

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

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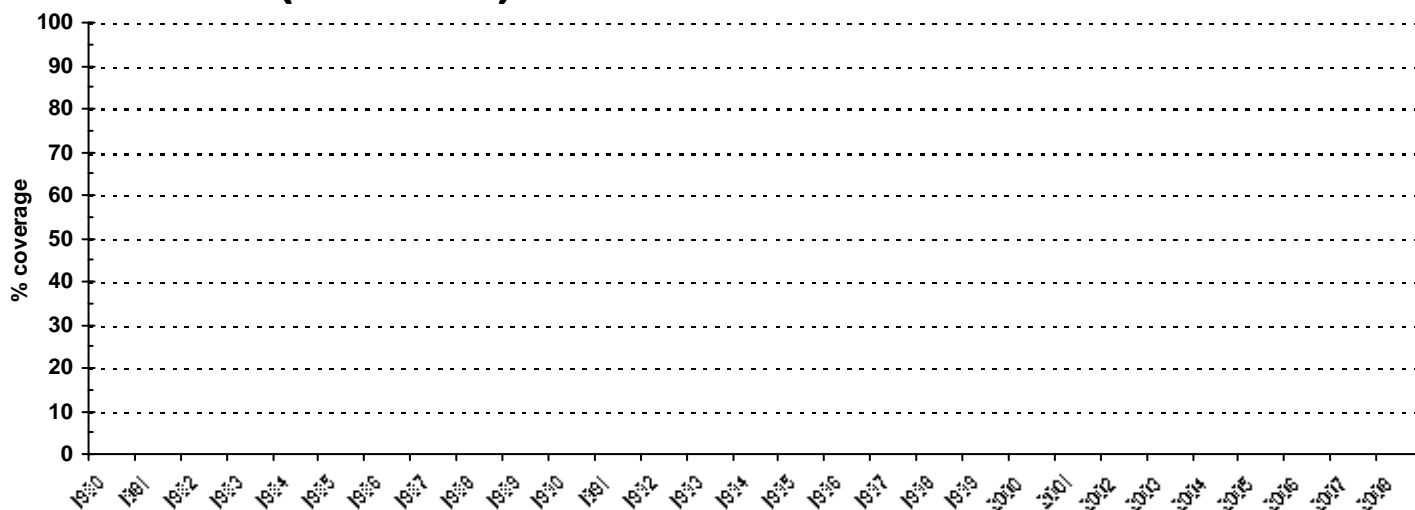
***Suriname***

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**July, 2009**

# Suriname

## BCG (1980-2008)



### Description of trend

BCG not recommended for children under one year of age.

### 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							
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2003							
2004							
2005							
2006							
2007							
2008							

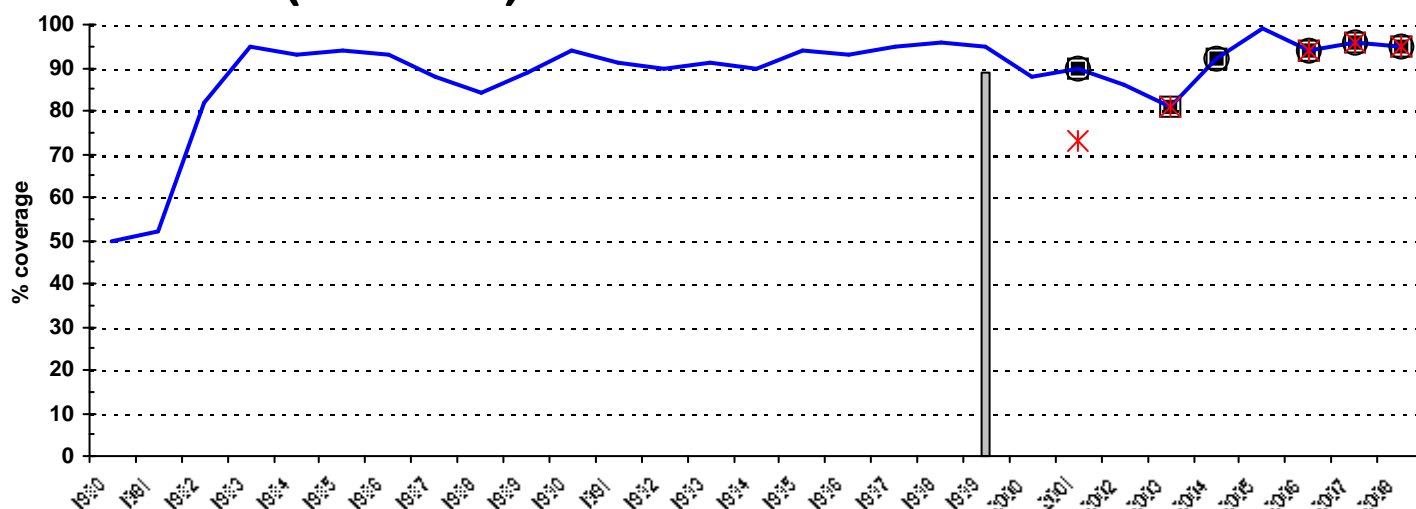
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Suriname

## 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 200 onward. The DTP1 estimates from 2001 onward are based on these reports. For years prior to 2001 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.

### 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	50						
1981	52						
1982	82						
1983	95						
1984	93						
1985	94						
1986	93						
1987	88						
1988	84						
1989	89						
1990	94						
1991	91						
1992	90						
1993	91						
1994	90						
1995	94						
1996	93						
1997	95						
1998	96						
1999	95					89	
2000	88						
2001	90	90	90	90	73		
2002	86						
2003	81	81	81		81		
2004	92	92	92	92			
2005	99	107	107	107	107		
2006	94	94	94	94	94		
2007	96	96	96	96	96		
2008	95	95	95	95	95		

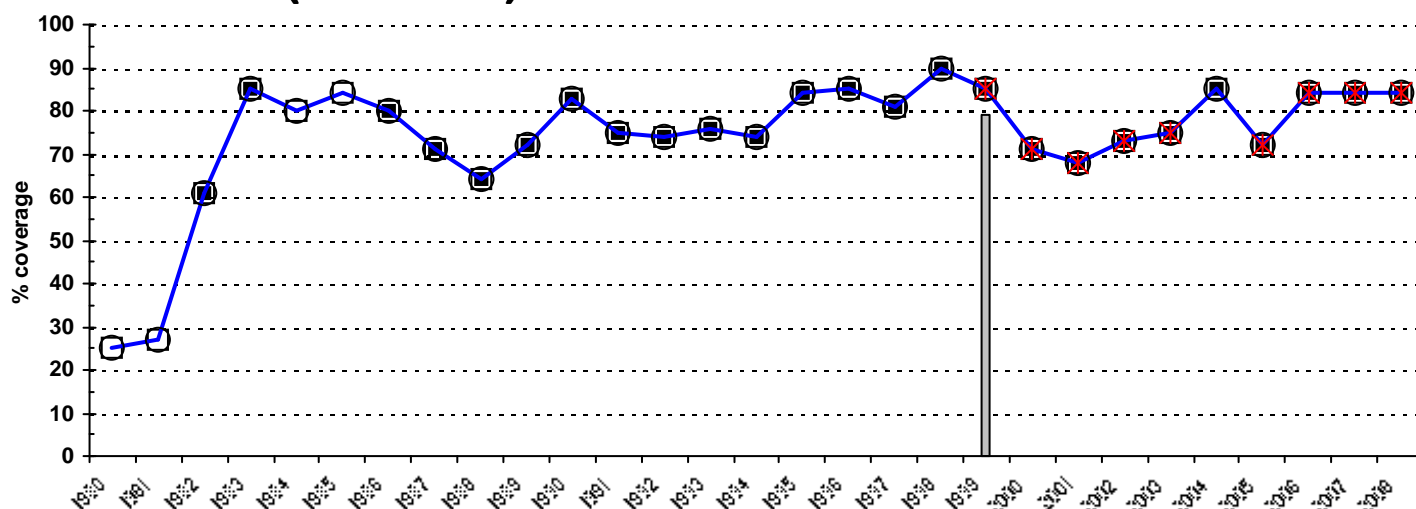
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Suriname

## DTP3 (1980-2008)



### Description of trend

Estimated immunization coverage levels are based on reported data, supported by 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	25	25		25			
1981	27	27		27			
1982	61	61	61	61			
1983	85	85	85	85			
1984	80	80		80			
1985	84	84		84			
1986	80	80	80	80			
1987	71	71	71	71			
1988	64	64	64	64			
1989	72	72	72	72			
1990	83	83	83	83			
1991	75	75	75	75			
1992	74	74	74	74			
1993	76	76	76	76			
1994	74	74	74	74			
1995	84	84	84	84			
1996	85	85	85	85			
1997	81	81	81	81			
1998	90	90	90	90			
1999	85	85	85	85	85	79	
2000	71	71	71	71	71		
2001	68	68	68	68	68		
2002	73	73	73	73	73		
2003	75	75	75	75	75		
2004	85	85	85	85			
2005	72	72	72	72	72		
2006	84	84	84	84	84		
2007	84	84	84	84	84		
2008	84	84	84	84	84		

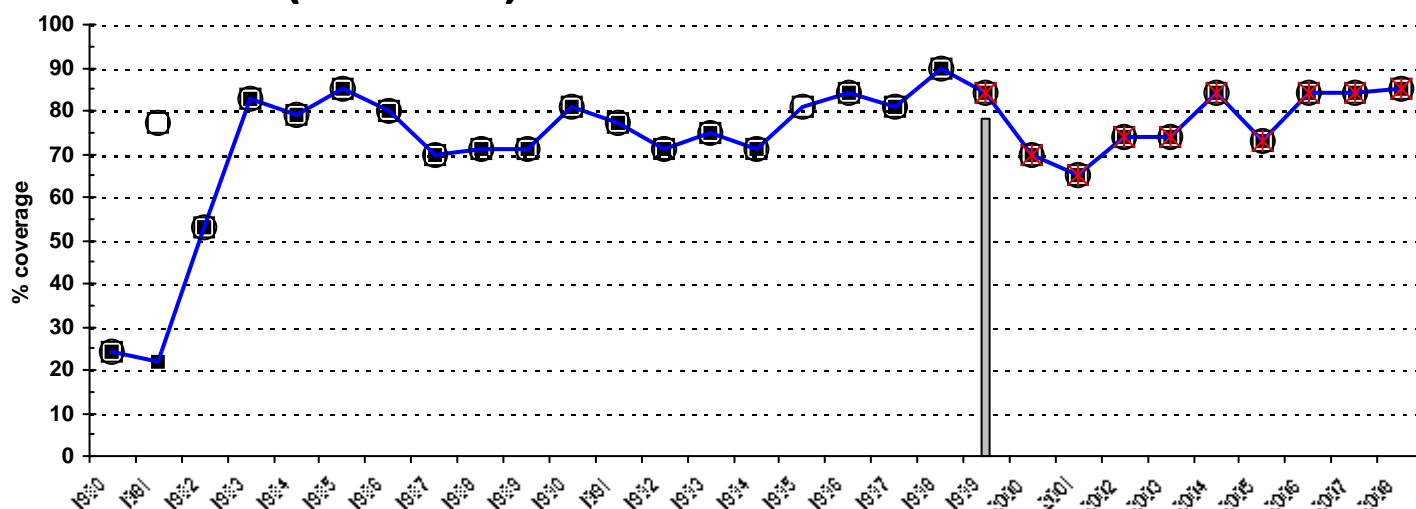
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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

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# Suriname

## Pol3 (1980-2008)



### Description of trend

Estimated immunization coverage levels are based on reported data, supported by 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	24	24	24	24			
1981	22	77	22	77			
1982	53	53	53	53			
1983	83	83	83	83			
1984	79	79	79	79			
1985	85	85	85	85			
1986	80	80	80	80			
1987	70	70	70	70			
1988	71	71	71	71			
1989	71	71	71	71			
1990	81	81	81	81			
1991	77	77	77	77			
1992	71	71	71	71			
1993	75	75	75	75			
1994	71	71	71	71			
1995	81	81		81			
1996	84	84	84	84			
1997	81	81	81	81			
1998	90	90	90	90			
1999	84	84	84	84			
2000		70	70	70	84	78	
2001		65	65	65	65		
2002		74	74	74	74		
2003		74	74	74	74		
2004		84	84	84	84		
2005		73	73	73	73		
2006		84	84	84	84		
2007		84	84	84	84		
2008		85	85	85	85		

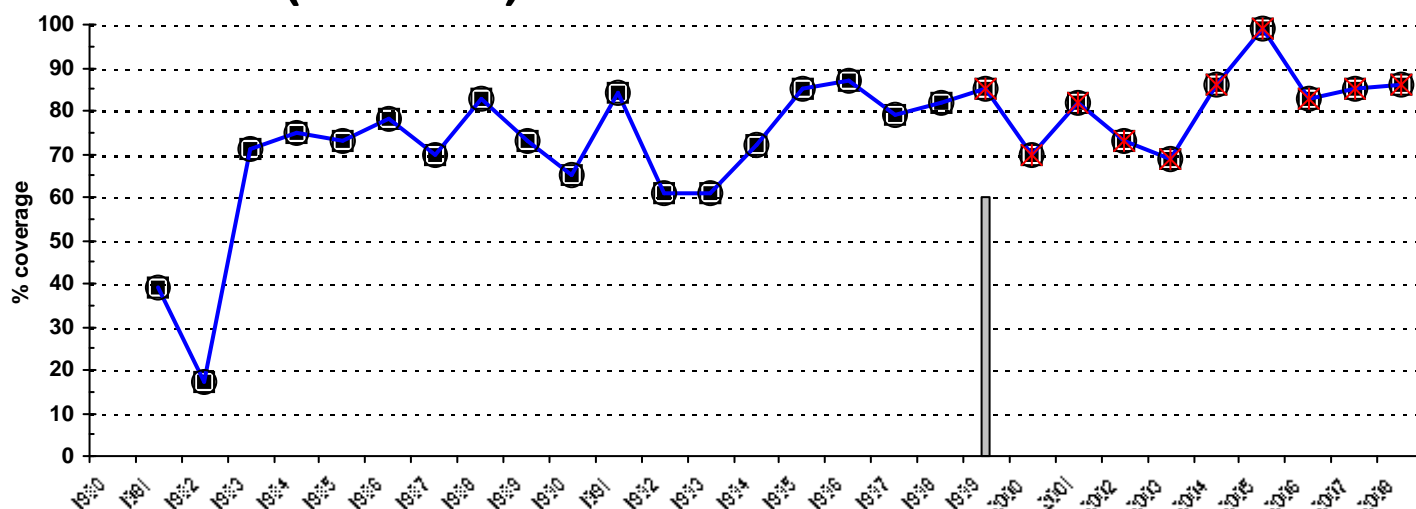
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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# Suriname

## MCV (1980-2008)



### Description of trend

Estimated immunization coverage levels are based on reported data. Suriname conducted a measles campaign in 2005 and estimates include campaign doses.

### 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	39	39	39	39			
1982	17	17	17	17			
1983	71	71	71	71			
1984	75	75	75	75			
1985	73	73	73	73			
1986	78	78	78	78			
1987	70	70	70	70			
1988	83	83	83	83			
1989	73	73	73	73			
1990	65	65	65	65			
1991	84	84	84	84			
1992	61	61	61	61			
1993	61	61	61	61			
1994	72	72	72	72			
1995	85	85	85	85			
1996	87	87	87	87			
1997	79	79	79	79			
1998	82	82	82	82			
1999	85	85	85	85	85	60	
2000	70	70	70	70	70		
2001	82	82	82	82	82		
2002	73	73	73	73	73		
2003	69	69	69	69	69		
2004	86	86	86	86	86		
2005	99	99	99	99	99		
2006	83	83	83	83	83		
2007	85	85	85	85	85		
2008	86	86	86	86	86		

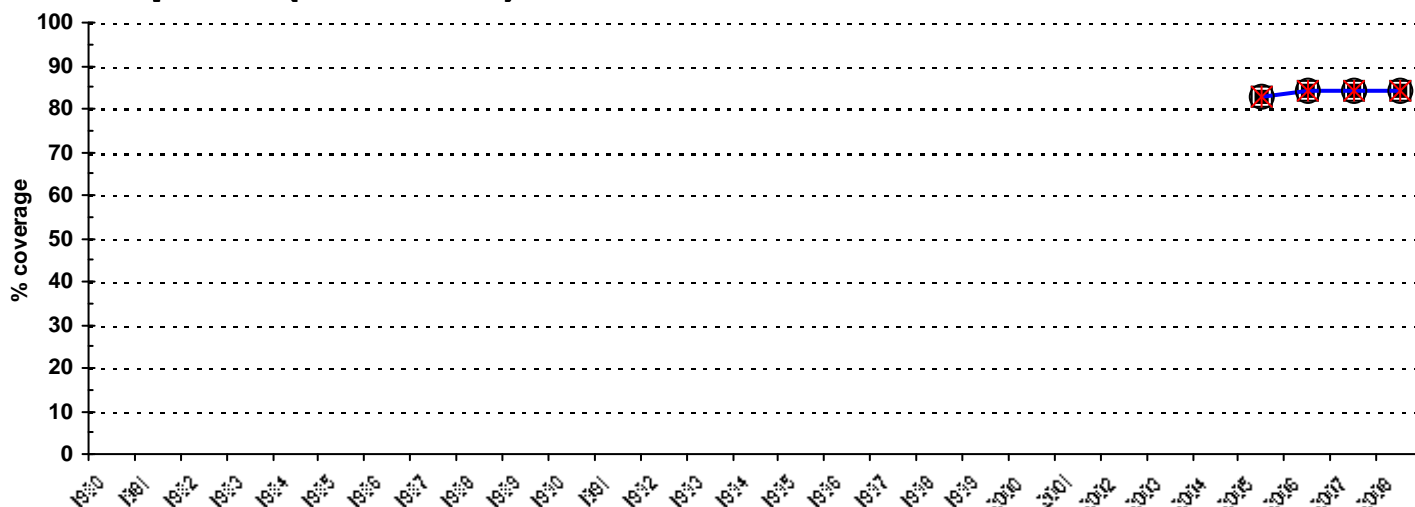
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\*\*Coverage based on registration of doses administered by health care providers.

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# Suriname

## HepB3 (1980-2008)



### Description of trend

Pentavalent vaccine (DTP-HepB-Hib) introduced in 2005. Estimates are based on reported data.

### 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	83	83	83	83	83		
2006	84	84	84	84	84		
2007	84	84	84	84	84		
2008	84	84	84	84	84		

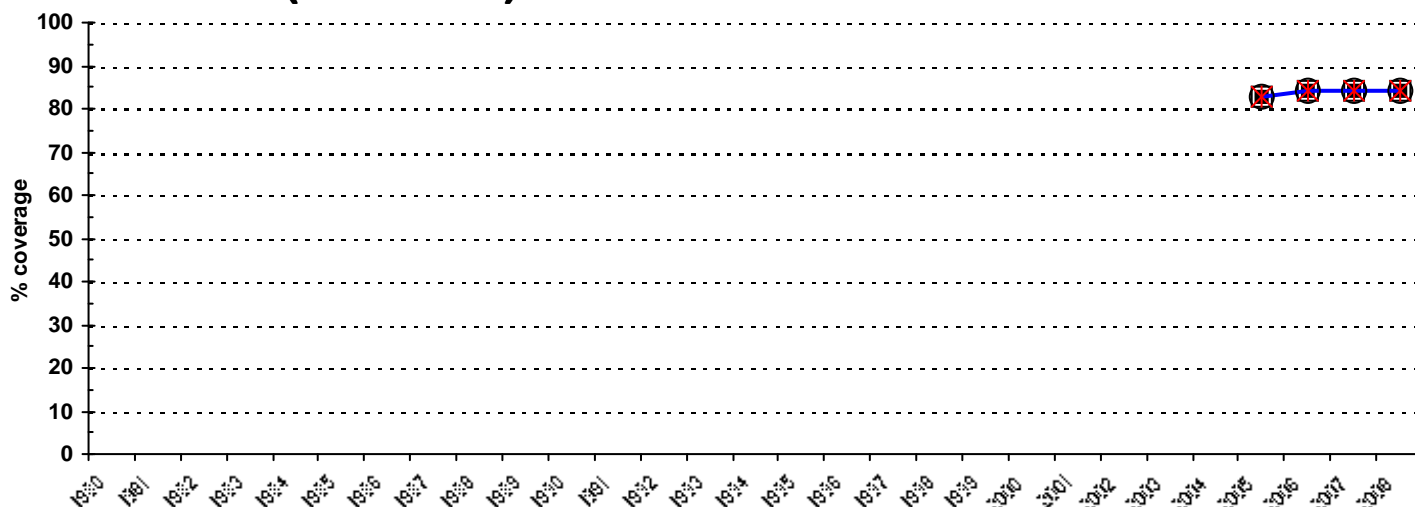
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Suriname

## Hib3 (1980-2008)



### Description of trend

Pentavalent vaccine (DTP-HepB-Hib) introduced in 2005. Estimates are based on reported data.

### 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	83	83	83	83	83		
2006	84	84	84	84	84		
2007	84	84	84	84	84		
2008	84	84	84	84	84		

\*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.

# Suriname

## Details Survey Data

### Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
<b>1999 Suriname Multiple Indicator Cluster Survey 2000, 2001</b>								
BCG	Card or History			12-23 m	376	85	2000	
DTP1	Card or History	88.8		12-23 m	376	85	2000	
DTP3	Card or History	79.1		12-23 m	376	85	2000	
Pol3	Card or History	78.5		12-23 m	376	85	2000	
MCV	Card or History	60.2		12-23 m	376	85	2000	

## Suriname

### 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.

## Suriname

Year	PAB coverage estimate (%)
1980	
1981	
1982	
1983	
1984	
1985	
1986	
1987	89
1988	91
1989	92
1990	92
1991	92
1992	92
1993	92
1994	92
1995	92
1996	92
1997	92
1998	92
1999	92
2000	92
2001	92
2002	92
2003	92
2004	92
2005	92
2006	93
2007	93
2008	93