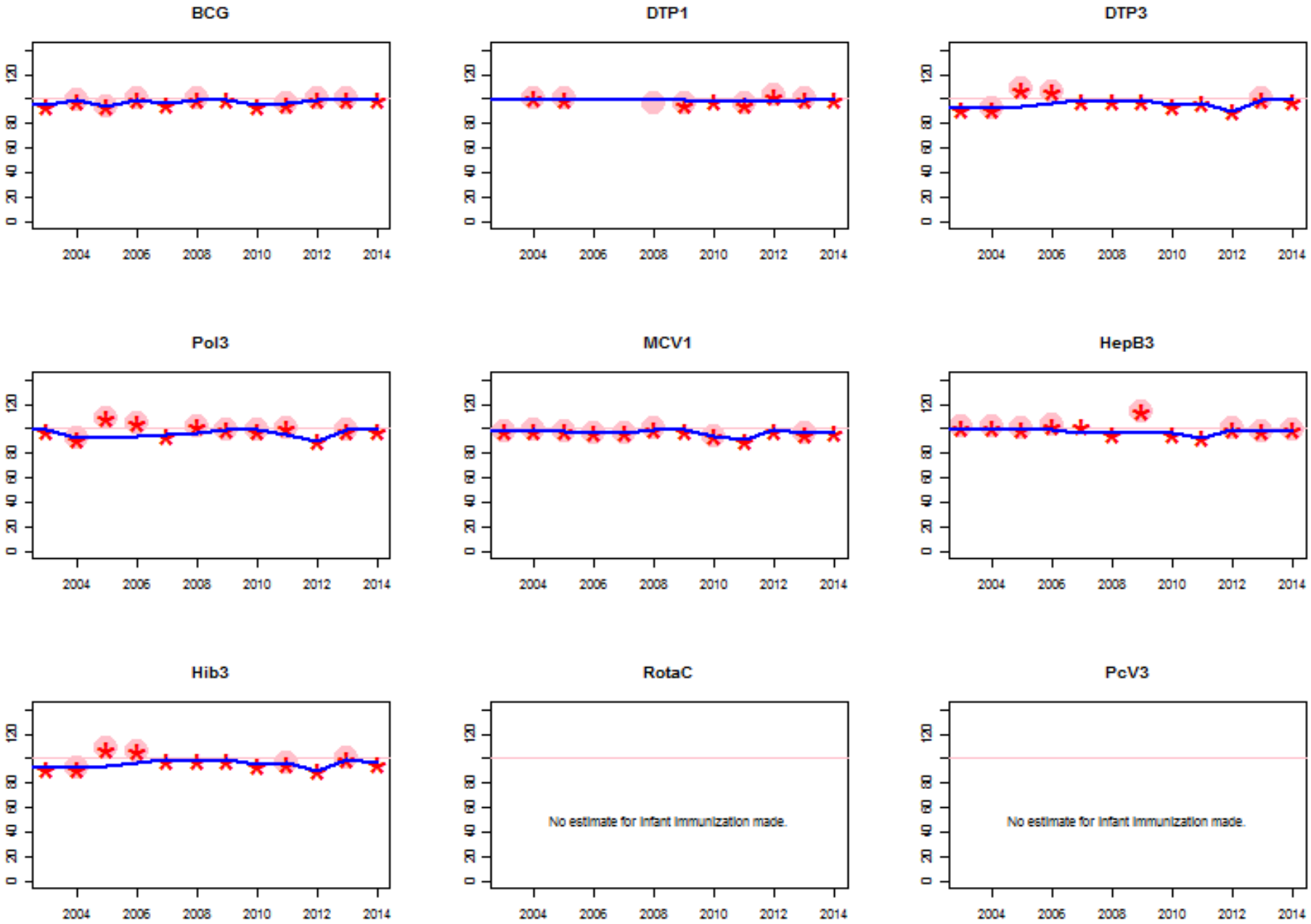
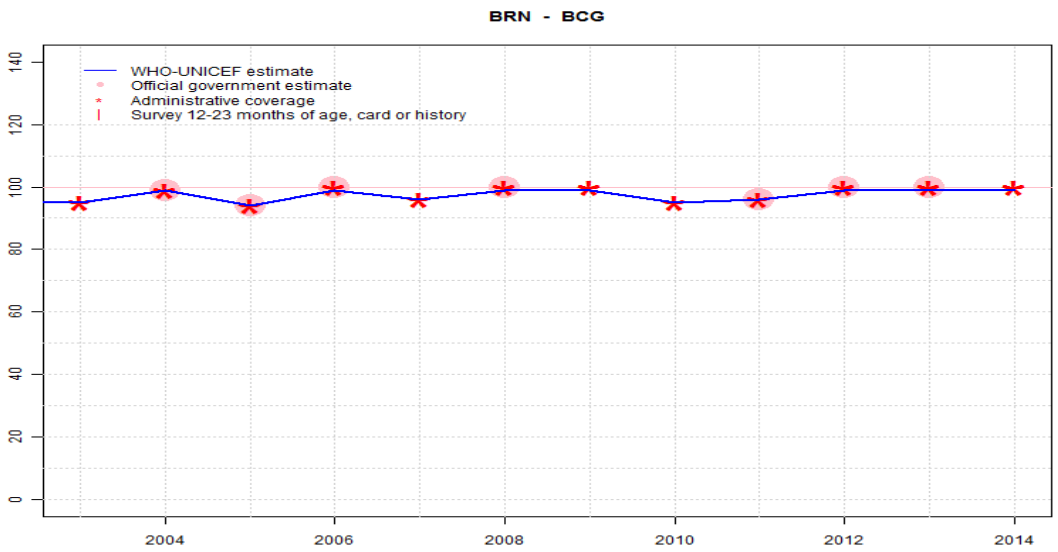

BCG
DTP1
DTP3
Pol3
MCV1
HepB3
Hib3
RotaC
PcV3
No estimate for infant immunization made.
No estimate for infant immunization made.
0
20
40
60
80
120
2004
2006
2008
2010
2012
2014

Brunei Darussalam - BCG



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	95	99	94	99	96	99	99	95	96	99	99	99
Estimate GoC	●●	●●	●●	●●	●●	●	●●	●●	●●	●●	●●	●●
Official	NA	99	94	100	NA	100	NA	NA	96	100	100	NA
Administrative	95	99	94	100	96	100	100	95	96	100	100	100
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.

Description:

2003: Estimate based on reported administrative data. GoC=R+

2004: Estimate based on coverage reported by national government. GoC=R+ D+

2005: Estimate based on coverage reported by national government. GoC=R+ D+

2006: Estimate based on coverage reported by national government. GoC=R+

2007: Estimate based on reported administrative data. GoC=R+

2008: Estimate based on coverage reported by national government. Estimate challenged by: D-

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

2010: Estimate based on reported administrative data. GoC=R+ D+

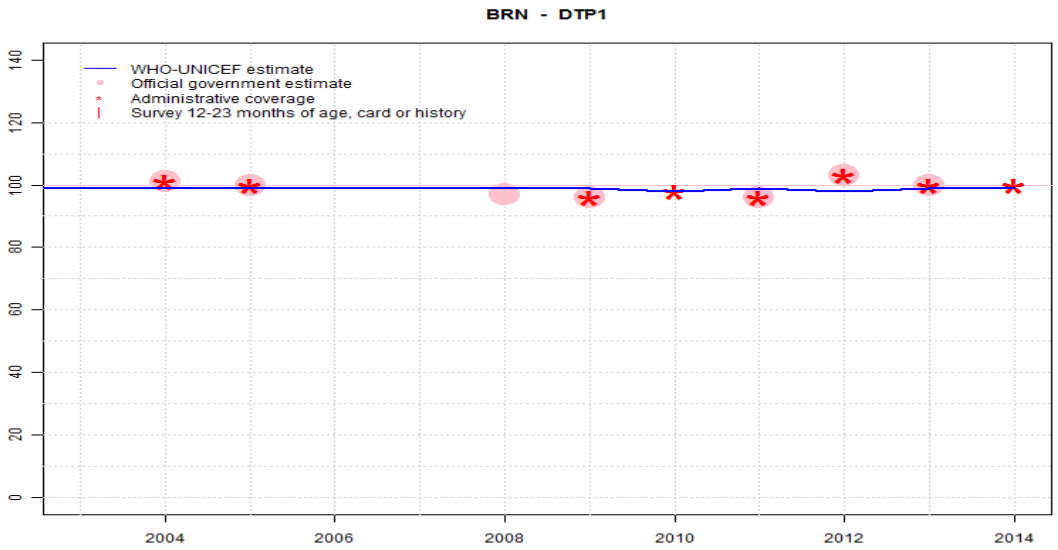
2011: Estimate based on coverage reported by national government. GoC=R+ D+

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

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

2014: Estimate based on reported administrative data. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+

Brunei Darussalam - DTP1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	99	99	99	99	99	99	99	98	99	98	99	99
Estimate GoC	•	••	••	•	•	•	•	••	•	••	••	••
Official	NA	101	100	NA	NA	97	96	NA	96	103	100	NA
Administrative	NA	101	100	NA	NA	NA	96	98	96	103	100	100
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.

Description:

2003: Estimate based on interpolation between data reported by national government. GoC=No accepted empirical data

2004: Estimate based on interpolation between data reported by national government. Reported data excluded. 101 percent greater than 100 percent. GoC=D+

2005: Estimate based on coverage reported by national government. GoC=R+ D+

2006: Estimate based on interpolation between data reported by national government. GoC=No accepted empirical data

2007: DTP1 coverage estimated based on DTP3 coverage of 99. GoC=No accepted empirical data

2008: DTP1 coverage estimated based on DTP3 coverage of 98. Estimate challenged by: D-R-

2009: DTP1 coverage estimated based on DTP3 coverage of 99. Estimate challenged by: R-

2010: Estimate based on reported administrative data. GoC=R+ D+

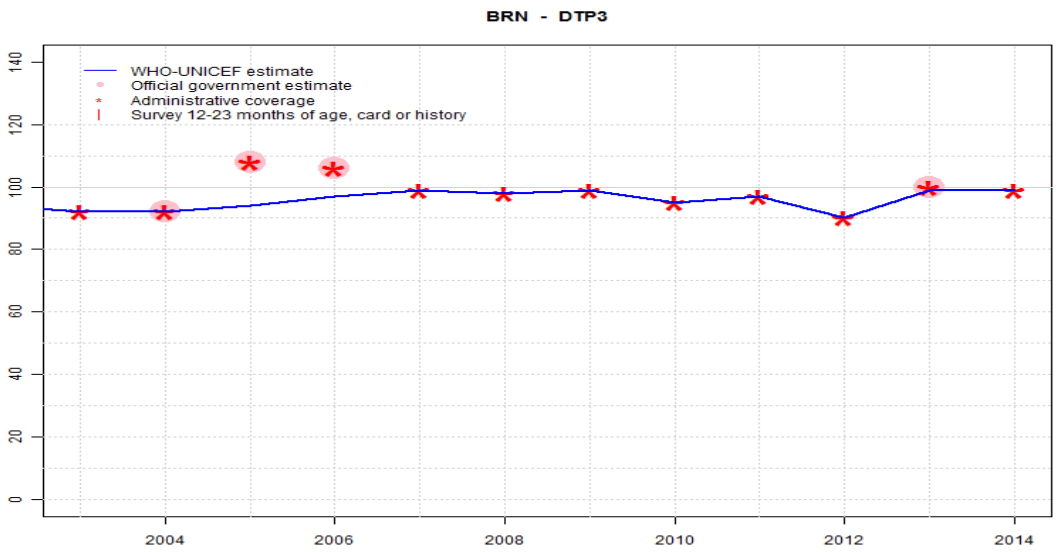
2011: DTP1 coverage estimated based on DTP3 coverage of 97. Estimate challenged by: R-

2012: Estimate based on interpolation between data reported by national government. Reported data excluded. 103 percent greater than 100 percent. Estimate of 98 percent changed from previous revision value of 96 percent. GoC=D+

2013: Estimate based on coverage reported by national government. Estimate of 99 percent changed from previous revision value of 96 percent. GoC=R+

2014: Estimate based on reported administrative data. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+

Brunei Darussalam - DTP3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	92	92	94	97	99	98	99	95	97	90	99	99
Estimate GoC	●●	●●	●	●	●●	●	●●	●●	●●	●●	●●	●●
Official	NA	92	108	106	NA	NA	NA	NA	NA	NA	100	NA
Administrative	92	92	108	106	99	98	99	95	97	90	100	99
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.

Description:

2003: Estimate based on reported administrative data. GoC=R+

2004: Estimate based on coverage reported by national government. GoC=R+ D+

2005: Estimate based on interpolation between data reported by national government. Reported data excluded. 108 percent greater than 100 percent. Estimate challenged by: D-

2006: Estimate based on interpolation between data reported by national government. Reported data excluded. 106 percent greater than 100 percent. GoC=No accepted empirical data

2007: Estimate based on reported administrative data. GoC=R+

2008: Estimate based on reported administrative data. Estimate challenged by: D-

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

2010: Estimate based on reported administrative data. GoC=R+ D+

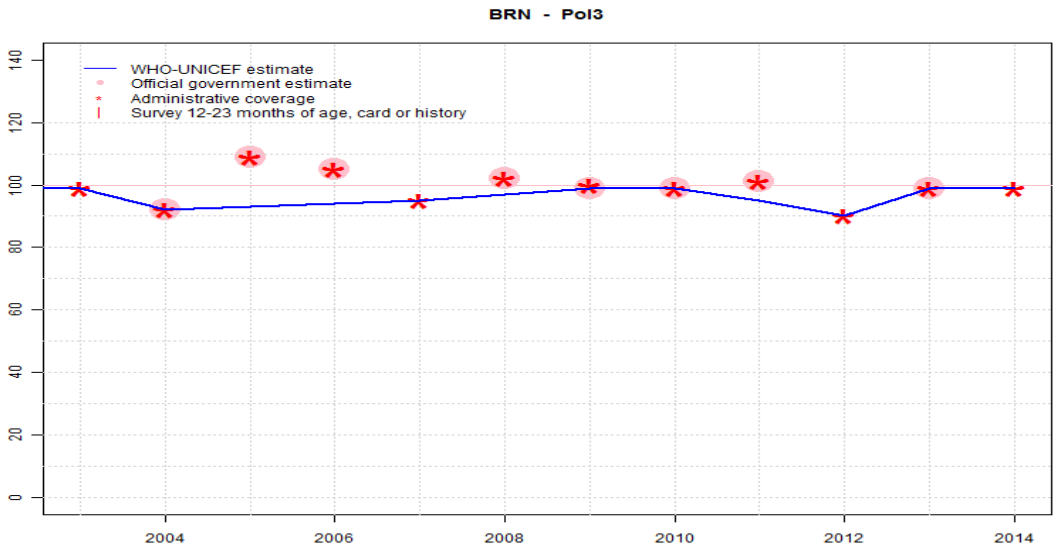
2011: Estimate based on reported administrative data. GoC=R+ D+

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

2013: Estimate based on coverage reported by national government. Estimate of 99 percent changed from previous revision value of 90 percent. GoC=R+

2014: Estimate based on reported administrative data. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+

Brunei Darussalam - Pol3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	99	92	93	94	95	97	99	99	95	90	99	99
Estimate GoC	●●	●●	●	●	●●	●●	●●	●●	●●	●●	●●	●●
Official	NA	92	109	105	NA	102	99	99	101	NA	99	NA
Administrative	99	92	109	105	95	102	100	99	101	90	99	99
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.

Description:

2003: Estimate based on reported administrative data. GoC=R+

2004: Estimate based on coverage reported by national government. GoC=R+ D+

2005: Estimate based on interpolation between data reported by national government. Reported data excluded. 109 percent greater than 100 percent. Estimate challenged by: D-

2006: Estimate based on interpolation between data reported by national government. Reported data excluded. 105 percent greater than 100 percent. GoC=No accepted empirical data

2007: Estimate based on reported administrative data. GoC=R+

2008: Estimate based on interpolation between data reported by national government. Reported data excluded. 102 percent greater than 100 percent. GoC=D+

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

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

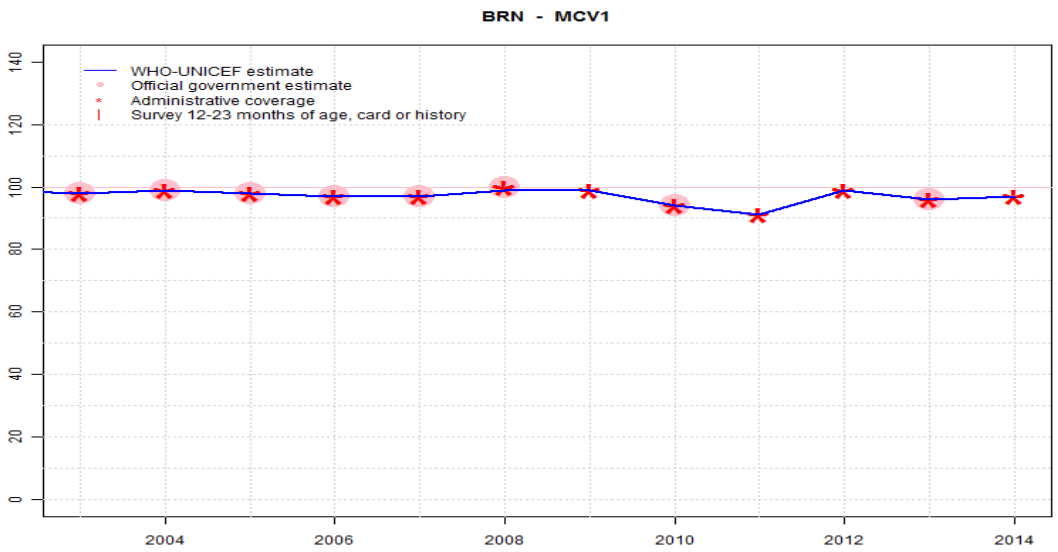
2011: Estimate based on interpolation between data reported by national government. Reported data excluded. 101 percent greater than 100 percent. GoC=D+

2012: Estimate based on reported administrative data. Decline may be due to 10 months vaccine shortage. GoC=R+ D+

2013: Estimate based on coverage reported by national government. Estimate of 99 percent changed from previous revision value of 90 percent. GoC=R+

2014: Estimate based on reported administrative data. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+

Brunei Darussalam - MCV1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	98	99	98	97	97	99	99	94	91	99	96	97
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●
Official	98	99	98	97	97	100	NA	94	NA	NA	96	NA
Administrative	98	99	98	97	97	100	99	94	91	99	96	97
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

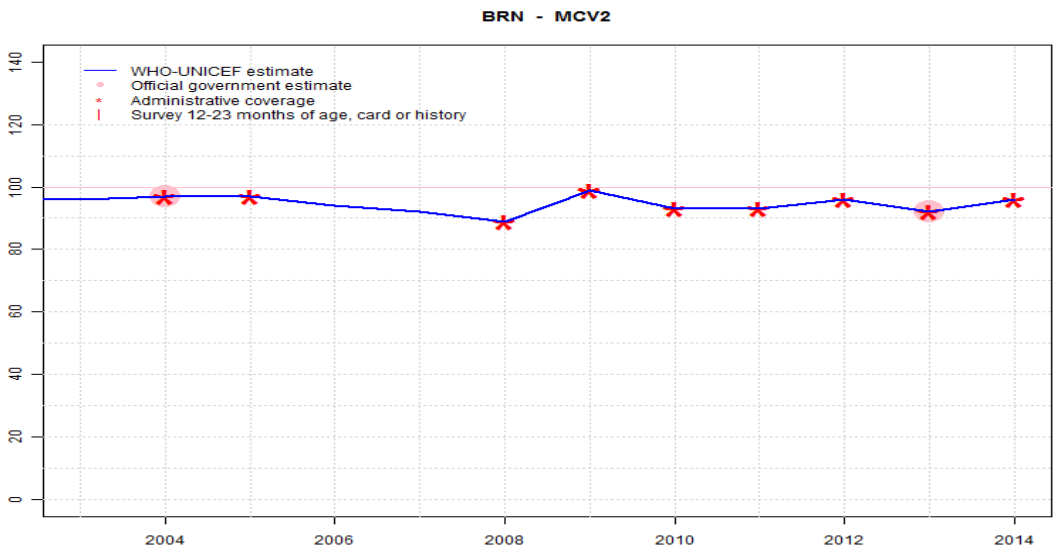
● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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 coverage reported by national government. GoC=R+
2004: Estimate based on coverage reported by national government. GoC=R+
2005: Estimate based on coverage reported by national government. GoC=R+ D+
2006: Estimate based on coverage reported by national government. GoC=R+
2007: Estimate based on coverage reported by national government. GoC=R+
2008: Estimate based on coverage reported by national government. GoC=R+ D+
2009: Estimate based on reported administrative data. GoC=R+ D+
2010: Estimate based on coverage reported by national government. GoC=R+ D+
2011: Estimate based on reported administrative data. GoC=R+ D+
2012: Estimate based on reported administrative data. GoC=R+ D+
2013: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 99 percent. GoC=R+
2014: Estimate based on reported administrative data. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+

Brunei Darussalam - MCV2



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	96	97	97	94	92	89	99	93	93	96	92	96
Estimate GoC	•	••	••	•	•	••	••	••	••	••	••	••
Official	NA	97	NA	NA	NA	NA	NA	NA	NA	NA	92	NA
Administrative	NA	97	97	NA	NA	89	99	93	93	96	92	96
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.

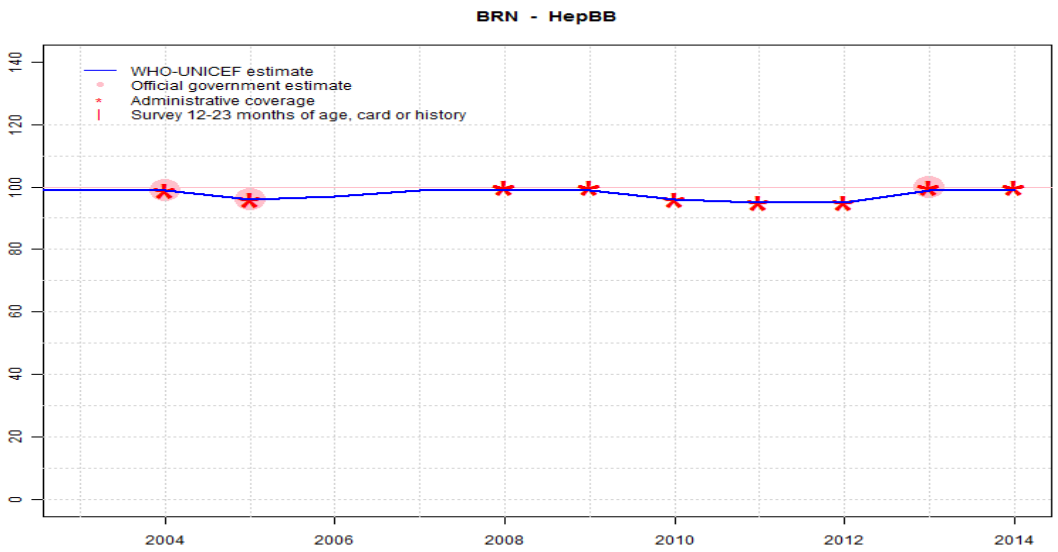
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

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

2003: Estimate based on interpolation between reported values. GoC=No accepted empirical data
2004: Estimate based on coverage reported by national government. GoC=R+ D+
2005: Estimate based on reported administrative estimate. GoC=R+ D+
2006: Estimate based on interpolation between reported values. GoC=No accepted empirical data
2007: Estimate based on interpolation between reported values. GoC=No accepted empirical data
2008: Estimate based on reported administrative estimate. GoC=R+ D+
2009: Estimate based on reported administrative estimate. GoC=R+ D+
2010: Estimate based on reported administrative estimate. GoC=R+ D+
2011: Estimate based on reported administrative estimate. GoC=R+ D+
2012: Estimate based on reported administrative estimate. GoC=R+ D+
2013: Estimate based on coverage reported by national government. Estimate of 92 percent changed from previous revision value of 96 percent. GoC=R+
2014: Estimate based on reported administrative estimate. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Second dose recommended at 18 months of age from 2014. GoC=R+ D+

Brunei Darussalam - HepBB



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	99	99	96	97	99	99	99	96	95	95	99	99
Estimate GoC	•	••	••	•	•	•	••	••	••	••	••	••
Official	NA	99	96	NA	NA	NA	NA	NA	NA	NA	100	NA
Administrative	NA	99	96	NA	NA	100	100	96	95	95	100	100
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.

Description:

2003: Estimate based on interpolation between reported values. GoC=No accepted empirical data

2004: Estimate based on coverage reported by national government. GoC=R+ D+

2005: Estimate based on coverage reported by national government. GoC=R+ D+

2006: Estimate based on interpolation between reported values. GoC=No accepted empirical data

2007: Estimate based on interpolation between reported values. GoC=No accepted empirical data

2008: Estimate based on reported administrative estimate. Estimate challenged by: D-

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

2010: Estimate based on reported administrative estimate. GoC=R+ D+

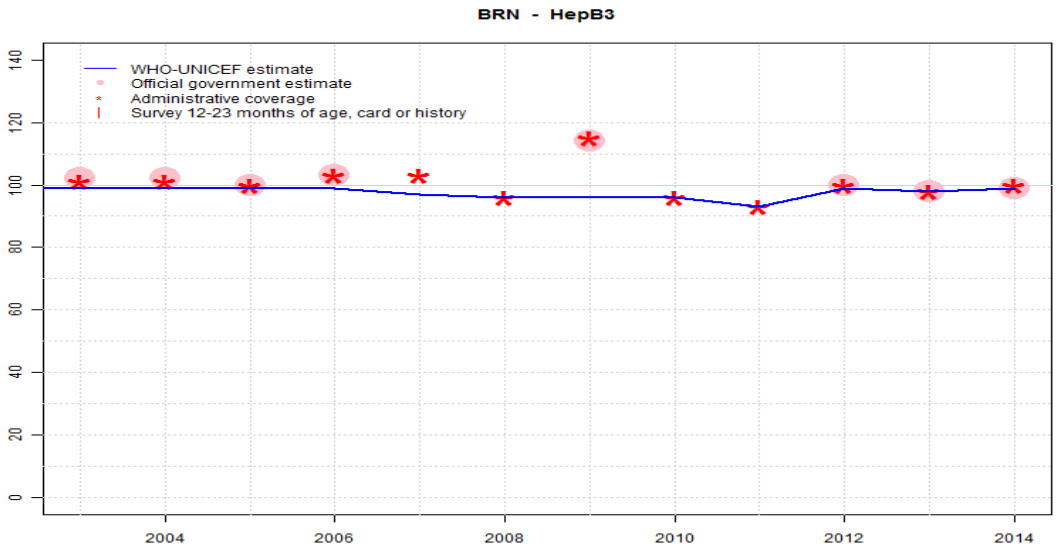
2011: Estimate based on reported administrative estimate. GoC=R+ D+

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

2013: Estimate based on coverage reported by national government. Estimate of 99 percent changed from previous revision value of 95 percent. GoC=R+

2014: Estimate based on reported administrative estimate. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+

Brunei Darussalam - HepB3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	99	99	99	99	97	96	96	96	93	99	98	99
Estimate GoC	•	••	••	•	•	•	•	••	••	••	••	••
Official	102	102	100	103	NA	NA	114	NA	NA	100	98	99
Administrative	101	101	100	103	103	96	115	96	93	100	98	100
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.

Description:

2003: Estimate based on interpolation between data reported by national government. Reported data excluded. 102 percent greater than 100 percent. GoC=No accepted empirical data

2004: Estimate based on interpolation between data reported by national government. Reported data excluded. 102 percent greater than 100 percent. GoC=D+

2005: Estimate based on coverage reported by national government. GoC=R+ D+

2006: Estimate based on interpolation between data reported by national government. Reported data excluded. 103 percent greater than 100 percent. GoC=No accepted empirical data

2007: Estimate based on interpolation between data reported by national government. Reported data excluded. 103 percent greater than 100 percent. GoC=No accepted empirical data

2008: Estimate based on reported administrative data. Estimate challenged by: D-

2009: Estimate based on interpolation between data reported by national government. Reported data excluded. 114 percent greater than 100 percent. Reported data excluded. Unexplained increase from 96 percent to 114 percent with decrease 96 percent. Estimate challenged by: D-

2010: Estimate based on reported administrative data. GoC=R+ D+

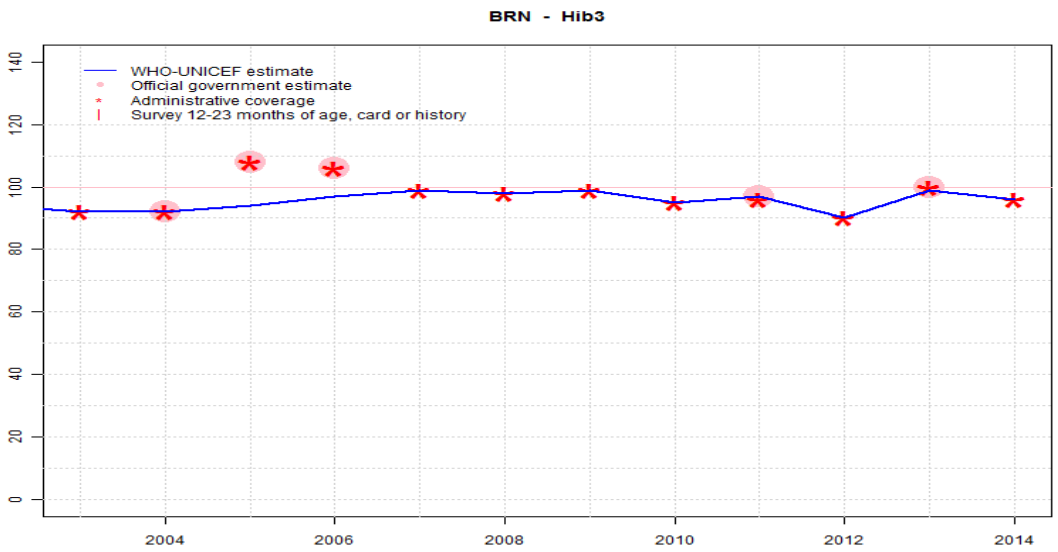
2011: Estimate based on reported administrative data. GoC=R+ D+

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

2013: Estimate based on coverage reported by national government. Estimate of 98 percent changed from previous revision value of 99 percent. GoC=R+

2014: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+

Brunei Darussalam - Hib3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	92	92	94	97	99	98	99	95	97	90	99	96
Estimate GoC	●●	●●	●	●	●●	●	●●	●●	●●	●●	●●	●●
Official	NA	92	108	106	NA	NA	NA	NA	97	NA	100	NA
Administrative	92	92	108	106	99	98	99	95	96	90	100	96
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.

Description:

2003: Estimate based on reported administrative estimate. GoC=R+

2004: Estimate based on coverage reported by national government. GoC=R+ D+

2005: Estimate based on interpolation between reported values. Reported data excluded. 108 percent greater than 100 percent. Estimate challenged by: D-

2006: Estimate based on interpolation between reported values. Reported data excluded. 106 percent greater than 100 percent. GoC=No accepted empirical data

2007: Estimate based on reported administrative estimate. GoC=R+

2008: Estimate based on reported administrative estimate. Estimate challenged by: D-

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

2010: Estimate based on reported administrative estimate. GoC=R+ D+

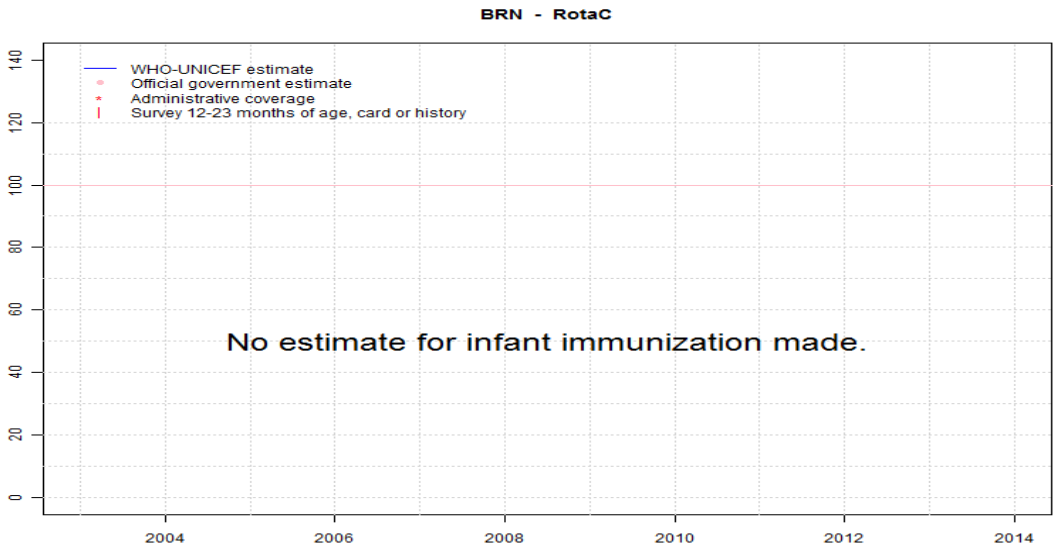
2011: Estimate based on coverage reported by national government. GoC=R+ D+

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

2013: Estimate based on coverage reported by national government. Estimate of 99 percent changed from previous revision value of 90 percent. GoC=R+

2014: Estimate based on reported administrative estimate. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+

Brunei Darussalam - 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.

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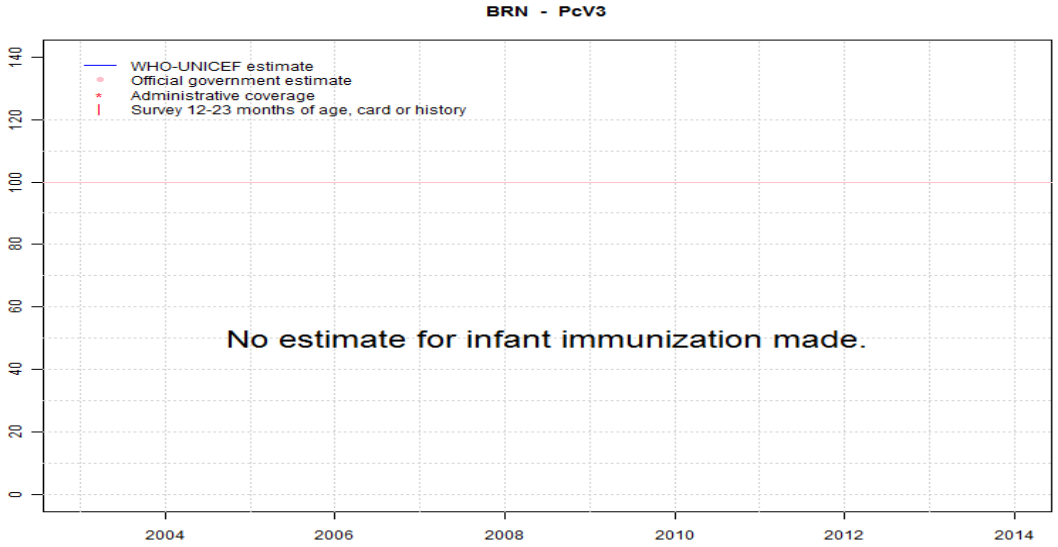
● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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.

Brunei Darussalam - 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.

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

Brunei Darussalam

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	80
2004	68
2005	64
2006	64
2007	64
2008	65
2009	65
2010	95
2011	95
2012	95
2013	95
2014	95

[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.