

**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.

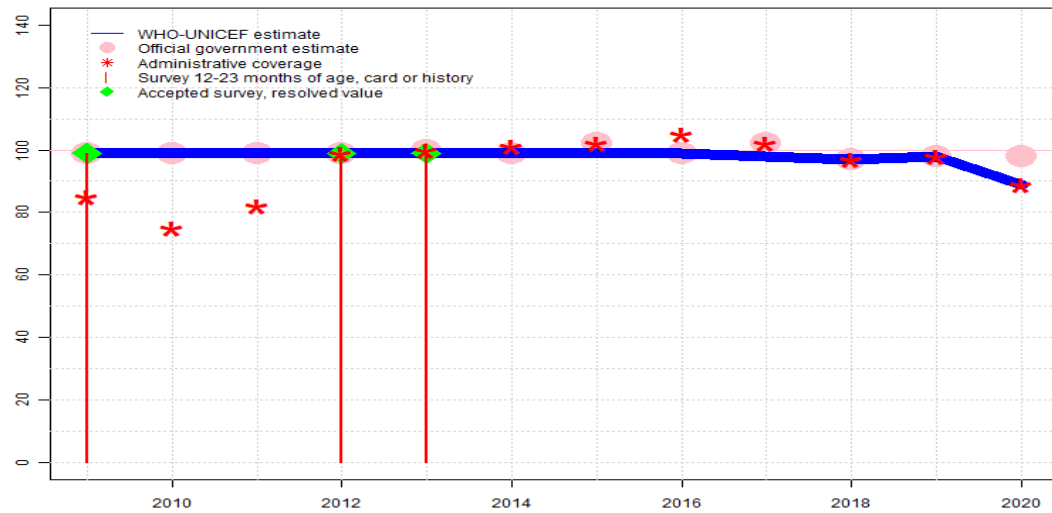
**PcV3:** percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

RWA - BCG



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	99	99	99	99	99	99	99	99	98	97	98	89
Estimate GoC	●●●	●	●●●	●●	●●●	●●●	●●●	●●	●●	●●	●●	●●
Official	99	99	99	99	100	99	102	99	102	97	98	98
Administrative	85	75	82	99	100	101	102	105	102	97	98	89
Survey	99	NA	NA	99	99	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.
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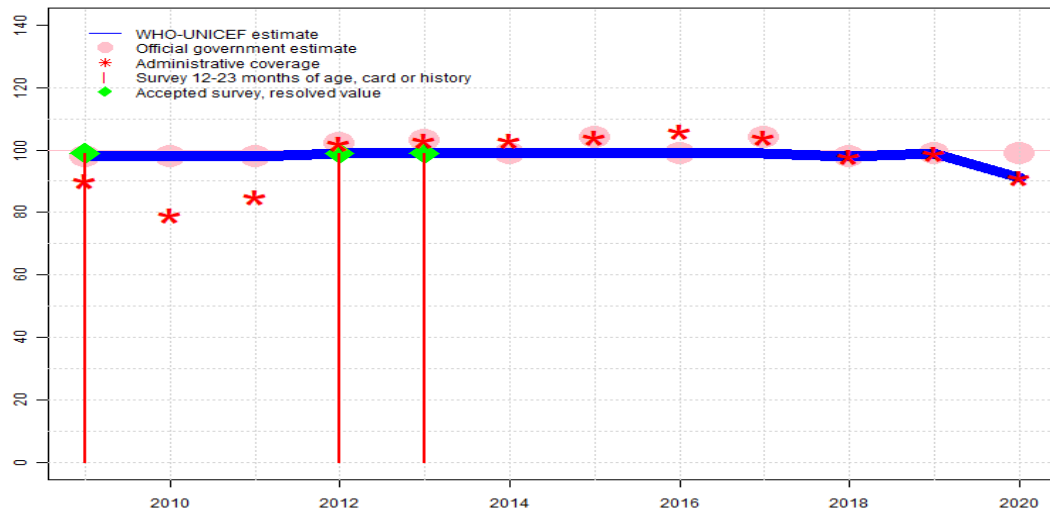
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## Description:

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- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on interpolation between data reported by national government. Reported data excluded because 102 percent greater than 100 percent. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. The final results of the 2012 Census were released by the National Institute of Statistics of Rwanda in April 2014. WHO and UNICEF recommend a revision of the reported coverage time series using updated population estimates. GoC=R+ D+
- 2015: Estimate based on interpolation between data reported by national government. Reported data excluded because 102 percent greater than 100 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 supported by survey. Survey evidence of 99 percent based on 1 survey(s). GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 99 percent based on 1 survey(s). The number of children vaccinated with BCG was used as the proxy of target populations for all other antigens. This measure is temporary pending the availability of the 2012 census results. GoC=Assigned by working group. .
- 2011: Estimate based on coverage reported by national government. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. Estimate challenged by: D-
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# Rwanda - DTP1

RWA - DTP1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	98	98	98	99	99	99	99	99	98	98	99	91
Estimate GoC	●●●	●●●	●●●	●●	●●●	●●●	●●●	●●	●●	●●	●●	●●
Official	98	98	98	102	103	99	104	99	104	98	99	99
Administrative	90	79	85	102	103	103	104	106	104	98	99	91
Survey	99	NA	NA	99	99	NA	NA	NA	NA	NA	NA	NA

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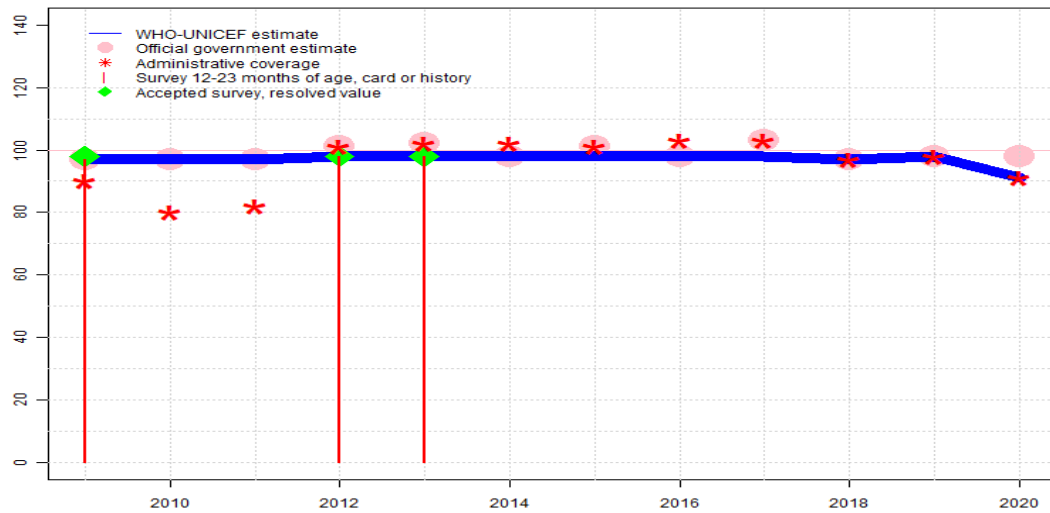
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- 2014: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2013: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 99 percent based on 1 survey(s). Reported data excluded because 103 percent greater than 100 percent. GoC=R+ S+ D+
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# Rwanda - DTP3

RWA - DTP3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	97	97	97	98	98	98	98	98	98	97	98	91
Estimate GoC	●●●	●●●	●●●	●●	●●●	●●●	●●●	●●	●●	●●	●●	●●
Official	97	97	97	101	102	98	101	98	103	97	98	98
Administrative	90	80	82	101	102	102	101	103	103	97	98	91
Survey	97	NA	NA	98	98	NA	NA	NA	NA	NA	NA	NA

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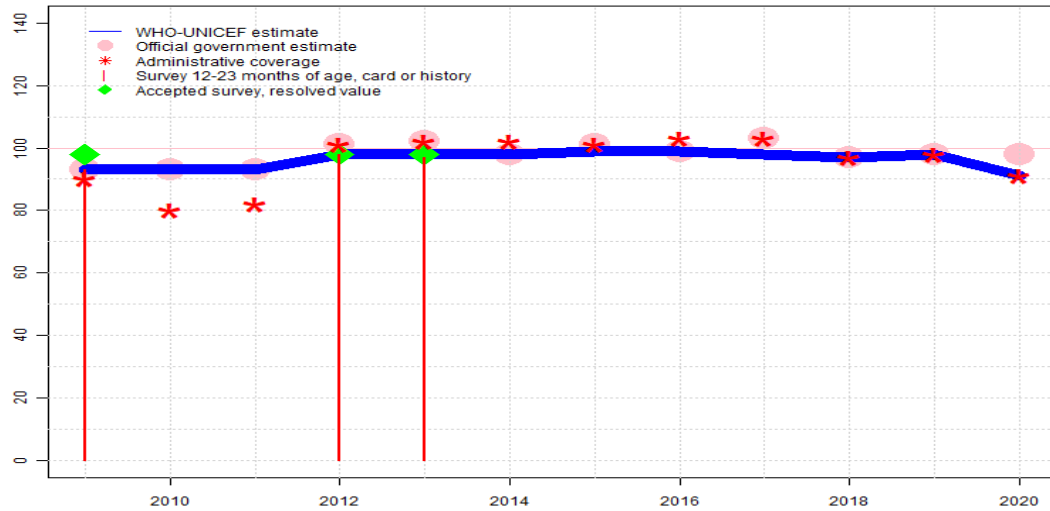
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# Rwanda - Pol3

RWA - Pol3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	93	93	93	98	98	98	99	99	98	97	98	91
Estimate GoC	●●●	●●●	●●●	●●	●	●●●	●●●	●●	●●	●●	●●	●●
Official	93	93	93	101	102	98	101	99	103	97	98	98
Administrative	90	80	82	101	102	102	101	103	103	97	98	91
Survey	93	NA	NA	98	97	NA	NA	NA	NA	NA	NA	NA

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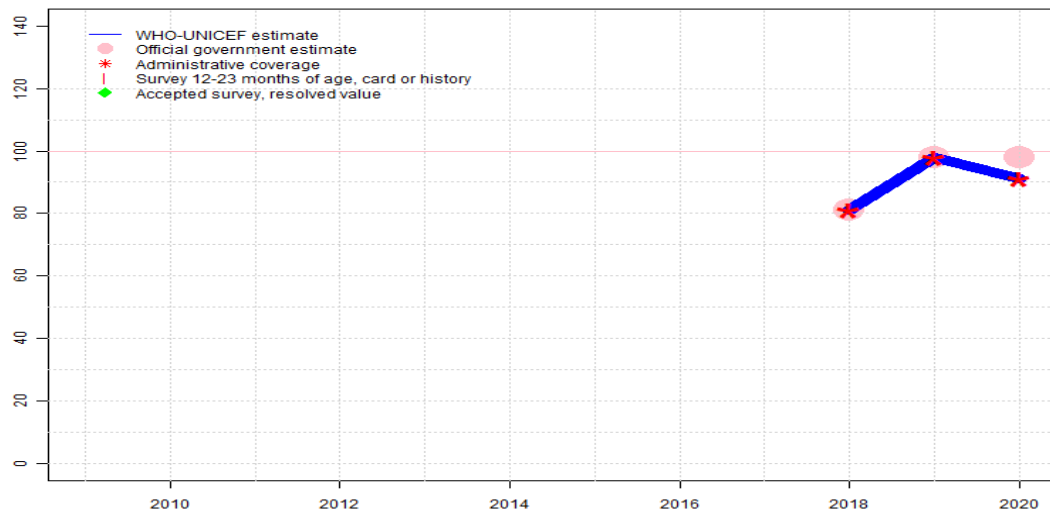
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- 2014: Estimate is based on reported data. GoC=R+ S+ D+
- 2013: Estimate of 98 percent assigned by working group. Estimate is based on survey results. Rwanda Demographic and Health Survey 2014-15 card or history results of 97 percent modified for recall bias to 98 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 94 percent and 3rd dose card only coverage of 93 percent. Reported data excluded because 102 percent greater than 100 percent. Estimate challenged by: R-
- 2012: Estimate of 98 percent assigned by working group. Estimate is based on survey results. Reported data excluded because 101 percent greater than 100 percent. The number of children vaccinated with BCG was used as the proxy of target populations for all other antigens. This measure is temporary pending the availability of the 2012 census results. GoC=Assigned by working group. .
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# Rwanda - IPV1

RWA - IPV1



## 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 reported administrative estimate. WHO and UNICEF are aware of an ongoing DHS survey and await the final results. Official estimate based on previous year WHO UNICEF estimated coverage. GoC=R+ D+

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

2018: Estimate based on coverage reported by national government. Inactivated polio vaccine introduced during March 2018. 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	81	98	91
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●	●●	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	81	98	98
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	81	98	91
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

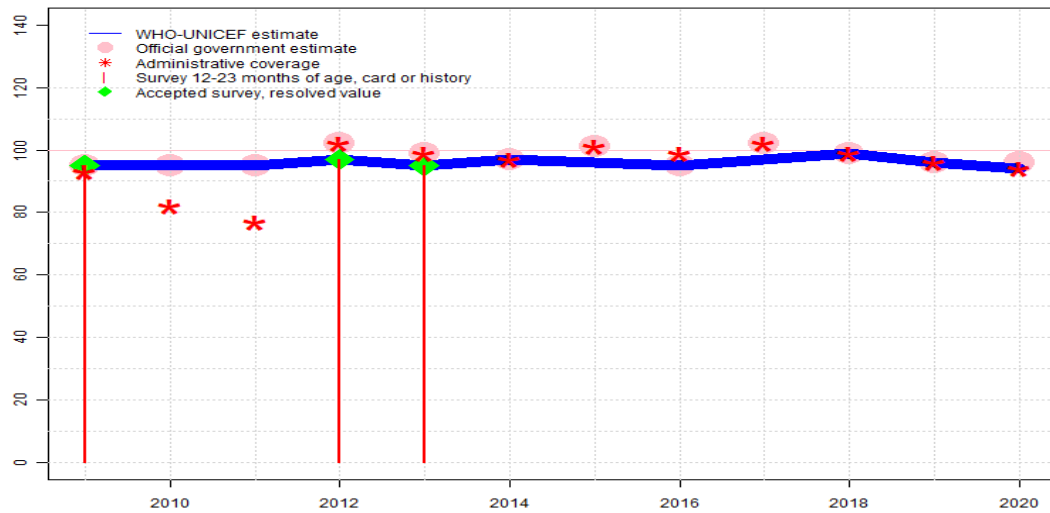
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# Rwanda - MCV1

RWA - MCV1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	95	95	95	97	95	97	96	95	97	99	96	94
Estimate GoC	●●●	●●●	●●●	●●	●	●●●	●●●	●●	●●	●●	●●	●●
Official	95	95	95	102	99	97	101	95	102	99	96	96
Administrative	93	82	77	102	99	97	101	99	102	99	96	94
Survey	95	NA	NA	97	95	NA	NA	NA	NA	NA	NA	NA

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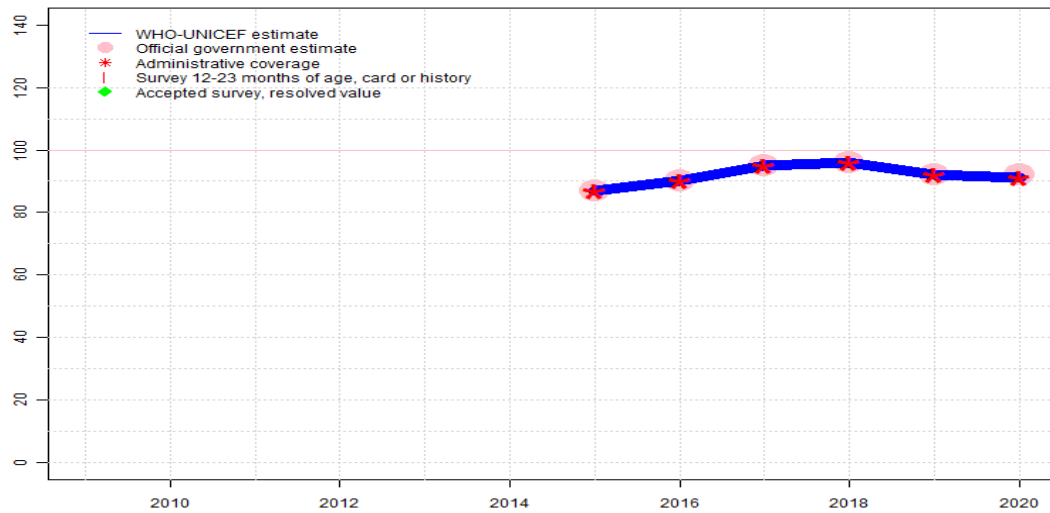
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- 2016: Estimate based on coverage reported by national government. The final results of the 2012 Census were released by the National Institute of Statistics of Rwanda in April 2014. WHO and UNICEF recommend a revision of the reported coverage time series using updated population estimates. GoC=R+ D+
- 2015: Estimate based on interpolation between data reported by national government. Reported data excluded because 101 percent greater than 100 percent. GoC=R+ S+ D+
- 2014: Estimate is based on reported data. GoC=R+ S+ D+
- 2013: Estimate of 95 percent assigned by working group. Estimate is based on survey results. Reported data excluded. Reported coverage for all other antigens is 100 percent or greater thereby suggesting an underestimated target population size. Estimate challenged by: R-
- 2012: Estimate of 97 percent assigned by working group. Estimate is based on survey results. Reported data excluded because 102 percent greater than 100 percent. The number of children vaccinated with BCG was used as the proxy of target populations for all other antigens. This measure is temporary pending the availability of the 2012 census results. GoC=Assigned by working group. .
- 2011: Estimate is based on reported data. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+ D+



# Rwanda - MCV2

RWA - MCV2



## Description:

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

2020: Estimate based on reported administrative estimate. WHO and UNICEF are aware of an ongoing DHS survey and await the final results. Official estimate based on previous year WHO UNICEF estimated coverage. 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. GoC=R+ D+

2016: Estimate based on coverage reported by national government. The final results of the 2012 Census were released by the National Institute of Statistics of Rwanda in April 2014. WHO and UNICEF recommend a revision of the reported coverage time series using updated population estimates. GoC=R+ D+

2015: Estimate based on coverage reported by national government. Second dose of MCV introduced during July 2014, reporting started in 2015. GoC=R+ D+

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

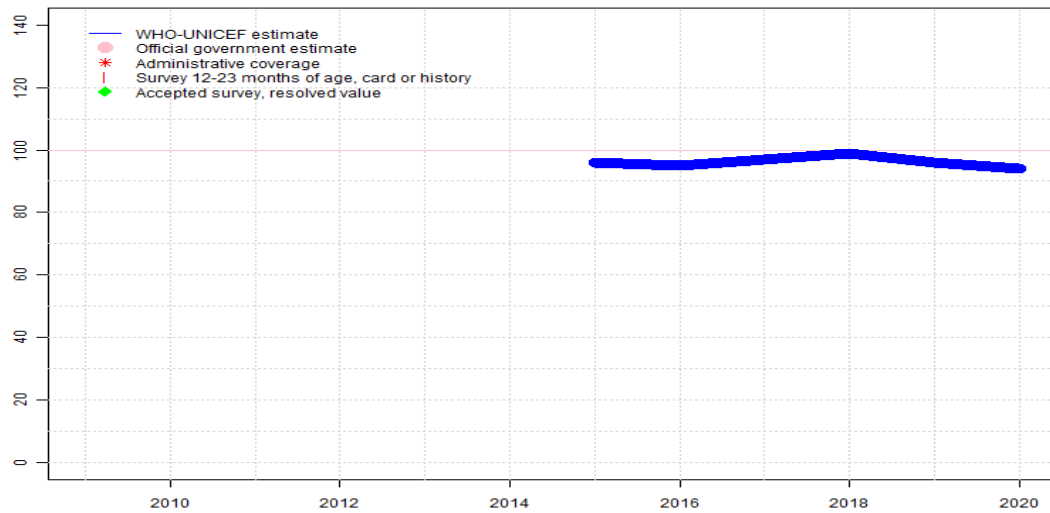
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Rwanda - RCV1

RWA - 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. WHO and UNICEF are aware of an ongoing DHS survey and await the final results. Official estimate based on previous year WHO UNICEF estimated coverage. GoC=R+ D+

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+ D+

2016: Estimate based on estimated MCV1. The final results of the 2012 Census were released by the National Institute of Statistics of Rwanda in April 2014. WHO and UNICEF recommend a revision of the reported coverage time series using updated population estimates. GoC=R+ D+

2015: Estimate based on estimated MCV1. Rubella containing vaccine introduced in July 2014 as measles-rubella combination vaccine. Coverage estimates starting in 2015 for a full birth cohort. GoC=R+ S+ D+

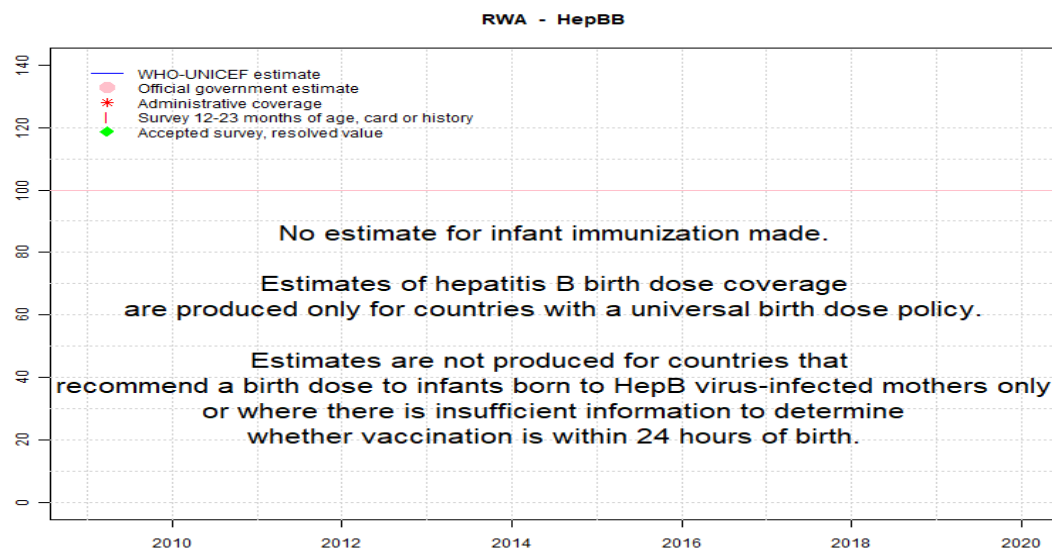
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	96	95	97	99	96	94
Estimate GoC	NA	NA	NA	NA	NA	NA	●●●	●●	●●	●●	●●	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: 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.

# Rwanda - HepBB



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
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

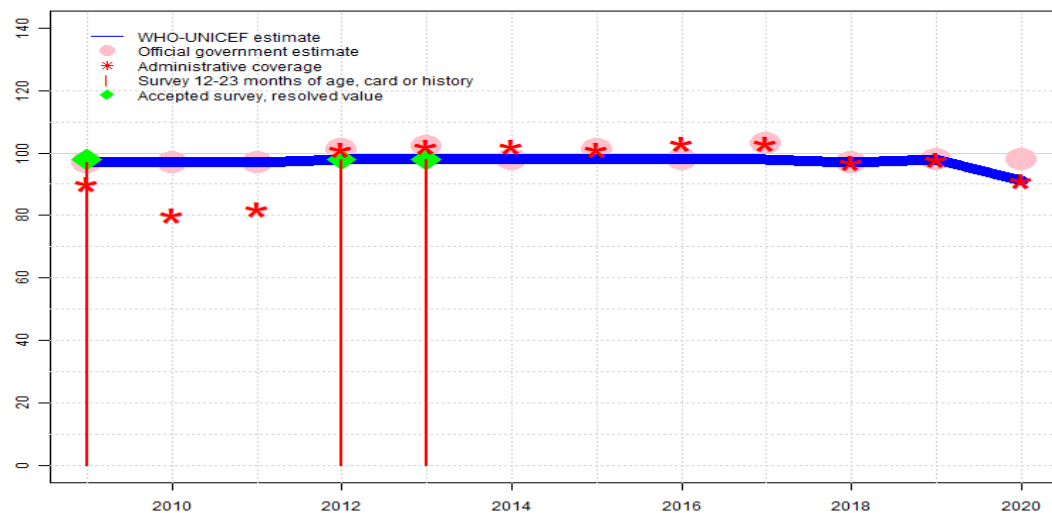
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Rwanda - HepB3

RWA - HepB3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	97	97	97	98	98	98	98	98	98	97	98	91
Estimate GoC	●●●	●●●	●●●	●●	●●●	●●●	●●●	●●	●●	●●	●●	●●
Official	97	97	97	101	102	98	101	98	103	97	98	98
Administrative	90	80	82	101	102	102	101	103	103	97	98	91
Survey	97	NA	NA	98	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: 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.

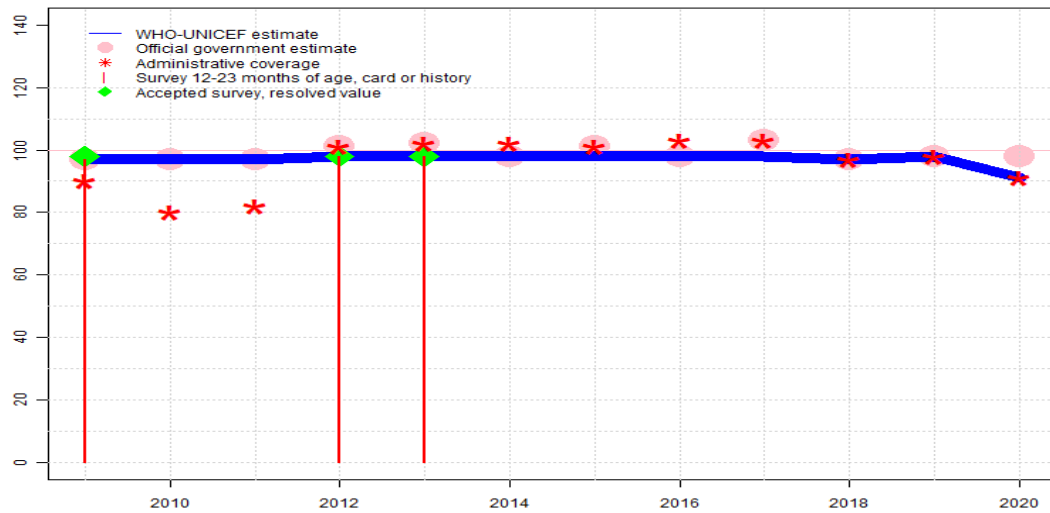
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2020: Estimate based on reported administrative data. WHO and UNICEF are aware of an ongoing DHS survey and await the final results. Official estimate based on previous year WHO UNICEF estimated coverage. 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 interpolation between data reported by national government. Reported data excluded because 103 percent greater than 100 percent. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. The final results of the 2012 Census were released by the National Institute of Statistics of Rwanda in April 2014. WHO and UNICEF recommend a revision of the reported coverage time series using updated population estimates. GoC=R+ D+
- 2015: Estimate based on interpolation between data reported by national government. Reported data excluded because 101 percent greater than 100 percent. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2013: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Reported data excluded because 102 percent greater than 100 percent. GoC=R+ S+ D+
- 2012: Estimate of 98 percent assigned by working group. Estimate is based on survey results. Reported data excluded because 101 percent greater than 100 percent. The number of children vaccinated with BCG was used as the proxy of target populations for all other antigens. This measure is temporary pending the availability of the 2012 census results. GoC=Assigned by working group. .
- 2011: Estimate is based on reported data. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Rwanda Demographic and Health Survey 2010 card or history results of 97 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 82 percent and 3rd dose card only coverage of 81 percent. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+ D+

# Rwanda - Hib3

RWA - Hib3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	97	97	97	98	98	98	98	98	98	97	98	91
Estimate GoC	●●●	●●●	●●●	●●	●●●	●●●	●●●	●●	●●	●●	●●	●●
Official	97	97	97	101	102	98	101	98	103	97	98	98
Administrative	90	80	82	101	102	102	101	103	103	97	98	91
Survey	97	NA	NA	98	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: 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.

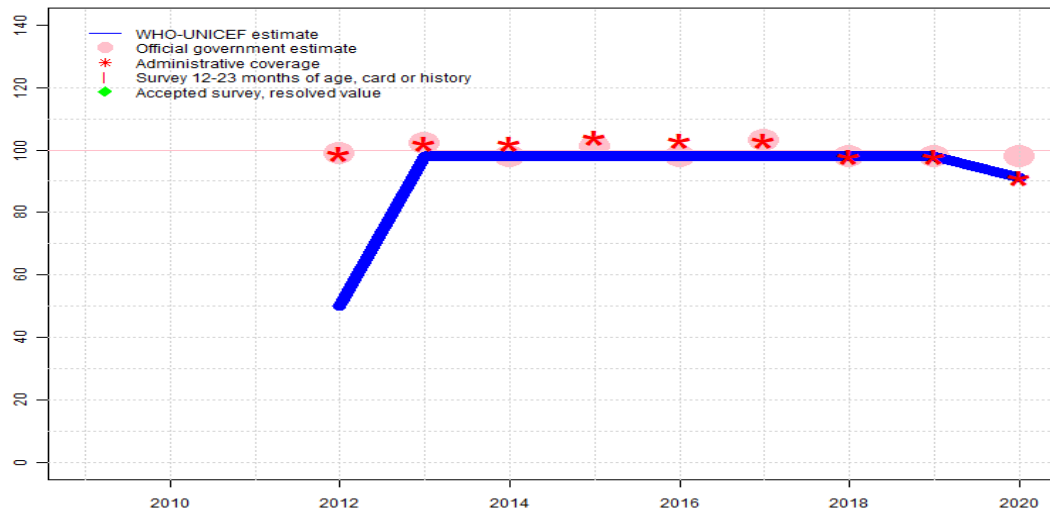
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2020: Estimate based on reported administrative data. WHO and UNICEF are aware of an ongoing DHS survey and await the final results. Official estimate based on previous year WHO UNICEF estimated coverage. 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 interpolation between data reported by national government. Reported data excluded because 103 percent greater than 100 percent. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. The final results of the 2012 Census were released by the National Institute of Statistics of Rwanda in April 2014. WHO and UNICEF recommend a revision of the reported coverage time series using updated population estimates. GoC=R+ D+
- 2015: Estimate based on interpolation between data reported by national government. Reported data excluded because 101 percent greater than 100 percent. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2013: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Reported data excluded because 102 percent greater than 100 percent. GoC=R+ S+ D+
- 2012: Estimate of 98 percent assigned by working group. Estimate is based on survey results. Reported data excluded because 101 percent greater than 100 percent. The number of children vaccinated with BCG was used as the proxy of target populations for all other antigens. This measure is temporary pending the availability of the 2012 census results. GoC=Assigned by working group. .
- 2011: Estimate is based on reported data. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Rwanda Demographic and Health Survey 2010 card or history results of 97 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 82 percent and 3rd dose card only coverage of 81 percent. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+ D+

# Rwanda - RotaC

RWA - RotaC



## Description:

- 2020: Estimate based on reported administrative estimate. WHO and UNICEF are aware of an ongoing DHS survey and await the final results. Official estimate based on previous year WHO UNICEF estimated coverage. 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 interpolation between reported values. Reported data excluded because 103 percent greater than 100 percent. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. The final results of the 2012 Census were released by the National Institute of Statistics of Rwanda in April 2014. WHO and UNICEF recommend a revision of the reported coverage time series using updated population estimates. GoC=R+ D+
- 2015: Estimate based on interpolation between reported values. Reported data excluded because 101 percent greater than 100 percent. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on extrapolation from data reported by national government. Reported data excluded because 102 percent greater than 100 percent. GoC=R+ D+
- 2012: Ninety nine percent coverage was achieved in children eligible during the last six months of the year. The WHO and UNICEF estimate of 50 percent represents the same doses on an annualized basis. Reported data excluded. . The number of children vaccinated with BCG was used as the proxy of target populations for all other antigens. This measure is temporary pending the availability of the 2012 census results. Rotavirus vaccine introduced on 25 May 2012 as part of a three-dose series. GoC=Assigned by working group. .

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	50	98	98	98	98	98	98	98	91
Estimate GoC	NA	NA	NA	●●	●●	●●	●●	●●	●●	●●	●●	●●
Official	NA	NA	NA	99	102	98	101	98	103	98	98	98
Administrative	NA	NA	NA	99	102	102	104	103	103	98	98	91
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

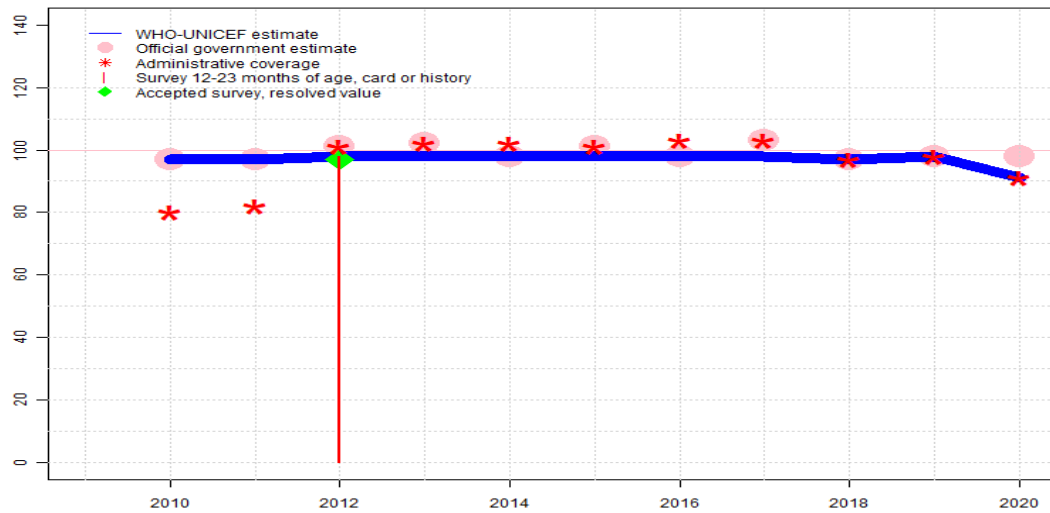
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Rwanda - PcV3

RWA - PcV3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	97	97	98	98	98	98	98	98	97	98	91
Estimate GoC	NA	●●	●●	●●	●	●●●	●●	●●	●●	●●	●●	●●
Official	NA	97	97	101	102	98	101	98	103	97	98	98
Administrative	NA	80	82	101	102	102	101	103	103	97	98	91
Survey	NA	NA	NA	98	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 reported administrative data. WHO and UNICEF are aware of an ongoing DHS survey and await the final results. Official estimate based on previous year WHO UNICEF estimated coverage. 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 interpolation between data reported by national government. Reported data excluded because 103 percent greater than 100 percent. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. The final results of the 2012 Census were released by the National Institute of Statistics of Rwanda in April 2014. WHO and UNICEF recommend a revision of the reported coverage time series using updated population estimates. GoC=R+ D+
- 2015: Estimate based on interpolation between data reported by national government. Reported data excluded because 101 percent greater than 100 percent. GoC=R+ D+
- 2014: Estimate is based on reported data. GoC=R+ S+ D+
- 2013: Reported data calibrated to 2012 and 2014 levels. Reported data excluded because 102 percent greater than 100 percent. Estimate challenged by: R-
- 2012: Estimate of 98 percent assigned by working group. Estimate is based on survey results. Integrated Post Measles-Rubella campaign and Routine Immunization Coverage Evaluation Survey 2013 card or history results of 98 percent modified for recall bias to 97 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 75 percent and 3rd dose card only coverage of 74 percent. Reported data excluded because 101 percent greater than 100 percent. The number of children vaccinated with BCG was used as the proxy of target populations for all other antigens. This measure is temporary pending the availability of the 2012 census results. GoC=Assigned by working group. .
- 2011: Estimate is based on reported data. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. GoC=R+ S+
- 2010: Estimate based on reported data. Official government estimates of coverage from 2009-2011 are based on the 2010 DHS results of coverage among children 12-23 months of age vaccinated by 12 months of age documented by card or caretaker recall. Pneumococcal conjugate vaccine introduced in 2009. Reporting started in 2010.. GoC=R+ S+ D+

# Rwanda - survey details

## 2013 Rwanda Demographic and Health Survey 2014-15

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	98.9	12-23 m	1581	94
BCG	Card	93.6	12-23 m	1485	94
BCG	Card or History	98.9	12-23 m	1581	94
BCG	History	5.3	12-23 m	96	94
DTP1	C or H <12 months	98.9	12-23 m	1581	94
DTP1	Card	93.8	12-23 m	1485	94
DTP1	Card or History	99.1	12-23 m	1581	94
DTP1	History	5.3	12-23 m	96	94
DTP3	C or H <12 months	98.1	12-23 m	1581	94
DTP3	Card	93.2	12-23 m	1485	94
DTP3	Card or History	98.1	12-23 m	1581	94
DTP3	History	5	12-23 m	96	94
HepB1	C or H <12 months	98.9	12-23 m	1581	94
HepB1	Card	93.8	12-23 m	1485	94
HepB1	Card or History	99.1	12-23 m	1581	94
HepB1	History	5.3	12-23 m	96	94
HepB3	C or H <12 months	98.1	12-23 m	1581	94
HepB3	Card	93.2	12-23 m	1485	94
HepB3	Card or History	98.1	12-23 m	1581	94
HepB3	History	5	12-23 m	96	94
Hib1	C or H <12 months	98.9	12-23 m	1581	94
Hib1	Card	93.8	12-23 m	1485	94
Hib1	Card or History	99.1	12-23 m	1581	94
Hib1	History	5.3	12-23 m	96	94
Hib3	C or H <12 months	98.1	12-23 m	1581	94
Hib3	Card	93.2	12-23 m	1485	94
Hib3	Card or History	98.1	12-23 m	1581	94
Hib3	History	5	12-23 m	96	94
MCV1	C or H <12 months	88.7	12-23 m	1581	94
MCV1	Card	90.1	12-23 m	1485	94
MCV1	Card or History	95.2	12-23 m	1581	94
MCV1	History	5.1	12-23 m	96	94
Pol1	C or H <12 months	99	12-23 m	1581	94
Pol1	Card	93.9	12-23 m	1485	94
Pol1	Card or History	99.1	12-23 m	1581	94
Pol1	History	5.2	12-23 m	96	94
Pol3	C or H <12 months	96.6	12-23 m	1581	94

Pol3	Card	93.2	12-23 m	1485	94
Pol3	Card or History	96.6	12-23 m	1581	94
Pol3	History	3.4	12-23 m	96	94

## 2012 Integrated Post Measles-Rubella campaign and Routine Immunization Coverage Evaluation Survey 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	99	12-23 m	-	80
BCG	Card or History	99	12-23 m	8563	80
BCG	Scar	98	12-23 m	-	80
DTP1	Card	75	12-23 m	-	80
DTP1	Card or History	99	12-23 m	8563	80
DTP3	Card	74	12-23 m	-	80
DTP3	Card or History	98	12-23 m	8563	80
HepB1	Card	75	12-23 m	-	80
HepB1	Card or History	99	12-23 m	8563	80
HepB3	Card	74	12-23 m	-	80
HepB3	Card or History	98	12-23 m	8563	80
Hib1	Card	75	12-23 m	-	80
Hib1	Card or History	99	12-23 m	8563	80
Hib3	Card	74	12-23 m	-	80
Hib3	Card or History	98	12-23 m	8563	80
MCV1	Card	71	12-23 m	-	80
MCV1	Card or History	97	12-23 m	8563	80
PcV1	Card	75	12-23 m	-	80
PcV1	Card or History	98	12-23 m	8563	80
PcV3	Card	73.9	12-23 m	-	80
PcV3	Card or History	98	12-23 m	8563	80
Pol3	Card	74	12-23 m	-	80
Pol3	Card or History	98	12-23 m	8563	80

## 2012 Rwanda Demographic and Health Survey 2014-15

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	98.6	24-35 m	1555	94
DTP1	C or H <12 months	98.5	24-35 m	1555	94
DTP3	C or H <12 months	97.6	24-35 m	1555	94



# Rwanda - survey details

HepB1	C or H <12 months	98.5	24-35 m	1555	94
HepB3	C or H <12 months	97.6	24-35 m	1555	94
Hib1	C or H <12 months	98.5	24-35 m	1555	94
Hib3	C or H <12 months	97.6	24-35 m	1555	94
MCV1	C or H <12 months	91.6	24-35 m	1555	94
Pol1	C or H <12 months	98.6	24-35 m	1555	94
Pol3	C or H <12 months	94.5	24-35 m	1555	94

## 2011 Rwanda Demographic and Health Survey 2014-15

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	98.3	36-47 m	1602	94
DTP1	C or H <12 months	98.7	36-47 m	1602	94
DTP3	C or H <12 months	97.3	36-47 m	1602	94
HepB1	C or H <12 months	98.7	36-47 m	1602	94
HepB3	C or H <12 months	97.3	36-47 m	1602	94
Hib1	C or H <12 months	98.7	36-47 m	1602	94
Hib3	C or H <12 months	97.3	36-47 m	1602	94
MCV1	C or H <12 months	90.7	36-47 m	1602	94
Pol1	C or H <12 months	98.6	36-47 m	1602	94
Pol3	C or H <12 months	94.2	36-47 m	1602	94

## 2010 Rwanda Demographic and Health Survey 2014-15

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	98.1	48-59 m	1314	94
DTP1	C or H <12 months	98	48-59 m	1314	94
DTP3	C or H <12 months	96.5	48-59 m	1314	94
HepB1	C or H <12 months	98	48-59 m	1314	94
HepB3	C or H <12 months	96.5	48-59 m	1314	94
Hib1	C or H <12 months	98	48-59 m	1314	94
Hib3	C or H <12 months	96.5	48-59 m	1314	94
MCV1	C or H <12 months	90.1	48-59 m	1314	94
Pol1	C or H <12 months	98	48-59 m	1314	94
Pol3	C or H <12 months	91	48-59 m	1314	94

## 2009 Rwanda Demographic and Health Survey 2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	98.9	12-23 m	1616	82
BCG	Card	82.1	12-23 m	1616	82
BCG	Card or History	99.1	12-23 m	1616	82
BCG	History	17	12-23 m	1616	82
DTP1	C or H <12 months	98.5	12-23 m	1616	82
DTP1	Card	82.2	12-23 m	1616	82
DTP1	Card or History	98.8	12-23 m	1616	82
DTP1	History	16.7	12-23 m	1616	82
DTP3	C or H <12 months	96.3	12-23 m	1616	82
DTP3	Card	80.9	12-23 m	1616	82
DTP3	Card or History	96.8	12-23 m	1616	82
DTP3	History	15.9	12-23 m	1616	82
HepB1	C or H <12 months	98.5	12-23 m	1616	82
HepB1	Card	82.2	12-23 m	1616	82
HepB1	Card or History	98.8	12-23 m	1616	82
HepB1	History	16.7	12-23 m	1616	82
HepB3	C or H <12 months	96.3	12-23 m	1616	82
HepB3	Card	80.9	12-23 m	1616	82
HepB3	Card or History	96.8	12-23 m	1616	82
HepB3	History	15.9	12-23 m	1616	82
Hib1	C or H <12 months	98.5	12-23 m	1616	82
Hib1	Card	82.2	12-23 m	1616	82
Hib1	Card or History	98.8	12-23 m	1616	82
Hib1	History	16.7	12-23 m	1616	82
Hib3	C or H <12 months	96.3	12-23 m	1616	82
Hib3	Card	80.9	12-23 m	1616	82
Hib3	Card or History	96.8	12-23 m	1616	82
Hib3	History	15.9	12-23 m	1616	82
MCV1	C or H <12 months	90.3	12-23 m	1616	82
MCV1	Card	79	12-23 m	1616	82
MCV1	Card or History	95	12-23 m	1616	82
MCV1	History	16	12-23 m	1616	82
Pol1	C or H <12 months	98.9	12-23 m	1616	82
Pol1	Card	82.2	12-23 m	1616	82
Pol1	Card or History	99.2	12-23 m	1616	82
Pol1	History	17	12-23 m	1616	82
Pol3	C or H <12 months	92.8	12-23 m	1616	82

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Pol3	Card	81	12-23 m	1616	82
Pol3	Card or History	93.3	12-23 m	1616	82
Pol3	History	12.3	12-23 m	1616	82

## 2007 Rwanda Interim Demographic and Health Survey 2007-08

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	95.2	12-23 m	1226	67
BCG	Card	66.8	12-23 m	1226	67
BCG	Card or History	95.5	12-23 m	1226	67
BCG	History	28.7	12-23 m	1226	67
DTP1	C or H <12 months	94.3	12-23 m	1226	67
DTP1	Card	66.8	12-23 m	1226	67
DTP1	Card or History	94.8	12-23 m	1226	67
DTP1	History	28.1	12-23 m	1226	67
DTP3	C or H <12 months	88.5	12-23 m	1226	67
DTP3	Card	66.1	12-23 m	1226	67
DTP3	Card or History	89.8	12-23 m	1226	67
DTP3	History	23.7	12-23 m	1226	67
HepB1	C or H <12 months	94.3	12-23 m	1226	67
HepB1	Card	66.8	12-23 m	1226	67
HepB1	Card or History	94.8	12-23 m	1226	67
HepB1	History	28.1	12-23 m	1226	67
HepB3	C or H <12 months	88.5	12-23 m	1226	67
HepB3	Card	66.1	12-23 m	1226	67
HepB3	Card or History	89.8	12-23 m	1226	67
HepB3	History	23.7	12-23 m	1226	67
Hib1	C or H <12 months	94.3	12-23 m	1226	67
Hib1	Card	66.8	12-23 m	1226	67
Hib1	Card or History	94.8	12-23 m	1226	67
Hib1	History	28.1	12-23 m	1226	67
Hib3	C or H <12 months	88.5	12-23 m	1226	67
Hib3	Card	66.1	12-23 m	1226	67
Hib3	Card or History	89.8	12-23 m	1226	67
Hib3	History	23.7	12-23 m	1226	67
MCV1	C or H <12 months	82.9	12-23 m	1226	67
MCV1	Card	64.1	12-23 m	1226	67
MCV1	Card or History	90.4	12-23 m	1226	67
MCV1	History	26.3	12-23 m	1226	67

Pol1	C or H <12 months	94.9	12-23 m	1226	67
Pol1	Card	66.9	12-23 m	1226	67
Pol1	Card or History	95.6	12-23 m	1226	67
Pol1	History	28.7	12-23 m	1226	67
Pol3	C or H <12 months	84.5	12-23 m	1226	67
Pol3	Card	65.8	12-23 m	1226	67
Pol3	Card or History	85.5	12-23 m	1226	67
Pol3	History	19.7	12-23 m	1226	67

## 2006 Enquête nationale de couverture vaccinale à Rwanda, 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	93.9	12-23 m	1049	82
BCG	Card or History	97.8	12-23 m	1049	82
DTP1	Card	98.7	12-23 m	1049	82
DTP1	Card or History	98.7	12-23 m	1049	82
DTP3	Card	96.7	12-23 m	1049	82
DTP3	Card or History	97	12-23 m	1049	82
HepB1	Card	98.7	12-23 m	1049	82
HepB1	Card or History	98.7	12-23 m	1049	82
HepB3	Card	96.7	12-23 m	1049	82
HepB3	Card or History	97	12-23 m	1049	82
Hib1	Card	98.7	12-23 m	1049	82
Hib1	Card or History	98.7	12-23 m	1049	82
Hib3	Card	96.7	12-23 m	1049	82
Hib3	Card or History	97	12-23 m	1049	82
MCV1	Card	95.2	12-23 m	1049	82
MCV1	Card or History	95.7	12-23 m	1049	82
Pol1	Card	98.1	12-23 m	1049	82
Pol1	Card or History	98.3	12-23 m	1049	82
Pol3	Card	97.1	12-23 m	1049	82
Pol3	Card or History	97.2	12-23 m	1049	82

## 2004 Rwanda Demographic and Health Survey 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96.4	12-23 m	1626	76

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BCG	Card	75.1	12-23 m	1626	76
BCG	Card or History	96.5	12-23 m	1626	76
BCG	History	21.3	12-23 m	1626	76
DTP1	C or H <12 months	96.5	12-23 m	1626	76
DTP1	Card	75.7	12-23 m	1626	76
DTP1	Card or History	96.8	12-23 m	1626	76
DTP1	History	21.1	12-23 m	1626	76
DTP3	C or H <12 months	86.4	12-23 m	1626	76
DTP3	Card	72.7	12-23 m	1626	76
DTP3	Card or History	87	12-23 m	1626	76
DTP3	History	14.3	12-23 m	1626	76
MCV1	C or H <12 months	79.4	12-23 m	1626	76
MCV1	Card	66.9	12-23 m	1626	76
MCV1	Card or History	85.6	12-23 m	1626	76
MCV1	History	18.7	12-23 m	1626	76
Pol1	C or H <12 months	96.2	12-23 m	1626	76
Pol1	Card	75.6	12-23 m	1626	76
Pol1	Card or History	96.5	12-23 m	1626	76
Pol1	History	20.9	12-23 m	1626	76
Pol3	C or H <12 months	83.7	12-23 m	1626	76
Pol3	Card	72.7	12-23 m	1626	76
Pol3	Card or History	84.3	12-23 m	1626	76
Pol3	History	11.6	12-23 m	1626	76

2002 Rwanda, Evaluation de la campagne contre la rougeole et la vaccination de routine, 2003 - documentation not available

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	99	12-23 m	-	79
DTP1	C or H <12 months	97	12-23 m	-	79
DTP3	C or H <12 months	92	12-23 m	-	79
MCV1	C or H <12 months	92	12-23 m	-	79
Pol3	C or H <12 months	87	12-23 m	-	79

1999 Enquête à Indicateurs Multiples (MICS2), Rapport Final, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
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BCG	Card	71.2	12-23 m	596	72
BCG	Card or History	90.7	12-23 m	596	72
BCG	History	19.6	12-23 m	596	72
DTP1	Card	70.3	12-23 m	596	72
DTP1	Card or History	90.3	12-23 m	596	72
DTP1	History	19.9	12-23 m	596	72
DTP3	Card	67.8	12-23 m	596	72
DTP3	Card or History	80.9	12-23 m	596	72
DTP3	History	13.8	12-23 m	596	72
MCV1	Card	62.7	12-23 m	596	72
MCV1	Card or History	82.1	12-23 m	596	72
MCV1	History	19.4	12-23 m	596	72
Pol1	Card	70.1	12-23 m	596	72
Pol1	Card or History	91.5	12-23 m	596	72
Pol1	History	20.9	12-23 m	596	72
Pol3	Card	68.4	12-23 m	596	72
Pol3	Card or History	79.8	12-23 m	596	72
Pol3	History	11.4	12-23 m	596	72

1999 Enquête Démographique et de Santé Rwanda 2000 (EDSR-II), 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96.5	12-23 m	1330	66
BCG	Card	65.6	12-23 m	1330	66
BCG	Card or History	97	12-23 m	1330	66
BCG	History	31.4	12-23 m	1330	66
DTP1	C or H <12 months	94.9	12-23 m	1330	66
DTP1	Card	65.5	12-23 m	1330	66
DTP1	Card or History	95.5	12-23 m	1330	66
DTP1	History	30	12-23 m	1330	66
DTP3	C or H <12 months	84.9	12-23 m	1330	66
DTP3	Card	63.2	12-23 m	1330	66
DTP3	Card or History	86	12-23 m	1330	66
DTP3	History	22.9	12-23 m	1330	66
MCV1	C or H <12 months	79.9	12-23 m	1330	66
MCV1	Card	59.1	12-23 m	1330	66
MCV1	Card or History	86.9	12-23 m	1330	66
MCV1	History	27.8	12-23 m	1330	66
Pol1	C or H <12 months	95.9	12-23 m	1330	66

# Rwanda - survey details

Pol1	Card	65.7	12-23 m	1330	66
Pol1	Card or History	96.5	12-23 m	1330	66
Pol1	History	30.8	12-23 m	1330	66
Pol3	C or H <12 months	86.8	12-23 m	1330	66
Pol3	Card	63.8	12-23 m	1330	66
Pol3	Card or History	87.6	12-23 m	1330	66
Pol3	History	23.7	12-23 m	1330	66

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	94	12-23 m	-	-
DTP1	Card or History	93	12-23 m	-	-
DTP3	Card or History	85	12-23 m	-	-
MCV1	Card or History	78	12-23 m	-	-
Pol1	Card or History	93	12-23 m	-	-
Pol3	Card or History	85	12-23 m	-	-

## 1998 Enquête Démographique et de Santé Rwanda 2000 (EDSR-II), 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	93.8	24-35 m	1232	66
DTP1	C or H <12 months	90.9	24-35 m	1232	66
DTP3	C or H <12 months	78.6	24-35 m	1232	66
MCV1	C or H <12 months	80.5	24-35 m	1232	66
Pol1	C or H <12 months	93.4	24-35 m	1232	66
Pol3	C or H <12 months	79.7	24-35 m	1232	66

## 1997 Enquête Démographique et de Santé Rwanda 2000 (EDSR-II), 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	95.7	36-47 m	1297	66
DTP1	C or H <12 months	91.9	36-47 m	1297	66
DTP3	C or H <12 months	79.5	36-47 m	1297	66
MCV1	C or H <12 months	73.6	36-47 m	1297	66
Pol1	C or H <12 months	94	36-47 m	1297	66
Pol3	C or H <12 months	81.7	36-47 m	1297	66

## 1998 Rapport d'Evaluation de la Couverture Vaccinale au Niveau des Onze Regions Sanitaires, Mai-Juni 1999

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>