

July 4, 2017; page 1

WHO and UNICEF estimates of national immunization coverage - next revision available July $15,\,2018$

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

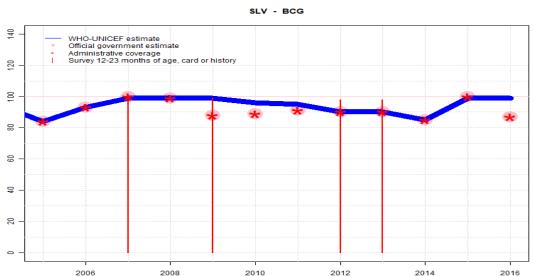
- BCG: percentage of births who received one dose of Bacillus Calmette Guerin vaccine.
- DTP1 / DTP3: percentage of surviving infants who received the 1st / 3rd dose, respectively, of diphtheria and tetanus toxoid with pertussis containing vaccine.
- Pol3: percentage of surviving infants who received 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. Co verage 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 producted 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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	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	84	93	99	99	99	96	95	90	90	85	99	99
Estimate GoC	•	•	•••	•	•	•	•	•••	•••	•	•••	••
Official	84	93	100	99	88	89	91	90	90	85	100	87
Administrative	84	93	100	99	88	89	91	90	90	85	100	87
Survey	NA	NA	98	NA	99	NA	NA	98	98	NA	NA	NA

- ••• 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.

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to unexplained sudden change in coverage from 100 level to 87 percent. GoC=R+D+
- 2015: Estimate based on coverage reported by national government. Estimate based on reported data following recovery from reported vaccine stock-out. Estimate of 99 percent changed from previous revision value of 96 percent. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government. Programme reported a four month vaccine stock-out at national level. Estimate of 85 percent changed from previous revision value of 96 percent. Estimate challenged by: S-
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Estimate of 90 percent changed from previous revision value of 99 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Estimate of 90 percent changed from previous revision value of 99 percent. GoC=R+ S+ D+
- 2011: Reported data calibrated to 2009 and 2012 levels. Estimate of 95 percent changed from previous revision value of 99 percent. Estimate challenged by: R-
- 2010: Reported data calibrated to 2009 and 2012 levels. Estimate of 96 percent changed from previous revision value of 99 percent. Estimate challenged by: R-
- 2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 99 percent based on 1 survey(s). Two months shortage of BCG vaccine reported. Estimate challenged by: R-
- 2008: Reported data calibrated to 2007 and 2009 levels. Estimate challenged by: R-
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). GoC=R+ S+ D+
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-S-

El Salvador - DTP1

2016

2014



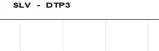
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	96	98	99	99	97	90	90	92	97	96	93	97
Estimate GoC	•	•	•	•	•	•	•	•	•	•••	•••	•
Official	82	79	111	94	90	90	90	92	91	96	93	90
Administrative	82	79	111	94	90	90	90	92	91	96	93	90
Survey	NA	NA	NA	NA	97	NA	NA	99	99	NA	NA	NA

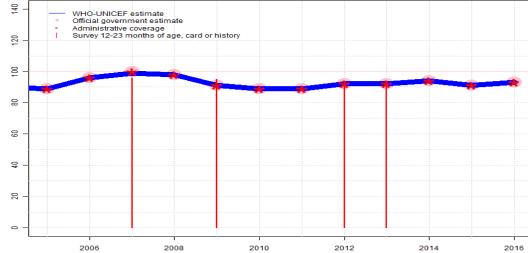
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- 2016: DTP1 coverage estimated based on DTP3 coverage of 93. Estimate challenged by: R-
- 2015: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2014: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2013: DTP1 coverage estimated based on DTP3 coverage of 92. Estimate challenged by: R-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 99 percent based on 1 survey(s). Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: DTP1 coverage estimated based on DTP3 coverage of 91. Estimate challenged by: R-
- 2008: DTP1 coverage estimated based on DTP3 coverage of 98. Estimate challenged by: R-
- 2007: DTP1 coverage estimated based on DTP3 coverage of 100. Reported data excluded because 111 percent greater than 100 percent. Reported data excluded due to an unexplained increase from 79 percent to 111 percent with decrease 94 percent. Estimate challenged by: R-
- 2006: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate challenged by: R-
- 2005: DTP1 coverage estimated based on DTP3 coverage of 89. Estimate challenged by: R-





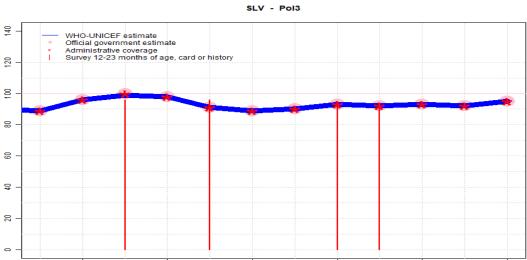
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	89	96	99	98	91	89	89	92	92	94	91	93
Estimate GoC	•	•	•••	•••	•••	•	•	•	•	•••	•••	••
Official	89	96	100	98	91	89	89	92	92	94	91	93
Administrative	89	96	100	98	91	89	89	92	92	94	91	93
Survey	NA	NA	96	NA	95	NA	NA	93	94	NA	NA	NA

- ••• 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.

- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2014: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). El Salvador Multiple Indicator Cluster Survey 2014 card or history results of 94 percent modified for recall bias to 97 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 90 percent and 3d dose card only coverage of 88 percent. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). El Salvador Multiple Indicator Cluster Survey 2014 card or history results of 93 percent modified for recall bias to 98 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 87 percent and 3d dose card only coverage of 86 percent. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). GoC=R+S+D+
- 2008: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+S+D+
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-

2016



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	89	96	99	98	91	89	90	93	92	93	92	95
Estimate GoC	•	•	•••	•••	•	•	•	•	•••	•••	•••	••
Official	89	96	100	98	91	89	90	93	92	93	92	95
Administrative	89	96	100	98	91	89	90	93	92	93	92	95
Survey	NA	NA	96	NA	96	NA	NA	94	92	NA	NA	NA

2010

2012

2014

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.

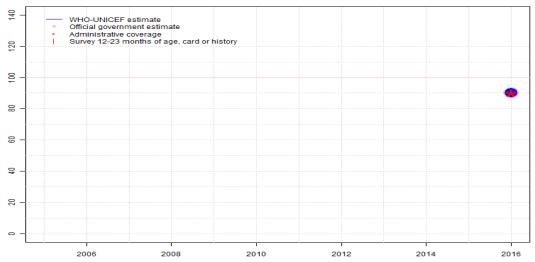
Description:

- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2014: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). El Salvador Multiple Indicator Cluster Survey 2014 card or history results of 92 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 89 percent and 3d dose card only coverage of 86 percent. GoC=R+S+D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). El Salvador Multiple Indicator Cluster Survey 2014 card or history results of 94 percent modified for recall bias to 98 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 87 percent and 3d dose card only coverage of 86 percent. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+S+D+
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-

2006

2008





	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	90										
Estimate GoC	NA	••										
Official	NA	90										
Administrative	NA	90										
Survey	NA											

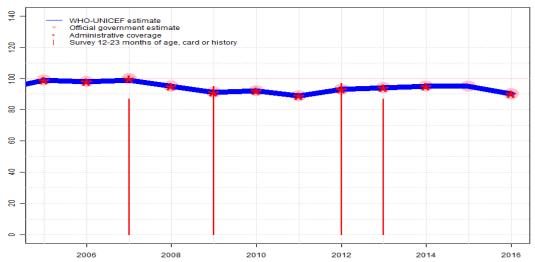
- ••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a 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. Inactivated polio vaccine introduced during 2016. GoC=R+ D+ $\,$





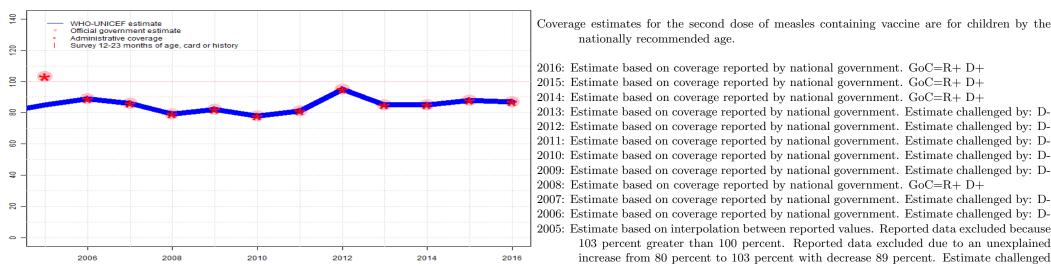
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	99	98	99	95	91	92	89	93	94	95	95	90
Estimate GoC	•	•	•••	•••	•	•••	•	•	•••	•••	••	••
Official	99	98	100	95	91	92	89	93	94	95	95	90
Administrative	99	98	100	95	91	92	89	93	94	95	NA	90
Survey	NA	NA	87	NA	95	NA	NA	97	87	NA	NA	NA

- ••• 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.

- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+S+
- 2014: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 87 percent based on 1 survey(s). GoC=R+S+D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2007: Estimate based on coverage reported by national government. El Salvador Family Health Survey 2008 results ignored by working group. Measles vaccination is recommend between 12-23 months of age. Survey cohort underestimates coverage. GoC=R+S+D+
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-





	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	85	89	86	79	82	78	81	95	85	85	88	87
Estimate GoC	•	•	•	••	•	•	•	•	•	••	••	••
Official	103	89	86	79	82	78	81	95	85	85	88	87
Administrative	103	89	86	79	82	78	81	95	85	85	88	87
Survey	NA											

- ••• 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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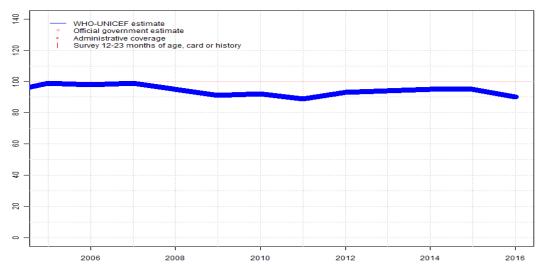
Description:

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

2016: Estimate based on coverage reported by national government. GoC=R+ D+ 2015: Estimate based on coverage reported by national government. GoC=R+ D+ 2014: Estimate based on coverage reported by national government. GoC=R+ D+ 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-2012: Estimate based on coverage reported by national government. Estimate challenged by: D-2011: Estimate based on coverage reported by national government. Estimate challenged by: D-2010: Estimate based on coverage reported by national government. Estimate challenged by: D-2009: Estimate based on coverage reported by national government. Estimate challenged by: D-

2006: Estimate based on coverage reported by national government. Estimate challenged by: D-2005: Estimate based on interpolation between reported values. Reported data excluded because 103 percent greater than 100 percent. Reported data excluded due to an unexplained increase from 80 percent to 103 percent with decrease 89 percent. Estimate challenged by: D-





	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	99	98	99	95	91	92	89	93	94	95	95	90
Estimate GoC	•	•	•••	•••	•	•••	•	•	•••	•••	••	••
Official	NA											
Administrative	NA											
	NA											

- ••• 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.

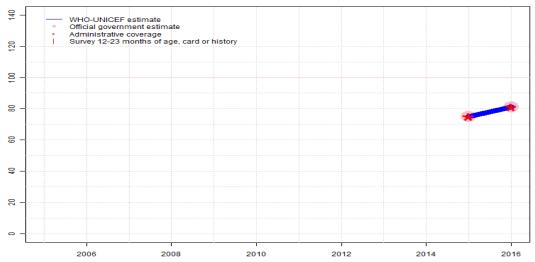
Description:

For this revision, coverage estimates for the first dose of rubella containing vaccine are based on WHO and UNICEF estimates of coverage of measles containing vaccine. Nationally reported coverage of rubella containing vaccine is not taken into consideration nor are they represented in the the accompanying graph and data table.

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2016: Estimate based on estimated MCV1. GoC=R+ D+
2015: Estimate based on estimated MCV1. GoC=R+ S+
2014: Estimate based on estimated MCV1. GoC=R+ S+ D+
2013: Estimate based on estimated MCV1. GoC=R+ S+ D+
2012: Estimate based on estimated MCV1. Estimate challenged by: D-
2011: Estimate based on estimated MCV1. Estimate challenged by: D-
2010: Estimate based on estimated MCV1. GoC=R+ S+ D+
2009: Estimate based on estimated MCV1. Estimate challenged by: D-
2008: Estimate based on estimated MCV1. GoC=R+ S+ D+
2007: Estimate based on estimated MCV1. Estimate challenged by: D-
2006: Estimate based on estimated MCV1. Estimate challenged by: D-
2005: Estimate based on estimated MCV1. Estimate challenged by: D-
2005: Estimate based on estimated MCV1. Estimate challenged by: D-
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El Salvador - HepBB





	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	75	81									
Estimate GoC	NA	••	••									
Official	NA	75	81									
Administrative	NA	75	81									
Survey	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.

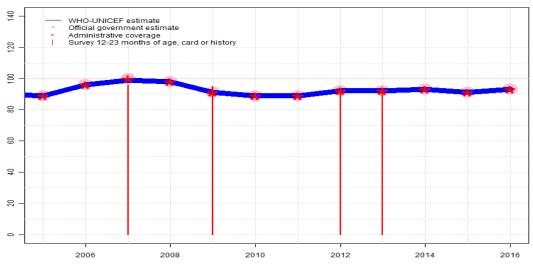
- ••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a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

- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. HepB birth dose introduced in February 2015. GoC=R+ D+

El Salvador - HepB3





	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	89	96	99	98	91	89	89	92	92	93	91	93
Estimate GoC	•	•	•••	•••	•••	•	•	•	•	•••	•••	••
Official	89	96	100	98	91	89	89	92	92	93	91	93
Administrative	89	96	100	98	91	89	89	92	92	93	91	93
Survey	NA	NA	96	NA	95	NA	NA	93	94	NA	NA	NA

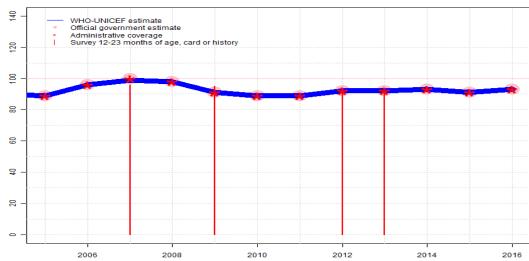
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- 2016: Estimate based on coverage reported by national government. Programme reports three month vaccine stock-out at national level. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2014: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). El Salvador Multiple Indicator Cluster Survey 2014 card or history results of 94 percent modified for recall bias to 97 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 90 percent and 3d dose card only coverage of 88 percent. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). El Salvador Multiple Indicator Cluster Survey 2014 card or history results of 93 percent modified for recall bias to 98 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 87 percent and 3d dose card only coverage of 86 percent. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). GoC=R+S+D+
- 2008: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+ S+ D+
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-





	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	89	96	99	98	91	89	89	92	92	93	91	93
Estimate GoC	•	•	•••	•••	•••	•	•	•	•	•••	•••	••
Official	89	96	100	98	91	89	89	92	92	93	91	93
Administrative	89	96	100	98	91	89	89	92	92	93	91	93
Survey	NA	NA	96	NA	95	NA	NA	93	94	NA	NA	NA

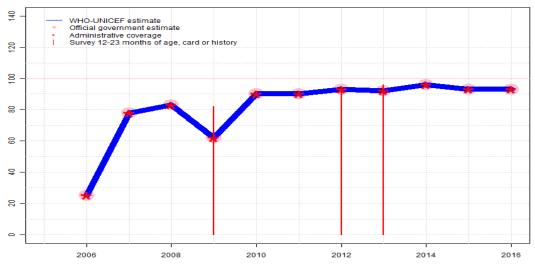
- ••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a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

- 2016: Estimate based on coverage reported by national government. Programme reports three month vaccine stock-out at national level. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). El Salvador Multiple Indicator Cluster Survey 2014 card or history results of 94 percent modified for recall bias to 97 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 90 percent and 3d dose card only coverage of 88 percent. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). El Salvador Multiple Indicator Cluster Survey 2014 card or history results of 93 percent modified for recall bias to 98 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 87 percent and 3d dose card only coverage of 86 percent. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). GoC=R+ S+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+ S+ D+
- 2006: Estimate based on reported data. Estimate challenged by: D-
- 2005: Estimate based on reported data. Estimate challenged by: D-

El Salvador - RotaC





	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	25	78	83	62	90	90	93	92	96	93	93
Estimate GoC	NA	••	••	••	••	•	•	•	•	•••	•••	••
Official	NA	25	78	83	62	90	90	93	92	96	93	93
Administrative	NA	25	78	83	62	90	90	93	92	96	93	93
Survey	NA	NA	NA	NA	82	NA	NA	94	96	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.

- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+S+D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Estimate challenged by: D-
- 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 reported data. Estimate challenged by: D-
- 2010: Estimate based on reported data. Estimate challenged by: D-
- 2009: Estimate based on reported data. El Salvador National Immunization Coverage Survey 2011 results ignored by working group. Survey likely does not capture stock-out. Three months shortage of rotavirus vaccine reported. GoC=R+ D+
- 2008: Estimate based on reported data. GoC=R+ D+
- 2007: Estimate based on reported data. GoC=R+ D+
- 2006: Estimate based on reported data. Rotavirus vaccine introduced in 2006. GoC=R+

El Salvador - PcV3

2016



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	69	98	94	92	86	98	90
Estimate GoC	NA	NA	NA	NA	NA	•	••	•	•	••	••	••
Official	NA	NA	NA	NA	NA	69	98	94	92	86	98	90
Administrative	NA	NA	NA	NA	NA	69	98	94	92	NA	98	90
Survey	NA											

2010

2012

2014

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. Programme reports two month vaccine stock-out at national level. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+
- 2013: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. GoC=R+
- 2010: Estimate based on coverage reported by national government. Pneumococcal conjugate vaccine introduced in 2010. Estimate challenged by: D-

2006

2008

El Salvador - survey details

RotaC Card or History

2013 El Salvador: Encuesta Nacional de Salud de Indicadores Multiples Por Conglomerados 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	98	12-23 m	1479	90
BCG	Card	88	12-23 m	1479	90
BCG	Card or History	98	12-23 m	1479	90
DTP1	C or H <12 months	99	12-23 m	1479	90
DTP1	Card	90	12-23 m	1479	90
DTP1	Card or History	99	12-23 m	1479	90
DTP3	C or H <12 months	92	12-23 m	1479	90
DTP3	Card	88	12-23 m	1479	90
DTP3	Card or History	94	12-23 m	1479	90
HepB1	C or H <12 months	99	12-23 m	1479	90
HepB1	Card	90	12-23 m	1479	90
HepB1	Card or History	99	$12-23 \mathrm{\ m}$	1479	90
HepB3	C or H <12 months	92	12-23 m	1479	90
HepB3	Card	88	$12-23 \mathrm{m}$	1479	90
HepB3	Card or History	94	$12\text{-}23 \mathrm{\ m}$	1479	90
Hib1	C or H < 12 months	99	$12-23 \mathrm{m}$	1479	90
Hib1	Card	90	$12-23~\mathrm{m}$	1479	90
Hib1	Card or History	99	$12\text{-}23 \mathrm{\ m}$	1479	90
Hib3	C or H $<$ 12 months	92	$12-23~\mathrm{m}$	1479	90
Hib3	Card	88	$12-23~\mathrm{m}$	1479	90
Hib3	Card or History	94	$12\text{-}23 \mathrm{\ m}$	1479	90
MCV1	Card	79	$12-23 \mathrm{m}$	1479	90
MCV1	Card or History	87	$12\text{-}23~\mathrm{m}$	1479	90
PCV1	C or H $<$ 12 months	99	$12\text{-}23~\mathrm{m}$	1479	90
PCV1	Card	90	$12\text{-}23 \mathrm{\ m}$	1479	90
PCV1	Card or History	99	$12\text{-}23~\mathrm{m}$	1479	90
PCV3	Card	79	$12\text{-}23~\mathrm{m}$	1479	90
Pol1	C or H $<$ 12 months	99	$12\text{-}23~\mathrm{m}$	1479	90
Pol1	Card	89	$12\text{-}23~\mathrm{m}$	1479	90
Pol1	Card or History	99	$12\text{-}23~\mathrm{m}$	1479	90
Pol3	C or H < 12 months	89	$12\text{-}23 \mathrm{\ m}$	1479	90
Pol3	Card	86	$12-23 \mathrm{m}$	1479	90
Pol3	Card or History	92	$12\text{-}23~\mathrm{m}$	1479	90
RotaC	C or H $<$ 12 months	95	$12\text{-}23~\mathrm{m}$	1479	90
RotaC	Card	88	$12\text{-}23~\mathrm{m}$	1479	90

2012 El Salvador:	Encuesta Naciona	al de Salud	de Indicadores	Multiples Por
Conglomera	dos 2014			

96

12-23 m

90

1479

	Confirmation method	_	-	_	
BCG	C or H $<$ 12 months	98	$24-35 \mathrm{m}$	1453	90
BCG	Card	85	24-35 m	1453	90
BCG	Card or History	98	24-35 m	1453	90
DTP1	C or H $<$ 12 months	99	24-35 m	1453	90
DTP1	Card	87	$24-35 \mathrm{m}$	1453	90
DTP1	Card or History	99	$24-35 \mathrm{m}$	1453	90
DTP3	C or H < 12 months	91	24-35 m	1453	90
DTP3	Card	86	$24-35 \mathrm{m}$	1453	90
DTP3	Card or History	93	$24-35 \mathrm{m}$	1453	90
HepB1	C or H < 12 months	99	$24-35 \mathrm{m}$	1453	90
HepB1	Card	87	$24-35 \mathrm{m}$	1453	90
HepB1	Card or History	99	$24-35 \mathrm{m}$	1453	90
HepB3	C or H < 12 months	91	$24-35 \mathrm{m}$	1453	90
HepB3	Card	86	$24-35 \mathrm{\ m}$	1453	90
HepB3	Card or History	93	$24-35 \mathrm{\ m}$	1453	90
Hib1	C or H < 12 months	99	$24-35 \mathrm{\ m}$	1453	90
Hib1	Card	87	$24-35 \mathrm{m}$	1453	90
Hib1	Card or History	99	$24-35 \mathrm{m}$	1453	90
Hib3	C or H < 12 months	91	$24-35 \mathrm{m}$	1453	90
Hib3	Card	86	$24-35 \mathrm{\ m}$	1453	90
Hib3	Card or History	93	$24-35 \mathrm{\ m}$	1453	90
MCV1	C or H $<$ 12 months	96	$24\text{-}35~\mathrm{m}$	1453	90
MCV1	Card	85	$24\text{-}35~\mathrm{m}$	1453	90
MCV1	Card or History	97	$24\text{-}35~\mathrm{m}$	1453	90
PCV1	C or H $<$ 12 months	98	$24\text{-}35~\mathrm{m}$	1453	90
PCV1	Card	87	$24\text{-}35~\mathrm{m}$	1453	90
PCV1	Card or History	99	$24\text{-}35~\mathrm{m}$	1453	90
Pol1	C or H $<$ 12 months	99	$24\text{-}35~\mathrm{m}$	1453	90
Pol1	Card	87	$24-35 \mathrm{\ m}$	1453	90
Pol1	Card or History	99	$24-35 \mathrm{\ m}$	1453	90
Pol3	C or H $<$ 12 months	90	$24-35~\mathrm{m}$	1453	90
Pol3	Card	86	$24-35~\mathrm{m}$	1453	90
Pol3	Card or History	94	$24\text{-}35~\mathrm{m}$	1453	90

El Salvador - survey details

RotaC	C or H $<$ 12 months	93	24-35 m	1453	90
RotaC	Card	86	24-35 m	1453	90
RotaC	Card or History	94	24-35 m	1453	90

2009 Encuesta de Cobertura Nacional de Vacunación El Salvador, 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	99	$12\text{-}23 \mathrm{\ m}$	2550	99
DTP1	Card or History	97	$12\text{-}23 \mathrm{\ m}$	2550	99
DTP3	Card or History	95	$12\text{-}23 \mathrm{\ m}$	2550	99
HepB1	Card or History	97	$12\text{-}23 \mathrm{\ m}$	2550	99
HepB3	Card or History	95	12-23 m	2550	99
Hib1	Card or History	97	12-23 m	2550	99
Hib3	Card or History	95	12-23 m	2550	99
MCV1	Card or History	95	12-23 m	2550	99
Pol1	Card or History	98	12-23 m	2550	99
Pol3	Card or History	96	12-23 m	2550	99
RotaC	Card or History	82	12-23 m	2550	99

2007 Encuesta Nacional de Salud Familiar FESAL 2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H $<$ 12 months	98	$12\text{-}23~\mathrm{m}$	865	77
BCG	Card or History	98	$12\text{-}23~\mathrm{m}$	865	77
DTP3	C or H $<$ 12 months	85	$12\text{-}23~\mathrm{m}$	865	77
DTP3	Card or History	96	$12\text{-}23~\mathrm{m}$	865	77
HepB3	C or H $<$ 12 months	85	$12\text{-}23~\mathrm{m}$	865	77
HepB3	Card or History	96	12-23 m	865	77
Hib3	C or H < 12 months	85	$12\text{-}23~\mathrm{m}$	865	77
Hib3	Card or History	96	12-23 m	865	77
MCV1	Card or History	87	$12\text{-}23~\mathrm{m}$	865	77
Pol3	C or H < 12 months	84	12-23 m	865	77
Pol3	Card or History	96	$12-23 \mathrm{m}$	865	77

2002 Encuesta Nacional de Salud Familiar de 2002-2003 (FESAL)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H $<$ 12 months	95	$12\text{-}23~\mathrm{m}$	4106	71
BCG	Card	96	$12\text{-}23~\mathrm{m}$	4106	71
BCG	Card < 12 months	96	$12\text{-}23~\mathrm{m}$	4106	71
BCG	Card or History	98	$12\text{-}23~\mathrm{m}$	4106	71
DTP3	C or H $<$ 12 months	72	$12\text{-}23~\mathrm{m}$	3751	71
DTP3	Card	92	$12\text{-}23~\mathrm{m}$	3751	71
DTP3	Card < 12 months	74	$12\text{-}23~\mathrm{m}$	3751	71
DTP3	Card or History	89	$12\text{-}23 \mathrm{\ m}$	3751	71
MCV1	Card	84	$12\text{-}23~\mathrm{m}$	3408	71
MCV1	Card or History	80	$12\text{-}23~\mathrm{m}$	3408	71
Pol3	C or H $<$ 12 months	59	$12\text{-}23~\mathrm{m}$	3751	71
Pol3	Card	86	$12\text{-}23~\mathrm{m}$	3751	71
Pol3	Card < 12 months	56	$12\text{-}23~\mathrm{m}$	3751	71
Pol3	Card or History	83	$12\text{-}23~\mathrm{m}$	3751	71

1997 Encuesta Nacional de Salud Familiar FESAL-98

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	88	12-23 m	5155	60
BCG	Card	92	12-23 m	5155	60
BCG	Card <12 months	92	$12-23 \mathrm{m}$	5155	60
BCG	Card or History	96	$12-23 \mathrm{m}$	5155	60
DTP3	C or H <12 months	95	12-23 m	5155	60
DTP3	Card	65	$12-23~\mathrm{m}$	5155	60
DTP3	Card < 12 months	72	$12-23~\mathrm{m}$	5155	60
DTP3	Card or History	86	$12\text{-}23 \mathrm{\ m}$	5155	60
MCV1	C or H $<$ 12 months	92	$12\text{-}23 \mathrm{\ m}$	5155	60
MCV1	Card	55	$12\text{-}23~\mathrm{m}$	5155	60
MCV1	Card < 12 months	59	$12\text{-}23~\mathrm{m}$	5155	60
MCV1	Card or History	86	$12\text{-}23~\mathrm{m}$	5155	60
Pol3	C or H $<$ 12 months	95	$12\text{-}23~\mathrm{m}$	5155	60
Pol3	Card	65	$12\text{-}23~\mathrm{m}$	5155	60
Pol3	Card < 12 months	72	$12\text{-}23~\mathrm{m}$	5155	60
Pol3	Card or History	86	$12\text{-}23~\mathrm{m}$	5155	60

El Salvador - survey details

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