

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.

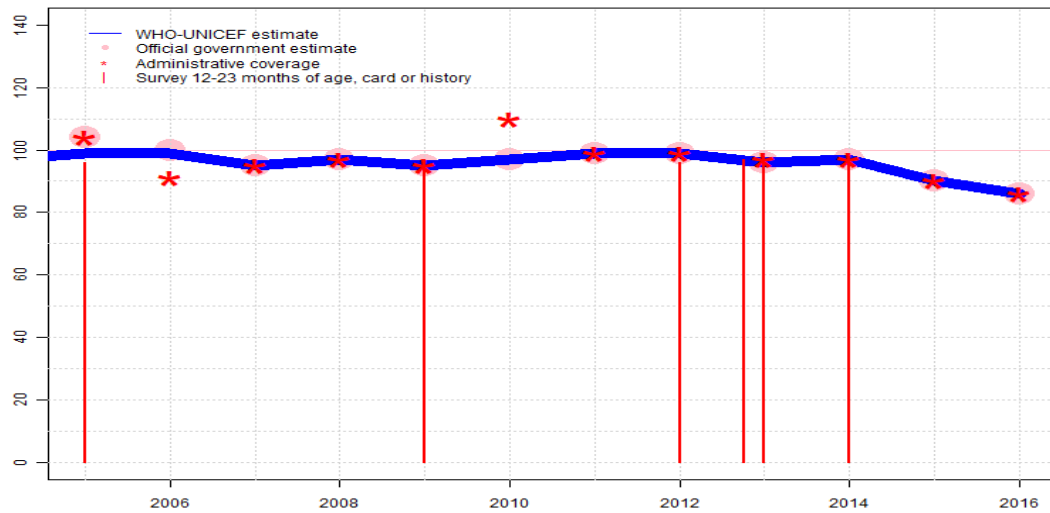
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

MWI - BCG



Description:

- 2016: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 2 survey(s). GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. National official estimates are based on preliminary results from DHS 2010. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2005: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Reported data excluded because 104 percent greater than 100 percent. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	99	99	95	97	95	97	99	99	96	97	90	86
Estimate GoC	•	•	•	•	•	•	•••	•••	•••	•••	•••	•
Official	104	100	95	97	95	97	99	99	96	97	90	86
Administrative	104	91	95	97	95	110	99	99	97	97	90	86
Survey	96	NA	NA	NA	97	NA	NA	96	*	98	NA	NA

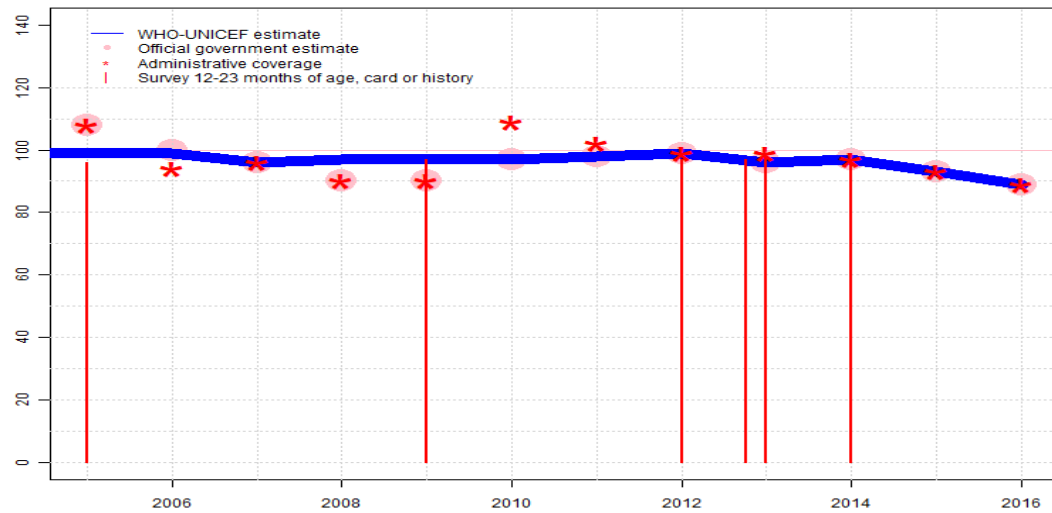
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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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Malawi - DTP1

MWI - DTP1



Description:

- 2016: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 2 survey(s). GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. National official estimates are based on preliminary results from DHS 2010. Estimate challenged by: D-
- 2009: DTP1 coverage estimated based on DTP3 coverage of 93. Estimate challenged by: D-R-
- 2008: DTP1 coverage estimated based on DTP3 coverage of 91. Estimate challenged by: D-R-
- 2007: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2005: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Reported data excluded because 108 percent greater than 100 percent. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	99	99	96	97	97	97	98	99	96	97	93	89
Estimate GoC	•	•	•	•	•	•	•	•	•••	•••	•••	•••
Official	108	100	96	90	90	97	98	99	96	97	93	89
Administrative	108	94	96	90	90	109	102	99	99	97	93	89
Survey	96	NA	NA	NA	97	NA	NA	97	*	97	NA	NA

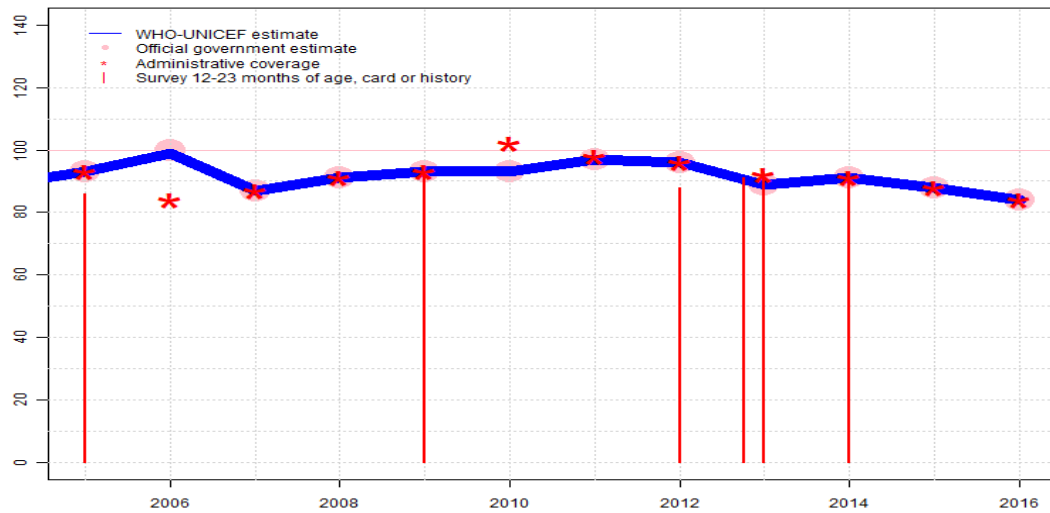
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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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Malawi - DTP3

MWI - DTP3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	93	99	87	91	93	93	97	96	89	91	88	84
Estimate GoC	•	•••	•	•	•	•	•••	•••	•••	•••	•••	•
Official	93	100	87	91	93	93	97	96	89	91	88	84
Administrative	93	84	87	91	93	102	98	96	92	91	88	84
Survey	86	NA	NA	NA	93	NA	NA	88	*	93	NA	NA

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

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

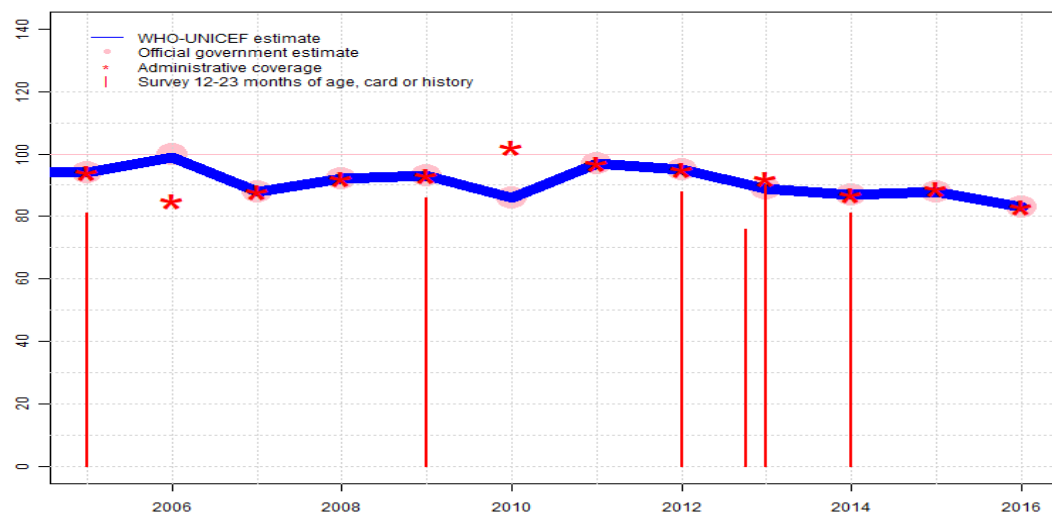
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Malawi Demographic and Health Survey 2015-2016 card or history results of 93 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 77 percent. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 2 survey(s). Malawi MDG Endline Survey 2014 card or history results of 93 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 83 percent and 3d dose card only coverage of 81 percent. Malawi Demographic and Health Survey 2015-2016 card or history results of 91 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 66 percent and 3d dose card only coverage of 64 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). Malawi MDG Endline Survey 2014 card or history results of 88 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 61 percent and 3d dose card only coverage of 60 percent. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. National official estimates are based on preliminary results from DHS 2010. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Malawi Demographic and Health Survey 2010 card or history results of 93 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 80 percent and 3d dose card only coverage of 79 percent. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. 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 supported by survey. Survey evidence of 92 percent based on 1 survey(s). Malawi Multiple Indicator Cluster Survey 2006 card or history results of 86 percent modified for recall bias to 92 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 73 percent. Estimate challenged by: D-

Malawi - Pol3

MWI - Pol3



Description:

- 2016: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 81 percent based on 1 survey(s). GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 2 survey(s). Malawi MDG Endline Survey 2014 card or history results of 90 percent modified for recall bias to 92 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 83 percent and 3d dose card only coverage of 78 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). Malawi MDG Endline Survey 2014 card or history results of 88 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 60 percent and 3d dose card only coverage of 59 percent. Estimate challenged by: S-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2010: Estimate based on coverage reported by national government. National official estimates are based on preliminary results from DHS 2010. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). Malawi Demographic and Health Survey 2010 card or history results of 86 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 80 percent and 3d dose card only coverage of 78 percent. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. 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 supported by survey. Survey evidence of 91 percent based on 1 survey(s). Malawi Multiple Indicator Cluster Survey 2006 card or history results of 81 percent modified for recall bias to 91 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 72 percent. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	94	99	88	92	93	86	97	95	89	87	88	83
Estimate GoC	•	•••	•	•	•	•	•	•	•••	•••	•••	•••
Official	94	100	88	92	93	86	97	95	89	87	88	83
Administrative	94	85	88	92	93	102	97	95	92	87	89	83
Survey	81	NA	NA	NA	86	NA	NA	88	*	81	NA	NA

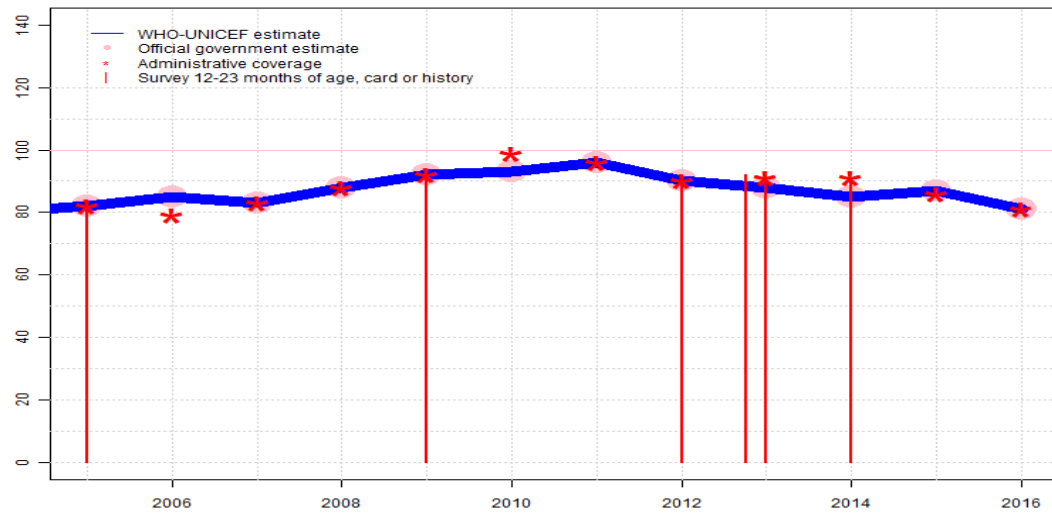
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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.
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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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Malawi - MCV1

MWI - MCV1



Description:

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- 2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 93 percent based on 2 survey(s). GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 92 percent based on 1 survey(s). GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. National official estimates are based on preliminary results from DHS 2010. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 93 percent based on 1 survey(s). Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. 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 supported by survey. Survey evidence of 84 percent based on 1 survey(s). Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	82	85	83	88	92	93	96	90	88	85	87	81
Estimate GoC	•	•	•	•	•	•	•••	•••	•••	•	•••	•••
Official	82	85	83	88	92	93	96	90	88	85	87	81
Administrative	82	79	83	88	92	99	96	90	91	91	86	81
Survey	84	NA	NA	NA	93	NA	NA	92	*	91	NA	NA

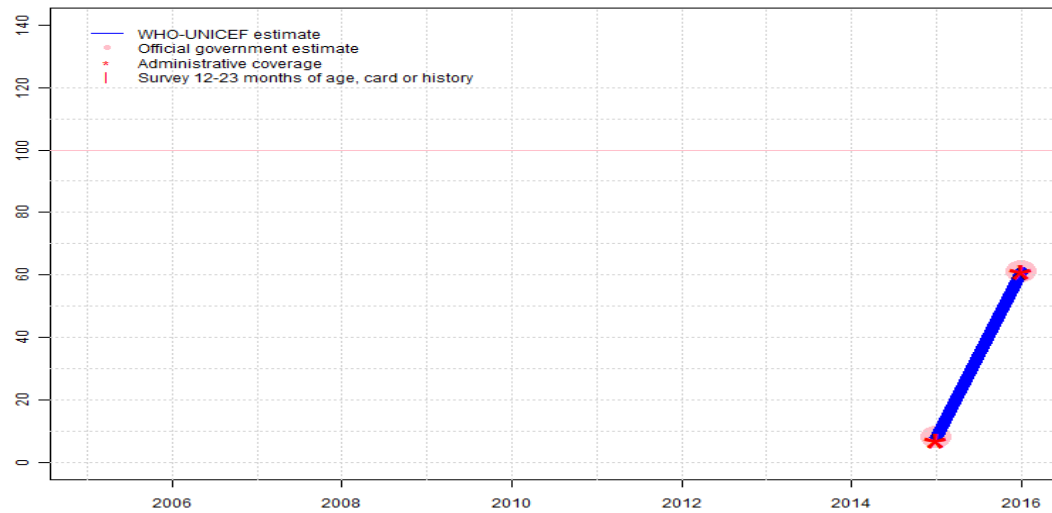
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- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
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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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Malawi - MCV2

MWI - 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. Estimate based on reported data following introduction. GoC=R+ D+

2015: Estimate based on coverage reported by national government. Second dose of MCV introduced in 2015. GoC=R+ D+

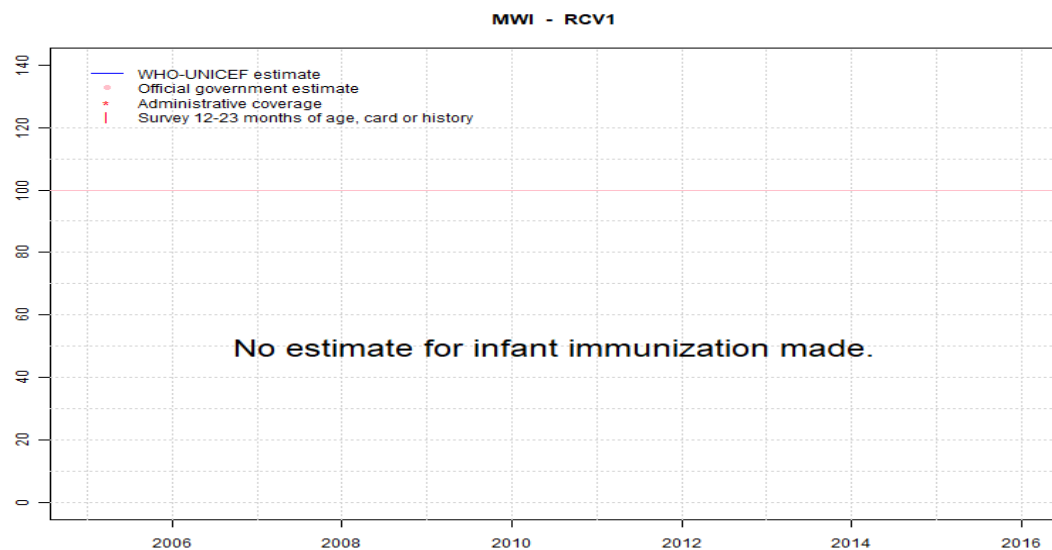
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8	61
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	••	••
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8	61
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7	61
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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- 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.
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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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Malawi - RCV1



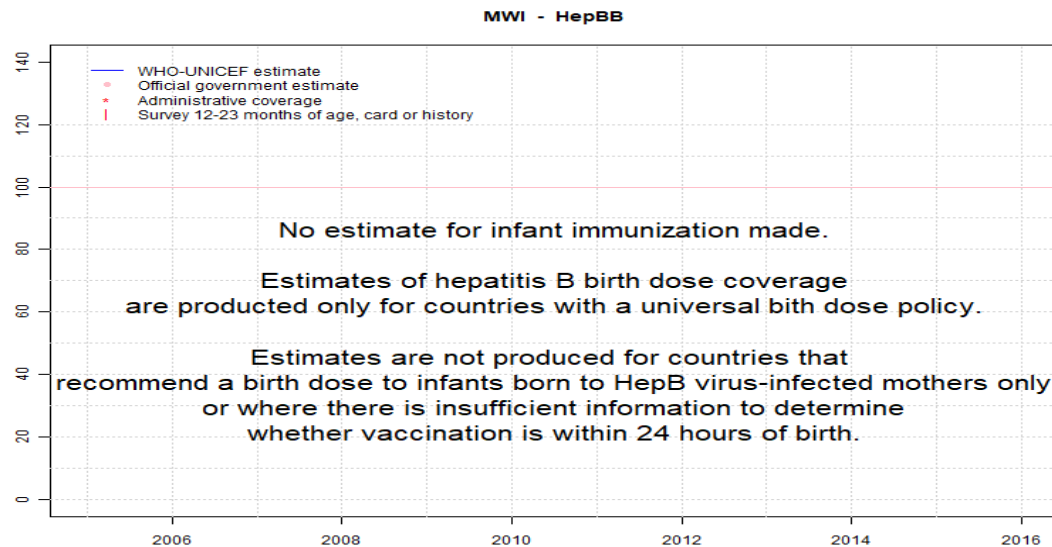
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

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- 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.

Malawi - HepBB



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

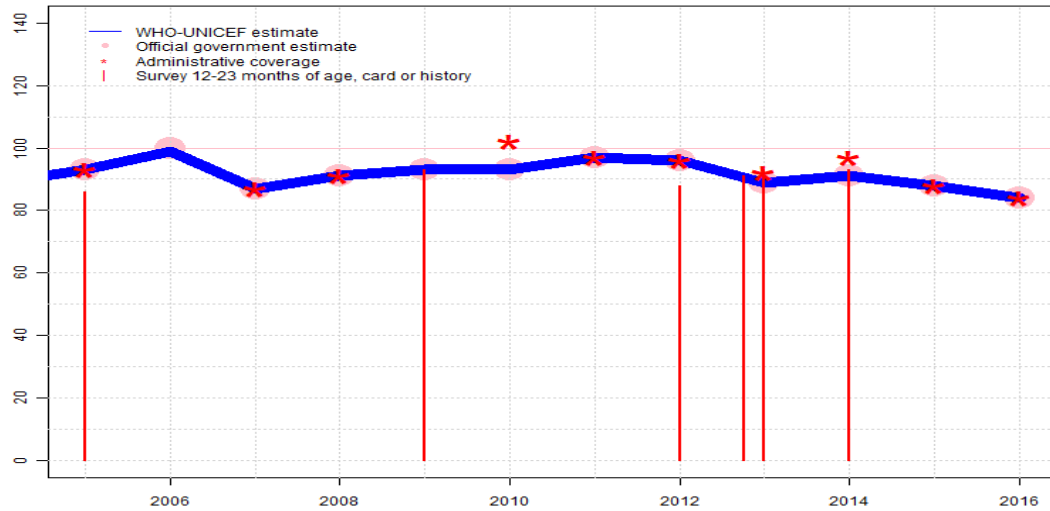
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

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

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.

Malawi - HepB3

MWI - HepB3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	93	99	87	91	93	93	97	96	89	91	88	84
Estimate GoC	•	•••	•	•	••	••	•••	•••	•••	•••	•••	•
Official	93	100	87	91	93	93	97	96	89	91	88	84
Administrative	93	NA	87	91	NA	102	97	96	92	97	88	84
Survey	86	NA	NA	NA	93	NA	NA	88	*	93	NA	NA

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

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

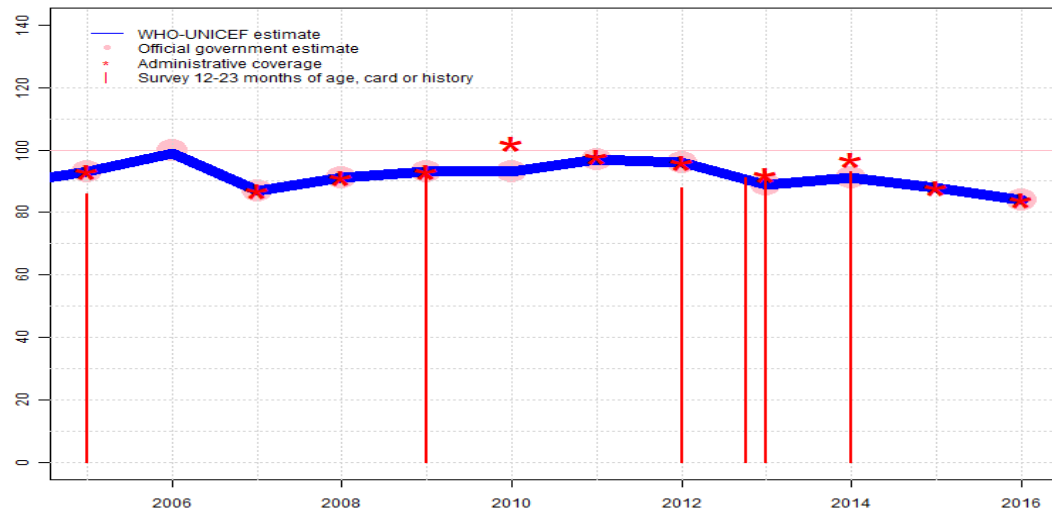
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Malawi Demographic and Health Survey 2015-2016 card or history results of 93 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 77 percent. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 2 survey(s). Malawi MDG Endline Survey 2014 card or history results of 93 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 83 percent and 3d dose card only coverage of 81 percent. Malawi Demographic and Health Survey 2015-2016 card or history results of 91 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 66 percent and 3d dose card only coverage of 64 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). Malawi MDG Endline Survey 2014 card or history results of 88 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 61 percent and 3d dose card only coverage of 60 percent. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. National official estimates are based on preliminary results from DHS 2010. GoC=R+ S+
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Malawi Demographic and Health Survey 2010 card or history results of 93 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 80 percent and 3d dose card only coverage of 79 percent. GoC=R+ S+
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. 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 supported by survey. Survey evidence of 92 percent based on 1 survey(s). Malawi Multiple Indicator Cluster Survey 2006 card or history results of 86 percent modified for recall bias to 92 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 73 percent. Estimate challenged by: D-

Malawi - Hib3

MWI - Hib3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	93	99	87	91	93	93	97	96	89	91	88	84
Estimate GoC	•	•••	•	•	•	•	•••	•••	•••	•••	•••	•
Official	93	100	87	91	93	93	97	96	89	91	NA	84
Administrative	93	NA	87	91	93	102	98	96	92	97	88	84
Survey	86	NA	NA	NA	93	NA	NA	88	*	93	NA	NA

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

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

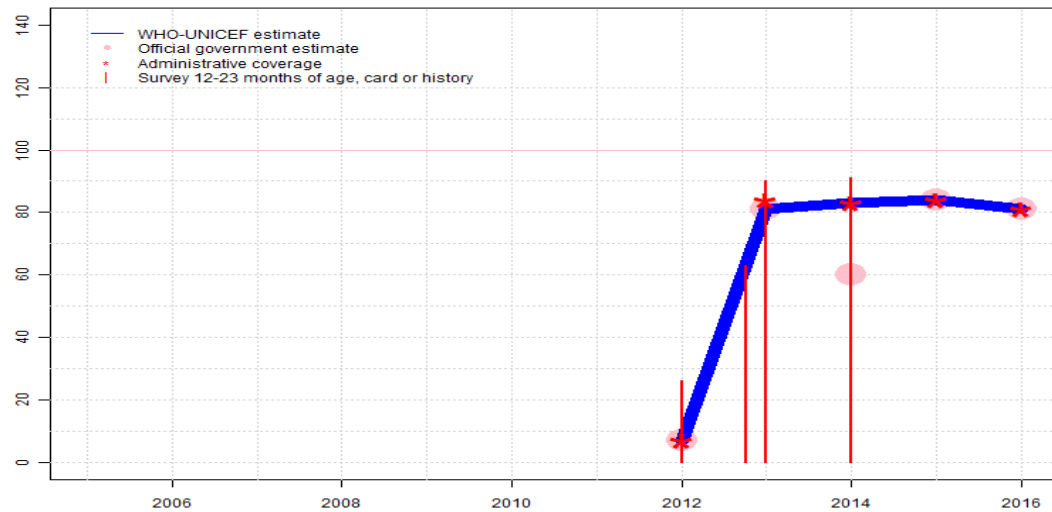
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2015: Estimate based on reported administrative data. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Malawi Demographic and Health Survey 2015-2016 card or history results of 93 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 77 percent. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 2 survey(s). Malawi MDG Endline Survey 2014 card or history results of 93 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 83 percent and 3d dose card only coverage of 81 percent. Malawi Demographic and Health Survey 2015-2016 card or history results of 91 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 66 percent and 3d dose card only coverage of 64 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). Malawi MDG Endline Survey 2014 card or history results of 88 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 61 percent and 3d dose card only coverage of 60 percent. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. National official estimates are based on preliminary results from DHS 2010. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Malawi Demographic and Health Survey 2010 card or history results of 93 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 80 percent and 3d dose card only coverage of 79 percent. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. 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 supported by survey. Survey evidence of 92 percent based on 1 survey(s). Malawi Multiple Indicator Cluster Survey 2006 card or history results of 86 percent modified for recall bias to 92 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 73 percent. Estimate challenged by: D-

Malawi - RotaC

MWI - RotaC



Description:

- 2016: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2014: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). Adjustment applied to official coverage from administrative data is unexplained. GoC=R+ S+ D+
- 2013: Estimate based on reported data. Malawi MDG Endline Survey 2014 results ignored by working group. Survey results likely reflect timing of field work during introduction period. Malawi Demographic and Health Survey 2015-2016 results ignored by working group. Survey results likely reflect timing of field work during introduction period. GoC=R+ S+ D+
- 2012: Estimate based on reported data. Malawi MDG Endline Survey 2014 results ignored by working group. Survey results likely reflect timing of field work during introduction period. Rotavirus vaccine introduced on 29 October 2012. Estimate challenged by: S-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	7	81	83	84	81
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•••	•••	•••	•••
Official	NA	NA	NA	NA	NA	NA	NA	7	81	60	84	81
Administrative	NA	NA	NA	NA	NA	NA	NA	7	84	83	84	81
Survey	NA	NA	NA	NA	NA	NA	NA	26	*	91	NA	NA

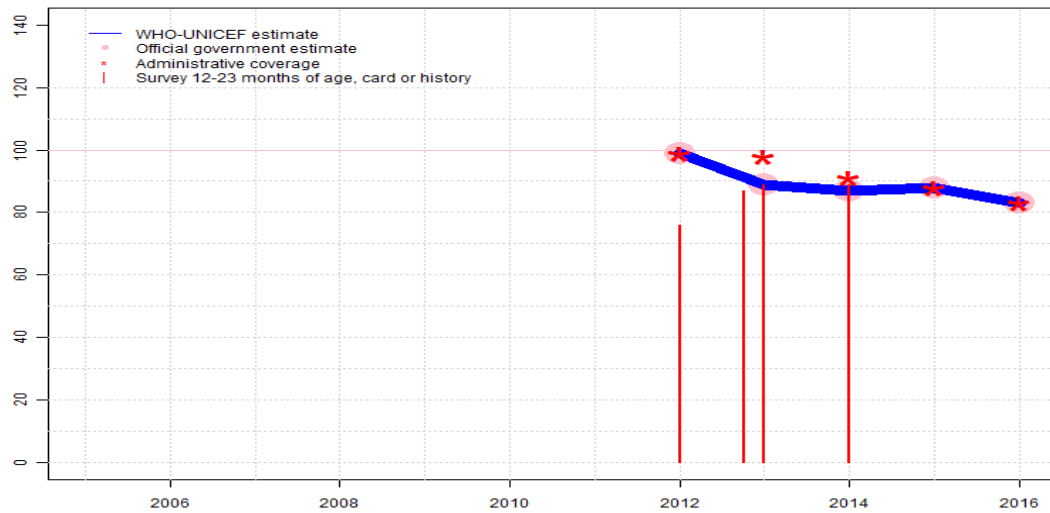
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 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.

Malawi - PcV3

MWI - PcV3



Description:

- 2016: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 92 percent based on 1 survey(s). Malawi Demographic and Health Survey 2015-2016 card or history results of 89 percent modified for recall bias to 92 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 75 percent. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 93 percent based on 2 survey(s). Malawi MDG Endline Survey 2014 card or history coverage of 97 percent, 1st dose card only coverage of 82 percent and 3d dose card only coverage of 78 percent. Malawi Demographic and Health Survey 2015-2016 card or history results of 87 percent modified for recall bias to 93 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 65 percent and 3d dose card only coverage of 63 percent. GoC=R+ S+ D+
- 2012: Estimate based on reported data. Malawi MDG Endline Survey 2014 results ignored by working group. Survey results likely reflect timing of field work during introduction period. Malawi MDG Endline Survey 2014 card or history results of 76 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 90 percent, 1st dose card only coverage of 54 percent and 3d dose card only coverage of 46 percent. Pneumococcal conjugate vaccine introduced in October 2011. Reporting started in 2012. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	99	89	87	88	83
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•••	•	•••	•••
Official	NA	NA	NA	NA	NA	NA	NA	99	89	87	88	83
Administrative	NA	NA	NA	NA	NA	NA	NA	99	98	91	88	83
Survey	NA	NA	NA	NA	NA	NA	NA	76	*	89	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.

Malawi - survey details

2014 Malawi Demographic and Health Survey 2015-2016

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	97	12-23 m	3230	79
BCG	Card	78	12-23 m	2548	79
BCG	Card or History	98	12-23 m	3230	79
DTP1	C or H <12 months	97	12-23 m	3230	79
DTP1	Card	78	12-23 m	2548	79
DTP1	Card or History	97	12-23 m	3230	79
DTP3	C or H <12 months	92	12-23 m	3230	79
DTP3	Card	77	12-23 m	2548	79
DTP3	Card or History	93	12-23 m	3230	79
HepB1	C or H <12 months	97	12-23 m	3230	79
HepB1	Card	78	12-23 m	2548	79
HepB1	Card or History	97	12-23 m	3230	79
HepB3	C or H <12 months	92	12-23 m	3230	79
HepB3	Card	77	12-23 m	2548	79
HepB3	Card or History	93	12-23 m	3230	79
Hib1	C or H <12 months	97	12-23 m	3230	79
Hib1	Card	78	12-23 m	2548	79
Hib1	Card or History	97	12-23 m	3230	79
Hib3	C or H <12 months	92	12-23 m	3230	79
Hib3	Card	77	12-23 m	2548	79
Hib3	Card or History	93	12-23 m	3230	79
MCV1	C or H <12 months	85	12-23 m	3230	79
MCV1	Card	73	12-23 m	2548	79
MCV1	Card or History	91	12-23 m	3230	79
PCV1	C or H <12 months	96	12-23 m	3230	79
PCV1	Card	78	12-23 m	2548	79
PCV1	Card or History	96	12-23 m	3230	79
PCV3	C or H <12 months	88	12-23 m	3230	79
PCV3	Card	75	12-23 m	2548	79
PCV3	Card or History	89	12-23 m	3230	79
Pol1	Card	78	12-23 m	2548	79
Pol3	C or H <12 months	97	12-23 m	3230	79
Pol3	Card	74	12-23 m	2548	79
Pol3	Card or History	81	12-23 m	3230	79
RotaC	C or H <12 months	90	12-23 m	3230	79
RotaC	Card	74	12-23 m	2548	79
RotaC	Card or History	91	12-23 m	3230	79

2013 Malawi Demographic and Health Survey 2015-2016

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	95	24-35 m	3261	79
BCG	Card	65	24-35 m	2163	79
BCG	Card or History	97	24-35 m	3261	79
DTP1	C or H <12 months	95	24-35 m	3261	79
DTP1	Card	66	24-35 m	2163	79
DTP1	Card or History	97	24-35 m	3261	79
DTP3	C or H <12 months	88	24-35 m	3261	79
DTP3	Card	64	24-35 m	2163	79
DTP3	Card or History	91	24-35 m	3261	79
HepB1	C or H <12 months	95	24-35 m	3261	79
HepB1	Card	66	24-35 m	2163	79
HepB1	Card or History	97	24-35 m	3261	79
HepB3	C or H <12 months	88	24-35 m	3261	79
HepB3	Card	64	24-35 m	2163	79
HepB3	Card or History	91	24-35 m	3261	79
Hib1	C or H <12 months	95	24-35 m	3261	79
Hib1	Card	66	24-35 m	2163	79
Hib1	Card or History	97	24-35 m	3261	79
Hib3	C or H <12 months	88	24-35 m	3261	79
Hib3	Card	64	24-35 m	2163	79
Hib3	Card or History	91	24-35 m	3261	79
MCV1	C or H <12 months	83	24-35 m	3261	79
MCV1	Card	63	24-35 m	2163	79
MCV1	Card or History	93	24-35 m	3261	79
PCV1	C or H <12 months	94	24-35 m	3261	79
PCV1	Card	65	24-35 m	2163	79
PCV1	Card or History	96	24-35 m	3261	79
PCV3	C or H <12 months	84	24-35 m	3261	79
PCV3	Card	63	24-35 m	2163	79
PCV3	Card or History	87	24-35 m	3261	79
Pol1	Card	66	24-35 m	2163	79
Pol3	C or H <12 months	94	24-35 m	3261	79
Pol3	Card	62	24-35 m	2163	79
Pol3	Card or History	76	24-35 m	3261	79
RotaC	C or H <12 months	87	24-35 m	3261	79

Malawi - survey details

RotaC	Card	62	24-35 m	2163	79
RotaC	Card or History	90	24-35 m	3261	79

2013 Malawi MDG Endline Survey 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96	12-23 m	3755	84
BCG	Card	83	12-23 m	-	84
BCG	Card or History	98	12-23 m	3755	84
BCG	History	15	12-23 m	-	84
DTP1	C or H <12 months	97	12-23 m	3755	84
DTP1	Card	83	12-23 m	-	84
DTP1	Card or History	98	12-23 m	3755	84
DTP1	History	15	12-23 m	-	84
DTP3	C or H <12 months	90	12-23 m	3755	84
DTP3	Card	81	12-23 m	-	84
DTP3	Card or History	93	12-23 m	3755	84
DTP3	History	12	12-23 m	-	84
HepB1	C or H <12 months	97	12-23 m	3755	84
HepB1	Card	83	12-23 m	-	84
HepB1	Card or History	98	12-23 m	3755	84
HepB1	History	15	12-23 m	-	84
HepB3	C or H <12 months	90	12-23 m	3755	84
HepB3	Card	81	12-23 m	-	84
HepB3	Card or History	93	12-23 m	3755	84
HepB3	History	12	12-23 m	-	84
Hib1	C or H <12 months	97	12-23 m	3755	84
Hib1	Card	83	12-23 m	-	84
Hib1	Card or History	98	12-23 m	3755	84
Hib1	History	15	12-23 m	-	84
Hib3	C or H <12 months	90	12-23 m	3755	84
Hib3	Card	81	12-23 m	-	84
Hib3	Card or History	93	12-23 m	3755	84
Hib3	History	12	12-23 m	-	84
MCV1	C or H <12 months	85	12-23 m	3755	84
MCV1	Card	75	12-23 m	-	84
MCV1	Card or History	92	12-23 m	3755	84
MCV1	History	17	12-23 m	-	84
PcV1	C or H <12 months	95	12-23 m	3755	84

PcV1	Card	82	12-23 m	-	84
PcV1	Card or History	97	12-23 m	3755	84
PcV1	History	15	12-23 m	-	84
PcV3	C or H <12 months	87	12-23 m	3755	84
PcV3	Card	78	12-23 m	-	84
PcV3	Card or History	89	12-23 m	3755	84
PcV3	History	11	12-23 m	-	84
Pol1	C or H <12 months	96	12-23 m	3755	84
Pol1	Card	83	12-23 m	-	84
Pol1	Card or History	98	12-23 m	3755	84
Pol1	History	15	12-23 m	-	84
Pol3	C or H <12 months	88	12-23 m	3755	84
Pol3	Card	78	12-23 m	-	84
Pol3	Card or History	90	12-23 m	3755	84
Pol3	History	12	12-23 m	-	84
RotaC	C or H <12 months	60	12-23 m	3755	84
RotaC	Card	47	12-23 m	-	84
RotaC	Card or History	63	12-23 m	3755	84
RotaC	History	16	12-23 m	-	84

2012 Malawi MDG Endline Survey 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	93	24-35 m	3936	84
BCG	Card	60	24-35 m	-	84
BCG	Card or History	96	24-35 m	3936	84
BCG	History	36	24-35 m	-	84
DTP1	C or H <12 months	94	24-35 m	3936	84
DTP1	Card	61	24-35 m	-	84
DTP1	Card or History	97	24-35 m	3936	84
DTP1	History	36	24-35 m	-	84
DTP3	C or H <12 months	85	24-35 m	3936	84
DTP3	Card	60	24-35 m	-	84
DTP3	Card or History	88	24-35 m	3936	84
DTP3	History	28	24-35 m	-	84
HepB1	C or H <12 months	94	24-35 m	3936	84
HepB1	Card	61	24-35 m	-	84
HepB1	Card or History	97	24-35 m	3936	84
HepB1	History	36	24-35 m	-	84

Malawi - survey details

						Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
HepB3	C or H <12 months	85	24-35 m	3936	84						
HepB3	Card	60	24-35 m	-	84	BCG	C or H <12 months	96	12-23 m	3774	81
HepB3	Card or History	88	24-35 m	3936	84	BCG	Card	80	12-23 m	3774	81
HepB3	History	28	24-35 m	-	84	BCG	Card or History	97	12-23 m	3774	81
Hib1	C or H <12 months	94	24-35 m	3936	84	BCG	History	17	12-23 m	3774	81
Hib1	Card	61	24-35 m	-	84	DTP1	C or H <12 months	96	12-23 m	3774	81
Hib1	Card or History	97	24-35 m	3936	84	DTP1	Card	80	12-23 m	3774	81
Hib1	History	36	24-35 m	-	84	DTP1	Card or History	97	12-23 m	3774	81
Hib3	C or H <12 months	85	24-35 m	3936	84	DTP1	History	17	12-23 m	3774	81
Hib3	Card	60	24-35 m	-	84	DTP3	C or H <12 months	92	12-23 m	3774	81
Hib3	Card or History	88	24-35 m	3936	84	DTP3	Card	79	12-23 m	3774	81
Hib3	History	28	24-35 m	-	84	DTP3	Card or History	93	12-23 m	3774	81
MCV1	C or H <12 months	82	24-35 m	3936	84	DTP3	History	14	12-23 m	3774	81
MCV1	Card	56	24-35 m	-	84	HepB1	C or H <12 months	96	12-23 m	3774	81
MCV1	Card or History	92	24-35 m	3936	84	HepB1	Card	80	12-23 m	3774	81
MCV1	History	37	24-35 m	-	84	HepB1	Card or History	97	12-23 m	3774	81
PcV1	C or H <12 months	85	24-35 m	3936	84	HepB1	History	17	12-23 m	3774	81
PcV1	Card	54	24-35 m	-	84	HepB3	C or H <12 months	92	12-23 m	3774	81
PcV1	Card or History	90	24-35 m	3936	84	HepB3	Card	79	12-23 m	3774	81
PcV1	History	37	24-35 m	-	84	HepB3	Card or History	93	12-23 m	3774	81
PcV3	C or H <12 months	67	24-35 m	3936	84	HepB3	History	14	12-23 m	3774	81
PcV3	Card	46	24-35 m	-	84	Hib1	C or H <12 months	96	12-23 m	3774	81
PcV3	Card or History	76	24-35 m	3936	84	Hib1	Card	80	12-23 m	3774	81
PcV3	History	30	24-35 m	-	84	Hib1	Card or History	97	12-23 m	3774	81
Pol1	C or H <12 months	93	24-35 m	3936	84	Hib1	History	17	12-23 m	3774	81
Pol1	Card	60	24-35 m	-	84	Hib3	C or H <12 months	92	12-23 m	3774	81
Pol1	Card or History	96	24-35 m	3936	84	Hib3	Card	79	12-23 m	3774	81
Pol1	History	36	24-35 m	-	84	Hib3	Card or History	93	12-23 m	3774	81
Pol3	C or H <12 months	84	24-35 m	3936	84	Hib3	History	14	12-23 m	3774	81
Pol3	Card	59	24-35 m	-	84	MCV1	C or H <12 months	83	12-23 m	3774	81
Pol3	Card or History	88	24-35 m	3936	84	MCV1	Card	76	12-23 m	3774	81
Pol3	History	28	24-35 m	-	84	MCV1	Card or History	93	12-23 m	3774	81
RotaC	C or H <12 months	12	24-35 m	3936	84	MCV1	History	17	12-23 m	3774	81
RotaC	Card	3	24-35 m	-	84	Pol1	C or H <12 months	96	12-23 m	3774	81
RotaC	Card or History	26	24-35 m	3936	84	Pol1	Card	80	12-23 m	3774	81
RotaC	History	23	24-35 m	-	84	Pol1	Card or History	97	12-23 m	3774	81
						Pol1	History	16	12-23 m	3774	81
						Pol3	C or H <12 months	84	12-23 m	3774	81
						Pol3	Card	78	12-23 m	3774	81
						Pol3	Card or History	86	12-23 m	3774	81

2009 Malawi Demographic and Health Survey 2010

Malawi - survey details

Pol3 History 7 12-23 m 3774 81

2005 Malawi Multiple Indicator Cluster Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	95	12-23 m	5080	77
BCG	Card	75	12-23 m	5080	77
BCG	Card or History	96	12-23 m	5080	77
BCG	History	21	12-23 m	5080	77
DTP1	C or H <12 months	95	12-23 m	5080	77
DTP1	Card	76	12-23 m	5080	77
DTP1	Card or History	96	12-23 m	5080	77
DTP1	History	21	12-23 m	5080	77
DTP3	C or H <12 months	84	12-23 m	5080	77
DTP3	Card	73	12-23 m	5080	77
DTP3	Card or History	86	12-23 m	5080	77
DTP3	History	14	12-23 m	5080	77
HepB1	C or H <12 months	95	12-23 m	5080	77
HepB1	Card	76	12-23 m	5080	77
HepB1	Card or History	96	12-23 m	5080	77
HepB1	History	21	12-23 m	5080	77
HepB3	C or H <12 months	84	12-23 m	5080	77
HepB3	Card	73	12-23 m	5080	77
HepB3	Card or History	86	12-23 m	5080	77
HepB3	History	14	12-23 m	5080	77
Hib1	C or H <12 months	95	12-23 m	5080	77
Hib1	Card	76	12-23 m	5080	77
Hib1	Card or History	96	12-23 m	5080	77
Hib1	History	21	12-23 m	5080	77
Hib3	C or H <12 months	84	12-23 m	5080	77
Hib3	Card	73	12-23 m	5080	77
Hib3	Card or History	86	12-23 m	5080	77
Hib3	History	14	12-23 m	5080	77
MCV1	C or H <12 months	76	12-23 m	5080	77
MCV1	Card	66	12-23 m	5080	77
MCV1	Card or History	84	12-23 m	5080	77
MCV1	History	19	12-23 m	5080	77
Pol1	C or H <12 months	95	12-23 m	5080	77
Pol1	Card	76	12-23 m	5080	77

Pol1	Card or History	96	12-23 m	5080	77
Pol1	History	20	12-23 m	5080	77
Pol3	C or H <12 months	79	12-23 m	5080	77
Pol3	Card	72	12-23 m	5080	77
Pol3	Card or History	81	12-23 m	5080	77
Pol3	History	9	12-23 m	5080	77

2003 Malawi Demographic and Health Survey 2004

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	90	12-23 m	2194	74
BCG	Card	70	12-23 m	2194	74
BCG	Card or History	91	12-23 m	2194	74
BCG	History	21	12-23 m	2194	74
DTP1	C or H <12 months	94	12-23 m	2194	74
DTP1	Card	73	12-23 m	2194	74
DTP1	Card or History	95	12-23 m	2194	74
DTP1	History	22	12-23 m	2194	74
DTP3	C or H <12 months	76	12-23 m	2194	74
DTP3	Card	67	12-23 m	2194	74
DTP3	Card or History	82	12-23 m	2194	74
DTP3	History	14	12-23 m	2194	74
MCV1	C or H <12 months	63	12-23 m	2194	74
MCV1	Card	62	12-23 m	2194	74
MCV1	Card or History	79	12-23 m	2194	74
MCV1	History	17	12-23 m	2194	74
Pol1	C or H <12 months	94	12-23 m	2194	74
Pol1	Card	74	12-23 m	2194	74
Pol1	Card or History	95	12-23 m	2194	74
Pol1	History	21	12-23 m	2194	74
Pol3	C or H <12 months	73	12-23 m	2194	74
Pol3	Card	67	12-23 m	2194	74
Pol3	Card or History	78	12-23 m	2194	74
Pol3	History	10	12-23 m	2194	74

1999 Malawi Demographic and Health Survey 2000, 2001

Malawi - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	90	12-23 m	2238	81
BCG	Card	77	12-23 m	2238	81
BCG	Card or History	91	12-23 m	2238	81
BCG	History	15	12-23 m	2238	81
DTP1	C or H <12 months	94	12-23 m	2238	81
DTP1	Card	80	12-23 m	2238	81
DTP1	Card or History	96	12-23 m	2238	81
DTP1	History	16	12-23 m	2238	81
DTP3	C or H <12 months	79	12-23 m	2238	81
DTP3	Card	74	12-23 m	2238	81
DTP3	Card or History	84	12-23 m	2238	81
DTP3	History	10	12-23 m	2238	81
MCV1	C or H <12 months	64	12-23 m	2238	81
MCV1	Card	70	12-23 m	2238	81
MCV1	Card or History	83	12-23 m	2238	81
MCV1	History	13	12-23 m	2238	81
Pol1	C or H <12 months	93	12-23 m	2238	81
Pol1	Card	80	12-23 m	2238	81
Pol1	Card or History	96	12-23 m	2238	81
Pol1	History	16	12-23 m	2238	81
Pol3	C or H <12 months	73	12-23 m	2238	81

Pol3	Card	72	12-23 m	2238	81
Pol3	Card or History	80	12-23 m	2238	81
Pol3	History	7	12-23 m	2238	81

1998 National EPI Comprehensive Review Report, 1999

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	86	11-23 m	210	93
BCG	Card or History	92	11-23 m	210	93
DTP1	Card	91	11-23 m	210	93
DTP1	Card or History	97	11-23 m	210	93
DTP3	Card	88	11-23 m	210	93
DTP3	Card or History	94	11-23 m	210	93
MCV1	Card	85	11-23 m	210	93
MCV1	Card or History	90	11-23 m	210	93
Pol1	Card	91	11-23 m	210	93
Pol1	Card or History	97	11-23 m	210	93
Pol3	Card	87	11-23 m	210	93
Pol3	Card or History	93	11-23 m	210	93

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