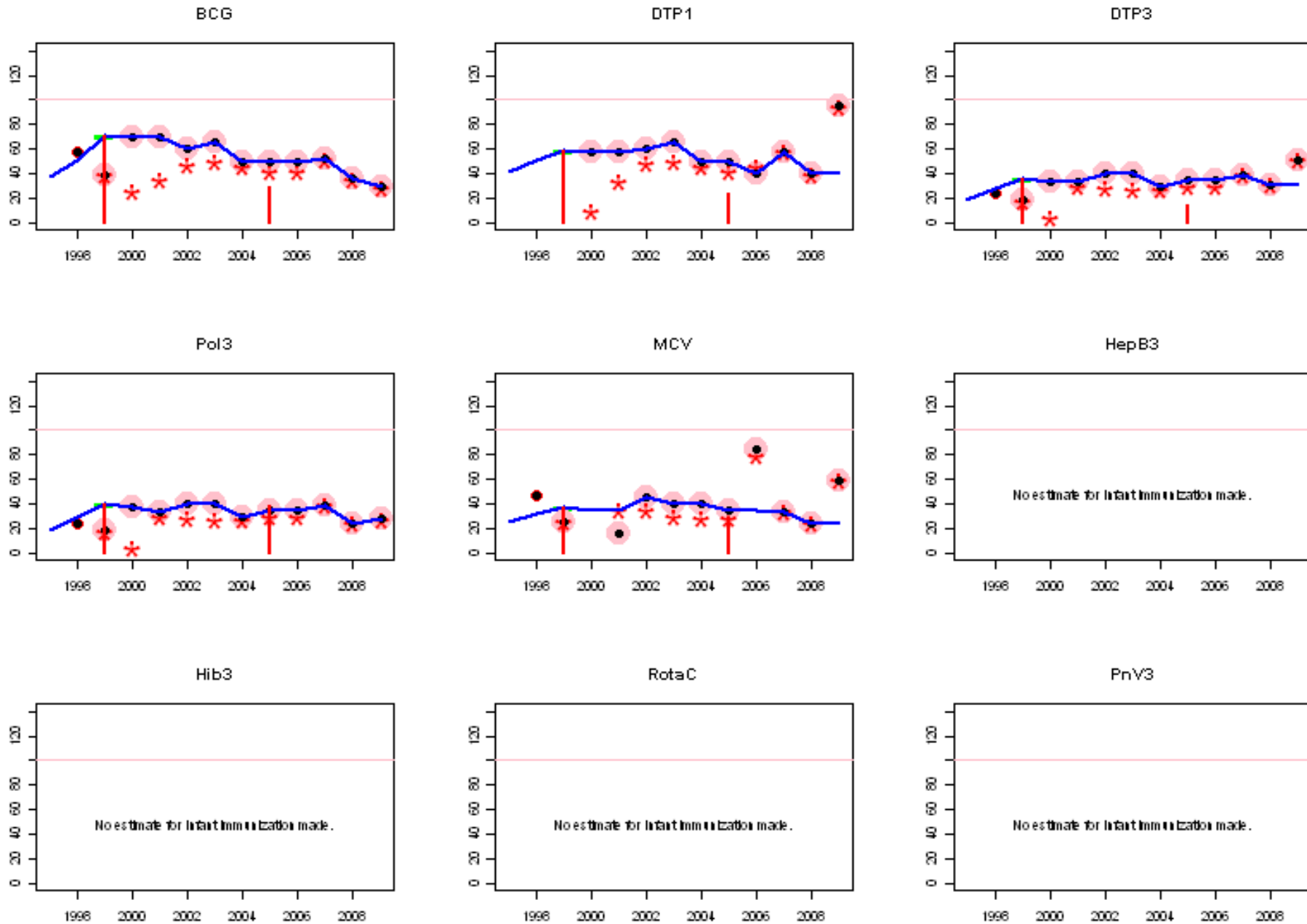
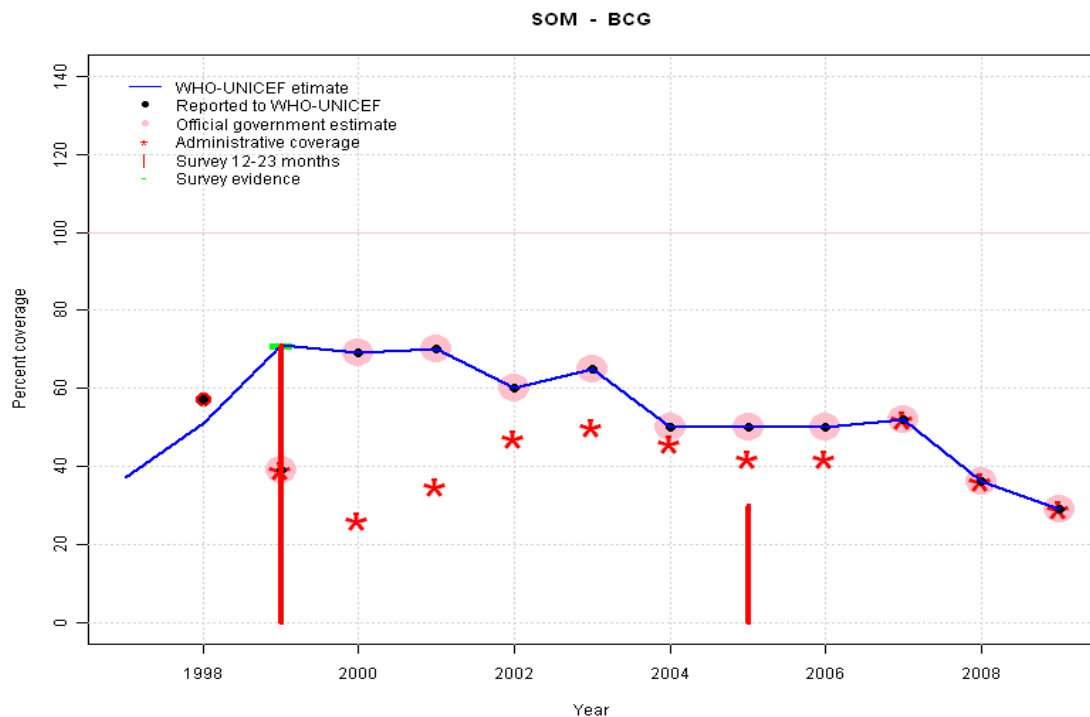


Somalia: WHO and UNICEF estimates of immunization coverage, 1997 - 2009



Somalia - BCG

Description:

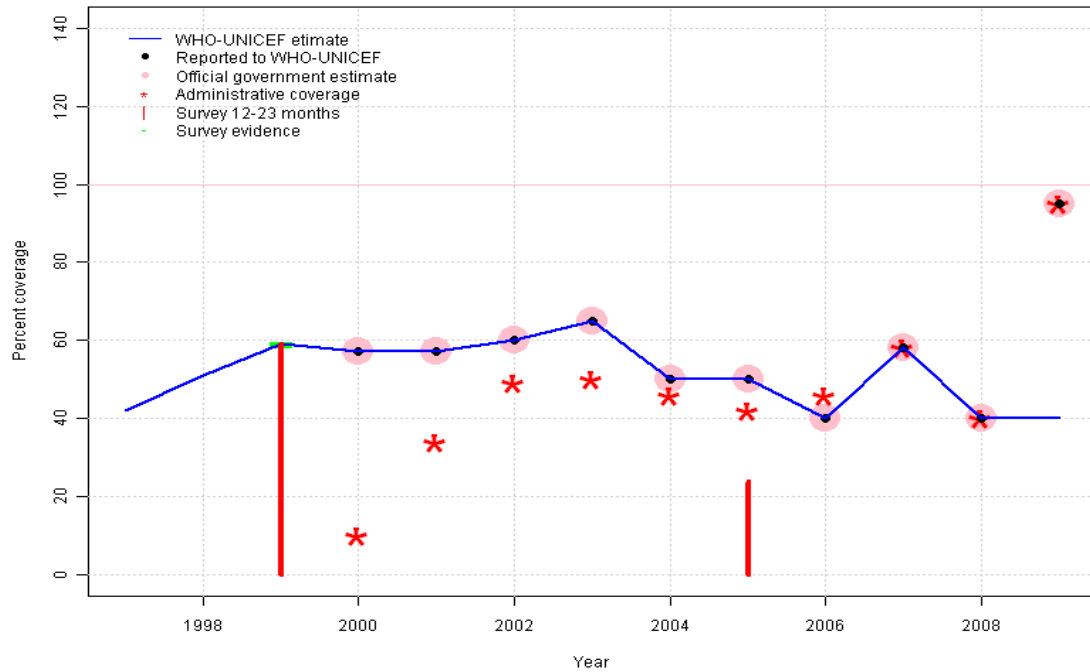


- 1997: Legacy estimate.
- 1998: Reported data (57 percent) calibrated to 1997 and 1999 levels.
- 1999: Estimate is based on survey results. 1999 reported data (39 percent) inconsistent with data from other years.
- 2000: Estimate is based on the reported data.
- 2001: Estimate based on reported data.
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data. Survey results of 30 percent ignored by working group. Ninety-two percent of survey results were based on maternal recall.
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data. Decline was the result of two months vaccine shortage.
- 2009: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	37	51	71	69	70	60	65	50	50	50	52	36	29
Reported	NA	57	39	69	70	60	65	50	50	50	52	36	29
Official	NA	NA	39	69	70	60	65	50	50	50	52	36	29
Administrative	NA	NA	39	26	35	47	50	46	42	42	52	36	29
Survey	NA	NA	71	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Somalia - DTP1

SOM - DTP1



Description:

1997: Legacy estimate.

1998: Estimate interpolated between 1997 and 1999 estimates.

1999: Estimate is based on survey results.

2000: Estimate is based on the reported data.

2001: Estimate based on reported data.

2002: Estimate based on reported data.

2003: Estimate based on reported data.

2004: Estimate based on reported data.

2005: Estimate based on reported data. Survey results of 24 percent ignored by working group. Ninety-two percent of survey results were based on maternal recall.

2006: Estimate based on reported data.

2007: Estimate based on reported data.

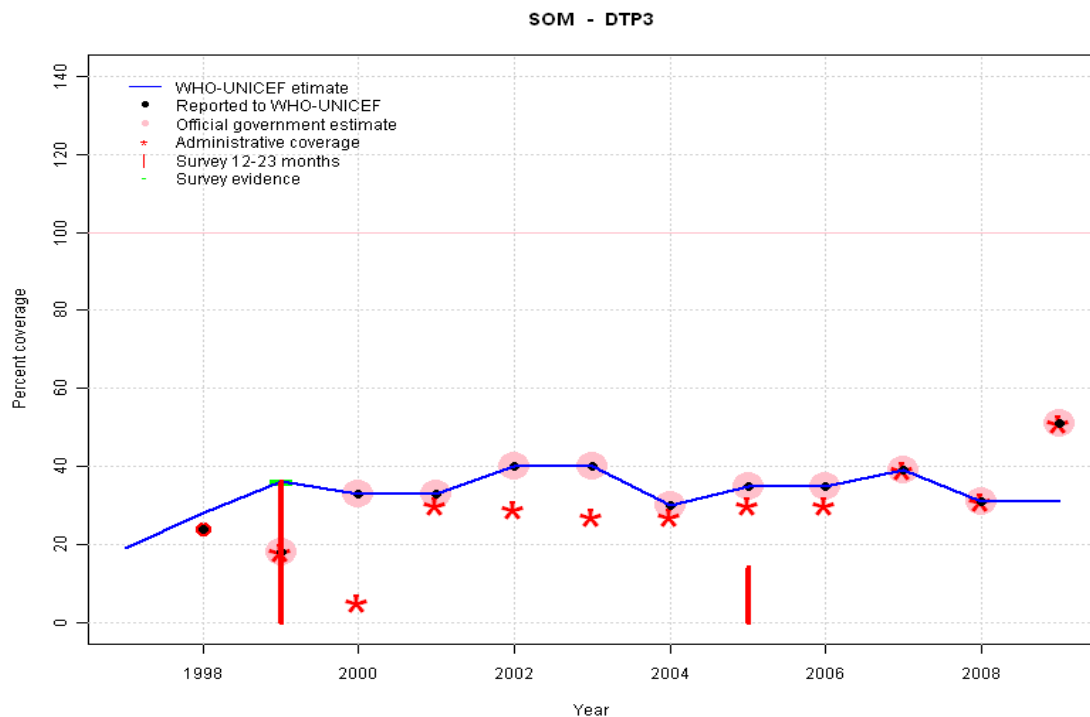
2008: Estimate based on reported data. Decline was the result of two months vaccine shortage.

2009: Estimate based on trend in reported data. Missing or ignored reported value estimated by extrapolation from 2008 reported value of 40 percent. 2009 reported data (95 percent) inconsistent with data from other years.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	42	51	59	57	57	60	65	50	50	40	58	40	40
Reported	NA	NA	NA	57	57	60	65	50	50	40	58	40	95
Official	NA	NA	NA	57	57	60	65	50	50	40	58	40	95
Administrative	NA	NA	NA	10	34	49	50	46	42	46	58	40	95
Survey	NA	NA	59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Somalia - DTP3

Description:



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	19	28	36	33	33	40	40	30	35	35	39	31	31
Reported	NA	24	18	33	33	40	40	30	35	35	39	31	51
Official	NA	NA	18	33	33	40	40	30	35	35	39	31	51
Administrative	NA	NA	18	5	30	29	27	27	30	30	39	31	51
Survey	NA	NA	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

1997: Legacy estimate.

1998: Estimate interpolated between 1997 and 1999 estimates.

1999: Estimate based on survey results. Reported data (18 percent) not consistent with survey results (36 percent). Survey results (36 percent) adjusted for recall bias to 36 percent based on first dose card or history coverage (59 percent) and documented drop-out between first (59 percent) and third (36 percent) doses.

2000: Estimate is based on the reported data.

2001: Estimate based on reported data.

2002: Estimate based on reported data.

2003: Estimate based on reported data.

2004: Estimate based on reported data.

2005: Estimate based on reported data. Survey results of 14 percent ignored by working group. Ninety-two percent of survey results were based on maternal recall.

2006: Estimate based on reported data.

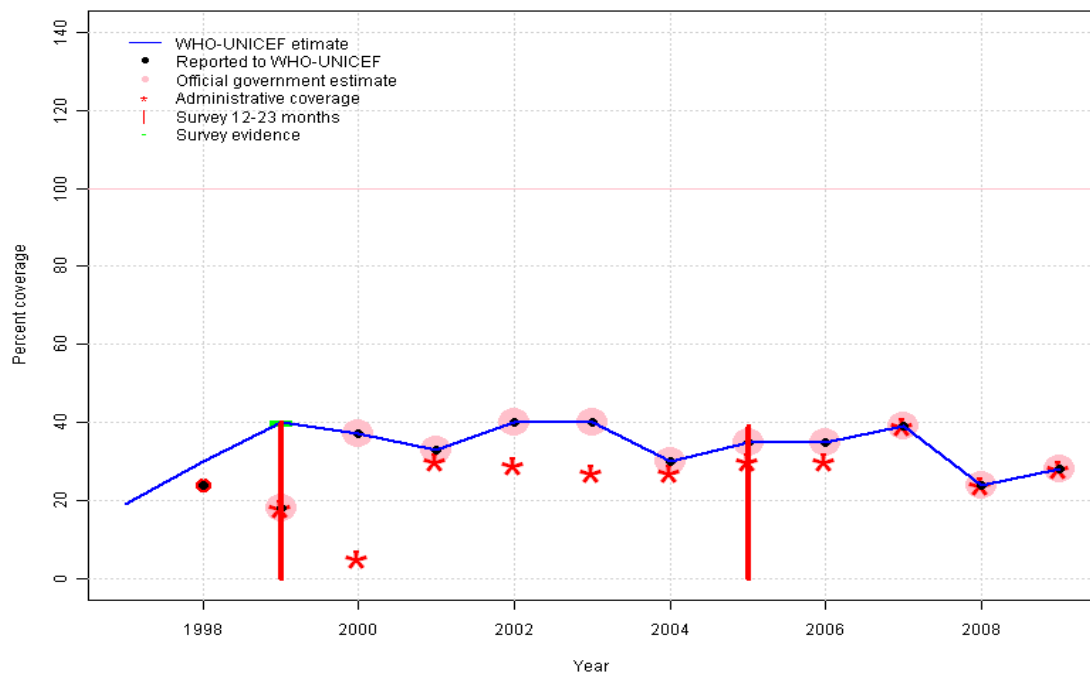
2007: Estimate based on reported data.

2008: Estimate based on reported data. Decline was the result of two months vaccine shortage.

2009: Estimate based on trend in reported data. Missing or ignored reported value estimated by extrapolation from 2008 reported value of 31 percent. 2009 reported data (51 percent) inconsistent with data from other years.

Somalia - Pol3

SOM - Pol3



Description:

1997: Legacy estimate.

1998: Estimate interpolated between 1997 and 1999 estimates.

1999: Estimate based on survey results. Reported data (18 percent) not consistent with survey results (40 percent). Survey results (40 percent) adjusted for recall bias to 40 percent based on first dose card or history coverage (60 percent) and documented drop-out between first (60 percent) and third (40 percent) doses.

2000: Estimate is based on the reported data.

2001: Estimate based on reported data.

2002: Estimate based on reported data.

2003: Estimate based on reported data.

2004: Estimate based on reported data.

2005: Estimate based on reported data. Survey results of 39 percent ignored by working group. Ninety-two percent of survey results were based on maternal recall.

2006: Estimate based on reported data.

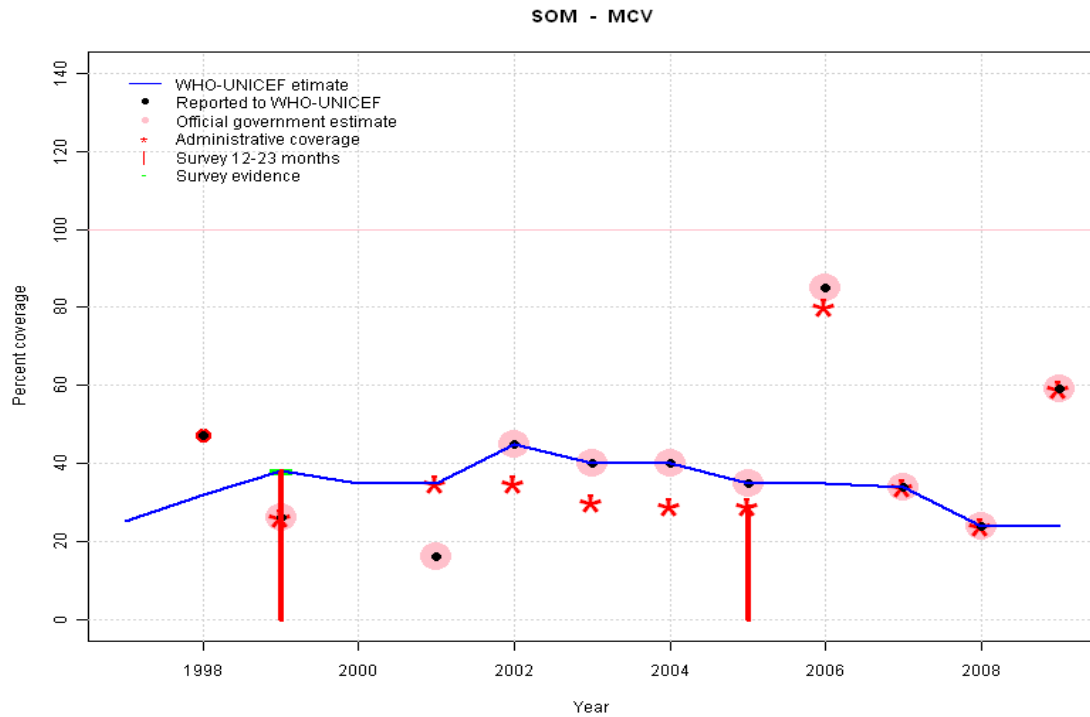
2007: Estimate based on reported data.

2008: Estimate based on reported data.

2009: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	19	30	40	37	33	40	40	30	35	35	39	24	28
Reported	NA	24	18	37	33	40	40	30	35	35	39	24	28
Official	NA	NA	18	37	33	40	40	30	35	35	39	24	28
Administrative	NA	NA	18	5	30	29	27	27	30	30	39	24	28
Survey	NA	NA	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Somalia - MCV

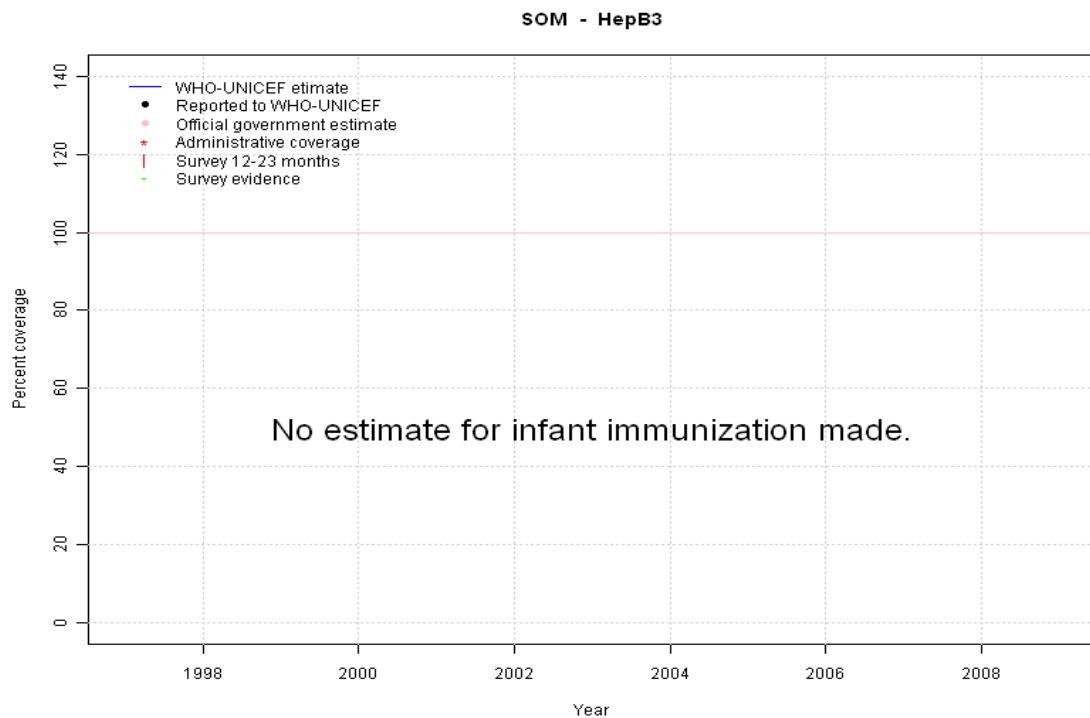


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	25	32	38	35	35	45	40	40	35	35	34	24	24
Reported	NA	47	26	NA	16	45	40	40	35	85	34	24	59
Official	NA	NA	26	NA	16	45	40	40	35	85	34	24	59
Administrative	NA	NA	26	NA	35	35	30	29	29	80	34	24	59
Survey	NA	NA	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Description:

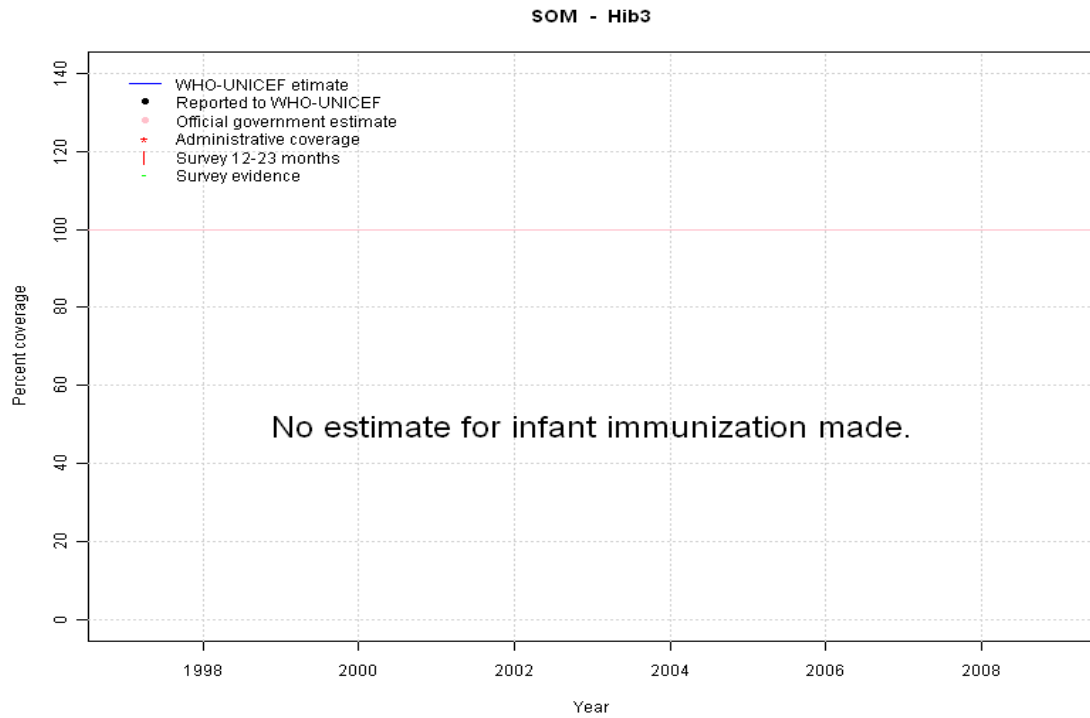
- 1997: Legacy estimate.
- 1998: Estimate interpolated between 1997 and 1999 estimates.
- 1999: Estimate based on survey results. Reported data (26 percent) not consistent with survey results (38 percent).
- 2000: Estimate is based on the reported data.
- 2001: Estimate assigned by working group. 2001 reported data (16 percent) ignored by working group. Official report includes only children vaccinated before their first birthday.
- 2002: Estimate is based on the reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data. Survey results of 29 percent ignored by working group. Ninety-two percent of survey results were based on maternal recall.
- 2006: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 35 percent in 2005 and 34 percent in 2007. 2006 reported data (85 percent) inconsistent with data from other years.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data.
- 2009: Estimate based on trend in reported data. Missing or ignored reported value estimated by extrapolation from 2008 reported value of 24 percent. 2009 reported data (59 percent) inconsistent with data from other years.

Somalia - HepB3



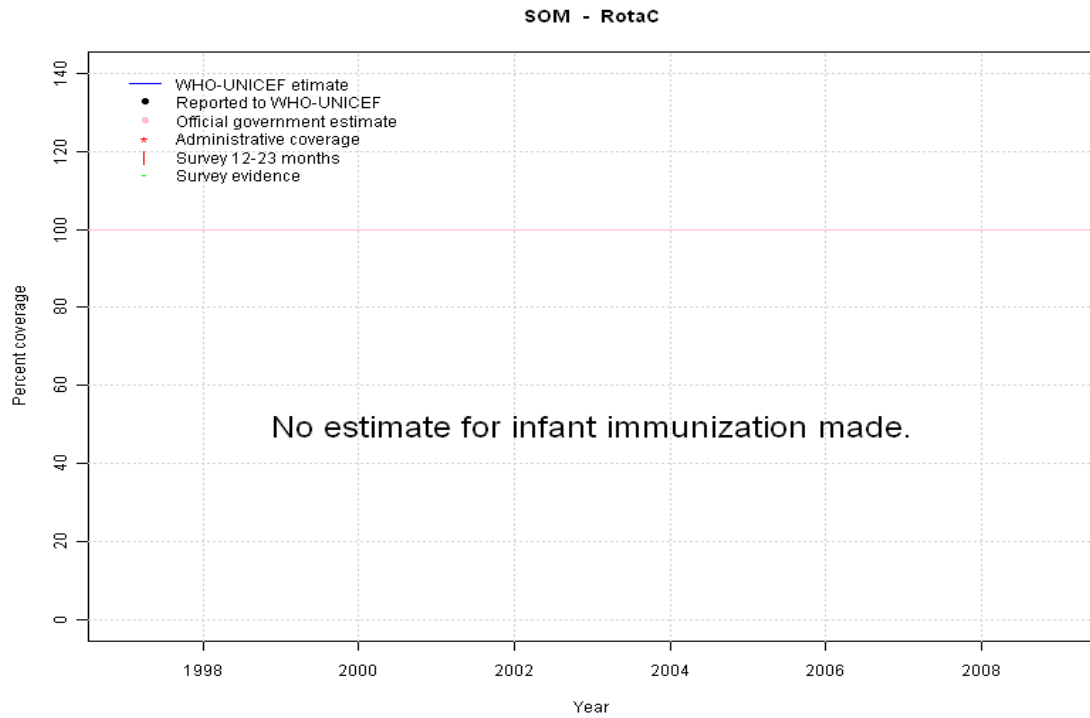
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Somalia - Hib3



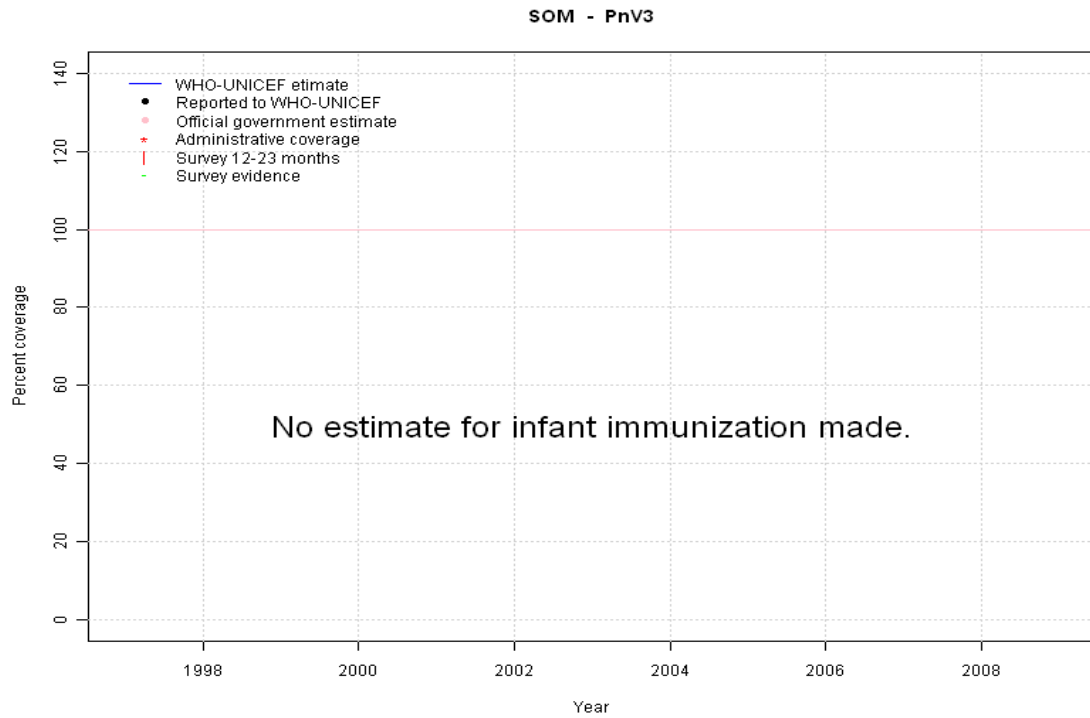
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Somalia - RotaC



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Somalia - PnV3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Somalia - survey details

2005 Somalia Multiple Indicator Cluster Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	26	12-23 m	1086	8
BCG	Card	8	12-23 m	1086	8
BCG	Card or History	30	12-23 m	1086	8
BCG	History	22	12-23 m	1086	8
DTP1	Card or History	24	12-23 m	1086	8
DTP1	Card	8	12-23 m	1086	8
DTP1	History	16	12-23 m	1086	8
DTP1	C or H <12 months	20	12-23 m	1086	8
DTP3	History	7	12-23 m	1086	8
DTP3	Card or History	14	12-23 m	1086	8
DTP3	Card	7	12-23 m	1086	8
DTP3	C or H <12 months	12	12-23 m	1086	8
MCV	History	22	12-23 m	1086	8
MCV	Card or History	29	12-23 m	1086	8
MCV	Card	7	12-23 m	1086	8
MCV	C or H <12 months	19	12-23 m	1086	8
Pol1	History	54	12-23 m	1086	8
Pol1	Card	8	12-23 m	1086	8
Pol1	Card or History	62	12-23 m	1086	8
Pol1	C or H <12 months	52	12-23 m	1086	8

Pol3	Card or History	39	12-23 m	1086	8
Pol3	C or H <12 months	35	12-23 m	1086	8
Pol3	History	31	12-23 m	1086	8
Pol3	Card	8	12-23 m	1086	8

1999 MICS Somalia, 1999

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	71	12-23 m	490	0
BCG	Card or History	71	12-23 m	490	0
DTP1	Card or History	59	12-23 m	490	0
DTP1	Card	59	12-23 m	490	0
DTP3	Card or History	36	12-23 m	490	0
DTP3	Card	36	12-23 m	490	0
MCV	Card or History	38	12-23 m	490	0
MCV	Card	38	12-23 m	490	0
Pol1	Card or History	60	12-23 m	490	0
Pol1	Card	60	12-23 m	490	0
Pol3	Card or History	40	12-23 m	490	0
Pol3	Card	40	12-23 m	490	0

Further information and estimates for 1980-1996 are available at:

http://www.childinfo.org/immunization_countryreports.html

http://www.who.int/immunization_monitoring/routine/immunization_coverage/en/index4.html

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.

Year	PAB coverage estimate (%)
1997	48
1998	47
1999	47
2000	47
2001	48
2002	48
2003	45
2004	45
2005	47
2006	51
2007	50
2008	49
2009	64

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.