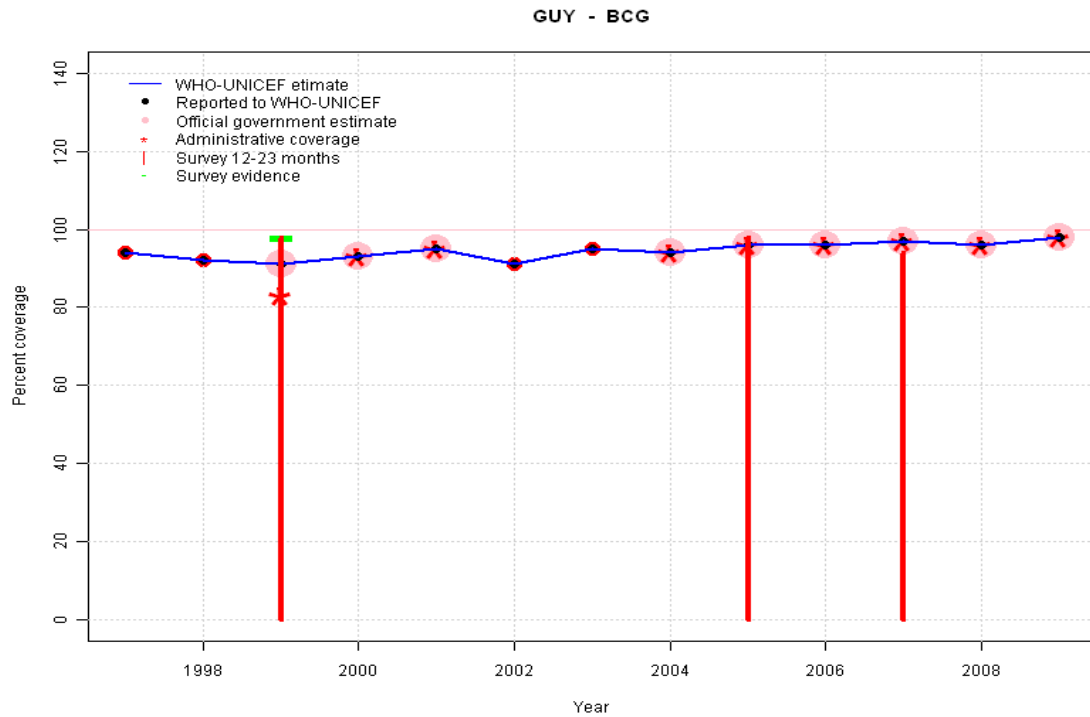


Guyana: WHO and UNICEF estimates of immunization coverage, 1997 - 2009



Guyana - BCG

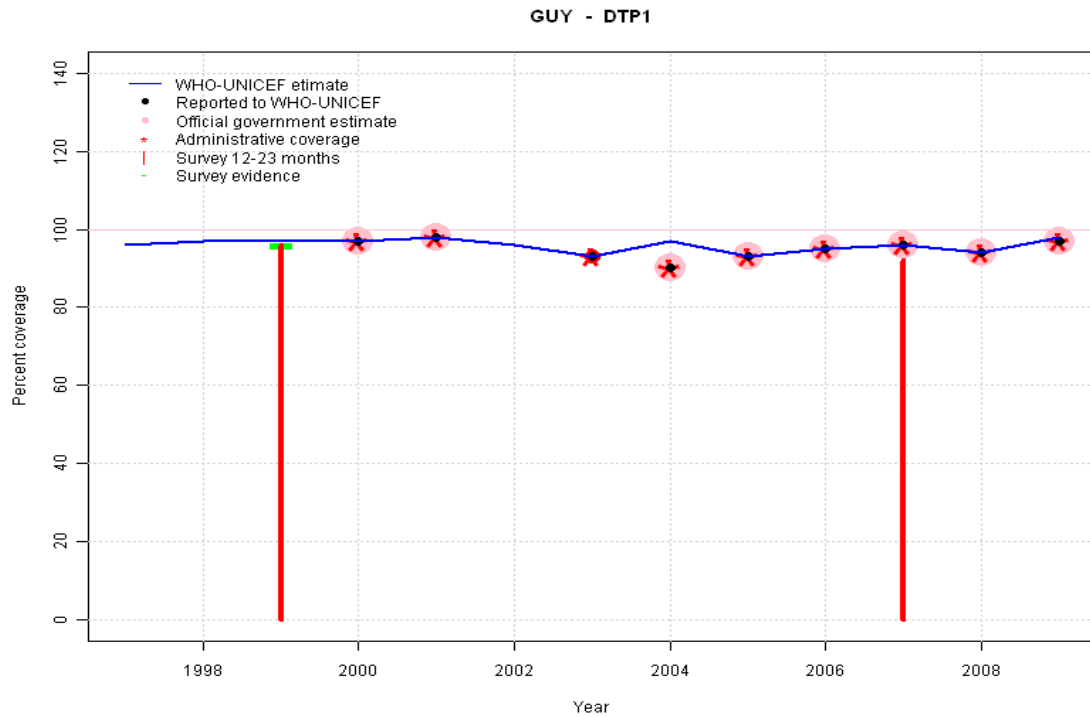


Description:

- 1997: Legacy estimate.
- 1998: Estimate based on reported data.
- 1999: Estimate based on reported data (91 percent) confirmed by survey (98 percent).
- 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.
- 2005: Estimate based on reported data (96 percent) confirmed by survey (98 percent).
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data. Survey results of 94 percent ignored by working group. Preliminary survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG.
- 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	94	92	91	93	95	91	95	94	96	96	97	96	98
Reported	94	92	91	93	95	91	95	94	96	96	97	96	98
Official	NA	NA	91	93	95	NA	NA	94	96	96	97	96	98
Administrative	NA	NA	83	93	95	NA	NA	94	96	96	97	96	98
Survey	NA	NA	98	NA	NA	NA	NA	NA	98	NA	NA	NA	NA

Guyana - DTP1



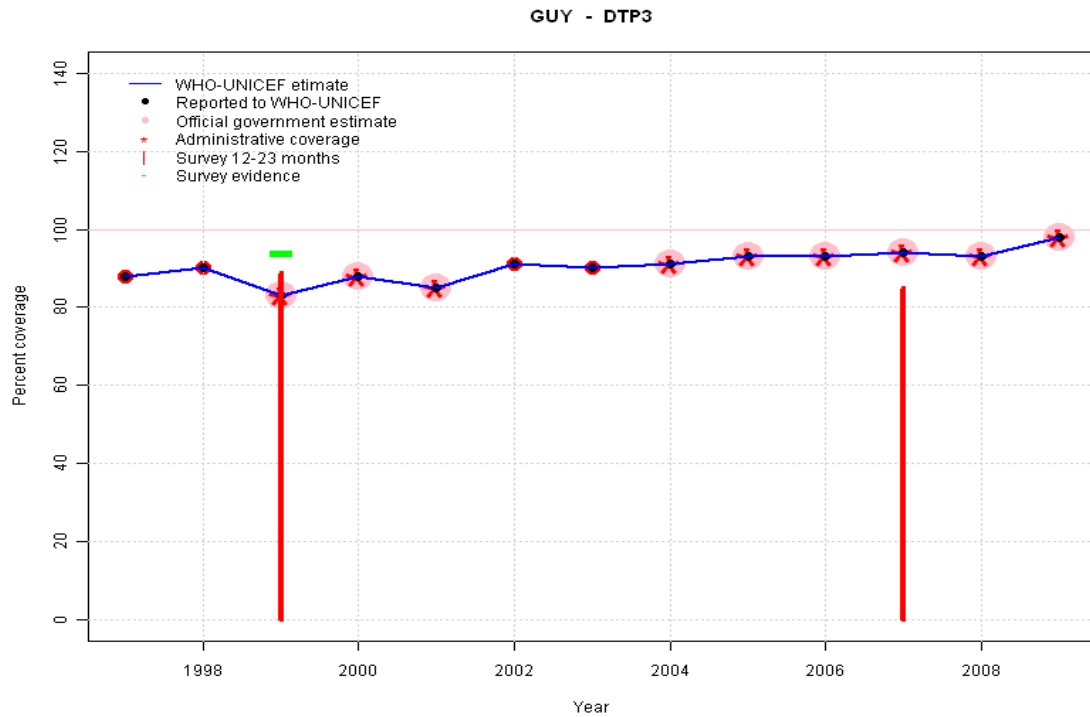
Description:

- 1997: Legacy estimate.
- 1998: Estimate interpolated between 1997 and 1999 estimates.
- 1999: Estimate based on interpolated value between reported data. Survey (96 percent) confirms trend in reported data.
- 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 98 percent in 2001 and 93 percent in 2003.
- 2003: Estimate based on reported data.
- 2004: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data. Survey results of 92 percent ignored by working group. Preliminary survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG.
- 2008: Estimate based on reported data.
- 2009: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.

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

Guyana - DTP3

Description:

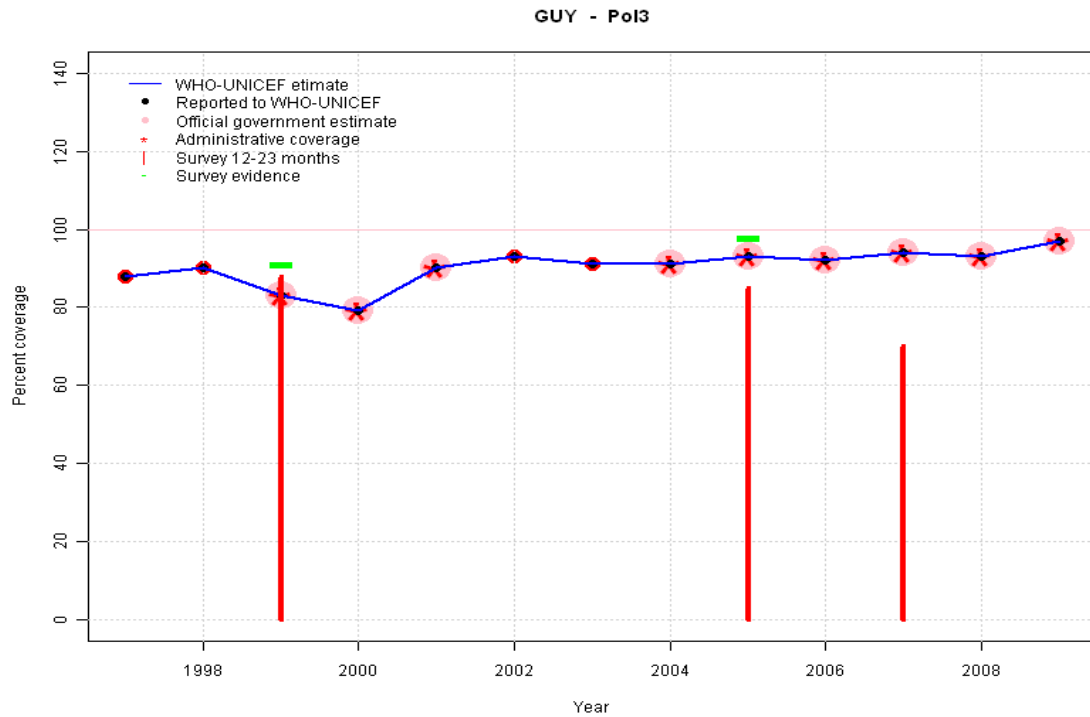


- 1997: Legacy estimate.
- 1998: Estimate based on reported data.
- 1999: Survey results adjusted for recall higher than reported. Survey supports reported for all other vaccines. Survey results (89 percent) adjusted for recall bias to 94 percent based on first dose card or history coverage (96 percent) and documented drop-out between first (87 percent) and third (85 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.
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data. Survey results of 85 percent ignored by working group. Preliminary survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG.
- 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	88	90	83	88	85	91	90	91	93	93	94	93	98
Reported	88	90	83	88	85	91	90	91	93	93	94	93	98
Official	NA	NA	83	88	85	NA	NA	91	93	93	94	93	98
Administrative	NA	NA	83	88	85	NA	NA	91	93	93	94	93	98
Survey	NA	NA	94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Guyana - Pol3

Description:

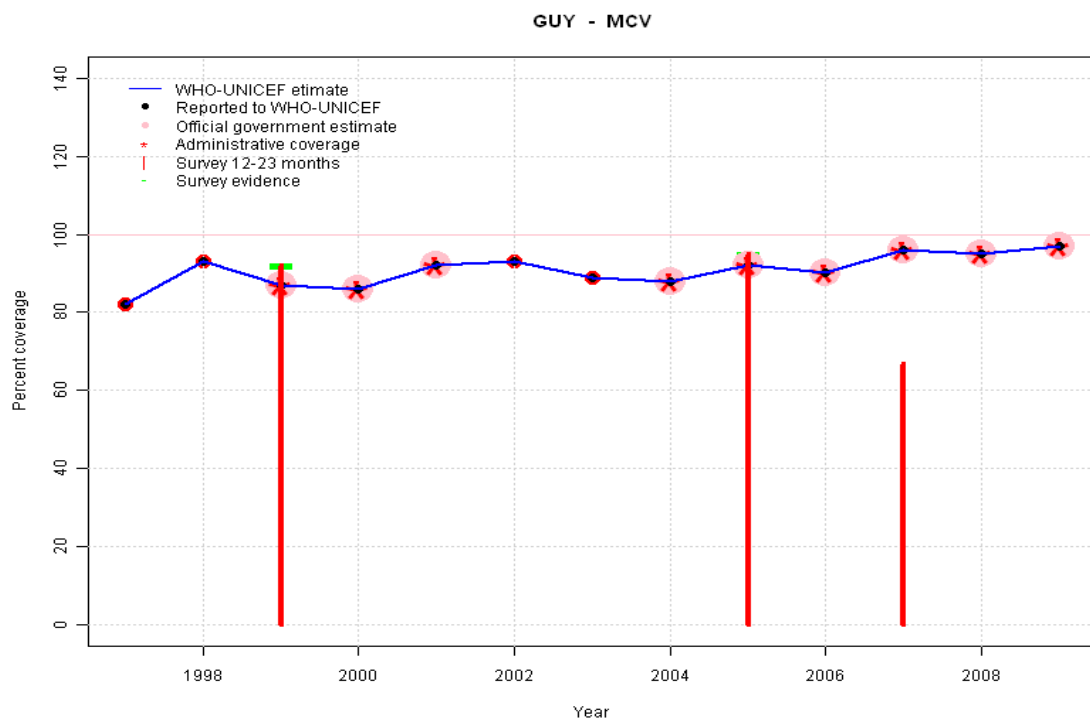


- 1997: Legacy estimate.
 1998: Estimate based on reported data.
 1999: Estimate based on reported data (83 percent) confirmed by survey (91 percent). Survey results (88 percent) adjusted for recall bias to 91 percent based on first dose card or history coverage (94 percent) and documented drop-out between first (88 percent) and third (85 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.
 2005: Estimate based on reported data (93 percent) confirmed by survey (98 percent). Survey results (85 percent) adjusted for recall bias to 98 percent based on first dose card or history coverage (98 percent) and documented drop-out between first (76 percent) and third (76 percent) doses.
 2006: Estimate based on reported data.
 2007: Estimate based on reported data. Survey results of 70 percent ignored by working group. Preliminary survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG.
 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	88	90	83	79	90	93	91	91	93	92	94	93	97
Reported	88	90	83	79	90	93	91	91	93	92	94	93	97
Official	NA	NA	83	79	90	NA	NA	91	93	92	94	93	97
Administrative	NA	NA	83	79	90	NA	NA	91	93	92	94	93	97
Survey	NA	NA	91	NA	NA	NA	NA	NA	98	NA	NA	NA	NA

Guyana - MCV

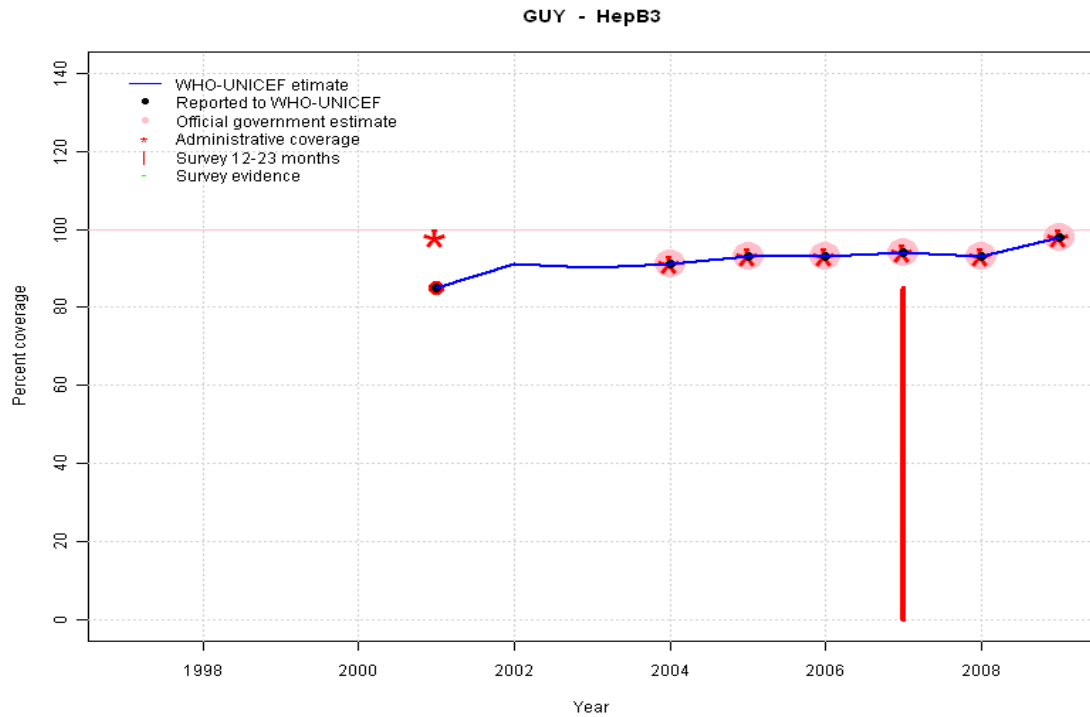
Description:



- 1997: Legacy estimate.
- 1998: Estimate based on reported data.
- 1999: Estimate based on reported data (87 percent) confirmed by survey (92 percent).
- 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.
- 2005: Estimate based on reported data (92 percent) confirmed by survey (95 percent).
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data. Survey results of 67 percent ignored by working group. Preliminary survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG.
- 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	82	93	87	86	92	93	89	88	92	90	96	95	97
Reported	82	93	87	86	92	93	89	88	92	90	96	95	97
Official	NA	NA	87	86	92	NA	NA	88	92	90	96	95	97
Administrative	NA	NA	87	86	92	NA	NA	88	92	90	96	95	97
Survey	NA	NA	92	NA	NA	NA	NA	NA	95	NA	NA	NA	NA

Guyana - HepB3



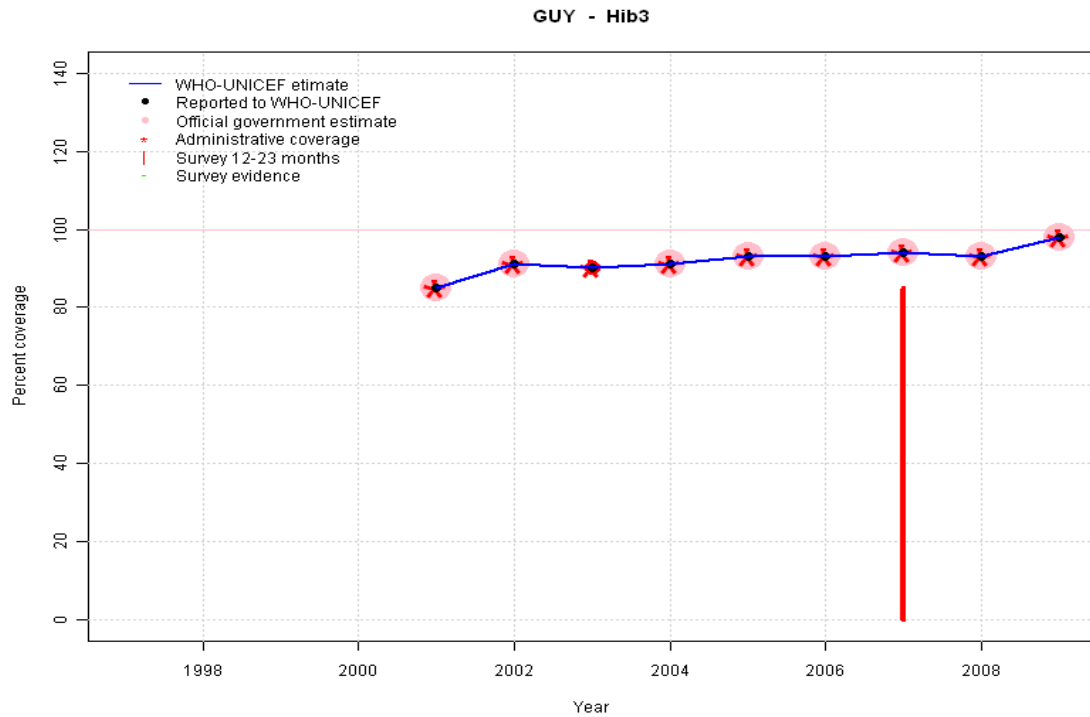
Description:

- 2001: Estimate follows reported data. HepB introduced in 2001 Vaccine presentation is DTP-HepB-Hib.
- 2002: Estimate matches the levels reported for DTP3 and Hib3.
- 2003: Estimate matches the levels reported for DTP3 and Hib3.
- 2004: Estimate follows reported data.
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data. Survey results of 85 percent ignored by working group. Preliminary survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG.
- 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	NA	NA	NA	NA	85	91	90	91	93	93	94	93	98
Reported	NA	NA	NA	NA	85	NA	NA	91	93	93	94	93	98
Official	NA	NA	NA	NA	NA	NA	NA	91	93	93	94	93	98
Administrative	NA	NA	NA	NA	98	NA	NA	91	93	93	94	93	98
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Guyana - Hib3

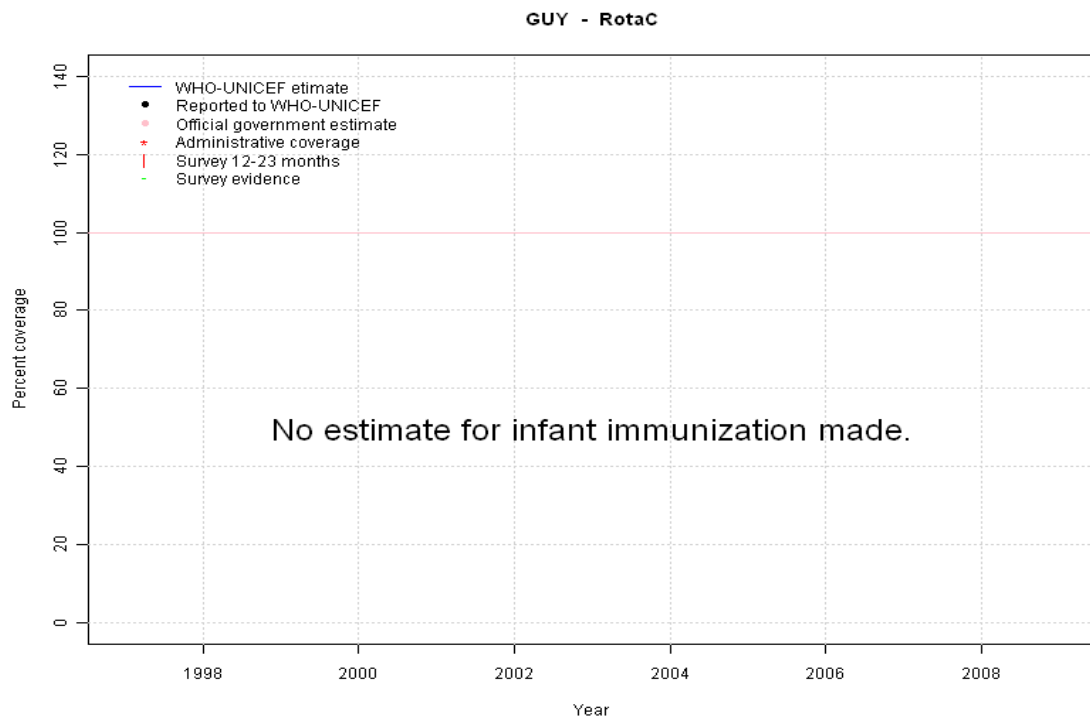
Description:



- 2001: Estimate based on reported data. Hib introduced in 2001 Vaccine presentation is DTP-HepB-Hib.
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data. Survey results of 85 percent ignored by working group. Preliminary survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG.
- 2008: Estimate based on reported data.
- 2009: Estimate based on reported data.

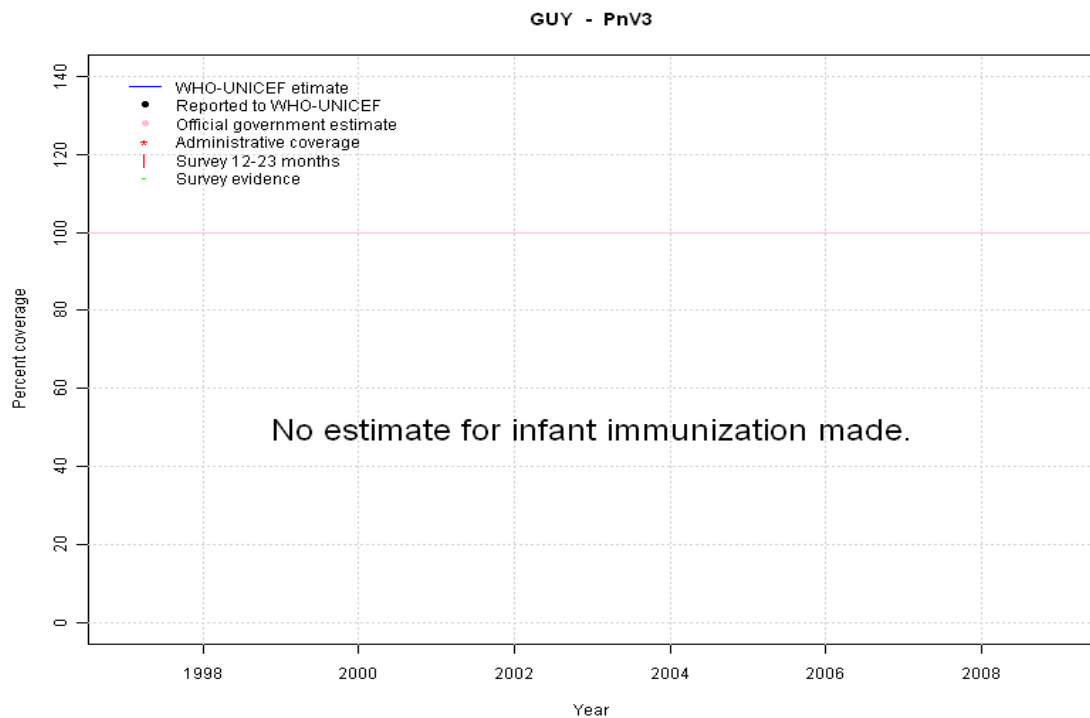
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	85	91	90	91	93	93	94	93	98
Reported	NA	NA	NA	NA	85	91	90	91	93	93	94	93	98
Official	NA	NA	NA	NA	85	91	90	91	93	93	94	93	98
Administrative	NA	NA	NA	NA	85	91	90	91	93	93	94	93	98
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Guyana - RotaC



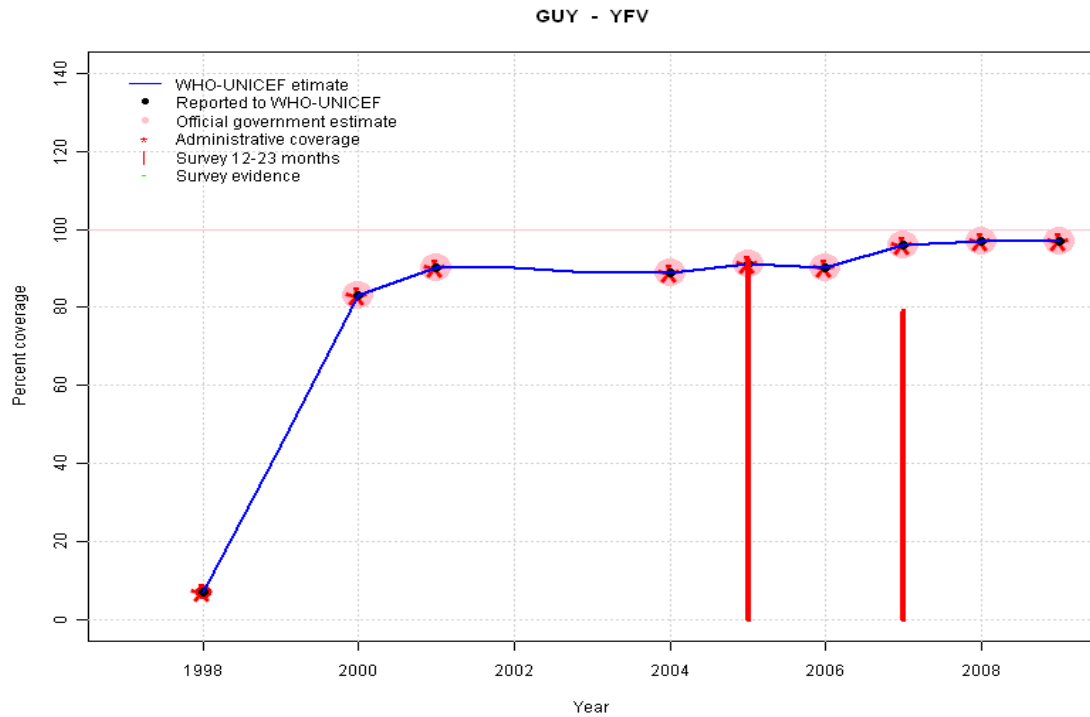
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA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

Guyana - 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

Guyana - YFV



Description:

- 1998: Estimate based on trend in reported data. YFV introduced in 1980 reporting started in 1998
- 1999: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 7 percent in 1998 and 83 percent in 2000.
- 2000: Estimate based on trend in reported data.
- 2001: Estimate based on trend in reported data.
- 2002: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 90 percent in 2001 and 89 percent in 2004.
- 2003: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 90 percent in 2001 and 89 percent in 2004.
- 2004: Estimate based on trend in reported data.
- 2005: Estimate based on reported data (91 percent) confirmed by survey (92 percent).
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data. Survey results of 79 percent ignored by working group. Preliminary survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG.
- 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	NA	7	45	83	90	90	89	89	91	90	96	97	97
Reported	NA	7	NA	83	90	NA	NA	89	91	90	96	97	97
Official	NA	NA	NA	83	90	NA	NA	89	91	90	96	97	97
Administrative	NA	7	NA	83	90	NA	NA	89	91	90	96	97	97
Survey	NA	NA	NA	NA	NA	NA	NA	NA	92	NA	NA	NA	NA

Guyana - survey details

2007 Guyana Demographic and Health Survey 2009, Preliminary Report

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	94	18-29 m	384	88
DTP1	Card or History	92	18-29 m	384	88
DTP3	Card or History	85	18-29 m	384	88
HepB1	Card or History	92	18-29 m	384	88
HepB3	Card or History	85	18-29 m	384	88
Hib1	Card or History	92	18-29 m	384	88
Hib3	Card or History	85	18-29 m	384	88
MCV	Card or History	67	18-29 m	384	88
Pol1	Card or History	78	18-29 m	384	88
Pol3	Card or History	70	18-29 m	384	88
YFV	Card or History	79	18-29 m	384	88

2005 Guyana Multiple Indicator Cluster Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	History	22	18-29 m	488	75
BCG	C or H <12 months	96	18-29 m	488	75
BCG	Card	76	18-29 m	488	75
BCG	Card or History	98	18-29 m	488	75
DTP1	C or H <12 months	95	18-29 m	488	75
DTP3	C or H <12 months	74	18-29 m	488	75
MCV	Card or History	95	18-29 m	488	75
MCV	Card	77	18-29 m	488	75
MCV	History	18	18-29 m	488	75
MCV	C or H <12 months	90	18-29 m	488	75
Pol1	Card or History	98	18-29 m	488	75
Pol1	Card	76	18-29 m	488	75
Pol1	C or H <12 months	95	18-29 m	488	75
Pol1	History	21	18-29 m	488	75
Pol3	Card or History	85	18-29 m	488	75
Pol3	C or H <12 months	74	18-29 m	488	75

Pol3	History	9	18-29 m	488	75
Pol3	Card	76	18-29 m	488	75
YFV	C or H <12 months	88	18-29 m	488	75
YFV	Card	75	18-29 m	488	75
YFV	Card or History	92	18-29 m	488	75
YFV	History	17	18-29 m	488	75

1999 Multiple Indicator Cluster Survey Guyana 2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	History	10	12-23 m	16442	89
BCG	C or H <12 months	97	12-23 m	16442	89
BCG	Card	88	12-23 m	16442	89
BCG	Card or History	98	12-23 m	16442	89
DTP1	C or H <12 months	95	12-23 m	16442	89
DTP1	Card	87	12-23 m	16442	89
DTP1	Card or History	96	12-23 m	16442	89
DTP1	History	9	12-23 m	16442	89
DTP3	C or H <12 months	86	12-23 m	16442	89
DTP3	Card	85	12-23 m	16442	89
DTP3	Card or History	89	12-23 m	16442	89
DTP3	History	4	12-23 m	16442	89
MCV	Card or History	92	12-23 m	16442	89
MCV	Card	88	12-23 m	16442	89
MCV	History	4	12-23 m	16442	89
MCV	C or H <12 months	45	12-23 m	16442	89
Pol1	C or H <12 months	94	12-23 m	16442	89
Pol1	Card	88	12-23 m	16442	89
Pol1	Card or History	94	12-23 m	16442	89
Pol1	History	6	12-23 m	16442	89
Pol3	Card	85	12-23 m	16442	89
Pol3	Card or History	88	12-23 m	16442	89
Pol3	History	2	12-23 m	16442	89
Pol3	C or H <12 months	85	12-23 m	16442	89

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

Guyana - survey details

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

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

Guyana

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	76
1998	78
1999	80
2000	82
2001	83
2002	83
2003	84
2004	85
2005	91
2006	92
2007	91
2008	90
2009	90

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.