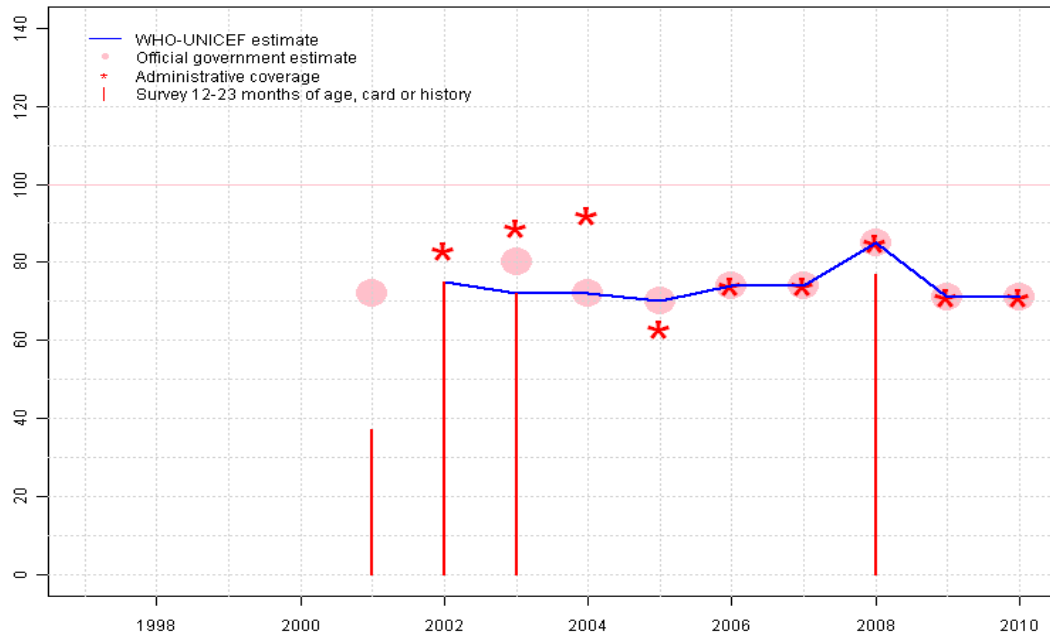


# Timor-Leste - BCG

TLS - BCG



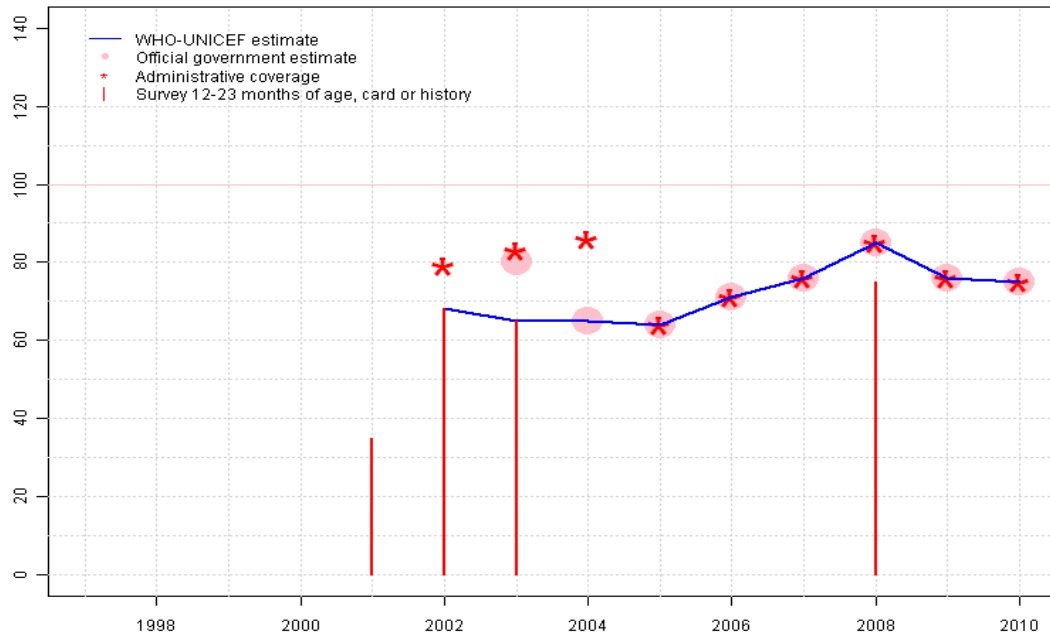
## Description:

- 2002: Subsequent revision of denominator based on 2005 census
- 2003: Subsequent revision of denominator based on 2005 census
- 2004: Subsequent revision of denominator based on 2005 census
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data. Current estimate of 74 percent changed from previous revision value of 72 percent.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data. 77 percent survey results supports reported data of 85 percent. Trends in coverage from 2007 to 2009 consistent with trends in other antigens.
- 2009: Estimate based on reported data. Trends in coverage from 2007 to 2009 consistent with trends in other antigens.
- 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	75	72	72	70	74	74	85	71	71
Official	NA	NA	NA	NA	72	NA	80	72	70	74	74	85	71	71
Administrative	NA	NA	NA	NA	NA	83	89	92	63	74	74	85	71	71
Survey	NA	NA	NA	NA	37	75	72	NA	NA	NA	NA	77	NA	NA

# Timor-Leste - DTP1

TLS - DTP1



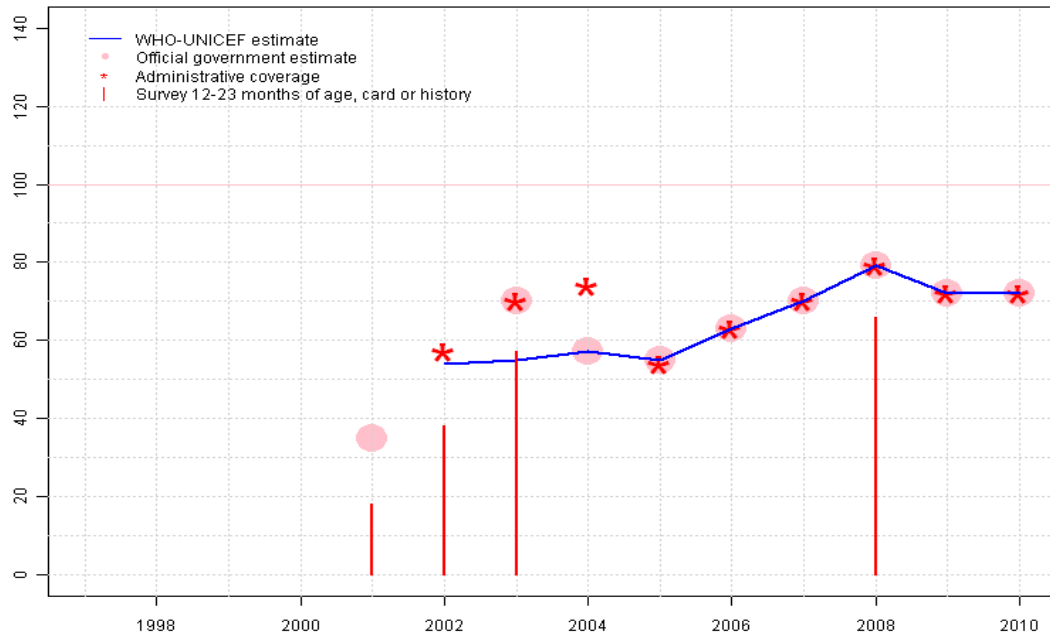
## Description:

- 2002: Subsequent revision of denominator based on 2005 census
- 2003: Subsequent revision of denominator based on 2005 census
- 2004: Subsequent revision of denominator based on 2005 census
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data. Current estimate of 71 percent changed from previous revision value of 75 percent.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data. 75 percent survey results supports reported data of 85 percent.
- 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	68	65	65	64	71	76	85	76	75
Official	NA	NA	NA	NA	NA	NA	80	65	64	71	76	85	76	75
Administrative	NA	NA	NA	NA	NA	79	83	86	64	71	76	85	76	75
Survey	NA	NA	NA	NA	35	68	65	NA	NA	NA	NA	75	NA	NA

# Timor-Leste - DTP3

TLS - DTP3



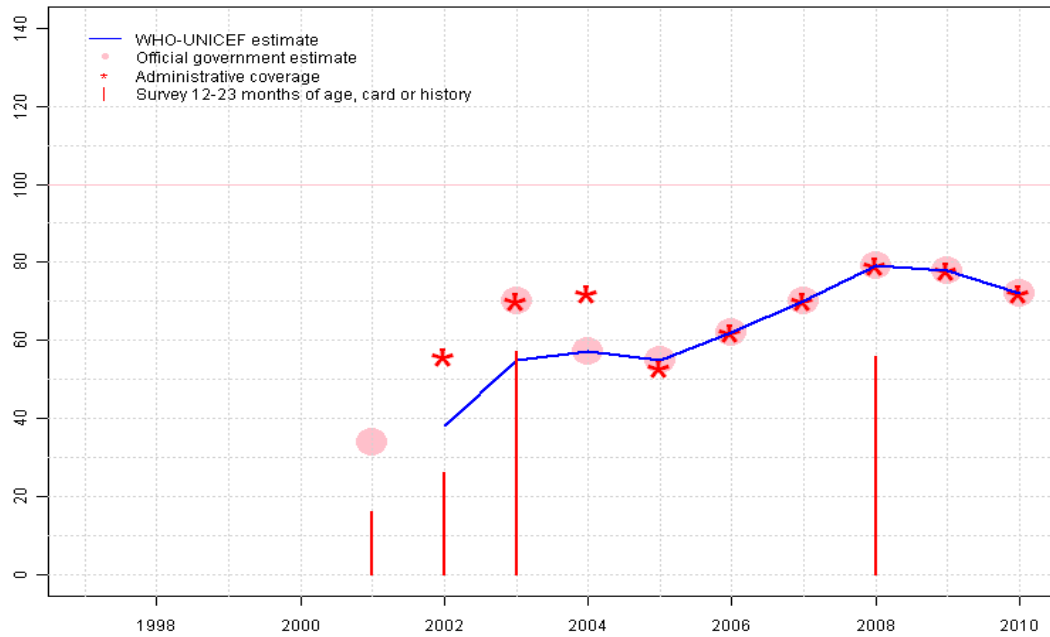
## Description:

- 2002: Subsequent revision of denominator based on 2005 census Survey results of 38 percent modified for recall bias to 54 percent based on 1st dose card or history coverage of 68 percent, 1st dose card only coverage of 64 percent and 3d dose card only coverage of 51 percent.
- 2003: Subsequent revision of denominator based on 2005 census Reported data not accepted due to an increase from 57 percent to 70 percent with a subsequent decrease to 57 percent. Survey results of 57 percent modified for recall bias to 55 percent based on 1st dose card or history coverage of 65 percent, 1st dose card only coverage of 20 percent and 3d dose card only coverage of 17 percent.
- 2004: Subsequent revision of denominator based on 2005 census
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data. Current estimate of 63 percent changed from previous revision value of 67 percent.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data. 72 percent survey results supports reported data of 79 percent. Survey results of 66 percent modified for recall bias to 72 percent based on 1st dose card or history coverage of 75 percent, 1st dose card only coverage of 49 percent and 3d dose card only coverage of 47 percent.
- 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	54	55	57	55	63	70	79	72	72
Official	NA	NA	NA	NA	35	NA	70	57	55	63	70	79	72	72
Administrative	NA	NA	NA	NA	NA	57	70	74	54	63	70	79	72	72
Survey	NA	NA	NA	NA	18	38	57	NA	NA	NA	NA	66	NA	NA

# Timor-Leste - Pol3

TLS - Pol3



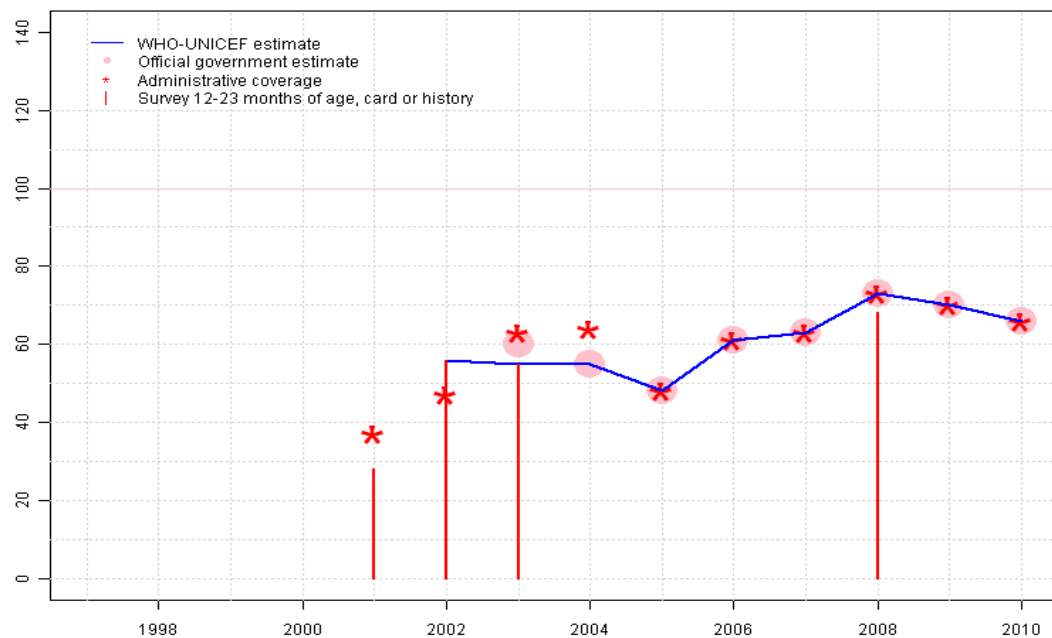
## Description:

- 2002: Subsequent revision of denominator based on 2005 census Survey results of 26 percent modified for recall bias to 37 percent based on 1st dose card or history coverage of 69 percent, 1st dose card only coverage of 89 percent and 3d dose card only coverage of 48 percent.
- 2003: Subsequent revision of denominator based on 2005 census Reported data not accepted due to an increase from 56 percent to 70 percent with a subsequent decrease to 57 percent. Survey results of 57 percent modified for recall bias to 55 percent based on 1st dose card or history coverage of 65 percent, 1st dose card only coverage of 20 percent and 3d dose card only coverage of 17 percent.
- 2004: Subsequent revision of denominator based on 2005 census
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data. Current estimate of 62 percent changed from previous revision value of 66 percent.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data. 72 percent survey results supports reported data of 79 percent. Survey results of 56 percent modified for recall bias to 72 percent based on 1st dose card or history coverage of 75 percent, 1st dose card only coverage of 49 percent and 3d dose card only coverage of 47 percent.
- 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	38	55	57	55	62	70	79	78	72
Official	NA	NA	NA	NA	34	NA	70	57	55	62	70	79	78	72
Administrative	NA	NA	NA	NA	NA	56	70	72	53	62	70	79	78	72
Survey	NA	NA	NA	NA	16	26	57	NA	NA	NA	NA	56	NA	NA

# Timor-Leste - MCV

TLS - MCV



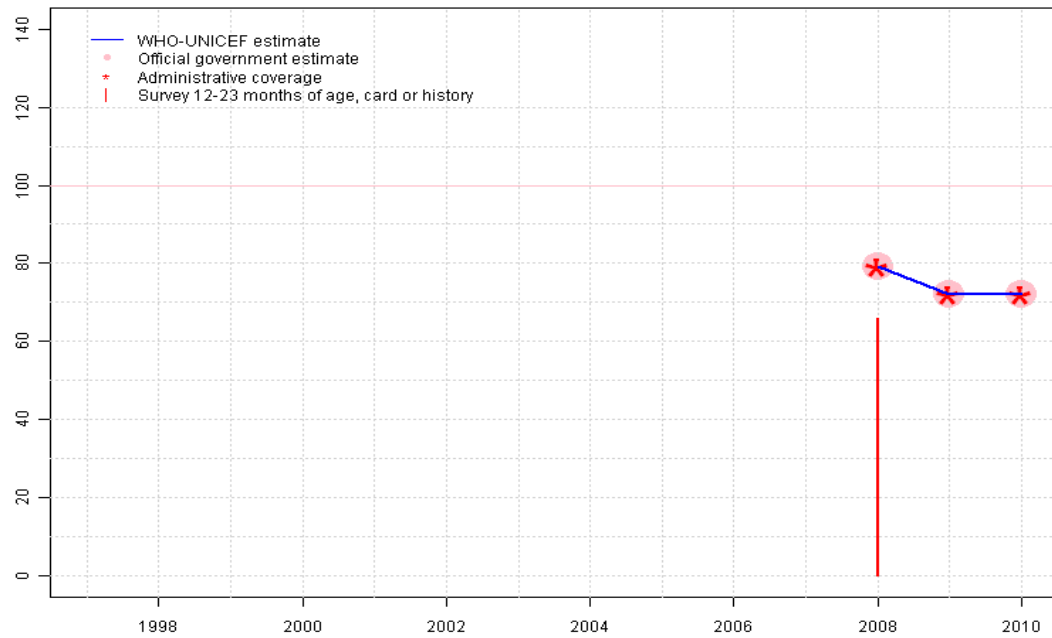
## Description:

- 2002: Subsequent revision of denominator based on 2005 census
- 2003: Subsequent revision of denominator based on 2005 census
- 2004: Subsequent revision of denominator based on 2005 census
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data. Current estimate of 61 percent changed from previous revision value of 64 percent.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data. 68 percent survey results supports reported data of 73 percent.
- 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	56	55	55	48	61	63	73	70	66
Official	NA	NA	NA	NA	NA	NA	60	55	48	61	63	73	70	66
Administrative	NA	NA	NA	NA	37	47	63	64	48	61	63	73	70	66
Survey	NA	NA	NA	NA	28	56	55	NA	NA	NA	NA	68	NA	NA

# Timor-Leste - HepB3

TLS - HepB3



## Description:

2008: Estimate based on reported data. 72 percent survey results supports reported data of 79 percent. Survey results of 66 percent modified for recall bias to 72 percent based on 1st dose card or history coverage of 75 percent, 1st dose card only coverage of 49 percent and 3d dose card only coverage of 47 percent. HepB introduced in 2007. Reporting started in 2008. Vaccine presentation is DTP-HepB.

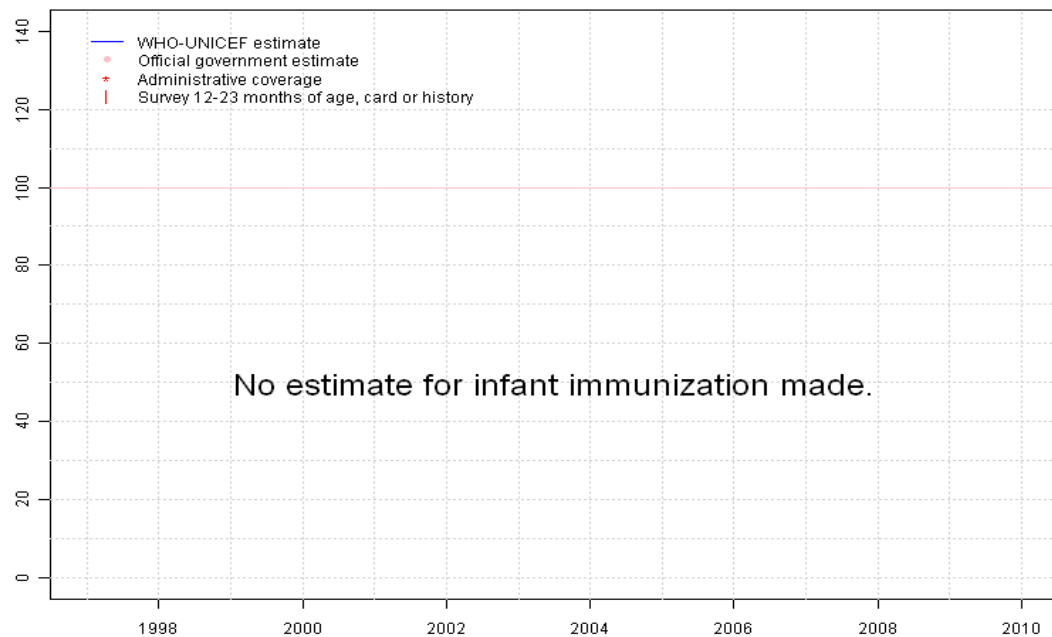
2009: Estimate based on reported data.

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	NA	NA	NA	NA	NA	79	72	72
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79	72	72
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79	72	72
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	66	NA	NA

# Timor-Leste - Hib3

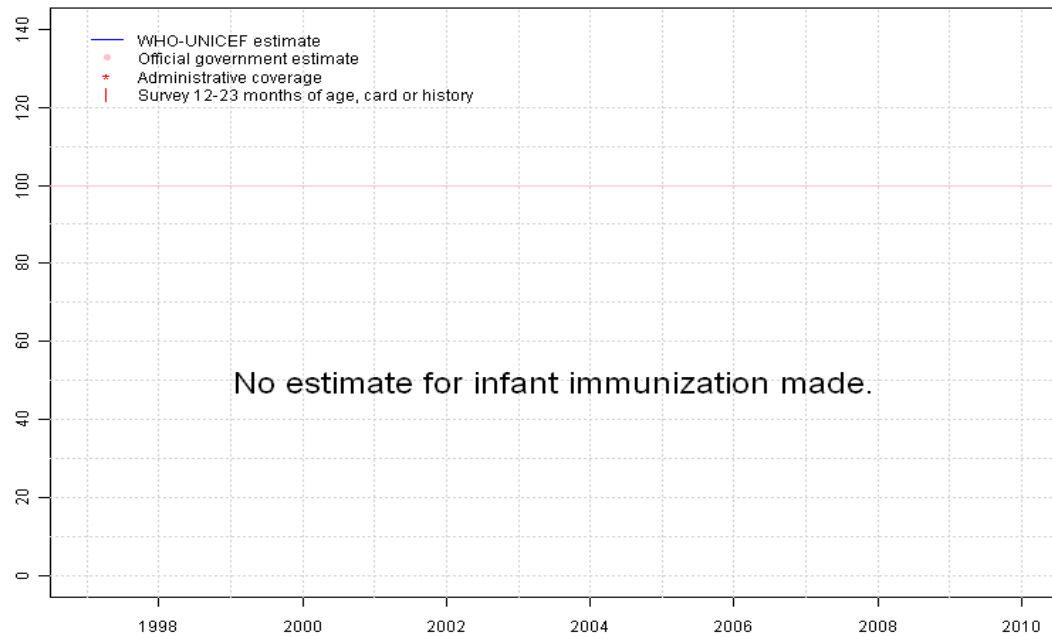
TLS - Hib3



	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

# Timor-Leste - RotaC

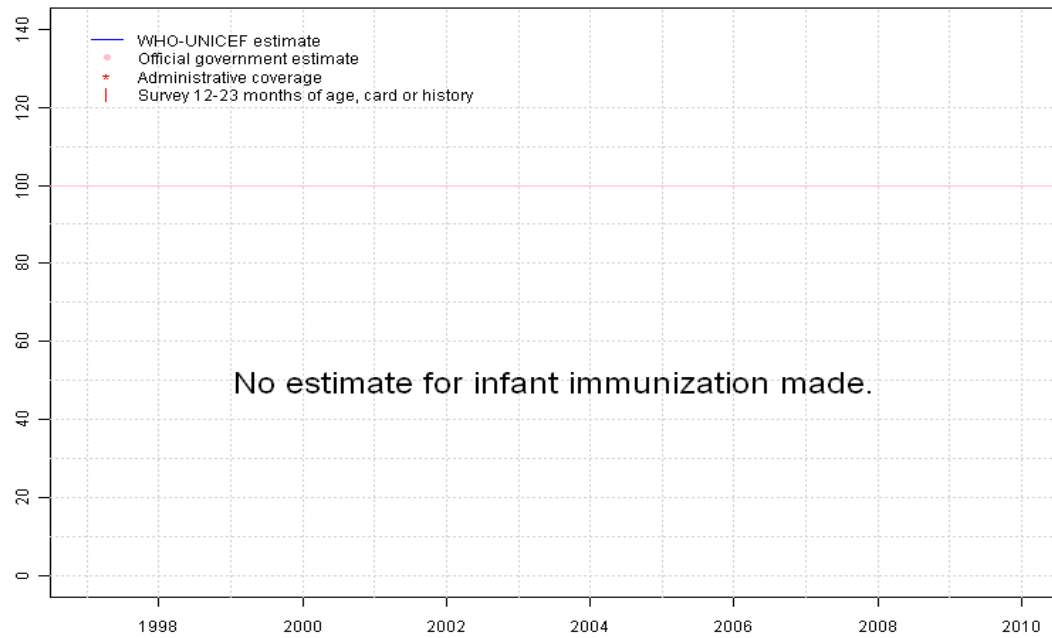
TLS - RotaC



	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

# Timor-Leste - PcV3

TLS - 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

# Timor-Leste - survey details

## 2008 Timor-Leste Demographic and Health Survey 2009-10

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	49	12-23 m	1752	50
BCG	C or H <12 months	77	12-23 m	1752	50
BCG	Card or History	77	12-23 m	1752	50
BCG	History	27	12-23 m	1752	50
DTP1	History	26	12-23 m	1752	50
DTP1	Card	49	12-23 m	1752	50
DTP1	Card or History	75	12-23 m	1752	50
DTP1	C or H <12 months	74	12-23 m	1752	50
DTP3	Card	47	12-23 m	1752	50
DTP3	C or H <12 months	64	12-23 m	1752	50
DTP3	Card or History	66	12-23 m	1752	50
DTP3	History	19	12-23 m	1752	50
HepB1	History	26	12-23 m	1752	50
HepB1	Card or History	75	12-23 m	1752	50
HepB1	C or H <12 months	74	12-23 m	1752	50
HepB1	Card	49	12-23 m	1752	50
HepB3	Card	47	12-23 m	1752	50
HepB3	History	19	12-23 m	1752	50
HepB3	Card or History	66	12-23 m	1752	50
HepB3	C or H <12 months	63	12-23 m	1752	50
MCV	C or H <12 months	60	12-23 m	1752	50
MCV	History	23	12-23 m	1752	50
MCV	Card	45	12-23 m	1752	50
MCV	Card or History	68	12-23 m	1752	50
Pol1	C or H <12 months	74	12-23 m	1752	50
Pol1	Card	49	12-23 m	1752	50
Pol1	Card or History	75	12-23 m	1752	50
Pol1	History	26	12-23 m	1752	50
Pol3	Card	47	12-23 m	1752	50
Pol3	History	9	12-23 m	1752	50
Pol3	Card or History	56	12-23 m	1752	50
Pol3	C or H <12 months	54	12-23 m	1752	50

2003 Immunization coverage among women and children 12-23 months in the Democratic Republic of Timor Lest Using the EPI cluster srurvey methodology

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or history	72	12-23 m	2662	26
BCG	Card	25	12-23 m	2662	26
DTP1	Card or history	65	12-23 m	2662	26
DTP1	Card	20	12-23 m	2662	26
DTP3	Card or history	57	12-23 m	2662	26
DTP3	Card	17	12-23 m	2662	26
MCV	Card or history	55	12-23 m	2662	26
MCV	Card	15	12-23 m	2662	26
Pol1	Card	20	12-23 m	2662	26
Pol1	Card or history	65	12-23 m	2662	26
Pol3	Card	17	12-23 m	2662	26
Pol3	Card or history	57	12-23 m	2662	26

## 2002 Timor-Leste 2003 Demographic and Health Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	History	71	12-23 m	722	12
BCG	Card or History	75	12-23 m	722	12
BCG	Card	62	12-23 m	722	12
DTP1	Card	64	12-23 m	722	12
DTP1	Card or History	68	12-23 m	722	12
DTP1	History	63	12-23 m	722	12
DTP3	History	30	12-23 m	722	12
DTP3	Card or History	38	12-23 m	722	12
DTP3	Card	51	12-23 m	722	12
MCV	Card	40	12-23 m	722	12
MCV	Card or History	56	12-23 m	722	12
MCV	History	52	12-23 m	722	12
Pol1	Card	89	12-23 m	722	12
Pol1	Card or History	69	12-23 m	722	12
Pol1	History	62	12-23 m	722	12
Pol3	History	18	12-23 m	722	12
Pol3	Card or History	26	12-23 m	722	12
Pol3	Card	48	12-23 m	722	12

## 2001 Multiple Indicator Cluster Survey Timor-Leste 2002

# Timor-Leste - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen	MCV	History		12-23 m	988	10
BCG	History	28	12-23 m	988	10	MCV	C or H <12 months	24	12-23 m	988	10
BCG	Card	9	12-23 m	988	10	MCV	Card or History	28	12-23 m	988	10
BCG	C or H <12 months	34	12-23 m	988	10	MCV	Card	5	12-23 m	988	10
BCG	Card or History	37	12-23 m	988	10	Pol1	History	30	12-23 m	988	10
DTP1	C or H <12 months	34	12-23 m	988	10	Pol1	C or H <12 months	34	12-23 m	988	10
DTP1	Card	9	12-23 m	988	10	Pol1	Card	7	12-23 m	988	10
DTP1	Card or History	35	12-23 m	988	10	Pol1	Card or History	37	12-23 m	988	10
DTP1	History	26	12-23 m	988	10	Pol3	Card	4	12-23 m	988	10
DTP3	C or H <12 months	17	12-23 m	988	10	Pol3	Card or History	16	12-23 m	988	10
DTP3	Card	5	12-23 m	988	10	Pol3	History	12	12-23 m	988	10
DTP3	Card or History	18	12-23 m	988	10	Pol3	C or H <12 months	16	12-23 m	988	10
DTP3	History	13	12-23 m	988	10						

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)

## Timor-Leste

### 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	
1998	
1999	
2000	
2001	
2002	55
2003	58
2004	64
2005	59
2006	63
2007	59
2008	66
2009	81
2010	81

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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.