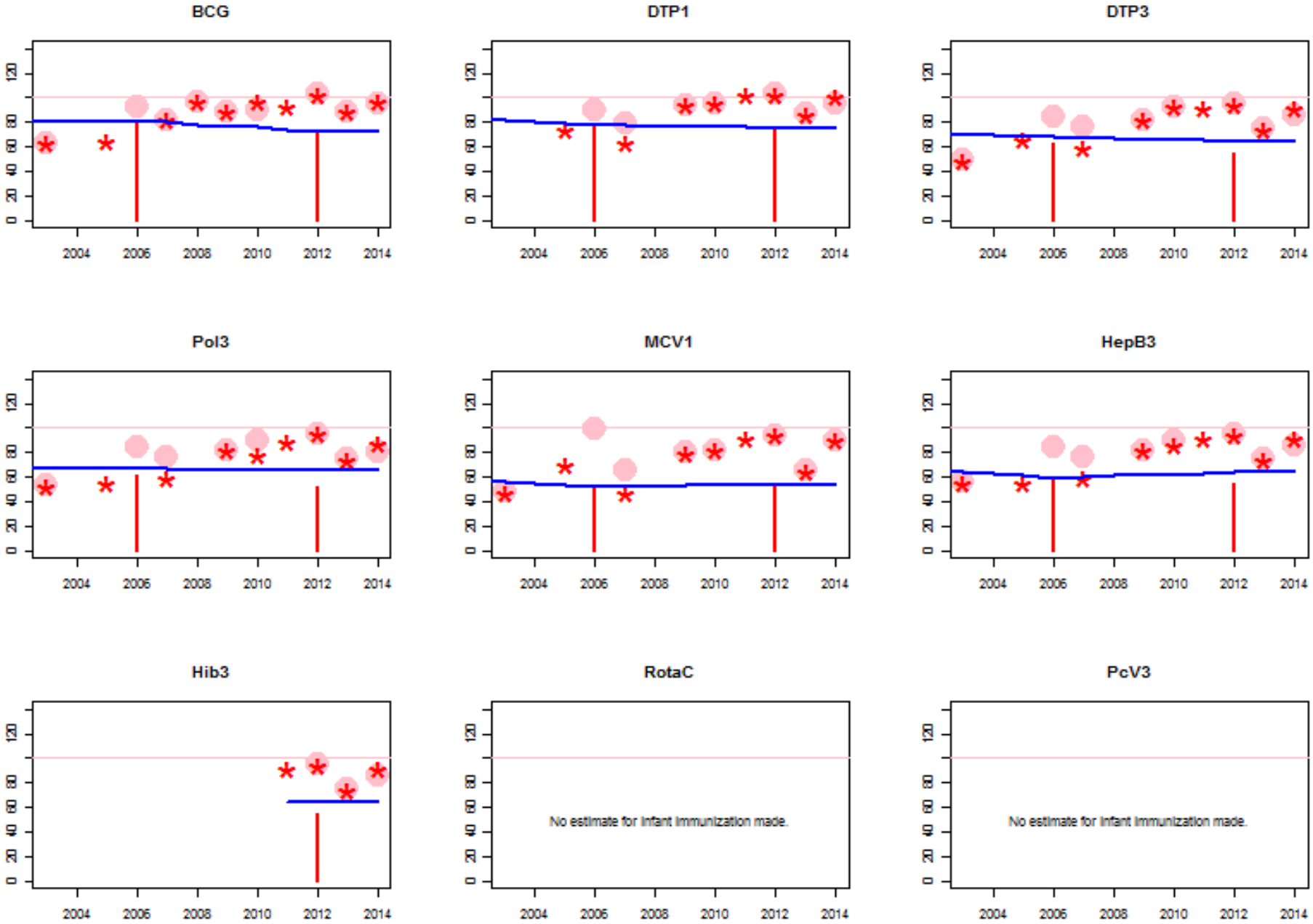

BCG
DTP1
DTP3
Pol3
MCV1
HepB3
Hib3
RotaC
PcV3
No estimate for infant immunization made.
No estimate for infant immunization made.
0
20
40
60
80
120
2004
2006
2008
2010
2012
2014

Vanuatu - BCG

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	80	80	81	81	80	78	77	76	74	73	73	73
Estimate GoC	•	••	•	•	•	•	•	•	•	•	•	•
Official	63	NA	NA	92	82	97	89	90	NA	103	89	95
Administrative	64	NA	65	NA	82	97	89	97	93	103	89	97
Survey	NA	NA	NA	81	NA	NA	NA	NA	NA	73	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: 2012 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:

2003: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: D-R-

2004: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. GoC=S+

2005: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: R-

2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 81 percent based on 1 survey(s). Estimate challenged by: R-

2007: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 80 percent changed from previous revision value of 81 percent. Estimate challenged by: D-

2008: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 78 percent changed from previous revision value of 81 percent. Estimate challenged by: D-

2009: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 77 percent changed from previous revision value of 81 percent. Estimate challenged by: D-

2010: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 76 percent changed from previous revision value of 81 percent. Estimate challenged by: D-

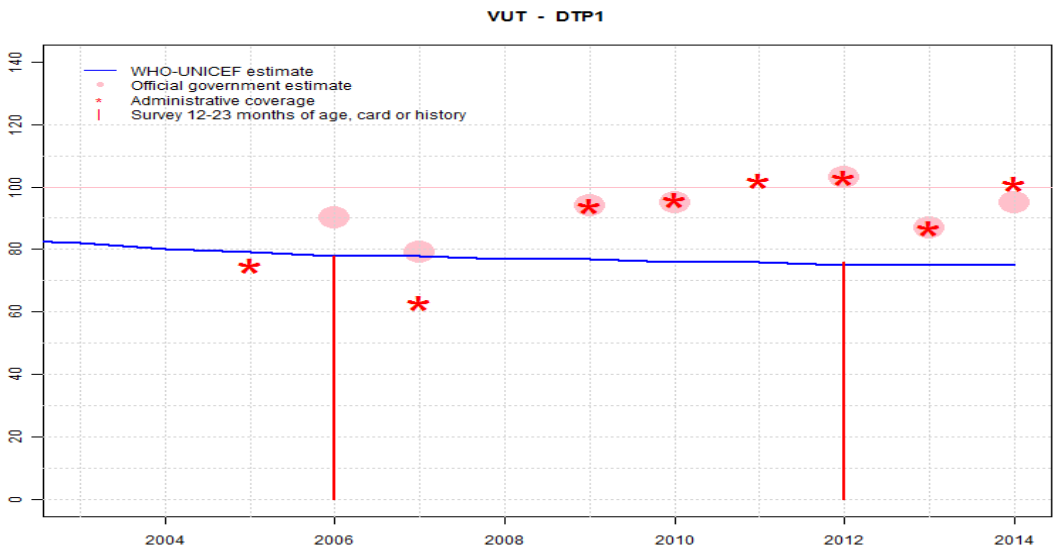
2011: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 74 percent changed from previous revision value of 81 percent. Estimate challenged by: D-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Reported data excluded. Estimate follows survey result.Reported data excluded. 103 percent greater than 100 percent. Estimate of 73 percent changed from previous revision value of 81 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 73 percent changed from previous revision value of 81 percent. Estimate challenged by: D-

2014: Reported data calibrated to 2012 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-

Vanuatu - DTP1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	82	80	79	78	78	77	77	76	76	75	75	75
Estimate GoC	•	••	•	•	••	•	•	•	•	•	•	•
Official	NA	NA	NA	90	79	NA	94	95	NA	103	87	95
Administrative	NA	NA	75	NA	63	NA	94	96	102	103	87	101
Survey	NA	NA	NA	78	NA	NA	NA	NA	NA	76	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: 2012 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:

2003: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. GoC=No accepted empirical data

2004: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. GoC=S+

2005: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: R-

2006: Estimate follows survey result. Reported data excluded. Unexplained increase from 75 percent to 90 percent with decrease 79 percent. Estimate challenged by: R-

2007: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. GoC=S+ D+

2008: Reported data calibrated to 2006 and 2012 levels. Estimate of 77 percent changed from previous revision value of 78 percent. Estimate challenged by: D-

2009: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 77 percent changed from previous revision value of 78 percent. Estimate challenged by: D-

2010: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 76 percent changed from previous revision value of 78 percent. Estimate challenged by: D-

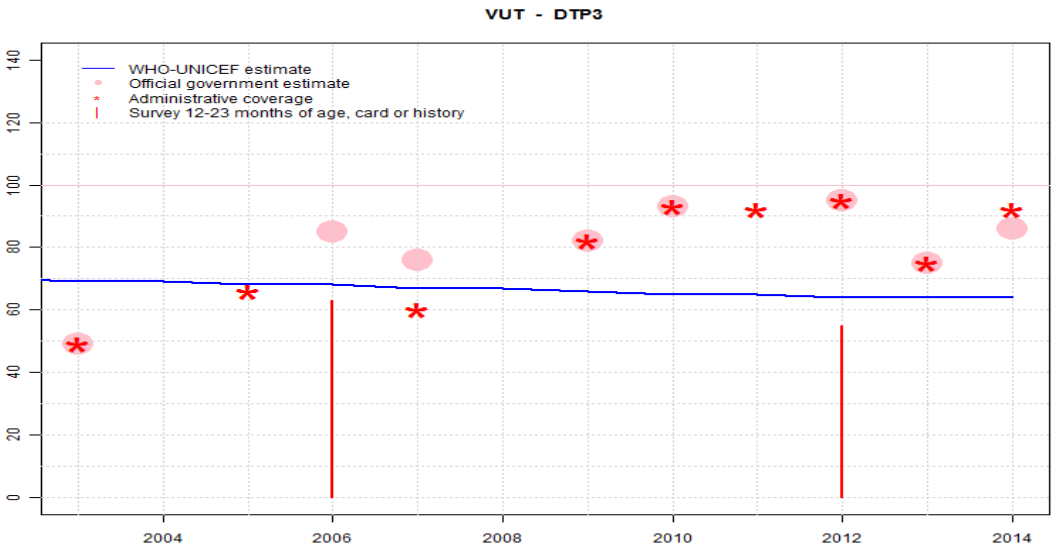
2011: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result.Reported data excluded. 102 percent greater than 100 percent. Vaccine presentation changed to DTP-HepB-Hib. Estimate of 76 percent changed from previous revision value of 78 percent. Estimate challenged by: D-

2012: Estimate based on extrapolation from data reported by national government supported by survey. Survey evidence of 76 percent based on 1 survey(s). Reported data excluded. Estimate follows survey result.Reported data excluded. 103 percent greater than 100 percent. Estimate of 75 percent changed from previous revision value of 78 percent. Estimate challenged by: D-

2013: Estimate based on extrapolation from data reported by national government. Reported data excluded. Estimate follows survey result. Estimate of 75 percent changed from previous revision value of 78 percent. Estimate challenged by: D-

2014: Estimate based on extrapolation from data reported by national government. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-

Vanuatu - DTP3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	69	69	68	68	67	67	66	65	65	64	64	64
Estimate GoC	•	••	•	•	••	•	•	•	•	•	•	•
Official	49	NA	NA	85	76	NA	82	93	NA	95	75	86
Administrative	49	NA	66	NA	60	NA	82	93	92	95	75	92
Survey	NA	NA	NA	63	NA	NA	NA	NA	NA	55	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: 2012 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:

2003: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: D-R-

2004: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. GoC=S+

2005: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: R-

2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). Vanuatu Multiple Indicator Cluster Survey 2007 card or history results of 63 percent modifed for recall bias to 68 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 67 percent and 3d dose card only coverage of 58 percent. Estimate challenged by: R-

2007: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 67 percent changed from previous revision value of 68 percent. GoC=S+ D+

2008: Reported data calibrated to 2006 and 2012 levels. Estimate of 67 percent changed from previous revision value of 68 percent. Estimate challenged by: D-

2009: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 66 percent changed from previous revision value of 68 percent. Estimate challenged by: D-

2010: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 65 percent changed from previous revision value of 68 percent. Estimate challenged by: D-

2011: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Vaccine presentation changed to DTP-HepB-Hib. Estimate of 65 percent changed from previous revision value of 68 percent. Estimate challenged by: D-

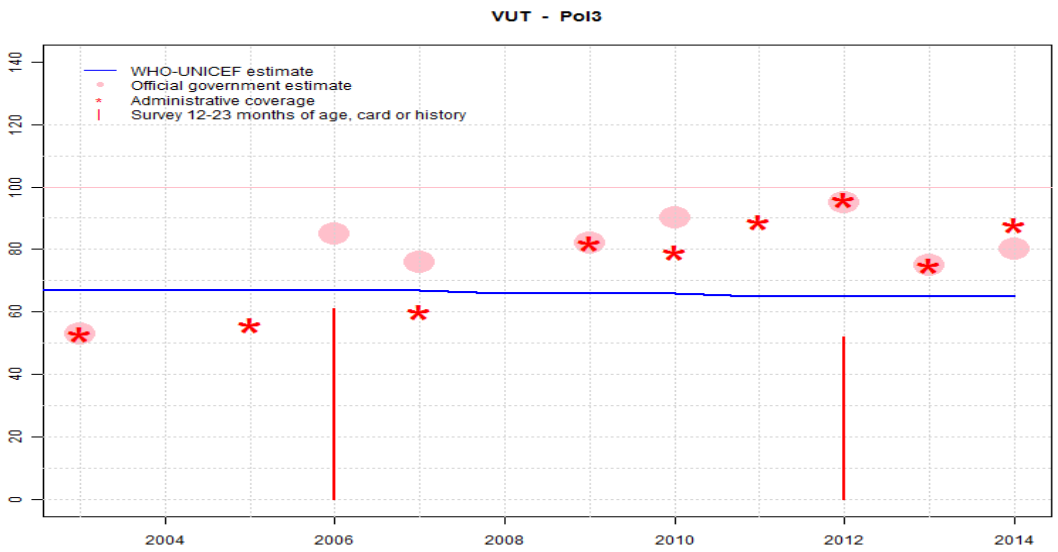
2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 64 percent based on 1 survey(s). Vanuatu Demographic and Health Survey 2013 card or history results of 55 percent modifed for recall bias to 64 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 56 percent and 3d dose card only coverage of 47 percent. Reported data excluded. Estimate follows survey result. Estimate of 64 percent changed from previous revision value of 68 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Estimate follows survey result.Reported data excluded. Decline in reported coverage from 95 percent to 75 percent with increase to 86 percent. Estimate of 64 percent changed from previous revision value of 68 percent. Estimate

challenged by: D-

2014: Reported data calibrated to 2012 levels. Reported data excluded. Estimate follows survey result.Reported data excluded. Change in reported coverage from 75 level to 86 percent. Estimate challenged by: D-

Vanuatu - Pol3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	67	67	67	67	67	66	66	66	65	65	65	65
Estimate GoC	•	••	•	•	••	•	•	•	•	•	•	•
Official	53	NA	NA	85	76	NA	82	90	NA	95	75	80
Administrative	53	NA	56	NA	60	NA	82	79	89	96	75	88
Survey	NA	NA	NA	61	NA	NA	NA	NA	NA	52	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: 2012 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:

2003: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: D-R-

2004: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. GoC=S+

2005: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: R-

2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Vanuatu Multiple Indicator Cluster Survey 2007 card or history results of 61 percent modifed for recall bias to 67 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 66 percent and 3d dose card only coverage of 57 percent. Estimate challenged by: R-

2007: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. GoC=S+ D+

2008: Reported data calibrated to 2006 and 2012 levels. Estimate of 66 percent changed from previous revision value of 67 percent. Estimate challenged by: D-

2009: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 66 percent changed from previous revision value of 67 percent. Estimate challenged by: D-

2010: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 66 percent changed from previous revision value of 67 percent. Estimate challenged by: D-

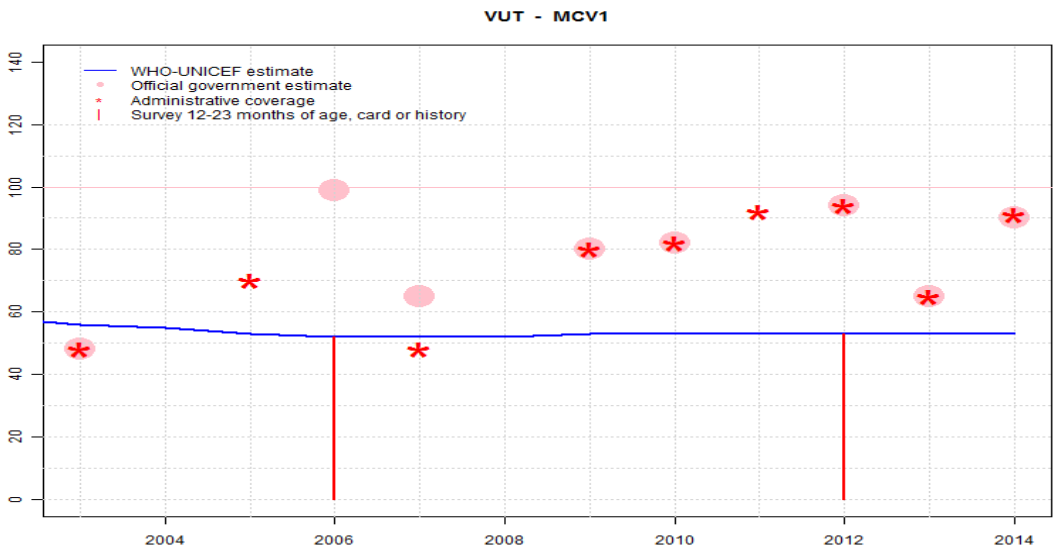
2011: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 65 percent changed from previous revision value of 67 percent. Estimate challenged by: D-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 65 percent based on 1 survey(s). 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 3d dose card only coverage of 48 percent. Reported data excluded. Estimate follows survey result. Estimate of 65 percent changed from previous revision value of 67 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 65 percent changed from previous revision value of 67 percent. Estimate challenged by: D-

2014: Reported data calibrated to 2012 levels. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-

Vanuatu - MCV1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	56	55	53	52	52	52	53	53	53	53	53	53
Estimate GoC	•	••	•	•	••	••	•	•	•	•	•	•
Official	48	NA	NA	99	65	NA	80	82	NA	94	65	90
Administrative	48	NA	70	NA	48	NA	80	82	92	94	65	91
Survey	NA	NA	NA	52	NA	NA	NA	NA	NA	53	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: 2012 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:

2003: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: D-R-

2004: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. GoC=S+

2005: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: D-R-

2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 52 percent based on 1 survey(s). Reported data excluded. Unexplained increase from 70 percent to 99 percent with decrease 65 percent. Reported coverage includes doses administered during the 2006 measles campaign. Estimate challenged by: R-

2007: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. GoC=S+ D+

2008: Reported data calibrated to 2006 and 2012 levels. GoC=S+ D+

2009: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 53 percent changed from previous revision value of 52 percent. Estimate challenged by: D-

2010: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Schedule changed from 9 months to 12 months. Estimate of 53 percent changed from previous revision value of 52 percent. Estimate challenged by: D-

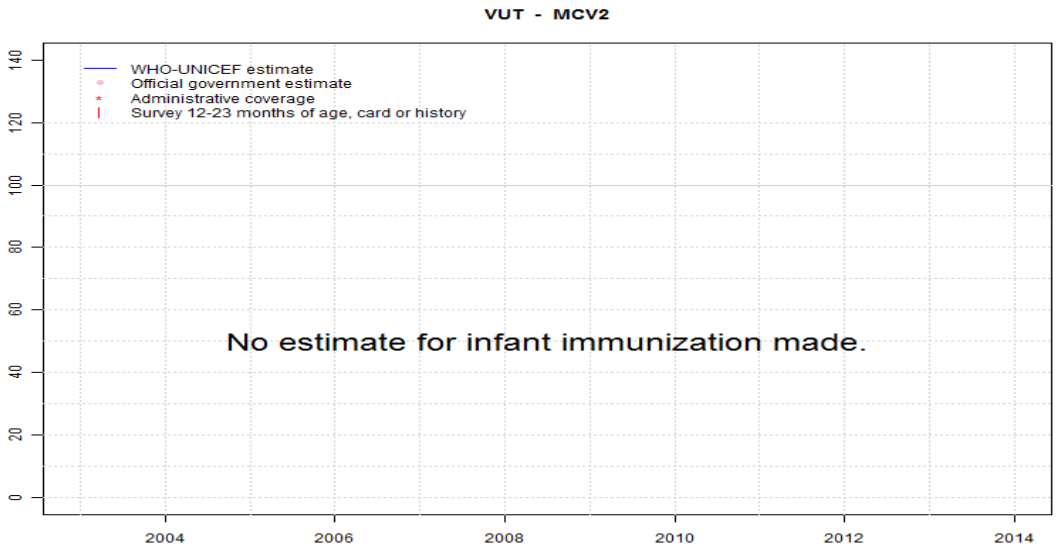
2011: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 53 percent changed from previous revision value of 52 percent. Estimate challenged by: D-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 53 percent based on 1 survey(s). Reported data excluded. Estimate follows survey result. Estimate of 53 percent changed from previous revision value of 52 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Estimate follows survey result.Reported data excluded. Decline in reported coverage from 94 percent to 65 percent with increase to 90 percent. Estimate of 53 percent changed from previous revision value of 52 percent. Estimate challenged by: D-

2014: Reported data calibrated to 2012 levels. Reported data excluded. Estimate follows survey result.Reported data excluded. Change in reported coverage from 65 level to 90 percent. Estimate challenged by: D-

Vanuatu - MCV2



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
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.

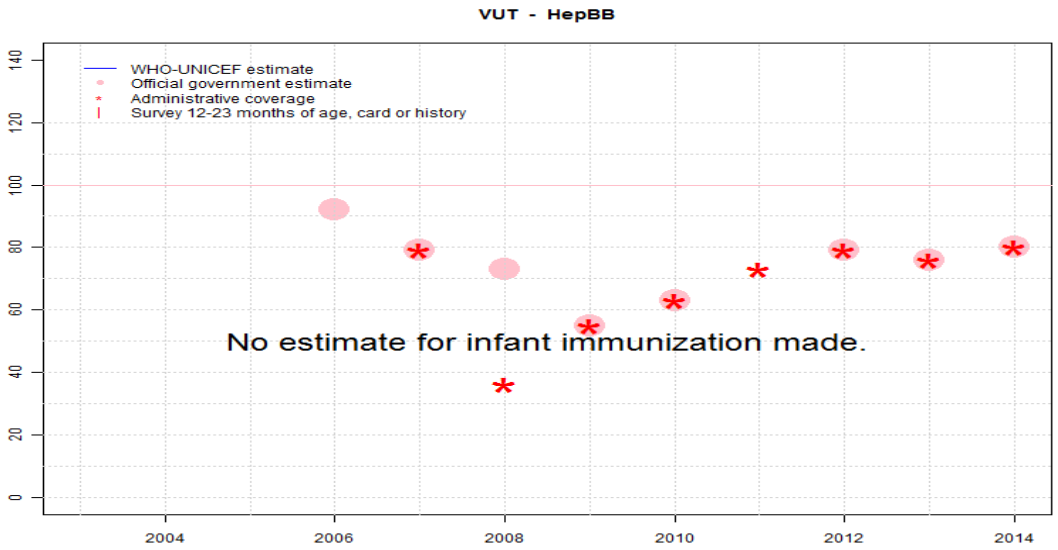
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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 - HepBB



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
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	92	79	73	55	63	NA	79	76	80
Administrative	NA	NA	NA	NA	79	36	55	63	73	79	76	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: 2012 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.

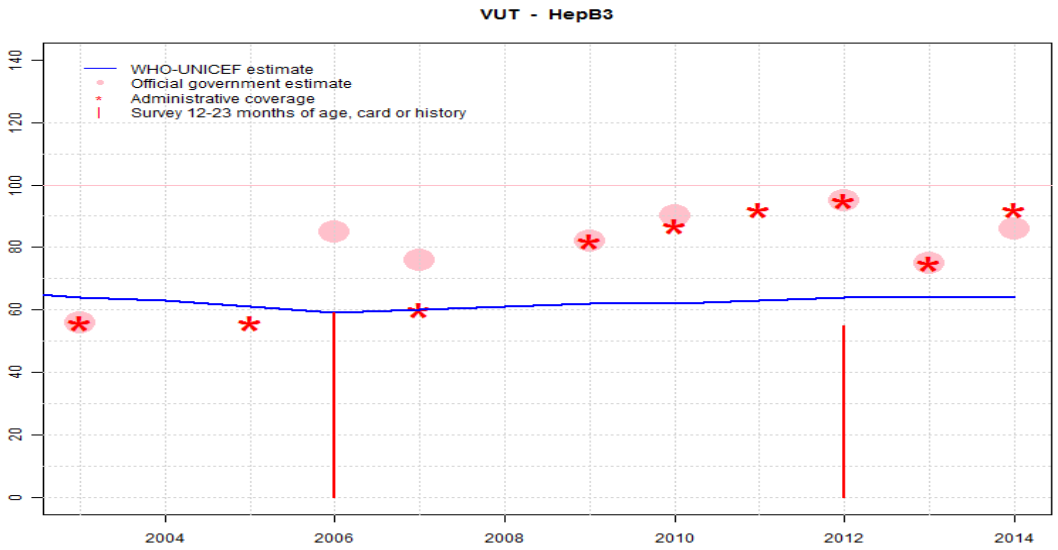
●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

● 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.

Although hepatitis birth dose is in the national immunization schedule, estimates for hepatitis birth dose are not provided due to insufficient information on doses administered within 24 hours

Vanuatu - HepB3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	64	63	61	59	60	61	62	62	63	64	64	64
Estimate GoC	•	••	•	•	••	•	•	•	•	•	•	•
Official	56	NA	NA	85	76	NA	82	90	NA	95	75	86
Administrative	56	NA	56	NA	60	NA	82	87	92	95	75	92
Survey	NA	NA	NA	59	NA	NA	NA	NA	NA	55	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: 2012 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:

2003: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: D-R-

2004: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. GoC=S+

2005: Estimate based on interpolation between 1997 and 2006 levels. Fluctuating and inconsistent data suggest poor reporting. Estimate challenged by: D-R-

2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 59 percent based on 1 survey(s). Estimate challenged by: R-

2007: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 60 percent changed from previous revision value of 59 percent. GoC=S+ D+

2008: Reported data calibrated to 2006 and 2012 levels. Estimate of 61 percent changed from previous revision value of 59 percent. Estimate challenged by: D-

2009: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 62 percent changed from previous revision value of 59 percent. Estimate challenged by: D-

2010: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Estimate of 62 percent changed from previous revision value of 59 percent. Estimate challenged by: D-

2011: Reported data calibrated to 2006 and 2012 levels. Reported data excluded. Estimate follows survey result. Vaccine presentation changed to DTP-HepB-Hib. Estimate of 63 percent changed from previous revision value of 59 percent. Estimate challenged by: D-

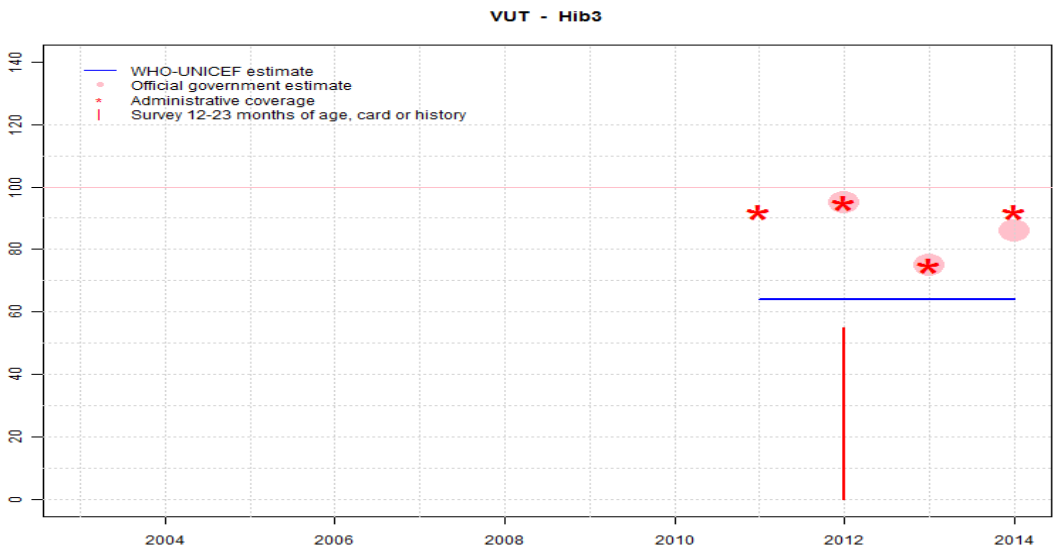
2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 64 percent based on 1 survey(s). Vanuatu Demographic and Health Survey 2013 card or history results of 55 percent modifed for recall bias to 64 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 56 percent and 3d dose card only coverage of 47 percent. Reported data excluded. Estimate follows survey result. Estimate of 64 percent changed from previous revision value of 59 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Estimate follows survey result.Reported data excluded. Decline in reported coverage from 95 percent to 75 percent with increase to 86 percent. Estimate of 64 percent changed from previous revision value of 59 percent. Estimate challenged by: D-

2014: Reported data calibrated to 2012 levels. Reported data excluded. Estimate

follows survey result. Estimate challenged by: D-

Vanuatu - Hib3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	64	64	64	64
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	95	75	86
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	92	95	75	92
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	55	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: 2012 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:

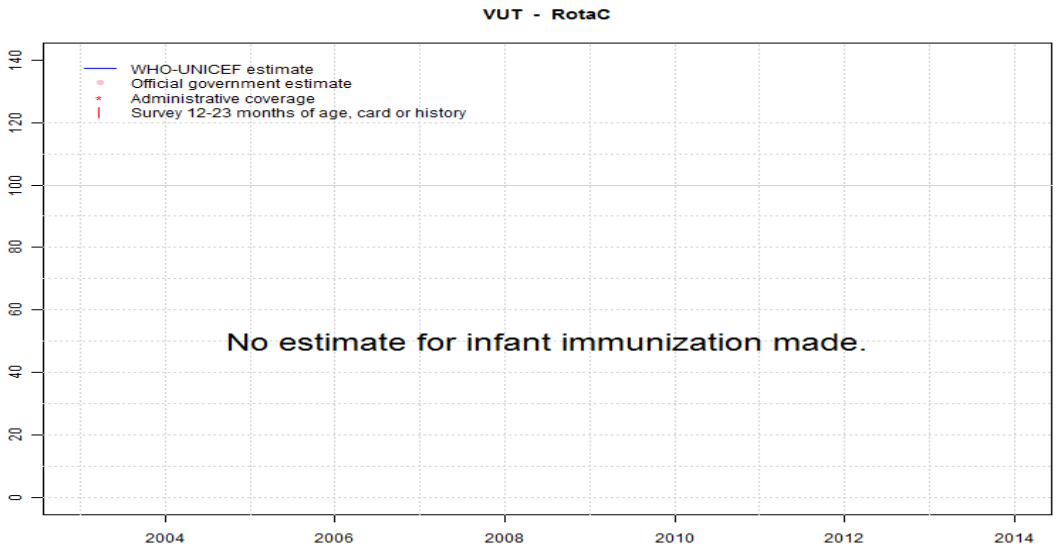
2011: Estimates based on DTP3 coverage. Reported data excluded. Estimate follows survey result. Hib vaccine was introduced in 2011. Vaccine presentation is DTP-HepB-Hib. Estimate of 64 percent changed from previous revision value of 68 percent. Estimate challenged by: D-R-

2012: Estimates based on DTP3 coverage. 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 3d dose card only coverage of 47 percent. Reported data excluded. Estimate follows survey result. Estimate of 64 percent changed from previous revision value of 68 percent. Estimate challenged by: D-R-

2013: Estimates based on DTP3 coverage. Reported data excluded. Estimate follows survey result.Reported data excluded. Decline in reported coverage from 95 percent to 75 percent with increase to 86 percent. Estimate of 64 percent changed from previous revision value of 68 percent. Estimate challenged by: D-R-

2014: Estimates based on DTP3 coverage. Reported data excluded. Estimate follows survey result. Estimate challenged by: D-R-

Vanuatu - RotaC



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
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: 2012 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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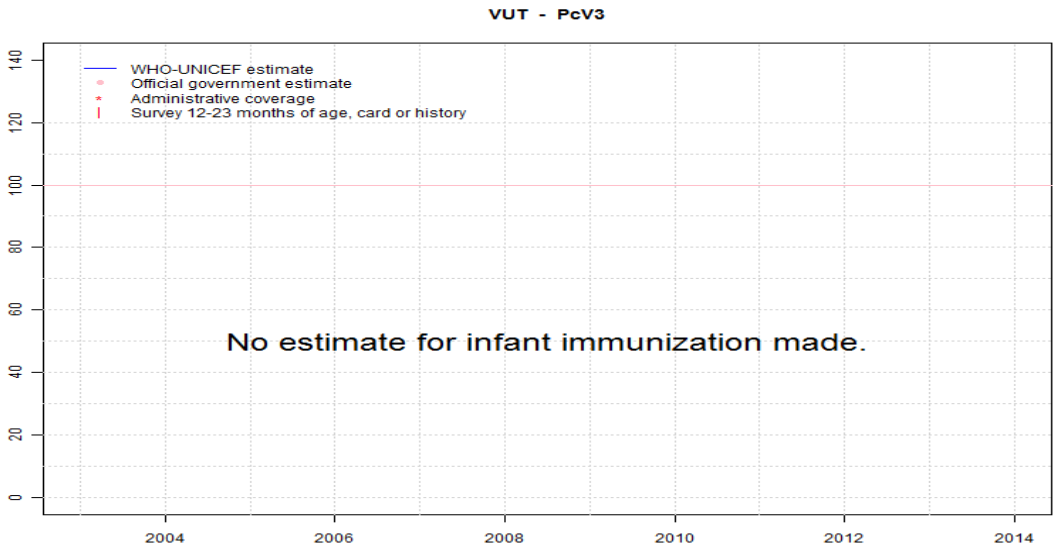
Vanuatu - PcV3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
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: 2012 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 - survey details

2012 Vanuatu Demographic and Health Survey 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	72	12-23 m	303	57
BCG	Card	51	12-23 m	174	57
BCG	Card or History	73	12-23 m	303	57
BCG	History	22	12-23 m	129	57
DTP1	C or H <12 months	75	12-23 m	303	57
DTP1	Card	56	12-23 m	174	57
DTP1	Card or History	76	12-23 m	303	57
DTP1	History	20	12-23 m	129	57
DTP3	C or H <12 months	49	12-23 m	303	57
DTP3	Card	47	12-23 m	174	57
DTP3	Card or History	55	12-23 m	303	57
DTP3	History	8	12-23 m	129	57
HepB1	C or H <12 months	75	12-23 m	303	57
HepB1	Card	56	12-23 m	174	57
HepB1	Card or History	76	12-23 m	303	57
HepB1	History	20	12-23 m	129	57
HepB3	C or H <12 months	49	12-23 m	303	57
HepB3	Card	47	12-23 m	174	57
HepB3	Card or History	55	12-23 m	303	57
HepB3	History	8	12-23 m	129	57
Hib1	C or H <12 months	75	12-23 m	303	57
Hib1	Card	56	12-23 m	174	57
Hib1	Card or History	76	12-23 m	303	57
Hib1	History	20	12-23 m	129	57
Hib3	C or H <12 months	49	12-23 m	303	57
Hib3	Card	47	12-23 m	174	57
Hib3	Card or History	55	12-23 m	303	57
Hib3	History	8	12-23 m	129	57
MCV1	C or H <12 months	12	12-23 m	303	57
MCV1	Card	35	12-23 m	174	57
MCV1	Card or History	53	12-23 m	303	57
MCV1	History	18	12-23 m	129	57
Pol1	C or H <12 months	73	12-23 m	303	57
Pol1	Card	55	12-23 m	174	57
Pol1	Card or History	74	12-23 m	303	57
Pol1	History	18	12-23 m	129	57
Pol3	C or H <12 months	45	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	4	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	12-23 m	359	69
BCG	Card	68	12-23 m	359	69
BCG	Card or History	81	12-23 m	359	69
BCG	History	13	12-23 m	359	69
DTP1	C or H <12 months	74	12-23 m	359	69
DTP1	Card	67	12-23 m	359	69
DTP1	Card or History	78	12-23 m	359	69
DTP1	History	11	12-23 m	359	69
DTP3	C or H <12 months	58	12-23 m	359	69
DTP3	Card	58	12-23 m	359	69
DTP3	Card or History	63	12-23 m	359	69
DTP3	History	5	12-23 m	359	69
HepB1	C or H <12 months	65	12-23 m	359	69
HepB1	Card	66	12-23 m	359	69
HepB1	Card or History	66	12-23 m	359	69
HepB1	History	0	12-23 m	359	69
HepB3	C or H <12 months	55	12-23 m	359	69
HepB3	Card	59	12-23 m	359	69
HepB3	Card or History	59	12-23 m	359	69
HepB3	History	0	12-23 m	359	69
MCV1	C or H <12 months	37	12-23 m	359	69
MCV1	Card	44	12-23 m	359	69
MCV1	Card or History	52	12-23 m	359	69
MCV1	History	9	12-23 m	359	69
Pol1	C or H <12 months	76	12-23 m	359	69
Pol1	Card	66	12-23 m	359	69
Pol1	Card or History	78	12-23 m	359	69
Pol1	History	12	12-23 m	359	69
Pol3	C or H <12 months	55	12-23 m	359	69
Pol3	Card	57	12-23 m	359	69
Pol3	Card or History	61	12-23 m	359	69
Pol3	History	4	12-23 m	359	69

Vanuatu - survey details

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

Vanuatu
WHO/UNICEF Estimates of Protection at Birth (PAB) against tetanus

In countries where tetanus is recommended for girls and women coverage is usually reported as "TT2+", i.e. the proportion of (pregnant) women who have received their second or superior TT dose in a given year. TT2 + coverage, however, can under-represent the actual proportion of births that are protected against tetanus as it does not include women who have previously received protective doses, women who received one dose without documentation of previous doses, and women who received doses in TT (or Td) supplemental immunization activities (SIA). In addition, girls who have received DTP in their childhood and are entering childbearing age, may be protected with TT booster doses.

WHO and UNICEF have developed a model that takes into account the above scenarios, and calculates the proportion of births in a given year that can be considered as having been protected against tetanus - "Protection at Birth".

In this model, annual cohorts of women are followed from infancy through their life. A proportion receives DTP in infancy (estimated based on the WHO-UNICEF estimates of DTP3 coverage). In addition some of these women also receive TT through routine services when they are pregnant and may also receive TT during SIAs. The model also adjusts reported data, taking into account coverage patterns in other years, and/or results available through surveys. The duration of protection is then calculated, based on WHO estimates of the duration of protection by doses ever received. The proportion of births that are protected against tetanus as a result of maternal immunization reflects the tetanus immunization received by the mother throughout her life rather than simply the TT immunizations received during the current pregnancy.

The model was used in the mid to late 2000. Currently, the coverage series developed by the model is used as the baseline, and efforts are made to obtain data from all sources that include the JRF and reported trend over the years, routine PAB reporting and its trend over the years, data from surveys (DHS, MICS, EPI), whether countries have been validated for the attainment of maternal and neonatal tetanus elimination and what the TT coverage figures are from the survey etc and all the information is used to arrive at an estimate of the protection-at-birth from TT vaccination.

Year	PAB coverage estimate (%)
2003	77
2004	78
2005	84
2006	88
2007	73
2008	73
2009	73
2010	73
2011	75
2012	75
2013	75
2014	75

[1] This model is described in: Griffiths U., Wolfson L., Quddus A., Younus M., Hafiz R.. Incremental cost-effectiveness of supplementary immunization activities to prevent neo-natal tetanus in Pakistan. Bulletin of the World Health Organization 2004; 82:643-651.