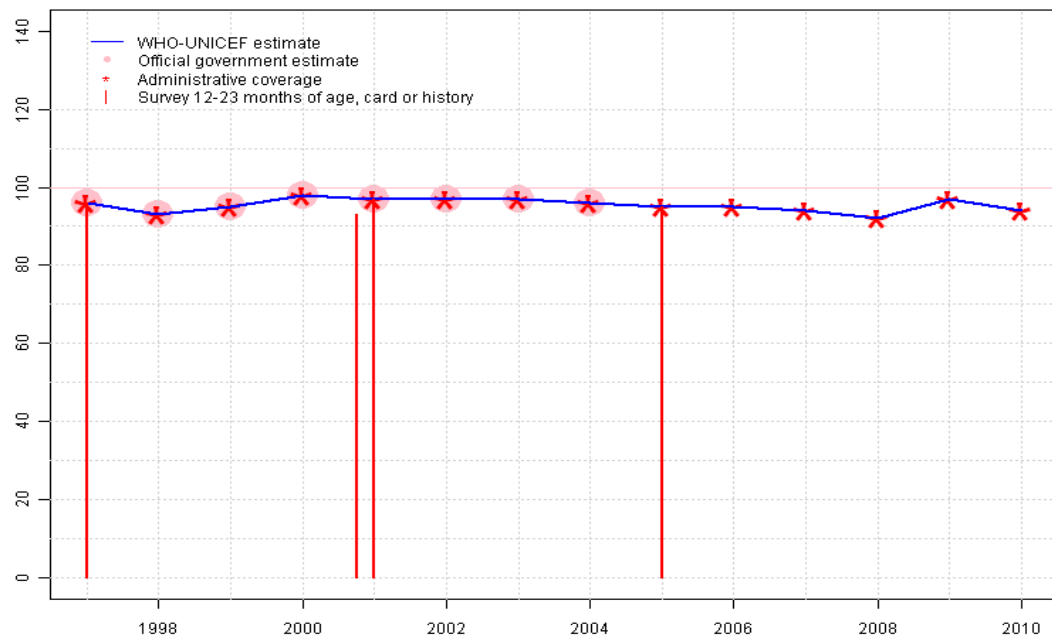


# Viet Nam - BCG

VNM - BCG



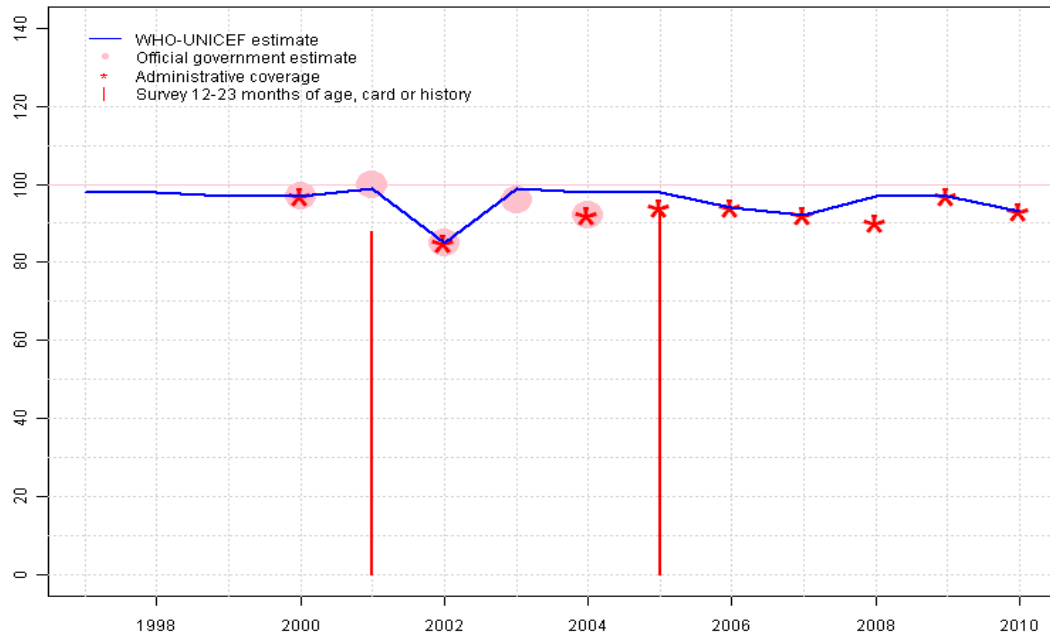
## Description:

- 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. Survey results not accepted. Sample size 0 less than 300. Survey not accepted. Survey not accepted. na
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data. 95 percent survey results supports reported data of 95 percent.
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data.
- 2009: Estimate based on reported data.
- 2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	96	93	95	98	97	97	97	96	95	95	94	92	97	94
Official	96	93	95	98	97	97	97	96	NA	NA	NA	NA	NA	NA
Administrative	96	93	95	98	97	97	97	96	95	95	94	92	97	94
Survey	96	NA	NA	NA	*	NA	NA	NA	95	NA	NA	NA	NA	NA

# Viet Nam - DTP1

VNM - DTP1



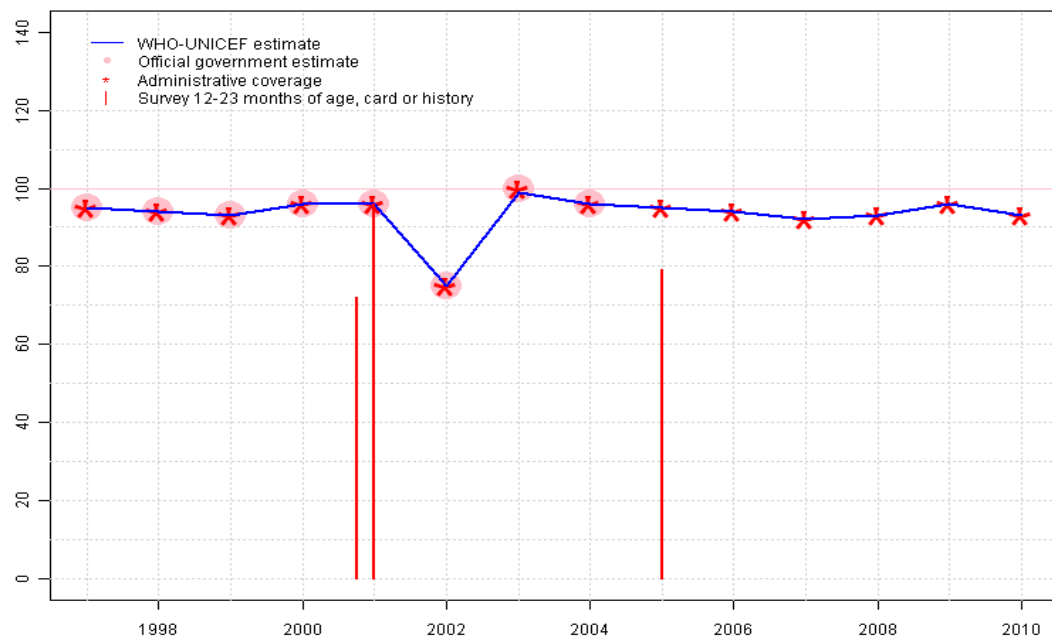
## Description:

- 1997: Legacy estimate.
- 1998: No DTP1 data. Estimate based on DTP3 coverage of 94.
- 1999: No DTP1 data. Estimate based on DTP3 coverage of 93.
- 2000: Estimate is based on the reported data.
- 2001: Estimate based on reported data. Survey not accepted.
- 2002: Estimate based on reported data. The decline in 2002 reflects vaccine shortage due to frozen vaccine.
- 2003: DTP1 coverage estimated based on DTP3 coverage of 100. Current estimate of 99 percent changed from previous revision value of 98 percent.
- 2004: DTP1 coverage estimated based on DTP3 coverage of 96.
- 2005: DTP1 coverage estimated based on DTP3 coverage of 95.
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data.
- 2008: DTP1 coverage estimated based on DTP3 coverage of 93.
- 2009: Estimate based on reported data.
- 2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	98	98	97	97	99	85	99	98	98	94	92	97	97	93
Official	NA	NA	NA	97	100	85	96	92	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	97	NA	85	NA	92	94	94	92	90	97	93
Survey	NA	NA	NA	NA	88	NA	NA	NA	94	NA	NA	NA	NA	NA

# Viet Nam - DTP3

VNM - DTP3



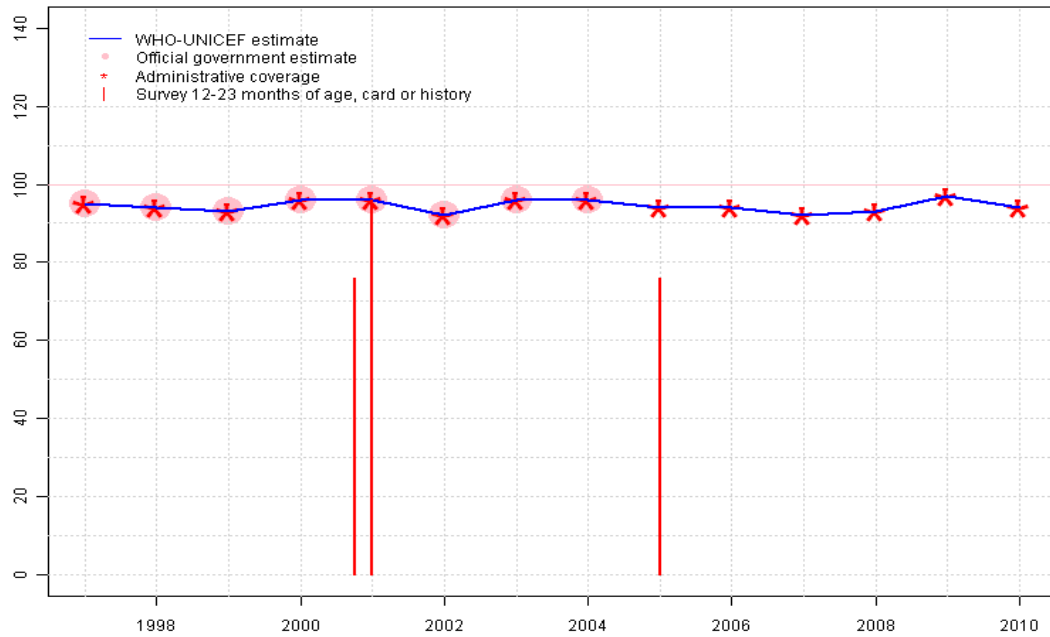
## Description:

- 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. Survey results not accepted. Sample size 0 less than 300. Survey not accepted. Survey not accepted. na
- 2002: Estimate based on reported data. The decline in 2002 reflects vaccine shortage due to frozen vaccine.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data. Survey not accepted. The 2006 MICS survey has a card retention rate of 38.4
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data.
- 2009: Estimate based on reported data.
- 2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	95	94	93	96	96	75	99	96	95	94	92	93	96	93
Official	95	94	93	96	96	75	100	96	NA	NA	NA	NA	NA	NA
Administrative	95	94	93	96	96	75	100	96	95	94	92	93	96	93
Survey	NA	NA	NA	NA	*	NA	NA	NA	79	NA	NA	NA	NA	NA

# Viet Nam - Pol3

VNM - 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. Survey results not accepted. Sample size 0 less than 300. Survey not accepted. Survey not accepted. na

2002: Estimate based on reported data.

2003: Estimate based on reported data.

2004: Estimate based on reported data.

2005: Estimate based on reported data. 91 percent survey results supports reported data of 94 percent. Survey results of 76 percent modified for recall bias to 91 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 38 percent and 3d dose card only coverage of 36 percent.

2006: Estimate based on reported data.

2007: Estimate based on reported data.

2008: Estimate based on reported data.

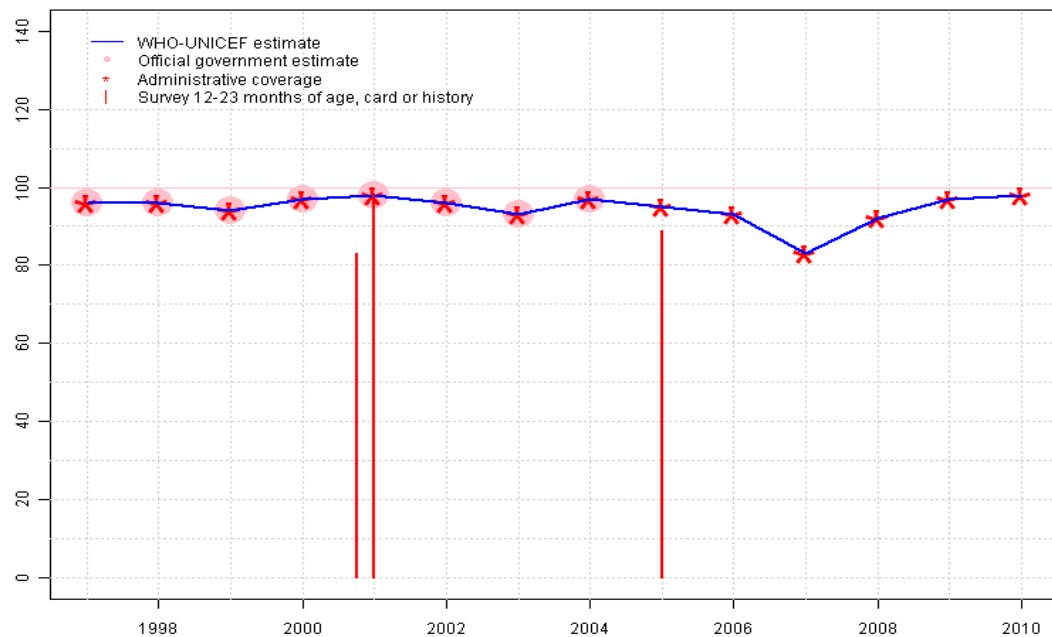
2009: Estimate based on reported data.

2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	95	94	93	96	96	92	96	96	94	94	92	93	97	94
Official	95	94	93	96	96	92	96	96	NA	NA	NA	NA	NA	NA
Administrative	95	94	93	96	96	92	96	96	94	94	92	93	97	94
Survey	NA	NA	NA	NA	*	NA	NA	NA	76	NA	NA	NA	NA	NA

# Viet Nam - MCV

VNM - MCV



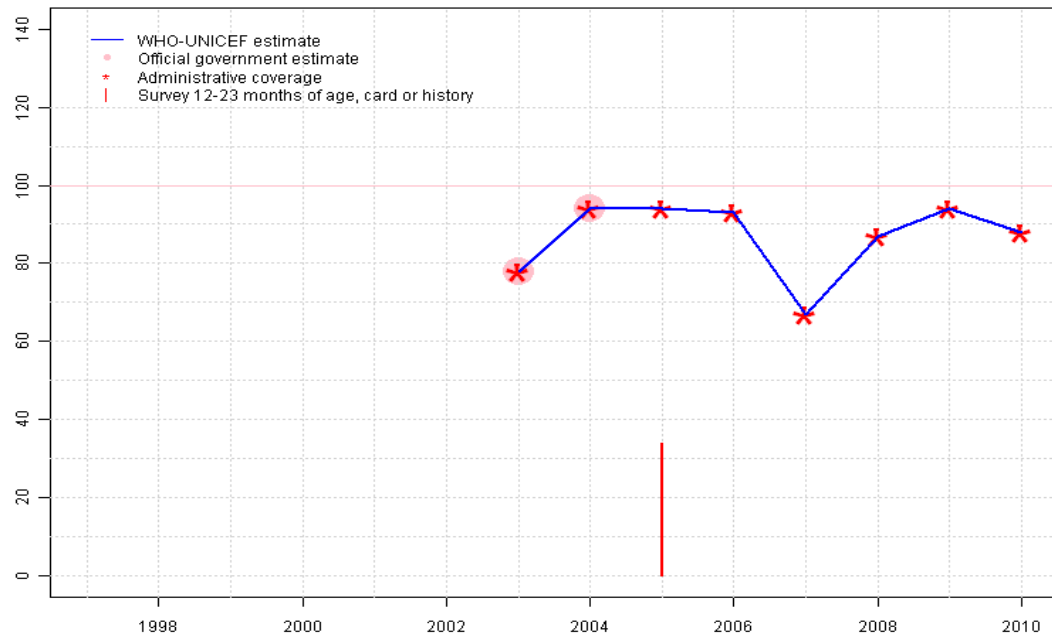
## Description:

- 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. Survey results not accepted. Sample size 0 less than 300. Survey not accepted. Survey not accepted. na
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data. 89 percent survey results supports reported data of 95 percent.
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data.
- 2009: Estimate based on reported data.
- 2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	96	96	94	97	98	96	93	97	95	93	83	92	97	98
Official	96	96	94	97	98	96	93	97	NA	NA	NA	NA	NA	NA
Administrative	96	96	94	97	98	96	93	97	95	93	83	92	97	98
Survey	NA	NA	NA	NA	*	NA	NA	NA	89	NA	NA	NA	NA	NA

# Viet Nam - HepB3

VNM - HepB3



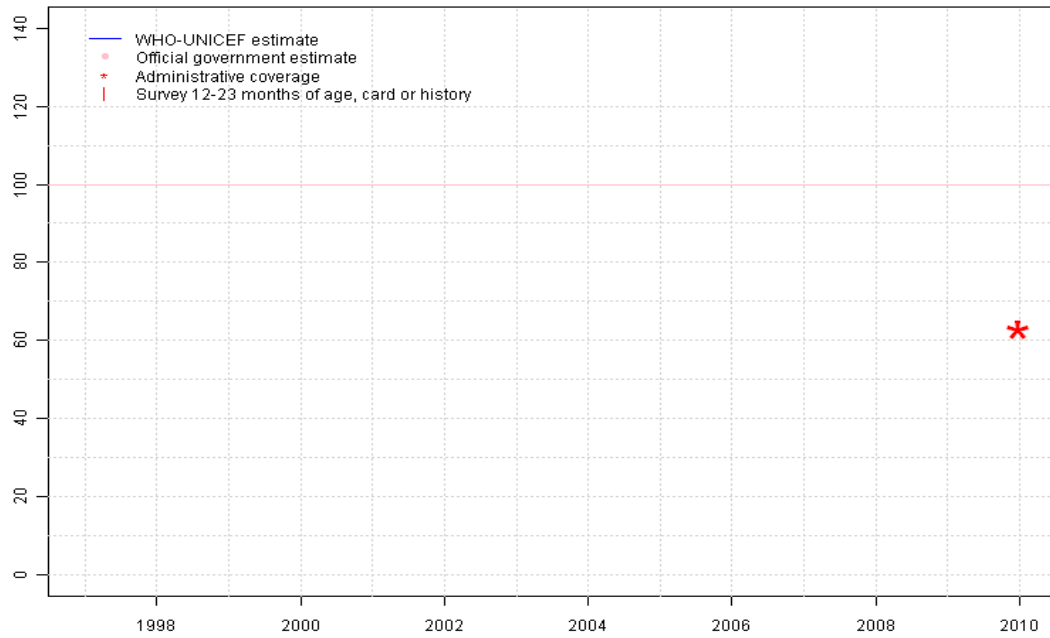
## Description:

- 2003: Estimate based on reported data. HepB introduced in 2003 Vaccine presentation is HepB .
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data. Survey not accepted. The 2006 MICS survey has a card retention rate of 38.4
- 2006: Estimate based on reported data.
- 2007: Estimate based on reported data. There was a stock-out of one month in 2007.
- 2008: Estimate based on reported data.
- 2009: Estimate based on reported data.
- 2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	NA	NA	NA	NA	NA	NA	78	94	94	93	67	87	94	88
Official	NA	NA	NA	NA	NA	NA	78	94	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	78	94	94	93	67	87	94	88
Survey	NA	NA	NA	NA	NA	NA	NA	NA	34	NA	NA	NA	NA	NA

# Viet Nam - Hib3

VNM - Hib3

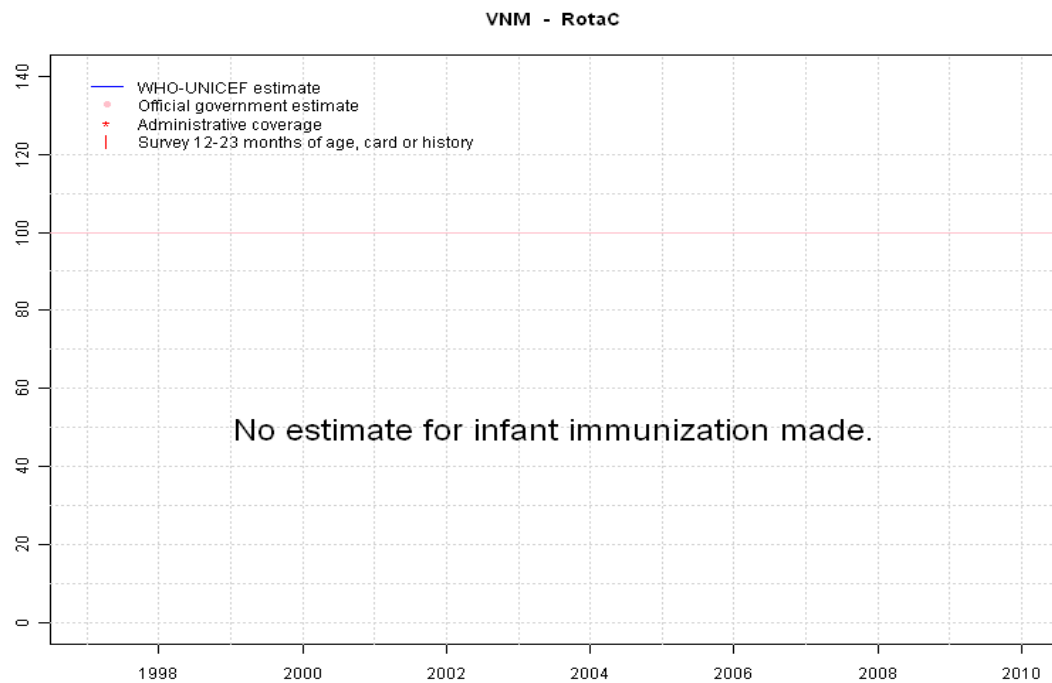


## Description:

2010: Estimate based on reported data. Hib introduced in 2010. Vaccine presentation is DTPHepBHib.

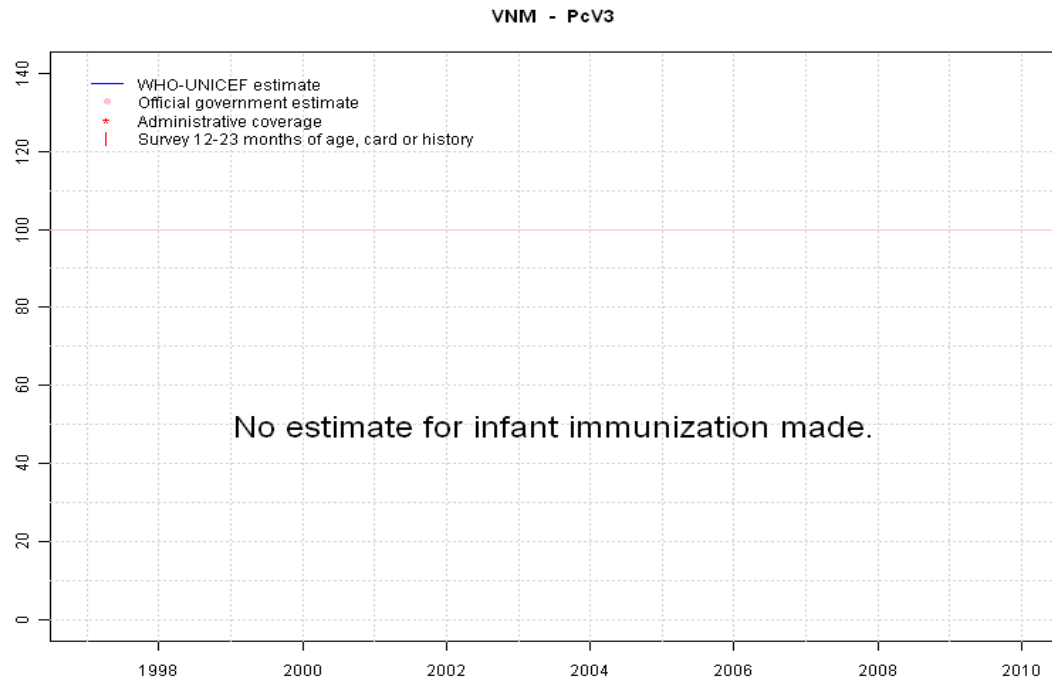
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	63
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	63
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Viet Nam - 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

# Viet Nam - 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

# Viet Nam - survey details

## 2005 Dieu tra đánh giá các mục tiêu ve tre em và phu nu Viet Nam 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	95	12-23 m	555	38
BCG	Card	38	12-23 m	555	38
BCG	History	57	12-23 m	555	38
BCG	C or H <12 months	94	12-23 m	555	38
DTP1	Card or History	94	12-23 m	555	38
DTP1	Card	38	12-23 m	555	38
DTP1	History	56	12-23 m	555	38
DTP1	C or H <12 months	92	12-23 m	555	38
DTP3	C or H <12 months	76	12-23 m	555	38
DTP3	Card	36	12-23 m	555	38
DTP3	Card or History	79	12-23 m	555	38
DTP3	History	43	12-23 m	555	38
HepB1	Card or History	38	12-23 m	555	38
HepB1	Card	36	12-23 m	555	38
HepB1	History	1	12-23 m	555	38
HepB1	C or H <12 months	37	12-23 m	555	38
HepB3	C or H <12 months	32	12-23 m	555	38
HepB3	Card	34	12-23 m	555	38
HepB3	Card or History	34	12-23 m	555	38
HepB3	History	0	12-23 m	555	38
MCV	C or H <12 months	87	12-23 m	555	38
MCV	Card	34	12-23 m	555	38
MCV	Card or History	89	12-23 m	555	38
MCV	History	55	12-23 m	555	38
Pol1	Card	38	12-23 m	555	38
Pol1	History	58	12-23 m	555	38
Pol1	Card or History	96	12-23 m	555	38
Pol1	C or H <12 months	94	12-23 m	555	38
Pol3	Card	36	12-23 m	555	38
Pol3	C or H <12 months	74	12-23 m	555	38
Pol3	History	39	12-23 m	555	38
Pol3	Card or History	76	12-23 m	555	38

## 2001 Children Indicators in Vietnam 2001, 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	97	12-23 m	0	0
DTP3	Card or History	96	12-23 m	0	0
MCV	Card or History	98	12-23 m	0	0
Pol3	Card or History	96	12-23 m	0	0

## 2001 Vietnam Demographic and Health Survey 2002, 2003

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	93	12-23 m	457	40
BCG	History	54	12-23 m	457	40
DTP1	Card	38	12-23 m	457	40
DTP1	Card or History	88	12-23 m	457	40
DTP1	History	50	12-23 m	457	40
DTP3	History	38	12-23 m	457	40
DTP3	Card or History	72	12-23 m	457	40
DTP3	Card	35	12-23 m	457	40
MCV	Card or History	83	12-23 m	457	40
MCV	History	47	12-23 m	457	40
MCV	Card	36	12-23 m	457	40
Pol1	Card	39	12-23 m	457	40
Pol1	Card or History	93	12-23 m	457	40
Pol1	History	54	12-23 m	457	40
Pol3	Card	36	12-23 m	457	40
Pol3	History	39	12-23 m	457	40
Pol3	Card or History	76	12-23 m	457	40

## 1997 National Review for the EPI 1998

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	96	12-23 m	1057	0
BCG	Card	94	12-23 m	1057	0

# Viet Nam - survey details

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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)

## Viet Nam

### 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. From 2003 onward, reported PAB estimates have been used.

Year	PAB coverage estimate (%)
1997	86
1998	82
1999	83
2000	86
2001	86
2002	86
2003	85
2004	85
2005	86
2006	87
2007	86
2008	84
2009	87
2010	87

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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.