

Mali: WHO and UNICEF estimates of immunization coverage: 2024 revision

BACKGROUND NOTE Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from 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 available empirical data accurately reflect immunization system performance and those where the data are likely compromised and present a misleading view of coverage.

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. Bull World Health Organ. * Burton et al. 2012. PLoS One.
* Brown et al. 2013. Open Pub Health Journal. * Danovaro-Holliday et al. 2021. Gates Open Res.

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 6-11, 12-23 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 data collection period.

ABBREVIATIONS AND DEFINITIONS

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. For countries utilizing IPV containing vaccine only, i.e., no recommended dose of OPV, 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.

IPV2: percentage of surviving infants who received a 2nd dose of inactivated polio vaccine. IPV2 coverage estimates produced for OPV using countries.

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 in the production of the estimate.

HEPB3: 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 if coverage for the booster dose is not reported.

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.

MENGA: percentage of children who received one dose of meningococcal A conjugate vaccine. MENGA coverage estimates produced for countries in the meningitis belt of sub-Saharan Africa.

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NOTE DE SYNTHÈSE Chaque année, l'OMS et l'UNICEF examinent conjointement les rapports soumis par les États Membres concernant la couverture vaccinale nationale, les rapports d'enquêtes finalisés, ainsi que les données issues de la littérature publiée et grise. Sur la base de ces données, et en tenant dûment compte des biais potentiels ainsi que des avis des experts locaux, l'OMS et l'UNICEF s'efforcent de distinguer les situations où les données empiriques disponibles reflètent fidèlement la performance du système de vaccination de celles où les données sont probablement compromises et donnent une vision trompeuse de la couverture.

Les estimations de l'OMS et de l'UNICEF sont spécifiques à chaque pays ; c'est-à-dire que les données de chaque pays sont examinées individuellement, et aucune donnée n'est empruntée à d'autres pays en l'absence de données. Les estimations ne reposent pas sur des ajustements ponctuels des données rapportées ; dans certains cas, des données empiriques proviennent d'une seule source, généralement les données de couverture déclarées au niveau national. Lorsqu'aucune donnée n'est disponible pour une combinaison donnée de pays/vaccin/année, les données des années précédentes et suivantes sont prises en compte et interpolées pour estimer la couverture des années manquantes. Dans les cas où les sources de données sont variées et présentent de grandes variations, une tentative est faite pour identifier l'estimation la plus probable en tenant compte des biais potentiels dans les données disponibles. Pour les méthodes, voir :

* Burton et al. 2009. Bull World Health Organ. * Burton et al. 2012. PLoS One.
* Brown et al. 2013. Open Pub Health Journal. * Danovaro-Holliday et al. 2021. Gates Open Res.

SOURCES DE DONNÉES

Couverture ADMINISTRATIVE: Rapportée par les autorités nationales et basée sur des rapports administratifs agrégés provenant des prestataires de services de santé concernant le nombre de vaccinations administrées sur une période donnée (données du numérateur) et les données déclarées sur la population cible (données du dénominateur). Cette couverture peut être biaisée par des inexactitudes dans les données du numérateur et/ou du dénominateur.

Couverture OFFICIELLE: Estimation de la couverture rapportée par les autorités nationales, reflétant leur évaluation de la couverture la plus probable sur la base d'une combinaison de la couverture administrative, des estimations basées sur des enquêtes ou d'autres sources de données ou ajustements. Les approches pour déterminer la couverture OFFICIELLE peuvent varier d'un pays à l'autre.

Couverture par ENQUÊTE: Basée sur des estimations de couverture issues d'enquêtes menées auprès des ménages chez des enfants âgés de 6-11, 12-23 ou 24-35 mois, suivant une revue des méthodes et des résultats de l'enquête. Les informations reposent sur une combinaison de l'historique vaccinal, basé sur des preuves documentées ou le rappel des soignants. Les résultats des enquêtes sont considérés pour la cohorte de naissance appropriée en fonction de la période de collecte des données.

ABRÉVIATIONS ET DÉFINITIONS

BCG: pourcentage des naissances ayant reçu une dose du vaccin Bacillus Calmette-Guérin.

DTP1 (DTC1) / DTP3 (DTC3): pourcentage des nourrissons survivants ayant reçu respectivement la 1re / 3e dose du vaccin contenant l'anatoxine diphtérique et tétanique avec la coqueluche.

POL3: pourcentage des nourrissons survivants ayant reçu la 3e dose d'un vaccin contre la poliomyélite, qu'il s'agisse d'un vaccin oral ou inactivé.

IPV1 (VPI1): pourcentage des nourrissons survivants ayant reçu au moins une dose de vaccin antipoliomyélitique inactivé (VPI). Dans les pays suivant un calendrier de vaccination recommandant soit (i) une série primaire de trois doses de vaccin antipoliomyélitique oral (VPO) plus au moins une dose de VPI lorsque le VPO est inclus dans la vaccination systématique et/ou dans les campagnes, soit (ii) un calendrier séquentiel incluant le VPI suivi du VPO, les estimations de l'OMS et de l'UNICEF pour le VPI1 reflètent la couverture par au moins une dose systématique de VPI chez les nourrissons de moins d'un an. Pour les pays utilisant exclusivement le vaccin contenant le VPI, c'est-à-dire sans dose recommandée de VPO, les estimations de l'OMS et de l'UNICEF pour le VPI1 correspondent à la couverture de la 1ère dose de VPI.

La production des estimations de couverture pour le VPI, débutée en 2015, n'entraîne aucun changement dans les niveaux de couverture estimés pour la 3e dose de vaccin antipoliomyélitique (POL3). Pour les pays recommandant la vaccination systématique avec une série primaire de trois doses de VPI uniquement, la couverture POL3 estimée par l'OMS et l'UNICEF est équivalente à la couverture estimée avec trois doses de VPI. Pour les pays suivant un calendrier séquentiel, la couverture POL3 estimée repose sur celle de la 3e dose de vaccin antipoliomyélitique, quel que soit le type de vaccin.

IPV2 (VPI2): pourcentage des nourrissons survivants ayant reçu une 2e dose de vaccin antipoliomyélitique inactivé (VPI). Les estimations de couverture pour le VPI2 sont produites pour les pays utilisant le VPO.

MCV1: pourcentage des nourrissons survivants ayant reçu la 1re dose de vaccin contenant la rougeole. Dans les pays où le calendrier national recommande la 1re dose de MCV à 12 mois ou plus, en fonction de l'épidémiologie de la maladie dans le pays, les estimations de couverture reflètent le pourcentage d'enfants ayant reçu la 1re dose de MCV conformément à la recommandation.

MCV2: pourcentage des enfants ayant reçu la 2e dose de vaccin contenant la rougeole conformément au calendrier vaccinal du pays.

RCV1: pourcentage des nourrissons survivants ayant reçu la 1re dose de vaccin contenant la rubéole. Les estimations de couverture sont basées sur les estimations de l'OMS et de l'UNICEF pour la dose de vaccin contenant la rougeole qui correspond à la première combinaison vaccin rougeole-rubéole. La couverture déclarée au niveau national pour le RCV n'est pas prise en compte dans l'élaboration de cette estimation.

HEPB (VHBN): pourcentage des naissances ayant reçu une dose de vaccin contre l'hépatite B dans les 24 heures suivant l'accouchement. Les estimations de la couverture de la dose à la naissance contre l'hépatite B sont produites uniquement pour les pays ayant une politique universelle de dose à la naissance. Aucune estimation n'est réalisée pour les pays qui recommandent une dose à la naissance uniquement pour les nourrissons nés de mères infectées par le virus de l'hépatite B, ou pour les pays où les informations sont insuffisantes pour déterminer si la vaccination a eu lieu dans les 24 heures suivant la naissance.

HEPB3 (VHB3): pourcentage des nourrissons survivants ayant reçu la 3e dose de vaccin contenant l'hépatite B après la dose à la naissance.

HIB3: pourcentage des nourrissons survivants ayant reçu la 3e dose de vaccin contenant Haemophilus influenzae de type b.

ROTAC: pourcentage des nourrissons survivants ayant reçu la dernière dose recommandée du vaccin contre le rotavirus, qui peut être la 2e ou la 3e dose selon le vaccin.

PCV3 (VPC3): pourcentage des nourrissons survivants ayant reçu la 3e dose du vaccin antipneumococcique conjugué. Dans les pays où le calendrier national recommande deux doses pendant la petite enfance et une dose de rappel à 12 mois ou plus en fonction de l'épidémiologie

de la maladie dans le pays, les estimations de couverture peuvent refléter le pourcentage des nourrissons survivants ayant reçu deux doses de VPC avant leur premier anniversaire si la couverture pour la dose de rappel n'est pas déclarée.

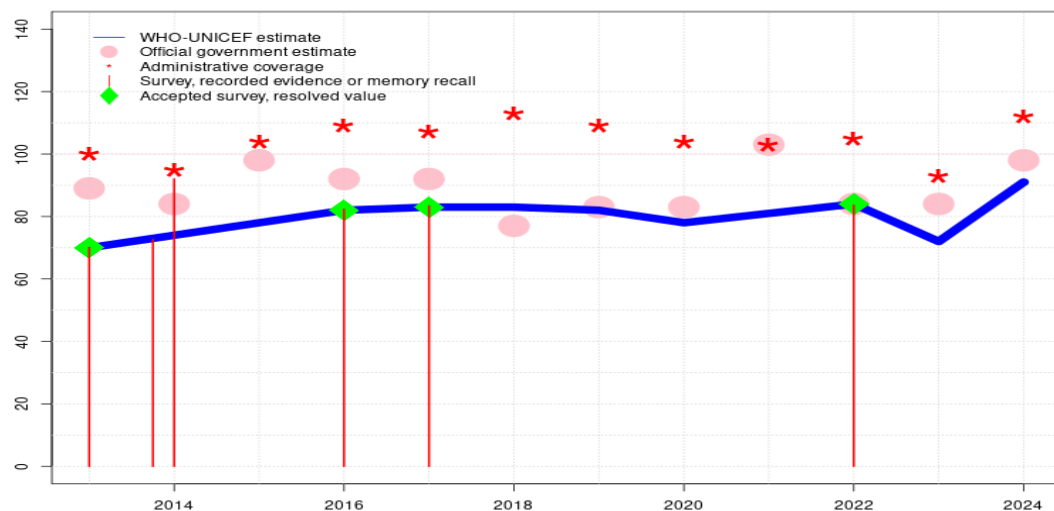
YFV (VFA): pourcentage des nourrissons survivants ayant reçu une dose de vaccin contre la fièvre jaune dans les pays où le VFA fait partie du calendrier national de vaccination des enfants ou est recommandé dans les zones à risque ; les estimations de couverture sont annualisées pour l'ensemble de la cohorte des nourrissons survivants.

MENGA: pourcentage des enfants ayant reçu une dose de vaccin conjugué contre le méningocoque A. Les estimations de couverture MENGA sont produites pour les pays situés dans la ceinture de la méningite en Afrique subsaharienne.

Avertissement: Toutes les précautions raisonnables ont été prises par l'Organisation mondiale de la Santé et le Fonds des Nations Unies pour l'enfance pour vérifier les informations contenues dans cette publication. Toutefois, le matériel publié est distribué sans aucune garantie, explicite ou implicite. La responsabilité de l'interprétation et de l'utilisation du matériel incombe au lecteur. En aucun cas, l'Organisation mondiale de la Santé ou le Fonds des Nations Unies pour l'enfance ne sauraient être tenus responsables des dommages résultant de son utilisation.

Mali - BCG

MLI - BCG



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	70	74	78	82	83	83	82	78	81	84	72	91
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	89	84	98	92	92	77	83	83	103	84	84	98
Administrative	100	95	104	109	107	113	109	104	103	105	93	112
Survey	70	*	-	82	83	-	-	-	-	84	-	-

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: 2024 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.

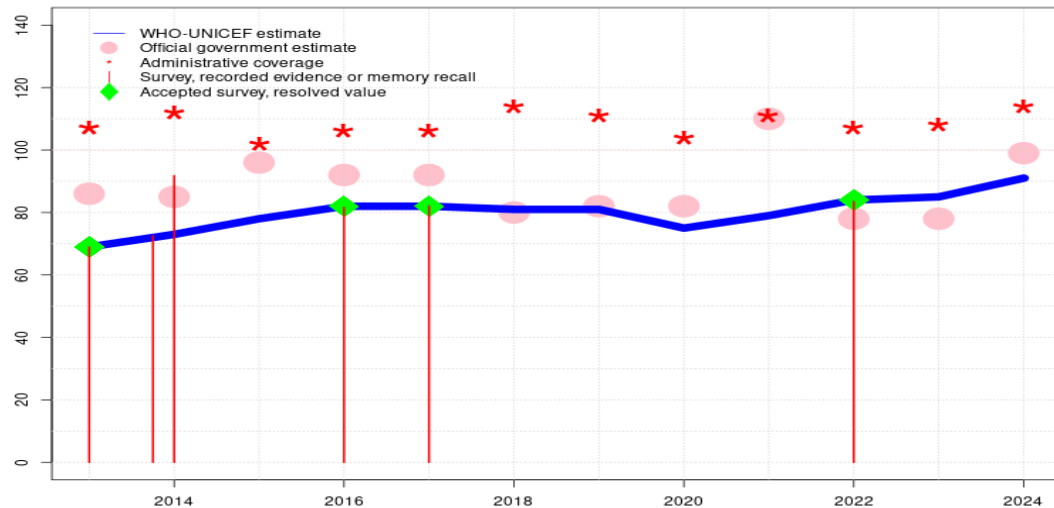
Description:

- 2024: Estimate exceptionally based on the difference between estimated and reported administrative coverage applied to estimated coverage. Reported data excluded because 112 percent greater than 100 percent. Reported data excluded due to sudden change in coverage from 93 to 112 percent. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Estimate exceptionally based on the difference between estimated and reported administrative coverage applied to estimated coverage. Reported data excluded due to decline in reported coverage from 105 percent to 93 percent with increase to 112 percent. Programme reported three months vaccine stockout at the national and subnational levels. Official reported data inconsistent between 2023 and 2024. Estimate of 72 percent changed from previous revision value of 71 percent. Estimate challenged by: D-R-S-
- 2022: Estimate of 84 percent assigned by working group. Reported data excluded because 105 percent greater than 100 percent. Programme reports a vaccine stockout at subnational level. Estimate of 84 percent changed from previous revision value of 80 percent. Estimate challenged by: D-R-
- 2021: Estimate of 81 percent assigned by working group. Reported data excluded because 103 percent greater than 100 percent. Estimate challenged by: D-R-
- 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. Programme reports a national and subnational level vaccine stockout of less than a month. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 and 2021 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 stockouts for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 and 2021 levels. Reported data excluded. Estimate of 83 percent changed from previous revision value of 82 percent. Estimate challenged by: D-R-
- 2017: Estimate of 83 percent assigned by working group. Estimate informed by 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 informed by 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 2013 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 and 2016 levels. Mali Multiple Indicator Cluster Survey 2015 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. 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 of 74 percent changed from previous revision value of 73 percent. Estimate challenged by: D-R-
- 2013: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 70 percent based on 1 survey(s). Estimate challenged by: D-R-S-

Mali - DTP1

MLI - DTP1



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	69	73	78	82	82	81	81	75	79	84	85	91
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	86	85	96	92	92	80	82	82	110	78	78	99
Administrative	107	112	102	106	106	114	111	104	111	107	108	114
Survey	69	*	-	82	82	-	-	-	-	84	-	-

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: 2024 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:

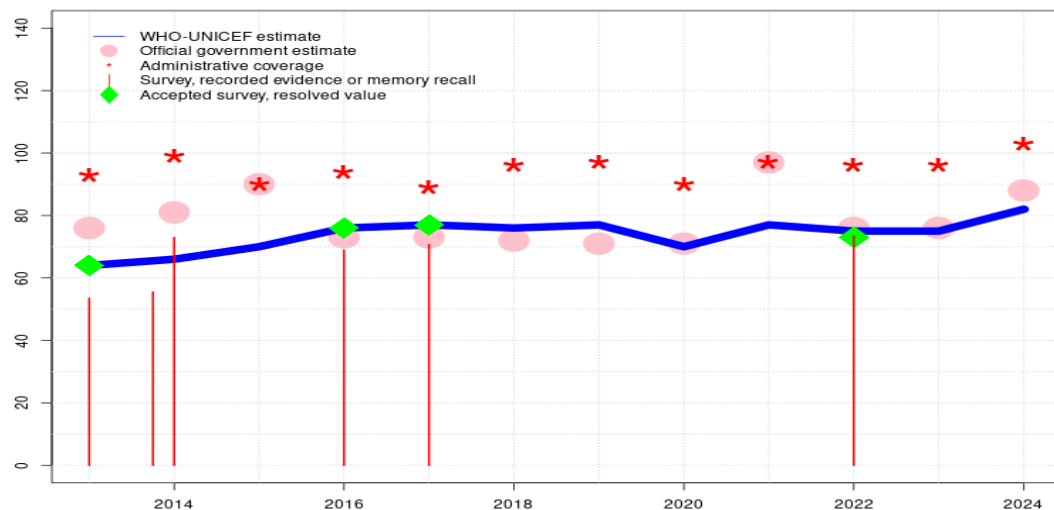
- 2024: Estimate exceptionally based on the difference between estimated and reported administrative coverage applied to estimated coverage. Reported data excluded because 114 percent greater than 100 percent. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Estimate exceptionally based on the difference between estimated and reported administrative coverage applied to estimated coverage. Reported data excluded because 108 percent greater than 100 percent. Official reported data inconsistent between 2023 and 2024. Estimate of 85 percent changed from previous revision value of 78 percent. Estimate challenged by: D-R-
- 2022: Estimate of 84 percent assigned by working group. Reported data excluded because 107 percent greater than 100 percent. Estimate of 84 percent changed from previous revision value of 78 percent. Estimate challenged by: D-R-
- 2021: Estimate of 79 percent assigned by working group. Reported data excluded because 110 percent greater than 100 percent. Estimate challenged by: D-R-
- 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. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 and 2021 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 stockouts for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 and 2021 levels. Reported data excluded. Estimate of 81 percent changed from previous revision value of 82 percent. Estimate challenged by: D-R-
- 2017: Estimate of 82 percent assigned by working group. Estimate informed by 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 informed by 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 stockout. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2013 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 and 2016 levels. Mali Multiple Indicator Cluster Survey

2015 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. 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 result. Survey evidence of 69 percent based on 1 survey(s). Estimate challenged by: D-R-S-

Mali - DTP3

MLI - DTP3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	64	66	70	76	77	76	77	70	77	75	75	82
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	76	81	90	73	73	72	71	71	97	76	76	88
Administrative	93	99	90	94	89	96	97	90	97	96	96	103
Survey	54	*	-	69	71	-	-	-	-	73	-	-

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: 2024 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:

- 2024: Estimate exceptionally based on the difference between estimated and reported administrative coverage applied to estimated coverage. Reported data excluded because 103 percent greater than 100 percent. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Reported data calibrated to 2022 levels. Official reported data inconsistent between 2023 and 2024. Estimate of 75 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2022: Estimate of 75 percent assigned by working group. Recall-bias adjustment based on recall among children with cards not possible to calculate from the DHS Key Indicators report. Survey coverage estimate corrected for recall bias based on the difference between DTP1 and DTP3 in admin data applied to survey results by card or recall. Estimate of 75 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2021: Estimate of 77 percent assigned by working group. Estimate challenged by: D-R-
- 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. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 and 2021 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 stockouts for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 and 2021 levels. Reported data excluded. Estimate of 76 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2017: Estimate of 77 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 71 percent modified for recall bias to 77 percent based on 1st dose record or recall coverage of 82 percent, 1st dose record only coverage of 54 percent and 3rd dose record 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: R-
- 2016: Estimate of 76 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 69 percent modified for recall bias to 76 percent based on 1st dose record or recall coverage of 82 percent, 1st dose record only coverage of 43 percent and 3rd dose record 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 stockout. Estimate challenged by: D-R-

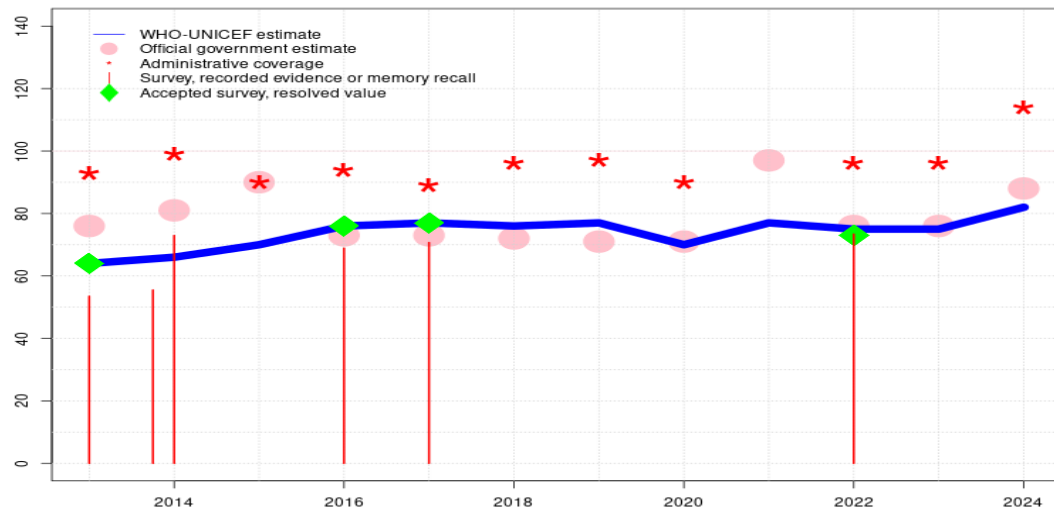
2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate of 70 percent changed from previous revision value of 71 percent. Estimate challenged by: D-R-

2014: Estimate of 66 percent assigned by working group. Estimate informed by survey results. Mali Multiple Indicator Cluster Survey 2015 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. 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 record or recall results of 56 percent modified for recall bias to 66 percent based on 1st dose record or recall coverage of 73 percent, 1st dose record only coverage of 41 percent and 3rd dose record only coverage of 37 percent. Expanded Programme of Immunization External Review, 2016 record or recall results of 73 percent modified for recall bias to 99 percent based on 1st dose record or recall coverage of 92 percent, 1st dose record only coverage of 36 percent and 3rd dose record 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 result. Survey evidence of 64 percent based on 1 survey(s). Mali Multiple Indicator Cluster Survey 2015 record or recall results of 54 percent modified for recall bias to 64 percent based on 1st dose record or recall coverage of 69 percent, 1st dose record only coverage of 29 percent and 3rd dose record only coverage of 27 percent. Estimate challenged by: D-R-

Mali - HEPB3

MLI - HEPB3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	64	66	70	76	77	76	77	70	77	75	75	82
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	76	81	90	73	73	72	71	71	97	76	76	88
Administrative	93	99	90	94	89	96	97	90	-	96	96	114
Survey	54	*	-	69	71	-	-	-	-	73	-	-

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: 2024 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:

- 2024: Estimate based on estimated DTP3 coverage. Reported data excluded because 114 percent greater than 100 percent. Reported data excluded due to sudden change in coverage from 96 to 114 percent. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Reported data calibrated to 2022 levels. Official reported data inconsistent between 2023 and 2024. Estimate of 75 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2022: Estimate of 75 percent assigned by working group. Recall-bias adjustment based on recall among children with cards not possible to calculate from the DHS Key Indicators report. Survey coverage estimate corrected for recall bias based on the difference between DTP1 and DTP3 in admin data applied to survey results by card or recall. Estimate of 75 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2021: Estimate of 77 percent assigned by working group. Estimate challenged by: R-
- 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. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 and 2021 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 stockouts for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 and 2021 levels. Reported data excluded. Estimate of 76 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2017: Estimate of 77 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 71 percent modified for recall bias to 77 percent based on 1st dose record or recall coverage of 82 percent, 1st dose record only coverage of 54 percent and 3rd dose record 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: R-
- 2016: Estimate of 76 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 69 percent modified for recall bias to 76 percent based on 1st dose record or recall coverage of 82 percent, 1st dose record only coverage of 43 percent and 3rd dose record 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 stockout. Estimate challenged by: D-R-

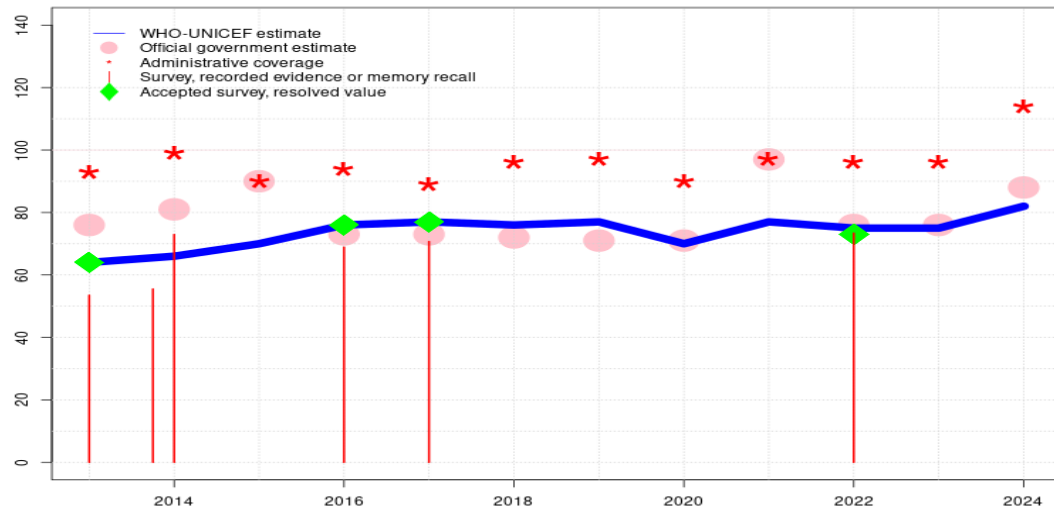
2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate of 70 percent changed from previous revision value of 71 percent. Estimate challenged by: D-R-

2014: Estimate of 66 percent assigned by working group. Estimate informed by survey result. Mali Multiple Indicator Cluster Survey 2015 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. 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 record or recall results of 56 percent modified for recall bias to 66 percent based on 1st dose record or recall coverage of 73 percent, 1st dose record only coverage of 41 percent and 3rd dose record only coverage of 37 percent. Expanded Programme of Immunization External Review, 2016 record or recall results of 73 percent modified for recall bias to 99 percent based on 1st dose record or recall coverage of 92 percent, 1st dose record only coverage of 36 percent and 3rd dose record 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 result. Survey evidence of 64 percent based on 1 survey(s). Mali Multiple Indicator Cluster Survey 2015 record or recall results of 54 percent modified for recall bias to 64 percent based on 1st dose record or recall coverage of 69 percent, 1st dose record only coverage of 29 percent and 3rd dose record only coverage of 27 percent. Estimate challenged by: D-R-

Mali - HIB3

MLI - HIB3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	64	66	70	76	77	76	77	70	77	75	75	82
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	76	81	90	73	73	72	71	71	97	76	76	88
Administrative	93	99	90	94	89	96	97	90	97	96	96	114
Survey	54	*	-	69	71	-	-	-	-	73	-	-

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: 2024 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:

- 2024: Estimate based on estimated DTP3 coverage. Reported data excluded because 114 percent greater than 100 percent. Reported data excluded due to sudden change in coverage from 96 to 114 percent. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Reported data calibrated to 2022 levels. Official reported data inconsistent between 2023 and 2024. Estimate of 75 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2022: Estimate of 75 percent assigned by working group. Recall-bias adjustment based on recall among children with cards not possible to calculate from the DHS Key Indicators report. Survey coverage estimate corrected for recall bias based on the difference between DTP1 and DTP3 in admin data applied to survey results by card or recall. Estimate of 75 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2021: Estimate of 77 percent assigned by working group. Estimate challenged by: D-R-
- 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. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 and 2021 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 stockouts for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 and 2021 levels. Reported data excluded. Estimate of 76 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2017: Estimate of 77 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 71 percent modified for recall bias to 77 percent based on 1st dose record or recall coverage of 82 percent, 1st dose record only coverage of 54 percent and 3rd dose record 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: R-
- 2016: Estimate of 76 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 69 percent modified for recall bias to 76 percent based on 1st dose record or recall coverage of 82 percent, 1st dose record only coverage of 43 percent and 3rd dose record 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 stockout. Estimate challenged by: D-R-

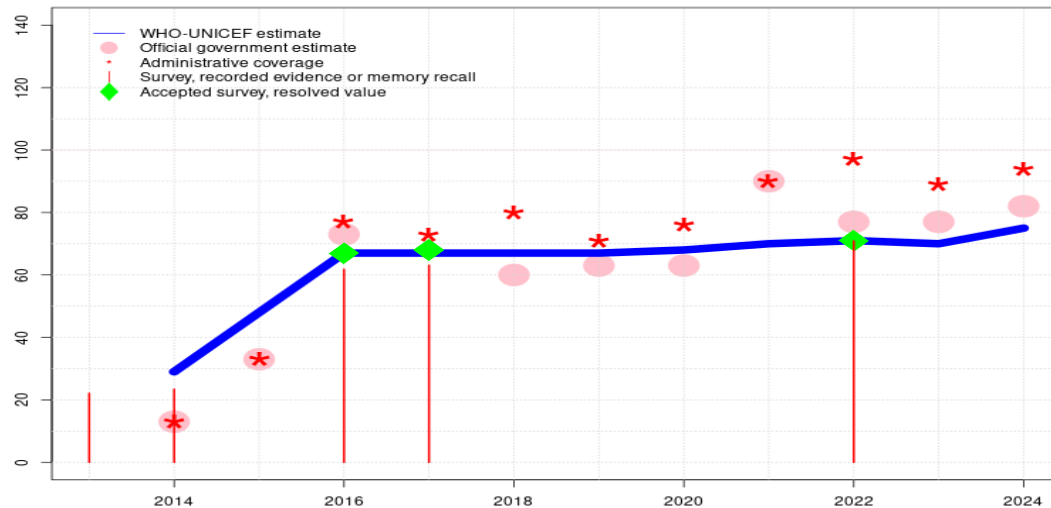
2015: Reported data calibrated to 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate of 70 percent changed from previous revision value of 71 percent. Estimate challenged by: D-R-

2014: Estimate of 66 percent assigned by working group. Estimate informed by survey result. Mali Multiple Indicator Cluster Survey 2015 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. 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 record or recall results of 56 percent modified for recall bias to 66 percent based on 1st dose record or recall coverage of 73 percent, 1st dose record only coverage of 41 percent and 3rd dose record only coverage of 37 percent. Expanded Programme of Immunization External Review, 2016 record or recall results of 73 percent modified for recall bias to 99 percent based on 1st dose record or recall coverage of 92 percent, 1st dose record only coverage of 36 percent and 3rd dose record 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 result. Survey evidence of 64 percent based on 1 survey(s). Mali Multiple Indicator Cluster Survey 2015 record or recall results of 54 percent modified for recall bias to 64 percent based on 1st dose record or recall coverage of 69 percent, 1st dose record only coverage of 29 percent and 3rd dose record only coverage of 27 percent. Estimate challenged by: D-R-

Mali - ROTAC

MLI - ROTAC



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	29	48	67	67	67	67	68	70	71	70	75
Estimate GoC	-	●	●	●	●	●	●	●	●	●	●	●
Official	-	13	33	73	-	60	63	63	90	77	77	82
Administrative	-	13	33	77	73	80	71	76	90	97	89	94
Survey	22	23	-	62	63	-	-	-	-	71	-	-

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: 2024 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:

- 2024: Reported data calibrated to 2023 levels. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Estimate of 70 percent assigned by working group. Estimate is based on the relationship between reported admin coverage for DTP3 and RotaC applied to the DTP3 estimated coverage. Programme reported three months vaccine stockout at the national and sub-national levels. Official reported data inconsistent between 2023 and 2024. Estimate of 70 percent changed from previous revision value of 63 percent. Estimate challenged by: D-R-
- 2022: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 71 percent based on 1 survey(s). Programme reports a vaccine stockout at subnational level. Estimate of 71 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-
- 2021: Estimate of 70 percent assigned by working group. Estimate informed by the difference in reported administrative coverage for DTP3 and RotaC applied to the estimated coverage level for DTP3. Estimate challenged by: D-R-
- 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. Estimate challenged by: R-
- 2019: Estimate of 67 percent assigned by working group. Estimate informed by 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 stockouts for most antigens. Estimate of 67 percent changed from previous revision value of 63 percent. Estimate challenged by: R-
- 2018: Estimate of 67 percent assigned by working group. Estimate informed by survey result. Reported data excluded. Estimate of 67 percent changed from previous revision value of 63 percent. Estimate challenged by: R-
- 2017: Estimate of 67 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 63 percent modified for recall bias to 68 percent based on 1st dose record or recall coverage of 79 percent, 1st dose record only coverage of 52 percent and 3rd dose record only coverage of 45 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 of 67 percent changed from previous revision value of 63 percent. Estimate challenged by: R-
- 2016: Estimate of 67 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 62 percent modified for recall bias to 67 percent based on 1st dose record or recall coverage of 79 percent,

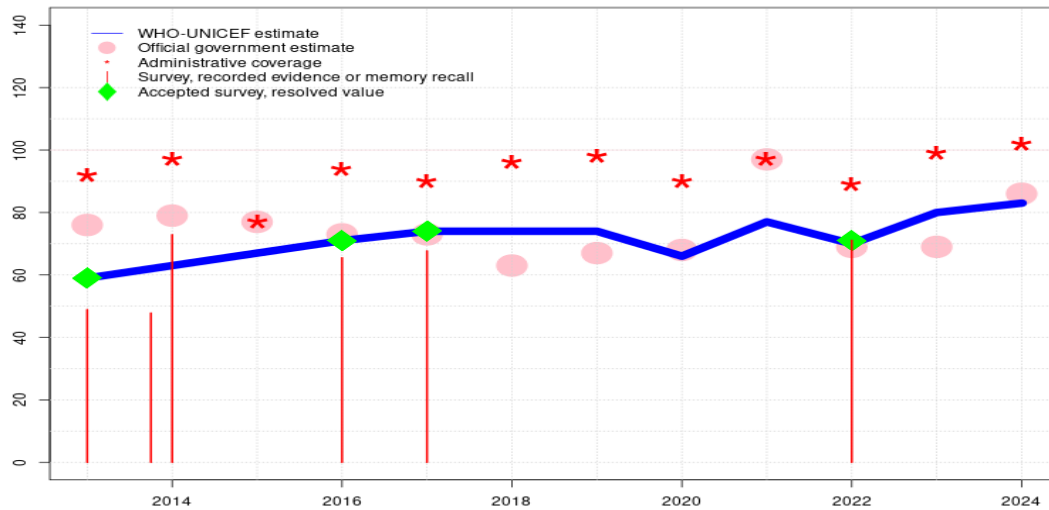
1st dose record only coverage of 41 percent and 3rd dose record only coverage of 35 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Official estimates based on January-February 2016 vaccination coverage survey for 2014 cohort, which has internal inconsistencies in the results. Estimate of 67 percent changed from previous revision value of 62 percent. Estimate challenged by: R-

2015: Estimate informed by interpolation between 2014 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate of 48 percent changed from previous revision value of 35 percent. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2014: Estimate of 29 percent assigned by working group. Estimate informed by survey result. Mali Multiple Indicator Cluster Survey 2015 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 record or recall results of 23 percent modified for recall bias to 30 percent based on 1st dose record or recall coverage of 37 percent, 1st dose record only coverage of 16 percent and 3rd dose record only coverage of 13 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Rotavirus vaccine introduced in 2014. Estimate of 29 percent changed from previous revision value of 23 percent. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

Mali - PCV3

MLI - PCV3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	59	63	67	71	74	74	74	66	77	70	80	83
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	76	79	77	73	73	63	67	68	97	69	69	86
Administrative	92	97	77	94	90	96	98	90	97	89	99	102
Survey	49	*	-	66	68	-	-	-	-	71	-	-

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: 2024 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:

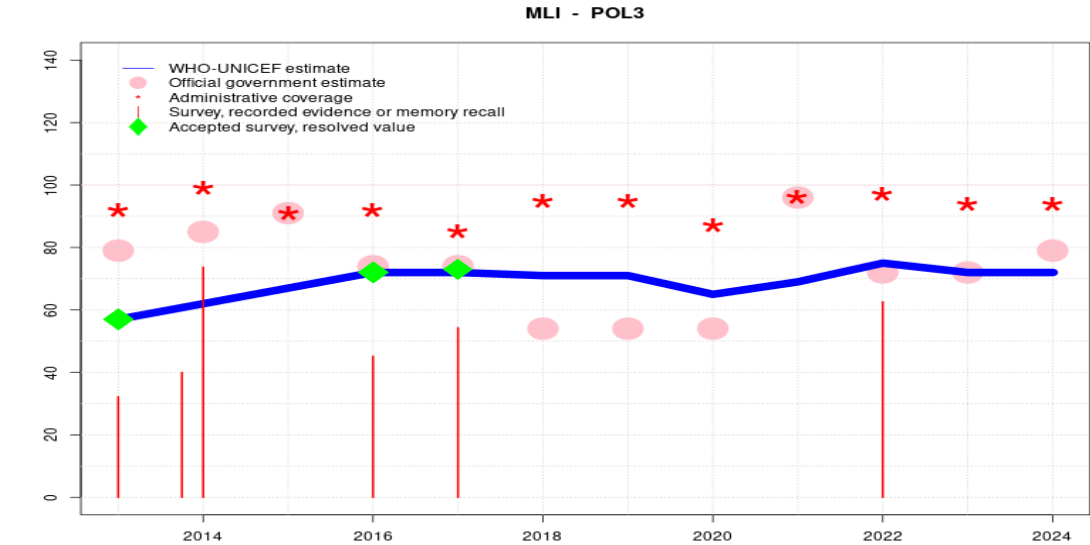
- 2024: Estimate exceptionally based on the difference between estimated and reported administrative coverage applied to estimated coverage. Reported data excluded because 102 percent greater than 100 percent. Programme reported a one month vaccine stockout at the national and subnational levels. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-S-
- 2023: Reported data calibrated to 2022 levels. Official reported data inconsistent between 2023 and 2024. Estimate of 80 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2022: Estimate of 70 percent assigned by working group. Estimate is based on the relationship between reported admin coverage for DTP3 and PCV3 applied to the DTP3 estimated coverage. Programme reports a vaccine stockout at subnational level. Estimate of 70 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2021: Estimate of 77 percent assigned by working group. Estimate informed by estimated coverage for DTP3. Estimate challenged by: D-R-
- 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. Estimate challenged by: D-R-
- 2019: Estimate informed by extrapolation from estimated coverage for 2017. Reported data excluded. Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stockouts for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 and 2021 levels. Reported data excluded. Estimate of 74 percent changed from previous revision value of 73 percent. Estimate challenged by: D-R-
- 2017: Estimate of 74 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 68 percent modified for recall bias to 74 percent based on 1st dose record or recall coverage of 80 percent, 1st dose record only coverage of 53 percent and 3rd dose record 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: R-
- 2016: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 71 percent based on 1 survey(s). Mali Demographic and Health Survey 2018 record or recall results of 66 percent modified for recall bias to 71 percent based on 1st dose record or recall coverage of 79 percent, 1st dose record only coverage of 42 percent and 3rd dose record 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 of 71 percent changed from previous revision value of 74 percent. Estimate challenged by: D-R-

2015: Reported data calibrated to 2013 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate of 67 percent changed from previous revision value of 65 percent. Estimate challenged by: R-

2014: Reported data calibrated to 2013 and 2016 levels. Mali Multiple Indicator Cluster Survey 2015 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. 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 record or recall results of 48 percent modified for recall bias to 56 percent based on 1st dose record or recall coverage of 65 percent, 1st dose record only coverage of 35 percent and 3rd dose record only coverage of 30 percent. Expanded Programme of Immunization External Review, 2016 record or recall results of 73 percent modified for recall bias to 99 percent based on 1st dose record or recall coverage of 91 percent, 1st dose record only coverage of 36 percent and 3rd dose record only coverage of 45 percent. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate of 63 percent changed from previous revision value of 57 percent. Estimate challenged by: D-R-

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



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	57	62	67	72	72	71	71	65	69	75	72	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	79	85	91	74	74	54	54	54	96	72	72	79
Administrative	92	99	91	92	85	95	95	87	96	97	94	94
Survey	32	*	-	45	54	-	-	-	-	63	-	-

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: 2024 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.

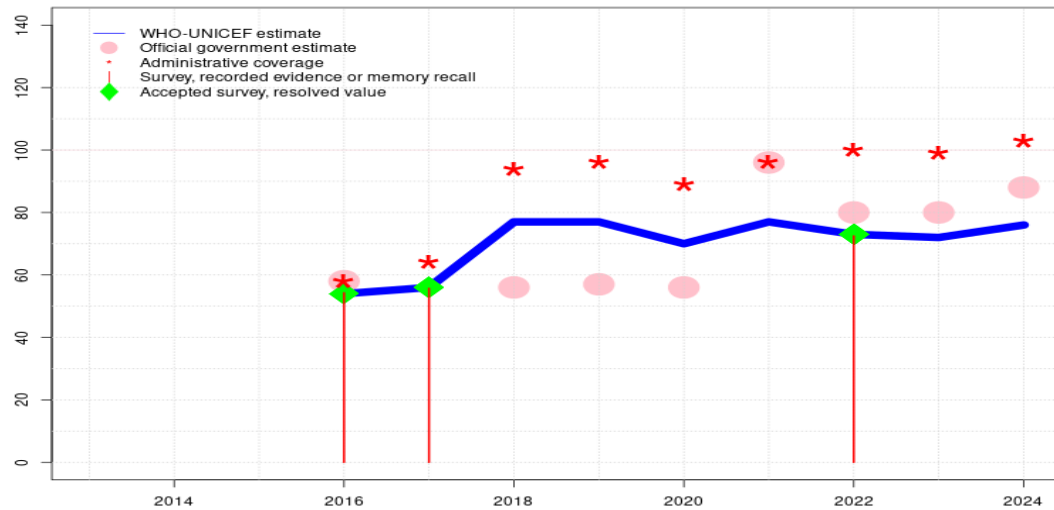
Description:

- 2024: Reported data calibrated to 2022 levels. Programme reported a one month vaccine stock-out at the national and subnational levels. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Reported data calibrated to 2022 levels. Official reported data inconsistent between 2023 and 2024. Estimate of 72 percent changed from previous revision value of 68 percent. Estimate challenged by: D-R-
- 2022: Estimate of 75 percent assigned by working group. Estimate based on estimated DTP3. Mali Demographic and Health Survey (Key Indicators Report) 2023-2024 results ignored by working group. Survey results inconsistent with other antigens recommended at the same time. Estimate of 75 percent changed from previous revision value of 68 percent. Estimate challenged by: D-R-
- 2021: Estimate of 69 percent assigned by working group. Estimate challenged by: D-R-
- 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. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 and 2021 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 stockouts for most antigens. Estimate of 71 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 and 2021 levels. Reported data excluded. Estimate challenged by: D-R-
- 2017: Estimate of 72 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 54 percent modified for recall bias to 73 percent based on 1st dose record or recall coverage of 79 percent, 1st dose record only coverage of 54 percent and 3rd dose record 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: R-
- 2016: Estimate of 72 percent assigned by working group. Estimate informed by survey result. Mali Demographic and Health Survey 2018 record or recall results of 45 percent modified for recall bias to 72 percent based on 1st dose record or recall coverage of 77 percent, 1st dose record only coverage of 43 percent and 3rd dose record 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 2013 and 2016 levels. Reported data excluded. Programme reports data quality issues affecting both coverage denominator and numerator. Estimate of 67 percent changed from previous revision value of 66 percent. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 and 2016 levels. Mali Multiple Indicator Cluster Survey 2015 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. 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 record or recall results of 40 percent modified for recall bias to 62 percent based on 1st dose record or recall coverage of 69 percent, 1st dose record only coverage of 40 percent and 3rd dose record only coverage of 36 percent. Expanded Programme of Immunization External Review, 2016 record or recall results of 74 percent modified for recall bias to 99 percent based on 1st dose record or recall coverage of 92 percent, 1st dose record only coverage of 36 percent and 3rd dose record 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 result. Survey evidence of 57 percent based on 1 survey(s). Mali Multiple Indicator Cluster Survey 2015 record or recall results of 32 percent modified for recall bias to 57 percent based on 1st dose record or recall coverage of 64 percent, 1st dose record only coverage of 29 percent and 3rd dose record only coverage of 26 percent. Estimate challenged by: D-R-S-

Mali - IPV1

MLI - IPV1



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	-	54	56	77	77	70	77	73	72	76
Estimate GoC	-	-	-	●	●	●	●	●	●	●	●	●
Official	-	-	-	58	-	56	57	56	96	80	80	88
Administrative	-	-	-	58	64	94	96	89	96	100	99	103
Survey	-	-	-	54	56	-	-	-	-	73	-	-

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: 2024 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.

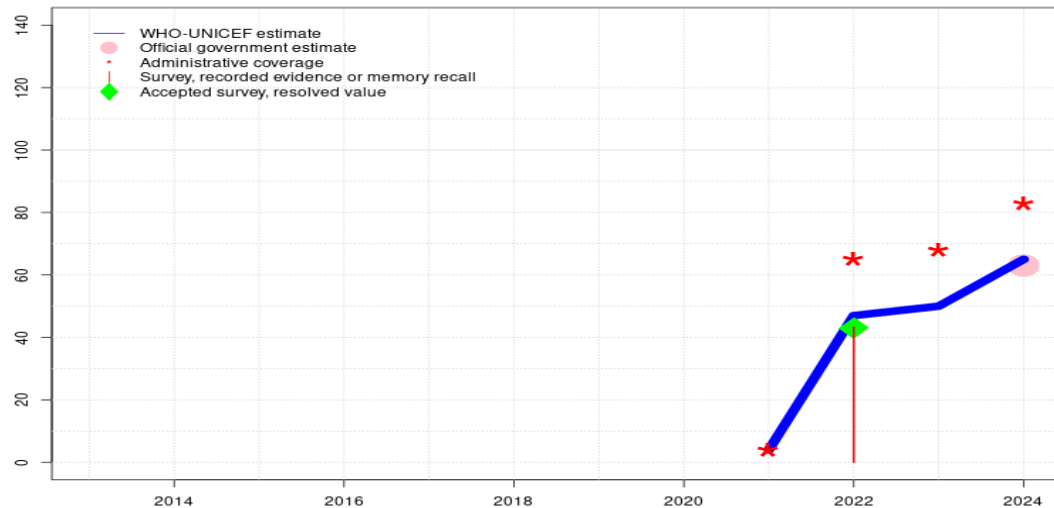
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2024: Estimate exceptionally based on the difference between estimated and reported administrative coverage applied to estimated coverage. Reported data excluded because 103 percent greater than 100 percent. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Reported data calibrated to 2022 levels. Official reported data inconsistent between 2023 and 2024. Estimate of 72 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2022: Estimate of 73 percent assigned by working group. Estimate of 73 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-
- 2021: Estimate of 77 percent assigned by working group. Estimate challenged by: D-R-
- 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. Estimate challenged by: D-R-
- 2019: Estimate informed by 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 stockouts for most antigens. Estimate challenged by: D-R-S-
- 2018: Estimate informed by estimated DTP3 coverage. Reported data excluded. Estimate challenged by: D-R-S-
- 2017: Estimate informed by 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 stockout of IPV of unclear duration. Estimate challenged by: R-
- 2016: Estimate informed by 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. Inactivated polio vaccine (IPV) introduced prior to 2015. Reporting began during 2016. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

Mali - IPV2

MLI - IPV2



Description:

- 2024: Reported data calibrated to 2022 levels. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-S-
- 2023: Reported data calibrated to 2022 levels. Official reported data inconsistent between 2023 and 2024. Estimate of 50 percent changed from previous revision value of 52 percent. Estimate challenged by: D-R-
- 2022: Estimate of 47 percent assigned by working group. Estimate is based on the relationship between reported admin coverage for IPV1 and IPV2 applied to the IPV1 estimated coverage. Estimate of 47 percent changed from previous revision value of 50 percent. Estimate challenged by: D-R-
- 2021: Estimate exceptionally based on reported data during vaccine introduction. Second dose of inactivated polio vaccine introduced in 2021. Estimate challenged by: S-

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	-	-	-	-	-	-	4	47	50	65
Estimate GoC	-	-	-	-	-	-	-	-	•	•	•	•
Official	-	-	-	-	-	-	-	-	-	-	-	63
Administrative	-	-	-	-	-	-	-	-	4	65	68	83
Survey	-	-	-	-	-	-	-	-	-	43	-	-

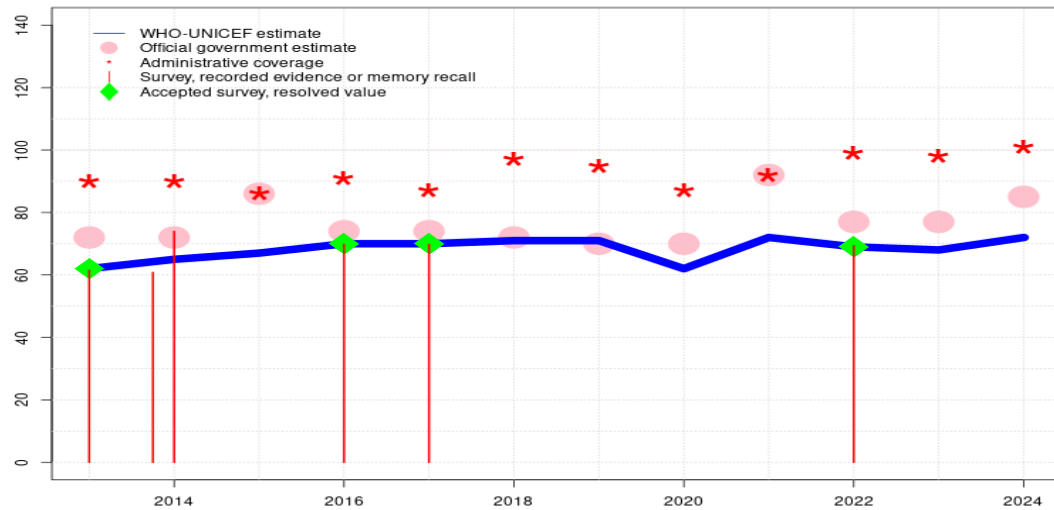
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2024 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 - MCV1

MLI - MCV1



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	62	65	67	70	70	71	71	62	72	69	68	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	72	72	86	74	74	72	70	70	92	77	77	85
Administrative	90	90	86	91	87	97	95	87	92	99	98	101
Survey	62	*	-	70	70	-	-	-	-	69	-	-

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: 2024 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.

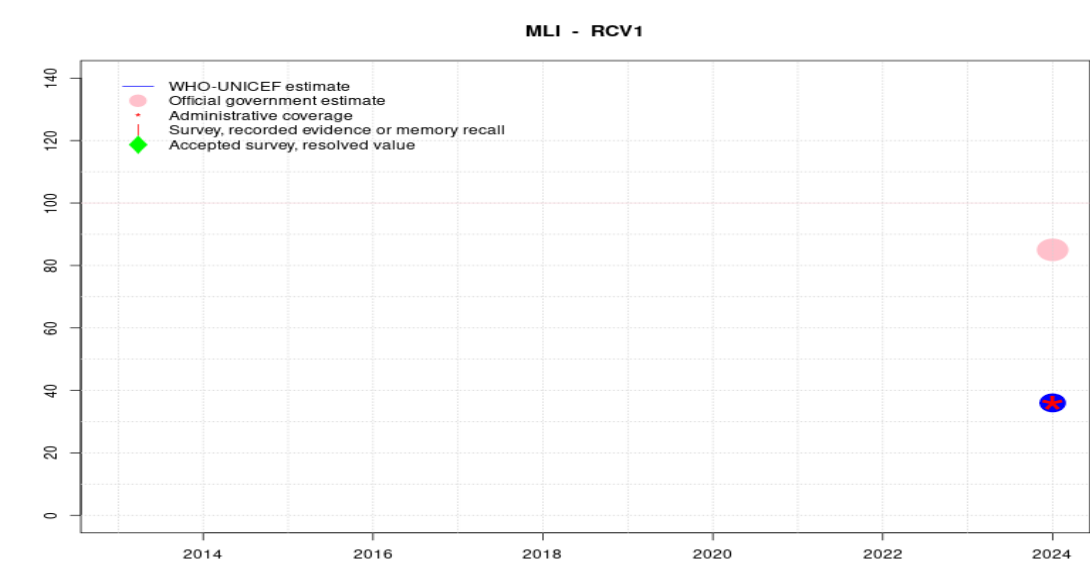
Description:

- 2024: Estimate is based on the relationship between reported number of doses in 2023 and 2024, applied to the 2023 estimated coverage. Reported data excluded. MR introduced in July 2024. Observed decline in reported data likely resulting from the information system not capturing all MR doses. Reported data excluded because 101 percent greater than 100 percent. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Reported data calibrated to 2022 levels. Official reported data inconsistent between 2023 and 2024. Estimate of 68 percent changed from previous revision value of 73 percent. Estimate challenged by: D-R-
- 2022: Estimate of 69 percent assigned by working group. Increase in the number of reported vaccine doses is not reflected in the estimated coverage. Estimate of 69 percent changed from previous revision value of 73 percent. Estimate challenged by: D-R-
- 2021: Estimate of 72 percent assigned by working group. Estimate challenged by: D-R-
- 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. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 and 2021 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 stockouts for most antigens. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 and 2021 levels. Reported data excluded. Estimate challenged by: D-R-
- 2017: Estimate of 70 percent assigned by working group. Estimate informed by 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 informed by 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 2013 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 to 74 percent. Estimate of 67 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 and 2016 levels. Mali Multiple Indicator Cluster Survey

2015 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. 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 of 65 percent changed from previous revision value of 61 percent. Estimate challenged by: D-R-

2013: Estimate of 62 percent assigned by working group. Estimate informed by survey result. Estimate challenged by: D-R-

Mali - RCV1



Description:

2024: First dose of rubella-containing vaccine introduced in July 2024 as part of MR vaccine administered at 9 months. Estimate exceptionally based on reported data. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	-	-	-	-	-	-	-	-	-	36
Estimate GoC	-	-	-	-	-	-	-	-	-	-	-	●
Official	-	-	-	-	-	-	-	-	-	-	-	85
Administrative	-	-	-	-	-	-	-	-	-	-	-	36
Survey	-	-	-	-	-	-	-	-	-	-	-	-

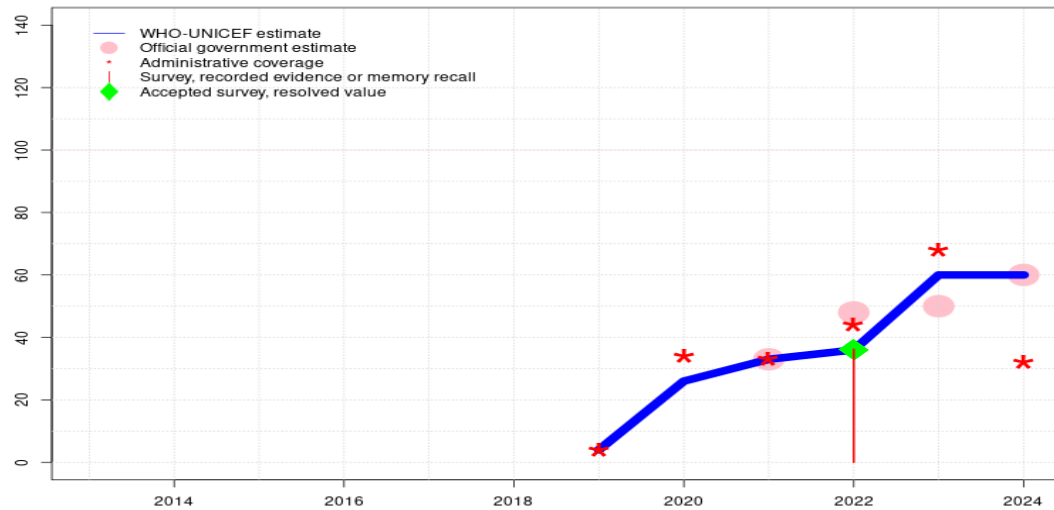
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2024 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 - MCV2

MLI - MCV2



Description:

- 2024: Reported data calibrated to 2022 levels. Reported data excluded. MR introduced in July 2024. Observed decline in reported data likely resulting from the information system not capturing all MR doses. Reported data excluded due to sudden change in coverage from 68 to 32 percent. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-S-
- 2023: Reported data calibrated to 2022 levels. Unexplained decline of 23 percent in target population for MCV2 between 2022 and 2023. Official reported data inconsistent between 2023 and 2024. Estimate of 60 percent changed from previous revision value of 59 percent. Estimate challenged by: R-S-
- 2022: Estimate of 36 percent assigned by working group. Estimate is exceptionally based on the reported administrative coverage level following recent introduction. Estimate of 36 percent changed from previous revision value of 44 percent. GoC=Assigned by working group. Consistency across antigens.
- 2021: GoC=Assigned by working group. Consistency across antigens.
- 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. Estimate challenged by: R-
- 2019: Estimate informed by reported administrative data. Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stockouts for most antigens. Second dose of measles containing vaccine introduced in December 2019. GoC=Assigned by working group. Consistency across vaccines.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	-	-	-	-	4	26	33	36	60	60
Estimate GoC	-	-	-	-	-	-	•	•	•	•	•	•
Official	-	-	-	-	-	-	-	-	33	48	50	60
Administrative	-	-	-	-	-	-	4	34	33	44	68	32
Survey	-	-	-	-	-	-	-	-	-	36	-	-

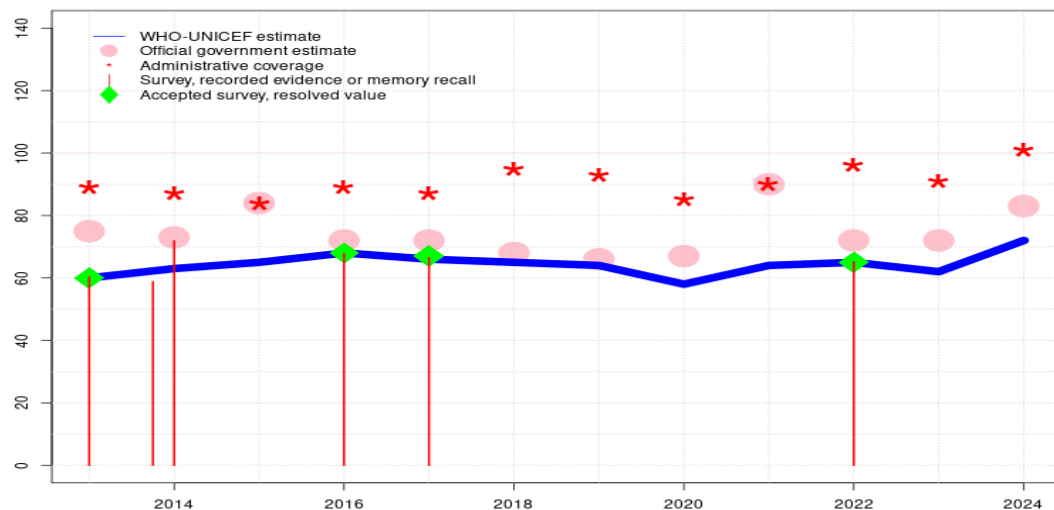
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2024 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 - YFV

MLI - YFV



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	60	63	65	68	66	65	64	58	64	65	62	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	75	73	84	72	72	68	66	67	90	72	72	83
Administrative	89	87	84	89	87	95	93	85	90	96	91	101
Survey	60	*	-	68	67	-	-	-	-	65	-	-

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: 2024 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:

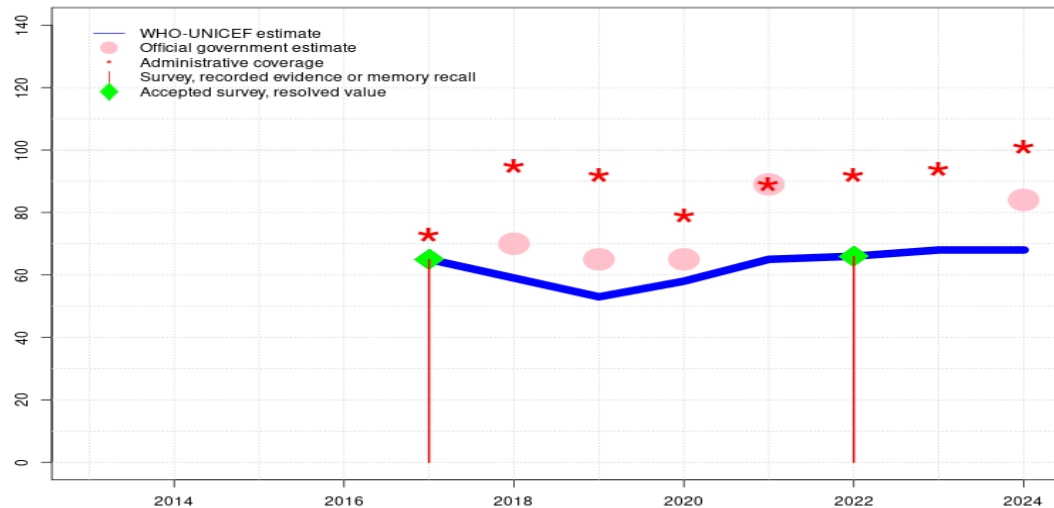
- 2024: Estimate is based on the relationship between reported admin coverage for MCV1 and YFV applied to the MCV1 estimated coverage. Reported data excluded because 101 percent greater than 100 percent. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Estimate of 62 percent assigned by working group. Estimate is based on the relationship between reported admin coverage for MCV1 and YFV applied to the MCV1 estimated coverage. Official reported data inconsistent between 2023 and 2024. Estimate of 62 percent changed from previous revision value of 64 percent. Estimate challenged by: D-R-
- 2022: Estimate of 65 percent assigned by working group. Estimate of 65 percent changed from previous revision value of 64 percent. Estimate challenged by: D-R-
- 2021: Estimate of 64 percent assigned by working group. Estimate challenged by: D-R-
- 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. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 and 2021 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 stockouts for most antigens. Estimate of 64 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 and 2021 levels. Reported data excluded. Estimate challenged by: D-R-
- 2017: Estimate of 66 percent assigned by working group. Estimate informed by 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 informed by 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 2013 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 to 72 percent. Estimate of 65 percent changed from previous revision value of 63 percent. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 and 2016 levels. Mali Multiple Indicator Cluster Survey

2015 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. 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 of 63 percent changed from previous revision value of 59 percent. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 60 percent based on 1 survey(s). Estimate challenged by: D-R-

Mali - MENGA

MLI - MENGA



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	-	-	65	59	53	58	65	66	68	68
Estimate GoC	-	-	-	-	•••	•	•	•	•	•	•	•
Official	-	-	-	-	-	70	65	65	89	-	-	84
Administrative	-	-	-	-	73	95	92	79	89	92	94	101
Survey	-	-	-	-	65	-	-	-	-	66	-	-

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: 2024 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:

- 2024: Reported data calibrated to 2022 levels. Reported data excluded because 101 percent greater than 100 percent. Official reported data inconsistent between 2023 and 2024. Estimate challenged by: D-R-
- 2023: Reported data calibrated to 2022 levels. Official reported data inconsistent between 2023 and 2024. Estimate of 68 percent changed from previous revision value of 67 percent. Estimate challenged by: D-R-
- 2022: Estimate of 66 percent assigned by working group. Programme reports a vaccine stockout at subnational level. Estimate of 66 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-
- 2021: Estimate of 65 percent assigned by working group. Estimate is informed by estimated coverage in 2019. Reported coverage suggests coverage has nearly returned to levels prior to 2020 disruptions. Estimate challenged by: D-R-
- 2020: Estimate informed by relative relationship between estimated and reported coverage for MCV1 applied to reported coverage for MenA given that the vaccines are recommended for administration at the same age. 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. Meningitis A vaccine introduced in 2020. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 and 2021 levels. Programme notes that official estimates are based on the results of the 2018 Demographic and Health Survey. Programme reports subnational vaccine stockouts for most antigens. Estimate of 53 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-S-
- 2018: Reported data calibrated to 2017 and 2021 levels. Reported data excluded. Estimate of 59 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-
- 2017: Estimate based on extrapolation from data reported by national government supported by survey. Survey evidence of 65 percent based on 1 survey(s). 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=R+ S+ D+

Mali - Survey Details

NOTE A survey to measure vaccination coverage for infants (i.e., children aged 0-11 months) will sample children aged 12-23 months at the time of survey to capture the youngest annual cohort of children who should have completed the vaccination schedule. Because WUENIC are for infant vaccinations, survey data in this report are presented to reflect the birth year of the youngest survey cohort. For example, results for a survey conducted during December 2020 among children aged 12-23 months at the time of the survey reflect the immunization experience of children born in 2019. Depending on the timing of survey field work, results may reflect the immunization experience of children born and vaccinated one or two years prior to the survey field work.

The survey results below present vaccination coverage estimates by antigen, confirmation method, and child's age at the time of the survey. Coverage based on **Recall** reflects information based upon a mother's or caregiver's memory. Coverage based on **Record** reflects information drawn from documented vaccination history in home- and/or facility-based records. **Evidence seen** reflects the percentage of children in the sample with documented evidence of vaccination history seen by the survey team.

2022 Septieme Enquete Demographique et de Sante du Mali (EDSM-VII) (Rapport des indicateurs cles) 2023-2024

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record or Recall	83.6	12-23 m	2892	68
DTP1	Record or Recall	83.5	12-23 m	2892	68
DTP3	Record or Recall	73.4	12-23 m	2892	68
HEPB1	Record or Recall	83.5	12-23 m	2892	68
HEPB3	Record or Recall	73.4	12-23 m	2892	68
HIB1	Record or Recall	83.5	12-23 m	2892	68
HIB3	Record or Recall	73.4	12-23 m	2892	68
IPV1	Record or Recall	72.5	12-23 m	2892	68
IPV2	Record or Recall	43.3	12-23 m	2892	68
MCV1	Record or Recall	69.4	12-23 m	2892	68
MCV2	Record or Recall	36.2	24-35 m	3018	52
MENGA	Record or Recall	65.9	12-23 m	2892	68
PCV1	Record or Recall	82.7	12-23 m	2892	68
PCV3	Record or Recall	71.1	12-23 m	2892	68
POL1	Record or Recall	78.4	12-23 m	2892	68
POL3	Record or Recall	62.6	12-23 m	2892	68
ROTAC	Record or Recall	70.9	12-23 m	2892	68
YFV	Record or Recall	65.2	12-23 m	2892	68

2017 Mali Enquête Démographique et de Santé 2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	29.3	12-23 m	909	56
BCG	Record	54.1	12-23 m	1139	56
BCG	Record or Recall	83.4	12-23 m	2048	56
BCG	Record or Recall<12m	82.6	12-23 m	2048	56
DTP1	Recall	28	12-23 m	909	56
DTP1	Record	54.1	12-23 m	1139	56
DTP1	Record or Recall	82.1	12-23 m	2048	56
DTP1	Record or Recall<12m	81.3	12-23 m	2048	56
DTP3	Recall	20	12-23 m	909	56
DTP3	Record	50.7	12-23 m	1139	56
DTP3	Record or Recall	70.7	12-23 m	2048	56
DTP3	Record or Recall<12m	68.8	12-23 m	2048	56
HEPB1	Recall	28	12-23 m	909	56
HEPB1	Record	54.1	12-23 m	1139	56
HEPB1	Record or Recall	82.1	12-23 m	2048	56
HEPB1	Record or Recall<12m	81.3	12-23 m	2048	56
HEPB3	Recall	20	12-23 m	909	56
HEPB3	Record	50.7	12-23 m	1139	56
HEPB3	Record or Recall	70.7	12-23 m	2048	56
HEPB3	Record or Recall<12m	68.8	12-23 m	2048	56
HIB1	Recall	28	12-23 m	909	56
HIB1	Record	54.1	12-23 m	1139	56
HIB1	Record or Recall	82.1	12-23 m	2048	56
HIB1	Record or Recall<12m	81.3	12-23 m	2048	56
HIB3	Recall	20	12-23 m	909	56
HIB3	Record	50.7	12-23 m	1139	56
HIB3	Record or Recall	70.7	12-23 m	2048	56
HIB3	Record or Recall<12m	68.8	12-23 m	2048	56
IPV1	Recall	27.4	12-23 m	909	56
IPV1	Record	28.4	12-23 m	1139	56
IPV1	Record or Recall	55.7	12-23 m	2048	56
IPV1	Record or Recall<12m	54.8	12-23 m	2048	56
MCV1	Recall	25.2	12-23 m	909	56
MCV1	Record	44.6	12-23 m	1139	56
MCV1	Record or Recall	69.8	12-23 m	2048	56
MCV1	Record or Recall<12m	64.4	12-23 m	2048	56
MENGA	Recall	23.7	12-23 m	909	56

MENGA	Record	41.2	12-23 m	1139	56	DTP3	Recall	29.4	24-35 m	970	-
MENGA	Record or Recall	64.9	12-23 m	2048	56	DTP3	Record	39.5	24-35 m	778	-
MENGA	Record or Recall<12m	59.8	12-23 m	2048	56	DTP3	Record or Recall	68.9	24-35 m	1748	-
PCV1	Recall	27.1	12-23 m	909	56	DTP3	Record or Recall<12m	65	24-35 m	1748	-
PCV1	Record	52.9	12-23 m	1139	56	HEPB1	Recall	38.4	24-35 m	970	-
PCV1	Record or Recall	80	12-23 m	2048	56	HEPB1	Record	43.1	24-35 m	778	-
PCV1	Record or Recall<12m	79.4	12-23 m	2048	56	HEPB1	Record or Recall	81.6	24-35 m	1748	-
PCV3	Recall	18.9	12-23 m	909	56	HEPB1	Record or Recall<12m	80.5	24-35 m	1748	-
PCV3	Record	48.9	12-23 m	1139	56	HEPB3	Recall	29.4	24-35 m	970	-
PCV3	Record or Recall	67.7	12-23 m	2048	56	HEPB3	Record	39.5	24-35 m	778	-
PCV3	Record or Recall<12m	65.8	12-23 m	2048	56	HEPB3	Record or Recall	68.9	24-35 m	1748	-
POL1	Recall	24.6	12-23 m	909	56	HEPB3	Record or Recall<12m	65	24-35 m	1748	-
POL1	Record	53.9	12-23 m	1139	56	HIB1	Recall	38.4	24-35 m	970	-
POL1	Record or Recall	78.5	12-23 m	2048	56	HIB1	Record	43.1	24-35 m	778	-
POL1	Record or Recall<12m	77.8	12-23 m	2048	56	HIB1	Record or Recall	81.6	24-35 m	1748	-
POL3	Recall	4.2	12-23 m	909	56	HIB1	Record or Recall<12m	80.5	24-35 m	1748	-
POL3	Record	50.1	12-23 m	1139	56	HIB3	Recall	29.4	24-35 m	970	-
POL3	Record or Recall	54.3	12-23 m	2048	56	HIB3	Record	39.5	24-35 m	778	-
POL3	Record or Recall<12m	53.2	12-23 m	2048	56	HIB3	Record or Recall	68.9	24-35 m	1748	-
ROTAC	Recall	18.6	12-23 m	909	56	HIB3	Record or Recall<12m	65	24-35 m	1748	-
ROTAC	Record	44.5	12-23 m	1139	56	IPV1	Recall	38.1	24-35 m	970	-
ROTAC	Record or Recall	63.1	12-23 m	2048	56	IPV1	Record	16.2	24-35 m	778	-
ROTAC	Record or Recall<12m	61.5	12-23 m	2048	56	IPV1	Record or Recall	54.3	24-35 m	1748	-
YFV	Recall	23.5	12-23 m	909	56	IPV1	Record or Recall<12m	51.4	24-35 m	1748	-
YFV	Record	43	12-23 m	1139	56	MCV1	Recall	34.9	24-35 m	970	-
YFV	Record or Recall	66.5	12-23 m	2048	56	MCV1	Record	34.9	24-35 m	778	-
YFV	Record or Recall<12m	60.4	12-23 m	2048	56	MCV1	Record or Recall	69.8	24-35 m	1748	-
						MCV1	Record or Recall<12m	60.3	24-35 m	1748	-
						PCV1	Recall	37.4	24-35 m	970	-
						PCV1	Record	42	24-35 m	778	-
						PCV1	Record or Recall	79.4	24-35 m	1748	-
						PCV1	Record or Recall<12m	78.1	24-35 m	1748	-
						PCV3	Recall	27.7	24-35 m	970	-
						PCV3	Record	37.9	24-35 m	778	-
						PCV3	Record or Recall	65.5	24-35 m	1748	-
						PCV3	Record or Recall<12m	62.2	24-35 m	1748	-
						POL1	Recall	33.8	24-35 m	970	-
						POL1	Record	42.9	24-35 m	778	-
						POL1	Record or Recall	76.7	24-35 m	1748	-
						POL1	Record or Recall<12m	75.7	24-35 m	1748	-

2016 Mali Enquête Démographique et de Santé 2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	39.7	24-35 m	970	-
BCG	Record	42.6	24-35 m	778	

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POL3	Recall	5.6	24-35 m	970	-
POL3	Record	39.6	24-35 m	778	-
POL3	Record or Recall	45.2	24-35 m	1748	-
POL3	Record or Recall<12m	42.5	24-35 m	1748	-
ROTAC	Recall	27	24-35 m	970	-
ROTAC	Record	34.8	24-35 m	778	-
ROTAC	Record or Recall	61.8	24-35 m	1748	-
ROTAC	Record or Recall<12m	57.8	24-35 m	1748	-
YFV	Recall	33.2	24-35 m	970	-
YFV	Record	34.6	24-35 m	778	-
YFV	Record or Recall	67.8	24-35 m	1748	-
YFV	Record or Recall<12m	58	24-35 m	1748	-

HIB1	Record or Recall<12m	71.8	12-23 m	3303	44
HIB3	Recall	18.4	12-23 m	3303	44
HIB3	Record	37.2	12-23 m	3303	44
HIB3	Record or Recall	55.5	12-23 m	3303	44
HIB3	Record or Recall<12m	54.5	12-23 m	3303	44
MCV1	Recall	28.4	12-23 m	3303	44
MCV1	Record	32.5	12-23 m	3303	44
MCV1	Record or Recall	60.8	12-23 m	3303	44
MCV1	Record or Recall<12m	56.9	12-23 m	3303	44
PCV1	Recall	30.4	12-23 m	3303	44
PCV1	Record	34.5	12-23 m	3303	44
PCV1	Record or Recall	64.9	12-23 m	3303	44
PCV1	Record or Recall<12m	63.9	12-23 m	3303	44
PCV3	Recall	17.7	12-23 m	3303	44
PCV3	Record	30.1	12-23 m	3303	44
PCV3	Record or Recall	47.8	12-23 m	3303	44
PCV3	Record or Recall<12m	47.1	12-23 m	3303	44
POL1	Recall	28.6	12-23 m	3303	44
POL1	Record	40.3	12-23 m	3303	44
POL1	Record or Recall	68.9	12-23 m	3303	44
POL1	Record or Recall<12m	68.3	12-23 m	3303	44
POL3	Recall	3.8	12-23 m	3303	44
POL3	Record	36.2	12-23 m	3303	44
POL3	Record or Recall	40	12-23 m	3303	44
POL3	Record or Recall<12m	39.2	12-23 m	3303	44
ROTAC	Recall	10.6	12-23 m	3303	44
ROTAC	Record	12.8	12-23 m	3303	44
ROTAC	Record or Recall	23.4	12-23 m	3303	44
ROTAC	Record or Recall<12m	22.6	12-23 m	3303	44
YFV	Recall	27.5	12-23 m	3303	44
YFV	Record	31.3	12-23 m	3303	44
YFV	Record or Recall	58.8	12-23 m	3303	44
YFV	Record or Recall<12m	55.1	12-23 m	3303	44

2014 Mali Multiple Indicator Cluster Survey 2015

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	32.7	12-23 m	3303	44
BCG	Record	39.9	12-23 m	3303	44
BCG	Record or Recall	72.6	12-23 m	3303	44
BCG	Record or Recall<12m	71.9	12-23 m	3303	44
DTP1	Recall	31.9	12-23 m	3303	44
DTP1	Record	40.7	12-23 m	3303	44
DTP1	Record or Recall	72.6	12-23 m	3303	44
DTP1	Record or Recall<12m	71.8	12-23 m	3303	44
DTP3	Recall	18.4	12-23 m	3303	44
DTP3	Record	37.2	12-23 m	3303	44
DTP3	Record or Recall	55.5	12-23 m	3303	44
DTP3	Record or Recall<12m	54.5	12-23 m	3303	44
HEPB1	Recall	31.9	12-23 m	3303	44
HEPB1	Record	40.7	12-23 m	3303	44
HEPB1	Record or Recall	72.6	12-23 m	3303	44
HEPB1	Record or Recall<12m	71.8	12-23 m	3303	44
HEPB3	Recall	18.4	12-23 m	3303	44
HEPB3	Record	37.2	12-23 m	3303	44
HEPB3	Record or Recall	55.5	12-23 m	3303	44
HEPB3	Record or Recall<12m	54.5	12-23 m	3303	44
HIB1	Recall	31.9	12-23 m	3303	44
HIB1	Record	40.7	12-23 m	3303	44
HIB1	Record or Recall	72.6	12-23 m	3303	44

2014 Programme Elargi de Vaccination Revue Externe 2016

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record	35.6	12-23 m	9402	34
BCG	Record or Recall	92	12-23 m	9402	34

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DTP1	Record	35.7	12-23 m	9402	34	DTP3	Record or Recall<12m	50.3	24-35 m	3069	-
DTP1	Record or Recall	91.8	12-23 m	9402	34	HEPB1	Recall	39.6	24-35 m	3069	-
DTP3	Record	45	12-23 m	9402	34	HEPB1	Record	29.3	24-35 m	3069	-
DTP3	Record or Recall	73	12-23 m	9402	34	HEPB1	Record or Recall	68.9	24-35 m	3069	-
HEPB1	Record	35.7	12-23 m	9402	34	HEPB1	Record or Recall<12m	67	24-35 m	3069	-
HEPB1	Record or Recall	91.8	12-23 m	9402	34	HEPB3	Recall	26.3	24-35 m	3069	-
HEPB3	Record	45	12-23 m	9402	34	HEPB3	Record	27.3	24-35 m	3069	-
HEPB3	Record or Recall	73	12-23 m	9402	34	HEPB3	Record or Recall	53.5	24-35 m	3069	-
HIB1	Record	35.7	12-23 m	9402	34	HEPB3	Record or Recall<12m	50.3	24-35 m	3069	-
HIB1	Record or Recall	91.8	12-23 m	9402	34	HIB1	Recall	39.6	24-35 m	3069	-
HIB3	Record	45	12-23 m	9402	34	HIB1	Record	29.3	24-35 m	3069	-
HIB3	Record or Recall	73	12-23 m	9402	34	HIB1	Record or Recall	68.9	24-35 m	3069	-
MCV1	Record	44.3	12-23 m	9402	34	HIB1	Record or Recall<12m	67	24-35 m	3069	-
MCV1	Record or Recall	74	12-23 m	9402	34	HIB3	Recall	26.3	24-35 m	3069	-
PCV1	Record	35.9	12-23 m	9402	34	HIB3	Record	27.3	24-35 m	3069	-
PCV1	Record or Recall	91.4	12-23 m	9402	34	HIB3	Record or Recall	53.5	24-35 m	3069	-
PCV3	Record	45	12-23 m	9402	34	HIB3	Record or Recall<12m	50.3	24-35 m	3069	-
PCV3	Record or Recall	72.9	12-23 m	9402	34	MCV1	Recall	36.9	24-35 m	3069	-
POL1	Record	35.5	12-23 m	9402	34	MCV1	Record	24.6	24-35 m	3069	-
POL1	Record or Recall	92.3	12-23 m	9402	34	MCV1	Record or Recall	61.5	24-35 m	3069	-
POL3	Record	44.5	12-23 m	9402	34	MCV1	Record or Recall<12m	52.1	24-35 m	3069	-
POL3	Record or Recall	73.7	12-23 m	9402	34	PCV1	Recall	38.6	24-35 m	3069	-
YFV	Record	45.6	12-23 m	9402	34	PCV1	Record	25.4	24-35 m	3069	-
YFV	Record or Recall	71.9	12-23 m	9402	34	PCV1	Record or Recall	63.9	24-35 m	3069	-

2013 Mali Multiple Indicator Cluster Survey 2015

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen						
BCG	Recall	41.3	24-35 m	3069	-	POL1	Recall	35.5	24-35 m	3069	-
BCG	Record	28.8	24-35 m	3069	-	POL1	Record	28.8	24-35 m	3069	-
BCG	Record or Recall	70.1	24-35 m	3069	-	POL1	Record or Recall	64.3	24-35 m	3069	-
BCG	Record or Recall<12m	68.6	24-35 m	3069	-	POL1	Record or Recall<12m	62.3	24-35 m	3069	-
DTP1	Recall	39.6	24-35 m	3069	-	POL3	Recall	5.8	24-35 m	3069	-
DTP1	Record	29.3	24-35 m	3069	-	POL3	Record	26.4	24-35 m	3069	-
DTP1	Record or Recall	68.9	24-35 m	3069	-	POL3	Record or Recall	32.2	24-35 m	3069	-
DTP1	Record or Recall<12m	67	24-35 m	3069	-	POL3	Record or Recall<12m	30.5	24-35 m	3069	-
DTP3	Recall	26.3	24-35 m	3069	-	ROTAC	Recall	13.9	24-35 m	3069	-
DTP3	Record	27.3	24-35 m	3069	-	ROTAC	Record	8.2	24-35 m	3069	-
DTP3	Record or Recall	53.5	24-35 m	3069	-	ROTAC	Record or Recall	22.1	24-35 m	3069	-

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ROTAC	Record or Recall<12m	20.5	24-35 m	3069	-
YFV	Recall	35.8	24-35 m	3069	-
YFV	Record	24.5	24-35 m	3069	-
YFV	Record or Recall	60.3	24-35 m	3069	-
YFV	Record or Recall<12m	52.1	24-35 m	3069	-

2011 Mali Enquête Démographique et de Santé 2012-13

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	46.6	12-23 m	1145	38
BCG	Record	37	12-23 m	702	38
BCG	Record or Recall	83.6	12-23 m	1846	38
BCG	Record or Recall<12m	81.2	12-23 m	1846	38
DTP1	Recall	45.4	12-23 m	1145	38
DTP1	Record	34.9	12-23 m	702	38
DTP1	Record or Recall	80.3	12-23 m	1846	38
DTP1	Record or Recall<12m	78.1	12-23 m	1846	38
DTP3	Recall	33.8	12-23 m	1145	38
DTP3	Record	29.2	12-23 m	702	38
DTP3	Record or Recall	63.1	12-23 m	1846	38
DTP3	Record or Recall<12m	57.1	12-23 m	1846	38
HEPB1	Recall	45.4	12-23 m	1145	38
HEPB1	Record	34.9	12-23 m	702	38
HEPB1	Record or Recall	80.3	12-23 m	1846	38
HEPB1	Record or Recall<12m	78.1	12-23 m	1846	38
HEPB3	Recall	33.8	12-23 m	1145	38
HEPB3	Record	29.2	12-23 m	702	38
HEPB3	Record or Recall	63.1	12-23 m	1846	38
HEPB3	Record or Recall<12m	57.1	12-23 m	1846	38
HIB1	Recall	45.4	12-23 m	1145	38
HIB1	Record	34.9	12-23 m	702	38
HIB1	Record or Recall	80.3	12-23 m	1846	38
HIB1	Record or Recall<12m	78.1	12-23 m	1846	38
HIB3	Recall	33.8	12-23 m	1145	38
HIB3	Record	29.2	12-23 m	702	38
HIB3	Record or Recall	63.1	12-23 m	1846	38
HIB3	Record or Recall<12m	57.1	12-23 m	1846	38
MCV1	Recall	42	12-23 m	1145	38
MCV1	Record	29.8	12-23 m	702	38

MCV1	Record or Recall	71.7	12-23 m	1846	38
MCV1	Record or Recall<12m	58.6	12-23 m	1846	38
POL1	Recall	48.6	12-23 m	1145	38
POL1	Record	35	12-23 m	702	38
POL1	Record or Recall	83.6	12-23 m	1846	38
POL1	Record or Recall<12m	81.6	12-23 m	1846	38
POL3	Recall	20.4	12-23 m	1145	38
POL3	Record	29.7	12-23 m	702	38
POL3	Record or Recall	50	12-23 m	1846	38
POL3	Record or Recall<12m	46.8	12-23 m	1846	38
YFV	Recall	0	12-23 m	1145	38
YFV	Record	28.3	12-23 m	702	38
YFV	Record or Recall	28.3	12-23 m	1846	38
YFV	Record or Recall<12m	22.9	12-23 m	1846	38

2010 Mali Enquête Démographique et de Santé 2012-13

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record or Recall<12m	73.1	24-35 m	1798	-
DTP1	Record or Recall<12m	69.9	24-35 m	1798	-
DTP3	Record or Recall<12m	49.4	24-35 m	1798	-
HEPB1	Record or Recall<12m	69.9	24-35 m	1798	-
HEPB3	Record or Recall<12m	49.4	24-35 m	1798	-
HIB1	Record or Recall<12m	69.9	24-35 m	1798	-
HIB3	Record or Recall<12m	49.4	24-35 m	1798	-
MCV1	Record or Recall<12m	54.4	24-35 m	1798	-
POL1	Record or Recall<12m	75.8	24-35 m	1798	-
POL3	Record or Recall<12m	38.5	24-35 m	1798	-
YFV	Record or Recall<12m	14.5	24-35 m	1798	-

2009 Mali Enquête Démographique et de Santé 2012-13

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record or Recall<12m	71.1	36-47 m	2053	-
DTP1	Record or Recall<12m	70.1	36-47 m	2053	-
DTP3	Record or Recall<12m	52.5	36-47 m	2053	-
HEPB1	Record or Recall<12m	70.1	36-47 m	2053	-

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HEPB3	Record or Recall<12m	52.5	36-47 m	2053	-	POL3	Recall	13.2	12-23 m	-	59
HIB1	Record or Recall<12m	70.1	36-47 m	2053	-	POL3	Record	49.1	12-23 m	-	59
HIB3	Record or Recall<12m	52.5	36-47 m	2053	-	POL3	Record or Recall	62.3	12-23 m	5122	59
MCV1	Record or Recall<12m	52.9	36-47 m	2053	-	POL3	Record or Recall<12m	59.9	12-23 m	5122	59
POL1	Record or Recall<12m	74.3	36-47 m	2053	-	YFV	Recall	26.8	12-23 m	-	59
POL3	Record or Recall<12m	39.1	36-47 m	2053	-	YFV	Record	45.7	12-23 m	-	59
YFV	Record or Recall<12m	11.8	36-47 m	2053	-	YFV	Record or Recall	72.4	12-23 m	5122	59
						YFV	Record or Recall<12m	67	12-23 m	5122	59

2009 Mali Multiple Indicator Cluster Survey 2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	29.7	12-23 m	-	59
BCG	Record	53.9	12-23 m	-	59
BCG	Record or Recall	83.6	12-23 m	5122	59
BCG	Record or Recall<12m	82.9	12-23 m	5122	59
DTP1	Recall	27.6	12-23 m	-	59
DTP1	Record	54.6	12-23 m	-	59
DTP1	Record or Recall	82.2	12-23 m	5122	59
DTP1	Record or Recall<12m	81.1	12-23 m	5122	59
DTP3	Recall	22.8	12-23 m	-	59
DTP3	Record	49.3	12-23 m	-	59
DTP3	Record or Recall	72.1	12-23 m	5122	59
DTP3	Record or Recall<12m	69.4	12-23 m	5122	59
HEPB1	Recall	23.7	12-23 m	-	59
HEPB1	Record	22.6	12-23 m	-	59
HEPB1	Record or Recall	46.3	12-23 m	5122	59
HEPB1	Record or Recall<12m	45.9	12-23 m	5122	59
HEPB3	Recall	4	12-23 m	-	59
HEPB3	Record	22.9	12-23 m	-	59
HEPB3	Record or Recall	26.9	12-23 m	5122	59
HEPB3	Record or Recall<12m	25.8	12-23 m	5122	59
MCV1	Recall	26.4	12-23 m	-	59
MCV1	Record	46.6	12-23 m	-	59
MCV1	Record or Recall	73	12-23 m	5122	59
MCV1	Record or Recall<12m	67.4	12-23 m	5122	59
POL1	Recall	30.6	12-23 m	-	59
POL1	Record	54.3	12-23 m	-	59
POL1	Record or Recall	84.9	12-23 m	5122	59
POL1	Record or Recall<12m	83.7	12-23 m	5122	59

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

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	32	12-23 m	11760	65
BCG	Record	54	12-23 m	11760	65
BCG	Record or Recall	86	12-23 m	11760	65
DTP1	Recall	31	12-23 m	11760	65
DTP1	Record	54	12-23 m	11760	65
DTP1	Record or Recall	85	12-23 m	11760	65
DTP3	Recall	28	12-23 m	11760	65
DTP3	Record	47	12-23 m	11760	65
DTP3	Record or Recall	75	12-23 m	11760	65
HEPB1	Recall	31	12-23 m	11760	65
HEPB1	Record	54	12-23 m	11760	65
HEPB1	Record or Recall	85	12-23 m	11760	65
HEPB3	Recall	28	12-23 m	11760	65
HEPB3	Record	47	12-23 m	11760	65
HEPB3	Record or Recall	75	12-23 m	11760	65
HIB1	Recall	31	12-23 m	11760	65
HIB1	Record	54	12-23 m	11760	65
HIB1	Record or Recall	85	12-23 m	11760	65
HIB3	Recall	28	12-23 m	11760	65
HIB3	Record	47	12-23 m	11760	65
HIB3	Record or Recall	75	12-23 m	11760	65
MCV1	Recall	26	12-23 m	11760	65
MCV1	Record	46	12-23 m	11760	65
MCV1	Record or Recall	71	12-23 m	11760	65
POL1	Recall	33	12-23 m	11760	65
POL1	Record	52	12-23 m	11760	65
POL1	Record or Recall	84	12-23 m	11760	65

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POL3	Recall	30	12-23 m	11760	65
POL3	Record	46	12-23 m	11760	65
POL3	Record or Recall	76	12-23 m	11760	65
YFV	Recall	30	12-23 m	11760	65
YFV	Record	43	12-23 m	11760	65
YFV	Record or Recall	74	12-23 m	11760	65

2008 Mali Enquête Démographique et de Santé 2012-13

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record or Recall<12m	66.9	48-59 m	1890	-
DTP1	Record or Recall<12m	64.4	48-59 m	1890	-
DTP3	Record or Recall<12m	46.6	48-59 m	1890	-
HEPB1	Record or Recall<12m	64.4	48-59 m	1890	-
HEPB3	Record or Recall<12m	46.6	48-59 m	1890	-
HIB1	Record or Recall<12m	64.4	48-59 m	1890	-
HIB3	Record or Recall<12m	46.6	48-59 m	1890	-
MCV1	Record or Recall<12m	48.4	48-59 m	1890	-
POL1	Record or Recall<12m	68.2	48-59 m	1890	-
POL3	Record or Recall<12m	35.9	48-59 m	1890	-
YFV	Record or Recall<12m	10.4	48-59 m	1890	-

2005 Enquête Démographique et de Santé du Mali, 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	22.8	12-23 m	2626	61
BCG	Record	53.9	12-23 m	2626	61
BCG	Record or Recall	76.7	12-23 m	2626	61
BCG	Record or Recall<12m	75.1	12-23 m	2626	61
DTP1	Recall	23.3	12-23 m	2626	61
DTP1	Record	59.8	12-23 m	2626	61
DTP1	Record or Recall	83.1	12-23 m	2626	61
DTP1	Record or Recall<12m	80.2	12-23 m	2626	61
DTP3	Recall	15	12-23 m	2626	61
DTP3	Record	52.6	12-23 m	2626	61
DTP3	Record or Recall	67.6	12-23 m	2626	61
DTP3	Record or Recall<12m	61.9	12-23 m	2626	61

MCV1	Recall	19.8	12-23 m	2626	61
MCV1	Record	48.6	12-23 m	2626	61
MCV1	Record or Recall	68.4	12-23 m	2626	61
MCV1	Record or Recall<12m	59.1	12-23 m	2626	61
POL1	Recall	25.5	12-23 m	2626	61
POL1	Record	59.6	12-23 m	2626	61
POL1	Record or Recall	85.1	12-23 m	2626	61
POL1	Record or Recall<12m	82.1	12-23 m	2626	61
POL3	Recall	9	12-23 m	2626	61
POL3	Record	52.8	12-23 m	2626	61
POL3	Record or Recall	61.9	12-23 m	2626	61
POL3	Record or Recall<12m	56.6	12-23 m	2626	61

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

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record or Recall	89	12-23 m	1710	78
DTP1	Record or Recall	91	12-23 m	1710	78
DTP3	Record or Recall	80	12-23 m	1710	78
HEPB1	Record or Recall	87	12-23 m	1710	78
HEPB3	Record or Recall	77	12-23 m	1710	78
MCV1	Record or Recall	77	12-23 m	1710	78
POL1	Record or Recall	91	12-23 m	1710	78
POL3	Record or Recall	81	12-23 m	1710	78
YFV	Record or Recall	76	12-23 m	1710	78

2000 Enquête Démographique et de Santé Mali 2001, 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	22	12-23 m	2197	48
BCG	Record	47	12-23 m	2197	48
BCG	Record or Recall	69	12-23 m	2197	48
BCG	Record or Recall<12m	63.7	12-23 m	2197	48
DTP1	Recall	17.4	12-23 m	2197	48
DTP1	Record	43.6	12-23 m	2197	48
DTP1	Record or Recall	61	12-23 m	2197	48

DTP1	Record or Recall<12m	55.9	12-23 m	2197	48
DTP3	Recall	8.3	12-23 m	2197	48
DTP3	Record	31.3	12-23 m	2197	48
DTP3	Record or Recall	39.6	12-23 m	2197	48
DTP3	Record or Recall<12m	33.9	12-23 m	2197	48
MCV1	Recall	13	12-23 m	2197	48
MCV1	Record	35.7	12-23 m	2197	48
MCV1	Record or Recall	48.7	12-23 m	2197	48
MCV1	Record or Recall<12m	36.2	12-23 m	2197	48
POL1	Recall	27.7	12-23 m	2197	48
POL1	Record	46.2	12-23 m	2197	48
POL1	Record or Recall	73.9	12-23 m	2197	48
POL1	Record or Recall<12m	68	12-23 m	2197	48
POL3	Recall	6.5	12-23 m	2197	48
POL3	Record	32.9	12-23 m	2197	48
POL3	Record or Recall	39.4	12-23 m	2197	48
POL3	Record or Recall<12m	33.9	12-23 m	2197	48

1997 Enquete de couverture vaccinale au Mali 1998

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record	62	12-23 m	1521	57
BCG	Record or Recall	84	12-23 m	1521	57
DTP1	Record	52	12-23 m	1521	57
DTP1	Record or Recall	79	12-23 m	1521	57
DTP3	Record	37	12-23 m	1521	57
DTP3	Record or Recall	52	12-23 m	1521	57
MCV1	Record	41	12-23 m	1521	57
MCV1	Record or Recall	57	12-23 m	1521	57
POL3	Record	37	12-23 m	1521	57
POL3	Record or Recall	52	12-23 m	1521	57

Further information and estimates for previous years are available at:
<https://data.unicef.org/topic/child-health/immunization/>
<https://immunizationdata.who.int/listing.html>