

**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.

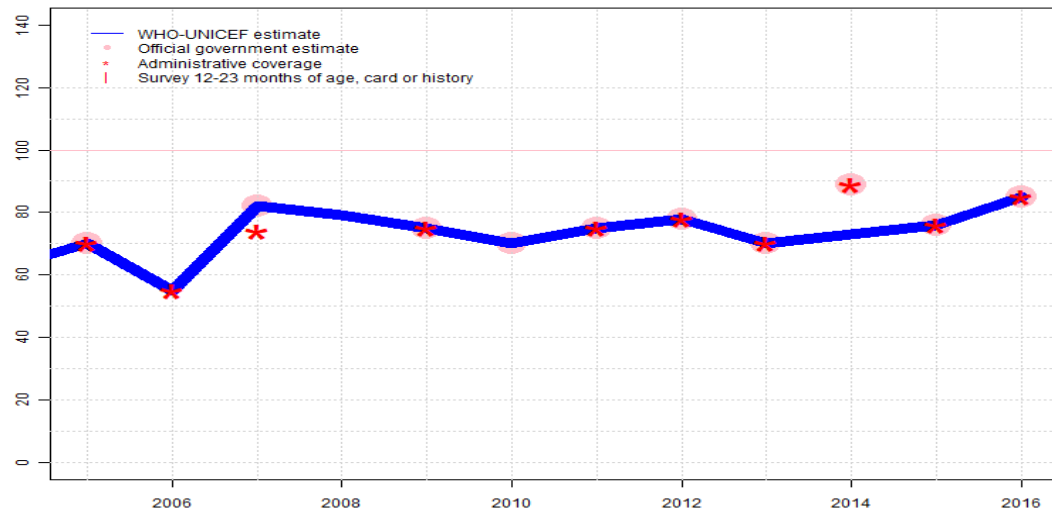
**PcV3:** percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

FSM - BCG



## Description:

- 2016: Estimate based on coverage reported by national government. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate of 76 percent changed from previous revision value of 70 percent. GoC=R+ D+
- 2014: Estimate based on interpolation between data reported by national government. Reported data excluded. Programme reports underreporting of birth-related data from health facilities. Administrative coverage reflects coverage among a subset of births during 2013. Reported data excluded due to an unexplained increase from 70 percent to 89 percent with decrease 76 percent. Estimate of 73 percent changed from previous revision value of 70 percent. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. . GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on interpolation between data reported by national government. GoC=No accepted empirical data
- 2007: Estimate based on coverage reported by national government. Increase in 2007 attributed to catch-up following vaccine shortage in 2006 GoC=R+ D+
- 2006: Estimate based on reported administrative data. Decline in 2006 attributed to vaccine shortage. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	70	55	82	79	75	70	75	78	70	73	76	85
Estimate GoC	●●	●●	●●	●	●●	●●	●●	●●	●●	●●	●●	●
Official	70	NA	82	NA	75	70	75	78	70	89	76	85
Administrative	70	55	74	NA	75	NA	75	78	70	89	76	85
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

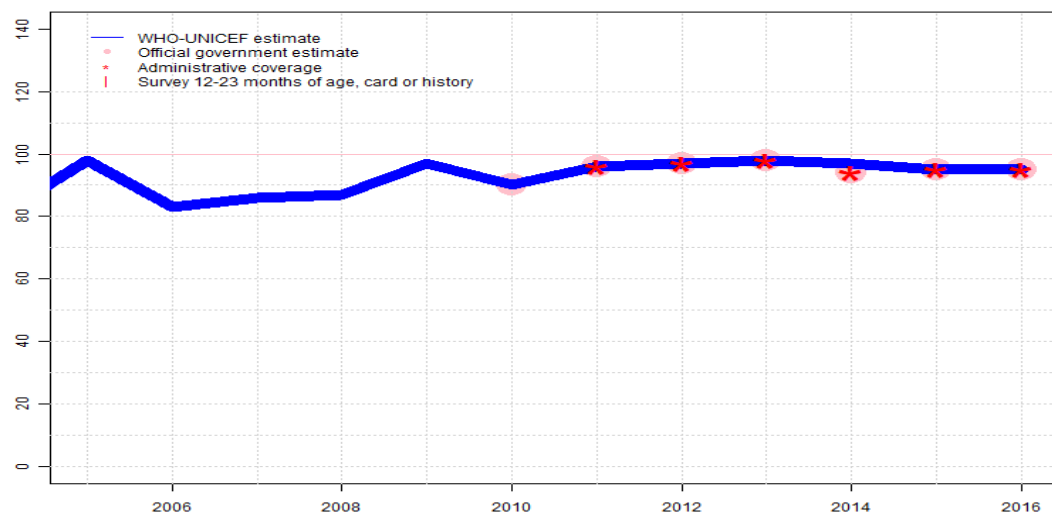
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

# Micronesia (Federated States of) - DTP1

FSM - DTP1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	98	83	86	87	97	90	96	97	98	97	95	95
Estimate GoC	•	•	•	•	•	••	••	••	••	•	••	•
Official	NA	NA	NA	NA	NA	90	96	97	98	94	95	95
Administrative	NA	NA	NA	NA	NA	NA	96	97	98	94	95	95
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: 2015 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.

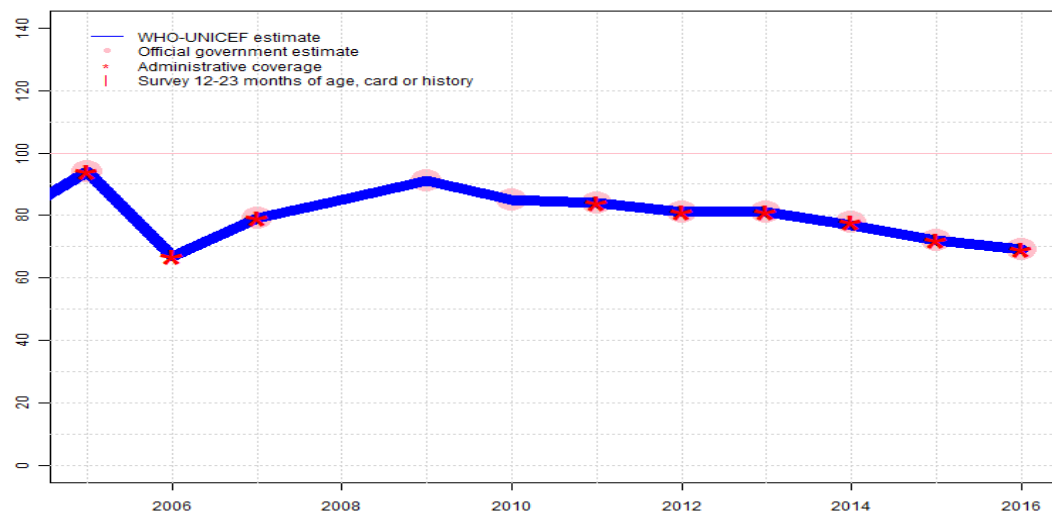
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2016: Estimate based on coverage reported by national government. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on interpolation between data reported by national government. Reported data excluded. Reported number of children vaccinated and target population data inconsistent with prior years. Reported data are a magnitude of 3x greater in 2014 than 2013. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. . GoC=R+ D+
- 2010: Estimate based on reported data. GoC=R+
- 2009: DTP1 coverage estimated based on DTP3 coverage of 91. GoC=No accepted empirical data
- 2008: Reported data calibrated to 1997 and 2010 levels. GoC=No accepted empirical data
- 2007: Reported data calibrated to 1997 and 2010 levels. GoC=No accepted empirical data
- 2006: Reported data calibrated to 1997 and 2010 levels. GoC=No accepted empirical data
- 2005: DTP1 coverage estimated based on DTP3 coverage of 94. GoC=No accepted empirical data

# Micronesia (Federated States of) - DTP3

FSM - DTP3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	94	67	79	85	91	85	84	81	81	77	72	69
Estimate GoC	•	•	••	•	••	••	••	••	••	•	••	•
Official	94	NA	79	NA	91	85	84	81	81	78	72	69
Administrative	94	67	79	NA	NA	NA	84	81	81	78	72	69
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: 2015 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.

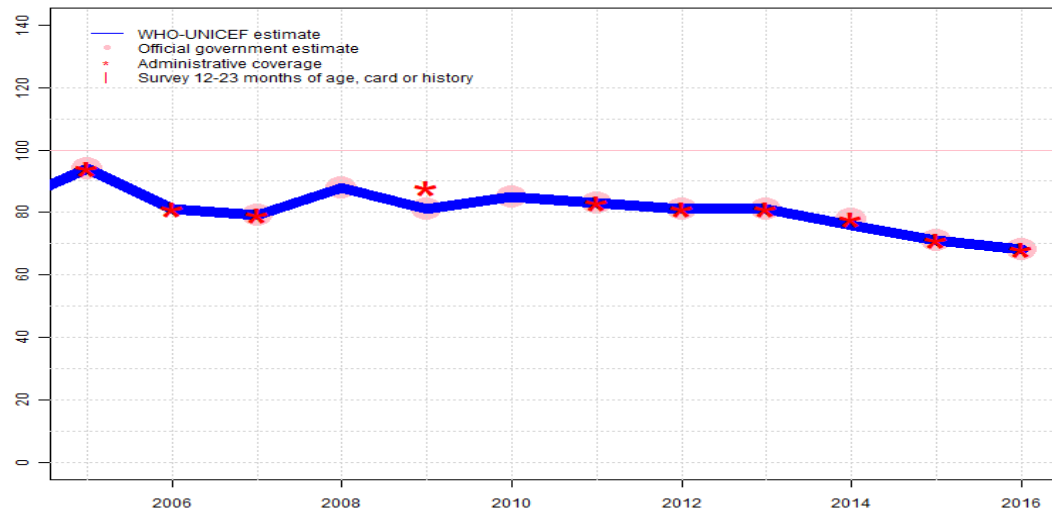
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2016: Estimate based on coverage reported by national government. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on interpolation between data reported by national government. Reported data excluded. Reported number of children vaccinated and target population data inconsistent with prior years. Reported data are a magnitude of 3x greater in 2014 than 2013. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. . GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+
- 2009: Estimate based on coverage reported by national government. GoC=R+
- 2008: Estimate based on interpolation between data reported by national government. GoC=No accepted empirical data
- 2007: Estimate based on coverage reported by national government. Increase in 2007 attributed to catch-up following vaccine shortage in 2006 GoC=R+ D+
- 2006: Estimate based on reported administrative data. Decline in 2006 attributed to vaccine shortage. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. . Estimate challenged by: D-

# Micronesia (Federated States of) - Pol3

FSM - Pol3



## Description:

- 2016: Estimate based on coverage reported by national government. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on interpolation between data reported by national government. Reported data excluded. Reported number of children vaccinated and target population data inconsistent with prior years. Reported data are a magnitude of 3x greater in 2014 than 2013. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. . GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. GoC=R+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on reported administrative data. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. . GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	94	81	79	88	81	85	83	81	81	76	71	68
Estimate GoC	••	••	••	••	•	••	••	••	••	•	••	•
Official	94	NA	79	88	81	85	83	81	81	78	71	68
Administrative	94	81	79	NA	88	NA	83	81	81	78	71	68
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

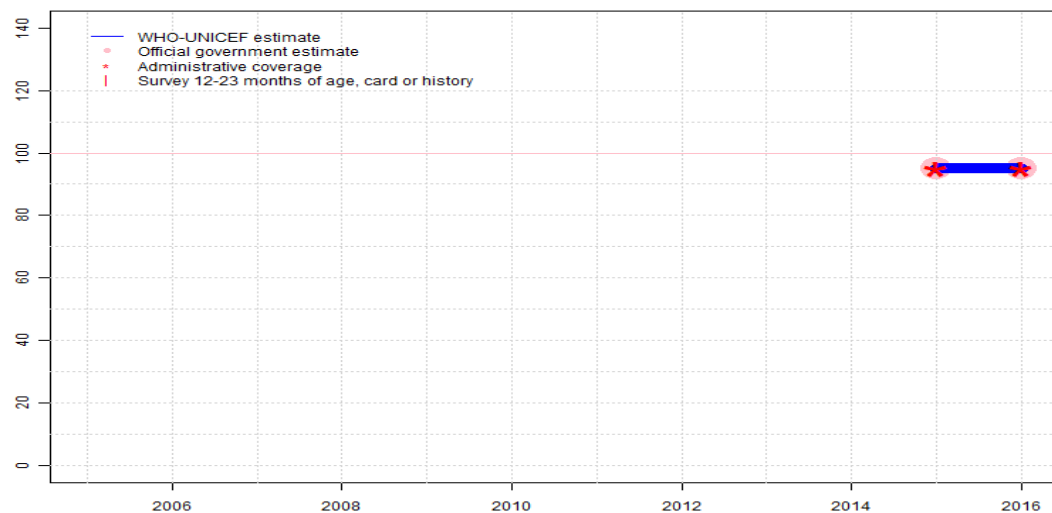
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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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# Micronesia (Federated States of) - IPV1

FSM - IPV1



## Description:

2016: Estimate based on coverage reported by national government. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-

2015: Estimate based on coverage reported by national government. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	95	95
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	95	95
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	95	95
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

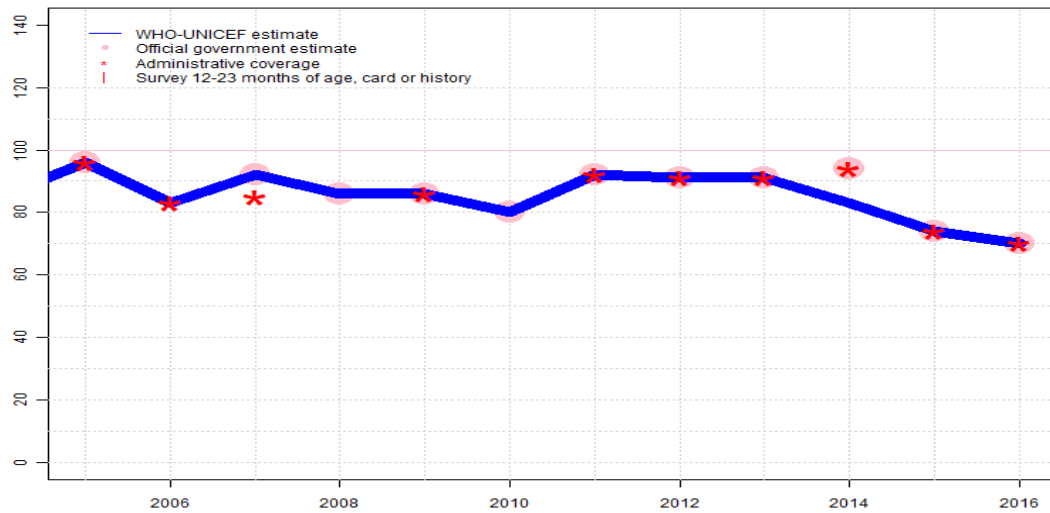
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- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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# Micronesia (Federated States of) - MCV1

FSM - MCV1



## Description:

- 2016: Estimate based on coverage reported by national government. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate of 74 percent changed from previous revision value of 91 percent. GoC=R+ D+
- 2014: Estimate based on interpolation between data reported by national government. Reported data excluded. Reported number of children vaccinated and target population data inconsistent with prior years. Reported data are a magnitude of 3x greater in 2014 than 2013. Estimate of 83 percent changed from previous revision value of 91 percent. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. . GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on reported administrative data. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. . Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	96	83	92	86	86	80	92	91	91	83	74	70
Estimate GoC	•	••	••	••	••	••	••	••	••	•	••	•
Official	96	NA	92	86	86	80	92	91	91	94	74	70
Administrative	96	83	85	NA	86	NA	92	91	91	94	74	70
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.

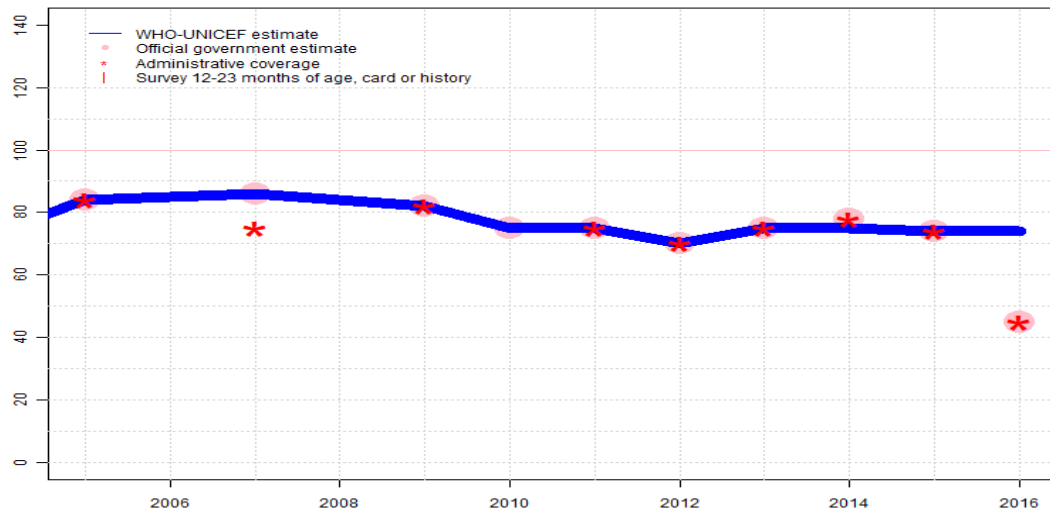
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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# Micronesia (Federated States of) - MCV2

FSM - MCV2



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	84	85	86	84	82	75	75	70	75	75	74	74
Estimate GoC	•	•	••	•	••	••	••	••	••	•	••	•
Official	84	NA	86	NA	82	75	75	70	75	78	74	45
Administrative	84	NA	75	NA	82	NA	75	70	75	78	74	45
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: 2015 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.

2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to unexplained sudden change in coverage from 74 level to 45 percent. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-

2015: Estimate based on coverage reported by national government. GoC=R+ D+

2014: Estimate based on interpolation between reported values. Reported data excluded. Reported number of children vaccinated and target population data inconsistent with prior years. Reported data are a magnitude of 3x greater in 2014 than 2013. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. GoC=R+ D+

2012: Estimate based on coverage reported by national government. GoC=R+ D+

2011: Estimate based on coverage reported by national government. . GoC=R+ D+

2010: Estimate based on coverage reported by national government. GoC=R+

2009: Estimate based on coverage reported by national government. GoC=R+ D+

2008: Estimate based on interpolation between reported values. GoC=No accepted empirical data

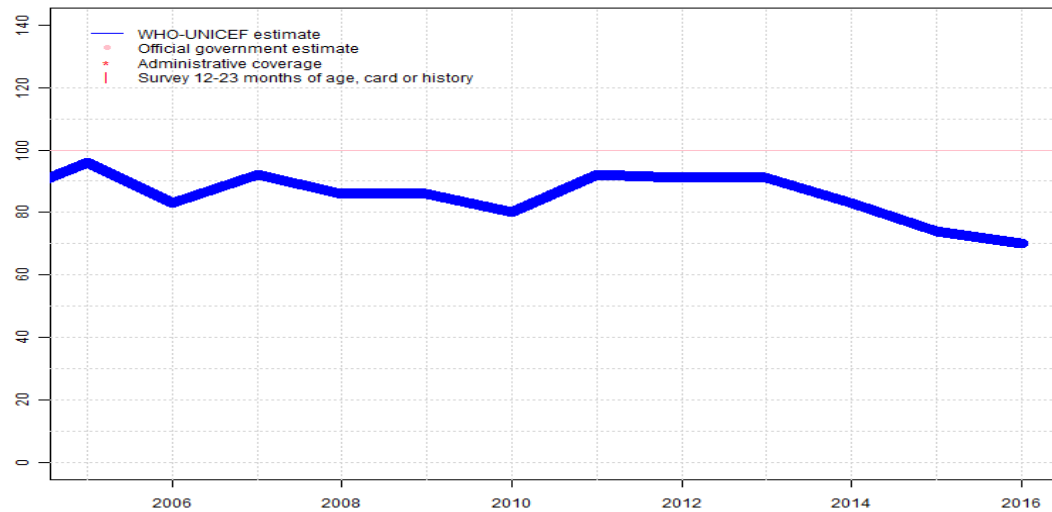
2007: Estimate based on coverage reported by national government. GoC=R+ D+

2006: Estimate based on interpolation between reported values. GoC=No accepted empirical data

2005: Estimate based on coverage reported by national government. Estimate challenged by: D-

# Micronesia (Federated States of) - RCV1

FSM - RCV1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	96	83	92	86	86	80	92	91	91	83	74	70
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	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: 2015 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.

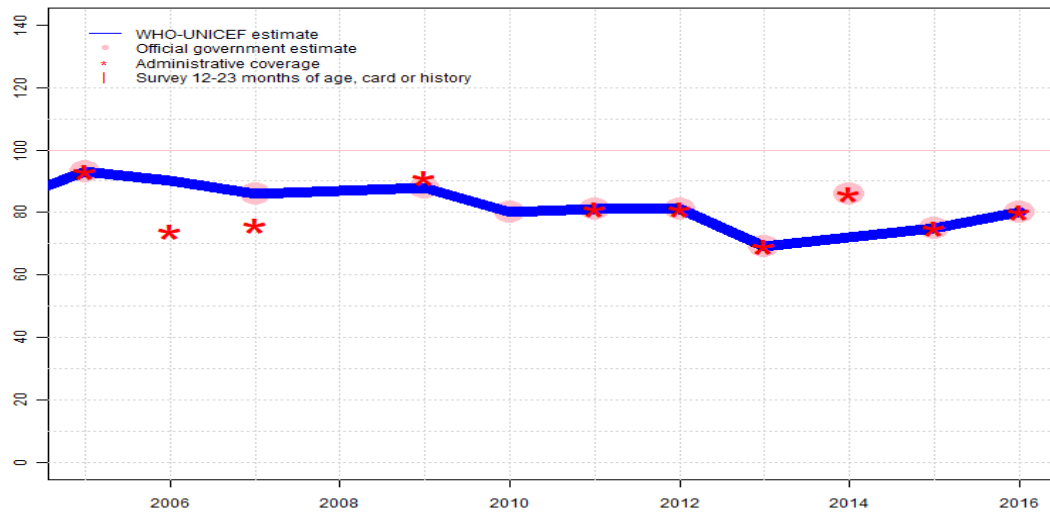
## Description:

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.

- 2016: Estimate based on estimated MCV1. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on estimated MCV1. Estimate of 74 percent changed from previous revision value of 91 percent. GoC=R+ D+
- 2014: Estimate based on estimated MCV1. Estimate of 83 percent changed from previous revision value of 91 percent. Estimate challenged by: D-
- 2013: Estimate based on estimated MCV1. GoC=R+ D+
- 2012: Estimate based on estimated MCV1. GoC=R+ D+
- 2011: Estimate based on estimated MCV1. . GoC=R+ D+
- 2010: Estimate based on estimated MCV1. GoC=R+
- 2009: Estimate based on estimated MCV1. GoC=R+ D+
- 2008: Estimate based on estimated MCV1. GoC=R+
- 2007: Estimate based on estimated MCV1. GoC=R+ D+
- 2006: Estimate based on estimated MCV1. GoC=R+ D+
- 2005: Estimate based on estimated MCV1. Estimate challenged by: D-

# Micronesia (Federated States of) - HepBB

FSM - HepBB



## Description:

- 2016: Estimate based on coverage reported by national government. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate of 75 percent changed from previous revision value of 69 percent. GoC=R+ D+
- 2014: Estimate based on interpolation between reported values. Reported data excluded. Programme reports underreporting of birth-related data from health facilities. Administrative coverage reflects coverage among a subset of births during 2013. Reported data excluded due to an unexplained increase from 69 percent to 86 percent with decrease 75 percent. Estimate of 72 percent changed from previous revision value of 69 percent. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. Estimate is based on official government estimate. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. . GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on interpolation between reported values. GoC=No accepted empirical data
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on interpolation between reported values. Reported data excluded due to decline in reported coverage from 93 percent to 74 percent with increase to 86 percent. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	93	90	86	87	88	80	81	81	69	72	75	80
Estimate GoC	•	•	••	•	••	••	••	••	••	••	••	•
Official	93	NA	86	NA	88	80	81	81	69	86	75	80
Administrative	93	74	76	NA	91	NA	81	81	69	86	75	80
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

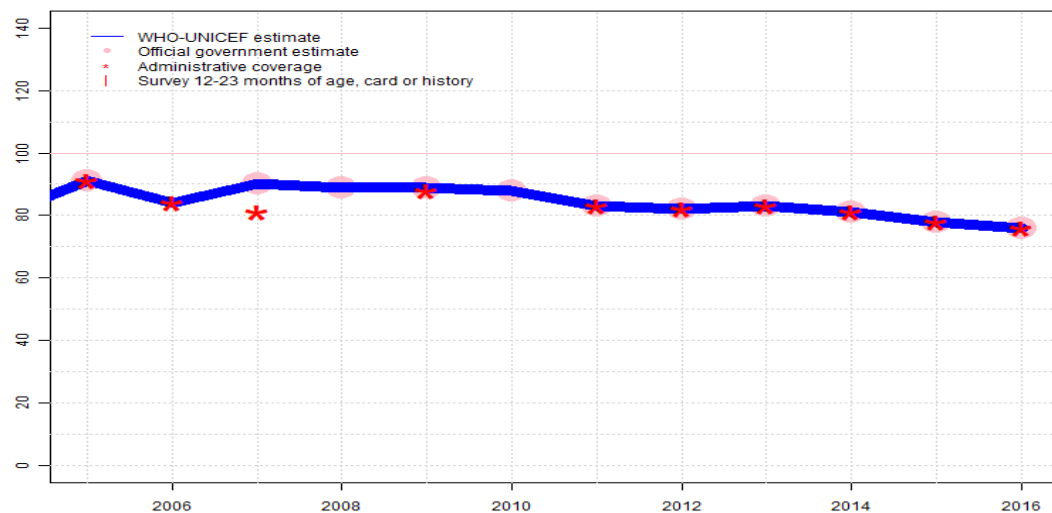
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

# Micronesia (Federated States of) - HepB3

FSM - HepB3



## Description:

- 2016: Estimate based on coverage reported by national government. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on interpolation between data reported by national government. Reported data excluded. Reported number of children vaccinated and target population data inconsistent with prior years. Reported data are a magnitude of 3x greater in 2014 than 2013. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. . GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on reported administrative data. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	91	84	90	89	89	88	83	82	83	81	78	76
Estimate GoC	•	••	••	••	••	••	••	••	••	•	••	•
Official	91	NA	90	89	89	88	83	82	83	81	78	76
Administrative	91	84	81	NA	88	NA	83	82	83	81	78	76
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

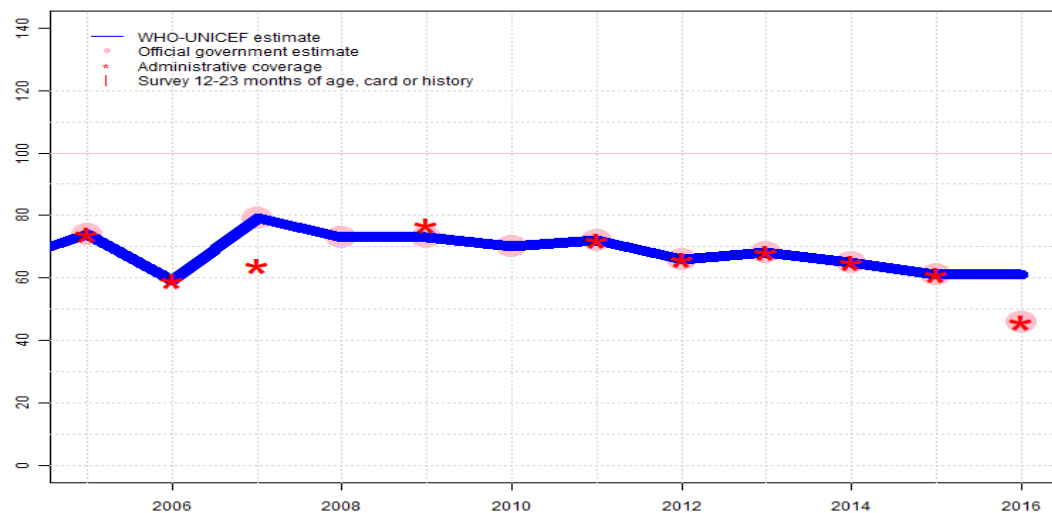
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

# Micronesia (Federated States of) - Hib3

FSM - Hib3



## Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to unexplained sudden change in coverage from 61 level to 46 percent. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on interpolation between reported values. Reported data excluded. Reported number of children vaccinated and target population data inconsistent with prior years. Reported data are a magnitude of 3x greater in 2014 than 2013. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. . GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+
- 2007: Estimate based on coverage reported by national government. . Estimate challenged by: D-
- 2006: Estimate based on reported administrative estimate. . GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	74	59	79	73	73	70	72	66	68	65	61	61
Estimate GoC	•	••	•	••	••	••	••	••	••	•	••	•
Official	74	NA	79	73	73	70	72	66	68	65	61	46
Administrative	74	59	64	NA	77	NA	72	66	68	65	61	46
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

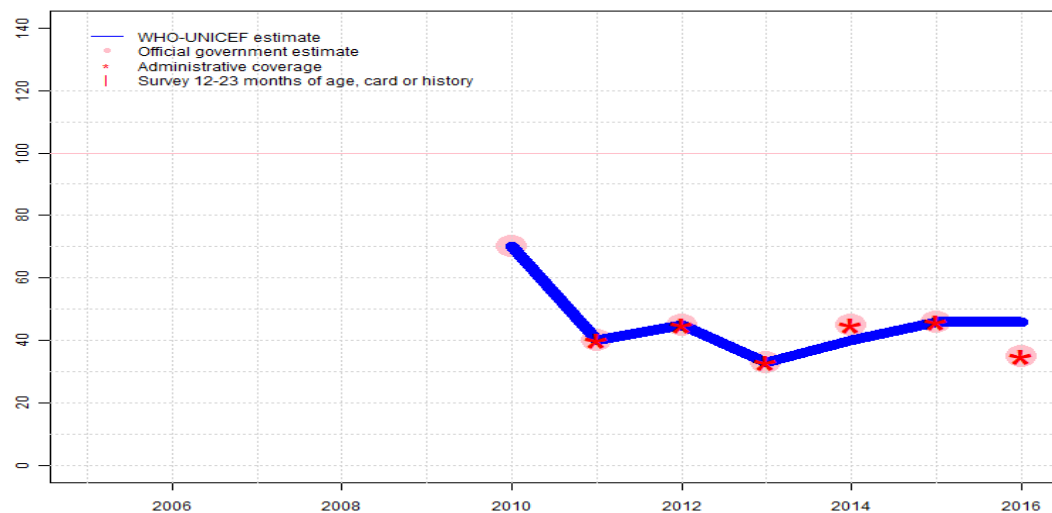
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

# Micronesia (Federated States of) - RotaC

FSM - RotaC



## Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to decline in reported coverage from 46 level to 35 percent. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate of 46 percent changed from previous revision value of 33 percent. GoC=R+ D+
- 2014: Estimate based on interpolation between reported values. Reported data excluded. Reported number of children vaccinated and target population data inconsistent with prior years. Reported data are a magnitude of 3x greater in 2014 than 2013. Estimate of 40 percent changed from previous revision value of 33 percent. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate is based on official government estimate. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. . GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Rotavirus vaccine introduced in 2010. GoC=R+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	70	40	45	33	40	46	46
Estimate GoC	NA	NA	NA	NA	NA	••	••	••	••	•	••	•
Official	NA	NA	NA	NA	NA	70	40	45	33	45	46	35
Administrative	NA	NA	NA	NA	NA	NA	40	45	33	45	46	35
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

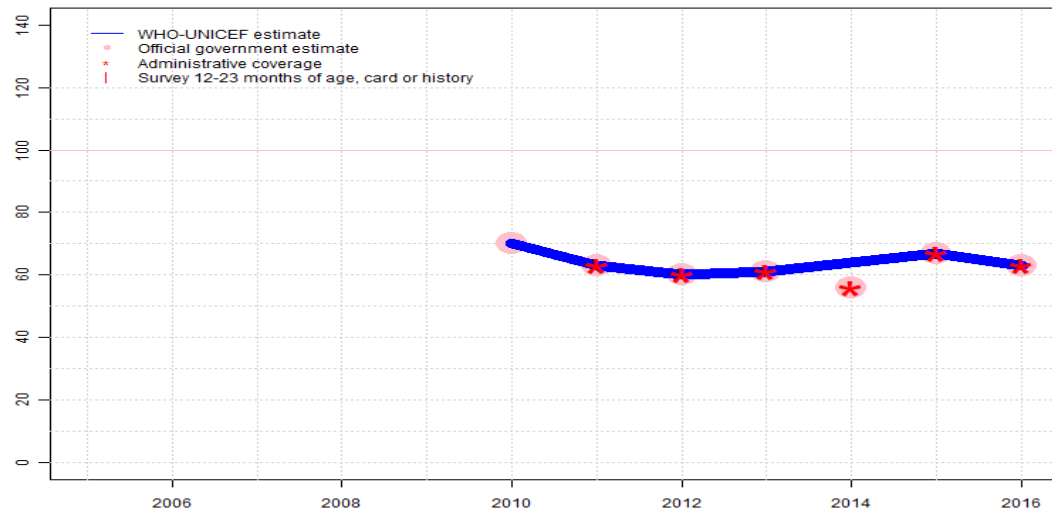
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

# Micronesia (Federated States of) - PcV3

FSM - PcV3



## Description:

- 2016: Estimate based on coverage reported by national government. No nationally representative independent assessment within the last 5 years. WHO and UNICEF recommend a high-quality independent empirical assessment to confirm reported levels of coverage. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on interpolation between reported values. Reported data excluded. Reported number of children vaccinated and target population data inconsistent with prior years. Reported data are a magnitude of 3x greater in 2014 than 2013. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. . GoC=R+
- 2010: Estimate based on coverage reported by national government. Pneumococcal conjugate vaccine introduced subnationally in 2010. GoC=R+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	70	63	60	61	64	67	63
Estimate GoC	NA	NA	NA	NA	NA	••	••	••	••	•	••	•
Official	NA	NA	NA	NA	NA	70	63	60	61	56	67	63
Administrative	NA	NA	NA	NA	NA	NA	63	60	61	56	67	63
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: 2015 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.

Further information and estimates for previous years are available at:

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

[http://www.who.int/immunization/monitoring\\_surveillance/routine/coverage/en/index4.html](http://www.who.int/immunization/monitoring_surveillance/routine/coverage/en/index4.html)