

## Summary

In Q4-2007, national immunisation uptake rates in children 12 months of age were 88% for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub> and Polio<sub>3</sub> and 87% for Hib<sub>3</sub> and MenC<sub>3</sub>. The HSE-Midland Area had the highest uptake rates (93%) for these vaccines.

In Q4-2007, national immunisation uptake rates in children 24 months of age were 93% for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub> and Polio<sub>3</sub>, 92% for Hib<sub>3</sub> and MenC<sub>3</sub> and 73% for the Hib booster. The target uptake rate of 95% was reached and exceeded for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and MenC<sub>3</sub> in the HSE-Midland Area and for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> in the HSE-North Western Area.

In Q4-2007, the national immunisation uptake rate at 24 months for MMR<sub>1</sub> was 88%. The HSE-Midland and North Western Areas had the highest uptake rates (94%) for MMR<sub>1</sub>.

## Trends at 12 months

Figure 1 presents the national uptake rates at 12 months for each vaccine from Q3-2000 to Q4-2007. In Q4-2007 national uptake rates for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, and Polio<sub>3</sub> increased by 1% when compared to the previous quarter while Hib<sub>3</sub> and MenC<sub>3</sub> were unchanged.

In Q4-2007, the HSE-Southern Area reported increases of 1-2% for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and MenC<sub>3</sub>, in children 12 months of age, when compared to the previous quarter while the HSE-Eastern and North Western Areas reported increases of 1%. Compared to the previous quarter the HSE-South Eastern area reported decreases of 2-3% and the HSE Mid-Western reported a decrease of 1% in uptake rates for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and MenC<sub>3</sub> in Q4-2007.

## Internationally

Vaccination coverage statistics for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> for children 12 months of age in Quarter 4-2007 were 90.5% in England, 95.3% in Wales, 96.5% in Northern Ireland and 96.6% in Scotland.<sup>1</sup> MenC<sub>2</sub> uptake was 89.3% in England, 94.7% in Wales, 97.1% in Northern Ireland and 96.2% in Scotland.<sup>1</sup> Please see HPA report for caveats to data.<sup>1</sup>

## Introduction

The immunisation uptake statistics presented in this report relate to children 12 and 24 months of age in Quarter 4-2007 and who have received 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>) and meningococcal group C (MenC<sub>3</sub>), one booster dose of vaccine against *Haemophilus influenzae* type b after 12 months of age (Hib<sub>b</sub>; uptake at 24 months only), one dose of vaccine against measles, mumps and rubella (MMR<sub>1</sub>; uptake at 24 months only) and one dose of BCG vaccine (BCG; uptake at 12 months only). These statistics therefore relate to uptake in the cohorts born between 01/10/2006 & 31/12/2006 and 01/10/2005 & 31/12/2005.

## Immunisation uptake at 12 months

Immunisation uptake rates in children 12 months of age in Q4-2007 are presented (Table 1). National uptake rates were 88% for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub> and Polio<sub>3</sub> and 87% for Hib<sub>3</sub> and MenC<sub>3</sub>. The highest uptake rates for these vaccines at 12 months were in the HSE-Midland Area (93%) while the lowest rates were in the HSE-Southern Area (84-85%). BCG uptake data were available for five of the eight HSE-Areas (data from HSE-Southern Area relates to Kerry only). These areas cover approximately a third of the national birth cohort. Where data were available, national uptake was 93% for the BCG vaccination. This is an increase of one percent compared to Q3-2007 when BCG uptake was 92%.

**Table 1.** Immunisation uptake (%) at 12 months in cohort born 01/10/2006–31/12/2006

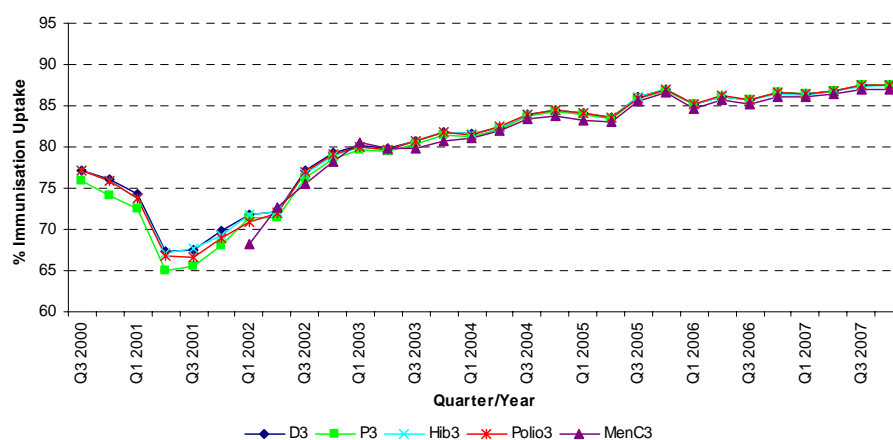
HSE Area	No. in cohort*	BCG	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MenC <sub>3</sub>
Eastern	6049	na	87	87	87	87	87	87
Midland	1127	93	93	93	93	93	93	93
Mid Western	1361	98	89	89	89	89	89	89
North Eastern	1754	na	90	90	90	90	90	88
North Western	864	92	91	91	91	91	91	90
South Eastern	1793	91	86	86	86	86	86	85
Southern	2440	90 <sup>†</sup>	85	85	85	85	85	84
Western	1520	na	86	86	86	86	86	86
Ireland	16908 <sup>‡</sup>	93	88	88	88	87	88	87

na = not available at this time

\*As the denominator/number in cohort varied slightly according to vaccine, most commonly used number is presented here.

† HSE-Southern - part coverage of neonatal BCG (i.e. Kerry only)

‡ Number in cohort for BCG vaccination = 5,612



**Figure 1.** National quarterly immunisation uptake rates at 12 months  
 Since T<sub>3</sub> uptake identical to D<sub>3</sub> uptake only D<sub>3</sub> uptake figures presented

## Immunisation uptake at 24 months

Immunisation uptake rates in children 24 months of age in Q4-2007 are presented (Table 2). National uptake rates were 93% for D<sub>3</sub>, T<sub>3</sub>, P<sub>3</sub> and Polio<sub>3</sub> and 92% for Hib<sub>3</sub> and MenC<sub>3</sub>. All eight HSE Areas had uptake of 90% or greater for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and MenC<sub>3</sub>. The target uptake rate of 95% was exceeded for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and MenC<sub>3</sub> in the HSE-Midland Area and for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> in the HSE-North Western Area. MMR<sub>1</sub> uptake was 88% nationally, ranging from 85% in the HSE-Eastern and Western Areas to 94% in the HSE-Midland and North Western Areas (Table 2). The national uptake rate for the Hib booster was 73%.

### Trends at 24 months

#### D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> & MenC<sub>3</sub> uptake

Figure 2 presents the national uptake rates at 24 months for each vaccine from Q1-1999 to Q4-2007. In Q4-2007, national uptake rates for P<sub>3</sub>, and Polio<sub>3</sub> increased by 1% compared to the previous quarter while uptake rates for D<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and MenC<sub>3</sub> were unchanged.

The HSE-Mid Western and North Western Areas uptake rates for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and MenC<sub>3</sub> in Q4-2007 increased by 1-2% compared to the previous quarter while the uptake rates in the HSE-Western Area decreased by 1-2%.

#### Hib booster uptake

Following the national Hib campaign from November 2005 to May 2006, among children less than four years, a Hib booster (Hib<sub>b</sub>) was introduced into the childhood immunisation schedule in September 2006. All children reaching 12 months of age are now offered the Hib<sub>b</sub> at the same time as MMR vaccine to give extra protection against Hib infection.

Q4-2007 is the fourth quarter where uptake statistics for Hib<sub>b</sub> are available. These figures relate to children who received a dose of Hib after 12 months of age. (Data were requested on children who had received the recommended four doses of Hib vaccine, however, most areas could only provide data on children who had received a Hib booster after 12 months of age.)

In Q4-2007 national uptake was 73%. Data were available from all eight HSE-Areas in Q2-2007 and from seven of the HSE-Areas in Q3-2007; national uptake was also 73% in both Q2 and Q3-2007 (Figure 2).

#### MMR<sub>1</sub> uptake

In Q4-2007, the national MMR<sub>1</sub> uptake rate at 24 months was 88%, unchanged from the previous quarter.

Compared to Q3-2007, the MMR<sub>1</sub> uptake rate increased by 3% in the HSE-Mid Western Area, 2% in the North Western and 1% in the South Eastern Area and decreased by 1% in the HSE-Midland Area. The MMR<sub>1</sub> uptake rate was unchanged in the remaining HSE Areas compared to the previous quarter.

## References

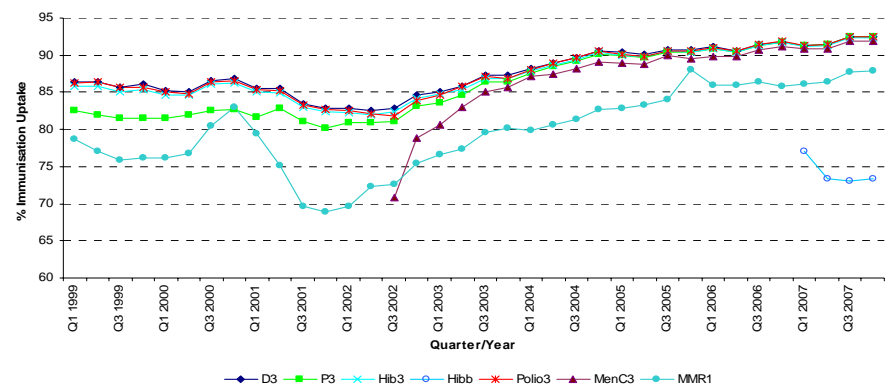
1. COVER programme: October to December 2007. Health Protection Report 2008: 2 (13). Available at: <http://www.hpa.org.uk/hpr>

**Table 2.** Immunisation uptake (%) at 24 months in cohort born 01/10/2005 – 31/12/2005

HSE Area	No. in Cohort*	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Hib <sub>b</sub> †	Polio <sub>3</sub>	MenC <sub>3</sub>	MMR <sub>1</sub>
Eastern	5447	91	91	91	91	71	91	90	85
Midland	984	97	97	97	97	91	97	97	94
Mid Western	1284	94	94	94	94	86	94	94	93
North Eastern	1603	93	93	93	93	91	93	93	91
North Western	800	98	98	98	96	90	98	94	94
South Eastern	1836	92	92	92	91	53	91	90	88
Southern	2116	93	93	93	93	78	93	93	88
Western	1527	92	92	92	92	65	92	92	85
<b>Ireland</b>	<b>15597‡</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>92</b>	<b>73</b>	<b>93</b>	<b>92</b>	<b>88</b>

\* As the denominator/number in cohort varied slightly according to vaccine, most commonly used number is presented here.

† Please note the Hib<sub>b</sub> immunisation uptake rate reported relates to children in this birth cohort who received one dose of Hib after 12 months of age, as this was the format most HSE-Areas could extract the data. The HSE-E and HSE-W rates are probably underestimates as only the number of children who had received four doses of Hib (Hib<sub>4</sub>) were included in the calculation, as requested. The HSE-SE rate is an underestimate due to data extraction methods. ‡ Number in cohort for Hib<sub>b</sub> vaccination = 16,579.



**Figure 2.** National quarterly immunisation uptake rates at 24 months

**Note 1** The Q4-2005 MMR<sub>1</sub> figure is based on data from seven of the eight HSE-Areas. The Q1-2006 MMR<sub>1</sub> figure includes the HSE-Eastern Area figure that is an estimate only.

**Note 2** The Q1 and Q3-2007 Hib<sub>b</sub> figures are based on data from seven of the eight HSE Areas.

## Internationally

In Q4-2007, vaccination coverage statistics at 24 months for D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> were 93.5% in England, 97.2% in Wales, 97.4% in Northern Ireland and 98% in Scotland.<sup>1</sup> Infant MenC uptake was 93.2% in England, 94.7% in Wales, 97.4% in Northern Ireland and 97% in Scotland.<sup>1</sup> MMR<sub>1</sub> uptake was 83.1% in England, 87.8% in Wales, 91.5% in Northern Ireland and 91.8% in Scotland.<sup>1</sup> Please see HPA report for caveats to data.<sup>1</sup>

## Conclusions

In Q4-2007, the national MMR<sub>1</sub> uptake was 7% below the target rate of 95%. The uptake rate for Hib<sub>b</sub> was 22% below the target rate. Uptake rates for all other vaccines at 24 months were 2-3% below the target rates.

## Further information

The Q4-2007 immunisation uptake statistics by Local Health Office (LHO) are also presented in a separate summary document, available at <http://www.hpsc.ie>. A complete listing of national and regional immunisation uptake statistics at 12 and 24 months for each HSE Area is also available at <http://www.hpsc.ie>.

## Acknowledgements

HPSC would like to thank the HSE Areas for providing data and special thanks to the Specialists in Public Health Medicine, Immunisation Co-ordinators, Surveillance Scientists and Systems Analysts for their assistance.