

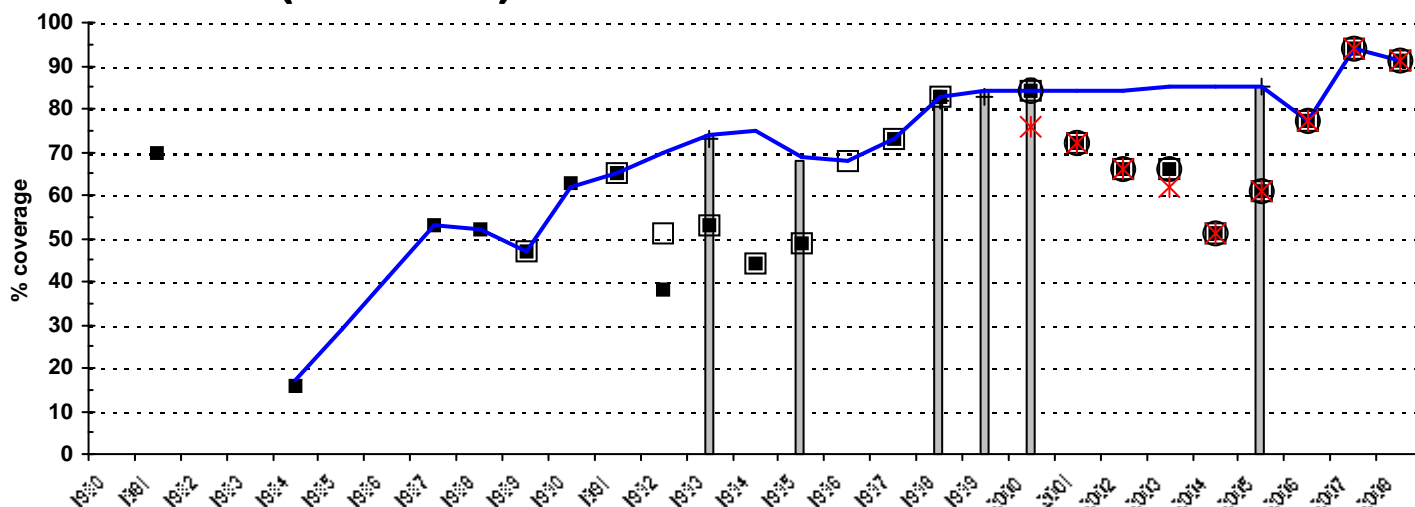
**WHO/UNICEF
Review of National Immunization Coverage
1980-2008**

Côte d'Ivoire

July, 2009

Côte d'Ivoire

BCG (1980-2008)



Description of trend

Estimates based on reported data, except from 1992-1995, when the estimates are based on survey data. WHO/UNICEF recommend conducting a high quality survey to verify reported levels of coverage. Estimates for 2001-2004 are based on the interpolation between data reported in 2000 and supported by a survey and the 2005 survey result. The 2006 increase in the reported coverage is due to adjusted denominators.

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			70				
1982							
1983							
1984	17		16				
1985	29						
1986	41						
1987	53		53				
1988	52		52				
1989	47	47	47				
1990	62		63				
1991	65	65	65				
1992	70	51	38				
1993	74	53	53			74	73
1994	75	44	44				
1995	69	49	49			68	
1996	68	68					
1997	73	73	73				
1998	83	83	83			84	82
1999	84					84	83
2000	84	84	84	84	76	87	
2001	84	72	72	72	72		
2002	84	66	66	66	66		
2003	85	66	66	66	62		
2004	85	51	51	51	51		
2005	85	61	61	61	61	85	85
2006	77	77	77	77	77		
2007	94	94	94	94	94		
2008	91	91	91	91	91		

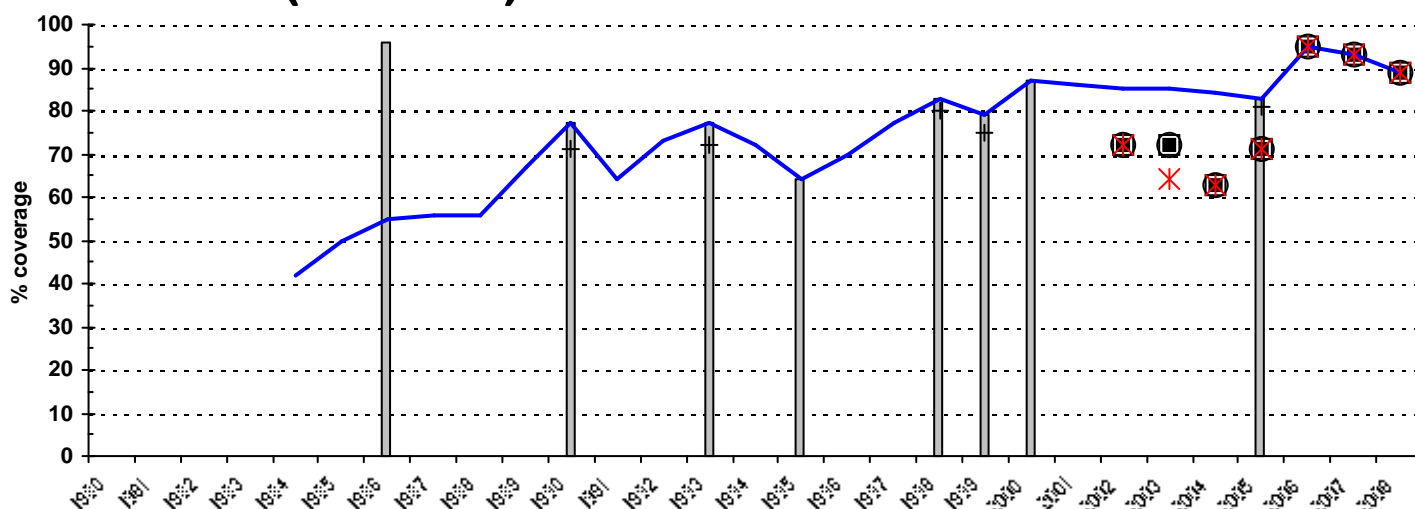
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Côte d'Ivoire

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 2002 onward. The DTP1 estimates from 2002 onward are based on these reports. For years prior to 1990, as well as in 1991 and 1992, 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.) From 1990-2001 (except in 1992) the estimates are based on survey data. WHO/UNICEF recommend conducting a high quality survey to verify reported levels of coverage. Estimates for 2001-2004 are based on the interpolation between data reported in 2000 and supported by a survey and the 2005 survey result. The 2006 increase in the reported coverage is due to adjusted denominators.

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	42						
1985	50						
1986	55					96	
1987	56						
1988	56						
1989	67						
1990	77					77	71
1991	64						
1992	73						
1993	77					77	72
1994	72						
1995	64					64	
1996	70						
1997	77						
1998	83					83	80
1999	79					79	75
2000	87					87	
2001	86						
2002	85	72	72	72	72		
2003	85	72	72	72	64		
2004	84	63	63	63	63		
2005	83	71	71	71	71	83	81
2006	95	95	95	95	95		
2007	93	93	93	93	93		
2008	89	89	89	89	89		

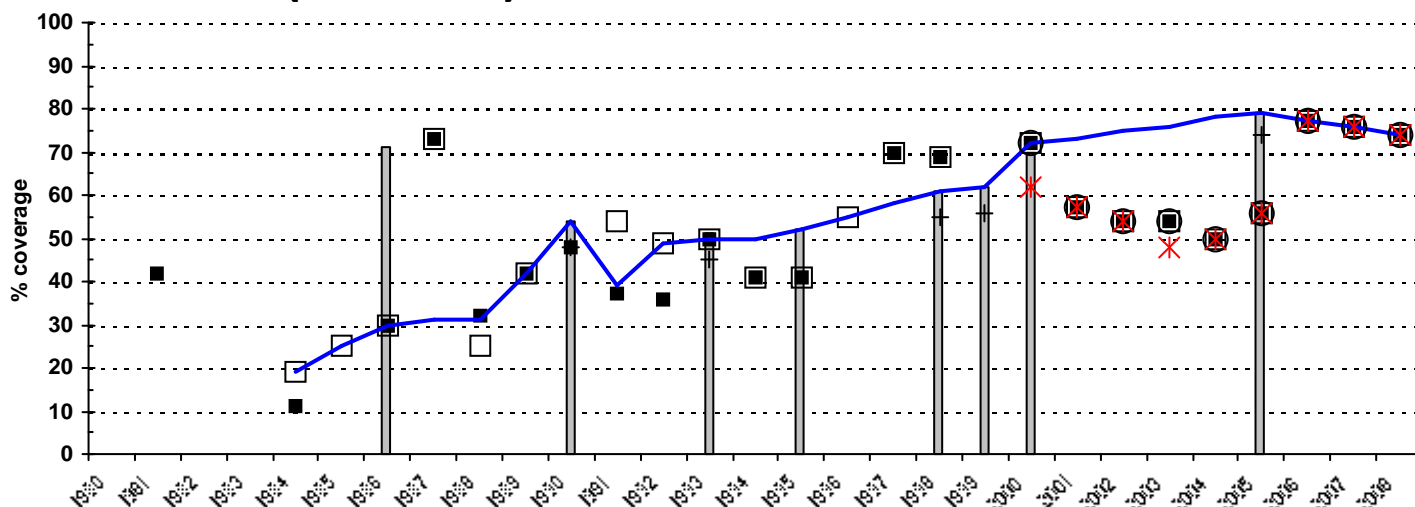
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Côte d'Ivoire

DTP3 (1980-2008)



Description of trend

Estimates prior to 1993 and from 2000 onward are based on national reports. Estimates from 1993-1999 are based on survey data. WHO/UNICEF recommend conducting a high quality survey to verify reported levels of coverage. Estimates for 2001-2004 are based on the interpolation between data reported in 2000 and supported by a survey and the 2005 survey result. The 2006 increase in the reported coverage is due to adjusted denominators.

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			42				
1982							
1983							
1984	19	19	11				
1985	25	25					
1986	30	30	30			71	
1987	31	73	73				
1988	31	25	32				
1989	42	42	42				
1990	54		48			54	48
1991	39	54	37				
1992	49	49	36				
1993	50	50	50			51	45
1994	50	41	41				
1995	52	41	41			52	
1996	55	55					
1997	58	70	70				
1998	61	69	69			61	55
1999	62					62	56
2000	72	72	72	72	62	70	
2001	73	57	57	57	57		
2002	75	54	54	54	54		
2003	76	54	54	54	48		
2004	78	50	50	50	50		
2005	79	56	56	56	56	79	74
2006	77	77	77	77	77		
2007	76	76	76	76	76		
2008	74	74	74	74	74		

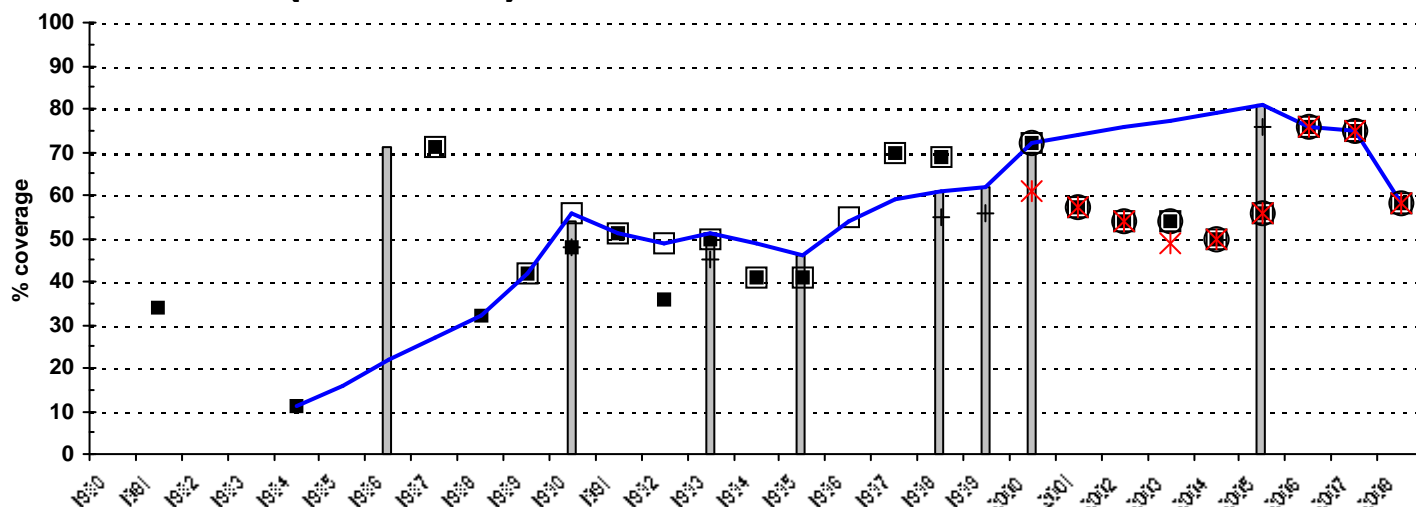
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Côte d'Ivoire

Pol3 (1980-2008)



Description of trend

Estimates are based on national reports, except in 1990, 1993-1995, 1998 and 1999, where survey data was taken. Survey data for 1986 seen unusually high for all antigens, therefore it is not considered. WHO/UNICEF recommend conducting a high quality survey to verify reported level of coverage. Estimates for 2001-2004 are based on the interpolation between data reported in 2000 and supported by a survey and the 2005 result. The 2006 increase in the reported coverage is due to adjusted denominators. Decline in 2008 attributed to 2 month shortage of vaccine.

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			34				
1982							
1983							
1984	11		11				
1985	16						
1986	22					71	
1987	27	71	71				
1988	32		32				
1989	42	42	42				
1990	56	56	48			54	48
1991	51	51	51				
1992	49	49	36				
1993	51	50	50			51	45
1994	49	41	41				
1995	46	41	41			46	
1996	54	55					
1997	59	70	70				
1998	61	69	69			61	55
1999	62					62	56
2000	72	72	72	72	61	70	
2001	74	57	57	57	57		
2002	76	54	54	54	54		
2003	77	54	54	54	49		
2004	79	50	50	50	50		
2005	81	56	56	56	56	81	76
2006	76	76	76	76	76		
2007	75	75	75	75	75		
2008	58	58	58	58	58		

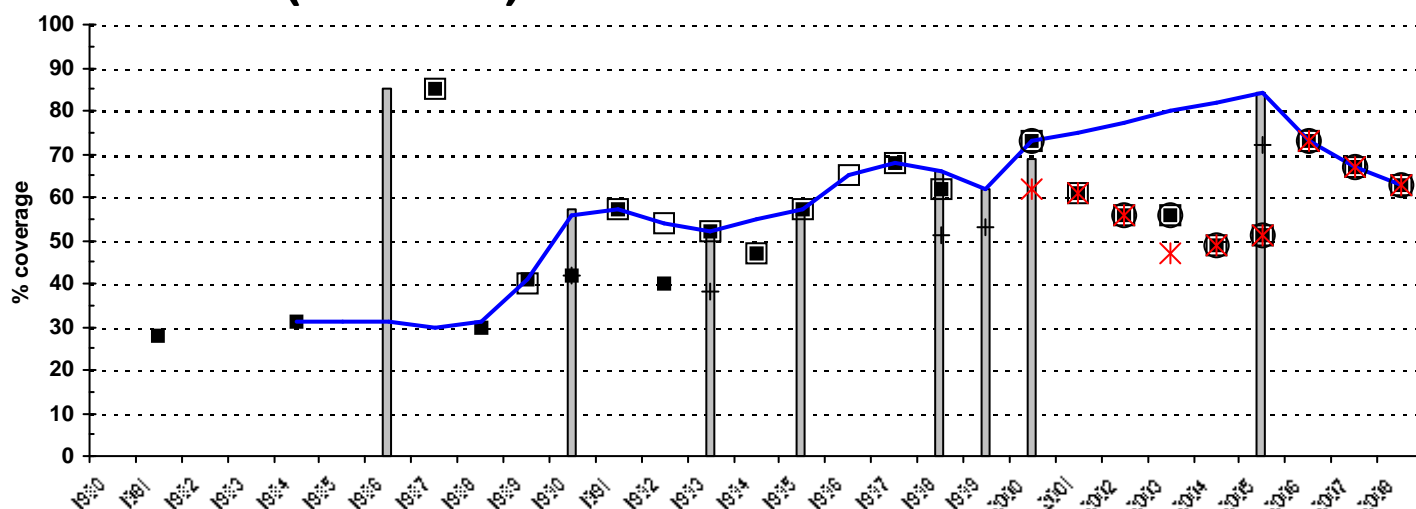
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Côte d'Ivoire

MCV (1980-2008)



Description of trend

Estimates are based on national reports, except in 1990, 1993-1995, 1998 and 1999, where survey data was taken. Survey data for 1986 see unusually high for all antigens, therefore it is not considered. WHO/UNICEF recommend conducting a high quality survey to verify reported levels of coverage. Estimates for 2001-2004 are based on the interpolation between data reported in 2000 and supported by a survey and the 2005 survey result. The 2006 increase in the reported coverage is due to adjusted denominators.

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			28				
1982							
1983							
1984	31		31				
1985	31						
1986	31					85	
1987	30	85	85				
1988	31		30				
1989	41	40	41				
1990	56		42			57	42
1991	57	57	57				
1992	54	54	40				
1993	52	52	52			53	38
1994	55	47	47				
1995	57	57	57			57	
1996	65	65					
1997	68	68	68				
1998	66	62	62			66	51
1999	62					62	53
2000	73	73	73	73	62	69	
2001	75	61	61		61		
2002	77	56	56	56	56		
2003	80	56	56	56	47		
2004	82	49	49	49	49		
2005	84	51	51	51	51	84	72
2006	73	73	73	73	73		
2007	67	67	67	67	67		
2008	63	63	63	63	63		

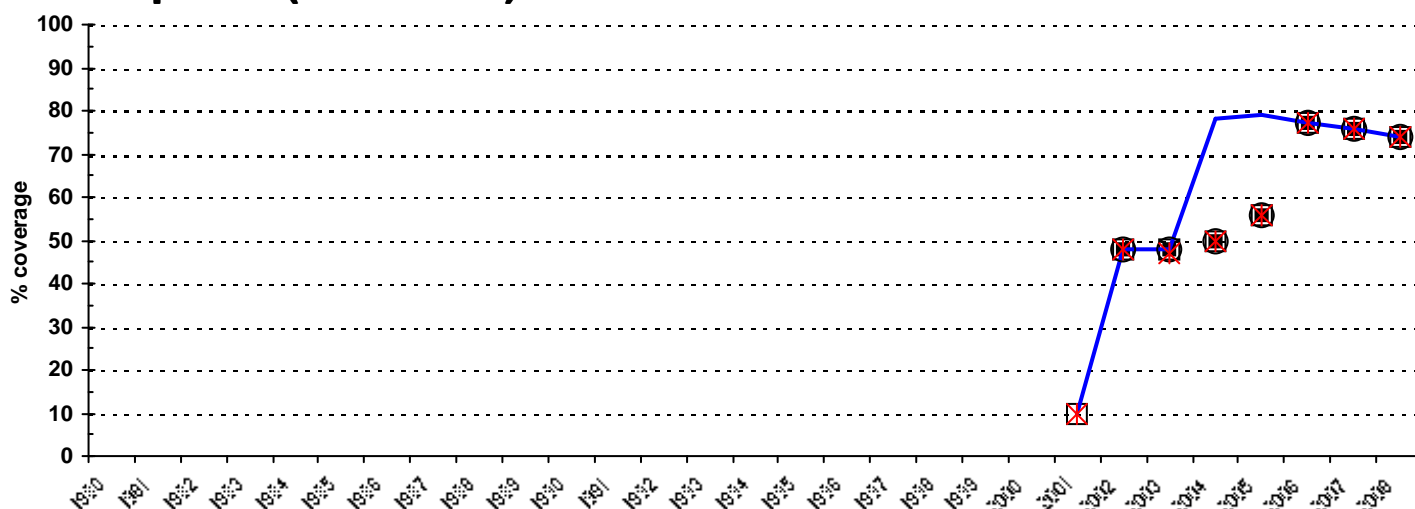
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Côte d'Ivoire

HepB3 (1980-2008)



Description of trend

Hepatitis B vaccine introduced in 2001. Estimates are based on nationally reported data. WHO/UNICEF recommend conducting a high quality survey to verify reported levels of coverage. Estimates for 2001-2004 are based on the interpolation between data reported in 2000 and supported by a survey and the 2005 survey result. The 2006 increase in the reported coverage is due to adjusted denominators.

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	10	10			10		
2002	48	48	48	48	48		
2003	48	48	48	48	47		
2004	79	50	50	50	50		
2005	79	56	56	56	56		
2006	77	77	77	77	77		
2007	76	76	76	76	76		
2008	74	74	74	74	74		

*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.

Côte d'Ivoire

Details Survey Data

Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
2005 Enquête par grappes à indicateurs multiples, Côte d'Ivoire, 2006								
BCG	Card or History	85.4		12-23 m	1751	72.8	2006	
BCG	C or H <12 month	85.1		12-23 m	1751	72.8	2006	
DTP1	Card or History	82.8		12-23 m	1751	72.8	2006	
DTP1	C or H <12 month	81		12-23 m	1751	72.8	2006	
DTP3	Card or History	78.9		12-23 m	1751	72.8	2006	
DTP3	C or H <12 month	74.1		12-23 m	1751	72.8	2006	
Pol3	Card or History	81.2		12-23 m	1751	72.8	2006	
Pol3	C or H <12 month	76.2		12-23 m	1751	72.8	2006	
MCV	Card or History	84.1		12-23 m	1751	72.8	2006	
MCV	C or H <12 month	72.3		12-23 m	1751	72.8	2006	
PAB	n.a.	67.2		CBAW	3586		2006	
2000 Revue externe du PEV 2001								
BCG	Card or History	87		12-23 m		98	2001	
DTP1	Card or History	87		12-23 m		98	2001	
DTP3	Card or History	70		12-23 m		98	2001	
Pol3	Card or History	70		12-23 m		98	2001	
MCV	Card or History	69		12-23 m		98	2001	
1999 Côte d'Ivoire, Enquête à Indicateurs Multiples MICS 2000								
BCG	Card or History	84.4		12-23 m		76.8	2000	
BCG	C or H <12 month	83		12-23 m		76.8	2000	
DTP1	Card or History	78.7		12-23 m		76.8	2000	
DTP1	C or H <12 month	74.8		12-23 m		76.8	2000	
DTP3	Card or History	61.9		12-23 m		76.8	2000	
DTP3	C or H <12 month	56.5		12-23 m		76.8	2000	
Pol3	Card or History	62		12-23 m		76.8	2000	
Pol3	C or H <12 month	56.5		12-23 m		76.8	2000	
MCV	Card or History	61.5		12-23 m		76.8	2000	
MCV	C or H <12 month	53.2		12-23 m		76.8	2000	
PAB	Card or History	78.6		Women 15-49		76.8	2000	
1998 Enquête Démographique et de Santé, Côte d'Ivoire 1998-99, 2001								
BCG	Card or History	83.7		12-23 m	439	73.4	1998/99	
BCG	C or H <12 month	82		12-23 m	439	73.4	1998/99	
BCG	C or H <12 month	73.8		24-35 m	371	64.1	1998/99	
BCG	C or H <12 month	79.5		36-47 m	338	62.5	1998/99	
BCG	C or H <12 month	72.1		48-59 m	350	53.7	1998/99	
DTP1	Card or History	82.9		12-23 m	439	73.4	1998/99	
DTP1	C or H <12 month	79.7		12-23 m	439	73.4	1998/99	
DTP1	C or H <12 month	75.3		24-35 m	371	64.1	1998/99	
DTP1	C or H <12 month	76.8		36-47 m	338	62.5	1998/99	
DTP1	C or H <12 month	72.7		48-59 m	350	53.7	1998/99	
DTP3	Card or History	60.9		12-23 m	439	73.4	1998/99	
DTP3	C or H <12 month	54.9		12-23 m	439	73.4	1998/99	
DTP3	C or H <12 month	48		24-35 m	371	64.1	1998/99	
DTP3	C or H <12 month	50		36-47 m	338	62.5	1998/99	
DTP3	C or H <12 month	44.1		48-59 m	350	53.7	1998/99	
Pol3	Card or History	60.6		12-23 m	439	73.4	1998/99	
Pol3	C or H <12 month	54.6		12-23 m	439	73.4	1998/99	

Côte d'Ivoire

Details Survey Data

Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
Pol3	C or H <12 month	47.8		24-35 m	371	64.1	1998/99	
Pol3	C or H <12 month	48		36-47 m	338	62.5	1998/99	
Pol3	C or H <12 month	42.3		48-59 m	350	53.7	1998/99	
MCV	Card or History	66.2		12-23 m	439	73.4	1998/99	
MCV	C or H <12 month	51.3		12-23 m	439	73.4	1998/99	
MCV	C or H <12 month	46.6		24-35 m	371	64.1	1998/99	
MCV	C or H <12 month	44.8		36-47 m	338	62.5	1998/99	
MCV	C or H <12 month	40.8		48-59 m	350	53.7	1998/99	

1995 Côte d'Ivoire, Enquête à Indicateurs Multiples 1996

BCG	Card or History	67.7		12-23 m			1996	
DTP1	Card or History	64.1		12-23 m			1996	confirmation method assumed
DTP3	Card or History	51.6		12-23 m			1996	
Pol3	Card or History	45.9		12-23 m			1996	
MCV	Card or History	57.2		12-23 m			1996	

1993 Enquête Démographique et de Santé Côte d'Ivoire 1994, 1995

BCG	Card or History	73.8		12-23 m	1145	72.3	1994	
BCG	C or H <12 month	72.8		12-23 m	1145	72.3	1994	
DTP1	Card or History	77		12-23 m	1145	72.3	1994	
DTP1	C or H <12 month	72.4		12-23 m	1145	72.3	1994	
DTP3	Card or History	51.4		12-23 m	1145	72.3	1994	
DTP3	C or H <12 month	45.1		12-23 m	1145	72.3	1994	
Pol3	Card or History	51.4		12-23 m	1145	72.3	1994	
Pol3	C or H <12 month	45.1		12-23 m	1145	72.3	1994	
MCV	Card or History	53.1		12-23 m	1145	72.3	1994	
MCV	C or H <12 month	37.7		12-23 m	1145	72.3	1994	

1990 Evaluation de la Couverture Vaccinale en Côte d'Ivoire Fevrier 1991

DTP1	Card or History	77		12-23 m			1991	
DTP1	C or H <12 month	71		12-23 m			1991	
DTP3	Card or History	54		12-23 m			1991	
DTP3	C or H <12 month	48		12-23 m			1991	
Pol3	Card or History	54		12-23 m			1991	
Pol3	C or H <12 month	48		12-23 m			1991	
MCV	Card or History	57		12-23 m			1991	
MCV	C or H <12 month	42		12-23 m			1991	

1986 Rapport de l'Evaluation Nationale de Couverture Vaccinale Côte d'Ivoire 1987

DTP1	Card or History	96		12-23 m		97	1987	
DTP3	Card or History	71		12-23 m		97	1987	
Pol3	Card or History	71		12-23 m		97	1987	
MCV	Card or History	85		12-23 m		97	1987	

Côte d'Ivoire

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.

Côte d'Ivoire

Year	PAB coverage estimate (%)
1980	
1981	
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	31
1990	36
1991	41
1992	43
1993	47
1994	34
1995	36
1996	35
1997	54
1998	60
1999	71
2000	76
2001	76
2002	76
2003	76
2004	76
2005	75
2006	75
2007	74
2008	92