

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

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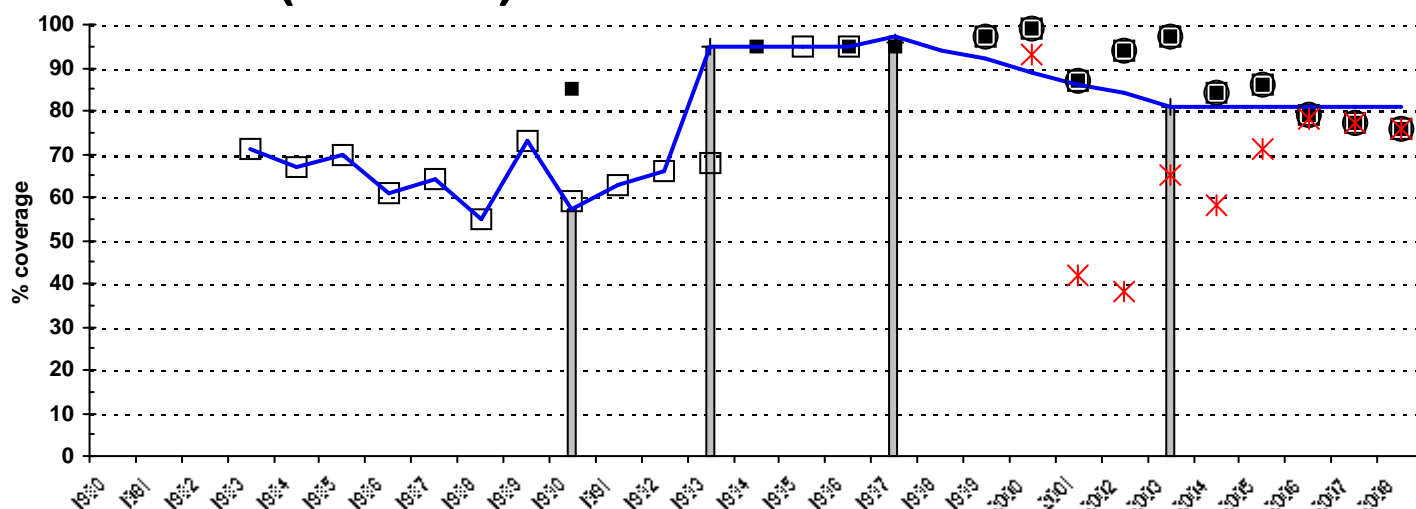
***South Africa***

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**July, 2009**

# South Africa

## BCG (1980-2008)



### Description of trend

Estimated immunization coverage levels are based on reported data from 1983-1992. From 1993 onward estimates are based on survey results. WHO & UNICEF recommend a high quality survey to confirm reported coverage levels.

### 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	71	71					
1984	67	67					
1985	70	70					
1986	61	61					
1987	64	64					
1988	55	55					
1989	73	73					
1990	57	59	85			57	
1991	63	63					
1992	66	66					
1993	95	68				95	95
1994	95		95				
1995	95	95					
1996	95	95	95				
1997	97		95			97	96
1998	94						
1999	92	97	97	97			
2000	89	99	99	99	93		
2001	86	87	87	87	42		
2002	84	94	94	94	38		
2003	81	97	97	97	65	81	81
2004	81	84	84	84	58		
2005	81	86	86	86	71		
2006	81	79	79	79	78		
2007	81	77	77	77	77		
2008	81	76	76	76	76		

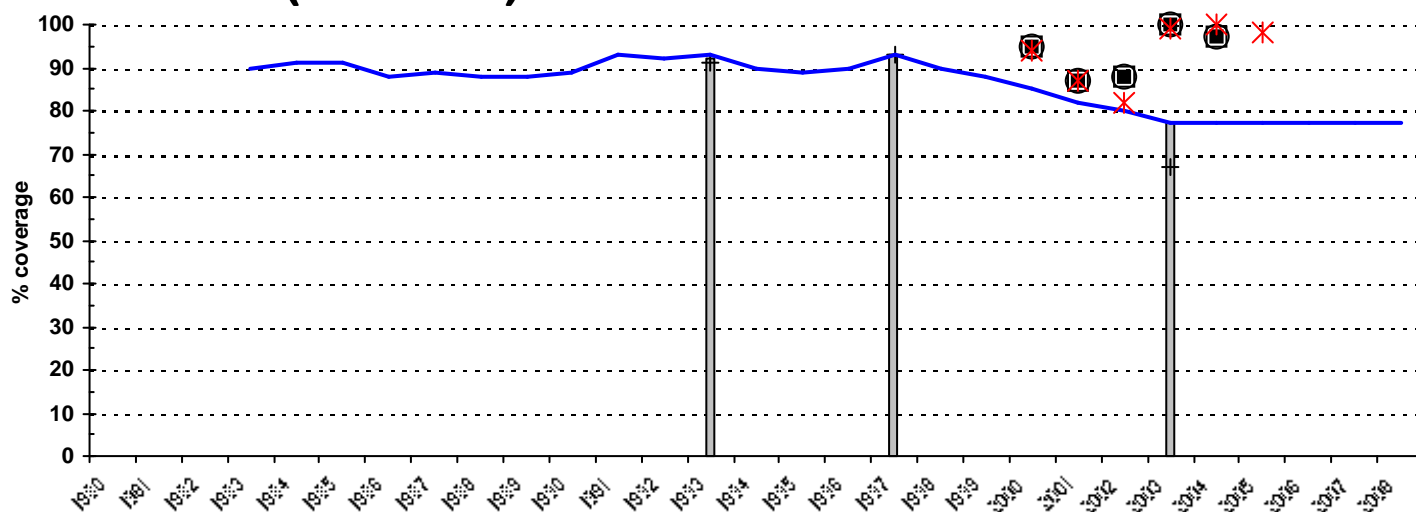
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# South Africa

## DTP1 (1980-2008)



### Description of trend

WHO and UNICEF began requesting data on DTP1 coverage in 2001. 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 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. From 1993 onward estimates are based on survey results. WHO & UNICEF recommend a high quality survey to confirm reported coverage levels.

### 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	90						
1984	91						
1985	91						
1986	88						
1987	89						
1988	88						
1989	88						
1990	89						
1991	93						
1992	92						
1993	93					92	91
1994	90						
1995	89						
1996	90						
1997	93					93	93
1998	90						
1999	88						
2000	85	95	95	95	94		
2001	82	87	87	87	87		
2002	80	88	88	88	82		
2003	77	100	100	100	99	77	67
2004	77	97	97	97	100		
2005	77	101	101	101	98		
2006	77	103	103	103	101		
2007	77	101	101	101	121		
2008	77	102	102	102	102		

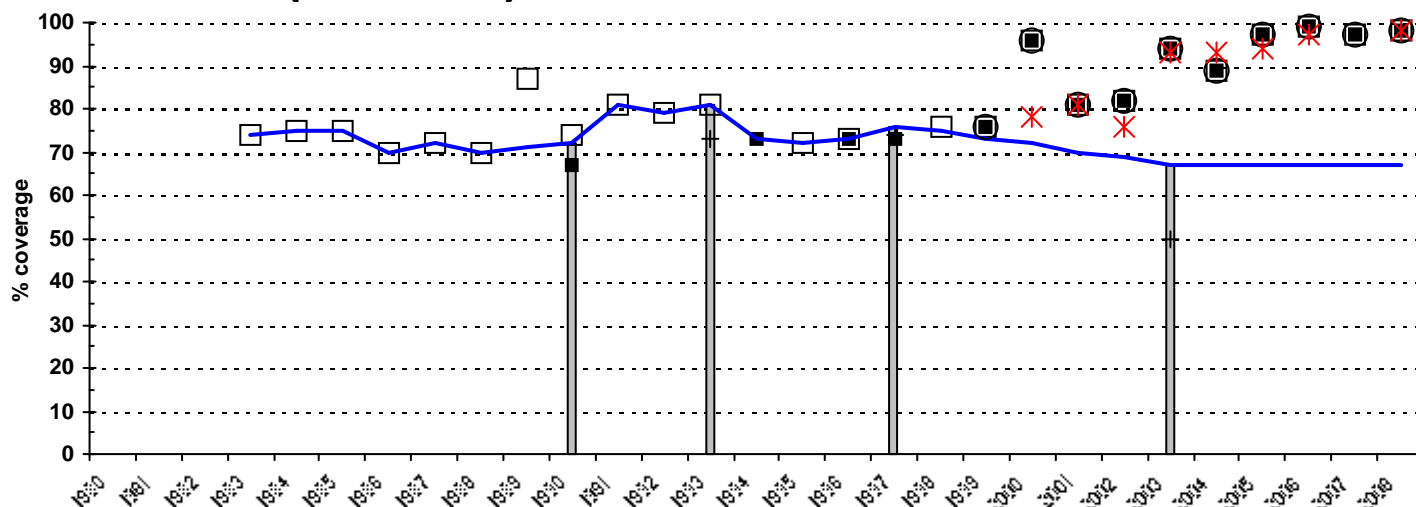
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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

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# South Africa

## DTP3 (1980-2008)



### Description of trend

Estimated immunization coverage levels are based on reported data from 1983-1992. From 1993 onward estimates are based on survey results. WHO & UNICEF recommend a high quality survey to confirm reported coverage levels.

### 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	74	74					
1984	75	75					
1985	75	75					
1986	70	70					
1987	72	72					
1988	70	70					
1989	71	87					
1990	72	74	67			72	
1991	81	81					
1992	79	79					
1993	81	81				81	73
1994	73		73				
1995	72	72					
1996	73	73	73				
1997	76		73			76	74
1998	75	76					
1999	73	76	76	76			
2000	72	96	96	96	78		
2001	70	81	81	81	81		
2002	69	82	82	82	76		
2003	67	94	94	94	93	67	50
2004	67	89	89	89	93		
2005	67	97	97	97	94		
2006	67	99	99	99	97		
2007	67	97	97	97	117		
2008	67	98	98	98	98		

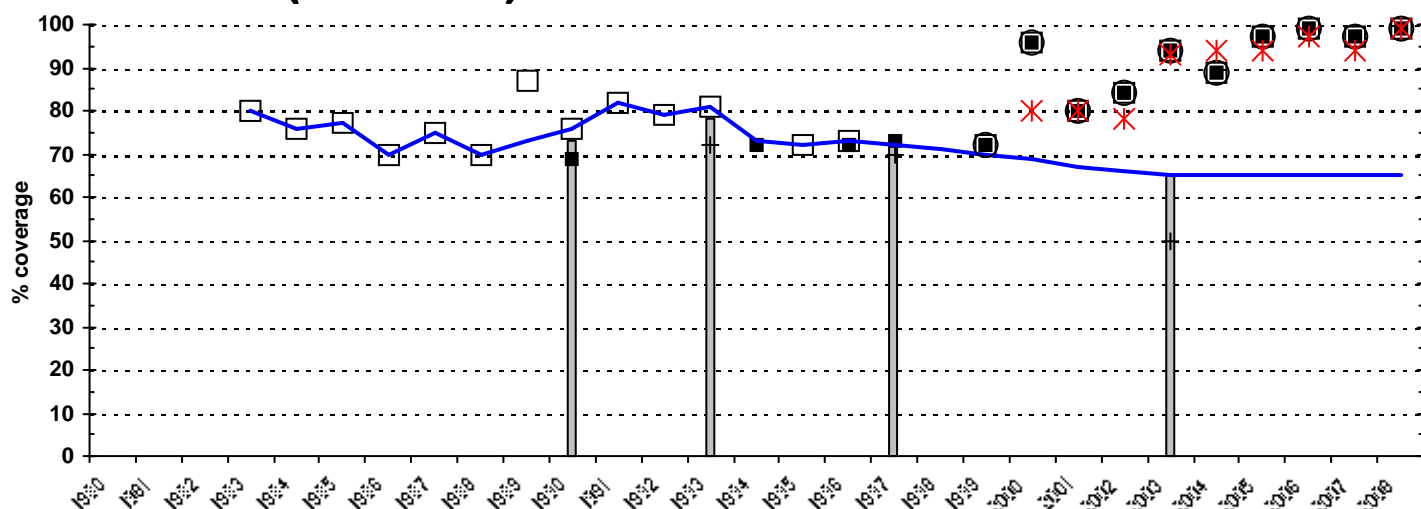
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# South Africa

## Pol3 (1980-2008)



### Description of trend

Estimated immunization coverage levels are based on reported data from 1983-1992. From 1993 onward estimates are based on survey results. WHO & UNICEF recommend a high quality survey to confirm reported coverage levels.

### 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	80	80					
1984	76	76					
1985	77	77					
1986	70	70					
1987	75	75					
1988	70	70					
1989	73	87					
1990	76	76	69			73	
1991	82	82					
1992	79	79					
1993	81	81				78	72
1994	73		72				
1995	72	72					
1996	73	73	72				
1997	72		73			72	70
1998	71						
1999	70	72	72	72			
2000	69	96	96	96	80		
2001	67	80	80	80	80		
2002	66	84	84	84	78		
2003	65	94	94	94	93	65	50
2004	65	89	89	89	94		
2005	65	97	97	97	94		
2006	65	99	99	99	97		
2007	65	97	97	97	94		
2008	65	99	99	99	99		

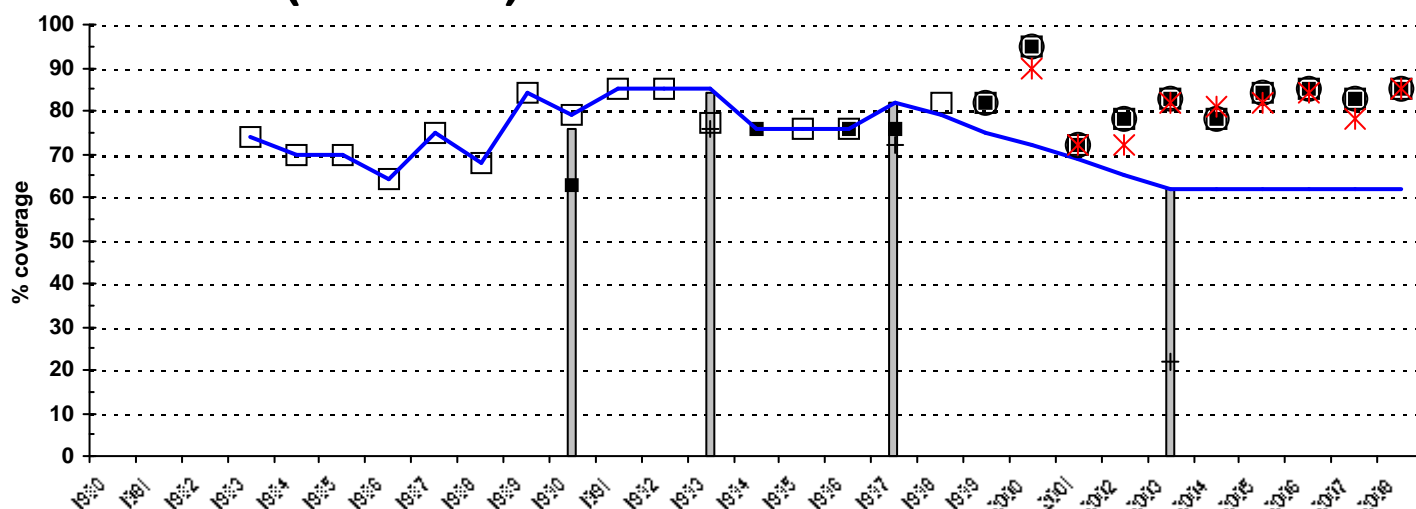
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# South Africa

## MCV (1980-2008)



### Description of trend

Estimated immunization coverage levels are based on reported data from 1983-1992. From 1993 onward estimates are based on survey results. WHO & UNICEF recommend a high quality survey to confirm reported coverage levels.

### 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	74	74					
1984	70	70					
1985	70	70					
1986	64	64					
1987	75	75					
1988	68	68					
1989	84	84					
1990	79	79	63			76	
1991	85	85					
1992	85	85					
1993	85	77				84	76
1994	76		76				
1995	76	76					
1996	76	76	76				
1997	82		76			82	72
1998	79	82					
1999	75	82	82	82			
2000	72	95	95	95	90		
2001	69	72	72	72	72		
2002	65	78	78	78	72		
2003	62	83	83	83	82	62	22
2004	62	78	78	78	81		
2005	62	84	84	84	82		
2006	62	85	85	85	84		
2007	62	83	83	83	78		
2008	62	85	85	85	85		

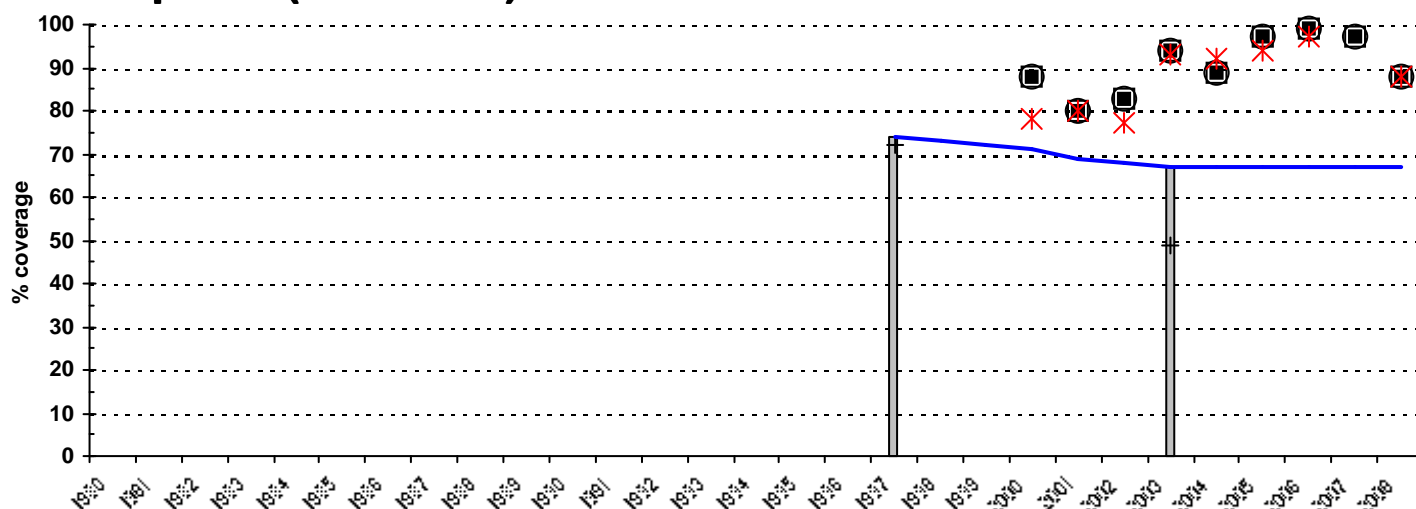
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# South Africa

## HepB3 (1980-2008)



### Description of trend

Hepatitis B vaccine introduced in 1995. Estimated immunization coverage levels are based on reported data from 1983-1992. From 1993 onward estimates are based on survey results. WHO & UNICEF recommend a high quality survey to confirm reported coverage levels.

### 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	74					74	72
1998	73						
1999	72						
2000	71	88	88	88	78		
2001	69	80	80	80	80		
2002	68	83	83	83	77		
2003	67	94	94	94	93	67	49
2004	67	89	89	89	92		
2005	67	97	97	97	94		
2006	67	99	99	99	97		
2007	67	97	97	97	117		
2008	67	88	88	88	88		

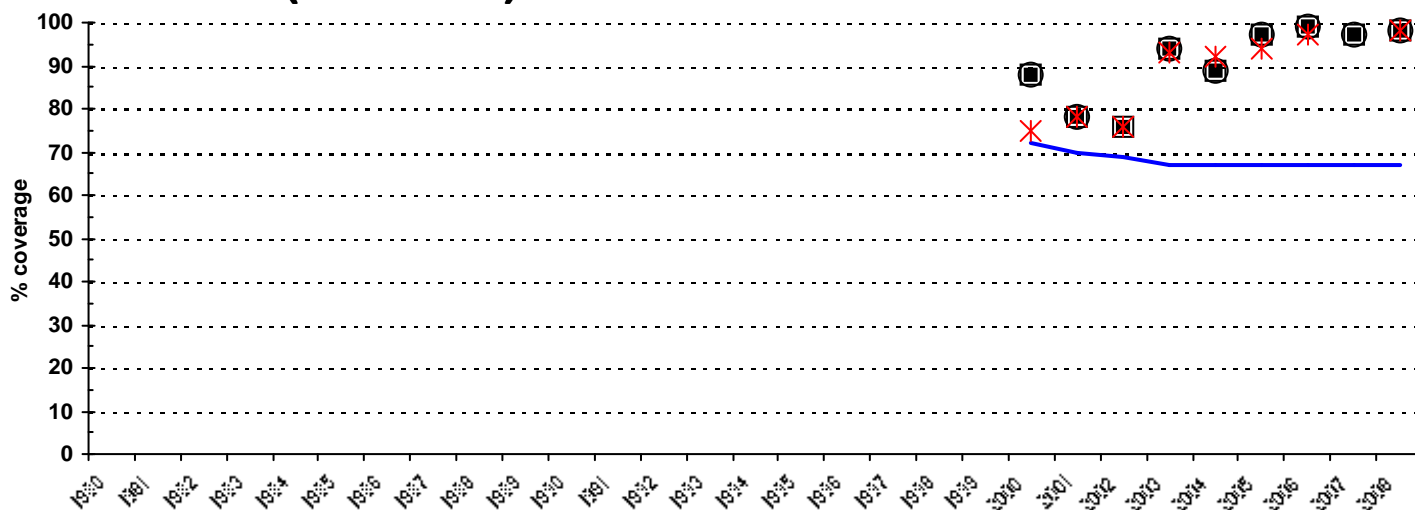
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# South Africa

## Hib3 (1980-2008)



### Description of trend

Hib vaccine introduced in 1999. From 1999 onward estimates are based on survey results. WHO & UNICEF recommend a high quality survey confirm reported coverage levels.

### 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	72	88	88	88	75		
2001	70	78	78	78	78		
2002	69	76	76	76	76		
2003	67	94	94	94	93		
2004	67	89	89	89	92		
2005	67	97	97	97	94		
2006	67	99	99	99	97		
2007	67	97	97	97	117		
2008	67	98	98	98	98		

\*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.

# South Africa

## Details Survey Data

### Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
<b>2003 South Africa Demographic and Health Survey 2003</b>								
BCG	Card or History	81.2		12-23 m	408	71.1	2003/2004	
BCG	C or H <12 month	81.2		12-23 m	408	71.1	2003/2004	
DTP1	Card or History	76.7		12-23 m	408	71.1	2003/2004	
DTP1	C or H <12 month	66.9		12-23 m	408	71.1	2003/2004	
DTP3	Card or History	67		12-23 m	408	71.1	2003/2004	
DTP3	C or H <12 month	49.9		12-23 m	408	71.1	2003/2004	
Pol3	Card or History	65.1		12-23 m	408	71.1	2003/2004	
Pol3	C or H <12 month	49.9		12-23 m	408	71.1	2003/2004	
MCV	Card or History	62		12-23 m	408	71.1	2003/2004	
MCV	C or H <12 month	22.3		12-23 m	408	71.1	2003/2004	
HepB	Card or History	66.8		12-23 m	408	71.1	2003/2004	
HepB	C or H <12 month	49		12-23 m	408	71.1	2003/2004	

### 1997 South Africa Demographic and Health Survey 1998

BCG	Card or History	96.8		12-23 m	973	74.6	1998	
BCG	C or H <12 month	96.4		12-23 m	973	74.6	1998	
DTP1	Card or History	93.3		12-23 m	973	74.6	1998	
DTP1	C or H <12 month	92.8		12-23 m	973	74.6	1998	
DTP3	Card or History	76.4		12-23 m	973	74.6	1998	
DTP3	C or H <12 month	74.2		12-23 m	973	74.6	1998	
Pol3	Card or History	72.1		12-23 m	973	74.6	1998	
Pol3	C or H <12 month	70.1		12-23 m	973	74.6	1998	
MCV	Card or History	82.2		12-23 m	973	74.6	1998	
MCV	C or H <12 month	72.2		12-23 m	973	74.6	1998	
HepB	Card or History	73.9		12-23 m	973	74.6	1998	
HepB	C or H <12 month	71.6		12-23 m	973	74.6	1998	

### 1993 Children aged 6 to 71 months in South Africa, 1994: Their anthropometric, vitamin A, iron and immunization coverage status, 1995

BCG	Card or History	95.2		12-23 m	2166	91	1994	
BCG	C or H <12 month	94.8		12-23 m	2166	91	1994	
DTP1	Card or History	92		12-23 m	2166	91	1994	
DTP1	C or H <12 month	91.1		12-23 m	2166	91	1994	
DTP3	Card or History	80.6		12-23 m	2166	91	1994	
DTP3	C or H <12 month	73.4		12-23 m	2166	91	1994	
Pol3	Card or History	78.5		12-23 m	2166	91	1994	
Pol3	C or H <12 month	71.5		12-23 m	2166	91	1994	
MCV	Card or History	84.5		12-23 m	2166	91	1994	
MCV	C or H <12 month	76.4		12-23 m	2166	91	1994	

### 1990 Children and Women in South Africa: A Situation Analysis, 1993

BCG	Card or History	57		12-23 m			1991	Estimated coverage for seven health regions excluding homelands
DTP1	Card or History			12-23 m			1991	Estimated coverage for seven health regions excluding homelands
DTP3	Card or History	72		12-23 m			1991	Estimated coverage for seven health regions excluding homelands
Pol3	Card or History	73		12-23 m			1991	Estimated coverage for seven health regions excluding homelands
MCV	Card or History	76		12-23 m			1991	Estimated coverage for seven health regions excluding homelands

## South Africa

### 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.

## South Africa

Year	PAB coverage estimate (%)
1980	
1981	
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
1991	
1992	23
1993	26
1994	28
1995	29
1996	30
1997	39
1998	49
1999	59
2000	68
2001	66
2002	62
2003	61
2004	60
2005	59
2006	74
2007	72
2008	75