

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.

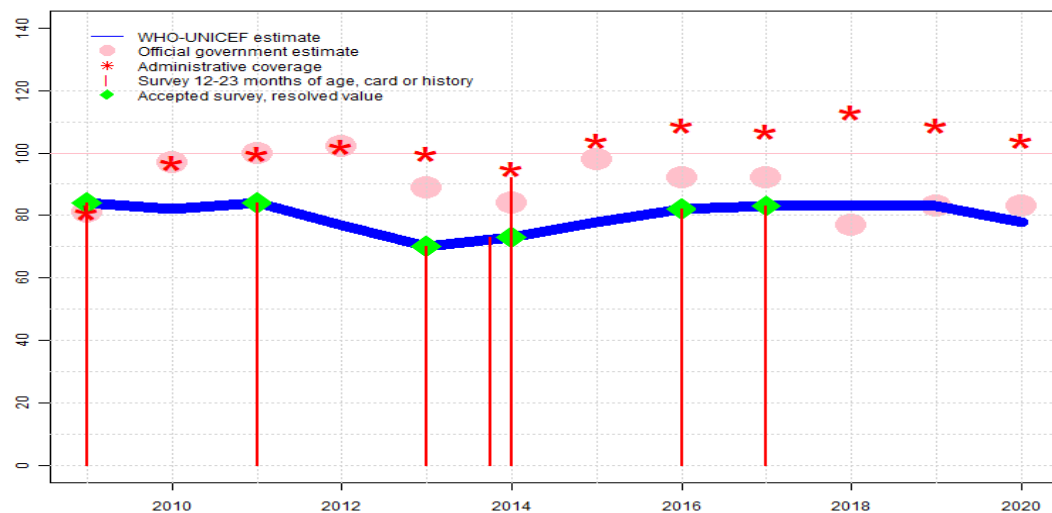
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

MLI - BCG



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 84 | 82 | 84 | 77 | 70 | 73 | 78 | 82 | 83 | 83 | 83 | 78 |
| Estimate GoC | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Official | 81 | 97 | 100 | 102 | 89 | 84 | 98 | 92 | 92 | 77 | 83 | 83 |
| Administrative | 81 | 97 | 100 | 102 | 100 | 95 | 104 | 109 | 107 | 113 | 109 | 104 |
| Survey | 84 | NA | 84 | NA | 70 | * | NA | 82 | 83 | 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: 2020 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:

- 2020: Estimate exceptionally based on the difference between administrative coverage 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Programme reports a national and subnational level vaccine stock-out of less than a month. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 levels. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 levels. Reported data excluded. . Estimate challenged by: D-R-
- 2017: Estimate of 83 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-
- 2016: Estimate of 82 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Expanded Programme of Immunization External Review, 2016 results ignored by working group. Coverage by card is higher than cards seen and other inconsistencies such as coverage with final doses higher than earlier doses in the series. Also, EPI survey results inconsistent with MICS for the same cohort and previous surveys. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-
- 2013: 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-
- 2012: Estimate based on interpolation between 2011 and 2013 levels. Estimates based on survey results. Reported data excluded because 102 percent greater than 100 percent. Estimate challenged by: D-R-
- 2011: 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-S-

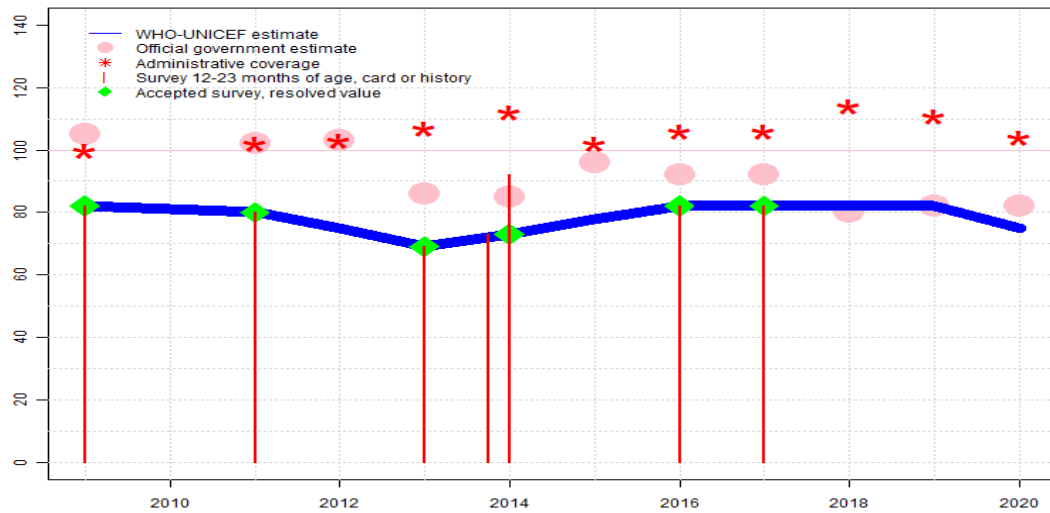
Mali - BCG

2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-R-

2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 84 percent based on 1 survey(s). Reported data excluded due to decline in reported coverage from 112 percent to 81 percent with increase to 97 percent. Decline in 2009 due to an increase the denominator issued by du Recensement General de la Population et de l Habitat in 2009. Estimate challenged by: R-

Mali - DTP1

MLI - DTP1



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 82 | 81 | 80 | 75 | 69 | 73 | 78 | 82 | 82 | 82 | 82 | 75 |
| Estimate GoC | • | •• | • | • | • | • | • | • | • | • | • | • |
| Official | 105 | NA | 102 | 103 | 86 | 85 | 96 | 92 | 92 | 80 | 82 | 82 |
| Administrative | 100 | NA | 102 | 103 | 107 | 112 | 102 | 106 | 106 | 114 | 111 | 104 |
| Survey | 82 | NA | 80 | NA | 69 | * | NA | 82 | 82 | 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: 2020 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:

- 2020: Estimate exceptionally based on the difference between administrative coverage 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 levels. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 levels. Reported data excluded. . Estimate challenged by: D-R-
- 2017: Estimate of 82 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-
- 2016: Estimate of 82 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Programme reports one month vaccine stock out. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Expanded Programme of Immunization External Review, 2016 results ignored by working group. Coverage by card is higher than cards seen and other inconsistencies such as coverage with final doses higher than earlier doses in the series. Also, EPI survey results inconsistent with MICS for the same cohort and previous surveys. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-
- 2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 69 percent based on 1 survey(s). Estimate challenged by: D-R-S-
- 2012: Estimate based on interpolation between 2011 and 2013 levels. Estimates based on survey results. Reported data excluded because 103 percent greater than 100 percent. Estimate challenged by: D-R-
- 2011: Estimate of 80 percent assigned by working group. Estimate based on survey results. Reported data excluded because 102 percent greater than 100 percent. Estimate challenged by: D-R-S-

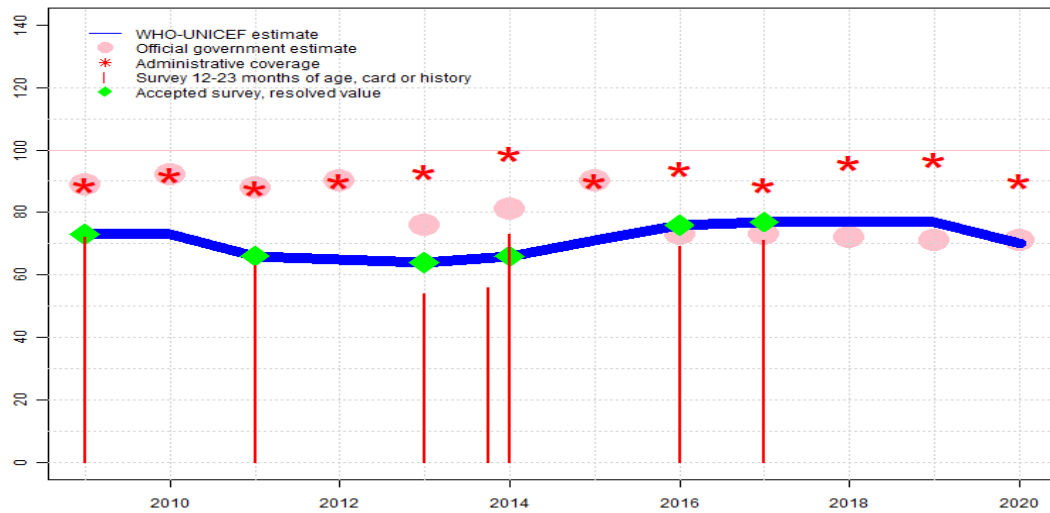
Mali - DTP1

2010: Reported data calibrated to 2009 and 2011 levels. GoC=S+

2009: Estimate of 82 percent assigned by working group. Estimate based on survey results.
Reported data excluded because 105 percent greater than 100 percent. Decline in 2009 due to an increase the denominator issued by du Recensement General de la Population et de l Habitat in 2009. Estimate challenged by: D-R-

Mali - DTP3

MLI - DTP3



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 73 | 73 | 66 | 65 | 64 | 66 | 71 | 76 | 77 | 77 | 77 | 70 |
| Estimate GoC | • | • | • | • | • | • | • | • | • | • | • | • |
| Official | 89 | 92 | 88 | 90 | 76 | 81 | 90 | 73 | 73 | 72 | 71 | 71 |
| Administrative | 89 | 92 | 88 | 90 | 93 | 99 | 90 | 94 | 89 | 96 | 97 | 90 |
| Survey | 72 | NA | 63 | NA | 54 | * | NA | 69 | 71 | 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: 2020 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:

2020: Estimate exceptionally based on the difference between administrative coverage 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Estimate challenged by: D-R-

2019: Reported data calibrated to 2017 levels. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-

2018: Reported data calibrated to 2017 levels. Reported data excluded. . Estimate challenged by: D-R-

2017: Estimate of 77 percent assigned by working group. Estimate is based on survey result. Mali Demographic and Health Survey 2018 card or history results of 71 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 54 percent and 3rd dose card only coverage of 51 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-

2016: Estimate is based on survey result. Mali Demographic and Health Survey 2018 card or history results of 69 percent modified for recall bias to 76 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 43 percent and 3rd dose card only coverage of 40 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Programme reports one month vaccine stock out. Estimate challenged by: D-

2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-

2014: Estimate of 66 percent assigned by working group. Estimate based on survey results. Expanded Programme of Immunization External Review, 2016 results ignored by working group. Coverage by card is higher than cards seen and other inconsistencies such as coverage with final doses higher than earlier doses in the series. Also, EPI survey results inconsistent with MICS for the same cohort and previous surveys. Mali Multiple Indicator Cluster Survey 2015 card or history results of 56 percent modified for recall bias to 66 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 41 percent and 3rd dose card only coverage of 37 percent. Expanded Programme of Immunization External Review, 2016 card or history results of 73 percent

modified for recall bias to 99 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 36 percent and 3rd dose card only coverage of 45 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 64 percent based on 1 survey(s). Mali Multiple Indicator Cluster Survey 2015 card or history results of 54 percent modified for recall bias to 64 percent based on 1st dose card or history coverage of 69 percent, 1st dose card only coverage of 29 percent and 3rd dose card only coverage of 27 percent. Estimate challenged by: D-R-

2012: Estimate based on interpolation between 2011 and 2013 levels. Estimates based on survey results. Estimate challenged by: D-R-

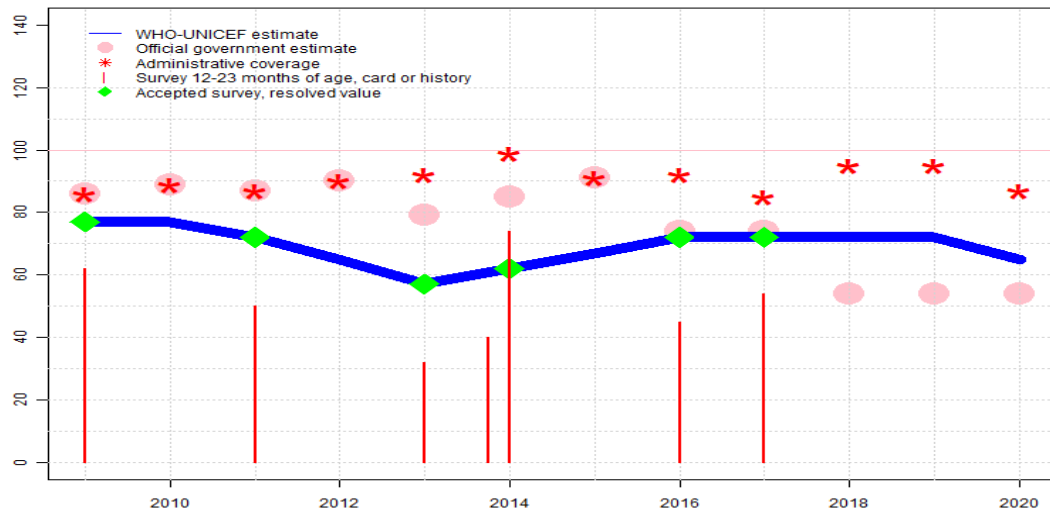
2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Mali Demographic and Health Survey 2012-13 card or history results of 63 percent modified for recall bias to 66 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 35 percent and 3rd dose card only coverage of 29 percent. Estimate challenged by: D-R-

2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-R-

2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Mali Multiple Indicator Cluster Survey 2010 card or history results of 72 percent modified for recall bias to 73 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 55 percent and 3rd dose card only coverage of 49 percent. Decline in 2009 due to an increase the denominator issued by du Recensement General de la Population et de l Habitat in 2009. Estimate challenged by: R-

Mali - Pol3

MLI - Pol3



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 77 | 77 | 72 | 65 | 57 | 62 | 67 | 72 | 72 | 72 | 72 | 65 |
| Estimate GoC | • | • | • | • | • | • | • | • | • | • | • | • |
| Official | 86 | 89 | 87 | 90 | 79 | 85 | 91 | 74 | 74 | 54 | 54 | 54 |
| Administrative | 86 | 89 | 87 | 90 | 92 | 99 | 91 | 92 | 85 | 95 | 95 | 87 |
| Survey | 62 | NA | 50 | NA | 32 | * | NA | 45 | 54 | 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: 2020 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:

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2019: Reported data calibrated to 2017 levels. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-

2018: Reported data calibrated to 2017 levels. Reported data excluded. . Estimate challenged by: D-R-

2017: Estimate of 72 percent assigned by working group. Estimate is based on survey result. Mali Demographic and Health Survey 2018 card or history results of 54 percent modified for recall bias to 72 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 54 percent and 3rd dose card only coverage of 50 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-

2016: Estimate of 72 percent assigned by working group. Estimate is based on survey result. Mali Demographic and Health Survey 2018 card or history results of 45 percent modified for recall bias to 72 percent based on 1st dose card or history coverage of 77 percent, 1st dose card only coverage of 43 percent and 3rd dose card only coverage of 40 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-

2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 62 percent based on 1 survey(s). Expanded Programme of Immunization External Review, 2016 results ignored by working group. Coverage by card is higher than cards seen and other inconsistencies such as coverage with final doses higher than earlier doses in the series. Also, EPI survey results inconsistent with MICS for the same cohort and previous surveys. Mali Multiple Indicator Cluster Survey 2015 card or history results of 40 percent modified for recall bias to 62 percent based on 1st dose card or history coverage of 69 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 36 percent. Expanded Programme of Immunization External Review, 2016

card or history results of 74 percent modified for recall bias to 99 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 36 percent and 3rd dose card only coverage of 45 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 57 percent based on 1 survey(s). Mali Multiple Indicator Cluster Survey 2015 card or history results of 32 percent modified for recall bias to 57 percent based on 1st dose card or history coverage of 64 percent, 1st dose card only coverage of 29 percent and 3rd dose card only coverage of 26 percent. Estimate challenged by: D-R-S-

2012: Estimate based on interpolation between 2011 and 2013 levels. Estimates based on survey results. Estimate challenged by: D-R-

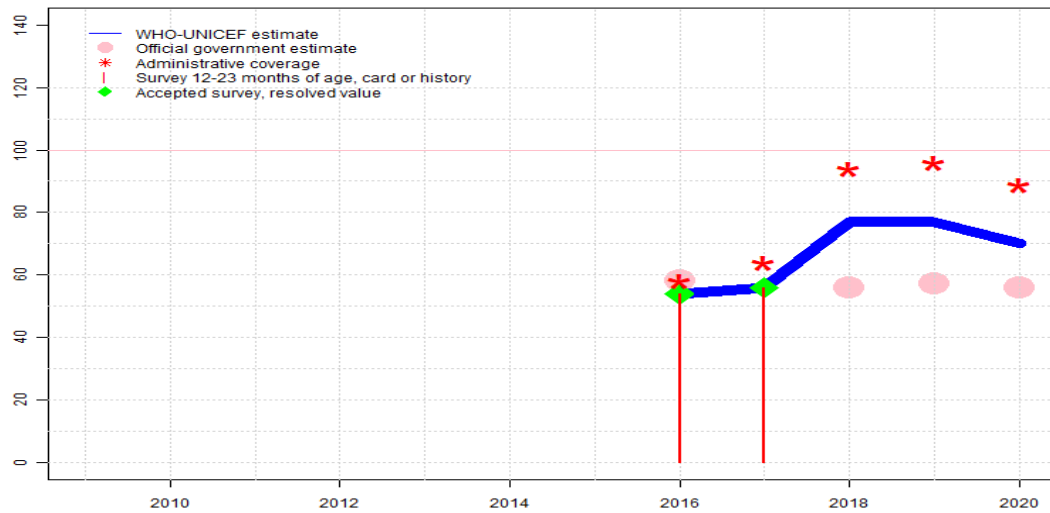
2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 72 percent based on 1 survey(s). Mali Demographic and Health Survey 2012-13 card or history results of 50 percent modified for recall bias to 72 percent based on 1st dose card or history coverage of 84 percent, 1st dose card only coverage of 35 percent and 3rd dose card only coverage of 30 percent. Estimate challenged by: D-R-S-

2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: R-

2009: Estimate of 77 percent assigned by working group. Estimate based on survey results. Results for other vaccines do not support reported data. Mali Multiple Indicator Cluster Survey 2010 card or history results of 62 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 85 percent, 1st dose card only coverage of 54 percent and 3rd dose card only coverage of 49 percent. Decline in 2009 due to an increase the denominator issued by du Recensement General de la Population et de l Habitat in 2009. Estimate challenged by: R-

Mali - IPV1

MLI - IPV1



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | NA | NA | NA | NA | NA | NA | NA | 54 | 56 | 77 | 77 | 70 |
| Estimate GoC | NA | NA | NA | NA | NA | NA | NA | • | • | • | • | • |
| Official | NA | NA | NA | NA | NA | NA | NA | 58 | NA | 56 | 57 | 56 |
| Administrative | NA | NA | NA | NA | NA | NA | NA | 58 | 64 | 94 | 96 | 89 |
| Survey | NA | NA | NA | NA | NA | NA | NA | 54 | 56 | 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: 2020 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:

Estimates for a dose of inactivated polio vaccine (IPV) begin in 2015 following the Global Polio Eradication Initiative's Polio Eradication and Endgame Strategic Plan: 2013-2018 which recommended at least one full dose or two fractional doses of IPV into routine immunization schedules as a strategy to mitigate the potential consequences should any re-emergence of type 2 poliovirus occur following the planned withdrawal of Sabin type 2 strains from oral polio vaccine (OPV).

2020: Estimate exceptionally based on the difference between administrative coverage 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Estimate challenged by: D-R-

2019: Estimate based on estimated DTP3 coverage. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-S-

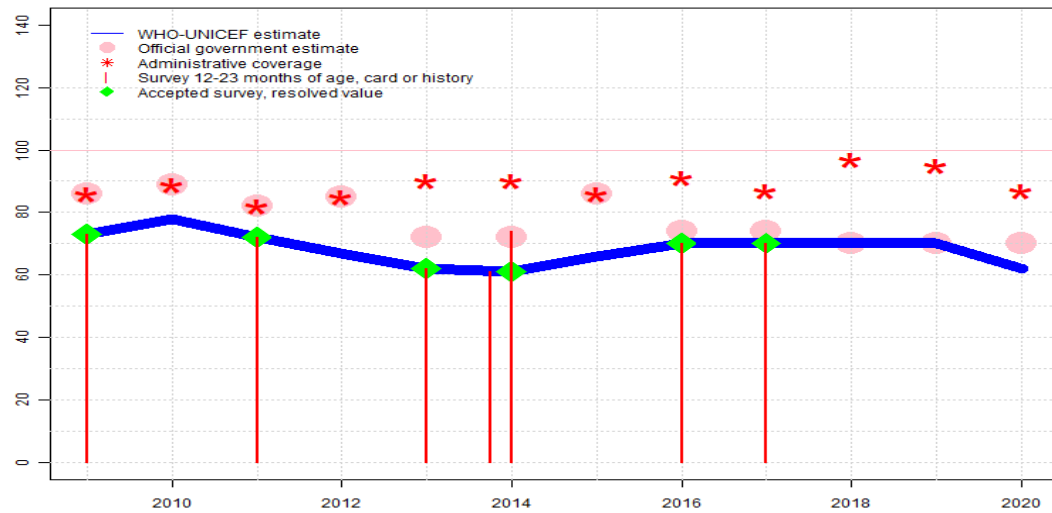
2018: Estimate based on estimated DTP3 coverage. Reported data excluded. . Estimate challenged by: D-R-S-

2017: Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Programme reports stock-out of IPV of unclear duration. Estimate challenged by: D-R-

2016: Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

Mali - MCV1

MLI - MCV1



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 73 | 78 | 72 | 67 | 62 | 61 | 66 | 70 | 70 | 70 | 70 | 62 |
| Estimate GoC | • | • | • | • | • | • | • | • | • | • | • | • |
| Official | 86 | 89 | 82 | 85 | 72 | 72 | 86 | 74 | 74 | 70 | 70 | 70 |
| Administrative | 86 | 89 | 82 | 85 | 90 | 90 | 86 | 91 | 87 | 97 | 95 | 87 |
| Survey | 73 | NA | 72 | NA | 62 | * | NA | 70 | 70 | 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: 2020 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:

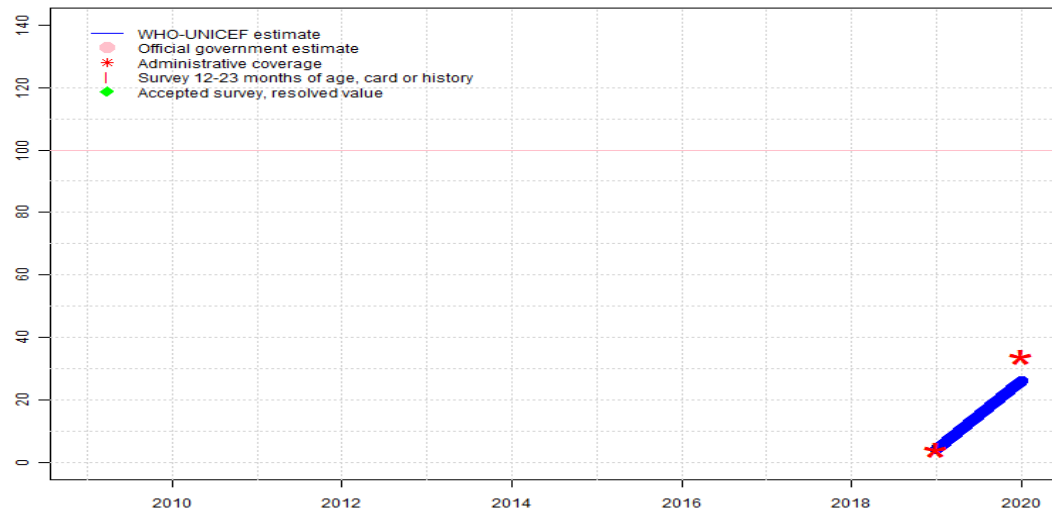
- 2020: Estimate exceptionally based on the difference between administrative coverage 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 levels. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 levels. Reported data excluded. . Estimate challenged by: D-R-
- 2017: Estimate of 70 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-
- 2016: Estimate of 70 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Reported data excluded due to an increase from 72 percent to 86 percent with decrease 74 percent. Estimate challenged by: D-R-
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 61 percent based on 1 survey(s). Expanded Programme of Immunization External Review, 2016 results ignored by working group. Coverage by card is higher than cards seen and other inconsistencies such as coverage with final doses higher than earlier doses in the series. Also, EPI survey results inconsistent with MICS for the same cohort and previous surveys. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-
- 2013: Estimate of 62 percent assigned by working group. Estimate based on survey results. Estimate challenged by: D-R-
- 2012: Estimate based on interpolation between 2011 and 2013 levels. Estimates based on survey results. Estimate challenged by: D-R-
- 2011: Estimate of 72 percent assigned by working group. Estimate is based on survey. Estimate challenged by: R-
- 2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: R-

Mali - MCV1

2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Decline in 2009 due to an increase the denominator issued by du Recensement General de la Population et de l Habitat in 2009. Estimate challenged by: R-

Mali - MCV2

MLI - MCV2



Description:

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

2020: Estimate exceptionally based on reported coverage. 34 percent reported for 75 of the target population of surviving infants. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Reported data excluded due to sudden change in coverage from 4 level to 34 percent. Estimate challenged by: R-

2019: Estimate based on reported administrative estimate. Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Second dose of measles containing vaccine introduced during December 2019. GoC=Assigned by working group. Consistency across vaccines.

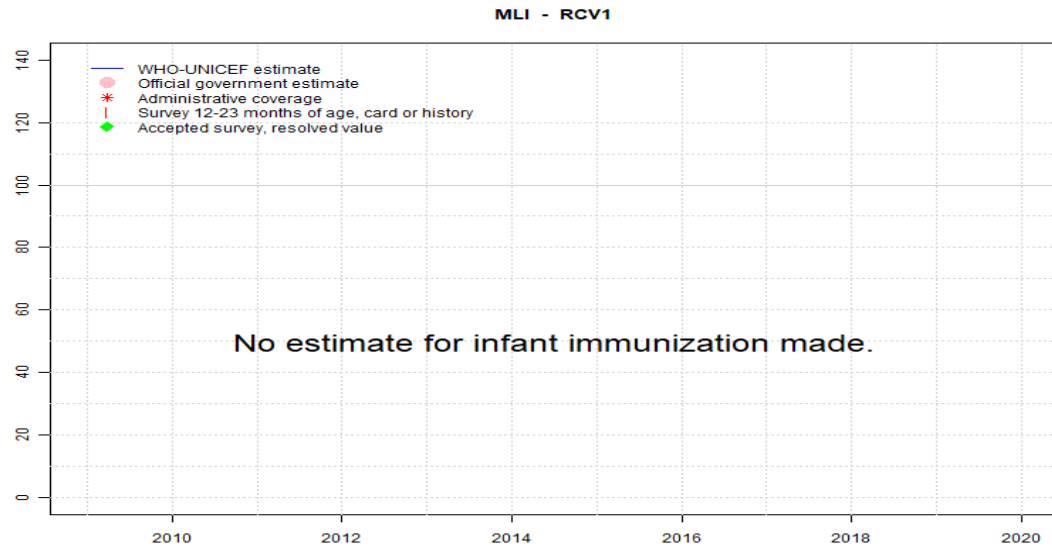
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 4 | 26 |
| Estimate GoC | NA | NA | NA | NA | NA | 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 | 4 | 34 |
| 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: 2020 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.

Mali - RCV1



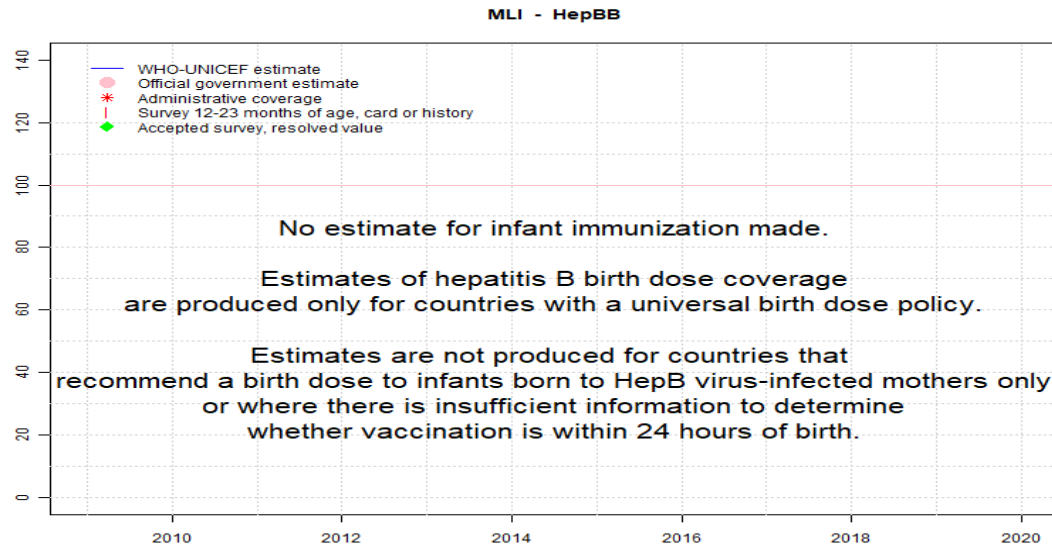
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Estimate GoC | NA | NA | NA | NA | 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: 2020 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.

Mali - HepBB



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 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 |

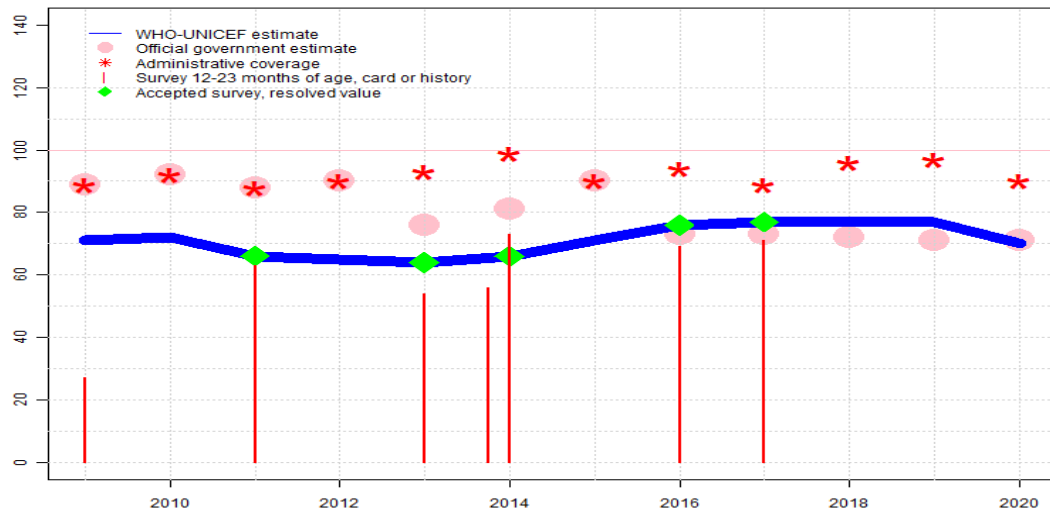
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2020 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.

Mali - HepB3

MLI - HepB3



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 71 | 72 | 66 | 65 | 64 | 66 | 71 | 76 | 77 | 77 | 77 | 70 |
| Estimate GoC | • | • | • | • | • | • | • | • | • | • | • | • |
| Official | 89 | 92 | 88 | 90 | 76 | 81 | 90 | 73 | 73 | 72 | 71 | 71 |
| Administrative | 89 | 92 | 88 | 90 | 93 | 99 | 90 | 94 | 89 | 96 | 97 | 90 |
| Survey | 27 | NA | 63 | NA | 54 | * | NA | 69 | 71 | 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: 2020 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:

2020: Estimate exceptionally based on the difference between administrative coverage 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Estimate challenged by: D-R-

2019: Reported data calibrated to 2017 levels. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-

2018: Reported data calibrated to 2017 levels. Reported data excluded. . Estimate challenged by: D-R-

2017: Estimate of 77 percent assigned by working group. Estimate is based on survey result. Mali Demographic and Health Survey 2018 card or history results of 71 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 54 percent and 3rd dose card only coverage of 51 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-

2016: Estimate is based on survey result. Mali Demographic and Health Survey 2018 card or history results of 69 percent modified for recall bias to 76 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 43 percent and 3rd dose card only coverage of 40 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Programme reports one month vaccine stock out. Estimate challenged by: D-

2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-

2014: Estimate of 66 percent assigned by working group. Estimate based on survey results. Expanded Programme of Immunization External Review, 2016 results ignored by working group. Coverage by card is higher than cards seen and other inconsistencies such as coverage with final doses higher than earlier doses in the series. Also, EPI survey results inconsistent with MICS for the same cohort and previous surveys. Mali Multiple Indicator Cluster Survey 2015 card or history results of 56 percent modified for recall bias to 66 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 41 percent and 3rd dose card only coverage of 37 percent. Expanded Programme of Immunization External Review, 2016 card or history results of 73 percent

Mali - HepB3

modified for recall bias to 99 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 36 percent and 3rd dose card only coverage of 45 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 64 percent based on 1 survey(s). Mali Multiple Indicator Cluster Survey 2015 card or history results of 54 percent modified for recall bias to 64 percent based on 1st dose card or history coverage of 69 percent, 1st dose card only coverage of 29 percent and 3rd dose card only coverage of 27 percent. Estimate challenged by: D-R-

2012: Estimate based on interpolation between 2011 and 2013 levels. Estimates based on survey results. Estimate challenged by: D-R-

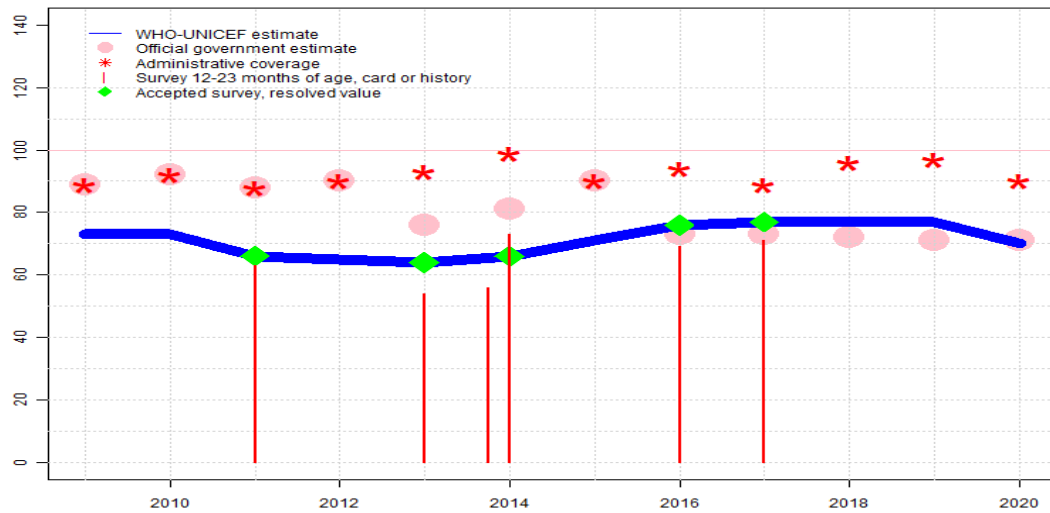
2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Mali Demographic and Health Survey 2012-13 card or history results of 63 percent modified for recall bias to 66 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 35 percent and 3rd dose card only coverage of 29 percent. Estimate challenged by: D-R-

2010: Reported data calibrated to 2008 and 2011 levels. Estimate challenged by: D-R-

2009: Reported data calibrated to 2008 and 2011 levels. Mali Multiple Indicator Cluster Survey 2010 results ignored by working group. Hepatitis b vaccine is offered in a pentavalent DTP-HepB-Hib combination vaccine. Coverage of 27 percent is inconsistent with 72 percent DTP3 coverage. Mali Multiple Indicator Cluster Survey 2010 card or history results of 27 percent modified for recall bias to 46 percent based on 1st dose card or history coverage of 46 percent, 1st dose card only coverage of 23 percent and 3rd dose card only coverage of 23 percent. Decline in 2009 due to an increase the denominator issued by du Recensement General de la Population et de l Habitat in 2009. Estimate challenged by: D-R-

Mali - Hib3

MLI - Hib3



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 73 | 73 | 66 | 65 | 64 | 66 | 71 | 76 | 77 | 77 | 77 | 70 |
| Estimate GoC | • | • | • | • | • | • | • | • | • | • | • | • |
| Official | 89 | 92 | 88 | 90 | 76 | 81 | 90 | 73 | 73 | 72 | 71 | 71 |
| Administrative | 89 | 92 | 88 | 90 | 93 | 99 | 90 | 94 | 89 | 96 | 97 | 90 |
| Survey | NA | NA | 63 | NA | 54 | * | NA | 69 | 71 | 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: 2020 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:

2020: Estimate exceptionally based on the difference between administrative coverage 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Estimate challenged by: D-R-

2019: Reported data calibrated to 2017 levels. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-

2018: Reported data calibrated to 2017 levels. Reported data excluded. . Estimate challenged by: D-R-

2017: Estimate of 77 percent assigned by working group. Estimate is based on survey result. Mali Demographic and Health Survey 2018 card or history results of 71 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 54 percent and 3rd dose card only coverage of 51 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-

2016: Estimate is based on survey result. Mali Demographic and Health Survey 2018 card or history results of 69 percent modified for recall bias to 76 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 43 percent and 3rd dose card only coverage of 40 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Programme reports one month vaccine stock out. Estimate challenged by: D-

2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-

2014: Estimate of 66 percent assigned by working group. Estimate based on survey results. Expanded Programme of Immunization External Review, 2016 results ignored by working group. Coverage by card is higher than cards seen and other inconsistencies such as coverage with final doses higher than earlier doses in the series. Also, EPI survey results inconsistent with MICS for the same cohort and previous surveys. Mali Multiple Indicator Cluster Survey 2015 card or history results of 56 percent modified for recall bias to 66 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 41 percent and 3rd dose card only coverage of 37 percent. Expanded Programme of Immunization External Review, 2016 card or history results of 73 percent

Mali - Hib3

modified for recall bias to 99 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 36 percent and 3rd dose card only coverage of 45 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 64 percent based on 1 survey(s). Mali Multiple Indicator Cluster Survey 2015 card or history results of 54 percent modified for recall bias to 64 percent based on 1st dose card or history coverage of 69 percent, 1st dose card only coverage of 29 percent and 3rd dose card only coverage of 27 percent. Estimate challenged by: D-R-

2012: Estimate based on interpolation between 2011 and 2013 levels. Estimates based on survey results. Estimate challenged by: D-R-

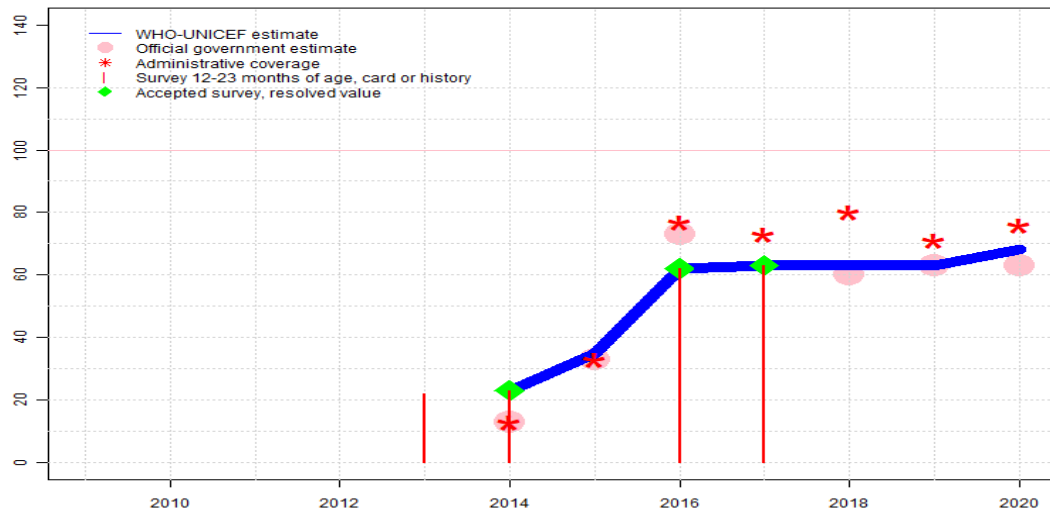
2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Mali Demographic and Health Survey 2012-13 card or history results of 63 percent modified for recall bias to 66 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 35 percent and 3rd dose card only coverage of 29 percent. Estimate challenged by: D-R-

2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-R-

2009: Estimate of 73 percent assigned by working group. Estimate follows DTP3 levels. Decline in 2009 due to an increase the denominator issued by du Recensement General de la Population et de l Habitat in 2009. Estimate challenged by: R-

Mali - RotaC

MLI - RotaC



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | NA | NA | NA | NA | NA | 23 | 35 | 62 | 63 | 63 | 63 | 68 |
| Estimate GoC | NA | NA | NA | NA | NA | • | • | • | • | • | • | • |
| Official | NA | NA | NA | NA | NA | 13 | 33 | 73 | NA | 60 | 63 | 63 |
| Administrative | NA | NA | NA | NA | NA | 13 | 33 | 77 | 73 | 80 | 71 | 76 |
| Survey | NA | NA | NA | NA | 22 | 23 | NA | 62 | 63 | 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: 2020 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.

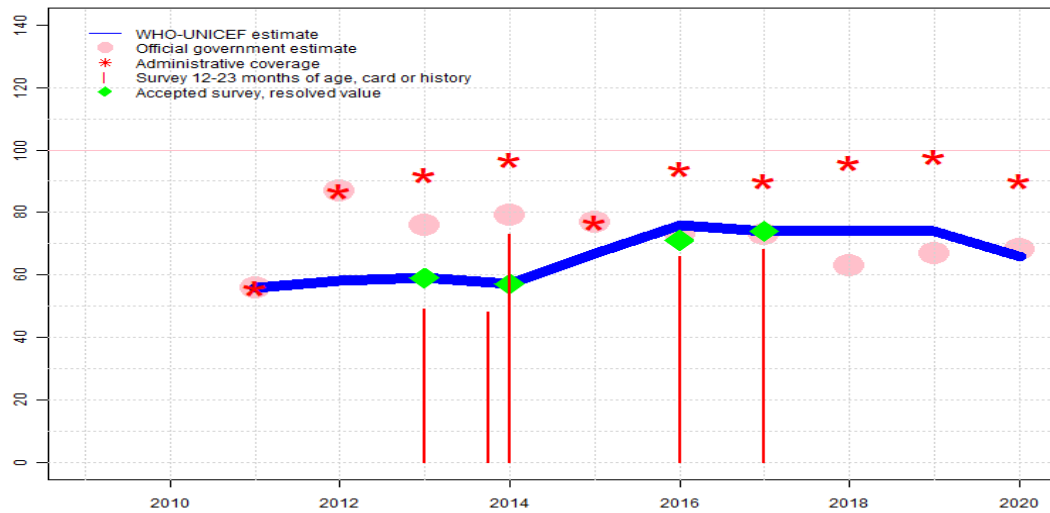
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate exceptionally based on the difference between administrative coverage 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Estimate challenged by: D-R-
- 2019: Estimate is based on survey result. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-
- 2018: Estimate is based on survey result. Reported data excluded. . Estimate challenged by: D-R-
- 2017: Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-
- 2016: Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-S-
- 2015: Estimate based on interpolation between estimate for 2014 and 2017. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2014: Estimate based on survey results. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Rotavirus vaccine was introduced during 2014. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

Mali - PcV3

MLI - PcV3



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | NA | NA | 56 | 58 | 59 | 57 | 67 | 76 | 74 | 74 | 74 | 66 |
| Estimate GoC | NA | NA | •• | • | • | • | • | • | • | • | • | • |
| Official | NA | NA | 56 | 87 | 76 | 79 | 77 | 73 | 73 | 63 | 67 | 68 |
| Administrative | NA | NA | 56 | 87 | 92 | 97 | 77 | 94 | 90 | 96 | 98 | 90 |
| Survey | NA | NA | NA | NA | 49 | * | NA | 66 | 68 | 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: 2020 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:

2020: Estimate exceptionally based on the difference between administrative coverage 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Estimate challenged by: D-R-

2019: Reported data calibrated to 2017 levels. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-

2018: Reported data calibrated to 2017 levels. Reported data excluded. . Estimate challenged by: D-R-

2017: Estimate of 74 percent assigned by working group. Estimate is based on survey result. Mali Demographic and Health Survey 2018 card or history results of 68 percent modified for recall bias to 74 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 53 percent and 3rd dose card only coverage of 49 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-

2016: Estimate based on extrapolation from data reported by national government supported by survey. Survey evidence of 71 percent based on 1 survey(s). Mali Demographic and Health Survey 2018 card or history results of 66 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 79 percent, 1st dose card only coverage of 42 percent and 3rd dose card only coverage of 38 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-S-

2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 57 percent based on 1 survey(s). Expanded Programme of Immunization External Review, 2016 results ignored by working group. Coverage by card is higher than cards seen and other inconsistencies such as coverage with final doses higher than earlier doses in the series. Also, EPI survey results inconsistent with MICS for the same cohort and previous surveys. Mali Multiple Indicator Cluster Survey 2015 card or history results of 48 percent modified for recall bias to 57 percent based on 1st dose card or history coverage of 65 percent, 1st dose card only coverage of 34 percent and 3rd dose card only

Mali - PcV3

coverage of 30 percent. Expanded Programme of Immunization External Review, 2016 card or history results of 73 percent modified for recall bias to 99 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 36 percent and 3rd dose card only coverage of 45 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-S-

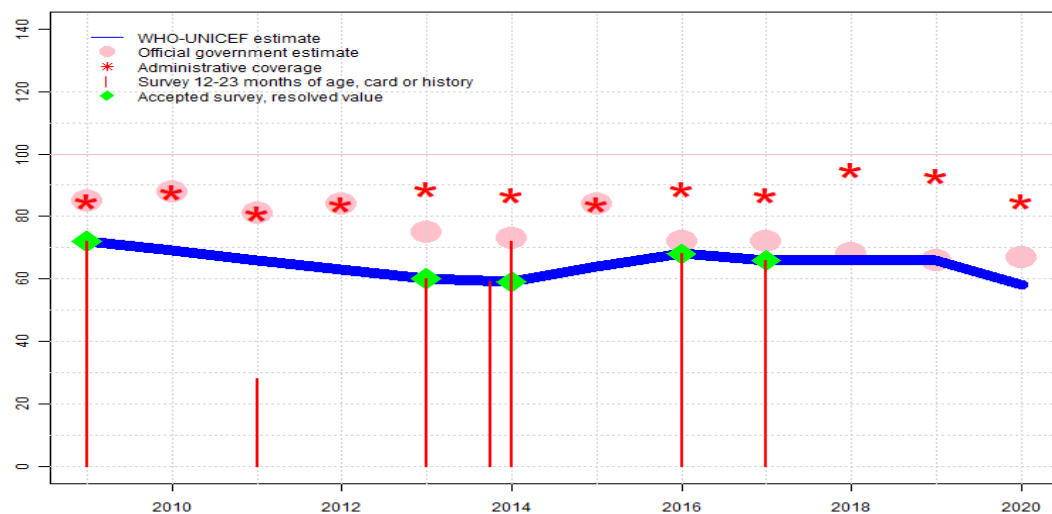
2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 59 percent based on 1 survey(s). Mali Multiple Indicator Cluster Survey 2015 card or history results of 49 percent modified for recall bias to 59 percent based on 1st dose card or history coverage of 64 percent, 1st dose card only coverage of 25 percent and 3rd dose card only coverage of 23 percent. Estimate challenged by: D-R-

2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded due to an increase from 56 percent to 87 percent with decrease 76 percent. Estimate challenged by: D-R-

2011: Pneumococcal conjugate vaccine was introduced in 2011. GoC=R+ S+

Mali - YFV

MLI - YFV



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 72 | 69 | 66 | 63 | 60 | 59 | 64 | 68 | 66 | 66 | 66 | 58 |
| Estimate GoC | • | • | • | • | • | • | • | • | • | • | • | • |
| Official | 85 | 88 | 81 | 84 | 75 | 73 | 84 | 72 | 72 | 68 | 66 | 67 |
| Administrative | 85 | 88 | 81 | 84 | 89 | 87 | 84 | 89 | 87 | 95 | 93 | 85 |
| Survey | 72 | NA | 28 | NA | 60 | * | NA | 68 | 66 | 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: 2020 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:

- 2020: Estimate exceptionally based on the difference between administrative coverage 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Programme reports disruptions in performance related to insecurity and reductions in attendance to vaccination sessions related to the COVID-19 pandemic, especially in urban areas. Also issues with incomplete reporting linked to problems with connectivity. WHO and UNICEF are aware of a 2021 Vaccination Coverage Survey and await the results. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 levels. Reported data excluded. . Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stock-outs for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 levels. Reported data excluded. . Estimate challenged by: D-R-
- 2017: Estimate of 66 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-
- 2016: Estimate of 68 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Reported data excluded due to an increase from 73 percent to 84 percent with decrease 72 percent. Estimate challenged by: D-R-
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 59 percent based on 1 survey(s). Expanded Programme of Immunization External Review, 2016 results ignored by working group. Coverage by card is higher than cards seen and other inconsistencies such as coverage with final doses higher than earlier doses in the series. Also, EPI survey results inconsistent with MICS for the same cohort and previous surveys. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-
- 2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 60 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2012: Estimate based on interpolation between 2009 and 2013 levels. Estimate based on interpolation between survey coverage. Estimate challenged by: D-R-
- 2011: Estimate based on interpolation between 2009 and 2013 levels. Estimate based on interpolation between survey coverage. Mali Demographic and Health Survey 2012-13 results ignored by working group. Survey results inconsistent with other vaccines. Estimate

Mali - YFV

challenged by: D-R-

2010: Estimate based on interpolation between 2009 and 2013 levels. Estimate based on interpolation between survey coverage. Estimate challenged by: D-R-

2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 72 percent based on 1 survey(s). Decline in 2009 due to an increase the denominator issued by du Recensement General de la Population et de l Habitat in 2009. Estimate challenged by: R-

Mali - survey details

2017 Mali Enquête Démographique et de Santé 2018

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 82.6 | 12-23 m | 2048 | 56 |
| BCG | Card | 54.1 | 12-23 m | 1139 | 56 |
| BCG | Card or History | 83.4 | 12-23 m | 2048 | 56 |
| BCG | History | 29.3 | 12-23 m | 909 | 56 |
| DTP1 | C or H <12 months | 81.3 | 12-23 m | 2048 | 56 |
| DTP1 | Card | 54.1 | 12-23 m | 1139 | 56 |
| DTP1 | Card or History | 82.1 | 12-23 m | 2048 | 56 |
| DTP1 | History | 28 | 12-23 m | 909 | 56 |
| DTP3 | C or H <12 months | 68.8 | 12-23 m | 2048 | 56 |
| DTP3 | Card | 50.7 | 12-23 m | 1139 | 56 |
| DTP3 | Card or History | 70.7 | 12-23 m | 2048 | 56 |
| DTP3 | History | 20 | 12-23 m | 909 | 56 |
| HepB1 | C or H <12 months | 81.3 | 12-23 m | 2048 | 56 |
| HepB1 | Card | 54.1 | 12-23 m | 1139 | 56 |
| HepB1 | Card or History | 82.1 | 12-23 m | 2048 | 56 |
| HepB1 | History | 28 | 12-23 m | 909 | 56 |
| HepB3 | C or H <12 months | 68.8 | 12-23 m | 2048 | 56 |
| HepB3 | Card | 50.7 | 12-23 m | 1139 | 56 |
| HepB3 | Card or History | 70.7 | 12-23 m | 2048 | 56 |
| HepB3 | History | 20 | 12-23 m | 909 | 56 |
| Hib1 | C or H <12 months | 81.3 | 12-23 m | 2048 | 56 |
| Hib1 | Card | 54.1 | 12-23 m | 1139 | 56 |
| Hib1 | Card or History | 82.1 | 12-23 m | 2048 | 56 |
| Hib1 | History | 28 | 12-23 m | 909 | 56 |
| Hib3 | C or H <12 months | 68.8 | 12-23 m | 2048 | 56 |
| Hib3 | Card | 50.7 | 12-23 m | 1139 | 56 |
| Hib3 | Card or History | 70.7 | 12-23 m | 2048 | 56 |
| Hib3 | History | 20 | 12-23 m | 909 | 56 |
| IPV1 | C or H <12 months | 54.8 | 12-23 m | 2048 | 56 |
| IPV1 | Card | 28.4 | 12-23 m | 1139 | 56 |
| IPV1 | Card or History | 55.7 | 12-23 m | 2048 | 56 |
| IPV1 | History | 27.4 | 12-23 m | 909 | 56 |
| MCV1 | C or H <12 months | 64.4 | 12-23 m | 2048 | 56 |
| MCV1 | Card | 44.6 | 12-23 m | 1139 | 56 |
| MCV1 | Card or History | 69.8 | 12-23 m | 2048 | 56 |
| MCV1 | History | 25.2 | 12-23 m | 909 | 56 |
| PCV1 | C or H <12 months | 79.4 | 12-23 m | 2048 | 56 |

| | | | | | |
|-------|-------------------|------|---------|------|----|
| PCV1 | Card | 52.9 | 12-23 m | 1139 | 56 |
| PCV1 | Card or History | 80 | 12-23 m | 2048 | 56 |
| PCV1 | History | 27.1 | 12-23 m | 909 | 56 |
| PCV3 | C or H <12 months | 65.8 | 12-23 m | 2048 | 56 |
| PCV3 | Card | 48.9 | 12-23 m | 1139 | 56 |
| PCV3 | Card or History | 67.7 | 12-23 m | 2048 | 56 |
| PCV3 | History | 18.9 | 12-23 m | 909 | 56 |
| Pol1 | C or H <12 months | 77.8 | 12-23 m | 2048 | 56 |
| Pol1 | Card | 53.9 | 12-23 m | 1139 | 56 |
| Pol1 | Card or History | 78.5 | 12-23 m | 2048 | 56 |
| Pol1 | History | 24.6 | 12-23 m | 909 | 56 |
| Pol3 | C or H <12 months | 53.2 | 12-23 m | 2048 | 56 |
| Pol3 | Card | 50.1 | 12-23 m | 1139 | 56 |
| Pol3 | Card or History | 54.3 | 12-23 m | 2048 | 56 |
| Pol3 | History | 4.2 | 12-23 m | 909 | 56 |
| RotaC | C or H <12 months | 61.5 | 12-23 m | 2048 | 56 |
| RotaC | Card | 44.5 | 12-23 m | 1139 | 56 |
| RotaC | Card or History | 63.1 | 12-23 m | 2048 | 56 |
| RotaC | History | 18.6 | 12-23 m | 909 | 56 |
| YFV | C or H <12 months | 60.4 | 12-23 m | 2048 | 56 |
| YFV | Card | 43 | 12-23 m | 1139 | 56 |
| YFV | Card or History | 66.5 | 12-23 m | 2048 | 56 |
| YFV | History | 23.5 | 12-23 m | 909 | 56 |

2016 Mali Enquête Démographique et de Santé 2018

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 81.5 | 24-35 m | 1748 | 56 |
| BCG | Card | 42.6 | 24-35 m | 778 | 56 |
| BCG | Card or History | 82.3 | 24-35 m | 1748 | 56 |
| BCG | History | 39.7 | 24-35 m | 970 | 56 |
| DTP1 | C or H <12 months | 80.5 | 24-35 m | 1748 | 56 |
| DTP1 | Card | 43.1 | 24-35 m | 778 | 56 |
| DTP1 | Card or History | 81.6 | 24-35 m | 1748 | 56 |
| DTP1 | History | 38.4 | 24-35 m | 970 | 56 |
| DTP3 | C or H <12 months | 65 | 24-35 m | 1748 | 56 |
| DTP3 | Card | 39.5 | 24-35 m | 778 | 56 |
| DTP3 | Card or History | 68.9 | 24-35 m | 1748 | 56 |
| DTP3 | History | 29.4 | 24-35 m | 970 | 56 |

Mali - survey details

| | | | | | |
|-------|-------------------|------|---------|------|----|
| HepB1 | C or H <12 months | 80.5 | 24-35 m | 1748 | 56 |
| HepB1 | Card | 43.1 | 24-35 m | 778 | 56 |
| HepB1 | Card or History | 81.6 | 24-35 m | 1748 | 56 |
| HepB1 | History | 38.4 | 24-35 m | 970 | 56 |
| HepB3 | C or H <12 months | 65 | 24-35 m | 1748 | 56 |
| HepB3 | Card | 39.5 | 24-35 m | 778 | 56 |
| HepB3 | Card or History | 68.9 | 24-35 m | 1748 | 56 |
| HepB3 | History | 29.4 | 24-35 m | 970 | 56 |
| Hib1 | C or H <12 months | 80.5 | 24-35 m | 1748 | 56 |
| Hib1 | Card | 43.1 | 24-35 m | 778 | 56 |
| Hib1 | Card or History | 81.6 | 24-35 m | 1748 | 56 |
| Hib1 | History | 38.4 | 24-35 m | 970 | 56 |
| Hib3 | C or H <12 months | 65 | 24-35 m | 1748 | 56 |
| Hib3 | Card | 39.5 | 24-35 m | 778 | 56 |
| Hib3 | Card or History | 68.9 | 24-35 m | 1748 | 56 |
| Hib3 | History | 29.4 | 24-35 m | 970 | 56 |
| IPV1 | C or H <12 months | 51.4 | 24-35 m | 1748 | 56 |
| IPV1 | Card | 16.2 | 24-35 m | 778 | 56 |
| IPV1 | Card or History | 54.3 | 24-35 m | 1748 | 56 |
| IPV1 | History | 38.1 | 24-35 m | 970 | 56 |
| MCV1 | C or H <12 months | 60.3 | 24-35 m | 1748 | 56 |
| MCV1 | Card | 34.9 | 24-35 m | 778 | 56 |
| MCV1 | Card or History | 69.8 | 24-35 m | 1748 | 56 |
| MCV1 | History | 34.9 | 24-35 m | 970 | 56 |
| PCV1 | C or H <12 months | 78.1 | 24-35 m | 1748 | 56 |
| PCV1 | Card | 42 | 24-35 m | 778 | 56 |
| PCV1 | Card or History | 79.4 | 24-35 m | 1748 | 56 |
| PCV1 | History | 37.4 | 24-35 m | 970 | 56 |
| PCV3 | C or H <12 months | 62.2 | 24-35 m | 1748 | 56 |
| PCV3 | Card | 37.9 | 24-35 m | 778 | 56 |
| PCV3 | Card or History | 65.5 | 24-35 m | 1748 | 56 |
| PCV3 | History | 27.7 | 24-35 m | 970 | 56 |
| Pol1 | C or H <12 months | 75.7 | 24-35 m | 1748 | 56 |
| Pol1 | Card | 42.9 | 24-35 m | 778 | 56 |
| Pol1 | Card or History | 76.7 | 24-35 m | 1748 | 56 |
| Pol1 | History | 33.8 | 24-35 m | 970 | 56 |
| Pol3 | C or H <12 months | 42.5 | 24-35 m | 1748 | 56 |
| Pol3 | Card | 39.6 | 24-35 m | 778 | 56 |
| Pol3 | Card or History | 45.2 | 24-35 m | 1748 | 56 |
| Pol3 | History | 5.6 | 24-35 m | 970 | 56 |

| | | | | | |
|-------|-------------------|------|---------|------|----|
| RotaC | C or H <12 months | 57.8 | 24-35 m | 1748 | 56 |
| RotaC | Card | 34.8 | 24-35 m | 778 | 56 |
| RotaC | Card or History | 61.8 | 24-35 m | 1748 | 56 |
| RotaC | History | 27 | 24-35 m | 970 | 56 |
| YFV | C or H <12 months | 58 | 24-35 m | 1748 | 56 |
| YFV | Card | 34.6 | 24-35 m | 778 | 56 |
| YFV | Card or History | 67.8 | 24-35 m | 1748 | 56 |
| YFV | History | 33.2 | 24-35 m | 970 | 56 |

2014 Mali Multiple Indicator Cluster Survey 2015

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 71.9 | 12-23 m | 3303 | 44 |
| BCG | Card | 39.9 | 12-23 m | 3303 | 44 |
| BCG | Card or History | 72.6 | 12-23 m | 3303 | 44 |
| BCG | History | 32.7 | 12-23 m | 3303 | 44 |
| DTP1 | C or H <12 months | 71.8 | 12-23 m | 3303 | 44 |
| DTP1 | Card | 40.7 | 12-23 m | 3303 | 44 |
| DTP1 | Card or History | 72.6 | 12-23 m | 3303 | 44 |
| DTP1 | History | 31.9 | 12-23 m | 3303 | 44 |
| DTP3 | C or H <12 months | 54.5 | 12-23 m | 3303 | 44 |
| DTP3 | Card | 37.2 | 12-23 m | 3303 | 44 |
| DTP3 | Card or History | 55.5 | 12-23 m | 3303 | 44 |
| DTP3 | History | 18.4 | 12-23 m | 3303 | 44 |
| HepB1 | C or H <12 months | 71.8 | 12-23 m | 3303 | 44 |
| HepB1 | Card | 40.7 | 12-23 m | 3303 | 44 |
| HepB1 | Card or History | 72.6 | 12-23 m | 3303 | 44 |
| HepB1 | History | 31.9 | 12-23 m | 3303 | 44 |
| HepB3 | C or H <12 months | 54.5 | 12-23 m | 3303 | 44 |
| HepB3 | Card | 37.2 | 12-23 m | 3303 | 44 |
| HepB3 | Card or History | 55.5 | 12-23 m | 3303 | 44 |
| HepB3 | History | 18.4 | 12-23 m | 3303 | 44 |
| Hib1 | C or H <12 months | 71.8 | 12-23 m | 3303 | 44 |
| Hib1 | Card | 40.7 | 12-23 m | 3303 | 44 |
| Hib1 | Card or History | 72.6 | 12-23 m | 3303 | 44 |
| Hib1 | History | 31.9 | 12-23 m | 3303 | 44 |
| Hib3 | C or H <12 months | 54.5 | 12-23 m | 3303 | 44 |
| Hib3 | Card | 37.2 | 12-23 m | 3303 | 44 |
| Hib3 | Card or History | 55.5 | 12-23 m | 3303 | 44 |

Mali - survey details

| | | | | | |
|-------|-------------------|------|---------|------|----|
| Hib3 | History | 18.4 | 12-23 m | 3303 | 44 |
| MCV1 | C or H <12 months | 56.9 | 12-23 m | 3303 | 44 |
| MCV1 | Card | 32.5 | 12-23 m | 3303 | 44 |
| MCV1 | Card or History | 60.8 | 12-23 m | 3303 | 44 |
| MCV1 | History | 28.4 | 12-23 m | 3303 | 44 |
| PCV1 | C or H <12 months | 63.9 | 12-23 m | 3303 | 44 |
| PCV1 | Card | 34.5 | 12-23 m | 3303 | 44 |
| PCV1 | Card or History | 64.9 | 12-23 m | 3303 | 44 |
| PCV1 | History | 30.4 | 12-23 m | 3303 | 44 |
| PCV3 | C or H <12 months | 47.1 | 12-23 m | 3303 | 44 |
| PCV3 | Card | 30.1 | 12-23 m | 3303 | 44 |
| PCV3 | Card or History | 47.8 | 12-23 m | 3303 | 44 |
| PCV3 | History | 17.7 | 12-23 m | 3303 | 44 |
| Pol1 | C or H <12 months | 68.3 | 12-23 m | 3303 | 44 |
| Pol1 | Card | 40.3 | 12-23 m | 3303 | 44 |
| Pol1 | Card or History | 68.9 | 12-23 m | 3303 | 44 |
| Pol1 | History | 28.6 | 12-23 m | 3303 | 44 |
| Pol3 | C or H <12 months | 39.2 | 12-23 m | 3303 | 44 |
| Pol3 | Card | 36.2 | 12-23 m | 3303 | 44 |
| Pol3 | Card or History | 40 | 12-23 m | 3303 | 44 |
| Pol3 | History | 3.8 | 12-23 m | 3303 | 44 |
| RotaC | C or H <12 months | 22.6 | 12-23 m | 3303 | 44 |
| RotaC | Card | 12.8 | 12-23 m | 3303 | 44 |
| RotaC | Card or History | 23.4 | 12-23 m | 3303 | 44 |
| RotaC | History | 10.6 | 12-23 m | 3303 | 44 |
| YFV | C or H <12 months | 55.1 | 12-23 m | 3303 | 44 |
| YFV | Card | 31.3 | 12-23 m | 3303 | 44 |
| YFV | Card or History | 58.8 | 12-23 m | 3303 | 44 |
| YFV | History | 27.5 | 12-23 m | 3303 | 44 |

2014 Programme Elargi de Vaccination Revue Externe 2016

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | Card | 35.6 | 12-23 m | 9402 | 34 |
| BCG | Card or History | 92 | 12-23 m | 9402 | 34 |
| DTP1 | Card | 35.7 | 12-23 m | 9402 | 34 |
| DTP1 | Card or History | 91.8 | 12-23 m | 9402 | 34 |
| DTP3 | Card | 45 | 12-23 m | 9402 | 34 |
| DTP3 | Card or History | 73 | 12-23 m | 9402 | 34 |

| | | | | | |
|-------|-----------------|------|---------|------|----|
| HepB1 | Card | 35.7 | 12-23 m | 9402 | 34 |
| HepB1 | Card or History | 91.8 | 12-23 m | 9402 | 34 |
| HepB3 | Card | 45 | 12-23 m | 9402 | 34 |
| HepB3 | Card or History | 73 | 12-23 m | 9402 | 34 |
| Hib1 | Card | 35.7 | 12-23 m | 9402 | 34 |
| Hib1 | Card or History | 91.8 | 12-23 m | 9402 | 34 |
| Hib3 | Card | 45 | 12-23 m | 9402 | 34 |
| Hib3 | Card or History | 73 | 12-23 m | 9402 | 34 |
| MCV1 | Card | 44.3 | 12-23 m | 9402 | 34 |
| MCV1 | Card or History | 74 | 12-23 m | 9402 | 34 |
| PcV1 | Card | 35.9 | 12-23 m | 9402 | 34 |
| PcV1 | Card or History | 91.4 | 12-23 m | 9402 | 34 |
| PcV3 | Card | 45 | 12-23 m | 9402 | 34 |
| PcV3 | Card or History | 72.9 | 12-23 m | 9402 | 34 |
| Pol1 | Card | 35.5 | 12-23 m | 9402 | 34 |
| Pol1 | Card or History | 92.3 | 12-23 m | 9402 | 34 |
| Pol3 | Card | 44.5 | 12-23 m | 9402 | 34 |
| Pol3 | Card or History | 73.7 | 12-23 m | 9402 | 34 |
| YFV | Card | 45.6 | 12-23 m | 9402 | 34 |
| YFV | Card or History | 71.9 | 12-23 m | 9402 | 34 |

2013 Mali Multiple Indicator Cluster Survey 2015

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 68.6 | 24-35 m | 3069 | 44 |
| BCG | Card | 28.8 | 24-35 m | 3069 | 44 |
| BCG | Card or History | 70.1 | 24-35 m | 3069 | 44 |
| BCG | History | 41.3 | 24-35 m | 3069 | 44 |
| DTP1 | C or H <12 months | 67 | 24-35 m | 3069 | 44 |
| DTP1 | Card | 29.3 | 24-35 m | 3069 | 44 |
| DTP1 | Card or History | 68.9 | 24-35 m | 3069 | 44 |
| DTP1 | History | 39.6 | 24-35 m | 3069 | 44 |
| DTP3 | C or H <12 months | 50.3 | 24-35 m | 3069 | 44 |
| DTP3 | Card | 27.3 | 24-35 m | 3069 | 44 |
| DTP3 | Card or History | 53.5 | 24-35 m | 3069 | 44 |
| DTP3 | History | 26.3 | 24-35 m | 3069 | 44 |
| HepB1 | C or H <12 months | 67 | 24-35 m | 3069 | 44 |
| HepB1 | Card | 29.3 | 24-35 m | 3069 | 44 |
| HepB1 | Card or History | 68.9 | 24-35 m | 3069 | 44 |

Mali - survey details

| | | | | | |
|-------|-------------------|------|---------|------|----|
| HepB1 | History | 39.6 | 24-35 m | 3069 | 44 |
| HepB3 | C or H <12 months | 50.3 | 24-35 m | 3069 | 44 |
| HepB3 | Card | 27.3 | 24-35 m | 3069 | 44 |
| HepB3 | Card or History | 53.5 | 24-35 m | 3069 | 44 |
| HepB3 | History | 26.3 | 24-35 m | 3069 | 44 |
| Hib1 | C or H <12 months | 67 | 24-35 m | 3069 | 44 |
| Hib1 | Card | 29.3 | 24-35 m | 3069 | 44 |
| Hib1 | Card or History | 68.9 | 24-35 m | 3069 | 44 |
| Hib1 | History | 39.6 | 24-35 m | 3069 | 44 |
| Hib3 | C or H <12 months | 50.3 | 24-35 m | 3069 | 44 |
| Hib3 | Card | 27.3 | 24-35 m | 3069 | 44 |
| Hib3 | Card or History | 53.5 | 24-35 m | 3069 | 44 |
| Hib3 | History | 26.3 | 24-35 m | 3069 | 44 |
| MCV1 | C or H <12 months | 52.1 | 24-35 m | 3069 | 44 |
| MCV1 | Card | 24.6 | 24-35 m | 3069 | 44 |
| MCV1 | Card or History | 61.5 | 24-35 m | 3069 | 44 |
| MCV1 | History | 36.9 | 24-35 m | 3069 | 44 |
| PCV1 | C or H <12 months | 61.3 | 24-35 m | 3069 | 44 |
| PCV1 | Card | 25.4 | 24-35 m | 3069 | 44 |
| PCV1 | Card or History | 63.9 | 24-35 m | 3069 | 44 |
| PCV1 | History | 38.6 | 24-35 m | 3069 | 44 |
| PCV3 | C or H <12 months | 46 | 24-35 m | 3069 | 44 |
| PCV3 | Card | 23.3 | 24-35 m | 3069 | 44 |
| PCV3 | Card or History | 48.9 | 24-35 m | 3069 | 44 |
| PCV3 | History | 25.6 | 24-35 m | 3069 | 44 |
| Pol1 | C or H <12 months | 62.3 | 24-35 m | 3069 | 44 |
| Pol1 | Card | 28.8 | 24-35 m | 3069 | 44 |
| Pol1 | Card or History | 64.3 | 24-35 m | 3069 | 44 |
| Pol1 | History | 35.5 | 24-35 m | 3069 | 44 |
| Pol3 | C or H <12 months | 30.5 | 24-35 m | 3069 | 44 |
| Pol3 | Card | 26.4 | 24-35 m | 3069 | 44 |
| Pol3 | Card or History | 32.2 | 24-35 m | 3069 | 44 |
| Pol3 | History | 5.8 | 24-35 m | 3069 | 44 |
| RotaC | C or H <12 months | 20.5 | 24-35 m | 3069 | 44 |
| RotaC | Card | 8.2 | 24-35 m | 3069 | 44 |
| RotaC | Card or History | 22.1 | 24-35 m | 3069 | 44 |
| RotaC | History | 13.9 | 24-35 m | 3069 | 44 |
| YFV | C or H <12 months | 52.1 | 24-35 m | 3069 | 44 |
| YFV | Card | 24.5 | 24-35 m | 3069 | 44 |
| YFV | Card or History | 60.3 | 24-35 m | 3069 | 44 |

YFV History 35.8 24-35 m 3069 44

2011 Mali Enquête Démographique et de Santé 2012-13

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 81.2 | 12-23 m | 1846 | 38 |
| BCG | Card | 37 | 12-23 m | 702 | 38 |
| BCG | Card or History | 83.6 | 12-23 m | 1846 | 38 |
| BCG | History | 46.6 | 12-23 m | 1145 | 38 |
| DTP1 | C or H <12 months | 78.1 | 12-23 m | 1846 | 38 |
| DTP1 | Card | 34.9 | 12-23 m | 702 | 38 |
| DTP1 | Card or History | 80.3 | 12-23 m | 1846 | 38 |
| DTP1 | History | 45.4 | 12-23 m | 1145 | 38 |
| DTP3 | C or H <12 months | 57.1 | 12-23 m | 1846 | 38 |
| DTP3 | Card | 29.2 | 12-23 m | 702 | 38 |
| DTP3 | Card or History | 63.1 | 12-23 m | 1846 | 38 |
| DTP3 | History | 33.8 | 12-23 m | 1145 | 38 |
| HepB1 | C or H <12 months | 78.1 | 12-23 m | 1846 | 38 |
| HepB1 | Card | 34.9 | 12-23 m | 702 | 38 |
| HepB1 | Card or History | 80.3 | 12-23 m | 1846 | 38 |
| HepB1 | History | 45.4 | 12-23 m | 1145 | 38 |
| HepB3 | C or H <12 months | 57.1 | 12-23 m | 1846 | 38 |
| HepB3 | Card | 29.2 | 12-23 m | 702 | 38 |
| HepB3 | Card or History | 63.1 | 12-23 m | 1846 | 38 |
| HepB3 | History | 33.8 | 12-23 m | 1145 | 38 |
| Hib1 | C or H <12 months | 78.1 | 12-23 m | 1846 | 38 |
| Hib1 | Card | 34.9 | 12-23 m | 702 | 38 |
| Hib1 | Card or History | 80.3 | 12-23 m | 1846 | 38 |
| Hib1 | History | 45.4 | 12-23 m | 1145 | 38 |
| Hib3 | C or H <12 months | 57.1 | 12-23 m | 1846 | 38 |
| Hib3 | Card | 29.2 | 12-23 m | 702 | 38 |
| Hib3 | Card or History | 63.1 | 12-23 m | 1846 | 38 |
| Hib3 | History | 33.8 | 12-23 m | 1145 | 38 |
| MCV1 | C or H <12 months | 58.6 | 12-23 m | 1846 | 38 |
| MCV1 | Card | 29.8 | 12-23 m | 702 | 38 |
| MCV1 | Card or History | 71.7 | 12-23 m | 1846 | 38 |
| MCV1 | History | 42 | 12-23 m | 1145 | 38 |
| Pol1 | C or H <12 months | 81.6 | 12-23 m | 1846 | 38 |
| Pol1 | Card | 35 | 12-23 m | 702 | 38 |

Mali - survey details

| | | | | | |
|------|-------------------|------|---------|------|----|
| Pol1 | Card or History | 83.6 | 12-23 m | 1846 | 38 |
| Pol1 | History | 48.6 | 12-23 m | 1145 | 38 |
| Pol3 | C or H <12 months | 46.8 | 12-23 m | 1846 | 38 |
| Pol3 | Card | 29.7 | 12-23 m | 702 | 38 |
| Pol3 | Card or History | 50 | 12-23 m | 1846 | 38 |
| Pol3 | History | 20.4 | 12-23 m | 1145 | 38 |
| YFV | C or H <12 months | 22.9 | 12-23 m | 1846 | 38 |
| YFV | Card | 28.3 | 12-23 m | 702 | 38 |
| YFV | Card or History | 28.3 | 12-23 m | 1846 | 38 |
| YFV | History | 0 | 12-23 m | 1145 | 38 |

2010 Mali Enquête Démographique et de Santé 2012-13

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 73.1 | 24-35 m | 1798 | 38 |
| DTP1 | C or H <12 months | 69.9 | 24-35 m | 1798 | 38 |
| DTP3 | C or H <12 months | 49.4 | 24-35 m | 1798 | 38 |
| HepB1 | C or H <12 months | 69.9 | 24-35 m | 1798 | 38 |
| HepB3 | C or H <12 months | 49.4 | 24-35 m | 1798 | 38 |
| Hib1 | C or H <12 months | 69.9 | 24-35 m | 1798 | 38 |
| Hib3 | C or H <12 months | 49.4 | 24-35 m | 1798 | 38 |
| MCV1 | C or H <12 months | 54.4 | 24-35 m | 1798 | 38 |
| Pol1 | C or H <12 months | 75.8 | 24-35 m | 1798 | 38 |
| Pol3 | C or H <12 months | 38.5 | 24-35 m | 1798 | 38 |
| YFV | C or H <12 months | 14.5 | 24-35 m | 1798 | 38 |

2009 Mali Enquête Démographique et de Santé 2012-13

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 71.1 | 36-47 m | 2053 | 38 |
| DTP1 | C or H <12 months | 70.1 | 36-47 m | 2053 | 38 |
| DTP3 | C or H <12 months | 52.5 | 36-47 m | 2053 | 38 |
| HepB1 | C or H <12 months | 70.1 | 36-47 m | 2053 | 38 |
| HepB3 | C or H <12 months | 52.5 | 36-47 m | 2053 | 38 |
| Hib1 | C or H <12 months | 70.1 | 36-47 m | 2053 | 38 |
| Hib3 | C or H <12 months | 52.5 | 36-47 m | 2053 | 38 |
| MCV1 | C or H <12 months | 52.9 | 36-47 m | 2053 | 38 |

| | | | | | |
|------|-------------------|------|---------|------|----|
| Pol1 | C or H <12 months | 74.3 | 36-47 m | 2053 | 38 |
| Pol3 | C or H <12 months | 39.1 | 36-47 m | 2053 | 38 |
| YFV | C or H <12 months | 11.8 | 36-47 m | 2053 | 38 |

2009 Mali Multiple Indicator Cluster Survey 2010

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 82.9 | 12-23 m | 5122 | 59 |
| BCG | Card | 53.9 | 12-23 m | - | 59 |
| BCG | Card or History | 83.6 | 12-23 m | 5122 | 59 |
| BCG | History | 29.7 | 12-23 m | - | 59 |
| DTP1 | C or H <12 months | 81.1 | 12-23 m | 5122 | 59 |
| DTP1 | Card | 54.6 | 12-23 m | - | 59 |
| DTP1 | Card or History | 82.2 | 12-23 m | 5122 | 59 |
| DTP1 | History | 27.6 | 12-23 m | - | 59 |
| DTP3 | C or H <12 months | 69.4 | 12-23 m | 5122 | 59 |
| DTP3 | Card | 49.3 | 12-23 m | - | 59 |
| DTP3 | Card or History | 72.1 | 12-23 m | 5122 | 59 |
| DTP3 | History | 22.8 | 12-23 m | - | 59 |
| HepB1 | C or H <12 months | 45.9 | 12-23 m | 5122 | 59 |
| HepB1 | Card | 22.6 | 12-23 m | - | 59 |
| HepB1 | Card or History | 46.3 | 12-23 m | 5122 | 59 |
| HepB1 | History | 23.7 | 12-23 m | - | 59 |
| HepB3 | C or H <12 months | 25.8 | 12-23 m | 5122 | 59 |
| HepB3 | Card | 22.9 | 12-23 m | - | 59 |
| HepB3 | Card or History | 26.9 | 12-23 m | 5122 | 59 |
| HepB3 | History | 4 | 12-23 m | - | 59 |
| MCV1 | C or H <12 months | 67.4 | 12-23 m | 5122 | 59 |
| MCV1 | Card | 46.6 | 12-23 m | - | 59 |
| MCV1 | Card or History | 73 | 12-23 m | 5122 | 59 |
| MCV1 | History | 26.4 | 12-23 m | - | 59 |
| Pol1 | C or H <12 months | 83.7 | 12-23 m | 5122 | 59 |
| Pol1 | Card | 54.3 | 12-23 m | - | 59 |
| Pol1 | Card or History | 84.9 | 12-23 m | 5122 | 59 |
| Pol1 | History | 30.6 | 12-23 m | - | 59 |
| Pol3 | C or H <12 months | 59.9 | 12-23 m | 5122 | 59 |
| Pol3 | Card | 49.1 | 12-23 m | - | 59 |
| Pol3 | Card or History | 62.3 | 12-23 m | 5122 | 59 |
| Pol3 | History | 13.2 | 12-23 m | - | 59 |

Mali - survey details

| | | | | | |
|-----|-------------------|------|---------|------|----|
| YFV | C or H <12 months | 67 | 12-23 m | 5122 | 59 |
| YFV | Card | 45.7 | 12-23 m | - | 59 |
| YFV | Card or History | 72.4 | 12-23 m | 5122 | 59 |
| YFV | History | 26.8 | 12-23 m | - | 59 |

| | | | | | |
|-----|-----------------|----|---------|-------|----|
| YFV | Card or History | 74 | 12-23 m | 11760 | 65 |
| YFV | History | 30 | 12-23 m | 11760 | 65 |

2008 Evaluation de la couverture vaccinale du PEV Mali, 2009-2010

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | Card | 54 | 12-23 m | 11760 | 65 |
| BCG | Card or History | 86 | 12-23 m | 11760 | 65 |
| BCG | History | 32 | 12-23 m | 11760 | 65 |
| DTP1 | Card | 54 | 12-23 m | 11760 | 65 |
| DTP1 | Card or History | 85 | 12-23 m | 11760 | 65 |
| DTP1 | History | 31 | 12-23 m | 11760 | 65 |
| DTP3 | Card | 47 | 12-23 m | 11760 | 65 |
| DTP3 | Card or History | 75 | 12-23 m | 11760 | 65 |
| DTP3 | History | 28 | 12-23 m | 11760 | 65 |
| HepB1 | Card | 54 | 12-23 m | 11760 | 65 |
| HepB1 | Card or History | 85 | 12-23 m | 11760 | 65 |
| HepB1 | History | 31 | 12-23 m | 11760 | 65 |
| HepB3 | Card | 47 | 12-23 m | 11760 | 65 |
| HepB3 | Card or History | 75 | 12-23 m | 11760 | 65 |
| HepB3 | History | 28 | 12-23 m | 11760 | 65 |
| Hib1 | Card | 54 | 12-23 m | 11760 | 65 |
| Hib1 | Card or History | 85 | 12-23 m | 11760 | 65 |
| Hib1 | History | 31 | 12-23 m | 11760 | 65 |
| Hib3 | Card | 47 | 12-23 m | 11760 | 65 |
| Hib3 | Card or History | 75 | 12-23 m | 11760 | 65 |
| Hib3 | History | 28 | 12-23 m | 11760 | 65 |
| MCV1 | Card | 46 | 12-23 m | 11760 | 65 |
| MCV1 | Card or History | 71 | 12-23 m | 11760 | 65 |
| MCV1 | History | 26 | 12-23 m | 11760 | 65 |
| Pol1 | Card | 52 | 12-23 m | 11760 | 65 |
| Pol1 | Card or History | 84 | 12-23 m | 11760 | 65 |
| Pol1 | History | 33 | 12-23 m | 11760 | 65 |
| Pol3 | Card | 46 | 12-23 m | 11760 | 65 |
| Pol3 | Card or History | 76 | 12-23 m | 11760 | 65 |
| Pol3 | History | 30 | 12-23 m | 11760 | 65 |
| YFV | Card | 43 | 12-23 m | 11760 | 65 |

2008 Mali Enquête Démographique et de Santé 2012-13

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 66.9 | 48-59 m | 1890 | 38 |
| DTP1 | C or H <12 months | 64.4 | 48-59 m | 1890 | 38 |
| DTP3 | C or H <12 months | 46.6 | 48-59 m | 1890 | 38 |
| HepB1 | C or H <12 months | 64.4 | 48-59 m | 1890 | 38 |
| HepB3 | C or H <12 months | 46.6 | 48-59 m | 1890 | 38 |
| Hib1 | C or H <12 months | 64.4 | 48-59 m | 1890 | 38 |
| Hib3 | C or H <12 months | 46.6 | 48-59 m | 1890 | 38 |
| MCV1 | C or H <12 months | 48.4 | 48-59 m | 1890 | 38 |
| Pol1 | C or H <12 months | 68.2 | 48-59 m | 1890 | 38 |
| Pol3 | C or H <12 months | 35.9 | 48-59 m | 1890 | 38 |
| YFV | C or H <12 months | 10.4 | 48-59 m | 1890 | 38 |

2005 Enquête Démographique et de Santé du Mali, 2006

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 75.1 | 12-23 m | 2626 | 61 |
| BCG | Card | 53.9 | 12-23 m | 2626 | 61 |
| BCG | Card or History | 76.7 | 12-23 m | 2626 | 61 |
| BCG | History | 22.8 | 12-23 m | 2626 | 61 |
| DTP1 | C or H <12 months | 80.2 | 12-23 m | 2626 | 61 |
| DTP1 | Card | 59.8 | 12-23 m | 2626 | 61 |
| DTP1 | Card or History | 83.1 | 12-23 m | 2626 | 61 |
| DTP1 | History | 23.3 | 12-23 m | 2626 | 61 |
| DTP3 | C or H <12 months | 61.9 | 12-23 m | 2626 | 61 |
| DTP3 | Card | 52.6 | 12-23 m | 2626 | 61 |
| DTP3 | Card or History | 67.6 | 12-23 m | 2626 | 61 |
| DTP3 | History | 15 | 12-23 m | 2626 | 61 |
| MCV1 | C or H <12 months | 59.1 | 12-23 m | 2626 | 61 |
| MCV1 | Card | 48.6 | 12-23 m | 2626 | 61 |
| MCV1 | Card or History | 68.4 | 12-23 m | 2626 | 61 |
| MCV1 | History | 19.8 | 12-23 m | 2626 | 61 |

Mali - survey details

| | | | | | |
|------|-------------------|------|---------|------|----|
| Pol1 | C or H <12 months | 82.1 | 12-23 m | 2626 | 61 |
| Pol1 | Card | 59.6 | 12-23 m | 2626 | 61 |
| Pol1 | Card or History | 85.1 | 12-23 m | 2626 | 61 |
| Pol1 | History | 25.5 | 12-23 m | 2626 | 61 |
| Pol3 | C or H <12 months | 56.6 | 12-23 m | 2626 | 61 |
| Pol3 | Card | 52.8 | 12-23 m | 2626 | 61 |
| Pol3 | Card or History | 61.9 | 12-23 m | 2626 | 61 |
| Pol3 | History | 9 | 12-23 m | 2626 | 61 |

2005 République du Mali, Programme élargi du vaccination, Revue externe éàà-

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | Card or History | 89 | 12-23 m | 1710 | 78 |
| DTP1 | Card or History | 91 | 12-23 m | 1710 | 78 |
| DTP3 | Card or History | 80 | 12-23 m | 1710 | 78 |
| HepB1 | Card or History | 87 | 12-23 m | 1710 | 78 |
| HepB3 | Card or History | 77 | 12-23 m | 1710 | 78 |
| MCV1 | Card or History | 77 | 12-23 m | 1710 | 78 |
| Pol1 | Card or History | 91 | 12-23 m | 1710 | 78 |
| Pol3 | Card or History | 81 | 12-23 m | 1710 | 78 |
| YFV | Card or History | 76 | 12-23 m | 1710 | 78 |

2000 Enquête Démographique et de Santé Mali 2001, 2002

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | C or H <12 months | 63.7 | 12-23 m | 2197 | 48 |
| BCG | Card | 47 | 12-23 m | 2197 | 48 |
| BCG | Card or History | 69 | 12-23 m | 2197 | 48 |
| BCG | History | 22 | 12-23 m | 2197 | 48 |
| DTP1 | C or H <12 months | 55.9 | 12-23 m | 2197 | 48 |
| DTP1 | Card | 43.6 | 12-23 m | 2197 | 48 |

| | | | | | |
|------|-------------------|------|---------|------|----|
| DTP1 | Card or History | 61 | 12-23 m | 2197 | 48 |
| DTP1 | History | 17.4 | 12-23 m | 2197 | 48 |
| DTP3 | C or H <12 months | 33.9 | 12-23 m | 2197 | 48 |
| DTP3 | Card | 31.3 | 12-23 m | 2197 | 48 |
| DTP3 | Card or History | 39.6 | 12-23 m | 2197 | 48 |
| DTP3 | History | 8.3 | 12-23 m | 2197 | 48 |
| MCV1 | C or H <12 months | 36.2 | 12-23 m | 2197 | 48 |
| MCV1 | Card | 35.7 | 12-23 m | 2197 | 48 |
| MCV1 | Card or History | 48.7 | 12-23 m | 2197 | 48 |
| MCV1 | History | 13 | 12-23 m | 2197 | 48 |
| Pol1 | C or H <12 months | 68 | 12-23 m | 2197 | 48 |
| Pol1 | Card | 46.2 | 12-23 m | 2197 | 48 |
| Pol1 | Card or History | 73.9 | 12-23 m | 2197 | 48 |
| Pol1 | History | 27.7 | 12-23 m | 2197 | 48 |
| Pol3 | C or H <12 months | 33.9 | 12-23 m | 2197 | 48 |
| Pol3 | Card | 32.9 | 12-23 m | 2197 | 48 |
| Pol3 | Card or History | 39.4 | 12-23 m | 2197 | 48 |
| Pol3 | History | 6.5 | 12-23 m | 2197 | 48 |

1997 Enquete de couverture vaccinale au Mali 1998

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG | Card | 62 | 12-23 m | 1521 | 57 |
| BCG | Card or History | 84 | 12-23 m | 1521 | 57 |
| DTP1 | Card | 52 | 12-23 m | 1521 | 57 |
| DTP1 | Card or History | 79 | 12-23 m | 1521 | 57 |
| DTP3 | Card | 37 | 12-23 m | 1521 | 57 |
| DTP3 | Card or History | 52 | 12-23 m | 1521 | 57 |
| MCV1 | Card | 41 | 12-23 m | 1521 | 57 |
| MCV1 | Card or History | 57 | 12-23 m | 1521 | 57 |
| Pol3 | Card | 37 | 12-23 m | 1521 | 57 |
| Pol3 | Card or History | 52 | 12-23 m | 1521 | 57 |

Further information and estimates for previous years are available at:

<http://www.data.unicef.org/child-health/immunization>

<https://www.who.int/teams/immunization-vaccines-and-biologicals/immunization-analysis-and-insights/global-monitoring/data-statistics-and-graphics>