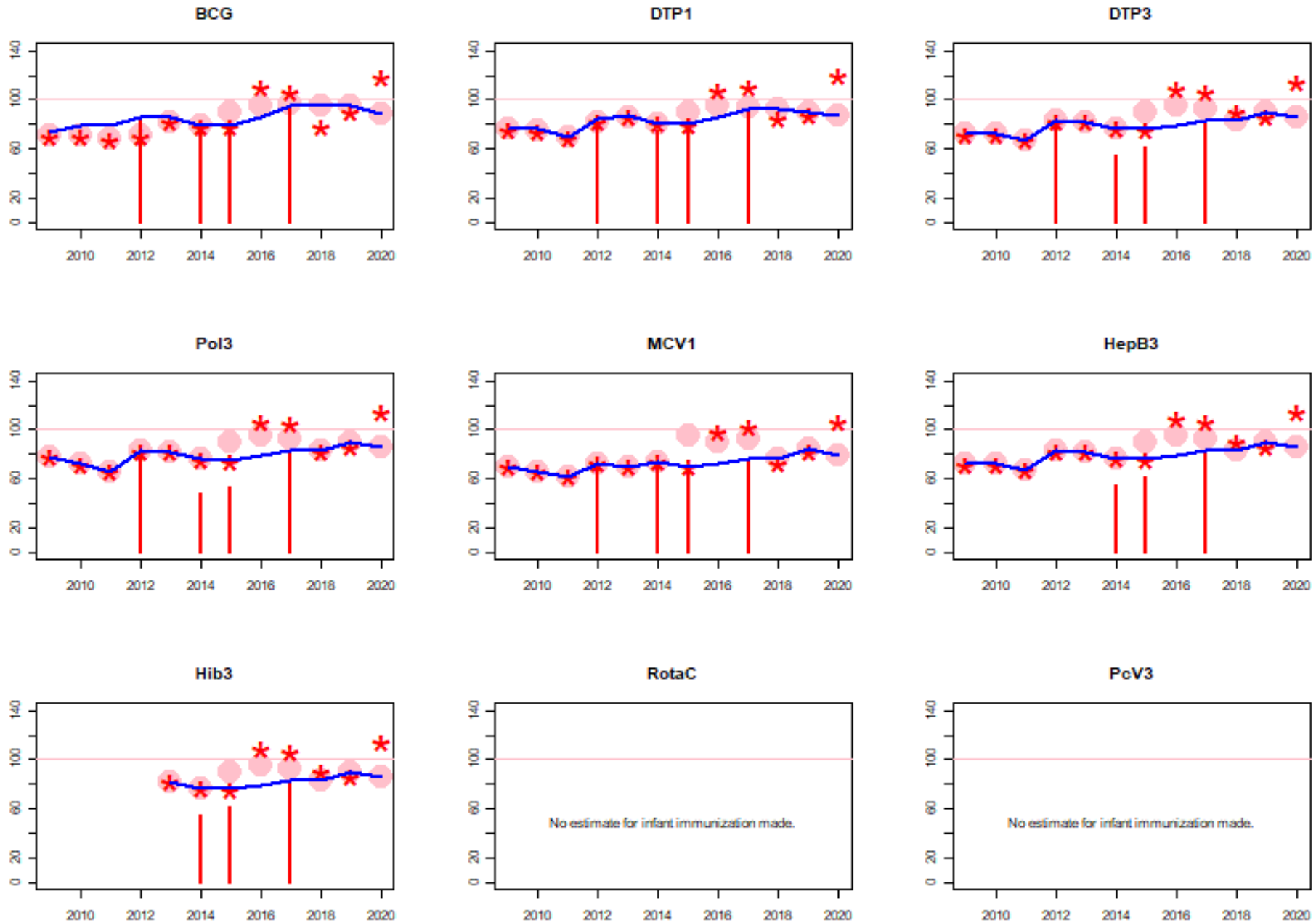


Timor-Leste: WHO and UNICEF estimates of immunization coverage: 2020 revision



BACKGROUND NOTE: Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from 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.

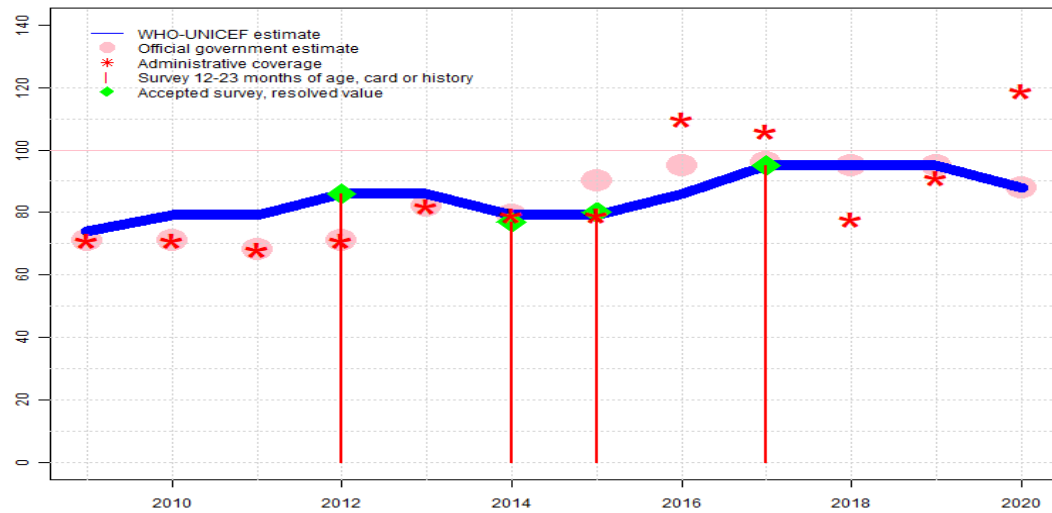
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

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Timor-Leste - BCG

TLS - BCG



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	74	79	79	86	86	79	79	86	95	95	95	88
Estimate GoC	•	•	•	•	•	•	•	•	•	••	•	•
Official	71	71	68	71	82	79	90	95	96	95	95	88
Administrative	71	71	68	71	82	79	79	110	106	78	91	119
Survey	NA	NA	NA	86	NA	77	80	NA	95	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: 2020 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.

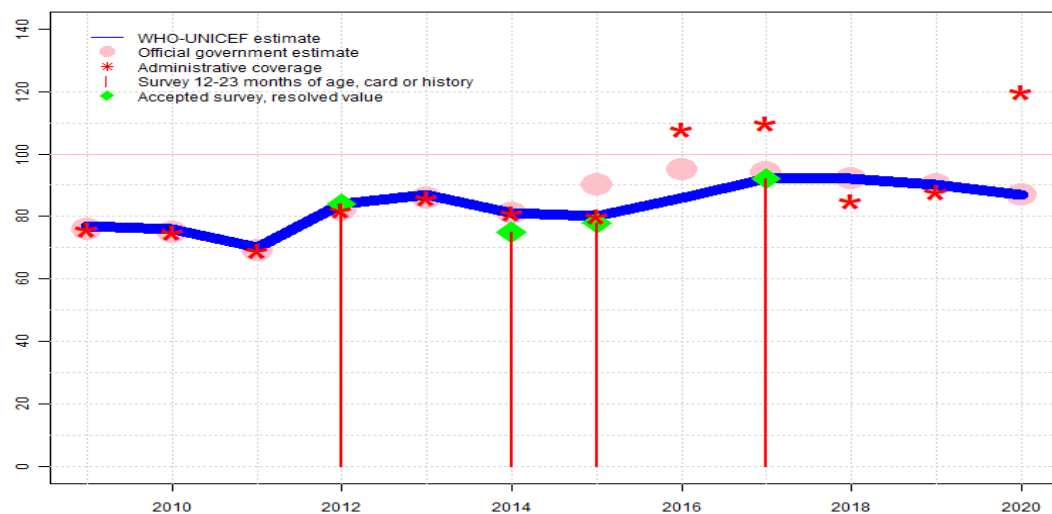
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate based on coverage reported by national government. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2018: Estimate is based on survey result. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results. GoC=Assigned by working group. Consistency with other antigens.
- 2017: Estimate of 95 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Adjustment to reported official estimates is unexplained. Estimate challenged by: R-S-
- 2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Adjustment to reported official estimates is unexplained. The reported number of children vaccinated includes children beyond one-year of age but the proportion above one-year is unknown. The reported target population estimates for 2016 are lower than those for 2015 due in part to a change from use of projections from 2010 census to 2015 census. Estimate challenged by: D-R-
- 2015: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 80 percent based on 1 survey(s). WHO and UNICEF are aware of two sub-national surveys conducted during 2015 reflecting coverage for the 2013-14 birth cohorts and encourages efforts to appropriately re-weight the survey results to produce national level coverage results. Official government reported data based on two sub-national surveys conducted during 2015. GoC=Assigned by working group. Consistency across vaccines.
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 77 percent based on 1 survey(s). GoC=Assigned by working group. Consistency across vaccines.
- 2013: Estimate of 86 percent assigned by working group. Estimate is based on survey result for 2012. Programme reports three month stock-out at national level and in two districts.. Estimate challenged by: R-
- 2012: 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-
- 2011: Reported data calibrated to 2008 and 2012 levels. Estimate challenged by: R-
- 2010: Reported data calibrated to 2008 and 2012 levels. Estimate challenged by: R-
- 2009: Reported data calibrated to 2008 and 2012 levels. Trends in coverage from 2007 to 2009 consistent with trends in other antigens. Estimate challenged by: D-R-

Timor-Leste - DTP1

TLS - DTP1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	77	76	70	84	87	81	80	86	92	92	90	87
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	76	75	69	82	86	81	90	95	94	92	90	87
Administrative	76	75	69	82	86	81	80	108	110	85	88	120
Survey	NA	NA	NA	84	NA	75	78	NA	92	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: 2020 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.

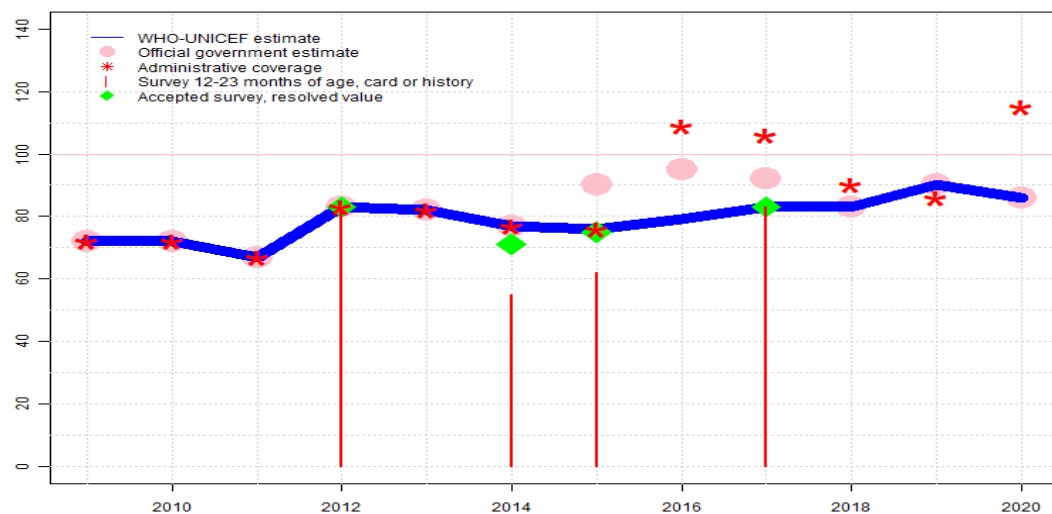
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate based on coverage reported by national government. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Estimate of 90 percent changed from previous revision value of 92 percent. Estimate challenged by: D-
- 2018: Estimate is based on reported data. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results.. Estimate challenged by: D-
- 2017: Estimate of 92 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Adjustment to reported official estimates is unexplained. Estimate challenged by: D-R-S-
- 2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Adjustment to reported official estimates is unexplained. The reported number of children vaccinated includes children beyond one-year of age but the proportion above one-year is unknown. The reported target population estimates for 2016 are lower than those for 2015 due in part to a change from use of projections from 2010 census to 2015 census. Estimate challenged by: D-R-S-
- 2015: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 78 percent based on 1 survey(s). WHO and UNICEF are aware of two sub-national surveys conducted during 2015 reflecting coverage for the 2013-14 birth cohorts and encourages efforts to appropriately re-weight the survey results to produce national level coverage results. Official government reported data based on two subnational surveys conducted during 2015. GoC=Assigned by working group. Consistency across vaccines.
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 75 percent based on 1 survey(s). GoC=Assigned by working group. Consistency across vaccines.
- 2013: Reported data calibrated to 2012 and 2014 levels. Estimate challenged by: D-R-S-
- 2012: Estimate of 84 percent assigned by working group. Estimate is based on the survey coverage which supports the reported coverage level. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2008 and 2012 levels. Estimate challenged by: D-R-S-
- 2010: Reported data calibrated to 2008 and 2012 levels. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2008 and 2012 levels. Estimate challenged by: D-R-

Timor-Leste - DTP3

TLS - DTP3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	72	72	67	83	82	77	76	79	83	83	90	86
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	72	72	67	83	82	77	90	95	92	83	90	86
Administrative	72	72	67	83	82	77	76	109	106	90	86	115
Survey	NA	NA	NA	83	NA	55	62	NA	83	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: 2020 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:

- 2020: Estimate based on coverage reported by national government. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Official coverage estimates do not reflect trends in reported doses administered (numerator) between 2017 and 2019. Numerator trend for DTP-HepB3-Hib 3 not consistent with that of DTP 1. Estimate of 90 percent changed from previous revision value of 83 percent. Estimate challenged by: D-
- 2018: Estimate is based on reported data. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results. Official coverage estimates do not reflect trends in reported doses administered (numerator) between 2017 and 2019. Numerator trend for DTP-HepB3-Hib 3 not consistent with that of DTP 1.. Estimate challenged by: D-
- 2017: Estimate of 83 percent assigned by working group. Estimate is based on survey result. Information was not available in the survey report to adjust for recall bias. Reported data excluded. Adjustment to reported official estimates is unexplained. Official coverage estimates do not reflect trends in reported doses administered (numerator) between 2017 and 2019. Numerator trend for DTP-HepB3-Hib 3 not consistent with that of DTP 1. Estimate challenged by: D-R-
- 2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Adjustment to reported official estimates is unexplained. The reported number of children vaccinated includes children beyond one-year of age but the proportion above one-year is unknown. The reported target population estimates for 2016 are lower than those for 2015 due in part to a change from use of projections from 2010 census to 2015 census. Estimate challenged by: D-R-
- 2015: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 75 percent based on 1 survey(s). Timor-Leste Demographic and Health Survey 2016 card or history results of 62 percent modified for recall bias to 75 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 50 percent and 3rd dose card only coverage of 48 percent. WHO and UNICEF are aware of two sub-national surveys conducted during 2015 reflecting coverage for the 2013-14 birth cohorts and encourages efforts to appropriately re-weight the survey results to produce national level coverage results. Official government reported data based on two subnational surveys conducted during 2015. GoC=Assigned by working group. Consistency across vaccines.
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 71 percent based on 1 survey(s). Timor-Leste Demographic and Health

Timor-Leste - DTP3

Survey 2016 card or history results of 55 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 75 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 38 percent. GoC=Assigned by working group. Consistency across vaccines.

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

2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 83 percent based on 1 survey(s). Estimate challenged by: D-S-

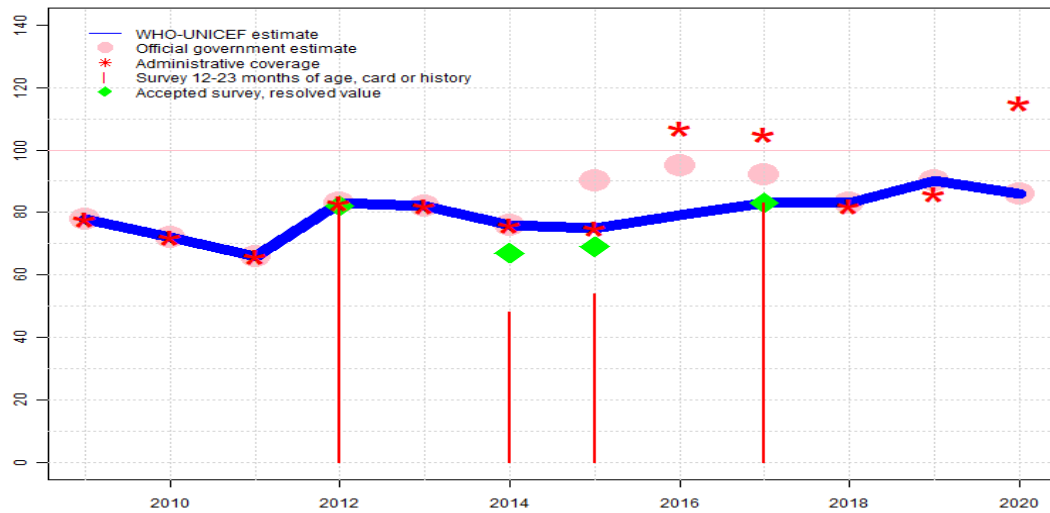
2011: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2010: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

2009: Estimate based on coverage reported by national government. Estimate challenged by: D-

Timor-Leste - Pol3

TLS - Pol3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	78	72	66	83	82	76	75	79	83	83	90	86
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	78	72	66	83	82	76	90	95	92	83	90	86
Administrative	78	72	66	83	82	76	75	107	105	82	86	115
Survey	NA	NA	NA	82	NA	48	54	NA	83	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: 2020 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:

- 2020: Estimate based on coverage reported by national government. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2018: Estimate is based on reported data. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results. Estimate is based on reported. Estimate challenged by: D-
- 2017: Estimate of 83 percent assigned by working group. Estimate is based on survey result. Information was not available in the survey report to adjust for recall bias. Reported data excluded. Adjustment to reported official estimates is unexplained. Estimate challenged by: D-R-S-
- 2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Adjustment to reported official estimates is unexplained. The reported number of children vaccinated includes children beyond one-year of age but the proportion above one-year is unknown. The reported target population estimates for 2016 are lower than those for 2015 due in part to a change from use of projections from 2010 census to 2015 census. Estimate challenged by: D-R-S-
- 2015: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 69 percent based on 1 survey(s). Timor-Leste Demographic and Health Survey 2016 card or history results of 54 percent modified for recall bias to 69 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 50 percent and 3rd dose card only coverage of 47 percent. WHO and UNICEF are aware of two sub-national surveys conducted during 2015 reflecting coverage for the 2013-14 birth cohorts and encourages efforts to appropriately re-weight the survey results to produce national level coverage results. Official government reported data based on two subnational surveys conducted during 2015. GoC=Assigned by working group. Consistency across vaccines.
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 67 percent based on 1 survey(s). Timor-Leste Demographic and Health Survey 2016 card or history results of 48 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 70 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 38 percent. GoC=Assigned by working group. Consistency across vaccines.
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-S-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 82 percent based on 1 survey(s). Estimate challenged by: D-S-

Timor-Leste - Pol3

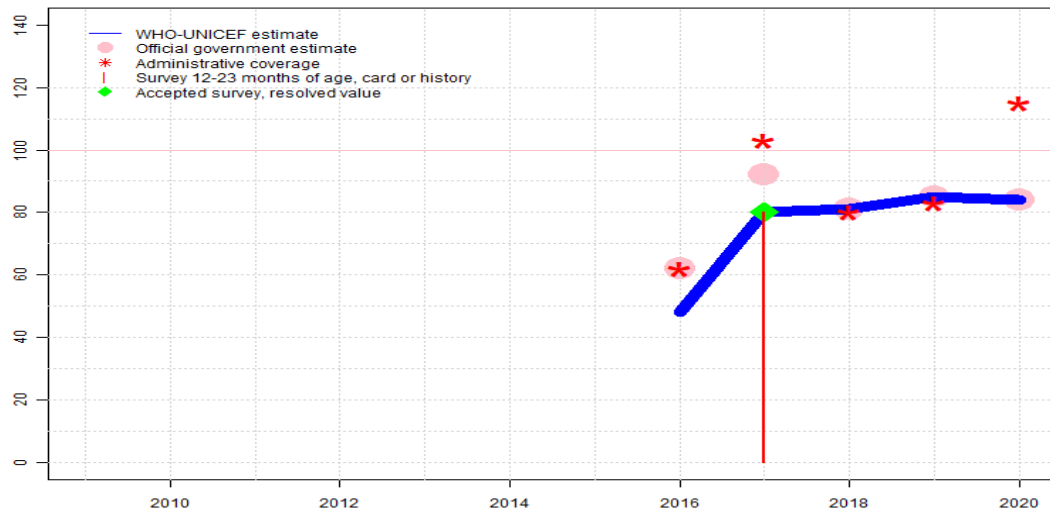
2011: Estimate based on coverage reported by national government. Estimate challenged by:
D-S-

2010: Estimate based on coverage reported by national government. Estimate challenged by: D-

2009: Estimate based on coverage reported by national government. Estimate challenged by: D-

Timor-Leste - IPV1

TLS - IPV1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	NA	48	80	81	85	84
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	62	92	81	85	84
Administrative	NA	NA	NA	NA	NA	NA	NA	62	103	80	83	115
Survey	NA	NA	NA	NA	NA	NA	NA	NA	80	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: 2020 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).

2020: Estimate based on coverage reported by national government. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-

2019: Estimate based on coverage reported by national government. Estimate challenged by: D-

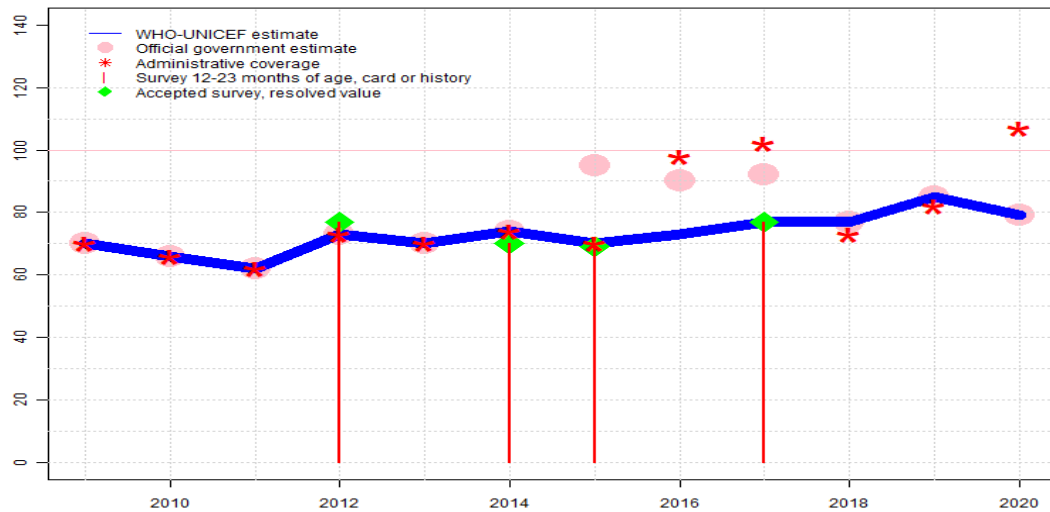
2018: Estimate based on coverage reported by national government. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results.. Estimate challenged by: D-

2017: Estimate is based on survey result. Reported data excluded. Adjustment to reported official estimates is unexplained. Reported data excluded due to an increase from 62 percent to 92 percent with decrease 81 percent. Estimate challenged by: D-R-

2016: Estimate is based on recomputed coverage reported by the country using target population data from the 2009 census. Reported data excluded. Adjustment to reported official estimates is unexplained. Inactivated polio vaccine introduced during 2016. Reporting began in 2016. Estimate challenged by: D-R-S-

Timor-Leste - MCV1

TLS - MCV1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	70	66	62	73	70	74	70	73	77	77	85	79
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	70	66	62	73	70	74	95	90	92	77	85	79
Administrative	70	66	62	73	70	74	70	98	102	73	82	107
Survey	NA	NA	NA	77	NA	70	69	NA	77	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: 2020 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.

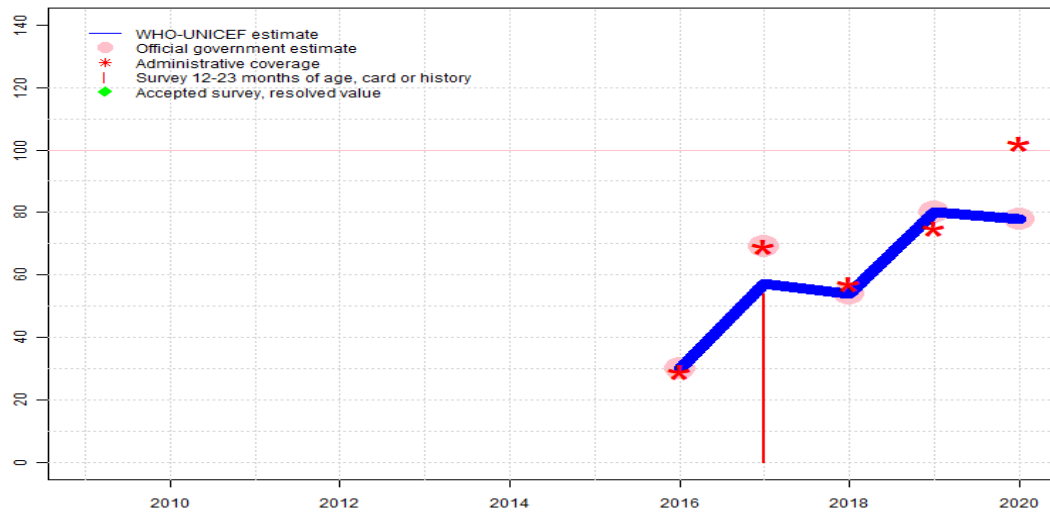
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate based on coverage reported by national government. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2018: Estimate is based on reported data. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results. Estimate challenged by: D-
- 2017: Estimate of 77 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Adjustment to reported official estimates is unexplained. Estimate challenged by: D-R-
- 2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Adjustment to reported official estimates is unexplained. The reported number of children vaccinated includes children beyond one-year of age but the proportion above one-year is unknown. The reported target population estimates for 2016 are lower than those for 2015 due in part to a change from use of projections from 2010 census to 2015 census. Estimate challenged by: D-R-
- 2015: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 69 percent based on 1 survey(s). WHO and UNICEF are aware of two sub-national surveys conducted during 2015 reflecting coverage for the 2013-14 birth cohorts and encourages efforts to appropriately re-weight the survey results to produce national level coverage results. Official government reported data based on two sub-national surveys conducted during 2015. GoC=Assigned by working group. Consistency across vaccines.
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 70 percent based on 1 survey(s). GoC=Assigned by working group. Consistency across vaccines.
- 2013: Estimate based on coverage reported by national government. Programme reports four month stock-out at national level and in four districts. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 77 percent based on 1 survey(s). Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-S-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-S-
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: D-

Timor-Leste - MCV2

TLS - MCV2



Description:

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

- 2020: Estimate based on coverage reported by national government. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. . Estimate challenged by: D-
- 2018: Estimate based on coverage reported by national government. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results. Estimate is based on reported. Estimate challenged by: D-
- 2017: Estimate is based on the relative difference between estimated and reported coverage for MCV1. Survey results ignored. Sample size 299 less than 300. Reported data excluded. Adjustment to reported official estimates is unexplained. Reported data excluded due to an increase from 30 percent to 69 percent with decrease 54 percent. Estimate challenged by: R-
- 2016: Estimate is exceptionally based on reported coverage during introduction year. Reported data excluded. Adjustment to reported official estimates is unexplained. Second dose of measles containing vaccine introduced in 2016. Reported data exceptionally accepted. Estimate challenged by: R-

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	NA	30	57	54	80	78
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	30	69	54	80	78
Administrative	NA	NA	NA	NA	NA	NA	NA	29	69	57	75	102
Survey	NA	NA	NA	NA	NA	NA	NA	NA	54	NA	NA	NA

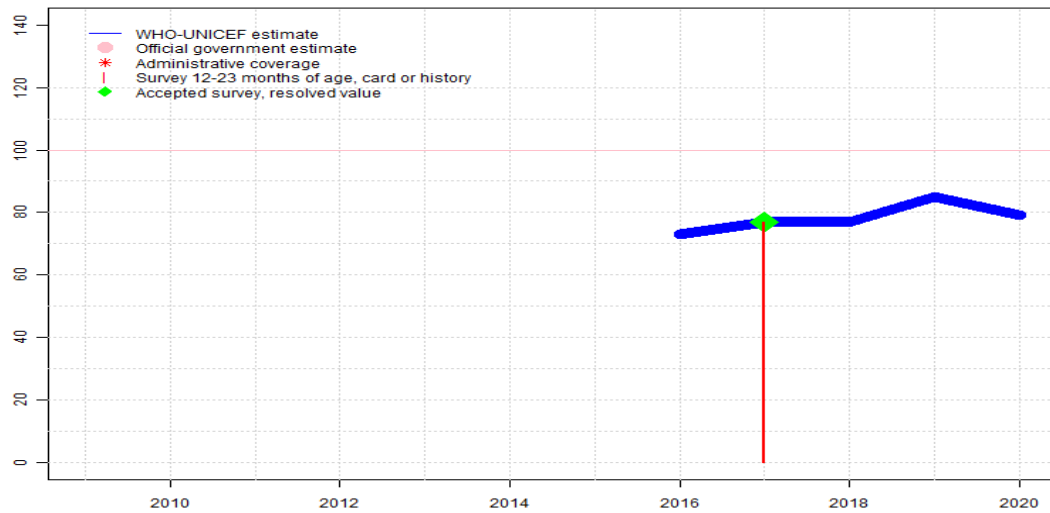
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2020 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.

Timor-Leste - RCV1

TLS - RCV1



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.

2020: Estimate based on estimated MCV1. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-

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

2018: Estimate based on estimated MCV1. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results. Estimate challenged by: D-

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

2016: Estimate based on estimated MCV1. Rubella containing vaccine introduced during 2016. Estimate challenged by: D-R-

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	NA	73	77	77	85	79
Estimate GoC	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	77	NA	NA	NA

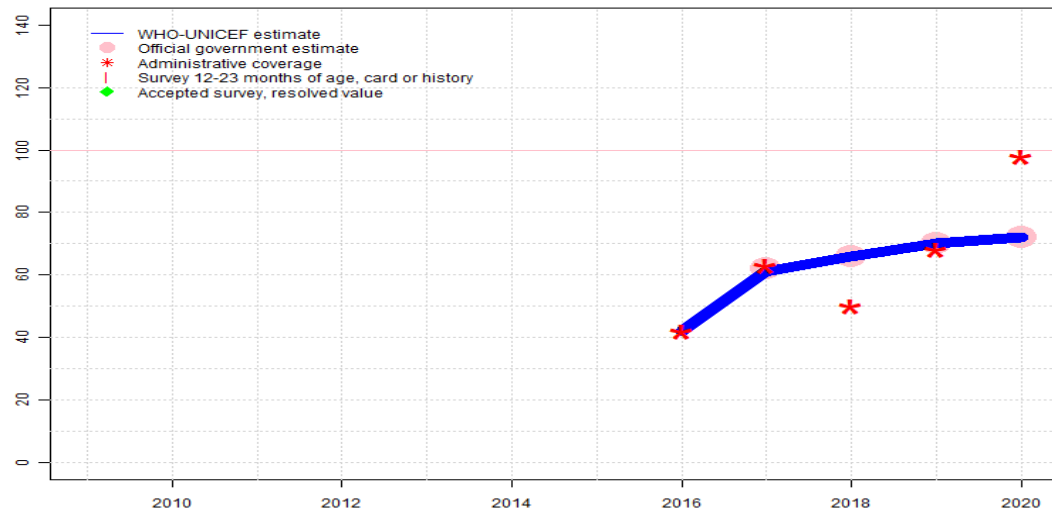
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2020 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.

Timor-Leste - HepBB

TLS - HepBB



Description:

- 2020: Estimate based on coverage reported by national government. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2018: Estimate based on coverage reported by national government. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results.. GoC=R+ D+
- 2017: Estimate is based on the relative difference between estimated and reported coverage for BCG. Reported data excluded. Adjustment to reported official estimates is unexplained. Estimate challenged by: R-
- 2016: Estimate is exceptionally based on reported coverage during introduction. Reported data excluded. Adjustment to reported official estimates is unexplained. Estimate challenged by: R-

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	NA	42	61	66	70	72
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	••	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	62	66	70	72
Administrative	NA	NA	NA	NA	NA	NA	NA	42	63	50	68	98
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

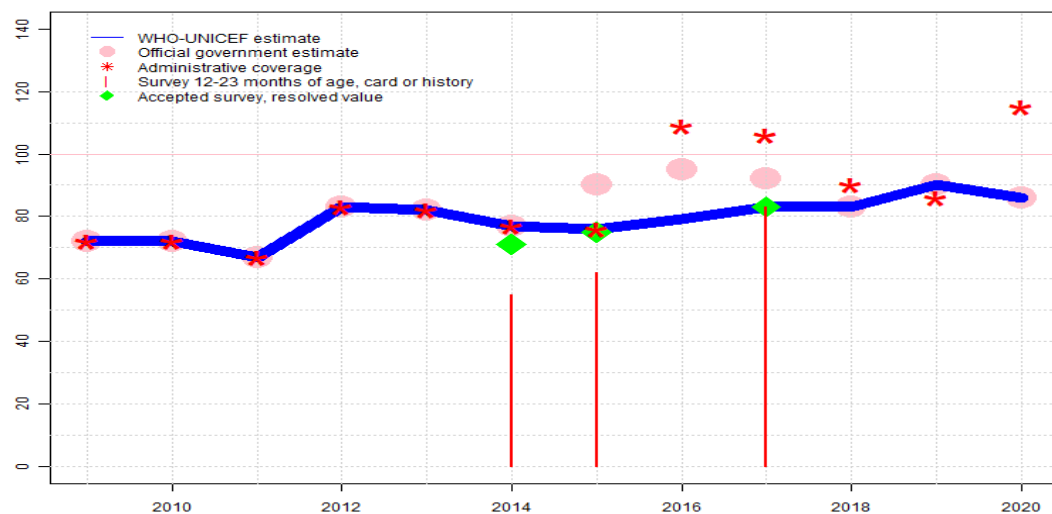
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2020 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.

Timor-Leste - HepB3

TLS - HepB3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	72	72	67	83	82	77	76	79	83	83	90	86
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	72	72	67	83	82	77	90	95	92	83	90	86
Administrative	72	72	67	83	82	77	76	109	106	90	86	115
Survey	NA	NA	NA	NA	NA	55	62	NA	83	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: 2020 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:

- 2020: Estimate based on coverage reported by national government. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Official coverage estimates do not reflect trends in reported doses administered (numerator) between 2017 and 2019. Numerator trend for DTP-HepB3-Hib 3 not consistent with that of DTP 1. Estimate of 90 percent changed from previous revision value of 83 percent. Estimate challenged by: D-
- 2018: Estimate is based on reported data. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results. Official coverage estimates do not reflect trends in reported doses administered (numerator) between 2017 and 2019. Numerator trend for DTP-HepB3-Hib 3 not consistent with that of DTP 1.. Estimate challenged by: D-
- 2017: Estimate of 83 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Adjustment to reported official estimates is unexplained. Official coverage estimates do not reflect trends in reported doses administered (numerator) between 2017 and 2019. Numerator trend for DTP-HepB3-Hib 3 not consistent with that of DTP 1. Estimate challenged by: D-R-
- 2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Adjustment to reported official estimates is unexplained. The reported number of children vaccinated includes children beyond one-year of age but the proportion above one-year is unknown. The reported target population estimates for 2016 are lower than those for 2015 due in part to a change from use of projections from 2010 census to 2015 census. Estimate challenged by: D-R-
- 2015: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 75 percent based on 1 survey(s). Timor-Leste Demographic and Health Survey 2016 card or history results of 62 percent modified for recall bias to 75 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 50 percent and 3rd dose card only coverage of 48 percent. WHO and UNICEF are aware of two sub-national surveys conducted during 2015 reflecting coverage for the 2013-14 birth cohorts and encourages efforts to appropriately re-weight the survey results to produce national level coverage results. Official government reported data based on two subnational surveys conducted during 2015. GoC=Assigned by working group. Consistency across vaccines.
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 71 percent based on 1 survey(s). Timor-Leste Demographic and Health Survey 2016 card or history results of 55 percent modified for recall bias to 71 percent

Timor-Leste - HepB3

based on 1st dose card or history coverage of 75 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 38 percent. GoC=Assigned by working group. Consistency across vaccines.

2013: Estimate based on coverage reported by national government. Vaccine presentation changed from DTP-HepB to DTP-HepB-Hib in October 2012. Estimate challenged by: D-S-

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

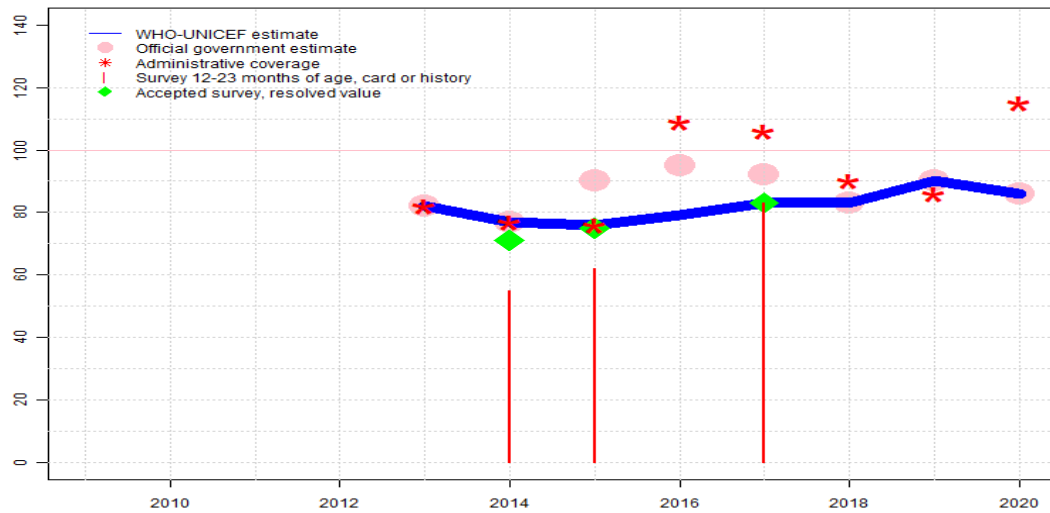
2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2010: Estimate based on coverage reported by national government. Estimate challenged by: D-

2009: Estimate based on coverage reported by national government. Estimate challenged by: D-

Timor-Leste - Hib3

TLS - Hib3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	82	77	76	79	83	83	90	86
Estimate GoC	NA	NA	NA	NA	•	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	82	77	90	95	92	83	90	86
Administrative	NA	NA	NA	NA	82	77	76	109	106	90	86	115
Survey	NA	NA	NA	NA	NA	55	62	NA	83	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: 2020 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:

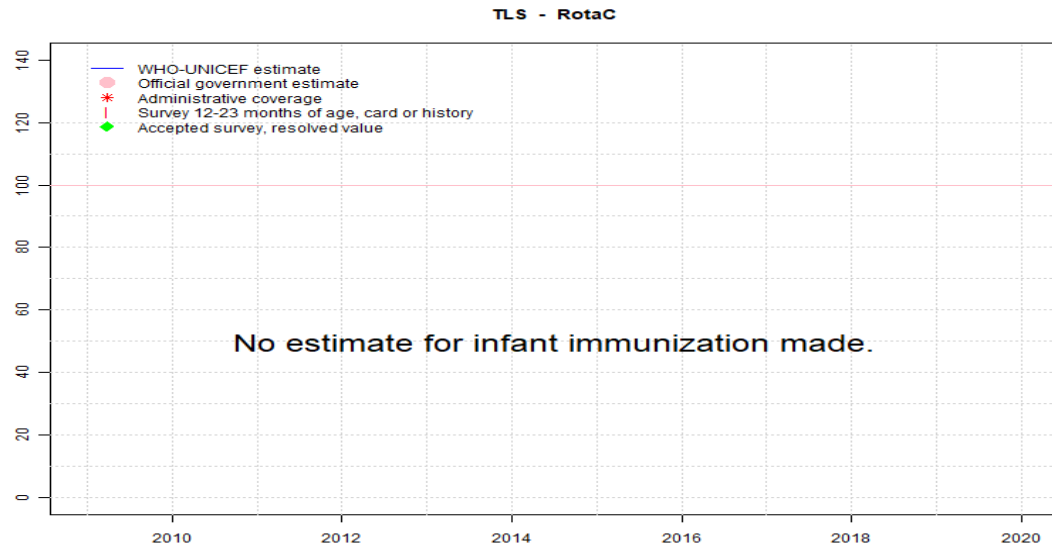
- 2020: Estimate based on coverage reported by national government. No vital registration system in place in the country. The 2015 census was used as the basis for the denominator used for the reported administrative coverage. These census projections are under discussion by different institutions. WHO and UNICEF recommend a revision of reported coverage time series once official denominators have been defined. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Official coverage estimates do not reflect trends in reported doses administered (numerator) between 2017 and 2019. Numerator trend for DTP-HepB3-Hib 3 not consistent with that of DTP 1. Estimate of 90 percent changed from previous revision value of 83 percent. Estimate challenged by: D-
- 2018: Estimate is based on reported data. Exceptional relative increase of 35 percent in reported target population from 2017 to 2018 is explained by a reversion to projections from 2010 census. Apparent decline in reported administrative data likely an artefact resulting from change in reported target. Reported official coverage based on survey results. Official coverage estimates do not reflect trends in reported doses administered (numerator) between 2017 and 2019. Numerator trend for DTP-HepB3-Hib 3 not consistent with that of DTP 1.. Estimate challenged by: D-
- 2017: Estimate of 83 percent assigned by working group. Estimate is based on survey result. Reported data excluded. Adjustment to reported official estimates is unexplained. Official coverage estimates do not reflect trends in reported doses administered (numerator) between 2017 and 2019. Numerator trend for DTP-HepB3-Hib 3 not consistent with that of DTP 1. Estimate challenged by: D-R-
- 2016: Reported data calibrated to 2015 and 2017 levels. Reported data excluded. Adjustment to reported official estimates is unexplained. The reported number of children vaccinated includes children beyond one-year of age but the proportion above one-year is unknown. The reported target population estimates for 2016 are lower than those for 2015 due in part to a change from use of projections from 2010 census to 2015 census. Estimate challenged by: D-R-
- 2015: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 75 percent based on 1 survey(s). Timor-Leste Demographic and Health Survey 2016 card or history results of 62 percent modified for recall bias to 75 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 50 percent and 3rd dose card only coverage of 48 percent. WHO and UNICEF are aware of two sub-national surveys conducted during 2015 reflecting coverage for the 2013-14 birth cohorts and encourages efforts to appropriately re-weight the survey results to produce national level coverage results. Official government reported data based on two subnational surveys conducted during 2015. GoC=Assigned by working group. Consistency across vaccines.
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 71 percent based on 1 survey(s). Timor-Leste Demographic and Health Survey 2016 card or history results of 55 percent modified for recall bias to 71 percent

Timor-Leste - Hib3

based on 1st dose card or history coverage of 75 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 38 percent. GoC=Assigned by working group. Consistency across vaccines.

2013: Estimate based on reported data. Vaccine introduced in October 2012 and reporting started in 2013. Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-S-

Timor-Leste - RotaC



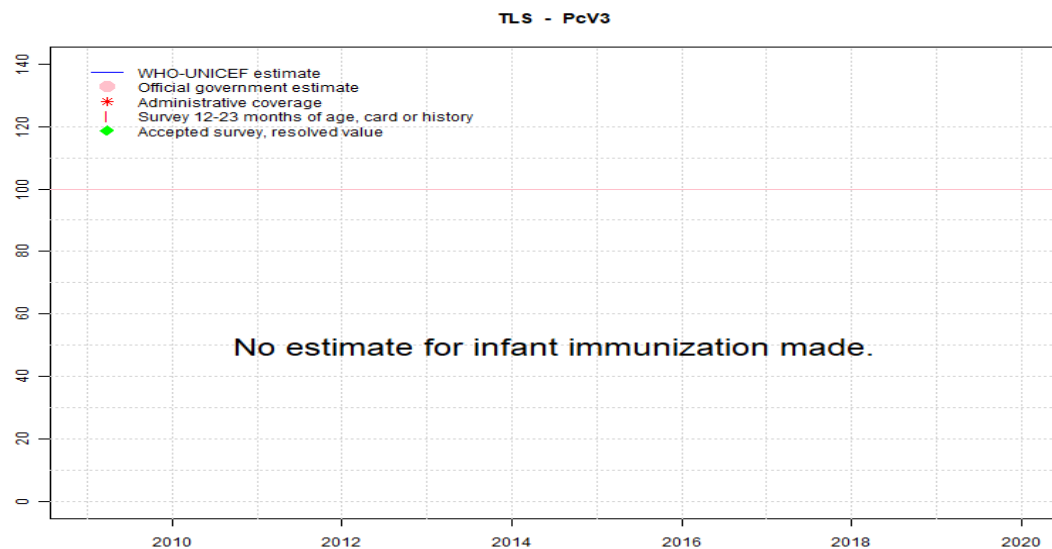
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: 2020 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.

Timor-Leste - PcV3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
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: 2020 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.

Timor-Leste - survey details

2017 Timor-Leste Vaccination Cluster Coverage Survey 2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	94.7	12-23 m	312	62
DTP1	Card or History	91.8	12-23 m	312	62
DTP3	Card or History	83	12-23 m	312	62
HepB1	Card or History	91.8	12-23 m	312	62
HepB3	Card or History	83.3	12-23 m	312	62
Hib1	Card or History	91.8	12-23 m	312	62
Hib3	Card or History	83.3	12-23 m	312	62
IPV1	Card or History	80	12-23 m	312	62
MCV1	Card or History	77.3	12-23 m	312	62
MCV2	Card or History	54.4	24-35 m	299	62
Pol1	Card or History	91.8	12-23 m	312	62
Pol3	Card or History	83.3	12-23 m	312	62

2015 Timor-Leste Demographic and Health Survey 2016

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	79.1	12-23 m	1456	51
BCG	Card	51	12-23 m	749	51
BCG	Card or History	80.5	12-23 m	1456	51
BCG	History	29.5	12-23 m	707	51
DTP1	C or H <12 months	77.4	12-23 m	1456	51
DTP1	Card	50.5	12-23 m	749	51
DTP1	Card or History	78.4	12-23 m	1456	51
DTP1	History	27.9	12-23 m	707	51
DTP3	C or H <12 months	60.1	12-23 m	1456	51
DTP3	Card	47.5	12-23 m	749	51
DTP3	Card or History	61.7	12-23 m	1456	51
DTP3	History	14.1	12-23 m	707	51
HepB1	C or H <12 months	77.4	12-23 m	1456	51
HepB1	Card	50.5	12-23 m	749	51
HepB1	Card or History	78.4	12-23 m	1456	51
HepB1	History	27.9	12-23 m	707	51
HepB3	C or H <12 months	60.1	12-23 m	1456	51
HepB3	Card	47.5	12-23 m	749	51
HepB3	Card or History	61.7	12-23 m	1456	51

HepB3	History	14.1	12-23 m	707	51
Hib1	C or H <12 months	77.4	12-23 m	1456	51
Hib1	Card	50.5	12-23 m	749	51
Hib1	Card or History	78.4	12-23 m	1456	51
Hib1	History	27.9	12-23 m	707	51
Hib3	C or H <12 months	60.1	12-23 m	1456	51
Hib3	Card	47.5	12-23 m	749	51
Hib3	Card or History	61.7	12-23 m	1456	51
Hib3	History	14.1	12-23 m	707	51
MCV1	C or H <12 months	65.4	12-23 m	1456	51
MCV1	Card	43.8	12-23 m	749	51
MCV1	Card or History	69.3	12-23 m	1456	51
MCV1	History	25.5	12-23 m	707	51
Pol1	C or H <12 months	72.6	12-23 m	1456	51
Pol1	Card	50	12-23 m	749	51
Pol1	Card or History	73.1	12-23 m	1456	51
Pol1	History	23	12-23 m	707	51
Pol3	C or H <12 months	53	12-23 m	1456	51
Pol3	Card	47	12-23 m	749	51
Pol3	Card or History	54.3	12-23 m	1456	51
Pol3	History	7.3	12-23 m	707	51

2014 Timor-Leste Demographic and Health Survey 2016

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	73.9	24-35 m	1364	51
BCG	Card	40.2	24-35 m	554	51
BCG	Card or History	76.6	24-35 m	1364	51
BCG	History	36.4	24-35 m	809	51
DTP1	C or H <12 months	73.2	24-35 m	1364	51
DTP1	Card	40.4	24-35 m	554	51
DTP1	Card or History	75.4	24-35 m	1364	51
DTP1	History	35	24-35 m	809	51
DTP3	C or H <12 months	51.6	24-35 m	1364	51
DTP3	Card	37.8	24-35 m	554	51
DTP3	Card or History	55.3	24-35 m	1364	51
DTP3	History	17.5	24-35 m	809	51
HepB1	C or H <12 months	73.2	24-35 m	1364	51
HepB1	Card	40.4	24-35 m	554	51

Timor-Leste - survey details

HepB1	Card or History	75.4	24-35 m	1364	51
HepB1	History	35	24-35 m	809	51
HepB3	C or H <12 months	51.6	24-35 m	1364	51
HepB3	Card	37.8	24-35 m	554	51
HepB3	Card or History	55.3	24-35 m	1364	51
HepB3	History	17.5	24-35 m	809	51
Hib1	C or H <12 months	73.2	24-35 m	1364	51
Hib1	Card	40.4	24-35 m	554	51
Hib1	Card or History	75.4	24-35 m	1364	51
Hib1	History	35	24-35 m	809	51
Hib3	C or H <12 months	51.6	24-35 m	1364	51
Hib3	Card	37.8	24-35 m	554	51
Hib3	Card or History	55.3	24-35 m	1364	51
Hib3	History	17.5	24-35 m	809	51
MCV1	C or H <12 months	64.1	24-35 m	1364	51
MCV1	Card	36.4	24-35 m	554	51
MCV1	Card or History	70	24-35 m	1364	51
MCV1	History	33.6	24-35 m	809	51
Pol1	C or H <12 months	67.9	24-35 m	1364	51
Pol1	Card	40.1	24-35 m	554	51
Pol1	Card or History	69.5	24-35 m	1364	51
Pol1	History	29.4	24-35 m	809	51
Pol3	C or H <12 months	45	24-35 m	1364	51
Pol3	Card	38.3	24-35 m	554	51
Pol3	Card or History	48.4	24-35 m	1364	51
Pol3	History	10.1	24-35 m	809	51

2012 Timor Leste Food and Nutrition Survey, 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	85.5	12-23 m	2396	86
DTP1	Card or History	84.5	12-23 m	2396	86
DTP3	Card or History	82.6	12-23 m	2396	86
MCV1	Card or History	76.8	12-23 m	2396	86
Pol1	Card or History	83.9	12-23 m	2396	86
Pol3	Card or History	82.1	12-23 m	2396	86

2010 Report on Coverage Evaluation Survey Measles Catch-up Activity, 2011

Timor-Leste

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV1	History	69.6	6-11 m	210	-

2008 Timor-Leste Demographic and Health Survey 2009-10

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	76.6	12-23 m	1752	50
BCG	Card	49.4	12-23 m	1752	50
BCG	Card or History	76.7	12-23 m	1752	50
BCG	History	27.3	12-23 m	1752	50
DTP1	C or H <12 months	74.2	12-23 m	1752	50
DTP1	Card	49	12-23 m	1752	50
DTP1	Card or History	75.1	12-23 m	1752	50
DTP1	History	26.1	12-23 m	1752	50
DTP3	C or H <12 months	64.2	12-23 m	1752	50
DTP3	Card	47	12-23 m	1752	50
DTP3	Card or History	66.4	12-23 m	1752	50
DTP3	History	19.4	12-23 m	1752	50
HepB1	C or H <12 months	73.7	12-23 m	1752	50
HepB1	Card	49	12-23 m	1752	50
HepB1	Card or History	74.6	12-23 m	1752	50
HepB1	History	25.7	12-23 m	1752	50
HepB3	C or H <12 months	62.9	12-23 m	1752	50
HepB3	Card	46.8	12-23 m	1752	50
HepB3	Card or History	65.7	12-23 m	1752	50
HepB3	History	18.9	12-23 m	1752	50
MCV1	C or H <12 months	60	12-23 m	1752	50
MCV1	Card	44.6	12-23 m	1752	50
MCV1	Card or History	67.8	12-23 m	1752	50
MCV1	History	23.2	12-23 m	1752	50
Pol1	C or H <12 months	74	12-23 m	1752	50
Pol1	Card	49.1	12-23 m	1752	50
Pol1	Card or History	74.9	12-23 m	1752	50
Pol1	History	25.7	12-23 m	1752	50
Pol3	C or H <12 months	54.4	12-23 m	1752	50
Pol3	Card	47	12-23 m	1752	50

Timor-Leste - survey details

Pol3	Card or History	56.2	12-23 m	1752	50
Pol3	History	9.1	12-23 m	1752	50

Pol3	Card or History	26.4	12-23 m	722	12
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2003 Immunization coverage among women and children 12-23 months in the Democratic Republic of Timor-Leste Using the EPI cluster survey methodology

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	25	12-23 m	2662	26
BCG	Card or history	72	12-23 m	2662	26
DTP1	Card	20	12-23 m	2662	26
DTP1	Card or history	65	12-23 m	2662	26
DTP3	Card	17	12-23 m	2662	26
DTP3	Card or history	57	12-23 m	2662	26
MCV1	Card	15	12-23 m	2662	26
MCV1	Card or history	55	12-23 m	2662	26
Pol1	Card	20	12-23 m	2662	26
Pol1	Card or history	65	12-23 m	2662	26
Pol3	Card	17	12-23 m	2662	26
Pol3	Card or history	57	12-23 m	2662	26

2002 Timor-Leste 2003 Demographic and Health Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	75.1	12-23 m	722	12
DTP1	Card or History	68.1	12-23 m	722	12
DTP3	Card or History	37.5	12-23 m	722	12
MCV1	Card or History	56.4	12-23 m	722	12
Pol1	Card or History	69.1	12-23 m	722	12

2001 Multiple Indicator Cluster Survey Timor-Leste 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	34.5	12-23 m	988	10
BCG	Card	8.7	12-23 m	988	10
BCG	Card or History	37.2	12-23 m	988	10
BCG	History	28.5	12-23 m	988	10
DTP1	C or H <12 months	34.5	12-23 m	988	10
DTP1	Card	8.6	12-23 m	988	10
DTP1	Card or History	34.7	12-23 m	988	10
DTP1	History	26.1	12-23 m	988	10
DTP3	C or H <12 months	17.3	12-23 m	988	10
DTP3	Card	5.4	12-23 m	988	10
DTP3	Card or History	18.3	12-23 m	988	10
DTP3	History	12.8	12-23 m	988	10
MCV1	C or H <12 months	23.6	12-23 m	988	10
MCV1	Card	5.3	12-23 m	988	10
MCV1	Card or History	27.6	12-23 m	988	10
MCV1	History	22.3	12-23 m	988	10
Pol1	C or H <12 months	34	12-23 m	988	10
Pol1	Card	7.4	12-23 m	988	10
Pol1	Card or History	37.1	12-23 m	988	10
Pol1	History	29.8	12-23 m	988	10
Pol3	C or H <12 months	15.7	12-23 m	988	10
Pol3	Card	4.4	12-23 m	988	10
Pol3	Card or History	16.4	12-23 m	988	10
Pol3	History	12	12-23 m	988	10

Further information and estimates for previous years are available at:

<http://www.data.unicef.org/child-health/immunization>

<https://www.who.int/teams/immunization-vaccines-and-biologicals/immunization-analysis-and-insights/global-monitoring/data-statistics-and-graphics>