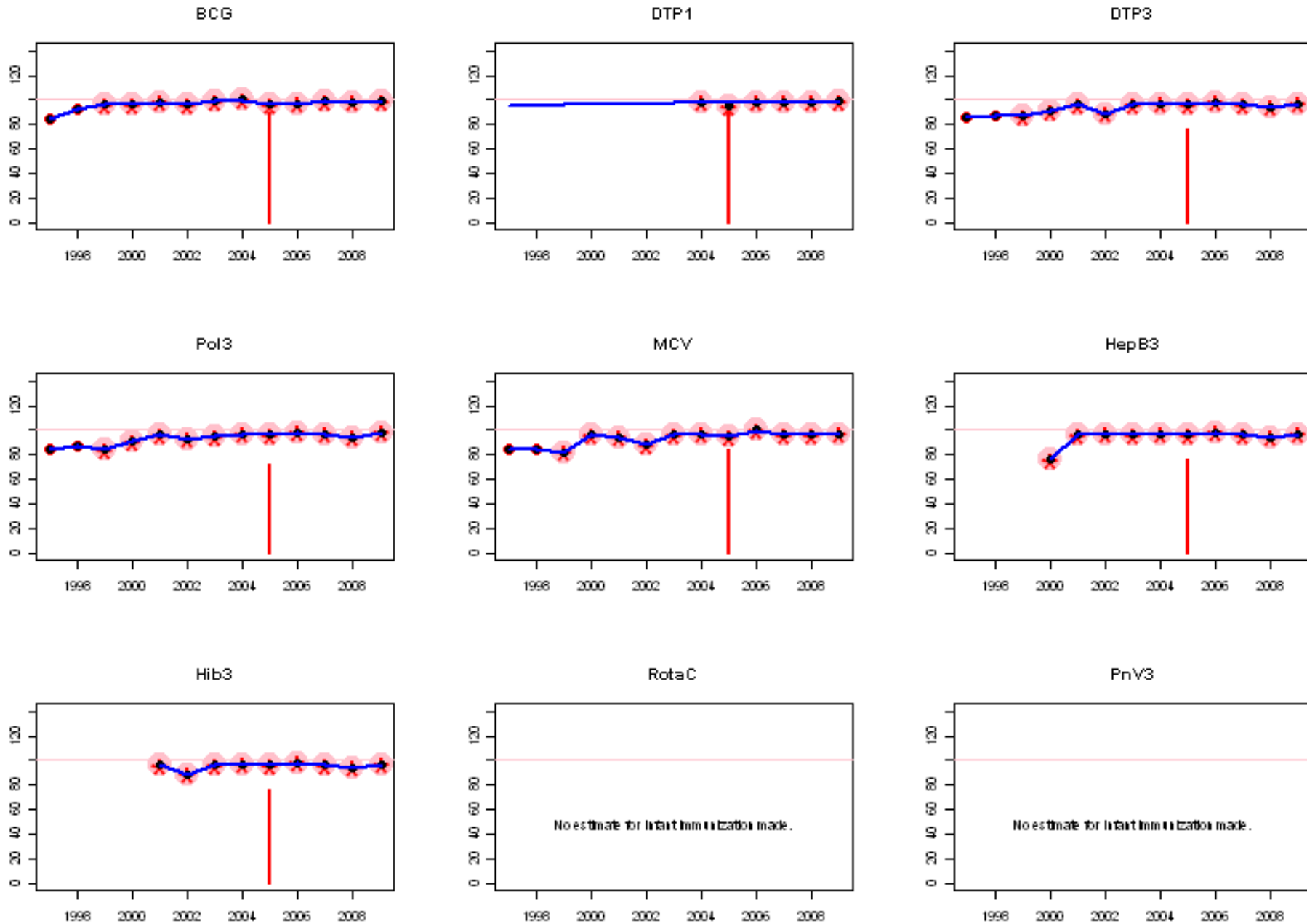
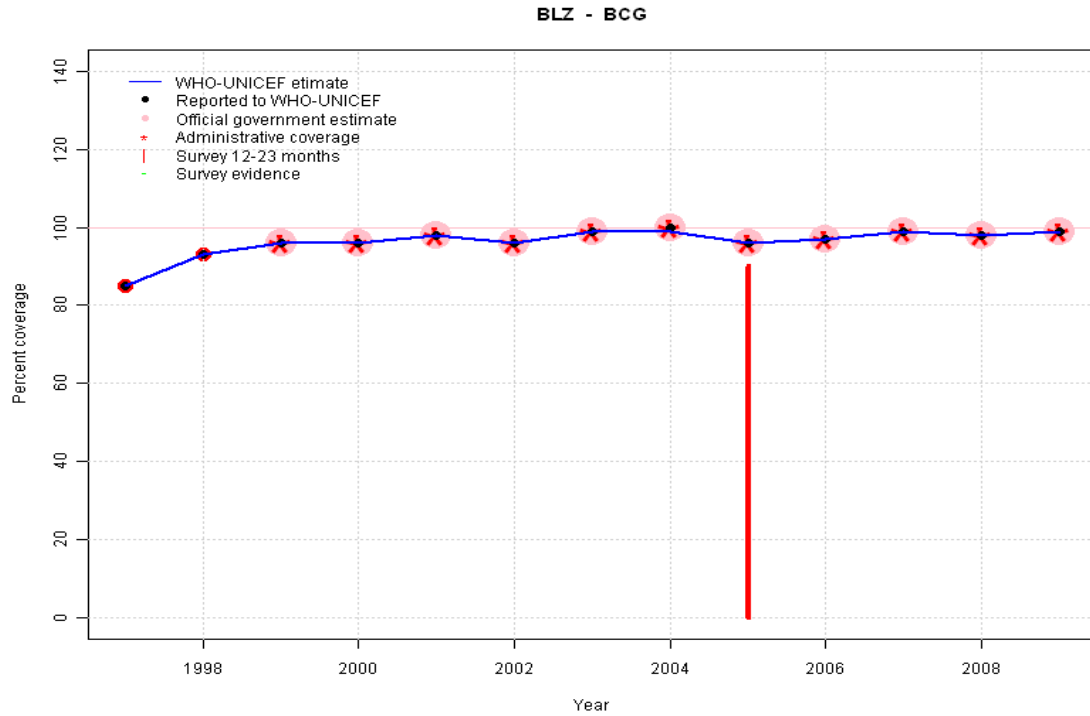


Belize: WHO and UNICEF estimates of immunization coverage, 1997 - 2009



Belize - BCG

Description:

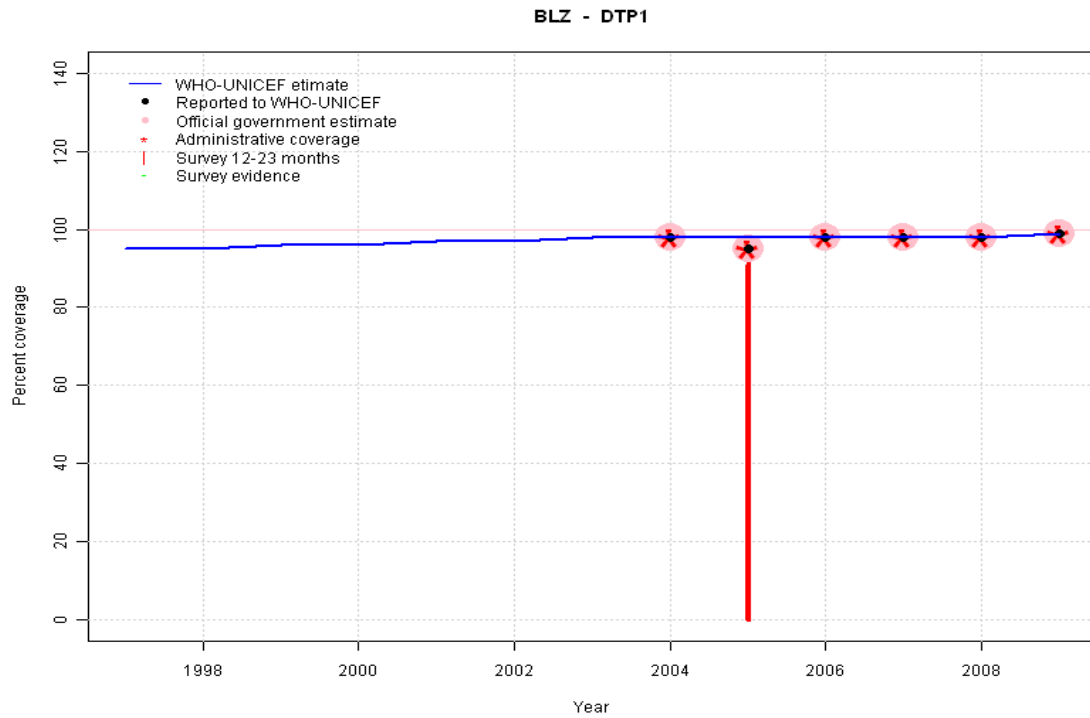


- 1997: Legacy estimate.
- 1998: Estimate based on reported data.
- 1999: Estimate based on reported data.
- 2000: Estimate based on reported data.
- 2001: Estimate based on reported data.
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data. Survey results of 90 percent with sample size 169 ignored; sample size less than 300.
- 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	85	93	96	96	98	96	99	99	96	97	99	98	99
Reported	85	93	96	96	98	96	99	100	96	97	99	98	99
Official	NA	NA	96	96	98	96	99	100	96	97	99	98	99
Administrative	NA	NA	96	96	98	96	99	100	96	97	99	98	99
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Belize - DTP1

Description:

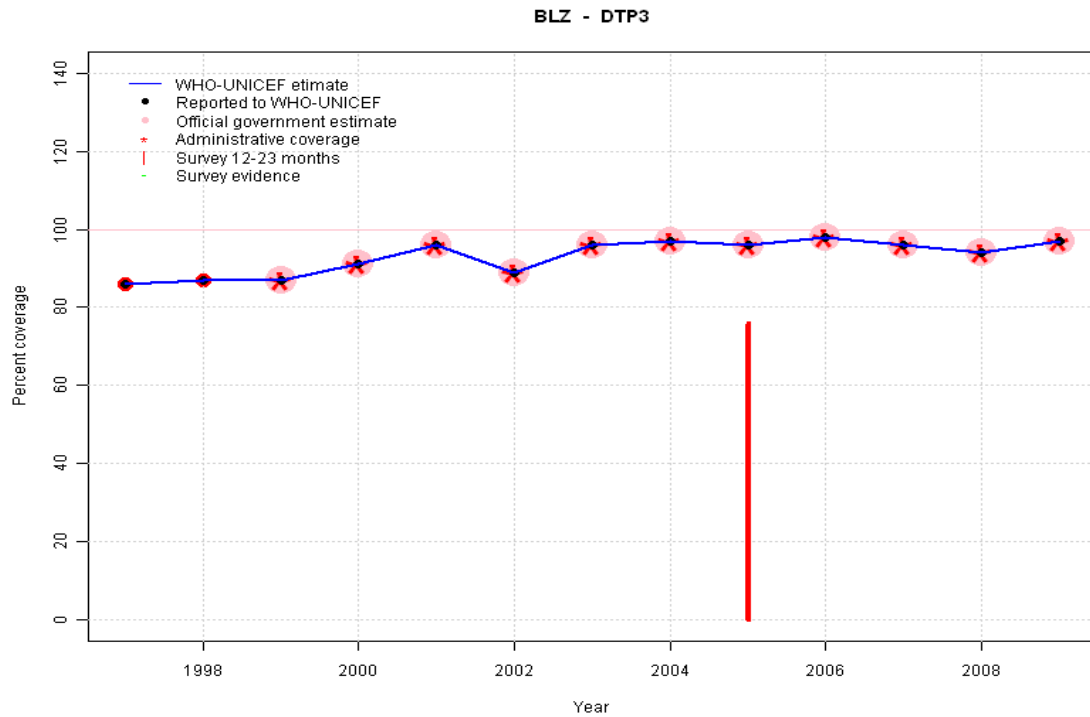


- 1997: Legacy estimate.
- 1998: Estimate interpolated between 1997 and 2004 estimates.
- 1999: Estimate interpolated between 1997 and 2004 estimates.
- 2000: Estimate interpolated between 1997 and 2004 estimates.
- 2001: Estimate interpolated between 1997 and 2004 estimates.
- 2002: Estimate interpolated between 1997 and 2004 estimates.
- 2003: Estimate interpolated between 1997 and 2004 estimates.
- 2004: Estimate based on reported data
- 2005: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 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	95	95	96	96	97	97	98	98	98	98	98	98	99
Reported	NA	NA	NA	NA	NA	NA	NA	98	95	98	98	98	99
Official	NA	NA	NA	NA	NA	NA	NA	98	95	98	98	98	99
Administrative	NA	NA	NA	NA	NA	NA	NA	98	95	98	98	98	99
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Belize - DTP3

Description:

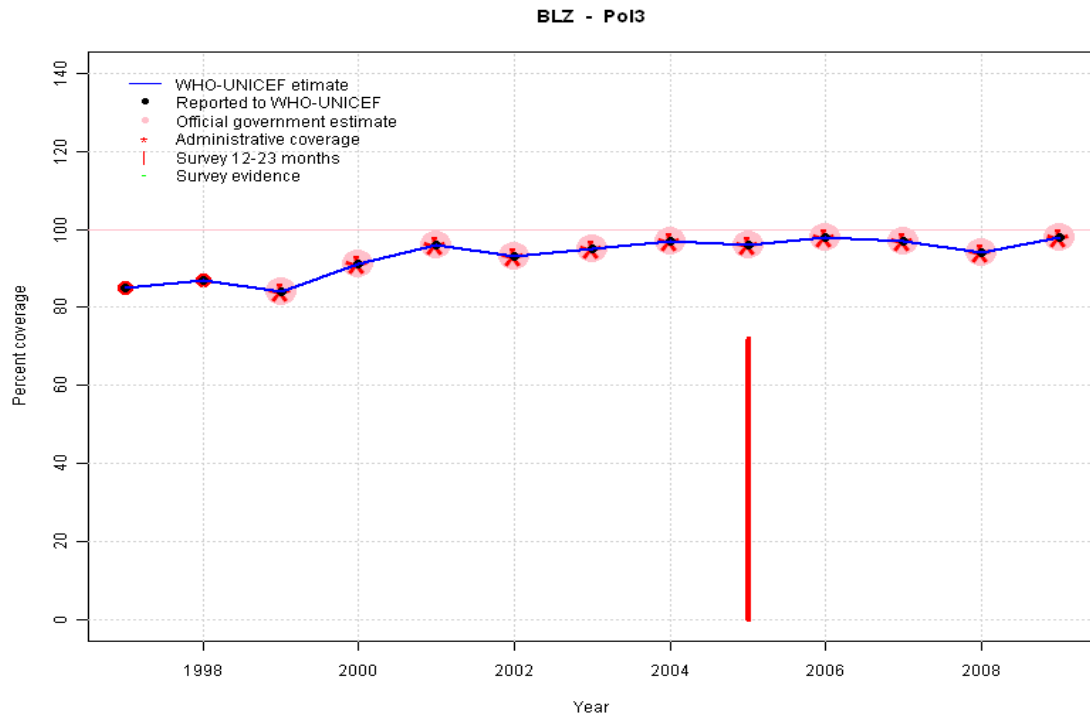


1997: Legacy estimate.
 1998: Estimate based on reported data.
 1999: Estimate based on reported data.
 2000: Estimate based on reported data.
 2001: Estimate based on reported data.
 2002: Estimate based on reported data.
 2003: Estimate based on reported data.
 2004: Estimate based on reported data.
 2005: Estimate based on reported data. Survey results of 76 percent with sample size 169 ignored; sample size less than 300. Card only coverage for 3d dose of DTP-HepB-Hib and polio vaccine is higher than 1st dose.
 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	86	87	87	91	96	89	96	97	96	98	96	94	97
Reported	86	87	87	91	96	89	96	97	96	98	96	94	97
Official	NA	NA	87	91	96	89	96	97	96	98	96	94	97
Administrative	NA	NA	87	91	96	89	96	97	96	98	96	94	97
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Belize - Pol3

Description:

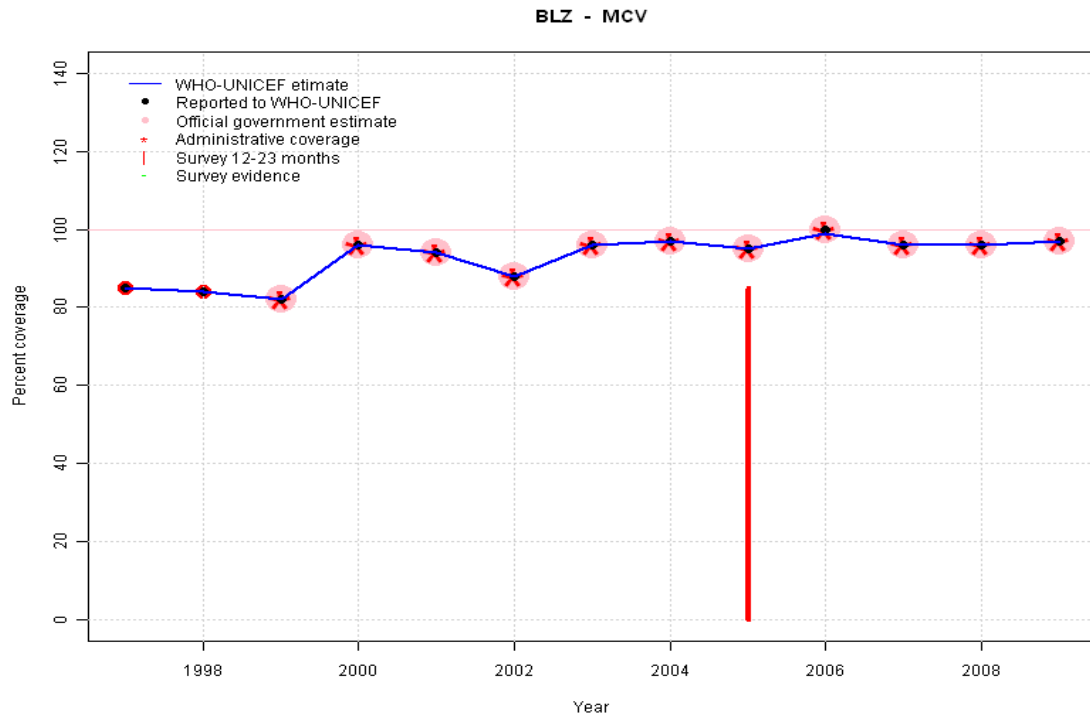


- 1997: Legacy estimate.
- 1998: Estimate based on reported data.
- 1999: Estimate based on reported data.
- 2000: Estimate based on reported data.
- 2001: Estimate based on reported data.
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data. Survey results of 72 percent with sample size 169 ignored; sample size less than 300. Card only coverage for 3d dose of DTP-HepB-Hib and polio vaccine is higher than 1st dose.
- 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	85	87	84	91	96	93	95	97	96	98	97	94	98
Reported	85	87	84	91	96	93	95	97	96	98	97	94	98
Official	NA	NA	84	91	96	93	95	97	96	98	97	94	98
Administrative	NA	NA	84	91	96	93	95	97	96	98	97	94	98
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Belize - MCV

Description:

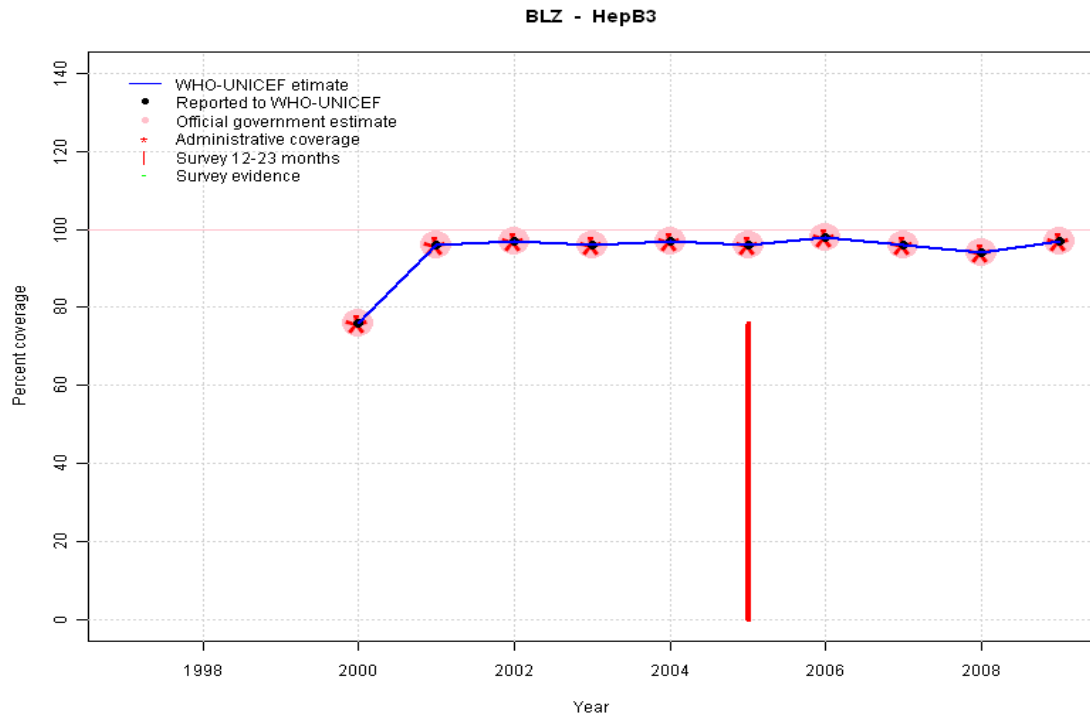


- 1997: Legacy estimate.
- 1998: Estimate based on reported data.
- 1999: Estimate based on reported data.
- 2000: Estimate based on reported data.
- 2001: Estimate based on reported data.
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data. Survey results of 85 percent with sample size 169 ignored; sample size less than 300.
- 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	85	84	82	96	94	88	96	97	95	99	96	96	97
Reported	85	84	82	96	94	88	96	97	95	100	96	96	97
Official	NA	NA	82	96	94	88	96	97	95	100	96	96	97
Administrative	NA	NA	82	96	94	88	96	97	95	100	96	96	97
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Belize - HepB3

Description:

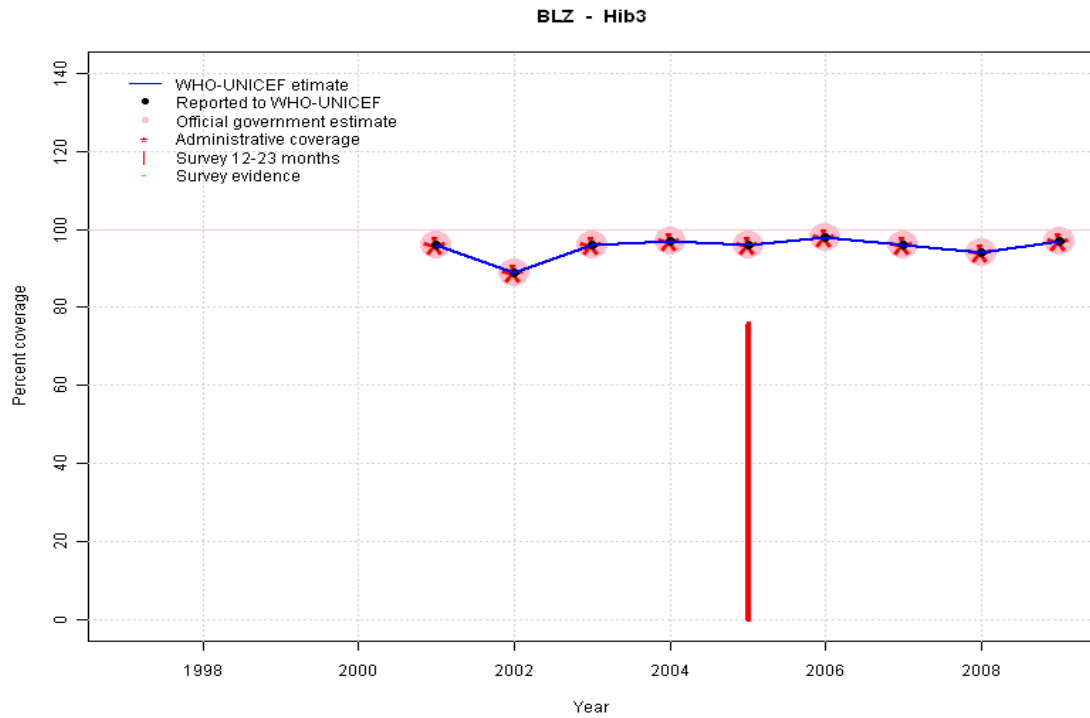


- 2000: Estimate based on reported data. HepB introduced in 2000
- 2001: Estimate based on reported data.
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data. Survey results of 76 percent with sample size 169 ignored; sample size less than 300. Card only coverage for 3d dose of DTP-HepB-Hib and polio vaccine is higher than 1st dose.
- 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	NA	NA	NA	76	96	97	96	97	96	98	96	94	97
Reported	NA	NA	NA	76	96	97	96	97	96	98	96	94	97
Official	NA	NA	NA	76	96	97	96	97	96	98	96	94	97
Administrative	NA	NA	NA	76	96	97	96	97	96	98	96	94	97
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Belize - Hib3

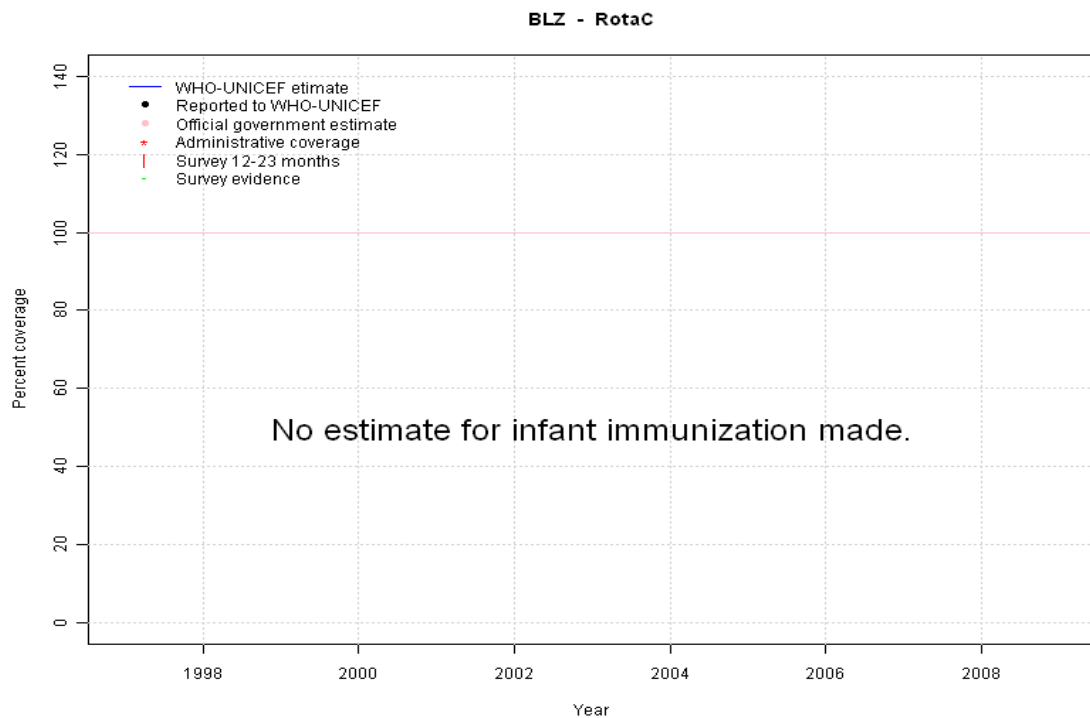
Description:



- 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. Survey results of 76 percent with sample size 169 ignored; sample size less than 300. Card only coverage for 3d dose of DTP-HepB-Hib and polio vaccine is higher than 1st dose.
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data.
- 2009: Estimate based on reported data.

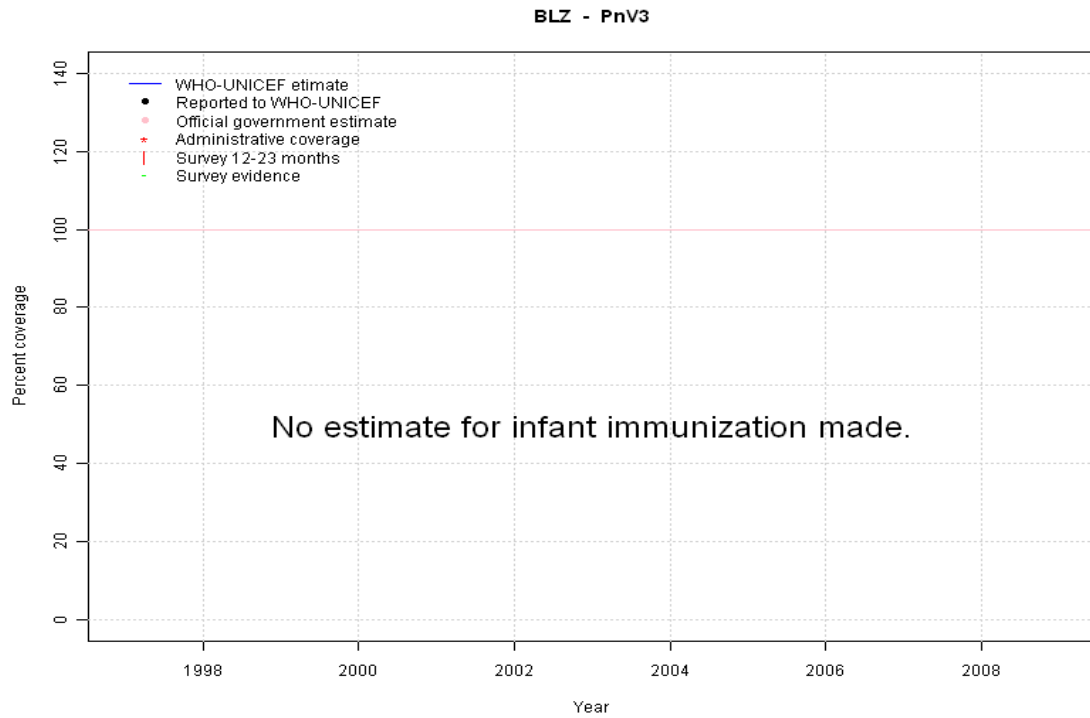
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	96	89	96	97	96	98	96	94	97
Reported	NA	NA	NA	NA	96	89	96	97	96	98	96	94	97
Official	NA	NA	NA	NA	96	89	96	97	96	98	96	94	97
Administrative	NA	NA	NA	NA	96	89	96	97	96	98	96	94	97
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Belize - 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

Belize - 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

Belize - survey details

2005 Belize Multiple Indicator Cluster Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	64	18-29 m	169	64
BCG	Card or History	90	18-29 m	169	64
BCG	History	26	18-29 m	169	64
BCG	C or H <12 months	90	18-29 m	169	64
DTP1	C or H <12 months	89	18-29 m	169	64
DTP1	Card	66	18-29 m	169	64
DTP1	Card or History	91	18-29 m	169	64
DTP1	History	25	18-29 m	169	64
DTP3	Card	67	18-29 m	169	64
DTP3	Card or History	76	18-29 m	169	64
DTP3	C or H <12 months	75	18-29 m	169	64
DTP3	History	9	18-29 m	169	64
HepB1	C or H <12 months	89	18-29 m	169	64
HepB1	Card	66	18-29 m	169	64
HepB1	Card or History	91	18-29 m	169	64
HepB1	History	25	18-29 m	169	64
HepB3	History	9	18-29 m	169	64
HepB3	Card or History	76	18-29 m	169	64
HepB3	C or H <12 months	75	18-29 m	169	64

HepB3	Card	67	18-29 m	169	64
Hib1	Card	66	18-29 m	169	64
Hib1	Card or History	91	18-29 m	169	64
Hib1	History	25	18-29 m	169	64
Hib1	C or H <12 months	89	18-29 m	169	64
Hib3	C or H <12 months	75	18-29 m	169	64
Hib3	Card	67	18-29 m	169	64
Hib3	Card or History	76	18-29 m	169	64
Hib3	History	9	18-29 m	169	64
MCV	Card	60	18-29 m	169	64
MCV	Card or History	85	18-29 m	169	64
MCV	C or H <12 months	82	18-29 m	169	64
MCV	History	24	18-29 m	169	64
Pol1	C or H <12 months	88	18-29 m	169	64
Pol1	Card	65	18-29 m	169	64
Pol1	Card or History	89	18-29 m	169	64
Pol1	History	24	18-29 m	169	64
Pol3	History	6	18-29 m	169	64
Pol3	C or H <12 months	69	18-29 m	169	64
Pol3	Card	67	18-29 m	169	64
Pol3	Card or History	72	18-29 m	169	64

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

Belize

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	86
1998	85
1999	85
2000	85
2001	84
2002	84
2003	86
2004	86
2005	87
2006	85
2007	87
2008	88
2009	88

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.