

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

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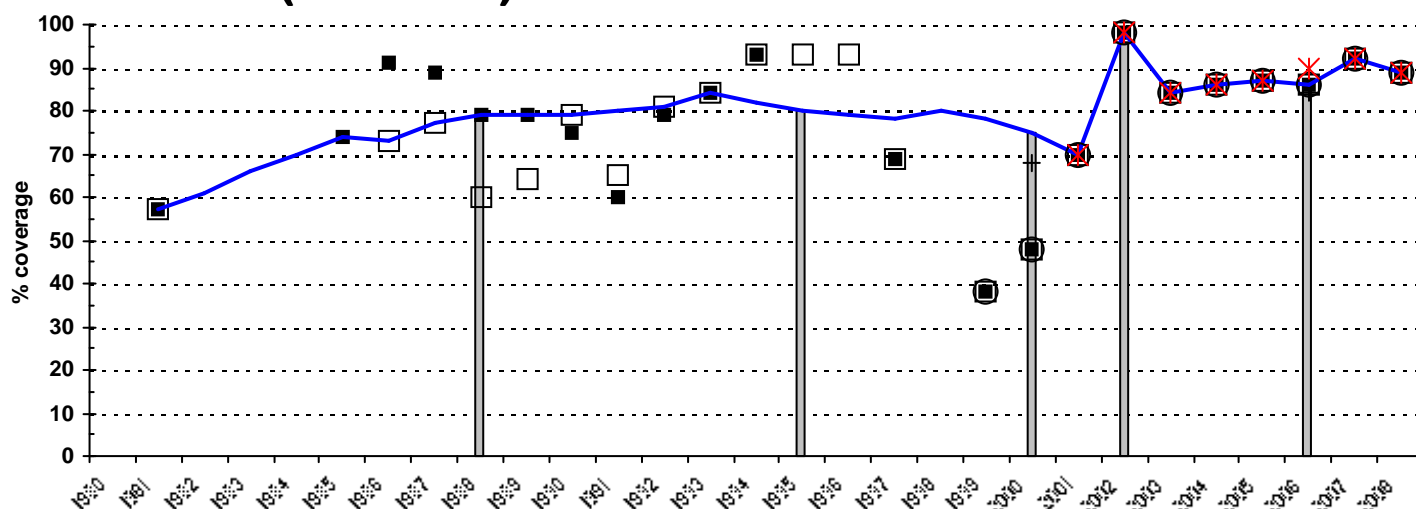
***Mauritania***

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**July, 2009**

# Mauritania

## BCG (1980-2008)



### Description of trend

Estimates prior to 1994 and from 2001 onward are based on nationally reported data supported by surveys. Estimates from 2001 are based on reported data confirmed by survey.

### 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	57	57	57				
1982	61						
1983	66						
1984	70						
1985	74		74				
1986	73	73	91				
1987	77	77	89				
1988	79	60	79			79	
1989	79	64	79				
1990	79	79	75				
1991	80	65	60				
1992	81	81	79				
1993	84	84	84				
1994	82	93	93				
1995	80	93				80	
1996	79	93					
1997	78	69	69				
1998	80						
1999	78	38	38	38			
2000	75	48	48	48		75	68
2001	70	70	70	70	70		
2002	98	98	98	98	98	96	
2003	84	84	84	84	84		
2004	86	86	86	86	86		
2005	87	87	87	87	87		
2006	86	86	86	86	90	86	84
2007	92	92	92	92	92		
2008	89	89	89	89	89		

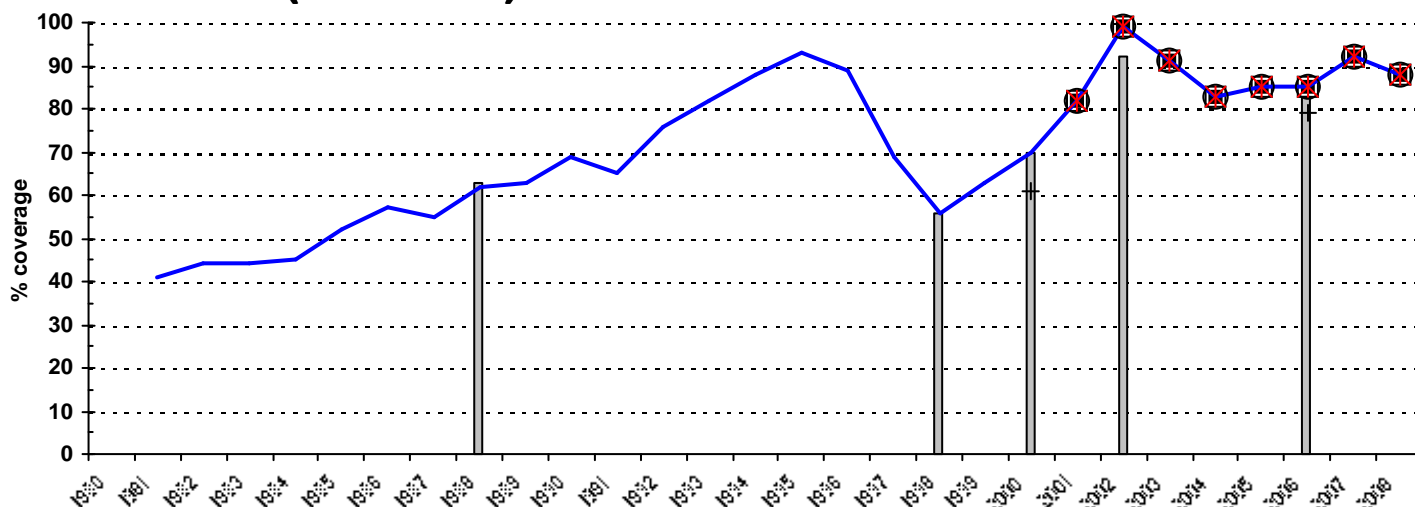
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Mauritania

## 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 2000 onward are based on these reports. For years 1998-2000 the estimates are based on survey data. From 1980 to 1998 the estimates are derived from the WHO/UNICEF estimates of DTP3 and the relationship between the levels of DTP3 coverage and drop-out between DTP1 and DTP3, calibrated for the 1988 and 1998 surveys. (The relationship results from an analysis of 282 surveys conducted in 101 countries which were published between 1980 and 2004.) Estimates from 2001 are based on reported data confirmed by survey 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	41						
1982	44						
1983	44						
1984	45						
1985	52						
1986	57						
1987	55						
1988	62					63	
1989	63						
1990	69						
1991	65						
1992	76						
1993	82						
1994	88						
1995	93						
1996	89						
1997	69						
1998	56					56	
1999	63						
2000	70					70	61
2001	82	82	82	82	82		
2002	99	99	99	99	99	92	
2003	91	91	91	91	91		
2004	83	83	83	83	83		
2005	85	85	85	85	85		
2006	85	85	85	85	85	83	79
2007	92	92	92	92	92		
2008	88	88	88	88	88		

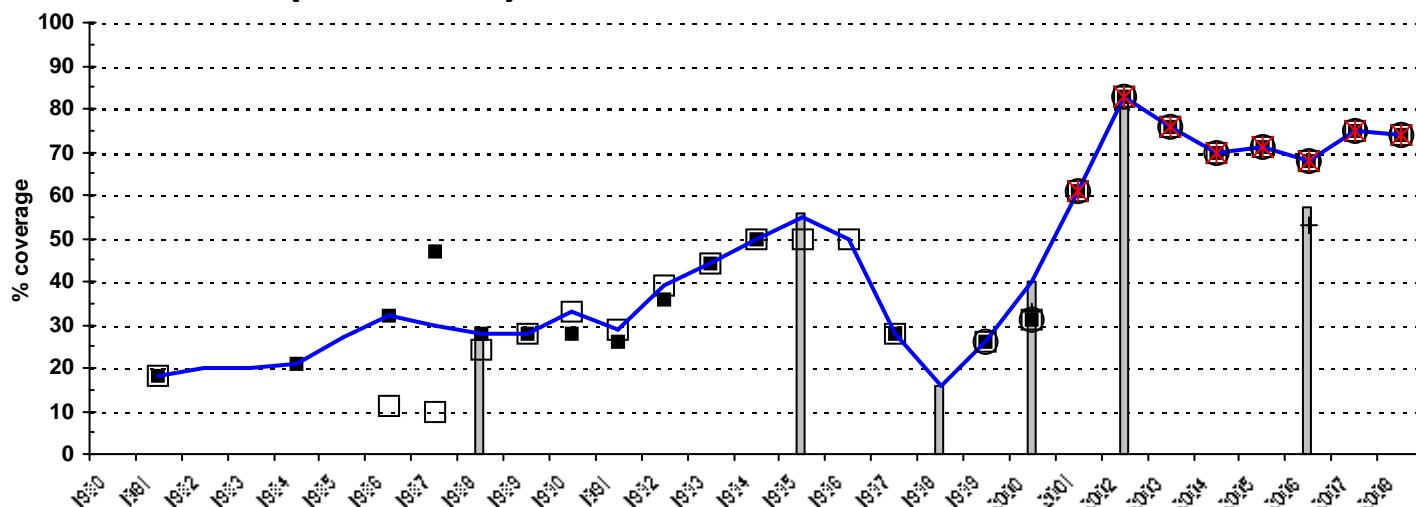
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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

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# Mauritania

## DTP3 (1980-2008)



### Description of trend

Estimates based on national reports, confirmed by surveys. Survey results for the 2006 MICS results are 78% when adjusted for recall bias.

### 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	18	18	18				
1981	18						
1982	20						
1983	20						
1984	21		21				
1985	27						
1986	32	11	32				
1987	30	10	47				
1988	28	24	28			28	
1989	28	28	28				
1990	33	33	28				
1991	29	29	26				
1992	39	39	36				
1993	44	44	44				
1994	50	50	50				
1995	55	50				56	
1996	50	50					
1997	28	28	28				
1998	16					16	
1999	26	26	26	26			
2000	40	31	31	31		40	33
2001	61	61	61	61	61		
2002	83	83	83	83	83	84	
2003	76	76	76	76	76		
2004	70	70	70	70	70		
2005	71	71	71	71	71		
2006	68	68	68	68	68	57	53
2007	75	75	75	75	75		
2008	74	74	74	74	74		

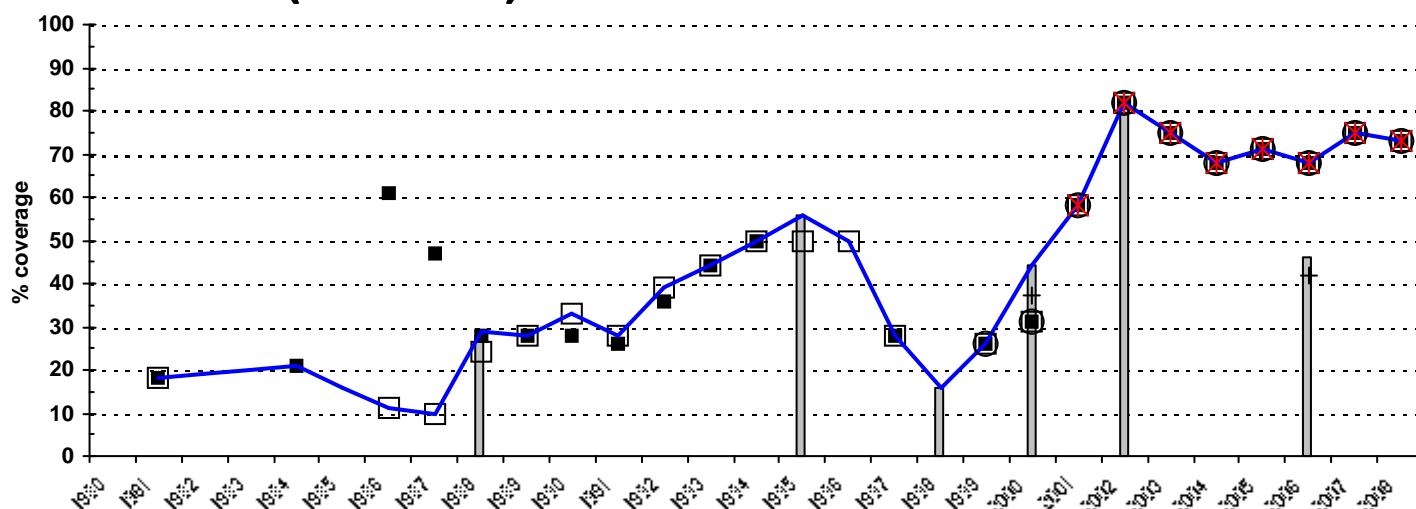
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Mauritania

## Pol3 (1980-2008)



### Description of trend

Estimates based on national reports, confirmed by surveys. Survey results for the 2006 MICS results are 78% when adjusted for recall bias.

### 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	18	18	18				
1981	18						
1982	19						
1983	20						
1984	21		21				
1985	16						
1986	11	11	61				
1987	10	10	47				
1988	29	24	28			28	
1989	28	28	28				
1990	33	33	28				
1991	28	28	26				
1992	39	39	36				
1993	44	44	44				
1994	50	50	50				
1995	56	50				56	
1996	50	50					
1997	28	28	28				
1998	16					16	
1999	26	26	26	26			
2000	44	31	31	31		44	37
2001	58	58	58	58	58		
2002	82	82	82	82	82	82	
2003	75	75	75	75	75		
2004	68	68	68	68	68		
2005	71	71	71	71	71		
2006	68	68	68	68	68	46	42
2007	75	75	75	75	75		
2008	73	73	73	73	73		

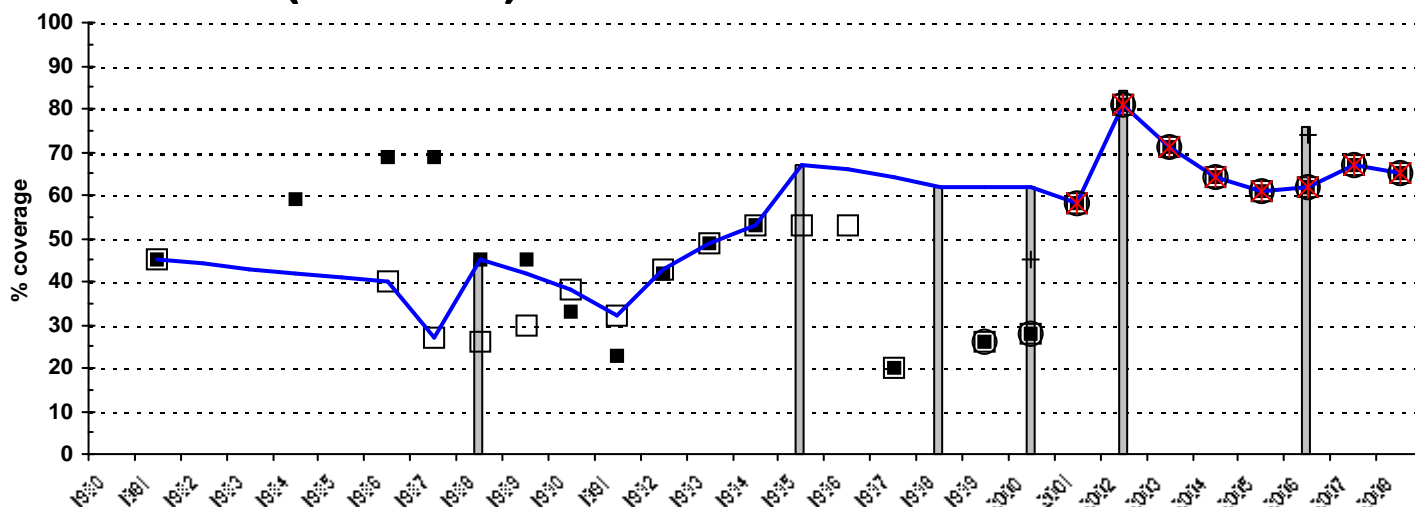
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Mauritania

## MCV (1980-2008)



### Description of trend

Estimates prior to 1995 and from 2001 onward are based on nationally reported data supported by surveys. The estimates for 1995-2000 are based on surveys; from 2001 estimates are based on reported data supported by survey.

### 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	45	45	45				
1982	44						
1983	43						
1984	42		59				
1985	41						
1986	40	40	69				
1987	27	27	69				
1988	45	26	45			45	
1989	42	30	45				
1990	38	38	33				
1991	32	32	23				
1992	43	43	42				
1993	49	49	49				
1994	53	53	53				
1995	67	53				67	
1996	66	53					
1997	64	20	20				
1998	62					62	
1999	62	26	26	26			
2000	62	28	28	28		62	45
2001	58	58	58	58	58		
2002	81	81	81	81	81	84	
2003	71	71	71	71	71		
2004	64	64	64	64	64		
2005	61	61	61	61	61		
2006	62	62	62	62	62	76	74
2007	67	67	67	67	67		
2008	65	65	65	65	65		

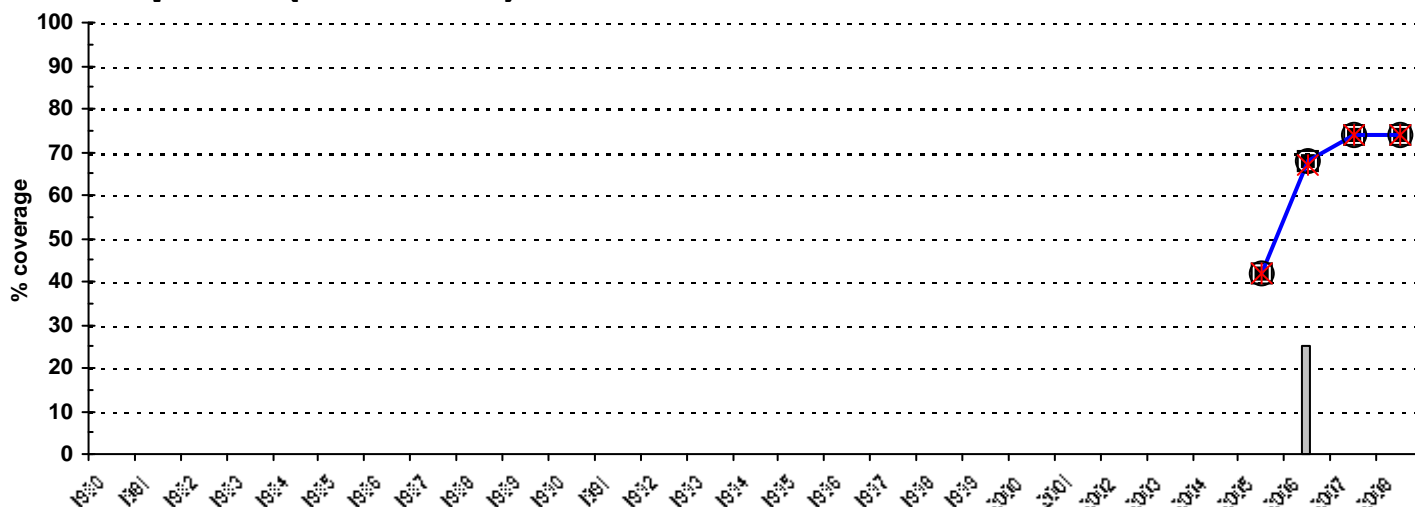
\*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

\*\*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.

# Mauritania

## HepB3 (1980-2008)



### Description of trend

HepB vaccine introduced in 2005. Estimates are based on nationally 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	42	42	42	42	42		
2006	68	68	68	68	67	25	
2007	74	74	74	74	74		
2008	74	74	74	74	74		25

\*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.

# Mauritania

## Details Survey Data

### Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
<b>2006 L'enquête par grappes à indicateurs multiples de la Mauritanie (MICS 2007)</b>								
BCG	Card or History	85.6		12-23 m	1681	32.3	2007	
BCG	C or H <12 month	83.5		12-23 m	1681	32.3	2007	
DTP1	Card or History	82.7		12-23 m	1681	32.3	2007	
DTP1	C or H <12 month	79.1		12-23 m	1681	32.3	2007	
DTP3	Card or History	56.9		12-23 m	1681	32.3	2007	
DTP3	C or H <12 month	52.6		12-23 m	1681	32.3	2007	
Pol3	Card or History	46.2		12-23 m	1681	32.3	2007	
Pol3	C or H <12 month	42.1		12-23 m	1681	32.3	2007	
MCV	Card or History	76.2		12-23 m	1681	32.3	2007	
MCV	C or H <12 month	74.3		12-23 m	1681	32.3	2007	
HepB	Card or History	25.3		12-23 m	1681	32.3	2007	
<b>2005 L'enquête par grappes à indicateurs multiples de la Mauritanie (MICS 2007)</b>								
PAB	n.a.	53		CBAW	3533		2007	
<b>2002 Enquete sur la couverture vaccinale et la mobilisation sociale, Mauritanie, 2004</b>								
BCG	Card or history	95.6		12-23 m	2774		2004	Provisional report until ICC approves final
DTP1	Card or history	91.5		12-23 m	2774		2004	Provisional report until ICC approves final
DTP1	Card	35.7		12-23 m	2774		2004	Provisional report until ICC approves final
DTP3	Card or history	83.8		12-23 m	2774		2004	Provisional report until ICC approves final
DTP3	Card	29.7		12-23 m	2774		2004	Provisional report until ICC approves final
Pol3	Card or history	82.2		12-23 m	2774		2004	Provisional report until ICC approves final
Pol3	Card	29		12-23 m	2774		2004	Provisional report until ICC approves final
MCV	Card or history	83.5		12-23 m	2774		2004	Provisional report until ICC approves final
MCV	Card	30		12-23 m	2774		2004	Provisional report until ICC approves final
<b>2000 Enquête Démographique et de Santé Mauritanie 2000-2001, 2001</b>								
BCG	History	41.5		12-23 m	950	34.4	2000	
BCG	Card or History	74.7		12-23 m	950	34.4	2000	
BCG	Card	33.2		12-23 m	950	34.4	2000	
BCG	C or H <12 month	67.7		12-23 m	950	34.4	2000	
DTP1	History	37.1		12-23 m	950	34.4	2000	
DTP1	Card or History	70		12-23 m	950	34.4	2000	
DTP1	Card	32.9		12-23 m	950	34.4	2000	
DTP1	C or H <12 month	60.8		12-23 m	950	34.4	2000	
DTP3	History	14.7		12-23 m	950	34.4	2000	
DTP3	Card or History	39.9		12-23 m	950	34.4	2000	
DTP3	Card	25.2		12-23 m	950	34.4	2000	
DTP3	C or H <12 month	33.3		12-23 m	950	34.4	2000	
Pol3	History	17.9		12-23 m	950	34.4	2000	
Pol3	Card or History	43.8		12-23 m	950	34.4	2000	
Pol3	Card	25.9		12-23 m	950	34.4	2000	
Pol3	C or H <12 month	36.9		12-23 m	950	34.4	2000	
MCV	History	35.6		12-23 m	950	34.4	2000	
MCV	Card or History	62		12-23 m	950	34.4	2000	
MCV	Card	26.4		12-23 m	950	34.4	2000	
MCV	C or H <12 month	44.8		12-23 m	950	34.4	2000	
<b>1998 Enquête Nationale de Couverture Vaccinale-MSAS, 1999</b>								
DTP1	Card or History	56		12-23 m	2287	78.4	1999	

# Mauritania

## Details Survey Data

### Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
DTP3	Card or History	15.5		12-23 m	2287	78.4	1999	
Pol3	Card or History	15.5		12-23 m	2287	78.4	1999	
MCV	Card or History	62.5		12-23 m	2287	78.4	1999	

### 1995 *Enquête Nationale sur les Indicateurs des Objectifs a Mi-Terme en Mauritanie, 1996*

BCG	Card or History	80.5		12-23 m	726		1996	
DTP1	Card or History			12-23 m	726		1996	
DTP3	Card or History	55.5		12-23 m	726		1996	
Pol3	Card or History	56.3		12-23 m	726		1996	
MCV	Card or History	67.2		12-23 m	726		1996	

### 1988 *Enquête Nationale de Couverture Vaccinale, 1989*

BCG	Card or History	79		12-23 m		69	1989	
DTP1	Card or History	63		12-23 m		69	1989	
DTP3	Card or History	28		12-23 m		69	1989	
Pol3	Card or History	28		12-23 m		69	1989	
MCV	Card or History	45		12-23 m		69	1989	
PAB	Card or History	8		Women 15-49			1989	

## **Mauritania**

### **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.

## Mauritania

Year	PAB coverage estimate (%)
1980	
1981	5
1982	8
1983	16
1984	16
1985	17
1986	23
1987	32
1988	20
1989	24
1990	24
1991	32
1992	40
1993	36
1994	41
1995	43
1996	45
1997	70
1998	57
1999	40
2000	44
2001	51
2002	59
2003	58
2004	62
2005	59
2006	62
2007	77
2008	77