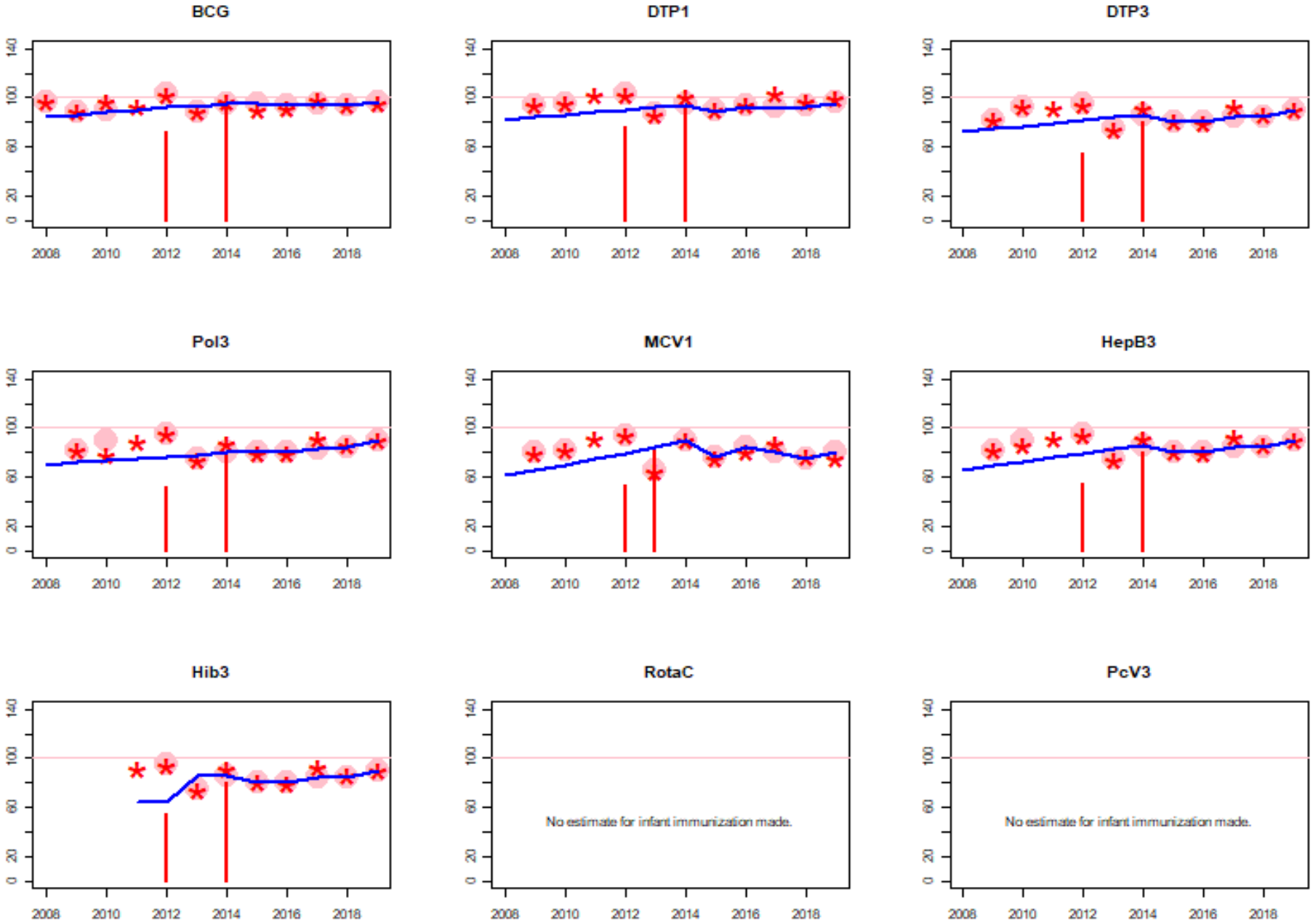

BCG
DTP1
DTP3
Pol3
MCV1
HepB3
Hib3
RotaC
PcV3
No estimate for infant immunization made.
No estimate for infant immunization made.

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. Co verage 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.

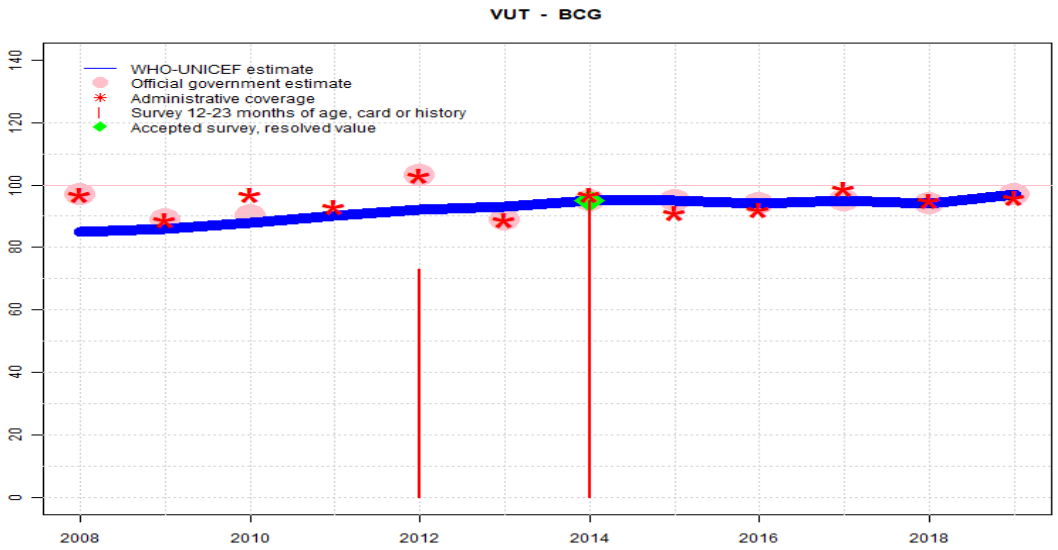
RotaC: percentage of surviving infants who received the final recommended dose of rotavirus vaccine, which can be either the 2nd or the 3rd dose depending on the vaccine.

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.

Disclaimer: All reasonable precautions have been taken by the World Health Organization and United Nations Children's Fund to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization or United Nations Children's Fund be liable for damages arising from its use.

Vanuatu - BCG



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimate	85	86	88	90	92	93	95	95	94	95	94	97
Estimate GoC	•	•	•	•	•	•	•••	•••	•••	••	••	••
Official	97	89	90	NA	103	89	95	95	94	95	94	97
Administrative	97	89	97	93	103	89	97	91	92	99	95	96
Survey	NA	NA	NA	NA	73	NA	95	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: 2019 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.

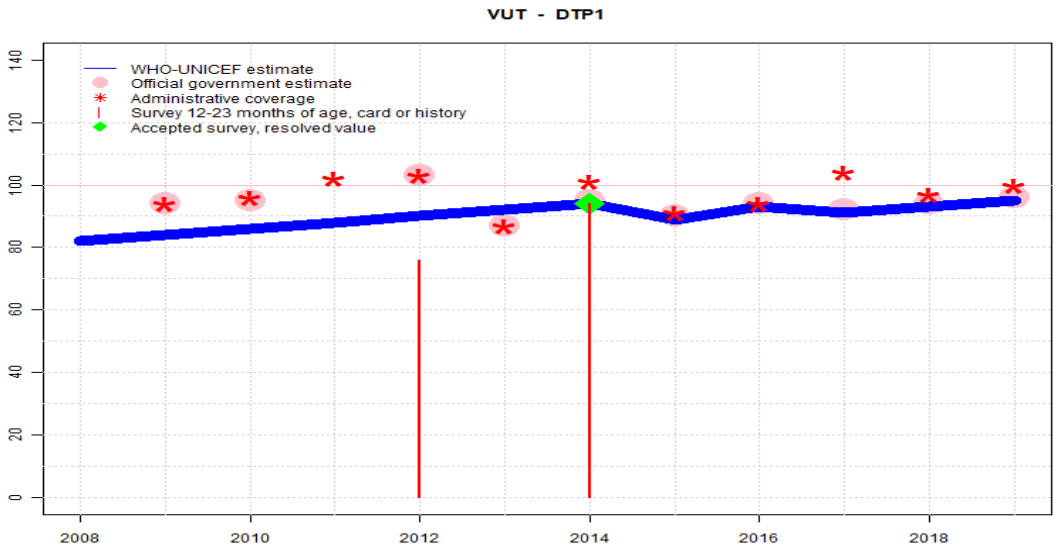
• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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:

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+ S+ D+
2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
2014: Survey report does not provide percent cards seen. GoC=R+ S+ D+
2013: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2012: Reported data calibrated to 2006 and 2014 levels. Vanuatu Demographic and Health Survey 2013 results ignored by working group. Not consistent with trends in reported data or 2016 survey.Reported data excluded. Estimate follows survey result.Reported data excluded because 103 percent greater than 100 percent. Estimate challenged by: D-R-
2011: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2010: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2009: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2008: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-R-

Vanuatu - DTP1



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimate	82	84	86	88	90	92	94	89	93	91	93	95
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	NA	94	95	NA	103	87	95	90	94	92	94	96
Administrative	NA	94	96	102	103	87	101	91	94	104	97	100
Survey	NA	NA	NA	NA	76	NA	94	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: 2019 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.

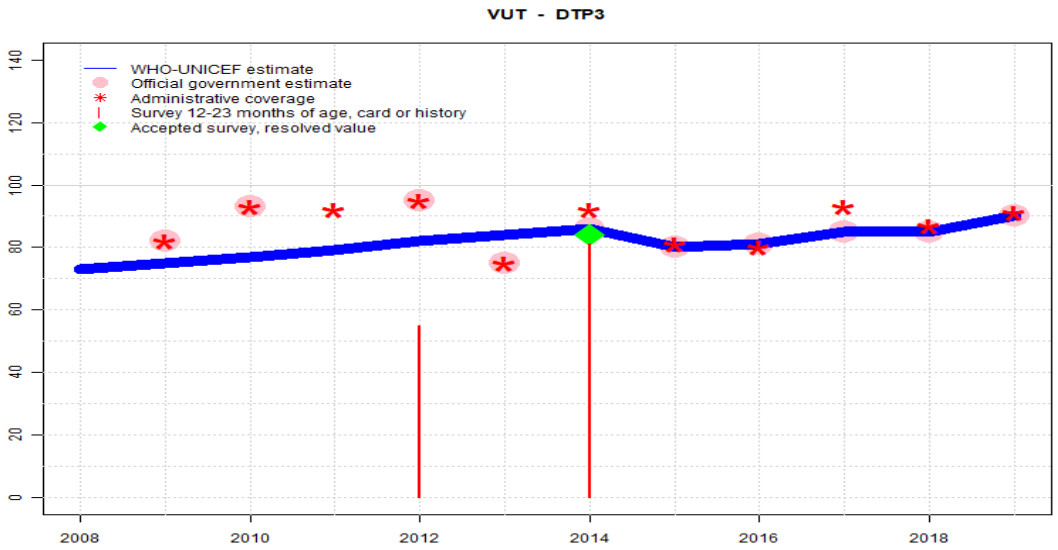
● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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:

2019: Reported data calibrated to 2014 levels. Estimate challenged by: R-
2018: Reported data calibrated to 2014 levels. Estimate challenged by: R-
2017: Reported data calibrated to 2014 levels. Estimate challenged by: D-R-
2016: Reported data calibrated to 2014 levels. Estimate challenged by: R-
2015: Reported data calibrated to 2014 levels. Estimate challenged by: R-
2014: Estimate of 94 percent assigned by working group. Survey report does not provide percent cards seen. Estimate challenged by: R-
2013: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2012: Reported data calibrated to 2006 and 2014 levels. Vanuatu Demographic and Health Survey 2013 results ignored by working group. Not consistent with trends in reported data or 2016 survey.Reported data excluded. Estimate follows survey result.Reported data excluded because 103 percent greater than 100 percent. Estimate challenged by: D-R-
2011: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result.Reported data excluded because 102 percent greater than 100 percent. Vaccine presentation changed to DTP-HepB-Hib. Estimate challenged by: D-R-
2010: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2009: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2008: Reported data calibrated to 2006 and 2014 levels. Estimate challenged by: D-

Vanuatu - DTP3



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimate	73	75	77	79	82	84	86	80	81	85	85	90
Estimate GoC	•	•	•	•	•	•	•••	•••	•••	•	••	••
Official	NA	82	93	NA	95	75	86	80	81	85	85	90
Administrative	NA	82	93	92	95	75	92	81	80	93	87	91
Survey	NA	NA	NA	NA	55	NA	81	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: 2019 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.

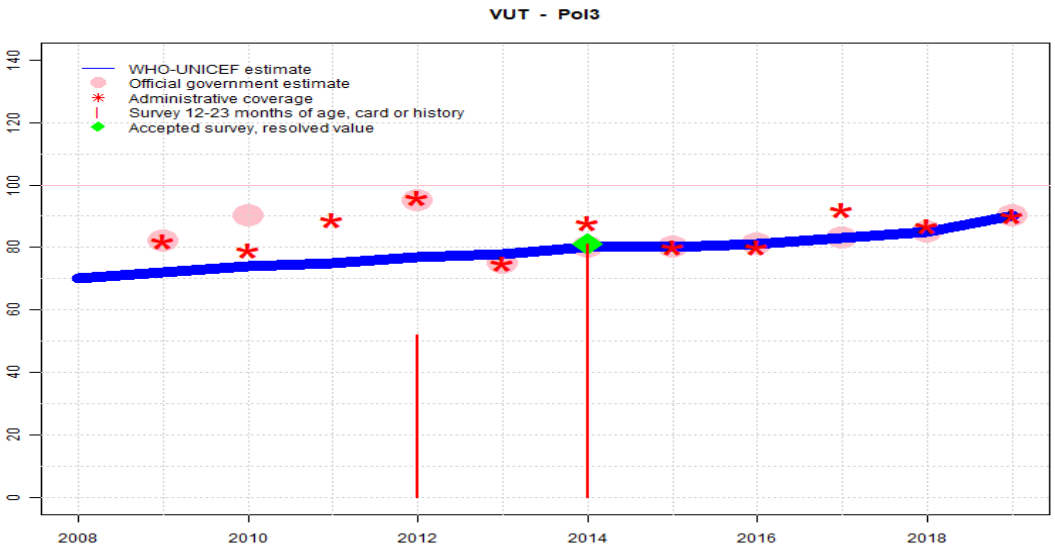
• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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:

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: D-
2016: Estimate based on coverage reported by national government. GoC=R+ S+ D+
2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
2014: Survey report does not provide percent cards seen. Vanuatu Vaccination Coverage Survey 2016 card or history results of 81 percent modifed for recall bias to 84 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 58 percent and 3rd dose card only coverage of 52 percent. GoC=R+ S+ D+
2013: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result.Reported data excluded due to decline in reported coverage from 95 percent to 75 percent with increase to 86 percent. Estimate challenged by: R-
2012: Reported data calibrated to 2006 and 2014 levels. Vanuatu Demographic and Health Survey 2013 results ignored by working group. Not consistent with trends in reported data or 2016 survey.Vanuatu Demographic and Health Survey 2013 card or history results of 55 percent modifed for recall bias to 64 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 56 percent and 3rd dose card only coverage of 47 percent. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-R-
2011: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Vaccine presentation changed to DTP-HepB-Hib. Estimate challenged by: D-R-
2010: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2009: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2008: Reported data calibrated to 2006 and 2014 levels. Estimate challenged by: D-

Vanuatu - Pol3



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimate	70	72	74	75	77	78	80	80	81	83	85	90
Estimate GoC	•	•	•	•	•	•	•••	•••	•••	•	••	••
Official	NA	82	90	NA	95	75	80	80	81	83	85	90
Administrative	NA	82	79	89	96	75	88	80	80	92	87	90
Survey	NA	NA	NA	NA	52	NA	81	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: 2019 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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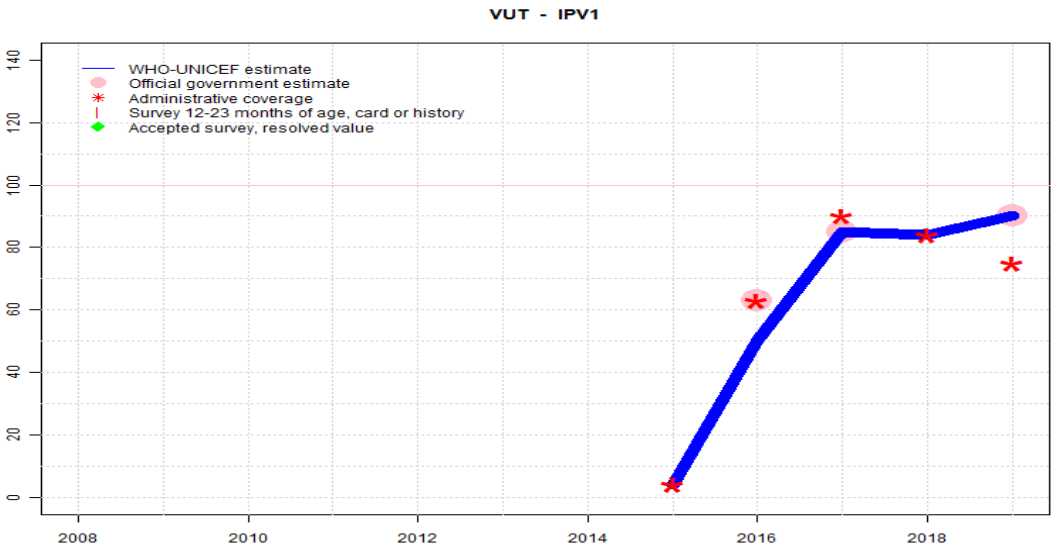
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

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: D-
2016: Estimate based on coverage reported by national government. GoC=R+ S+ D+
2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
2014: Survey report does not provide percent cards seen. GoC=R+ S+ D+
2013: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2012: Reported data calibrated to 2006 and 2014 levels. Vanuatu Demographic and Health Survey 2013 results ignored by working group. Not consistent with trends in reported data or 2016 survey.Vanuatu Demographic and Health Survey 2013 card or history results of 52 percent modifed for recall bias to 65 percent based on 1st dose card or history coverage of 74 percent, 1st dose card only coverage of 55 percent and 3rd dose card only coverage of 48 percent. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-R-
2011: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-R-
2010: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2009: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2008: Reported data calibrated to 2006 and 2014 levels. Estimate challenged by: D-

Vanuatu - IPV1



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimate	NA	NA	NA	NA	NA	NA	NA	4	50	85	84	90
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	••	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	63	85	NA	90
Administrative	NA	NA	NA	NA	NA	NA	NA	4	63	90	84	75
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: 2019 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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● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

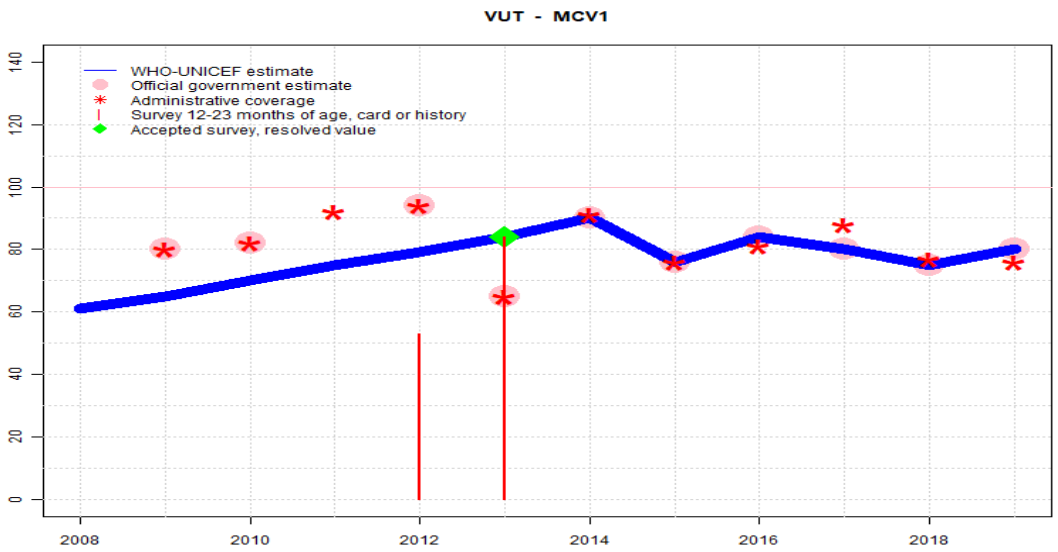
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

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).

2019: Estimate based on coverage reported by national government. Estimate challenged by: D-
2018: Estimate based on reported administrative estimate. GoC=R+ D+
2017: Estimate is based on DTP3 estimate. . Estimate challenged by: R-
2016: Roll out of IPV in the entire country. Estimate is based on adjustment to DTP3 based on relative relationship between the reported number of children vaccinated with DTP3 and IPV1. Estimate challenged by: D-R-
2015: Inactivated polio vaccine in December 2015. Estimate challenged by: R-

Vanuatu - MCV1



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimate	61	65	70	75	79	84	90	76	84	80	75	80
Estimate GoC	•	•	•	•	•	•	•	•••	••	••	••	••
Official	NA	80	82	NA	94	65	90	76	84	80	75	80
Administrative	NA	80	82	92	94	65	91	76	81	88	77	76
Survey	NA	NA	NA	NA	53	84	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: 2019 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.

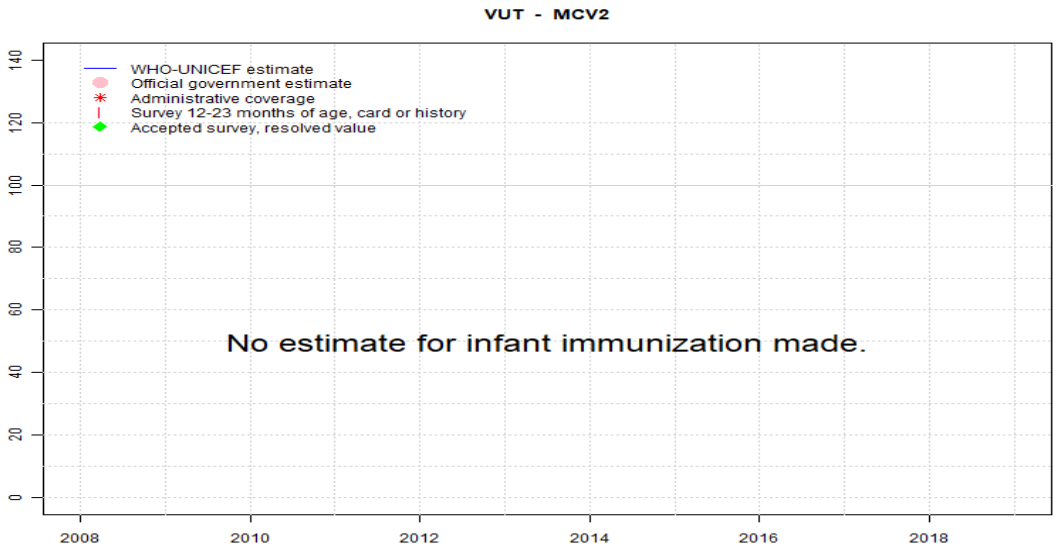
• There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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:

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: Unexplained changes in reported MCV1 coverage, yet official data accepted for consitency with other vaccines. GoC=R+ S+ D+
2014: Estimate of 90 percent assigned by working group. Unexplained changes in reported MCV1 coverage, yet official data accepted for consistency with other vaccines. Reported data excluded due to an increase from 65 percent to 90 percent with decrease 76 percent. Estimate challenged by: R-
2013: Estimate of 84 percent assigned by working group. Decline in reported data unexplained. Survey report does not provide percent cards seen. Reported data excluded. Estimate follows survey result.Reported data excluded due to decline in reported coverage from 94 percent to 65 percent with increase to 90 percent. Estimate challenged by: D-R-
2012: Reported data calibrated to 2006 and 2013 levels. Vanuatu Demographic and Health Survey 2013 results ignored by working group. Not consistent with trends in reported data or 2016 survey.Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2011: Reported data calibrated to 2006 and 2013 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-R-
2010: Reported data calibrated to 2006 and 2013 levels. Reported data excluded. Estimate follows survey result. Schedule changed from 9 months to 12 months. Estimate challenged by: R-
2009: Reported data calibrated to 2006 and 2013 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-
2008: Reported data calibrated to 2006 and 2013 levels. Estimate challenged by: D-

Vanuatu - MCV2



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
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.

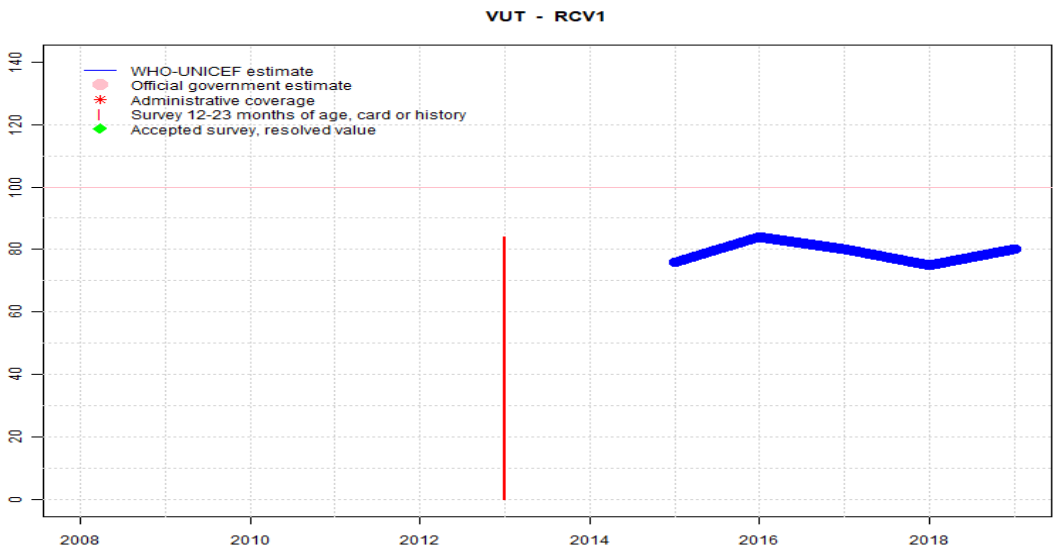
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2019 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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.

Vanuatu - RCV1



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimate	NA	NA	NA	NA	NA	NA	NA	76	84	80	75	80
Estimate GoC	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	84	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: 2019 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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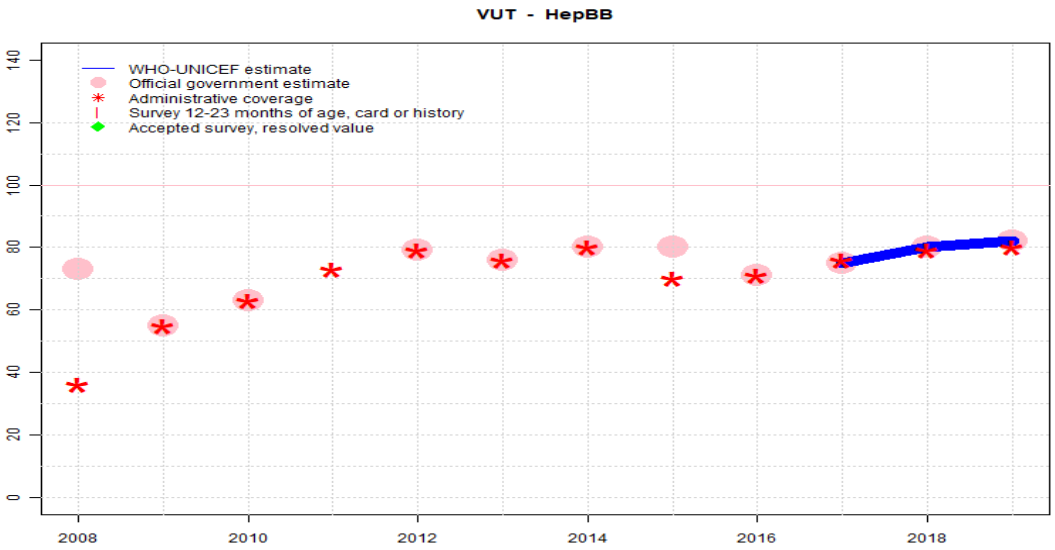
Description:

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.

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

Vanuatu - HepBB



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	75	80	82
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●	●●	●●
Official	73	55	63	NA	79	76	80	80	71	75	80	82
Administrative	36	55	63	73	79	76	80	70	71	76	79	80
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2019 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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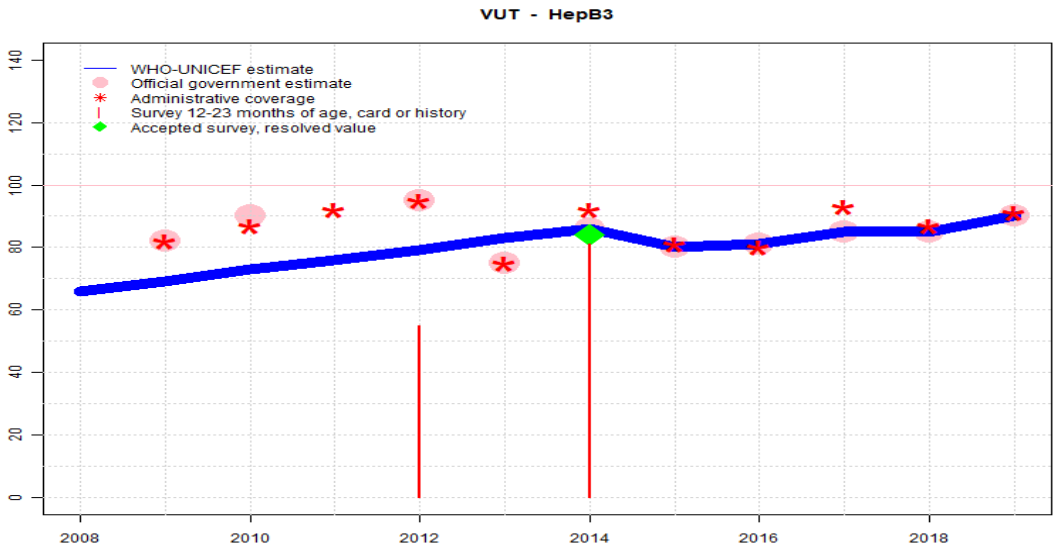
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

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+

Vanuatu - HepB3



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimate	66	69	73	76	79	83	86	80	81	85	85	90
Estimate GoC	•	•	•	•	•	•	•••	•••	•••	•	••	••
Official	NA	82	90	NA	95	75	86	80	81	85	85	90
Administrative	NA	82	87	92	95	75	92	81	80	93	87	91
Survey	NA	NA	NA	NA	55	NA	81	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: 2019 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:

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: D-

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

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

2014: Survey report does not provide percent cards seen. Vanuatu Vaccination Coverage Survey 2016 card or history results of 81 percent modifed for recall bias to 84 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 58 percent and 3rd dose card only coverage of 52 percent. GoC=R+ S+ D+

2013: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result.Reported data excluded due to decline in reported coverage from 95 percent to 75 percent with increase to 86 percent. Estimate challenged by: R-

2012: Reported data calibrated to 2006 and 2014 levels. Vanuatu Demographic and Health Survey 2013 results ignored by working group. Not consistent with trends in reported data or 2016 survey.Vanuatu Demographic and Health Survey 2013 card or history results of 55 percent modifed for recall bias to 64 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 56 percent and 3rd dose card only coverage of 47 percent. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-R-

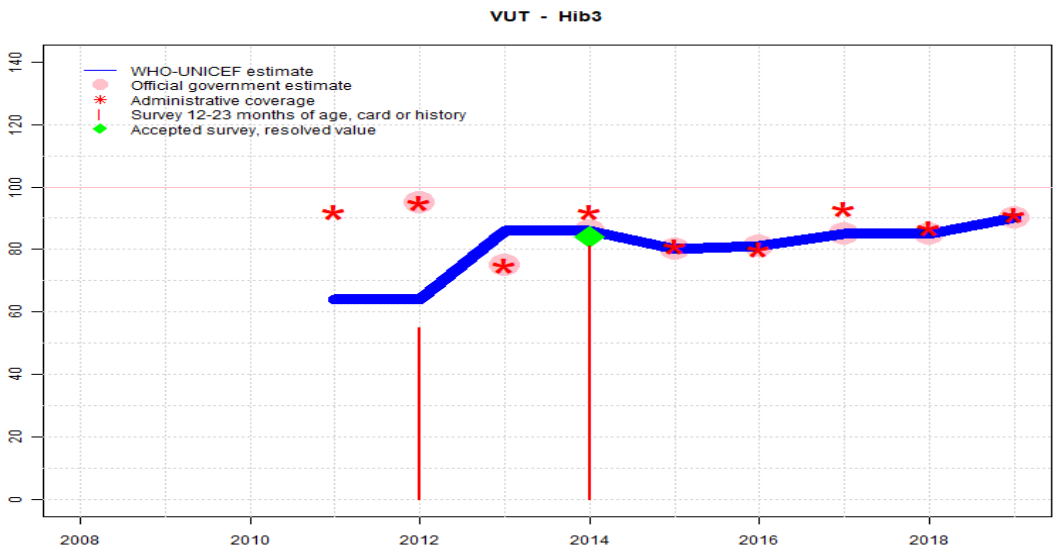
2011: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Vaccine presentation changed to DTP-HepB-Hib. Estimate challenged by: D-R-

2010: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-

2009: Reported data calibrated to 2006 and 2014 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: R-

2008: Reported data calibrated to 2006 and 2014 levels. Estimate challenged by: D-

Vanuatu - Hib3



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimate	NA	NA	NA	64	64	86	86	80	81	85	85	90
Estimate GoC	NA	NA	NA	•	•	•••	•••	•••	•••	•	••	••
Official	NA	NA	NA	NA	95	75	86	80	81	85	85	90
Administrative	NA	NA	NA	92	95	75	92	81	80	93	87	91
Survey	NA	NA	NA	NA	55	NA	81	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: 2019 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:

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: D-

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

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

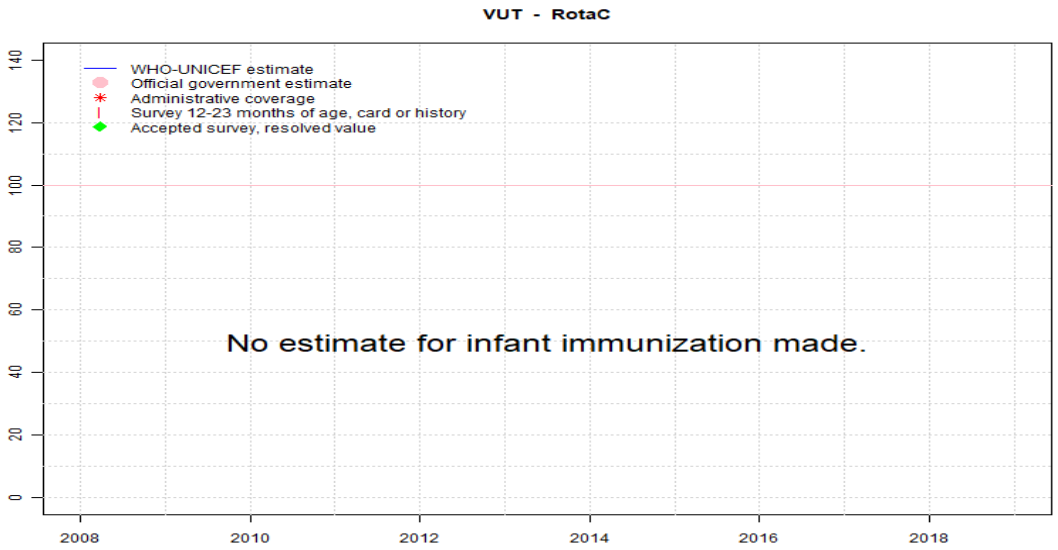
2014: Survey report does not provide percent cards seen. Vanuatu Vaccination Coverage Survey 2016 card or history results of 81 percent modifed for recall bias to 84 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 58 percent and 3rd dose card only coverage of 52 percent. GoC=R+ S+ D+

2013: Estimate based on extrapolation from data reported by national government. Reported data excluded. Estimate follows survey result.Reported data excluded due to decline in reported coverage from 95 percent to 75 percent with increase to 86 percent. GoC=R+ S+ D+

2012: Estimate based on DTP3 coverage. Vanuatu Demographic and Health Survey 2013 results ignored by working group. Not consistent with trends in reported data or 2016 survey.Vanuatu Demographic and Health Survey 2013 card or history results of 55 percent modifed for recall bias to 64 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 56 percent and 3rd dose card only coverage of 47 percent. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-R-S-

2011: Estimate based on DTP3 coverage. Reported data excluded. Estimate follows survey result. Hib vaccine was introduced in 2011. Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-R-

Vanuatu - RotaC



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
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: 2019 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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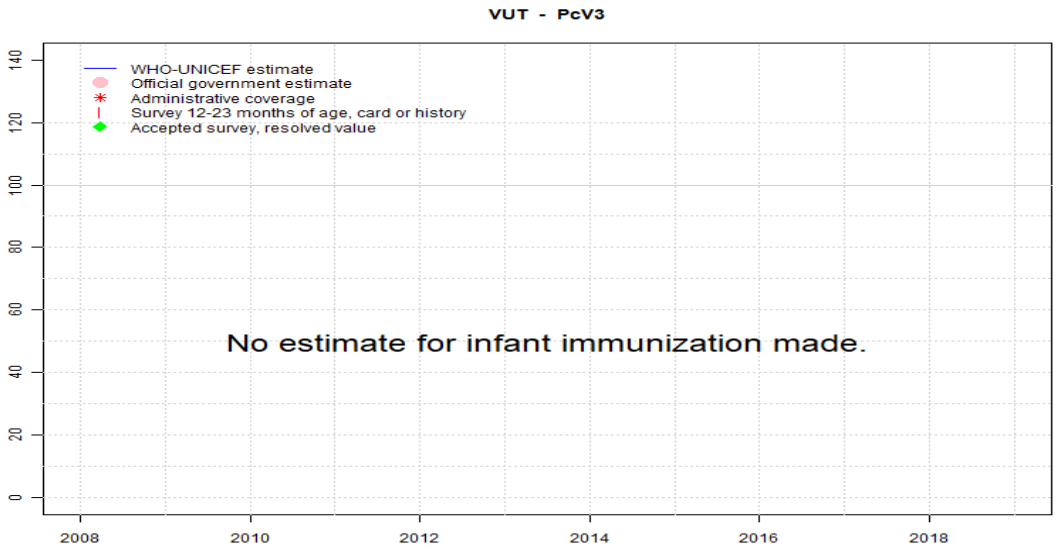
Vanuatu - PcV3



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
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: 2019 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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Vanuatu - survey details

2014 Vanuatu Vaccination Coverage Survey 2016

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	57.1	12-23 m	1185	-
BCG	Card or History	94.6	12-23 m	1185	-
DTP1	Card	57.7	12-23 m	1185	-
DTP1	Card or History	94	12-23 m	1185	-
DTP3	Card	52.4	12-23 m	1185	-
DTP3	Card or History	81.1	12-23 m	1185	-
HepB1	Card	57.7	12-23 m	1185	-
HepB1	Card or History	94	12-23 m	1185	-
HepB3	Card	52.4	12-23 m	1185	-
HepB3	Card or History	81.1	12-23 m	1185	-
Hib1	Card	57.7	12-23 m	1185	-
Hib1	Card or History	94	12-23 m	1185	-
Hib3	Card	52.4	12-23 m	1185	-
Hib3	Card or History	81.1	12-23 m	1185	-
Pol3	Card	52.1	12-23 m	1185	-
Pol3	Card or History	81.3	12-23 m	1185	-

2013 Vanuatu Vaccination Coverage Survey 2016

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV1	Card	41.3	24-35 m	1028	-
MCV1	Card or History	84	24-35 m	1028	-

2012 Vanuatu Demographic and Health Survey 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	72.5	12-23 m	303	57
BCG	Card	51.4	12-23 m	174	57
BCG	Card or History	72.9	12-23 m	303	57
BCG	History	21.5	12-23 m	129	57
DTP1	C or H <12 months	75.4	12-23 m	303	57
DTP1	Card	56.2	12-23 m	174	57
DTP1	Card or History	76.2	12-23 m	303	57
DTP1	History	20	12-23 m	129	57
DTP3	C or H <12 months	48.8	12-23 m	303	57
DTP3	Card	47.1	12-23 m	174	57
DTP3	Card or History	55.1	12-23 m	303	57
DTP3	History	8	12-23 m	129	57
HepB1	C or H <12 months	75.4	12-23 m	303	57
HepB1	Card	56.2	12-23 m	174	57
HepB1	Card or History	76.2	12-23 m	303	57
HepB1	History	20	12-23 m	129	57
HepB3	C or H <12 months	48.8	12-23 m	303	57
HepB3	Card	47.1	12-23 m	174	57
HepB3	Card or History	55.1	12-23 m	303	57
HepB3	History	8	12-23 m	129	57
Hib1	C or H <12 months	75.4	12-23 m	303	57
Hib1	Card	56.2	12-23 m	174	57
Hib1	Card or History	76.2	12-23 m	303	57
Hib1	History	20	12-23 m	129	57
Hib3	C or H <12 months	48.8	12-23 m	303	57
Hib3	Card	47.1	12-23 m	174	57
Hib3	Card or History	55.1	12-23 m	303	57
Hib3	History	8	12-23 m	129	57
MCV1	C or H <12 months	12.1	12-23 m	303	57
MCV1	Card	34.6	12-23 m	174	57
MCV1	Card or History	52.6	12-23 m	303	57
MCV1	History	18	12-23 m	129	57
Pol1	C or H <12 months	72.8	12-23 m	303	57
Pol1	Card	55.2	12-23 m	174	57
Pol1	Card or History	73.6	12-23 m	303	57
Pol1	History	18.4	12-23 m	129	57
Pol3	C or H <12 months	45.4	12-23 m	303	57
Pol3	Card	48	12-23 m	174	57
Pol3	Card or History	52	12-23 m	303	57
Pol3	History	3.9	12-23 m	129	57

2006 Vanuatu Multiple Indicator Cluster Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	79.1	12-23 m	359	69
BCG	Card	68	12-23 m	359	69

Vanuatu - survey details

BCG	Card or History	80.6	12-23 m	359	69
BCG	History	12.6	12-23 m	359	69
DTP1	C or H <12 months	74.3	12-23 m	359	69
DTP1	Card	67.1	12-23 m	359	69
DTP1	Card or History	78.5	12-23 m	359	69
DTP1	History	11.4	12-23 m	359	69
DTP3	C or H <12 months	58.3	12-23 m	359	69
DTP3	Card	58.1	12-23 m	359	69
DTP3	Card or History	63.4	12-23 m	359	69
DTP3	History	5.3	12-23 m	359	69
HepB1	C or H <12 months	65.3	12-23 m	359	69
HepB1	Card	65.8	12-23 m	359	69
HepB1	Card or History	65.8	12-23 m	359	69
HepB1	History	0	12-23 m	359	69
HepB3	C or H <12 months	55.3	12-23 m	359	69
HepB3	Card	59.2	12-23 m	359	69
HepB3	Card or History	59.2	12-23 m	359	69
HepB3	History	0	12-23 m	359	69
MCV1	C or H <12 months	37.2	12-23 m	359	69
MCV1	Card	43.6	12-23 m	359	69
MCV1	Card or History	52.5	12-23 m	359	69
MCV1	History	8.9	12-23 m	359	69
Pol1	C or H <12 months	75.5	12-23 m	359	69
Pol1	Card	65.9	12-23 m	359	69
Pol1	Card or History	78.3	12-23 m	359	69
Pol1	History	12.4	12-23 m	359	69
Pol3	C or H <12 months	55.4	12-23 m	359	69
Pol3	Card	56.7	12-23 m	359	69
Pol3	Card or History	61.1	12-23 m	359	69
Pol3	History	4.4	12-23 m	359	69

Further information and estimates for previous years are available at:
http://www.data.unicef.org/child-health/immunization
http://www.who.int/immunization/monitoring_surveillance/routine/coverage/en/index4.html