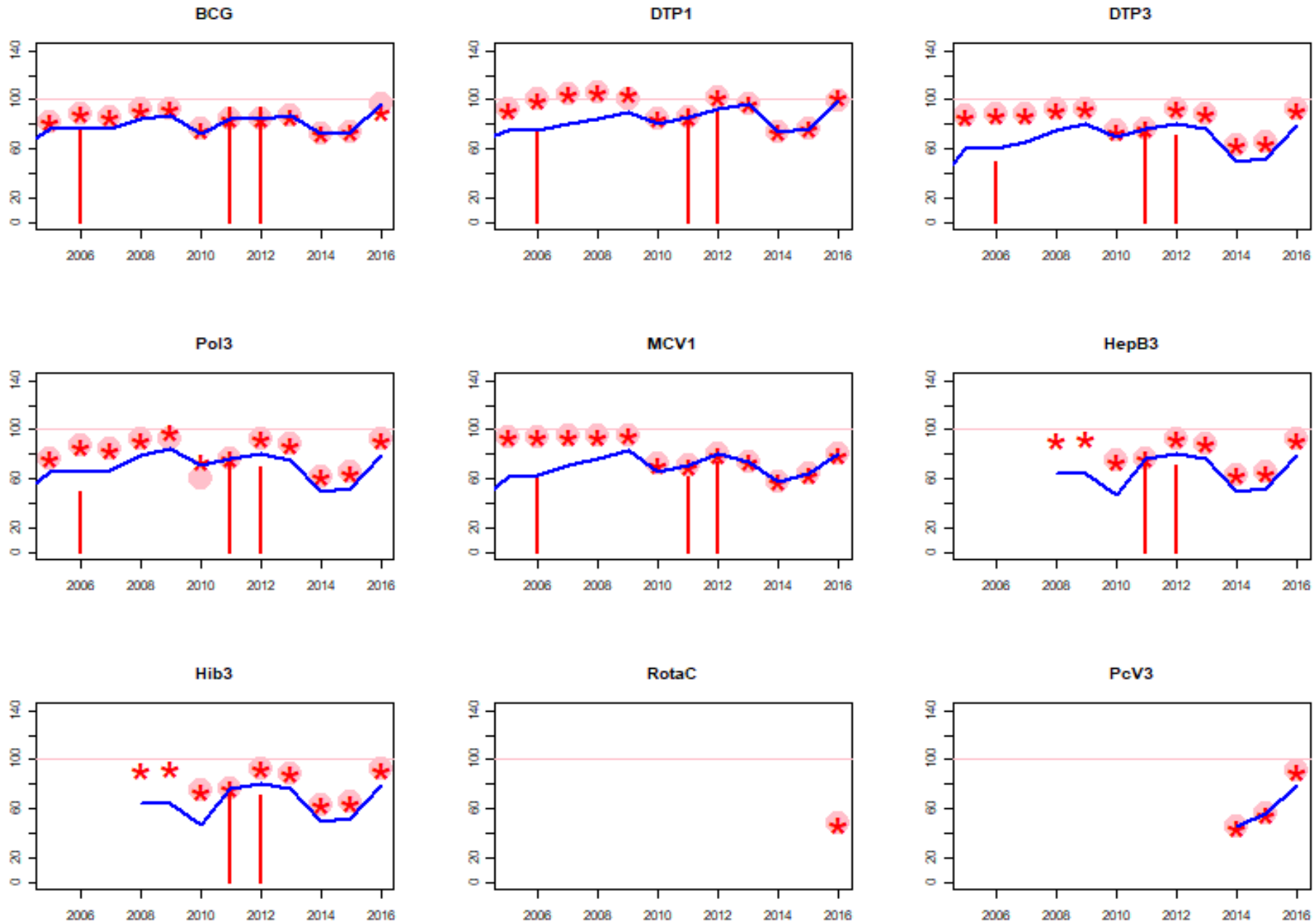


Liberia: WHO and UNICEF estimates of immunization coverage: 2016 revision



BACKGROUND NOTE: Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from the published and grey literature. Based on these data, with due consideration to potential biases and the views of local experts, WHO and UNICEF attempt to distinguish between situations where the available empirical data accurately reflect immunization system performance and those where the data are likely to be compromised and present a misleading view of immunization coverage while jointly estimating the most likely coverage levels for each country.

WHO and UNICEF estimates are country-specific; that is to say, each country's data are reviewed individually, and data are not borrowed from other countries in the absence of data. Estimates are not based on ad hoc adjustments to reported data; in some instances empirical data are available from a single source, usually the nationally reported coverage data. In cases where no data are available for a given country/vaccine/year combination, data are considered from earlier and later years and interpolated to estimate coverage for the missing year(s). In cases where data sources are mixed and show large variation, an attempt is made to identify the most likely estimate with consideration of the possible biases in available data. For methods see:

*Burton et al. 2009. WHO and UNICEF estimates of national infant immunization coverage: methods and processes.

*Burton et al. 2012. A formal representation of the WHO and UNICEF estimates of national immunization coverage: a computational logic approach.

*Brown et al. 2013. An introduction to the grade of confidence used to characterize uncertainty around the WHO and UNICEF estimates of national immunization coverage.

DATA SOURCES.

ADMINISTRATIVE coverage: Reported by national authorities and based on aggregated administrative reports from health service providers on the number of vaccinations administered during a given period (numerator data) and reported target population data (denominator data). May be biased by inaccurate numerator and/or denominator data.

OFFICIAL coverage: Estimated coverage reported by national authorities that reflects their assessment of the most likely coverage based on any combination of administrative coverage, survey-based estimates or other data sources or adjustments. Approaches to determine OFFICIAL coverage may differ across countries.

SURVEY coverage: Based on estimated coverage from population-based household surveys among children aged 12-23 months or 24-35 months following a review of survey methods and results. Information is based on the combination of vaccination history from documented evidence or caregiver recall. Survey results are considered for the appropriate birth cohort based on the period of data collection.

ABBREVIATIONS

BCG: percentage of births who received one dose of Bacillus Calmette Guerin vaccine.

DTP1 / DTP3: percentage of surviving infants who received the 1st / 3rd dose, respectively, of diphtheria and tetanus toxoid with pertussis containing vaccine.

Pol3: percentage of surviving infants who received the 3rd dose of polio containing vaccine. May be either oral or inactivated polio vaccine.

IPV1: percentage of surviving infants who received at least one dose of inactivated polio vaccine. In countries utilizing an immunization schedule recommending either (i) a primary series of three doses of oral polio vaccine (OPV) plus at least one dose of IPV where OPV is included in routine

immunization and/or campaign or (ii) a sequential schedule of IPV followed by OPV, WHO and UNICEF estimates for IPV1 reflect coverage with at least one routine dose of IPV among infants <1 year of age among countries. For countries utilizing IPV containing vaccine use only, i.e., no recommended dose of OPV, the WHO and UNICEF estimate for IPV1 corresponds to coverage for the 1st dose of IPV.

Production of IPV coverage estimates, which begins in 2015, results in no change of the estimated coverage levels for the 3rd dose of polio (Pol3). For countries recommending routine immunization with a primary series of three doses of IPV alone, WHO and UNICEF estimated Pol3 coverage is equivalent to estimated coverage with three doses of IPV. For countries with a sequential schedule, estimated Pol3 coverage is based on that for the 3rd dose of polio vaccine regardless of vaccine type.

MCV1: percentage of surviving infants who received the 1st dose of measles containing vaccine. In countries where the national schedule recommends the 1st dose of MCV at 12 months or later based on the epidemiology of disease in the country, coverage estimates reflect the percentage of children who received the 1st dose of MCV as recommended.

MCV2: percentage of children who received the 2nd dose of measles containing vaccine according to the nationally recommended schedule.

RCV1: percentage of surviving infants who received the 1st dose of rubella containing vaccine. Coverage estimates are based on WHO and UNICEF estimates of coverage for the dose of measles containing vaccine that corresponds to the first measles-rubella combination vaccine. Nationally reported coverage of RCV is not taken into consideration nor are the data represented in the accompanying graph and data table.

HepBB: percentage of births which received a dose of hepatitis B vaccine within 24 hours of delivery. Estimates of hepatitis B birth dose coverage are produced only for countries with a universal birth dose policy. Estimates are not produced for countries that recommend a birth dose to infants born to HepB virus-infected mothers only or where there is insufficient information to determine whether vaccination is within 24 hours of birth.

HepB3: percentage of surviving infants who received the 3rd dose of hepatitis B containing vaccine following the birth dose.

Hib3: percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.

RotaC: percentage of surviving infants who received the final recommended dose of rotavirus vaccine, which can be either the 2nd or the 3rd dose depending on the vaccine.

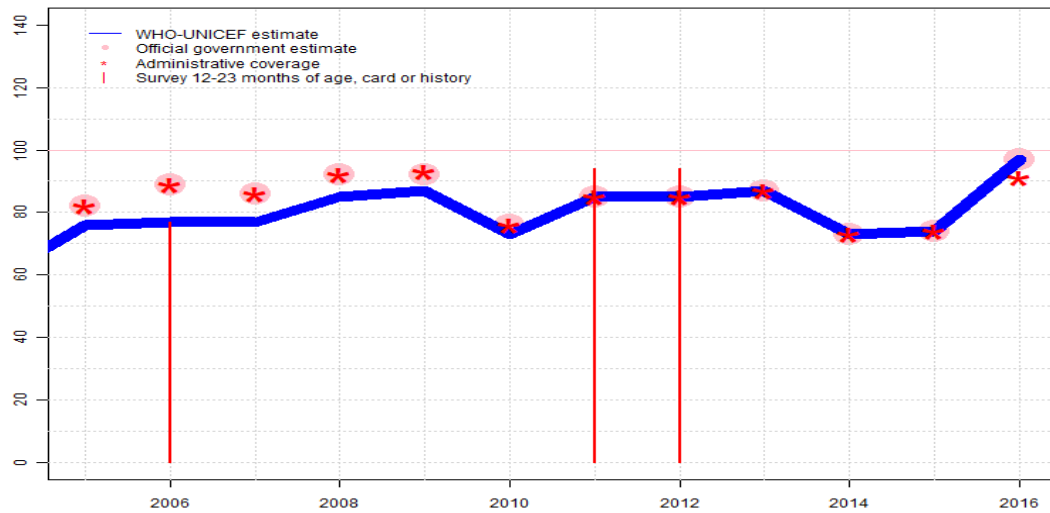
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect the percentage of surviving infants who received two doses of PcV prior to the 1st birthday.

YFV: percentage of surviving infants who received one dose of yellow fever vaccine in countries where YFV is part of the national immunization schedule for children or is recommended in at risk areas; coverage estimates are annualized for the entire cohort of surviving infants.

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Liberia - BCG

LBR - BCG



Description:

- 2016: Estimate based on coverage reported by national government. Reported vaccinated number of children suggest recovery from Ebola crisis. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Estimates based on reported data. Lower coverage the result of service delivery interruption due to Ebola virus disease outbreak. Estimate challenged by: S-
- 2013: Estimate based on coverage reported by national government. GoC=Assigned by working group. .
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). Estimate challenged by: D-
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-S-
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2005: Reported data calibrated to 2004 and 2006 levels. During 2005 Liberia carried out six multi-antigen immunization outreach activities. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	76	77	77	85	87	73	85	85	87	73	74	97
Estimate GoC	•	•	•	•	•	•	•	•	••	•	••	••
Official	82	89	86	92	92	76	85	85	87	73	74	97
Administrative	82	89	86	92	93	76	85	85	87	73	74	91
Survey	NA	77	NA	NA	NA	NA	94	94	NA	NA	NA	NA

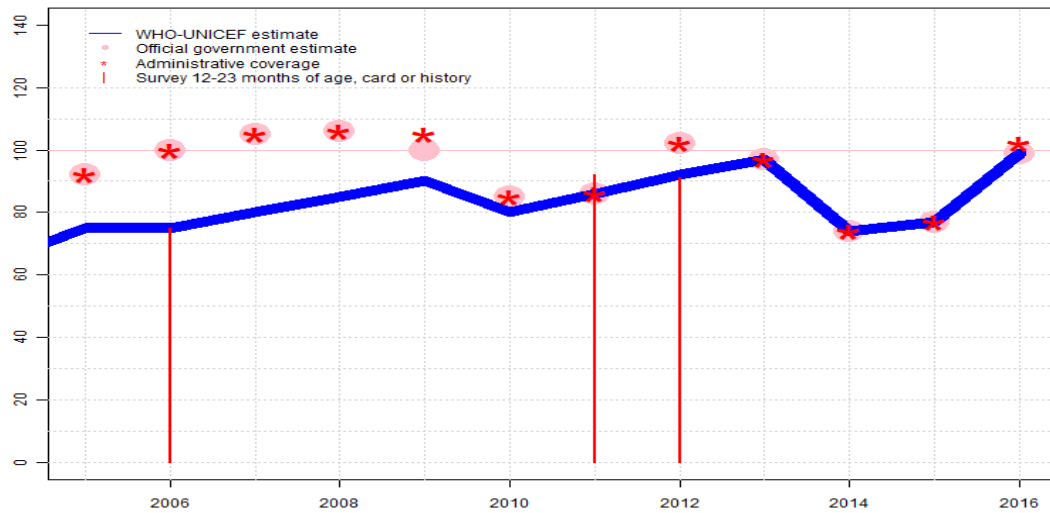
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Liberia - DTP1

LBR - DTP1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	75	75	80	85	90	80	86	92	97	74	77	99
Estimate GoC	•	•	•	•	•	•	•••	•	••	•	••	•
Official	92	100	105	106	100	85	86	102	97	74	77	99
Administrative	92	100	105	106	105	85	86	102	97	74	77	102
Survey	NA	75	NA	NA	NA	NA	92	91	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.

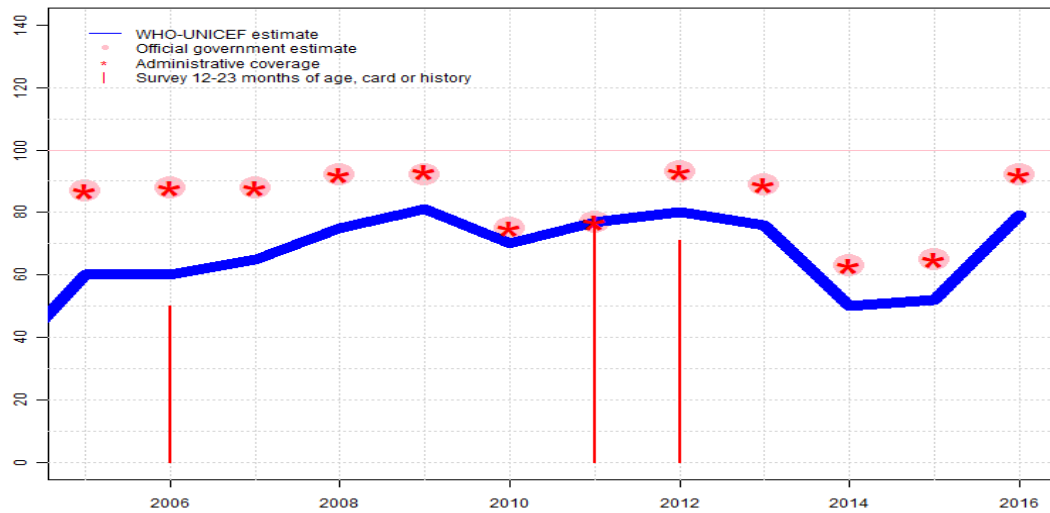
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Estimate based on coverage reported by national government. Reported vaccinated number of children suggest recovery from Ebola crisis. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Estimates based on reported data. Lower coverage the result of service delivery interruption due to Ebola virus disease outbreak. Estimate challenged by: S-
- 2013: Estimate based on coverage reported by national government. GoC=Assigned by working group. .
- 2012: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). Reported data excluded because 102 percent greater than 100 percent. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 92 percent based on 1 survey(s). GoC=R+ S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-S-
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2008: Reported data calibrated to 2006 and 2011 levels. Reported data excluded because 106 percent greater than 100 percent. Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2006 and 2011 levels. Reported data excluded because 105 percent greater than 100 percent. Estimate challenged by: D-R-
- 2006: 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-
- 2005: Estimate of 75 percent assigned by working group. The results of the 2006 survey are presumed to reflect accurately the coverage levels following the 2005 outreach activities. During 2005 Liberia carried out six multi-antigen immunization outreach activities. Estimate challenged by: D-R-

Liberia - DTP3

LBR - DTP3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	60	60	65	75	81	70	77	80	76	50	52	79
Estimate GoC	•	•	•	•	•	•	•••	•	•	•	•	•
Official	87	88	88	92	92	75	77	93	89	63	65	92
Administrative	87	88	88	92	93	75	77	93	89	63	65	92
Survey	NA	50	NA	NA	NA	NA	77	71	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.

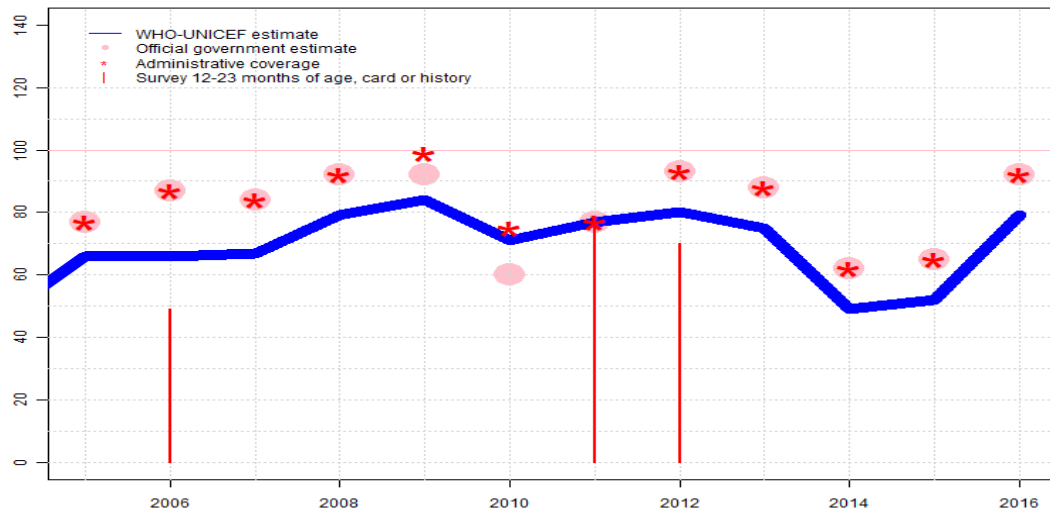
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2012 levels. Reported vaccinated number of children suggest recovery from Ebola crisis. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2012 levels. Estimates based on reported data. Lower coverage the result of service delivery interruption due to Ebola virus disease outbreak. Estimate challenged by: D-R-S-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 1 survey(s). Liberia Demographic and Health Survey 2013 card or history results of 71 percent modified for recall bias to 80 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 57 percent and 3d dose card only coverage of 50 percent. Estimate challenged by: D-R-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 76 percent based on 1 survey(s). Routine Immunization Survey, Liberia 2012 card or history results of 77 percent modified for recall bias to 76 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 70 percent and 3d dose card only coverage of 58 percent. GoC=R+ S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-S-
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 60 percent based on 1 survey(s). Liberia Demographic and Health Survey 2007 card or history results of 50 percent modified for recall bias to 60 percent based on 1st dose card or history coverage of 75 percent, 1st dose card only coverage of 46 percent and 3d dose card only coverage of 37 percent. Estimate challenged by: D-R-S-
- 2005: Estimate of 60 percent assigned by working group. The results of the 2006 survey are presumed to reflect accurately the coverage levels following the 2005 outreach activities. During 2005 Liberia carried out six multi-antigen immunization outreach activities. Estimate challenged by: D-R-S-

Liberia - Pol3

LBR - Pol3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	66	66	67	79	84	71	77	80	75	49	52	79
Estimate GoC	•	•	•	•	•	•	•••	•	•	•	•	•
Official	77	87	84	92	92	60	77	93	88	62	65	92
Administrative	77	87	84	92	99	75	77	93	88	62	65	92
Survey	NA	49	NA	NA	NA	NA	76	70	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.

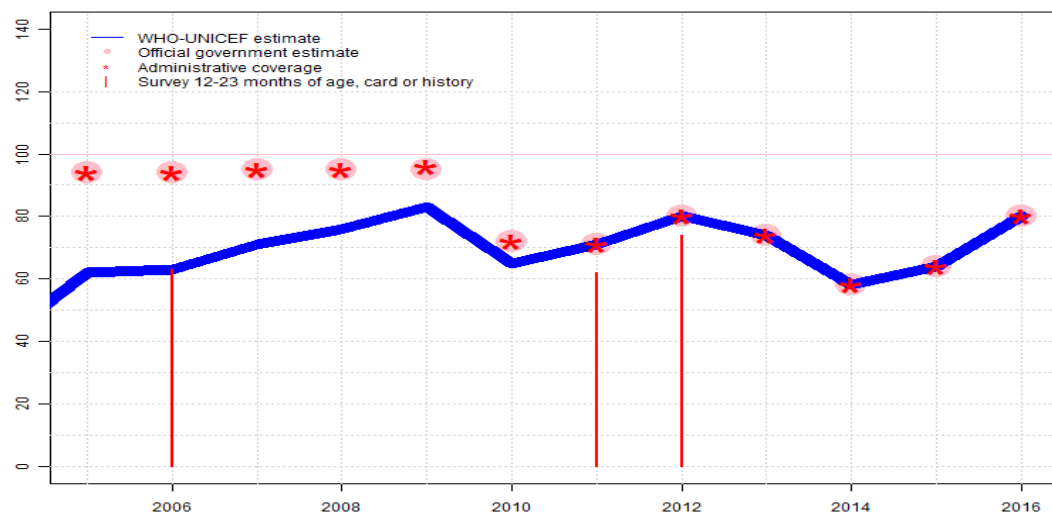
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2012 levels. Reported vaccinated number of children suggest recovery from Ebola crisis. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2012 levels. Estimates based on reported data. Lower coverage the result of service delivery interruption due to Ebola virus disease outbreak. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-R-
- 2012: Estimate of 80 percent assigned by working group. Estimate is based on estimated coverage for third dose of DTP containing vaccine. Liberia Demographic and Health Survey 2013 results ignored by working group. Survey coverage likely includes campaign doses. Liberia Demographic and Health Survey 2013 card or history results of 70 percent modified for recall bias to 84 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 58 percent and 3d dose card only coverage of 51 percent. Estimate challenged by: D-R-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 76 percent based on 1 survey(s). GoC=Assigned by working group. Consistency with other vaccines. Estimate supported by R+ S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. National coverage estimate ignored to maintain consistency with other vaccines. Estimate challenged by: R-
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-S-
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Liberia Demographic and Health Survey 2007 card or history results of 49 percent modified for recall bias to 66 percent based on 1st dose card or history coverage of 83 percent, 1st dose card only coverage of 45 percent and 3d dose card only coverage of 36 percent. Estimate challenged by: D-R-S-
- 2005: Estimate of 66 percent assigned by working group. The results of the 2006 survey are presumed to reflect accurately the coverage levels following the 2005 outreach activities. During 2005 Liberia carried out six multi-antigen immunization outreach activities. Estimate challenged by: D-R-S-

Liberia - MCV1

LBR - MCV1



Description:

- 2016: Estimate based on coverage reported by national government. Reported vaccinated number of children suggest recovery from Ebola crisis. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Estimates based on reported data. Lower coverage the result of service delivery interruption due to Ebola virus disease outbreak. Estimate challenged by: S-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 74 percent based on 1 survey(s). Estimate challenged by: S-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 62 percent based on 1 survey(s). GoC=R+ S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-S-
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-S-
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2006: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 63 percent based on 1 survey(s). Estimate challenged by: D-R-S-
- 2005: Reported data calibrated to 2004 and 2006 levels. During 2005 Liberia carried out six multi-antigen immunization outreach activities. Estimate challenged by: D-R-S-

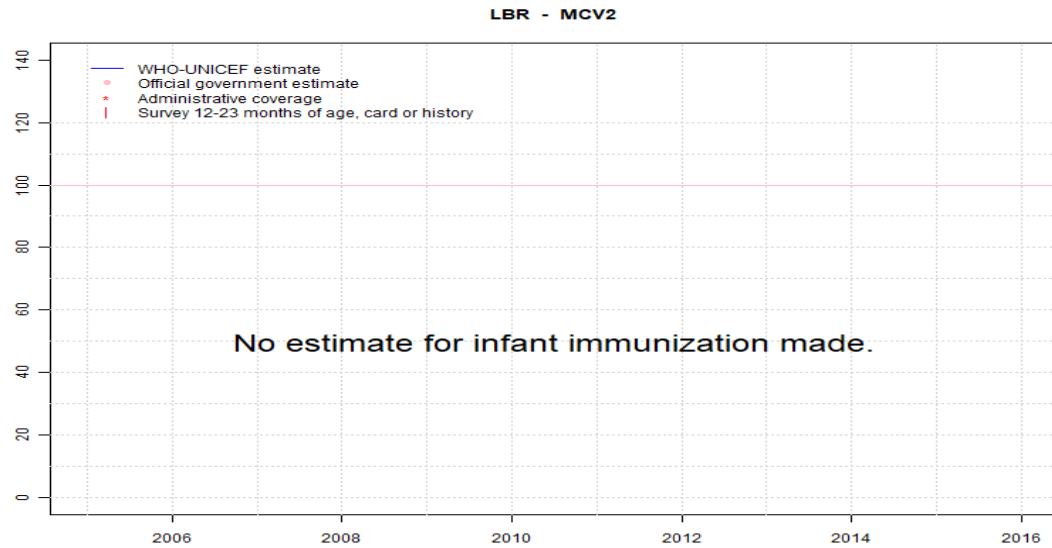
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	62	63	71	76	83	65	71	80	74	58	64	80
Estimate GoC	•	•	•	•	•	•	•••	•	•	•	••	••
Official	94	94	95	95	95	72	71	80	74	58	64	80
Administrative	94	94	95	95	96	72	71	80	74	58	64	80
Survey	NA	63	NA	NA	NA	NA	62	74	NA	NA	NA	NA

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.

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Liberia - MCV2



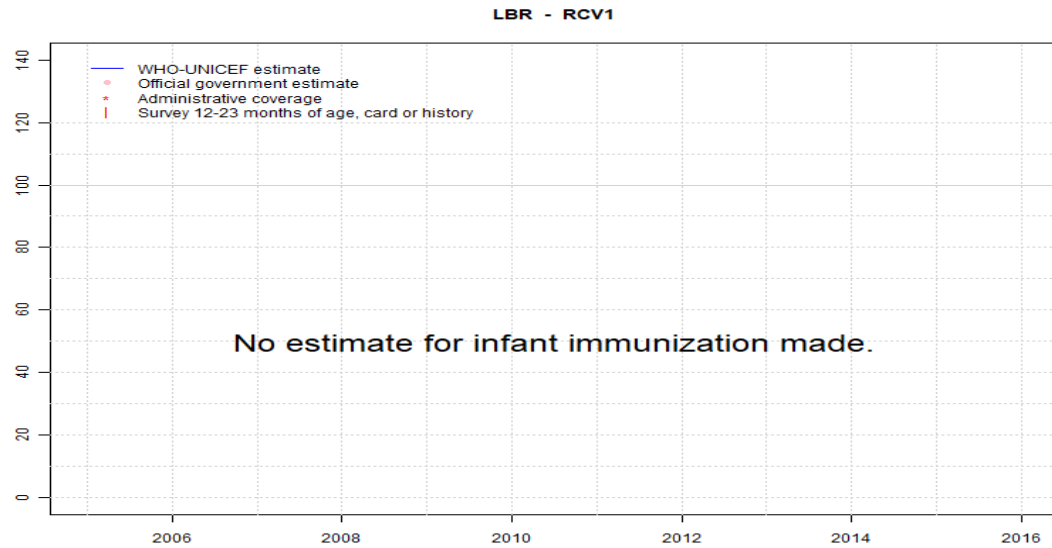
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

Liberia - RCV1



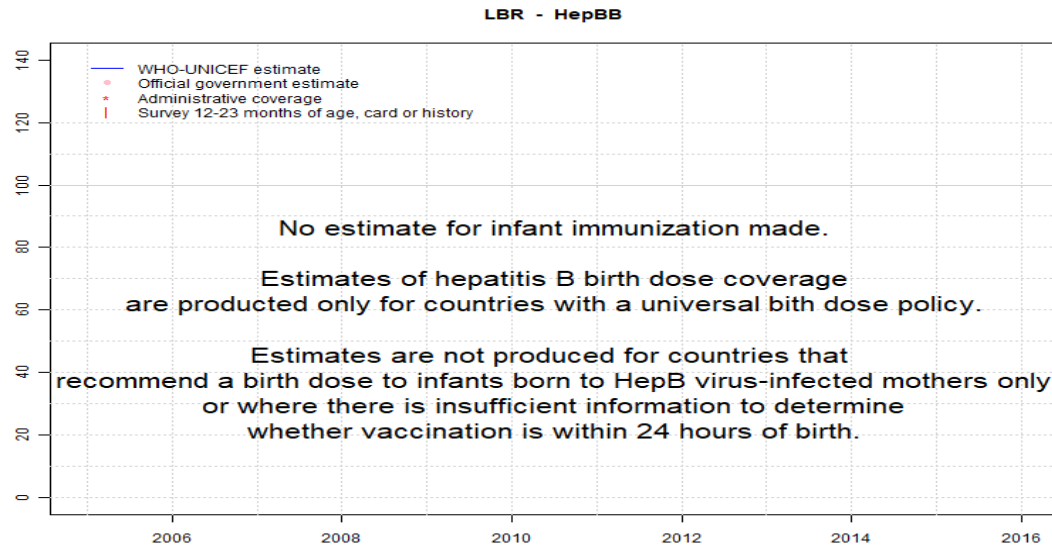
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

Liberia - HepBB



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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

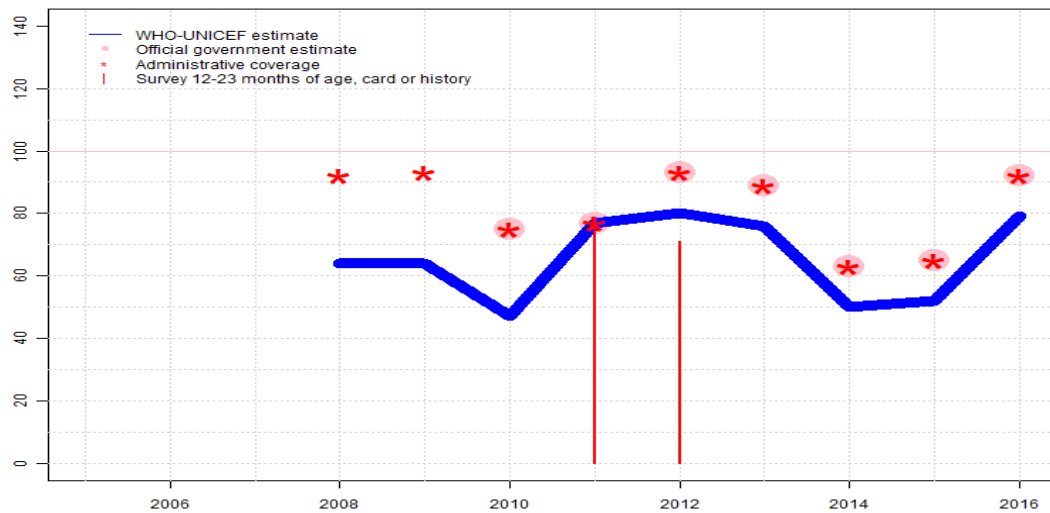
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Liberia - HepB3

LBR - HepB3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	64	64	47	77	80	76	50	52	79
Estimate GoC	NA	NA	NA	•	•	•	•••	•	•	•	•	•
Official	NA	NA	NA	NA	NA	75	77	93	89	63	65	92
Administrative	NA	NA	NA	92	93	75	77	93	89	63	65	92
Survey	NA	NA	NA	NA	NA	NA	77	71	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.

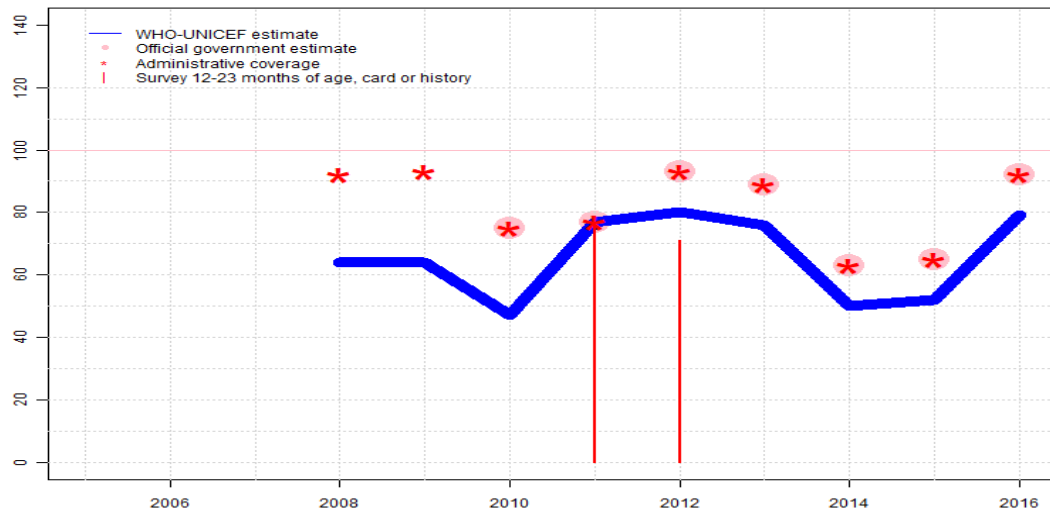
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Reported data calibrated to 2012 levels. Reported vaccinated number of children suggest recovery from Ebola crisis. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2012 levels. Estimates based on reported data. Lower coverage the result of service delivery interruption due to Ebola virus disease outbreak. Estimate challenged by: D-R-S-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 1 survey(s). Liberia Demographic and Health Survey 2013 card or history results of 71 percent modified for recall bias to 80 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 57 percent and 3d dose card only coverage of 50 percent. Estimate challenged by: D-R-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 76 percent based on 1 survey(s). Routine Immunization Survey, Liberia 2012 card or history results of 77 percent modified for recall bias to 76 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 70 percent and 3d dose card only coverage of 58 percent. GoC=R+ S+ D+
- 2010: Estimate of 47 percent assigned by working group. Estimate follows the DTP3 levels of coverage. Estimate challenged by: D-R-S-
- 2009: Estimate of 64 percent assigned by working group. Estimate follows the DTP3 levels of coverage. Estimate challenged by: D-R-S-
- 2008: Estimate of 64 percent assigned by working group. Estimate follows the DTP3 levels of coverage. HepB vaccine introduced in 2008 Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-R-

Liberia - Hib3

LBR - Hib3



Description:

- 2016: Reported data calibrated to 2012 levels. Reported vaccinated number of children suggest recovery from Ebola crisis. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2012 levels. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2012 levels. Estimates based on reported data. Lower coverage the result of service delivery interruption due to Ebola virus disease outbreak. Estimate challenged by: D-R-S-
- 2013: Reported data calibrated to 2012 levels. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 1 survey(s). Liberia Demographic and Health Survey 2013 card or history results of 71 percent modified for recall bias to 80 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 57 percent and 3d dose card only coverage of 50 percent. Estimate challenged by: D-R-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 76 percent based on 1 survey(s). Routine Immunization Survey, Liberia 2012 card or history results of 77 percent modified for recall bias to 76 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 70 percent and 3d dose card only coverage of 58 percent. GoC=R+ S+ D+
- 2010: Estimate of 47 percent assigned by working group. Estimate follows the DTP3 levels of coverage. Estimate challenged by: D-R-S-
- 2009: Estimate of 64 percent assigned by working group. Estimate follows the DTP3 levels of coverage. Estimate challenged by: D-R-S-
- 2008: Estimate of 64 percent assigned by working group. Estimate follows the DTP3 levels of coverage. Hib vaccine introduced in 2008 Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	64	64	47	77	80	76	50	52	79
Estimate GoC	NA	NA	NA	•	•	•	•••	•	•	•	•	•
Official	NA	NA	NA	NA	NA	75	77	93	89	63	65	92
Administrative	NA	NA	NA	92	93	75	77	93	89	63	65	92
Survey	NA	NA	NA	NA	NA	NA	77	71	NA	NA	NA	NA

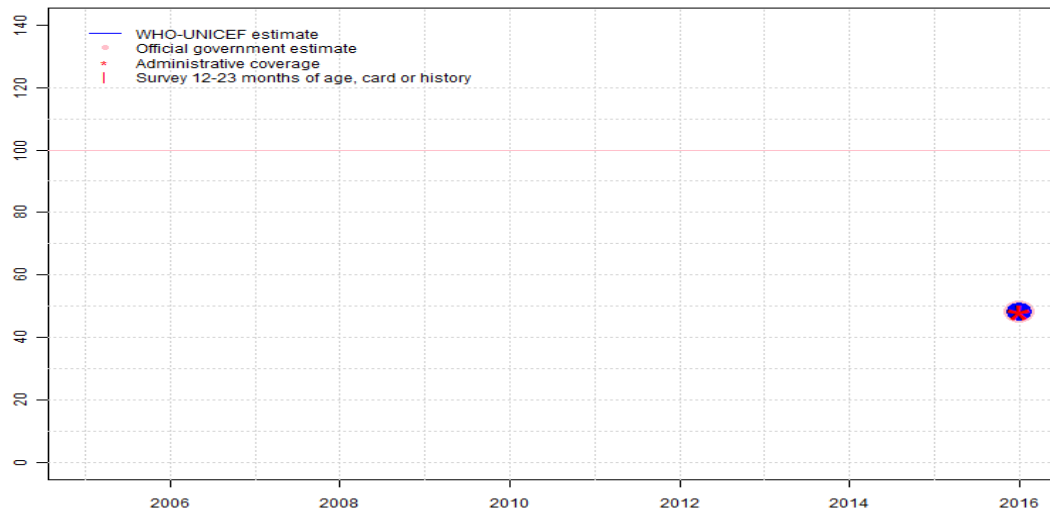
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Liberia - RotaC

LBR - RotaC



Description:

2016: Estimate based on coverage reported by national government. Rotavirus vaccine introduced in April 2016. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48
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	48
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

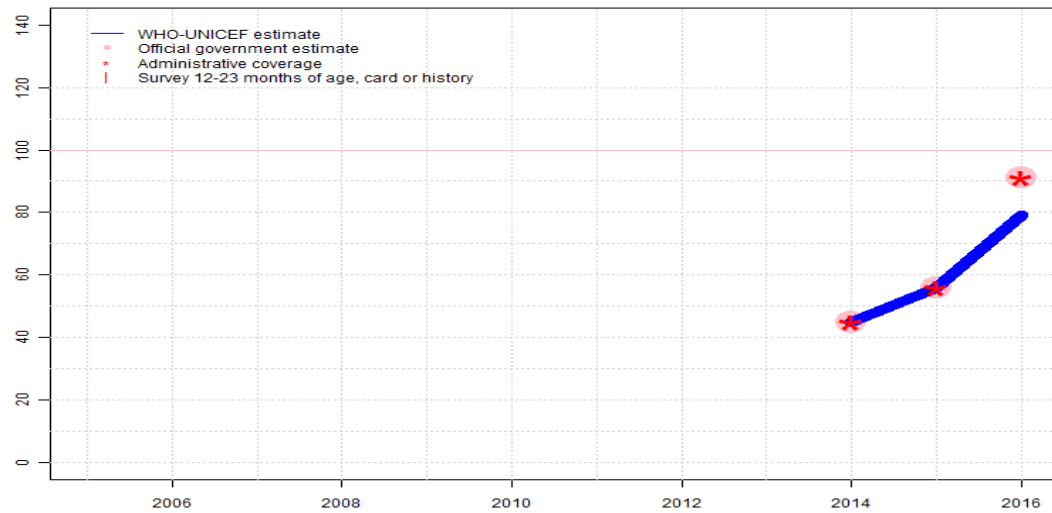
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Liberia - PcV3

LBR - PcV3



Description:

2016: Estimate based on DTP3 coverage. Reported vaccinated number of children suggest recovery from Ebola crisis and national rollout of vaccine. Estimate challenged by: D-R-
 2015: Estimate based on coverage reported by national government. GoC=R+ D+
 2014: Estimate based on coverage reported by national government. Pneumococcal conjugate vaccine introduced during 2014. Estimates based on reported data. Lower coverage the result of service delivery interruption due to Ebola virus disease outbreak. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	45	56	79
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	••	••	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	45	56	91
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	45	56	91
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

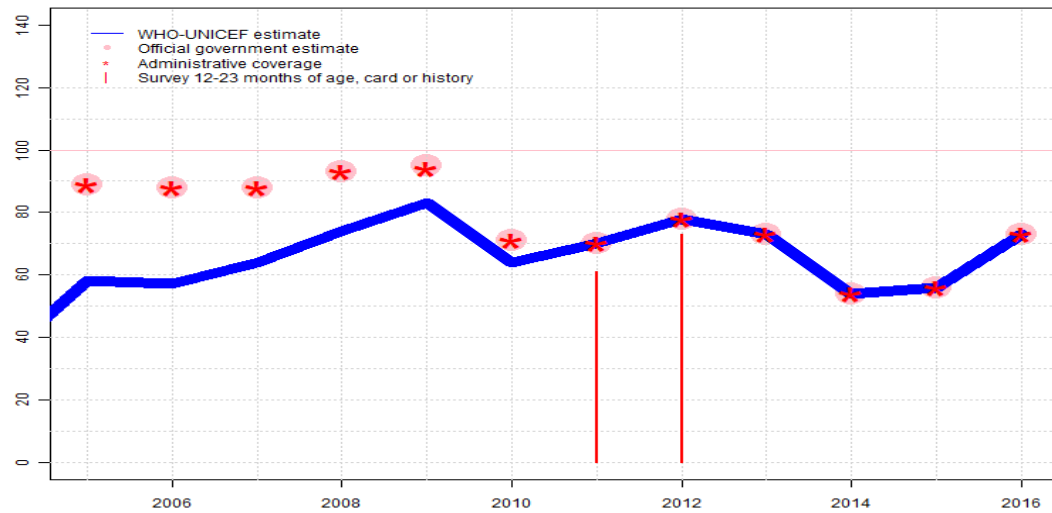
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Liberia - YFV

LBR - YFV



Description:

- 2016: Estimate based on coverage reported by national government. Programme reports a 2-month vaccine stockout. Reported vaccinated number of children suggest recovery from Ebola crisis. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Estimates based on reported data. Lower coverage the result of service delivery interruption due to Ebola virus disease outbreak. Estimate challenged by: S-
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 73 percent based on 1 survey(s). Estimate challenged by: S-
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 61 percent based on 1 survey(s). GoC=R+ S+ D+
- 2010: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-S-
- 2008: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2007: Reported data calibrated to 2006 and 2011 levels. Estimate challenged by: D-R-
- 2006: Estimate of 57 percent assigned by working group. Estimates from 2005 onward are based on the calibration factor applied to MCV coverage levels (-0.31). Estimate challenged by: D-R-S-
- 2005: Estimates from 2005 onward are based on the calibration factor applied to MCV coverage levels (-0.31). During 2005 Liberia carried out six multi-antigen immunization outreach activities. Estimate challenged by: D-R-S-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	58	57	64	74	83	64	70	78	73	54	56	73
Estimate GoC	•	•	•	•	•	•	•••	•	•	•	••	••
Official	89	88	88	93	95	71	70	78	73	54	56	73
Administrative	89	88	88	93	94	71	70	78	73	54	56	73
Survey	NA	NA	NA	NA	NA	NA	61	73	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.

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Liberia - survey details

2012 Liberia Demographic and Health Survey 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	93	12-23 m	1272	58
BCG	Card	58	12-23 m	743	58
BCG	Card or History	94	12-23 m	1272	58
BCG	History	36	12-23 m	529	58
DTP1	C or H <12 months	91	12-23 m	1272	58
DTP1	Card	57	12-23 m	743	58
DTP1	Card or History	91	12-23 m	1272	58
DTP1	History	34	12-23 m	529	58
DTP3	C or H <12 months	68	12-23 m	1272	58
DTP3	Card	50	12-23 m	743	58
DTP3	Card or History	71	12-23 m	1272	58
DTP3	History	22	12-23 m	529	58
HepB1	C or H <12 months	91	12-23 m	1272	58
HepB1	Card	57	12-23 m	743	58
HepB1	Card or History	91	12-23 m	1272	58
HepB1	History	34	12-23 m	529	58
HepB3	C or H <12 months	68	12-23 m	1272	58
HepB3	Card	50	12-23 m	743	58
HepB3	Card or History	71	12-23 m	1272	58
HepB3	History	22	12-23 m	529	58
Hib1	C or H <12 months	91	12-23 m	1272	58
Hib1	Card	57	12-23 m	743	58
Hib1	Card or History	91	12-23 m	1272	58
Hib1	History	34	12-23 m	529	58
Hib3	C or H <12 months	68	12-23 m	1272	58
Hib3	Card	50	12-23 m	743	58
Hib3	Card or History	71	12-23 m	1272	58
Hib3	History	22	12-23 m	529	58
MCV1	C or H <12 months	65	12-23 m	1272	58
MCV1	Card	44	12-23 m	743	58
MCV1	Card or History	74	12-23 m	1272	58
MCV1	History	30	12-23 m	529	58
Pol1	C or H <12 months	95	12-23 m	1272	58
Pol1	Card	58	12-23 m	743	58
Pol1	Card or History	96	12-23 m	1272	58
Pol1	History	38	12-23 m	529	58
Pol3	C or H <12 months	67	12-23 m	1272	58

Pol3	Card	51	12-23 m	743	58
Pol3	Card or History	70	12-23 m	1272	58
Pol3	History	19	12-23 m	529	58
YFV	C or H <12 months	63	12-23 m	1272	58
YFV	Card	43	12-23 m	743	58
YFV	Card or History	73	12-23 m	1272	58
YFV	History	29	12-23 m	529	58

2011 Liberia Demographic and Health Survey 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	88	24-35 m	1085	58
DTP1	C or H <12 months	87	24-35 m	1085	58
DTP3	C or H <12 months	64	24-35 m	1085	58
HepB1	C or H <12 months	87	24-35 m	1085	58
HepB3	C or H <12 months	64	24-35 m	1085	58
Hib1	C or H <12 months	87	24-35 m	1085	58
Hib3	C or H <12 months	64	24-35 m	1085	58
MCV1	C or H <12 months	61	24-35 m	1085	58
Pol1	C or H <12 months	92	24-35 m	1085	58
Pol3	C or H <12 months	64	24-35 m	1085	58
YFV	C or H <12 months	60	24-35 m	1085	58

2011 Routine Immunization Survey, Liberia 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	94	12-23 m	1140	77
BCG	Card or Scar	90	12-23 m	1140	77
DTP1	Card	70	12-23 m	1140	77
DTP1	Card or History	92	12-23 m	1140	77
DTP3	Card	58	12-23 m	1140	77
DTP3	Card or History	77	12-23 m	1140	77
HepB1	Card	70	12-23 m	1140	77
HepB1	Card or History	92	12-23 m	1140	77
HepB3	Card	58	12-23 m	1140	77
HepB3	Card or History	77	12-23 m	1140	77
Hib1	Card	70	12-23 m	1140	77
Hib1	Card or History	92	12-23 m	1140	77

Liberia - survey details

Hib3	Card	58	12-23 m	1140	77
Hib3	Card or History	77	12-23 m	1140	77
MCV1	Card	46	12-23 m	1140	77
MCV1	Card or History	62	12-23 m	1140	77
Pol1	Card	70	12-23 m	1140	77
Pol1	Card or History	92	12-23 m	1140	77
Pol3	Card	58	12-23 m	1140	77
Pol3	Card or History	76	12-23 m	1140	77
YFV	Card	45	12-23 m	1140	77
YFV	Card or History	61	12-23 m	1140	77

2010 Liberia Demographic and Health Survey 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	87	36-47 m	1198	58
DTP1	C or H <12 months	83	36-47 m	1198	58
DTP3	C or H <12 months	58	36-47 m	1198	58
HepB1	C or H <12 months	83	36-47 m	1198	58
HepB3	C or H <12 months	58	36-47 m	1198	58
Hib1	C or H <12 months	83	36-47 m	1198	58
Hib3	C or H <12 months	58	36-47 m	1198	58
MCV1	C or H <12 months	61	36-47 m	1198	58
Pol1	C or H <12 months	85	36-47 m	1198	58
Pol3	C or H <12 months	55	36-47 m	1198	58
YFV	C or H <12 months	61	36-47 m	1198	58

2009 Liberia Demographic and Health Survey 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	88	48-59 m	1159	58
DTP1	C or H <12 months	81	48-59 m	1159	58
DTP3	C or H <12 months	56	48-59 m	1159	58
HepB1	C or H <12 months	81	48-59 m	1159	58
HepB3	C or H <12 months	56	48-59 m	1159	58
Hib1	C or H <12 months	81	48-59 m	1159	58
Hib3	C or H <12 months	56	48-59 m	1159	58
MCV1	C or H <12 months	54	48-59 m	1159	58

Pol1	C or H <12 months	86	48-59 m	1159	58
Pol3	C or H <12 months	55	48-59 m	1159	58
YFV	C or H <12 months	51	48-59 m	1159	58

2006 Liberia Demographic and Health Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	76	12-23 m	977	48
BCG	Card	47	12-23 m	977	48
BCG	Card or History	77	12-23 m	977	48
BCG	History	30	12-23 m	977	48
DTP1	C or H <12 months	75	12-23 m	977	48
DTP1	Card	46	12-23 m	977	48
DTP1	Card or History	75	12-23 m	977	48
DTP1	History	29	12-23 m	977	48
DTP3	C or H <12 months	47	12-23 m	977	48
DTP3	Card	37	12-23 m	977	48
DTP3	Card or History	50	12-23 m	977	48
DTP3	History	13	12-23 m	977	48
MCV1	C or H <12 months	53	12-23 m	977	48
MCV1	Card	38	12-23 m	977	48
MCV1	Card or History	63	12-23 m	977	48
MCV1	History	25	12-23 m	977	48
Pol1	C or H <12 months	82	12-23 m	977	48
Pol1	Card	45	12-23 m	977	48
Pol1	Card or History	83	12-23 m	977	48
Pol1	History	38	12-23 m	977	48
Pol3	C or H <12 months	47	12-23 m	977	48
Pol3	Card	36	12-23 m	977	48
Pol3	Card or History	49	12-23 m	977	48
Pol3	History	13	12-23 m	977	48

2004 Liberia 2005 EPI Cluster Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	58	12-23 m	2907	44
BCG	Card or history	69	12-23 m	2907	44

Liberia - survey details

DTP1	Card	35	12-23 m	2907	44
DTP1	Card or history	65	12-23 m	2907	44
DTP3	Card	18	12-23 m	2907	44
DTP3	Card or history	27	12-23 m	2907	44
MCV1	Card	25	12-23 m	2907	44
MCV1	Card or history	41	12-23 m	2907	44
Pol1	Card	34	12-23 m	2907	44
Pol1	Card or history	89	12-23 m	2907	44
Pol3	Card	18	12-23 m	2907	44
Pol3	Card or history	52	12-23 m	2907	44
YFV	Card	18	12-23 m	2907	44
YFV	Card or history	34	12-23 m	2907	44

1999 IMCI Household Baseline, Preliminary Report, 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	86	12-23 m	89	-
DTP1	Card or History	91	12-23 m	89	-
DTP3	Card or History	64	12-23 m	89	-
MCV1	Card or History	79	12-23 m	89	-
Pol1	Card or History	94	12-23 m	89	-
Pol3	Card or History	74	12-23 m	89	-

1999 Liberia National Nutrition Survey 1999-2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	73	12-23 m	1000	27
BCG	Card	50	12-23 m	1000	27
BCG	Card or History	82	12-23 m	1000	27
BCG	History	33	12-23 m	1000	27
DTP1	C or H <12 months	74	12-23 m	1000	27
DTP1	Card	50	12-23 m	1000	27
DTP1	Card or History	84	12-23 m	1000	27
DTP1	History	34	12-23 m	1000	27
DTP3	C or H <12 months	38	12-23 m	1000	27
DTP3	Card	30	12-23 m	1000	27
DTP3	Card or History	44	12-23 m	1000	27
DTP3	History	14	12-23 m	1000	27
MCV1	C or H <12 months	50	12-23 m	1000	27
MCV1	Card	39	12-23 m	1000	27
MCV1	Card or History	69	12-23 m	1000	27
MCV1	History	30	12-23 m	1000	27
Pol1	C or H <12 months	84	12-23 m	1000	27
Pol1	Card	50	12-23 m	1000	27
Pol1	Card or History	94	12-23 m	1000	27
Pol1	History	44	12-23 m	1000	27
Pol3	C or H <12 months	48	12-23 m	1000	27
Pol3	Card	31	12-23 m	1000	27
Pol3	Card or History	55	12-23 m	1000	27
Pol3	History	24	12-23 m	1000	27

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