

# Madagascar: 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.

**HEPB:** 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.

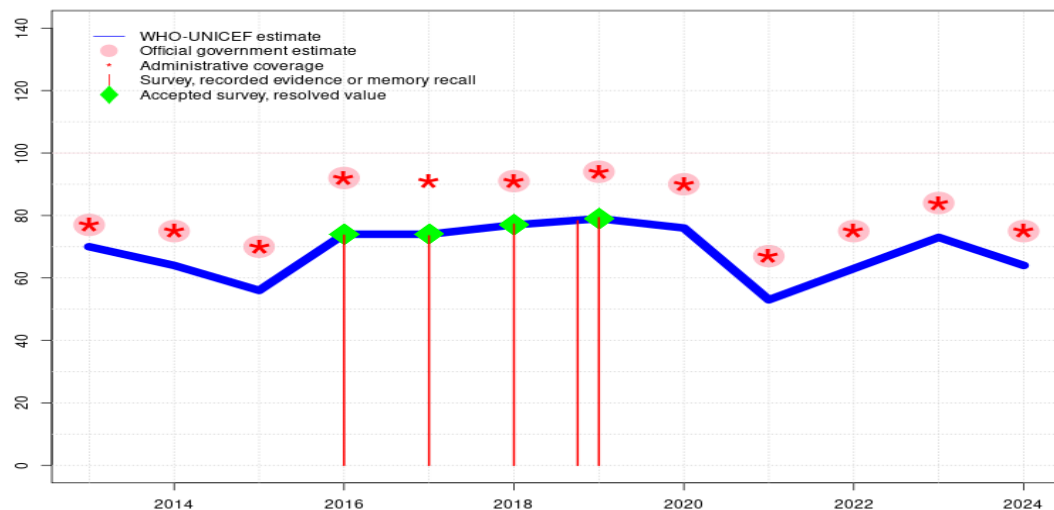
**YFV (VFA):** pourcentage des nourrissons survivants ayant reçu une dose de vaccin contre la fièvre jaune dans les pays où le VFA fait partie du calendrier national de vaccination des enfants ou est recommandé dans les zones à risque ; les estimations de couverture sont annualisées pour l'ensemble de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

# Madagascar - BCG

MDG - BCG



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	70	64	56	74	74	77	79	76	53	63	73	64
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	77	75	70	92	-	91	94	90	67	75	84	75
Administrative	77	75	70	92	91	91	94	90	67	75	84	75
Survey	-	-	-	74	74	77	*	-	-	-	-	-

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.

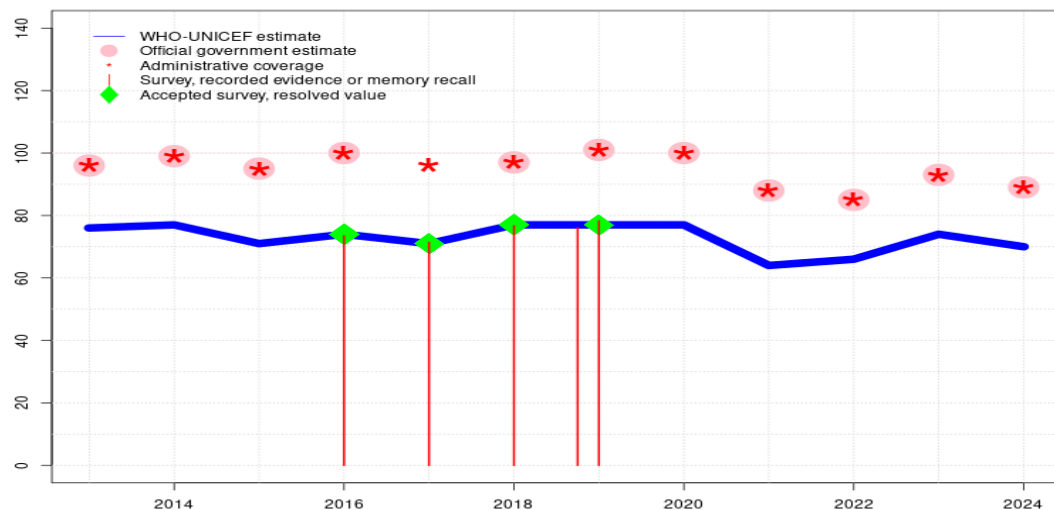
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2024: Reported data calibrated to 2023 levels. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Programme reported vaccine stockout at the subnational level. Estimate challenged by: D-R-
- 2023: Estimate of 73 percent assigned by working group. Estimate is exceptionally based on the relationship between estimated coverage and the number of doses administered in 2022 applied to the number of administered doses in 2023. Programme reports a vaccine stockout at subnational level. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Estimate challenged by: D-R-
- 2022: Estimate of 63 percent assigned by working group. Estimate informed by the relative difference between doses administered between 2021 and 2022 applied to the estimated BCG coverage for 2021. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Programme reports a one month vaccine stockout at national and subnational levels. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2019 and 2022 levels. Programme reports a six month vaccine stockout at national and subnational levels. Estimate of 53 percent changed from previous revision value of 52 percent. Estimate challenged by: D-R-S-
- 2020: Reported data calibrated to 2019 and 2022 levels. Programme reports one month vaccine stockout at national and subnational levels. Estimate of 76 percent changed from previous revision value of 75 percent. Estimate challenged by: D-R-
- 2019: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 79 percent based on 2 survey(s). Estimate challenged by: D-R-
- 2018: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 77 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2017: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 74 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2016: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 74 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-S-
- 2014: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 and 2016 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: R-

# Madagascar - DTP1

MDG - DTP1



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	76	77	71	74	71	77	77	77	64	66	74	70
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	96	99	95	100	-	97	101	100	88	85	93	89
Administrative	96	99	95	100	96	97	101	100	88	85	93	89
Survey	-	-	-	74	71	77	*	-	-	-	-	-

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.

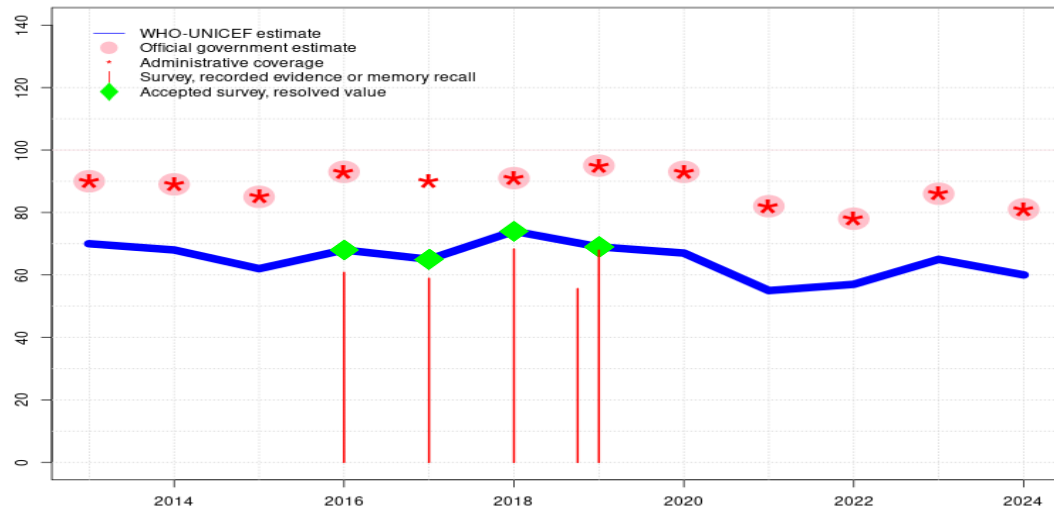
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2024: Reported data calibrated to 2023 levels. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Estimate challenged by: D-R-
- 2023: Estimate of 74 percent assigned by working group. Estimate is exceptionally based on the relationship between estimated coverage and the number of doses administered in 2022 applied to the number of administered doses in 2023. Programme reports a two-month vaccine stockout at national and subnational levels. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Estimate challenged by: D-R-
- 2022: Estimate of 66 percent assigned by working group. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2019 and 2022 levels. Programme reports a one month vaccine stockout at national and subnational levels. Estimate of 64 percent changed from previous revision value of 66 percent. Estimate challenged by: D-R-S-
- 2020: Reported data calibrated to 2019 and 2022 levels. Programme reports one month vaccine stockout at national and subnational levels. Estimate of 77 percent changed from previous revision value of 78 percent. Estimate challenged by: D-R-
- 2019: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 77 percent based on 2 survey(s). Reported data excluded because 101 percent greater than 100 percent. Estimate challenged by: D-R-
- 2018: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 77 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2017: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 71 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2016: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 74 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 and 2016 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-

# Madagascar - DTP3

MDG - DTP3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	70	68	62	68	65	74	69	67	55	57	65	60
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	90	89	85	93	-	91	95	93	82	78	86	81
Administrative	90	89	85	93	90	91	95	93	82	78	86	81
Survey	-	-	-	61	59	68	*	-	-	-	-	-

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. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Estimate challenged by: D-R-
- 2023: Estimate of 65 percent assigned by working group. Estimate is exceptionally based on the relationship between estimated coverage and the number of doses administered in 2022 applied to the number of administered doses in 2023. Programme reports a two-month vaccine stockout at national and subnational levels. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Estimate challenged by: D-R-
- 2022: Estimate of 57 percent assigned by working group. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2019 and 2022 levels. Programme reports a one month vaccine stockout at national and subnational levels. Estimate of 55 percent changed from previous revision value of 57 percent. Estimate challenged by: D-R-S-
- 2020: Reported data calibrated to 2019 and 2022 levels. Programme reports one month vaccine stockout at national and subnational levels. Estimate of 67 percent changed from previous revision value of 68 percent. Estimate challenged by: D-R-
- 2019: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 69 percent based on 2 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 68 percent modified for recall bias to 71 percent based on 1st dose record or recall coverage of 78 percent, 1st dose record only coverage of 55 percent and 3rd dose record only coverage of 50 percent. Madagascar Enquete de Couverture Vaccinale 2021 (ECV 2021) record or recall results of 56 percent modified for recall bias to 67 percent based on 1st dose record or recall coverage of 76 percent, 1st dose record only coverage of 51 percent and 3rd dose record only coverage of 45 percent. Estimate of 69 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-
- 2018: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 74 percent based on 1 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 68 percent modified for recall bias to 74 percent based on 1st dose record or recall coverage of 77 percent, 1st dose record only coverage of 46 percent and 3rd dose record only coverage of 44 percent. Estimate challenged by: D-R-
- 2017: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 65 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 59 percent modified for recall bias to 65 percent based on 1st dose record or recall coverage of 71 percent, 1st dose record only coverage of 48 percent and 3rd dose record only coverage of 44 percent. Estimate challenged by: D-R-

# Madagascar - DTP3

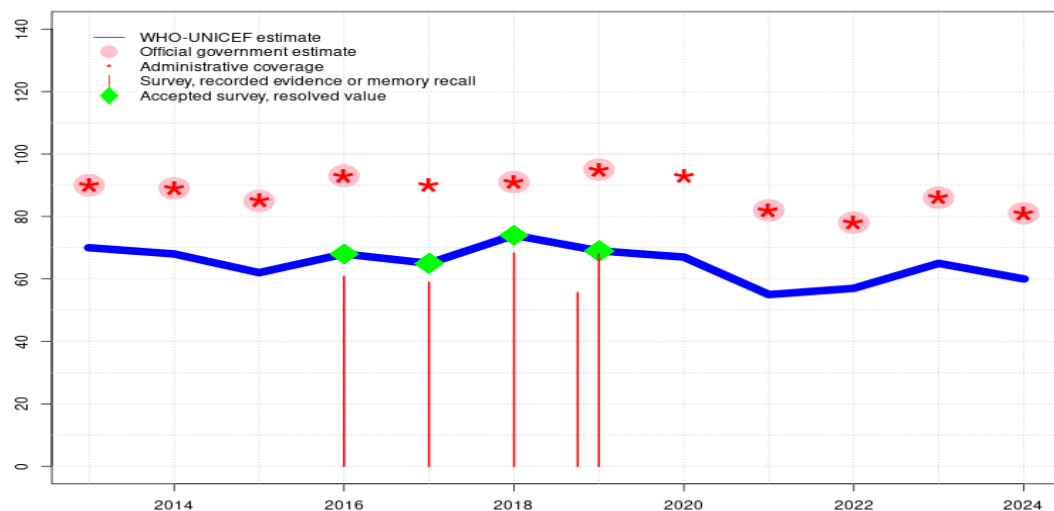
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- 2016: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 68 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 61 percent modified for recall bias to 68 percent based on 1st dose record or recall coverage of 74 percent, 1st dose record only coverage of 38 percent and 3rd dose record only coverage of 35 percent. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 and 2016 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-



# Madagascar - HEPB3

MDG - HEPB3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	70	68	62	68	65	74	69	67	55	57	65	60
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	90	89	85	93	-	91	95	-	82	78	86	81
Administrative	90	89	85	93	90	91	95	93	82	78	86	81
Survey	-	-	-	61	59	68	*	-	-	-	-	-

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. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Estimate challenged by: D-R-
- 2023: Estimate of 65 percent assigned by working group. Estimate informed by estimated DTP3 coverage. Programme reports a two-month vaccine stockout at national and subnational levels. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Estimate challenged by: D-R-
- 2022: Estimate of 57 percent assigned by working group. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2019 and 2022 levels. Programme reports a one month vaccine stockout at national and subnational levels. Estimate of 55 percent changed from previous revision value of 57 percent. Estimate challenged by: D-R-S-
- 2020: Reported data calibrated to 2019 and 2022 levels. Programme reports one month vaccine stockout at national and subnational levels. Estimate of 67 percent changed from previous revision value of 68 percent. GoC=Assigned by working group. GoC assigned for consistency with other vaccine doses.
- 2019: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 69 percent based on 2 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 68 percent modified for recall bias to 71 percent based on 1st dose record or recall coverage of 78 percent, 1st dose record only coverage of 55 percent and 3rd dose record only coverage of 50 percent. Madagascar Enquete de Couverture Vaccinale 2021 (ECV 2021) record or recall results of 56 percent modified for recall bias to 67 percent based on 1st dose record or recall coverage of 76 percent, 1st dose record only coverage of 51 percent and 3rd dose record only coverage of 45 percent. Estimate of 69 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-
- 2018: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 74 percent based on 1 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 68 percent modified for recall bias to 74 percent based on 1st dose record or recall coverage of 77 percent, 1st dose record only coverage of 46 percent and 3rd dose record only coverage of 44 percent. Estimate challenged by: D-R-
- 2017: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 65 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 59 percent modified for recall bias to 65 percent based on 1st dose record or recall coverage of 71 percent, 1st dose record only coverage of 48 percent and 3rd dose record only coverage of 44 percent. Estimate challenged by: D-R-

# Madagascar - HEPB3

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2016: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 68 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 61 percent modified for recall bias to 68 percent based on 1st dose record or recall coverage of 74 percent, 1st dose record only coverage of 38 percent and 3rd dose record only coverage of 35 percent. Estimate challenged by: D-R-

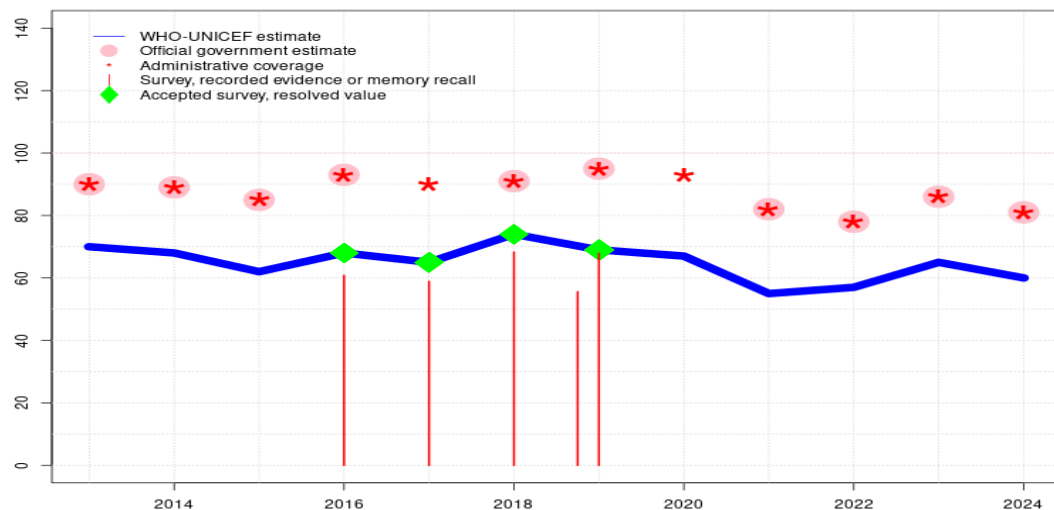
2015: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-

2014: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-

2013: Reported data calibrated to 2011 and 2016 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-

# Madagascar - HIB3

MDG - HIB3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	70	68	62	68	65	74	69	67	55	57	65	60
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	90	89	85	93	-	91	95	-	82	78	86	81
Administrative	90	89	85	93	90	91	95	93	82	78	86	81
Survey	-	-	-	61	59	68	*	-	-	-	-	-

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. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Estimate challenged by: D-R-
- 2023: Estimate of 65 percent assigned by working group. Estimate informed by estimated DTP3 coverage. Programme reports a two-month vaccine stockout at national and subnational levels. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Estimate challenged by: D-R-
- 2022: Estimate of 57 percent assigned by working group. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2019 and 2022 levels. Programme reports a one month vaccine stockout at national and subnational levels. Estimate of 55 percent changed from previous revision value of 57 percent. Estimate challenged by: D-R-S-
- 2020: Reported data calibrated to 2019 and 2022 levels. Programme reports one month vaccine stockout at national and subnational levels. Estimate of 67 percent changed from previous revision value of 68 percent. GoC=Assigned by working group. GoC assigned for consistency with other vaccine doses.
- 2019: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 69 percent based on 2 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 68 percent modified for recall bias to 71 percent based on 1st dose record or recall coverage of 78 percent, 1st dose record only coverage of 55 percent and 3rd dose record only coverage of 50 percent. Madagascar Enquete de Couverture Vaccinale 2021 (ECV 2021) record or recall results of 56 percent modified for recall bias to 67 percent based on 1st dose record or recall coverage of 76 percent, 1st dose record only coverage of 51 percent and 3rd dose record only coverage of 45 percent. Estimate of 69 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-
- 2018: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 74 percent based on 1 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 68 percent modified for recall bias to 74 percent based on 1st dose record or recall coverage of 77 percent, 1st dose record only coverage of 46 percent and 3rd dose record only coverage of 44 percent. Estimate challenged by: D-R-
- 2017: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 65 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 59 percent modified for recall bias to 65 percent based on 1st dose record or recall coverage of 71 percent, 1st dose record only coverage of 48 percent and 3rd dose record only coverage of 44 percent. Estimate challenged by: D-R-

# Madagascar - Hib3

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2016: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 68 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 61 percent modified for recall bias to 68 percent based on 1st dose record or recall coverage of 74 percent, 1st dose record only coverage of 38 percent and 3rd dose record only coverage of 35 percent. Estimate challenged by: D-R-

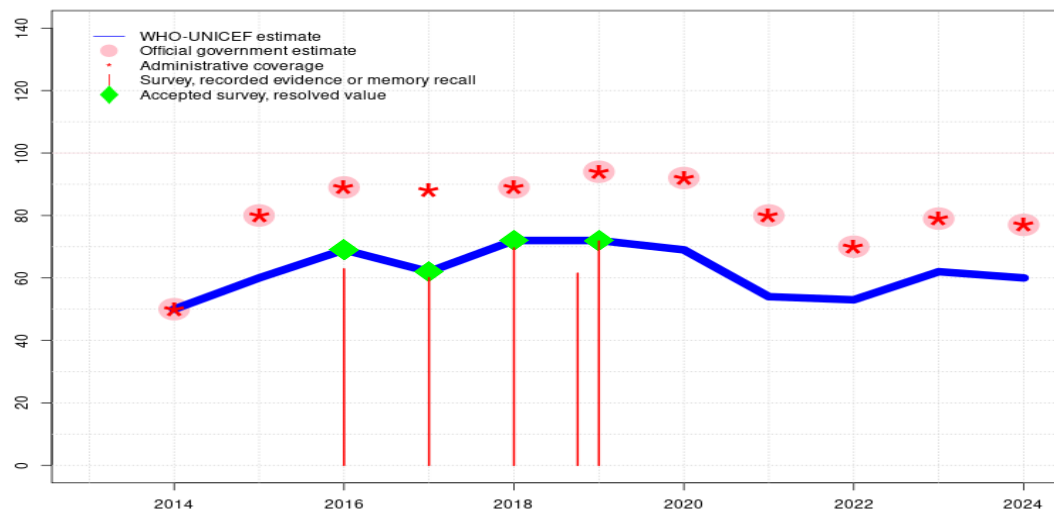
2015: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-

2014: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-

2013: Reported data calibrated to 2011 and 2016 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-

# Madagascar - ROTAC

MDG - ROTAC



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	50	60	69	62	72	72	69	54	53	62	60
Estimate GoC	-	•	•	•	•	•	•	•	•	•	•	•
Official	-	50	80	89	-	89	94	92	80	70	79	77
Administrative	-	50	80	89	88	89	94	92	80	70	79	77
Survey	-	-	-	63	60	70	*	-	-	-	-	-

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. Programme reported vaccine stockout at the sub-national level. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Estimate challenged by: D-R-
- 2023: Estimate of 62 percent assigned by working group. Estimate is exceptionally based on the relationship between estimated coverage and the number of doses administered in 2022 applied to the number of administered doses in 2023. Programme reports a two-month vaccine stockout at national and subnational levels. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Estimate challenged by: D-R-
- 2022: Estimate of 53 percent assigned by working group. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Programme reports a vaccine stockout of less than a month at the national level. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2019 and 2022 levels. Programme reports a one month vaccine stockout at national and subnational levels. Estimate of 54 percent changed from previous revision value of 53 percent. Estimate challenged by: D-R-S-
- 2020: Reported data calibrated to 2019 and 2022 levels. Estimate of 69 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-
- 2019: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 72 percent based on 2 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 72 percent modified for recall bias to 74 percent based on 1st dose record or recall coverage of 77 percent, 1st dose record only coverage of 54 percent and 3rd dose record only coverage of 52 percent. Madagascar Enquête de Couverture Vaccinale 2021 (ECV 2021) record or recall results of 62 percent modified for recall bias to 69 percent based on 1st dose record or recall coverage of 73 percent, 1st dose record only coverage of 49 percent and 3rd dose record only coverage of 46 percent. Estimate of 72 percent changed from previous revision value of 67 percent. Estimate challenged by: D-R-
- 2018: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 72 percent based on 1 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 70 percent modified for recall bias to 72 percent based on 1st dose record or recall coverage of 74 percent, 1st dose record only coverage of 46 percent and 3rd dose record only coverage of 45 percent. Estimate of 72 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-
- 2017: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 62 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 60 percent modified for recall bias to 62 percent based on 1st dose record or recall coverage of 66 percent, 1st dose record only coverage of 46 percent and 3rd dose record only coverage of 43 percent. Estimate of 62 percent

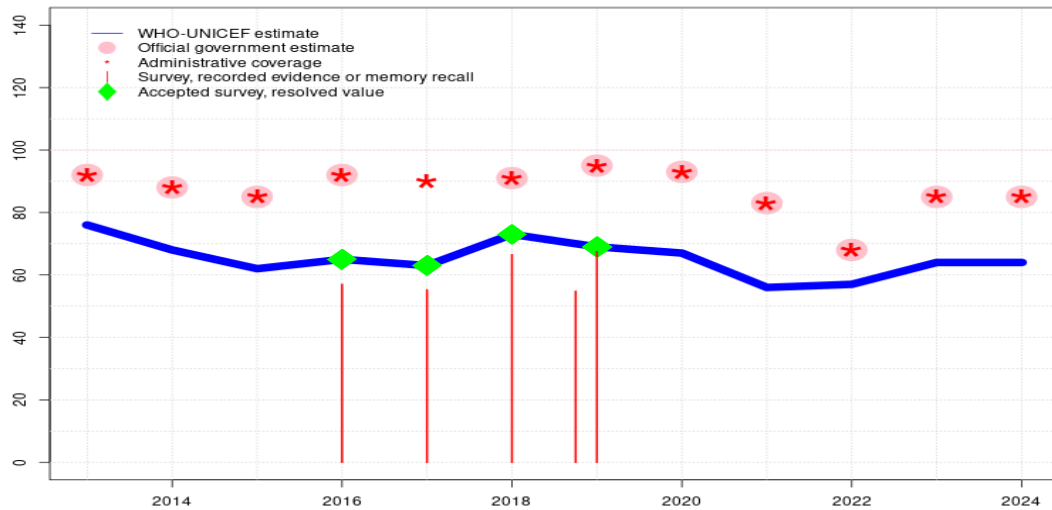
# Madagascar - ROTAC

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- changed from previous revision value of 60 percent. Estimate challenged by: D-R-
- 2016: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 69 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 63 percent modified for recall bias to 69 percent based on 1st dose record or recall coverage of 69 percent, 1st dose record only coverage of 36 percent and 3rd dose record only coverage of 36 percent. Estimate of 69 percent changed from previous revision value of 63 percent. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2016 levels. Estimate of 60 percent changed from previous revision value of 54 percent. Estimate challenged by: D-R-
- 2014: Estimate is exceptionally based on reported data during introduction. Rotavirus vaccine introduced in May 2014. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

# Madagascar - PCV3

MDG - PCV3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	76	68	62	65	63	73	69	67	56	57	64	64
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	92	88	85	92	-	91	95	93	83	68	85	85
Administrative	92	88	85	92	90	91	95	93	83	68	85	85
Survey	-	-	-	57	55	67	*	-	-	-	-	-

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. Programme reported vaccine stockout at the sub-national level. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Estimate challenged by: D-R-
- 2023: Estimate of 64 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. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Programme reports a two-month vaccine stockout at national and subnational levels. Estimate of 64 percent changed from previous revision value of 73 percent. Estimate challenged by: D-R-
- 2022: Estimate of 57 percent assigned by working group. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Reported data excluded due to decline in reported coverage from 83 percent to 68 percent with increase to 85 percent. Programme reports a two months vaccine stockout at national and subnational levels. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2019 and 2022 levels. Estimate of 56 percent changed from previous revision value of 57 percent. Estimate challenged by: D-R-S-
- 2020: Reported data calibrated to 2019 and 2022 levels. Estimate challenged by: D-R-
- 2019: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 69 percent based on 2 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 68 percent modified for recall bias to 72 percent based on 1st dose record or recall coverage of 78 percent, 1st dose record only coverage of 54 percent and 3rd dose record only coverage of 50 percent. Madagascar Enquete de Couverture Vaccinale 2021 (ECV 2021) record or recall results of 55 percent modified for recall bias to 66 percent based on 1st dose record or recall coverage of 75 percent, 1st dose record only coverage of 50 percent and 3rd dose record only coverage of 44 percent. Estimate challenged by: D-R-
- 2018: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 73 percent based on 1 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 67 percent modified for recall bias to 73 percent based on 1st dose record or recall coverage of 76 percent, 1st dose record only coverage of 46 percent and 3rd dose record only coverage of 44 percent. Estimate challenged by: D-R-
- 2017: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 63 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 55 percent modified for recall bias to 63 percent based on 1st dose record or recall coverage of 69 percent, 1st dose record only coverage of 45 percent and 3rd dose record only coverage of 41 percent. Estimate of 63 percent changed from previous revision value of 62 percent. Estimate challenged by: D-R-
- 2016: Survey evidence does not support reported data. Estimate based on survey result. Sur-

# Madagascar - PCV3

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vey evidence of 65 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 57 percent modified for recall bias to 65 percent based on 1st dose record or recall coverage of 71 percent, 1st dose record only coverage of 37 percent and 3rd dose record only coverage of 34 percent. Estimate challenged by: D-R-

2015: Reported data calibrated to 2013 and 2016 levels. Estimate challenged by: D-R-

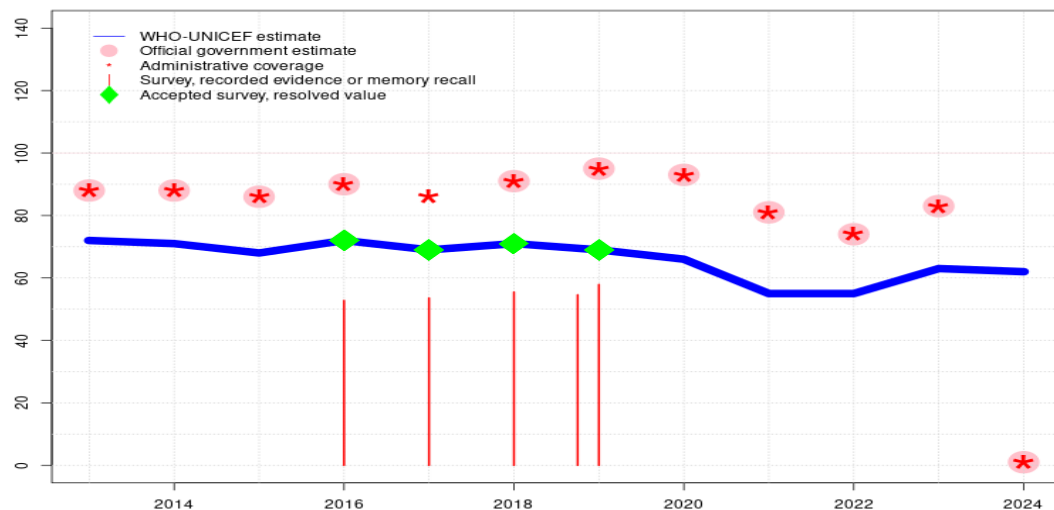
2014: Reported data calibrated to 2013 and 2016 levels. Estimate challenged by: D-R-

2013: Estimate of 76 percent assigned by working group. Estimate informed by calibrated DTP3 level. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Pneumococcal conjugate vaccine introduced in 2012. Reporting started in 2013. Estimate challenged by: D-R-



# Madagascar - POL3

MDG - POL3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	72	71	68	72	69	71	69	66	55	55	63	62
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	88	88	86	90	-	91	95	93	81	74	83	1
Administrative	88	88	86	90	86	91	95	93	81	74	83	1
Survey	-	-	-	53	54	56	*	-	-	-	-	-

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 for DTP3 and Pol3 applied to the DTP3 estimated coverage. Reported data excluded due to sudden change in coverage from 83 to 1 percent. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Programme reported vaccine stockout at the subnational level. Estimate challenged by: D-R-
- 2023: Estimate of 63 percent assigned by working group. Estimate is exceptionally based on the relationship between estimated coverage and the number of doses administered in 2022 applied to the number of administered doses in 2023. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Programme reports a vaccine stockout at subnational level. Estimate challenged by: D-R-
- 2022: Estimate of 55 percent assigned by working group. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Programme reports a OPV vaccine stockout of less than a month at the national level. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2019 and 2022 levels. Programme reports a two months OPV stockout at national and subnational levels. Estimate challenged by: D-R-S-
- 2020: Reported data calibrated to 2019 and 2022 levels. Estimate of 66 percent changed from previous revision value of 67 percent. Estimate challenged by: D-R-
- 2019: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 69 percent based on 2 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 58 percent modified for recall bias to 71 percent based on 1st dose record or recall coverage of 77 percent, 1st dose record only coverage of 54 percent and 3rd dose record only coverage of 50 percent. Madagascar Enquete de Couverture Vaccinale 2021 (ECV 2021) record or recall results of 55 percent modified for recall bias to 66 percent based on 1st dose record or recall coverage of 75 percent, 1st dose record only coverage of 49 percent and 3rd dose record only coverage of 43 percent. Estimate challenged by: D-R-
- 2018: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 71 percent based on 1 survey(s). Enquête Démographique et de Santé à Madagascar 2021 record or recall results of 56 percent modified for recall bias to 71 percent based on 1st dose record or recall coverage of 76 percent, 1st dose record only coverage of 46 percent and 3rd dose record only coverage of 43 percent. Estimate challenged by: D-R-
- 2017: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 69 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 54 percent modified for recall bias to 69 percent based on 1st dose record or recall coverage of 75 percent, 1st dose record only coverage of 47 percent and 3rd dose record only coverage of 43 percent. Estimate challenged by: D-R-

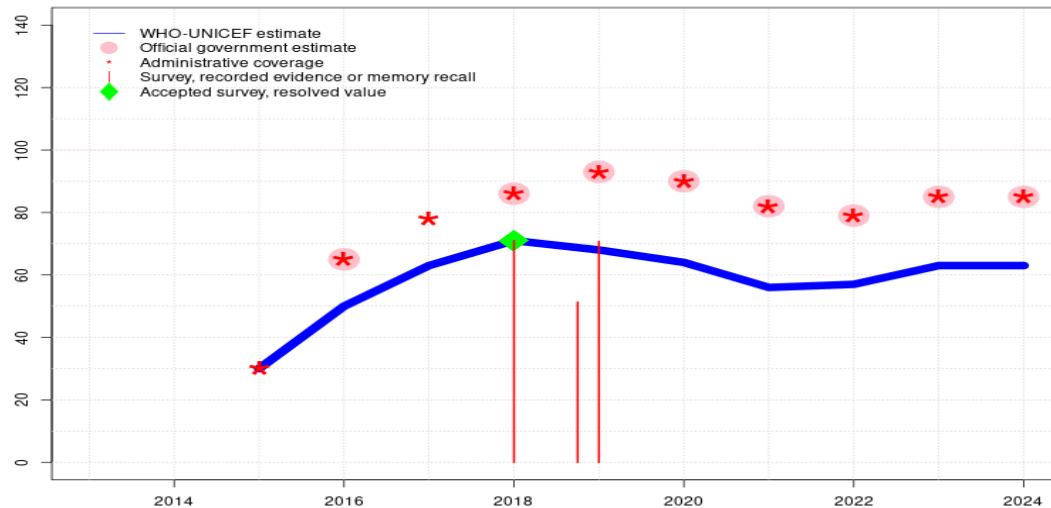
# Madagascar - POL3

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- 2016: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 72 percent based on 1 survey(s). Madagascar Multiple Indicator Cluster Survey 2018 record or recall results of 53 percent modified for recall bias to 72 percent based on 1st dose record or recall coverage of 76 percent, 1st dose record only coverage of 37 percent and 3rd dose record only coverage of 35 percent. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 and 2016 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-

# Madagascar - IPV1

MDG - IPV1



## Description:

- 2024: Reported data calibrated to 2023 levels. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Programme reported vaccine stockout at the subnational level. Estimate challenged by: D-R-
- 2023: Estimate of 63 percent assigned by working group. Estimate is exceptionally based on the relationship between estimated coverage and the number of doses administered in 2022 applied to the number of administered doses in 2023. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Programme reports a vaccine stockout at subnational level. Estimate challenged by: D-R-
- 2022: Estimate of 57 percent assigned by working group. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2019 and 2022 levels. Estimate of 56 percent changed from previous revision value of 57 percent. Estimate challenged by: D-R-
- 2020: Reported data calibrated to 2019 and 2022 levels. Estimate of 64 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-
- 2019: Estimate of 68 percent assigned by working group. Estimate informed by estimated DTP3 coverage level. Enquête Démographique et de Santé à Madagascar 2021 results ignored by working group. Madagascar Enquete de Couverture Vaccinale 2021 (ECV 2021) results ignored by working group. Estimate challenged by: D-R-
- 2018: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 71 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2017: Reported data calibrated to 2018 levels. Programme reports 1-month vaccine stockout. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2016: Reported data calibrated to 2018 levels. Programme reports three months vaccine stock-out. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2015: Inactivated polio vaccine introduced in May 2015. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	30	50	63	71	68	64	56	57	63	63
Estimate GoC	-	-	•	•	•	•	•	•	•	•	•	•
Official	-	-	-	65	-	86	93	90	82	79	85	85
Administrative	-	-	30	65	78	86	93	90	82	79	85	85
Survey	-	-	-	-	-	71	*	-	-	-	-	-

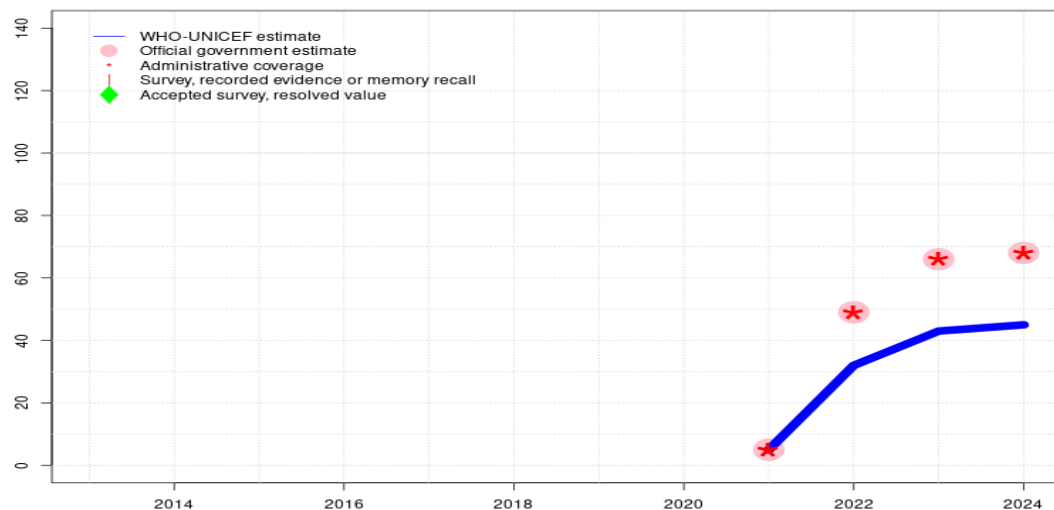
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Madagascar - IPV2

MDG - IPV2



## Description:

- 2024: Reported data calibrated to 2023 levels. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Programme reported vaccine stockout at the subnational level. Estimate challenged by: D-R-
- 2023: Estimate of 43 percent assigned by working group. Estimate informed by the relationship between estimated MCV1 coverage and the reported number of MCV1 doses administered applied to the reported number of IPV2 doses administered. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Estimate challenged by: D-R-
- 2022: Estimate of 32 percent assigned by working group. Estimate informed by the relationship between estimated MCV1 coverage and the reported number of MCV1 doses administered applied to the reported number of IPV2 doses administered. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Estimate challenged by: D-R-
- 2021: Second dose of inactivated polio vaccine introduced in 2021. GoC=R+ D+

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	-	-	-	-	-	-	5	32	43	45
Estimate GoC	-	-	-	-	-	-	-	-	••	•	•	•
Official	-	-	-	-	-	-	-	-	5	49	66	68
Administrative	-	-	-	-	-	-	-	-	5	49	66	68
Survey	-	-	-	-	-	-	-	-	-	-	-	-

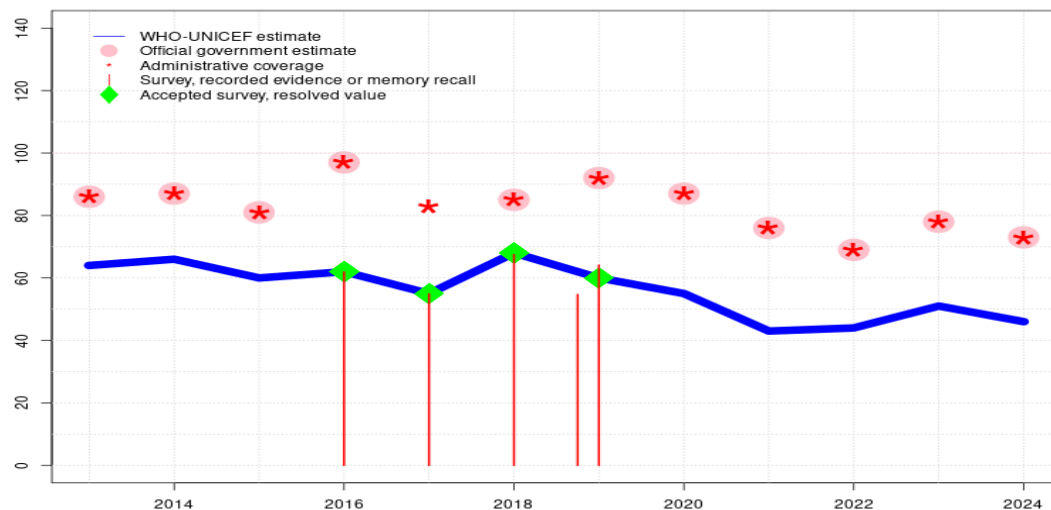
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Madagascar - MCV1

MDG - MCV1



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	64	66	60	62	55	68	60	55	43	44	51	46
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	86	87	81	97	-	85	92	87	76	69	78	73
Administrative	86	87	81	97	83	85	92	87	76	69	78	73
Survey	-	-	-	62	55	68	*	-	-	-	-	-

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.

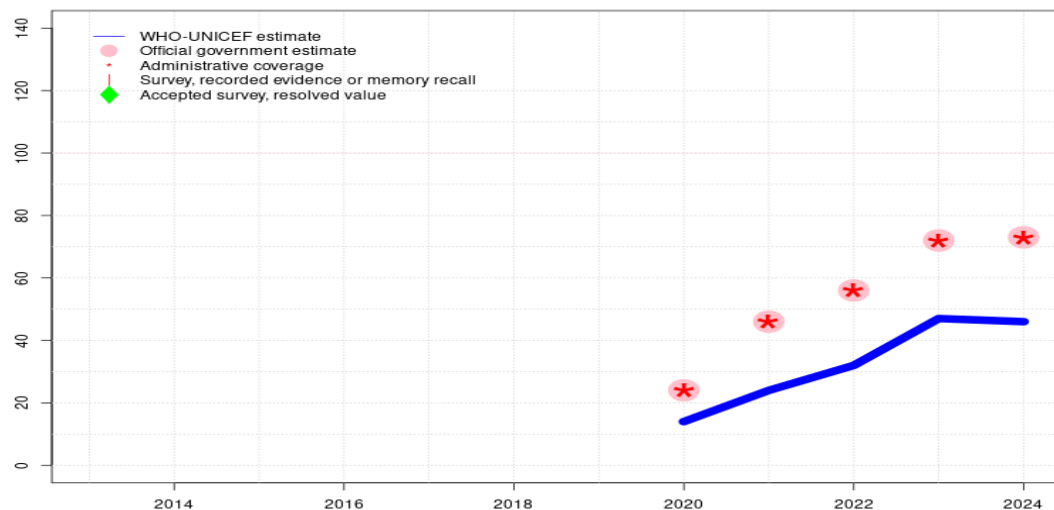
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2024: Reported data calibrated to 2023 levels. Programme reported vaccine stockout at the sub-national level. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Estimate challenged by: D-R-
- 2023: Estimate of 51 percent assigned by working group. Estimate is exceptionally based on the relationship between estimated coverage and the number of doses administered in 2022 applied to the number of administered doses in 2023. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Programme reports a vaccine stockout at subnational level. Estimate challenged by: D-R-
- 2022: Estimate of 44 percent assigned by working group. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2019 and 2022 levels. Estimate of 43 percent changed from previous revision value of 44 percent. Estimate challenged by: D-R-S-
- 2020: Reported data calibrated to 2019 and 2022 levels. Estimate challenged by: D-R-S-
- 2019: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 60 percent based on 2 survey(s). Estimate challenged by: D-R-
- 2018: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 68 percent based on 1 survey(s). From October 2018 to Jan 2019 more than 19 000 measles cases have been reported by the Ministry of Health. Cases reported from all 22 regions of the country. Half of the cases have not been vaccinated or have an unknown vaccination status. Children under five years account for one third of all cases. Estimate challenged by: D-R-S-
- 2017: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 55 percent based on 1 survey(s). Estimate challenged by: D-R-S-
- 2016: Survey evidence does not support reported data. Estimate based on survey result. Survey evidence of 62 percent based on 1 survey(s). Reported data excluded due to an increase from 81 percent to 97 percent with decrease to 83 percent. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2011 and 2016 levels. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2011 and 2016 levels. Since 2006, maternal and child health weeks have been conducted twice per year and serve as an important contribution towards routine immunization service delivery. In 2011 and 2012, the maternal and child health weeks accounted for 20 to 30 percent of children 0 to 11 months of age reached with routine vaccination services. Estimate challenged by: D-R-

# Madagascar - MCV2

MDG - MCV2



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	-	-	-	-	-	14	24	32	47	46
Estimate GoC	-	-	-	-	-	-	-	●	●	●	●	●
Official	-	-	-	-	-	-	-	24	46	56	72	73
Administrative	-	-	-	-	-	-	-	24	46	56	72	73
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.

## Description:

- 2024: Estimated MCV2 coverage may be an overestimation. Reported coverage is the same as coverage for MCV1 implying no drop-out. WHO and UNICEF are aware of the ongoing 2024-2025 Multiple Indicator Cluster Survey and await final results. Programme reported vaccine stockout at the subnational level. Estimate challenged by: D-R-
- 2023: Estimate of 47 percent assigned by working group. Estimate informed by the relationship between estimated MCV1 coverage and the reported number of MCV1 doses administered applied to the reported number of MCV2 doses administered. Country conducted catch-up vaccination activities during the last quarter of 2023. Reported coverage may reflect doses administered to children beyond infancy. Programme reports a vaccine stockout at subnational level. Estimate challenged by: D-R-
- 2022: Estimate informed by the relative difference between doses administered for MCV1 to MCV2 applied to the estimated MCV1 coverage. Reported data excluded. Unexplained increase in the reported target population of surviving infants of 11 percent between 2021 and 2022. Reported increase in the number of doses for some vaccines of lesser magnitude. Estimate challenged by: D-R-
- 2021: Estimate based on the relative difference between doses administered for MCV1 to MCV2 applied to the estimated MCV1 coverage. Estimate challenged by: D-R-
- 2020: Second dose of measles vaccine introduced in 2020 targeting children 15-18 months of age. Estimate based on the relative difference between doses administered for MCV1 to MCV2 applied to the estimated MCV1 coverage. Estimate challenged by: R-

# Madagascar - 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.

## 2019 Enquete Demographique et de Sante a Madagascar 2021

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	25.2	12-23 m	10350	56
BCG	Record	53.2	12-23 m	13020	56
BCG	Record or Recall	78.3	12-23 m	23370	56
BCG	Record or Recall<12m	78.2	12-23 m	23370	56
DTP1	Recall	23.8	12-23 m	10350	56
DTP1	Record	54.5	12-23 m	13020	56
DTP1	Record or Recall	78.3	12-23 m	23370	56
DTP1	Record or Recall<12m	77.9	12-23 m	23370	56
DTP3	Recall	18	12-23 m	10350	56
DTP3	Record	49.9	12-23 m	13020	56
DTP3	Record or Recall	67.9	12-23 m	23370	56
DTP3	Record or Recall<12m	67.2	12-23 m	23370	56
HEPB1	Recall	23.8	12-23 m	10350	56
HEPB1	Record	54.5	12-23 m	13020	56
HEPB1	Record or Recall	78.3	12-23 m	23370	56
HEPB1	Record or Recall<12m	77.9	12-23 m	23370	56
HEPB3	Recall	18	12-23 m	10350	56
HEPB3	Record	49.9	12-23 m	13020	56
HEPB3	Record or Recall	67.9	12-23 m	23370	56

HEPB3	Record or Recall<12m	67.2	12-23 m	23370	56
HIB1	Recall	23.8	12-23 m	10350	56
HIB1	Record	54.5	12-23 m	13020	56
HIB1	Record or Recall	78.3	12-23 m	23370	56
HIB1	Record or Recall<12m	77.9	12-23 m	23370	56
HIB3	Recall	18	12-23 m	10350	56
HIB3	Record	49.9	12-23 m	13020	56
HIB3	Record or Recall	67.9	12-23 m	23370	56
HIB3	Record or Recall<12m	67.2	12-23 m	23370	56
IPV1	Recall	21.9	12-23 m	10350	56
IPV1	Record	48.8	12-23 m	13020	56
IPV1	Record or Recall	70.7	12-23 m	23370	56
IPV1	Record or Recall<12m	70	12-23 m	23370	56
MCV1	Recall	19.1	12-23 m	10350	56
MCV1	Record	45	12-23 m	13020	56
MCV1	Record or Recall	64.1	12-23 m	23370	56
MCV1	Record or Recall<12m	58.7	12-23 m	23370	56
PCV1	Recall	23.6	12-23 m	10350	56
PCV1	Record	54.4	12-23 m	13020	56
PCV1	Record or Recall	78	12-23 m	23370	56
PCV1	Record or Recall<12m	77.7	12-23 m	23370	56
PCV3	Recall	17.5	12-23 m	10350	56
PCV3	Record	50	12-23 m	13020	56
PCV3	Record or Recall	67.5	12-23 m	23370	56
PCV3	Record or Recall<12m	66.9	12-23 m	23370	56
POL1	Recall	22.3	12-23 m	10350	56
POL1	Record	54.2	12-23 m	13020	56
POL1	Record or Recall	76.6	12-23 m	23370	56
POL1	Record or Recall<12m	76.3	12-23 m	23370	56
POL3	Recall	8	12-23 m	10350	56
POL3	Record	49.8	12-23 m	13020	56
POL3	Record or Recall	57.9	12-23 m	23370	56
POL3	Record or Recall<12m	57.3	12-23 m	23370	56
ROTAC	Recall	19.6	12-23 m	10350	56
ROTAC	Record	52.3	12-23 m	13020	56
ROTAC	Record or Recall	71.8	12-23 m	23370	56
ROTAC	Record or Recall<12m	71.2	12-23 m	23370	56

## 2019 Madagascar Enquete de Couverture Vaccinale 2021 (ECV 2021)



# Madagascar - Survey Details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	29.3	12-23 m	1430	52
BCG	Record	48.1	12-23 m	1430	52
BCG	Record or Recall	79.3	12-23 m	1430	52
DTP1	Recall	25.6	12-23 m	1430	52
DTP1	Record	50.5	12-23 m	1430	52
DTP1	Record or Recall	76.1	12-23 m	1430	52
DTP3	Recall	10.6	12-23 m	1430	52
DTP3	Record	45	12-23 m	1430	52
DTP3	Record or Recall	55.6	12-23 m	1430	52
HEPB1	Recall	25.6	12-23 m	1430	52
HEPB1	Record	50.5	12-23 m	1430	52
HEPB1	Record or Recall	76.1	12-23 m	1430	52
HEPB3	Recall	10.6	12-23 m	1430	52
HEPB3	Record	45	12-23 m	1430	52
HEPB3	Record or Recall	55.6	12-23 m	1430	52
HIB1	Recall	25.6	12-23 m	1430	52
HIB1	Record	50.5	12-23 m	1430	52
HIB1	Record or Recall	76.1	12-23 m	1430	52
HIB3	Recall	10.6	12-23 m	1430	52
HIB3	Record	45	12-23 m	1430	52
HIB3	Record or Recall	55.6	12-23 m	1430	52
IPV1	Recall	11.2	12-23 m	1430	52
IPV1	Record	40.1	12-23 m	1430	52
IPV1	Record or Recall	51.3	12-23 m	1430	52
MCV1	Recall	14.4	12-23 m	1430	52
MCV1	Record	40.2	12-23 m	1430	52
MCV1	Record or Recall	54.7	12-23 m	1430	52
PCV1	Recall	25.6	12-23 m	1430	52
PCV1	Record	49.7	12-23 m	1430	52
PCV1	Record or Recall	75.3	12-23 m	1430	52
PCV3	Recall	10.6	12-23 m	1430	52
PCV3	Record	44.1	12-23 m	1430	52
PCV3	Record or Recall	54.8	12-23 m	1430	52
POL1	Recall	26.1	12-23 m	1430	52
POL1	Record	49	12-23 m	1430	52
POL1	Record or Recall	75.1	12-23 m	1430	52
POL3	Recall	11.7	12-23 m	1430	52
POL3	Record	42.9	12-23 m	1430	52

POL3	Record or Recall	54.6	12-23 m	1430	52
ROTAC	Recall	15.5	12-23 m	1430	52
ROTAC	Record	46	12-23 m	1430	52
ROTAC	Record or Recall	61.5	12-23 m	1430	52

## 2018 Enquete Demographique et de Sante a Madagascar 2021

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	32.2	24-35 m	11920	-
BCG	Record	45	24-35 m	10490	-
BCG	Record or Recall	77.2	24-35 m	22400	-
BCG	Record or Recall<12m	76.4	24-35 m	22400	-
DTP1	Recall	30.7	24-35 m	11920	-
DTP1	Record	46	24-35 m	10490	-
DTP1	Record or Recall	76.7	24-35 m	22400	-
DTP1	Record or Recall<12m	75.5	24-35 m	22400	-
DTP3	Recall	24.7	24-35 m	11920	-
DTP3	Record	43.6	24-35 m	10490	-
DTP3	Record or Recall	68.3	24-35 m	22400	-
DTP3	Record or Recall<12m	66.5	24-35 m	22400	-
HEPB1	Recall	30.7	24-35 m	11920	-
HEPB1	Record	46	24-35 m	10490	-
HEPB1	Record or Recall	76.7	24-35 m	22400	-
HEPB1	Record or Recall<12m	75.5	24-35 m	22400	-
HEPB3	Recall	24.7	24-35 m	11920	-
HEPB3	Record	43.6	24-35 m	10490	-
HEPB3	Record or Recall	68.3	24-35 m	22400	-
HEPB3	Record or Recall<12m	66.5	24-35 m	22400	-
HIB1	Recall	30.7	24-35 m	11920	-
HIB1	Record	46	24-35 m	10490	-
HIB1	Record or Recall	76.7	24-35 m	22400	-
HIB1	Record or Recall<12m	75.5	24-35 m	22400	-
HIB3	Recall	24.7	24-35 m	11920	-
HIB3	Record	43.6	24-35 m	10490	-
HIB3	Record or Recall	68.3	24-35 m	22400	-
HIB3	Record or Recall<12m	66.5	24-35 m	22400	-
IPV1	Recall	29.4	24-35 m	11920	-
IPV1	Record	41.6	24-35 m	10490	-
IPV1	Record or Recall	71	24-35 m	22400	-



## Madagascar - Survey Details

IPV1	Record or Recall<12m	68.9	24-35 m	22400	-	DTP3	Record or Recall	58.9	12-23 m	2625	51
MCV1	Recall	27	24-35 m	11920	-	DTP3	Record or Recall<12m	54.6	12-23 m	2625	51
MCV1	Record	40.6	24-35 m	10490	-	HEPB1	Recall	23.6	12-23 m	2625	51
MCV1	Record or Recall	67.5	24-35 m	22400	-	HEPB1	Record	47.8	12-23 m	2625	51
MCV1	Record or Recall<12m	58.9	24-35 m	22400	-	HEPB1	Record or Recall	71.4	12-23 m	2625	51
PCV1	Recall	30	24-35 m	11920	-	HEPB1	Record or Recall<12m	66.6	12-23 m	2625	51
PCV1	Record	45.9	24-35 m	10490	-	HEPB3	Recall	15.1	12-23 m	2625	51
PCV1	Record or Recall	76	24-35 m	22400	-	HEPB3	Record	43.7	12-23 m	2625	51
PCV1	Record or Recall<12m	74.8	24-35 m	22400	-	HEPB3	Record or Recall	58.9	12-23 m	2625	51
PCV3	Recall	22.9	24-35 m	11920	-	HEPB3	Record or Recall<12m	54.6	12-23 m	2625	51
PCV3	Record	43.6	24-35 m	10490	-	HIB1	Recall	23.6	12-23 m	2625	51
PCV3	Record or Recall	66.5	24-35 m	22400	-	HIB1	Record	47.8	12-23 m	2625	51
PCV3	Record or Recall<12m	64.7	24-35 m	22400	-	HIB1	Record or Recall	71.4	12-23 m	2625	51
POL1	Recall	29.6	24-35 m	11920	-	HIB1	Record or Recall<12m	66.6	12-23 m	2625	51
POL1	Record	45.8	24-35 m	10490	-	HIB3	Recall	15.1	12-23 m	2625	51
POL1	Record or Recall	75.5	24-35 m	22400	-	HIB3	Record	43.7	12-23 m	2625	51
POL1	Record or Recall<12m	74.3	24-35 m	22400	-	HIB3	Record or Recall	58.9	12-23 m	2625	51
POL3	Recall	12.3	24-35 m	11920	-	HIB3	Record or Recall<12m	54.6	12-23 m	2625	51
POL3	Record	43.2	24-35 m	10490	-	MCV1	Recall	17.9	12-23 m	2625	51
POL3	Record or Recall	55.5	24-35 m	22400	-	MCV1	Record	37	12-23 m	2625	51
POL3	Record or Recall<12m	54	24-35 m	22400	-	MCV1	Record or Recall	54.9	12-23 m	2625	51
ROTAC	Recall	24.9	24-35 m	11920	-	MCV1	Record or Recall<12m	49	12-23 m	2625	51
ROTAC	Record	44.7	24-35 m	10490	-	PCV1	Recall	23.1	12-23 m	2625	51
ROTAC	Record or Recall	69.6	24-35 m	22400	-	PCV1	Record	45.4	12-23 m	2625	51
ROTAC	Record or Recall<12m	68.2	24-35 m	22400	-	PCV1	Record or Recall	68.5	12-23 m	2625	51

## 2017 Madagascar Enquete par grappes a indicateurs multiples 2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen	PCV3	Record or Recall<12m	50.6	12-23 m	2625	51
BCG	Recall	26.2	12-23 m	2625	51	POL1	Recall	27.3	12-23 m	2625	51
BCG	Record	47.3	12-23 m	2625	51	POL1	Record	47.4	12-23 m	2625	51
BCG	Record or Recall	73.5	12-23 m	2625	51	POL1	Record or Recall	74.7	12-23 m	2625	51
BCG	Record or Recall<12m	69.6	12-23 m	2625	51	POL1	Record or Recall<12m	70.1	12-23 m	2625	51
DTP1	Recall	23.6	12-23 m	2625	51	POL3	Recall	10.3	12-23 m	2625	51
DTP1	Record	47.8	12-23 m	2625	51	POL3	Record	43.3	12-23 m	2625	51
DTP1	Record or Recall	71.4	12-23 m	2625	51	POL3	Record or Recall	53.6	12-23 m	2625	51
DTP1	Record or Recall<12m	66.6	12-23 m	2625	51	POL3	Record or Recall<12m	49.9	12-23 m	2625	51
DTP3	Recall	15.1	12-23 m	2625	51	ROTAC	Recall	16.7	12-23 m	2625	51
DTP3	Record	43.7	12-23 m	2625	51	ROTAC	Record	43.4	12-23 m	2625	51

# Madagascar - Survey Details

ROTAC	Record or Recall	60.1	12-23 m	2625	51
ROTAC	Record or Recall<12m	55.4	12-23 m	2625	51

## 2016 Madagascar Enquete par grappes a indicateurs multiples 2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	37.9	24-35 m	2442	-
BCG	Record	35.7	24-35 m	2442	-
BCG	Record or Recall	73.7	24-35 m	2442	-
BCG	Record or Recall<12m	66.1	24-35 m	2442	-
DTP1	Recall	36	24-35 m	2442	-
DTP1	Record	37.6	24-35 m	2442	-
DTP1	Record or Recall	73.5	24-35 m	2442	-
DTP1	Record or Recall<12m	65.4	24-35 m	2442	-
DTP3	Recall	25.8	24-35 m	2442	-
DTP3	Record	35.1	24-35 m	2442	-
DTP3	Record or Recall	60.8	24-35 m	2442	-
DTP3	Record or Recall<12m	52.7	24-35 m	2442	-
HEPB1	Recall	36	24-35 m	2442	-
HEPB1	Record	37.6	24-35 m	2442	-
HEPB1	Record or Recall	73.5	24-35 m	2442	-
HEPB1	Record or Recall<12m	65.4	24-35 m	2442	-
HEPB3	Recall	25.8	24-35 m	2442	-
HEPB3	Record	35.1	24-35 m	2442	-
HEPB3	Record or Recall	60.8	24-35 m	2442	-
HEPB3	Record or Recall<12m	52.7	24-35 m	2442	-
HIB1	Recall	36	24-35 m	2442	-
HIB1	Record	37.6	24-35 m	2442	-
HIB1	Record or Recall	73.5	24-35 m	2442	-
HIB1	Record or Recall<12m	65.4	24-35 m	2442	-
HIB3	Recall	25.8	24-35 m	2442	-
HIB3	Record	35.1	24-35 m	2442	-
HIB3	Record or Recall	60.8	24-35 m	2442	-
HIB3	Record or Recall<12m	52.7	24-35 m	2442	-
MCV1	Recall	28.9	24-35 m	2442	-
MCV1	Record	33	24-35 m	2442	-
MCV1	Record or Recall	61.9	24-35 m	2442	-
MCV1	Record or Recall<12m	51.8	24-35 m	2442	-
PCV1	Recall	34.4	24-35 m	2442	-

PCV1	Record	36.6	24-35 m	2442	-
PCV1	Record or Recall	70.9	24-35 m	2442	-
PCV1	Record or Recall<12m	62.4	24-35 m	2442	-
PCV3	Recall	23	24-35 m	2442	-
PCV3	Record	34	24-35 m	2442	-
PCV3	Record or Recall	57	24-35 m	2442	-
PCV3	Record or Recall<12m	49.3	24-35 m	2442	-
POL1	Recall	38.6	24-35 m	2442	-
POL1	Record	37.4	24-35 m	2442	-
POL1	Record or Recall	76	24-35 m	2442	-
POL1	Record or Recall<12m	68	24-35 m	2442	-
POL3	Recall	18.1	24-35 m	2442	-
POL3	Record	34.7	24-35 m	2442	-
POL3	Record or Recall	52.8	24-35 m	2442	-
POL3	Record or Recall<12m	45.9	24-35 m	2442	-
ROTAC	Recall	27.4	24-35 m	2442	-
ROTAC	Record	35.5	24-35 m	2442	-
ROTAC	Record or Recall	62.9	24-35 m	2442	-
ROTAC	Record or Recall<12m	55.7	24-35 m	2442	-

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

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	32.4	12-23 m	1148	46
BCG	Record	41.7	12-23 m	977	46
BCG	Record or Recall	74.2	12-23 m	2125	46
BCG	Record<12m	79.6	12-23 m	977	46
DTP1	Recall	34.8	12-23 m	1148	46
DTP1	Record	44.9	12-23 m	977	46
DTP1	Record or Recall	79.7	12-23 m	2125	46
DTP1	Record<12m	98.3	12-23 m	977	46
DTP3	Recall	21.5	12-23 m	1148	46
DTP3	Record	41.4	12-23 m	977	46
DTP3	Record or Recall	62.9	12-23 m	2125	46
DTP3	Record<12m	97.6	12-23 m	977	46
HEPB1	Recall	34.8	12-23 m	1148	46
HEPB1	Record	44.9	12-23 m	977	46
HEPB1	Record or Recall	79.7	12-23 m	2125	46

# Madagascar - Survey Details

HEPB1	Record<12m	98.3	12-23 m	977	46
HEPB3	Recall	21.5	12-23 m	1148	46
HEPB3	Record	41.4	12-23 m	977	46
HEPB3	Record or Recall	62.9	12-23 m	2125	46
HEPB3	Record<12m	97.6	12-23 m	977	46
HIB1	Recall	34.8	12-23 m	1148	46
HIB1	Record	44.9	12-23 m	977	46
HIB1	Record or Recall	79.7	12-23 m	2125	46
HIB1	Record<12m	98.3	12-23 m	977	46
HIB3	Recall	21.5	12-23 m	1148	46
HIB3	Record	41.4	12-23 m	977	46
HIB3	Record or Recall	62.9	12-23 m	2125	46
HIB3	Record<12m	97.6	12-23 m	977	46
MCV1	Recall	24	12-23 m	1148	46
MCV1	Record	37.7	12-23 m	977	46
MCV1	Record or Recall	61.7	12-23 m	2125	46
MCV1	Record<12m	88.7	12-23 m	977	46
POL1	Recall	34.8	12-23 m	1148	46
POL1	Record	44.9	12-23 m	977	46
POL1	Record or Recall	79.7	12-23 m	2125	46
POL1	Record<12m	98.3	12-23 m	977	46
POL3	Recall	21.5	12-23 m	1148	46
POL3	Record	41.4	12-23 m	977	46
POL3	Record or Recall	62.9	12-23 m	2125	46
POL3	Record<12m	97.3	12-23 m	977	46

## 2010 Evaluation de la couverture vaccinale, Madagascar, 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record	74.1	12-23 m	12848	56
BCG	Record or Recall	76.1	12-23 m	12848	56
BCG	Scar	69.6	12-23 m	12848	56
DTP1	Record	53.3	12-23 m	12848	56
DTP1	Record or Recall	92.1	12-23 m	12848	56
DTP3	Record	47.8	12-23 m	12848	56
DTP3	Record or Recall	82.1	12-23 m	12848	56
HEPB1	Record	53.3	12-23 m	12848	56
HEPB1	Record or Recall	92.1	12-23 m	12848	56
HEPB3	Record	47.8	12-23 m	12848	56

HEPB3	Record or Recall	82.1	12-23 m	12848	56
HIB1	Record	53.3	12-23 m	12848	56
HIB1	Record or Recall	92.1	12-23 m	12848	56
HIB3	Record	47.8	12-23 m	12848	56
HIB3	Record or Recall	82.1	12-23 m	12848	56
MCV1	Record	41.8	12-23 m	12848	56
MCV1	Record or Recall	73.4	12-23 m	12848	56
POL1	Record	51.8	12-23 m	12848	56
POL1	Record or Recall	89.3	12-23 m	12848	56
POL3	Record	47	12-23 m	12848	56
POL3	Record or Recall	79.9	12-23 m	12848	56

## 2008 Enquête Démographique et de Santé Madagascar 2008-2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	24.7	12-23 m	2309	60
BCG	Record	58.4	12-23 m	2309	60
BCG	Record or Recall	83.1	12-23 m	2309	60
BCG	Record or Recall<12m	82.5	12-23 m	2309	60
DTP1	Recall	24.5	12-23 m	2309	60
DTP1	Record	59.7	12-23 m	2309	60
DTP1	Record or Recall	84.2	12-23 m	2309	60
DTP1	Record or Recall<12m	83.7	12-23 m	2309	60
DTP3	Recall	18.2	12-23 m	2309	60
DTP3	Record	54.6	12-23 m	2309	60
DTP3	Record or Recall	72.8	12-23 m	2309	60
DTP3	Record or Recall<12m	71.3	12-23 m	2309	60
MCV1	Recall	18.9	12-23 m	2309	60
MCV1	Record	50.7	12-23 m	2309	60
MCV1	Record or Recall	69.6	12-23 m	2309	60
MCV1	Record or Recall<12m	62.1	12-23 m	2309	60
POL1	Recall	24.5	12-23 m	2309	60
POL1	Record	59.9	12-23 m	2309	60
POL1	Record or Recall	84.3	12-23 m	2309	60
POL1	Record or Recall<12m	83.8	12-23 m	2309	60
POL3	Recall	15	12-23 m	2309	60
POL3	Record	54.9	12-23 m	2309	60
POL3	Record or Recall	69.9	12-23 m	2309	60
POL3	Record or Recall<12m	68.5	12-23 m	2309	60

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## 2007 Enquête sur la couverture vaccinale à Madagascar 2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	8.7	12-23 m	6632	72
BCG	Record	85.5	12-23 m	6632	72
BCG	Record or Recall	94.2	12-23 m	6632	72
DTP1	Recall	25.4	12-23 m	6632	72
DTP1	Record	66.9	12-23 m	6632	72
DTP1	Record or Recall	92.3	12-23 m	6632	72
DTP3	Recall	20.8	12-23 m	6632	72
DTP3	Record	61.1	12-23 m	6632	72
DTP3	Record or Recall	81.9	12-23 m	6632	72
HEPB1	Recall	25.4	12-23 m	6632	72
HEPB1	Record	66.9	12-23 m	6632	72
HEPB1	Record or Recall	92.3	12-23 m	6632	72
HEPB3	Recall	20.8	12-23 m	6632	72
HEPB3	Record	61.1	12-23 m	6632	72
HEPB3	Record or Recall	81.9	12-23 m	6632	72
MCV1	Recall	19.6	12-23 m	6632	72
MCV1	Record	61.4	12-23 m	6632	72
MCV1	Record or Recall	81	12-23 m	6632	72
POL1	Recall	25.4	12-23 m	6632	72
POL1	Record	64.8	12-23 m	6632	72
POL1	Record or Recall	90.2	12-23 m	6632	72
POL3	Recall	20.7	12-23 m	6632	72
POL3	Record	60.3	12-23 m	6632	72
POL3	Record or Recall	81	12-23 m	6632	72

## 2002 République de Madagascar Enquêt Démographique et de Santé 2003-2004

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	23.8	12-23 m	1287	50
BCG	Record	48	12-23 m	1287	50
BCG	Record or Recall	71.8	12-23 m	1287	50
BCG	Record or Recall<12m	69.4	12-23 m	1287	50

DTP1	Recall	23.6	12-23 m	1287	50
DTP1	Record	47.7	12-23 m	1287	50
DTP1	Record or Recall	71.3	12-23 m	1287	50
DTP1	Record or Recall<12m	69.1	12-23 m	1287	50
DTP3	Recall	18.7	12-23 m	1287	50
DTP3	Record	42.7	12-23 m	1287	50
DTP3	Record or Recall	61.4	12-23 m	1287	50
DTP3	Record or Recall<12m	58.5	12-23 m	1287	50
MCV1	Recall	17.3	12-23 m	1287	50
MCV1	Record	41.7	12-23 m	1287	50
MCV1	Record or Recall	59	12-23 m	1287	50
MCV1	Record or Recall<12m	52.2	12-23 m	1287	50
POL1	Recall	28.5	12-23 m	1287	50
POL1	Record	48.8	12-23 m	1287	50
POL1	Record or Recall	77.3	12-23 m	1287	50
POL1	Record or Recall<12m	75	12-23 m	1287	50
POL3	Recall	19.2	12-23 m	1287	50
POL3	Record	44	12-23 m	1287	50
POL3	Record or Recall	63.2	12-23 m	1287	50
POL3	Record or Recall<12m	60.2	12-23 m	1287	50

## 1999 Madagascar MICS 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	26.4	12-23 m	-	48
BCG	Record	45.3	12-23 m	-	48
BCG	Record or Recall	71.7	12-23 m	-	48
BCG	Record<12m	42.5	12-23 m	-	48
DTP1	Recall	26.1	12-23 m	-	48
DTP1	Record	47.3	12-23 m	-	48
DTP1	Record or Recall	73.4	12-23 m	-	48
DTP1	Record<12m	43.9	12-23 m	-	48
DTP3	Recall	14.6	12-23 m	-	48
DTP3	Record	40.1	12-23 m	-	48
DTP3	Record or Recall	54.7	12-23 m	-	48
DTP3	Record<12m	36.6	12-23 m	-	48
MCV1	Recall	18.2	12-23 m	-	48
MCV1	Record	36.9	12-23 m	-	48
MCV1	Record or Recall	55.1	12-23 m	-	48

MCV1	Record<12m	29.1	12-23 m	-	48
POL1	Recall	36.9	12-23 m	-	48
POL1	Record	47.6	12-23 m	-	48
POL1	Record or Recall	84.5	12-23 m	-	48
POL1	Record<12m	43.8	12-23 m	-	48
POL3	Recall	17.4	12-23 m	-	48
POL3	Record	40.2	12-23 m	-	48
POL3	Record or Recall	57.5	12-23 m	-	48
POL3	Record<12m	36.6	12-23 m	-	48

# 1998 Madagascar EPM 1999

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record or Recall	70	12-23 m	-	-
DTP3	Record or Recall	63	12-23 m	-	-
MCV1	Record or Recall	44	12-23 m	-	-
POL3	Record or Recall	58	12-23 m	-	-

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