

**Immunisation Uptake Statistics  
for Ireland  
Quarter 2, 2001**



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

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## Introduction

The immunisation uptake statistics for children 12 months and 24 months of age in Quarter 2, 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 01/04/2000 & 30/06/2000 and 01/04/1999 & 30/06/1999.

Uptake statistics on the Meningococcal Group C Conjugate (MenC) vaccine in those targeted by Phase 1 of the MenC campaign (< 5 years and 15-18 years) are also included in this report. The MenC vaccine was introduced in Ireland in October 2000.

NDSC would like to thank the health boards for providing this 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 1, 2001*

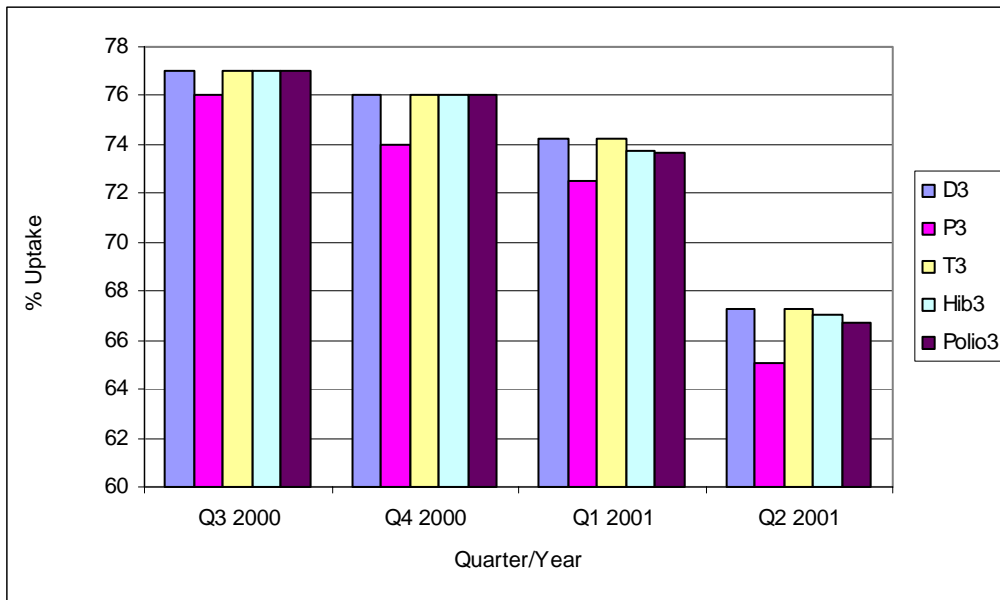
Immunisation uptake rates in children 12 months of age in Quarter 2, 2001 are presented (Table 1). National uptake of D<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> at 12 months was 67%, while P<sub>3</sub> uptake was 65% (based on data from seven health boards). The highest uptake rates at 12 months were reported by the SEHB and the NWHB 82 - 84%, while the lowest rates were in the ERHA, 52-53% (Table 1).

**Table 1. Immunisation uptake rates in children 12 months of age in Quarter 2, 2001**

Health Board	Number in cohort	% Uptake at 12 months				
		D <sub>3</sub>	P <sub>3</sub>	T <sub>3</sub>	Hib <sub>3</sub>	Polio <sub>3</sub>
ERHA	5,380	53	52	53	53	53
MHB	863	66	65	66	66	66
MWHB	1,242	69	67	69	69	69
NEHB	1,410	79	78	79	78	78
NWHB	722	83	**	83	83	82
SEHB	1,491	84	82	84	84	84
SHB	1,977	73	70	73	72	72
WHB	1,256	77	74	77	77	76
<b>Total-Ireland</b>	<b>14,341</b>	<b>67</b>	<b>65</b>	<b>67</b>	<b>67</b>	<b>67</b>

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

In Quarter 2, 2001 immunisation uptake rates at 12 months for D<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> in Ireland dropped by an alarming 7% to 67% compared to the previous quarter (Quarter 1, 2001 - 74%) and by 9% compared to Quarter 4, 2000 (76%). A steady decline in uptake rates at 12 months have been observed since NDSC commenced collating this data in Quarter 3, 2000. However, the most dramatic decline has been observed in this quarter – Quarter 2, 2001 (Figure 1).



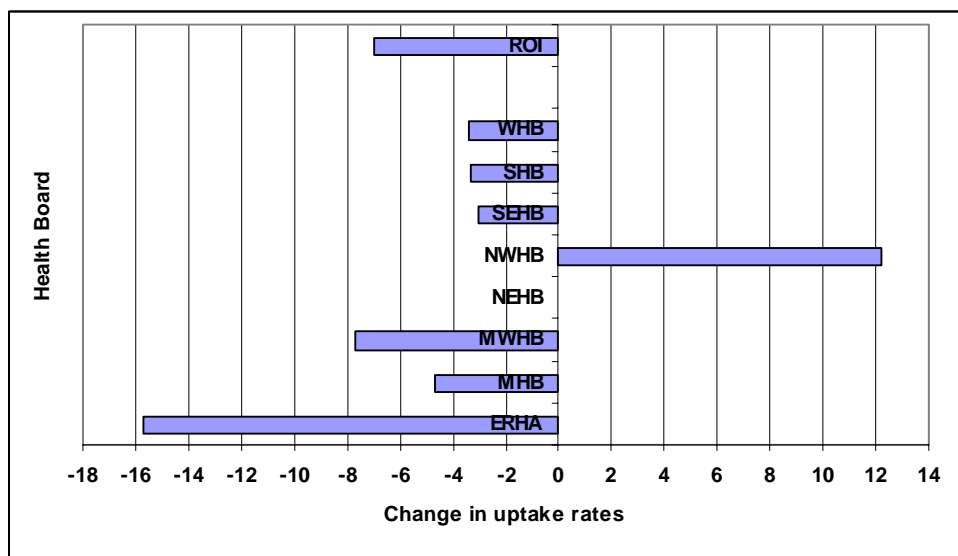
**Figure 1.** Quarterly immunisation uptake rates at 12 months in Ireland

The greatest decrease in immunisation uptake rates at 12 months in Quarter 2, 2001 when compared with the previous quarter was seen in the ERHA (16% reduction), followed by the MWHB with an 8% reduction in uptake rates. The NWHB was an exception, with uptake rates increasing by an impressive 12% in Quarter 2, 2001 when compared to the previous quarter.

This increase has been attributed to a number of factors:

1. NWHB undertook a major clean up of their immunisation register and any “system error generating duplicates” were deleted from the database.
2. NWHB encouraged GPs to forward any outstanding returns on the Quarter 2 2000 (12 months) and 1999 (24 months) cohorts, because prior to this returns had not been arriving in a timely fashion from the GPs.
3. Public Health Nurses have been recruited by NWHB to liaise with GPs and Practice Nurses and provide information and support re immunisation issues.

It was not possible to compare uptake rates at 12 months for the NEHB between the two quarters, as the NEHB was unable to provide data for this cohort in Quarter 1, 2001.



**Figure 2.** Changes in uptake rates at 12 months in Quarter 2, 2001 in each health board when compared with the previous quarter

### *Immunisation uptake at 24 months in Quarter 2, 2001*

Immunisation uptake rates in children 24 months of age in Quarter 2, 2001 are presented (Table 2). National uptake rates ranged from 86% for D<sub>3</sub> and T<sub>3</sub>, 85% for Hib<sub>3</sub> and Polio<sub>3</sub>, 83% for P<sub>3</sub> and down to 75% for MMR<sub>1</sub>. The target 95% rate was not reached at either national or health board level.

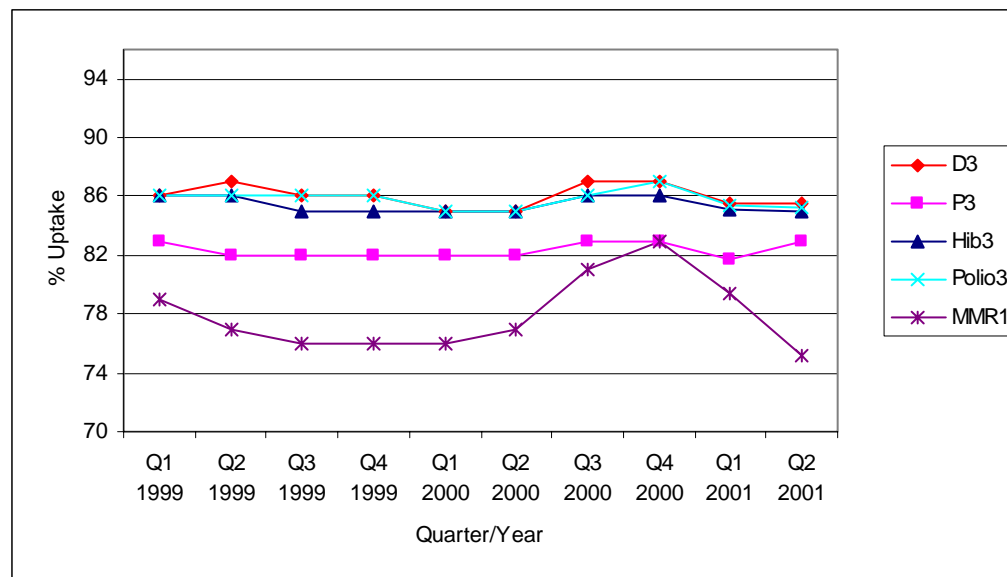
D<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> uptake rates ranged from 90-91% in the NEHB and the NWHB down to 82% in the ERHA. P<sub>3</sub> uptake ranged from 90% in the NWHB to 80% in the ERHA and the MHB MMR<sub>1</sub> uptake ranged from 88% in the SEHB down to 67% in the ERHA.

**Table 2. Immunisation uptake rates in children 24 months of age in Quarter 2, 2001**

% Uptake at 24 months Cohort born 01/04/1999 – 30/06/1999							
Health Board	Number in cohort	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	5,259	82	80	82	82	82	67
MHB	857	83	80	83	83	83	75
MWHB	1,285	86	84	86	84	84	76
NEHB	1,329	91	90	91	91	90	81
NWHB	796	91	**	91	91	91	83
SEHB	1,546	89	85	89	88	89	88
SHB	2,015	85	82	85	85	85	77
WHB	1,255	87	85	87	87	87	78
<b>Total-Ireland</b>	<b>14,342</b>	<b>86</b>	<b>83</b>	<b>86</b>	<b>85</b>	<b>85</b>	<b>75</b>

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

Overall, immunisation uptake rates at 24 months in Ireland remained unchanged in Quarter 1, 2001 for D<sub>3</sub>, T<sub>3</sub>, Hib<sub>3</sub> and Polio<sub>3</sub> compared with the previous quarter, while P<sub>3</sub> uptake rates increased by 1% (Figure 3). MMR<sub>1</sub> uptake at 24 months dropped by a further 4% to 75% in Quarter 2, 2001 from 79% in the previous quarter (Figure 3 and Table 3). MMR<sub>1</sub> uptake of 75% in this quarter is the lowest rate recorded since the collation of the quarterly data commenced in 1999 (Figure 3 and Table 3).



**Figure 3. Quarterly immunisation uptake rates at 24 months in Ireland**

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

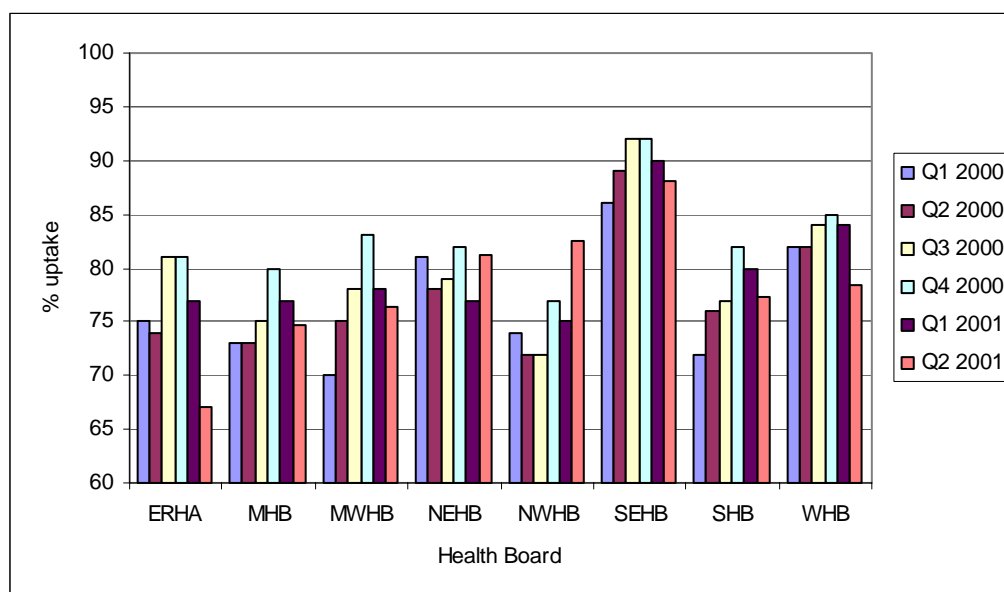
	<b>D<sub>3</sub></b>	<b>P<sub>3</sub></b>	<b>T<sub>3</sub></b>	<b>Hib<sub>3</sub></b>	<b>Polio<sub>3</sub></b>	<b>MMR<sub>1</sub></b>
<b>Q1 1999</b>	86	83	86	86	86	79
<b>Q2 1999</b>	87	82	87	86	86	77
<b>Q3 1999</b>	86	82	86	85	86	76
<b>Q4 1999</b>	86	82	86	85	86	76
<b>Q1 2000</b>	85	82	85	85	85	76
<b>Q2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

Note: NEHB and NWHB provided DTaP/DT uptake as combined value. Therefore, since not possible to accurately determine P<sub>3</sub> uptake for these health boards, these were excluded from P<sub>3</sub> analysis

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

In Quarter 2, 2001 MMR<sub>1</sub> uptake at 24 months dropped in all health boards apart from the NWHB (Figure 4). The 8% increase seen in the NWHB may be attributed to factors already outlined (see Page 3).

MMR<sub>1</sub> uptake dropped by 10% in the ERHA and by 6% in the WHB in Quarter 2, 2001 when compared with the previous quarter (Figure 4).



**Figure 4. Quarterly MMR<sub>1</sub> uptake rates at 24 months by health board**

The quarterly immunisation uptake statistics by health board are presented in Appendix 1.

## *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. In Table 4 the MenC uptake rates in those that were 1-4 years of age in 2000 are presented. Overall, based on information from the eight health boards MenC uptake in July/August 2001 was 65% in this cohort, ranging from 77% in the NWHB down to 50% in the MHB. Uptake was highest in the one-year old cohort~ 68%, but with increasing age uptake declined and was only 61% in the four-year old cohort.

At present figures on MenC uptake in children that were less than 1 year of age in 2000 have not been analysed. This was 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 provided data on those who had received one dose or more. 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 Jul/Aug, 2001)

Health Board	Cohort born in				Total*
	1999 (1 yr)	1998 (2yrs)	1997 (3 yrs)	1996 (yrs)	
<b>ERHA</b>	60	55	53	52	55
<b>MHB</b>	48	54	50	48	50
<b>MWHB</b>	77	75	75	70	74
<b>NEHB</b>	78	76	75	66	74
<b>NWHB</b>	77	77	76	77	77
<b>SEHB</b>	72	76	78	62	72
<b>SHB</b>	76	74	73	72	74
<b>WHB</b>	70	68	67	67	68
<b>Total (ROI)</b>	<b>68</b>	<b>66</b>	<b>65</b>	<b>61</b>	<b>65</b>

\* Cohort born between 1996-1999 inclusive i.e. aged 1-4 years in 2000

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

In relation to MenC uptake data in the 15-18 year old cohort, health boards were given the choice of providing data 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. Overall, MenC uptake in schools (based on data from seven health boards) is 82%, whereas in the colleges (based on data from four health boards) MenC uptake was 66% (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 has been low in third level institutions.

Three 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 76% in 15 year olds down to as low as 48% for 18 year olds, again supporting the anecdotal reports that uptake rates low in first year college students when compared with the schools (Table 5).

**Table 5.** MenC uptake rates in adolescents 15-18 years of age (Reports run by health boards in Jul/Aug, 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	67	NA	NA	NA	NA	NA
<b>MWHB</b>	77	NA	86	83	79	55	75
<b>NEHB</b>	88	88	NA	NA	NA	NA	NA
<b>NWHB</b>	84	48	NA	NA	NA	NA	NA
<b>SEHB</b>	89	74	NA	NA	NA	NA	NA
<b>SHB</b>	85	NA	77	75	67	44	65
<b>WHB</b>	NA	NA	67	67	62	48	61
<b>Total (ROI)</b>	<b>82</b>	<b>66</b>	<b>76</b>	<b>75</b>	<b>69</b>	<b>48</b>	<b>66</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.

NA= data currently not available in this format



**Appendix 1. 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>
<b>Q1 1999</b>	86	82	86	85	85	78
<b>Q2 1999</b>	85	81	85	84	85	77
<b>Q3 1999</b>	85	81	85	84	85	76
<b>Q4 1999</b>	84	80	84	84	84	76
<b>Q1 2000</b>	84	81	84	84	84	75
<b>Q2 2000</b>	84	81	84	84	84	74
<b>Q3 2000</b>	85	82	85	84	85	81
<b>Q4 2000</b>	85	82	85	84	84	81
<b>Q1 2001</b>	82	80	82	81	82	77
<b>Q2 2001</b>	82	80	82	82	82	67

<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>
<b>Q1 1999</b>	83	77	83	82	82	72
<b>Q2 1999</b>	85	80	85	83	84	72
<b>Q3 1999</b>	81	77	81	80	81	68
<b>Q4 1999</b>	81	77	81	80	81	69
<b>Q1 2000</b>	83	78	83	83	84	73
<b>Q2 2000</b>	80	76	80	80	80	73
<b>Q3 2000</b>	81	77	81	80	80	75
<b>Q4 2000</b>	83	79	83	83	83	80
<b>Q1 2001</b>	82	77	82	81	81	77
<b>Q2 2001</b>	83	80	83	83	83	75

<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>
<b>Q1 1999</b>	82	79	82	81	82	74
<b>Q2 1999</b>	81	79	81	80	81	72
<b>Q3 1999</b>	79	77	79	79	79	73
<b>Q4 1999</b>	80	78	80	80	80	72
<b>Q1 2000</b>	76	73	76	76	76	70
<b>Q2 2000</b>	80	77	80	80	80	75
<b>Q3 2000</b>	83	80	83	82	83	78
<b>Q4 2000</b>	83	80	83	83	82	83
<b>Q1 2001</b>	82	80	82	81	82	78
<b>Q2 2001</b>	86	84	86	84	84	76

<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>
<b>Q1 1999</b>	84	**	84	84	84	80
<b>Q2 1999</b>	94	**	94	94	94	78
<b>Q3 1999</b>	95	**	95	95	95	78
<b>Q4 1999</b>	94	**	94	94	94	78
<b>Q1 2000</b>	91	**	91	91	91	81
<b>Q2 2000</b>	89	**	89	89	89	78
<b>Q3 2000</b>	95	**	95	95	95	79
<b>Q4 2000</b>	97	**	97	97	97	82
<b>Q1 2001</b>	94	**	94	94	94	77
<b>Q2 2001</b>	91	90	91	91	90	81

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

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

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

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

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