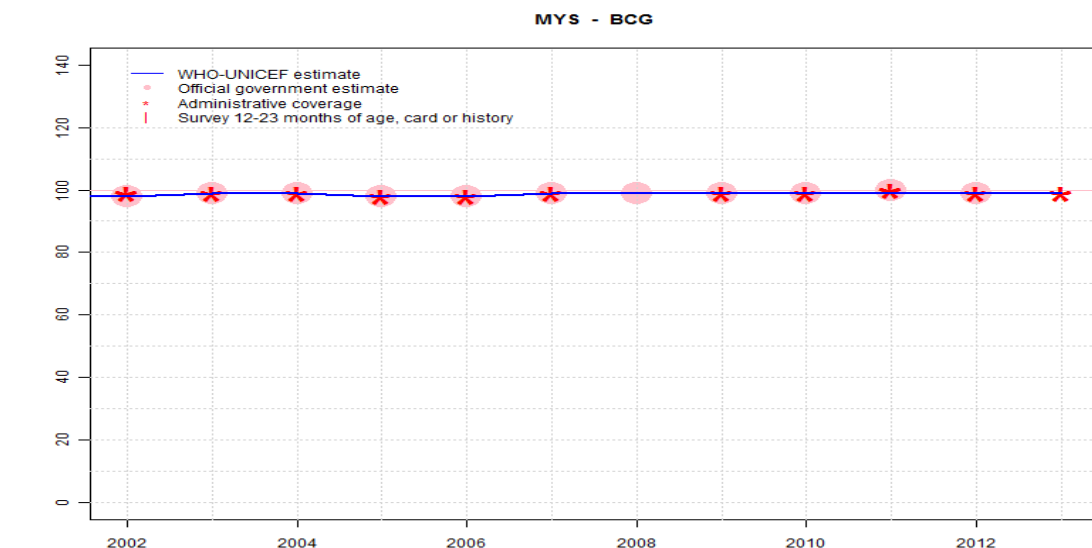


Malaysia - BCG



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	98	99	99	98	98	99	99	99	99	99	99	99
Estimate GoC	●●	●●	●●	●	●	●	●●	●●	●●	●●	●●	●●
Official	98	99	99	98	98	99	99	99	99	100	99	NA
Administrative	99	99	99	98	98	99	NA	99	99	100	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.

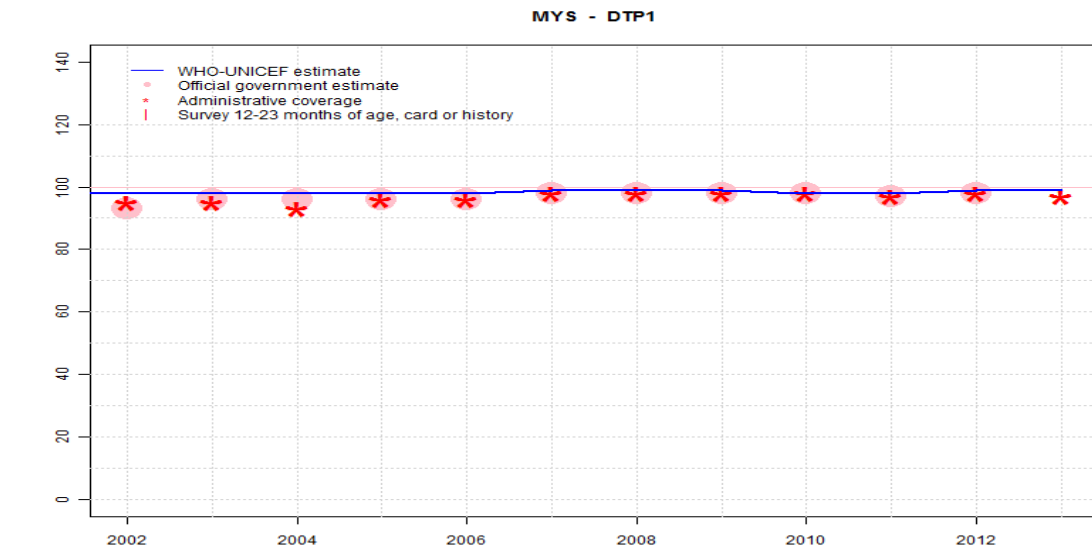
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2002: Estimate based on coverage reported by national government. Estimate of 98 percent changed from previous revision value of 99 percent. GoC=R+
- 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. Estimate of 98 percent changed from previous revision value of 99 percent. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. Estimate of 98 percent changed from previous revision value of 99 percent. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. Estimate of 99 percent changed from previous revision value of 90 percent. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate of 99 percent changed from previous revision value of 98 percent. GoC=R+
- 2009: Estimate based on coverage reported by national government. Estimate of 99 percent changed from previous revision value of 98 percent. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. 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 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+

Malaysia - DTP1



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	98	98	98	98	98	99	99	99	98	98	99	99
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	93	96	96	96	96	98	98	98	98	97	98	NA
Administrative	95	95	93	96	96	98	98	98	98	97	98	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.

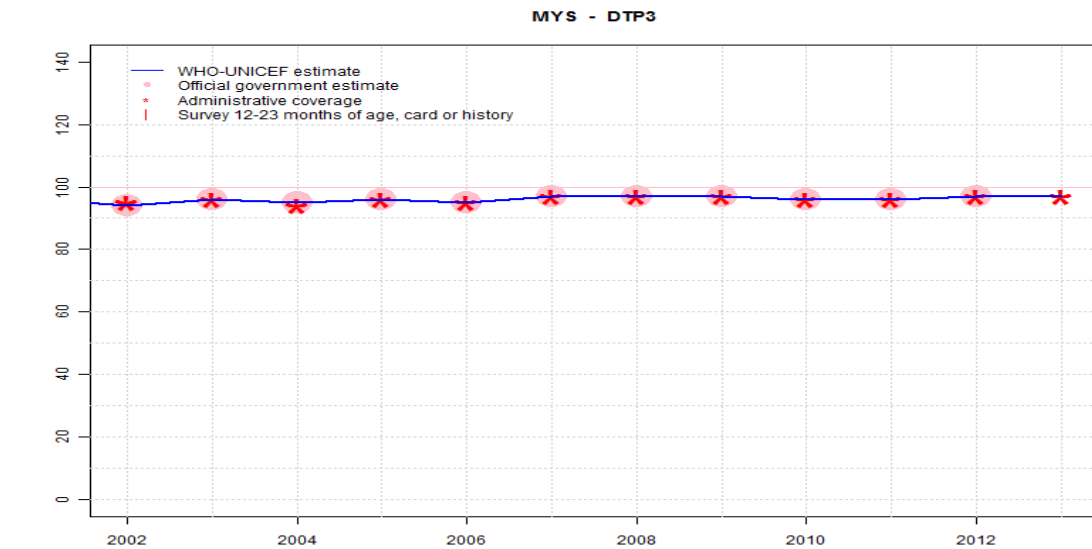
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2002: DTP1 coverage estimated based on DTP3 coverage of 94. Estimate challenged by: R-
- 2003: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 96 percent. Estimate challenged by: R-
- 2004: DTP1 coverage estimated based on DTP3 coverage of 95. Estimate of 98 percent changed from previous revision value of 96 percent. Estimate challenged by: R-
- 2005: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 96 percent. Estimate challenged by: R-
- 2006: DTP1 coverage estimated based on DTP3 coverage of 95. Estimate of 98 percent changed from previous revision value of 96 percent. Estimate challenged by: R-
- 2007: DTP1 coverage estimated based on DTP3 coverage of 97. Estimate of 99 percent changed from previous revision value of 90 percent. Estimate challenged by: R-
- 2008: DTP1 coverage estimated based on DTP3 coverage of 97. Estimate of 99 percent changed from previous revision value of 96 percent. Estimate challenged by: R-
- 2009: DTP1 coverage estimated based on DTP3 coverage of 97. Estimate of 99 percent changed from previous revision value of 95 percent. Estimate challenged by: R-
- 2010: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate challenged by: R-
- 2011: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 99 percent. Estimate challenged by: R-
- 2012: DTP1 coverage estimated based on DTP3 coverage of 97. Estimate challenged by: R-
- 2013: DTP1 coverage estimated based on DTP3 coverage of 97. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: R-

Malaysia - DTP3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	94	96	95	96	95	97	97	97	96	96	97	97
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	••
Official	94	96	95	96	95	97	97	97	96	96	97	NA
Administrative	95	96	94	96	95	97	97	97	96	96	97	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.

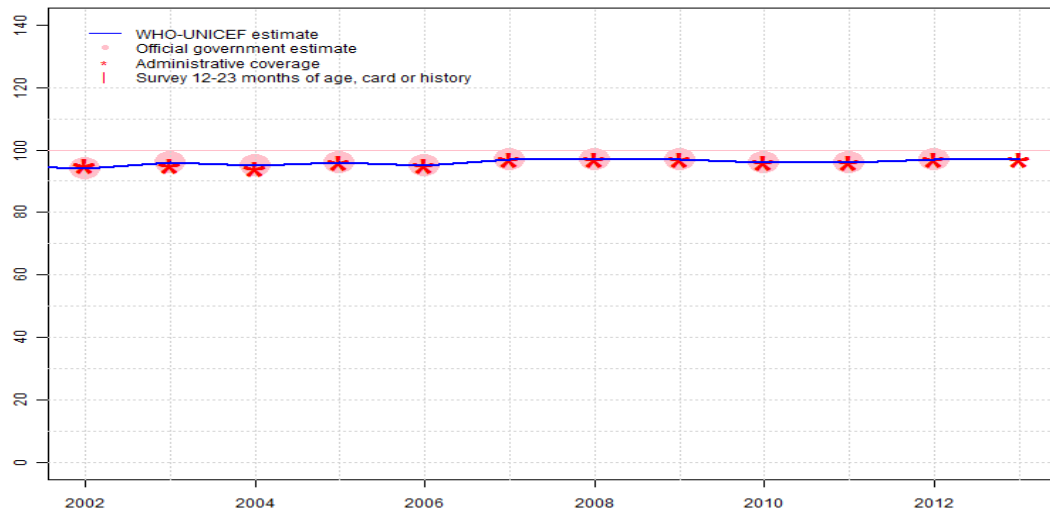
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2002: Estimate based on coverage reported by national government. Estimate of 94 percent changed from previous revision value of 96 percent. GoC=R+ D+
- 2003: Estimate based on coverage reported by national government. GoC=R+ D+
- 2004: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 94 percent. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 95 percent. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 90 percent. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. Estimate of 97 percent changed from previous revision value of 90 percent. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Estimate of 97 percent changed from previous revision value of 96 percent. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. Estimate of 97 percent changed from previous revision value of 95 percent. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 94 percent. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 99 percent. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. Estimate of 97 percent changed from previous revision value of 99 percent. GoC=R+ D+
- 2013: 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+

Malaysia - Pol3

MYS - Pol3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	94	96	95	96	95	97	97	97	96	96	97	97
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	••
Official	94	96	95	96	95	97	97	97	96	96	97	NA
Administrative	95	95	94	96	95	97	97	97	96	96	97	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.

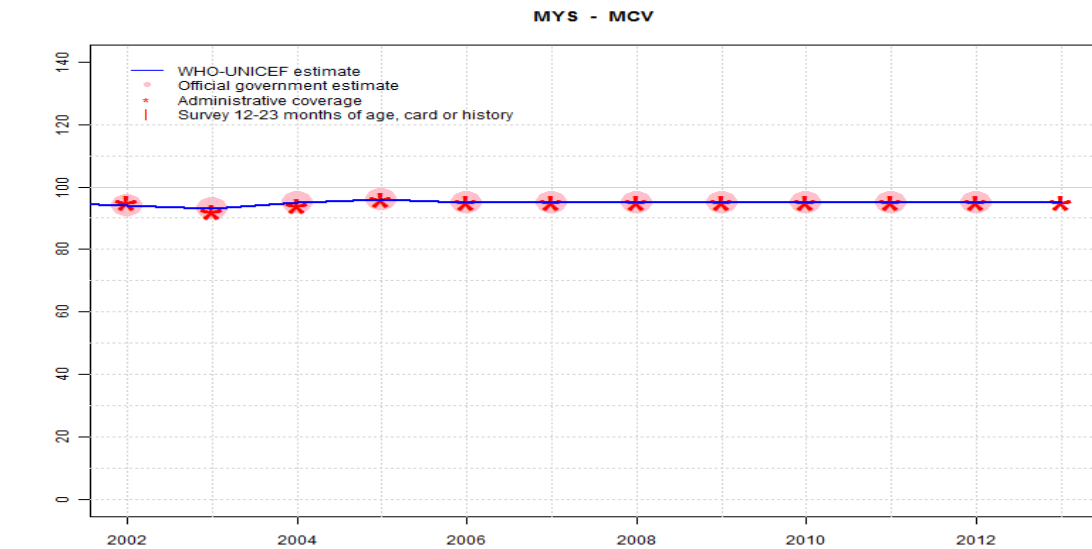
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2002: Estimate based on coverage reported by national government. Estimate of 94 percent changed from previous revision value of 95 percent. GoC=R+ D+
- 2003: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 93 percent. GoC=R+ D+
- 2004: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 94 percent. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 96 percent. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. Estimate of 97 percent changed from previous revision value of 90 percent. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Estimate of 97 percent changed from previous revision value of 96 percent. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. Estimate of 97 percent changed from previous revision value of 95 percent. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 94 percent. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 99 percent. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. Estimate of 97 percent changed from previous revision value of 99 percent. GoC=R+ D+
- 2013: 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+

Malaysia - MCV



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	94	93	95	96	95	95	95	95	95	95	95	95
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	••
Official	94	93	95	96	95	95	95	95	95	95	95	NA
Administrative	95	92	94	96	95	95	95	95	95	95	95	95
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.

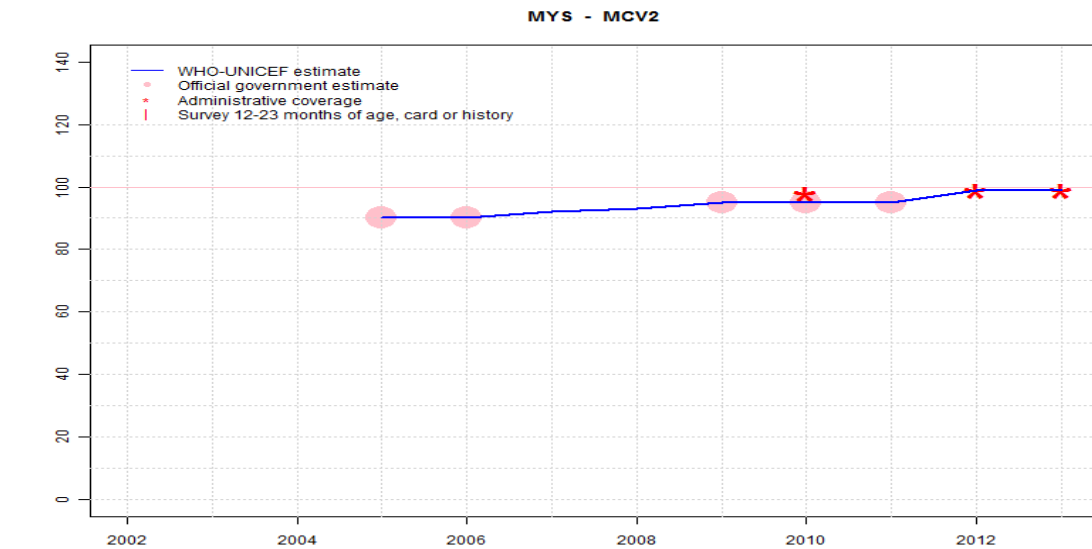
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2002: Estimate based on coverage reported by national government. Estimate of 94 percent changed from previous revision value of 92 percent. GoC=R+ D+
- 2003: Estimate based on coverage reported by national government. Estimate of 93 percent changed from previous revision value of 94 percent. GoC=R+ D+
- 2004: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 92 percent. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 90 percent. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 90 percent. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 94 percent. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 96 percent. 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 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+

Malaysia - MCV2



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	90	90	92	93	95	95	95	99	99
Estimate GoC	NA	NA	NA	●●	●●	●	●	●●	●●	●●	●●	●
Official	NA	NA	NA	90	90	NA	NA	95	95	95	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	98	NA	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.

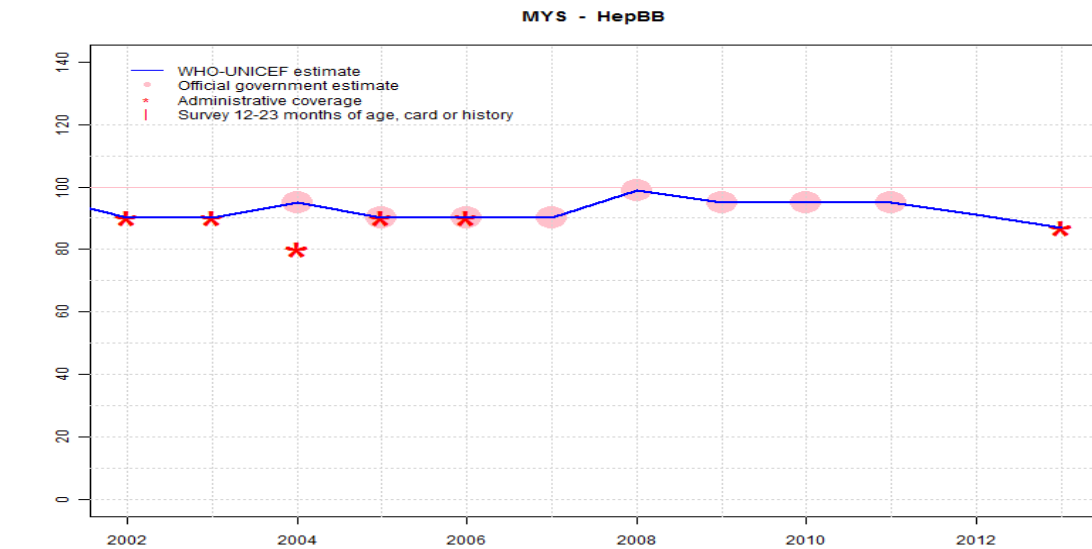
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

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

- 2005: Estimate based on coverage reported by national government. GoC=R+
2006: Estimate based on coverage reported by national government. GoC=R+
2007: Estimate based on interpolation between reported values. GoC=No accepted empirical data
2008: Estimate based on interpolation between reported values. GoC=No accepted empirical data
2009: Estimate based on coverage reported by national government. GoC=R+
2010: Estimate based on coverage reported by national government. GoC=R+ D+
2011: Estimate based on coverage reported by national government. GoC=R+
2012: Estimate based on reported administrative estimate. GoC=R+ D+
2013: 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. Estimate challenged by: D-

Malaysia - HepBB



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	90	90	95	90	90	90	99	95	95	95	91	87
Estimate GoC	••	••	•	••	••	••	••	••	••	••	•	••
Official	NA	NA	95	90	90	90	99	95	95	95	NA	NA
Administrative	90	90	80	90	90	NA	NA	NA	NA	NA	NA	87
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.

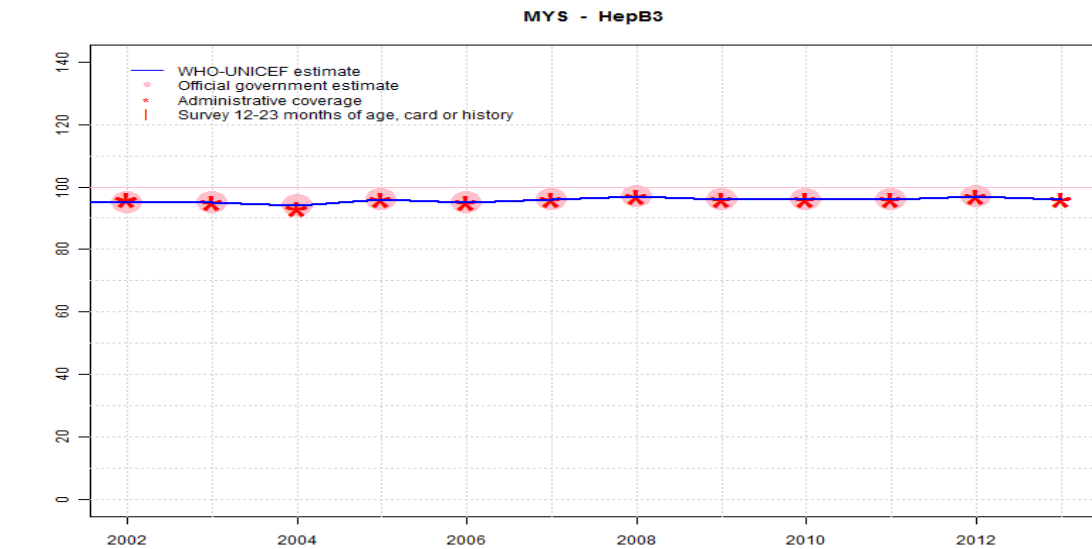
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2002: Estimate based on reported administrative estimate. GoC=R+ D+
- 2003: Estimate based on reported administrative estimate. GoC=R+ D+
- 2004: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+
- 2008: Estimate based on coverage reported by national government. GoC=R+
- 2009: Estimate based on coverage reported by national government. GoC=R+
- 2010: Estimate based on coverage reported by national government. GoC=R+
- 2011: Estimate based on coverage reported by national government. GoC=R+
- 2012: Estimate based on interpolation between reported values. GoC=No accepted empirical data
- 2013: 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+

Malaysia - HepB3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	95	95	94	96	95	96	97	96	96	96	97	96
Estimate GoC	••	••	••	••	••	••	••	••	•	••	••	••
Official	95	95	94	96	95	96	97	96	96	96	97	NA
Administrative	96	95	93	96	95	96	97	96	96	96	97	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.

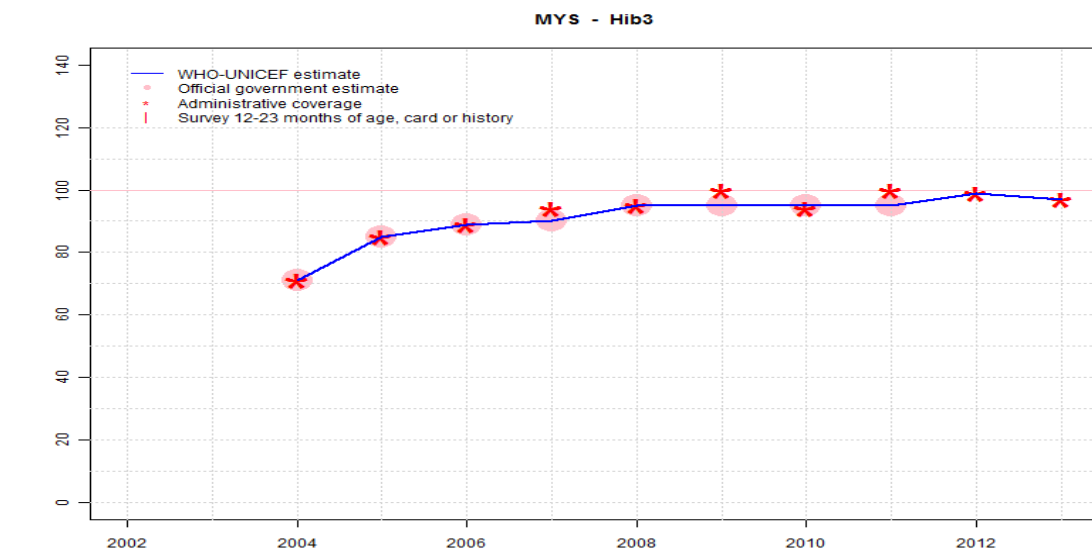
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2002: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 93 percent. GoC=R+ D+
- 2003: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 91 percent. GoC=R+ D+
- 2004: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 92 percent. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 87 percent. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 90 percent. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Estimate of 97 percent changed from previous revision value of 95 percent. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 95 percent. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate of 96 percent changed from previous revision value of 97 percent. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. Estimate of 97 percent changed from previous revision value of 98 percent. GoC=R+ D+
- 2013: 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+

Malaysia - Hib3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	71	85	89	90	95	95	95	95	99	97
Estimate GoC	NA	NA	••	••	••	••	••	••	••	••	••	••
Official	NA	NA	71	85	89	90	95	95	95	95	NA	NA
Administrative	NA	NA	71	85	89	94	95	100	94	100	99	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.

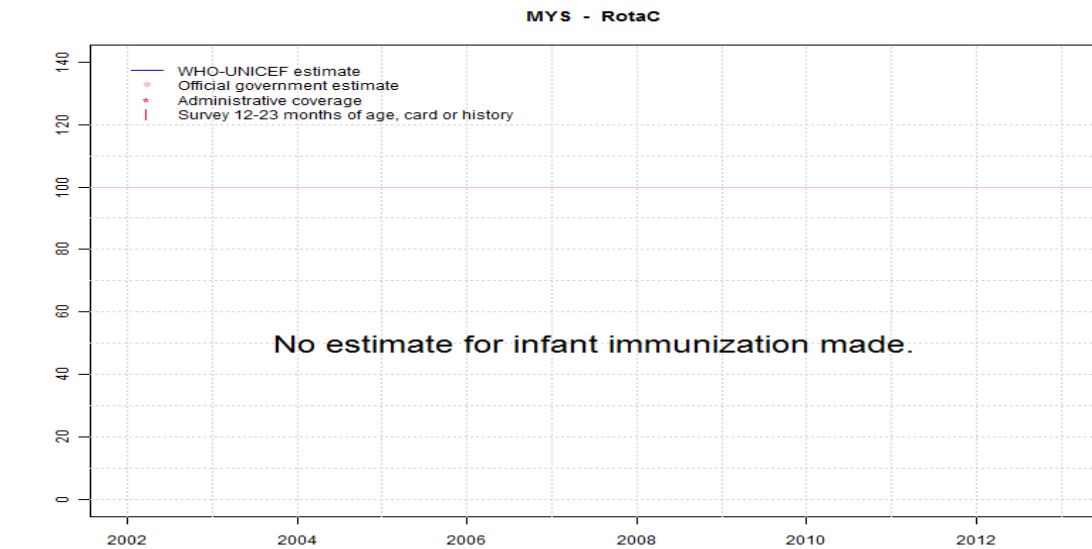
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 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+ D+
 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 coverage reported by national government. GoC=R+ D+
 2010: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 94 percent. GoC=R+ D+
 2011: Estimate based on coverage reported by national government. Estimate of 95 percent changed from previous revision value of 99 percent. GoC=R+ D+
 2012: Estimate based on reported administrative estimate. GoC=R+ D+
 2013: 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+

Malaysia - RotaC



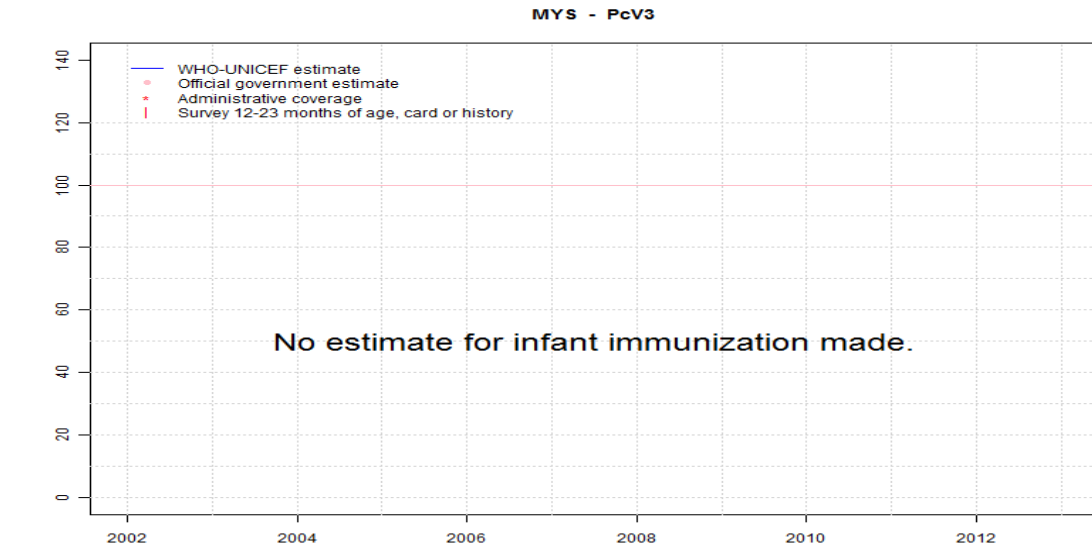
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

Malaysia - PcV3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
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 prior to 2002 are available at:

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

http://www.who.int/immunization/monitoring_surveillance/routine/coverage/en/index4.html

Malaysia

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 receive 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.

Year	PAB coverage estimate (%)
2002	86
2003	86
2004	88
2005	88
2006	88
2007	87
2008	87
2009	87
2010	87
2011	90
2012	90
2013	90

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.