

Summary

A new 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 Q1 2019 12 month cohort are the sixth 12 month cohort recommended the new immunisation schedule and the Q1 2019 24 month cohort are the second 24 month cohort recommended the new schedule.

Children 12 months of age in Quarter 1-2019

- National immunisation uptake rates were
92% for MenB₂ and
89% for D₃, T₃, P₃, Hib₃, Polio₃, HepB₃, MenC₁, PCV₂ and Rota₂.
- Compared to Q4 2018 and based on available data, the national uptake rates in Q1-2019 declined by 1% for all vaccines except Rota₂ was unchanged.
- The 12 month Q4 2017 cohort (children born 01/10/2016-31/12/2016) was the first cohort recommended the new immunisation schedule introduced for children born on or after 1st October 2016. In Q4 2017 compared to Q2 2017 D₃, T₃, P₃, Hib₃, Polio₃, and HepB₃ declined by 2%, PCV₂ declined by 3% and MenC₁ declined by 6%. In Q1 2019, compared to Q2 2017, MenC₁ was 5% lower and D₃, T₃, P₃, Hib₃, Polio₃, HepB₃ and PCV₂ were 2% lower. This low uptake of MenC₁ 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 Q1 2019 in Laois/Offaly and Longford/Westmeath for all vaccines except Rota₂ (and BCG) Galway and Tipperary North /East Limerick for MenB₂ and Roscommon for Rota₂

Children 24 months of age in Quarter 1-2019

- National uptake rates for all vaccines (except Rota₂) declined by 1-3% in Q1 2019 compared to the previous quarter
- National uptake rates in Q1 2019 were- and changes compared to Q4 2018:
93% for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃- decline of 1%;
91% for MMR₁ and MenB_{complete}- decline of 1%;
90% for Rota₂- unchanged;
89% for MenB₃- decline of 1%;
88% for Hib_b, MenC_b and MenC₂- decline of 2%;
87% for PCV_b- decline of 2%;
85% for PCV₃- decline of 3%;
84% for Hib₄- decline of 1%.
MenB_{complete} rate based on data from only 25 LHOs in Q1 and 21 LHOs in Q4;
MenC₂ rate based on data from only 10 LHOs in Q1 and 7 LHOs in Q4;
Hib₄ rate based on data from only 14 LHOs in Q1 and 15 LHOs in Q4;
All other rates are based on data from 31 LHOs in Q1 and 28 LHOs in Q4.
- PCV₃ and PCV_b had also declined in Q3 and Q4 2018 with both now 6% lower compared to Q2 2018 and both are at their lowest uptake rate since the introduction of PCV vaccine.
- D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ rates declined by 1% to 93% in Q1 2019 and are now below the target rate of 95% for the fourth quarter in a row. The uptake rate was previously 93% in Q4 2009.
- MMR₁ was previously 91% in Q2 2011 and Hib_b was previously 88% in Q1 2012 while uptake of MenC is low for a number of years.
- While uptake rates of D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ were 93% uptake of the remaining vaccines in Q1 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.

Background

The national immunisation uptake statistics, based on available data, for Quarter 1 2019 are presented in this report. These immunisation uptake statistics relate to children at 12 (born between 01/01/2018 and 31/03/2018) and 24 (born between 01/01/2017 and 31/03/2017) months of age in Quarter 1-2019. These children were recommended the vaccines outlined in the right hand section of 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 1 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 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.

For children at 24 months of age in Quarter 1 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 Q4 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.

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. Q1 2019 rates are compared to previous quarters. Cavan/Monaghan, Louth and Meath data were not available in 2018 at the time of data extraction for the quarterly reports and are not included in any of the 2018 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 1-2019

National

- National immunisation uptake rates were 92% for MenB₂ and 89% for D₃, T₃, P₃, Hib₃, Polio₃, HepB₃, MenC₁, PCV₂ and Rota₂ (table 2).
- Compared to Q4 2018 and based on available data, the national uptake rates in Q1-2019 declined by 1% for all vaccines except Rota₂ was unchanged (figure 1).
- This is the sixth 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%.

MenC previously declined in Q3 2010 for those at 24 months of age (and there was low uptake of Hib₆). 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>

- In Q1 2019, compared to Q2 2017, MenC₁ was 5% lower and D₃, T₃, P₃, Hib₃, Polio₃, HepB₃ and PCV₂ were 2% lower.

Community Healthcare Organisation (CHO)

- Among the CHOs, the uptake rates for MenB₂ ranged from 89% to 94%, for MenC₁ and PCV₂ ranged from 86-93%, for Rota₂ ranged from 85% to 93%, and for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ ranged from 85% to 92% and (table 2).

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 in tables and graphs at <https://www.hpsc.ie/a-z/vaccinepreventable/vaccination/immunisationuptakestatistics/immunisationuptakestatisticsat12and24monthsofage/>

Changes in uptake in Q1 2019

- Among 31 LHOs in Q1 2019, 28 LHOs in Q1-Q4 2018 and 31 LHOs in Q3-Q4 2017:
 - D₃ uptake was >=90% in 15 LHOs in Q1 2019, compared to 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 Q1 2019, compared to 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 13 of the LHOs in Q1 2019, compared to 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 Q1 2019, compared to 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 11 LHOs in Q1 2019, compared to 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.

Table 2. Immunisation uptake (%) at 12 months in cohort born 01/01/2018–31/03/2018

| Community Healthcare Organisation/LHO* | No. in cohort [#] | BCG [†] | D ₃ T ₃ P ₃ / Hib ₃ Polio ₃ | HepB ₃ | MenB ₂ | MenC ₁ | PCV ₂ | Rota ₂ |
|--|----------------------------|------------------|---|-------------------|-------------------|-------------------|------------------|-------------------|
| CHO1 (CN/MN, DL, SO/LM) | 1224 | 0 | 91 | 91 | 92 | 91 | 91 | 85 |
| CHO2 (G, MO, RN) | 1364 | 0 | 92 | 92 | 94 | 93 | 93 | 93 |
| CHO3 (CE, L, TN) | 1238 | 0 | 91 | 91 | 93 | 91 | 91 | 91 |
| CHO4 (NC, NSL, WC, KY) | 2132 | 0 | 86 | 86 | 93 | 89 | 86 | 89 |
| CHO5 (CW/KK, TS, WD, WX) | 1576 | 0.1 | 89 | 89 | 92 | 89 | 88 | 87 |
| CHO6 (DS, DSE, WW) | 1129 | 0 | 89 | 89 | 89 | 88 | 88 | 87 |
| CHO7 (DSC, DSW, DW, KE) | 2292 | 0 | 88 | 88 | 91 | 88 | 88 | 88 |
| CHO8 (LS/OY, LD/WH, LH, MH) | 2028 | 0 | 92 | 92 | 93 | 91 | 92 | 90 |
| CHO9 (DNW, DNC, DN) | 2089 | 0 | 85 | 85 | 89 | 86 | 86 | 87 |
| Ireland | 15072 | 0.01 | 89 | 89 | 92 | 89 | 89 | 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 https://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 13536. 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 Background section for further information.

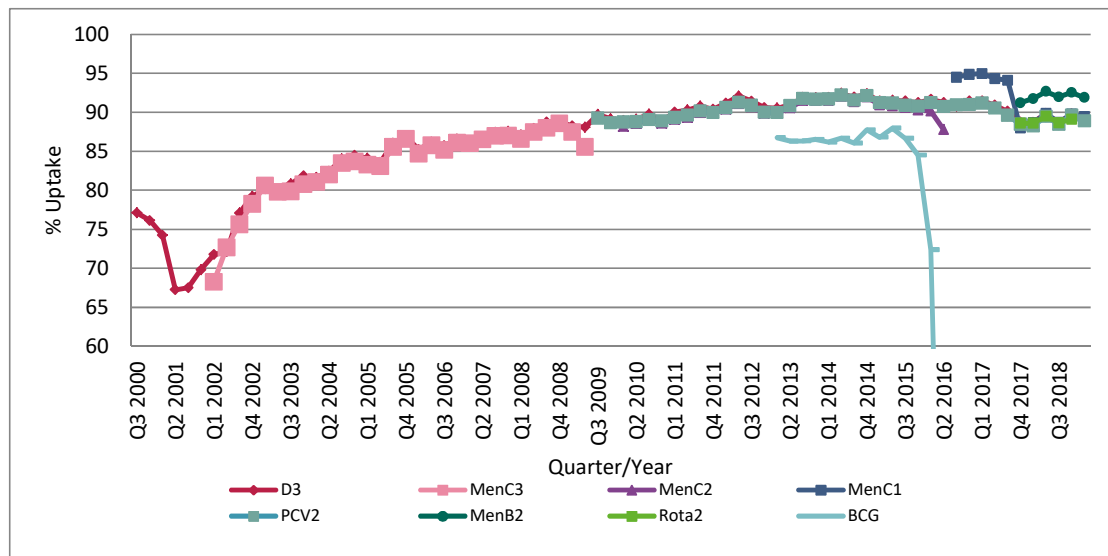


Figure 1. National quarterly immunisation uptake rates at 12 months

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. 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.

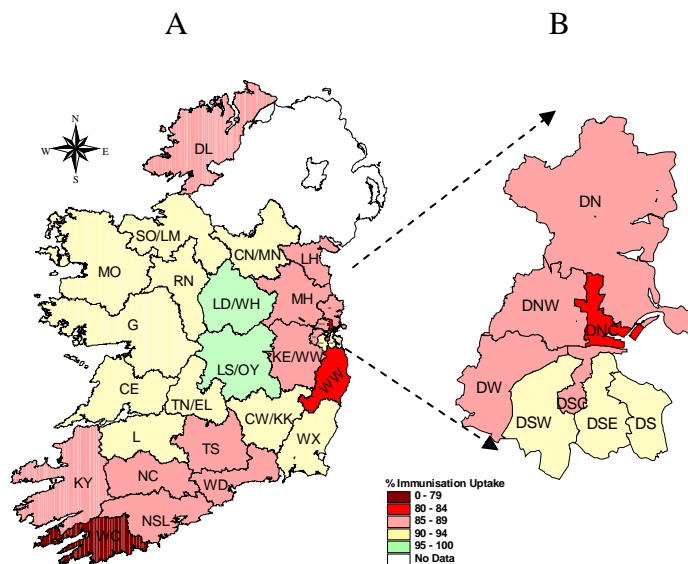


Figure 2. D₃ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

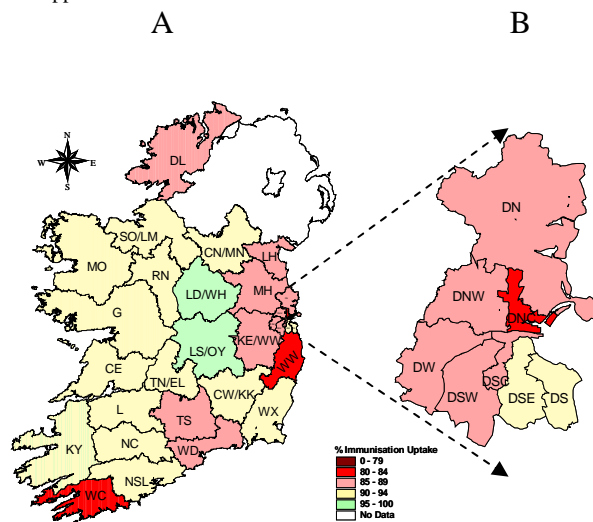


Figure 3. MenC₁ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

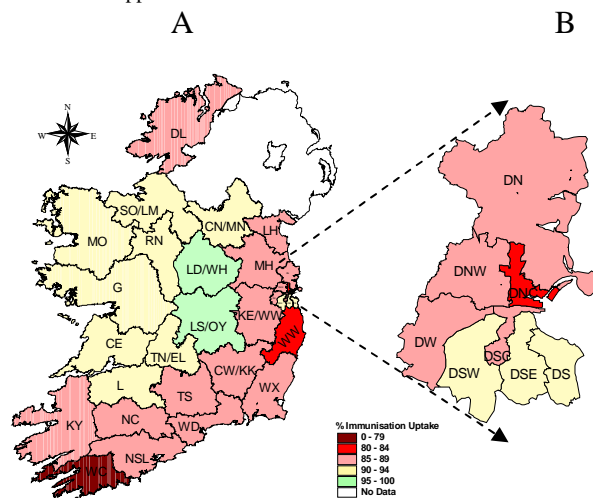


Figure 4. PCV₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

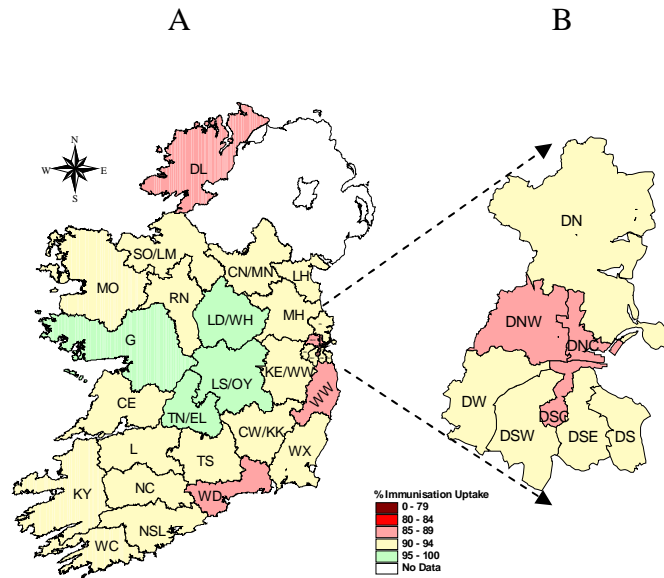


Figure 5. MenB₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

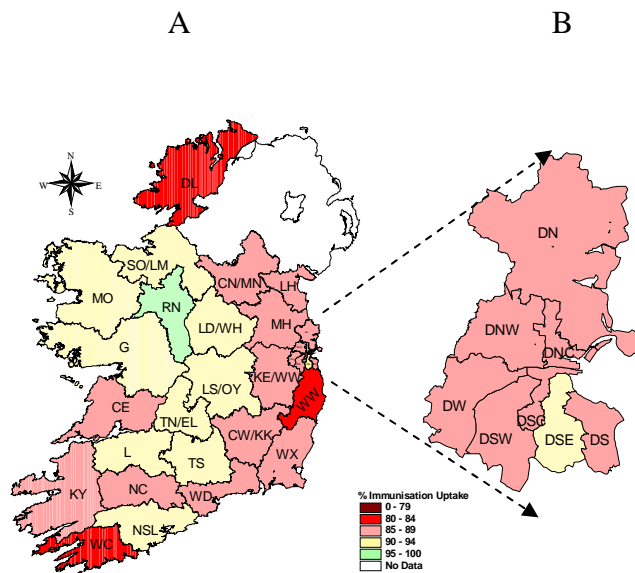


Figure 6. Rota₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Immunisation uptake among children 24 months of age in Quarter 1-2019

National

- Change in immunisation schedule and some data caveats
 - The Q1 2019 24 month cohort (born 01/01/2017-31/03/2017) are the second 24 month cohort recommended the new immunisation schedule introduced for children born on or after October 1st 2016. Meningococcal B (MenB) and rotavirus (Rota) vaccines are now recommended (table 1). In previous cohorts separate Hib and MenC vaccines were given at 13 months of age and PCV was given at 12 months of age. A combined Hib/MenC vaccine dose and a PCV dose are now recommended at 13 months. The current schedule and changes to the schedule are shown in Table 1.
 - Q1 2019 rates are compared here to previous quarters. Cavan/Monaghan, Louth and Meath data were available in Q1 2019 but not available at the time of data extraction for the 2018 quarterly reports and are not included in any of the 2018 figures in this report.
 - MenC₂ data was only available for 10 LHOs in Q1 2019 and 7 LHOs in Q4 2018; this is a reporting issue associated with the second dose of MenC now given as a combined Hib/MenC vaccine. Some of the database reports are not configured to count this combined vaccine where it is the second MenC dose.
 - MenB_{complete} was only flagged with the CHO to be provided for the first time in Q4 2018, and as a result some were not in a position to provide it. MenB_{complete} are those given MenB₃ plus those given two doses between 10 months and <2 years of age with the doses given two months apart i.e. they are completely vaccinated with MenB. MenB_{complete} rate based on data from 25 LHOs in Q1 2019 and 21 LHOs in Q4 2018.
 - Hib₄ data were first requested in Q4 2018 and were available for 14 LHOs in Q1 2019 and 15 LHOs in Q4 2018.
- National uptake rates for all vaccines (except Rota₂) declined by 1-3% in Q1 2019 compared to the previous quarter (figure 1)
- National uptake rates in Q1 2019 were- and changes compared to Q4 2018:
 - 93% for D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃- decline of 1%;
 - 91% for MMR₁ and MenB_{complete} - decline of 1%;
 - 90% for Rota₂- unchanged;
 - 89% for MenB₃- decline of 1%;
 - 88% for Hib_b, MenC_b and MenC₂- decline of 2%;
 - 87% for PCV_b- decline of 2%;
 - 85% for PCV₃- decline of 3%;
 - 84% for Hib₄- decline of 1%.
- This Q1 2019 24 month cohort was 12 months of age in Q1 2018. The uptake rates at 12 months of age in Q1 2018 compared to Q4 2017 for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₂/Rota₂ were unchanged while MenC₁ and MenB₂ improved by 1%. D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenC₁/Rota₂ rates were 89%, PCV₂ was 88% and MenB₂ was 92%. There were declines in uptake in the 12 month Q4 2017 cohort and the Q3 2017 12 month cohort i.e. there were declines at 12 months following the introduction and just prior to the introduction of the new schedule. In Q4 2017, the first 12 month cohort recommended the new schedule, uptake rates at 12 months of age for MenC₁ declined by 6% (to 88%), PCV₂ declined by 3% (to 88%) and D₃, T₃, P₃, Hib₃, Polio₃ and HepB₃ rates declined by 2% (to 89%) compared to Q2 2017.
- Q1 2019 24 month uptake rates compared to Q4 2018 (unless otherwise stated), based on available data:
 - Compared to the previous quarter national uptake rates in Q1-2019 for PCV₃ (85%) declined by 3% and PCV_b (87%) declined by 2% (figure 7). PCV₃ and PCV_b had also declined in both Q3 and Q4 2018 with both now 6% lower compared to Q2 2018. PCV₃ was 85% in Q1 2019 but was 88-93% prior to this. PCV_b was 87% in Q1 2019. Prior to Q4 2018 PCV_b uptake was between 92-94%. In Q1 2019 compared to Q4 2018 PCV₃ declined in 17 LHOs by 1-10%, were unchanged in eight, and increased by 1-2% in 3 LHOs. The largest declines in PCV₃ in Q1 2019 were in Donegal (-5%), TN/EL (-4%), WC (-11%), DSE (-9%), WW (-10%), and DNC (-6%) with uptakes <80% in Donegal (75%), WC (79%) and WW (73%). All uptake rates had declined in these LHOs. In Q1 2019 compared to Q4 2018, PCV_b declined in 17 LHOs by 1-10%, were unchanged in 3 LHOs, and increased by 1-3% in 8 LHOs. The largest declines in PCV_b were in Donegal (-4%), TN/EL (-3%), WC (-7%), WD (-3%), DSE (-8%), WW (-11%), DNW (-3%) and DNC (-6%) with uptakes <80% in WW (74%).
 - Compared to the previous quarter national uptake rates in Q1-2019 for D₃, T₃, P₃, Hib₃, Polio₃, and HepB₃ declined by 1% to 93%. D₃ uptake rates declined in 15 LHOs by 1-6%, were unchanged in six and increased by 1-3% in 7 LHOs. The largest declines (3-6%) were in WC, CW/KK, DSE, WW, DW and DNC. The lowest uptakes were in WW (83%) and CW/KK (89%). This is the fourth time (Q2 2018-Q1 2019) since 2010 that D₃, T₃, P₃, Hib₃ and Polio₃ did not reach the target of 95% at 24 months. It was Q4 2009 when uptake of D₃, T₃, P₃, Hib₃, Polio₃ was previously 93%.

Table 3. Immunisation uptake (%) at 24 months in cohort born 01/01/2017–31/03/2017

| Community Healthcare Organisation/LHO | No. in Cohort | D ₃ /T ₃ | Hib ₄ | Hib ₆ | MenB ₃ | MenB complete | MenC ₂ | MenC ₆ | PCV ₃ | PCV ₆ | Rota ₂ | MMR ₁ |
|---|---------------|--------------------------------|------------------|------------------|-------------------|---------------|-------------------|-------------------|------------------|------------------|-------------------|------------------|
| CHO1(CN/MN ^S , DL, SO/LM) | 1224 | 95 | 83 | 87 | 86 | 92 | 83 | 87 | 81 | 86 | 86 | 89 |
| CHO2 (G, MO, RN) | 1409 | 96 | 87 | 94 | 94 | 96 | 94 | 92 | 97 | 92 | 97 | 95 |
| CHO3 (CE, L, TN) | 1178 | 95 | - | 94 | 91 | - | - | 93 | 87 | 91 | 91 | 93 |
| CHO4 (NC, NSL, WC, KY) | 2157 | 95 | - | 86 | 91 | 92 | - | 88 | 86 | 88 | 90 | 91 |
| CHO5 (CW/KK, TS, WD, WX) | 1623 | 92 | 80 | 87 | 89 | 90 | - | 86 | 83 | 86 | 87 | 91 |
| CHO6 (DS, DSE, WW) | 1227 | 89 | - | 83 | 84 | 86 | - | 84 | 81 | 82 | 86 | 87 |
| CHO7 (DSC, DSW, DW, KE) | 2270 | 93 | - | 90 | 88 | 90 | - | 89 | 85 | 87 | 90 | 91 |
| CHO8 (LS/OY, LD/WH, LH ^S , MH ^S) | 2186 | 94 | 87 | 89 | 90 | 96 | 87 | 88 | 85 | 87 | 91 | 91 |
| CHO9 (DNW, DNC, DN) | 1971 | 93 | - | 88 | 88 | 89 | - | 87 | 84 | 86 | 90 | 91 |
| Ireland | 15245 | 93 | 84 | 88 | 89 | 91 | 88 | 88 | 85 | 87 | 90 | 91 |

Please see Appendix 3 to translate LHO codes

P₃/Polio₃/Hib₃/HepB₃ are not shown here, they are mostly similar to DT₃ rates.

na = not available

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

Hib₄ 'national' uptake rate is calculated based on data from 14 LHOs only.

MenBcomplete 'national' uptake rate is calculated based on data from 25 LHOs only.

MenC₂ 'national' uptake rate of 90% is calculated based on data from 10 LHOs only.

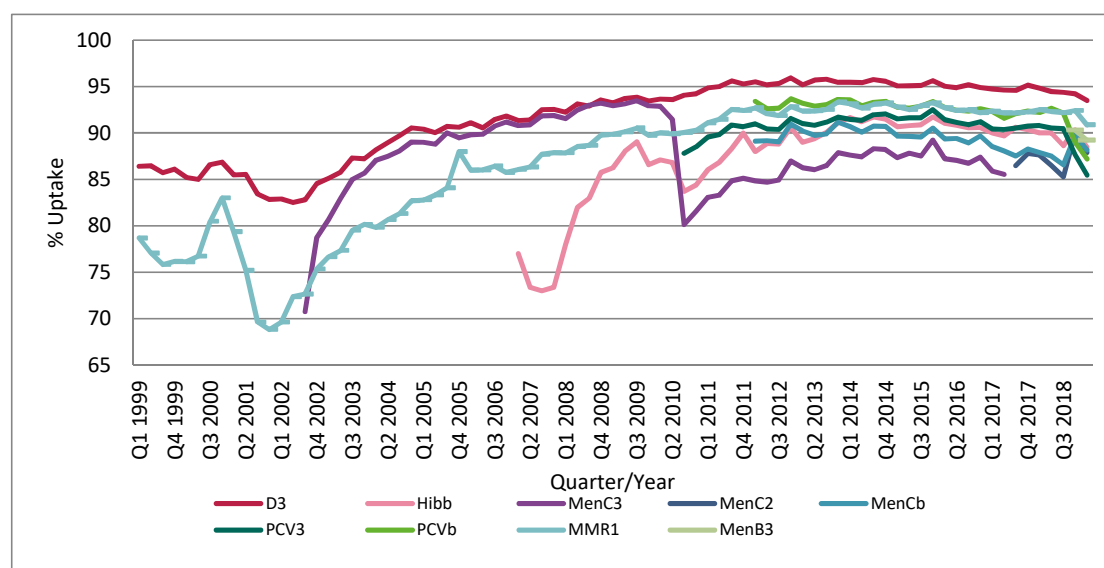


Figure 7. National quarterly immunisation uptake rates at 24 months

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 Hib₆ figures are based on data from seven of the eight HSE Areas. In Q1-2008 the HSE-SE changed their Hib₆ data extraction method compared to previous quarters; in Q1-2008 the uptake of Hib₆ in the HSE-SE was 83% compared to 53% in Q4-2007. The Q3-2008 MenC₃ figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area D₃, P₃, T₃, Polio₃ and MMR₁ uptake figures exclude those born on the 31/03/2007. The Q2-2009 HSE-Eastern Area Hib₆ 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 Hib₆ 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 Hib₆ 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 PCV₆ data were only available for 6 of the 8 HSE Areas from Q1 2012 to Q4 2014. MenC₃ and PCV₆ data were only available for 8 CHOs from Q1 2015-Q1 2017 but are available for all since Q2 2017. Q2 2017 CHO3 Hib₆ 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 MenC₃ and Hib₆ 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 MenC₃/Hib₆ statistics in CHO6/7/9. MenC₂ uptake was available for only 7 LHOs in Q4 2018 and 1- in Q1 2019.

- Compared to Q4 Hib_b declined by 2% in Q1 2019 to 88%, it was previously 88% in Q1 2012. Hib_b declined in 19 LHOs by 1-9%, 3 were unchanged and increased by 1-5% in 6 LHOs. There were declines of 8-9% in WC, DSE, WW and DNC with the lowest uptakes in WC (79%) and WW (76%).
 - MenC_b declined by 2% compared to Q4 2018. MenC_b declined by 1-9% in 16 of the 28 LHOs reporting data in both Q1 and Q4 with declines of 8-9% in DSE, WW and DNC.
 - MenC₂ uptake was reported for 10 LHOs in Q1 2019 and their combined uptake was 88%. For seven LHOs in Q4 2018 their combined uptake was 90%. In the four of the seven LHOs reporting MenC₂ data in both Q1 and Q4 MenC₂ declined.
 - MMR₁ decline by 1% in Q1 2019 to 91%, it was previously 91% in Q1 2011. In Q1 2019 compared to Q4 2018 MMR₁ declined in 17 LHOs by 1-7%, were unchanged in 6 LHOs and increased by 1-3% in 5 LHOs. MMR₁ declined by 3-7% in Donegal, Clare, TN/EL, WC, DSE, WW, and DW.
 - Figure 7 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q1-2019.
- Community Healthcare Organisations (CHOs)**
- The target uptake of 95% was reached in only four CHOs for D₃, P₃, T₃, Hib₃, and Polio₃, three for HepB₃, two for MenB_{complete} and one for MMR₁, 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 Q1-2019 are presented by LHO in Appendix 2.
 - Immunisation uptake rates of some vaccines are mapped by LHO in figures 8-18.
 - In Q1 2019, among LHOs reporting data, the target uptake of 95% was reached in 14 LHOs for D₃, T₃, P₃, Hib₃, and Polio₃, 13 for HepB₃, 5 for MenB_{complete}, 4 for MMR₁ and Rota₂, 3 for Hib_b, MenB₃ and PCV₃, 2 for MenC_b, 1 for MenC₂ and PCV_b and in none for Hib₄.
 - In comparison:
 - in Q4 2018 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}, and 1 for Hib₄, MenC₂ and PCV_b.
 - 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 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 at www.hpsc.ie
 - Changes in uptake by LHO in Q1 2019 compared to Q4 2018 (unless otherwise stated):
 - CHO1
 - Q1 2019 CN/MN rates ranged from 84% (PCV₃) to 98% (D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - Donegal uptake rates all declined by 2-5%. Uptake rates ranged from 75% (for PCV₃) to 91% (for D₃/T₃/P₃/Hib₃/Polio₃/MenB_{complete}) in Q1 2019. No vaccine reached the target of >=95% in Q1 2019. This is the third quarter in a row that D₃/T₃/P₃/Hib₃/Polio₃ were below 95% and are their lowest (91%) since LHO data were included in the national reports in 2007.
 - SO/LM D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV_b/MMR₁ uptake improved by 1-3%, MenB_{complete} was unchanged while the remainder declined by 1-4%. Uptake rates ranged from 84% (for Hib₄) to 97% (for D₃/T₃/P₃/Hib₃/Polio₃)
 - 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 Q4 2018 but could in Q1 2019.
 - G uptake rates all improved by 1-4%. Uptake rates ranged from 88% (for Hib₄) to 98% for (PCV₃).
 - Mayo Hib_b/MenC₂ declined by 1%, Hib₄/MenC_b/PCV₃/PCV_b/Rota₂ improved by 1-3% while the remainder were unchanged. D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/PCV₃/Rota₂ were all >= target of 95%. Uptake rates ranged from 81% (for Hib₄) to 98% for (Rota₂).
 - RN Hib₄ declined by 6%, Hib_b/MenC₂ declined by 3%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB₃/MMR₁ declined by 1%, Rota₂/PCV_b improved by 1%, and MenC_b/PCV₃ were unchanged. All vaccines (except Hib₄) were >= target of 95%. Uptake rates ranged from 92% (for Hib₄) to 99% (for MenB_{complete}).
 - CHO3
 - MenC₂, Hib₄ and MenB_{complete} data were not available.
 - CE MMR₁ declined by 3%, DTP₃ declined by 1%, Hib_b/MenC_b improved by 2-3%, while the remainder were unchanged. D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b were all >= target of 95%. Uptake rates ranged from 88% (for PCV₃) to 96% (for Hib_b).
 - Limerick MMR₁ declined by 1%, PCV₃/Rota₂ were unchanged while the remainder improved by 1%.

- D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b/MenC_b were all \geq target of 95%.
 Uptake rates ranged from 89% (for PCV₃) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Hib_b/MenC_b).
- TN/EL rates all declined by 2-4%
 None of the vaccine rates reached the target of 95% in this quarter.
 Uptake rates ranged from 85% (for PCV₃) to 93% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
- CHO4
- MenC₂ and Hib₄ data unavailable.
 - NC MenC_b improved by 4%, Hib_b and PCV_b improved by 3%, while the remainder were either unchanged or changed by +1% or -1%.
 D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ reached the target of 95%.
 Uptake rates ranged from 89% (for Hib_b/PCV₃) to 96% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - NSL MenC_b/PCV₃/PCV_b/MMR₁ declined by 1-2%, Rota₂ improved by 3% while the remainder were unchanged.
 D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ were all \geq target of 95%.
 Uptake rates ranged from 86% (for PCV₃) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - WC uptake rates declined by 4-10%
 (WC uptake had 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%).
 No vaccine reached the target of 95% in Q1.
 Uptake rates ranged from 79% (for Hib_b/PCV₃) to 91% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - KY PCV₃ declined by 2%, MenB₃/MenB_{complete} improved by 2%, Rota₂ improved by 1%, MenC_b declined by 1%, while the remainder were unchanged.
 No vaccine reached the target of 95% in this quarter.
 Uptake rates ranged from 85% (for PCV₃) to 94% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
- CHO5
- MenC₂ data were unavailable.
 - CW/KK rates declined by 1-4% except Hib_b/MenC_b/PCV₃/MMR₁ were unchanged.
 No vaccine reached the target of 95% in this quarter.
 Hib_b/Hib₄/MenC_b/PCV₃/PCV_b were all 78-84%.
 Uptake rates range from 78% (for Hib₄) to 89% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB_{complete}/MMR₁).
 Since data by LHO was first collected nationally in 2007 D₃/T₃/P₃/Hib₃/Polio₃ was <90% previously in Q1 2008.
*This Q1 2019 24 month cohort was 12 months of age in Q1 2018 (born 01/01/17-31/03/17). The Q1 2018 12 month uptake rates declined by 2-3% in Q1 2018 compared to Q4 2017 and were mostly 86-88% (except MenB₂ was 92%).
 Uptake at 12 months of the D₃/T₃/P₃/Hib₃/Polio₃/PCV₂ vaccines were <90% between Q1 2017 and Q3 2018 but were mostly >90% prior to this and D₃/T₃/P₃/Hib₃/Polio₃ improved to 90% in Q4 2018 and Q1 2019.*
 - TS Hib₄/Hib_b/MenC_b declined by 1-2%, Rota₂ improved by 3%, MenB₃ improved by 2%, while the remainder improved by 1% or were unchanged.
 D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB_{complete} were all \geq target of 95%.
 Uptake rates ranged from 85% (for Hib₄) to 97% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - WD PCV_b declined by 3%, Hib₄/Hib_b/MenC_b declined by 2%, MMR₁ improved by 2% while the remainder were unchanged or changed by +1% or -1%.
 No vaccine reached the target of 95% in this quarter.
 Uptake rates ranged from 78% (for Hib₄) to 90% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - WX MenB₃ and MMR improved by 3%, Rota₂ and HepB₃ improved by 2%. Hib₄ declined by 3% while the remainder were unchanged or changed by +1% or -1%.
 No vaccine reached the target of 95%.
 Uptake rates ranged from 81% (for Hib₄) to 94% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 This is the third quarter in a row that D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ are below 95% whereas they were mostly \geq 95% since Q2 2011.
- CHO6
- MenC₂ and Hib₄ data were unavailable.
 - DS rates declined by 1-3% except Rota₂ was unchanged. D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ were previously 91% in Q1 2011.
 No vaccine reached the target of 95%.
 Uptake rates ranged from 86% (for PCV₃) to 91% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MMR₁).
 - DSE D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Rota₂ declined by 4% while the rest declined by 6-9%.
 No vaccine reached the target of 95% in this quarter.
 Uptake rates ranged from 84% (for PCV₃) to 92% (for D₃/T₃/P₃/Hib₃/Hib_b/Polio₃/HepB₃).
 - WW rates declined by 4-10%.
 No vaccine reached the target of 95% and all were <84%.
 Uptake rates ranging from 73% (for PCV₃) to 83% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

- CHO7
 - MenC₂ and Hib₄ data were unavailable.
 - DSC Rota₂ and MMR₁ were unchanged while the rest improved by 1-5%.
No vaccine reached the target of $\geq 95\%$.
Uptake rates ranged from 87% (for PCV₃) to 93% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - DSW PCV₃ and MenB_{complete} declined by 3%, MenB₃ and PCV_b declined by 2%, MMR₁ and HepB₃ declined by 1%, Rota₂ improved by 1% while the remainder were unchanged.
D₃/T₃/P₃/Hib₃/Polio₃/ reached the target of $\geq 95\%$.
Uptake rates ranged from 85% (for PCV₃) to 95% (for D₃/T₃/P₃/Hib₃/Polio₃).
 - DW Rota₂ improved by 1% while the remainder declined by 1-3%.
No vaccine reached the target of 95% in this quarter.
Uptake rates ranged from 80% (for PCV₃) to 90% for (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Rota₂).
 - KE rates were unchanged or changed by +1% or -1%.
No vaccine reached the target of 95% in this quarter.
Uptake rates ranged from 87% (for PCV₃) to 93% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

- CHO8
 - LS/OY Rota₂ improved by 3% while the rest were unchanged or declined by 1-2%.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB₃/MenB_{complete}/Rota₂/MMR₁ reached the target of $\geq 95\%$ in this quarter.
Uptake rates ranged from 91% (for Hib₄/MenC₂/PCV₃) to 97% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - LD/WH uptake rates were unchanged or declined by 1-2%.
Uptake rates ranged from 91% (for MenC₂ and Rota₂) to 96% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).
 - D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenC_b/MenB_{complete}/MMR₁ reached the target of $\geq 95\%$.
 - Q4 2018 data for Louth and Meath were not available at the time of the data extraction for the Q4 report.
 - Louth No vaccine reached the target of 95% in this quarter and rates ranged from 82% (for MenC_b/PCV₃) to 92% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃.
 - Meath No vaccine reached the target of 95% in this quarter and rates ranged from 79% (for PCV₃) to 90% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃.

- CHO9
 - MenC₂ and Hib₄ data were unavailable.
 - DNW D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/Rota₂ were unchanged while the remainder declined by 2-3%.
D₃/T₃/P₃/Hib₃/Polio₃/HepB₃ reached the target of $\geq 95\%$.
Uptake rates ranged from 86% (for PCV₃) to 96% for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃.
 - DNC MenC_b declined by 9%, Hib_b declined by 8%, PCV₃/PCV_b declined by 6%, D₃/T₃/P₃/Hib₃/Polio₃/HepB₃/MenB_{complete} declined by 4%, MenB₃ declined by 3%, Rota₂ declined by 2%, and MMR₁ declined by 1%.
Uptake rates ranged from 83% (for PCV₃) to 93% for MMR₁.
No vaccine reached the target of $\geq 95\%$.
 - DN Hib_b declined by 2%, MenB₃ was unchanged while the remainder declined by 1%.
No vaccine reached the target of 95% in this quarter.
Uptake rates ranged from 83% (for PCV₃) to 91% (for D₃/T₃/P₃/Hib₃/Polio₃/HepB₃).

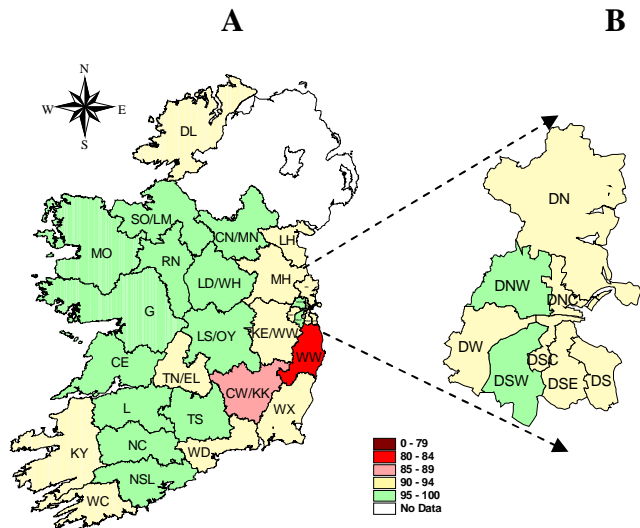


Figure 8. D₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

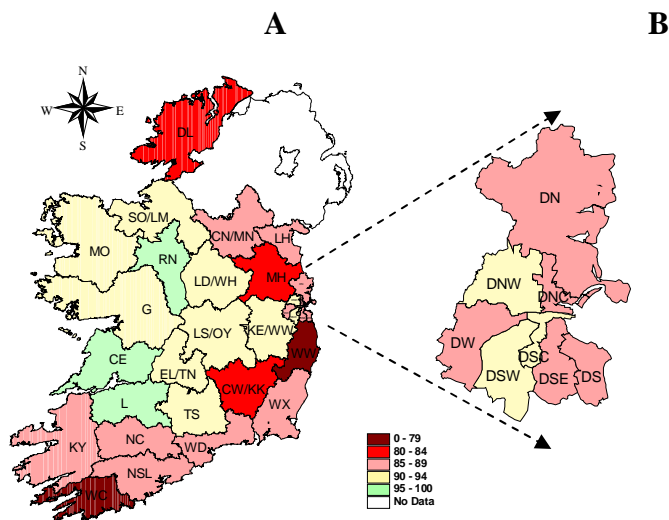


Figure 9. Hib_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

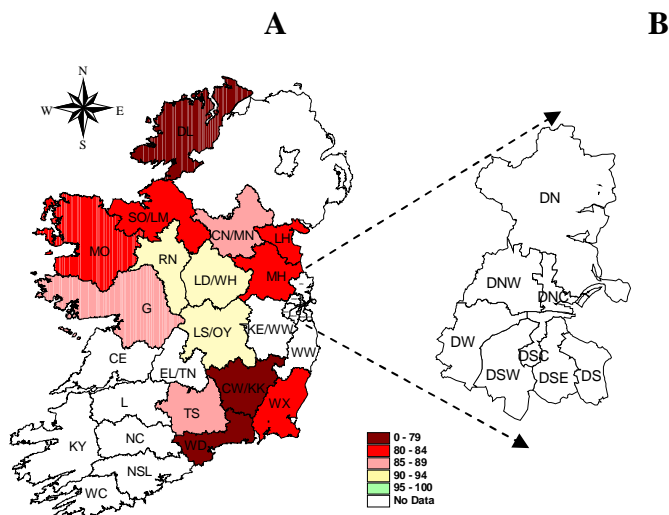


Figure 10. Hib₄ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

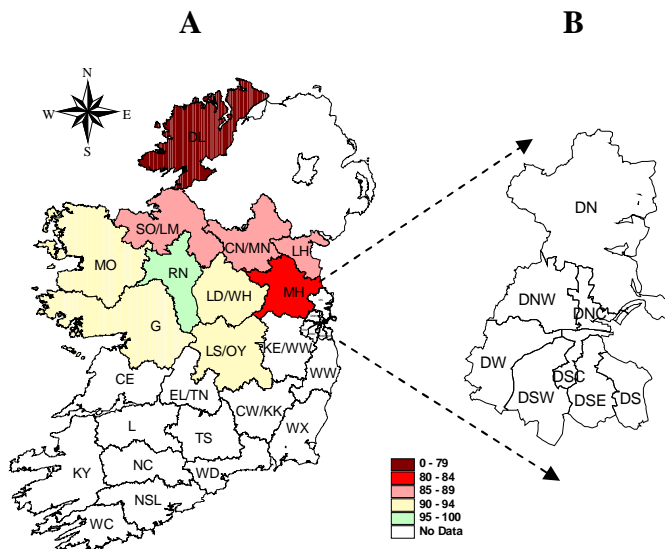


Figure 11. MenC₂ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

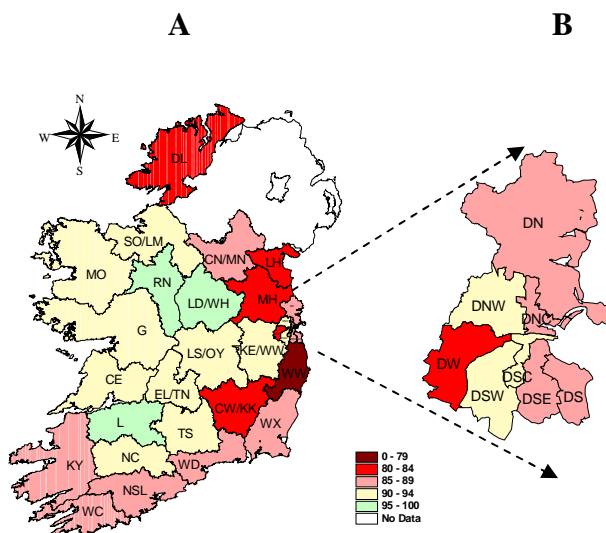


Figure 12. MenC_b immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

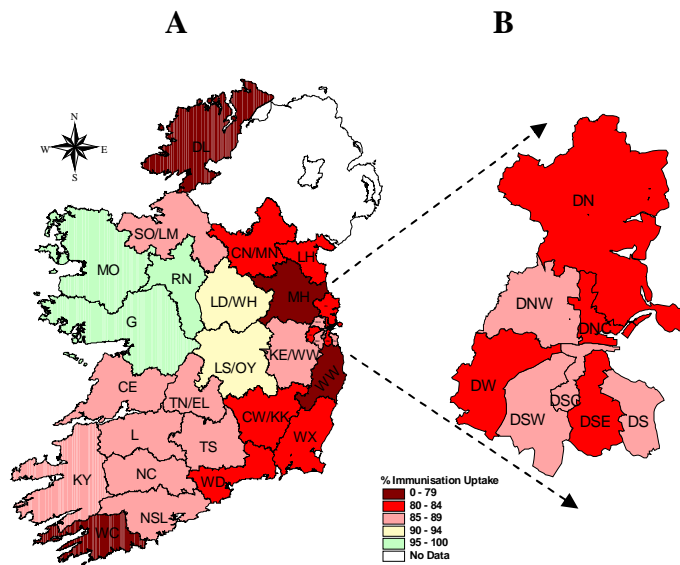


Figure 13. PCV₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

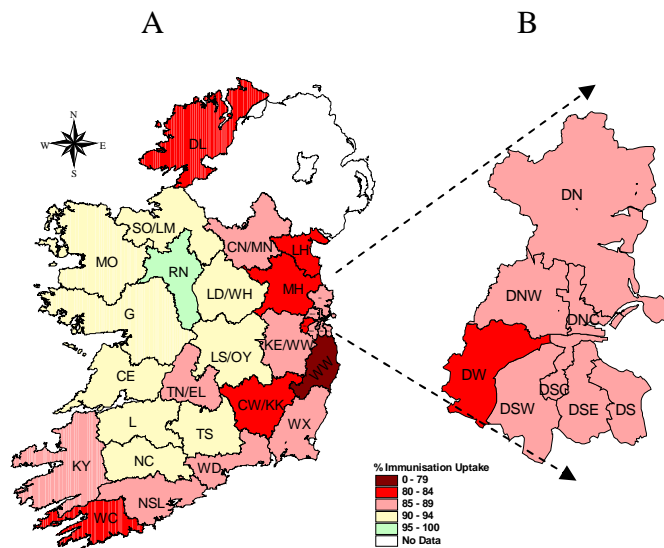


Figure 14. PCV₆ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

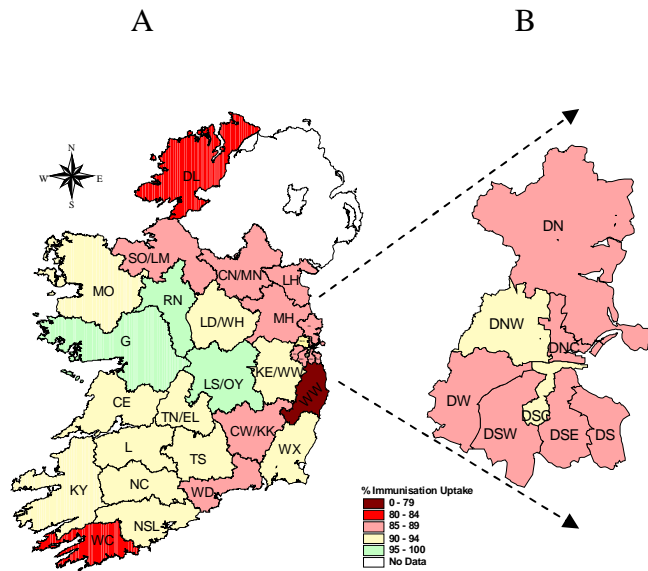


Figure 15. MenB₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

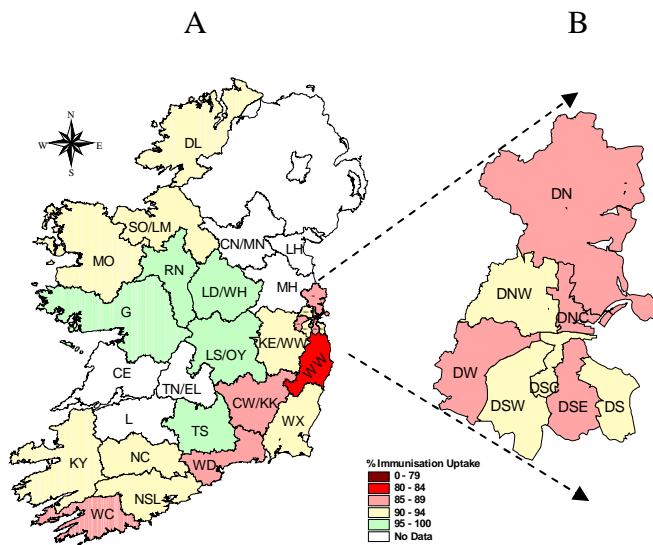


Figure 16. MenB_{complete} immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

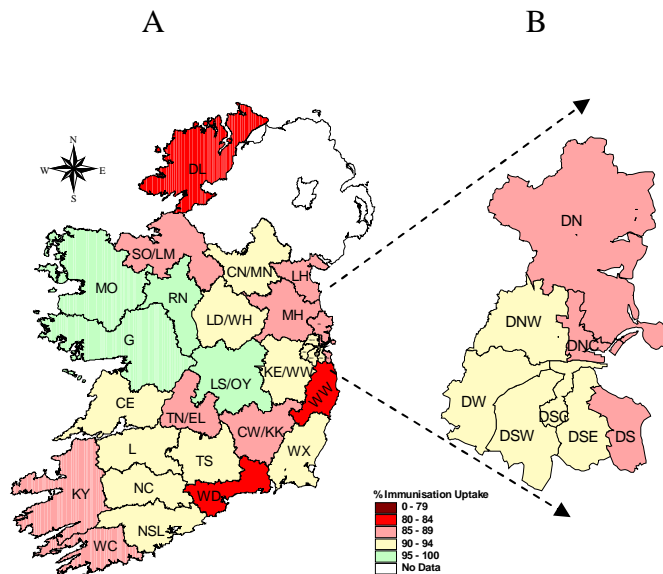


Figure 17. Rota₂ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

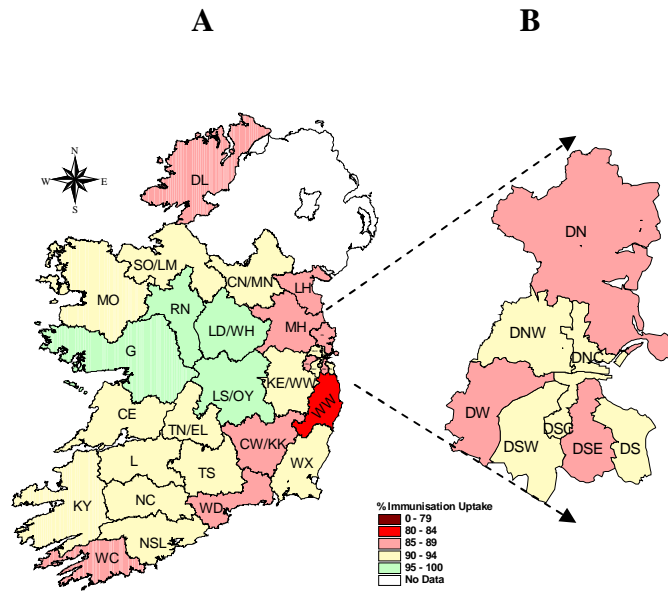


Figure 18. MMR₁ immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 1-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

Acknowledgements

HPSC would like to thank all those involved in childhood immunisation including the General Practitioners, Practice Nurses, HSE Areas, Public Health Nurses, Immunisation Co-ordinators, Specialists in Public Health Medicine, Surveillance Scientists and Systems Analysts for their assistance.

Appendix 1

Immunisation uptake (%) at 12 months of age in cohort born 01/01/2018-31/03/2018

| 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 | MenB ₂ | MenC ₁ | PCV ₂ | Rota ₂ |
| CHO1 | Cavan/Monaghan [§] | na | 431 | na | 93 | 93 | 93 | 93 | 93 | 94 | 93 | 94 | 88 |
| | Donegal | 484 | 484 | 0 | 88 | 88 | 88 | 88 | 88 | 89 | 87 | 88 | 80 |
| | Sligo/Leitrim | 309 | 309 | 0 | 93 | 93 | 93 | 93 | 93 | 94 | 94 | 93 | 90 |
| | CHO1 Total* | 793 | 1224 | 0 | 91 | 91 | 91 | 91 | 91 | 92 | 91 | 91 | 85 |
| CHO2 | Galway | 816 | 816 | 0 | 92 | 92 | 92 | 92 | 92 | 95 | 92 | 93 | 92 |
| | Mayo | 380 | 380 | 0 | 92 | 92 | 92 | 92 | 92 | 94 | 94 | 94 | 94 |
| | Roscommon | 168 | 168 | 0 | 90 | 90 | 90 | 90 | 90 | 92 | 91 | 90 | 95 |
| | CHO2 Total | 1364 | 1364 | 0 | 92 | 92 | 92 | 92 | 92 | 94 | 93 | 93 | 93 |
| CHO3 | Clare | 346 | 346 | 0 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 89 |
| | Limerick | 465 | 465 | 0 | 90 | 90 | 90 | 90 | 90 | 93 | 90 | 90 | 92 |
| | Tipperary NR/East Limerick | 427 | 427 | 0 | 92 | 92 | 92 | 92 | 92 | 95 | 91 | 92 | 92 |
| | CHO3 Total | 1238 | 1238 | 0 | 91 | 91 | 91 | 91 | 91 | 93 | 91 | 91 | 91 |
| CHO4 | North Cork | 318 | 318 | 0 | 88 | 88 | 88 | 88 | 88 | 92 | 90 | 88 | 87 |
| | North South Lee | 1255 | 1255 | 0 | 87 | 87 | 87 | 87 | 87 | 94 | 90 | 87 | 91 |
| | West Cork | 156 | 156 | 0 | 79 | 79 | 79 | 79 | 79 | 90 | 82 | 76 | 81 |
| | Kerry | 403 | 403 | 0 | 86 | 86 | 86 | 86 | 86 | 92 | 90 | 85 | 87 |
| CHO4 Total | 2132 | 2132 | 0 | 86 | 86 | 86 | 86 | 86 | 93 | 89 | 86 | 89 | |
| CHO5 | Carlow/Kilkenny | 427 | 427 | 0.0 | 90 | 90 | 90 | 90 | 89 | 93 | 90 | 89 | 87 |
| | South Tipperary | 326 | 326 | 0.0 | 89 | 89 | 89 | 89 | 89 | 94 | 89 | 89 | 90 |
| | Waterford | 372 | 372 | 0.0 | 87 | 87 | 87 | 87 | 87 | 89 | 88 | 86 | 85 |
| | Wexford | 451 | 451 | 0.2 | 90 | 90 | 90 | 90 | 90 | 92 | 90 | 89 | 87 |
| CHO5 Total | 1576 | 1576 | 0.1 | 89 | 89 | 89 | 89 | 89 | 92 | 89 | 88 | 87 | |
| CHO6 | Dublin South | 331 | 331 | 0 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 90 | 89 |
| | Dublin South East | 424 | 424 | 0 | 91 | 91 | 91 | 91 | 91 | 91 | 90 | 90 | 91 |
| | Wicklow | 374 | 374 | 0 | 84 | 84 | 84 | 84 | 84 | 86 | 84 | 84 | 82 |
| | CHO6 Total | 1129 | 1129 | 0 | 89 | 89 | 89 | 89 | 89 | 89 | 88 | 88 | 87 |
| CHO7 | Dublin South City | 378 | 378 | 0 | 88 | 88 | 88 | 88 | 88 | 89 | 88 | 88 | 86 |
| | Dublin South West | 547 | 547 | 0 | 90 | 90 | 90 | 90 | 90 | 92 | 89 | 90 | 88 |
| | Dublin West | 526 | 526 | 0 | 88 | 88 | 88 | 88 | 88 | 90 | 88 | 88 | 88 |
| | Kildare/West Wicklow | 841 | 841 | 0 | 87 | 87 | 87 | 87 | 87 | 92 | 88 | 88 | 88 |
| CHO7 Total | 2292 | 2292 | 0 | 88 | 88 | 88 | 88 | 88 | 91 | 88 | 88 | 88 | |
| CHO8 | Laois/Offaly | 512 | 512 | 0 | 96 | 96 | 96 | 96 | 96 | 95 | 96 | 96 | 91 |
| | Longford/Westmeath | 411 | 411 | 0 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 94 |
| | Louth [§] | na | 406 | na | 87 | 87 | 87 | 87 | 87 | 91 | 87 | 87 | 88 |
| | Meath [§] | na | 699 | na | 89 | 89 | 89 | 89 | 89 | 91 | 89 | 89 | 89 |
| CHO8 Total* | 923 | 2028 | 0 | 92 | 92 | 92 | 92 | 92 | 93 | 91 | 92 | 90 | |
| CHO9 | Dublin North West | 741 | 741 | 0 | 87 | 87 | 87 | 87 | 87 | 89 | 87 | 87 | 86 |
| | Dublin North Central | 439 | 439 | 0 | 84 | 84 | 84 | 84 | 84 | 87 | 83 | 84 | 85 |
| | Dublin North | 909 | 909 | 0 | 85 | 85 | 85 | 85 | 85 | 90 | 86 | 85 | 88 |
| | CHO9 Total | 2089 | 2089 | 0 | 85 | 85 | 85 | 85 | 85 | 89 | 86 | 86 | 87 |
| Ireland * | 13536 | 15072 | 0.01 | 89 | 89 | 89 | 89 | 89 | 92 | 89 | 89 | 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 shown here.

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

Appendix 2

Immunisation uptake (%) at 24 months of age in cohort born 01/01/2017-31/03/2017

| Community Healthcare Organisation (CHO) | LHO/CHO | No. in cohort for D ₃ T ₃ * | Immunisation Uptake (%) | | | | | | | | | | | |
|---|--------------------------|---|-------------------------------|-------------------|------------------|------------------|-------------------|--------------------------|-------------------|-------------------|------------------|------------------|-------------------|------------------|
| | | | D ₃ T 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 | 472 | 98 | 98 | 88 | 88 | 89 | na | 88 | 88 | 84 | 89 | 91 | 90 |
| | Donegal | 471 | 91 | 89 | 76 | 83 | 82 | 91 | 76 | 82 | 75 | 80 | 82 | 85 |
| | Sligo/Leitrim | 281 | 97 | 96 | 84 | 91 | 88 | 94 | 85 | 91 | 85 | 90 | 87 | 94 |
| | CHO1 Total | 1224 | 95 | 94 | 83 | 87 | 86 | 92 | 83 | 87 | 81 | 86 | 86 | 89 |
| CHO2 | Galway | 802 | 97 | 97 | 88 | 93 | 95 | 97 | 93 | 92 | 98 | 91 | 96 | 95 |
| | Mayo | 394 | 95 | 95 | 81 | 93 | 91 | 94 | 93 | 91 | 97 | 92 | 98 | 92 |
| | Roscommon | 213 | 98 | 98 | 92 | 97 | 96 | 99 | 97 | 96 | 98 | 98 | 98 | 97 |
| | CHO2 Total | 1409 | 96 | 96 | 87 | 94 | 94 | 96 | 94 | 92 | 97 | 92 | 97 | 95 |
| CHO3 | Clare | 363 | 95 | 95 | na | 96 | 91 | na | na | 94 | 88 | 92 | 91 | 93 |
| | Limerick | 438 | 95 | 95 | na | 95 | 92 | na | na | 95 | 89 | 92 | 91 | 93 |
| | Tipperary NR/East Limeri | 377 | 93 | 93 | na | 91 | 90 | na | na | 90 | 85 | 88 | 89 | 92 |
| | CHO3 Total | 1178 | 95 | 95 | na | 94 | 91 | na | na | 93 | 87 | 91 | 91 | 93 |
| CHO4 | North Cork | 303 | 96 | 96 | na | 89 | 93 | 94 | na | 92 | 89 | 91 | 91 | 92 |
| | North South Lee | 1223 | 95 | 95 | na | 87 | 92 | 93 | na | 88 | 86 | 88 | 92 | 91 |
| | West Cork | 178 | 91 | 91 | na | 79 | 84 | 85 | na | 85 | 79 | 84 | 85 | 86 |
| | Kerry | 453 | 94 | 94 | na | 86 | 90 | 91 | na | 87 | 85 | 88 | 87 | 90 |
| CHO4 Total | 2157 | 95 | 95 | na | 86 | 91 | 92 | na | 88 | 86 | 88 | 90 | 91 | |
| CHO5 | Carlow/Kilkenny | 428 | 89 | 89 | 78 | 84 | 87 | 89 | na | 84 | 80 | 83 | 85 | 89 |
| | South Tipperary | 279 | 97 | 97 | 85 | 91 | 93 | 95 | na | 91 | 88 | 91 | 92 | 94 |
| | Waterford | 431 | 90 | 90 | 78 | 86 | 86 | 87 | na | 85 | 83 | 85 | 83 | 89 |
| | Wexford | 485 | 94 | 94 | 81 | 87 | 91 | 92 | na | 87 | 84 | 87 | 91 | 93 |
| CHO5 Total | 1623 | 92 | 92 | 80 | 87 | 89 | 90 | na | 86 | 83 | 86 | 87 | 91 | |
| CHO6 | Dublin South | 402 | 91 | 91 | na | 89 | 88 | 90 | na | 89 | 86 | 87 | 88 | 91 |
| | Dublin South East | 384 | 92 | 92 | na | 87 | 85 | 88 | na | 87 | 84 | 86 | 90 | 89 |
| | Wicklow | 441 | 83 | 83 | na | 76 | 79 | 80 | na | 75 | 73 | 74 | 82 | 81 |
| | CHO6 Total | 1227 | 89 | 89 | na | 83 | 84 | 86 | na | 84 | 81 | 82 | 86 | 87 |
| CHO7 | Dublin South City | 372 | 93 | 93 | na | 91 | 90 | 90 | na | 90 | 87 | 88 | 91 | 91 |
| | Dublin South West | 501 | 95 | 94 | na | 92 | 89 | 90 | na | 91 | 85 | 89 | 91 | 94 |
| | Dublin West | 536 | 90 | 90 | na | 85 | 85 | 86 | na | 84 | 80 | 83 | 90 | 87 |
| | Kildare/West Wicklow | 861 | 93 | 93 | na | 91 | 90 | 91 | na | 91 | 87 | 89 | 90 | 91 |
| CHO7 Total | 2270 | 93 | 93 | na | 90 | 88 | 90 | na | 89 | 85 | 87 | 90 | 91 | |
| CHO8 | Laois/Offaly | 593 | 97 | 97 | 91 | 94 | 95 | 96 | 91 | 94 | 91 | 92 | 96 | 96 |
| | Longford/Westmeath | 448 | 96 | 96 | 92 | 94 | 94 | 96 | 91 | 95 | 92 | 93 | 91 | 96 |
| | Louth | 403 | 92 | 92 | 83 | 85 | 88 | na | 85 | 82 | 82 | 83 | 89 | 89 |
| | Meath | 742 | 90 | 90 | 83 | 83 | 85 | na | 83 | 82 | 79 | 81 | 88 | 86 |
| CHO8 Total | 2186 | 94 | 94 | 87 | 89 | 90 | 96 | 87 | 88 | 85 | 87 | 91 | 91 | |
| CHO9 | Dublin North West | 677 | 96 | 96 | na | 91 | 90 | 91 | na | 90 | 86 | 88 | 93 | 92 |
| | Dublin North Central | 370 | 92 | 92 | na | 87 | 88 | 89 | na | 85 | 83 | 86 | 89 | 93 |
| | Dublin North | 924 | 91 | 91 | na | 86 | 87 | 88 | na | 86 | 83 | 85 | 88 | 89 |
| | CHO9 Total | 1971 | 93 | 93 | na | 88 | 88 | 89 | na | 87 | 84 | 86 | 90 | 91 |
| Ireland | 15245 | 93 | 93 | 84 | 88 | 89 | 91 | 88 | 88 | 85 | 87 | 90 | 91 | |

na=not available

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

P₃/ Polio₃/ Hib₃/HepB₃ are not shown here, they are mostly similar to DT₃ rates.

Hib₄ 'national' uptake rate is based on data from 14 LHOs only

MenB_{complete} rate is based on data from 25 LHOs.

MenB_{complete} was requested for the first time in Q4 2018, it was not previously flagged 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 between 10 months and <2 years of age with the doses given two months apart i.e. they are completely vaccinated with MenB.

MenC₂ 'national' uptake is based on data from 10 LHOs only (CN-MN/DL/SO-LM/G/MO/RN/LS-OY/LD-WH/Louth/Meath). Lack of complete MenC₂ data is a reporting issue associated with the second dose of MenC now given at 13 months as part of the combined Hib/MenC vaccine and CHO reports not including this vaccine in MenC uptake

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

Appendix 3

| Local Health Office (LHO) Abbreviations (used in maps in this report) | Local Health Office (LHO) |
|--|--------------------------------|
| CE | Clare |
| CN/MN | Cavan/Monaghan |
| CW/KK | Carlow/Kilkenny |
| DL | Donegal |
| DN | Dublin North |
| DNC | Dublin North Central |
| DNW | Dublin North West |
| DS | Dublin South |
| DSC | Dublin South City |
| DSE | Dublin South East |
| DSW | Dublin South West |
| DW | Dublin West |
| G | Galway |
| KE/WW | Kildare/West Wicklow |
| KY | Kerry |
| L | Limerick |
| LD/WD | Longford/Westmeath |
| LH | Louth |
| LS/OY | Laois/Offaly |
| MH | Meath |
| MO | Mayo |
| NC | North Cork |
| NSL* | North South Lee* |
| RN | Roscommon |
| SO/LM | Sligo/Leitrim |
| TN/EL | Tipperary North /East Limerick |
| TS | South Tipperary |
| WC | West Cork |
| WD | Waterford |
| WX | Wexford |
| WW | Wicklow |

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