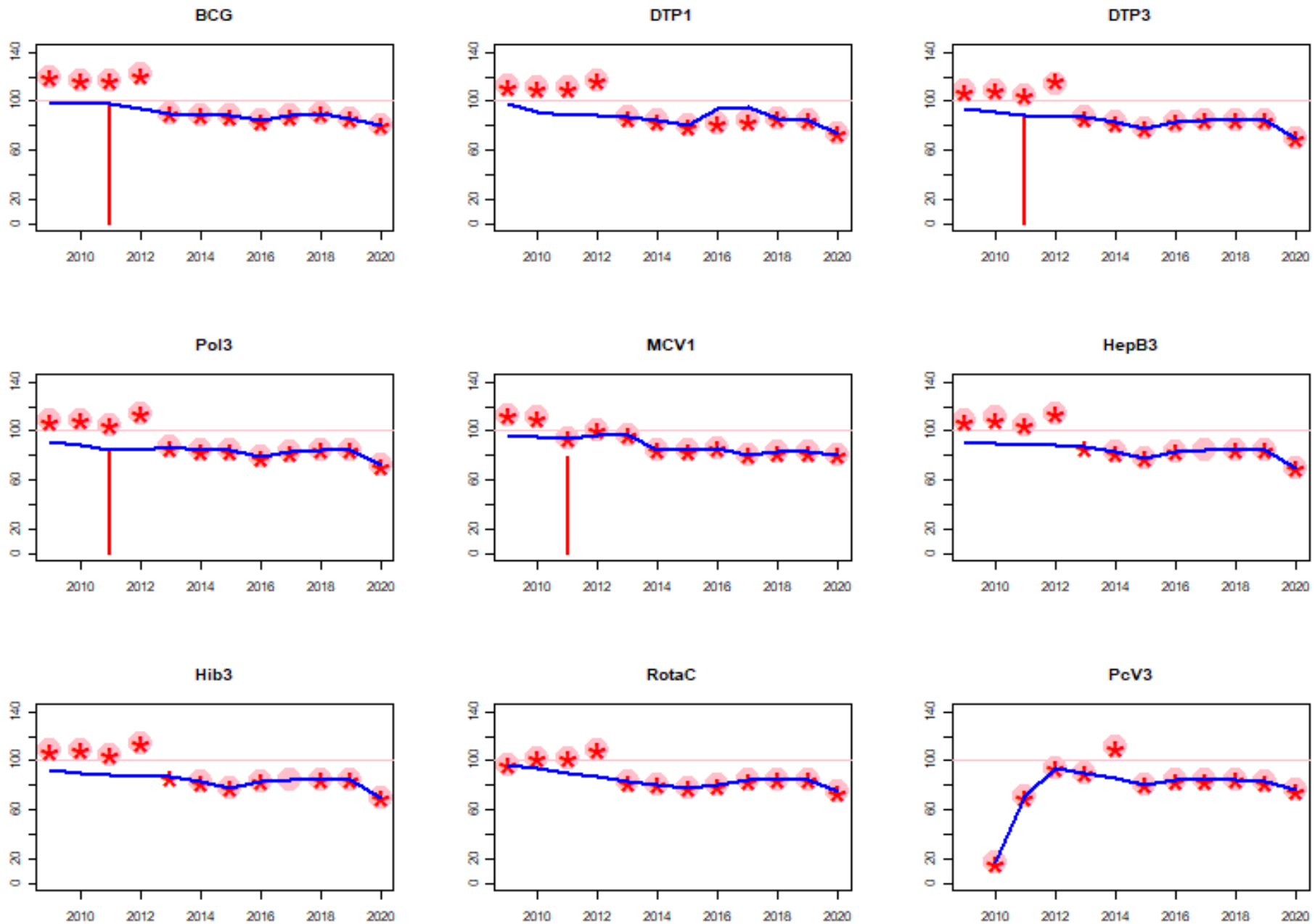


Ecuador: WHO and UNICEF estimates of immunization coverage: 2020 revision



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

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

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

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

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

DATA SOURCES.

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

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

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

ABBREVIATIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

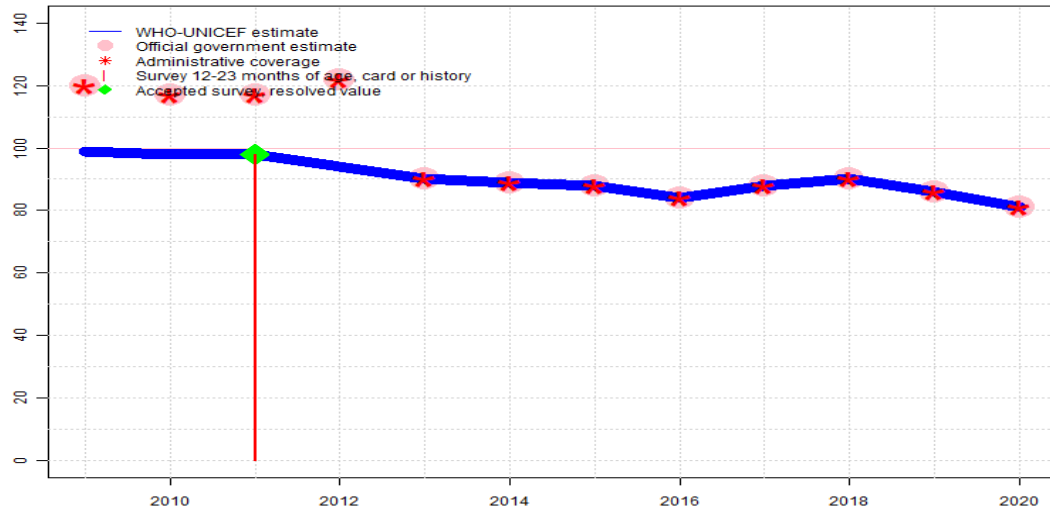
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

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

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Ecuador - BCG

ECU - BCG



Description:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 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: Coverage levels for 2013 following a revision of the target population are in line with the results of the 2012 coverage survey for the 2011 birth cohort. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. GoC=R+ S+ D+
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded because 122 percent greater than 100 percent. Estimate challenged by: R-
- 2011: Estimate of 98 percent assigned by working group. Estimate is based on survey result. Reported data excluded because 117 percent greater than 100 percent. Estimate challenged by: R-
- 2010: Reported data calibrated to 1998 and 2011 levels. Reported data excluded because 117 percent greater than 100 percent. Estimate challenged by: R-
- 2009: Reported data calibrated to 1998 and 2011 levels. Reported data excluded because 120 percent greater than 100 percent. Estimate challenged by: R-

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	99	98	98	94	90	89	88	84	88	90	86	81
Estimate GoC	•	•	•	•	•••	••	••	••	••	••	••	••
Official	120	117	117	122	90	89	88	84	88	90	86	81
Administrative	120	117	117	122	90	89	88	84	88	90	86	81
Survey	NA	NA	98	NA	NA	NA	NA	NA	NA	NA	NA	NA

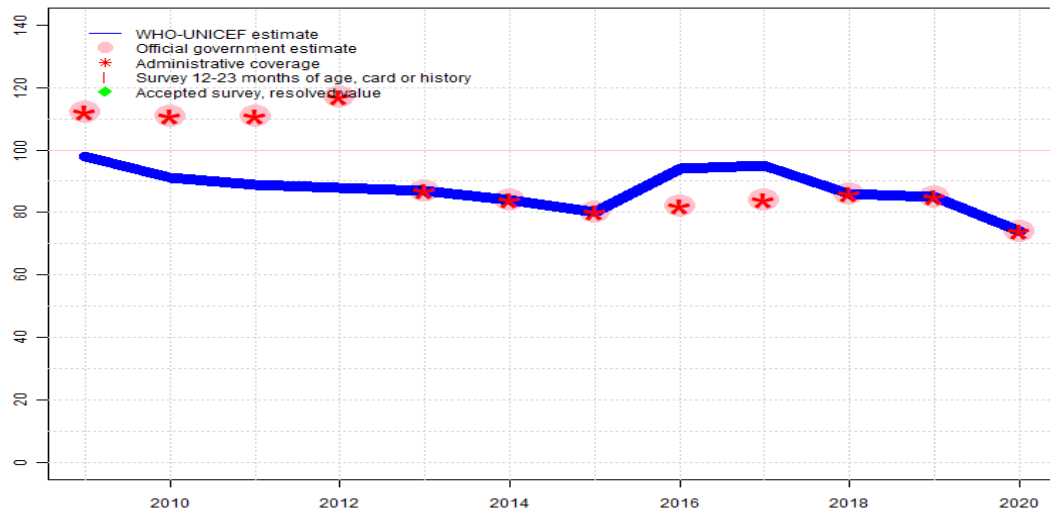
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2020 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.

Ecuador - DTP1

ECU - DTP1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	98	91	89	88	87	84	80	94	95	86	85	74
Estimate GoC	•	•	•	•	••	••	••	•	•	••	••	••
Official	112	111	111	117	87	84	80	82	84	86	85	74
Administrative	112	111	111	117	87	84	80	82	84	86	85	74
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 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.

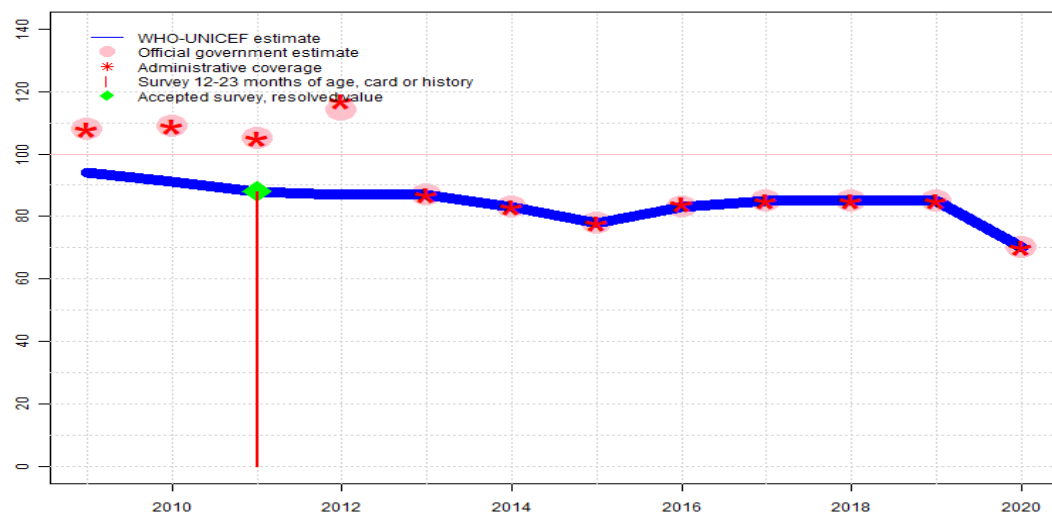
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: DTP1 coverage estimated based on DTP3 coverage of 85. Reported data implies a negative dropout rate. Coverage likely overestimated. Estimate challenged by: D-R-
- 2016: DTP1 coverage estimated based on DTP3 coverage of 83. Reported data implies a negative dropout rate. Coverage likely overestimated. Estimate challenged by: D-R-
- 2015: Estimate based on coverage reported by national government. Programme reports stock-out of DTP-HepB-Hib vaccine during Q1 2015. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Programme reports four month stock-out at national level. GoC=R+ D+
- 2013: Coverage levels for 2013 following a revision of the target population are in line with the results of the 2012 coverage survey for the 2011 birth cohort. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. GoC=R+ D+
- 2012: Reported data calibrated to 1997 and 2013 levels. Reported data excluded because 117 percent greater than 100 percent. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 1997 and 2013 levels. Reported data excluded because 111 percent greater than 100 percent. Estimate challenged by: D-R-
- 2010: Reported data calibrated to 1997 and 2013 levels. Reported data excluded because 111 percent greater than 100 percent. Estimate challenged by: R-
- 2009: DTP1 coverage estimated based on DTP3 coverage of 94. Reported data excluded because 112 percent greater than 100 percent. Estimate challenged by: R-

Ecuador - DTP3

ECU - DTP3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	94	91	88	87	87	83	78	83	85	85	85	70
Estimate GoC	•	•	•	•	•••	••	••	••	••	••	••	••
Official	108	109	105	114	87	83	78	83	85	85	85	70
Administrative	108	109	105	117	87	83	78	84	85	85	85	70
Survey	NA	NA	88	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: 2020 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.

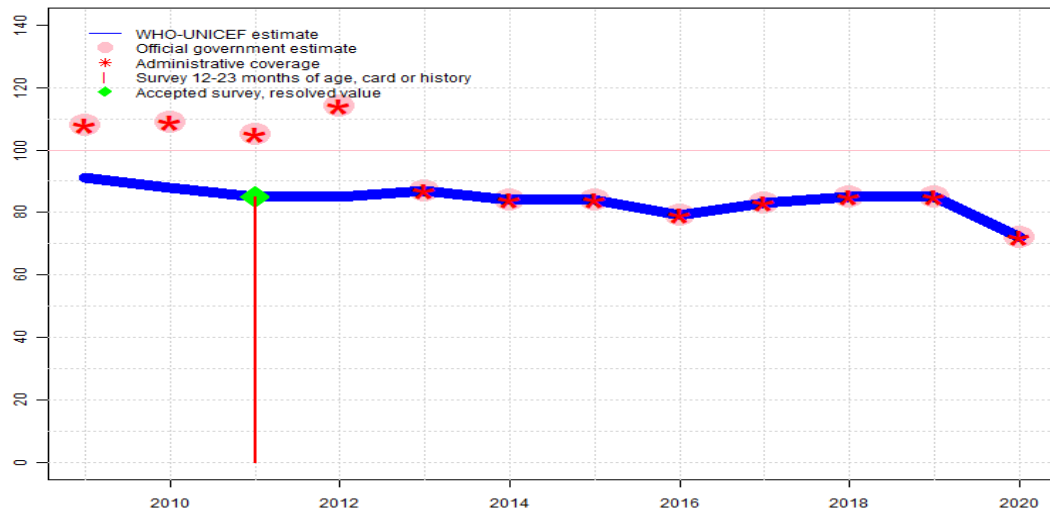
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. Programme reports stock-out of DTP-HepB-Hib vaccine during Q1 2015. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Programme reports four month stock-out at national level. GoC=R+ D+
- 2013: Coverage levels for 2013 following a revision of the target population are in line with the results of the 2012 coverage survey for the 2011 birth cohort. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. GoC=R+ S+ D+
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded because 114 percent greater than 100 percent. Estimate challenged by: D-R-
- 2011: Estimate of 88 percent assigned by working group. Estimate is based on survey result. Information on DTP1 is not provided in the survey. Survey result not adjusted for recall bias. Reported data excluded because 105 percent greater than 100 percent. Estimate challenged by: R-
- 2010: Reported data calibrated to 1998 and 2011 levels. Reported data excluded because 109 percent greater than 100 percent. Estimate challenged by: R-
- 2009: Reported data calibrated to 1998 and 2011 levels. Reported data excluded because 108 percent greater than 100 percent. Estimate challenged by: R-

Ecuador - Pol3

ECU - Pol3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	91	88	85	85	87	84	84	79	83	85	85	72
Estimate GoC	•	•	•	•	•••	••	••	••	••	••	••	••
Official	108	109	105	114	87	84	84	79	83	85	85	72
Administrative	108	109	105	114	87	84	84	79	83	85	85	72
Survey	NA	NA	85	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: 2020 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.

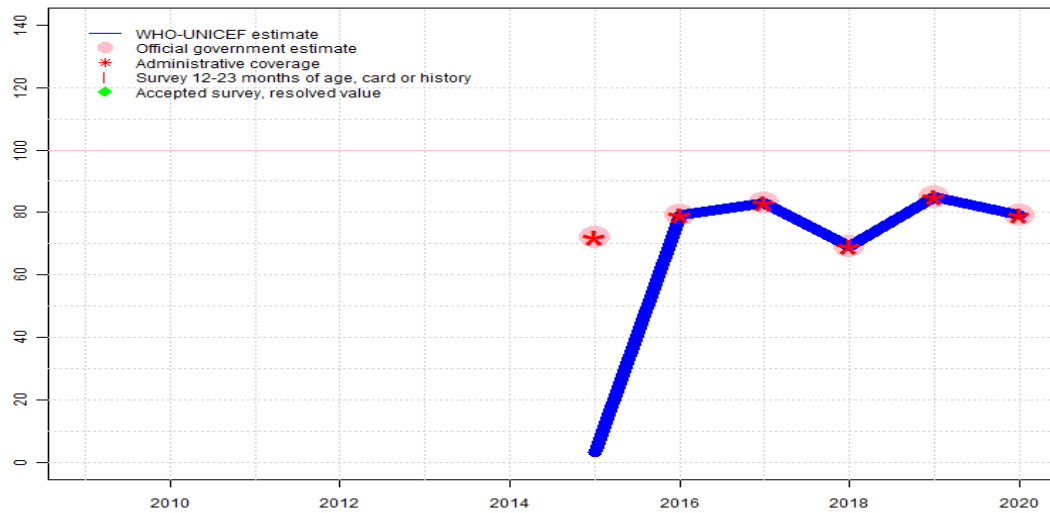
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Programme reports a two month vaccine stock-out at national and subnational levels. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 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: Coverage levels for 2013 following a revision of the target population are in line with the results of the 2012 coverage survey for the 2011 birth cohort. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. GoC=R+ S+ D+
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded because 114 percent greater than 100 percent. Estimate challenged by: D-R-
- 2011: Estimate of 85 percent assigned by working group. Estimate is based on survey result. Information on Pol1 is not provided in the survey. Survey result not adjusted for recall bias. Reported data excluded because 105 percent greater than 100 percent. Estimate challenged by: R-
- 2010: Reported data calibrated to 1998 and 2011 levels. Reported data excluded because 109 percent greater than 100 percent. Estimate challenged by: D-R-
- 2009: Reported data calibrated to 1998 and 2011 levels. Reported data excluded because 108 percent greater than 100 percent. Estimate challenged by: R-

Ecuador - IPV1

ECU - IPV1



Description:

Estimates for a dose of inactivated polio vaccine (IPV) begin in 2015 following the Global Polio Eradication Initiative's Polio Eradication and Endgame Strategic Plan: 2013-2018 which recommended at least one full dose or two fractional doses of IPV into routine immunization schedules as a strategy to mitigate the potential consequences should any re-emergence of type 2 poliovirus occur following the planned withdrawal of Sabin type 2 strains from oral polio vaccine (OPV).

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. Programme reports use of fractional IPV dose. Reported data reflect second fractional dose. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. Programme reports use of fractional IPV dose. Reported data reflect second fractional dose. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. Programme reports using fractional dose of IPV. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. Increase due to national roll out. GoC=R+ D+
- 2015: Inactivated polio vaccine introduced in December 2015. Programme reports 72 percent coverage among four percent of the national target population. Estimate is based on coverage achieved among the total annual national target population. Estimate challenged by: R-

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	3	79	83	69	85	79
Estimate GoC	NA	NA	NA	NA	NA	NA	•	••	••	••	••	••
Official	NA	NA	NA	NA	NA	NA	72	79	83	69	85	79
Administrative	NA	NA	NA	NA	NA	NA	72	79	83	69	85	79
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

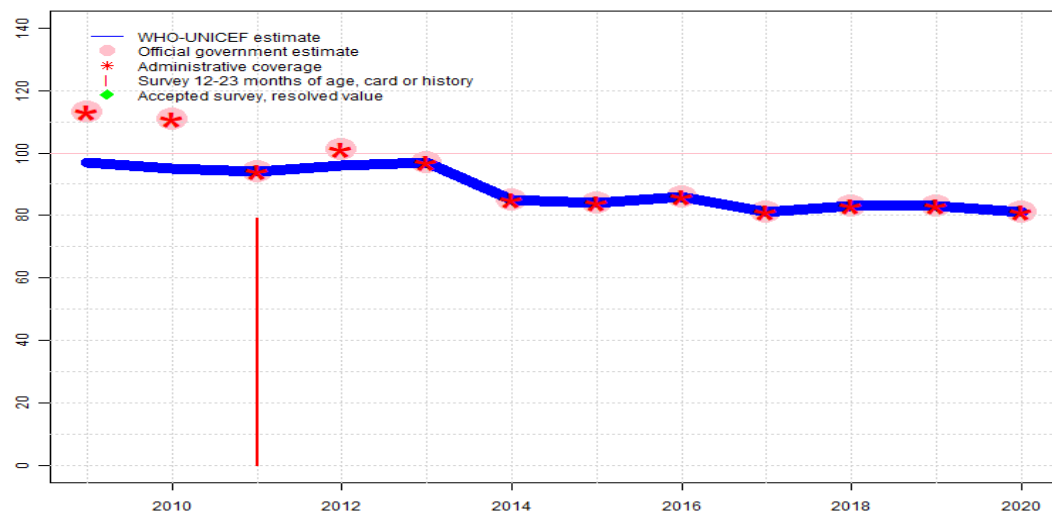
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2020 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.

Ecuador - MCV1

ECU - MCV1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	97	95	94	96	97	85	84	86	81	83	83	81
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●
Official	113	111	94	101	97	85	84	86	81	83	83	81
Administrative	113	111	94	101	97	85	84	86	81	83	83	81
Survey	NA	NA	79	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: 2020 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.

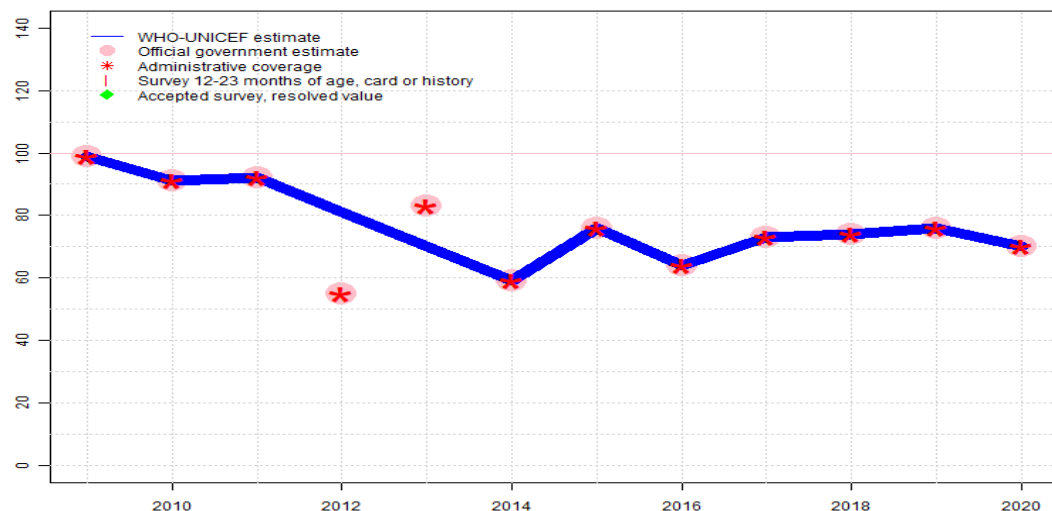
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 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. Programme reports a decrease in the number of children vaccinated with first dose of measles containing vaccine (MCV). Programme provides a dose of MR at 6 months following recent outbreak but that dose is a temporary response. The first dose of MMR is recommended at 12 months and is the coverage reflected here. Estimate is based on reported data to be consistent across vaccines. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. Programme reports a 3 month stock-out at the national level. GoC=R+ D+
- 2012: Estimate based on interpolation between data reported by national government. Reported data excluded because 101 percent greater than 100 percent. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. National Health and Nutrition Survey, 2012 results ignored by working group. Survey results likely underestimate coverage. Measles vaccination recommended between 12 and 23 months of age. Survey cohort of 12-23 months of age includes children still eligible for vaccination. GoC=R+ D+
- 2010: Estimate based on interpolation between data reported by national government. Reported data excluded because 111 percent greater than 100 percent. GoC=R+ D+
- 2009: Estimate based on interpolation between data reported by national government. Reported data excluded because 113 percent greater than 100 percent. GoC=R+ D+

Ecuador - MCV2

ECU - MCV2



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	99	91	92	81	70	59	76	64	73	74	76	70
Estimate GoC	•	••	••	•	•	••	••	••	••	••	••	••
Official	99	91	92	55	83	59	76	64	73	74	76	70
Administrative	99	91	92	55	83	59	76	64	73	74	76	70
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

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

2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+

2019: Estimate based on coverage reported by national government. GoC=R+ D+

2018: Estimate based on coverage reported by national government. GoC=R+ D+

2017: Estimate based on coverage reported by national government. GoC=R+ D+

2016: Estimate based on coverage reported by national government. GoC=R+ D+

2015: Estimate based on coverage reported by national government. Change in recommended age at administration from 6 years to 18 months. Increase may reflect change in schedule GoC=R+ D+

2014: Estimate based on coverage reported by national government. Estimate is based on reported coverage consistent with other vaccines. The number of doses of measles containing vaccine administered has declined between 2013 and 2014. GoC=R+ D+

2013: Estimate based on interpolation between reported values. Reported data excluded due to an increase from 55 percent to 83 percent with decrease 59 percent. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. Programme reports a 3 month stock-out at the national level. Estimate challenged by: D-

2012: Estimate based on interpolation between reported values. Reported data excluded due to decline in reported coverage from 92 percent to 55 percent with increase to 83 percent. Estimate challenged by: D-

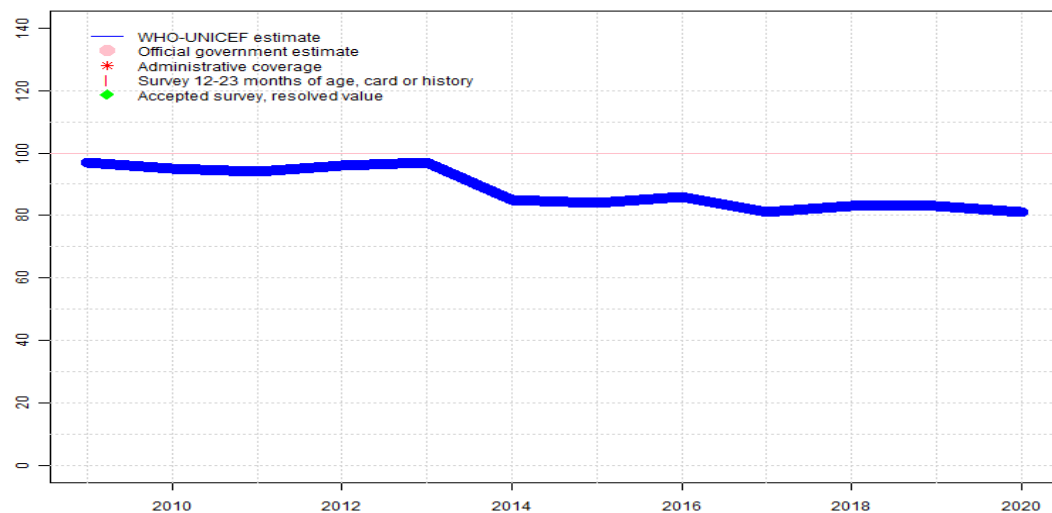
2011: Estimate based on coverage reported by national government. GoC=R+ D+

2010: Estimate based on coverage reported by national government. GoC=R+ D+

2009: Estimate based on coverage reported by national government. Estimate challenged by: D-

Ecuador - RCV1

ECU - 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.

2020: Estimate based on estimated MCV1. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+

2019: Estimate based on estimated MCV1. GoC=R+ D+

2018: Estimate based on estimated MCV1. GoC=R+ D+

2017: Estimate based on estimated MCV1. GoC=R+ D+

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+ D+

2013: Estimate based on estimated MCV1. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. GoC=R+ D+

2012: Estimate based on estimated MCV1. GoC=R+ D+

2011: Estimate based on estimated MCV1. GoC=R+ D+

2010: Estimate based on estimated MCV1. GoC=R+ D+

2009: Estimate based on estimated MCV1. GoC=R+ D+

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	97	95	94	96	97	85	84	86	81	83	83	81
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

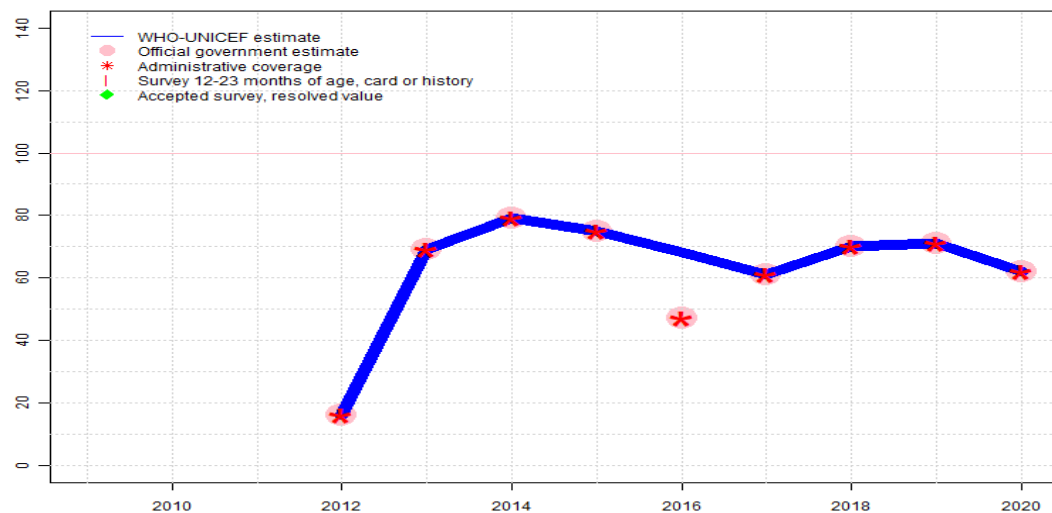
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2020 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.

Ecuador - HepBB

ECU - HepBB



Description:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Programme reports a five month vaccine stock-out at national and subnational levels. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 2016: Estimate based on interpolation between reported values. Reported data excluded due to decline in reported coverage from 75 percent to 47 percent with increase to 61 percent. 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+ D+
- 2013: Estimate based on coverage reported by national government. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. Programme reports a three month stock-out of monovalent HepB vaccine.. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. HepB birth dose introduced universally in 2012. GoC=R+ D+

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	16	69	79	75	68	61	70	71	62
Estimate GoC	NA	NA	NA	●●	●●	●●	●●	●	●●	●●	●●	●●
Official	NA	NA	NA	16	69	79	75	47	61	70	71	62
Administrative	NA	NA	NA	16	69	79	75	47	61	70	71	62
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

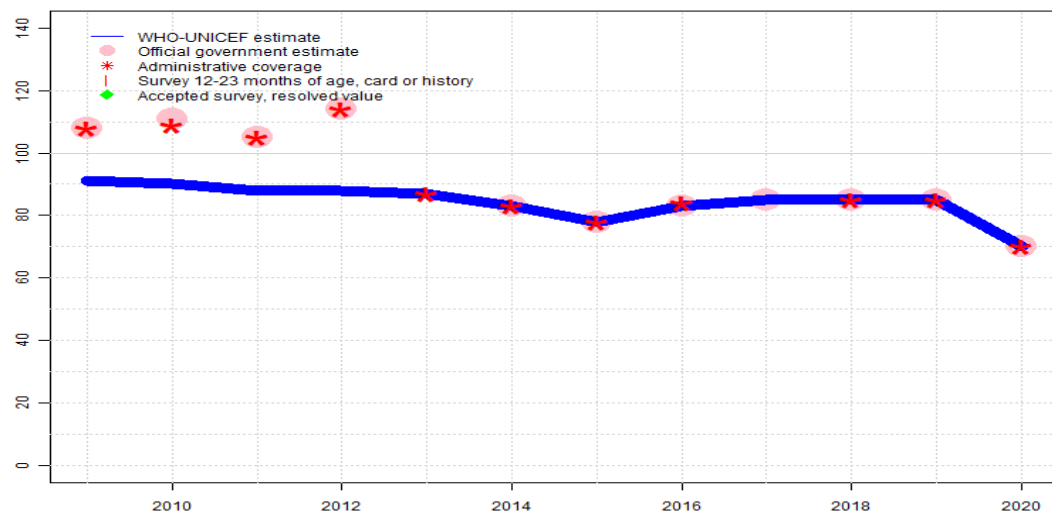
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 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.

Ecuador - HepB3

ECU - HepB3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	91	90	88	88	87	83	78	83	85	85	85	70
Estimate GoC	•	•	•	•	••	••	••	••	••	••	••	••
Official	108	111	105	114	NA	83	78	83	85	85	85	70
Administrative	108	109	105	114	87	83	78	84	NA	85	85	70
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 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.

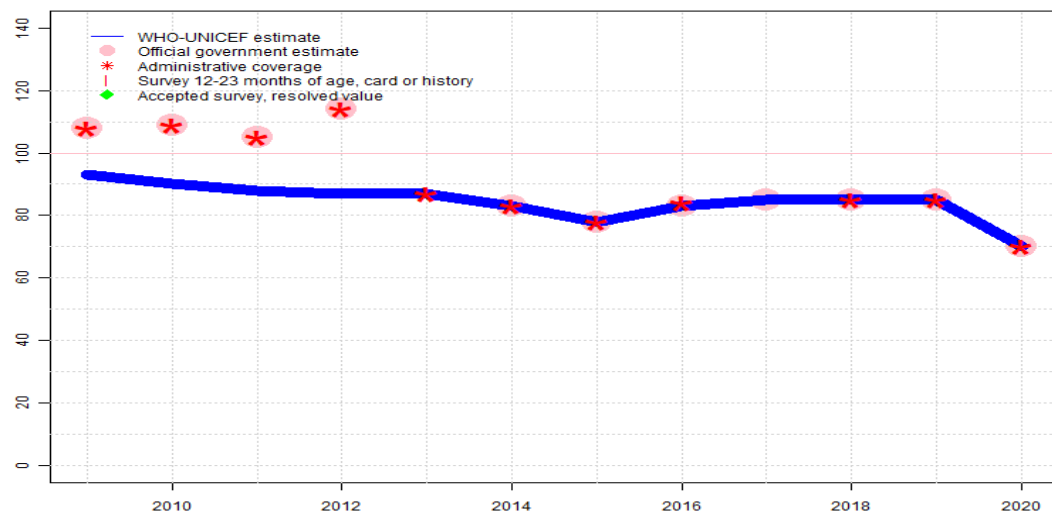
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+
- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. Programme reports stock-out of DTP-HepB-Hib vaccine during Q1 2015. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Programme reports four month stock-out at national level. GoC=R+ D+
- 2013: Coverage levels for 2013 following a revision of the target population are in line with the results of the 2012 coverage survey for the 2011 birth cohort. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. GoC=R+ D+
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded because 114 percent greater than 100 percent. Estimate challenged by: R-
- 2011: Estimate of 88 percent assigned by working group. Estimate is based on survey result. Information on Pentavalent is not provided in the survey. Survey result not adjusted for recall bias. Reported data excluded because 105 percent greater than 100 percent. Estimate challenged by: R-
- 2010: Reported data calibrated to 2011 levels. Reported data excluded because 111 percent greater than 100 percent. Estimate challenged by: R-
- 2009: Reported data calibrated to 2011 levels. Reported data excluded because 108 percent greater than 100 percent. Estimate challenged by: R-

Ecuador - Hib3

ECU - Hib3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	93	90	88	87	87	83	78	83	85	85	85	70
Estimate GoC	•	•	•	•	••	••	••	••	••	••	••	••
Official	108	109	105	114	NA	83	78	83	85	85	85	70
Administrative	108	109	105	114	87	83	78	84	NA	85	85	70
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 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.

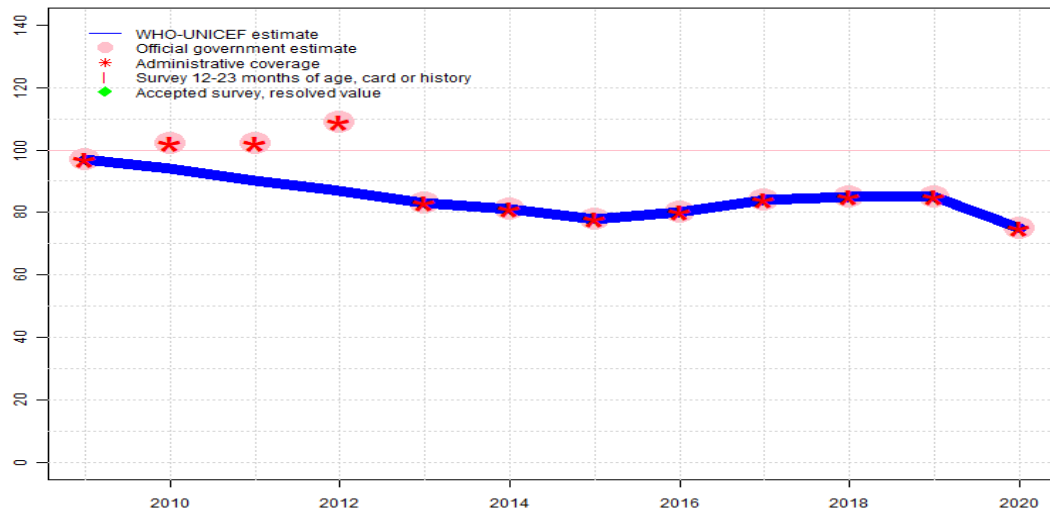
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+
- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. Programme reports stock-out of DTP-HepB-Hib vaccine during Q1 2015. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Programme reports four month stock-out at national level. GoC=R+ D+
- 2013: Coverage levels for 2013 following a revision of the target population are in line with the results of the 2012 coverage survey for the 2011 birth cohort. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. GoC=R+ D+
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded because 114 percent greater than 100 percent. Estimate challenged by: R-
- 2011: Estimate of 88 percent assigned by working group. Estimate is based on survey result. Information on Pental is not provided in the survey. Survey result not adjusted for recall bias. Reported data excluded because 105 percent greater than 100 percent. Estimate challenged by: R-
- 2010: Reported data calibrated to 2011 levels. Reported data excluded because 109 percent greater than 100 percent. Estimate challenged by: R-
- 2009: Reported data calibrated to 2011 levels. Reported data excluded because 108 percent greater than 100 percent. Estimate challenged by: R-

Ecuador - RotaC

ECU - RotaC



Description:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Programme reports a two month vaccine stock-out at national and subnational levels. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 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. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. GoC=R+ D+
- 2012: Estimate based on interpolation between reported values. Reported data excluded because 109 percent greater than 100 percent. GoC=R+ D+
- 2011: Estimate based on interpolation between reported values. Reported data excluded because 102 percent greater than 100 percent. GoC=R+ D+
- 2010: Estimate based on interpolation between reported values. Reported data excluded because 102 percent greater than 100 percent. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	97	94	90	87	83	81	78	80	84	85	85	75
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●
Official	97	102	102	109	83	81	78	80	84	85	85	75
Administrative	97	102	102	109	83	81	78	80	84	85	85	75
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

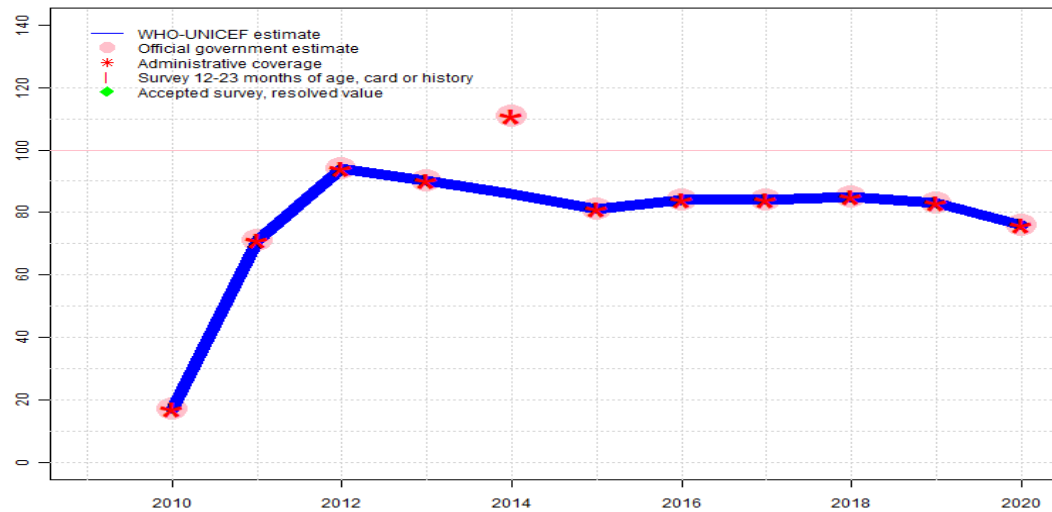
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2020 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.

Ecuador - PcV3

ECU - PcV3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	17	71	94	90	86	81	84	84	85	83	76
Estimate GoC	NA	●●	●●	●●	●●	●	●●	●●	●●	●●	●●	●●
Official	NA	17	71	94	90	111	81	84	84	85	83	76
Administrative	NA	17	71	94	90	111	81	84	84	85	83	76
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: 2020 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.

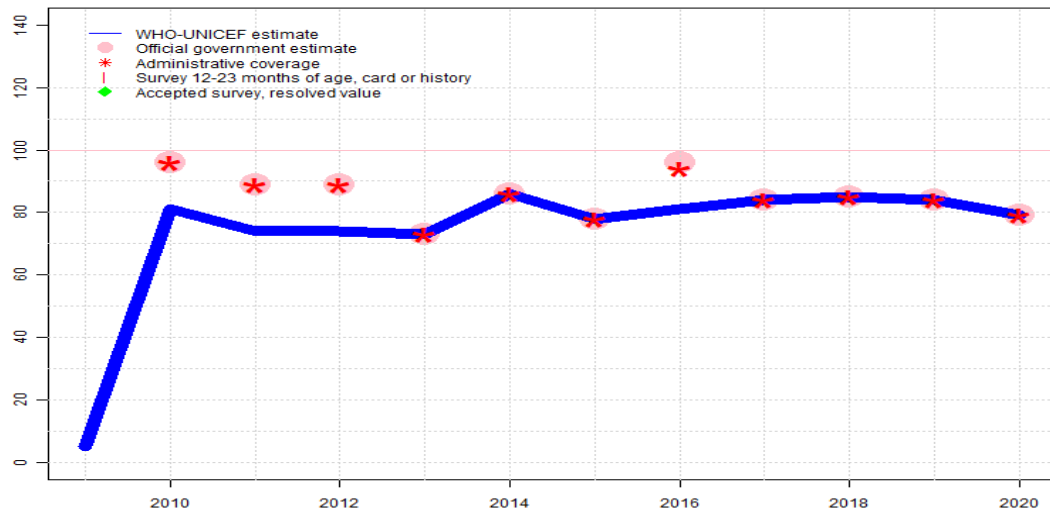
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. Estimate based on reported coverage following change in recommended schedule. GoC=R+ D+
- 2014: Estimate based on interpolation between reported values. Reported data excluded because 111 percent greater than 100 percent. Reported data excluded due to an increase from 90 percent to 111 percent with decrease 81 percent. Programme reports a change in schedule from 2+1 to a 3-dose schedule recommended at 2 m, 4 m, and 6 m. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. 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. Pneumococcal conjugate vaccine was introduced in 2010. GoC=R+ D+

Ecuador - YFV

ECU - YFV



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	5	81	74	74	73	86	78	81	84	85	84	79
Estimate GoC	••	•	•	•	••	••	••	•	••	••	••	••
Official	NA	96	89	89	73	86	78	96	84	85	84	79
Administrative	NA	96	89	89	73	86	78	94	84	85	84	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: 2020 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:

- 2020: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. GoC=R+ D+
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 2016: Estimate based on interpolation between data reported by national government. Reported data excluded due to an increase from 78 percent to 96 percent with decrease 84 percent. 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. Estimate is based on reported data. GoC=R+ D+
- 2013: Programme reports a 1 month stock-out at the national level. Decline in reported coverage is partly due to a revision of the target population estimate in 2013. Programme reports a 1 month stock-out at the national level. GoC=R+ D+
- 2012: Estimate of 74 percent assigned by working group. Estimate is calibrated to measles coverage based on difference between survey result and reported data for MCV1 applied to YFV official estimate. Estimate challenged by: D-R-
- 2011: Estimate of 74 percent assigned by working group. Estimate is calibrated to measles coverage based on difference between survey result and reported data for MCV1 applied to YFV official estimate. Estimate challenged by: R-
- 2010: Estimate of 81 percent assigned by working group. Estimate is calibrated to measles coverage based on difference between survey result and reported data for MCV1 applied to YFV official estimate. Routine infant immunization is national. Estimate challenged by: R-
- 2009: Estimate of 5 percent assigned by working group. Routine infant immunization recommended in high risk areas which comprises approximately 5 percent of the national birth cohort. GoC=D+

Ecuador - survey details

2011 Encuesta Nacional de Salud y Nutrición: ENSANUT-ECU 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	97.7	12-23 m	2065	88
DTP3	Card or History	88.1	12-23 m	2065	88
MCV1	Card or History	78.9	12-23 m	2065	88
Pol3	Card or History	84.8	12-23 m	2065	88

MCV1	C or H <12 months	17.6	12-23 m	788	72
MCV1	Card or History	65.9	12-23 m	788	72
Pol3	C or H <12 months	67.9	12-23 m	788	72
Pol3	Card or History	71.8	12-23 m	788	72

2003 Encuesta Demográfica y de Salud Materna e Infantil (ENDEMAIN-2004)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	92.9	12-23 m	788	72
BCG	Card or History	96.7	12-23 m	788	72
DTP3	C or H <12 months	70	12-23 m	788	72
DTP3	Card or History	74.6	12-23 m	788	72

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Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	58	12-23 m	679	-
DTP1	Card	58.5	12-23 m	679	-
DTP3	Card	52.4	12-23 m	679	-
MCV1	Card	45.9	12-23 m	679	-
Pol1	Card	58.5	12-23 m	679	-
Pol3	Card	52.1	12-23 m	679	-

Further information and estimates for previous years are available at:

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

<https://www.who.int/teams/immunization-vaccines-and-biologicals/immunization-analysis-and-insights/global-monitoring/data-statistics-and-graphics>