

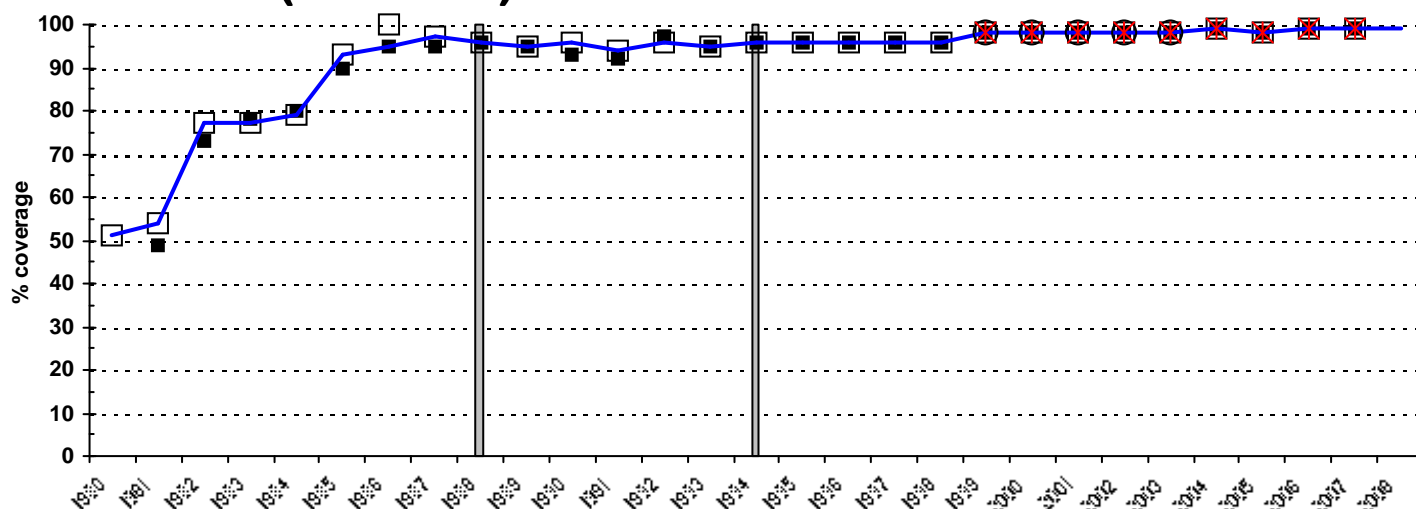
**WHO/UNICEF
Review of National Immunization Coverage
1980-2008**

Oman

July, 2009

Oman

BCG (1980-2008)



Description of trend

Estimates are based on nationally reported data, confirmed by survey.

Data presented in chart

Year	WHO/ UNICEF estimate (%)	Reported to:*		Government official estimate (%)	Reported doses administered (%)**	Survey data (%)***	
		WHO (%)	UNICEF (%)			Survey 12-23 months	Survey <12 months
1980	51	51					
1981	54	54	49				
1982	77	77	73				
1983	77	77	78				
1984	79	79	80				
1985	93	93	90				
1986	95	100	95				
1987	97	97	95				
1988	96	96	96			100	
1989	95	95	95				
1990	96	96	93				
1991	94	94	92				
1992	96	96	97				
1993	95	95	95				
1994	96	96	96			100	
1995	96	96	96				
1996	96	96	96				
1997	96	96	96				
1998	96	96	96				
1999	98	98	98	98	98		
2000	98	98	98	98	98		
2001	98	98	98	98	98		
2002	98	98	98	98	98		
2003	98	98	98	98	98		
2004	99	99	99		99		
2005	98	98	98		98		
2006	99	99	99		99		
2007	99	99	99		99		
2008	99	104	104		104		

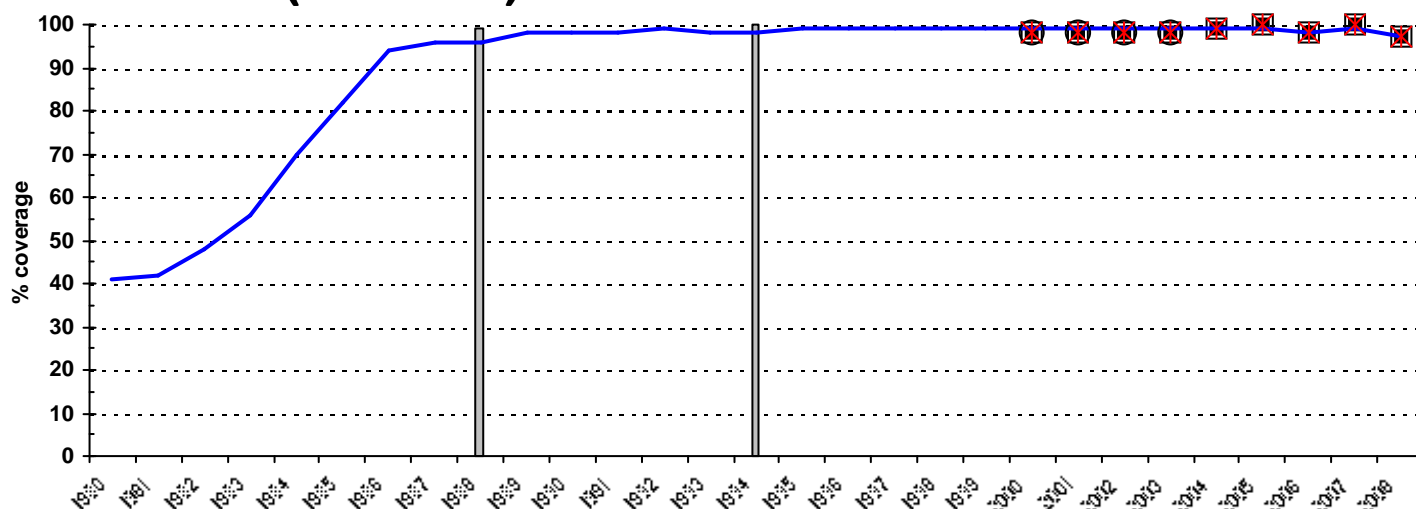
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**Coverage based on registration of doses administered by health care providers.

***In case more than one survey was implemented in a certain year the highest value is presented. Details of all data are presented in the second section of this report.

Oman

DTP1 (1980-2008)



Description of trend

WHO and UNICEF began requesting data on DTP1 coverage in 2001 and have received national reports reflecting DTP1 coverage from 2001 onward. The estimates are derived from the WHO/UNICEF estimates of DTP3 and the relationship between the levels of DTP3 coverage and drop-out between DTP1 and DTP3. This relationship results from an analysis of 282 surveys conducted in 101 countries which were published between 1980 and 2004.

Data presented in chart

Year	WHO/ UNICEF estimate (%)	Reported to:*		Government official estimate (%)	Reported doses administered (%)**	Survey data (%)***	
		WHO (%)	UNICEF (%)			Survey 12-23 months	Survey <12 months
1980	41						
1981	42						
1982	48						
1983	56						
1984	70						
1985	82						
1986	94						
1987	96						
1988	96					99	
1989	98						
1990	98						
1991	98						
1992	99						
1993	98						
1994	98					100	
1995	99						
1996	99						
1997	99						
1998	99						
1999	99						
2000	99	98	98	98	98		
2001	99	98	98	98	98		
2002	99	98	98	98	98		
2003	99	98	98	98	98		
2004	99	99	99		99		
2005	99	100	100		100		
2006	98	98	98		98		
2007	99	100	100		100		
2008	97	97	97		97		

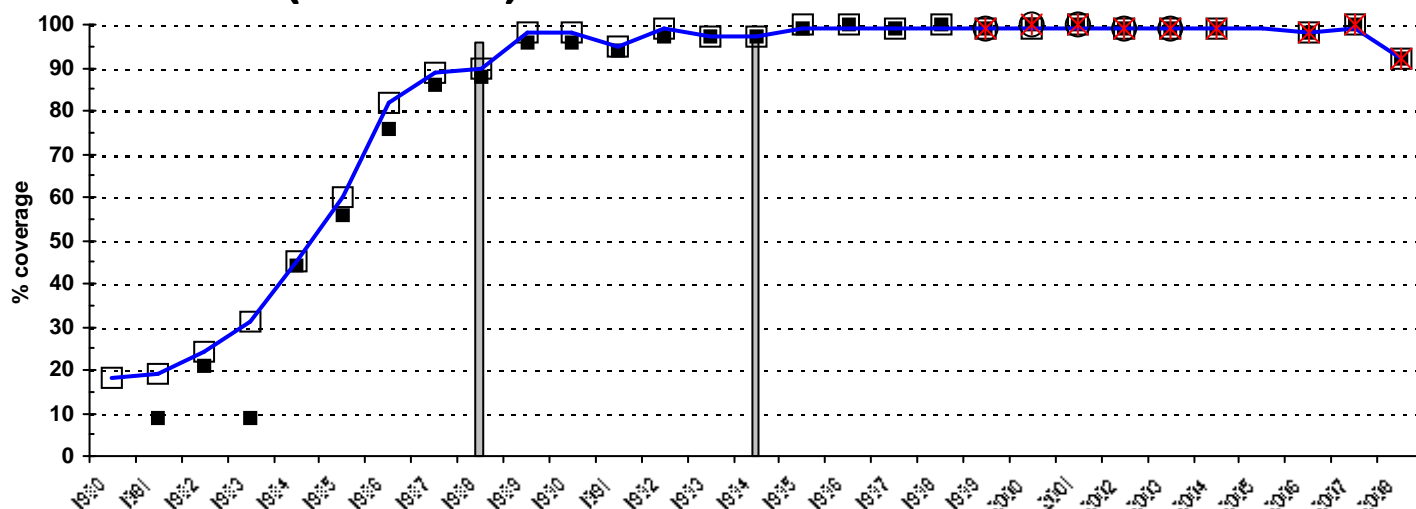
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Oman

DTP3 (1980-2008)



Description of trend

Estimates are based on nationally reported data, confirmed by survey. Coverage for DTP3 is higher than for BCG because of the large immigrant population; children not born in Oman would still get their DTP3 vaccinations through the child health program, but would have missed the BCG vaccination which is given through the maternal health program.

Data presented in chart

Year	WHO/ UNICEF estimate (%)	Reported to:*		Government official estimate (%)	Reported doses administered (%)**	Survey data (%)***	
		WHO (%)	UNICEF (%)			Survey 12-23 months	Survey <12 months
	—	□	■	○	✖	▮	+
1980	18	18					
1981	19	19	9				
1982	24	24	21				
1983	31	31	9				
1984	45	45	44				
1985	60	60	56				
1986	82	82	76				
1987	89	89	86				
1988	90	90	88			96	
1989	98	98	96				
1990	98	98	96				
1991	95	95	94				
1992	99	99	97				
1993	97	97	97				
1994	97	97	97			98	
1995	99	100	99				
1996	99	100	100				
1997	99	99	99				
1998	99	100	100				
1999	99	99	99	99	99		
2000	99	99	100	100	100		
2001	99	100	100	100	100		
2002	99	99	99	99	99		
2003	99	99	99	99	99		
2004	99	99	99		99		
2005	99	101	101		101		
2006	98	98	98		98		
2007	99	100	100		100		
2008	92	92	92		92		

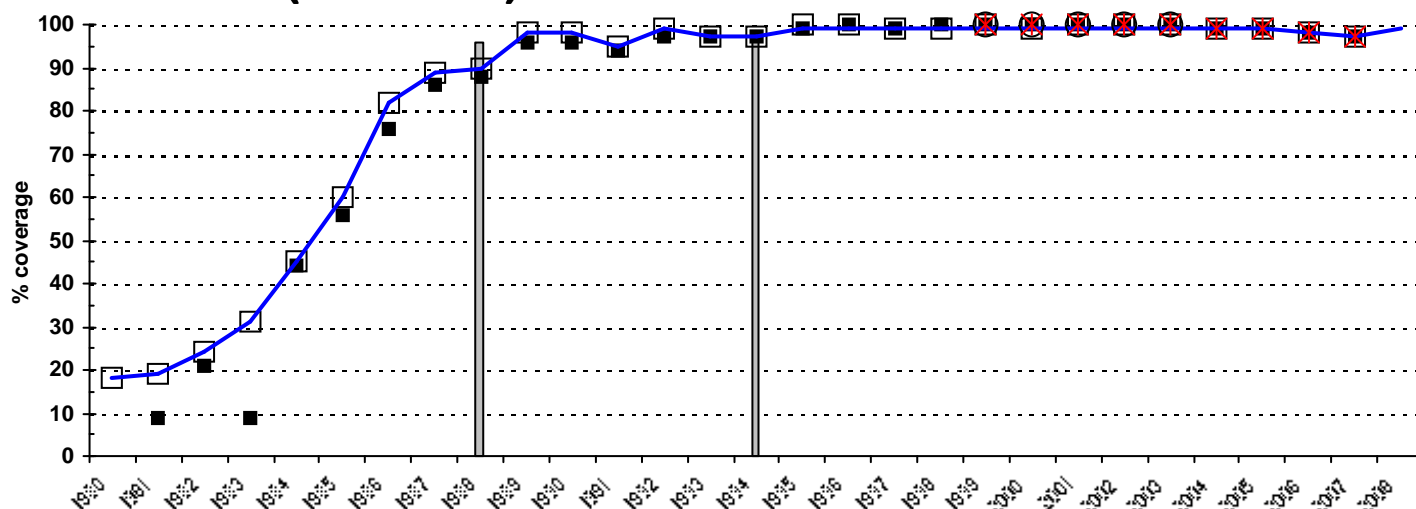
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Oman

Pol3 (1980-2008)



Description of trend

Estimates are based on nationally reported data, confirmed by survey. Coverage for Pol3 is higher than for BCG because of the large immigrant population; children not born in Oman would still get their Pol3 vaccinations through the child health program, but would have missed the BCG vaccination which is given through the maternal health program.

Data presented in chart

Year	WHO/ UNICEF estimate (%)	Reported to:*		Government official estimate (%)	Reported doses administered (%)**	Survey data (%)***	
		WHO (%)	UNICEF (%)			Survey 12-23 months	Survey <12 months
1980	18	18					
1981	19	19	9				
1982	24	24	21				
1983	31	31	9				
1984	45	45	44				
1985	60	60	56				
1986	82	82	76				
1987	89	89	86				
1988	90	90	88			96	
1989	98	98	96				
1990	98	98	96				
1991	95	95	94				
1992	99	99	97				
1993	97	97	97				
1994	97	97	97			98	
1995	99	100	99				
1996	99	100	100				
1997	99	99	99				
1998	99	99	100				
1999	99	100	100	100	100		
2000	99	99	100	100	100		
2001	99	100	100	100	100		
2002	99	100	100	100	100		
2003	99	100	100	100	100		
2004	99	99	99		99		
2005	99	99	99		99		
2006	98	98	98		98		
2007	97	97	97		97		
2008	99	109	109		109		

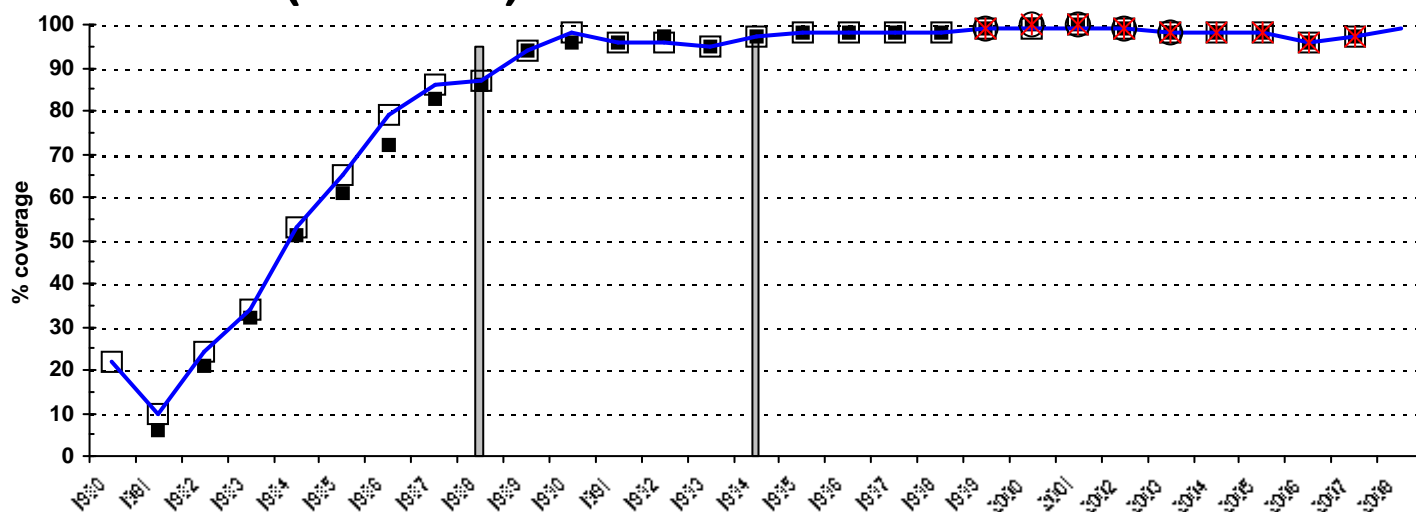
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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Oman

MCV (1980-2008)



Description of trend

Estimates are based on nationally reported data, confirmed by survey.

Data presented in chart

Year	WHO/ UNICEF estimate (%) —	Reported to:*		Government official estimate (%) ○	Reported doses administered (%)** ✕	Survey data (%)***	
		WHO (%) □	UNICEF (%) ■			Survey 12-23 months 	Survey <12 months +
1980	22	22					
1981	10	10	6				
1982	24	24	21				
1983	34	34	32				
1984	53	53	51				
1985	65	65	61				
1986	79	79	72				
1987	86	86	83				
1988	87	87	86			95	
1989	94	94	94				
1990	98	98	96				
1991	96	96	96				
1992	96	96	97				
1993	95	95	95				
1994	97	97	97			98	
1995	98	98	98				
1996	98	98	98				
1997	98	98	98				
1998	98	98	98				
1999	99	99	99	99	99		
2000	99	99	100	100	100		
2001	99	100	100	100	100		
2002	99	99	99	99	99		
2003	98	98	98	98	98		
2004	98	98	98		98		
2005	98	98	98		98		
2006	96	96	96		96		
2007	97	97	97		97		
2008	99	102	102		102		

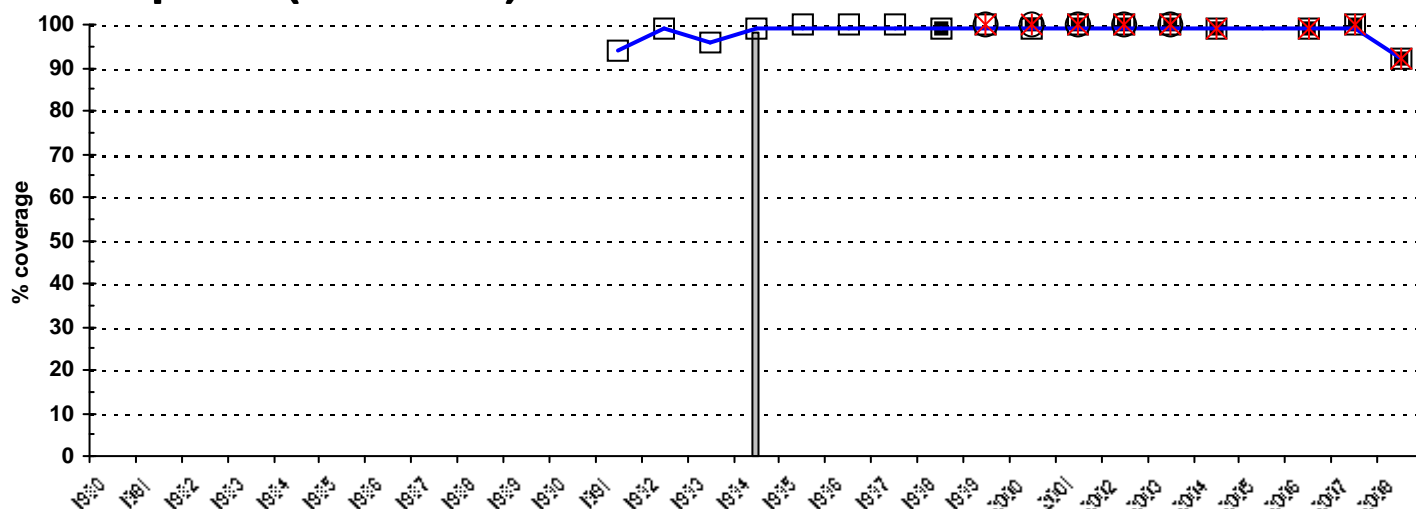
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**Coverage based on registration of doses administered by health care providers.

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Oman

HepB3 (1980-2008)



Description of trend

The Hepatitis B vaccine was introduced in 1990. Estimates are based on nationally reported data, confirmed by survey.

Data presented in chart

Year	WHO/ UNICEF estimate (%)	Reported to:*		Government official estimate (%)	Reported doses administered (%)**	Survey data (%)***	
		WHO (%)	UNICEF (%)			Survey 12-23 months	Survey <12 months
1980							
1981							
1982							
1983							
1984							
1985							
1986							
1987							
1988							
1989							
1990							
1991	94	94					
1992	99	99					
1993	96	96					
1994	99	99				98	
1995	99	100					
1996	99	100					
1997	99	100					
1998	99	99	99				
1999	99	100		100	100		
2000	99	99	100	100	100		
2001	99	100	100	100	100		
2002	99	100	100	100	100		
2003	99	100	100	100	100		
2004	99	99	99		99		
2005	99	102	102		102		
2006	99	99	99		99		
2007	99	100	100		100		
2008	92	92	92		92		

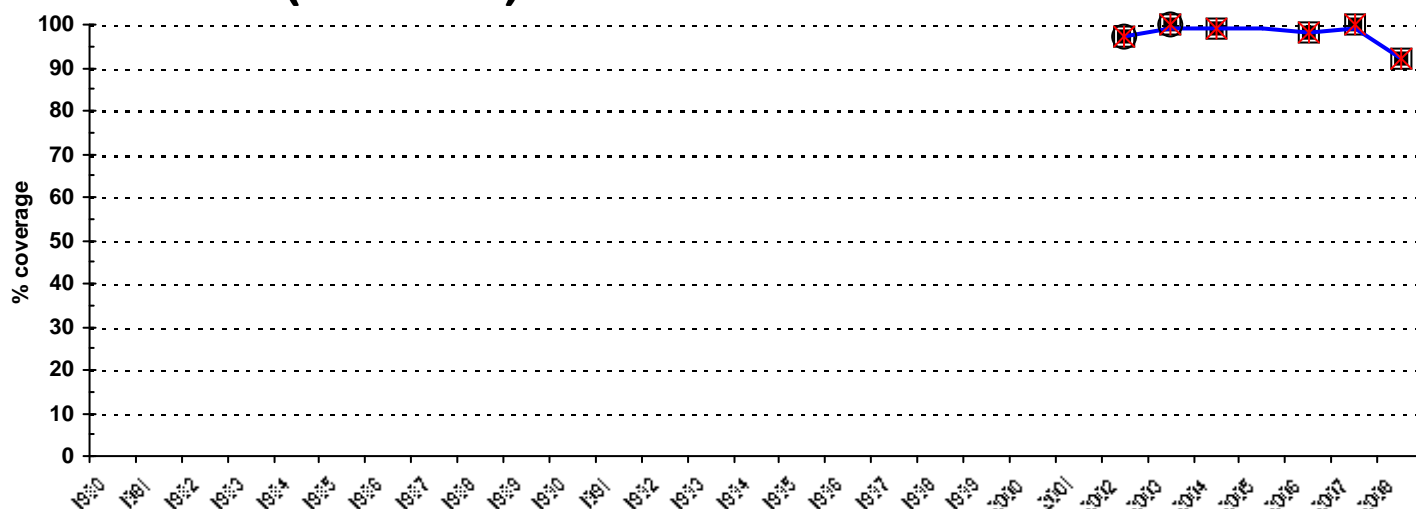
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**Coverage based on registration of doses administered by health care providers.

***In case more than one survey was implemented in a certain year the highest value is presented. Details of all data are presented in the second section of this report.

Oman

Hib3 (1980-2008)



Description of trend

Hib vaccine was introduced in 2001. Estimates are based on nationally reported data.

Data presented in chart

Year	WHO/ UNICEF estimate (%)	Reported to:*		Government official estimate (%)	Reported doses administered (%)**	Survey data (%)***	
		WHO (%)	UNICEF (%)			Survey 12-23 months	Survey <12 months
1980							
1981							
1982							
1983							
1984							
1985							
1986							
1987							
1988							
1989							
1990							
1991							
1992							
1993							
1994							
1995							
1996							
1997							
1998							
1999							
2000							
2001							
2002	97	97	97	97	97		
2003	99	100	100	100	100		
2004	99	99	99		99		
2005	99	102	102		102		
2006	98	98	98		98		
2007	99	100	100		100		
2008	92	92	92		92		

*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**Coverage based on registration of doses administered by health care providers.

***In case more than one survey was implemented in a certain year the highest value is presented. Details of all data are presented in the second section of this report.

Oman

Details Survey Data

Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
1994 Oman Family Health Survey 1995, 2000								
BCG	Card or History	99.7		12-23 m	1818	95.4	1995	
DTP1	Card or History	99.5		12-23 m	1818	95.4	1995	
DTP3	Card or History	98.1		12-23 m	1818	95.4	1995	
Pol3	Card or History	98.1		12-23 m	1818	95.4	1995	
MCV	Card or History	98.2		12-23 m	1818	95.4	1995	
HepB	Card or History	97.8		12-23 m	1818	95.4	1995	

1988 MOH, reported in response to draft estimates, June 2001.

BCG	Card	99.7		12-23 m		88.1	1989	
DTP1	Card	99.1		12-23 m		88.1	1989	
DTP3	Card	96		12-23 m		88.1	1989	
Pol3	Card	96		12-23 m		88.1	1989	
MCV	Card	95.1		12-23 m		88.1	1989	

Oman

WHO/UNICEF Estimates of Protection at Birth (PAB) against tetanus

In countries where tetanus is recommended for girls and women coverage is usually reported as "TT2+", i.e. the proportion of (pregnant) women who have received their second or superior TT dose in a given year. TT2 + coverage, however, can under-represent the actual proportion of births that are protected against tetanus as it does not include women who have previously received protective doses, women who received one dose without documentation of previous doses, and women who received doses in TT (or Td) supplemental immunization activities (SIA). In addition, girls who have received DTP in their childhood and are entering childbearing age, may be protected with TT booster doses.

WHO and UNICEF have developed a model that takes into account the above scenarios, and calculates the proportion of births in a given year that can be considered as having been protected against tetanus - "Protection at Birth".

In this model, annual cohorts of women are followed from infancy through their life. A proportion receive DTP in infancy (estimated based on the WHO-UNICEF estimates of DTP3 coverage). In addition some of these women also receive TT through routine services when they are pregnant and may also receive TT during SIAs. The model also adjusts reported data, taking into account coverage patterns in other years, and/or results available through surveys. The duration of protection is then calculated, based on WHO estimates of the duration of protection by doses ever received. The proportion of births that are protected against tetanus as a result of maternal immunization reflects the tetanus immunization received by the mother throughout her life rather than simply the TT immunizations received during the current pregnancy.

¹ This model is described in: Griffiths U., Wolfson L., Quddus A., Younus M., Hafiz R.. Incremental cost-effectiveness of supplementary immunization activities to prevent neo-natal tetanus in Pakistan. Bulletin of the World Health Organization 2004; 82:643-651.

Oman

Year	PAB coverage estimate (%)
1980	35
1981	32
1982	29
1983	31
1984	37
1985	82
1986	42
1987	65
1988	85
1989	89
1990	93
1991	87
1992	89
1993	93
1994	86
1995	80
1996	78
1997	94
1998	94
1999	94
2000	94
2001	94
2002	94
2003	94
2004	94
2005	94
2006	94
2007	95
2008	91