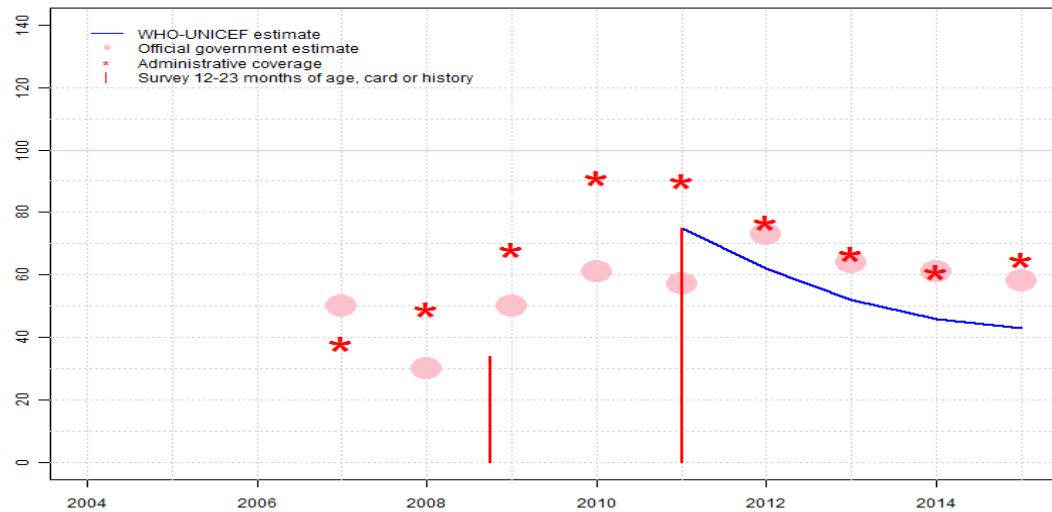


South Sudan - BCG

SSD - BCG



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	75	62	52	46	43
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	50	30	50	61	57	73	64	61	58
Administrative	NA	NA	NA	38	49	68	91	90	77	67	61	65
Survey	NA	NA	NA	NA	NA	*	NA	75	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:

2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 75 percent based on 1 survey(s). The Republic of South Sudan became an independent state, was admitted to the United Nations and became a WHO member state in July 2011. Access to health facilities is a problem in many parts of the country for 5 months out of the year. The official government estimates for 2011 are based on the number of children vaccinated (administrative reports) and the highest denominator possible as derived from the 5 birth cohorts reached in Polio SIAs. The resulting official estimate is much lower than the administrative estimates because of the marked differences in denominators used. Please note that this method of official estimation of coverage in South Sudan was used because of the consistent under-estimation of the denominators derived from the 2008 housing and population census that were used in earlier years.. Official government estimate based on immunization programme targets. Estimate challenged by: D-R-

2012: Reported data calibrated to 2011 levels. . Official government estimate based on immunization programme targets. Estimate challenged by: D-

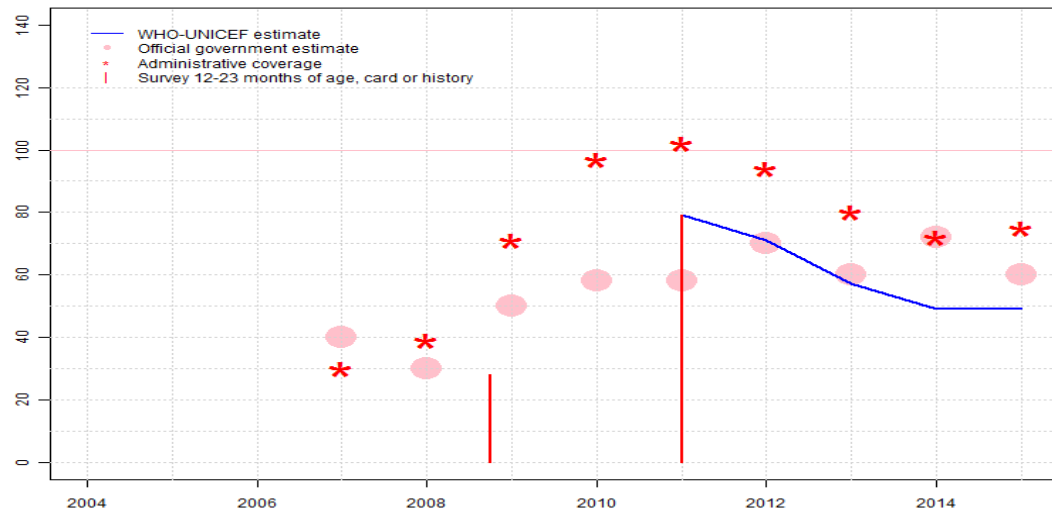
2013: Reported data calibrated to 2011 levels. . Official government estimate based on immunization programme targets. Estimate challenged by: D-

2014: Reported data calibrated to 2011 levels. Estimate challenged by: D-

2015: Reported data calibrated to 2011 levels. The Republic of South Sudan continues to be challenged by ongoing civil conflict in several states. Population displacements both internally and across international borders continues to be problematic with an estimated half million South Sudanese projected to be refugees in neighboring countries. Concerns continue with regards to quality of recording and monitoring, timeliness and completeness of data. Administrative coverage data reflect reporting from three-quarters of total expected district reports. Official government reported data reflects coverage derived from the DHIS2 system. WHO and UNICEF encourage continued efforts to improve recording and monitoring while also increasing coverage. Estimate challenged by: D-

South Sudan - DTP1

SSD - DTP1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	79	71	57	49	49
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	40	30	50	58	58	70	60	72	60
Administrative	NA	NA	NA	30	39	71	97	102	94	80	72	75
Survey	NA	NA	NA	NA	NA	*	NA	79	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:

2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 79 percent based on 1 survey(s). The Republic of South Sudan became an independent state, was admitted to the United Nations and became a WHO member state in July 2011. Access to health facilities is a problem in many parts of the country for 5 months out of the year. The official government estimates for 2011 are based on the number of children vaccinated (administrative reports) and the highest denominator possible as derived from the 5 birth cohorts reached in Polio SIAs. The resulting official estimate is much lower than the administrative estimates because of the marked differences in denominators used. Please note that this method of official estimation of coverage in South Sudan was used because of the consistent under-estimation of the denominators derived from the 2008 housing and population census that were used in earlier years.. Official government estimate based on immunization programme targets. Estimate challenged by: D-R-

2012: Reported data calibrated to 2011 levels. . Official government estimate based on immunization programme targets. Estimate challenged by: D-

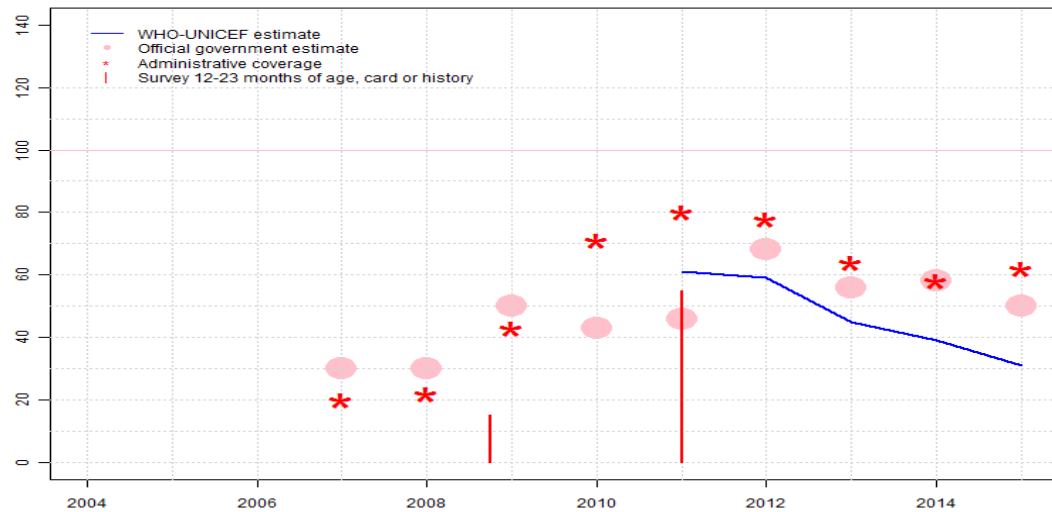
2013: Reported data calibrated to 2011 levels. . Official government estimate based on immunization programme targets. Estimate challenged by: D-

2014: Reported data calibrated to 2011 levels. Estimate challenged by: D-

2015: Reported data calibrated to 2011 levels. Reported data excluded. Change in reported coverage from 72 level to 60 percent. The Republic of South Sudan continues to be challenged by ongoing civil conflict in several states. Population displacements both internally and across international borders continues to be problematic with an estimated half million South Sudanese projected to be refugees in neighboring countries. Concerns continue with regards to quality of recording and monitoring, timeliness and completeness of data. Administrative coverage data reflect reporting from three-quarters of total expected district reports. Official government reported data reflects coverage derived from the DHIS2 system. WHO and UNICEF encourage continued efforts to improve recording and monitoring while also increasing coverage. Estimate challenged by: D-

South Sudan - DTP3

SSD - DTP3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	61	59	45	39	31
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	30	30	50	43	46	68	56	58	50
Administrative	NA	NA	NA	20	22	43	71	80	78	64	58	62
Survey	NA	NA	NA	NA	NA	*	NA	55	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:

2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 61 percent based on 1 survey(s). Republic of South Sudan EPI Coverage Survey 2011-2012 card or history results of 55 percent modified for recall bias to 61 percent based on 1st dose card or history coverage of 79 percent, 1st dose card only coverage of 31 percent and 3d dose card only coverage of 24 percent. The Republic of South Sudan became an independent state, was admitted to the United Nations and became a WHO member state in July 2011. Access to health facilities is a problem in many parts of the country for 5 months out of the year. The official government estimates for 2011 are based on the number of children vaccinated (administrative reports) and the highest denominator possible as derived from the 5 birth cohorts reached in Polio SIAs. The resulting official estimate is much lower than the administrative estimates because of the marked differences in denominators used. Please note that this method of official estimation of coverage in South Sudan was used because of the consistent under-estimation of the denominators derived from the 2008 housing and population census that were used in earlier years.. Official government estimate based on immunization programme targets.

Estimate challenged by: D-R-

2012: Reported data calibrated to 2011 levels. . Official government estimate based on immunization programme targets. Estimate challenged by: D-

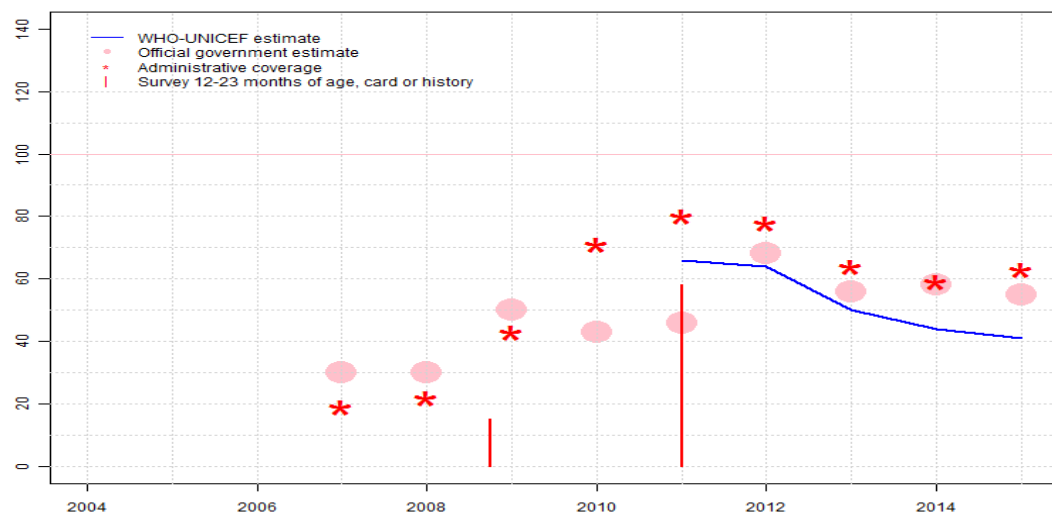
2013: Reported data calibrated to 2011 levels. . Official government estimate based on immunization programme targets. Estimate challenged by: D-

2014: Reported data calibrated to 2011 levels. Estimate challenged by: D-

2015: Reported data calibrated to 2011 levels. The Republic of South Sudan continues to be challenged by ongoing civil conflict in several states. Population displacements both internally and across international borders continues to be problematic with an estimated half million South Sudanese projected to be refugees in neighboring countries. Concerns continue with regards to quality of recording and monitoring, timeliness and completeness of data. Administrative coverage data reflect reporting from three-quarters of total expected district reports. Official government reported data reflects coverage derived from the DHIS2 system. WHO and UNICEF encourage continued efforts to improve recording and monitoring while also increasing coverage. Estimate challenged by: D-

South Sudan - Pol3

SSD - Pol3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	66	64	50	44	41
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	30	30	50	43	46	68	56	58	55
Administrative	NA	NA	NA	19	22	43	71	80	78	64	59	63
Survey	NA	NA	NA	NA	NA	*	NA	58	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:

2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Republic of South Sudan EPI Coverage Survey 2011-2012 card or history results of 58 percent modified for recall bias to 66 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 29 percent and 3d dose card only coverage of 24 percent. The Republic of South Sudan became an independent state, was admitted to the United Nations and became a WHO member state in July 2011. Access to health facilities is a problem in many parts of the country for 5 months out of the year. The official government estimates for 2011 are based on the number of children vaccinated (administrative reports) and the highest denominator possible as derived from the 5 birth cohorts reached in Polio SIAs. The resulting official estimate is much lower than the administrative estimates because of the marked differences in denominators used. Please note that this method of official estimation of coverage in South Sudan was used because of the consistent under-estimation of the denominators derived from the 2008 housing and population census that were used in earlier years.. Official government estimate based on immunization programme targets.

Estimate challenged by: D-R-

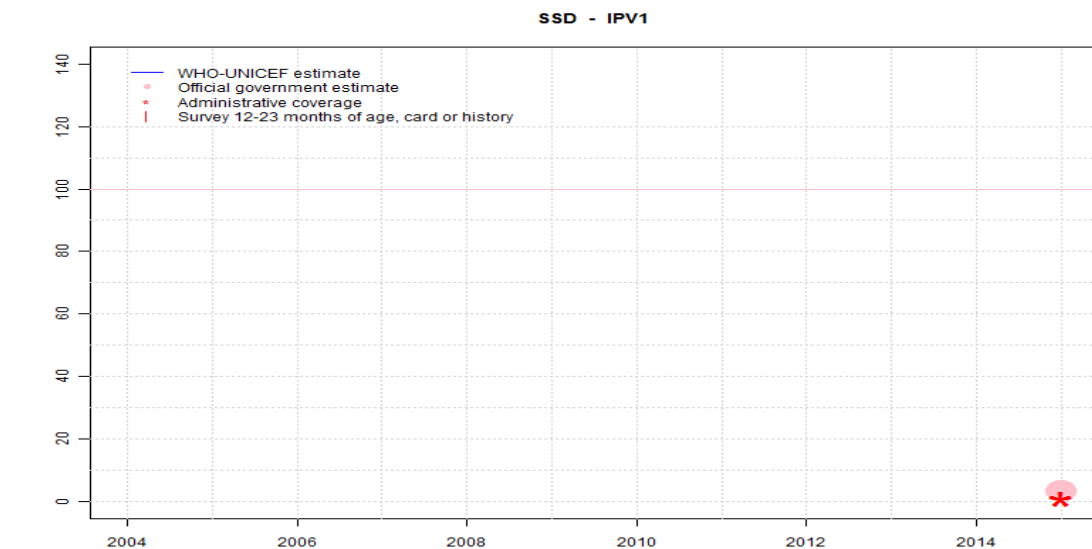
2012: Reported data calibrated to 2011 levels. . Official government estimate based on immunization programme targets. Estimate challenged by: D-

2013: Reported data calibrated to 2011 levels. . Official government estimate based on immunization programme targets. Estimate challenged by: D-

2014: Reported data calibrated to 2011 levels. Estimate challenged by: D-

2015: Reported data calibrated to 2011 levels. The Republic of South Sudan continues to be challenged by ongoing civil conflict in several states. Population displacements both internally and across international borders continues to be problematic with an estimated half million South Sudanese projected to be refugees in neighboring countries. Concerns continue with regards to quality of recording and monitoring, timeliness and completeness of data. Administrative coverage data reflect reporting from three-quarters of total expected district reports. Official government reported data reflects coverage derived from the DHIS2 system. WHO and UNICEF encourage continued efforts to improve recording and monitoring while also increasing coverage. Estimate challenged by: D-

South Sudan - IPV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3
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	3
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1
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.

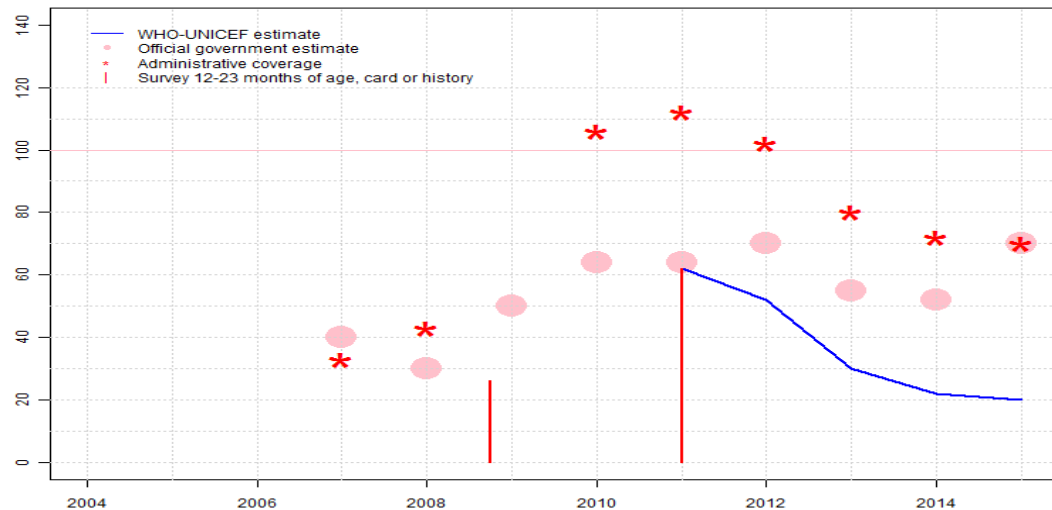
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

2015: Estimate based on coverage reported by national government. The Republic of South Sudan continues to be challenged by ongoing civil conflict in several states. Population displacements both internally and across international borders continues to be problematic with an estimated half million South Sudanese projected to be refugees in neighboring countries. Concerns continue with regards to quality of recording and monitoring, timeliness and completeness of data. Administrative coverage data reflect reporting from three-quarters of total expected district reports. Official government reported data reflects coverage derived from the DHIS2 system. WHO and UNICEF encourage continued efforts to improve recording and monitoring while also increasing coverage. IPV introduced during December 2015. GoC=Assigned by working group. Consistency with other vaccines.

South Sudan - MCV1

SSD - MCV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	62	52	30	22	20
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	40	30	50	64	64	70	55	52	70
Administrative	NA	NA	NA	33	43	NA	106	112	102	80	72	70
Survey	NA	NA	NA	NA	NA	*	NA	62	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:

2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 62 percent based on 1 survey(s). The Republic of South Sudan became an independent state, was admitted to the United Nations and became a WHO member state in July 2011. Access to health facilities is a problem in many parts of the country for 5 months out of the year. The official government estimates for 2011 are based on the number of children vaccinated (administrative reports) and the highest denominator possible as derived from the 5 birth cohorts reached in Polio SIAs. The resulting official estimate is much lower than the administrative estimates because of the marked differences in denominators used. Please note that this method of official estimation of coverage in South Sudan was used because of the consistent under-estimation of the denominators derived from the 2008 housing and population census that were used in earlier years.. Official government estimate based on immunization programme targets. Estimate challenged by: D-R-

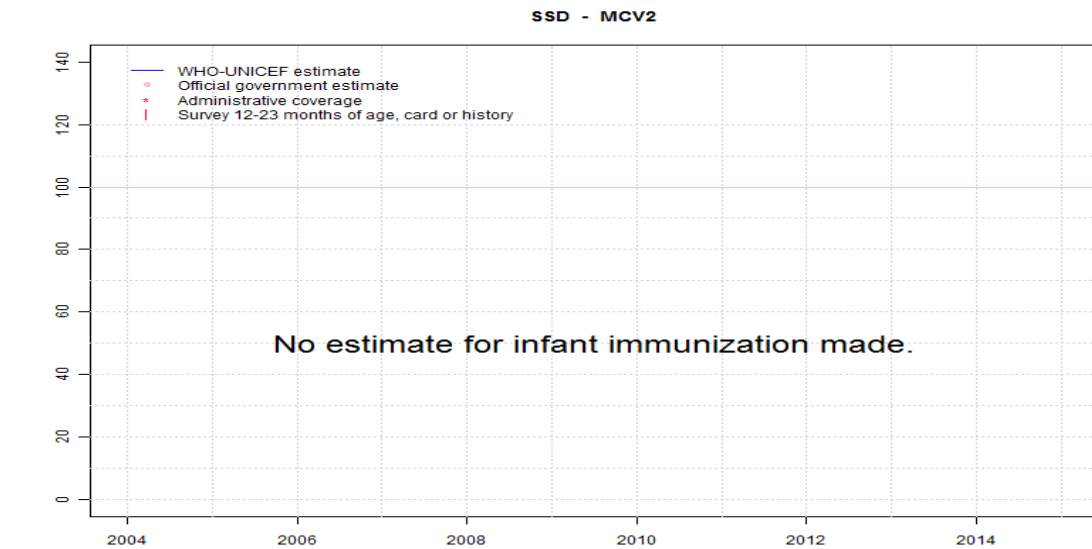
2012: Reported data calibrated to 2011 levels. . Official government estimate based on immunization programme targets. Estimate challenged by: D-

2013: Reported data calibrated to 2011 levels. . Official government estimate based on immunization programme targets. Estimate challenged by: D-

2014: Reported data calibrated to 2011 levels. No explanation provided for adjusted coverage level. Estimate challenged by: D-

2015: Reported data calibrated to 2011 levels. The Republic of South Sudan continues to be challenged by ongoing civil conflict in several states. Population displacements both internally and across international borders continues to be problematic with an estimated half million South Sudanese projected to be refugees in neighboring countries. Concerns continue with regards to quality of recording and monitoring, timeliness and completeness of data. Administrative coverage data reflect reporting from three-quarters of total expected district reports. Official government reported data reflects coverage derived from the DHIS2 system. WHO and UNICEF encourage continued efforts to improve recording and monitoring while also increasing coverage. Estimate challenged by: D-

South Sudan - MCV2

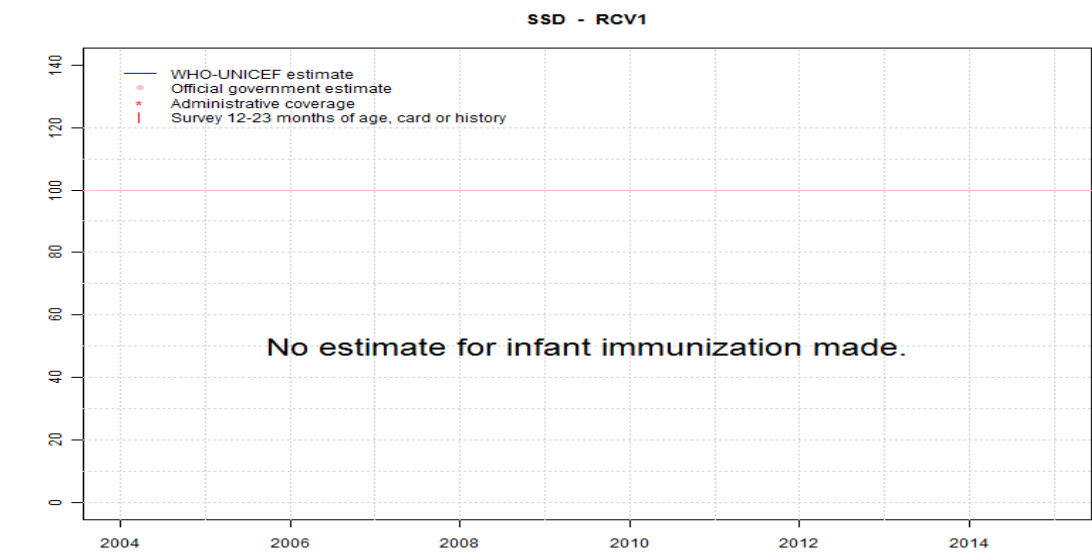


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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

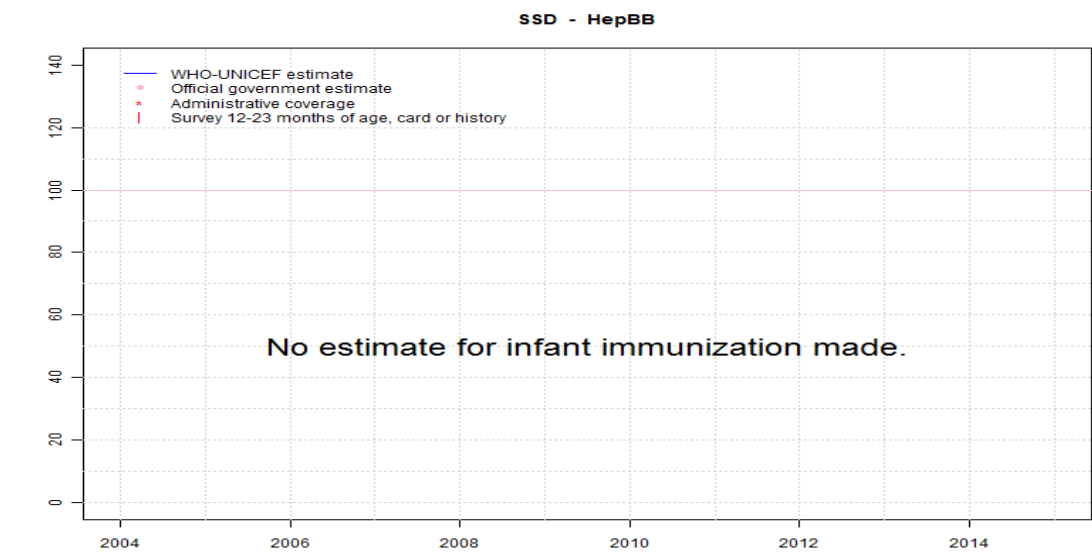


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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



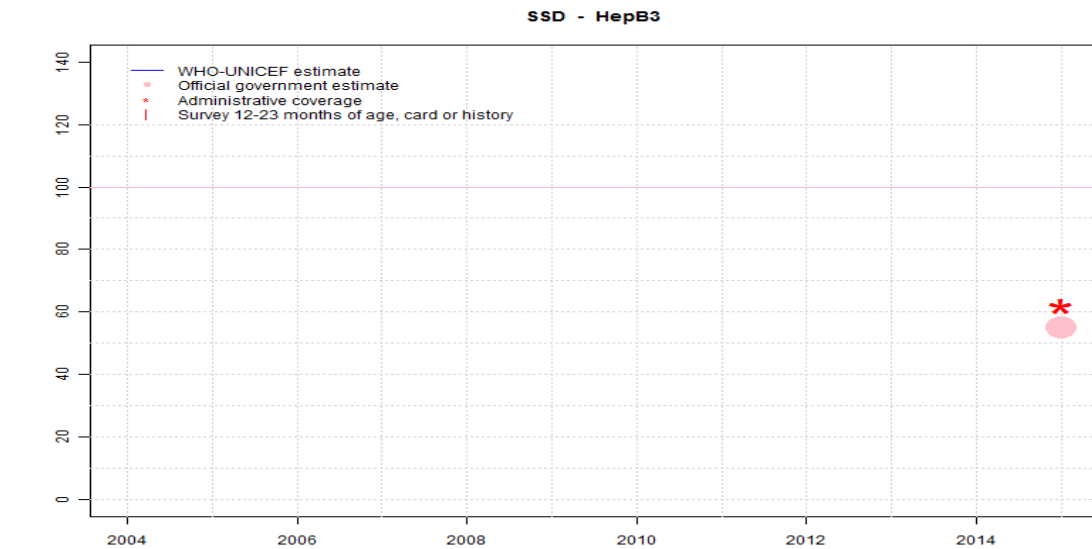
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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

South Sudan - HepB3



Description:

2015: DTP-HepB-Hib vaccine introduced in July 2014. Reporting began during 2015. Estimate based on DTP3 level. The Republic of South Sudan continues to be challenged by ongoing civil conflict in several states. Population displacements both internally and across international borders continues to be problematic with an estimated half million South Sudanese projected to be refugees in neighboring countries. Concerns continue with regards to quality of recording and monitoring, timeliness and completeness of data. Administrative coverage data reflect reporting from three-quarters of total expected district reports. Official government reported data reflects coverage derived from the DHIS2 system. WHO and UNICEF encourage continued efforts to improve recording and monitoring while also increasing coverage. Estimate challenged by: D-R-

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31
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	55
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62
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.

South Sudan - Hib3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31
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	55
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62
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.

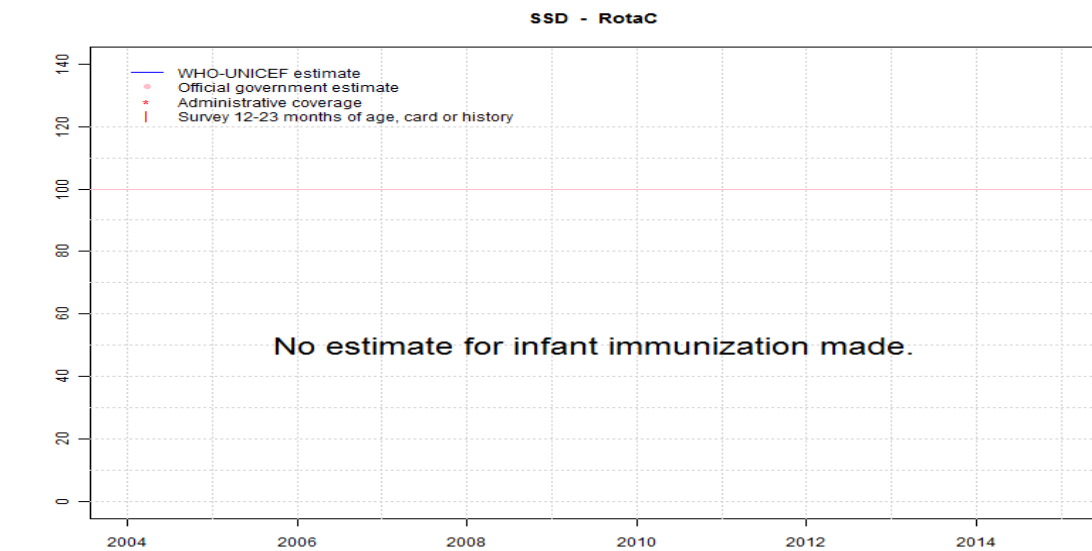
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

2015: DTP-HepB-Hib vaccine introduced in July 2014. Reporting began during 2015. Estimate based on DTP3 level. The Republic of South Sudan continues to be challenged by ongoing civil conflict in several states. Population displacements both internally and across international borders continues to be problematic with an estimated half million South Sudanese projected to be refugees in neighboring countries. Concerns continue with regards to quality of recording and monitoring, timeliness and completeness of data. Administrative coverage data reflect reporting from three-quarters of total expected district reports. Official government reported data reflects coverage derived from the DHIS2 system. WHO and UNICEF encourage continued efforts to improve recording and monitoring while also increasing coverage. Estimate challenged by: D-R-

South Sudan - RotaC



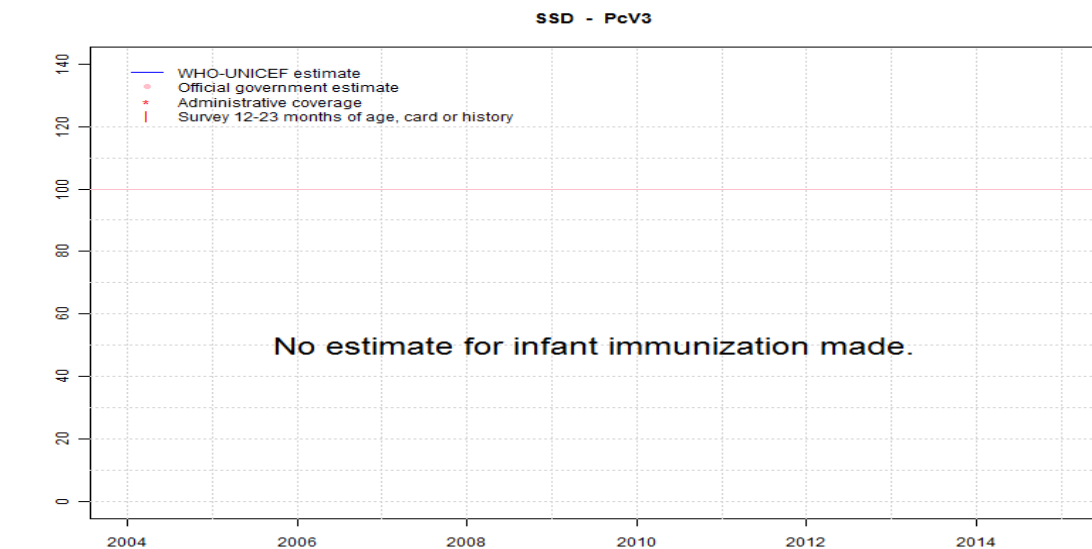
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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

South Sudan - PcV3



	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.

South Sudan - survey details

2011 Republic of South Sudan EPI Coverage Survey 2011-2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	71	12-23 m	2246	50
BCG	Card	30	12-23 m	-	50
BCG	Card or History	75	12-23 m	2246	50
DTP1	C or H <12 months	73	12-23 m	2246	50
DTP1	Card	31	12-23 m	-	50
DTP1	Card or History	79	12-23 m	2246	50
DTP3	C or H <12 months	46	12-23 m	2246	50
DTP3	Card	24	12-23 m	-	50
DTP3	Card or History	55	12-23 m	2246	50
MCV1	C or H <12 months	46	12-23 m	2246	50
MCV1	Card	23	12-23 m	-	50
MCV1	Card or History	62	12-23 m	2246	50
Pol1	C or H <12 months	73	12-23 m	2246	50
Pol1	Card	29	12-23 m	-	50
Pol1	Card or History	80	12-23 m	2246	50
Pol3	C or H <12 months	46	12-23 m	2246	50
Pol3	Card	24	12-23 m	-	50
Pol3	Card or History	58	12-23 m	2246	50

DTP1	Card	7	12-23 m	-	10
DTP1	Card or History	28	12-23 m	1704	10
DTP1	History	21	12-23 m	-	10
DTP3	C or H <12 months	13	12-23 m	1704	10
DTP3	Card	5	12-23 m	-	10
DTP3	Card or History	15	12-23 m	1704	10
DTP3	History	10	12-23 m	-	10
MCV1	C or H <12 months	20	12-23 m	1704	10
MCV1	Card	6	12-23 m	-	10
MCV1	Card or History	26	12-23 m	1704	10
MCV1	History	20	12-23 m	-	10
Pol1	C or H <12 months	35	12-23 m	1704	10
Pol1	Card	8	12-23 m	-	10
Pol1	Card or History	36	12-23 m	1704	10
Pol1	History	29	12-23 m	-	10
Pol3	C or H <12 months	13	12-23 m	1704	10
Pol3	Card	6	12-23 m	-	10
Pol3	Card or History	15	12-23 m	1704	10
Pol3	History	9	12-23 m	-	10

2009 The Republic of South Sudan: The Sudan Household Health Survey 2010

2009 South Sudan Household Health Survey 2010 (SHHS 2)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	31	12-23 m	1704	10
BCG	Card	9	12-23 m	-	10
BCG	Card or History	34	12-23 m	1704	10
BCG	History	26	12-23 m	-	10
DTP1	C or H <12 months	25	12-23 m	1704	10

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	34	12-23 m	1704	10
DTP1	Card or History	28	12-23 m	1704	10
DTP3	Card or History	15	12-23 m	1704	10
MCV1	Card or History	26	12-23 m	1704	10
Pol1	Card or History	36	12-23 m	1704	10
Pol3	Card or History	15	12-23 m	1704	10

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

South Sudan

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	
2005	
2006	
2007	
2008	
2009	
2010	
2011	64
2012	64
2013	64
2014	64
2015	68

¹ This model is described in: Griffiths U., Wolfson L., Quddus A., Younus M., Hafiz R.. Incremental cost-effectiveness of supplementary immunization activities to prevent neo-natal tetanus in Pakistan. Bulletin of the World Health Organization 2004; 82:643-651.