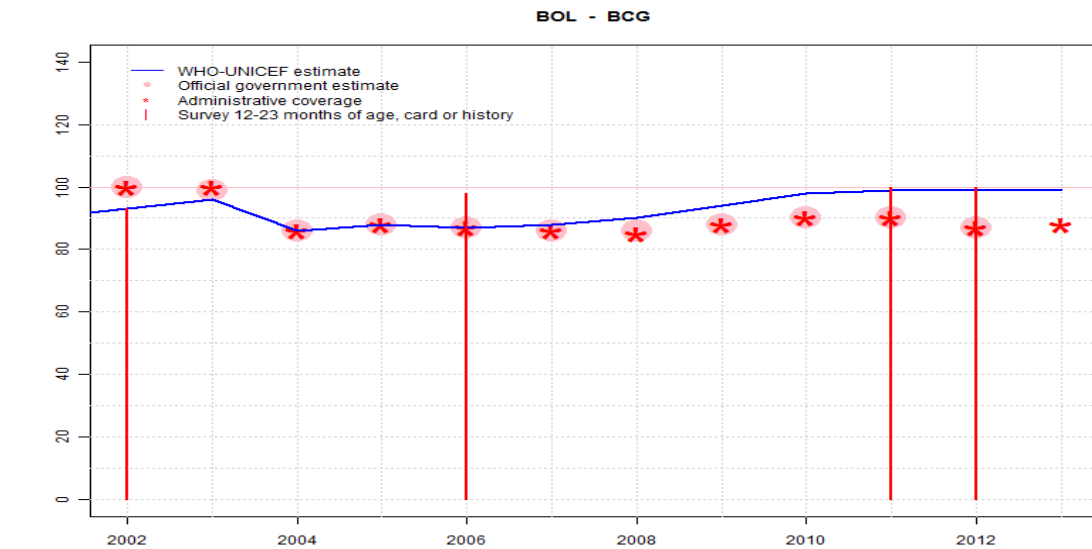


Bolivia (Plurinational State of) - BCG



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	93	96	86	88	87	88	90	94	98	99	99	99
Estimate GoC	•	•	•••	•••	••	••	••	••	•	•	•	•
Official	100	99	86	88	87	86	86	88	90	90	87	NA
Administrative	100	100	86	88	87	86	85	88	90	90	87	88
Survey	93	NA	NA	NA	98	NA	NA	NA	NA	100	100	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.

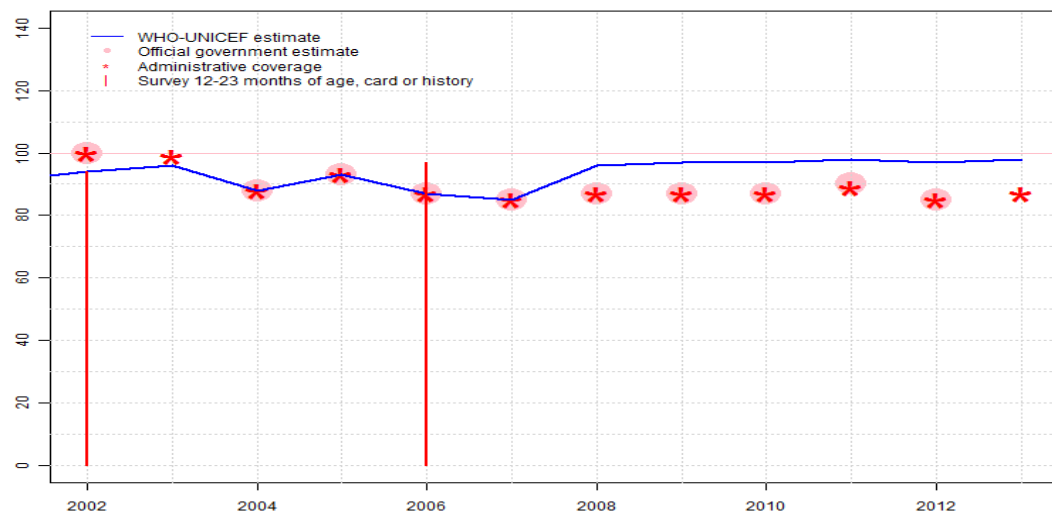
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2002: Estimate based on survey results. Estimate challenged by: R-
- 2003: Reported data calibrated to 2002 and 2004 levels. Estimate challenged by: D-
- 2004: Estimate based on nationally reported data. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Estimate based on nationally reported data. GoC=R+ D+
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate of 88 percent changed from previous revision value of 86 percent. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate of 90 percent changed from previous revision value of 86 percent. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate of 94 percent changed from previous revision value of 88 percent. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate of 98 percent changed from previous revision value of 90 percent. Estimate challenged by: D-
- 2011: . Estimate of 99 percent changed from previous revision value of 90 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 100 percent based on 1 survey(s). Estimate of 99 percent changed from previous revision value of 87 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-

Bolivia (Plurinational State of) - DTP1

BOL - DTP1



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	94	96	88	93	87	85	96	97	97	98	97	98
Estimate GoC	•	••	•••	•••	•••	••	•	•	•	•	•	•
Official	100	NA	88	93	87	85	87	87	87	90	85	NA
Administrative	100	99	88	93	87	85	87	87	87	89	85	87
Survey	94	NA	NA	NA	97	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.

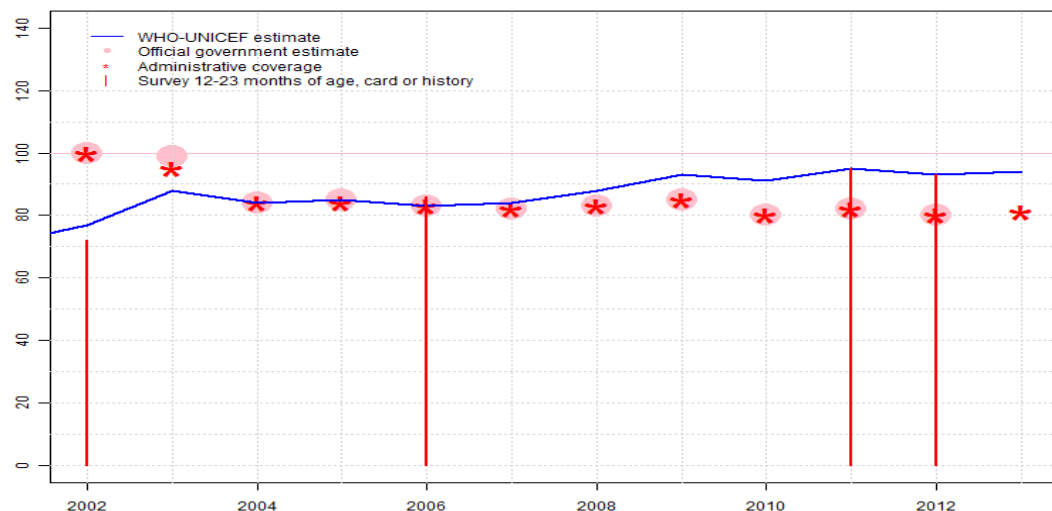
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2002: Estimate based on survey results. Estimate challenged by: R-
- 2003: Reported data calibrated to 2002 and 2004 levels. GoC=S+ D+
- 2004: Estimate based on nationally reported data. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Estimate based on nationally reported data. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: DTP1 coverage estimated based on DTP3 coverage of 88. Estimate of 96 percent changed from previous revision value of 87 percent. Estimate challenged by: R-
- 2009: DTP1 coverage estimated based on DTP3 coverage of 93. Estimate of 97 percent changed from previous revision value of 87 percent. Estimate challenged by: R-
- 2010: DTP1 coverage estimated based on DTP3 coverage of 91. Estimate of 97 percent changed from previous revision value of 87 percent. Estimate challenged by: R-
- 2011: DTP1 coverage estimated based on DTP3 coverage of 95. Estimate of 98 percent changed from previous revision value of 90 percent. Estimate challenged by: R-
- 2012: DTP1 coverage estimated based on DTP3 coverage of 93. Estimate of 97 percent changed from previous revision value of 85 percent. Estimate challenged by: R-
- 2013: DTP1 coverage estimated based on DTP3 coverage of 94. Estimate challenged by: R-

Bolivia (Plurinational State of) - DTP3

BOL - DTP3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	77	88	84	85	83	84	88	93	91	95	93	94
Estimate GoC	•	••	•••	•••	•••	••	••	••	••	•	•	•
Official	100	99	84	85	83	82	83	85	80	82	80	NA
Administrative	100	95	84	84	83	82	83	85	80	82	80	81
Survey	72	NA	NA	NA	86	NA	NA	NA	NA	95	93	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.

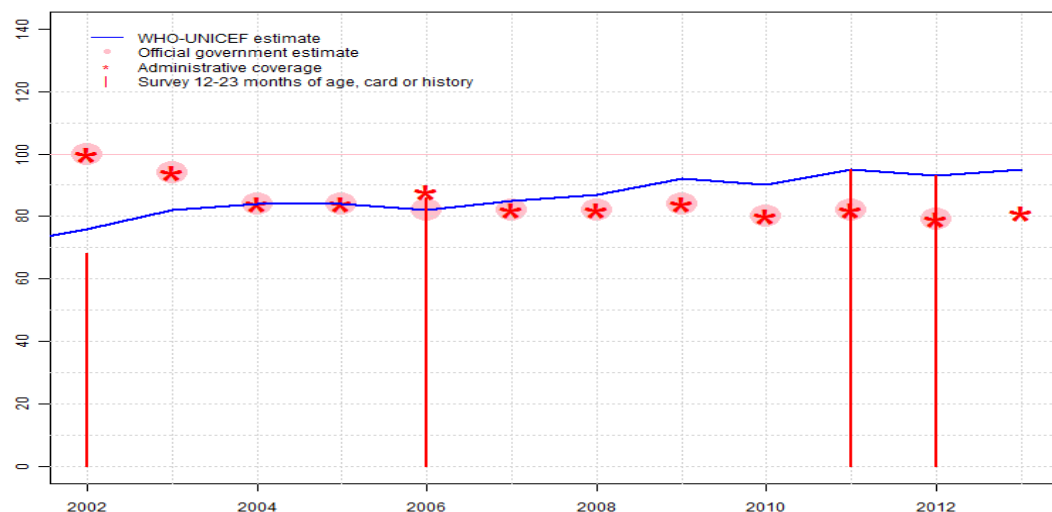
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2002: Estimate based on survey results. National Demographic and Health Survey 2003 card or history results of 72 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 77 percent and 3d dose card only coverage of 63 percent. Estimate challenged by: R-
- 2003: Reported data calibrated to 2002 and 2004 levels. GoC=D+
- 2004: Estimate based on nationally reported data. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Estimate based on nationally reported data. Bolivia Demographic and Health Survey 2008 card or history results of 86 percent modified for recall bias to 91 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 75 percent and 3d dose card only coverage of 70 percent. GoC=R+ S+ D+
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate of 84 percent changed from previous revision value of 82 percent. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate of 88 percent changed from previous revision value of 83 percent. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate of 93 percent changed from previous revision value of 85 percent. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate of 91 percent changed from previous revision value of 80 percent. GoC=S+ D+
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 95 percent based on 1 survey(s). Estimate of 95 percent changed from previous revision value of 82 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 93 percent based on 1 survey(s). Estimate of 93 percent changed from previous revision value of 80 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-

Bolivia (Plurinational State of) - Pol3

BOL - Pol3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	76	82	84	84	82	85	87	92	90	95	93	95
Estimate GoC	•	••	•••	•••	•••	••	••	••	••	•	•	•
Official	100	94	84	84	82	82	84	80	82	79	NA	NA
Administrative	100	94	84	84	88	82	82	84	80	82	79	81
Survey	68	NA	NA	NA	86	NA	NA	NA	NA	95	93	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.

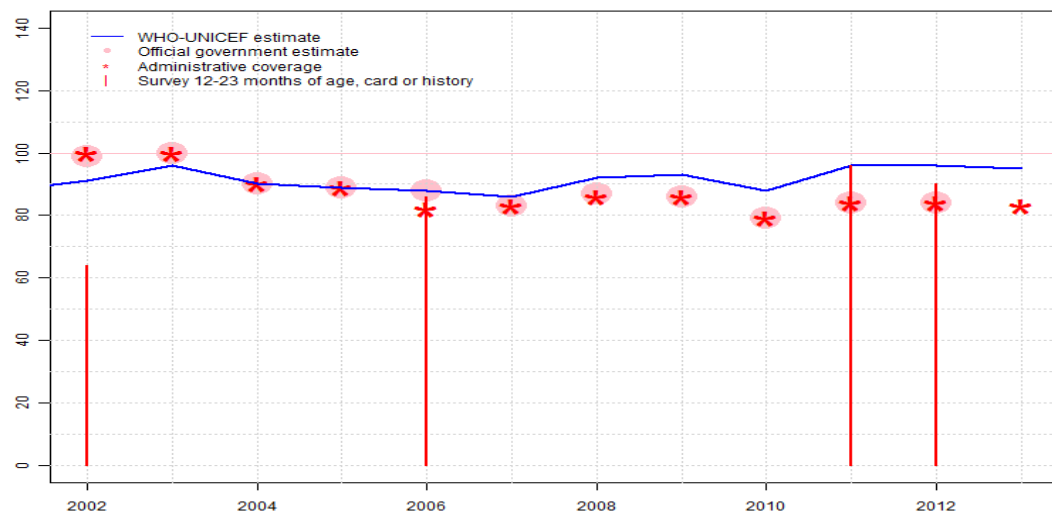
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2002: Estimate based on survey results. National Demographic and Health Survey 2003 card or history results of 68 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 77 percent and 3d dose card only coverage of 63 percent. Estimate challenged by: R-
- 2003: Reported data calibrated to 2002 and 2004 levels. GoC=S+ D+
- 2004: Estimate based on nationally reported data. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Estimate based on nationally reported data. Bolivia Demographic and Health Survey 2008 card or history results of 86 percent modified for recall bias to 91 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 75 percent and 3d dose card only coverage of 70 percent. GoC=R+ S+ D+
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate of 85 percent changed from previous revision value of 82 percent. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate of 87 percent changed from previous revision value of 82 percent. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate of 92 percent changed from previous revision value of 84 percent. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate of 90 percent changed from previous revision value of 80 percent. GoC=S+ D+
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 95 percent based on 1 survey(s). Estimate of 95 percent changed from previous revision value of 82 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 93 percent based on 1 survey(s). Estimate of 93 percent changed from previous revision value of 79 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-

Bolivia (Plurinational State of) - MCV

BOL - MCV



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	91	96	90	89	88	86	92	93	88	96	96	95
Estimate GoC	•	•	•	•••	•••	••	••	••	•	•	•	•
Official	99	100	90	89	88	83	87	86	79	84	84	NA
Administrative	100	100	90	89	82	83	86	86	79	84	84	83
Survey	64	NA	NA	NA	86	NA	NA	NA	NA	96	90	NA

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

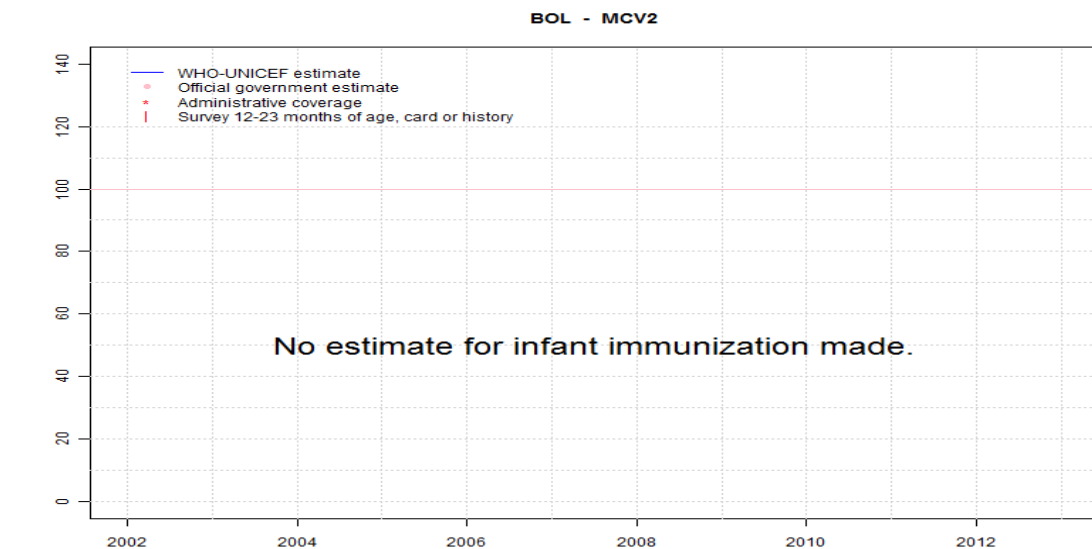
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

- 2002: Reported data calibrated to 1999 and 2004 levels. National Demographic and Health Survey 2003 results ignored by working group. Measles immunization recommended at one year of age. Survey results based on cohort 12-23 months of age which could lead to an underestimation of coverage. Estimate challenged by: S-
- 2003: Reported data calibrated to 1999 and 2004 levels. Estimate challenged by: S-
- 2004: Estimate based on nationally reported data. Estimate challenged by: S-
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 86 percent based on 1 survey(s). GoC=R+ S+ D+
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate of 86 percent changed from previous revision value of 83 percent. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate of 92 percent changed from previous revision value of 87 percent. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate of 93 percent changed from previous revision value of 86 percent. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate of 88 percent changed from previous revision value of 79 percent. Estimate challenged by: S-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 96 percent based on 1 survey(s). Estimate of 96 percent changed from previous revision value of 84 percent. Estimate challenged by: D-R-S-
- 2012: Reported data calibrated to 2011 levels. Bolivia National Immunization Coverage Survey 2013 results ignored by working group. First dose of MCV is recommended at 12-23 months and therefore the survey result may not reflect doses received during the second year of life. Estimate of 96 percent changed from previous revision value of 84 percent. Estimate challenged by: D-S-
- 2013: Reported data calibrated to 2011 levels. Estimate challenged by: D-S-

Bolivia (Plurinational State of) - MCV2



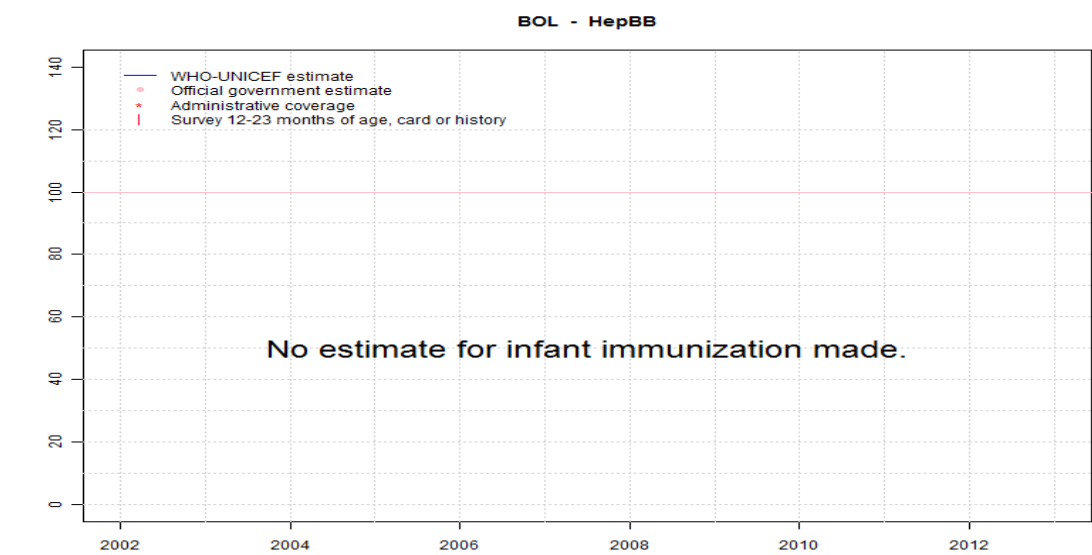
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

Bolivia (Plurinational State of) - HepBB



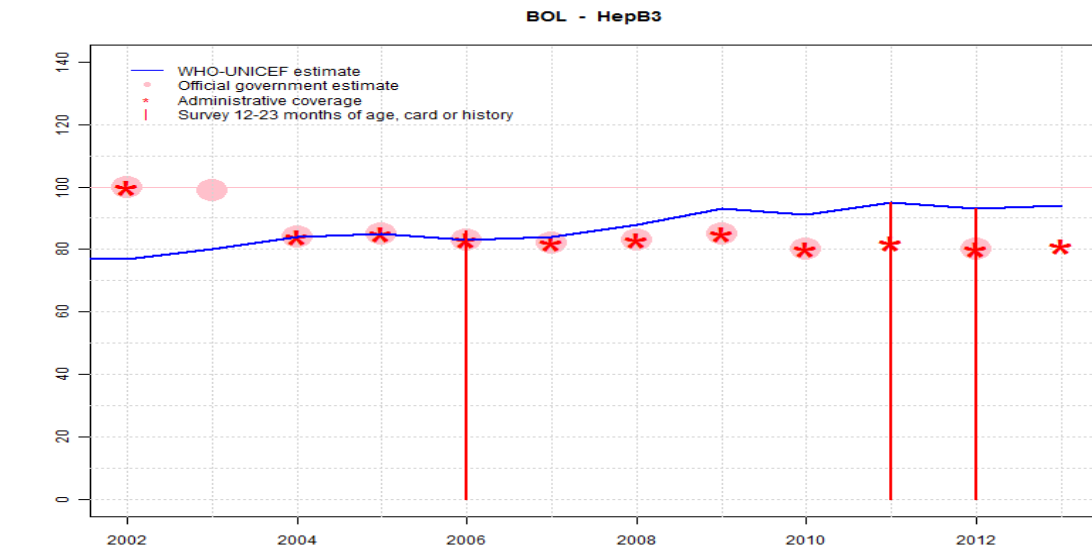
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Bolivia (Plurinational State of) - HepB3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	77	80	84	85	83	84	88	93	91	95	93	94
Estimate GoC	•	•	•••	•••	•••	••	••	••	••	•	•	•
Official	100	99	84	85	83	82	83	85	80	NA	80	NA
Administrative	100	NA	84	85	83	82	83	85	80	82	80	81
Survey	NA	NA	NA	NA	86	NA	NA	NA	NA	95	93	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.

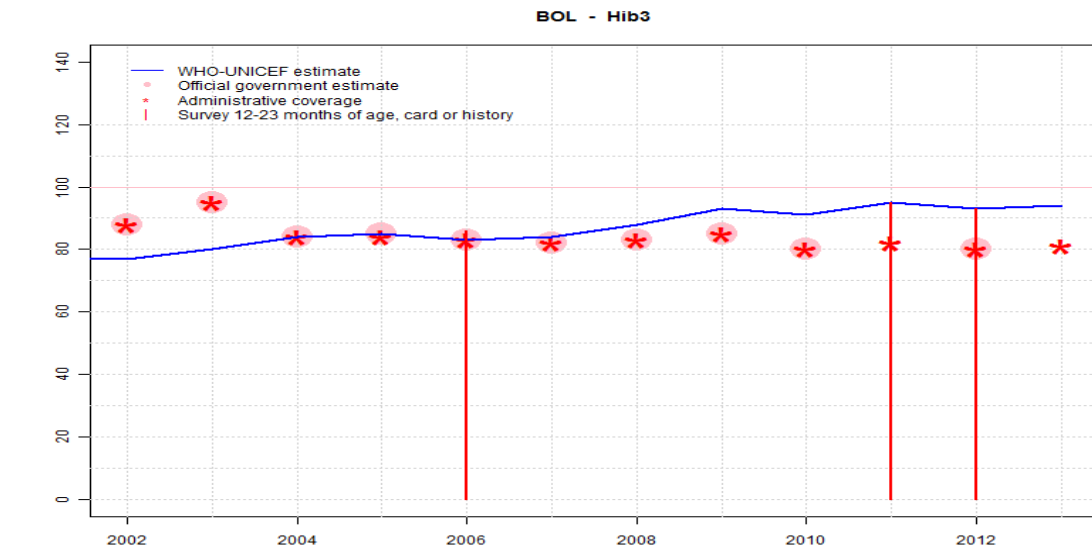
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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: HepB part of DTP-HepB-Hib pentavalent vaccine. Estimate set to DTP3 level of coverage. Estimate challenged by: R-
- 2003: HepB part of DTP-HepB-Hib pentavalent vaccine. Estimate set to DTP3 level of coverage. Estimate challenged by: R-
- 2004: Estimate follows nationally reported data. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). Bolivia Demographic and Health Survey 2008 card or history results of 86 percent modified for recall bias to 91 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 75 percent and 3d dose card only coverage of 70 percent. GoC=R+ S+ D+
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate of 84 percent changed from previous revision value of 82 percent. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate of 88 percent changed from previous revision value of 83 percent. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate of 93 percent changed from previous revision value of 85 percent. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate of 91 percent changed from previous revision value of 80 percent. GoC=S+ D+
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 95 percent based on 1 survey(s). Estimate of 95 percent changed from previous revision value of 82 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 93 percent based on 1 survey(s). Estimate of 93 percent changed from previous revision value of 80 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-

Bolivia (Plurinational State of) - Hib3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	77	80	84	85	83	84	88	93	91	95	93	94
Estimate GoC	•	•	•••	•••	•••	••	••	••	••	•	•	•
Official	88	95	84	85	83	82	83	85	80	NA	80	NA
Administrative	88	95	84	84	83	82	83	85	80	82	80	81
Survey	NA	NA	NA	NA	86	NA	NA	NA	NA	95	93	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.

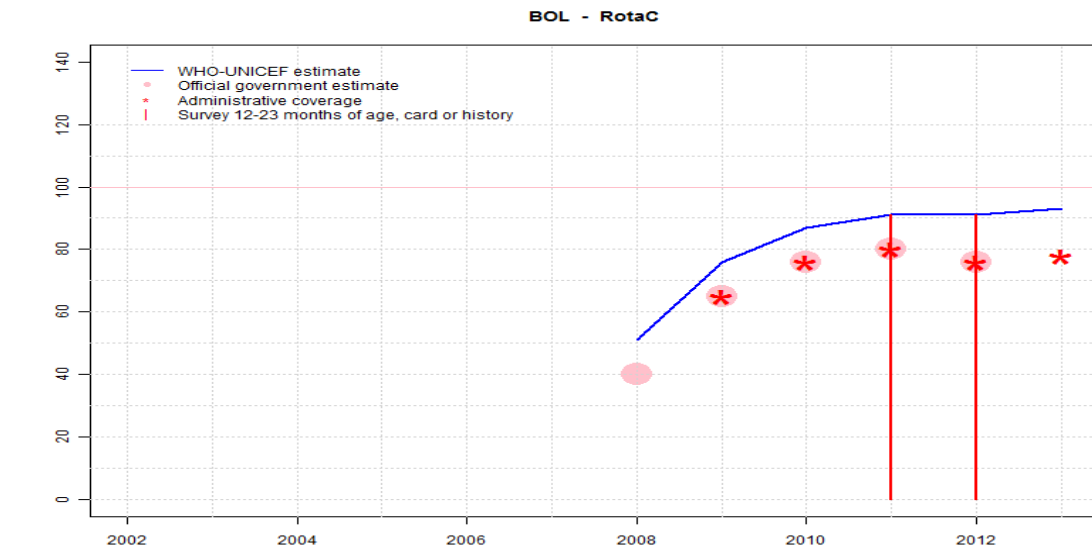
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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: HepB part of DTP-HepB-Hib pentavalent vaccine. Estimate set to DTP3 level of coverage. Estimate challenged by: R-
- 2003: HepB part of DTP-HepB-Hib pentavalent vaccine. Estimate set to DTP3 level of coverage. Estimate challenged by: R-
- 2004: Estimate follows nationally reported data. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). Bolivia Demographic and Health Survey 2008 card or history results of 86 percent modified for recall bias to 91 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 75 percent and 3d dose card only coverage of 70 percent. GoC=R+ S+ D+
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate of 84 percent changed from previous revision value of 82 percent. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate of 88 percent changed from previous revision value of 83 percent. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate of 93 percent changed from previous revision value of 85 percent. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate of 91 percent changed from previous revision value of 80 percent. GoC=S+ D+
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 95 percent based on 1 survey(s). Estimate of 95 percent changed from previous revision value of 82 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 93 percent based on 1 survey(s). Estimate of 93 percent changed from previous revision value of 80 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-

Bolivia (Plurinational State of) - RotaC



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	51	76	87	91	91	93
Estimate GoC	NA	NA	NA	NA	NA	NA	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	40	65	76	80	76	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	65	76	80	76	78
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	91	91	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.

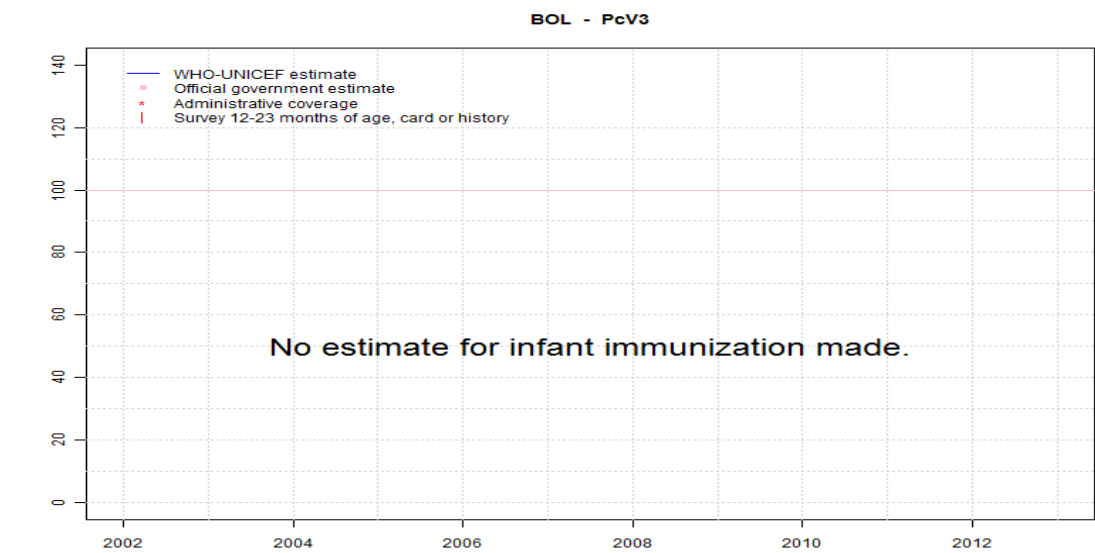
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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: Reported data calibrated to 2011 levels. Rotavirus vaccine introduced in 2008. Estimate of 51 percent changed from previous revision value of 40 percent. Estimate challenged by: D-
- 2009: Reported data calibrated to 2011 levels. Rotavirus vaccine introduced in 2008; reporting started in 2009. Estimate of 76 percent changed from previous revision value of 65 percent. Estimate challenged by: D-
- 2010: Reported data calibrated to 2011 levels. Estimate of 87 percent changed from previous revision value of 76 percent. Estimate challenged by: D-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 91 percent based on 1 survey(s). Estimate of 91 percent changed from previous revision value of 80 percent. Estimate challenged by: R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 91 percent based on 1 survey(s). Estimate of 91 percent changed from previous revision value of 76 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Programme reports a one month stockout at the national level and in 10 districts. Estimate challenged by: D-

Bolivia (Plurinational State of) - PcV3



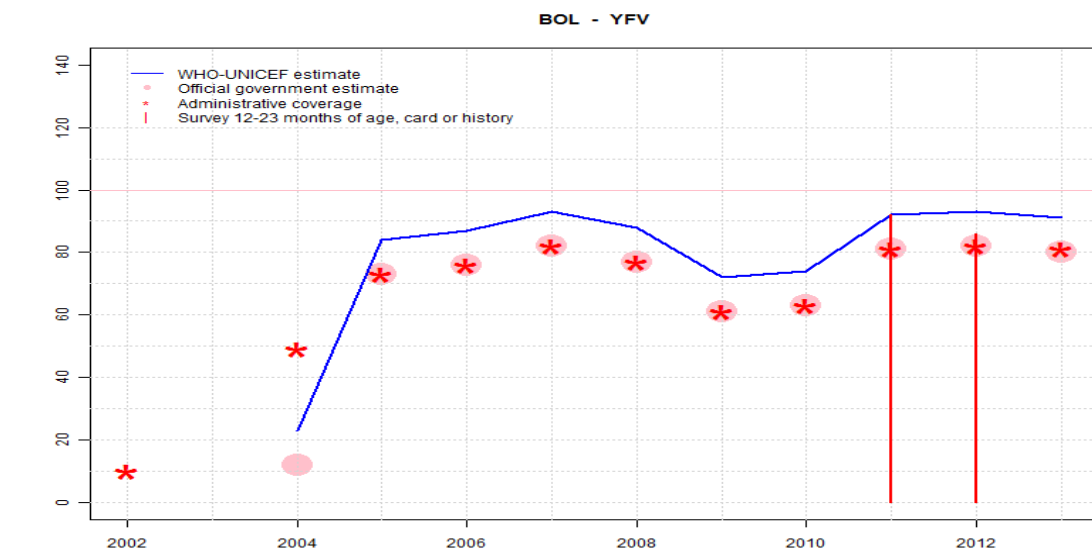
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Bolivia (Plurinational State of) - YFV



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	23	84	87	93	88	72	74	92	93	91
Estimate GoC	NA	NA	•	••	••	••	••	••	•	•	•	•
Official	NA	NA	12	73	76	82	77	61	63	81	82	80
Administrative	10	NA	49	73	76	82	77	61	63	81	82	81
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	92	86	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: Reported data calibrated to 2011 levels. YFV partially introduced nationally in 2003; reporting started in 2004. Estimate of 23 percent changed from previous revision value of 12 percent. Estimate challenged by: D-
- 2005: Reported data calibrated to 2011 levels. Estimate of 84 percent changed from previous revision value of 73 percent. GoC=D+
- 2006: Reported data calibrated to 2011 levels. Estimate of 87 percent changed from previous revision value of 76 percent. GoC=D+
- 2007: Reported data calibrated to 2011 levels. Estimate of 93 percent changed from previous revision value of 82 percent. GoC=D+
- 2008: Reported data calibrated to 2011 levels. Estimate of 88 percent changed from previous revision value of 77 percent. GoC=D+
- 2009: Reported data calibrated to 2011 levels. Decline attributed to 2 months vaccine shortage. Estimate of 72 percent changed from previous revision value of 61 percent. GoC=D+
- 2010: Reported data calibrated to 2011 levels. Estimate of 74 percent changed from previous revision value of 63 percent. Estimate challenged by: D-S-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 92 percent based on 1 survey(s). Full vaccine supply available. Estimate of 92 percent changed from previous revision value of 81 percent. Estimate challenged by: D-R-S-
- 2012: Reported data calibrated to 2011 levels. Bolivia National Immunization Coverage Survey 2013 results ignored by working group. YFV is recommended at 12-23 months and therefore the survey result may not reflect doses received during the second year of life. Estimate of 93 percent changed from previous revision value of 82 percent. Estimate challenged by: D-S-
- 2013: Reported data calibrated to 2011 levels. Estimate challenged by: S-

Bolivia (Plurinational State of) - survey details

2012 Bolivia Encuesta Nacional de Cobertura de Vacunacion EN-COVA 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	100	12-23 m	1069	-
DTP3	Card or History	93	12-23 m	1069	-
HepB3	Card or History	93	12-23 m	1069	-
Hib3	Card or History	93	12-23 m	1069	-
MCV	Card or History	90	12-23 m	1069	-
Pol3	Card or History	93	12-23 m	1069	-
RotaC	Card or History	91	12-23 m	1069	-
YFV	Card or History	86	12-23 m	1069	-

2011 Bolivia Encuesta Nacional de Cobertura de Vacunacion EN-COVA 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	100	18-29 m	1060	-
DTP3	Card or History	95	18-29 m	1060	-
HepB3	Card or History	95	18-29 m	1060	-
Hib3	Card or History	95	18-29 m	1060	-
MCV	Card or History	96	18-29 m	1060	-
Pol3	Card or History	95	18-29 m	1060	-
RotaC	Card or History	91	18-29 m	1060	-
YFV	Card or History	92	18-29 m	1060	-

2006 Bolivia Encuesta Nacional de Demografía y Salud 2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	76	18-29 m	1689	76
BCG	Card or History	98	18-29 m	1689	76
BCG	History	22	18-29 m	1689	76
DTP1	Card	75	18-29 m	1689	76
DTP1	Card or History	97	18-29 m	1689	76
DTP1	History	22	18-29 m	1689	76
DTP3	Card	70	18-29 m	1689	76

DTP3	Card or History	86	18-29 m	1689	76
DTP3	History	16	18-29 m	1689	76
HepB1	Card	75	18-29 m	1689	76
HepB1	Card or History	97	18-29 m	1689	76
HepB1	History	22	18-29 m	1689	76
HepB3	Card	70	18-29 m	1689	76
HepB3	Card or History	86	18-29 m	1689	76
HepB3	History	16	18-29 m	1689	76
Hib1	Card	75	18-29 m	1689	76
Hib1	Card or History	97	18-29 m	1689	76
Hib1	History	22	18-29 m	1689	76
Hib3	Card	70	18-29 m	1689	76
Hib3	Card or History	86	18-29 m	1689	76
Hib3	History	16	18-29 m	1689	76
MCV	Card	68	18-29 m	1689	76
MCV	Card or History	86	18-29 m	1689	76
MCV	History	18	18-29 m	1689	76
Pol1	Card	75	18-29 m	1689	76
Pol1	Card or History	97	18-29 m	1689	76
Pol1	History	22	18-29 m	1689	76
Pol3	Card	70	18-29 m	1689	76
Pol3	Card or History	86	18-29 m	1689	76
Pol3	History	16	18-29 m	1689	76

2006 Encuesta de cobertura vacunal de SR 15-39 años y SRP en niños de 12-23 meses

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV	C or H <24 months	81	0-24 m	597	65

2005 Encuesta de cobertura vacunal de SR 15-39 años y SRP en niños de 12-23 meses

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV	Card	52	12-59 m	597	65
MCV	Card or History	92	12-59 m	597	65
MCV	History	40	12-59 m	597	65

Bolivia (Plurinational State of) - survey details

2002 Encuesta Nacional de Demografía y Salud, ENDSA 2003

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	76	12-23 m	1861	79
BCG	Card or History	93	12-23 m	1861	79
BCG	History	17	12-23 m	1861	79
DTP1	Card	77	12-23 m	1861	79
DTP1	Card or History	94	12-23 m	1861	79
DTP1	History	17	12-23 m	1861	79
DTP3	Card	63	12-23 m	1861	79
DTP3	Card or History	72	12-23 m	1861	79
DTP3	History	9	12-23 m	1861	79
MCV	Card	54	12-23 m	1861	79
MCV	Card or History	64	12-23 m	1861	79
MCV	History	10	12-23 m	1861	79
Pol1	Card	77	12-23 m	1861	79
Pol1	Card or History	94	12-23 m	1861	79
Pol1	History	16	12-23 m	1861	79
Pol3	Card	63	12-23 m	1861	79
Pol3	Card or History	68	12-23 m	1861	79
Pol3	History	5	12-23 m	1861	79

1999 Bolivia, Encuesta de múltiples indicadores por conglomerados 2000 (MICS 2000), 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	49	12-23 m	642	54
BCG	Card or History	92	12-23 m	642	54
BCG	History	44	12-23 m	642	54
DTP1	Card	49	12-23 m	642	54
DTP1	Card or History	92	12-23 m	642	54
DTP1	History	43	12-23 m	642	54
DTP3	Card	41	12-23 m	642	54
DTP3	Card or History	72	12-23 m	642	54
DTP3	History	30	12-23 m	642	54
MCV	Card	42	12-23 m	642	54
MCV	Card or History	79	12-23 m	642	54

MCV	History	37	12-23 m	642	54
Pol1	Card	49	12-23 m	642	54
Pol1	Card or History	92	12-23 m	642	54
Pol1	History	43	12-23 m	642	54
Pol3	Card	42	12-23 m	642	54
Pol3	Card or History	57	12-23 m	642	54
Pol3	History	15	12-23 m	642	54

1997 República de Bolivia, Encuesta Nacional de Demografía y Salud 1998

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	85	12-23 m	1275	40
BCG	Card	39	12-23 m	1275	40
BCG	Card or History	87	12-23 m	1275	40
BCG	History	49	12-23 m	1275	40
DTP1	C or H <12 months	78	12-23 m	1275	40
DTP1	Card	39	12-23 m	1275	40
DTP1	Card or History	82	12-23 m	1275	40
DTP1	History	43	12-23 m	1275	40
DTP3	C or H <12 months	41	12-23 m	1275	40
DTP3	Card	28	12-23 m	1275	40
DTP3	Card or History	49	12-23 m	1275	40
DTP3	History	21	12-23 m	1275	40
MCV	C or H <12 months	12	12-23 m	1275	40
MCV	Card	22	12-23 m	1275	40
MCV	Card or History	51	12-23 m	1275	40
MCV	History	29	12-23 m	1275	40
Pol1	C or H <12 months	81	12-23 m	1275	40
Pol1	Card	39	12-23 m	1275	40
Pol1	Card or History	84	12-23 m	1275	40
Pol1	History	46	12-23 m	1275	40
Pol3	C or H <12 months	32	12-23 m	1275	40
Pol3	Card	28	12-23 m	1275	40
Pol3	Card or History	39	12-23 m	1275	40
Pol3	History	12	12-23 m	1275	40

Bolivia (Plurinational State of) - survey details

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

Bolivia (Plurinational State of)

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	69
2003	69
2004	70
2005	70
2006	71
2007	71
2008	74
2009	74
2010	74
2011	74
2012	76
2013	76

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.