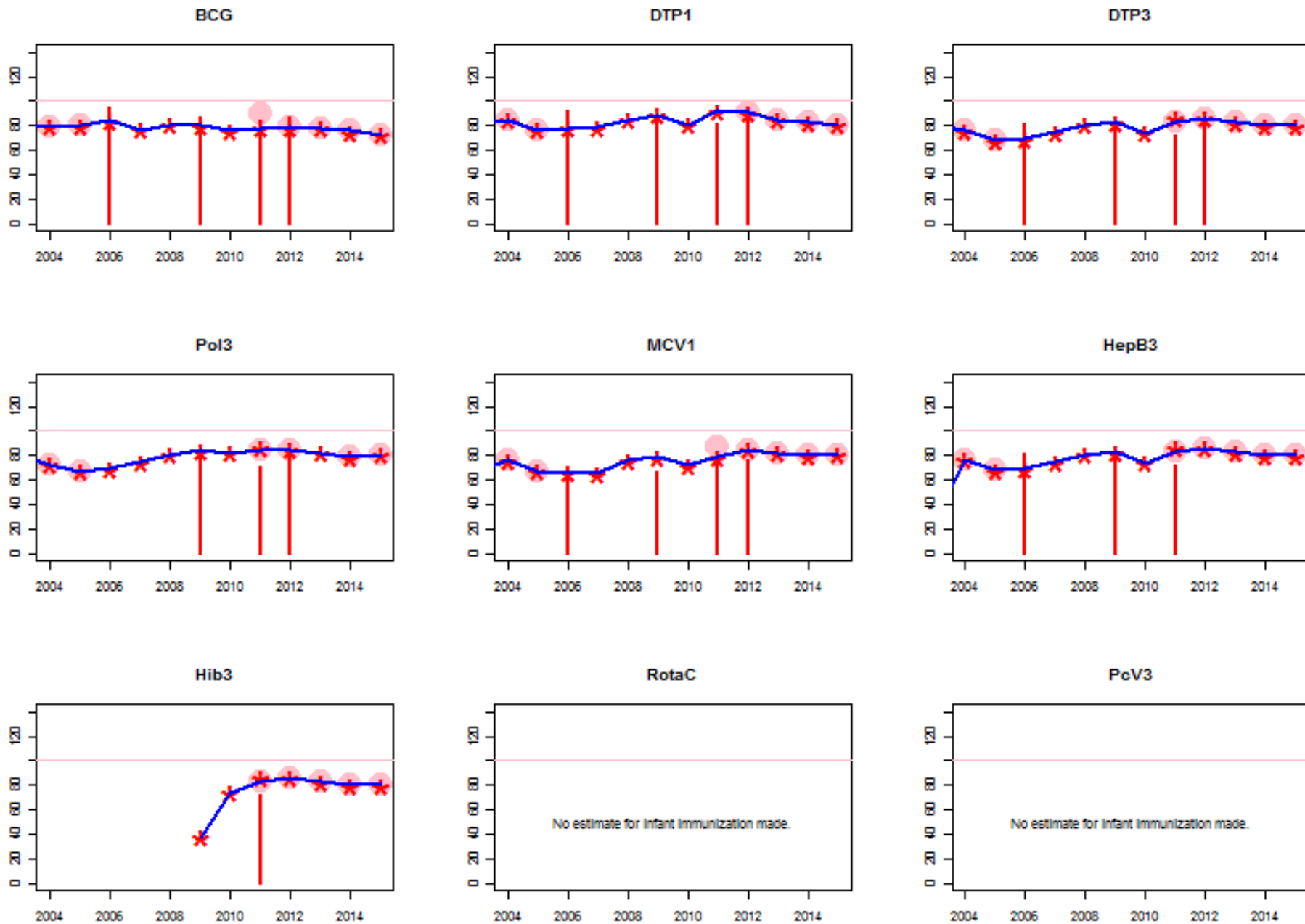
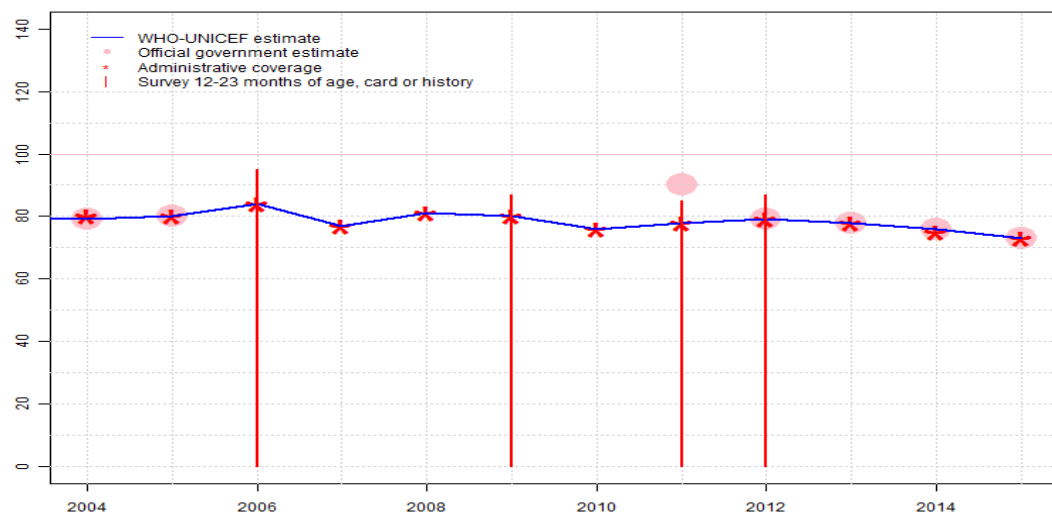


Comoros: WHO and UNICEF estimates of immunization coverage: 2015 revision



Comoros - BCG

COM - BCG



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	79	80	84	77	81	80	76	78	79	78	76	73
Estimate GoC	••	•	•	•	•	•	•	•	•	•	•	•
Official	79	80	NA	NA	NA	NA	NA	90	79	78	76	73
Administrative	80	80	84	77	81	80	76	78	79	78	75	73
Survey	NA	NA	95	NA	NA	87	NA	85	87	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: 2015 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.

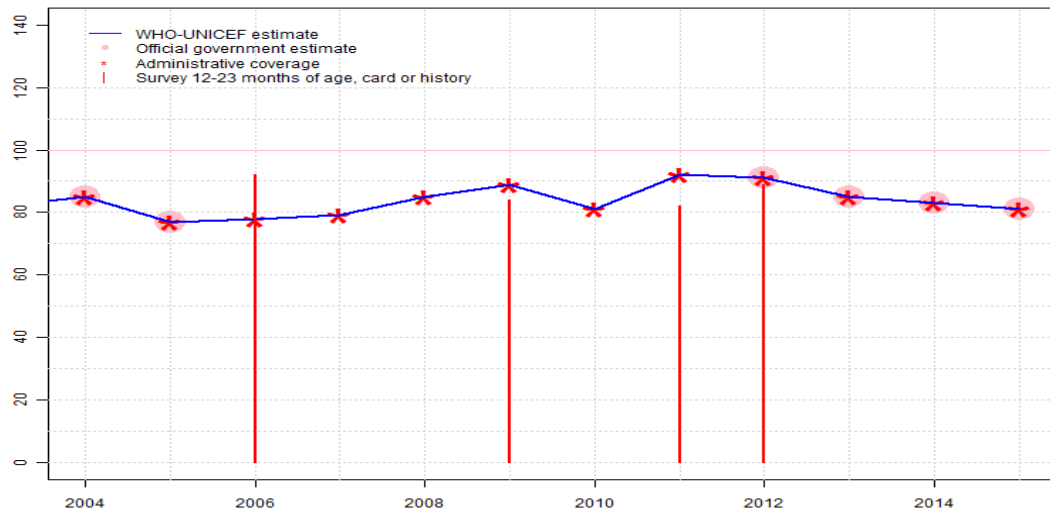
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2006: Estimate based on reported administrative data. Survey results ignored. Sample size 217 less than 300. Estimate challenged by: D-
- 2007: Estimate based on reported administrative data. Estimate challenged by: D-
- 2008: Estimate based on reported administrative data. Estimate challenged by: D-
- 2009: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 87 percent based on 1 survey(s). Estimate challenged by: D-
- 2010: Estimate based on reported administrative data. Estimate challenged by: D-
- 2011: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 85 percent based on 1 survey(s). Reported data excluded. Unexplained increase from 76 percent to 90 percent with decrease 79 percent. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 87 percent based on 1 survey(s). Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. GoC=Assigned by working group. Consistency with other vaccines.

Comoros - DTP1

COM - DTP1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	85	77	78	79	85	89	81	92	91	85	83	81
Estimate GoC	•	•	••	•••	•	•	•	•	•	•	•	•
Official	85	77	NA	NA	NA	NA	NA	NA	91	85	83	81
Administrative	85	77	78	79	85	89	81	92	91	85	83	81
Survey	NA	NA	92	NA	NA	84	NA	82	89	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: 2015 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.

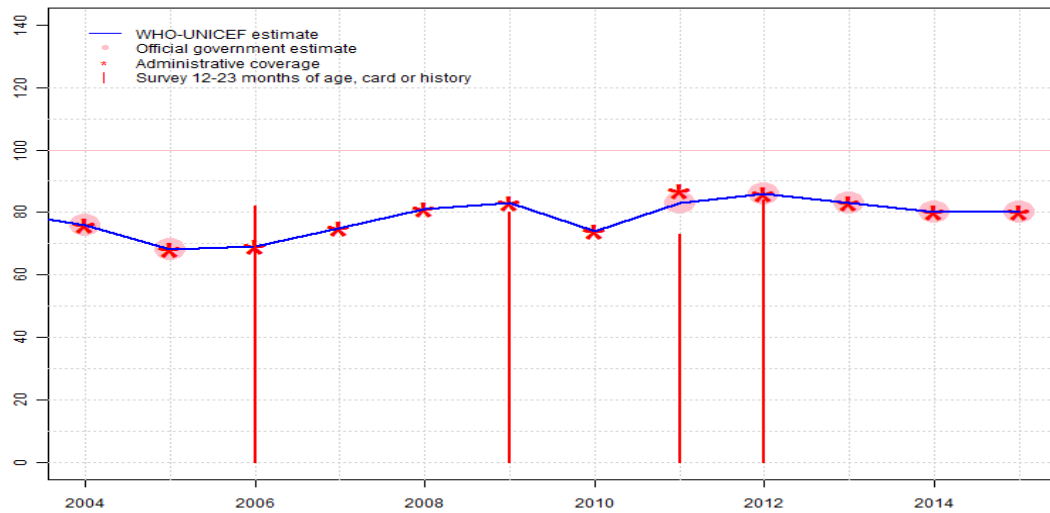
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Vaccine presentation changed to DTP-HepB. Estimate challenged by: D-
- 2006: Estimate based on reported administrative data. Survey results ignored. Sample size 217 less than 300. GoC=R+ D+
- 2007: Estimate based on reported administrative data. GoC=R+ S+ D+
- 2008: Estimate based on reported administrative data. Estimate challenged by: D-
- 2009: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Vaccine presentation changed to DTP-HepB-Hib. Estimate challenged by: D-
- 2010: Estimate based on reported administrative data. Estimate challenged by: D-
- 2011: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 82 percent based on 1 survey(s). Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 89 percent based on 1 survey(s). Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-

Comoros - DTP3

COM - DTP3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	76	68	69	75	81	83	74	83	86	83	80	80
Estimate GoC	••	••	••	•••	•	•	•	•	•	•	•	•
Official	76	68	NA	NA	NA	NA	NA	83	86	83	80	80
Administrative	76	68	69	75	81	83	74	87	86	83	80	80
Survey	NA	NA	82	NA	NA	80	NA	73	84	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: 2015 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.

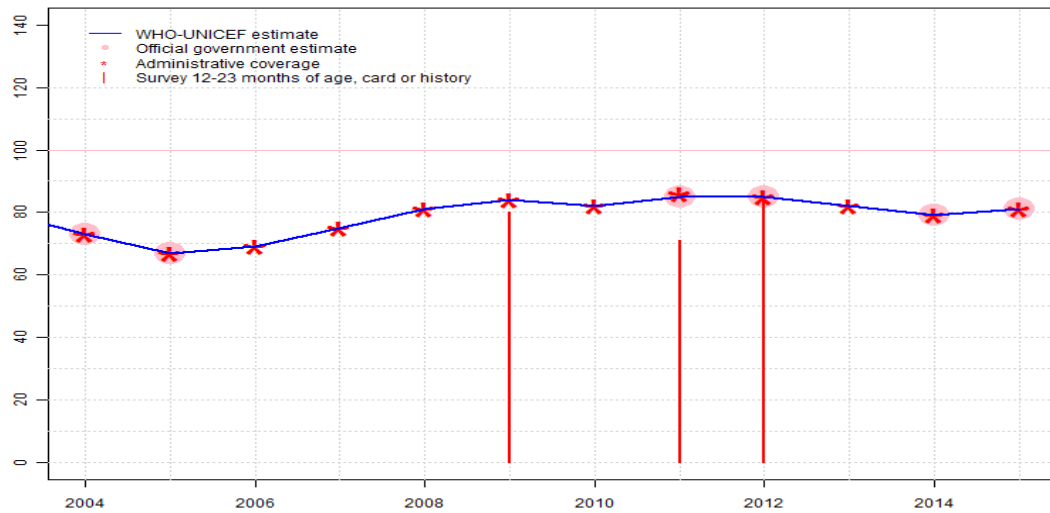
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Vaccine presentation changed to DTP-HepB. GoC=R+ D+
- 2006: Estimate based on reported administrative data. Survey results ignored. Sample size 217 less than 300. GoC=R+ D+
- 2007: Estimate based on reported administrative data. GoC=R+ S+ D+
- 2008: Estimate based on reported administrative data. Estimate challenged by: D-
- 2009: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 80 percent based on 1 survey(s). Vaccine presentation changed to DTP-HepB-Hib. Estimate challenged by: D-
- 2010: Estimate based on reported administrative data. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 77 percent based on 1 survey(s). Comoros Demographic and Health and Multiple Indicator Survey 2012 card or history results of 73 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 69 percent and 3d dose card only coverage of 65 percent. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-

Comoros - Pol3

COM - Pol3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	73	67	69	75	81	84	82	85	85	82	79	81
Estimate GoC	●●	●●	●●	●●●	●	●	●	●	●	●	●	●
Official	73	67	NA	NA	NA	NA	NA	85	85	NA	79	81
Administrative	73	67	69	75	81	84	82	86	85	82	79	81
Survey	NA	NA	NA	NA	NA	80	NA	71	84	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: 2015 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.

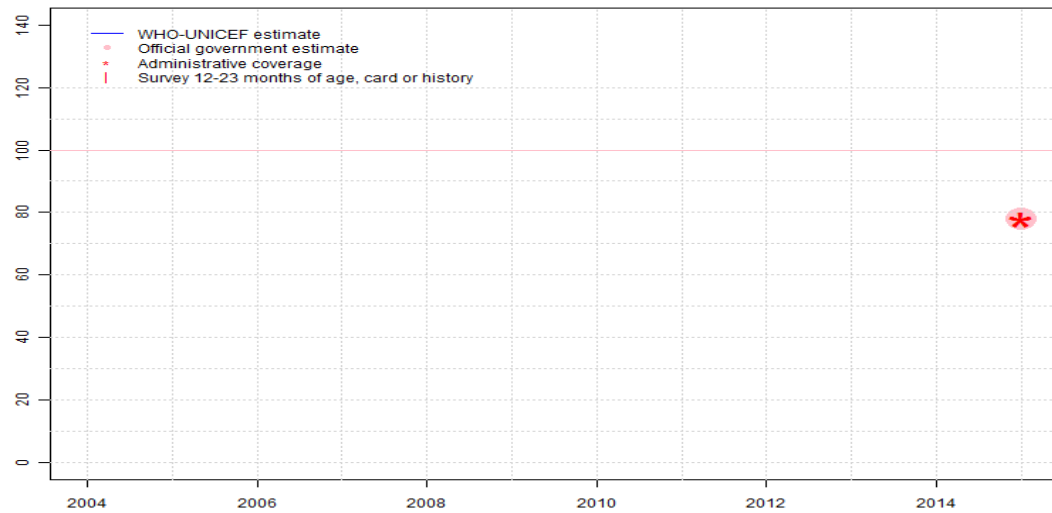
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on reported administrative data. GoC=R+ D+
- 2007: Estimate based on reported administrative data. GoC=R+ S+ D+
- 2008: Estimate based on reported administrative data. Estimate challenged by: D-
- 2009: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 80 percent based on 1 survey(s). Estimate challenged by: D-
- 2010: Estimate based on reported administrative data. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 82 percent based on 1 survey(s). Comoros Demographic and Health and Multiple Indicator Survey 2012 card or history results of 71 percent modified for recall bias to 82 percent based on 1st dose card or history coverage of 87 percent, 1st dose card only coverage of 72 percent and 3d dose card only coverage of 68 percent. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Estimate challenged by: D-
- 2013: Estimate based on reported administrative data. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-

Comoros - IPV1

COM - IPV1



Description:

2015: Estimate based on coverage reported by national government. IPV introduced during January 2015. Estimate challenged by: D-

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

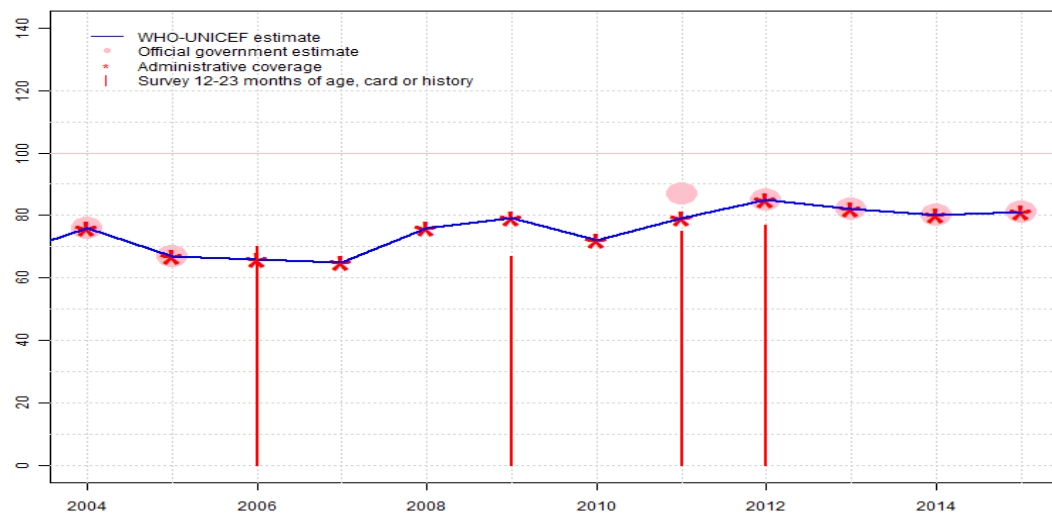
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Comoros - MCV1

COM - MCV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	76	67	66	65	76	79	72	79	85	82	80	81
Estimate GoC	●●	●●	●●	●	●	●	●	●	●	●	●	●
Official	76	67	NA	NA	NA	NA	NA	87	85	82	80	81
Administrative	76	67	66	65	76	79	72	79	85	82	80	81
Survey	NA	NA	70	NA	NA	67	NA	75	77	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.

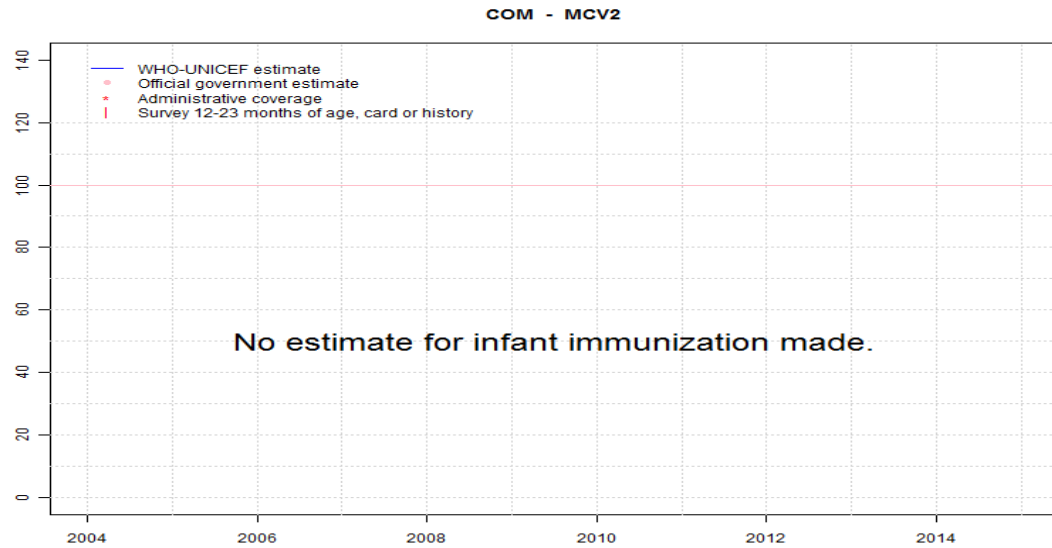
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on reported administrative data. Survey results ignored. Sample size 217 less than 300. GoC=R+ D+
- 2007: Estimate based on reported administrative data. Estimate challenged by: S-
- 2008: Estimate based on reported administrative data. Estimate challenged by: D-S-
- 2009: Estimate based on reported administrative data. Immunization Coverage Survey in the Union of Comoros (October 2010) results ignored by working group. Survey supports reported data for other antigens. Estimate challenged by: D-S-
- 2010: Estimate based on reported administrative data. Estimate challenged by: D-S-
- 2011: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 75 percent based on 1 survey(s). No explanation provided for adjustment of official coverage from administrative. Estimate challenged by: D-S-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 77 percent based on 1 survey(s). Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-

Comoros - MCV2



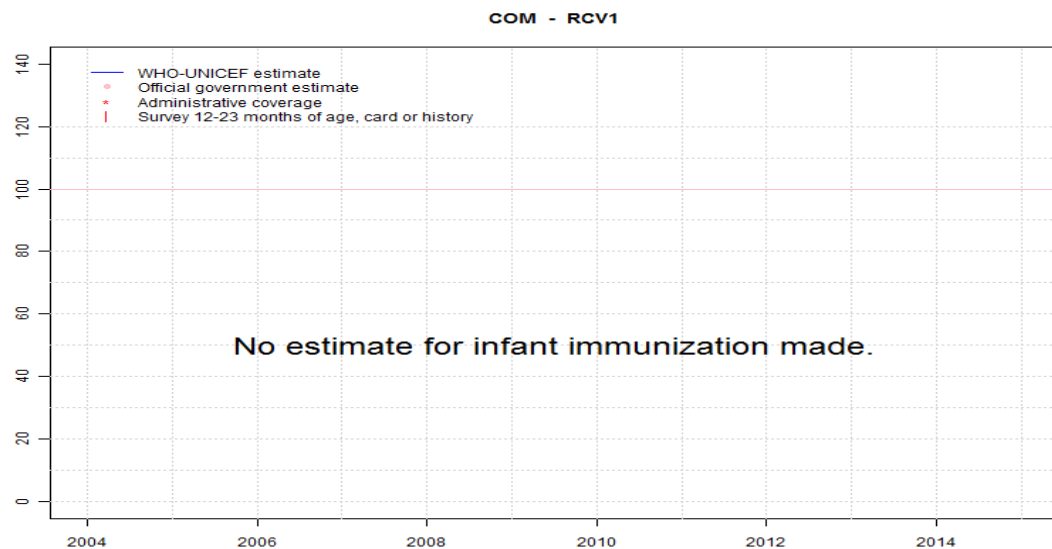
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: 2015 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.

Comoros - RCV1



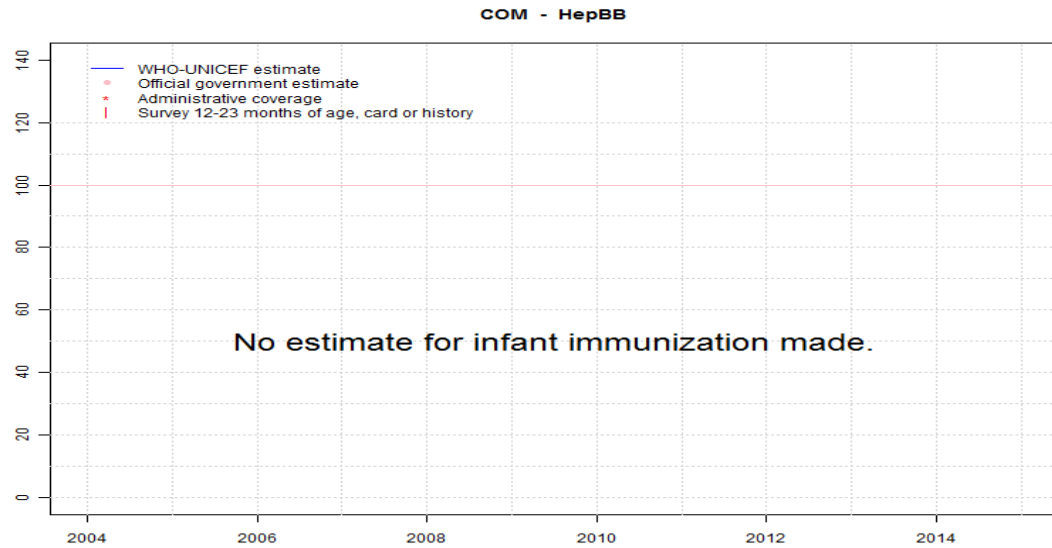
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: 2015 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.

Comoros - HepBB



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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

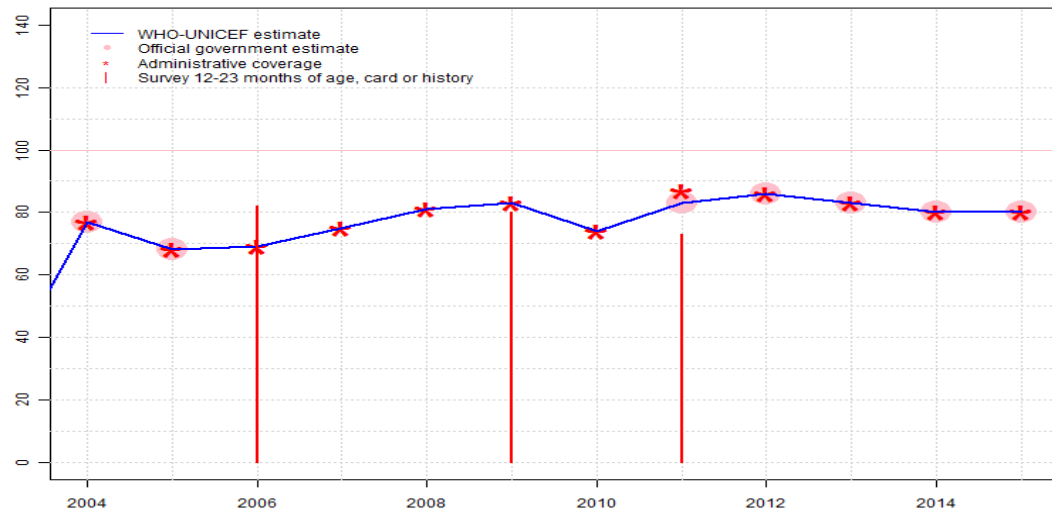
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Comoros - HepB3

COM - HepB3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	77	68	69	75	81	83	74	83	86	83	80	80
Estimate GoC	●●	●	●●	●●●	●	●	●	●	●	●	●	●
Official	77	68	NA	NA	NA	NA	NA	83	86	83	80	80
Administrative	77	68	69	75	81	83	74	87	86	83	80	80
Survey	NA	NA	82	NA	NA	80	NA	73	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: 2015 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.

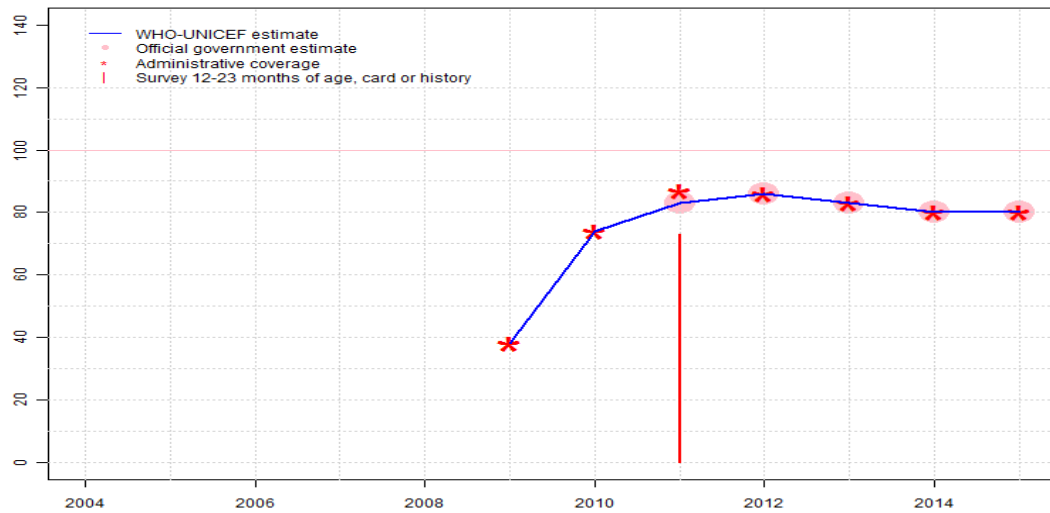
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on reported data. GoC=R+ D+
- 2005: Estimate based on reported data. Vaccine presentation changed to DTP-HepB. Estimate challenged by: D-
- 2006: Estimate based on reported data. Survey results ignored. Sample size 217 less than 300. GoC=R+ D+
- 2007: Estimate based on reported data. GoC=R+ S+ D+
- 2008: Estimate based on reported data. Estimate challenged by: D-
- 2009: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 80 percent based on 1 survey(s). Vaccine presentation changed to DTP-HepB-Hib. Estimate challenged by: D-
- 2010: Estimate based on reported administrative data. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 77 percent based on 1 survey(s). Comoros Demographic and Health and Multiple Indicator Survey 2012 card or history results of 73 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 69 percent and 3d dose card only coverage of 65 percent. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-

Comoros - Hib3

COM - Hib3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	38	74	83	86	83	80	80
Estimate GoC	NA	NA	NA	NA	NA	••	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	83	86	83	80	80
Administrative	NA	NA	NA	NA	NA	38	74	87	86	83	80	80
Survey	NA	NA	NA	NA	NA	NA	NA	73	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.

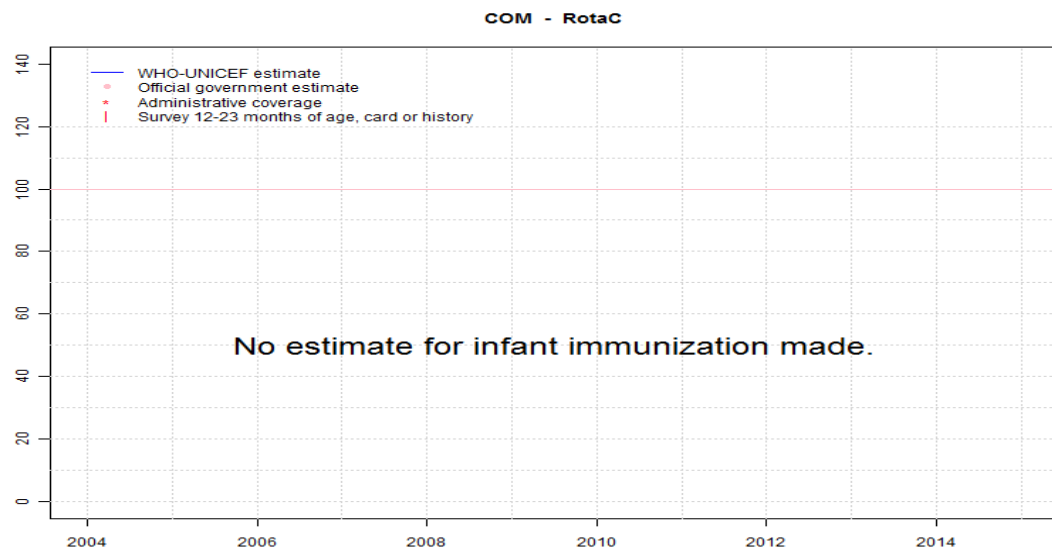
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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:

- 2009: Estimate based on reported data. Hib vaccine introduced in 2009 Vaccine presentation is DTP-HepB-Hib. GoC=R+ D+
- 2010: Estimate based on reported data. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 77 percent based on 1 survey(s). Comoros Demographic and Health and Multiple Indicator Survey 2012 card or history results of 73 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 69 percent and 3d dose card only coverage of 65 percent. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-

Comoros - RotaC

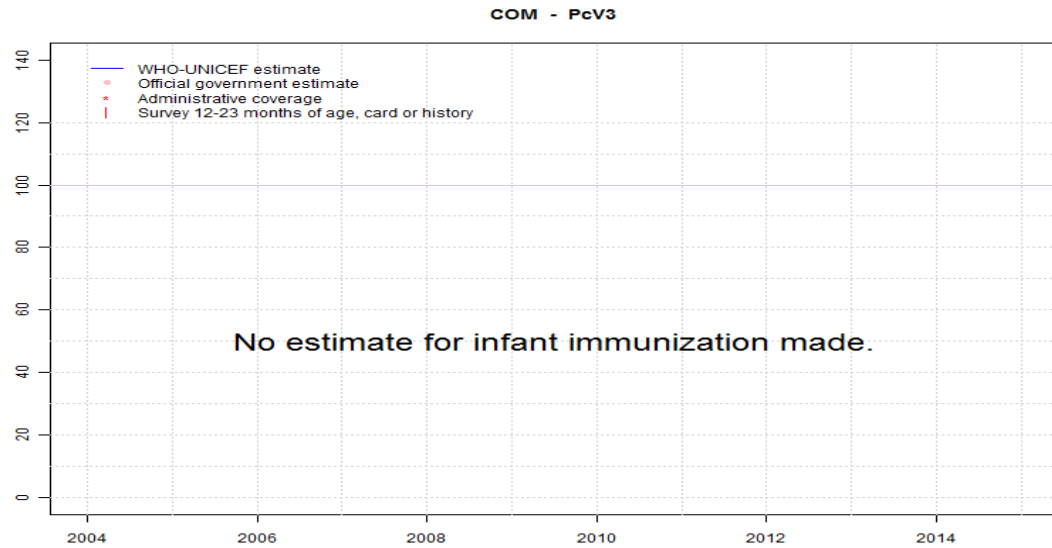


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: 2015 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.



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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: 2015 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.

Comoros - survey details

2012 Enquête de la Couverture Vaccinale Post Campagne de Rougeole et de la Vaccination de Routine dans l'Union des Comores

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	87	12-23 m	750	75
DTP1	Card or History	89	12-23 m	750	75
DTP3	Card or History	84	12-23 m	750	75
MCV1	Card or History	77	12-23 m	750	75
Pol1	Card or History	84	12-23 m	750	75
Pol3	Card or History	84	12-23 m	750	75

2011 Union des Comores Enquête Démographique et de Santé et à Indicateurs Multiples 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	85	12-23 m	660	73
BCG	Card	70	12-23 m	480	73
BCG	Card or History	85	12-23 m	660	73
BCG	History	16	12-23 m	180	73
DTP1	C or H <12 months	81	12-23 m	660	73
DTP1	Card	69	12-23 m	480	73
DTP1	Card or History	82	12-23 m	660	73
DTP1	History	13	12-23 m	180	73
DTP3	C or H <12 months	71	12-23 m	660	73
DTP3	Card	65	12-23 m	480	73
DTP3	Card or History	73	12-23 m	660	73
DTP3	History	8	12-23 m	180	73
HepB1	C or H <12 months	81	12-23 m	660	73
HepB1	Card	69	12-23 m	480	73
HepB1	Card or History	82	12-23 m	660	73
HepB1	History	13	12-23 m	180	73
HepB3	C or H <12 months	71	12-23 m	660	73
HepB3	Card	65	12-23 m	480	73
HepB3	Card or History	73	12-23 m	660	73
HepB3	History	8	12-23 m	180	73
Hib1	C or H <12 months	81	12-23 m	660	73

Hib1	Card	69	12-23 m	480	73
Hib1	Card or History	82	12-23 m	660	73
Hib1	History	13	12-23 m	180	73
Hib3	C or H <12 months	71	12-23 m	660	73
Hib3	Card	65	12-23 m	480	73
Hib3	Card or History	73	12-23 m	660	73
Hib3	History	8	12-23 m	180	73
MCV1	C or H <12 months	63	12-23 m	660	73
MCV1	Card	63	12-23 m	480	73
MCV1	Card or History	75	12-23 m	660	73
MCV1	History	12	12-23 m	180	73
Pol1	C or H <12 months	86	12-23 m	660	73
Pol1	Card	72	12-23 m	480	73
Pol1	Card or History	87	12-23 m	660	73
Pol1	History	14	12-23 m	180	73
Pol3	C or H <12 months	69	12-23 m	660	73
Pol3	Card	68	12-23 m	480	73
Pol3	Card or History	71	12-23 m	660	73
Pol3	History	3	12-23 m	180	73

2009 Enquête de couverture vaccinale en Union des Comores (Octobre 2010)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	87	12-23 m	325	63
DTP1	Card or History	84	12-23 m	325	63
DTP3	Card or History	80	12-23 m	325	63
HepB1	Card or History	84	12-23 m	325	63
HepB3	Card or History	80	12-23 m	325	63
MCV1	Card or History	67	12-23 m	325	63
Pol1	Card or History	82	12-23 m	325	63
Pol3	Card or History	80	12-23 m	325	63

2006 Enquête de couverture vaccinale en Union des Comores (Novembre 2007)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
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Comoros - survey details

BCG	Card or History	95	12-23 m	217	77
DTP1	Card or History	92	12-23 m	217	77
DTP3	Card or History	82	12-23 m	217	77
HepB1	Card or History	92	12-23 m	217	77
HepB3	Card or History	82	12-23 m	217	77
MCV1	Card or History	70	12-23 m	217	77

1999 Comores, Enquête à Indicateurs Multiples (MICS 2000),
2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	85	12-23 m	956	71
BCG	Card or History	79	12-23 m	956	71
BCG	History	4	12-23 m	956	71

DTP1	Card	80	12-23 m	956	71
DTP1	Card or History	73	12-23 m	956	71
DTP1	History	5	12-23 m	956	71
DTP3	Card	74	12-23 m	956	71
DTP3	Card or History	70	12-23 m	956	71
DTP3	History	3	12-23 m	956	71
MCV1	Card	56	12-23 m	956	71
MCV1	Card or History	73	12-23 m	956	71
MCV1	History	4	12-23 m	956	71
Pol1	Card	85	12-23 m	956	71
Pol1	Card or History	75	12-23 m	956	71
Pol1	History	3	12-23 m	956	71
Pol3	Card	78	12-23 m	956	71
Pol3	Card or History	70	12-23 m	956	71
Pol3	History	2	12-23 m	956	71

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

Comoros

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 (%)
2004	92
2005	91
2006	88
2007	89
2008	83
2009	83
2010	85
2011	85
2012	85
2013	85
2014	85
2015	85

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.