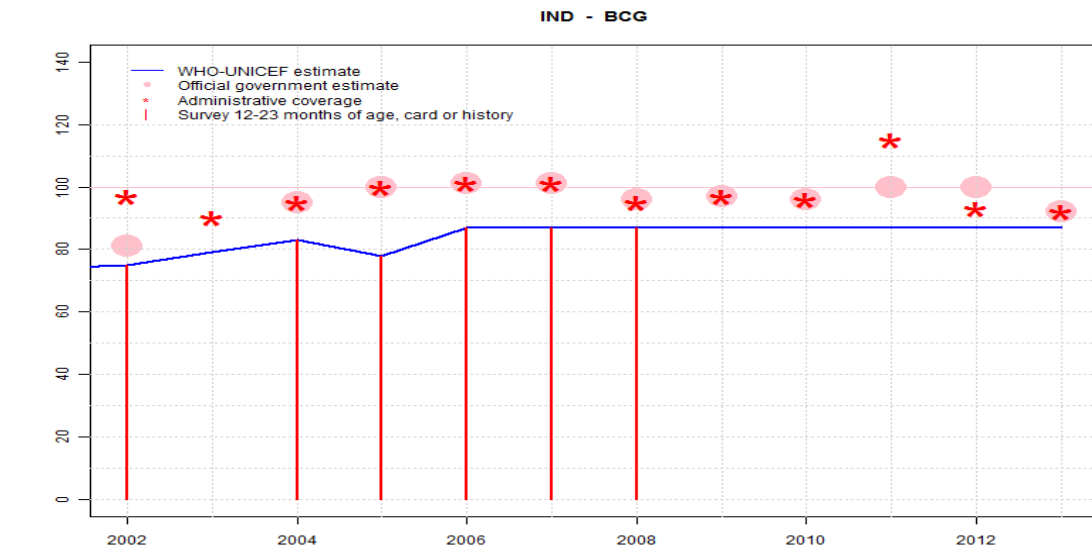


# India - BCG



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	75	79	83	78	87	87	87	87	87	87	87	87
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	81	NA	95	100	101	101	96	97	96	100	100	92
Administrative	97	90	95	100	101	101	95	97	96	115	93	92
Survey	75	NA	83	78	87	87	87	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.

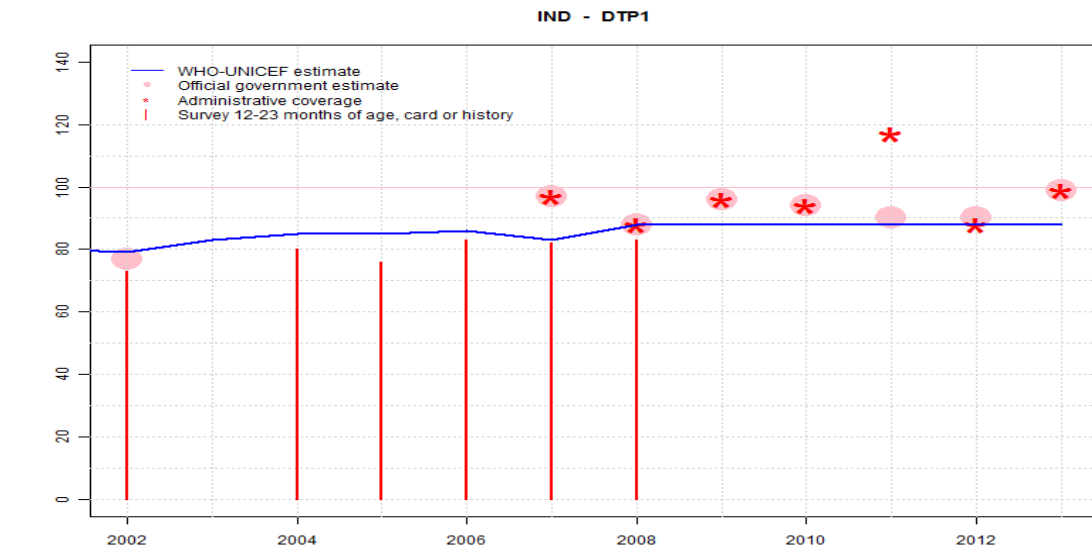
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 75 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Estimate challenged by: R-
- 2003: Reported data calibrated to 2002 and 2004 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2004: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 83 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Nationally reported data are for nine months only. Estimate challenged by: D-R-
- 2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 78 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Nationally reported data are for nine months only. Estimate challenged by: R-
- 2006: Estimate is based on survey. Reported data excluded. Reported data not supported by surveys. Reported data excluded. 101 percent greater than 100 percent. Estimate challenged by: D-R-
- 2007: Estimate is based on survey. Reported data excluded. Reported data not supported by surveys. Reported data excluded. 101 percent greater than 100 percent. Estimate challenged by: D-R-
- 2008: Estimate is based on survey. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2010: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2011: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2012: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2013: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Fluctuations in reported data is attributed to poor recording and monitoring by some states. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: D-

# India - DTP1



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	79	83	85	85	86	83	88	88	88	88	88	88
Estimate GoC	•	••	••	••	••	•	•	•	•	•	•	•
Official	77	NA	NA	NA	NA	97	88	96	94	90	90	99
Administrative	NA	NA	NA	NA	NA	97	88	96	94	117	88	99
Survey	73	NA	80	76	83	82	83	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.

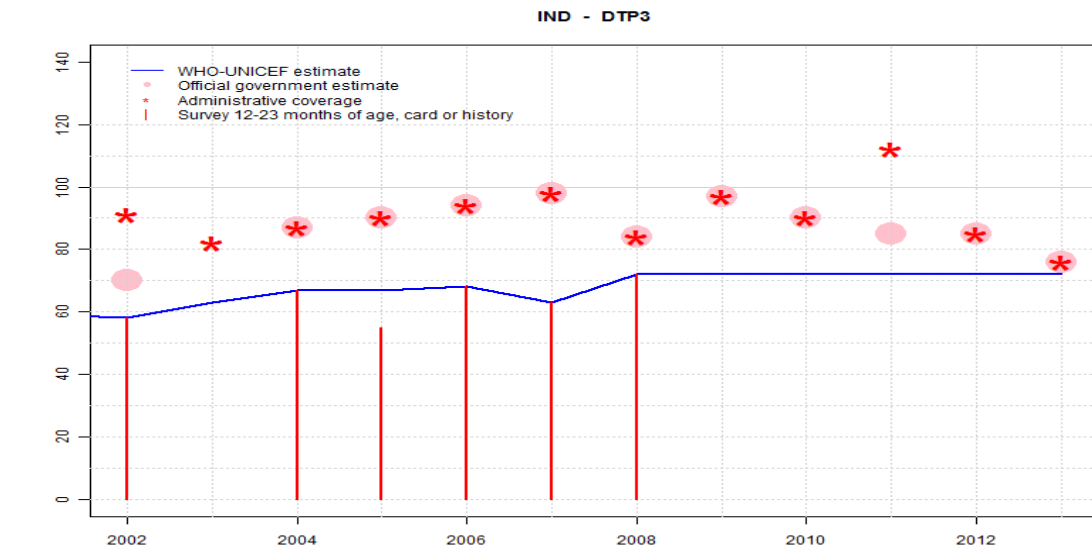
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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 DTP3 coverage of 58. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: R-
- 2003: Estimate based on DTP3 coverage of 63. GoC=S+
- 2004: Estimate based on DTP3 coverage of 67. Nationally reported data are for nine months only. GoC=S+
- 2005: Estimate based on DTP3 coverage of 67. Nationally reported data are for nine months only. GoC=S+
- 2006: Estimate based on DTP3 coverage of 68. GoC=S+
- 2007: Estimate based on DTP3 coverage of 63. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2008: Estimate based on DTP3 coverage of 72. Reported data excluded. Reported data not supported by surveys. Stock out reported however insufficient data to reflect impact in the estimate. Estimate challenged by: D-R-
- 2009: Estimate based on DTP3 coverage of 72. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2010: Estimate based on DTP3 coverage of 72. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2011: Estimate based on DTP3 coverage of 72. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2012: Estimate based on DTP3 coverage of 72. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2013: Estimate based on DTP3 coverage of 72. Reported data excluded. Reported data not supported by surveys. Fluctuations in reported data is attributed to poor recording and monitoring by some states. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: R-

# India - DTP3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	58	63	67	67	68	63	72	72	72	72	72	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	••
Official	70	NA	87	90	94	98	84	97	90	85	85	76
Administrative	91	82	87	90	94	98	84	97	90	112	85	76
Survey	58	NA	67	55	68	63	72	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.

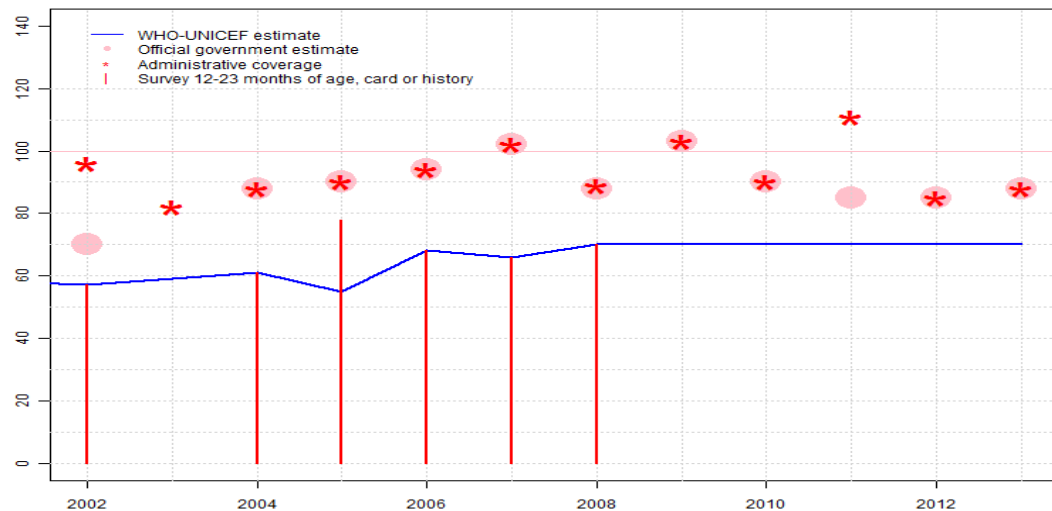
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2002: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 58 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2003: Reported data calibrated to 2002 and 2004 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2004: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Nationally reported data are for nine months only. Estimate challenged by: R-
- 2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). India National Family Health Survey (NFHS-3) 2005-2006 card or history results of 55 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 98 percent and 3d dose card only coverage of 87 percent. Reported data excluded. Reported data not supported by surveys. Nationally reported data are for nine months only. Estimate challenged by: R-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2007: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 63 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 72 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Reported data excluded. Decline in reported coverage from 98 percent to 84 percent with increase to 97 percent. Stock out reported however insufficient data to reflect impact in the estimate. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2010: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2011: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2012: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2013: Reported data calibrated to 2008 levels. Reported data excluded. Re-

ported data not supported by surveys. Fluctuations in reported data is attributed to poor recording and monitoring by some states. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=D+

IND - Pol3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	57	59	61	55	68	66	70	70	70	70	70	70
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	70	NA	88	90	94	102	88	103	90	85	85	88
Administrative	96	82	88	90	94	102	89	103	90	111	85	88
Survey	57	NA	61	78	68	66	70	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: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 57 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2003: Reported data calibrated to 2002 and 2004 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-S-
- 2004: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 61 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Nationally reported data are for nine months only. Estimate challenged by: R-S-
- 2005: Estimates are based on 2002/2004 National District and the 2005 CES adjusted with the difference between CES 2005 and NFHS DTP3 results. India National Family Health Survey (NFHS-3) 2005-2006 results ignored by working group. The 2005 NFHS data include campaign doses. India National Family Health Survey (NFHS-3) 2005-2006 card or history results of 78 percent modified for recall bias to 83 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 98 percent and 3d dose card only coverage of 87 percent. Reported data excluded. Reported data not supported by surveys. Nationally reported data are for nine months only. Estimate challenged by: D-R-S-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-S-
- 2007: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Reported data excluded. 102 percent greater than 100 percent. Estimate challenged by: D-R-S-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 70 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Reported data excluded. Decline in reported coverage from 102 percent to 88 percent with increase to 103 percent. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Reported data excluded. 103 percent greater than 100 percent. Reported data excluded. Unexplained increase from 88 percent to 103 percent with decrease 90 percent. Estimate challenged by: D-
- 2010: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-

2011: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-

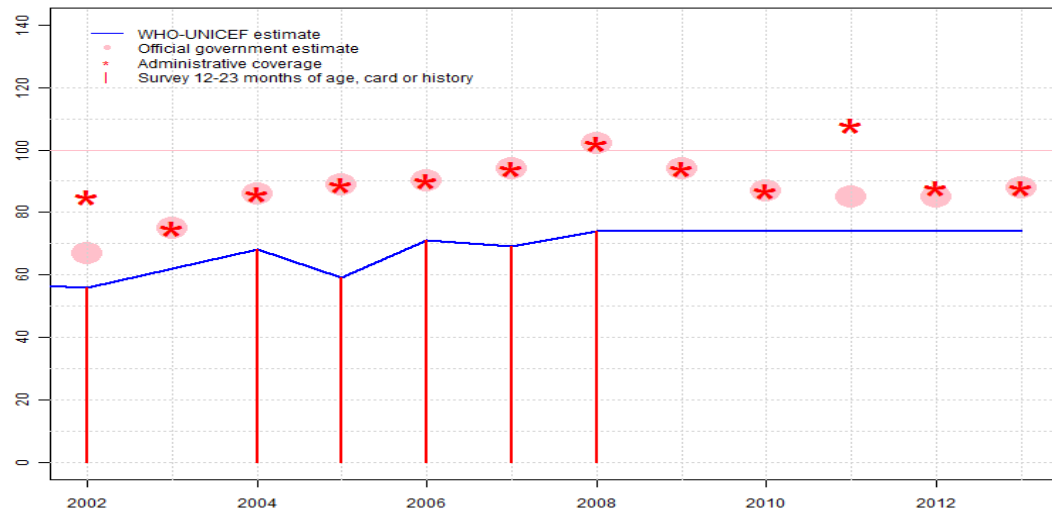
2012: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-

2013: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Fluctuations in reported data is attributed to poor recording and monitoring by some states. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: D-



# India - MCV

IND - MCV



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	56	62	68	59	71	69	74	74	74	74	74	74
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	67	75	86	89	90	94	102	94	87	85	85	88
Administrative	85	75	86	89	90	94	102	94	87	108	88	88
Survey	56	NA	68	59	71	69	74	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.

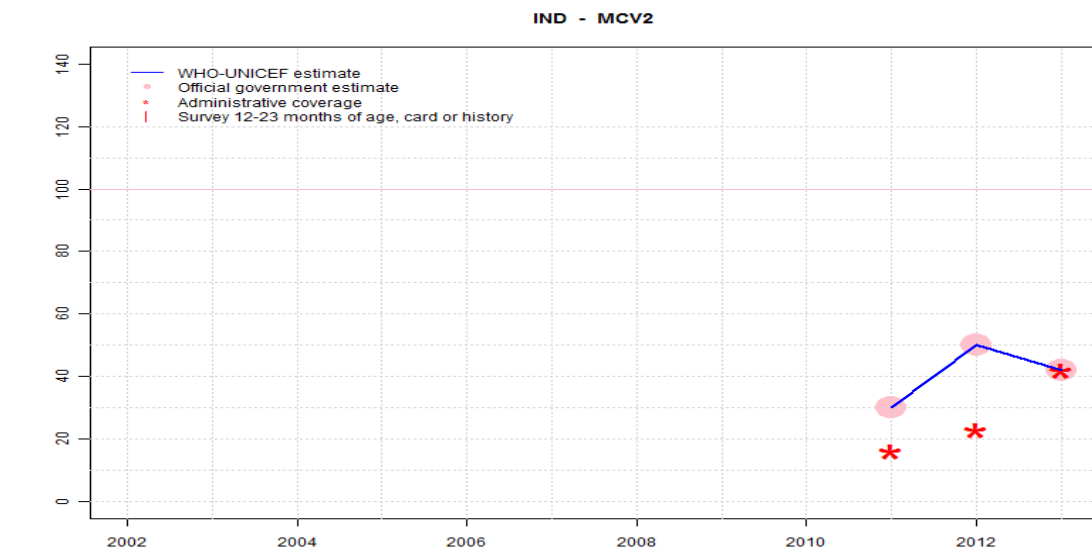
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2002: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 56 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2003: Reported data calibrated to 2002 and 2004 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2004: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Nationally reported data are for nine months only. Estimate challenged by: R-
- 2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 59 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Nationally reported data are for nine months only. Estimate challenged by: D-R-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 71 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2007: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 69 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-R-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 1 survey(s). Reported data excluded. Reported data not supported by surveys. Reported data excluded. 102 percent greater than 100 percent. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2010: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2011: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2012: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Estimate challenged by: D-
- 2013: Reported data calibrated to 2008 levels. Reported data excluded. Reported data not supported by surveys. Fluctuations in reported data is attributed to poor recording and monitoring by some states. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: D-



# India - MCV2



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	50	42
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	●	●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	50	42
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	16	23	42
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.

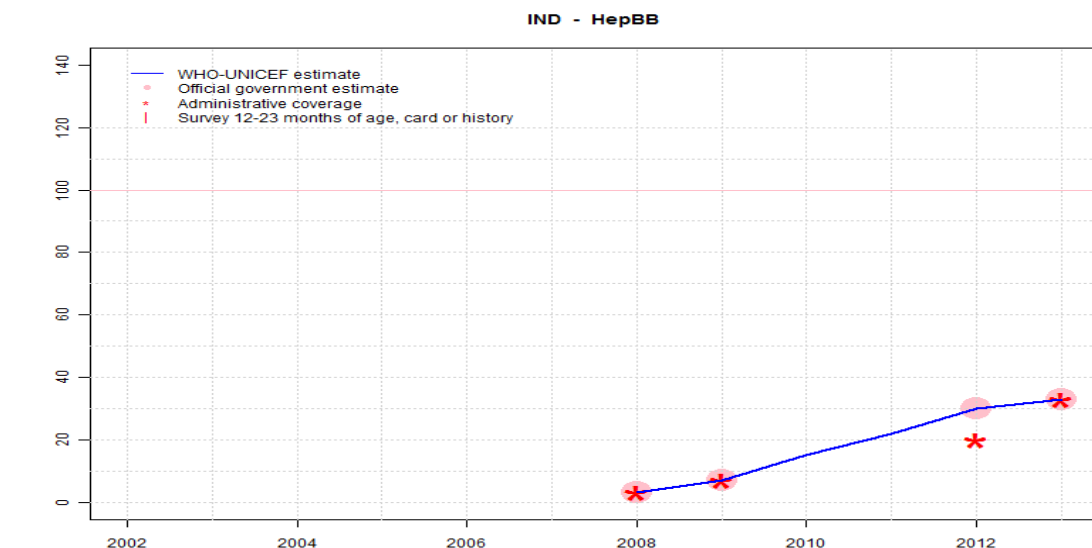
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

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

- 2011: . Reported data excluded. . Estimate challenged by: D-R-
- 2012: . Reported data excluded. . Measles second dose administered subnationally among children aged 16-24 months. Estimate challenged by: D-R-
- 2013: . Reported data excluded. . Fluctuations in reported data is attributed to poor recording and monitoring by some states. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: R-

# India - HepBB



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	3	7	15	22	30	33
Estimate GoC	NA	NA	NA	NA	NA	NA	●●	●●	●	●	●	●●
Official	NA	NA	NA	NA	NA	NA	3	7	NA	NA	30	33
Administrative	NA	NA	NA	NA	NA	NA	3	7	NA	NA	20	33
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.

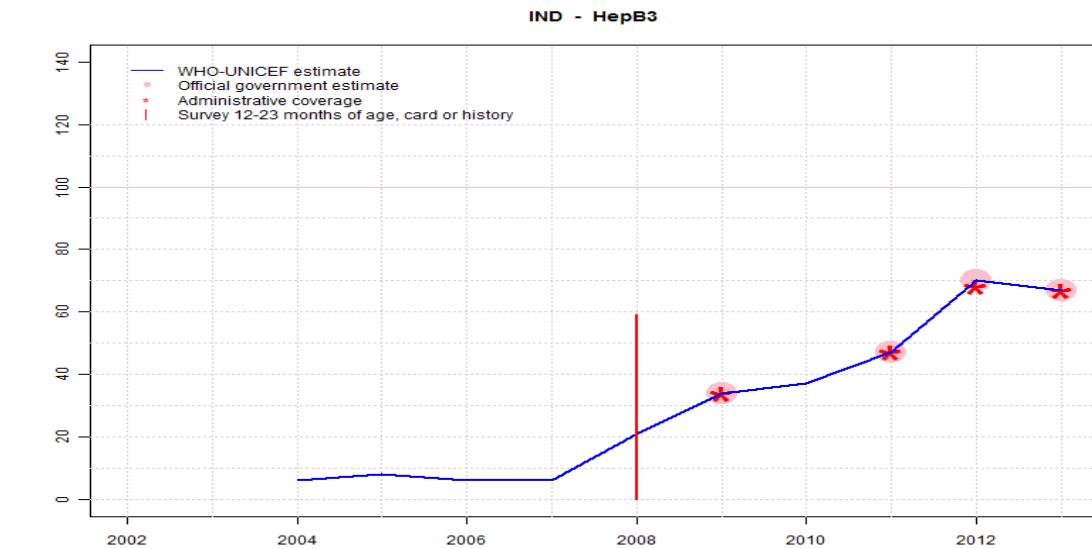
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2008: Estimate based on coverage reported by national government. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on interpolation between reported values. GoC=No accepted empirical data
- 2011: Estimate based on interpolation between reported values. GoC=No accepted empirical data
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Fluctuations in reported data is attributed to poor recording and monitoring by some states. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+

# India - HepB3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	6	8	6	6	21	34	37	47	70	67
Estimate GoC	NA	NA	●●	●●	●	●	●	●	●	●●	●	●
Official	NA	NA	NA	NA	NA	NA	NA	34	NA	47	70	67
Administrative	NA	NA	NA	NA	NA	NA	NA	34	NA	47	68	67
Survey	NA	NA	NA	NA	NA	NA	59	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.

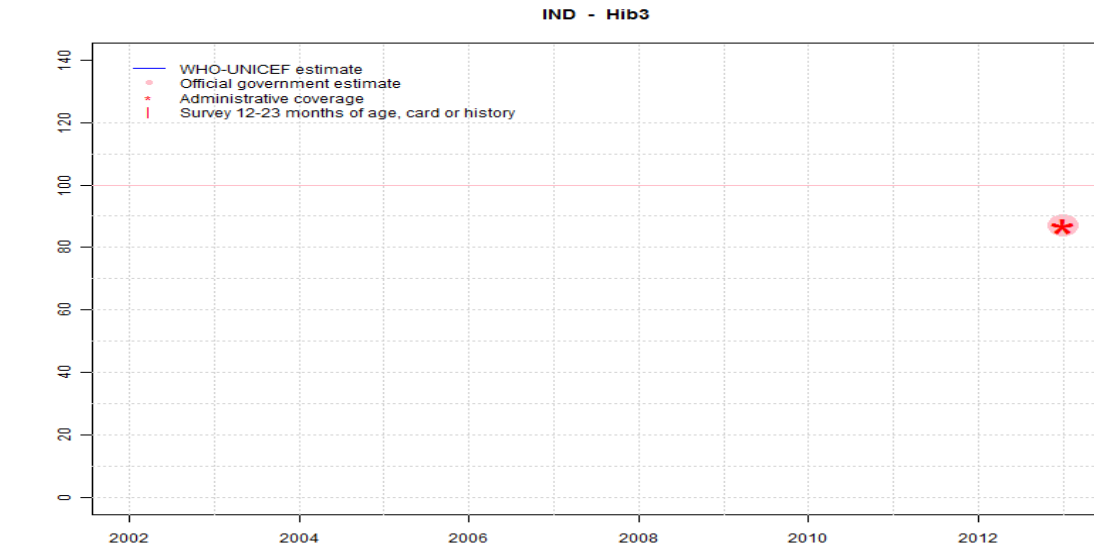
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2004: Sixty-eight percent coverage reached in 1.65 million children. Nationally reported data are for nine months only. HepB vaccine partially introduced in 2002, reporting started in 2004. Vaccine presentation is monovalent HepB. GoC=D+
- 2005: Seventy-eight percent coverage reached in 2.3 million children. Nationally reported data are for nine months only. GoC=D+
- 2006: Seventy-two percent coverage reached in 8 percent of the national target population. Estimate challenged by: S-
- 2007: Sixty-nine percent coverage reached in 7 percent of the national target population. Estimate challenged by: S-
- 2008: Fifty percent coverage reached in 43 percent of the national target population. India 2009 Coverage Evaluation Survey results ignored by working group. Population sample for HepB is not nationally representative. It represents 10 states and 3 union territories. Estimate challenged by: S-
- 2009: Estimate based on reported data. Estimate challenged by: S-
- 2010: Ninety-two percent coverage reached in 40 percent of the national target population. Estimate challenged by: S-
- 2011: . GoC=R+ D+
- 2012: . Reported data excluded. . Estimate challenged by: R-
- 2013: . Reported data excluded. . Fluctuations in reported data is attributed to poor recording and monitoring by some states. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: R-

# India - 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	20
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	87
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	87
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.

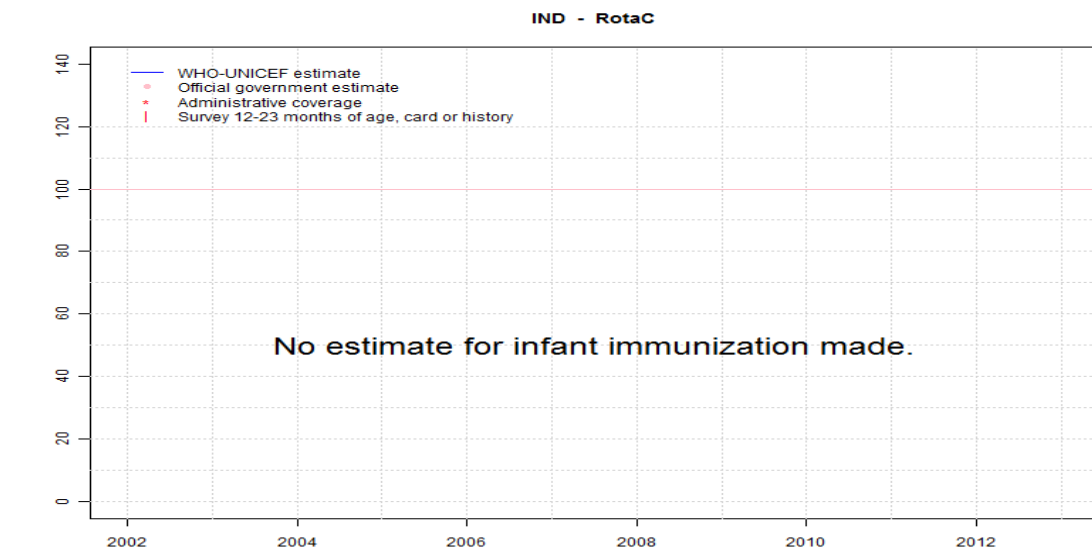
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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 reflects annualized coverage using the reported number of children vaccinated and the reported target population for DTP3. Eighty-seven percent coverage achieved in 23 percent of the national target population. Fluctuations in reported data is attributed to poor recording and monitoring by some states. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Hib vaccine introduced subnationally in 2011, reporting began in 2013. Estimate challenged by: R-

# India - RotaC

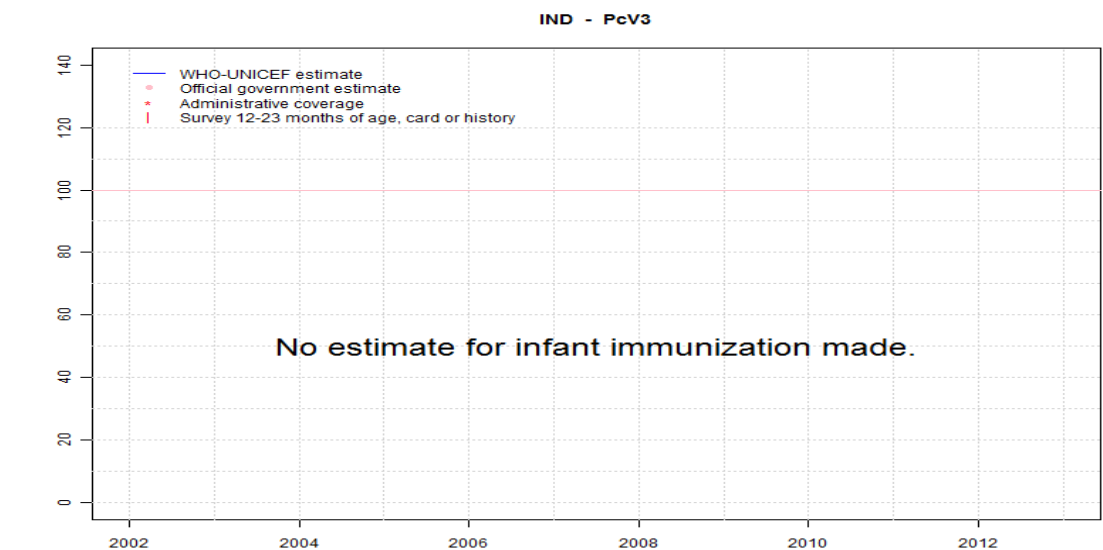


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.



	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.

# India - survey details

## 2008 India 2009 Coverage Evaluation Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	87	12-23 m	22604	52
DTP1	Card or History	83	12-23 m	22604	52
DTP3	Card or History	72	12-23 m	22604	52
HepB1	Card or History	71	12-23 m	22604	52
HepB3	Card or History	59	12-23 m	22604	52
MCV	Card or History	74	12-23 m	22604	52
Pol3	Card or History	70	12-23 m	22604	52

## 2007 India District-Level Household and Facility Survey 2007-2008 (DHLS-3)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	87	12-23 m	65628	43
DTP1	Card or History	82	12-23 m	65628	43
DTP3	Card or History	63	12-23 m	65628	43
MCV	Card or History	69	12-23 m	65628	43
Pol1	Card or History	93	12-23 m	65628	43
Pol3	Card or History	66	12-23 m	65628	43

## 2006 India Coverage Evaluation Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	87	12-23 m	22888	71
DTP1	Card or History	83	12-23 m	22888	71
DTP3	Card or History	68	12-23 m	22888	71
MCV	Card or History	71	12-23 m	22888	71
Pol1	Card or History	82	12-23 m	22888	71
Pol3	Card or History	68	12-23 m	22888	71

## 2005 India National Family Health Survey (NFHS-3) 2005-2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	76	12-23 m	10419	38
BCG	Card	97	12-23 m	10419	38
BCG	Card or History	78	12-23 m	10419	38
BCG	History	67	12-23 m	10419	38
DTP1	C or H <12 months	73	12-23 m	10419	38
DTP1	Card	98	12-23 m	10419	38
DTP1	Card or History	76	12-23 m	10419	38
DTP1	History	62	12-23 m	10419	38
DTP3	C or H <12 months	52	12-23 m	10419	38
DTP3	Card	87	12-23 m	10419	38
DTP3	Card or History	55	12-23 m	10419	38
DTP3	History	36	12-23 m	10419	38
MCV	C or H <12 months	48	12-23 m	10419	38
MCV	Card	81	12-23 m	10419	38
MCV	Card or History	59	12-23 m	10419	38
MCV	History	45	12-23 m	10419	38
Pol1	C or H <12 months	89	12-23 m	10419	38
Pol1	Card	98	12-23 m	10419	38
Pol1	Card or History	93	12-23 m	10419	38
Pol1	History	90	12-23 m	10419	38
Pol3	C or H <12 months	73	12-23 m	10419	38
Pol3	Card	87	12-23 m	10419	38
Pol3	Card or History	78	12-23 m	10419	38
Pol3	History	73	12-23 m	10419	38

## 2004 India Coverage Evaluation Survey 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	83	12-23 m	15676	71
DTP1	Card or History	80	12-23 m	15676	71
DTP3	Card or History	67	12-23 m	15676	71
MCV	Card or History	68	12-23 m	15676	71
Pol1	Card or History	79	12-23 m	15676	71
Pol3	Card or History	61	12-23 m	15676	71

## 2002 Reproductive and Child Health (District Level Household Survey 2002-2004) - India



# India - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	75	12-23 m	62505	31
DTP1	Card or History	73	12-23 m	62505	31
DTP3	Card or History	58	12-23 m	62505	31
MCV	Card or History	56	12-23 m	62505	31
Pol3	Card or History	57	12-23 m	62505	31

## 2001 Routine Immunization and Maternal Care, CES, 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	74	12-23 m	-	54
DTP1	C or H <12 months	71	12-23 m	-	54
DTP3	C or H <12 months	64	12-23 m	-	54
MCV	C or H <12 months	61	12-23 m	-	54
Pol3	C or H <12 months	68	12-23 m	-	54

## 2000 Routine Immunization and Maternal Care, CES, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	73	12-23 m	-	57
DTP1	C or H <12 months	71	12-23 m	-	57
DTP3	C or H <12 months	64	12-23 m	-	57
MCV	C or H <12 months	56	12-23 m	-	57
Pol3	C or H <12 months	70	12-23 m	-	57

## 1999 India, Multiple Indicator Cluster Survey India (MICS-II) 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	68	12-23 m	-	-
DTP1	Card or History	64	12-23 m	-	-
DTP3	Card or History	47	12-23 m	-	-
MCV	Card or History	50	12-23 m	-	-
Pol1	Card or History	70	12-23 m	-	-
Pol3	Card or History	59	12-23 m	-	-

## 1997 Evaluation of Routine Immunization 1998-99

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	72	12-23 m	7855	48
DTP1	Card or History	73	12-23 m	7855	48
DTP3	Card or History	69	12-23 m	7855	48
MCV	Card or History	55	12-23 m	7855	48
Pol1	Card or History	73	12-23 m	7855	48
Pol3	Card or History	69	12-23 m	7855	48

## 1997 National Family Health Survey, India 1998-99

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	69	12-23 m	10076	34
BCG	Card	95	12-23 m	3393	34
BCG	Card or History	72	12-23 m	10076	34
BCG	History	60	12-23 m	6684	34
DTP1	C or H <12 months	69	12-23 m	10076	34
DTP1	Card	99	12-23 m	3393	34
DTP1	Card or History	71	12-23 m	10076	34
DTP1	History	58	12-23 m	6684	34
DTP3	C or H <12 months	52	12-23 m	10076	34
DTP3	Card	86	12-23 m	3393	34
DTP3	Card or History	55	12-23 m	10076	34
DTP3	History	40	12-23 m	6684	34
MCV	C or H <12 months	42	12-23 m	10076	34
MCV	Card	73	12-23 m	3393	34
MCV	Card or History	51	12-23 m	10076	34
MCV	History	39	12-23 m	6684	34
Pol1	C or H <12 months	80	12-23 m	10076	34
Pol1	Card	98	12-23 m	3393	34
Pol1	Card or History	84	12-23 m	10076	34
Pol1	History	76	12-23 m	6684	34
Pol3	C or H <12 months	59	12-23 m	10076	34
Pol3	Card	85	12-23 m	3393	34
Pol3	Card or History	63	12-23 m	10076	34
Pol3	History	51	12-23 m	6684	34

# India - survey details

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

## India

### 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	87
2003	86
2004	86
2005	86
2006	86
2007	86
2008	86
2009	86
2010	87
2011	87
2012	87
2013	87

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<sup>1</sup> This model is described in: Griffiths U., Wolfson L., Quddus A., Younus M., Hafiz R.. Incremental cost-effectiveness of supplementary immunization activities to prevent neo-natal tetanus in Pakistan. Bulletin of the World Health Organization 2004; 82:643-651.