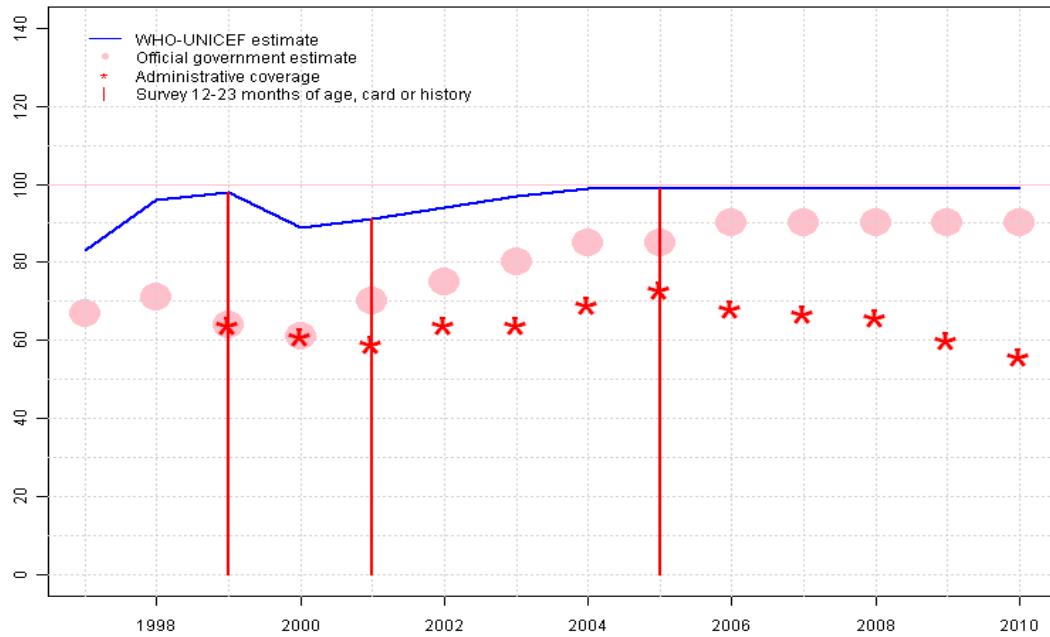


Eritrea - BCG

ERI - BCG



Description:

1997: Legacy estimate.

1998: Reported data calibrated to 1997 and 1999 levels. Current estimate of 96 percent changed from previous revision value of 91 percent.

1999: Estimate based on survey results. 98 percent survey results does not support reported data of 64 percent.

2000: Reported data calibrated to 1999 and 2001 levels. Current estimate of 89 percent changed from previous revision value of 95 percent.

2001: Estimate based on survey results. 91 percent survey results does not support reported data of 70 percent.

2002: Reported data calibrated to 2001 and 2005 levels.

2003: Reported data calibrated to 2001 and 2005 levels.

2004: Reported data calibrated to 2001 and 2005 levels.

2005: Estimate based on survey results. 99 percent survey results does not support reported data of 85 percent.

2006: Reported data calibrated to 2005 and 2008 levels.

2007: Reported data calibrated to 2005 and 2008 levels.

2008: Estimate based on survey data. Estimate not based on reported data. Estimate based on survey result which does not support reported level of coverage for other antigens.

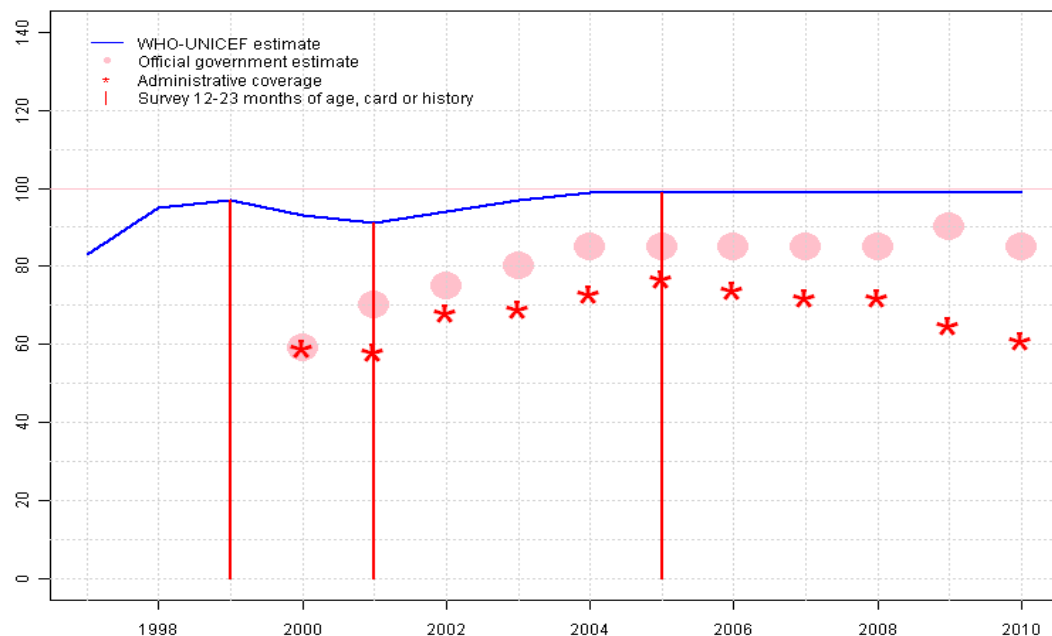
2009: Estimate based on extrapolation from 2008 value of 99 percent. Estimate not based on reported data. Estimate based on survey result which does not support reported level of coverage for other antigens.

2010: Estimate based on extrapolation from 2008 value of 99 percent. Estimate not based on reported data. Estimate based on survey result which does not support reported level of coverage for other antigens.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	83	96	98	89	91	94	97	99	99	99	99	99	99	99
Official	67	71	64	61	70	75	80	85	85	90	90	90	90	90
Administrative	NA	NA	64	61	59	64	64	69	73	68	67	66	60	56
Survey	NA	NA	98	NA	91	NA	NA	NA	99	NA	NA	NA	NA	NA

Eritrea - DTP1

ERI - DTP1



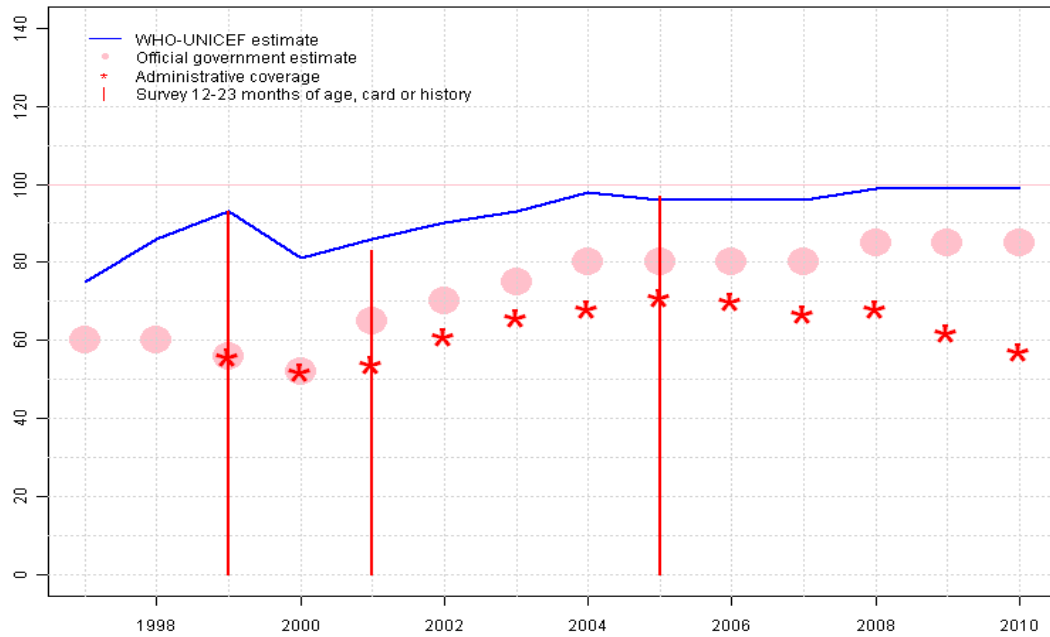
Description:

- 1997: Legacy estimate.
- 1998: No DTP1 data. Estimate based on DTP3 coverage of 86. Current estimate of 95 percent changed from previous revision value of 90 percent.
- 1999: No accepted reported data. Reported data of 59 percent estimated by extrapolating from 2000 does not support trend in reported data. 97 percent survey results
- 2000: DTP1 coverage estimated based on DTP3 coverage of 81. Current estimate of 93 percent changed from previous revision value of 94 percent.
- 2001: Estimate based on survey results. 91 percent survey results does not support reported data of 70 percent.
- 2002: Reported data calibrated to 2001 and 2005 levels.
- 2003: Reported data calibrated to 2001 and 2005 levels.
- 2004: Reported data calibrated to 2001 and 2005 levels.
- 2005: Estimate based on survey results. 99 percent survey results does not support reported data of 85 percent.
- 2006: Reported data 85 percent calibrated to 2005 levels.
- 2007: Reported data 85 percent calibrated to 2005 levels.
- 2008: DTP1 coverage estimated based on DTP3 coverage of 101.
- 2009: Reported data 90 percent calibrated to 2005 levels.
- 2010: DTP1 coverage estimated based on DTP3 coverage of 101.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	83	95	97	93	91	94	97	99	99	99	99	99	99	99
Official	NA	NA	NA	59	70	75	80	85	85	85	85	85	90	85
Administrative	NA	NA	NA	59	58	68	69	73	77	74	72	72	65	61
Survey	NA	NA	97	NA	91	NA	NA	NA	99	NA	NA	NA	NA	NA

Eritrea - DTP3

ERI - DTP3



Description:

1997: Legacy estimate.

1998: Reported data calibrated to 1997 and 1999 levels. Current estimate of 86 percent changed from previous revision value of 84 percent.

1999: Estimate based on survey results. 93 percent survey results does not support reported data of 56 percent.

2000: Reported data calibrated to 1999 and 2001 levels. Current estimate of 81 percent changed from previous revision value of 90 percent.

2001: Estimate based on survey results. 86 percent survey results does not support reported data of 65 percent. Survey results of 83 percent modified for recall bias to 86 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 72 percent.

2002: Reported data calibrated to 2001 and 2005 levels.

2003: Reported data calibrated to 2001 and 2005 levels.

2004: Reported data calibrated to 2001 and 2005 levels.

2005: Estimate based on survey results. 96 percent survey results does not support reported data of 80 percent. Survey results of 97 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 88 percent and 3d dose card only coverage of 85 percent.

2006: Reported data 80 percent calibrated to 2005 levels.

2007: Reported data 80 percent calibrated to 2005 levels.

2008: Reported data 85 percent calibrated to 2005 levels.

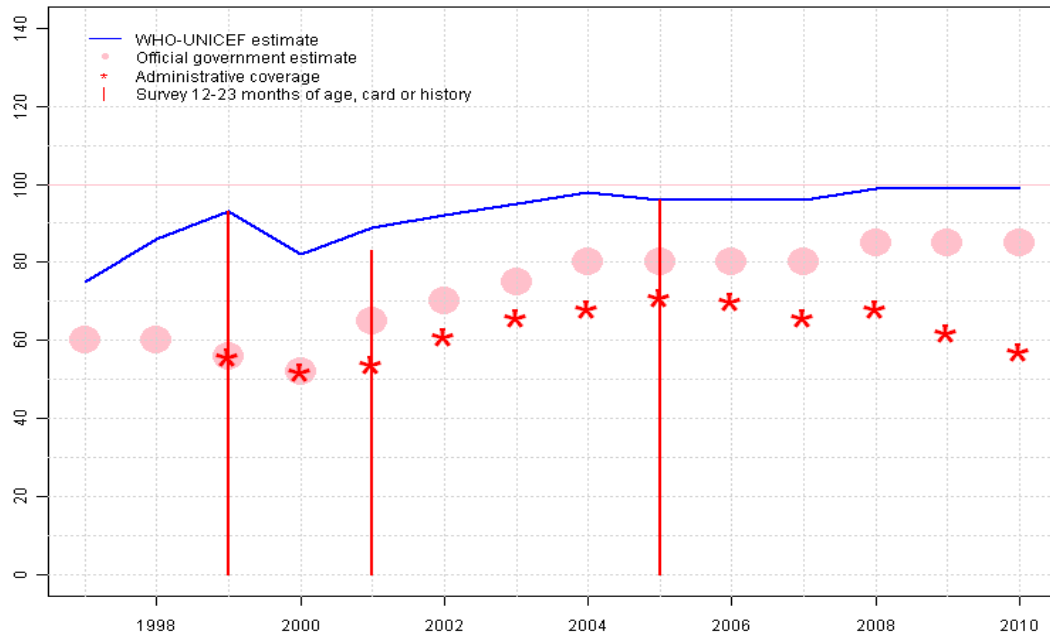
2009: Reported data 85 percent calibrated to 2005 levels.

2010: Reported data 85 percent calibrated to 2005 levels.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	75	86	93	81	86	90	93	98	96	96	96	99	99	99
Official	60	60	56	52	65	70	75	80	80	80	80	85	85	85
Administrative	NA	NA	56	52	54	61	66	68	71	70	67	68	62	57
Survey	NA	NA	93	NA	83	NA	NA	NA	97	NA	NA	NA	NA	NA

Eritrea - Pol3

ERI - Pol3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	75	86	93	82	89	92	95	98	96	96	96	99	99	99
Official	60	60	56	52	65	70	75	80	80	80	80	85	85	85
Administrative	NA	NA	56	52	54	61	66	68	71	70	66	68	62	57
Survey	NA	NA	93	NA	83	NA	NA	NA	96	NA	NA	NA	NA	NA

Description:

1997: Legacy estimate.

1998: Reported data calibrated to 1997 and 1999 levels. Current estimate of 86 percent changed from previous revision value of 84 percent.

1999: Estimate based on survey results. 93 percent survey results does not support reported data of 56 percent.

2000: Reported data calibrated to 1999 and 2001 levels. Current estimate of 82 percent changed from previous revision value of 91 percent.

2001: Estimate based on survey results. 89 percent survey results does not support reported data of 65 percent. Survey results of 83 percent modified for recall bias to 89 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 72 percent.

2002: Reported data calibrated to 2001 and 2005 levels.

2003: Reported data calibrated to 2001 and 2005 levels.

2004: Reported data calibrated to 2001 and 2005 levels.

2005: Estimate based on survey results. 96 percent survey results does not support reported data of 80 percent. Survey results of 96 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 88 percent and 3d dose card only coverage of 85 percent.

2006: Reported data 80 percent calibrated to 2005 levels.

2007: Reported data 80 percent calibrated to 2005 levels.

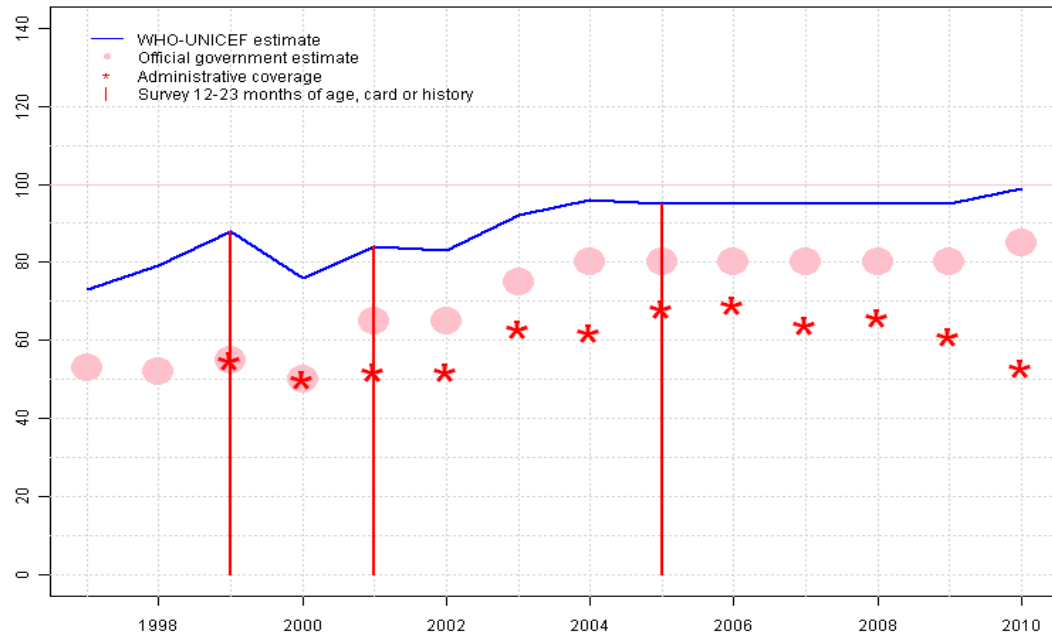
2008: Reported data 85 percent calibrated to 2005 levels.

2009: Reported data 85 percent calibrated to 2005 levels.

2010: Reported data 85 percent calibrated to 2005 levels.

Eritrea - MCV

ERI - MCV



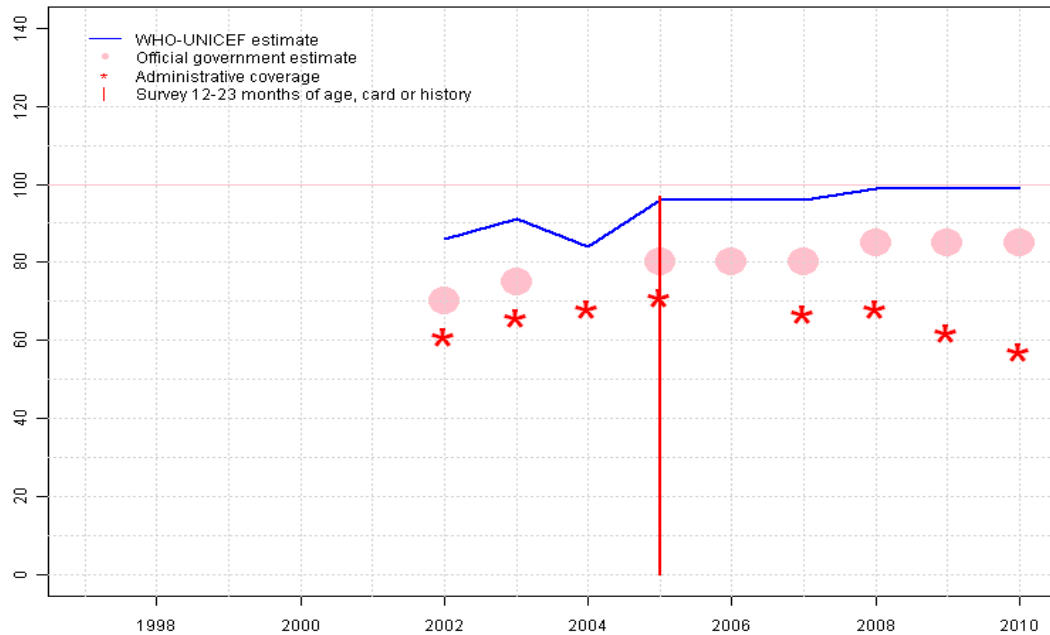
Description:

- 1997: Legacy estimate.
- 1998: Reported data calibrated to 1997 and 1999 levels.
- 1999: Estimate based on survey results. 88 percent survey results does not support reported data of 55 percent.
- 2000: Reported data calibrated to 1999 and 2001 levels. Current estimate of 76 percent changed from previous revision value of 86 percent.
- 2001: Estimate based on survey results. 84 percent survey results does not support reported data of 65 percent.
- 2002: Reported data calibrated to 2001 and 2005 levels.
- 2003: Reported data calibrated to 2001 and 2005 levels.
- 2004: Reported data calibrated to 2001 and 2005 levels.
- 2005: Estimate based on survey results. 95 percent survey results does not support reported data of 80 percent.
- 2006: Reported data 80 percent calibrated to 2005 levels.
- 2007: Reported data 80 percent calibrated to 2005 levels.
- 2008: Reported data 80 percent calibrated to 2005 levels.
- 2009: Reported data 80 percent calibrated to 2005 levels.
- 2010: Reported data 85 percent calibrated to 2005 levels.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	73	79	88	76	84	83	92	96	95	95	95	95	95	99
Official	53	52	55	50	65	65	75	80	80	80	80	80	80	85
Administrative	NA	NA	55	50	52	52	63	62	68	69	64	66	61	53
Survey	NA	NA	88	NA	84	NA	NA	NA	95	NA	NA	NA	NA	NA

Eritrea - HepB3

ERI - HepB3



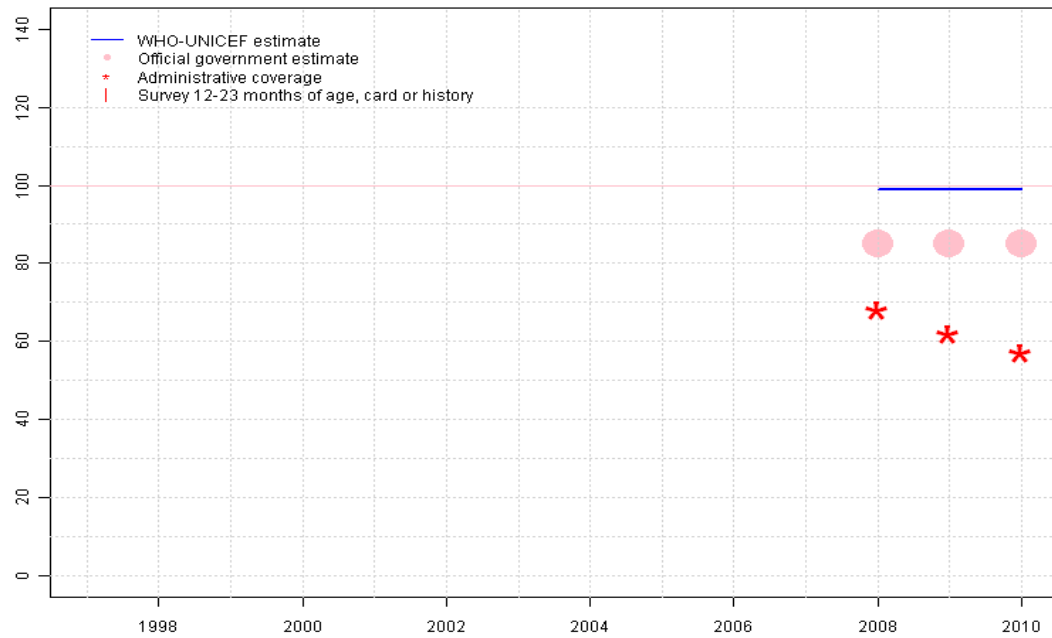
Description:

- 2002: Reported data 70 percent calibrated to 2005 levels. HepB introduced in 2002. Current estimate of 86 percent changed from previous revision value of 87 percent.
- 2003: Reported data 75 percent calibrated to 2005 levels. Current estimate of 91 percent changed from previous revision value of 92 percent.
- 2004: Reported data 68 percent calibrated to 2005 levels. Current estimate of 84 percent changed from previous revision value of 85 percent.
- 2005: Estimate based on survey results. 96 percent survey results does not support reported data of 80 percent. Survey results of 97 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 88 percent and 3d dose card only coverage of 85 percent. Current estimate of 96 percent changed from previous revision value of 97 percent.
- 2006: Reported data 80 percent calibrated to 2005 levels. Current estimate of 96 percent changed from previous revision value of 97 percent.
- 2007: Reported data 80 percent calibrated to 2005 levels. Current estimate of 96 percent changed from previous revision value of 97 percent.
- 2008: Reported data 85 percent calibrated to 2005 levels.
- 2009: Reported data 85 percent calibrated to 2005 levels.
- 2010: Reported data 85 percent calibrated to 2005 levels.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	NA	NA	NA	NA	NA	86	91	84	96	96	96	99	99	99
Official	NA	NA	NA	NA	NA	70	75	NA	80	80	80	85	85	85
Administrative	NA	NA	NA	NA	NA	61	66	68	71	NA	67	68	62	57
Survey	NA	NA	NA	NA	NA	NA	NA	NA	97	NA	NA	NA	NA	NA

Eritrea - Hib3

ERI - Hib3



Description:

2008: Estimate follows DTP3 coverage Hib introduced in 2008 Vaccine presentation is DTP-HepB-Hib.

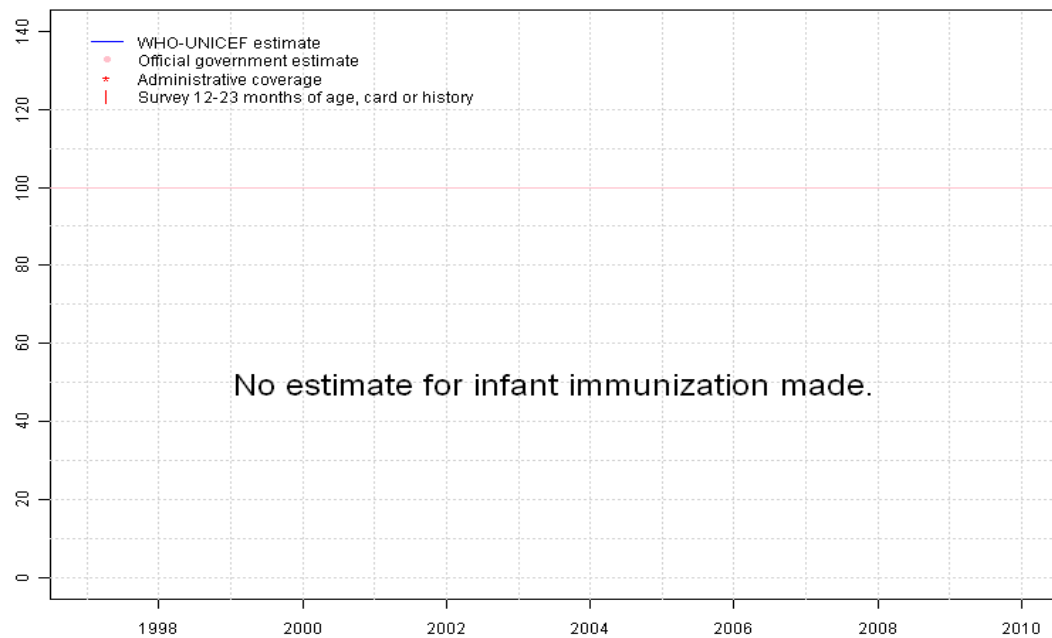
2009: Estimate follows DTP3 coverage

2010: Estimate follows DTP3 coverage

	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	99	99	99
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	85	85	85
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68	62	57
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Eritrea - RotaC

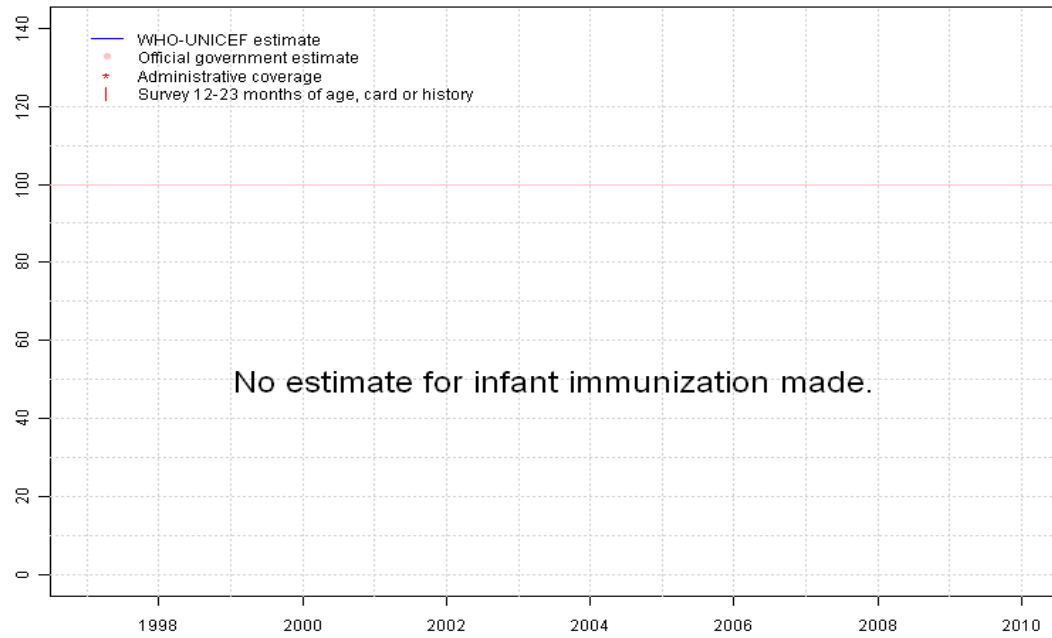
ERI - RotaC



	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

Eritrea - PcV3

ERI - 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

Eritrea - survey details

2007 Eritrea EPI Coverage Survey 2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	99	23-34 m	1775	86
BCG	Card	84	23-34 m	1775	86
DTP1	Card or History	100	23-34 m	1775	86
DTP1	Card	85	23-34 m	1775	86
DTP3	Card	83	23-34 m	1775	86
DTP3	Card or History	98	23-34 m	1775	86
HepB1	Card or History	100	23-34 m	1775	86
HepB1	Card	85	23-34 m	1775	86
HepB3	Card or History	98	23-34 m	1775	86
HepB3	Card	83	23-34 m	1775	86
MCV	Card or History	96	23-34 m	1775	86
MCV	Card	75	23-34 m	1775	86
Pol1	Card	84	23-34 m	1775	86
Pol1	Card or History	99	23-34 m	1775	86
Pol3	Card	83	23-34 m	1775	86
Pol3	Card or History	98	23-34 m	1775	86

2005 Eritrea Routine Immunization Coverage Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	87	12-23 m	630	88
BCG	Card or History	99	12-23 m	630	88
DTP1	Card or History	99	12-23 m	630	88
DTP1	Card	88	12-23 m	630	88
DTP3	Card or History	97	12-23 m	630	88
DTP3	Card	85	12-23 m	630	88
HepB1	Card	88	12-23 m	630	88
HepB1	Card or History	99	12-23 m	630	88
HepB3	Card or History	97	12-23 m	630	88
HepB3	Card	85	12-23 m	630	88
MCV	Card or History	95	12-23 m	630	88
MCV	Card	82	12-23 m	630	88
Pol1	Card	88	12-23 m	630	88
Pol1	Card or History	99	12-23 m	630	88
Pol3	Card or History	96	12-23 m	630	88
Pol3	Card	85	12-23 m	630	88

2001 Eritrea Demographic and Health Survey 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	History	15	12-23 m	959	50
BCG	Card or History	91	12-23 m	959	50
BCG	C or H <12 months	89	12-23 m	959	50
BCG	Card	76	12-23 m	959	50
DTP1	C or H <12 months	88	12-23 m	959	50
DTP1	Card	76	12-23 m	959	50
DTP1	Card or History	91	12-23 m	959	50
DTP1	History	14	12-23 m	959	50
DTP3	History	11	12-23 m	959	50
DTP3	C or H <12 months	79	12-23 m	959	50
DTP3	Card	72	12-23 m	959	50
DTP3	Card or History	83	12-23 m	959	50
MCV	History	13	12-23 m	959	50
MCV	Card	71	12-23 m	959	50
MCV	Card or History	84	12-23 m	959	50
MCV	C or H <12 months	76	12-23 m	959	50
Pol1	C or H <12 months	91	12-23 m	959	50
Pol1	Card	76	12-23 m	959	50
Pol1	Card or History	94	12-23 m	959	50
Pol1	History	18	12-23 m	959	50
Pol3	C or H <12 months	79	12-23 m	959	50
Pol3	Card	72	12-23 m	959	50
Pol3	History	11	12-23 m	959	50
Pol3	Card or History	83	12-23 m	959	50

1999 Eritrea EPI Coverage Survey Report 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	98	12-23 m	647	92
DTP1	Card or History	97	12-23 m	647	92
DTP3	Card or History	93	12-23 m	647	92
MCV	Card or History	88	12-23 m	647	92
Pol1	Card or History	97	12-23 m	647	92
Pol3	Card or History	93	12-23 m	647	92

Eritrea - survey details

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

Eritrea

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	36
1998	41
1999	77
2000	80
2001	82
2002	83
2003	83
2004	84
2005	84
2006	85
2007	85
2008	86
2009	86
2010	93

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.