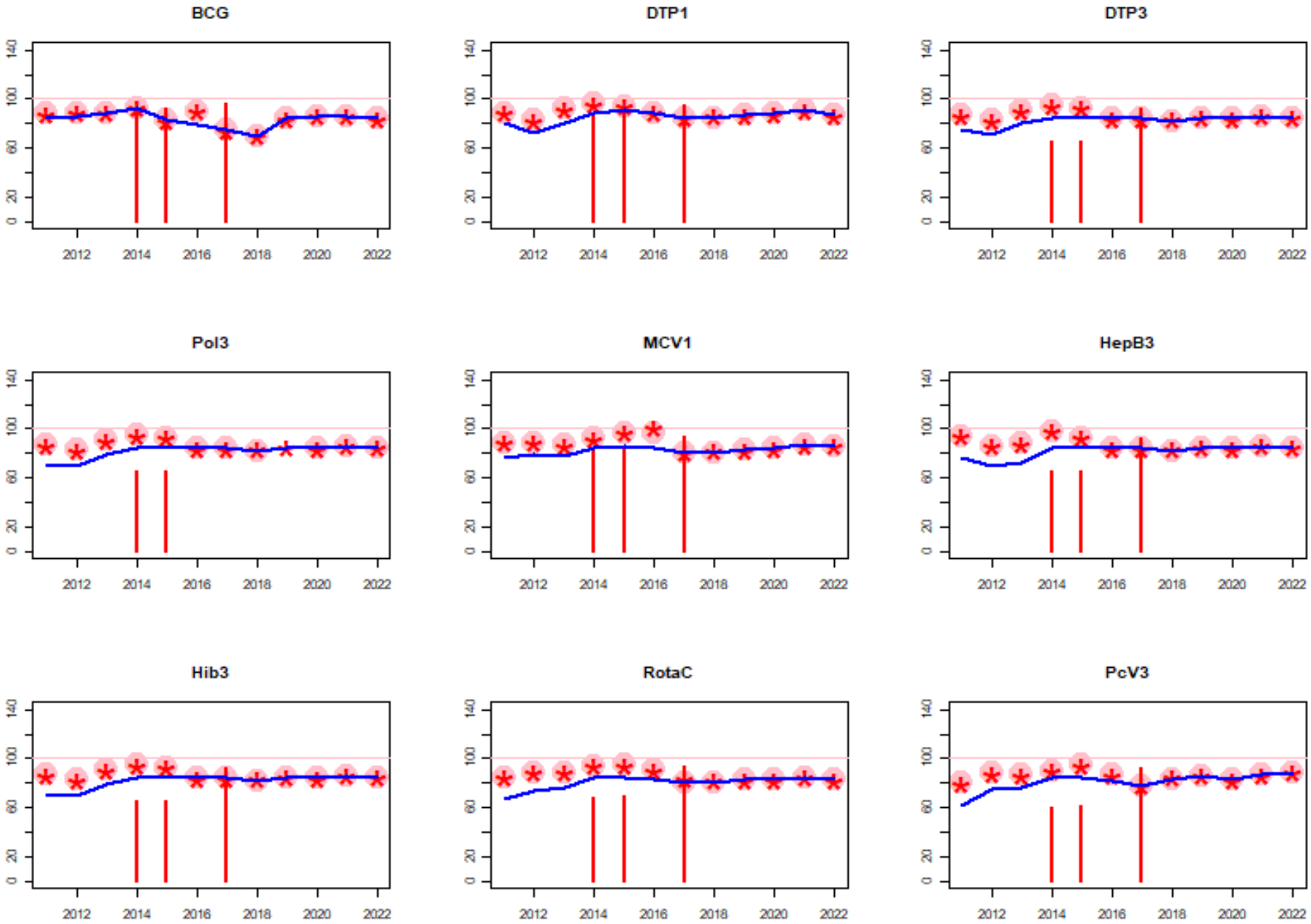

BCG
DTP1
DTP3
Pol3
MCV1
HepB3
Hib3
RotaC
PcV3
0
20
60
100
140
2012
2014
2016
2018
2020
2022

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.

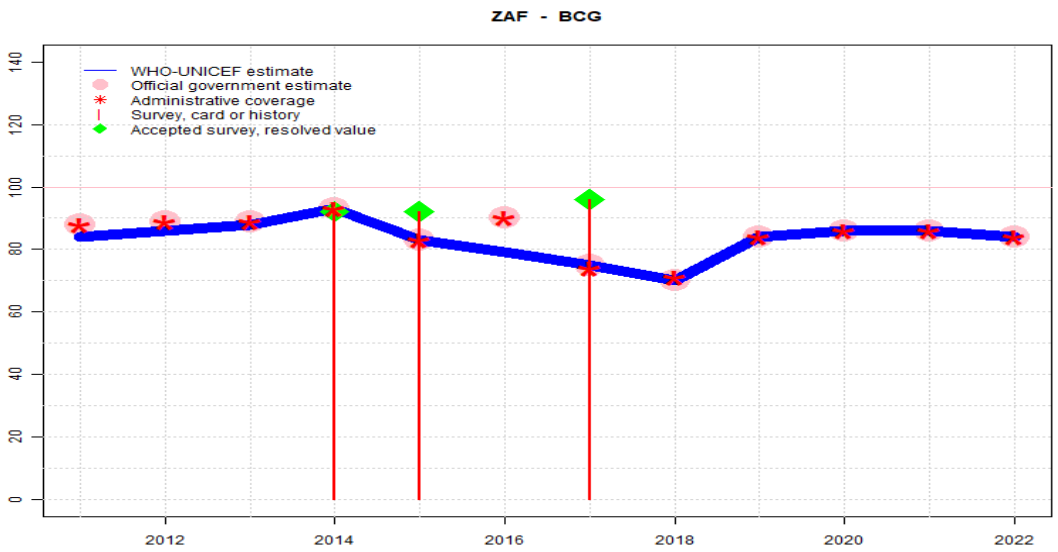
Hib3: percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.

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.

South Africa - BCG



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	84	86	88	93	83	79	75	70	84	86	86	84
Estimate GoC	•	•	•	•	•	•	•	•	•	••	••	••
Official	88	89	89	93	83	90	75	70	84	86	86	84
Administrative	88	89	89	93	83	90	74	71	84	86	86	84
Survey	NA	NA	NA	92	92	NA	96	NA	NA	NA	NA	NA

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

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. Reported data suggests increase in doses administered, in spite of one month national vaccine stockout, and recovery from prior year supply disruption. Estimate challenged by: S-

2018: Estimate informed by reported data. Programme reports three months vaccine stockout at national level. Estimate challenged by: S-

2017: Estimate based on reported coverage for consistency with other vaccine-doses. Reported denominator increased 16 percent between 2016 and 2017. Decline in reported coverage unexplained. Estimate follows trend in reported data consistent with other antigens. Estimate challenged by: S-

2016: Estimate informed by interpolation between reported data. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. . Estimate challenged by: S-

2015: Estimate informed by reported data supported by survey. Survey evidence of 92 percent based on 1 survey(s). Programme reports three months national level stockout. Estimate challenged by: D-S-

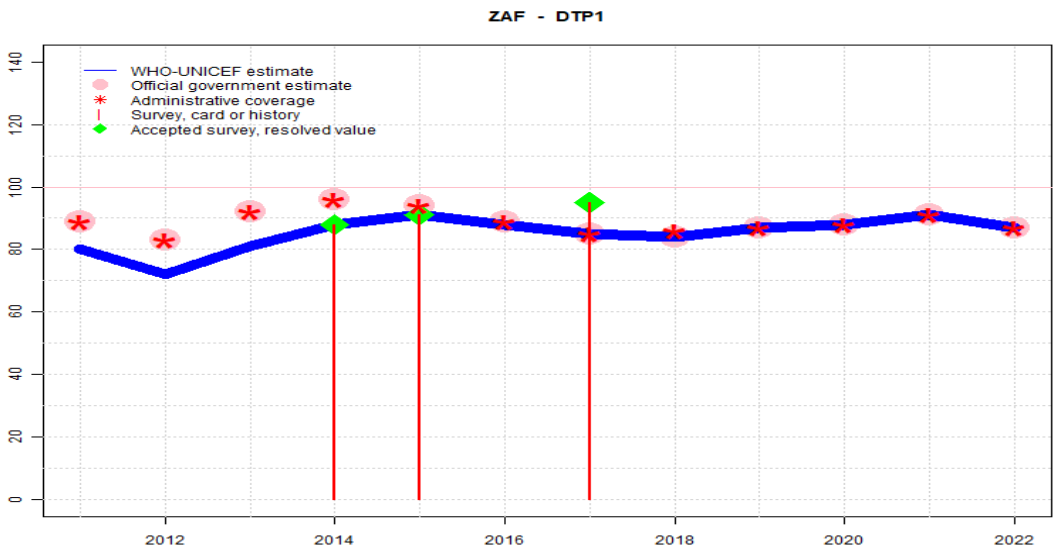
2014: Estimate informed by reported data supported by survey. Survey evidence of 92 percent based on 1 survey(s). Unexplained decline in reported target population for 2014 compared to 2013 following substantial increase in target population between 2012 and 2013. WHO and UNICEF encourage a revision of the reported coverage time series using updated population estimates following the release of the recent census. Estimate challenged by: D-

2013: Reported data calibrated to 2003 and 2014 levels. Decreases in coverage may reflect use of revised target population estimates. Estimate challenged by: R-

2012: Reported data calibrated to 2003 and 2014 levels. Estimate challenged by: R-

2011: Reported data calibrated to 2003 and 2014 levels. Estimate challenged by: R-

South Africa - DTP1



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	80	72	81	88	91	88	85	84	87	88	91	87
Estimate GoC	•	•	•	•	•	•	•••	•	•••	••	••	••
Official	89	83	92	96	94	89	85	84	87	88	91	87
Administrative	89	83	92	96	94	89	85	86	87	88	91	87
Survey	NA	NA	NA	88	91	NA	95	NA	NA	NA	NA	NA

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

••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

•• Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. Programme reports vaccine stockout of unspecified duration at subnational levels. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. GoC=R+ S+ D+

2018: Estimate informed by reported data. Estimate challenged by: S-

2017: Estimate informed by reported data supported by survey. Survey evidence of 95 percent based on 1 survey(s). Reported denominator increased 16 percent between 2016 and 2017. GoC=R+ S+ D+

2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. Programme reports one month vaccine stockout at national and district levels. Estimate challenged by: D-R-

2015: Estimate of 91 percent assigned by working group. Estimate based on survey results. Estimate challenged by: R-

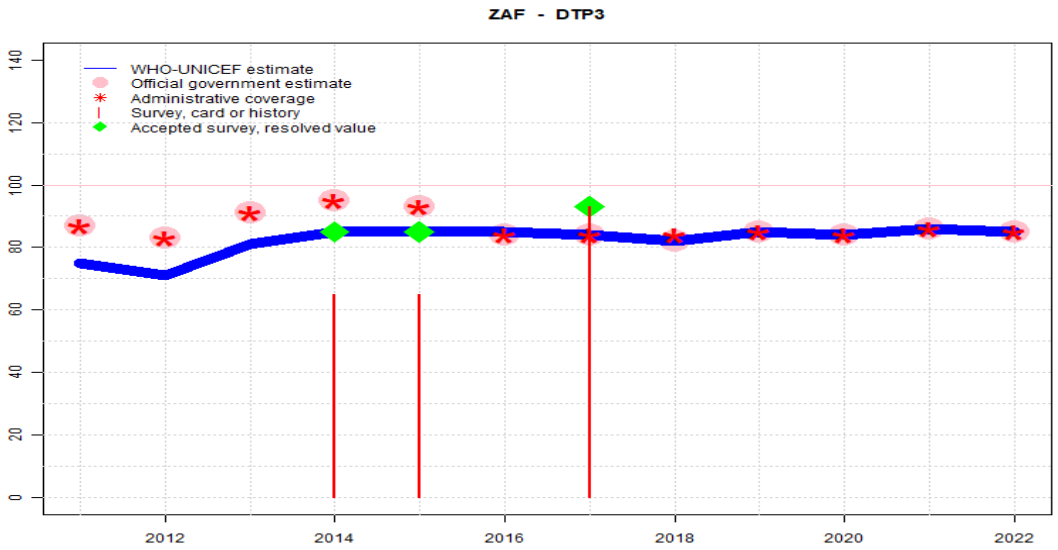
2014: Estimate of 88 percent assigned by working group. Estimate based on survey results. Unexplained decline in reported target population for 2014 compared to 2013 following substantial increase in target population between 2012 and 2013. WHO and UNICEF encourage a revision of the reported coverage time series using updated population estimates following the release of the recent census. Estimate challenged by: R-

2013: Estimate of 81 percent assigned by working group. Estimate is based on the year to year change in the reported data from 2012 to 2013. Decreases in coverage may reflect use of revised target population estimates. Estimate challenged by: R-

2012: Reported data calibrated to 2005 and 2013 levels. Estimate challenged by: R-S-

2011: Reported data calibrated to 2005 and 2013 levels. Estimate challenged by: R-

South Africa - DTP3



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	75	71	81	85	85	85	84	82	85	84	86	85
Estimate GoC	•	•	•	•	•	•	•••	•	•••	••	••	••
Official	87	83	91	95	93	84	84	82	85	84	86	85
Administrative	87	83	91	95	93	84	84	84	85	84	86	85
Survey	NA	NA	NA	65	65	NA	93	NA	NA	NA	NA	NA

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

••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

•• Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. Programme reports vaccine stockout of unspecified duration at subnational levels. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. GoC=R+ S+ D+

2018: Estimate informed by reported data. Estimate challenged by: S-

2017: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Reported denominator increased 16 percent between 2016 and 2017. GoC=R+ S+ D+

2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. Programme reports one month vaccine stockout at national and district levels. Estimate challenged by: D-R-

2015: Estimate of 85 percent assigned by working group. Estimate based on survey results. South Africa Demographic and Health Survey (SADHS) 2016 card or history results of 65 percent modifed for recall bias to 85 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 66 percent and 3rd dose card only coverage of 62 percent. Estimate challenged by: R-

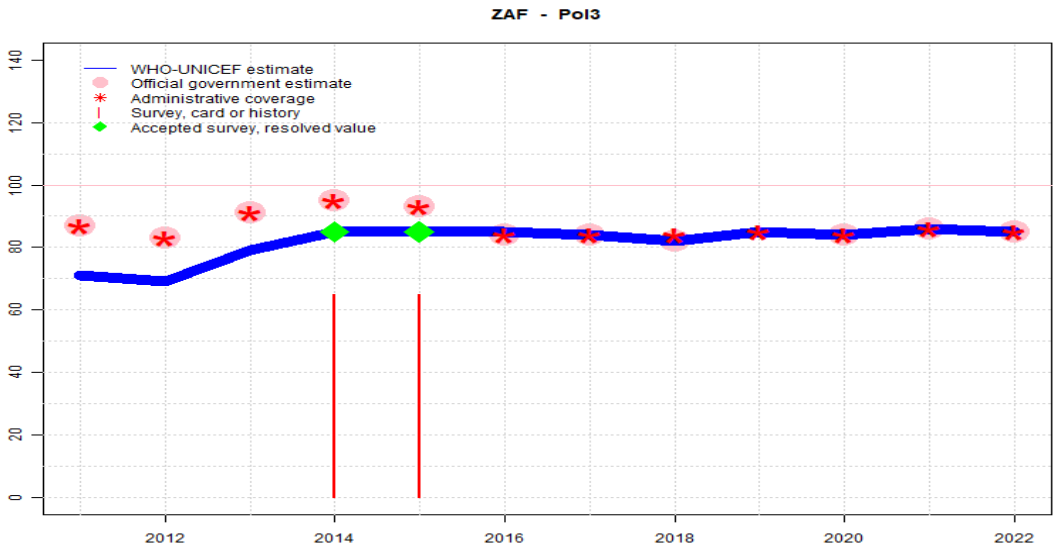
2014: Estimate of 85 percent assigned by working group. Estimate based on survey results. South Africa Demographic and Health Survey (SADHS) 2016 card or history results of 65 percent modifed for recall bias to 85 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 61 percent and 3rd dose card only coverage of 59 percent. Unexplained decline in reported target population for 2014 compared to 2013 following substantial increase in target population between 2012 and 2013. WHO and UNICEF encourage a revision of the reported coverage time series using updated population estimates following the release of the recent census. Estimate challenged by: R-

2013: Reported data calibrated to 2003 and 2014 levels. Decreases in coverage may reflect use of revised target population estimates. Estimate challenged by: R-

2012: Reported data calibrated to 2003 and 2014 levels. Estimate challenged by: R-S-

2011: Reported data calibrated to 2003 and 2014 levels. Estimate challenged by: R-

South Africa - Pol3



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	71	69	79	85	85	85	84	82	85	84	86	85
Estimate GoC	•	•	•	•	•	•	•••	••	••	••	••	••
Official	87	83	91	95	93	84	84	82	NA	84	86	85
Administrative	87	83	91	95	93	84	84	84	85	84	86	85
Survey	NA	NA	NA	65	65	NA	NA	NA	NA	NA	NA	NA

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

••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

•• Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. Programme reports one month vaccine stockout at national and subnational levels. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. Programme reports one month vaccine stockout at national and subnational levels. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported administrative data. Programme reports one month OPV stockout at national level. GoC=R+ D+

2018: Estimate informed by reported data. GoC=R+ D+

2017: Estimate based on reported coverage for consistency with other vaccine-doses. Reported denominator increased 16 percent between 2016 and 2017. GoC=R+ S+ D+

2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. . Estimate challenged by: D-R-

2015: Estimate of 85 percent assigned by working group. Estimate based on survey results adjusted for recall bias. South Africa Demographic and Health Survey (SADHS) 2016 card or history results of 65 percent modifed for recall bias to 85 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 66 percent and 3rd dose card only coverage of 62 percent. Estimate challenged by: R-

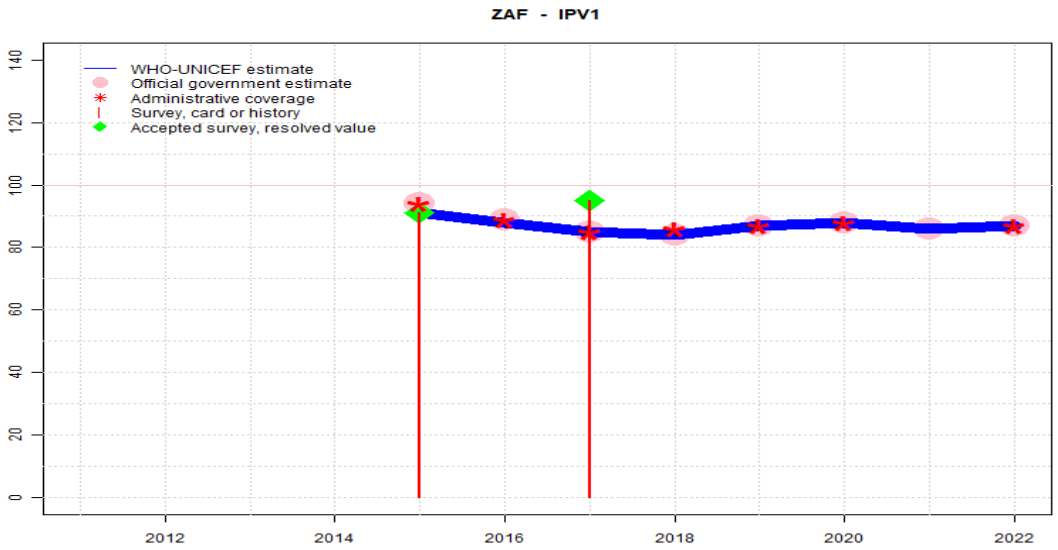
2014: Estimate of 85 percent assigned by working group. Estimate based on survey results adjusted for recall bias. South Africa Demographic and Health Survey (SADHS) 2016 card or history results of 65 percent modifed for recall bias to 85 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 61 percent and 3rd dose card only coverage of 59 percent. Unexplained decline in reported target population for 2014 compared to 2013 following substantial increase in target population between 2012 and 2013. WHO and UNICEF encourage a revision of the reported coverage time series using updated population estimates following the release of the recent census. Estimate challenged by: R-

2013: Reported data calibrated to 2010 and 2014 levels. Decreases in coverage may reflect use of revised target population estimates. Estimate challenged by: R-

2012: Reported data calibrated to 2010 and 2014 levels. Estimate challenged by: R-S-

2011: Reported data calibrated to 2010 and 2014 levels. Estimate challenged by: D-R-

South Africa - IPV1



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	91	88	85	84	87	88	86	87
Estimate GoC	NA	NA	NA	NA	•	•	•••	•	•••	••	••	••
Official	NA	NA	NA	NA	94	89	85	84	87	88	86	87
Administrative	NA	NA	NA	NA	94	89	85	86	87	88	NA	87
Survey	NA	NA	NA	NA	91	NA	95	NA	NA	NA	NA	NA

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

••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

•• Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

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

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. GoC=R+ S+ D+

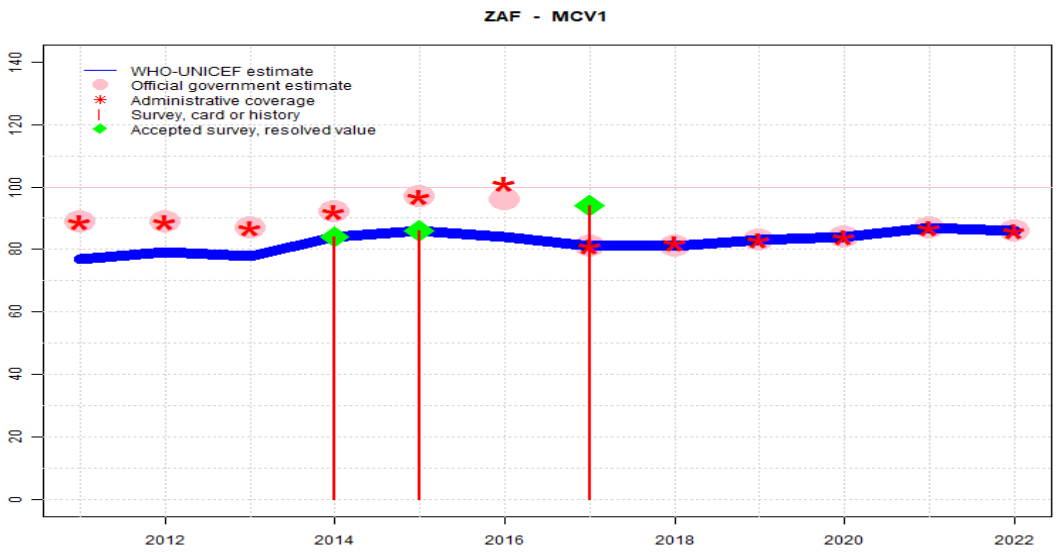
2018: Estimate informed by reported data. Estimate challenged by: S-

2017: Estimate informed by reported data supported by survey. Survey evidence of 95 percent based on 1 survey(s). Reported denominator increased 16 percent between 2016 and 2017. GoC=R+ S+ D+

2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. Programme reports one month national and district stockout. Estimate challenged by: D-R-

2015: Estimate of 91 percent assigned by working group. Estimate based on survey results. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

South Africa - MCV1



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	77	79	78	84	86	84	81	81	83	84	87	86
Estimate GoC	•	•	•	•	•	•	•	•	•	••	••	••
Official	89	89	87	92	97	96	81	81	83	84	87	86
Administrative	89	89	87	92	97	101	81	82	83	84	87	86
Survey	NA	NA	NA	84	86	NA	94	NA	NA	NA	NA	NA

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

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. Reported coverage reflects doses administered at 6 months of age. Estimate challenged by: S-

2018: Estimate informed by reported data. Reported coverage reflects doses administered at 6 months of age. Estimate challenged by: S-

2017: Estimate based on reported coverage for consistency with other vaccine-doses. Reported denominator increased 16 percent between 2016 and 2017. Reported coverage reflects doses administered at 6 months of age. Decline in reported coverage is unexplained. Estimate follows trend in reported data consistent with other antigens. Estimate challenged by: S-

2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. Recommended age of vaccination for measles changed for first dose from nine months to 6 months. Estimate challenged by: R-

2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 86 percent based on 1 survey(s). Estimate challenged by: R-

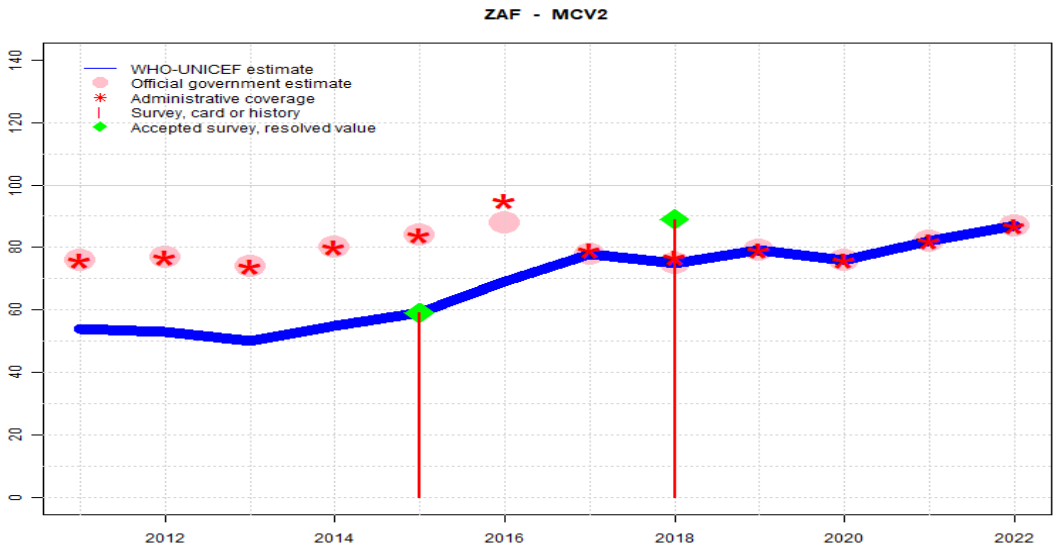
2014: Estimate of 84 percent assigned by working group. Estimate based on survey results. Unexplained decline in reported target population for 2014 compared to 2013 following substantial increase in target population between 2012 and 2013. WHO and UNICEF encourage a revision of the reported coverage time series using updated population estimates following the release of the recent census. Estimate challenged by: R-

2013: Reported data calibrated to 2003 and 2014 levels. Decreases in coverage may reflect use of revised target population estimates. Decline in reported coverage may be due to two months of stockouts. Estimate challenged by: R-

2012: Reported data calibrated to 2003 and 2014 levels. Estimate challenged by: R-

2011: Reported data calibrated to 2003 and 2014 levels. Estimate challenged by: R-

South Africa - MCV2



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	54	53	50	55	59	69	78	75	79	76	82	87
Estimate GoC	•	•	•	•	•	•	•	•	•••	•	••	••
Official	76	77	74	80	84	88	78	75	79	76	82	87
Administrative	76	77	74	80	84	95	79	77	79	76	82	87
Survey	NA	NA	NA	NA	59	NA	NA	89	NA	NA	NA	NA

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

••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

•• Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

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

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2020: Estimate informed by reported data. Estimate challenged by: S-

2019: Estimate informed by reported data. GoC=R+ S+ D+

2018: Estimate based on reported coverage for consistency with other vaccine-doses. Estimate challenged by: S-

2017: Estimate based on reported coverage for consistency with other vaccine-doses. Reported denominator increased 16 percent between 2016 and 2017. Estimate challenged by: S-

2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. Recommended age of vaccination for measles changed for second dose from 18 months to 12 months. Estimate challenged by: D-R-S-

2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 59 percent based on 1 survey(s). Estimate challenged by: D-R-

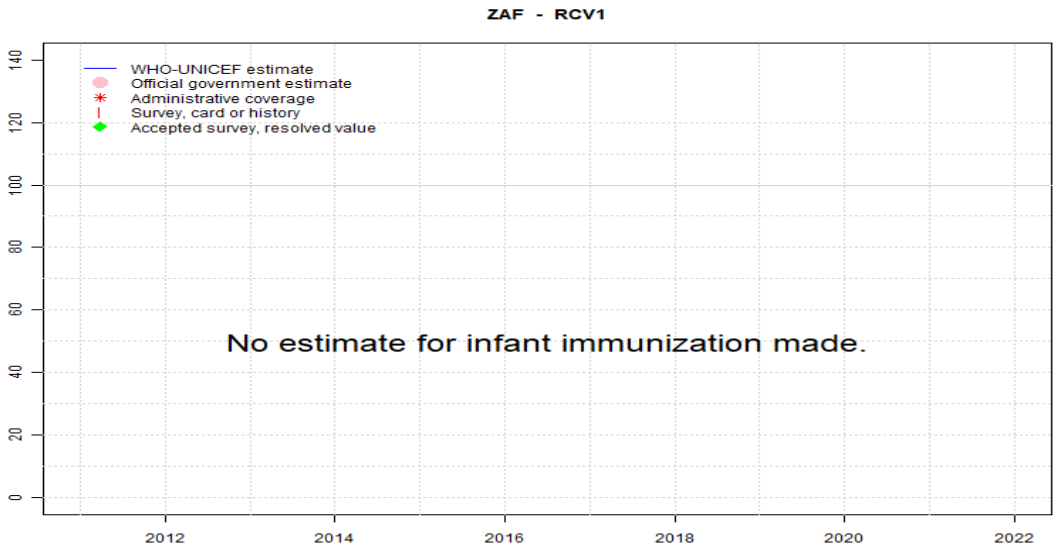
2014: Reported data calibrated to 2003 and 2015 levels. Unexplained decline in reported target population for 2014 compared to 2013 following substantial increase in target population between 2012 and 2013. WHO and UNICEF encourage a revision of the reported coverage time series using updated population estimates following the release of the recent census. Estimate challenged by: D-R-

2013: Reported data calibrated to 2003 and 2015 levels. Decreases in coverage may reflect use of revised target population estimates. Decline in reported coverage may be due to two months of stockouts. Estimate challenged by: D-R-

2012: Reported data calibrated to 2003 and 2015 levels. Estimate challenged by: D-R-

2011: Reported data calibrated to 2003 and 2015 levels. Estimate challenged by: D-R-

South Africa - RCV1



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

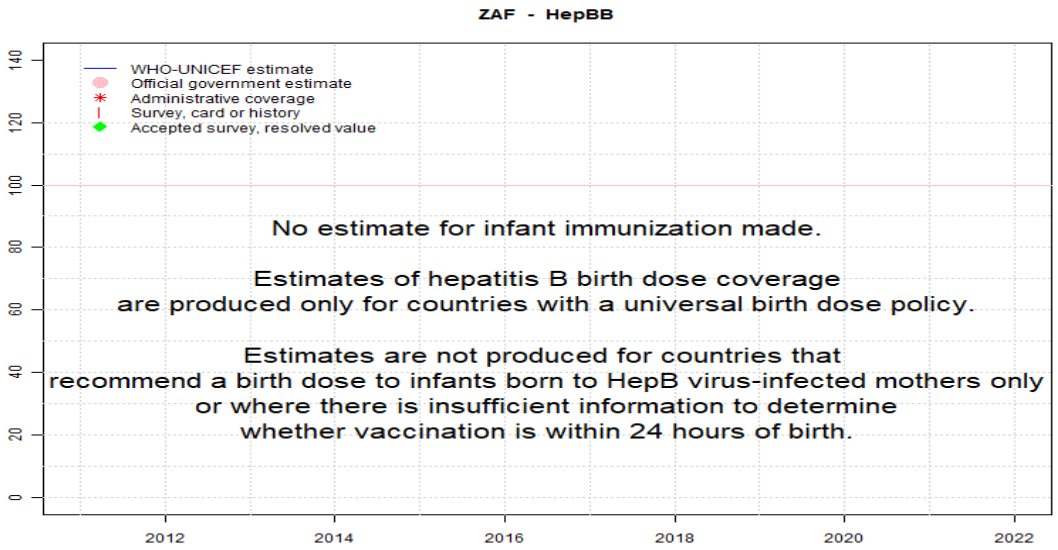
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

South Africa - HepBB



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

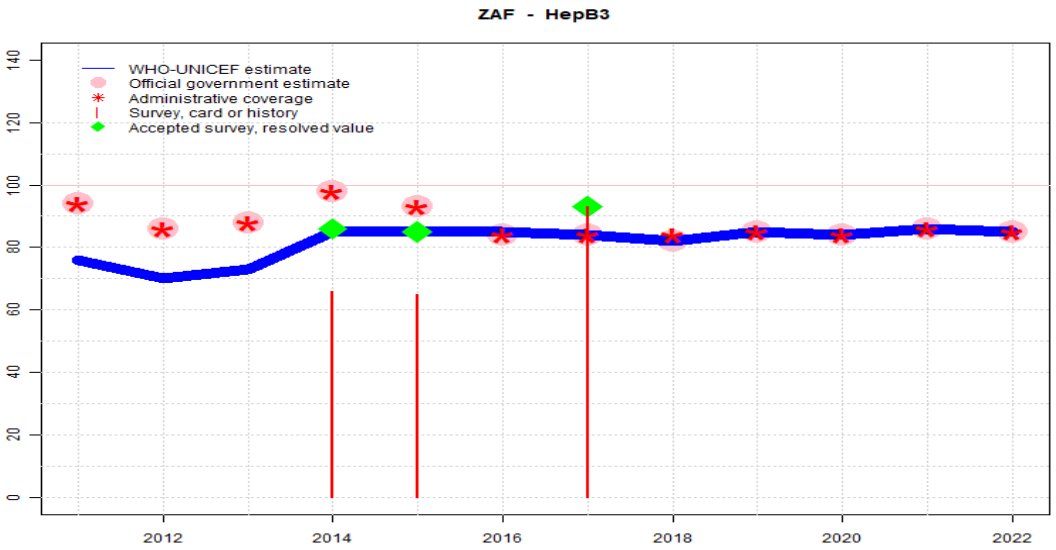
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

South Africa - HepB3



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	76	70	73	85	85	85	84	82	85	84	86	85
Estimate GoC	•	•	•	•	•	•	•••	•	•••	••	••	••
Official	94	86	88	98	93	84	84	82	85	84	86	85
Administrative	94	86	88	98	93	84	84	84	85	84	86	85
Survey	NA	NA	NA	66	65	NA	93	NA	NA	NA	NA	NA

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

••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

•• Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. Programme reports vaccine stockout of unspecified duration at subnational levels. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. GoC=R+ S+ D+

2018: Estimate informed by reported data. Estimate challenged by: S-

2017: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Reported denominator increased 16 percent between 2016 and 2017. GoC=R+ S+ D+

2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. Programme reports one month vaccine stockout at national and district levels. Estimate challenged by: D-R-

2015: Estimate of 85 percent assigned by working group. Estimate based on survey results adjusted for recall bias. South Africa Demographic and Health Survey (SADHS) 2016 card or history results of 65 percent modifed for recall bias to 85 percent based on 1st dose card or history coverage of 90 percent, 1st dose card only coverage of 66 percent and 3rd dose card only coverage of 62 percent. Estimate challenged by: R-

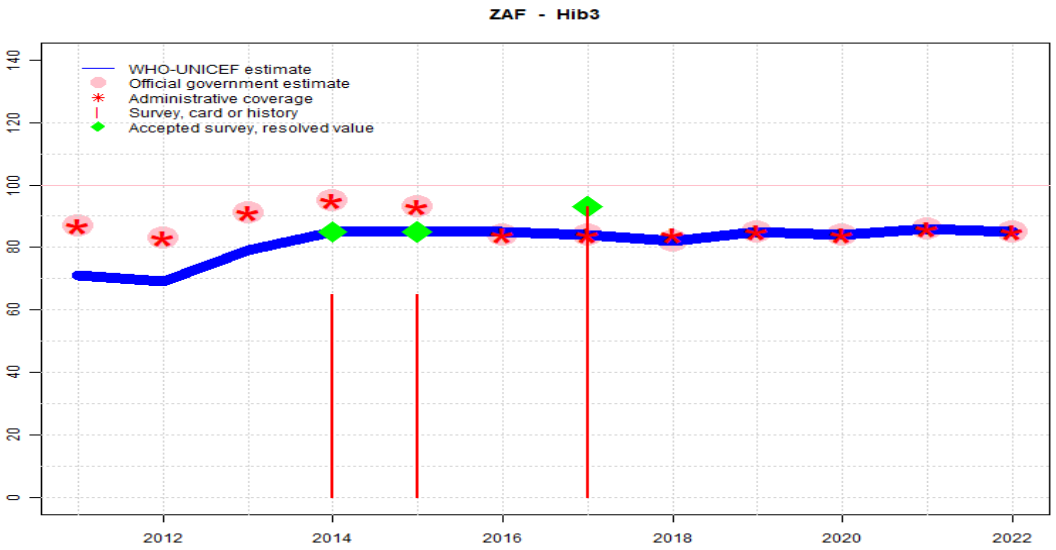
2014: Estimate of 85 percent assigned by working group. Estimate based on survey results adjusted for recall bias. South Africa Demographic and Health Survey (SADHS) 2016 card or history results of 66 percent modifed for recall bias to 86 percent based on 1st dose card or history coverage of 87 percent, 1st dose card only coverage of 61 percent and 3rd dose card only coverage of 60 percent. Unexplained decline in reported target population for 2014 compared to 2013 following substantial increase in target population between 2012 and 2013. WHO and UNICEF encourage a revision of the reported coverage time series using updated population estimates following the release of the recent census. Estimate challenged by: R-

2013: Reported data calibrated to 2011 and 2014 levels. Decreases in coverage may reflect use of revised target population estimates. Estimate challenged by: R-S-

2012: Reported data calibrated to 2011 and 2014 levels. Estimate challenged by: D-R-S-

2011: Estimate of 76 percent assigned by working group. Estimate is based on reported data adjusted by the difference between estimated and reported DTP3 coverage levels. Estimate challenged by: D-R-

South Africa - Hib3



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	71	69	79	85	85	85	84	82	85	84	86	85
Estimate GoC	•	•	•	•	•	•	•••	•	•••	••	••	••
Official	87	83	91	95	93	84	84	82	85	84	86	85
Administrative	87	83	91	95	93	84	84	84	85	84	86	85
Survey	NA	NA	NA	65	65	NA	93	NA	NA	NA	NA	NA

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

••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

•• Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. Programme reports vaccine stockout of unspecified duration at subnational levels. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. GoC=R+ S+ D+

2018: Estimate informed by reported data. Estimate challenged by: S-

2017: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Reported denominator increased 16 percent between 2016 and 2017. GoC=R+ S+ D+

2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. Programme reports one month vaccine stockout at national and district levels. Estimate challenged by: D-R-

2015: Estimate of 85 percent assigned by working group. Estimate based on survey results adjusted for recall bias. South Africa Demographic and Health Survey (SADHS) 2016 card or history results of 65 percent modifed for recall bias to 85 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 66 percent and 3rd dose card only coverage of 62 percent. Estimate challenged by: R-

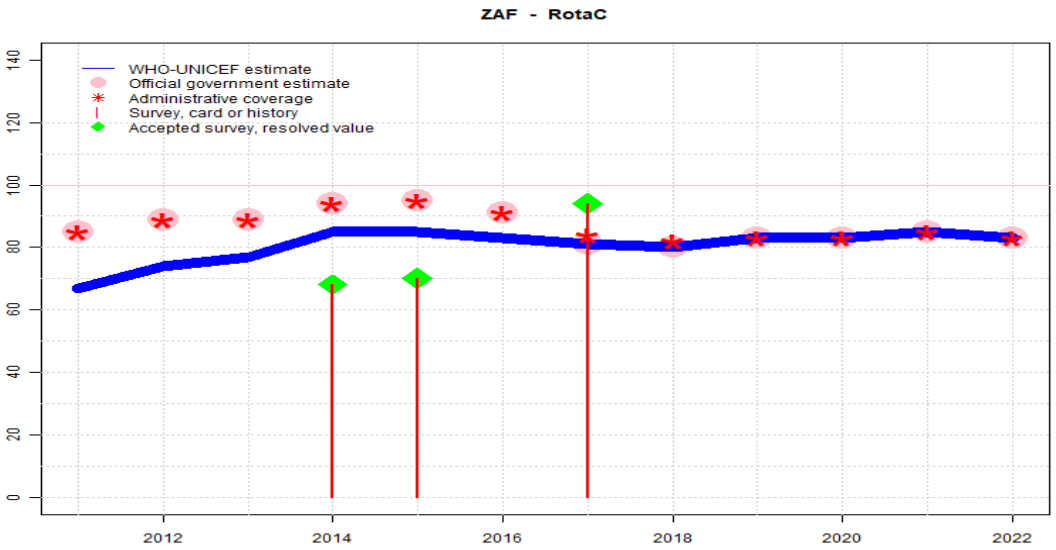
2014: Estimate of 85 percent assigned by working group. Estimate based on survey results adjusted for recall bias. South Africa Demographic and Health Survey (SADHS) 2016 card or history results of 65 percent modifed for recall bias to 85 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 61 percent and 3rd dose card only coverage of 59 percent. Unexplained decline in reported target population for 2014 compared to 2013 following substantial increase in target population between 2012 and 2013. WHO and UNICEF encourage a revision of the reported coverage time series using updated population estimates following the release of the recent census. Estimate challenged by: R-

2013: Reported data calibrated to 2010 and 2014 levels. Decreases in coverage may reflect use of revised target population estimates. Estimate challenged by: R-

2012: Reported data calibrated to 2010 and 2014 levels. Estimate challenged by: R-S-

2011: Reported data calibrated to 2010 and 2014 levels. Estimate challenged by: D-R-

South Africa - RotaC



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	67	74	77	85	85	83	81	80	83	83	85	83
Estimate GoC	•	•	•	•	•	•	•	•	•	••	••	••
Official	85	89	89	94	95	91	81	80	83	83	85	83
Administrative	85	89	89	94	95	91	84	82	83	83	85	83
Survey	NA	NA	NA	68	70	NA	94	NA	NA	NA	NA	NA

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

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. Programme reports vaccine stockout of unspecified duration at subnational levels. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. Estimate challenged by: S-

2018: Estimate informed by reported data. Estimate challenged by: S-

2017: Estimate based on reported coverage for consistency with other vaccine-doses. Reported denominator increased 16 percent between 2016 and 2017. Estimate challenged by: S-

2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. . Estimate challenged by: R-S-

2015: Estimate of 85 percent assigned by working group. Estimate based on survey results for DTP3 adjusted for recall bias. Estimate challenged by: R-S-

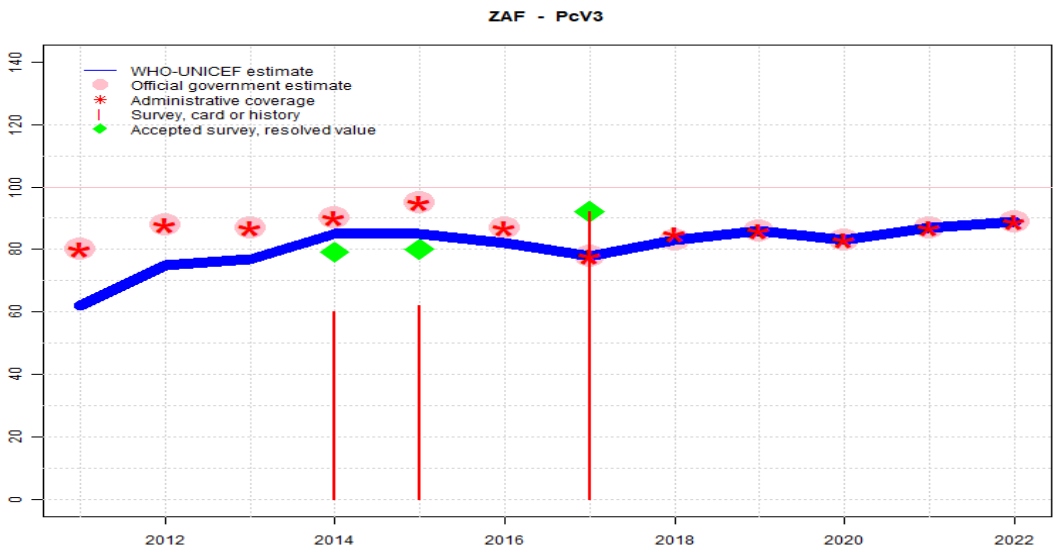
2014: Estimate of 85 percent assigned by working group. Estimate based on survey results for DTP3 adjusted for recall bias. Unexplained decline in reported target population for 2014 compared to 2013 following substantial increase in target population between 2012 and 2013. WHO and UNICEF encourage a revision of the reported coverage time series using updated population estimates following the release of the recent census. Estimate challenged by: R-S-

2013: Reported data calibrated to 2011 and 2014 levels. Decreases in coverage may reflect use of revised target population estimates. Estimate challenged by: R-

2012: Reported data calibrated to 2011 and 2014 levels. Estimate challenged by: D-R-

2011: Estimate of 67 percent assigned by working group. Estimate is based on reported data adjusted by the difference between estimated and reported DTP3 coverage levels. Estimate challenged by: D-R-

South Africa - PcV3



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	62	75	77	85	85	82	78	83	86	83	87	89
Estimate GoC	•	•	•	•	•	•	•	•••	•••	••	••	••
Official	80	88	87	90	95	87	78	83	86	83	87	89
Administrative	80	88	87	90	95	87	78	85	86	83	87	89
Survey	NA	NA	NA	60	62	NA	92	NA	NA	NA	NA	NA

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

••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

•• Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

2022: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. Programme reports vaccine stockout of unspecified duration at subnational levels. GoC=R+ D+

2021: Estimate informed by reported data. Estimated coverage levels may not fully account for the contribution of the private sector, as data on administered doses in the private sector are only partially collected in all provinces. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ 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 coverage for consistency with other vaccine-doses. Reported denominator increased 16 percent between 2016 and 2017. Estimate challenged by: S-

2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Data reported for 2016 inconsistent with previous and subsequent years. . Estimate challenged by: R-

2015: Estimate of 85 percent assigned by working group. Estimate based on survey results for DTP3 adjusted for recall bias. South Africa Demographic and Health Survey (SADHS) 2016 card or history results of 62 percent modifed for recall bias to 80 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 66 percent and 3rd dose card only coverage of 59 percent. Estimate challenged by: R-

2014: Estimate of 85 percent assigned by working group. Estimate based on survey results for DTP3 adjusted for recall bias. South Africa Demographic and Health Survey (SADHS) 2016 card or history results of 60 percent modifed for recall bias to 79 percent based on 1st dose card or history coverage of 86 percent, 1st dose card only coverage of 60 percent and 3rd dose card only coverage of 55 percent. Unexplained decline in reported target population for 2014 compared to 2013 following substantial increase in target population between 2012 and 2013. WHO and UNICEF encourage a revision of the reported coverage time series using updated population estimates following the release of the recent census. Estimate challenged by: R-

2013: Reported data calibrated to 2011 and 2014 levels. Decreases in coverage may reflect use of revised target population estimates. Estimate challenged by: R-

2012: Reported data calibrated to 2011 and 2014 levels. Estimate challenged by: R-

2011: Estimate of 62 percent assigned by working group. Estimate is based on reported data adjusted by the difference between estimated and reported DTP3 coverage levels. Estimate challenged by: D-R-

South Africa - survey details

NOTE: A survey to measure vaccination coverage for infants (i.e., children aged 0 to 11 months) will sample children aged 12 to 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 to 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 Republic of South Africa Expanded Programme on Immunisation (EPI) National Coverage Survey Report 2020

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV2	Card	72.6	24-35 m	20867	83
MCV2	Card or History	88.7	24-35 m	20867	83
MCV2	History	16.7	24-35 m	20867	83

2017 Republic of South Africa Expanded Programme on Immunisation (EPI) National Coverage Survey Report 2020

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	79.1	24-35 m	20867	83
BCG	Card or History	96.1	24-35 m	20867	83
BCG	History	17.5	24-35 m	20867	83
DTP1	Card	78.6	24-35 m	20867	83
DTP1	Card or History	95.3	24-35 m	20867	83
DTP1	History	17.2	24-35 m	20867	83
DTP3	Card	76.7	24-35 m	20867	83
DTP3	Card or History	93.2	24-35 m	20867	83
DTP3	History	17.1	24-35 m	20867	83
HepB1	Card	78.6	24-35 m	20867	83
HepB1	Card or History	95.3	24-35 m	20867	83
HepB1	History	17.2	24-35 m	20867	83
HepB3	Card	76.7	24-35 m	20867	83
HepB3	Card or History	93.2	24-35 m	20867	83
HepB3	History	17.1	24-35 m	20867	83
Hib1	Card	78.6	24-35 m	20867	83
Hib1	Card or History	95.3	24-35 m	20867	83
Hib1	History	17.2	24-35 m	20867	83
Hib3	Card	76.7	24-35 m	20867	83
Hib3	Card or History	93.2	24-35 m	20867	83
Hib3	History	17.1	24-35 m	20867	83
IPV1	Card	78.6	24-35 m	20867	83
IPV1	Card or History	95.3	24-35 m	20867	83
IPV1	History	17.2	24-35 m	20867	83
MCV1	Card	77.2	24-35 m	20867	83
MCV1	Card or History	93.6	24-35 m	20867	83
MCV1	History	17	24-35 m	20867	83
PCV1	Card	78.9	24-35 m	20867	83
PCV1	Card or History	95.5	24-35 m	20867	83
PCV1	History	17.3	24-35 m	20867	83
PCV3	Card	75.5	24-35 m	20867	83
PCV3	Card or History	91.8	24-35 m	20867	83
PCV3	History	16.9	24-35 m	20867	83
Pol1	Card	77.6	24-35 m	20867	83
Pol1	Card or History	94.3	24-35 m	20867	83
Pol1	History	17.3	24-35 m	20867	83
RotaC	Card	77.3	24-35 m	20867	83
RotaC	Card or History	93.8	24-35 m	20867	83
RotaC	History	17.1	24-35 m	20867	83

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* coverage levels confirmed by card include evidence of vaccination from cards as well as information obtained from a review of health facility records.

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	92.2	12-23 m	677	66
BCG	Card	64.6	12-23 m	449	66
BCG	Card or History	92.5	12-23 m	677	66
BCG	History	27.9	12-23 m	228	66
DTP1	C or H <12 months	90.1	12-23 m	677	66
DTP1	Card	66.3	12-23 m	449	66
DTP1	Card or History	91.2	12-23 m	677	66
DTP1	History	24.8	12-23 m	228	66
DTP3	C or H <12 months	64.6	12-23 m	677	66

DTP3	Card	62.2	12-23 m	449	66
DTP3	Card or History	65	12-23 m	677	66
DTP3	History	2.8	12-23 m	228	66
HepB1	C or H <12 months	90	12-23 m	677	66
HepB1	Card	65.8	12-23 m	449	66
HepB1	Card or History	90.2	12-23 m	677	66
HepB1	History	24.4	12-23 m	228	66
HepB3	C or H <12 months	64.8	12-23 m	677	66
HepB3	Card	61.7	12-23 m	449	66
HepB3	Card or History	65	12-23 m	677	66
HepB3	History	3.3	12-23 m	228	66
Hib1	C or H <12 months	90.1	12-23 m	677	66
Hib1	Card	66.3	12-23 m	449	66
Hib1	Card or History	91.2	12-23 m	677	66
Hib1	History	24.8	12-23 m	228	66
Hib3	C or H <12 months	64.6	12-23 m	677	66
Hib3	Card	62.2	12-23 m	449	66
Hib3	Card or History	65	12-23 m	677	66
Hib3	History	2.8	12-23 m	228	66
IPV1	C or H <12 months	90.1	12-23 m	677	66
IPV1	Card	66.3	12-23 m	449	66
IPV1	Card or History	91.2	12-23 m	677	66
IPV1	History	24.8	12-23 m	228	66
MCV1	C or H <12 months	82	12-23 m	677	66
MCV1	Card	62.3	12-23 m	449	66
MCV1	Card or History	86.1	12-23 m	677	66
MCV1	History	23.9	12-23 m	228	66
MCV2	C or H <24 months	56.7	24-35 m	660	66
MCV2	Card	48.5	24-35 m	402	66
MCV2	Card or History	59.2	24-35 m	660	66
MCV2	History	10.7	24-35 m	258	66
PcV1	C or H <12 months	88.6	12-23 m	677	66
PcV1	Card	65.9	12-23 m	449	66
PcV1	Card or History	88.7	12-23 m	677	66
PcV1	History	22.8	12-23 m	228	66
PcV3	C or H <12 months	58.5	12-23 m	677	66
PcV3	Card	59.1	12-23 m	449	66
PcV3	Card or History	61.9	12-23 m	677	66
PcV3	History	2.8	12-23 m	228	66
Pol1	C or H <12 months	90.1	12-23 m	677	66
Pol1	Card	66.3	12-23 m	449	66
Pol1	Card or History	91.2	12-23 m	677	66
Pol1	History	24.8	12-23 m	228	66
Pol3	C or H <12 months	64.6	12-23 m	677	66
Pol3	Card	62.2	12-23 m	449	66
Pol3	Card or History	65	12-23 m	677	66
Pol3	History	2.8	12-23 m	228	66
RotaC	C or H <12 months	69.8	12-23 m	677	66
RotaC	Card	63.3	12-23 m	449	66
RotaC	Card or History	70.1	12-23 m	677	66
RotaC	History	6.8	12-23 m	228	66

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Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	90.7	24-35 m	660	66
BCG	Card	60.7	24-35 m	402	66
BCG	Card or History	91.5	24-35 m	660	66
BCG	History	30.8	24-35 m	258	66
DTP1	C or H <12 months	86.8	24-35 m	660	66
DTP1	Card	60.9	24-35 m	402	66
DTP1	Card or History	87.5	24-35 m	660	66
DTP1	History	26.6	24-35 m	258	66
DTP3	C or H <12 months	62.4	24-35 m	660	66
DTP3	Card	59	24-35 m	402	66
DTP3	Card or History	64.9	24-35 m	660	66
DTP3	History	5.9	24-35 m	258	66
HepB1	C or H <12 months	86.3	24-35 m	660	66
HepB1	Card	60.9	24-35 m	402	66
HepB1	Card or History	87	24-35 m	660	66
HepB1	History	26.2	24-35 m	258	66
HepB3	C or H <12 months	63.6	24-35 m	660	66
HepB3	Card	60	24-35 m	402	66
HepB3	Card or History	65.8	24-35 m	660	66
HepB3	History	5.9	24-35 m	258	66
Hib1	C or H <12 months	86.8	24-35 m	660	66
Hib1	Card	60.9	24-35 m	402	66
Hib1	Card or History	87.5	24-35 m	660	66
Hib1	History	26.6	24-35 m	258	66

Hib3	C or H <12 months	62.4	24-35 m	660	66
Hib3	Card	59	24-35 m	402	66
Hib3	Card or History	64.9	24-35 m	660	66
Hib3	History	5.9	24-35 m	258	66
MCV1	C or H <12 months	77.4	24-35 m	660	66
MCV1	Card	58.6	24-35 m	402	66
MCV1	Card or History	84.4	24-35 m	660	66
MCV1	History	25.8	24-35 m	258	66
PcV1	C or H <12 months	84.8	24-35 m	660	66
PcV1	Card	60.5	24-35 m	402	66
PcV1	Card or History	85.5	24-35 m	660	66
PcV1	History	24.9	24-35 m	258	66
PcV3	C or H <12 months	54.5	24-35 m	660	66
PcV3	Card	55.4	24-35 m	402	66
PcV3	Card or History	60.2	24-35 m	660	66
PcV3	History	4.8	24-35 m	258	66
Pol1	C or H <12 months	86.8	24-35 m	660	66
Pol1	Card	60.9	24-35 m	402	66
Pol1	Card or History	87.5	24-35 m	660	66
Pol1	History	26.6	24-35 m	258	66
Pol3	C or H <12 months	62.4	24-35 m	660	66
Pol3	Card	59	24-35 m	402	66
Pol3	Card or History	64.9	24-35 m	660	66
Pol3	History	5.9	24-35 m	258	66
RotaC	C or H <12 months	65.3	24-35 m	660	66
RotaC	Card	57.2	24-35 m	402	66
RotaC	Card or History	67.5	24-35 m	660	66
RotaC	History	10.3	24-35 m	258	66

2007 South African National HIV Prevalence, Incidence, Behaviour and Communication Survey, 2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	74	12-23 m	776	69
BCG	Card or History	85.5	12-23 m	776	69
BCG	History	86.1	12-23 m	776	69
DTP1	Card	63.6	12-23 m	776	69
DTP1	Card or History	72.8	12-23 m	776	69
DTP1	History	76.5	12-23 m	776	69
DTP3	Card	55.3	12-23 m	776	69
DTP3	Card or History	62.6	12-23 m	776	69
DTP3	History	65.9	12-23 m	776	69
HepB3	Card	49.7	12-23 m	776	69
HepB3	Card or History	56.3	12-23 m	776	69
HepB3	History	56.3	12-23 m	776	69
Hib3	Card	40.1	12-23 m	776	69
Hib3	Card or History	45.2	12-23 m	776	69
Hib3	History	48.1	12-23 m	776	69
MCV1	Card	56.5	12-23 m	776	69
MCV1	Card or History	64.8	12-23 m	776	69
MCV1	History	68.7	12-23 m	776	69
Pol3	Card	58.9	12-23 m	776	69
Pol3	Card or History	67.2	12-23 m	776	69
Pol3	History	69.1	12-23 m	776	69

2003 South Africa Demographic and Health Survey 2003

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	81.2	12-23 m	408	71
BCG	Card	71	12-23 m	408	71
BCG	Card or History	81.2	12-23 m	408	71
BCG	History	10.2	12-23 m	408	71
DTP1	C or H <12 months	66.9	12-23 m	408	71
DTP1	Card	67.6	12-23 m	408	71
DTP1	Card or History	76.7	12-23 m	408	71
DTP1	History	9.1	12-23 m	408	71
DTP3	C or H <12 months	49.9	12-23 m	408	71
DTP3	Card	61.1	12-23 m	408	71
DTP3	Card or History	67	12-23 m	408	71
DTP3	History	5.9	12-23 m	408	71
HepB1	C or H <12 months	67.9	12-23 m	408	71
HepB1	Card	68.4	12-23 m	408	71
HepB1	Card or History	76.8	12-23 m	408	71
HepB1	History	8.4	12-23 m	408	71
HepB3	C or H <12 months	49	12-23 m	408	71
HepB3	Card	62.7	12-23 m	408	71
HepB3	Card or History	66.8	12-23 m	408	71
HepB3	History	4.1	12-23 m	408	71

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MCV1	C or H <12 months	22.3	12-23 m	408	71
MCV1	Card	55.6	12-23 m	408	71
MCV1	Card or History	62	12-23 m	408	71
MCV1	History	6.4	12-23 m	408	71
Pol1	C or H <12 months	69.2	12-23 m	408	71
Pol1	Card	69.5	12-23 m	408	71
Pol1	Card or History	78.3	12-23 m	408	71
Pol1	History	8.8	12-23 m	408	71
Pol3	C or H <12 months	49.9	12-23 m	408	71
Pol3	Card	63	12-23 m	408	71
Pol3	Card or History	65.1	12-23 m	408	71
Pol3	History	2.1	12-23 m	408	71

1997 South Africa Demographic and Health Survey 1998

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96.4	12-23 m	973	75
BCG	Card or History	96.8	12-23 m	973	75
DTP1	C or H <12 months	92.8	12-23 m	973	75
DTP1	Card or History	93.3	12-23 m	973	75
DTP3	C or H <12 months	74.2	12-23 m	973	75
DTP3	Card or History	76.4	12-23 m	973	75
HepB1	C or H <12 months	87.8	12-23 m	973	75
HepB1	Card or History	88.2	12-23 m	973	75
HepB3	C or H <12 months	71.6	12-23 m	973	75
HepB3	Card or History	73.9	12-23 m	973	75
MCV1	C or H <12 months	72.2	12-23 m	973	75
MCV1	Card or History	82.2	12-23 m	973	75
Pol1	C or H <12 months	90.5	12-23 m	973	75
Pol1	Card or History	91	12-23 m	973	75
Pol3	C or H <12 months	70.1	12-23 m	973	75
Pol3	Card or History	72.1	12-23 m	973	75

South Africa - survey details

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