

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

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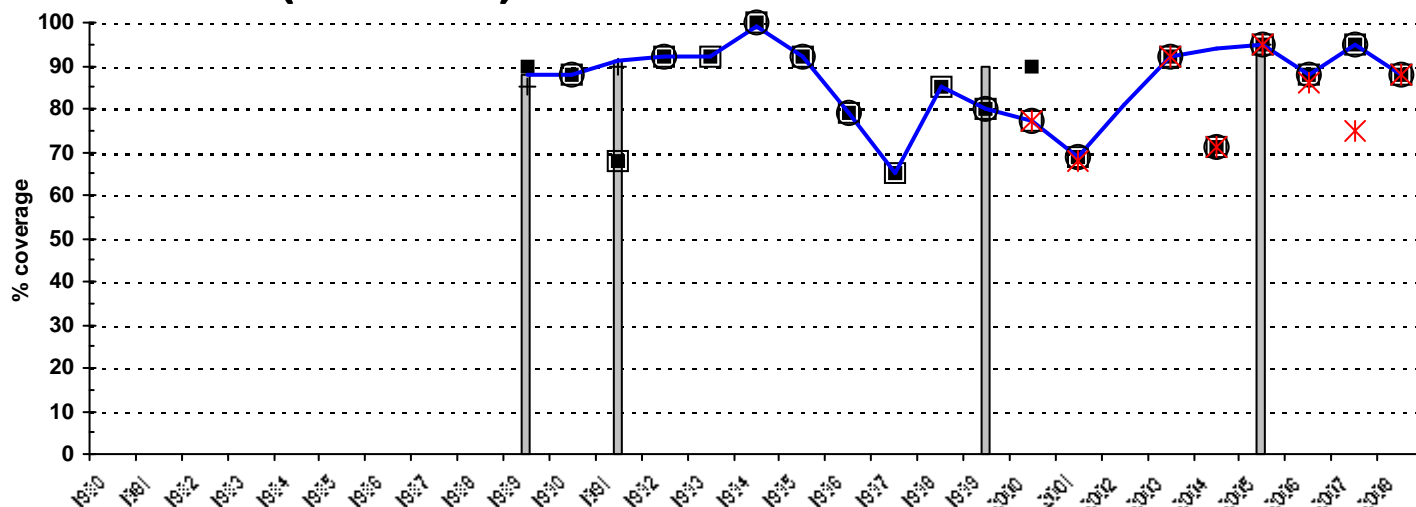
***Namibia***

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**July, 2009**

# Namibia

## BCG (1980-2008)



### Description of trend

Estimates are based on nationally reported coverage data supported by surveys. The 2004 national reports are based on an error in the denominator. No justification given for adjusting 2007 administrative coverage for higher official estimates.

### 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	88		90			88	85
1990	88	88	88	88			
1991	91	68	68			91	90
1992	92	92	92	92			
1993	92	92	92				
1994	99	100	100	100			
1995	92	92	92	92			
1996	79	79	79	79			
1997	65	65	65				
1998	85	85	85				
1999	80	80	80	80		90	
2000	77	77	90	77	77		
2001	69	69	69	69	68		
2002	81	107	107	107	107		
2003	92	92	92	92	92		
2004	94	71	71	71	71		
2005	95	95	95	95	95	95	95
2006	88	88	88	88	86		
2007	95	95	95	95	75		
2008	88	88	88	88	88		

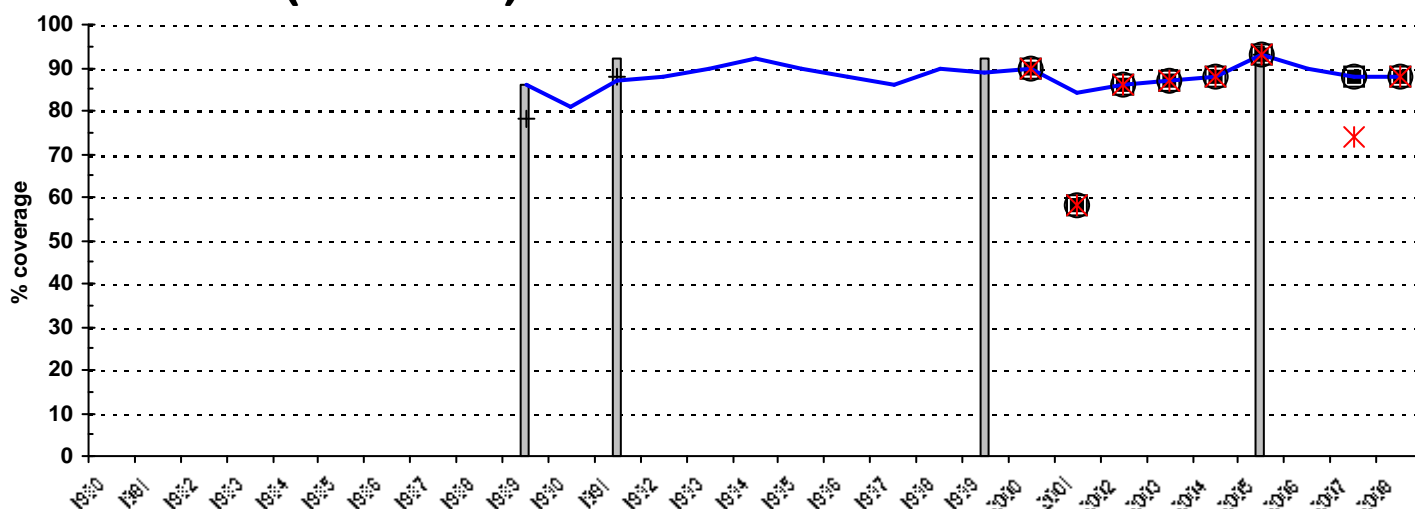
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Namibia

## 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 2000-2004 are based on these reports, except for 2001 where reported DTP1 was less than reported DTP3. For other years the estimates are derived from the WHO/UNICEF estimates of DTP3 and the relationship between the levels of DTP3 coverage and the 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. No justification given for adjusting 2007 administrative coverage for higher official estimates.

### 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	86					86	78
1990	81						
1991	87					92	88
1992	88						
1993	90						
1994	92						
1995	90						
1996	88						
1997	86						
1998	90						
1999	89					92	
2000	90	90	90	90	90		
2001	84	58	58	58	58		
2002	86	86	86	86	86		
2003	87	87	87	87	87		
2004	88	88	88	88	88		
2005	93	93	93	93	93	95	93
2006	90						
2007	88	88	88	88	74		
2008	88	88	88	88	88		

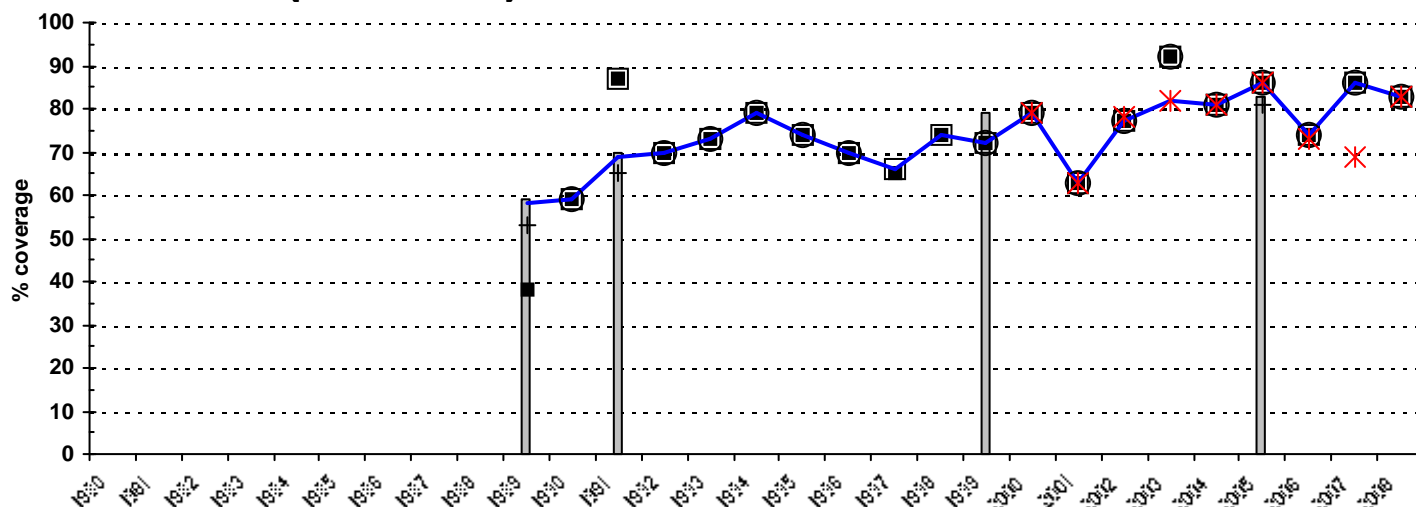
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Namibia

## DTP3 (1980-2008)



### Description of trend

No data are available before 1989. Estimates are based on nationally reported coverage data supported by surveys. No justification given for adjusting 2007 administrative coverage for higher official estimates.

### 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	58		38				
1990	59	59	59	59		59	53
1991	69	87	87			70	65
1992	70	70	70	70			
1993	73	73	73	73			
1994	79	79	79	79			
1995	74	74	74	74			
1996	70	70	70	70			
1997	66	66	65				
1998	74	74	74				
1999	72	72	72	72		79	
2000	79	79	79	79	79		
2001	63	63	63	63	63		
2002	77	77	77	77	78		
2003	82	92	92	92	82		
2004	81	81	81	81	81		
2005	86	86	86	86	86	83	81
2006	74	74	74	74	73		
2007	86	86	86	86	69		
2008	83	83	83	83	83		

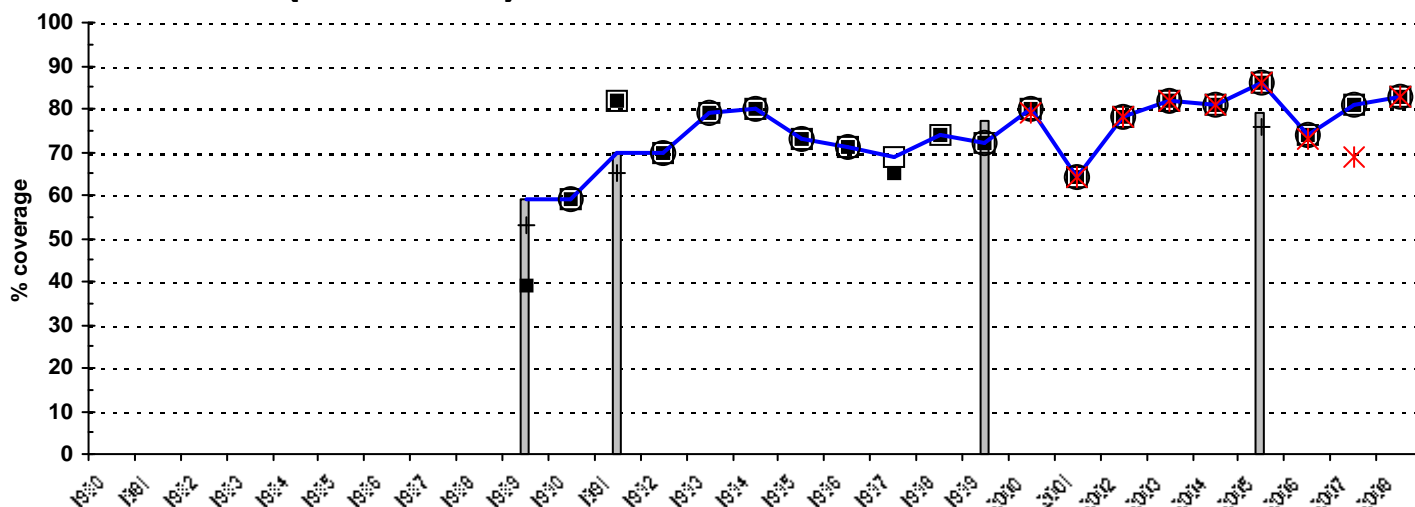
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Namibia

## Pol3 (1980-2008)



### Description of trend

No data are available before 1989. Estimates are based on nationally reported coverage data supported by surveys. No justification given for adjusting 2007 administrative coverage for higher official estimates.

### 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	59		39				
1990	59	59	59	59		59	53
1991	70	82	82			70	65
1992	70	70	70	70			
1993	79	79	79	79			
1994	80	80	80	80			
1995	73	73	73	73			
1996	71	71	71	71			
1997	69	69	65				
1998	74	74	74				
1999	72	72	72	72		77	
2000	80	80	80	80	79		
2001	64	64	64	64	64		
2002	78	78	78	78	78		
2003	82	82	82	82	82		
2004	81	81	81	81	81		
2005	86	86	86	86	86	79	76
2006	74	74	74	74	73		
2007	81	81	81	81	69		
2008	83	83	83	83	83		

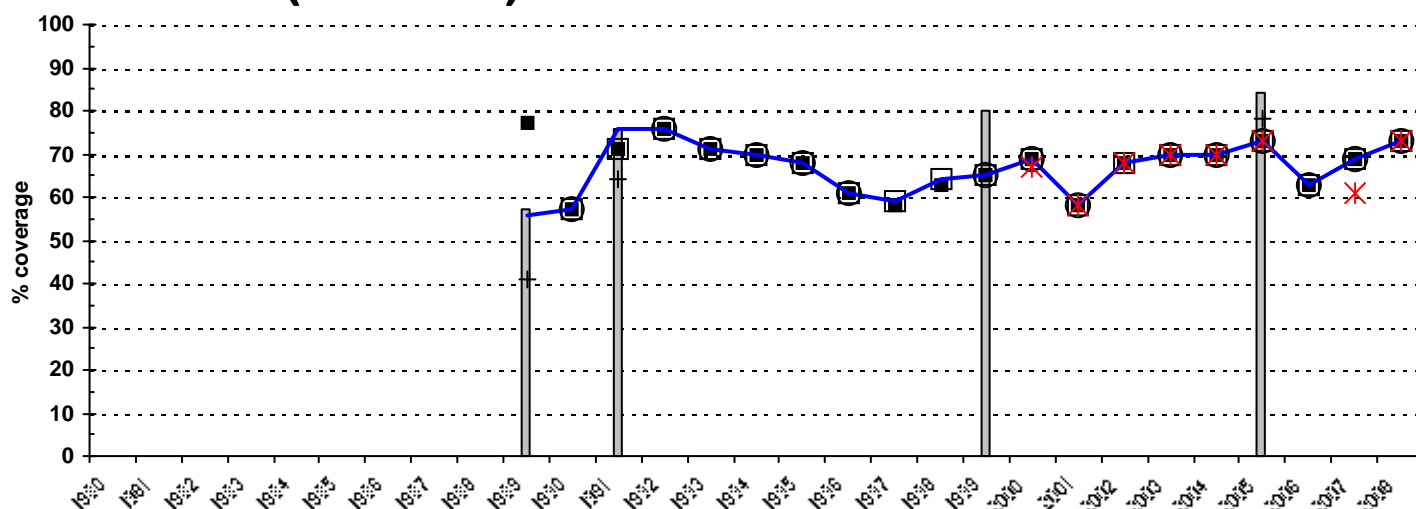
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Namibia

## MCV (1980-2008)



### Description of trend

No data are available before 1989. Estimates are based on nationally reported coverage data supported by surveys. No justification given for adjusting 2007 administrative coverage for higher official estimates.

### 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	56		77			57	41
1990	57	57	57	57			
1991	76	71	71			76	64
1992	76	76	76	76			
1993	71	71	71	71			
1994	70	70	70	70			
1995	68	68	68	68			
1996	61	61	61	61			
1997	59	59	58				
1998	64	64	63				
1999	65	65	65	65		80	
2000	69	69	69	69	67		
2001	58	58	58	58	58		
2002	68	68	68	68	68		
2003	70	70	70	70	70		
2004	70	70	70	70	70		
2005	73	73	73	73	73	84	78
2006	63	63	63	63	63		
2007	69	69	69	69	61		
2008	73	73	73	73	73		

\*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.

# Namibia

## Details Survey Data

### Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
<b>2005 Namibia Demographic and Health Survey 2006</b>								
BCG	Card or History	95		12-23 m	987	73.4	2006/07	
BCG	C or H <12 month	94.7		12-23 m	987	73.4	2006/07	
DTP1	Card or History	94.7		12-23 m	987	73.4	2006/07	
DTP1	C or H <12 month	93.4		12-23 m	987	73.4	2006/07	
DTP3	Card or History	83.2		12-23 m	987	73.4	2006/07	
DTP3	C or H <12 month	81		12-23 m	987	73.4	2006/07	
Pol3	Card or History	78.6		12-23 m	987	73.4	2006/07	
Pol3	C or H <12 month	76.5		12-23 m	987	73.4	2006/07	
MCV	Card or History	83.8		12-23 m	987	73.4	2006/07	
MCV	C or H <12 month	78		12-23 m	987	73.4	2006/07	
PAB	n.a.	56.8		CBAW	3898		2006/07	
<b>1999 Namibia Demographic and Health Survey 2000</b>								
BCG	Card or History	90		12-23 m	816	73.6	2000	
DTP1	Card or History	92		12-23 m	816	73.6	2000	
DTP3	Card or History	79.3		12-23 m	816	73.6	2000	
Pol3	Card or History	77		12-23 m	816	73.6	2000	
MCV	Card or History	80.4		12-23 m	816	73.6	2000	
<b>1991 Namibia Demographic and Health Survey 1992, 1993</b>								
BCG	Card or History	91.3		12-23 m	787	70.2	1992	
BCG	C or H <12 month	89.8		12-23 m	787	70.2	1992	
BCG	C or H <12 month	84.8		24-35 m	752	57.8	1992	
BCG	C or H <12 month	77.2		36-47 m	654	54.8	1992	
BCG	C or H <12 month	75.6		48-59 m	608	50.4	1992	
DTP1	Card or History	91.9		12-23 m	787	70.2	1992	
DTP1	C or H <12 month	87.8		12-23 m	787	70.2	1992	
DTP1	C or H <12 month	82.5		24-35 m	752	57.8	1992	
DTP1	C or H <12 month	67.1		36-47 m	654	54.8	1992	
DTP1	C or H <12 month	65.3		48-59 m	608	50.4	1992	
DTP3	Card or History	69.6		12-23 m	787	70.2	1992	
DTP3	C or H <12 month	64.6		12-23 m	787	70.2	1992	
DTP3	C or H <12 month	55.1		24-35 m	752	57.8	1992	
DTP3	C or H <12 month	38.1		36-47 m	654	54.8	1992	
DTP3	C or H <12 month	36.9		48-59 m	608	50.4	1992	
Pol3	Card or History	69.6		12-23 m	787	70.2	1992	
Pol3	C or H <12 month	64.6		12-23 m	787	70.2	1992	
Pol3	C or H <12 month	55.1		24-35 m	752	57.8	1992	
Pol3	C or H <12 month	38.1		36-47 m	654	54.8	1992	
Pol3	C or H <12 month	37		48-59 m	608	50.4	1992	
MCV	Card or History	75.7		12-23 m	787	70.2	1992	
MCV	C or H <12 month	63.5		12-23 m	787	70.2	1992	
MCV	C or H <12 month	54.2		24-35 m	752	57.8	1992	
MCV	C or H <12 month	35.9		36-47 m	654	54.8	1992	
MCV	C or H <12 month	30.1		48-59 m	608	50.4	1992	
<b>1989 A Situation Analysis of Children and Women in Namibia, 1991, see also National Programme Review of the EPI and other aspects of primary health care, 1993</b>								
BCG	Card or History	87.9		12-23 m			1990	
BCG	C or H <12 month	85.2		12-23 m			1990	not clear if children of same age group by 1 year or 0-11 months ch.

# Namibia

## Details Survey Data

### Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
DTP1	Card or History	86.5		12-23 m			1990	
DTP1	C or H <12 month	78.4		12-23 m			1990	not clear if children of same age group by 1 year or 0-11 months ch.
DTP3	Card or History	58.6		12-23 m			1990	
DTP3	C or H <12 month	53.1		12-23 m			1990	not clear if children of same age group by 1 year or 0-11 months ch.
Pol3	Card or History	58.6		12-23 m			1990	
Pol3	C or H <12 month	53.1		12-23 m			1990	not clear if children of same age group by 1 year or 0-11 months ch.
MCV	Card or History	56.7		12-23 m			1990	
MCV	C or H <12 month	41.1		12-23 m			1990	not clear if children of same age group by 1 year or 0-11 months ch.

## **Namibia**

### **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.

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<sup>1</sup> 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.

## Namibia

<b>Year</b>	<b>PAB coverage estimate (%)</b>
1980	
1981	
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	23
1991	36
1992	38
1993	46
1994	61
1995	40
1996	76
1997	79
1998	77
1999	83
2000	74
2001	86
2002	80
2003	78
2004	79
2005	80
2006	81
2007	82
2008	82