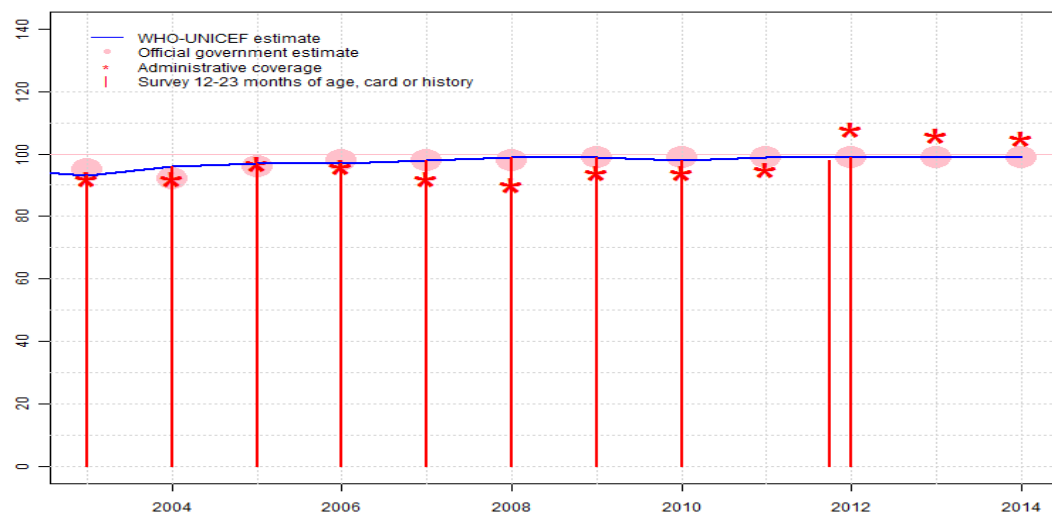


Bangladesh - BCG

BGD - BCG



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	93	96	97	97	98	99	99	98	99	99	99	99
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	95	92	96	98	98	98	99	99	99	99	99	99
Administrative	92	92	97	96	92	90	94	94	95	108	106	105
Survey	93	96	97	97	98	99	99	98	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: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2004: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2005: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2006: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2007: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2008: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2009: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2010: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2010 and 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-
- 2012: Estimate based on average two survey results. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Estimate challenged by: D-R-

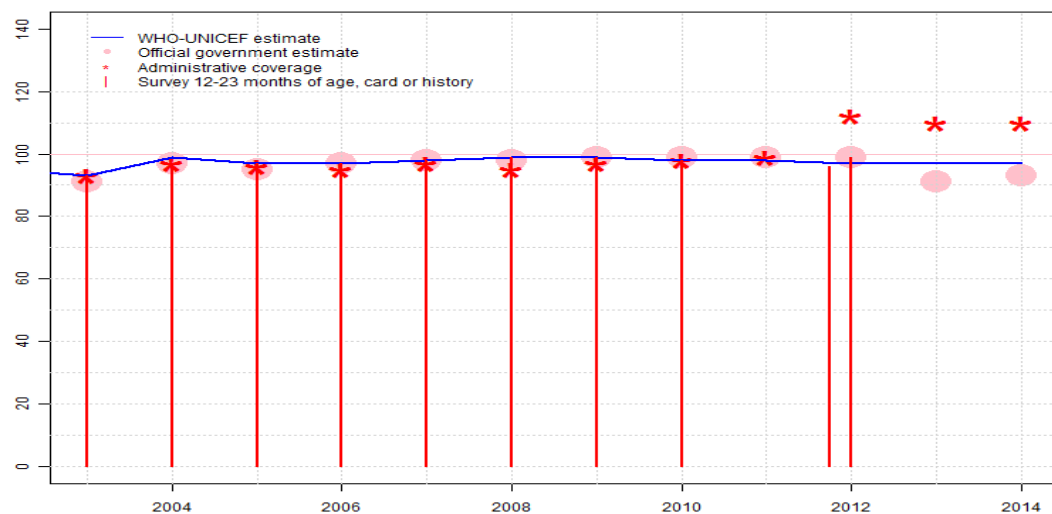
Bangladesh - BCG

2013: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Preliminary survey results suggests 98 percent coverage
Estimate challenged by: D-

2014: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. WHO and UNICEF are aware of the conduct of a 2014 Demographic and Health Survey and await the final results. Estimate challenged by: D-

Bangladesh - DTP1

BGD - DTP1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	93	99	97	97	98	99	99	98	98	97	97	97
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	91	97	95	97	98	98	99	99	99	99	91	93
Administrative	93	97	96	95	97	95	97	98	99	112	110	110
Survey	93	96	97	97	98	99	99	98	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: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2004: DTP1 coverage estimated based on DTP3 coverage of 99. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2005: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2006: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2007: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2008: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2009: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2010: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2010 and 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate of 98 percent changed from previous revision value of 99 percent. Estimate challenged by: D-
- 2012: Estimate based on average of two survey results. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on

Bangladesh - DTP1

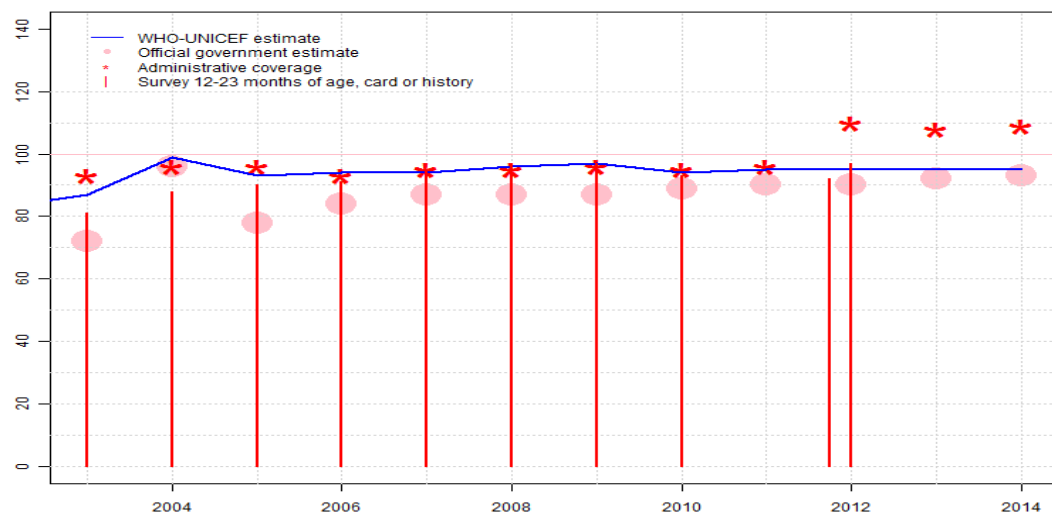
2011 census results. Estimate of 97 percent changed from previous revision value of 99 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Preliminary survey result suggests coverage of 97 percent. Estimate of 97 percent changed from previous revision value of 99 percent. Estimate challenged by: D-

2014: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. WHO and UNICEF are aware of the conduct of a 2014 Demographic and Health Survey and await the final results. Estimate challenged by: D-

Bangladesh - DTP3

BGD - DTP3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	87	99	93	94	94	96	97	94	95	95	95	95
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	72	96	78	84	87	87	87	89	90	90	92	93
Administrative	93	96	96	93	95	95	96	95	96	110	108	109
Survey	81	88	90	91	95	97	97	93	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: Estimate based on survey result. Bangladesh Demographic and Health Survey 2004 card or history results of 81 percent modified for recall bias to 87 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 49 percent and 3d dose card only coverage of 46 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-

2004: Estimate based on survey result. Bangladesh EPI Coverage Evaluation Survey 2005 card or history results of 88 percent modified for recall bias to 99 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 88 percent and 3d dose card only coverage of 100 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Reported data excluded. Unexplained increase from 72 percent to 96 percent with decrease 78 percent. Estimate challenged by: R-

2005: Estimate based on survey result. Bangladesh Multiple Indicator Cluster Survey 2006 card or history results of 90 percent modified for recall bias to 93 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 65 percent and 3d dose card only coverage of 62 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-

2006: Estimate based on survey result. Bangladesh Demographic and Health Survey 2007 card or history results of 91 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 58 percent and 3d dose card only coverage of 56 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-

2007: Estimate based on survey result. Bangladesh EPI Coverage Evaluation Survey 2007 card or history results of 95 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 66 percent and 3d dose card only coverage of 63 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-

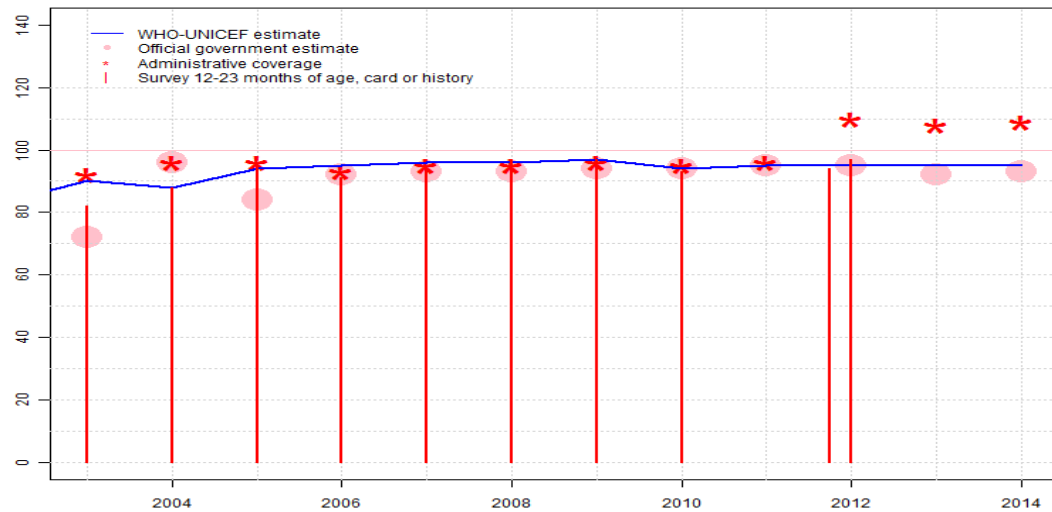
Bangladesh - DTP3

- 2008: Estimate based on survey result. Bangladesh EPI Coverage Evaluation Survey 2009 card or history results of 97 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 70 percent and 3d dose card only coverage of 68 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2009: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2010: Estimate based on survey result. Bangladesh Demographic and Health Survey 2011 card or history results of 93 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 67 percent and 3d dose card only coverage of 64 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2010 and 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate of 95 percent changed from previous revision value of 96 percent. Estimate challenged by: D-
- 2012: Estimate based on survey result. Bangladesh Utilization of Essential Service Delivery Survey 2013 card or history results of 92 percent modified for recall bias to 93 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 71 percent and 3d dose card only coverage of 69 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Estimate of 95 percent changed from previous revision value of 97 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Preliminary survey result suggests coverage between 90 and 95 percent. Estimate of 95 percent changed from previous revision value of 97 percent. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses ad-

ministered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. WHO and UNICEF are aware of the conduct of a 2014 Demographic and Health Survey and await the final results. Estimate challenged by: D-

Bangladesh - Pol3

BGD - Pol3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	90	88	94	95	96	96	97	94	95	95	95	95
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	72	96	84	92	93	93	94	94	95	95	92	93
Administrative	92	96	96	93	95	95	96	95	96	110	108	109
Survey	82	88	96	91	95	97	97	93	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:

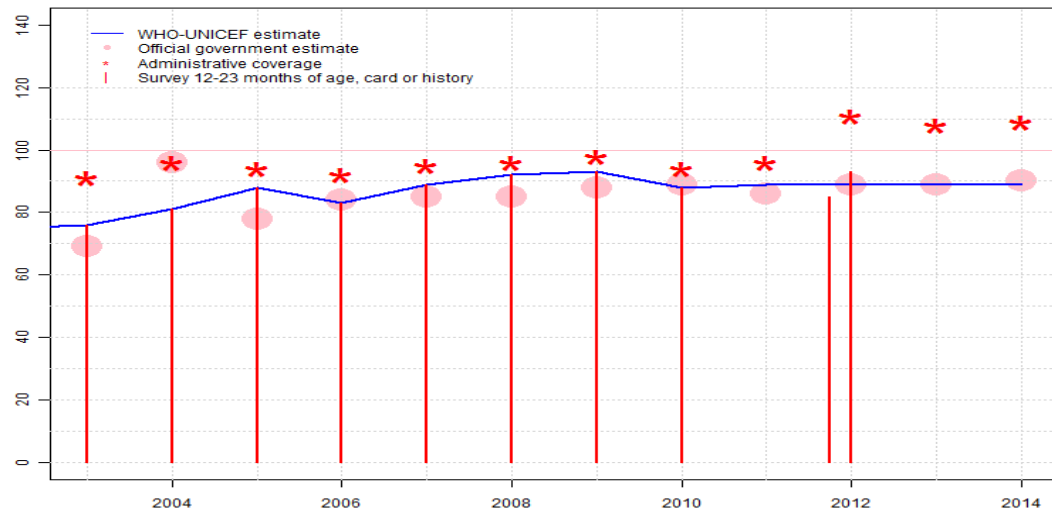
- 2003: Estimate based on survey result. Bangladesh Demographic and Health Survey 2004 card or history results of 82 percent modified for recall bias to 90 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 49 percent and 3d dose card only coverage of 46 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2004: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Reported data excluded. Unexplained increase from 72 percent to 96 percent with decrease 84 percent. Estimate challenged by: D-R-
- 2005: Estimate based on survey result. Bangladesh Multiple Indicator Cluster Survey 2006 card or history results of 96 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 65 percent and 3d dose card only coverage of 62 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-S-
- 2006: Estimate based on survey result. Bangladesh Demographic and Health Survey 2007 card or history results of 91 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 58 percent and 3d dose card only coverage of 56 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. National reported estimate of Pol3 coverage is higher than reported DTP3 coverage as invalid Pol3 doses are corrected by a fourth dose of polio vaccine provided with MCV. Estimate challenged by: D-R-S-
- 2006: Estimate based on survey result. Bangladesh Demographic and Health Survey 2007 card or history results of 91 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 58 percent and 3d dose card only coverage of 56 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. National reported estimate of Pol3 coverage is higher than reported DTP3 coverage as invalid Pol3 doses are corrected by a fourth dose of polio vaccine provided with MCV. Estimate challenged by: D-R-S-

Bangladesh - Pol3

- 2006: Estimate based on survey result. Bangladesh Demographic and Health Survey 2007 card or history results of 91 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 58 percent and 3d dose card only coverage of 56 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. National reported estimate of Pol3 coverage is higher than reported DTP3 coverage as invalid Pol3 doses are corrected by a fourth dose of polio vaccine provided with MCV. Estimate challenged by: D-R-S-
- 2007: Reported data calibrated to 2006 and 2008 levels. Bangladesh EPI Coverage Evaluation Survey 2007 results ignored by working group. Estimates based on reported data. Bangladesh EPI Coverage Evaluation Survey 2007 card or history results of 95 percent modified for recall bias to 84 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 65 percent and 3d dose card only coverage of 56 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. National reported estimate of Pol3 coverage is higher than reported DTP3 coverage as invalid Pol3 doses are corrected by a fourth dose of polio vaccine provided with MCV. Estimate challenged by: D-S-
- 2007: Reported data calibrated to 2006 and 2008 levels. Bangladesh EPI Coverage Evaluation Survey 2007 results ignored by working group. Estimates based on reported data. Bangladesh EPI Coverage Evaluation Survey 2007 card or history results of 95 percent modified for recall bias to 84 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 65 percent and 3d dose card only coverage of 56 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. National reported estimate of Pol3 coverage is higher than reported DTP3 coverage as invalid Pol3 doses are corrected by a fourth dose of polio vaccine provided with MCV. Estimate challenged by: D-S-
- 2008: Estimate based on survey result. Bangladesh EPI Coverage Evaluation Survey 2009 card or history results of 97 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 70 percent and 3d dose card only coverage of 68 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. National reported estimate of Pol3 coverage is higher than reported DTP3 coverage as invalid Pol3 doses are corrected by a fourth dose of polio vaccine provided with MCV. Estimate challenged by: D-R-S-
- 2009: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. National reported estimate of Pol3 coverage is higher than reported DTP3 coverage as invalid Pol3 doses are corrected by a fourth dose of polio vaccine provided with MCV. Estimate challenged by: D-R-S-
- 2010: Estimate based on survey result. Bangladesh Demographic and Health Survey 2011 card or history results of 93 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 67 percent and 3d dose card only coverage of 64 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. National reported estimate of Pol3 coverage is higher than reported DTP3 coverage as invalid Pol3 doses are corrected by a fourth dose of polio vaccine provided with MCV. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2010 and 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate of 95 percent changed from previous revision value of 96 percent. Estimate challenged by: D-
- 2012: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Estimate of 95 percent changed from previous revision value of 97 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Preliminary survey result suggests coverage between 90 and 95 percent. Estimate of 95 percent changed from previous revision value of 97 percent. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. WHO and UNICEF are aware of the conduct of a 2014 Demographic and Health Survey and await the final results. Estimate challenged by: D-

Bangladesh - MCV1

BGD - MCV1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	76	81	88	83	89	92	93	88	89	89	89	89
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	69	96	78	84	85	85	88	89	86	89	89	90
Administrative	91	96	94	92	95	96	98	94	96	111	108	109
Survey	76	81	88	83	89	92	93	88	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: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2004: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Reported data excluded. Unexplained increase from 69 percent to 96 percent with decrease 78 percent. Estimate challenged by: D-R-
- 2005: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2006: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2007: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2008: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2009: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2010: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2010 and 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate of 89 percent changed from previous revision value of 91 percent. Estimate challenged by: D-
- 2012: Estimate based on average of 2 survey results. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under

Bangladesh - MCV1

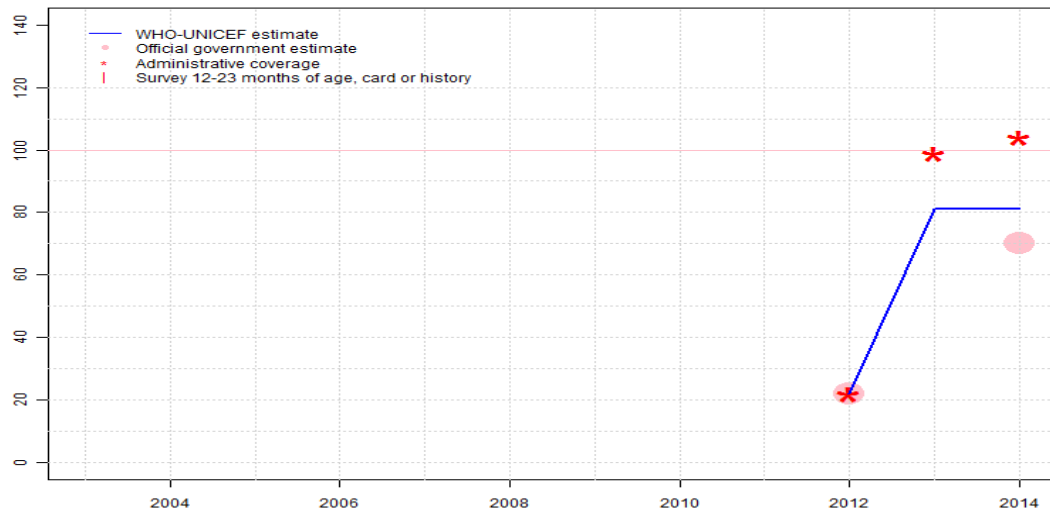
estimated prior to 2012. Target population revised downward based on 2011 census results. Estimate of 89 percent changed from previous revision value of 93 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Preliminary survey result suggests coverage of 86 percent. Estimate of 89 percent changed from previous revision value of 93 percent. Estimate challenged by: D-

2014: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. WHO and UNICEF are aware of the conduct of a 2014 Demographic and Health Survey and await the final results. Estimate challenged by: D-

Bangladesh - MCV2

BGD - MCV2



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	22	81	81
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	••	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	22	NA	70
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	22	99	104
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:

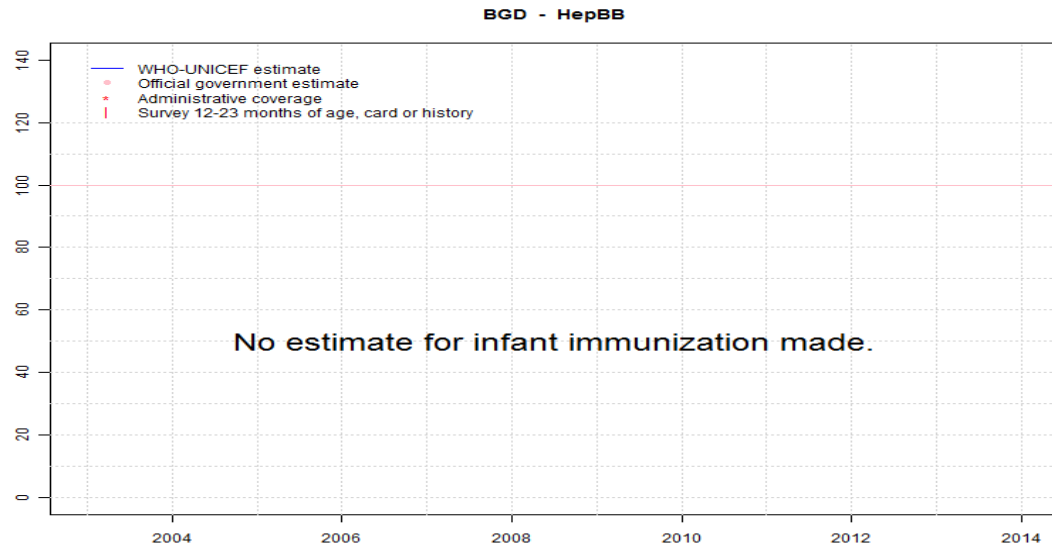
Coverage estimates for the second dose of measles containing vaccine are for children by the nationally recommended age.

2012: Estimate based on official government estimate. Target population revised downward based on 2011 census results. GoC=R+ D+

2013: Estimate based on MCV adjustment factor. Reported data excluded. Recent evidence suggest administrative coverage data under estimated prior to 2012. Reported data excluded. Unexplained increase from 22 percent to 99 percent with decrease 70 percent. Target population revised downward based on 2011 census results. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 levels. Reported data excluded. Recent evidence suggest administrative coverage data under estimated prior to 2012. Reported data excluded. Change in reported coverage from 99 level to 70 percent. Target population revised downward based on 2011 census results. WHO and UNICEF are aware of the conduct of a 2014 Demographic and Health Survey and await the final results. Estimate challenged by: D-

Bangladesh - HepBB



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
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

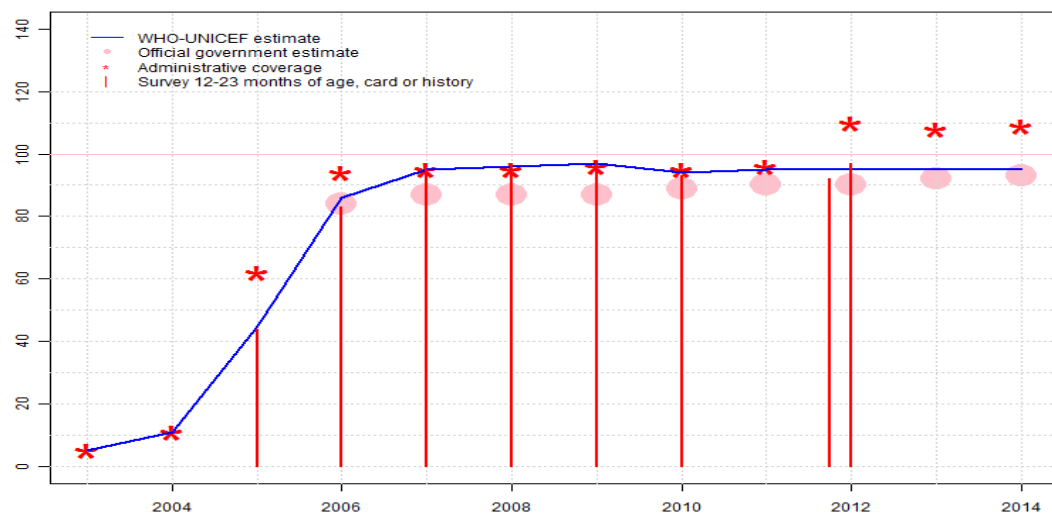
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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.

Bangladesh - HepB3

BGD - HepB3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	5	11	45	86	95	96	97	94	95	95	95	95
Estimate GoC	••	••	•	•	•	•	•	•	•	•	•	•
Official	NA	NA	NA	84	87	87	87	89	90	90	92	93
Administrative	5	11	62	94	95	95	96	95	96	110	108	109
Survey	NA	NA	44	83	95	97	97	93	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: Estimate is based on reported data. HepB vaccine partially introduced in 2003, nationally in 2005, reporting started in 2003. GoC=R+ D+
- 2004: Estimate is based on reported data. GoC=R+ D+
- 2005: Estimate based on survey result. Bangladesh Multiple Indicator Cluster Survey 2006 card or history results of 44 percent modified for recall bias to 45 percent based on 1st dose card or history coverage of 49 percent, 1st dose card only coverage of 46 percent and 3d dose card only coverage of 42 percent. Estimate challenged by: D-R-
- 2006: Estimate based on survey result. Bangladesh Demographic and Health Survey 2007 card or history results of 83 percent modified for recall bias to 86 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 56 percent and 3d dose card only coverage of 54 percent. Estimate challenged by: D-R-
- 2007: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2008: Estimate based on survey result. Bangladesh EPI Coverage Evaluation Survey 2009 card or history results of 97 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 70 percent and 3d dose card only coverage of 68 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2009: Estimate based on survey result. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. DTP-HepB-Hib combination vaccine introduced in 2009. Estimate challenged by: D-R-
- 2010: Estimate based on survey result. Bangladesh Demographic and Health Survey 2011 card or history results of 93 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 67 percent and 3d dose card only coverage of 64 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2010 and 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under

Bangladesh - HepB3

estimated prior to 2012. Estimate of 95 percent changed from previous revision value of 96 percent. Estimate challenged by: D-

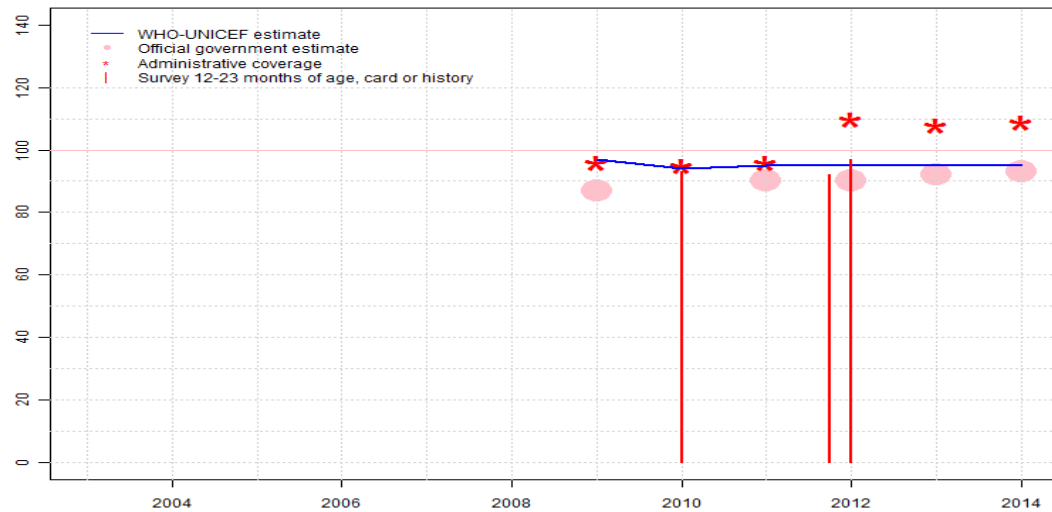
2012: Estimate based on survey result. Bangladesh Utilization of Essential Service Delivery Survey 2013 card or history results of 92 percent modified for recall bias to 93 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 71 percent and 3d dose card only coverage of 69 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Estimate of 95 percent changed from previous revision value of 97 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Preliminary survey result suggests coverage between 90 and 95 percent. Estimate of 95 percent changed from previous revision value of 97 percent. Estimate challenged by: D-

2014: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. WHO and UNICEF are aware of the conduct of a 2014 Demographic and Health Survey and await the final results. Estimate challenged by: D-

Bangladesh - Hib3

BGD - Hib3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	97	94	95	95	95	95
Estimate GoC	NA	NA	NA	NA	NA	NA	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	87	NA	90	90	92	93
Administrative	NA	NA	NA	NA	NA	NA	96	95	96	110	108	109
Survey	NA	NA	NA	NA	NA	NA	NA	93	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.

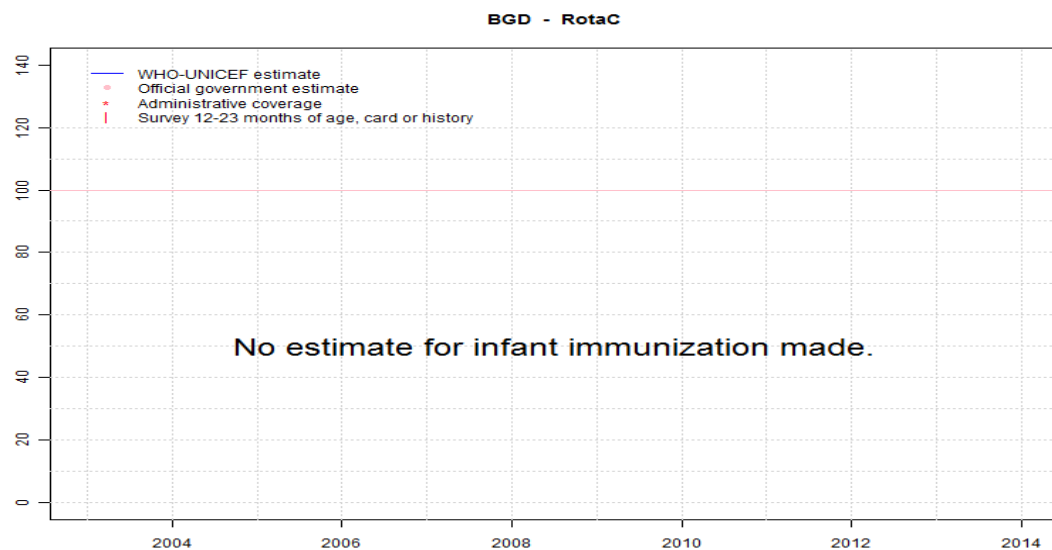
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2009: Estimate based on DTP3 coverage. Estimate challenged by: D-R-
- 2010: Estimate based on survey result. Bangladesh Demographic and Health Survey 2011 card or history results of 93 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 67 percent and 3d dose card only coverage of 64 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2010 and 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Estimate of 95 percent changed from previous revision value of 96 percent. Estimate challenged by: D-
- 2012: Estimate based on survey result. Bangladesh Utilization of Essential Service Delivery Survey 2013 card or history results of 92 percent modified for recall bias to 93 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 71 percent and 3d dose card only coverage of 69 percent. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Estimate of 95 percent changed from previous revision value of 97 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. Preliminary survey result suggests coverage between 90 and 95 percent. Estimate of 95 percent changed from previous revision value of 97 percent. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Reported data excluded. Nationally reported data for official coverage includes only valid doses administered. Recent evidence suggest administrative coverage data under estimated prior to 2012. Target population revised downward based on 2011 census results. WHO and UNICEF are aware of the conduct of a 2014 Demographic and Health Survey and await the final results. Estimate challenged by: D-

Bangladesh - RotaC

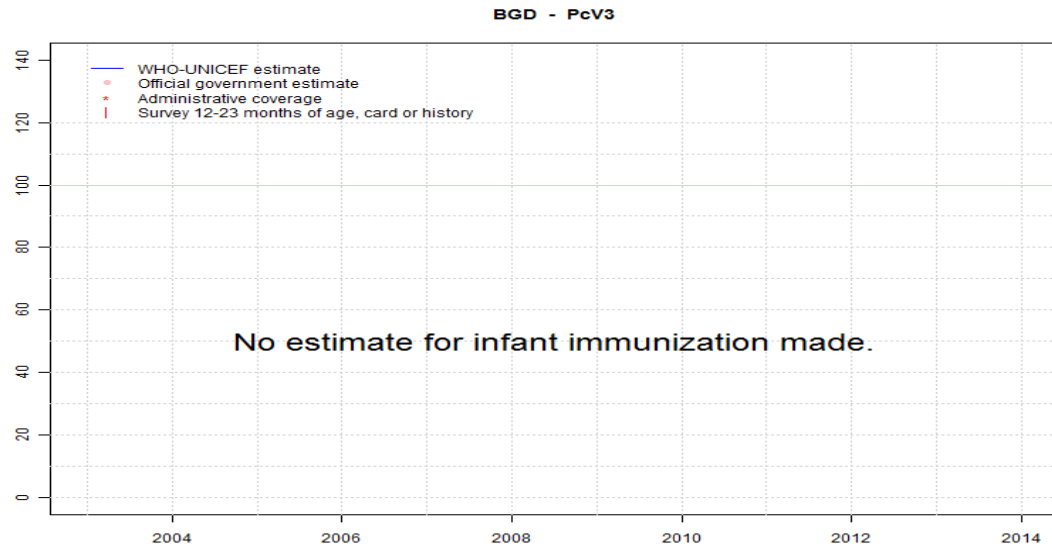


	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
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.

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Bangladesh - survey details

2012 Bangladesh EPI Coverage Evaluation Survey 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	99	12-23 m	14700	81
DTP1	Card or History	99	12-23 m	14700	81
DTP3	Card or History	97	12-23 m	14700	81
HepB1	Card or History	99	12-23 m	14700	81
HepB3	Card or History	97	12-23 m	14700	81
Hib1	Card or History	99	12-23 m	14700	81
Hib3	Card or History	97	12-23 m	14700	81
MCV1	Card or History	93	12-23 m	14700	81
Pol1	Card or History	99	12-23 m	14700	81
Pol3	Card or History	97	12-23 m	14700	81

2012 Bangladesh Utilization of Essential Service Delivery Survey 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	98	12-23 m	887	74
BCG	Card	74	12-23 m	654	74
BCG	Card or History	98	12-23 m	887	74
BCG	History	25	12-23 m	233	74
DTP1	C or H <12 months	95	12-23 m	887	74
DTP1	Card	71	12-23 m	654	74
DTP1	Card or History	96	12-23 m	887	74
DTP1	History	24	12-23 m	233	74
DTP3	C or H <12 months	91	12-23 m	887	74
DTP3	Card	69	12-23 m	654	74
DTP3	Card or History	92	12-23 m	887	74
DTP3	History	23	12-23 m	233	74
HepB1	C or H <12 months	95	12-23 m	887	74
HepB1	Card	71	12-23 m	654	74
HepB1	Card or History	96	12-23 m	887	74
HepB1	History	24	12-23 m	233	74
HepB3	C or H <12 months	91	12-23 m	887	74
HepB3	Card	69	12-23 m	654	74
HepB3	Card or History	92	12-23 m	887	74
HepB3	History	23	12-23 m	233	74

Hib1	C or H <12 months	95	12-23 m	887	74
Hib1	Card	71	12-23 m	654	74
Hib1	Card or History	96	12-23 m	887	74
Hib1	History	24	12-23 m	233	74
Hib3	C or H <12 months	91	12-23 m	887	74
Hib3	Card	69	12-23 m	654	74
Hib3	Card or History	92	12-23 m	887	74
Hib3	History	23	12-23 m	233	74
MCV1	C or H <12 months	82	12-23 m	887	74
MCV1	Card	64	12-23 m	654	74
MCV1	Card or History	85	12-23 m	887	74
MCV1	History	21	12-23 m	233	74
Pol1	C or H <12 months	97	12-23 m	887	74
Pol1	Card	74	12-23 m	654	74
Pol1	Card or History	98	12-23 m	887	74
Pol1	History	24	12-23 m	233	74
Pol3	C or H <12 months	92	12-23 m	887	74
Pol3	Card	71	12-23 m	654	74
Pol3	Card or History	94	12-23 m	887	74
Pol3	History	23	12-23 m	233	74

2010 Bangladesh Demographic and Health Survey 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	98	12-23 m	1547	67
BCG	Card	67	12-23 m	1032	67
BCG	Card or History	98	12-23 m	1547	67
BCG	History	31	12-23 m	515	67
DTP1	C or H <12 months	98	12-23 m	1547	67
DTP1	Card	67	12-23 m	1032	67
DTP1	Card or History	98	12-23 m	1547	67
DTP1	History	31	12-23 m	515	67
DTP3	C or H <12 months	93	12-23 m	1547	67
DTP3	Card	64	12-23 m	1032	67
DTP3	Card or History	93	12-23 m	1547	67
DTP3	History	29	12-23 m	515	67
HepB1	C or H <12 months	98	12-23 m	1547	67
HepB1	Card	67	12-23 m	1032	67
HepB1	Card or History	98	12-23 m	1547	67

Bangladesh - survey details

HepB1	History	31	12-23 m	515	67
HepB3	C or H <12 months	93	12-23 m	1547	67
HepB3	Card	64	12-23 m	1032	67
HepB3	Card or History	93	12-23 m	1547	67
HepB3	History	29	12-23 m	515	67
Hib1	C or H <12 months	98	12-23 m	1547	67
Hib1	Card	67	12-23 m	1032	67
Hib1	Card or History	98	12-23 m	1547	67
Hib1	History	31	12-23 m	515	67
Hib3	C or H <12 months	93	12-23 m	1547	67
Hib3	Card	64	12-23 m	1032	67
Hib3	Card or History	93	12-23 m	1547	67
Hib3	History	29	12-23 m	515	67
MCV1	C or H <12 months	84	12-23 m	1547	67
MCV1	Card	60	12-23 m	1032	67
MCV1	Card or History	88	12-23 m	1547	67
MCV1	History	28	12-23 m	515	67
Pol1	C or H <12 months	98	12-23 m	1547	67
Pol1	Card	67	12-23 m	1032	67
Pol1	Card or History	98	12-23 m	1547	67
Pol1	History	31	12-23 m	515	67
Pol3	C or H <12 months	93	12-23 m	1547	67
Pol3	Card	64	12-23 m	1032	67
Pol3	Card or History	93	12-23 m	1547	67
Pol3	History	29	12-23 m	515	67

2009 Bangladesh EPI Coverage Evaluation Survey 2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	99	12-23 m	14700	72
DTP1	Card or History	99	12-23 m	14700	72
DTP3	Card or History	97	12-23 m	14700	72
HepB1	Card or History	99	12-23 m	14700	72
HepB3	Card or History	97	12-23 m	14700	72
MCV1	Card or History	93	12-23 m	14700	72
Pol1	Card or History	99	12-23 m	14700	72
Pol3	Card or History	97	12-23 m	14700	72

2008 Bangladesh EPI Coverage Evaluation Survey 2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	70	12-23 m	15120	73
BCG	Card or History	99	12-23 m	15120	73
BCG	History	29	12-23 m	15120	73
DTP1	Card	70	12-23 m	15120	73
DTP1	Card or History	99	12-23 m	15120	73
DTP1	History	29	12-23 m	15120	73
DTP3	Card	68	12-23 m	15120	73
DTP3	Card or History	97	12-23 m	15120	73
DTP3	History	29	12-23 m	15120	73
HepB1	Card	70	12-23 m	15120	73
HepB1	Card or History	99	12-23 m	15120	73
HepB1	History	29	12-23 m	15120	73
HepB3	Card	68	12-23 m	15120	73
HepB3	Card or History	97	12-23 m	15120	73
HepB3	History	29	12-23 m	15120	73
MCV1	Card	62	12-23 m	15120	73
MCV1	Card or History	92	12-23 m	15120	73
MCV1	History	30	12-23 m	15120	73
Pol1	Card	70	12-23 m	15120	73
Pol1	Card or History	99	12-23 m	15120	73
Pol1	History	29	12-23 m	15120	73
Pol3	Card	68	12-23 m	15120	73
Pol3	Card or History	97	12-23 m	15120	73
Pol3	History	29	12-23 m	15120	73

2007 Bangladesh EPI Coverage Evaluation Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	65	12-23 m	5670	68
BCG	Card or History	98	12-23 m	5670	68
BCG	History	33	12-23 m	5670	68
DTP1	Card	66	12-23 m	5670	68
DTP1	Card or History	98	12-23 m	5670	68
DTP1	History	33	12-23 m	5670	68
DTP3	Card	63	12-23 m	5670	68

Bangladesh - survey details

DTP3	Card or History	95	12-23 m	5670	68
DTP3	History	32	12-23 m	5670	68
HepB1	Card	65	12-23 m	5670	68
HepB1	Card or History	98	12-23 m	5670	68
HepB1	History	33	12-23 m	5670	68
HepB3	Card	63	12-23 m	5670	68
HepB3	Card or History	95	12-23 m	5670	68
HepB3	History	32	12-23 m	5670	68
MCV1	Card	57	12-23 m	5670	68
MCV1	Card or History	89	12-23 m	5670	68
MCV1	History	32	12-23 m	5670	68
Pol1	Card	65	12-23 m	5670	68
Pol1	Card or History	97	12-23 m	5670	68
Pol1	History	33	12-23 m	5670	68
Pol3	Card	56	12-23 m	5670	68
Pol3	Card or History	95	12-23 m	5670	68
Pol3	History	33	12-23 m	5670	68

HepB3	Card or History	83	12-23 m	1146	58
HepB3	History	29	12-23 m	1146	58
MCV1	C or H <12 months	77	12-23 m	1146	58
MCV1	Card	52	12-23 m	1146	58
MCV1	Card or History	83	12-23 m	1146	58
MCV1	History	31	12-23 m	1146	58
Pol1	C or H <12 months	98	12-23 m	1146	58
Pol1	Card	58	12-23 m	1146	58
Pol1	Card or History	98	12-23 m	1146	58
Pol1	History	40	12-23 m	1146	58
Pol3	C or H <12 months	90	12-23 m	1146	58
Pol3	Card	56	12-23 m	1146	58
Pol3	Card or History	91	12-23 m	1146	58
Pol3	History	35	12-23 m	1146	58

2005 Bangladesh Multiple Indicator Cluster Survey 2006

2006 Bangladesh Demographic and Health Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	97	12-23 m	1146	58
BCG	Card	58	12-23 m	1146	58
BCG	Card or History	97	12-23 m	1146	58
BCG	History	39	12-23 m	1146	58
DTP1	C or H <12 months	97	12-23 m	1146	58
DTP1	Card	58	12-23 m	1146	58
DTP1	Card or History	97	12-23 m	1146	58
DTP1	History	39	12-23 m	1146	58
DTP3	C or H <12 months	90	12-23 m	1146	58
DTP3	Card	56	12-23 m	1146	58
DTP3	Card or History	91	12-23 m	1146	58
DTP3	History	35	12-23 m	1146	58
HepB1	C or H <12 months	89	12-23 m	1146	58
HepB1	Card	56	12-23 m	1146	58
HepB1	Card or History	89	12-23 m	1146	58
HepB1	History	33	12-23 m	1146	58
HepB3	C or H <12 months	81	12-23 m	1146	58
HepB3	Card	54	12-23 m	1146	58

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	97	12-23 m	6032	66
BCG	Card	65	12-23 m	6032	66
BCG	Card or History	97	12-23 m	6032	66
BCG	History	32	12-23 m	6032	66
DTP1	C or H <12 months	96	12-23 m	6032	66
DTP1	Card	65	12-23 m	6032	66
DTP1	Card or History	97	12-23 m	6032	66
DTP1	History	31	12-23 m	6032	66
DTP3	C or H <12 months	90	12-23 m	6032	66
DTP3	Card	62	12-23 m	6032	66
DTP3	Card or History	90	12-23 m	6032	66
DTP3	History	28	12-23 m	6032	66
HepB1	C or H <12 months	48	12-23 m	6032	66
HepB1	Card	46	12-23 m	6032	66
HepB1	Card or History	49	12-23 m	6032	66
HepB1	History	3	12-23 m	6032	66
HepB3	C or H <12 months	43	12-23 m	6032	66
HepB3	Card	42	12-23 m	6032	66
HepB3	Card or History	44	12-23 m	6032	66
HepB3	History	2	12-23 m	6032	66
MCV1	C or H <12 months	85	12-23 m	6032	66

Bangladesh - survey details

MCV1	Card	54	12-23 m	6032	66
MCV1	Card or History	88	12-23 m	6032	66
MCV1	History	33	12-23 m	6032	66
Pol1	C or H <12 months	99	12-23 m	6032	66
Pol1	Card	65	12-23 m	6032	66
Pol1	Card or History	99	12-23 m	6032	66
Pol1	History	34	12-23 m	6032	66
Pol3	C or H <12 months	95	12-23 m	6032	66
Pol3	Card	62	12-23 m	6032	66
Pol3	Card or History	96	12-23 m	6032	66
Pol3	History	34	12-23 m	6032	66

DTP3	C or H <12 months	80	12-23 m	1265	49
DTP3	Card	46	12-23 m	1265	49
DTP3	Card or history	81	12-23 m	1265	49
DTP3	History	35	12-23 m	1265	49
MCV1	C or H <12 months	70	12-23 m	1265	49
MCV1	Card	42	12-23 m	1265	49
MCV1	Card or history	76	12-23 m	1265	49
MCV1	History	34	12-23 m	1265	49
Pol1	C or H <12 months	96	12-23 m	1265	49
Pol1	Card	49	12-23 m	1265	49
Pol1	Card or history	96	12-23 m	1265	49
Pol1	History	47	12-23 m	1265	49
Pol3	C or H <12 months	82	12-23 m	1265	49
Pol3	Card	46	12-23 m	1265	49
Pol3	Card or history	82	12-23 m	1265	49
Pol3	History	36	12-23 m	1265	49

2004 Bangladesh EPI Coverage Evaluation Survey 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	100	12-23 m	15120	65
BCG	Card or History	96	12-23 m	15120	65
DTP1	Card	88	12-23 m	15120	65
DTP1	Card or History	96	12-23 m	15120	65
DTP3	Card	100	12-23 m	15120	65
DTP3	Card or History	88	12-23 m	15120	65
MCV1	Card	88	12-23 m	15120	65
MCV1	Card or History	81	12-23 m	15120	65
Pol3	Card	98	12-23 m	15120	65
Pol3	Card or History	88	12-23 m	15120	65

2002 Bangladesh EPI Coverage Evaluation Survey 2003

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	95	12-23 m	3150	63
DTP1	Card or History	95	12-23 m	3150	63
DTP3	Card or History	83	12-23 m	3150	63
MCV1	Card or History	75	12-23 m	3150	63
Pol1	Card or History	94	12-23 m	3150	63
Pol3	Card or History	83	12-23 m	3150	63

2003 Bangladesh Demographic and Health Survey 2004

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	93	12-23 m	1265	49
BCG	Card	49	12-23 m	1265	49
BCG	Card or history	93	12-23 m	1265	49
BCG	History	44	12-23 m	1265	49
DTP1	C or H <12 months	93	12-23 m	1265	49
DTP1	Card	49	12-23 m	1265	49
DTP1	Card or history	93	12-23 m	1265	49
DTP1	History	44	12-23 m	1265	49

2001 Bangladesh EPI Coverage Evaluation Survey 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	95	12-23 m	15750	55
DTP1	Card or History	94	12-23 m	15750	55
DTP3	Card or History	85	12-23 m	15750	55
MCV1	Card or History	77	12-23 m	15750	55
Pol1	Card or History	94	12-23 m	15750	55
Pol3	Card or History	85	12-23 m	15750	55

Bangladesh - survey details

2000 National Coverage Evaluation Survey Bangladesh 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	94	12-23 m	-	52
DTP1	Card or History	93	12-23 m	-	52
DTP3	Card or History	83	12-23 m	-	52
MCV1	Card or History	76	12-23 m	-	52
Pol1	Card or History	92	12-23 m	-	52
Pol3	Card or History	83	12-23 m	-	52

1999 Bangladesh, Multiple Indicator Cluster Survey 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	92	12-23 m	-	-
DTP1	Card or History	91	12-23 m	-	-
DTP3	Card or History	74	12-23 m	-	-
MCV1	Card or History	76	12-23 m	-	-
Pol1	Card or History	97	12-23 m	-	-
Pol3	Card or History	90	12-23 m	-	-

1999 National Coverage Evaluation Survey Bangladesh 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	96	12-23 m	-	52
DTP1	Card or History	95	12-23 m	-	52
DTP3	Card or History	81	12-23 m	-	52
MCV1	Card or History	71	12-23 m	-	52
Pol1	Card or History	95	12-23 m	-	52
Pol3	Card or History	81	12-23 m	-	52

1998 Bangladesh Demographic and Health Survey 1999-2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
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BCG	C or H <12 months	90	12-23 m	1316	44
BCG	Card	43	12-23 m	1316	44
BCG	Card or History	91	12-23 m	1316	44
BCG	History	48	12-23 m	1316	44
DTP1	C or H <12 months	88	12-23 m	1316	44
DTP1	Card	44	12-23 m	1316	44
DTP1	Card or History	89	12-23 m	1316	44
DTP1	History	45	12-23 m	1316	44
DTP3	C or H <12 months	70	12-23 m	1316	44
DTP3	Card	38	12-23 m	1316	44
DTP3	Card or History	72	12-23 m	1316	44
DTP3	History	34	12-23 m	1316	44
MCV1	C or H <12 months	62	12-23 m	1316	44
MCV1	Card	34	12-23 m	1316	44
MCV1	Card or History	71	12-23 m	1316	44
MCV1	History	36	12-23 m	1316	44
Pol1	C or H <12 months	89	12-23 m	1316	44
Pol1	Card	43	12-23 m	1316	44
Pol1	Card or History	89	12-23 m	1316	44
Pol1	History	46	12-23 m	1316	44
Pol3	C or H <12 months	69	12-23 m	1316	44
Pol3	Card	38	12-23 m	1316	44
Pol3	Card or History	71	12-23 m	1316	44
Pol3	History	33	12-23 m	1316	44

1997 National Coverage Evaluation Survey Bangladesh 1998

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	91	12-23 m	-	54
BCG	Card	100	12-23 m	-	54
BCG	Card <12 months	99	12-23 m	-	54
BCG	Card or History	92	12-23 m	-	54
DTP3	C or H <12 months	68	12-23 m	-	54
DTP3	Card	91	12-23 m	-	54
DTP3	Card <12 months	77	12-23 m	-	54
DTP3	Card or History	78	12-23 m	-	54
MCV1	C or H <12 months	62	12-23 m	-	54
MCV1	Card	84	12-23 m	-	54
MCV1	Card <12 months	74	12-23 m	-	54

Bangladesh - survey details

MCV1	Card or History	72	12-23 m	-	54
Pol3	C or H <12 months	68	12-23 m	-	54
Pol3	Card	91	12-23 m	-	54

Pol3	Card <12 months	77	12-23 m	-	54
Pol3	Card or History	78	12-23 m	-	54

Further information and estimates for previous years are available at:

<http://www.data.unicef.org/child-health/immunization>

http://www.who.int/immunization/monitoring_surveillance/routine/coverage/en/index4.html

Bangladesh

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 receives 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.

The model was used in the mid to late 2000. Currently, the coverage series developed by the model is used as the baseline, and efforts are made to obtain data from all sources that include the JRF and reported trend over the years, routine PAB reporting and its trend over the years, data from surveys (DHS, MICS, EPI), whether countries have been validated for the attainment of maternal and neonatal tetanus elimination and what the TT coverage figures are from the survey etc and all the information is used to arrive at an estimate of the protection-at-birth from TT vaccination.

Year	PAB coverage estimate (%)
2003	89
2004	89
2005	89
2006	92
2007	91
2008	91
2009	93
2010	93
2011	94
2012	94
2013	94
2014	96

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.