

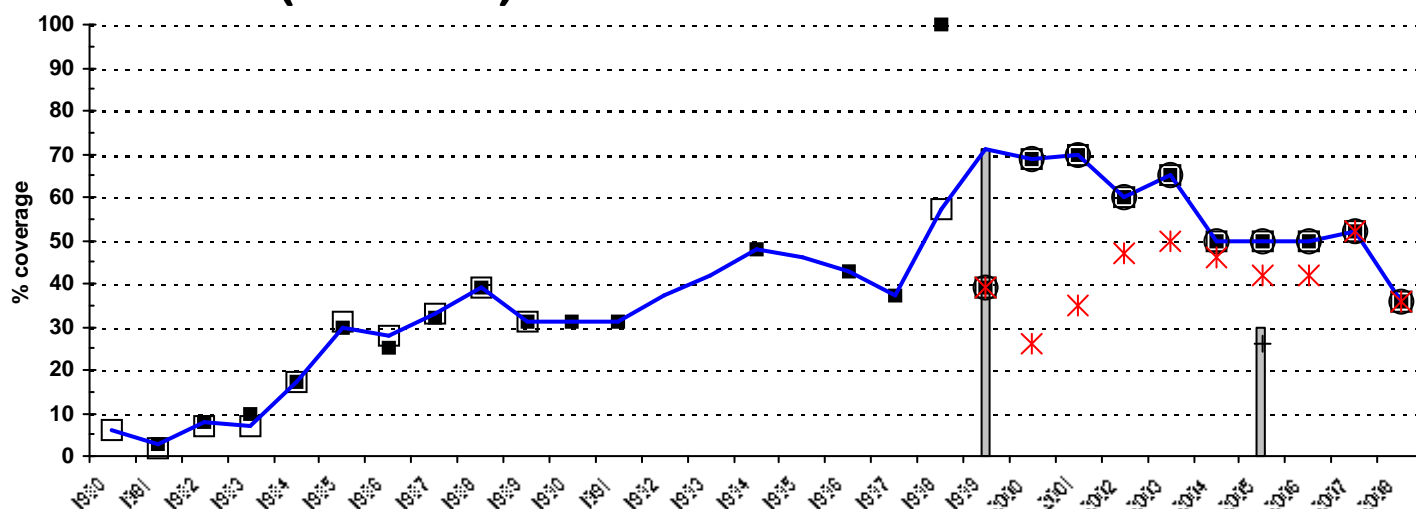
**WHO/UNICEF
Review of National Immunization Coverage
1980-2008**

Somalia

July, 2009

Somalia

BCG (1980-2008)



Description of trend

Estimates follow official reports. The increase in 1999 may be due to an underestimate attributed to the unstable situation in the country, the lack of infrastructure and the absence of an effective monitoring system. In recent years administrative data were adjusted upwards for incomplete reporting by national programme. Card retention for the 2006 MICS survey was 8%. In 2008 there were two months of vaccine stock-out.

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	6	6					
1981	3	2	3				
1982	8	7	8				
1983	7	7	10				
1984	17	17	17				
1985	30	31	30				
1986	28	28	25				
1987	33	33	32				
1988	39	39	39				
1989	31	31	31				
1990	31		31				
1991	31		31				
1992	37						
1993	42						
1994	48		48				
1995	46						
1996	43		43				
1997	37		37				
1998	57	57	100				
1999	71	39	39	39	39	71	
2000	69	69	69	69	26		
2001	70	70	70	70	35		
2002	60	60	60	60	47		
2003	65	65	65	65	50		
2004	50	50	50	50	46		
2005	50	50	50	50	42	30	26
2006	50	50	50	50	42		
2007	52	52	52	52	52		
2008	36	36	36	36	36		

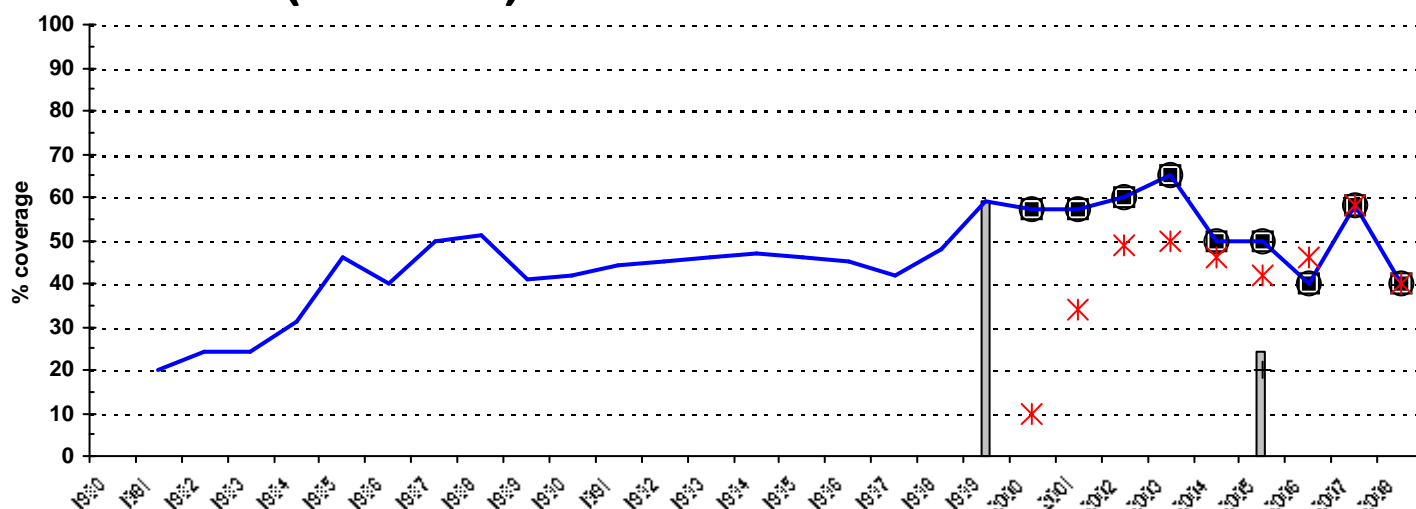
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**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.

Somalia

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 2000-2004 are based on these reports. 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. Card retention the 2006 MICS survey was 8%. In 2008 there were two months of vaccine stock-out.

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	20						
1982	24						
1983	24						
1984	31						
1985	46						
1986	40						
1987	50						
1988	51						
1989	41						
1990	42						
1991	44						
1992	45						
1993	46						
1994	47						
1995	46						
1996	45						
1997	42						
1998	48						
1999	59						
2000	57	57	57	57	10	59	
2001	57	57	57	57	34		
2002	60	60	60	60	49		
2003	65	65	65	65	50		
2004	50	50	50	50	46		
2005	50	50	50	50	42	24	20
2006	40	40	40	40	46		
2007	58	58	58	58	58		
2008	40	40	40	40	40		

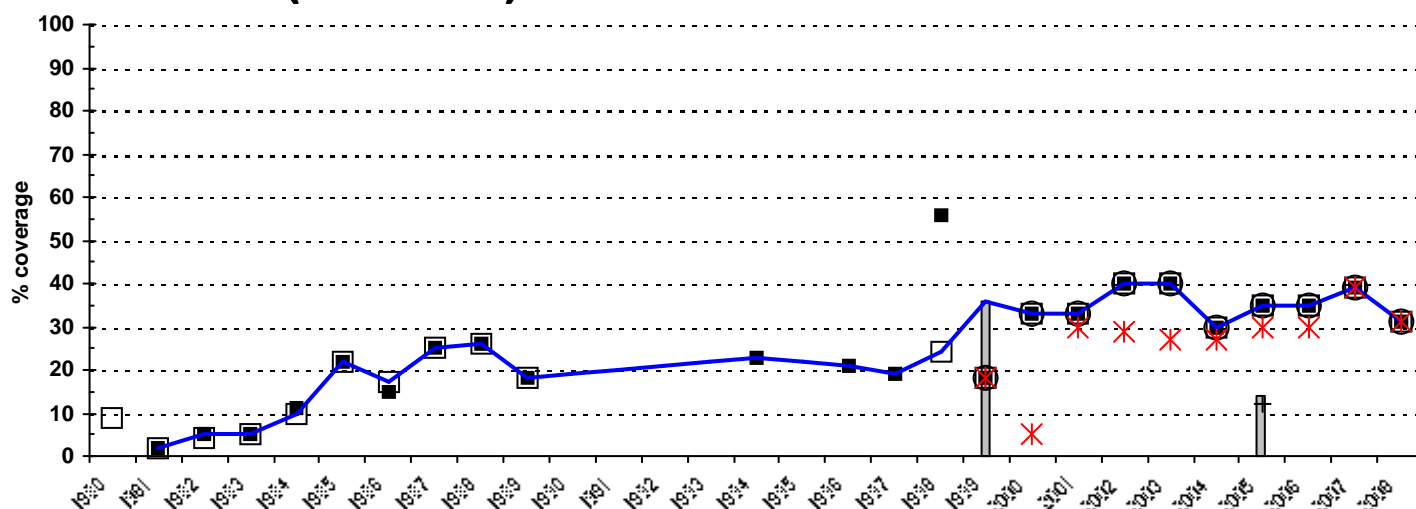
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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Somalia

DTP3 (1980-2008)



Description of trend

Estimates follow official reports. The increase in 1999 may be due to an underestimate attributed to the unstable situation in the country, the of infrastructure and the absence of an effective monitoring system. In recent years administrative data were adjusted upwards for incomplete reporting by national programme. Card retention for the 2006 MICS survey was 8%. In 2008 there were two months of vaccine stock-out.

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	9	9					
1981	2	2					
1982	5	4					
1983	5	5					
1984	10	10					
1985	22	22					
1986	17	17					
1987	25	25					
1988	26	26					
1989	18	18					
1990	19						
1991	20						
1992	21						
1993	22						
1994	23		23				
1995	22						
1996	21		21				
1997	19		19				
1998	24	24	56				
1999	36	18	18	18	18	36	
2000	33	33	33	33	5		
2001	33	33	33	33	30		
2002	40	40	40	40	29		
2003	40	40	40	40	27		
2004	30	30	30	30	27		
2005	35	35	35	35	30	14	12
2006	35	35	35	35	30		
2007	39	39	39	39	39		
2008	31	31	31	31	31		

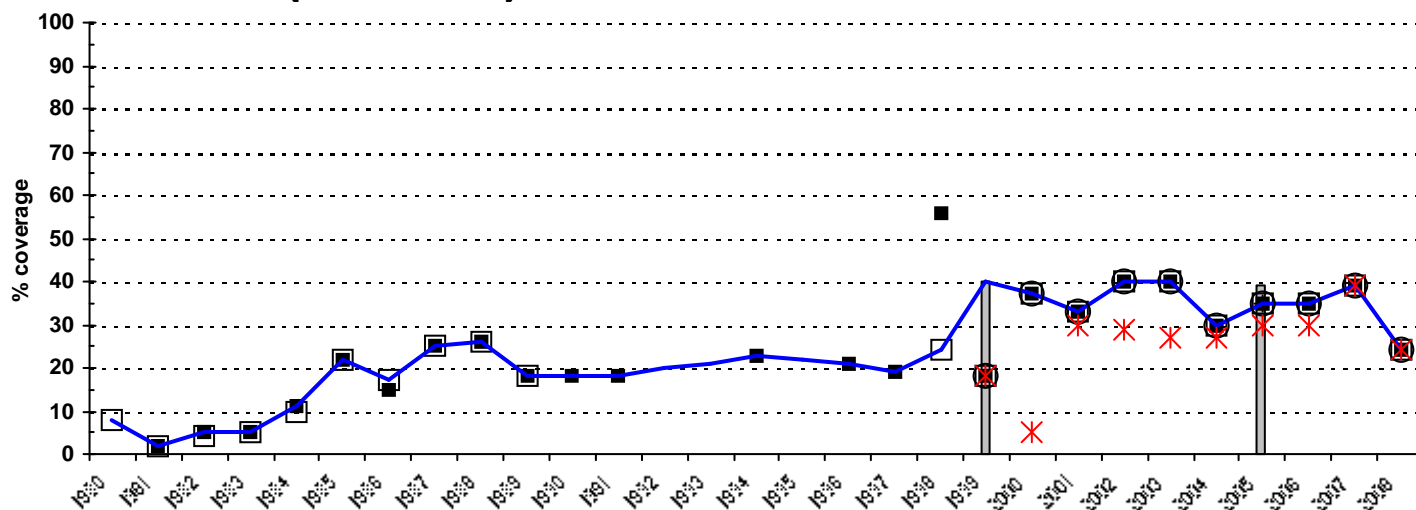
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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Somalia

Pol3 (1980-2008)



Description of trend

Estimates follow official reports. The increase in 1999 may be due to an underestimate attributed to the unstable situation in the country, the infrastructure and the absence of an effective monitoring system. In recent years administrative data were adjusted upwards for incomplete reporting by national programme. Card retention for the 2006 MICS survey was 8%.

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	8	8					
1981	2	2					
1982	5	4	5				
1983	5	5	5				
1984	11	10	11				
1985	22	22	22				
1986	17	17	15				
1987	25	25	25				
1988	26	26	26				
1989	18	18	18				
1990	18	18	18				
1991	18	18	18				
1992	20						
1993	21						
1994	23		23				
1995	22						
1996	21		21				
1997	19		19				
1998	24	24	56				
1999	40	18	18	18	18	40	
2000	37	37	37	37	5		
2001	33	33	33	33	30		
2002	40	40	40	40	29		
2003	40	40	40	40	27		
2004	30	30	30	30	27		
2005	35	35	35	35	30	39	35
2006	35	35	35	35	30		
2007	39	39	39	39	39		
2008	24	24	24	24	24		

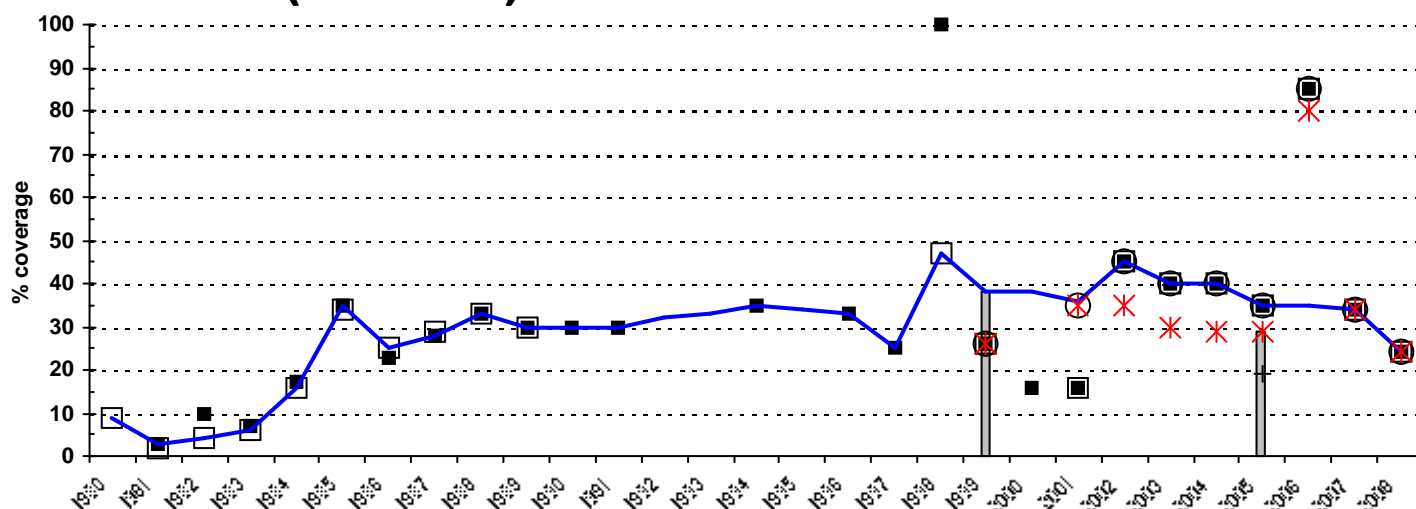
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

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

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Somalia

MCV (1980-2008)



Description of trend

Estimate follows official reports. The increase in 1998 may be due to an underestimate attributed to the unstable situation in the country, the of infrastructure and the absence of an effective monitoring system. Official reports for 2000 and 2001 include only children vaccinated before their first birthday. Administrative data were adjusted upwards because of incomplete reporting by national programme. The 2006 increase reported by the government reflects immunizations given in both routine services and during the measles catch-up campaign (ages 9 months 15 years of age). No significant improvement has been reported in routine services for other antigens and routine coverage estimates are assumed not to have changed from 2005. Card retention for the 2006 MICS survey was 8%.

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	9	9					
1981	3	2	3				
1982	4	4	10				
1983	6	6	7				
1984	16	16	17				
1985	35	34	35				
1986	25	25	23				
1987	28	29	28				
1988	33	33	33				
1989	30	30	30				
1990	30		30				
1991	30		30				
1992	32						
1993	33						
1994	35		35				
1995	34						
1996	33		33				
1997	25		25				
1998	47	47	100				
1999	38	26	26	26	26	38	
2000	38		16				
2001	36	16	16	35	35		
2002	45	45	45	45	35		
2003	40	40	40	40	30		
2004	40	40	40	40	29		
2005	35	35	35	35	29	29	
2006	35	85	85	85	80		19
2007	34	34	34	34	34		
2008	24	24	24	24	24		

*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.

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Details Survey Data

Year Source

Antigen	Confirmation method	% coverage	Compliance with schedule	Age group	Sample size	% cards seen	Survey year	Comments
2005 Somalia Multiple Indicator Cluster Survey 2006								
BCG	Card or History	29.9		12-23 m	1086	8	2006	
BCG	C or H <12 month	25.7		12-23 m	1086	8	2006	
DTP1	Card or History	24.4		12-23 m	1086	8	2006	
DTP1	C or H <12 month	20.4		12-23 m	1086	8	2006	
DTP3	Card or History	14.2		12-23 m	1086	8	2006	
DTP3	C or H <12 month	12.2		12-23 m	1086	8	2006	
Pol3	Card or History	38.6		12-23 m	1086	8	2006	
Pol3	C or H <12 month	34.8		12-23 m	1086	8	2006	
MCV	Card or History	29.4		12-23 m	1086	8	2006	
MCV	C or H <12 month	18.9		12-23 m	1086	8	2006	
PAB	n.a.	26.3		CBAW	2325		2006	

1999 MICS Somalia, 1999

BCG	Card or History	70.8		12-23 m	490		2000	
DTP1	Card or History	58.7		12-23 m	490		2000	
DTP3	Card or History	35.6		12-23 m	490		2000	
Pol3	Card or History	40		12-23 m	490		2000	
MCV	Card or History	37.5		12-23 m	490		2000	
PAB	Card or History	24		Women 15-49	490		2000	

Somalia

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.

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Year	PAB coverage estimate (%)
1980	
1981	1
1982	3
1983	6
1984	9
1985	16
1986	26
1987	35
1988	45
1989	48
1990	49
1991	50
1992	49
1993	49
1994	48
1995	48
1996	48
1997	48
1998	47
1999	47
2000	47
2001	48
2002	48
2003	45
2004	45
2005	47
2006	51
2007	50
2008	49