

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.

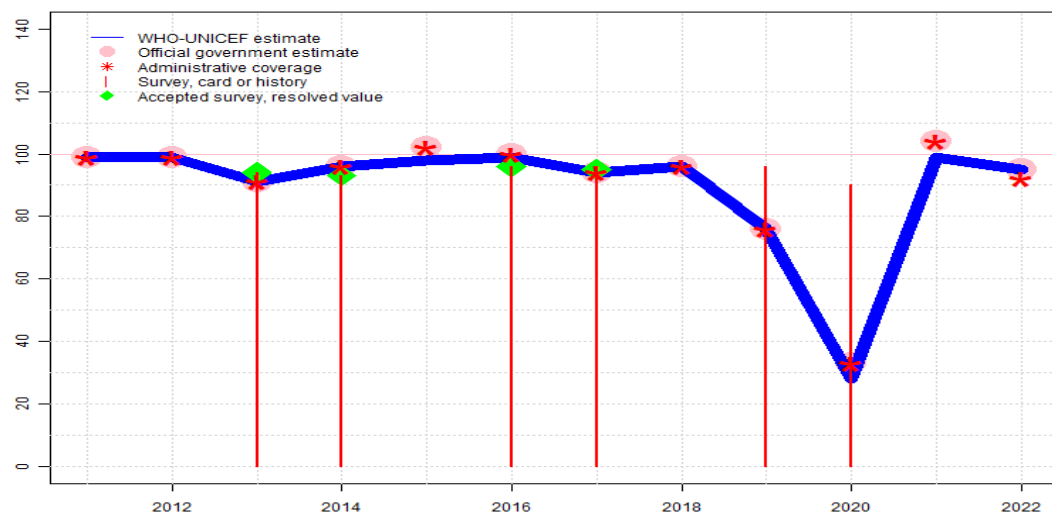
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

MEX - BCG



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	99	99	91	96	98	99	94	96	76	28	99	95
Estimate GoC	•	•	•••	•••	•••	•••	•••	•••	•	•	•	••
Official	99	99	91	96	102	100	94	96	76	33	104	95
Administrative	99	99	91	96	102	100	94	96	76	33	104	92
Survey	NA	NA	94	93	NA	96	95	NA	96	90	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.

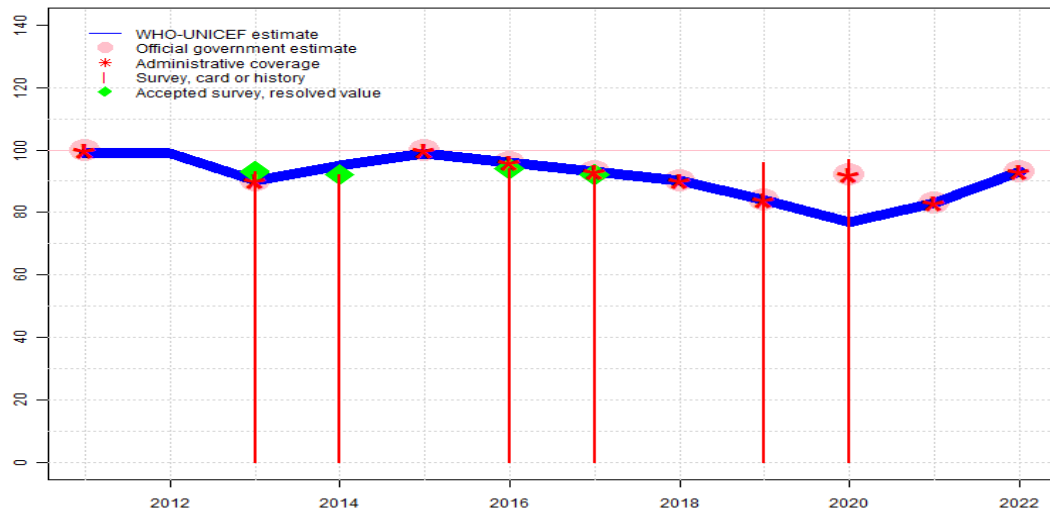
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. GoC=R+ D+
- 2021: Estimate informed by reported data. Estimated coverage may be an overestimate as reported coverage appears to include doses administered during catch-up activities. Estimate challenged by: D-
- 2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results for cohort are inconsistent with those for prior year cohort and with declines in reported doses administered, likely due to the timing of the field work. Reported data excluded due to decline in reported coverage from 76 percent to 33 percent with increase to 104 percent. Estimate challenged by: R-
- 2019: Estimate informed by reported data. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results appear to have missed the impacts of the reported vaccine stockout. Programme reports a 12 month national level vaccine stockout. Estimate challenged by: S-
- 2018: Estimate informed by reported data. GoC=R+ S+ D+
- 2017: Estimate informed by reported data supported by survey. Survey evidence of 95 percent based on 1 survey(s). GoC=R+ S+ D+
- 2016: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). GoC=R+ S+ D+
- 2015: Estimate informed by interpolation between reported data. Reported data excluded because 102 percent greater than 100 percent. GoC=R+ S+ D+
- 2014: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). GoC=R+ S+ D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 94 percent based on 1 survey(s). The method to obtain administrative coverage changed in 2013. Estimate is based on official government estimate. GoC=R+ S+ D+
- 2012: Estimate informed by reported data. Estimate challenged by: D-
- 2011: Estimate informed by reported data. Estimate challenged by: D-

Mexico - DTP1

MEX - DTP1



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	99	99	90	95	99	96	93	90	84	77	83	93
Estimate GoC	•	••	•••	••	•••	•••	•••	•••	•	•	••	••
Official	100	NA	90	NA	100	96	93	90	84	92	83	93
Administrative	100	NA	90	NA	100	96	93	90	84	92	83	93
Survey	NA	NA	93	92	NA	94	92	NA	96	97	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.

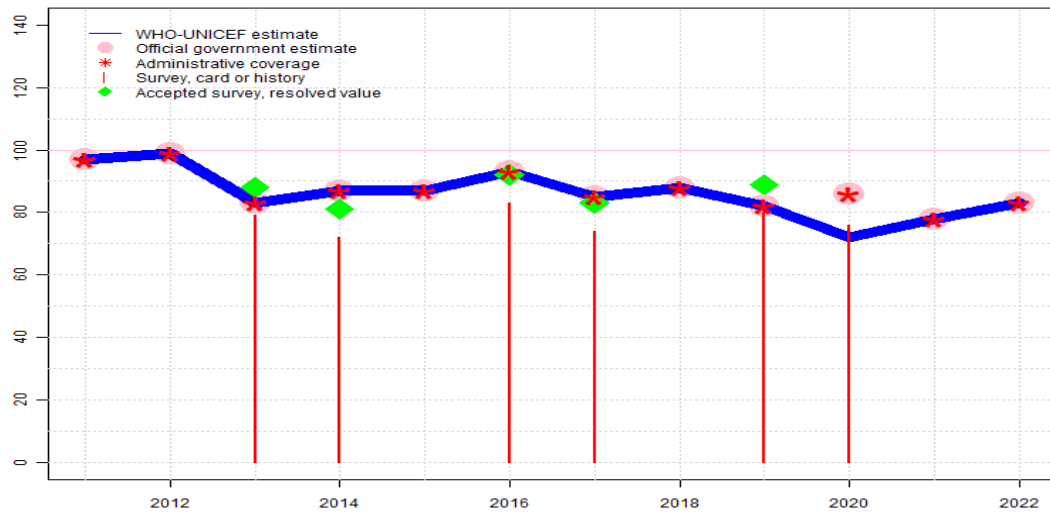
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. GoC=R+ D+
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results for cohort are inconsistent with those for prior year cohort and with declines in reported doses administered, likely due to the timing of the field work. Estimate challenged by: R-
- 2019: Estimate informed by reported data. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results appear to have missed the impacts of the reported vaccine stockout. Programme reports a four months national level vaccine stockout. Estimate challenged by: D-
- 2018: Estimate informed by reported data. GoC=R+ S+ D+
- 2017: Estimate informed by reported data supported by survey. Survey evidence of 92 percent based on 1 survey(s). GoC=R+ S+ D+
- 2016: Estimate informed by reported data supported by survey. Survey evidence of 94 percent based on 1 survey(s). Programme reports district level stockouts of unknown duration for DTaP-Hib-IPV. GoC=R+ S+ D+
- 2015: Estimate informed by reported data. GoC=R+ S+ D+
- 2014: Estimate informed by interpolation between reported data supported by survey. Survey evidence of 92 percent based on 1 survey(s). GoC=S+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). The method to obtain administrative coverage changed in 2013. Estimate is based on official government estimate. GoC=R+ S+ D+
- 2012: DTP1 coverage estimated based on DTP3 coverage of 99. GoC=S+
- 2011: Estimate informed by reported data. Estimate challenged by: D-

Mexico - DTP3

MEX - DTP3



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	97	99	83	87	87	93	85	88	82	72	78	83
Estimate GoC	•	•	•••	•••	•••	•	•••	•••	•	•	•	••
Official	97	99	83	87	87	93	85	88	82	86	78	83
Administrative	97	99	83	87	87	93	85	88	82	86	78	83
Survey	NA	NA	79	72	NA	83	74	NA	80	76	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:

- 2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. GoC=R+ D+
- 2021: Estimate informed by reported data. Estimate challenged by: D-S-
- 2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results for cohort are inconsistent with those for prior year cohort and with declines in reported doses administered, likely due to the timing of the field work. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 card or history results of 76 percent modified for recall bias to 89 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 47 percent and 3rd dose card only coverage of 43 percent. Estimate challenged by: R-S-
- 2019: Estimate informed by reported data supported by survey. Survey evidence of 89 percent based on 1 survey(s). National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 card or history results of 80 percent modified for recall bias to 89 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 43 percent and 3rd dose card only coverage of 40 percent. Programme reports a four months national level vaccine stockout. Estimate challenged by: D-
- 2018: Estimate informed by reported data. GoC=R+ S+ D+
- 2017: Estimate informed by reported data supported by survey. Survey evidence of 83 percent based on 1 survey(s). National Health and Survey Survey, 2018 card or history results of 74 percent modified for recall bias to 83 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 49 percent and 3rd dose card only coverage of 44 percent. GoC=R+ S+ D+
- 2016: Estimate informed by reported data supported by survey. Survey evidence of 92 percent based on 1 survey(s). National Health and Survey Survey, 2018 card or history results of 83 percent modified for recall bias to 92 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 47 percent and 3rd dose card only coverage of 46 percent. Programme reports district level stockouts of unknown duration for DTaP-Hib-IPV. The increase in reported coverage is exceptionally high at such levels of coverage due in part to a nearly 9 percent increase in the reported number of children vaccinated with three doses of DTP containing vaccine combined with a decrease in the reported target population. The increase in coverage from 2015 to 2016 is not supported by survey results for the 2014 birth cohort nor is it explained by intensification of delivery activity. Estimate challenged by: S-
- 2015: Estimate informed by reported data. GoC=R+ S+ D+
- 2014: Estimate informed by reported data supported by survey. Survey evidence of 81 percent based on 1 survey(s). Mexico Multiple Indicator Cluster Survey 2015-2016 card or history results of 72 percent modified for recall bias to 81 percent based on 1st dose card or

Mexico - DTP3

history coverage of 92 percent, 1st dose card only coverage of 74 percent and 3rd dose card only coverage of 65 percent. GoC=R+ S+ D+

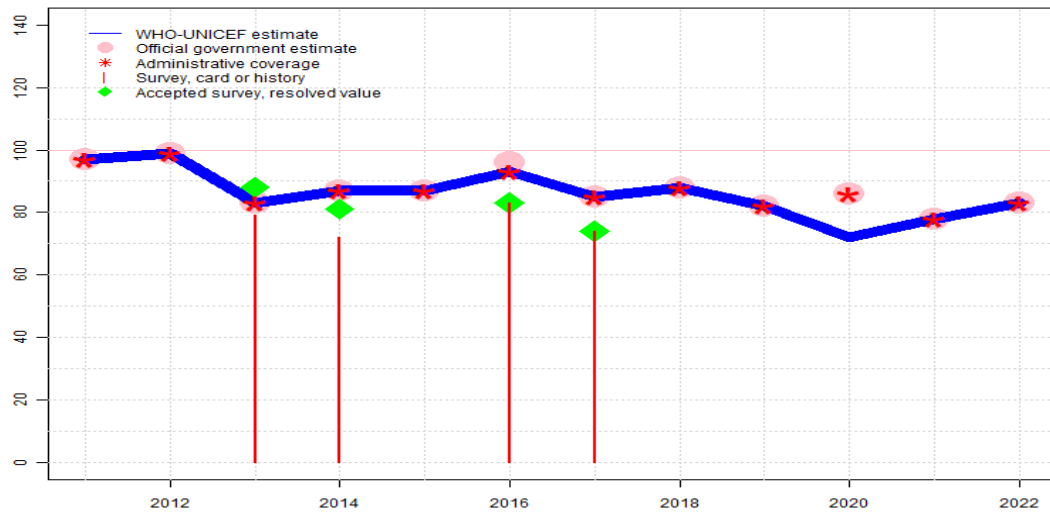
2013: Estimate informed by reported data supported by survey. Survey evidence of 88 percent based on 1 survey(s). Mexico Multiple Indicator Cluster Survey 2015-2016 card or history results of 79 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 73 percent and 3rd dose card only coverage of 69 percent. The method to obtain administrative coverage changed in 2013. Estimate is based on official government estimate. GoC=R+ S+ D+

2012: Estimate informed by reported data. Estimate challenged by: D-S-

2011: Estimate informed by reported data. Estimate challenged by: D-

Mexico - Pol3

MEX - Pol3



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	97	99	83	87	87	93	85	88	82	72	78	83
Estimate GoC	•	•	•••	•••	•	•	•	•	•	•	•	••
Official	97	99	83	87	87	96	85	88	82	86	78	83
Administrative	97	99	83	87	87	93	85	88	82	86	78	83
Survey	NA	NA	79	72	NA	83	74	NA	NA	NA	NA	NA

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

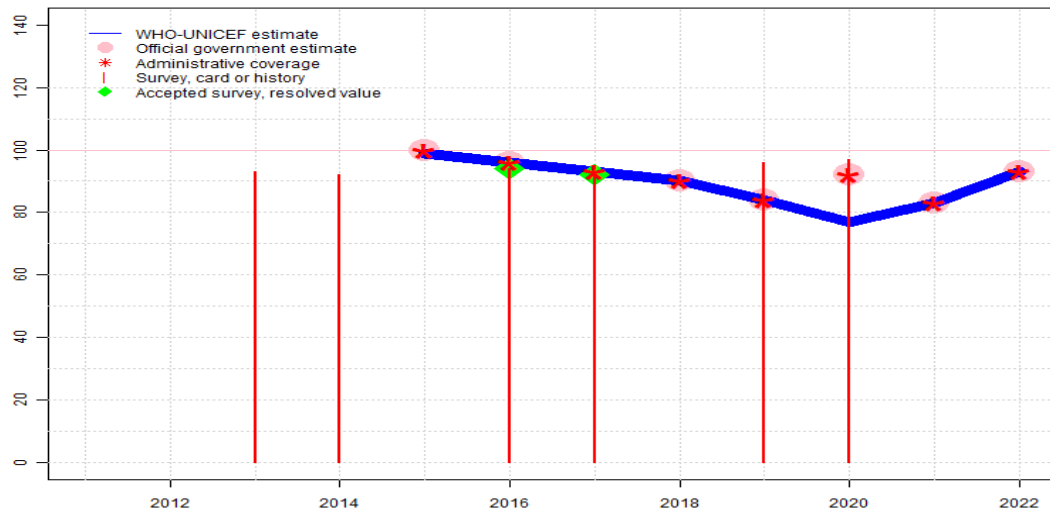
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. GoC=R+ D+
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. Estimate challenged by: R-
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by reported data. Estimate challenged by: S-
- 2017: Estimate is based on reported data supported by survey. Estimate challenged by: S-
- 2016: Estimate informed by reported administrative data supported by survey. Survey evidence of 83 percent based on 1 survey(s). Consistency with DTP3. Estimate challenged by: S-
- 2015: Estimate informed by reported data. Estimate challenged by: S-
- 2014: Estimate informed by reported data supported by survey. Survey evidence of 81 percent based on 1 survey(s). Mexico Multiple Indicator Cluster Survey 2015-2016 card or history results of 72 percent modified for recall bias to 81 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 74 percent and 3rd dose card only coverage of 65 percent. GoC=R+ S+ D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 88 percent based on 1 survey(s). Mexico Multiple Indicator Cluster Survey 2015-2016 card or history results of 79 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 73 percent and 3rd dose card only coverage of 69 percent. The method to obtain administrative coverage changed in 2013. Estimate is based on official government estimate. GoC=R+ S+ D+
- 2012: Estimate informed by reported data. Estimate challenged by: D-S-
- 2011: Estimate informed by reported data. Estimate challenged by: D-

Mexico - IPV1

MEX - 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).

2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. GoC=R+ D+

2021: Estimate informed by reported data. Estimate challenged by: D-

2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results for cohort are inconsistent with those for prior year cohort and with declines in reported doses administered, likely due to the timing of the field work. Estimate challenged by: R-

2019: Estimate informed by reported data. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results appear to have missed the impacts of the reported vaccine stockout. Estimate challenged by: D-

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

2017: Estimate informed by reported administrative data supported by survey. Survey evidence of 92 percent based on 1 survey(s). GoC=R+ S+ D+

2016: Estimate informed by reported data supported by survey. Survey evidence of 94 percent based on 1 survey(s). Programme reports district level stockouts of unknown duration for DTaP-Hib-IPV. GoC=R+ S+ D+

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	99	96	93	90	84	77	83	93
Estimate GoC	NA	NA	NA	NA	●●●	●●●	●●●	●●●	●	●	●	●●
Official	NA	NA	NA	NA	100	96	NA	90	84	92	83	93
Administrative	NA	NA	NA	NA	100	96	93	90	84	92	83	93
Survey	NA	NA	93	92	NA	94	92	NA	96	97	NA	NA

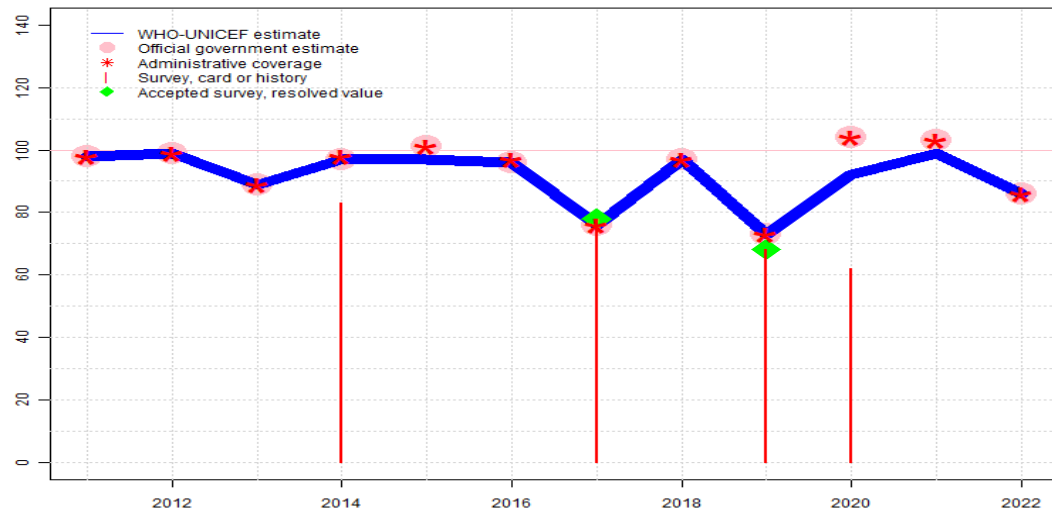
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- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While 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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Mexico - MCV1

MEX - MCV1



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	98	99	89	97	97	96	76	97	73	92	99	86
Estimate GoC	•	•	••	••	•	•	•••	•	•	•	•	•
Official	98	99	89	97	101	96	76	97	73	104	103	86
Administrative	98	99	89	98	101	97	76	97	73	104	103	86
Survey	NA	NA	NA	83	NA	NA	78	NA	68	62	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.

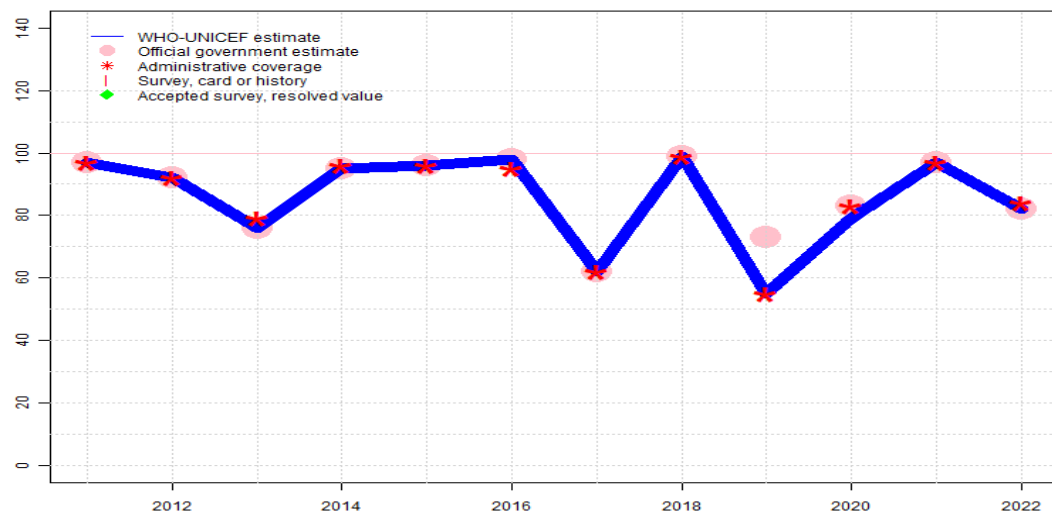
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. Unexplained decline in reported coverage from 2021 to 2022. From 2022, the recommended age for MCV1 is changing from 12 months (MCV1) / 6 years (MCV2) to 12 months (MCV1) / 18 months (MCV2). Estimate challenged by: D-
- 2021: Estimate informed by reported data. Programme reports conducting catch-up activities during 2021 and doses administered during these activities are included with routine doses. Estimate challenged by: D-S-
- 2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results for cohort are inconsistent with those for prior year cohort and with declines in reported doses administered, likely due to the timing of the field work. Reported data excluded because 104 percent greater than 100 percent. Estimate challenged by: D-R-S-
- 2019: Estimate informed by reported data supported by survey. Survey evidence of 68 percent based on 1 survey(s). Programme reports a six month national level vaccine stockout. Estimate challenged by: D-
- 2018: Estimate informed by reported data. Country reports vaccine stockout from March to July 2018 and efforts to catch up afterwards. Estimate challenged by: S-
- 2017: Estimate informed by reported data supported by survey. Survey evidence of 78 percent based on 1 survey(s). Country reports delays in vaccine supply in 2017. GoC=R+ S+ D+
- 2016: Estimate informed by reported data. Programme reports district level stockouts of unknown duration for measles containing vaccine. Estimate challenged by: S-
- 2015: Estimate informed by interpolation between reported data. Reported data excluded because 101 percent greater than 100 percent. Estimate challenged by: S-
- 2014: Estimate informed by reported data. Mexico Multiple Indicator Cluster Survey 2015-2016 results ignored by working group. Survey results inconsistent with those of other antigens vis-à-vis reported data. GoC=R+ D+
- 2013: Estimate informed by reported data. The method to obtain administrative coverage changed in 2013. Estimate is based on official government estimate. GoC=R+ D+
- 2012: Estimate informed by reported data. Estimate challenged by: D-
- 2011: Estimate informed by reported data. Estimate challenged by: D-

Mexico - MCV2

MEX - MCV2



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	97	92	76	95	96	98	62	99	55	79	97	82
Estimate GoC	•	•	••	••	••	••	••	••	••	•	•	•
Official	97	92	76	95	96	98	62	99	73	83	97	82
Administrative	97	92	79	96	96	95	62	99	55	83	97	84
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.

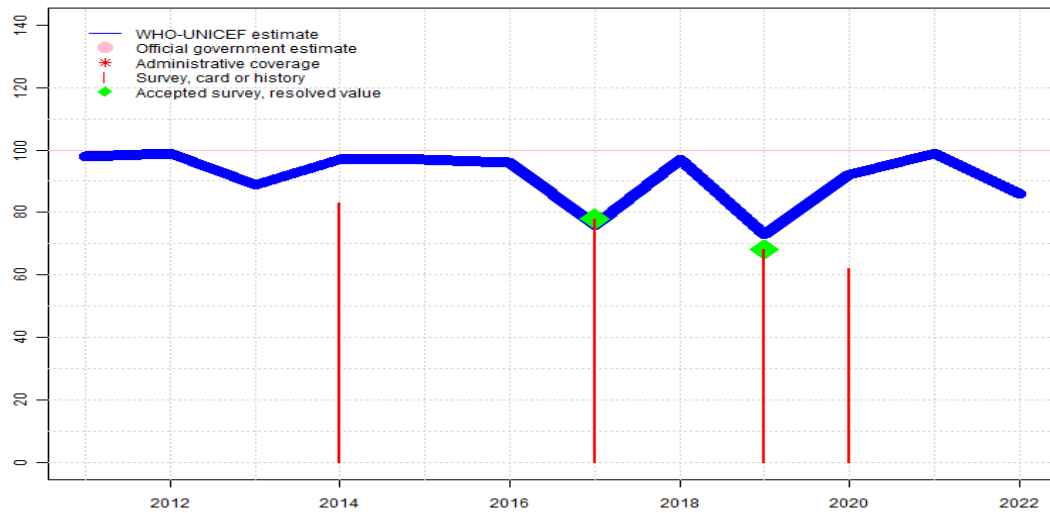
Description:

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

- 2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. Unexplained decline in reported coverage from 2021 to 2022. From 2022, the recommended age for MCV is changing from 12 months (MCV1) / 6 years (MCV2) to 12 months (MCV1) / 18 months (MCV2). Estimate challenged by: D-
- 2021: Estimate informed by reported data. Programme reports conducting catch-up activities during 2021 and doses administered during these activities are included with routine doses. Estimate challenged by: D-
- 2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. Estimate challenged by: D-R-
- 2019: Estimate informed by reported administrative data. . Programme reports a six month national level vaccine stockout. GoC=R+ D+
- 2018: Estimate informed by reported data. Country reports vaccine stockout from March to July 2018 and efforts to catch up afterwards. GoC=R+ D+
- 2017: Estimate informed by reported data. Country reports delays in vaccine supply in 2017. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports district level stockouts of unknown duration for measles containing vaccine. 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. The method to obtain administrative coverage changed in 2013. Observed greater decline in reported coverage for second dose of measles containing vaccine compared to other vaccines is unexplained. Estimate is based on official government estimate. GoC=R+ D+
- 2012: Estimate informed by reported data. Estimate challenged by: D-
- 2011: Estimate informed by reported data. Estimate challenged by: D-

Mexico - RCV1

MEX - RCV1



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	98	99	89	97	97	96	76	97	73	92	99	86
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	83	NA	NA	78	NA	68	62	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.

2022: Estimate based on estimated MCV1. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. Estimate challenged by: D-

2021: Estimate based on estimated MCV1. Estimate challenged by: D-S-

2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results for cohort are inconsistent with those for prior year cohort and with declines in reported doses administered, likely due to the timing of the field work. Estimate challenged by: D-R-S-

2019: Estimate based on estimated MCV1. Estimate challenged by: D-

2018: Estimate based on estimated MCV1. Estimate challenged by: S-

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

2016: Estimate based on estimated MCV1. Programme reports district level stockouts of unknown duration for rubella containing vaccine. Estimate challenged by: S-

2015: Estimate based on estimated MCV1. Estimate challenged by: S-

2014: Estimate based on estimated MCV1. Mexico Multiple Indicator Cluster Survey 2015-2016 results ignored by working group. Survey results inconsistent with those of other antigens vis-à-vis reported data. GoC=R+ D+

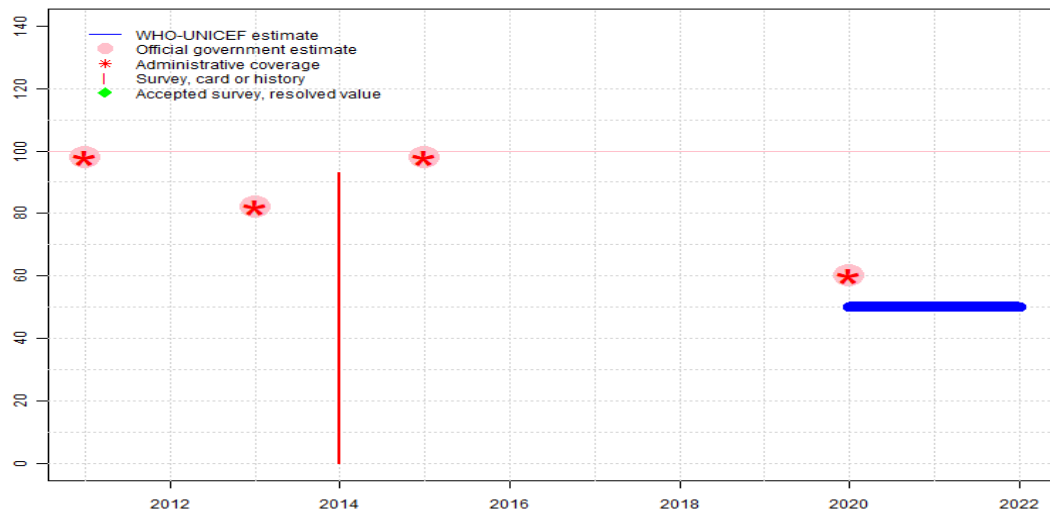
2013: Estimate based on estimated MCV1. The method to obtain administrative coverage changed in 2013. Estimate is based on official government estimate. GoC=R+ D+

2012: Estimate based on estimated MCV1. Estimate challenged by: D-

2011: Estimate based on estimated MCV1. Estimate challenged by: D-

Mexico - HepBB

MEX - HepBB



Description:

- 2022: Estimate informed by prior year estimate. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. GoC=No accepted empirical data
- 2021: Estimate based on prior year estimate. GoC=No accepted empirical data
- 2020: Vaccine dose introduced in 2005. Reporting for doses administered within 24 hours of birth started in 2020. Estimate is based on reported number of doses administered and a recalculated target population using information from the 2019 and 2021 reported target population. Estimate challenged by: R-

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	50	50
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	●	●	●
Official	98	NA	82	NA	98	NA	NA	NA	NA	60	NA	NA
Administrative	98	NA	82	NA	98	NA	NA	NA	NA	60	NA	NA
Survey	NA	NA	NA	93	NA	NA	NA	NA	NA	NA	NA	NA

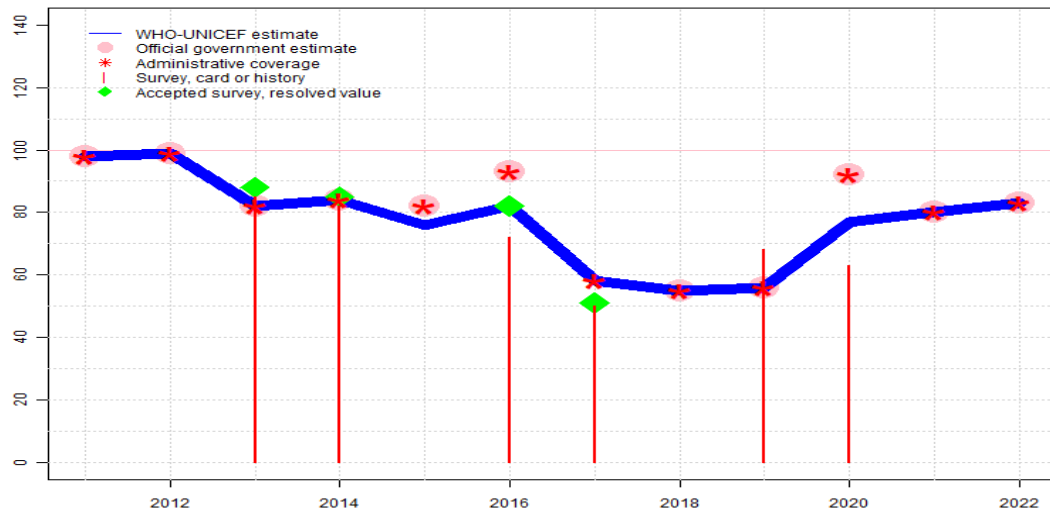
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Mexico - HepB3

MEX - HepB3



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	98	99	82	84	76	82	58	55	56	77	80	83
Estimate GoC	•	•	•••	•••	•	•	•	•	•••	•	•	••
Official	98	99	82	84	82	93	NA	55	56	92	80	83
Administrative	98	99	82	84	82	93	58	55	56	92	80	83
Survey	NA	NA	85	82	NA	72	50	NA	68	63	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:

- 2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. GoC=R+ D+
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results for cohort are inconsistent with those for prior year cohort and with declines in reported doses administered, likely due to the timing of the field work. Reported data excluded due to an increase from 56 percent to 92 percent with decrease 80 percent. Estimate challenged by: R-
- 2019: Estimate informed by reported data. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results appear to have missed the impacts of the reported vaccine stockout. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 card or history results of 68 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 43 percent and 3rd dose card only coverage of 32 percent. Programme reports four months vaccine stockout at national level. GoC=R+ S+ D+
- 2018: Estimate informed by reported data. Estimate challenged by: S-
- 2017: Estimate informed by reported administrative data supported by survey. Survey evidence of 51 percent based on 1 survey(s). National Health and Survey Survey, 2018 card or history results of 50 percent modified for recall bias to 51 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 46 percent and 3rd dose card only coverage of 26 percent. Country reports HepB vaccine stockout from September to November 2017. Estimate challenged by: S-
- 2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 82 percent based on 1 survey(s). National Health and Survey Survey, 2018 card or history results of 72 percent modified for recall bias to 82 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 48 percent and 3rd dose card only coverage of 41 percent. Estimate is based on reported data to remain consistent with other vaccines. Estimate challenged by: D-R-S-
- 2015: Reported data calibrated to 2014 and 2016 levels. Estimate challenged by: D-R-S-
- 2014: Estimate informed by reported data supported by survey. Survey evidence of 85 percent based on 1 survey(s). Mexico Multiple Indicator Cluster Survey 2015-2016 card or history results of 82 percent modified for recall bias to 85 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 74 percent and 3rd dose card only coverage of 68 percent. GoC=R+ S+ D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 88 percent based on 1 survey(s). Mexico Multiple Indicator Cluster Survey 2015-2016 card or history results of 85 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 73 percent and 3rd dose

Mexico - HepB3

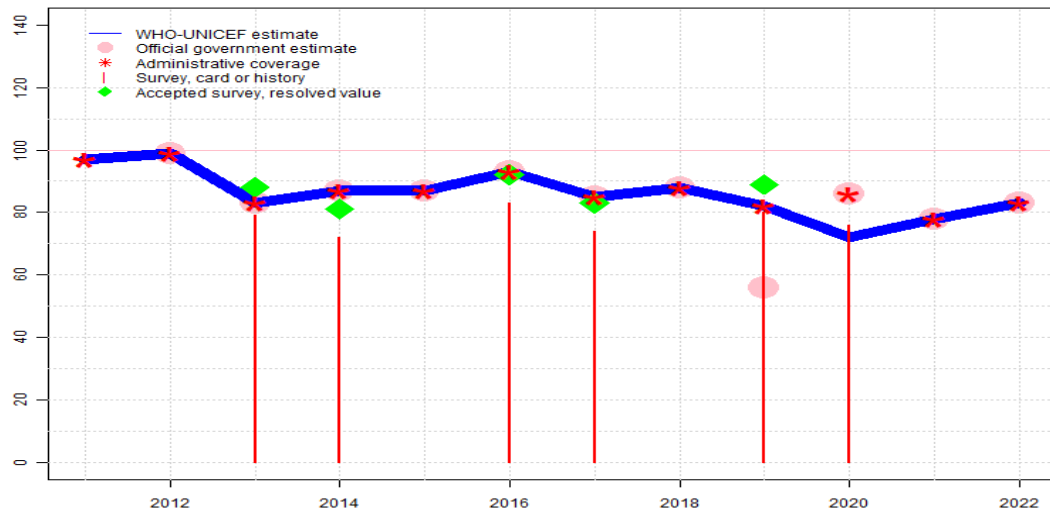
card only coverage of 69 percent. The method to obtain administrative coverage changed in 2013. Estimate is based on official government estimate. GoC=R+ S+ D+

2012: Estimate informed by reported data. Estimate challenged by: D-S-

2011: Estimate informed by reported data. Estimate challenged by: D-

Mexico - Hib3

MEX - Hib3



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	97	99	83	87	87	93	85	88	82	72	78	83
Estimate GoC	•	•	•••	•••	•••	•	•••	•••	•	•	•	••
Official	NA	99	83	87	87	93	85	88	56	86	78	83
Administrative	97	99	83	87	87	93	85	88	82	86	78	83
Survey	NA	NA	79	72	NA	83	74	NA	80	76	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:

- 2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. GoC=R+ D+
- 2021: Estimate informed by reported data. Estimate challenged by: D-S-
- 2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results for cohort are inconsistent with those for prior year cohort and with declines in reported doses administered, likely due to the timing of the field work. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 card or history results of 76 percent modified for recall bias to 89 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 47 percent and 3rd dose card only coverage of 43 percent. Estimate challenged by: R-S-
- 2019: Estimate informed by reported administrative data supported by survey. Survey evidence of 89 percent based on 1 survey(s). National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 card or history results of 80 percent modified for recall bias to 89 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 43 percent and 3rd dose card only coverage of 40 percent. Adjustments made to reported official coverage are unexplained. Estimate challenged by: D-
- 2018: Estimate informed by reported data. GoC=R+ S+ D+
- 2017: Estimate informed by reported data supported by survey. Survey evidence of 83 percent based on 1 survey(s). National Health and Survey Survey, 2018 card or history results of 74 percent modified for recall bias to 83 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 49 percent and 3rd dose card only coverage of 44 percent. GoC=R+ S+ D+
- 2016: Estimate informed by reported data supported by survey. Survey evidence of 92 percent based on 1 survey(s). National Health and Survey Survey, 2018 card or history results of 83 percent modified for recall bias to 92 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 47 percent and 3rd dose card only coverage of 46 percent. Programme reports district level stockouts of unknown duration for DTaP-Hib-IPV. Estimate challenged by: S-
- 2015: Estimate informed by reported data. GoC=R+ S+ D+
- 2014: Estimate informed by reported data supported by survey. Survey evidence of 81 percent based on 1 survey(s). Mexico Multiple Indicator Cluster Survey 2015-2016 card or history results of 72 percent modified for recall bias to 81 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 74 percent and 3rd dose card only coverage of 65 percent. GoC=R+ S+ D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 88 percent based on 1 survey(s). Mexico Multiple Indicator Cluster Survey 2015-2016 card or history results of 79 percent modified for recall bias to 88 percent based on 1st dose card or

Mexico - Hib3

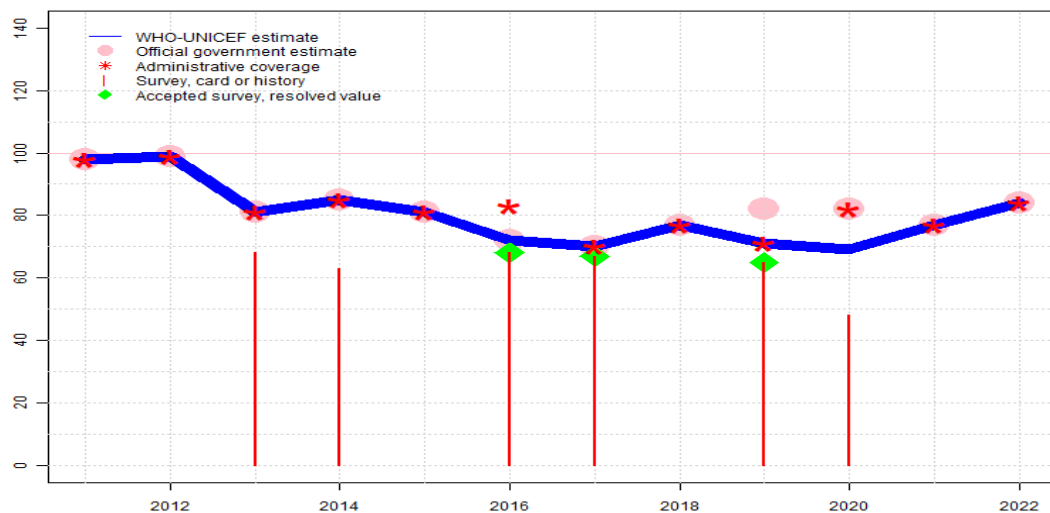
history coverage of 93 percent, 1st dose card only coverage of 73 percent and 3rd dose card only coverage of 69 percent. The method to obtain administrative coverage changed in 2013. Estimate is based on official government estimate. GoC=R+ S+ D+

2012: Estimate informed by reported data. Estimate challenged by: D-S-

2011: Estimate informed by reported data. Estimate challenged by: D-

Mexico - RotaC

MEX - RotaC



Description:

- 2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. GoC=R+ D+
- 2021: Estimate informed by reported data. Estimate is informed by reported data. Estimate challenged by: D-S-
- 2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results for cohort are inconsistent with those for prior year cohort and with declines in reported doses administered, likely due to the timing of the field work. Estimate is based on reported data consistent with other antigens. Estimate challenged by: R-
- 2019: Estimate informed by reported administrative data supported by survey. Survey evidence of 65 percent based on 1 survey(s). Unexplained official estimate and estimate inconsistent with other vaccine doses. Estimate challenged by: D-
- 2018: Estimate informed by reported data. Estimate challenged by: S-
- 2017: Estimate informed by reported data supported by survey. Survey evidence of 67 percent based on 1 survey(s). GoC=R+ S+ D+
- 2016: Estimate informed by reported data supported by survey. Survey evidence of 68 percent based on 1 survey(s). Programme reports district level stockouts of unknown duration for rotavirus vaccine. Estimate challenged by: D-
- 2015: Estimate informed by reported data. Estimate challenged by: S-
- 2014: Estimate informed by reported data. Mexico Multiple Indicator Cluster Survey 2015-2016 results ignored by working group. Survey results adjusted for recall bias (not shown here) support reported coverage levels. Estimate challenged by: S-
- 2013: Estimate informed by reported data. Mexico Multiple Indicator Cluster Survey 2015-2016 results ignored by working group. Survey results adjusted for recall bias (not shown here) support reported coverage levels. The method to obtain administrative coverage changed in 2013. Estimate is based on official government estimate. GoC=R+ D+
- 2012: Estimate informed by reported data. Estimate challenged by: D-
- 2011: Estimate informed by reported data. Estimate challenged by: D-

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	98	99	81	85	81	72	70	77	71	69	77	84
Estimate GoC	•	•	••	•	•	•	•••	•	•	•	•	••
Official	98	99	81	85	81	72	70	77	82	82	77	84
Administrative	98	99	81	85	81	83	70	77	71	82	77	84
Survey	NA	NA	68	63	NA	68	67	NA	65	48	NA	NA

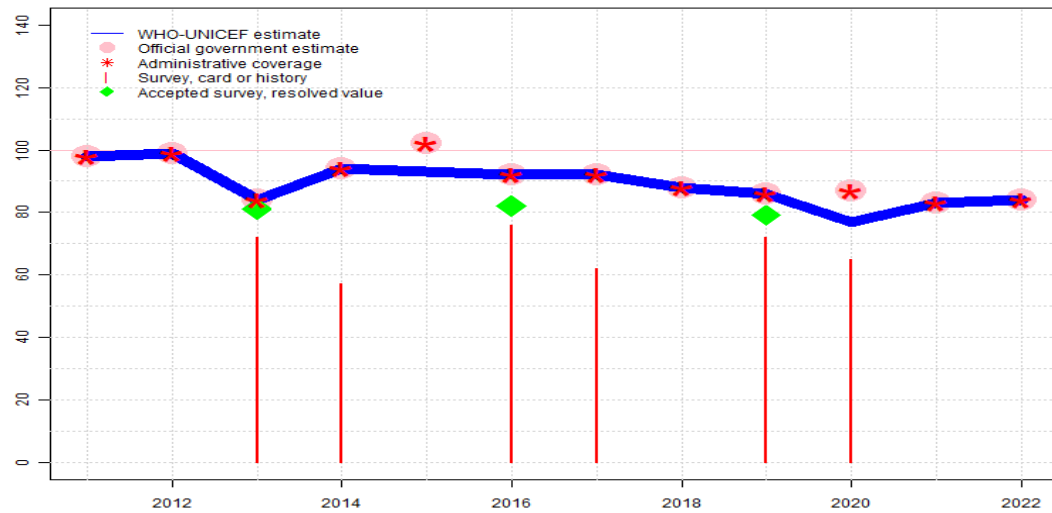
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Mexico - PcV3

MEX - PcV3



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	98	99	84	94	93	92	92	88	86	77	83	84
Estimate GoC	•	•	•••	•	•	•••	•	•••	•	•	•	•
Official	98	99	84	94	102	92	92	88	86	87	83	84
Administrative	98	99	84	94	102	92	92	88	86	87	83	84
Survey	NA	NA	72	57	NA	76	62	NA	72	65	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:

- 2022: Estimate informed by reported data. Reported target population declined nine percent from 2021 to 2022 for antigens recommended during infancy. WHO and UNICEF encourage an independent assessment of the immunization data. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate is informed by reported data. Estimate challenged by: D-
- 2020: Estimate is based reported numerator and a recomputed target population based on 2019 and 2021 target population information given an unexplained 17 percent decline in reported target population in 2020. National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 results ignored by working group. Survey results for cohort are inconsistent with those for prior year cohort and with declines in reported doses administered, likely due to the timing of the field work.National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 card or history results of 65 percent modified for recall bias to 73 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 47 percent and 3rd dose card only coverage of 37 percent. Estimate challenged by: R-
- 2019: Estimate informed by reported data supported by survey. Survey evidence of 79 percent based on 1 survey(s). National Health and Nutrition Survey (ENSANUT) 2021 on COVID-19 card or history results of 72 percent modified for recall bias to 79 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 43 percent and 3rd dose card only coverage of 36 percent. Estimate challenged by: D-
- 2018: Estimate informed by reported data. GoC=R+ S+ D+
- 2017: Estimate informed by reported data. National Health and Survey Survey, 2018 results ignored by working group. Survey results inconsistent with those of other antigens and there is no identified explanation for the deviation from the survey results for the prior cohort year.National Health and Survey Survey, 2018 card or history results of 62 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 49 percent and 3rd dose card only coverage of 36 percent. Estimate challenged by: S-
- 2016: Estimate informed by reported data supported by survey. Survey evidence of 82 percent based on 1 survey(s). National Health and Survey Survey, 2018 card or history results of 76 percent modified for recall bias to 82 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 48 percent and 3rd dose card only coverage of 42 percent. GoC=R+ S+ D+
- 2015: Estimate informed by interpolation between reported data. Reported data excluded because 102 percent greater than 100 percent. Estimate challenged by: D-S-
- 2014: Estimate informed by reported data. Mexico Multiple Indicator Cluster Survey 2015-2016 results ignored by working group. Survey results for children 12-23 months likely underestimate coverage based on recommended age of administration.Mexico Multiple Indicator Cluster Survey 2015-2016 card or history results of 57 percent modified for recall bias to 63 percent based on 1st dose card or history coverage of 92 percent, 1st dose

Mexico - PcV3

card only coverage of 74 percent and 3rd dose card only coverage of 51 percent. Estimate challenged by: S-

2013: Estimate informed by reported data supported by survey. Survey evidence of 81 percent based on 1 survey(s). Mexico Multiple Indicator Cluster Survey 2015-2016 card or history results of 72 percent modified for recall bias to 81 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 72 percent and 3rd dose card only coverage of 64 percent. The method to obtain administrative coverage changed in 2013. Estimate is based on official government estimate. GoC=R+ S+ D+

2012: Estimate informed by reported data. Estimate challenged by: D-S-

2011: Estimate informed by reported data. Estimate challenged by: S-

Mexico - survey details

NOTE: A survey to measure vaccination coverage for infants (i.e., children aged 0 to 11 months) will sample children aged 12 to 23 months at the time of survey to capture the youngest annual cohort of children who should have completed the vaccination schedule. Because WUENIC are for infant vaccinations, survey data in this report are presented to reflect the birth year of the youngest survey cohort. For example, results for a survey conducted during December 2020 among children aged 12 to 23 months at the time of the survey reflect the immunization experience of children born in 2019. Depending on the timing of survey field work, results may reflect the immunization experience of children born and vaccinated 1 or 2 years prior to the survey field work.

2020 Encuesta Nacional de Salud y Nutrición (ENSANUT) 2021 sobre COVID-19

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	42.5	12-23 m	1841	46
BCG	Card or History	90	12-23 m	1841	46
BCG	History	47.6	12-23 m	1841	46
DTP1	Card	47.2	12-23 m	1841	46
DTP1	Card or History	96.7	12-23 m	1841	46
DTP1	History	49.6	12-23 m	1841	46
DTP3	Card	43.4	12-23 m	1841	46
DTP3	Card or History	76.3	12-23 m	1841	46
DTP3	History	32.9	12-23 m	1841	46
HepB1	Card	45.9	12-23 m	1841	46
HepB1	Card or History	95.7	12-23 m	1841	46
HepB1	History	49.9	12-23 m	1841	46
HepB3	Card	30.2	12-23 m	1841	46
HepB3	Card or History	63.2	12-23 m	1841	46
HepB3	History	33	12-23 m	1841	46
Hib1	Card	47.2	12-23 m	1841	46
Hib1	Card or History	96.7	12-23 m	1841	46
Hib1	History	49.6	12-23 m	1841	46
Hib3	Card	43.4	12-23 m	1841	46
Hib3	Card or History	76.3	12-23 m	1841	46
Hib3	History	32.9	12-23 m	1841	46
IPV1	Card	47.2	12-23 m	1841	46
IPV1	Card or History	96.7	12-23 m	1841	46

IPV1	History	49.6	12-23 m	1841	46
MCV1	Card	38	12-23 m	1841	46
MCV1	Card or History	61.6	12-23 m	1841	46
MCV1	History	23.6	12-23 m	1841	46
PCV1	Card	47.1	12-23 m	1841	46
PCV1	Card or History	93.1	12-23 m	1841	46
PCV1	History	46	12-23 m	1841	46
PCV3	Card	36.6	12-23 m	1841	46
PCV3	Card or History	64.6	12-23 m	1841	46
PCV3	History	28.1	12-23 m	1841	46
RotaC	Card	17.7	12-23 m	1841	46
RotaC	Card or History	48.4	12-23 m	1841	46
RotaC	History	30.8	12-23 m	1841	46

2019 Encuesta Nacional de Salud y Nutrición (ENSANUT) 2021 sobre COVID-19

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	43.2	24-35 m	2164	46
BCG	Card or History	96.3	24-35 m	2164	46
BCG	History	53.1	24-35 m	2164	46
DTP1	Card	43.1	24-35 m	2164	46
DTP1	Card or History	95.5	24-35 m	2164	46
DTP1	History	52.4	24-35 m	2164	46
DTP3	Card	39.7	24-35 m	2164	46
DTP3	Card or History	79.6	24-35 m	2164	46
DTP3	History	39.9	24-35 m	2164	46
HepB1	Card	42.8	24-35 m	2164	46
HepB1	Card or History	95.5	24-35 m	2164	46
HepB1	History	52.7	24-35 m	2164	46
HepB3	Card	32.3	24-35 m	2164	46
HepB3	Card or History	68.2	24-35 m	2164	46
HepB3	History	35.9	24-35 m	2164	46
Hib1	Card	43.1	24-35 m	2164	46
Hib1	Card or History	95.5	24-35 m	2164	46
Hib1	History	52.4	24-35 m	2164	46
Hib3	Card	39.7	24-35 m	2164	46
Hib3	Card or History	79.6	24-35 m	2164	46
Hib3	History	39.9	24-35 m	2164	46

Mexico - survey details

IPV1	Card	43.1	24-35 m	2164	46
IPV1	Card or History	95.5	24-35 m	2164	46
IPV1	History	52.4	24-35 m	2164	46
MCV1	Card	38.3	24-35 m	2164	46
MCV1	Card or History	67.9	24-35 m	2164	46
MCV1	History	29.6	24-35 m	2164	46
PCV1	Card	43.2	24-35 m	2164	46
PCV1	Card or History	93.9	24-35 m	2164	46
PCV1	History	50.7	24-35 m	2164	46
PCV3	Card	36.2	24-35 m	2164	46
PCV3	Card or History	72.2	24-35 m	2164	46
PCV3	History	36	24-35 m	2164	46
RotaC	Card	29.7	24-35 m	2164	46
RotaC	Card or History	65.3	24-35 m	2164	46
RotaC	History	35.6	24-35 m	2164	46

Hib3	History	30.4	12-23 m	1979	-
IPV1	Card	49	12-23 m	1979	-
IPV1	Card or History	92.5	12-23 m	1979	-
IPV1	History	43.6	12-23 m	1979	-
MCV1	Card	41.6	24-35 m	1999	-
MCV1	Card or History	78.4	24-35 m	1999	-
MCV1	History	36.8	24-35 m	1999	-
PCV1	Card	48.7	12-23 m	1979	-
PCV1	Card or History	90.9	12-23 m	1979	-
PCV1	History	42.2	12-23 m	1979	-
PCV3	Card	35.5	12-23 m	1979	-
PCV3	Card or History	61.9	12-23 m	1979	-
PCV3	History	26.4	12-23 m	1979	-
Pol3	Card	43.6	12-23 m	1979	-
Pol3	Card or History	74	12-23 m	1979	-
Pol3	History	30.4	12-23 m	1979	-
RotaC	Card	35.3	12-23 m	1979	-
RotaC	Card or History	66.6	12-23 m	1979	-
RotaC	History	31.3	12-23 m	1979	-

2017 Encuesta Nacional de Salud y Nutrición (ENSANUT) 2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	49.6	12-23 m	1979	-
BCG	Card or History	95.1	12-23 m	1979	-
BCG	History	45.5	12-23 m	1979	-
DTP1	Card	49	12-23 m	1979	-
DTP1	Card or History	92.5	12-23 m	1979	-
DTP1	History	43.6	12-23 m	1979	-
DTP3	Card	43.6	12-23 m	1979	-
DTP3	Card or History	74	12-23 m	1979	-
DTP3	History	30.4	12-23 m	1979	-
HepB1	Card	46.5	12-23 m	1979	-
HepB1	Card or History	91.4	12-23 m	1979	-
HepB1	History	44.8	12-23 m	1979	-
HepB3	Card	26.1	12-23 m	1979	-
HepB3	Card or History	50.1	12-23 m	1979	-
HepB3	History	23.9	12-23 m	1979	-
Hib1	Card	49	12-23 m	1979	-
Hib1	Card or History	92.5	12-23 m	1979	-
Hib1	History	43.6	12-23 m	1979	-
Hib3	Card	43.6	12-23 m	1979	-
Hib3	Card or History	74	12-23 m	1979	-

2016 Encuesta Nacional de Salud y Nutrición (ENSANUT) 2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	47.6	24-35 m	1999	-
BCG	Card or History	96.2	24-35 m	1999	-
BCG	History	48.5	24-35 m	1999	-
DTP1	Card	47.4	24-35 m	1999	-
DTP1	Card or History	94.5	24-35 m	1999	-
DTP1	History	47.1	24-35 m	1999	-
DTP3	Card	46	24-35 m	1999	-
DTP3	Card or History	82.9	24-35 m	1999	-
DTP3	History	37	24-35 m	1999	-
HepB1	Card	47.6	24-35 m	1999	-
HepB1	Card or History	96.1	24-35 m	1999	-
HepB1	History	48.5	24-35 m	1999	-
HepB3	Card	40.7	24-35 m	1999	-
HepB3	Card or History	71.6	24-35 m	1999	-
HepB3	History	30.9	24-35 m	1999	-
Hib1	Card	47.4	24-35 m	1999	-

Mexico - survey details

Hib1	Card or History	94.5	24-35 m	1999	-	HepBB	C or H <12 months	92.6	12-23 m	1440	75
Hib1	History	47.1	24-35 m	1999	-	HepBB	Card	74	12-23 m	1440	75
Hib3	Card	46	24-35 m	1999	-	HepBB	Card or History	92.8	12-23 m	1440	75
Hib3	Card or History	82.9	24-35 m	1999	-	Hib1	C or H <12 months	91.4	12-23 m	1440	75
Hib3	History	37	24-35 m	1999	-	Hib1	Card	73.6	12-23 m	1440	75
IPV1	Card	47.4	24-35 m	1999	-	Hib1	Card or History	91.9	12-23 m	1440	75
IPV1	Card or History	94.5	24-35 m	1999	-	Hib3	C or H <12 months	69.1	12-23 m	1440	75
IPV1	History	47.1	24-35 m	1999	-	Hib3	Card	64.9	12-23 m	1440	75
PCV1	Card	47.7	24-35 m	1999	-	Hib3	Card or History	71.9	12-23 m	1440	75
PCV1	Card or History	93.9	24-35 m	1999	-	IPV1	C or H <12 months	91.4	12-23 m	1440	75
PCV1	History	46.2	24-35 m	1999	-	IPV1	Card	73.6	12-23 m	1440	75
PCV3	Card	42	24-35 m	1999	-	IPV1	Card or History	91.9	12-23 m	1440	75
PCV3	Card or History	75.5	24-35 m	1999	-	MCV1	C or H <12 months	81.9	24-35 m	1799	75
PCV3	History	33.5	24-35 m	1999	-	MCV1	Card	64.3	24-35 m	1799	75
Pol3	Card	46	24-35 m	1999	-	MCV1	Card or History	83.1	24-35 m	1799	75
Pol3	Card or History	82.9	24-35 m	1999	-	PCV1	C or H <12 months	90.5	12-23 m	1440	75
Pol3	History	37	24-35 m	1999	-	PCV1	Card	74	12-23 m	1440	75
RotaC	Card	33.6	24-35 m	1999	-	PCV1	Card or History	91.6	12-23 m	1440	75
RotaC	Card or History	67.7	24-35 m	1999	-	PCV3	Card	51.4	12-23 m	1440	75
RotaC	History	34.1	24-35 m	1999	-	PCV3	Card or History	56.9	12-23 m	1440	75

2014 Mexico: Encuesta Nacional de Ninos, Ninas y Mujeres 2015

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	92.6	12-23 m	1440	75
BCG	Card	74.4	12-23 m	1440	75
BCG	Card or History	92.7	12-23 m	1440	75
DTP1	C or H <12 months	91.4	12-23 m	1440	75
DTP1	Card	73.6	12-23 m	1440	75
DTP1	Card or History	91.9	12-23 m	1440	75
DTP3	C or H <12 months	69.1	12-23 m	1440	75
DTP3	Card	64.9	12-23 m	1440	75
DTP3	Card or History	71.9	12-23 m	1440	75
HepB1	C or H <12 months	92.6	12-23 m	1440	75
HepB1	Card	74	12-23 m	1440	75
HepB1	Card or History	92.8	12-23 m	1440	75
HepB3	C or H <12 months	76.9	12-23 m	1440	75
HepB3	Card	67.8	12-23 m	1440	75
HepB3	Card or History	82.2	12-23 m	1440	75

2013 Mexico: Encuesta Nacional de Ninos, Ninas y Mujeres 2015

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	93.1	24-35 m	1799	75
BCG	Card	72.2	24-35 m	1799	75
BCG	Card or History	93.6	24-35 m	1799	75
DTP1	C or H <12 months	91.5	24-35 m	1799	75
DTP1	Card	72.6	24-35 m	1799	75
DTP1	Card or History	93.3	24-35 m	1799	75

Mexico - survey details

DTP3	C or H <12 months	69.2	24-35 m	1799	75
DTP3	Card	68.7	24-35 m	1799	75
DTP3	Card or History	79.1	24-35 m	1799	75
HepB1	C or H <12 months	92	24-35 m	1799	75
HepB1	Card	72.6	24-35 m	1799	75
HepB1	Card or History	93.1	24-35 m	1799	75
HepB3	C or H <12 months	76	24-35 m	1799	75
HepB3	Card	68.7	24-35 m	1799	75
HepB3	Card or History	85.1	24-35 m	1799	75
Hib1	C or H <12 months	91.5	24-35 m	1799	75
Hib1	Card	72.6	24-35 m	1799	75
Hib1	Card or History	93.3	24-35 m	1799	75
Hib3	C or H <12 months	69.2	24-35 m	1799	75
Hib3	Card	68.7	24-35 m	1799	75
Hib3	Card or History	79.1	24-35 m	1799	75
IPV1	C or H <12 months	91.5	24-35 m	1799	75
IPV1	Card	72.6	24-35 m	1799	75
IPV1	Card or History	93.3	24-35 m	1799	75
PCV1	C or H <12 months	89.9	24-35 m	1799	75
PCV1	Card	72.3	24-35 m	1799	75
PCV1	Card or History	91	24-35 m	1799	75
PCV3	C or H <12 months	70.6	24-35 m	1799	75
PCV3	Card	63.9	24-35 m	1799	75
PCV3	Card or History	72.3	24-35 m	1799	75
Pol1	C or H <12 months	91.5	24-35 m	1799	75
Pol1	Card	72.6	24-35 m	1799	75
Pol1	Card or History	93.3	24-35 m	1799	75
Pol3	C or H <12 months	69.2	24-35 m	1799	75
Pol3	Card	68.7	24-35 m	1799	75
Pol3	Card or History	79.1	24-35 m	1799	75
RotaC	C or H <12 months	55.1	24-35 m	1799	75
RotaC	Card	58.9	24-35 m	1799	75
RotaC	Card or History	67.6	24-35 m	1799	75

2011 Encuesta Nacional de Salud y Nutrición 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	History	98.3	12-23 m	743	64
DTP3	History	78.8	12-23 m	743	64

HepB3	History	36.6	12-23 m	743	64
Hib3	History	78.8	12-23 m	743	64
MCV1	History	86.5	12-23 m	743	64
PcV3	History	86.3	12-23 m	743	64
Pol3	History	78.8	12-23 m	743	64
RotaC	History	81.2	12-23 m	743	64

2010 Encuesta Nacional de Salud y Nutrición 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	96.7	12-35 m	2801	64
BCG	History	98.2	12-35 m	1591	64
DTP3	Card	90.2	12-35 m	2801	64
DTP3	History	81	12-35 m	1591	64
HepB3	Card	94.7	12-35 m	2801	64
HepB3	History	36.5	12-35 m	1591	64
Hib3	Card	90.2	12-35 m	2801	64
Hib3	History	81	12-35 m	1591	64
MCV1	Card	81.2	12-35 m	2801	64
MCV1	History	91.3	12-35 m	1591	64
PcV3	Card	87.6	12-35 m	2801	64
PcV3	History	86.5	12-35 m	1591	64
Pol3	Card	90.2	12-35 m	2801	64
Pol3	History	81	12-35 m	1591	64
RotaC	Card	76.8	12-35 m	2801	64
RotaC	History	84.3	12-35 m	1591	64

2005 Encuesta Nacional de Salud y Nutrición 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV1	Card	81.2	0-12 m	-	85

2004 Encuesta Nacional de Salud y Nutrición 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	96.8	12-35 m	-	85
DTP3	Card	92.9	12-35 m	-	85

Mexico - survey details

HepB3	Card	92.9	12-35 m	-	85	Pol3	Card	96.1	12-35 m	-	85
Hib3	Card	92.9	12-35 m	-	85						

Mexico - survey details

Further information and estimates for previous years are available at:

<https://data.unicef.org/topic/child-health/immunization/>

<https://immunizationdata.who.int/listing.html>