

**Immunisation Uptake Statistics  
for Ireland  
Quarter 3, 2001**



**A report by the  
National Disease Surveillance Centre**

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## Summary

Immunisation uptake rates continue to decline in Ireland. In Quarter 3, 2001 MMR<sub>1</sub> uptake at 24 months decreased by 5% to 70% when compared to the previous quarter (Q2-2001). D<sub>3</sub>, P<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> uptake at 24 months was between 81 and 83%. All these uptake rates fall far short of the target 95% rate. Immunisation uptake rates at 12 months in Quarter 3, 2001 remained largely unchanged from the reduced rates reported the previous quarter. MenC uptake rates as of November 2001 improved by 6% to 71% in 1-4 year olds and by 9% to 75% in 15-18 year olds compared to when the previous reports were run in July/August 2001.

## Introduction

The immunisation uptake statistics for children 12 months and 24 months of age in Quarter 3, 2001 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 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 01/07/2000 & 30/09/2000 and 01/07/1999 & 30/09/1999.

Uptake statistics on the Meningococcal Group C Conjugate (MenC) vaccine as of November 2001, in those targeted by Phase 1 of the MenC campaign (< 5 years and 15-18 years) are also included in this report.

NDSC would like to thank the health boards for providing these data and special thanks to the Specialists in Public Health Medicine and the System Analysts for their assistance.

## Results

### *Immunisation uptake at 12 months in Quarter 3, 2001*

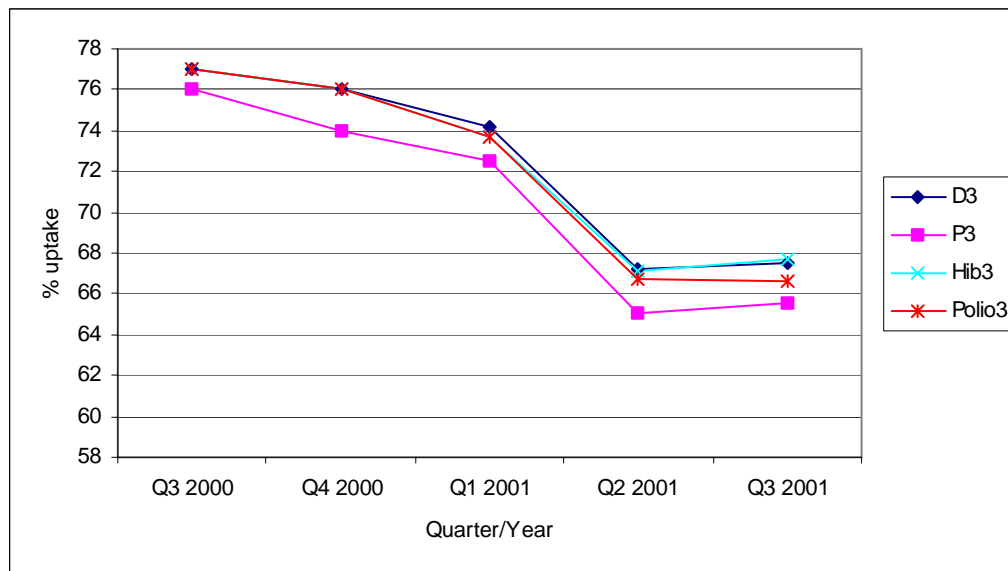
Immunisation uptake rates in children 12 months of age in Quarter 3, 2001 are presented (Table 1). National uptake of D<sub>3</sub>, T<sub>3</sub> and Polio<sub>3</sub> at 12 months was 67%, Hib<sub>3</sub> was 68%, while P<sub>3</sub> uptake was 66% (this figure based on data from seven health boards). The highest uptake rates at 12 months were reported by the SEHB and the NWHB 80-83%, while the lowest rates were in the ERHA and MHB, 59-61% (Table 1).

**Table 1. Immunisation uptake rates in children 12 months of age in Quarter 3, 2001**

Health Board	Number in cohort	% Uptake at 12 months				
		Cohort born 01/07/2000 – 30/09/2000				
		D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>
ERHA	5,673	61	60	61	60	59
MHB	914	61	59	61	62	60
MWHB	1,254	64	62	64	64	63
NEHB	1,375	74	73	74	76	75
NWHB	725	82	**	82	82	80
SEHB	1,547	83	81	82	83	82
SHB	2,036	68	66	68	69	67
WHB	1,223	73	71	73	71	72
<b>Total-Ireland</b>	<b>14,747</b>	<b>67</b>	<b>66</b>	<b>67</b>	<b>68</b>	<b>67</b>

\*\* P<sub>3</sub> uptake could not be accurately calculated as DTaP/DT uptake was reported as a combined value

There was a dramatic decline in uptake rates at 12 months in Quarter 2, 2001 when compared with previous quarters and no real improvement in uptake rates were seen in this quarter (Q3-2001), with rates similar to those in the Quarter 2 being reported (Figure 1).



**Figure 1.** Quarterly immunisation uptake rates at 12 months in Ireland

***Immunisation uptake at 24 months in Quarter 3, 2001***

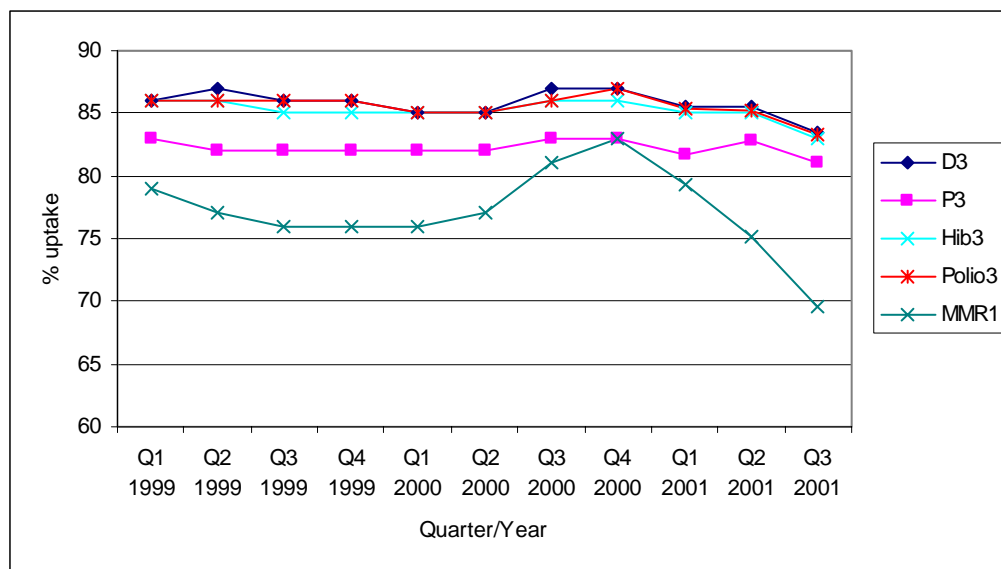
Immunisation uptake rates in children 24 months of age in Quarter 3, 2001 are presented (Table 2). National uptake rates were 83% for D<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub>, and 81% for P<sub>3</sub>. Uptake for these vaccines ranged from 77-79% in ERHA up to 88-90% in NEHB, NWHB and SEHB (Table 2). MMR<sub>1</sub> uptake was 70%, this ranged from 59% in ERHA to 87% in SEHB (Table 2). The target 95% rate 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 3, 2001**

Health Board	Number in cohort	% Uptake at 24 months					MMR <sub>1</sub>
		D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>	
Cohort born 01/07/1999 – 30/09/1999							
ERHA	5,551	79	77	79	78	79	59
MHB	892	81	79	81	81	81	68
MWHB	1,339	82	80	82	81	82	71
NEHB	1,282	89	88	89	89	89	76
NWHB	785	90	**	90	90	90	77
SEHB	1,626	90	88	90	90	90	87
SHB	2,003	84	82	84	84	84	74
WHB	1,183	87	85	87	87	87	74
<b>Total-Ireland</b>	<b>14,661</b>	<b>83</b>	<b>81</b>	<b>83</b>	<b>83</b>	<b>83</b>	<b>70</b>

\*\* P<sub>3</sub> uptake could not be accurately calculated as DTaP/DT uptake was reported as a combined value

At 24 months uptake rates were lower than the previous quarter;  $D_3$  and  $T_3$  were down 3% to 83%,  $P_3$  down 2% to 81%, Hib<sub>3</sub> and Polio<sub>3</sub> also down 2% to 83% (Figure 2 and Table 3).  $MMR_1$  uptake declined to the alarmingly low rate of 70% in Quarter 3, 2001, decreasing by 5% when compared to the previous quarter (Figure 2 and Table 3). Since Quarter 4, 2000  $MMR_1$  uptake has consistently declined by 4-5% each quarter with the result that there has been a 13% reduction, from 83% in Quarter 4 2000, down to 70% in Q3 2001 (Figure 2 and Table 3).



**Figure 2.** Quarterly immunisation uptake rates at 24 months in Ireland

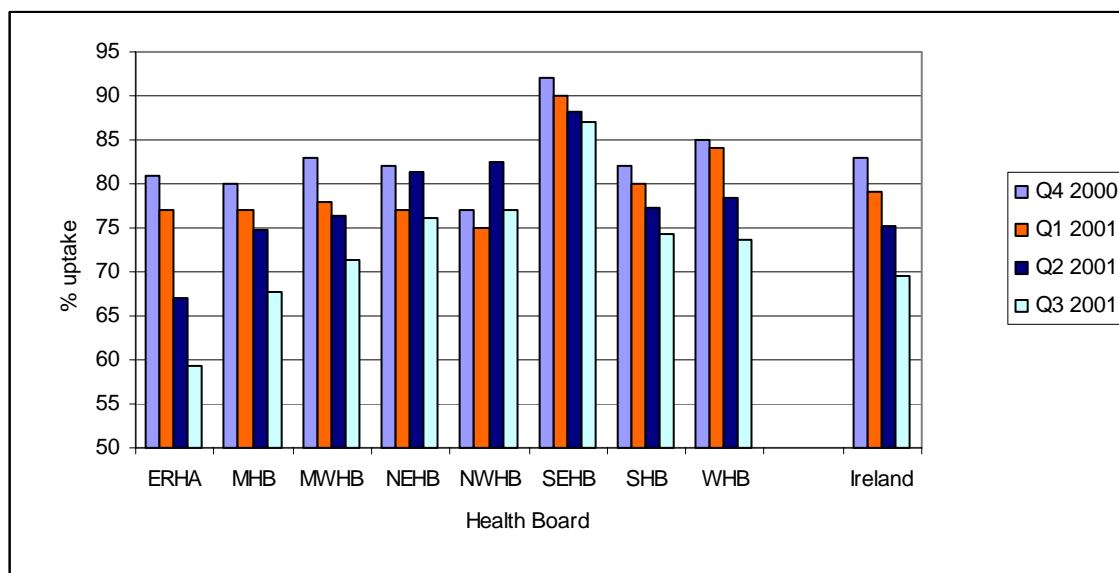
**Table 3.** Quarterly national immunisation uptake rates (%) at 24 months

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

Note: NWHB provided DTaP/DT uptake as combined value. Therefore, since not possible to accurately determine  $P_3$  uptake for this health board, it was excluded from  $P_3$  analysis

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

In Quarter 3, 2001 MMR<sub>1</sub> uptake at 24 months continued to decline in all health boards (Figure 3). Reductions of 3-5% were reported by SHB, WHB, MWHB and NEHB and even greater reductions of between 6-8% were reported by NWHB, MHB and ERHA. The least decline was seen in SEHB where MMR<sub>1</sub> uptake dropped by just 1% in Quarter 3 when compared to the previous quarter (Figure 3).



**Figure 3** Quarterly MMR<sub>1</sub> uptake rates at 24 months by health board

**Note:** Detailed quarterly immunisation uptake statistics at 12 and 24 months by health board are presented in Appendix 1 & 2 of this report.

## *Uptake of the Meningococcal Group C Conjugate (MenC) Vaccine*

### **MenC uptake in 1-4 year olds**

MenC immunisation uptake statistics on those targeted by Phase 1 of the campaign (i.e. < 5 year olds and 15-18 year olds) are presented in this report. These statistics are based on reports run by health boards in November 2001. In Table 4 the MenC uptake rates in those that were 1-4 years of age in 2000 are presented. Overall, MenC uptake in November 2001 was 71% in this cohort. This is an improvement of 6% from 65%, when the reports were previously run in July/August 2001 for this cohort. MenC uptake in 1-4 year olds as of November 2001 ranged from 82% in the NWHB down to 60% in the ERHA. Uptake was highest in the one-year old cohort ~ 73%, but with increasing age uptake declined and was only 69% in both the three and four-year old cohorts (Table 4)

At present figures on MenC uptake in children that were less than 1 year of age in 2000 have not been analysed. This is due to the fact that some health boards provided data on those who had completed MenC programme (had 3 doses of the vaccine), whereas others could only provide data on those who had at least commenced but not clear if they had completed the MenC programme. Therefore, based on the information provided it was not possible to make direct comparisons.

**Table 4.** MenC uptake rates (%) in children 1-4 year old  
(Reports run by health boards in Nov 2001)

Health Board	Cohort born in				Total*
	1999 (1 yr)	1998 (2 yrs)	1997 (3 yrs)	1996 (4 yrs)	
<b>ERHA</b>	64	60	58	62	60
<b>MHB</b>	70	68	66	65	67
<b>MWHB</b>	81	80	80	74	79
<b>NEHB</b>	77	76	77	68	75
<b>NWHB</b>	83	81	81	83	82
<b>SEHB</b>	84	81	80	74	80
<b>SHB</b>	79	77	76	74	77
<b>WHB</b>	75	75	74	74	74
<b>Total (ROI)</b>	<b>73</b>	<b>71</b>	<b>69</b>	<b>69</b>	<b>71</b>

\* Cohort born between 1996-1999 inclusive i.e. aged 1-4 years in 2000 (when MenC campaign commenced)

### **MenC uptake in 15-18 year olds**

Health boards provided data on to MenC uptake rates in the 15-18 year old cohort as of November 2001, based on the school and college registers and/or based on birth cohort.

The MenC uptake rates according to the school and college registers are based on the number of students immunised by the health board teams, but it will not take into account the number vaccinated by the GPs. The uptake by birth cohort include those immunised in schools/colleges and those immunised by GPs. Overall, MenC uptake in schools (based on data from five health boards) is 82%, whereas in the colleges (based on data from three health boards) MenC uptake was 63% (Table 5). However, this latter figure should be treated with caution as data from the health boards with a large college population are not available yet and anecdotal reports suggest that the MenC uptake is low in third level institutions.

Four health boards were able to provide data by birth cohort in the 15-18 year olds and from this it is evident that uptake rates decrease with increasing age. Uptake ranged from 84% in 15 year olds down to as low as 53% for 18 year olds, again supporting the anecdotal reports that uptake rates are low in first year college students when compared with the schools (Table 5). Overall, uptake in 15-18 year olds based on these data is 75% (Table 5). Thus, as of November 2001, the MenC uptake rate in this cohort has improved by 9% from 66% when the health boards previously ran the reports in July/August 2001.

**Table 5.** MenC uptake rates in adolescents 15-18 years of age (Reports run by health boards in November, 2001)

	School & College Registers*		Birth Cohort**				Total - 15-18 yrs
	Schools	Colleges	15 yrs (1985)	16 yrs (1984)	17 yrs (1983)	18 yrs (1982)	
<b>ERHA</b>	79	NA	NA	NA	NA	NA	NA
<b>MHB</b>	77	NA	NA	NA	NA	NA	NA
<b>MWHB</b>	NA	NA	88	85	80	57	77
<b>NEHB</b>	88	88	NA	NA	NA	NA	NA
<b>NWHB</b>	83	48	91	86	70	47	73
<b>SEHB</b>	91	69	NA	NA	NA	NA	NA
<b>SHB</b>	NA	NA	86	85	76	49	73
<b>WHB</b>	NA	NA	72	72	66	58	67
<b>Total (ROI)</b>	<b>82</b>	<b>63</b>	<b>84</b>	<b>82</b>	<b>73</b>	<b>53</b>	<b>75</b>

\*These figures are based on the number of students immunised by the Health Board teams in schools (Junior – Leaving Certificate students) and colleges (First year students) and therefore will not take into account the numbers immunised by the GPs.

\*\* These figures based on number immunised by health board teams and GPs

NA= data currently not available in this format



**Appendix 1. Quarterly Immunisation uptake rates at 12 months by Health Board**

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

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

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

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

<b>Uptake at 12 months ~ MWHB</b>					
	<b>D<sub>3</sub></b>	<b>P<sub>3</sub></b>	<b>T<sub>3</sub></b>	<b>Hib<sub>3</sub></b>	<b>Polio<sub>3</sub></b>
<b>Q3 2000</b>	74	72	74	74	74
<b>Q4 2000</b>	72	71	72	72	72
<b>Q1 2001</b>	77	74	77	74	74
<b>Q2 2001</b>	69	67	69	69	69
<b>Q3 2001</b>	64	62	64	64	63

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

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

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

\* Unable to provide data for this quarter

\* 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**

<b>Uptake at 24 months ~ ERHA</b>						
	<b>D<sub>3</sub></b>	<b>P<sub>3</sub></b>	<b>T<sub>3</sub></b>	<b>Hib<sub>3</sub></b>	<b>Polio<sub>3</sub></b>	<b>MMR<sub>1</sub></b>
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

<b>Uptake at 24 months ~ MHB</b>						
	<b>D<sub>3</sub></b>	<b>P<sub>3</sub></b>	<b>T<sub>3</sub></b>	<b>Hib<sub>3</sub></b>	<b>Polio<sub>3</sub></b>	<b>MMR<sub>1</sub></b>
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

<b>Uptake at 24 months ~ MWHB</b>						
	<b>D<sub>3</sub></b>	<b>P<sub>3</sub></b>	<b>T<sub>3</sub></b>	<b>Hib<sub>3</sub></b>	<b>Polio<sub>3</sub></b>	<b>MMR<sub>1</sub></b>
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

<b>Uptake at 24 months ~ NEHB</b>						
	<b>D<sub>3</sub></b>	<b>P<sub>3</sub></b>	<b>T<sub>3</sub></b>	<b>Hib<sub>3</sub></b>	<b>Polio<sub>3</sub></b>	<b>MMR<sub>1</sub></b>
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

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

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

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

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

\*\* P<sub>3</sub> uptake could not be accurately calculated as DTaP/DT uptake was reported as a combined value