

**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.

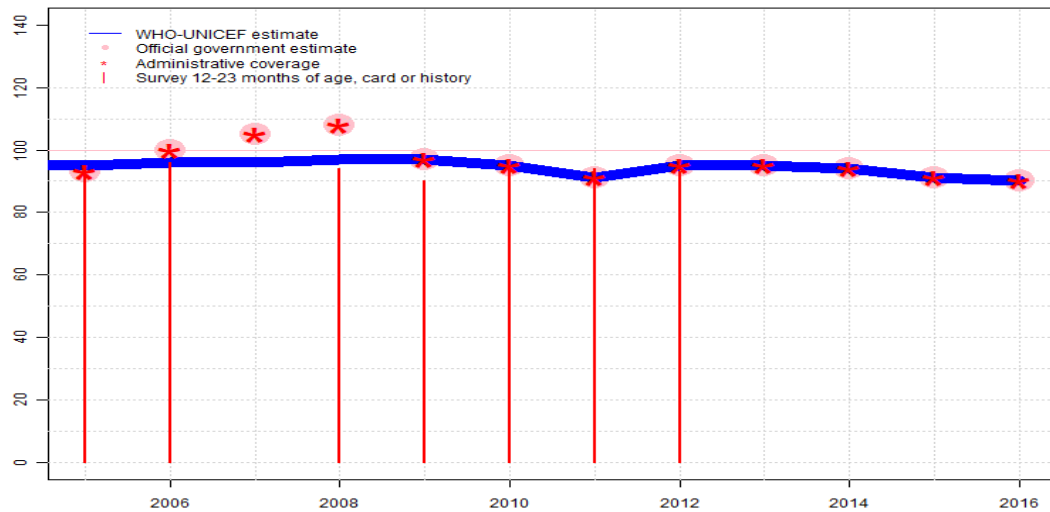
**PcV3:** percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

PER - BCG



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	95	96	96	97	97	95	91	95	95	94	91	90
Estimate GoC	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●	●
Official	93	100	105	108	97	95	91	95	95	94	91	90
Administrative	93	100	105	108	97	95	91	95	95	94	91	90
Survey	95	96	NA	94	90	95	94	93	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.

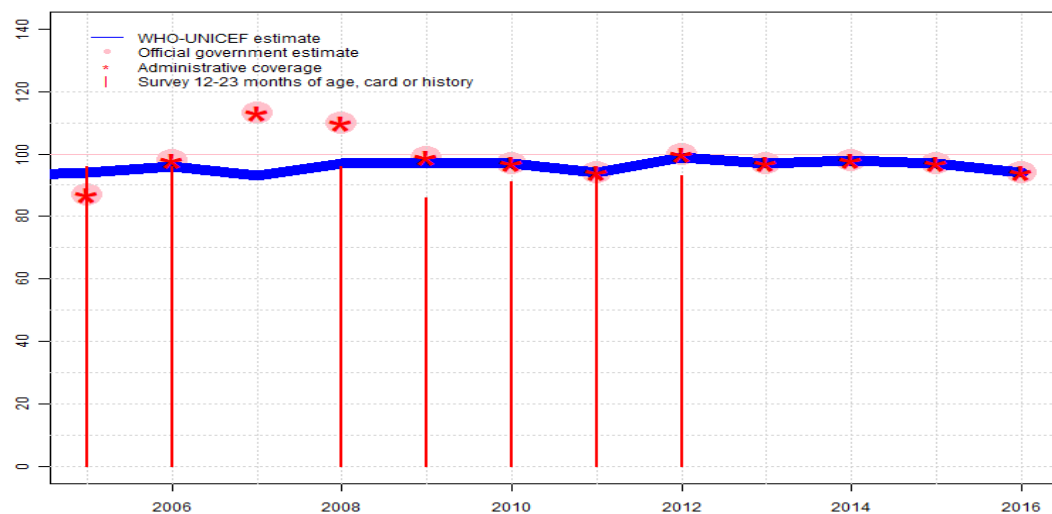
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2016: Estimate based on coverage reported by national government. 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. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government. The 2014 ENDESA survey reporting coverage for children aged less than 12 months (87 percent of whom had documented evidence of vaccination history), born during 2013, suggests coverage (card+recall) of 91 percent for BCG. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 93 percent based on 1 survey(s). GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). GoC=R+ S+ D+
- 2010: 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+
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 90 percent based on 1 survey(s). GoC=R+ S+ D+
- 2008: Estimate based on interpolation between coverage reported by national government. Peru Continuous Demographic and Health Survey 2009 results ignored by working group. Survey results ignored. Adjustment factor for recall bias inconsistent with other surveys of similar quality and methodology. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Reported data excluded because 108 percent greater than 100 percent. GoC=R+ S+ D+
- 2007: Estimate based on interpolation between coverage reported by national government. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Reported data excluded because 105 percent greater than 100 percent. GoC=R+ S+ D+
- 2006: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. GoC=R+ S+ D+
- 2005: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. GoC=R+ S+ D+

# Peru - DTP1

PER - DTP1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	94	96	93	97	97	97	94	99	97	98	97	94
Estimate GoC	●●●	●●●	●	●	●	●	●●●	●●●	●●●	●●●	●●	●●
Official	87	98	113	110	99	97	94	100	97	98	97	94
Administrative	87	98	113	110	99	97	94	100	97	98	97	94
Survey	96	96	NA	96	86	91	93	93	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.

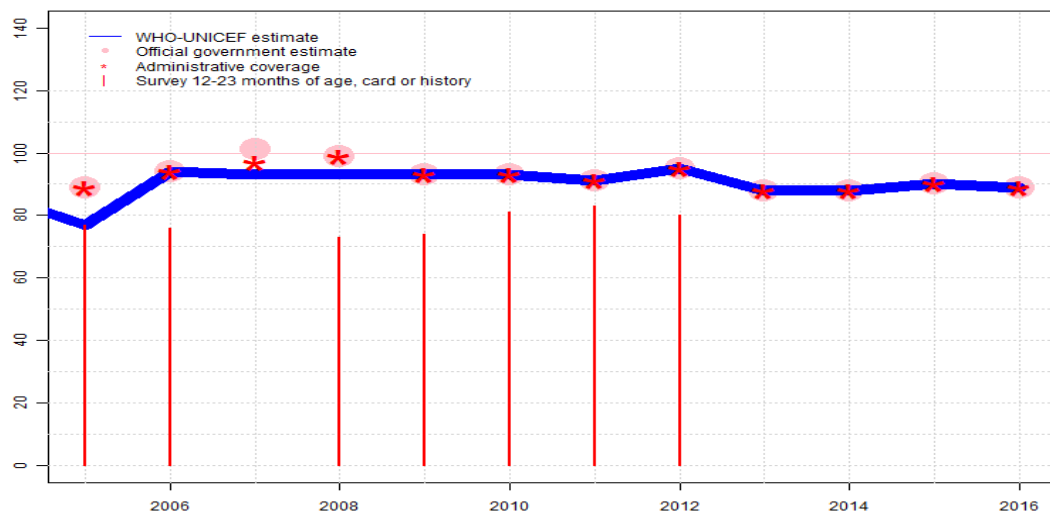
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2016: Estimate based on coverage reported by national government. 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+ S+ D+
- 2013: Estimate based on coverage reported by national government. The 2014 ENDESA survey reporting coverage for children aged less than 12 months (87 percent of whom had documented evidence of vaccination history), born during 2013, suggests coverage (card+recall) of 89 percent for first dose of DTP-HepB-Hib. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 93 percent based on 1 survey(s). GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 93 percent based on 1 survey(s). GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). Estimate challenged by: S-
- 2009: DTP1 coverage estimated based on DTP3 coverage of 93. Estimate challenged by: R-S-
- 2008: DTP1 coverage estimated based on DTP3 coverage of 93. Peru Continuous Demographic and Health Survey 2009 results ignored by working group. Survey results ignored. Adjustment factor for recall bias inconsistent with other surveys of similar quality and methodology. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Reported data excluded because 110 percent greater than 100 percent. Estimate challenged by: R-S-
- 2007: Reported data calibrated to 2006 and 2009 levels. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Reported data excluded because 113 percent greater than 100 percent. Estimate challenged by: R-
- 2006: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. GoC=R+ S+ D+
- 2005: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 96 percent based on 1 survey(s). Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. GoC=R+ S+ D+

# Peru - DTP3

PER - DTP3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	77	94	93	93	93	93	91	95	88	88	90	89
Estimate GoC	•	•	•	•	•	•	•	•••	•••	•••	••	••
Official	89	94	101	99	93	93	91	95	88	88	90	89
Administrative	89	94	97	99	93	93	91	95	88	88	90	89
Survey	77	76	NA	73	74	81	83	80	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. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Increase in dropout due to multiple factors per EPI review 2014. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government. The 2014 ENDESA survey reporting coverage for children aged less than 12 months (87 percent of whom had documented evidence of vaccination history), born during 2013, suggests coverage (card+recall) of 70 percent modified for recall bias to 72 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 82 percent and 3d dose card only coverage of 66 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2013 card or history results of 80 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 74 percent. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2012 card or history results of 83 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 80 percent and 3d dose card only coverage of 76 percent. Estimate challenged by: S-
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 86 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2011 card or history results of 81 percent modified for recall bias to 86 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 79 percent and 3d dose card only coverage of 75 percent. Estimate challenged by: S-
- 2009: Estimate based on reported data. Peru Continuous Demographic and Family Health Survey 2010 card or history results of 74 percent modified for recall bias to 79 percent based on 1st dose card or history coverage of 86 percent, 1st dose card only coverage of 75 percent and 3d dose card only coverage of 69 percent. Estimate challenged by: S-
- 2008: Estimate based on interpolation between coverage reported by national government. Peru Continuous Demographic and Health Survey 2009 results ignored by working group. Survey results ignored. Adjustment factor for recall bias inconsistent with other surveys of similar quality and methodology. Peru Continuous Demographic and Health Survey 2009 card or history results of 73 percent modified for recall bias to 89 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 65 percent and 3d dose card only coverage of 60 percent. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-S-
- 2007: Estimate based on interpolation between coverage reported by national government. Re-

ported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Reported data excluded because 101 percent greater than 100 percent. Estimate challenged by: D-S-

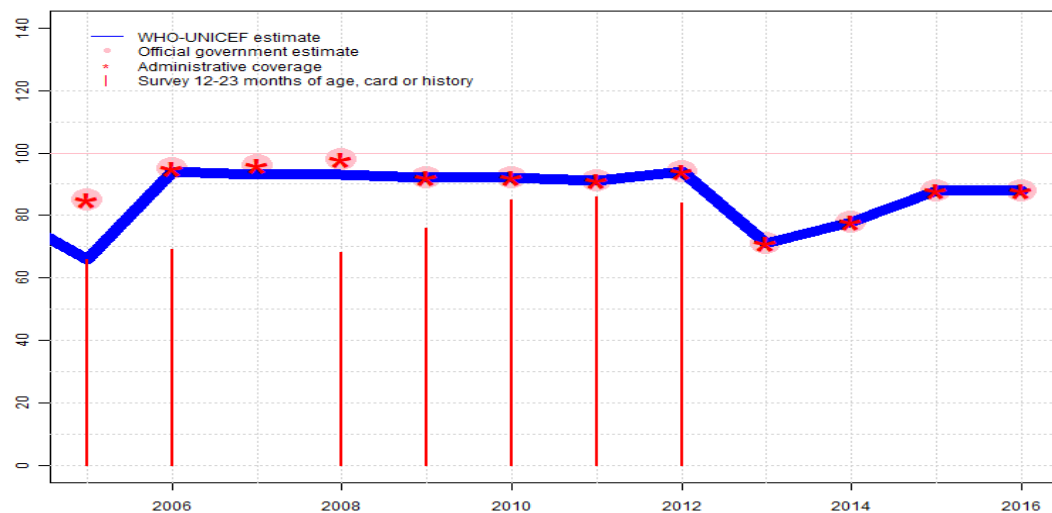
2006: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 90 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2007-2008 card or history results of 76 percent modified for recall bias to 90 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 62 percent and 3d dose card only coverage of 58 percent. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: S-

2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-R-S-



# Peru - Pol3

PER - Pol3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	66	94	93	93	92	92	91	94	71	78	88	88
Estimate GoC	•	•	•	•	•••	•••	•••	•••	•	•	••	••
Official	85	95	96	98	92	92	91	94	71	78	88	88
Administrative	85	95	96	98	92	92	91	94	71	78	88	88
Survey	66	69	NA	68	76	85	86	84	NA	NA	NA	NA

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- 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:

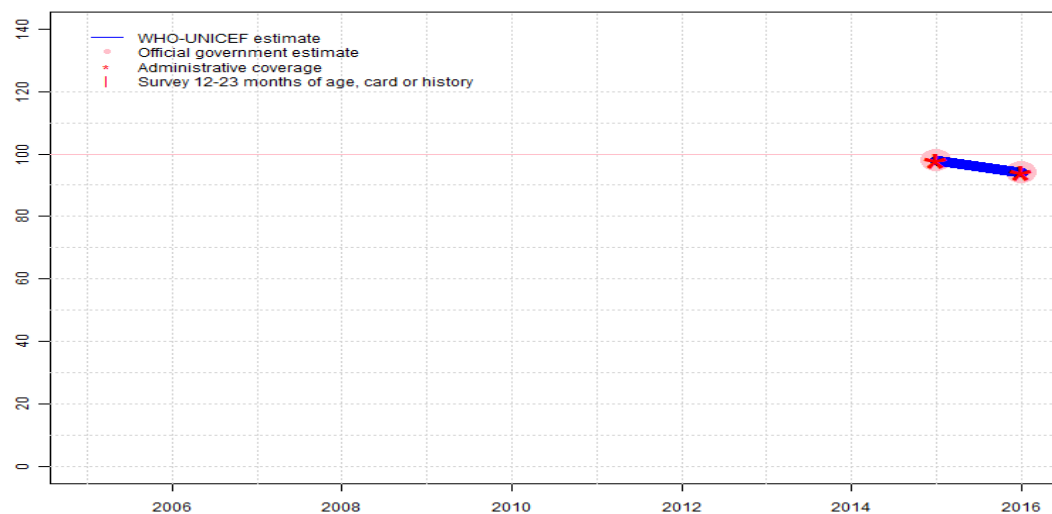
- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-S-
- 2013: Estimate based on coverage reported by national government. The 2014 ENDESA survey reporting coverage for children aged less than 12 months (87 percent of whom had documented evidence of vaccination history), born during 2013, suggests coverage (card+recall) of 51 percent modified for recall bias to 55 percent based on 1st dose card or history coverage of 81 percent, 1st dose card only coverage of 72 percent and 3d dose card only coverage of 49 percent. In 2013, Peru introduced a sequential schedule with IPV1, IPV2, OPV3, OPV4 and a fifth dose of OPV at 4 years. Decline in reported coverage may also be partly explained by a stock-out of polio vaccine. Estimate challenged by: S-
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 92 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2013 card or history results of 84 percent modified for recall bias to 92 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 74 percent. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2012 card or history results of 86 percent modified for recall bias to 94 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 80 percent and 3d dose card only coverage of 77 percent. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 92 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2011 card or history results of 85 percent modified for recall bias to 92 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 79 percent and 3d dose card only coverage of 75 percent. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2010 card or history results of 76 percent modified for recall bias to 84 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 73 percent and 3d dose card only coverage of 67 percent. GoC=R+ S+ D+
- 2008: Estimate based on interpolation between coverage reported by national government. Peru Continuous Demographic and Health Survey 2009 results ignored by working group. Survey results ignored. Adjustment factor for recall bias inconsistent with other surveys of similar quality and methodology. Peru Continuous Demographic and Health Survey 2009 card or history results of 68 percent modified for recall bias to 85 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 63 percent and 3d dose card only coverage of 58 percent. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-

- 2007: Estimate based on interpolation between coverage reported by national government. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-S-
- 2006: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 86 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2007-2008 card or history results of 69 percent modified for recall bias to 86 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 62 percent and 3d dose card only coverage of 57 percent. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: S-
- 2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-R-S-



# Peru - IPV1

PER - IPV1



## Description:

2016: Estimate based on coverage reported by national government. Estimate challenged by: D-  
 2015: Estimate based on coverage reported by national government. IPV vaccine was introduced in 2014. Sequential schedule is used with IPV recommended at 2 and 4 month. 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	98	94
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	98	94
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	98	94
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

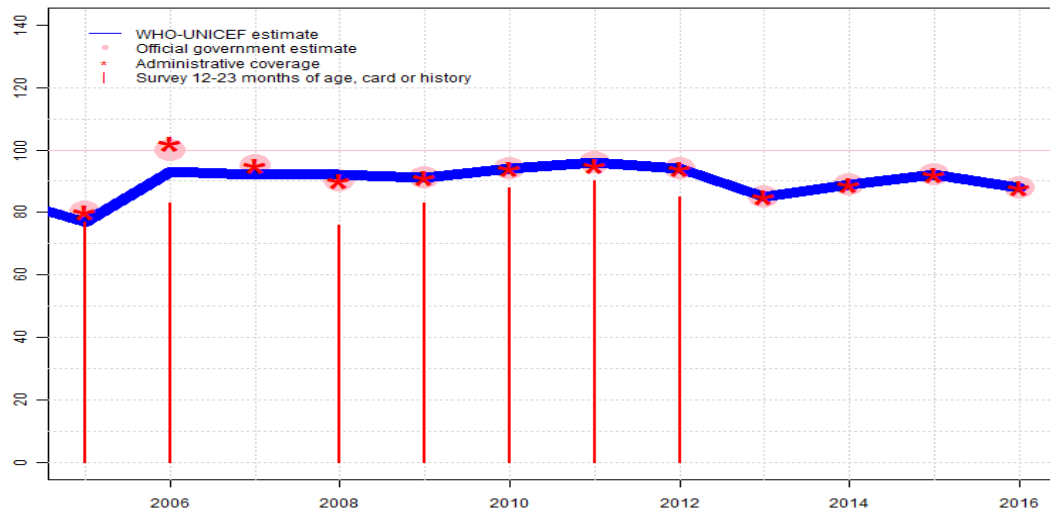
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Peru - MCV1

PER - MCV1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	77	93	92	92	91	94	96	94	85	89	92	88
Estimate GoC	•	•	•	•	•••	•	•	•••	•••	•••	••	••
Official	80	100	95	90	91	94	96	94	85	89	92	88
Administrative	80	102	95	90	91	94	95	94	85	89	92	88
Survey	77	83	NA	76	83	88	90	85	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.

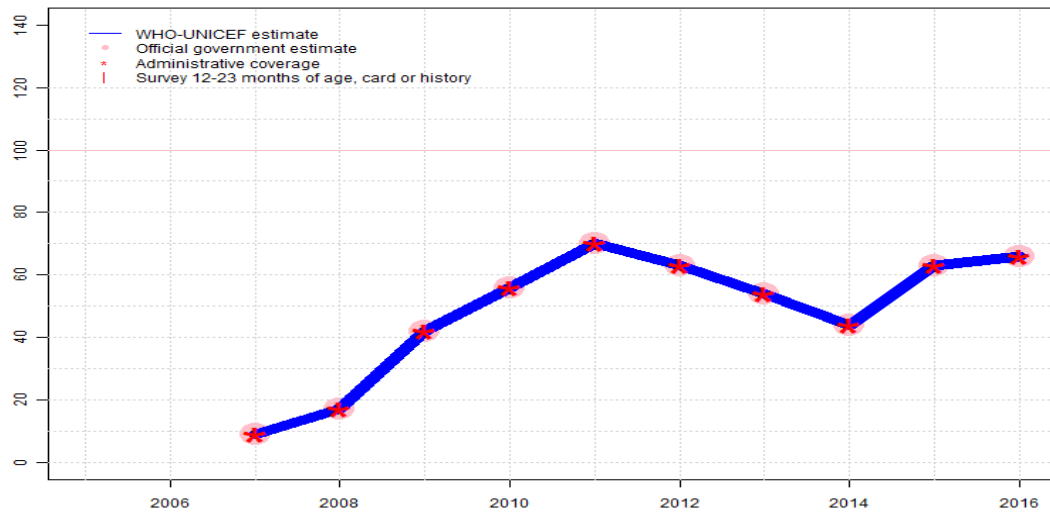
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2016: Estimate based on coverage reported by national government. 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+ S+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 85 percent based on 1 survey(s). GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 90 percent based on 1 survey(s). Estimate challenged by: S-
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 83 percent based on 1 survey(s). GoC=R+ S+ D+
- 2008: Estimate based on interpolation between coverage reported by national government. Peru Continuous Demographic and Health Survey 2009 results ignored by working group. Survey results ignored. Adjustment factor for recall bias inconsistent with other surveys of similar quality and methodology. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-
- 2007: Estimate based on interpolation between coverage reported by national government. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: S-
- 2006: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 83 percent based on 1 survey(s). Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: S-
- 2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-R-S-

# Peru - MCV2

PER - MCV2



## 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. Increase from previous year can be attributed to full year with the new schedule. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Second dose of measles containing vaccine (MCV2) recommended at age 18 months from 2014. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ 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+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. Measles 2nd dose was introduced in 2007 and recommended at 4 years of age. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	9	17	42	56	70	63	54	44	63	66
Estimate GoC	NA	NA	••	••	••	••	•	••	••	••	••	••
Official	NA	NA	9	17	42	56	70	63	54	44	63	66
Administrative	NA	NA	9	17	42	56	70	63	54	44	63	66
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

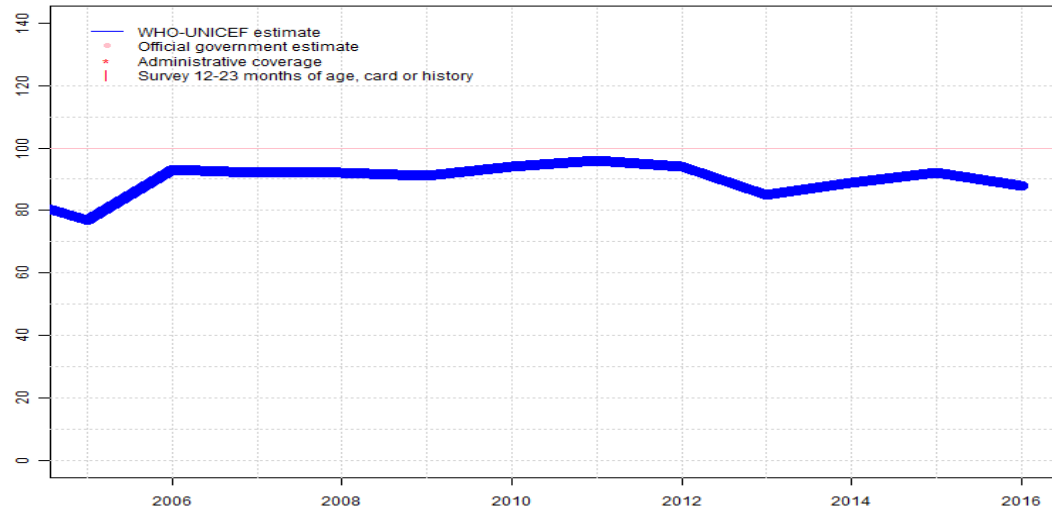
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Peru - RCV1

PER - RCV1



## 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.

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	77	93	92	92	91	94	96	94	85	89	92	88
Estimate GoC	•	•	•	•	•••	•	•	•••	•••	•••	••	••
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

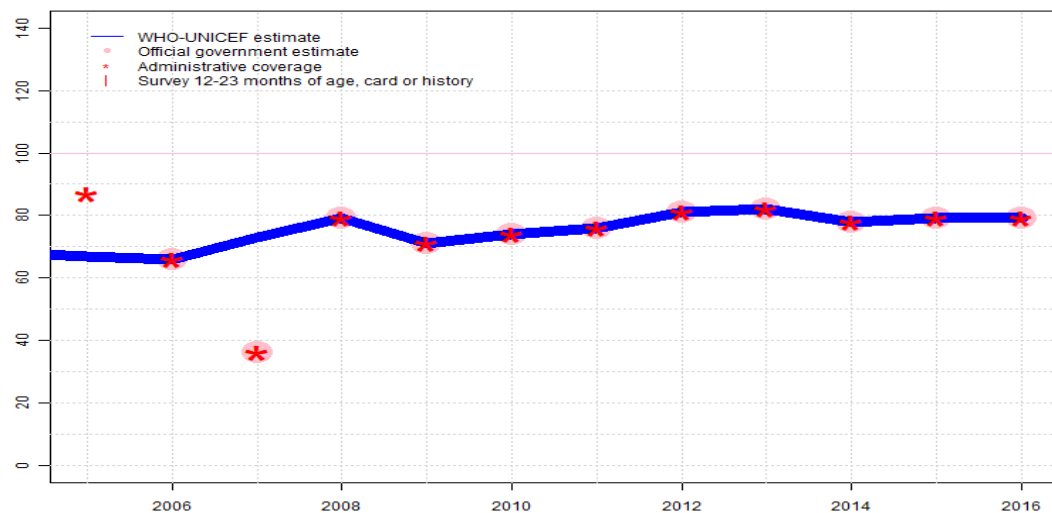
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Peru - HepBB

PER - HepBB



## Description:

- 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. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on interpolation between reported values. Reported data excluded due to decline in reported coverage from 66 percent to 36 percent with increase to 79 percent. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on interpolation between reported values. Reported data excluded due to an unexplained increase from 68 percent to 87 percent with decrease 66 percent. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	67	66	73	79	71	74	76	81	82	78	79	79
Estimate GoC	•	••	•	•	••	••	••	••	••	••	••	••
Official	NA	66	36	79	71	74	76	81	82	78	79	79
Administrative	87	66	36	79	71	74	76	81	82	78	79	79
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

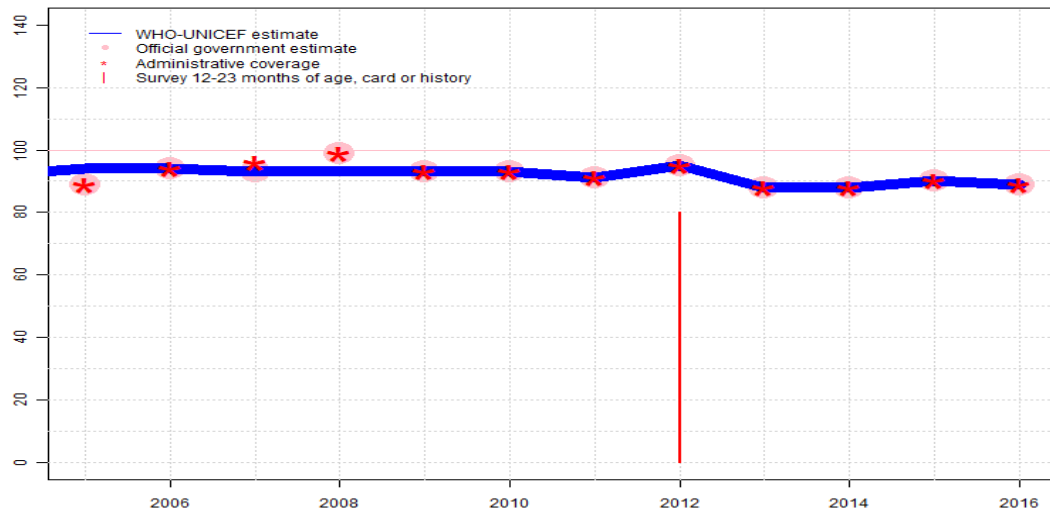
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Peru - HepB3

PER - HepB3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	94	94	93	93	93	93	91	95	88	88	90	89
Estimate GoC	•	•	•	•	••	•••	•••	•••	•••	•••	••	••
Official	89	94	93	99	93	93	91	95	88	88	90	89
Administrative	89	94	96	99	93	93	91	95	88	88	90	89
Survey	NA	NA	NA	NA	NA	NA	NA	80	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.

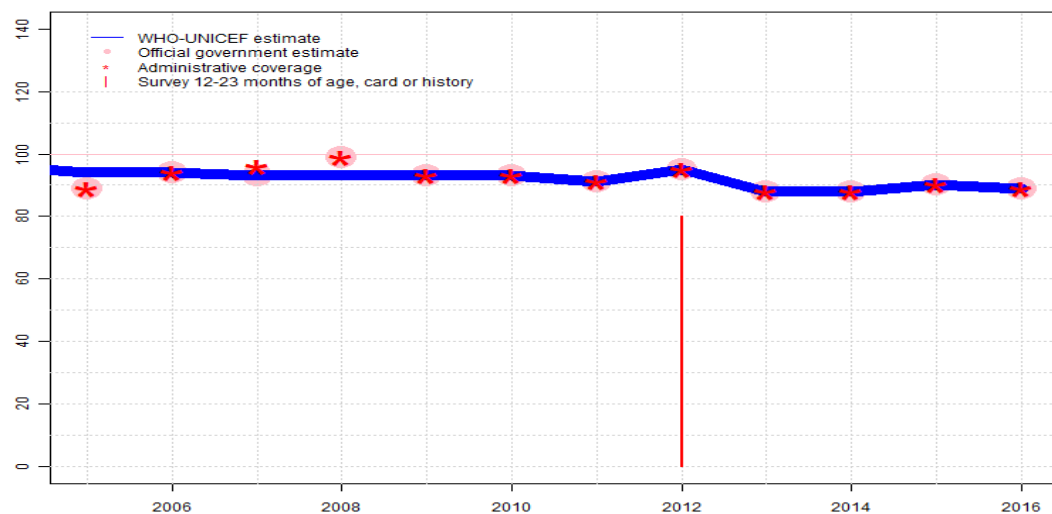
## Description:

- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Increase in dropout due to multiple factors per EPI review 2014. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government. The 2014 ENDESA survey reporting coverage for children aged less than 12 months (87 percent of whom had documented evidence of vaccination history), born during 2013, suggests coverage (card+recall) of 70 percent modified for recall bias to 72 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 82 percent and 3d dose card only coverage of 66 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2013 card or history results of 80 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 74 percent. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2009: Estimate is based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate of 93 percent assigned by working group. Estimate is based on DTP3 coverage levels. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-R-
- 2007: Estimate of 93 percent assigned by working group. Estimate is based on DTP3 coverage levels. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-R-
- 2006: Estimate of 94 percent assigned by working group. Estimate is based on DTP3 coverage levels. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: R-
- 2005: Estimate of 94 percent assigned by working group. Estimate is based on DTP3 coverage levels. Estimate challenged by: D-R-



# Peru - Hib3

PER - Hib3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	94	94	93	93	93	93	91	95	88	88	90	89
Estimate GoC	•	•	•	•	••	•••	•••	•••	•••	•••	••	••
Official	89	94	93	99	93	93	91	95	88	88	90	89
Administrative	89	94	96	99	93	93	91	95	88	88	90	89
Survey	NA	NA	NA	NA	NA	NA	NA	80	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.

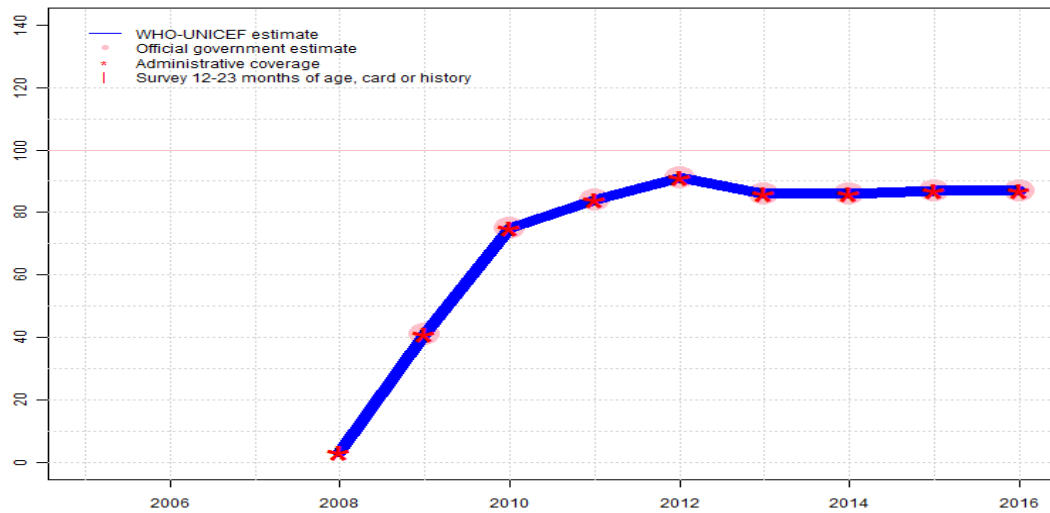
## Description:

- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Increase in dropout due to multiple factors per EPI review 2014. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government. The 2014 ENDESA survey reporting coverage for children aged less than 12 months (87 percent of whom had documented evidence of vaccination history), born during 2013, suggests coverage (card+recall) of 70 percent modified for recall bias to 72 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 82 percent and 3d dose card only coverage of 66 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Peru Continuous Demographic and Family Health Survey 2013 card or history results of 80 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 74 percent. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2009: Estimate is based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate of 93 percent assigned by working group. Estimate is based on DTP3 coverage levels. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-R-
- 2007: Estimate of 93 percent assigned by working group. Estimate is based on DTP3 coverage levels. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: D-R-
- 2006: Estimate of 94 percent assigned by working group. Estimate is based on DTP3 coverage levels. Reported data excluded. National reported data in 2006-2008 exceed 100 percent for some antigens and are not consistent with coverage recalculated using UNPD denominators. Estimate challenged by: R-
- 2005: Estimate of 94 percent assigned by working group. Estimate is based on DTP3 coverage levels. Estimate challenged by: D-R-



# Peru - RotaC

PER - RotaC



## Description:

- 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. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. . GoC=R+ D+
- 2008: Estimate based on reported administrative estimate. Rotavirus vaccine partially introduced in 2007, nationally in 2009, reporting started in 2008. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	3	41	75	84	91	86	86	87	87
Estimate GoC	NA	NA	NA	••	••	••	••	••	••	••	••	••
Official	NA	NA	NA	NA	41	75	84	91	86	86	87	87
Administrative	NA	NA	NA	3	41	75	84	91	86	86	87	87
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

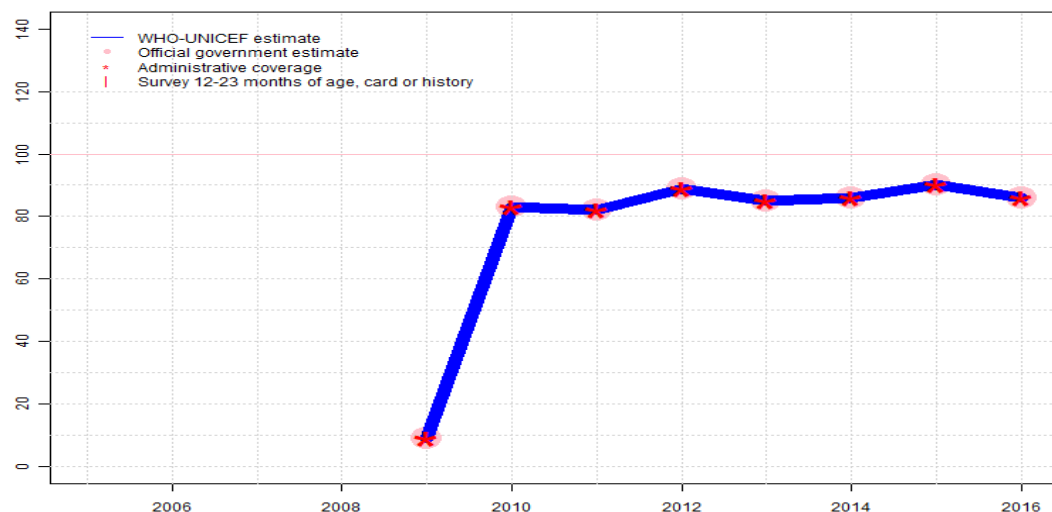
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Peru - PcV3

PER - PcV3



## Description:

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. GoC=R+ D+  
 2012: Estimate based on coverage reported by national government. GoC=R+ D+  
 2011: Estimate based on coverage reported by national government. GoC=R+  
 2010: Estimate based on coverage reported by national government. GoC=R+ D+  
 2009: Estimate based on coverage reported by national government. Pneumococcal conjugate vaccine partially introduced in 2007 nationally in 2009 reporting started in 2009. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	9	83	82	89	85	86	90	86
Estimate GoC	NA	NA	NA	NA	••	••	••	••	••	••	••	••
Official	NA	NA	NA	NA	9	83	82	89	85	86	90	86
Administrative	NA	NA	NA	NA	9	83	82	89	85	86	90	86
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

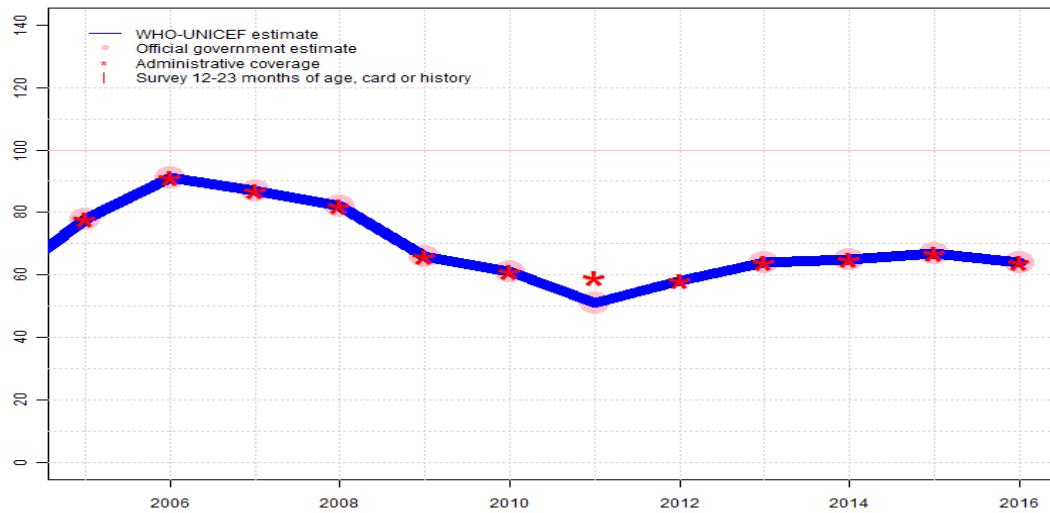
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Peru - YFV

PER - YFV



## Description:

- 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. GoC=R+ D+
- 2012: Estimate based on reported administrative estimate. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. Due to vaccine shortages YFV administered in districts at risk only. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	78	91	87	82	66	61	51	58	64	65	67	64
Estimate GoC	●●	●●	●	●	●●	●●	●●	●●	●●	●●	●●	●●
Official	78	91	87	82	66	61	51	NA	64	65	67	64
Administrative	78	91	87	82	66	61	59	58	64	65	67	64
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.

# Peru - survey details

## 2013 Peru Encuesta Demográfica y de Salud Familiar-ENDES, 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	91	0-12 m	1681	87
BCG	Card < 12 months	80	0-12 m	1681	87
BCG	History	11	0-12 m	1681	87
DTP1	C or H <12 months	89	0-12 m	1681	87
DTP1	Card < 12 months	82	0-12 m	1681	87
DTP1	History	8	0-12 m	1681	87
DTP3	C or H <12 months	70	0-12 m	1681	87
DTP3	Card < 12 months	66	0-12 m	1681	87
DTP3	History	4	0-12 m	1681	87
HepB1	C or H <12 months	89	0-12 m	1681	87
HepB1	Card < 12 months	82	0-12 m	1681	87
HepB1	History	8	0-12 m	1681	87
HepB3	C or H <12 months	70	0-12 m	1681	87
HepB3	Card < 12 months	66	0-12 m	1681	87
HepB3	History	4	0-12 m	1681	87
Hib1	C or H <12 months	89	0-12 m	1681	87
Hib1	Card < 12 months	82	0-12 m	1681	87
Hib1	History	8	0-12 m	1681	87
Hib3	C or H <12 months	70	0-12 m	1681	87
Hib3	Card < 12 months	66	0-12 m	1681	87
Hib3	History	4	0-12 m	1681	87
Pol1	C or H <12 months	81	0-12 m	1681	87
Pol1	Card < 12 months	72	0-12 m	1681	87
Pol1	History	9	0-12 m	1681	87
Pol3	C or H <12 months	51	0-12 m	1681	87
Pol3	Card < 12 months	49	0-12 m	1681	87
Pol3	History	2	0-12 m	1681	87

## 2012 Perú: Encuesta Demográfica y de Salud Familiar - ENDES 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <18 months	93	18-29 m	1586	79
BCG	Card	74	18-29 m	1254	79
BCG	Card or History	93	18-29 m	1586	79
BCG	History	19	18-29 m	332	79

DTP1	C or H <18 months	93	18-29 m	1586	79
DTP1	Card	78	18-29 m	1254	79
DTP1	Card or History	93	18-29 m	1586	79
DTP1	History	15	18-29 m	332	79
DTP3	C or H <18 months	79	18-29 m	1586	79
DTP3	Card	74	18-29 m	1254	79
DTP3	Card or History	80	18-29 m	1586	79
DTP3	History	6	18-29 m	332	79
HepB1	C or H <18 months	93	18-29 m	1586	79
HepB1	Card	78	18-29 m	1254	79
HepB1	Card or History	93	18-29 m	1586	79
HepB1	History	15	18-29 m	332	79
HepB3	C or H <18 months	79	18-29 m	1586	79
HepB3	Card	74	18-29 m	1254	79
HepB3	Card or History	80	18-29 m	1586	79
HepB3	History	6	18-29 m	332	79
Hib1	C or H <18 months	93	18-29 m	1586	79
Hib1	Card	78	18-29 m	1254	79
Hib1	Card or History	93	18-29 m	1586	79
Hib1	History	15	18-29 m	332	79
Hib3	C or H <18 months	79	18-29 m	1586	79
Hib3	Card	74	18-29 m	1254	79
Hib3	Card or History	80	18-29 m	1586	79
Hib3	History	6	18-29 m	332	79
MCV1	C or H <18 months	78	18-29 m	1586	79
MCV1	Card	71	18-29 m	1254	79
MCV1	Card or History	85	18-29 m	1586	79
MCV1	History	14	18-29 m	332	79
Pol1	C or H <18 months	97	18-29 m	1586	79
Pol1	Card	78	18-29 m	1254	79
Pol1	Card or History	97	18-29 m	1586	79
Pol1	History	19	18-29 m	332	79
Pol3	C or H <18 months	83	18-29 m	1586	79
Pol3	Card	74	18-29 m	1254	79
Pol3	Card or History	84	18-29 m	1586	79
Pol3	History	10	18-29 m	332	79

## 2011 Peru Encuesta Demográfica y de Salud Familiar-ENDES, 2014

# Peru - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	92	0-36 m	5213	87
DTP1	Card or History	92	0-36 m	5213	87
DTP3	Card or History	78	0-36 m	5213	87
HepB1	Card or History	92	0-36 m	5213	87
HepB3	Card or History	78	0-36 m	5213	87
Hib1	Card or History	92	0-36 m	5213	87
Hib3	Card or History	78	0-36 m	5213	87
MCV1	Card or History	79	0-36 m	5213	87
Pol1	Card or History	92	0-36 m	5213	87
Pol3	Card or History	74	0-36 m	5213	87

## 2011 Perú: Encuesta Demográfica y de Salud Familiar - ENDES 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <18 months	94	18-29 m	1732	81
BCG	Card	76	18-29 m	1396	81
BCG	Card or History	94	18-29 m	1732	81
BCG	History	18	18-29 m	336	81
DTP1	C or H <18 months	92	18-29 m	1732	81
DTP1	Card	80	18-29 m	1396	81
DTP1	Card or History	93	18-29 m	1732	81
DTP1	History	13	18-29 m	336	81
DTP3	C or H <18 months	82	18-29 m	1732	81
DTP3	Card	76	18-29 m	1396	81
DTP3	Card or History	83	18-29 m	1732	81
DTP3	History	7	18-29 m	336	81
MCV1	C or H <18 months	84	18-29 m	1732	81
MCV1	Card	74	18-29 m	1396	81
MCV1	Card or History	90	18-29 m	1732	81
MCV1	History	15	18-29 m	336	81
Pol1	C or H <18 months	97	18-29 m	1732	81
Pol1	Card	80	18-29 m	1396	81
Pol1	Card or History	98	18-29 m	1732	81
Pol1	History	18	18-29 m	336	81
Pol3	C or H <18 months	85	18-29 m	1732	81
Pol3	Card	77	18-29 m	1396	81
Pol3	Card or History	86	18-29 m	1732	81
Pol3	History	9	18-29 m	336	81

## 2010 Perú: Encuesta Demográfica y de Salud Familiar - ENDES 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <18 months	95	18-29 m	1715	81
BCG	Card	76	18-29 m	1715	81
BCG	Card or History	95	18-29 m	1715	81
BCG	History	18	18-29 m	1715	81
DTP1	C or H <18 months	90	18-29 m	1715	81
DTP1	Card	79	18-29 m	1715	81
DTP1	Card or History	91	18-29 m	1715	81
DTP1	History	11	18-29 m	1715	81
DTP3	C or H <18 months	80	18-29 m	1715	81
DTP3	Card	75	18-29 m	1715	81
DTP3	Card or History	81	18-29 m	1715	81
DTP3	History	6	18-29 m	1715	81
MCV1	C or H <18 months	80	18-29 m	1715	81
MCV1	Card	73	18-29 m	1715	81
MCV1	Card or History	88	18-29 m	1715	81
MCV1	History	15	18-29 m	1715	81
Pol1	C or H <18 months	96	18-29 m	1715	81
Pol1	Card	79	18-29 m	1715	81
Pol1	Card or History	97	18-29 m	1715	81
Pol1	History	18	18-29 m	1715	81
Pol3	C or H <18 months	84	18-29 m	1715	81
Pol3	Card	75	18-29 m	1715	81
Pol3	Card or History	85	18-29 m	1715	81
Pol3	History	10	18-29 m	1715	81

## 2009 Perú: Encuesta Demográfica y de Salud Familiar - ENDES Continua, 2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <18 months	90	18-29 m	1747	76
BCG	Card	68	18-29 m	1747	76
BCG	Card or History	90	18-29 m	1747	76
BCG	History	22	18-29 m	1747	76
DTP1	C or H <18 months	85	18-29 m	1747	76

# Peru - survey details

DTP1	Card	75	18-29 m	1747	76
DTP1	Card or History	86	18-29 m	1747	76
DTP1	History	11	18-29 m	1747	76
DTP3	C or H <18 months	72	18-29 m	1747	76
DTP3	Card	69	18-29 m	1747	76
DTP3	Card or History	74	18-29 m	1747	76
DTP3	History	5	18-29 m	1747	76
MCV1	C or H <18 months	77	18-29 m	1747	76
MCV1	Card	66	18-29 m	1747	76
MCV1	Card or History	83	18-29 m	1747	76
MCV1	History	18	18-29 m	1747	76
Pol1	C or H <18 months	92	18-29 m	1747	76
Pol1	Card	73	18-29 m	1747	76
Pol1	Card or History	92	18-29 m	1747	76
Pol1	History	19	18-29 m	1747	76
Pol3	C or H <18 months	75	18-29 m	1747	76
Pol3	Card	67	18-29 m	1747	76
Pol3	Card or History	76	18-29 m	1747	76
Pol3	History	9	18-29 m	1747	76

## 2008 Perú: Encuesta Demográfica y de Salud Familiar - ENDES Continua 2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	94	18-29 m	1639	66
BCG	Card	61	18-29 m	1639	66
BCG	Card or History	94	18-29 m	1639	66
BCG	History	32	18-29 m	1639	66
DTP1	C or H <12 months	95	18-29 m	1639	66
DTP1	Card	65	18-29 m	1639	66
DTP1	Card or History	96	18-29 m	1639	66
DTP1	History	31	18-29 m	1639	66
DTP3	C or H <12 months	71	18-29 m	1639	66
DTP3	Card	60	18-29 m	1639	66
DTP3	Card or History	73	18-29 m	1639	66
DTP3	History	13	18-29 m	1639	66
MCV1	C or H <12 months	70	18-29 m	1639	66
MCV1	Card	53	18-29 m	1639	66
MCV1	Card or History	76	18-29 m	1639	66

MCV1	History	23	18-29 m	1639	66
Pol1	C or H <12 months	92	18-29 m	1639	66
Pol1	Card	63	18-29 m	1639	66
Pol1	Card or History	92	18-29 m	1639	66
Pol1	History	29	18-29 m	1639	66
Pol3	C or H <12 months	67	18-29 m	1639	66
Pol3	Card	58	18-29 m	1639	66
Pol3	Card or History	68	18-29 m	1639	66
Pol3	History	10	18-29 m	1639	66

## 2006 Perú: Encuesta Demográfica y de Salud Familiar - ENDES 2007-2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <18 months	96	18-29 m	1671	63
BCG	Card	61	18-29 m	1050	63
BCG	Card or History	96	18-29 m	1671	63
BCG	History	35	18-29 m	620	63
DTP1	C or H <18 months	96	18-29 m	1671	63
DTP1	Card	62	18-29 m	1050	63
DTP1	Card or History	96	18-29 m	1671	63
DTP1	History	34	18-29 m	620	63
DTP3	C or H <18 months	76	18-29 m	1671	63
DTP3	Card	58	18-29 m	1050	63
DTP3	Card or History	76	18-29 m	1671	63
DTP3	History	18	18-29 m	620	63
MCV1	C or H <18 months	78	18-29 m	1671	63
MCV1	Card	54	18-29 m	1050	63
MCV1	Card or History	83	18-29 m	1671	63
MCV1	History	29	18-29 m	620	63
Pol1	C or H <18 months	93	18-29 m	1671	63
Pol1	Card	62	18-29 m	1050	63
Pol1	Card or History	94	18-29 m	1671	63
Pol1	History	32	18-29 m	620	63
Pol3	C or H <18 months	69	18-29 m	1671	63
Pol3	Card	57	18-29 m	1050	63
Pol3	Card or History	69	18-29 m	1671	63
Pol3	History	12	18-29 m	620	63

# Peru - survey details

## 2005 Perú: Encuesta Demográfica y de Salud Familiar - ENDES 2007-2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	95	24-35 m	1653	63
DTP1	Card or History	96	24-35 m	1653	63
DTP3	Card or History	77	24-35 m	1653	63
MCV1	Card or History	77	24-35 m	1653	63
Pol1	Card or History	93	24-35 m	1653	63
Pol3	Card or History	66	24-35 m	1653	63

## 2003 Peru Encuesta Demográfica y de Salud Familiar ENDES Continua 2004-2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	95	18-29 m	859	68
BCG	Card	65	18-29 m	859	68
BCG	Card or History	95	18-29 m	859	68
BCG	History	30	18-29 m	859	68
DTP1	C or H <12 months	97	18-29 m	859	68
DTP1	Card	68	18-29 m	859	68
DTP1	Card or History	98	18-29 m	859	68
DTP1	History	30	18-29 m	859	68
DTP3	C or H <12 months	82	18-29 m	859	68
DTP3	Card	66	18-29 m	859	68
DTP3	Card or History	85	18-29 m	859	68
DTP3	History	20	18-29 m	859	68
MCV1	C or H <12 months	83	18-29 m	859	68
MCV1	Card	60	18-29 m	859	68
MCV1	Card or History	87	18-29 m	859	68
MCV1	History	27	18-29 m	859	68
Pol1	C or H <12 months	96	18-29 m	859	68
Pol1	Card	68	18-29 m	859	68
Pol1	Card or History	97	18-29 m	859	68
Pol1	History	29	18-29 m	859	68
Pol3	C or H <12 months	76	18-29 m	859	68
Pol3	Card	66	18-29 m	859	68
Pol3	Card or History	79	18-29 m	859	68
Pol3	History	14	18-29 m	859	68

## 2003 Perú Encuesta Demográfica y de Salud Familiar, ENDES Continua 2004

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <18 months	94	18-29 m	455	67
BCG	Card	62	18-29 m	455	67
BCG	Card or history	94	18-29 m	455	67
BCG	History	32	18-29 m	455	67
DTP1	C or H <18 months	96	18-29 m	455	67
DTP1	Card	66	18-29 m	455	67
DTP1	Card or history	97	18-29 m	455	67
DTP1	History	32	18-29 m	455	67
DTP3	C or H <18 months	83	18-29 m	455	67
DTP3	Card	64	18-29 m	455	67
DTP3	Card or history	87	18-29 m	455	67
DTP3	History	23	18-29 m	455	67
MCV1	C or H <18 months	85	18-29 m	455	67
MCV1	Card	60	18-29 m	455	67
MCV1	Card or history	90	18-29 m	455	67
MCV1	History	30	18-29 m	455	67
Pol1	C or H <18 months	96	18-29 m	455	67
Pol1	Card	66	18-29 m	455	67
Pol1	Card or history	97	18-29 m	455	67
Pol1	History	31	18-29 m	455	67
Pol3	C or H <18 months	78	18-29 m	455	67
Pol3	Card	65	18-29 m	455	67
Pol3	Card or history	81	18-29 m	455	67
Pol3	History	16	18-29 m	455	67

## 1999 Peru, Encuesta Demográfica y de Salud Familiar 2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	57	18-29 m	2353	58
BCG	Card or History	96	12-23 m	2353	58
BCG	History	40	18-29 m	2353	58
DTP1	Card	58	18-29 m	2353	58
DTP1	Card or History	96	12-23 m	2353	58



## Peru - survey details

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DTP1	History	39	18-29 m	2353	58	Pol1	Card	58	18-29 m	2353	58
DTP3	Card	56	18-29 m	2353	58	Pol1	Card or History	96	12-23 m	2353	58
DTP3	Card or History	85	12-23 m	2353	58	Pol1	History	38	18-29 m	2353	58
DTP3	History	29	18-29 m	2353	58	Pol3	Card	54	18-29 m	2353	58
MCV1	Card	51	18-29 m	2353	58	Pol3	Card or History	76	12-23 m	2353	58
MCV1	Card or History	84	12-23 m	2353	58	Pol3	History	22	18-29 m	2353	58
MCV1	History	34	18-29 m	2353	58						

Further information and estimates for previous years are available at:

<http://www.data.unicef.org/child-health/immunization>

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