

**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.

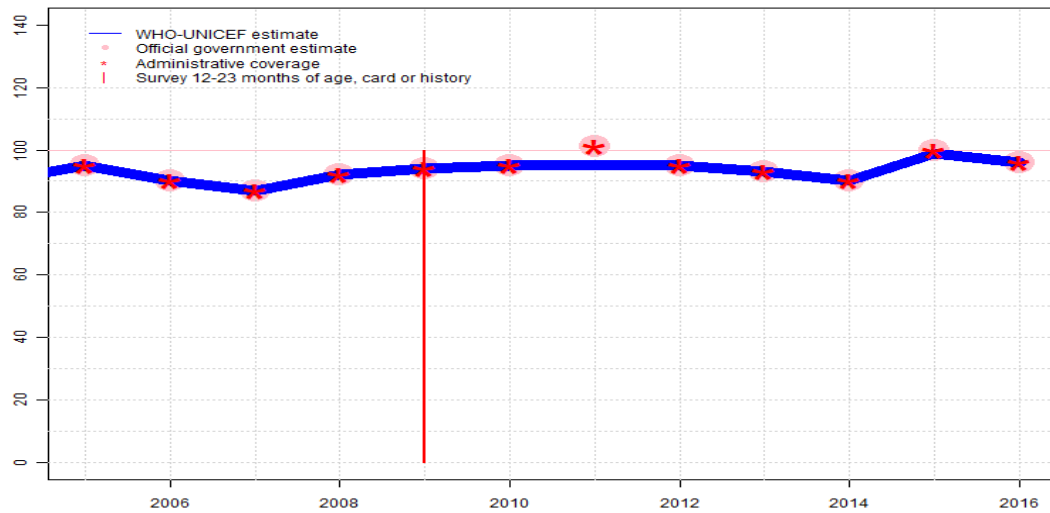
**PcV3:** percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

JAM - BCG



## Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the rapid vaccination coverage assessment conducted in 2015. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on interpolation between data reported by national government. Reported data excluded because 101 percent greater than 100 percent. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 100 percent based on 1 survey(s). GoC=R+ S+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	95	90	87	92	94	95	95	95	93	90	99	96
Estimate GoC	●●●	●●●	●	●●●	●●●	●	●	●	●	●	●	●
Official	95	90	87	92	94	95	101	95	93	90	100	96
Administrative	95	90	87	92	94	95	101	95	93	90	100	96
Survey	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	NA	NA

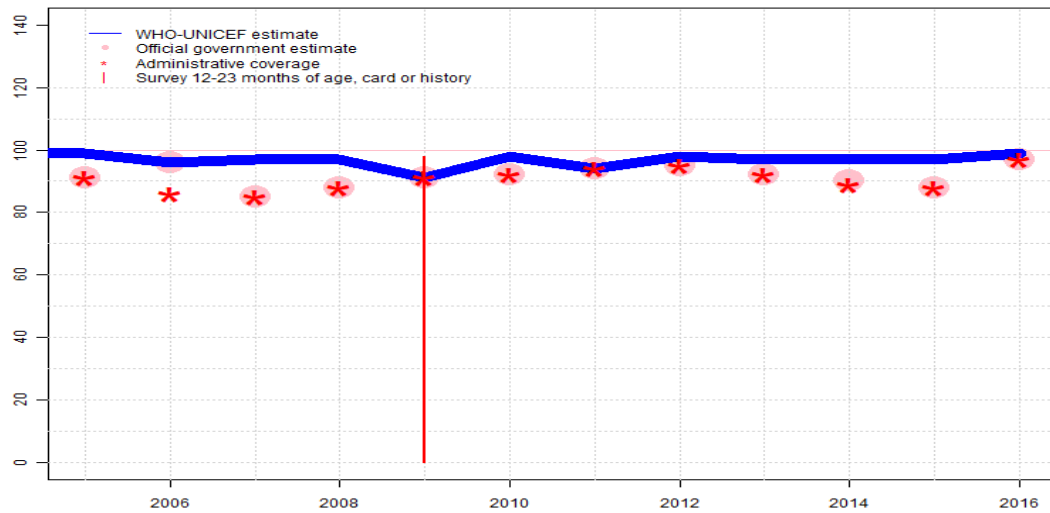
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Jamaica - DTP1

JAM - DTP1



## Description:

- 2016: DTP1 coverage estimated based on DTP3 coverage of 99. WHO and UNICEF are aware of the rapid vaccination coverage assessment conducted in 2015. Estimate challenged by: D-R-
- 2015: DTP1 coverage estimated based on DTP3 coverage of 91. Estimate challenged by: D-R-
- 2014: DTP1 coverage estimated based on DTP3 coverage of 92. Estimate challenged by: D-R-
- 2013: DTP1 coverage estimated based on DTP3 coverage of 93. Official government estimate includes trivalent DTP coverage and does not include DTP doses administered as DTP-HepB-Hib pentavalent vaccine. Estimate challenged by: D-R-
- 2012: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate challenged by: D-R-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-R-
- 2010: DTP1 coverage estimated based on DTP3 coverage of 94. Estimate challenged by: D-R-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). GoC=R+ S+ D+
- 2008: DTP1 coverage estimated based on DTP3 coverage of 91. Estimate challenged by: D-R-
- 2007: DTP1 coverage estimated based on DTP3 coverage of 92. Estimate challenged by: D-R-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: D-R-
- 2005: DTP1 coverage estimated based on DTP3 coverage of 101. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	99	96	97	97	91	98	94	98	97	97	97	99
Estimate GoC	•	•	•	•	•••	•	•	•	•	•	•	•
Official	91	96	85	88	91	92	94	95	92	90	88	97
Administrative	91	86	85	88	91	92	94	95	92	89	88	97
Survey	NA	NA	NA	NA	98	NA	NA	NA	NA	NA	NA	NA

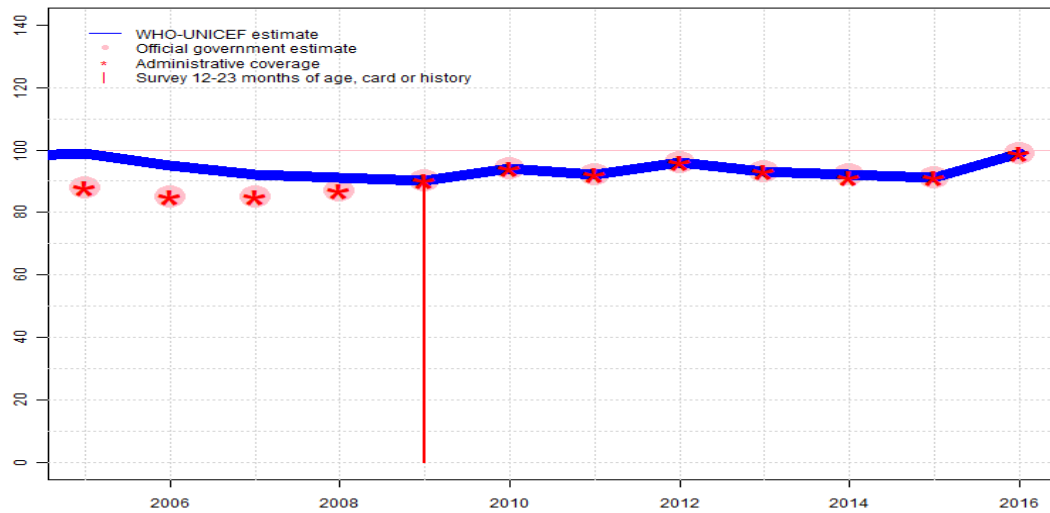
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Jamaica - DTP3

JAM - DTP3



## Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the rapid vaccination coverage assessment conducted in 2015. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on reported administrative data. Official government estimate includes trivalent DTP coverage and does not include DTP doses administered as DTP-HepB-Hib pentavalent vaccine. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Jamaica Multiple Indicator Survey 2011 card or history results of 92 percent modified for recall bias to 98 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 78 percent. GoC=R+ S+ D+
- 2008: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2006: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2005: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	99	95	92	91	90	94	92	96	93	92	91	99
Estimate GoC	•	•	•	•	•••	•	•	•	•	•	•	•
Official	88	85	85	87	90	94	92	96	93	92	91	99
Administrative	88	85	85	87	90	94	92	96	93	91	91	99
Survey	NA	NA	NA	NA	92	NA	NA	NA	NA	NA	NA	NA

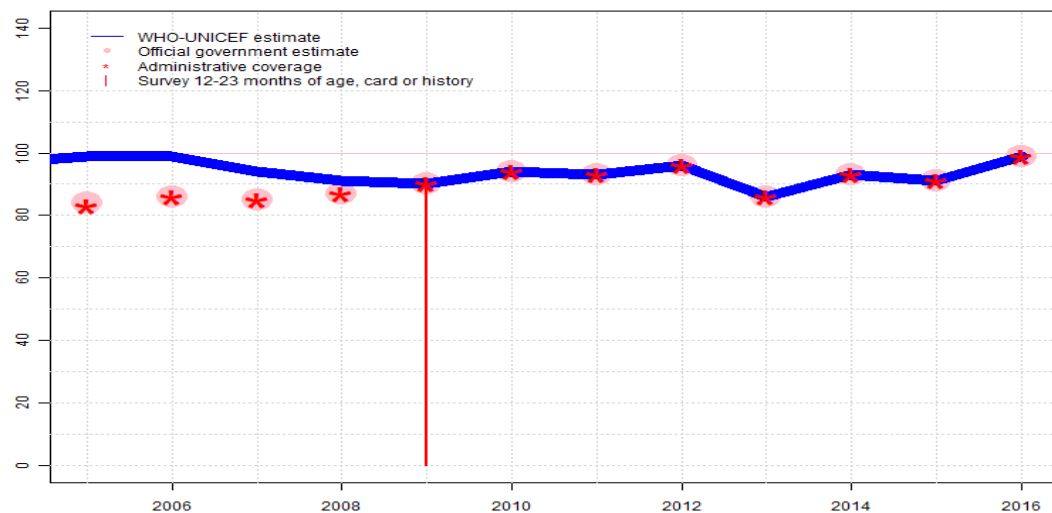
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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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# Jamaica - Pol3

JAM - Pol3



## Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the rapid vaccination coverage assessment conducted in 2015. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on reported administrative data. Decline in reported administrative coverage is most likely due to national stock out for 1.5 months. Reported decline in government official estimate most likely a reporting error. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). Jamaica Multiple Indicator Survey 2011 card or history results of 92 percent modified for recall bias to 97 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 76 percent. GoC=R+ S+ D+
- 2008: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2006: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2005: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	99	99	94	91	90	94	93	96	86	93	91	99
Estimate GoC	•	•	•	•	•••	•	•	•	•	•	•	•
Official	84	86	85	87	90	94	93	96	86	93	91	99
Administrative	83	86	85	87	90	94	93	96	86	93	91	99
Survey	NA	NA	NA	NA	92	NA	NA	NA	NA	NA	NA	NA

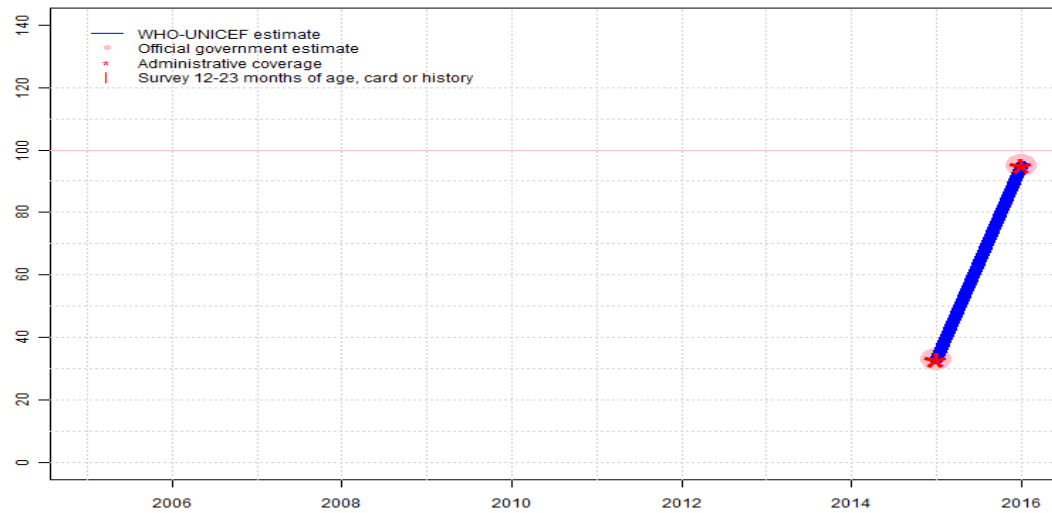
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

JAM - IPV1



## Description:

2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the rapid vaccination coverage assessment conducted in 2015. National rollout of IPV. Estimate challenged by: D-

2015: Estimate based on coverage reported by national government. IPV introduced in September 2015. 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	33	95
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	••	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	33	95
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	33	95
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

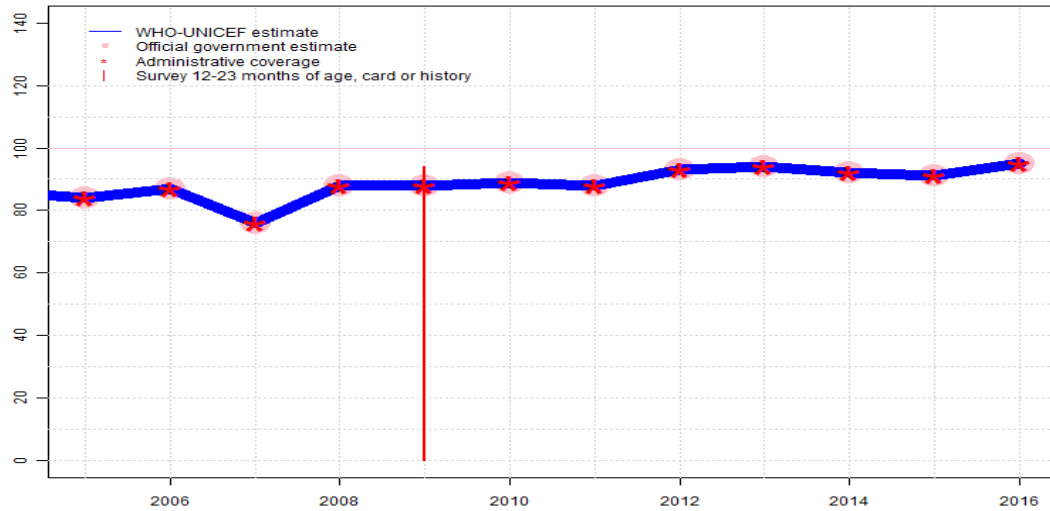
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

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# Jamaica - MCV1

JAM - MCV1



## Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the rapid vaccination coverage assessment conducted in 2015. Programme report vaccine stockouts at district level. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). GoC=R+ S+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government. Interruption in routine services because of hurricane Dean Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	84	87	76	88	88	89	88	93	94	92	91	95
Estimate GoC	●●●	●●●	●	●●●	●●●	●●●	●	●	●	●	●	●
Official	84	87	76	88	88	89	88	93	94	92	91	95
Administrative	84	87	76	88	88	89	88	93	94	92	91	95
Survey	NA	NA	NA	NA	94	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.

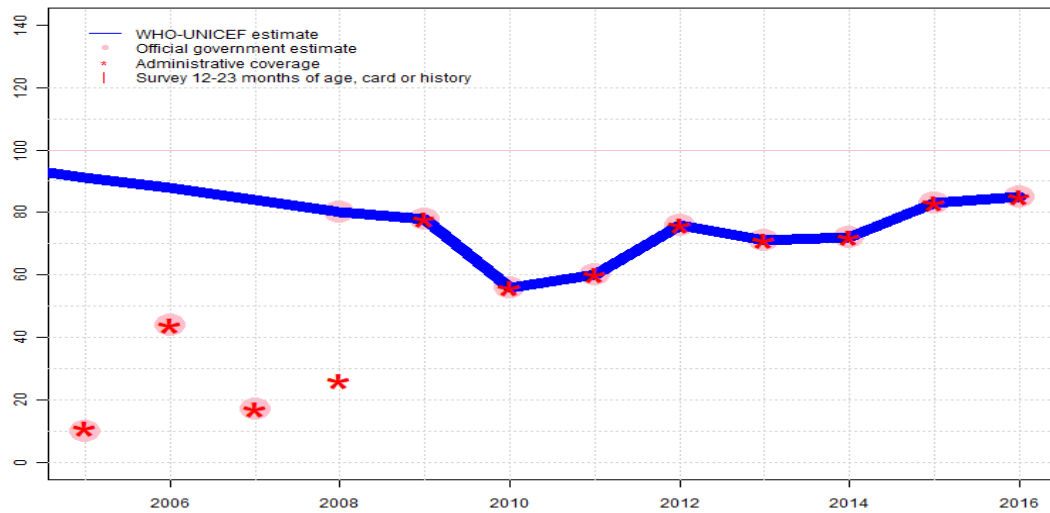
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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.



# Jamaica - MCV2

JAM - MCV2



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	91	88	84	80	78	56	60	76	71	72	83	85
Estimate GoC	•	•	•	••	••	••	••	••	••	••	•	•
Official	10	44	17	80	78	56	60	76	71	72	83	85
Administrative	11	44	17	26	78	56	60	76	71	72	83	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.

## Description:

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

2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the rapid vaccination coverage assessment conducted in 2015. Programme report vaccine stockouts at district level. Estimate challenged by: D-

2015: Estimate based on coverage reported by national government. Increase in coverage due in part to change in recommended age from 4-6 years to 18 months of age. Estimate challenged by: D-

2014: Estimate based on coverage reported by national government. 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+ D+

2009: Estimate based on coverage reported by national government. Recommended schedule changed from 4-6 years of age to 12-23 months. GoC=R+ D+

2008: Estimate based on coverage reported by national government. GoC=R+ D+

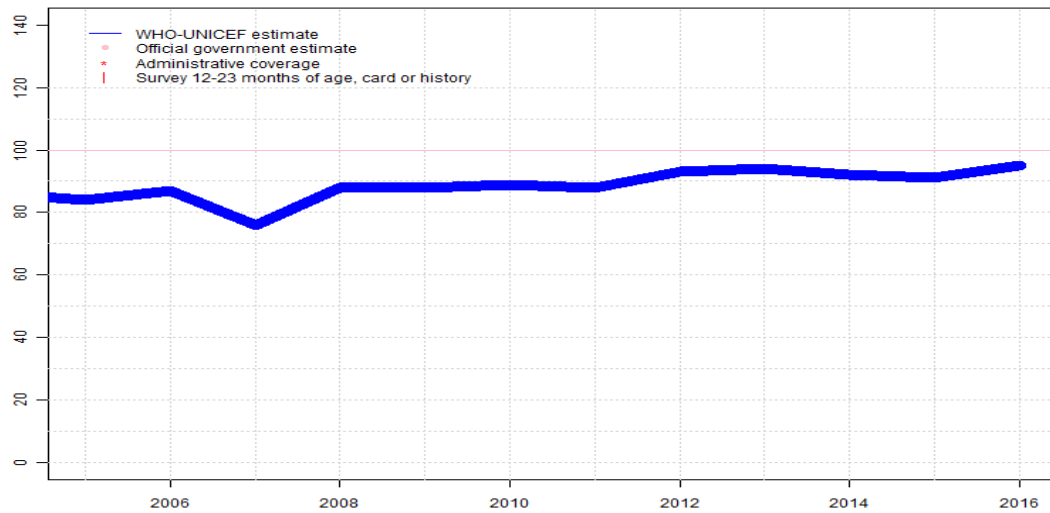
2007: Estimate based on interpolation between reported values. Reported data excluded due to decline in reported coverage from 44 percent to 17 percent with increase to 80 percent. Estimate challenged by: D-

2006: Estimate based on interpolation between reported values. Reported data excluded due to an unexplained increase from 10 percent to 44 percent with decrease 17 percent. Estimate challenged by: D-

2005: Estimate based on interpolation between reported values. Reported data excluded due to decline in reported coverage from 95 percent to 10 percent with increase to 44 percent. Estimate challenged by: D-

# Jamaica - RCV1

JAM - RCV1



## Description:

For this revision, coverage estimates for the first dose of rubella containing vaccine are based on WHO and UNICEF estimates of coverage of measles containing vaccine. Nationally reported coverage of rubella containing vaccine is not taken into consideration nor are they represented in the the accompanying graph and data table.

2016: Estimate based on estimated MCV1. WHO and UNICEF are aware of the rapid vaccination coverage assessment conducted in 2015. Estimate challenged by: D-

2015: Estimate based on estimated MCV1. Estimate challenged by: D-

2014: Estimate based on estimated MCV1. Estimate challenged by: D-

2013: Estimate based on estimated MCV1. Estimate challenged by: D-

2012: Estimate based on estimated MCV1. Estimate challenged by: D-

2011: Estimate based on estimated MCV1. Estimate challenged by: D-

2010: Estimate based on estimated MCV1. GoC=R+ S+ D+

2009: Estimate based on estimated MCV1. GoC=R+ S+ D+

2008: Estimate based on estimated MCV1. GoC=R+ S+ D+

2007: Estimate based on estimated MCV1. Estimate challenged by: S-

2006: Estimate based on estimated MCV1. GoC=R+ S+ D+

2005: Estimate based on estimated MCV1. GoC=R+ S+ D+

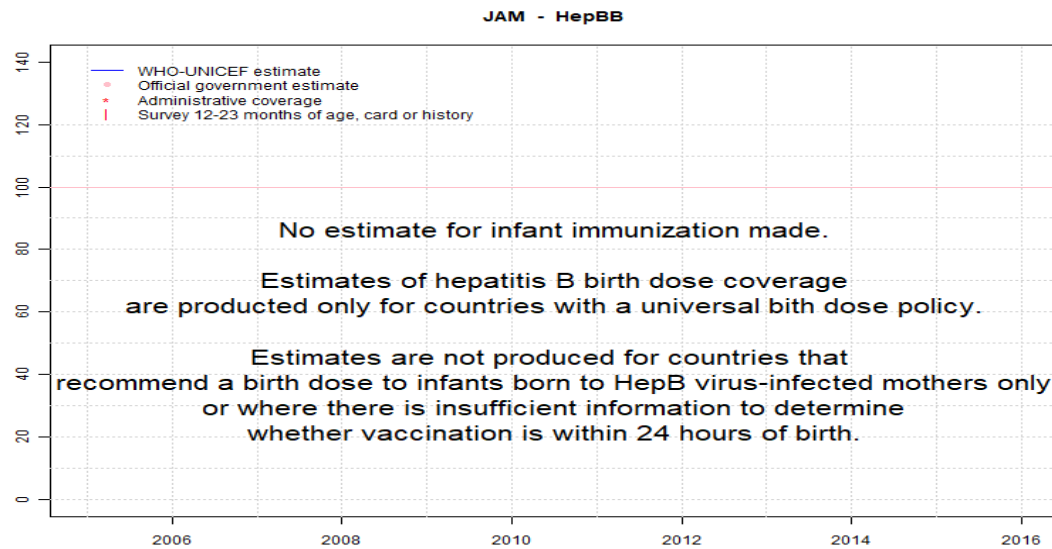
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	84	87	76	88	88	89	88	93	94	92	91	95
Estimate GoC	●●●	●●●	●	●●●	●●●	●●●	●	●	●	●	●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

# Jamaica - HepBB



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

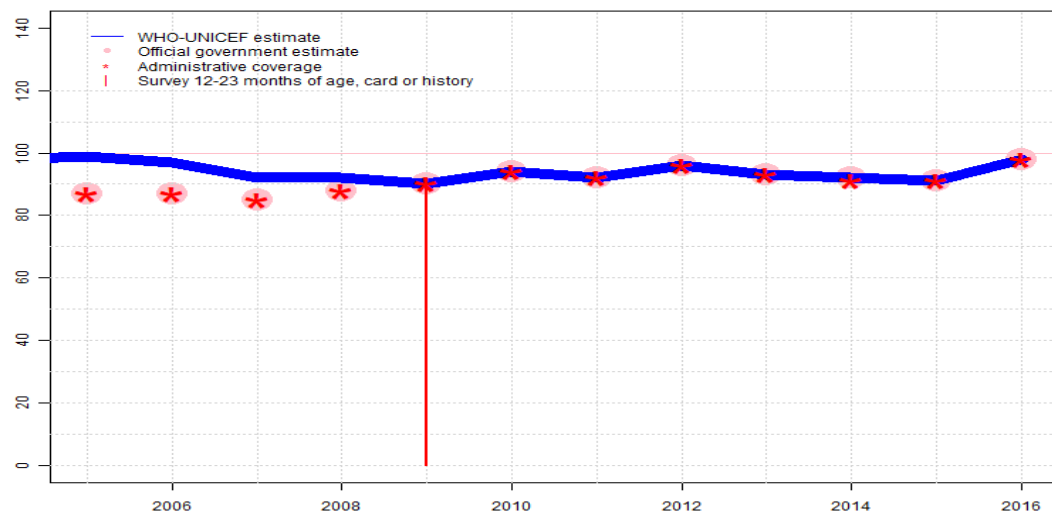
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 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.

# Jamaica - HepB3

JAM - HepB3



## Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the rapid vaccination coverage assessment conducted in 2015. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Jamaica Multiple Indicator Survey 2011 card or history results of 92 percent modified for recall bias to 98 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 78 percent. GoC=R+ S+ D+
- 2008: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2006: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2005: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	99	97	92	92	90	94	92	96	93	92	91	98
Estimate GoC	•	•	•	•	•••	•	•	•	•	•	•	•
Official	87	87	85	88	90	94	92	96	93	92	91	98
Administrative	87	87	85	88	90	94	92	96	93	91	91	98
Survey	NA	NA	NA	NA	92	NA	NA	NA	NA	NA	NA	NA

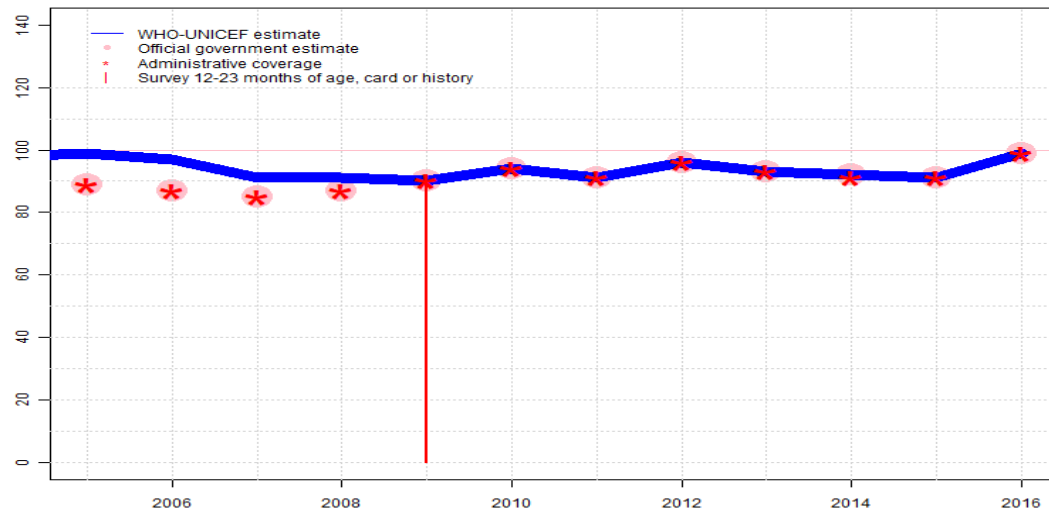
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Jamaica - Hib3

JAM - Hib3



## Description:

- 2016: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the rapid vaccination coverage assessment conducted in 2015. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Jamaica Multiple Indicator Survey 2011 card or history results of 92 percent modified for recall bias to 98 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 78 percent. GoC=R+ S+ D+
- 2008: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2006: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-
- 2005: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-R-

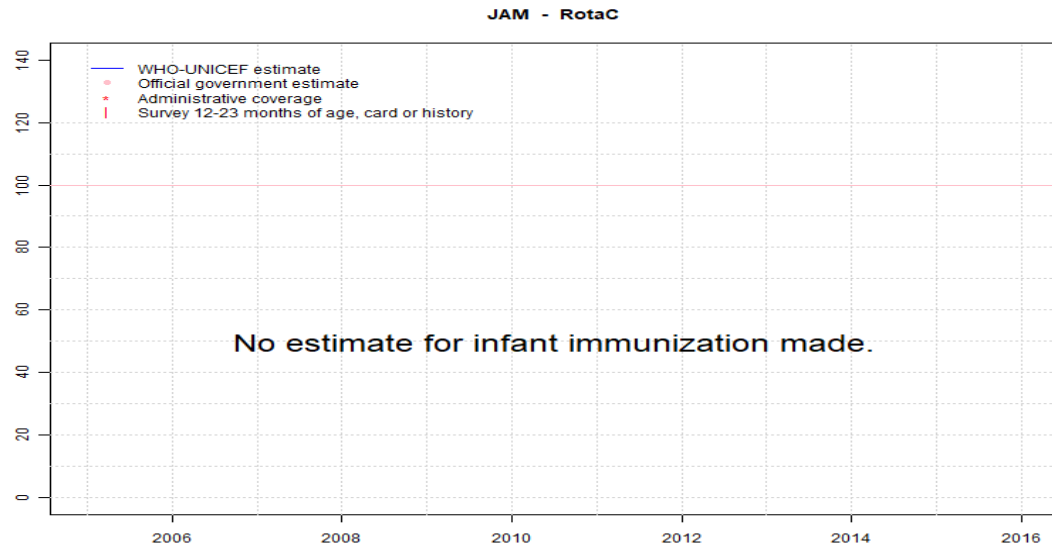
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	99	97	91	91	90	94	91	96	93	92	91	99
Estimate GoC	•	•	•	•	•••	•	•	•	•	•	•	•
Official	89	87	85	87	90	94	91	96	93	92	91	99
Administrative	89	87	85	87	90	94	91	96	93	91	91	99
Survey	NA	NA	NA	NA	92	NA	NA	NA	NA	NA	NA	NA

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.

# Jamaica - RotaC



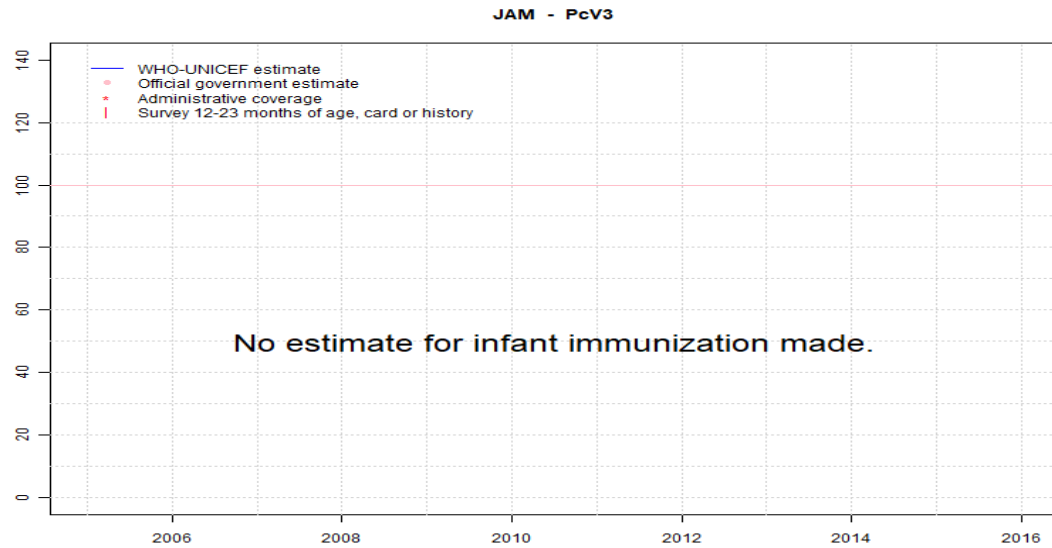
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 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.

# Jamaica - PcV3



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

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 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.

# Jamaica - survey details

## 2009 Jamaica Multiple Indicator Survey 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	100	18-29 m	320	78
BCG	Card	78	18-29 m	-	78
BCG	Card or History	100	18-29 m	320	78
BCG	History	22	18-29 m	-	78
DTP1	C or H <12 months	97	18-29 m	320	78
DTP1	Card	78	18-29 m	-	78
DTP1	Card or History	98	18-29 m	320	78
DTP1	History	20	18-29 m	-	78
DTP3	C or H <12 months	90	18-29 m	320	78
DTP3	Card	78	18-29 m	-	78
DTP3	Card or History	92	18-29 m	320	78
DTP3	History	14	18-29 m	-	78
HepB1	C or H <12 months	97	18-29 m	320	78
HepB1	Card	78	18-29 m	-	78
HepB1	Card or History	98	18-29 m	320	78
HepB1	History	20	18-29 m	-	78
HepB3	C or H <12 months	90	18-29 m	320	78
HepB3	Card	78	18-29 m	-	78
HepB3	Card or History	92	18-29 m	320	78
HepB3	History	14	18-29 m	-	78
Hib1	C or H <12 months	97	18-29 m	320	78
Hib1	Card	78	18-29 m	-	78
Hib1	Card or History	98	18-29 m	320	78
Hib1	History	20	18-29 m	-	78
Hib3	C or H <12 months	90	18-29 m	320	78
Hib3	Card	78	18-29 m	-	78
Hib3	Card or History	92	18-29 m	320	78
Hib3	History	14	18-29 m	-	78
MCV1	C or H <12 months	92	18-29 m	320	78
MCV1	Card	76	18-29 m	-	78
MCV1	Card or History	94	18-29 m	320	78
MCV1	History	18	18-29 m	-	78
Pol1	C or H <12 months	97	18-29 m	320	78
Pol1	Card	76	18-29 m	-	78
Pol1	Card or History	97	18-29 m	320	78
Pol1	History	21	18-29 m	-	78
Pol3	C or H <12 months	92	18-29 m	320	78

Pol3	Card	76	18-29 m	-	78
Pol3	Card or History	92	18-29 m	320	78
Pol3	History	16	18-29 m	-	78

## 2006 Jamaica Survey of Living Conditions 2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	NA	99	6-59 m	-	-
DTP3	NA	92	6-59 m	-	-
HepB3	NA	58	6-59 m	-	-
Hib3	NA	66	6-59 m	-	-
MCV1	NA	86	6-59 m	-	-
Pol3	NA	92	6-59 m	-	-

## 2004 Jamaica Multiple Indicator Cluster Survey 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	94	18-29 m	298	74
BCG	Card	74	18-29 m	298	74
BCG	Card or History	96	18-29 m	298	74
BCG	History	22	18-29 m	298	74
DTP1	C or H <12 months	91	18-29 m	298	74
DTP1	Card	74	18-29 m	298	74
DTP1	Card or History	96	18-29 m	298	74
DTP1	History	22	18-29 m	298	74
DTP3	C or H <12 months	82	18-29 m	298	74
DTP3	Card	73	18-29 m	298	74
DTP3	Card or History	87	18-29 m	298	74
DTP3	History	14	18-29 m	298	74
MCV1	C or H <12 months	87	18-29 m	298	74
MCV1	Card	70	18-29 m	298	74
MCV1	Card or History	91	18-29 m	298	74
MCV1	History	21	18-29 m	298	74
Pol1	C or H <12 months	96	18-29 m	298	74
Pol1	Card	74	18-29 m	298	74
Pol1	Card or History	96	18-29 m	298	74
Pol1	History	22	18-29 m	298	74
Pol3	C or H <12 months	80	18-29 m	298	74



## Jamaica - survey details

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Pol3	Card	73	18-29 m	298	74	Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
Pol3	Card or History	86	18-29 m	298	74	BCG	Card or History	99	12-23 m	3744	100
Pol3	History	13	18-29 m	298	74	DTP3	Card or History	98	12-23 m	3744	100
						HepB3	Card or History	98	12-23 m	3744	100
						Hib3	Card or History	98	12-23 m	3744	100
2004 Survey of Childhood Vaccine Coverage in the Parishes of Jamaica						MCV1	Card or History	94	12-23 m	3744	100
						Pol3	Card or History	97	12-23 m	3744	100

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)