

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.
* Brown et al. 2013. Open Pub Health Journal. * 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 6-11, 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 AND DEFINITIONS

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 in the production of the estimate.

HEPB: 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 if coverage for the booster dose is not reported.

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

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

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ANTECEDENTES Cada año, la OMS y UNICEF revisan conjuntamente los informes presentados por los Estados Miembros relativos a la cobertura nacional de inmunización, los informes finales de encuestas de cobertura, así como los datos identificados en la literatura gris y publicada. Sobre la base de esos datos, y teniendo debidamente en cuenta los posibles sesgos e información de expertos locales, la OMS y el UNICEF tratan de distinguir entre las situaciones en que los datos empíricos disponibles reflejan con exactitud el desempeño del sistema de inmunización y aquellas en que los datos puedan estar comprometidos y presentar una visión distorsionada de la cobertura.

Las estimaciones de cobertura de la OMS y UNICEF son específicas para cada país; es decir, los datos de cada país se revisan individualmente y, en ausencia de datos, no se toman prestados datos de otros países. Las estimaciones no se basan en ajustes ad hoc de los datos notificados y en algunos casos solo se dispone de datos empíricos de una única fuente, habitualmente los datos de cobertura notificados a nivel nacional. En los casos en que no se dispone de datos para una combinación determinada de país/vacuna/año, se consideran los datos de años anteriores y posteriores y se realiza una interpolación para estimar la cobertura del año(s) faltante(s). En los casos en que se cuenta con diversas fuentes de datos y éstos muestran una gran diferencia, se intenta identificar la estimación más cercana a la realidad teniendo en cuenta los posibles sesgos de los datos disponibles. Para leer la metodología, véase:

* Burton et al. 2009. Bull World Health Organ. * Burton et al. 2012. PLoS One.

* Brown et al. 2013. Open Pub Health Journal. * Danovaro-Holliday et al. 2021. Gates Open Res.

FUENTES DE DATOS

Cobertura ADMINISTRATIVA: Datos reportados por las autoridades nacionales en base a informes administrativos agregados procedentes de proveedores de servicios sanitarios sobre el número de dosis administradas durante un periodo determinado (datos del numerador) y datos sobre la población meta (datos del denominador). La cobertura administrativa puede estar sesgada por inexactitudes en el numerador y/o denominador.

Cobertura OFICIAL: Cobertura comunicada por las autoridades nacionales como la estimación que refleja su evaluación de la cobertura más probable usualmente basada en cualquier combinación de cobertura administrativa, estimaciones basadas en encuestas u otras fuentes de datos o ajustes. La metodología para determinar la cobertura OFICIAL puede variar de un país a otro.

Cobertura de ENCUESTA: Basada en la cobertura estimada a partir de encuestas de hogares para la población de niños de 6-11, 12-23 o 24-35 meses, tras una revisión de los métodos y los resultados de la encuesta. La información se basa en la combinación de datos de vacunación extraídas de algún documento (tarjeta de vacunación, registros) o de lo que pueda recordar el responsable del niño. Los resultados de una encuesta se consideran para la cohorte de nacimiento de la mayoría de los niños en función del periodo de recopilación de datos y la edad de los niños incluidos.

ABREVIATURAS Y DEFINICIONES

BCG: porcentaje de recién nacidos que recibieron una dosis de la vacuna Bacillus Calmette-Guerin, contra formas severas de tuberculosis.

DTP1 / DTP3 (del inglés diphtheria-tetanus-pertussis): porcentaje de recién nacidos supervivientes (al año) que recibieron la 1ª / 3ª dosis, respectivamente, de una vacuna que contiene toxoide diftérico y tetánico y vacuna contra la tos ferina (Pertussis).

POL3: porcentaje de recién nacidos supervivientes (al año) que recibieron la 3ª dosis de una vacuna antipoliomielítica, ya sea vacuna antipoliomielítica oral o inactivada.

IPV1 (del inglés inactivated polio vaccine): porcentaje de recién nacidos supervivientes (al año) que recibieron al menos una dosis de vacuna antipoliomielítica inactivada. Las estimaciones de la OMS y UNICEF para IPV1 reflejan la cobertura con al menos una dosis rutinaria de IPV entre los lactantes ¡ 1 año de edad en los países que utilizan un esquema de vacunación que recomienda (i) una serie primaria de tres dosis de vacuna antipoliomielítica oral (OPV) más al menos una dosis de IPV (cuando se da OPV en rutina o en campañas) o (ii) un calendario secuencial que comienza con IPV seguida de OPV. Para los países que utilizan únicamente IPV y no OPV, la estimación de la OMS y UNICEF para IPV1 corresponde a la cobertura de la 1ª dosis de IPV.

La producción de estimaciones de cobertura de la VPI, que comienza en 2015, no supone ningún cambio en los niveles de cobertura estimados para la tercera dosis de vacuna antipoliomielítica (POL3). Para los países que recomiendan una serie primaria de tres dosis de IPV, sin OPV, la cobertura POL3 estimada por la OMS y UNICEF es equivalente a la cobertura estimada con tres dosis de IPV. Para los países con un calendario secuencial, la cobertura POL3 estimada se basa en la de la tercera dosis de cualquier vacuna antipoliomielítica.

IPV2: porcentaje de recién nacidos supervivientes (al año) que recibieron una 2ª dosis de vacuna antipoliomielítica inactivada. Solo se producen estimaciones de cobertura IPV2 para los países que además de IPV recomiendan alguna dosis de OPV.

MCV1 (del inglés measles-containing vaccine): porcentaje de recién nacidos supervivientes (al año) que recibieron la 1ª dosis de alguna vacuna antisarampionosa. En países en los que el esquema nacional de vacunación recomienda la 1ª dosis vacuna antisarampionosa a partir de los 12 meses de edad, en función de la epidemiología de la enfermedad en el país, las estimaciones de cobertura reflejan el porcentaje de niños que recibieron la 1ª dosis de vacuna antisarampionosa según la edad recomendada.

MCV2: porcentaje de niños que recibieron la 2ª dosis de alguna vacuna antisarampionosa según el calendario recomendado a nivel nacional.

RCV1 (del inglés rubella-containing vaccine): porcentaje de recién nacidos supervivientes (al año), o según la edad recomendada, que recibieron la 1ª dosis de alguna vacuna contra la rubéola. Las estimaciones de cobertura contra la rubéola se basan en las estimaciones de la OMS y UNICEF para la vacuna antisarampionosa correspondiente a la primera vacuna combinada contra el sarampión y la rubéola. La estimación de la OMS y UNICEF no considera la cobertura contra la rubéola notificada.

HEPBB: porcentaje de recién nacidos que recibieron una dosis de vacuna contra la hepatitis B dentro de las primeras 24 horas después del nacimiento. Las estimaciones de cobertura de hepatitis B del recién nacido sólo se elaboran para los países que recomiendan esta dosis de manera universal y no para los países que recomiendan una dosis al nacer solo para recién nacidos de madres infectadas por el virus de la hepatitis B o cuando no hay información suficiente para determinar si la vacunación se administra dentro de las primeras 24 horas después del nacimiento.

HEPB3: porcentaje de recién nacidos supervivientes (al año) que recibieron una 3ª dosis de una vacuna contra la hepatitis B tras la dosis de nacimiento.

HIB3: porcentaje de recién nacidos supervivientes (al año) que recibieron una 3ª dosis de la vacuna contra Haemophilus influenzae tipo b.

ROTAC: porcentaje de recién nacidos supervivientes (al año) que recibieron la última dosis recomendada de la vacuna contra el rotavirus, que puede ser la 2ª o la 3ª dosis dependiendo de la vacuna utilizada.

PCV3 (del inglés pneumococcal conjugate vaccine): porcentaje de recién nacidos supervivientes (al año) que recibieron la 3ª dosis de la vacuna antineumocócica conjugada. En los países en los

que el esquema nacional de vacunación recomienda dos dosis para lactantes y una dosis de refuerzo a los 12 meses o más tarde en función de la epidemiología de la enfermedad en el país, las estimaciones de cobertura pueden reflejar el porcentaje de recién nacidos supervivientes (al año) si no se notifica la cobertura de la dosis de refuerzo.

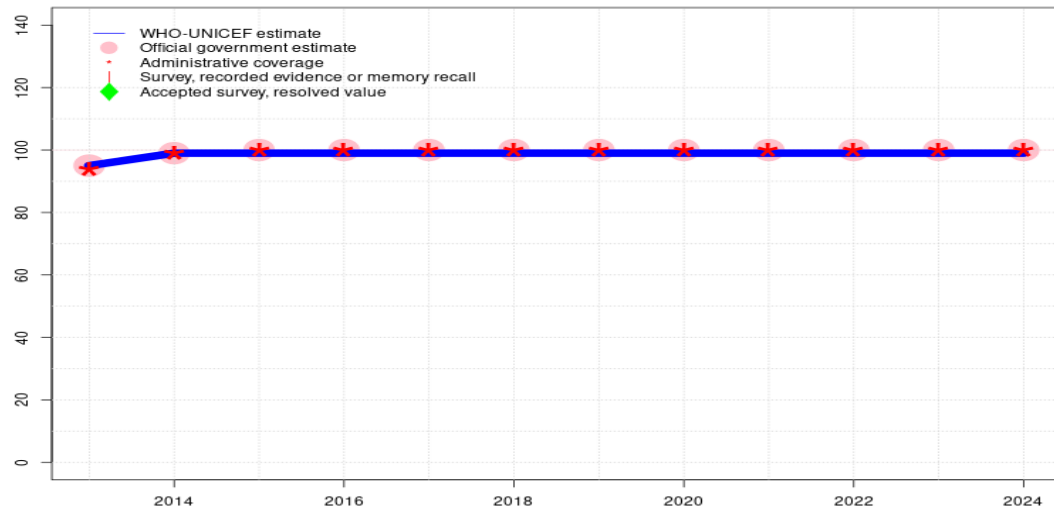
YFV (del inglés yellow fever vaccine): porcentaje de recién nacidos supervivientes (al año) que recibieron una dosis de vacuna contra la fiebre amarilla en países donde la vacuna antiamarílica forma parte del calendario nacional de vacunación infantil o se recomienda en zonas de riesgo; las estimaciones de cobertura se anualizan para toda la cohorte de recién nacidos supervivientes.

MENGA: porcentaje de niños que recibieron una dosis de la vacuna conjugada antimeningocócica A. Las estimaciones de cobertura MENGA son únicamente elaboradas para los países del cinturón de la meningitis de África subsahariana.

Descargo de responsabilidad: La Organización Mundial de la Salud y el Fondo de las Naciones Unidas para la Infancia han tomado todas las precauciones razonables para verificar la información contenida en esta publicación. No obstante, el material publicado se distribuye sin garantía de ningún tipo, ni expresa ni implícita. La responsabilidad de la interpretación y el uso del material recae en el lector. En ningún caso la Organización Mundial de la Salud o el Fondo de las Naciones Unidas para la Infancia serán responsables de potenciales daños derivados de su uso.

Panama - BCG

PAN - BCG



Description:

2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Estimate challenged by: D-

2023: Estimate informed by reported data. Estimate challenged by: D-

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

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. Programme reports a one month vaccine stockout. GoC=R+ D+

2018: Estimate informed by reported data. Programme reports a four-month vaccine stockout. GoC=R+ D+

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

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

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

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

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

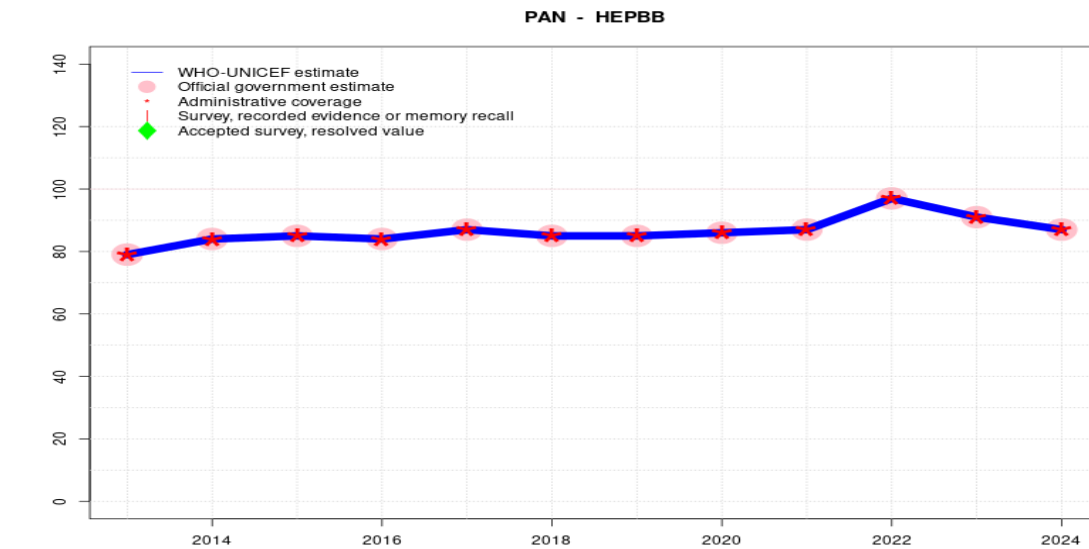
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	95	99	99	99	99	99	99	99	99	99	99	99
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●	●	●
Official	95	99	100	100	100	100	100	100	100	100	100	100
Administrative	94	99	100	100	100	100	100	100	100	100	100	100
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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: 2024 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.

Panama - HEPBB



Description:

2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Estimate challenged by: D-

2023: Estimate informed by reported data. Estimate of 91 percent changed from previous revision value of 93 percent. Estimate challenged by: D-

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

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. Programme reports eight months vaccine stockout. GoC=R+ D+

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

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

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

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

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

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

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	79	84	85	84	87	85	85	86	87	97	91	87
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●	●
Official	79	84	85	84	87	85	85	86	87	97	91	87
Administrative	79	84	85	84	87	85	85	86	87	97	91	87
Survey	-	-	-	-	-	-	-	-	-	-	-	-

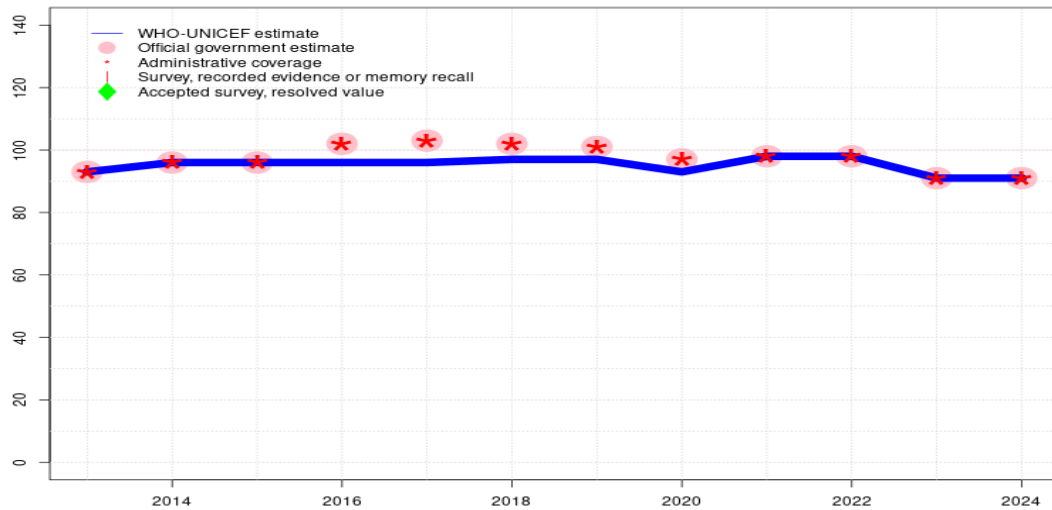
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- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2024 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While 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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Panama - DTP1

PAN - DTP1



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	93	96	96	96	96	97	97	93	98	98	91	91
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●	●●	●●	●●	●
Official	93	96	96	102	103	102	101	97	98	98	91	91
Administrative	93	96	96	102	103	102	101	97	98	98	91	91
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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: 2024 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.

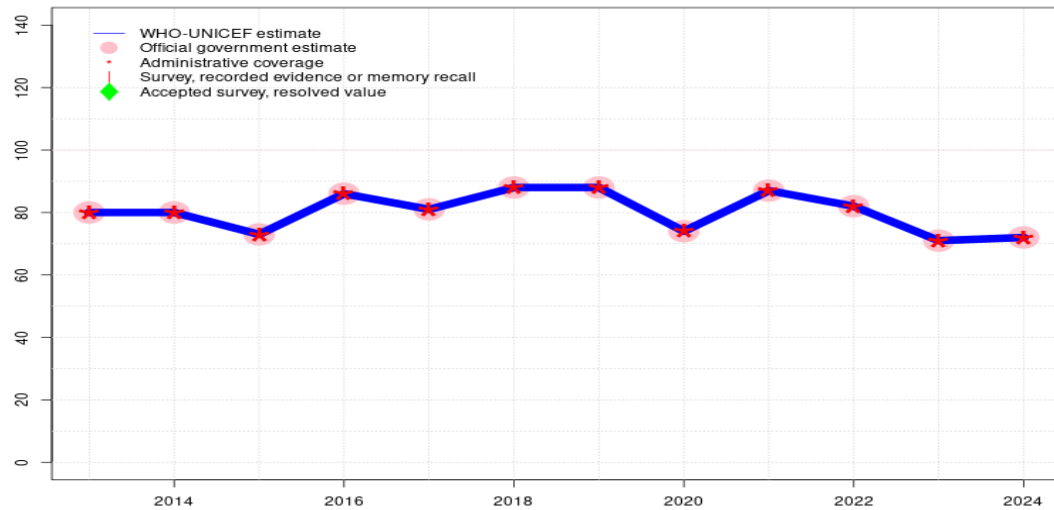
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Programme reported 3 months vaccine stock-out at the national and subnational levels. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme reported 4 months vaccine stock-out at the national and subnational levels. Estimate of 91 percent changed from previous revision value of 88 percent. GoC=R+ D+
- 2022: Estimate informed by reported data. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by decline in reported administrative coverage. Programme reports a three months vaccine stockout at national and subnational levels. Estimate challenged by: R-
- 2019: Estimate informed by interpolation between reported data. Reported data excluded because 101 percent greater than 100 percent. GoC=R+ D+
- 2018: Estimate informed by interpolation between reported data. Reported data excluded because 102 percent greater than 100 percent. GoC=R+ D+
- 2017: Estimate informed by interpolation between reported data. Reported data excluded because 103 percent greater than 100 percent. GoC=R+ D+
- 2016: Estimate informed by interpolation between reported data. Reported data excluded because 102 percent greater than 100 percent. Programme reports a one-month vaccine stockout in 2016. GoC=R+ D+
- 2015: Estimate informed by reported data. GoC=R+ D+
- 2014: Estimate informed by reported data. GoC=R+ D+
- 2013: Estimate informed by reported data. GoC=R+ D+

Panama - DTP3

PAN - DTP3



Description:

- 2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Programme reported 3 months vaccine stock-out at the national and subnational levels. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme reported 4 months vaccine stock-out at the national and subnational levels. Programme reports four months vaccine stockout at national and subnational levels. Estimate of 71 percent changed from previous revision value of 66 percent. GoC=R+ D+
- 2022: Estimate informed by reported data. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate informed by decline in reported administrative coverage. Programme reports a three months vaccine stockout at national and subnational levels. GoC=R+ D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports a one-month vaccine stockout. GoC=R+ D+
- 2015: Estimate informed by reported data. GoC=R+ D+
- 2014: Estimate informed by reported data. GoC=R+ D+
- 2013: Estimate informed by reported data. GoC=R+ D+

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	80	80	73	86	81	88	88	74	87	82	71	72
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●
Official	80	80	73	86	81	88	88	74	87	82	71	72
Administrative	80	80	73	86	81	88	88	74	87	82	71	72
Survey	-	-	-	-	-	-	-	-	-	-	-	-

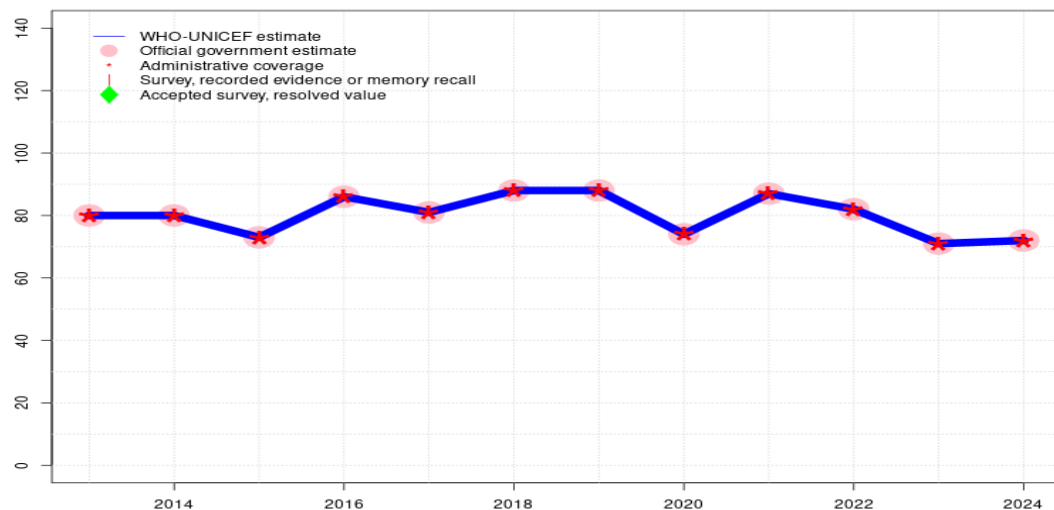
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- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2024 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While 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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Panama - HEPB3

PAN - HEPB3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	80	80	73	86	81	88	88	74	87	82	71	72
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	•
Official	80	80	73	86	81	88	88	74	87	82	71	72
Administrative	80	80	73	86	81	88	88	74	87	82	71	72
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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: 2024 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.

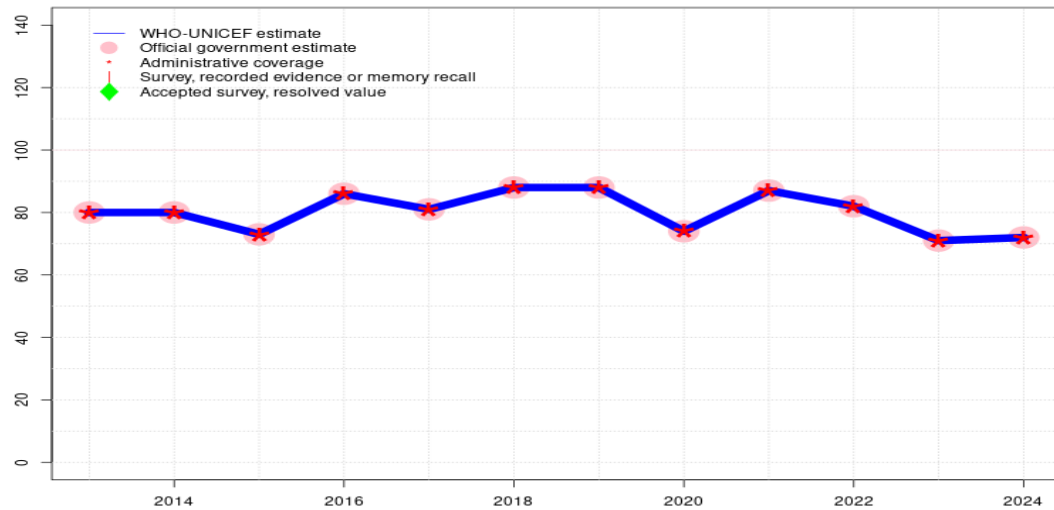
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Programme reported 3 months vaccine stock-out at the national and subnational levels. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme reported 4 months vaccine stock-out at the national and subnational levels. Programme reports four months vaccine stockout at national and subnational levels. Estimate of 71 percent changed from previous revision value of 66 percent. GoC=R+ D+
- 2022: Estimate informed by reported data. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate informed by decline in reported administrative coverage. Programme reports a three months vaccine stockout at national and subnational levels. GoC=R+ D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports a one-month vaccine stockout. GoC=R+ D+
- 2015: Estimate informed by reported data. GoC=R+ D+
- 2014: Estimate informed by reported data. GoC=R+ D+
- 2013: Estimate informed by reported data. GoC=R+ D+

Panama - HIB3

PAN - HIB3



Description:

- 2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Programme reported 3 months vaccine stock-out at the national and subnational levels. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme reported 4 months vaccine stock-out at the national and subnational levels. Programme reports four months vaccine stockout at national and subnational levels. Estimate of 71 percent changed from previous revision value of 66 percent. GoC=R+ D+
- 2022: Estimate informed by reported data. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate informed by decline in reported administrative coverage. Programme reports a three months vaccine stockout at national and subnational levels. GoC=R+ D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports a one-month vaccine stockout. GoC=R+ D+
- 2015: Estimate informed by reported data. GoC=R+ D+
- 2014: Estimate informed by reported data. GoC=R+ D+
- 2013: Estimate informed by reported data. GoC=R+ D+

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	80	80	73	86	81	88	88	74	87	82	71	72
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●
Official	80	80	73	86	81	88	88	74	87	82	71	72
Administrative	80	80	73	86	81	88	88	74	87	82	71	72
Survey	-	-	-	-	-	-	-	-	-	-	-	-

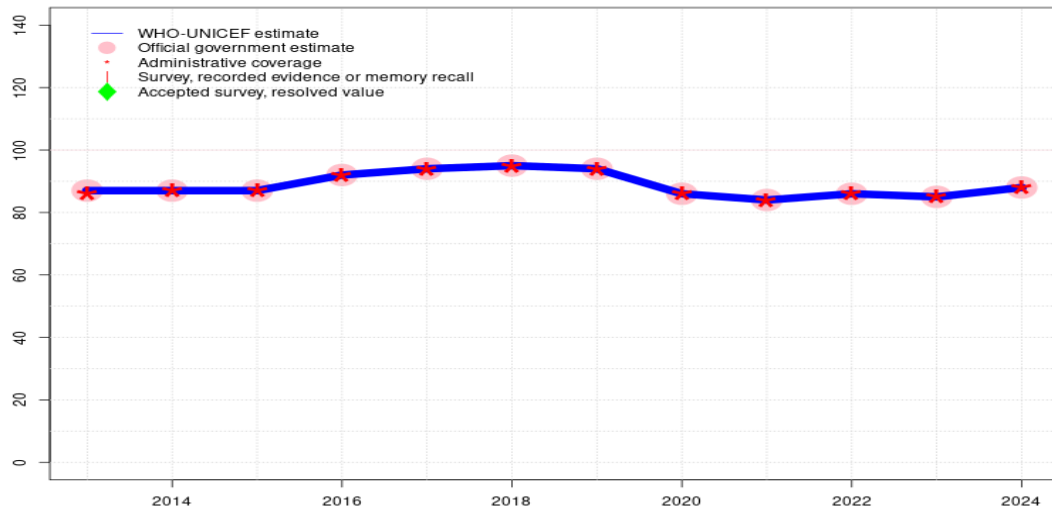
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2024 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.

Panama - ROTAC

PAN - ROTAC



Description:

2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Estimate challenged by: D-

2023: Estimate informed by reported data. Estimate of 85 percent changed from previous revision value of 84 percent. GoC=R+ D+

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

2021: Estimate informed by reported data. GoC=R+ D+

2020: Estimate informed by reported data. GoC=R+ D+

2019: Estimate informed by reported data. GoC=R+ D+

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

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

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

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

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

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

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	87	87	87	92	94	95	94	86	84	86	85	88
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●
Official	87	87	87	92	94	95	94	86	84	86	85	88
Administrative	86	87	87	92	94	95	94	86	84	86	85	88
Survey	-	-	-	-	-	-	-	-	-	-	-	-

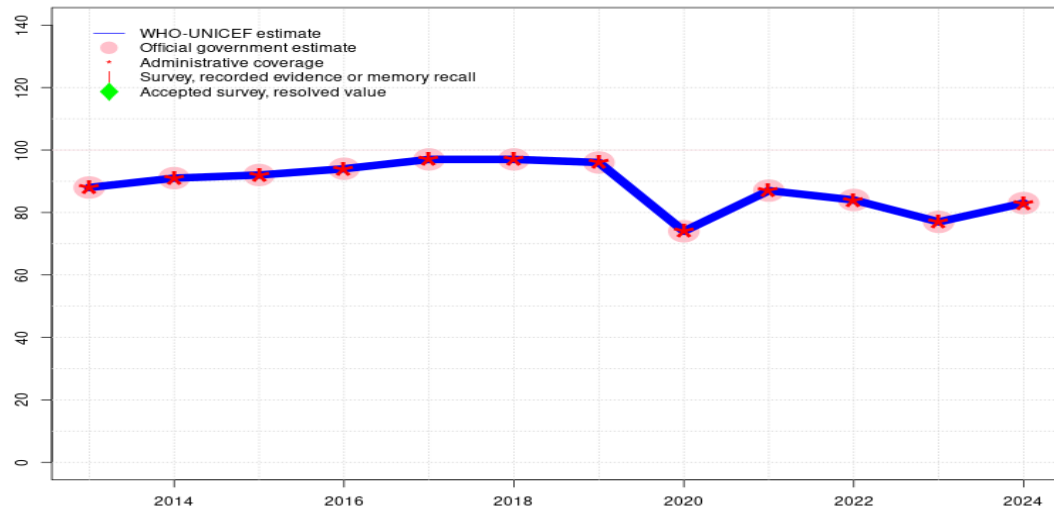
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2024 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.

Panama - PCV3

PAN - PCV3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	88	91	92	94	97	97	96	74	87	84	77	83
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●
Official	88	91	92	94	97	97	96	74	87	84	77	83
Administrative	88	91	92	94	97	97	96	74	87	84	77	83
Survey	-	-	-	-	-	-	-	-	-	-	-	-

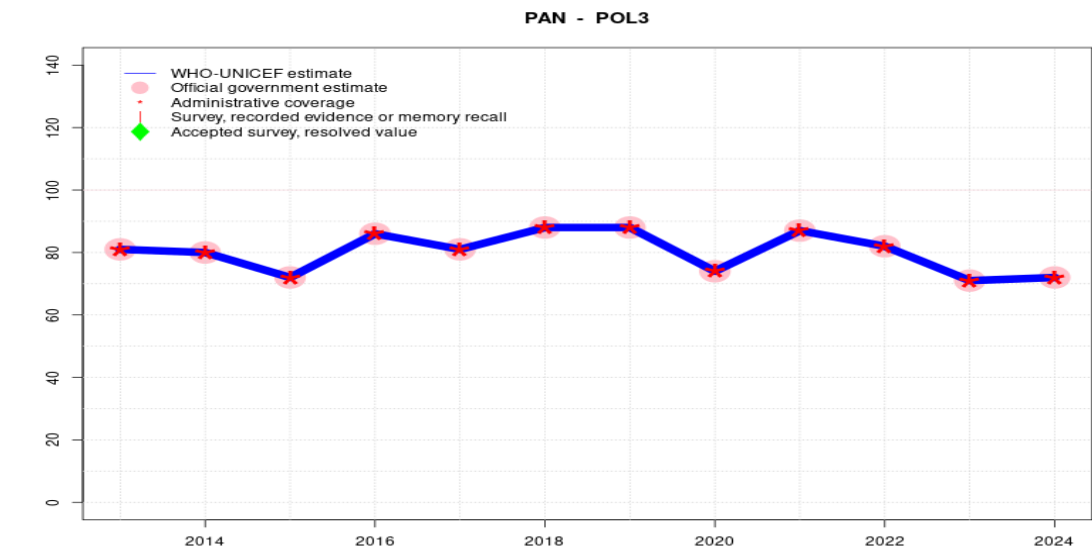
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2024 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:

- 2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. GoC=R+ D+
- 2023: Estimate informed by reported data. Estimate of 77 percent changed from previous revision value of 69 percent. GoC=R+ D+
- 2022: Estimate informed by reported data. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate informed by decline in reported administrative coverage. GoC=R+ D+
- 2019: Estimate informed by reported data. Programme reports a two months vaccine stockout. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports a three-month vaccine stockout in 2016. GoC=R+ D+
- 2015: Estimate informed by reported data. GoC=R+ D+
- 2014: Estimate informed by reported data. Changes in PcV schedule affected data reporting and coverage calculation. The recommended age is 2, 4 and 12 months. Coverage for the second dose of PcV is 91 percent. Data are not reported for the third dose. GoC=R+ D+
- 2013: Estimate informed by reported data. Changes in PcV schedule affected data reporting and coverage calculation. GoC=R+ D+



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	81	80	72	86	81	88	88	74	87	82	71	72
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	•
Official	81	80	72	86	81	88	88	74	87	82	71	72
Administrative	81	80	72	86	81	88	88	74	87	82	71	72
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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: 2024 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.

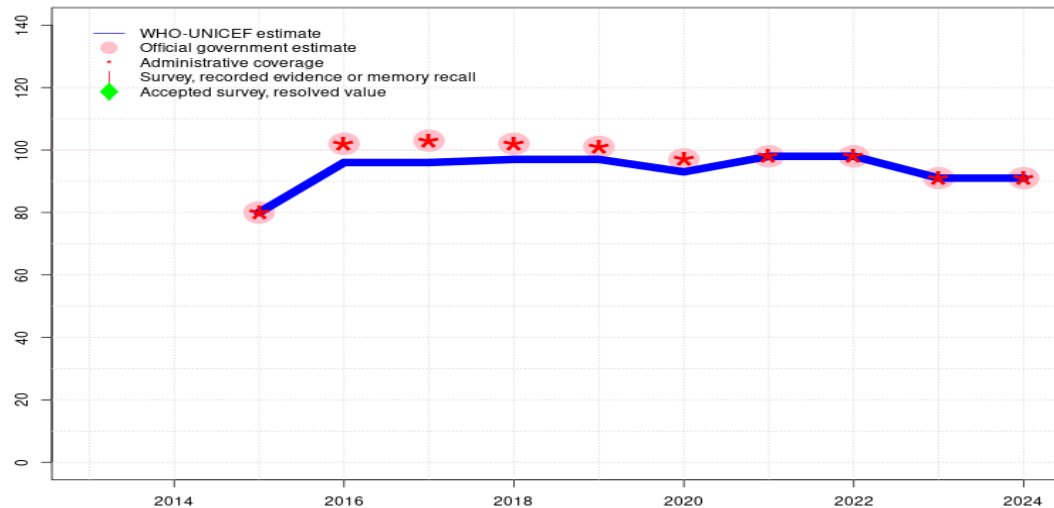
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Programme reported 3 months vaccine stock-out at the national and subnational levels. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme reported 4 months vaccine stock-out at the national and subnational levels. Programme reports four months vaccine stockout at national and subnational levels. Estimate of 71 percent changed from previous revision value of 66 percent. GoC=R+ D+
- 2022: Estimate informed by reported data. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate informed by decline in reported administrative coverage. GoC=R+ D+
- 2019: Estimate informed by reported data. Programme reports a four months vaccine stockout. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. Country reports stockout of five months. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports a three-month vaccine stockout OPV and IPV. GoC=R+ D+
- 2015: Estimate informed by reported data. GoC=R+ D+
- 2014: Estimate informed by reported data. GoC=R+ D+
- 2013: Estimate informed by reported data. GoC=R+ D+

Panama - IPV1

PAN - IPV1



Description:

- 2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Programme reported 3 months vaccine stock-out at the national and subnational levels. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme reported 4 months vaccine stock-out at the national and subnational levels. Estimate of 91 percent changed from previous revision value of 88 percent. GoC=R+ D+
- 2022: Estimate informed by reported data. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by estimated DTP1 coverage. Estimate challenged by: R-
- 2019: Estimate informed by estimated DTP1 coverage. Reported data excluded because 101 percent greater than 100 percent. Estimate challenged by: R-
- 2018: Estimate informed by estimated DTP1 coverage. Reported data excluded because 102 percent greater than 100 percent. Estimate challenged by: R-
- 2017: Coverage set at level of estimate for DTP1. Country is using hexavalent DTaP-Hib-HepB-IPV. Reported data excluded because 103 percent greater than 100 percent. Estimate challenged by: R-
- 2016: Coverage set at level of estimate for DTP1. Country is using hexavalent DTaP-Hib-HepB-IPV. Reported data excluded because 102 percent greater than 100 percent. Estimate challenged by: R-
- 2015: Estimate informed by reported data. GoC=R+ D+

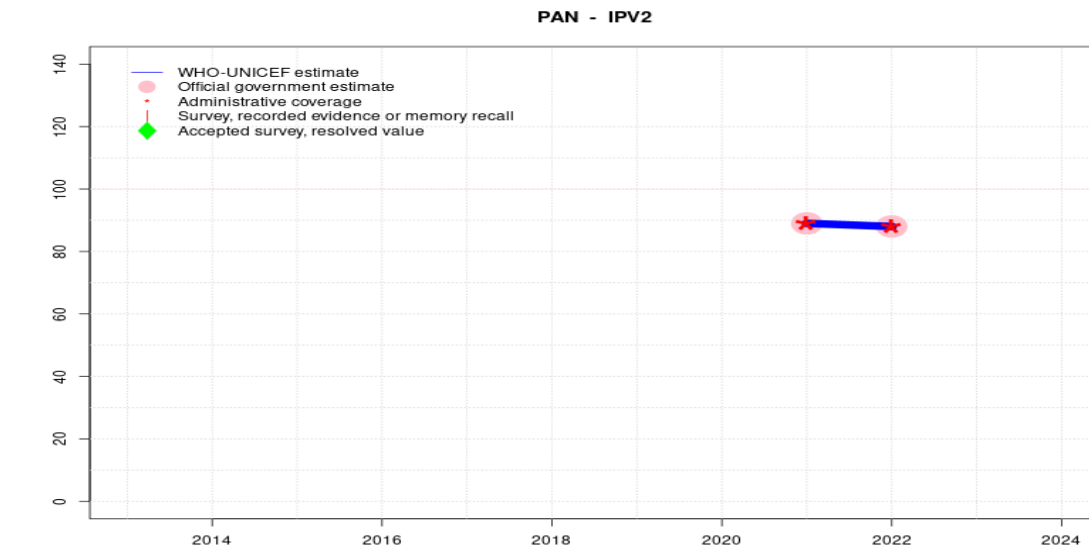
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	80	96	96	97	97	93	98	98	91	91
Estimate GoC	-	-	●●	●	●	●	●	●	●●	●●	●●	●
Official	-	-	80	102	103	102	101	97	98	98	91	91
Administrative	-	-	80	102	103	102	101	97	98	98	91	91
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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: 2024 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.

Panama - IPV2



Description:

2022: Estimate informed by reported data. This is the last year IPV2 estimates are produced as the programme no longer recommends nor administers oral polio vaccine beginning in 2023. GoC=R+ D+

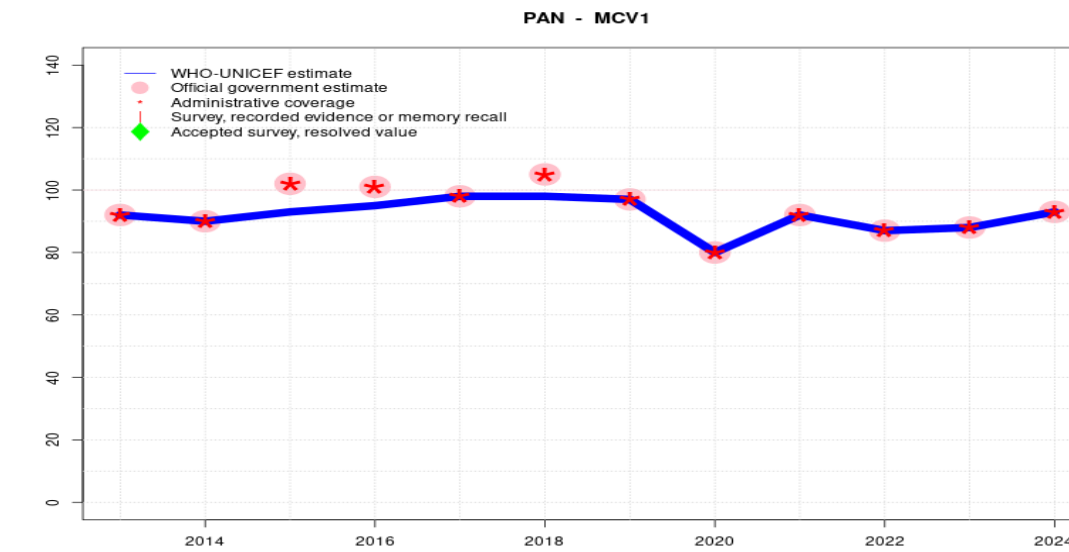
2021: Estimate informed by reported data. Second dose of inactivated polio vaccine introduced prior to 2021. GoC=R+ D+

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	-	-	-	-	-	-	89	88	-	-
Estimate GoC	-	-	-	-	-	-	-	-	●●	●●	-	-
Official	-	-	-	-	-	-	-	-	89	88	-	-
Administrative	-	-	-	-	-	-	-	-	89	88	-	-
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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: 2024 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.



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	92	90	93	95	98	98	97	80	92	87	88	93
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●
Official	92	90	102	101	98	105	97	80	92	87	88	93
Administrative	92	90	102	101	98	105	97	80	92	87	88	93
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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.

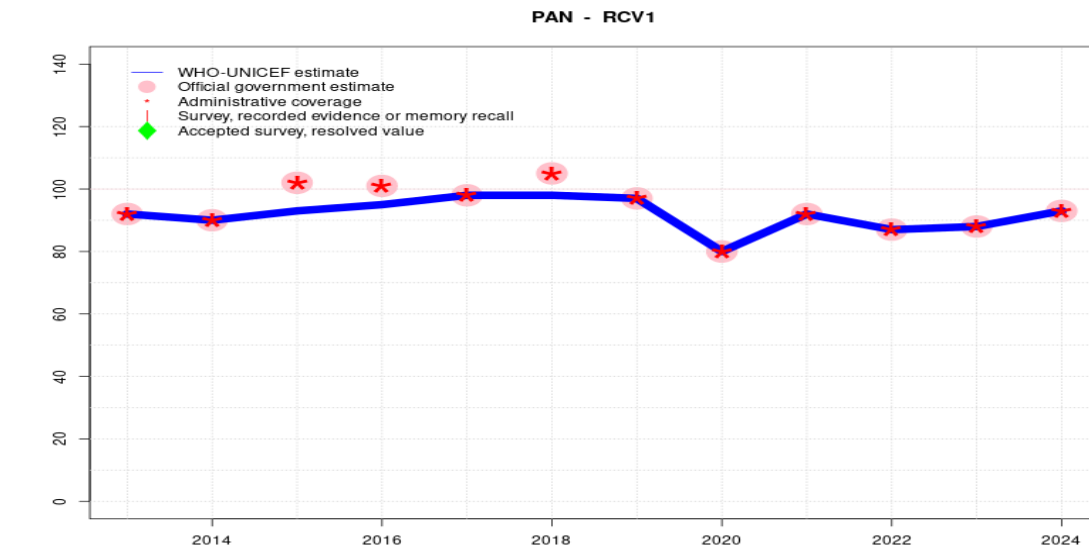
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2024 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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:

- 2024: Estimate informed by reported data. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Estimate of 88 percent changed from previous revision value of 78 percent. GoC=R+ D+
- 2022: Estimate informed by reported data. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate informed by decline in reported administrative coverage. GoC=R+ D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by interpolation between reported data. Reported data excluded because 105 percent greater than 100 percent. GoC=R+ D+
- 2017: Estimate informed by reported data. GoC=R+ D+
- 2016: Estimate informed by interpolation between reported data. Reported data excluded because 101 percent greater than 100 percent. GoC=R+ D+
- 2015: Estimate informed by interpolation between reported data. Reported data excluded because 102 percent greater than 100 percent. GoC=R+ D+
- 2014: Estimate informed by reported data. GoC=R+ D+
- 2013: Estimate informed by reported data. GoC=R+ D+

Panama - RCV1



Description:

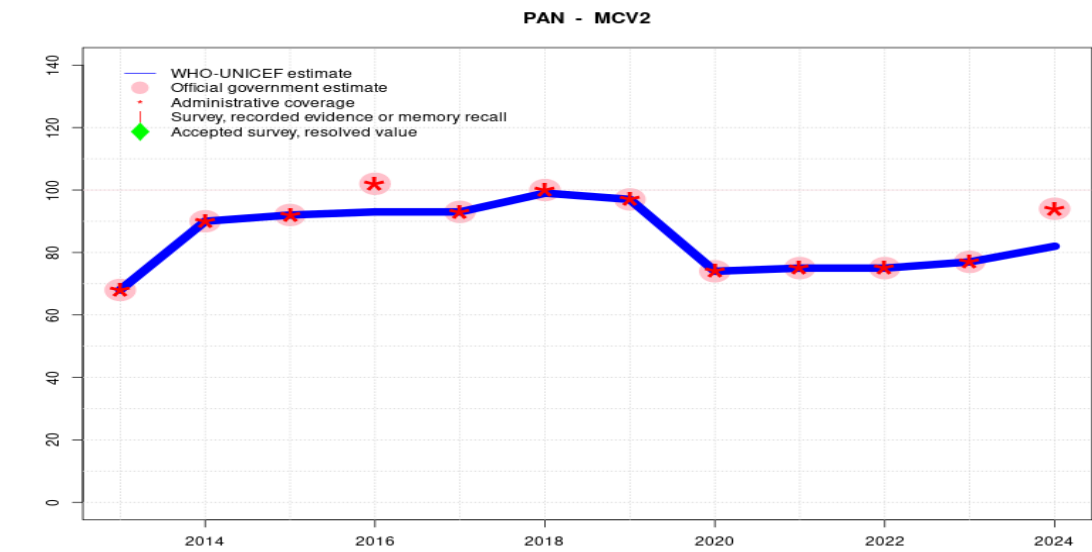
- 2024: Estimate based on estimated MCV1. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Estimate challenged by: D-
- 2023: Estimate based on estimated MCV1. Estimate of 88 percent changed from previous revision value of 78 percent. GoC=R+ D+
- 2022: Estimate based on estimated MCV1. GoC=R+ D+
- 2021: Estimate based on estimated MCV1. GoC=R+ D+
- 2020: Estimate based on estimated MCV1. Reported data excluded due to decline in reported coverage from 97 percent to 80 percent with increase to 92 percent. GoC=R+ D+
- 2019: Estimate based on estimated MCV1. GoC=R+ D+
- 2018: Estimate based on estimated MCV1. Reported data excluded because 105 percent greater than 100 percent. GoC=R+ D+
- 2017: Estimate based on estimated MCV1. GoC=R+ D+
- 2016: Estimate based on estimated MCV1. Reported data excluded because 101 percent greater than 100 percent. GoC=R+ D+
- 2015: Estimate based on estimated MCV1. Reported data excluded because 102 percent greater than 100 percent. GoC=R+ D+
- 2014: Estimate based on estimated MCV1. GoC=R+ D+
- 2013: Estimate based on estimated MCV1. GoC=R+ D+

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	92	90	93	95	98	98	97	80	92	87	88	93
Estimate GoC	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●
Official	92	90	102	101	98	105	97	80	92	87	88	93
Administrative	92	90	102	101	98	105	97	80	92	87	88	93
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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: 2024 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:

- 2024: Estimate is based on the increase in MCV1 coverage between 2023 and 2024. Reported MCV2 coverage may include campaign doses. Reported data excluded due to sudden change in coverage from 77 to 94 percent. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Estimate challenged by: R-
- 2023: Estimate informed by reported data. Estimate of 77 percent changed from previous revision value of 73 percent. GoC=R+ D+
- 2022: Estimate informed by reported data. GoC=R+ D+
- 2021: Estimate informed by reported data. Estimate informed by decline in reported administrative coverage. GoC=R+ D+
- 2020: Estimate informed by reported data. GoC=R+ D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. GoC=R+ D+
- 2016: Estimate informed by interpolation between reported data. Reported data excluded because 102 percent greater than 100 percent. GoC=R+ D+
- 2015: Estimate informed by reported data. GoC=R+ D+
- 2014: Estimate informed by reported data. Recommended age for the second dose of measles containing vaccine changed from 4 years of age to 18 months during 2014. Estimate challenged by: D-
- 2013: Estimate informed by reported data. GoC=R+ D+

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	68	90	92	93	93	99	97	74	75	75	77	82
Estimate GoC	●●	●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●
Official	68	90	92	102	93	100	97	74	75	75	77	94
Administrative	68	90	92	102	93	100	97	74	75	75	77	94
Survey	-	-	-	-	-	-	-	-	-	-	-	-

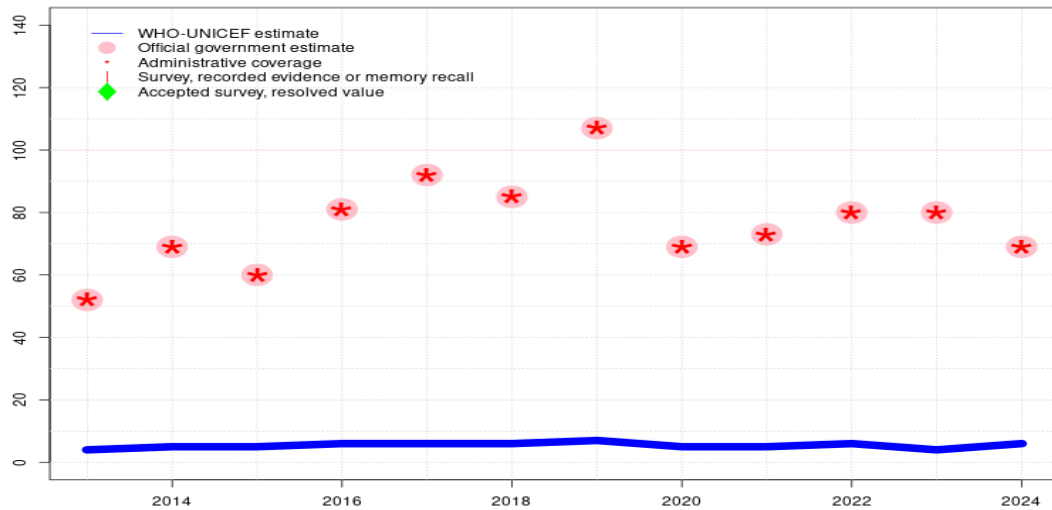
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2024 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.

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	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	4	5	5	6	6	6	7	5	5	6	4	6
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	52	69	60	81	92	85	107	69	73	80	80	69
Administrative	52	69	60	81	92	85	107	69	73	80	80	69
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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: 2024 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:

- 2024: Programme reports 69 percent coverage reached in 8 percent of the national birth cohort. Estimate informed by annualized coverage among the total national birth cohort. Reported data excluded due to sudden change in coverage from 80 to 69 percent. Reported target population decline of over about 14 percent between 2023 and 2024. No nationally representative household survey for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality survey to verify reported levels of coverage. Estimate challenged by: R-
- 2023: Programme reports 59 percent coverage reached in seven percent of the national birth cohort. Estimate informed by annualized coverage among the total national birth cohort. Estimate challenged by: R-
- 2022: Programme reports 80 percent coverage reached in seven percent of the national birth cohort. Estimate informed by annualized coverage among the total national birth cohort. Estimate challenged by: R-
- 2021: Programme reports 73 percent coverage reached in seven percent of the national birth cohort. Estimate informed by annualized coverage among the total national birth cohort. Estimate challenged by: R-
- 2020: Programme reports 69 percent coverage reached in seven percent of the national birth cohort in the three regions at risk for yellow fever. Estimate informed by annualized coverage among the total national birth cohort. Estimate challenged by: R-
- 2019: Programme reports 107 percent coverage reached in seven percent of the national birth cohort. Estimate informed by annualized coverage among the total national birth cohort. Reported data excluded because 107 percent greater than 100 percent. Reported data excluded due to an increase from 85 percent to 107 percent with decrease to 69 percent. Estimate challenged by: R-
- 2018: Eighty-five percent coverage reached in seven percent of the national birth cohort. Estimate informed by annualized coverage among the total national birth cohort. Estimate challenged by: R-
- 2017: Ninety-two percent coverage reached in eight percent of the national birth cohort. Estimate informed by annualized coverage among the total national birth cohort. Estimate challenged by: R-
- 2016: Eighty-one percent coverage reached in eight percent of the national birth cohort. Estimate informed by annualized coverage among the total national birth cohort. Estimate challenged by: R-
- 2015: Sixty percent coverage reached in eight percent of the national birth cohort. Estimate informed by annualized coverage among the total national birth cohort. Estimate challenged by: R-
- 2014: Sixty-nine percent coverage reached in eight percent of the national birth cohort. Estimate informed by annualized coverage among the total national birth cohort. GoC=Assigned by working group.
- 2013: Fifty two percent coverage reached in seven percent of the national birth cohort. Reported data excluded due to decline in reported coverage from 98 percent to 52 percent with

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increase to 69 percent. GoC=Assigned by working group.

Further information and estimates for previous years are available at:

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

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