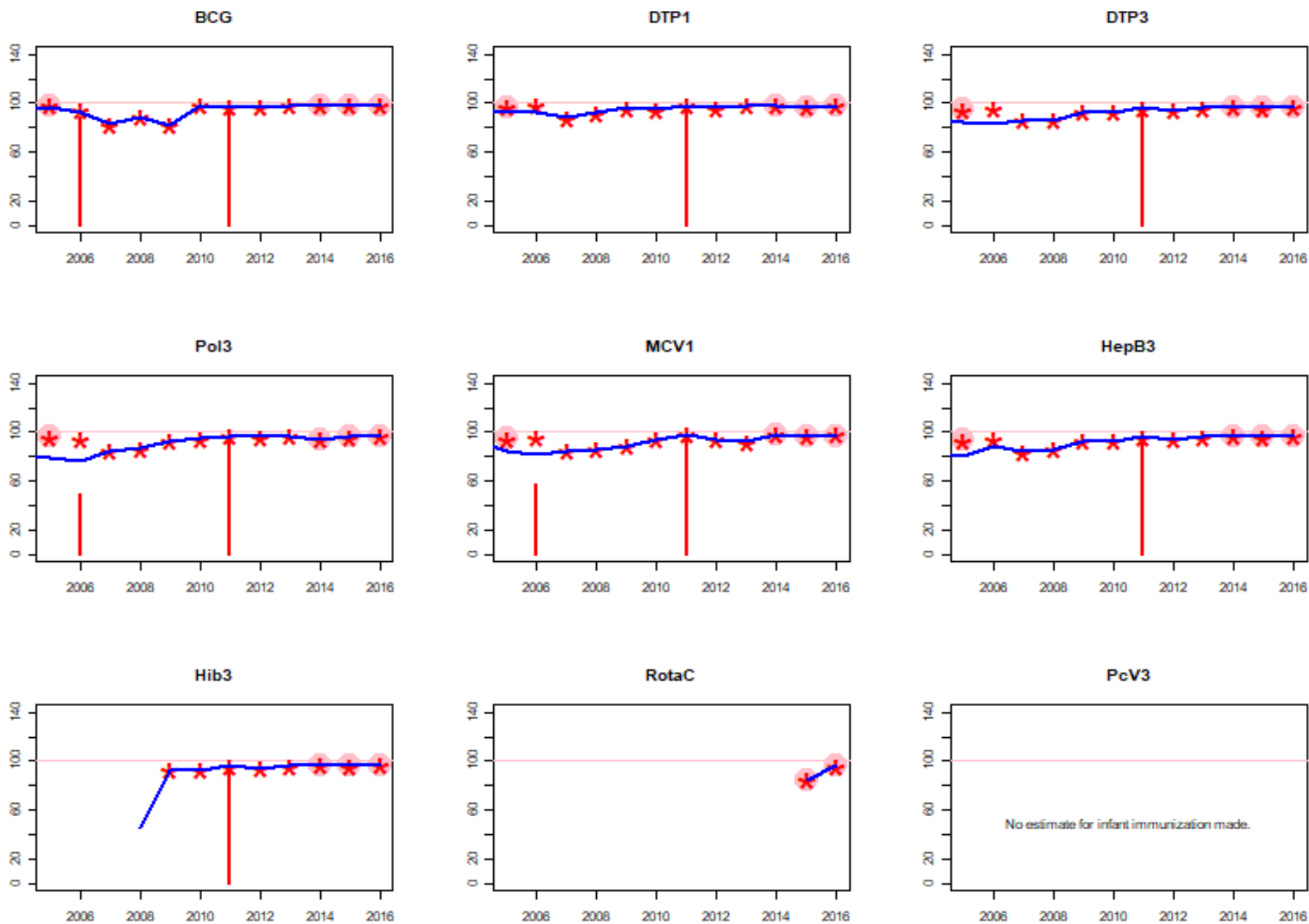


Tajikistan: WHO and UNICEF estimates of immunization coverage: 2016 revision



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.

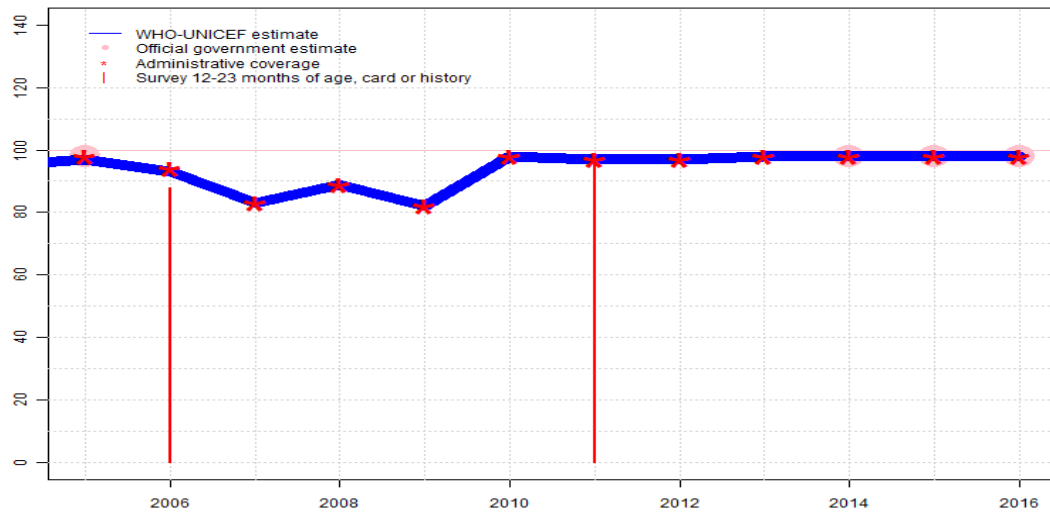
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

TJK - BCG



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of an on-going Demographic and Health Survey and await the final results. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on reported administrative data. GoC=R+ D+
- 2012: Estimate based on reported administrative data. GoC=R+ D+
- 2011: Estimate based on reported administrative data. Tajikistan Demographic and Health Survey 2012 results ignored by working group. Survey results are preliminary. GoC=R+ D+
- 2010: Estimate based on reported administrative data. GoC=R+ D+
- 2009: Estimate based on reported administrative data. GoC=R+ D+
- 2008: Estimate based on reported administrative data. GoC=R+ D+
- 2007: Estimate based on reported data following updated denominator estimate. GoC=R+ D+
- 2006: Reported data calibrated to 2004 and 2007 levels. Tajikistan Living Standards Measurement Survey 2007 results ignored by working group. Survey ignored; results and methodology are inconsistent with previous surveys; sample size equals the size of the target population with only 4860 households surveyed. Estimate challenged by: D-R-
- 2005: Reported data calibrated to 2004 and 2007 levels. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	97	93	83	89	82	98	97	97	98	98	98	98
Estimate GoC	•	•	••	••	••	••	••	••	••	••	••	••
Official	98	NA	NA	NA	NA	NA	NA	NA	NA	98	98	98
Administrative	98	94	83	89	82	98	97	97	98	98	98	98
Survey	NA	88	NA	NA	NA	NA	98	NA	NA	NA	NA	NA

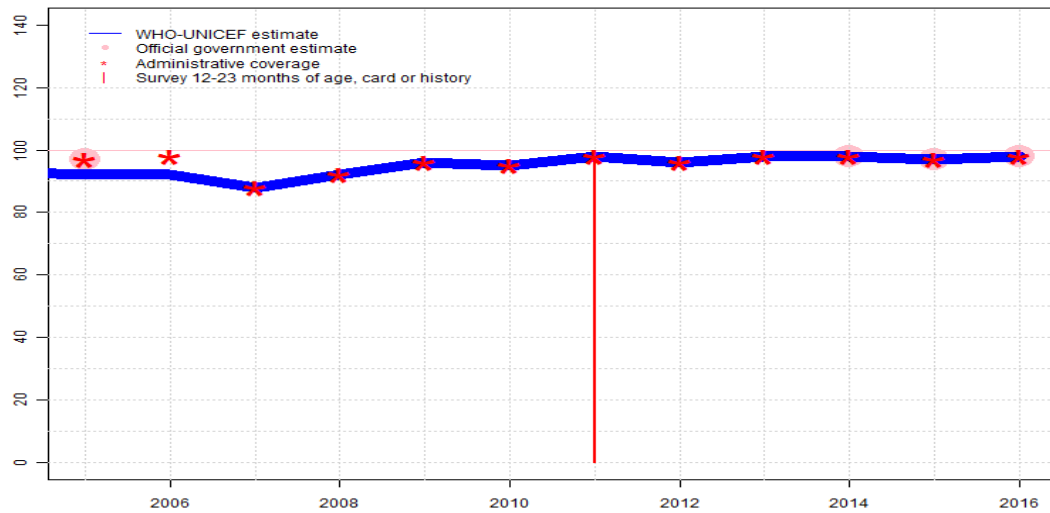
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Tajikistan - DTP1

TJK - DTP1



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of an on-going Demographic and Health Survey and await the final results. Programme reports a vaccine stock-out at the national level for 2 months. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on reported administrative data. GoC=R+ D+
- 2012: Estimate based on reported administrative data. GoC=R+ D+
- 2011: Estimate based on reported administrative data. Tajikistan Demographic and Health Survey 2012 results ignored by working group. Survey results are preliminary. GoC=R+ D+
- 2010: Estimate based on reported administrative data. GoC=R+ D+
- 2009: Estimate based on reported administrative data. GoC=R+ D+
- 2008: Estimate based on reported administrative data. GoC=R+ D+
- 2007: Estimate based on the reported data following a denominator series revision by the Ministry of Health. GoC=R+ D+
- 2006: Estimate of 92 percent assigned by working group. Estimate based on reported data calibrated to the level of the 2004 survey. Estimate challenged by: D-R-
- 2005: Reported data calibrated to 2004 and 2006 levels. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	92	92	88	92	96	95	98	96	98	98	97	98
Estimate GoC	•	•	••	••	••	••	••	••	••	••	••	••
Official	97	NA	NA	NA	NA	NA	NA	NA	NA	98	97	98
Administrative	97	98	88	92	96	95	98	96	98	98	97	98
Survey	NA	NA	NA	NA	NA	NA	98	NA	NA	NA	NA	NA

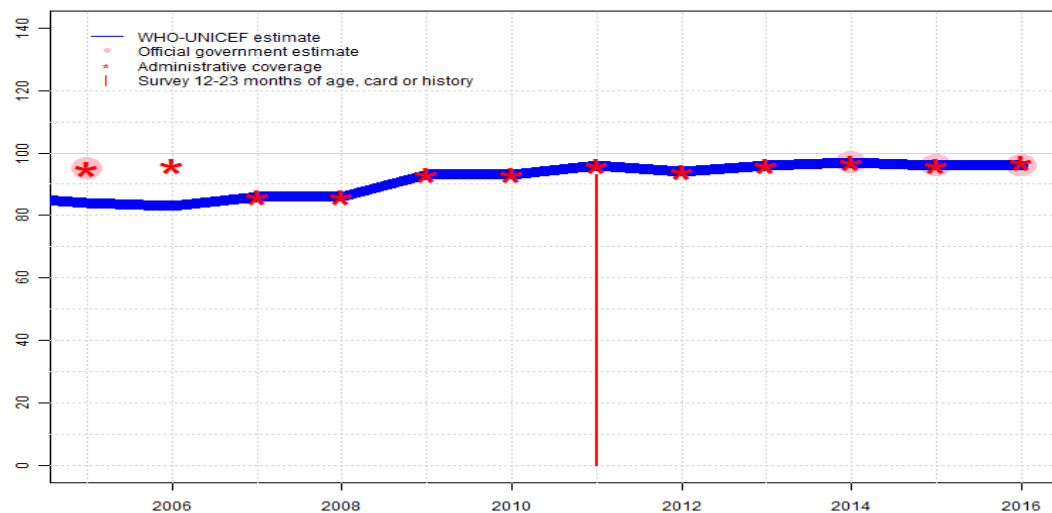
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Tajikistan - DTP3

TJK - DTP3



Description:

- 2016: Estimate based on coverage reported by national government. Programme reports a vaccine stock-out at the national level for 2 months. WHO and UNICEF are aware of an on-going Demographic and Health Survey and await the final results. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on reported administrative data. GoC=R+ D+
- 2012: Estimate based on reported administrative data. GoC=R+ D+
- 2011: Estimate based on reported administrative data. Tajikistan Demographic and Health Survey 2012 results ignored by working group. Survey results are preliminary. Tajikistan Demographic and Health Survey 2012 card or history results of 93 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 91 percent and 3d dose card only coverage of 88 percent. GoC=R+ D+
- 2010: Estimate based on reported administrative data. GoC=R+ D+
- 2009: Estimate based on reported administrative data. GoC=R+ D+
- 2008: Estimate based on reported administrative data. GoC=R+ D+
- 2007: Estimate based on reported data following updated denominator estimate. GoC=R+ D+
- 2006: Estimate of 83 percent assigned by working group. Estimate based on reported data calibrated to the level of the 2004 survey. Estimate challenged by: R-
- 2005: Reported data calibrated to 2004 and 2006 levels. Estimate challenged by: R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	84	83	86	86	93	93	96	94	96	97	96	96
Estimate GoC	•	•	••	••	••	••	••	••	••	••	••	••
Official	95	NA	NA	NA	NA	NA	NA	NA	NA	97	96	96
Administrative	95	96	86	86	93	93	96	94	96	97	96	97
Survey	NA	NA	NA	NA	NA	NA	93	NA	NA	NA	NA	NA

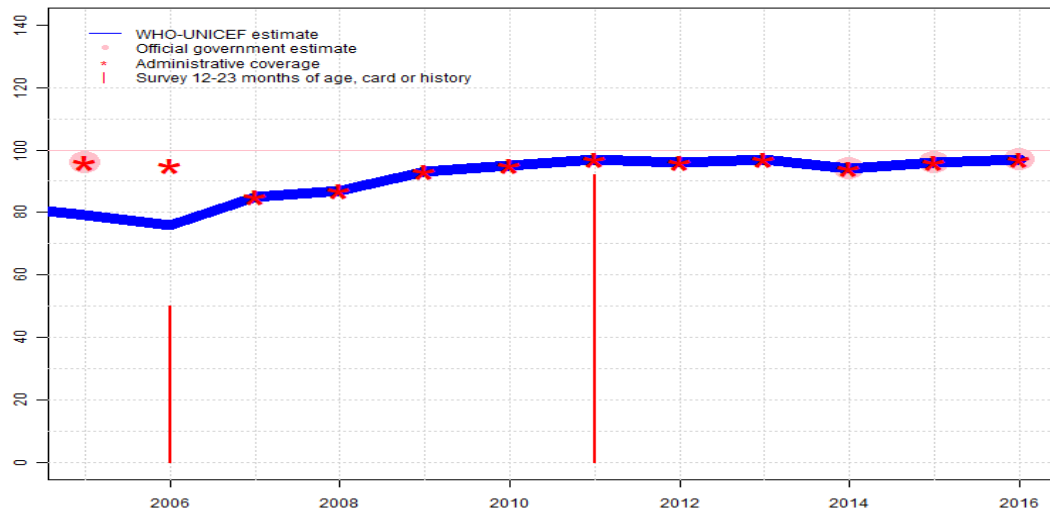
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Tajikistan - Pol3

TJK - Pol3



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of an on-going Demographic and Health Survey and await the final results. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Programme reports one month stock-out at national level. GoC=R+ D+
- 2013: Estimate based on reported administrative data. GoC=R+ D+
- 2012: Estimate based on reported administrative data. GoC=R+ D+
- 2011: Estimate based on reported administrative data. Tajikistan Demographic and Health Survey 2012 results ignored by working group. Survey results are preliminary. Tajikistan Demographic and Health Survey 2012 card or history results of 92 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 91 percent and 3d dose card only coverage of 88 percent. GoC=R+ D+
- 2010: Estimate based on reported administrative data. GoC=R+ D+
- 2009: Estimate based on reported administrative data. MoH reports polio outbreak of more than 300 cases as of 1 July 2010. GoC=R+ D+
- 2008: Estimate based on reported administrative data. GoC=R+ D+
- 2007: Estimate based on reported data following updated denominator estimate. GoC=R+ D+
- 2006: Estimate of 76 percent assigned by working group. Estimate based on reported data calibrated to the level of the 2004 survey. Tajikistan Living Standards Measurement Survey 2007 results ignored by working group. Survey ignored; results and methodology are inconsistent with previous surveys; sample size equals the size of the target population with only 4860 households surveyed. Estimate challenged by: R-S-
- 2005: Reported data calibrated to 2004 and 2006 levels. Estimate challenged by: R-S-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	79	76	85	87	93	95	97	96	97	94	96	97
Estimate GoC	•	•	••	••	••	••	••	••	••	••	••	••
Official	96	NA	NA	NA	NA	NA	NA	NA	NA	94	96	97
Administrative	96	95	85	87	93	95	97	96	97	94	96	97
Survey	NA	50	NA	NA	NA	NA	92	NA	NA	NA	NA	NA

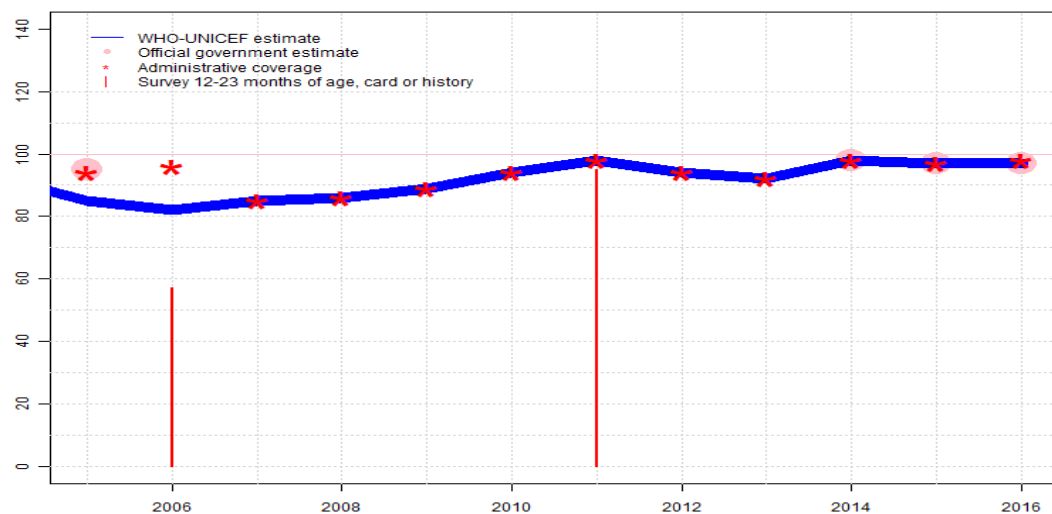
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Tajikistan - MCV1

TJK - MCV1



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of an on-going Demographic and Health Survey and await the final results. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on reported administrative data. GoC=R+ D+
- 2012: Estimate based on reported administrative data. GoC=R+ D+
- 2011: Estimate based on reported administrative data. Tajikistan Demographic and Health Survey 2012 results ignored by working group. Survey results are preliminary. GoC=R+ D+
- 2010: Estimate based on reported administrative data. GoC=R+ D+
- 2009: Estimate based on reported administrative data. GoC=R+ D+
- 2008: Estimate based on reported administrative data. GoC=R+ D+
- 2007: Estimate based on reported data following updated denominator estimate. GoC=R+ D+
- 2006: Estimate of 82 percent assigned by working group. Estimate based on reported data calibrated to the level of the 2004 survey. Tajikistan Living Standards Measurement Survey 2007 results ignored by working group. Survey ignored; results and methodology are inconsistent with previous surveys; sample size equals the size of the target population with only 4860 households surveyed. Estimate challenged by: R-
- 2005: Reported data calibrated to 2004 and 2006 levels. Estimate challenged by: R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	85	82	85	86	89	94	98	94	92	98	97	97
Estimate GoC	•	•	••	••	••	••	••	••	••	••	••	••
Official	95	NA	NA	NA	NA	NA	NA	NA	NA	98	97	97
Administrative	94	96	85	86	89	94	98	94	92	98	97	98
Survey	NA	57	NA	NA	NA	NA	95	NA	NA	NA	NA	NA

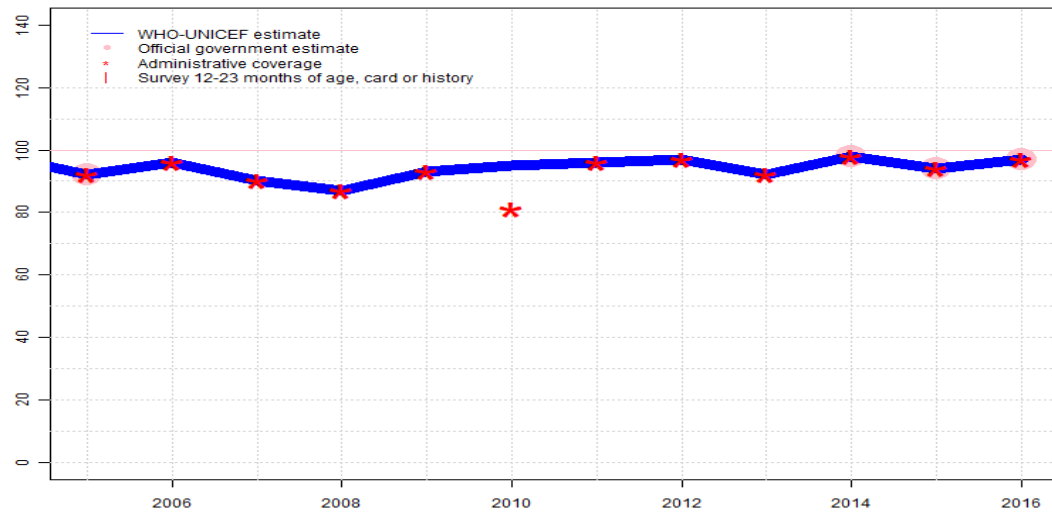
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Tajikistan - MCV2

TJK - 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 an on-going Demographic and Health Survey and await the final results. GoC=R+ 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 reported administrative estimate. Estimate challenged by: D-
 2012: Estimate based on reported administrative estimate. Estimate challenged by: D-
 2011: Estimate based on reported administrative estimate. Estimate challenged by: D-
 2010: Estimate based on interpolation between reported values. Reported data excluded due to decline in reported coverage from 93 percent to 81 percent with increase to 96 percent. Estimate challenged by: D-

2009: Estimate based on reported administrative estimate. Estimate challenged by: D-
 2008: Estimate based on reported administrative estimate. Estimate challenged by: D-
 2007: Estimate based on reported administrative estimate. Estimate challenged by: D-
 2006: Estimate based on reported administrative estimate. Estimate challenged by: 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	92	96	90	87	93	95	96	97	92	98	94	97
Estimate GoC	●●	●	●	●	●	●	●	●	●	●	●	●●
Official	92	NA	NA	NA	NA	NA	NA	NA	NA	98	94	97
Administrative	92	96	90	87	93	81	96	97	92	98	94	97
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

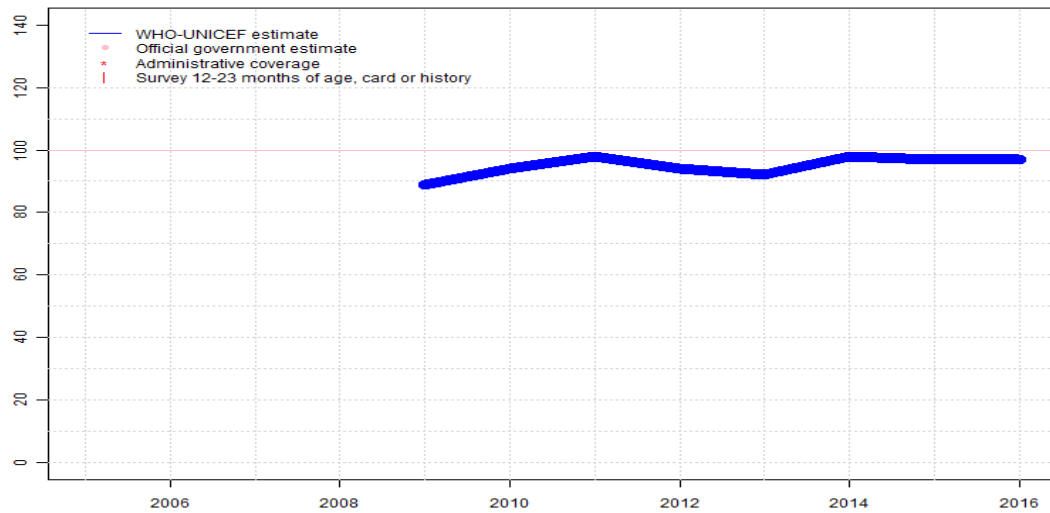
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Tajikistan - RCV1

TJK - 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 an on-going Demographic and Health Survey and await the final results. GoC=R+ D+

2015: Estimate based on estimated MCV1. GoC=R+ D+

2014: Estimate based on estimated MCV1. GoC=R+ D+

2013: Estimate based on estimated MCV1. GoC=R+ D+

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

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

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

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	89	94	98	94	92	98	97	97
Estimate GoC	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

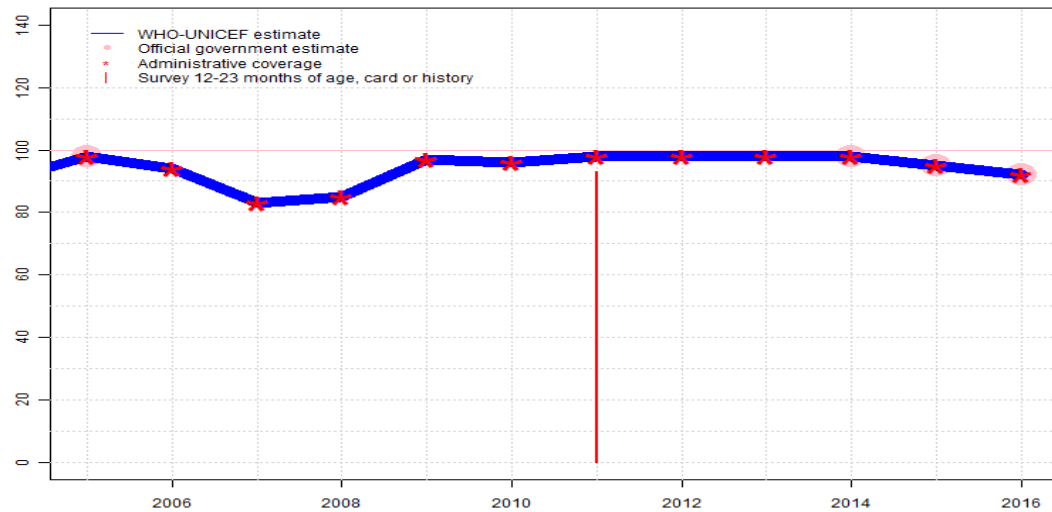
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

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.

Tajikistan - HepBB

TJK - HepBB



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of an on-going Demographic and Health Survey and await the final results. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on reported administrative estimate. GoC=R+ D+
- 2012: Estimate based on reported administrative estimate. GoC=R+ D+
- 2011: Estimate based on reported administrative estimate. Tajikistan Demographic and Health Survey 2012 results ignored by working group. Survey results are preliminary. GoC=R+ D+
- 2010: Estimate based on reported administrative estimate. GoC=R+ D+
- 2009: Estimate based on reported administrative estimate. GoC=R+ D+
- 2008: Estimate based on reported administrative estimate. Estimate challenged by: D-
- 2007: Estimate based on reported administrative estimate. GoC=R+ D+
- 2006: Estimate based on reported administrative estimate. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	98	94	83	85	97	96	98	98	98	98	95	92
Estimate GoC	•	•	••	•	••	••	••	••	••	••	••	••
Official	98	NA	NA	NA	NA	NA	NA	NA	NA	98	95	92
Administrative	98	94	83	85	97	96	98	98	98	98	95	92
Survey	NA	NA	NA	NA	NA	NA	93	NA	NA	NA	NA	NA

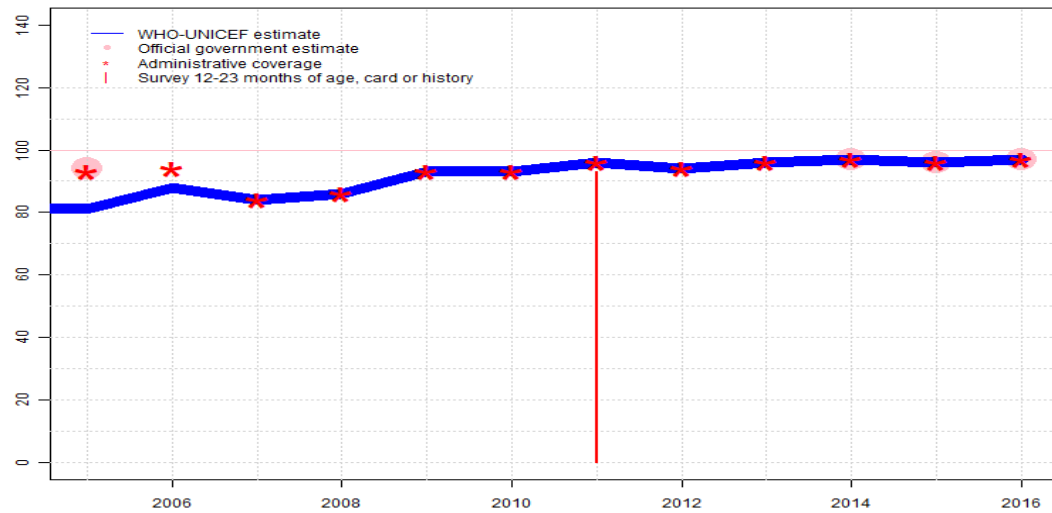
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

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- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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Tajikistan - HepB3

TJK - HepB3



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of an on-going Demographic and Health Survey and await the final results. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on reported administrative data. GoC=R+ D+
- 2012: Estimate based on reported administrative data. GoC=R+ D+
- 2011: Estimate based on reported administrative data. Tajikistan Demographic and Health Survey 2012 results ignored by working group. Survey results are preliminary. Tajikistan Demographic and Health Survey 2012 card or history results of 93 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 91 percent and 3d dose card only coverage of 88 percent. GoC=R+ D+
- 2010: Estimate based on reported administrative data. GoC=R+ D+
- 2009: Estimate based on reported administrative data. GoC=R+ D+
- 2008: Estimate based on reported administrative data. GoC=R+ D+
- 2007: Estimate based on reported data following updated denominator estimate. GoC=R+ D+
- 2006: Reported data calibrated to 2005 and 2007 levels. Estimate challenged by: D-R-
- 2005: Estimate of 81 percent assigned by working group. Estimate based on survey results. Estimate challenged by: R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	81	88	84	86	93	93	96	94	96	97	96	97
Estimate GoC	•	•	••	••	••	••	••	••	••	•	••	••
Official	94	NA	NA	NA	NA	NA	NA	NA	NA	97	96	97
Administrative	93	94	84	86	93	93	96	94	96	97	96	97
Survey	NA	NA	NA	NA	NA	NA	93	NA	NA	NA	NA	NA

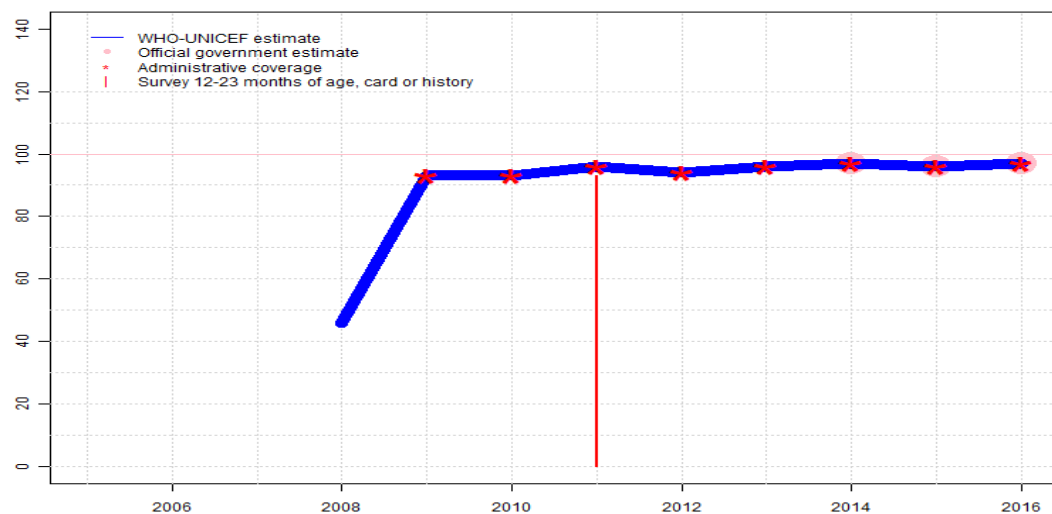
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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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Tajikistan - Hib3

TJK - Hib3



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of an on-going Demographic and Health Survey and await the final results. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on reported administrative estimate. GoC=R+ D+
- 2012: Estimate based on reported administrative estimate. GoC=R+ D+
- 2011: Estimate based on reported administrative estimate. Tajikistan Demographic and Health Survey 2012 results ignored by working group. Survey results are preliminary. Tajikistan Demographic and Health Survey 2012 card or history results of 93 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 91 percent and 3d dose card only coverage of 88 percent. GoC=R+ D+
- 2010: Estimate based on reported administrative estimate. GoC=R+ D+
- 2009: Estimate based on reported administrative estimate. GoC=R+ D+
- 2008: Coverage of 92 percent achieved in 50 percent of the population. Hib vaccine introduced in 2008. Vaccine presentation is DTP-HepB-Hib. GoC=D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	46	93	93	96	94	96	97	96	97
Estimate GoC	NA	NA	NA	••	••	••	••	••	••	••	••	••
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	97	96	97
Administrative	NA	NA	NA	NA	93	93	96	94	96	97	96	97
Survey	NA	NA	NA	NA	NA	NA	93	NA	NA	NA	NA	NA

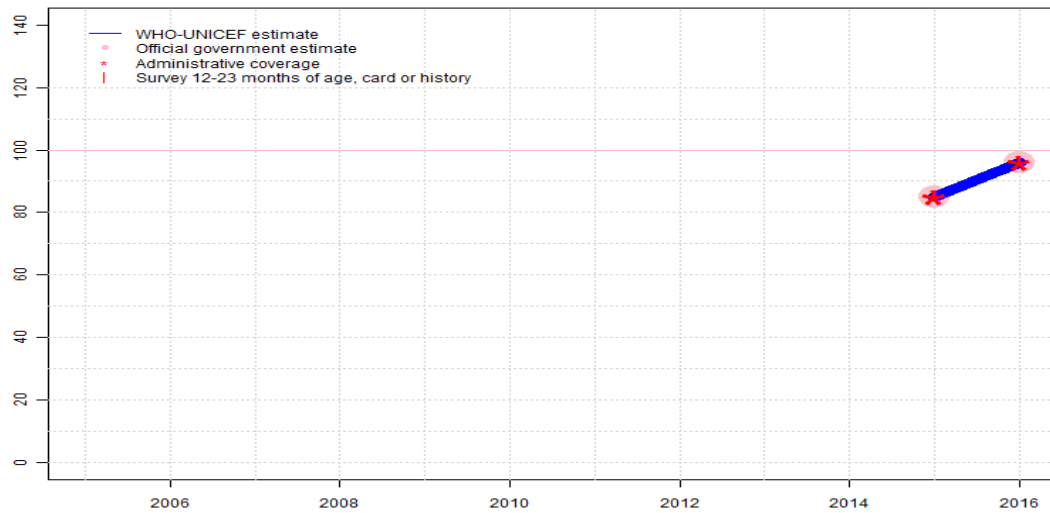
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

TJK - RotaC



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of an on-going Demographic and Health Survey and await the final results. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. Rotavirus vaccine introduced in January 2015. GoC=R+ D+

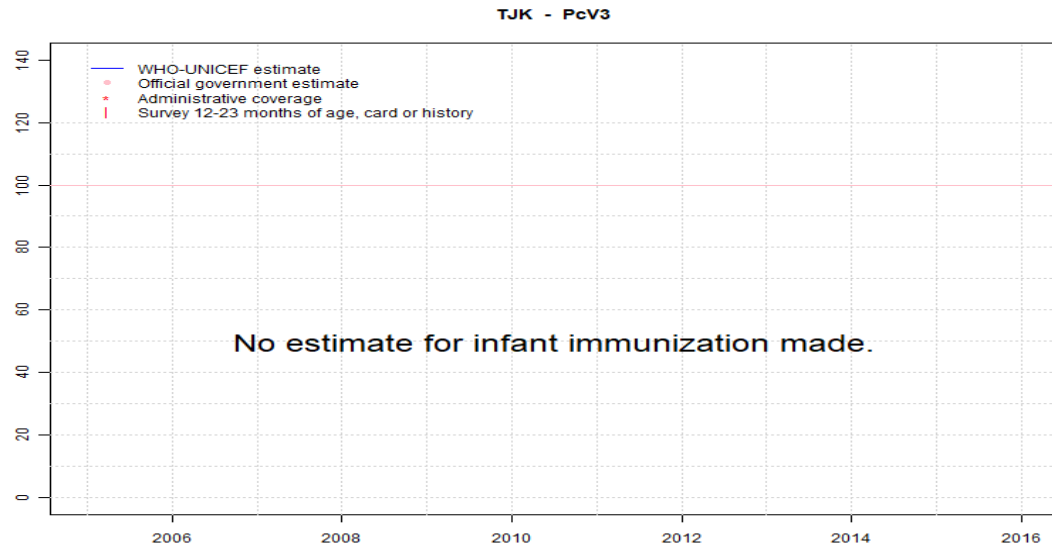
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	85	96
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	85	96
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	85	96
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

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Tajikistan - 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.

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.

Tajikistan - survey details

2011 Tajikistan Demographic and Health Survey 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <18 months	98	18-29 m	1148	91
BCG	Card	91	18-29 m	1044	91
BCG	Card or History	98	18-29 m	1148	91
BCG	History	8	18-29 m	103	91
DTP1	C or H <18 months	97	18-29 m	1148	91
DTP1	Card	91	18-29 m	1044	91
DTP1	Card or History	98	18-29 m	1148	91
DTP1	History	7	18-29 m	103	91
DTP3	C or H <18 months	92	18-29 m	1148	91
DTP3	Card	88	18-29 m	1044	91
DTP3	Card or History	93	18-29 m	1148	91
DTP3	History	5	18-29 m	103	91
HepB1	C or H <18 months	97	18-29 m	1148	91
HepB1	Card	91	18-29 m	1044	91
HepB1	Card or History	98	18-29 m	1148	91
HepB1	History	7	18-29 m	103	91
HepB3	C or H <18 months	92	18-29 m	1148	91
HepB3	Card	88	18-29 m	1044	91
HepB3	Card or History	93	18-29 m	1148	91
HepB3	History	5	18-29 m	103	91
HepBB	C or H <18 months	93	18-29 m	1148	91
HepBB	Card	88	18-29 m	1044	91
HepBB	Card or History	93	18-29 m	1148	91
HepBB	History	5	18-29 m	103	91
Hib1	C or H <18 months	97	18-29 m	1148	91
Hib1	Card	91	18-29 m	1044	91
Hib1	Card or History	98	18-29 m	1148	91
Hib1	History	7	18-29 m	103	91
Hib3	C or H <18 months	92	18-29 m	1148	91
Hib3	Card	88	18-29 m	1044	91
Hib3	Card or History	93	18-29 m	1148	91
Hib3	History	5	18-29 m	103	91
MCV1	C or H <18 months	91	18-29 m	1148	91
MCV1	Card	88	18-29 m	1044	91
MCV1	Card or History	95	18-29 m	1148	91
MCV1	History	7	18-29 m	103	91
Pol1	C or H <18 months	97	18-29 m	1148	91

Pol1	Card	91	18-29 m	1044	91
Pol1	Card or History	97	18-29 m	1148	91
Pol1	History	7	18-29 m	103	91
Pol3	C or H <18 months	92	18-29 m	1148	91
Pol3	Card	88	18-29 m	1044	91
Pol3	Card or History	92	18-29 m	1148	91
Pol3	History	4	18-29 m	103	91

2006 Tajikistan Living Standards Measurement Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	88	12-23 m	157759	-
MCV1	Card or History	57	12-23 m	157759	-
Pol1	Card or History	83	12-23 m	157759	-
Pol3	Card or History	50	12-23 m	157759	-

2004 Tajikistan Multiple Indicator Cluster Survey 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	94	18-29 m	826	83
BCG	Card	81	18-29 m	826	83
BCG	Card or History	95	18-29 m	826	83
BCG	History	14	18-29 m	826	83
DTP1	C or H <12 months	91	18-29 m	826	83
DTP1	Card	82	18-29 m	826	83
DTP1	Card or History	93	18-29 m	826	83
DTP1	History	11	18-29 m	826	83
DTP3	C or H <12 months	82	18-29 m	826	83
DTP3	Card	80	18-29 m	826	83
DTP3	Card or History	86	18-29 m	826	83
DTP3	History	6	18-29 m	826	83
HepB1	C or H <12 months	84	18-29 m	826	83
HepB1	Card	70	18-29 m	826	83
HepB1	Card or History	85	18-29 m	826	83
HepB1	History	15	18-29 m	826	83
HepB3	C or H <12 months	69	18-29 m	826	83
HepB3	Card	67	18-29 m	826	83
HepB3	Card or History	73	18-29 m	826	83

Tajikistan - survey details

HepB3	History	6	18-29 m	826	83
MCV1	C or H <12 months	91	18-29 m	826	83
MCV1	Card	78	18-29 m	826	83
MCV1	Card or History	92	18-29 m	826	83
MCV1	History	14	18-29 m	826	83
Pol1	C or H <12 months	92	18-29 m	826	83
Pol1	Card	81	18-29 m	826	83
Pol1	Card or History	93	18-29 m	826	83
Pol1	History	12	18-29 m	826	83
Pol3	C or H <12 months	79	18-29 m	826	83
Pol3	Card	79	18-29 m	826	83
Pol3	Card or History	82	18-29 m	826	83
Pol3	History	3	18-29 m	826	83

1999 Multiple Indicator Cluster Survey, Tajikistan 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	89	12-23 m	745	78
BCG	Card	76	12-23 m	745	78
BCG	Card or History	92	12-23 m	745	78

BCG	History	16	12-23 m	745	78
DTP1	C or H <12 months	84	12-23 m	745	78
DTP1	Card	76	12-23 m	745	78
DTP1	Card or History	88	12-23 m	745	78
DTP1	History	11	12-23 m	745	78
DTP3	C or H <12 months	76	12-23 m	745	78
DTP3	Card	74	12-23 m	745	78
DTP3	Card or History	82	12-23 m	745	78
DTP3	History	18	12-23 m	745	78
MCV1	C or H <12 months	61	12-23 m	745	78
MCV1	Card	67	12-23 m	745	78
MCV1	Card or History	79	12-23 m	745	78
MCV1	History	12	12-23 m	745	78
Pol1	C or H <12 months	89	12-23 m	745	78
Pol1	Card	78	12-23 m	745	78
Pol1	Card or History	92	12-23 m	745	78
Pol1	History	14	12-23 m	745	78
Pol3	C or H <12 months	78	12-23 m	745	78
Pol3	Card	75	12-23 m	745	78
Pol3	Card or History	84	12-23 m	745	78
Pol3	History	9	12-23 m	745	78

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