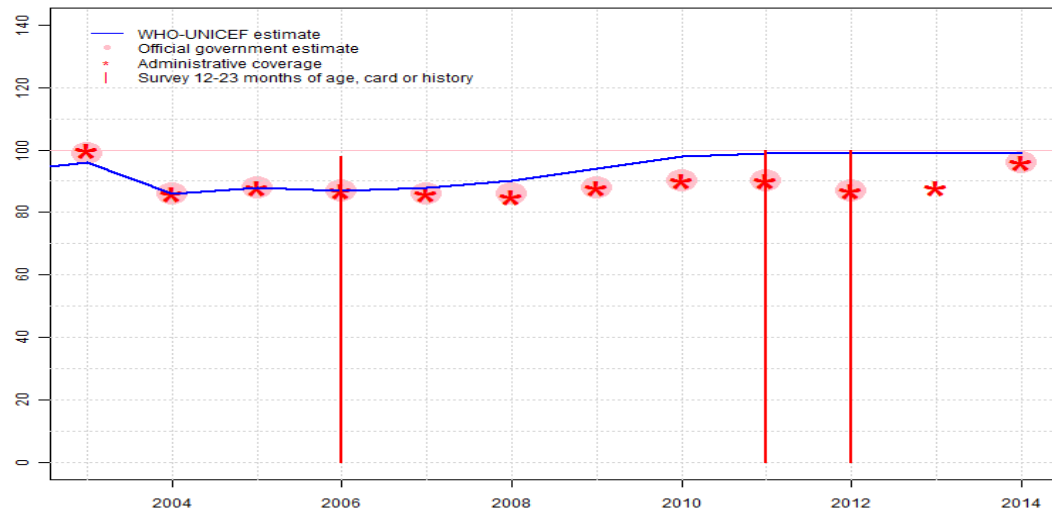


# Bolivia (Plurinational State of) - BCG

BOL - BCG



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	96	86	88	87	88	90	94	98	99	99	99	99
Estimate GoC	•	•••	•••	••	••	••	••	•	•	•	•	•
Official	99	86	88	87	86	86	88	90	90	87	NA	96
Administrative	100	86	88	87	86	85	88	90	90	87	88	96
Survey	NA	NA	NA	98	NA	NA	NA	NA	100	100	NA	NA

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

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

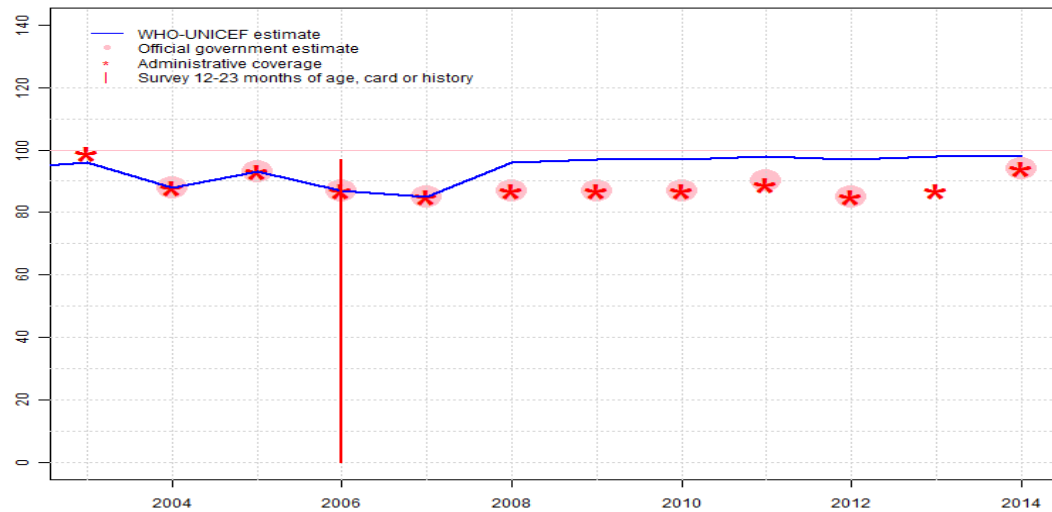
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2003: 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. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-
- 2011: . 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 challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Reported data excluded. Programme reported a revised target population. Programme also reported a decrease in the number of children vaccinated compared to 2013 due in part to the ongoing implementation of a new information system. WHO and UNICEF recommend a revision of the coverage data time series with a consistent target population. Programme notes that 2014 data remain preliminary. Estimate challenged by: D-

# Bolivia (Plurinational State of) - DTP1

BOL - DTP1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	96	88	93	87	85	96	97	97	98	97	98	98
Estimate GoC	••	•••	•••	•••	••	•	•	•	•	•	•	•
Official	NA	88	93	87	85	87	87	87	90	85	NA	94
Administrative	99	88	93	87	85	87	87	87	89	85	87	94
Survey	NA	NA	NA	97	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.

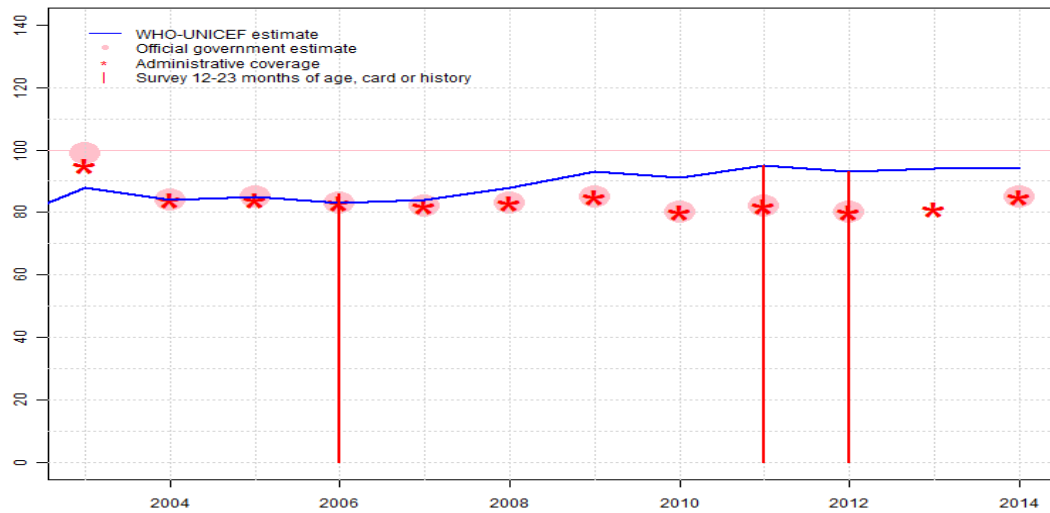
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 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 challenged by: R-
- 2009: DTP1 coverage estimated based on DTP3 coverage of 93. Estimate challenged by: R-
- 2010: DTP1 coverage estimated based on DTP3 coverage of 91. Estimate challenged by: R-
- 2011: DTP1 coverage estimated based on DTP3 coverage of 95. Estimate challenged by: R-
- 2012: DTP1 coverage estimated based on DTP3 coverage of 93. Estimate challenged by: R-
- 2013: DTP1 coverage estimated based on DTP3 coverage of 94. Estimate challenged by: R-
- 2014: DTP1 coverage estimated based on DTP3 coverage of 94. Reported data excluded. Programme reported a revised target population. Programme also reported a decrease in the number of children vaccinated compared to 2013 due in part to the ongoing implementation of a new information system. WHO and UNICEF recommend a revision of the coverage data time series with a consistent target population. Programme notes that 2014 data remain preliminary. Estimate challenged by: D-R-

# Bolivia (Plurinational State of) - DTP3

BOL - DTP3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	88	84	85	83	84	88	93	91	95	93	94	94
Estimate GoC	●●	●●●	●●●	●●●	●●	●●	●●	●●	●	●	●	●
Official	99	84	85	83	82	83	85	80	82	80	NA	85
Administrative	95	84	84	83	82	83	85	80	82	80	81	85
Survey	NA	NA	NA	86	NA	NA	NA	NA	95	93	NA	NA

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

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

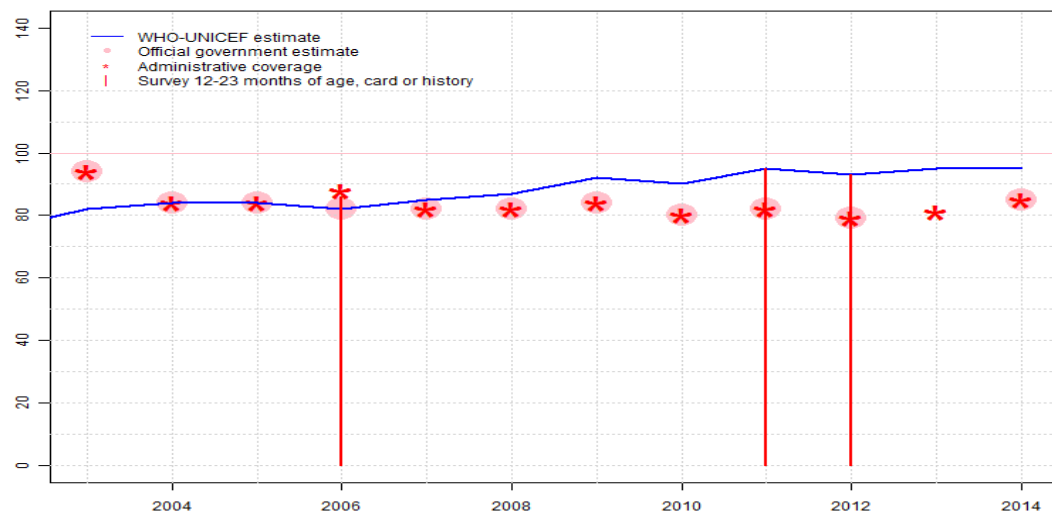
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2003: 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. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. 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 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 challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Reported data excluded. Programme reported a revised target population. Programme also reported a decrease in the number of children vaccinated compared to 2013 due in part to the ongoing implementation of a new information system. WHO and UNICEF recommend a revision of the coverage data time series with a consistent target population. Programme notes that 2014 data remain preliminary. Estimate challenged by: D-

# Bolivia (Plurinational State of) - Pol3

BOL - Pol3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	82	84	84	82	85	87	92	90	95	93	95	95
Estimate GoC	●●	●●●	●●●	●●●	●●	●●	●●	●●	●	●	●	●
Official	94	84	84	82	82	82	84	80	82	79	NA	85
Administrative	94	84	84	88	82	82	84	80	82	79	81	85
Survey	NA	NA	NA	86	NA	NA	NA	NA	95	93	NA	NA

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

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

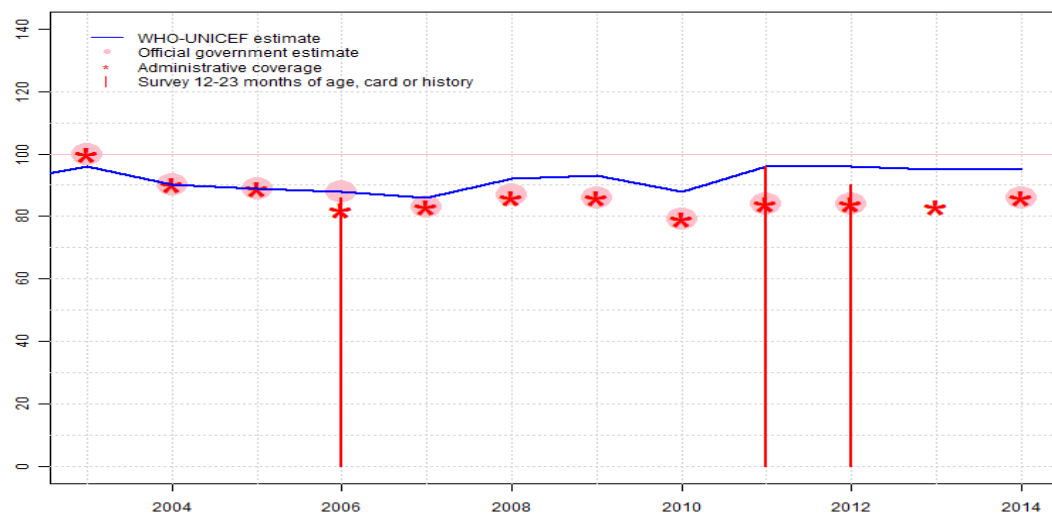
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2003: 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. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. 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 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 challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Reported data excluded. Programme reported a revised target population. Programme also reported a decrease in the number of children vaccinated compared to 2013 due in part to the ongoing implementation of a new information system. WHO and UNICEF recommend a revision of the coverage data time series with a consistent target population. Programme notes that 2014 data remain preliminary. Estimate challenged by: D-

# Bolivia (Plurinational State of) - MCV1

BOL - MCV1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	96	90	89	88	86	92	93	88	96	96	95	95
Estimate GoC	•		•••	•••	••	••	••	•	•	•	•	•
Official	100	90	89	88	83	87	86	79	84	84	NA	86
Administrative	100	90	89	82	83	86	86	79	84	84	83	86
Survey	NA	NA	NA	86	NA	NA	NA	NA	96	90	NA	NA

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

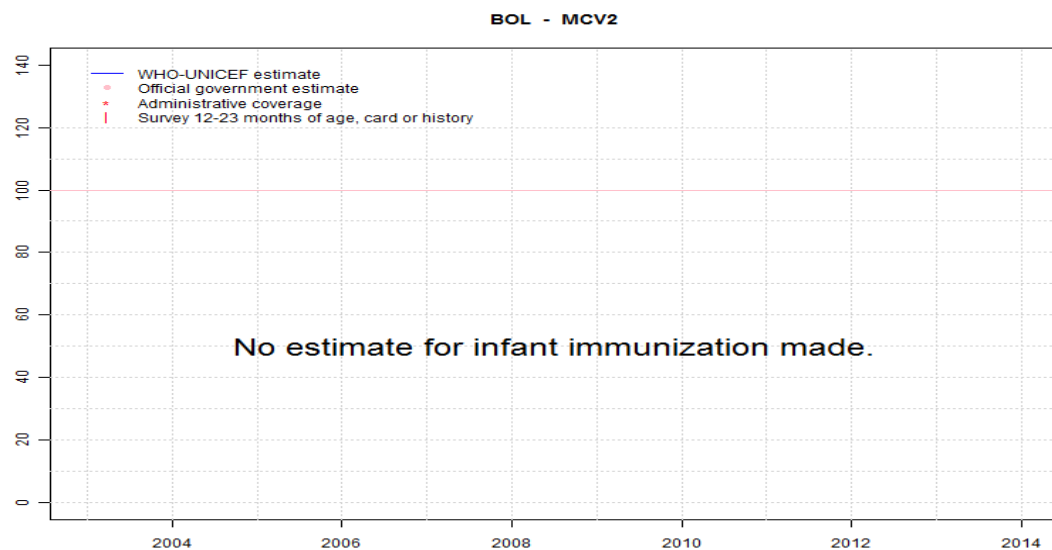
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

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

## Description:

- 2003: 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. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. 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 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 MCV1 is recommended at 12-23 months and therefore the survey result may not reflect doses received during the second year of life. Estimate challenged by: D-S-
- 2013: Reported data calibrated to 2011 levels. Estimate challenged by: D-S-
- 2014: Reported data calibrated to 2011 levels. Reported data excluded. Programme reported a revised target population. Programme also reported a decrease in the number of children vaccinated compared to 2013 due in part to the ongoing implementation of a new information system. WHO and UNICEF recommend a revision of the coverage data time series with a consistent target population. Programme notes that 2014 data remain preliminary. Estimate challenged by: D-S-

# Bolivia (Plurinational State of) - MCV2



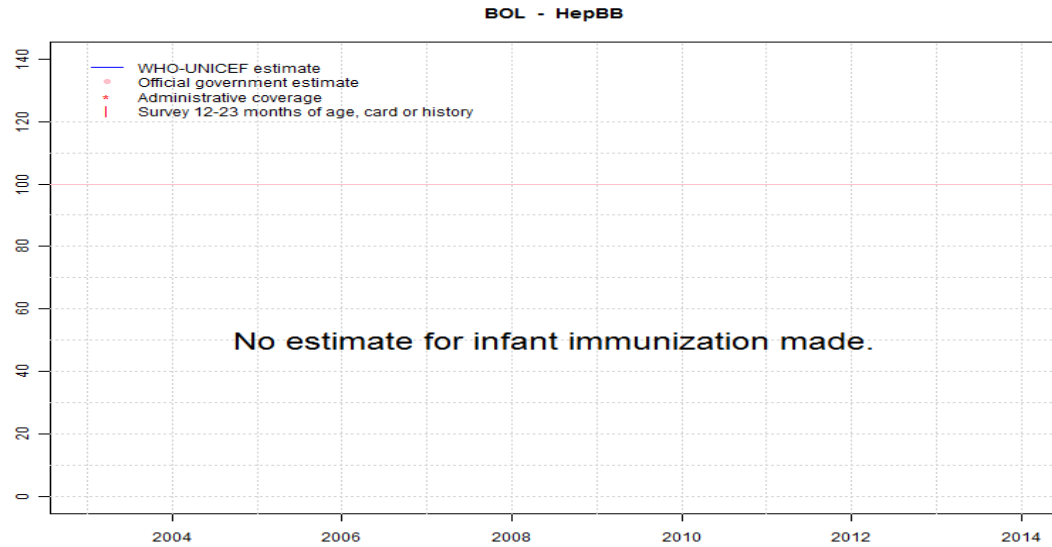
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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

# Bolivia (Plurinational State of) - HepBB



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

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

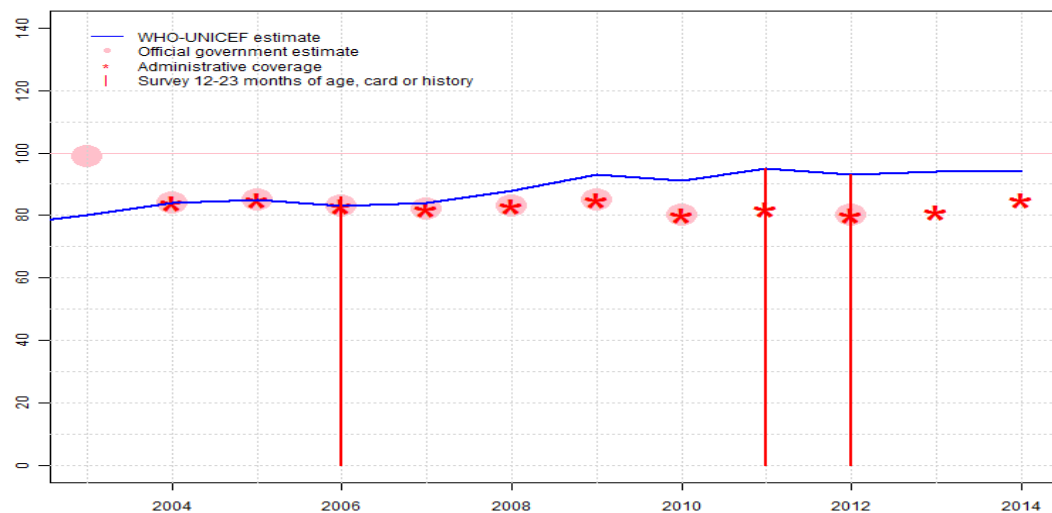
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

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



# Bolivia (Plurinational State of) - HepB3

BOL - HepB3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	80	84	85	83	84	88	93	91	95	93	94	94
Estimate GoC	•	•••	•••	•••	••	••	••	••	•	•	•	•
Official	99	84	85	83	82	83	85	80	NA	80	NA	NA
Administrative	NA	84	85	83	82	83	85	80	82	80	81	85
Survey	NA	NA	NA	86	NA	NA	NA	NA	95	93	NA	NA

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

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

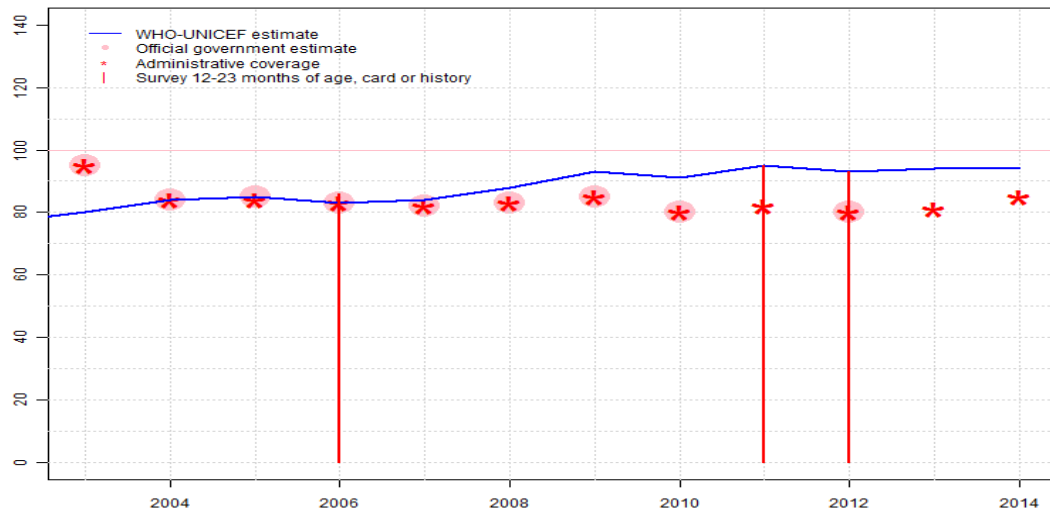
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2003: 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. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. 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 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 challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Reported data excluded. Programme reported a revised target population. Programme also reported a decrease in the number of children vaccinated compared to 2013 due in part to the ongoing implementation of a new information system. WHO and UNICEF recommend a revision of the coverage data time series with a consistent target population. Programme notes that 2014 data remain preliminary. Estimate challenged by: D-

# Bolivia (Plurinational State of) - Hib3

BOL - Hib3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	80	84	85	83	84	88	93	91	95	93	94	94
Estimate GoC	•	•••	•••	•••	••	••	••	••	•	•	•	•
Official	95	84	85	83	82	83	85	80	NA	80	NA	NA
Administrative	95	84	84	83	82	83	85	80	82	80	81	85
Survey	NA	NA	NA	86	NA	NA	NA	NA	95	93	NA	NA

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

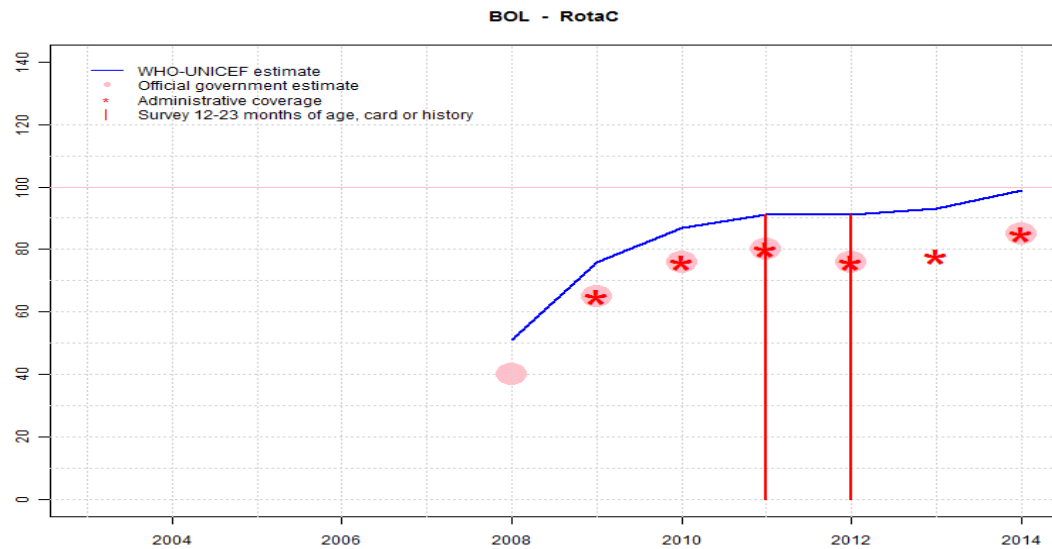
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

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

## Description:

- 2003: 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. GoC=S+ D+
- 2008: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2009: Reported data calibrated to 2006 and 2011 levels. GoC=S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. 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 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 challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Reported data excluded. Programme reported a revised target population. Programme also reported a decrease in the number of children vaccinated compared to 2013 due in part to the ongoing implementation of a new information system. WHO and UNICEF recommend a revision of the coverage data time series with a consistent target population. Programme notes that 2014 data remain preliminary. Estimate challenged by: D-

# Bolivia (Plurinational State of) - RotaC



## Description:

- 2008: Reported data calibrated to 2011 levels. Rotavirus vaccine introduced in 2008. Estimate challenged by: D-
- 2009: Reported data calibrated to 2011 levels. Rotavirus vaccine introduced in 2008; reporting started in 2009. Estimate challenged by: D-
- 2010: Reported data calibrated to 2011 levels. 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 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 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-
- 2014: Reported data calibrated to 2012 levels. Programme notes that 2014 data remain preliminary. Estimate challenged by: D-

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	51	76	87	91	91	93	99
Estimate GoC	NA	NA	NA	NA	NA	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	40	65	76	80	76	NA	85
Administrative	NA	NA	NA	NA	NA	NA	65	76	80	76	78	85
Survey	NA	NA	NA	NA	NA	NA	NA	NA	91	91	NA	NA

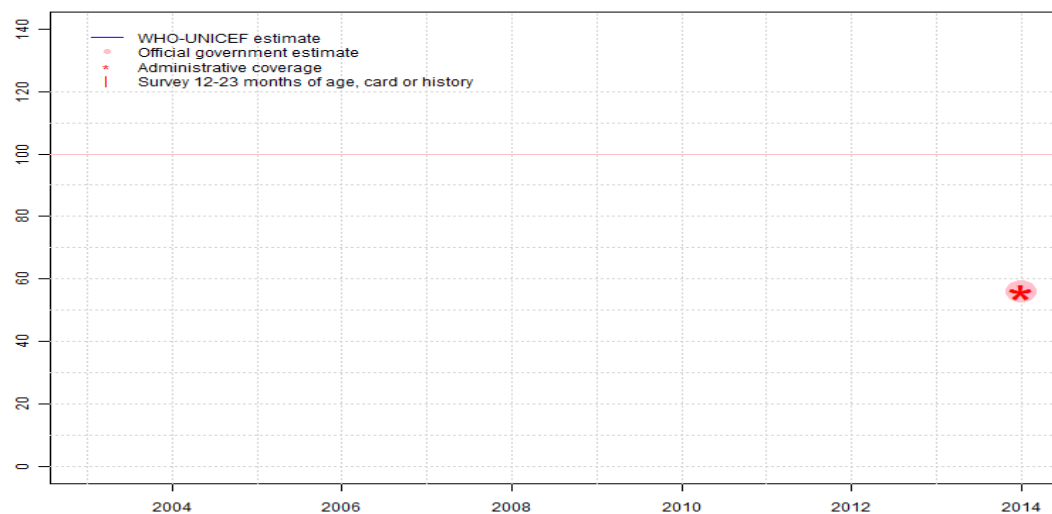
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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) - PcV3

BOL - PcV3



## Description:

2014: Pneumococcal conjugate vaccine introduced during 2014. Estimate is based on reported data. Programme notes that 2014 data remain preliminary. GoC=R+ D+

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56
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	56
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

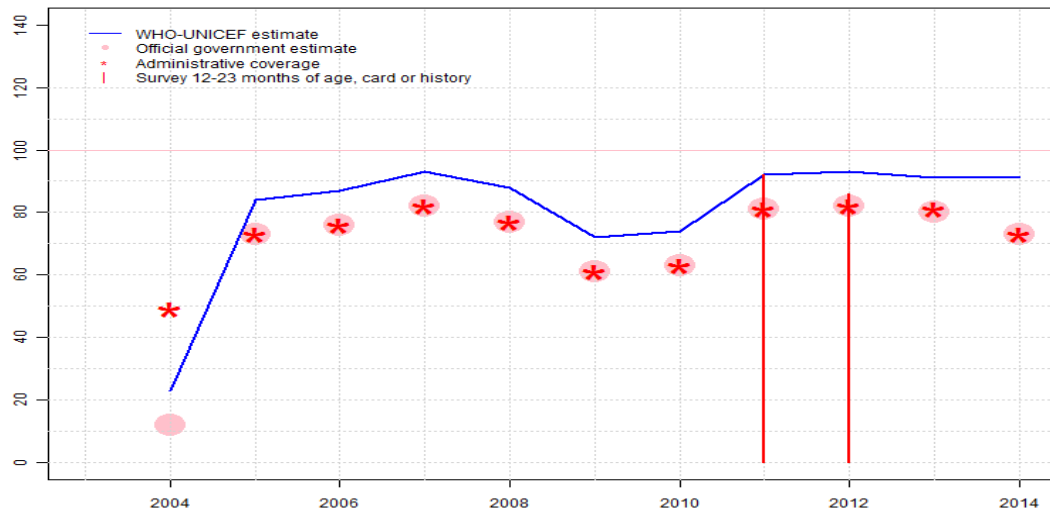
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

BOL - YFV



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	23	84	87	93	88	72	74	92	93	91	91
Estimate GoC	NA	•	••	••	••	••	••	•	•	•	•	•
Official	NA	12	73	76	82	77	61	63	81	82	80	73
Administrative	NA	49	73	76	82	77	61	63	81	82	81	73
Survey	NA	NA	NA	NA	NA	NA	NA	NA	92	86	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: Reported data calibrated to 2011 levels. YFV partially introduced nationally in 2003; reporting started in 2004. Estimate challenged by: D-
- 2005: Reported data calibrated to 2011 levels. GoC=D+
- 2006: Reported data calibrated to 2011 levels. GoC=D+
- 2007: Reported data calibrated to 2011 levels. GoC=D+
- 2008: Reported data calibrated to 2011 levels. GoC=D+
- 2009: Reported data calibrated to 2011 levels. Decline attributed to 2 months vaccine shortage. GoC=D+
- 2010: Reported data calibrated to 2011 levels. 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 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 challenged by: D-S-
- 2013: Reported data calibrated to 2011 levels. Estimate challenged by: S-
- 2014: Reported data calibrated to 2011 levels. Reported data excluded. Programme reported a revised target population. Programme also reported a decrease in the number of children vaccinated compared to 2013 due in part to the ongoing implementation of a new information system. WHO and UNICEF recommend a revision of the coverage data time series with a consistent target population. Programme notes that 2014 data remain preliminary. Estimate challenged by: D-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	-
MCV1	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	-
MCV1	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
MCV1	Card	68	18-29 m	1689	76
MCV1	Card or History	86	18-29 m	1689	76
MCV1	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
MCV1	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
MCV1	Card	52	12-59 m	597	65
MCV1	Card or History	92	12-59 m	597	65
MCV1	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
MCV1	Card	54	12-23 m	1861	79
MCV1	Card or History	64	12-23 m	1861	79
MCV1	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
MCV1	Card	42	12-23 m	642	54
MCV1	Card or History	79	12-23 m	642	54

MCV1	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
MCV1	C or H <12 months	12	12-23 m	1275	40
MCV1	Card	22	12-23 m	1275	40
MCV1	Card or History	51	12-23 m	1275	40
MCV1	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

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Further information and estimates for previous years are available at:

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

[http://www.who.int/immunization/monitoring\\_surveillance/routine/coverage/en/index4.html](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 receives DTP in infancy (estimated based on the WHO-UNICEF estimates of DTP3 coverage). In addition some of these women also receive TT through routine services when they are pregnant and may also receive TT during SIAs. The model also adjusts reported data, taking into account coverage patterns in other years, and/or results available through surveys. The duration of protection is then calculated, based on WHO estimates of the duration of protection by doses ever received. The proportion of births that are protected against tetanus as a result of maternal immunization reflects the tetanus immunization received by the mother throughout her life rather than simply the TT immunizations received during the current pregnancy.

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

<b>Year</b>	<b>PAB coverage estimate (%)</b>
2003	69
2004	70
2005	70
2006	71
2007	71
2008	74
2009	74
2010	74
2011	74
2012	76
2013	76
2014	87

<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.  
WHO and UNICEF estimates of national immunization coverage