

July 2, 2024; page 1

WHO and UNICEF estimates of national immunization coverage - next revision available July  $15,\,2025$ 

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.

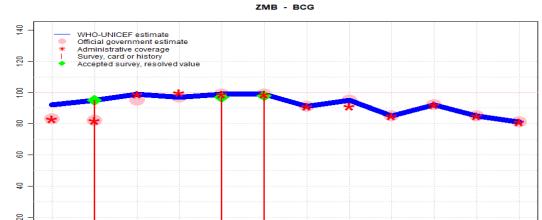
#### ABBREVIATIONS

- 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. Co verage 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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	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	92	95	99	97	99	99	91	95	85	92	85	81
Estimate GoC	•	•	•	•	•••	•••	•	•	•	•	•	•
Official	83	82	95	97	99	99	91	95	85	92	85	81
Administrative	83	82	99	100	99	99	91	91	85	92	85	81
Survey	NA	95	NA	NA	97	98	NA	NA	NA	NA	NA	NA

2020

2022

2016

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.

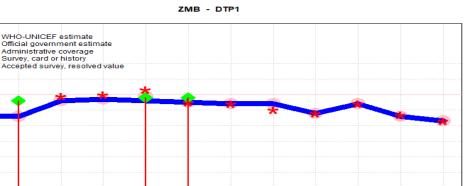
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

2014

#### Description:

- 2023: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing 2024

  Demographic and Health Survey and await the final results. Programme reports two
  months vaccine stockout at national level. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Programme reports a one and one-half month vaccine stockout at national and subnational levels. Decline in reported coverage partially explained by a 7.9 percent increase in reported target population from 2021 to 2022. Programme notes that the target population is extrapolated from the 2010 census. Estimated coverage may overestimate actual coverage. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Programme reports vaccine stockout of half a month. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. GoC=Assigned by working group. Consistency with GoC for other vaccine doses.
- 2018: Estimate informed by reported data. Estimate challenged by: D-
- 2017: Estimate informed by reported data supported by survey. Survey evidence of 98 percent based on 1 survey(s). GoC=R+S+D+
- 2016: Estimate informed by reported administrative data supported by survey. Survey evidence of 97 percent based on 1 survey(s). Reported official government estimates are based on unexplained adjustments to the administrative coverage. GoC=R+S+D+
- 2015: Estimate based on reported data. Estimate challenged by: D-
- 2014: Reported data calibrated to 2013 and 2015 levels. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. Estimate challenged by: R-
- 2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 95 percent based on 1 survey(s). Estimate challenged by: R-
- 2012: Reported data calibrated to 2010 and 2013 levels. Estimate challenged by: R-



2022

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	86	86	96	97	96	95	94	94	88	94	86	83
Estimate GoC	•	••	•••	•	•	•	•••	•••	•	•	•	•
Official	86	86	96	97	99	95	94	94	88	94	86	83
Administrative	86	NA	99	100	103	95	94	90	88	94	87	83
Survey	NA	96	NA	NA	98	98	NA	NA	NA	NA	NA	NA

2018

2016

WHO-UNICEF estimate

Administrative coverage Survey, card or history

2014

120

8

8

9

9

20

2012

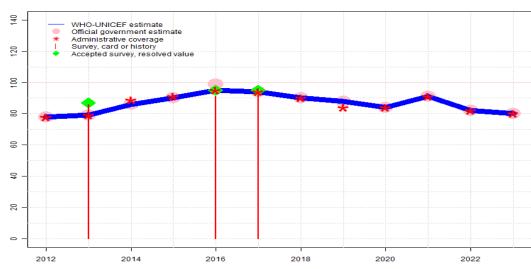
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- 2023: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing 2024 Demographic and Health Survey and await the final results. Programme reports nearly two months vaccine stockout at national level. Declines in reported coverage since 2021 are largely due to increases in reported target population as reported number of doses administered are mostly unchanged since 2021. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Decline in reported coverage partially explained by a 7.9 percent increase in reported target population from 2021 to 2022. Programme notes that the target population is extrapolated from the 2010 census. Estimated coverage may overestimate actual coverage. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. GoC=R+S+D+
- 2018: Estimate informed by reported data. GoC=R+S+D+
- 2017: Estimate based on reported data. Estimate challenged by: D-
- 2016: Estimate informed by interpolation between reported data supported by survey. Survey evidence of 98 percent based on 1 survey(s). Reported data excluded because 103 percent greater than 100 percent. Reported official government estimates are based on unexplained adjustments to the administrative coverage. Estimate challenged by: D-
- 2015: Estimate based on reported data. Estimate challenged by: D-
- 2014: Estimate informed by reported data. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. GoC=R+S+D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+S+
- 2012: Estimate informed by reported data. Estimate challenged by: S-





	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	78	79	86	90	95	94	90	88	84	91	82	80
Estimate GoC	•	•	•••	•••	•••	•••	•••	•••	•	•	•	•
Official	78	79	86	90	99	94	90	88	84	91	82	80
Administrative	78	79	89	91	95	94	90	84	84	91	82	80
Survey	NA	86	NA	NA	91	92	NA	NA	NA	NA	NA	NA

- ••• 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.

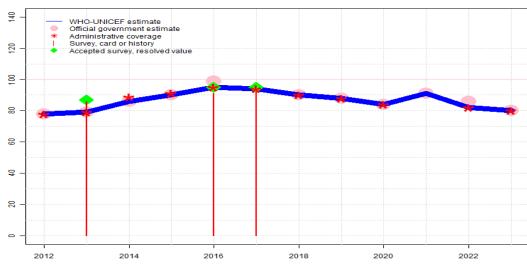
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

- 2023: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing 2024

  Demographic and Health Survey and await the final results. Programme reports nearly
  two months vaccine stockout at national level. Declines in reported coverage since 2021
  are largely due to increases in reported target population as reported number of doses
  administered are mostly unchanged since 2021. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Decline in reported coverage partially explained by a 7.9 percent increase in reported target population from 2021 to 2022. Programme notes that the target population is extrapolated from the 2010 census. Estimated coverage may overestimate actual coverage. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. GoC=R+ S+ D+  $\,$
- 2018: Estimate informed by reported data. GoC=R+S+D+
- 2017: Estimate based on reported data. Zambia Demographic and Health Survey 2018 card or history results of 92 percent modifed for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 76 percent and 3rd dose card only coverage of 74 percent. 2018 DHS Key Indicators Report coverage of 92. GoC=R+ S+ D+
- 2016: Estimate informed by reported administrative data supported by survey. Survey evidence of 95 percent based on 1 survey(s). Zambia Demographic and Health Survey 2018 card or history results of 91 percent modifed for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 67 percent and 3rd dose card only coverage of 65 percent. Reported official government estimates are based on unexplained adjustments to the administrative coverage. Unexplained increase in reported coverage data. GoC=R+ S+ D+
- 2015: Estimate based on reported data. GoC=R+S+D+
- 2014: Estimate informed by reported data. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. GoC=R+S+D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 87 percent based on 1 survey(s). Zambia Demographic and Health Survey, 2013-14 card or history results of 86 percent modified for recall bias to 87 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 79 percent and 3rd dose card only coverage of 72 percent. Estimate challenged by: D-
- 2012: Estimate informed by reported data. Estimate challenged by: S-

### Zambia - HepB3





	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	78	79	86	90	95	94	90	88	84	91	82	80
Estimate GoC	•	•	•••	•••	•••	•••	•••	•••	•	••	•	•
Official	78	79	86	90	99	NA	90	88	84	91	86	80
Administrative	78	79	89	91	95	94	90	88	84	NA	82	80
Survey	NA	86	NA	NA	91	92	NA	NA	NA	NA	NA	NA

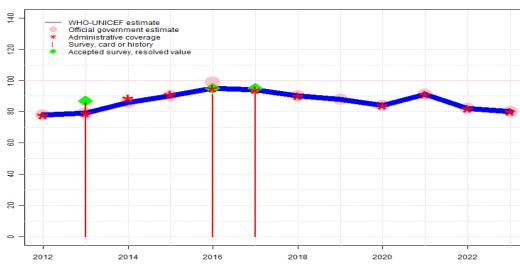
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- 2023: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing 2024 Demographic and Health Survey and await the final results. Programme reports nearly two months vaccine stockout at national level. Declines in reported coverage since 2021 are largely due to increases in reported target population as reported number of doses administered are mostly unchanged since 2021. Estimate challenged by: D-
- 2022: Estimate informed by estimated DTP3 coverage for consistency. Decline in reported coverage partially explained by a 7.9 percent increase in reported target population from 2021 to 2022. Programme notes that the target population is extrapolated from the 2010 census. Estimated coverage may overestimate actual coverage. Estimate challenged by: D-R-
- 2021: Estimate informed by reported data. GoC=R+
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. GoC=R+S+D+
- 2018: Estimate informed by reported data. GoC=R+S+D+
- 2017: Estimate based on reported data. Zambia Demographic and Health Survey 2018 card or history results of 92 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 76 percent and 3rd dose card only coverage of 74 percent. GoC=R+S+D+
- 2016: Estimate informed by reported administrative data supported by survey. Survey evidence of 95 percent based on 1 survey(s). Zambia Demographic and Health Survey 2018 card or history results of 91 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 67 percent and 3rd dose card only coverage of 65 percent. Reported official government estimates are based on unexplained adjustments to the administrative coverage. Unexplained increase in reported coverage data. GoC=R+S+D+
- 2015: Estimate based on reported data. GoC=R+S+D+
- 2014: Estimate informed by reported data. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. GoC=R+S+D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 87 percent based on 1 survey(s). Zambia Demographic and Health Survey, 2013-14 card or history results of 86 percent modified for recall bias to 87 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 79 percent and 3rd dose card only coverage of 72 percent. Estimate challenged by: D-
- 2012: Estimate informed by reported data. Estimate challenged by: S-





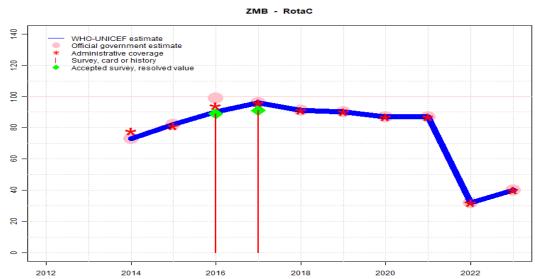
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	78	79	86	90	95	94	90	88	84	91	82	80
Estimate GoC	•	•	•••	•••	•••	•••	•••	•	•	•	•	•
Official	78	79	86	90	99	NA	90	88	84	91	82	80
Administrative	78	79	89	91	95	94	90	NA	84	91	82	80
Survey	NA	86	NA	NA	91	92	NA	NA	NA	NA	NA	NA

- ••• 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.

- 2023: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing 2024 Demographic and Health Survey and await the final results. Programme reports nearly two months vaccine stockout at national level. Declines in reported coverage since 2021 are largely due to increases in reported target population as reported number of doses administered are mostly unchanged since 2021. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Decline in reported coverage partially explained by a 7.9 percent increase in reported target population from 2021 to 2022. Programme notes that the target population is extrapolated from the 2010 census. Estimated coverage may overestimate actual coverage. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. GoC=Assigned by working group. Consistency with other antigens.
- 2018: Estimate informed by reported data. GoC=R+S+D+
- 2017: Estimate based on reported data. Zambia Demographic and Health Survey 2018 card or history results of 92 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 76 percent and 3rd dose card only coverage of 74 percent. GoC=R+S+D+
- 2016: Estimate informed by reported administrative data supported by survey. Survey evidence of 95 percent based on 1 survey(s). Zambia Demographic and Health Survey 2018 card or history results of 91 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 67 percent and 3rd dose card only coverage of 65 percent. Reported official government estimates are based on unexplained adjustments to the administrative coverage. Unexplained increase in reported coverage data. GoC=R+S+D+
- 2015: Estimate based on reported data. GoC=R+S+D+
- 2014: Estimate informed by reported data. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. GoC=R+S+D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 87 percent based on 1 survey(s). Zambia Demographic and Health Survey, 2013-14 card or history results of 86 percent modified for recall bias to 87 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 79 percent and 3rd dose card only coverage of 72 percent. Estimate challenged by: D-
- 2012: Estimate informed by reported data. Estimate challenged by: S-

### Zambia - RotaC



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	73	82	90	96	91	90	87	87	32	40
Estimate GoC	NA	NA	•	•••	•	•••	•••	•	•	•	••	•
Official	NA	NA	73	82	99	96	91	90	87	87	32	40
Administrative	NA	NA	78	81	94	96	91	90	87	87	32	40
							NA	NA	NA	NA	NA	NA

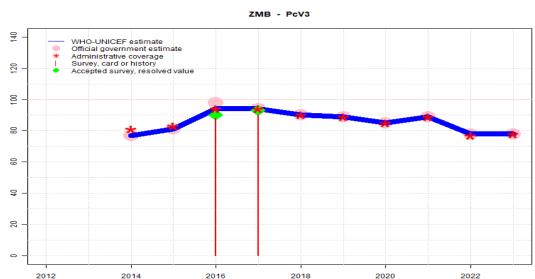
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- ••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. 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.

- 2023: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing 2024

  Demographic and Health Survey and await the final results. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Decline in reported coverage partially explained by a 7.9 percent increase in reported target population from 2021 to 2022. Programme notes that the target population is extrapolated from the 2010 census. Estimated coverage may overestimate actual coverage. Programme reports four months vaccine stockout at national and subnational levels. GoC=R+D+
- 2021: Estimate informed by reported data. Programme reports a four months vaccine stockout. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by reported data. GoC=R+S+D+
- 2017: Estimate informed by reported data supported by survey. Survey evidence of 91 percent based on 1 survey(s). GoC=R+S+D+
- 2016: Estimate is based on a four percentage point adjustment to the reported administrative coverage derived from the difference between the reported administrative coverage for DTP1 and the best possible performance coverage level of 99 percent. Reported official government estimates are based on unexplained adjustments to the administrative coverage. Estimate challenged by: D-R-
- 2015: Estimate based on reported data. GoC=R+ S+ D+
- 2014: Estimate informed by reported data. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. Rotavirus vaccine introduced during 2013. Reporting began during 2014. Estimate challenged by: S-



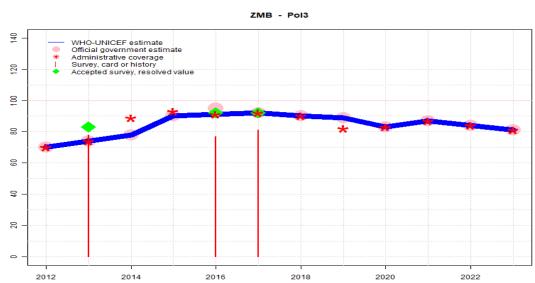
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	77	81	94	94	90	89	85	89	78	78
Estimate GoC	NA	NA	•	•	•••	•••	•••	•••	•	•	•	•
Official	NA	NA	77	81	98	94	90	89	85	89	78	78
Administrative	NA	NA	81	83	94	94	90	89	85	89	77	78
Survey	NA	NA	NA	NA	88	90	NA	NA	NA	NA	NA	NA

- ••• 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.

- 2023: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing 2024

  Demographic and Health Survey and await the final results. Programme reports less
  than one month vaccine stockout at national level. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Programme reports one month vaccine stockout at national and subnational levels. Estimated coverage may overestimate actual coverage. Decline in reported coverage partially explained by a 7.9 percent increase in reported target population from 2021 to 2022. Programme notes that the target population is extrapolated from the 2010 census. Estimated coverage may overestimate actual coverage. Consistency with other vaccine doses. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Programme reports a one month vaccine stockout. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. GoC=R+S+D+
- 2018: Estimate informed by reported data. GoC=R+ S+ D+
- 2017: Estimate based on reported data. Zambia Demographic and Health Survey 2018 card or history results of 90 percent modifed for recall bias to 93 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 76 percent and 3rd dose card only coverage of 72 percent. GoC=R+S+D+
- 2016: Estimate informed by reported administrative data supported by survey. Survey evidence of 90 percent based on 1 survey(s). Zambia Demographic and Health Survey 2018 card or history results of 88 percent modified for recall bias to 90 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 67 percent and 3rd dose card only coverage of 63 percent. Reported official government estimates are based on unexplained adjustments to the administrative coverage. GoC=R+ S+ D+
- 2015: Estimate based on reported data. Estimate challenged by: D-S-
- 2014: Estimate informed by reported data. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. Pneumococcal conjugate vaccine introduced during 2014. reporting began in 2014. Estimate challenged by: S-



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	70	74	78	90	91	92	90	89	83	87	84	81
Estimate GoC	•	•	•	•••	•••	•••	•••	•	•	•	•	•
Official	70	74	78	90	95	92	90	89	83	87	84	81
Administrative	70	74	89	93	91	92	90	82	83	87	84	81
Survey	NA	78	NA	NA	77	81	NA	NA	NA	NA	NA	NA

- ••• 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.

- 2023: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing 2024

  Demographic and Health Survey and await the final results. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Decline in reported coverage partially explained by a 7.9 percent increase in reported target population from 2021 to 2022. Programme notes that the target population is extrapolated from the 2010 census. Estimated coverage may overestimate actual coverage. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. GoC=Assigned by working group. Consistency with other antigens.
- 2018: Estimate informed by reported data. Programme reports vaccine stockout of unspecified duration. GoC=R+S+D+
- 2017: Estimate based on reported data. Zambia Demographic and Health Survey 2018 card or history results of 81 percent modifed for recall bias to 92 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 76 percent and 3rd dose card only coverage of 73 percent. GoC=R+ S+ D+
- 2016: Estimate informed by reported administrative data supported by survey. Survey evidence of 92 percent based on 1 survey(s). Zambia Demographic and Health Survey 2018 card or history results of 77 percent modifed for recall bias to 92 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 67 percent and 3rd dose card only coverage of 64 percent. Reported official government estimates are based on unexplained adjustments to the administrative coverage. Unexplained increase in reported coverage data. GoC=R+S+D+
- 2015: Estimate based on reported data. Vaccine to vaccine consistency. GoC=R+ S+ D+
- 2014: Estimate informed by reported data. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. Estimate challenged by: D-S-
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 83 percent based on 1 survey(s). Zambia Demographic and Health Survey, 2013-14 card or history results of 78 percent modified for recall bias to 83 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 80 percent and 3rd dose card only coverage of 69 percent. Estimate challenged by: D-
- 2012: Estimate informed by reported data. Estimate challenged by: S-



2020

2022

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	NA	NA	NA	36	73	84	80	73	68
Estimate GoC	NA	NA	NA	NA	NA	NA	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	73	73	99	80	73	68
Administrative	NA	NA	NA	NA	NA	NA	73	70	99	80	73	68
Survey	NA											

2016

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 informed by reported data. WHO and UNICEF are aware of an ongoing 2024

Demographic and Health Survey and await the final results. Estimate challenged by: D-

2022: Estimate informed by reported data. Programme reports less than one half month vaccine stockout at national level. Decline in reported coverage partially explained by a 7.9 percent increase in reported target population from 2021 to 2022. Programme notes that the target population is extrapolated from the 2010 census. Estimated coverage may overestimate actual coverage. Estimate challenged by: D-

2021: Estimate informed by reported data. . Estimate challenged by: D-

2020: Estimate based on DTP3 coverage estimates. This may underestimate IPV coverage given intensification of vaccination activities conducted in 2020 with a focus on children aged 3 to 59 months for IPV. Reported data excluded due to an increase from 73 percent to 99 percent with decrease 80 percent. Estimate challenged by: D-R-

2019: Estimate based on reported data following introduction. Estimate challenged by: R-

2018: Programme reports 73 percent coverage achieved among 50 percent of the target population. Estimate based on that achieved in the annualized national target population. Inactivated polio vaccine introduced in 2018. Programme reports IPV stockout for unspecified period of time. Estimate challenged by: R-

8

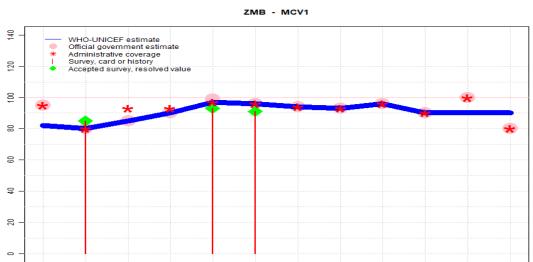
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20

2012



2020

2022

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	82	80	85	90	97	96	94	93	96	90	90	90
Estimate GoC	•	•	•	•••	•••	•••	•••	•	•	•	•	•
Official	95	80	85	90	99	96	94	93	96	90	100	80
Administrative	95	80	93	93	97	96	94	93	96	90	100	80
Survey	NA	85	NA	NA	93	91	NA	NA	NA	NA	NA	NA

2016

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.

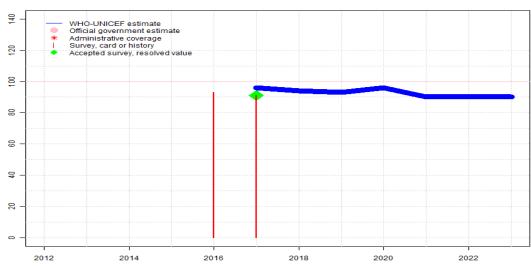
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

2014

#### Description:

- 2023: Estimate based on extrapolation from data reported by national government. Reported data excluded due to sudden change in coverage from 100 level to 80 percent. WHO and UNICEF are aware of an ongoing 2024 Demographic and Health Survey and await the final results. Reported coverage appears lower than that for 2021 due largely to recent fluctuations in reported target population size rather than changes in the number of doses administered which were similar in 2023 compared to 2021. Estimate challenged by: D-
- 2022: Estimate based on extrapolation from data reported by national government. Reported data excluded. Unexplained and inconsistent trend in reported measles coverage between first and second dose. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by reported data. Programme reports vaccine stockout of unspecified duration. GoC=R+ S+ D+
- 2017: Estimate based on reported data. GoC=R+ S+ D+
- 2016: Estimate informed by reported administrative data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Reported official government estimates are based on unexplained adjustments to the administrative coverage. Unexplained increase in reported coverage data. GoC=R+S+D+
- 2015: Estimate based on reported data. GoC=R+S+D+
- 2014: Estimate informed by reported data. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. Estimate challenged by: D-
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 85 percent based on 1 survey(s). Estimate challenged by: D-
- 2012: Estimate informed by interpolation between reported data. Reported data excluded due to an increase from 83 percent to 95 percent with decrease 80 percent. Reported coverage likely includes doses administered during national supplemental activities. Estimate challenged by: D-





	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	NA	NA	96	94	93	96	90	90	90
Estimate GoC	NA	NA	NA	NA	NA	•••	•••	•	•	•	•	•
Official	NA											
Administrative	NA											
Survey	NA	NA	NA	NA	93	91	NA	NA	NA	NA	NA	NA

- ••• 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:

For this revision, coverage estimates for the first dose of rubella containing vaccine are based on WHO and UNICEF estimates of coverage of measles containing vaccine. Nationally reported coverage of rubella containing vaccine is not taken into consideration nor are they represented in the the accompanying graph and data table.

2023: Estimate based on estimated MCV1. WHO and UNICEF are aware of an ongoing 2024 Demographic and Health Survey and await the final results. Estimate challenged by: D-

2022: Estimate based on estimated MCV1. Estimate challenged by: D-

2021: Estimate based on estimated MCV1. Estimate challenged by: D-

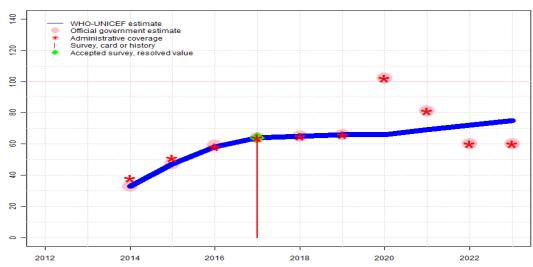
2020: Estimate based on estimated MCV1. Estimate challenged by: D-

2019: Estimate based on estimated MCV1. Estimate challenged by: D-

2018: Estimate based on estimated MCV1. GoC=R+S+D+

2017: Estimate based on estimated MCV1. Rubella containing vaccine introduced in 2017 as Measles-Rubella vaccine. 2018 DHS Key Indicators Report coverage of 91. GoC=R+ S+D+





	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	33	47	58	64	65	66	66	69	72	75
Estimate GoC	NA	NA	••	•	•••	•••	•••	•••	•	•	•	•
Official	NA	NA	33	47	59	64	65	66	102	81	60	60
Administrative	NA	NA	38	51	58	64	65	66	102	81	60	60
Survey	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA

- ••• 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 is informed by relationship between estimated coverage and reported doses administered in 2019 applied to reported doses administered in 2023. Reported data excluded. Inconsistent trend in reported measles coverage between first and second dose since 2020. Decline in reported coverage partially explained by a 40 percent increase in reported target population from 2021 to 2022 while doses administered increase slightly. Programme notes that the target population is extrapolated from the 2010 census. WHO and UNICEF are aware of an ongoing 2024 Demographic and Health Survey and await the final results. Estimate challenged by: R-
- 2022: Estimate is informed by relationship between estimated coverage and reported doses administered in 2019 applied to reported doses administered in 2022. Reported data excluded. Inconsistent trend in reported measles coverage between first and second dose since 2020. Decline in reported coverage partially explained by a 40 percent increase in reported target population from 2021 to 2022 while doses administered increase slightly. Programme notes that the target population is extrapolated from the 2010 census. Estimate of 72 percent changed from previous revision value of 81 percent. Estimate challenged by: R-
- 2021: Estimate is informed by relationship between estimated coverage and reported doses administered in 2019 applied to reported doses administered in 2021. Reported data excluded. Inconsistent trend in reported measles coverage between first and second dose since 2020. Reported coverage appears greater than that in 2019 largely due to a reported target population that is 15 percent lower than that reported in 2019. Estimate of 69 percent changed from previous revision value of 81 percent. Estimate challenged by: R-
- 2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Reported data appear to include doses administered during intensification of vaccination activities conducted in 2020.Reported data excluded because 102 percent greater than 100 percent. Reported data excluded due to an increase from 66 percent to 102 percent with decrease 81 percent. Estimate of 66 percent changed from previous revision value of 74 percent. Estimate challenged by: D-
- 2019: Estimate informed by reported data. GoC=R+ S+ D+
- 2018: Estimate informed by reported data. Programme reports vaccine stockout of unspecified duration. GoC=R+ S+ D+
- 2017: Estimate informed by reported data supported by survey. Survey evidence of 64 percent based on 1 survey(s). GoC=R+ S+ D+
- 2016: Estimate informed by reported data. Estimate is based on reported data following introduction. Reported official government estimates are based on unexplained adjustments to the administrative coverage. GoC=R+S+D+
- 2015: Estimate informed by reported data. Increase following introduction. Estimate challenged by: S-

### Zambia - MCV2

2014: Estimate informed by reported data. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. Second dose of measles containing vaccine introduced during 2014. GoC=R+D+

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.

# 2018 Post Coverage Measles-Rubella Campaign Evaluation Survey, Ministry of Health Zambia, 2021

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	65.4	12-71  m	4590	-
BCG	Card or History	91.2	$12\text{-}71 \mathrm{\ m}$	4590	-
BCG	History	25.7	$12\text{-}71~\mathrm{m}$	4590	-
DTP1	Card	65	$12\text{-}71~\mathrm{m}$	4590	-
DTP1	Card or History	90.7	$12\text{-}71~\mathrm{m}$	4590	-
DTP1	History	25.8	$12\text{-}71~\mathrm{m}$	4590	-
DTP3	Card	63	$12\text{-}71 \mathrm{\ m}$	4590	-
DTP3	Card or History	89.1	$12\text{-}71~\mathrm{m}$	4590	-
DTP3	History	26.1	$12\text{-}71~\mathrm{m}$	4590	-
HepB1	Card	65	$12\text{-}71~\mathrm{m}$	4590	-
HepB1	Card or History	90.7	$12\text{-}71~\mathrm{m}$	4590	-
HepB1	History	25.8	$12\text{-}71~\mathrm{m}$	4590	-
HepB3	Card	63	$12\text{-}71~\mathrm{m}$	4590	-
HepB3	Card or History	89.1	$12\text{-}71~\mathrm{m}$	4590	-
HepB3	History	26.1	$12\text{-}71~\mathrm{m}$	4590	-
Hib1	Card	65	$12\text{-}71 \mathrm{\ m}$	4590	-
Hib1	Card or History	90.7	$12\text{-}71 \mathrm{\ m}$	4590	-
Hib1	History	25.8	$12\text{-}71~\mathrm{m}$	4590	-
Hib3	Card	63	$12\text{-}71 \mathrm{\ m}$	4590	-
Hib3	Card or History	89.1	$12\text{-}71~\mathrm{m}$	4590	-
Hib3	History	26.1	$12\text{-}71~\mathrm{m}$	4590	-
MCV1	Card	62.8	$12\text{-}71~\mathrm{m}$	4590	-
MCV1	Card or History	88.5	$12\text{-}71~\mathrm{m}$	4590	-

MCV1	History	25.7	12-71  m	4590	-
MCV2	Card	54.6	12-71  m	4590	-
MCV2	Card or History	80.3	12-71  m	4590	-
MCV2	History	25.7	12-71  m	4590	-

#### 2017 Zambia Demographic and Health Survey 2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H $<$ 12 months	97	$12\text{-}23~\mathrm{m}$	1891	77
BCG	Card	75.9	$12\text{-}23~\mathrm{m}$	1450	77
BCG	Card or History	97.5	$12\text{-}23~\mathrm{m}$	1891	77
BCG	History	21.6	$12\text{-}23~\mathrm{m}$	440	77
DTP1	C or H $<$ 12 months	97.6	$12\text{-}23~\mathrm{m}$	1891	77
DTP1	Card	76.4	$12\text{-}23~\mathrm{m}$	1450	77
DTP1	Card or History	97.9	$12\text{-}23~\mathrm{m}$	1891	77
DTP1	History	21.5	$12\text{-}23~\mathrm{m}$	440	77
DTP3	C or H $<$ 12 months	91.4	$12\text{-}23~\mathrm{m}$	1891	77
DTP3	Card	73.8	$12\text{-}23~\mathrm{m}$	1450	77
DTP3	Card or History	92.1	$12\text{-}23~\mathrm{m}$	1891	77
DTP3	History	18.3	$12\text{-}23~\mathrm{m}$	440	77
HepB1	C or H $<$ 12 months	97.6	$12\text{-}23~\mathrm{m}$	1891	77
HepB1	Card	76.4	$12\text{-}23~\mathrm{m}$	1450	77
HepB1	Card or History	97.9	$12\text{-}23 \mathrm{\ m}$	1891	77
HepB1	History	21.5	$12\text{-}23~\mathrm{m}$	440	77
HepB3	C or H $<$ 12 months	91.4	$12\text{-}23~\mathrm{m}$	1891	77
HepB3	Card	73.8	$12\text{-}23~\mathrm{m}$	1450	77
HepB3	Card or History	92.1	$12\text{-}23 \mathrm{\ m}$	1891	77
HepB3	History	18.3	$12\text{-}23~\mathrm{m}$	440	77
Hib1	C or H $<$ 12 months	97.6	$12\text{-}23~\mathrm{m}$	1891	77
Hib1	Card	76.4	$12\text{-}23~\mathrm{m}$	1450	77
Hib1	Card or History	97.9	$12\text{-}23~\mathrm{m}$	1891	77
Hib1	History	21.5	$12\text{-}23~\mathrm{m}$	440	77
Hib3	C or H $<$ 12 months	91.4	$12\text{-}23~\mathrm{m}$	1891	77
Hib3	Card	73.8	$12\text{-}23~\mathrm{m}$	1450	77
Hib3	Card or History	92.1	$12\text{-}23 \mathrm{\ m}$	1891	77
Hib3	History	18.3	$12\text{-}23~\mathrm{m}$	440	77
MCV1	C or H $<$ 12 months	85.6	$12\text{-}23~\mathrm{m}$	1891	77
MCV1	Card	71.7	$12\text{-}23~\mathrm{m}$	1450	77
MCV1	Card or History	90.9	$12\text{-}23~\mathrm{m}$	1891	77

	MCV1	History	19.2	12-23 m	440	77	DTP3	Card or History	90.9	$24\text{-}35~\mathrm{m}$	1862	_
	MCV2	C or H <12 months	62	$24-35 \mathrm{\ m}$	1862	-	DTP3	History	26.1	$24-35 \mathrm{\ m}$	604	-
	MCV2	Card	45.4	$24-35 \mathrm{m}$	1258	-	HepB1	C or H $<$ 12 months	97	$24-35 \mathrm{m}$	1862	-
	MCV2	Card or History	63.8	$24\text{-}35~\mathrm{m}$	1862	-	HepB1	Card	67.3	$24-35 \mathrm{m}$	1258	-
	MCV2	History	18.4	$24\text{-}35~\mathrm{m}$	604	-	HepB1	Card or History	97.5	$24\text{-}35~\mathrm{m}$	1862	-
	PcV1	C or H $<$ 12 months	97.4	$12-23 \mathrm{m}$	1891	77	HepB1	History	30.2	$24-35 \mathrm{m}$	604	-
	PcV1	Card	76.3	$12\text{-}23 \mathrm{\ m}$	1450	77	HepB3	C or H $<$ 12 months	88.7	$24-35 \mathrm{\ m}$	1862	-
	PcV1	Card or History	97.6	$12\text{-}23 \mathrm{\ m}$	1891	77	HepB3	Card	64.8	$24-35 \mathrm{m}$	1258	-
	PcV1	History	21.3	$12\text{-}23 \mathrm{\ m}$	440	77	HepB3	Card or History	90.9	$24\text{-}35~\mathrm{m}$	1862	-
	PcV3	C or H <12 months	89.2	$12\text{-}23 \mathrm{\ m}$	1891	77	HepB3	History	26.1	$24-35 \mathrm{\ m}$	604	-
	PcV3	Card	72	$12\text{-}23 \mathrm{\ m}$	1450	77	Hib1	C or H $<$ 12 months	97	$24-35 \mathrm{\ m}$	1862	-
	PcV3	Card or History	89.8	$12\text{-}23 \mathrm{\ m}$	1891	77	Hib1	Card	67.3	$24-35 \mathrm{\ m}$	1258	-
	PcV3	History	17.8	$12\text{-}23 \mathrm{\ m}$	440	77	Hib1	Card or History	97.5	$24\text{-}35~\mathrm{m}$	1862	-
	Pol1	C or H $<$ 12 months	96.2	$12\text{-}23 \mathrm{\ m}$	1891	77	Hib1	History	30.2	$24-35 \mathrm{\ m}$	604	-
	Pol1	Card	76.4	$12\text{-}23 \mathrm{\ m}$	1450	77	Hib3	C or H $<$ 12 months	88.7	$24-35 \mathrm{\ m}$	1862	-
	Pol1	Card or History	96.5	$12\text{-}23 \mathrm{\ m}$	1891	77	Hib3	Card	64.8	$24-35 \mathrm{\ m}$	1258	-
	Pol1	History	20.1	$12\text{-}23 \mathrm{\ m}$	440	77	Hib3	Card or History	90.9	$24\text{-}35~\mathrm{m}$	1862	-
	Pol3	C or H $<$ 12 months	80.6	$12\text{-}23 \mathrm{\ m}$	1891	77	Hib3	History	26.1	$24-35 \mathrm{\ m}$	604	-
	Pol3	Card	72.8	$12\text{-}23 \mathrm{\ m}$	1450	77	MCV1	C or H $<$ 12 months	82.6	$24-35 \mathrm{\ m}$	1862	-
	Pol3	Card or History	81.2	$12\text{-}23 \mathrm{\ m}$	1891	77	MCV1	Card	64.2	$24-35 \mathrm{\ m}$	1258	-
	Pol3	History	8.4	$12\text{-}23 \mathrm{\ m}$	440	77	MCV1	Card or History	93.1	$24-35 \mathrm{\ m}$	1862	-
	RotaC	C or H $<$ 12 months	89.6	$12\text{-}23 \mathrm{\ m}$	1891	77	MCV1	History	28.9	$24-35 \mathrm{\ m}$	604	-
	RotaC	Card	72.7	$12\text{-}23 \mathrm{\ m}$	1450	77	PcV1	C or H $<$ 12 months	95.8	$24-35 \mathrm{\ m}$	1862	-
	RotaC	Card or History	90.6	$12\text{-}23 \mathrm{\ m}$	1891	77	PcV1	Card	66.8	$24-35 \mathrm{\ m}$	1258	-
	RotaC	History	17.9	$12\text{-}23 \mathrm{\ m}$	440	77	PcV1	Card or History	96.5	$24-35 \mathrm{\ m}$	1862	-
							PcV1	History	29.7	$24-35 \mathrm{m}$	604	-
_	0107	1: D 1:	1 77 1	1.1 C	0010		PcV3	C or H <12 months	86.1	$24-35 \mathrm{m}$	1862	-
2	tuto Zai	mbia Demographic	and Heal	th Survey	2018		PcV3	Card	62.8	$24-35 \mathrm{\ m}$	1258	-
							PcV3	Card or History	87.7	$24\text{-}35~\mathrm{m}$	1862	-
	Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen	PcV3	History	24.9	$24\text{-}35~\mathrm{m}$	604	-
	BCG	C or H <12 months		24-35 m		-	Pol1	C or H $<$ 12 months	95.5	$24-35 \mathrm{\ m}$	1862	-
	BCG	Card		24-35 m		_	Pol1	Card	67.1	$24-35 \mathrm{\ m}$	1258	-
	BCG	Card or History		24-35 m		_	Pol1	Card or History	95.9	$24\text{-}35~\mathrm{m}$	1862	-
	BCG	History		24-35 m		-	Pol1	History	28.8	$24-35 \mathrm{m}$	604	-
		C or $H < 12$ months		24-35 m		_	Pol3	C or H $<$ 12 months	75.3	$24-35 \mathrm{\ m}$	1862	-
		Card		24-35 m		-	Pol3	Card	63.6	$24-35 \mathrm{m}$	1258	-
		Card or History		24-35 m		-	Pol3	Card or History	77.2	$24\text{-}35~\mathrm{m}$	1862	-
		History		24-35 m		_	Pol3	History	13.6	$24\text{-}35~\mathrm{m}$	604	-
	DTP3	C or H <12 months		24-35 m		_	RotaC	C or H <12 months	85.8	$24-35~\mathrm{m}$	1862	-
		~ .					DotoC	Cand	62.0	24.25 ***	1050	

64.8

 $24-35 \mathrm{m}$ 

1258

DTP3 Card

RotaC Card

62.9

 $24\text{-}35~\mathrm{m}$ 

RotaC	Card or History	88.7	$24\text{-}35~\mathrm{m}$	1862	-	Pol1 Card or History 96.3 12-23 m 2575 80
RotaC	History	25.8	$24\text{-}35~\mathrm{m}$	604	-	Pol1 History 16.7 12-23 m 506 80
						Pol3 Card 69.3 12-23 m 2069 80
2012 7	1 · D 1 ·	1 77	1.1 C	2010	1.4	Pol3 Card or History 77.6 12-23 m 2575 80
2013 Za	mbia Demographic	and He	ealth Surve	y, 2013	-14	Pol3 History 8.2 12-23 m 506 80
Vaccine	Confirmation method	Coverag	ge Age cohor	rt Sampl	e Cards seen	2010 7 11 D
BCG	C or H $<$ 12 months	94.1	12-23 m	2575	80	2012 Zambia Demographic and Health Survey, 2013-14
BCG	Card	77.8	$12\text{-}23~\mathrm{m}$	2069	80	
BCG	Card or History	94.9	$12\text{-}23 \mathrm{\ m}$	2575	80	Vaccine Confirmation method Coverage Age cohort Sample Cards seen
BCG	History	17	$12\text{-}23~\mathrm{m}$	506	80	BCG C or H <12 months 94.5 24-35 m 2507 -
DTP1	C or $H < 12$ months	94.8	12-23  m	2575	80	
DTP1	Card	79.1	12-23  m	2069	80	
DTP1	Card or History	95.9	12-23  m	2575	80	
DTP1	History	16.9	$12\text{-}23 \mathrm{\ m}$	506	80	HepB1 C or H <12 months 94.3 24-35 m 2507 -
DTP3	C or $H < 12$ months	82.4	12-23  m	2575	80	HepB3 C or H <12 months 84.5 24-35 m 2507 -
DTP3	Card	71.5	12-23  m	2069	80	Hib1 C or H $<$ 12 months 94.3 24-35 m 2507 - Hib3 C or H $<$ 12 months 84.5 24-35 m 2507 -
DTP3	Card or History	85.8	12-23  m	2575	80	
DTP3	History	14.4	12-23  m	506	80	MCV1 C or H <12 months 72.5 24-35 m 2507 -
HepB1	C or $H < 12$ months	94.8	12-23  m	2575	80	Pol1 C or H <12 months 95.1 24-35 m 2507 -
HepB1	Card	79.1	12-23  m	2069	80	Pol3 C or H $<$ 12 months 76.5 24-35 m 2507 -
HepB1	Card or History	95.9	12-23  m	2575	80	
HepB1	History	16.9	12-23  m	506	80	2011 Zambia Demographic and Health Survey, 2013-14
HepB3	C or $H < 12$ months	82.4	12-23  m	2575	80	2011 Zambia Demograpine and Hearth Survey, 2015-14
HepB3	Card	71.5	12-23  m	2069	80	
HepB3	Card or History	85.8	12-23  m	2575	80	Vaccine Confirmation method Coverage Age cohort Sample Cards seen
HepB3	History	14.4	12-23  m	506	80	BCG C or H $<$ 12 months 91.5 36-47 m 2447 -
Hib1	C or $H < 12$ months	94.8	12-23  m	2575	80	DTP1 C or H $<$ 12 months 91.8 36-47 m 2447 -
Hib1	Card	79.1	12-23  m	2069	80	DTP3 C or H <12 months 80.5 36-47 m 2447 -
Hib1	Card or History	95.9	12-23 m	2575	80	HepB1 C or H <12 months 91.8 36-47 m 2447 -
Hib1	History	16.9	12-23  m	506	80	HepB3 C or H $<$ 12 months 80.5 36-47 m 2447 -
Hib3	C or $H < 12$ months	82.4	12-23  m	2575	80	Hib1 C or H $<$ 12 months 91.8 36-47 m 2447 -
Hib3	Card	71.5	12-23 m	2069	80	Hib3 C or H $<$ 12 months 80.5 36-47 m 2447 -
Hib3	Card or History	85.8	12-23  m	2575	80	MCV1 C or H <12 months 73.8 36-47 m 2447 -
Hib3	History	14.4	12-23  m	506	80	Pol1 C or H <12 months 91.8 36-47 m 2447 -
MCV1	C or H <12 months	72.5	12-23 m	2575	80	Pol3 C or H <12 months 71.8 36-47 m 2447 -
MCV1	Card	69.7	12-23 m	2069	80	
MCV1	Card or History	84.9	12-23 m	2575	80	
MCV1	History	15.2	12-23 m	506	80	2010 Expanded Program on Immunization Survey using the cluster sur
				2069	80	methodology, Zambia, 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	73.4	$12\text{-}23~\mathrm{m}$	1890	77
BCG	Card or History	98.3	$12\text{-}23~\mathrm{m}$	1890	77
DTP1	Card	72.7	$12\text{-}23~\mathrm{m}$	1890	77
DTP1	Card or History	98.2	$12\text{-}23~\mathrm{m}$	1890	77
DTP3	Card	70.8	$12\text{-}23~\mathrm{m}$	1890	77
DTP3	Card or History	92.5	$12\text{-}23~\mathrm{m}$	1890	77
HepB1	Card	72.7	$12\text{-}23~\mathrm{m}$	1890	77
HepB1	Card or History	98.2	$12\text{-}23 \mathrm{\ m}$	1890	77
HepB3	Card	70.8	12-23  m	1890	77
HepB3	Card or History	92.5	$12\text{-}23 \mathrm{\ m}$	1890	77
Hib1	Card	72.7	$12\text{-}23~\mathrm{m}$	1890	77
Hib1	Card or History	98.2	$12\text{-}23~\mathrm{m}$	1890	77
Hib3	Card	70.8	$12\text{-}23~\mathrm{m}$	1890	77
Hib3	Card or History	92.5	$12\text{-}23~\mathrm{m}$	1890	77
MCV1	Card	67.3	$12\text{-}23~\mathrm{m}$	1890	77
MCV1	Card or History	90.3	$12\text{-}23~\mathrm{m}$	1890	77
Pol1	Card	73.1	12-23  m	1890	77
Pol1	Card or History	97.9	$12\text{-}23 \mathrm{\ m}$	1890	77
Pol3	Card	69.8	$12\text{-}23~\mathrm{m}$	1890	77
Pol3	Card or History	90.2	$12\text{-}23~\mathrm{m}$	1890	77

2010 Zambia Demographic and Health Survey, 2013-14

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H $<$ 12 months	93.1	$48-59~\mathrm{m}$	2627	-
DTP1	C or H $<$ 12 months	93	$48-59~\mathrm{m}$	2627	-
DTP3	C or H $<$ 12 months	81.3	$48-59~\mathrm{m}$	2627	-
HepB1	C or H $<$ 12 months	93	$48-59~\mathrm{m}$	2627	-
HepB3	C or H $<$ 12 months	81.3	$48-59~\mathrm{m}$	2627	-
Hib1	C or H $<$ 12 months	93	$48-59~\mathrm{m}$	2627	-
Hib3	C or H $<$ 12 months	81.3	$48-59~\mathrm{m}$	2627	-
MCV1	C or H $<$ 12 months	69.5	$48-59~\mathrm{m}$	2627	-
Pol1	C or H $<$ 12 months	93.7	$48-59 \mathrm{\ m}$	2627	-
Pol3	C or H $<$ 12 months	70.1	$48\text{-}59~\mathrm{m}$	2627	-

2006 Zambia Demographic and Health Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	90.3	12-23 m	1272	78
BCG	Card	75.9	12-23 m	1272	78
BCG	Card or History	92.3	12-23 m	1272	78
BCG	History	16.4	12-23 m	1272	78
DTP1	C or H <12 months	91.4	12-23 m	1272	78
DTP1	Card	76.1	12-23 m	1272	78
DTP1	Card or History	92.3	12-23 m	1272	78
DTP1	History	16.3	12-23 m	1272	78
DTP3	C or H <12 months	77.3	12-23 m	1272	78
DTP3	Card	66.9	12-23 m	1272	78
DTP3	Card or History	79.7	12-23 m	1272	78
DTP3	History	12.8	12-23 m	1272	78
HepB1	C or H <12 months	91.4	12-23 m	1272	78
НерВ1	Card	76.1	12-23 m	1272	78
HepB1	Card or History	92.3	12-23 m	1272	78
HepB1	History	16.3	12-23 m	1272	78
НерВ3	C or H <12 months	77.3	12-23 m	1272	78
HepB3	Card	66.9	12-23 m	1272	78
HepB3	Card or History	79.7	12-23 m	1272	78
HepB3	History	12.8	12-23 m	1272	78
Hib1	C or $H < 12$ months	91.4	12-23 m	1272	78
Hib1	Card	76.1	$12-23 \mathrm{m}$	1272	78
Hib1	Card or History	92.3	12-23  m	1272	78
Hib1	History	16.3	12-23  m	1272	78
Hib3	C or H <12 months	77.3	12-23  m	1272	78
Hib3	Card	66.9	$12\text{-}23~\mathrm{m}$	1272	78
Hib3	Card or History	79.7	$12\text{-}23 \mathrm{\ m}$	1272	78
Hib3	History	12.8	$12\text{-}23~\mathrm{m}$	1272	78
MCV1	C or H $<$ 12 months	68.8	$12\text{-}23~\mathrm{m}$	1272	78
MCV1	Card	69.8	$12\text{-}23~\mathrm{m}$	1272	78
MCV1	Card or History	84.9	$12\text{-}23~\mathrm{m}$	1272	78
MCV1	History	15.1	$12\text{-}23~\mathrm{m}$	1272	78
Pol1	C or H $<$ 12 months	92.3	$12\text{-}23~\mathrm{m}$	1272	78
Pol1	Card	77	$12\text{-}23~\mathrm{m}$	1272	78
Pol1	Card or History	93.5	$12\text{-}23~\mathrm{m}$	1272	78
Pol1	History	16.5	$12\text{-}23~\mathrm{m}$	1272	78
Pol3	C or H $<$ 12 months	74.2	$12\text{-}23~\mathrm{m}$	1272	78
Pol3	Card	67.9	$12\text{-}23~\mathrm{m}$	1272	78

Pol3	Card or History	77	$12\text{-}23~\mathrm{m}$	1272	78
Pol3	History	9.2	12-23  m	1272	78

### 2001 Zambia Demographic and Health Survey 2001-2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C  or  H < 12  months	90.7	$12\text{-}23~\mathrm{m}$	1299	80
BCG	Card	78	$12\text{-}23~\mathrm{m}$	1299	80
BCG	Card or History	94	$12\text{-}23 \mathrm{\ m}$	1299	80
BCG	History	16	$12\text{-}23 \mathrm{\ m}$	1299	80
DTP1	C or H $<$ 12 months	91.9	$12\text{-}23~\mathrm{m}$	1299	80
DTP1	Card	78.3	$12\text{-}23~\mathrm{m}$	1299	80
DTP1	Card or History	94.1	$12\text{-}23 \mathrm{\ m}$	1299	80
DTP1	History	15.8	$12\text{-}23 \mathrm{\ m}$	1299	80
DTP3	C  or  H < 12  months	73.8	12-23  m	1299	80
DTP3	Card	70.9	12-23  m	1299	80
DTP3	Card or History	80	$12\text{-}23 \mathrm{\ m}$	1299	80
DTP3	History	9.2	$12\text{-}23 \mathrm{\ m}$	1299	80
MCV1	C or H $<$ 12 months	70.2	$12\text{-}23~\mathrm{m}$	1299	80
MCV1	Card	70.5	$12\text{-}23~\mathrm{m}$	1299	80
MCV1	Card or History	84.4	$12\text{-}23 \mathrm{\ m}$	1299	80
MCV1	History	13.9	$12\text{-}23 \mathrm{\ m}$	1299	80
Pol1	C or H $<$ 12 months	93.6	$12\text{-}23~\mathrm{m}$	1299	80
Pol1	Card	78.7	12-23  m	1299	80
Pol1	Card or History	95.6	$12\text{-}23 \mathrm{\ m}$	1299	80
Pol1	History	16.8	$12\text{-}23 \mathrm{\ m}$	1299	80
Pol3	C or H $<$ 12 months	73.4	$12\text{-}23~\mathrm{m}$	1299	80
Pol3	Card	71.1	$12\text{-}23~\mathrm{m}$	1299	80
Pol3	Card or History	80.2	$12\text{-}23 \mathrm{\ m}$	1299	80
Pol3	History	9.1	$12\text{-}23~\mathrm{m}$	1299	80

### 2000 Zambia EPI Cluster Survey Report 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	${\bf Cards\ seen}$
BCG	Card or History	92	$12\text{-}23~\mathrm{m}$	221	83
DTP1	Card or History	93	$12\text{-}23 \mathrm{\ m}$	221	83
DTP3	Card or History	77.8	$12\text{-}23~\mathrm{m}$	221	83
MCV1	Card	85	$12-23 \mathrm{m}$	221	83
Pol1	Card or History	92	$12-23 \mathrm{m}$	221	83
Pol3	Card or History	79	$12-23 \mathrm{m}$	221	83

### 1998 Zambia Multiple Indicator Cluster Suvey 1999

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	51.5	$12\text{-}23~\mathrm{m}$	328	-
BCG	History	13.1	$12\text{-}23 \mathrm{\ m}$	328	-
DTP1	Card	60.9	$12\text{-}23 \mathrm{\ m}$	328	-
DTP1	History	20.6	$12\text{-}23 \mathrm{\ m}$	328	-
DTP3	Card	56	$12\text{-}23 \mathrm{\ m}$	328	-
DTP3	History	8.2	$12\text{-}23 \mathrm{\ m}$	328	-
MCV1	Card	57.2	$12\text{-}23 \mathrm{\ m}$	328	-
MCV1	History	17.1	$12\text{-}23 \mathrm{\ m}$	328	-
Pol1	Card	63.7	$12\text{-}23 \mathrm{\ m}$	328	-
Pol1	History	21.8	$12\text{-}23 \mathrm{\ m}$	328	-
Pol3	Card	58.9	$12\text{-}23 \mathrm{\ m}$	328	-
Pol3	History	16.9	$12\text{-}23~\mathrm{m}$	328	-

Further information and estimates for previous years are available at:

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

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