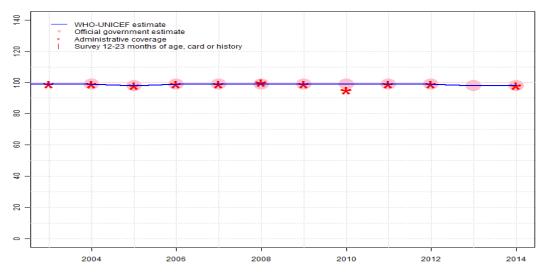


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WHO and UNICEF estimates of national immunization coverage - next revision available July  $15,\,2016$ 





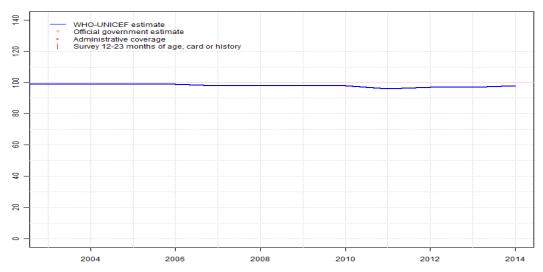
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	99	99	98	99	99	99	99	99	99	99	98	98
Estimate GoC	••	••	••	••	••	••	••	•	•	•	•	•
Official	NA	99	98	99	99	99	99	99	99	99	98	98
Administrative	99	99	98	99	99	100	99	95	99	99	NA	98
	NA											

- ••• 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.

- 2003: Estimate based on reported administrative data. GoC=R+ D+
- 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+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 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 challenged by: D-
- 2011: Estimate based on coverage reported by national government. 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. 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-

#### ROU - DTP1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	99	99	99	99	98	98	98	98	96	97	97	98
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	NA											
Administrative	NA											
Survey	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:

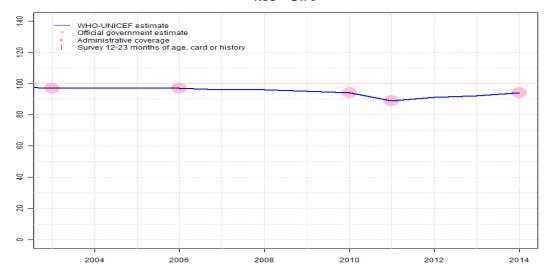
data

2004: Estimate based on DTP3 coverage of 97. GoC=No accepted empirical data
2005: Estimate based on DTP3 coverage of 97. GoC=No accepted empirical data
2006: Estimate based on DTP3 coverage of 97. GoC=No accepted empirical data
2007: Estimate based on DTP3 coverage of 96. GoC=No accepted empirical data
2008: Estimate based on DTP3 coverage of 96. GoC=No accepted empirical data
2009: Estimate based on DTP3 coverage of 95. GoC=No accepted empirical data
2010: Estimate based on DTP3 coverage of 94. GoC=No accepted empirical data
2011: Estimate based on DTP3 coverage of 89. GoC=No accepted empirical data
2012: Estimate based on DTP3 coverage of 91. Estimate of 97 percent changed from previous revision value of 96 percent. GoC=No accepted empirical

2003: Estimate based on DTP3 coverage of 97. GoC=No accepted empirical data

- 2013: Estimate based on DTP3 coverage of 92. Estimate of 97 percent changed from previous revision value of 96 percent. GoC=No accepted empirical data
- 2014: Estimate based on DTP3 coverage of 94. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Programme reports a stock-out of DTP containing vaccine for 3-4 months at the national level. GoC=No accepted empirical data





	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	97	97	97	97	96	96	95	94	89	91	92	94
Estimate GoC	••	•	•	••	•	•	•	••	••	•	•	••
Official	97	NA	NA	97	NA	NA	NA	94	89	NA	NA	94
Administrative	NA											
Survey	NA											

- ••• 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.

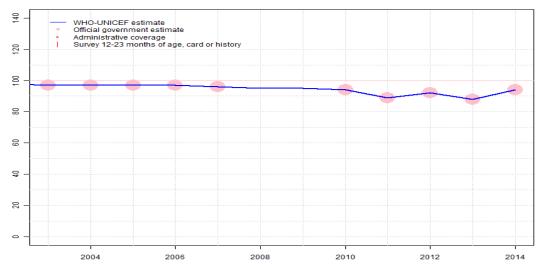
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

- 2003: Estimate based on coverage reported by national government. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. GoC=R+
- 2004: Estimate based on interpolation between data reported by national government. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. GoC=No accepted empirical data
- 2005: Estimate based on interpolation between data reported by national government. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. GoC=No accepted empirical data
- 2006: Estimate based on coverage reported by national government. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. GoC=R+
- 2007: Estimate based on interpolation between data reported by national government. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. GoC=No accepted empirical data
- 2008: Estimate based on interpolation between data reported by national government. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. Estimated immunization coverage levels are based on DTP4 coverage recommended at 12 months of age. GoC=No accepted empirical data
- 2009: Estimate based on interpolation between data reported by national government. GoC=No accepted empirical data
- 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 data reported by national government. Estimate of 91 percent changed from previous revision value of 89 percent. GoC=No accepted empirical data
- 2013: Estimate based on interpolation between data reported by national government. Estimate of 92 percent changed from previous revision value of 89 percent. GoC=No accepted empirical data
- 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

## Romania - DTP3

coverage. Programme reports a stock-out of DTP containing vaccine for 3-4 months at the national level. GoC=R+





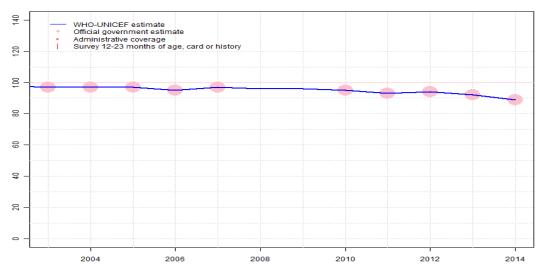
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	97	97	97	97	96	95	95	94	89	92	88	94
Estimate GoC	••	••	••	••	••	•	•	••	••	••	••	••
Official	97	97	97	97	96	NA	NA	94	89	92	88	94
Administrative	NA											
	NA											

- ••• 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.

- 2003: Estimate based on coverage reported by national government. Estimated immunization coverage levels are based on Pol4 coverage recommended at 12 months of age. GoC=R+
- 2004: Estimate based on coverage reported by national government. Estimated immunization coverage levels are based on Pol4 coverage recommended at 12 months of age. GoC=R+
- 2005: Estimate based on coverage reported by national government. Estimated immunization coverage levels are based on Pol4 coverage recommended at 12 months of age. GoC=R+
- 2006: Estimate based on coverage reported by national government. Estimated immunization coverage levels are based on Pol4 coverage recommended at 12 months of age. GoC=R+
- 2007: Estimate based on coverage reported by national government. Estimated immunization coverage levels are based on Pol4 coverage recommended at 12 months of age. GoC=R+
- 2008: Estimate based on interpolation between data reported by national government. Estimated immunization coverage levels are based on Pol4 coverage recommended at 12 months of age. GoC=No accepted empirical data
- 2009: Estimate based on interpolation between data reported by national government. GoC=No accepted empirical data
- 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 coverage reported by national government. GoC=R+
- 2013: Estimate based on coverage reported by national government. 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+





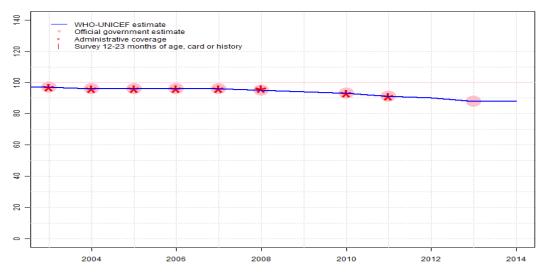
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	97	97	97	95	97	96	96	95	93	94	92	89
Estimate GoC	••	••	••	••	••	•	•	••	••	••	••	••
Official	97	97	97	95	97	NA	NA	95	93	94	92	89
Administrative	NA											
	NA											

- ••• 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.

- 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+
- 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 interpolation between data reported by national government. GoC=No accepted empirical data
- 2009: Estimate based on interpolation between data reported by national government. GoC=No accepted empirical data
- 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 coverage reported by national government. GoC=R+
- 2013: Estimate based on coverage reported by national government. 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+





	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	97	96	96	96	96	95	94	93	91	90	88	88
Estimate GoC	•	••	••	••	••	••	•	••	•	•	•	•
Official	97	96	96	96	96	95	NA	93	91	NA	88	NA
Administrative	97	96	96	96	96	96	NA	93	91	NA	NA	NA
Survey	NA											

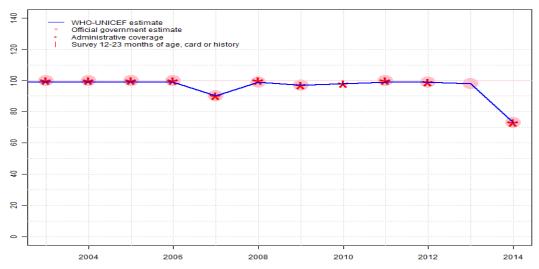
- ••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a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

- Coverage estimates for the second dose of measles containing vaccine are for children by the nationally recommended age.
- 2003: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 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+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ D+
- 2009: Estimate based on interpolation between reported values. GoC=No accepted empirical data
- 2010: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2012: Estimate based on interpolation between reported values. GoC=No accepted empirical data
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-  $\,$
- 2014: Estimate based on extrapolation from data 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=No accepted empirical data

## Romania - HepBB





	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	99	99	99	99	90	99	97	98	99	99	98	73
Estimate GoC	••	••	••	••	••	••	••	••	•	•	•	••
Official	100	100	100	100	90	99	97	NA	100	99	98	73
Administrative	100	100	100	100	90	100	97	98	100	99	NA	73
Survey	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.

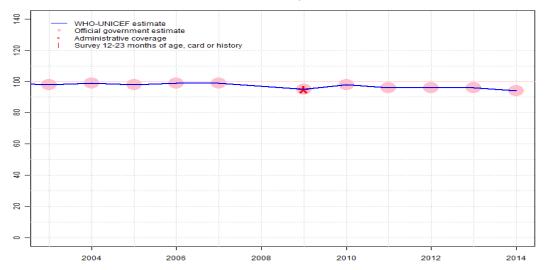
- ••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a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

- 2003: Estimate based on coverage reported by national government. GoC=R+ D+  $\,$
- 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+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 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 reported administrative estimate. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. 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. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Programme reports a stock-out of HepB containing vaccine for 2-3 months at the national level. GoC=R+

### Romania - HepB3





	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	98	99	98	99	99	97	95	98	96	96	96	94
Estimate GoC	••	••	••	••	••	•	••	••	••	••	••	•
Official	98	99	98	99	99	NA	95	98	96	96	96	94
Administrative	NA	NA	NA	NA	NA	NA	95	NA	NA	NA	NA	NA
Survey	NA											

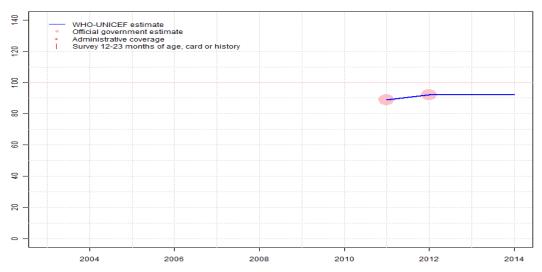
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- 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+
- 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 interpolation between data reported by national government. GoC=No accepted empirical data
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 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 coverage reported by national government. GoC=R+
- 2013: Estimate based on coverage reported by national government. 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. Programme reports a stock-out of HepB containing vaccine for 2-3 months at the national level. Estimate challenged by: D-





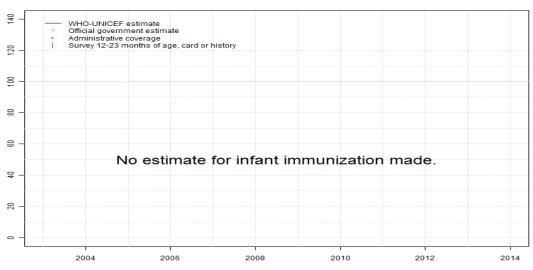
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	89	92	92	92							
Estimate GoC	NA	••	••	•	•							
Official	NA	89	92	NA	NA							
Administrative	NA											
Survey	NA											

- ••• 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.

- 2011: Estimate based on coverage reported by national government. Hib vaccine introduced in 2010. Reporting started in 2011. GoC=R+
- 2012: Estimate based on coverage reported by national government. GoC=R+
- 2013: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data
- 2014: Estimate based on extrapolation from data 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. Programme reports a stock-out of DTP containing vaccine for 3-4 months at the national level. GoC=No accepted empirical data

#### ROU - RotaC



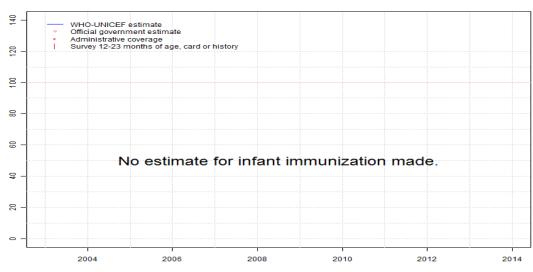
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA											
Estimate GoC	NA											
Official	NA											
Administrative	NA											
Survey	NA											

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.





	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA											
Estimate GoC	NA											
Official	NA											
Administrative	NA											
Survey	NA											

- ••• 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.

# Romania - survey details

2007 Anchetei semestriale de acoperire vaccinala efectuata in luna	DTP3	Card	96	$18-24~\mathrm{m}$	33897 -
ianuarie 2009	HepB3	Card	98	$18\text{-}24~\mathrm{m}$	33897 -
	MCV1	Card	96	$18\text{-}24~\mathrm{m}$	33897 -
Vaccine Confirmation method Coverage Age cohort Sample Cards seen	Pol3	Card	96	$18\text{-}24~\mathrm{m}$	33897 -

Further information and estimates for previous years are available at:

18-24 m

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

http://www.who.int/immunization/monitoring\_surveillance/routine/coverage/en/index4.html

33897 -

BCG

Card