

Marshall Islands: WHO and UNICEF estimates of immunization coverage: 2021 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.

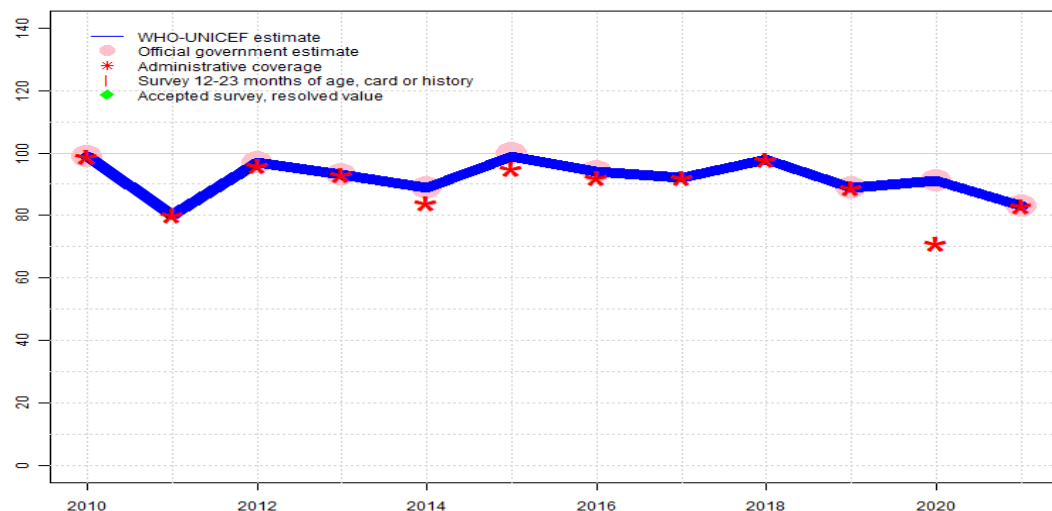
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

MHL - BCG



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	99	80	97	93	89	99	94	92	98	89	91	83
Estimate GoC	••	••	•	••	••	••	••	••	••	•	•	•
Official	99	NA	97	93	89	100	94	NA	NA	89	91	83
Administrative	99	80	96	93	84	95	92	92	98	89	71	83
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.
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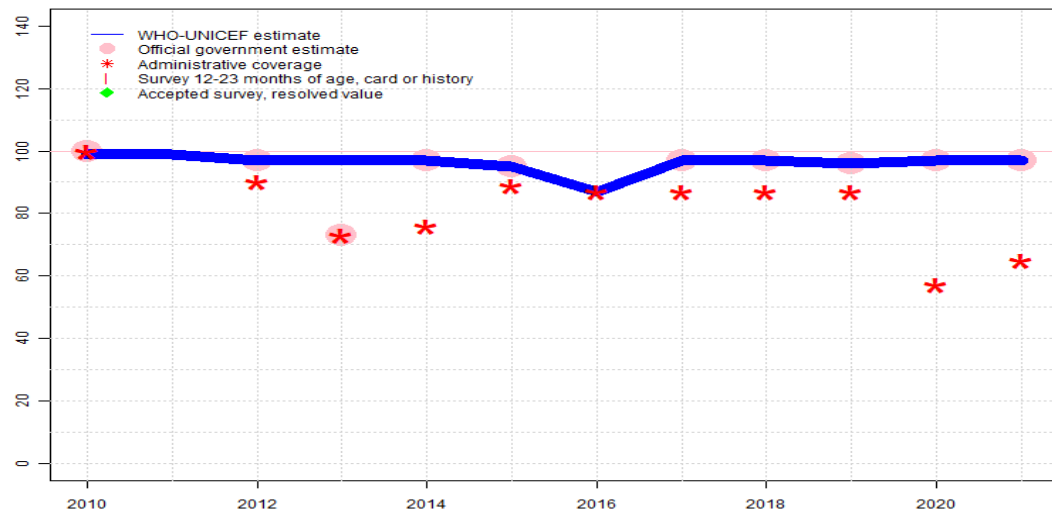
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2021: Estimate based on coverage reported by national government. Reported coverage reflects that achieved among children aged 19 to 35 months of age. Estimated coverage levels may overestimate coverage levels achieved for children aged less than 12 months. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 91 percent changed from previous revision value of 89 percent. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2018: Estimate based on reported administrative data. Official estimate based on immunization coverage for children aged 19 to 35 months by 31 December 2018 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
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Marshall Islands - DTP1

MHL - DTP1



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	99	99	97	97	97	95	87	97	97	96	97	97
Estimate GoC	●●	●	●	●	●	●●	●●	●	●	●●	●	●
Official	100	NA	97	73	97	95	NA	97	97	96	97	97
Administrative	100	NA	90	73	76	89	87	87	87	87	57	65
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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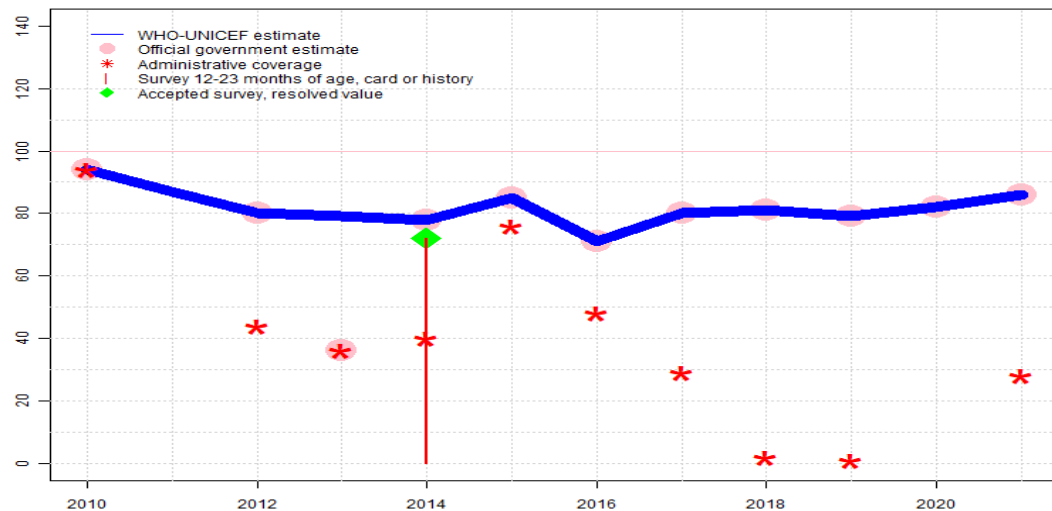
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- 2010: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

Marshall Islands - DTP3

MHL - DTP3



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	94	87	80	79	78	85	71	80	81	79	82	86
Estimate GoC	••	•	•	•	•	•	•	•	•	•	•	•
Official	94	NA	80	36	78	85	71	80	81	79	82	86
Administrative	94	NA	44	36	40	76	48	29	2	1	NA	28
Survey	NA	NA	NA	NA	72	NA	NA	NA	NA	NA	NA	NA

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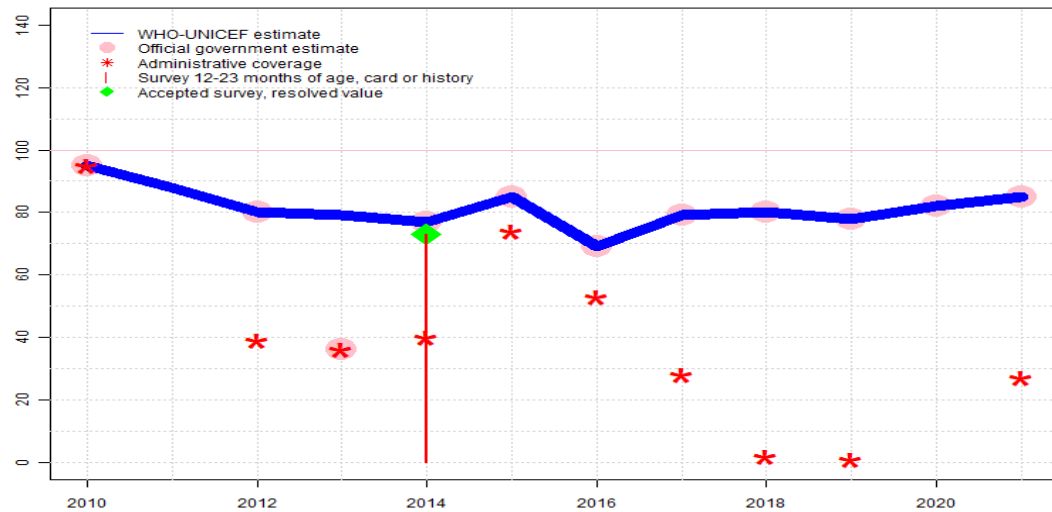
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- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 82 percent changed from previous revision value of 79 percent. GoC=Assigned by working group. Consistency across antigens with reported administrative data.
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- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 72 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
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Marshall Islands - Pol3

MHL - Pol3



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	95	88	80	79	77	85	69	79	80	78	82	85
Estimate GoC	●●	●	●	●	●	●	●	●	●	●	●	●
Official	95	NA	80	36	77	85	69	79	80	78	82	85
Administrative	95	NA	39	36	40	74	53	28	2	1	NA	27
Survey	NA	NA	NA	NA	73	NA	NA	NA	NA	NA	NA	NA

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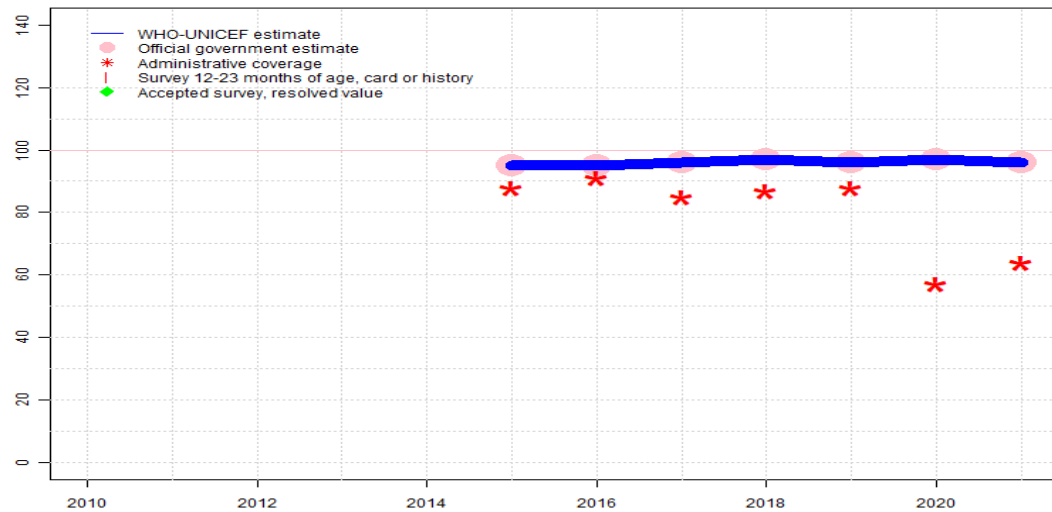
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- 2010: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

Marshall Islands - IPV1

MHL - IPV1



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	NA	NA	NA	NA	NA	95	95	96	97	96	97	96
Estimate GoC	NA	NA	NA	NA	NA	••	••	•	•	••	•	•
Official	NA	NA	NA	NA	NA	95	95	96	97	96	97	96
Administrative	NA	NA	NA	NA	NA	88	91	85	87	88	57	64
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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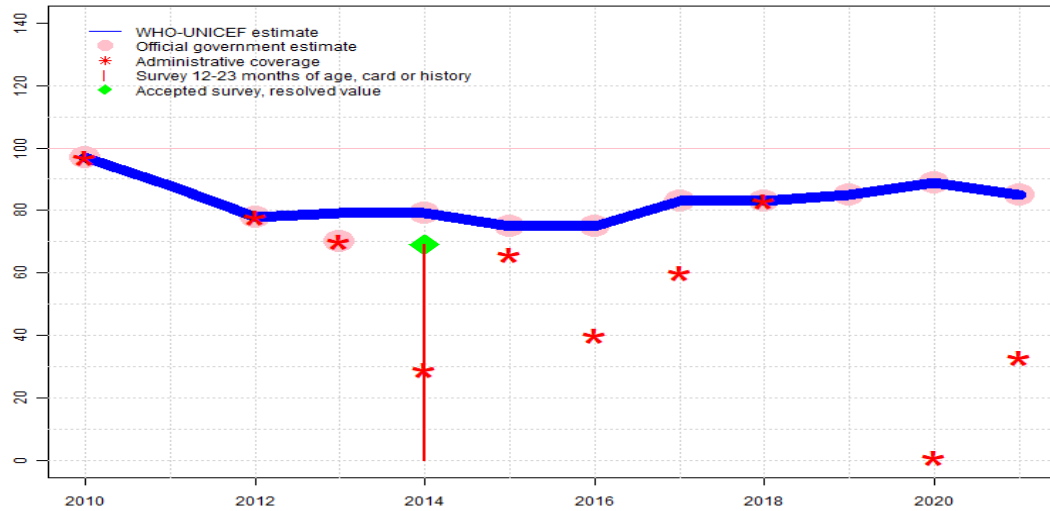
Description:

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).

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Marshall Islands - MCV1

MHL - MCV1



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Estimate	97	88	78	79	79	75	75	83	83	85	89	85
Estimate GoC	••	•	••	•••	•	•	•	••	•	•	•	•
Official	97	NA	78	70	79	75	75	83	83	85	89	85
Administrative	97	NA	78	70	29	66	40	60	83	NA	1	33
Survey	NA	NA	NA	NA	69	NA	NA	NA	NA	NA	NA	NA

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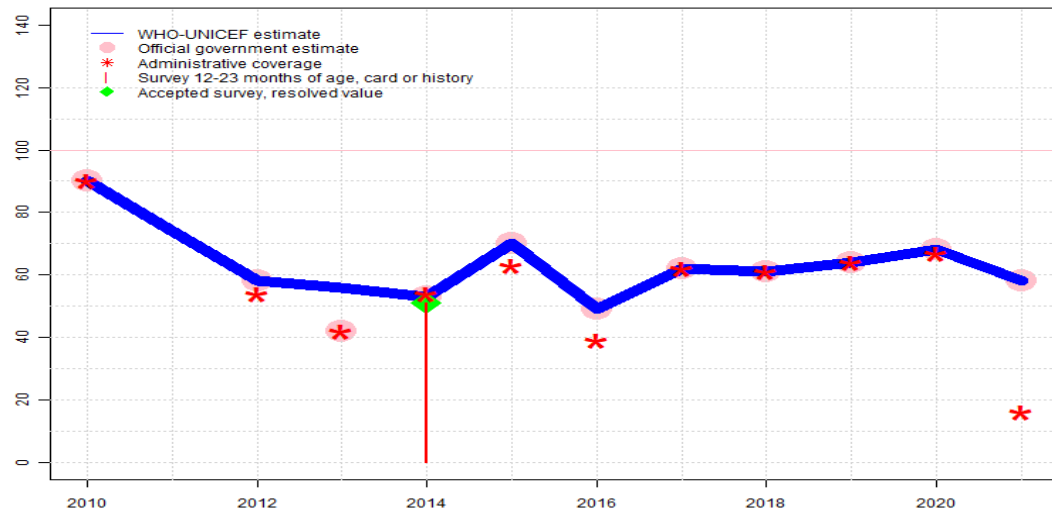
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- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 89 percent changed from previous revision value of 85 percent. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. Consistency across antigens with reported administrative data.
- 2018: Estimate based on coverage reported by national government. Official estimate based on immunization coverage for children aged 19 to 35 months by 31 December 2018 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. Official estimate based on immunization coverage rate for children 19 to 35 months by 31 December 2017 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 69 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2013: Estimate based on interpolation between coverage reported by national government. Reported data excluded. For the 2012 and 2014 birth cohorts, the official government estimate is adjusted from the administrative data. In 2013, the official government estimate is unexplained and suggests an inconsistent and unexplained trend. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. Consistent with other antigens.
- 2011: Estimate based on interpolation between coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=No accepted empirical data
- 2010: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

Marshall Islands - MCV2

MHL - MCV2



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	90	74	58	56	53	70	49	62	61	64	68	58
Estimate GoC	••	•	••	•	•	•	•	•	•	•	•	•
Official	90	NA	58	42	53	70	49	62	61	64	68	58
Administrative	90	NA	54	42	54	63	39	62	61	64	67	16
Survey	NA	NA	NA	NA	51	NA	NA	NA	NA	NA	NA	NA

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

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

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

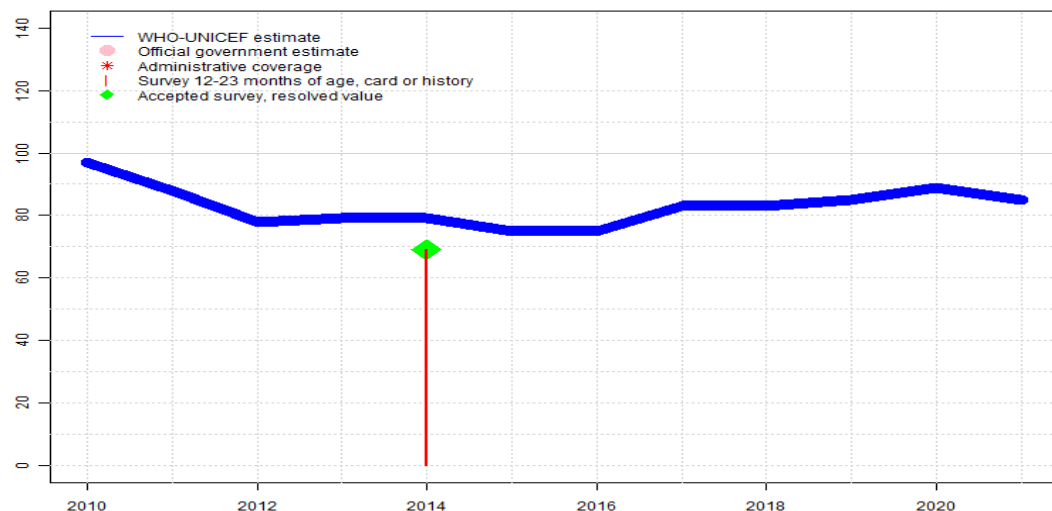
Description:

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. Reported coverage reflects that achieved among children aged 19 to 35 months of age. Estimated coverage levels may overestimate coverage levels achieved for children aged less than 12 months. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 68 percent changed from previous revision value of 64 percent. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2018: Estimate based on coverage reported by national government. Official estimate based on immunization coverage for children aged 19 to 35 months by 31 December 2018 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. Official estimate based on immunization coverage rate for children 19 to 35 months by 31 December 2017 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2016: Estimate based on coverage reported by national government. Reported decline in coverage from prior year is unexplained. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: S-
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 51 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2013: Estimate based on interpolation between data reported by national government. Reported data excluded. For the 2012 and 2014 birth cohorts, the official government estimate is adjusted from the administrative data. In 2013, the official government estimate is unexplained and suggests an inconsistent and unexplained trend. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2012: Estimate based on reported data. Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. Consistent with other antigens.
- 2011: Estimate based on interpolation between data reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=No accepted empirical data
- 2010: Estimate based on reported data. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

Marshall Islands - RCV1

MHL - RCV1



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	97	88	78	79	79	75	75	83	83	85	89	85
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	69	NA	NA	NA	NA	NA	NA	NA

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

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

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

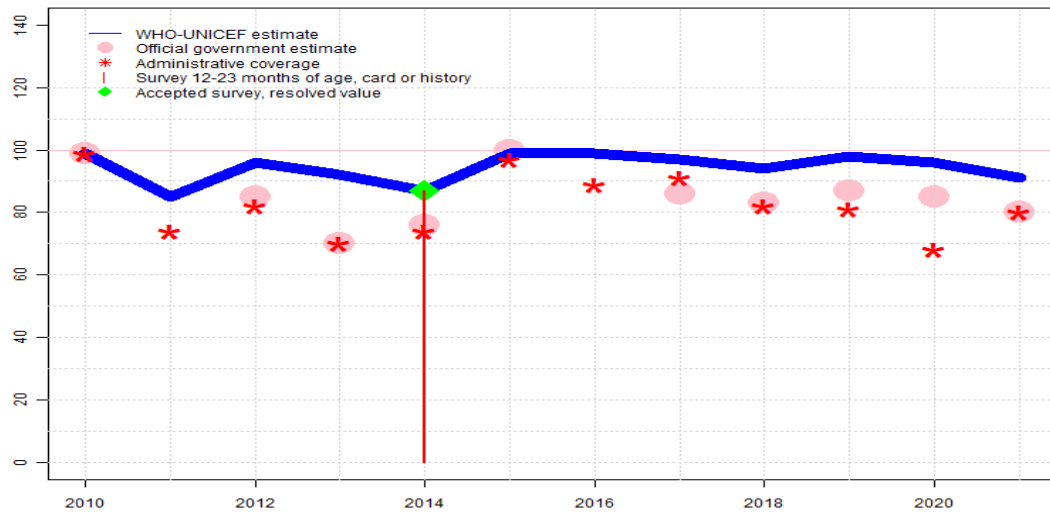
Description:

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. Reported coverage reflects that achieved among children aged 19 to 35 months of age. Estimated coverage levels may overestimate coverage levels achieved for children aged less than 12 months. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2020: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. Estimate of 89 percent changed from previous revision value of 85 percent. Estimate challenged by: D-
- 2019: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. Consistency across antigens with reported administrative data.
- 2018: Estimate based on estimated MCV1. Official estimate based on immunization coverage for children aged 19 to 35 months by 31 December 2018 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2017: Estimate based on estimated MCV1. Official estimate based on immunization coverage rate for children 19 to 35 months by 31 December 2017 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2016: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2015: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2014: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2013: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ S+ D+
- 2012: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. Consistent with other antigens.
- 2011: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. GoC=No accepted empirical data
- 2010: Estimate based on estimated MCV1. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

Marshall Islands - HepBB

MHL - HepBB



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	99	85	96	92	87	99	99	97	94	98	96	91
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	99	NA	85	70	76	100	NA	86	83	87	85	80
Administrative	99	74	82	70	74	97	89	91	82	81	68	80
Survey	NA	NA	NA	NA	87	NA	NA	NA	NA	NA	NA	NA

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

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

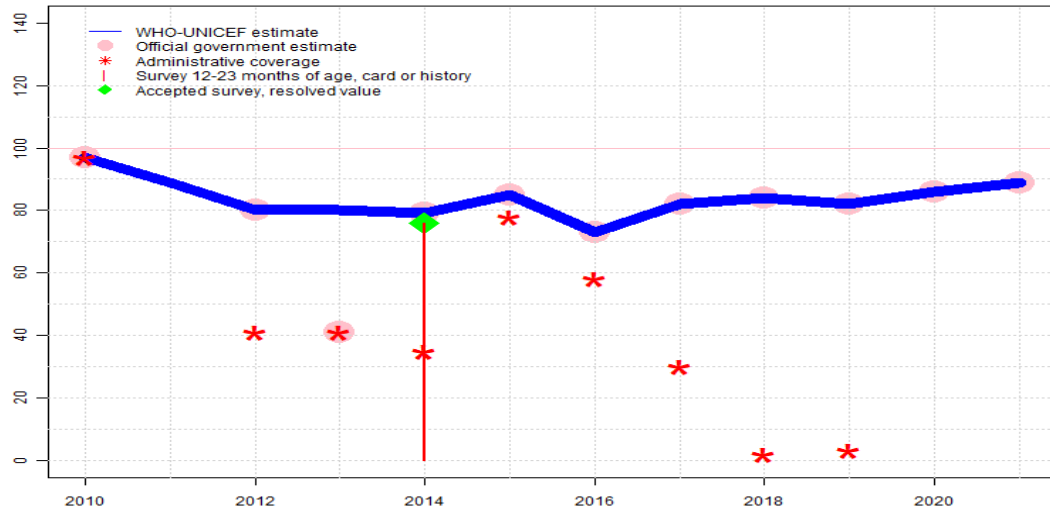
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2021: Reported data calibrated to 2014 levels. Reported coverage reflects that achieved among children aged 19 to 35 months of age. Estimated coverage levels may overestimate coverage levels achieved for children aged less than 12 months. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2020: Reported data calibrated to 2014 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate of 96 percent changed from previous revision value of 98 percent. Estimate challenged by: R-
- 2019: Reported data calibrated to 2014 levels. Programme reports national and subnational vaccine supply disruption. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: R-
- 2018: Reported data calibrated to 2014 levels. Official estimate based on immunization coverage for children aged 19 to 35 months by 31 December 2018 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-
- 2017: Reported data calibrated to 2014 levels. Official estimate based on immunization coverage rate for children 19 to 35 months by 31 December 2017 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-
- 2016: Reported data calibrated to 2014 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-S-
- 2015: Reported data calibrated to 2014 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-S-
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 87 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2014 levels. Reported data excluded. For the 2012 and 2014 birth cohorts, the official government estimate is adjusted from the administrative data. In 2013, the official government estimate is unexplained and suggests an inconsistent and unexplained trend. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2014 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2014 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2014 levels. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-R-

Marshall Islands - HepB3

MHL - HepB3



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	97	89	80	80	79	85	73	82	84	82	86	89
Estimate GoC	●●	●	●	●	●	●	●	●	●	●	●	●
Official	97	NA	80	41	79	85	73	82	84	82	86	89
Administrative	97	NA	41	41	35	78	58	30	2	3	NA	NA
Survey	NA	NA	NA	NA	76	NA	NA	NA	NA	NA	NA	NA

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

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

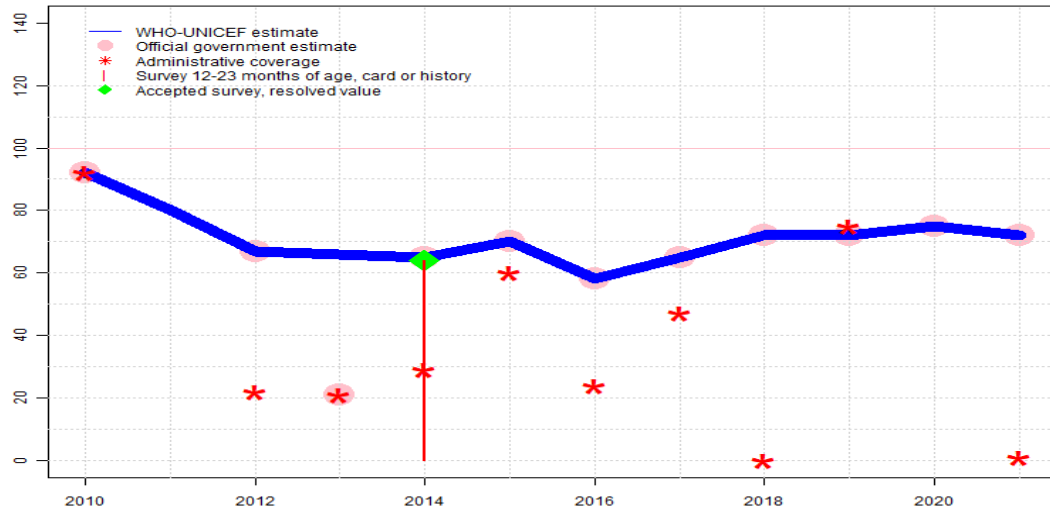
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2021: Estimate based on coverage reported by national government. Reported coverage reflects that achieved among children aged 19 to 35 months of age. Estimated coverage levels may overestimate coverage levels achieved for children aged less than 12 months. Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. Consistency across antigens with reported administrative data.
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 86 percent changed from previous revision value of 82 percent. GoC=Assigned by working group. Consistency across antigens with reported administrative data.
- 2019: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2018: Estimate based on coverage reported by national government. Official estimate based on immunization coverage for children aged 19 to 35 months by 31 December 2018 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. Official estimate based on immunization coverage rate for children 19 to 35 months by 31 December 2017 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2016: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 76 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2013: Estimate based on interpolation between coverage reported by national government. Reported data excluded. For the 2012 and 2014 birth cohorts, the official government estimate is adjusted from the administrative data. In 2013, the official government estimate is unexplained and suggests an inconsistent and unexplained trend. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2011: Estimate based on interpolation between coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=No accepted empirical data
- 2010: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

Marshall Islands - Hib3

MHL - Hib3



Description:

- 2021: Estimate based on coverage reported by national government. Reported coverage reflects that achieved among children aged 19 to 35 months of age. Estimated coverage levels may overestimate coverage levels achieved for children aged less than 12 months. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 75 percent changed from previous revision value of 72 percent. GoC=Assigned by working group. Consistency across antigens with reported administrative data.
- 2019: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2018: Estimate based on coverage reported by national government. Official estimate based on immunization coverage for children aged 19 to 35 months by 31 December 2018 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. Consistency across antigens with reported administrative data.
- 2017: Estimate based on coverage reported by national government. Official estimate based on immunization coverage rate for children 19 to 35 months by 31 December 2017 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. Reported decline in coverage from prior year is unexplained. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Programme reports two month national level stock-out of DTP-IPV-Hib. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 64 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2013: Estimate based on interpolation between data reported by national government. Reported data excluded. For the 2012 and 2014 birth cohorts, the official government estimate is adjusted from the administrative data. In 2013, the official government estimate is unexplained and suggests an inconsistent and unexplained trend. Programme reports stock-out in 7 districts. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2012: Estimate based on reported data. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2011: Estimate based on interpolation between data reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=No accepted empirical data
- 2010: Estimate based on reported data. 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	92	80	67	66	65	70	58	65	72	72	75	72
Estimate GoC	●●	●	●	●	●	●	●	●●	●	●	●	●
Official	92	NA	67	21	65	70	58	65	72	72	75	72
Administrative	92	NA	22	21	29	60	24	47	0	75	NA	1
Survey	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA

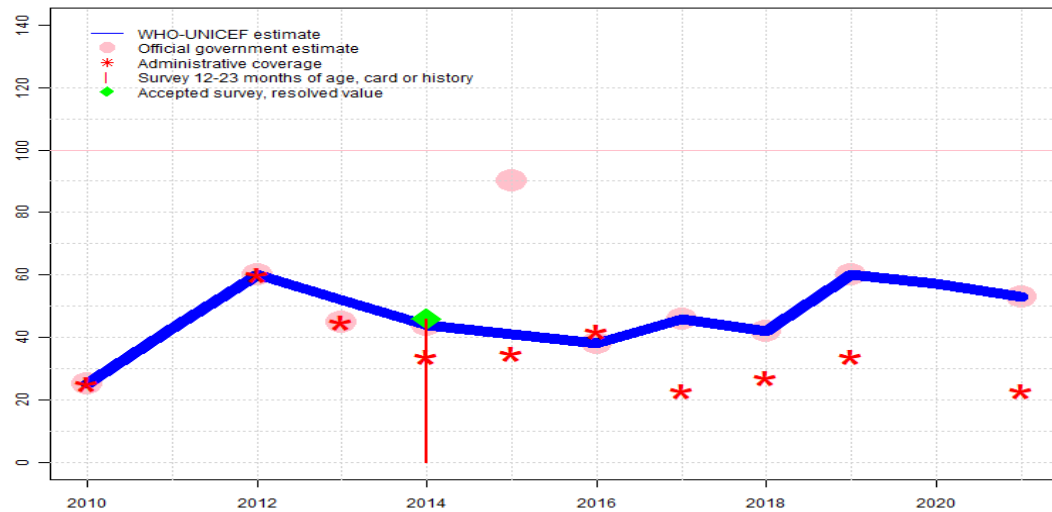
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Marshall Islands - RotaC

MHL - RotaC



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	25	43	60	52	44	41	38	46	42	60	57	53
Estimate GoC	••	•	•	••	•	•••	••	•	•	•	•	•
Official	25	NA	60	45	44	90	38	46	42	60	NA	53
Administrative	25	NA	60	45	34	35	42	23	27	34	NA	23
Survey	NA	NA	NA	NA	46	NA	NA	NA	NA	NA	NA	NA

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

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

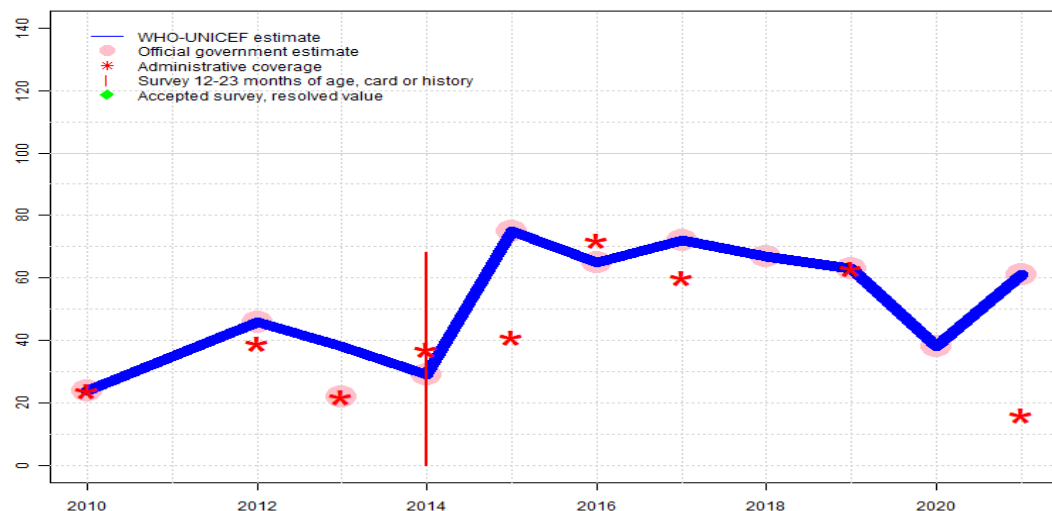
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2021: Estimate based on coverage reported by national government. Reported coverage reflects that achieved among children aged 19 to 35 months of age. Estimated coverage levels may overestimate coverage levels achieved for children aged less than 12 months. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2020: Estimate based on interpolation between data reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 57 percent changed from previous revision value of 60 percent. GoC=No accepted empirical data
- 2019: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2018: Estimate based on coverage reported by national government. Official estimate based on immunization coverage for children aged 19 to 35 months by 31 December 2018 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. Official estimate based on immunization coverage rate for children 19 to 35 months by 31 December 2017 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2016: . Reported decline in coverage from prior year is unexplained. Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. Consistent with other antigens.
- 2015: Estimate based on interpolation between coverage reported by national government. Reported data excluded. Inconsistent and unexplained increase in reported coverage. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 46 percent based on 1 survey(s). Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2013: Estimate based on interpolation between data reported by national government. Reported data excluded. For the 2012 and 2014 birth cohorts, the official government estimate is adjusted from the administrative data. In 2013, the official government estimate is unexplained and suggests an inconsistent and unexplained trend. Programme reports stock-out in 1 district. Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. Consistent with other antigens.
- 2012: Estimate based on reported data. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: S-
- 2011: Estimate based on interpolation between data reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=No accepted empirical data
- 2010: Estimate based on reported data. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

Marshall Islands - PcV3

MHL - PcV3



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimate	24	35	46	38	29	75	65	72	67	63	38	61
Estimate GoC	••	•	•	•	••	•	•	••	••	•	••	•
Official	24	NA	46	22	29	75	65	72	67	63	38	61
Administrative	24	NA	39	22	37	41	72	60	NA	63	NA	16
Survey	NA	NA	NA	NA	68	NA	NA	NA	NA	NA	NA	NA

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

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

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

Description:

- 2021: Estimate based on coverage reported by national government. Reported coverage reflects that achieved among children aged 19 to 35 months of age. Estimated coverage levels may overestimate coverage levels achieved for children aged less than 12 months. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2020: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate of 38 percent changed from previous revision value of 63 percent. GoC=R+
- 2019: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2018: Estimate based on coverage reported by national government. Official estimate based on immunization coverage for children aged 19 to 35 months by 31 December 2018 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. GoC=R+
- 2017: Estimate based on coverage reported by national government. Official estimate based on immunization coverage rate for children 19 to 35 months by 31 December 2017 in Majuro, Ebeye, and Outer Islands. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. Reported coverage reflects that achieved among 71 percent of the national target population. Reported change in target population for PcV3 is unexplained. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Programme reports district level stock-out. Fluctuation in reported data is attributed to small birth cohort. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Vaccination among children aged 2 years results ignored by working group. Results inconsistent with data reported on use of PCV. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+
- 2013: Estimate based on interpolation between reported values. Reported data excluded. For the 2012 and 2014 birth cohorts, the official government estimate is adjusted from the administrative data. In 2013, the official government estimate is unexplained and suggests an inconsistent and unexplained trend. Fluctuation in reported data is attributed to small birth cohort. Programme reports stock-out in 6 districts. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2012: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.
- 2011: Estimate based on interpolation between reported values. Fluctuation in reported data is attributed to small birth cohort. GoC=No accepted empirical data
- 2010: Estimate based on coverage reported by national government. Fluctuation in reported data is attributed to small birth cohort. GoC=R+ D+

Marshall Islands - survey details

2014 Vaccination among children aged 2 years

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
DTP3	Card or History	72	24-35 m	1312	-
HepB3	Card or History	76	24-35 m	1312	-
HepBB	Card or History	86.7	24-35 m	1312	-
Hib3	Card or History	63.5	24-35 m	1312	-
MCV1	Card or History	68.7	24-35 m	1312	-
MCV2	Card or History	51	24-35 m	1312	-
PCV3	Card or History	68.3	24-35 m	1312	-
Pol3	Card or History	72.7	24-35 m	1312	-
RotaC	Card or History	46.5	24-35 m	1312	-

2006 Marshall Islands Demographic and Health Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	66.7	12-23 m	249	75
BCG	Card	69.5	12-23 m	187	75
BCG	Card or History	69.5	12-23 m	249	75
BCG	History	0	12-23 m	62	75
DTP1	C or H <12 months	65.1	12-23 m	249	75
DTP1	Card	71.2	12-23 m	187	75
DTP1	Card or History	71.2	12-23 m	249	75
DTP1	History	0	12-23 m	62	75
DTP3	C or H <12 months	37.9	12-23 m	249	75
DTP3	Card	47.8	12-23 m	187	75
DTP3	Card or History	47.8	12-23 m	249	75
DTP3	History	0	12-23 m	62	75
MCV1	C or H <12 months	6.2	12-23 m	249	75
MCV1	Card	54.1	12-23 m	187	75
MCV1	Card or History	54.1	12-23 m	249	75
MCV1	History	0	12-23 m	62	75
Pol1	C or H <12 months	66.6	12-23 m	249	75
Pol1	Card	70.4	12-23 m	187	75
Pol1	Card or History	70.4	12-23 m	249	75
Pol1	History	0	12-23 m	62	75
Pol3	C or H <12 months	36.5	12-23 m	249	75
Pol3	Card	45.9	12-23 m	187	75

Pol3	Card or History	45.9	12-23 m	249	75
Pol3	History	0	12-23 m	62	75

2005 Marshall Islands Demographic and Health Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	61	24-35 m	207	75
DTP1	C or H <12 months	62.4	24-35 m	207	75
DTP3	C or H <12 months	32.4	24-35 m	207	75
MCV1	C or H <12 months	3.2	24-35 m	207	75
Pol1	C or H <12 months	60.3	24-35 m	207	75
Pol3	C or H <12 months	33.3	24-35 m	207	75

2004 Marshall Islands Demographic and Health Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	61.1	36-47 m	214	75
DTP1	C or H <12 months	53.9	36-47 m	214	75
DTP3	C or H <12 months	32	36-47 m	214	75
MCV1	C or H <12 months	2.9	36-47 m	214	75
Pol1	C or H <12 months	54.3	36-47 m	214	75
Pol3	C or H <12 months	30.3	36-47 m	214	75

2004 RMI Community Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	81.7	0-24 m	115	49
DTP3	Card	65.2	0-24 m	115	49
HepB3	Card	86.1	0-24 m	115	49
Hib3	Card	83.5	0-24 m	115	49
MCV1	Card	80.9	0-24 m	115	49
Pol3	Card	72.2	0-24 m	115	49

2003 Marshall Islands Demographic and Health Survey 2007

Marshall Islands - survey details

1999 Marshall Islands Immunization Survey 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	47.4	48-59 m	214	75
DTP1	C or H <12 months	42.5	48-59 m	214	75
DTP3	C or H <12 months	16.6	48-59 m	214	75
MCV1	C or H <12 months	12.6	48-59 m	214	75
Pol1	C or H <12 months	49	48-59 m	214	75
Pol3	C or H <12 months	21.4	48-59 m	214	75

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	77	12-23 m	-	-
DTP3	Card	82	12-23 m	-	-
HepB3	Card	67	12-23 m	-	-
MCV1	Card	80	12-23 m	-	-
Pol3	Card	80	12-23 m	-	-

Further information and estimates for previous years are available at:

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

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