

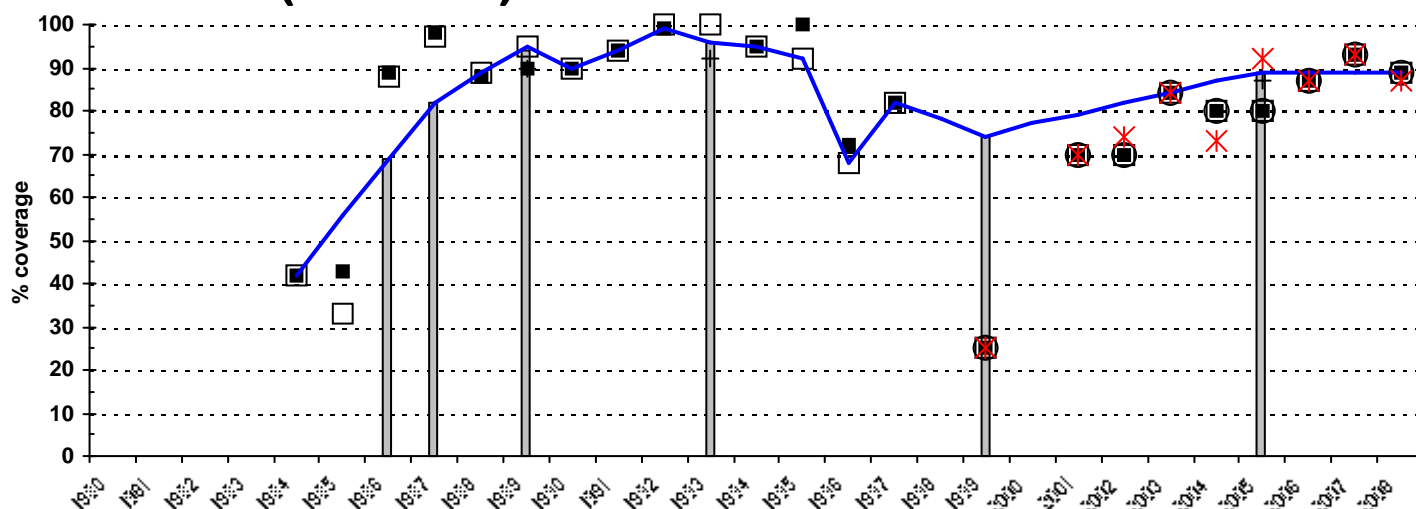
**WHO/UNICEF
Review of National Immunization Coverage
1980-2008**

Guinea-Bissau

July, 2009

Guinea-Bissau

BCG (1980-2008)



Description of trend

Data are available since 1984. Officially reported data suggests a steep increase from 45% in 1985 to 90% in 1990 which is supported by survey data for 1986 and 1987 (Programa Algado de Vacinacao Avaliacao Internacional do Programa 1988). Coverage rates remain at a level of over 90% until 1995, which is confirmed by two additional surveys (Avaliacao de Programa Algado de Vacinacao, 1990; Avaliacao de Programa Algado de Vacinacao, 1994). After 1995 a serious drop occurs according to officially reported data, especially in the second half of the 1990s. The 1999 estimate is around 25%, however, as only six out of eleven districts reported, the rate is adjusted assuming the same coverage for the other five districts that did not report (although districts that reported have probably a better performance than those which did not report). The increase in coverage following 2003 can be partially attributed to the Accelerated Child Survival and Development project activities which included raising coverage in high risk districts as well as improving monitoring systems. Estimates from 1999 are based on survey results.

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	42	42				
1985	56	33	43				
1986	69	88	89			69	
1987	82	97	98			82	
1988	89	89	88				
1989	95	95	90			94	90
1990	90	90	90				
1991	94	94	94				
1992	99	100	99				
1993	96	100				96	92
1994	95	95	95				
1995	92	92	100				
1996	68	68	72				
1997	82	82	82				
1998	78						
1999	74	25	25	25	25	74	
2000	77						
2001	79	70	70	70	70		
2002	82	70	70	70	74		
2003	84	84	84	84	84		
2004	87	80	80	80	73		
2005	89	80	80	80	92	89	87
2006	89	87	87	87	87		
2007	89	93	93	93	93		
2008	89	89	89	89	87		

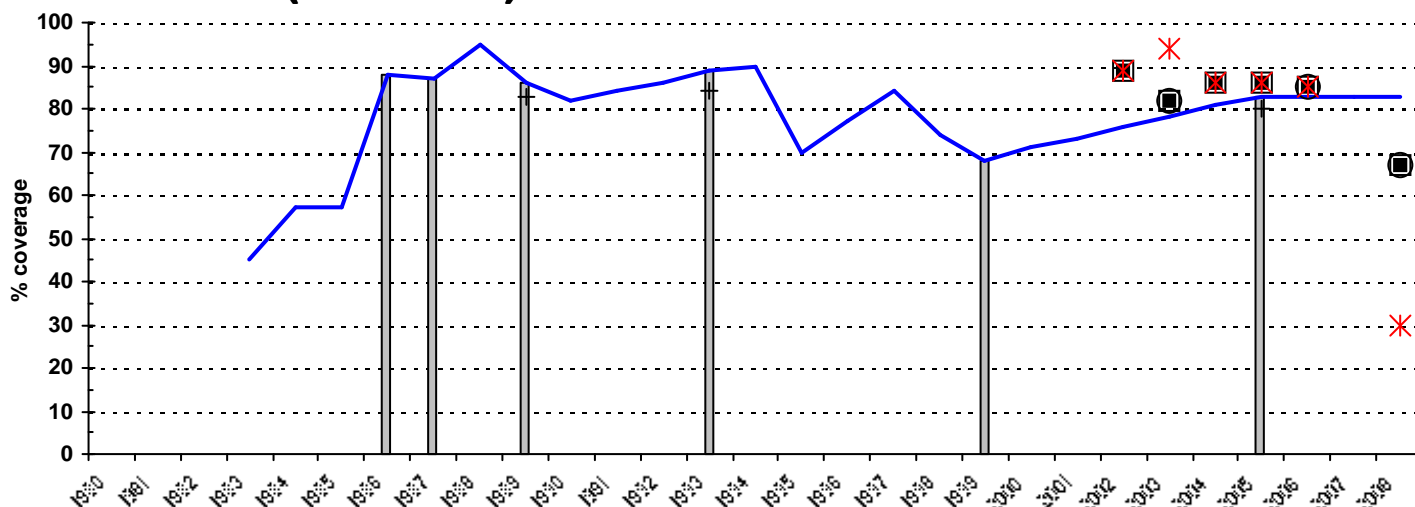
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Guinea-Bissau

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 estimate for 2002 is based on administrative coverage with an adjustment taking into account the difference between the DTP3 administrative and national estimates. For years prior to 2002 the trends follow survey data. From 1983 through 2001, estimates are based on relationship between DTP3 and drop-out re-calibrated to the level of the survey data. Estimates from 1999 are based on survey results.

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	45						
1984	57						
1985	57						
1986	88					88	
1987	87					87	
1988	95						
1989	86						
1990	82						
1991	84						
1992	86						
1993	89						
1994	90						
1995	70						
1996	77						
1997	84						
1998	74						
1999	68						
2000	71						
2001	73						
2002	76	89	89		89		
2003	78	82	82	82	94		
2004	81	86	86		86		
2005	83	86	86		86	83	80
2006	83	85	85	85	85		
2007	83	107	107	107	107		
2008	83	67	67	67	30		

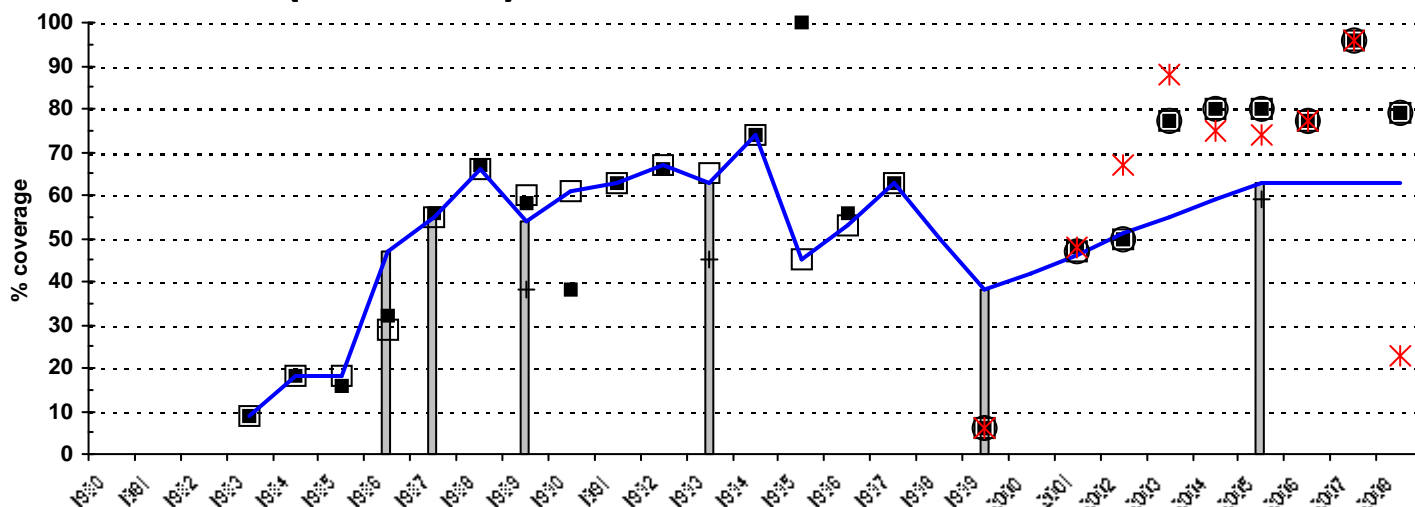
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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

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Guinea-Bissau

DTP3 (1980-2008)



Description of trend

Following officially reported data, coverage rates steeply and steadily increase from the mid 1980s to 1994, a trend that is supported by four surveys. After 1994 a drop can be observed in officially reported data, especially in the second half of the 1990s. The officially reported data for 1999 reports less than 10% coverage, however only 6 out of 11 districts reported. The rate is adjusted assuming the same coverage for the other 5 districts that did not report (although districts that reported have probably a better performance than those which did not report). The increase in coverage in 2003 and 2004 can be partially attributed to the Accelerated Child Survival and Development project activities which included raising coverage in high risk districts as well as improving monitoring systems. Estimates from 1999 are based on survey results.

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	9	9	9				
1984	18	18	18				
1985	18	18	16				
1986	47	29	32			47	
1987	55	55	56			55	
1988	66	66	67				
1989	54	60	58			54	38
1990	61	61	38				
1991	63	63	63				
1992	67	67	66				
1993	63	65				63	45
1994	74	74	74				
1995	45	45	100				
1996	53	53	56				
1997	63	63	63				
1998	50						
1999	38	6	6	6	6	38	
2000	42						
2001	46	47	48	47	48		
2002	51	50	50	50	67		
2003	55	77	77	77	88		
2004	59	80	80	80	75		
2005	63	80	80	80	74	63	59
2006	63	77	77	77	77		
2007	63	96	96	96	96		
2008	63	79	79	79	23		

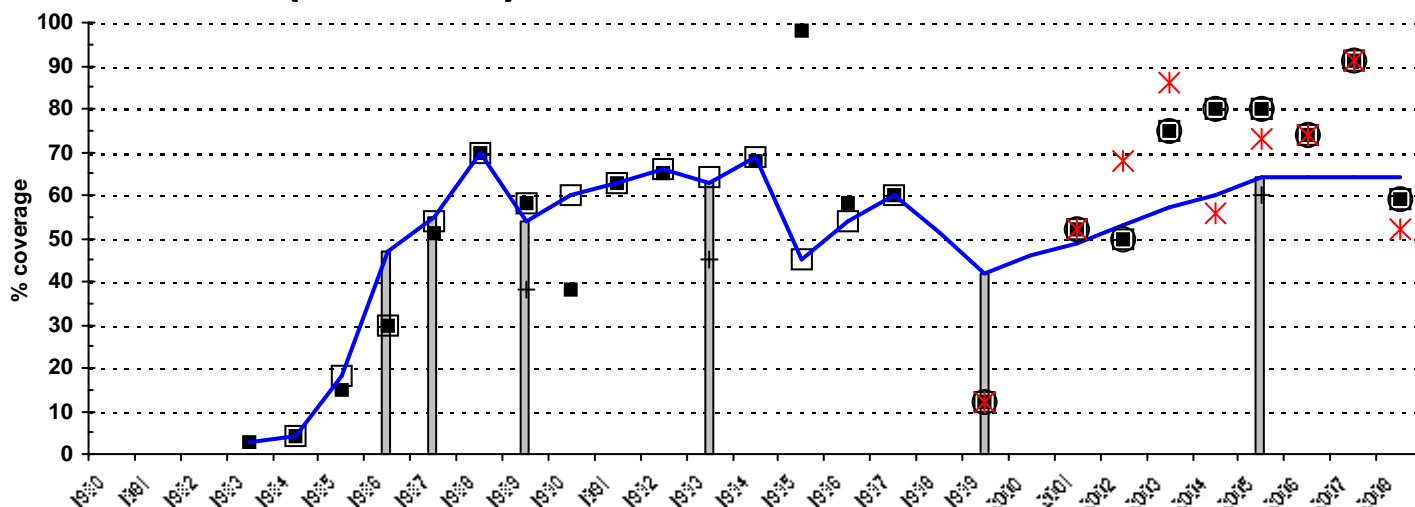
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Guinea-Bissau

Pol3 (1980-2008)



Description of trend

Following officially reported data, coverage rates steeply and steadily increase from the mid 1980s to 1988, a trend that is supported by two survey data for 1993 confirms the reported level. After 1994 a drop can be observed in officially reported data, especially in the second half of 1990s. The officially reported data point for 1999 reports around 10% coverage, however only 6 out of 11 districts reported. The rate is adjusted assuming the same coverage for the other 5 districts that did not report (although districts that reported have probably a better performance than those which did not report). The increase in coverage in 2003 and 2004 can be partially attributed to the Accelerated Child Survival and Development project activities which included raising coverage in high risk districts as well as improving monitoring systems. Estimates from 1999 are based on survey results.

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	3		3				
1984	4	4	4				
1985	18	18	15				
1986	47	30	30			47	
1987	55	54	51			55	
1988	70	70	70				
1989	54	58	58			54	38
1990	60	60	38				
1991	63	63	63				
1992	66	66	65				
1993	63	64				63	45
1994	69	69	68				
1995	45	45	98				
1996	54	54	58				
1997	60	60	60				
1998	51						
1999	42	12	12	12	12	42	
2000	46						
2001	49	52	52	52	52		
2002	53	50	50	50	68		
2003	57	75	75	75	86		
2004	60	80	80	80	56		
2005	64	80	80	80	73	64	60
2006	64	74	74	74	74		
2007	64	91	91	91	91		
2008	64	59	59	59	52		

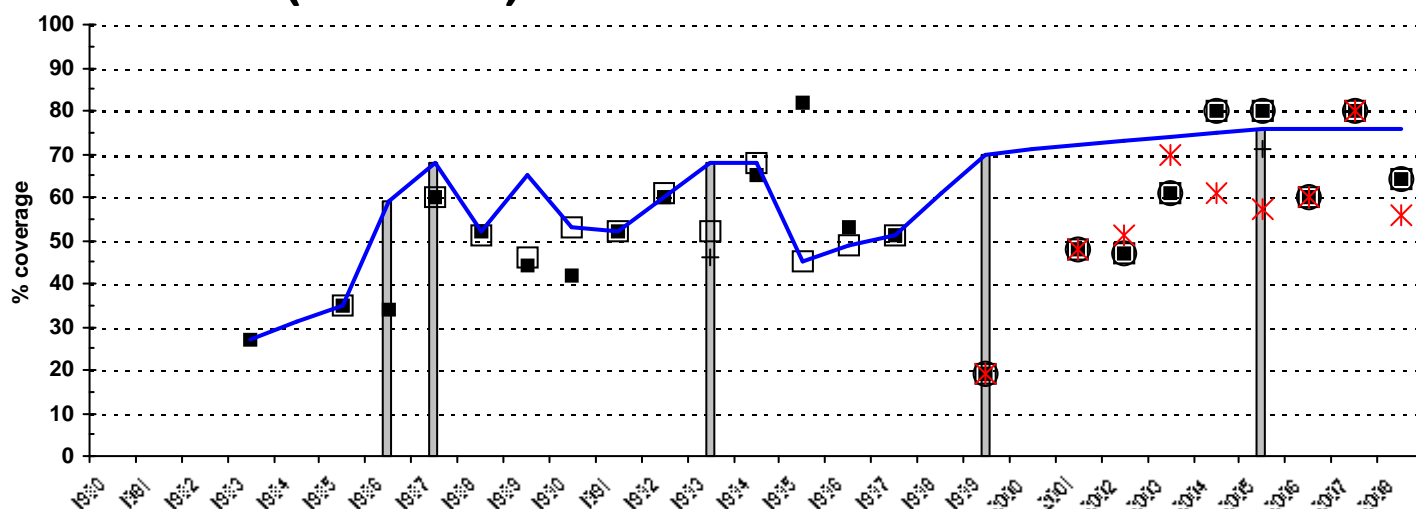
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Guinea-Bissau

MCV (1980-2008)



Description of trend

As officially reported data suggests, coverage increases from 27% in 1983 to 68% in 1987, a trend which is supported by two surveys. Around 1990 coverage is reported to drop slightly to around 53% but recovers to 68% in 1993, supported by survey data. Coverage rates drop significantly after 1994, according to officially reported data to around 20% in 1999. As only six out of eleven districts reported, the rate is adjusted assuming the same coverage for the other 5 districts that did not report. The increase in coverage in 2003 and 2004 can be partially attributed to the Accelerated Child Survival and Development project activities which included raising coverage in high risk districts as well as improving monitoring systems. Estimates from 1999 are based on survey results.

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	27		27				
1984	31						
1985	35	35	35				
1986	59		34			59	
1987	68	60	60			68	
1988	52	51	52				
1989	65	46	44				
1990	53	53	42				
1991	52	52	52				
1992	60	61	60				
1993	68	52				68	46
1994	68	68	65				
1995	45	45	82				
1996	49	49	53				
1997	51	51	51				
1998	61						
1999	70	19	19	19	19	70	
2000	71						
2001	72	48	48	48	48		
2002	73	47	47	47	51		
2003	74	61	61	61	70		
2004	75	80	80	80	61		
2005	76	80	80	80	57	76	71
2006	76	60	60	60	60		
2007	76	80	80	80	80		
2008	76	64	64	64	56		

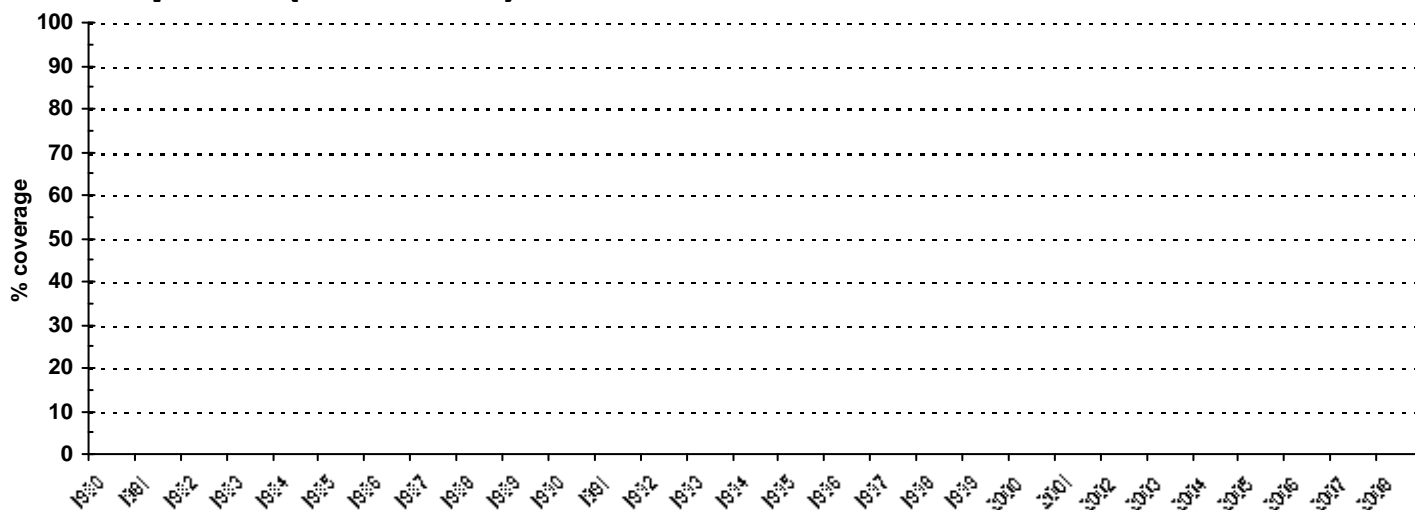
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Guinea-Bissau

HepB3 (1980-2008)



Description of trend

DTP-HepB-Hib pentavalent combination vaccine introduced in August 2008.

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							
2008							

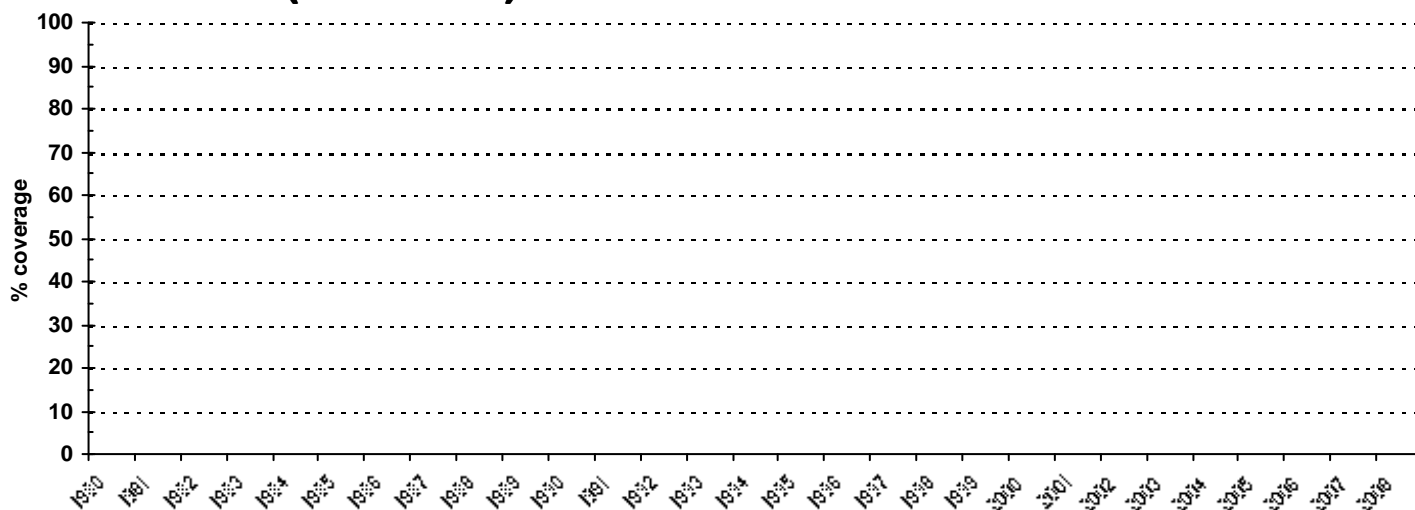
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Guinea-Bissau

Hib3 (1980-2008)



Description of trend

DTP-HepB-Hib pentavalent combination vaccine introduced in August 2008.

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							
2008							

*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.

Guinea-Bissau

Details Survey Data

Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
2005 Guinée-Bissau, Enquête par Grappes à Indicateurs Multiples, 2006								
BCG	Card or History	88.9		12-23 m	1275	78.3	2006	
BCG	C or H <12 month	87.1		12-23 m	1275	78.3	2006	
DTP1	Card or History	82.7		12-23 m	1275	78.3	2006	
DTP1	C or H <12 month	80.1		12-23 m	1275	78.3	2006	
DTP3	Card or History	62.8		12-23 m	1275	78.3	2006	
DTP3	C or H <12 month	59.1		12-23 m	1275	78.3	2006	
Pol3	Card or History	64.1		12-23 m	1275	78.3	2006	
Pol3	C or H <12 month	59.7		12-23 m	1275	78.3	2006	
MCV	Card or History	75.5		12-23 m	1275	78.3	2006	
MCV	C or H <12 month	71.2		12-23 m	1275	78.3	2006	
PAB	n.a.	68.2		CBAW	2506		2006	
1999 Multiple Indicator Cluster Survey Guinea Bissau, 2000								
BCG	Card or History	74		12-23 m	1119	35.6	2000	
DTP1	Card or History	68.5		12-23 m	1119	35.6	2000	
DTP3	Card or History	37.8		12-23 m	1119	35.6	2000	
Pol3	Card or History	42.3		12-23 m	1119	35.6	2000	
MCV	Card or History	70.2		12-23 m	1119	35.6	2000	
PAB	Card or History	66		Women 15-49			2000	
1993 Avaliação do Programa Alargado de Vacinação, 1994								
BCG	Card or History	95.8		12-23 m			1994	
BCG	C or H <12 month	91.8		12-23 m			1994	
DTP1	Card or History	89		12-23 m			1994	
DTP1	C or H <12 month	84		12-23 m			1994	
DTP3	Card or History	63.1		12-23 m			1994	
DTP3	C or H <12 month	44.7		12-23 m			1994	
Pol3	Card or History	62.9		12-23 m			1994	
Pol3	C or H <12 month	44.7		12-23 m			1994	
MCV	Card or History	68.3		12-23 m			1994	
MCV	C or H <12 month	46.4		12-23 m			1994	
1989 Avaliação do Programa Alargado de Vacinação, 1990								
BCG	Card or History	94.3		12-23 m			1990	
BCG	C or H <12 month	89.6		12-23 m			1990	
DTP1	Card or History	86.3		12-23 m			1990	
DTP1	C or H <12 month	83.3		12-23 m			1990	
DTP3	Card or History	54.3		12-23 m			1990	
DTP3	C or H <12 month	38.4		12-23 m			1990	
Pol3	Card or History	54		12-23 m			1990	
Pol3	C or H <12 month	37.9		12-23 m			1990	
1987 Programa Alargado de Vacinação Avaliação Internacional do Programa 1988								
BCG	Card or History	82		12-23 m		82	1988	
DTP1	Card or History	87		12-23 m		82	1988	
DTP3	Card or History	55		12-23 m		82	1988	
Pol3	Card or History	55		12-23 m		82	1988	
MCV	Card or History	68		12-23 m		82	1988	

Guinea-Bissau

Details Survey Data

Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
1986 Programa Algado de Vacinacao Avaliacao Internacional do Programa 1988								
BCG	Card or History	69		12-23 m			1987	
DTP1	Card or History	88		12-23 m			1987	
DTP3	Card or History	47		12-23 m			1987	
Pol3	Card or History	47		12-23 m			1987	
MCV	Card or History	59		12-23 m			1987	

Guinea-Bissau

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.

Guinea-Bissau

Year	PAB coverage estimate (%)
1980	
1981	
1982	
1983	
1984	5
1985	10
1986	18
1987	25
1988	26
1989	36
1990	40
1991	46
1992	48
1993	54
1994	66
1995	68
1996	47
1997	63
1998	49
1999	41
2000	49
2001	60
2002	62
2003	62
2004	64
2005	65
2006	69
2007	92
2008	94