# 8.4 Uptake of other childhood and adolescent vaccines

# Vaccine uptake (DTaP-IPV\* and MMR†) in Junior Infants during the 2013/2014 academic year

#### Background

Uptake of the DTaP-IPV\* and MMR† vaccines in 4-5 year old schoolchildren was monitored across all Local Health Offices (LHOs) during the academic year 2013/2014. The uptake data were compared to those reported for the previous 2012/2013 season, where possible.

HSE-school team versus GP-vaccine administered LHOs In 29 out the 31 LHOs across the country, the junior infant vaccination programme is delivered by HSE school teams who administer the vaccine to the children at school. In the remaining two LHOs, Donegal and Sligo/Leitrim, these vaccines are administered to children exclusively by GPs rather than by school teams. During 2013/2014 however, a combination of a School team/GP programme also existed in 13 HSE-administered LHOs with a percentage of children been given vaccines by a GP (tables 1 and 2). During 2014-2015 most of these areas moved towards a predominantly school based administration programme for junior infants.

#### Target populations

For the 2013/2014 academic year, the target population in HSE-vaccine administered LHOs was all children in Junior Infants on the school register on the 30<sup>th</sup> September 2013. For GP-vaccine administered LHOs, the target population was all children born between the 1<sup>st</sup> September 2007 and 31<sup>st</sup> August 2008.

Table 1. Proportion of DTaP-IPV vaccine uptake in HSEadministered LHOs attributable to GPs

LHO	% DTaP-IPV Vaccine Uptake
Dublin West	2.7%
Louth	64.0%
Meath	47.0%
Cavan/Monaghan	58.0%
Carlow/Kilkenny	3.5%
Tipperary South	3.3%
Wexford	% not specified
North Cork	56.0%
Cork North Lee	24.0%
Cork South Lee	10.50%
West Cork	10.80%
Kerry	34.60%
Roscommon	<1%

The different ways in which the target populations have been defined in the HSE- and GP-vaccinated administered LHOs has meant that a national uptake for either vaccine could not be calculated.

Furthermore, between the 2012/2013 and 2013/2014 seasons, the following six LHOs changed from being GP-administered areas to HSE-administered areas: Louth, Cavan/Monaghan, Meath and Dublin North Central, Galway and Mayo. This means that comparing uptake between seasons in the Dublin North East and Western regions is not possible as the criteria for defining the birth cohorts in both these regions have changed.

### Uptake of DTaP-IPV vaccine

Between 2012/2013 and 2013/2014, the uptake of the DTaP-IPV vaccine in HSE-vaccine administered LHOs, but excluding Louth, Cavan/Monaghan, Meath, Galway, Mayo and Dublin North Central, increased from 90.4% to 91.9%. In 2013/2014, the average uptake among these LHOs was 90.3% with a range from 78.2% in Dublin West to 98.8% in Kildare/West Wicklow.

During the same period of time, DTaP-IPV vaccine uptake in exclusively GP-vaccine administered LHOs (Donegal; Sligo/Leitrim) rose from 90.6% to 92.2%.

### Uptake of MMR vaccine

The uptake of the MMR vaccine between 2012/2013 and 2013/2014 in HSE-vaccine administered LHOs (excluding Louth, Cavan/Monaghan, Meath, Galway, Mayo and Dublin North Central), rose from 90.5% to

Table 2. Proportion	of MMR vaccine	uptake in HSE-adi	ministered LHOs
attributable to GPs			

LHO	% MMR Vaccine Uptake
Dublin West	2.9%
Louth	64.0%
Meath	47.0%
Cavan/Monaghan	58.0%
Carlow/Kilkenny	3.5%
Tipperary South	3.2%
Wexford	% not specified
North Cork	56.0%
Cork North Lee	24.0%
Cork South Lee	10.80%
West Cork	10.80%
Kerry	34.60%
Roscommon	<1%



HSE-DTaP-IPV Vaccine Administered LHOs



HSE-MMR Vaccine Administered LHO



GP-DTaP-IPV Vaccine Administered LHOs



GP-MMR Vaccine Administered LHOs

0-79 80-84 85-89 90-94 95-100 No Data

Figure 1. LHO Maps of DTaP-IPV & MMR percentage vaccine uptake at Junior Infants level during the 2013/2014 academic year

91.6%. In 2013/2014, the average uptake among these LHOs was 90.4% with a range from 72% in Galway to 99.7% in Carlow/Kilkenny.

MMR vaccine uptake in exclusively GP-vaccine administered LHOs also increased from 90.3% to 92.7% during the same time period.

### MMR catch-up vaccination

Eighteen HSE-vaccine administered LHOs identified a number of children as needing a catch-up MMR dose one month later after been given their first dose. The total number of children identified was 127, of which 100 (78.7%) received a catch-up vaccine dose, ranging from no children in Dublin South, Dublin South East, Dublin West, Dublin North East and Louth to 29 children in Wicklow.

Details of the overall uptake of the two vaccines in the

HSE- and GP-vaccinated LHOs during 2013/2014 are presented in Table 1 and in the maps in Figure 1.

\* DTaP-IPV = Diphtheria, Tetanus, acellular Pertussis and Polio vaccine

†MMR = Measles, Mumps and Rubella vaccine

## Tdap vaccine uptake during the 2013/2014 academic year

The National Immunisation Advisory Committee recommends vaccination with tetanus and low-dose diphtheria and acellular pertussis (Tdap) vaccine at 11-14 years of age. Tdap vaccine uptake in the academic year 2013/2014, provided through the school immunisation programme for those in first year of second level schools and their equivalents in nonsecond level schools (i.e. special school, home schooled

GP-Vaccine Administered Programme for Junior Infants 2013/2014	Number children Number children   Cohort who have received %   1 dose DTaP-IPV % Cohort   vaccine vaccine dose MMR vaccine		HSE HSE HSE HSE HSE HSE HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE   HSE   HSE   HSE   HSE	HSE HSE HSE HSE HSE HSE	HSE HSE HSE HSE HSE HSE HSE	HSE HSE HSE HSE HSE HSE HSE	HSE HSE HSE HSE HSE HSE	0 0 0.0% 0 0 0.0%		HSE HSE HSE HSE HSE HSE HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE HSE HSE HSE HSE HSE HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE   HSE   HSE   HSE   HSE   HSE	0 0 0.0% 0 0 0.0%		HSE HSE HSE HSE HSE HSE HSE HSE	HSE HSE HSE HSE HSE HSE HSE HSE HSE	1,449 1,334 92.1% 1,449 1,333 92.0%	2,550 2,352 92.2% 2,550 2,375 93.1%	3,999 3,686 92.2% 3,999 3,708 92.7%			HSE HSE HSE HSE HSE HSE HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE   HSE   HSE   HSE   HSE   HSE	HSE   HSE   HSE   HSE   HSE	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					
	Number childre Who have receiv Cohort 1 dose DTaP-IP vaccine	_	HSE HSE	HSE HSE	HSE HSE	HSE HSE	HSE HSE	HSE HSE	HSE HSE	HSE HSE	HSE HSE	0		HSE HSE	HSE HSE	HSE HSE	HSE HSE	HSE HSE	HSE HSE	0		HSE HSE	HSE HSE	1,449 1,334	2,550 2,352	3,999 3,686			HSE HSE	HSE HSE	HSE HSE	HSE HSE	HSE HSE	HSE HSE	HSE HSE	0	3.999 3.686				
	Vumber children ho have received 1 dose MMR vaccine		1,725 91.6%	1,401 87.8%	1,956 95.2%	1,388 88.9%	1,896 89.1%	2,479 88.6%	4,037 95.5%	2,609 89.4%	2,070 97.7%	19,561 91.9%		2,130   93.1%	1,980   90.2%	3,213 89.1%	2,807 82.2%	1,219 80.3%	3,944 91.0%	15,293 88.1%		2,055 87.0%	1,505 91.9%	1,538 89.1%	3,919 94.7%	1,630 89.3%	88/ 93.4%	GP	GP GP	11,534 91.2%		5,46/ 73.1%	1,385 92.9%	709 91.4%	1,847   92.4%	1,273   92.7%	1,958 95.2%	1,774   95.9%	2,422 95.5%	16,855 93.8%	63.243 91.3%
2013/2014	% Cohort W		92.6% 1,884	88.0% 1,596	95.6% 2,054	88.0% 1,562	89.3% 2,129	88.5% 2,798	95.8% 4,229	91.0% 2,918	97.7% 2,119	92.2% 21,289		93.0% 2,288	90.2% 2,195	89.1% 3,607	82.2% 3,416	77.4% 1,518	90.9% 4,333	87.8% 17,357		87.2% 2,362	92.1% 1,638	88.8% 1,727	95.7% 4,138	87.8% 1,826	94.3% 950	GP GP	GP GP	91.5% 12,641	100	73.1% 2,671	93.0% 1,491	91.4% 776	92.4% 1,998	92.1% 1,373	95.5% 2,057	97.7% 1,850	97.6% 2,535	94.3% 17,971	91.5% 69.258
	Number children who have received 1 dose DTaP-IPV vaccine		1,744	1,405	1,963	1,374	1,902	2,475	4,051	2,655	2,070	19,639		2,127	1,980	3,215	2,807	1,175	3,940	15,244		2,060	1,508	1,533	3,962	1,604	896	- - - -	GP	11,563		0,404	1,387	709	1,847	1,265	1,964	1,808	2,474	16,938	63.384
	Cohort		1,884	1,596	2,054	1,562	2,129	2,798	4,229	2,918	2,119	21,289		2,288	2,195	3,607	3,416	1,518	4,333	17,357		2,362	1,638	1,727	4,138	1,826	950	GP	GP	12,641		140,0	1,491	776	1,998	1,373	2,057	1,850	2,535	17,971	69.258
	HSE Region & LHO	<b>Dublin Mid Leinster</b>	Dublin South	Dublin South East	Wicklow	Dublin South City	Dublin South West	Dublin West	Kildare/W Wicklow	Laois/Offaly	Longford/ Westmeath	Totals	<b>Dublin North East</b>	Louth	Cavan/Monaghan	Meath	Dublin Nth West	Dublin Nth Central	Dublin North	Totals	West	Limerick	Clare	Tipperary North	Galway	Mayo	Roscommon	Donegal	Sligo/Leitrim	Totals	South	North Lee/South Lee	North Cork	West Cork	Kerry	South Tipperary	Carlow/Kilkenny	Waterford	Wexford	Totals	National Totals

Table 3. Overall uptake of the DTaP-IPV and MMR vaccines in Junior Infants during the 2013/2014 academic year

GP=Vaccine administered by GPs in these areas; HSE=Vaccine administered by HSE public health personnel in these areas; Target population HSE-vaccine administered areas: All children in Junior Infants on the school register on 30/09/2013 for the 2013/2014 academic year; Target population in GP-vaccine administered areas: All children born between 01/09/2007 and 31/08/2008

### Table 4. Tdap uptake data in the academic year 2013/2014 (data extracted 20/04/2015)

		2013/2014													
HSE Region	Local Health Office/HSE	First year in seco schools, hom	nd level and equ le schooled and	Outside cohort											
	Region	Denominator	Numbers vaccinated with Tdap:	% Vaccinated with Tdap:	Denominator	Numbers vaccinated with Tdap:									
	Dublin South	2010	1642	81.7%	N/A	12									
	Dublin South East	1157	883	76.3%	N/A	3									
	Dublin South City	1466	1180	80.5%	N/A	6									
	Dublin South West	1762	1362	77.3%	N/A	10									
	Dublin West	2110	1574	74.6%	N/A	9									
Dublin Mid Leinster	Kildare/West Wicklow	3589	2991	83.3%	N/A	8									
	Wicklow	1420	1212	85.4%	N/A	3									
	Laois/Offaly	2197	1850	84.2%	N/A	20									
	Longford/Westmeath	2090	1937	92.7%	N/A	4									
	Total Dublin Mid Leinster	17801	14631	82.2%	N/A	75									
		1	I	1											
	Dublin North	3048	2462	80.8%	N/A	8									
	Dublin North Central	1518	1063	70.0%	N/A	2									
Dalda Nash Fast	Dublin North West	2476	2299	92.9%	N/A	0									
Dublin North East	Cavan/Monaghan	1756	1319	75.1%	N/A	0									
	Louth	2050	1631	79.6%	N/A	0									
	Meath	2571	2206	85.8%	N/A	498									
	Total Dublin North East	13419	10980	81.8%	N/A	508									
	North Cork	1181	955	80.9%	N/A	2									
	North Lee - Cork	2466	2089	84.7%	N/A	5									
	South Lee - Cork	2444	2092	85.6%	N/A	2									
	West Cork	741	643	86.8%	N/A	0									
South	Kerry	1856	1587	85.5%	N/A	0									
	Carlow/Kilkenny	1997	1845	92.4%	N/A	16									
	South Tipperary	1147	1032	90.0%	N/A	3									
	Waterford	1720	1625	94.5%	N/A	5									
	Wexford	1976	1767	89.4%	N/A	83									
	Total South	15528	13635	87.8%	N/A	116									
	Donegal	2264	2057	90.9%	N/A	5									
	Sligo/Leitrim	1251	1142	91.3%	N/A	1									
	Galway	3089	2537	82.1%	N/A	43									
	Мауо	1759	1453	82.6%	N/A	0									
West	Roscommon	-	-	-	N/A	-									
West	Clare	1418	1209	85.3%	N/A	17									
	Limerick	2185	1511	69.2%	N/A	3									
	Tipperary NR/ East Limerick	1867	1578	84.5%	N/A	16									
	Total West	13833	11487	80.5%	N/A	85									
Homeschooled		0	3	0	N/A	0									
Total of LHOs and hom	ne schooled	60581	50736	83.7%	N/A	784									
Out of School		N\A	0	N\A	N/A	2									
Total of LHOs and hom school	ne schooled and out of	N\A	50736	N\A	N/A	786									

Outside cohort refers to those who were vaccinated but who were outside the routine cohort for vaccination

Local health office (LHO) refers to the LHO of the school. Therefore, in reports the LHOs of homeschooled and out of school children do not appear

N/A-Not applicable

Roscommon Tdap data were excluded as this LHO reported incomplete data entry at the time of data extraction and that a larger number were vaccinated than were recorded on the database; therefore their numbers are excluded here from the total denominator and calculation of percentage uptake figures.

and out of school), and recorded on the School Immunisation System (SIS) are presented in table 4. The vaccinations are provided by vaccination teams from the Local Health Offices (LHOs) who go into schools in their areas to vaccinate. Data on vaccination is inputted into the SIS database at a local level. Please see the HSE National Immunisation Office (NIO) website at http://www.hse.ie/eng/health/immunisation for detailed and current information on the school vaccination programme.

The data presented here are the result of collaboration between NIO, School Immunisation Teams, Immunisation Coordinators, Immunisation System Administrators, Immunisation administrative staff and HPSC.

The figures presented in this summary are based on data recorded on the SIS database on the 20<sup>th</sup> April 2015. These figures are subject to change due to ongoing updating of data on the database.

#### MMR vaccine catch-up campaign

In Ireland the first dose of MMR vaccine is recommended for children at 12 months of age. A second dose of MMR is recommended at four to five years of age. There was a MMR catch-up campaign during the 2012/2013 and 2013/2014 academic years. During the MMR catch up campaign the HSE offered a dose of MMR vaccine to children/students attending primary schools, second level schools and special schools and home-schooled students who had not completed (or were not sure they had) their two dose MMR vaccination schedule. In Ireland this campaign was in response to measles and mumps outbreaks among those who had not received their recommended two MMR vaccine doses. It is also part of the World Health Organization campaign to eliminate measles and congenital rubella. Please see the NIO website at http://www.hse.ie/eng/health/immunisation/ for detailed and current information on the school vaccination programme.

MMR catch-up data entry was not complete at the time of writing this report and therefore MMR catch-up uptake data are not reported on here.

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