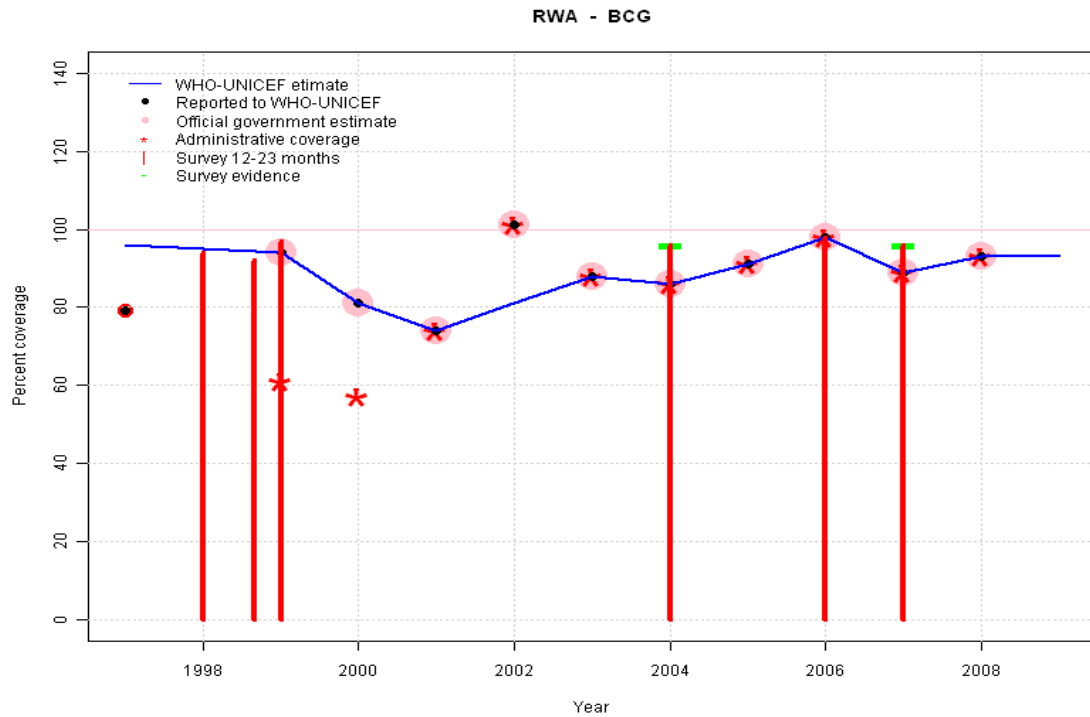


Rwanda - BCG



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	96	95	94	81	74	81	88	86	91	98	89	93	93
Reported	79	NA	94	81	74	101	88	86	91	98	89	93	NA
Official	NA	NA	94	81	74	101	88	86	91	98	89	93	NA
Administrative	NA	NA	61	57	74	101	88	86	91	98	89	93	NA
Survey	NA	NA	95	NA	NA	NA	NA	96	NA	98	96	NA	NA

Description:

1997: Legacy estimate.

1998: Estimate interpolated between 1997 and 1999 estimates. Survey results of 94 percent with sample size 0 ignored; sample size less than 300.

1999: Estimate based on reported data (94 percent) confirmed by survey (95 percent). 2 surveys, results = 92, 97, mean = 95 percent.

2000: Estimate based on reported data.

2001: Estimate based on reported data.

2002: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 74 percent in 2001 and 88 percent in 2003. 2002 reported data (101 percent) ignored; greater than 100 percent. 2002 reported data (101 percent) inconsistent with data from other years.

2003: Estimate based on reported data.

2004: Estimate based on reported data (86 percent) confirmed by survey (96 percent).

2005: Estimate based on reported data.

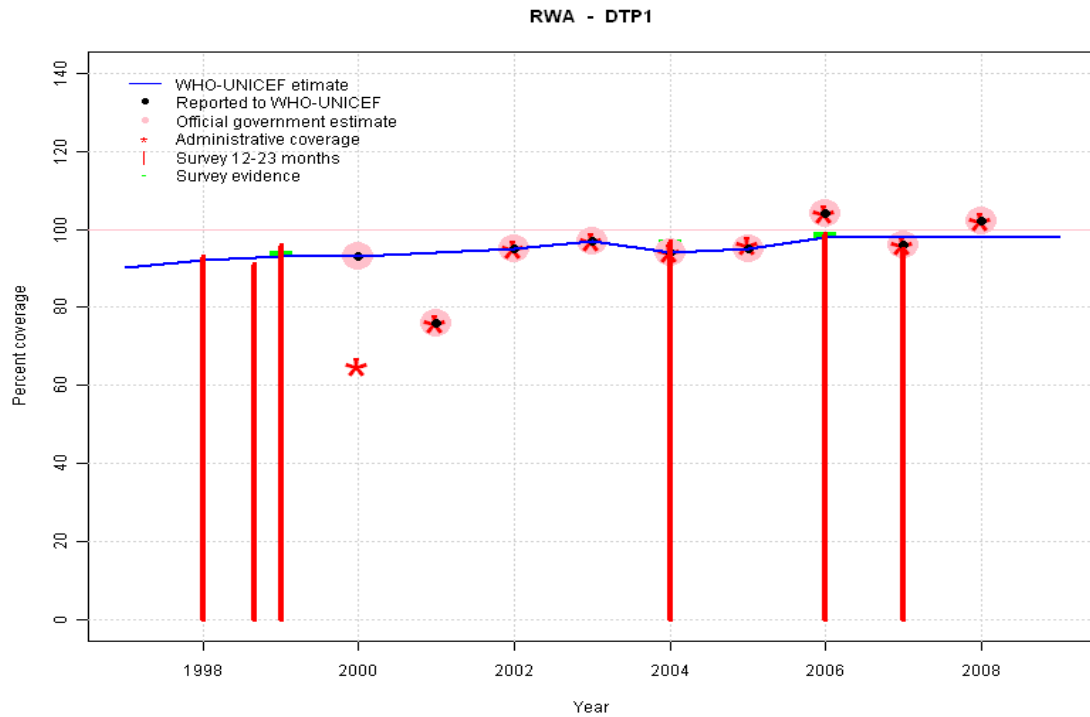
2006: Estimate based on reported data (98 percent) confirmed by survey (98 percent).

2007: Estimate based on reported data (89 percent) confirmed by survey (96 percent).

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 93 percent.

Rwanda - DTP1



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	90	92	93	93	94	95	97	94	95	98	98	98	98
Reported	NA	NA	NA	93	76	95	97	94	95	104	96	102	NA
Official	NA	NA	NA	93	76	95	97	94	95	104	96	102	NA
Administrative	NA	NA	NA	65	76	95	97	94	96	104	96	102	NA
Survey	NA	NA	94	NA	NA	NA	NA	97	NA	99	95	NA	NA

Description:

1997: Legacy estimate.

1998: Estimate interpolated between 1997 and 1999 estimates. Survey results of 93 percent with sample size 0 ignored; sample size less than 300.

1999: Estimate based on interpolated value between reported data. Survey (94 percent) confirms trend in reported data. 2 surveys, results = 91, 96, mean = 94 percent.

2000: Estimate based on reported data.

2001: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 93 percent in 2000 and 95 percent in 2002. 2001 reported data (76 percent) inconsistent with data from other years.

2002: Estimate based on reported data.

2003: Estimate based on reported data.

2004: Estimate based on reported data (94 percent) confirmed by survey (97 percent).

2005: Estimate based on reported data.

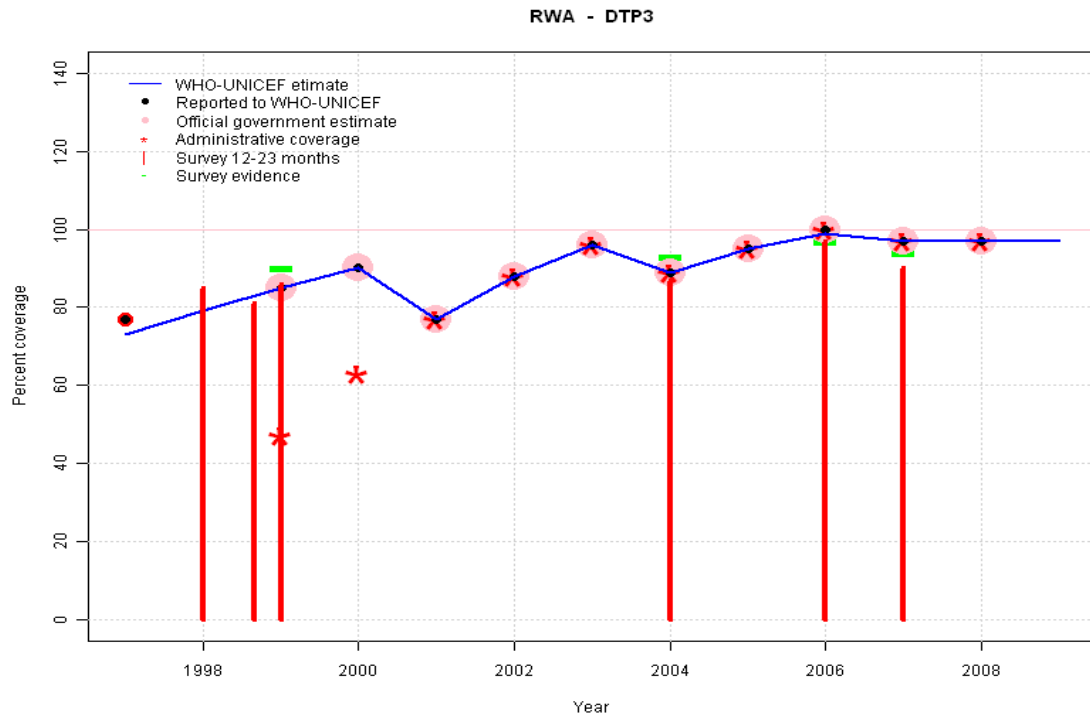
2006: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.

2007: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.

2008: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.

2009: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.

Rwanda - DTP3

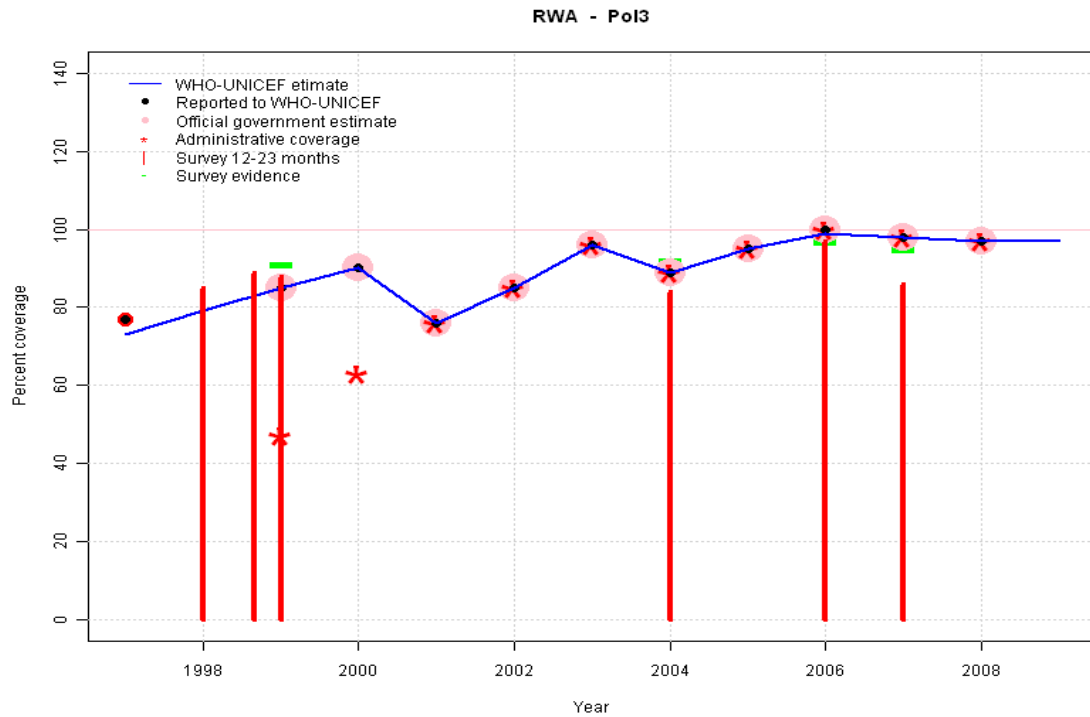


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	73	79	85	90	77	88	96	89	95	99	97	97	97
Reported	77	NA	85	90	77	88	96	89	95	100	97	97	NA
Official	NA	NA	85	90	77	88	96	89	95	100	97	97	NA
Administrative	NA	NA	47	63	77	88	96	89	95	100	97	97	NA
Survey	NA	NA	90	NA	NA	NA	NA	93	NA	97	94	NA	NA

Description:

- 1997: Legacy estimate.
- 1998: Reported data (81 percent) calibrated to 1997 and 1999 levels. Missing or ignored reported value estimated by interpolation between reported values of 77 percent in 1997 and 85 percent in 1999. Survey results of 85 percent with sample size 0 ignored; sample size less than 300.
- 1999: Estimate based on reported data (85 percent) confirmed by survey (90 percent). 2 surveys, results = 87, 92, mean = 90 percent. Survey results (81 percent) adjusted for recall bias to 87 percent based on first dose card or history coverage (91 percent) and documented drop-out between first (72 percent) and third (69 percent) doses. Survey results (86 percent) adjusted for recall bias to 92 percent based on first dose card or history coverage (96 percent) and documented drop-out between first (66 percent) and third (63 percent) doses.
- 2000: Estimate based on reported data.
- 2001: Estimate based on reported data. Officially reported data follow the same pattern as with other multi-dose antigens.
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data (89 percent) confirmed by survey (93 percent). Survey results (87 percent) adjusted for recall bias to 93 percent based on first dose card or history coverage (97 percent) and documented drop-out between first (76 percent) and third (73 percent) doses.
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data (99 percent) confirmed by survey (97 percent). Survey results (97 percent) adjusted for recall bias to 97 percent based on first dose card or history coverage (99 percent) and documented drop-out between first (99 percent) and third (97 percent) doses.
- 2007: Estimate based on reported data (97 percent) confirmed by survey (94 percent). Survey results (90 percent) adjusted for recall bias to 94 percent based on first dose card or history coverage (95 percent) and documented drop-out between first (67 percent) and third (66 percent) doses.
- 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 97 percent.

Rwanda - Pol3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	73	79	85	90	76	85	96	89	95	99	98	97	97
Reported	77	NA	85	90	76	85	96	89	95	100	98	97	NA
Official	NA	NA	85	90	76	85	96	89	95	100	98	97	NA
Administrative	NA	NA	47	63	76	85	96	89	95	100	98	97	NA
Survey	NA	NA	91	NA	NA	NA	NA	92	NA	97	95	NA	NA

Description:

1997: Legacy estimate.

1998: Reported data (81 percent) calibrated to 1997 and 1999 levels. Missing or ignored reported value estimated by interpolation between reported values of 77 percent in 1997 and 85 percent in 1999. Survey results of 85 percent with sample size 0 ignored; sample size less than 300.

1999: Estimate based on reported data (85 percent) confirmed by survey (91 percent). 2 surveys, results = 89, 93, mean = 91 percent. Survey results (89 percent) adjusted for recall bias to 89 percent based on first dose card or history coverage (92 percent) and documented drop-out between first (72 percent) and third (70 percent) doses. Survey results (88 percent) adjusted for recall bias to 93 percent based on first dose card or history coverage (96 percent) and documented drop-out between first (66 percent) and third (64 percent) doses.

2000: Estimate based on 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 (89 percent) confirmed by survey (92 percent). Survey results (84 percent) adjusted for recall bias to 92 percent based on first dose card or history coverage (96 percent) and documented drop-out between first (76 percent) and third (73 percent) doses.

2005: Estimate based on reported data.

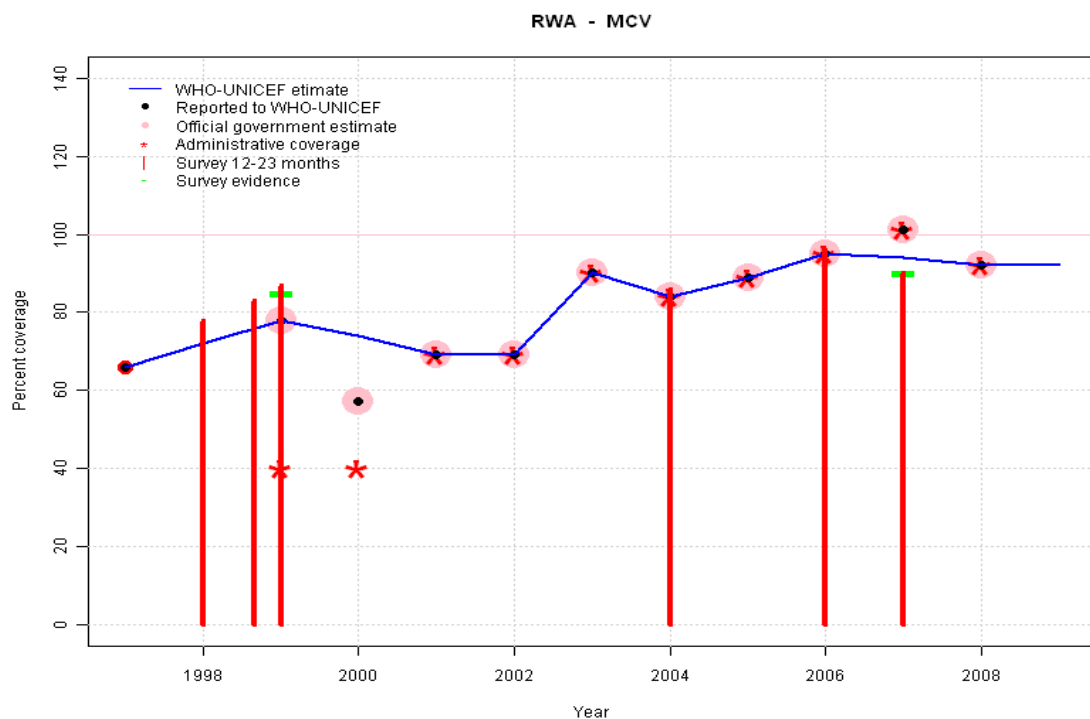
2006: Estimate based on reported data (99 percent) confirmed by survey (97 percent). Survey results (97 percent) adjusted for recall bias to 97 percent based on first dose card or history coverage (98 percent) and documented drop-out between first (98 percent) and third (97 percent) doses.

2007: Estimate based on reported data (98 percent) confirmed by survey (95 percent). Survey results (86 percent) adjusted for recall bias to 95 percent based on first dose card or history coverage (96 percent) and documented drop-out between first (67 percent) and third (66 percent) doses.

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 97 percent.

Rwanda - MCV



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	66	72	78	74	69	69	90	84	89	95	94	92	92
Reported	66	NA	78	57	69	69	90	84	89	95	101	92	NA
Official	NA	NA	78	57	69	69	90	84	89	95	101	92	NA
Administrative	NA	NA	40	40	69	69	90	84	89	95	101	92	NA
Survey	NA	NA	85	NA	NA	NA	NA	86	NA	96	90	NA	NA

Description:

1997: Legacy estimate.

1998: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 66 percent in 1997 and 78 percent in 1999. Survey results of 78 percent with sample size 0 ignored; sample size less than 300.

1999: Estimate based on reported data (78 percent) confirmed by survey (85 percent). 2 surveys, results = 83, 87, mean = 85 percent.

2000: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 78 percent in 1999 and 69 percent in 2001. 2000 reported data (57 percent) inconsistent with data from other years.

2001: Estimate based on reported data.

2002: Estimate based on reported data.

2003: Estimate based on reported data.

2004: Estimate based on reported data (84 percent) confirmed by survey (86 percent).

2005: Estimate based on reported data.

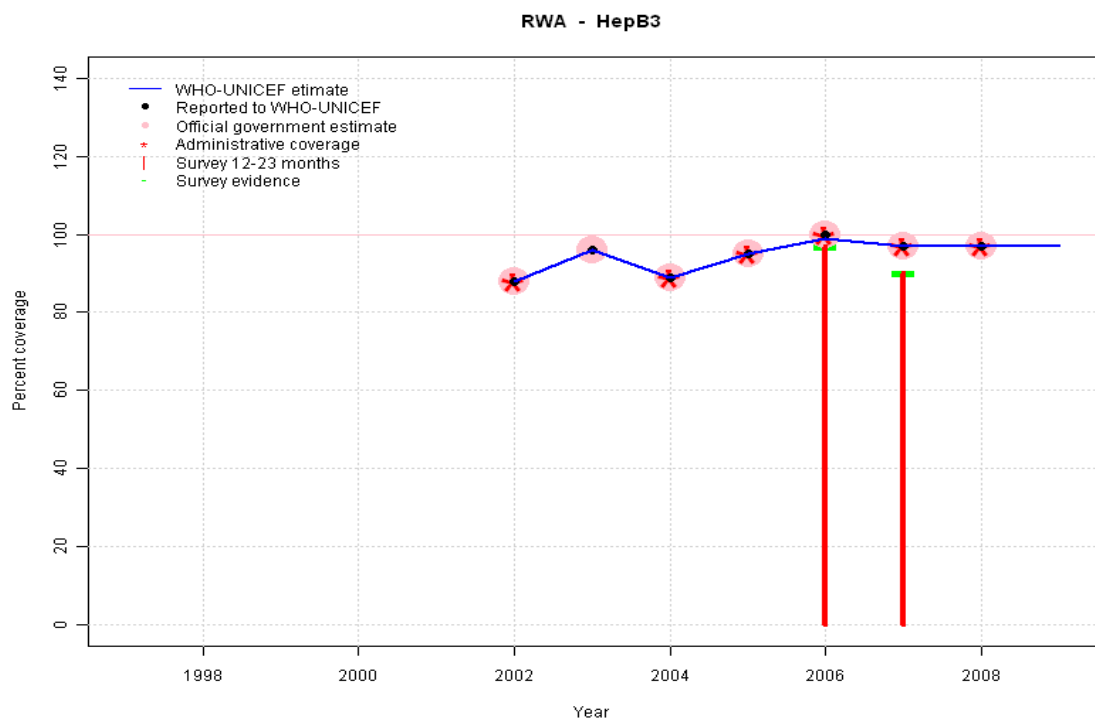
2006: Estimate based on reported data (95 percent) confirmed by survey (96 percent).

2007: Estimate based on interpolated value between reported data. Survey (90 percent) confirms trend in reported data. 2007 reported data (101 percent) ignored; greater than 100 percent.

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 92 percent.

Rwanda - HepB3

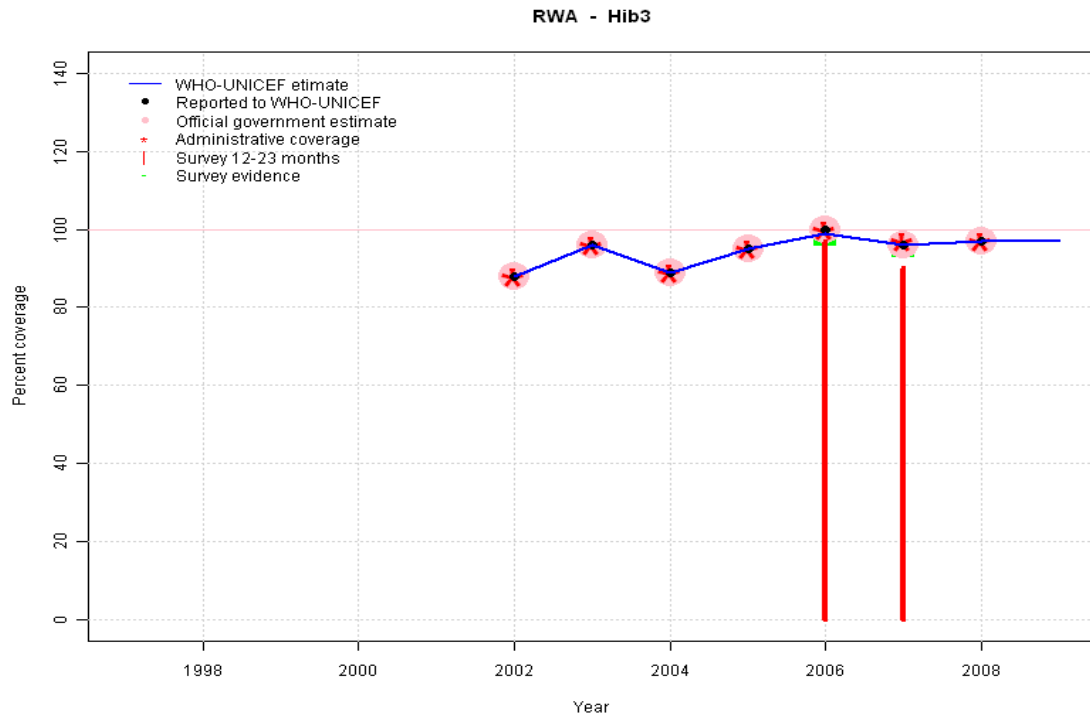


Description:

- 2002: Estimate based on trend in reported data. HepB introduced in 2002 Vaccine presentation is DTP-HepB-Hib.
- 2003: Estimate based on trend in reported data.
- 2004: Estimate based on trend in reported data.
- 2005: Estimate based on trend in reported data.
- 2006: Estimate based on reported data (99 percent) confirmed by survey (97 percent).
- 2007: Estimate based on reported data (97 percent) confirmed by survey (90 percent).
- 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 97 percent.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	88	96	89	95	99	97	97	97
Reported	NA	NA	NA	NA	NA	88	96	89	95	100	97	97	NA
Official	NA	NA	NA	NA	NA	88	96	89	95	100	97	97	NA
Administrative	NA	NA	NA	NA	NA	88	NA	89	95	100	97	97	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	97	90	NA	NA

Rwanda - Hib3

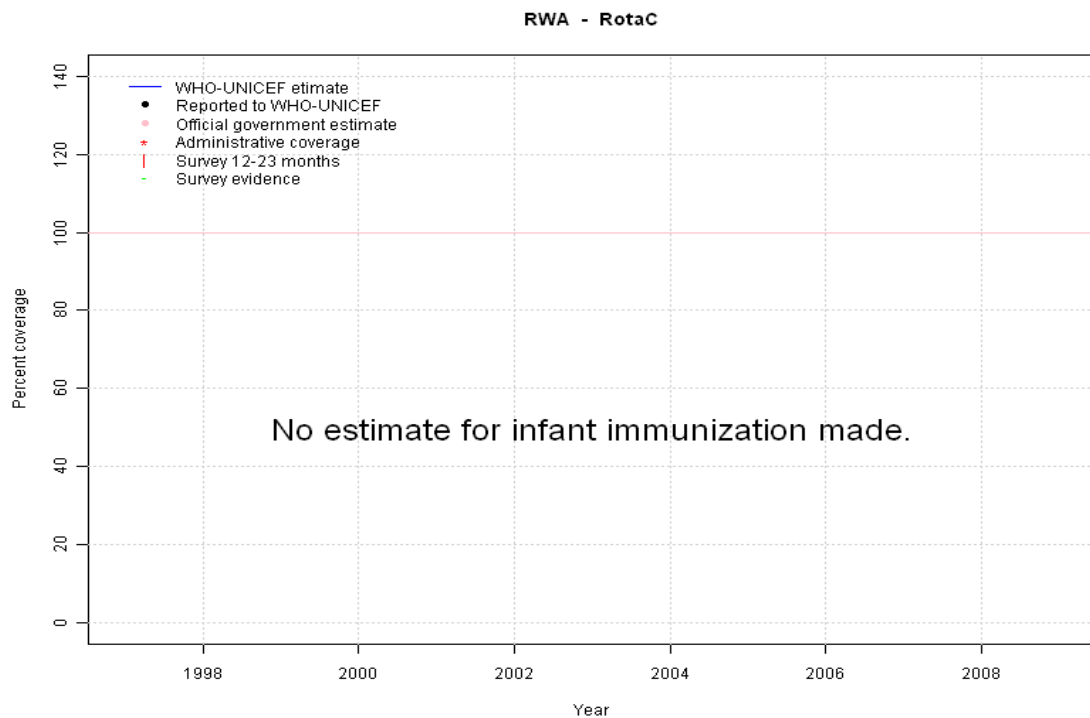


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	88	96	89	95	99	96	97	97
Reported	NA	NA	NA	NA	NA	88	96	89	95	100	96	97	NA
Official	NA	NA	NA	NA	NA	88	96	89	95	100	96	97	NA
Administrative	NA	NA	NA	NA	NA	88	96	89	95	100	97	97	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	97	94	NA	NA

Description:

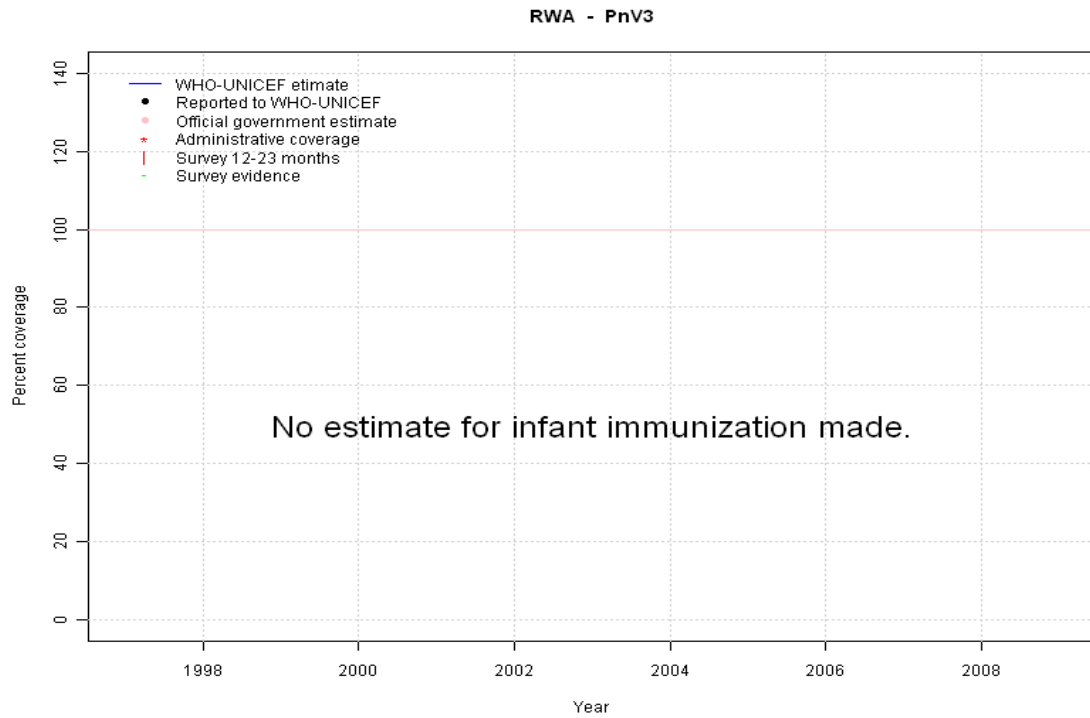
- 2002: Estimate based on trend in reported data. Hib introduced in 2002 Vaccine presentation is DTP-HepB-Hib.
- 2003: Estimate based on trend in reported data.
- 2004: Estimate based on trend in reported data.
- 2005: Estimate based on trend in reported data.
- 2006: Estimate based on reported data (99 percent) confirmed by survey (97 percent). Survey results (97 percent) adjusted for recall bias to 97 percent based on first dose card or history coverage (99 percent) and documented drop-out between first (99 percent) and third (97 percent) doses.
- 2007: Estimate based on reported data (96 percent) confirmed by survey (94 percent). Survey results (90 percent) adjusted for recall bias to 94 percent based on first dose card or history coverage (95 percent) and documented drop-out between first (67 percent) and third (66 percent) doses.
- 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 97 percent.

Rwanda - 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

Rwanda - 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

Rwanda - survey details

2007 Rwanda Interim Demographic and Health Survey 2007-08

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	95	12-23 m	1226	67
BCG	Card	67	12-23 m	1226	67
BCG	History	29	12-23 m	1226	67
BCG	Card or History	96	12-23 m	1226	67
DTP1	History	28	12-23 m	1226	67
DTP1	Card or History	95	12-23 m	1226	67
DTP1	C or H <12 months	94	12-23 m	1226	67
DTP1	Card	67	12-23 m	1226	67
DTP3	History	24	12-23 m	1226	67
DTP3	Card or History	90	12-23 m	1226	67
DTP3	C or H <12 months	88	12-23 m	1226	67
DTP3	Card	66	12-23 m	1226	67
HepB1	History	28	12-23 m	1226	67
HepB1	Card	67	12-23 m	1226	67
HepB1	Card or History	95	12-23 m	1226	67
HepB1	C or H <12 months	94	12-23 m	1226	67
HepB3	History	24	12-23 m	1226	67
HepB3	Card or History	90	12-23 m	1226	67
HepB3	C or H <12 months	88	12-23 m	1226	67
HepB3	Card	66	12-23 m	1226	67
Hib1	C or H <12 months	94	12-23 m	1226	67
Hib1	Card	67	12-23 m	1226	67
Hib1	Card or History	95	12-23 m	1226	67
Hib1	History	28	12-23 m	1226	67
Hib3	Card	66	12-23 m	1226	67
Hib3	History	24	12-23 m	1226	67
Hib3	Card or History	90	12-23 m	1226	67
Hib3	C or H <12 months	88	12-23 m	1226	67
MCV	C or H <12 months	83	12-23 m	1226	67
MCV	Card or History	90	12-23 m	1226	67
MCV	History	26	12-23 m	1226	67
MCV	Card	64	12-23 m	1226	67
Pol1	History	29	12-23 m	1226	67
Pol1	Card	67	12-23 m	1226	67
Pol1	Card or History	96	12-23 m	1226	67
Pol1	C or H <12 months	95	12-23 m	1226	67
Pol3	History	20	12-23 m	1226	67

Pol3	Card or History	86	12-23 m	1226	67
Pol3	Card	66	12-23 m	1226	67
Pol3	C or H <12 months	84	12-23 m	1226	67

2006 Enquête nationale de couverture vaccinale à Rwanda, 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	94	12-23 m	1049	82
BCG	Card or History	98	12-23 m	1049	82
DTP1	Card	99	12-23 m	1049	82
DTP1	Card or History	99	12-23 m	1049	82
DTP3	Card	97	12-23 m	1049	82
DTP3	Card or History	97	12-23 m	1049	82
HepB1	Card or History	99	12-23 m	1049	82
HepB1	Card	99	12-23 m	1049	82
HepB3	Card or History	97	12-23 m	1049	82
HepB3	Card	97	12-23 m	1049	82
Hib1	Card or History	99	12-23 m	1049	82
Hib1	Card	99	12-23 m	1049	82
Hib3	Card	97	12-23 m	1049	82
Hib3	Card or History	97	12-23 m	1049	82
MCV	Card	95	12-23 m	1049	82
MCV	Card or History	96	12-23 m	1049	82
Pol1	Card	98	12-23 m	1049	82
Pol1	Card or History	98	12-23 m	1049	82
Pol3	Card or History	97	12-23 m	1049	82
Pol3	Card	97	12-23 m	1049	82

2004 Rwanda Demographic and Health Survey 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96	12-23 m	1626	76
BCG	History	21	12-23 m	1626	76
BCG	Card or History	96	12-23 m	1626	76
BCG	Card	75	12-23 m	1626	76
DTP1	C or H <12 months	96	12-23 m	1626	76
DTP1	Card	76	12-23 m	1626	76
DTP1	Card or History	97	12-23 m	1626	76

Rwanda - survey details

DTP1	History	21	12-23 m	1626	76
DTP3	Card	73	12-23 m	1626	76
DTP3	Card or History	87	12-23 m	1626	76
DTP3	History	14	12-23 m	1626	76
DTP3	C or H <12 months	86	12-23 m	1626	76
MCV	Card	67	12-23 m	1626	76
MCV	Card or History	86	12-23 m	1626	76
MCV	History	19	12-23 m	1626	76
MCV	C or H <12 months	79	12-23 m	1626	76
Pol1	History	21	12-23 m	1626	76
Pol1	C or H <12 months	96	12-23 m	1626	76
Pol1	Card	76	12-23 m	1626	76
Pol1	Card or History	96	12-23 m	1626	76
Pol3	History	12	12-23 m	1626	76
Pol3	Card or History	84	12-23 m	1626	76
Pol3	C or H <12 months	84	12-23 m	1626	76
Pol3	Card	73	12-23 m	1626	76

DTP1	Card	72	12-23 m	596	61
DTP3	Card	69	12-23 m	596	61
DTP3	Card or History	81	12-23 m	596	61
DTP3	History	12	12-23 m	596	61
MCV	History	19	12-23 m	596	61
MCV	Card	64	12-23 m	596	61
MCV	Card or History	83	12-23 m	596	61
Pol1	History	20	12-23 m	596	61
Pol1	Card	72	12-23 m	596	61
Pol1	Card or History	92	12-23 m	596	61
Pol3	Card	70	12-23 m	596	61
Pol3	Card or History	89	12-23 m	596	61
Pol3	History	11	12-23 m	596	61

1999 Enquête Démographique et de Santé Rwanda 2000 (EDSR-II), 2001

2002 Rwanda, Evaluation de la campagne contre la rougeole et la vaccination de routine, 2003 - documentation not available

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	99	12-23 m	0	79
DTP1	C or H <12 months	97	12-23 m	0	79
DTP3	C or H <12 months	92	12-23 m	0	79
MCV	C or H <12 months	92	12-23 m	0	79
Pol3	C or H <12 months	87	12-23 m	0	79

1999 Enquête à Indicateurs Multiples (MICS2), Rapport préliminaire, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	92	12-23 m	596	61
BCG	Card	73	12-23 m	596	61
BCG	History	19	12-23 m	596	61
DTP1	Card or History	91	12-23 m	596	61
DTP1	History	19	12-23 m	596	61

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96	12-23 m	1330	66
BCG	History	31	12-23 m	1330	66
BCG	Card or History	97	12-23 m	1330	66
BCG	Card	66	12-23 m	1330	66
DTP1	Card	66	12-23 m	1330	66
DTP1	Card or History	96	12-23 m	1330	66
DTP1	History	30	12-23 m	1330	66
DTP1	C or H <12 months	95	12-23 m	1330	66
DTP3	C or H <12 months	85	12-23 m	1330	66
DTP3	Card	63	12-23 m	1330	66
DTP3	Card or History	86	12-23 m	1330	66
DTP3	History	23	12-23 m	1330	66
MCV	C or H <12 months	80	12-23 m	1330	66
MCV	History	28	12-23 m	1330	66
MCV	Card	59	12-23 m	1330	66
MCV	Card or History	87	12-23 m	1330	66
Pol1	C or H <12 months	96	12-23 m	1330	66
Pol1	Card	66	12-23 m	1330	66
Pol1	Card or History	96	12-23 m	1330	66
Pol1	History	31	12-23 m	1330	66
Pol3	Card or History	88	12-23 m	1330	66

Rwanda - survey details

Pol3	History	24	12-23 m	1330	66
Pol3	C or H <12 months	87	12-23 m	1330	66
Pol3	Card	64	12-23 m	1330	66

1998 Enquête Démographique et de Santé Rwanda 2000 (EDSR-II), 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	94	24-35 m	1232	54
DTP1	C or H <12 months	91	24-35 m	1232	54
DTP3	C or H <12 months	79	24-35 m	1232	54
MCV	C or H <12 months	80	24-35 m	1232	54
Pol1	C or H <12 months	93	24-35 m	1232	54
Pol3	C or H <12 months	80	24-35 m	1232	54

1998 Rapport d'Evaluation de la Couverture Vaccinale au Niveau des Onze Regions Sanitaires, Mai-Juni 1999

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	94	12-23 m	0	0
DTP1	Card or History	93	12-23 m	0	0
DTP3	Card or History	85	12-23 m	0	0
MCV	Card or History	78	12-23 m	0	0
Pol1	Card or History	93	12-23 m	0	0
Pol3	Card or History	85	12-23 m	0	0

1997 Enquête Démographique et de Santé Rwanda 2000 (EDSR-II), 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96	36-47 m	1297	42
DTP1	C or H <12 months	92	36-47 m	1297	42
DTP3	C or H <12 months	80	36-47 m	1297	42
MCV	C or H <12 months	74	36-47 m	1297	42
Pol1	C or H <12 months	94	36-47 m	1297	42
Pol3	C or H <12 months	82	36-47 m	1297	42

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

Rwanda

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	79
1998	84
1999	89
2000	81
2001	71
2002	79
2003	77
2004	77
2005	79
2006	82
2007	82
2008	85
2009	85

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.