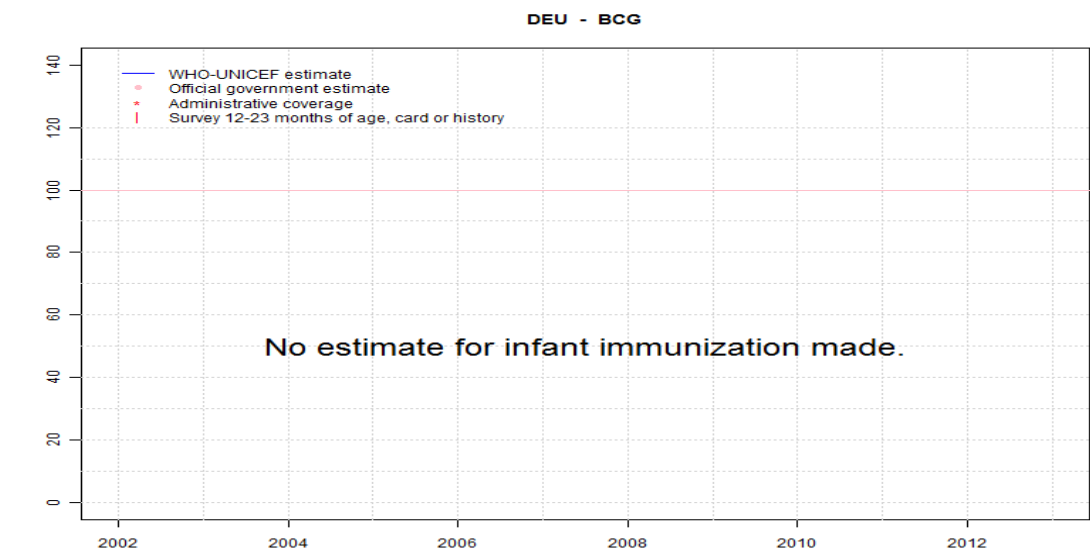


# Germany - BCG



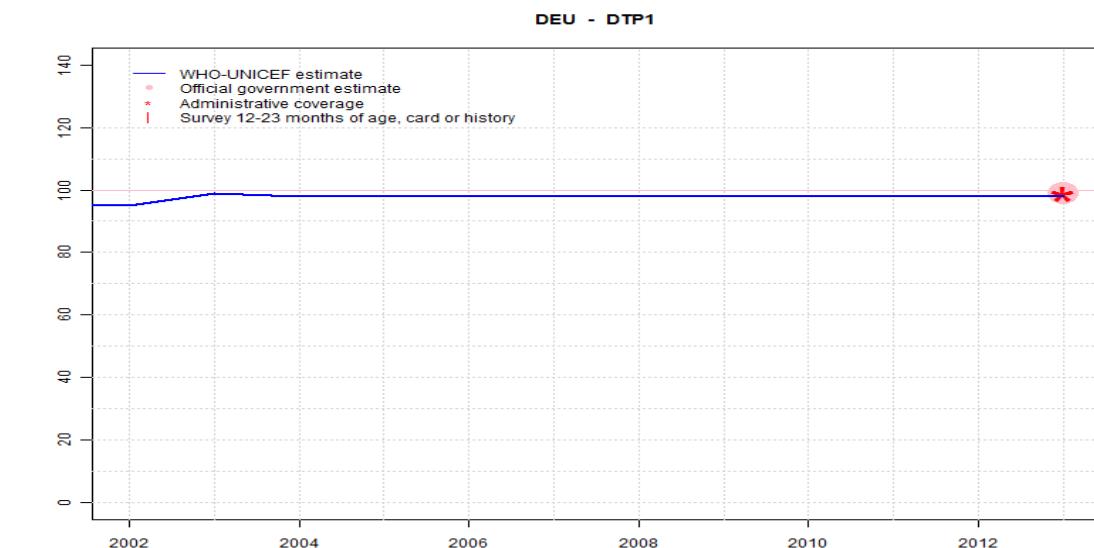
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

# Germany - DTP1



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

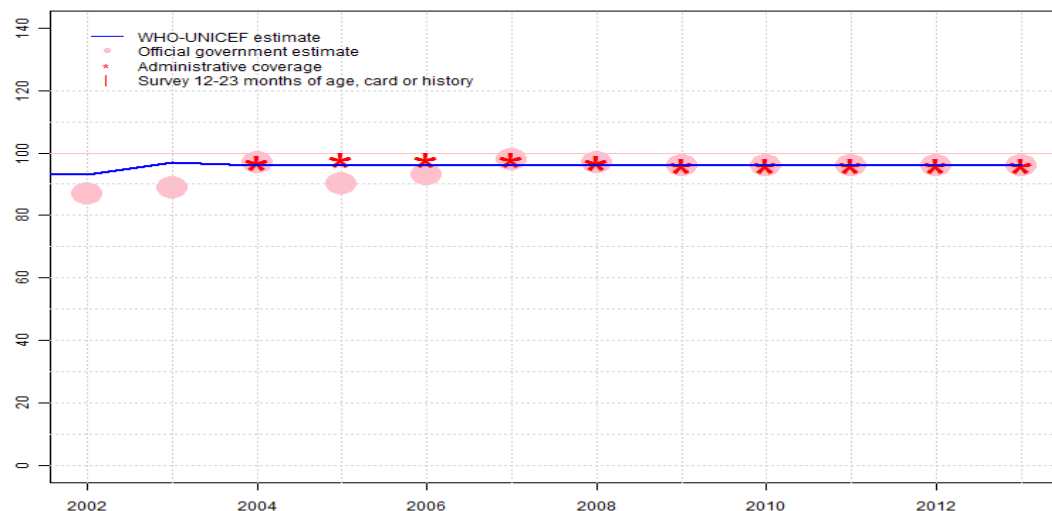
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2002: Reported data calibrated to 1997 levels. Estimate of 95 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2003: DTP1 coverage estimated based on DTP3 coverage of 97. Estimate of 99 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2004: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2005: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2006: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2007: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2008: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2009: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2010: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2011: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2012: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate of 98 percent changed from previous revision value of 97 percent. GoC=No accepted empirical data
- 2013: DTP1 coverage estimated based on DTP3 coverage of 96. 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-R-

# Germany - DTP3

DEU - DTP3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	93	97	96	96	96	96	96	96	96	96	96	96
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	87	89	97	90	93	98	97	96	96	96	96	96
Administrative	NA	NA	97	98	98	98	97	96	96	96	96	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: Estimates based on data reported by national government and reflects coverage for pertussis. Data reported by Germany reflect the immunization status of children 5-7 years of age collected on school entry for the 4th dose of DTP containing vaccine. Coverage levels are not reported for the 3rd dose of DTP containing vaccine. Estimates attributed to the birth cohort five years younger than the reporting year include immunizations given after one year of age and overestimate coverage during these years. The study by Rieck, et.al. suggest that coverage by 24 months of age is lower than that suggested by data reported on school entry. See <http://dx.doi.org/10.4161/hv.26986>. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2003: See explanation for the previous year. Estimate of 97 percent changed from previous revision value of 93 percent. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2004: See explanation for the previous year. Estimate of 96 percent changed from previous revision value of 93 percent. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2005: See explanation for the previous year. Estimate of 96 percent changed from previous revision value of 93 percent. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2006: See explanation for the previous year. Estimate of 96 percent changed from previous revision value of 93 percent. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2007: See explanation for the previous year. DTP3 data not available. Germany monitors DTP4 coverage rather than DTP3 coverage. Estimate of 96 percent changed from previous revision value of 93 percent. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2008: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. Estimate of 96 percent changed from previous revision value of 93 percent. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2009: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. Estimate of 96 percent changed from previous revision value of 93 percent. GoC=Assigned by working group. GoC reflects extrapolation of coverage from most recently available annual birth cohort.
- 2010: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. Estimate of 96 percent changed from previous revision value of 93 percent. GoC=Assigned by working group. GoC reflects extrapolation of coverage from most recently available

# Germany - DTP3

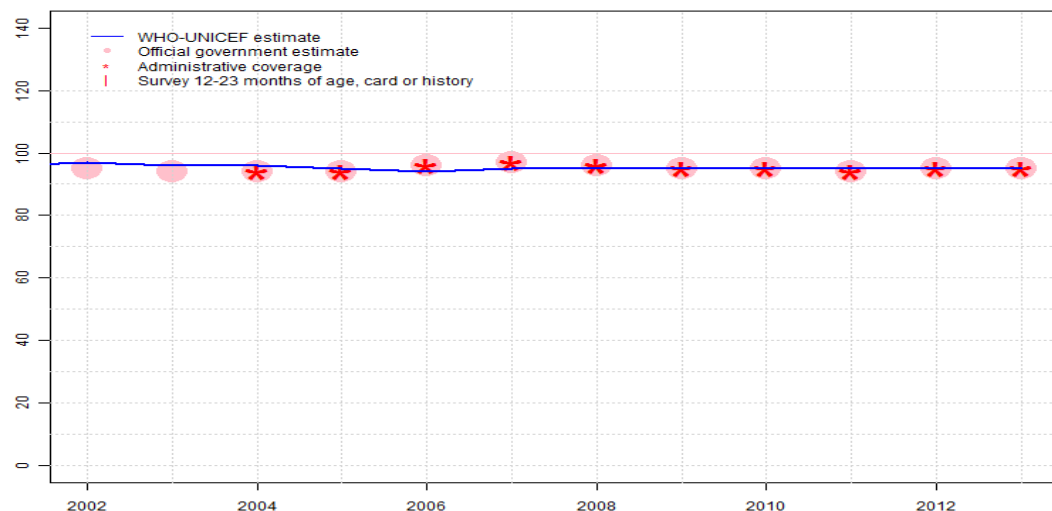
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annual birth cohort.

- 2011: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. Estimate of 96 percent changed from previous revision value of 93 percent. GoC=Assigned by working group. GoC reflects extrapolation of coverage from most recently available annual birth cohort.
- 2012: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. Estimate of 96 percent changed from previous revision value of 93 percent. GoC=Assigned by working group. GoC reflects extrapolation of coverage from most recently available annual birth cohort.
- 2013: See explanation for the previous year. Estimates 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=Assigned by working group. GoC reflects extrapolation of coverage from most recently available annual birth cohort.

# Germany - Pol3

DEU - Pol3



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

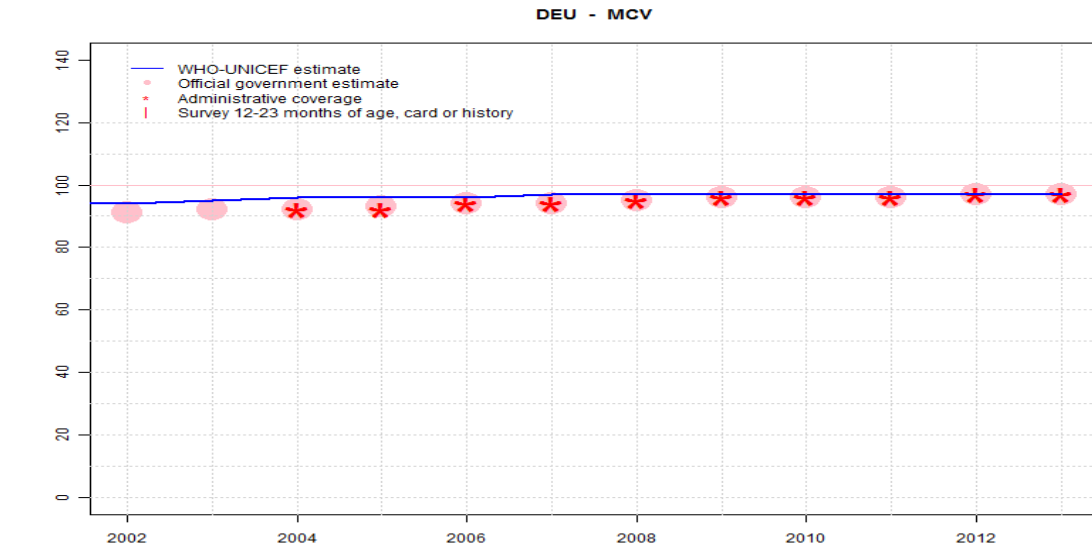
- 2002: . Data reported by Germany reflect the immunization status of children 5-7 years of age collected on school entry for the 4th dose of polio vaccine. Coverage levels are not reported for the 3rd dose of polio vaccine. Estimates attributed to the birth cohort five years younger than the reporting year include immunizations given after one year of age and overestimate coverage during these years. The study by Rieck, et.al. suggest that coverage by 24 months of age is lower than that suggested by data reported on school entry. See <http://dx.doi.org/10.4161/hv.26986>. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2003: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2004: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2005: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2006: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2007: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2008: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2009: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2010: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2011: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2012: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2013: See explanation for the previous year. Estimates 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=Assigned by working group. GoC reflects extrapolation from most recent annual

# Germany - Pol3

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birth cohort.

# Germany - MCV



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	94	95	96	96	96	97	97	97	97	97	97	97
Estimate GoC	••	••	••	••	••	••	••	•	•	•	•	•
Official	91	92	92	93	94	94	95	96	96	96	97	97
Administrative	NA	NA	92	92	94	94	95	96	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.

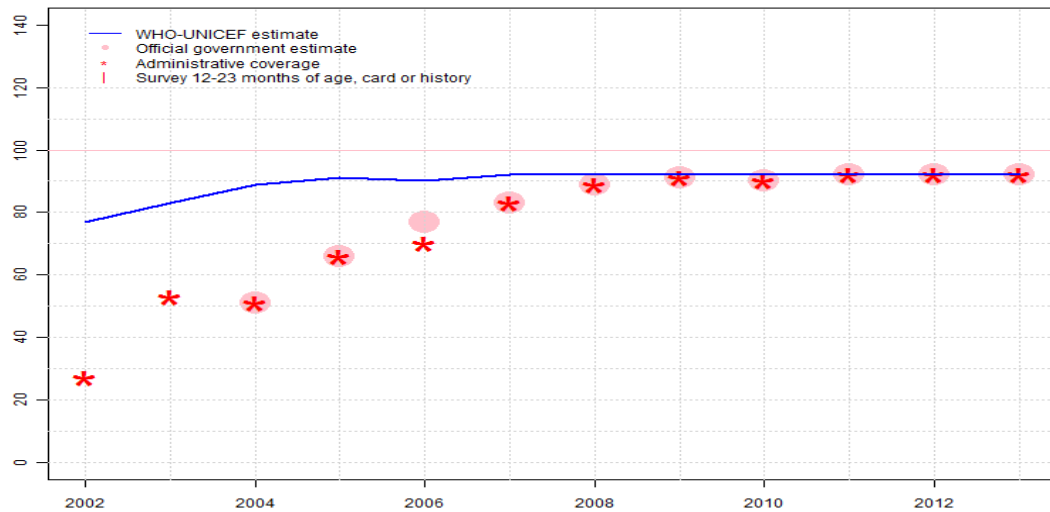
## Description:

- 2002: . Data reported by Germany reflect the immunization status collected on school entry of children 5-7 years of age. Estimates are attributed to the birth cohort five years younger than the reporting year. The study by Rieck, et.al. suggest that coverage by 24 months of age is lower than that suggested by data reported on school entry. See <http://dx.doi.org/10.4161/hv.26986>. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2003: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2004: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2005: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2006: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2007: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2008: . GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2009: . GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2010: . GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2011: . GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2012: . GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2013: . 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=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.



# Germany - MCV2

DEU - MCV2



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	77	83	89	91	90	92	92	92	92	92	92	92
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	NA	NA	51	66	77	83	89	91	90	92	92	92
Administrative	27	53	51	66	70	83	89	91	90	92	92	92
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.

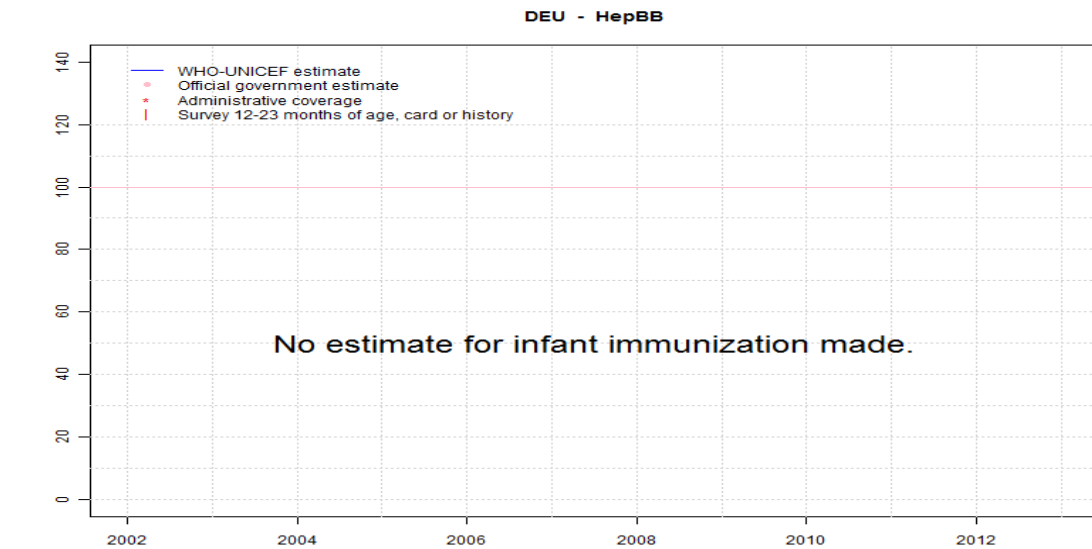
- 2002: . Data reported by Germany reflect the immunization status collected on school entry of children 5-7 years of age. Estimates are attributed to the birth cohort five years younger than the reporting year. The study by Rieck, et.al. suggest that coverage by 24 months of age is lower than that suggested by data reported on school entry. See <http://dx.doi.org/10.4161/hv.26986>. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2003: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2004: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2005: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2006: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2007: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2008: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2009: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2010: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2011: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2012: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2013: See explanation for the previous year. Estimates based on extrapolation

## Germany - MCV2

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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=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.

# Germany - HepBB



	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

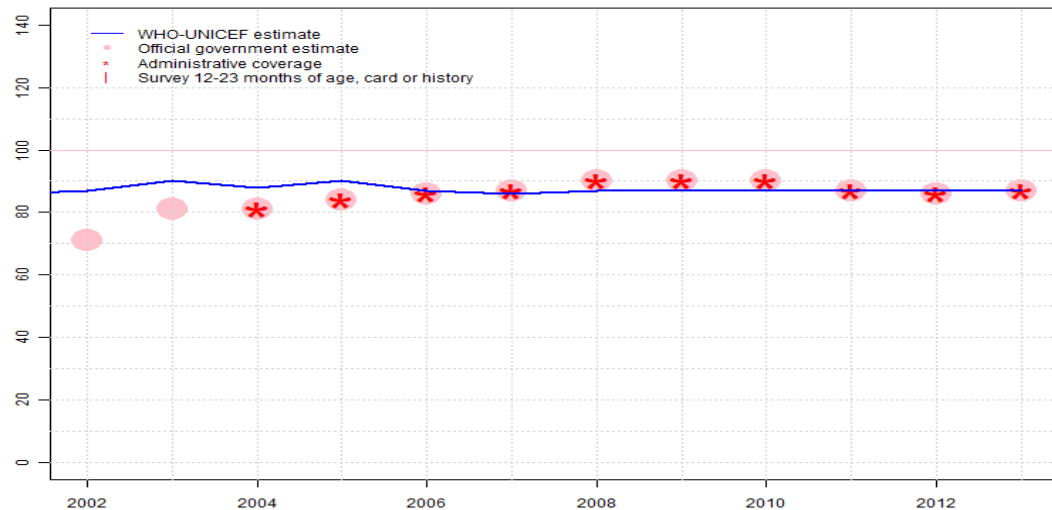
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Germany - HepB3

DEU - HepB3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	87	90	88	90	87	86	87	87	87	87	87	87
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	71	81	81	84	86	87	90	90	90	87	86	87
Administrative	NA	NA	81	84	86	87	90	90	90	87	86	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: . Data reported by Germany reflect the immunization status of children 5-7 years of age collected on school entry for the 4th dose of Hepatitis B containing vaccine. Coverage levels are not reported for the 3rd dose of Hepatitis B containing vaccine. Estimates attributed to the birth cohort five years younger than the reporting year include immunizations given after one year of age and overestimate coverage during these years. The study by Rieck, et.al. suggest that coverage by 24 months of age is lower than that suggested by data reported on school entry. See <http://dx.doi.org/10.4161/hv.26986>. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2003: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2004: Reported data calibrated to 2003 and 2005 levels. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2005: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2006: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2007: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2008: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. Estimate of 87 percent changed from previous revision value of 86 percent. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2009: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. Estimate of 87 percent changed from previous revision value of 86 percent. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2010: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. Estimate of 87 percent changed from previous revision value of 86 percent. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2011: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. Estimate of 87 percent changed from previous revision value of 86 percent. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2012: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. Estimate of 87 percent changed from previous revision value of 86 percent. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.

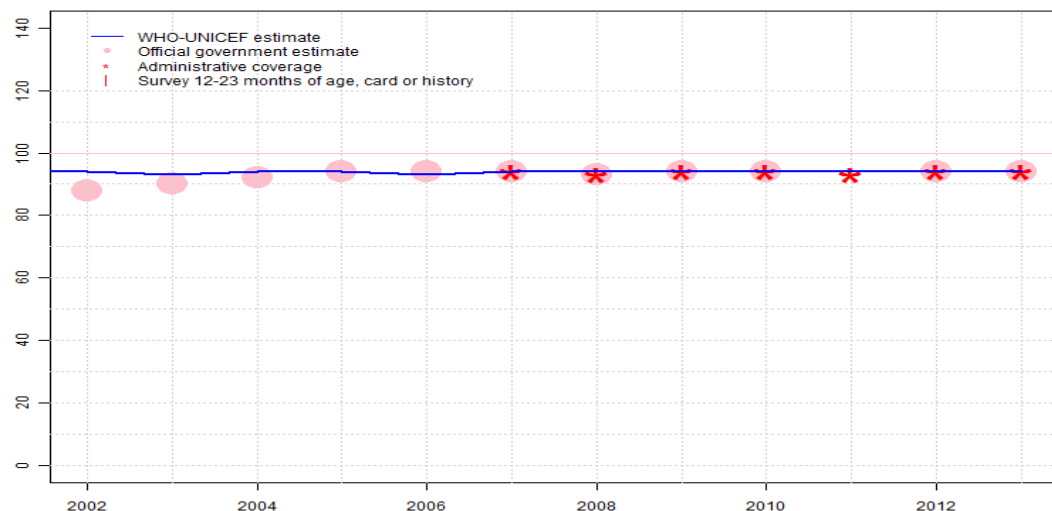
# Germany - HepB3

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2013: See explanation for the previous year. Estimates 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=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.

# Germany - Hib3

DEU - Hib3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	94	93	94	94	93	94	94	94	94	94	94	94
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	88	90	92	94	94	94	93	94	94	NA	94	94
Administrative	NA	NA	NA	NA	NA	94	93	94	94	93	94	94
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:

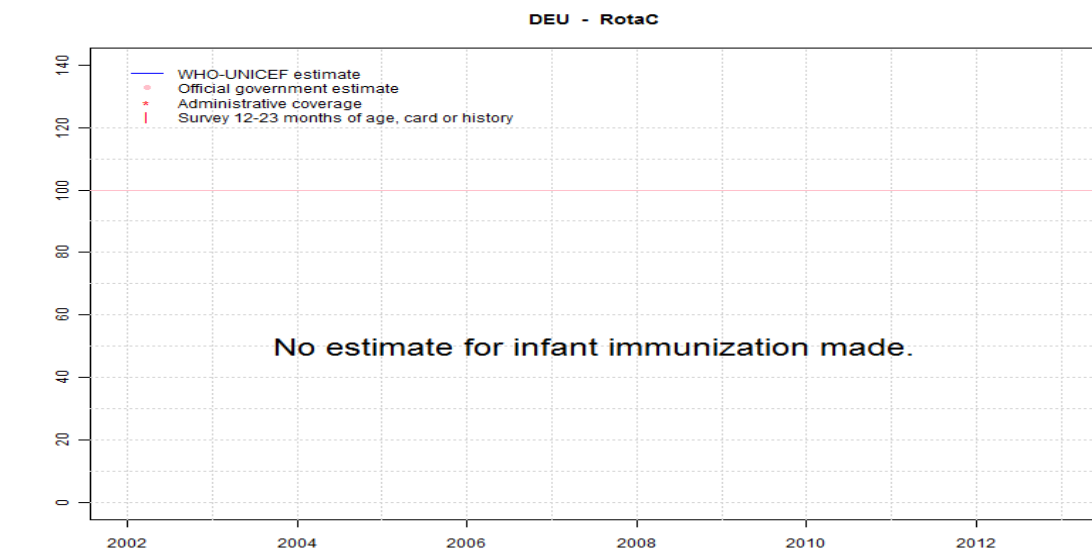
- 2002: . Data reported by Germany reflect the immunization status of children 5-7 years of age collected on school entry for the 4th dose of Hib containing vaccine. Coverage levels are not reported for the 3rd dose of Hib containing vaccine. Estimates attributed to the birth cohort five years younger than the reporting year include immunizations given after one year of age and overestimate coverage during these years. The study by Rieck, et.al. suggest that coverage by 24 months of age is lower than that suggested by data reported on school entry. See <http://dx.doi.org/10.4161/hv.26986>. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2003: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2004: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2005: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2006: See explanation for the previous year. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2007: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2008: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2009: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2010: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2011: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2012: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2013: See explanation for the previous year. Estimates 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=Assigned by working group. GoC reflects extrapolation from most recent annual

# Germany - Hib3

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birth cohort.

# Germany - 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

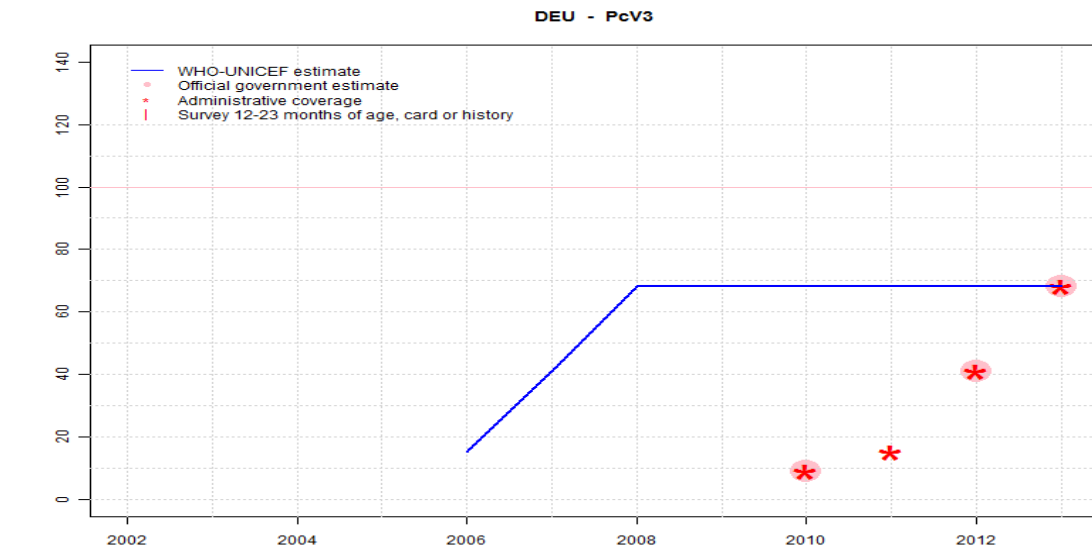
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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



# Germany - PcV3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	15	41	68	68	68	68	68	68
Estimate GoC	NA	NA	NA	NA	•	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	9	NA	41	68
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	9	15	41	68
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:

- 2006: See explanation for the previous year. Pneumococcal conjugate vaccine was introduced in 2006. Data reported by Germany reflect the immunization status of children 5-7 years of age collected on school entry. Estimates attributed to the birth cohort five years younger than the reporting year include immunizations given after one year of age and overestimate coverage during these years. The study by Rieck, et.al. suggest that coverage by 24 months of age is higher than suggested by data reported on school entry. See <http://dx.doi.org/10.4161/hv.26986>. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2007: See explanation for the previous year. Estimates based on extrapolation from data reported by national government. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2008: . Estimate of 68 percent changed from previous revision value of 41 percent. GoC=Assigned by working group. GoC reflects coverage data for birth cohort on school entry.
- 2009: . Estimate of 68 percent changed from previous revision value of 41 percent. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2010: . Estimate of 68 percent changed from previous revision value of 41 percent. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2011: . Estimate of 68 percent changed from previous revision value of 41 percent. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2012: . Estimate of 68 percent changed from previous revision value of 41 percent. GoC=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.
- 2013: . Reported data excluded. Estimate is based on official government 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=Assigned by working group. GoC reflects extrapolation from most recent annual birth cohort.

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