

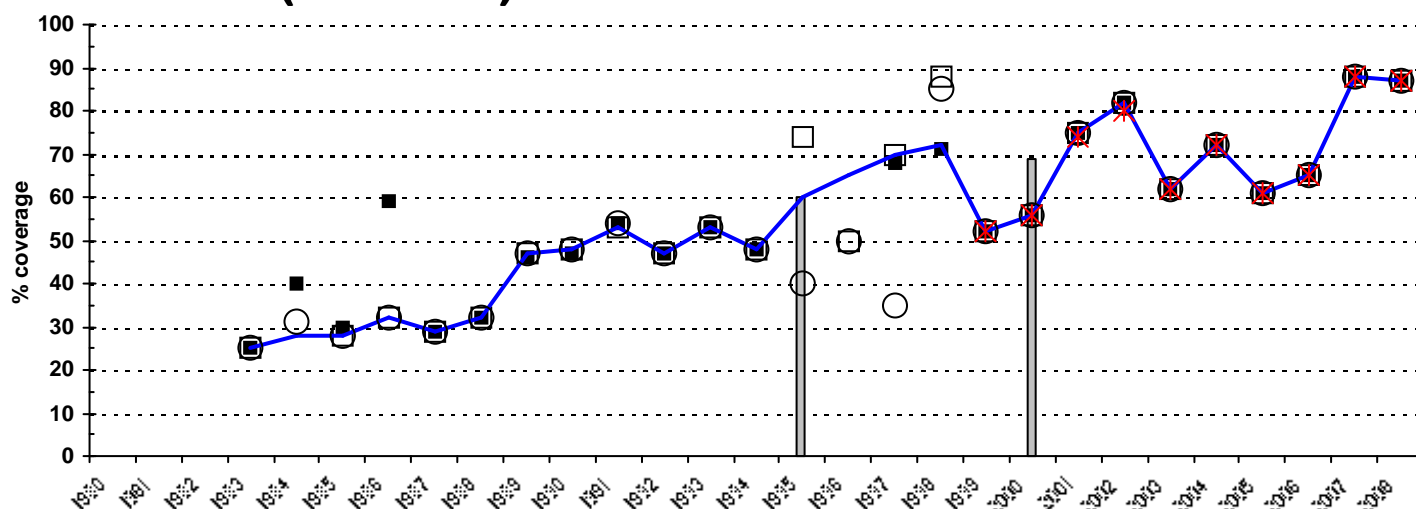
**WHO/UNICEF
Review of National Immunization Coverage
1980-2008**

Angola

July, 2009

Angola

BCG (1980-2008)



Description of trend

Estimated immunization coverage levels are based on reported data. The MICS 1996 reports lower coverage than officially reported data for that year (60% vs. around 75%). The resurgence of the war in December 1998 weakened the Ministry of Health's capacity to carry out immunization activities. In 1999 only 18 out of 164 districts reported. Since then there has been an improvement in the number of districts reporting (75% in 2003). The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach and mobile teams during the second semester of 2007. WHO & UNICEF recommend a high quality survey to confirm high levels of coverage.

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	25	25	25	25			
1984	28		40	31			
1985	28	28	30	28			
1986	32	32	59	32			
1987	29	29	29	29			
1988	32	32	32	32			
1989	47	47	46	47			
1990	48	48	47	48			
1991	53	53	54	54			
1992	47	47	47	47			
1993	53	53	53	53			
1994	48	48	48	48			
1995	60	74		40		60	
1996	65	50		50			
1997	70	70	68	35			
1998	72	88	71	85			
1999	52	52	52	52	52		
2000	56	56	56	56	56	69	
2001	75	75	75	75	74		
2002	82	82	82	82	80		
2003	62	62	62	62	62		
2004	72	72	72	72	72		
2005	61	61	61	61	61		
2006	65	65	65	65	65		
2007	88	88	88	88	88		
2008	87	87	87	87	87		

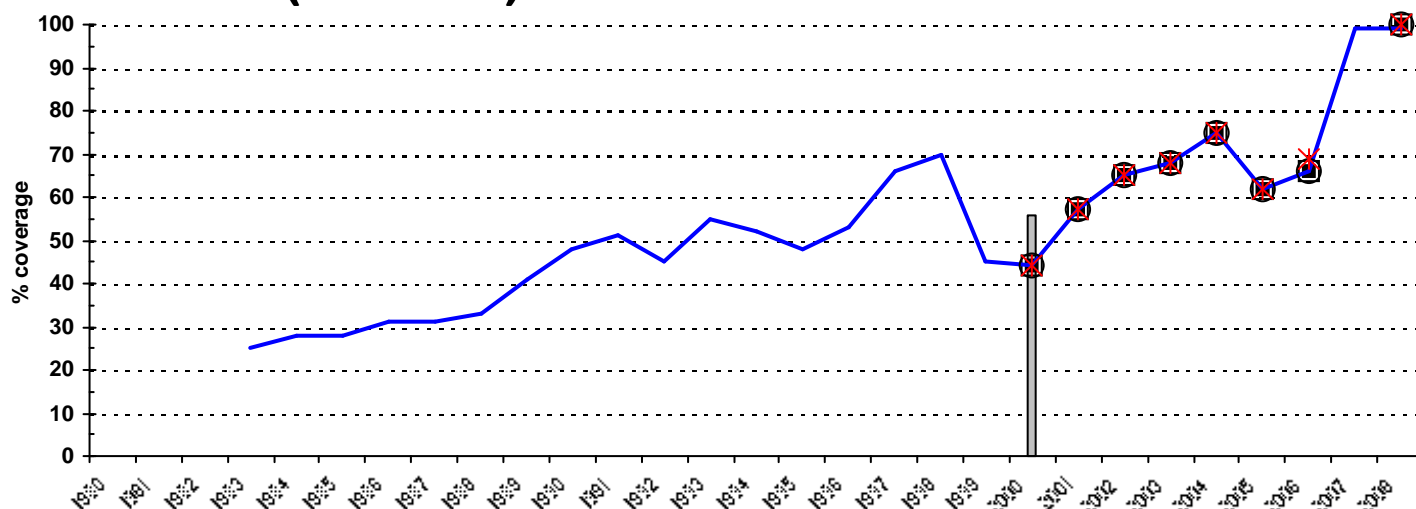
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Angola

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 DTP1 estimates from 2000 onward are based on these reports. For years prior to 2000 the estimates are derived from the WHO UNICEF estimates of DTP3 and the relationship between the levels of DTP3 coverage and the dropout between DTP1 and DTP3. This relationship results from an analysis of 282 surveys conducted in 101 countries which were published between 1980 and 2004. Coverage since 2000 is based on national reports. DTP-HepB-Hib pentavalent vaccine was introduced nationally in 2007. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach and mobile teams during the second semester of 2007. WHO & UNICEF recommend a high quality survey to confirm high levels of coverage

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	25						
1984	28						
1985	28						
1986	31						
1987	31						
1988	33						
1989	41						
1990	48						
1991	51						
1992	45						
1993	55						
1994	52						
1995	48						
1996	53						
1997	66						
1998	70						
1999	45						
2000	44	44	44	44	44	56	
2001	57	57	57	57	57		
2002	65	65	65	65	65		
2003	68	68	68	68	68		
2004	75	75	75	75	75		
2005	62	62	62	62	62		
2006	66	66	66	66	69		
2007	99	111	111	111	111		
2008	99	100	100	100	100		

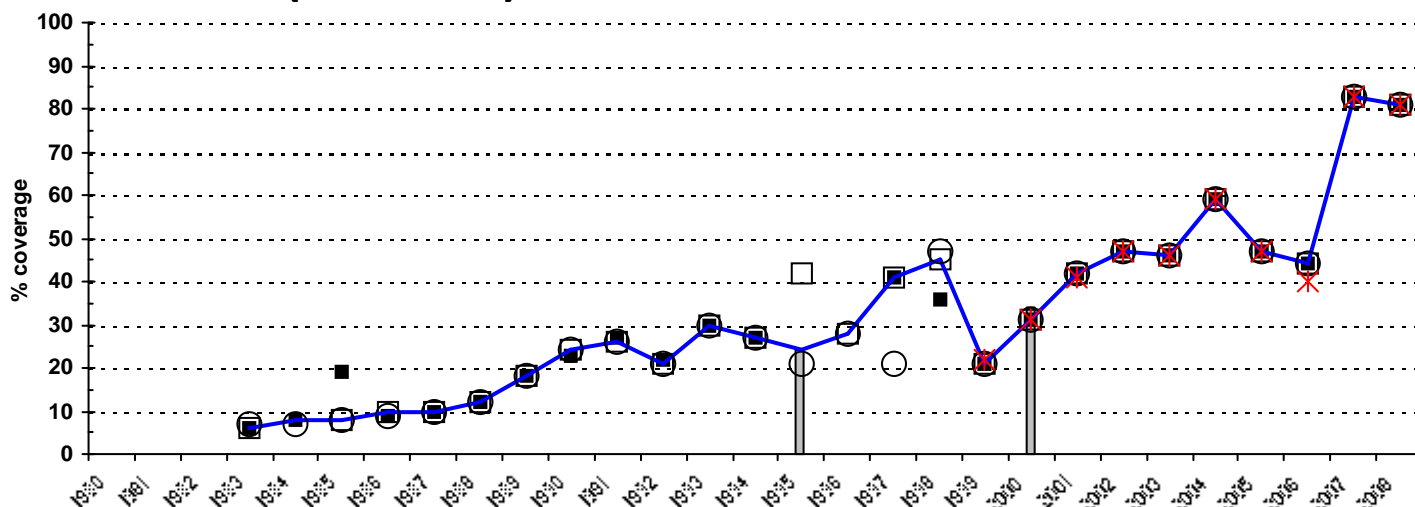
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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Angola

DTP3 (1980-2008)



Description of trend

Estimated immunization coverage levels are based on reported data. The MICS 1996 reports lower coverage than administrative data for the (24% vs. 42%). The resurgence of the war in December 1998 weakened the Ministry of Health's capacity to carry out immunization activities. 1999 only 18 out of 164 districts reported. Since then there has been an improvement in the number of districts reporting (75% in 2003). DTP HepB-Hib pentavalent vaccine was introduced nationally in 2007. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach and mobile teams during the second semester of 2007. WHO UNICEF recommend a high quality survey to confirm high levels of coverage

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	6	6	6	7			
1984	8	8	8	7			
1985	8	8	19	8			
1986	10	10	9	9			
1987	10	10	10	10			
1988	12	12	12	12			
1989	18	18	18	18			
1990	24	24	23	24			
1991	26	26	27	26			
1992	21	21	22	21			
1993	30	30	30	30			
1994	27	27	27	27			
1995	24	42		21		24	
1996	28	28		28			
1997	41	41	41	21			
1998	45	45	36	47			
1999	21	21	21	21	22		
2000	31	31	31	31	31	34	
2001	42	42	42	42	41		
2002	47	47	47	47	47		
2003	46	46	46	46	46		
2004	59	59	59	59	59		
2005	47	47	47	47	47		
2006	44	44	44	44	40		
2007	83	83	83	83	83		
2008	81	81	81	81	81		

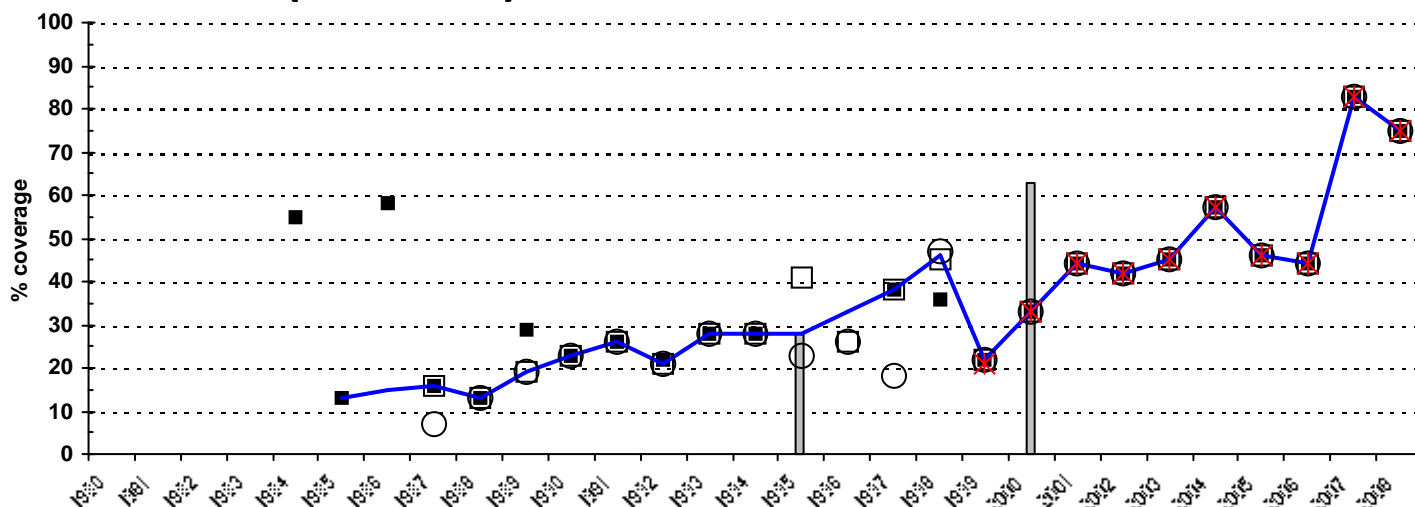
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Angola

Pol3 (1980-2008)



Description of trend

Estimated immunization coverage levels are based on reported data. The MICS 1996 reports lower coverage than officially reported data in 1997. The resurgence of the war in December 1998 weakened the Ministry of Health's capacity to carry out immunization activities. In 1999 only 18 out of 164 districts reported. Although not all parts of the country were accessible, three rounds of NID's have been performed raising levels of protection. Sub-national surveys report provincial coverage ranging between 29.5% to greater than 75%. In 1999 only 18 out of 164 districts reported. Since then there has been an improvement in the number of districts reporting (75% in 2003). The increase in 2007 is the result of intensive efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach and mobile teams during the second semester of 2007. WHO & UNICEF recommend a high quality survey to confirm high levels of coverage

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			55				
1985	13		13				
1986	15		58				
1987	16	16	16	7			
1988	13	13	13	13			
1989	19	19	29	19			
1990	23	23	23	23			
1991	26	26	26	26			
1992	21	21	22	21			
1993	28	28	28	28			
1994	28	28	28	28			
1995	28	41		23		28	
1996	33	26		26			
1997	38	38	38	18			
1998	46	45	36	47			
1999	22	22	22	22	21		
2000	33	33	33	33	33	63	
2001	44	44	44	44	44		
2002	42	42	42	42	42		
2003	45	45	45	45	45		
2004	57	57	57	57	57		
2005	46	46	46	46	46		
2006	44	44	44	44	44		
2007	83	83	83	83	83		
2008	75	75	75	75	75		

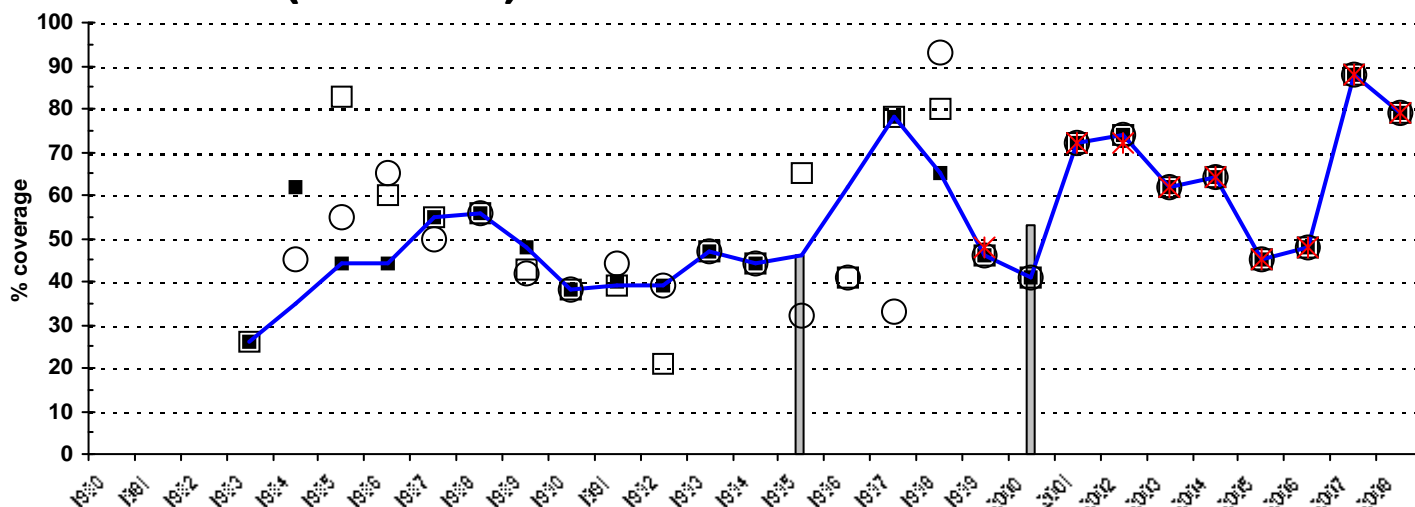
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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

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Angola

MCV (1980-2008)



Description of trend

Estimated immunization coverage levels are based on reported data. An increase in coverage to 80% in 1998 can be observed - most likely to outreach campaigns following a measles outbreak. The resurgence of the war in December 1998 weakened the Ministry of Health's capacity to carry out immunization activities. In 1999 only 18 out of 164 districts reported. Since then there has been an improvement in the number of districts reporting (75% in 2003). The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach and mobile teams during the second semester of 2007. WHO & UNICEF recommend a high quality survey to confirm high levels of coverage

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	26	26	26				
1984	35		62	45			
1985	44	83	44	55			
1986	44	60	44	65			
1987	55	55	55	50			
1988	56	56	56	56			
1989	48	43	48	42			
1990	38	38	38	38			
1991	39	39	40	44			
1992	39	21	39	39			
1993	47	47	47	47			
1994	44	44	44	44			
1995	46	65		32		46	
1996	62	41		41			
1997	78	78	78	33			
1998	65	80	65	93			
1999	46	46	46	46	48		
2000	41	41	41	41		53	
2001	72	72	72	72	72		
2002	74	74	74	74	72		
2003	62	62	62	62	62		
2004	64	64	64	64	64		
2005	45	45	45	45	45		
2006	48	48	48	48	48		
2007	88	88	88	88	88		
2008	79	79	79	79	79		

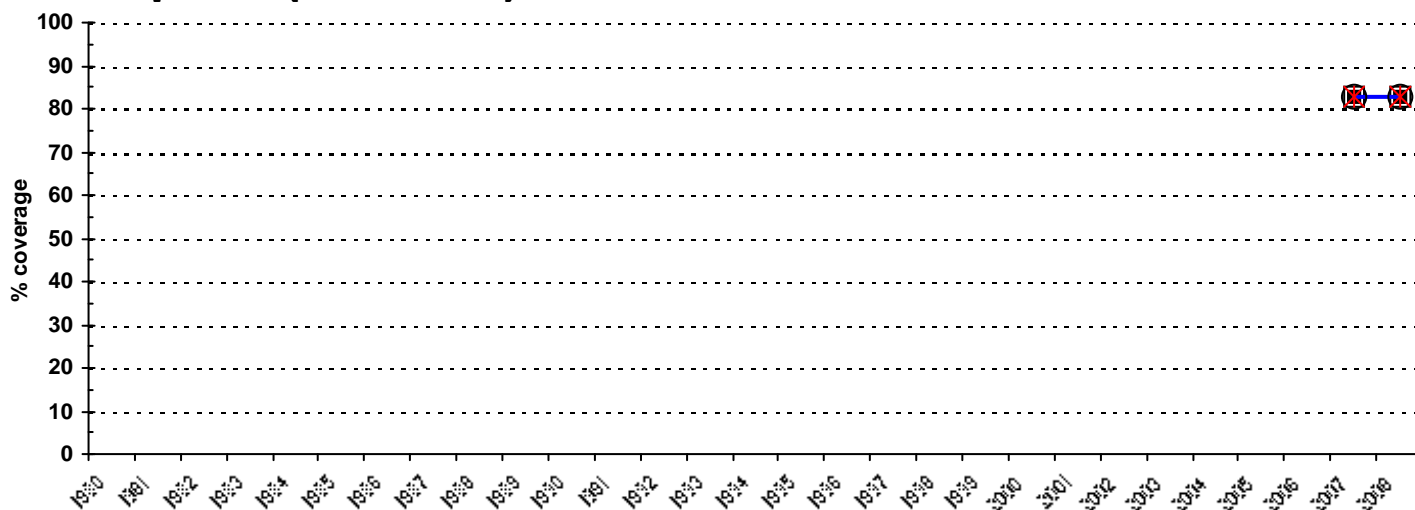
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Angola

HepB3 (1980-2008)



Description of trend

Pentavalent vaccine (DTP-HepB-Hib) introduced in the second half of 2006. Estimates are based on reported data. DTP-HepB-Hib pentavalent vaccine was introduced nationally in 2007. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach and mobile teams during the second semester of 2007. WHO & UNICEF recommend a high quality survey to confirm high levels of coverage

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							
2003							
2004							
2005							
2006							
2007	83	83	83	83	83		
2008	83	83	83	83	83		

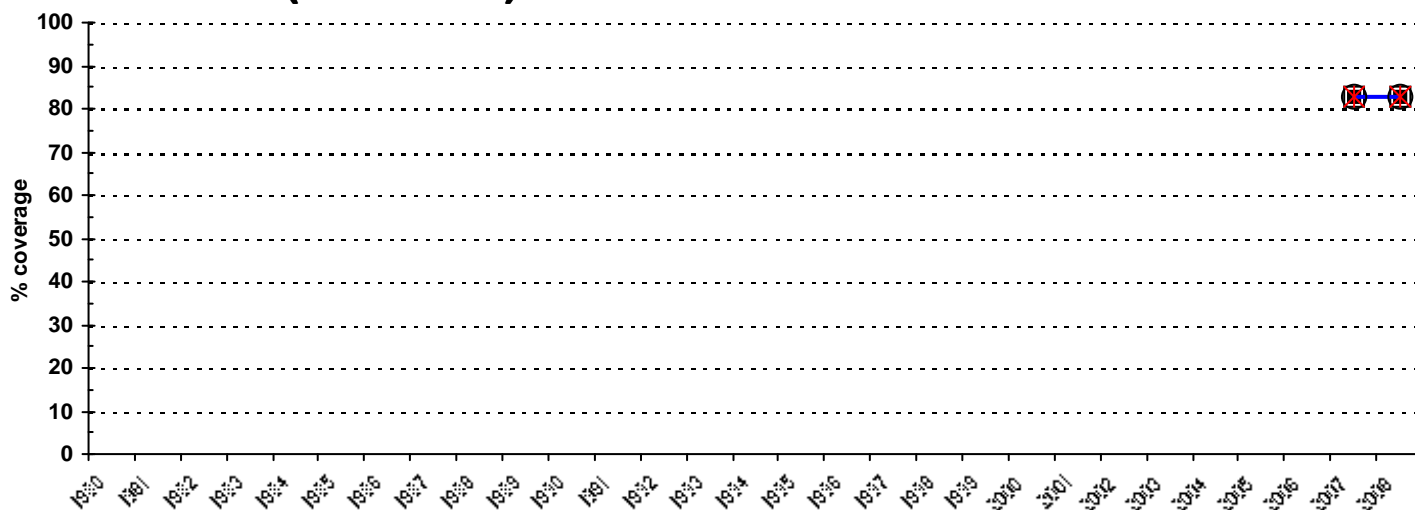
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Angola

Hib3 (1980-2008)



Description of trend

Pentavalent vaccine (DTP-HepB-Hib) introduced in the second half of 2006. Estimates are based on reported data. DTP-HepB-Hib pentavalent vaccine was introduced nationally in 2007. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach and mobile teams during the second semester of 2007. WHO & UNICEF recommend a high quality survey to confirm high levels of coverage

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							
2003							
2004							
2005							
2006							
2007	83	83	83	83	83		
2008	83	83	83	83	83		

*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.

Angola

Details Survey Data

Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
2000 Angola Multiple Indicator Cluster Survey 2001								
BCG	History	36.2		12-23 m	1102	34.1	2001	
BCG	Card or History	68.8		12-23 m	1102	34.1	2001	
BCG	Card <12 months	63		12-23 m	1102	34.1	2001	
BCG	Card	32.6		12-23 m	1102	34.1	2001	
DTP1	History	26.7		12-23 m	1102	34.1	2001	
DTP1	Card or History	55.8		12-23 m	1102	34.1	2001	
DTP1	Card <12 months	49.8		12-23 m	1102	34.1	2001	
DTP1	Card	29.1		12-23 m	1102	34.1	2001	
DTP3	History	10.9		12-23 m	1102	34.1	2001	
DTP3	Card or History	33.9		12-23 m	1102	34.1	2001	
DTP3	Card <12 months	27.6		12-23 m	1102	34.1	2001	
DTP3	Card	23.1		12-23 m	1102	34.1	2001	
Pol3	History	39.5		12-23 m	1102	34.1	2001	
Pol3	Card or History	63.2		12-23 m	1102	34.1	2001	
Pol3	Card <12 months	51.4		12-23 m	1102	34.1	2001	
Pol3	Card	23.7		12-23 m	1102	34.1	2001	
MCV	History	28.5		12-23 m	1102	34.1	2001	
MCV	Card or History	53.4		12-23 m	1102	34.1	2001	
MCV	Card <12 months	42.4		12-23 m	1102	34.1	2001	
MCV	Card	24.9		12-23 m	1102	34.1	2001	

1995 Inquérito de Indicadores Múltiplos 1996, 1997

BCG	Card or History	59.5		12-23 m			1996	
DTP1	Card or History			12-23 m			1996	
DTP3	Card or History	23.9		12-23 m			1996	
Pol3	Card or History	27.9		12-23 m			1996	
MCV	Card or History	45.5		12-23 m			1996	

Angola

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.

Angola

Year	PAB coverage estimate (%)
1980	
1981	
1982	
1983	8
1984	13
1985	19
1986	25
1987	27
1988	31
1989	32
1990	34
1991	37
1992	41
1993	44
1994	46
1995	48
1996	49
1997	51
1998	52
1999	56
2000	60
2001	64
2002	68
2003	71
2004	73
2005	75
2006	77
2007	78
2008	79