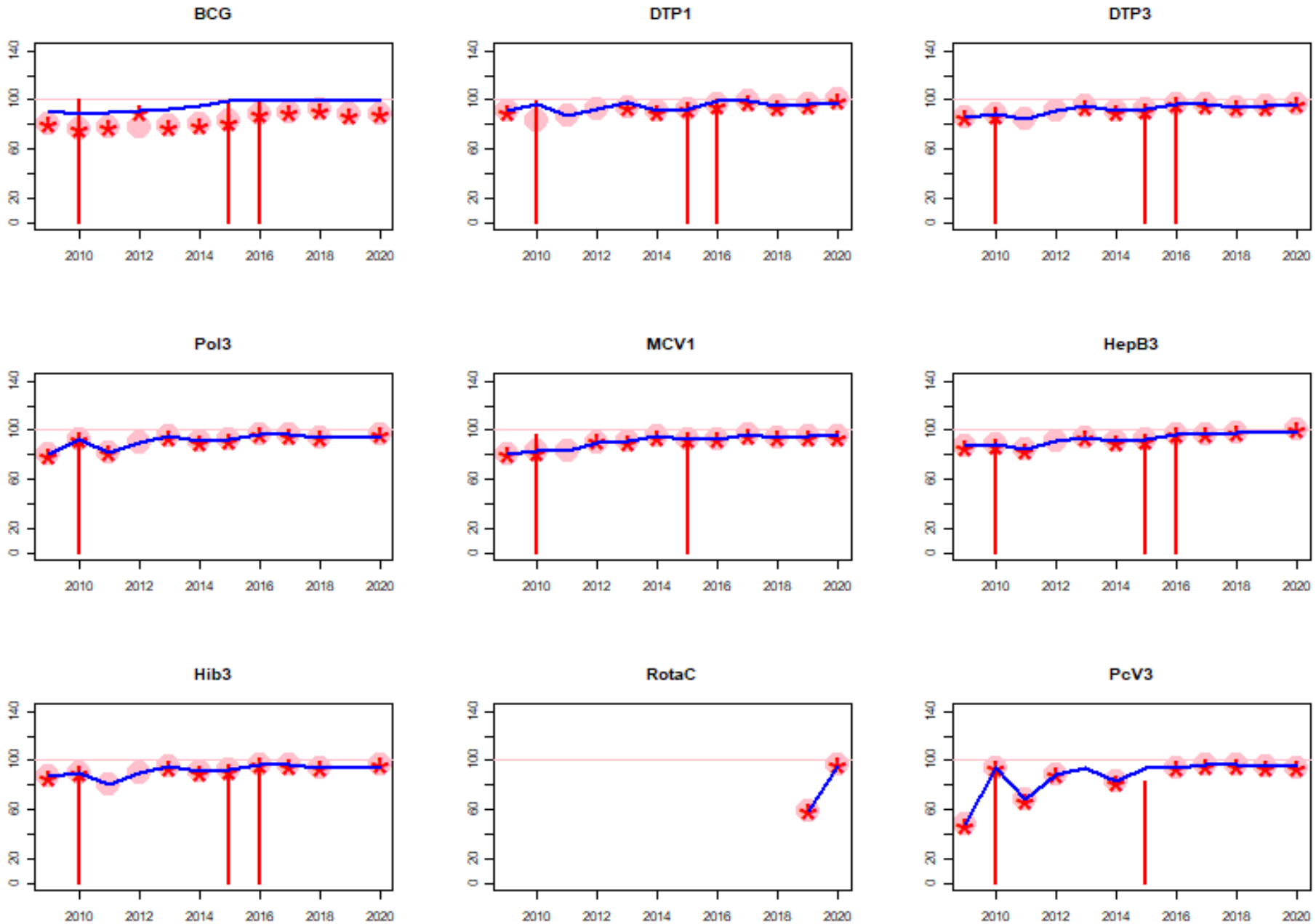


Costa Rica: WHO and UNICEF estimates of immunization coverage: 2020 revision



**BACKGROUND NOTE:** Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from the published and grey literature. Based on these data, with due consideration to potential biases and the views of local experts, WHO and UNICEF attempt to distinguish between situations where the available empirical data accurately reflect immunization system performance and those where the data are likely to be compromised and present a misleading view of immunization coverage while jointly estimating the most likely coverage levels for each country.

WHO and UNICEF estimates are country-specific; that is to say, each country's data are reviewed individually, and data are not borrowed from other countries in the absence of data. Estimates are not based on ad hoc adjustments to reported data; in some instances empirical data are available from a single source, usually the nationally reported coverage data. In cases where no data are available for a given country/vaccine/year combination, data are considered from earlier and later years and interpolated to estimate coverage for the missing year(s). In cases where data sources are mixed and show large variation, an attempt is made to identify the most likely estimate with consideration of the possible biases in available data. For methods see:

\*Burton et al. 2009. WHO and UNICEF estimates of national infant immunization coverage: methods and processes.

\*Burton et al. 2012. A formal representation of the WHO and UNICEF estimates of national immunization coverage: a computational logic approach.

\*Brown et al. 2013. An introduction to the grade of confidence used to characterize uncertainty around the WHO and UNICEF estimates of national immunization coverage.

## DATA SOURCES.

**ADMINISTRATIVE coverage:** Reported by national authorities and based on aggregated administrative reports from health service providers on the number of vaccinations administered during a given period (numerator data) and reported target population data (denominator data). May be biased by inaccurate numerator and/or denominator data.

**OFFICIAL coverage:** Estimated coverage reported by national authorities that reflects their assessment of the most likely coverage based on any combination of administrative coverage, survey-based estimates or other data sources or adjustments. Approaches to determine OFFICIAL coverage may differ across countries.

**SURVEY coverage:** Based on estimated coverage from population-based household surveys among children aged 12-23 months or 24-35 months following a review of survey methods and results. Information is based on the combination of vaccination history from documented evidence or caregiver recall. Survey results are considered for the appropriate birth cohort based on the period of data collection.

## ABBREVIATIONS

**BCG:** percentage of births who received one dose of Bacillus Calmette Guerin vaccine.

**DTP1 / DTP3:** percentage of surviving infants who received the 1st / 3rd dose, respectively, of diphtheria and tetanus toxoid with pertussis containing vaccine.

**Pol3:** percentage of surviving infants who received the 3rd dose of polio containing vaccine. May be either oral or inactivated polio vaccine.

**IPV1:** percentage of surviving infants who received at least one dose of inactivated polio vaccine. In countries utilizing an immunization schedule recommending either (i) a primary series of three doses of oral polio vaccine (OPV) plus at least one dose of IPV where OPV is included in routine

immunization and/or campaign or (ii) a sequential schedule of IPV followed by OPV, WHO and UNICEF estimates for IPV1 reflect coverage with at least one routine dose of IPV among infants <1 year of age among countries. For countries utilizing IPV containing vaccine use only, i.e., no recommended dose of OPV, the WHO and UNICEF estimate for IPV1 corresponds to coverage for the 1st dose of IPV.

Production of IPV coverage estimates, which begins in 2015, results in no change of the estimated coverage levels for the 3rd dose of polio (Pol3). For countries recommending routine immunization with a primary series of three doses of IPV alone, WHO and UNICEF estimated Pol3 coverage is equivalent to estimated coverage with three doses of IPV. For countries with a sequential schedule, estimated Pol3 coverage is based on that for the 3rd dose of polio vaccine regardless of vaccine type.

**MCV1:** percentage of surviving infants who received the 1st dose of measles containing vaccine. In countries where the national schedule recommends the 1st dose of MCV at 12 months or later based on the epidemiology of disease in the country, coverage estimates reflect the percentage of children who received the 1st dose of MCV as recommended.

**MCV2:** percentage of children who received the 2nd dose of measles containing vaccine according to the nationally recommended schedule.

**RCV1:** percentage of surviving infants who received the 1st dose of rubella containing vaccine. Coverage estimates are based on WHO and UNICEF estimates of coverage for the dose of measles containing vaccine that corresponds to the first measles-rubella combination vaccine. Nationally reported coverage of RCV is not taken into consideration nor are the data represented in the accompanying graph and data table.

**HepBB:** percentage of births which received a dose of hepatitis B vaccine within 24 hours of delivery. Estimates of hepatitis B birth dose coverage are produced only for countries with a universal birth dose policy. Estimates are not produced for countries that recommend a birth dose to infants born to HepB virus-infected mothers only or where there is insufficient information to determine whether vaccination is within 24 hours of birth.

**HepB3:** percentage of surviving infants who received the 3rd dose of hepatitis B containing vaccine following the birth dose.

**Hib3:** percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.

**RotaC:** percentage of surviving infants who received the final recommended dose of rotavirus vaccine, which can be either the 2nd or the 3rd dose depending on the vaccine.

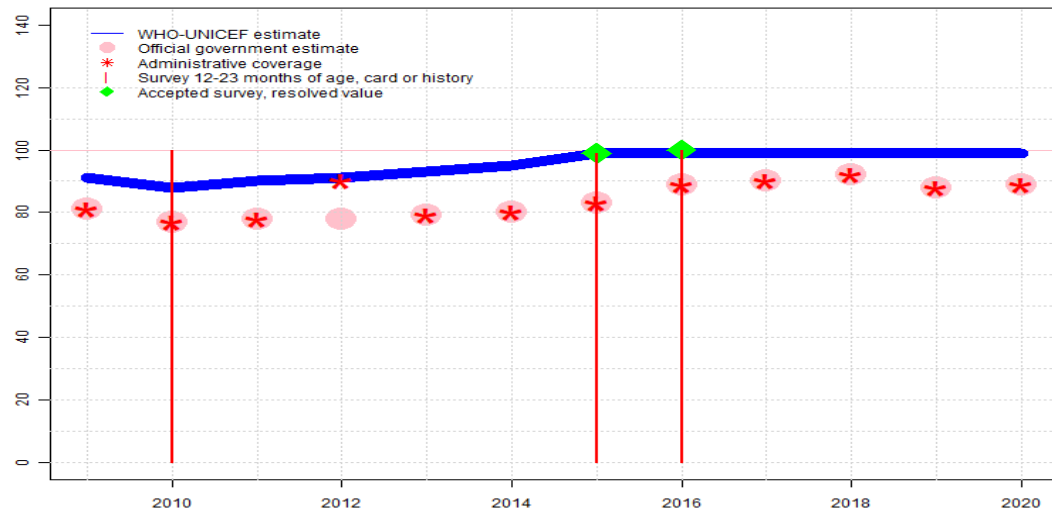
**PcV3:** percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect the percentage of surviving infants who received two doses of PcV prior to the 1st birthday.

**YFV:** percentage of surviving infants who received one dose of yellow fever vaccine in countries where YFV is part of the national immunization schedule for children or is recommended in at risk areas; coverage estimates are annualized for the entire cohort of surviving infants.

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# Costa Rica - BCG

CRI - BCG



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	91	88	90	91	93	95	99	99	99	99	99	99
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	81	77	78	78	79	80	83	89	90	92	88	89
Administrative	81	77	78	90	79	80	83	89	90	92	88	89
Survey	NA	100	NA	NA	NA	NA	99	100	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

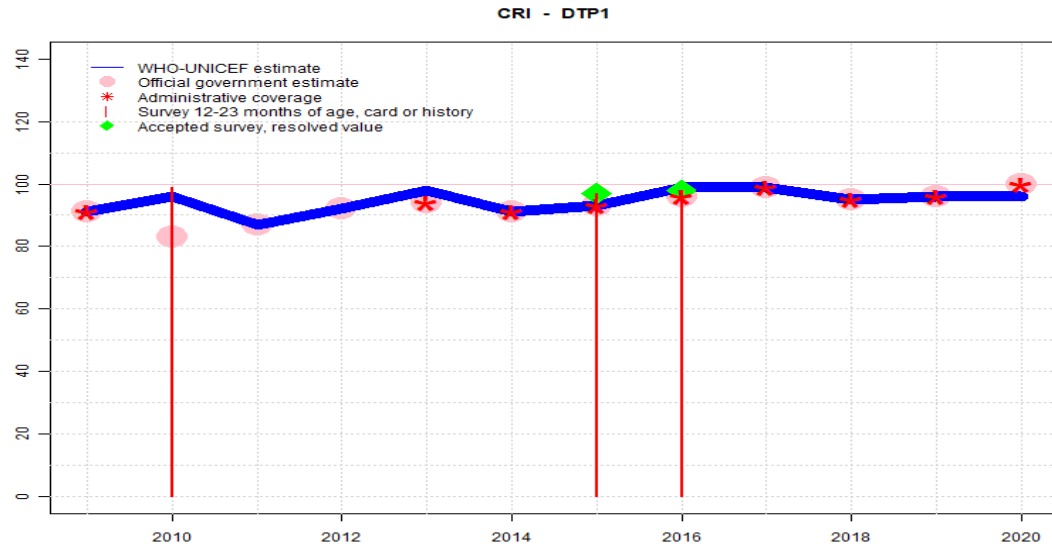
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2020: Reported data calibrated to 2016 levels. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. Estimate challenged by: D-R-
- 2019: Reported data calibrated to 2016 levels. Estimate of 99 percent changed from previous revision value of 88 percent. Estimate challenged by: D-R-
- 2018: Reported data calibrated to 2016 levels. Estimate of 99 percent changed from previous revision value of 92 percent. Estimate challenged by: D-R-
- 2017: Reported data calibrated to 2016 levels. Estimate of 99 percent changed from previous revision value of 90 percent. Estimate challenged by: D-R-
- 2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 100 percent based on 1 survey(s). Estimate of 99 percent changed from previous revision value of 89 percent. Estimate challenged by: D-R-
- 2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 99 percent based on 1 survey(s). Estimate of 99 percent changed from previous revision value of 83 percent. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 1997 and 2015 levels. Estimate of 95 percent changed from previous revision value of 80 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 1997 and 2015 levels. Estimate of 93 percent changed from previous revision value of 79 percent. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 1997 and 2015 levels. Estimate of 91 percent changed from previous revision value of 78 percent. Estimate challenged by: R-
- 2011: Reported data calibrated to 1997 and 2015 levels. Estimate of 90 percent changed from previous revision value of 78 percent. Estimate challenged by: D-R-
- 2010: Reported data calibrated to 1997 and 2015 levels. Costa Rica Multiple Indicator Cluster Survey 2011 results ignored by working group. Survey results suggest national estimates may be conservative and actual coverage may be higher than reported. Estimate of 88 percent changed from previous revision value of 77 percent. Estimate challenged by: R-
- 2009: Reported data calibrated to 1997 and 2015 levels. Decline is due to change in BCG vaccination procedure in some hospitals (HIV testing required before vaccination) Estimate of 91 percent changed from previous revision value of 81 percent. Estimate challenged by: R-

# Costa Rica - DTP1

## Description:



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	91	96	87	92	98	91	93	96	99	95	96	96
Estimate GoC	••	•	••	••	•	•••	•••	•	•••	•••	••	•
Official	91	83	87	92	94	91	93	96	99	95	96	100
Administrative	91	NA	NA	NA	94	91	93	96	99	95	96	100
Survey	NA	99	NA	NA	NA	NA	97	98	NA	NA	NA	NA

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

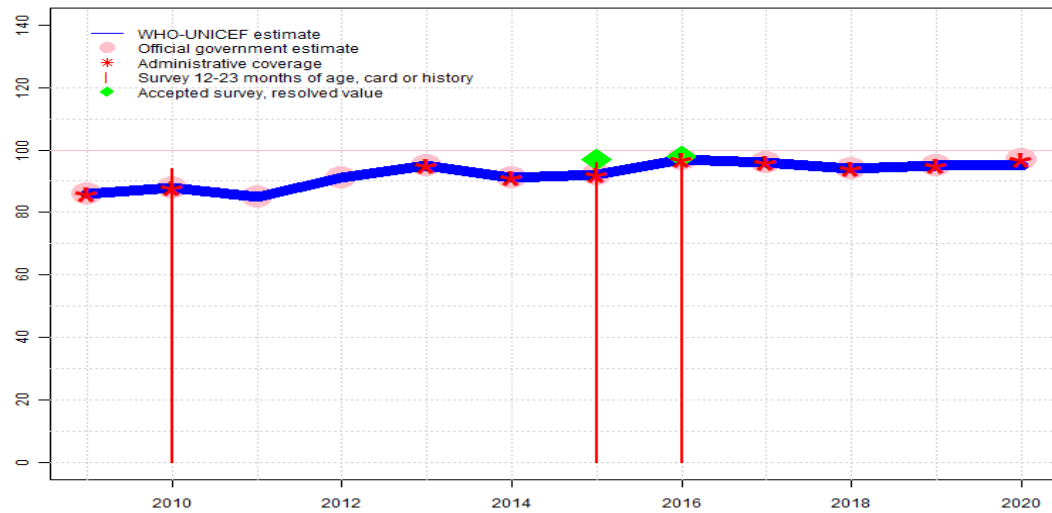
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

- 2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. Estimate challenged by: D-
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2016: DTP1 coverage estimated based on DTP3 coverage of 97. Estimate challenged by: R-
- 2015: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2013: DTP1 coverage estimated based on DTP3 coverage of 95. Estimate challenged by: R-
- 2012: Estimate based on coverage reported by national government. GoC=R+
- 2011: Estimate based on coverage reported by national government. GoC=R+
- 2010: DTP1 coverage estimated based on DTP3 coverage of 88. Costa Rica Multiple Indicator Cluster Survey 2011 results ignored by working group. Survey results suggest national estimates may be conservative and actual coverage may be higher than reported. Estimate challenged by: R-
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+

# Costa Rica - DTP3

CRI - DTP3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	86	88	85	91	95	91	92	97	96	94	95	95
Estimate GoC	●●	●●	●●	●●	●●●	●●●	●●●	●●●	●●●	●●●	●●	●
Official	86	88	85	91	95	91	92	97	96	94	95	97
Administrative	86	88	NA	NA	95	91	92	97	96	94	95	97
Survey	NA	94	NA	NA	NA	NA	96	96	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. Estimate challenged by: D-

2019: Estimate based on coverage reported by national government. GoC=R+ D+

2018: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2017: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2016: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Costa Rica Multiple Indicator Cluster Survey 2018 card or history results of 96 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 90 percent and 3rd dose card only coverage of 90 percent. GoC=R+ S+ D+

2015: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). Costa Rica Multiple Indicator Cluster Survey 2018 card or history results of 96 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 90 percent and 3rd dose card only coverage of 90 percent. GoC=R+ S+ D+

2014: Estimate based on coverage reported by national government. GoC=R+ S+ D+

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

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

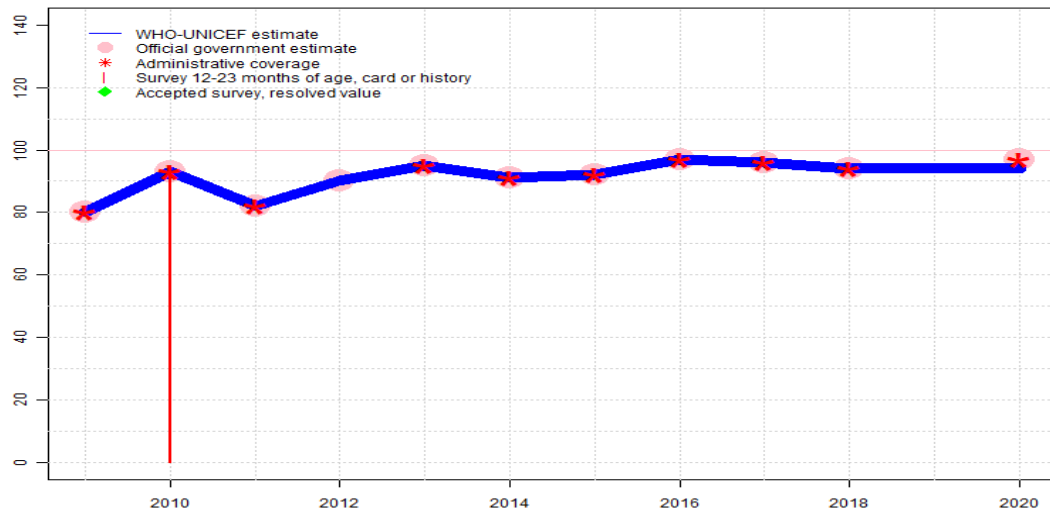
2011: Estimate based on coverage reported by national government. GoC=R+

2010: Estimate based on coverage reported by national government. Costa Rica Multiple Indicator Cluster Survey 2011 results ignored by working group. Survey results suggest national estimates may be conservative and actual coverage may be higher than reported. Costa Rica Multiple Indicator Cluster Survey 2011 card or history results of 94 percent modified for recall bias to 99 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 92 percent and 3rd dose card only coverage of 92 percent. GoC=R+ D+

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

# Costa Rica - Pol3

CRI - Pol3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	80	93	82	90	95	91	92	97	96	94	94	94
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●	●
Official	80	93	82	90	95	91	92	97	96	94	NA	97
Administrative	80	93	82	NA	95	91	92	97	96	94	NA	97
Survey	NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

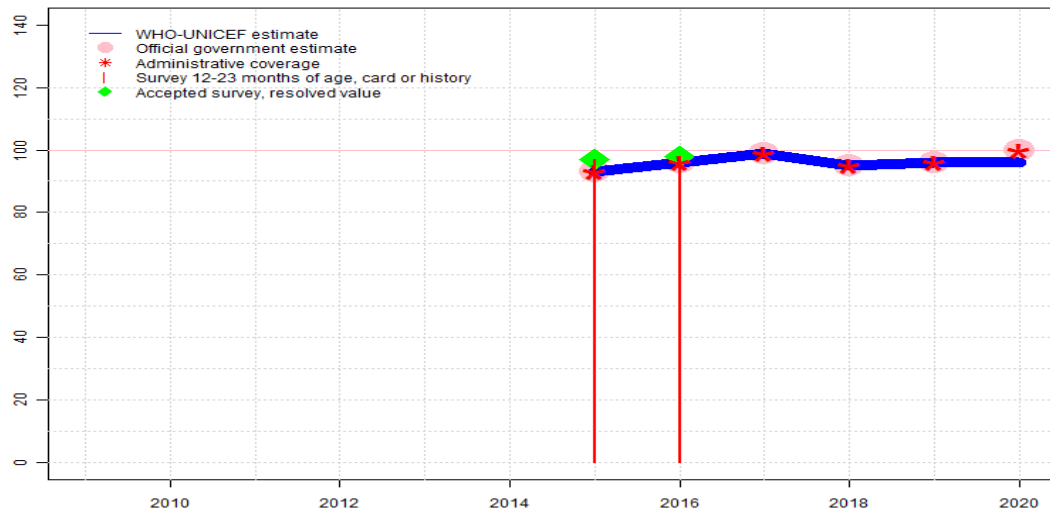
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. Estimate challenged by: D-
- 2019: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data
- 2018: Estimate based on coverage reported by national government. Programme reports three month vaccine stock-out. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ 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+
- 2011: Estimate based on coverage reported by national government. Decline in coverage is consistent with patterns in coverage for other antigens. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Costa Rica Multiple Indicator Cluster Survey 2011 results ignored by working group. Survey results suggest national estimates may be conservative and actual coverage may be higher than reported. Costa Rica Multiple Indicator Cluster Survey 2011 card or history results of 95 percent modified for recall bias to 97 percent based on 1st dose card or history coverage of 100 percent, 1st dose card only coverage of 94 percent and 3rd dose card only coverage of 91 percent. Increase in coverage most likely a return to 2008 pre-stock-out levels. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. Vaccine stock out for 3-6 months GoC=R+ D+

# Costa Rica - IPV1

CRI - IPV1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	93	96	99	95	96	96
Estimate GoC	NA	NA	NA	NA	NA	NA	●●●	●●●	●●●	●	●●	●
Official	NA	NA	NA	NA	NA	NA	93	96	99	95	96	100
Administrative	NA	NA	NA	NA	NA	NA	93	96	99	95	96	100
Survey	NA	NA	NA	NA	NA	NA	97	98	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

Estimates for a dose of inactivated polio vaccine (IPV) begin in 2015 following the Global Polio Eradication Initiative's Polio Eradication and Endgame Strategic Plan: 2013-2018 which recommended at least one full dose or two fractional doses of IPV into routine immunization schedules as a strategy to mitigate the potential consequences should any re-emergence of type 2 poliovirus occur following the planned withdrawal of Sabin type 2 strains from oral polio vaccine (OPV).

2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. Estimate challenged by: D-

2019: Estimate based on coverage reported by national government. GoC=R+ D+

2018: Estimate based on estimated DTP1 coverage. Estimate challenged by: R-

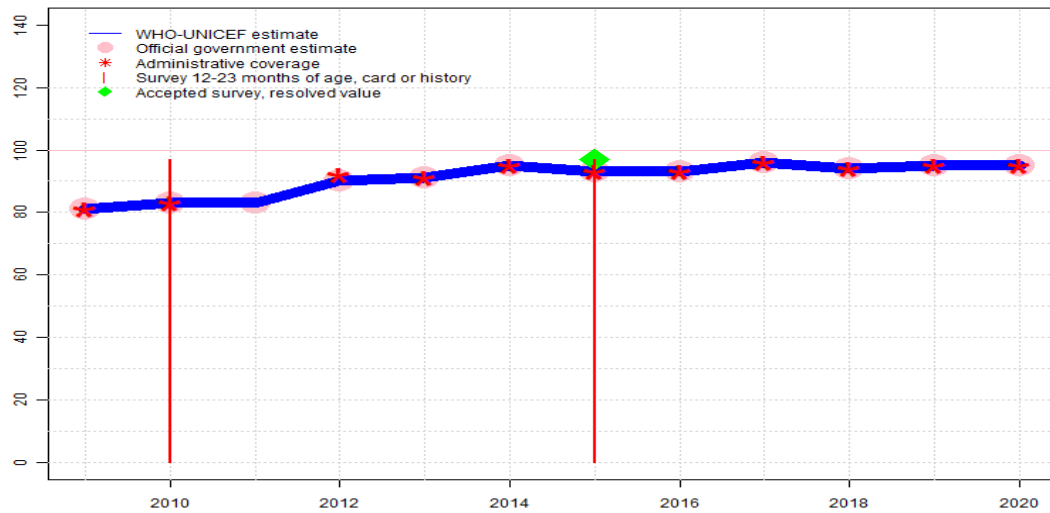
2017: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2016: 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+

2015: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). GoC=R+ S+ D+

# Costa Rica - MCV1

CRI - MCV1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	81	83	83	90	91	95	93	93	96	94	95	95
Estimate GoC	●●	●●	●●	●●	●●●	●●●	●●●	●●●	●●●	●●	●●	●●
Official	81	83	83	90	91	95	93	93	96	94	95	95
Administrative	81	83	NA	92	91	95	93	93	96	94	95	95
Survey	NA	97	NA	NA	NA	NA	97	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

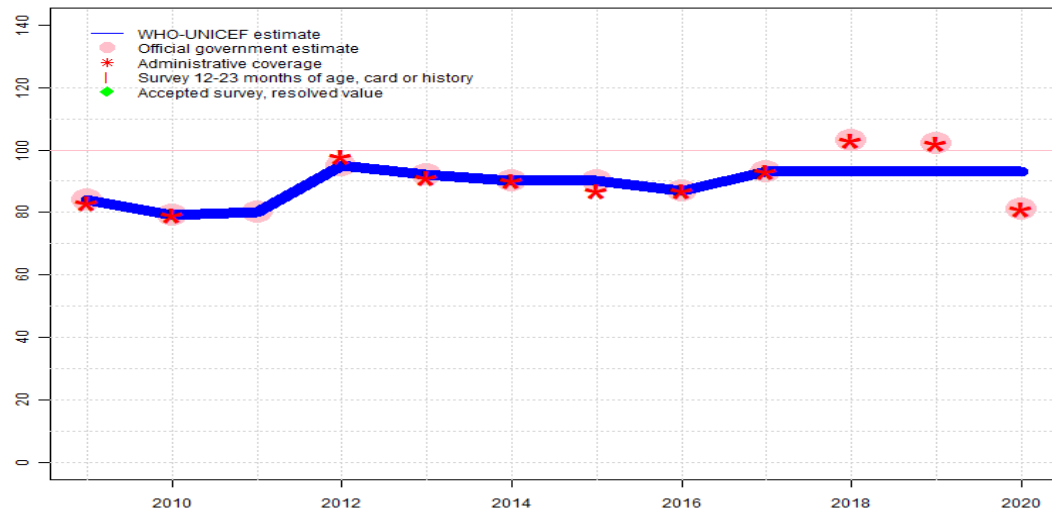
- 2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. GoC=Assigned by working group. Consistency with GoC for other vaccine doses.
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2016: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2015: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ S+ 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. Costa Rica Multiple Indicator Cluster Survey 2011 results ignored by working group. Survey results suggest national estimates may be conservative and actual coverage may be higher than reported. GoC=R+ D+

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



# Costa Rica - MCV2

CRI - MCV2



## Description:

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

2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. Reported data excluded due to sudden change in coverage from 102 level to 81 percent. Numerator declines over 20 percent between 2020 and 2019. Estimated coverage likely a large underestimate. GoC=Assigned by working group. Consistency with GoC for other vaccine doses.

2019: Estimate based on extrapolation from data reported by national government. Reported data excluded because 102 percent greater than 100 percent. Estimate challenged by: D-

2018: Estimate based on extrapolation from data reported by national government. Reported data excluded because 103 percent greater than 100 percent. Estimate challenged by: D-

2017: Estimate based on coverage reported by national government. GoC=R+ D+

2016: Estimate based on coverage reported by national government. GoC=R+ D+

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

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

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

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	84	79	80	95	92	90	90	87	93	93	93	93
Estimate GoC	••	••	••	••	••	••	••	••	••	•	•	•
Official	84	79	80	95	92	90	90	87	93	103	102	81
Administrative	83	79	NA	98	91	90	87	87	93	103	102	81
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

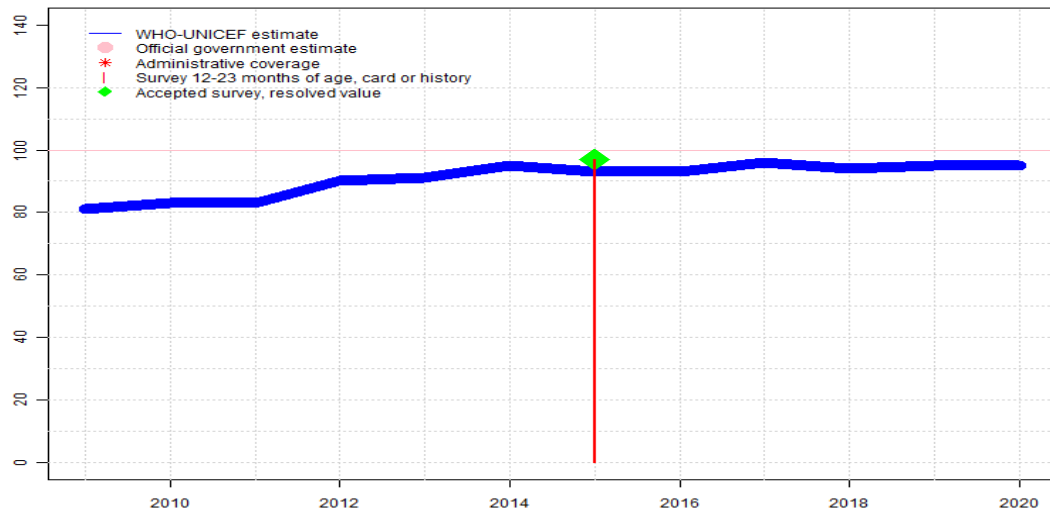
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

# Costa Rica - RCV1

CRI - RCV1



## Description:

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

2020: Estimate based on estimated MCV1. GoC=Assigned by working group. Consistency with GoC for other vaccine doses.

2019: Estimate based on estimated MCV1. GoC=R+ D+

2018: Estimate based on estimated MCV1. GoC=R+ D+

2017: Estimate based on estimated MCV1. GoC=R+ S+ D+

2016: Estimate based on estimated MCV1. GoC=R+ S+ D+

2015: Estimate based on estimated MCV1. GoC=R+ S+ D+

2014: Estimate based on estimated MCV1. GoC=R+ S+ D+

2013: Estimate based on estimated MCV1. GoC=R+ S+ D+

2012: Estimate based on estimated MCV1. GoC=R+ D+

2011: Estimate based on estimated MCV1. GoC=R+

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

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

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	81	83	83	90	91	95	93	93	96	94	95	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	97	NA	NA	NA	NA	NA

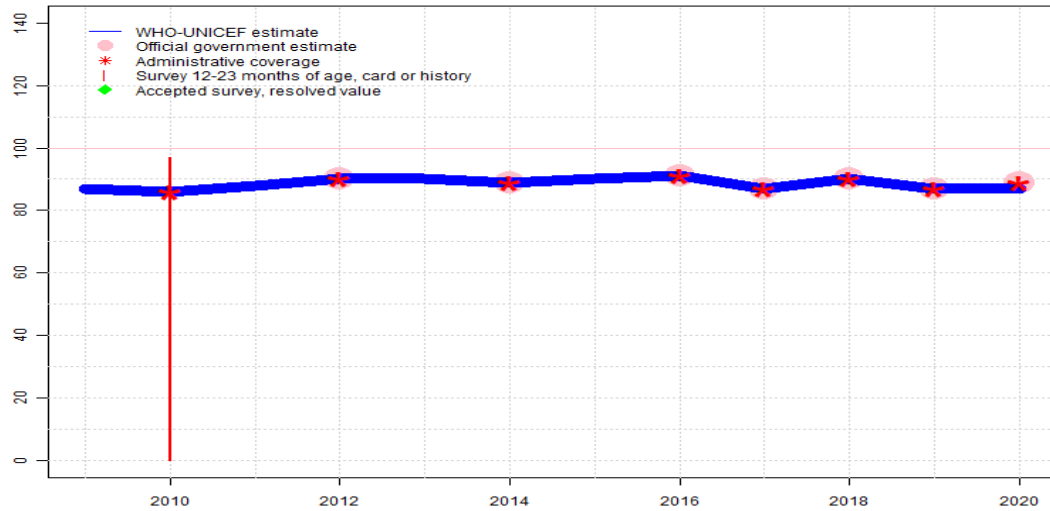
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

# Costa Rica - HepBB

CRI - HepBB



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	87	86	88	90	90	89	90	91	87	90	87	87
Estimate GoC	•	••	•	••	•	••	•	••	••	••	••	•
Official	NA	NA	NA	90	NA	89	NA	91	87	90	87	89
Administrative	NA	86	NA	90	NA	89	NA	91	87	90	87	89
Survey	NA	97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

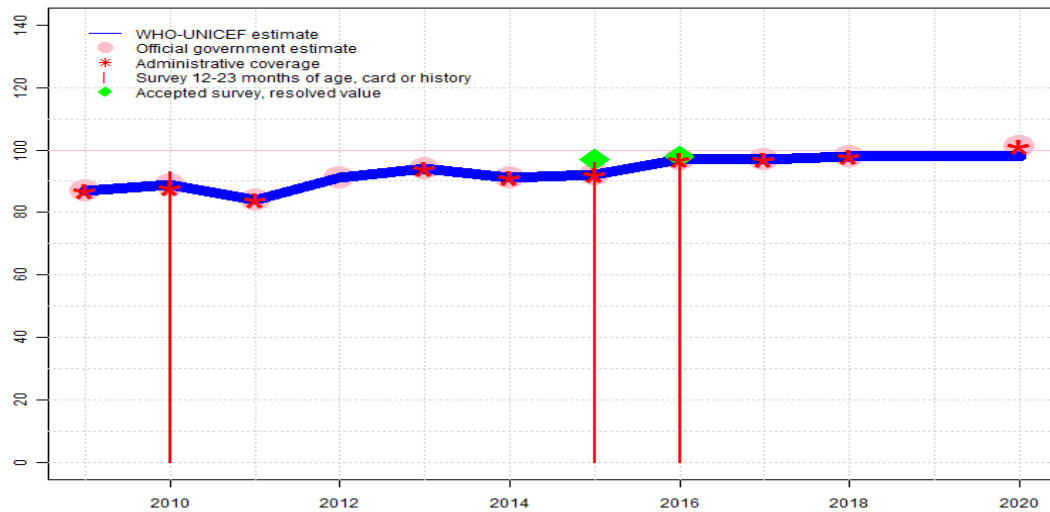
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. GoC=Assigned by working group. Consistency with GoC for other vaccine doses.
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on interpolation between reported values. GoC=No accepted empirical data
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on interpolation between reported values. GoC=No accepted empirical data
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on interpolation between reported values. GoC=No accepted empirical data
- 2010: Estimate based on reported administrative estimate. Costa Rica Multiple Indicator Cluster Survey 2011 results ignored by working group. Survey results suggest national estimates may be conservative and actual coverage may be higher than reported. GoC=R+ D+
- 2009: Estimate based on interpolation between reported values. GoC=No accepted empirical data

# Costa Rica - HepB3

CRI - HepB3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	87	89	84	91	94	91	92	97	97	98	98	98
Estimate GoC	●●	●●	●●	●●	●●●	●●●	●●●	●●●	●●●	●●●	●	●
Official	87	89	84	91	94	91	92	97	97	98	NA	101
Administrative	87	88	84	NA	94	91	92	97	97	98	NA	101
Survey	NA	93	NA	NA	NA	NA	96	96	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

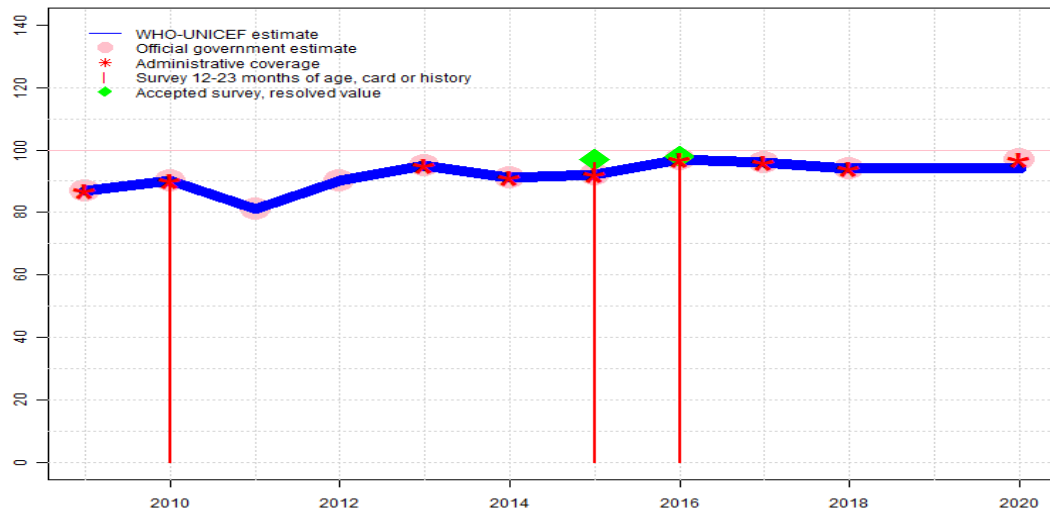
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. Reported data excluded because 101 percent greater than 100 percent. Estimate challenged by: D-
- 2019: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data
- 2018: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2016: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Costa Rica Multiple Indicator Cluster Survey 2018 card or history results of 96 percent modified for recall bias to 98 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 91 percent and 3rd dose card only coverage of 90 percent. GoC=R+ S+ D+
- 2015: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). Costa Rica Multiple Indicator Cluster Survey 2018 card or history results of 96 percent modified for recall bias to 97 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 92 percent and 3rd dose card only coverage of 90 percent. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Costa Rica Multiple Indicator Cluster Survey 2011 results ignored by working group. Survey results suggest national estimates may be conservative and actual coverage may be higher than reported. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+

# Costa Rica - Hib3

CRI - Hib3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	87	90	81	90	95	91	92	97	96	94	94	94
Estimate GoC	●●	●●	●●	●●	●●●	●●●	●●●	●●●	●●●	●●●	●	●
Official	87	90	81	90	95	91	92	97	96	94	NA	97
Administrative	87	90	NA	NA	95	91	92	97	96	94	NA	97
Survey	NA	92	NA	NA	NA	NA	96	96	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

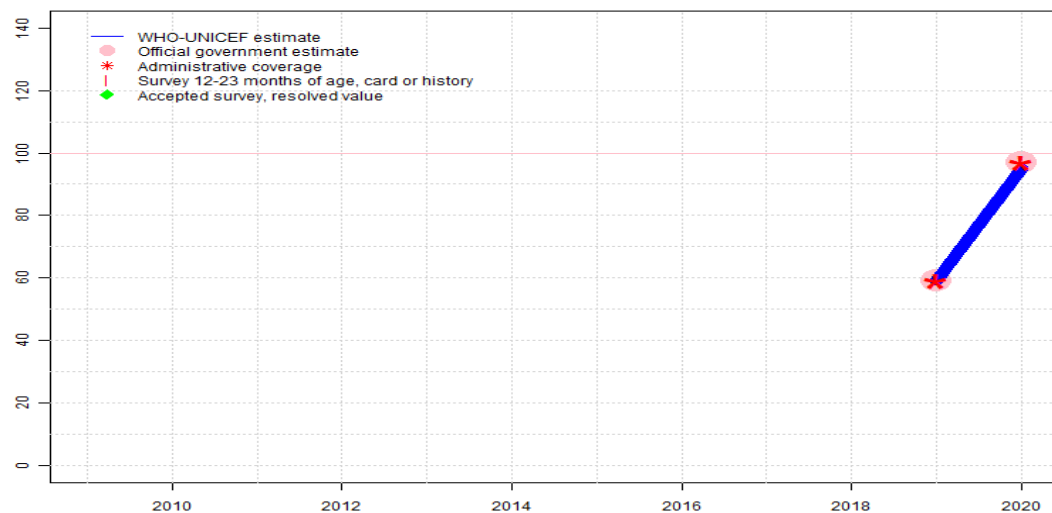
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. Estimate challenged by: D-
- 2019: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data
- 2018: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2016: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Costa Rica Multiple Indicator Cluster Survey 2018 card or history results of 96 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 90 percent and 3rd dose card only coverage of 90 percent. GoC=R+ S+ D+
- 2015: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). Costa Rica Multiple Indicator Cluster Survey 2018 card or history results of 96 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 90 percent and 3rd dose card only coverage of 90 percent. GoC=R+ S+ D+
- 2014: Estimate based on reported data. GoC=R+ S+ D+
- 2013: Estimate based on reported data. GoC=R+ S+ D+
- 2012: Estimate based on reported data. GoC=R+
- 2011: Estimate based on reported data. Decline in coverage is consistent with patterns in coverage for other antigens. GoC=R+
- 2010: Estimate based on reported data. Costa Rica Multiple Indicator Cluster Survey 2011 results ignored by working group. Survey results suggest national estimates may be conservative and actual coverage may be higher than reported. Costa Rica Multiple Indicator Cluster Survey 2011 card or history results of 92 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 94 percent and 3rd dose card only coverage of 91 percent. GoC=R+ D+
- 2009: Estimate based on reported data. GoC=R+ D+

# Costa Rica - RotaC

CRI - RotaC



## Description:

2020: Estimate based on estimated DTP3 level. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. Estimate challenged by: D-R-

2019: Estimate based on coverage reported by national government. Rotavirus vaccine introduced during February 2019. GoC=R+ D+

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59	95
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59	97
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59	97
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

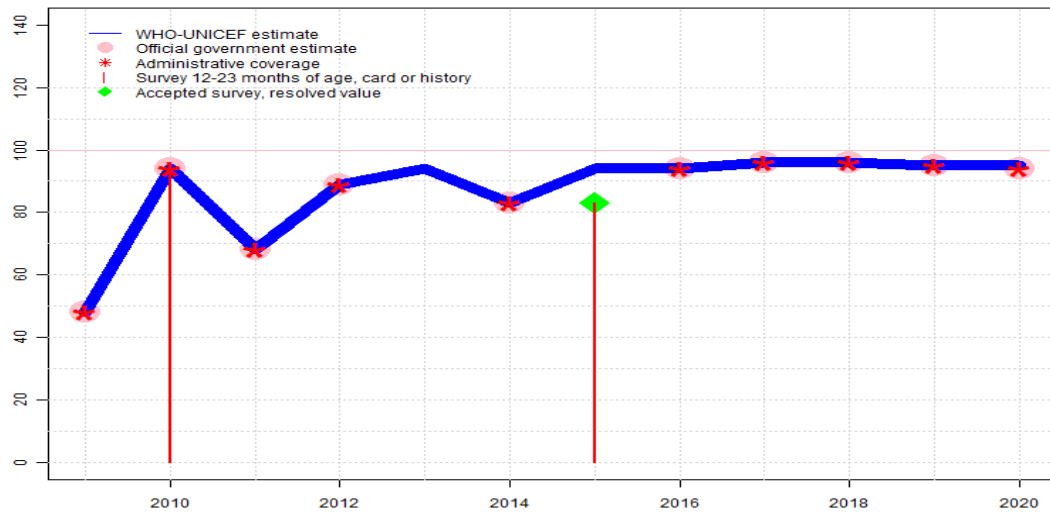
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

# Costa Rica - PcV3

CRI - PcV3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	48	94	68	89	94	83	94	94	96	96	95	95
Estimate GoC	●●	●●	●●	●●	●	●●●	●	●	●	●●	●●	●●
Official	48	94	68	89	NA	83	NA	94	96	96	95	94
Administrative	48	94	68	89	NA	83	NA	94	96	96	95	94
Survey	NA	93	NA	NA	NA	NA	83	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

2020: Estimate based on extrapolation from data reported by national government. Reported data excluded. Data reported presents inconsistencies. Reported denominator for vaccines recommended among infants present an unexplained decline of 16 percent while numerators decline over ten percent. For vaccines recommended during the second year of life, namely MMR and PCV3, the denominator is consistent with previous years and numerators are similar to those reported for 2019. Estimates likely overestimate 2020 coverage levels. GoC=R+ D+

2019: Estimate based on coverage reported by national government. GoC=R+ D+

2018: Estimate based on coverage reported by national government. GoC=R+ D+

2017: Estimate based on coverage reported by national government. Estimate challenged by: S-

2016: Estimate based on coverage reported by national government. Estimate challenged by: S-

2015: The WHO and UNICEF estimate is based on the reported second dose of PcV. Estimate challenged by: S-

2014: Estimate based on reported data. GoC=R+ S+ D+

2013: Presentation changed from a 3+1 (2,4,6 months and 15 months of age) dose, 7 valent presentation to a 2+1 (2,4 months and 15 months of age) dose, 13 valent presentation in 2012. The WHO and UNICEF estimate is based on the reported second dose of PcV. Estimate challenged by: S-

2012: Estimate based on reported data. GoC=R+ D+

2011: Estimate based on reported data. Vaccine stock-out for 1 month. GoC=R+

2010: Estimate based on reported data. Costa Rica Multiple Indicator Cluster Survey 2011 results ignored by working group. Survey results suggest national estimates may be conservative and actual coverage may be higher than reported. Costa Rica Multiple Indicator Cluster Survey 2011 card or history results of 93 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 91 percent and 3rd dose card only coverage of 91 percent. . GoC=R+ D+

2009: Estimate based on reported data. GoC=R+ D+

# Costa Rica - survey details

2016 Costa Rica Encuesta de Mujeres, Niños y Adolescencia 2018 (EMNA)

2015 Costa Rica Encuesta de Mujeres, Niños y Adolescencia 2018 (EMNA)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen	Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	99.6	12-23 m	80782	92	BCG	C or H <12 months	98.8	24-35 m	75418	92
BCG	Card	91.8	12-23 m	80782	92	BCG	Card	91.9	24-35 m	75418	92
BCG	Card or History	99.6	12-23 m	80782	92	BCG	Card or History	99.1	24-35 m	75418	92
BCG	History	7.8	12-23 m	80782	92	BCG	History	7.2	24-35 m	75418	92
DTP1	C or H <12 months	97.6	12-23 m	80782	92	DTP1	C or H <12 months	96.9	24-35 m	75418	92
DTP1	Card	90	12-23 m	80782	92	DTP1	Card	90.3	24-35 m	75418	92
DTP1	Card or History	97.6	12-23 m	80782	92	DTP1	Card or History	97.1	24-35 m	75418	92
DTP1	History	7.6	12-23 m	80782	92	DTP1	History	6.8	24-35 m	75418	92
DTP3	C or H <12 months	94.5	12-23 m	80782	92	DTP3	C or H <12 months	95.2	24-35 m	75418	92
DTP3	Card	89.7	12-23 m	80782	92	DTP3	Card	90.3	24-35 m	75418	92
DTP3	Card or History	96.1	12-23 m	80782	92	DTP3	Card or History	95.8	24-35 m	75418	92
DTP3	History	6.3	12-23 m	80782	92	DTP3	History	5.5	24-35 m	75418	92
HepB1	C or H <12 months	98.5	12-23 m	80782	92	HepB1	C or H <12 months	98.4	24-35 m	75418	92
HepB1	Card	91.2	12-23 m	80782	92	HepB1	Card	91.6	24-35 m	75418	92
HepB1	Card or History	98.6	12-23 m	80782	92	HepB1	Card or History	98.6	24-35 m	75418	92
HepB1	History	7.4	12-23 m	80782	92	HepB1	History	7	24-35 m	75418	92
HepB3	C or H <12 months	94.8	12-23 m	80782	92	HepB3	C or H <12 months	95.7	24-35 m	75418	92
HepB3	Card	89.9	12-23 m	80782	92	HepB3	Card	90.4	24-35 m	75418	92
HepB3	Card or History	96	12-23 m	80782	92	HepB3	Card or History	95.8	24-35 m	75418	92
HepB3	History	6.2	12-23 m	80782	92	HepB3	History	5.4	24-35 m	75418	92
Hib1	C or H <12 months	97.6	12-23 m	80782	92	Hib1	C or H <12 months	96.9	24-35 m	75418	92
Hib1	Card	90	12-23 m	80782	92	Hib1	Card	90.3	24-35 m	75418	92
Hib1	Card or History	97.6	12-23 m	80782	92	Hib1	Card or History	97.1	24-35 m	75418	92
Hib1	History	7.6	12-23 m	80782	92	Hib1	History	6.8	24-35 m	75418	92
Hib3	C or H <12 months	94.5	12-23 m	80782	92	Hib3	C or H <12 months	95.2	24-35 m	75418	92
Hib3	Card	89.7	12-23 m	80782	92	Hib3	Card	90.3	24-35 m	75418	92
Hib3	Card or History	96.1	12-23 m	80782	92	Hib3	Card or History	95.8	24-35 m	75418	92
Hib3	History	6.3	12-23 m	80782	92	Hib3	History	5.5	24-35 m	75418	92
IPV1	C or H <12 months	97.6	12-23 m	80782	92	IPV1	C or H <12 months	96.9	24-35 m	75418	92
IPV1	Card	90	12-23 m	80782	92	IPV1	Card	90.3	24-35 m	75418	92
IPV1	Card or History	97.6	12-23 m	80782	92	IPV1	Card or History	97.1	24-35 m	75418	92
IPV1	History	7.6	12-23 m	80782	92	IPV1	History	6.8	24-35 m	75418	92
PCV1	C or H <12 months	96.2	12-23 m	80782	92	MCV1	C or H <12 months	95.8	24-35 m	75418	92
PCV1	Card	90.1	12-23 m	80782	92	MCV1	Card	90.2	24-35 m	75418	92
PCV1	Card or History	96.2	12-23 m	80782	92	MCV1	Card or History	96.6	24-35 m	75418	92
PCV1	History	6.1	12-23 m	80782	92	MCV1	History	6.3	24-35 m	75418	92
						PCV1	C or H <12 months	97.9	24-35 m	75418	92



# Costa Rica - survey details

PCV1	Card	91.9	24-35 m	75418	92
PCV1	Card or History	98.2	24-35 m	75418	92
PCV1	History	6.3	24-35 m	75418	92
PCV3	C or H <12 months	81.3	24-35 m	75418	92
PCV3	Card	77.6	24-35 m	75418	92
PCV3	Card or History	82.7	24-35 m	75418	92
PCV3	History	5.1	24-35 m	75418	92

## 2010 Costa Rica Encuesta de Indicadores Múltiples por Conglomerados 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	99.5	18-29 m	437	94
BCG	Card	93.3	18-29 m	-	94
BCG	Card or History	99.9	18-29 m	437	94
BCG	History	6.6	18-29 m	-	94
DTP1	C or H <12 months	95.8	18-29 m	437	94
DTP1	Card	92.5	18-29 m	-	94
DTP1	Card or History	98.8	18-29 m	437	94
DTP1	History	6.3	18-29 m	-	94
DTP3	C or H <12 months	92.2	18-29 m	437	94
DTP3	Card	92.3	18-29 m	-	94
DTP3	Card or History	94.2	18-29 m	437	94
DTP3	History	1.9	18-29 m	-	94
HepB1	C or H <12 months	96.7	18-29 m	437	94
HepB1	Card	95.7	18-29 m	-	94
HepB1	Card or History	98.4	18-29 m	437	94
HepB1	History	2.6	18-29 m	-	94
HepB3	C or H <12 months	88.6	18-29 m	437	94
HepB3	Card	90.8	18-29 m	-	94
HepB3	Card or History	92.7	18-29 m	437	94
HepB3	History	1.9	18-29 m	-	94

HepBB	C or H <12 months	97.4	18-29 m	437	94
HepBB	Card	94	18-29 m	-	94
HepBB	Card or History	97.4	18-29 m	437	94
HepBB	History	3.4	18-29 m	-	94
Hib1	C or H <12 months	96.1	18-29 m	437	94
Hib1	Card	93.6	18-29 m	-	94
Hib1	Card or History	97.3	18-29 m	437	94
Hib1	History	3.7	18-29 m	-	94
Hib3	C or H <12 months	88.2	18-29 m	437	94
Hib3	Card	90.6	18-29 m	-	94
Hib3	Card or History	92.3	18-29 m	437	94
Hib3	History	1.7	18-29 m	-	94
MCV1	C or H <18 months	92.6	18-29 m	437	94
MCV1	Card	91.8	18-29 m	-	94
MCV1	Card or History	97.3	18-29 m	437	94
MCV1	History	5.5	18-29 m	-	94
PcV1	C or H <12 months	94.2	18-29 m	437	94
PcV1	Card	90.7	18-29 m	-	94
PcV1	Card or History	95.6	18-29 m	437	94
PcV1	History	5	18-29 m	-	94
PcV3	C or H <12 months	89.4	18-29 m	437	94
PcV3	Card	91	18-29 m	-	94
PcV3	Card or History	92.6	18-29 m	437	94
PcV3	History	1.6	18-29 m	-	94
Pol1	C or H <12 months	99.2	18-29 m	437	94
Pol1	Card	94	18-29 m	-	94
Pol1	Card or History	99.6	18-29 m	437	94
Pol1	History	5.6	18-29 m	-	94
Pol3	C or H <12 months	92.7	18-29 m	437	94
Pol3	Card	90.9	18-29 m	-	94
Pol3	Card or History	95.2	18-29 m	437	94
Pol3	History	4.3	18-29 m	-	94

Further information and estimates for previous years are available at:

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

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