Zambia: WHO and UNICEF estimates of immunization coverage: 2017 revision

BCG · DTP1 · DTP3 · Pol3 · MCV1 · HepB3 · Hib3 · RotaC · PcV3

WHO and UNICEF estimates of national immunization coverage - next revision available July 15, 2019 data received as of July 4, 2018

BACKGROUND NOTE: Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from the published and grey literature. Based on these data, with due consideration to potential biases and the views of local experts, WHO and UNICEF attempt to distinguish between situations where the available empirical data accurately reflect immunization system performance and those where the data are likely to be compromised and present a misleading view of immunization coverage while jointly estimating the most likely coverage levels for each country.

 WHO and UNICEF estimates are country-specific; that is to say, each country's data are reviewed individually, and data are not borrowed from other countries in the absence of data. Estimates are not based on ad hoc adjustments to reported data; in some instances empirical data are available from a single source, usually the nationally reported coverage data. In cases where no data are available for a given country/vaccine/year combination, data are considered from earlier and later years and interpolated to estimate coverage for the missing year(s). In cases where data sources are mixed and show large variation, an attempt is made to identify the most likely estimate with consideration of the possible biases in available data. For methods see:

*Burton et al. 2009. WHO and UNICEF estimates of national infant immunization coverage: methods and processes.
*Burton et al. 2012. A formal representation of the WHO and UNICEF estimates of national immunization coverage: a computational logic approach.
*Brown et al. 2013. An introduction to the grade of confidence used to characterize uncertainty around the WHO and UNICEF estimates of national immunization coverage.

DATA SOURCES.

ADMINISTRATIVE coverage: Reported by national authorities and based on aggregated administrative reports from health service providers on the number of vaccinations administered during a given period (numerator data) and reported target population data (denominator data). May be biased by inaccurate numerator and/or denominator data.

OFFICIAL coverage: Estimated coverage reported by national authorities that reflects their assessment of the most likely coverage based on any combination of administrative coverage, survey-based estimates or other data sources or adjustments. Approaches to determine OFFICIAL coverage may differ across countries.

SURVEY coverage: Based on estimated coverage from population-based household surveys among children aged 12-23 months or 24-35 months following a review of survey methods and results. Information is based on the combination of vaccination history from documented evidence or caregiver recall. Survey results are considered for the appropriate birth cohort based on the period of data collection.

ABBREVIATIONS

BCG: percentage of births who received one dose of Bacillus Calmette Guerin vaccine.

DTP1 / DTP3: percentage of surviving infants who received the 1st / 3rd dose, respectively, of diphtheria and tetanus toxoid with pertussis containing vaccine.

Pol3: percentage of surviving infants who received the 3rd dose of polio containing vaccine. May be either oral or inactivated polio vaccine.

IPV1: percentage of surviving infants who received at least one dose of inactivated polio vaccine. In countries utilizing an immunization schedule recommending either (i) a primary series of three doses of oral polio vaccine (OPV) plus at least one dose of IPV where OPV is included in routine immunization and/or campaign or (ii) a sequential schedule of IPV followed by OPV, WHO and UNICEF estimates for IPV1 reflect coverage with at least one routine dose of IPV among infants <1 year of age among countries. For countries utilizing IPV containing vaccine use only, i.e., no recommended dose of OPV, the WHO and UNICEF estimate for IPV1 corresponds to coverage for the 1st dose of IPV.

Production of IPV coverage estimates, which begins in 2015, results in no change of the estimated coverage levels for the 3rd dose of polio (Pol3). For countries recommending routine immunization with a primary series of three doses of IPV alone, WHO and UNICEF estimated Pol3 coverage is equivalent to estimated coverage with three doses of IPV. For countries with a sequential schedule, estimated Pol3 coverage is based on that for the 3rd dose of polio vaccine regardless of vaccine type.

MCV1: percentage of surviving infants who received the 1st dose of measles containing vaccine. In countries where the national schedule recommends the 1st dose of MCV at 12 months or later based on the epidemiology of disease in the country, coverage estimates reflect the percentage of children who received the 1st dose of MCV as recommended.

MCV2: percentage of children who received the 2nd dose of measles containing vaccine according to the nationally recommended schedule.

RCV1: percentage of surviving infants who received the 1st dose of rubella containing vaccine. 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.
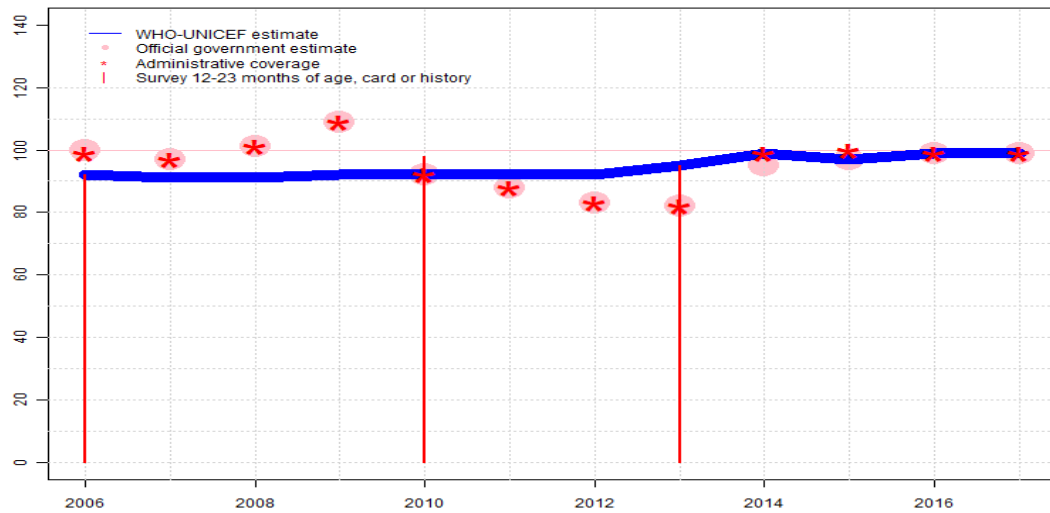
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect 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.

Zambia - BCG

ZMB - BCG

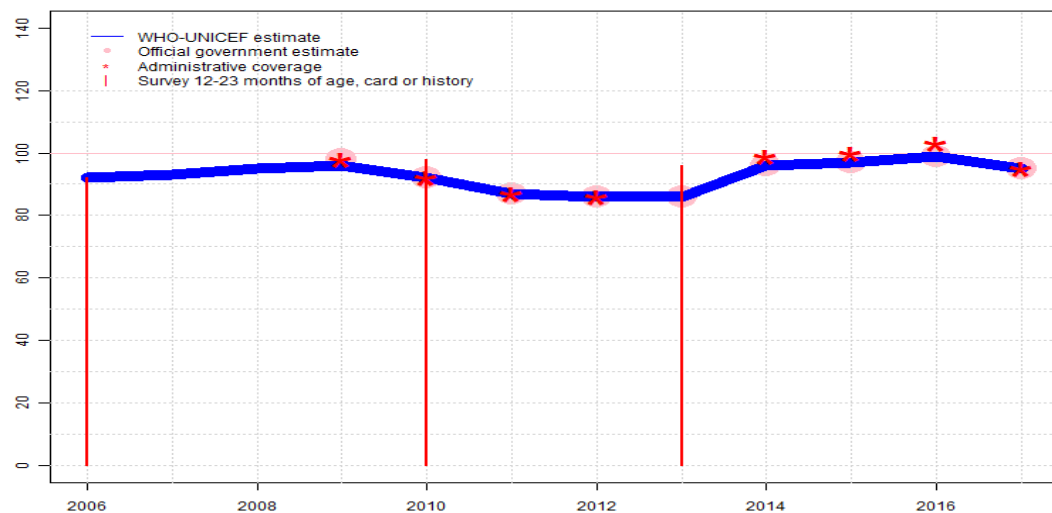|	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	92	91	91	92	92	92	92	95	99	97	99	99
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●●	●●
Official	100	97	101	109	92	88	83	82	95	97	99	99
Administrative	99	97	101	109	92	88	83	82	99	100	99	99
Survey	92	NA	NA	NA	98	NA	NA	95	NA	NA	NA	NA

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: 2017 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:

2017: Estimate based on coverage reported by national government. WHO and UNICEF are
aware of 2018 DHS survey and await the results. GoC=R+ D+

2016: . Reported official government estimates are based on unexplained adjustments to the
administrative coverage. GoC=R+ 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-

2011: Reported data calibrated to 2010 and 2013 levels. Estimate challenged by: D-R-

2010: Estimate based on coverage reported by national government supported by survey. Survey
evidence of 98 percent based on 1 survey(s). Estimate challenged by: D-

2009: Reported data calibrated to 2006 and 2010 levels. Reported data excluded because 109
percent greater than 100 percent. Estimate challenged by: D-R-

2008: Reported data calibrated to 2006 and 2010 levels. Reported data excluded because 101
percent greater than 100 percent. Estimate challenged by: D-R-

2007: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2006: Estimate of 92 percent assigned by working group. DTP3 and Pol3 estimates are based
on survey results. BCG estimates based on survey to maintain consistency Estimate
challenged by: D-R-

Zambia - DTP1

ZMB - DTP1

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history

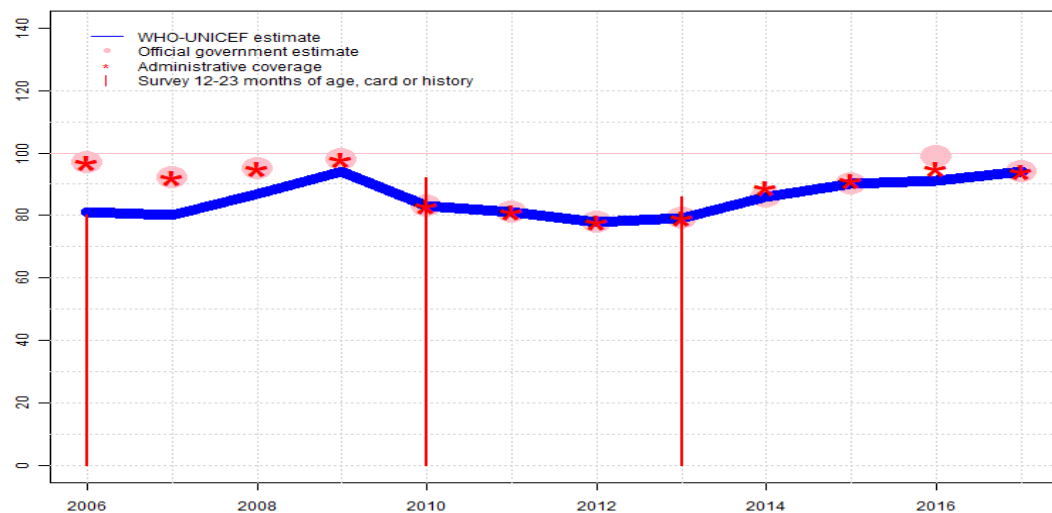|	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	92	93	95	96	92	87	86	86	96	97	99	95
Estimate GoC	••	••	••	•	•	•	•	••	•••	•	•	•
Official	NA	NA	NA	98	92	87	86	86	96	97	99	95
Administrative	NA	NA	NA	98	92	87	86	NA	99	100	103	95
Survey	92	NA	NA	NA	98	NA	NA	96	NA	NA	NA	NA

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: 2017 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:

2017: . WHO and UNICEF are aware of 2018 DHS survey and await the results. Estimate challenged by: D-

2016: Estimate of 99 percent assigned by working group. . 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-R-

2015: Estimate based on reported data. Estimate challenged by: D-

2014: Estimate based on coverage reported by national government. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. GoC=R+ S+ D+

2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+ S+

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Estimate challenged by: D-

2009: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2008: Reported data calibrated to 2006 and 2010 levels. GoC=S+

2007: Reported data calibrated to 2006 and 2010 levels. GoC=S+

2006: Estimate of 92 percent assigned by working group. Estimate is based on survey results. GoC=S+

Zambia - DTP3

ZMB - DTP3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history

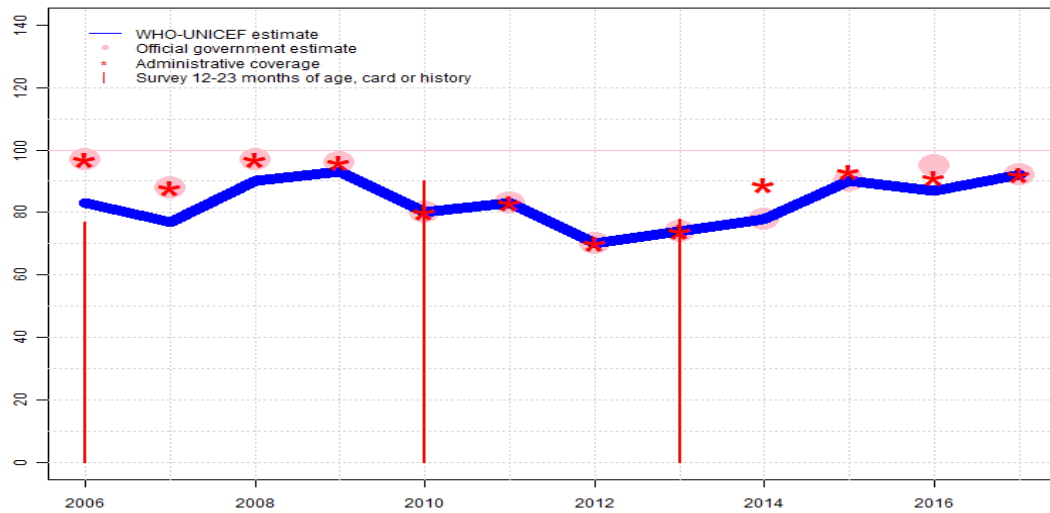|	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	81	80	87	94	83	81	78	79	86	90	91	94
Estimate GoC	●	●	●	●	●	●	●	●	●●●	●●●	●	●●
Official	97	92	95	98	83	81	78	79	86	90	99	94
Administrative	97	92	95	98	83	81	78	79	89	91	95	94
Survey	80	NA	NA	NA	92	NA	NA	86	NA	NA	NA	NA

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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.
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●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2017 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.

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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.
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Description:

2017: . WHO and UNICEF are aware of 2018 DHS survey and await the results. GoC=R+ D+

2016: Estimate of 91 percent assigned by working group. 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 based on coverage reported by national government. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. GoC=R+ S+ D+

2013: Estimate based on coverage reported by national government 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 modifed 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 based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2010: Reported coverage is confirmed or exceeded by survey. Expanded Program on Immunization Survey using the cluster survey methodology, Zambia, 2011 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 73 percent and 3rd dose card only coverage of 71 percent. Estimate challenged by: D-S-

2009: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2008: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2007: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 81 percent based on 1 survey(s). Zambia Demographic and Health Survey 2007 card or history results of 80 percent modifed for recall bias to 81 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 76 percent and 3rd dose card only coverage of 67 percent. Estimate challenged by: D-R-

Zambia - Pol3

ZMB - Pol3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- * Administrative coverage
- | Survey 12-23 months of age, card or history

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	83	77	90	93	80	83	70	74	78	90	87	92
Estimate GoC	•	•	•	•	•	•	•	•	•	•••	•	••
Official	97	88	97	96	80	83	70	74	78	90	95	92
Administrative	97	88	97	96	80	83	70	74	89	93	91	92
Survey	77	NA	NA	NA	90	NA	NA	78	NA	NA	NA	NA

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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.
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••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2017 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.
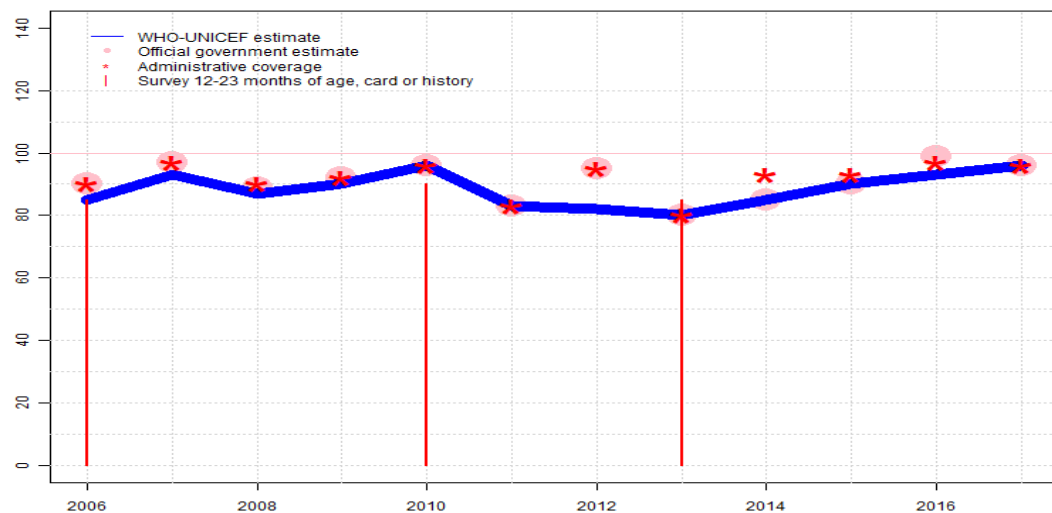
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In all cases these estimates should be used with caution and should be assessed in light
of the objective for which they are being used.
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Description:

2017: . WHO and UNICEF are aware of 2018 DHS survey and await the results. GoC=R+ D+

2016: Estimate of 87 percent assigned by working group. 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: R-

2015: Estimate based on reported data. Vaccine to vaccine consistency. GoC=R+ S+ D+

2014: Estimate based on coverage reported by national government. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government 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 modifed 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 based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2010: Reported coverage is confirmed or exceeded by survey. Expanded Program on Immunization Survey using the cluster survey methodology, Zambia, 2011 card or history results of 90 percent modifed for recall bias to 94 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 73 percent and 3rd dose card only coverage of 70 percent. Decline in coverage attributable to vaccine shortage for one month. Estimate challenged by: D-S-

2009: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2008: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2007: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 83 percent based on 1 survey(s). Zambia Demographic and Health Survey 2007 card or history results of 77 percent modifed for recall bias to 83 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 77 percent and 3rd dose card only coverage of 68 percent. Estimate challenged by: D-R-

Zambia - MCV1

ZMB - MCV1

- WHO-UNICEF estimate
- Official government estimate
- * Administrative coverage
- | Survey 12-23 months of age, card or history

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	85	93	87	90	96	83	82	80	85	90	93	96
Estimate GoC	●	●	●	●	●	●	●	●	●	●●●	●	●●
Official	90	97	89	92	96	83	95	80	85	90	99	96
Administrative	90	97	90	92	96	83	95	80	93	93	97	96
Survey	85	NA	NA	NA	90	NA	NA	85	NA	NA	NA	NA

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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.
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●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator
from the World Population Prospects: 2017 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.
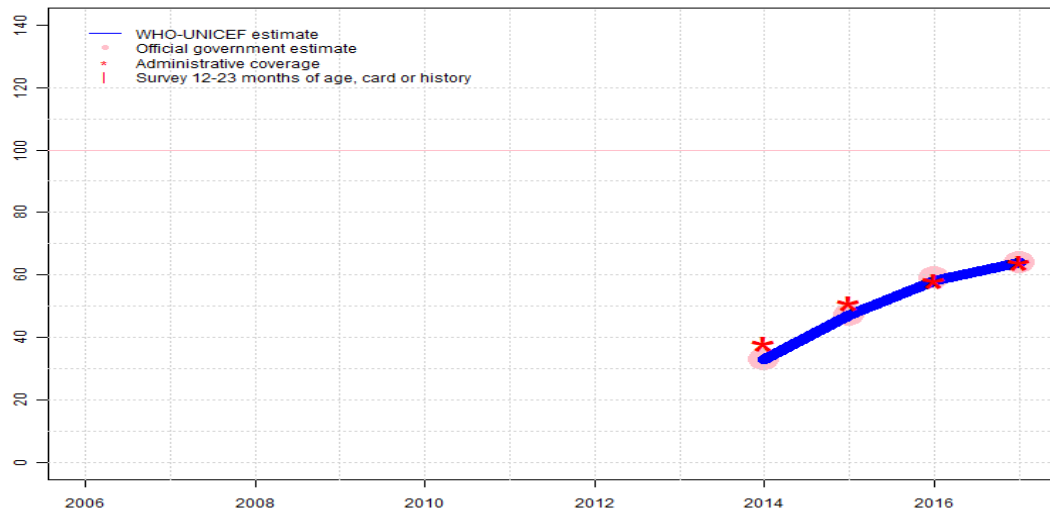
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In all cases these estimates should be used with caution and should be assessed in light
of the objective for which they are being used.
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Description:

2017: . WHO and UNICEF are aware of 2018 DHS survey and await the results. Rubella containing vaccine introduced in 2017 as Measles-Rubella vaccine. GoC=R+ D+

2016: Estimate of 93 percent assigned by working group. 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 based on coverage reported by national government. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 85 percent based on 1 survey(s). Estimate challenged by: D-

2012: Estimate based on interpolation between coverage reported by national government. 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-

2011: Estimate based on coverage reported by national government. Estimate is based on reported data. Consistency with other antigens. Estimate challenged by: D-

2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 90 percent based on 1 survey(s). Estimate challenged by: D-

2009: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2008: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2007: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2006: Estimate of 85 percent assigned by working group. DTP3 and Pol3 estimates are based on survey results. MCV estimates based on survey to maintain consistency Estimate challenged by: D-R-

ZMB - MCV2

Legend:
- WHO-UNICEF estimate
- Official government estimate
- * Administrative coverage
- | Survey 12-23 months of age, card or history

Description:

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

2017: Estimate based on coverage reported by national government. WHO and UNICEF are aware of 2018 DHS survey and await the results. GoC=R+ D+

2016: Estimate based on reported administrative estimate. Estimate is based on reported data following introduction. Reported official government estimates are based on unexplained adjustments to the administrative coverage. GoC=R+ D+

2015: Estimate based on coverage reported by national government. Increase following introduction. GoC=R+ D+

2014: Estimate based on coverage reported by national government. 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+

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	33	47	58	64
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	●●	●●	●●	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	33	47	59	64
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	38	51	58	64
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: 2017 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.

ZMB - RCV1

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history

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.

2017: Estimate based on estimated MCV1. WHO and UNICEF are aware of 2018 DHS survey and await the results. GoC=R+ D+

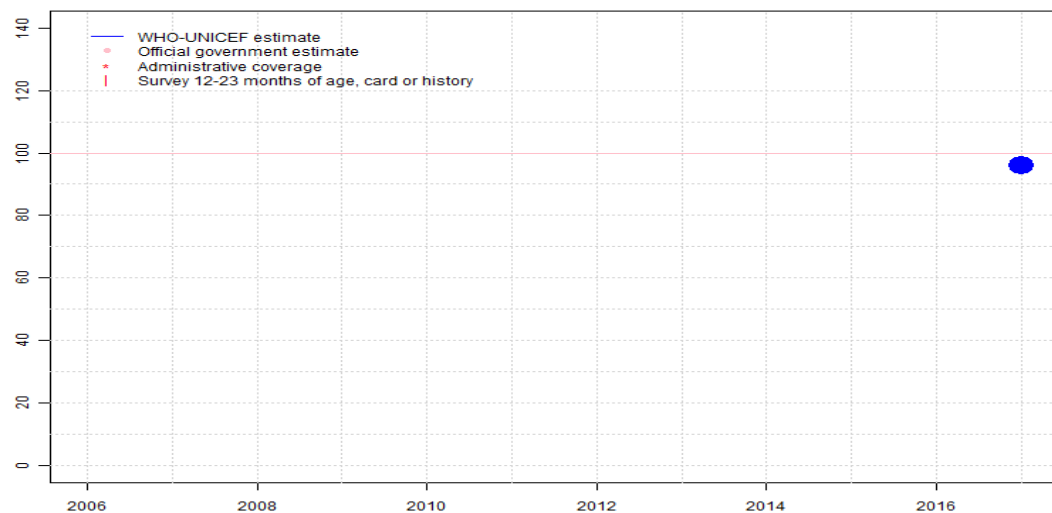|	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	96
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	••
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: 2017 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.

Zambia - HepBB

ZMB - HepBB

- WHO-UNICEF estimate
- Official government estimate
- * Administrative coverage
- I Survey 12-23 months of age, card or history

No estimate for infant immunization made.

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.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
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	95
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: 2017 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.

Zambia - HepB3

ZMB - HepB3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history

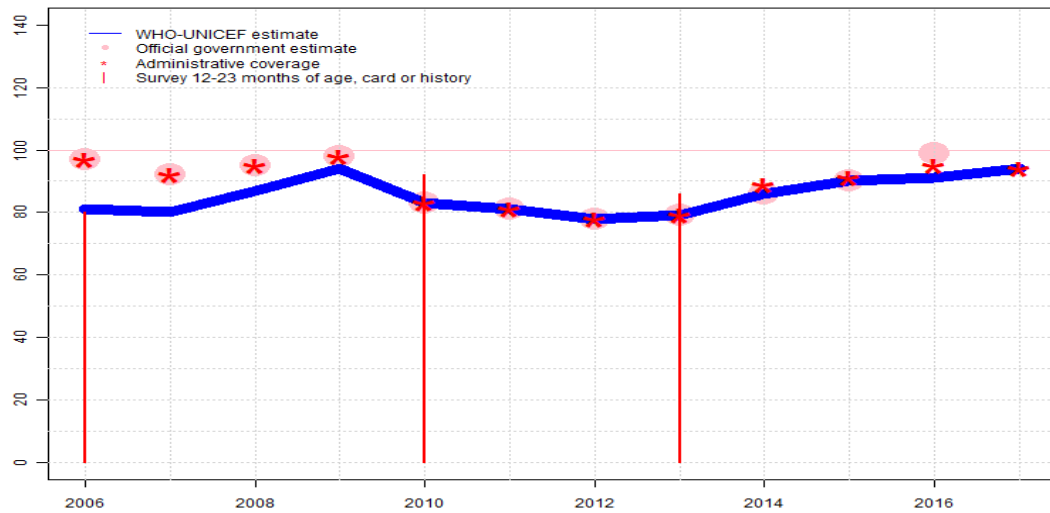|	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	81	80	87	94	83	81	78	79	86	90	91	94
Estimate GoC	●	●	●	●	●	●	●	●	●●●	●●●	●	●●
Official	97	92	95	98	83	81	78	79	86	90	99	NA
Administrative	97	92	95	98	83	81	78	79	89	91	95	94
Survey	80	NA	NA	NA	92	NA	NA	86	NA	NA	NA	NA

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: 2017 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.
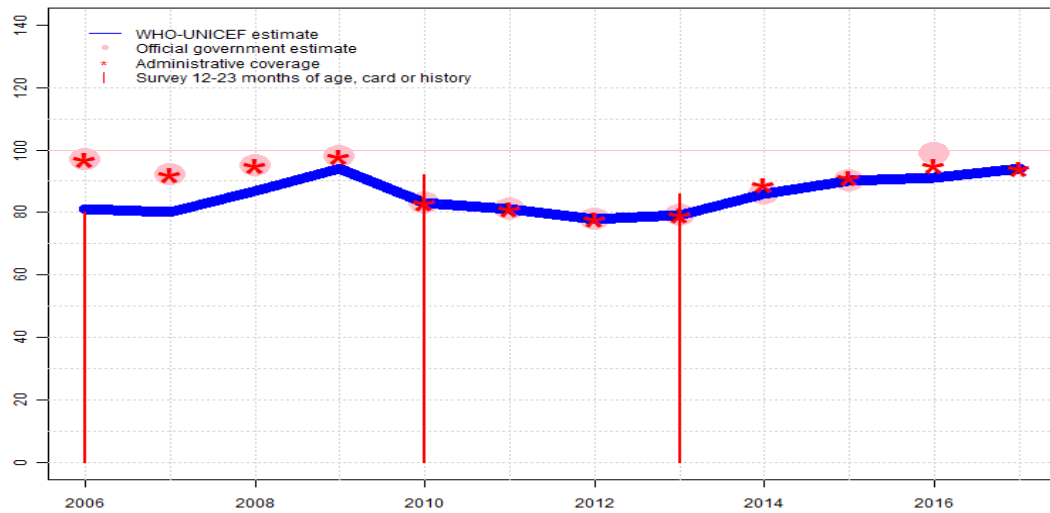
In all cases these estimates should be used with caution and should be assessed in light
of the objective for which they are being used.

Description:

2017: . WHO and UNICEF are aware of 2018 DHS survey and await the results. GoC=R+ D+

2016: Estimate of 91 percent assigned by working group. 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 perfor-
mance 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 based on coverage reported by national government. Official reported estimate
is based on the results of the 2014 Demographic and Health Survey. GoC=R+ S+ D+

2013: Estimate based on coverage reported by national government 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 modifed 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 based on coverage reported by national government. Estimate challenged by:
D-S-

2011: Estimate based on coverage reported by national government. Estimate challenged by:
D-S-

2010: Reported coverage is confirmed or exceeded by survey. Expanded Program on Immuniza-
tion Survey using the cluster survey methodology, Zambia, 2011 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 73 percent and 3rd dose card only
coverage of 71 percent. Estimate challenged by: D-S-

2009: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2008: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2007: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2006: Survey evidence does not support reported data. Estimate based on survey results. Survey
evidence of 81 percent based on 1 survey(s). Zambia Demographic and Health Survey
2007 card or history results of 80 percent modifed for recall bias to 81 percent based on
1st dose card or history coverage of 92 percent, 1st dose card only coverage of 76 percent
and 3rd dose card only coverage of 67 percent. Estimate challenged by: D-R-

Zambia - Hib3

ZMB - Hib3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	81	80	87	94	83	81	78	79	86	90	91	94
Estimate GoC	•	•	•	•	•	•	•	•	•••	•••	•	••
Official	97	92	95	98	83	81	78	79	86	90	99	NA
Administrative	97	92	95	98	83	81	78	79	89	91	95	94
Survey	80	NA	NA	NA	92	NA	NA	86	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: 2017 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.

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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.
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Description:

2017: . WHO and UNICEF are aware of 2018 DHS survey and await the results. GoC=R+ D+

2016: Estimate of 91 percent assigned by working group. 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 based on coverage reported by national government. Official reported estimate is based on the results of the 2014 Demographic and Health Survey. GoC=R+ S+ D+

2013: Estimate based on coverage reported by national government 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 modfied 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 based on coverage reported by national government. Estimate challenged by: D-S-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2010: Reported coverage is confirmed or exceeded by survey. Expanded Program on Immunization Survey using the cluster survey methodology, Zambia, 2011 card or history results of 92 percent modfied for recall bias to 95 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 73 percent and 3rd dose card only coverage of 71 percent. Estimate challenged by: D-S-

2009: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2008: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2007: Reported data calibrated to 2006 and 2010 levels. Estimate challenged by: D-R-

2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 81 percent based on 1 survey(s). Zambia Demographic and Health Survey 2007 card or history results of 80 percent modfied for recall bias to 81 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 76 percent and 3rd dose card only coverage of 67 percent. Estimate challenged by: D-R-

Zambia - RotaC

ZMB - RotaC
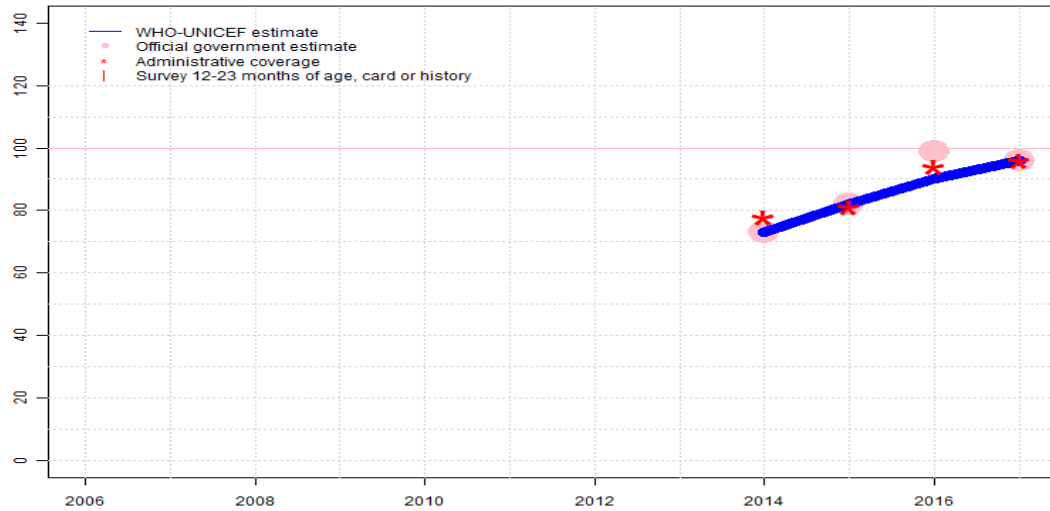
Legend:
- WHO-UNICEF estimate
- Official government estimate
- * Administrative coverage
- I Survey 12-23 months of age, card or history

Description:

2017: . WHO and UNICEF are aware of 2018 DHS survey and await the results. GoC=R+ D+

2016: Estimate of 90 percent assigned by working group. 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+ D+

2014: Estimate based on 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: D-

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	73	82	90	96
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	●	●●	●	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	73	82	99	96
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	78	81	94	96
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: 2017 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.

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ZMB - PcV3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey 12-23 months of age, card or history

Description:

2017: . WHO and UNICEF are aware of 2018 DHS survey and await the results. GoC=R+ D+

2016: Estimate of 90 percent assigned by working group. 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: R-

2015: Estimate based on reported data. Estimate challenged by: D-

2014: Estimate based on 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. GoC=R+ D+

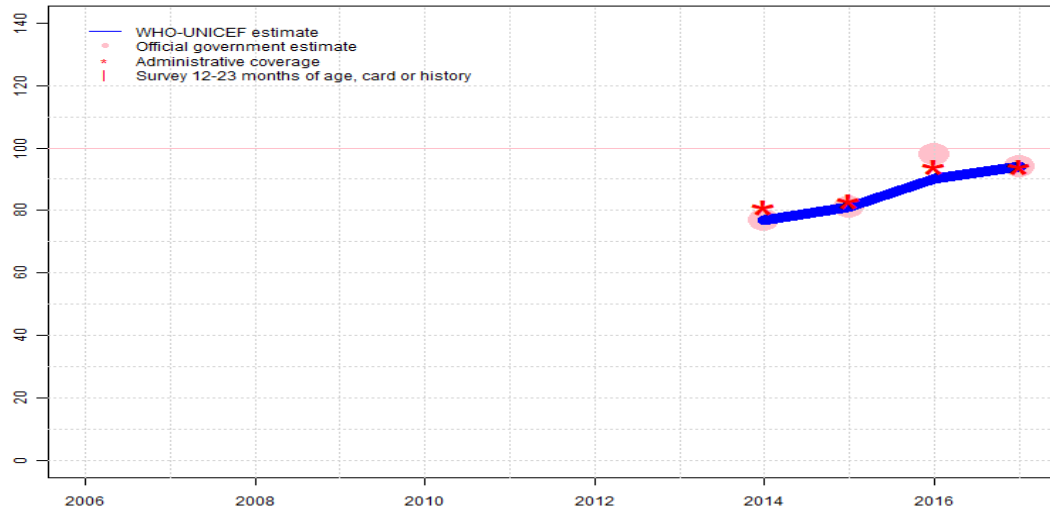|	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	77	81	90	94
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	••	•	•	••
Official	NA	NA	NA	NA	NA	NA	NA	NA	77	81	98	94
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	81	83	94	94
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: 2017 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.

Zambia - survey details

2013 Zambia Demographic and Health Survey, 2013-14

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	94.1	12-23 m	2575	80
BCG	Card	77.8	12-23 m	2069	80
BCG	Card or History	94.9	12-23 m	2575	80
BCG	History	17	12-23 m	506	80
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	12-23 m	506	80
DTP3	C or H <12 months	82.4	12-23 m	2575	80
DTP3	Card	71.5	12-23 m	2069	80
DTP3	Card or History	85.8	12-23 m	2575	80
DTP3	History	14.4	12-23 m	506	80
HepB1	C or H <12 months	94.8	12-23 m	2575	80
HepB1	Card	79.1	12-23 m	2069	80
HepB1	Card or History	95.9	12-23 m	2575	80
HepB1	History	16.9	12-23 m	506	80
HepB3	C or H <12 months	82.4	12-23 m	2575	80
HepB3	Card	71.5	12-23 m	2069	80
HepB3	Card or History	85.8	12-23 m	2575	80
HepB3	History	14.4	12-23 m	506	80
Hib1	C or H <12 months	94.8	12-23 m	2575	80
Hib1	Card	79.1	12-23 m	2069	80
Hib1	Card or History	95.9	12-23 m	2575	80
Hib1	History	16.9	12-23 m	506	80
Hib3	C or H <12 months	82.4	12-23 m	2575	80
Hib3	Card	71.5	12-23 m	2069	80
Hib3	Card or History	85.8	12-23 m	2575	80
Hib3	History	14.4	12-23 m	506	80
MCV1	C or H <12 months	72.5	12-23 m	2575	80
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
Pol1	Card	79.6	12-23 m	2069	80
Pol1	Card or History	96.3	12-23 m	2575	80
Pol1	History	16.7	12-23 m	506	80
Pol3	Card	69.3	12-23 m	2069	80
Pol3	Card or History	77.6	12-23 m	2575	80
Pol3	History	8.2	12-23 m	506	80

2012 Zambia Demographic and Health Survey, 2013-14

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	94.5	24-35 m	2507	80
DTP1	C or H <12 months	94.3	24-35 m	2507	80
DTP3	C or H <12 months	84.5	24-35 m	2507	80
HepB1	C or H <12 months	94.3	24-35 m	2507	80
HepB3	C or H <12 months	84.5	24-35 m	2507	80
Hib1	C or H <12 months	94.3	24-35 m	2507	80
Hib3	C or H <12 months	84.5	24-35 m	2507	80
MCV1	C or H <12 months	72.5	24-35 m	2507	80
Pol1	C or H <12 months	95.1	24-35 m	2507	80
Pol3	C or H <12 months	76.5	24-35 m	2507	80

2011 Zambia Demographic and Health Survey, 2013-14

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	91.5	36-47 m	2447	80
DTP1	C or H <12 months	91.8	36-47 m	2447	80
DTP3	C or H <12 months	80.5	36-47 m	2447	80
HepB1	C or H <12 months	91.8	36-47 m	2447	80
HepB3	C or H <12 months	80.5	36-47 m	2447	80
Hib1	C or H <12 months	91.8	36-47 m	2447	80
Hib3	C or H <12 months	80.5	36-47 m	2447	80
MCV1	C or H <12 months	73.8	36-47 m	2447	80
Pol1	C or H <12 months	91.8	36-47 m	2447	80
Pol3	C or H <12 months	71.8	36-47 m	2447	80

2010 Expanded Program on Immunization Survey using the cluster survey methodology, Zambia, 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	73.4	12-23 m	1890	77
BCG	Card or History	98.3	12-23 m	1890	77

Zambia - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
DTP1	Card	72.7	12-23 m	1890	77
DTP1	Card or History	98.2	12-23 m	1890	77
DTP3	Card	70.8	12-23 m	1890	77
DTP3	Card or History	92.5	12-23 m	1890	77
HepB1	Card	72.7	12-23 m	1890	77
HepB1	Card or History	98.2	12-23 m	1890	77
HepB3	Card	70.8	12-23 m	1890	77
HepB3	Card or History	92.5	12-23 m	1890	77
Hib1	Card	72.7	12-23 m	1890	77
Hib1	Card or History	98.2	12-23 m	1890	77
Hib3	Card	70.8	12-23 m	1890	77
Hib3	Card or History	92.5	12-23 m	1890	77
MCV1	Card	67.3	12-23 m	1890	77
MCV1	Card or History	90.3	12-23 m	1890	77
Pol1	Card	73.1	12-23 m	1890	77
Pol1	Card or History	97.9	12-23 m	1890	77
Pol3	Card	69.8	12-23 m	1890	77
Pol3	Card or History	90.2	12-23 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 m	2627	80
DTP1	C or H <12 months	93	48-59 m	2627	80
DTP3	C or H <12 months	81.3	48-59 m	2627	80
HepB1	C or H <12 months	93	48-59 m	2627	80
HepB3	C or H <12 months	81.3	48-59 m	2627	80
Hib1	C or H <12 months	93	48-59 m	2627	80
Hib3	C or H <12 months	81.3	48-59 m	2627	80
MCV1	C or H <12 months	69.5	48-59 m	2627	80
Pol1	C or H <12 months	93.7	48-59 m	2627	80
Pol3	C or H <12 months	70.1	48-59 m	2627	80

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

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
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
HepB1	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
HepB3	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 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	12-23 m	1272	78
Hib3	Card or History	79.7	12-23 m	1272	78
Hib3	History	12.8	12-23 m	1272	78
MCV1	C or H <12 months	68.8	12-23 m	1272	78
MCV1	Card	69.8	12-23 m	1272	78
MCV1	Card or History	84.9	12-23 m	1272	78
MCV1	History	15.1	12-23 m	1272	78
Pol1	C or H <12 months	92.3	12-23 m	1272	78
Pol1	Card	77	12-23 m	1272	78
Pol1	Card or History	93.5	12-23 m	1272	78
Pol1	History	16.5	12-23 m	1272	78
Pol3	C or H <12 months	74.2	12-23 m	1272	78
Pol3	Card	67.9	12-23 m	1272	78
Pol3	Card or History	77	12-23 m	1272	78
Pol3	History	9.2	12-23 m	1272	78

Zambia - survey details

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	12-23 m	1299	80
BCG	Card	78	12-23 m	1299	80
BCG	Card or History	94	12-23 m	1299	80
BCG	History	16	12-23 m	1299	80
DTP1	C or H <12 months	91.9	12-23 m	1299	80
DTP1	Card	78.3	12-23 m	1299	80
DTP1	Card or History	94.1	12-23 m	1299	80
DTP1	History	15.8	12-23 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	12-23 m	1299	80
DTP3	History	9.2	12-23 m	1299	80
MCV1	C or H <12 months	70.2	12-23 m	1299	80
MCV1	Card	70.5	12-23 m	1299	80
MCV1	Card or History	84.4	12-23 m	1299	80
MCV1	History	13.9	12-23 m	1299	80
Pol1	C or H <12 months	93.6	12-23 m	1299	80
Pol1	Card	78.7	12-23 m	1299	80
Pol1	Card or History	95.6	12-23 m	1299	80
Pol1	History	16.8	12-23 m	1299	80
Pol3	C or H <12 months	73.4	12-23 m	1299	80
Pol3	Card	71.1	12-23 m	1299	80
Pol3	Card or History	80.2	12-23 m	1299	80
Pol3	History	9.1	12-23 m	1299	80

2000 Zambia EPI Cluster Survey Report 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	92	12-23 m	221	83
DTP1	Card or History	93	12-23 m	221	83
DTP3	Card or History	77.8	12-23 m	221	83
MCV1	Card	85	12-23 m	221	83
Pol1	Card or History	92	12-23 m	221	83
Pol3	Card or History	79	12-23 m	221	83

1998 Zambia 1999 Multiple Indicator Cluster Suvey

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

Further information and estimates for previous years are available at:
http://www.data.unicef.org/child-health/immunization
http://www.who.int/immunization/monitoring_surveillance/routine/coverage/en/index4.html