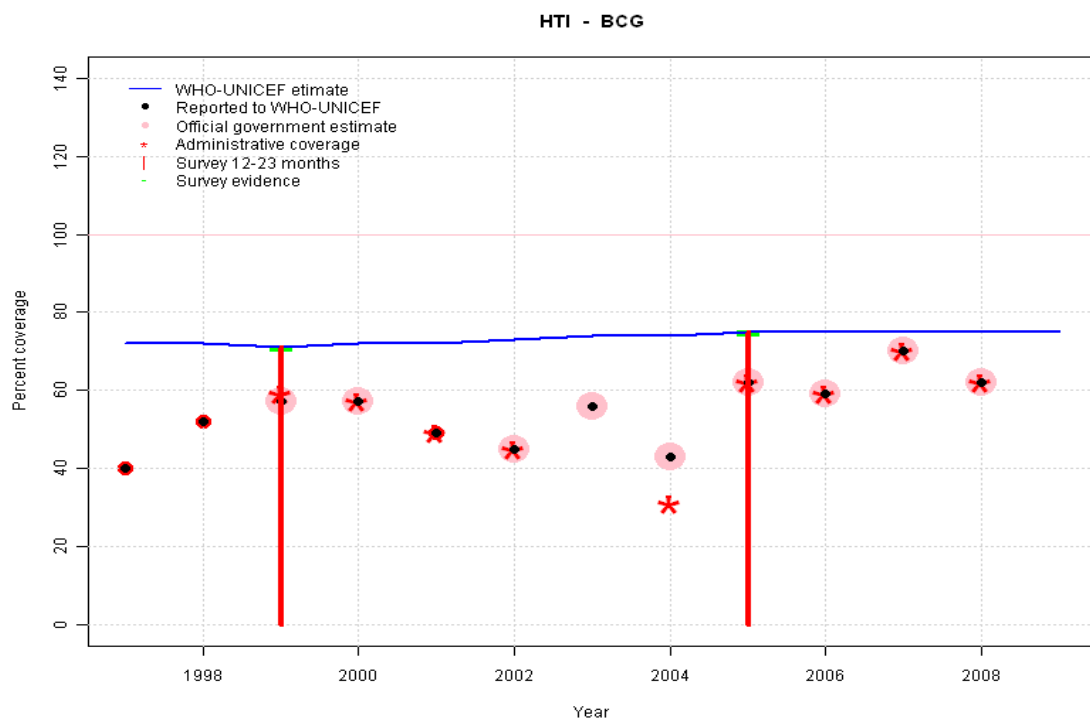


# Haiti - BCG

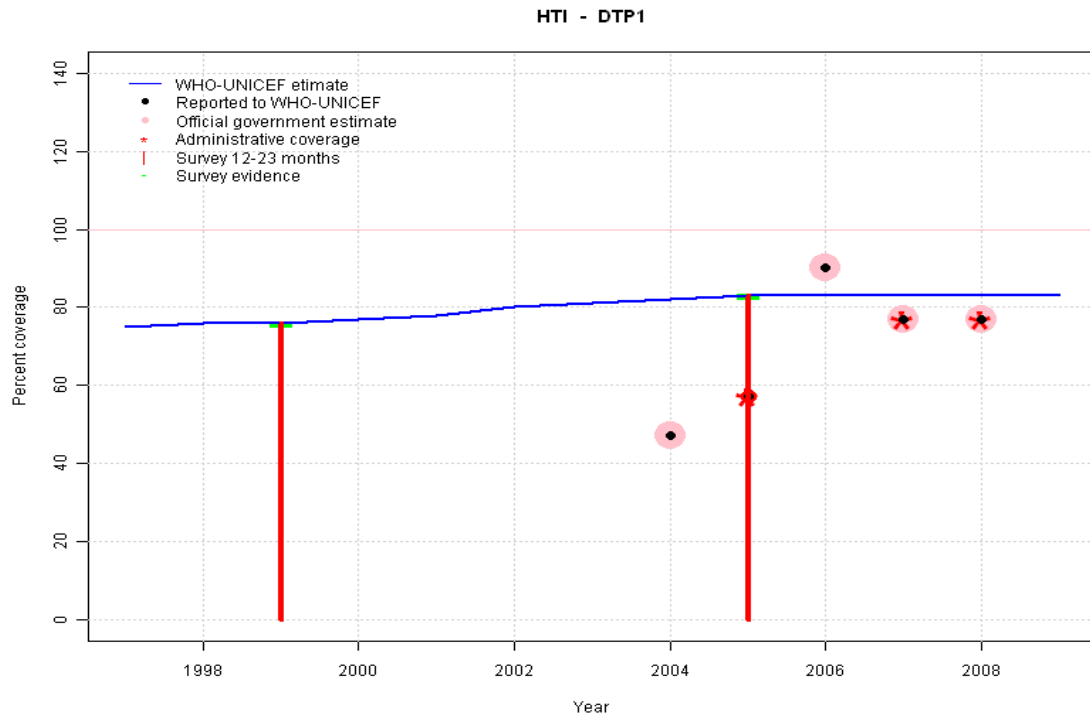


## Description:

- 1997: Legacy estimate.
- 1998: Estimate interpolated between 1997 and 1999 estimates.
- 1999: Estimate based on survey results. Reported data (57 percent) not consistent with survey results (71 percent).
- 2000: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2001: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2002: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2003: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting. 2003 reported data (56 percent) inconsistent with data from other years.
- 2004: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting. 2004 reported data (43 percent) inconsistent with data from other years.
- 2005: Estimate based on survey results. Reported data (62 percent) not consistent with survey results (75 percent).
- 2006: Estimate extrapolated from 2005 level (75 percent).
- 2007: Estimate extrapolated from 2005 level (75 percent).
- 2008: Estimate extrapolated from 2005 level (75 percent).
- 2009: Estimate extrapolated from 2005 level (75 percent).

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

# Haiti - DTP1

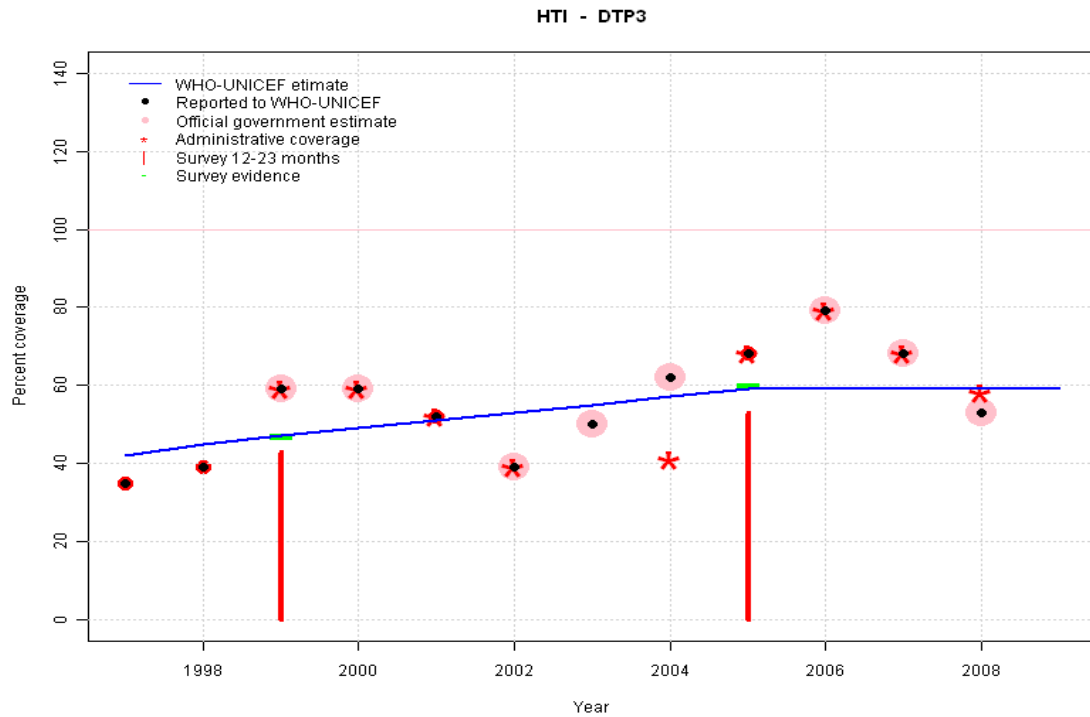


## Description:

- 1997: Legacy estimate.
- 1998: Estimate interpolated between 1997 and 1999 estimates.
- 1999: Estimate based on survey results. Reported data (47 percent) not consistent with survey results (76 percent).
- 2000: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2001: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2002: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2003: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2004: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.
- 2005: Estimate based on survey results. Reported data (57 percent) not consistent with survey results (83 percent).
- 2006: Estimate extrapolated from 2005 level (83 percent). 2006 reported data (90 percent) inconsistent with data from other years.
- 2007: Estimate extrapolated from 2005 level (83 percent).
- 2008: Estimate extrapolated from 2005 level (83 percent).
- 2009: Estimate extrapolated from 2005 level (83 percent).

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

# Haiti - DTP3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	42	45	47	49	51	53	55	57	59	59	59	59	59
Reported	35	39	59	59	52	39	50	62	68	79	68	53	NA
Official	NA	NA	59	59	NA	39	50	62	NA	79	68	53	NA
Administrative	NA	NA	59	59	52	39	NA	41	68	79	68	58	NA
Survey	NA	NA	47	NA	NA	NA	NA	NA	60	NA	NA	NA	NA

## Description:

1997: Legacy estimate.

1998: Reported data (47 percent) calibrated to 1997 and 1999 levels. Missing or ignored reported value estimated by interpolation between reported values of 35 percent in 1997 and 59 percent in 1999. 1998 reported data (39 percent) ignored by working group. Fluctuating and inconsistent denominators suggest poor reporting.

1999: Estimate based on survey results. Reported data (59 percent) not consistent with survey results (47 percent). Survey results (43 percent) adjusted for recall bias to 47 percent based on first dose card or history coverage (76 percent) and documented drop-out between first (60 percent) and third (37 percent) doses.

2000: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2001: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2002: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting. 2002 reported data (39 percent) inconsistent with data from other years.

2003: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2004: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2005: Estimate is based on survey results. Survey results (53 percent) adjusted for recall bias to 60 percent based on first dose card or history coverage (83 percent) and documented drop-out between first (68 percent) and third (49 percent) doses.

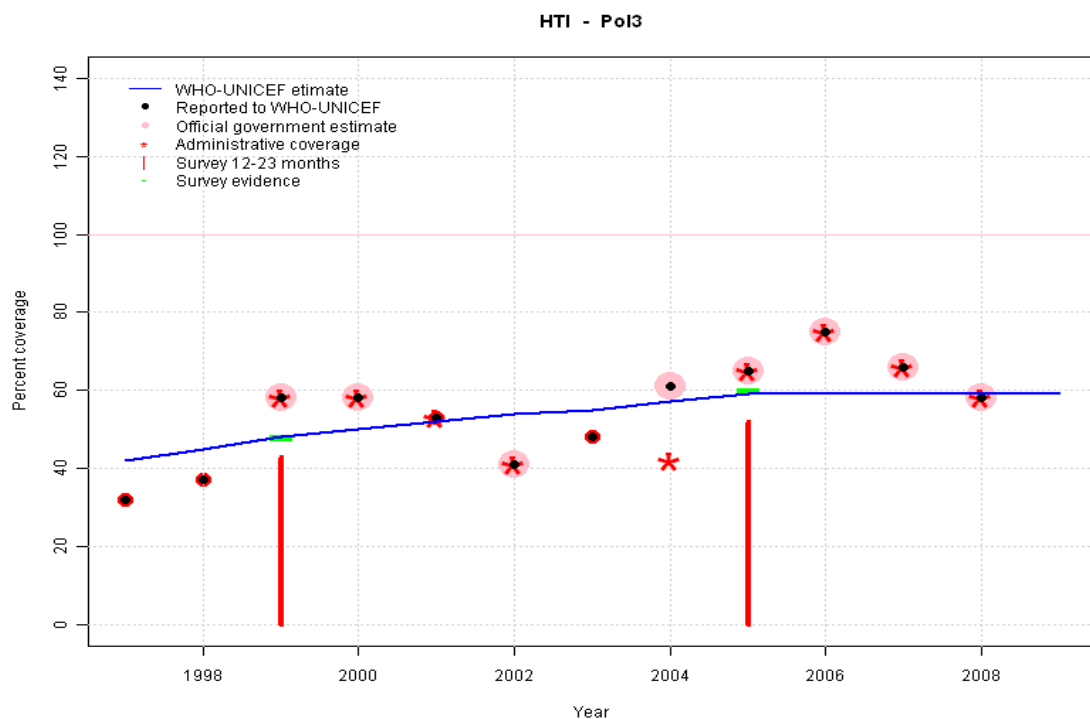
2006: Estimate extrapolated from 2005 level (59 percent). 2006 reported data (79 percent) inconsistent with data from other years.

2007: Estimate extrapolated from 2005 level (59 percent).

2008: Estimate extrapolated from 2005 level (59 percent). 2008 reported data (53 percent) inconsistent with data from other years.

2009: Estimate extrapolated from 2005 level (59 percent).

# Haiti - Pol3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	42	45	48	50	52	54	55	57	59	59	59	59	59
Reported	32	37	58	58	53	41	48	61	65	75	66	58	NA
Official	NA	NA	58	58	NA	41	NA	61	65	75	66	58	NA
Administrative	NA	NA	58	58	53	41	NA	42	65	75	66	58	NA
Survey	NA	NA	48	NA	NA	NA	NA	NA	60	NA	NA	NA	NA

## Description:

1997: Legacy estimate.

1998: Reported data (45 percent) calibrated to 1997 and 1999 levels. Missing or ignored reported value estimated by interpolation between reported values of 32 percent in 1997 and 58 percent in 1999. 1998 reported data (37 percent) ignored by working group. Fluctuating and inconsistent denominators suggest poor reporting.

1999: Estimate is based on survey results. Survey results (43 percent) adjusted for recall bias to 48 percent based on first dose card or history coverage (77 percent) and documented drop-out between first (61 percent) and third (38 percent) doses.

2000: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2001: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2002: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2003: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2004: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2005: Estimate is based on survey results. Survey results (52 percent) adjusted for recall bias to 60 percent based on first dose card or history coverage (86 percent) and documented drop-out between first (70 percent) and third (49 percent) doses.

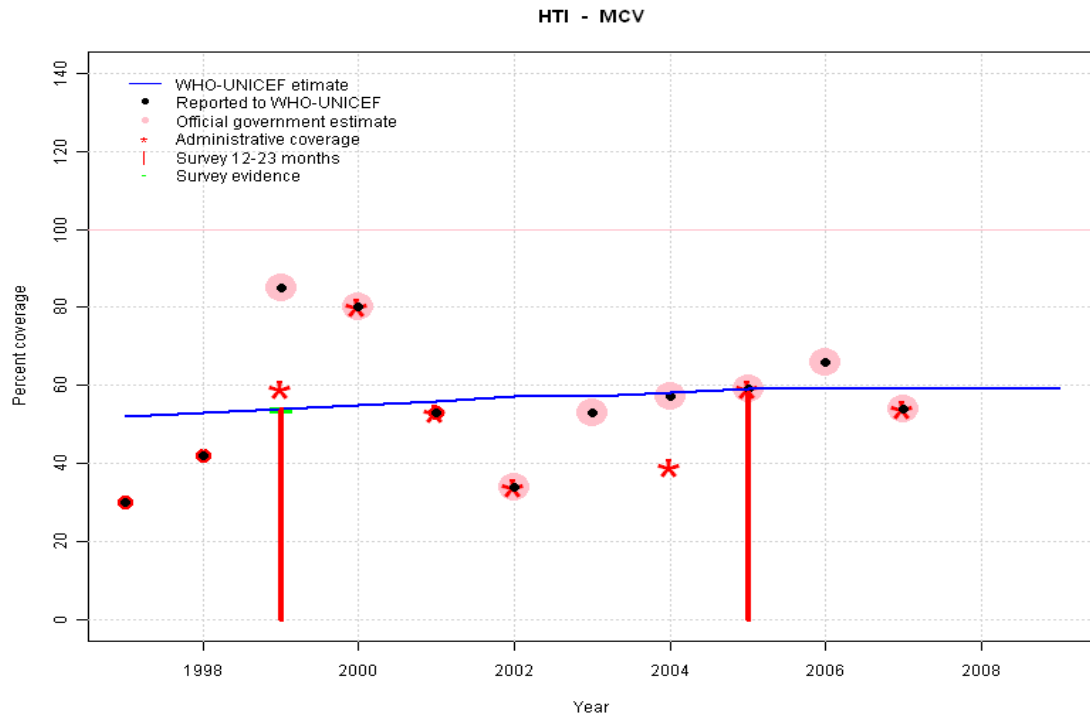
2006: Estimate extrapolated from 2005 level (59 percent).

2007: Estimate extrapolated from 2005 level (59 percent).

2008: Estimate extrapolated from 2005 level (59 percent).

2009: Estimate extrapolated from 2005 level (59 percent).

# Haiti - MCV



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

## Description:

1997: Legacy estimate.

1998: Reported data (58 percent) calibrated to 1997 and 1999 levels. Missing or ignored reported value estimated by interpolation between reported values of 30 percent in 1997 and 85 percent in 1999. 1998 reported data (42 percent) ignored by working group. Fluctuating and inconsistent denominators suggest poor reporting.

1999: Estimate based on survey results. Reported data (85 percent) not consistent with survey results (54 percent).

2000: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2001: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2002: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting. 2002 reported data (34 percent) inconsistent with data from other years.

2003: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2004: Estimate based on working group decision to interpolated between 1999 and 2005. Fluctuation in reported data suggest poor reporting.

2005: Estimate based on reported data (59 percent) confirmed by survey (58 percent).

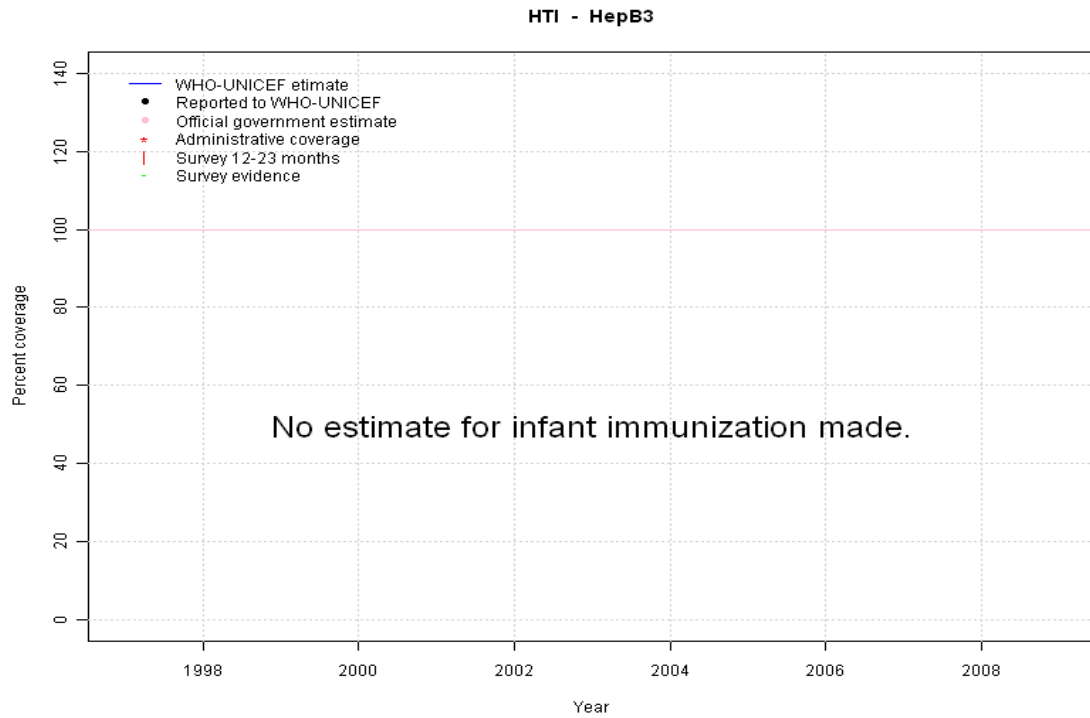
2006: Estimate based on trend in reported data. Missing or ignored reported value estimated by extrapolation from 2005 reported value of 59 percent. 2006 reported data (66 percent) ignored by working group. Fluctuating and inconsistent denominators suggest poor reporting.

2007: Estimate based on trend in reported data. Missing or ignored reported value estimated by extrapolation from 2005 reported value of 59 percent. 2007 reported data (54 percent) inconsistent with data from other years.

2008: Estimate based on trend in reported data. Missing or ignored reported value estimated by extrapolation from 2005 reported value of 59 percent.

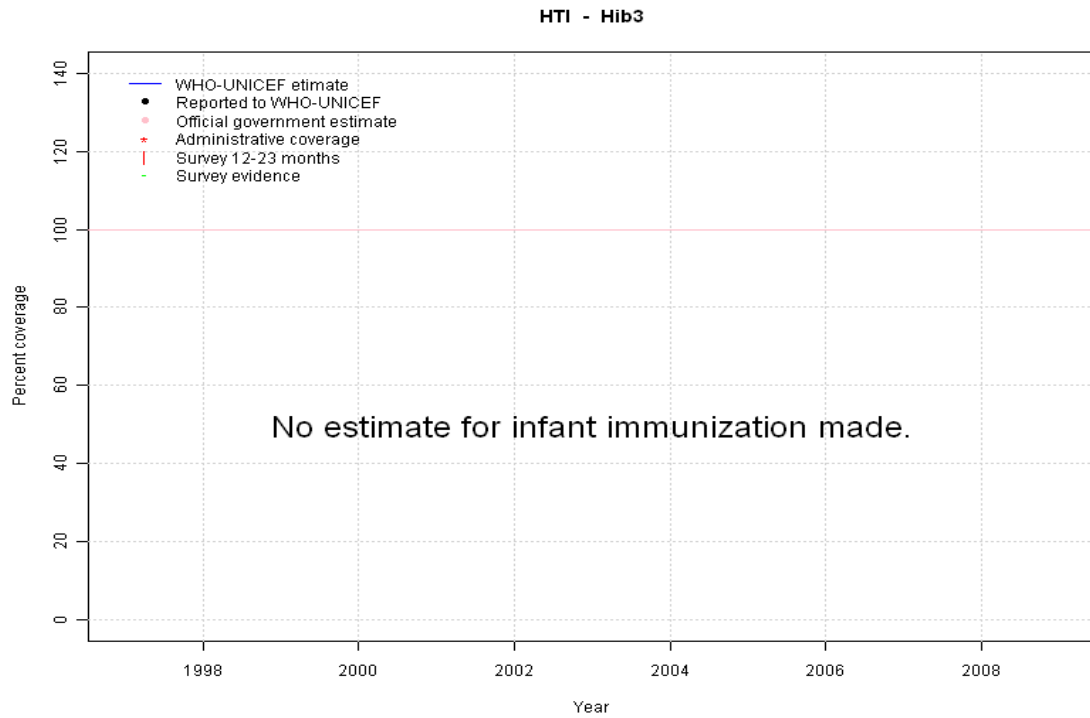
2009: Estimate based on trend in reported data. Missing or ignored reported value estimated by extrapolation from 2005 reported value of 59 percent.

# Haiti - HepB3



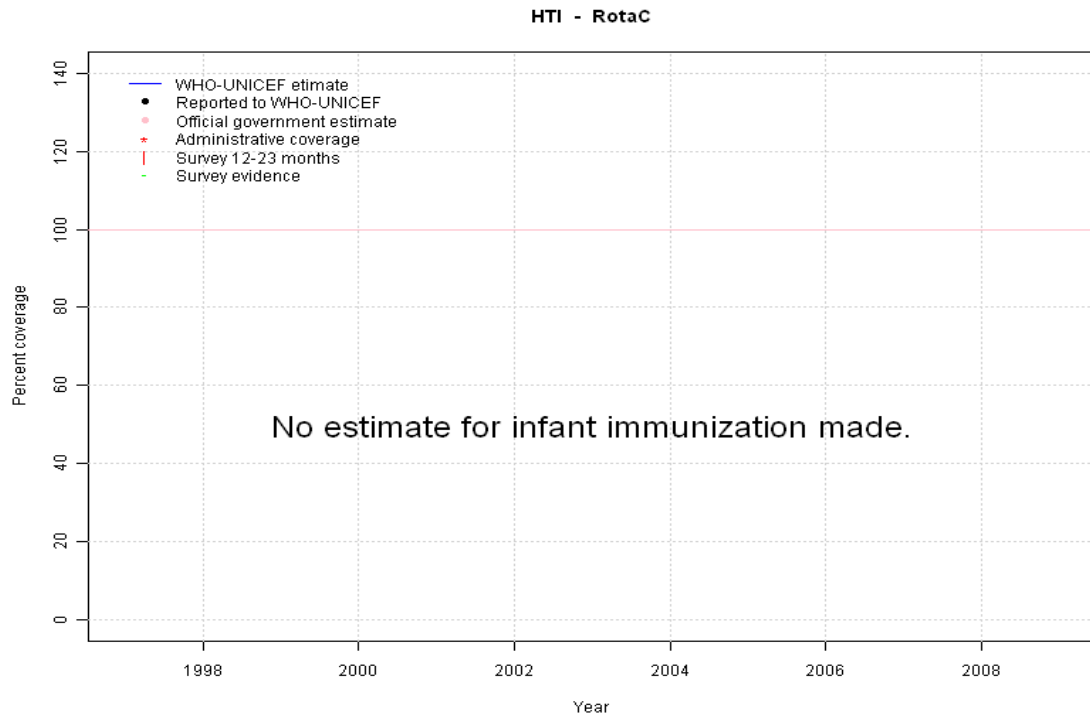
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA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

# Haiti - Hib3



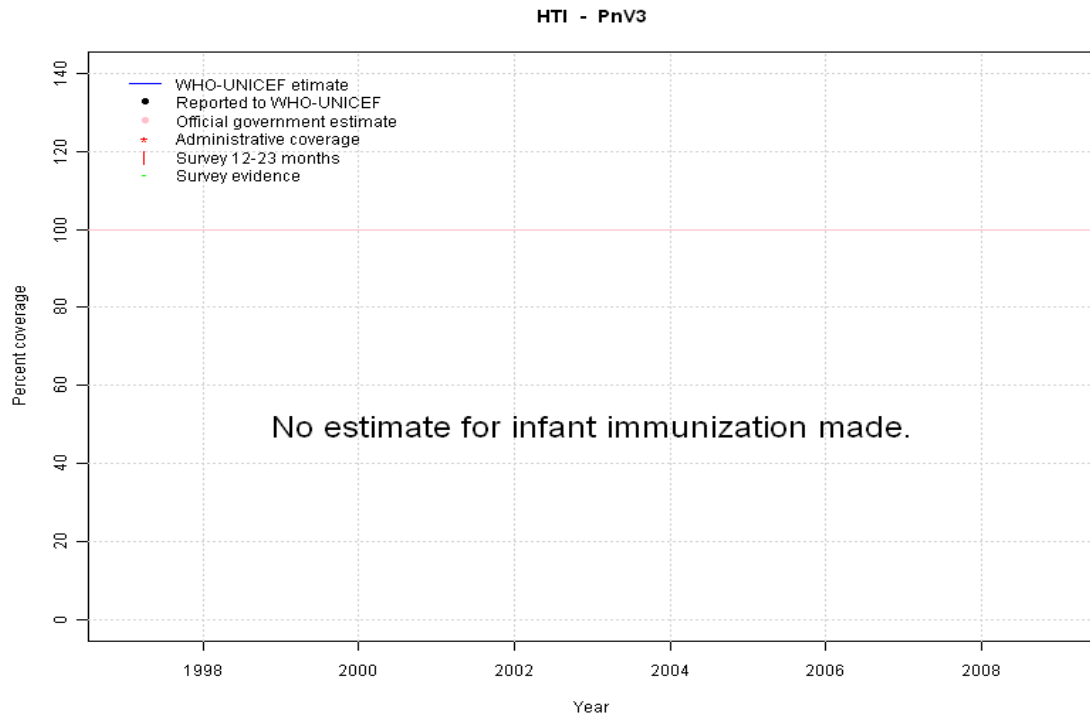
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA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

# Haiti - 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

# Haiti - 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

# 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

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<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.