV_b declined by 1% in Quarter 3 2018 so some of the Hib_b, MenC₂ and MenC_b decline might be a data issue, however, PCV₃ and PCV_b also declined. A dose of PCV is recommended at 12 months so four of the vaccines recommended at 12 and 13 months of age have declined by 1% compared to the previous quarter.
- D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ were 94% in Q3 2018 and also in the previous quarter.
This is the second time since 2010 that D₃, T₃, P₃, Hib₃ and Polio₃ did not reach the target of 95% at 24 months.
- Figure 7 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q3-2018.

Community Healthcare Organisations (CHOs)

- The target uptake of 95% was reached for D₃, P₃, T₃, Hib₃ and Polio₃ in only four CHOs, in three for HepB₃, in two for Hib_b, PCV_b and MMR₁, one for MenC₂ and PCV₃ and in none for MenC_b (table 3).

Local Health Office (LHO)

- Immunisation uptake rates in children 24 months of age in Q3-2018 are presented by LHO in Appendix 2.
- D₃, Hib_b, MenC₂, MenC_b, PCV₃, PCV_b and MMR₁ immunisation uptake rates are mapped by LHO in figures 8-14.
- In Q3 2018 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 comparison:
 - in Q2 2018 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 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 [here](#) (tables) and [here](#) (graphs)
- Changes in uptake by LHO in Q3 2018 compared to Q2 2018 (unless otherwise stated):
 - D₃ uptake rates declined in 11 LHOs by 1-4%, were unchanged in four and increased by 1-5% in 13 LHOs.
 - Hib_b declined in 16 LHOs by 1-10% (10 of these did not have Hib/MenC combined vaccine included in Q2 or Q3), and increased by 1-5% in 12 LHOs (7 of these counted Hib/MenC vaccine in both Q2 and Q3).
 - MenC₂ declined in 15 LHOs by 1-11% (11 of these did not have combined Hib/MenC vaccine included in either Q3 or Q2), was unchanged in 1 LHO and increased by 1-6% in 12 LHOs (9 of these 12 were where Hib/MenC combined vaccine was counted in Q3 but not in Q2).
 - MenC_b declined in 13 LHOs by 1-10% (9 of these did not have Hib/MenC combined vaccine included in Q2 or Q3), were unchanged in three and increased by 1-6% in 12 LHOs (4 of these had Hib/MenC combined vaccine included in Q3 but not Q2).
 - PCV₃ declined in 14 LHOs by 1-5%, were unchanged in one, and increased by 1-6% in 13 LHOs.
 - PCV_b declined in 15 LHOs by 1-6%, were unchanged in 4 LHOs, and increased by 1-5% in 9 LHOs.
 - MMR₁ declined in 12 LHOs by 1-6%, were unchanged in 5 LHOs and increased by 1-7% in 11 LHOs.
 - CHO1
 - Q3 2018 CN/MN (and Louth and Meath) data were not available.
 - Note: For DL/SO/LM the combined Hib/MenC vaccine data was included in Hib_b and MenC_b data in Q2 2018 and Q3 2018 and it was included in the MenC₂ data in Q3 (but not in the Q2 MenC₂ data)
 - Donegal MenC₂ increased by 3% while the remaining vaccines declined by 1% compared to Q2 2018.
MenC₂/MenC_b/PCV₃/PCV_b/MMR₁ have declined by 3-5% in Q3 2018 compared to Q3 2017.
No vaccine reached the target of >=95% in Q3 2018.
Uptake rates ranged from 82% (for MenC₂) to 94% (for D₃/T₃/P₃/Hib₃/Polio₃) in Q3 2018.

- SO/LM PCV₃ increased by 6%, MenC₂ increased by 5% while the remainder increased by 1-3%.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b/MenC_b/PCV_b/MMR₁ all reached the target of >=95%.
Uptake rates ranged from 91% (for MenC₂ and PCV₃) to 98% (for D₃/T₃/P₃/Hib₃/Polio₃).
- CHO2
 - Note: Hib/MenC combined vaccine data was included in the G, MO and RN Hib_b, MenC_b and MenC₂ data in Q3 but not Q2.
 - G uptake increased by 2-6%.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b/MenC₂/PCV₃/PCV_b/MMR₁ were all >= target of 95%.
Uptake rates ranged from 92% (for MenC_b) to 98% for (PCV₃).
 - Mayo uptake increased by 1-4% for all vaccines
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b/MenC₂/PCV₃/PCV_b were all >= target of 95%.
Uptake rates ranged from 93% (for MenC_b and MMR₁) to 98% for (PCV₃).
 - RN uptake decreased by 1-5% except for MenC_b.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenC₂/PCV₃ were all >= target of 95%.
Uptake rates ranged from 90% (for Hib_b) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenC₂/PCV₃).
- CHO3
 - Hib/MenC combined vaccine is included Hib_b and MenC_b figures in Q2 and Q3 2018 but not in the MenC₂ figures in either Q2 or Q3 2018.
 - CE uptake increased by 1-6% except MenC₂ which declined by 2%.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV_b/MMR₁ were all >= target of 95%.
Uptake rates ranged from 80% (for MenC₂) to 96% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - Limerick D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenC_b uptake increased by 3%, Hib_b and PCV₃ increased by 1%, PCV_b was unchanged, MenC₂ declined by 2% and MMR₁ declined by 1%.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ reached the target of 95% in this quarter.
Uptake rates ranged from 80% (for MenC₂) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - TN/ELMenC₂ declined by 4%, Hib_b declined by 2%, PCV_b declined by 1%, PCV₃ increased by 2%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MMR₁ increased by 1% while MenC_b was unchanged,
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MMR₁ reached the target of 95% in this quarter.
Uptake rates ranged from 80% (for MenC₂) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MMR₁).
- CHO4
 - Note: Hib/MenC combined vaccine is included in Hib_b, MenC_b and MenC₂ Q2 and Q3 2018 data
 - NC D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b/MMR₁ uptake rates decreased by 4%, MenC_b decreased by 3% and MenC₂, PCV₃ and PCV_b decreased by 2%.
No vaccine reached the target of 95%.
Uptake rates ranged from 89% (for MenC₂ and MenC_b) to 94% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - NSL D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MMR₁ uptake was unchanged, MenC_b increased by 2%, Hib_b, MenC₂ and PCV₃ increased by 1% and PCV_b declined by 1%.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ were all >= target of 95%.
Uptake rates ranged from 89% (for MenC₂ and MenC_b) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - WC uptake decreased by 4-8%. (In Q2 compared to Q1 it had increased by 2-8%).
MenC₂ declined by 8%, Hib_b and PCV_b declined by 6%, MenC_b and MMR₁ declined by 5%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₃ declined by 4%.
No vaccine reached the target of 95% in Q3.
Uptake rates ranged from 81% (for MenC₂) to 90% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - KY MenC_b improved by 3%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ uptake improved by 2%, Hib_b, MenC₂ improved by 1%, PCV₃ declined by 1% and PCV_b and MMR₁ were unchanged.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ reached the target of 95% in this quarter.
Uptake rates ranged from 87% (for MenC₂) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
- CHO5
 - Note: Hib/MenC combined vaccine was included in MenC₂, MenC_b and Hib_b in Q3 and in MenC_b and Hib_b in Q2 but not MenC₂ in Q2.
 - CW/KK MenC₂ improved by 5%, Hib_b, HepB₃ and PCV₃ improved by 2% and D₃/T₃/P₃/Hib₃/Polio₃/MenC_b/PCV_b increased by 1% while MMR₁ was unchanged.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ reached the target of 95% in this quarter.
Uptake rates range from 88% (for MenC₂ and MenC_b) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - TS MenC₂ improved by 2%, Hib_b, PCV_b and MMR₁ declined by 3%,
D₃/T₃/P₃/Hib₃/Polio₃/PCV₃ declined by 2%, HepB₃ declined by 1% and MenC_b was unchanged.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ were all >= target of 95%.
Uptake rates ranged from 88% (for MenC₂) to 97% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - WD MenC₂ uptake improved by 4%, Hib_b and MenC_b uptake improved by 3%, PCV₃ PCV_b and MMR₁ were unchanged and D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ decreased by 2%.

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

Uptake rates ranged from 87% (for MenC₂) to 93% (for MMR₁).

- WX D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV_b decreased by 3%, Hib_b, MenC_b and PCV₃ and MMR₁ declined by 2% and MenC₂ declined by 1%.

No vaccine reached the target of 95%.

Uptake rates ranged from 87% (for MenC₂) to 93% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

○ CHO6

- Note- Hib/MenC combined vaccine was not included in Hib_b, MenC_b or MenC₂ in either Q2 or Q3 uptake data.

- DS D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenC₂ were unchanged, Hib_b declined by 3%, MenC_b declined by 2%, PCV_b declined by 1% and PCV₃ and MMR₁ increased by 1%.

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

Uptake rates ranged from 82% (for MenC_b) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

- DSE MMR₁ increased by 4%, PCV₃ and PCV_b increased by 2%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ increased by 1%, MenC_b and Hib_b uptake decreased by 5% and MenC₂ decreased by 4%.

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

Uptake rates ranged from 81% (for Hib_b, MenC₂ and MenC_b) to 94% (for

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MMR₁).

- WW MMR₁ increased by 7%, PCV₃ uptake increased by 6%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV_b increased by 5%, Hib_b, MenC₂ and MenC_b increased by 1%. (Uptake rates had declined in Q2 compared to Q1).

No vaccine reached the target of 95% in Quarter 3.

Uptake rates ranging from 74% (for MenC₂) to 88% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

○ CHO7

- Note- Hib/MenC combined vaccine was not included in Hib_b, MenC_b or MenC₂ in either Q2 or Q3 uptake data.

- DSC MenC₂ declined by 11%, MenC_b and Hib_b declined by 10%, MMR₁ declined by 6%, PCV₃ and PCV_b declined by 5% and D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ declined by 3%.

No vaccine reached the target of >= 95%.

Uptake rates ranged from 77% (for MenC₂) to 92% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

- DSW Hib_b and MenC_b declined by 3%, MenC₂ declined by 2%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MMR₁ were unchanged and PCV₃ and PCV_b improved by 1%.

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV_b/MMR₁ reached the target of >= 95%.

Uptake rates ranged from 88% (for MenC₂) to 96% (for

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV_b).

- DW MenC₂ declined by 10%, Hib_b uptake declined by 9%, MenC_b declined by 8%, PCV_b declined by 4%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ declined by 3% and PCV₃ and MMR₁ declined by 2%.

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

Uptake rates ranged from 73% (for MenC₂) to 90% for (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

- KE MenC_b declined by 8%, MenC₂ and Hib_b declined by 7%, PCV₃, PCV_b and MMR₁ declined by 3% and D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ declined by 1%.

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

Uptake rates ranged from 80% (for MenC₂ and MenC_b) to 93% (for

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

○ CHO8

- Note: Hib/MenC combined booster is included in Hib_b, MenC_b and MenC₂ Q3

LS/OY/LD/WH data but was not included in MenC_b or MenC₂ Q2 data

- LS/OY MenC₂ uptake increased by 4%, MenC_b and PCV₃ uptake increased by 3% while the rest improved by 2%.

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b/PCV_b/MMR₁ reached the target of >= 95% in this quarter.

Uptake rates ranged from 92% (for MenC₂) to 96% (for

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b).

- LD/WH uptake increased by 1% for all vaccines except PCV₃ declined by 1% and PCV_b was unchanged.

Uptake rates ranged from 92% (for PCV₃) to 97% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b).

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b/MMR₁ reached the target of >=95%.

- Q3 2018 accurate data for Louth and Meath (and CN/MN) were not available.

○ CHO9

- Note- Hib/MenC combined vaccine was not included in Hib_b, MenC_b or MenC₂ in either Q2 or Q3 uptake data.

- DNW MenC₂ declined by 5%, MenC_b and Hib_b declined by 3%, PCV₃ declined by 2%, while the remainder declined by 1% (uptake had increased by 2-4% for all vaccines in Q2 compared to Q1).

D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV_b/MMR₁ reached the target of >=95%.

Uptake rates ranged from 88% (for MenC₂) to 97% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

- DNC D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MMR₁ uptake rates improved by 1%, MenC₂ declined by 4%, MenC_b and Hib_b declined by 3% and PCV₃ and PCV_b declined by 1%. Uptake rates ranged from 87% (for MenC₂) to 97% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃. D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MMR₁ reached the target of >=95%.
- DN Hib_b and MenC₂ uptake declined by 5%, MenC_b declined by 4%, MMR₁ declined by 2%, PCV₃ and PCV_b declined by 1% while the remainder were unchanged. No vaccine reached the target of 95% in this quarter. Uptake rates ranged from 78% (for MenC₂) to 91% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

Table 3. Immunisation uptake (%) at 24 months in cohort born 01/07/2016–30/09/2016

Community Healthcare Organisation/LHO	No. in Cohort*	D ₃ /T ₃ /P ₃ /Polio ₃	Hib ₃	Hib _b	HepB ₃	MenC ₂	MenC _b	PCV ₃	PCV _b	MMR ₁
CHO1(CN/MN [§] , DL, SO/LM)	842	96	96	90	94	86	88	87	91	91
CHO2 (G, MO, RN)	1530	96	96	96	96	96	93	97	95	95
CHO3 (CE, L, TN)	1275	95	95	92	95	80	90	92	93	94
CHO4 (NC, NSL,WC, KY)	2317	94	94	92	94	88	88	90	92	92
CHO5 (CW/KK,TS,WD,WX)	1748	94	94	90	94	87	88	91	92	93
CHO6 (DS, DSE, WW)	1289	92	92	80	92	79	79	89	90	91
CHO7 (DSC, DSW, DW, KE)	2593	93	93	83	93	80	81	87	90	90
CHO8 (LS/OY, LD/WH, LH [§] ,MH [§])	1077	97	97	97	97	92	92	92	95	95
CHO9 (DNW, DNC, DN)	2214	94	94	86	94	83	85	90	92	92
Ireland	14885	94	94	89	94	85	87	90	92	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

[§]Cavan/Monaghan, Louth and Meath data were not available in Quarter 3 2018.

Children in this Q3 2018 cohort were recommended individual Hib and MenC vaccines, however, following the introduction of the new schedule the combined Hib/MenC vaccine was introduced and recommended for younger cohorts. However, some children in the Q3 2018 and previous Q2 2018 cohorts received the combined Hib/MenC vaccines but the databases/reports were not always configured to include this data in the uptake statistics. This is a reporting issue.

CHO3- Children who received the combined Hib/MenC booster were not counted in the Q3 2018 MenC₂ figures

CHO6/7/9-Children who received the combined Hib/MenC booster were not counted in the Hib_b, MenC_b or MenC₂ Q3 2018 figures

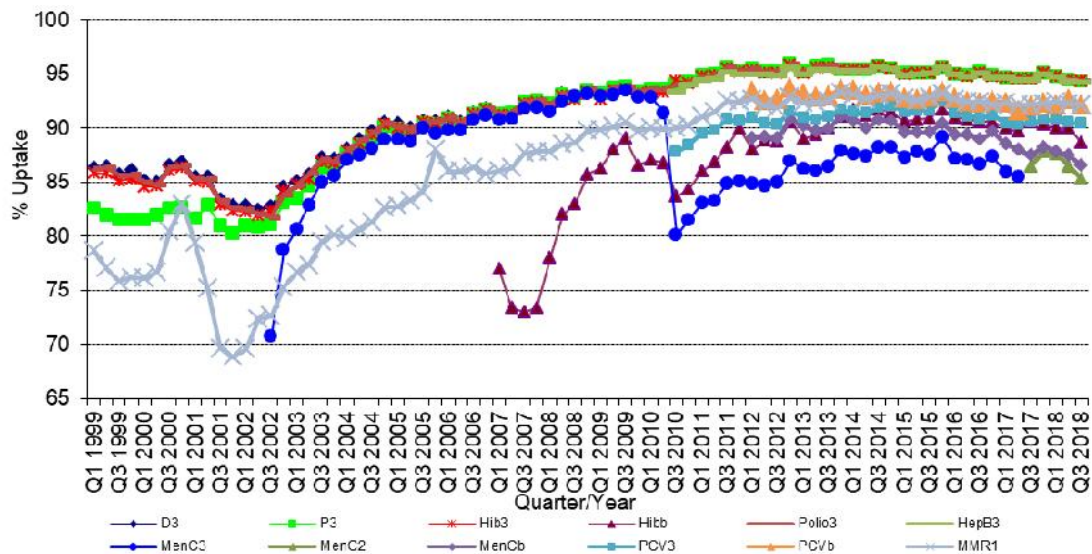


Figure 7. National quarterly immunisation uptake rates at 24 months

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 MenC₂ 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. MenC₂ and PCV₃ data were only available for 6 of the 8 HSE Areas from Q1 2012 to Q4 2014. MenC₂ and PCV₃ 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 MenC₂ uptake statistics **except** in CHO4 and it was not counted in the MenC₂ 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 MenC₂ uptake statistics in CHO3/6/7/9 and it was not counted in the MenC₂/Hib_b statistics in CHO6/7/9.

Conclusions

The national uptake rate in Q3-2018 for MenC₁ at 12 months was 89% which is 5-6% lower compared to Quarters 1-3 2017. This decline is a concern as it leaves children vulnerable to preventable meningococcal serogroup C infection. In Q3 2018 national immunisation uptake rates were 92% for MenB₂ compared to 89% for D₃, T₃, P₃, Hib₃, Polio₃, HepB₃, MenC₁ and Rota₂ and 88% for PCV₂.

In Q3-2018, national uptake rates at 24 months for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ were 94%. This is the second time since 2010 that D₃, T₃, P₃, Hib₃ and Polio₃ did not reach the target of 95%. Uptake of the remaining vaccines in Q3 2018 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.

In Q3 2018 the national Hib_b, MenC₂, MenC_b, PCV₃ and PCV_b uptake rates declined by 1% compared to the previous quarter. Some children in this Q3 2018 cohort were given a dose of the combined Hib/MenC vaccine at 13 months instead of the recommended individual Hib and MenC vaccines. As these children were in a cohort not recommended the combined Hib/MenC vaccine some of the databases/reports were not configured to include these in the uptake statistics for MenC₂, MenC_b and Hib_b. So the decline in MenC₂, Hib_b and MenC_b maybe or partly be a reporting issue.

Acknowledgements

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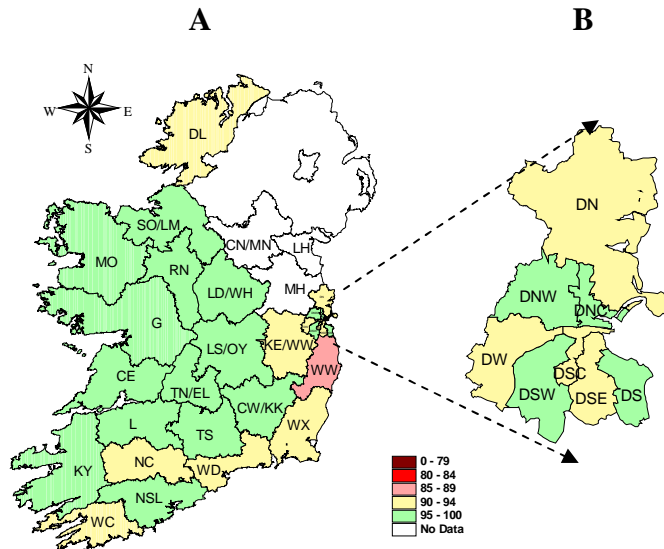


Figure 8. D₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

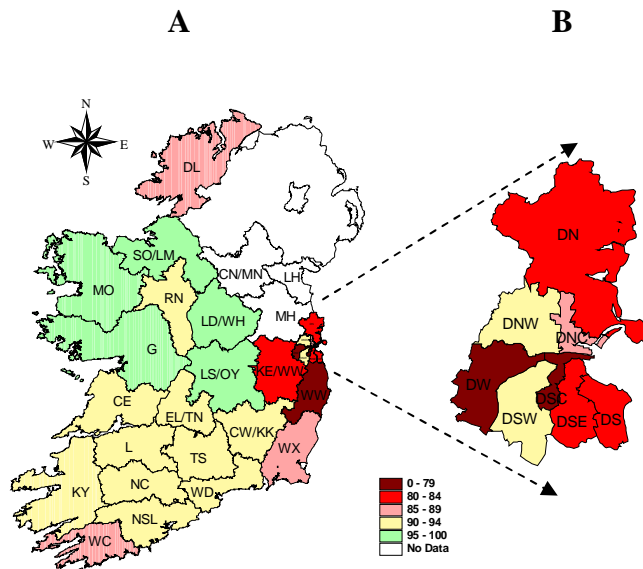


Figure 9. Hib₆ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes. For Dublin/KE/WW LHOs the combined Hib/MenC vaccine was not included in uptake data due to a reporting issue.

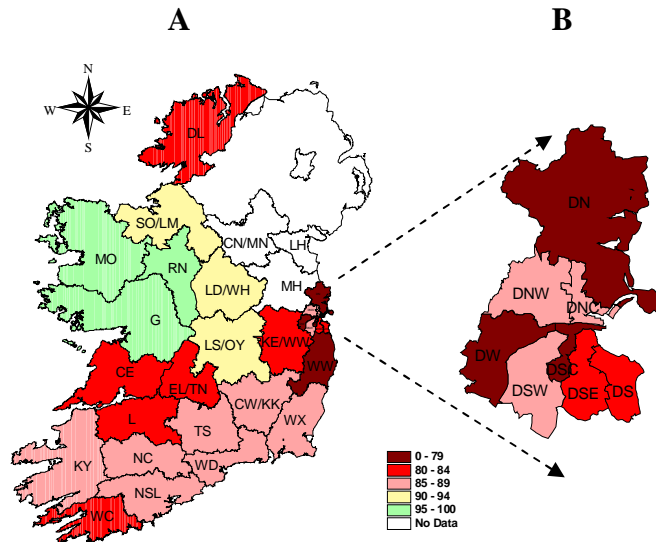


Figure 10. MenC₂ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes. For Dublin/KE/WW/CE/L/EL/TN LHOs the combined Hib/MenC vaccine was not included in uptake data due to a reporting issue.

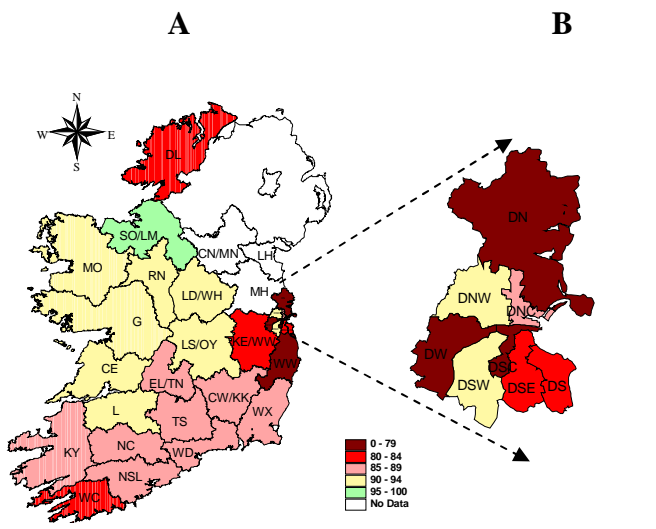


Figure 11. MenC₆ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes. For Dublin/KE/WW LHOs the combined Hib/MenC vaccine was not included in uptake data due to a reporting issue.

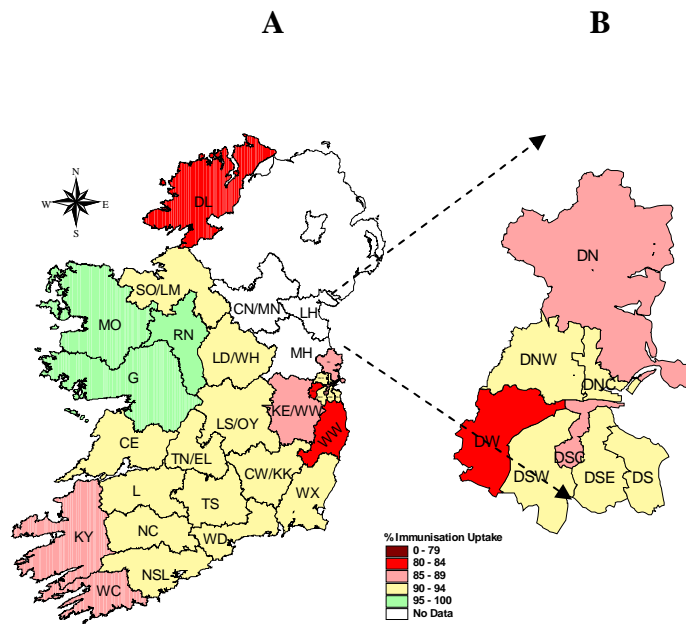


Figure 12. PCV₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

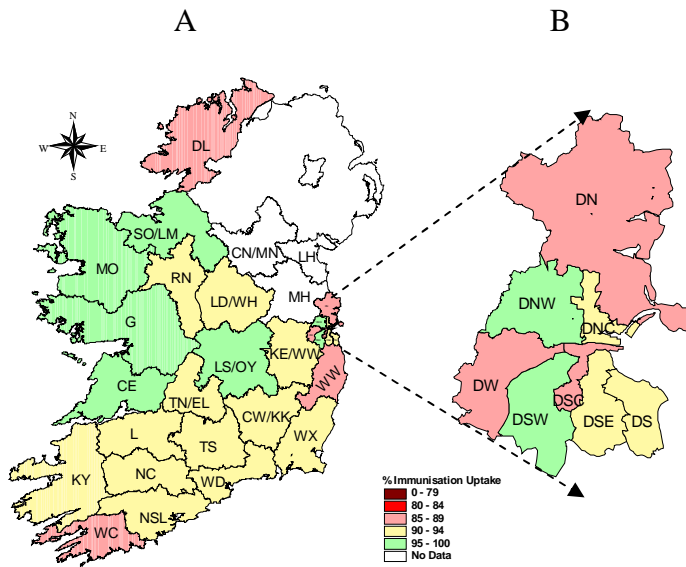


Figure 13. PCV₆ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

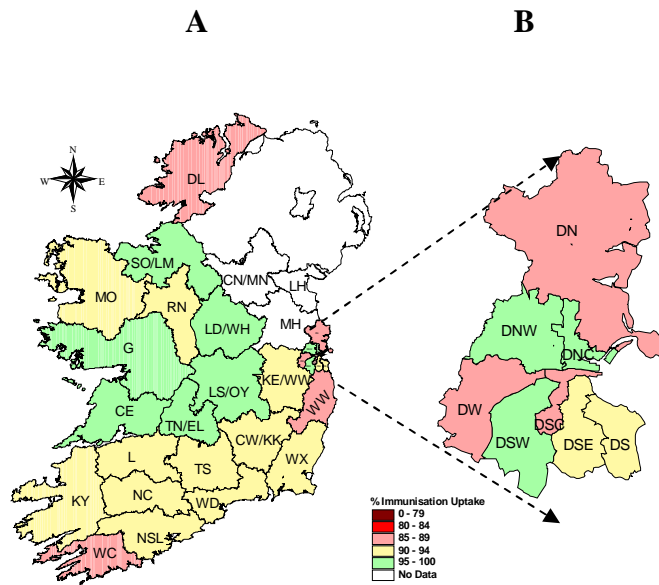


Figure 14. MMR₁ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2018, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Appendix 1

Immunisation uptake (%) at 12 months of age in cohort born 01/07/2017-30/09/2017													
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	MenB ₂	Rota ₂
CHO1	Cavan/Monaghan [§]	0	0	na	na	na	na	na	na	na	na	na	na
	Donegal	531	531	0	86	86	86	86	85	85	85	88	80
	Sligo/Leitrim	299	299	0	91	91	91	91	90	91	92	91	88
	CHO1 Total*	830	830	0	88	88	88	88	87	87	88	89	83
CHO2	Galway	867	867	0	92	92	92	92	92	92	92	95	90
	Mayo	408	408	0	92	92	92	92	92	93	94	95	96
	Roscommon	206	206	0	94	94	94	94	94	94	95	95	96
	CHO2 Total	1481	1481	0	92	92	92	92	92	93	93	95	92
CHO3	Clare	364	374	0	91	91	91	91	91	90	91	94	89
	Limerick	418	458	0	89	89	89	89	89	88	89	94	90
	Tipperary NR/East Limerick	453	474	0	91	91	91	91	91	92	91	94	90
	CHO3 Total	1235	1306	0	90	90	90	90	90	90	90	94	90
CHO4	North Cork	325	325	0	88	88	88	88	88	90	88	94	90
	North South Lee	1274	1274	0	86	86	86	86	86	87	86	94	90
	West Cork	176	176	0	84	84	84	84	84	85	82	89	85
	Kerry	423	423	0	87	87	87	87	87	88	88	87	91
CHO4 Total	2198	2198	0	86	86	86	86	86	87	86	93	89	
CHO5	Carlow/Kilkenny	426	426	0	85	85	85	85	85	84	84	89	85
	South Tipperary	319	319	1	92	92	92	92	92	92	91	96	94
	Waterford	385	385	0	88	88	88	88	88	89	88	92	86
	Wexford	499	499	0	93	93	93	93	93	93	93	96	92
CHO5 Total	1629	1629	0	90	90	90	90	90	90	89	93	89	
CHO6	Dublin South	396	396	0	90	90	90	90	90	90	89	92	89
	Dublin South East	392	392	0	91	91	91	91	91	91	92	94	91
	Wicklow	453	453	0	83	83	83	83	83	82	82	83	81
	CHO6 Total	1241	1241	0	88	88	88	88	88	88	87	89	87
CHO7	Dublin South City	407	407	0	87	87	87	87	87	87	87	90	89
	Dublin South West	645	645	0	87	87	87	87	87	87	87	91	89
	Dublin West	611	611	0	85	85	85	85	85	85	85	90	87
	Kildare/West Wicklow	902	902	0	90	90	90	90	90	90	90	93	90
CHO7 Total	2565	2565	0	88	88	88	88	88	88	87	92	89	
CHO8	Laois/Offaly	590	590	0	94	94	94	94	94	94	94	94	91
	Longford/Westmeath	438	438	0	93	93	93	93	93	93	93	94	89
	Louth [§]	0	0	na	na	na	na	na	na	na	na	na	na
	Meath [§]	0	0	na	na	na	na	na	na	na	na	na	na
CHO8 Total*	1028	1028	0	94	94	94	94	94	94	94	94	90	
CHO9	Dublin North West	842	842	0	88	88	88	88	88	87	87	89	86
	Dublin North Central	452	452	0	86	86	86	86	86	87	87	89	87
	Dublin North	940	940	0	86	86	86	86	86	86	85	86	87
	CHO9 Total	2234	2234	0	86	86	86	86	86	86	86	89	87
Ireland *	14441	14512	0.01	89	89	89	89	89	89	89	88	92	89

na=not available

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

• The BCG vaccine stock in all areas expired at the end of April 2015 so BCG vaccination clinics in HSE Clinics and Maternity hospitals have been postponed until new stock arrives. The licensed vaccine manufacturer has informed the HSE that BCG vaccine will not be delivered into Ireland until further notice and no alternative licensed supplier has been found. Please see https://www.hse.ie/eng/health/immunisation/new_s/bcg17.html for further information.

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

§Q2 2018 Cavan/Monaghan, Louth and Meath data were not available

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 01/07/2016-30/09/2016													
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 ₂	MenC _b	PCV ₃	PCV _b	MMR ₁
CHO1	Cavan/Monaghan [§]	na	na	na	na	na	na	na	na	na	na	na	na
	Donegal	525	94	94	94	87	94	92	82	83	84	88	88
	Sligo/Leitrim	317	98	98	98	95	98	97	91	95	91	96	96
	CHO1 Total	842	96	96	96	90	96	94	86	88	87	91	91
CHO2	Galway	898	97	97	97	96	97	97	96	92	98	95	96
	Mayo	412	96	96	96	97	96	96	96	93	98	96	93
	Roscommon	220	95	95	95	90	95	95	95	94	95	94	94
	CHO2 Total	1530	96	96	96	96	96	96	96	93	97	95	95
CHO3	Clare	393	96	96	96	94	96	96	80	93	93	95	95
	Limerick	463	95	95	95	91	95	95	80	90	91	92	91
	Tipperary NR/East Limerick	419	95	95	95	90	95	95	80	89	92	93	95
	CHO3 Total	1275	95	95	95	92	95	95	80	90	92	93	94
CHO4	North Cork	341	94	94	94	91	94	94	89	89	91	93	92
	North South Lee	1315	95	95	95	92	95	95	89	89	91	93	92
	West Cork	172	90	90	90	87	90	90	81	83	86	87	89
	Kerry	489	95	95	95	92	95	95	87	88	88	91	90
	CHO4 Total	2317	94	94	94	92	94	94	88	88	90	92	92
CHO5	Carlow/Kilkenny	466	95	95	95	90	95	95	88	88	91	92	92
	South Tipperary	320	97	97	97	90	97	97	88	89	92	94	93
	Waterford	449	91	91	91	91	91	91	87	88	90	92	93
	Wexford	513	93	93	93	89	93	93	87	88	91	92	92
	CHO5 Total	1748	94	94	94	90	94	94	87	88	91	92	93
CHO6	Dublin South	374	95	95	95	83	95	95	83	82	93	93	93
	Dublin South East	430	94	94	94	81	94	94	81	81	92	93	94
	Wicklow	485	88	88	88	76	88	88	74	75	84	86	87
	CHO6 Total	1289	92	92	92	80	92	92	79	79	89	90	91
CHO7	Dublin South City	387	92	92	92	79	92	92	77	78	87	88	87
	Dublin South West	624	96	96	96	91	96	96	88	90	92	96	95
	Dublin West	621	90	90	90	77	90	90	73	75	83	85	86
	Kildare/West Wicklow	961	93	93	93	82	93	93	80	80	88	90	90
	CHO7 Total	2593	93	93	93	83	93	93	80	81	87	90	90
CHO8	Laois/Offaly	595	96	96	96	96	96	96	92	92	93	95	95
	Longford/Westmeath	482	97	97	97	97	97	97	93	93	92	94	95
	Louth [§]	na	na	na	na	na	na	na	na	na	na	na	na
	Meath [§]	na	na	na	na	na	na	na	na	na	na	na	na
CHO8 Total	1077	97	97	97	97	97	97	92	92	92	95	95	
CHO9	Dublin North West	816	97	97	97	91	97	97	88	90	92	95	95
	Dublin North Central	402	97	97	97	89	97	97	87	88	92	94	95
	Dublin North	996	91	91	91	80	91	91	78	79	87	89	88
	CHO9 Total	2214	94	94	94	86	94	94	83	85	90	92	92
Ireland	14885	94	94	94	89	94	94	85	87	90	92	92	

na=not available

*The denominator/number in cohort varied slightly according to vaccine. D₃T₃ cohorts show n here.

§Q3 2018 CN/MN (CHO1), LH (CHO8) and MH (CHO8) data were not available.

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

Children who received the combined Hib/MenC vaccine were not counted in the CHO3 MenC₂ Q3 2018 figures nor in the CHO6/7/9 Hib_b, MenC_b or MenC₂ Q3 2018 figures. This is a reporting issue.

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