

# Immunisation uptake at 12 and 24 months of age, Quarter 3 2019

## February 2020

### Key Facts

#### Immunisation uptake rates in children 12 months of age in Quarter 3-2019

- National immunisation uptake rates were (and changes compared to Quarter 2 2019)
  - 93% for MenB<sub>2</sub> ( - 1%)
  - 90% for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, HepB<sub>3</sub>, MenC<sub>1</sub> and PCV<sub>2</sub> ( - 1% Hib<sub>3</sub>/HepB<sub>3</sub>/MenC<sub>1</sub> and remainder unchanged)
  - 89% for Rota<sub>2</sub> (unchanged)
- Among the Local Health Offices, the target uptake rate of 95% was reached in Quarter 3 2019 in Laois/Offaly and Longford/Westmeath for all vaccines

#### Immunisation uptake rates in children 24 months of age in Quarter 3-2019

- National uptake rates in Q3 2019 were (and changes compared to Quarter 2-2019):
  - 93% for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub> ( - 1%);
  - 91% for MMR<sub>1</sub> and MenB<sub>complete</sub> (unchanged);
  - 90% for Rota<sub>2</sub> (unchanged);
  - 89% for Hib<sub>b</sub> and MenB<sub>3</sub> (both - 1%) and MenC<sub>b</sub> (unchanged);
  - 88% for PCV<sub>b</sub> (unchanged);
  - 86% for PCV<sub>3</sub> (unchanged);
  - 85% for Hib<sub>4</sub> ( - 2) and MenC<sub>2</sub> ( - 1%);

*MenB<sub>complete</sub> rates based on data from 20 LHOs in Q3 and Q2;*  
*Hib<sub>b</sub> rates based on data from 28 LHOs in Q3 and Q2;*  
*Hib<sub>4</sub> rates based on data from 18 LHOs in Q3 and Q2;*  
*MenC<sub>2</sub> rates based on data from 18 LHOs in Q3 and 14 in Q2;*  
*Remainder based on data from 31 LHOs.*
- D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub> uptake rates declined by 1% to 93% in Quarter 3 2019 and are below the target rate of 95% for the sixth quarter in a row.
- MMR<sub>1</sub> was unchanged compared to Q2 and Q1 2019, however, prior to Q1 2019 MMR<sub>1</sub> was previously 91% in Quarter 2 2011.
- While both PCV<sub>3</sub> and PCV<sub>b</sub> were unchanged compared to the previous quarter they had both declined in Quarter 3 2018, Quarter 4 2018 and Quarter 1 2019 with both now 5% lower in Quarter 3 2019 compared to Quarter 2 2018.
- While uptake rates of D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub> were 93% uptake of the remaining vaccines in Quarter 2 2019 are lower. Doses of these remaining vaccines (except Rota<sub>2</sub>) are given at 12 and 13 months of age suggesting that parents are less likely to get the recommended vaccines for their children at this age.

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## Introduction

The national immunisation uptake statistics, based on available data, for Quarter 3 2019 are presented in this report. These immunisation uptake statistics relate to children at 12 (born between 01/07/2018 and 30/09/2018) and 24 (born between 01/07/2017 and 30/09/2017) months of age in Quarter 3-2019. These children were recommended the vaccines outlined in the right hand section of table 1. The latest immunisation schedule was introduced for babies born on or after October 1<sup>st</sup> 2016. Changes to the schedule included the introduction of the Meningococcal group B and Rotavirus vaccines, a change in the recommended timing of the first MenC vaccine, a change in the recommended timing of the third PCV vaccine and introduction of a combined Hib/MenC vaccine at 13 months instead of the previous separate single doses of these vaccines. Changes to the schedule are outlined in Table 1. The Quarter 3 2019 12 month cohort are the eight 12 month cohort recommended this immunisation schedule and the Quarter 3 2019 24 month cohort are the fourth 24 month cohort recommended the new schedule.

Further vaccinations are recommended for older children and adults. Please see the HSE-National Immunisation Office website at [www.immunisation.ie](http://www.immunisation.ie) for current and detailed information on the Irish primary childhood immunisation schedule and also recommended vaccinations for older children and adults and guidelines for late entrants.

The uptake statistics are also presented in this report by Community Healthcare Organisation (CHO) and Local Health Office (LHO). While there are 32 LHOs the immunisation uptake data for North Lee and South Lee are reported as a combined figure.

For children at 12 months of age in Quarter 3 2019, immunisation uptake rates of three doses of vaccines against diphtheria (D<sub>3</sub>), pertussis (P<sub>3</sub>), tetanus (T<sub>3</sub>), *Haemophilus influenzae* type b (Hib<sub>3</sub>), polio (Polio<sub>3</sub>), hepatitis B (HepB<sub>3</sub>), two doses of pneumococcal conjugate vaccine (PCV<sub>2</sub>), two doses of meningococcal serogroup B vaccine (MenB<sub>2</sub>), two doses of rotavirus vaccine (Rota<sub>2</sub>), one dose of meningococcal serogroup C conjugate vaccine (MenC<sub>1</sub>) and one dose of BCG vaccine are reported. The BCG vaccine stock in all areas expired at the end of April 2015. Please see <https://www.hse.ie/eng/health/immunisation/news/bcg17.html> for further information.

For children at 24 months of age in Quarter 3 2019, immunisation uptake rates of three doses of vaccines against diphtheria (D<sub>3</sub>), pertussis (P<sub>3</sub>), tetanus (T<sub>3</sub>), *Haemophilus influenzae* type b (Hib<sub>3</sub>), polio (Polio<sub>3</sub>), hepatitis B (HepB<sub>3</sub>), pneumococcal conjugate vaccine (PCV<sub>3</sub>)\*, meningococcal group B (MenB<sub>3</sub>)\*, two doses of vaccine against meningococcal group C (MenC<sub>2</sub>)\* and rotavirus (Rota<sub>2</sub>)\*, four doses of vaccines against *Haemophilus influenzae* type b (Hib<sub>4</sub>)\* and one dose of vaccine against measles, mumps and rubella (MMR<sub>1</sub>) are reported. One dose of vaccine against *Haemophilus influenzae* type b (Hib<sub>b</sub>), one dose of meningococcal group C vaccine (MenC<sub>b</sub>) and one dose of

pneumococcal conjugate vaccine (PCV<sub>b</sub>) given on or after 12 months of age are also reported. MenB<sub>complete</sub> data was not flagged prior to Quarter 4 2018 with the Community Healthcare Organisations to be provided, and as a result some were not in a position to provide it. MenB<sub>complete</sub> are those given MenB<sub>3</sub> plus those given two doses with the first given on or after 10 months of age and the second dose two or more months later i.e. they are completely vaccinated against MenB.

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

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

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

Please see the HSE-National Immunisation Office (NIO) website at [www.immunisation.ie](http://www.immunisation.ie) for current and detailed information on the Irish primary childhood immunisation schedule, guidelines for late entrants, also recommended vaccinations for older children and adults.

The HSE-NIO website at <https://www.hse.ie/eng/health/immunisation/whoweare/vacchistory.html> shows the primary childhood immunisation programme schedules introduced since 1995 in Ireland and the school immunisation programme schedules since 2010 in Ireland.

BCG	Bacille Calmette Guerin vaccine
DTaP	Diphtheria, Tetanus and acellular Pertussis vaccine
HepB	Hepatitis B vaccine
Hib	<i>Haemophilus influenzae</i> type b vaccine
IPV	Inactivated Polio Virus vaccine
MenB	Meningococcal group B vaccine
MenC	Meningococcal group C vaccine
MMR	Measles, Mumps and Rubella vaccine
PCV	Pneumococcal Conjugate Vaccine (13 valent vaccine recommended for babies born since 01/10/2010; and 7 valent vaccine prior to this)
Rota	Rotavirus oral vaccine

## Caveats to data

The percentages/rates are rounded to decimal places and presented and analysed by this rounded rate.

CHO4, CHO5 and, since Q2 2019, the former HSE-NW (i.e. Donegal and Sligo/Leitrim) provide uptake on those at 12 and 24 months of age, while the remaining areas provided uptake in the relevant birth cohorts at the time the local report is run.

In Quarter 2 2019 CHO2 indicated their Community PAS system is unable to report on Hib<sub>b</sub> and MenC<sub>2</sub> at 24 months as required by HPSC and are not reporting Hib<sub>4</sub> and MenB<sub>complete</sub> at 24 months due to concerns over the accuracy of the denominator. The former HSE-NW (i.e. Donegal and Sligo/Leitrim) and CHO3 data caveats are included in Appendix 3.

Due to changes in the Irish primary childhood immunisation schedule (table 1) MenB<sub>3</sub> (and Rota<sub>2</sub>) for children at 24 months of age was first requested in Quarter 4 2018. MenB<sub>complete</sub> was also requested in Quarter 4 2018 but was not previously flagged with the CHOs to be provided and as a result not all were in a position to provide it. MenB<sub>complete</sub> data was reported for 20 LHOs in Quarter 3 and 2 2019 and 25 LHOs in Quarter 1 2019. In Quarter 2 and 3 2019 an additional 5 LHOs (former HSE-NE and HSE-NW) reported MenB<sub>complete</sub> data but as these included children who had received two doses at any age before 24 months they were excluded here from the national MenB<sub>complete</sub> data.

Hib<sub>4</sub> was requested in Quarter 4 2018 but not in previous quarters. Hib<sub>4</sub> was reported for 18 LHOs in Quarter 2 and 3 2019 and for 14 LHOs in Quarter 1 2019.

For children born on or after October 1<sup>st</sup> 2016 (Quarter 4 2018 24 month cohort) the combined Hib/MenC vaccine was introduced and recommended at 13 months of age. Since Quarter 4 2018 not all areas are in a position to provide MenC<sub>2</sub> data as not all databases/reports were configured to count the combined Hib/MenC vaccine where it is the second dose of MenC. MenC<sub>2</sub> was reported for 18 LHOs in Quarter 3 2019, 14 LHOs in Quarter 2, and for 10 LHOs in Quarter 1 2019.

## Uptake rates

### Immunisation uptake rates at 12 months

#### National

- National immunisation uptake rates in Quarter 3 2019 were (and changes compared to Q2 2019):
  - 93% for MenB<sub>2</sub> ( 1%)
  - 90% for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, HepB<sub>3</sub>, MenC<sub>1</sub> and PCV<sub>2</sub> ( 1% Hib<sub>3</sub>, HepB<sub>3</sub>, MenC<sub>1</sub> and remainder unchanged)
  - 89% for Rota<sub>2</sub> (unchanged)
- Uptake rates at 12 months by quarter are shown in Figure 1.
- This is the eighth 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 MenC<sub>1</sub> had declined by 6%, PCV<sub>2</sub> declined by 3% and D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub> rates declined by 2%.
- In Q3 2019, compared to Q2 2017, MenC<sub>1</sub> was 4% lower, and D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, HepB<sub>3</sub> and PCV<sub>2</sub> were 1% lower.
- MenC previously declined in Q3 2010 for those at 24 months of age (and there was low uptake of Hib<sub>b</sub>). These were the first cohort recommended hepatitis B and pneumococcal conjugate vaccines. In addition, there was a change in timing of the meningococcal serogroup C vaccines and *Haemophilus influenzae* type b booster vaccine for this cohort. The Q3 2010 report is <https://www.hpsc.ie/a-z/vaccinepreventable/vaccination/immunisationuptakestatistics/immunisationuptakestatisticsat12and24monthsofage/quarterlyreports/2010/File,12327,en.pdf> . The reasons for this decline and actions taken are described <https://ndsc.newsweaver.ie/epiinsight/1i8qi6mq9g3?a=1&p=17742945&t=17517774>

#### Community Healthcare Organisation (CHO)

- Among the CHOs, the uptake rates for MenB<sub>2</sub> ranged from 91% to 96%, MenC<sub>1</sub> and PCV<sub>2</sub> ranged from 87-94%, Rota<sub>2</sub> ranged from 84% to 94%, and D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub> ranged from 87% to 94% (table 2).

**Table 2. Immunisation uptake (%) at 12 months of age in Quarter 3 2019, cohort born 01/07/2018-30/09/2018, by LHO and CHO in Ireland**

Community Healthcare Organisation (CHO)	Local Health Office/CHO	Number in cohort for BCG	Number in cohort for D <sub>3</sub> T <sub>3</sub>	Immunisation Uptake (%)									
				BCG	DT <sub>3</sub>	P <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	HepB <sub>3</sub>	MenB <sub>2</sub>	MenC <sub>1</sub>	PCV <sub>2</sub>	Rota <sub>2</sub>
CHO1	Cavan/Monaghan	na	487	na	90	90	90	90	90	94	90	89	87
	Donegal	528	528	0	83	83	83	83	83	90	82	83	78
	Sligo/Leitrim	326	326	0	91	91	91	91	91	95	91	91	89
	<b>CHO1 Total</b>	<b>854</b>	<b>1341</b>	<b>0</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>93</b>	<b>87</b>	<b>87</b>	<b>84</b>
CHO2	Galway	846	846	0	94	94	94	94	94	96	94	94	95
	Mayo	386	386	0	94	94	94	94	94	97	94	96	95
	Roscommon	222	222	0	94	94	94	94	94	95	94	94	93
	<b>CHO2 Total</b>	<b>1454</b>	<b>1454</b>	<b>0</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>96</b>	<b>94</b>	<b>94</b>	<b>94</b>
CHO3	Clare	315	315	0	87	87	87	87	87	94	87	87	87
	Limerick	429	429	0	90	90	90	90	90	96	90	90	91
	Tipperary NR/EL	451	451	0	90	90	90	90	90	95	89	90	91
	<b>CHO3 Total</b>	<b>1195</b>	<b>1195</b>	<b>0</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>95</b>	<b>89</b>	<b>89</b>	<b>90</b>
CHO4	North Cork	311	311	0	89	89	89	89	89	94	90	89	90
	North South Lee	1318	1318	0	91	91	91	91	91	93	91	91	90
	West Cork	155	155	0	81	81	81	81	81	86	80	80	74
	Kerry	416	416	0	88	88	88	88	88	89	89	88	84
<b>CHO4 Total</b>	<b>2200</b>	<b>2200</b>	<b>0</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>92</b>	<b>89</b>	<b>89</b>	<b>88</b>	
CHO5	Carlow/Kilkenny	451	451	0.0	91	91	91	91	91	95	91	90	88
	South Tipperary	313	313	0.0	94	94	94	94	94	95	94	94	92
	Waterford	459	459	0.2	91	91	91	91	91	91	92	89	86
	Wexford	437	437	0.2	91	91	91	91	91	94	91	90	90
	<b>CHO5 Total</b>	<b>1660</b>	<b>1660</b>	<b>0.1</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>93</b>	<b>92</b>	<b>90</b>	<b>89</b>
CHO6	Dublin South	414	414	0	94	94	94	94	94	95	93	93	92
	Dublin South East	402	402	0	93	93	93	93	93	96	94	93	96
	Wicklow	418	418	0	83	83	83	83	83	85	83	82	80
	<b>CHO6 Total</b>	<b>1234</b>	<b>1234</b>	<b>0</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>92</b>	<b>90</b>	<b>89</b>	<b>89</b>
CHO7	Dublin South City	403	403	0	87	87	87	87	87	92	88	88	89
	Dublin South West	587	587	0	89	89	89	89	89	92	90	89	88
	Dublin West	602	602	0	85	85	85	85	85	90	86	85	87
	Kildare/West	860	860	0	90	90	90	90	90	92	91	90	88
	<b>CHO7 Total</b>	<b>2452</b>	<b>2452</b>	<b>0</b>	<b>88</b>	<b>88</b>	<b>88</b>	<b>88</b>	<b>88</b>	<b>91</b>	<b>89</b>	<b>88</b>	<b>88</b>
CHO8	Laois/Offaly	531	531	0	96	96	96	96	96	96	96	96	96
	Longford/Westmeath	436	436	0	97	97	97	97	97	97	96	97	96
	Louth	na	433	na	89	89	89	89	89	93	89	89	88
	Meath	na	745	na	90	90	90	90	90	93	89	90	89
	<b>CHO8 Total</b>	<b>967</b>	<b>2145</b>	<b>0</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>95</b>	<b>92</b>	<b>92</b>	<b>92</b>
CHO9	Dublin North West	868	868	0	88	88	88	88	88	91	88	87	89
	Dublin North Central	436	436	0	85	85	85	85	85	90	86	85	87
	Dublin North	930	930	0	88	88	88	88	88	92	87	87	90
	<b>CHO9 Total</b>	<b>2234</b>	<b>2234</b>	<b>0</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>91</b>	<b>87</b>	<b>87</b>	<b>89</b>
<b>Ireland</b>	<b>14250</b>	<b>15915</b>	<b>0.01</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>93</b>	<b>90</b>	<b>90</b>	<b>89</b>	

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

The denominator/number in cohort varied slightly according to vaccine. D<sub>3</sub>T<sub>3</sub> cohort is shown here.

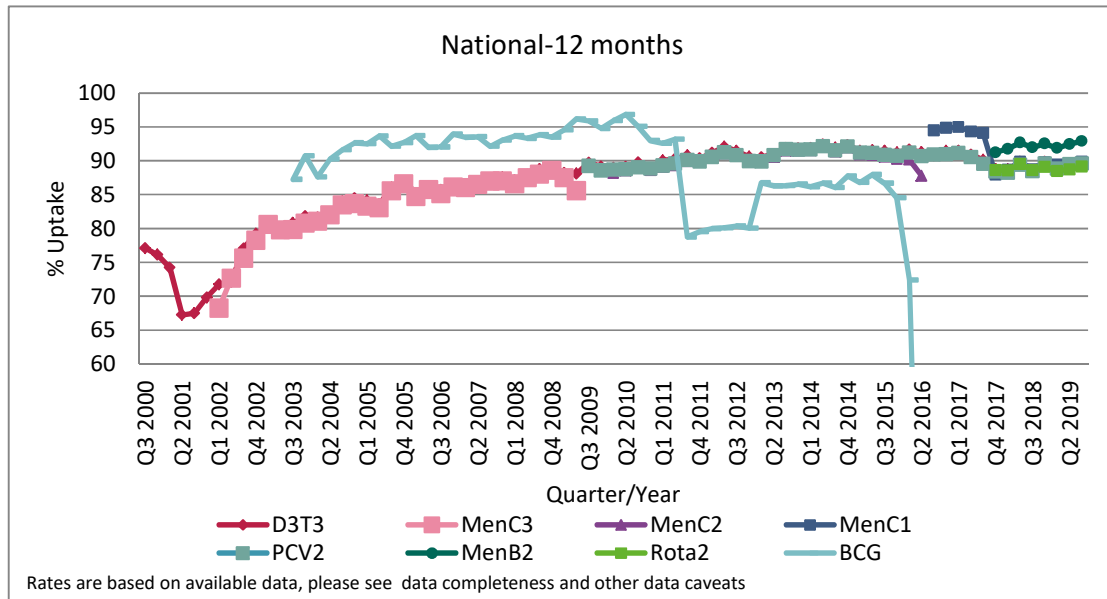
The BCG vaccine stock in all areas expired at the end of April 2015. Please see [https://www.hse.ie/eng/health/immunisation/new\\_s/bcg17.html](https://www.hse.ie/eng/health/immunisation/new_s/bcg17.html) for further information.

na=not available

Rates are rounded to zero decimal places

Please also see Caveats to Data section of this report





**Figure 1.** National quarterly immunisation uptake rates at 12 months

X-axis ranges from 60-100%.

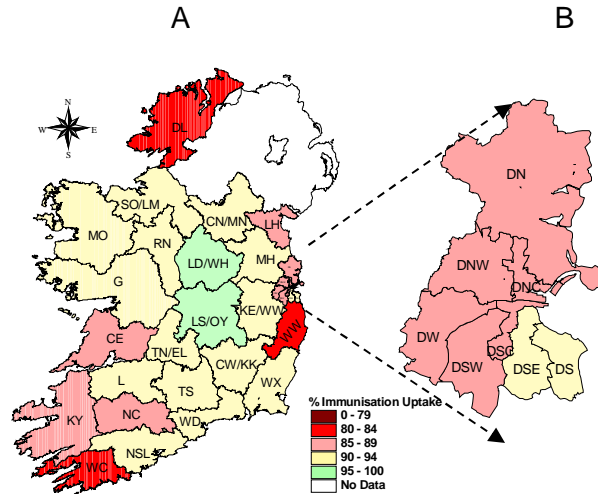
The Q3-2008 MenC<sub>3</sub> uptake figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Polio<sub>3</sub> and MMR<sub>1</sub> uptake figures exclude those born on the 31/03/2007. The Q3-2009 figures are incomplete as two HSE Areas were unable to provide data, two additional areas were unable to provide MenC<sub>2</sub> data and one additional area was unable to provide PCV<sub>2</sub> 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 MenC<sub>2</sub> data. The Q2-2010 figures are incomplete as two HSE Areas were unable to provide data. The Q4-2010 figures are incomplete as one HSE Area was unable to provide data. BCG uptake data are only displayed in this graph from Q1 2013 as BCG uptake data were available for only five of the eight HSE-Areas (this includes data from the HSE-Southern Area which relates to Kerry data only) from Q3 2003 to Q2 2009 (except Q3 2004 when HSE-Southern Area data were not available), for three HSE-Areas in Q3 2009, for two HSE-Areas in Q4 2009, for three HSE-Areas in Q1 2010 and Q2 2010, for five HSE-Areas in Q4 2010, Q1 2011 and Q2 2011, for six HSE-Areas in Q3 2011 to Q4 2012 and for seven HSE Areas from Q1 2013. From Q3 2011 to Q3 2014 HSE Western Area BCG data was not available by LHO, uptake was provided for the HSE Western Area as a whole. In Q4 2014 BCG data was available for Galway and Roscommon- the BCG denominator for HSE Western Area in Q4 2014 was the sum of the Galway and Roscommon denominators. Since Q1 2015 BCG data was available for Galway, Mayo and Roscommon LHOs. See page 2 regarding BCG vaccine stock in Ireland since April 2015. Q1-Q4 2018 CN/MN, LH and MH data were not available at the time of data extraction for the report. See Caveats to Data section of this report.

### Local Health Office (LHO)

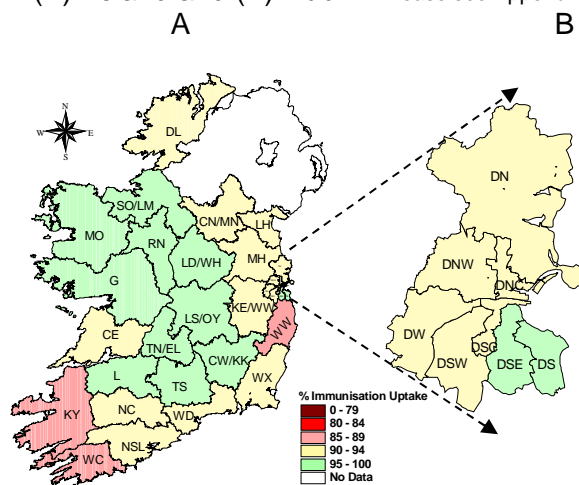
- The immunisation uptake rates by LHO are shown in Table 2.
- D<sub>3</sub>, MenB<sub>2</sub>, MenC<sub>1</sub>, PCV<sub>2</sub>, and Rota<sub>2</sub> immunisation uptake rates are mapped by LHO in figures 2-6.
- The immunisation uptake rates by Quarter and LHO are available in tables and graphs at <https://www.hpsc.ie/a-z/vaccinepreventable/vaccination/immunisationuptakestatistics/immunisationuptakestatisticsat12and24monthsofage/>
- Among the Local Health Offices, the target uptake rate of 95% was reached in Q3 2019 in
  - Laois/Offaly and Longford/Westmeath for all vaccines
  - 12 LHOs for MenB<sub>2</sub>, 5 LHOs for Rota<sub>2</sub>, 3 LHOs for PCV<sub>2</sub> and 2 LHOs for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, HepB<sub>3</sub>, and MenC<sub>1</sub>

### Changes in uptake in Quarter 3 2019

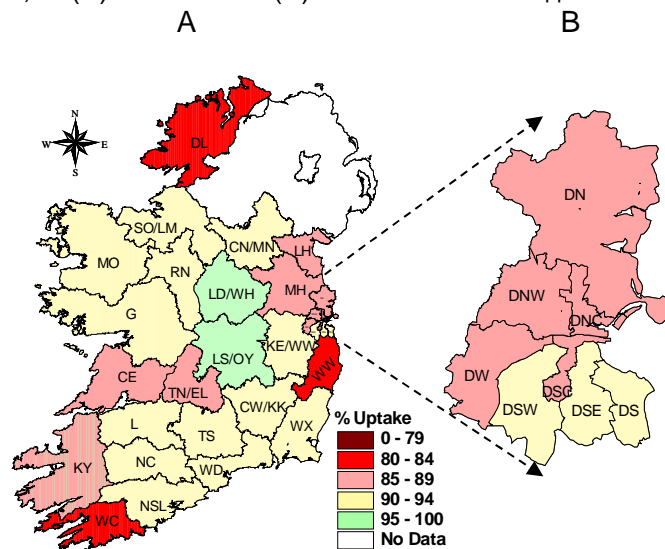
- Among 31 LHOs in Q3 2019, Q2 2019 and Q1 2019, 28 LHOs in Q1-Q4 2018 and 31 LHOs in Q3-Q4 2017:
  - D<sub>3</sub> uptake was ≥90% in 18 LHOs in Q3 2019, compared to 17 LHOs in Q2 2019, 15 in Q1 2019, 13 in Q4 2018 and Q3 2018, 17 in Q2 2018, 11 in Q1 2018, 15 in Q4 2017 and 20 in Q3 2017.
  - MenC<sub>1</sub> uptake was ≥90% in 18 LHOs in Q3 2019, compared to 17 LHOs in Q2 2019, 17 in Q1 2019, 13 in Q4 2018, 14 in Q3 2018, 17 in Q2 2018, 13 in Q1 2018, 15 in Q4 2017 and 30 in Q3 2017.
  - PCV<sub>2</sub> uptake was ≥90% in 16 of the LHOs in Q3 2019, compared to 18 of the LHOs in Q2 2019, 13 in Q1 2019, 13 in Q4 2018, 12 in Q3 2018, 16 in Q2 2018, 10 in Q1 2018, 14 in Q4 2018 and 18 in Q3 2017.
  - MenB<sub>2</sub> uptake was ≥90% in 28 LHOs in Q3 2019, compared to 25 LHOs in Q2 2019, 25 in Q1 2019, 23 in Q4 2018, 21 in Q3 2018, 26 in Q2 2018, 18 in Q1 2018 and 25 in Q4 2017.
  - Rota<sub>2</sub> uptake was ≥90% in 14 LHOs in Q3 2019, compared to 15 LHOs in Q2 2019, 11 in Q1 2019, 13 in Q4 2018, 12 in Q3 2018, 16 in Q2 2018, 10 in Q1 2018 and 11 in Q4 2017.
- Uptake rates among some of the LHOs in Q3 2019 compared to Q2 2019, unless otherwise stated, are described below:
  - Donegal uptake rates were 3-5% lower compared to Q2 2019 and are at their lowest since LHO data were first collated nationally in Q1 2007. Just to note; Donegal and Sligo/Letitrim data are the uptake rates at 12 months of age; prior to Q2 2019 uptake rates were for the relevant birth cohort at the time the report was run.
  - Roscommon uptake rates were <95% for most vaccines (except MenB<sub>2</sub> and Rota<sub>2</sub>) during Q1 2019 to Q3 2019
  - Clare uptake rates were 1-6% lower compared to Q2 2019; D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, and Polio<sub>3</sub> were previously 87% in Q4 2007.
  - West Cork uptake rates in Q3 2019 ranged from 74% (for Rota<sub>2</sub>) to 86% (for MenB<sub>2</sub>).
  - Kerry (except MenB<sub>2</sub>) uptake rates improved by 1-4% compared to Q2 2019.
  - Tipperary South uptake rates improved by 1-5% compared to Q2 2019.
  - Wicklow uptake rates were 80-85% and are <90% since Q3 2017



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



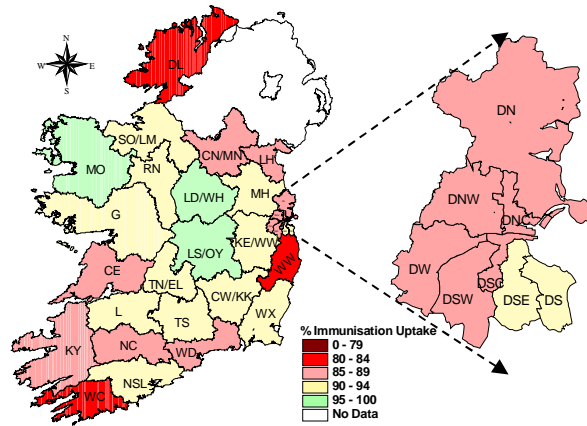
**Figure 3.** MenB<sub>2</sub> immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



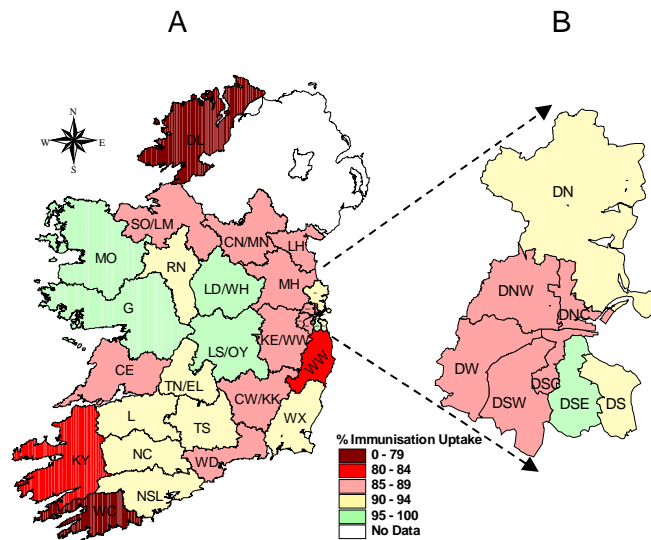
**Figure 4.** MenC<sub>1</sub> immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

A

B



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



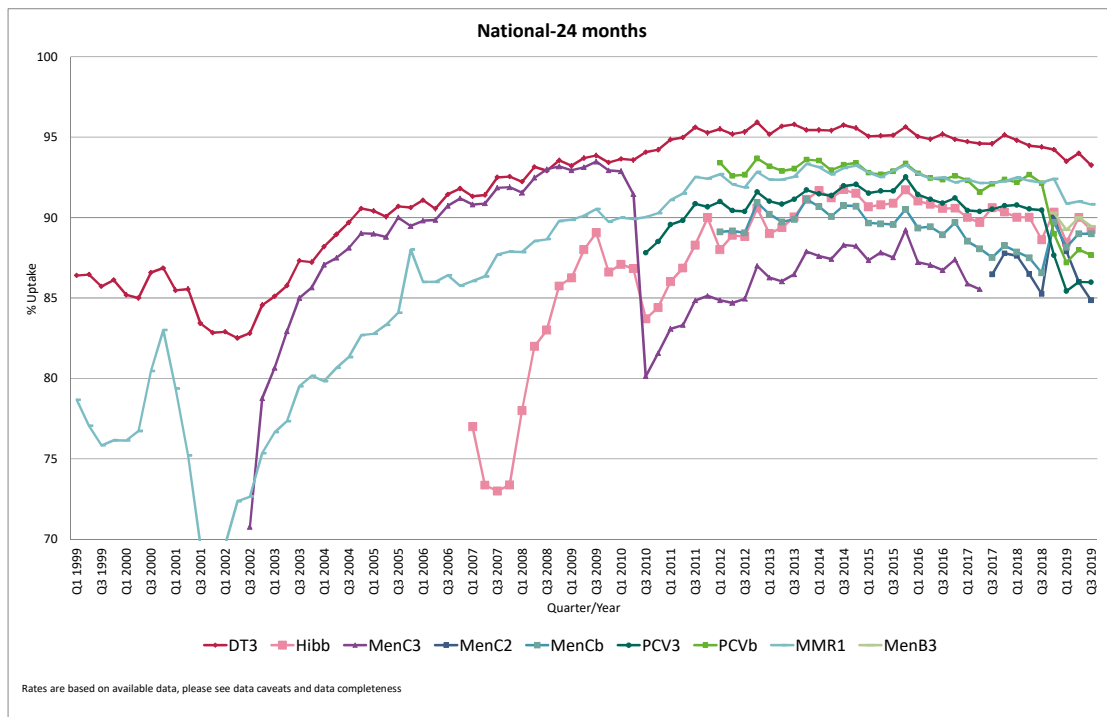
**Figure 6.** Rota<sub>2</sub> immunisation uptake rates (%) by LHO, in those 12 months of age in Quarter 3-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.

# Immunisation uptake among children 24 months of age in Quarter 3-2019

## National

- National uptake rates in Q3 2019 were (table 3)- and changes compared to Q2-2019 (figure 7):
  - 93% for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub> ( 1%);
  - 91% for MMR<sub>1</sub> and MenB<sub>complete</sub> (unchanged);
  - 90% for Rota<sub>2</sub> (unchanged);
  - 89% for Hib<sub>b</sub> and MenB<sub>3</sub> (both 1%) and MenC<sub>b</sub> (unchanged);
  - 88% for PCV<sub>b</sub> (unchanged);
  - 86% for PCV<sub>3</sub> (unchanged);
  - 85% for Hib<sub>4-</sub> ( 2) and MenC<sub>2</sub> ( 1%);

*MenB<sub>complete</sub> rates based on data from 20 LHOs in Q3 and Q2;*  
*Hib<sub>b</sub> rates based on data from 28 LHOs in Q3 and Q2;*  
*Hib<sub>4</sub> rates based on data from 18 LHOs in Q3 and Q2;*  
*MenC<sub>2</sub> rates based on data from 18 LHOs in Q3 and 14 in Q2;*  
*Remainder based on data from 31 LHOs.*
- Figure 7 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q3-2019



**Figure 7.** National quarterly immunisation uptake rates at 24 months

**Notes:** The Q4-2005 MMR, figure is based on data from seven of the eight HSE-Areas. The Q1-2006 MMR, figure includes the HSE-Eastern Area figure that is an estimate only. The Q1-2007, Q3-2007, Q2-2008 and Q3-2008 Hib<sub>b</sub> figures are based on data from seven of the eight HSE Areas. In Q1-2008 the HSE-SE changed their Hib<sub>b</sub> data extraction method compared to previous quarters; in Q1-2008 the uptake of Hib<sub>b</sub> in the HSE-SE was 83% compared to 53% in Q4-2007. The Q3-2008 MenC<sub>3</sub> figure is based on data from six of the eight HSE Areas. The Q1-2009 HSE-Eastern Area D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Polio, and MMR<sub>1</sub> uptake figures exclude those born on the 31/03/2007. The Q2-2009 HSE-Eastern Area Hib<sub>b</sub> 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<sub>b</sub> 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<sub>b</sub> figures also exclude uptake figures from Dublin North. The Q2-2010 and Q4-2010 figures are based on data from seven of the eight HSE Areas. MenC<sub>2</sub> and PCV<sub>3</sub> data were only available for 6 of the 8 HSE Areas from Q1 2012 to Q4 2014. MenC<sub>2</sub> and PCV<sub>3</sub> data were only available for 8 CHOs from Q1 2015-Q1 2017 but are available for all since Q2 2017. Q2 2017 CHO3 Hib<sub>b</sub> figures were unavailable. CN/MN, LH and MH Q1, Q2 & Q3 2018 data were unavailable. For children born on or after 1<sup>st</sup> October 2016 (Quarter 4 2018 24 month cohort) the combined Hib/MenC vaccine is recommended at 13 months. For children born prior to the 1<sup>st</sup> October 2016 individual Hib and MenC vaccines were recommended. However, some children in these cohorts (born prior to the 1<sup>st</sup> 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 MenC<sub>2</sub> uptake statistics **except** in CHO4 and it was not counted in the MenC<sub>2</sub> and Hib<sub>b</sub> uptake statistics in CHO2/3/6/7/8/9. In Q3 2018 the combined Hib/MenC booster was not counted in the MenC<sub>2</sub> uptake statistics in CHO3/6/7/9 and it was not counted in the MenC<sub>2</sub>/Hib<sub>b</sub> statistics in CHO6/7/9. MenC<sub>2</sub> uptake was available for only 7 LHOs in Q4 2018 and 10 in Q1 2019. Please see the Caveats to Data section of this report for caveats to Q2 2019 and Q3 2019 data.

**Table 3. Immunisation uptake (%) at 24 months of age in Quarter 3 2019, cohort born 01/07/2017-30/09/2017, by LHO and CHO in Ireland**

Community Healthcare Organisation (CHO)	Local Health Office/CHO	No. in cohort for DT <sub>3</sub>	Immunisation Uptake (%)											
			DT <sub>3</sub>	HepB <sub>3</sub>	Hib <sub>4</sub>	Hib <sub>b</sub>	MenB <sub>3</sub>	MenB complete	MenC <sub>2</sub>	MenC <sub>b</sub>	PCV <sub>3</sub>	PCV <sub>b</sub>	Rota <sub>2</sub>	MMR <sub>1</sub>
CHO1	Cavan/Monaghan	498	95	95	87	89	92	na	87	89	88	88	90	93
	Donegal	537	89	87	75	84	82	na	75	82	76	83	79	84
	Sligo/Leitrim	304	94	93	82	89	90	na	83	89	89	89	87	93
	<b>CHO1 Total</b>	<b>1339</b>	<b>92</b>	<b>92</b>	<b>81</b>	<b>87</b>	<b>88</b>	<b>na</b>	<b>81</b>	<b>86</b>	<b>83</b>	<b>86</b>	<b>85</b>	<b>89</b>
CHO2	Galway	867	96	96	na	na	92	na	na	91	97	90	95	93
	Mayo	416	95	95	na	na	93	na	na	94	97	94	97	93
	Roscommon	206	97	97	na	na	94	na	na	94	96	96	96	94
	<b>CHO2 Total</b>	<b>1489</b>	<b>96</b>	<b>96</b>	<b>na</b>	<b>na</b>	<b>93</b>	<b>na</b>	<b>na</b>	<b>92</b>	<b>97</b>	<b>92</b>	<b>96</b>	<b>93</b>
CHO3	Clare	386	94	94	85	90	89	na	85	89	85	88	89	90
	Limerick	457	96	96	90	95	93	na	90	94	91	95	92	92
	Tipperary NR/ELimerick	468	93	93	86	91	91	na	86	91	86	90	90	92
	<b>CHO3 Total</b>	<b>1311</b>	<b>94</b>	<b>94</b>	<b>87</b>	<b>92</b>	<b>91</b>	<b>na</b>	<b>87</b>	<b>91</b>	<b>88</b>	<b>91</b>	<b>90</b>	<b>92</b>
CHO4	North Cork	334	97	97	88	95	93	95	88	92	89	92	91	94
	North South Lee	1285	95	95	87	93	92	93	86	90	86	90	91	92
	West Cork	170	91	91	84	88	88	90	84	86	82	85	89	89
	Kerry	429	92	92	83	87	87	88	82	85	82	84	87	89
<b>CHO4 Total</b>	<b>2218</b>	<b>95</b>	<b>95</b>	<b>86</b>	<b>91</b>	<b>91</b>	<b>92</b>	<b>85</b>	<b>89</b>	<b>85</b>	<b>89</b>	<b>90</b>	<b>92</b>	
CHO5	Carlow/Kilkenny	435	91	91	78	85	88	90	79	84	80	83	87	90
	South Tipperary	317	94	94	86	91	90	91	87	91	88	90	93	91
	Waterford	396	89	89	80	87	86	88	82	88	83	86	82	87
	Wexford	505	96	96	86	90	92	93	87	90	87	89	92	94
<b>CHO5 Total</b>	<b>1653</b>	<b>93</b>	<b>93</b>	<b>83</b>	<b>88</b>	<b>89</b>	<b>91</b>	<b>83</b>	<b>88</b>	<b>84</b>	<b>87</b>	<b>88</b>	<b>91</b>	
CHO6	Dublin South	379	95	95	na	93	91	92	na	94	91	91	91	93
	Dublin South East	383	95	95	na	91	91	92	na	92	90	90	94	92
	Wicklow	455	82	82	na	79	79	80	na	78	75	76	80	82
	<b>CHO6 Total</b>	<b>1217</b>	<b>90</b>	<b>90</b>	<b>na</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>na</b>	<b>87</b>	<b>84</b>	<b>85</b>	<b>88</b>	<b>89</b>
CHO7	Dublin South City	386	91	91	na	86	88	89	na	85	84	85	89	89
	Dublin South West	637	92	92	na	88	87	89	na	88	84	85	90	91
	Dublin West	589	91	91	na	87	87	88	na	85	81	84	89	88
	Kildare/West Wicklow	916	94	94	na	90	90	91	na	91	86	88	91	91
<b>CHO7 Total</b>	<b>2528</b>	<b>92</b>	<b>92</b>	<b>na</b>	<b>88</b>	<b>88</b>	<b>89</b>	<b>na</b>	<b>88</b>	<b>84</b>	<b>86</b>	<b>90</b>	<b>90</b>	
CHO8	Laois/Offaly	583	96	96	92	94	94	96	90	95	90	92	92	95
	Longford/Westmeath	425	95	95	91	93	93	96	89	94	90	92	92	95
	Louth	485	92	92	81	86	92	na	81	86	81	80	87	88
	Meath	786	94	94	85	89	89	na	85	89	86	85	90	90
<b>CHO8 Total</b>	<b>2279</b>	<b>94</b>	<b>94</b>	<b>87</b>	<b>90</b>	<b>92</b>	<b>96</b>	<b>87</b>	<b>91</b>	<b>87</b>	<b>87</b>	<b>90</b>	<b>92</b>	
CHO9	Dublin North West	805	94	94	na	92	90	92	na	91	87	89	91	92
	Dublin North Central	412	94	94	na	90	87	89	na	90	85	88	92	91
	Dublin North	958	89	89	na	86	86	87	na	85	83	84	88	88
	<b>CHO9 Total</b>	<b>2175</b>	<b>92</b>	<b>92</b>	<b>na</b>	<b>89</b>	<b>88</b>	<b>89</b>	<b>na</b>	<b>88</b>	<b>85</b>	<b>87</b>	<b>90</b>	<b>90</b>
<b>Ireland</b>		<b>16209</b>	<b>93</b>	<b>93</b>	<b>85</b>	<b>89</b>	<b>89</b>	<b>91</b>	<b>85</b>	<b>89</b>	<b>86</b>	<b>88</b>	<b>90</b>	<b>91</b>

As the denominator/number in cohort varied slightly according to vaccine the DT<sub>3</sub> cohort is shown here

Since P<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> uptake very similar to DT<sub>3</sub> uptake only DT<sub>3</sub> uptake figures are presented

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

Rates are rounded to zero decimal places

na=not available

Hib<sub>4</sub> 'national' uptake rate is based on data from 18 LHOs only

Hib<sub>b</sub> 'national' uptake rate is based on data from 28 LHOs only

MenB<sub>complete</sub> 'national' rate is based on data from 20 LHOs.

MenC<sub>2</sub> 'national' uptake is based on data from 18 LHOs only. Lack of complete MenC<sub>2</sub> 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 rates

Please also see Caveats to Data section of this report

- This Q3 2019 24 month cohort was 12 months of age in Q3 2018. The uptake rates at 12 months of age in Q3 2018 compared to Q2 2018 declined by 1% for all vaccines. At 12 months in Q3 2018 D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MenC<sub>1</sub>/Rota<sub>2</sub> uptake rates were 89%, PCV<sub>2</sub> was 88% and MenB<sub>2</sub> was 92%.
- Q3 2019 24 month uptake rates compared to Q2 2019 unless otherwise stated and based on available data:
  - Compared to the previous quarter national uptake rates in Q3-2019 for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, and HepB<sub>3</sub> declined by 1% to 93%. This is the sixth quarter (Q2 2018-Q3 2019) since 2010 that D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> did not reach the target of 95% at 24 months. In Q3 2019, D<sub>3</sub> uptake rates declined by 1-3% in 17 LHOs, were unchanged in five and increased in 9 LHOs by 1-3%. In Q3 2019, the highest uptake rates were in Roscommon and North Cork (97%) and the lowest were in WW (82%). Uptake rates in Donegal, Waterford, Wicklow and Dublin North were all <90%. This is the first time, since LHO data were collated nationally in Q1 2007, that D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, and HepB<sub>3</sub> rates in Dublin North and D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> rates in Donegal were <90%.
  - Hib<sub>4</sub> uptake was 91-92% in Laois-Offaly/Longford-Westmeath and 78-88% in the LHOs of CHO4 and CHO5. Hib<sub>4</sub> uptake declined by 6% in CHO4 in Q3 compared to Q2 2019. (Just to note: in CHO4 Hib<sub>4</sub> was 84% in Q4 2018, not available in Q1 2019, 92% in Q2 2019, 86% in Q3 2019). The remaining Hib<sub>4</sub> data has caveats or are from a similar database to those who reported caveats; all LHOs reporting data are included here. Hib<sub>4</sub> was 85% in Q3 2019 compared to 87% in Q2 2019 (both figures based on data from 18 LHOs). Hib<sub>4</sub> declined by 1-8% in 12 LHOs, was unchanged in one and improved by 1-4% in five LHOs. In Q3 2019 uptake was as low as 75% (Donegal) and was <90% in 15 of the 18 LHOs reporting data.
  - Compared to Q2 2019 Hib<sub>b</sub> declined by 1% to 89% in Q3 2019; it had improved by 2% in Q2 2019, and declined by 2% in Q1 2019. In Q3 2019 Hib<sub>b</sub> declined by 6% in CHO4 (to 91%) but had improved by 11% (to 97%) in CHO4 in Q2 compared to Q1 (when it was 86%). In Q3 2019, Hib<sub>b</sub> declined in 14 LHOs by 1-10%, 5 were unchanged and increased by 1-5% in 9 LHOs.
  - In Q3 2019 MenB<sub>3</sub> was 89% compared to 90% in Q2 2019. In Q3 2019, MenB<sub>3</sub> declined by 1-4% in 13 LHOs, was unchanged in 10 LHOs, and increased by 1-4% in 8 LHOs. Among the LHOs MenB<sub>3</sub> ranged from lows of 79% in Wicklow and 82% in Donegal to a high of 94% in Roscommon and Laois/Offaly.



- In Q3 2019 MenC<sub>2</sub> uptake was 79-90% in the LHOs of CHO4, CHO5 and Longford/Westmeath and Laois/Offaly.  
MenC<sub>2</sub> was reported by CHO5/SE in Q3 2019 and was 83%, ranging from 79% to 87% among the LHOs. MenC<sub>2</sub> wasn't available for CHO5 during Q4'18-Q2'19. During Q3'17-Q3'18 MenC<sub>2</sub> in CHO5 was 85-87% and so Q3'19 MenC<sub>2</sub> have declined compared to when last reported.  
The MenC<sub>2</sub> figures from other areas are difficult to interpret due to reported caveats, for some it is not clear if it is definitely uptake of two doses and a number of areas are not in a position to report it; all LHOs reporting data are included here. MenC<sub>2</sub> uptake was reported for: 18 LHOs in Q3 2019 and their combined uptake was 85%, for 14 LHOs in Q2 2019 and their combined uptake was 86%, for 10 LHOs in Q1 2019 and their combined uptake was 88% and for seven LHOs in Q4 2018 and their combined uptake was 90%.  
Of the 18 LHOs reporting data in Q3 2019, the lowest uptake was in Donegal (75%) and the highest was in Limerick and Laois/Offaly (90%); 16 of the 18 had uptakes of <90%. Among the 14 LHOs reporting in both Q3 and Q2 MenC<sub>2</sub> declined by 1-7% in 8 LHOs (of these there were declines of 4-7% in Clare/WestCork/Kerry), unchanged in one and increased by 1-4% in 5 LHOs.
  
- MenC<sub>b</sub> was unchanged in Q3 2019 compared to Q2 2019.  
In Q3 2019, MenC<sub>b</sub> declined by 1-8% in 14 of the LHOs reporting data and increased by 1-5% in 17 LHOs. The largest declines were in West Cork and Kerry (-8%) and the largest improvements were in Roscommon and Dublin South East (5%).  
In Q3 2019, the lowest uptakes were in Wicklow (78%) while the highest was in Laois/Offaly (95%).
  
- Compared to the previous quarter national uptake rates in Q3 2019 for PCV<sub>3</sub> (86%) and PCV<sub>b</sub> (88%) were unchanged compared to Q2 2019 however, they are both 5% lower compared to Q2 2018.  
PCV<sub>3</sub> and PCV<sub>b</sub> had declined in Q1 2019 (by 2-3%), in Q4 2018 (by 2-3%) and in Q3 2018 (by 1%).  
PCV<sub>3</sub> was 86% in Q2-3 2019, 85% in Q1 2019 but was 88-93% prior to this.  
PCV<sub>b</sub> was 88% in Q2-3 2019, 87% in Q1 2019. Prior to Q4 2018 PCV<sub>b</sub> uptake was between 92-94%.  
In Q3 2019 compared to Q2 2019 PCV<sub>3</sub> declined in 12 LHOs by 1-7%, were unchanged in five, and increased by 1-6% in 14 LHOs.  
In Q3 2019, the lowest uptake rates (75-76%) of PCV<sub>3</sub> were in Donegal and Wicklow, and the highest were in CHO2 (96-97%).  
In Q3 2019, the lowest uptake rate (76%) of PCV<sub>b</sub> was in Wicklow and the highest in Roscommon (96%).  
In Q3 2019 compared to Q2 2019, PCV<sub>b</sub> declined in 10 LHOs by 1-6%, were unchanged in 9 LHOs, and increased by 1-5% in 12 LHOs.



- Rota<sub>2</sub> was 90% during Q4 2018-Q3 2019. In Q3 2019, Rota<sub>2</sub> ranged from a low of 79% in Donegal to a high of 97% in Mayo.
  
- MMR<sub>1</sub> was 91% in Quarters 1-3 2019.  
MMR<sub>1</sub> had declined by 1% in Q1 2019 to 91%; it was previously 91% in Q2 2011.  
In Q3 2019 compared to Q2 2019 MMR<sub>1</sub> declined in 14 LHOs by 1-7%, were unchanged in 4 LHOs and increased by 1-4% in 13 LHOs.  
Nine LHOs had <90% uptake of MMR<sub>1</sub> namely Donegal, West Cork, Kerry, Waterford, Wicklow, Dublin South City, Dublin West, Louth and Dublin North (compared to 6 in Q2 2019) while two reached the 95% target namely Laois/Offaly and Longford/Westmeath.  
Uptake ranged from a low of 82% (in Wicklow) to a high of 95% (in Laois/Offaly and Longford/Westmeath).

### Community Healthcare Organisations (CHOs)

- The target uptake of 95% was reached in only two CHOs for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, and HepB<sub>3</sub>, and one (CHO8 LS/OY and LD/WH data only) for MenB<sub>complete</sub>, and in none for the remainder (table 3).

### Local Health Office (LHO)

- Immunisation uptake rates in children 24 months of age in Q3-2019 are presented by LHO in Table 3.
- Immunisation uptake rates of some vaccines/measures of coverage are mapped by LHO in figures 8-18.
- In Q3 2019, among 31 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 12 LHOs for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, and HepB<sub>3</sub>, 3 for MenB<sub>complete</sub> (of 20), PCV<sub>3</sub> and Rota<sub>2</sub>, 2 for Hib<sub>b</sub> (of 28), PCV<sub>b</sub> and MMR<sub>1</sub>, 1 for MenC<sub>b</sub>, and in none for Hib<sub>4</sub> (of 18), MenB<sub>3</sub> and MenC<sub>2</sub> (of 18).
- In comparison, among LHOs reporting data:
  - In Q2 2019, among 31 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 12 LHOs for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub>, and HepB<sub>3</sub>, 4 for Hib<sub>b</sub> (of 28), 3 for MMR<sub>1</sub>, Rota<sub>2</sub> and PCV<sub>3</sub>, 2 for MenB<sub>complete</sub> (of 20) and PCV<sub>b</sub>, 1 for MenC<sub>b</sub>, and in none for Hib<sub>4</sub> (of 18), MenB<sub>3</sub> and MenC<sub>2</sub> (of 14).
  - in Q1 2019, among 31 LHOs unless otherwise stated, the target uptake of 95% was reached in 14 LHOs for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, and Polio<sub>3</sub>, 13 for HepB<sub>3</sub>, 5 for MenB<sub>complete</sub> (of 25), 4 for MMR<sub>1</sub> and Rota<sub>2</sub>, 3 for Hib<sub>b</sub>, MenB<sub>3</sub> and PCV<sub>3</sub>, 2 for MenC<sub>b</sub>, 1 for MenC<sub>2</sub> (of 10), and PCV<sub>b</sub> and in none for Hib<sub>4</sub> (of 14).
  - in Q4 2018, among 28 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 14 LHOs for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub>, 7 for MMR<sub>1</sub>, 6 for Hib<sub>b</sub>, 4 for MenC<sub>b</sub>, 3 for PCV<sub>3</sub> and Rota<sub>2</sub>, 2 for MenB<sub>3</sub> and MenB<sub>complete</sub> (of 21), and 1 for Hib<sub>4</sub> (of 15), MenC<sub>2</sub> (of 7) and PCV<sub>b</sub>.
  - in Q3 2018, among 28 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 17 LHOs for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and HepB<sub>3</sub>, 9 for MMR<sub>1</sub>, 7 for PCV<sub>b</sub>, 5 for Hib<sub>b</sub>, 3 for MenC<sub>2</sub> and PCV<sub>3</sub> and 1 for MenC<sub>b</sub>.
  - in Q2 2018, among 28 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 16 LHOs for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>, 14 for HepB<sub>3</sub>, 8 for PCV<sub>b</sub>, 5 for MMR<sub>1</sub>, 3 for PCV<sub>3</sub>, 2 for Hib<sub>b</sub>, 1 for MenC<sub>2</sub> and none for MenC<sub>b</sub>.
  - in Q1 2018, among 28 LHOs reporting data unless otherwise stated, the target uptake of 95% was reached in 17 LHOs for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>, 16 for HepB<sub>3</sub>, 10 for MMR<sub>1</sub>, 8 for PCV<sub>b</sub>, 4 for Hib<sub>b</sub> and PCV<sub>3</sub>, 1 for MenC<sub>b</sub>, and none for MenC<sub>2</sub>.

- The immunisation uptake rates by Quarter and LHO are available at [www.hpsc.ie](http://www.hpsc.ie)
- Changes in uptake by LHO in Q3 2019 compared to Q2 2019 (unless otherwise stated):
- **CHO1**
  - Cavan/Monaghan uptake rates improved by 2-4%.  
Uptake rates ranged from 87% for Hib<sub>4</sub> and MenC<sub>2</sub> to 95% for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>.  
D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> reached the target of  $\geq 95\%$  in Q3 2019.
  - Donegal rates all declined by 1-2% except for Hib<sub>b</sub> and PCV<sub>b</sub> which were unchanged.  
Uptake rates ranged from 75% (for Hib<sub>4</sub>/MenC<sub>2</sub>) to 89% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>) in Q3 2019.  
No vaccine reached the target of  $\geq 95\%$  in Q3 2019.  
This is the fifth quarter in a row that D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub> were below 95% and this is the first quarter since national collation of LHO data in Q1 2007 that Donegal D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub> uptake was  $< 90\%$ .
  - Sligo/Leitrim rates for Hib<sub>4</sub>/Rota<sub>2</sub> declined by 3%, HepB<sub>3</sub>/MenC<sub>2</sub> declined by 2%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/Hib<sub>b</sub> declined by 1%, MenB<sub>3</sub>/PCV<sub>b</sub> were unchanged, MenC<sub>b</sub> improved by 1%, MMR<sub>1</sub> improved by 2%, and PCV<sub>3</sub> improved by 3%.  
No vaccine reached the target of  $\geq 95\%$  in Q3 2019.  
Uptake rates ranged from 82% (for Hib<sub>4</sub>) to 94% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>).  
Q3 2019 and Q4 2018 were the only two quarters since LHO data were first collected nationally in Q1 2007 that D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Polio<sub>3</sub> uptake was  $< 95\%$
- **CHO2**
  - MenB<sub>complete</sub> data was not previously flagged with the CHOs to be provided, and as a result CHO2 were not in a position to provide it. In Q2 2019 CHO2 reported they could not provide Hib<sub>4</sub> or MenB<sub>complete</sub> as concern was expressed as to the accuracy of the statistics denominator and unable to provide Hib<sub>b</sub> or MenC<sub>2</sub> as requested by HPSC.
  - Galway uptake rates for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> improved by 2%, Rota<sub>2</sub> declined by 1%, MenB<sub>3</sub>/MMR<sub>1</sub> were unchanged, MenC<sub>b</sub> improved by 3%, and PCV<sub>3</sub>/PCV<sub>b</sub> improved by 2%.  
Uptake rates ranged from 90% (for PCV<sub>b</sub>) to 97% for (PCV<sub>3</sub>).  
D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/PCV<sub>3</sub>/Rota<sub>2</sub> reached the target of  $\geq 95\%$  in Q3 2019.
  - Mayo uptake rates for MenC<sub>b</sub> improved by 4% while the remainder were unchanged or increased/decreased by 1%.  
D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/PCV<sub>3</sub>/Rota<sub>2</sub> were all  $\geq$  target of 95%.  
Uptake rates ranged from 93% (for MenB<sub>3</sub>/MMR<sub>1</sub>) to 97% (for PCV<sub>3</sub>/Rota<sub>2</sub>).
  - Roscommon MenC<sub>b</sub> improved by 5% (had declined by 7% in Q2 2019), while the remainder improved by 1-2% except PCV<sub>3</sub> declined by 1% and Rota<sub>2</sub> was unchanged.  
D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/PCV<sub>3</sub>/PCV<sub>b</sub>/Rota<sub>2</sub> were all  $\geq$  target of 95%.  
Uptake rates ranged from 94% (for MenB<sub>3</sub>/MenC<sub>b</sub>/MMR<sub>1</sub>) to 97% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).  
D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/PCV<sub>3</sub>/PCV<sub>b</sub>/Rota<sub>2</sub> were all  $\geq$  target of 95%.

○ **CHO3**

- MenB<sub>complete</sub> data was not previously flagged with the CHOs to be provided, and as a result CHO3 were not in a position to provide it. Hib<sub>4</sub> and MenC<sub>2</sub> were not reported in Q1 2019 and Q4 2018 but are included in Q2 and Q3 2019 with caveats. CHO3 data caveats are shown in Appendix 3.
- Clare all vaccines declined by 2-5%.  
No vaccine reached the target of  $\geq 95\%$ .  
Uptake rates ranged from 85% (for Hib<sub>4</sub>/MenC<sub>2</sub>/PCV<sub>3</sub>) to 94% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).
- Limerick PCV<sub>b</sub> improved by 5%, PCV<sub>3</sub> improved by 4%, Hib<sub>b</sub> improved by 3% while the rest improved by 1-2%.  
D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Hib<sub>b</sub> were all  $\geq$  target of 95%.  
Uptake rates ranged from 90% (for Hib<sub>4</sub>/MenC<sub>2</sub>) to 96% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).
- Tipperary NR/East Limerick rates for Hib<sub>4</sub>/MenC<sub>2</sub>/PCV<sub>3</sub>/Rota<sub>2</sub> improved by 2%, MenC<sub>b</sub>/PCV<sub>b</sub>/MMR<sub>1</sub> improved by 1%, and D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Hib<sub>b</sub>/MenB<sub>3</sub> were unchanged.  
None of the vaccine rates reached the target of 95% in this quarter.  
Uptake rates ranged from 86% (for Hib<sub>4</sub>/MenC<sub>2</sub>/PCV<sub>3</sub>) to 93% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

○ **CHO4**

- North Cork Hib<sub>4</sub>/Hib<sub>b</sub> declined by 4% (Hib<sub>b</sub> had improved by 10% to 99% in Q2 2019), MenC<sub>b</sub> declined by 2%, PCV<sub>3</sub> declined by 1%, MenC<sub>2</sub>/PCV<sub>b</sub> were unchanged, MMR<sub>1</sub> improved by 1%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MenB<sub>3</sub>/Rota<sub>2</sub> improved by 2%.and MenB<sub>complete</sub> improved by 3%.  
D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Hib<sub>b</sub>/MenB<sub>complete</sub> reached the target of 95%.  
Uptake rates ranged from 88% (for Hib<sub>4</sub>/MenC<sub>2</sub>) to 97% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).
- North South Lee uptake rates for Hib<sub>4</sub> declined by 5%, Hib<sub>b</sub> declined by 4% (had improved by 10% in Q2), MenC<sub>b</sub> declined by 3%, MenC<sub>2</sub>/PCV<sub>3</sub> declined by 2%, while MenB<sub>3</sub>/MenB<sub>complete</sub>/PCV<sub>b</sub>/Rota<sub>2</sub>/MMR<sub>1</sub> was unchanged.  
D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> was  $\geq$  target of 95%.  
Uptake rates ranged from 86% (for MenC<sub>2</sub>/PCV<sub>3</sub>) to 95% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).
- West Cork uptake rates for Hib<sub>b</sub> declined by 10%, Hib<sub>4</sub>/ MenC<sub>b</sub>/PCV<sub>3</sub> declined by 8%, MMR<sub>1</sub> declined by 7%, PCV<sub>b</sub> declined by 5%, MenB<sub>3</sub>/MenB<sub>complete</sub>/MenC<sub>2</sub> declined by 4%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> declined by 2%, and Rota<sub>2</sub> improved by 4%. (West Cork uptake improved by 2-19% in Q2 2019, had declined by 4-10% in Q1 2019 compared to Q4 2018, increased by 1-6% in Q4 compared to Q3, had decreased by 4-8% in Q3 compared to Q2 and in Q2 compared to Q1 it had increased by 2-8%).  
No vaccine reached the target of  $\geq 95\%$ .  
Uptake rates ranged from 82% (for PCV<sub>3</sub>) to 91% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).
- Kerry uptake rates for Hib<sub>4</sub>/MenC<sub>b</sub> declined by 8%, Hib<sub>b</sub>/MenC<sub>2</sub> declined by 7%, PCV<sub>3</sub>/PCV<sub>b</sub> declined by 6%, MMR<sub>1</sub> declined by 4%, MenB<sub>complete</sub> declined by 3%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MenB<sub>3</sub> declined by 2%, and Rota<sub>2</sub> was unchanged.

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

This is the fourth consecutive quarter that D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> were below the target of 95%.

Uptake rates ranged from 82% (for MenC<sub>2</sub>/PCV<sub>3</sub>) to 92% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

○ **CHO5**

- MenC<sub>2</sub> was reported by CHO5 in Q3 2019 and was 83%, ranging from 79% to 87% among the LHOs. Due to a reporting issue MenC<sub>2</sub> wasn't available for CHO5 during Q4'18-Q2'19. During Q3'17-Q3'18 MenC<sub>2</sub> in CHO5 was 85-87% and so MenC<sub>2</sub> has declined in Q3'19 (83%) compared to when last reported.

- Carlow/Kilkenny uptake rates for PCV<sub>3</sub> declined by 4%, Hib<sub>4</sub>/MenC<sub>b</sub>/PCV<sub>b</sub> declined by 3%, HepB<sub>3</sub>/Hib<sub>3</sub>/Hib<sub>b</sub>/MenB<sub>3</sub>/MenB<sub>complete</sub> declined by 2% and D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Rota<sub>2</sub>/MMR<sub>1</sub> declined by 1%.

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

Uptake rates range from 78% (for Hib<sub>4</sub>) to 91% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

MenC<sub>2</sub> was 79% compared to 83-88% during Q3 2017-Q3 2018.

- Tipperary South uptake rates for MenB<sub>3</sub>/MMR<sub>1</sub> declined by 2%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Hib<sub>4</sub>/MenB<sub>complete</sub> declined by 1%, Hib<sub>b</sub>/MenC<sub>b</sub>/PCV<sub>3</sub>/Rota<sub>2</sub> improved by 1% while PCV<sub>b</sub> was unchanged.

This is the first time since Q2 2010 that D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub> did not reach the target of 95%.

Uptake rates ranged from 86% (for Hib<sub>4</sub>) to 94% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

- Waterford uptake rates declined by 1-5% (had improved by 2-6% in Q2 2019).

Rota<sub>2</sub> declined by 5%, Hib<sub>4</sub>/MMR<sub>1</sub> declined by 4%,

D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Hib<sub>b</sub>/PCV<sub>3</sub>/PCV<sub>b</sub> declined by 3%, MenB<sub>3</sub>/MenB<sub>complete</sub> declined by 2%, and MenC<sub>b</sub> declined by 1%,

No vaccine reached the target of 95% in this quarter and all were <90%.

D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub> were previously <90% in Q4 2018 and prior to this in Q2 2009.

Uptake rates ranged from 80% (for Hib<sub>4</sub>) to 89% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

- Wexford uptake rates for MMR<sub>1</sub> improved by 2%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Hib<sub>b</sub>/MenC<sub>b</sub> improved by 1% while the remainder were unchanged.

Uptake rates ranged from 86% (for Hib<sub>4</sub>) to 96% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> reached the target of ≥95%.

○ **CHO6**

- MenC<sub>2</sub> and Hib<sub>4</sub> data were unavailable.

- Dublin South uptake rates improved by 1-4% except Hib<sub>b</sub> was unchanged.

D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> reached the target of 95%.

Uptake rates ranged from 91% (for MenB<sub>3</sub>/PCV<sub>3</sub>/PCV<sub>b</sub>/Rota<sub>2</sub>) to 95% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

- Dublin South East uptake rates improved by 1-6%.

D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> rates reached the target of 95% in this quarter.

Uptake rates ranged from 90% (for PCV<sub>3</sub>/PCV<sub>b</sub>) to 95% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

- Wicklow rates declined by 2-4% in Q3 2019.

Wicklow rates had improved by 1-7% in Q2 2019, and had declined by 4-10% in Q1 2019 compared to Q4 2018.

No vaccine reached the target of 95% in Q2 2019 and all were <83%.

Uptake rates ranging from 75% (for PCV<sub>3</sub>) to 82% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MMR<sub>1</sub>).

○ **CHO7**

- MenC<sub>2</sub> and Hib<sub>4</sub> data were unavailable

- Dublin South City uptake rates declined by 2-5%.

No vaccine reached the target of  $\geq 95\%$ .

Uptake rates ranged from 84% (for PCV<sub>3</sub>) to 91% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

- Dublin South West D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> declined by 2%, Rota<sub>2</sub> declined by 1%, MenB<sub>3</sub>/MenB<sub>complete</sub> was unchanged, Hib<sub>b</sub>/PCV<sub>b</sub>/MMR<sub>1</sub> improved by 1%, and MenC<sub>b</sub>/PCV<sub>3</sub> improved by 2%.

No vaccine reached the target of  $\geq 95\%$ .

This is the second time (Q3 and Q2 2019) since 2012 that D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/ were less than the 95% target.

Uptake rates ranged from 84% (for PCV<sub>3</sub>) to 92% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

- Dublin West Hib<sub>b</sub>/PCV<sub>b</sub> improved by 5%, MenC<sub>b</sub>/PCV<sub>3</sub> improved by 4%, MenB<sub>3</sub>/MenB<sub>complete</sub>/MMR<sub>1</sub> improved by 1%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> were unchanged, and Rota<sub>2</sub> declined by 2%.

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

Uptake rates ranged from 81% (for PCV<sub>3</sub>) to 91% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

- Kildare D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Rota<sub>2</sub>/MMR<sub>1</sub> declined by 1% while the remainder were unchanged except MenC<sub>b</sub> improved by 2%.

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

Uptake rates ranged from 86% (for PCV<sub>3</sub>) to 94% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

PCV<sub>3</sub> in Q3 and Q2 2019 is the lowest since it was introduced.

○ **CHO8**

- Laois/Offaly uptake rates for MenC<sub>b</sub> improved by 2%, MenB<sub>complete</sub>/MenC<sub>2</sub>/PCV<sub>b</sub> improved by 1%, Hib<sub>b</sub>/MenB<sub>3</sub>/PCV<sub>3</sub>/MMR<sub>1</sub> were unchanged, and D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Hib<sub>4</sub>/Rota<sub>2</sub> declined by 1%.

D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MenB<sub>complete</sub>/MenC<sub>b</sub>/MMR<sub>1</sub> reached the target of  $\geq 95\%$  in this quarter.

Uptake rates ranged from 90% (for MenC<sub>2</sub>) to 96% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MenB<sub>complete</sub>/MenC<sub>b</sub>/MMR<sub>1</sub>).

- Longford/Westmeath uptake rates for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Hib<sub>b</sub> declined by 3%, Hib<sub>4</sub>/MenB<sub>3</sub>/MenC<sub>2</sub>/MenC<sub>b</sub>/PCV<sub>b</sub> declined by 1%, MenB<sub>complete</sub>/PCV<sub>3</sub>/MMR<sub>1</sub> were unchanged and Rota<sub>2</sub> improved by 1%.

Uptake rates ranged from 90% (for PCV<sub>3</sub>) to 96% (for MenB<sub>complete</sub>).

D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/ MenB<sub>complete</sub>/MMR<sub>1</sub> reached the target of  $\geq 95\%$ .

- Louth Rota<sub>2</sub> uptake declined by 3%, MMR<sub>1</sub> declined by 2%,

D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/Hib<sub>4</sub>/Hib<sub>b</sub>/MenC<sub>2</sub>/MenC<sub>b</sub>/PCV<sub>b</sub> declined by 1%, MenB<sub>3</sub> improved by 4%, while PCV<sub>3</sub> was unchanged.



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

Uptake rates ranged from 80% (for PCV<sub>b</sub>) to 92% for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MenB<sub>3</sub>.

- Meath uptake rates for Hib<sub>b</sub>/MenC<sub>b</sub>/PCV<sub>3</sub>/PCV<sub>b</sub> improved by 2%, Hib<sub>4</sub>/MenC<sub>2</sub>/MMR<sub>1</sub> improved by 1%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MenB<sub>3</sub> was unchanged and Rota<sub>2</sub> declined by 1%.

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

Uptake rates ranged from 85% (for Hib<sub>4</sub>/MenC<sub>2</sub>/PCV<sub>b</sub>) to 94% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

#### ○ **CHO9**

- MenC<sub>2</sub> and Hib<sub>4</sub> data were unavailable.

- Dublin North West uptake rates for Hib<sub>b</sub>/MenC<sub>b</sub> improved by 2%, MenB<sub>complete</sub>/PCV<sub>3</sub>/PCV<sub>b</sub> improved by 1%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MenB<sub>3</sub> were unchanged while the remainder declined by 1%.

No vaccine reached the target of  $\geq 95\%$ . In the six quarters prior to Q2 2019

D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub> had reached the target of  $\geq 95\%$ .

Uptake rates ranged from 87% (for PCV<sub>3</sub>) to 94% for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>.

- Dublin North Central Hib<sub>b</sub> declined by 3%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MenB<sub>3</sub>/MenB<sub>complete</sub>/MenC<sub>b</sub>/MMR<sub>1</sub> declined by 2%, PCV<sub>3</sub> declined by 1% while the remainder were unchanged.

Uptake rates ranged from 85% (for PCV<sub>3</sub>) to 94% for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>.

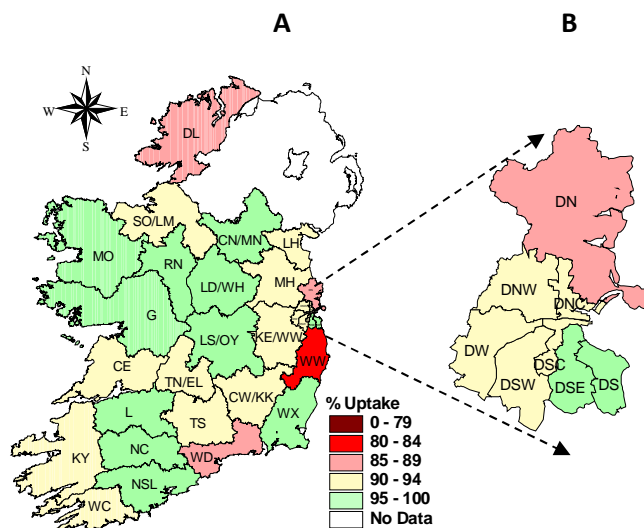
No vaccine reached the target of  $\geq 95\%$ .

- Dublin North Hib<sub>b</sub>/MenC<sub>b</sub> declined by 2%, D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>/MenB<sub>3</sub>/MenB<sub>complete</sub>/MMR<sub>1</sub> declined by 1%, PCV<sub>3</sub> improved by 1%, while the remainder were unchanged.

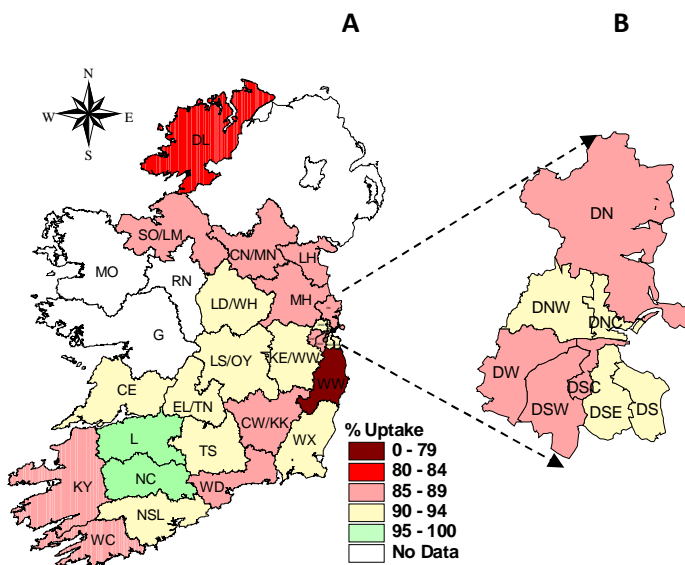
No vaccine reached the target of 95% in this quarter and all were  $< 90\%$ .

Uptake rates ranged from 83% (for PCV<sub>3</sub>) to 89% (for D<sub>3</sub>/T<sub>3</sub>/P<sub>3</sub>/Hib<sub>3</sub>/Polio<sub>3</sub>/HepB<sub>3</sub>).

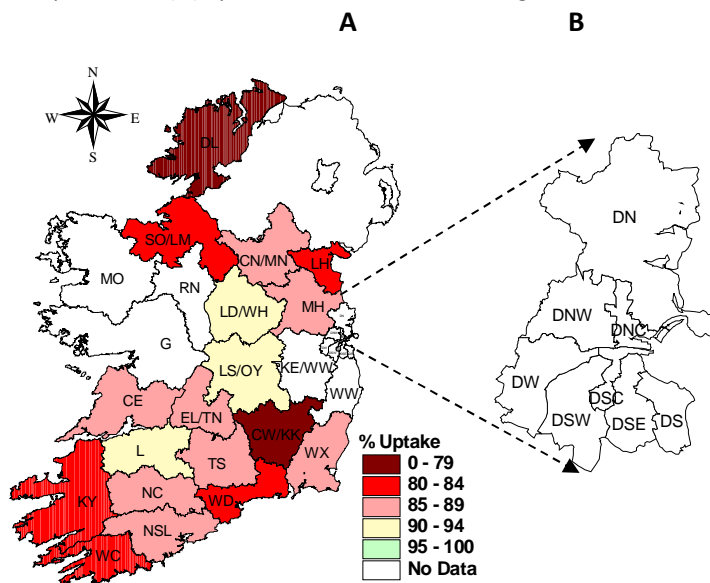
D<sub>3</sub> uptake was  $< 90\%$  for the first time since LHO data was collated nationally in Q1 2007.



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

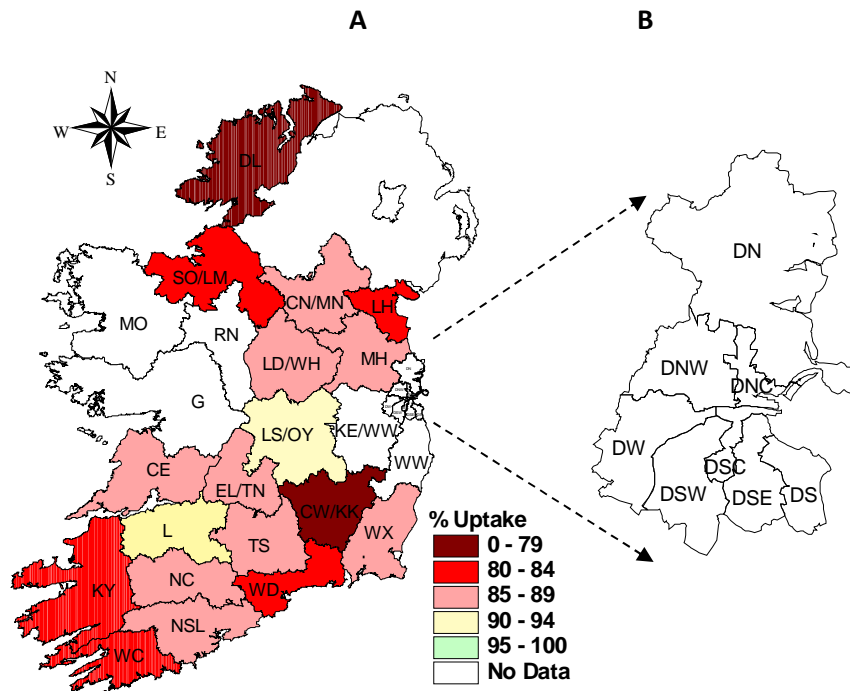


**Figure 9.** Hib<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2019, in (A) Ireland and (B) Dublin.

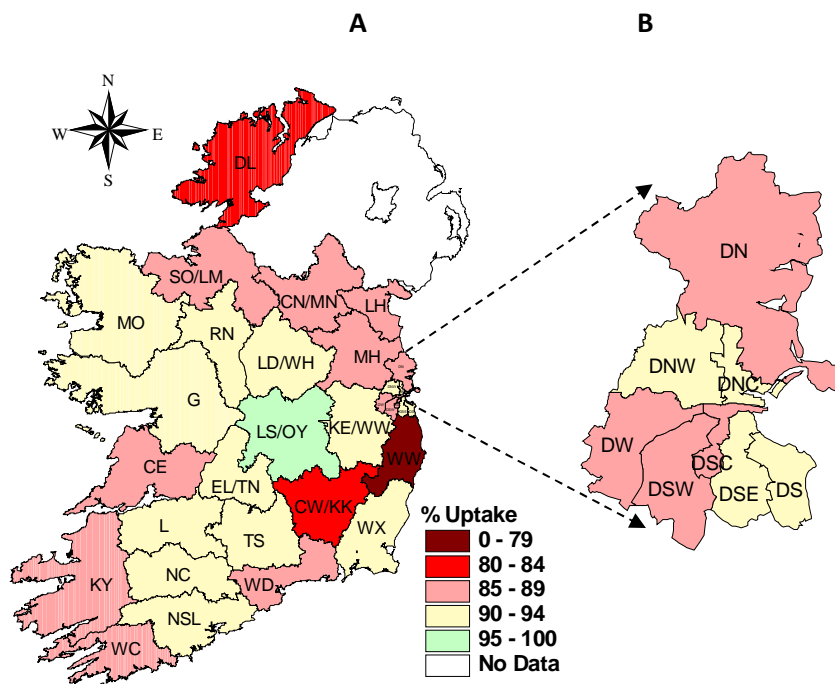


**Figure 10.** Hib<sub>4</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2019, in (A) Ireland and (B) Dublin.

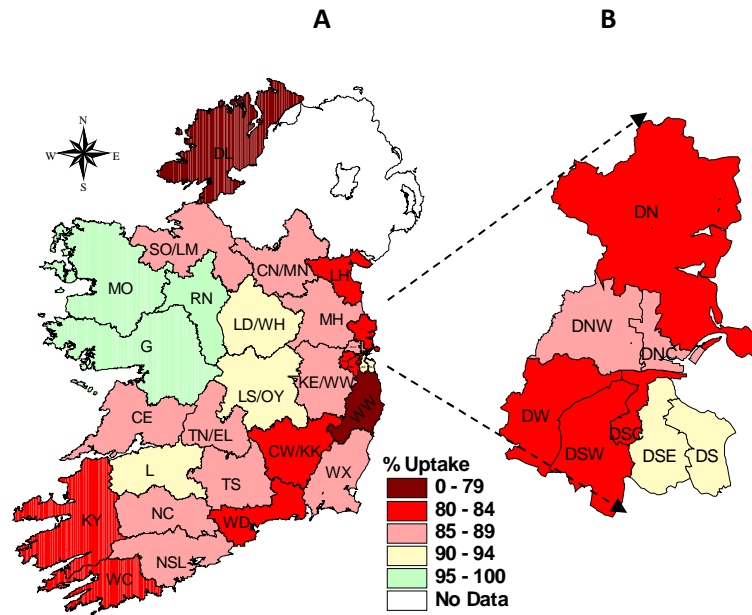




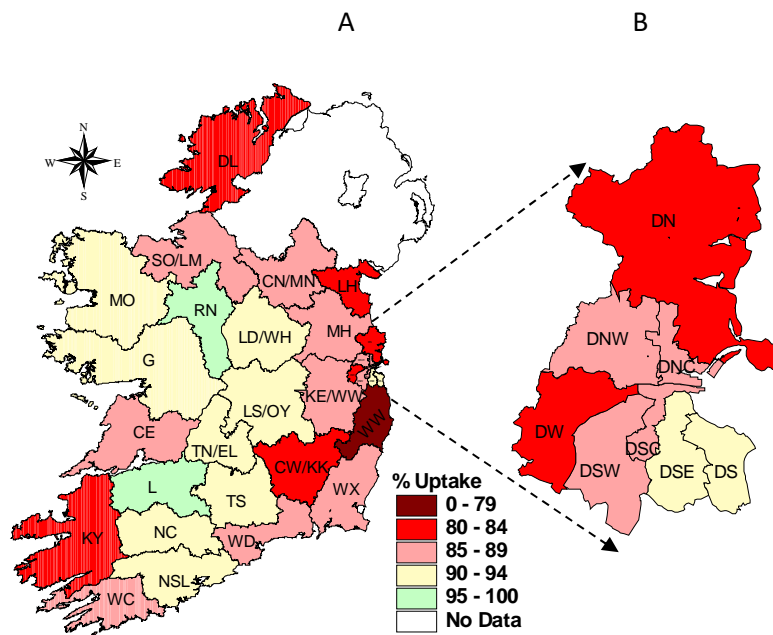
**Figure 11.** MenC<sub>2</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



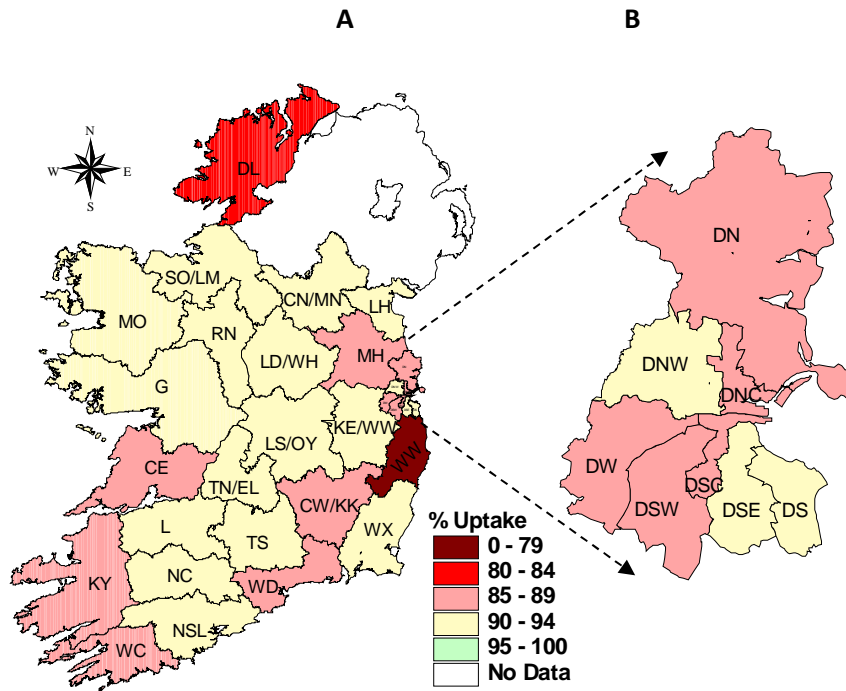
**Figure 12.** MenC<sub>b</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



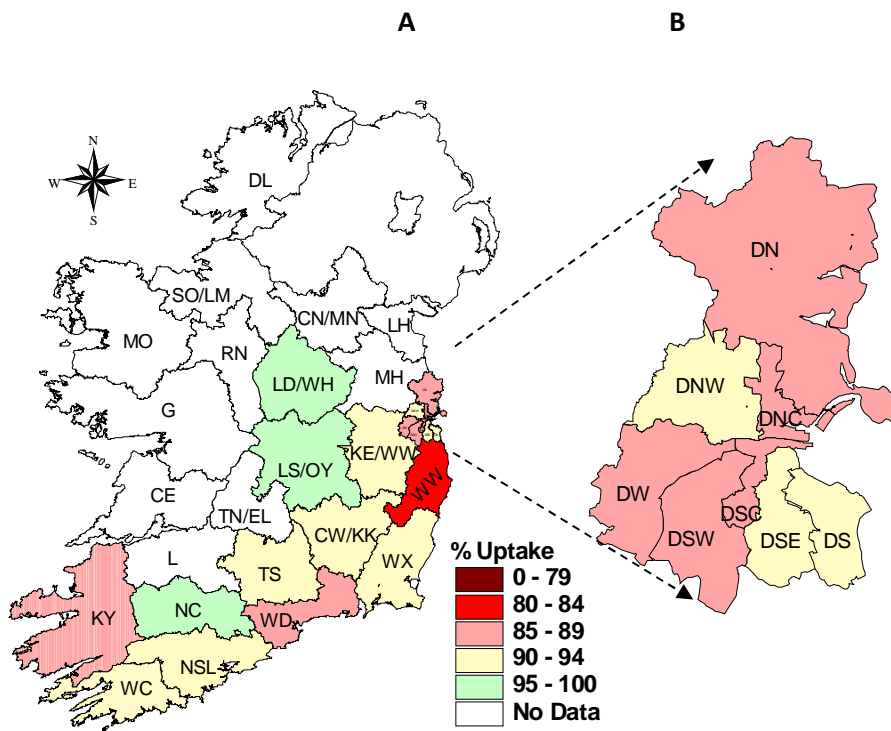
**Figure 13.** PCV<sub>3</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



**Figure 14.** PCV<sub>6</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



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



**Figure 16.** MenB<sub>complete</sub> immunisation uptake rates (%) by LHO, in those 24 months of age in Quarter 3-2019, in (A) Ireland and (B) Dublin. Please see Appendix 3 to translate LHO codes.



## Further information available on HPSC website

On the HPSC website under *Topics A-Z* and under the heading *immunisation uptake statistics* further data are available. Included on the website are the LHO, CHO and national data:

by quarter

<https://www.hpsc.ie/a-z/vaccinepreventable/vaccination/immunisationuptakestatistics/immunisationuptakestatisticsat12and24monthsofage/>

by year

<https://www.hpsc.ie/a-z/vaccinepreventable/vaccination/immunisationuptakestatistics/immunisationuptakestatisticsat12and24monthsofage/annualreports/>

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## Report prepared by:

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

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

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

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

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

### Appendix 3. Data caveats reported by Donegal/Sligo-Letrim and CHO3

#### Donegal/Sligo-Letrim:

Vaccine	HSE-NW's ability to report on this
<b>24 months</b>	
D3, T3, P3, Hib3, Polio3, HepB3 -three doses of each of the vaccines D, T, P, Hib, Polio, HepB, before their 2nd birthday;	yes as of 2nd quarter 2019
Hib4-four doses of Hib with the first three doses given before 1st birthday and the 4th dose given on or after first birthday and before 2nd birthday. A dose of Hib includes Hib given as part of 5:1, 6:1, stand alone Hib, combined Hib/MenC vaccine etc;	no as two dates involved - would need a manual report
Hibb- one dose of Hib (any dose of Hib e.g. as part of 5:1, 6:1, stand alone Hib, combined Hib/MenC vaccine etc) on or after 1st birthday (irrespective of the number of doses before that age) and before 2nd birthday;	yes as of 2nd quarter 2019
MenB3-three doses of MenB with the first two doses given before 1st birthday and the 3rd dose given on or after first birthday and before 2nd birthday;	no as two dates involved - would need a manual report
MenB2-two doses of MenB on or after 10 months of age and before 2nd birthday with doses 2 months apart;	no as two dates involved - would need a manual report
MenBcomplete-MenB3 and MenB2 i.e. children who are completely vaccinated with MenB. MenB3 and MenB2 are defined above.	yes as of 2nd quarter 2019
MenC2-two doses of MenC with the first dose given before 1st birthday and the 2nd dose given on or after first birthday and before 2nd birthday. A dose of MenC is a MenC dose given as part of the combined Hib/MenC vaccine or as a single MenC vaccine;	no as two dates involved - would need a manual report
MenCb- one dose of MenC on or after 1st birthday (irrespective of the number of doses before that age) and before 2nd birthday. A dose of MenC is a MenC dose given as part of the combined Hib/MenC vaccine or as a single MenC vaccine;	yes as of 2nd quarter 2019
PCV3-three doses of PCV with the first two doses given before 1st birthday and the 3rd dose given on or after first birthday and before 2nd birthday;	no as two dates involved - would need a manual report
PCVb- one dose of PCV on or after 1st birthday (irrespective of the number of doses before that age) and before 2nd birthday;	yes as of 2nd quarter 2019
Rota2- two doses of Rota before 8 months and 0 days;	yes as of 2nd quarter 2019
MMR1- one dose of MMR on or after 1st birthday and before 2nd birthday (i.e. excludes MMR given before 1st birthday);	yes as of 2nd quarter 2019
* No. eligible children = No. children born + No. moved in - (No. deceased + No. moved out)	Yes
Number of eligible children is the number of eligible children reaching their 2nd birthday during the quarter specified.	Yes
** % immunised = (No. immunised /No. eligible children) x 100	Yes
<b>12 MONTHS</b>	
BCG- one dose of BCG at birth;	
D3, T3, P3, Hib3, Polio3, HepB3-three doses of D, T, P, Hib, Polio, HepB, respectively, before their first birthday;	yes as off quarter 2 2019
MenB2- two doses of MenB before their first birthday;	yes as off quarter 2 2019
MenC1 - one dose of MenC before their first birthday;	yes as off quarter 2 2019
PCV2- two doses of PCV before their first birthday;	yes as off quarter 2 2019
Rota2- two doses of Rota before 8 months and 0 days.	yes as off quarter 2 2019
* No. eligible children = No. children born + No. moved in - (No. deceased + No. moved out)	Yes
Number of eligible children is the number of eligible children reaching their 1st birthday during the quarter specified.	Yes
** % immunised = (No. immunised /No. eligible children) x 100	Yes

#### CHO3 (24months):

D3, T3, P3, Hib3, Polio3, HepB3 -three doses of each of the vaccines D, T, P, Hib, Polio, HepB, before their 2nd birthday;	Available
Hib4-four doses of Hib with the first three doses given before 1st birthday and the 4th dose given on or after first birthday and before 2nd birthday. A dose of Hib includes Hib given as part of 5:1, 6:1, stand alone Hib, combined Hib/MenC vaccine etc;	* Can add Hib Booster + Hib/MenC. However it isn't possible to tell that the first 3 doses were given before a year
Hibb- one dose of Hib (any dose of Hib e.g. as part of 5:1, 6:1, stand alone Hib, combined Hib/MenC vaccine etc) on or after 1st birthday (irrespective of the number of doses before that age) and before 2nd birthday;	* Not available from report. Hib booster + Hib/MenC + 5-in-1 / 6-in-1 > 1yr + Hib vac > 1yr, however a child who gets two of these is counted twice – an overestimate
MenB3-three doses of MenB with the first two doses given before 1st birthday and the 3rd dose given on or after first birthday and before 2nd birthday;	* Can give a figure from report – no. given a 3 <sup>rd</sup> dose of MenB, can't say that 2 doses were given < 1 year and 1 dose > 1 year
MenB2-two doses of MenB on or after 10 months of age and before 2nd birthday with doses 2 months apart;	Not available from report
MenBcomplete-MenB3 and MenB2 i.e. children who are completely vaccinated with MenB. MenB3 and MenB2 are defined above. Reporting of MenB2 and MenBcomplete figures in template above: If MenB3 and MenB2 are entered above the excel sheet will automatically calculate MenBcomplete. If MenBcomplete is available and not MenB2 then type MenBcomplete into the MenBcomplete row and leave MenB2 row blank. If MenB2 and MenBcomplete are both unavailable then leave the MenBcomplete row blank	Will be calculated from MenB3 + MenB2, so as we can't give MenB2 it will be the same as MenB3
MenC2-two doses of MenC with the first dose given before 1st birthday and the 2nd dose given on or after first birthday and before 2nd birthday. A dose of MenC is a MenC dose given as part of the combined Hib/MenC vaccine or as a single MenC vaccine;	* Not available from report. Hib/ MenC recorded. Cannot tell if they have already had a dose of MenC and that it was before 1 <sup>st</sup> birthday
MenCb- one dose of MenC on or after 1st birthday (irrespective of the number of doses before that age) and before 2nd birthday. A dose of MenC is a MenC dose given as part of the combined Hib/MenC vaccine or as a single MenC vaccine;	* Not available from report. MenC1 > 1 yr + MenC2 > 1 yr + MenC3 > 1 yr + Hib/MenC. However a child who gets any two is counted twice i.e. an overestimate
PCV3-three doses of PCV with the first two doses given before 1st birthday and the 3rd dose given on or after first birthday and before 2nd birthday;	* Can give a figure - the number given a 3 <sup>rd</sup> dose of PCV, can't say that 2 doses were given < 1 year and 1 dose > 1 year
PCVb- one dose of PCV on or after 1st birthday (irrespective of the number of doses before that age) and before 2nd birthday;	* Not available from report. PCV1 > 1 yr + PCV2 > 1yr + PCV3 > 1 yr, however a child who gets 2 doses > 1 yr is counted twice i.e. an overestimate
Rota2- two doses of Rota before 8 months and 0 days;	Available
MMR1- one dose of MMR on or after 1st birthday and before 2nd birthday (i.e. excludes MMR given before 1st birthday);	Available