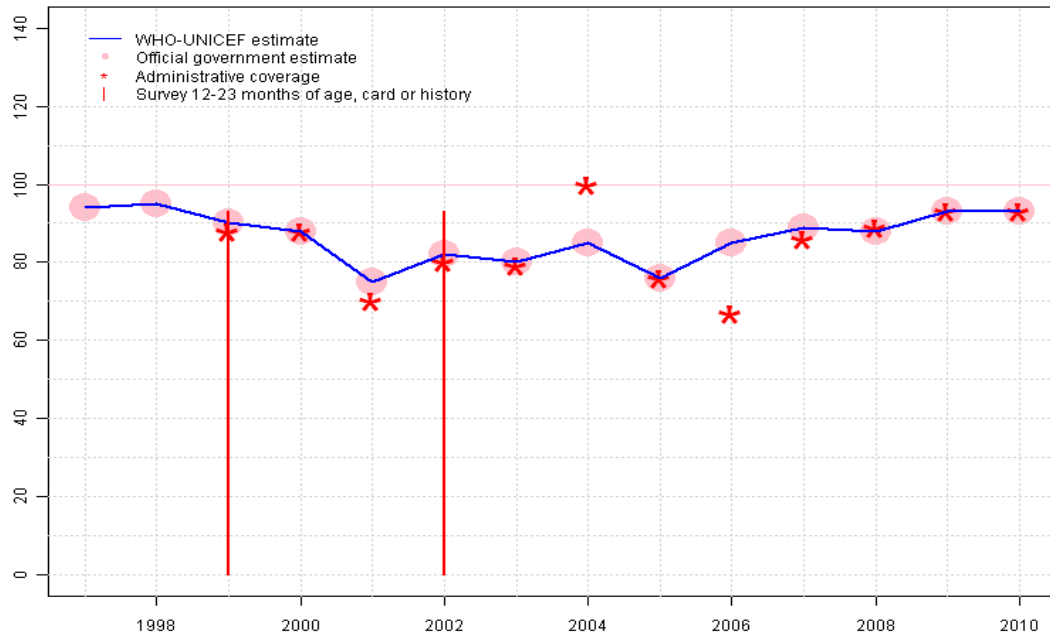


# Myanmar - BCG

MMR - BCG



## Description:

1997: Legacy estimate.

1998: Estimate based on reported data.

1999: Estimate based on reported data. 93 percent survey results supports reported data of 90 percent.

2000: Estimate based on reported data.

2001: Estimate based on reported data.

2002: Estimate based on reported data. Survey not accepted. Estimate for other vaccines based on reported data supported by survey.

2003: Estimate based on reported data.

2004: Estimate based on reported data.

2005: Estimate based on reported data.

2006: Estimate based on reported data.

2007: Estimate based on reported data.

2008: Estimate based on reported data.

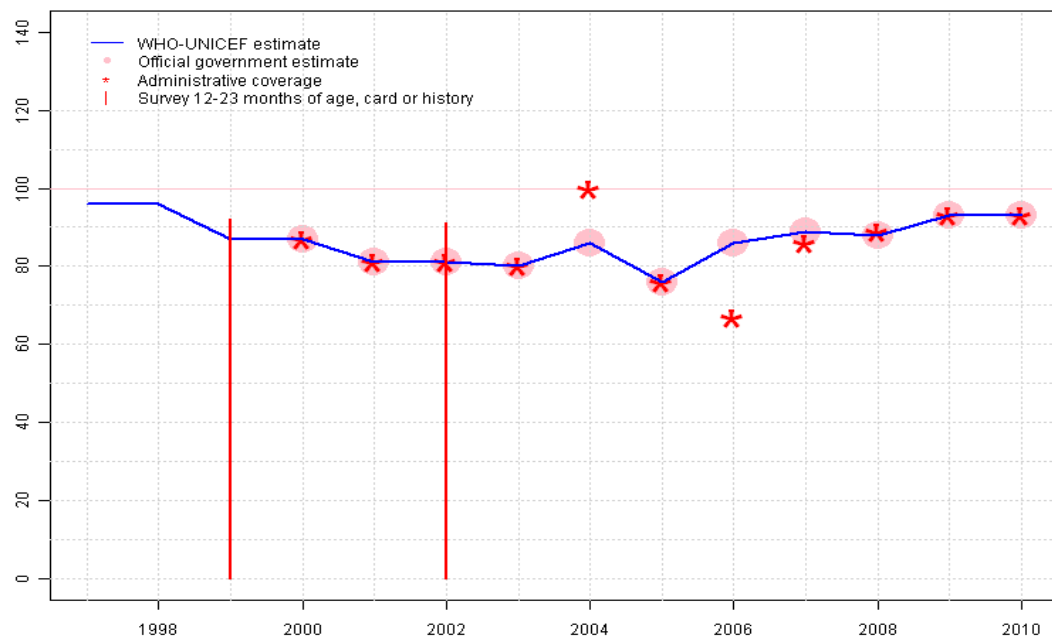
2009: Estimate based on reported data.

2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	94	95	90	88	75	82	80	85	76	85	89	88	93	93
Official	94	95	90	88	75	82	80	85	76	85	89	88	93	93
Administrative	NA	NA	88	88	70	80	79	100	76	67	86	89	93	93
Survey	NA	NA	93	NA	NA	93	NA	NA	NA	NA	NA	NA	NA	NA

# Myanmar - DTP1

MMR - DTP1



## Description:

1997: Legacy estimate.

1998: No DTP1 data. Estimate based on DTP3 coverage of 90. Current estimate of 96 percent changed from previous revision value of 92 percent.

1999: No accepted reported data. Reported data of 87 percent estimated by extrapolating from 2000 supports trend in reported data. 92 percent survey results

2000: Estimate based on reported data.

2001: Estimate based on reported data.

2002: Estimate based on reported data. 91 percent survey results supports reported data of 81 percent.

2003: Estimate based on reported data.

2004: Estimate based on reported data.

2005: Estimate based on reported data. Nationally reported decline is consistent with reported decline in DTP3.

2006: Estimate based on reported data.

2007: Estimate based on reported data.

2008: Estimate based on reported data.

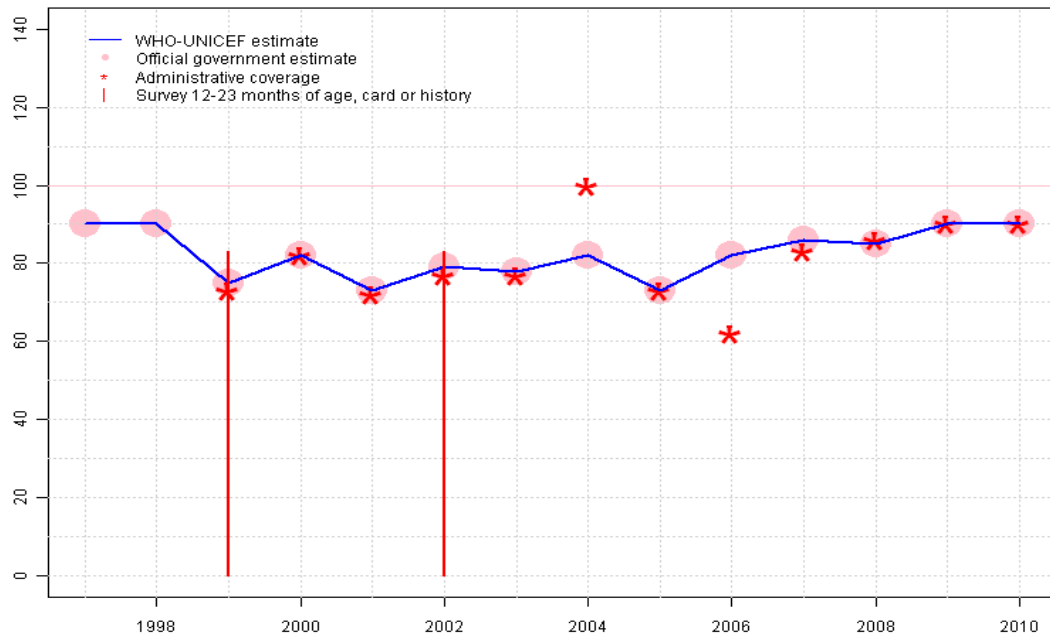
2009: Estimate based on reported data.

2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	96	96	87	87	81	81	80	86	76	86	89	88	93	93
Official	NA	NA	NA	87	81	81	80	86	76	86	89	88	93	93
Administrative	NA	NA	NA	87	81	81	80	100	76	67	86	89	93	93
Survey	NA	NA	92	NA	NA	91	NA	NA	NA	NA	NA	NA	NA	NA

# Myanmar - DTP3

MMR - DTP3



## Description:

1997: Legacy estimate.

1998: Estimate based on reported data.

1999: Estimate based on reported data. 85 percent survey results supports reported data of 75 percent. Survey results of 83 percent modified for recall bias to 85 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 51 percent and 3d dose card only coverage of 47 percent.

2000: Estimate based on reported data.

2001: Estimate based on reported data.

2002: Estimate based on reported data. 86 percent survey results supports reported data of 79 percent. Survey results of 83 percent modified for recall bias to 86 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 40 percent and 3d dose card only coverage of 38 percent.

2003: Estimate based on reported data.

2004: Estimate based on reported data.

2005: Estimate based on reported data.

2006: Estimate based on reported data.

2007: Estimate based on reported data.

2008: Estimate based on reported data.

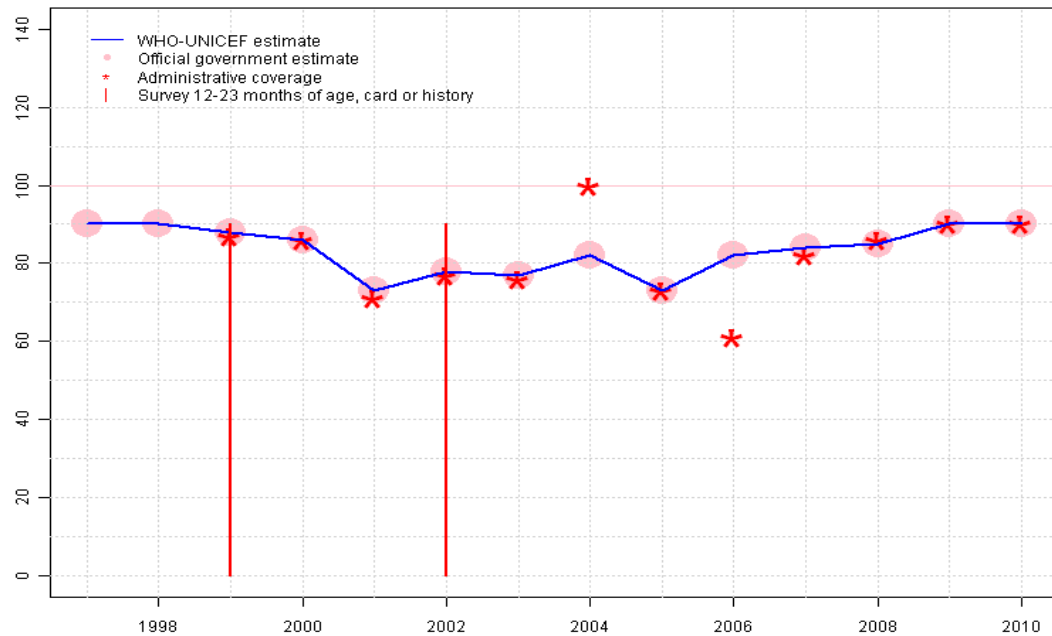
2009: Estimate based on reported data.

2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	90	90	75	82	73	79	78	82	73	82	86	85	90	90
Official	90	90	75	82	73	79	78	82	73	82	86	85	90	90
Administrative	NA	NA	73	82	72	77	77	100	73	62	83	86	90	90
Survey	NA	NA	83	NA	NA	83	NA	NA	NA	NA	NA	NA	NA	NA

# Myanmar - Pol3

MMR - Pol3



## Description:

1997: Legacy estimate.

1998: Estimate based on reported data.

1999: Estimate based on reported data. 88 percent survey results supports reported data of 88 percent. Survey results of 90 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 51 percent and 3d dose card only coverage of 47 percent.

2000: Estimate based on reported data.

2001: Estimate based on reported data.

2002: Estimate based on reported data. Survey not accepted. Estimate for other vaccines based on reported data supported by survey.

2003: Estimate based on reported data.

2004: Estimate based on reported data.

2005: Estimate based on reported data.

2006: Estimate based on reported data.

2007: Estimate based on reported data.

2008: Estimate based on reported data.

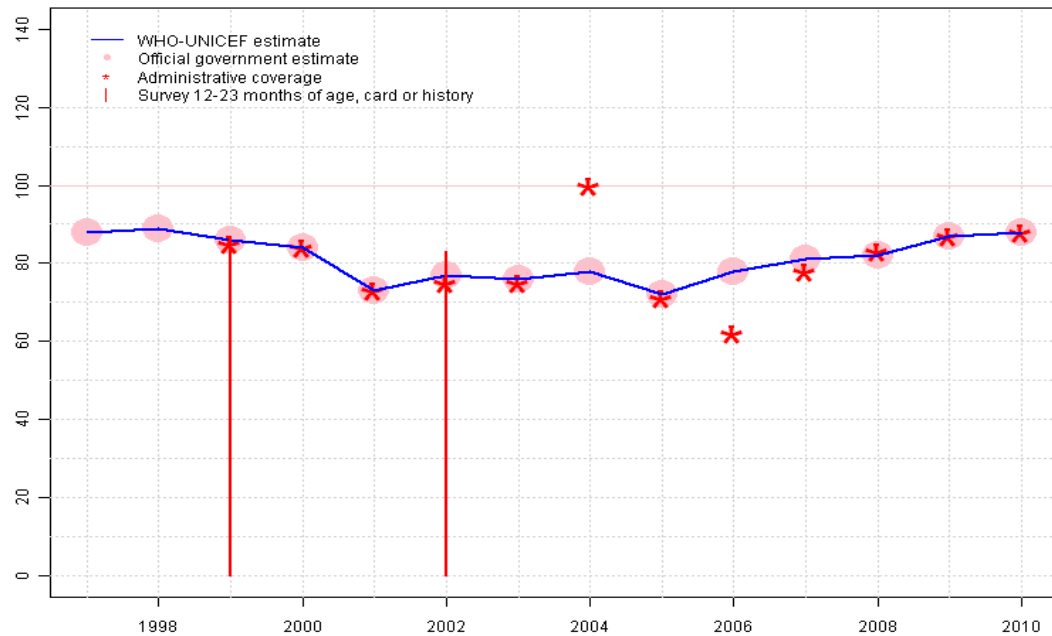
2009: Estimate based on reported data.

2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	90	90	88	86	73	78	77	82	73	82	84	85	90	90
Official	90	90	88	86	73	78	77	82	73	82	84	85	90	90
Administrative	NA	NA	87	86	71	77	76	100	73	61	82	86	90	90
Survey	NA	NA	90	NA	NA	90	NA	NA	NA	NA	NA	NA	NA	NA

# Myanmar - MCV

MMR - MCV



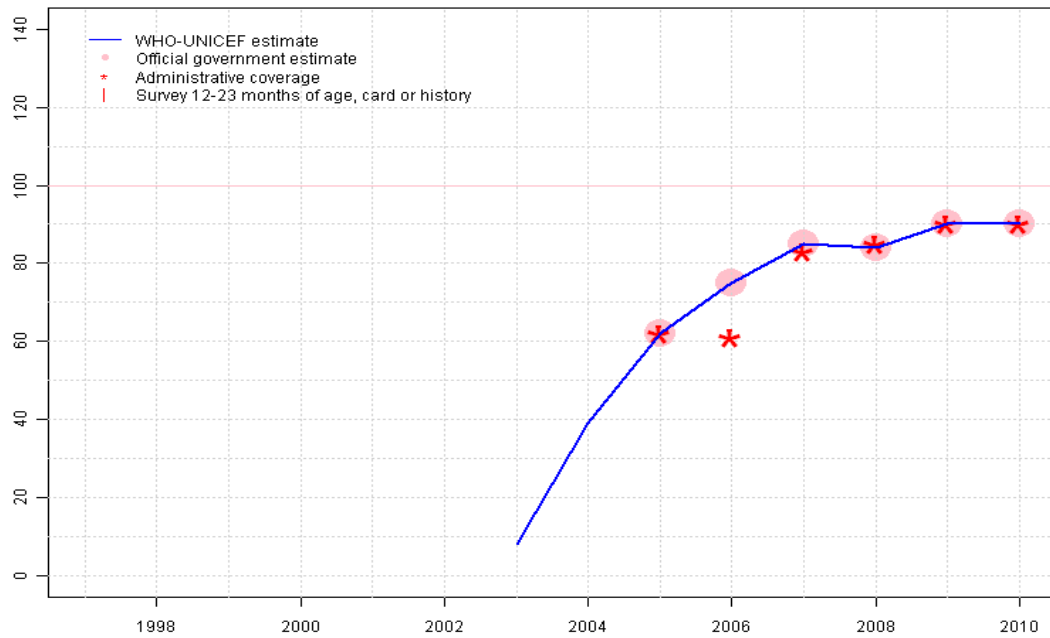
## Description:

- 1997: Legacy estimate.
- 1998: Estimate based on reported data.
- 1999: Estimate based on reported data. 87 percent survey results supports reported data of 86 percent.
- 2000: Estimate based on reported data.
- 2001: Estimate based on reported data.
- 2002: Estimate based on reported data. 83 percent survey results supports reported data of 77 percent.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data.
- 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	88	89	86	84	73	77	76	78	72	78	81	82	87	88
Official	88	89	86	84	73	77	76	78	72	78	81	82	87	88
Administrative	NA	NA	85	84	73	75	75	100	71	62	78	83	87	88
Survey	NA	NA	87	NA	NA	83	NA	NA	NA	NA	NA	NA	NA	NA

# Myanmar - HepB3

MMR - HepB3



## Description:

2003: Hepatitis B vaccine introduced in part of the country in 2003. 34 percent coverage achieved in 24 percent of the country. HepB partially introduced in 2003 nationally in 2005 reporting started in 2003. Vaccine presentation is HepB .

2004: 54 percent coverage achieved in 72 percent of the country.

2005: Estimate based on reported data.

2006: Estimate based on reported data.

2007: Estimate based on reported data.

2008: Estimate based on reported data.

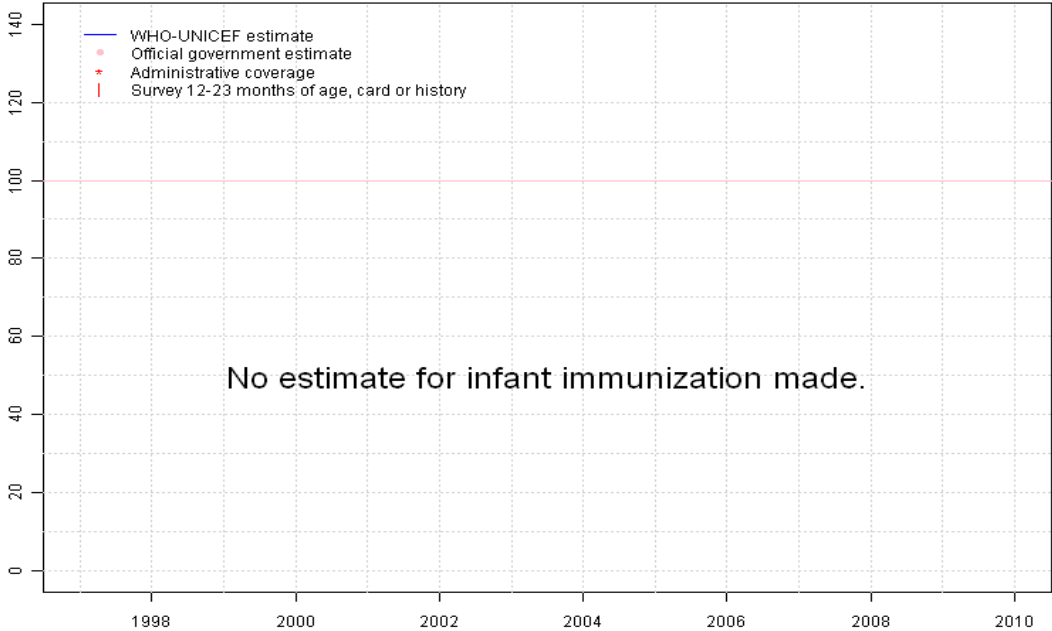
2009: Estimate based on reported data.

2010: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimate	NA	NA	NA	NA	NA	NA	8	39	62	75	85	84	90	90
Official	NA	NA	NA	NA	NA	NA	NA	NA	62	75	85	84	90	90
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	62	61	83	85	90	90
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Myanmar - Hib3

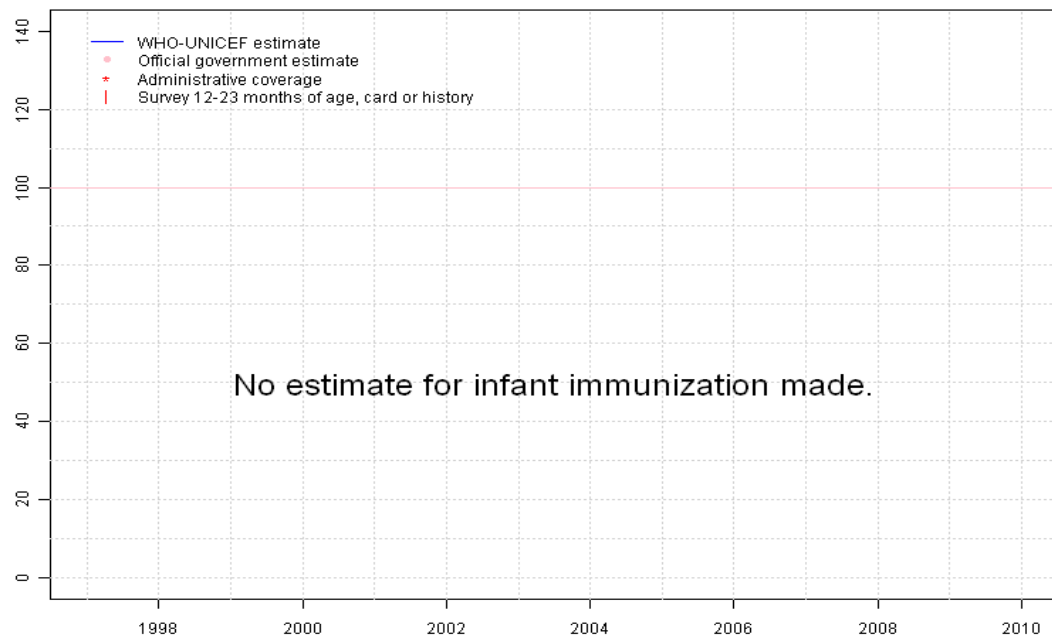
MMR - Hib3



	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

# Myanmar - RotaC

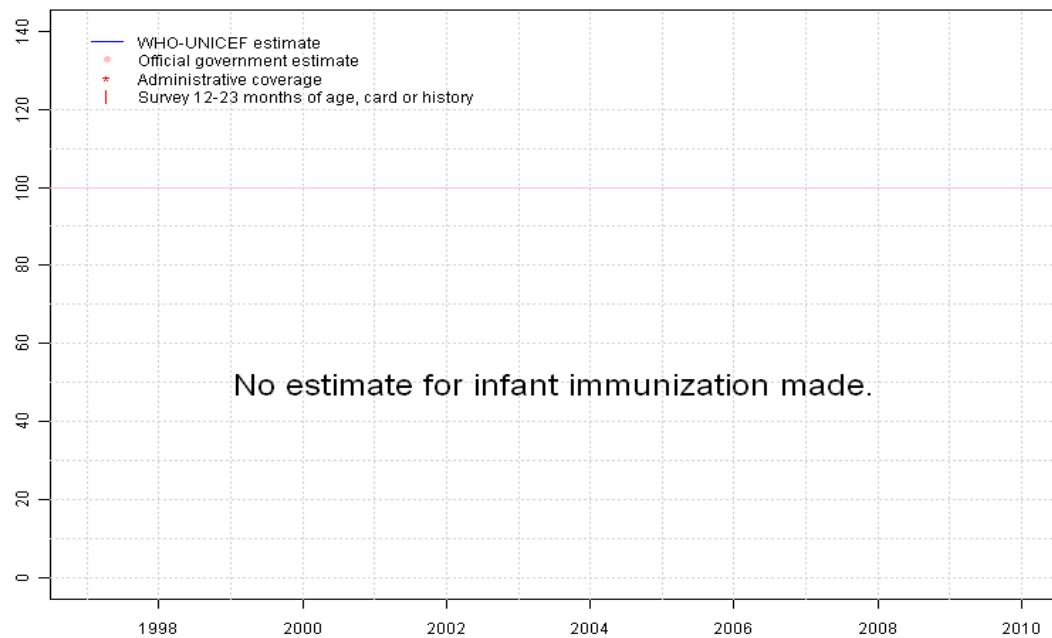
MMR - RotaC



	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

# Myanmar - PcV3

MMR - 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

# Myanmar - survey details

## 2002 Myanmar Multiple Indicator Cluster Survey (2003)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	History	53	12-23 m	2480	35
BCG	Card	40	12-23 m	2480	35
BCG	Card or history	93	12-23 m	2480	35
BCG	Card <12 months	98	12-23 m	2480	35
DTP1	Card	40	12-23 m	2480	35
DTP1	Card <12 months	98	12-23 m	2480	35
DTP1	Card or history	91	12-23 m	2480	35
DTP1	History	51	12-23 m	2480	35
DTP3	History	45	12-23 m	2480	35
DTP3	Card	38	12-23 m	2480	35
DTP3	Card <12 months	97	12-23 m	2480	35
DTP3	Card or history	83	12-23 m	2480	35
MCV	Card <12 months	94	12-23 m	2480	35
MCV	Card or history	83	12-23 m	2480	35
MCV	History	46	12-23 m	2480	35
MCV	Card	37	12-23 m	2480	35
Pol1	Card	40	12-23 m	2480	35
Pol1	Card <12 months	98	12-23 m	2480	35
Pol1	Card or history	94	12-23 m	2480	35
Pol1	History	54	12-23 m	2480	35
Pol3	Card <12 months	97	12-23 m	2480	35
Pol3	Card or history	90	12-23 m	2480	35
Pol3	History	52	12-23 m	2480	35

Pol3 Card 38 12-23 m 2480 35

## 1999 Myanmar Multiple Indicator Cluster Survey 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	93	12-23 m	2831	52
BCG	History	42	12-23 m	2831	52
BCG	Card	51	12-23 m	2831	52
DTP1	Card	51	12-23 m	2831	52
DTP1	Card or History	92	12-23 m	2831	52
DTP1	History	41	12-23 m	2831	52
DTP3	History	36	12-23 m	2831	52
DTP3	Card	47	12-23 m	2831	52
DTP3	Card or History	83	12-23 m	2831	52
MCV	Card or History	87	12-23 m	2831	52
MCV	History	40	12-23 m	2831	52
MCV	Card	47	12-23 m	2831	52
Pol1	Card	51	12-23 m	2831	52
Pol1	Card or History	96	12-23 m	2831	52
Pol1	History	45	12-23 m	2831	52
Pol3	Card	47	12-23 m	2831	52
Pol3	Card or History	90	12-23 m	2831	52
Pol3	History	43	12-23 m	2831	52

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)

## Myanmar

### 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	84
1998	82
1999	76
2000	79
2001	81
2002	85
2003	86
2004	87
2005	89
2006	92
2007	93
2008	93
2009	93
2010	93

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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.