

**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.

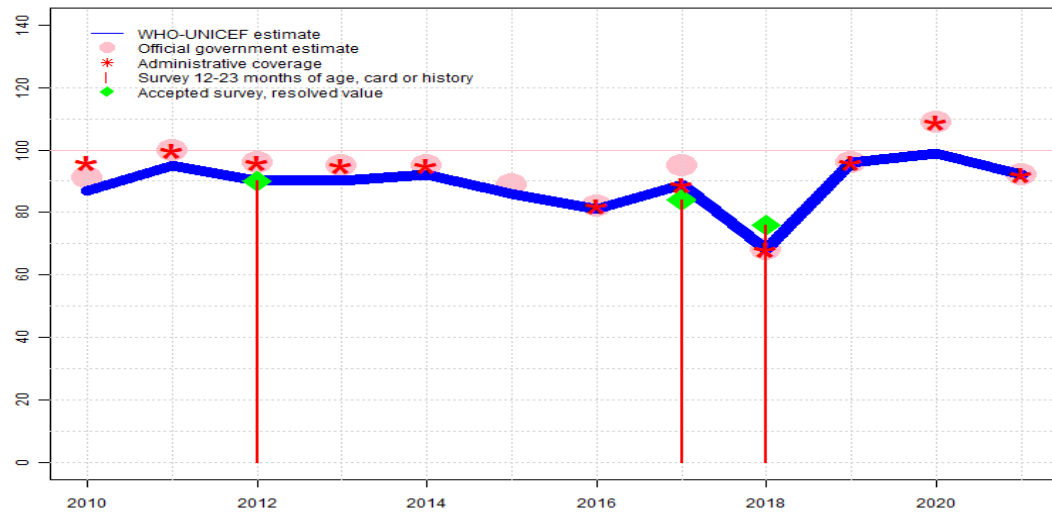
**PcV3:** percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

WSM - BCG



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	87	95	90	90	92	86	81	89	68	96	99	92
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	••
Official	91	100	96	95	95	89	82	95	68	96	109	92
Administrative	96	100	96	95	95	NA	82	89	68	96	109	92
Survey	NA	NA	90	NA	NA	NA	NA	84	76	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.

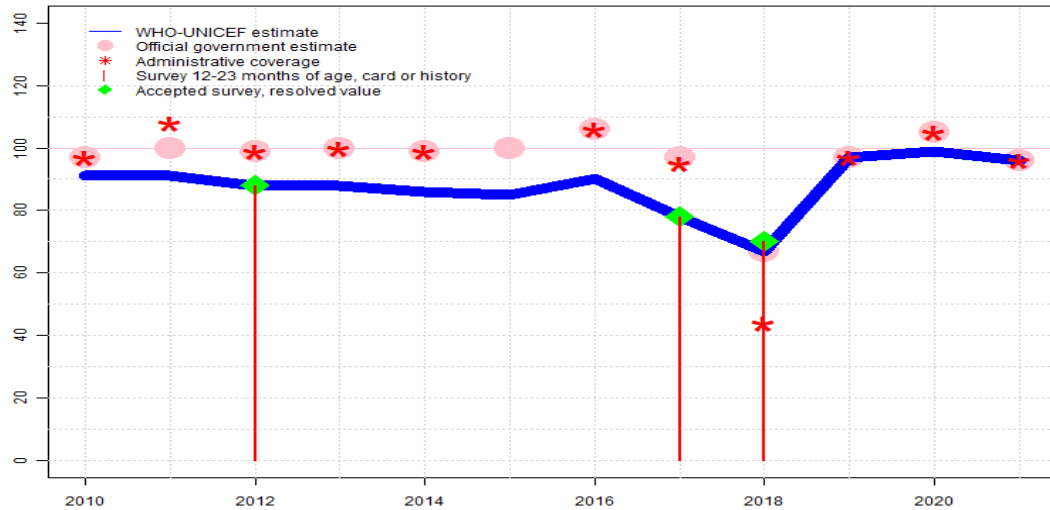
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2021: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: S-
- 2019: Estimate based on coverage reported by national government. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. Estimate of 96 percent changed from previous revision value of 90 percent. Estimate challenged by: S-
- 2018: Estimate based on coverage reported by national government supported by survey. Survey evidence of 76 percent based on 1 survey(s). Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. Estimate of 68 percent changed from previous revision value of 62 percent. Estimate challenged by: S-
- 2017: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. Estimate of 89 percent changed from previous revision value of 83 percent. Estimate challenged by: S-
- 2016: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 81 percent changed from previous revision value of 76 percent. Estimate challenged by: R-
- 2015: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 86 percent changed from previous revision value of 83 percent. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 92 percent changed from previous revision value of 89 percent. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 90 percent changed from previous revision value of 89 percent. Estimate challenged by: R-
- 2012: Estimate of 90 percent assigned by working group. Estimate based on survey result. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2011: Reported data calibrated to 2007 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2010: Reported data calibrated to 2007 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-

# Samoa - DTP1

WSM - DTP1



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	91	91	88	88	86	85	90	78	67	97	99	96
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	••
Official	97	100	99	100	99	100	106	97	67	97	105	96
Administrative	97	108	99	100	99	NA	106	95	44	97	105	96
Survey	NA	NA	88	NA	NA	NA	NA	78	70	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.

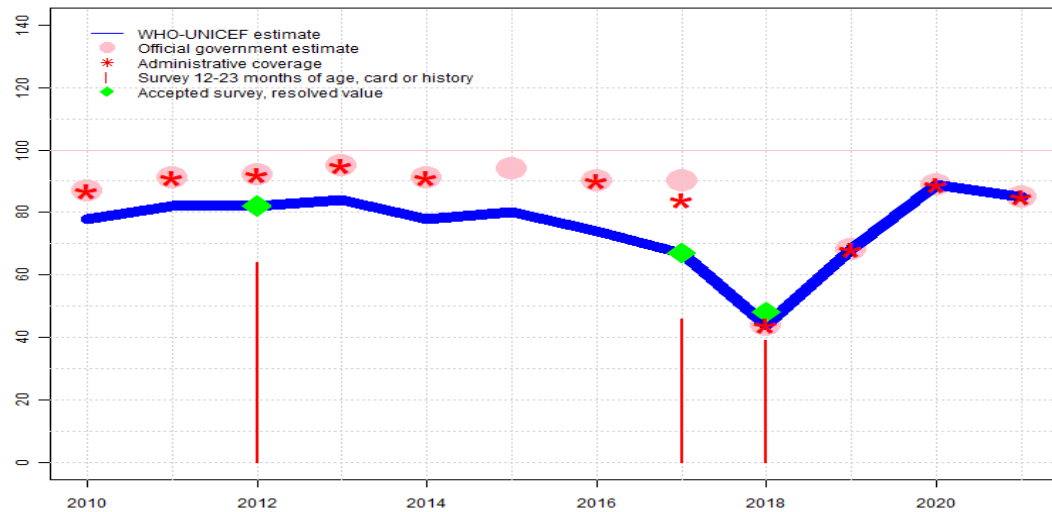
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2021: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 99 percent changed from previous revision value of 94 percent. Estimate challenged by: S-
- 2019: Estimate based on coverage reported by national government. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. Estimate of 97 percent changed from previous revision value of 86 percent. Estimate challenged by: S-
- 2018: Estimate based on coverage reported by national government supported by survey. Survey evidence of 70 percent based on 1 survey(s). Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. Estimate of 67 percent changed from previous revision value of 56 percent. Estimate challenged by: S-
- 2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 78 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. Estimate of 78 percent changed from previous revision value of 84 percent. Estimate challenged by: D-R-
- 2016: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 90 percent changed from previous revision value of 95 percent. Estimate challenged by: D-R-S-
- 2015: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 85 percent changed from previous revision value of 89 percent. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 86 percent changed from previous revision value of 88 percent. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 88 percent changed from previous revision value of 89 percent. Estimate challenged by: R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 88 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2011: Reported data calibrated to 2007 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2010: Reported data calibrated to 2007 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-

# Samoa - DTP3

WSM - DTP3



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	78	82	82	84	78	80	74	67	44	68	89	85
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	••
Official	87	91	92	95	91	94	90	90	44	68	89	85
Administrative	87	91	92	95	91	NA	90	84	44	68	89	85
Survey	NA	NA	64	NA	NA	NA	NA	46	39	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:

- 2021: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 89 percent changed from previous revision value of 79 percent. Estimate challenged by: S-
- 2019: Estimate based on coverage reported by national government. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. Estimate of 68 percent changed from previous revision value of 58 percent. Estimate challenged by: S-
- 2018: Estimate based on coverage reported by national government supported by survey. Survey evidence of 48 percent based on 1 survey(s). Samoa Multiple Indicator Cluster Survey 2019-2020 card or history results of 39 percent modified for recall bias to 48 percent based on 1st dose card or history coverage of 70 percent, 1st dose card only coverage of 53 percent and 3rd dose card only coverage of 36 percent. Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. Estimate of 44 percent changed from previous revision value of 34 percent. Estimate challenged by: S-
- 2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Samoa Multiple Indicator Cluster Survey 2019-2020 card or history results of 46 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 49 percent and 3rd dose card only coverage of 42 percent. Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. Estimate of 67 percent changed from previous revision value of 74 percent. Estimate challenged by: D-R-S-
- 2016: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 74 percent changed from previous revision value of 80 percent. Estimate challenged by: D-R-S-
- 2015: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 80 percent changed from previous revision value of 84 percent. Estimate challenged by: R-S-
- 2014: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 78 percent changed from previous revision value of 81 percent. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 84 percent changed from previous revision value of 85 percent. Estimate challenged by: R-
- 2012: Estimate of 82 percent assigned by working group. Estimate based on adjusted survey result. Samoa Demographic and Health Survey card or history results of 64 percent

modified for recall bias to 82 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 61 percent and 3rd dose card only coverage of 57 percent. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-

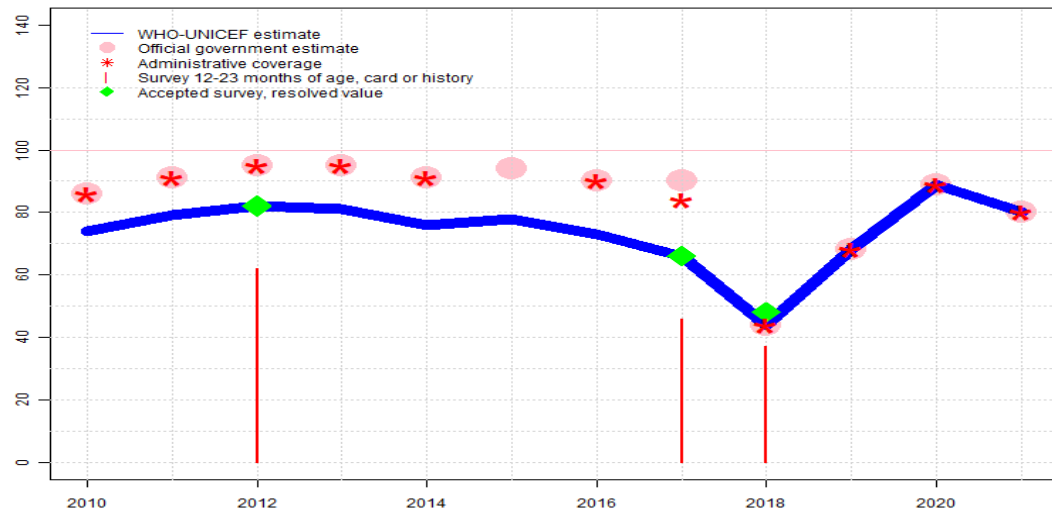
2011: Reported data calibrated to 1997 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-

2010: Reported data calibrated to 1997 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-



# Samoa - Pol3

WSM - Pol3



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	74	79	82	81	76	78	73	66	44	68	89	80
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	••
Official	86	91	95	95	91	94	90	90	44	68	89	80
Administrative	86	91	95	95	91	NA	90	84	44	68	89	80
Survey	NA	NA	62	NA	NA	NA	NA	46	37	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:

- 2021: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 89 percent changed from previous revision value of 76 percent. Estimate challenged by: S-
- 2019: Estimate based on coverage reported by national government. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. Estimate of 68 percent changed from previous revision value of 55 percent. Estimate challenged by: S-
- 2018: Estimate based on coverage reported by national government supported by survey. Survey evidence of 48 percent based on 1 survey(s). Samoa Multiple Indicator Cluster Survey 2019-2020 card or history results of 37 percent modified for recall bias to 48 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 53 percent and 3rd dose card only coverage of 35 percent. Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. Estimate of 44 percent changed from previous revision value of 31 percent. Estimate challenged by: S-
- 2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Samoa Multiple Indicator Cluster Survey 2019-2020 card or history results of 46 percent modified for recall bias to 66 percent based on 1st dose card or history coverage of 79 percent, 1st dose card only coverage of 49 percent and 3rd dose card only coverage of 41 percent. Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. Estimate of 66 percent changed from previous revision value of 71 percent. Estimate challenged by: D-R-S-
- 2016: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 73 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-S-
- 2015: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 78 percent changed from previous revision value of 81 percent. Estimate challenged by: R-S-
- 2014: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 76 percent changed from previous revision value of 78 percent. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 81 percent changed from previous revision value of 82 percent. Estimate challenged by: R-
- 2012: Estimate of 82 percent assigned by working group. Estimate based on adjusted survey result. Samoa Demographic and Health Survey card or history results of 62 percent

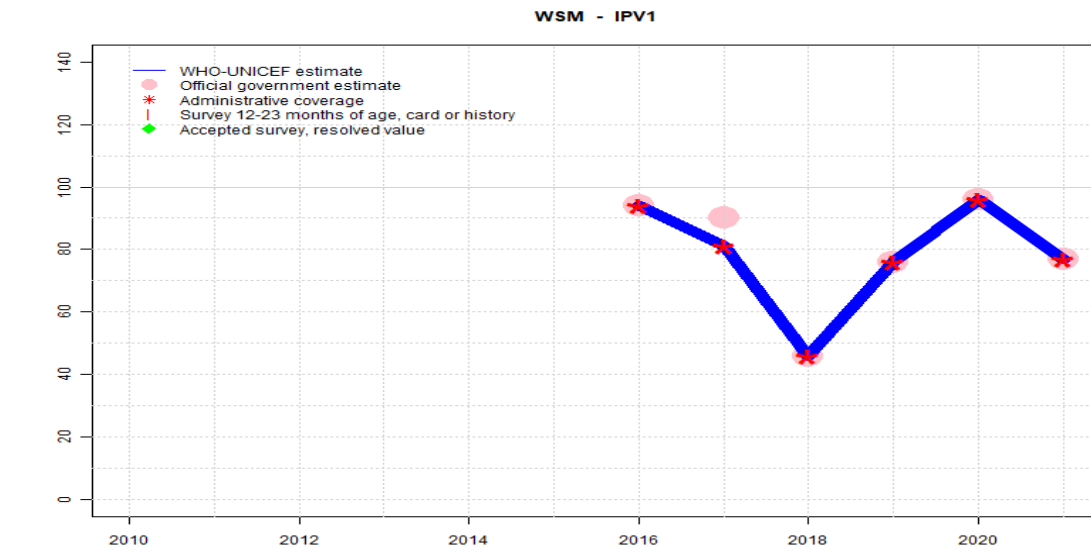
modified for recall bias to 82 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 61 percent and 3rd dose card only coverage of 57 percent. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-

2011: Reported data calibrated to 1997 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-

2010: Reported data calibrated to 1997 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-



# Samoa - IPV1



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	NA	NA	NA	NA	NA	NA	94	81	46	76	96	77
Estimate GoC	NA	NA	NA	NA	NA	NA	●●	●●	●●	●●	●●	●●
Official	NA	NA	NA	NA	NA	NA	94	90	46	76	96	77
Administrative	NA	NA	NA	NA	NA	NA	94	81	46	76	96	77
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

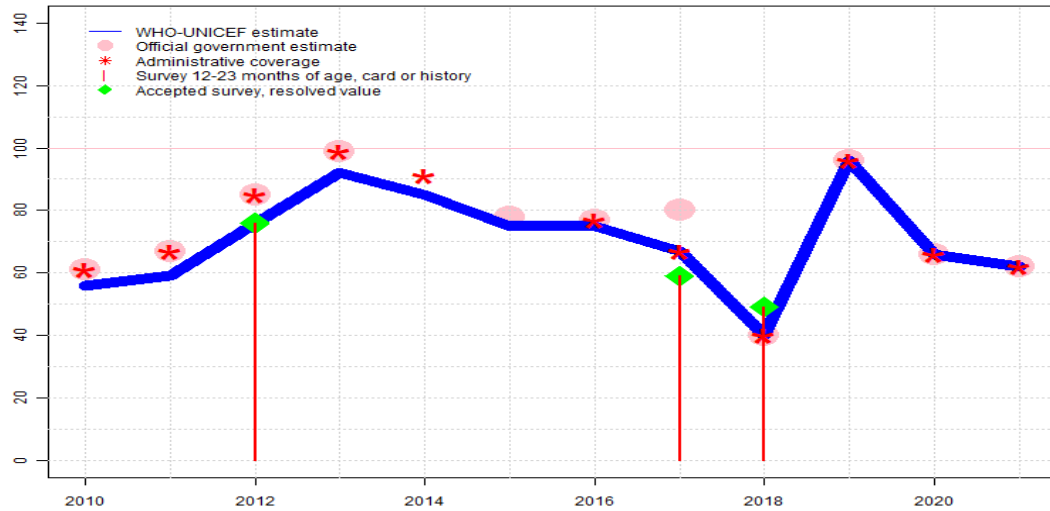
## Description:

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).

- 2021: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2017: Estimate based on reported administrative estimate. Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. Inactivated polio vaccine introduced in October 2015 and reporting began in 2016. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

# Samoa - MCV1

WSM - MCV1



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	56	59	76	92	85	75	75	67	40	96	66	62
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	••
Official	61	67	85	99	NA	78	77	80	40	96	66	62
Administrative	61	67	85	99	91	NA	77	67	40	96	66	62
Survey	NA	NA	76	NA	NA	NA	NA	59	49	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:

- 2021: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. Unexplained drop for MMR1 between 2019 and 2020. Preliminary 2019-2020 MICS results suggest coverage of 49 percent. This survey may have coincided with period of reduced coverage. Fluctuation in reported data is attributed to small birth cohort. Estimate of 66 percent changed from previous revision value of 57 percent. Estimate challenged by: S-
- 2019: Estimate based on coverage reported by national government. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. Estimate of 96 percent changed from previous revision value of 87 percent. Estimate challenged by: S-
- 2018: Estimate based on coverage reported by national government supported by survey. Survey evidence of 49 percent based on 1 survey(s). Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. Estimate of 40 percent changed from previous revision value of 31 percent. Estimate challenged by: S-
- 2017: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 59 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. Estimate of 67 percent changed from previous revision value of 58 percent. Estimate challenged by: S-
- 2016: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 75 percent changed from previous revision value of 68 percent. Estimate challenged by: R-S-
- 2015: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 75 percent changed from previous revision value of 69 percent. Estimate challenged by: R-S-
- 2014: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 85 percent changed from previous revision value of 82 percent. Estimate challenged by: R-
- 2013: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 92 percent changed from previous revision value of 90 percent. Estimate challenged by: R-S-
- 2012: Estimate of 76 percent assigned by working group. Vaccine to vaccine consistency. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2011: Reported data calibrated to 2007 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-S-
- 2010: Reported data calibrated to 2007 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-S-

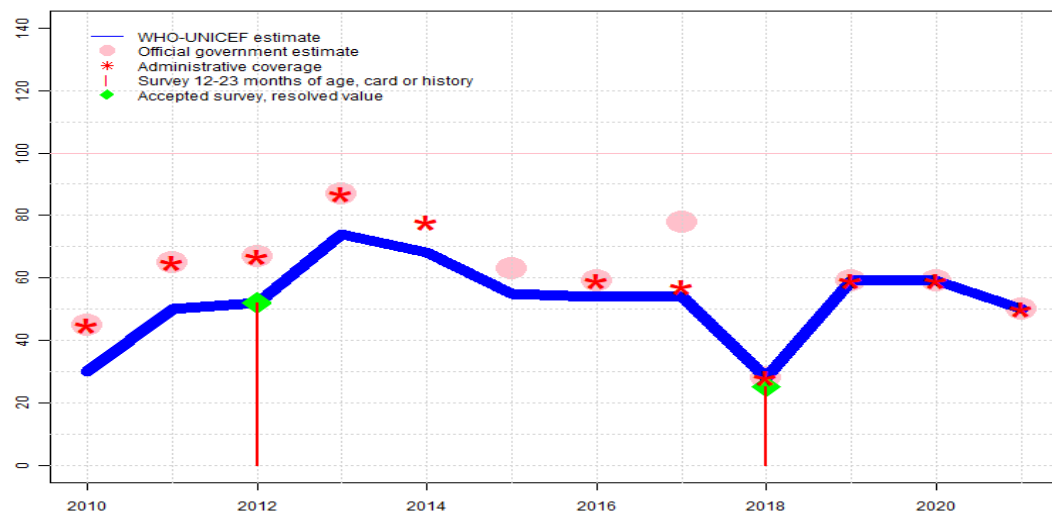
# Samoa - MCV1

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tributed to small birth cohort. Estimate challenged by: R-S-

# Samoa - MCV2

WSM - MCV2



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	30	50	52	74	68	55	54	54	28	59	59	50
Estimate GoC	•	•	•	•	•	•	•	•	•••	•	•	••
Official	45	65	67	87	NA	63	59	78	28	59	59	50
Administrative	45	65	67	87	78	NA	59	57	28	59	59	50
Survey	NA	NA	52	NA	NA	NA	NA	NA	25	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

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

- 2021: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 59 percent changed from previous revision value of 44 percent. Estimate challenged by: S-
- 2019: Estimate based on coverage reported by national government. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. Estimate of 59 percent changed from previous revision value of 44 percent. Estimate challenged by: S-
- 2018: Estimate based on coverage reported by national government supported by survey. Survey evidence of 25 percent based on 1 survey(s). Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. Estimate of 28 percent changed from previous revision value of 13 percent. GoC=R+ S+ D+
- 2017: Reported data calibrated to 2012 and 2018 levels. Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. Estimate of 54 percent changed from previous revision value of 42 percent. Estimate challenged by: R-S-
- 2016: Reported data calibrated to 2012 and 2018 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 54 percent changed from previous revision value of 44 percent. Estimate challenged by: R-S-
- 2015: Reported data calibrated to 2012 and 2018 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 55 percent changed from previous revision value of 48 percent. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 and 2018 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 68 percent changed from previous revision value of 63 percent. Estimate challenged by: R-S-
- 2013: Reported data calibrated to 2012 and 2018 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 74 percent changed from previous revision value of 72 percent. Estimate challenged by: R-S-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 52 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2011: Reported data calibrated to 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2010: Reported data calibrated to 2012 levels. Fluctuation in reported data is attributed to

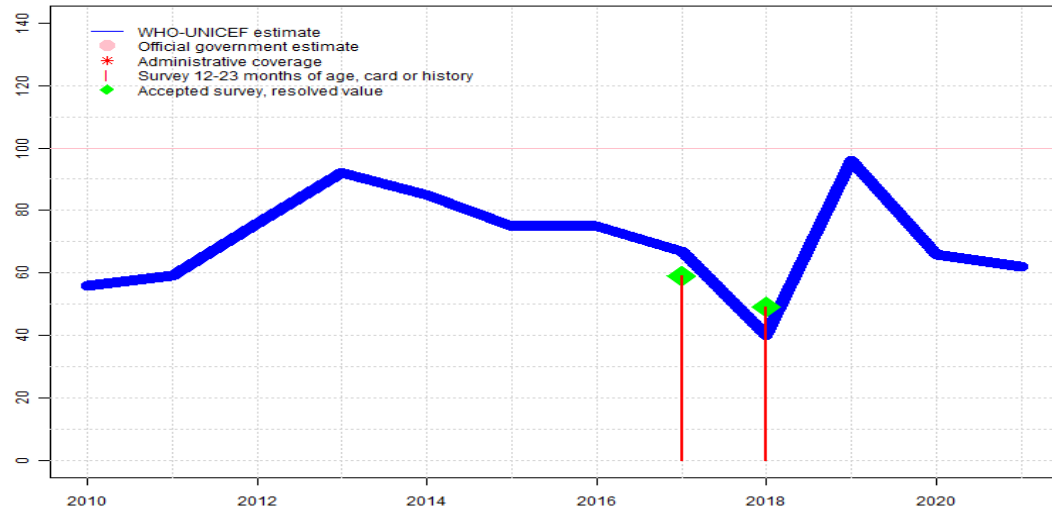
# Samoa - MCV2

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small birth cohort. Estimate challenged by: D-R-S-

# Samoa - RCV1

WSM - RCV1



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	56	59	76	92	85	75	75	67	40	96	66	62
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	••
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	59	49	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:

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.

- 2021: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2020: Estimate based on estimated MCV1. Unexplained drop for MMR1 between 2019 and 2020. Preliminary 2019-2020 MICS results suggest coverage of 49 percent. This survey may have coincided with period of reduced coverage. Fluctuation in reported data is attributed to small birth cohort. Estimate of 66 percent changed from previous revision value of 57 percent. Estimate challenged by: S-
- 2019: Estimate based on estimated MCV1. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. Estimate of 96 percent changed from previous revision value of 87 percent. Estimate challenged by: S-
- 2018: Estimate based on estimated MCV1. Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. Estimate of 40 percent changed from previous revision value of 31 percent. Estimate challenged by: S-
- 2017: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. Estimate of 67 percent changed from previous revision value of 58 percent. Estimate challenged by: S-
- 2016: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. Estimate of 75 percent changed from previous revision value of 68 percent. Estimate challenged by: R-S-
- 2015: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. Estimate of 75 percent changed from previous revision value of 69 percent. Estimate challenged by: R-S-
- 2014: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. Estimate of 85 percent changed from previous revision value of 82 percent. Estimate challenged by: R-
- 2013: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. Estimate of 92 percent changed from previous revision value of 90 percent. Estimate challenged by: R-S-
- 2012: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2011: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small

# Samoa - RCV1

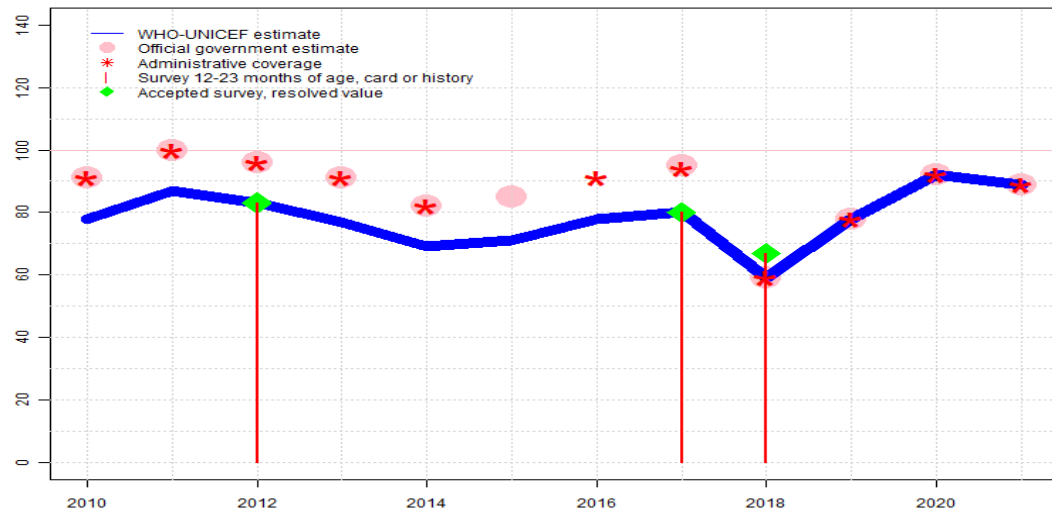
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birth cohort. Estimate challenged by: R-S-  
2010: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small  
birth cohort. Estimate challenged by: R-S-



# Samoa - HepBB

WSM - HepBB



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	78	87	83	77	69	71	78	80	59	78	92	89
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●●
Official	91	100	96	91	82	85	NA	95	59	78	92	89
Administrative	91	100	96	91	82	NA	91	94	59	78	92	89
Survey	NA	NA	83	NA	NA	NA	NA	80	67	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.

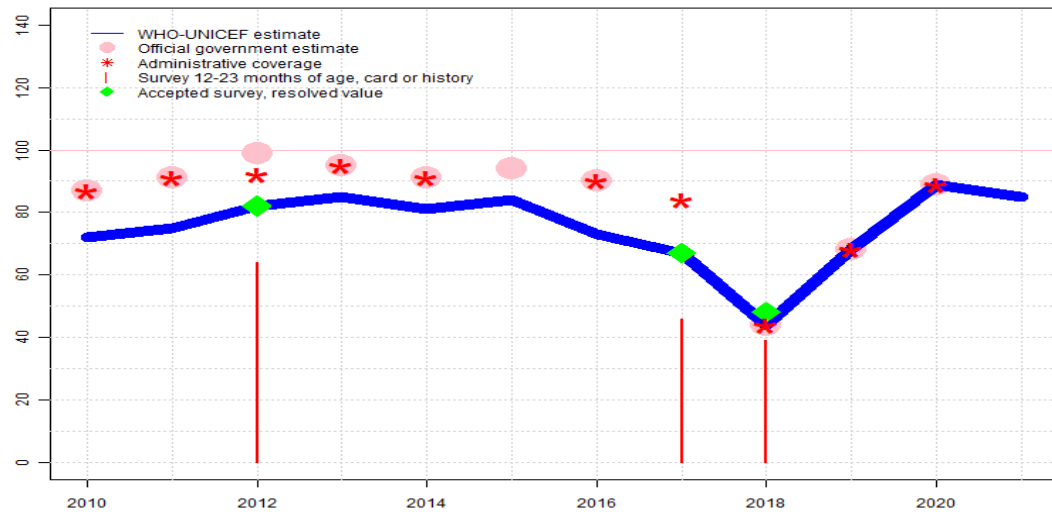
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2021: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 92 percent changed from previous revision value of 79 percent. Estimate challenged by: S-
- 2019: Estimate based on coverage reported by national government. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. Estimate of 78 percent changed from previous revision value of 65 percent. Estimate challenged by: S-
- 2018: Estimate based on coverage reported by national government supported by survey. Survey evidence of 67 percent based on 1 survey(s). Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. Estimate of 59 percent changed from previous revision value of 46 percent. Estimate challenged by: S-
- 2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. Estimate of 80 percent changed from previous revision value of 81 percent. Estimate challenged by: D-R-S-
- 2016: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-S-
- 2015: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 71 percent changed from previous revision value of 72 percent. Estimate challenged by: R-
- 2014: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-S-
- 2013: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 77 percent changed from previous revision value of 78 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 83 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2011: Reported data calibrated to 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2010: Reported data calibrated to 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-

# Samoa - HepB3

WSM - HepB3



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	72	75	82	85	81	84	73	67	44	68	89	85
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	87	91	99	95	91	94	90	NA	44	68	89	NA
Administrative	87	91	92	95	91	NA	90	84	44	68	89	NA
Survey	NA	NA	64	NA	NA	NA	NA	46	39	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:

- 2021: Estimate is based on estimated DTP3 level. Fluctuation in reported data is attributed to small birth cohort. GoC=No accepted empirical data
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 89 percent changed from previous revision value of 72 percent. Estimate challenged by: S-
- 2019: Estimate based on coverage reported by national government. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. Estimate of 68 percent changed from previous revision value of 58 percent. Estimate challenged by: S-
- 2018: Estimate based on coverage reported by national government supported by survey. Survey evidence of 48 percent based on 1 survey(s). Samoa Multiple Indicator Cluster Survey 2019-2020 card or history results of 39 percent modified for recall bias to 48 percent based on 1st dose card or history coverage of 70 percent, 1st dose card only coverage of 53 percent and 3rd dose card only coverage of 36 percent. Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. Estimate of 44 percent changed from previous revision value of 34 percent. Estimate challenged by: S-
- 2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Samoa Multiple Indicator Cluster Survey 2019-2020 card or history results of 46 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 49 percent and 3rd dose card only coverage of 42 percent. Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. Estimate of 67 percent changed from previous revision value of 74 percent. Estimate challenged by: D-R-S-
- 2016: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 73 percent changed from previous revision value of 80 percent. Estimate challenged by: D-R-S-
- 2015: Estimate based on estimated DTP3 coverage. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-S-
- 2014: Estimate based on estimated DTP3 coverage. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2013: Estimate based on estimated DTP3 coverage. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2012: Estimate of 82 percent assigned by working group. Estimate based on adjusted survey result. Samoa Demographic and Health Survey card or history results of 64 percent modified for recall bias to 82 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 61 percent and 3rd dose card only coverage of 57 percent. Fluctuation in reported data is attributed to small birth cohort. Estimate

# Samoa - HepB3

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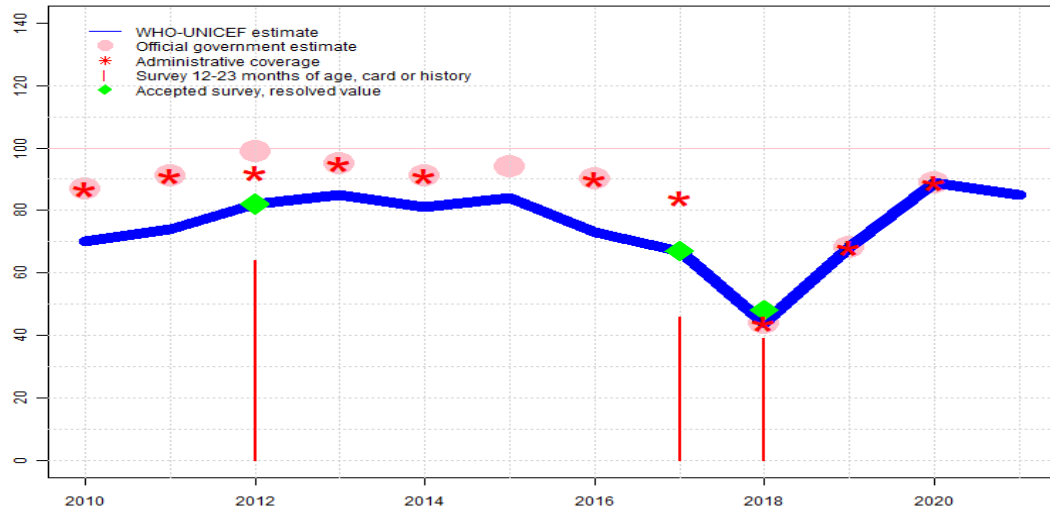
challenged by: R-

2011: Reported data calibrated to 1997 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-

2010: Reported data calibrated to 1997 and 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-

# Samoa - Hib3

WSM - Hib3



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	70	74	82	85	81	84	73	67	44	68	89	85
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	87	91	99	95	91	94	90	NA	44	68	89	NA
Administrative	87	91	92	95	91	NA	90	84	44	68	89	NA
Survey	NA	NA	64	NA	NA	NA	NA	46	39	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:

- 2021: Estimate is based on estimated DTP3 level. Fluctuation in reported data is attributed to small birth cohort. GoC=No accepted empirical data
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 89 percent changed from previous revision value of 72 percent. Estimate challenged by: S-
- 2019: Estimate based on coverage reported by national government. Country notes that reported data are preliminary and that catch up doses were included with routine reports during intensification activities from October to December due to a measles outbreak. Fluctuation in reported data is attributed to small birth cohort. Estimate of 68 percent changed from previous revision value of 58 percent. Estimate challenged by: S-
- 2018: Estimate based on coverage reported by national government supported by survey. Survey evidence of 48 percent based on 1 survey(s). Samoa Multiple Indicator Cluster Survey 2019-2020 card or history results of 39 percent modified for recall bias to 48 percent based on 1st dose card or history coverage of 70 percent, 1st dose card only coverage of 53 percent and 3rd dose card only coverage of 36 percent. Decline in reported coverage may be partly explained by an interruption in vaccination amid public concern following two deaths related to MMR vaccination. Fluctuation in reported data is attributed to small birth cohort. Estimate of 44 percent changed from previous revision value of 34 percent. Estimate challenged by: S-
- 2017: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Samoa Multiple Indicator Cluster Survey 2019-2020 card or history results of 46 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 49 percent and 3rd dose card only coverage of 42 percent. Fluctuation in reported data is attributed to small birth cohort. Government official estimate based on single dose vaccine consumption. Estimate of 67 percent changed from previous revision value of 74 percent. Estimate challenged by: D-R-S-
- 2016: Reported data calibrated to 2012 and 2017 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 73 percent changed from previous revision value of 80 percent. Estimate challenged by: D-R-S-
- 2015: Estimate based on estimated DTP3 coverage. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-S-
- 2014: Estimate based on estimated DTP3 coverage. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2013: Estimate based on estimated DTP3 coverage. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2012: Estimate of 82 percent assigned by working group. Estimate based on adjusted survey result. Samoa Demographic and Health Survey card or history results of 64 percent modified for recall bias to 82 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 61 percent and 3rd dose card only coverage of 57 percent. Fluctuation in reported data is attributed to small birth cohort. Estimate

# Samoa - Hib3

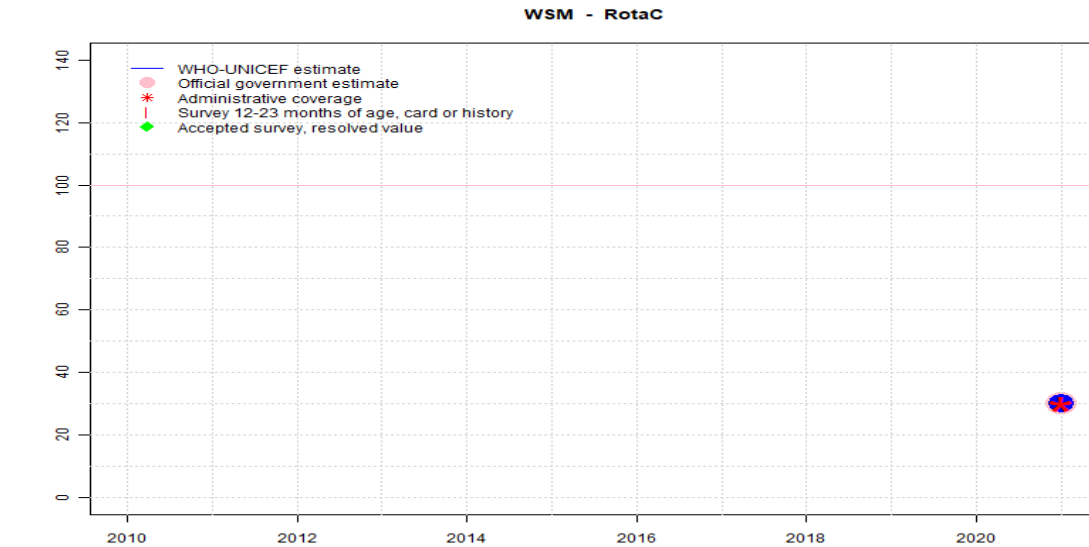
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challenged by: R-

2011: Reported data calibrated to 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-

2010: Reported data calibrated to 2012 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-S-

# Samoa - RotaC



Description:

2021: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

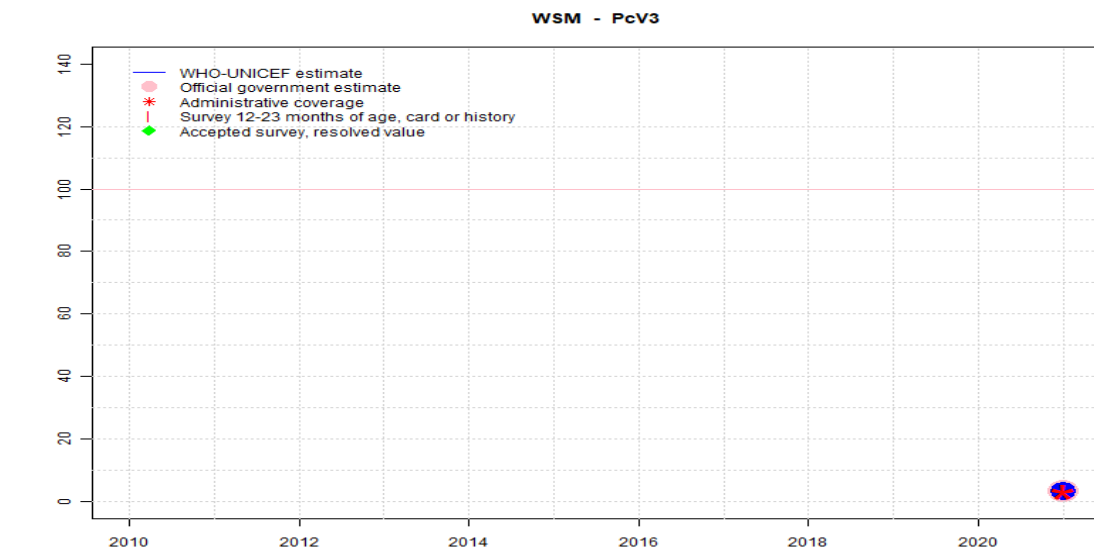
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

# Samoa - PcV3



Description:

2021: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3
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.



# Samoa - survey details

## 2018 Samoa Multiple Indicator Cluster Survey 2019-2020

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	76.1	12-23 m	590	62
BCG	Card	54.7	12-23 m	590	62
BCG	Card or History	76.2	12-23 m	590	62
BCG	History	21.5	12-23 m	590	62
DTP1	C or H <12 months	64	12-23 m	590	62
DTP1	Card	53.3	12-23 m	590	62
DTP1	Card or History	70.3	12-23 m	590	62
DTP1	History	16.9	12-23 m	590	62
DTP3	C or H <12 months	28.5	12-23 m	590	62
DTP3	Card	36.1	12-23 m	590	62
DTP3	Card or History	39	12-23 m	590	62
DTP3	History	2.9	12-23 m	590	62
HepB1	C or H <12 months	64	12-23 m	590	62
HepB1	Card	53.3	12-23 m	590	62
HepB1	Card or History	70.3	12-23 m	590	62
HepB1	History	16.9	12-23 m	590	62
HepB3	C or H <12 months	28.5	12-23 m	590	62
HepB3	Card	36.1	12-23 m	590	62
HepB3	Card or History	39	12-23 m	590	62
HepB3	History	2.9	12-23 m	590	62
HepBB	C or H <12 months	66.5	12-23 m	590	62
HepBB	Card	45.5	12-23 m	590	62
HepBB	Card or History	67	12-23 m	590	62
HepBB	History	21.5	12-23 m	590	62
Hib1	C or H <12 months	64	12-23 m	590	62
Hib1	Card	53.3	12-23 m	590	62
Hib1	Card or History	70.3	12-23 m	590	62
Hib1	History	16.9	12-23 m	590	62
Hib3	C or H <12 months	28.5	12-23 m	590	62
Hib3	Card	36.1	12-23 m	590	62
Hib3	Card or History	39	12-23 m	590	62
Hib3	History	2.9	12-23 m	590	62
MCV1	C or H <12 months	10.8	12-23 m	590	62
MCV1	Card	33	12-23 m	590	62
MCV1	Card or History	48.7	12-23 m	590	62
MCV1	History	15.7	12-23 m	590	62
MCV2	C or H <12 months	10.7	24-35 m	522	62

MCV2	Card	16.8	24-35 m	522	62
MCV2	Card or History	25	24-35 m	522	62
MCV2	History	8.2	24-35 m	522	62
Pol1	C or H <12 months	66.9	12-23 m	590	62
Pol1	Card	53.1	12-23 m	590	62
Pol1	Card or History	73.3	12-23 m	590	62
Pol1	History	20.2	12-23 m	590	62
Pol3	C or H <12 months	26.9	12-23 m	590	62
Pol3	Card	34.6	12-23 m	590	62
Pol3	Card or History	37.2	12-23 m	590	62
Pol3	History	2.6	12-23 m	590	62

## 2017 Samoa Multiple Indicator Cluster Survey 2019-2020

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	82.9	24-35 m	522	62
BCG	Card	50.2	24-35 m	522	62
BCG	Card or History	83.8	24-35 m	522	62
BCG	History	33.6	24-35 m	522	62
DTP1	C or H <12 months	77	24-35 m	522	62
DTP1	Card	48.7	24-35 m	522	62
DTP1	Card or History	78.1	24-35 m	522	62
DTP1	History	29.4	24-35 m	522	62
DTP3	C or H <12 months	43.6	24-35 m	522	62
DTP3	Card	41.9	24-35 m	522	62
DTP3	Card or History	46.3	24-35 m	522	62
DTP3	History	4.4	24-35 m	522	62
HepB1	C or H <12 months	77	24-35 m	522	62
HepB1	Card	48.7	24-35 m	522	62
HepB1	Card or History	78.1	24-35 m	522	62
HepB1	History	29.4	24-35 m	522	62
HepB3	C or H <12 months	43.6	24-35 m	522	62
HepB3	Card	41.9	24-35 m	522	62
HepB3	Card or History	46.3	24-35 m	522	62
HepB3	History	4.4	24-35 m	522	62
HepBB	C or H <12 months	79.3	24-35 m	522	62
HepBB	Card	47.9	24-35 m	522	62
HepBB	Card or History	79.6	24-35 m	522	62
HepBB	History	31.6	24-35 m	522	62

# Samoa - survey details

Hib1	C or H <12 months	77	24-35 m	522	62
Hib1	Card	48.7	24-35 m	522	62
Hib1	Card or History	78.1	24-35 m	522	62
Hib1	History	29.4	24-35 m	522	62
Hib3	C or H <12 months	43.6	24-35 m	522	62
Hib3	Card	41.9	24-35 m	522	62
Hib3	Card or History	46.3	24-35 m	522	62
Hib3	History	4.4	24-35 m	522	62
MCV1	C or H <12 months	19.1	24-35 m	522	62
MCV1	Card	32.8	24-35 m	522	62
MCV1	Card or History	59.2	24-35 m	522	62
MCV1	History	26.3	24-35 m	522	62
Pol1	C or H <12 months	77.9	24-35 m	522	62
Pol1	Card	49.1	24-35 m	522	62
Pol1	Card or History	79	24-35 m	522	62
Pol1	History	29.9	24-35 m	522	62
Pol3	C or H <12 months	42.1	24-35 m	522	62
Pol3	Card	41.2	24-35 m	522	62
Pol3	Card or History	45.6	24-35 m	522	62
Pol3	History	4.4	24-35 m	522	62

## 2012 Samoa Demographic and Health Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	90.2	12-23 m	674	67
BCG	C or H <18 months	89.9	18-29 m	666	67
BCG	Card	59.5	18-29 m	406	67
BCG	Card or History	89.9	18-29 m	666	67
BCG	History	30.4	18-29 m	260	67
DTP1	C or H <12 months	87	12-23 m	674	67
DTP1	C or H <18 months	88.2	18-29 m	666	67
DTP1	Card	60.9	18-29 m	406	67
DTP1	Card or History	88.2	18-29 m	666	67
DTP1	History	27.3	18-29 m	260	67
DTP3	C or H <12 months	63.6	12-23 m	674	67
DTP3	C or H <18 months	62.9	18-29 m	666	67
DTP3	Card	56.8	18-29 m	406	67
DTP3	Card or History	63.8	18-29 m	666	67
DTP3	History	6.9	18-29 m	260	67

HepB1	C or H <12 months	87	12-23 m	674	67
HepB1	C or H <18 months	88.2	18-29 m	666	67
HepB1	Card	60.9	18-29 m	406	67
HepB1	Card or History	88.2	18-29 m	666	67
HepB1	History	27.3	18-29 m	260	67
HepB3	C or H <12 months	63.6	12-23 m	674	67
HepB3	C or H <18 months	62.9	18-29 m	666	67
HepB3	Card	56.8	18-29 m	406	67
HepB3	Card or History	63.8	18-29 m	666	67
HepB3	History	6.9	18-29 m	260	67
HepBB	C or H <12 months	83.8	12-23 m	674	67
HepBB	C or H <18 months	83.4	18-29 m	666	67
HepBB	Card	58.8	18-29 m	406	67
HepBB	Card or History	83.4	18-29 m	666	67
HepBB	History	24.6	18-29 m	260	67
Hib1	C or H <12 months	87	12-23 m	674	67
Hib1	C or H <18 months	88.2	18-29 m	666	67
Hib1	Card	60.9	18-29 m	406	67
Hib1	Card or History	88.2	18-29 m	666	67
Hib1	History	27.3	18-29 m	260	67
Hib3	C or H <12 months	63.6	12-23 m	674	67
Hib3	C or H <18 months	62.9	18-29 m	666	67
Hib3	Card	56.8	18-29 m	406	67
Hib3	Card or History	63.8	18-29 m	666	67
Hib3	History	6.9	18-29 m	260	67
MCV1	C or H <12 months	8.5	12-23 m	674	67
MCV1	C or H <18 months	71.4	18-29 m	666	67
MCV1	Card	51.3	18-29 m	406	67
MCV1	Card or History	76.4	18-29 m	666	67
MCV1	History	25	18-29 m	260	67
MCV2	C or H <18 months	37.8	18-29 m	666	67
MCV2	Card	39	18-29 m	406	67
MCV2	Card or History	52.1	18-29 m	666	67
MCV2	History	13.2	18-29 m	260	67
Pol1	C or H <12 months	86.9	12-23 m	674	67
Pol1	C or H <18 months	88.2	18-29 m	666	67
Pol1	Card	60.6	18-29 m	406	67
Pol1	Card or History	88.2	18-29 m	666	67
Pol1	History	27.7	18-29 m	260	67
Pol3	C or H <12 months	60.9	12-23 m	674	67

# Samoa - survey details

Pol3	C or H <18 months	61	18-29 m	666	67
Pol3	Card	56.6	18-29 m	406	67
Pol3	Card or History	61.8	18-29 m	666	67
Pol3	History	5.2	18-29 m	260	67

## 2011 Samoa Demographic and Health Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	87.1	24-35 m	680	67
DTP1	C or H <12 months	84.4	24-35 m	680	67
DTP3	C or H <12 months	53.7	24-35 m	680	67
HepB1	C or H <12 months	84.4	24-35 m	680	67
HepB3	C or H <12 months	53.7	24-35 m	680	67
HepBB	C or H <12 months	82.2	24-35 m	680	67
Hib1	C or H <12 months	84.4	24-35 m	680	67
Hib3	C or H <12 months	53.7	24-35 m	680	67
MCV1	C or H <12 months	5.2	24-35 m	680	67
Pol1	C or H <12 months	84.4	24-35 m	680	67
Pol3	C or H <12 months	49.6	24-35 m	680	67

## 2010 Samoa Demographic and Health Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	87.7	36-47 m	605	67
DTP1	C or H <12 months	84.6	36-47 m	605	67
DTP3	C or H <12 months	50.1	36-47 m	605	67
HepB1	C or H <12 months	84.6	36-47 m	605	67
HepB3	C or H <12 months	50.1	36-47 m	605	67
HepBB	C or H <12 months	80.6	36-47 m	605	67
Hib1	C or H <12 months	84.6	36-47 m	605	67
Hib3	C or H <12 months	50.1	36-47 m	605	67
MCV1	C or H <12 months	6.6	36-47 m	605	67
Pol1	C or H <12 months	84.5	36-47 m	605	67
Pol3	C or H <12 months	46.6	36-47 m	605	67

## 2009 Samoa Demographic and Health Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	83.9	48-59 m	559	67
DTP1	C or H <12 months	77.2	48-59 m	559	67
DTP3	C or H <12 months	45.1	48-59 m	559	67
HepB1	C or H <12 months	77.2	48-59 m	559	67
HepB3	C or H <12 months	45.1	48-59 m	559	67
HepBB	C or H <12 months	75.2	48-59 m	559	67
Hib1	C or H <12 months	77.2	48-59 m	559	67
Hib3	C or H <12 months	45.1	48-59 m	559	67
MCV1	C or H <12 months	5	48-59 m	559	67
Pol1	C or H <12 months	78.6	48-59 m	559	67
Pol3	C or H <12 months	42	48-59 m	559	67

## 2007 Samoa Demographic and Health Survey 2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	83.6	18-29 m	321	40
BCG	Card	38.8	18-29 m	321	40
BCG	Card or History	83.6	18-29 m	321	40
BCG	History	44.8	18-29 m	321	40
DTP1	C or H <12 months	75.5	18-29 m	321	40
DTP1	Card	38.3	18-29 m	321	40
DTP1	Card or History	77	18-29 m	321	40
DTP1	History	38.6	18-29 m	321	40
DTP3	C or H <12 months	37.2	18-29 m	321	40
DTP3	Card	28.2	18-29 m	321	40
DTP3	Card or History	37.5	18-29 m	321	40
DTP3	History	9.3	18-29 m	321	40
MCV1	C or H <12 months	55.7	18-29 m	321	40
MCV1	Card	26.8	18-29 m	321	40
MCV1	Card or History	63.1	18-29 m	321	40
MCV1	History	36.3	18-29 m	321	40
Pol1	C or H <12 months	72.4	18-29 m	321	40
Pol1	Card	34.6	18-29 m	321	40
Pol1	Card or History	74	18-29 m	321	40
Pol1	History	39.4	18-29 m	321	40
Pol3	C or H <12 months	34.1	18-29 m	321	40
Pol3	Card	25.4	18-29 m	321	40
Pol3	Card or History	34.4	18-29 m	321	40
Pol3	History	9	18-29 m	321	40

## Samoa - survey details

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Further information and estimates for previous years are available at:

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

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