Malawi: WHO and UNICEF estimates of immunization coverage: 2018 revision

WHO and UNICEF estimates of national immunization coverage - next revision available July 15, 2020 data received as of June 28, 2019

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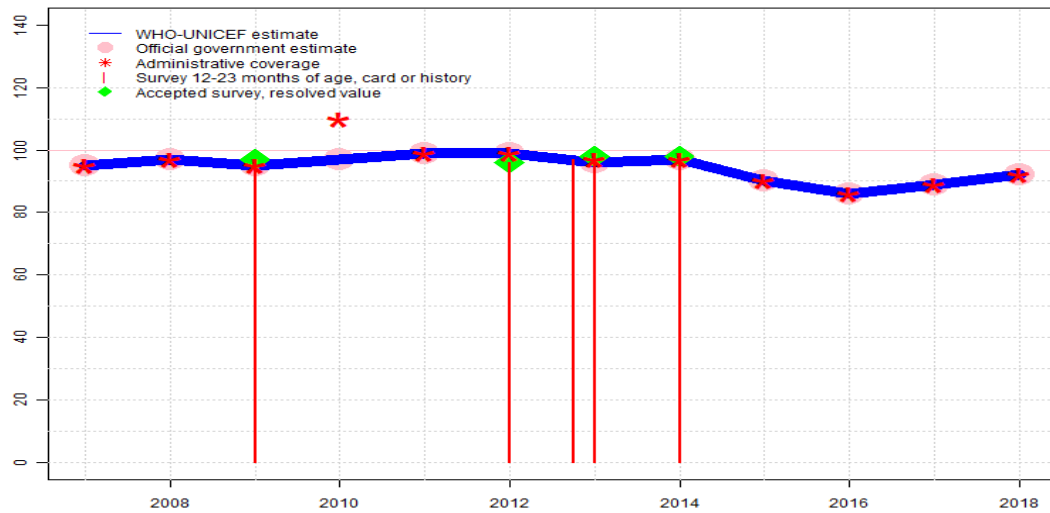
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

Malawi - BCG

MWI - BCG

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history
- Accepted survey, resolved value

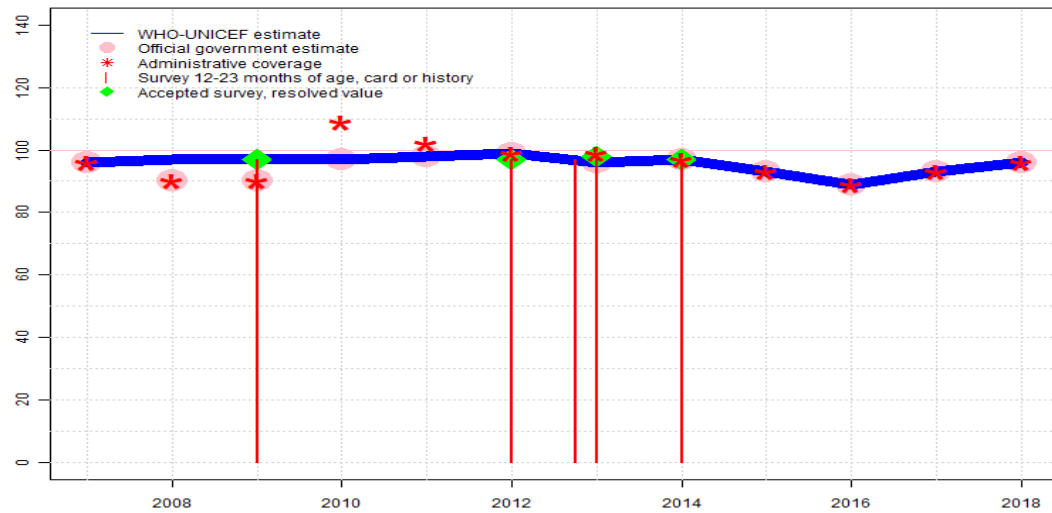|	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	95	97	95	97	99	99	96	97	90	86	89	92
Estimate GoC	●	●	●	●	●●●	●●●	●●●	●●●	●●●	●	●●	●●
Official	95	97	95	97	99	99	96	97	90	86	89	92
Administrative	95	97	95	110	99	99	97	97	90	86	89	92
Survey	NA	NA	97	NA	NA	96	*	98	NA	NA	NA	NA

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: 2017 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:

2018: Estimate based on coverage reported by national government. GoC=R+ D+

2017: Estimate based on coverage reported by national government. Programme reports vaccine supply disruptions at district level. GoC=R+ D+

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-

Malawi - DTP1

MWI - DTP1

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history
- Accepted survey, resolved value

Description:

2018: Estimate based on coverage reported by national government. Estimate challenged by: D-

2017: Estimate based on coverage reported by national government. Programme reports vaccine supply disruptions at district level. GoC=R+ D+

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-

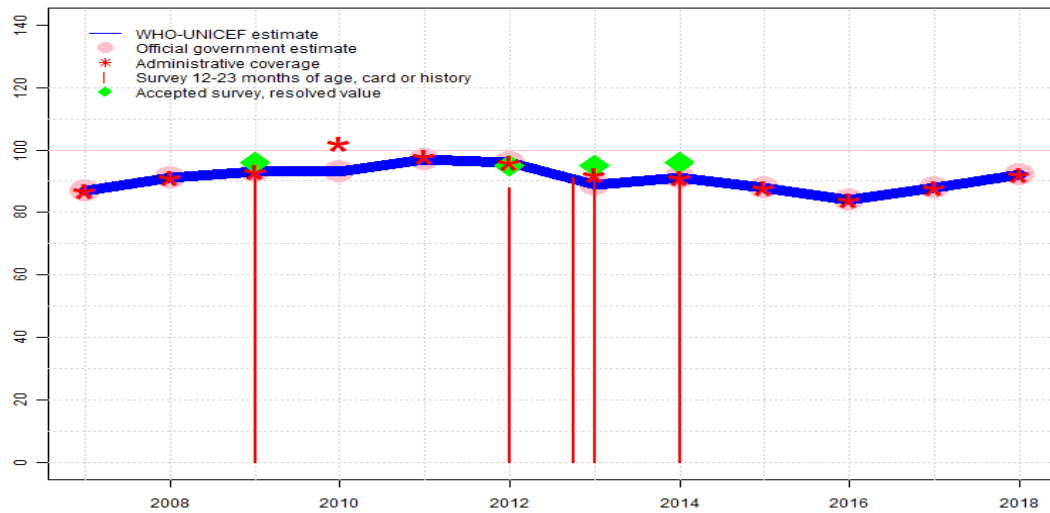|	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	96	97	97	97	98	99	96	97	93	89	93	96
Estimate GoC	•	•	•	•	•	•	•••	•••	•••	•••	••	•
Official	96	90	90	97	98	99	96	97	93	89	93	96
Administrative	96	90	90	109	102	99	99	97	93	89	93	96
Survey	NA	NA	97	NA	NA	97	*	97	NA	NA	NA	NA

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: 2017 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.

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 - DTP3

MWI - DTP3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history
- Accepted survey, resolved value

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	87	91	93	93	97	96	89	91	88	84	88	92
Estimate GoC	●	●	●	●	●●●	●●●	●●●	●●●	●●●	●●●	●●	●●
Official	87	91	93	93	97	96	89	91	88	84	88	92
Administrative	87	91	93	102	98	96	92	91	88	84	88	92
Survey	NA	NA	93	NA	NA	88	*	93	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: 2017 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.
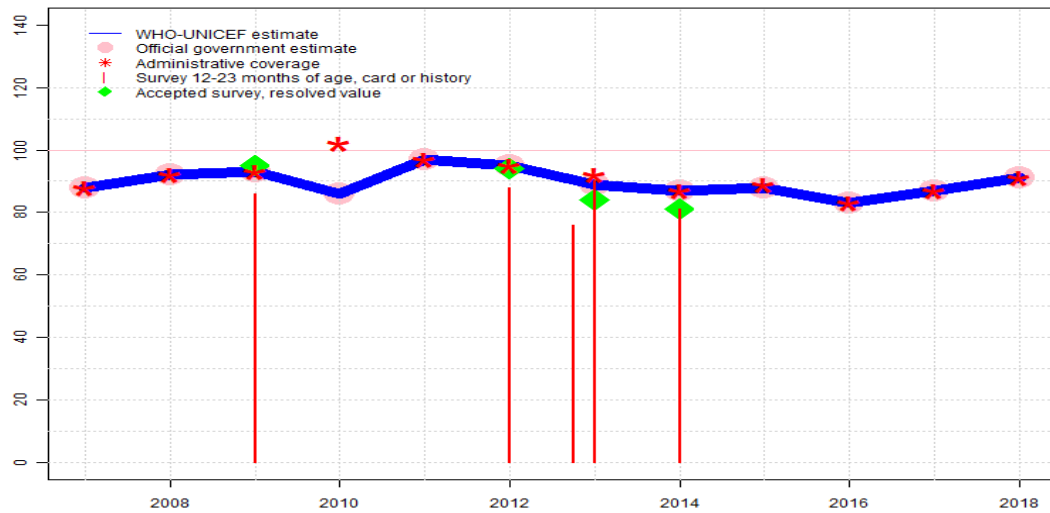
In all cases these estimates should be used with caution and should be assessed in light
of the objective for which they are being used.

Description:

2018: Estimate based on coverage reported by national government. GoC=R+ D+

2017: Estimate based on coverage reported by national government. Programme reports vaccine
supply disruptions at district level. GoC=R+ D+

2016: Estimate based on coverage reported by national government. GoC=Assigned by working
group. 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 modifed 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 3rd 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 modifed 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 3rd dose
card only coverage of 81 percent. Malawi Demographic and Health Survey 2015-2016
card or history results of 91 percent modifed 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 3rd 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 modifed 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 3rd 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 modifed 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 3rd 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-

Malawi - Pol3

MWI - Pol3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history
- Accepted survey, resolved value

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	88	92	93	86	97	95	89	87	88	83	87	91
Estimate GoC	●	●	●	●	●	●	●●●	●●●	●●●	●●●	●●	●●
Official	88	92	93	86	97	95	89	87	88	83	87	91
Administrative	88	92	93	102	97	95	92	87	89	83	87	91
Survey	NA	NA	86	NA	NA	88	*	81	NA	NA	NA	NA

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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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●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2017 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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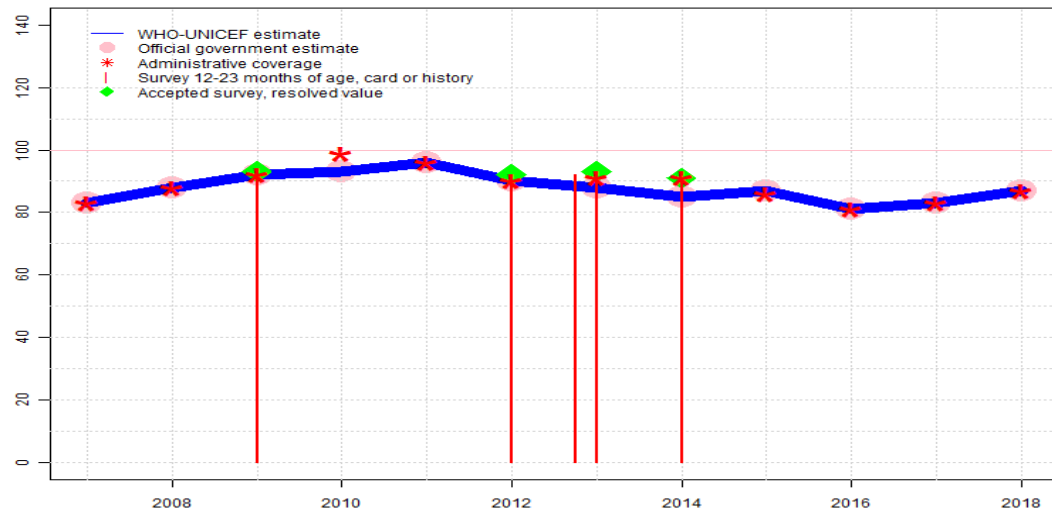
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In all cases these estimates should be used with caution and should be assessed in light
of the objective for which they are being used.
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Description:

2018: Estimate based on coverage reported by national government. GoC=R+ D+

2017: Estimate based on coverage reported by national government. Programme reports vaccine supply disruptions at district level. GoC=R+ D+

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 modifed 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 3rd 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 modifed 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 3rd 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 modifed 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 3rd 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-

Malawi - MCV1

MWI - MCV1

Description:

2018: Estimate based on coverage reported by national government. GoC=R+ D+

2017: Estimate based on coverage reported by national government. Programme reports vaccine supply disruptions at district level. GoC=R+ D+

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 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. GoC=R+ S+ 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-

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	83	88	92	93	96	90	88	85	87	81	83	87
Estimate GoC	●	●	●	●●●	●●●	●●●	●●●	●	●●●	●●●	●●	●●
Official	83	88	92	93	96	90	88	85	87	81	83	87
Administrative	83	88	92	99	96	90	91	91	86	81	83	87
Survey	NA	NA	93	NA	NA	92	*	91	NA	NA	NA	NA

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MWI - MCV2

Description:

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

2018: Estimate based on coverage reported by national government. GoC=R+ D+

2017: Estimate based on coverage reported by national government. Programme reports vaccine supply disruptions at district level. GoC=R+ D+

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+

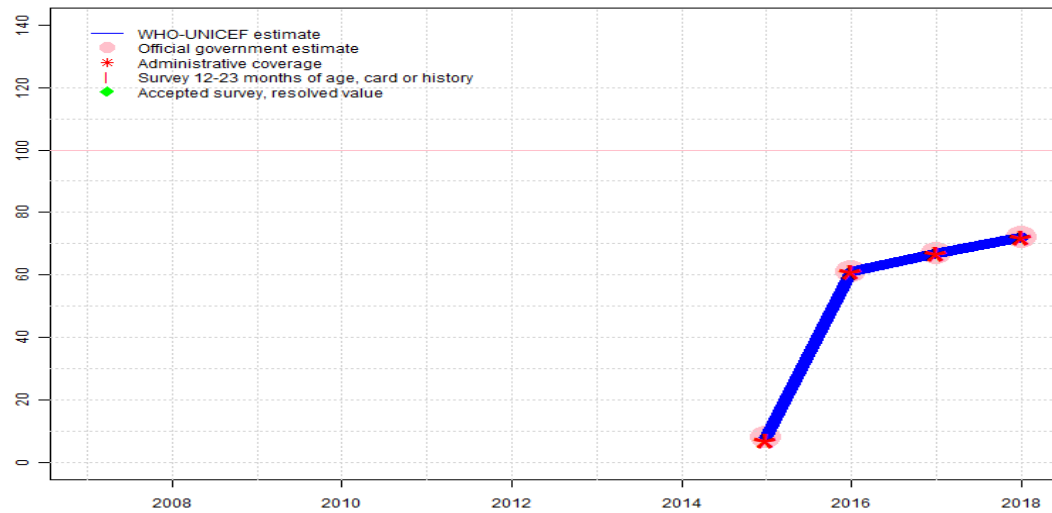|	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	8	61	67	72
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	••	••	••	••
Official	NA	NA	NA	NA	NA	NA	NA	NA	8	61	67	72
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	7	61	67	72
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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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.

2018: Estimate based on estimated MCV1. GoC=R+ D+

2017: Estimate based on estimated MCV1. Rubella vaccine introduced in 2017 as MR vaccine and recommended at 9 and 15 months of age. Programme reports vaccine supply disruptions at district level. GoC=R+ D+

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83	87
Estimate GoC	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
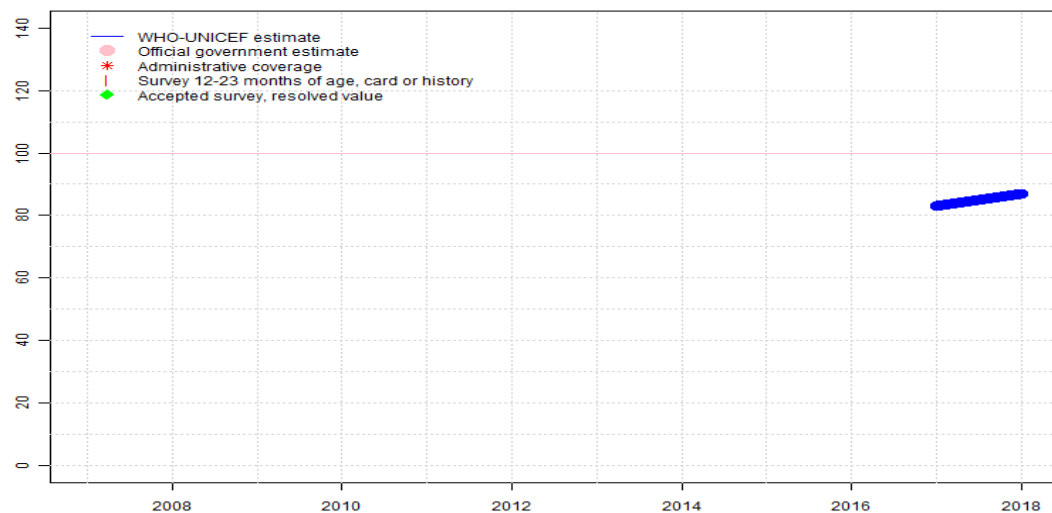not a judgment of the quality of data reported by national authorities.

••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator
from the World Population Prospects: 2017 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 - HepBB

MWI - HepBB

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history
- Accepted survey, resolved value

No estimate for infant immunization made.

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.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
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: 2017 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

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history
- Accepted survey, resolved value

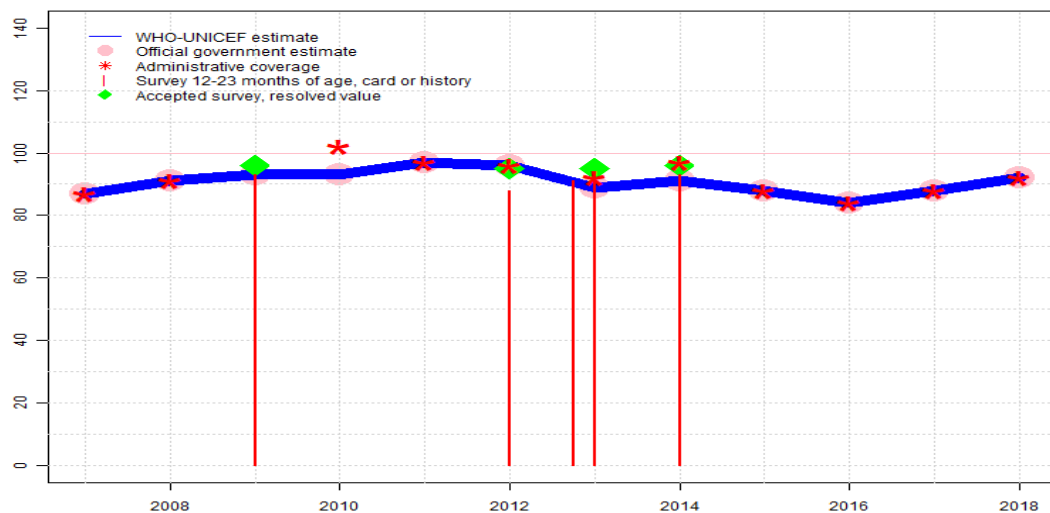|	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	87	91	93	93	97	96	89	91	88	84	88	92
Estimate GoC	●	●	●●	●●	●●●	●●●	●●●	●●●	●●●	●●●	●●	●●
Official	87	91	93	93	97	96	89	91	88	84	88	92
Administrative	87	91	NA	102	97	96	92	97	88	84	88	92
Survey	NA	NA	93	NA	NA	88	*	93	NA	NA	NA	NA

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: 2017 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.
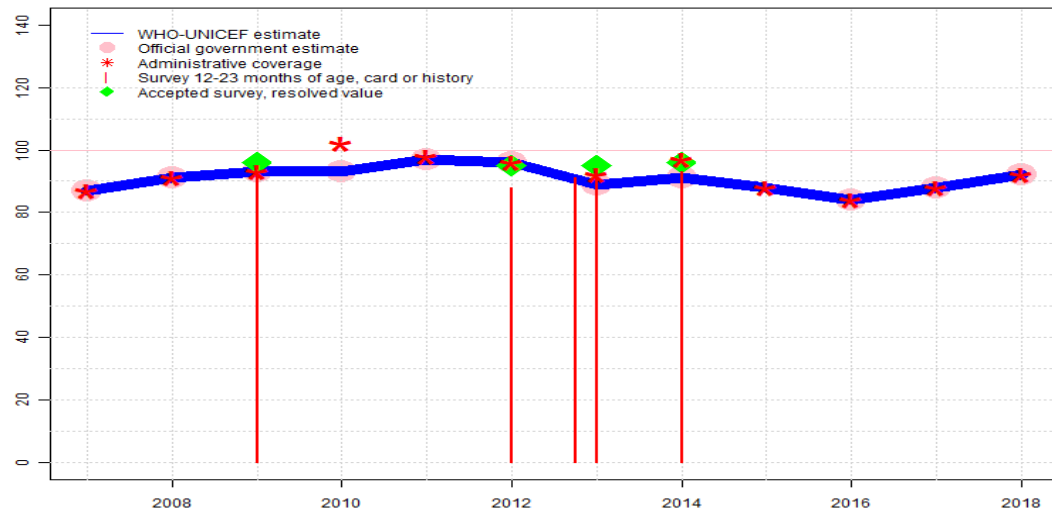
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

2018: Estimate based on coverage reported by national government. GoC=R+ D+

2017: Estimate based on coverage reported by national government. Programme reports vaccine supply disruptions at district level. GoC=R+ D+

2016: Estimate based on coverage reported by national government. GoC=Assigned by working group. 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 modifed 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 3rd 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 modifed 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 3rd dose card only coverage of 81 percent. Malawi Demographic and Health Survey 2015-2016 card or history results of 91 percent modifed 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 3rd 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 modifed 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 3rd 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 modifed 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 3rd 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-

Malawi - Hib3

MWI - Hib3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history
- Accepted survey, resolved value

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	87	91	93	93	97	96	89	91	88	84	88	92
Estimate GoC	●	●	●	●	●●●	●●●	●●●	●●●	●●●	●●●	●●	●●
Official	87	91	93	93	97	96	89	91	NA	84	88	92
Administrative	87	91	93	102	98	96	92	97	88	84	88	92
Survey	NA	NA	93	NA	NA	88	*	93	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: 2017 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:

2018: Estimate based on coverage reported by national government. GoC=R+ D+

2017: Estimate based on coverage reported by national government. Programme reports vaccine
supply disruptions at district level. GoC=R+ D+

2016: Estimate based on coverage reported by national government. GoC=Assigned by working
group. 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 modfied 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 3rd 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 modfied 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 3rd dose
card only coverage of 81 percent. Malawi Demographic and Health Survey 2015-2016
card or history results of 91 percent modfied 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 3rd 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 modfied 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 3rd 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 modfied 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 3rd 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-

MWI - RotaC

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history
- Accepted survey, resolved value

Description:

2018: Estimate based on coverage reported by national government. GoC=R+ D+

2017: Estimate based on coverage reported by national government. Programme reports vaccine supply disruptions at district level. GoC=R+ D+

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-

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	NA	NA	NA	NA	NA	7	81	83	84	81	85	90
Estimate GoC	NA	NA	NA	NA	NA	●	●●●	●●●	●●●	●●●	●●	●●
Official	NA	NA	NA	NA	NA	7	81	60	84	81	85	90
Administrative	NA	NA	NA	NA	NA	7	84	83	84	81	85	90
Survey	NA	NA	NA	NA	NA	26	*	91	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: 2017 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.
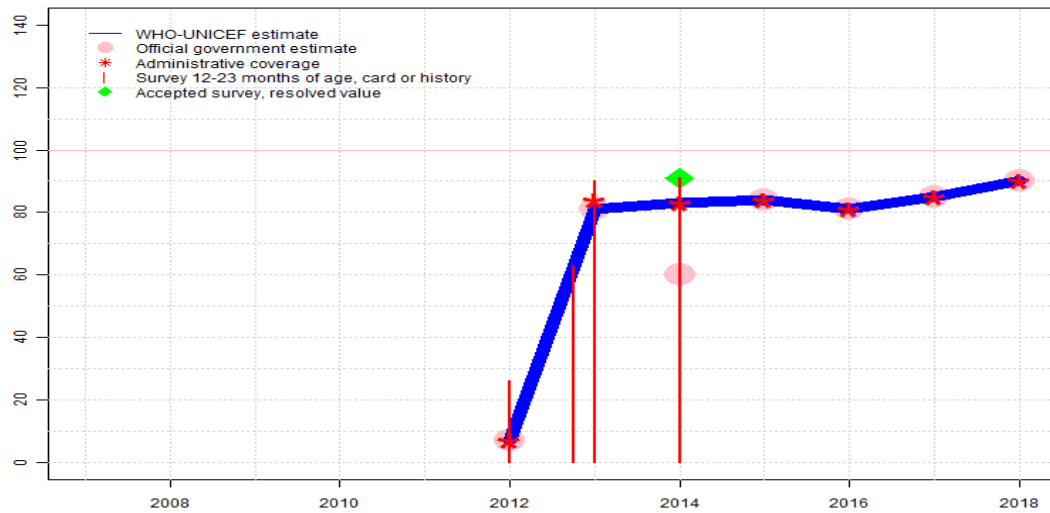
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Malawi - PcV3

MWI - PcV3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history
- Accepted survey, resolved value

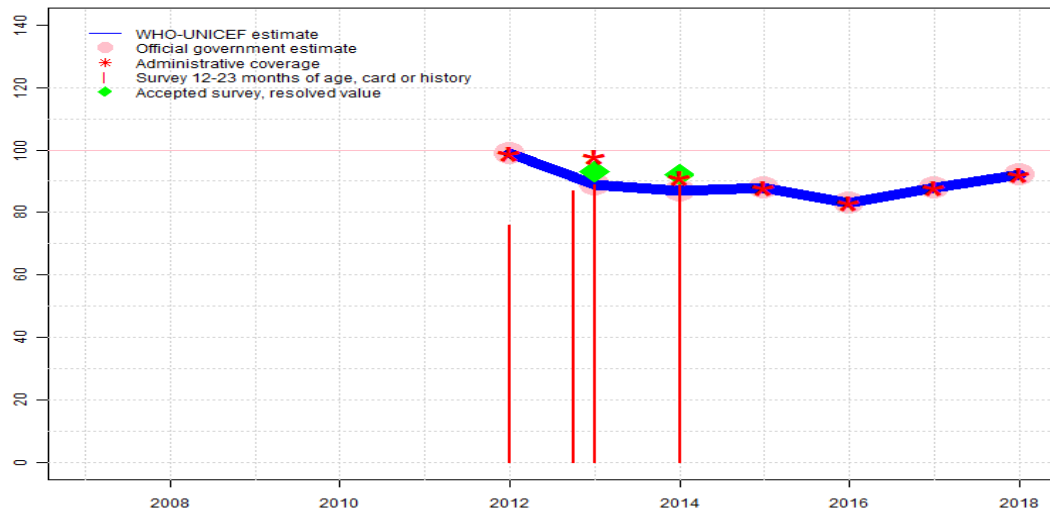|	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	NA	NA	NA	NA	NA	99	89	87	88	83	88	92
Estimate GoC	NA	NA	NA	NA	NA	●	●●●	●	●●●	●●●	●●	●
Official	NA	NA	NA	NA	NA	99	89	87	88	83	88	92
Administrative	NA	NA	NA	NA	NA	99	98	91	88	83	88	92
Survey	NA	NA	NA	NA	NA	76	*	89	NA	NA	NA	NA

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: 2017 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:

2018: Estimate based on coverage reported by national government. Estimate challenged by: D-

2017: Estimate based on coverage reported by national government. Programme reports vaccine supply disruptions at district level. GoC=R+ D+

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 modifed 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 3rd 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 results of 89 percent modifed for recall bias to 92 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 82 percent and 3rd dose card only coverage of 78 percent. Malawi Demographic and Health Survey 2015-2016 card or history results of 87 percent modifed 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 3rd 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 modifed 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 3rd dose card only coverage of 46 percent. Pneumococcal conjugate vaccine introduced in October 2011. Reporting started in 2012. Estimate challenged by: D-

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	78.2	12-23 m	2548	79
BCG	Card or History	97.6	12-23 m	3230	79
DTP1	C or H <12 months	97.2	12-23 m	3230	79
DTP1	Card	78.5	12-23 m	2548	79
DTP1	Card or History	97.4	12-23 m	3230	79
DTP3	C or H <12 months	91.9	12-23 m	3230	79
DTP3	Card	76.7	12-23 m	2548	79
DTP3	Card or History	93	12-23 m	3230	79
HepB1	C or H <12 months	97.2	12-23 m	3230	79
HepB1	Card	78.5	12-23 m	2548	79
HepB1	Card or History	97.4	12-23 m	3230	79
HepB3	C or H <12 months	91.9	12-23 m	3230	79
HepB3	Card	76.7	12-23 m	2548	79
HepB3	Card or History	93	12-23 m	3230	79
Hib1	C or H <12 months	97.2	12-23 m	3230	79
Hib1	Card	78.5	12-23 m	2548	79
Hib1	Card or History	97.4	12-23 m	3230	79
Hib3	C or H <12 months	91.9	12-23 m	3230	79
Hib3	Card	76.7	12-23 m	2548	79
Hib3	Card or History	93	12-23 m	3230	79
MCV1	C or H <12 months	85.3	12-23 m	3230	79
MCV1	Card	73.2	12-23 m	2548	79
MCV1	Card or History	91.3	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	96.4	12-23 m	3230	79
PCV3	C or H <12 months	88.1	12-23 m	3230	79
PCV3	Card	75	12-23 m	2548	79
PCV3	Card or History	89.2	12-23 m	3230	79
Pol1	Card	78.3	12-23 m	2548	79
Pol3	C or H <12 months	96.6	12-23 m	3230	79
Pol3	Card	73.9	12-23 m	2548	79
Pol3	Card or History	81.2	12-23 m	3230	79
RotaC	C or H <12 months	90.2	12-23 m	3230	79
RotaC	Card	74.5	12-23 m	2548	79
RotaC	Card or History	91.4	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	65.3	24-35 m	2163	79
BCG	Card or History	96.9	24-35 m	3261	79
DTP1	C or H <12 months	95.3	24-35 m	3261	79
DTP1	Card	65.6	24-35 m	2163	79
DTP1	Card or History	97.1	24-35 m	3261	79
DTP3	C or H <12 months	88.1	24-35 m	3261	79
DTP3	Card	64.5	24-35 m	2163	79
DTP3	Card or History	91.4	24-35 m	3261	79
HepB1	C or H <12 months	95.3	24-35 m	3261	79
HepB1	Card	65.6	24-35 m	2163	79
HepB1	Card or History	97.1	24-35 m	3261	79
HepB3	C or H <12 months	88.1	24-35 m	3261	79
HepB3	Card	64.5	24-35 m	2163	79
HepB3	Card or History	91.4	24-35 m	3261	79
Hib1	C or H <12 months	95.3	24-35 m	3261	79
Hib1	Card	65.6	24-35 m	2163	79
Hib1	Card or History	97.1	24-35 m	3261	79
Hib3	C or H <12 months	88.1	24-35 m	3261	79
Hib3	Card	64.5	24-35 m	2163	79
Hib3	Card or History	91.4	24-35 m	3261	79
MCV1	C or H <12 months	82.8	24-35 m	3261	79
MCV1	Card	62.7	24-35 m	2163	79
MCV1	Card or History	93.4	24-35 m	3261	79
PCV1	C or H <12 months	93.8	24-35 m	3261	79
PCV1	Card	64.9	24-35 m	2163	79
PCV1	Card or History	95.5	24-35 m	3261	79
PCV3	C or H <12 months	84.1	24-35 m	3261	79
PCV3	Card	63.2	24-35 m	2163	79
PCV3	Card or History	87.4	24-35 m	3261	79
Pol1	Card	65.8	24-35 m	2163	79
Pol3	C or H <12 months	94.5	24-35 m	3261	79
Pol3	Card	62	24-35 m	2163	79
Pol3	Card or History	75.5	24-35 m	3261	79
RotaC	C or H <12 months	86.9	24-35 m	3261	79

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
RotaC	Card	62	24-35 m	2163	79
RotaC	Card or History	89.5	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	96.4	12-23 m	3755	84
BCG	Card	82.8	12-23 m	-	84
BCG	Card or History	98.2	12-23 m	3755	84
BCG	History	15.3	12-23 m	-	84
DTP1	C or H <12 months	96.9	12-23 m	3755	84
DTP1	Card	83.1	12-23 m	-	84
DTP1	Card or History	98.2	12-23 m	3755	84
DTP1	History	15.1	12-23 m	-	84
DTP3	C or H <12 months	90.4	12-23 m	3755	84
DTP3	Card	80.8	12-23 m	-	84
DTP3	Card or History	92.6	12-23 m	3755	84
DTP3	History	11.9	12-23 m	-	84
HepB1	C or H <12 months	96.9	12-23 m	3755	84
HepB1	Card	83.1	12-23 m	-	84
HepB1	Card or History	98.2	12-23 m	3755	84
HepB1	History	15.1	12-23 m	-	84
HepB3	C or H <12 months	90.4	12-23 m	3755	84
HepB3	Card	80.8	12-23 m	-	84
HepB3	Card or History	92.6	12-23 m	3755	84
HepB3	History	11.9	12-23 m	-	84
Hib1	C or H <12 months	96.9	12-23 m	3755	84
Hib1	Card	83.1	12-23 m	-	84
Hib1	Card or History	98.2	12-23 m	3755	84
Hib1	History	15.1	12-23 m	-	84
Hib3	C or H <12 months	90.4	12-23 m	3755	84
Hib3	Card	80.8	12-23 m	-	84
Hib3	Card or History	92.6	12-23 m	3755	84
Hib3	History	11.9	12-23 m	-	84
MCV1	C or H <12 months	85.1	12-23 m	3755	84
MCV1	Card	75.2	12-23 m	-	84
MCV1	Card or History	92	12-23 m	3755	84
MCV1	History	16.9	12-23 m	-	84
PcV1	C or H <12 months	95.2	12-23 m	3755	84
PcV1	Card	81.9	12-23 m	-	84
PcV1	Card or History	97	12-23 m	3755	84
PcV1	History	15.1	12-23 m	-	84
PcV3	C or H <12 months	87.3	12-23 m	3755	84
PcV3	Card	78.3	12-23 m	-	84
PcV3	Card or History	89.4	12-23 m	3755	84
PcV3	History	11.2	12-23 m	-	84
Pol1	C or H <12 months	96.3	12-23 m	3755	84
Pol1	Card	82.8	12-23 m	-	84
Pol1	Card or History	98.1	12-23 m	3755	84
Pol1	History	15.3	12-23 m	-	84
Pol3	C or H <12 months	87.5	12-23 m	3755	84
Pol3	Card	78.4	12-23 m	-	84
Pol3	Card or History	90.5	12-23 m	3755	84
Pol3	History	12.1	12-23 m	-	84
RotaC	C or H <12 months	60.3	12-23 m	3755	84
RotaC	Card	47.3	12-23 m	-	84
RotaC	Card or History	63.4	12-23 m	3755	84
RotaC	History	16.1	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	93.4	24-35 m	3936	84
BCG	Card	60.1	24-35 m	-	84
BCG	Card or History	96.4	24-35 m	3936	84
BCG	History	36.3	24-35 m	-	84
DTP1	C or H <12 months	94.3	24-35 m	3936	84
DTP1	Card	60.9	24-35 m	-	84
DTP1	Card or History	96.6	24-35 m	3936	84
DTP1	History	35.6	24-35 m	-	84
DTP3	C or H <12 months	85.2	24-35 m	3936	84
DTP3	Card	59.6	24-35 m	-	84
DTP3	Card or History	87.8	24-35 m	3936	84
DTP3	History	28.2	24-35 m	-	84
HepB1	C or H <12 months	94.3	24-35 m	3936	84
HepB1	Card	60.9	24-35 m	-	84
HepB1	Card or History	96.6	24-35 m	3936	84
HepB1	History	35.6	24-35 m	-	84

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
HepB3	C or H <12 months	85.2	24-35 m	3936	84
HepB3	Card	59.6	24-35 m	-	84
HepB3	Card or History	87.8	24-35 m	3936	84
HepB3	History	28.2	24-35 m	-	84
Hib1	C or H <12 months	94.3	24-35 m	3936	84
Hib1	Card	60.9	24-35 m	-	84
Hib1	Card or History	96.6	24-35 m	3936	84
Hib1	History	35.6	24-35 m	-	84
Hib3	C or H <12 months	85.2	24-35 m	3936	84
Hib3	Card	59.6	24-35 m	-	84
Hib3	Card or History	87.8	24-35 m	3936	84
Hib3	History	28.2	24-35 m	-	84
MCV1	C or H <12 months	82	24-35 m	3936	84
MCV1	Card	55.7	24-35 m	-	84
MCV1	Card or History	92.4	24-35 m	3936	84
MCV1	History	36.7	24-35 m	-	84
PcV1	C or H <12 months	84.6	24-35 m	3936	84
PcV1	Card	53.6	24-35 m	-	84
PcV1	Card or History	90.4	24-35 m	3936	84
PcV1	History	36.8	24-35 m	-	84
PcV3	C or H <12 months	67.3	24-35 m	3936	84
PcV3	Card	46.1	24-35 m	-	84
PcV3	Card or History	75.6	24-35 m	3936	84
PcV3	History	29.5	24-35 m	-	84
Pol1	C or H <12 months	93.1	24-35 m	3936	84
Pol1	Card	60.4	24-35 m	-	84
Pol1	Card or History	96.4	24-35 m	3936	84
Pol1	History	36	24-35 m	-	84
Pol3	C or H <12 months	83.6	24-35 m	3936	84
Pol3	Card	59	24-35 m	-	84
Pol3	Card or History	87.5	24-35 m	3936	84
Pol3	History	28.5	24-35 m	-	84
RotaC	C or H <12 months	11.7	24-35 m	3936	84
RotaC	Card	2.9	24-35 m	-	84
RotaC	Card or History	26	24-35 m	3936	84
RotaC	History	23.1	24-35 m	-	84

2009 Malawi Demographic and Health Survey 2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96.3	12-23 m	3774	81
BCG	Card	80	12-23 m	3774	81
BCG	Card or History	97.2	12-23 m	3774	81
BCG	History	17.2	12-23 m	3774	81
DTP1	C or H <12 months	96.5	12-23 m	3774	81
DTP1	Card	80.2	12-23 m	3774	81
DTP1	Card or History	97.3	12-23 m	3774	81
DTP1	History	17.1	12-23 m	3774	81
DTP3	C or H <12 months	91.9	12-23 m	3774	81
DTP3	Card	78.7	12-23 m	3774	81
DTP3	Card or History	93	12-23 m	3774	81
DTP3	History	14.3	12-23 m	3774	81
HepB1	C or H <12 months	96.5	12-23 m	3774	81
HepB1	Card	80.2	12-23 m	3774	81
HepB1	Card or History	97.3	12-23 m	3774	81
HepB1	History	17.1	12-23 m	3774	81
HepB3	C or H <12 months	91.9	12-23 m	3774	81
HepB3	Card	78.7	12-23 m	3774	81
HepB3	Card or History	93	12-23 m	3774	81
HepB3	History	14.3	12-23 m	3774	81
Hib1	C or H <12 months	96.5	12-23 m	3774	81
Hib1	Card	80.2	12-23 m	3774	81
Hib1	Card or History	97.3	12-23 m	3774	81
Hib1	History	17.1	12-23 m	3774	81
Hib3	C or H <12 months	91.9	12-23 m	3774	81
Hib3	Card	78.7	12-23 m	3774	81
Hib3	Card or History	93	12-23 m	3774	81
Hib3	History	14.3	12-23 m	3774	81
MCV1	C or H <12 months	82.6	12-23 m	3774	81
MCV1	Card	76.2	12-23 m	3774	81
MCV1	Card or History	93	12-23 m	3774	81
MCV1	History	16.8	12-23 m	3774	81
Pol1	C or H <12 months	95.8	12-23 m	3774	81
Pol1	Card	80.2	12-23 m	3774	81
Pol1	Card or History	96.6	12-23 m	3774	81
Pol1	History	16.5	12-23 m	3774	81
Pol3	C or H <12 months	84.4	12-23 m	3774	81
Pol3	Card	78.3	12-23 m	3774	81
Pol3	Card or History	85.6	12-23 m	3774	81

Pol3	History	7.4	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	95.2	12-23 m	5080	77
BCG	Card	74.9	12-23 m	5080	77
BCG	Card or History	95.7	12-23 m	5080	77
BCG	History	20.8	12-23 m	5080	77
DTP1	C or H <12 months	95.3	12-23 m	5080	77
DTP1	Card	75.6	12-23 m	5080	77
DTP1	Card or History	96.2	12-23 m	5080	77
DTP1	History	20.6	12-23 m	5080	77
DTP3	C or H <12 months	84.4	12-23 m	5080	77
DTP3	Card	72.7	12-23 m	5080	77
DTP3	Card or History	86.4	12-23 m	5080	77
DTP3	History	13.7	12-23 m	5080	77
HepB1	C or H <12 months	95.3	12-23 m	5080	77
HepB1	Card	75.6	12-23 m	5080	77
HepB1	Card or History	96.2	12-23 m	5080	77
HepB1	History	20.6	12-23 m	5080	77
HepB3	C or H <12 months	84.4	12-23 m	5080	77
HepB3	Card	72.7	12-23 m	5080	77
HepB3	Card or History	86.4	12-23 m	5080	77
HepB3	History	13.7	12-23 m	5080	77
Hib1	C or H <12 months	95.3	12-23 m	5080	77
Hib1	Card	75.6	12-23 m	5080	77
Hib1	Card or History	96.2	12-23 m	5080	77
Hib1	History	20.6	12-23 m	5080	77
Hib3	C or H <12 months	84.4	12-23 m	5080	77
Hib3	Card	72.7	12-23 m	5080	77
Hib3	Card or History	86.4	12-23 m	5080	77
Hib3	History	13.7	12-23 m	5080	77
MCV1	C or H <12 months	75.9	12-23 m	5080	77
MCV1	Card	65.5	12-23 m	5080	77
MCV1	Card or History	84.4	12-23 m	5080	77
MCV1	History	18.9	12-23 m	5080	77
Pol1	C or H <12 months	95.2	12-23 m	5080	77
Pol1	Card	75.6	12-23 m	5080	77
Pol1	Card or History	95.5	12-23 m	5080	77
Pol1	History	19.9	12-23 m	5080	77
Pol3	C or H <12 months	79.1	12-23 m	5080	77
Pol3	Card	72.4	12-23 m	5080	77
Pol3	Card or History	81.3	12-23 m	5080	77
Pol3	History	8.8	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	89.7	12-23 m	2194	74
BCG	Card	70.3	12-23 m	2194	74
BCG	Card or History	91.4	12-23 m	2194	74
BCG	History	21.1	12-23 m	2194	74
DTP1	C or H <12 months	94	12-23 m	2194	74
DTP1	Card	73.3	12-23 m	2194	74
DTP1	Card or History	95	12-23 m	2194	74
DTP1	History	21.6	12-23 m	2194	74
DTP3	C or H <12 months	76.1	12-23 m	2194	74
DTP3	Card	67.2	12-23 m	2194	74
DTP3	Card or History	81.5	12-23 m	2194	74
DTP3	History	14.3	12-23 m	2194	74
MCV1	C or H <12 months	62.7	12-23 m	2194	74
MCV1	Card	61.8	12-23 m	2194	74
MCV1	Card or History	78.7	12-23 m	2194	74
MCV1	History	16.9	12-23 m	2194	74
Pol1	C or H <12 months	93.9	12-23 m	2194	74
Pol1	Card	73.7	12-23 m	2194	74
Pol1	Card or History	94.9	12-23 m	2194	74
Pol1	History	21.3	12-23 m	2194	74
Pol3	C or H <12 months	73.2	12-23 m	2194	74
Pol3	Card	67.4	12-23 m	2194	74
Pol3	Card or History	77.7	12-23 m	2194	74
Pol3	History	10.2	12-23 m	2194	74

1999 Malawi Demographic and Health Survey 2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	89.7	12-23 m	2238	81
BCG	Card	76.9	12-23 m	2238	81
BCG	Card or History	91.4	12-23 m	2238	81
BCG	History	15.4	12-23 m	2238	81
DTP1	C or H <12 months	93.8	12-23 m	2238	81
DTP1	Card	80.3	12-23 m	2238	81
DTP1	Card or History	95.9	12-23 m	2238	81
DTP1	History	15.5	12-23 m	2238	81
DTP3	C or H <12 months	78.6	12-23 m	2238	81
DTP3	Card	73.7	12-23 m	2238	81
DTP3	Card or History	84.2	12-23 m	2238	81
DTP3	History	10.4	12-23 m	2238	81
MCV1	C or H <12 months	64.2	12-23 m	2238	81
MCV1	Card	70.2	12-23 m	2238	81
MCV1	Card or History	83.2	12-23 m	2238	81
MCV1	History	13	12-23 m	2238	81
Pol1	C or H <12 months	93.3	12-23 m	2238	81
Pol1	Card	80.1	12-23 m	2238	81
Pol1	Card or History	95.7	12-23 m	2238	81
Pol1	History	15.6	12-23 m	2238	81
Pol3	C or H <12 months	72.7	12-23 m	2238	81
Pol3	Card	72.4	12-23 m	2238	81
Pol3	Card or History	79.8	12-23 m	2238	81
Pol3	History	7.4	12-23 m	2238	81

1998 National EPI Comprehensive Review Report, 1999

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	86.2	11-23 m	210	93
BCG	Card or History	92.4	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	90.9	11-23 m	210	93
Pol1	Card or History	97.1	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