

# IMMUNISATION UPTAKE STATISTICS FOR IRELAND



A REPORT BY THE NATIONAL DISEASE SURVEILLANCE CENTRE

Quarter 2-2002

December, 2002

## Summary

National uptake rates for vaccines at 12 months are similar to those recorded for the previous quarter with the exception of MenC<sub>3</sub> uptake which increased by 5% to 73% in Quarter 2 2002. Uptake for D<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> was 72% and 71% for P<sub>3</sub>.

At 24 months, uptake rates for P<sub>3</sub>, D<sub>3</sub>, T<sub>3</sub> and Hib<sub>3</sub> remained unchanged in Quarter 2 2002 when compared with the previous quarter. Uptake for P<sub>3</sub> and Hib<sub>3</sub> was 81% and 82% respectively while uptake rates for both D<sub>3</sub> and T<sub>3</sub> were 83%. Uptake rates for Polio<sub>3</sub> decreased by 1% to 82% while MMR<sub>1</sub> uptake increased by 2% to 72%.

## Introduction

The immunisation uptake statistics for children 12 and 24 months of age in Quarter 2 of 2002 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>), Meningococcal group C (MenC<sub>3</sub>; uptake at 12 months only) and one dose of vaccine against measles, mumps and rubella (MMR<sub>1</sub>; uptake at 24 months only) are presented in this report. These statistics relate to uptake in the cohorts born between 01/04/2001 & 30/06/2001 and 01/04/2000 & 30/06/2000.

## Results

### Immunisation uptake at 12 months in Quarter 2-2002

Immunisation uptake rates in children 12 months of age in Quarter 2-2002 are presented (Table 1). National uptake of D<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, and Polio<sub>3</sub> at 12 months was 72% and 71% for P<sub>3</sub>. MenC<sub>3</sub> uptake was 73%. The highest uptake rates at 12 months were reported by the NWHB at 79-84%, while the lowest rates were in the ERHA at 63-68% (Table 1).

National uptake rates in Quarter 2-2002 at 12 months were comparable with those reported in the previous quarter with two exceptions: the national uptake rates for Polio<sub>3</sub> and MenC<sub>3</sub> at 12 months rose by 1% and 5% respectively when compared with the previous quarter (Figure 1).

Increases (4-14%) in MenC<sub>3</sub> uptake were reported in 5 health boards, most notably, the MHB which reported an increase of 14% in uptake of MenC<sub>3</sub> vaccine when compared with the

previous quarter. Uptake rates for the MenC<sub>3</sub> vaccine were down in the NEHB (5%).

Uptake rates for D<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub>, Polio<sub>3</sub> and P<sub>3</sub> at 12 months increased in 5 health boards in this quarter when compared with the previous quarter; ERHA (1-2%) MHB (4-5%), MWHB (3-4%), NWHB (1-3%), WHB (8%) [see Appendix 1]. However, rates declined in NEHB (6-8%), SEHB (1%) and SHB (1-2%).

Vaccination coverage statistics for children 12 months of age in Quarter 1-2002 were 95% in Northern Ireland <sup>1</sup> and 90-91% for the United Kingdom as a whole. <sup>2</sup>

Table 1. Immunisation uptake rates in children 12 months of age in Quarter 2-2002

% Uptake at 12 months Cohort born 01/04/2001 – 30/06/2001							
Health Board	No. in cohort	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MenC <sub>3</sub>
ERHA	5,347	63	63	63	64	63	68
MHB	887	69	67	69	69	67	72
MWHB	1,187	81	80	81	80	81	80
NEHB	1,546	76	76	76	76	78	73
NWHB	770	84	84	84	82	84	79
SEHB	1,611	80	80	80	80	80	79
SHB	2,012	76	75	76	75	76	74
WHB	1,259	76	75	76	76	76	72
Ireland	14,689	72	71	72	72	72	73

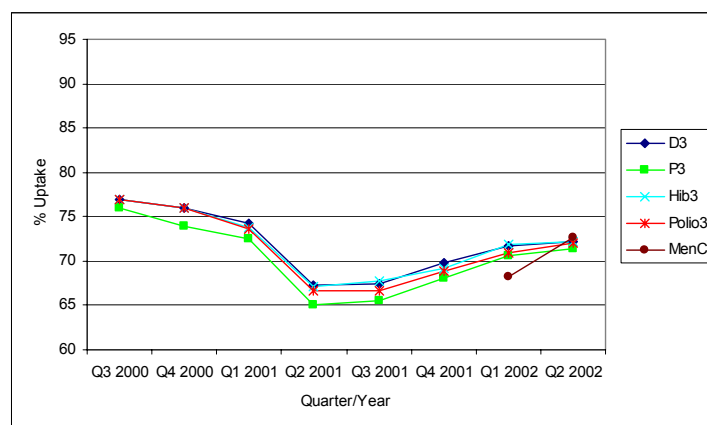


Figure 1. Quarterly immunisation uptake rates at 12 months in Ireland (Note: scale ranges from 60-95%)

### Immunisation uptake at 24 months in Quarter 2- 2002

Immunisation uptake rates in children 24 months of age in Quarter 2-2002 are presented (Table 2). National uptake rates were 82% for Hib<sub>3</sub> and Polio<sub>3</sub>, 83% for D<sub>3</sub> and T<sub>3</sub> and 81% for P<sub>3</sub>. Uptake for these vaccines ranged from 73-75% in MHB and up to 91-92% in NEHB and NWHB (Table 2). MMR<sub>1</sub> uptake was 72% nationally, ranging from 63% in ERHA to 82% in MWHB and NEHB (Table 2). The target 95% rate at 24 months was not reached at either national or health board level for any of the vaccines.

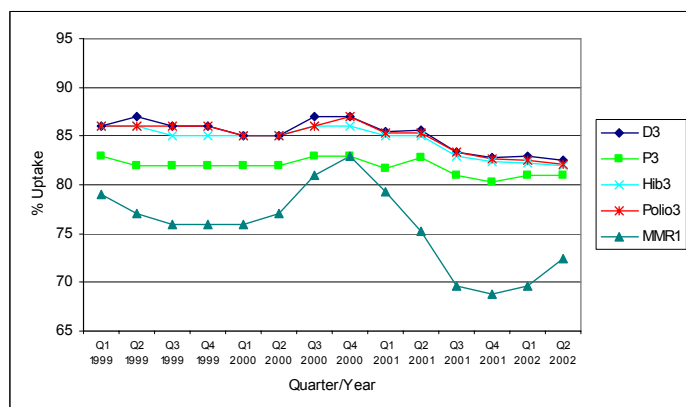
**Table 2.** Immunisation uptake rates in children 24 months of age in Quarter 2- 2002

Health Board	No. in cohort	% Uptake at 24 months					
		Cohort born 01/04/2000 – 30/06/2000					
		D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MMR <sub>1</sub>
ERHA	5,482	78	76	78	77	77	63
MHB	905	75	73	75	73	75	71
MWHB	1,204	85	83	85	85	85	82
NEHB	1,384	92	92	92	91	91	82
NWHB	742	92	92	92	91	91	80
SEHB	1,537	87	85	87	86	87	81
SHB	1,983	83	81	83	82	83	74
WHB	1,273	84	81	84	84	83	78
Ireland	14,572	83	81	83	82	82	72

In Q2-2002, P<sub>3</sub> and Hib<sub>3</sub> uptake rates at 24 months were unchanged from the previous quarter. Uptake rates for D<sub>3</sub>, T<sub>3</sub> and Polio<sub>3</sub> decreased by 1% nationally while MMR<sub>1</sub> uptake increased by 2% (Figure 2 and Table 3). Although a further slight recovery in MMR<sub>1</sub> uptake was observed in this quarter, it is still 11% below the rates reported in Q4-2000 and 23% below the national target rate.

Data on MenC uptake in children 24 months of age in Q2-2002 are not presented in this report as difficulties were experienced in extracting data on those that had actually completed the MenC schedule. This was related to the fact that depending on the age children from this birth cohort presented for vaccination, the number of doses required to complete the MenC schedule varied between one and three doses.

In Quarter 2-2002 vaccination coverage statistics at 24 months 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> were 95-96% in Northern Ireland<sup>1</sup> and 92-94% for the United Kingdom as a whole.<sup>2</sup> MMR<sub>1</sub> uptake was 90% in Northern Ireland<sup>1</sup> and 84% in the UK.<sup>2</sup>



**Figure 2.** Quarterly immunisation uptake rates at 24 months in Ireland (Note: scale ranges from 65-95%)

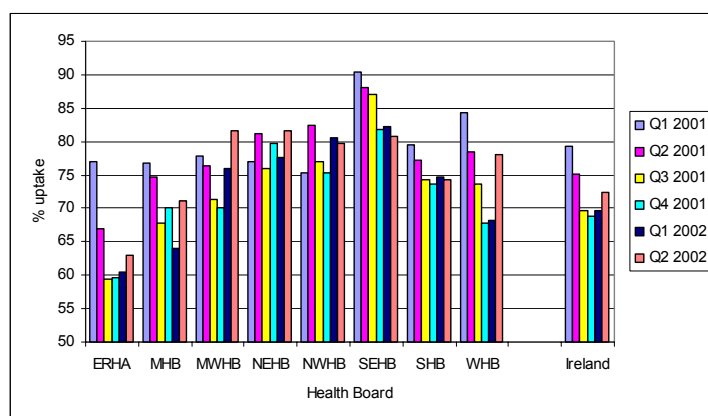
**Table 3.** Quarterly national immunisation uptake rates (%) at 24 months

	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MMR <sub>1</sub>
Q1 1999	86	83	86	86	86	79
Q2 1999	87	82	87	86	86	77
Q3 1999	86	82	86	85	86	76
Q4 1999	86	82	86	85	86	76
Q1 2000	85	82	85	85	85	76
Q2 2000	85	82	85	85	85	77
Q3 2000	87	83	87	86	86	81
Q4 2000	87	83	87	86	87	83
Q1 2001	86	82	86	85	85	79
Q2 2001	86	83	86	85	85	75
Q3 2001	83	81	83	83	83	70
Q4 2001	83	80	83	82	83	69
Q1 2002	83	81	83	82	83	70
Q2 2002	83	81	83	82	82	72

Note: Prior to Q2-2002, NWHB provided DTaP/DT uptake as combined value, since not possible to accurately determine P<sub>3</sub> uptake for this health board, it was excluded from overall P<sub>3</sub> analysis

### MMR<sub>1</sub> uptake by Health Board

In Q2-2002, national MMR<sub>1</sub> uptake rates at 24 months increased by 2% to 72% when compared with the previous quarter. MMR<sub>1</sub> uptake rates increased in ERHA (3%), MHB (7%), MWHB (6%), NEHB (4%), and WHB (10%), while uptake rates decreased slightly in NWHB (1%) SEHB (1%) and SHB (1%) (Figure 3).



**Figure 3.** Quarterly MMR<sub>1</sub> uptake rates at 24 months by health board in 2001 and 2002 (Note: scale ranges from 50-95%).

Detailed quarterly immunisation uptake statistics at 12 and 24 months for each health board are presented in Appendix 1 & 2 of this report.

## References

1. Vaccination coverage statistics for children in Northern Ireland. *Communicable Diseases Monthly Report* 2002; 11(9). Available at <http://www.cdscni.org.uk>
2. COVER programme: April to June 2002. CDR Weekly 2002: 12(39). Available at: <http://www.phls.org.uk>

## THE MENC VACCINATION PROGRAMME IN IRELAND

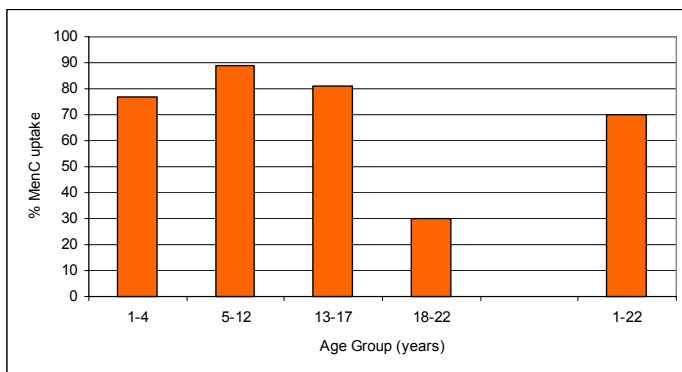
### Introduction

The Meningococcal group C conjugate (MenC) vaccine was introduced in Ireland in October 2000 as part of the Primary Childhood Immunisation schedule at 2, 4 and 6 months. A catch-up programme was also launched at this time, with the overall aim of offering the vaccine to all young adults under 23 years of age. For logistical reasons this catch-up programme was introduced on a phased basis, with those most at risk being targeted initially. The entire catch-up programme was completed nationally by March 2002.

### Results – MenC Uptake

In August 2002, the eight health boards ran reports to ascertain MenC uptake in those targeted by the catch-up programme (1-22 year olds). Uptake data was extracted according to annual birth cohort (1978-1999). For the <5 year olds, denominator data was obtained from the birth registers, whereas for those aged 5 years or greater, denominator data was extrapolated from the 1996 census.

Overall, MenC uptake was 70% in the 1-22 year olds. This ranged from 89% in 5-12 year olds, to 81% in 13-17 year olds, to 77% in 1-4 year olds but down to 30% in 18-22 year olds (Fig. 4).



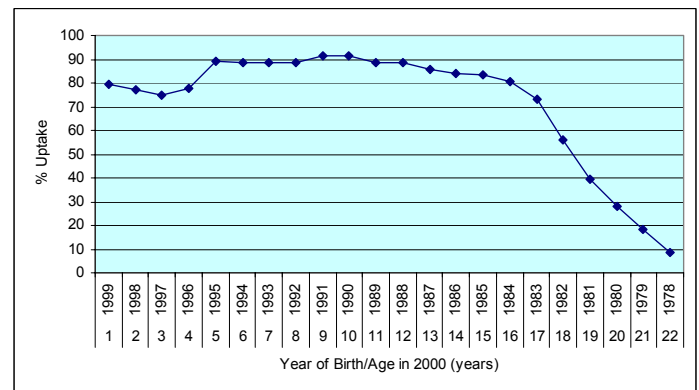
**Figure 4.** MenC uptake in Ireland by age group (Report generated August, 2002)

Taking a closer look at MenC uptake by annual birth cohort the highest uptake levels were achieved by far in 5-17 years age group. This age group corresponds to those in primary and secondary school who would have largely been targeted by immunisation teams visiting the schools, or alternatively, if missed at school, this group also had the option of being vaccinated by their local GP (Figure 5).

Uptake plummeted in those 18 years of age and greater, decreasing from 56% in 18 year olds down to 8.5% in 22 year olds. The poor MenC uptake in this age group reflects the difficulty in targeting young adults. Although immunisation teams visited colleges and extensive advertising was undertaken, getting vaccinated was not a high priority for many college students. Furthermore, this group of the population is generally very healthy and rarely have cause to attend their GP so opportunistic vaccination was difficult.

### Impact of MenC vaccine on Meningococcal disease

Since the MenC vaccine has been introduced, there has been a dramatic decrease in group C disease in Ireland with the result that bacterial meningitis notifications overall have declined. To the end of October 2002, group C disease has declined 89% compared to the same 10 month period in 2000. This decline has been observed in all the age groups targeted by the vaccination campaign. There have been no group C deaths to date in 2002 whereas between January and October of 1999 and 2000, there were 5 and 9 deaths, respectively. These figures highlight the very positive impact that the MenC vaccine has had in reducing not only the morbidity but also mortality due to group C disease in Ireland.



**Figure 5.** MenC uptake in Ireland in the 1978-1999 birth cohorts i.e. those aged between 1-22 years in 2000 (Report generated August, 2002)

*NDSC would like to thank the health boards for providing data and special thanks to the Specialists in Public Health Medicine, Immunisation Co-ordinators and Systems Analysts for their assistance.*

## Appendix 1. Quarterly Immunisation Uptake Rates at 12 months by Health Board

Uptake at 12 months ~ ERHB					
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>
Q3 2000	75	73	75	75	75
Q4 2000	73	72	73	73	73
Q1 2001	69	67	69	69	69
Q2 2001	53	52	53	53	53
Q3 2001	61	60	61	60	59
Q4 2001	60	59	60	60	59
Q1 2002	63	63	63	63	61
Q2 2002	63	63	63	64	63

Uptake at 12 months ~ MHB					
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>
Q3 2000	70	67	70	71	71
Q4 2000	72	69	72	72	72
Q1 2001	71	68	71	71	71
Q2 2001	66	65	66	66	66
Q3 2001	61	59	61	62	60
Q4 2001	72	71	72	72	71
Q1 2002	64	62	64	64	63
Q2 2002	69	67	69	69	67

Uptake at 12 months ~ MWHB					
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>
Q3 2000	74	72	74	74	74
Q4 2000	72	71	72	72	72
Q1 2001	77	74	77	74	74
Q2 2001	69	67	69	69	69
Q3 2001	64	62	64	64	63
Q4 2001	70	68	70	70	70
Q1 2002	78	76	78	77	77
Q2 2002	81	80	81	80	81

Uptake at 12 months ~ NEHB					
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>
Q3 2000	*	*	*	*	*
Q4 2000	*	*	*	*	*
Q1 2001	*	*	*	*	*
Q2 2001	79	78	79	78	78
Q3 2001	74	73	74	76	75
Q4 2001	79	78	79	79	78
Q1 2002	84	82	84	83	84
Q2 2002	76	76	76	76	78

\* Unable to provide data for this quarter

Uptake at 12 months ~ NWHB					
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>
Q3 2000	69	**	69	69	69
Q4 2000	74	**	74	74	74
Q1 2001	71	**	71	71	71
Q2 2001	83	**	83	83	82
Q3 2001	82	**	82	82	80
Q4 2001	80	**	80	79	78
Q1 2002	81	81	81	81	81
Q2 2002	84	84	84	82	84

Uptake at 12 months ~ SEHB					
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>
Q3 2000	90	87	90	90	90
Q4 2000	86	83	86	86	86
Q1 2001	87	84	87	87	86
Q2 2001	84	82	84	84	84
Q3 2001	83	81	83	83	82
Q4 2001	80	79	80	80	80
Q1 2002	81	80	81	81	81
Q2 2002	80	80	80	80	80

Uptake at 12 months ~ SHB					
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>
Q3 2000	*	*	*	*	*
Q4 2000	78	76	78	78	78
Q1 2001	76	74	76	76	75
Q2 2001	73	70	73	72	72
Q3 2001	68	66	68	69	67
Q4 2001	76	74	76	75	75
Q1 2002	77	76	77	77	77
Q2 2002	76	75	76	75	76

Uptake at 12 months ~ WHB					
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>
Q3 2000	85	83	85	85	85
Q4 2000	79	77	79	79	79
Q1 2001	80	78	80	80	80
Q2 2001	77	74	77	77	76
Q3 2001	73	71	73	71	72
Q4 2001	71	70	71	66	70
Q1 2002	68	67	68	*	68
Q2 2002	76	75	76	76	76

\* Unable to provide data for this quarter

\*\* Uptake cannot be accurately calculated as DTaP/DT provided as combined value

## Appendix 2 Quarterly Immunisation Uptake Rates at 24 months by Health Board

Uptake at 24 months ~ ERHA						
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MMR <sub>1</sub>
Q1 1999	86	82	86	85	85	78
Q2 1999	85	81	85	84	85	77
Q3 1999	85	81	85	84	85	76
Q4 1999	84	80	84	84	84	76
Q1 2000	84	81	84	84	84	75
Q2 2000	84	81	84	84	84	74
Q3 2000	85	82	85	84	85	81
Q4 2000	85	82	85	84	84	81
Q1 2001	82	80	82	81	82	77
Q2 2001	82	80	82	82	82	67
Q3 2001	79	77	79	78	79	59
Q4 2001	78	76	78	78	78	60
Q1 2002	78	76	78	77	77	60
Q2 2002	78	76	78	77	77	63

Uptake at 24 months ~ MHB						
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MMR <sub>1</sub>
Q1 1999	83	77	83	82	82	72
Q2 1999	85	80	85	83	84	72
Q3 1999	81	77	81	80	81	68
Q4 1999	81	77	81	80	81	69
Q1 2000	83	78	83	83	84	73
Q2 2000	80	76	80	80	80	73
Q3 2000	81	77	81	80	80	75
Q4 2000	83	79	83	83	83	80
Q1 2001	82	77	82	81	81	77
Q2 2001	83	80	83	83	83	75
Q3 2001	81	79	81	81	81	68
Q4 2001	81	77	81	81	81	70
Q1 2002	78	75	78	78	78	64
Q2 2002	75	73	75	73	75	71

Uptake at 24 months ~ MWHB						
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MMR <sub>1</sub>
Q1 1999	82	79	82	81	82	74
Q2 1999	81	79	81	80	81	72
Q3 1999	79	77	79	79	79	73
Q4 1999	80	78	80	80	80	72
Q1 2000	76	73	76	76	76	70
Q2 2000	80	77	80	80	80	75
Q3 2000	83	80	83	82	83	78
Q4 2000	83	80	83	83	82	83
Q1 2001	82	80	82	81	82	78
Q2 2001	86	84	86	84	84	76
Q3 2001	82	80	82	81	82	71
Q4 2001	83	80	83	82	82	70
Q1 2002	86	83	86	85	86	76
Q2 2002	85	83	85	85	85	82

Uptake at 24 months ~ NEHB						
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MMR <sub>1</sub>
Q1 1999	84	**	84	84	84	80
Q2 1999	94	**	94	94	94	78
Q3 1999	95	**	95	95	95	78
Q4 1999	94	**	94	94	94	78
Q1 2000	91	**	91	91	91	81
Q2 2000	89	**	89	89	89	78
Q3 2000	95	**	95	95	95	79
Q4 2000	97	**	97	97	97	82
Q1 2001	94	**	94	94	94	77
Q2 2001	91	90	91	91	90	81
Q3 2001	89	88	89	89	89	76
Q4 2001	93	93	93	93	94	80
Q1 2002	91	90	91	90	90	78
Q2 2002	92	92	92	91	91	82

\*\* Uptake cannot be accurately calculated as DTaP/DT provided as combined value

Uptake at 24 months ~ NWHB						
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MMR <sub>1</sub>
Q1 1999	87	**	87	86	87	76
Q2 1999	87	**	87	87	87	75
Q3 1999	86	**	86	86	86	74
Q4 1999	88	**	88	88	88	73
Q1 2000	86	**	86	86	86	74
Q2 2000	82	**	82	82	82	72
Q3 2000	83	**	83	83	83	72
Q4 2000	85	**	85	84	84	77
Q1 2001	85	**	85	85	85	75
Q2 2001	91	**	91	91	91	83
Q3 2001	90	**	90	90	90	77
Q4 2001	88	**	88	87	88	75
Q1 2002	89	89	89	88	89	81
Q2 2002	92	92	92	91	91	80

Uptake at 24 months ~ SEHB						
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MMR <sub>1</sub>
Q1 1999	92	87	92	92	92	90
Q2 1999	90	84	90	89	89	86
Q3 1999	88	85	88	87	88	85
Q4 1999	87	83	87	87	86	85
Q1 2000	89	85	89	88	88	86
Q2 2000	89	85	89	89	89	89
Q3 2000	91	87	91	90	91	92
Q4 2000	90	85	90	90	90	92
Q1 2001	91	87	91	91	91	90
Q2 2001	89	85	89	88	89	88
Q3 2001	90	88	90	90	90	87
Q4 2001	87	84	87	87	87	82
Q1 2002	89	86	89	88	88	82
Q2 2002	87	85	87	86	87	81

Uptake at 24 months ~ SHB						
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MMR <sub>1</sub>
Q1 1999	87	83	87	87	87	75
Q2 1999	86	81	86	86	86	72
Q3 1999	84	81	84	83	84	70
Q4 1999	86	81	86	85	86	73
Q1 2000	84	80	84	83	84	72
Q2 2000	84	80	84	83	84	76
Q3 2000	86	82	86	85	85	77
Q4 2000	87	83	87	86	86	82
Q1 2001	86	83	86	86	86	80
Q2 2001	85	82	85	85	85	77
Q3 2001	84	82	84	84	84	74
Q4 2001	84	81	84	83	84	74
Q1 2002	85	82	85	84	84	75
Q2 2002	83	81	83	82	83	74

Uptake at 24 months ~ WHB						
	D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	MMR <sub>1</sub>
Q1 1999	92	89	92	92	92	86
Q2 1999	90	87	90	89	90	83
Q3 1999	91	87	91	90	90	81
Q4 1999	95	90	95	90	90	80
Q1 2000	92	87	92	91	92	82
Q2 2000	91	87	91	90	91	82
Q3 2000	92	87	92	91	91	84
Q4 2000	91	87	91	90	91	85
Q1 2001	91	88	91	90	91	84
Q2 2001	87	85	87	87	87	78
Q3 2001	87	85	87	86	87	74
Q4 2001	83	81	83	82	82	68
Q1 2002	84	81	84	83	83	68
Q2 2002	84	81	84	84	83	78

\*\* Uptake cannot be accurately calculated as DTaP/DT provided as combined value