

BACKGROUND NOTE: Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from the published and grey literature. Based on these data, with due consideration to potential biases and the views of local experts, WHO and UNICEF attempt to distinguish between situations where the available empirical data accurately reflect immunization system performance and those where the data are likely to be compromised and present a misleading view of immunization coverage while jointly estimating the most likely coverage levels for each country.

WHO and UNICEF estimates are country-specific; that is to say, each country's data are reviewed individually, and data are not borrowed from other countries in the absence of data. Estimates are not based on ad hoc adjustments to reported data; in some instances empirical data are available from a single source, usually the nationally reported coverage data. In cases where no data are available for a given country/vaccine/year combination, data are considered from earlier and later years and interpolated to estimate coverage for the missing year(s). In cases where data sources are mixed and show large variation, an attempt is made to identify the most likely estimate with consideration of the possible biases in available data. For methods see:

*Burton et al. 2009. WHO and UNICEF estimates of national infant immunization coverage: methods and processes.

*Burton et al. 2012. A formal representation of the WHO and UNICEF estimates of national immunization coverage: a computational logic approach.

*Brown et al. 2013. An introduction to the grade of confidence used to characterize uncertainty around the WHO and UNICEF estimates of national immunization coverage.

DATA SOURCES.

ADMINISTRATIVE coverage: Reported by national authorities and based on aggregated administrative reports from health service providers on the number of vaccinations administered during a given period (numerator data) and reported target population data (denominator data). May be biased by inaccurate numerator and/or denominator data.

OFFICIAL coverage: Estimated coverage reported by national authorities that reflects their assessment of the most likely coverage based on any combination of administrative coverage, survey-based estimates or other data sources or adjustments. Approaches to determine OFFICIAL coverage may differ across countries.

SURVEY coverage: Based on estimated coverage from population-based household surveys among children aged 12-23 months or 24-35 months following a review of survey methods and results. Information is based on the combination of vaccination history from documented evidence or caregiver recall. Survey results are considered for the appropriate birth cohort based on the period of data collection.

ABBREVIATIONS

BCG: percentage of births who received one dose of Bacillus Calmette Guerin vaccine.

DTP1 / DTP3: percentage of surviving infants who received the 1st / 3rd dose, respectively, of diphtheria and tetanus toxoid with pertussis containing vaccine.

Pol3: percentage of surviving infants who received the 3rd dose of polio containing vaccine. May be either oral or inactivated polio vaccine.

IPV1: percentage of surviving infants who received at least one dose of inactivated polio vaccine. In countries utilizing an immunization schedule recommending either (i) a primary series of three doses of oral polio vaccine (OPV) plus at least one dose of IPV where OPV is included in routine

immunization and/or campaign or (ii) a sequential schedule of IPV followed by OPV, WHO and UNICEF estimates for IPV1 reflect coverage with at least one routine dose of IPV among infants <1 year of age among countries. For countries utilizing IPV containing vaccine use only, i.e., no recommended dose of OPV, the WHO and UNICEF estimate for IPV1 corresponds to coverage for the 1st dose of IPV.

Production of IPV coverage estimates, which begins in 2015, results in no change of the estimated coverage levels for the 3rd dose of polio (Pol3). For countries recommending routine immunization with a primary series of three doses of IPV alone, WHO and UNICEF estimated Pol3 coverage is equivalent to estimated coverage with three doses of IPV. For countries with a sequential schedule, estimated Pol3 coverage is based on that for the 3rd dose of polio vaccine regardless of vaccine type.

MCV1: percentage of surviving infants who received the 1st dose of measles containing vaccine. In countries where the national schedule recommends the 1st dose of MCV at 12 months or later based on the epidemiology of disease in the country, coverage estimates reflect the percentage of children who received the 1st dose of MCV as recommended.

MCV2: percentage of children who received the 2nd dose of measles containing vaccine according to the nationally recommended schedule.

RCV1: percentage of surviving infants who received the 1st dose of rubella containing vaccine. Coverage estimates are based on WHO and UNICEF estimates of coverage for the dose of measles containing vaccine that corresponds to the first measles-rubella combination vaccine. Nationally reported coverage of RCV is not taken into consideration nor are the data represented in the accompanying graph and data table.

HepBB: percentage of births which received a dose of hepatitis B vaccine within 24 hours of delivery. Estimates of hepatitis B birth dose coverage are produced only for countries with a universal birth dose policy. Estimates are not produced for countries that recommend a birth dose to infants born to HepB virus-infected mothers only or where there is insufficient information to determine whether vaccination is within 24 hours of birth.

HepB3: percentage of surviving infants who received the 3rd dose of hepatitis B containing vaccine following the birth dose.

Hib3: percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.

RotaC: percentage of surviving infants who received the final recommended dose of rotavirus vaccine, which can be either the 2nd or the 3rd dose depending on the vaccine.

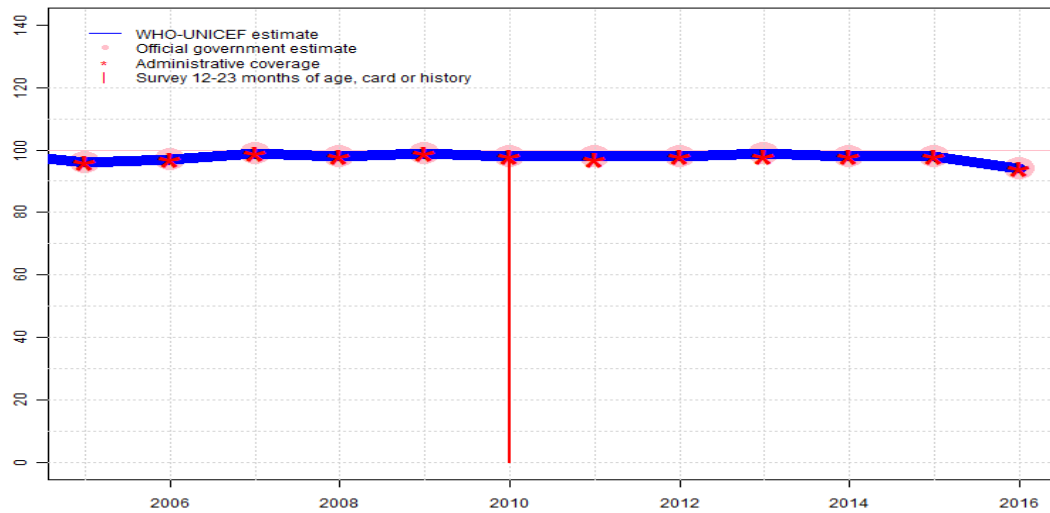
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect the percentage of surviving infants who received two doses of PcV prior to the 1st birthday.

YFV: percentage of surviving infants who received one dose of yellow fever vaccine in countries where YFV is part of the national immunization schedule for children or is recommended in at risk areas; coverage estimates are annualized for the entire cohort of surviving infants.

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Belize - BCG

BLZ - BCG



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of Multiple Indicator Cluster Survey during 2015 and await the final results. Programme reports one-month vaccine stockout. Preliminary results from MICS 2015-16 suggest 98 percent coverage for BCG. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	96	97	99	98	99	98	98	98	99	98	98	94
Estimate GoC	••	••	••	•••	•••	•••	•••	•	•	•	•	•
Official	96	97	99	98	99	98	98	98	99	98	98	94
Administrative	96	97	99	98	99	98	97	98	98	98	98	94
Survey	NA	NA	NA	NA	NA	98	NA	NA	NA	NA	NA	NA

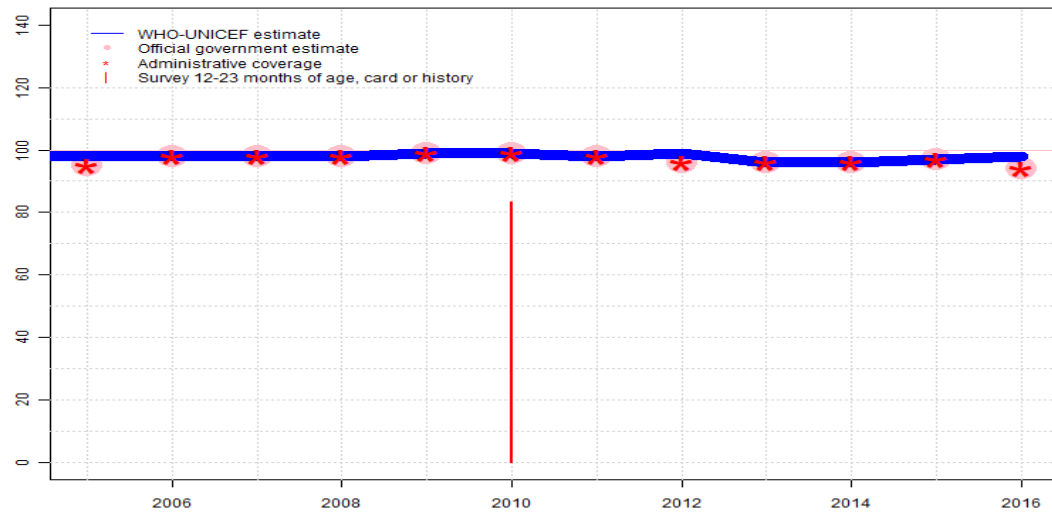
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Belize - DTP1

BLZ - DTP1



Description:

- 2016: DTP1 coverage estimated based on DTP3 coverage of 95. WHO and UNICEF are aware of the conduct of Multiple Indicator Cluster Survey during 2015 and await the final results. Preliminary results from MICS 2015-16 suggest 96 percent coverage for DTP1. Estimate challenged by: D-R-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2012: DTP1 coverage estimated based on DTP3 coverage of 98. Estimate challenged by: R-
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Belize Multiple Indicator Cluster Survey 2011 results ignored by working group. Multiple vaccine presentations may have compromised the quality of maternal recall. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: DTP1 coverage estimated based on DTP3 coverage of 96. Card only coverage for 3d dose of DTP-HepB-Hib and polio vaccine is higher than 1st dose. Estimate challenged by: R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	98	98	98	98	99	99	98	99	96	96	97	98
Estimate GoC	•	••	••	••	••	••	••	•	•	•	•	•
Official	95	98	98	98	99	99	98	96	96	96	97	94
Administrative	95	98	98	98	99	99	98	96	96	96	97	94
Survey	NA	NA	NA	NA	NA	83.4	NA	NA	NA	NA	NA	NA

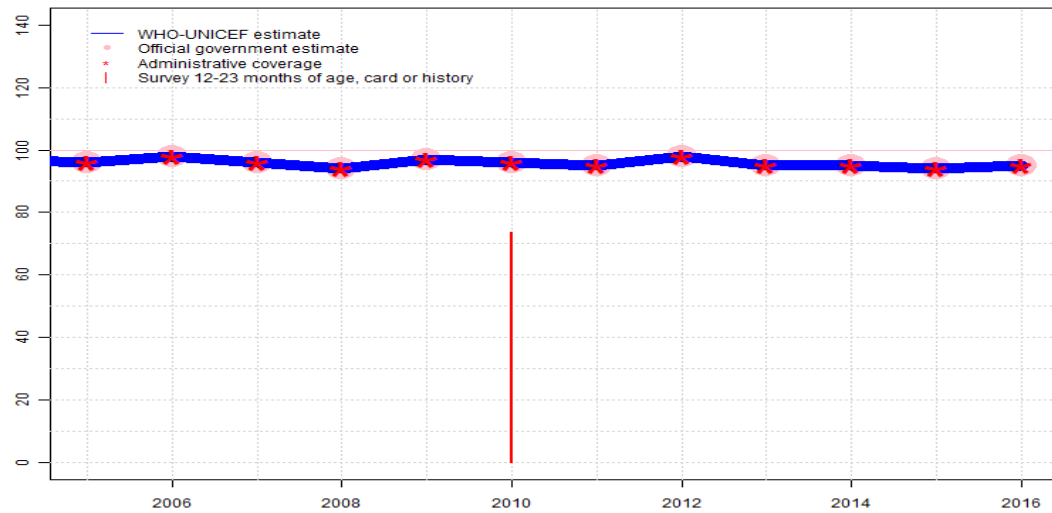
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Belize - DTP3

BLZ - DTP3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	96	98	96	94	97	96	95	98	95	95	94	95
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●	●	●
Official	96	98	96	94	97	96	95	98	95	95	94	95
Administrative	96	98	96	94	97	96	95	98	95	95	94	95
Survey	NA	NA	NA	NA	NA	73.5	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: 2015 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.

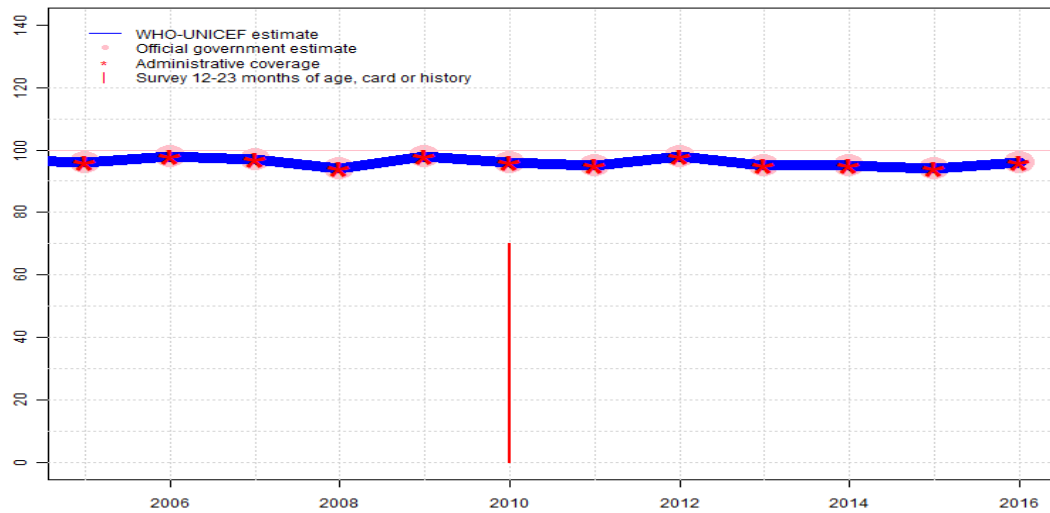
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of Multiple Indicator Cluster Survey during 2015 and await the final results. Preliminary results from MICS 2015-16 suggest 83 percent coverage for DTP Hib HepB3. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Belize Multiple Indicator Cluster Survey 2011 results ignored by working group. Multiple vaccine presentations may have compromised a quality of maternal recall. Belize Multiple Indicator Cluster Survey 2011 card or history results of 74 percent modified for recall bias to 78 percent based on 1st dose card or history coverage of 83 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 72 percent. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Card only coverage for 3d dose of DTP-HepB-Hib and polio vaccine is higher than 1st dose. GoC=R+ D+

Belize - Pol3

BLZ - Pol3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	96	98	97	94	98	96	95	98	95	95	94	96
Estimate GoC	••	••	••	•••	•••	•••	•••	•••	••	•	•	•
Official	96	98	97	94	98	96	95	98	95	95	94	96
Administrative	96	98	97	94	98	96	95	98	95	95	94	96
Survey	NA	NA	NA	NA	NA	70	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: 2015 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.

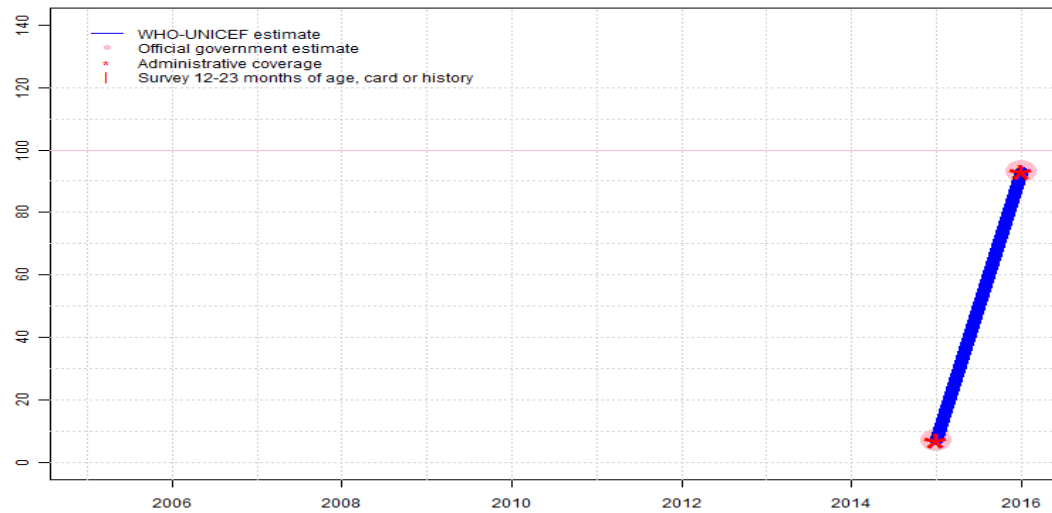
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of Multiple Indicator Cluster Survey during 2015 and await the final results. Preliminary results from MICS 2015-16 suggest 83 percent coverage for Polio3 Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 90 percent based on 1 survey(s). Belize Multiple Indicator Cluster Survey 2011 card or history results of 70 percent modified for recall bias to 90 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 69 percent. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Card only coverage for 3d dose of DTP-HepB-Hib and polio vaccine is higher than 1st dose. GoC=R+ D+

Belize - IPV1

BLZ - IPV1



Description:

2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of Multiple Indicator Cluster Survey during 2015 and await the final results. Inactivated polio vaccine introduced in 2015 and fully rolled-out in 2016. Estimate challenged by: D-
 2015: Estimate based on coverage reported by national government. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7	93
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	••	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7	93
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7	93
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

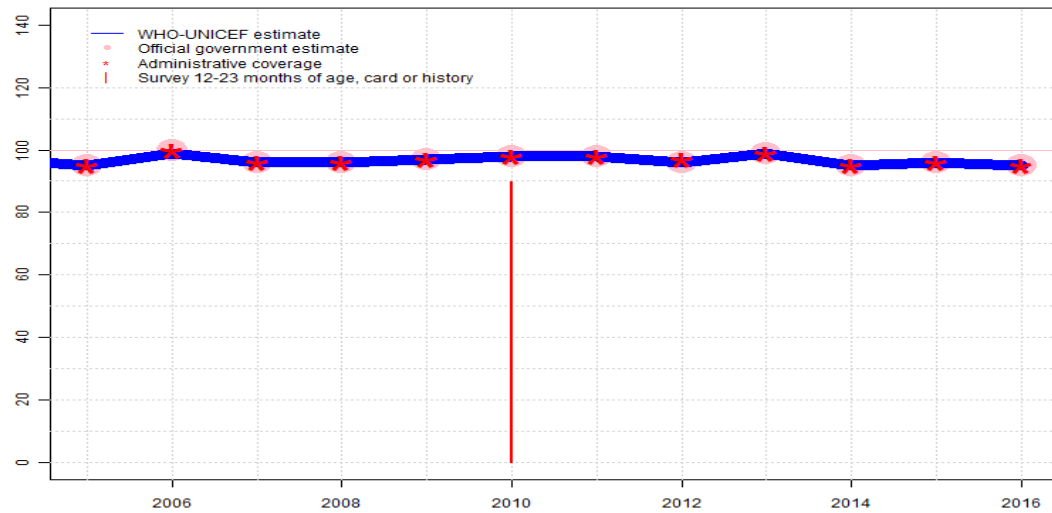
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Belize - MCV1

BLZ - MCV1



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of Multiple Indicator Cluster Survey during 2015 and await the final results. Preliminary results from MICS 2015-16 suggest 90 percent coverage for DTP Hib HepB3. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 90 percent based on 1 survey(s). GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	95	99	96	96	97	98	98	96	99	95	96	95
Estimate GoC	●●	●●	●●	●●●	●●●	●●●	●●●	●●●	●	●	●	●
Official	95	100	96	96	97	98	98	96	99	95	96	95
Administrative	95	100	96	96	97	98	98	97	99	95	96	95
Survey	NA	NA	NA	NA	NA	89.8	NA	NA	NA	NA	NA	NA

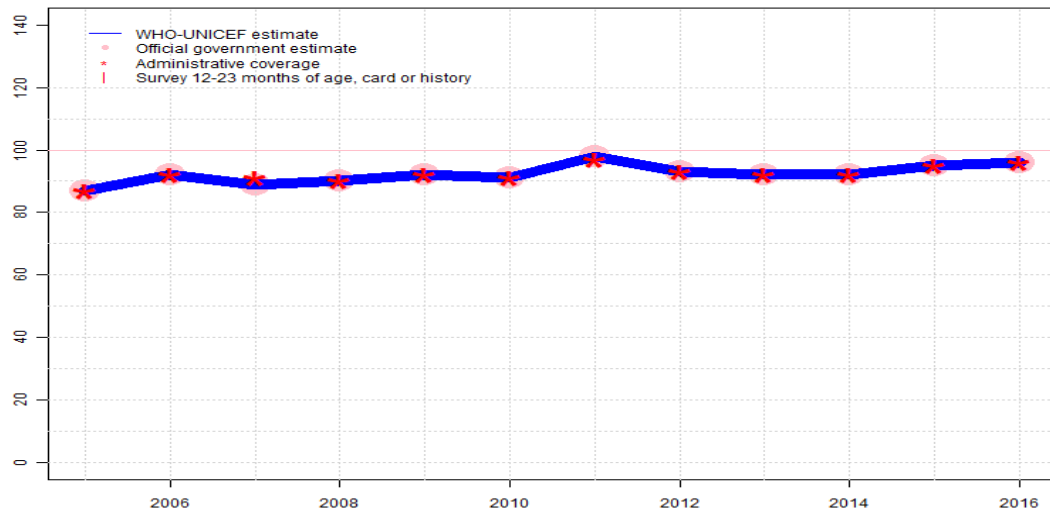
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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Belize - MCV2

BLZ - MCV2



Description:

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

2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of Multiple Indicator Cluster Survey during 2015 and await the final results. Estimate challenged by: D-

2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
2014: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. GoC=R+ D+

2012: Estimate based on coverage reported by national government. GoC=R+ D+

2011: Estimate based on coverage reported by national government. GoC=R+ D+

2010: Estimate based on coverage reported by national government. GoC=R+ D+

2009: Estimate based on coverage reported by national government. GoC=R+ D+

2008: Estimate based on coverage reported by national government. GoC=R+ D+

2007: Estimate based on coverage reported by national government. GoC=R+ D+

2006: Estimate based on coverage reported by national government. GoC=R+ D+

2005: Estimate based on coverage reported by national government. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	87	92	89	90	92	91	98	93	92	92	95	96
Estimate GoC	••	••	••	••	••	••	••	••	••	•	•	•
Official	87	92	89	90	92	91	98	93	92	92	95	96
Administrative	87	92	91	90	92	91	97	93	92	92	95	96
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

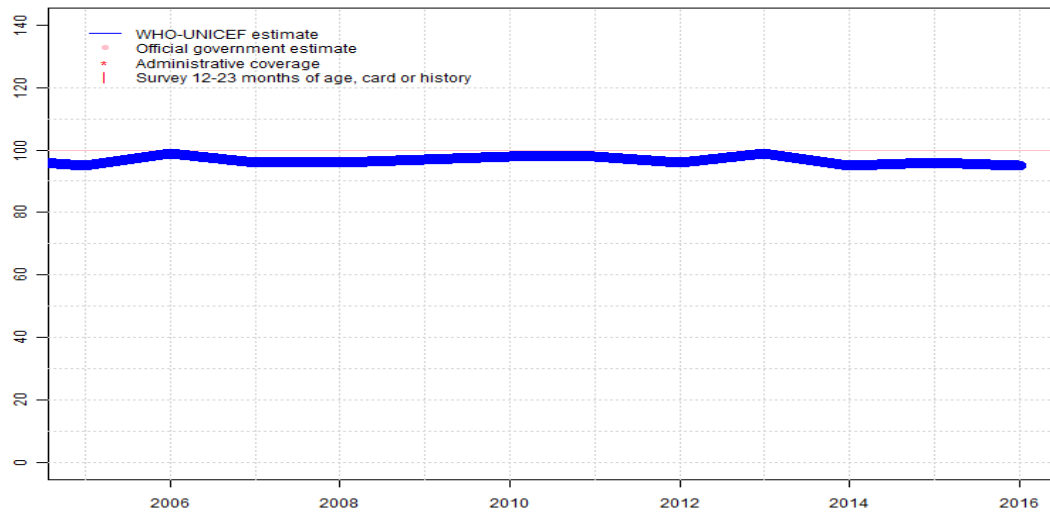
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Belize - RCV1

BLZ - RCV1



Description:

For this revision, coverage estimates for the first dose of rubella containing vaccine are based on WHO and UNICEF estimates of coverage of measles containing vaccine. Nationally reported coverage of rubella containing vaccine is not taken into consideration nor are they represented in the the accompanying graph and data table.

2016: Estimate based on estimated MCV1. WHO and UNICEF are aware of the conduct of Multiple Indicator Cluster Survey during 2015 and await the final results. Estimate challenged by: D-

2015: Estimate based on estimated MCV1. Estimate challenged by: D-

2014: Estimate based on estimated MCV1. Estimate challenged by: D-

2013: Estimate based on estimated MCV1. Estimate challenged by: D-

2012: Estimate based on estimated MCV1. GoC=R+ S+ D+

2011: Estimate based on estimated MCV1. GoC=R+ S+ D+

2010: Estimate based on estimated MCV1. GoC=R+ S+ D+

2009: Estimate based on estimated MCV1. GoC=R+ S+ D+

2008: Estimate based on estimated MCV1. GoC=R+ S+ D+

2007: Estimate based on estimated MCV1. GoC=R+ D+

2006: Estimate based on estimated MCV1. GoC=R+ D+

2005: Estimate based on estimated MCV1. GoC=R+ D+

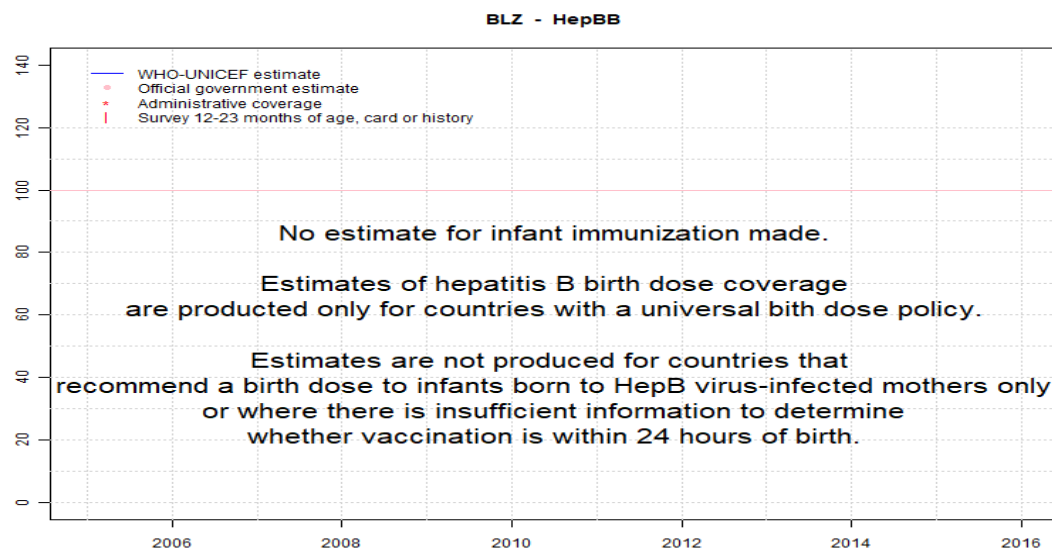
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	95	99	96	96	97	98	98	96	99	95	96	95
Estimate GoC	••	••	••	•••	•••	•••	•••	•••	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: 2015 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.

Belize - HepBB



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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

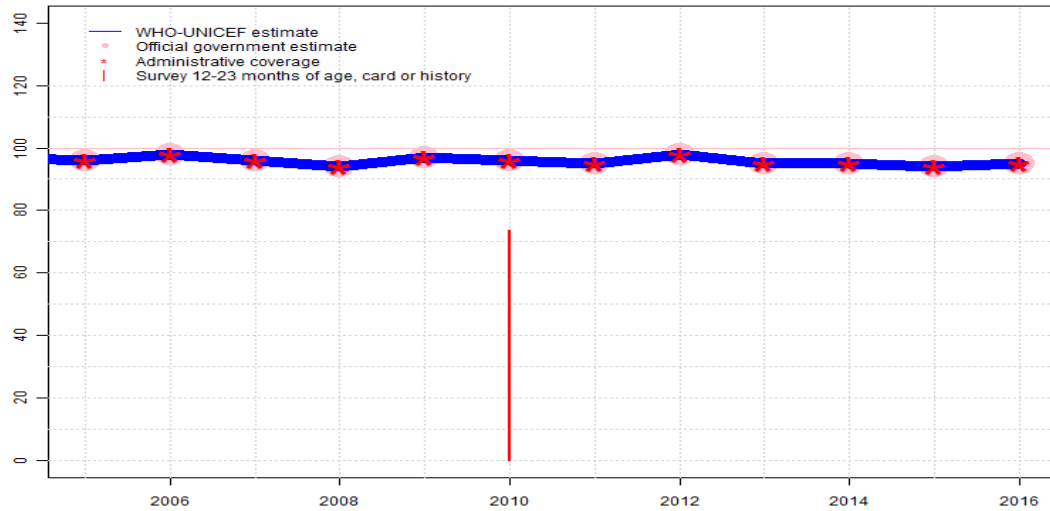
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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Belize - HepB3

BLZ - HepB3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	96	98	96	94	97	96	95	98	95	95	94	95
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●	●	●
Official	96	98	96	94	97	96	95	98	95	95	94	95
Administrative	96	98	96	94	97	96	95	98	95	95	94	95
Survey	NA	NA	NA	NA	NA	73.7	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: 2015 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.

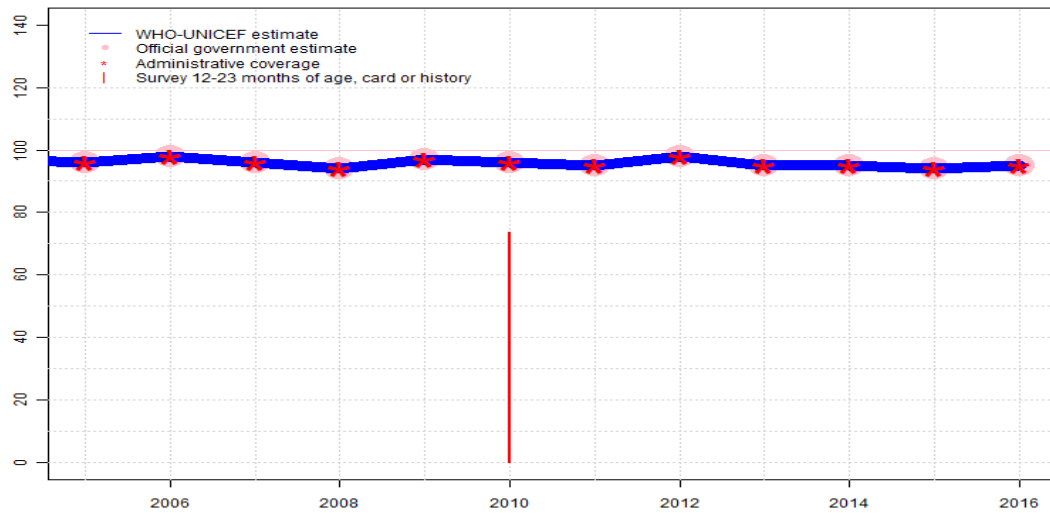
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of Multiple Indicator Cluster Survey during 2015 and await the final results. Preliminary results from MICS 2015-16 suggest 83 percent coverage for DTP Hib HepB3. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Belize Multiple Indicator Cluster Survey 2011 results ignored by working group. Multiple vaccine presentations may have compromised a quality of maternal recall. Belize Multiple Indicator Cluster Survey 2011 card or history results of 74 percent modified for recall bias to 78 percent based on 1st dose card or history coverage of 84 percent, 1st dose card only coverage of 77 percent and 3d dose card only coverage of 72 percent. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Card only coverage for 3d dose of DTP-HepB-Hib and polio vaccine is higher than 1st dose. GoC=R+ D+

Belize - Hib3

BLZ - Hib3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	96	98	96	94	97	96	95	98	95	95	94	95
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●	●	●
Official	96	98	96	94	97	96	95	98	95	95	94	95
Administrative	96	98	96	94	97	96	95	98	95	95	94	95
Survey	NA	NA	NA	NA	NA	73.5	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.

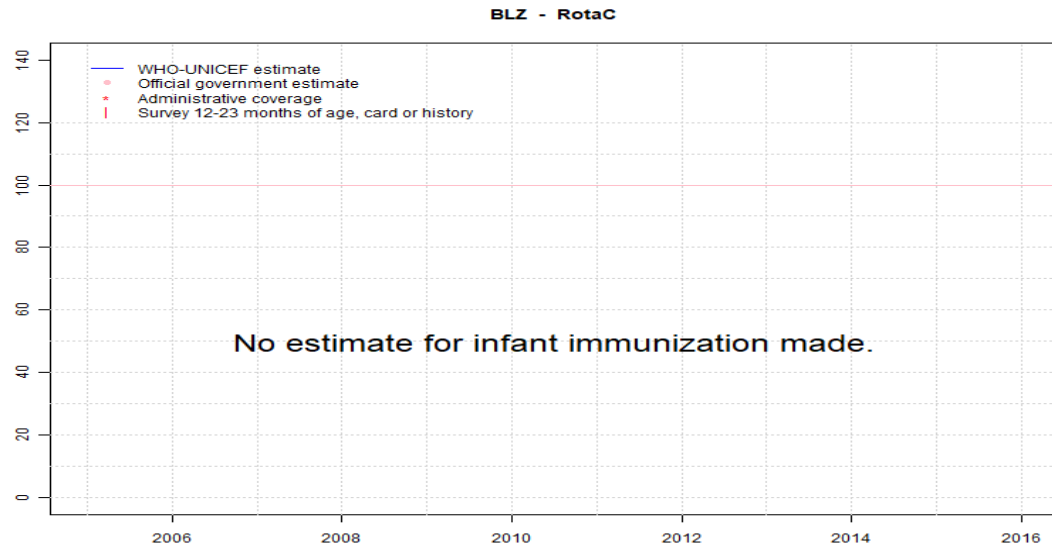
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of Multiple Indicator Cluster Survey during 2015 and await the final results. Preliminary results from MICS 2015-16 suggest 83 percent coverage for DTP Hib HepB3. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Belize Multiple Indicator Cluster Survey 2011 results ignored by working group. Multiple vaccine presentations may have compromised a quality of maternal recall. Belize Multiple Indicator Cluster Survey 2011 card or history results of 74 percent modified for recall bias to 78 percent based on 1st dose card or history coverage of 84 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 72 percent. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Card only coverage for 3d dose of DTP-HepB-Hib and polio vaccine is higher than 1st dose. GoC=R+ D+

Belize - RotaC



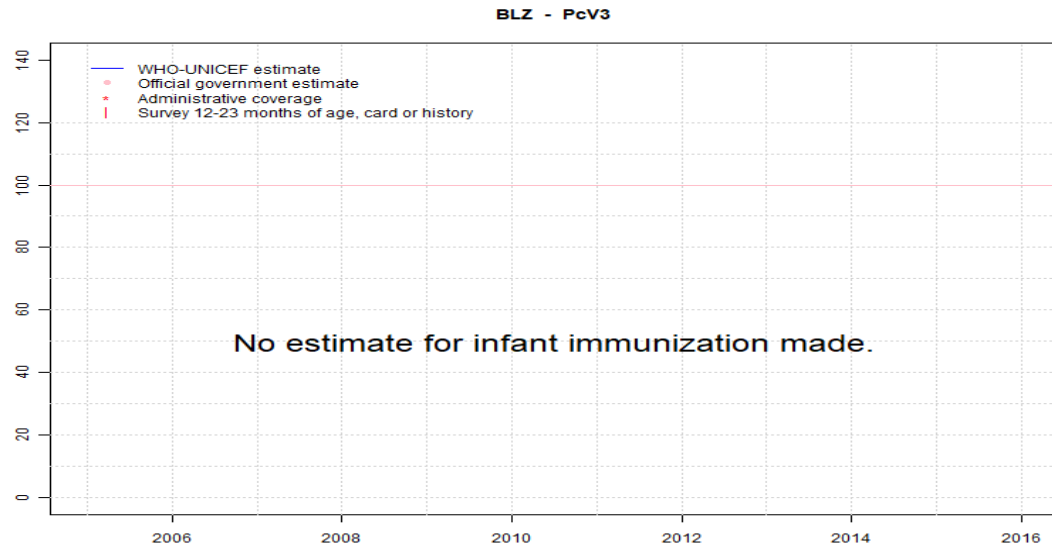
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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Belize - PcV3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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Belize - survey details

2010 Belize Multiple Indicator Cluster Survey 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	97.5	18-29 m	-	75
BCG	Card	75.5	18-29 m	-	75
BCG	Card or History	98	18-29 m	405	75
BCG	History	22.5	18-29 m	-	75
DTP1	C or H <12 months	81.7	18-29 m	-	75
DTP1	Card	77.7	18-29 m	-	75
DTP1	Card or History	83.4	18-29 m	405	75
DTP1	History	5.8	18-29 m	-	75
DTP3	C or H <12 months	67.8	18-29 m	-	75
DTP3	Card	72.3	18-29 m	-	75
DTP3	Card or History	73.5	18-29 m	405	75
DTP3	History	1.2	18-29 m	-	75
HepB1	C or H <12 months	83.5	18-29 m	-	75
HepB1	Card	77.4	18-29 m	-	75
HepB1	Card or History	83.5	18-29 m	405	75
HepB1	History	6.1	18-29 m	-	75
HepB3	C or H <12 months	73.7	18-29 m	-	75
HepB3	Card	72.2	18-29 m	-	75
HepB3	Card or History	73.7	18-29 m	405	75
HepB3	History	1.5	18-29 m	-	75
Hib1	C or H <12 months	83.5	18-29 m	-	75
Hib1	Card	77.5	18-29 m	-	75
Hib1	Card or History	83.5	18-29 m	405	75
Hib1	History	6	18-29 m	-	75
Hib3	C or H <12 months	73.5	18-29 m	-	75
Hib3	Card	72.3	18-29 m	-	75
Hib3	Card or History	73.5	18-29 m	405	75
Hib3	History	1.2	18-29 m	-	75
MCV1	C or H <18 months	84.9	18-29 m	-	75
MCV1	Card	72.2	18-29 m	-	75
MCV1	Card or History	89.8	18-29 m	405	75
MCV1	History	17.5	18-29 m	-	75
Pol1	C or H <12 months	95.6	18-29 m	-	75
Pol1	Card	75	18-29 m	-	75
Pol1	Card or History	97.3	18-29 m	405	75
Pol1	History	22.4	18-29 m	-	75
Pol3	C or H <12 months	65.3	18-29 m	-	75

Pol3	Card	69.2	18-29 m	-	75
Pol3	Card or History	70	18-29 m	405	75
Pol3	History	0.8	18-29 m	-	75

2004 Belize Multiple Indicator Cluster Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	90.2	18-29 m	169	64
BCG	Card	64.3	18-29 m	169	64
BCG	Card or History	90.2	18-29 m	169	64
BCG	History	25.9	18-29 m	169	64
DTP1	C or H <12 months	89	18-29 m	169	64
DTP1	Card	65.5	18-29 m	169	64
DTP1	Card or History	90.6	18-29 m	169	64
DTP1	History	25.1	18-29 m	169	64
DTP3	C or H <12 months	74.6	18-29 m	169	64
DTP3	Card	66.8	18-29 m	169	64
DTP3	Card or History	76.1	18-29 m	169	64
DTP3	History	9.4	18-29 m	169	64
HepB1	C or H <12 months	89	18-29 m	169	64
HepB1	Card	65.5	18-29 m	169	64
HepB1	Card or History	90.6	18-29 m	169	64
HepB1	History	25.1	18-29 m	169	64
HepB3	C or H <12 months	74.6	18-29 m	169	64
HepB3	Card	66.8	18-29 m	169	64
HepB3	Card or History	76.1	18-29 m	169	64
HepB3	History	9.4	18-29 m	169	64
Hib1	C or H <12 months	89	18-29 m	169	64
Hib1	Card	65.5	18-29 m	169	64
Hib1	Card or History	90.6	18-29 m	169	64
Hib1	History	25.1	18-29 m	169	64
Hib3	C or H <12 months	74.6	18-29 m	169	64
Hib3	Card	66.8	18-29 m	169	64
Hib3	Card or History	76.1	18-29 m	169	64
Hib3	History	9.4	18-29 m	169	64
MCV1	C or H <12 months	81.9	18-29 m	169	64
MCV1	Card	60.5	18-29 m	169	64
MCV1	Card or History	85	18-29 m	169	64
MCV1	History	24.4	18-29 m	169	64

Belize - survey details

Pol1	C or H <12 months	88.3	18-29 m	169	64	Pol3	Card	66.6	18-29 m	169	64
Pol1	Card	64.9	18-29 m	169	64	Pol3	Card or History	72.3	18-29 m	169	64
Pol1	Card or History	89	18-29 m	169	64	Pol3	History	5.7	18-29 m	169	64
Pol1	History	24.1	18-29 m	169	64						
Pol3	C or H <12 months	68.6	18-29 m	169	64						

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