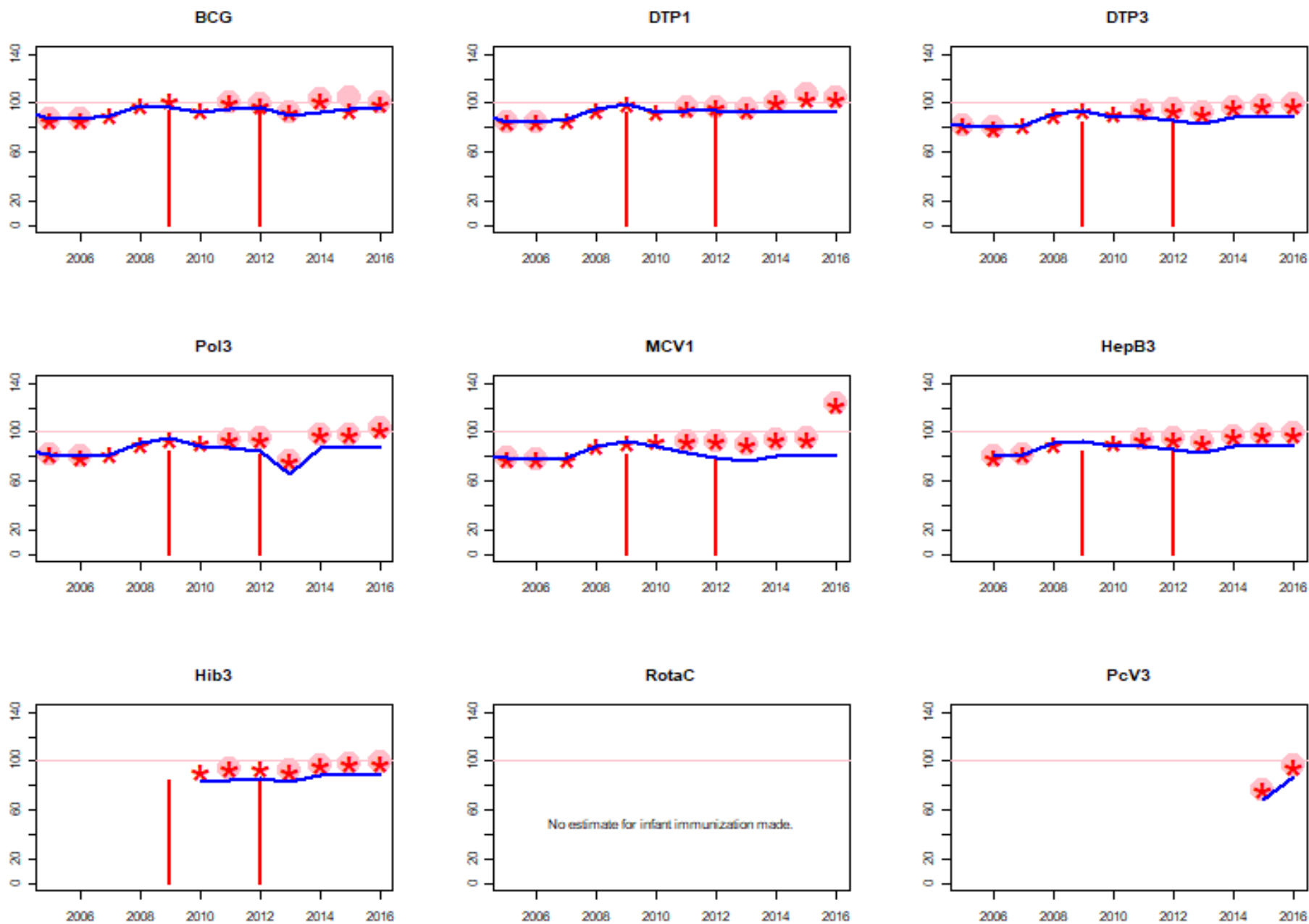


Cambodia: WHO and UNICEF estimates of immunization coverage: 2016 revision



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.

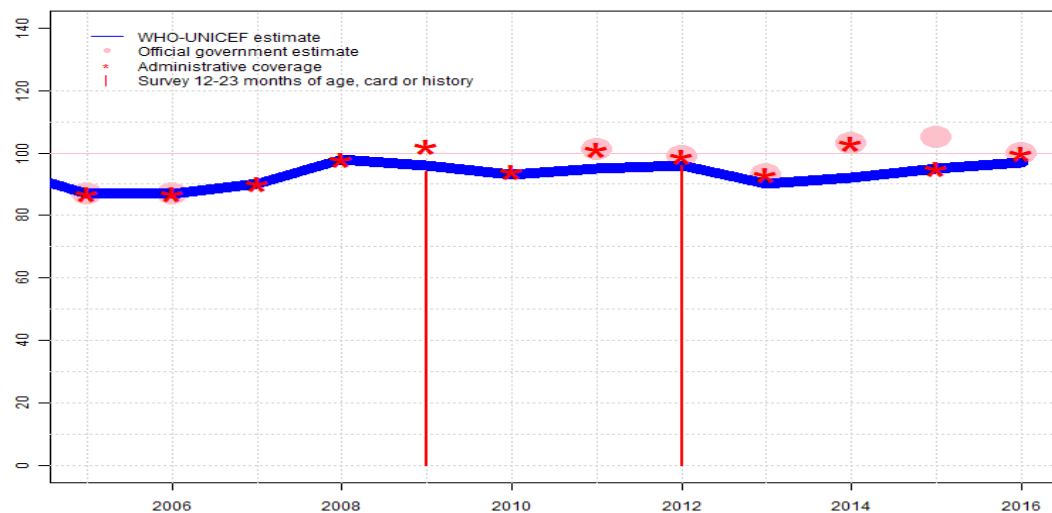
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

KHM - BCG



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	87	87	90	98	96	93	95	96	90	92	95	97
Estimate GoC	●●●	●●●	●●●	●●●	●●●	●	●	●	●	●	●	●
Official	87	87	NA	NA	NA	NA	101	99	93	103	105	100
Administrative	87	87	90	98	102	94	101	99	93	103	95	100
Survey	NA	NA	NA	NA	94	NA	NA	96	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.

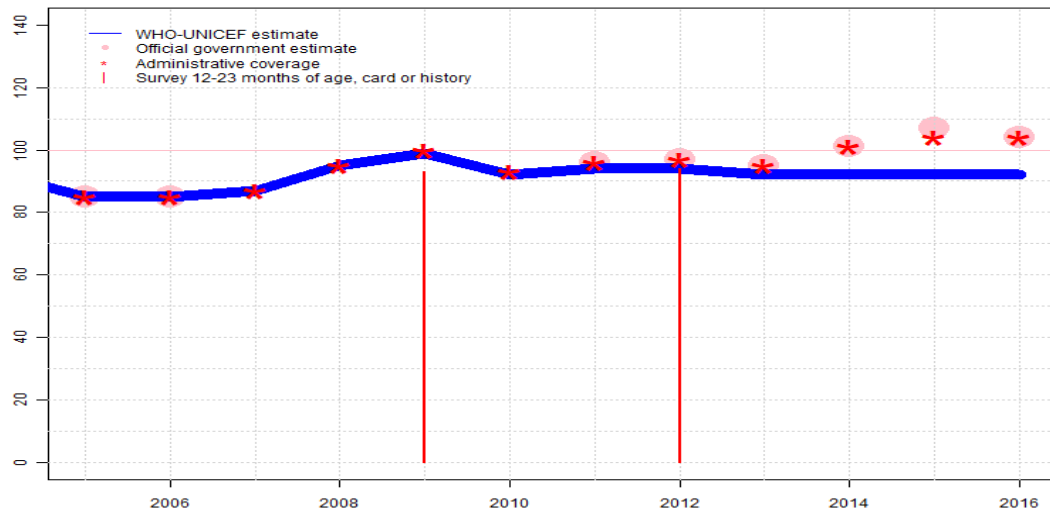
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2015: Reported data calibrated to 2012 levels. Reported data excluded because 105 percent greater than 100 percent. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate of 95 percent changed from previous revision value of 90 percent. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 levels. Reported data excluded because 103 percent greater than 100 percent. Estimate of 92 percent changed from previous revision value of 90 percent. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 levels. Four months national stockout reported. Estimate challenged by: R-
- 2012: Estimate of 96 percent assigned by working group. Estimate is based on survey results from 2013 DHS. Estimate challenged by: R-
- 2011: Reported data calibrated to 2009 and 2012 levels. Reported data excluded because 101 percent greater than 100 percent. Estimate challenged by: R-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2009: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). Reported data excluded because 102 percent greater than 100 percent. GoC=R+ S+ D+
- 2008: Estimate based on reported administrative data. GoC=R+ S+ D+
- 2007: Estimate based on reported administrative data. GoC=R+ S+ D+
- 2006: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

Cambodia - DTP1

KHM - DTP1



Description:

- 2016: Reported data calibrated to 2012 levels. Reported data excluded because 104 percent greater than 100 percent. Estimate challenged by: R-
- 2015: Reported data calibrated to 2012 levels. Reported data excluded because 107 percent greater than 100 percent. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 levels. Reported data excluded because 101 percent greater than 100 percent. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2012: Estimate of 94 percent assigned by working group. Estimate is based on survey results from 2013 DHS. Estimate challenged by: R-
- 2011: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2009: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 93 percent based on 1 survey(s). GoC=R+ S+ D+
- 2008: Estimate based on reported administrative data. GoC=R+ S+ D+
- 2007: Estimate based on reported administrative data. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. GoC=R+ S+ 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	85	85	87	95	99	92	94	94	92	92	92	92
Estimate GoC	•	•••	•	•••	•••	•	•	•	•	•	•	•
Official	85	85	NA	NA	NA	NA	96	97	95	101	107	104
Administrative	85	85	87	95	100	93	96	97	95	101	104	104
Survey	NA	NA	NA	NA	93	NA	NA	94	NA	NA	NA	NA

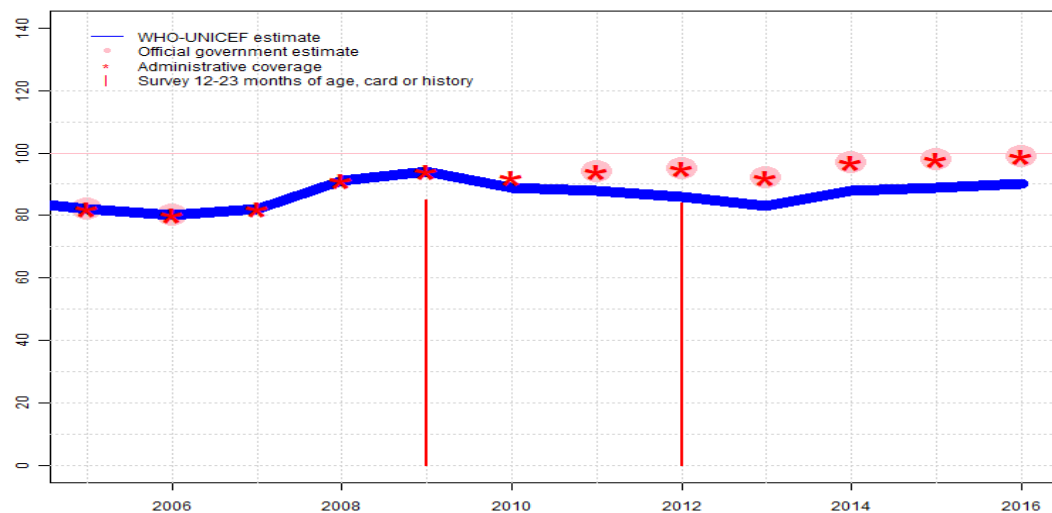
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Cambodia - DTP3

KHM - DTP3



Description:

- 2016: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2015: Reported data calibrated to 2012 levels. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2012: Estimate of 86 percent assigned by working group. Estimate is based on survey results from 2013 DHS. Cambodia Demographic and Health Survey, 2014 card or history results of 84 percent modified for recall bias to 86 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 75 percent and 3d dose card only coverage of 69 percent. Estimate challenged by: R-
- 2011: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2009: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 87 percent based on 1 survey(s). Cambodia Demographic and Health Survey 2010 card or history results of 85 percent modified for recall bias to 87 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 71 percent. GoC=R+ S+ D+
- 2008: Estimate based on reported administrative data. Increase in 2008 due to change in the denominator based on the General Population Census, 2008. GoC=R+ S+ D+
- 2007: Estimate based on reported administrative data. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	82	80	82	91	94	89	88	86	83	88	89	90
Estimate GoC	●●●	●●●	●	●●●	●●●	●	●	●	●	●	●	●
Official	82	80	NA	NA	NA	NA	94	95	92	97	98	99
Administrative	82	80	82	91	94	92	94	95	92	97	98	99
Survey	NA	NA	NA	NA	85	NA	NA	84	NA	NA	NA	NA

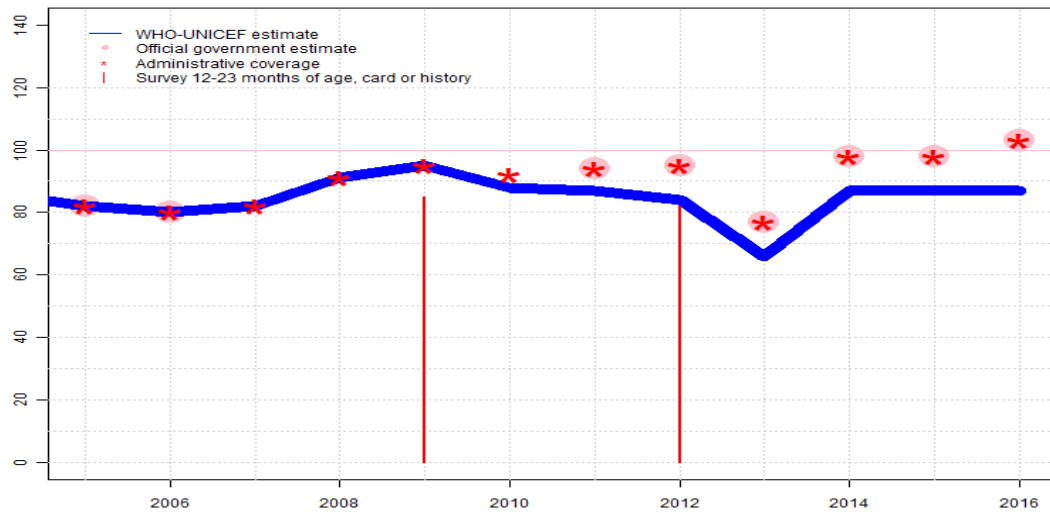
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Cambodia - Pol3

KHM - Pol3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	82	80	82	91	95	88	87	84	66	87	87	87
Estimate GoC	●●●	●	●	●●●	●●●	●	●	●	●	●	●	●
Official	82	80	NA	NA	NA	NA	94	95	77	98	98	103
Administrative	82	80	82	91	95	92	94	95	77	98	98	103
Survey	NA	NA	NA	NA	85	NA	NA	82	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.

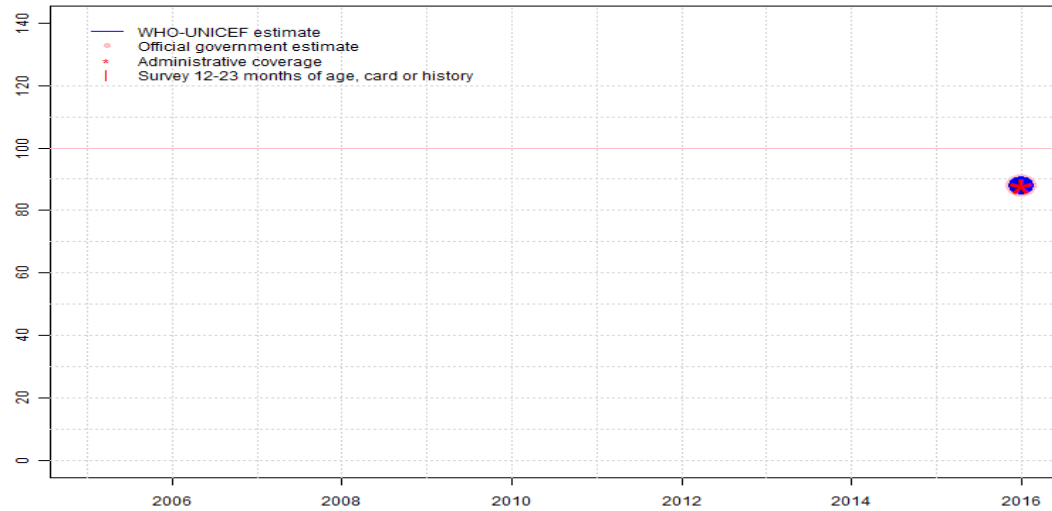
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2012 levels. Reported data excluded because 103 percent greater than 100 percent. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2012 levels. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 levels. Recovery from stock-out during prior year. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 levels. Reported decline likely due to five months vaccine stockout. Estimate challenged by: D-R-S-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 84 percent based on 1 survey(s). Cambodia Demographic and Health Survey, 2014 card or history results of 82 percent modified for recall bias to 84 percent based on 1st dose card or history coverage of 95 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 67 percent. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2009: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Cambodia Demographic and Health Survey 2010 card or history results of 85 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 71 percent. GoC=R+ S+ D+
- 2008: Estimate based on reported administrative data. Increase in 2008 due to change in the denominator based on the General Population Census, 2008. GoC=R+ S+ D+
- 2007: Estimate based on reported administrative data. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

Cambodia - IPV1

KHM - IPV1



Description:

2016: Estimate based on coverage reported by national government. Inactivated polio vaccine introduced in December 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	NA	88
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	88
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	88
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

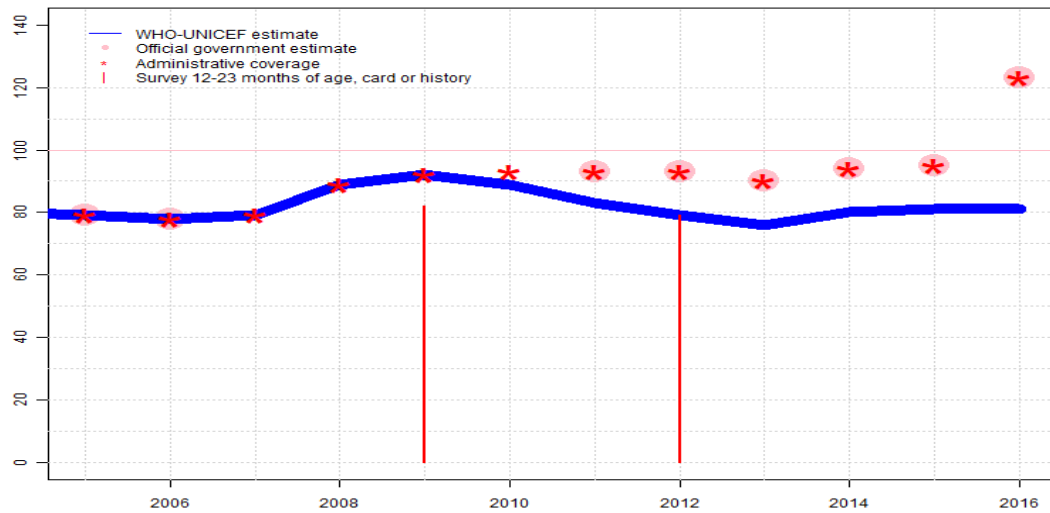
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Cambodia - MCV1

KHM - MCV1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	79	78	79	89	92	89	83	79	76	80	81	81
Estimate GoC	●●●	●●●	●	●●●	●●●	●	●	●	●	●	●	●
Official	79	78	NA	NA	NA	NA	93	93	90	94	95	123
Administrative	79	78	79	89	92	93	93	93	90	94	95	123
Survey	NA	NA	NA	NA	82	NA	NA	79	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.

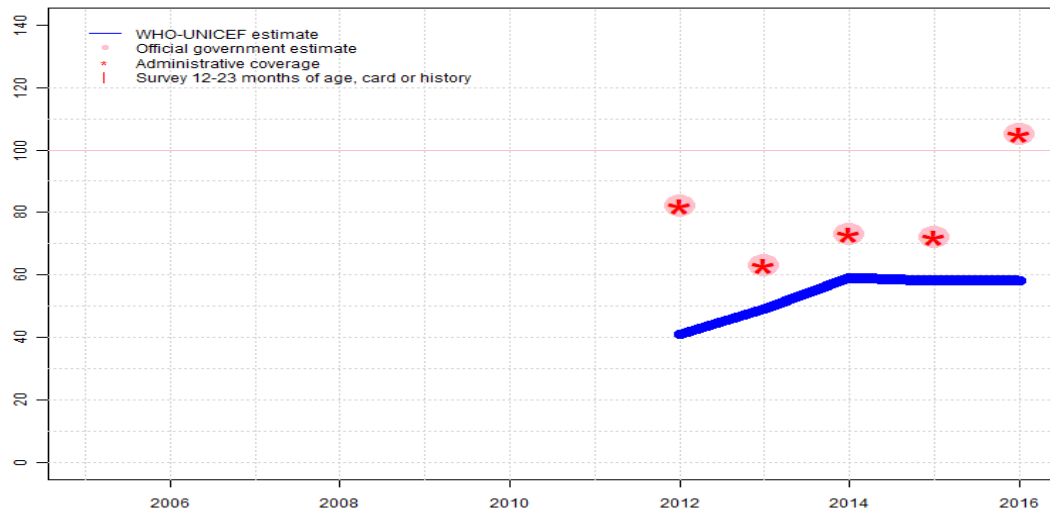
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2012 levels. Reported data excluded because 123 percent greater than 100 percent. Reported data excluded due to unexplained sudden change in coverage from 95 level to 123 percent. Increase in reported coverage due in part to doses included from MR catch up campaign as well as inclusion of children over one year of age. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2012 levels. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 79 percent based on 1 survey(s). Measles and rubella combination introduced in 2012; second dose recommend at 18 months. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2009: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 82 percent based on 1 survey(s). GoC=R+ S+ D+
- 2008: Estimate based on reported administrative data. Increase in 2008 due to change in the denominator based on the General Population Census, 2008. Increase is consistent with other vaccines. GoC=R+ S+ D+
- 2007: Estimate based on reported administrative data. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

Cambodia - MCV2

KHM - MCV2



Description:

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

2016: Reported data calibrated to 2013 levels. Reported data excluded because 105 percent greater than 100 percent. Reported data excluded due to unexplained sudden change in coverage from 72 level to 105 percent. Increase in reported coverage due in part to doses included from MR catch up campaign. Estimate challenged by: D-R-

2015: Reported data calibrated to 2013 levels. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 levels. Estimate challenged by: D-R-

2013: Estimate of 49 percent assigned by working group. Estimates is based on adjustment between estimated and reported MCV1 coverage levels. Estimate challenged by: D-R-

2012: Eighty-two percent coverage achieved in 50 percent of the national target population. Measles and rubella combination introduced in 2012; second dose recommend at 18 months. Estimate challenged by: R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	41	49	59	58	58
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	82	63	73	72	105
Administrative	NA	NA	NA	NA	NA	NA	NA	82	63	73	72	105
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

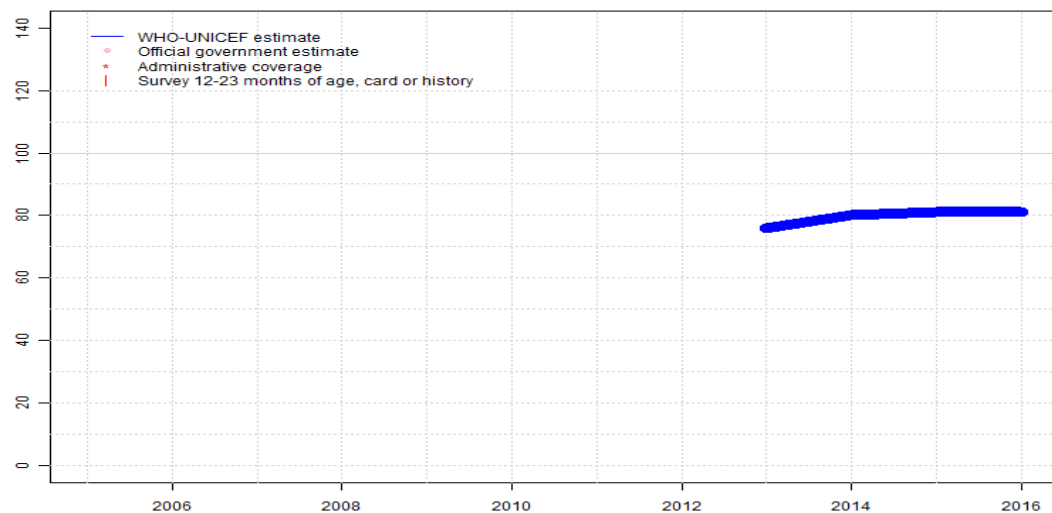
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Cambodia - RCV1

KHM - 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. Estimate challenged by: D-R-

2015: Estimate based on estimated MCV1. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate challenged by: R-

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

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	76	80	81	81
Estimate GoC	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

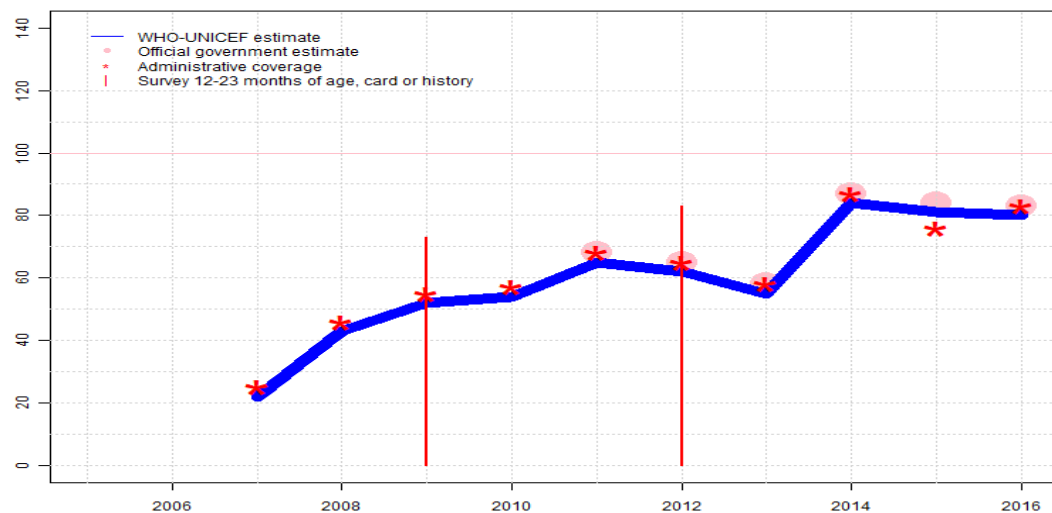
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Cambodia - HepBB

KHM - HepBB



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	22	43	52	54	65	62	55	84	81	80
Estimate GoC	NA	NA	•	•	•	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	68	65	58	87	84	83
Administrative	NA	NA	25	46	55	57	68	65	58	87	76	83
Survey	NA	NA	NA	NA	73	NA	NA	83	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.

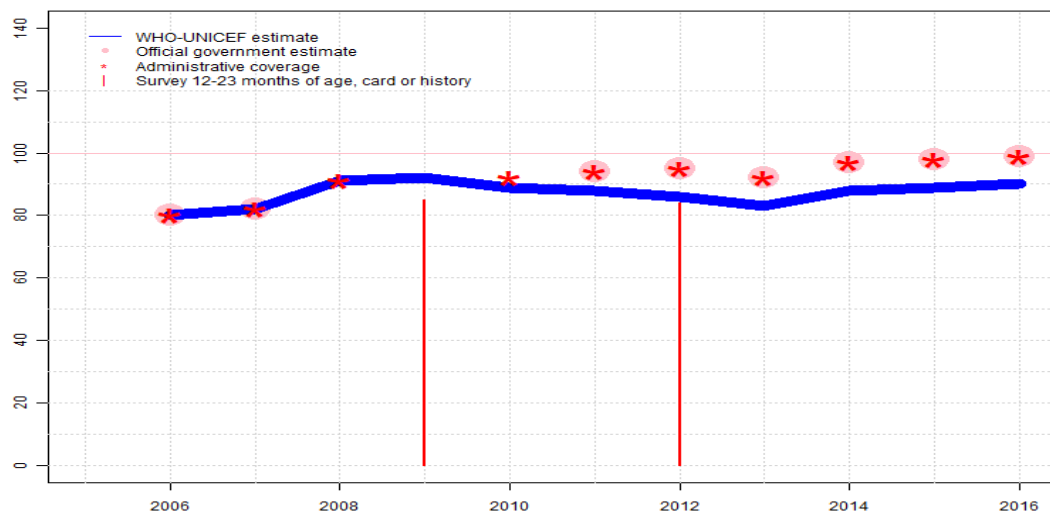
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2015: Reported data calibrated to 2012 levels. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 levels. Three months national stockout reported. Estimate challenged by: R-
- 2012: Estimate of 62 percent assigned by working group. Estimate is based on adjustment between estimated and reported HepB birth dose. Cambodia Demographic and Health Survey, 2014 results ignored by working group. Survey questionnaire was insufficient to appropriately capture HepB vaccine administered within 24 hours of birth. Estimate challenged by: R-
- 2011: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-S-
- 2009: Estimate of 52 percent assigned by working group. Estimate is based on adjustment between estimated and reported HepB birth dose. Estimate challenged by: R-S-
- 2008: Reported data calibrated to 2009 levels. Estimate challenged by: R-S-
- 2007: Reported data calibrated to 2009 levels. Estimate challenged by: R-S-

Cambodia - HepB3

KHM - HepB3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	80	82	91	92	89	88	86	83	88	89	90
Estimate GoC	NA	●●	●	●●●	●●	●	●	●	●	●	●	●
Official	NA	80	82	NA	NA	NA	94	95	92	97	98	99
Administrative	NA	80	82	91	NA	92	94	95	92	97	98	99
Survey	NA	NA	NA	NA	85	NA	NA	84	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.

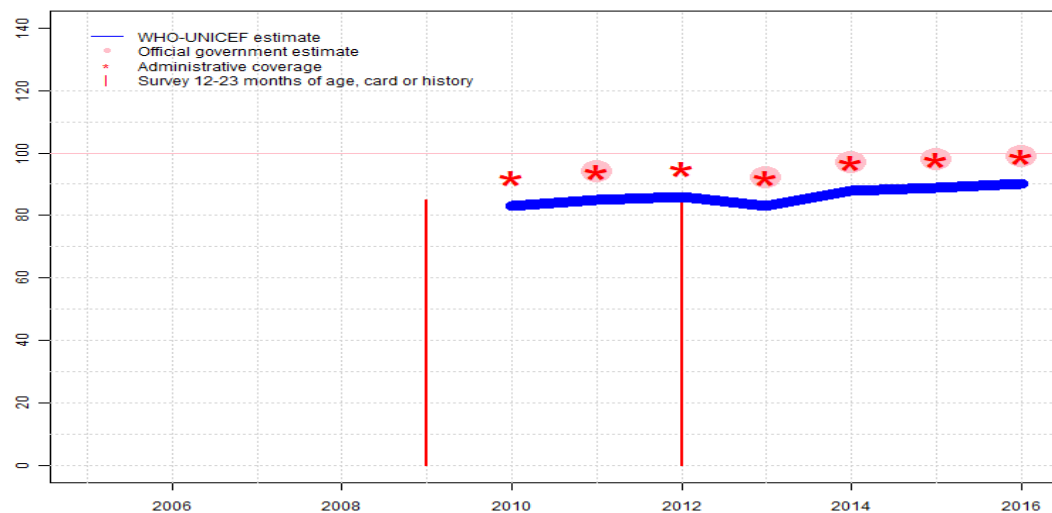
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2015: Reported data calibrated to 2012 levels. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2012: Estimate of 86 percent assigned by working group. Estimate is based on survey results from 2013 DHS. Cambodia Demographic and Health Survey, 2014 card or history results of 84 percent modified for recall bias to 86 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 75 percent and 3d dose card only coverage of 69 percent. Estimate challenged by: R-
- 2011: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: R-
- 2009: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 87 percent based on 1 survey(s). Cambodia Demographic and Health Survey 2010 card or history results of 85 percent modified for recall bias to 87 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 71 percent. GoC=S+
- 2008: Estimate based on reported data. Increase in 2008 due to change in the denominator based on the General Population Census, 2008. GoC=R+ S+ D+
- 2007: Estimate based on reported data. Estimate challenged by: D-
- 2006: Estimate based on reported data. HepB vaccine introduced in 2006 GoC=R+ D+

Cambodia - Hib3

KHM - Hib3



Description:

- 2016: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2015: Reported data calibrated to 2012 levels. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2012: Estimate of 86 percent assigned by working group. Estimate is based on survey results from 2013 DHS. Cambodia Demographic and Health Survey, 2014 card or history results of 84 percent modified for recall bias to 86 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 75 percent and 3d dose card only coverage of 69 percent. Estimate challenged by: R-
- 2011: Reported data calibrated to 2012 levels. Estimate challenged by: R-
- 2010: Reported data calibrated to 2012 levels. DTP-HepB-Hib pentavalent vaccine introduced in 2010. DHS survey results for Hib3 appear to refer to DTP-HepB tetravalent vaccine. Estimate challenged by: D-R-

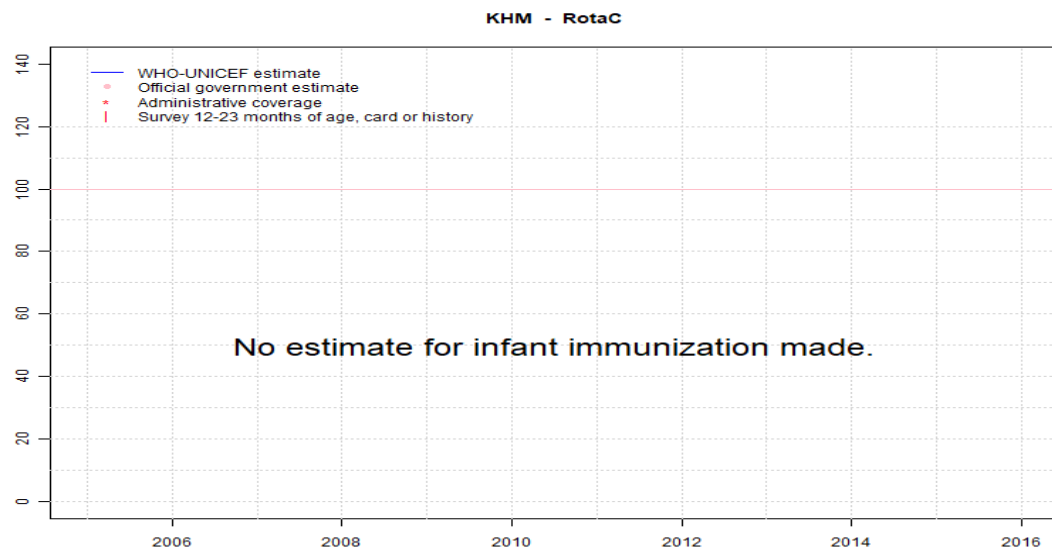
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	83	85	86	83	88	89	90
Estimate GoC	NA	NA	NA	NA	NA	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	94	NA	92	97	98	99
Administrative	NA	NA	NA	NA	NA	92	94	95	92	97	98	99
Survey	NA	NA	NA	NA	85	NA	NA	84	NA	NA	NA	NA

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.

Cambodia - 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

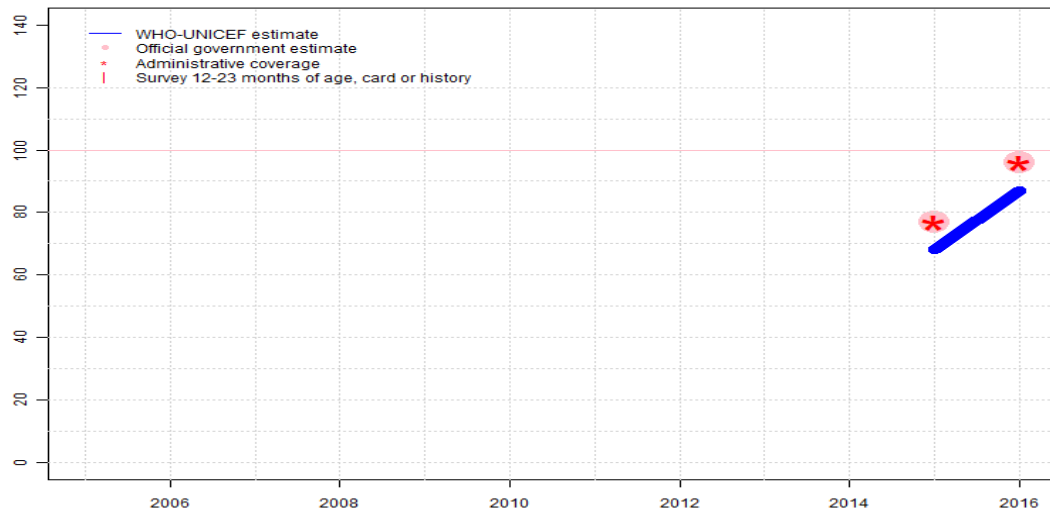
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

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.

Cambodia - PcV3

KHM - PcV3



Description:

2016: Reported data calibrated to 2015 levels. Estimate challenged by: R-

2015: Estimate of 68 percent assigned by working group. Pneumococcal conjugate vaccine introduced in 2015. Estimate is based on estimated DTP3 coverage level. Programme acknowledges challenges in data quality impacting on administrative coverage levels. Programme reports a switch in information source from the national statistics office to the national health information system. Current information suggests a decline in target population that may partially explain reported increase in coverage. WHO and UNICEF recommend a review of recording and reporting practices as well as a data review inclusive of the target population data sources. Estimate challenged by: R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68	87
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77	96
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77	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.

Cambodia - survey details

2012 Cambodia Demographic and Health Survey, 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96	12-23 m	1460	77
BCG	Card	76	12-23 m	1129	77
BCG	Card or History	96	12-23 m	1460	77
BCG	History	20	12-23 m	332	77
DTP1	C or H <12 months	94	12-23 m	1460	77
DTP1	Card	75	12-23 m	1129	77
DTP1	Card or History	94	12-23 m	1460	77
DTP1	History	19	12-23 m	332	77
DTP3	C or H <12 months	82	12-23 m	1460	77
DTP3	Card	69	12-23 m	1129	77
DTP3	Card or History	84	12-23 m	1460	77
DTP3	History	15	12-23 m	332	77
HepB1	C or H <12 months	94	12-23 m	1460	77
HepB1	Card	75	12-23 m	1129	77
HepB1	Card or History	94	12-23 m	1460	77
HepB1	History	19	12-23 m	332	77
HepB3	C or H <12 months	82	12-23 m	1460	77
HepB3	Card	69	12-23 m	1129	77
HepB3	Card or History	84	12-23 m	1460	77
HepB3	History	15	12-23 m	332	77
HepBB	C or H <12 months	83	12-23 m	1460	77
HepBB	Card	65	12-23 m	1129	77
HepBB	Card or History	83	12-23 m	1460	77
HepBB	History	18	12-23 m	332	77
Hib1	C or H <12 months	94	12-23 m	1460	77
Hib1	Card	75	12-23 m	1129	77
Hib1	Card or History	94	12-23 m	1460	77
Hib1	History	19	12-23 m	332	77
Hib3	C or H <12 months	82	12-23 m	1460	77
Hib3	Card	69	12-23 m	1129	77
Hib3	Card or History	84	12-23 m	1460	77
Hib3	History	15	12-23 m	332	77
MCV1	C or H <12 months	70	12-23 m	1460	77
MCV1	Card	63	12-23 m	1129	77
MCV1	Card or History	79	12-23 m	1460	77
MCV1	History	15	12-23 m	332	77
Pol1	C or H <12 months	94	12-23 m	1460	77

Pol1	Card	76	12-23 m	1129	77
Pol1	Card or History	95	12-23 m	1460	77
Pol1	History	19	12-23 m	332	77
Pol3	C or H <12 months	80	12-23 m	1460	77
Pol3	Card	67	12-23 m	1129	77
Pol3	Card or History	82	12-23 m	1460	77
Pol3	History	15	12-23 m	332	77

2009 Cambodia Demographic and Health Survey 2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	94	12-23 m	1614	77
BCG	Card	77	12-23 m	1614	77
BCG	Card or History	94	12-23 m	1614	77
BCG	History	17	12-23 m	1614	77
DTP1	C or H <12 months	93	12-23 m	1614	77
DTP1	Card	76	12-23 m	1614	77
DTP1	Card or History	93	12-23 m	1614	77
DTP1	History	18	12-23 m	1614	77
DTP3	C or H <12 months	84	12-23 m	1614	77
DTP3	Card	71	12-23 m	1614	77
DTP3	Card or History	85	12-23 m	1614	77
DTP3	History	14	12-23 m	1614	77
HepB1	C or H <12 months	93	12-23 m	1614	77
HepB1	Card	76	12-23 m	1614	77
HepB1	Card or History	93	12-23 m	1614	77
HepB1	History	18	12-23 m	1614	77
HepB3	C or H <12 months	84	12-23 m	1614	77
HepB3	Card	71	12-23 m	1614	77
HepB3	Card or History	85	12-23 m	1614	77
HepB3	History	14	12-23 m	1614	77
HepBB	C or H <12 months	73	12-23 m	1614	77
HepBB	Card	61	12-23 m	1249	77
HepBB	Card or History	73	12-23 m	1614	77
HepBB	History	12	12-23 m	364	77
Hib1	C or H <12 months	93	12-23 m	1614	77
Hib1	Card	76	12-23 m	1614	77
Hib1	Card or History	93	12-23 m	1614	77
Hib1	History	18	12-23 m	1614	77

Cambodia - survey details

Hib3	C or H <12 months	84	12-23 m	1614	77	DTP3	C or H <12 months	76	12-23 m	1517	67
Hib3	Card	71	12-23 m	1614	77	DTP3	Card	61	12-23 m	1517	67
Hib3	Card or History	85	12-23 m	1614	77	DTP3	Card or History	78	12-23 m	1517	67
Hib3	History	14	12-23 m	1614	77	DTP3	History	17	12-23 m	1517	67
MCV1	C or H <12 months	77	12-23 m	1614	77	MCV1	C or H <12 months	70	12-23 m	1517	67
MCV1	Card	67	12-23 m	1614	77	MCV1	Card	56	12-23 m	1517	67
MCV1	Card or History	82	12-23 m	1614	77	MCV1	Card or History	77	12-23 m	1517	67
MCV1	History	15	12-23 m	1614	77	MCV1	History	21	12-23 m	1517	67
Pol1	C or H <12 months	93	12-23 m	1614	77	Pol1	C or H <12 months	90	12-23 m	1517	67
Pol1	Card	76	12-23 m	1614	77	Pol1	Card	66	12-23 m	1517	67
Pol1	Card or History	94	12-23 m	1614	77	Pol1	Card or History	91	12-23 m	1517	67
Pol1	History	18	12-23 m	1614	77	Pol1	History	24	12-23 m	1517	67
Pol3	C or H <12 months	84	12-23 m	1614	77	Pol3	C or H <12 months	74	12-23 m	1517	67
Pol3	Card	71	12-23 m	1614	77	Pol3	Card	60	12-23 m	1517	67
Pol3	Card or History	85	12-23 m	1614	77	Pol3	Card or History	77	12-23 m	1517	67
Pol3	History	14	12-23 m	1614	77	Pol3	History	17	12-23 m	1517	67

2008 Cambodia Socio-Economic Survey 2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	78	12-23 m	1068	79
DTP1	Card	77	12-23 m	1068	79
DTP3	Card	56	12-23 m	1068	79
HepBB	Card	61	12-23 m	1068	79
MCV1	Card	59	12-23 m	1068	79

2004 Cambodia Demographic and Health Survey 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	91	12-23 m	1517	67
BCG	Card	66	12-23 m	1517	67
BCG	Card or History	91	12-23 m	1517	67
BCG	History	26	12-23 m	1517	67
DTP1	C or H <12 months	90	12-23 m	1517	67
DTP1	Card	66	12-23 m	1517	67
DTP1	Card or History	91	12-23 m	1517	67
DTP1	History	24	12-23 m	1517	67

1999 Cambodia Demographic and Health Survey 2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	66	12-23 m	1253	48
BCG	Card	46	12-23 m	1253	48
BCG	Card or History	71	12-23 m	1253	48
BCG	History	26	12-23 m	1253	48
DTP1	C or H <12 months	63	12-23 m	1253	48
DTP1	Card	46	12-23 m	1253	48
DTP1	Card or History	68	12-23 m	1253	48
DTP1	History	22	12-23 m	1253	48
DTP3	C or H <12 months	43	12-23 m	1253	48
DTP3	Card	36	12-23 m	1253	48
DTP3	Card or History	48	12-23 m	1253	48
DTP3	History	13	12-23 m	1253	48
MCV1	C or H <12 months	41	12-23 m	1253	48
MCV1	Card	36	12-23 m	1253	48
MCV1	Card or History	55	12-23 m	1253	48
MCV1	History	19	12-23 m	1253	48
Pol1	C or H <12 months	69	12-23 m	1253	48
Pol1	Card	46	12-23 m	1253	48
Pol1	Card or History	75	12-23 m	1253	48

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Pol1	History	29	12-23 m	1253	48
Pol3	C or H <12 months	45	12-23 m	1253	48
Pol3	Card	36	12-23 m	1253	48
Pol3	Card or History	52	12-23 m	1253	48
Pol3	History	16	12-23 m	1253	48

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Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	33	12-23 m	804	-
BCG	Card or History	67	12-23 m	804	-
BCG	History	33	12-23 m	804	-
DTP1	C or H <12 months	61	12-23 m	804	-
DTP1	Card	33	12-23 m	804	-
DTP1	Card or History	62	12-23 m	804	-
DTP1	History	29	12-23 m	804	-

DTP3	C or H <12 months	44	12-23 m	804	-
DTP3	Card	27	12-23 m	804	-
DTP3	Card or History	46	12-23 m	804	-
DTP3	History	20	12-23 m	804	-
MCV1	C or H <12 months	45	12-23 m	804	-
MCV1	Card	26	12-23 m	804	-
MCV1	Card or History	50	12-23 m	804	-
MCV1	History	24	12-23 m	804	-
Pol1	C or H <12 months	80	12-23 m	804	-
Pol1	Card	33	12-23 m	804	-
Pol1	Card or History	81	12-23 m	804	-
Pol1	History	48	12-23 m	804	-
Pol3	C or H <12 months	54	12-23 m	804	-
Pol3	Card	27	12-23 m	804	-
Pol3	Card or History	56	12-23 m	804	-
Pol3	History	30	12-23 m	804	-

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