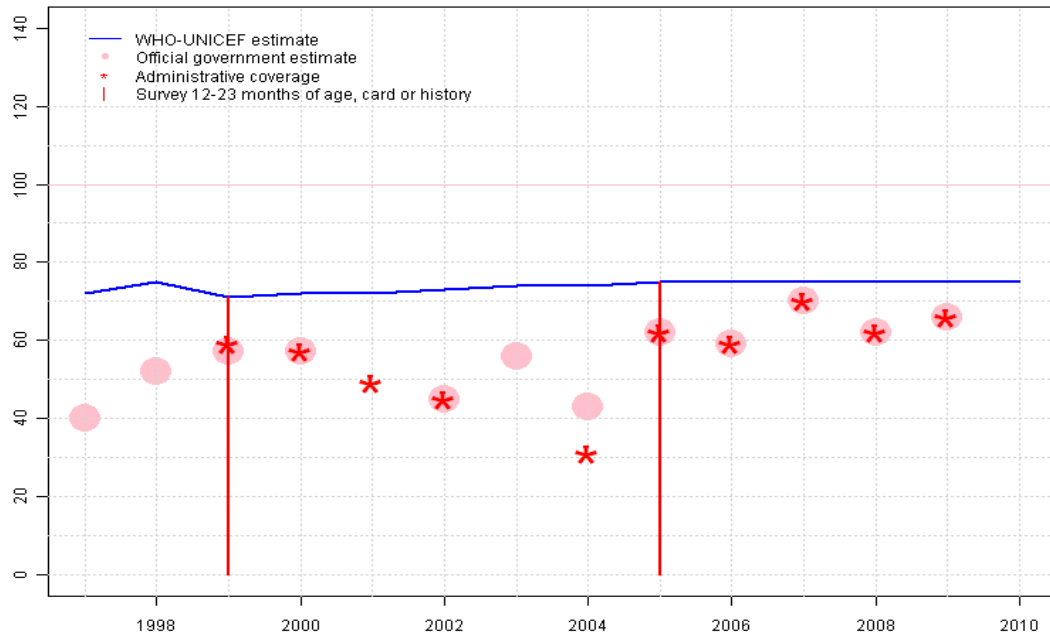


# Haiti - BCG

HTI - BCG



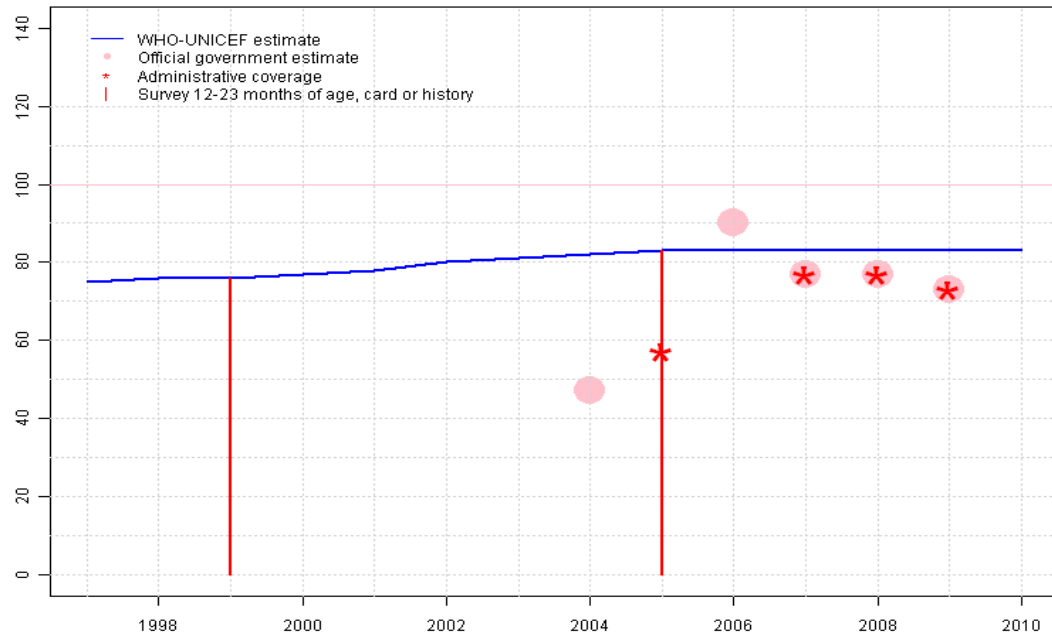
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	72	75	71	72	72	73	74	74	75	75	75	75	75	75
Official	40	52	57	57	NA	45	56	43	62	59	70	62	66	NA
Administrative	NA	NA	59	57	49	45	NA	31	62	59	70	62	66	NA
Survey	NA	NA	71	NA	NA	NA	NA	NA	75	NA	NA	NA	NA	NA

## Description:

- 1997: Legacy estimate.
- 1998: Reported data calibrated to 1997 and 1999 levels. Current estimate of 75 percent changed from previous revision value of 72 percent.
- 1999: Estimate based on survey results. 71 percent survey results does not support reported data of 57 percent.
- 2000: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2001: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2002: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2003: Estimate based on interpolation between 1999 and 2005. Reported data not accepted due to an increase from 45 percent to 56 percent with a subsequent decrease to 43 percent. Fluctuation in reported data suggest poor reporting.
- 2004: Estimate based on interpolation between 1999 and 2005. Reported data not accepted due to a decline from 56 percent to 43 percent with a subsequent increase to 62 percent. Fluctuation in reported data suggest poor reporting.
- 2005: Estimate based on survey results. 75 percent survey results does not support reported data of 62 percent.
- 2006: Estimate based on extrapolation from 2005 value of 75 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.
- 2007: Estimate based on extrapolation from 2005 value of 75 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.
- 2008: Estimate based on extrapolation from 2005 value of 75 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.
- 2009: Estimate based on extrapolation from 2005 value of 75 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.
- 2010: Estimate based on extrapolation from 2005 value of 75 percent.

# Haiti - DTP1

HTI - DTP1



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	75	76	76	77	78	80	81	82	83	83	83	83	83	83
Official	NA	NA	NA	NA	NA	NA	NA	47	NA	90	77	77	73	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	57	NA	77	77	73	NA
Survey	NA	NA	76	NA	NA	NA	NA	NA	83	NA	NA	NA	NA	NA

## Description:

1997: Legacy estimate.

1998: Estimate based on interpolation between 1997 and 1999.

1999: No accepted reported data. Reported data of 47 percent estimated by extrapolating from 2004 does not support trend in reported data. 76 percent survey results

2000: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2001: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2002: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2003: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2004: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2005: Estimate based on survey results. 83 percent survey results does not support reported data of 57 percent.

2006: Estimate based on extrapolation from 2005 value of 83 percent. Reported data not accepted due to an increase from 57 percent to 90 percent with a subsequent decrease to 77 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

2007: Estimate based on extrapolation from 2005 value of 83 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

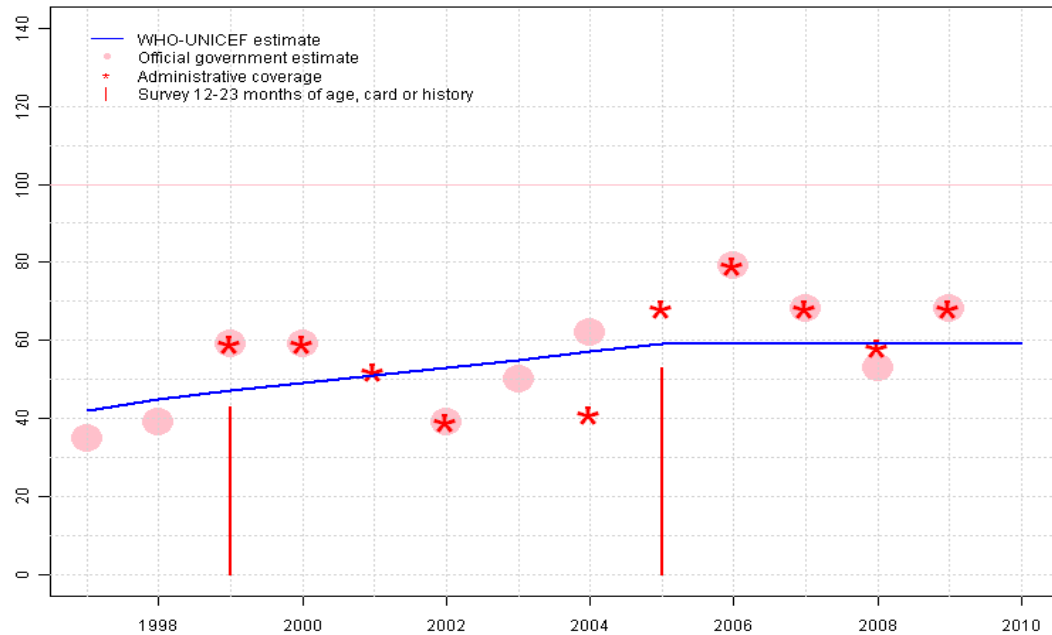
2008: Estimate based on extrapolation from 2005 value of 83 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

2009: Estimate based on extrapolation from 2005 value of 83 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

2010: Estimate based on extrapolation from 2005 value of 83 percent.

# Haiti - DTP3

HTI - DTP3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	42	45	47	49	51	53	55	57	59	59	59	59	59	59
Official	35	39	59	59	NA	39	50	62	NA	79	68	53	68	NA
Administrative	NA	NA	59	59	52	39	NA	41	68	79	68	58	68	NA
Survey	NA	NA	43	NA	NA	NA	NA	NA	53	NA	NA	NA	NA	NA

## Description:

1997: Legacy estimate.

1998: Estimate based on interpolation between 1997 and 1999. Estimate not based on reported data. Fluctuating and inconsistent denominators suggest poor reporting.

1999: Estimate based on survey results. 47 percent survey results does not support reported data of 59 percent. Survey results of 43 percent modified for recall bias to 47 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 60 percent and 3d dose card only coverage of 37 percent.

2000: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2001: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2002: Estimate based on interpolation between 1999 and 2005. Reported data not accepted due to a decline from 52 percent to 39 percent with a subsequent increase to 50 percent. Fluctuation in reported data suggest poor reporting.

2003: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2004: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2005: Estimate is based on survey results. Survey results of 53 percent modified for recall bias to 60 percent based on 1st dose card or history coverage of 83 percent, 1st dose card only coverage of 68 percent and 3d dose card only coverage of 49 percent.

2006: Estimate based on extrapolation from 2005 value of 59 percent. Reported data not accepted due to an increase from 68 percent to 79 percent with a subsequent decrease to 68 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

2007: Estimate based on extrapolation from 2005 value of 59 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

2008: Estimate based on extrapolation from 2005 value of 59 percent. Reported data not accepted due to a decline from 68 percent to 53 percent with a subsequent increase to 68 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

2009: Estimate based on extrapolation from 2005 value of 59 percent. Reported data not accepted due to a change from 53 level to 68 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies

# Haiti - DTP3

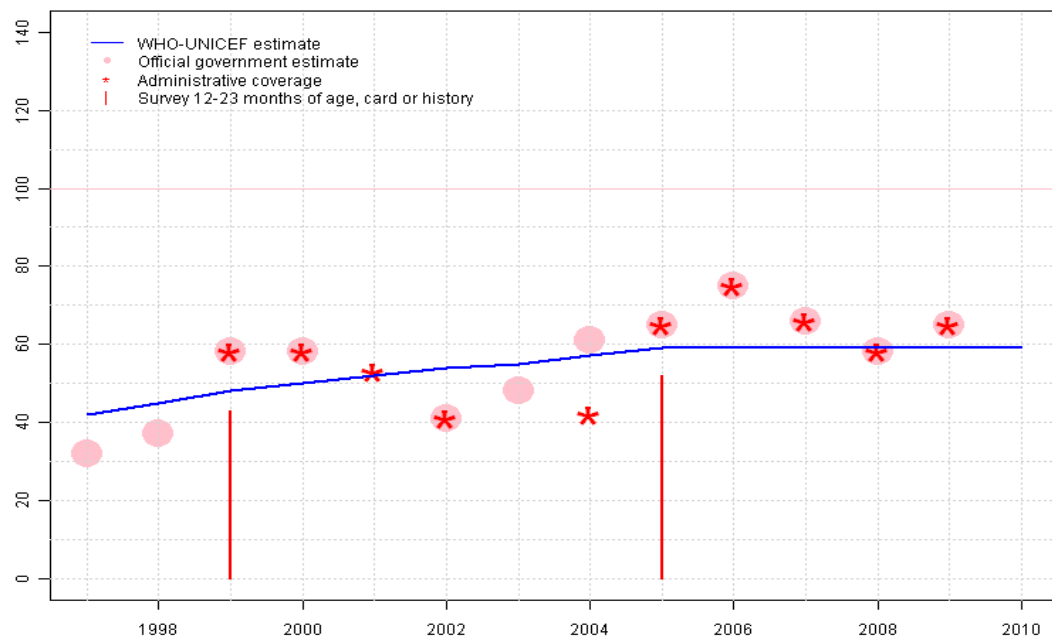
---

in administrative reporting system.

2010: Estimate based on extrapolation from 2005 value of 59 percent.

# Haiti - Pol3

HTI - Pol3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	42	45	48	50	52	54	55	57	59	59	59	59	59	59
Official	32	37	58	58	NA	41	48	61	65	75	66	58	65	NA
Administrative	NA	NA	58	58	53	41	NA	42	65	75	66	58	65	NA
Survey	NA	NA	43	NA	NA	NA	NA	NA	52	NA	NA	NA	NA	NA

## Description:

1997: Legacy estimate.

1998: Estimate based on interpolation between 1997 and 1999. Estimate not based on reported data. Fluctuating and inconsistent denominators suggest poor reporting.

1999: Estimate is based on survey results. Survey results of 43 percent modified for recall bias to 48 percent based on 1st dose card or history coverage of 77 percent, 1st dose card only coverage of 61 percent and 3d dose card only coverage of 38 percent.

2000: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2001: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2002: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2003: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2004: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2005: Estimate is based on survey results. Survey results of 52 percent modified for recall bias to 60 percent based on 1st dose card or history coverage of 86 percent, 1st dose card only coverage of 70 percent and 3d dose card only coverage of 49 percent.

2006: Estimate based on extrapolation from 2005 value of 59 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

2007: Estimate based on extrapolation from 2005 value of 59 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

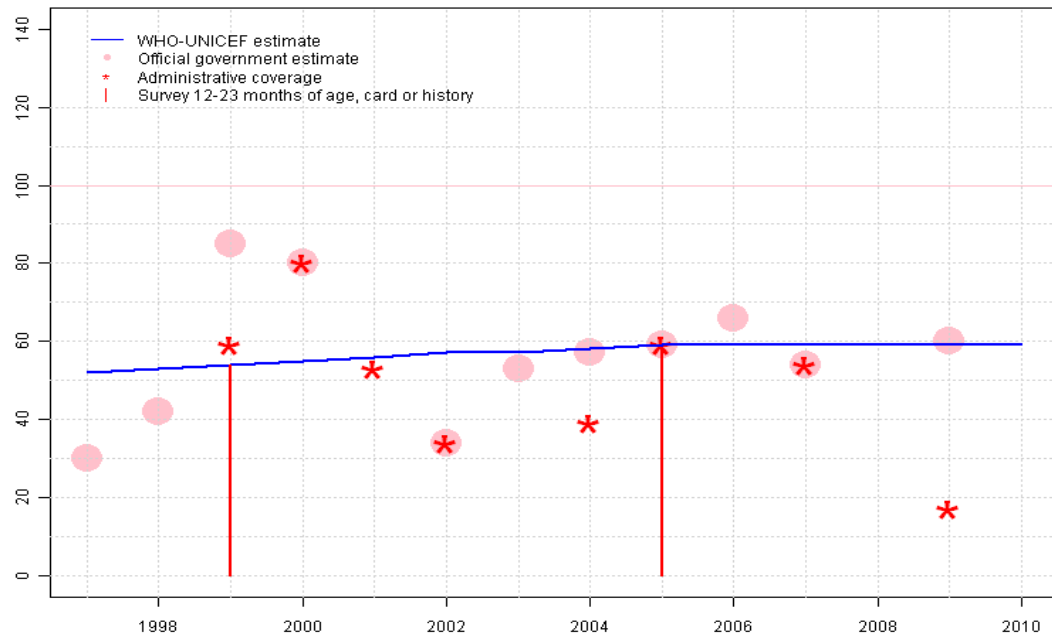
2008: Estimate based on extrapolation from 2005 value of 59 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

2009: Estimate based on extrapolation from 2005 value of 59 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

2010: Estimate based on extrapolation from 2005 value of 59 percent.

# Haiti - MCV

HTI - MCV



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	52	53	54	55	56	57	57	58	59	59	59	59	59	59
Official	30	42	85	80	NA	34	53	57	59	66	54	NA	60	NA
Administrative	NA	NA	59	80	53	34	NA	39	59	NA	54	NA	17	NA
Survey	NA	NA	54	NA	NA	NA	NA	NA	58	NA	NA	NA	NA	NA

## Description:

1997: Legacy estimate.

1998: Estimate based on interpolation between 1997 and 1999. Estimate not based on reported data. Fluctuating and inconsistent denominators suggest poor reporting.

1999: Estimate based on survey results. 54 percent survey results does not support reported data of 85 percent.

2000: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2001: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2002: Estimate based on interpolation between 1999 and 2005. Reported data not accepted due to a decline from 53 percent to 34 percent with a subsequent increase to 53 percent. Fluctuation in reported data suggest poor reporting.

2003: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2004: Estimate based on interpolation between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2005: Estimate based on reported data. 58 percent survey results supports reported data of 59 percent.

2006: Estimate based on extrapolation from 2005 value of 59 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system. Estimate not based on reported data. Fluctuating and inconsistent denominators suggest poor reporting.

2007: Estimate based on extrapolation from 2005 value of 59 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

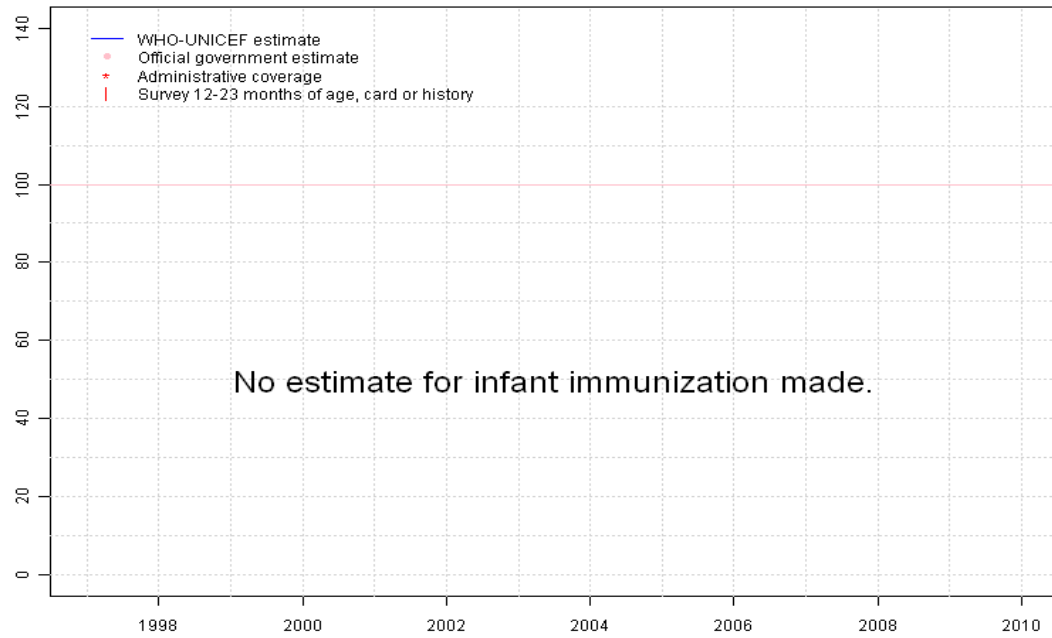
2008: Estimate based on extrapolation from 2005 value of 59 percent.

2009: Estimate based on extrapolation from 2005 value of 59 percent. Estimate not based on reported data. Fluctuations in reported data reflect deficiencies in administrative reporting system.

2010: Estimate based on extrapolation from 2005 value of 59 percent.

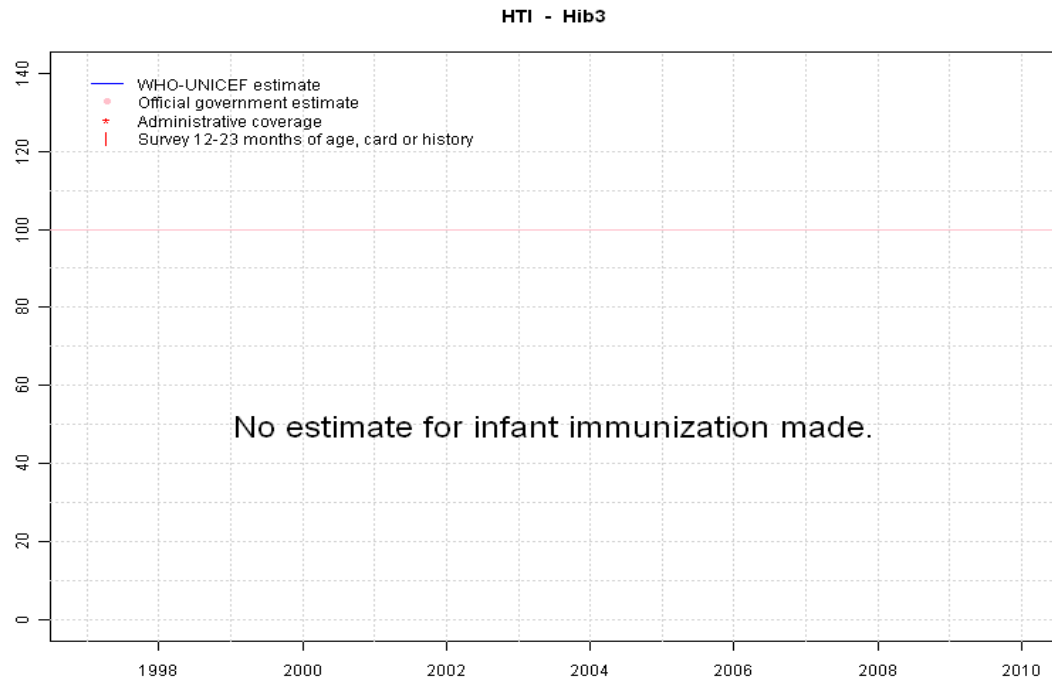
# Haiti - HepB3

HTI - HepB3



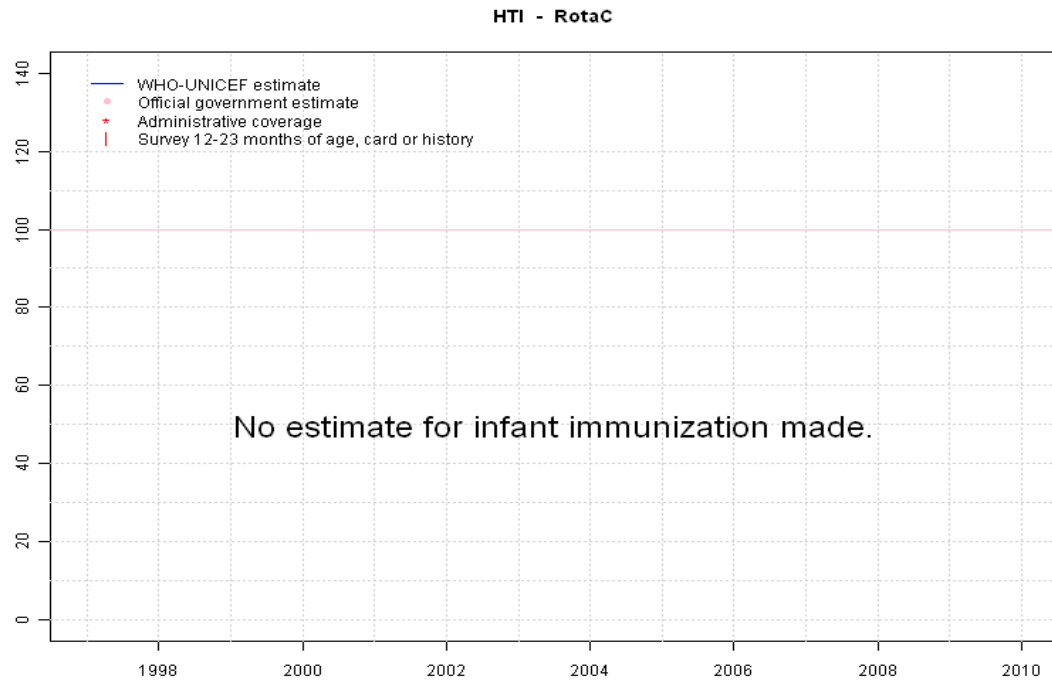
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Haiti - Hib3



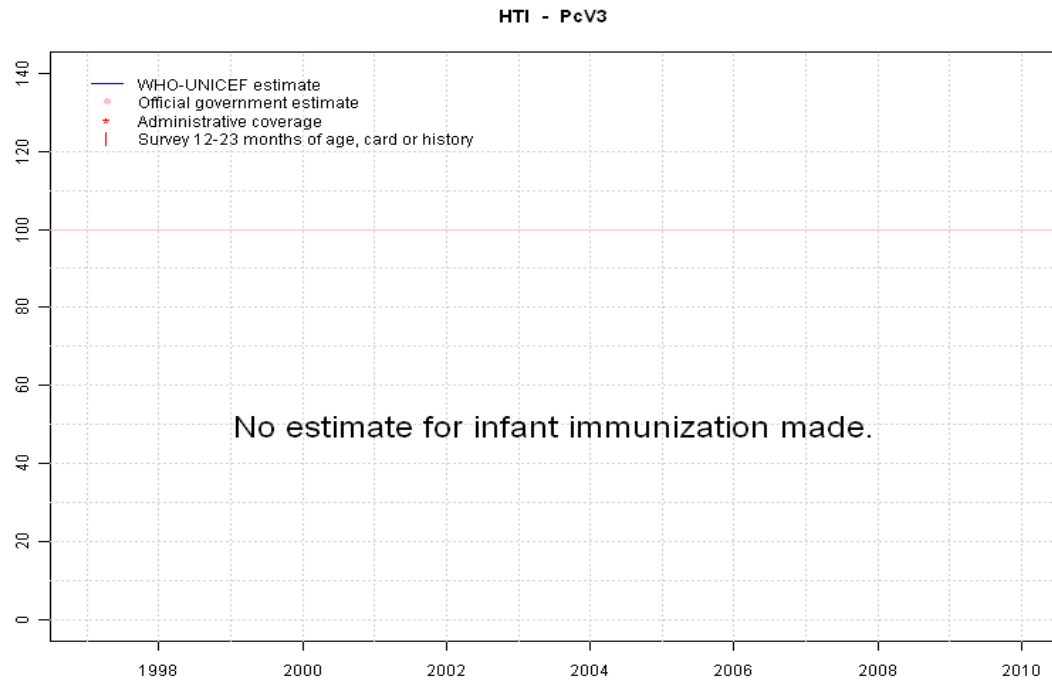
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Haiti - 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

# Haiti - 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

# Haiti - survey details

2005 Enquête Mortalité, Morbidité et Utilisation des Services  
(EMMUS-IV), Haiti 2005-2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	75	12-23 m	1135	73
BCG	Card	60	12-23 m	1135	73
BCG	C or H <12 months	73	12-23 m	1135	73
BCG	History	15	12-23 m	1135	73
DTP1	History	15	12-23 m	1135	73
DTP1	C or H <12 months	78	12-23 m	1135	73
DTP1	Card	68	12-23 m	1135	73
DTP1	Card or History	83	12-23 m	1135	73
DTP3	Card	49	12-23 m	1135	73
DTP3	Card or History	53	12-23 m	1135	73
DTP3	History	4	12-23 m	1135	73
DTP3	C or H <12 months	48	12-23 m	1135	73
MCV	C or H <12 months	45	12-23 m	1135	73
MCV	Card	49	12-23 m	1135	73
MCV	Card or History	58	12-23 m	1135	73
MCV	History	9	12-23 m	1135	73
Pol1	C or H <12 months	81	12-23 m	1135	73
Pol1	Card	70	12-23 m	1135	73
Pol1	Card or History	86	12-23 m	1135	73
Pol1	History	15	12-23 m	1135	73
Pol3	History	3	12-23 m	1135	73
Pol3	C or H <12 months	47	12-23 m	1135	73
Pol3	Card	49	12-23 m	1135	73
Pol3	Card or History	52	12-23 m	1135	73

1999 Enquête Mortalité, Morbidité et Utilisation des Services  
(EMMUS-III), Haiti 2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	53	12-23 m	1225	66
BCG	History	18	12-23 m	1225	66
BCG	C or H <12 months	68	12-23 m	1225	66
BCG	Card or History	71	12-23 m	1225	66
DTP1	Card	60	12-23 m	1225	66
DTP1	Card or History	76	12-23 m	1225	66
DTP1	History	15	12-23 m	1225	66
DTP1	C or H <12 months	71	12-23 m	1225	66
DTP3	History	6	12-23 m	1225	66
DTP3	C or H <12 months	36	12-23 m	1225	66
DTP3	Card	37	12-23 m	1225	66
DTP3	Card or History	43	12-23 m	1225	66
MCV	Card	44	12-23 m	1225	66
MCV	Card or History	54	12-23 m	1225	66
MCV	History	10	12-23 m	1225	66
MCV	C or H <12 months	34	12-23 m	1225	66
Pol1	C or H <12 months	72	12-23 m	1225	66
Pol1	Card	61	12-23 m	1225	66
Pol1	Card or History	77	12-23 m	1225	66
Pol1	History	15	12-23 m	1225	66
Pol3	C or H <12 months	38	12-23 m	1225	66
Pol3	Card	38	12-23 m	1225	66
Pol3	History	4	12-23 m	1225	66
Pol3	Card or History	43	12-23 m	1225	66

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

[http://www.childinfo.org/immunization\\_countryreports.html](http://www.childinfo.org/immunization_countryreports.html)

[http://www.who.int/immunization\\_monitoring/routine/immunization\\_coverage/en/index4.html](http://www.who.int/immunization_monitoring/routine/immunization_coverage/en/index4.html)

## Haiti

### 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	41
1998	41
1999	41
2000	41
2001	42
2002	42
2003	42
2004	48
2005	37
2006	31
2007	43
2008	50
2009	70
2010	70

---

<sup>1</sup> 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.