

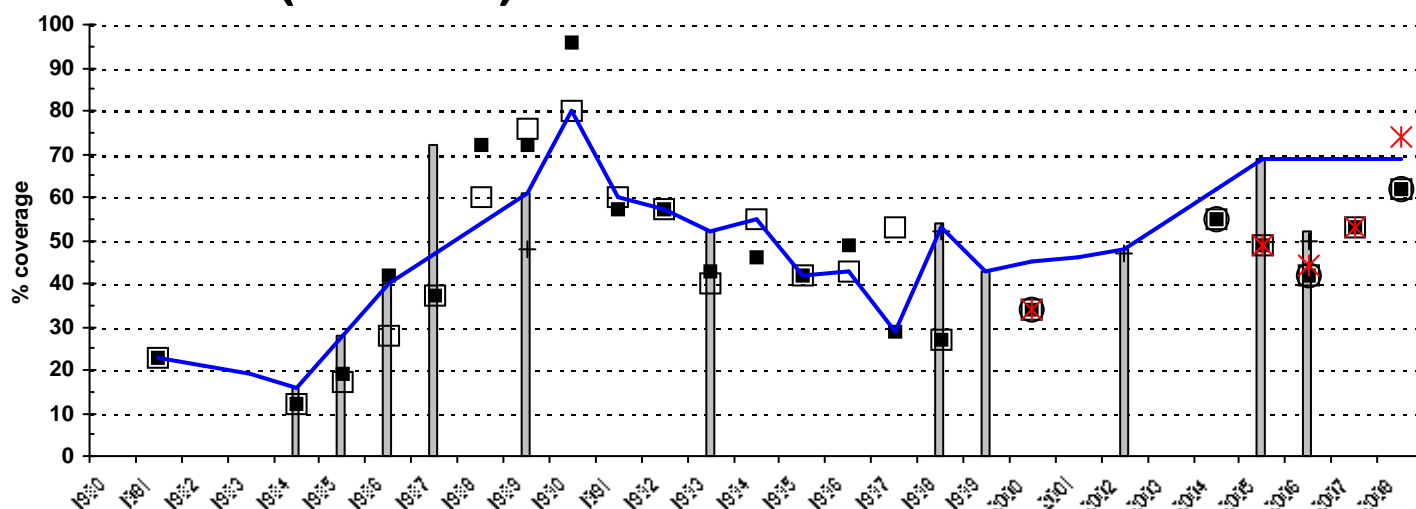
**WHO/UNICEF
Review of National Immunization Coverage
1980-2008**

Nigeria

July, 2009

Nigeria

BCG (1980-2008)



Description of trend

Due to increased activity to reach the UCI-goal and large campaigns in the late 1980s, coverage rates increase from 16% in 1984 to 80% in 1990 supported by survey data between 1984 and 1986. Political problems lead to a reduction of coverage rates after 1990. Following a campaign in 1997, coverage increases back to a level of 53%. The estimates since 1998 are based on recent surveys. Results of 2006 MICS survey results remain preliminary.

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	23	23	23				
1982	21						
1983	19						
1984	16	12	12			16	
1985	28	17	19			28	
1986	40	28	42			40	
1987	47	37	37			72	
1988	54	60	72				
1989	61	76	72			61	48
1990	80	80	96				
1991	60	60	57				
1992	57	57	57				
1993	52	40	43			52	
1994	55	55	46				
1995	42	42	42				
1996	43	43	49				
1997	29	53	29				
1998	53	27	27			54	52
1999	43					43	
2000	45	34	34	34	34		
2001	46						
2002	48					48	47
2003	55						
2004	62	55	55	55			
2005	69	49	49		49	69	
2006	69	42	42	42	44	52	50
2007	69	53	53		53		
2008	69	62	62	62	74		

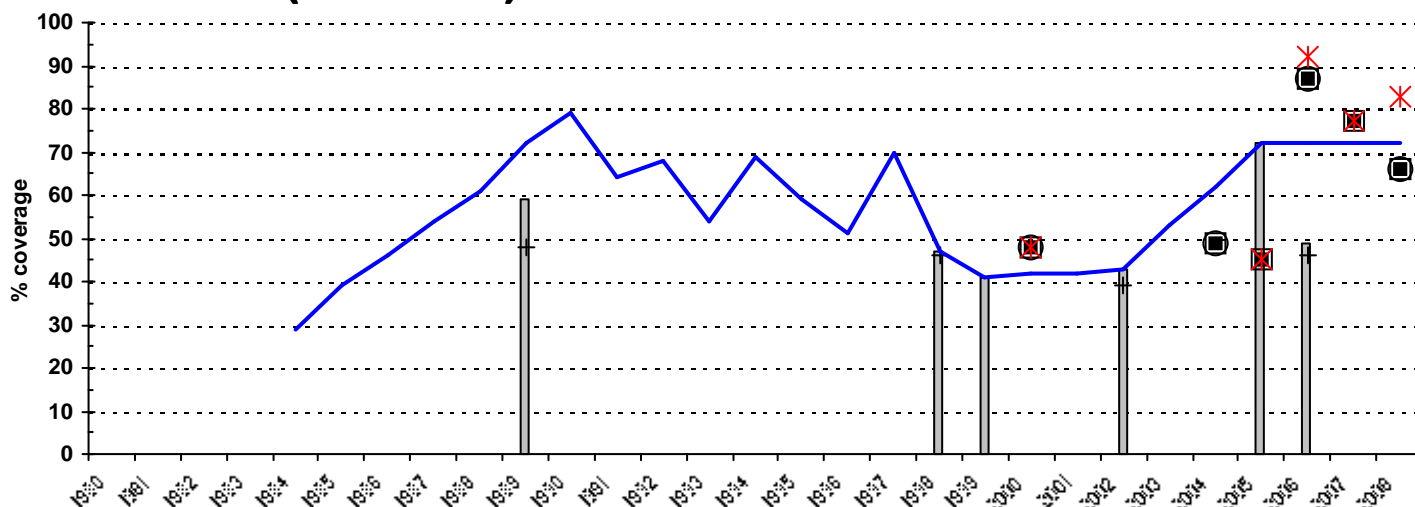
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Nigeria

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 for 2000. DTP1 estimates from 1998 are based on survey results. For years prior to 1998 the estimates are derived from the WHO/UNICEF estimates 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. The estimate since 1998 is based on recent surveys. Results of 2006 MICS survey results are remain preliminary.

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	29						
1985	39						
1986	46						
1987	54						
1988	61						
1989	72					59	48
1990	79						
1991	64						
1992	68						
1993	54						
1994	69						
1995	59						
1996	51						
1997	70						
1998	47					47	46
1999	41					41	
2000	42	48	48	48	48		
2001	42						
2002	43					43	39
2003	53						
2004	62	49	49	49			
2005	72	45	45		45	72	
2006	72	87	87	87	92	49	46
2007	72	77	77		77		
2008	72	66	66	66	83		

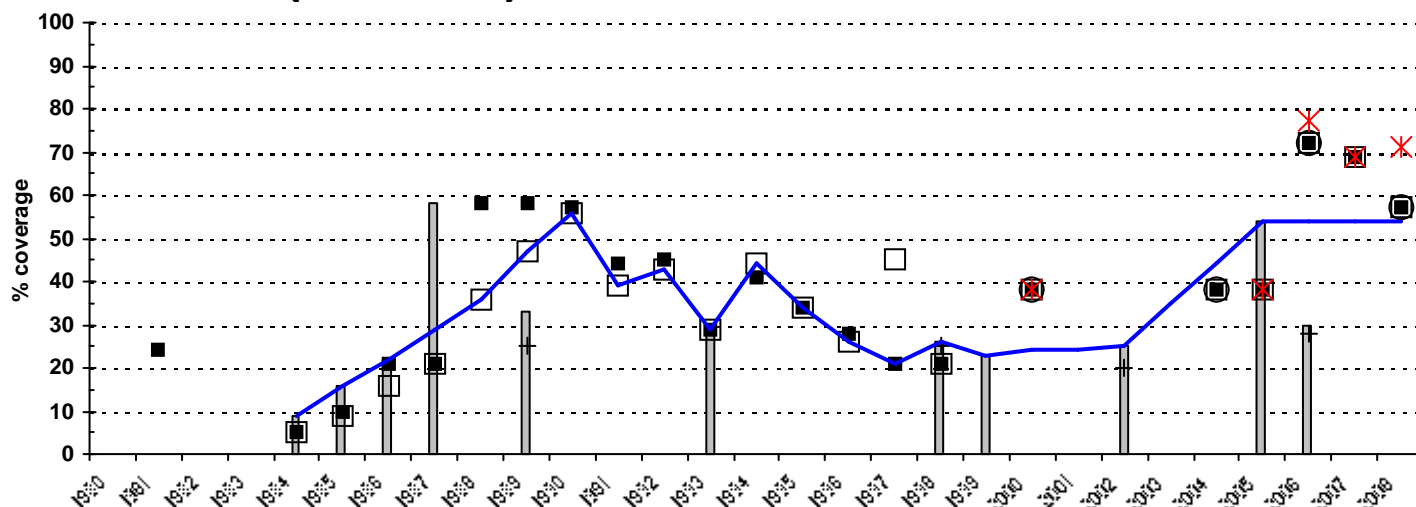
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Nigeria

DTP3 (1980-2008)



Description of trend

Due to increased activity to reach the UCI-goal and large campaigns in the late 1980s, coverage rates increase from below 10% in 1984 to 56% in 1990, supported by survey data between 1984 and 1986. Political problems lead to a reduction of coverage rates after 1990. After a slight recovery to 45% in 1997 following a campaign coverage drops again in 1999 due to vaccine shortage and administrative problems. The estimates since 1998 are based on recent surveys. Results of 2006 MICS survey results are preliminary.

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			24				
1982							
1983							
1984	9	5	5			9	
1985	16	9	10			16	
1986	22	16	21			22	
1987	29	21	21			58	
1988	36	36	58				
1989	47	47	58			33	25
1990	56	56	57				
1991	39	39	44				
1992	43	43	45				
1993	29	29	29			28	
1994	44	44	41				
1995	34	34	34				
1996	26	26	28				
1997	21	45	21				
1998	26	21	21			26	25
1999	23					23	
2000	24	38	38	38	38		
2001	24						
2002	25					25	20
2003	35						
2004	44	38	38	38			
2005	54	38	38		38	54	
2006	54	72	72	72	77	30	28
2007	54	69	69		69		
2008	54	57	57	57	71		

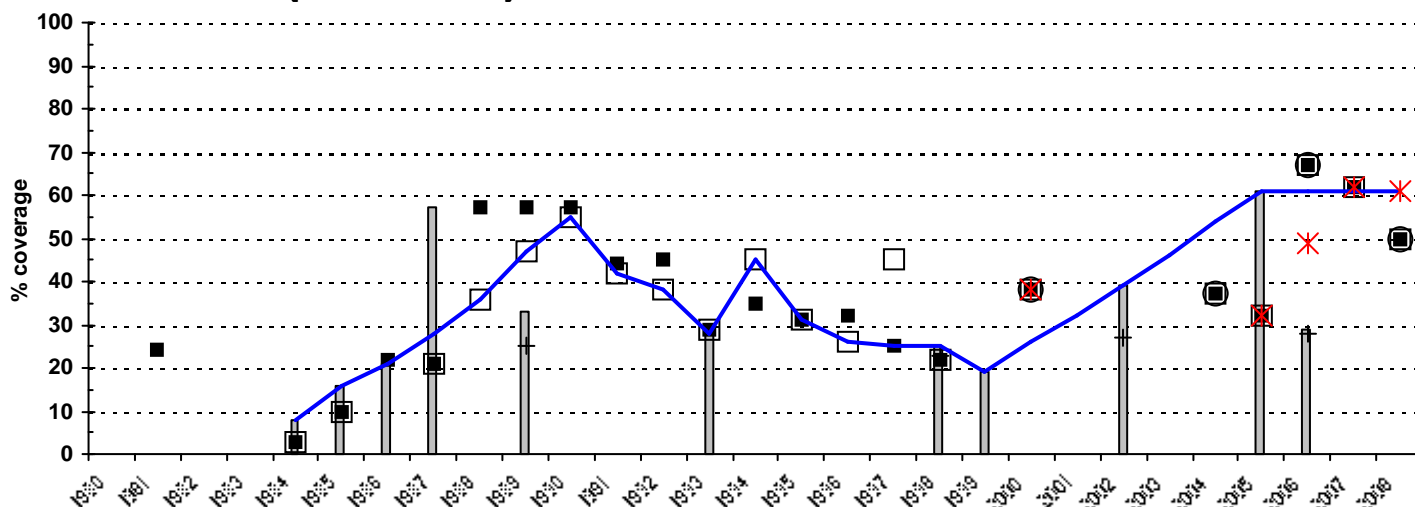
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Nigeria

Pol3 (1980-2008)



Description of trend

Due to increased activity to reach the UCI-goal and large campaigns in the late 1980s, coverage rates increase from below 10% in 1984 to 55 1990, supported by survey data between 1984 and 1986. Political problems lead to a reduction of coverage rates after 1990, confirmed by the 1994/95. After a recovery to 45% in 1997 following a campaign coverage drops again in 1999 due to vaccine shortage and administrative prob. The estimates since 1998 are based on recent surveys. Results of 2006 MICS survey results are remain preliminary.

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			24				
1982							
1983							
1984	8	3	3			8	
1985	16	10	10			16	
1986	21		22			21	
1987	28	21	21			57	
1988	36	36	57				
1989	47	47	57			33	25
1990	55	55	57				
1991	42	42	44				
1992	38	38	45				
1993	28	29	29			28	
1994	45	45	35				
1995	31	31	31				
1996	26	26	32				
1997	25	45	25				
1998	25	22	22			25	23
1999	19					19	
2000	26	38	38	38	38		
2001	32						
2002	39					39	27
2003	46						
2004	54	37	37	37			
2005	61	32	32		32	61	
2006	61	67	67	67	49	29	28
2007	61	62	62		62		
2008	61	50	50	50	61		

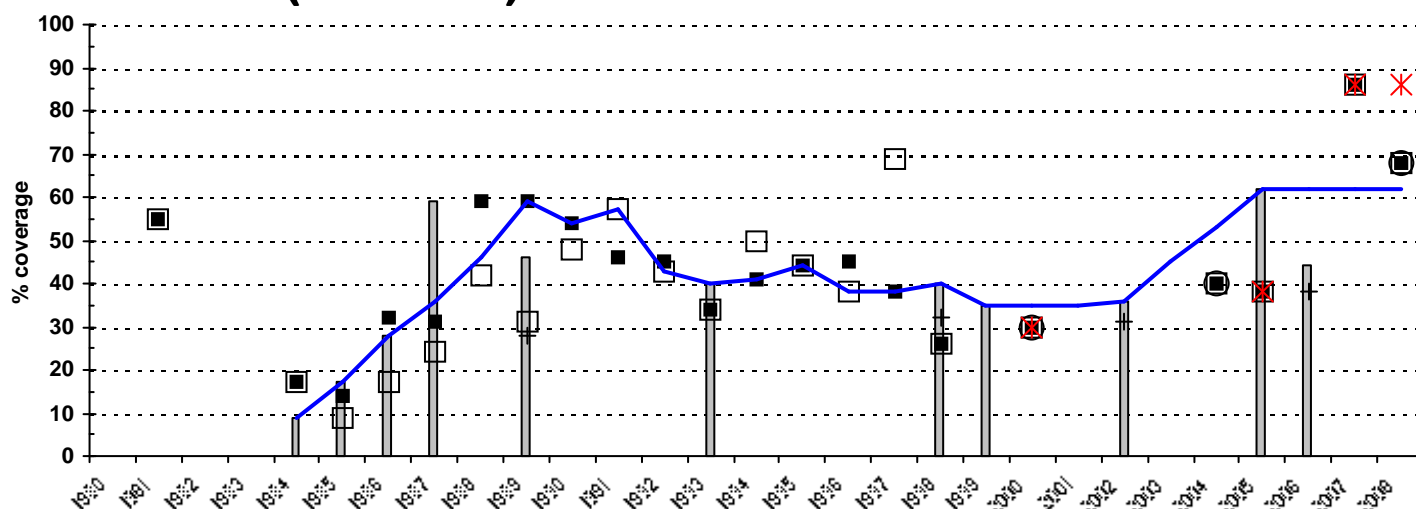
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Nigeria

MCV (1980-2008)



Description of trend

Due to increased activity to reach the UCI-goal and large campaigns in the late 1980s, coverage rates increase from below 10% in 1984 to 81% in 1990, supported by survey data. Political problems lead to a reduction of coverage rates after 1990, confirmed by the MICS 1994/95. After a recovery to 69% in 1997 following a campaign coverage drops again in 1999 due to vaccine shortage and administrative problems. The estimates since 1998 are based on recent surveys. Results of 2006 MICS survey results are preliminary.

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		55	55				
1982							
1983							
1984	9	17	17			9	
1985	17	9	14			17	
1986	28	17	32			28	
1987	36	24	31			59	
1988	46	42	59				
1989	59	31	59			46	28
1990	54	48	54				
1991	57	57	46				
1992	43	43	45				
1993	40	34	34			40	
1994	41	50	41				
1995	44	44	44				
1996	38	38	45				
1997	38	69	38				
1998	40	26	26			40	32
1999	35					35	
2000	35	30	30	30	30		
2001	35						
2002	36					36	31
2003	45						
2004	53	40	40	40			
2005	62	38	38		38	62	
2006	62	112	112	112	114	44	38
2007	62	86	86		86		
2008	62	68	68	68	86		

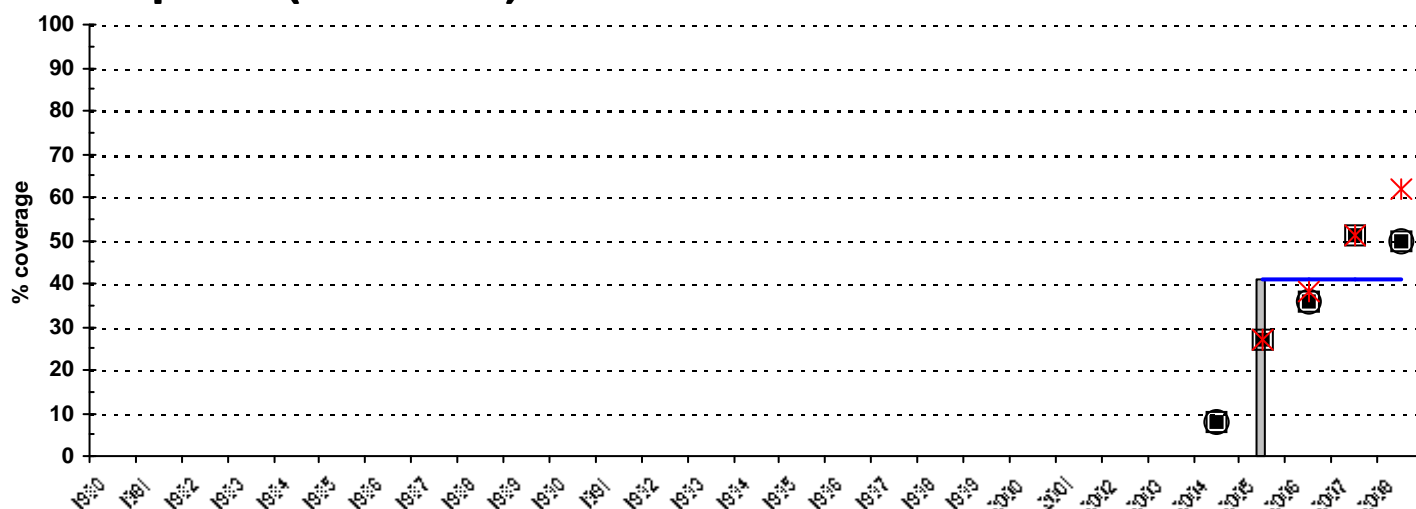
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Nigeria

HepB3 (1980-2008)



Description of trend

Monovalent Hepatitis B vaccine was introduced in 2004. No independent confirmation for reported levels of coverage is currently available. Estimates since 2005 are based on recent surveys. Results of 2006 MICS survey results are remain preliminary.

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		8	8	8			
2005	41	27	27		27	41	
2006	41	36	36	36	38		
2007	41	51	51		51		
2008	41	50	50	50	62		

*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.

Nigeria

Details Survey Data

Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
2006 Nigeria Multiple Indicator Cluster Survey 2007, Preliminary Report								
BCG	Card or History	51.5		12-23 m	3187	18.2	2007	
BCG	C or H <12 month	50.5		12-23 m	3187	18.2	2007	
DTP1	Card or History	48.6		12-23 m	3187	18.2	2007	
DTP1	C or H <12 month	46.4		12-23 m	3187	18.2	2007	
DTP3	Card or History	29.6		12-23 m	3187	18.2	2007	
DTP3	C or H <12 month	28.1		12-23 m	3187	18.2	2007	
Pol3	Card or History	29.4		12-23 m	3187	18.2	2007	
Pol3	C or H <12 month	27.5		12-23 m	3187	18.2	2007	
MCV	Card or History	44		12-23 m	3187	18.2	2007	
MCV	C or H <12 month	38.3		12-23 m	3187	18.2	2007	
2005 Nigeria National Immunization Coverage Survey (2006)								
BCG	Card or History	68.6	Crude	12-23 m	23414	49.5	2006	
DTP1	Card or History	71.7	Crude	12-23 m	23414	49.5	2006	
DTP3	Card or History	53.5	Crude	12-23 m	23414	49.5	2006	
Pol3	Card or History	60.7	Crude	12-23 m	23414	49.5	2006	
MCV	Card or History	62.4	Crude	12-23 m	23414	49.5	2006	
HepB	Card or History	41.2	Crude	12-23 m	23414	49.5	2006	
2002 Nigeria Demographic and Health Survey 2003								
BCG	Card or History	48.3		12-23 m	999	21.3	2003	
BCG	C or H <12 month	46.9		12-23 m	999	21.3	2003	
DTP1	Card or History	42.6		12-23 m	999	21.3	2003	
DTP1	C or H <12 month	38.7		12-23 m	999	21.3	2003	
DTP3	Card or History	21.4		12-23 m	999	21.3	2003	
DTP3	C or H <12 month	20.1		12-23 m	999	21.3	2003	
Pol3	Card or History	29.4		12-23 m	999	21.3	2003	
Pol3	C or H <12 month	26.8		12-23 m	999	21.3	2003	
MCV	Card or History	35.9		12-23 m	999	21.3	2003	
MCV	C or H <12 month	31.4		12-23 m	999	21.3	2003	
2002 Nigeria National Immunization Coverage Survey 2003								
BCG	Card or History	29.3		12-23 m	40777	28.4	2003	BCG scar: 39.7
DTP1	Card or History	43.2		12-23 m	40777	28.4	2003	Valid
DTP3	Card or History	24.8		12-23 m	40777	28.4	2003	Valid
Pol3	Card or History	38.6		12-23 m	40777	28.4	2003	Valid
MCV	Card or History	25.3		12-23 m	40777	28.4	2003	Valid
PAB	Card or History	7.1		Women 15-49	40777	28.4	2003	Valid
1999 MICS Nigeria, 1999								
BCG	Card or History	43		12-23 m	2841	25.2	1999	
DTP1	Card or History	41.1		12-23 m	2841	25.2	1999	
DTP3	Card or History	23.4		12-23 m	2841	25.2	1999	
Pol3	Card or History	18.8		12-23 m	2841	25.2	1999	
MCV	Card or History	35		12-23 m	2841	25.2	1999	
1998 Nigeria Demographic and Health Survey 1999, 2000								
BCG	Card or History	53.8		12-23 m	1161		1999	
BCG	C or H <12 month	52		12-23 m	1161		1999	

Nigeria

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	47.4		12-23 m	1161		1999	
DTP1	C or H <12 month	45.7		12-23 m	1161		1999	
DTP3	Card or History	26.3		12-23 m	1161		1999	
DTP3	C or H <12 month	24.8		12-23 m	1161		1999	
Pol3	Card or History	24.8		12-23 m	1161		1999	
Pol3	C or H <12 month	23		12-23 m	1161		1999	
MCV	Card or History	40.5		12-23 m	1161		1999	
MCV	C or H <12 month	32.1		12-23 m	1161		1999	

1993 FR of Nigeria Multiple Indicator Cluster Survey 1995

BCG	Card or History	52		12-23 m	1743	18.7	1994	
DTP1	Card or History			12-23 m	1743	18.7	1994	
DTP3	Card or History	27.5		12-23 m	1743	18.7	1994	
Pol3	Card or History	27.5		12-23 m	1743	18.7	1994	
MCV	Card or History	39.9		12-23 m	1743	18.7	1994	

1989 Nigeria Demographic and Health Survey 1990, 1992

BCG	Card or History	60.7		12-23 m	1380	34.7	1990	
BCG	C or H <12 month	48.3		12-23 m	1380	34.7	1990	
BCG	C or H <12 month	36		24-35 m	1320	29.3	1990	
BCG	C or H <12 month	34.9		36-47 m	1415	25.3	1990	
BCG	C or H <12 month	30.4		48-59 m	1349	16.2	1990	
DTP1	Card or History	59.2		12-23 m	1380	34.7	1990	
DTP1	C or H <12 month	47.5		12-23 m	1380	34.7	1990	
DTP1	C or H <12 month	34.2		24-35 m	1320	29.3	1990	
DTP1	C or H <12 month	33.8		36-47 m	1415	25.3	1990	
DTP1	C or H <12 month	27		48-59 m	1349	16.2	1990	
DTP3	Card or History	33.3		12-23 m	1380	34.7	1990	
DTP3	C or H <12 month	25.4		12-23 m	1380	34.7	1990	
DTP3	C or H <12 month	18.2		24-35 m	1320	29.3	1990	
DTP3	C or H <12 month	22.7		36-47 m	1415	25.3	1990	
DTP3	C or H <12 month	16.6		48-59 m	1349	16.2	1990	
Pol3	Card or History	33.4		12-23 m	1380	34.7	1990	
Pol3	C or H <12 month	25.4		12-23 m	1380	34.7	1990	
Pol3	C or H <12 month	18.2		24-35 m	1320	29.3	1990	
Pol3	C or H <12 month	22.6		36-47 m	1415	25.3	1990	
Pol3	C or H <12 month	16.5		48-59 m	1349	16.2	1990	
MCV	Card or History	46		12-23 m	1380	34.7	1990	
MCV	C or H <12 month	28.1		12-23 m	1380	34.7	1990	
MCV	C or H <12 month	18.8		24-35 m	1320	29.3	1990	
MCV	C or H <12 month	21		36-47 m	1415	25.3	1990	
MCV	C or H <12 month	15.8		48-59 m	1349	16.2	1990	

1987 EPI, Immunization Coverage Survey, 1988

BCG	Card or History	72.2		12-23 m	9240		1988	
DTP1	Card or History			12-23 m	9240		1988	
DTP3	Card or History	57.8		12-23 m	9240		1988	
Pol3	Card or History	57		12-23 m	9240		1988	
MCV	Card or History	59.2		12-23 m	9240		1988	

1986 Status report on revised EPI programme from 1985 to 1989

BCG	Card or History	40		12-23 m			1987	
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Nigeria

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			12-23 m			1987	
DTP3	Card or History	21.5		12-23 m			1987	
Pol3	Card or History	20.7		12-23 m			1987	
MCV	Card or History	28		12-23 m			1987	

1985 Status report on revised EPI programme from 1985 to 1989

BCG	Card or History	28.3		12-23 m			1986	
DTP1	Card or History			12-23 m			1986	
DTP3	Card or History	15.9		12-23 m			1986	
Pol3	Card or History	16.3		12-23 m			1986	
MCV	Card or History	17.2		12-23 m			1986	

1984 Status report on revised EPI programme from 1985 to 1989

BCG	Card or History	16.5		12-23 m			1985	
DTP1	Card or History			12-23 m			1985	
DTP3	Card or History	8.9		12-23 m			1985	
Pol3	Card or History	8.1		12-23 m			1985	
MCV	Card or History	9.1		12-23 m			1985	

Nigeria

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.

Nigeria

Year	PAB coverage estimate (%)
1980	
1981	10
1982	11
1983	12
1984	10
1985	11
1986	16
1987	22
1988	29
1989	30
1990	32
1991	33
1992	35
1993	35
1994	36
1995	44
1996	46
1997	48
1998	48
1999	49
2000	57
2001	59
2002	60
2003	61
2004	61
2005	62
2006	63
2007	63
2008	64