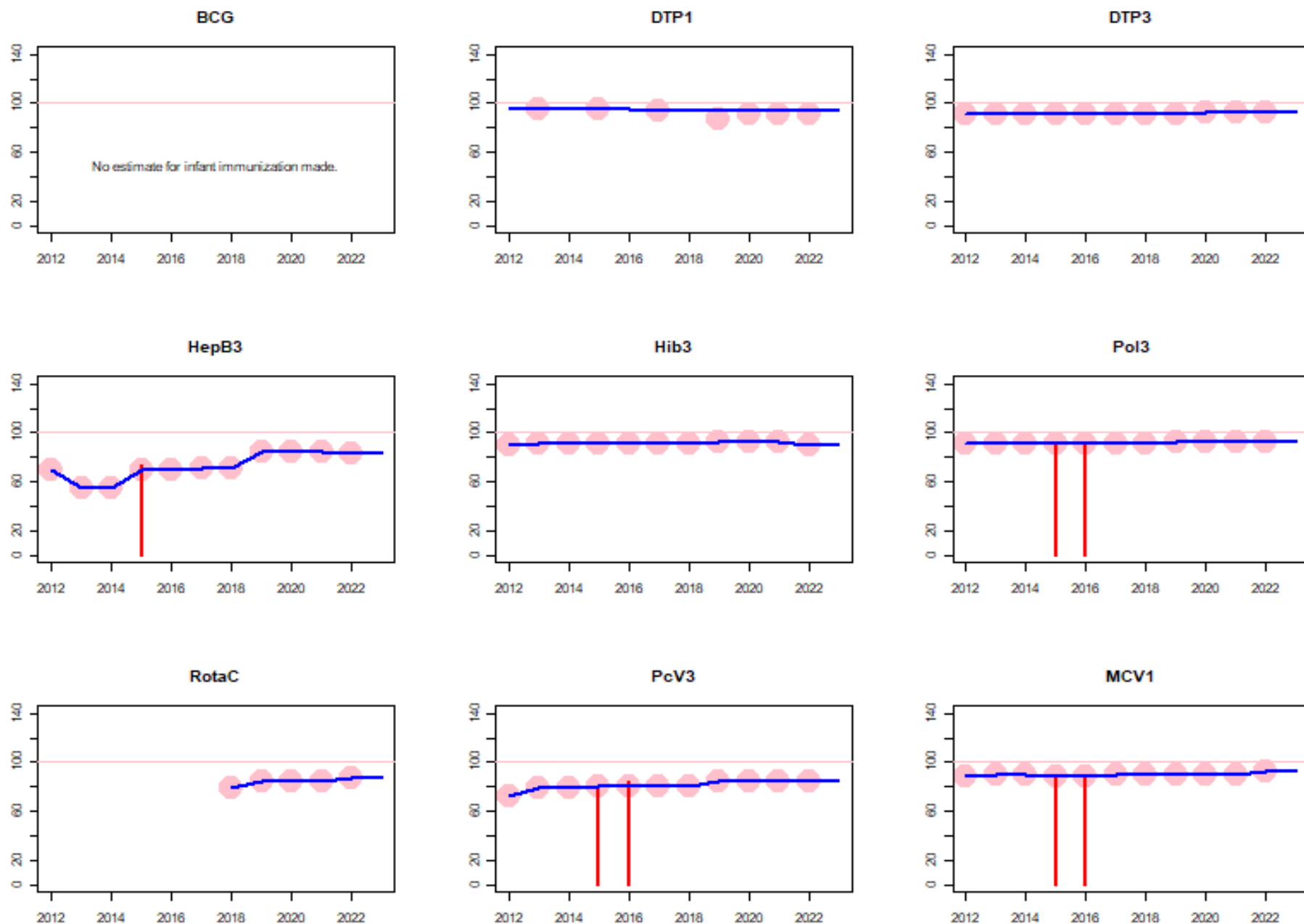




BACKGROUND NOTE: Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from published and grey literature. Based on these data, with due consideration to potential biases and the views of local experts, 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. 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.

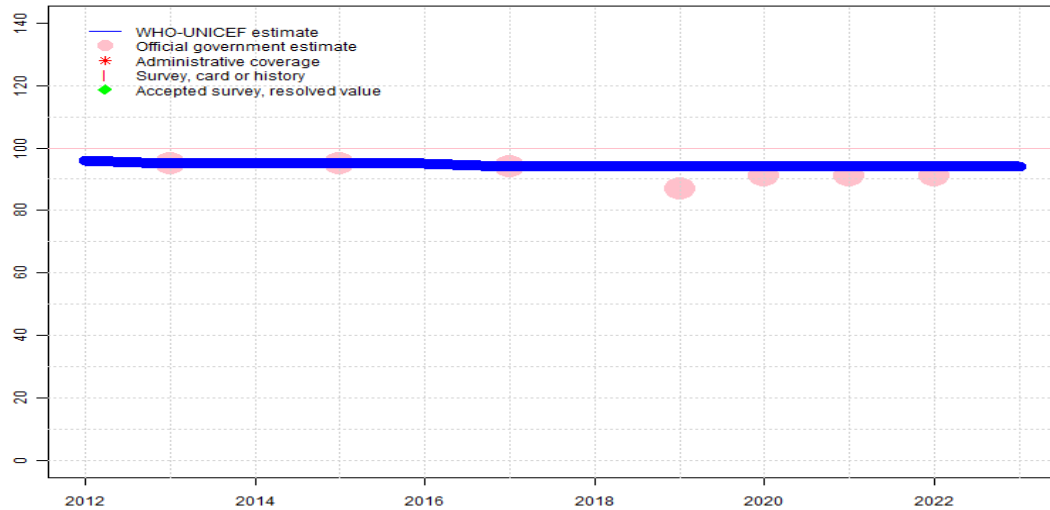
YFV: percentage of surviving infants who received one dose of yellow fever vaccine in countries where YFV is part of the national immunization schedule for children or is recommended in at risk areas; coverage estimates are annualized for the entire cohort of surviving infants.

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.

Disclaimer: All reasonable precautions have been taken by the World Health Organization and United Nations Children's Fund to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization or United Nations Children's Fund be liable for damages arising from its use.

Canada - DTP1

CAN - DTP1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	96	95	95	95	95	94	94	94	94	94	94	94
Estimate GoC	•	••	•	••	•	••	•	•	•	•	•	•
Official	NA	95	NA	95	NA	94	NA	87	91	91	91	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:

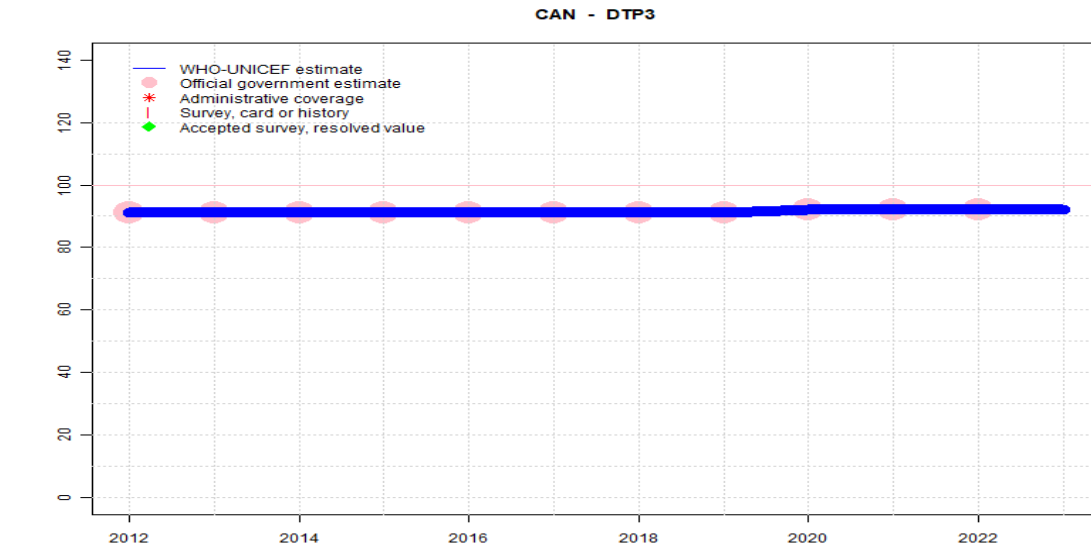
- 2023: Estimate informed by previous year estimate. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate informed by 2019 reported data reflecting coverage by 24 months of age, consistent with reporting for DTP3 based on data from the Childhood National Immunization Coverage Survey. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. Estimate challenged by: R-
- 2021: Estimate informed by 2019 reported data reflecting coverage by 24 months of age, consistent with reporting for DTP3 based on data from the Childhood National Immunization Coverage Survey. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. Estimate challenged by: R-
- 2020: Estimate is based on 2019 reported data reflecting coverage by 24 months of age, consistent with reporting for DTP3 based on data from the Childhood National Immunization Coverage Survey. Reported coverage does not reflect disruptions related to COVID-19. Estimate challenged by: R-
- 2019: Estimate is based on 2017 reported data reflecting coverage by 24 months of age, consistent with reporting for DTP3 based on data from the Childhood National Immunization Coverage Survey. Reported coverage of 87 percent for 2019 reflects that by three months of age. Reported coverage may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. Estimate challenged by: R-
- 2018: Estimate is based on 2017 reported data reflecting coverage by 24 months of age, consistent with reporting for DTP3 based on data from the Childhood National Immunization Coverage Survey. Reported coverage are obtained from the Childhood National Immunization Coverage Survey by three months of age and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=No accepted empirical data
- 2017: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey by three months of age and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2016: Estimate informed by interpolation between reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey by three months of age and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=No accepted empirical data
- 2015: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey. GoC=R+
- 2014: Estimate informed by interpolation between reported data. GoC=No accepted empirical data
- 2013: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield

Canada - DTP1

lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+

2012: Estimate informed by interpolation between reported data. GoC=No accepted empirical data

Canada - DTP3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	91	91	91	91	91	91	91	91	92	92	92	92
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	•
Official	91	91	91	91	91	91	91	91	92	92	92	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.

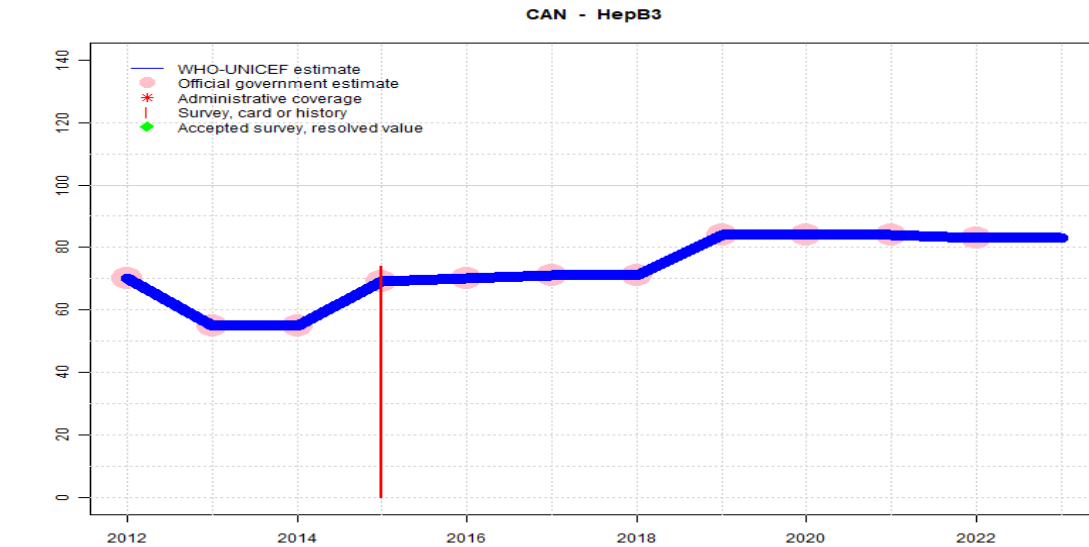
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2023: Estimate based on extrapolation from data reported by national government. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate informed by reported data. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2021: Estimate informed by reported data. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2020: Estimate informed by reported data. Reported coverage does not reflect disruptions related to COVID-19. GoC=R+
- 2019: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2018: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2017: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2016: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2015: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey. GoC=R+
- 2014: Estimate informed by reported data. Reported coverage is based on that for the third dose of polio vaccine administered in combination with DTP. The programme monitors the fourth dose of DTP containing vaccine at 2 years of age. GoC=R+
- 2013: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2012: Estimate informed by reported data. GoC=R+

Canada - HepB3



Description:

- 2023: Estimate informed by extrapolation from reported data. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate informed by reported data. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2021: Estimate informed by reported data. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2020: Estimate informed by reported data. Reported coverage does not reflect disruptions related to COVID-19. GoC=R+
- 2019: Estimate informed by reported data. GoC=R+
- 2018: Estimate informed by reported data. GoC=R+
- 2017: Estimate informed by reported data. Reported data reflects coverage for the six jurisdictions that recommend HepB vaccine among infants. GoC=R+
- 2016: Estimate informed by reported data. GoC=R+
- 2015: Estimate informed by reported data. Survey results ignored. Sample size 0 less than 300. Reported coverage are obtained from the Childhood National Immunization Coverage Survey. Data reflect coverage for the six jurisdictions that recommend HepB vaccine among infants. GoC=R+
- 2014: Estimate informed by reported data. GoC=R+
- 2013: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2012: Estimate informed by reported data. GoC=R+

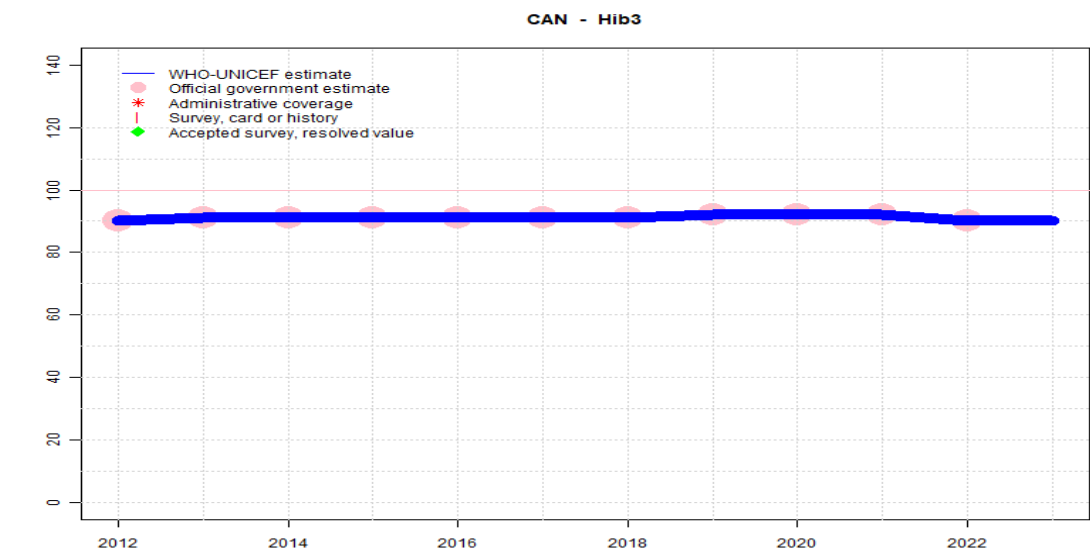
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	70	55	55	69	70	71	71	84	84	84	83	83
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	•
Official	70	55	55	69	70	71	71	84	84	84	83	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	74	NA	NA	NA	NA	NA	NA	NA	NA

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.

Canada - Hib3



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

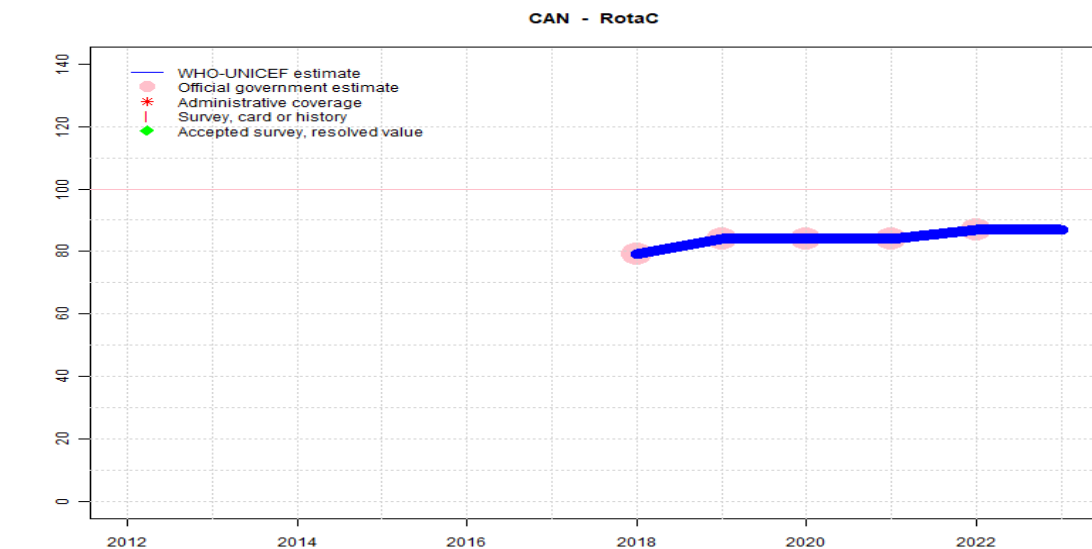
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2023: Estimate based on extrapolation from data reported by national government. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate informed by reported data. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2021: Estimate informed by reported data. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2020: Estimate informed by reported data. Reported coverage does not reflect disruptions related to COVID-19. Estimate based on reported coverage, though it is noted that coverage for this vaccine dose does not follow a similar trend that what is reported for other doses. GoC=R+
- 2019: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2018: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2017: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2016: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2015: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey. GoC=R+
- 2014: Estimate informed by reported data. Reported coverage is based on that for the third dose of polio vaccine administered in combination with Hib. The programme monitors the fourth dose of Hib containing vaccine at 2 years of age. GoC=R+
- 2013: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2012: Estimate informed by reported data. GoC=R+

Canada - RotaC



Description:

- 2023: Estimate informed by extrapolation from reported data. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate informed by reported data. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2021: Estimate informed by reported data. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2020: Estimate informed by reported data. Reported coverage does not reflect disruptions related to COVID-19. GoC=R+
- 2019: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2018: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	NA	NA	NA	79	84	84	84	87	87
Estimate GoC	NA	NA	NA	NA	NA	NA	●●	●●	●●	●●	●●	●
Official	NA	NA	NA	NA	NA	NA	79	84	84	84	87	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

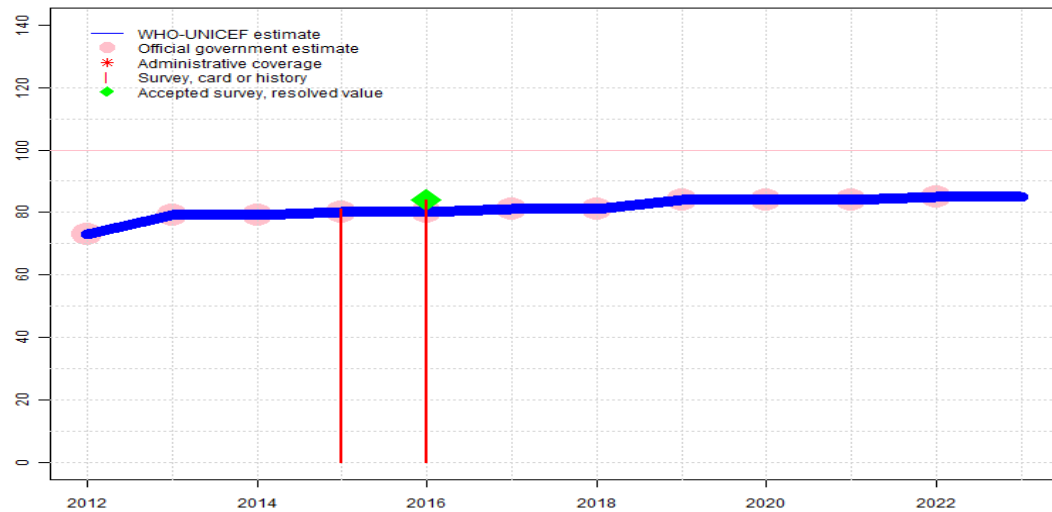
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Canada - PcV3

CAN - PcV3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	73	79	79	80	80	81	81	84	84	84	85	85
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	•
Official	73	79	79	80	80	81	81	84	84	84	85	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	81	84	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.

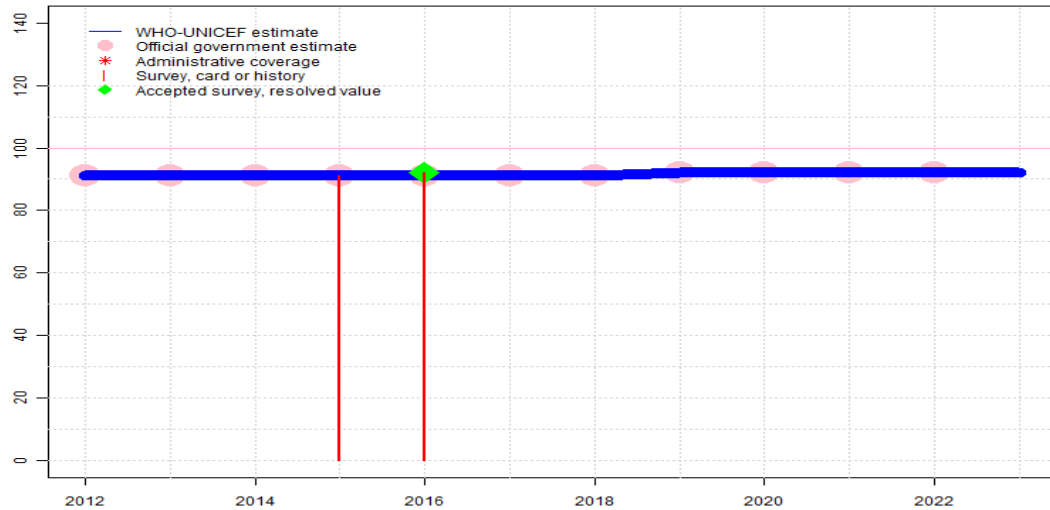
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2023: Estimate based on extrapolation from data reported by national government. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate informed by reported data. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2021: Estimate informed by reported data. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2020: Estimate informed by reported data. Reported coverage does not reflect disruptions related to COVID-19. GoC=R+
- 2019: Estimate informed by reported data. GoC=R+
- 2018: Estimate informed by reported data. GoC=R+ S+
- 2017: Estimate informed by reported data. GoC=R+ S+
- 2016: Estimate informed by reported data supported by survey. Survey evidence of 84 percent based on 1 survey(s). GoC=R+ S+
- 2015: Estimate informed by reported data. Survey results ignored. Sample size 0 less than 300. Reported coverage are obtained from the Childhood National Immunization Coverage Survey. GoC=R+ S+
- 2014: Estimate informed by reported data. GoC=R+ S+
- 2013: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. For the PcV dose recommended at 4 months of age reported coverage is ninety-seven percent. Reported official data are for a PcV dose given at 6 months to high risk groups. GoC=R+
- 2012: Estimate informed by reported data. For the PcV dose recommended at 4 months of age reported coverage is ninety-seven percent. Reported official data are for a PcV dose given at 6 months to high risk groups. GoC=R+

Canada - Pol3

CAN - Pol3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	91	91	91	91	91	91	91	92	92	92	92	92
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●
Official	91	91	91	91	91	91	91	92	92	92	92	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	91	92	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.

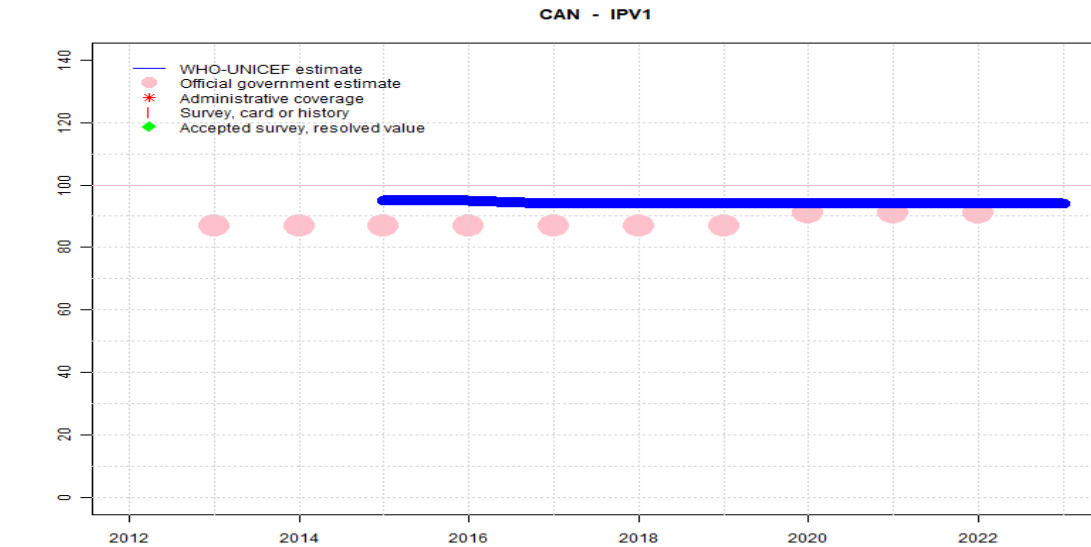
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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 based on extrapolation from data reported by national government. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate informed by reported data. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2021: Estimate informed by reported data. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2020: Estimate informed by reported data. Reported coverage does not reflect disruptions related to COVID-19. GoC=R+
- 2019: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2018: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+ S+
- 2017: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+ S+
- 2016: Estimate informed by reported data supported by survey. Survey evidence of 92 percent based on 1 survey(s). Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+ S+
- 2015: Estimate informed by reported data. Survey results ignored. Sample size 0 less than 300. Reported coverage are obtained from the Childhood National Immunization Coverage Survey. GoC=R+ S+
- 2014: Estimate informed by reported data. GoC=R+ S+
- 2013: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2012: Estimate informed by reported data. GoC=R+

Canada - IPV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	95	95	94	94	94	94	94	94	94
Estimate GoC	NA	NA	NA	•	•	•	•	•	•	•	•	•
Official	NA	87	87	87	87	87	87	87	91	91	91	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:

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).

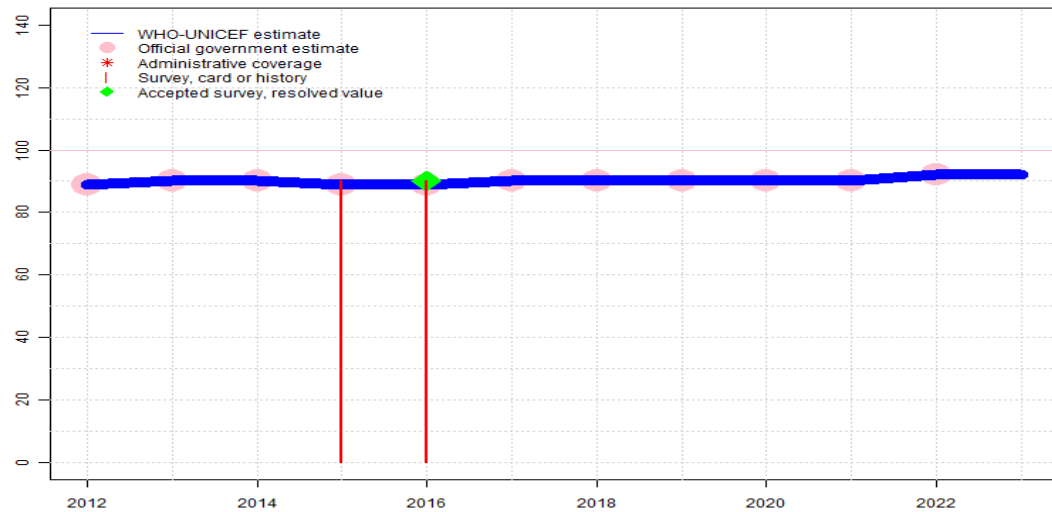
- 2023: Estimate informed by previous year estimate. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate is based on 2019 reported data reflecting coverage by 24 months of age, consistent with reporting for DTP3 based on data from the Childhood National Immunization Coverage Survey. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. Estimate challenged by: R-
- 2021: Estimate is based on 2019 reported data reflecting coverage by 24 months of age, consistent with reporting for DTP3 based on data from the Childhood National Immunization Coverage Survey. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. Estimate challenged by: R-
- 2020: Estimate is based on 2019 reported data reflecting coverage by 24 months of age, consistent with reporting for DTP3 based on data from the Childhood National Immunization Coverage Survey. Reported coverage does not reflect disruptions related to COVID-19. Estimate challenged by: R-
- 2019: Estimate is based on estimated DTP1 level. Reported coverage are obtained from the Childhood National Immunization Coverage Survey and reflect coverage by three months of age. Survey results may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. Estimate challenged by: R-
- 2018: Estimate is based on estimated DTP1 level. Reported coverage are obtained from the Childhood National Immunization Coverage Survey and reflect coverage by three months of age. Survey results may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. Estimate challenged by: R-
- 2017: Estimate is based on estimated DTP1 level. Reported coverage are obtained from the Childhood National Immunization Coverage Survey and reflect coverage by three months of age. Survey results may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. Estimate challenged by: R-
- 2016: Estimate based on DTP1 coverage estimates. Reported coverage are obtained from the Childhood National Immunization Coverage Survey and reflect coverage by three months of age. Survey results may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. Estimate challenged by: R-

Canada - IPV1

2015: Estimate based on DTP1 coverage estimates. Reported coverage are obtained from the Childhood National Immunization Coverage Survey. Estimate challenged by: R-

Canada - MCV1

CAN - MCV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	89	90	90	89	89	90	90	90	90	90	92	92
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●
Official	89	90	90	89	89	90	90	90	90	90	92	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	90	90	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.

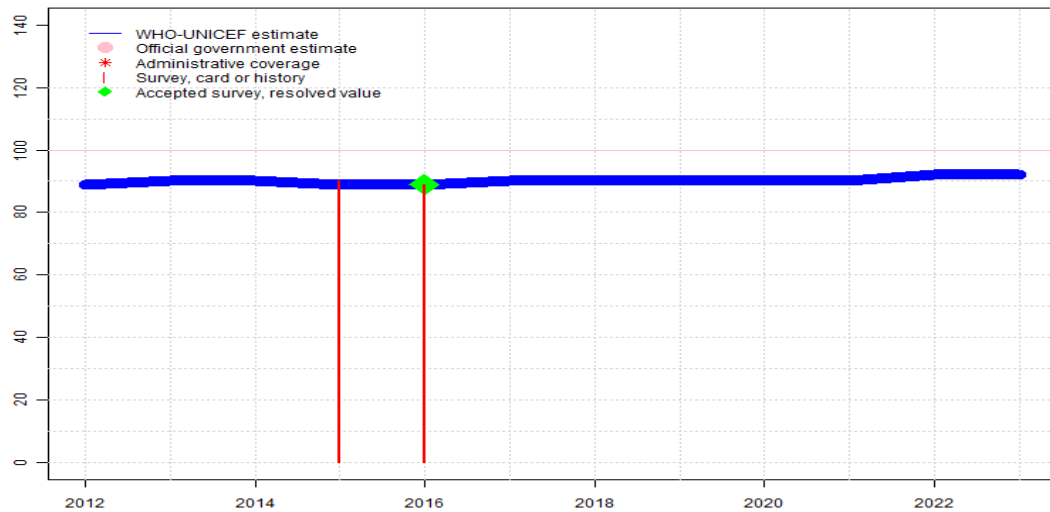
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2023: Estimate based on extrapolation from data reported by national government. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate informed by reported data. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2021: Estimate informed by reported data. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2020: Estimate informed by reported data. Reported coverage does not reflect disruptions related to COVID-19. GoC=R+
- 2019: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2018: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+ S+
- 2017: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+ S+
- 2016: Estimate informed by reported data supported by survey. Survey evidence of 90 percent based on 1 survey(s). Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+ S+
- 2015: Estimate informed by reported data. Survey results ignored. Sample size 0 less than 300. Reported coverage are obtained from the Childhood National Immunization Coverage Survey. GoC=R+ S+
- 2014: Estimate informed by reported data. GoC=R+ S+
- 2013: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2012: Estimate informed by reported data. GoC=R+

Canada - RCV1

CAN - RCV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	89	90	90	89	89	90	90	90	90	90	92	92
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	90	89	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.

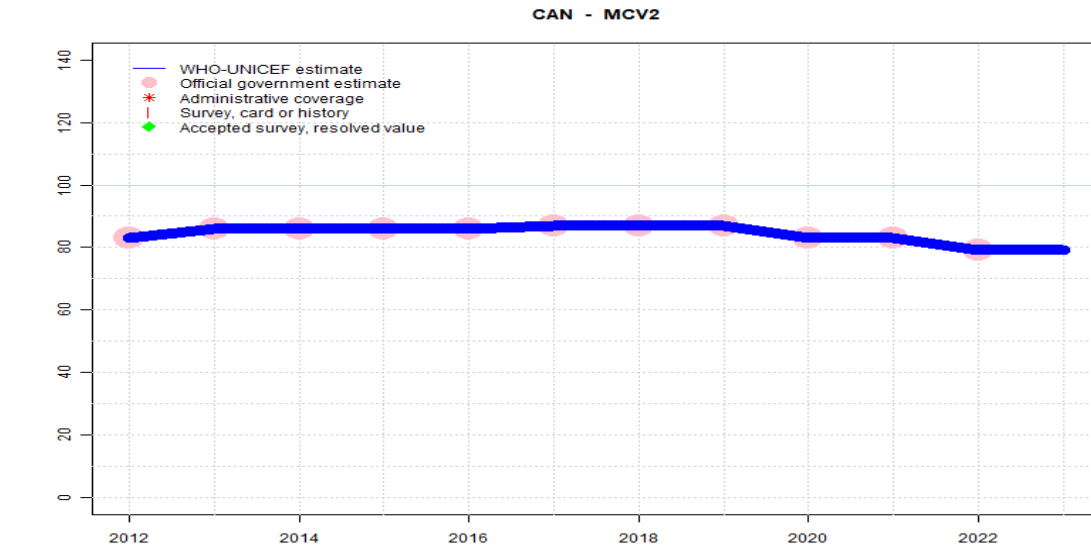
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

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. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate based on estimated MCV1. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2021: Estimate based on estimated MCV1. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2020: Estimate based on estimated MCV1. Reported coverage does not reflect disruptions related to COVID-19. GoC=R+
- 2019: Estimate based on estimated MCV1. GoC=R+
- 2018: Estimate based on estimated MCV1. GoC=R+ S+
- 2017: Estimate based on estimated MCV1. GoC=R+ S+
- 2016: Estimate based on estimated MCV1. GoC=R+ S+
- 2015: Estimate based on estimated MCV1. Survey results ignored. Sample size 0 less than 300. Reported coverage are obtained from the Childhood National Immunization Coverage Survey. GoC=R+ S+
- 2014: Estimate based on estimated MCV1. GoC=R+ S+
- 2013: Estimate based on estimated MCV1. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2012: Estimate based on estimated MCV1. GoC=R+

Canada - MCV2



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	83	86	86	86	86	87	87	87	83	83	79	79
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●
Official	83	86	86	86	86	87	87	87	83	83	79	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:

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

- 2023: Estimate informed by extrapolation from reported data. Report from 2021 Childhood National Immunization Coverage Survey is now available. GoC=No accepted empirical data
- 2022: Estimate informed by reported data. Reported coverage informed by 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2021: Estimate informed by reported data. Reported coverage is based on 2019 Childhood National Immunization Coverage Survey. GoC=R+
- 2020: Estimate informed by reported data. Reported coverage does not reflect disruptions related to COVID-19. GoC=R+
- 2019: Estimate informed by reported data. GoC=R+
- 2018: Estimate informed by reported data. GoC=R+
- 2017: Estimate informed by reported data. GoC=R+
- 2016: Estimate informed by reported data. Reported data for MCV2 reflects survey results for the second dose of MMR by 7 years of age. GoC=R+
- 2015: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey. GoC=R+
- 2014: Estimate informed by reported data. GoC=R+
- 2013: Estimate informed by reported data. Reported coverage are obtained from the Childhood National Immunization Coverage Survey for children 24 months or less and may yield lower than actual immunization coverage given that records with incomplete or illegible dates are considered as vaccines not administered. GoC=R+
- 2012: Estimate informed by reported data. MCV second dose introduced in 1997. Reporting started in 2012. GoC=R+

Canada - survey details

NOTE: A survey to measure vaccination coverage for infants (i.e., children aged 0-11 months) will sample children aged 12-23 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 12-23 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.

2019 Childhood National Immunization Coverage Survey (cNICS) 2021

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV1	Card or registers	91.6	24-35 m	3954	-
PcV3	Card or registers	85.1	24-35 m	3954	-
Pol3	Card or registers	91.8	24-35 m	3954	-

2016 Childhood National Immunization Coverage Survey (cNICS) 2019

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV1	Card or History	90.2	24-35 m	4910	-
PcV3	Card or History	84.4	24-35 m	4910	-
Pol3	Card or History	91.9	24-35 m	4910	-

2015 Childhood National Immunization Coverage Survey (cNICS) 2017

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
HepB3	Card or History	74.1	24-35 m	-	-
MCV1	Card or History	90.2	24-35 m	-	-
PcV3	Card or History	81.4	24-35 m	-	-
Pol3	Card or History	90.7	24-35 m	-	-

2003 National Immunization Coverage Survey 2004

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
HepB3	Card	14	20-40 m	-	-
MCV1	Card	94	20-40 m	-	-
Pol3	Card	89	20-40 m	-	-

2000 Canada, National Immunization Coverage Survey, 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
DTP3	History	90.9	24-35 m	629	85
MCV1	History	94.5	24-35 m	629	85
Pol3	History	87.7	24-35 m	629	85

Canada - 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>