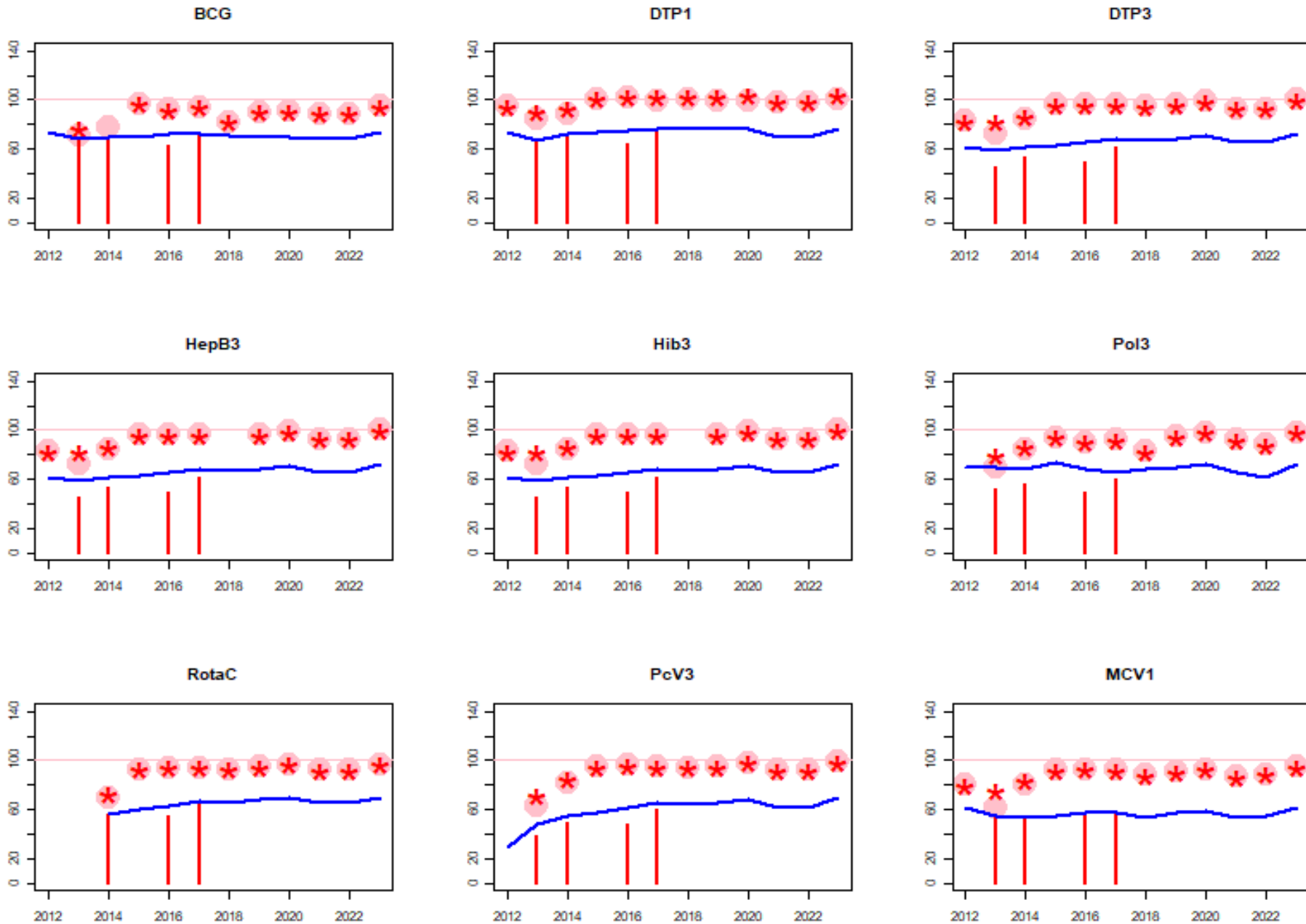


Ethiopia: WHO and UNICEF estimates of immunization coverage: 2023 revision



Ethiopia: WHO and UNICEF estimates of immunization coverage: 2023 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.

*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 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

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 nor are the data represented in the accompanying graph and data table.

HepBB: percentage of births which received a dose of hepatitis B vaccine within 24 hours of delivery. Estimates of hepatitis B birth dose coverage are produced only for countries with a universal birth dose policy. Estimates are not produced for countries that recommend a birth dose to infants born to HepB virus-infected mothers only or where there is insufficient information to determine whether vaccination is within 24 hours of birth.

HepB3: percentage of surviving infants who received the 3rd dose of hepatitis B containing vaccine following the birth dose.

Hib3: percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.

RotaC: percentage of surviving infants who received the final recommended dose of rotavirus vaccine, which can be either the 2nd or the 3rd dose depending on the vaccine.

PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect the percentage of surviving infants who received two doses of PcV prior to the 1st birthday.

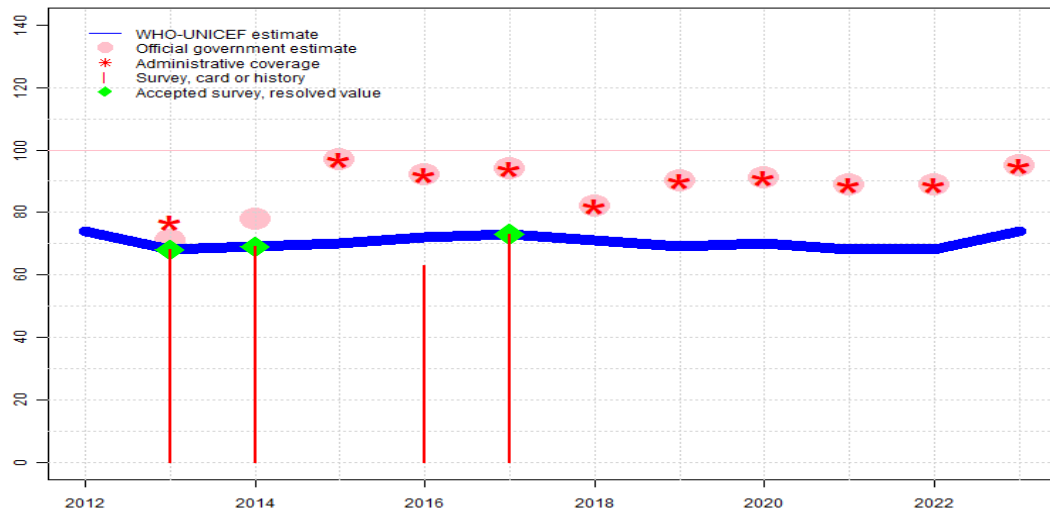
YFV: percentage of surviving infants who received one dose of yellow fever vaccine in countries where YFV is part of the national immunization schedule for children or is recommended in at risk areas; coverage estimates are annualized for the entire cohort of surviving infants.

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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Ethiopia - BCG

ETH - BCG



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	74	68	69	70	72	73	71	69	70	68	68	74
Estimate GoC	••	•	•	•	•	•	•	•	•	•	•	•
Official	NA	71	78	97	92	94	82	90	91	89	89	95
Administrative	NA	77	NA	97	92	94	82	90	91	89	89	95
Survey	NA	68	69	NA	63	73	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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:

2023: Reported data calibrated to 2017 levels. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 77 percent among children aged 12 to 35 months. Estimate challenged by: D-R-

2022: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2021: Reported data calibrated to 2017 levels. Programme reports one-half month vaccine stockout at national level. Estimate challenged by: R-

2020: Reported data calibrated to 2017 levels. Estimate challenged by: R-

2019: Reported data calibrated to 2017 levels. Estimate challenged by: R-

2018: Reported data calibrated to 2017 levels. Reported data excluded. Unexplained decline in reported coverage. Country transitioned to reporting using DHIS2 in 2018. Estimate challenged by: R-

2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Estimate challenged by: R-

2016: Estimate informed by interpolation between 2014 and 2017 levels. Ethiopia Mini Demographic and Health Survey 2019 results ignored by working group. Survey estimates for the 2016 cohort inconsistent with the observed data trend. Card availability in the 24-35 month old cohort of 26 percent compared to 41 percent in the 12-23 month old cohort. Estimate challenged by: R-

2015: Estimate informed by interpolation between 2014 and 2017 levels. Observed increases between 2014 and 2015 in the reported coverage are of such magnitude that additional supporting evidence of the increase is needed. Unexplained increase of 19 percentage points in the reported coverage between 2014 and 2015. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2014: Estimate of 69 percent assigned by working group. Estimate based on survey results. Beginning in 2013 and continuing through 2014, the national immunization programme has implemented a programme improvement plan. From 2013 to 2014, the number of health centres and health posts increased with more than 90 percent of health facilities providing immunization services. Intensified efforts were conducted in training on supportive supervision and immunization in practice with a focus on Reaching Every District. The government reports an increase in reporting completeness from 83 to 98 percent. The official government estimate is based on the application of a verification factor from a 2014 DQS applied to HMIS coverage levels. Programme reports two months stockout at national level. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2013: Estimate of 68 percent assigned by working group. National programme reports deficiencies in the accuracy of the administrative reporting system. An electronic HMIS

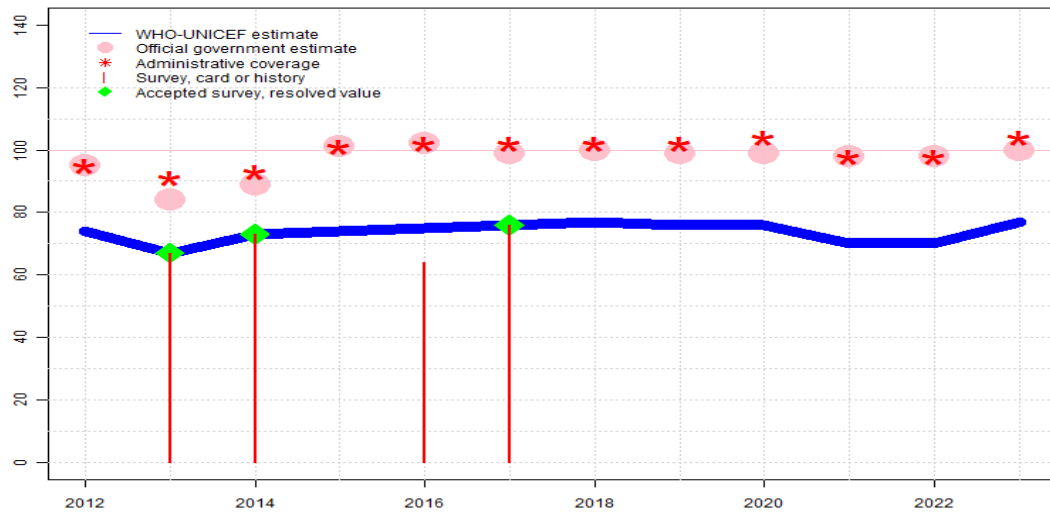
Ethiopia - BCG

was implemented in several regions during 2011-12 with national roll-out on-going in 2013. Reported coverage levels reflect an adjustment to the administrative coverage levels, based on the results of a DQS conducted in 2013. WHO and UNICEF encourage a revision of the reported time series of coverage data. During 2013, the national immunization programme has implemented a programme improvement plan. During 2013, the number of health centres and health posts increased as did the number of health extension workers in health posts. Observed decreases in the number of children vaccinated between 2012 and 2013 are believed to reflect improved recording and reporting rather than a true decline in service delivery. The official government estimate is based on the application of a verification factor from a 2013 DQS applied to HMIS coverage levels. GoC=Assigned by working group. .

2012: Reported data calibrated to 2011 and 2013 levels. GoC=S+

Ethiopia - DTP1

ETH - DTP1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	74	67	73	74	75	76	77	76	76	70	70	77
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	95	84	89	101	102	99	100	99	99	98	98	100
Administrative	95	91	93	101	102	102	102	102	104	98	98	104
Survey	NA	67	73	NA	64	76	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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:

- 2023: Reported data calibrated to 2017 levels. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 76 percent among children aged 12 to 35 months. Estimate challenged by: D-R-
- 2022: Estimate based on estimated coverage in prior year given no change in reported coverage level. Estimate challenged by: D-R-
- 2021: Estimate informed by the decline in reported administered doses, which is not reflected in the reported official coverage. Estimate challenged by: D-R-
- 2020: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 levels. Estimate challenged by: R-
- 2018: Reported data calibrated to 2017 levels. Country transitioned to reporting using DHIS2 in 2018. Estimate challenged by: R-
- 2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 76 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2016: Estimate informed by interpolation between 2014 and 2017 levels. . Ethiopia Mini Demographic and Health Survey 2019 results ignored by working group. Survey estimates for the 2016 cohort inconsistent with the observed data trend. Card availability in the 24-35 month old cohort of 26 percent compared to 41 percent in the 12-23 month old cohort. Reported data excluded because 102 percent greater than 100 percent. Estimate challenged by: D-R-
- 2015: Estimate informed by interpolation between 2014 and 2017 levels. . Reported data excluded because 101 percent greater than 100 percent. Observed increases between 2014 and 2015 in the reported coverage are of such magnitude that additional supporting evidence of the increase is needed. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Beginning in 2013 and continuing through 2014, the national immunization programme has implemented a programme improvement plan. From 2013 to 2014, the number of health centres and health posts increased with more than 90 percent of health facilities providing immunization services. Intensified efforts were conducted in training on supportive supervision and immunization in practice with a focus on Reaching Every District. The government reports an increase in reporting completeness from 83 to 98 percent. The official government estimate is based on the application of a verification factor from a 2014 DQS applied to HMIS coverage levels. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2013: Survey evidence does not support reported data. Estimate based on survey results. Survey

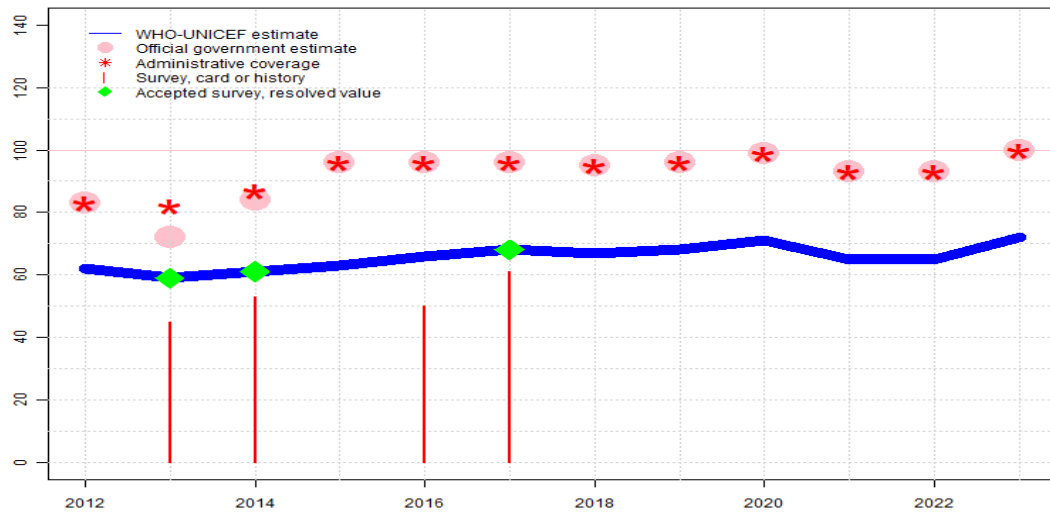
Ethiopia - DTP1

evidence of 67 percent based on 1 survey(s). During 2013, the national immunization programme has implemented a programme improvement plan. During 2013, the number of health centres and health posts increased as did the number of health extension workers in health posts. Observed decreases in the number of children vaccinated between 2012 and 2013 are believed to reflect improved recording and reporting rather than a true decline in service delivery. The official government estimate is based on the application of a verification factor from a 2013 DQS applied to HMIS coverage levels. GoC=Assigned by working group. .

2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. See comment in 2013 regarding deficiencies in administrative reporting system. Estimate challenged by: D-R-

Ethiopia - DTP3

ETH - DTP3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	62	59	61	63	66	68	67	68	71	65	65	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	83	72	84	96	96	96	95	96	99	93	93	100
Administrative	83	82	87	96	96	96	95	96	99	93	93	100
Survey	NA	45	53	NA	50	61	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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:

2023: Reported data calibrated to 2017 levels. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 67 percent among children aged 12 to 35 months. Estimate challenged by: D-R-

2022: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2021: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2020: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2019: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2018: Reported data calibrated to 2017 levels. Country transitioned to reporting using DHIS2 in 2018. Estimate challenged by: D-R-

2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). Ethiopia Mini Demographic and Health Survey 2019 card or history results of 61 percent modified for recall bias to 68 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 36 percent. Estimate challenged by: D-R-

2016: Estimate informed by interpolation between 2014 and 2017 levels. . Ethiopia Mini Demographic and Health Survey 2019 results ignored by working group. Survey estimates for the 2016 cohort inconsistent with the observed data trend. Card availability in the 24-35 month old cohort of 26 percent compared to 41 percent in the 12-23 month old cohort. Ethiopia Mini Demographic and Health Survey 2019 card or history results of 50 percent modified for recall bias to 57 percent based on 1st dose card or history coverage of 64 percent, 1st dose card only coverage of 26 percent and 3rd dose card only coverage of 23 percent. Estimate challenged by: D-R-

2015: Estimate informed by interpolation between 2014 and 2017 levels. . Observed increases between 2014 and 2015 in the reported coverage are of such magnitude that additional supporting evidence of the increase is needed. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 61 percent based on 1 survey(s). Ethiopia Demographic and Health Survey 2016 card or history results of 53 percent modified for recall bias to 61 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 57 percent and 3rd dose card only coverage of 48 percent. Beginning in 2013 and continuing through 2014, the national immunization programme has implemented a programme improvement plan. From 2013 to 2014, the number of health centres and health posts increased with more than 90 percent of health facilities providing immunization services. Intensified efforts were conducted in training on supportive supervision and immunization in practice with a focus on Reaching Every District. The government reports an

Ethiopia - DTP3

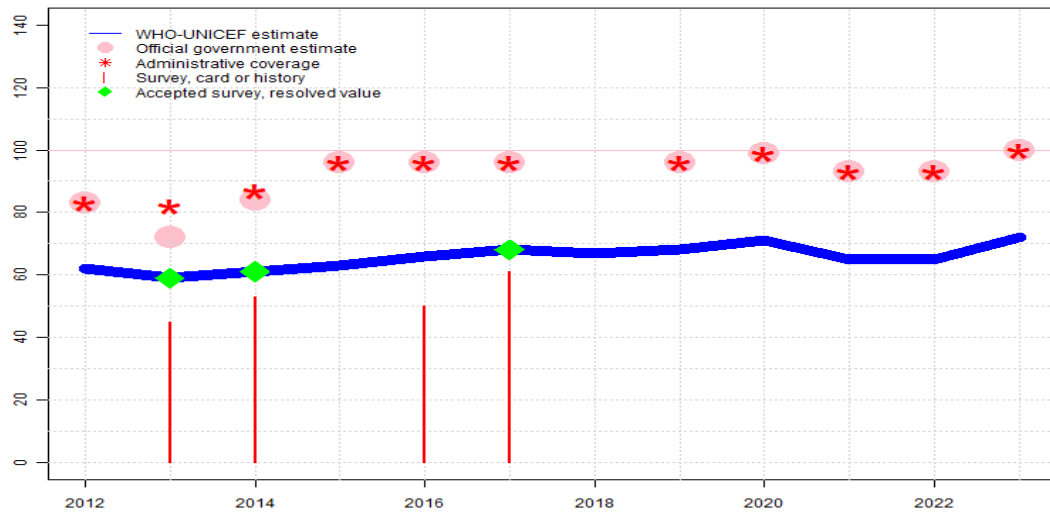
increase in reporting completeness from 83 to 98 percent. The official government estimate is based on the application of a verification factor from a 2014 DQS applied to HMIS coverage levels. Observed increases between 2013 and 2014 in the reported official coverage are of such magnitude that additional supporting evidence of the increase is needed. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 59 percent based on 1 survey(s). Ethiopia Demographic and Health Survey 2016 card or history results of 45 percent modified for recall bias to 59 percent based on 1st dose card or history coverage of 67 percent, 1st dose card only coverage of 41 percent and 3rd dose card only coverage of 36 percent. During 2013, the national immunization programme has implemented a programme improvement plan. During 2013, the number of health centres and health posts increased as did the number of health extension workers in health posts. Observed decreases in the number of children vaccinated between 2012 and 2013 are believed to reflect improved recording and reporting rather than a true decline in service delivery. The official government estimate is based on the application of a verification factor from a 2013 DQS applied to HMIS coverage levels. GoC=Assigned by working group. .

2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. See comment in 2013 regarding deficiencies in administrative reporting system. Estimate challenged by: D-R-

Ethiopia - HepB3

ETH - HepB3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	62	59	61	63	66	68	67	68	71	65	65	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	83	72	84	96	96	96	NA	96	99	93	93	100
Administrative	83	82	87	96	96	96	NA	96	99	93	93	100
Survey	NA	45	53	NA	50	61	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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:

2023: Reported data calibrated to 2017 levels. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 67 percent among children aged 12 to 35 months. Estimate challenged by: D-R-

2022: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2021: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2020: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2019: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2018: Estimate informed by estimated DTP3 coverage. Country transitioned to reporting using DHIS2 in 2018. GoC=Assigned by working group. Consistency with other antigens.

2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). Ethiopia Mini Demographic and Health Survey 2019 card or history results of 61 percent modified for recall bias to 68 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 36 percent. Estimate challenged by: D-R-

2016: Estimate informed by interpolation between 2014 and 2017 levels. . Ethiopia Mini Demographic and Health Survey 2019 results ignored by working group. Survey estimates for the 2016 cohort inconsistent with the observed data trend. Card availability in the 24-35 month old cohort of 26 percent compared to 41 percent in the 12-23 month old cohort. Ethiopia Mini Demographic and Health Survey 2019 card or history results of 50 percent modified for recall bias to 57 percent based on 1st dose card or history coverage of 64 percent, 1st dose card only coverage of 26 percent and 3rd dose card only coverage of 23 percent. Estimate challenged by: D-R-

2015: Estimate informed by interpolation between 2014 and 2017 levels. . Observed increases between 2014 and 2015 in the reported coverage are of such magnitude that additional supporting evidence of the increase is needed. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 61 percent based on 1 survey(s). Ethiopia Demographic and Health Survey 2016 card or history results of 53 percent modified for recall bias to 61 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 57 percent and 3rd dose card only coverage of 48 percent. Beginning in 2013 and continuing through 2014, the national immunization programme has implemented a programme improvement plan. From 2013 to 2014, the number of health centres and health posts increased with more than 90 percent of health facilities providing immunization services. Intensified efforts were conducted in training on supportive supervision and immunization in practice with a focus on Reaching Every District. The government reports an

Ethiopia - HepB3

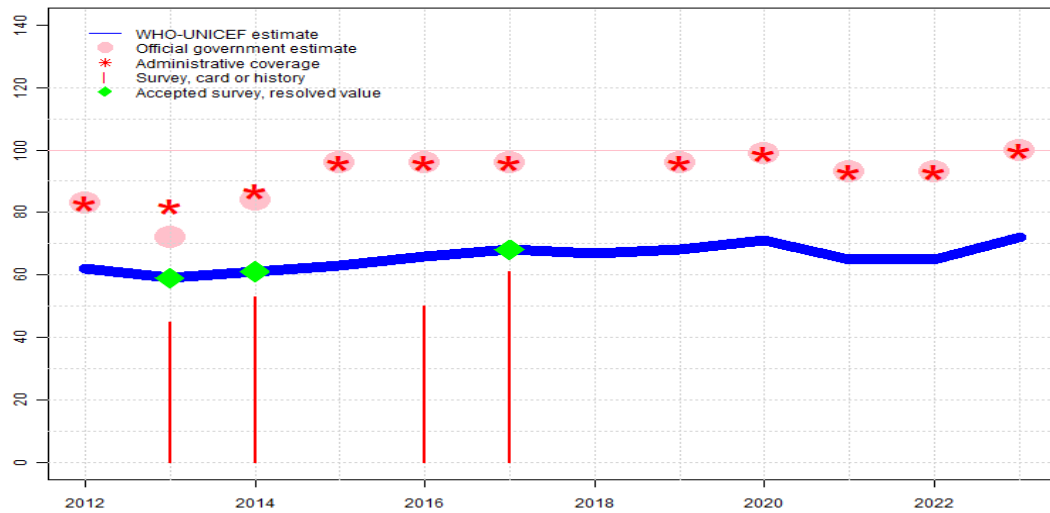
increase in reporting completeness from 83 to 98 percent. The official government estimate is based on the application of a verification factor from a 2014 DQS applied to HMIS coverage levels. Observed increases between 2013 and 2014 in the reported official coverage are of such magnitude that additional supporting evidence of the increase is needed. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 59 percent based on 1 survey(s). Ethiopia Demographic and Health Survey 2016 card or history results of 45 percent modified for recall bias to 59 percent based on 1st dose card or history coverage of 67 percent, 1st dose card only coverage of 41 percent and 3rd dose card only coverage of 36 percent. During 2013, the national immunization programme has implemented a programme improvement plan. During 2013, the number of health centres and health posts increased as did the number of health extension workers in health posts. Observed decreases in the number of children vaccinated between 2012 and 2013 are believed to reflect improved recording and reporting rather than a true decline in service delivery. The official government estimate is based on the application of a verification factor from a 2013 DQS applied to HMIS coverage levels. GoC=Assigned by working group. .

2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. See comment in 2013 regarding deficiencies in administrative reporting system. Estimate challenged by: D-R-

Ethiopia - Hib3

ETH - Hib3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	62	59	61	63	66	68	67	68	71	65	65	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	83	72	84	96	96	96	NA	96	99	93	93	100
Administrative	83	82	87	96	96	96	NA	96	99	93	93	100
Survey	NA	45	53	NA	50	61	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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:

2023: Reported data calibrated to 2017 levels. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 67 percent among children aged 12 to 35 months. Estimate challenged by: D-R-

2022: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2021: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2020: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2019: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2018: Estimate informed by estimated DTP3 coverage. Country transitioned to reporting using DHIS2 in 2018. GoC=Assigned by working group. Consistency with other antigens.

2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). Ethiopia Mini Demographic and Health Survey 2019 card or history results of 61 percent modified for recall bias to 68 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 36 percent. Estimate challenged by: D-R-

2016: Estimate informed by interpolation between 2014 and 2017 levels. . Ethiopia Mini Demographic and Health Survey 2019 results ignored by working group. Survey estimates for the 2016 cohort inconsistent with the observed data trend. Card availability in the 24-35 month old cohort of 26 percent compared to 41 percent in the 12-23 month old cohort. Ethiopia Mini Demographic and Health Survey 2019 card or history results of 50 percent modified for recall bias to 57 percent based on 1st dose card or history coverage of 64 percent, 1st dose card only coverage of 26 percent and 3rd dose card only coverage of 23 percent. Estimate challenged by: D-R-

2015: Estimate informed by interpolation between 2014 and 2017 levels. . Observed increases between 2014 and 2015 in the reported coverage are of such magnitude that additional supporting evidence of the increase is needed. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 61 percent based on 1 survey(s). Ethiopia Demographic and Health Survey 2016 card or history results of 53 percent modified for recall bias to 61 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 57 percent and 3rd dose card only coverage of 48 percent. Beginning in 2013 and continuing through 2014, the national immunization programme has implemented a programme improvement plan. From 2013 to 2014, the number of health centres and health posts increased with more than 90 percent of health facilities providing immunization services. Intensified efforts were conducted in training on supportive supervision and immunization in practice with a focus on Reaching Every District. The government reports an

Ethiopia - Hib3

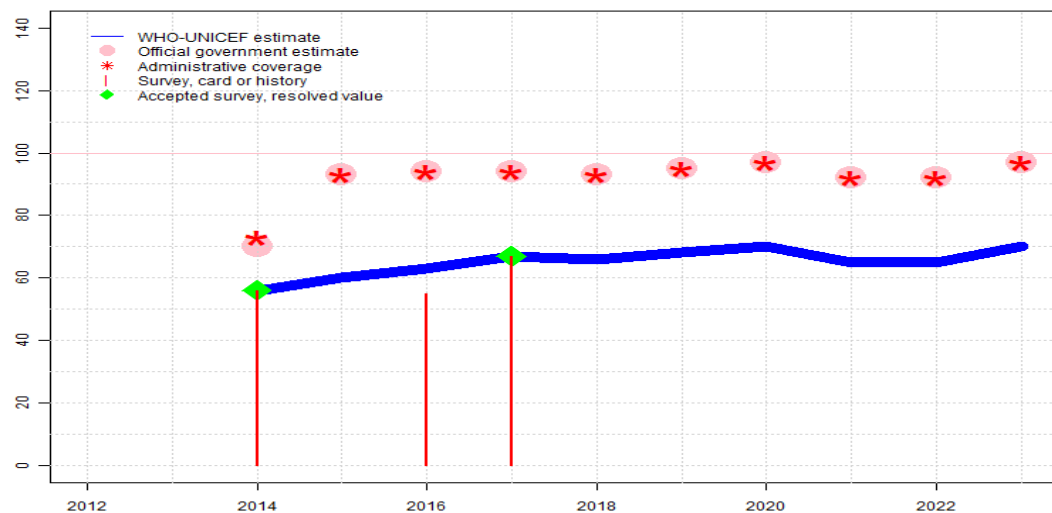
increase in reporting completeness from 83 to 98 percent. The official government estimate is based on the application of a verification factor from a 2014 DQS applied to HMIS coverage levels. Observed increases between 2013 and 2014 in the reported official coverage are of such magnitude that additional supporting evidence of the increase is needed. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 59 percent based on 1 survey(s). Ethiopia Demographic and Health Survey 2016 card or history results of 45 percent modified for recall bias to 59 percent based on 1st dose card or history coverage of 67 percent, 1st dose card only coverage of 41 percent and 3rd dose card only coverage of 36 percent. During 2013, the national immunization programme has implemented a programme improvement plan. During 2013, the number of health centres and health posts increased as did the number of health extension workers in health posts. Observed decreases in the number of children vaccinated between 2012 and 2013 are believed to reflect improved recording and reporting rather than a true decline in service delivery. The official government estimate is based on the application of a verification factor from a 2013 DQS applied to HMIS coverage levels. GoC=Assigned by working group. .

2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. See comment in 2013 regarding deficiencies in administrative reporting system. Estimate challenged by: D-R-

Ethiopia - RotaC

ETH - RotaC



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	56	60	63	67	66	68	70	65	65	70
Estimate GoC	NA	NA	•	•	•	•	•	•	•	•	•	•
Official	NA	NA	70	93	94	94	93	95	97	92	92	97
Administrative	NA	NA	73	93	94	94	93	95	97	92	92	97
Survey	NA	NA	56	NA	55	67	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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:

2023: Reported data calibrated to 2017 levels. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 72 percent among children aged 12 to 35 months. Estimate challenged by: D-R-

2022: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2021: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2020: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2019: Reported data calibrated to 2017 levels. Estimate challenged by: D-R-

2018: Reported data calibrated to 2017 levels. Country transitioned to reporting using DHIS2 in 2018. Estimate challenged by: D-R-

2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Estimate challenged by: D-R-

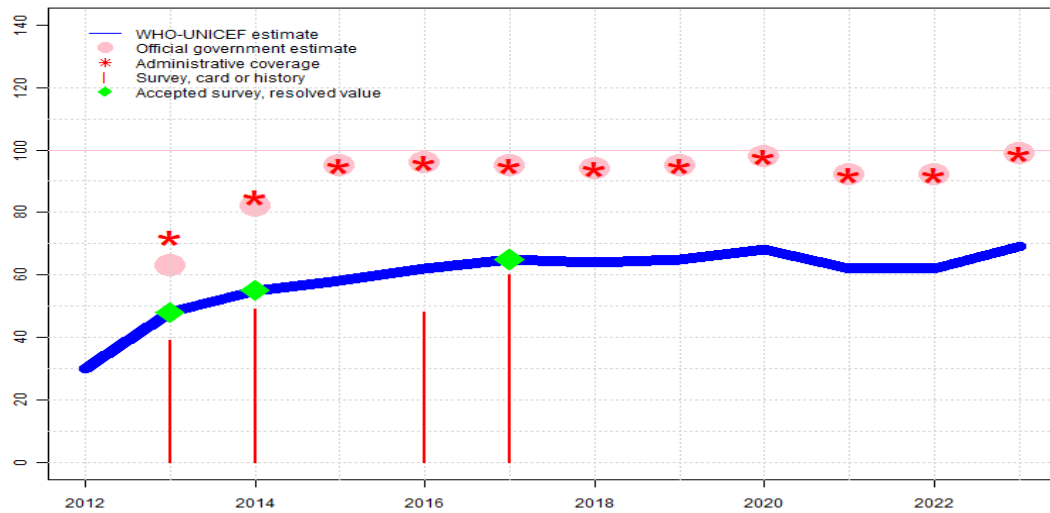
2016: Estimate informed by interpolation between 2014 and 2017 levels. . Ethiopia Mini Demographic and Health Survey 2019 results ignored by working group. Survey estimates for the 2016 cohort inconsistent with the observed data trend. Card availability in the 24-35 month old cohort of 26 percent compared to 41 percent in the 12-23 month old cohort. Estimate challenged by: D-R-

2015: Estimate informed by interpolation between 2014 and 2017 levels. . Observed increases between 2014 and 2015 in the reported coverage are of such magnitude that additional supporting evidence of the increase is needed. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 56 percent based on 1 survey(s). Beginning in 2013 and continuing through 2014, the national immunization programme has implemented a programme improvement plan. From 2013 to 2014, the number of health centres and health posts increased with more than 90 percent of health facilities providing immunization services. Intensified efforts were conducted in training on supportive supervision and immunization in practice with a focus on Reaching Every District. The government reports an increase in reporting completeness from 83 to 98 percent. The official government estimate is based on the application of a verification factor from a 2014 DQS applied to HMIS coverage levels. Rotavirus vaccine introduced during November 2013 and reporting began during 2014. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

Ethiopia - PcV3

ETH - PcV3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	30	48	55	58	62	65	64	65	68	62	62	69
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	NA	63	82	95	96	95	94	95	98	92	92	99
Administrative	NA	72	85	95	96	95	94	95	98	92	92	99
Survey	NA	39	49	NA	48	60	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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:

- 2023: Reported data calibrated to 2017 levels. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 69 percent among children aged 12 to 35 months. Estimate challenged by: D-R-
- 2022: Reported data calibrated to 2017 levels. Estimate of 62 percent changed from previous revision value of 61 percent. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2017 levels. Estimate of 62 percent changed from previous revision value of 61 percent. Estimate challenged by: D-R-
- 2020: Reported data calibrated to 2017 levels. Estimate of 68 percent changed from previous revision value of 67 percent. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 levels. Estimate of 65 percent changed from previous revision value of 64 percent. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 levels. Country transitioned to reporting using DHIS2 in 2018. Estimate of 64 percent changed from previous revision value of 63 percent. Estimate challenged by: D-R-
- 2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 65 percent based on 1 survey(s). Ethiopia Mini Demographic and Health Survey 2019 card or history results of 60 percent modified for recall bias to 65 percent based on 1st dose card or history coverage of 74 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 35 percent. Estimate of 65 percent changed from previous revision value of 64 percent. Estimate challenged by: D-R-
- 2016: Estimate informed by interpolation between 2014 and 2017 levels. . Ethiopia Mini Demographic and Health Survey 2019 results ignored by working group. Survey estimates for the 2016 cohort inconsistent with the observed data trend. Card availability in the 24-35 month old cohort of 26 percent compared to 41 percent in the 12-23 month old cohort. Ethiopia Mini Demographic and Health Survey 2019 card or history results of 48 percent modified for recall bias to 53 percent based on 1st dose card or history coverage of 63 percent, 1st dose card only coverage of 26 percent and 3rd dose card only coverage of 22 percent. Estimate of 62 percent changed from previous revision value of 61 percent. Estimate challenged by: D-R-
- 2015: Estimate informed by interpolation between 2014 and 2017 levels. . Observed increases between 2014 and 2015 in the reported coverage are of such magnitude that additional supporting evidence of the increase is needed. Estimate of 58 percent changed from previous revision value of 57 percent. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 55 percent based on 1 survey(s). Ethiopia Demographic and Health Survey

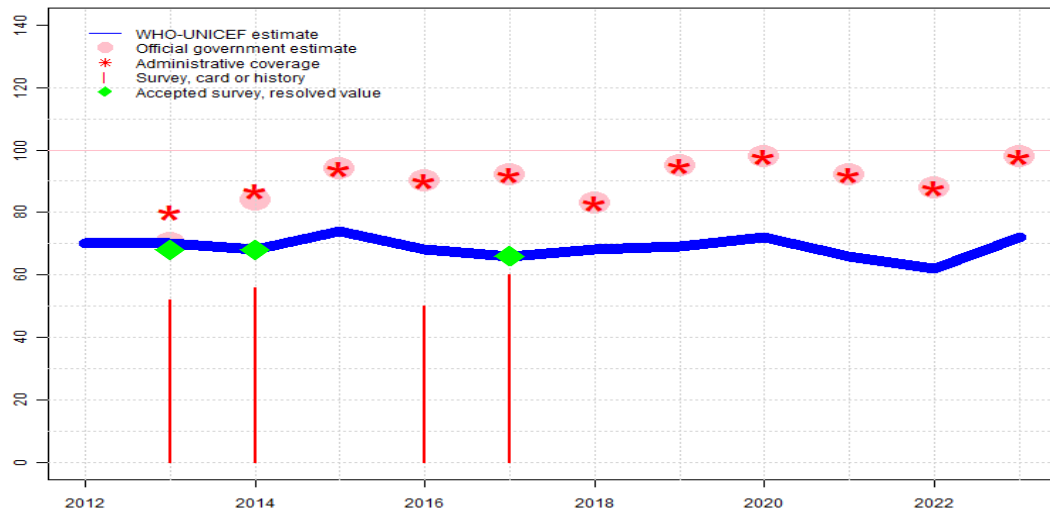
2016 card or history results of 49 percent modified for recall bias to 55 percent based on 1st dose card or history coverage of 67 percent, 1st dose card only coverage of 54 percent and 3rd dose card only coverage of 44 percent. Beginning in 2013 and continuing through 2014, the national immunization programme has implemented a programme improvement plan. From 2013 to 2014, the number of health centres and health posts increased with more than 90 percent of health facilities providing immunization services. Intensified efforts were conducted in training on supportive supervision and immunization in practice with a focus on Reaching Every District. The government reports an increase in reporting completeness from 83 to 98 percent. The official government estimate is based on the application of a verification factor from a 2014 DQS applied to HMIS coverage levels. Observed increases between 2013 and 2014 in the reported official coverage are of such magnitude that additional supporting evidence of the increase is needed. Estimate of 55 percent changed from previous revision value of 54 percent. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 48 percent based on 1 survey(s). Ethiopia Demographic and Health Survey 2016 card or history results of 39 percent modified for recall bias to 48 percent based on 1st dose card or history coverage of 59 percent, 1st dose card only coverage of 38 percent and 3rd dose card only coverage of 31 percent. During 2013, the national immunization programme has implemented a programme improvement plan. During 2013, the number of health centres and health posts increased as did the number of health extension workers in health posts. Observed decreases in the number of children vaccinated between 2012 and 2013 are believed to reflect improved recording and reporting rather than a true decline in service delivery. The official government estimate is based on the application of a verification factor from a 2013 DQS applied to HMIS coverage levels. GoC=Assigned by working group. .

2012: Reported data calibrated to 2011 and 2013 levels. Estimate challenged by: S-

Ethiopia - Pol3

ETH - Pol3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	70	70	68	74	68	66	68	69	72	66	62	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	NA	70	84	94	90	92	83	95	98	92	88	98
Administrative	NA	80	87	94	90	92	83	95	98	92	88	98
Survey	NA	52	56	NA	50	60	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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:

2023: Reported data calibrated to 2017 levels. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 69 percent among children aged 12 to 35 months. Estimate challenged by: D-R-

2022: Reported data calibrated to 2017 levels. Estimate of 62 percent changed from previous revision value of 64 percent. Estimate challenged by: D-R-

2021: Reported data calibrated to 2017 levels. Estimated coverage for polio is likely overestimated due to frequent campaigns conducted in the country. Estimate of 66 percent changed from previous revision value of 68 percent. Estimate challenged by: D-R-

2020: Reported data calibrated to 2017 levels. Estimated coverage for polio is likely overestimated due to frequent campaigns conducted in the country. Estimate of 72 percent changed from previous revision value of 74 percent. Estimate challenged by: R-

2019: Reported data calibrated to 2017 levels. Estimated coverage for polio is likely overestimated due to frequent campaigns conducted in the country. Estimate of 69 percent changed from previous revision value of 71 percent. Estimate challenged by: R-

2018: Reported data calibrated to 2017 levels. Reported data excluded. Unexplained decline in reported coverage. Country transitioned to reporting using DHIS2 in 2018. Estimated coverage for polio is likely overestimated due to frequent campaigns conducted in the country. Estimate of 68 percent changed from previous revision value of 70 percent. Estimate challenged by: R-

2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Ethiopia Mini Demographic and Health Survey 2019 card or history results of 60 percent modified for recall bias to 66 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 34 percent. Estimated coverage for polio is likely overestimated due to frequent campaigns conducted in the country. Estimate of 66 percent changed from previous revision value of 68 percent. Estimate challenged by: D-R-

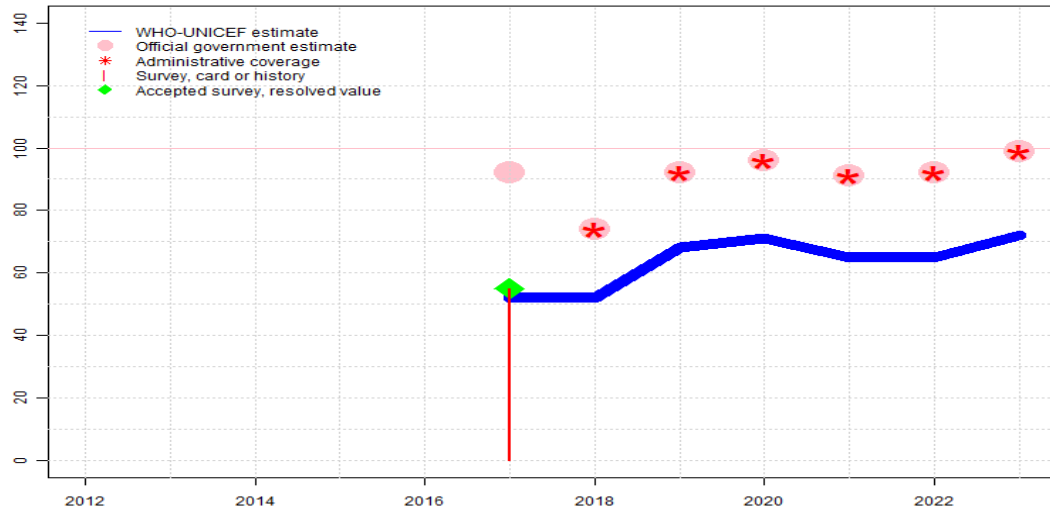
2016: Reported data calibrated to 2014 and 2017 levels. Ethiopia Mini Demographic and Health Survey 2019 results ignored by working group. Survey estimates for the 2016 cohort inconsistent with the observed data trend. Card availability in the 24-35 month old cohort of 26 percent compared to 41 percent in the 12-23 month old cohort. Ethiopia Mini Demographic and Health Survey 2019 card or history results of 50 percent modified for recall bias to 58 percent based on 1st dose card or history coverage of 69 percent, 1st dose card only coverage of 26 percent and 3rd dose card only coverage of 22 percent. Estimated coverage for polio is likely overestimated due to frequent campaigns conducted in the country. Estimate of 68 percent changed from previous revision value of 69 percent.

Estimate challenged by: R-

- 2015: Reported data calibrated to 2014 and 2017 levels. Observed increases between 2014 and 2015 in the reported coverage are of such magnitude that additional supporting evidence of the increase is needed. Estimated coverage for polio is likely overestimated due to frequent campaigns conducted in the country. Estimate of 74 percent changed from previous revision value of 75 percent. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). Ethiopia Demographic and Health Survey 2016 card or history results of 56 percent modified for recall bias to 68 percent based on 1st dose card or history coverage of 81 percent, 1st dose card only coverage of 57 percent and 3rd dose card only coverage of 48 percent. Beginning in 2013 and continuing through 2014, the national immunization programme has implemented a programme improvement plan. From 2013 to 2014, the number of health centres and health posts increased with more than 90 percent of health facilities providing immunization services. Intensified efforts were conducted in training on supportive supervision and immunization in practice with a focus on Reaching Every District. The government reports an increase in reporting completeness from 83 to 98 percent. The official government estimate is based on the application of a verification factor from a 2014 DQS applied to HMIS coverage levels. Estimated coverage for polio is likely overestimated due to frequent campaigns conducted in the country. Observed increases between 2013 and 2014 in the reported official coverage are of such magnitude that additional supporting evidence of the increase is needed. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 68 percent based on 1 survey(s). Ethiopia Demographic and Health Survey 2016 card or history results of 52 percent modified for recall bias to 68 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 41 percent and 3rd dose card only coverage of 36 percent. Estimated coverage for polio is likely overestimated due to frequent campaigns conducted in the country. During 2013, the national immunization programme has implemented a programme improvement plan. During 2013, the number of health centres and health posts increased as did the number of health extension workers in health posts. Observed decreases in the number of children vaccinated between 2012 and 2013 are believed to reflect improved recording and reporting rather than a true decline in service delivery. The official government estimate is based on the application of a verification factor from a 2013 DQS applied to HMIS coverage levels. GoC=Assigned by working group. .
- 2012: Reported data calibrated to 2011 and 2013 levels. Estimated coverage for polio is likely overestimated due to frequent campaigns conducted in the country. GoC=Assigned by working group. Consistency with other antigens

Ethiopia - IPV1

ETH - IPV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	NA	NA	52	52	68	71	65	65	72
Estimate GoC	NA	NA	NA	NA	NA	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	92	74	92	96	91	92	99
Administrative	NA	NA	NA	NA	NA	NA	74	92	96	91	92	99
Survey	NA	NA	NA	NA	NA	55	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

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

2023: Estimate based estimated DTP3 level. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 67 percent among children aged 12 to 35 months. Estimate challenged by: D-R-

2022: Estimate based estimated DTP3 level. Estimate challenged by: D-R-

2021: Estimate based estimated DTP3 level. Estimate challenged by: D-R-

2020: Estimate based estimated DTP3 level. Estimate challenged by: R-

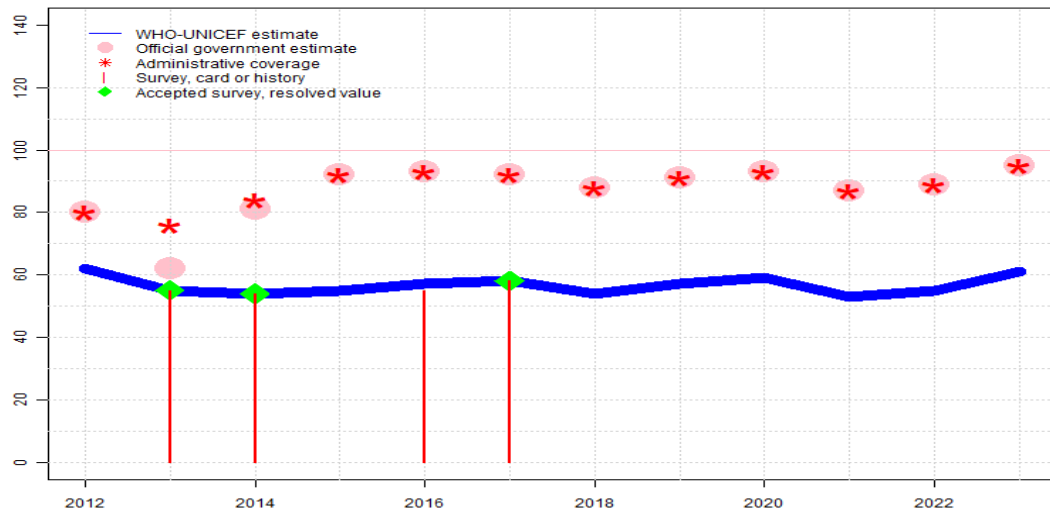
2019: Estimate based estimated DTP3 level. Estimate challenged by: R-S-

2018: Estimate based on reported coverage adjusted for the difference between the reported and estimated DTP3. Reported data excluded due to decline in reported coverage from 92 percent to 74 percent with increase to 92 percent. Country transitioned to reporting using DHIS2 in 2018. Estimate challenged by: R-

2017: Inactivated polio vaccine introduced in December 2015 and reporting started in 2017. Information system does not capture IPV doses and official estimate is based on Pol3 levels. Estimate challenged by: R-

Ethiopia - MCV1

ETH - MCV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	62	55	54	55	57	58	54	57	59	53	55	61
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	80	62	81	92	93	92	88	91	93	87	89	95
Administrative	80	76	84	92	93	92	88	91	93	87	89	95
Survey	NA	55	54	NA	55	58	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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:

- 2023: Reported data calibrated to 2017 levels. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 65 percent among children aged 12 to 35 months. Estimate challenged by: D-R-
- 2022: Reported data calibrated to 2017 levels. Country implemented supplementary immunization activities for measles containing vaccine during 2022 that may explain observed increases in reported data. Estimate of 55 percent changed from previous revision value of 56 percent. Estimate challenged by: D-R-
- 2021: Reported data calibrated to 2017 levels. Estimate of 53 percent changed from previous revision value of 54 percent. Estimate challenged by: D-R-
- 2020: Reported data calibrated to 2017 levels. Estimate of 59 percent changed from previous revision value of 60 percent. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2017 levels. Estimate of 57 percent changed from previous revision value of 58 percent. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2017 levels. Country transitioned to reporting using DHIS2 in 2018. Estimate of 54 percent changed from previous revision value of 55 percent. Estimate challenged by: D-R-
- 2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 58 percent based on 1 survey(s). Estimate of 58 percent changed from previous revision value of 59 percent. Estimate challenged by: D-R-
- 2016: Estimate informed by interpolation between 2014 and 2017 levels. . Ethiopia Mini Demographic and Health Survey 2019 results ignored by working group. Survey estimates for the 2016 cohort inconsistent with the observed data trend. Card availability in the 24-35 month old cohort of 26 percent compared to 41 percent in the 12-23 month old cohort. Estimate challenged by: D-R-
- 2015: Estimate informed by interpolation between 2014 and 2017 levels. . Observed increases between 2014 and 2015 in the reported coverage are of such magnitude that additional supporting evidence of the increase is needed. Estimate of 55 percent changed from previous revision value of 56 percent. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 54 percent based on 1 survey(s). Beginning in 2013 and continuing through 2014, the national immunization programme has implemented a programme improvement plan. From 2013 to 2014, the number of health centres and health posts increased with more than 90 percent of health facilities providing immunization services. Intensified efforts were conducted in training on supportive supervision and immunization in practice with a focus on Reaching Every District. The government reports an increase in report-

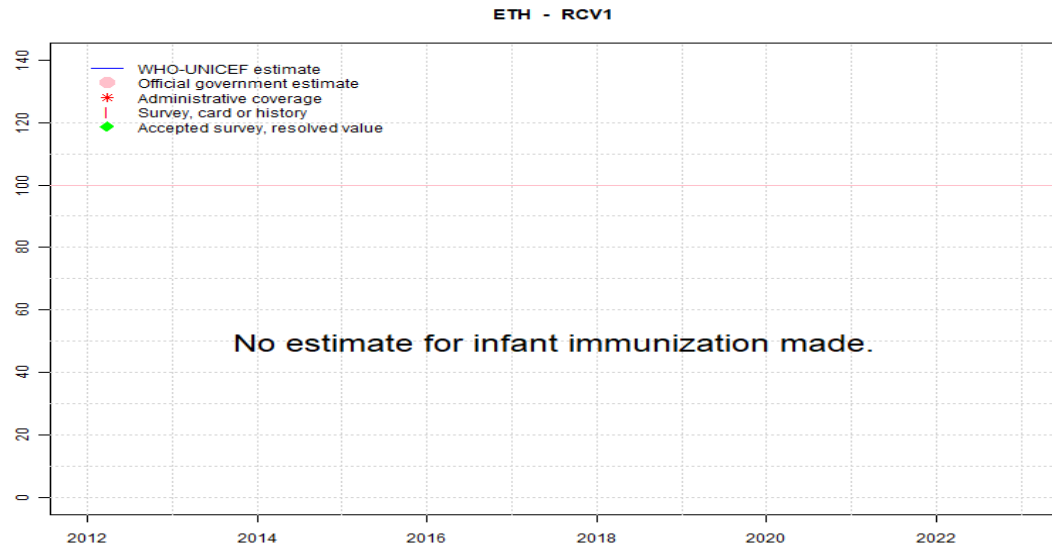
Ethiopia - MCV1

ing completeness from 83 to 98 percent. The official government estimate is based on the application of a verification factor from a 2014 DQS applied to HMIS coverage levels. Observed increases between 2013 and 2014 in the reported official coverage are of such magnitude that additional supporting evidence of the increase is needed. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2013: Estimate of 55 percent assigned by working group. Estimate based on survey results. During 2013, the national immunization programme has implemented a programme improvement plan. During 2013, the number of health centres and health posts increased as did the number of health extension workers in health posts. Observed decreases in the number of children vaccinated between 2012 and 2013 are believed to reflect improved recording and reporting rather than a true decline in service delivery. The official government estimate is based on the application of a verification factor from a 2013 DQS applied to HMIS coverage levels. GoC=Assigned by working group. .

2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. See comment in 2013 regarding deficiencies in administrative reporting system. Estimate challenged by: R-

Ethiopia - RCV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

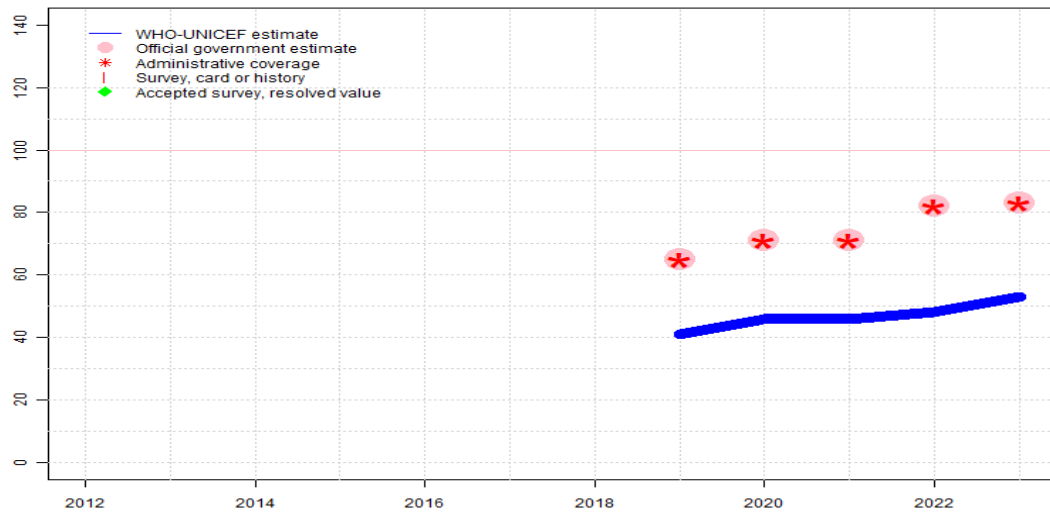
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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.

Ethiopia - MCV2

ETH - MCV2



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	NA	NA	NA	NA	41	46	46	48	53
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	65	71	71	82	83
Administrative	NA	NA	NA	NA	NA	NA	NA	65	71	71	82	83
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 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:

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

2023: Estimate informed by the relative relationship between MCV1 and MCV2 reported doses applied to the estimated MCV1 coverage level. WHO and UNICEF await the final results of the ongoing Demographic and Health Survey. WHO and UNICEF also encourage sharing results from the National Immunization Programme Evaluation analysed by annual cohort alongside information on the sample size and percentage of children with documented vaccination history. Programme reports vaccine stockout at subnational levels. Preliminary results of the 2023 National Immunization Programme Evaluation suggest coverage of 45 percent among children aged 12 to 35 months. Estimate challenged by: D-R-

2022: Estimate informed by the relative relationship between MCV1 and MCV2 reported doses applied to the estimated MCV1 coverage level. Country implemented supplementary immunization activities for measles containing vaccine during 2022 that may explain observed increases in reported data. Estimate challenged by: D-R-

2021: Estimate informed by a review of administered doses in 2021 which suggests a similar level of performance to the prior year. Estimate challenged by: D-R-

2020: Estimate is based on the relative relationship between estimated and reported administrative coverage for MCV1 applied to the reported administrative coverage for MCV2. Estimate challenged by: D-R-

2019: Estimate is based on the relative relationship between estimated and reported administrative coverage for MCV1 applied to the reported administrative coverage for MCV2. Second dose of measles containing vaccine, recommended for administration at 15 months of age, introduced during 2019. Estimate challenged by: D-R-

Ethiopia - 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 1 or 2 years prior to the survey field work.

2021 National Immunization Program Evaluation, Preliminary Service Delivery Coverage Report, Ethiopia, 2023

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	76.5	12-35 m	-	-
DTP1	Card or History	76	12-35 m	-	-
DTP3	Card or History	66.8	12-35 m	-	-
HepB1	Card or History	76	12-35 m	-	-
HepB3	Card or History	66.8	12-35 m	-	-
Hib1	Card or History	76	12-35 m	-	-
Hib3	Card or History	66.8	12-35 m	-	-
IPV1	Card or History	67	12-35 m	-	-
MCV1	Card or History	65.4	12-35 m	-	-
MCV2	Card or History	44.7	12-35 m	-	-
PcV1	Card or History	75.1	12-35 m	-	-
PcV3	Card or History	68.5	12-35 m	-	-
Pol1	Card or History	76.2	12-35 m	-	-
Pol3	Card or History	68.7	12-35 m	-	-
RotaC	Card or History	72.4	12-35 m	-	-

2017 Ethiopia Mini Demographic and Health Survey 2019

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	70.4	12-23 m	1028	41
BCG	Card	37.2	12-23 m	425	41

BCG	Card or History	73	12-23 m	1028	41
BCG	Facility	27.7	12-23 m	338	41
BCG	History	8	12-23 m	265	41
DTP1	C or H <12 months	75.1	12-23 m	1028	41
DTP1	Card	40.1	12-23 m	425	41
DTP1	Card or History	76.3	12-23 m	1028	41
DTP1	Facility	28	12-23 m	338	41
DTP1	History	8.2	12-23 m	265	41
DTP3	C or H <12 months	60.3	12-23 m	1028	41
DTP3	Card	35.6	12-23 m	425	41
DTP3	Card or History	61.1	12-23 m	1028	41
DTP3	Facility	22.5	12-23 m	338	41
DTP3	History	3.1	12-23 m	265	41
HepB1	C or H <12 months	75.1	12-23 m	1028	41
HepB1	Card	40.1	12-23 m	425	41
HepB1	Card or History	76.3	12-23 m	1028	41
HepB1	Facility	28	12-23 m	338	41
HepB1	History	8.2	12-23 m	265	41
HepB3	C or H <12 months	60.3	12-23 m	1028	41
HepB3	Card	35.6	12-23 m	425	41
HepB3	Card or History	61.1	12-23 m	1028	41
HepB3	Facility	22.5	12-23 m	338	41
HepB3	History	3.1	12-23 m	265	41
Hib1	C or H <12 months	75.1	12-23 m	1028	41
Hib1	Card	40.1	12-23 m	425	41
Hib1	Card or History	76.3	12-23 m	1028	41
Hib1	Facility	28	12-23 m	338	41
Hib1	History	8.2	12-23 m	265	41
Hib3	C or H <12 months	60.3	12-23 m	1028	41
Hib3	Card	35.6	12-23 m	425	41
Hib3	Card or History	61.1	12-23 m	1028	41
Hib3	Facility	22.5	12-23 m	338	41
Hib3	History	3.1	12-23 m	265	41
IPV1	C or H <12 months	53.3	12-23 m	1028	41
IPV1	Card	24.8	12-23 m	425	41
IPV1	Card or History	54.6	12-23 m	1028	41
IPV1	Facility	22.3	12-23 m	338	41
IPV1	History	7.5	12-23 m	265	41
MCV1	C or H <12 months	54.8	12-23 m	1028	41
MCV1	Card	29	12-23 m	425	41

Ethiopia - survey details

MCV1	Card or History	58.5	12-23 m	1028	41	DTP1	Card or History	64.4	24-35 m	1027	-
MCV1	Facility	22.8	12-23 m	338	41	DTP1	Facility	32.8	24-35 m	415	-
MCV1	History	6.7	12-23 m	265	41	DTP1	History	5.4	24-35 m	341	-
PcV1	C or H <12 months	72.5	12-23 m	1028	41	DTP3	C or H <12 months	49	24-35 m	1027	-
PcV1	Card	39.9	12-23 m	425	41	DTP3	Card	22.7	24-35 m	271	-
PcV1	Card or History	73.6	12-23 m	1028	41	DTP3	Card or History	50	24-35 m	1027	-
PcV1	Facility	26.1	12-23 m	338	41	DTP3	Facility	24.9	24-35 m	415	-
PcV1	History	7.5	12-23 m	265	41	DTP3	History	2.3	24-35 m	341	-
PcV3	C or H <12 months	58.6	12-23 m	1028	41	HepB1	C or H <12 months	63.3	24-35 m	1027	-
PcV3	Card	34.7	12-23 m	425	41	HepB1	Card	26.2	24-35 m	271	-
PcV3	Card or History	59.8	12-23 m	1028	41	HepB1	Card or History	64.4	24-35 m	1027	-
PcV3	Facility	22.1	12-23 m	338	41	HepB1	Facility	32.8	24-35 m	415	-
PcV3	History	3.1	12-23 m	265	41	HepB1	History	5.4	24-35 m	341	-
Pol1	C or H <12 months	76.7	12-23 m	1028	41	HepB3	C or H <12 months	49	24-35 m	1027	-
Pol1	Card	39.7	12-23 m	425	41	HepB3	Card	22.7	24-35 m	271	-
Pol1	Card or History	77.9	12-23 m	1028	41	HepB3	Card or History	50	24-35 m	1027	-
Pol1	Facility	28.5	12-23 m	338	41	HepB3	Facility	24.9	24-35 m	415	-
Pol1	History	9.7	12-23 m	265	41	HepB3	History	2.3	24-35 m	341	-
Pol3	C or H <12 months	58.4	12-23 m	1028	41	Hib1	C or H <12 months	63.3	24-35 m	1027	-
Pol3	Card	34.5	12-23 m	425	41	Hib1	Card	26.2	24-35 m	271	-
Pol3	Card or History	59.9	12-23 m	1028	41	Hib1	Card or History	64.4	24-35 m	1027	-
Pol3	Facility	23.1	12-23 m	338	41	Hib1	Facility	32.8	24-35 m	415	-
Pol3	History	2.4	12-23 m	265	41	Hib1	History	5.4	24-35 m	341	-
RotaC	C or H <12 months	65.6	12-23 m	1028	41	Hib3	C or H <12 months	49	24-35 m	1027	-
RotaC	Card	36.9	12-23 m	425	41	Hib3	Card	22.7	24-35 m	271	-
RotaC	Card or History	66.8	12-23 m	1028	41	Hib3	Card or History	50	24-35 m	1027	-
RotaC	Facility	23.8	12-23 m	338	41	Hib3	Facility	24.9	24-35 m	415	-
RotaC	History	6	12-23 m	265	41	Hib3	History	2.3	24-35 m	341	-

2016 Ethiopia Mini Demographic and Health Survey 2019

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen						
BCG	C or H <12 months	62.6	24-35 m	1027	-	MCV1	C or H <12 months	49.9	24-35 m	1027	-
BCG	Card	24.7	24-35 m	271	-	MCV1	Card	19	24-35 m	271	-
BCG	Card or History	63	24-35 m	1027	-	MCV1	Card or History	54.9	24-35 m	1027	-
BCG	Facility	32	24-35 m	415	-	MCV1	Facility	29.7	24-35 m	415	-
BCG	History	6.2	24-35 m	341	-	MCV1	History	6.2	24-35 m	341	-
DTP1	C or H <12 months	63.3	24-35 m	1027	-	PcV1	C or H <12 months	61.5	24-35 m	1027	-
DTP1	Card	26.2	24-35 m	271	-	PcV1	Card	25.7	24-35 m	271	-
						PcV1	Card or History	62.6	24-35 m	1027	-
						PcV1	Facility	31.6	24-35 m	415	-
						PcV1	History	5.2	24-35 m	341	-
						PcV3	C or H <12 months	47	24-35 m	1027	-
						PcV3	Card	21.6	24-35 m	271	-

Ethiopia - survey details

PcV3	Card or History	48	24-35 m	1027	-	HepB3	Card	47.7	12-23 m	1152	34
PcV3	Facility	25.2	24-35 m	415	-	HepB3	Card or History	53.2	12-23 m	2004	34
PcV3	History	1.2	24-35 m	341	-	HepB3	History	5.5	12-23 m	852	34
Pol1	C or H <12 months	67.5	24-35 m	1027	-	Hib1	C or H <12 months	56.7	12-23 m	2004	34
Pol1	Card	26	24-35 m	271	-	Hib1	Card	56.8	12-23 m	1152	34
Pol1	Card or History	68.7	24-35 m	1027	-	Hib1	Card or History	73.2	12-23 m	2004	34
Pol1	Facility	34.4	24-35 m	415	-	Hib1	History	16.4	12-23 m	852	34
Pol1	History	8.2	24-35 m	341	-	Hib3	C or H <12 months	32.2	12-23 m	2004	34
Pol3	C or H <12 months	49.2	24-35 m	1027	-	Hib3	Card	47.7	12-23 m	1152	34
Pol3	Card	22.3	24-35 m	271	-	Hib3	Card or History	53.2	12-23 m	2004	34
Pol3	Card or History	50.2	24-35 m	1027	-	Hib3	History	5.5	12-23 m	852	34
Pol3	Facility	26.2	24-35 m	415	-	MCV1	C or H <12 months	47.4	12-23 m	2004	34
Pol3	History	1.6	24-35 m	341	-	MCV1	Card	42	12-23 m	1152	34
RotaC	C or H <12 months	53.8	24-35 m	1027	-	MCV1	Card or History	54.3	12-23 m	2004	34
RotaC	Card	23.5	24-35 m	271	-	MCV1	History	12.4	12-23 m	852	34
RotaC	Card or History	55.3	24-35 m	1027	-	PcV1	C or H <12 months	65.8	12-23 m	2004	34
RotaC	Facility	27.8	24-35 m	415	-	PcV1	Card	54	12-23 m	1152	34
RotaC	History	4	24-35 m	341	-	PcV1	Card or History	67	12-23 m	2004	34

2014 Ethiopia Demographic and Health Survey 2016

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	67.9	12-23 m	2004	34
BCG	Card	51.4	12-23 m	1152	34
BCG	Card or History	69.2	12-23 m	2004	34
BCG	History	17.7	12-23 m	852	34
DTP1	C or H <12 months	56.7	12-23 m	2004	34
DTP1	Card	56.8	12-23 m	1152	34
DTP1	Card or History	73.2	12-23 m	2004	34
DTP1	History	16.4	12-23 m	852	34
DTP3	C or H <12 months	32.2	12-23 m	2004	34
DTP3	Card	47.7	12-23 m	1152	34
DTP3	Card or History	53.2	12-23 m	2004	34
DTP3	History	5.5	12-23 m	852	34
HepB1	C or H <12 months	56.7	12-23 m	2004	34
HepB1	Card	56.8	12-23 m	1152	34
HepB1	Card or History	73.2	12-23 m	2004	34
HepB1	History	16.4	12-23 m	852	34
HepB3	C or H <12 months	32.2	12-23 m	2004	34

2013 Ethiopia Demographic and Health Survey 2016

Vaccine Confirmation method Coverage Age cohort Sample Cards seen

Ethiopia - survey details

BCG	C or H <12 months	62.9	24-35 m	1944	-	Pol1	C or H <12 months	73	24-35 m	1944	-
BCG	Card	40.4	24-35 m	812	-	Pol1	Card	41.1	24-35 m	812	-
BCG	Card or History	67.9	24-35 m	1944	-	Pol1	Card or History	77.6	24-35 m	1944	-
BCG	History	27.6	24-35 m	1132	-	Pol1	History	36.4	24-35 m	1132	-
DTP1	C or H <12 months	44.8	24-35 m	1944	-	Pol3	C or H <12 months	46.7	24-35 m	1944	-
DTP1	Card	41.2	24-35 m	812	-	Pol3	Card	35.8	24-35 m	812	-
DTP1	Card or History	67.1	24-35 m	1944	-	Pol3	Card or History	51.6	24-35 m	1944	-
DTP1	History	26	24-35 m	1132	-	Pol3	History	15.8	24-35 m	1132	-
DTP3	C or H <12 months	23.5	24-35 m	1944	-						
DTP3	Card	36.1	24-35 m	812	-						
DTP3	Card or History	44.9	24-35 m	1944	-						
DTP3	History	8.8	24-35 m	1132	-						
HepB1	C or H <12 months	44.8	24-35 m	1944	-						
HepB1	Card	41.2	24-35 m	812	-						
HepB1	Card or History	67.1	24-35 m	1944	-						
HepB1	History	26	24-35 m	1132	-						
HepB3	C or H <12 months	23.5	24-35 m	1944	-						
HepB3	Card	36.1	24-35 m	812	-						
HepB3	Card or History	44.9	24-35 m	1944	-						
HepB3	History	8.8	24-35 m	1132	-						
Hib1	C or H <12 months	44.8	24-35 m	1944	-						
Hib1	Card	41.2	24-35 m	812	-						
Hib1	Card or History	67.1	24-35 m	1944	-						
Hib1	History	26	24-35 m	1132	-						
Hib3	C or H <12 months	23.5	24-35 m	1944	-						
Hib3	Card	36.1	24-35 m	812	-						
Hib3	Card or History	44.9	24-35 m	1944	-						
Hib3	History	8.8	24-35 m	1132	-						
MCV1	C or H <12 months	41.8	24-35 m	1944	-						
MCV1	Card	34.7	24-35 m	812	-						
MCV1	Card or History	54.6	24-35 m	1944	-						
MCV1	History	20	24-35 m	1132	-						
PcV1	C or H <12 months	56.2	24-35 m	1944	-						
PcV1	Card	37.7	24-35 m	812	-						
PcV1	Card or History	58.9	24-35 m	1944	-						
PcV1	History	21.3	24-35 m	1132	-						
PcV3	C or H <12 months	35.3	24-35 m	1944	-						
PcV3	Card	31	24-35 m	812	-						
PcV3	Card or History	38.8	24-35 m	1944	-						
PcV3	History	7.7	24-35 m	1132	-						

2011 Ethiopian Immunization Coverage Survey 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	53	12-23 m	-	47
BCG	Card or History	79.6	12-23 m	3762	47
BCG	History	26.6	12-23 m	-	47
DTP1	Card	58.8	12-23 m	-	47
DTP1	Card or History	80	12-23 m	3762	47
DTP1	History	21.2	12-23 m	-	47
DTP3	Card	47.7	12-23 m	-	47
DTP3	Card or History	59.5	12-23 m	3762	47
DTP3	History	11.9	12-23 m	-	47
HepB1	Card	58.8	12-23 m	-	47
HepB1	Card or History	80	12-23 m	3762	47
HepB1	History	21.2	12-23 m	-	47
HepB3	Card	47.7	12-23 m	-	47
HepB3	Card or History	59.5	12-23 m	3762	47
HepB3	History	11.9	12-23 m	-	47
Hib1	Card	58.8	12-23 m	-	47
Hib1	Card or History	80	12-23 m	3762	47
Hib1	History	21.2	12-23 m	-	47
Hib3	Card	47.7	12-23 m	-	47
Hib3	Card or History	59.5	12-23 m	3762	47
Hib3	History	11.9	12-23 m	-	47
MCV1	Card	41.8	12-23 m	-	47
MCV1	Card or History	68.2	12-23 m	3762	47
MCV1	History	26.4	12-23 m	-	47
PcV1	Card or History	19.3	12-23 m	3762	47
PcV3	Card or History	11.6	12-23 m	3762	47
Pol1	Card	58.2	12-23 m	-	47

Ethiopia - survey details

Pol1	Card or History	90.1	12-23 m	3762	47
Pol1	History	31.9	12-23 m	-	47
Pol3	Card	45.4	12-23 m	-	47
Pol3	Card or History	70.5	12-23 m	3762	47
Pol3	History	25.1	12-23 m	-	47

2010 Ethiopia Demographic and Health Survey 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	65.2	12-23 m	1927	29
BCG	Card	25.5	12-23 m	1927	29
BCG	Card or History	66.3	12-23 m	1927	29
BCG	History	40.8	12-23 m	1927	29
DTP1	C or H <12 months	62.2	12-23 m	1927	29
DTP1	Card	28.1	12-23 m	1927	29
DTP1	Card or History	63.5	12-23 m	1927	29
DTP1	History	35.5	12-23 m	1927	29
DTP3	C or H <12 months	34.7	12-23 m	1927	29
DTP3	Card	21.9	12-23 m	1927	29
DTP3	Card or History	36.5	12-23 m	1927	29
DTP3	History	14.6	12-23 m	1927	29
MCV1	C or H <12 months	49.3	12-23 m	1927	29
MCV1	Card	22	12-23 m	1927	29
MCV1	Card or History	55.7	12-23 m	1927	29
MCV1	History	33.8	12-23 m	1927	29
Pol1	C or H <12 months	80.9	12-23 m	1927	29
Pol1	Card	27.4	12-23 m	1927	29
Pol1	Card or History	82.3	12-23 m	1927	29
Pol1	History	54.9	12-23 m	1927	29
Pol3	C or H <12 months	43.1	12-23 m	1927	29
Pol3	Card	20.5	12-23 m	1927	29
Pol3	Card or History	44.3	12-23 m	1927	29
Pol3	History	23.8	12-23 m	1927	29

2005 EPI Coverage Cluster Sampling Survey 2006 Ethiopia

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
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BCG	Card	58.2	12-23 m	6903	60
BCG	Card or History	83.4	12-23 m	6903	60
DTP1	Card	53.8	12-23 m	6903	60
DTP1	Card or History	84.3	12-23 m	6903	60
DTP3	Card	41.1	12-23 m	6903	60
DTP3	Card or History	66	12-23 m	6903	60
MCV1	Card	27.2	12-23 m	6903	60
MCV1	Card or History	54.3	12-23 m	6903	60
Pol1	Card	51.8	12-23 m	6903	60
Pol1	Card or History	82.8	12-23 m	6903	60
Pol3	Card	39.5	12-23 m	6903	60
Pol3	Card or History	66.8	12-23 m	6903	60

2004 Ethiopia Demographic and Health Survey 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	57.4	12-23 m	1877	37
BCG	Card	33.4	12-23 m	1877	37
BCG	Card or History	60.4	12-23 m	1877	37
BCG	History	27	12-23 m	1877	37
DTP1	C or H <12 months	54.9	12-23 m	1877	37
DTP1	Card	36.5	12-23 m	1877	37
DTP1	Card or History	58.2	12-23 m	1877	37
DTP1	History	21.7	12-23 m	1877	37
DTP3	C or H <12 months	29	12-23 m	1877	37
DTP3	Card	25.1	12-23 m	1877	37
DTP3	Card or History	31.9	12-23 m	1877	37
DTP3	History	6.7	12-23 m	1877	37
MCV1	C or H <12 months	28.5	12-23 m	1877	37
MCV1	Card	22.2	12-23 m	1877	37
MCV1	Card or History	34.9	12-23 m	1877	37
MCV1	History	12.6	12-23 m	1877	37
Pol1	C or H <12 months	70	12-23 m	1877	37
Pol1	Card	35.8	12-23 m	1877	37
Pol1	Card or History	74.3	12-23 m	1877	37
Pol1	History	38.5	12-23 m	1877	37
Pol3	C or H <12 months	41	12-23 m	1877	37
Pol3	Card	24.9	12-23 m	1877	37
Pol3	Card or History	44.7	12-23 m	1877	37

Ethiopia - survey details

Pol3	History	19.8	12-23 m	1877	37
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2003 Ethiopia Welfare Monitoring Survey 2004

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	NA	57	12-23 m	1949368	-
DTP1	NA	59.1	12-23 m	1949368	-
DTP3	NA	50.3	12-23 m	1949368	-
MCV1	NA	59.5	12-23 m	1949368	-
Pol1	NA	64.1	12-23 m	1949368	-
Pol3	NA	55.6	12-23 m	1949368	-

2000 National EPI Coverage Survey, Ethiopia 2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	75.9	12-23 m	3564	52
DTP1	Card or History	74.1	12-23 m	3564	52
DTP3	Card or History	56.3	12-23 m	3564	52
MCV1	Card or History	51.9	12-23 m	3564	52
Pol1	Card or History	74	12-23 m	3564	52
Pol3	Card or History	57	12-23 m	3564	52

1999 Ethiopia Demographic and Health Survey 2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	40.7	12-23 m	2143	27
BCG	Card	23.9	12-23 m	2143	27
BCG	Card or History	45.6	12-23 m	2143	27
BCG	History	21.7	12-23 m	2143	27
DTP1	C or H <12 months	39.8	12-23 m	2143	27
DTP1	Card	26.5	12-23 m	2143	27
DTP1	Card or History	44.4	12-23 m	2143	27
DTP1	History	17.9	12-23 m	2143	27
DTP3	C or H <12 months	18.1	12-23 m	2143	27
DTP3	Card	16.5	12-23 m	2143	27

DTP3	Card or History	20.7	12-23 m	2143	27
DTP3	History	4.2	12-23 m	2143	27
MCV1	C or H <12 months	20.6	12-23 m	2143	27
MCV1	Card	17.1	12-23 m	2143	27
MCV1	Card or History	26.6	12-23 m	2143	27
MCV1	History	9.5	12-23 m	2143	27
Pol1	C or H <12 months	74.4	12-23 m	2143	27
Pol1	Card	26.5	12-23 m	2143	27
Pol1	Card or History	82.7	12-23 m	2143	27
Pol1	History	56.2	12-23 m	2143	27
Pol3	C or H <12 months	30.4	12-23 m	2143	27
Pol3	Card	18	12-23 m	2143	27
Pol3	Card or History	34.6	12-23 m	2143	27
Pol3	History	16.5	12-23 m	2143	27

1998 Ethiopia Demographic and Health Survey 2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	43	24-35 m	2084	-
DTP1	C or H <12 months	40.9	24-35 m	2084	-
DTP3	C or H <12 months	21.4	24-35 m	2084	-
MCV1	C or H <12 months	21.7	24-35 m	2084	-
Pol1	C or H <12 months	71.8	24-35 m	2084	-
Pol3	C or H <12 months	39.7	24-35 m	2084	-

1997 Ethiopia Demographic and Health Survey 2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	42.9	36-47 m	2260	-
DTP1	C or H <12 months	38.7	36-47 m	2260	-
DTP3	C or H <12 months	21.9	36-47 m	2260	-
MCV1	C or H <12 months	19.8	36-47 m	2260	-
Pol1	C or H <12 months	71	36-47 m	2260	-
Pol3	C or H <12 months	42.8	36-47 m	2260	-

1997 Ethiopia, Report on the 1998 Health and Nutrition Survey, 1999

Ethiopia - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen	MCV1	Card or History				
BCG	Card or History	52.5	12-23 m	-	-	Pol3	Card or History	48.7	12-23 m	-	-
DTP3	Card or History	53.3	12-23 m	-	-			81.8	12-23 m	-	-

Ethiopia - survey details

Further information and estimates for previous years are available at:

<https://data.unicef.org/topic/child-health/immunization/>

<https://immunizationdata.who.int/listing.html>