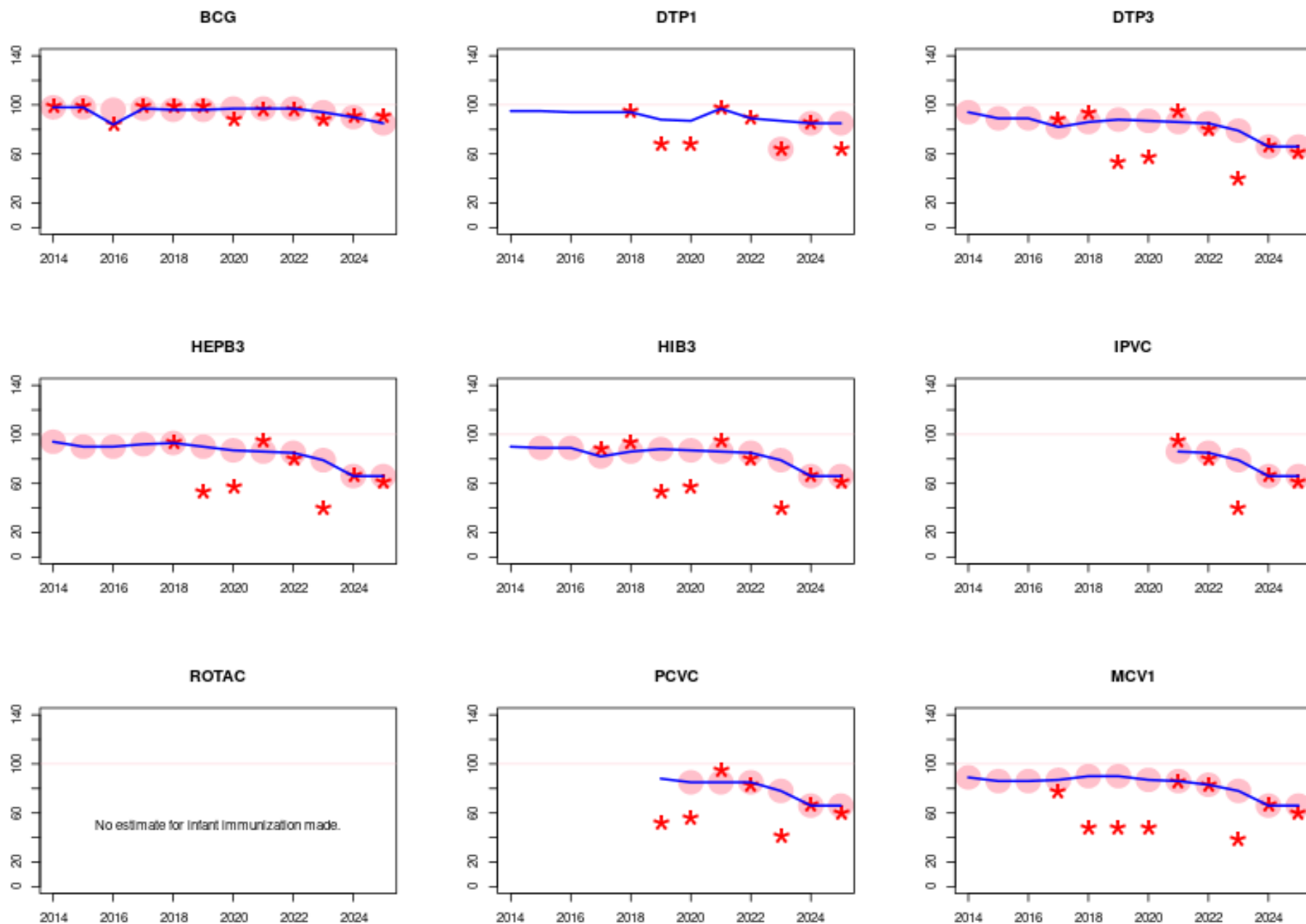




BACKGROUND NOTE Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from published and grey literature. Based on these data, with due consideration to potential biases and the views of local experts, 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. The estimates refer to immunizations delivered through routine immunization services to children less than 12 months of age, or at the age specified in the recommended immunization schedule, for whom vaccinations are recorded. Immunizations received through supplemental immunization activities, such as polio and measles campaigns, are not included.

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.

IPV1: percentage of surviving infants who received the first dose of inactivated polio vaccine.

IPVC: percentage of surviving infants who received the final recommended dose of IPV in the primary series, according to the national immunization schedule primary series (e.g., second or third dose).

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.

HEPBB: percentage of births which received a dose of hepatitis B vaccine within 24 hours of delivery. Estimates of hepatitis B birth dose coverage are produced only for countries with a universal birth dose policy. Estimates are not produced for countries that recommend a birth dose to infants born to HEPB virus-infected mothers only or where there is insufficient information to determine whether vaccination is within 24 hours of birth.

HEPB3: percentage of surviving infants who received the 3rd dose of hepatitis B containing vaccine following the birth dose.

HIB3: percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.

ROTAC: percentage of surviving infants who received the final recommended dose of rotavirus vaccine, which can be either the 2nd or the 3rd dose depending on the vaccine.

PCVC: percentage of surviving infants who received the final recommended dose of pneumococcal conjugate vaccine according to the national immunization schedule (e.g., second or third dose).

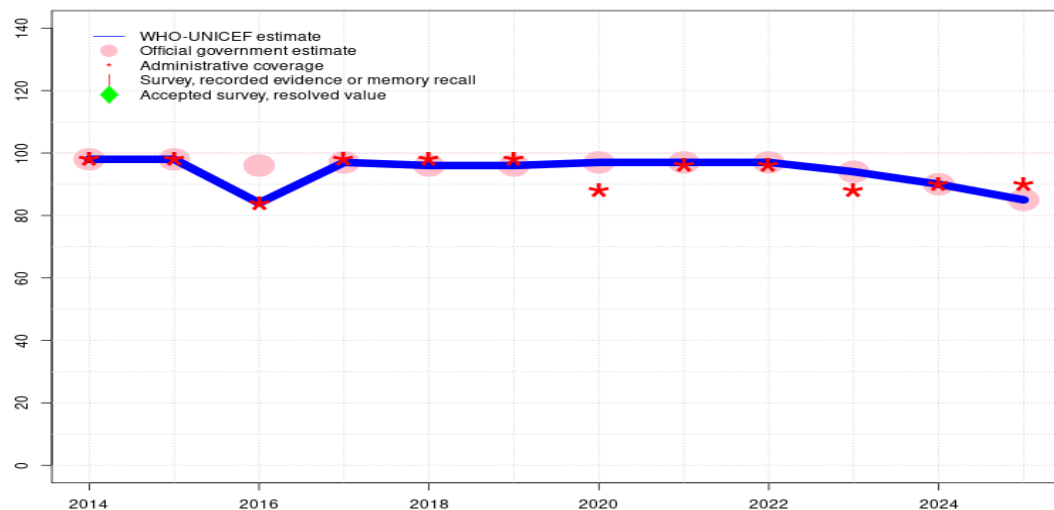
YFV: percentage of surviving infants who received one dose of yellow fever vaccine in countries where YFV is part of the national immunization schedule for children or is recommended in at risk areas; coverage estimates are annualized for the entire cohort of surviving infants.

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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Romania - BCG

ROU - BCG



Description:

- 2025: Estimate informed by reported data. Programme reported 1 month vaccine stock-out at the national and subnational levels. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Country transitioned to an Electronic Immunization Registry (EIR). Estimate challenged by: D-
- 2024: Estimate informed by reported data. Country transitioning from a paper-based system to an electronic immunization registry (EIR). It is expected that from 2025, only the EIR will be used. Estimate of 90 percent changed from previous revision value of 94 percent. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme notes an important decline in 2023 potentially still related to Covid-19. Coverage is estimated from district-level assessment of each year cohort by age 12, 18 and 24 months through review of immunization records from family doctors. More information can be obtained at <https://insp.gov.ro/download/metodologia-de-estimare-a-acoperirii-vaccinale-in-romania-pdf>. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Reported coverage is based on monthly reports from all maternity hospitals (including private sector) and use the surviving infants as the denominator. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by reported data. Estimate challenged by: D-
- 2017: Estimate informed by reported data. Programme recovered from reported stockout in 2016. Estimate challenged by: D-
- 2016: Estimate informed by reported administrative data. Results of a register based survey suggest vaccination coverage of 96 percent. Programme reports two months vaccine stockout. Government official estimates based on 2014 survey results and not reflecting three months vaccine stockout observed from administrative coverage data. Estimate challenged by: D-
- 2015: Estimate informed by reported data. Estimate challenged by: D-
- 2014: Estimate informed by reported data. Estimate challenged by: D-

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	98	98	84	97	96	96	97	97	97	94	90	85
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	98	98	96	97	96	96	97	97	97	94	90	85
Administrative	98	98	84	98	98	98	88	96	96	88	90	90
Survey	-	-	-	-	-	-	-	-	-	-	-	-

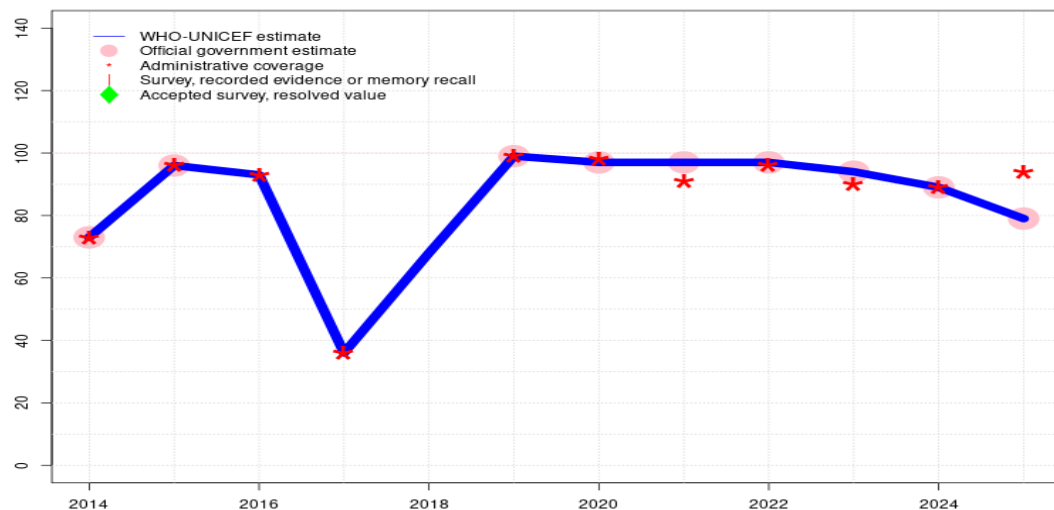
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Romania - HEPBB

ROU - HEPBB



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	73	96	93	36	68	99	97	97	97	94	89	79
Estimate GoC	••	•	•	••	•	•	•	•	•	•	•	••
Official	73	96	-	-	-	99	97	97	97	94	89	79
Administrative	73	96	93	36	-	99	98	91	96	90	89	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.

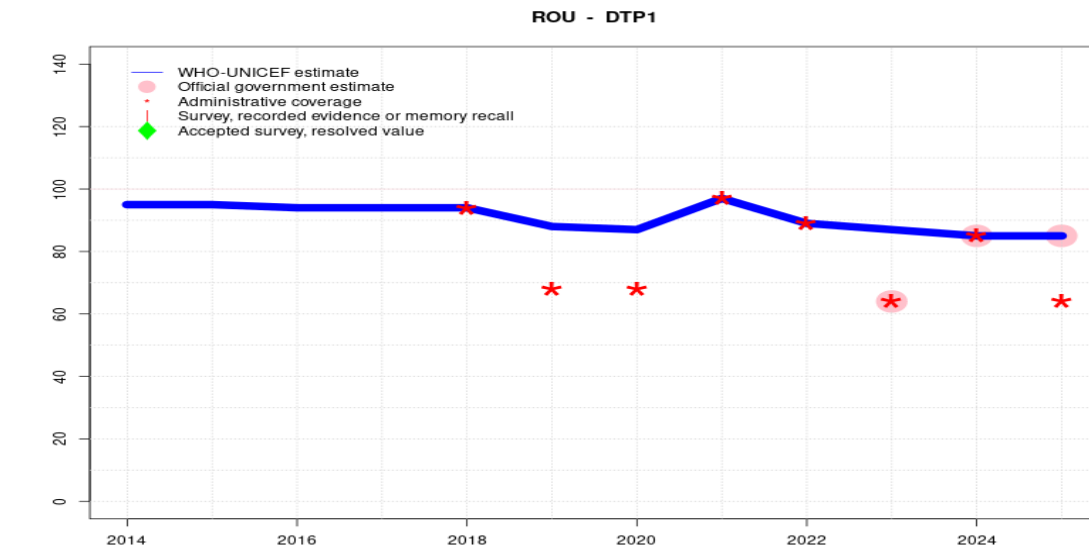
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2024 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

Description:

- 2025: Estimate informed by reported data. Programme reported 1 month vaccine stock-out at the national and subnational levels. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Country transitioned to an Electronic Immunization Registry (EIR). GoC=R+ D+
- 2024: Estimate informed by reported data. Country transitioning from a paper-based system to an electronic immunization registry (EIR). It is expected that from 2025, only the EIR will be used. Estimate of 89 percent changed from previous revision value of 94 percent. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme notes an important decline in 2023 potentially still related to Covid-19. Coverage is estimated from district-level assessment of each year cohort by age 12, 18 and 24 months through review of immunization records from family doctors. More information can be obtained at <https://insp.gov.ro/download/metodologia-de-estimare-a-acoperirii-vaccinale-in-romania-pdf>. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Programme reports two months vaccine stockout at national level. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Reported coverage is based on monthly reports from all maternity hospitals (including private sector) and use the surviving infants as the denominator. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by interpolation between reported data. Programme reports 94 percent coverage. Unclear if the information system is able to separate timely doses from those given after 24 hours. GoC=No accepted empirical data
- 2017: Estimate informed by reported administrative data. Reported data reflects subnational coverage. Programme reports six month vaccine stockout at national level. GoC=R+ D+
- 2016: Estimate informed by reported administrative data. Estimate challenged by: D-
- 2015: Estimate informed by reported data. Recovery from prior year stockout. Estimate challenged by: D-
- 2014: Estimate informed by reported data. Programme reports a stockout of HepB containing vaccine for 2-3 months at the national level. GoC=R+ D+

Romania - DTP1



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	95	95	94	94	94	88	87	97	89	87	85	85
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	-	-	-	-	-	-	-	-	-	64	85	85
Administrative	-	-	-	-	94	68	68	97	89	64	85	64
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.

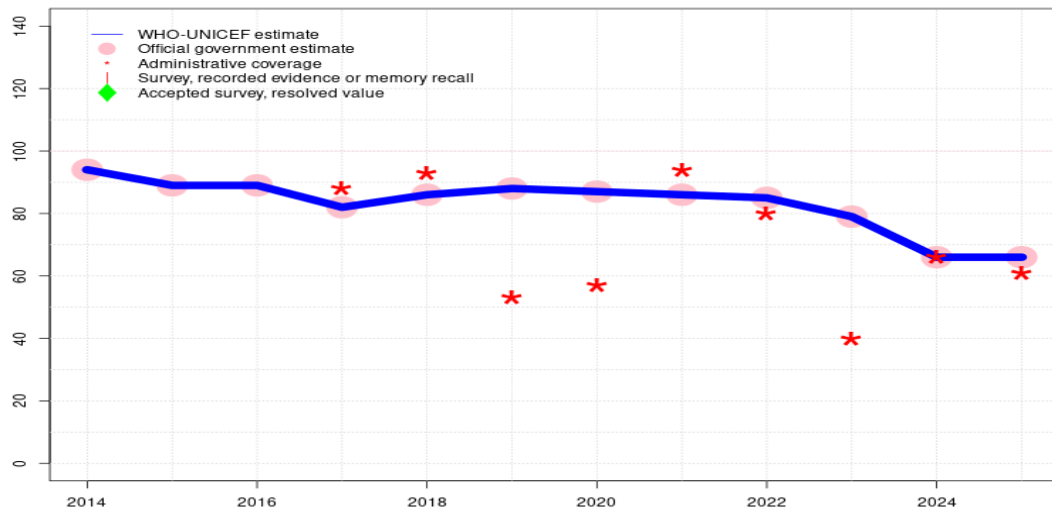
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2025: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Country transitioned to an Electronic Immunization Registry (EIR). Estimate challenged by: D-
- 2024: Estimate informed by reported data. Country transitioning from a paper-based system to an electronic immunization registry (EIR). It is expected that from 2025, only the EIR will be used. Estimate of 85 percent changed from previous revision value of 79 percent. Estimate challenged by: D-
- 2023: Estimate informed by interpolation between reported data. Reported data excluded due to decline in reported coverage from 89 percent to 64 percent with increase to 85 percent. Programme notes an important decline in 2023 potentially still related to Covid-19. Coverage is estimated from district-level assessment of each year cohort by age 12, 18 and 24 months through review of immunization records from family doctors. More information can be obtained at <https://insp.gov.ro/download/metodologia-de-estimare-a-acoperirii-vaccinale-in-romania-pdf>. Estimate of 87 percent changed from previous revision value of 79 percent. Estimate challenged by: D-
- 2022: Estimate informed by reported administrative data. Programme reports two months stockout at national level. Estimate challenged by: D-
- 2021: Estimate informed by reported administrative data. Estimate challenged by: D-
- 2020: Estimate informed by estimated DTP3 coverage assuming zero dropout. Estimates may be overestimated. Reported coverage is from annual survey estimation based on July 2018 birth cohort from the family doctors lists as denominator and number of dosed administrated until 18 month of age as the numerator. Estimate challenged by: D-R-
- 2019: Estimate informed by estimated DTP3 coverage assuming zero dropout. Estimate challenged by: D-R-
- 2018: Estimate informed by reported data. Estimate challenged by: D-
- 2017: Reported data calibrated to 1997 and 2018 levels. Programme reports 5 to 6 months of vaccine stockout. GoC=No accepted empirical data
- 2016: Reported data calibrated to 1997 and 2018 levels. Programme reports 4-5 months national stockout. GoC=No accepted empirical data
- 2015: Reported data calibrated to 1997 and 2018 levels. GoC=No accepted empirical data
- 2014: Reported data calibrated to 1997 and 2018 levels. Programme reports a stockout of DTP containing vaccine for 3-4 months at the national level. GoC=No accepted empirical data

Romania - DTP3

ROU - DTP3



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	94	89	89	82	86	88	87	86	85	79	66	66
Estimate GoC	●●	●●	●●	●●	●●	●	●	●	●	●	●	●
Official	94	89	89	82	86	88	87	86	85	79	66	66
Administrative	-	-	-	88	93	53	57	94	80	40	66	61
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.
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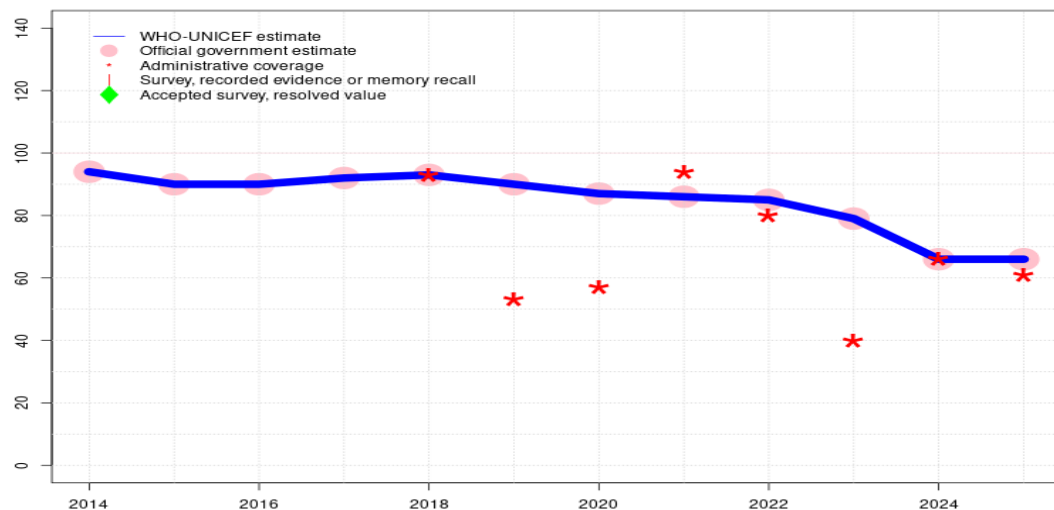
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

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- 2022: Estimate informed by reported data. Programme reports two months vaccine stockout at national level. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimates may be overestimated. Reported coverage is from annual survey estimation based on July 2018 birth cohort from the family doctors lists as denominator and number of dosed administrated until 18 month of age as the numerator. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. Programme reports 5 to 6 months of vaccine stockout. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports four to five month national stockout. Results of a register based survey suggest vaccination coverage of 86 percent. GoC=R+
- 2015: Estimate informed by reported data. Programme reports 3-4 month national level stockout of hexavalent DTP-HepB-Hib-IPV vaccine. GoC=R+
- 2014: Estimate informed by reported data. Programme reports a stockout of DTP containing vaccine for 3-4 months at the national level. GoC=R+

Romania - HEPB3

ROU - HEPB3



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	94	90	90	92	93	87	86	79	66	66	66	66
Estimate GoC	••	••	••	••	•	•	•	•	•	•	•	•
Official	94	90	90	92	93	87	86	79	66	66	66	66
Administrative	-	-	-	-	93	53	57	94	80	40	66	61
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.
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- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

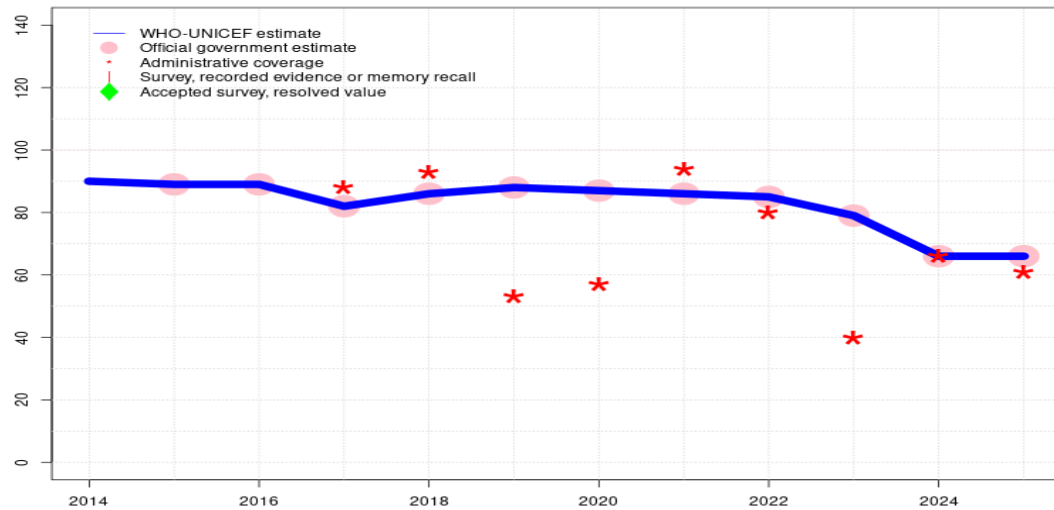
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- 2022: Estimate informed by reported data. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimates may be overestimated. Reported coverage is from annual survey estimation based on July 2018 birth cohort from the family doctors lists as denominator and number of dosed administrated until 18 month of age as the numerator. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by reported data. Estimate challenged by: D-
- 2017: Estimate informed by reported data. Programme reports 5 to 6 months of vaccine stockout. GoC=R+
- 2016: Estimate informed by reported data. Programme reports 4-5 months national stockout. Results of a register based survey suggest vaccination coverage of 93 percent. GoC=R+
- 2015: Estimate informed by reported data. Programme reports 3-4 month national level stockout of hexavalent DTP-HepB-Hib-IPV vaccine. GoC=R+
- 2014: Estimate informed by reported data. Programme reports a stockout of HepB containing vaccine for 2-3 months at the national level. GoC=R+

Romania - HIB3

ROU - HIB3



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	90	89	89	82	86	88	87	86	85	79	66	66
Estimate GoC	•	••	••	••	••	•	•	•	•	•	•	•
Official	-	89	89	82	86	88	87	86	85	79	66	66
Administrative	-	-	-	88	93	53	57	94	80	40	66	61
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.

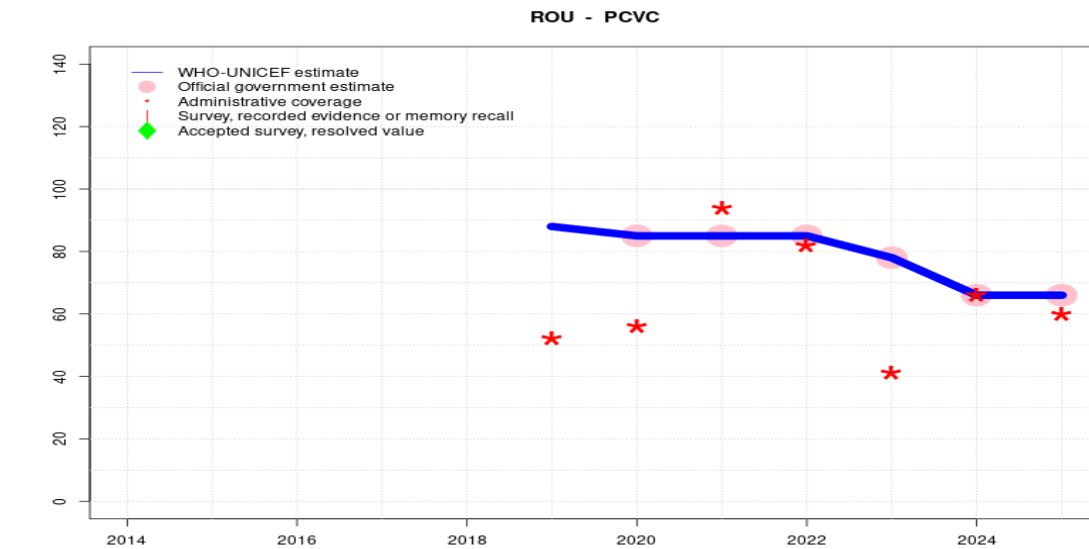
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- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimates may be overestimated. Reported coverage is from annual survey estimation based on July 2018 birth cohort from the family doctors lists as denominator and number of dosed administrated until 18 month of age as the numerator. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. Programme reports 5 to 6 months of vaccine stockout. GoC=R+ D+
- 2016: Estimate informed by reported data. Programme reports four to five month national stockout. Results of a register based survey suggest vaccination coverage of 86 percent. GoC=R+
- 2015: Estimate informed by reported data. Programme reports 3-4 month national level stockout of hexavalent DTP-HepB-Hib-IPV vaccine. GoC=R+
- 2014: Estimate informed by interpolation between reported data. Programme reports a stock-out of DTP containing vaccine for 3-4 months at the national level. GoC=No accepted empirical data

Romania - PCVC



Description:

- 2025: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Country transitioned to an Electronic Immunization Registry (EIR). Estimate challenged by: D-
- 2024: Estimate informed by reported data. Country transitioning from a paper-based system to an electronic immunization registry (EIR). It is expected that from 2025, only the EIR will be used. Estimate of 66 percent changed from previous revision value of 78 percent. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme notes an important decline in 2023 potentially still related to Covid-19. Coverage is estimated from district-level assessment of each year cohort by age 12, 18 and 24 months through review of immunization records from family doctors. More information can be obtained at <https://insp.gov.ro/download/metodologia-de-estimare-a-acoperirii-vaccinale-in-romania-pdf>. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimates may be overestimated. Reported coverage is from annual survey estimation based on July 2018 birth cohort from the family doctors lists as denominator and number of dosed administrated until 18 month of age as the numerator. Estimate challenged by: D-
- 2019: Estimate informed by estimated DTP3 coverage. Pneumococcal conjugate vaccine introduced in October 2017. Reporting started in 2019. Estimate challenged by: D-R-

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	-	-	-	-	-	88	85	85	85	78	66	66
Estimate GoC	-	-	-	-	-	•	•	•	•	•	•	•
Official	-	-	-	-	-	-	85	85	85	78	66	66
Administrative	-	-	-	-	-	52	56	94	82	41	66	60
Survey	-	-	-	-	-	-	-	-	-	-	-	-

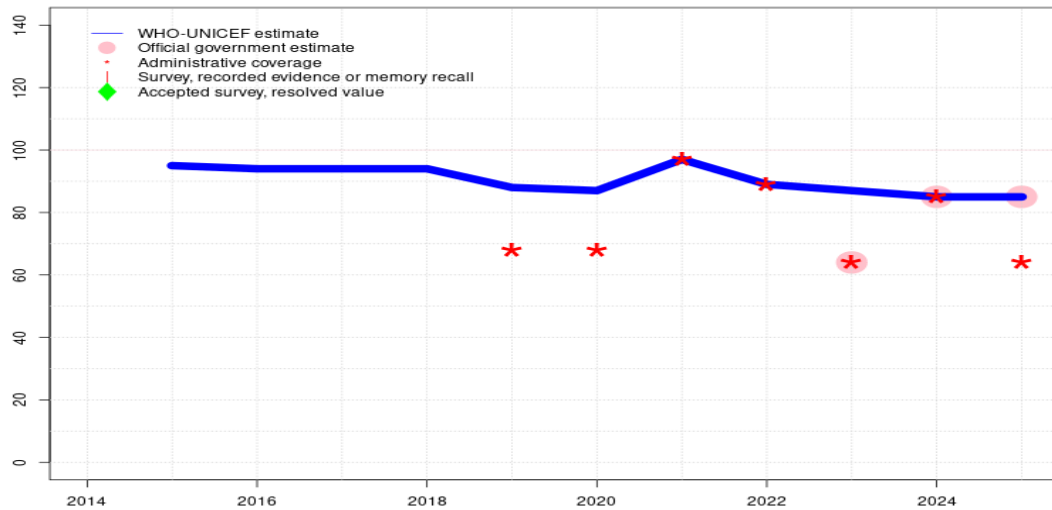
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Romania - IPV1

ROU - IPV1



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	-	95	94	94	94	88	87	97	89	87	85	85
Estimate GoC	-	•	•	•	•	•	•	•	•	•	•	•
Official	-	-	-	-	-	-	-	-	-	64	85	85
Administrative	-	-	-	-	-	68	68	97	89	64	85	64
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.

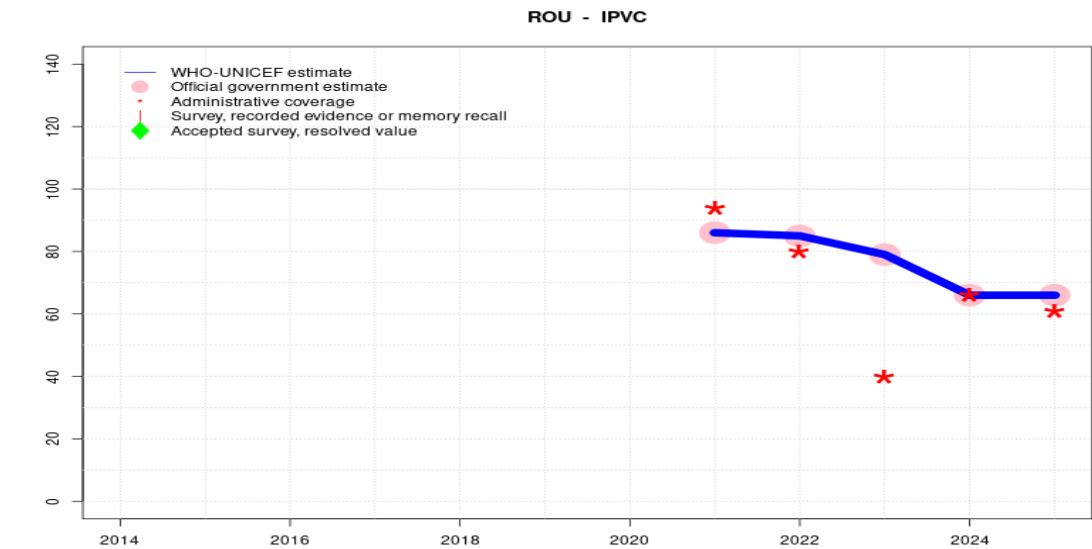
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2024 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

- 2025: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Country transitioned to an Electronic Immunization Registry (EIR). Estimate challenged by: D-
- 2024: Estimate informed by reported data. Country transitioning from a paper-based system to an electronic immunization registry (EIR). It is expected that from 2025, only the EIR will be used. Estimate of 85 percent changed from previous revision value of 79 percent. Estimate challenged by: D-
- 2023: Estimate informed by interpolation between reported data. Reported data excluded due to decline in reported coverage from 89 percent to 64 percent with increase to 85 percent. Programme notes an important decline in 2023 potentially still related to Covid-19. Coverage is estimated from district-level assessment of each year cohort by age 12, 18 and 24 months through review of immunization records from family doctors. More information can be obtained at <https://insp.gov.ro/download/metodologia-de-estimare-a-acoperirii-vaccinale-in-romania-pdf>. Estimate of 87 percent changed from previous revision value of 79 percent. Estimate challenged by: D-
- 2022: Estimate informed by reported administrative data. Programme reports two months national stockout at national level. Estimate challenged by: D-
- 2021: Estimate informed by estimated DTP1 coverage. Estimate challenged by: D-R-
- 2020: Estimate informed by estimated DTP1 coverage. Estimates may be overestimated. Reported coverage is from annual survey estimation based on July 2018 birth cohort from the family doctors lists as denominator and number of dosed administrated until 18 month of age as the numerator. Estimate challenged by: D-R-
- 2019: Estimate informed by estimated DTP1 coverage. Estimate challenged by: D-R-
- 2018: Estimate informed by estimated DTP1 coverage. GoC=No accepted empirical data
- 2017: Estimate informed by estimated DTP1 coverage. GoC=No accepted empirical data
- 2016: Estimate informed by estimated DTP1 coverage. GoC=No accepted empirical data
- 2015: DTP-HepB-Hib-IPV vaccine recommended at 2, 4 and 11 months. Coverage estimate based on estimated DTP1 coverage. Programme reports four to five month vaccine stockout at national level. GoC=No accepted empirical data

Romania - IPV



Description:

- 2025: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Country transitioned to an Electronic Immunization Registry (EIR). Estimate challenged by: D-
- 2024: Estimate informed by reported data. Country transitioning from a paper-based system to an electronic immunization registry (EIR). It is expected that from 2025, only the EIR will be used. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme notes an important decline in 2023 potentially still related to Covid-19. Coverage is estimated from district-level assessment of each year cohort by age 12, 18 and 24 months through review of immunization records from family doctors. More information can be obtained at <https://insp.gov.ro/download/metodologia-de-estimare-a-acoperirii-vaccinale-in-romania-pdf>. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	-	-	-	-	-	-	-	86	85	79	66	66
Estimate GoC	-	-	-	-	-	-	-	●	●	●	●	●
Official	-	-	-	-	-	-	-	86	85	79	66	66
Administrative	-	-	-	-	-	-	-	94	80	40	66	61
Survey	-	-	-	-	-	-	-	-	-	-	-	-

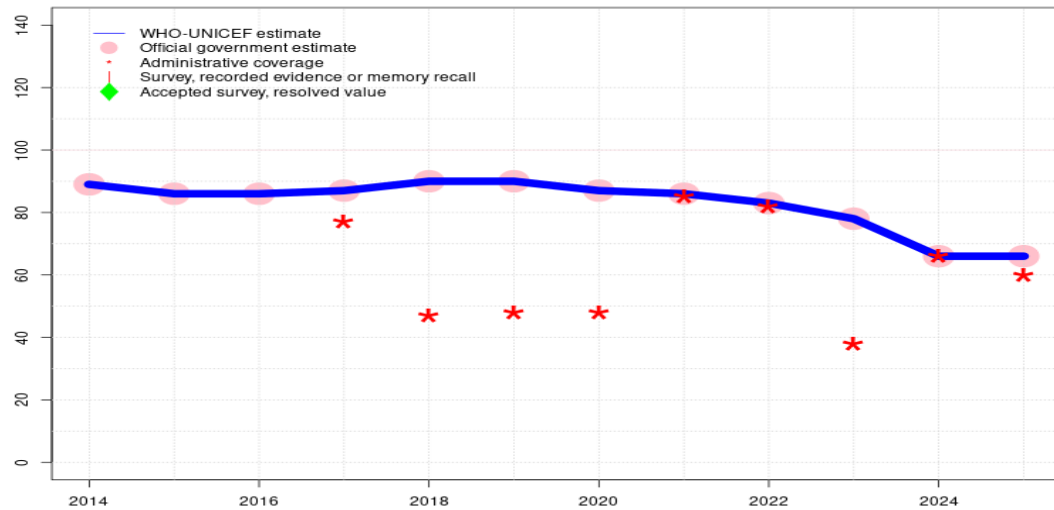
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Romania - MCV1

ROU - MCV1



Description:

- 2025: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Country transitioned to an Electronic Immunization Registry (EIR). Estimate challenged by: D-
- 2024: Estimate informed by reported data. Country transitioning from a paper-based system to an electronic immunization registry (EIR). It is expected that from 2025, only the EIR will be used. Estimate of 66 percent changed from previous revision value of 78 percent. Estimate challenged by: D-
- 2023: Estimate informed by reported data. Programme notes an important decline in 2023 potentially still related to Covid-19. Coverage is estimated from district-level assessment of each year cohort by age 12, 18 and 24 months through review of immunization records from family doctors. More information can be obtained at <https://insp.gov.ro/download/metodologia-de-estimare-a-acoperirii-vaccinale-in-romania-pdf>. Estimate challenged by: D-
- 2022: Estimate informed by reported data. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Estimate challenged by: D-
- 2020: Estimate informed by reported data. Estimates may be overestimated. Reported coverage is from annual survey estimation based on July 2018 birth cohort from the family doctors lists as denominator and number of dosed administrated until 18 month of age as the numerator. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by reported data. Estimate challenged by: D-
- 2017: Estimate informed by reported data. Programme reports one to two months of vaccine stockout. Estimate challenged by: D-
- 2016: Estimate informed by reported data. Results of a register based survey suggest vaccination coverage of 90 percent. GoC=R+
- 2015: Estimate informed by reported data. GoC=R+
- 2014: Estimate informed by reported data. GoC=R+

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	89	86	86	87	90	90	87	86	83	78	66	66
Estimate GoC	●●	●●	●●	●	●	●	●	●	●	●	●	●
Official	89	86	86	87	90	90	87	86	83	78	66	66
Administrative	-	-	-	77	47	48	48	85	82	38	66	60
Survey	-	-	-	-	-	-	-	-	-	-	-	-

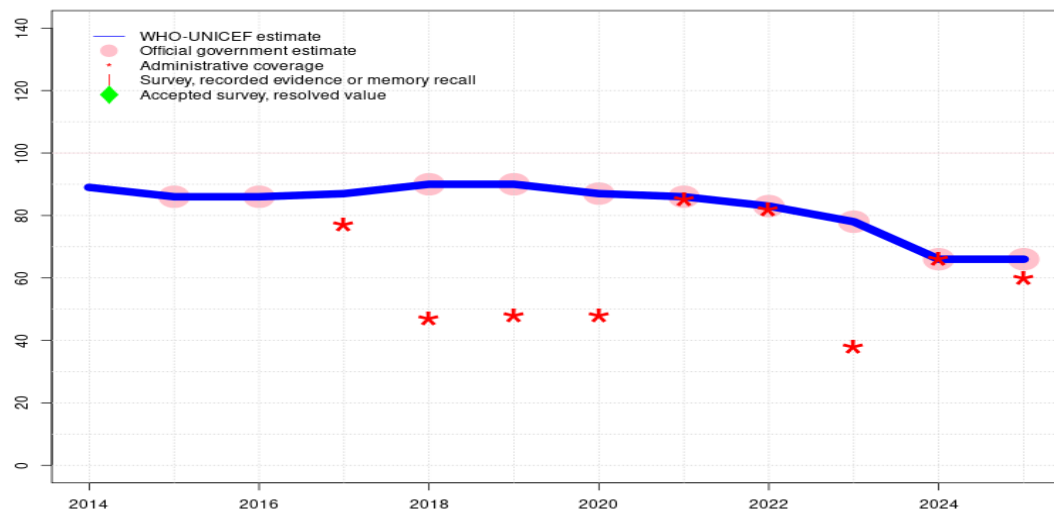
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Romania - RCV1

ROU - RCV1



Description:

- 2025: Estimate based on estimated MCV1. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Country transitioned to an Electronic Immunization Registry (EIR). Estimate challenged by: D-
- 2024: Estimate based on estimated MCV1. Country transitioning from a paper-based system to an electronic immunization registry (EIR). It is expected that from 2025, only the EIR will be used. Estimate of 66 percent changed from previous revision value of 78 percent. Estimate challenged by: D-
- 2023: Estimate based on estimated MCV1. Programme notes an important decline in 2023 potentially still related to Covid-19. Coverage is estimated from district-level assessment of each year cohort by age 12, 18 and 24 months through review of immunization records from family doctors. More information can be obtained at <https://insp.gov.ro/download/metodologia-de-estimare-a-acoperirii-vaccinale-in-romania-pdf>. Estimate challenged by: D-
- 2022: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2021: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2020: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2019: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2018: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2017: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2016: Estimate based on estimated MCV1. GoC=R+
- 2015: Estimate based on estimated MCV1. GoC=R+
- 2014: Estimate based on estimated MCV1. GoC=R+

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	89	86	86	87	90	90	87	86	83	78	66	66
Estimate GoC	●●	●●	●●	●	●	●	●	●	●	●	●	●
Official	-	86	86	-	90	90	87	86	83	78	66	66
Administrative	-	-	-	77	47	48	48	85	82	38	66	60
Survey	-	-	-	-	-	-	-	-	-	-	-	-

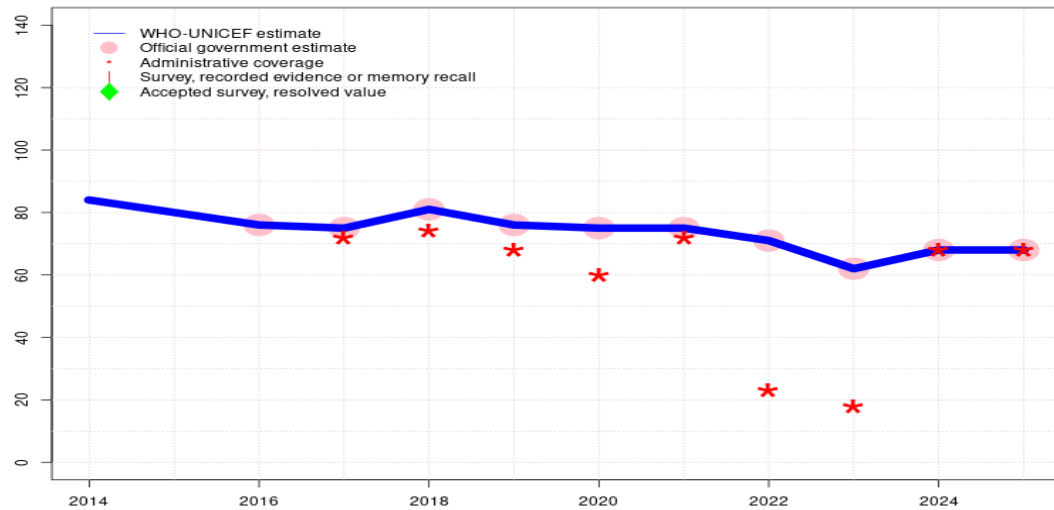
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

Romania - MCV2

ROU - MCV2



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimate	84	80	76	75	81	76	75	75	71	62	68	68
Estimate GoC	•	•	••	•	•	•	•	••	••	••	••	••
Official	-	-	76	75	81	76	75	75	71	62	68	68
Administrative	-	-	-	72	74	68	60	72	23	18	68	68
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:

- 2025: Estimate informed by reported data. No nationally representative independent assessment for the most recent 5 annual birth cohorts. WHO and UNICEF recommend a high quality independent assessment to verify reported levels of coverage. Country transitioned to an Electronic Immunization Registry (EIR). GoC=R+ D+
- 2024: Estimate informed by reported data. Country transitioning from a paper-based system to an electronic immunization registry (EIR). It is expected that from 2025, only the EIR will be used. Estimate of 68 percent changed from previous revision value of 62 percent. GoC=R+ D+
- 2023: Estimate informed by reported data. Programme notes an important decline in 2023 potentially still related to Covid-19. Coverage is estimated from district-level assessment of each year cohort by age 12, 18 and 24 months through review of immunization records from family doctors. More information can be obtained at <https://insp.gov.ro/download/metodologia-de-estimare-a-acoperirii-vaccinale-in-romania-pdf>. GoC=R+ D+
- 2022: Estimate informed by reported data. Reported administrative coverage appears artificially lower than the prior year due in part to an unexplained increase in the reported target population. GoC=R+ D+
- 2021: Estimate informed by reported data. GoC=R+ D+
- 2020: Estimate informed by reported data. Estimates may be overestimated. Reported coverage is from annual survey estimation based on July 2018 birth cohort from the family doctors lists as denominator and number of dosed administrated until 18 month of age as the numerator. Estimate challenged by: D-
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by reported data. Estimate challenged by: D-
- 2017: Estimate informed by reported data. Programme reports one to two months of vaccine stockout. Estimate challenged by: D-
- 2016: Estimate informed by reported data. Government estimates of MMR second dose refer to children 5 years of age. GoC=R+
- 2015: Estimate informed by interpolation between reported data. GoC=No accepted empirical data
- 2014: Estimate informed by interpolation between reported data. 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.

2020 Analiza Rezultatelor Estimarii Acoperirii Vaccinale La Varsta De 18 Luni Pentru Copiii Nascuti In Luna Iulie 2022

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record2	95.1	18 m	12735	-
DTP3	Record2	76.7	18 m	12735	-
HIB3	Record2	76.7	18 m	12735	-
MCV1	Record2	80.8	18 m	12735	-
PCVC	Record2	76.6	18 m	12735	-

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

RCV1 Record2 80.8 18 m 12735 -

2016 Analiza Rezultatelor Estimarii Acoperirii Vaccinale La Varsta De 18 Luni Pentru Copiii Nascuti In Luna Iulie, 2016

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record2	96	18 m	14766	-
DTP3	Record2	86.2	18 m	14766	-
HEPB3	Record2	92.6	18 m	14766	-
HIB3	Record2	86.2	18 m	14766	-
MCV1	Record2	89.6	18 m	14766	-
RCV1	Record2	89.6	18 m	14766	-

2007 Anchetei semestriale de acoperire vaccinala efectuata in luna ianuarie 2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Evidence seen
BCG	Record	99.2	18-24 m	33897	-
DTP3	Record	95.7	18-24 m	33897	-
HEPB3	Record	98.2	18-24 m	33897	-
MCV1	Record	96.5	18-24 m	33897	-