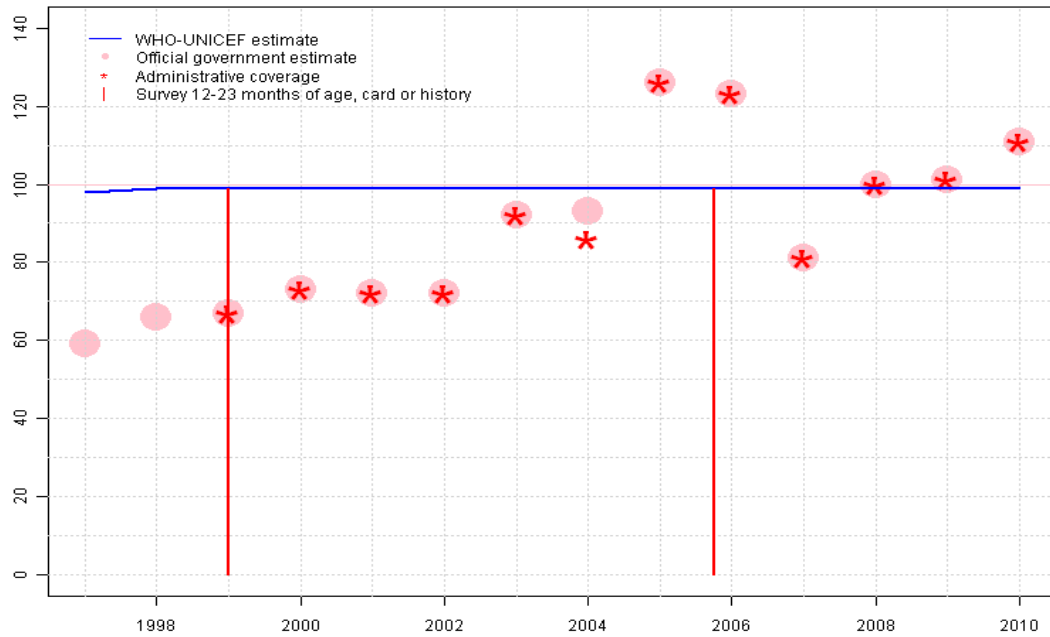


Botswana - BCG

BWA - BCG

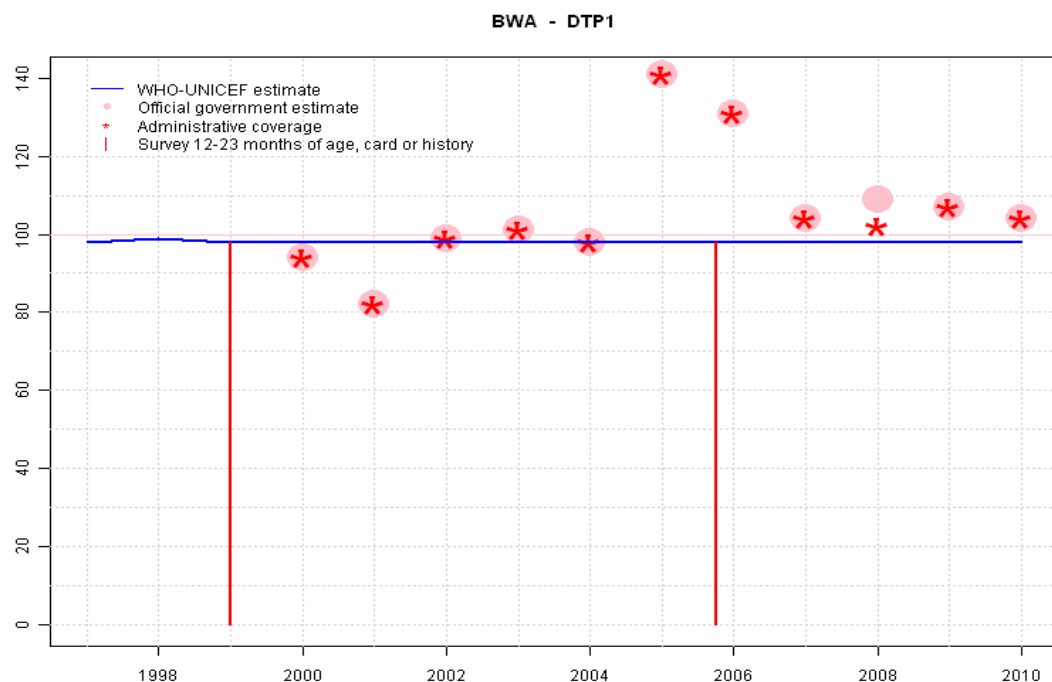


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	98	99	99	99	99	99	99	99	99	99	99	99	99	99
Official	59	66	67	73	72	72	92	93	126	123	81	100	101	111
Administrative	NA	NA	67	73	72	72	92	86	126	123	81	100	101	111
Survey	NA	NA	99	NA	NA	NA	NA	NA	NA	*	NA	NA	NA	NA

Description:

- 1997: Legacy estimate.
- 1998: Reported data calibrated to 1997 and 1999 levels.
- 1999: Estimate based on survey results. 99 percent survey results does not support reported data of 67 percent.
- 2000: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2001: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2002: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2003: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2004: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2005: Estimate based on interpolation between 1999 and 2006. Reported data of 126 percent greater than 100 percent. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2006: Estimate based on survey results. Reported data of 123 percent greater than 100 percent.
- 2007: Estimate based on extrapolation from 2006 value of 99 percent. Reported data not accepted due to a decline from 123 percent to 81 percent with a subsequent increase to 100 percent. Estimate not based on reported data.
- 2008: Estimate based on extrapolation from 2006 value of 99 percent. Estimate not based on reported data. Estimate based on survey results.
- 2009: Estimate based on extrapolation from 2006 value of 99 percent. Reported data of 101 percent greater than 100 percent. Estimate not based on reported data. Estimate based on survey results.
- 2010: Estimate based on extrapolation from 2006 value of 99 percent. Reported data of 111 percent greater than 100 percent. Estimate not based on reported data. Estimate based on survey results.

Botswana - DTP1



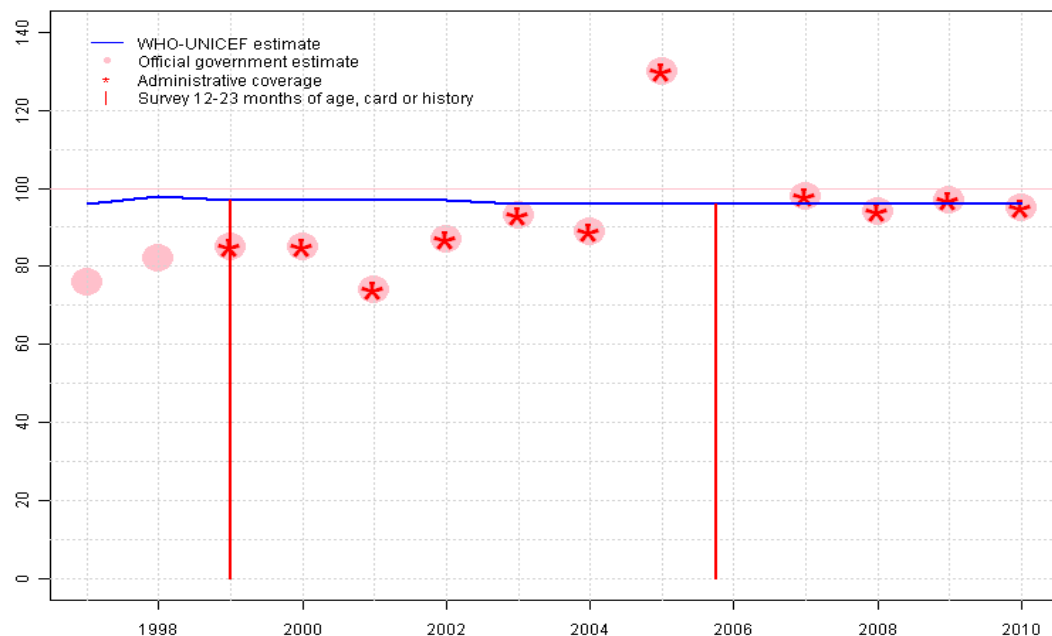
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	98	99	98	98	98	98	98	98	98	98	98	98	98	98
Official	NA	NA	NA	94	82	99	101	98	141	131	104	109	107	104
Administrative	NA	NA	NA	94	82	99	101	98	141	131	104	102	107	104
Survey	NA	NA	98	NA	NA	NA	NA	NA	NA	*	NA	NA	NA	NA

Description:

- 1997: Legacy estimate.
- 1998: No DTP1 data. Estimate based on DTP3 coverage of 98. Current estimate of 99 percent changed from previous revision value of 98 percent.
- 1999: Estimate based on survey results.
- 2000: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2001: Estimate based on interpolation between 1999 and 2006. Reported data not accepted due to a decline from 94 percent to 82 percent with a subsequent increase to 99 percent. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2002: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2003: Estimate based on interpolation between 1999 and 2006. Reported data of 101 percent greater than 100 percent. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2004: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2005: Estimate based on interpolation between 1999 and 2006. Reported data of 141 percent greater than 100 percent. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2006: Estimate based on survey results. Reported data of 131 percent greater than 100 percent.
- 2007: Estimate based on extrapolation from 2006 value of 98 percent. Reported data of 104 percent greater than 100 percent. Estimate not based on reported data. Estimate based on survey results.
- 2008: Estimate based on extrapolation from 2006 value of 98 percent. Reported data of 109 percent greater than 100 percent. Estimate not based on reported data. Estimate based on survey results.
- 2009: Estimate based on extrapolation from 2006 value of 98 percent. Reported data of 107 percent greater than 100 percent. Estimate not based on reported data. Estimate based on survey results.
- 2010: Estimate based on extrapolation from 2006 value of 98 percent. Reported data of 104 percent greater than 100 percent. Estimate not based on reported data. Estimate based on survey results.

Botswana - DTP3

BWA - DTP3



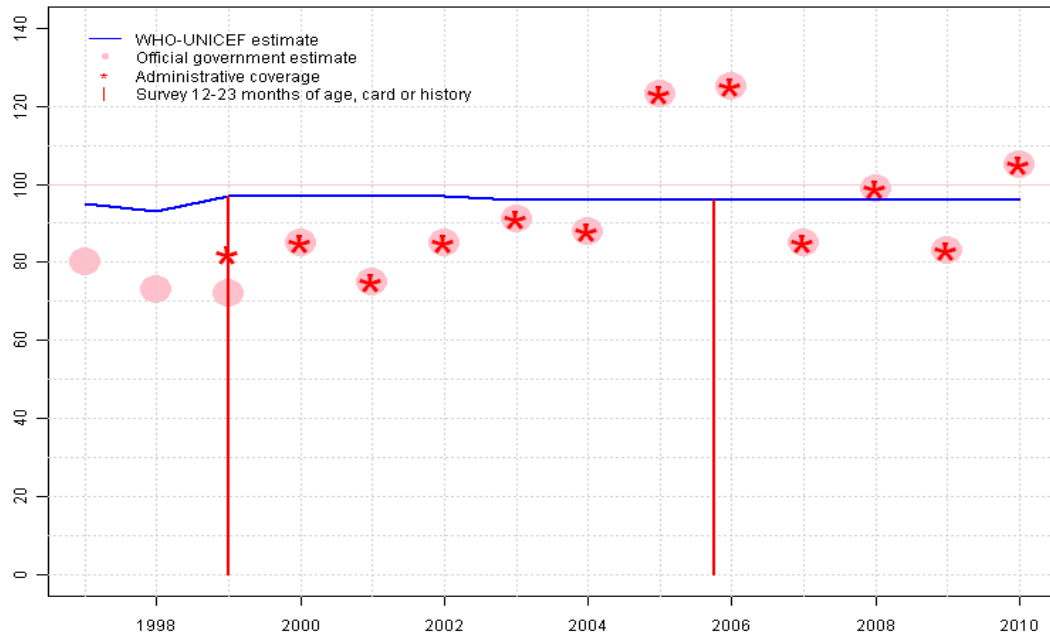
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	96	98	97	97	97	97	96	96	96	96	96	96	96	96
Official	76	82	85	85	74	87	93	89	130	150	98	94	97	95
Administrative	NA	NA	85	85	74	87	93	89	130	150	98	94	97	95
Survey	NA	NA	97	NA	NA	NA	NA	NA	NA	*	NA	NA	NA	NA

Description:

- 1997: Legacy estimate.
- 1998: Reported data calibrated to 1997 and 1999 levels.
- 1999: Estimate based on survey results. 97 percent survey results does not support reported data of 85 percent. Survey results of 97 percent modified for recall bias to 97 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 86 percent and 3d dose card only coverage of 85 percent.
- 2000: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2001: Estimate based on interpolation between 1999 and 2006. Reported data not accepted due to a decline from 85 percent to 74 percent with a subsequent increase to 87 percent. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2002: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2003: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2004: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2005: Estimate based on interpolation between 1999 and 2006. Reported data of 130 percent greater than 100 percent. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2006: Estimate based on survey results. Reported data of 150 percent greater than 100 percent. Reported data not accepted due to an increase from 130 percent to 150 percent with a subsequent decrease to 98 percent.
- 2007: Estimate based on extrapolation from 2006 value of 96 percent. Estimate not based on reported data. Estimate based on survey results.
- 2008: Estimate based on extrapolation from 2006 value of 96 percent. Estimate not based on reported data. Estimate based on survey results.
- 2009: Estimate based on extrapolation from 2006 value of 96 percent. Estimate not based on reported data. Estimate based on survey results.
- 2010: Estimate based on extrapolation from 2006 value of 96 percent. Estimate not based on reported data. Estimate based on survey results.

Botswana - Pol3

BWA - Pol3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	95	93	97	97	97	97	96	96	96	96	96	96	96	96
Official	80	73	72	85	75	85	91	88	123	125	85	99	83	105
Administrative	NA	NA	82	85	75	85	91	88	123	125	85	99	83	105
Survey	NA	NA	97	NA	NA	NA	NA	NA	NA	*	NA	NA	NA	NA

Description:

1997: Legacy estimate.

1998: Reported data calibrated to 1997 and 1999 levels. Current estimate of 93 percent changed from previous revision value of 96 percent.

1999: Estimate based on survey results. 97 percent survey results does not support reported data of 72 percent. Survey results of 97 percent modified for recall bias to 97 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 86 percent and 3d dose card only coverage of 85 percent.

2000: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.

2001: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.

2002: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.

2003: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.

2004: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.

2005: Estimate based on interpolation between 1999 and 2006. Reported data of 123 percent greater than 100 percent. Fluctuation in reported data suggest poor quality administrative recording and reporting.

2006: Estimate based on survey results. Reported data of 125 percent greater than 100 percent.

2007: Estimate based on extrapolation from 2006 value of 96 percent. Reported data not accepted due to a decline from 125 percent to 85 percent with a subsequent increase to 99 percent. Estimate not based on reported data. Estimate based on survey results.

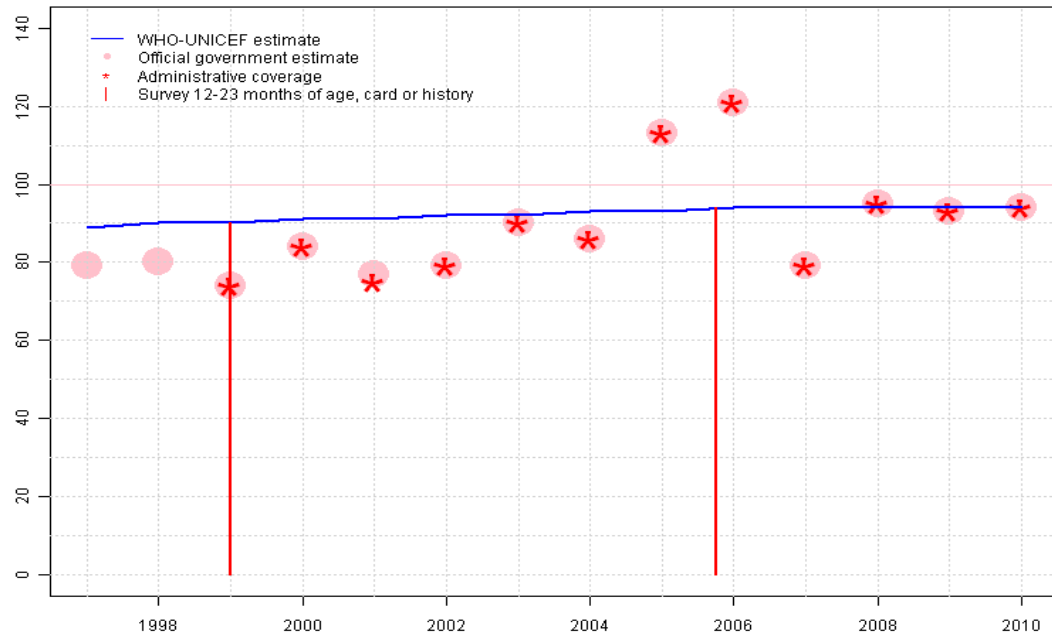
2008: Estimate based on extrapolation from 2006 value of 96 percent. Reported data not accepted due to an increase from 85 percent to 99 percent with a subsequent decrease to 83 percent. Estimate not based on reported data. Estimate based on survey results.

2009: Estimate based on extrapolation from 2006 value of 96 percent. Reported data not accepted due to a decline from 99 percent to 83 percent with a subsequent increase to 105 percent. Estimate not based on reported data. Estimate based on survey results.

2010: Estimate based on extrapolation from 2006 value of 96 percent. Reported data of 105 percent greater than 100 percent. Reported data not accepted due to a change from 83 level to 105 percent. Estimate not based on reported data. Estimate based on survey results.

Botswana - MCV

BWA - MCV



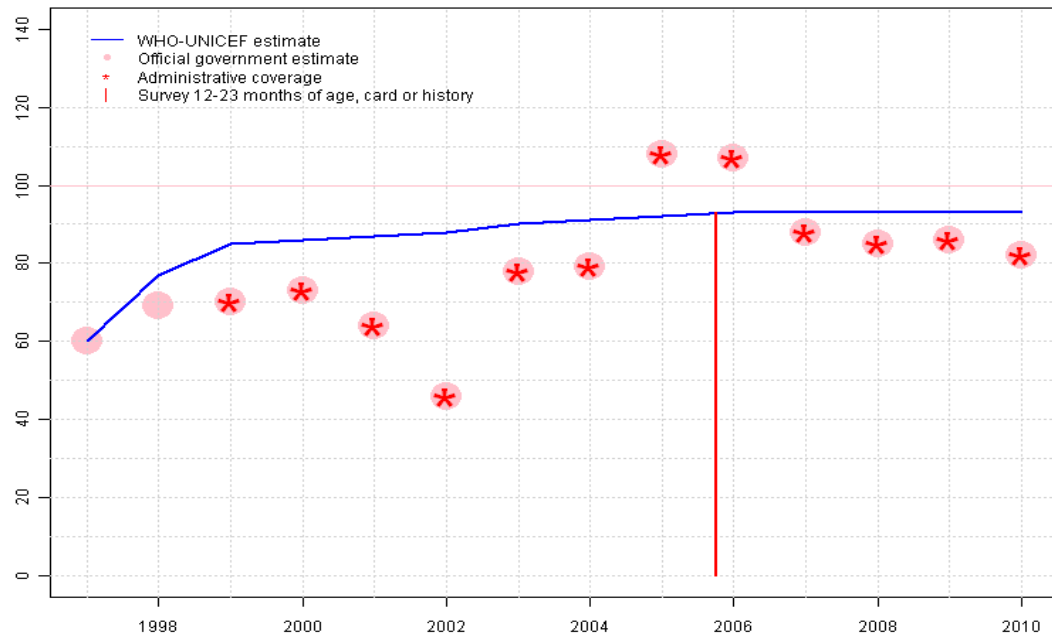
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	89	90	90	91	91	92	92	93	93	94	94	94	94	94
Official	79	80	74	84	77	79	90	86	113	121	79	95	93	94
Administrative	NA	NA	74	84	75	79	90	86	113	121	79	95	93	94
Survey	NA	NA	90	NA	NA	NA	NA	NA	NA	*	NA	NA	NA	NA

Description:

- 1997: Legacy estimate.
- 1998: Reported data calibrated to 1997 and 1999 levels. Current estimate of 90 percent changed from previous revision value of 89 percent.
- 1999: Estimate based on survey results. Estimate not based on reported data. Rules are not perfect yet.
- 2000: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2001: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2002: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2003: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2004: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2005: Estimate based on interpolation between 1999 and 2006. Reported data of 113 percent greater than 100 percent. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2006: Estimate based on survey results. Reported data of 121 percent greater than 100 percent.
- 2007: Estimate based on extrapolation from 2006 value of 94 percent. Reported data not accepted due to a decline from 121 percent to 79 percent with a subsequent increase to 95 percent. Estimate not based on reported data. Estimate based on survey results.
- 2008: Estimate based on extrapolation from 2006 value of 94 percent. Estimate not based on reported data. Estimate based on survey results.
- 2009: Estimate based on extrapolation from 2006 value of 94 percent. Estimate not based on reported data. Estimate based on survey results.
- 2010: Estimate based on extrapolation from 2006 value of 94 percent. Estimate not based on reported data. Estimate based on survey results.

Botswana - HepB3

BWA - HepB3

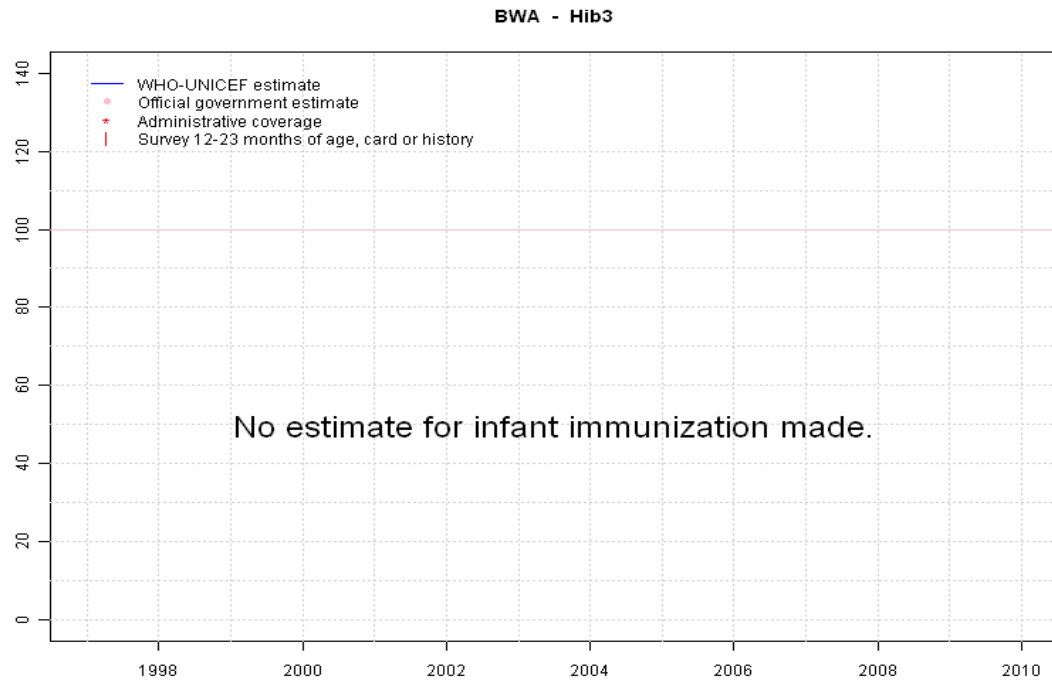


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	60	77	85	86	87	88	90	91	92	93	93	93	93	93
Official	60	69	70	73	64	46	78	79	108	107	88	85	86	82
Administrative	NA	NA	70	73	64	46	78	79	108	107	88	85	86	82
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	*	NA	NA	NA	NA

Description:

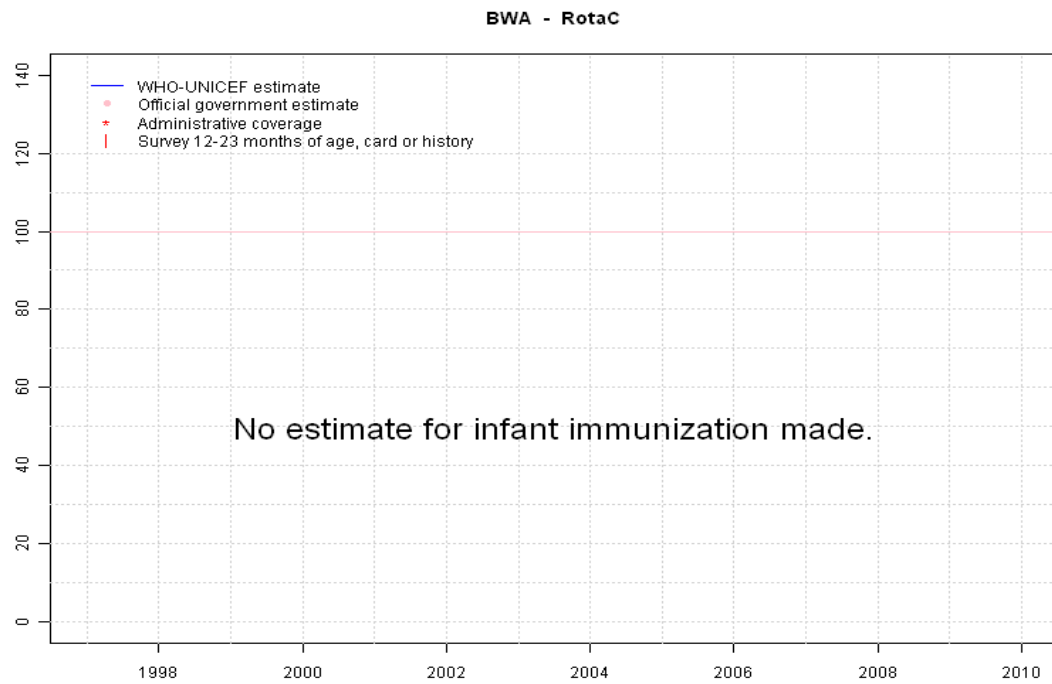
- 1997: Legacy estimate.
- 1998: Reported data calibrated to 1997 and 1999 levels.
- 1999: Estimate based on 1999 MICS coverage results adjusted for the difference between the measles and HepB3 coverage levels. The third dose of HepB vaccine is recommended at 9 months of age.
- 2000: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2001: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2002: Estimate based on interpolation between 1999 and 2006. Reported data not accepted due to a decline from 64 percent to 46 percent with a subsequent increase to 78 percent. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2003: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2004: Estimate based on interpolation between 1999 and 2006. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2005: Estimate based on interpolation between 1999 and 2006. Reported data of 108 percent greater than 100 percent. Fluctuation in reported data suggest poor quality administrative recording and reporting.
- 2006: No accepted reported data. Reported data of 79 percent estimated by extrapolating from 2004 does not support trend in reported data. *Summary survey results of 93 percent based on 2 surveys (see survey summary page) Reported data of 107 percent greater than 100 percent.
- 2007: Estimate based on extrapolation from 2006 value of 93 percent. Estimate not based on reported data. Estimate based on survey results.
- 2008: Estimate based on extrapolation from 2006 value of 93 percent. Estimate not based on reported data. Estimate based on survey results.
- 2009: Estimate based on extrapolation from 2006 value of 93 percent. Estimate not based on reported data. Estimate based on survey results.
- 2010: Estimate based on extrapolation from 2006 value of 93 percent. Estimate not based on reported data. Estimate based on survey results.

Botswana - Hib3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	NA	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	NA
Administrative	NA	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	NA

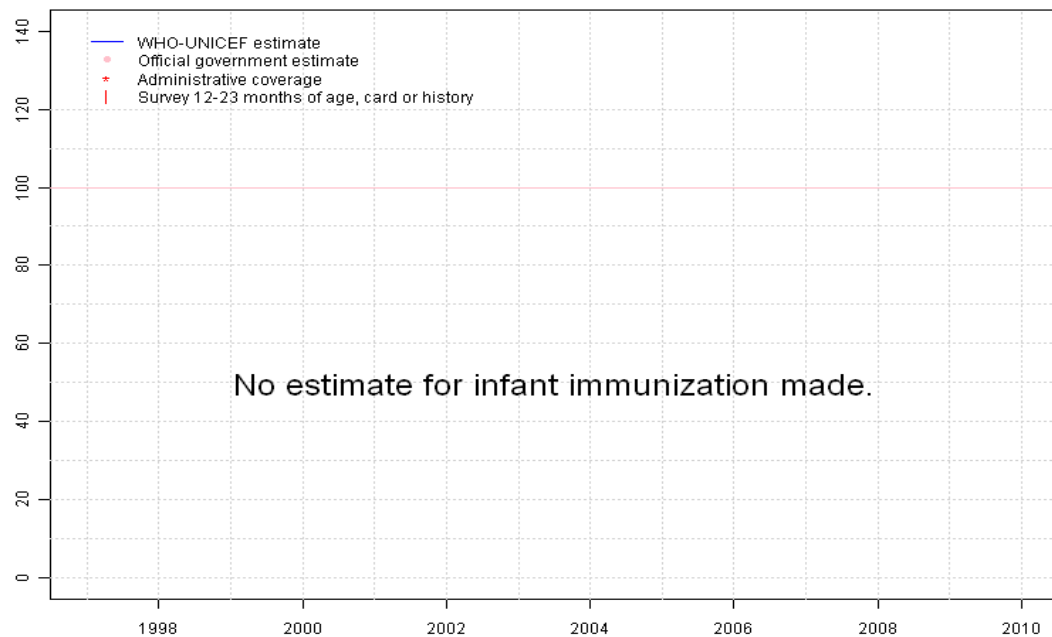
Botswana - RotaC



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	NA	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	NA
Administrative	NA	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	NA

Botswana - PcV3

BWA - PcV3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	NA	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	NA
Administrative	NA	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	NA

Botswana - survey details

2006 Botswana EPI Coverage Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	99	12-23 m	9083	98
DTP1	Card or History	98	12-23 m	9083	98
DTP3	Card or History	96	12-23 m	9083	98
HepB1	Card or History	97	12-23 m	9083	98
HepB3	Card or History	93	12-23 m	9083	98
MCV	Card or History	94	12-23 m	9083	98
Pol1	Card or History	97	12-23 m	9083	98
Pol3	Card or History	96	12-23 m	9083	98

2006 Botswana Family Health Survey VI 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	99	12-23 m	586	80
DTP1	Card or History	98	12-23 m	586	80
DTP3	Card or History	96	12-23 m	586	80
HepB1	Card or History	97	12-23 m	586	80
HepB3	Card or History	93	12-23 m	586	80
MCV	Card or History	94	12-23 m	586	80
Pol1	Card or History	97	12-23 m	586	80
Pol3	Card or History	96	12-23 m	586	80

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	87	12-23 m	618	84
BCG	History	12	12-23 m	618	84
BCG	C or H <12 months	99	12-23 m	618	84
BCG	Card or History	99	12-23 m	618	84
DTP1	Card	86	12-23 m	618	84
DTP1	Card or History	98	12-23 m	618	84
DTP1	History	12	12-23 m	618	84
DTP1	C or H <12 months	98	12-23 m	618	84
DTP3	History	12	12-23 m	618	84
DTP3	C or H <12 months	94	12-23 m	618	84
DTP3	Card	85	12-23 m	618	84
DTP3	Card or History	97	12-23 m	618	84
MCV	Card	78	12-23 m	618	84
MCV	Card or History	90	12-23 m	618	84
MCV	History	12	12-23 m	618	84
MCV	C or H <12 months	83	12-23 m	618	84
Pol1	C or H <12 months	98	12-23 m	618	84
Pol1	Card	86	12-23 m	618	84
Pol1	Card or History	98	12-23 m	618	84
Pol1	History	12	12-23 m	618	84
Pol3	C or H <12 months	94	12-23 m	618	84
Pol3	Card	85	12-23 m	618	84
Pol3	History	12	12-23 m	618	84
Pol3	Card or History	97	12-23 m	618	84

1999 Botswana Multiple Indicator Cluster Survey 2000, 2001

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

Botswana

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	69
1998	72
1999	80
2000	80
2001	81
2002	82
2003	82
2004	83
2005	83
2006	84
2007	84
2008	85
2009	92
2010	92

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.