# 8.1 Immunisation uptake at 12 and 24 months of age

# **Summary**

Among children 12 months of age in 2013 uptake of:  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$ ,  $Polio_3$ ,  $HepB_3$ ,  $MenC_2$  and  $PCV_2$  were 91%

Among children 24 months of age in 2013 uptake 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> reached or exceeded the target of 95% D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub> and Polio<sub>3</sub> were 96% Hib<sub>3</sub> and HepB<sub>3</sub> were 95% MMR<sub>1</sub> was 93% PCV<sub>3</sub> was 91% Hib<sub>b</sub> was 90% MenC<sub>3</sub> was 87%

The childhood immunisation schedule is shown in table 1. Five GP visits are required to ensure children receive all their recommended doses of vaccine.

In 2013, the HSE Areas provided HPSC with quarterly immunisation uptake data for their Area and for each of the Local Health Offices (LHOs) in their Area. HPSC collated these data and quarterly reports were produced which are available on the HPSC website. The annual immunisation uptake rates presented here represent the collation of the 2013 quarterly data. The proportion of children who completed the

recommended childhood immunisation schedule by 12 months (born between 01/01/2012 and 31/12/2012) and 24 months (born between 01/01/2011 and 31/12/2011) of age in 2013 are reported.

Since September 1st 2008 the new primary childhood immunisation schedule has been implemented for children born on or after July 1st 2008 (table 1). These children should receive one dose of vaccine against tuberculosis (BCG vaccine) at birth or by one month of age; three doses of vaccines against diphtheria (D<sub>2</sub>), tetanus (T<sub>3</sub>), pertussis (P<sub>3</sub>), Haemophilus influenzae type b (Hib<sub>3</sub>), polio (Polio<sub>3</sub>) and Hepatitis B (HepB<sub>3</sub>) with one dose of each given at two, four and six months of age; three doses of pneumococcal conjugate vaccine (PCV<sub>3</sub>) given at two, six and 12 months of age and three doses of meningococcal group C (MenC<sub>3</sub>) vaccine given at four, six and 13 months of age. Also at 12 months of age a dose of MMR (MMR<sub>1</sub>) is recommended and at 13 months a dose of Hib (Hib<sub>k</sub>) is recommended. Further vaccinations are recommended for older children and adults; please see www.immunisation.ie for complete information on the Irish immunisation schedule.

In children who reached 12 months of age in 2013 (born between 01/01/2012 and 31/12/2012) uptake of BCG,  $D_3$ ,  $T_3$ ,  $P_3$ , Hib $_3$ , Polio $_3$ , HepB $_3$  and two doses of PCV (PCV $_2$ ) and MenC (MenC $_2$ ) were measured. In children who reached 24 months of age in 2013 (born between

Table 1. Change in primary childhood immunisation schedule (introduced on September 1st 2008)

Age	Children born before 01/07/2008	Children born on or after 01/07/2008				
Birth	BCG	BCG				
2 months	DTaP/Hib/IPV (5 in 1) + MenC	DTaP/Hib/IPV/HepB (6 in 1) + PCV				
4 months	DTaP/Hib/IPV (5 in 1) + MenC	DTaP/Hib/IPV/HepB (6 in 1) + MenC				
6 months	DTaP/Hib/IPV (5 in 1) + MenC	DTaP/Hib/IPV/HepB (6 in 1) + PCV + MenC				
12 months	MMR + Hib	MMR + PCV				
13 months	-	MenC + Hib				

Please see www.immunisation.ie for complete information on the Irish childhood immunisation schedule including vaccinations for older children and adults

BCG Bacille Calmette Guerin vaccine

DTaP Diphtheria, Tetanus and acellular Pertussis vaccine

HepB Hepatitis B vaccine

Hib Haemophilus influenzae type b vaccine
IPV Inactivated Polio Virus vaccine
MenC Meningococcal group C vaccine
MMR Measles, Mumps and Rubella vaccine
PCV Pneumococcal Conjugate Vaccine

01/01/2011 and 31/12/2011) uptake of 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>3</sub>, PCV<sub>3</sub>, MMR<sub>1</sub>, Hib<sub>b</sub>, one dose of vaccine against meningococcal group C (MenC<sub>b</sub>) on or after twelve months of age and one dose of vaccine against pneumococcal conjugate vaccine (PCV<sub>b</sub>) on or after twelve months of age were measured.

The immunisation uptake rates are reported here by HSE Area and LHO. While there are 32 LHOs the immunisation uptake rates for the LHOs of North Lee and South Lee are reported as a combined figure.

## Caveats to data

BCG uptake data at 12 months has been incomplete since reporting to HPSC began in Quarter 3 2003. This has occurred due to differences in implementation of a neonatal BCG programme across the HSE Areas as well as difficulties in providing these data to the HPSC where the programme was implemented. Prior to the establishment of the HSE each former health board determined their own BCG vaccination policy and some areas (Western and parts of the Southern Health Boards) stopped routine neonatal BCG vaccination but provided BCG vaccination for adolescents or high risk groups. The neonatal programme has now been routinely implemented for all neonates in most, but not all, HSE areas. Additionally more complete data on neonatal BCG vaccination is now available. However, in the HSE NE, where a neonatal programme is implemented, data is not available for reporting. In the HSE W the neonatal programme is not routinely or comprehensively implemented in all LHOs. Therefore, data provided for the HSE W reflects BCG vaccination for just a small proportion of all babies born in this area.

Data for 2013 are presented in this report and compared to 2012 data. Not all HSE Areas were able to provide data during 2012 and 2013. BCG uptake data were available for the HSE M, HSE MW, HSE NW, HSE SE, HSE S and HSE W Areas in Quarters 1-4 2012 and for all Areas except the HSE NE during 2013. The available national BCG cohort data may be around 52% of the national birth cohort in 2012 and 90% in 2013 (these figures are estimates only). In the HSE W BCG data were not available by LHO.

As uptake of MenC<sub>3</sub> and Hib<sub>b</sub> were low since Q3 2010 and as those over 12 months need only one dose of

MenC and those aged 12-23 months need only one dose of PCV, data on  $MenC_b$  (one dose of MenC on or after twelve months of age) and  $PCV_b$  (one dose of PCV on or after twelve months of age) were requested in 2012 for the first time. Six HSE Areas (HSE E, M, MW, NW, SE and S) were able to provide data representing approximately 81% of the national birth cohort in 2012 and 80% in 2013 (these figures are estimates only).

### Immunisation uptake rates at 12 months

National immunisation uptake rates, in children 12 months of age in 2013, were 91% for  $D_3$ ,  $T_3$ ,  $P_3$ , Hib<sub>3</sub>, Polio<sub>3</sub>, HepB<sub>3</sub>, MenC<sub>2</sub> and PCV<sub>2</sub> (table 2). Compared with 2012, the uptake rates for  $D_3$ ,  $P_3$ ,  $T_3$ , Hib<sub>3</sub>, Polio<sub>3</sub>, HepB<sub>3</sub>, MenC<sub>2</sub> and PCV<sub>2</sub> were unchanged.

The available 2013 BCG cohort data may be around 90% (estimate only) of the national birth cohort; based on these data BCG uptake was 86%. In contrast, the available 2012 BCG cohort data may be around 52% (estimate only) of the national birth cohort; based on these data BCG uptake in 2012 was 80%.

Among the HSE Areas, uptake rates for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$ ,  $Polio_3$  and  $HepB_3$  ranged from 90% to 95% and  $MenC_2$  and  $PCV_2$  ranged from 87% to 95% (table 2). Among the LHOs, uptake rates for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$ ,  $Polio_3$ ,  $PCV_2$  and  $MenC_2$  ranged from 82% to 97% and  $HepB_3$  ranged from 82% to 96% (table 3). The target uptake of 95% was reached or exceeded in Laois/Offaly, Longford/ Westmeath and Roscommon for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$ ,  $Polio_3$ ,

# Immunisation uptake rates at 24 months

National annual immunisation uptake rates, in children 24 months of age in 2013 were 96% for  $D_3$ ,  $T_3$ ,  $P_3$  and  $Polio_3$ , 95% for  $Hib_3$  and  $HepB_3$ , 93% for  $MMR_1$ , 91% for  $PCV_3$ , 90% for  $Hib_b$  and 87% for  $MenC_3$  (table 2). This is the third year national annual uptake rates reached the target of 95% for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$ ,  $Polio_3$  and  $HepB_3$ . Compared with 2012, the uptake rates for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_b$ ,  $Polio_3$  and  $MMR_1$  increased by one percent,  $MenC_3$  increased by two percent while  $Hib_3$ ,  $HepB_3$  and  $PCV_3$  were unchanged (figure 1).

Table 2. Annual immunisation uptake rates (based on available data) by HSE Area for children 12 and 24 months of age in 2013

	% Uptake at 12 months Cohort born 01/01/2012 - 31/12/2012					% Uptake at 24 months Cohort born 01/01/2011 - 31/12/2011									
	D <sub>3</sub>	HepB <sub>3</sub>	MenC <sub>2</sub>	PCV <sub>2</sub>	BCG	D <sub>3</sub>	Hib <sub>3</sub>	Hib <sub>b</sub>	HepB <sub>3</sub>	MenC <sub>3</sub>	MenC <sub>b</sub>	PCV <sub>3</sub>	PCV <sub>b</sub>	MMR <sub>1</sub>	
HSE E	90	90	90	90	94	95	95	89	95	86	89	91	93	92	
HSE M	95	95	95	95	96	98	98	98	98	91	93	94	96	96	
HSE MW	93	93	93	93	97	96	96	92	96	89	92	93	94	94	
HSE NE	90	90	90	90	na	94	94	86	94	84	na	89	na	90	
HSE NW	94	94	94	94	96	97	97	94	96	88	94	91	95	95	
HSE SE	92	92	92	93	96	96	96	96	96	90	94	94	95	95	
HSE S	90	89	87	87	93	96	95	83	94	84	87	90	91	92	
HSE W	93	93	92	93	13	96	96	91	95	87	na	92	na	92	
Ireland	91	91	91	91	86	96	95	90	95	87	90	91	93	93	

na=not available

Since  $T_{3'}$ ,  $P_{3'}$  and Polio<sub>3</sub> uptake at 12 and 24 months and Hib<sub>3</sub> uptake at 12 months are identical to  $D_3$  uptake only  $D_3$  uptake figures presented

Table 3. Immunisation uptake (%) at 12 months of age in 2013 (i.e. cohort born 01/01/2012-31/12/2012) by LHO and HSE Area

		Number in Number in		Immunisation Uptake (%)					
HSE Area	Local Health Office/HSE Area	cohort for BCG *	cohort for $D_3$ , $T_3$ & $P_3$ †	всс	D <sub>3</sub>	Hib <sub>3</sub>	HepB <sub>3</sub>	MenC <sub>2</sub>	PCV <sub>2</sub>
	Dublin South	1780	1780	92	92	92	92	91	92
	Dublin South East	1673	1673	93	90	90	90	90	90
	Dublin South City	1791	1791	92	93	93	93	93	94
	Dublin South West	2663	2663	96	93	93	93	93	94
	Dublin West	2929	2929	93	93	93	93	93	93
HSE E	Dublin North West	3971	3971	93	82	82	82	82	82
	Dublin North Central	1903	1903	93	89	89	89	89	90
	Dublin North	4346	4346	95	91	91	91	91	91
	Kildare/West Wicklow	3959	3959	96	92	92	92	92	92
	Wicklow	1943	1943	93	91	91	91	90	91
	HSE E Total	26958	26958	94	90	90	90	90	90
	Laois/Offaly	2583	2583	96	95	95	95	95	95
HSE M	Longford/Westmeath	2078	2078	96	96	96	96	96	96
	HSE M Total	4661	4661	96	95	95	95	95	95
	Clare	1721	1747	97	94	94	94	94	94
LICE BANA	Limerick	1899	1955	98	92	92	92	92	92
HSE MW	Tipperary NR/East Limerick	1812	1849	97	94	94	94	94	94
	HSE MW Total	5432	5551	97	93	93	93	93	93
	Cavan/Monaghan	na	2012	na	91	91	91	92	92
LICE NE	Louth	na	1978	na	89	89	89	90	90
HSE NE	Meath	na	3377	na	89	89	89	89	89
	HSE NE Total	na	7367	na	90	90	90	90	90
	Donegal	2195	2195	95	95	94	94	94	95
HSE NW	Sligo/Leitrim	1431	1431	96	94	94	94	93	94
	HSE NW Total	3626	3626	96	94	94	94	94	94
	Carlow/Kilkenny	1988	1988	96	92	92	92	92	92
	South Tipperary	1290	1290	98	93	93	93	93	93
HSE SE	Waterford	1908	1908	95	93	93	93	93	93
	Wexford	2197	2197	96	92	92	92	92	92
	HSE SE Total	7383	7383	96	92	92	92	92	93
	North Cork	1585	1544	92	91	91	90	88	88
	North South Lee	5863	5759	94	89	89	89	87	87
HSE S	West Cork	784	780	92	88	88	88	85	85
	Kerry	1997	1968	93	92	92	92	90	89
	HSE S Total	10229	10051	93	90	90	89	87	87
	Galway	na	3889	na	93	93	93	93	93
LICE VAL	Mayo	na	1734	na	90	90	90	90	91
HSE W	Roscommon	na	884	na	97	97	96	97	97
	HSE W Total	6507*	6507	13*	93	93	93	92	93
Ireland		64796	72104	86	91	91	91	91	91

na=not available

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

<sup>\*</sup> HSE W BCG data were not available by LHO

<sup>†</sup>As the denominator/number in cohort varied slightly according to vaccine the most commonly used number is reported here Since  $T_3$ ,  $P_3$  and  $Polio_3$  uptake identical to  $D_3$  uptake only  $D_3$  uptake figures are presented

Six of the eight HSE Areas were able to provide uptake data on  $MenC_b$  (one dose of MenC at  $\geq 12$  months of age) and  $PCV_b$  (one dose of PCV at  $\geq 12$  months of age) in 2013. These Areas cover approximately 80% of the national birth cohort. Where data were available, national uptake was 90% for  $MenC_b$  and 93% for  $PCV_b$ .

Since September 1st 2008 the new primary childhood immunisation schedule has been implemented for children born on or after July 1st 2008 (table 1); children who were 24 months of age in Quarter 3 2010 were born between July 1st and September 31st 2008 and were the first children recommended the new immunisation schedule. Under the new immunisation schedule children are now recommended HepB vaccine and PCV. In addition, there is a change in timing of the MenC and Hib<sub>b</sub> vaccines (table 1). The changes to the schedule mean that three injections (6 in 1, PCV and MenC vaccines) are now recommended at six months of age and two GP visits are required on or after 12 months; the first dose of MMR and the third dose of PCV should be given at 12 months of age and at 13

months of age the third dose of MenC vaccine and Hib should be given (table 1). MenC<sub>3</sub> uptake was 93% in Quarter 1 2010 but declined to 80% in Quarter 3 2010 and was 82% in Quarter 4 2010 (figure 2). During 2011 and 2012, MenC<sub>3</sub> increased from 83% in Quarters 1 and 2 2011 to 87% in Quarter 4 2012. During 2013, MenC<sub>3</sub> uptake was 86% during Quarters 1-3 and was 88% in Quarter 4.  $Hib_b$  was 87% in Quarters 1 and 2 2010 but declined to 84% in Quarters 3 and 4 2010 (figure 2). During 2011 and 2012 Hib, uptake increased from 86% in Quarter 1 2011 to 91% in Quarter 4 2012. During 2013, Hib, uptake was 89% during Quarters 1 and 2, 90% in Quarter 3 and 91% in Quarter 4. There was also low uptake of PCV<sub>3</sub> in 2010 (combined Quarters 3 and 4 data was 88%). During 2011 and 2012, PCV<sub>3</sub> increased from 90% during Quarters 1 and 2 2011 to 92% during Quarter 4 2012. During 2013, PCV<sub>3</sub> uptake was 91% during Quarters 1-3 and 92% in Quarter 4.

Uptake rates among the HSE Areas, for children at 24 months of age in 2013, 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> ranged from 94% to 98%, MMR<sub>1</sub> ranged from

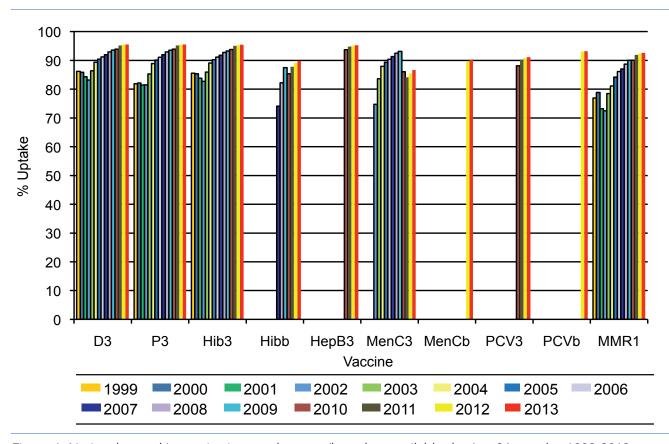


Figure 1. National annual immunisation uptake rates (based on available data) at 24 months, 1999-2013

Since T<sub>3</sub> and Polio<sub>3</sub> uptake identical to D<sub>3</sub> uptake only D<sub>3</sub> uptake figures presented.

P<sub>3</sub> uptake could not be calculated accurately during 1999-2001 as DTaP/DT uptake was reported as a combined value for the HSE NE during 1999, Quarters 3 and 4 2000 and Quarter 1 2001 and the HSE NW in 2000 and 2001. The 2002 MenC<sub>3</sub> figure is based on uptake rates for Quarter 3 and Quarter 4 2002 only. The 2005 MMR<sub>1</sub> uptake figure is incomplete as the HSE E was unable to provide MMR data for Quarter 4 2005, due to technical problems with extraction of MMR<sub>1</sub> data from the HSE E database. The 2006 MMR<sub>1</sub> figure includes the Quarter-1 2006 HSE E figure, which is an estimate only due to technical problems with extraction of MMR<sub>1</sub> data from the HSE E database. The 2007 national Hib<sub>b</sub> figure is incomplete, as the HSE W data for Quarter 1 2007 and the HSE NW data for Quarter 3 2007 were not available. The 2007 national Hib<sub>b</sub> figure also includes the HSE SE data which are an underestimate due to data extraction methods. The 2008 Hib<sub>b</sub> figure is incomplete as the HSE SE data for Q2 2008 and the HSE MW data for Quarter 3 2008 were not available. The 2008 national MenC<sub>3</sub> figure is incomplete as the HSE E and HSE MW MenC<sub>3</sub> data for Quarter 3 2008 were not available. The 2009 data are incomplete as the following were unavailable: the Quarter 1 2009 HSE E D<sub>3</sub>, P<sub>3</sub> and Polio<sub>3</sub> data for those born on the 31/03/2007; the Quarter 2 2009 HSE E Dublin North Hib<sub>b</sub> uptake data and; the Quarter 4 2009 HSE MW data, HSE E Dublin North Hib<sub>b</sub> data and HSE SE Hib<sub>b</sub> data for those given a Hib dose as part of the five in one or six in one vaccine after 12 months of age. The 2010 data are incomplete as the following were unavailable: the Quarter 1 2010 HSE M data and; the Quarter 4 2010 HSE NE data. As a new childhood immunisation schedule was introduced in 2008, for those born on or after July 1st 2008, the 2010 HepB<sub>3</sub> and PCV<sub>3</sub> data at 24 months are for those born between July 1st and December 31st 2008 (i.e. Quarters 3 and 4 2010

Table 4. Immunisation uptake (%) at 24 months of age in 2013 (i.e. cohort born 01/01/2011-31/12/2011) by LHO and HSE Area

		Number in	Immunisation Uptake (%)									
HSE Area	Local Health Office/ HSE Area	cohort for D <sub>3</sub> ,	D <sub>3</sub>	Hib <sub>3</sub>	Hib <sub>b</sub>	Polio <sub>3</sub>	HepB <sub>3</sub>	MenC <sub>3</sub>	MenC <sub>b</sub>	PCV <sub>3</sub>	PCV <sub>b</sub>	MMR <sub>1</sub>
	Dublin South	1788	95	95	89	95	95	86	89	90	92	91
	Dublin South East	1766	92	92	88	92	92	86	87	89	90	90
	Dublin South City	1737	97	97	91	97	97	87	90	92	94	94
	Dublin South West	2790	96	96	93	96	96	88	92	91	94	95
	Dublin West	2874	96	96	90	96	96	86	89	91	94	93
HSE E	Dublin North West	4007	93	93	84	93	93	81	84	87	89	89
	Dublin North Central	1795	95	95	89	95	95	85	89	89	92	91
	Dublin North	4456	95	95	91	95	95	89	91	92	93	93
	Kildare/West Wicklow	4154	96	96	92	96	96	90	92	93	95	94
	Wicklow	1901	94	94	85	94	94	81	85	89	91	91
	HSE E Total	27268	95	95	89	95	95	86	89	91	93	92
	Laois/Offaly	2683	98	98	98	98	98	91	93	94	95	96
HSE M	Longford/Westmeath	1986	97	97	97	97	97	91	94	94	97	97
	HSE M Total	4669	98	98	98	98	98	91	93	94	96	96
	Clare	1748	96	96	95	96	96	92	95	94	95	95
	Limerick	2056	95	95	91	95	95	88	90	92	93	93
HSE MW	Tipperary NR/East Limerick	1947	96	96	90	96	96	87	90	93	94	94
	HSE MW Total	5751	96	96	92	96	95	89	92	93	94	94
	Cavan/Monaghan	2220	95	95	87	95	95	85	na	91	na	92
HSE NE	Louth	2027	92	92	85	92	92	82	na	86	na	88
HISE IVE	Meath	3748	95	95	86	95	95	84	na	90	na	91
	HSE NE Total	7995	94	94	86	94	94	84	na	89	na	90
	Donegal	2279	97	97	93	97	95	88	93	92	95	94
HSE NW	Sligo/Leitrim	1391	97	97	95	97	97	88	95	90	95	96
	HSE NW Total	3670	97	97	94	97	96	88	94	91	95	95
	Carlow/Kilkenny	2102	96	96	96	96	96	89	94	94	95	96
	South Tipperary	1389	98	98	98	98	98	92	96	95	96	95
HSE SE	Waterford	1980	95	95	93	95	95	89	92	93	93	94
	Wexford	2246	96	96	98	96	97	91	95	94	96	95
	HSE SE Total	7717	96	96	96	96	96	90	94	94	95	95
	North Cork	1487	95	95	85	95	94	86	88	89	89	91
	North South Lee	6040	96	95	83	96	95	83	85	90	91	91
HSE S	West Cork	763	91	90	75	91	90	76	80	86	86	89
	Kerry	2023	97	97	87	97	96	89	92	92	94	94
	HSE S Total	10313	96	95	83	96	94	84	87	90	91	92
	Galway	3964	95	95	89	95	95	86	na	91	na	91
HSE W	Мауо	1770	95	95	91	95	95	82	na	90	na	90
	Roscommon	913	99	99	97	99	98	97	na	98	na	98
	HSE W Total	6647	96	96	91	96	95	87	na	92	na	92
Ireland		74030	96	95	90	96	95	87	90	91	93	93

<sup>\*</sup>As the denominator/number in cohort varied slightly according to vaccine. The most commonly used number is reported here. Since  $T_3$  and  $P_3$  uptake identical to  $D_3$  uptake only  $D_3$  uptake figures are presented

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

90% to 96%,  $PCV_3$  ranged from 89% to 94%,  $MenC_3$  ranged from 84% to 91% and  $Hib_b$  ranged from 83-98% (table 2). Among the six Areas in a position to provide data  $MenC_b$  uptake ranged from 87% to 94% and  $PCV_b$  uptake ranged from 91% to 96%. The target uptake of 95% was reached or exceeded in seven HSE Areas during 2013 for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$  and  $Polio_3$ , in six Areas for  $HepB_3$ , in three for  $PCV_b$  and  $MMR_1$  and in two for  $Hib_b$  (table 2).

 $D_3$ ,  $Hib_b$ ,  $MenC_3$  and  $MMR_1$  uptake rates are mapped by LHO in figure 3. Among the LHOs the uptake rates ranged from 91% to 99% for  $D_3$ ,  $T_3$ ,  $P_3$  and  $Polio_3$ , 90% to 99% for  $Hib_3$ , 90-98% for  $HepB_3$ , 88% to 98%  $MMR_1$ , 86% to 98% for  $PCV_3$ , 86% to 97% for  $PCV_b$ , 80% to 96% for  $MenC_b$ , 76% to 97% for  $MenC_3$  and 75% to 98% for  $Hib_b$  (table 4). The target uptake of 95% was reached or exceeded in 26 LHOs for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$  and  $Polio_3$ , in 25 LHOs for  $HepB_3$ , in nine LHOs for  $PCV_b$  and  $MMR_1$ , in eight LHOs for  $Hib_b$ , in four LHOs for  $MenC_b$ , in two LHOs for  $PCV_3$  and in one LHO for  $MenC_3$  (table 4). Roscommon was the only LHO to reach and exceed the target of 95% for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$ ,  $Polio_3$ ,  $HepB_3$ ,  $Hib_b$ ,  $MenC_3$ ,  $PCV_3$  and  $MMR_1$  at 24 months.

There was a large decline in  $MenC_3$  and a decline in  $Hib_h$  uptake at 24 months in Quarters 3 and 4 2010

ie children who were born between July 1st and December 31st 2008 and were the first recommended the new immunisation schedule. There was a change in timing of the MenC and Hib<sub>b</sub> vaccines under the new immunisation schedule (table 1). The uptake of MenC<sub>3</sub> (87%) in particular and Hib<sub>b</sub> (90%) in 2013 were still lower than the uptake of the other recommended vaccines. In addition, to low uptake of MenC<sub>3</sub> and Hib<sub>b</sub>, MMR<sub>1</sub> (93%) and PCV<sub>3</sub> (91%) uptake in 2013 are lower than the target uptake of 95%.

In contrast in 2013, annual national uptake rates at 24 months for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$ ,  $Polio_3$  and  $HepB_3$  reached the target rate of 95%. This is the third year national annual uptake rates reached the target of 95% for these vaccines. Seven HSE Areas reached or exceeded the target uptake of 95% for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$  and  $Polio_3$  at 24 months during 2013. Roscommon reached or exceeded the target of 95% for  $D_3$ ,  $T_3$ ,  $P_3$ ,  $Hib_3$ ,  $Polio_3$ ,  $HepB_3$ ,  $MenC_3$ ,  $PCV_3$ ,  $Hib_b$  and  $MMR_1$  uptake at 24 months of age.

The immunisation reports for Quarters 1 to 4 2013 are available on the HPSC website in *Topics A-Z* under the heading *vaccination*.

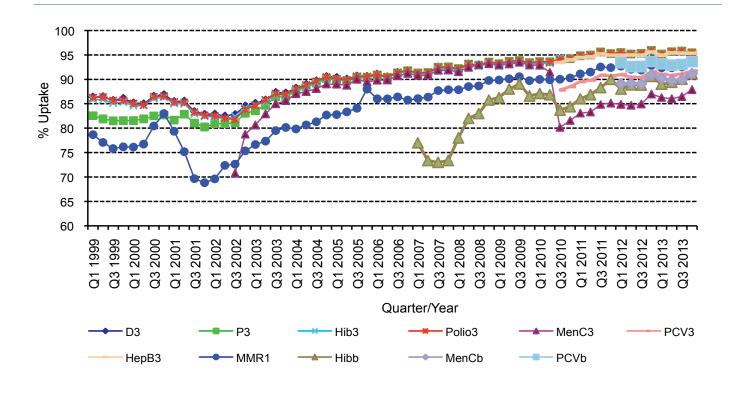


Figure 2. National quarterly immunisation uptake rates at 24 months

Note scale ranges from 60-100%

P3 uptake could not be calculated accurately during 1999-2001 as DTaP/DT uptake was reported as a combined value for the HSE NE during 1999, Quarters 3 and 4 2000 and Quarter 1 2001 and the HSE NW in 2000 and 2001. The Q4 2005 MMR1 figure is based on data from seven of the eight HSE Areas. The Q1 2006 MMR1 figure includes the HSE E figure that is an estimate only. The Q1 2007, Q3 2007, Q2 2008 and Q3 2008 Hibb figures are based on data from seven of the eight HSE Areas. In Q1 2008 the HSE SE changed their Hibb data extraction method compared to previous quarters; in Q1 2008 the uptake of Hibb 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 E D3, P3, T3, Polio3 and MMR1 uptake figures exclude those born on the 31/03/2007. The Q2 2009 HSE E Hibb 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 Hibb figures also exclude uptake figures from Dublin North and HSE SE Hibb data for those given a Hib dose as part of the five in one or six in one vaccine after 12 months of age. The Q1 2010 figures are based on data from six of the eight HSE Areas. The Q1 2010 Hibb figures also exclude uptake figures from HSE E Dublin North. The Q2 2010 and Q4 2010 figures are based on data from seven of the eight HSE Areas. MenCb and PCVb figures are based on data form six of the eight HSE Areas.

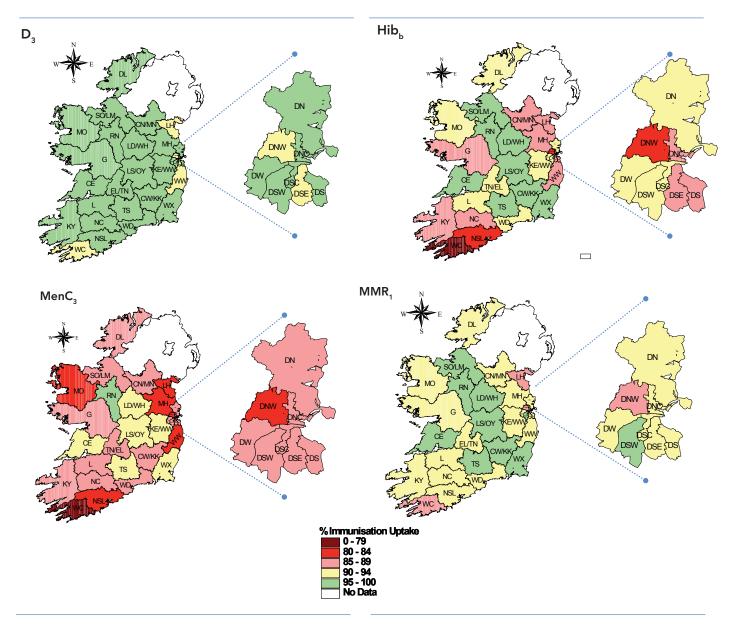


Figure 3.  $D_{3}$ ,  $Hib_b$ ,  $MenC_3$  and  $MMR_1$  immunisation uptake rates (%) in those 24 months of age in 2013 by Local Health Office (LHO)

LHOs in Dublin are highlighted separately for ease of viewing

North Lee and South Lee are separate LHOs, however, their combined (labelled NSL on the map) immunisation uptake rate is reported here Please see table 5 to translate LHO abbreviations

Table 5. 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

Local Health Office Abbreviations	Local Health Office
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

 $<sup>\</sup>mbox{{\sc *}Please}$  note while North Lee and South Lee are two separate LHOs their combined immunisation

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