

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.

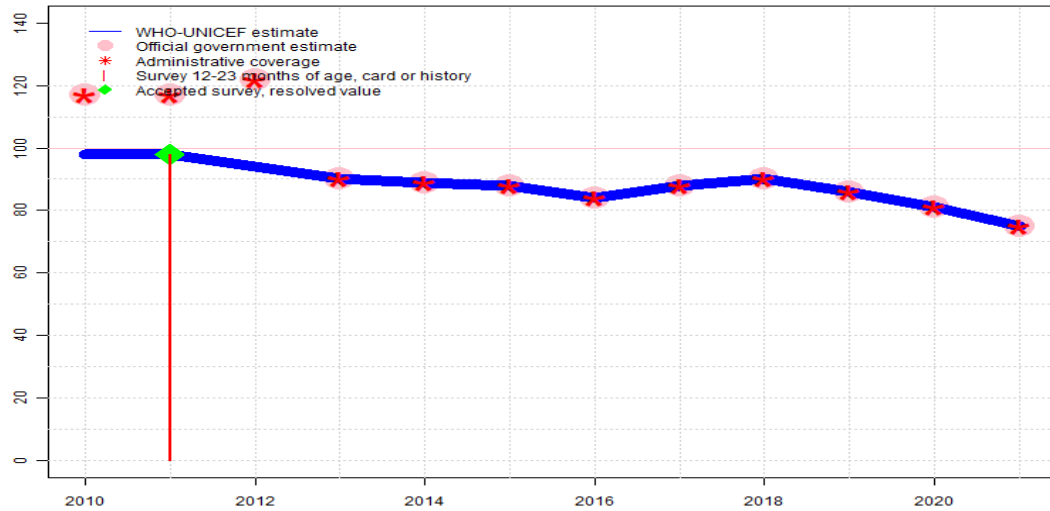
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. 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. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 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+ 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-

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 98 | 98 | 94 | 90 | 89 | 88 | 84 | 88 | 90 | 86 | 81 | 75 |
| Estimate GoC | • | • | • | ••• | •• | •• | • | •• | • | •• | •• | •• |
| Official | 117 | 117 | 122 | 90 | 89 | 88 | 84 | 88 | 90 | 86 | 81 | 75 |
| Administrative | 117 | 117 | 122 | 90 | 89 | 88 | 84 | 88 | 90 | 86 | 81 | 75 |
| Survey | NA | 98 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

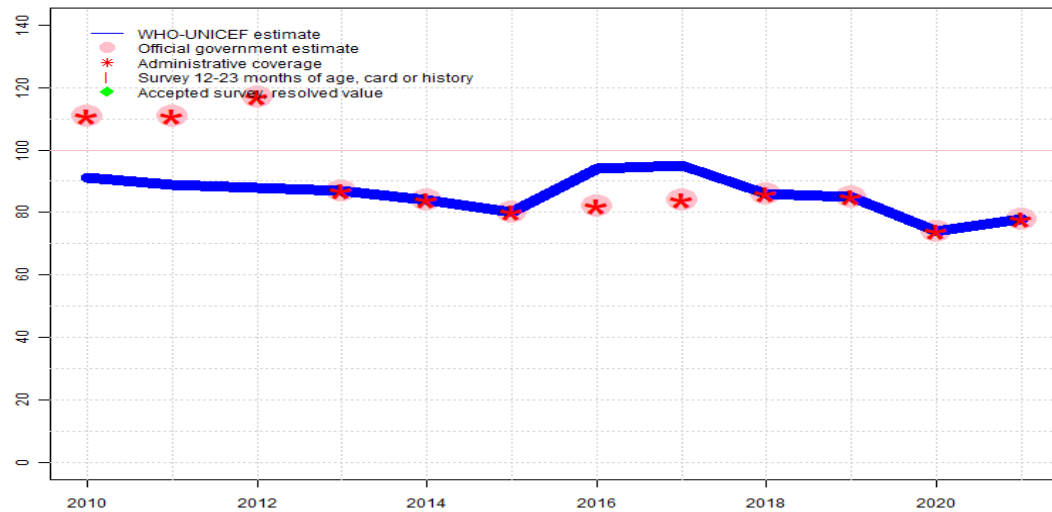
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2022 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



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 91 | 89 | 88 | 87 | 84 | 80 | 94 | 95 | 86 | 85 | 74 | 78 |
| Estimate GoC | • | • | • | •• | •• | •• | • | • | • | • | •• | •• |
| Official | 111 | 111 | 117 | 87 | 84 | 80 | 82 | 84 | 86 | 85 | 74 | 78 |
| Administrative | 111 | 111 | 117 | 87 | 84 | 80 | 82 | 84 | 86 | 85 | 74 | 78 |
| 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.

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- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

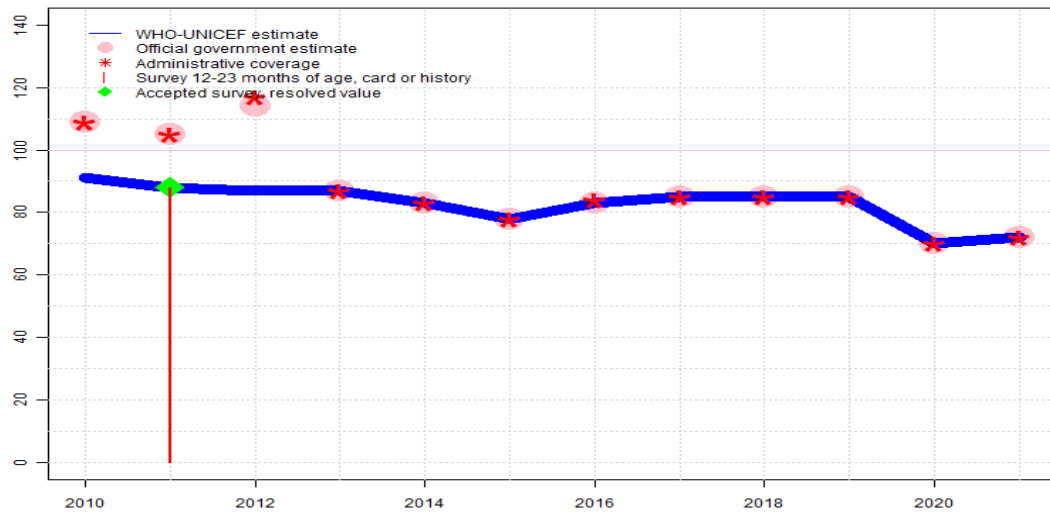
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. 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 three month vaccine stock out at national and subnational levels. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. 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. Estimate challenged by: D-
- 2018: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2017: DTP1 coverage estimated based on DTP3 coverage of 85. Reported data implies a negative dropout rate. Coverage likely overestimated. Estimate challenged by: R-
- 2016: DTP1 coverage estimated based on DTP3 coverage of 83. Reported data implies a negative dropout rate. Coverage likely overestimated. Estimate challenged by: 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: R-
- 2010: Reported data calibrated to 1997 and 2013 levels. Reported data excluded because 111 percent greater than 100 percent. Estimate challenged by: R-

Ecuador - DTP3

ECU - DTP3



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 91 | 88 | 87 | 87 | 83 | 78 | 83 | 85 | 85 | 85 | 70 | 72 |
| Estimate GoC | • | • | • | ••• | •• | •• | • | • | • | •• | •• | •• |
| Official | 109 | 105 | 114 | 87 | 83 | 78 | 83 | 85 | 85 | 85 | 70 | 72 |
| Administrative | 109 | 105 | 117 | 87 | 83 | 78 | 84 | 85 | 85 | 85 | 70 | 72 |
| Survey | NA | 88 | 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: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

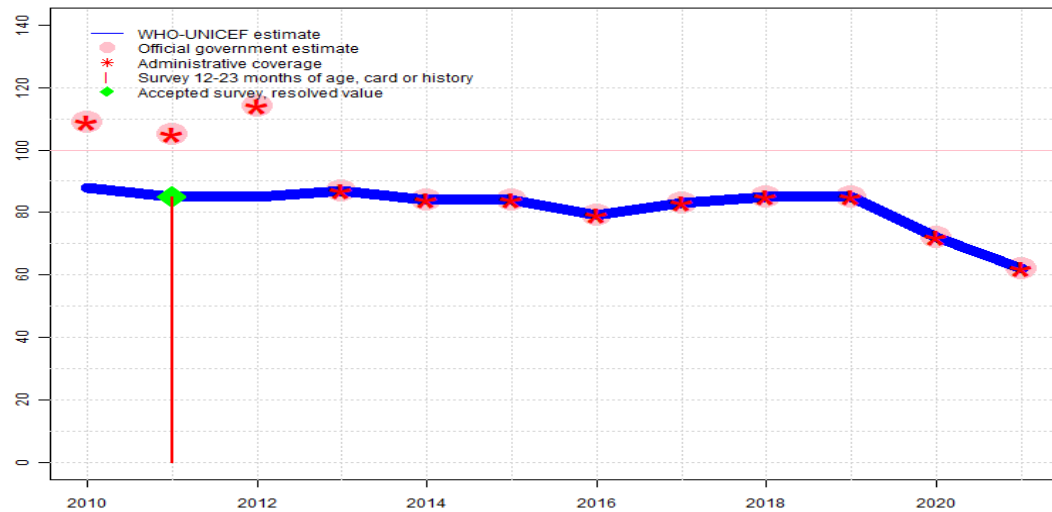
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- 2020: Estimate based on coverage reported by national government. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2016: Estimate based on coverage reported by national government. Estimate challenged by: 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-

Ecuador - Pol3

ECU - Pol3



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 88 | 85 | 85 | 87 | 84 | 84 | 79 | 83 | 85 | 85 | 72 | 62 |
| Estimate GoC | • | • | • | ••• | •• | •• | • | • | • | •• | •• | •• |
| Official | 109 | 105 | 114 | 87 | 84 | 84 | 79 | 83 | 85 | 85 | 72 | 62 |
| Administrative | 109 | 105 | 114 | 87 | 84 | 84 | 79 | 83 | 85 | 85 | 72 | 62 |
| Survey | NA | 85 | 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.

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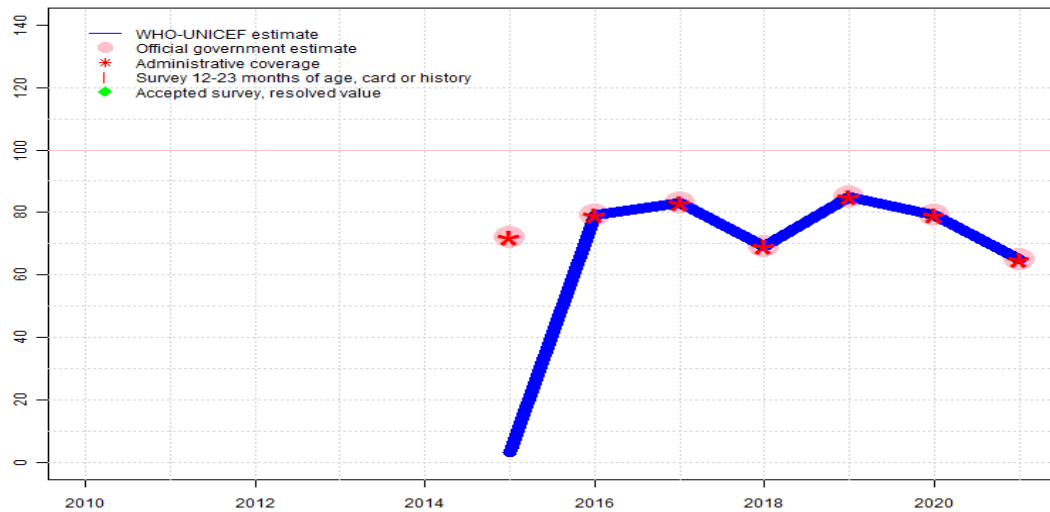
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Description:

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. 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 three month vaccine stock out at national and subnational levels. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. 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. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 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+ 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: 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).

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. 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 two month vaccine stock out at national and subnational levels.. GoC=R+
- 2020: Estimate based on coverage reported by national government. 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. Estimate challenged by: D-
- 2016: Estimate based on coverage reported by national government. Increase due to national roll out. Estimate challenged by: 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-

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | NA | NA | NA | NA | NA | 3 | 79 | 83 | 69 | 85 | 79 | 65 |
| Estimate GoC | NA | NA | NA | NA | NA | • | • | • | •• | •• | •• | •• |
| Official | NA | NA | NA | NA | NA | 72 | 79 | 83 | 69 | 85 | 79 | 65 |
| Administrative | NA | NA | NA | NA | NA | 72 | 79 | 83 | 69 | 85 | 79 | 65 |
| Survey | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

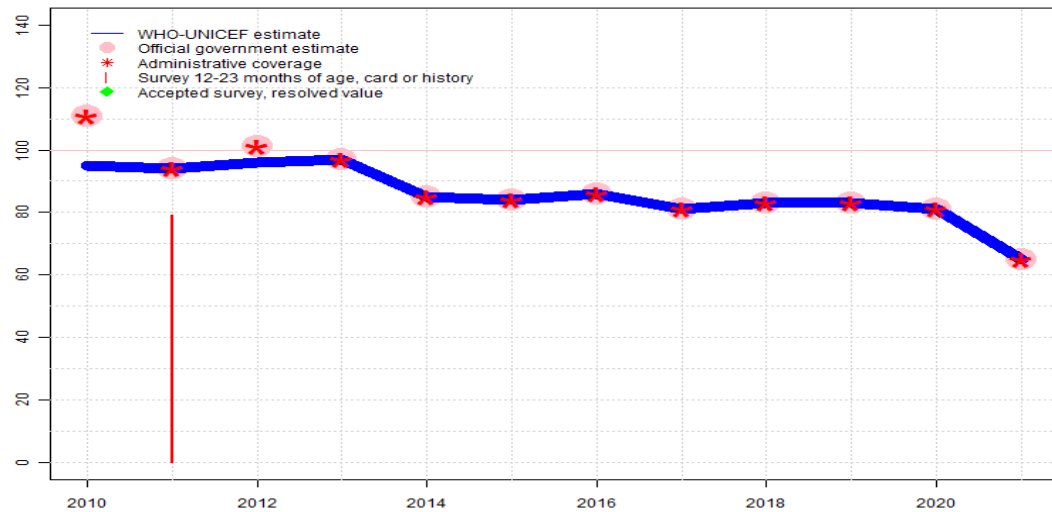
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Ecuador - MCV1

ECU - MCV1



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 95 | 94 | 96 | 97 | 85 | 84 | 86 | 81 | 83 | 83 | 81 | 65 |
| Estimate GoC | •• | • | •• | •• | •• | • | • | •• | • | •• | •• | •• |
| Official | 111 | 94 | 101 | 97 | 85 | 84 | 86 | 81 | 83 | 83 | 81 | 65 |
| Administrative | 111 | 94 | 101 | 97 | 85 | 84 | 86 | 81 | 83 | 83 | 81 | 65 |
| Survey | NA | 79 | 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.

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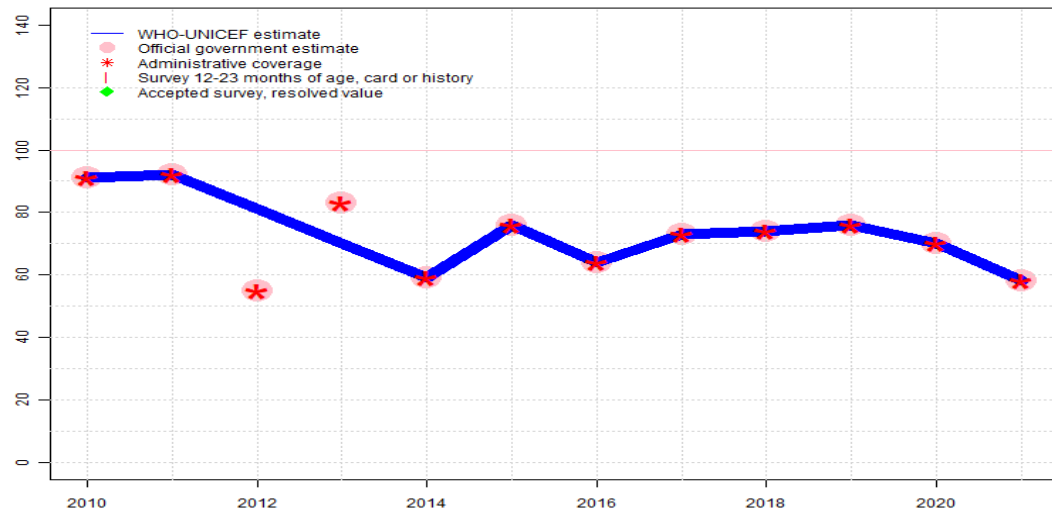
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- 2020: Estimate based on coverage reported by national government. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate based on coverage reported by national government. GoC=R+ D+
- 2018: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: 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. Estimate challenged by: 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+

Ecuador - MCV2

ECU - MCV2



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 91 | 92 | 81 | 70 | 59 | 76 | 64 | 73 | 74 | 76 | 70 | 58 |
| Estimate GoC | • | • | • | • | •• | • | •• | •• | •• | •• | •• | •• |
| Official | 91 | 92 | 55 | 83 | 59 | 76 | 64 | 73 | 74 | 76 | 70 | 58 |
| Administrative | 91 | 92 | 55 | 83 | 59 | 76 | 64 | 73 | 74 | 76 | 70 | 58 |
| 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: 2022 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.

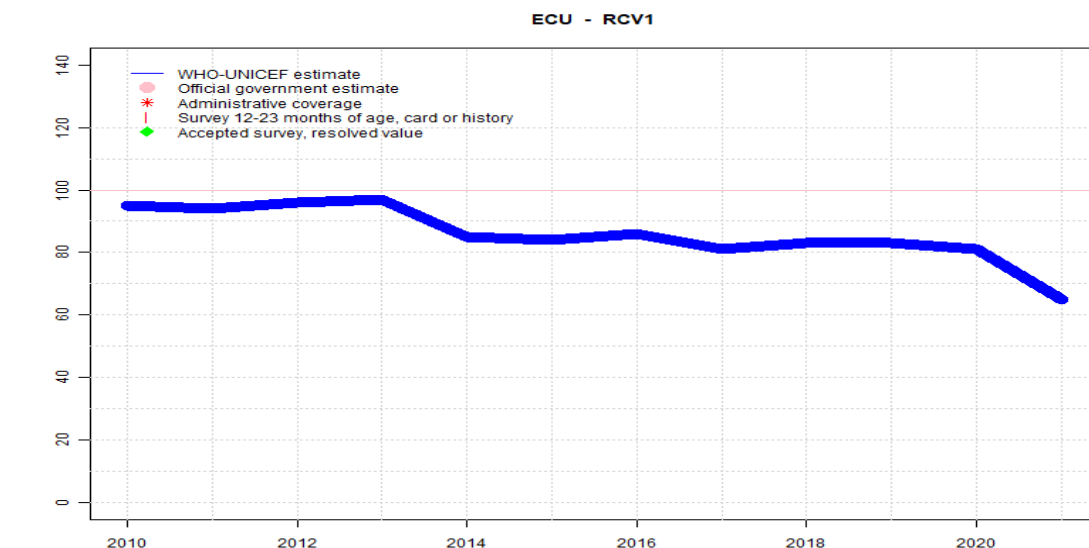
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

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

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. 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 four month vaccine stock out at national and subnational levels. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. 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 Estimate challenged by: 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. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-

Ecuador - RCV1



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 95 | 94 | 96 | 97 | 85 | 84 | 86 | 81 | 83 | 83 | 81 | 65 |
| 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: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

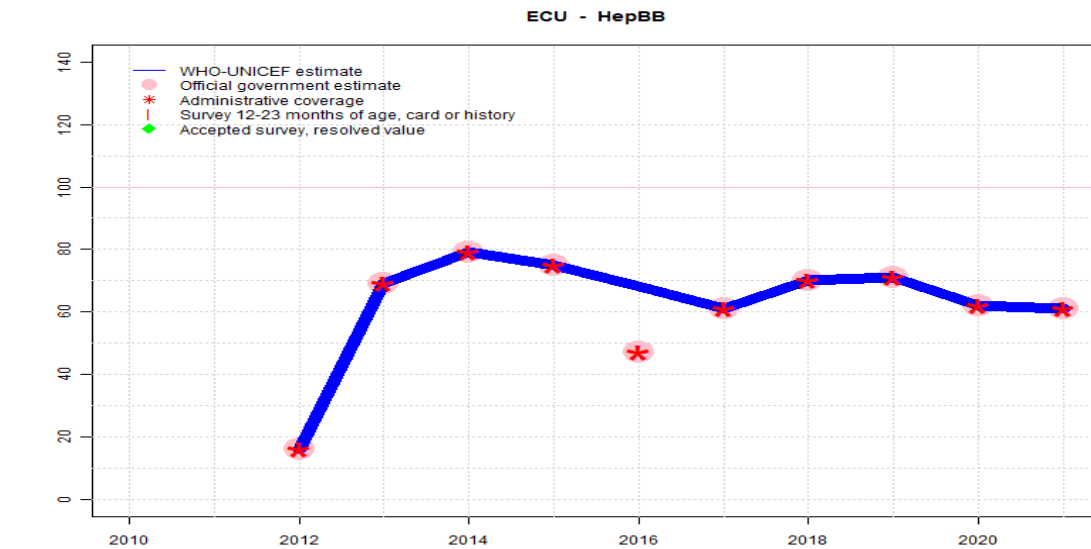
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

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

- 2021: Estimate based on estimated MCV1. Programme reports three month AD syringe stock out at national and subnational levels. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+
- 2020: Estimate based on estimated MCV1. 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. Estimate challenged by: D-
- 2017: Estimate based on estimated MCV1. GoC=R+ D+
- 2016: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2015: Estimate based on estimated MCV1. Estimate challenged by: 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. Estimate challenged by: D-
- 2010: Estimate based on estimated MCV1. GoC=R+ D+

Ecuador - HepBB



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | NA | NA | 16 | 69 | 79 | 75 | 68 | 61 | 70 | 71 | 62 | 61 |
| Estimate GoC | NA | NA | ●● | ●● | ●● | ●● | ● | ●● | ●● | ●● | ●● | ●● |
| Official | NA | NA | 16 | 69 | 79 | 75 | 47 | 61 | 70 | 71 | 62 | 61 |
| Administrative | NA | NA | 16 | 69 | 79 | 75 | 47 | 61 | 70 | 71 | 62 | 61 |
| 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: 2022 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.

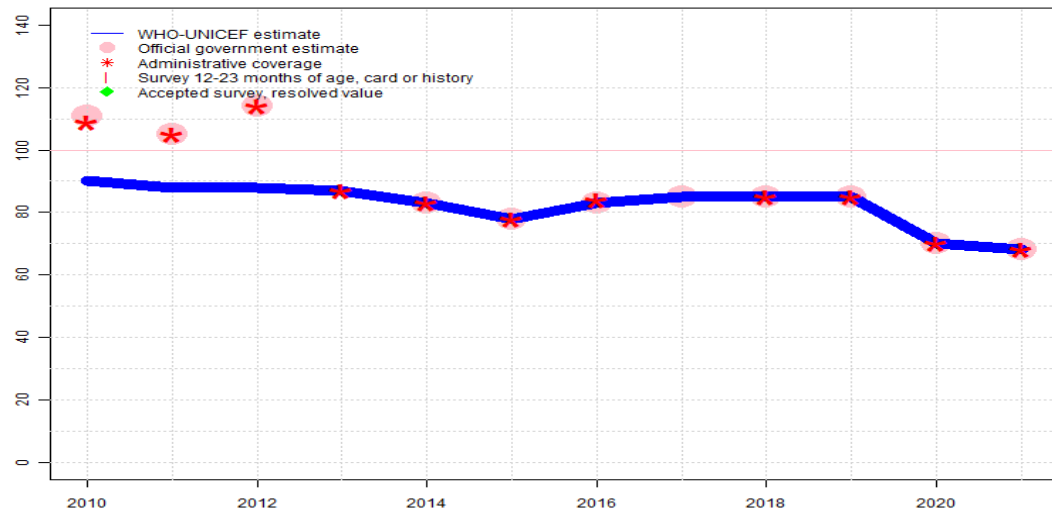
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. 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+

Ecuador - HepB3

ECU - HepB3



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 90 | 88 | 88 | 87 | 83 | 78 | 83 | 85 | 85 | 85 | 70 | 68 |
| Estimate GoC | • | • | • | •• | •• | •• | • | •• | • | •• | •• | •• |
| Official | 111 | 105 | 114 | NA | 83 | 78 | 83 | 85 | 85 | 85 | 70 | 68 |
| Administrative | 109 | 105 | 114 | 87 | 83 | 78 | 84 | NA | 85 | 85 | 70 | 68 |
| 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: 2022 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.

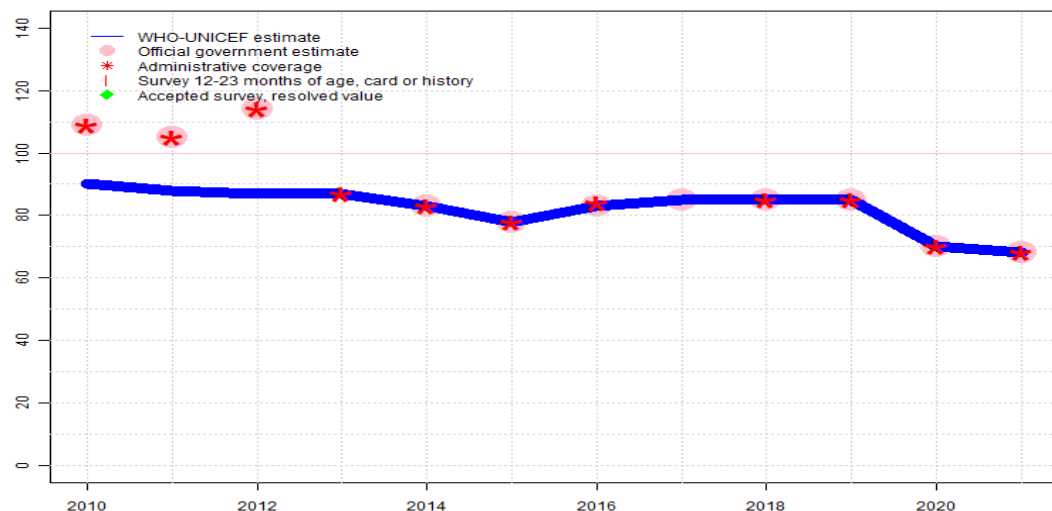
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. 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 three month vaccine stock out at national and subnational levels. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. 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. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. GoC=R+
- 2016: Estimate based on coverage reported by national government. Estimate challenged by: 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 111 percent greater than 100 percent. Estimate challenged by: R-

Ecuador - Hib3

ECU - Hib3



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 90 | 88 | 87 | 87 | 83 | 78 | 83 | 85 | 85 | 85 | 70 | 68 |
| Estimate GoC | • | • | • | •• | •• | •• | • | •• | • | •• | •• | •• |
| Official | 109 | 105 | 114 | NA | 83 | 78 | 83 | 85 | 85 | 85 | 70 | 68 |
| Administrative | 109 | 105 | 114 | 87 | 83 | 78 | 84 | NA | 85 | 85 | 70 | 68 |
| 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.

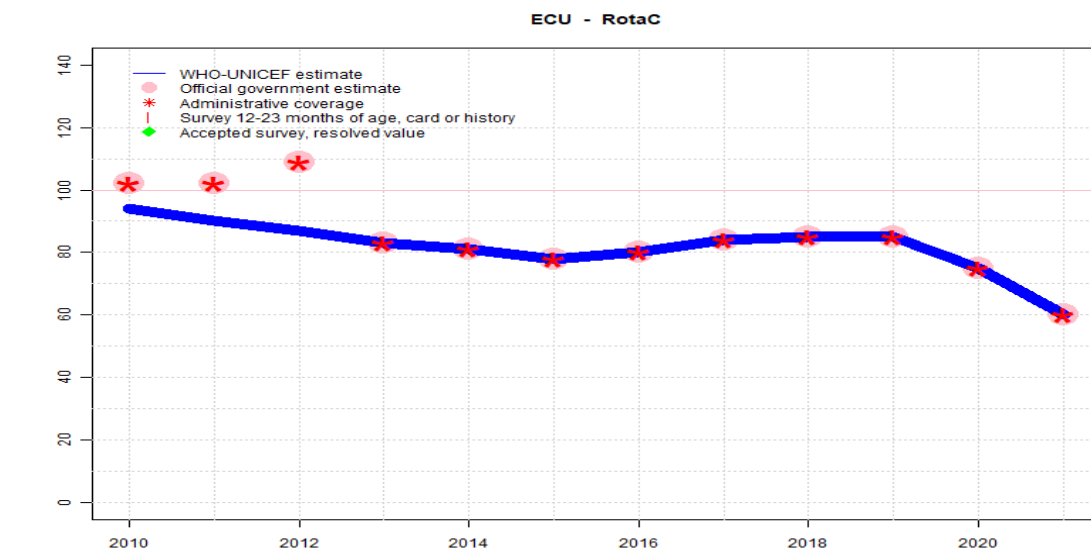
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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:

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. 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 three month vaccine stock out at national and subnational levels. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. 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. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. GoC=R+
- 2016: Estimate based on coverage reported by national government. Estimate challenged by: 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-

Ecuador - RotaC



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 94 | 90 | 87 | 83 | 81 | 78 | 80 | 84 | 85 | 85 | 75 | 60 |
| Estimate GoC | •• | •• | •• | •• | •• | • | • | • | • | •• | •• | •• |
| Official | 102 | 102 | 109 | 83 | 81 | 78 | 80 | 84 | 85 | 85 | 75 | 60 |
| Administrative | 102 | 102 | 109 | 83 | 81 | 78 | 80 | 84 | 85 | 85 | 75 | 60 |
| 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: 2022 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.

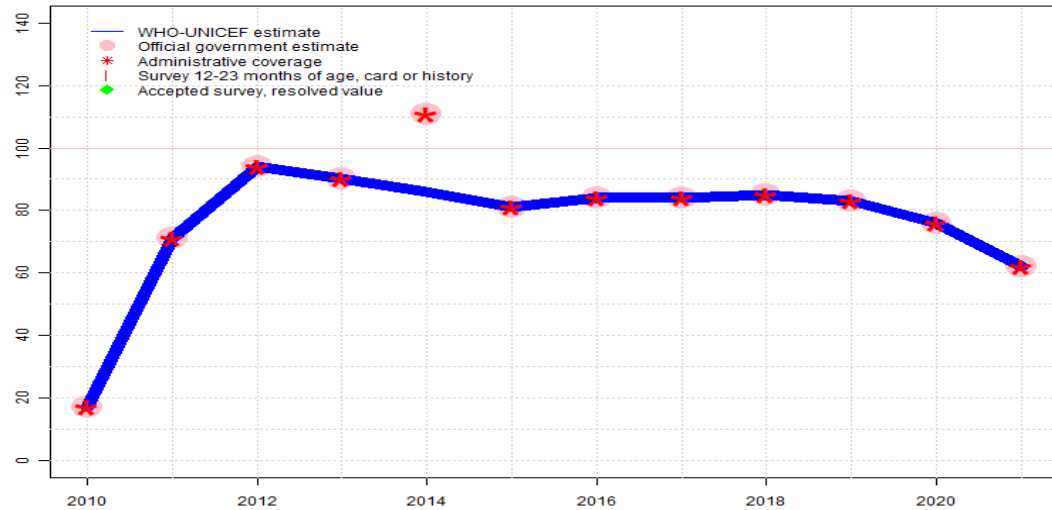
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. 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 four month vaccine stock out at national and subnational levels. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. 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. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2016: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: 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+

Ecuador - PcV3

ECU - PcV3



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 17 | 71 | 94 | 90 | 86 | 81 | 84 | 84 | 85 | 83 | 76 | 62 |
| Estimate GoC | •• | •• | •• | •• | • | •• | • | • | • | •• | •• | •• |
| Official | 17 | 71 | 94 | 90 | 111 | 81 | 84 | 84 | 85 | 83 | 76 | 62 |
| Administrative | 17 | 71 | 94 | 90 | 111 | 81 | 84 | 84 | 85 | 83 | 76 | 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: 2022 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.

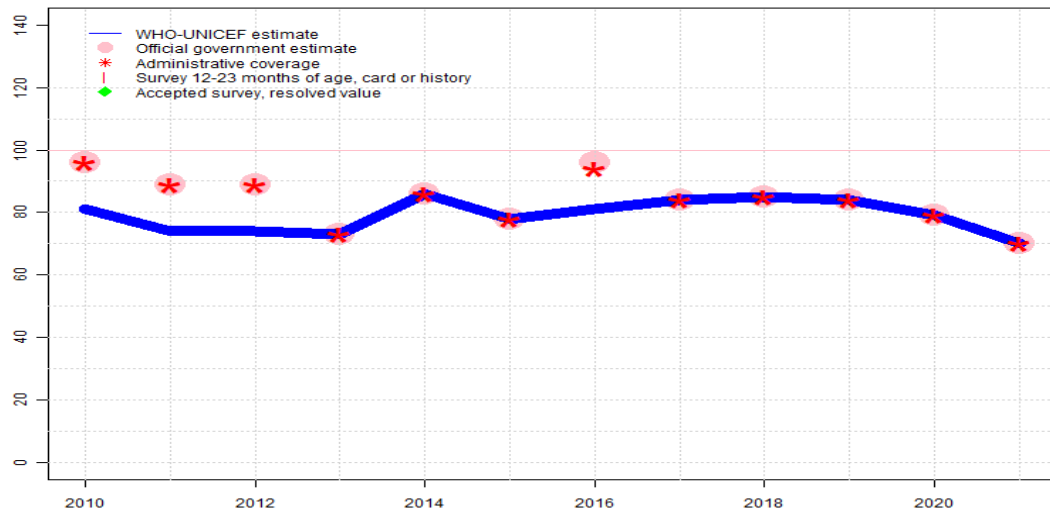
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. 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 three month vaccine stock out at national and subnational levels. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. 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. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2016: Estimate based on coverage reported by national government. Estimate challenged by: 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



| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate | 81 | 74 | 74 | 73 | 86 | 78 | 81 | 84 | 85 | 84 | 79 | 70 |
| Estimate GoC | • | • | • | •• | •• | •• | • | • | • | •• | •• | •• |
| Official | 96 | 89 | 89 | 73 | 86 | 78 | 96 | 84 | 85 | 84 | 79 | 70 |
| Administrative | 96 | 89 | 89 | 73 | 86 | 78 | 94 | 84 | 85 | 84 | 79 | 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: 2022 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:

- 2021: Estimate based on coverage reported by national government. Programme reports three month AD syringe stock out at national and subnational levels. 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 two month vaccine stock out at national and subnational levels. GoC=R+ D+
- 2020: Estimate based on coverage reported by national government. 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. Estimate challenged by: D-
- 2017: Estimate based on coverage reported by national government. Estimate challenged by: 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-

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 |

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 |

| | | | | | |
|------|-------------------|------|---------|-----|----|
| 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 |

1998 República del Ecuador, Encuesta Demográfica y de Salud Materna e Infantil Endemain-99

| 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:
<https://data.unicef.org/topic/child-health/immunization/>
<https://immunizationdata.who.int/listing.html>