

Ukraine: WHO and UNICEF estimates of immunization coverage: 2024 revision

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.

HEPB3: 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.

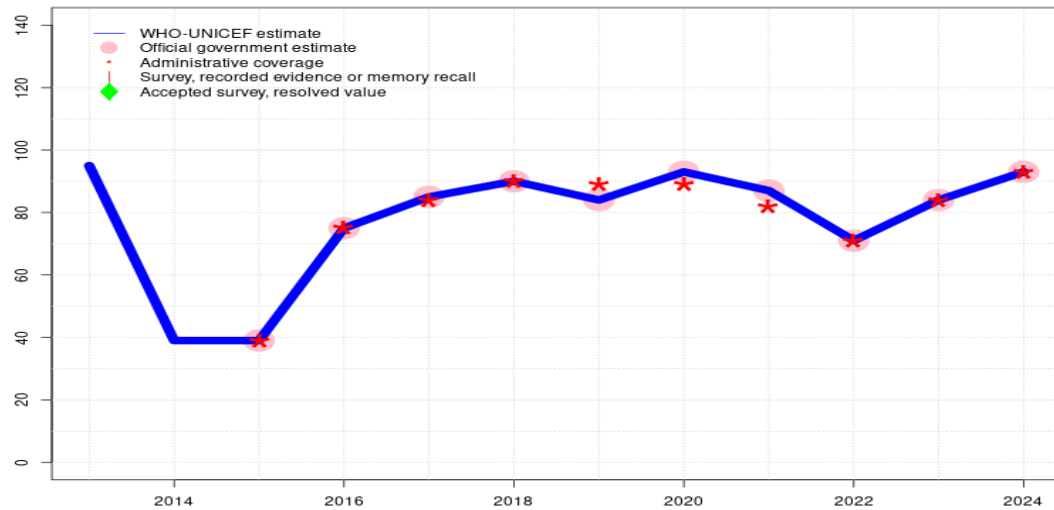
YFV: percentage of surviving infants who received one dose of yellow fever vaccine in countries where YFV is part of the national immunization schedule for children or is recommended in at risk areas; coverage estimates are annualized for the entire cohort of surviving infants.

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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Ukraine - BCG

UKR - BCG



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	95	39	39	75	85	90	84	93	87	71	84	93
Estimate GoC	•	•	••	••	••	••	••	•	•	••	••	•
Official	-	-	39	75	85	90	84	93	87	71	84	93
Administrative	-	-	39	75	84	90	89	89	82	71	84	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.

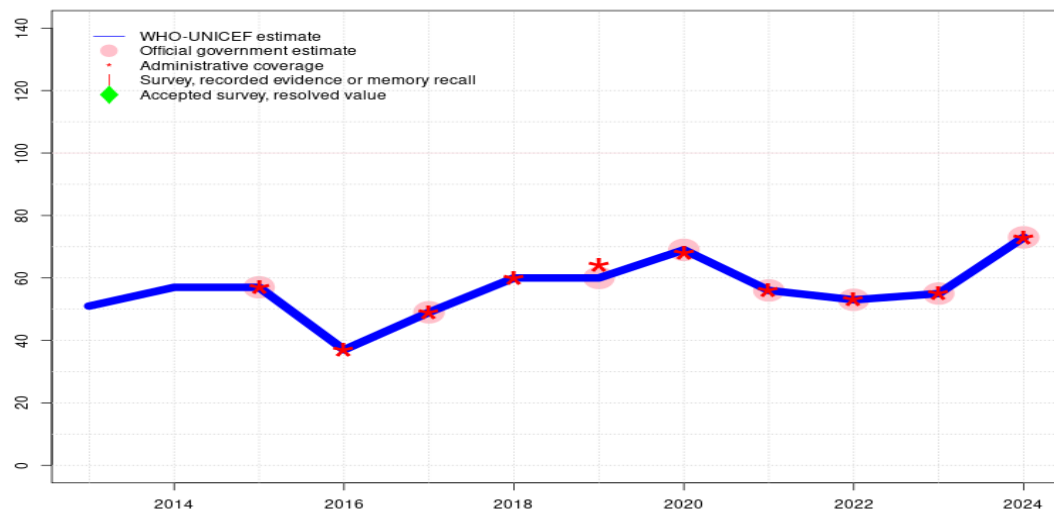
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2024: Estimate informed by reported data. Declines of over ten percent in target population reported between 2023 and 2024. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Despite ongoing disruptions to immunization service and primary healthcare delivery systems due to intense hostilities, reported coverage suggests improvements in services delivered to those who remain in the country following mass population displacement in conflict-affected areas. Reported target population size decreased more than 25 percent from 2022 to 2023 and by nearly 50 percent since 2019. GoC=R+ D+
- 2022: Estimate informed by reported data. Programme reports one month vaccine stockout at national and subnational level. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. GoC=R+ D+
- 2021: Estimate informed by reported data. Programme reports a one month vaccine stockout. Estimate of 87 percent changed from previous revision value of 86 percent. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimate challenged by: 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. Programme recovering from vaccine shortages. Estimate of 85 percent changed from previous revision value of 84 percent. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports 9 month national stockout. GoC=R+ D+
- 2015: Estimate based on reported BCG coverage for 2015. Programme reports 5-month stockout at the national level. GoC=R+ D+
- 2014: Estimate of 39 percent assigned by working group. Estimate based on reported BCG coverage for 2015. Reduced coverage may be explained by a combination of vaccine shortages and an erosion in public confidence in vaccination, coinciding with civil unrest. GoC=No accepted empirical data
- 2013: Estimate of 95 percent assigned by working group. Estimate based on reported BCG coverage for 2012. GoC=No accepted empirical data

Ukraine - HEPBB

UKR - HEPBB



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	51	57	57	37	49	60	60	69	56	53	55	73
Estimate GoC	●	●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●
Official	-	-	57	-	49	-	60	69	56	53	55	73
Administrative	-	-	57	37	49	60	64	68	56	53	55	73
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.

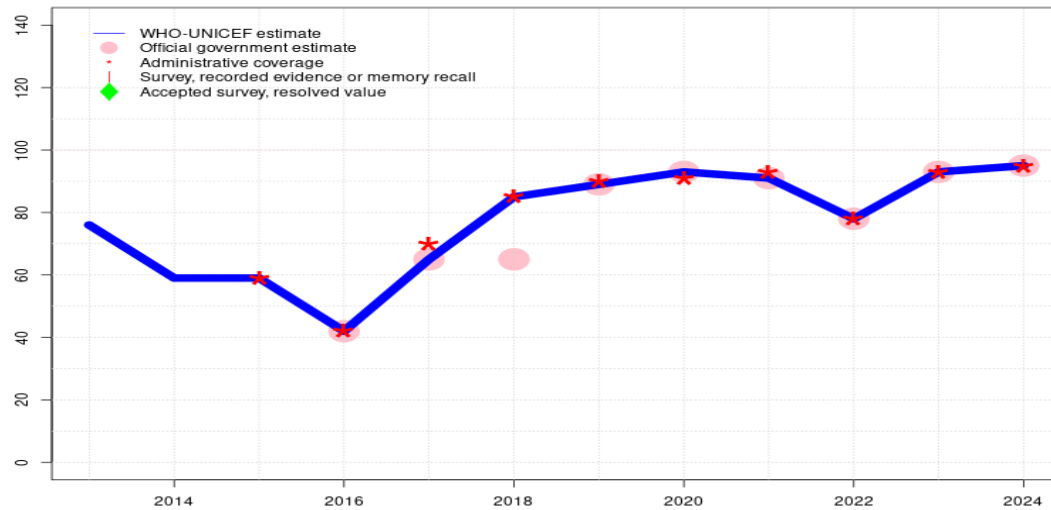
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2024: Estimate informed by reported data. Declines of over ten percent in target population reported between 2023 and 2024. GoC=R+ D+
- 2023: Estimate informed by reported data. Despite ongoing disruptions to immunization service and primary healthcare delivery systems due to intense hostilities, reported coverage suggests improvements in services delivered to those who remain in the country following mass population displacement in conflict-affected areas. Reported target population size decreased more than 25 percent from 2022 to 2023 and by nearly 50 percent since 2019. GoC=R+ D+
- 2022: Estimate informed by reported data. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. GoC=R+ D+
- 2021: Estimate informed by reported data. Unexplained decline in vaccination coverage with HepB birth dose. 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 administrative data. GoC=R+ D+
- 2017: Estimate informed by reported data. Programme recovering from vaccine shortages. GoC=R+ D+
- 2016: Estimate informed by reported administrative data. GoC=R+ D+
- 2015: Estimate based on estimated HepBB coverage level in 2015. GoC=R+ D+
- 2014: Estimate of 57 percent assigned by working group. Estimate based on estimated HepBB coverage level in 2015. Reduced coverage may be explained by a combination of vaccine shortages and an erosion in public confidence in vaccination, coinciding with civil unrest. GoC=No accepted empirical data
- 2013: Estimate of 51 percent assigned by working group. Estimate based on estimated HepBB coverage level in 2012. GoC=No accepted empirical data

Ukraine - DTP1

UKR - DTP1



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	76	59	59	42	65	85	89	93	91	78	93	95
Estimate GoC	•	•	••	••	••	••	••	•	••	••	•	•
Official	-	-	-	42	65	65	89	93	91	78	93	95
Administrative	-	-	59	42	70	85	90	91	93	78	93	95
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.

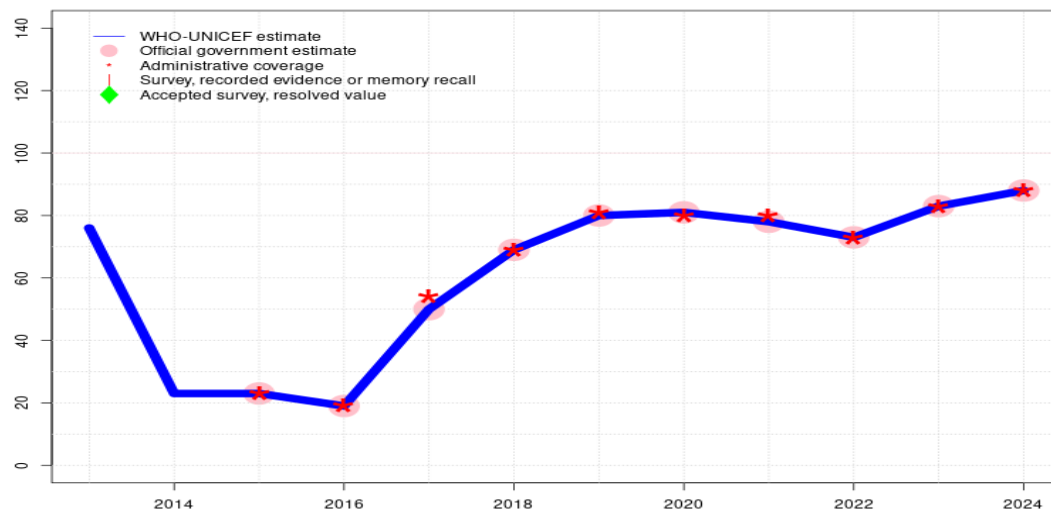
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2024: Estimate informed by reported data. Declines of over ten percent in target population reported between 2023 and 2024. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Despite ongoing disruptions to immunization service and primary healthcare delivery systems due to intense hostilities, reported coverage suggests improvements in services delivered to those who remain in the country following mass population displacement in conflict-affected areas. Reported target population size decreased more than 25 percent from 2022 to 2023 and by nearly 50 percent since 2019. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by reported administrative data. GoC=R+ D+
- 2017: Estimate informed by reported data. Programme recovering from vaccine shortages. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports six months national stockout. GoC=R+ D+
- 2015: Programme reports 5-month stockout at the national level. GoC=R+ D+
- 2014: Estimate of 59 percent assigned by working group. Estimate based on reported DTP1 coverage for 2015. Reduced coverage may be explained by a combination of vaccine shortages and an erosion in public confidence in vaccination, coinciding with civil unrest. GoC=No accepted empirical data
- 2013: Estimate of 76 percent assigned by working group. Reported DTP1 coverage levels less than reported DTP3. The historical performance of the system suggests minimal dropout not only for completion of multi-dose vaccines but for all vaccines. In the absence of better data DTP1 coverage is assumed to be the GoC=No accepted empirical data

Ukraine - DTP3

UKR - DTP3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	76	23	23	19	50	69	80	81	78	73	83	88
Estimate GoC	•	•	••	••	••	••	••	•	••	••	•	•
Official	-	-	23	19	50	69	80	81	78	73	83	88
Administrative	-	-	23	19	54	69	81	80	80	73	83	88
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.
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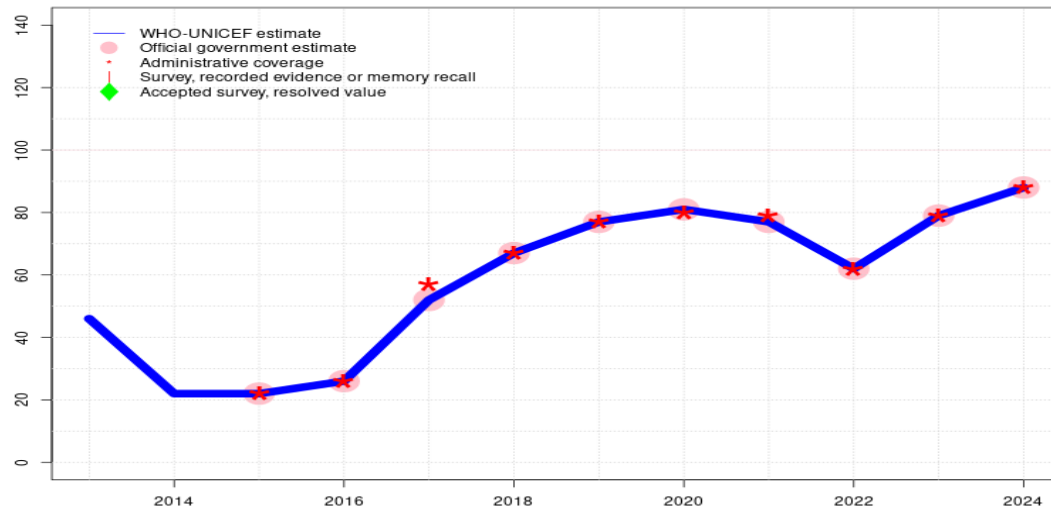
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Description:

- 2024: Estimate informed by reported data. Declines of over ten percent in target population reported between 2023 and 2024. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Despite ongoing disruptions to immunization service and primary healthcare delivery systems due to intense hostilities, reported coverage suggests improvements in services delivered to those who remain in the country following mass population displacement in conflict-affected areas. Reported target population size decreased more than 25 percent from 2022 to 2023 and by nearly 50 percent since 2019. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate challenged by: 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. Programme recovering from vaccine shortages. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports six months national stockout. Reported number of children vaccinated with three doses of DTP containing vaccine has declined by 78 percent between 2012 and 2016. GoC=R+ D+
- 2015: Estimate based on estimated DTP3 coverage level in 2015. Programme reports 5-month stockout at the national level. GoC=R+ D+
- 2014: Estimate of 23 percent assigned by working group. Estimate based on estimated DTP3 coverage level in 2015. Reduced coverage may be explained by a combination of vaccine shortages and an erosion in public confidence in vaccination, coinciding with civil unrest. GoC=No accepted empirical data
- 2013: Estimate of 76 percent assigned by working group. Estimate based on estimated DTP3 coverage level in 2012. GoC=No accepted empirical data

Ukraine - HEPB3

UKR - HEPB3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	46	22	22	26	52	67	77	81	77	62	79	88
Estimate GoC	•	•	••	••	••	••	••	•	••	••	•	•
Official	-	-	22	26	52	67	77	81	77	62	79	88
Administrative	-	-	22	26	57	67	77	80	79	62	79	88
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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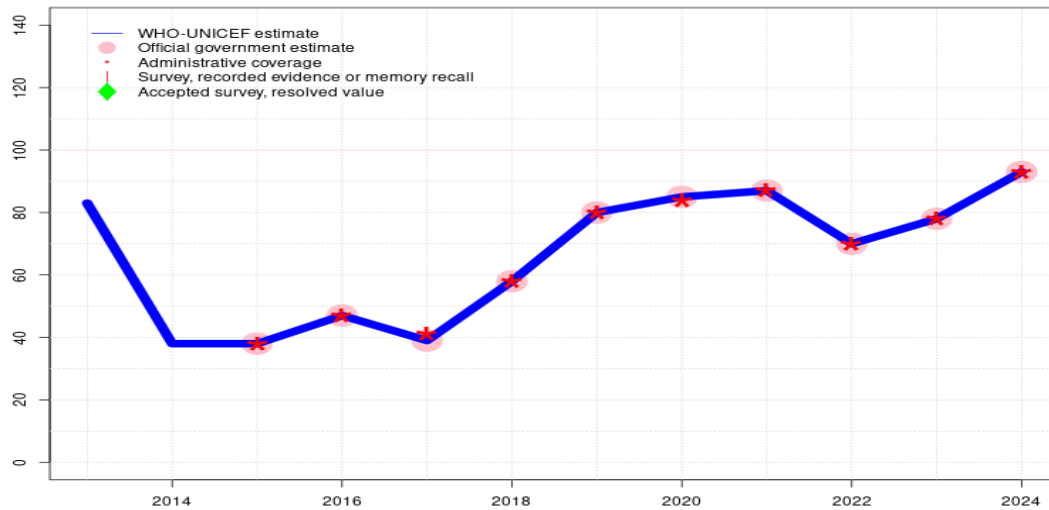
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- 2022: Estimate informed by reported data. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Estimate of 77 percent changed from previous revision value of 76 percent. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. Programme recovering from vaccine shortages. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports six months national stockout. GoC=R+ D+
- 2015: Estimate based on estimated HepB3 coverage level in 2015. Programme reports 7-month stockout at the national level. GoC=R+ D+
- 2014: Estimate of 22 percent assigned by working group. Estimate based on estimated HepB3 coverage level in 2015. Reduced coverage may be explained by a combination of vaccine shortages and an erosion in public confidence in vaccination, coinciding with civil unrest. GoC=No accepted empirical data
- 2013: Estimate of 46 percent assigned by working group. Estimate based on estimated HepB3 coverage level in 2012. GoC=No accepted empirical data

Ukraine - HIB3

UKR - HIB3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	83	38	38	47	39	58	80	85	87	70	78	93
Estimate GoC	•	•	••	••	••	•	••	••	••	••	••	•
Official	-	-	38	47	39	58	80	85	87	70	78	93
Administrative	-	-	38	47	41	58	80	84	87	70	78	93
Survey	-	-	-	-	-	-	-	-	-	-	-	-

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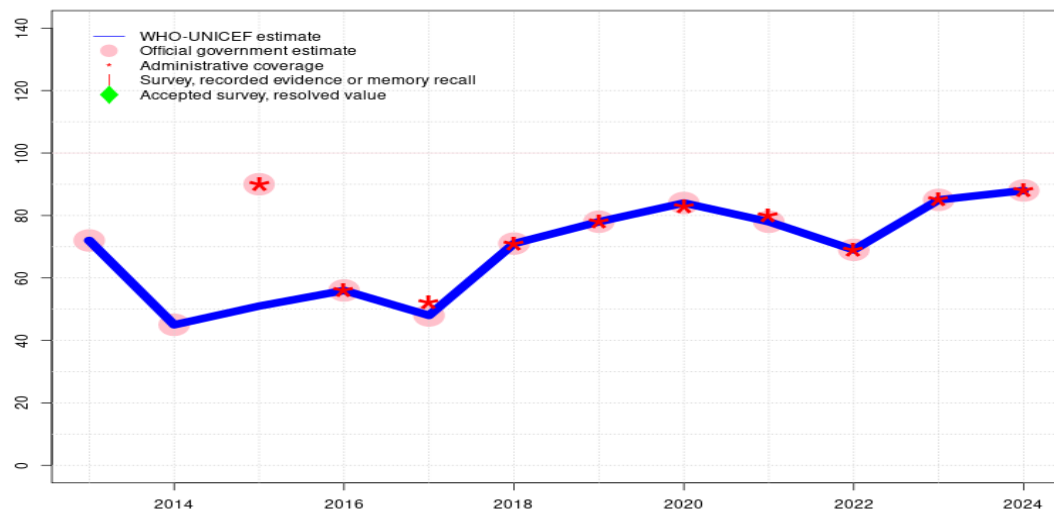
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- 2022: Estimate informed by reported data. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
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- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by reported data. Estimate challenged by: D-
- 2017: Estimate informed by reported data. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports six months national stockout. GoC=R+ D+
- 2015: Estimate based on estimated Hib1 coverage level in 2015. Programme reports 9-month stockout at the national level. GoC=R+ D+
- 2014: Estimate of 38 percent assigned by working group. Estimate based on estimated Hib1 coverage level in 2015. Reduced coverage may be explained by a combination of vaccine shortages and an erosion in public confidence in vaccination, coinciding with civil unrest. GoC=No accepted empirical data
- 2013: Estimate of 83 percent assigned by working group. Estimate based on estimated Hib1 coverage level in 2012. GoC=No accepted empirical data

Ukraine - POL3

UKR - POL3



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	72	45	51	56	48	71	78	84	78	69	85	88
Estimate GoC	••	••	•	••	••	••	••	•	••	••	•	•
Official	72	45	90	56	48	71	78	84	78	69	85	88
Administrative	-	-	90	56	52	71	78	83	80	69	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.

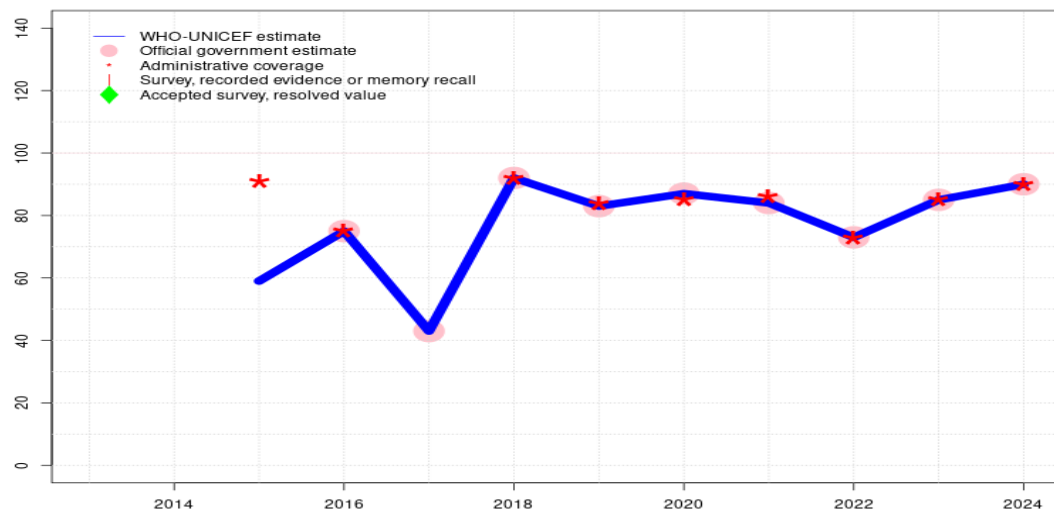
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2024: Estimate informed by reported data. Declines of over ten percent in target population reported between 2023 and 2024. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Despite ongoing disruptions to immunization service and primary healthcare delivery systems due to intense hostilities, reported coverage suggests improvements in services delivered to those who remain in the country following mass population displacement in conflict-affected areas. Reported target population size decreased more than 25 percent from 2022 to 2023 and by nearly 50 percent since 2019. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Programme reports three 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 four months national stockout. GoC=R+ D+
- 2015: Estimate informed by interpolation between reported data. Reported data excluded. Reported coverage likely includes doses given during polio campaigns. Reported data excluded due to an increase from 45 percent to 90 percent with decrease to 56 percent. Estimate challenged by: D-
- 2014: Estimate informed by reported data. Reduced coverage may be explained by a combination of vaccine shortages and an erosion in public confidence in vaccination, coinciding with civil unrest. Drop in reported coverage due to vaccine shortage. GoC=R+
- 2013: Estimate informed by reported data. GoC=R+

Ukraine - IPV1

UKR - IPV1



Description:

- 2024: Estimate informed by reported data. Declines of over ten percent in target population reported between 2023 and 2024. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Despite ongoing disruptions to immunization service and primary healthcare delivery systems due to intense hostilities, reported coverage suggests improvements in services delivered to those who remain in the country following mass population displacement in conflict-affected areas. Reported target population size decreased more than 25 percent from 2022 to 2023 and by nearly 50 percent since 2019. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Programme reports three months vaccine stockout. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. GoC=R+
- 2016: Estimate informed by reported data. GoC=R+ D+
- 2015: Estimate based on estimated DTP1 coverage level. Inactivated polio vaccine introduced in 2007 as a sequential schedule with IPV recommended at 2 and 4 months and OPV recommended afterwards. Estimate challenged by: D-R-

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	-	-	59	75	43	92	83	87	84	73	85	90
Estimate GoC	-	-	•	••	••	••	••	•	••	••	•	•
Official	-	-	-	75	43	92	83	87	84	73	85	90
Administrative	-	-	91	75	-	92	84	85	86	73	85	90
Survey	-	-	-	-	-	-	-	-	-	-	-	-

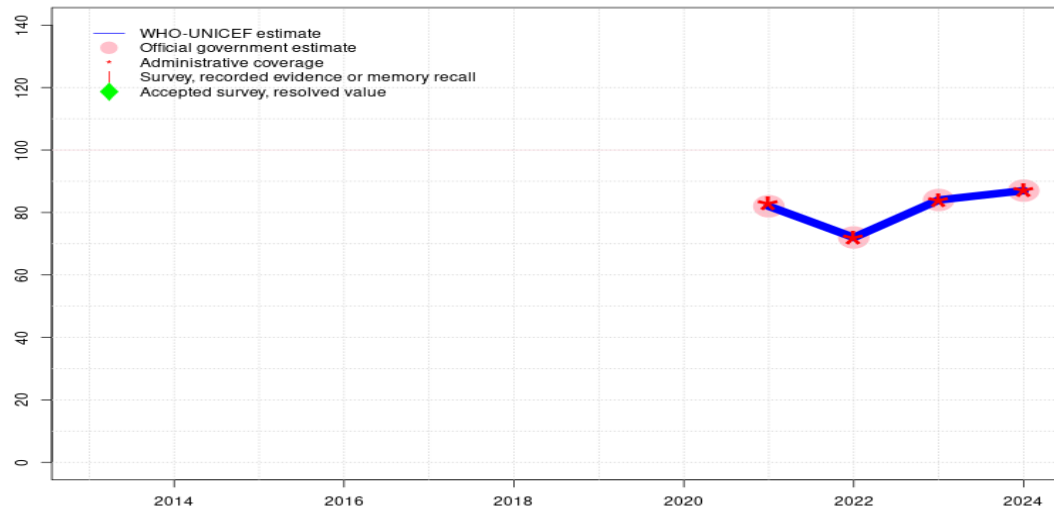
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Ukraine - IPV2

UKR - IPV2



Description:

- 2024: Estimate informed by reported data. Declines of over ten percent in target population reported between 2023 and 2024. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Despite ongoing disruptions to immunization service and primary healthcare delivery systems due to intense hostilities, reported coverage suggests improvements in services delivered to those who remain in the country following mass population displacement in conflict-affected areas. Reported target population size decreased more than 25 percent from 2022 to 2023 and by nearly 50 percent since 2019. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. 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	-	-	-	-	-	-	-	-	82	72	84	87
Estimate GoC	-	-	-	-	-	-	-	-	●●	●●	●	●
Official	-	-	-	-	-	-	-	-	82	72	84	87
Administrative	-	-	-	-	-	-	-	-	83	72	84	87
Survey	-	-	-	-	-	-	-	-	-	-	-	-

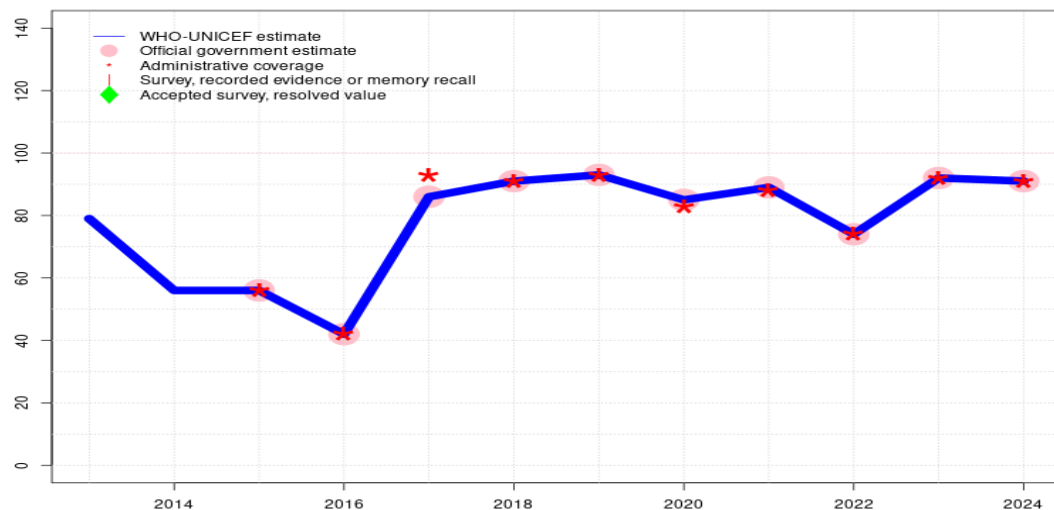
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Ukraine - MCV1

UKR - MCV1



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	79	56	56	42	86	91	93	85	89	74	92	91
Estimate GoC	•	•	••	••	••	••	••	••	••	••	••	•
Official	-	-	56	42	86	91	93	85	89	74	92	91
Administrative	-	-	56	42	93	91	93	83	88	74	92	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.

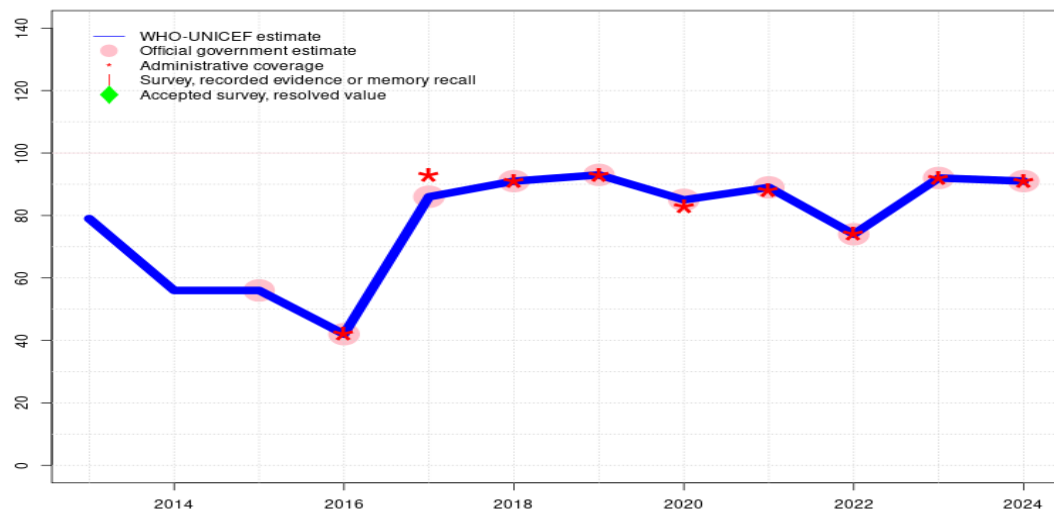
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2024: Estimate informed by reported data. Declines of over ten percent in target population reported between 2023 and 2024. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Despite ongoing disruptions to immunization service and primary healthcare delivery systems due to intense hostilities, reported coverage suggests improvements in services delivered to those who remain in the country following mass population displacement in conflict-affected areas. Reported target population size decreased more than 25 percent from 2022 to 2023 and by nearly 50 percent since 2019. GoC=R+ D+
- 2022: Estimate informed by reported data. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. GoC=R+ D+
- 2021: Estimate informed by reported data. Estimate of 89 percent changed from previous revision value of 88 percent. GoC=R+ D+
- 2020: Estimate informed by reported data. GoC=R+ D+
- 2019: Estimate informed by reported data. Programme reports three months vaccine stockout. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. Programme recovering from vaccine shortages. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports six months national stockout. GoC=R+ D+
- 2015: Estimate based on estimated MCV1 coverage level in 2015. Programme reports 7-month stockout at the national level. GoC=R+ D+
- 2014: Estimate of 56 percent assigned by working group. Estimate based on estimated MCV1 coverage level in 2015. Reduced coverage may be explained by a combination of vaccine shortages and an erosion in public confidence in vaccination, coinciding with civil unrest. GoC=No accepted empirical data
- 2013: Estimate of 79 percent assigned by working group. Estimate based on estimated MCV1 coverage level in 2012. GoC=No accepted empirical data

Ukraine - RCV1

UKR - RCV1



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	79	56	56	42	86	91	93	85	89	74	92	91
Estimate GoC	•	•	••	••	••	••	••	••	••	••	••	•
Official	-	-	56	42	86	91	93	85	89	74	92	91
Administrative	-	-	-	42	93	91	93	83	88	74	92	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.

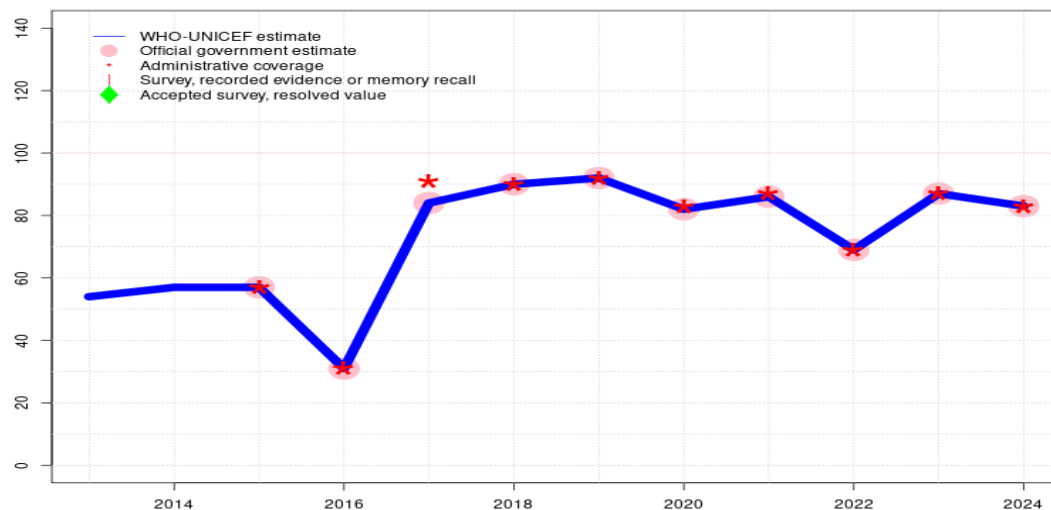
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2024: Estimate based on estimated MCV1. Declines of over ten percent in target population reported between 2023 and 2024. Estimate challenged by: D-
- 2023: Estimate based on estimated MCV1. Despite ongoing disruptions to immunization service and primary healthcare delivery systems due to intense hostilities, reported coverage suggests improvements in services delivered to those who remain in the country following mass population displacement in conflict-affected areas. Reported target population size decreased more than 25 percent from 2022 to 2023 and by nearly 50 percent since 2019. GoC=R+ D+
- 2022: Estimate based on estimated MCV1. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. GoC=R+ D+
- 2021: Estimate based on estimated MCV1. Estimate of 89 percent changed from previous revision value of 88 percent. GoC=R+ D+
- 2020: Estimate based on estimated MCV1. GoC=R+ D+
- 2019: Estimate based on estimated MCV1. GoC=R+ D+
- 2018: Estimate based on estimated MCV1. GoC=R+ D+
- 2017: Estimate based on estimated MCV1. Programme recovering from vaccine shortages. GoC=R+ D+
- 2016: Estimate based on estimated MCV1. Reported data excluded due to decline in reported coverage from 56 percent to 42 percent with increase to 86 percent. GoC=R+ D+
- 2015: Estimate based on estimated MCV1. GoC=R+ D+
- 2014: Estimate based on estimated MCV1. Reduced coverage may be explained by a combination of vaccine shortages and an erosion in public confidence in vaccination, coinciding with civil unrest. GoC=No accepted empirical data
- 2013: Estimate based on estimated MCV1. GoC=No accepted empirical data

Ukraine - MCV2

UKR - MCV2



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Estimate	54	57	57	31	84	90	92	82	86	69	87	83
Estimate GoC	•	•	••	••	•	•	•	•	•	•	•	•
Official	-	-	57	31	84	90	92	82	86	69	87	83
Administrative	-	-	57	31	91	90	92	83	87	69	87	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.

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

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

Description:

- 2024: Estimate informed by reported data. Declines of over ten percent in target population reported between 2023 and 2024. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Despite ongoing disruptions to immunization service and primary healthcare delivery systems due to intense hostilities, reported coverage suggests improvements in services delivered to those who remain in the country following mass population displacement in conflict-affected areas. Reported target population size decreased more than 25 percent from 2022 to 2023 and by nearly 50 percent since 2019. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Declines in reported coverage reflect disruptions to immunization service and primary healthcare delivery systems due to intense hostilities which began in February 2022. Programme also notes an accelerated decline in reported target population due in part to population displacement in conflict-affected areas. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Programme reports three months vaccine stockout. Estimate challenged by: D-
- 2018: Estimate informed by reported data. Estimate challenged by: D-
- 2017: Estimate informed by reported data. Programme recovering from vaccine shortages. Estimate challenged by: D-
- 2016: Estimate informed by reported data. Programme reports six months national stockout. GoC=R+ D+
- 2015: Estimate based on estimated MCV2 coverage level in 2015. Programme reports 7-month stockout at the national level. GoC=R+ D+
- 2014: Estimate of 57 percent assigned by working group. Estimate based on estimated MCV2 coverage level in 2015. Reduced coverage may be explained by a combination of vaccine shortages and an erosion in public confidence in vaccination, coinciding with civil unrest. GoC=No accepted empirical data
- 2013: Estimate of 54 percent assigned by working group. Estimate based on estimated MCV2 coverage level in 2012. GoC=No accepted empirical data

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 one or two years prior to the survey field work.

The survey results below present vaccination coverage estimates by antigen, confirmation method, and child's age at the time of the survey. Coverage based on **Recall** reflects information based upon a mother's or caregiver's memory. Coverage based on **Record** reflects information drawn from documented vaccination history in home- and/or facility-based records. **Evidence seen** reflects the percentage of children in the sample with documented evidence of vaccination history seen by the survey team.

2011 Ukraine Multiple Indicator Cluster Survey 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Recall	5.9	18-29 m	-	92
BCG	Record	89.5	18-29 m	-	92
BCG	Record or Recall	95.4	18-29 m	829	92
BCG	Record or Recall<12m	94.5	18-29 m	829	92
DTP1	Recall	4.2	18-29 m	-	92
DTP1	Record	81.8	18-29 m	-	92
DTP1	Record or Recall	86	18-29 m	829	92
DTP1	Record or Recall<12m	79.4	18-29 m	829	92

DTP3	Recall	2.8	18-29 m	-	92
DTP3	Record	71.5	18-29 m	-	92
DTP3	Record or Recall	74.3	18-29 m	829	92
DTP3	Record or Recall<12m	41.8	18-29 m	829	92
HEPB1	Recall	10	18-29 m	-	92
HEPB1	Record	58.7	18-29 m	-	92
HEPB1	Record or Recall	68.7	18-29 m	829	92
HEPB1	Record or Recall<12m	53.6	18-29 m	829	92
HEPBB	Recall	3.5	18-29 m	-	92
HEPBB	Record	64.9	18-29 m	-	92
HEPBB	Record or Recall	68.4	18-29 m	829	92
HEPBB	Record or Recall<12m	65.1	18-29 m	829	92
HIB1	Recall	4	18-29 m	-	92
HIB1	Record	76.4	18-29 m	-	92
HIB1	Record or Recall	80.4	18-29 m	829	92
HIB1	Record or Recall<12m	74.9	18-29 m	829	92
MCV1	Recall	7.3	18-29 m	-	92
MCV1	Record	65.8	18-29 m	-	92
MCV1	Record or Recall	73.1	18-29 m	829	92
MCV1	Record or Recall<18m	62.7	18-29 m	829	92
POL1	Recall	4.1	18-29 m	-	92
POL1	Record	81.4	18-29 m	-	92
POL1	Record or Recall	85.4	18-29 m	829	92
POL1	Record or Recall<12m	79	18-29 m	829	92
POL3	Recall	2.4	18-29 m	-	92
POL3	Record	70.8	18-29 m	-	92
POL3	Record or Recall	73.3	18-29 m	829	92
POL3	Record or Recall<12m	47.8	18-29 m	829	92

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