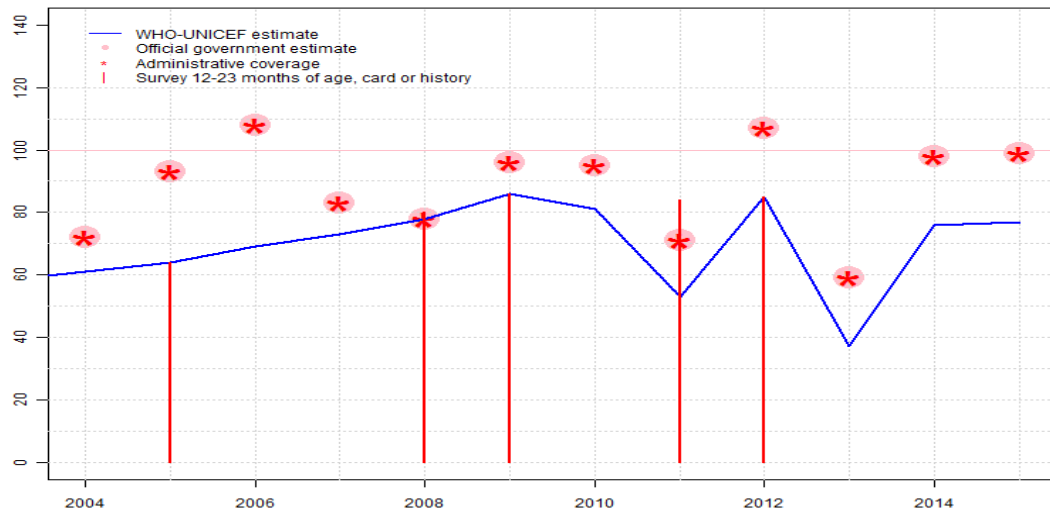


# Niger - BCG

NER - BCG



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	61	64	69	73	78	86	81	53	85	37	76	77
Estimate GoC	•	•	•	•	•••	•	•	•	•	•	•	•
Official	72	93	108	83	78	96	95	71	107	59	98	99
Administrative	72	93	108	83	78	96	95	71	107	59	98	99
Survey	NA	64	NA	NA	80	86	NA	84	85	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

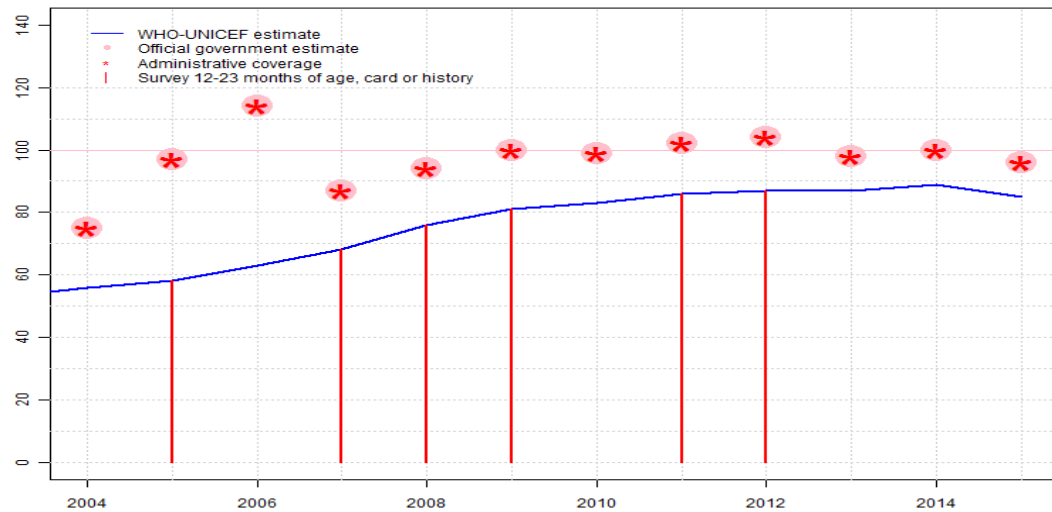
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate based on interpolation between 1999 and 2005 levels. Number of children vaccinated and estimate of target population varies widely since 2000. Estimate challenged by: R-
- 2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 64 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2006: Reported data calibrated to 2005 and 2008 levels. Reported data excluded. 108 percent greater than 100 percent. Reported data excluded. Unexplained increase from 93 percent to 108 percent with decrease 83 percent. Estimate challenged by: D-
- 2007: Reported data calibrated to 2005 and 2008 levels. The apparent decline in reported data between 2006 and 2007 is the result of an increased estimate of the size of the target population. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government supported by survey. Survey evidence of 80 percent based on 1 survey(s). Decline in coverage due to stock out. GoC=R+ S+ 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 challenged by: D-S-
- 2011: Reported data calibrated to 2009 and 2012 levels. Demographic and Health / Multiple Indicator Survey of Niger EDSN-MICS-IV 2012 results ignored by working group. Survey results may not reflect three month stockout. Decline in coverage reflects a 3-month vaccine stockout. Estimate challenged by: D-S-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 85 percent based on 1 survey(s). Rise in coverage reflects recovery from vaccine shortage. Estimate challenged by: D-R-S-
- 2013: Reported data calibrated to 2012 levels. Programme reports a five month stockout at national level. Estimate challenged by: D-S-
- 2014: Reported data calibrated to 2012 levels. Recovery from stock-out during the prior year. Estimate challenged by: D-
- 2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-

# Niger - DTP1

NER - DTP1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	56	58	63	68	76	81	83	86	87	87	89	85
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	75	97	114	87	94	100	99	102	104	98	100	96
Administrative	75	97	114	87	94	100	99	102	104	98	100	96
Survey	NA	58	NA	68	76	81	NA	86	87	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

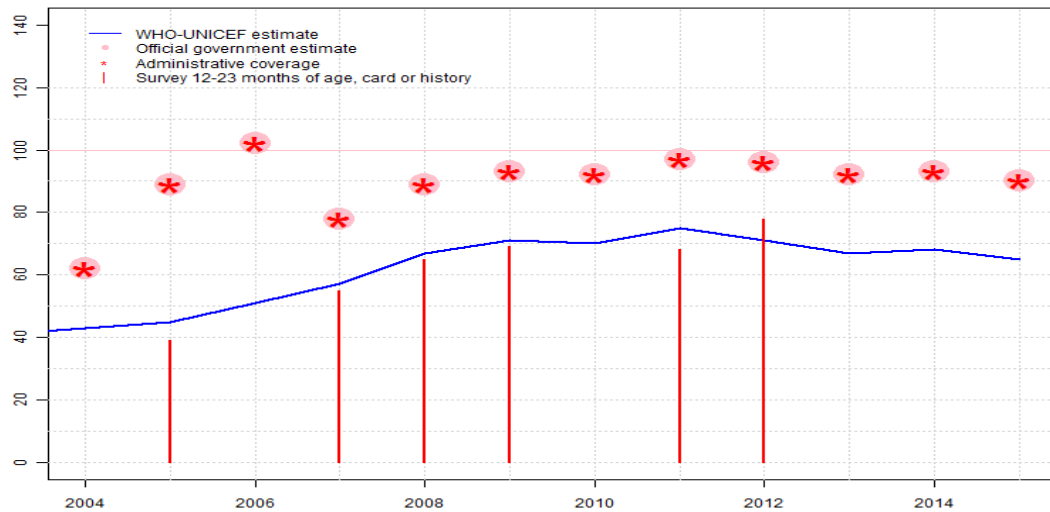
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate based on interpolation between 1999 and 2005 levels. Number of children vaccinated and estimate of target population varies widely since 2000. Estimate challenged by: R-
- 2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 58 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2006: Reported data calibrated to 2005 and 2007 levels. Reported data excluded. 114 percent greater than 100 percent. Reported data excluded. Unexplained increase from 97 percent to 114 percent with decrease 87 percent. Estimate challenged by: D-
- 2007: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). The apparent decline in reported data between 2006 and 2007 is the result of an increased estimate of the size of the target population. Estimate challenged by: D-R-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 76 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 81 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 86 percent based on 1 survey(s). Reported data excluded. 102 percent greater than 100 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 87 percent based on 1 survey(s). Reported data excluded. 104 percent greater than 100 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-

# Niger - DTP3

NER - DTP3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	43	45	51	57	67	71	70	75	71	67	68	65
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	62	89	102	78	89	93	92	97	96	92	93	90
Administrative	62	89	102	78	89	93	92	97	96	92	93	90
Survey	NA	39	NA	55	65	69	NA	68	78	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

- 2004: Estimate based on interpolation between 1999 and 2005 levels. Number of children vaccinated and estimate of target population varies widely since 2000. Estimate challenged by: D-R-
- 2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 45 percent based on 1 survey(s). Niger Demographic and Health and Multiple Indicator Cluster Survey, 2006 card or history results of 39 percent modified for recall bias to 45 percent based on 1st dose card or history coverage of 58 percent, 1st dose card only coverage of 41 percent and 3d dose card only coverage of 32 percent. Estimate challenged by: D-R-
- 2006: Reported data calibrated to 2005 and 2007 levels. Reported data excluded. 102 percent greater than 100 percent. Reported data excluded. Unexplained increase from 89 percent to 102 percent with decrease 78 percent. Estimate challenged by: D-
- 2007: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 57 percent based on 1 survey(s). Niger National Nutrition and Child Survival Survey, June-July 2008 card or history coverage of 55 percent modified for recall bias to 57 percent based on 1st dose card or history coverage of 68 percent, 1st dose card only coverage of 44 percent and 3d dose card only coverage of 37 percent. Reported data excluded. Decline in reported coverage from 102 percent to 78 percent with increase to 89 percent. The apparent decline in reported data between 2006 and 2007 is the result of an increased estimate of the size of the target population. Estimate challenged by: D-R-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Niger National Nutrition and Child Survival Survey, May-June 2009 card or history results of 65 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 76 percent, 1st dose card only coverage of 48 percent and 3d dose card only coverage of 42 percent. Estimate challenged by: D-R-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 71 percent based on 1 survey(s). Niger Child Mortality and Survival Survey 2010, Preliminary Report on Survival Components card or history results of 69 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 81 percent, 1st dose card only coverage of 54 percent and 3d dose card only coverage of 47 percent. 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 75 percent based on 1 survey(s). Demographic and Health / Multiple Indicator Survey of Niger EDSN-MICS-IV 2012 card or history results of 68 percent modified for recall bias to 75 percent based on 1st dose card or history coverage of 86 percent, 1st dose card only coverage of 63 percent and 3d dose card only coverage of 55 percent. Estimate challenged by: D-R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 71 percent based on 1 survey(s). Post measles campaign and routine immunization coverage evaluation survey, Niger, 2013 card or history results of 78 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 87 percent, 1st dose card only coverage of 44 percent and 3d dose card only coverage of 36 percent. Estimate challenged by: D-R-

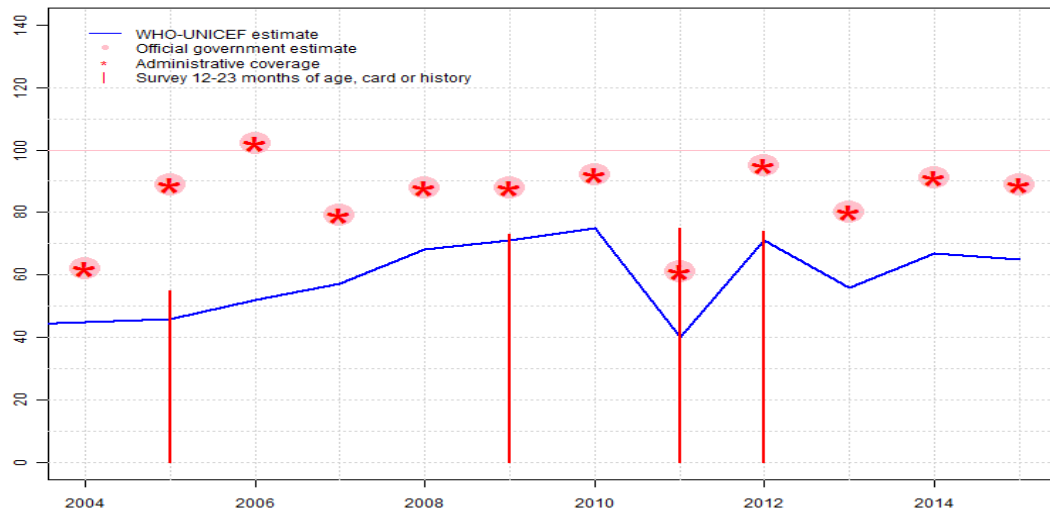
2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-

2014: Reported data calibrated to 2012 levels. Estimate challenged by: D-

2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-

# Niger - Pol3

NER - Pol3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	45	46	52	57	68	71	75	40	71	56	67	65
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	62	89	102	79	88	88	92	61	95	80	91	89
Administrative	62	89	102	79	88	88	92	61	95	80	91	89
Survey	NA	55	NA	NA	NA	73	NA	75	74	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

- 2004: Estimate based on interpolation between 1999 and 2005 levels. Number of children vaccinated and estimate of target population varies widely since 2000. Estimate challenged by: R-S-
- 2005: Estimate based on DTP3 coverage. Niger Demographic and Health and Multiple Indicator Cluster Survey, 2006 results ignored by working group. Survey results likely include doses administered during campaigns. Niger Demographic and Health and Multiple Indicator Cluster Survey, 2006 card or history results of 55 percent modified for recall bias to 63 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 42 percent and 3d dose card only coverage of 33 percent. Estimate challenged by: D-R-S-
- 2006: Estimate based on interpolation between 2005 and 2007 levels. Number of children vaccinated and estimate of target population varies widely since 2000. Reported data excluded. 102 percent greater than 100 percent. Reported data excluded. Unexplained increase from 89 percent to 102 percent with decrease 79 percent. Estimate challenged by: D-R-S-
- 2007: Estimate based on DTP3 coverage. The apparent decline in reported data between 2006 and 2007 is the result of an increased estimate of the size of the target population. Estimate challenged by: D-R-S-
- 2008: Reported data calibrated to 2007 and 2009 levels. Estimate challenged by: D-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 71 percent based on 1 survey(s). Niger Child Mortality and Survival Survey 2010, Preliminary Report on Survival Components card or history results of 73 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 85 percent, 1st dose card only coverage of 55 percent and 3d dose card only coverage of 46 percent. Estimate challenged by: D-R-S-
- 2010: Estimate is based on the estimate for the third dose of DTP containing vaccine. Estimate challenged by: D-R-S-
- 2011: Reported data calibrated to 2010 and 2012 levels. Demographic and Health / Multiple Indicator Survey of Niger EDSN-MICS-IV 2012 results ignored by working group. Survey results may not reflect three month stock-out. Demographic and Health / Multiple Indicator Survey of Niger EDSN-MICS-IV 2012 card or history results of 75 percent modified for recall bias to 81 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 63 percent and 3d dose card only coverage of 55 percent. Decline in coverage reflects a 3-month vaccine stockout. Estimate challenged by: D-S-
- 2012: Estimate is based on the estimate for the third dose of DTP containing vaccine. Post measles campaign and routine immunization coverage evalu-

ation survey, Niger, 2013 results ignored by working group. Survey results ignored due to magnitude of recall bias which are inconsistent with results observed for DTP3. Post measles campaign and routine immunization coverage evaluation survey, Niger, 2013 card or history results of 74 percent modified for recall bias to 34 percent based on 1st dose card or history coverage of 86 percent, 1st dose card only coverage of 38 percent and 3d dose card only coverage of 15 percent. Rise in coverage reflects recovery from vaccine shortage.. Estimate challenged by: D-R-S-

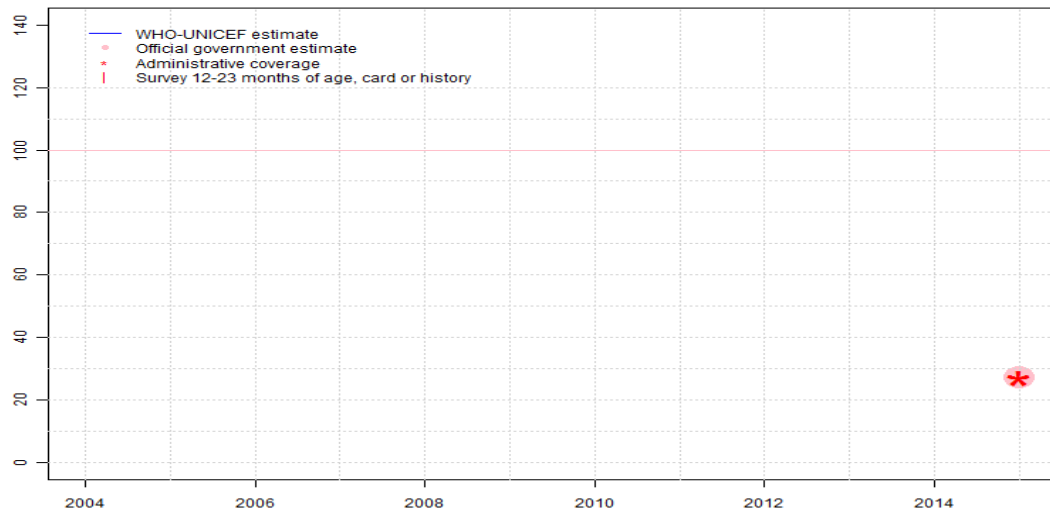
2013: Reported data calibrated to 2012 levels. Programme reports one month stockout at national level. Estimate challenged by: D-S-

2014: Reported data calibrated to 2012 levels. Programme reports a two month stock-out of polio vaccine at the national level. Estimate challenged by: D-S-

2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-

# Niger - IPV1

NER - IPV1



## Description:

2015: Estimate based on coverage reported by national government. IPV introduced during 2015. GoC=Assigned by working group. Consistency across vaccines.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

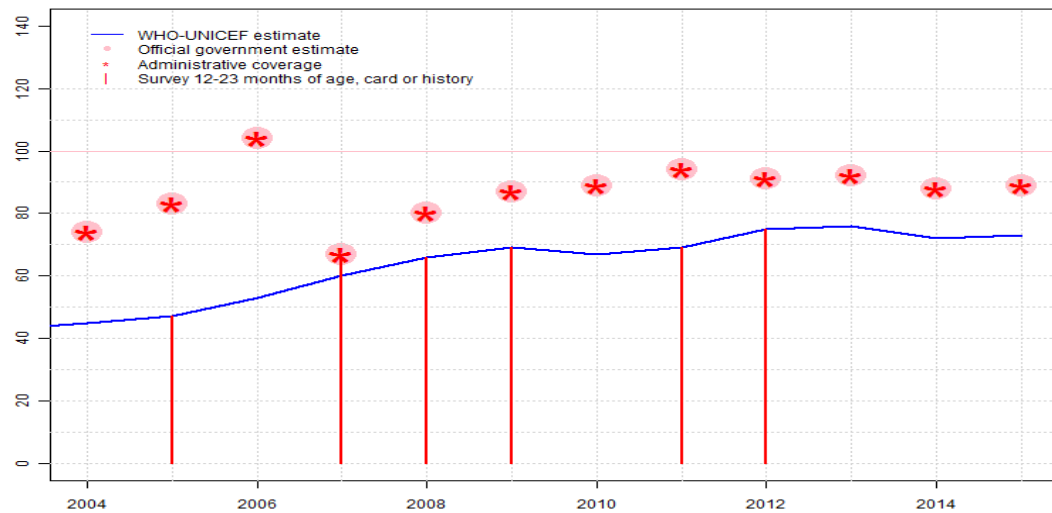
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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



# Niger - MCV1

NER - MCV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	45	47	53	60	66	69	67	69	75	76	72	73
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	74	83	104	67	80	87	89	94	91	92	88	89
Administrative	74	83	104	67	80	87	89	94	91	92	88	89
Survey	NA	47	NA	66	66	69	NA	69	75	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

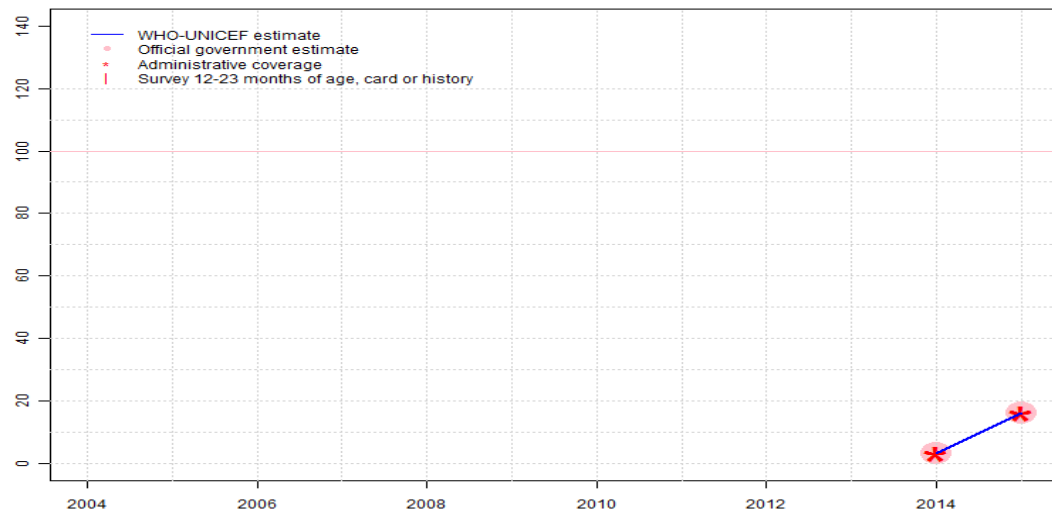
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate based on interpolation between 1999 and 2005 levels. Number of children vaccinated and estimate of target population varies widely since 2000. Estimate challenged by: D-R-
- 2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 47 percent based on 1 survey(s). Estimate challenged by: D-R-S-
- 2006: Reported data calibrated to 2005 and 2008 levels. Reported data excluded. 104 percent greater than 100 percent. Reported data excluded. Unexplained increase from 83 percent to 104 percent with decrease 67 percent. Estimate challenged by: D-S-
- 2007: Reported data calibrated to 2005 and 2008 levels. Niger National Nutrition and Child Survival Survey, June-July 2008 results ignored by working group. Six months stock out reported for measles vaccine. Reported data excluded. Decline in reported coverage from 104 percent to 67 percent with increase to 80 percent. The apparent decline in reported data between 2006 and 2007 is the result of an increased estimate of the size of the target population. Estimate challenged by: D-S-
- 2008: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Estimate challenged by: D-R-S-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 69 percent based on 1 survey(s). Estimate challenged by: D-R-S-
- 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 69 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 75 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-

# Niger - MCV2

NER - MCV2



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	16
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	16
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	16
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

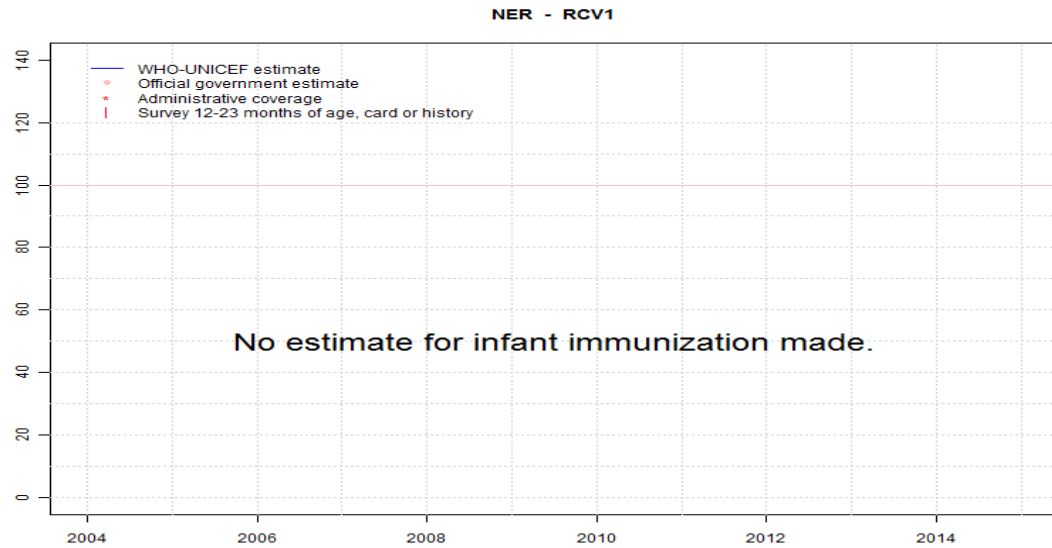
## Description:

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

2014: Estimate based on coverage reported by national government. Second dose of measles containing vaccine introduced during January 2014 and recommended at 16 months. GoC=Assigned by working group. Consistency with other vaccines during an introduction period.

2015: Estimate based on coverage reported by national government. GoC=Assigned by working group. Consistency across vaccines.

# Niger - RCV1



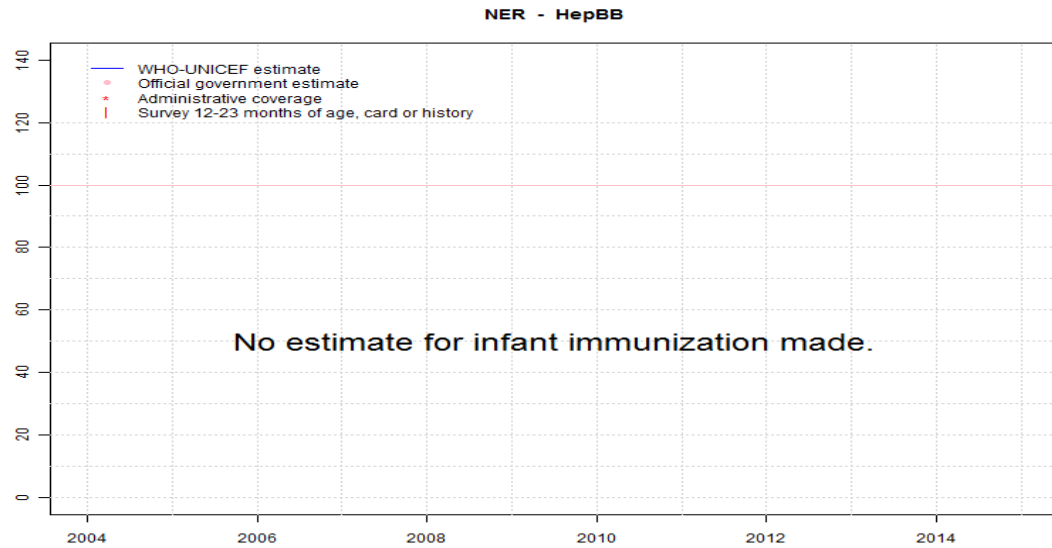
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

# Niger - HepBB



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

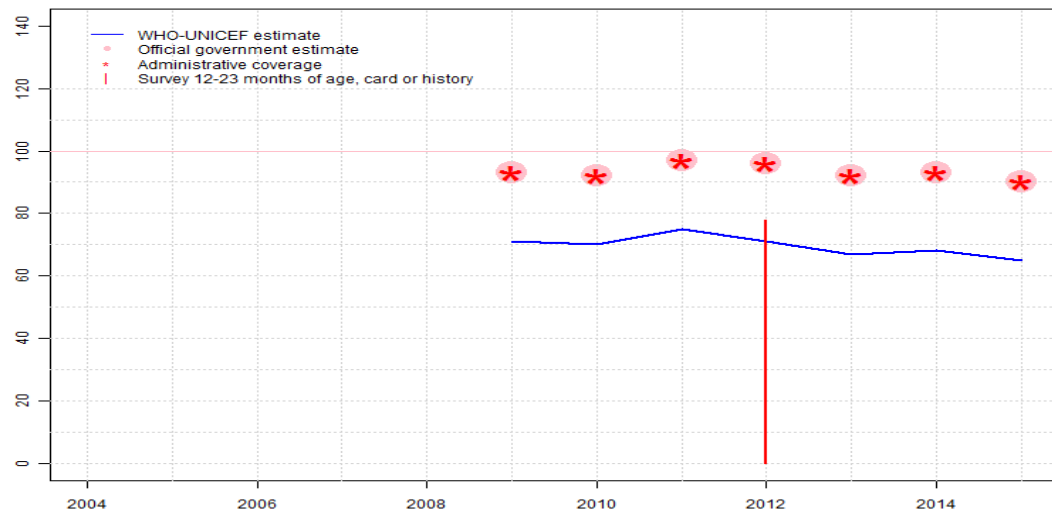
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

# Niger - HepB3

NER - HepB3



## Description:

- 2009: Estimate based on DTP3 coverage. HepB vaccine introduced in 2008. Reporting started in 2009. Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-R-
- 2010: Estimate based on DTP3 coverage. Estimate challenged by: D-R-
- 2011: Estimate based on DTP3 coverage. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 71 percent based on 1 survey(s). Post measles campaign and routine immunization coverage evaluation survey, Niger, 2013 card or history results of 78 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 87 percent, 1st dose card only coverage of 44 percent and 3d dose card only coverage of 36 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	71	70	75	71	67	68	65
Estimate GoC	NA	NA	NA	NA	NA	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	93	92	97	96	92	93	90
Administrative	NA	NA	NA	NA	NA	93	92	97	96	92	93	90
Survey	NA	NA	NA	NA	NA	NA	NA	NA	78	NA	NA	NA

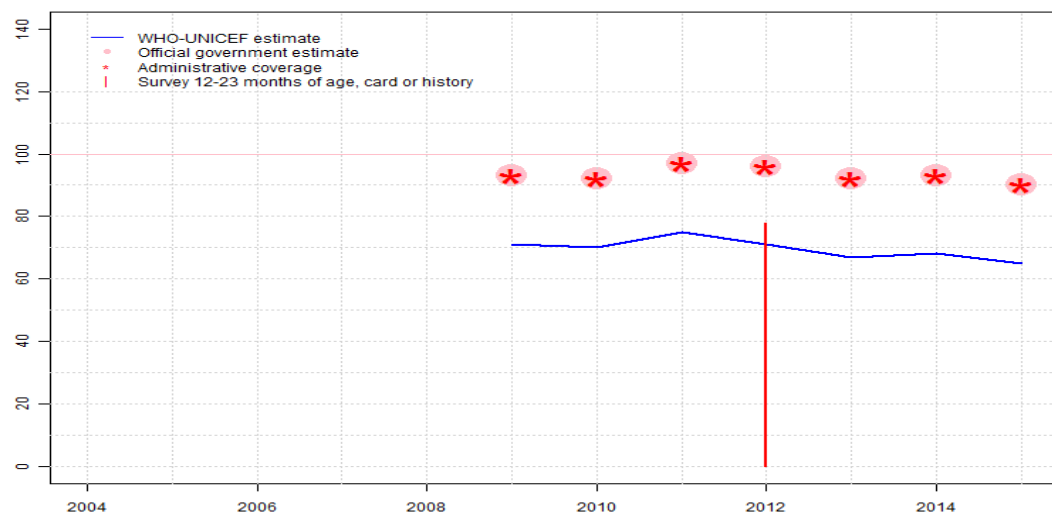
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

# Niger - Hib3

NER - Hib3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	71	70	75	71	67	68	65
Estimate GoC	NA	NA	NA	NA	NA	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	93	92	97	96	92	93	90
Administrative	NA	NA	NA	NA	NA	93	92	97	96	92	93	90
Survey	NA	NA	NA	NA	NA	NA	NA	NA	78	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

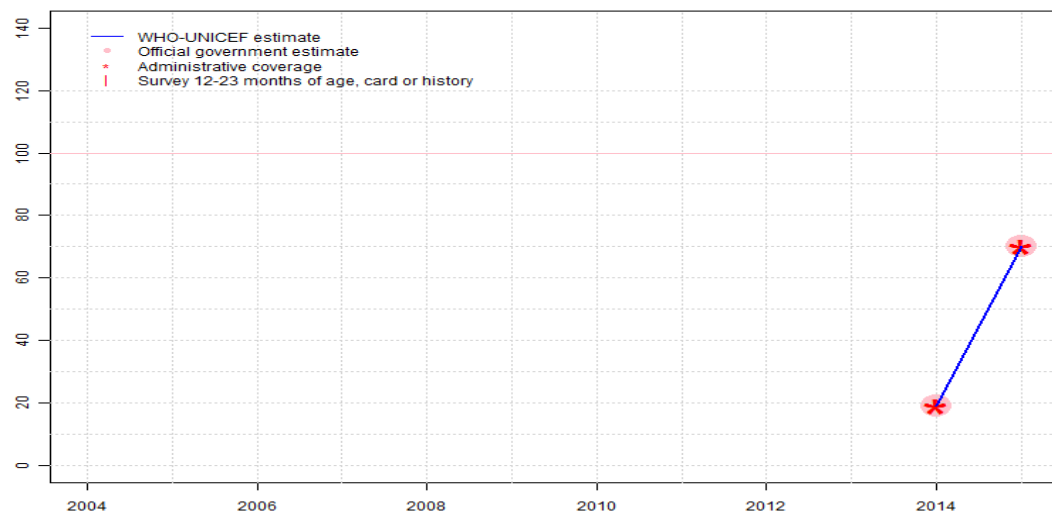
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2009: Estimate based on DTP3 coverage. Hib vaccine introduced in 2008. Reporting started in 2009. Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-R-
- 2010: Estimate based on DTP3 coverage. Estimate challenged by: D-R-
- 2011: Estimate based on DTP3 coverage. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 71 percent based on 1 survey(s). Post measles campaign and routine immunization coverage evaluation survey, Niger, 2013 card or history results of 78 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 87 percent, 1st dose card only coverage of 44 percent and 3d dose card only coverage of 36 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-

# Niger - RotaC

NER - RotaC



## Description:

- 2014: Estimate based on coverage reported by national government. Rotavirus vaccine introduced during 2014. GoC=Assigned by working group. Consistency with other vaccines during an introduction period.
- 2015: Estimate based on coverage reported by national government. GoC=R+D+

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19	70
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19	70
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19	70
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

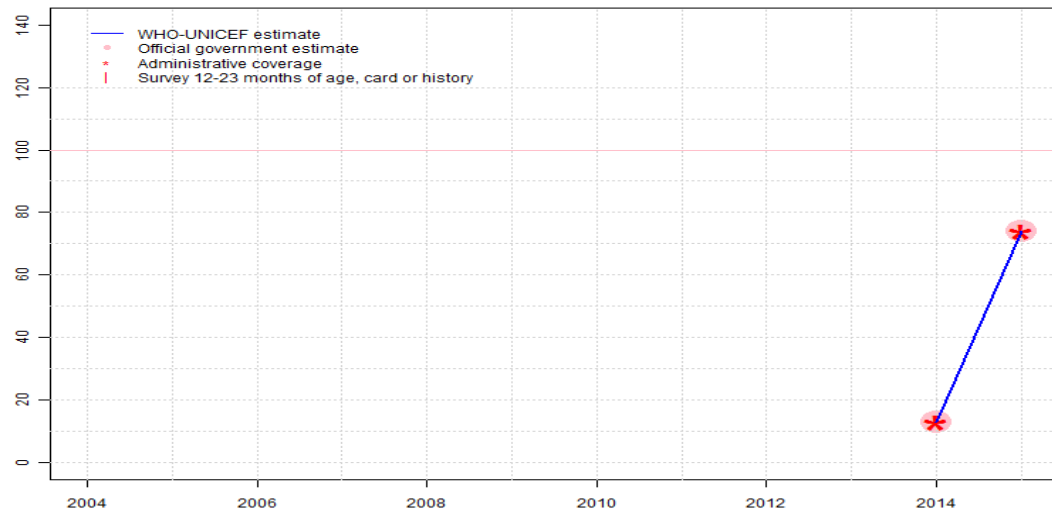
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

# Niger - PcV3

NER - PcV3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	74
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	74
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	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: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

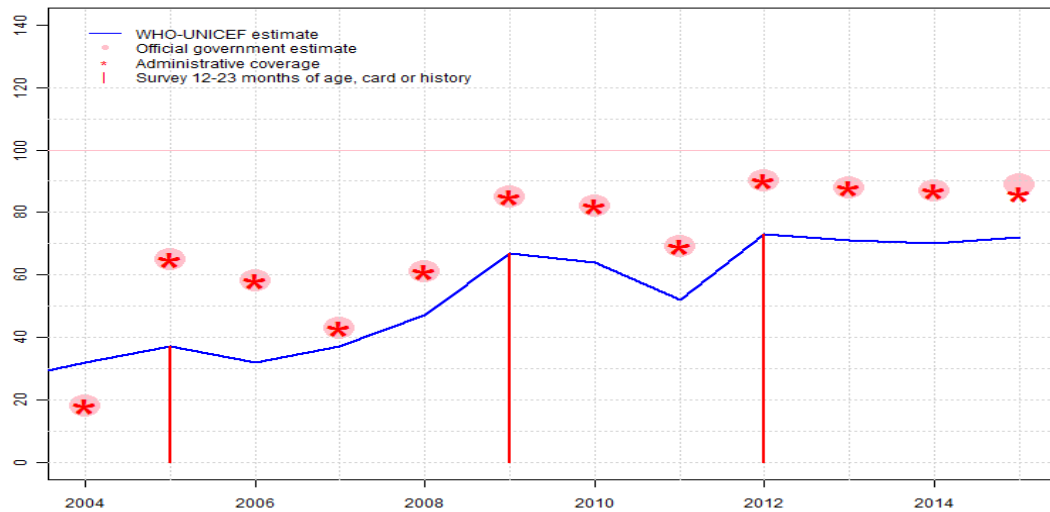
## Description:

- 2014: Estimate based on coverage reported by national government. Pneumococcal conjugate vaccine introduced during 2014. GoC=Assigned by working group. Consistency with other vaccines during an introduction period.
- 2015: Estimate based on coverage reported by national government. GoC=R+D+



# Niger - YFV

NER - YFV



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	32	37	32	37	47	67	64	52	73	71	70	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	18	65	58	43	61	85	82	69	90	88	87	89
Administrative	18	65	58	43	61	85	82	69	90	88	87	86
Survey	NA	37	NA	NA	NA	67	NA	NA	73	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

## Description:

- 2004: Estimate based on interpolation between 2000 and 2005 levels. Fluctuating and inconsistent data suggest poor reporting. Reported data excluded. Decline in reported coverage from 31 percent to 18 percent with increase to 65 percent. Estimate challenged by: D-R-
- 2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 37 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2006: Reported data calibrated to 2005 and 2007 levels. Estimate challenged by: D-
- 2007: Estimate is based on survey results. The last year before financial support started for the yellow fever vaccination programme. Reported data excluded. Decline in reported coverage from 58 percent to 43 percent with increase to 61 percent. The apparent decline in reported data between 2006 and 2007 is the result of an increased estimate of the size of the target population. Estimate challenged by: R-
- 2008: Estimate follows nationally reported data calibrated based on the 2008 MCV survey result. Estimate challenged by: D-R-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate challenged by: D-
- 2011: Reported data calibrated to 2009 and 2012 levels. Decline in coverage reflects a vaccine stockout in 10 districts. Estimate challenged by: D-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Rise in coverage reflects recovery from vaccine shortage. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2014: Reported data calibrated to 2012 levels. Estimate challenged by: D-
- 2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-

# Niger - survey details

## 2012 Evaluation couverture vaccinale post campagne rougeole et routine. Niger 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	42	12-23 m	-	70
BCG	Card or History	85	12-23 m	18326	70
DTP1	Card	44	12-23 m	-	70
DTP1	Card or History	87	12-23 m	18326	70
DTP3	Card	36	12-23 m	-	70
DTP3	Card or History	78	12-23 m	18326	70
HepB1	Card	44	12-23 m	-	70
HepB1	Card or History	87	12-23 m	18326	70
HepB3	Card	36	12-23 m	-	70
HepB3	Card or History	78	12-23 m	18326	70
Hib1	Card	44	12-23 m	-	70
Hib1	Card or History	87	12-23 m	18326	70
Hib3	Card	36	12-23 m	-	70
Hib3	Card or History	78	12-23 m	18326	70
MCV1	Card	35	12-23 m	-	70
MCV1	Card or History	75	12-23 m	18326	70
Pol1	Card	38	12-23 m	-	70
Pol1	Card or History	86	12-23 m	18326	70
Pol3	Card	15	12-23 m	-	70
Pol3	Card or History	74	12-23 m	18326	70
YFV	Card	34	12-23 m	-	70
YFV	Card or History	73	12-23 m	18326	70

## 2011 Enquête Démographique et de Santé et à Indicateurs Multiples du Niger EDSN-MICS-IV 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	83	12-23 m	2275	65
BCG	Card	61	12-23 m	1479	65
BCG	Card or History	84	12-23 m	2275	65
BCG	History	23	12-23 m	796	65
DTP1	C or H <12 months	84	12-23 m	2275	65
DTP1	Card	63	12-23 m	1479	65
DTP1	Card or History	86	12-23 m	2275	65

DTP1	History	23	12-23 m	796	65
DTP3	C or H <12 months	65	12-23 m	2275	65
DTP3	Card	55	12-23 m	1479	65
DTP3	Card or History	68	12-23 m	2275	65
DTP3	History	13	12-23 m	796	65
MCV1	C or H <12 months	58	12-23 m	2275	65
MCV1	Card	50	12-23 m	1479	65
MCV1	Card or History	69	12-23 m	2275	65
MCV1	History	19	12-23 m	796	65
Pol1	C or H <12 months	91	12-23 m	2275	65
Pol1	Card	63	12-23 m	1479	65
Pol1	Card or History	93	12-23 m	2275	65
Pol1	History	30	12-23 m	796	65
Pol3	C or H <12 months	71	12-23 m	2275	65
Pol3	Card	55	12-23 m	1479	65
Pol3	Card or History	75	12-23 m	2275	65
Pol3	History	19	12-23 m	796	65

## 2010 Enquête Démographique et de Santé et à Indicateurs Multiples du Niger EDSN-MICS-IV 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	79	24-35 m	2447	65
DTP1	C or H <12 months	80	24-35 m	2447	65
DTP3	C or H <12 months	60	24-35 m	2447	65
MCV1	C or H <12 months	53	24-35 m	2447	65
Pol1	C or H <12 months	88	24-35 m	2447	65
Pol3	C or H <12 months	68	24-35 m	2447	65

## 2009 Enquête Démographique et de Santé et à Indicateurs Multiples du Niger EDSN-MICS-IV 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	76	36-47 m	2615	65
DTP1	C or H <12 months	76	36-47 m	2615	65
DTP3	C or H <12 months	55	36-47 m	2615	65
MCV1	C or H <12 months	53	36-47 m	2615	65

# Niger - survey details

Pol1	C or H <12 months	86	36-47 m	2615	65
Pol3	C or H <12 months	62	36-47 m	2615	65

MCV1	C or H <12 months	54	48-59 m	2138	65
Pol1	C or H <12 months	85	48-59 m	2138	65
Pol3	C or H <12 months	64	48-59 m	2138	65

2009 Enquête Survie des Enfants des enfants de 0 à 59 mois et Mortalité, Niger, 2010, Rapport provisoire du Volet Survie

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	57	12-23 m	5609	-
BCG	Card or History	86	12-23 m	5609	-
BCG	History	29	12-23 m	5609	-
BCG	Scar	79	12-23 m	5609	-
DTP1	Card	54	12-23 m	5609	-
DTP1	Card or History	81	12-23 m	5609	-
DTP1	History	27	12-23 m	5609	-
DTP3	Card	47	12-23 m	5609	-
DTP3	Card or History	69	12-23 m	5609	-
DTP3	History	22	12-23 m	5609	-
MCV1	Card	45	12-23 m	5609	-
MCV1	Card or History	69	12-23 m	5609	-
MCV1	History	24	12-23 m	5609	-
Pol1	Card	55	12-23 m	5609	-
Pol1	Card or History	85	12-23 m	5609	-
Pol1	History	30	12-23 m	5609	-
Pol3	Card	46	12-23 m	5609	-
Pol3	Card or History	73	12-23 m	5609	-
Pol3	History	27	12-23 m	5609	-
YFV	Card	44	12-23 m	5609	-
YFV	Card or History	67	12-23 m	5609	-
YFV	History	23	12-23 m	5609	-

2008 Enquête Démographique et de Santé et à Indicateurs Multiples du Niger EDSN-MICS-IV 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	79	48-59 m	2138	65
DTP1	C or H <12 months	77	48-59 m	2138	65
DTP3	C or H <12 months	58	48-59 m	2138	65

2008 Enquête Nationale Nutrition et Survie de l'Enfant Niger, mai/juin 2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	49	12-23 m	4835	49
BCG	Card or History	80	12-23 m	4835	49
BCG	History	32	12-23 m	4835	49
BCG	Scar	59	12-23 m	4835	49
DTP1	Card	48	12-23 m	4835	49
DTP1	Card or History	76	12-23 m	4835	49
DTP1	History	28	12-23 m	4835	49
DTP3	Card	42	12-23 m	4835	49
DTP3	Card or History	65	12-23 m	4835	49
DTP3	History	23	12-23 m	4835	49
MCV1	Card	39	12-23 m	4835	49
MCV1	Card or History	66	12-23 m	4835	49
MCV1	History	26	12-23 m	4835	49

2007 Enquête nationale, Nutrition et Survie de l'Enfant, Niger, juin/juillet 2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
DTP1	Card	44	12-23 m	885	-
DTP1	Card or History	68	12-23 m	885	-
DTP1	History	25	12-23 m	885	-
DTP3	Card	37	12-23 m	885	-
DTP3	Card or History	55	12-23 m	885	-
DTP3	History	18	12-23 m	885	-
MCV1	Card	38	12-23 m	885	-
MCV1	Card or History	66	12-23 m	885	-
MCV1	History	28	12-23 m	885	-

# Niger - survey details

## 2005 L'Enquête Démographique et de Santé et à Indicateurs Multiples de Niger, 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	61	12-23 m	1782	43
BCG	Card	41	12-23 m	1782	43
BCG	Card or History	64	12-23 m	1782	43
BCG	History	22	12-23 m	1782	43
DTP1	C or H <12 months	56	12-23 m	1782	43
DTP1	Card	41	12-23 m	1782	43
DTP1	Card or History	58	12-23 m	1782	43
DTP1	History	17	12-23 m	1782	43
DTP3	C or H <12 months	35	12-23 m	1782	43
DTP3	Card	32	12-23 m	1782	43
DTP3	Card or History	39	12-23 m	1782	43
DTP3	History	7	12-23 m	1782	43
MCV1	C or H <12 months	38	12-23 m	1782	43
MCV1	Card	32	12-23 m	1782	43
MCV1	Card or History	47	12-23 m	1782	43
MCV1	History	15	12-23 m	1782	43
Pol1	C or H <12 months	76	12-23 m	1782	43
Pol1	Card	42	12-23 m	1782	43
Pol1	Card or History	80	12-23 m	1782	43
Pol1	History	38	12-23 m	1782	43
Pol3	C or H <12 months	49	12-23 m	1782	43
Pol3	Card	33	12-23 m	1782	43
Pol3	Card or History	55	12-23 m	1782	43
Pol3	History	22	12-23 m	1782	43
YFV	C or H <12 months	30	12-23 m	1782	43
YFV	Card	27	12-23 m	1782	43
YFV	Card or History	37	12-23 m	1782	43
YFV	History	10	12-23 m	1782	43

## 2000 Niger, Revue du PEV 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	54	12-23 m	212	56
DTP1	Card	48	12-23 m	212	56

DTP3	Card	31	12-23 m	212	56
MCV1	Card	34	12-23 m	212	56
Pol1	Card	48	12-23 m	212	56
Pol3	Card	31	12-23 m	212	56

## 1999 République du Niger, Enquête à Indicateurs Multiples de la Fin de la Decennie (MICS2), 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	44	12-23 m	915	36
BCG	Card	35	12-23 m	915	36
BCG	Card or History	47	12-23 m	915	36
BCG	History	12	12-23 m	915	36
DTP1	C or H <12 months	41	12-23 m	915	36
DTP1	Card	33	12-23 m	915	36
DTP1	Card or History	43	12-23 m	915	36
DTP1	History	10	12-23 m	915	36
DTP3	C or H <12 months	25	12-23 m	915	36
DTP3	Card	24	12-23 m	915	36
DTP3	Card or History	28	12-23 m	915	36
DTP3	History	4	12-23 m	915	36
MCV1	C or H <12 months	25	12-23 m	915	36
MCV1	Card	24	12-23 m	915	36
MCV1	Card or History	36	12-23 m	915	36
MCV1	History	12	12-23 m	915	36
Pol1	C or H <12 months	50	12-23 m	915	36
Pol1	Card	32	12-23 m	915	36
Pol1	Card or History	53	12-23 m	915	36
Pol1	History	21	12-23 m	915	36
Pol3	C or H <12 months	36	12-23 m	915	36
Pol3	Card	24	12-23 m	915	36
Pol3	Card or History	40	12-23 m	915	36
Pol3	History	16	12-23 m	915	36

## 1997 Enquête Démographique et de Santé Niger 1998, 1999

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	46	12-23 m	1431	35

## Niger - survey details

BCG	Card	33	12-23 m	1431	35	MCV1	History	11	12-23 m	1431	35
BCG	Card or History	47	12-23 m	1431	35	Pol1	C or H <12 months	49	12-23 m	1431	35
BCG	History	14	12-23 m	1431	35	Pol1	Card	32	12-23 m	1431	35
DTP1	C or H <12 months	43	12-23 m	1431	35	Pol1	Card or History	52	12-23 m	1431	35
DTP1	Card	33	12-23 m	1431	35	Pol1	History	20	12-23 m	1431	35
DTP1	Card or History	45	12-23 m	1431	35	Pol3	C or H <12 months	21	12-23 m	1431	35
DTP1	History	12	12-23 m	1431	35	Pol3	Card	23	12-23 m	1431	35
DTP3	C or H <12 months	22	12-23 m	1431	35	Pol3	Card or History	24	12-23 m	1431	35
DTP3	Card	23	12-23 m	1431	35	Pol3	History	1	12-23 m	1431	35
DTP3	Card or History	25	12-23 m	1431	35	YFV	C or H <12 months	5	12-23 m	1431	35
DTP3	History	2	12-23 m	1431	35	YFV	Card	4	12-23 m	1431	35
MCV1	C or H <12 months	27	12-23 m	1431	35	YFV	Card or History	8	12-23 m	1431	35
MCV1	Card	24	12-23 m	1431	35	YFV	History	5	12-23 m	1431	35
MCV1	Card or History	35	12-23 m	1431	35						

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)

## Niger

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

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

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

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

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

Year	PAB coverage estimate (%)
2004	66
2005	69
2006	73
2007	79
2008	84
2009	84
2010	84
2011	84
2012	84
2013	81
2014	81
2015	81

<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.