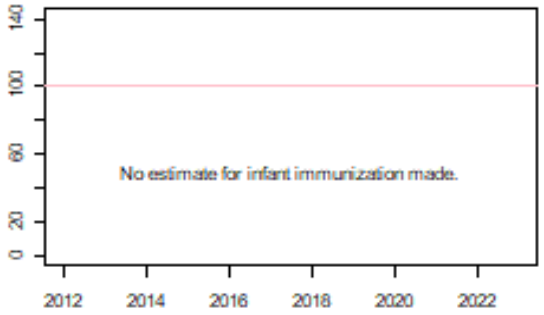
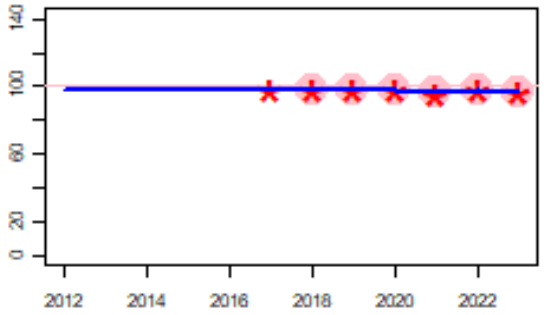
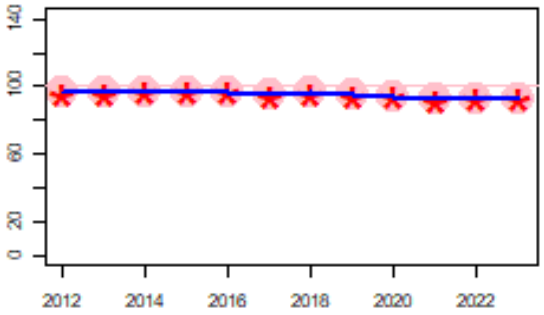
BCG



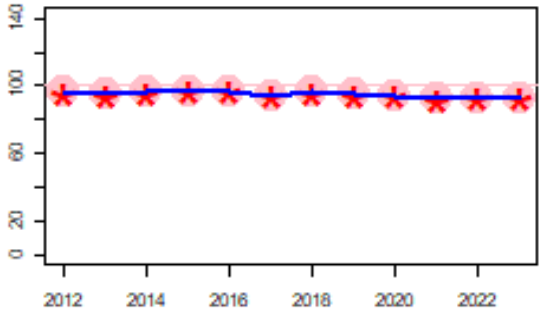
DTP1



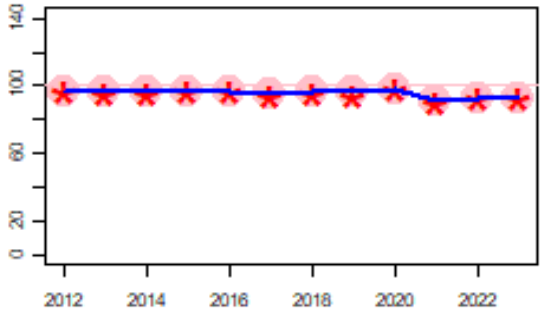
DTP3



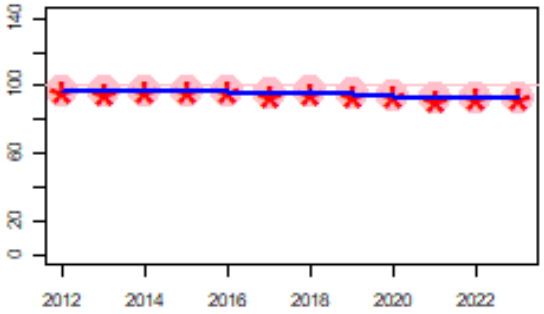
HepB3



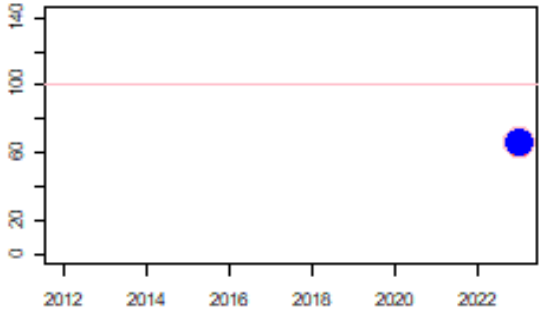
Hib3



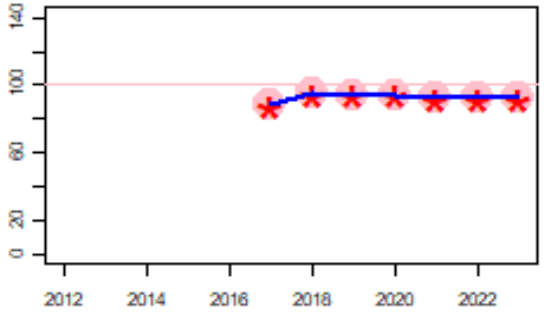
Pol3



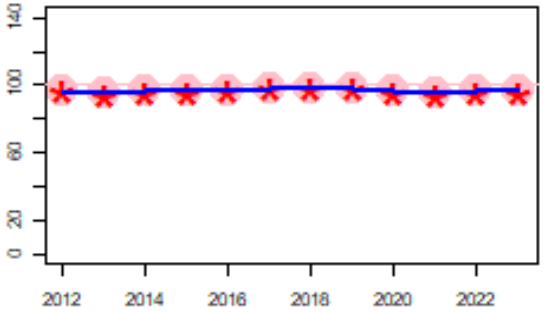
RotaC



PcV3



MCV1



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 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 available empirical data accurately reflect immunization system performance and those where the data are likely compromised and present a misleading view of coverage.

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. Bull World Health Organ.
*Burton et al. 2012. PLoS One.
*Danovaro-Holliday et al. 2021. Gates Open Res.

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 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 data collection period.

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. For countries utilizing IPV containing vaccine only, i.e., no recommended dose of OPV, 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.

IPV2: percentage of surviving infants who received a 2nd dose of inactivated polio vaccine. IPV2 coverage estimates produced for OPV using countries.

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

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

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

HepBB: percentage of births which received a dose of hepatitis B vaccine within 24 hours of delivery. Estimates of hepatitis B birth dose coverage are 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.

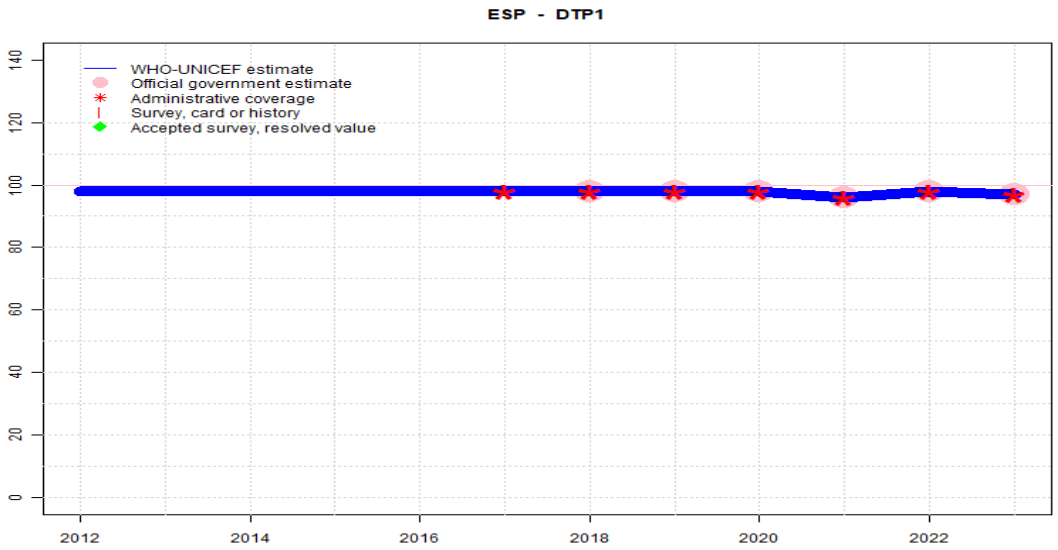
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

MengA: percentage of children who received one dose of meningococcal A conjugate vaccine. MengA coverage estimates produced for countries in the meningitis belt of sub-Saharan Africa.

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Spain - DTP1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	98	98	98	98	98	98	98	98	98	96	98	97
Estimate GoC	•	•	•	•	•	••	••	••	••	••	••	••
Official	NA	NA	NA	NA	NA	NA	98	98	98	96	98	97
Administrative	NA	NA	NA	NA	NA	98	98	98	98	96	98	97
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:

2023: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. GoC=R+ D+

2022: Estimate informed by reported data. GoC=R+ D+

2021: Estimate informed by reported data. Reported data for 2021 are preliminary. Efforts are ongoing at regional levels to implement catch-up activities for children not vaccinated due to the COVID-19 pandemic. The reported target population of infants has declined about 18 percent between 2019 and 2021. GoC=R+ D+

2020: Estimate informed by reported data. Serosurvey 2017-2018 (Rev Esp Salud Pública. 2021. Vol. 95. March 18th e1-5) includes estimated prevalence for some vaccine-preventable diseases, however, the report presents data in a format that does not allow obtaining coverage levels by single year age cohorts. GoC=R+ D+

2019: Estimate informed by reported data. Reported data based on provisional information and incomplete reporting. Data are available online at https://www.mscbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/. Reported coverage reflects the 2nd dose as the programme does not monitor 1st dose coverage. GoC=R+ D+

2018: Estimate informed by reported data. Reported coverage reflects the 2nd dose as the programme does not monitor 1st dose coverage. GoC=R+ D+

2017: Estimate informed by reported administrative data. Schedule change in 2017 from DTaP-IPV-Hib-HepB recommended at 2-4-6 months to 2-4-11 months. Reported coverage reflects the 2nd dose as the programme does not monitor 1st dose coverage. GoC=R+ D+

2016: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

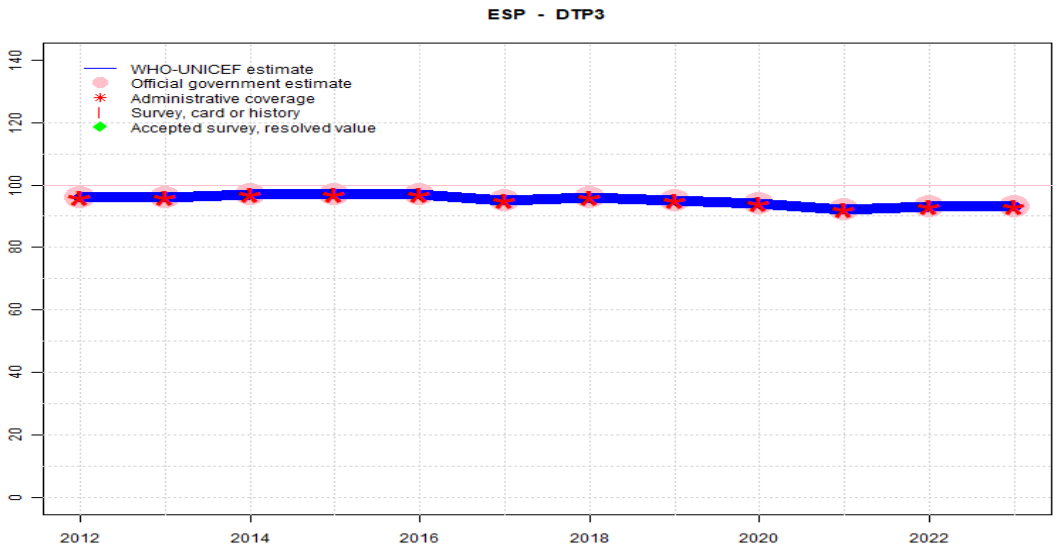
2015: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

2014: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

2013: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

2012: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

Spain - DTP3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	96	96	97	97	97	95	96	95	94	92	93	93
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	••
Official	96	96	97	97	97	95	96	95	94	92	93	93
Administrative	96	96	97	97	97	95	96	95	94	92	93	93
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.

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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:

2023: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. GoC=R+ D+

2022: Estimate informed by reported data. GoC=R+ D+

2021: Estimate informed by reported data. Reported data for 2021 are preliminary. Efforts are ongoing at regional levels to implement catch-up activities for children not vaccinated due to the COVID-19 pandemic. The reported target population of infants has declined about 18 percent between 2019 and 2021. GoC=R+ D+

2020: Estimate informed by reported data. Serosurvey 2017-2018 (Rev Esp Salud Pública. 2021. Vol. 95. March 18th e1-5) includes estimated prevalence for some vaccine-preventable diseases, however, the report presents data in a format that does not allow obtaining coverage levels by single year age cohorts. GoC=R+ D+

2019: Estimate informed by reported data. Reported data based on provisional information and incomplete reporting. Data are available online at https://www.mscbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+ D+

2018: Estimate informed by reported data. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+ D+

2017: Estimate informed by reported data. Schedule change in 2017 from DTaP-IPV-Hib-HepB recommended at 2-4-6 months to 2-4-11 months. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+ D+

2016: Estimate informed by reported data. GoC=R+ D+

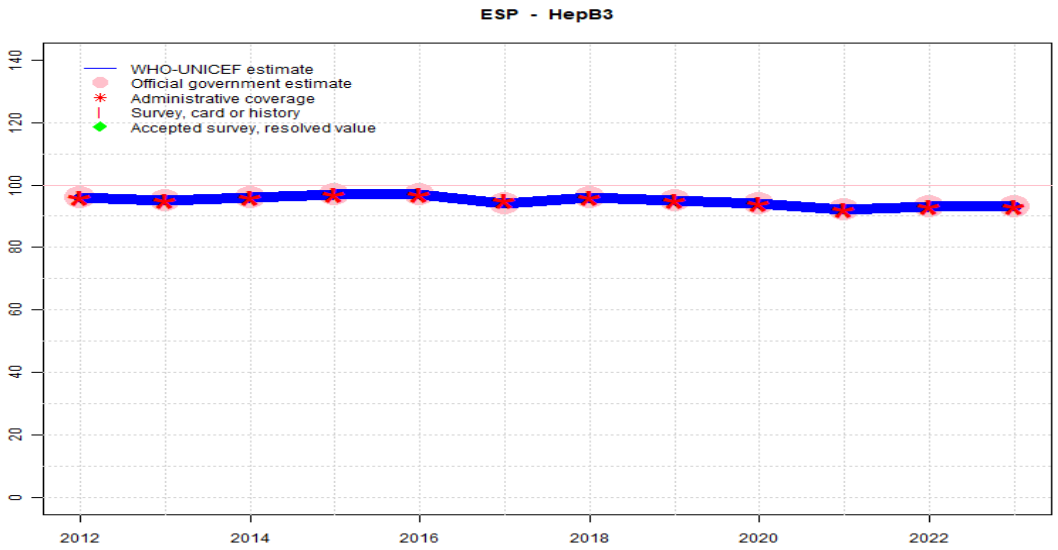
2015: Estimate informed by reported data. GoC=R+ D+

2014: Estimate informed by reported data. GoC=R+ D+

2013: Estimate informed by reported data. GoC=R+ D+

2012: Estimate informed by reported data. GoC=R+ D+

Spain - HepB3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	96	95	96	97	97	94	96	95	94	92	93	93
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●
Official	96	95	96	97	97	94	96	95	94	92	93	93
Administrative	96	95	96	97	97	95	96	95	94	92	93	93
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.

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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:

2023: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. GoC=R+ D+

2022: Estimate informed by reported data. GoC=R+ D+

2021: Estimate informed by reported data. Reported data for 2021 are preliminary. Efforts are ongoing at regional levels to implement catch-up activities for children not vaccinated due to the COVID-19 pandemic. The reported target population of infants has declined about 18 percent between 2019 and 2021. GoC=R+ D+

2020: Estimate informed by reported data. Serosurvey 2017-2018 (Rev Esp Salud Pública. 2021. Vol. 95. March 18th e1-5) includes estimated prevalence for some vaccine-preventable diseases, however, the report presents data in a format that does not allow obtaining coverage levels by single year age cohorts. GoC=R+ D+

2019: Estimate informed by reported data. Reported data based on provisional information and incomplete reporting. Data are available online at https://www.mscbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+ D+

2018: Estimate informed by reported data. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+ D+

2017: Estimate informed by reported data. Programme reports ten months vaccine stockout. Schedule change in 2017 from DTaP-IPV-Hib-HepB recommended at 2-4-6 months to 2-4-11 months. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+ D+

2016: Estimate informed by reported data. GoC=R+ D+

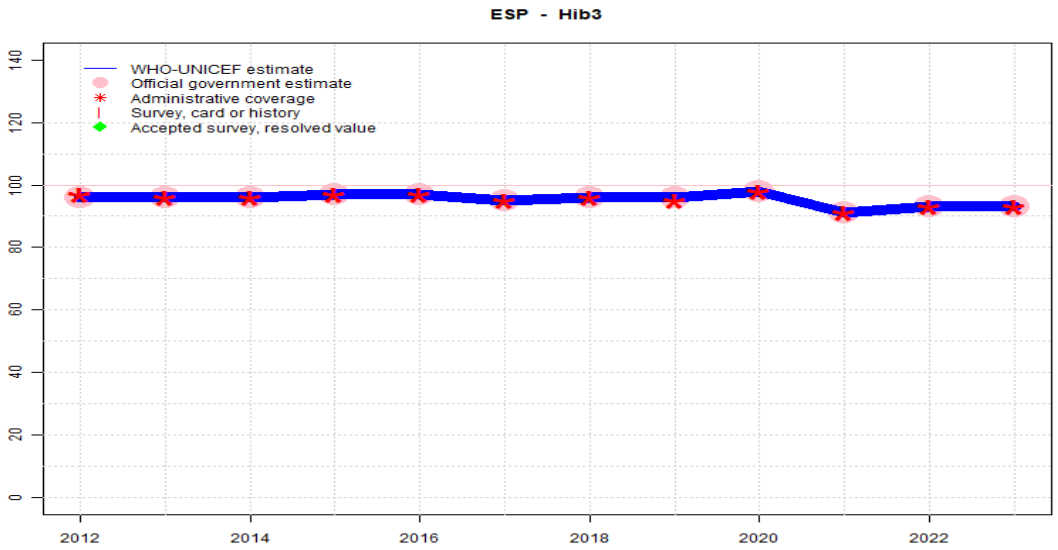
2015: Estimate informed by reported data. GoC=R+ D+

2014: Estimate informed by reported data. GoC=R+ D+

2013: Estimate informed by reported data. GoC=R+ D+

2012: Estimate informed by reported data. GoC=R+ D+

Spain - Hib3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	96	96	96	97	97	95	96	96	98	91	93	93
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●
Official	96	96	96	97	97	95	96	96	98	91	93	93
Administrative	97	96	96	97	97	95	96	95	98	91	93	93
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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Description:

2023: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. GoC=R+ D+

2022: Estimate informed by reported data. GoC=R+ D+

2021: Estimate informed by reported data. Reported data for 2021 are preliminary. Efforts are ongoing at regional levels to implement catch-up activities for children not vaccinated due to the COVID-19 pandemic. The reported target population of infants has declined about 18 percent between 2019 and 2021. GoC=R+ D+

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2018: Estimate informed by reported data. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+ D+

2017: Estimate informed by reported data. Schedule change in 2017 from DTaP-IPV-Hib-HepB recommended at 2-4-6 months to 2-4-11 months. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+ D+

2016: Estimate informed by reported data. GoC=R+ D+

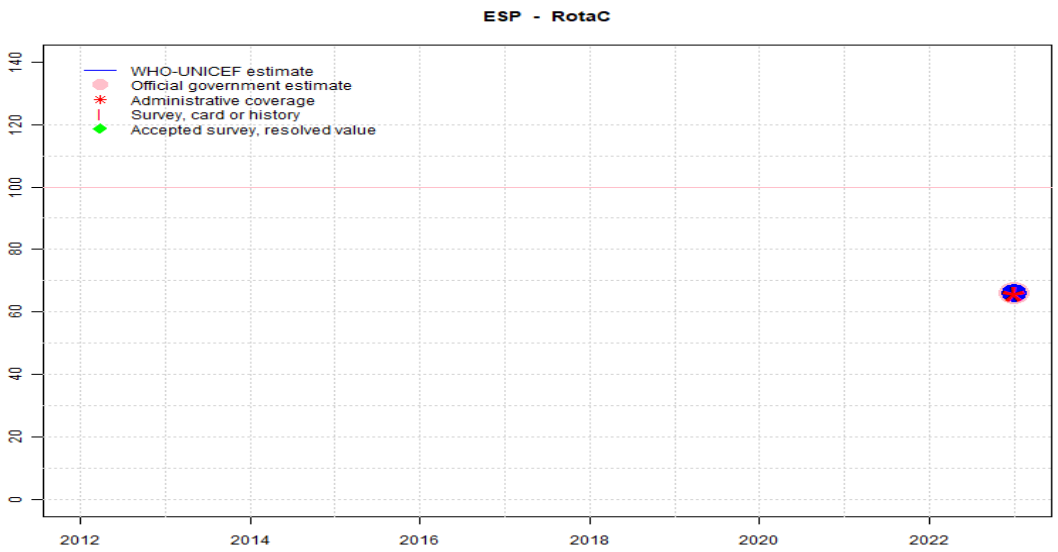
2015: Estimate informed by reported data. GoC=R+ D+

2014: Estimate informed by reported data. GoC=R+ D+

2013: Estimate informed by reported data. GoC=R+ D+

2012: Estimate informed by reported data. GoC=R+ D+

Spain - RotaC



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	66
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	66
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	66
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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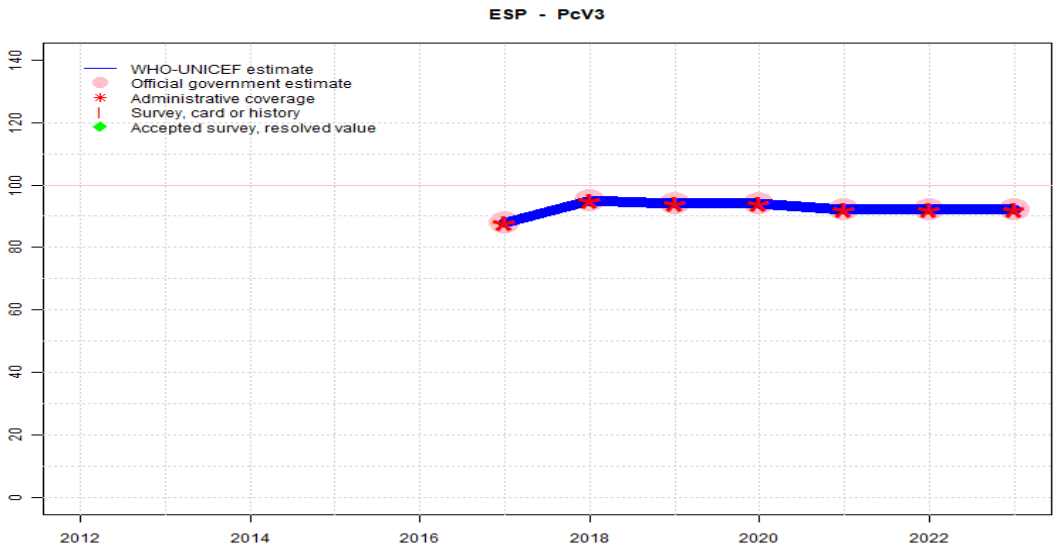
● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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:

2023: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Rotavirus vaccine introduced in 2023. Schedule indicates target is children at-risk, reported denominator includes the entire cohort of surviving infants for 2023. GoC=R+ D+

Spain - PcV3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	NA	NA	88	95	94	94	92	92	92
Estimate GoC	NA	NA	NA	NA	NA	●●	●●	●●	●●	●●	●●	●●
Official	NA	NA	NA	NA	NA	88	95	94	94	92	92	92
Administrative	NA	NA	NA	NA	NA	88	95	94	94	92	92	92
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:

2023: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. GoC=R+ D+

2022: Estimate informed by reported data. GoC=R+ D+

2021: Estimate informed by reported data. Reported data for 2021 are preliminary. Efforts are ongoing at regional levels to implement catch-up activities for children not vaccinated due to the COVID-19 pandemic. The reported target population of infants has declined about 18 percent between 2019 and 2021. GoC=R+ D+

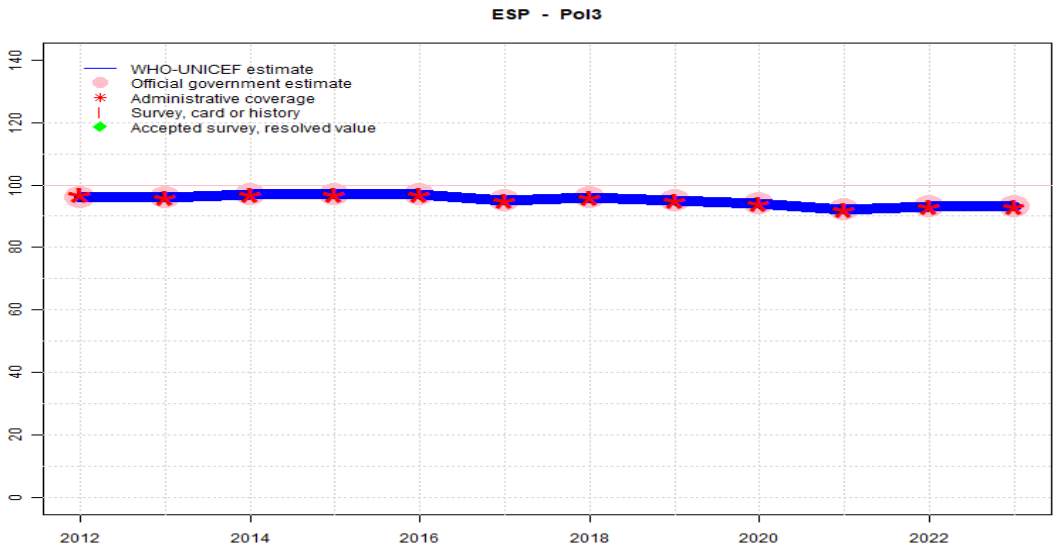
2020: Estimate informed by reported data. Serosurvey 2017-2018 (Rev Esp Salud Pública. 2021. Vol. 95. March 18th e1-5) includes estimated prevalence for some vaccine-preventable diseases, however, the report presents data in a format that does not allow obtaining coverage levels by single year age cohorts. GoC=R+ D+

2019: Estimate informed by reported data. Reported data based on provisional information and incomplete reporting. Data are available online at https://www.mscbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/. GoC=R+ D+

2018: Estimate informed by reported data. GoC=R+ D+

2017: Estimate informed by reported data. Pneumococcal conjugate vaccine introduced in 2017. GoC=R+ D+

Spain - Pol3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	96	96	97	97	97	95	96	95	94	92	93	93
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	••
Official	96	96	97	97	97	95	96	95	94	92	93	93
Administrative	97	96	97	97	97	95	96	95	94	92	93	93
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:

2023: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. GoC=R+ D+

2022: Estimate informed by reported data. GoC=R+ D+

2021: Estimate informed by reported data. Reported data for 2021 are preliminary. Efforts are ongoing at regional levels to implement catch-up activities for children not vaccinated due to the COVID-19 pandemic. The reported target population of infants has declined about 18 percent between 2019 and 2021. GoC=R+ D+

2020: Estimate informed by reported data. Serosurvey 2017-2018 (Rev Esp Salud Pública. 2021. Vol. 95. March 18th e1-5) includes estimated prevalence for some vaccine-preventable diseases, however, the report presents data in a format that does not allow obtaining coverage levels by single year age cohorts. GoC=R+ D+

2019: Estimate informed by reported data. Reported data based on provisional information and incomplete reporting. Data are available online at https://www.mscbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+ D+

2018: Estimate informed by reported data. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+

2017: Estimate informed by reported data. Schedule change in 2017 from DTaP-IPV-Hib-HepB recommended at 2-4-6 months to 2-4-11 months. Reported coverage reflects the 1st booster dose recommended at 11 months. GoC=R+ D+

2016: Estimate informed by reported data. GoC=R+ D+

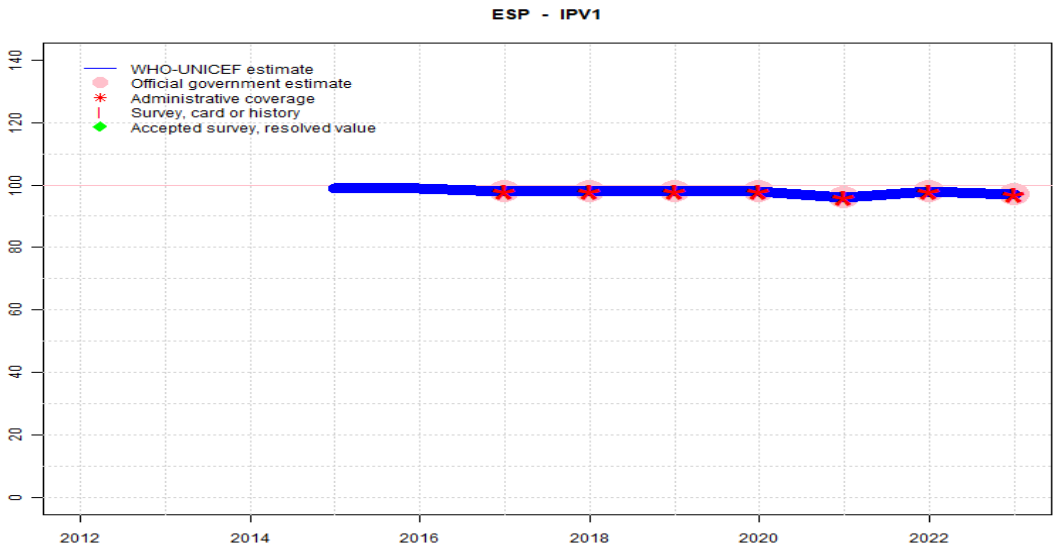
2015: Estimate informed by reported data. GoC=R+ D+

2014: Estimate informed by reported data. GoC=R+ D+

2013: Estimate informed by reported data. GoC=R+ D+

2012: Estimate informed by reported data. GoC=R+ D+

Spain - IPV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	99	99	98	98	98	98	96	98	97
Estimate GoC	NA	NA	NA	•	•	••	••	••	••	••	••	••
Official	NA	NA	NA	NA	NA	98	98	98	98	96	98	97
Administrative	NA	NA	NA	NA	NA	98	98	98	98	96	98	97
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:

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).

2023: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. GoC=R+ D+

2022: Estimate informed by reported data. GoC=R+ D+

2021: Estimate informed by reported data. Reported data for 2021 are preliminary. Efforts are ongoing at regional levels to implement catch-up activities for children not vaccinated due to the COVID-19 pandemic. The reported target population of infants has declined about 18 percent between 2019 and 2021. GoC=R+ D+

2020: Estimate informed by reported data. Serosurvey 2017-2018 (Rev Esp Salud Pública. 2021. Vol. 95. March 18th e1-5) includes estimated prevalence for some vaccine-preventable diseases, however, the report presents data in a format that does not allow obtaining coverage levels by single year age cohorts. GoC=R+ D+

2019: Estimate informed by reported data. Reported data based on provisional information and incomplete reporting. Data are available online at https://www.mscbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/. Reported coverage reflects the 2nd dose as the programme does not monitor 1st dose coverage. GoC=R+ D+

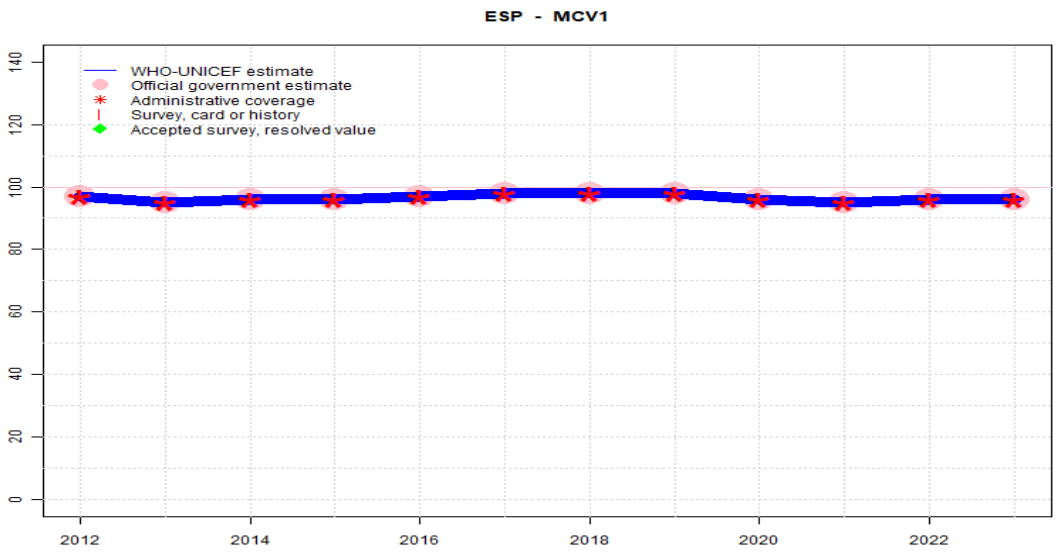
2018: Estimate informed by reported data. Reported coverage reflects the 2nd dose as the programme does not monitor 1st dose coverage. GoC=R+ D+

2017: Estimate informed by reported data. Schedule change in 2017 from DTaP-IPV-Hib-HepB recommended at 2-4-6 months to 2-4-11 months. Reported coverage reflects the 2nd dose as the programme does not monitor 1st dose coverage. GoC=R+ D+

2016: Estimate based on estimated DTP1 coverage. GoC=No accepted empirical data

2015: Estimate based on estimated DTP1 coverage. Inactivated polio vaccine (IPV) introduced prior to 2015. GoC=No accepted empirical data

Spain - MCV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	97	95	96	96	97	98	98	98	96	95	96	96
Estimate GoC	●●	●●	●●	●●	●●	●●	●	●	●●	●●	●●	●●
Official	97	95	96	96	97	98	98	98	96	95	96	96
Administrative	97	95	96	96	97	98	98	98	96	95	96	96
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:

2023: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. GoC=R+ D+

2022: Estimate informed by reported data. GoC=R+ D+

2021: Estimate informed by reported data. Reported data for 2021 are preliminary. Efforts are ongoing at regional levels to implement catch-up activities for children not vaccinated due to the COVID-19 pandemic. The reported target population of infants has declined about 18 percent between 2019 and 2021. GoC=R+ D+

2020: Estimate informed by reported data. Serosurvey 2017-2018 (Rev Esp Salud Pública. 2021. Vol. 95. March 18th e1-5) includes estimated prevalence for some vaccine-preventable diseases, however, the report presents data in a format that does not allow obtaining coverage levels by single year age cohorts. GoC=R+ D+

2019: Estimate informed by reported data. Reported data based on provisional information and incomplete reporting. Data are available online at https://www.mscbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/. Estimate challenged by: D-

2018: Estimate informed by reported data. Estimate challenged by: D-

2017: Estimate informed by reported data. GoC=R+ D+

2016: Estimate informed by reported data. GoC=R+ D+

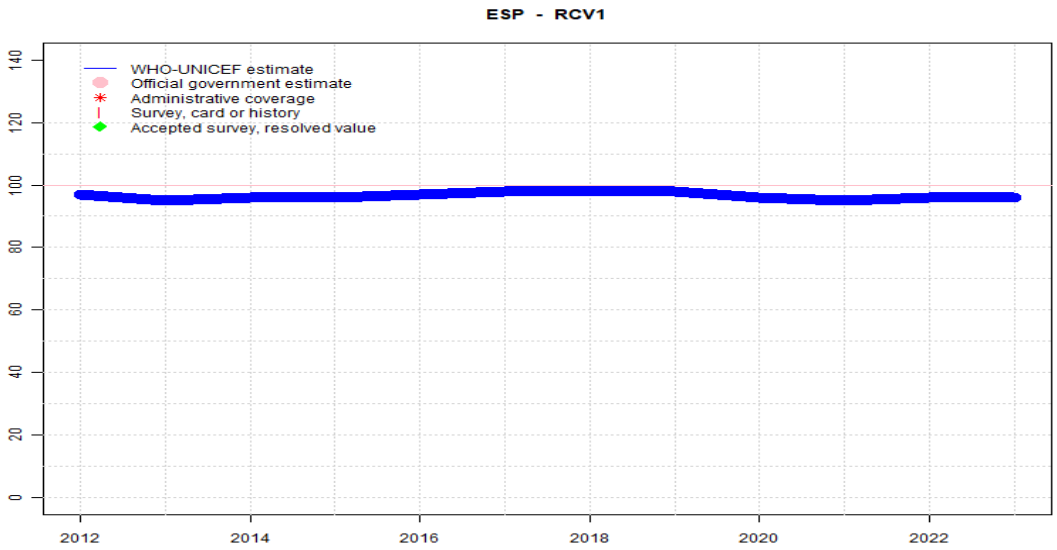
2015: Estimate informed by reported data. GoC=R+ D+

2014: Estimate informed by reported data. GoC=R+ D+

2013: Estimate informed by reported data. GoC=R+ D+

2012: Estimate informed by reported data. GoC=R+ D+

Spain - RCV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	97	95	96	96	97	98	98	98	96	95	96	96
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.

2023: Estimate based on estimated MCV1. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. GoC=R+ D+

2022: Estimate based on estimated MCV1. GoC=R+ D+

2021: Estimate based on estimated MCV1. Reported data for 2021 are preliminary. Efforts are ongoing at regional levels to implement catch-up activities for children not vaccinated due to the COVID-19 pandemic. The reported target population of infants has declined about 18 percent between 2019 and 2021. GoC=R+ D+

2020: Estimate based on estimated MCV1. Serosurvey 2017-2018 (Rev Esp Salud Pública. 2021. Vol. 95. March 18th e1-5) includes estimated prevalence for some vaccine-preventable diseases, however, the report presents data in a format that does not allow obtaining coverage levels by single year age cohorts. GoC=R+ D+

2019: Estimate based on estimated MCV1. Reported data based on provisional information and incomplete reporting. Data are available online at https://www.mscbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/. Estimate challenged by: 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. GoC=R+ D+

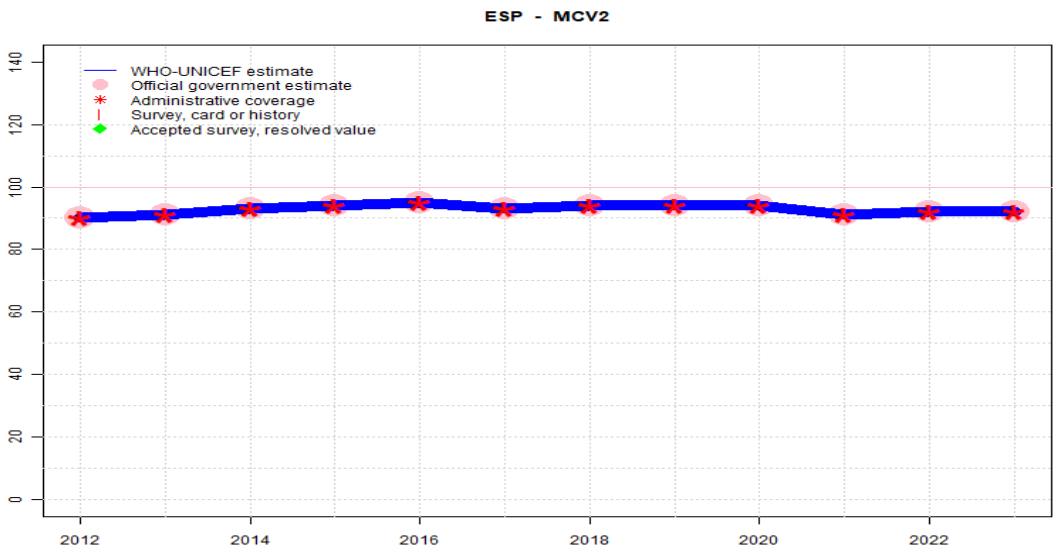
2015: Estimate based on estimated MCV1. GoC=R+ D+

2014: Estimate based on estimated MCV1. GoC=R+ D+

2013: Estimate based on estimated MCV1. GoC=R+ D+

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

Spain - MCV2



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	90	91	93	94	95	93	94	94	94	91	92	92
Estimate GoC	●●	●	●	●	●●	●	●	●	●	●	●	●
Official	90	91	93	94	95	93	94	94	94	91	92	92
Administrative	90	91	93	94	95	93	94	94	94	91	92	92
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.

2023: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Estimate challenged by: D-

2022: Estimate informed by reported data. Estimate challenged by: D-

2021: Estimate informed by reported data. Reported data for 2021 are preliminary. Efforts are ongoing at regional levels to implement catch-up activities for children not vaccinated due to the COVID-19 pandemic. The reported target population of infants has declined about 18 percent between 2019 and 2021. Estimate challenged by: D-

2020: Estimate informed by reported data. Serosurvey 2017-2018 (Rev Esp Salud Pública. 2021. Vol. 95. March 18th e1-5) includes estimated prevalence for some vaccine-preventable diseases, however, the report presents data in a format that does not allow obtaining coverage levels by single year age cohorts. Estimate challenged by: D-

2019: Estimate informed by reported data. Reported data based on provisional information and incomplete reporting. Data are available online at https://www.mscbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/. Estimate challenged by: D-

2018: Estimate informed by reported data. Estimate challenged by: D-

2017: Estimate informed by reported data. Estimate challenged by: D-

2016: Estimate informed by reported data. GoC=R+ D+

2015: Estimate informed by reported data. Estimate challenged by: D-

2014: Estimate informed by reported data. Estimate challenged by: D-

2013: Estimate informed by reported data. Estimate challenged by: D-

2012: Estimate informed by reported data. GoC=R+ D+

Further information and estimates for previous years are available at:
https://data.unicef.org/topic/child-health/immunization/
https://immunizationdata.who.int/listing.html