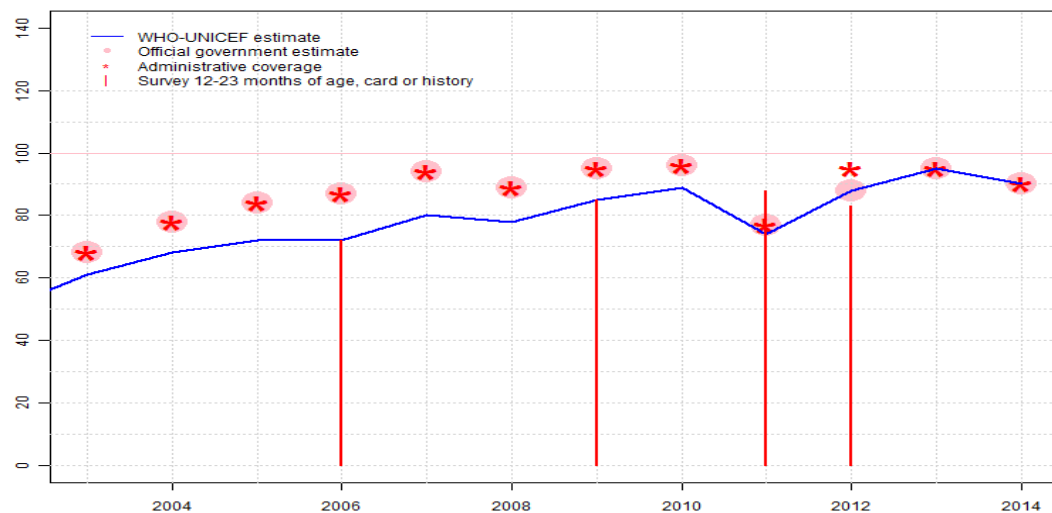


# Democratic Republic of the Congo - BCG

COD - BCG



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	61	68	72	72	80	78	85	89	74	88	95	90
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	68	78	84	87	94	89	95	96	77	88	95	90
Administrative	68	78	84	87	94	89	95	96	77	95	95	90
Survey	NA	NA	NA	72	NA	NA	85	NA	88	83	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

- 2003: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2004: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2005: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 72 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2006 and 2009 levels. Estimate challenged by: D-
- 2008: Reported data calibrated to 2006 and 2009 levels. The decline in coverage is attributed to vaccine shortage. Estimate challenged by: D-
- 2009: Estimate based on survey results to maintain consistency with other vaccines. Estimate challenged by: D-R-S-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate of 89 percent changed from previous revision value of 86 percent. Estimate challenged by: D-S-
- 2011: Reported data calibrated to 2009 and 2012 levels. Democratic Republic of Congo Immunization Coverage Survey 2012 results ignored by working group. Survey may have been conducted in a period that may not reflect vaccine stock out. Decrease may be attributed to a two month long vaccine stock-out. Estimate of 74 percent changed from previous revision value of 67 percent. Estimate challenged by: S-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 83 percent based on 1 survey(s). Vaccine supplies re-established in 2012. Estimate of 88 percent changed from previous revision value of 78 percent. Estimate challenged by: D-S-
- 2013: Estimate based on coverage reported by national government. The Minister of Health reports that the country, in collaboration with partners, has been in the process of improving the quality of immunization coverage data. As part of this process the estimates of the number of children in the target population were revised and estimates for 2013 cannot be directly compared with previous years. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate of 95 percent changed from previous revision value of 78 percent. Estimate challenged by: D-S-
- 2014: Estimate based on coverage reported by national government. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Programme reports a one and a half month stock-out at national level.

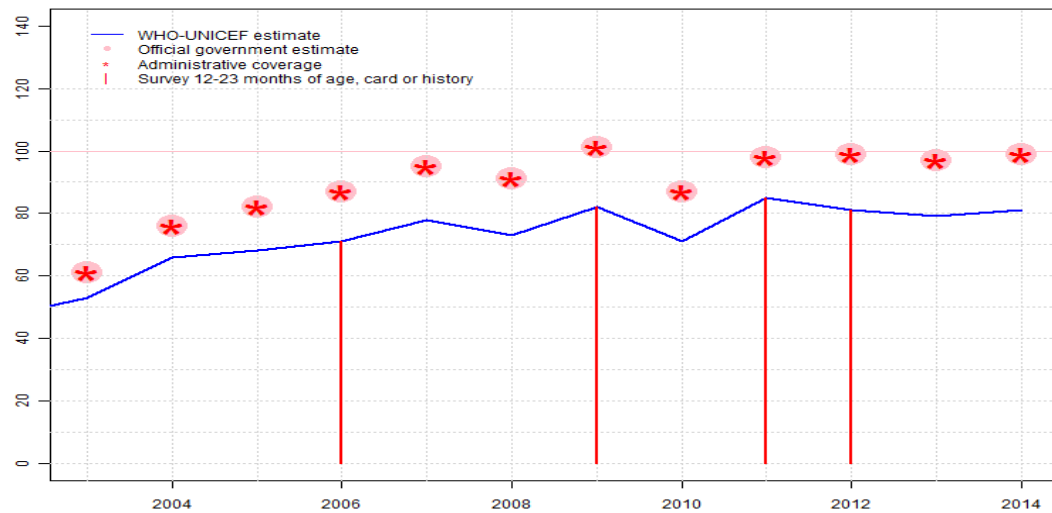
# Democratic Republic of the Congo - BCG

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Estimate challenged by: D-

# Democratic Republic of the Congo - DTP1

COD - DTP1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	53	66	68	71	78	73	82	71	85	81	79	81
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	61	76	82	87	95	91	101	87	98	99	97	99
Administrative	61	76	82	87	95	91	101	87	98	99	97	99
Survey	NA	NA	NA	71	NA	NA	82	NA	85	81	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

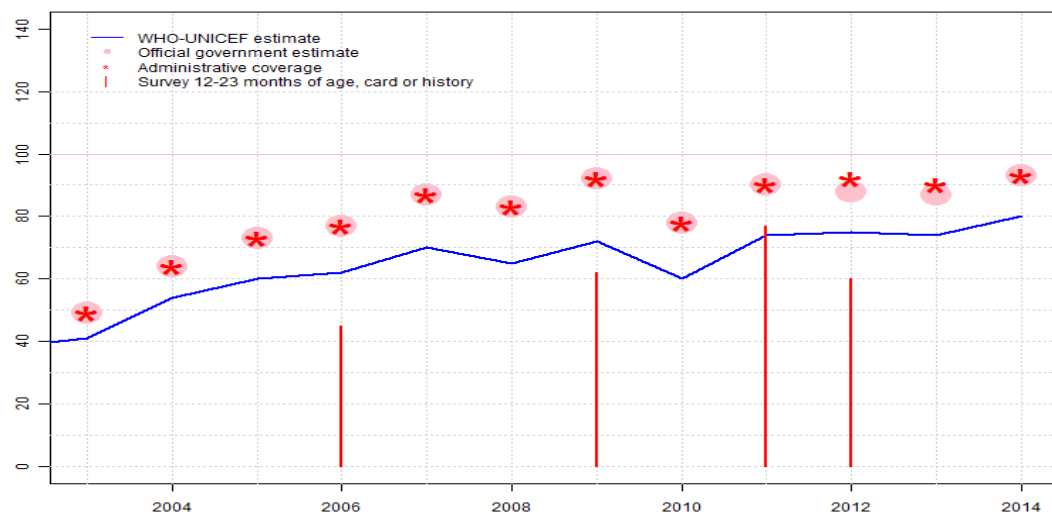
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2003: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2004: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2005: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 71 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2006 and 2009 levels. Estimate challenged by: D-
- 2008: Reported data calibrated to 2006 and 2009 levels. The decline in coverage is attributed to vaccine shortage. Estimate challenged by: D-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 82 percent based on 1 survey(s). Estimate follows reported data. Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2009 and 2011 levels. The decline in coverage is attributed to vaccine shortage. Estimate challenged by: D-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 85 percent based on 1 survey(s). Increase is likely attributable to catch-up activities following vaccine shortage. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 81 percent based on 1 survey(s). Estimate of 81 percent changed from previous revision value of 86 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. The Minister of Health reports that the country, in collaboration with partners, has been in the process of improving the quality of immunization coverage data. As part of this process the estimates of the number of children in the target population were revised and estimates for 2013 cannot be directly compared with previous years. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate of 79 percent changed from previous revision value of 86 percent. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate challenged by: D-

# Democratic Republic of the Congo - DTP3

COD - DTP3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	41	54	60	62	70	65	72	60	74	75	74	80
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	49	64	73	77	87	83	92	78	90	88	87	93
Administrative	49	64	73	77	87	83	92	78	90	92	90	93
Survey	NA	NA	NA	45	NA	NA	62	NA	77	60	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

- 2003: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2004: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2005: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 62 percent based on 1 survey(s). Democratic Republic of the Congo Demographic and Health Survey 2007 card or history results of 45 percent modified for recall bias to 62 percent based on 1st dose card or history coverage of 71 percent, 1st dose card only coverage of 23 percent and 3d dose card only coverage of 20 percent. Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2006 and 2009 levels. Estimate challenged by: D-
- 2008: Reported data calibrated to 2006 and 2009 levels. The decline in coverage is attributed to vaccine shortage. Estimate challenged by: D-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 72 percent based on 1 survey(s). Democratic Republic of the Congo Multiple Indicator Cluster Survey 2010 card or history results of 62 percent modified for recall bias to 72 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 42 percent and 3d dose card only coverage of 37 percent. Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2009 and 2011 levels. The decline in coverage is attributed to vaccine shortage. Estimate challenged by: D-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 1 survey(s). Democratic Republic of Congo Immunization Coverage Survey 2012 card or history results of 77 percent modified for recall bias to 74 percent based on 1st dose card or history coverage of 85 percent, 1st dose card only coverage of 24 percent and 3d dose card only coverage of 21 percent. Increase is likely attributable to catch-up activities following vaccine shortage. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 75 percent based on 1 survey(s). Democratic Republic of Congo Demographic and Health Survey 2013-14 card or history results of 60 percent modified for recall bias to 75 percent based on 1st dose card or history coverage of 81 percent, 1st dose card only coverage of 26 percent and 3d dose card only coverage of 24 percent. Estimate of 75 percent changed from previous revision value of 72 percent. Estimate

# Democratic Republic of the Congo - DTP3

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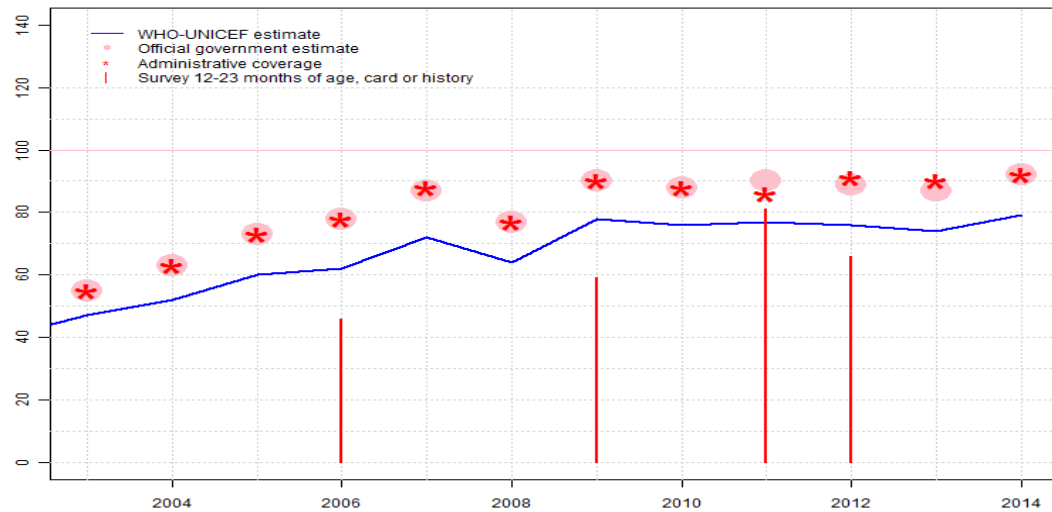
challenged by: D-R-

2013: Reported data calibrated to 2012 levels. The Minister of Health reports that the country, in collaboration with partners, has been in the process of improving the quality of immunization coverage data. As part of this process the estimates of the number of children in the target population were revised and estimates for 2013 cannot be directly compared with previous years. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate of 74 percent changed from previous revision value of 72 percent. Estimate challenged by: D-

2014: Reported data calibrated to 2012 levels. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate challenged by: D-

# Democratic Republic of the Congo - Pol3

COD - Pol3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	47	52	60	62	72	64	78	76	77	76	74	79
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	55	63	73	78	87	77	90	88	90	89	87	92
Administrative	55	63	73	78	88	77	90	88	86	91	90	92
Survey	NA	NA	NA	46	NA	NA	59	NA	81	66	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

- 2003: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2004: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2005: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2006: Survey does not support reported for other antigens. Recall bias adjustment likely includes doses administered during SIAs. Recall bias factor recalibrated to reflect the adjustment for DTP3 for the same survey. Democratic Republic of the Congo Demographic and Health Survey 2007 card or history results of 46 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 23 percent and 3d dose card only coverage of 21 percent. Estimate challenged by: D-R-
- 2006: Survey does not support reported for other antigens. Recall bias adjustment likely includes doses administered during SIAs. Recall bias factor recalibrated to reflect the adjustment for DTP3 for the same survey. Democratic Republic of the Congo Demographic and Health Survey 2007 card or history results of 46 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 23 percent and 3d dose card only coverage of 21 percent. Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2006 and 2009 levels. Estimate challenged by: D-
- 2008: Reported data calibrated to 2006 and 2009 levels. The decline in coverage is attributed to vaccine shortage. Estimate follows trend in reported data. Estimate challenged by: D-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 78 percent based on 1 survey(s). Democratic Republic of the Congo Multiple Indicator Cluster Survey 2010 card or history results of 59 percent modified for recall bias to 78 percent based on 1st dose card or history coverage of 86 percent, 1st dose card only coverage of 41 percent and 3d dose card only coverage of 37 percent. Estimate follows trend in reported data. Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-S-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). Democratic Republic of Congo Immunization Coverage Survey 2012 card or history results of 81 percent modified for recall bias to 77 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 25

# Democratic Republic of the Congo - Pol3

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percent and 3d dose card only coverage of 22 percent. Estimate challenged by: D-R-S-

2012: Reported data calibrated to 2011 levels. Democratic Republic of Congo Demographic and Health Survey 2013-14 results ignored by working group. Survey results may include doses delivered through campaign. Democratic Republic of Congo Demographic and Health Survey 2013-14 card or history results of 66 percent modified for recall bias to 85 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 26 percent and 3d dose card only coverage of 24 percent. Estimate challenged by: D-S-

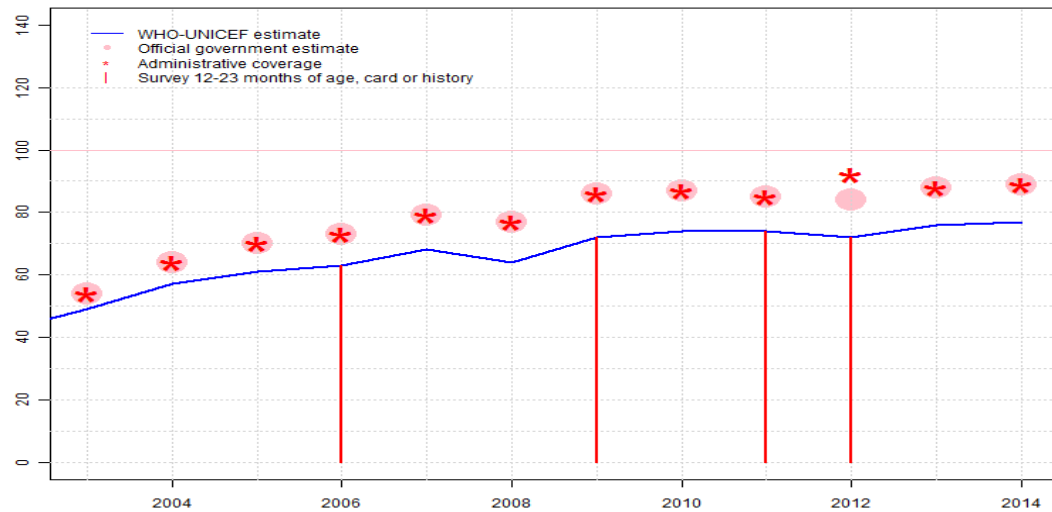
2013: Reported data calibrated to 2011 levels. The Minister of Health reports that the country, in collaboration with partners, has been in the process of improving the quality of immunization coverage data. As part of this process the estimates of the number of children in the target population were revised and estimates for 2013 cannot be directly compared with previous years. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate of 74 percent changed from previous revision value of 76 percent. Estimate challenged by: D-S-

2014: Reported data calibrated to 2011 levels. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate challenged by: D-S-



# Democratic Republic of the Congo - MCV1

COD - MCV1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	49	57	61	63	68	64	72	74	74	72	76	77
Estimate GoC	••	•	•	•	•	•	•	•	•	•	•	•
Official	54	64	70	73	79	77	86	87	85	84	88	89
Administrative	54	64	70	73	79	77	86	87	85	92	88	89
Survey	NA	NA	NA	63	NA	NA	72	NA	74	72	NA	NA

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

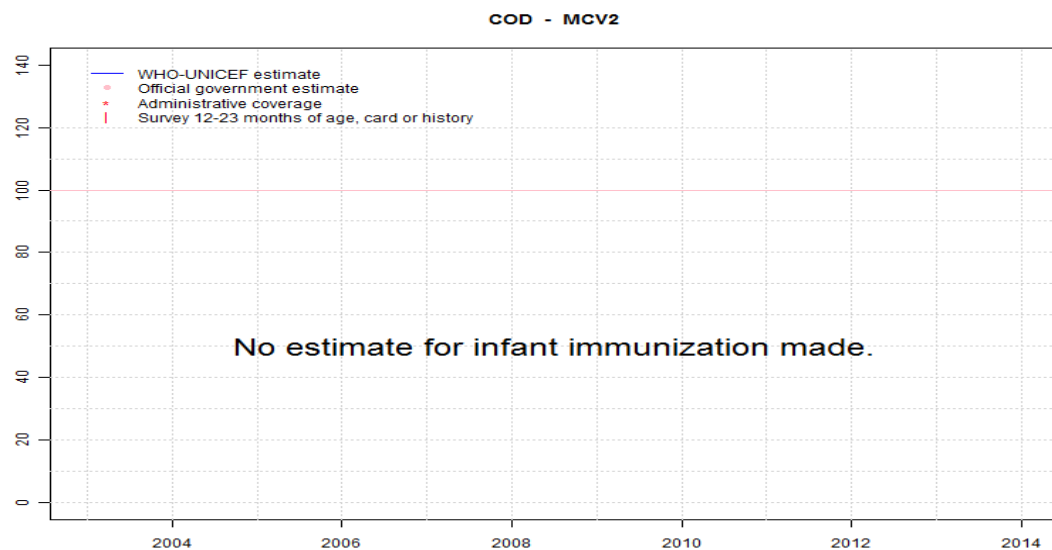
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

- 2003: Reported data calibrated to 2000 and 2006 levels. GoC=D+
- 2004: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2005: Reported data calibrated to 2000 and 2006 levels. Estimate challenged by: D-
- 2006: DTP3 and Pol3 estimates are based on survey results. MCV estimates based on survey to maintain consistency Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2006 and 2009 levels. Estimate challenged by: D-
- 2008: Reported data calibrated to 2006 and 2009 levels. The decline in coverage is attributed to vaccine shortage. Estimate challenged by: D-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 72 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 72 percent based on 1 survey(s). Estimate of 72 percent changed from previous revision value of 73 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. The Minister of Health reports that the country, in collaboration with partners, has been in the process of improving the quality of immunization coverage data. As part of this process the estimates of the number of children in the target population were revised and estimates for 2013 cannot be directly compared with previous years. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate of 76 percent changed from previous revision value of 73 percent. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Programme reports a stock-out of MCV at the national level that lasted less than one month. Estimate challenged by: D-

# Democratic Republic of the Congo - MCV2



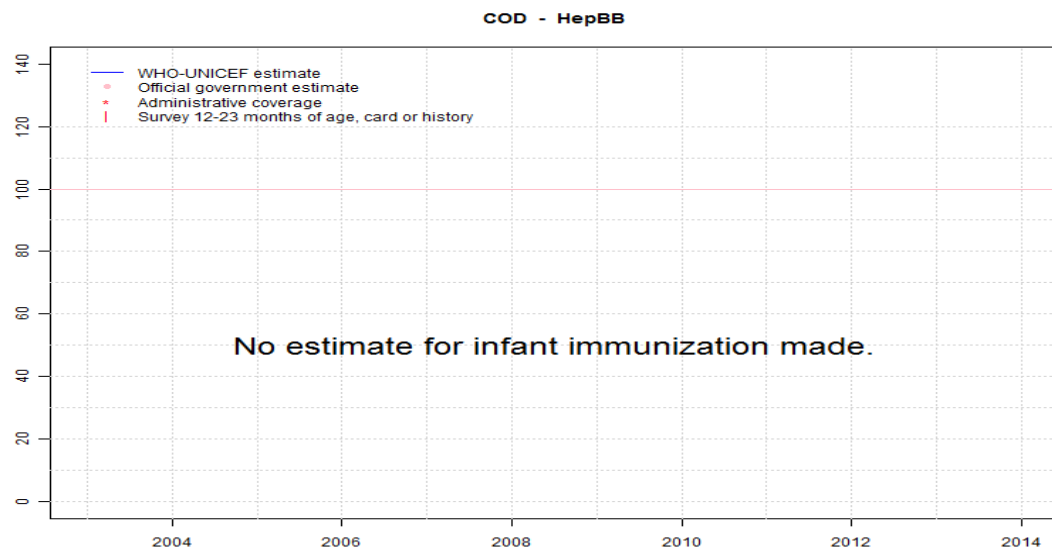
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

# Democratic Republic of the Congo - HepBB



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

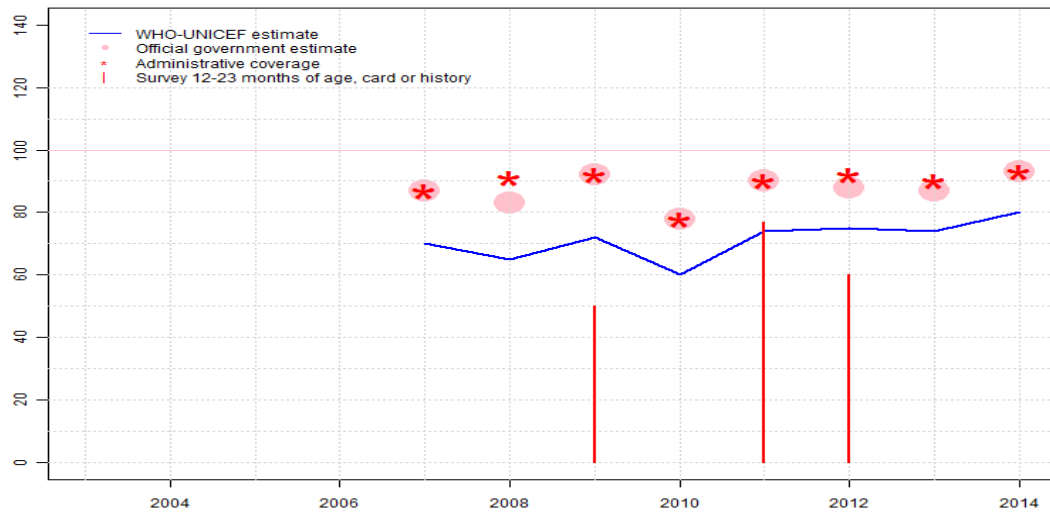
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

# Democratic Republic of the Congo - HepB3

COD - HepB3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	70	65	72	60	74	75	74	80
Estimate GoC	NA	NA	NA	NA	•	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	87	83	92	78	90	88	87	93
Administrative	NA	NA	NA	NA	87	91	92	78	90	92	90	93
Survey	NA	NA	NA	NA	NA	NA	50	NA	77	60	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:

- 2007: Estimate follows DTP3 coverage levels. HepB vaccine introduced in 2007 as a DTP-HepB combination vaccine. Estimate challenged by: D-R-
- 2008: Estimate follows DTP3 coverage levels. The decline in coverage is attributed to vaccine shortage. Estimate challenged by: D-R-
- 2009: Estimate follows DTP3 coverage levels. Democratic Republic of the Congo Multiple Indicator Cluster Survey 2010 card or history results of 50 percent modified for recall bias to 65 percent based on 1st dose card or history coverage of 71 percent, 1st dose card only coverage of 38 percent and 3d dose card only coverage of 35 percent. DTP-HepB-Hib combination vaccine introduced in 2009. Estimate challenged by: D-R-
- 2010: Estimate follows DTP3 coverage levels. Reported data excluded. Decline in reported coverage from 92 percent to 78 percent with increase to 90 percent. The decline in coverage is attributed to vaccine shortage. Estimate challenged by: D-R-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 1 survey(s). Democratic Republic of Congo Immunization Coverage Survey 2012 card or history results of 77 percent modified for recall bias to 74 percent based on 1st dose card or history coverage of 85 percent, 1st dose card only coverage of 24 percent and 3d dose card only coverage of 21 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 75 percent based on 1 survey(s). Democratic Republic of Congo Demographic and Health Survey 2013-14 card or history results of 60 percent modified for recall bias to 75 percent based on 1st dose card or history coverage of 81 percent, 1st dose card only coverage of 26 percent and 3d dose card only coverage of 24 percent. Estimate of 75 percent changed from previous revision value of 72 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. The Minister of Health reports that the country, in collaboration with partners, has been in the process of improving the quality of immunization coverage data. As part of this process the estimates of the number of children in the target population were revised and estimates for 2013 cannot be directly compared with previous years. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate of 74 percent changed from previous revision value of 72 percent. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate challenged by:

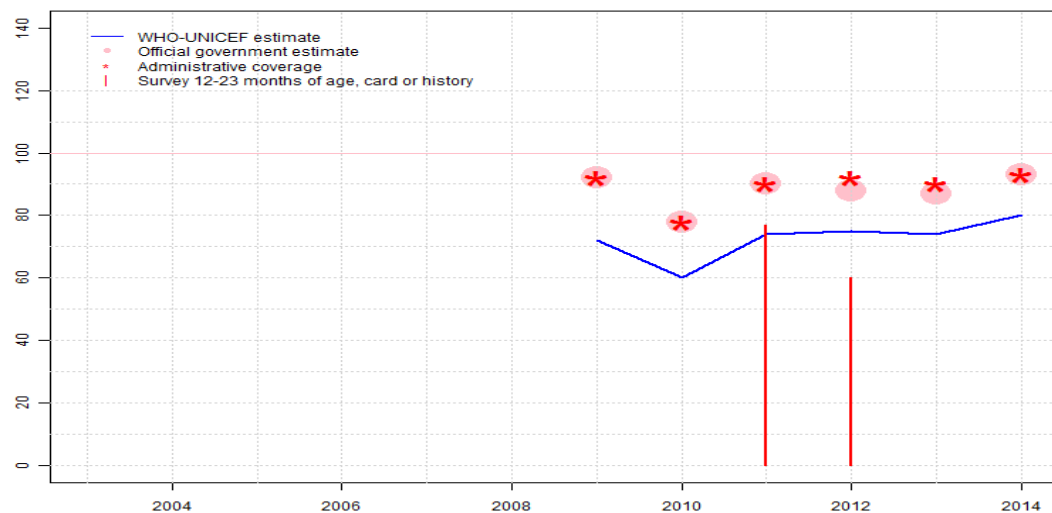
# Democratic Republic of the Congo - HepB3

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D-

# Democratic Republic of the Congo - Hib3

COD - Hib3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	72	60	74	75	74	80
Estimate GoC	NA	NA	NA	NA	NA	NA	●	●	●	●	●	●
Official	NA	NA	NA	NA	NA	NA	92	78	90	88	87	93
Administrative	NA	NA	NA	NA	NA	NA	92	78	90	92	90	93
Survey	NA	NA	NA	NA	NA	NA	NA	NA	77	60	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.

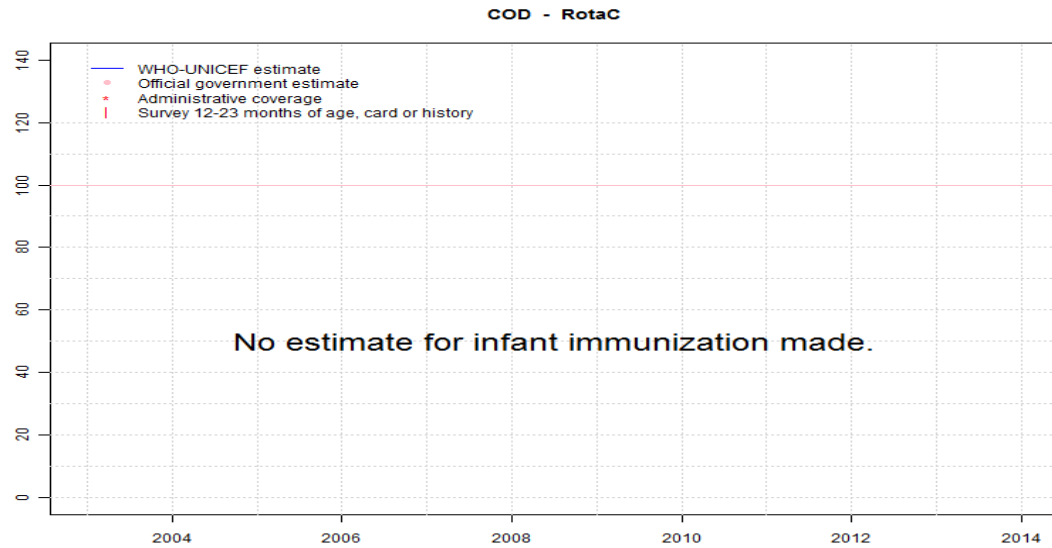
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2009: Estimate follows DTP3 coverage levels. Hib vaccine introduced in 2009. Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-R-
- 2010: Estimate follows DTP3 coverage levels. Reported data excluded. Decline in reported coverage from 92 percent to 78 percent with increase to 90 percent. The decline in coverage is attributed to vaccine shortage. Estimate challenged by: D-R-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 1 survey(s). Democratic Republic of Congo Immunization Coverage Survey 2012 card or history results of 77 percent modified for recall bias to 74 percent based on 1st dose card or history coverage of 85 percent, 1st dose card only coverage of 24 percent and 3d dose card only coverage of 21 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 75 percent based on 1 survey(s). Democratic Republic of Congo Demographic and Health Survey 2013-14 card or history results of 60 percent modified for recall bias to 75 percent based on 1st dose card or history coverage of 81 percent, 1st dose card only coverage of 26 percent and 3d dose card only coverage of 24 percent. Estimate of 75 percent changed from previous revision value of 72 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. The Minister of Health reports that the country, in collaboration with partners, has been in the process of improving the quality of immunization coverage data. As part of this process the estimates of the number of children in the target population were revised and estimates for 2013 cannot be directly compared with previous years. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate of 74 percent changed from previous revision value of 72 percent. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate challenged by: D-

# Democratic Republic of the Congo - RotaC



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

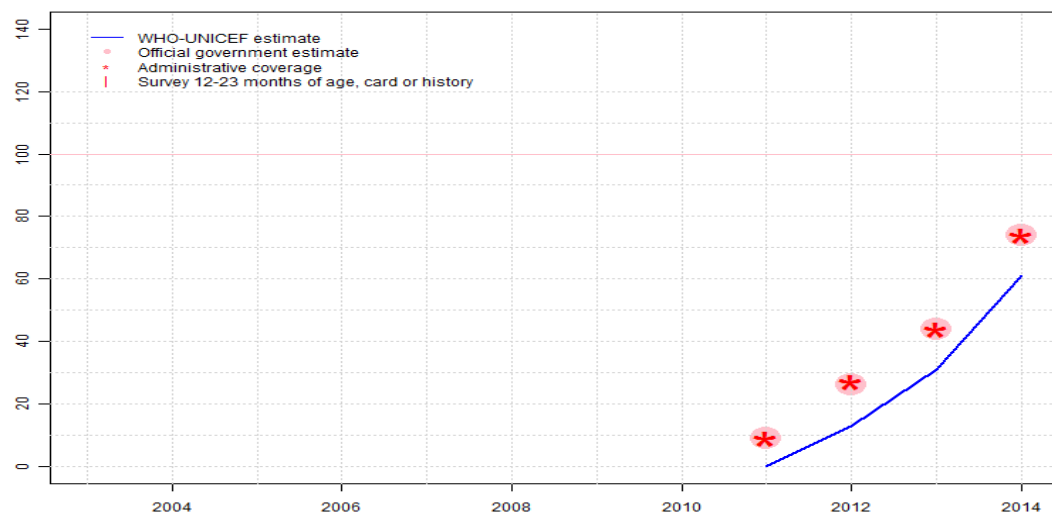
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

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

# Democratic Republic of the Congo - PcV3

COD - PcV3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	0	13	31	61
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	9	26	44	74
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	9	27	44	74
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.

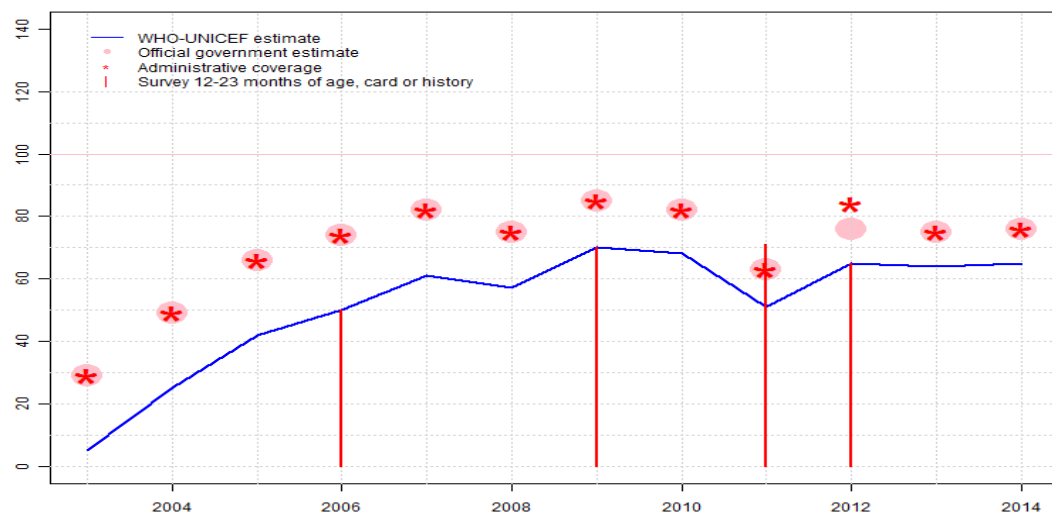
## Description:

- 2011: Reported data calibrated to 2012 levels. Pneumococcal conjugate vaccine was introduced in part of the country in 2011. Estimate of 0 percent changed from previous revision value of 9 percent. GoC=No accepted empirical data
- 2012: Estimate is based on calibrated DTP3 level. Estimate of 13 percent changed from previous revision value of 26 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. The Minister of Health reports that the country, in collaboration with partners, has been in the process of improving the quality of immunization coverage data. As part of this process the estimates of the number of children in the target population were revised and estimates for 2013 cannot be directly compared with previous years. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate of 31 percent changed from previous revision value of 26 percent. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate challenged by: D-



# Democratic Republic of the Congo - YFV

COD - YFV



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	5	25	42	50	61	57	70	68	51	65	64	65
Estimate GoC	••	•	•	•	•	•	•	•	•	•	•	•
Official	29	49	66	74	82	75	85	82	63	76	75	76
Administrative	29	49	66	74	82	75	85	82	63	84	75	76
Survey	NA	NA	NA	50	NA	NA	70	NA	71	65	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

- 2003: Reported data calibrated to 2006 levels. YFV partially introduced in 2003, nationally in 2004, reporting started in 2003. GoC=D+
- 2004: Reported data calibrated to 2006 levels. Estimate challenged by: D-
- 2005: Reported data calibrated to 2006 levels. Estimate challenged by: D-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 50 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2006 and 2009 levels. Estimate challenged by: D-
- 2008: Reported data calibrated to 2006 and 2009 levels. The decline in coverage is attributed to vaccine shortage. Estimate challenged by: D-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 70 percent based on 1 survey(s). Estimate challenged by: D-R-S-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate of 68 percent changed from previous revision value of 67 percent. Estimate challenged by: D-S-
- 2011: Reported data calibrated to 2009 and 2012 levels. Democratic Republic of Congo Immunization Coverage Survey 2012 results ignored by working group. Survey may have been conducted in a period that may not reflect vaccine stock out. Decline in coverage most likely attributable to vaccine stock-out in 221 of 509 districts. Estimate of 51 percent changed from previous revision value of 48 percent. Estimate challenged by: D-S-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 65 percent based on 1 survey(s). Recovered from vaccine stock out. Estimate of 65 percent changed from previous revision value of 61 percent. Estimate challenged by: D-R-S-
- 2013: Reported data calibrated to 2012 levels. The Minister of Health reports that the country, in collaboration with partners, has been in the process of improving the quality of immunization coverage data. As part of this process the estimates of the number of children in the target population were revised and estimates for 2013 cannot be directly compared with previous years. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Estimate of 64 percent changed from previous revision value of 61 percent. Estimate challenged by: D-S-
- 2014: Reported data calibrated to 2012 levels. WHO and UNICEF encourage the Ministry of Health make an appropriate revision for previous years and re-estimate coverage for a consistent time-series. Programme reports a two month stock-out at the national level. Reported coverage appears to be in error in contrast to reported administrative coverage. Estimate challenged

# Democratic Republic of the Congo - YFV

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by: D-

# Democratic Republic of the Congo - survey details

2012 République Démocratique du Congo Enquête  
Démographique et de Santé 2013-14

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	82	12-23 m	3366	26
BCG	Card	26	12-23 m	877	26
BCG	Card or History	83	12-23 m	3366	26
BCG	History	58	12-23 m	2490	26
DTP1	C or H <12 months	80	12-23 m	3366	26
DTP1	Card	26	12-23 m	877	26
DTP1	Card or History	81	12-23 m	3366	26
DTP1	History	56	12-23 m	2490	26
DTP3	C or H <12 months	58	12-23 m	3366	26
DTP3	Card	24	12-23 m	877	26
DTP3	Card or History	60	12-23 m	3366	26
DTP3	History	36	12-23 m	2490	26
HepB1	C or H <12 months	80	12-23 m	3366	26
HepB1	Card	26	12-23 m	877	26
HepB1	Card or History	81	12-23 m	3366	26
HepB1	History	56	12-23 m	2490	26
HepB3	C or H <12 months	58	12-23 m	3366	26
HepB3	Card	24	12-23 m	877	26
HepB3	Card or History	60	12-23 m	3366	26
HepB3	History	36	12-23 m	2490	26
Hib1	C or H <12 months	80	12-23 m	3366	26
Hib1	Card	26	12-23 m	877	26
Hib1	Card or History	81	12-23 m	3366	26
Hib1	History	56	12-23 m	2490	26
Hib3	C or H <12 months	58	12-23 m	3366	26
Hib3	Card	24	12-23 m	877	26
Hib3	Card or History	60	12-23 m	3366	26
Hib3	History	36	12-23 m	2490	26
MCV1	C or H <12 months	64	12-23 m	3366	26
MCV1	Card	23	12-23 m	877	26
MCV1	Card or History	72	12-23 m	3366	26
MCV1	History	49	12-23 m	2490	26
Pol1	C or H <12 months	90	12-23 m	3366	26
Pol1	Card	26	12-23 m	877	26
Pol1	Card or History	92	12-23 m	3366	26

Pol1	History	66	12-23 m	2490	26
Pol3	C or H <12 months	63	12-23 m	3366	26
Pol3	Card	24	12-23 m	877	26
Pol3	Card or History	66	12-23 m	3366	26
Pol3	History	41	12-23 m	2490	26
YFV	C or H <12 months	59	12-23 m	3366	26
YFV	Card	22	12-23 m	877	26
YFV	Card or History	65	12-23 m	3366	26
YFV	History	44	12-23 m	2490	26

2011 Enquête de couverture vaccinale en République  
Démocratique du Congo, 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	27	12-23 m	6903	35
BCG	Card or History	88	12-23 m	6903	35
BCG	History	62	12-23 m	6903	35
DTP1	Card	24	12-23 m	6903	35
DTP1	Card or History	85	12-23 m	6903	35
DTP1	History	60	12-23 m	6903	35
DTP3	Card	21	12-23 m	6903	35
DTP3	Card or History	77	12-23 m	6903	35
DTP3	History	56	12-23 m	6903	35
HepB1	Card	24	12-23 m	6903	35
HepB1	Card or History	85	12-23 m	6903	35
HepB1	History	60	12-23 m	6903	35
HepB3	Card	21	12-23 m	6903	35
HepB3	Card or History	77	12-23 m	6903	35
HepB3	History	56	12-23 m	6903	35
Hib1	Card	24	12-23 m	6903	35
Hib1	Card or History	85	12-23 m	6903	35
Hib1	History	60	12-23 m	6903	35
Hib3	Card	21	12-23 m	6903	35
Hib3	Card or History	77	12-23 m	6903	35
Hib3	History	56	12-23 m	6903	35
MCV1	Card	19	12-23 m	6903	35
MCV1	Card or History	74	12-23 m	6903	35
MCV1	History	55	12-23 m	6903	35
Pol1	Card	25	12-23 m	6903	35

# Democratic Republic of the Congo - survey details

Pol1	Card or History	88	12-23 m	6903	35
Pol1	History	64	12-23 m	6903	35
Pol3	Card	22	12-23 m	6903	35
Pol3	Card or History	81	12-23 m	6903	35
Pol3	History	60	12-23 m	6903	35
YFV	Card	18	12-23 m	6903	35
YFV	Card or History	71	12-23 m	6903	35
YFV	History	53	12-23 m	6903	35

## 2011 République Démocratique du Congo Enquête Démographique et de Santé 2013-14

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	82	24-35 m	3435	26
DTP1	C or H <12 months	78	24-35 m	3435	26
DTP3	C or H <12 months	60	24-35 m	3435	26
HepB1	C or H <12 months	78	24-35 m	3435	26
HepB3	C or H <12 months	60	24-35 m	3435	26
Hib1	C or H <12 months	78	24-35 m	3435	26
Hib3	C or H <12 months	60	24-35 m	3435	26
MCV1	C or H <12 months	61	24-35 m	3435	26
Pol1	C or H <12 months	87	24-35 m	3435	26
Pol3	C or H <12 months	61	24-35 m	3435	26
YFV	C or H <12 months	56	24-35 m	3435	26

## 2010 République Démocratique du Congo Enquête Démographique et de Santé 2013-14

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	82	36-47 m	3328	26
DTP1	C or H <12 months	80	36-47 m	3328	26
DTP3	C or H <12 months	60	36-47 m	3328	26
HepB1	C or H <12 months	80	36-47 m	3328	26
HepB3	C or H <12 months	60	36-47 m	3328	26
Hib1	C or H <12 months	80	36-47 m	3328	26
Hib3	C or H <12 months	60	36-47 m	3328	26
MCV1	C or H <12 months	66	36-47 m	3328	26

Pol1	C or H <12 months	86	36-47 m	3328	26
Pol3	C or H <12 months	60	36-47 m	3328	26
YFV	C or H <12 months	63	36-47 m	3328	26

## 2009 République Démocratique du Congo Enquête Démographique et de Santé 2013-14

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	84	48-59 m	3132	26
DTP1	C or H <12 months	80	48-59 m	3132	26
DTP3	C or H <12 months	63	48-59 m	3132	26
HepB1	C or H <12 months	80	48-59 m	3132	26
HepB3	C or H <12 months	63	48-59 m	3132	26
Hib1	C or H <12 months	80	48-59 m	3132	26
Hib3	C or H <12 months	63	48-59 m	3132	26
MCV1	C or H <12 months	66	48-59 m	3132	26
Pol1	C or H <12 months	85	48-59 m	3132	26
Pol3	C or H <12 months	56	48-59 m	3132	26
YFV	C or H <12 months	60	48-59 m	3132	26

## 2009 République Démocratique du Congo, Enquête par grappes à indicateurs multiples MICS-2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	84	12-23 m	2384	43
BCG	Card	41	12-23 m	2384	43
BCG	Card or History	85	12-23 m	2384	43
BCG	History	44	12-23 m	2384	43
DTP1	C or H <12 months	81	12-23 m	2384	43
DTP1	Card	42	12-23 m	2384	43
DTP1	Card or History	82	12-23 m	2384	43
DTP1	History	40	12-23 m	2384	43
DTP3	C or H <12 months	61	12-23 m	2384	43
DTP3	Card	37	12-23 m	2384	43
DTP3	Card or History	62	12-23 m	2384	43
DTP3	History	25	12-23 m	2384	43
HepB1	C or H <12 months	70	12-23 m	2384	43
HepB1	Card	38	12-23 m	2384	43

# Democratic Republic of the Congo - survey details

HepB1	Card or History	71	12-23 m	2384	43	DTP1	Card or History	71	12-23 m	1585	24
HepB1	History	33	12-23 m	2384	43	DTP1	History	48	12-23 m	1585	24
HepB3	C or H <12 months	49	12-23 m	2384	43	DTP3	C or H <12 months	44	12-23 m	1585	24
HepB3	Card	35	12-23 m	2384	43	DTP3	Card	20	12-23 m	1585	24
HepB3	Card or History	50	12-23 m	2384	43	DTP3	Card or History	45	12-23 m	1585	24
HepB3	History	15	12-23 m	2384	43	DTP3	History	25	12-23 m	1585	24
MCV1	C or H <12 months	67	12-23 m	2384	43	MCV1	C or H <12 months	55	12-23 m	1585	24
MCV1	Card	34	12-23 m	2384	43	MCV1	Card	20	12-23 m	1585	24
MCV1	Card or History	72	12-23 m	2384	43	MCV1	Card or History	63	12-23 m	1585	24
MCV1	History	38	12-23 m	2384	43	MCV1	History	42	12-23 m	1585	24
Pol1	C or H <12 months	85	12-23 m	2384	43	Pol1	C or H <12 months	77	12-23 m	1585	24
Pol1	Card	41	12-23 m	2384	43	Pol1	Card	23	12-23 m	1585	24
Pol1	Card or History	86	12-23 m	2384	43	Pol1	Card or History	78	12-23 m	1585	24
Pol1	History	45	12-23 m	2384	43	Pol1	History	54	12-23 m	1585	24
Pol3	C or H <12 months	58	12-23 m	2384	43	Pol3	C or H <12 months	44	12-23 m	1585	24
Pol3	Card	37	12-23 m	2384	43	Pol3	Card	21	12-23 m	1585	24
Pol3	Card or History	59	12-23 m	2384	43	Pol3	Card or History	46	12-23 m	1585	24
Pol3	History	22	12-23 m	2384	43	Pol3	History	25	12-23 m	1585	24
YFV	C or H <12 months	65	12-23 m	2384	43	YFV	C or H <12 months	42	12-23 m	1585	24
YFV	Card	34	12-23 m	2384	43	YFV	Card	19	12-23 m	1585	24
YFV	Card or History	70	12-23 m	2384	43	YFV	Card or History	50	12-23 m	1585	24
YFV	History	35	12-23 m	2384	43	YFV	History	31	12-23 m	1585	24

## 2006 Enquête Démographique et de Santé République Démocratique du Congo 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	72	12-23 m	1585	24
BCG	Card	22	12-23 m	1585	24
BCG	Card or History	72	12-23 m	1585	24
BCG	History	49	12-23 m	1585	24
DTP1	C or H <12 months	70	12-23 m	1585	24
DTP1	Card	23	12-23 m	1585	24

## 2000 DR Congo MICS 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	53	12-23 m	2690	22
DTP1	Card or History	51	12-23 m	2690	22
DTP3	Card or History	30	12-23 m	2690	22
MCV1	Card or History	46	12-23 m	2690	22
Pol3	Card or History	42	12-23 m	2690	22

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

## Democratic Republic of the Congo

### WHO/UNICEF Estimates of Protection at Birth (PAB) against tetanus

In countries where tetanus is recommended for girls and women coverage is usually reported as "TT2+", i.e. the proportion of (pregnant) women who have received their second or superior TT dose in a given year. TT2 + coverage, however, can under-represent the actual proportion of births that are protected against tetanus as it does not include women who have previously received protective doses, women who received one dose without documentation of previous doses, and women who received doses in TT (or Td) supplemental immunization activities (SIA). In addition, girls who have received DTP in their childhood and are entering childbearing age, may be protected with TT booster doses.

WHO and UNICEF have developed a model that takes into account the above scenarios, and calculates the proportion of births in a given year that can be considered as having been protected against tetanus - "Protection at Birth".

In this model, annual cohorts of women are followed from infancy through their life. A proportion receives DTP in infancy (estimated based on the WHO-UNICEF estimates of DTP3 coverage). In addition some of these women also receive TT through routine services when they are pregnant and may also receive TT during SIAs. The model also adjusts reported data, taking into account coverage patterns in other years, and/or results available through surveys. The duration of protection is then calculated, based on WHO estimates of the duration of protection by doses ever received. The proportion of births that are protected against tetanus as a result of maternal immunization reflects the tetanus immunization received by the mother throughout her life rather than simply the TT immunizations received during the current pregnancy.

The model was used in the mid to late 2000. Currently, the coverage series developed by the model is used as the baseline, and efforts are made to obtain data from all sources that include the JRF and reported trend over the years, routine PAB reporting and its trend over the years, data from surveys (DHS, MICS, EPI), whether countries have been validated for the attainment of maternal and neonatal tetanus elimination and what the TT coverage figures are from the survey etc and all the information is used to arrive at an estimate of the protection-at-birth from TT vaccination.

Year	PAB coverage estimate (%)
2003	66
2004	67
2005	67
2006	66
2007	70
2008	75
2009	85
2010	77
2011	70
2012	70
2013	75
2014	82

<sup>1</sup> 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.  
WHO and UNICEF estimates of national immunization coverage