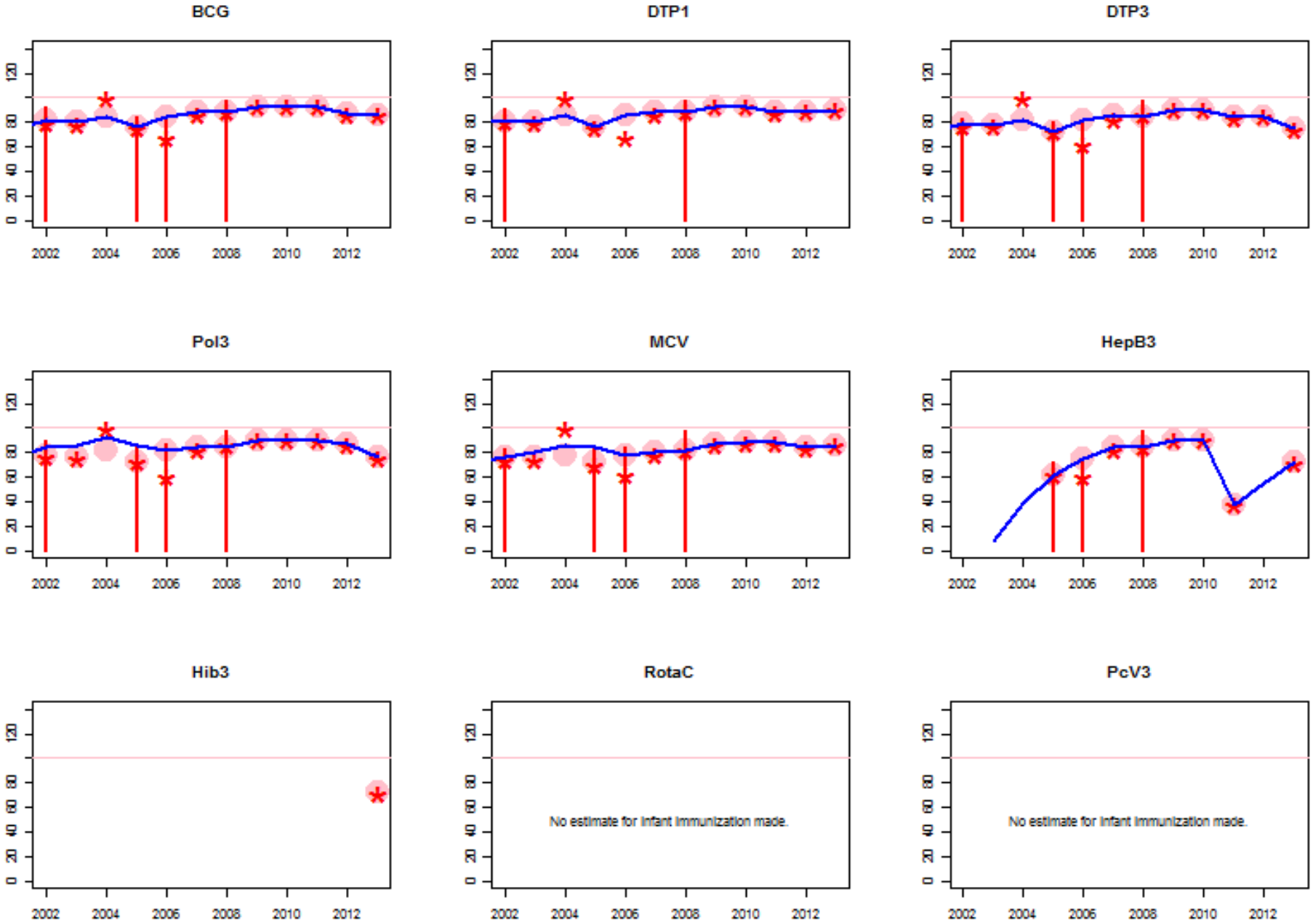
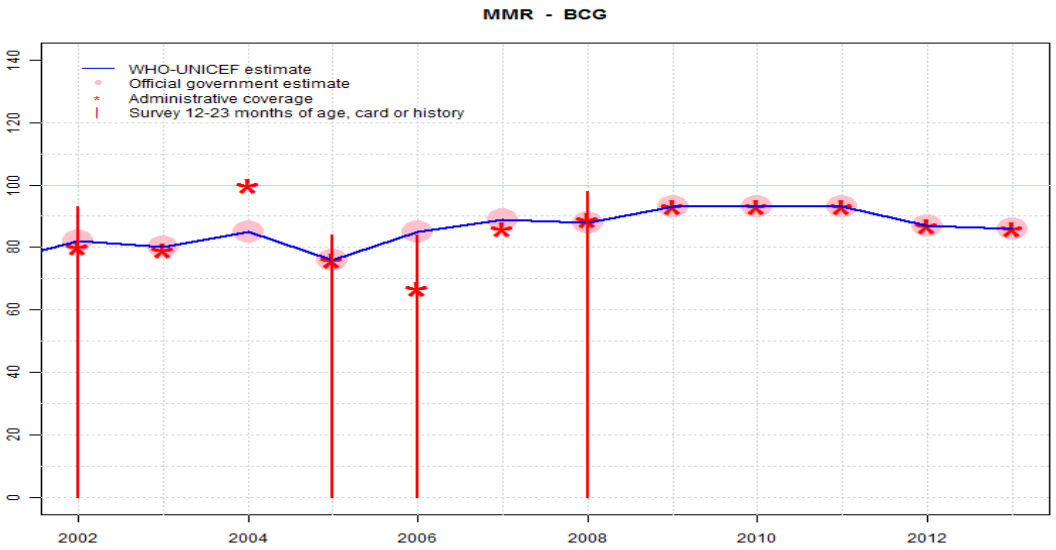

BCG
DTP1
DTP3
Pol3
MCV
HepB3
Hib3
RotaC
PcV3
No estimate for infant immunization made.
No estimate for infant immunization made.

Myanmar - BCG



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	82	80	85	76	85	89	88	93	93	93	87	86
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	82	80	85	76	85	89	88	93	93	93	87	86
Administrative	80	79	100	76	67	86	89	93	93	93	87	86
Survey	93	NA	NA	84	84	NA	98	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

2002: Estimate based on coverage reported by national government. Myanmar Multiple Indicator Cluster Survey (2003) results ignored by working group. Estimate for other vaccines based on reported data supported by survey. Estimate challenged by: D-S-

2003: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2004: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Estimate challenged by: D-

2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Estimate challenged by: D-S-

2007: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2008: Estimate based on coverage reported by national government. Myanmar Multiple Indicator Cluster Survey 2009 - 2010 results ignored by working group. In addition to card and recall, vaccination information was collected from midwifes registries and midwifes participated in data collection. According to the MICS report, midwifes may have a tendency inadvertently to over report coverage. Estimate challenged by: D-S-

2009: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

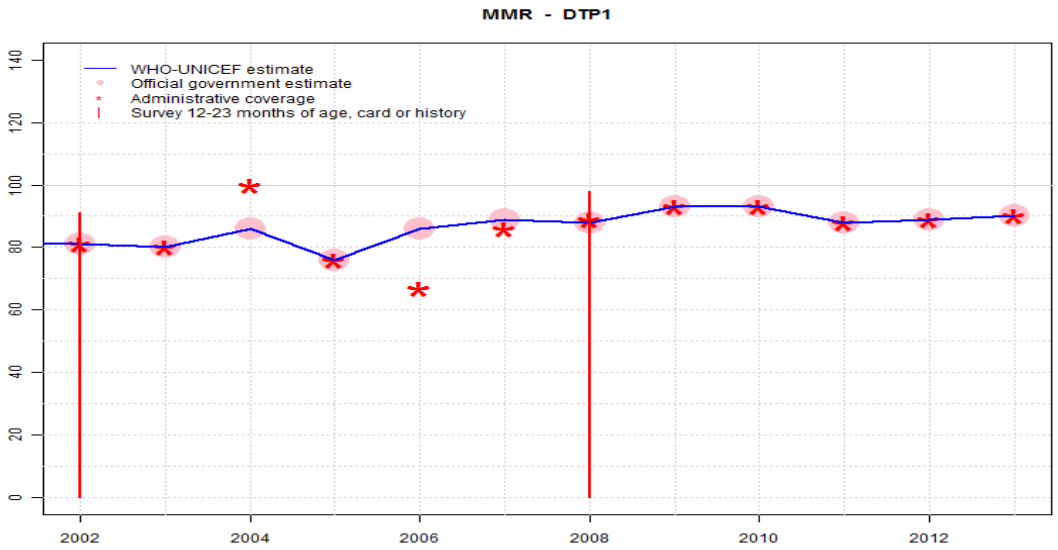
2010: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Estimate challenged by: D-

Myanmar - DTP1



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	81	80	86	76	86	89	88	93	93	88	89	90
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	81	80	86	76	86	89	88	93	93	88	89	90
Administrative	81	80	100	76	67	86	89	93	93	88	89	90
Survey	91	NA	NA	NA	NA	NA	98	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

2002: Estimate based on coverage reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). Estimate challenged by: D-

2003: Estimate based on coverage reported by national government. Estimate challenged by: D-

2004: Estimate based on coverage reported by national government. Estimate challenged by: D-

2005: Estimate based on coverage reported by national government. Nationally reported decline is consistent with reported decline in DTP3. Estimate challenged by: D-

2006: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2007: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2008: Estimate based on coverage reported by national government. Myanmar Multiple Indicator Cluster Survey 2009 - 2010 results ignored by working group. In addition to card and recall, vaccination information was collected from midwifes registries and midwifes participated in data collection. According to the MICS report, midwifes may have a tendency inadvertently to over report coverage. Estimate challenged by: D-S-

2009: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

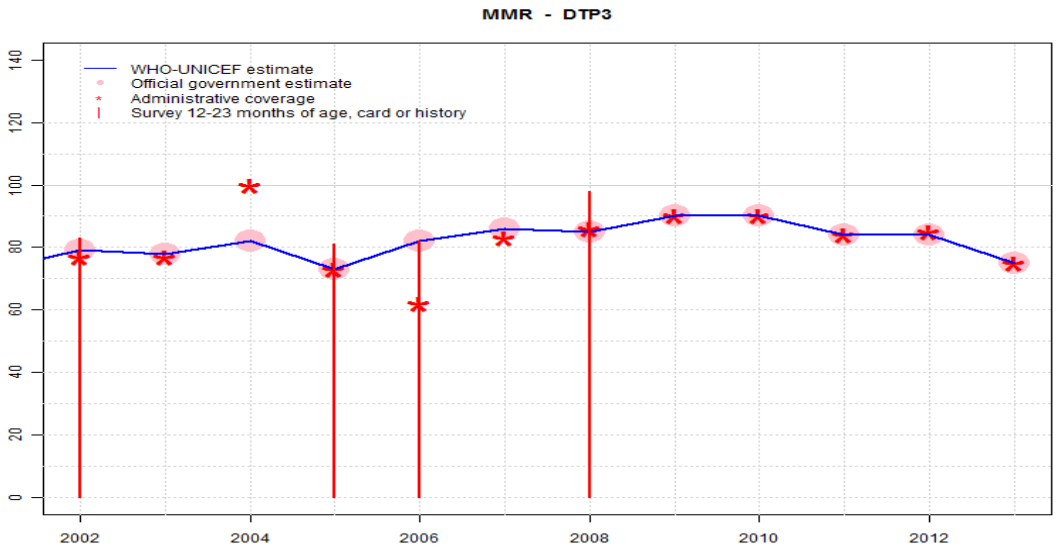
2010: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Estimate challenged by: D-

Myanmar - DTP3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	79	78	82	73	82	86	85	90	90	84	84	75
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	79	78	82	73	82	86	85	90	90	84	84	75
Administrative	77	77	100	73	62	83	86	90	90	84	85	75
Survey	83	NA	NA	81	82	NA	98	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

2002: Estimate based on coverage reported by national government supported by survey. Survey evidence of 86 percent based on 1 survey(s). Myanmar Multiple Indicator Cluster Survey (2003) card or history results of 83 percent modifed 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. Estimate challenged by: D-

2003: Estimate based on coverage reported by national government. Estimate challenged by: D-

2004: Estimate based on coverage reported by national government. Estimate challenged by: D-

2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 81 percent based on 1 survey(s). Estimate challenged by: D-

2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 82 percent based on 1 survey(s). Estimate challenged by: D-S-

2007: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2008: Estimate based on coverage reported by national government. Myanmar Multiple Indicator Cluster Survey 2009 - 2010 results ignored by working group. In addition to card and recall, vaccination information was collected from midwifes registries and midwifes participated in data collection. According to the MICS report, midwifes may have a tendency inadvertently to over report coverage. Estimate challenged by: D-S-

2009: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

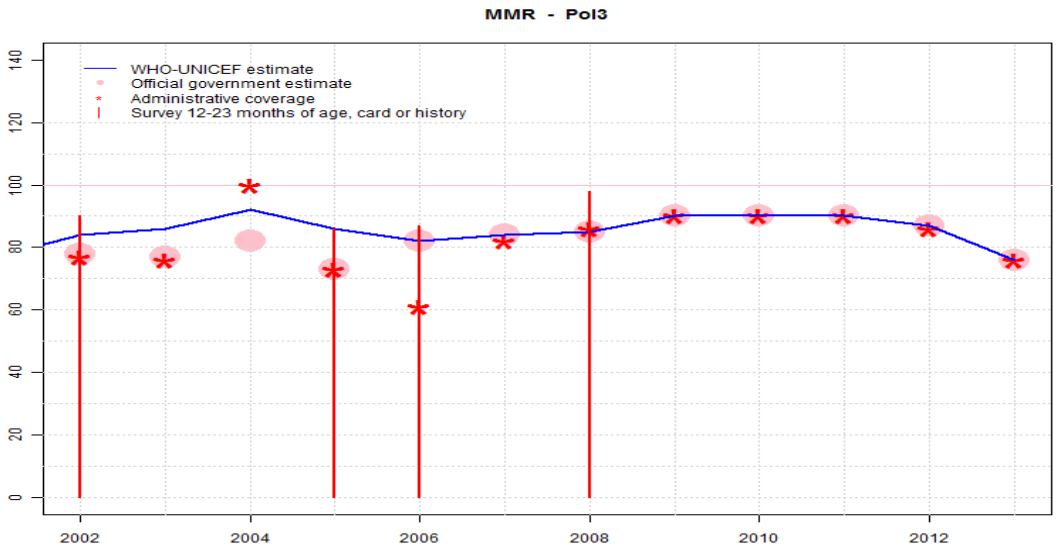
2010: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Estimate of 84 percent changed from previous revision value of 86 percent. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate of 84 percent changed from previous revision value of 85 percent. Estimate challenged by: D-

2013: Estimate based on reported administrative data. . Estimates based on administrative coverage. Estimate challenged by: D-

Myanmar - Pol3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	84	86	92	86	82	84	85	90	90	90	87	76
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	78	77	82	73	82	84	85	90	90	90	87	76
Administrative	77	76	100	73	61	82	86	90	90	90	86	76
Survey	90	NA	NA	86	87	NA	98	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

2002: Reported data calibrated to 1999 and 2005 levels. Myanmar Multiple Indicator Cluster Survey (2003) results ignored by working group. Estimate for other vaccines based on reported data supported by survey.Myanmar Multiple Indicator Cluster Survey (2003) card or history results of 90 percent modifed for recall bias to 89 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 40 percent and 3d dose card only coverage of 38 percent. Estimate of 84 percent changed from previous revision value of 78 percent. Estimate challenged by: D-S-

2003: Reported data calibrated to 1999 and 2005 levels. Estimate of 86 percent changed from previous revision value of 77 percent. Estimate challenged by: D-S-

2004: Reported data calibrated to 1999 and 2005 levels. Estimate of 92 percent changed from previous revision value of 82 percent. Estimate challenged by: D-S-

2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 86 percent based on 1 survey(s). Estimate of 86 percent changed from previous revision value of 73 percent. Estimate challenged by: D-R-

2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 87 percent based on 1 survey(s). Estimate challenged by: D-S-

2007: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2008: Estimate based on coverage reported by national government. Myanmar Multiple Indicator Cluster Survey 2009 - 2010 results ignored by working group. In addition to card and recall, vaccination information was collected from midwifes registries and midwifes participated in data collection. According to the MICS report, midwifes may have a tendency inadvertently to over report coverage. Estimate challenged by: D-S-

2009: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

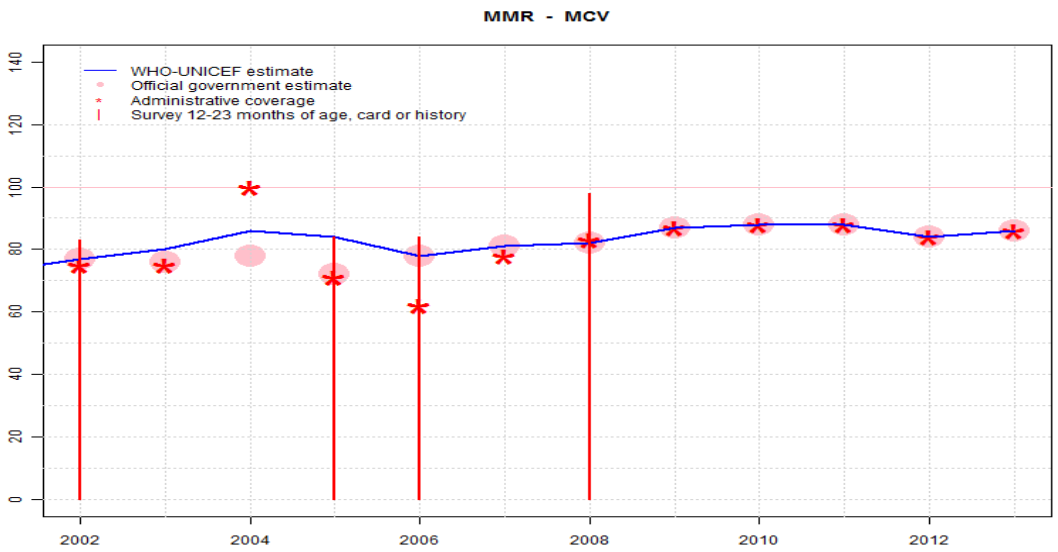
2010: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. . Estimate challenged by: D-

Myanmar - MCV



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	77	80	86	84	78	81	82	87	88	88	84	86
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	77	76	78	72	78	81	82	87	88	88	84	86
Administrative	75	75	100	71	62	78	83	87	88	88	84	86
Survey	83	NA	NA	84	84	NA	98	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

2002: Estimate based on coverage reported by national government supported by survey. Survey evidence of 83 percent based on 1 survey(s). Estimate challenged by: D-

2003: Reported data calibrated to 2002 and 2005 levels. Estimate of 80 percent changed from previous revision value of 76 percent. Estimate challenged by: D-

2004: Reported data calibrated to 2002 and 2005 levels. Estimate of 86 percent changed from previous revision value of 78 percent. Estimate challenged by: D-

2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 84 percent based on 1 survey(s). Estimate of 84 percent changed from previous revision value of 72 percent. Estimate challenged by: D-R-

2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Estimate challenged by: D-S-

2007: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2008: Estimate based on coverage reported by national government. Myanmar Multiple Indicator Cluster Survey 2009 - 2010 results ignored by working group. In addition to card and recall, vaccination information was collected from midwifes registries and midwifes participated in data collection. According to the MICS report, midwifes may have a tendency inadvertently to over report coverage. Estimate challenged by: D-S-

2009: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

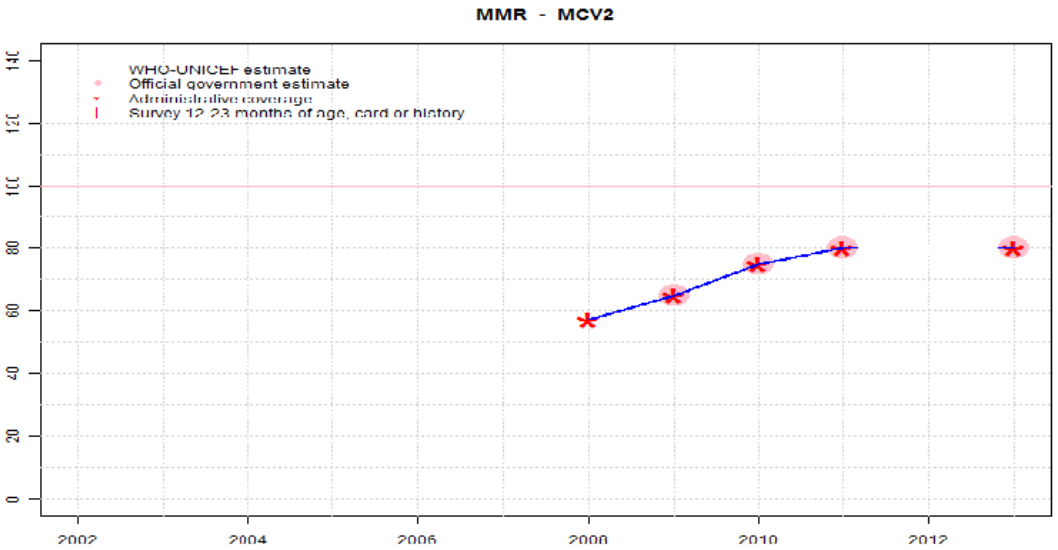
2010: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Estimate challenged by: D-

Myanmar - MCV2



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	57	65	75	80	NA	80
Estimate GoC	NA	NA	NA	NA	NA	NA	•	•	•	•	NA	•
Official	NA	NA	NA	NA	NA	NA	NA	65	75	80	NA	80
Administrative	NA	NA	NA	NA	NA	NA	57	65	75	80	NA	80
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

Coverage estimates for the second dose of measles containing vaccine are for children by the nationally recommended age.

2008: Estimate based on reported administrative estimate. Estimate challenged by: D-S-

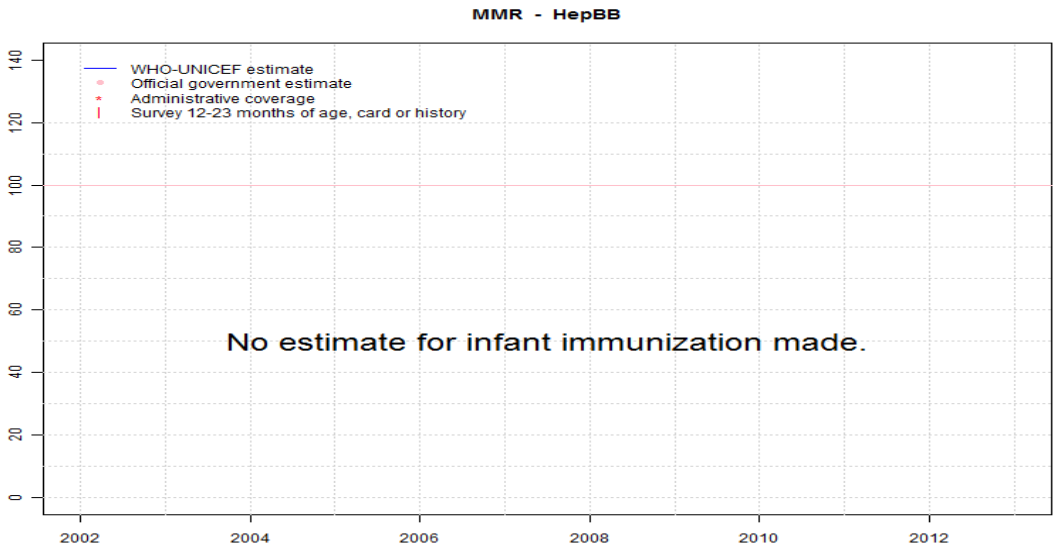
2009: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2010: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Between 2008 and 2012, the second dose of measles was externally funded. Vaccine doses administered were doses left over from campaigns. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Estimate challenged by: D-

Myanmar - HepBB



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	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
Administrative	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

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

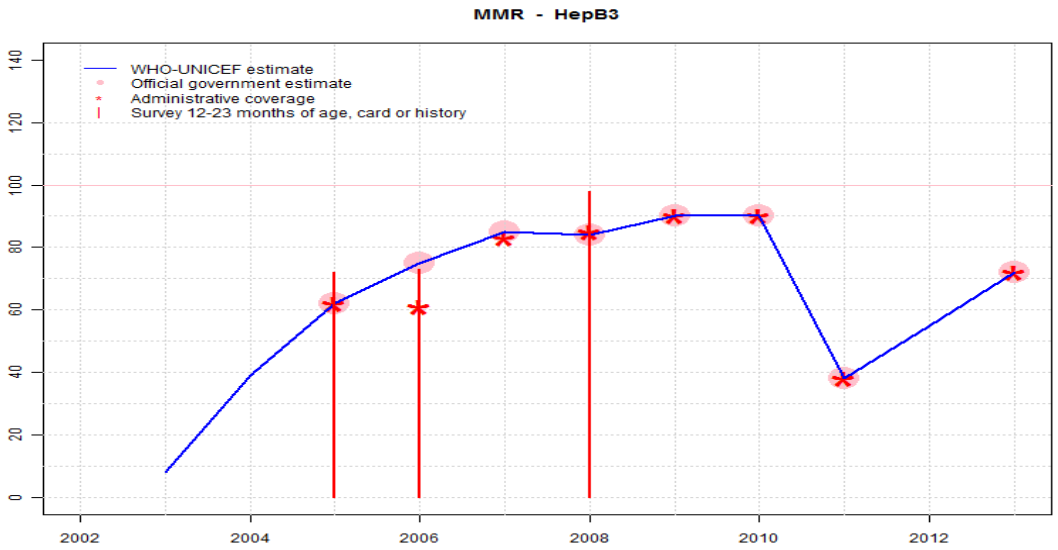
●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Although hepatitis birth dose is in the national immunization schedule, estimates for hepatitis birth dose are not provided due to insufficient information on doses administered within 24 hours.

Myanmar - HepB3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	8	39	62	75	85	84	90	90	38	55	72
Estimate GoC	NA	●●	●	●	●	●	●	●	●	●	●	●
Official	NA	NA	NA	62	75	85	84	90	90	38	NA	72
Administrative	NA	NA	NA	62	61	83	85	90	90	38	NA	72
Survey	NA	NA	NA	72	73	NA	98	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

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 . GoC=D+

2004: Fifty-four percent coverage achieved in 72 percent of the country. Estimate challenged by: D-

2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 72 percent based on 1 survey(s). Estimate challenged by: D-

2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 73 percent based on 1 survey(s). Estimate challenged by: D-S-

2007: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2008: Estimate based on coverage reported by national government. Myanmar Multiple Indicator Cluster Survey 2009 - 2010 results ignored by working group. In addition to card and recall, vaccination information was collected from midwifes registries and midwifes participated in data collection. According to the MICS report, midwifes may have a tendency inadvertently to over report coverage. Estimate challenged by: D-S-

2009: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

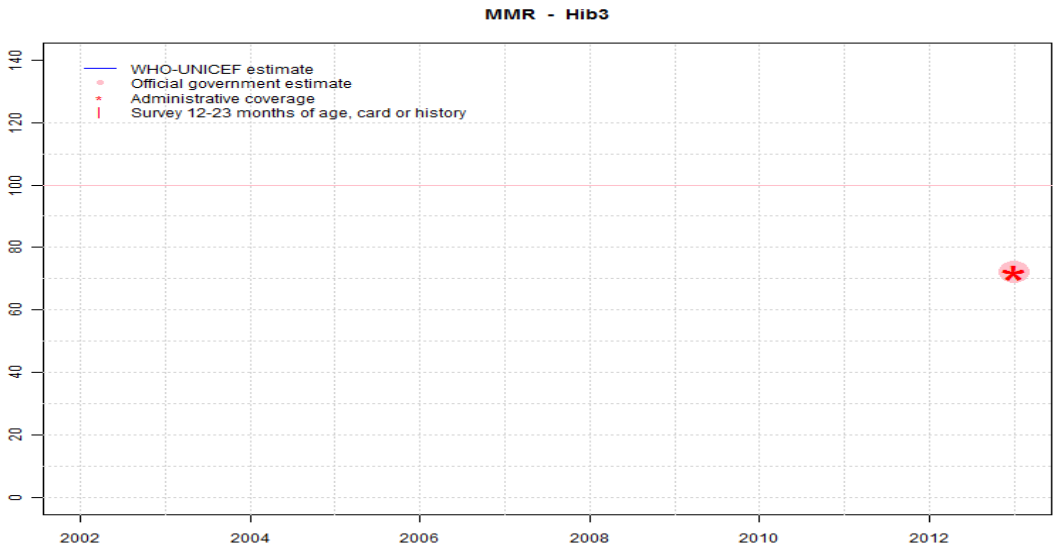
2010: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Decline in coverage is attributed to vaccine stockout. Estimate challenged by: D-

2012: Estimate based on interpolation between data reported by national government. Stock out in all 330 districts. Estimate of 55 percent changed from previous revision value of 38 percent. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Vaccine presentation changed from monovalent HepB to DTP-HepB-Hib combination vaccine in November 2012. Stock out from HepB containing vaccines was reported at national level. Estimate challenged by: D-

Myanmar - Hib3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	72
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	72
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	72
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

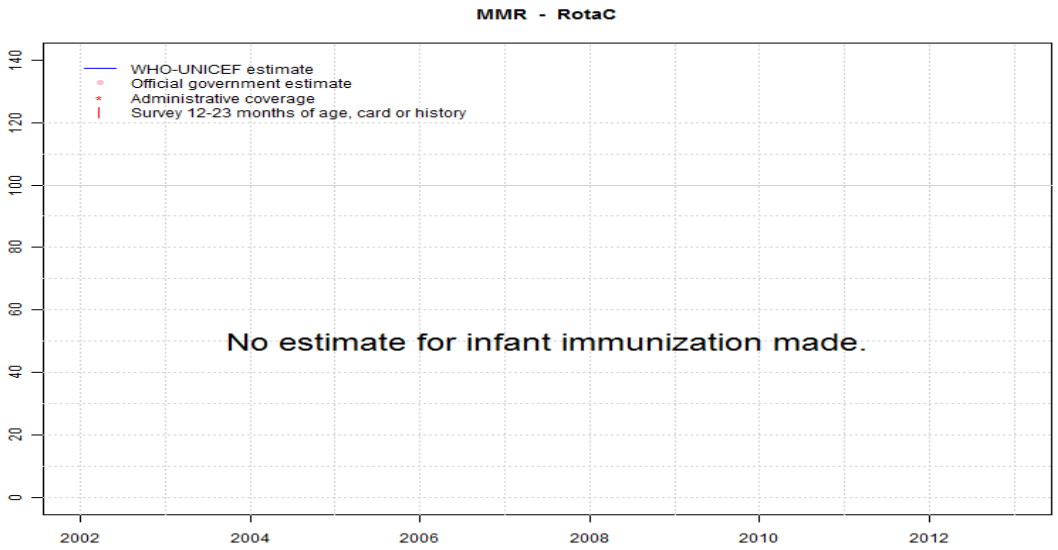
● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

2013: Estimate based on coverage reported by national government. Hib vaccine introduced in November 2012. Reporting started in 2013. Estimate challenged by: D-

Myanmar - RotaC



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	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
Administrative	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

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

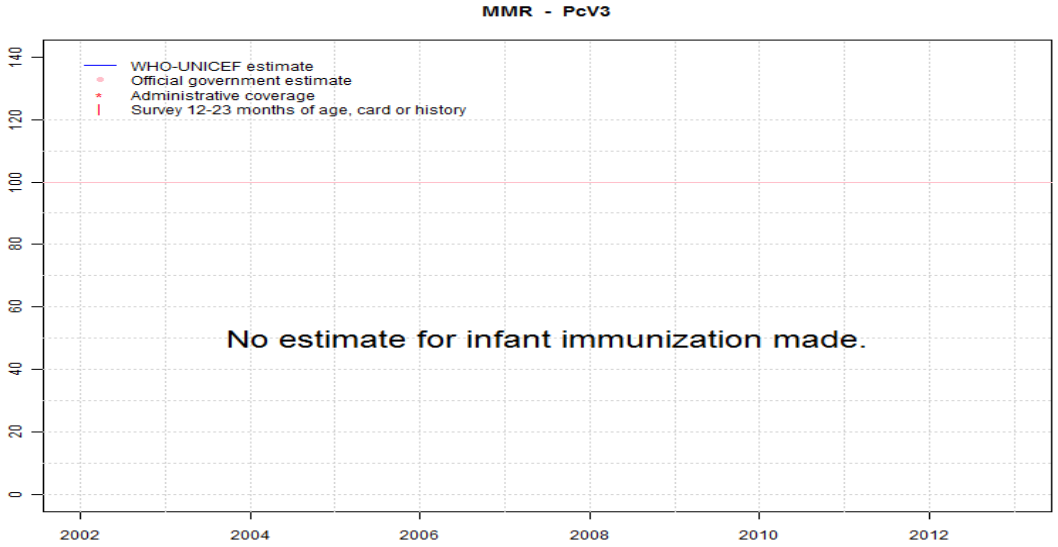
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Myanmar - PcV3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	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
Administrative	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

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Myanmar - survey details

2008 Myanmar Multiple Indicator Cluster Survey 2009 - 2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	97	12-23 m	3207	96
BCG	Card	96	12-23 m	3207	96
BCG	Card or History	98	12-23 m	3207	96
BCG	History	2	12-23 m	3207	96
DTP1	C or H <12 months	97	12-23 m	3207	96
DTP1	Card	96	12-23 m	3207	96
DTP1	Card or History	98	12-23 m	3207	96
DTP1	History	2	12-23 m	3207	96
DTP3	C or H <12 months	96	12-23 m	3207	96
DTP3	Card	96	12-23 m	3207	96
DTP3	Card or History	98	12-23 m	3207	96
DTP3	History	2	12-23 m	3207	96
HepB1	C or H <12 months	97	12-23 m	3207	96
HepB1	Card	96	12-23 m	3207	96
HepB1	Card or History	98	12-23 m	3207	96
HepB1	History	2	12-23 m	3207	96
HepB3	C or H <12 months	96	12-23 m	3207	96
HepB3	Card	96	12-23 m	3207	96
HepB3	Card or History	98	12-23 m	3207	96
HepB3	History	2	12-23 m	3207	96
MCV	C or H <12 months	91	12-23 m	3207	96
MCV	Card	93	12-23 m	3207	96
MCV	Card or History	98	12-23 m	3207	96
MCV	History	5	12-23 m	3207	96
Pol1	C or H <12 months	98	12-23 m	3207	96
Pol1	Card	96	12-23 m	3207	96
Pol1	Card or History	99	12-23 m	3207	96
Pol1	History	3	12-23 m	3207	96
Pol3	C or H <12 months	96	12-23 m	3207	96
Pol3	Card	95	12-23 m	3207	96
Pol3	Card or History	98	12-23 m	3207	96
Pol3	History	2	12-23 m	3207	96

2006 Myanmar 2007 Fertility and Reproductive Health Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	84	12-23 m	767	26
DTP3	Card or History	82	12-23 m	767	26
HepB3	Card or History	73	12-23 m	767	26
MCV	Card or History	84	12-23 m	767	26
Pol3	Card or History	87	12-23 m	767	26

2005 Myanmar 2007 Fertility and Reproductive Health Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	84	24-35 m	905	26
DTP3	Card or History	81	24-35 m	905	26
HepB3	Card or History	72	24-35 m	905	26
MCV	Card or History	84	24-35 m	905	26
Pol3	Card or History	86	24-35 m	905	26

2004 Myanmar 2007 Fertility and Reproductive Health Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	83	36-47 m	940	26
DTP3	Card or History	80	36-47 m	940	26
HepB3	Card or History	69	36-47 m	940	26
MCV	Card or History	83	36-47 m	940	26
Pol3	Card or History	86	36-47 m	940	26

2003 Myanmar 2007 Fertility and Reproductive Health Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	83	48-59 m	984	26
DTP3	Card or History	81	48-59 m	984	26
HepB3	Card or History	71	48-59 m	984	26
MCV	Card or History	83	48-59 m	984	26
Pol3	Card or History	83	48-59 m	984	26

2002 Myanmar Multiple Indicator Cluster Survey (2003)

Myanmar - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	40	12-23 m	2480	35
BCG	Card <12 months	98	12-23 m	2480	35
BCG	Card or history	93	12-23 m	2480	35
BCG	History	53	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	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
DTP3	History	45	12-23 m	2480	35
MCV	Card	37	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
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	38	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

1999 Myanmar Multiple Indicator Cluster Survey 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	51	12-23 m	2831	52
BCG	Card or History	93	12-23 m	2831	52
BCG	History	42	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	Card	47	12-23 m	2831	52
DTP3	Card or History	83	12-23 m	2831	52
DTP3	History	36	12-23 m	2831	52
MCV	Card	47	12-23 m	2831	52
MCV	Card or History	87	12-23 m	2831	52
MCV	History	40	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 prior to 2002 are available at:
http://www.data.unicef.org/child-health/immunization
http://www.who.int/immunization/monitoring_surveillance/routine/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 (%)
2002	85
2003	86
2004	87
2005	89
2006	92
2007	93
2008	93
2009	93
2010	93
2011	93
2012	93
2013	87

[1] 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.