

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.

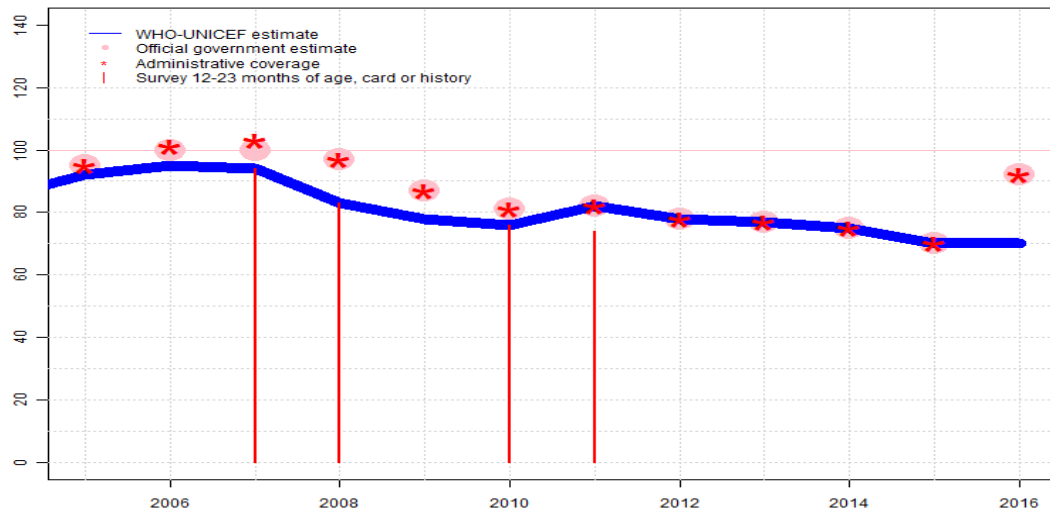
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

MDG - BCG



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	92	95	94	83	78	76	82	78	77	75	70	70
Estimate GoC	•	•	•	•	•	•	•••	•••	•••	••	••	•
Official	95	100	100	97	87	81	82	78	77	75	70	92
Administrative	95	101	103	97	87	81	82	78	77	75	70	92
Survey	NA	NA	94	83	NA	76	74	NA	NA	NA	NA	NA

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

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

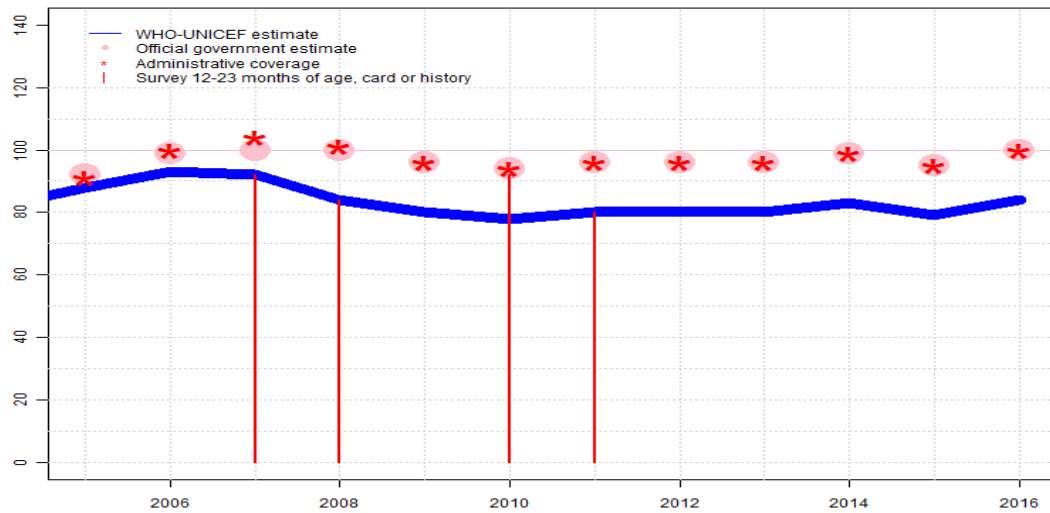
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to unexplained sudden change in coverage from 70 level to 92 percent. WHO and UNICEF encourage continued efforts to improve the administrative recording and reporting system. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. GoC=Assigned by working group. Estimate is supported by R+ S+ D+.
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 74 percent based on 1 survey(s). GoC=Assigned by working group. Estimate is supported by R+ S+ D+.
- 2010: Reported data calibrated to 2008 and 2011 levels. Madagascar Immunization Coverage Evaluation, 2011 results ignored by working group. Survey results remain preliminary. Estimate challenged by: R-
- 2009: Reported data calibrated to 2008 and 2011 levels. Ministry of Health reports 15 days of vaccine shortage. Estimate challenged by: D-R-S-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 83 percent based on 1 survey(s). Estimate challenged by: D-R-S-
- 2007: Estimate of 94 percent assigned by working group. Estimate based on survey results. Estimate challenged by: R-S-
- 2006: Reported data calibrated to 2002 and 2007 levels. Estimate challenged by: R-S-
- 2005: Reported data calibrated to 2002 and 2007 levels. Estimate challenged by: R-

Madagascar - DTP1

MDG - DTP1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	88	93	92	84	80	78	80	80	80	83	79	84
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	92	99	100	100	96	94	96	96	96	99	95	100
Administrative	91	100	104	101	96	94	96	96	96	99	95	100
Survey	NA	NA	92	84	NA	92	80	NA	NA	NA	NA	NA

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

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

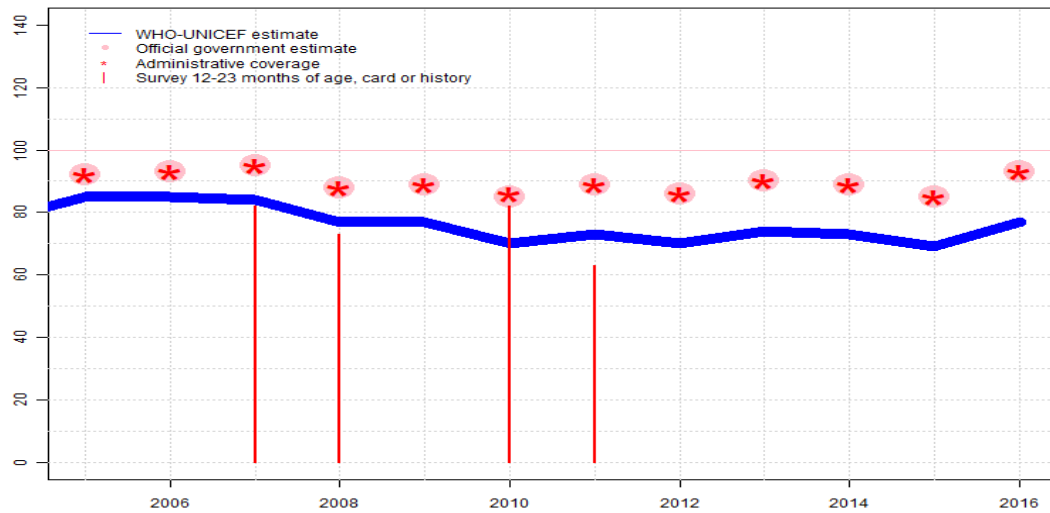
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2011 levels. WHO and UNICEF encourage continued efforts to improve the administrative recording and reporting system. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2008 and 2011 levels. Madagascar Immunization Coverage Evaluation, 2011 results ignored by working group. Survey results remain preliminary. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2008 and 2011 levels. Estimate challenged by: D-R-S-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 84 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2007: Estimate of 92 percent assigned by working group. Estimate based on survey results. Estimate challenged by: R-
- 2006: Reported data calibrated to 2002 and 2007 levels. Estimate challenged by: R-
- 2005: Reported data calibrated to 2002 and 2007 levels. Estimate challenged by: R-

Madagascar - DTP3

MDG - DTP3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	85	85	84	77	77	70	73	70	74	73	69	77
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	92	93	95	88	89	85	89	86	90	89	85	93
Administrative	92	93	95	88	89	86	89	86	90	89	85	93
Survey	NA	NA	82	73	NA	82	63	NA	NA	NA	NA	NA

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

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

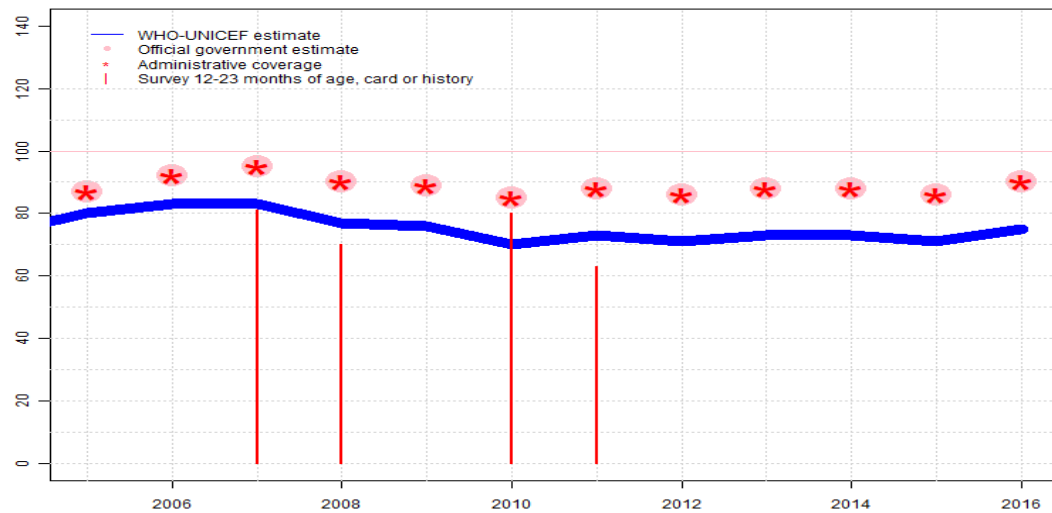
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2011 levels. WHO and UNICEF encourage continued efforts to improve the administrative recording and reporting system. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). National Monitoring of the Millennium Development Goals Survey in Madagascar; ENSOMD 2012-2013 card or history results of 63 percent modified for recall bias to 73 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 45 percent and 3d dose card only coverage of 41 percent. Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2008 and 2011 levels. Madagascar Immunization Coverage Evaluation, 2011 results ignored by working group. Survey results remain preliminary. Madagascar Immunization Coverage Evaluation, 2011 card or history results of 82 percent modified for recall bias to 83 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 53 percent and 3d dose card only coverage of 48 percent. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2008 and 2011 levels. Estimate challenged by: D-R-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). Madagascar Demographic and Health Survey 2008-2009 card or history results of 73 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 84 percent, 1st dose card only coverage of 60 percent and 3d dose card only coverage of 55 percent. Estimate challenged by: R-
- 2007: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 84 percent based on 1 survey(s). Madagascar Immunization Coverage Survey 2008 card or history results of 82 percent modified for recall bias to 84 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 67 percent and 3d dose card only coverage of 61 percent. Estimate challenged by: R-
- 2006: Reported data calibrated to 2002 and 2007 levels. Estimate challenged by: R-
- 2005: Reported data calibrated to 2002 and 2007 levels. Estimate challenged by: R-

Madagascar - Pol3

MDG - Pol3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	80	83	83	77	76	70	73	71	73	73	71	75
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	87	92	95	90	89	85	88	86	88	88	86	90
Administrative	87	92	95	90	89	85	88	86	88	88	86	90
Survey	NA	NA	81	70	NA	80	63	NA	NA	NA	NA	NA

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

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

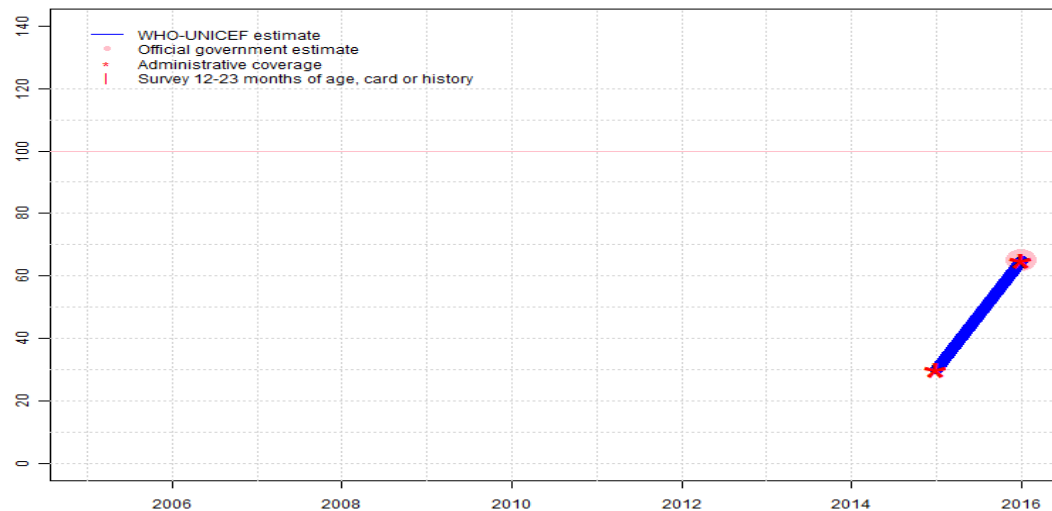
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Description:

- 2016: Reported data calibrated to 2011 levels. WHO and UNICEF encourage continued efforts to improve the administrative recording and reporting system. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). National Monitoring of the Millennium Development Goals Survey in Madagascar; ENSOMD 2012-2013 card or history results of 63 percent modified for recall bias to 73 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 45 percent and 3d dose card only coverage of 41 percent. Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2008 and 2011 levels. Madagascar Immunization Coverage Evaluation, 2011 results ignored by working group. Survey results remain preliminary. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2008 and 2011 levels. Estimate challenged by: D-R-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). Madagascar Demographic and Health Survey 2008-2009 card or history results of 70 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 84 percent, 1st dose card only coverage of 60 percent and 3d dose card only coverage of 55 percent. Estimate challenged by: D-R-
- 2007: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 83 percent based on 1 survey(s). Madagascar Immunization Coverage Survey 2008 card or history results of 81 percent modified for recall bias to 83 percent based on 1st dose card or history coverage of 90 percent, 1st dose card only coverage of 65 percent and 3d dose card only coverage of 60 percent. Estimate challenged by: R-
- 2006: Reported data calibrated to 2002 and 2007 levels. Estimate challenged by: R-
- 2005: Reported data calibrated to 2002 and 2007 levels. Estimate challenged by: R-

Madagascar - IPV1

MDG - IPV1



Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF encourage continued efforts to improve the administrative recording and reporting system. Estimate is based exceptionally on the reported data during a period of introduction. Programme reports 3 month vaccine stock-out. GoC=R+ D+
- 2015: Estimate based on reported administrative estimate. IPV introduced in May 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	30	65
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	65
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	65
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

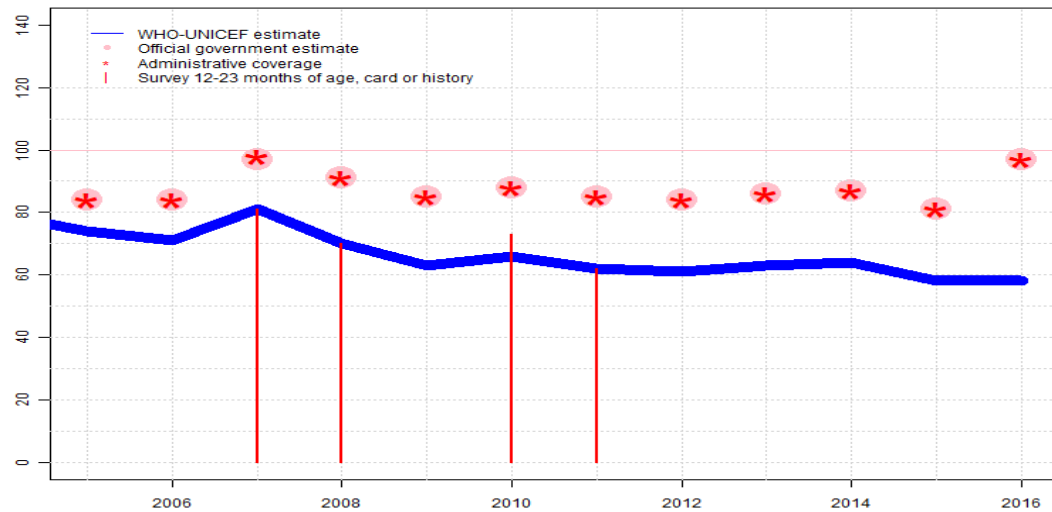
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- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While 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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Madagascar - MCV1

MDG - MCV1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	74	71	81	70	63	66	62	61	63	64	58	58
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	84	84	97	91	85	88	85	84	86	87	81	97
Administrative	84	84	98	91	85	88	85	84	86	87	81	97
Survey	NA	NA	81	70	NA	73	62	NA	NA	NA	NA	NA

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

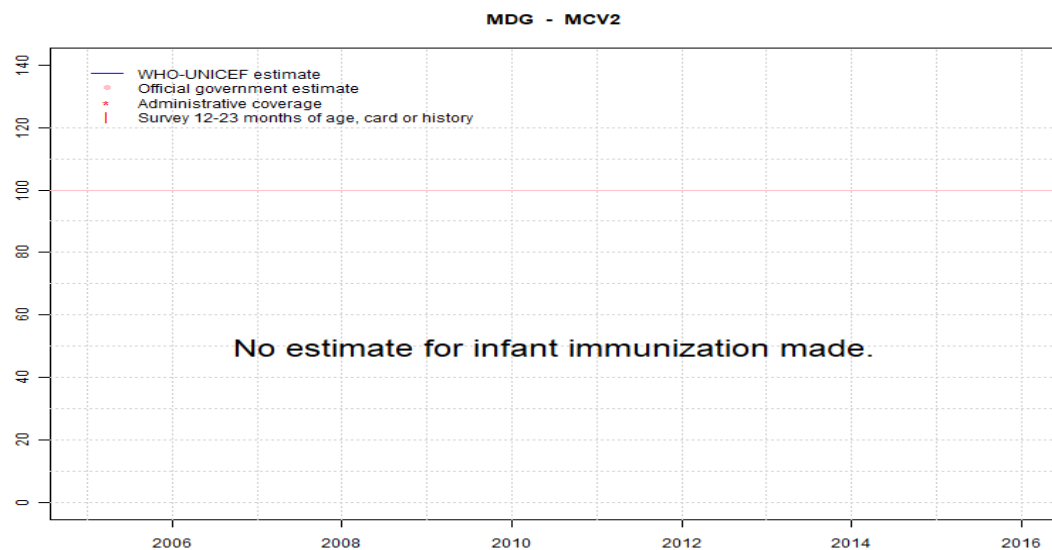
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

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

Description:

- 2016: Reported data calibrated to 2011 levels. Reported data excluded due to unexplained sudden change in coverage from 81 level to 97 percent. WHO and UNICEF encourage continued efforts to improve the administrative recording and reporting system. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 62 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2008 and 2011 levels. Madagascar Immunization Coverage Evaluation, 2011 results ignored by working group. Survey results remain preliminary. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2008 and 2011 levels. Estimate challenged by: D-R-S-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 70 percent based on 1 survey(s). Estimate challenged by: D-R-S-
- 2007: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 81 percent based on 1 survey(s). Estimate challenged by: R-S-
- 2006: Reported data calibrated to 2002 and 2007 levels. Estimate challenged by: R-
- 2005: Reported data calibrated to 2002 and 2007 levels. Estimate challenged by: R-

Madagascar - MCV2



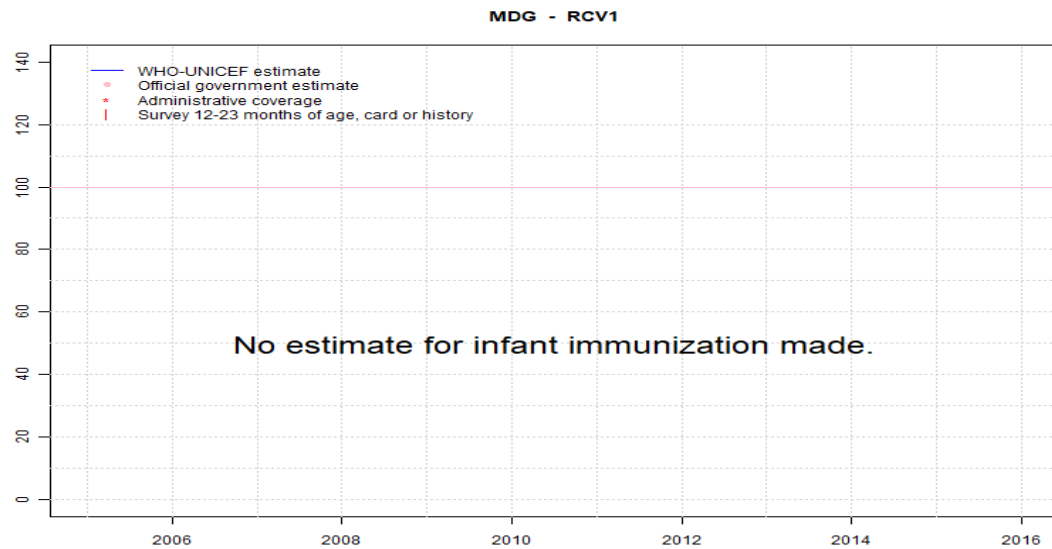
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

Madagascar - RCV1



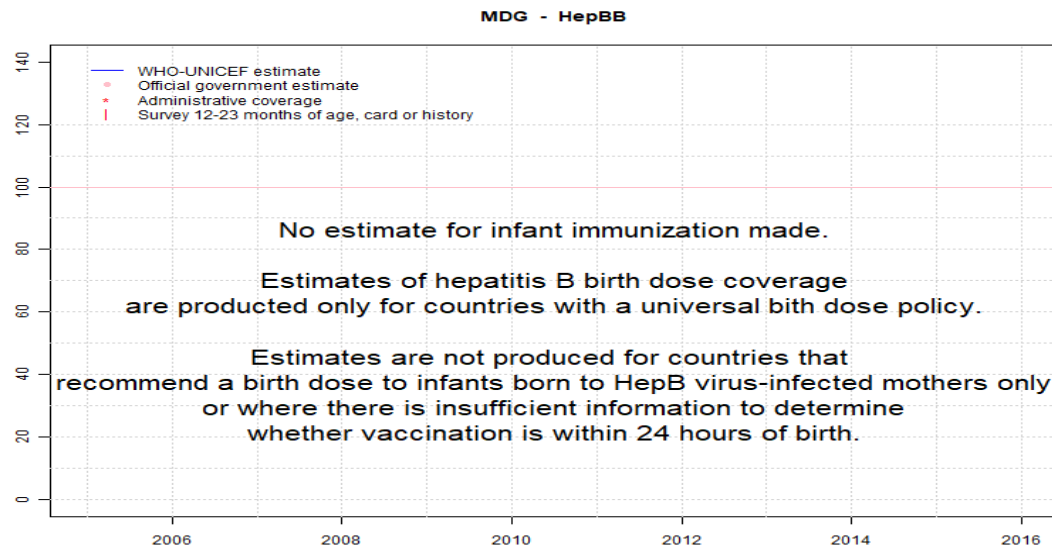
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

- 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.

Madagascar - 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

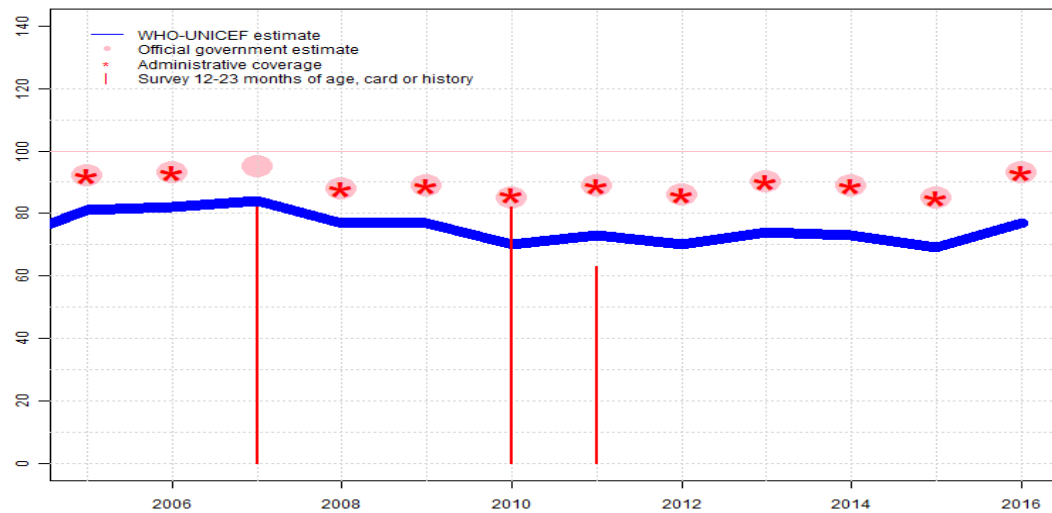
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Madagascar - HepB3

MDG - HepB3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	81	82	84	77	77	70	73	70	74	73	69	77
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	92	93	95	88	89	85	89	86	90	89	85	93
Administrative	92	93	NA	88	89	86	89	86	90	89	85	93
Survey	NA	NA	82	NA	NA	82	63	NA	NA	NA	NA	NA

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

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

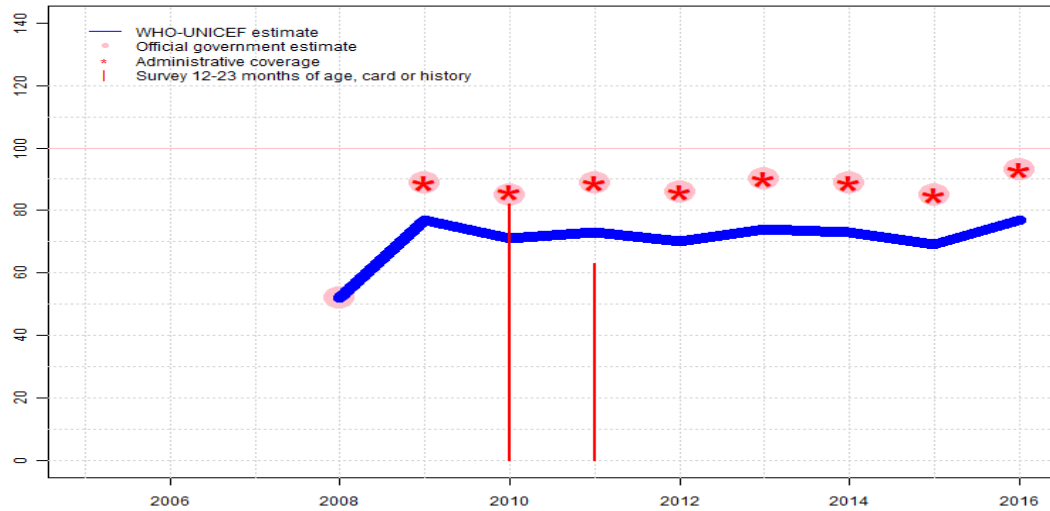
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2011 levels. WHO and UNICEF encourage continued efforts to improve the administrative recording and reporting system. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). National Monitoring of the Millennium Development Goals Survey in Madagascar; ENSOMD 2012-2013 card or history results of 63 percent modified for recall bias to 73 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 45 percent and 3d dose card only coverage of 41 percent. Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2008 and 2011 levels. Madagascar Immunization Coverage Evaluation, 2011 results ignored by working group. Survey results remain preliminary. Madagascar Immunization Coverage Evaluation, 2011 card or history results of 82 percent modified for recall bias to 83 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 53 percent and 3d dose card only coverage of 48 percent. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2008 and 2011 levels. Estimate challenged by: D-R-
- 2008: Estimate of 77 percent assigned by working group. Estimate follows DTP3 levels. Estimate challenged by: R-
- 2007: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 84 percent based on 1 survey(s). Madagascar Immunization Coverage Survey 2008 card or history results of 82 percent modified for recall bias to 84 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 67 percent and 3d dose card only coverage of 61 percent. Estimate challenged by: R-
- 2006: Reported data calibrated to 2007 levels. Estimate challenged by: R-
- 2005: Reported data calibrated to 2007 levels. Estimate challenged by: R-

Madagascar - Hib3

MDG - Hib3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	52	77	71	73	70	74	73	69	77
Estimate GoC	NA	NA	NA	•	•	•	•	•	•	•	•	•
Official	NA	NA	NA	52	89	85	89	86	90	89	85	93
Administrative	NA	NA	NA	NA	89	86	89	86	90	89	85	93
Survey	NA	NA	NA	NA	NA	82	63	NA	NA	NA	NA	NA

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

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

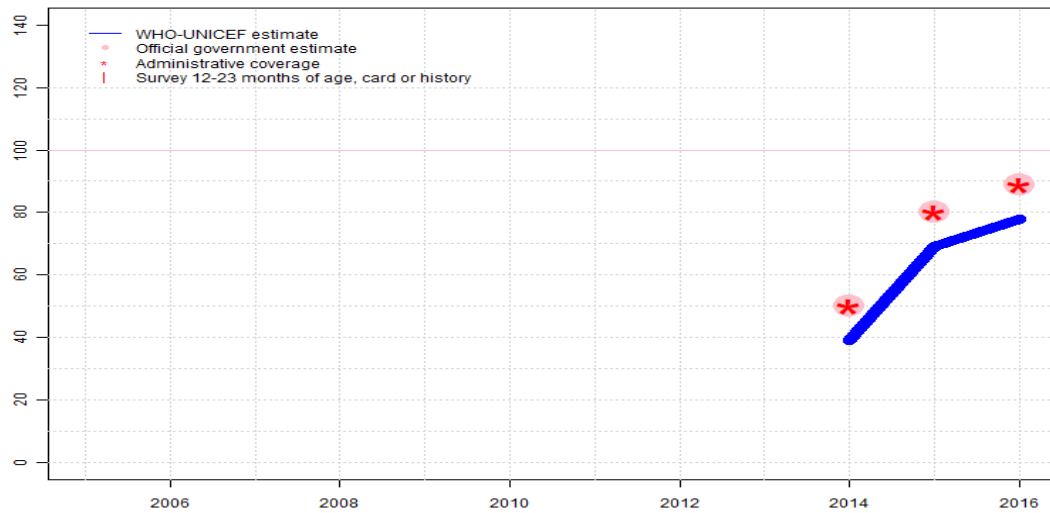
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2011 levels. WHO and UNICEF encourage continued efforts to improve the administrative recording and reporting system. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). National Monitoring of the Millenium Development Goals Survey in Madagascar; ENSOMD 2012-2013 card or history results of 63 percent modified for recall bias to 73 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 45 percent and 3d dose card only coverage of 41 percent. Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2009 and 2011 levels. Madagascar Immunization Coverage Evaluation, 2011 results ignored by working group. Survey results remain preliminary. Madagascar Immunization Coverage Evaluation, 2011 card or history results of 82 percent modified for recall bias to 83 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 53 percent and 3d dose card only coverage of 48 percent. Estimate challenged by: D-R-
- 2009: Estimate of 77 percent assigned by working group. Estimate follows DTP3 levels. Estimate challenged by: D-R-
- 2008: . Hib vaccine introduced in 2008 Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-

Madagascar - RotaC

MDG - RotaC



Description:

- 2016: Reported data calibrated to 2015 levels. WHO and UNICEF encourage continued efforts to improve the administrative recording and reporting system. Estimate challenged by: D-R-
- 2015: Estimate of 69 percent assigned by working group. Estimate based on DTP3 level. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2015 levels. Rotavirus vaccine introduced during May 2014. GoC=Assigned by working group. Consistency with other vaccines.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	39	69	78
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	80	89
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	80	89
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

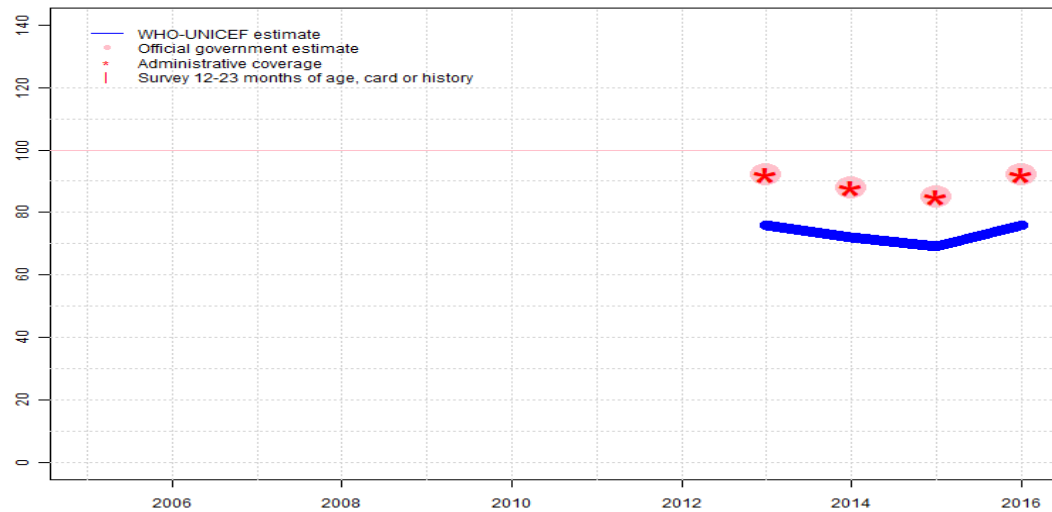
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Madagascar - PcV3

MDG - PcV3



Description:

- 2016: Reported data calibrated to 2013 levels. WHO and UNICEF encourage continued efforts to improve the administrative recording and reporting system. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2013 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 levels. Estimate challenged by: D-R-
- 2013: Estimate of 76 percent assigned by working group. Estimate is based on calibrated DTP3 level. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. PcV vaccine introduced in 2012, reporting began in 2013. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	76	72	69	76
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	●	●	●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	92	88	85	92
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	92	88	85	92
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.

Madagascar - survey details

2011 Enquete Nationale sur le Suivi des Objectifs du Millenaire pour le Development a Madagascar, ENSOMD 2012-2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	42	12-23 m	977	46
BCG	Card <12 months	80	12-23 m	977	46
BCG	Card or History	74	12-23 m	2125	46
BCG	History	32	12-23 m	1148	46
DTP1	Card	45	12-23 m	977	46
DTP1	Card <12 months	98	12-23 m	977	46
DTP1	Card or History	80	12-23 m	2125	46
DTP1	History	35	12-23 m	1148	46
DTP3	Card	41	12-23 m	977	46
DTP3	Card <12 months	98	12-23 m	977	46
DTP3	Card or History	63	12-23 m	2125	46
DTP3	History	22	12-23 m	1148	46
HepB1	Card	45	12-23 m	977	46
HepB1	Card <12 months	98	12-23 m	977	46
HepB1	Card or History	80	12-23 m	2125	46
HepB1	History	35	12-23 m	1148	46
HepB3	Card	41	12-23 m	977	46
HepB3	Card <12 months	98	12-23 m	977	46
HepB3	Card or History	63	12-23 m	2125	46
HepB3	History	22	12-23 m	1148	46
Hib1	Card	45	12-23 m	977	46
Hib1	Card <12 months	98	12-23 m	977	46
Hib1	Card or History	80	12-23 m	2125	46
Hib1	History	35	12-23 m	1148	46
Hib3	Card	41	12-23 m	977	46
Hib3	Card <12 months	98	12-23 m	977	46
Hib3	Card or History	63	12-23 m	2125	46
Hib3	History	22	12-23 m	1148	46
MCV1	Card	38	12-23 m	977	46
MCV1	Card <12 months	89	12-23 m	977	46
MCV1	Card or History	62	12-23 m	2125	46
MCV1	History	24	12-23 m	1148	46
Pol1	Card	45	12-23 m	977	46
Pol1	Card <12 months	98	12-23 m	977	46
Pol1	Card or History	80	12-23 m	2125	46

Pol1	History	35	12-23 m	1148	46
Pol3	Card	41	12-23 m	977	46
Pol3	Card <12 months	97	12-23 m	977	46
Pol3	Card or History	63	12-23 m	2125	46
Pol3	History	22	12-23 m	1148	46

2010 Evaluation de la couverture vaccinale, Madagascar, 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	74	12-23 m	12848	56
BCG	Card or History	76	12-23 m	12848	56
BCG	Scar	70	12-23 m	12848	56
DTP1	Card	53	12-23 m	12848	56
DTP1	Card or History	92	12-23 m	12848	56
DTP3	Card	48	12-23 m	12848	56
DTP3	Card or History	82	12-23 m	12848	56
HepB1	Card	53	12-23 m	12848	56
HepB1	Card or History	92	12-23 m	12848	56
HepB3	Card	48	12-23 m	12848	56
HepB3	Card or History	82	12-23 m	12848	56
Hib1	Card	53	12-23 m	12848	56
Hib1	Card or History	92	12-23 m	12848	56
Hib3	Card	48	12-23 m	12848	56
Hib3	Card or History	82	12-23 m	12848	56
MCV1	Card	42	12-23 m	12848	56
MCV1	Card or History	73	12-23 m	12848	56
Pol1	Card	52	12-23 m	12848	56
Pol1	Card or History	89	12-23 m	12848	56
Pol3	Card	47	12-23 m	12848	56
Pol3	Card or History	80	12-23 m	12848	56

2008 Enquête Démographique et de Santé Madagascar 2008-2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	82	12-23 m	2309	60
BCG	Card	58	12-23 m	2309	60
BCG	Card or History	83	12-23 m	2309	60

Madagascar - survey details

BCG	History	25	12-23 m	2309	60
DTP1	C or H <12 months	84	12-23 m	2309	60
DTP1	Card	60	12-23 m	2309	60
DTP1	Card or History	84	12-23 m	2309	60
DTP1	History	24	12-23 m	2309	60
DTP3	C or H <12 months	71	12-23 m	2309	60
DTP3	Card	55	12-23 m	2309	60
DTP3	Card or History	73	12-23 m	2309	60
DTP3	History	18	12-23 m	2309	60
MCV1	C or H <12 months	62	12-23 m	2309	60
MCV1	Card	51	12-23 m	2309	60
MCV1	Card or History	70	12-23 m	2309	60
MCV1	History	19	12-23 m	2309	60
Pol1	C or H <12 months	84	12-23 m	2309	60
Pol1	Card	60	12-23 m	2309	60
Pol1	Card or History	84	12-23 m	2309	60
Pol1	History	24	12-23 m	2309	60
Pol3	C or H <12 months	68	12-23 m	2309	60
Pol3	Card	55	12-23 m	2309	60
Pol3	Card or History	70	12-23 m	2309	60
Pol3	History	15	12-23 m	2309	60

2007 Enquête sur la couverture vaccinale à Madagascar 2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	86	12-23 m	6632	72
BCG	Card or History	94	12-23 m	6632	72
BCG	History	9	12-23 m	6632	72
DTP1	Card	67	12-23 m	6632	72
DTP1	Card or History	92	12-23 m	6632	72
DTP1	History	25	12-23 m	6632	72
DTP3	Card	61	12-23 m	6632	72
DTP3	Card or History	82	12-23 m	6632	72
DTP3	History	21	12-23 m	6632	72
HepB1	Card	67	12-23 m	6632	72
HepB1	Card or History	92	12-23 m	6632	72
HepB1	History	25	12-23 m	6632	72
HepB3	Card	61	12-23 m	6632	72
HepB3	Card or History	82	12-23 m	6632	72

HepB3	History	21	12-23 m	6632	72
MCV1	Card	61	12-23 m	6632	72
MCV1	Card or History	81	12-23 m	6632	72
MCV1	History	20	12-23 m	6632	72
Pol1	Card	65	12-23 m	6632	72
Pol1	Card or History	90	12-23 m	6632	72
Pol1	History	25	12-23 m	6632	72
Pol3	Card	60	12-23 m	6632	72
Pol3	Card or History	81	12-23 m	6632	72
Pol3	History	21	12-23 m	6632	72

2002 République de Madagascar Enquête Démographique et de Santé 2003-2004

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	69	12-23 m	1287	50
BCG	Card	48	12-23 m	1287	50
BCG	Card or history	72	12-23 m	1287	50
BCG	History	24	12-23 m	1287	50
DTP1	C or H <12 months	69	12-23 m	1287	50
DTP1	Card	48	12-23 m	1287	50
DTP1	Card or history	71	12-23 m	1287	50
DTP1	History	24	12-23 m	1287	50
DTP3	C or H <12 months	58	12-23 m	1287	50
DTP3	Card	43	12-23 m	1287	50
DTP3	Card or history	61	12-23 m	1287	50
DTP3	History	19	12-23 m	1287	50
MCV1	C or H <12 months	52	12-23 m	1287	50
MCV1	Card	42	12-23 m	1287	50
MCV1	Card or history	59	12-23 m	1287	50
MCV1	History	17	12-23 m	1287	50
Pol1	C or H <12 months	75	12-23 m	1287	50
Pol1	Card	49	12-23 m	1287	50
Pol1	Card or history	77	12-23 m	1287	50
Pol1	History	28	12-23 m	1287	50
Pol3	C or H <12 months	60	12-23 m	1287	50
Pol3	Card	44	12-23 m	1287	50
Pol3	Card or history	63	12-23 m	1287	50
Pol3	History	19	12-23 m	1287	50

Madagascar - survey details

1999 Madagascar MICS 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	45	12-23 m	-	48
BCG	Card <12 months	42	12-23 m	-	48
BCG	Card or History	72	12-23 m	-	48
BCG	History	26	12-23 m	-	48
DTP1	Card	47	12-23 m	-	48
DTP1	Card <12 months	44	12-23 m	-	48
DTP1	Card or History	73	12-23 m	-	48
DTP1	History	26	12-23 m	-	48
DTP3	Card	40	12-23 m	-	48
DTP3	Card <12 months	37	12-23 m	-	48
DTP3	Card or History	55	12-23 m	-	48
DTP3	History	15	12-23 m	-	48
MCV1	Card	37	12-23 m	-	48
MCV1	Card <12 months	29	12-23 m	-	48
MCV1	Card or History	55	12-23 m	-	48

MCV1	History	18	12-23 m	-	48
Pol1	Card	48	12-23 m	-	48
Pol1	Card <12 months	44	12-23 m	-	48
Pol1	Card or History	84	12-23 m	-	48
Pol1	History	37	12-23 m	-	48
Pol3	Card	40	12-23 m	-	48
Pol3	Card <12 months	37	12-23 m	-	48
Pol3	Card or History	58	12-23 m	-	48
Pol3	History	17	12-23 m	-	48

1998 Madagascar EPM 1999

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	70	12-23 m	-	-
DTP3	Card or History	63	12-23 m	-	-
MCV1	Card or History	44	12-23 m	-	-
Pol3	Card or History	58	12-23 m	-	-

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