São Tomé and Principe: WHO and UNICEF estimates of immunization coverage: 2022 revision

WHO and UNICEF estimates of national immunization coverage - next revision available July 15, 2024   data received as of June 26, 2023

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. Coverage estimates are based on WHO and UNICEF estimates of coverage for the dose of measles containing vaccine that corresponds to the first measles-rubella combination vaccine. Nationally reported coverage of RCV is not taken into consideration nor are the data represented in the accompanying graph and data table.
HepBB: percentage of births which received a dose of hepatitis B vaccine within 24 hours of delivery. Estimates of hepatitis B birth dose coverage are produced only for countries with a universal birth dose policy. Estimates are not produced for countries that recommend a birth dose to infants born to HepB virus-infected mothers only or where there is insufficient information to determine whether vaccination is within 24 hours of birth.
HepB3: percentage of surviving infants who received the 3rd dose of hepatitis B containing vaccine following the birth dose.
Hib3: percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.
RotaC: percentage of surviving infants who received the final recommended dose of rotavirus vaccine, which can be either the 2nd or the 3rd dose depending on the vaccine.
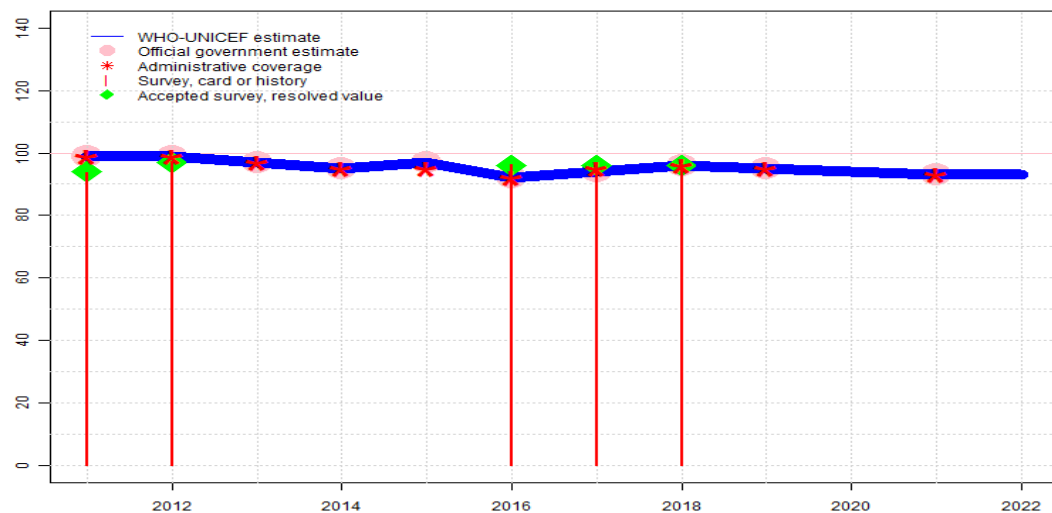**PcV3:** percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect the percentage of surviving infants who received two doses of PcV prior to the 1st birthday.
YFV: percentage of surviving infants who received one dose of yellow fever vaccine in countries where YFV is part of the national immunization schedule for children or is recommended in at risk areas; coverage estimates are annualized for the entire cohort of surviving infants.

São Tomé and Principe - BCG

STP - BCG

- —— WHO-UNICEF estimate
- ● Official government estimate
- ✱ Administrative coverage
- | Survey, card or history
- ◆ Accepted survey, resolved value

Description:

2022: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by interpolation between reported data. GoC=Assigned by working group. No reported data.

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

2018: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+ S+ D+

2017: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+ S+ D+

2016: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+ S+ D+

2015: Estimate informed by reported data. Estimate challenged by: D-

2014: Estimate informed by reported data. Estimate challenged by: D-

2013: Estimate informed by reported data. Estimate challenged by: D-

2012: Estimate informed by reported data supported by survey. Survey evidence of 97 percent based on 1 survey(s). Estimate challenged by: D-

2011: Estimate informed by reported data supported by survey. Survey evidence of 94 percent based on 1 survey(s). Estimate challenged by: D-

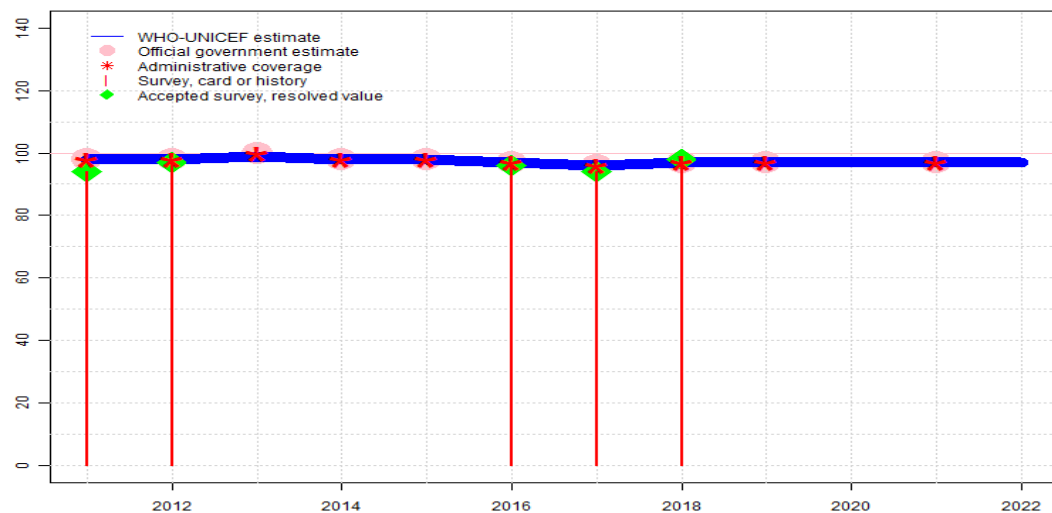|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	99	99	97	95	97	92	94	96	95	94	93	93
Estimate GoC	●	●	●	●	●	●●●	●●●	●●●	●	●	●●	●
Official	99	99	97	95	97	92	94	96	95	NA	93	NA
Administrative	99	99	97	95	95	92	95	96	95	NA	93	NA
Survey	93.8	97.3	NA	NA	NA	96.2	95.8	96.4	NA	NA	NA	NA

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.

São Tomé and Principe - DTP1

STP - DTP1

- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

Description:

2022: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by interpolation between reported data. GoC=Assigned by working group. No reported data.

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

2018: Estimate informed by reported data supported by survey. Survey evidence of 98 percent based on 1 survey(s). Estimate challenged by: D-

2017: Estimate informed by reported data supported by survey. Survey evidence of 94 percent based on 1 survey(s). GoC=R+ S+ D+

2016: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). Estimate challenged by: D-

2015: Estimate informed by reported data. Estimate challenged by: D-

2014: Estimate informed by reported data. Estimate challenged by: D-

2013: Estimate informed by reported data. Estimate challenged by: D-

2012: Estimate informed by reported data supported by survey. Survey evidence of 97 percent based on 1 survey(s). Estimate challenged by: D-

2011: Estimate informed by reported data supported by survey. Survey evidence of 94 percent based on 1 survey(s). Estimate challenged by: D-

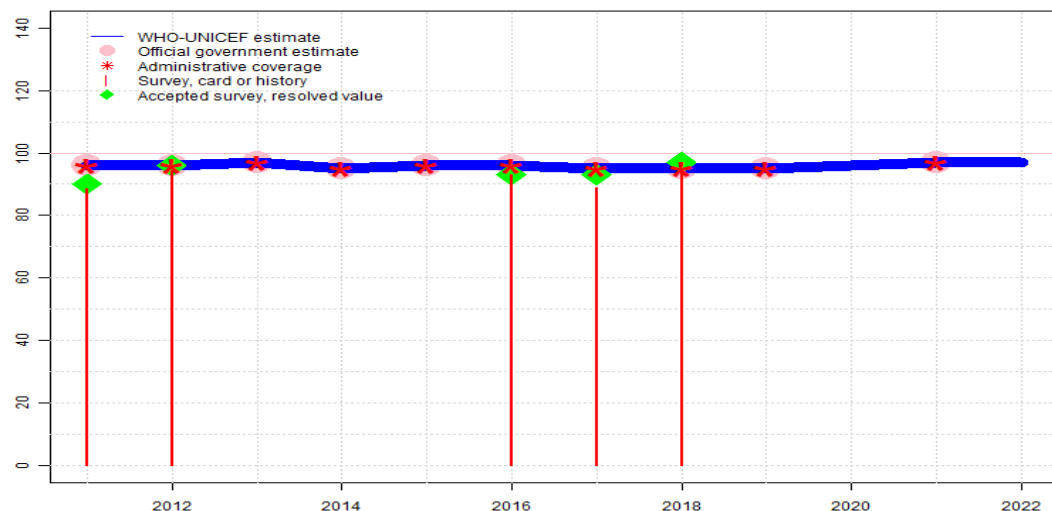|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	98	98	99	98	98	97	96	97	97	97	97	97
Estimate GoC	●	●	●	●	●	●	●●●	●	●●●	●	●●	●
Official	98	98	100	98	98	97	96	97	97	NA	97	NA
Administrative	98	98	100	98	98	97	96	97	97	NA	97	NA
Survey	94.1	97.2	NA	NA	NA	96	94	97.7	NA	NA	NA	NA

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.

São Tomé and Principe - DTP3

STP - DTP3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	96	96	97	95	96	96	95	95	95	96	97	97
Estimate GoC	●	●	●	●	●	●	●●●	●	●●●	●	●●	●
Official	96	96	97	95	96	96	95	95	95	NA	97	NA
Administrative	96	96	97	95	96	96	95	95	95	NA	97	NA
Survey	88.5	94.5	NA	NA	NA	93	88.7	94.2	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.
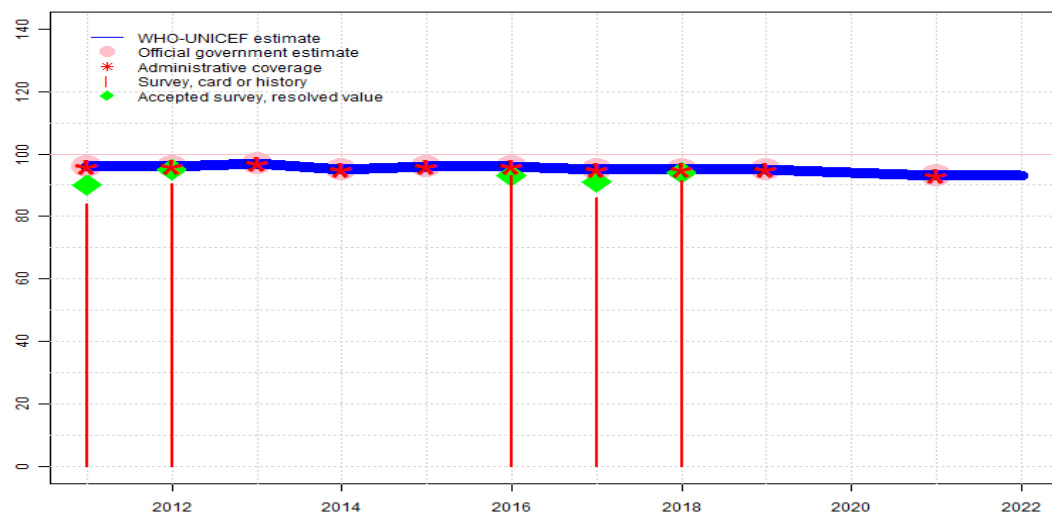
In all cases these estimates should be used with caution and should be assessed in light
of the objective for which they are being used.

Description:

2022: Estimate based on extrapolation from data reported by national government. GoC=No
    accepted empirical data
2021: Estimate informed by reported data. GoC=R+ D+
2020: Estimate informed by interpolation between reported data. GoC=Assigned by working
    group. No reported data.
2019: Estimate informed by reported data. GoC=R+ S+ D+
2018: Estimate informed by reported data supported by survey. Survey evidence of 97 percent
    based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey 2019
    card or history results of 94 percent modifed for recall bias to 97 percent based on 1st
    dose card or history coverage of 98 percent, 1st dose card only coverage of 93 percent
    and 3rd dose card only coverage of 92 percent. Estimate challenged by: D-
2017: Estimate informed by reported data supported by survey. Survey evidence of 93 percent
    based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey 2019
    card or history results of 89 percent modifed for recall bias to 93 percent based on 1st
    dose card or history coverage of 94 percent, 1st dose card only coverage of 86 percent
    and 3rd dose card only coverage of 85 percent. GoC=R+ S+ D+
2016: Estimate informed by reported data supported by survey. Survey evidence of 93 percent
    based on 1 survey(s). Estimate challenged by: D-
2015: Estimate informed by reported data. Estimate challenged by: D-
2014: Estimate informed by reported data. Estimate challenged by: D-
2013: Estimate informed by reported data. Estimate challenged by: D-
2012: Estimate informed by reported data supported by survey. Survey evidence of 96 percent
    based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey, 2014
    card or history results of 95 percent modifed for recall bias to 96 percent based on 1st
    dose card or history coverage of 97 percent, 1st dose card only coverage of 92 percent
    and 3rd dose card only coverage of 91 percent. Estimate challenged by: D-
2011: Estimate informed by reported data supported by survey. Survey evidence of 90 percent
    based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey, 2014
    card or history results of 89 percent modifed for recall bias to 90 percent based on 1st
    dose card or history coverage of 94 percent, 1st dose card only coverage of 87 percent
    and 3rd dose card only coverage of 84 percent. Estimate challenged by: D-

São Tomé and Principe - Pol3

STP - Pol3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	96	96	97	95	96	96	95	95	95	94	93	93
Estimate GoC	●	●	●	●	●	●	●●●	●	●●●	●	●●	●
Official	96	96	97	95	96	96	95	95	95	NA	93	NA
Administrative	96	96	97	95	96	96	95	95	95	NA	93	NA
Survey	84	90.4	NA	NA	NA	93.1	86	91.5	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.

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[S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.
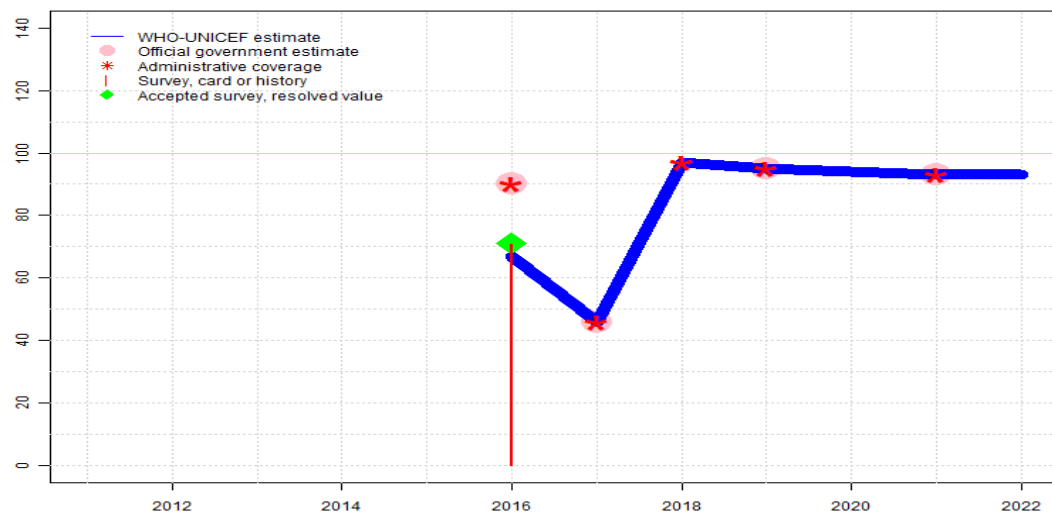
In all cases these estimates should be used with caution and should be assessed in light
of the objective for which they are being used.

Description:

2022: Estimate based on extrapolation from data reported by national government. GoC=No
accepted empirical data

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by interpolation between reported data. GoC=Assigned by working
group. No reported data.

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

2018: Estimate informed by reported data supported by survey. Survey evidence of 94 percent
based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey 2019
card or history results of 92 percent modifed for recall bias to 94 percent based on 1st
dose card or history coverage of 95 percent, 1st dose card only coverage of 93 percent
and 3rd dose card only coverage of 92 percent. Estimate challenged by: D-

2017: Estimate informed by reported data supported by survey. Survey evidence of 91 percent
based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey 2019
card or history results of 86 percent modifed for recall bias to 91 percent based on 1st
dose card or history coverage of 93 percent, 1st dose card only coverage of 88 percent
and 3rd dose card only coverage of 86 percent. GoC=R+ S+ D+

2016: Estimate informed by reported data supported by survey. Survey evidence of 93 percent
based on 1 survey(s). Estimate challenged by: D-

2015: Estimate informed by reported data. Estimate challenged by: D-

2014: Estimate informed by reported data. Estimate challenged by: D-

2013: Estimate informed by reported data. Estimate challenged by: D-

2012: Estimate informed by reported data supported by survey. Survey evidence of 95 percent
based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey, 2014
card or history results of 90 percent modifed for recall bias to 95 percent based on 1st
dose card or history coverage of 96 percent, 1st dose card only coverage of 91 percent
and 3rd dose card only coverage of 90 percent. Estimate challenged by: D-

2011: Estimate informed by reported data supported by survey. Survey evidence of 90 percent
based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey, 2014
card or history results of 84 percent modifed for recall bias to 90 percent based on 1st
dose card or history coverage of 92 percent, 1st dose card only coverage of 85 percent
and 3rd dose card only coverage of 83 percent. Estimate challenged by: D-

São Tomé and Principe - IPV1

STP - IPV1

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	67	46	97	95	94	93	93
Estimate GoC	NA	NA	NA	NA	NA	●	●	●	●●	●	●●	●
Official	NA	NA	NA	NA	NA	90	46	NA	95	NA	93	NA
Administrative	NA	NA	NA	NA	NA	90	46	97	95	NA	93	NA
Survey	NA	NA	NA	NA	NA	70.8	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
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     [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 based on extrapolation from data reported by national government. GoC=No accepted empirical data

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by interpolation between reported data. GoC=Assigned by working group. No reported data.

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

2018: Programme appears to have recovered from 2017 vaccine stockout. Estimate challenged by: D-S-

2017: Estimate of 46 percent assigned by working group. Programme reports eight months national stockout. Estimate is based on reported data. Reported data excluded due to decline in reported coverage from 90 percent to 46 percent with increase to 97 percent. Estimate challenged by: R-S-

2016: Programme reports 90 percent coverage achieved among 75 percent of the national target population. Estimate is based on annualized coverage achieved in national target population. Estimate challenged by: R-

São Tomé and Principe - MCV1

STP - MCV1

- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	91	92	91	92	93	93	90	95	95	86	77	77
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●●	●
Official	91	92	91	92	93	93	90	95	95	NA	77	NA
Administrative	91	92	91	92	93	93	90	95	95	NA	77	NA
Survey	92	93	NA	NA	NA	89.8	83.3	88.1	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.
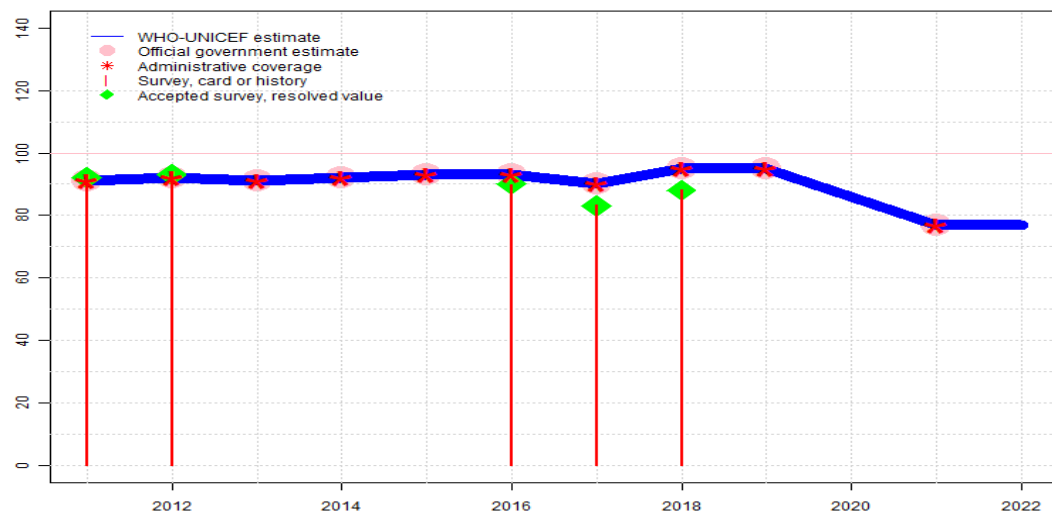
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

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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.

Description:

2022: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by interpolation between reported data. GoC=Assigned by working group. No reported data.

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

2018: Estimate informed by reported data supported by survey. Survey evidence of 88 percent based on 1 survey(s). Estimate challenged by: D-S-

2017: Estimate informed by reported data supported by survey. Survey evidence of 83 percent based on 1 survey(s). Estimate challenged by: D-

2016: Estimate informed by reported data supported by survey. Survey evidence of 90 percent based on 1 survey(s). Estimate challenged by: D-

2015: Estimate informed by reported data. Estimate challenged by: D-

2014: Estimate informed by reported data. Estimate challenged by: D-

2013: Estimate informed by reported data. Estimate challenged by: D-

2012: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Estimate challenged by: D-

2011: Estimate informed by reported data supported by survey. Survey evidence of 92 percent based on 1 survey(s). Estimate challenged by: D-

São Tomé and Principe - MCV2

STP - MCV2

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

Description:

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

2022: Estimate informed by extrapolation from reported data. GoC=No accepted empirical data

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by interpolation between reported data. GoC=Assigned by working group. No reported data.

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

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

2017: Estimate informed by reported data. Estimate challenged by: D-

2016: Estimate informed by reported data. Estimate challenged by: D-

2015: Estimate informed by reported data. Estimate challenged by: D-

2014: Estimate informed by reported data. Second dose of MCV was introduced during 2013. Reporting began in 2014. GoC=R+ D+

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	71	76	76	76	76	81	75	69	69
Estimate GoC	NA	NA	NA	●●	●	●	●	●	●●	●	●●	●
Official	NA	NA	NA	71	76	76	76	76	81	NA	69	NA
Administrative	NA	NA	NA	71	76	76	80	74	81	NA	69	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.
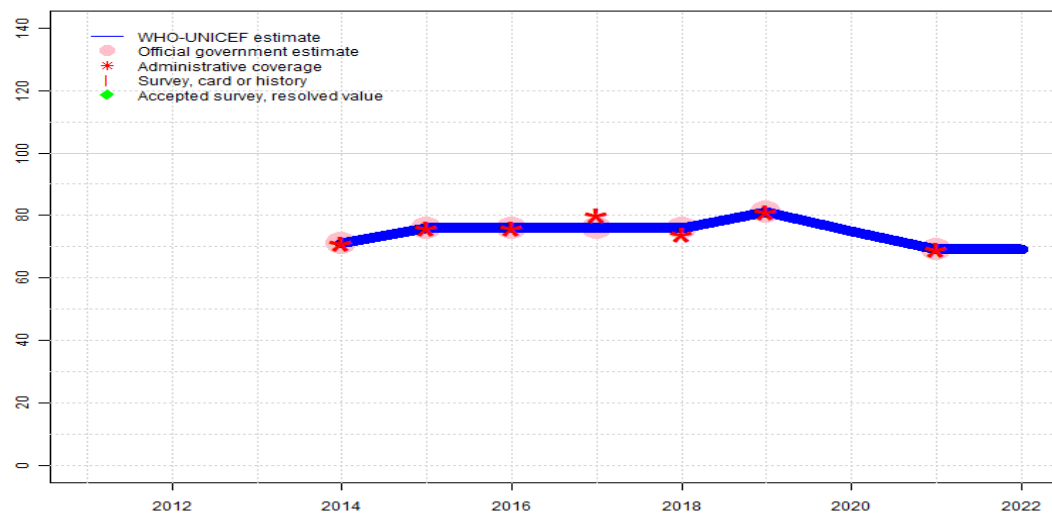
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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.

São Tomé and Principe - RCV1

STP - RCV1

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

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.

2022: Estimate based on estimated MCV1. GoC=No accepted empirical data

2021: Estimate based on estimated MCV1. GoC=R+ D+

2020: Estimate based on estimated MCV1. GoC=Assigned by working group. No reported data.

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

2018: Estimate based on estimated MCV1. Estimate challenged by: D-S-

2017: Estimate based on estimated MCV1. Estimate challenged by: D-

2016: Estimate based on estimated MCV1. Rubella vaccine was introduced in 2016 as MR vaccine and recommended at 9 and 18 months. Estimate challenged by: D-

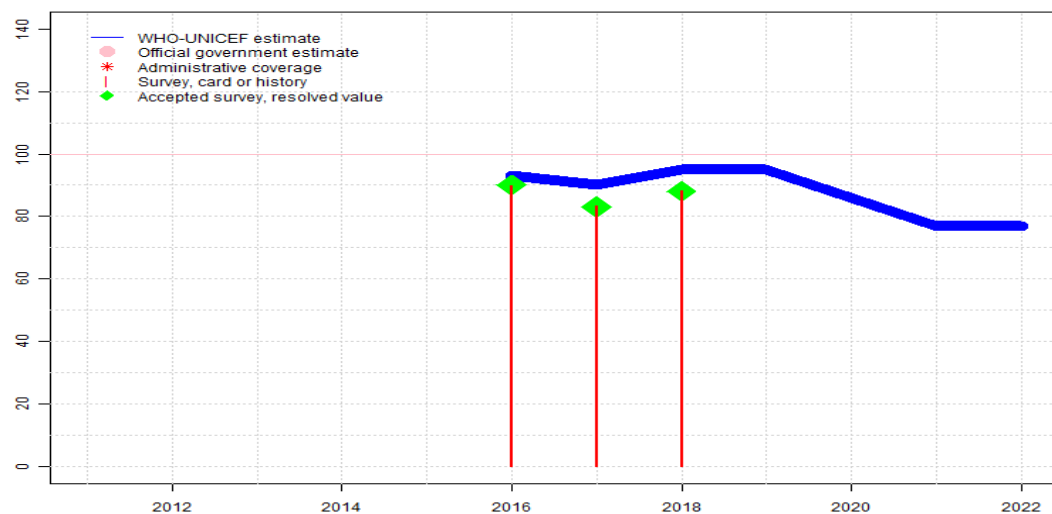|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	93	90	95	95	86	77	77
Estimate GoC	NA	NA	NA	NA	NA	●	●	●	●	●	●●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	89.8	83.3	88.1	NA	NA	NA	NA

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.

São Tomé and Principe - HepBB

STP - HepBB

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

Description:

2022: Estimate informed by extrapolation from reported data. GoC=No accepted empirical data

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by interpolation between reported data. GoC=Assigned by working group. No reported data.

2019: Estimate informed by reported data. Hepatitis B birth dose was introduced in 2018. Reporting of doses delivered within 24 hours began in 2019. Estimate challenged by: D-

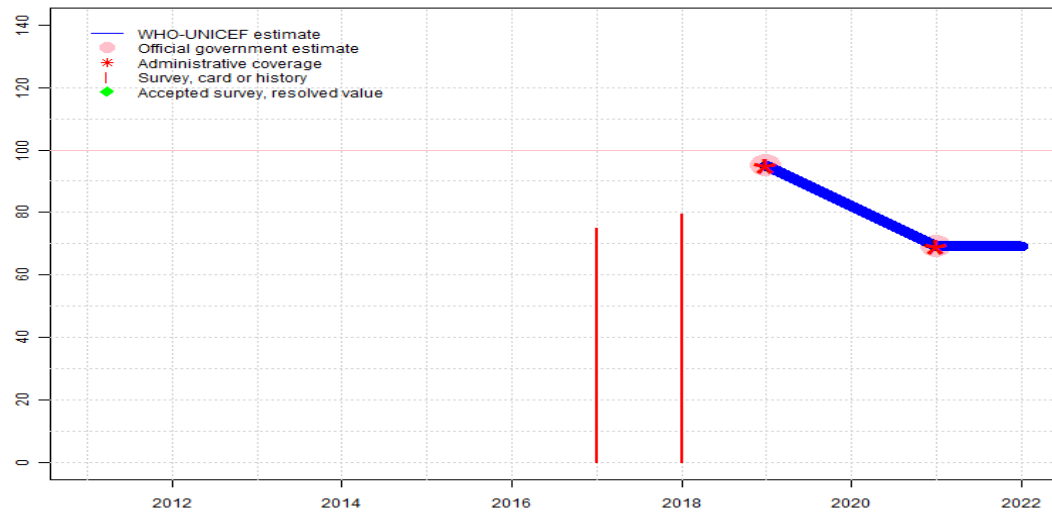|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	95	82	69	69
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	●	●	●●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	95	NA	69	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	95	NA	69	NA
Survey	NA	NA	NA	NA	NA	NA	74.9	79.5	NA	NA	NA	NA

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.

São Tomé and Principe - HepB3

STP - HepB3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

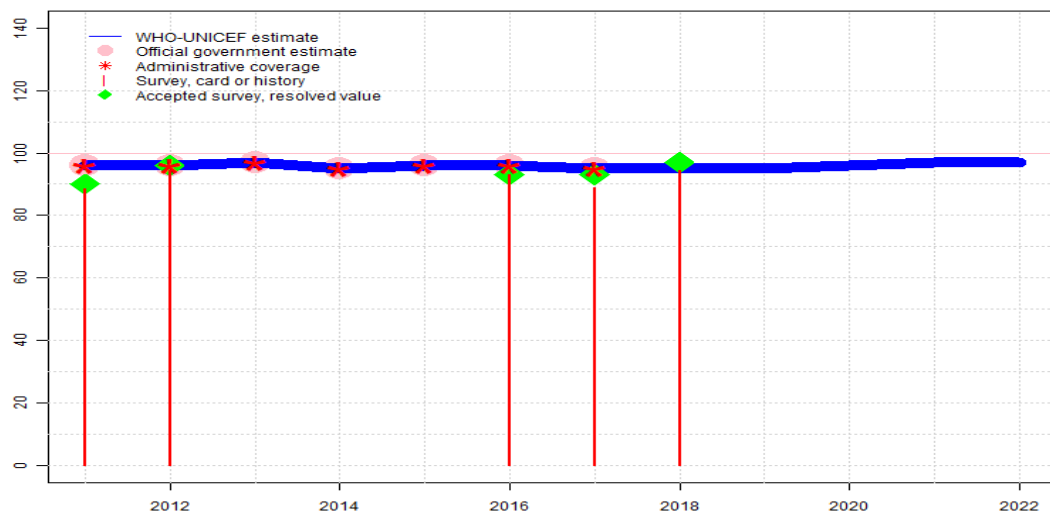|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	96	96	97	95	96	96	95	95	95	96	97	97
Estimate GoC	●	●	●	●	●	●	●●●	●	●●	●	●	●
Official	96	96	97	95	96	96	95	NA	NA	NA	NA	NA
Administrative	96	96	97	95	96	96	95	NA	NA	NA	NA	NA
Survey	88.5	94.5	NA	NA	NA	93	88.7	94.2	NA	NA	NA	NA

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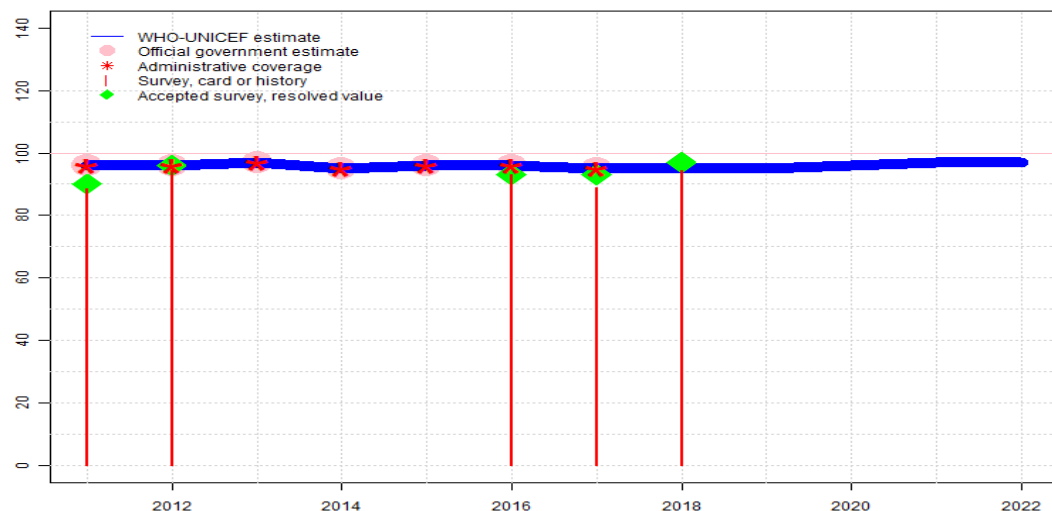
In all cases these estimates should be used with caution and should be assessed in light
of the objective for which they are being used.

Description:

2022: Estimate informed by extrapolation from prior year. GoC=No accepted empirical data

2021: Estimate based on estimated DTP3 coverage. GoC=No accepted empirical data

2020: Estimate based on estimated DTP3 coverage. GoC=Assigned by working group. No reported data.

2019: Estimate based on extrapolation from data reported by national government. GoC=S+

2018: Estimate based on extrapolation from data reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey 2019 card or history results of 94 percent modfied for recall bias to 97 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 93 percent and 3rd dose card only coverage of 92 percent. Estimate challenged by: D-

2017: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey 2019 card or history results of 89 percent modfied for recall bias to 93 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 86 percent and 3rd dose card only coverage of 85 percent. GoC=R+ S+ D+

2016: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Estimate challenged by: D-

2015: Estimate informed by reported data. Estimate challenged by: D-

2014: Estimate informed by reported data. Estimate challenged by: D-

2013: Estimate informed by reported data. Estimate challenged by: D-

2012: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey, 2014 card or history results of 95 percent modfied for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 92 percent and 3rd dose card only coverage of 91 percent. Estimate challenged by: D-

2011: Estimate informed by reported data supported by survey. Survey evidence of 90 percent based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey, 2014 card or history results of 89 percent modfied for recall bias to 90 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 87 percent and 3rd dose card only coverage of 84 percent. Estimate challenged by: D-

São Tomé and Principe - Hib3

STP - Hib3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	96	96	97	95	96	96	95	95	95	96	97	97
Estimate GoC	●	●	●	●	●	●	●●●	●	●●	●	●	●
Official	96	96	97	95	96	96	95	NA	NA	NA	NA	NA
Administrative	96	96	97	95	96	96	95	NA	NA	NA	NA	NA
Survey	88.5	94.5	NA	NA	NA	93	88.7	94.2	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: 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.

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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:

2022: Estimate informed by extrapolation from prior year. GoC=No accepted empirical data

2021: Estimate based on estimated DTP3 coverage. GoC=No accepted empirical data

2020: Estimate based on estimated DTP3 coverage. GoC=Assigned by working group. No reported data.

2019: Estimate based on extrapolation from data reported by national government. GoC=S+

2018: Estimate based on extrapolation from data reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey 2019 card or history results of 94 percent modfied for recall bias to 97 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 93 percent and 3rd dose card only coverage of 92 percent. Estimate challenged by: D-

2017: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey 2019 card or history results of 89 percent modfied for recall bias to 93 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 86 percent and 3rd dose card only coverage of 85 percent. GoC=R+ S+ D+

2016: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Estimate challenged by: D-

2015: Estimate informed by reported data. Estimate challenged by: D-

2014: Estimate informed by reported data. Estimate challenged by: D-

2013: Estimate informed by reported data. Estimate challenged by: D-

2012: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey, 2014 card or history results of 95 percent modfied for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 92 percent and 3rd dose card only coverage of 91 percent. Estimate challenged by: D-

2011: Estimate informed by reported data supported by survey. Survey evidence of 90 percent based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey, 2014 card or history results of 89 percent modfied for recall bias to 90 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 87 percent and 3rd dose card only coverage of 84 percent. Estimate challenged by: D-

São Tomé and Principe - RotaC

STP - RotaC

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

Description:

2022: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by interpolation between reported data. GoC=Assigned by working group. No reported data.

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

2018: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Estimate challenged by: D-S-

2017: Estimate based on reported data following introduction. Estimate challenged by: S-

2016: Programme reports 54 percent coverage achieved among 25 percent of the national target population. Estimate is based on annualized coverage achieved in national target population. Estimate challenged by: R-S-

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	24	95	95	95	87	78	78
Estimate GoC	NA	NA	NA	NA	NA	●	●	●	●●●	●	●●	●
Official	NA	NA	NA	NA	NA	54	95	95	95	NA	78	NA
Administrative	NA	NA	NA	NA	NA	54	95	95	95	NA	78	NA
Survey	NA	NA	NA	NA	NA	37.7	85.7	92.5	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.
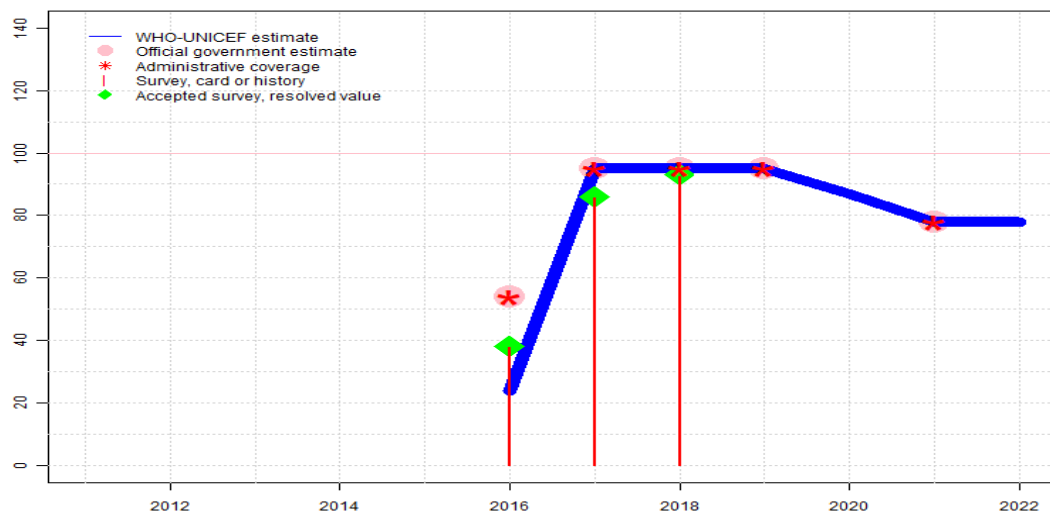
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

São Tomé and Principe - PcV3

STP - PcV3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

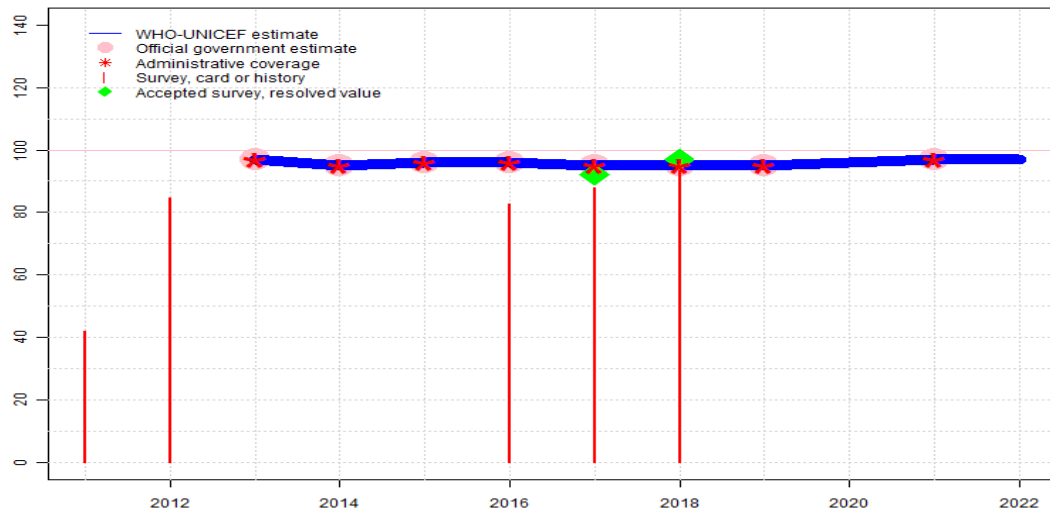|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	97	95	96	96	95	95	95	96	97	97
Estimate GoC	NA	NA	●	●	●	●	●●●	●	●●●	●	●●	●
Official	NA	NA	97	95	96	96	95	95	95	NA	97	NA
Administrative	NA	NA	97	95	96	96	95	95	95	NA	97	NA
Survey	42	84.8	NA	NA	NA	82.7	87.8	93.4	NA	NA	NA	NA

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 based on extrapolation from data reported by national government. GoC=No
       accepted empirical data

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by interpolation between reported data. GoC=Assigned by working
       group. No reported data.

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

2018: Estimate informed by reported data supported by survey. Survey evidence of 97 percent
       based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey 2019
       card or history results of 93 percent modifed for recall bias to 97 percent based on 1st
       dose card or history coverage of 97 percent, 1st dose card only coverage of 92 percent
       and 3rd dose card only coverage of 92 percent. Estimate challenged by: D-

2017: Estimate informed by reported data supported by survey. Survey evidence of 92 percent
       based on 1 survey(s). Sao Tome and Principe Multiple Indicator Cluster Survey 2019
       card or history results of 88 percent modifed for recall bias to 92 percent based on 1st
       dose card or history coverage of 93 percent, 1st dose card only coverage of 86 percent
       and 3rd dose card only coverage of 85 percent. GoC=R+ S+ D+

2016: Estimate informed by reported data. São Tomé and Príncipe National Immunization Cov-
       erage Survey 2017 results ignored by working group. Survey result for PcV3 inconsistent
       with other antigens. Estimate challenged by: D-

2015: Estimate informed by reported data. Estimate challenged by: D-

2014: Estimate informed by reported data. Estimate challenged by: D-

2013: Estimate informed by reported data. Pneumococcal conjugate vaccine introduced in 2012.
       National reporting began in 2013. Estimate challenged by: D-

São Tomé and Principe - YFV

STP - YFV

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	91	92	91	92	93	93	89	95	95	87	79	79
Estimate GoC	•	•	•	•	•	•	•	•	•••	•	••	•
Official	91	92	91	92	93	93	89	95	95	NA	79	NA
Administrative	91	92	91	92	93	93	89	95	95	NA	79	NA
Survey	85.8	90.3	NA	NA	NA	85.5	87.8	91.4	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.
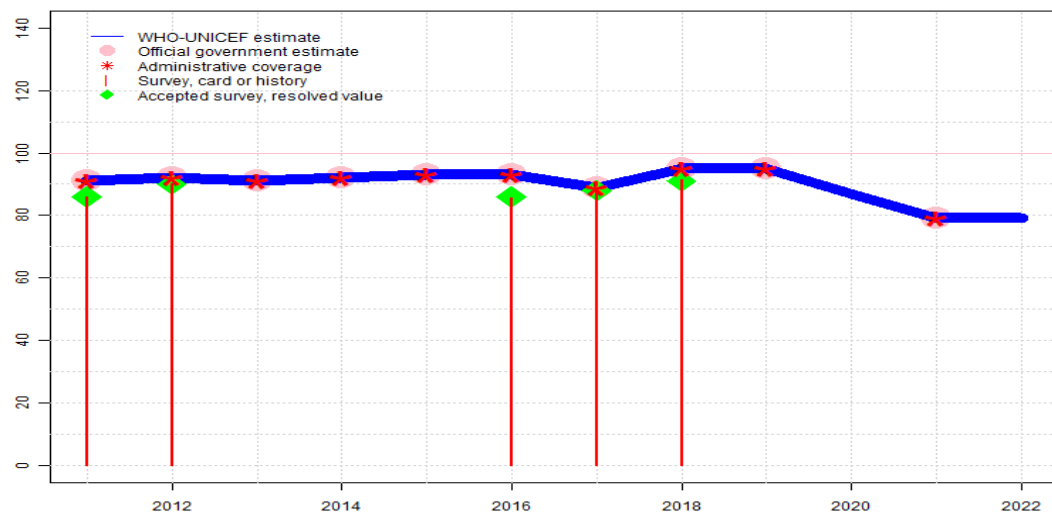
Description:

2022: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by interpolation between reported data. GoC=Assigned by working group. No reported data.

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

2018: Estimate informed by reported data supported by survey. Survey evidence of 91 percent based on 1 survey(s). Although no longer considered at risk for yellow fever (since 2013), WHO and UNICEF continue to estimate coverage as the country was previously at risk and YFV vaccine remains in the national immunization schedule. Estimate challenged by: D-

2017: Estimate informed by reported data supported by survey. Survey evidence of 88 percent based on 1 survey(s). Estimate challenged by: D-

2016: Estimate informed by reported data supported by survey. Survey evidence of 86 percent based on 1 survey(s). Estimate challenged by: D-

2015: Estimate informed by reported data. Estimate challenged by: D-

2014: Estimate informed by reported data. Estimate challenged by: D-

2013: Estimate informed by reported data. Estimate challenged by: D-

2012: Estimate informed by reported data supported by survey. Survey evidence of 90 percent based on 1 survey(s). Estimate challenged by: D-

2011: Estimate informed by reported data supported by survey. Survey evidence of 86 percent based on 1 survey(s). Estimate challenged by: D-

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 Sao Tome Principe Inquerito aos Indicadores Multiplos 2019

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96.4	12-23 m	346	93
BCG	Card	91.6	12-23 m	346	93
BCG	Card or History	96.4	12-23 m	346	93
BCG	History	4.8	12-23 m	346	93
DTP1	C or H <12 months	97.2	12-23 m	346	93
DTP1	Card	92.8	12-23 m	346	93
DTP1	Card or History	97.7	12-23 m	346	93
DTP1	History	4.9	12-23 m	346	93
DTP3	C or H <12 months	93.9	12-23 m	346	93
DTP3	Card	92.4	12-23 m	346	93
DTP3	Card or History	94.2	12-23 m	346	93
DTP3	History	1.8	12-23 m	346	93
HepB1	C or H <12 months	97.2	12-23 m	346	93
HepB1	Card	92.8	12-23 m	346	93
HepB1	Card or History	97.7	12-23 m	346	93
HepB1	History	4.9	12-23 m	346	93
HepB3	C or H <12 months	93.9	12-23 m	346	93
HepB3	Card	92.4	12-23 m	346	93
HepB3	Card or History	94.2	12-23 m	346	93
HepB3	History	1.8	12-23 m	346	93
HepBB	C or H <12 months	79	12-23 m	346	93
HepBB	Card	79.5	12-23 m	346	93
HepBB	Card or History	79.5	12-23 m	346	93
Hib1	C or H <12 months	97.2	12-23 m	346	93
Hib1	Card	92.8	12-23 m	346	93
Hib1	Card or History	97.7	12-23 m	346	93
Hib1	History	4.9	12-23 m	346	93
Hib3	C or H <12 months	93.9	12-23 m	346	93
Hib3	Card	92.4	12-23 m	346	93
Hib3	Card or History	94.2	12-23 m	346	93
Hib3	History	1.8	12-23 m	346	93
MCV1	C or H <12 months	86.2	12-23 m	346	93
MCV1	Card	83.6	12-23 m	346	93
MCV1	Card or History	88.1	12-23 m	346	93
MCV1	History	4.5	12-23 m	346	93
PCV1	C or H <12 months	97.3	12-23 m	346	93
PCV1	Card	92.3	12-23 m	346	93
PCV1	Card or History	97.3	12-23 m	346	93
PCV1	History	5	12-23 m	346	93
PCV3	C or H <12 months	92.6	12-23 m	346	93
PCV3	Card	92	12-23 m	346	93
PCV3	Card or History	93.4	12-23 m	346	93
PCV3	History	1.3	12-23 m	346	93
Pol1	C or H <12 months	94.7	12-23 m	346	93
Pol1	Card	92.8	12-23 m	346	93
Pol1	Card or History	95.3	12-23 m	346	93
Pol1	History	2.5	12-23 m	346	93
Pol3	C or H <12 months	90.4	12-23 m	346	93
Pol3	Card	91.5	12-23 m	346	93
Pol3	Card or History	91.5	12-23 m	346	93
Pol3	History	0	12-23 m	346	93
RotaC	C or H <12 months	92.5	12-23 m	346	93
RotaC	Card	90.4	12-23 m	346	93
RotaC	Card or History	92.5	12-23 m	346	93
RotaC	History	2.2	12-23 m	346	93
YFV	C or H <12 months	89.9	12-23 m	346	93
YFV	Card	86.9	12-23 m	346	93
YFV	Card or History	91.4	12-23 m	346	93
YFV	History	4.5	12-23 m	346	93

2017 Sao Tome Principe Inquerito aos Indicadores Multiplos 2019

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	95.3	24-35 m	406	93
BCG	Card	86.8	24-35 m	406	93
BCG	Card or History	95.8	24-35 m	406	93
BCG	History	9	24-35 m	406	93
DTP1	C or H <12 months	93.5	24-35 m	406	93
DTP1	Card	86.3	24-35 m	406	93
DTP1	Card or History	94	24-35 m	406	93
DTP1	History	7.8	24-35 m	406	93
DTP3	C or H <12 months	86.4	24-35 m	406	93
DTP3	Card	85.1	24-35 m	406	93
DTP3	Card or History	88.7	24-35 m	406	93
DTP3	History	3.5	24-35 m	406	93
HepB1	C or H <12 months	93.5	24-35 m	406	93
HepB1	Card	86.3	24-35 m	406	93
HepB1	Card or History	94	24-35 m	406	93
HepB1	History	7.8	24-35 m	406	93
HepB3	C or H <12 months	86.4	24-35 m	406	93
HepB3	Card	85.1	24-35 m	406	93
HepB3	Card or History	88.7	24-35 m	406	93
HepB3	History	3.5	24-35 m	406	93
HepBB	C or H <12 months	74.6	24-35 m	406	93
HepBB	Card	74.9	24-35 m	406	93
HepBB	Card or History	74.9	24-35 m	406	93
Hib1	C or H <12 months	93.5	24-35 m	406	93
Hib1	Card	86.3	24-35 m	406	93
Hib1	Card or History	94	24-35 m	406	93
Hib1	History	7.8	24-35 m	406	93
Hib3	C or H <12 months	86.4	24-35 m	406	93
Hib3	Card	85.1	24-35 m	406	93
Hib3	Card or History	88.7	24-35 m	406	93
Hib3	History	3.5	24-35 m	406	93
MCV1	C or H <12 months	74	24-35 m	406	93
MCV1	Card	76.4	24-35 m	406	93
MCV1	Card or History	83.3	24-35 m	406	93
MCV1	History	6.9	24-35 m	406	93
PCV1	C or H <12 months	91.7	24-35 m	406	93
PCV1	Card	85.9	24-35 m	406	93
PCV1	Card or History	93.1	24-35 m	406	93
PCV1	History	7.2	24-35 m	406	93
PCV3	C or H <12 months	85.5	24-35 m	406	93
PCV3	Card	84.6	24-35 m	406	93
PCV3	Card or History	87.8	24-35 m	406	93
PCV3	History	3.2	24-35 m	406	93
Pol1	C or H <12 months	92.3	24-35 m	406	93
Pol1	Card	87.5	24-35 m	406	93
Pol1	Card or History	92.8	24-35 m	406	93
Pol1	History	5.3	24-35 m	406	93
Pol3	C or H <12 months	83.5	24-35 m	406	93
Pol3	Card	86	24-35 m	406	93
Pol3	Card or History	86	24-35 m	406	93
Pol3	History	0	24-35 m	406	93
RotaC	C or H <12 months	84.1	24-35 m	406	93
RotaC	Card	81.1	24-35 m	406	93
RotaC	Card or History	85.7	24-35 m	406	93
RotaC	History	4.7	24-35 m	406	93
YFV	C or H <12 months	77.2	24-35 m	406	93
YFV	Card	80.9	24-35 m	406	93
YFV	Card or History	87.8	24-35 m	406	93
YFV	History	6.9	24-35 m	406	93

2016 Enquête nationale de couverture vaccinale 2017

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	96.2	12-23 m	495	88
DTP1	Card or History	96	12-23 m	495	88
DTP3	Card or History	93	12-23 m	495	88
HepB1	Card or History	96	12-23 m	495	88
HepB3	Card or History	93	12-23 m	495	88
Hib1	Card or History	96	12-23 m	495	88
Hib3	Card or History	93	12-23 m	495	88
IPV1	Card or History	70.8	12-23 m	495	88
MCV1	Card or History	89.8	12-23 m	495	88
PCV1	Card or History	85	12-23 m	495	88
PCV3	Card or History	82.7	12-23 m	495	88
Pol1	Card or History	95.1	12-23 m	495	88
Pol3	Card or History	93.1	12-23 m	495	88
RotaC	Card or History	37.7	12-23 m	495	88
YFV	Card or History	85.5	12-23 m	495	88

2012 Sao Tome and Principe Multiple Indicator Cluster Survey, 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	97.3	12-23 m	403	92
BCG	Card	91.2	12-23 m	403	92
BCG	Card or History	97.3	12-23 m	403	92
BCG	History	6.1	12-23 m	403	92
DTP1	C or H <12 months	95.4	12-23 m	403	92
DTP1	Card	91.7	12-23 m	403	92
DTP1	Card or History	97.2	12-23 m	403	92
DTP1	History	5.5	12-23 m	403	92
DTP3	C or H <12 months	93	12-23 m	403	92
DTP3	Card	90.5	12-23 m	403	92
DTP3	Card or History	94.5	12-23 m	403	92
DTP3	History	4	12-23 m	403	92
HepB1	C or H <12 months	95.4	12-23 m	403	92
HepB1	Card	91.7	12-23 m	403	92
HepB1	Card or History	97.2	12-23 m	403	92
HepB1	History	5.5	12-23 m	403	92
HepB3	C or H <12 months	93	12-23 m	403	92
HepB3	Card	90.5	12-23 m	403	92
HepB3	Card or History	94.5	12-23 m	403	92
HepB3	History	4	12-23 m	403	92
Hib1	C or H <12 months	95.4	12-23 m	403	92
Hib1	Card	91.7	12-23 m	403	92
Hib1	Card or History	97.2	12-23 m	403	92
Hib1	History	5.5	12-23 m	403	92
Hib3	C or H <12 months	93	12-23 m	403	92
Hib3	Card	90.5	12-23 m	403	92
Hib3	Card or History	94.5	12-23 m	403	92
Hib3	History	4	12-23 m	403	92
MCV1	C or H <12 months	89	12-23 m	403	92
MCV1	Card	88.1	12-23 m	403	92
MCV1	Card or History	93	12-23 m	403	92
MCV1	History	4.9	12-23 m	403	92
PcV1	C or H <12 months	86.8	12-23 m	403	92
PcV1	Card	83	12-23 m	403	92
PcV1	Card or History	88	12-23 m	403	92
PcV1	History	5	12-23 m	403	92
PcV3	C or H <12 months	82	12-23 m	403	92
PcV3	Card	81	12-23 m	403	92
PcV3	Card or History	84.8	12-23 m	403	92
PcV3	History	3.8	12-23 m	403	92
Pol1	C or H <12 months	95.3	12-23 m	403	92
Pol1	Card	90.7	12-23 m	403	92
Pol1	Card or History	95.8	12-23 m	403	92
Pol1	History	5.1	12-23 m	403	92
Pol3	C or H <12 months	88.8	12-23 m	403	92
Pol3	Card	89.9	12-23 m	403	92
Pol3	Card or History	90.4	12-23 m	403	92
Pol3	History	0.4	12-23 m	403	92
YFV	C or H <12 months	89.3	12-23 m	403	92
YFV	Card	85.1	12-23 m	403	92
YFV	Card or History	90.3	12-23 m	403	92
YFV	History	5.2	12-23 m	403	92

2011 Sao Tome and Principe Multiple Indicator Cluster Survey, 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	93.7	24-35 m	412	92
BCG	Card	85.7	24-35 m	412	92
BCG	Card or History	93.8	24-35 m	412	92
BCG	History	8.1	24-35 m	412	92
DTP1	C or H <12 months	93.6	24-35 m	412	92
DTP1	Card	87.3	24-35 m	412	92
DTP1	Card or History	94.1	24-35 m	412	92
DTP1	History	6.8	24-35 m	412	92
DTP3	C or H <12 months	85.8	24-35 m	412	92
DTP3	Card	83.7	24-35 m	412	92
DTP3	Card or History	88.5	24-35 m	412	92
DTP3	History	4.9	24-35 m	412	92
HepB1	C or H <12 months	93.6	24-35 m	412	92
HepB1	Card	87.3	24-35 m	412	92
HepB1	Card or History	94.1	24-35 m	412	92
HepB1	History	6.8	24-35 m	412	92
HepB3	C or H <12 months	85.8	24-35 m	412	92
HepB3	Card	83.7	24-35 m	412	92
HepB3	Card or History	88.5	24-35 m	412	92
HepB3	History	4.9	24-35 m	412	92

Hib1	C or H <12 months	93.6	24-35 m	412	92
Hib1	Card	87.3	24-35 m	412	92
Hib1	Card or History	94.1	24-35 m	412	92
Hib1	History	6.8	24-35 m	412	92
Hib3	C or H <12 months	85.8	24-35 m	412	92
Hib3	Card	83.7	24-35 m	412	92
Hib3	Card or History	88.5	24-35 m	412	92
Hib3	History	4.9	24-35 m	412	92
MCV1	C or H <12 months	86.1	24-35 m	412	92
MCV1	Card	84.5	24-35 m	412	92
MCV1	Card or History	92	24-35 m	412	92
MCV1	History	7.5	24-35 m	412	92
PcV1	C or H <12 months	47.8	24-35 m	412	92
PcV1	Card	41.9	24-35 m	412	92
PcV1	Card or History	49.1	24-35 m	412	92
PcV1	History	7.2	24-35 m	412	92
PcV3	C or H <12 months	27.6	24-35 m	412	92
PcV3	Card	36.4	24-35 m	412	92
PcV3	Card or History	42	24-35 m	412	92
PcV3	History	5.6	24-35 m	412	92
Pol1	C or H <12 months	92	24-35 m	412	92
Pol1	Card	85	24-35 m	412	92
Pol1	Card or History	92.1	24-35 m	412	92
Pol1	History	7.1	24-35 m	412	92
Pol3	C or H <12 months	81	24-35 m	412	92
Pol3	Card	82.9	24-35 m	412	92
Pol3	Card or History	84	24-35 m	412	92
Pol3	History	1.1	24-35 m	412	92
YFV	C or H <12 months	81.2	24-35 m	412	92
YFV	Card	78	24-35 m	412	92
YFV	Card or History	85.8	24-35 m	412	92
YFV	History	7.7	24-35 m	412	92

2007 São Tomé e Príncipe Inquérito Demográfico e Sanitário (IDS STP 2008-2009)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	95.2	12-23 m	341	93
BCG	Card	92.7	12-23 m	341	93
BCG	Card or History	96.1	12-23 m	341	93
DTP1	C or H <12 months	93.6	12-23 m	341	93
DTP1	Card	90.4	12-23 m	341	93
DTP1	Card or History	93.6	12-23 m	341	93
DTP3	C or H <12 months	86.4	12-23 m	341	93
DTP3	Card	85.8	12-23 m	341	93
DTP3	Card or History	87.4	12-23 m	341	93
MCV1	C or H <12 months	75.3	12-23 m	341	93
MCV1	Card	81.1	12-23 m	341	93
MCV1	Card or History	84	12-23 m	341	93
Pol1	C or H <12 months	94.6	12-23 m	341	93
Pol1	Card	91.3	12-23 m	341	93
Pol1	Card or History	94.6	12-23 m	341	93
Pol3	C or H <12 months	85.7	12-23 m	341	93
Pol3	Card	86.3	12-23 m	341	93
Pol3	Card or History	86.7	12-23 m	341	93

2006 Enqête nationale de couverture vaccinale 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	98.6	12-23 m	220	97
BCG	Card or History	99.5	12-23 m	220	97
DTP1	Card	97.3	12-23 m	220	97
DTP1	Card or History	100	12-23 m	220	97
DTP3	Card	95.9	12-23 m	220	97
DTP3	Card or History	98.6	12-23 m	220	97
HepB1	Card	96.8	12-23 m	220	97
HepB1	Card or History	99.5	12-23 m	220	97
HepB3	Card	91.4	12-23 m	220	97
HepB3	Card or History	93.6	12-23 m	220	97
MCV1	Card	91.8	12-23 m	220	97
MCV1	Card or History	94.5	12-23 m	220	97
Pol1	Card	97.3	12-23 m	220	97
Pol1	Card or History	100	12-23 m	220	97
Pol3	Card	95.5	12-23 m	220	97
Pol3	Card or History	98.2	12-23 m	220	97
YFV	Card	83.6	12-23 m	220	97
YFV	Card or History	86.4	12-23 m	220	97

2005 The 2006 São Tomé e Príncipe Multiple Indicator Cluster Survey: Final Report

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	98.1	12-23 m	673	91
BCG	Card	90.8	12-23 m	673	91
BCG	Card or History	98.2	12-23 m	673	91
BCG	History	7.5	12-23 m	673	91
DTP1	C or H <12 months	97.9	12-23 m	673	91
DTP1	Card	90.8	12-23 m	673	91
DTP1	Card or History	97.9	12-23 m	673	91
DTP1	History	7.2	12-23 m	673	91
DTP3	C or H <12 months	91.4	12-23 m	673	91
DTP3	Card	87.5	12-23 m	673	91
DTP3	Card or History	92.1	12-23 m	673	91
DTP3	History	4.7	12-23 m	673	91
HepB1	C or H <12 months	87.6	12-23 m	673	91
HepB1	Card	88	12-23 m	673	91
HepB1	Card or History	88	12-23 m	673	91
HepB1	History	0	12-23 m	673	91
HepB3	C or H <12 months	82.9	12-23 m	673	91
HepB3	Card	83.2	12-23 m	673	91
HepB3	Card or History	83.2	12-23 m	673	91
HepB3	History	0	12-23 m	673	91
MCV1	C or H <12 months	83.4	12-23 m	673	91
MCV1	Card	80	12-23 m	673	91
MCV1	Card or History	86.9	12-23 m	673	91
MCV1	History	6.8	12-23 m	673	91
Pol1	C or H <12 months	97	12-23 m	673	91
Pol1	Card	90.9	12-23 m	673	91
Pol1	Card or History	97.1	12-23 m	673	91
Pol1	History	6.2	12-23 m	673	91
Pol3	C or H <12 months	87.4	12-23 m	673	91
Pol3	Card	87.5	12-23 m	673	91
Pol3	Card or History	88.1	12-23 m	673	91
Pol3	History	0.6	12-23 m	673	91
YFV	C or H <12 months	76.9	12-23 m	673	91
YFV	Card	73.9	12-23 m	673	91
YFV	Card or History	79.3	12-23 m	673	91
YFV	History	5.4	12-23 m	673	91

1999 Sao Tome and Principe Enquête de grappes à indicateurs multiples MICS, Rapport d'analyse, 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card <12 months	99	12-23 m	-	-
DTP1	Card <12 months	97	12-23 m	-	-
DTP3	Card <12 months	94	12-23 m	-	-
MCV1	Card <12 months	89	12-23 m	-	-
Pol1	Card <12 months	99	12-23 m	-	-
Pol3	Card <12 months	92	12-23 m	-	-

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