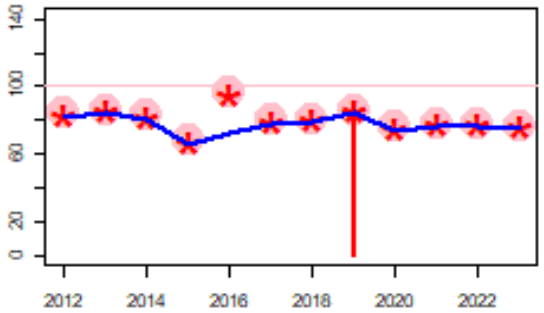
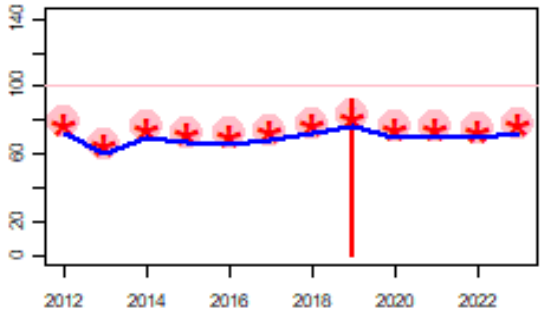
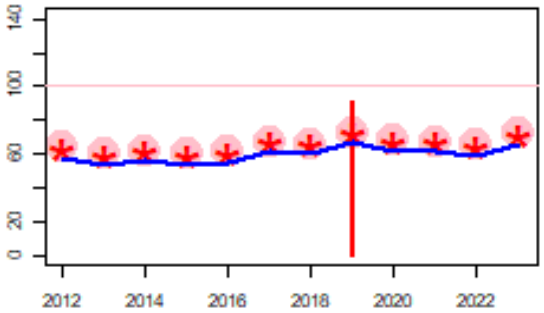
BCG



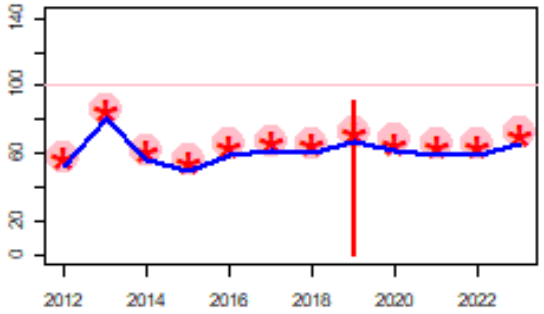
DTP1



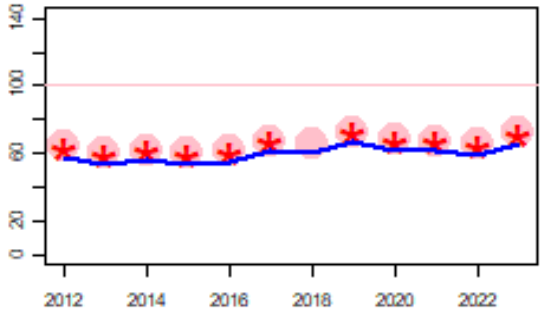
DTP3



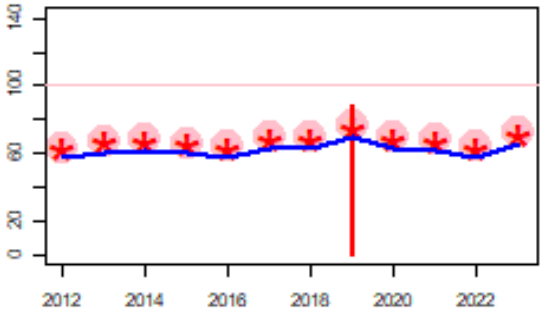
HepB3



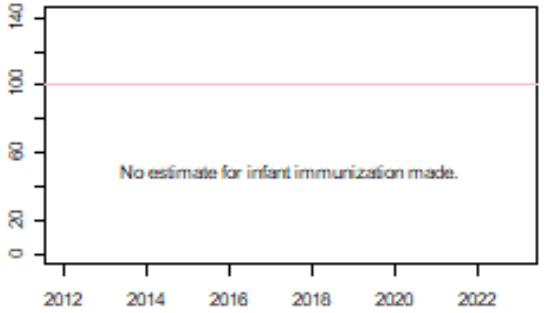
Hib3



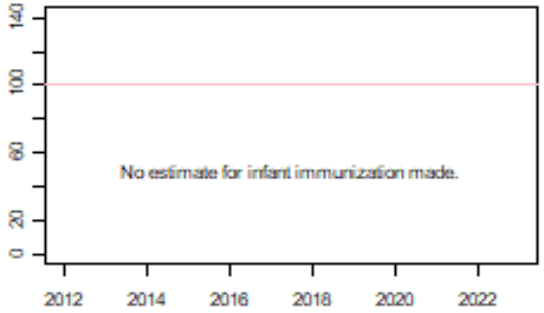
Pol3



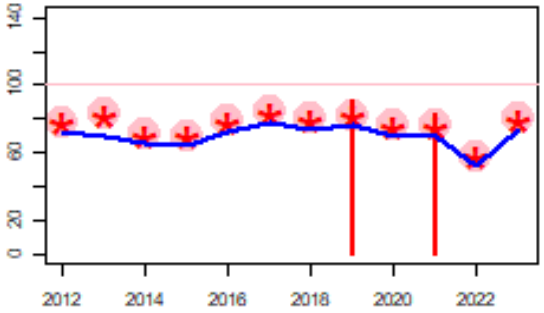
RotaC



PcV3



MCV1



BACKGROUND NOTE: Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from published and grey literature. Based on these data, with due consideration to potential biases and the views of local experts, WHO and UNICEF attempt to distinguish between situations where available empirical data accurately reflect immunization system performance and those where the data are likely compromised and present a misleading view of coverage.

WHO and UNICEF estimates are country-specific; that is to say, each country's data are reviewed individually, and data are not borrowed from other countries in the absence of data. Estimates are not based on ad hoc adjustments to reported data; in some instances empirical data are available from a single source, usually the nationally reported coverage data. In cases where no data are available for a given country/vaccine/year combination, data are considered from earlier and later years and interpolated to estimate coverage for the missing year(s). In cases where data sources are mixed and show large variation, an attempt is made to identify the most likely estimate with consideration of the possible biases in available data. For methods see:

*Burton et al. 2009. Bull World Health Organ.
*Burton et al. 2012. PLoS One.
*Danovaro-Holliday et al. 2021. Gates Open Res.

DATA SOURCES.

ADMINISTRATIVE coverage: Reported by national authorities and based on aggregated administrative reports from health service providers on the number of vaccinations administered during a given period (numerator data) and reported target population data (denominator data). May be biased by inaccurate numerator and/or denominator data.

OFFICIAL coverage: Estimated coverage reported by national authorities that reflects their assessment of the most likely coverage based on any combination of administrative coverage, survey-based estimates or other data sources or adjustments. Approaches to determine OFFICIAL coverage may differ across countries.

SURVEY coverage: Based on estimated coverage from population-based household surveys among children aged 12-23 or 24-35 months following a review of survey methods and results. Information is based on the combination of vaccination history from documented evidence or caregiver recall. Survey results are considered for the appropriate birth cohort based on data collection period.

ABBREVIATIONS

BCG: percentage of births who received one dose of Bacillus Calmette Guerin vaccine.

DTP1 / DTP3: percentage of surviving infants who received the 1st / 3rd dose, respectively, of diphtheria and tetanus toxoid with pertussis containing vaccine.

Pol3: percentage of surviving infants who received the 3rd dose of polio containing vaccine. May be either oral or inactivated polio vaccine.

IPV1: percentage of surviving infants who received at least one dose of inactivated polio vaccine. In countries utilizing an immunization schedule recommending either (i) a primary series of three doses of oral polio vaccine (OPV) plus at least one dose of IPV where OPV is included in routine immunization and/or campaign or (ii) a sequential schedule of IPV followed by OPV, WHO and UNICEF estimates for IPV1 reflect coverage with at least one routine dose of IPV among infants <1 year of age. For countries utilizing IPV containing vaccine only, i.e., no recommended dose of OPV, WHO and UNICEF estimate for IPV1 corresponds to coverage for the 1st dose of IPV. Production of IPV coverage estimates, which begins in 2015, results in no change of the estimated coverage levels for the 3rd dose of polio (Pol3). For countries recommending routine immunization with a primary series of three doses of IPV alone, WHO and UNICEF estimated Pol3 coverage is equivalent to estimated coverage with three doses of IPV. For countries with a sequential schedule, estimated Pol3 coverage is based on that for the 3rd dose of polio vaccine regardless of vaccine type.

IPV2: percentage of surviving infants who received a 2nd dose of inactivated polio vaccine. IPV2 coverage estimates produced for OPV using countries.

MCV1: percentage of surviving infants who received the 1st dose of measles containing vaccine. In countries where the national schedule recommends the 1st dose of MCV at 12 months or later based on the epidemiology of disease in the country, coverage estimates reflect the percentage of children who received the 1st dose of MCV as recommended.

MCV2: percentage of children who received the 2nd dose of measles containing vaccine according to the nationally recommended schedule.

RCV1: percentage of surviving infants who received the 1st dose of rubella containing vaccine. Co verage estimates are based on WHO and UNICEF estimates of coverage for the dose of measles containing vaccine that corresponds to the first measles-rubella combination vaccine. Nationally reported coverage of RCV is not taken into consideration nor are the data represented in the accompanying graph and data table.

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

HepB3: percentage of surviving infants who received the 3rd dose of hepatitis B containing vaccine following the birth dose.

Hib3: percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.

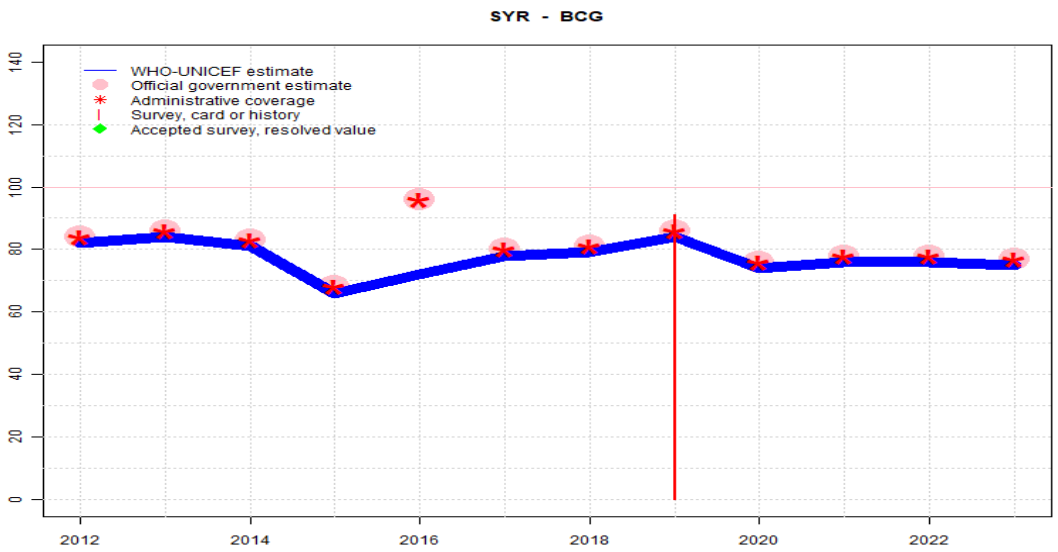
RotaC: percentage of surviving infants who received the final recommended dose of rotavirus vaccine, which can be either the 2nd or the 3rd dose depending on the vaccine.

PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect the percentage of surviving infants who received two doses of PcV prior to the 1st birthday.

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

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

Syrian Arab Republic - BCG



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	82	84	81	66	72	78	79	84	74	76	76	75
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	84	86	83	68	96	80	81	86	76	78	78	77
Administrative	84	86	83	68	96	80	81	86	76	78	78	77
Survey	NA	NA	NA	NA	NA	NA	NA	91	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

2023: Reported data calibrated to 2011 levels. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Estimate challenged by: R-

2022: Reported data calibrated to 2011 levels. Estimate challenged by: D-R-

2021: Reported data calibrated to 2011 levels. Programme reports a one month vaccine stockout at national and subnational levels. Estimate challenged by: D-R-

2020: Reported data calibrated to 2011 levels. Reporting from some districts is incomplete. The denominator used for administrative coverage has been estimated from the coverage of the polio campaigns of 2017 in addition to vaccinated children per health facility. The last population census was conducted in 2004. The estimated target population is likely inaccurate due to the constant movement outside and inside the country. Programme reports a one month vaccine stockout at national and subnational levels. Estimate challenged by: D-R-

2019: Reported data calibrated to 2011 levels. Vaccination and Equity Coverage Survey among Syrian children under two years and women in reproductive age, 2020 results ignored by working group. Following review of the 2020 survey report and results, concerns remain regarding the analysis. Estimate challenged by: D-R-

2018: Reported data calibrated to 2011 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate challenged by: D-R-

2017: Reported data calibrated to 2011 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate challenged by: D-R-

2016: Reported data calibrated to 2011 levels. Reported data excluded due to an increase from 68 percent to 96 percent with decrease 80 percent. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate challenged by: D-R-

2015: Reported data calibrated to 2011 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Reported target population estimates have exceptionally remained largely unchanged during the period of civil unrest between 2014 and 2015. Programme reports three months national level stockout. Estimate challenged by: D-R-

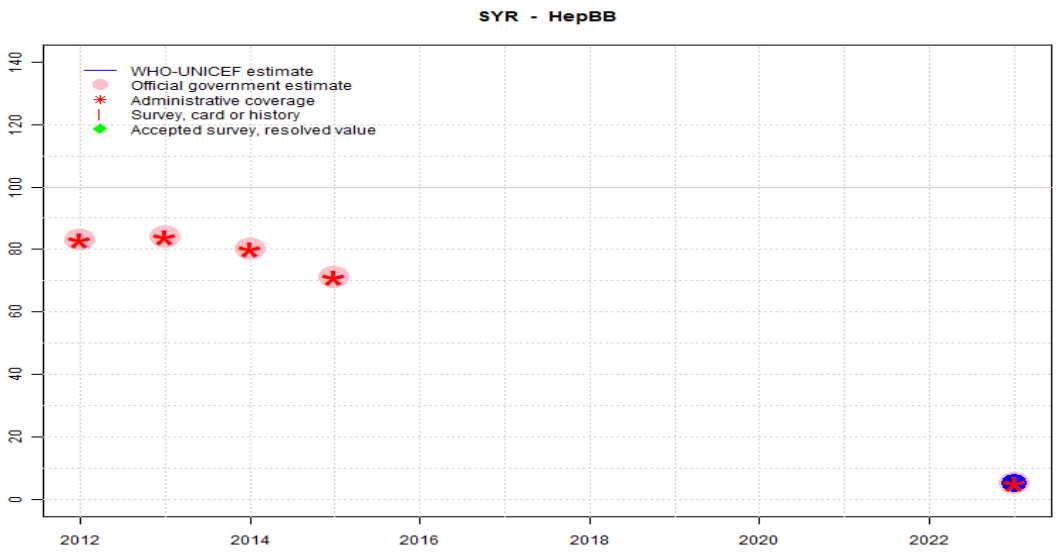
2014: Reported data calibrated to 2011 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2013: Reported data calibrated to 2011 levels. Programme reports a one month stockout at national level and in 75 districts. Low levels of coverage associated with the interruption

of health services during period of civil unrest. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2012: Reported data calibrated to 2011 levels. Low levels of coverage associated with the interruption of health services during period of civil unrest. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

Syrian Arab Republic - HepBB



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●
Official	83	84	80	71	NA	NA	NA	NA	NA	NA	NA	5
Administrative	83	84	80	71	NA	NA	NA	NA	NA	NA	NA	5
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

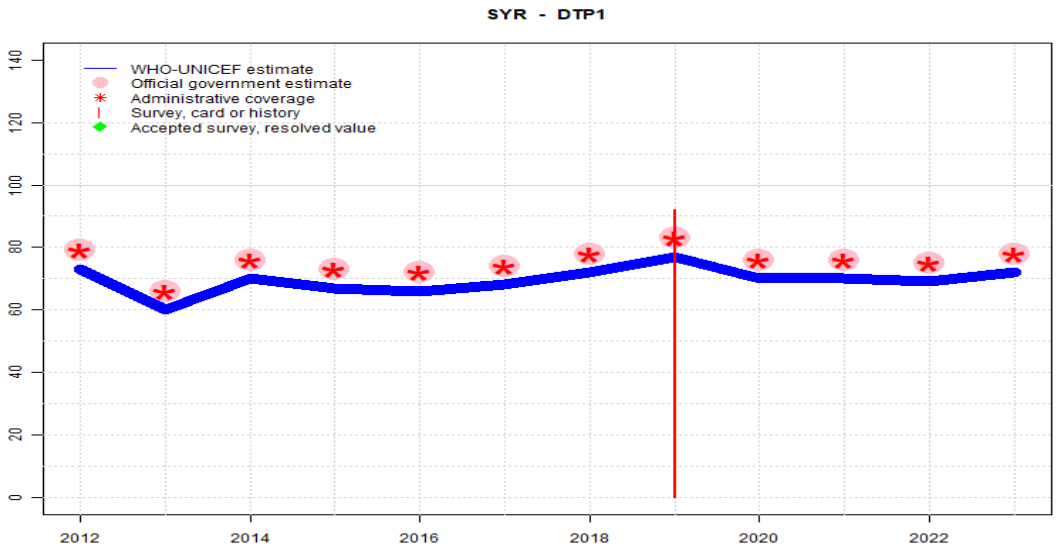
● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

2023: Estimate informed by reported data. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. HepBB included in national immunization schedule since 2003. In 2023, country started reporting doses administered within 24 hours of birth. GoC=R+ D+

Syrian Arab Republic - DTP1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	73	60	70	67	66	68	72	77	70	70	69	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	79	66	76	73	72	74	78	83	76	76	75	78
Administrative	79	66	76	73	72	74	78	83	76	76	75	78
Survey	NA	NA	NA	NA	NA	NA	NA	92	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

2023: Reported data calibrated to 2012 levels. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Estimate challenged by: D-R-

2022: Reported data calibrated to 2012 levels. Estimate of 69 percent changed from previous revision value of 64 percent. Estimate challenged by: D-R-

2021: Reported data calibrated to 2012 levels. Estimate of 70 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-

2020: Reported data calibrated to 2012 levels. Reporting from some districts is incomplete. The denominator used for administrative coverage has been estimated from the coverage of the polio campaigns of 2017 in addition to vaccinated children per health facility. The last population census was conducted in 2004. The estimated target population is likely inaccurate due to the constant movement outside and inside the country. Estimate of 70 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-

2019: Reported data calibrated to 2012 levels. Vaccination and Equity Coverage Survey among Syrian children under two years and women in reproductive age, 2020 results ignored by working group. Following review of the 2020 survey report and results, concerns remain regarding the analysis. Estimate of 77 percent changed from previous revision value of 72 percent. Estimate challenged by: D-R-

2018: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 72 percent changed from previous revision value of 67 percent. Estimate challenged by: D-R-

2017: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 68 percent changed from previous revision value of 63 percent. Estimate challenged by: D-R-

2016: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Programme reports a one month stockout at the national level. Estimate of 66 percent changed from previous revision value of 61 percent. Estimate challenged by: D-R-

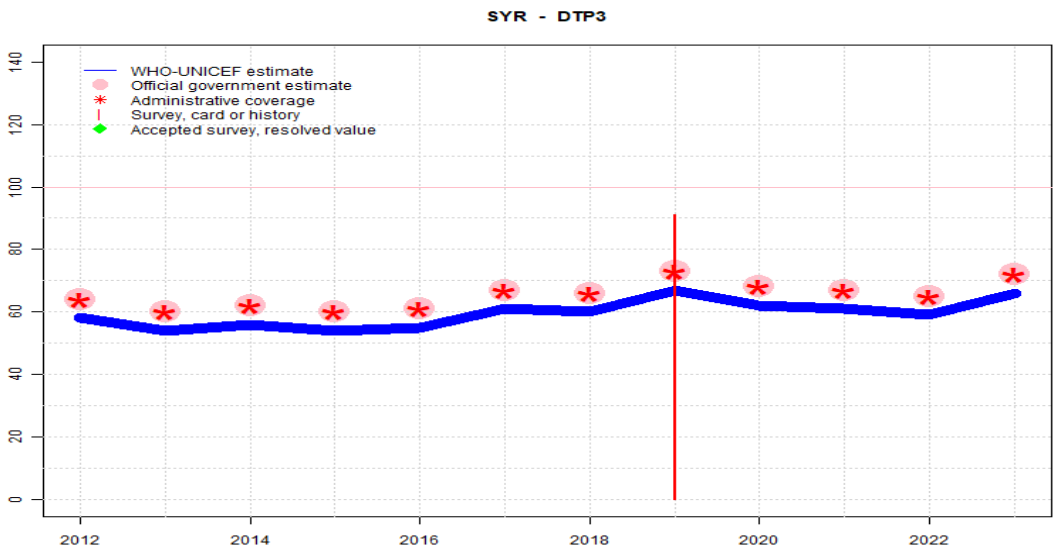
2015: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Reported target population estimates have exceptionally remained largely unchanged during the period of civil unrest between 2014 and 2015. Estimate of 67 percent changed from previous revision value of 62 percent. Estimate challenged by: D-R-

2014: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Estimate of 70 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Programme reports a one month stockout at national level and in 30 districts. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate follows official government estimate. Estimate of 60 percent changed from previous revision value of 55 percent. Estimate challenged by: R-

2012: Estimate of 73 percent assigned by working group. Estimate is based on reported coverage adjusted by the difference in recalculated coverage using reported number of doses and an independent target population. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 73 percent changed from previous revision value of 68 percent. Estimate challenged by: R-

Syrian Arab Republic - DTP3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	58	54	56	54	55	61	60	67	62	61	59	66
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	64	60	62	60	61	67	66	73	68	67	65	72
Administrative	64	60	62	60	61	67	66	73	68	67	65	72
Survey	NA	NA	NA	NA	NA	NA	NA	91	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

2023: Reported data calibrated to 2012 levels. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Estimate challenged by: D-R-

2022: Reported data calibrated to 2012 levels. Estimate of 59 percent changed from previous revision value of 46 percent. Estimate challenged by: D-R-

2021: Reported data calibrated to 2012 levels. Estimate of 61 percent changed from previous revision value of 48 percent. Estimate challenged by: D-R-

2020: Reported data calibrated to 2012 levels. Reporting from some districts is incomplete. The denominator used for administrative coverage has been estimated from the coverage of the polio campaigns of 2017 in addition to vaccinated children per health facility. The last population census was conducted in 2004. The estimated target population is likely inaccurate due to the constant movement outside and inside the country. Estimate of 62 percent changed from previous revision value of 49 percent. Estimate challenged by: D-R-

2019: Reported data calibrated to 2012 levels. Vaccination and Equity Coverage Survey among Syrian children under two years and women in reproductive age, 2020 results ignored by working group. Following review of the 2020 survey report and results, concerns remain regarding the analysis. Estimate of 67 percent changed from previous revision value of 54 percent. Estimate challenged by: D-R-

2018: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 60 percent changed from previous revision value of 47 percent. Estimate challenged by: D-R-

2017: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 61 percent changed from previous revision value of 48 percent. Estimate challenged by: D-R-

2016: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Programme reports a one month stockout at the national level. Estimate of 55 percent changed from previous revision value of 42 percent. Estimate challenged by: D-R-

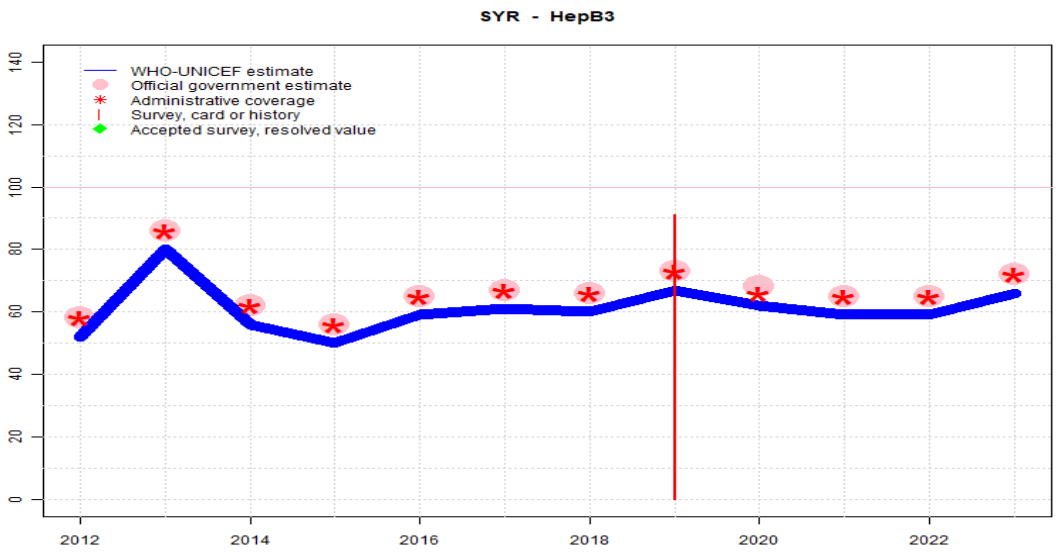
2015: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Reported target population estimates have exceptionally remained largely unchanged during the period of civil unrest between 2014 and 2015. Estimate of 54 percent changed from previous revision value of 41 percent. Estimate challenged by: D-R-

2014: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Estimate of 56 percent changed from previous revision value of 43 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Programme reports a one month stockout at national level and in 30 districts. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 54 percent changed from previous revision value of 41 percent. Estimate challenged by: R-

2012: Estimate of 58 percent assigned by working group. Estimate is based on reported coverage adjusted by the difference in recalculated coverage using reported number of doses and an independent target population. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 58 percent changed from previous revision value of 45 percent. Estimate challenged by: R-

Syrian Arab Republic - HepB3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	52	80	56	50	59	61	60	67	62	59	59	66
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	58	86	62	56	65	67	66	73	68	65	65	72
Administrative	58	86	62	56	65	67	66	73	66	65	65	72
Survey	NA	NA	NA	NA	NA	NA	NA	91	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

2023: Reported data calibrated to 2012 levels. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Estimate challenged by: D-R-

2022: Reported data calibrated to 2012 levels. Estimate of 59 percent changed from previous revision value of 46 percent. Estimate challenged by: D-R-

2021: Reported data calibrated to 2012 levels. Estimate of 59 percent changed from previous revision value of 48 percent. Estimate challenged by: D-R-

2020: Reported data calibrated to 2012 levels. Reporting from some districts is incomplete. The denominator used for administrative coverage has been estimated from the coverage of the polio campaigns of 2017 in addition to vaccinated children per health facility. The last population census was conducted in 2004. The estimated target population is likely inaccurate due to the constant movement outside and inside the country. Estimate of 62 percent changed from previous revision value of 49 percent. Estimate challenged by: D-R-

2019: Reported data calibrated to 2012 levels. Vaccination and Equity Coverage Survey among Syrian children under two years and women in reproductive age, 2020 results ignored by working group. Following review of the 2020 survey report and results, concerns remain regarding the analysis. Estimate of 67 percent changed from previous revision value of 54 percent. Estimate challenged by: D-R-

2018: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 60 percent changed from previous revision value of 47 percent. Estimate challenged by: D-R-

2017: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 61 percent changed from previous revision value of 48 percent. Estimate challenged by: D-R-

2016: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 59 percent changed from previous revision value of 42 percent. Estimate challenged by: D-R-

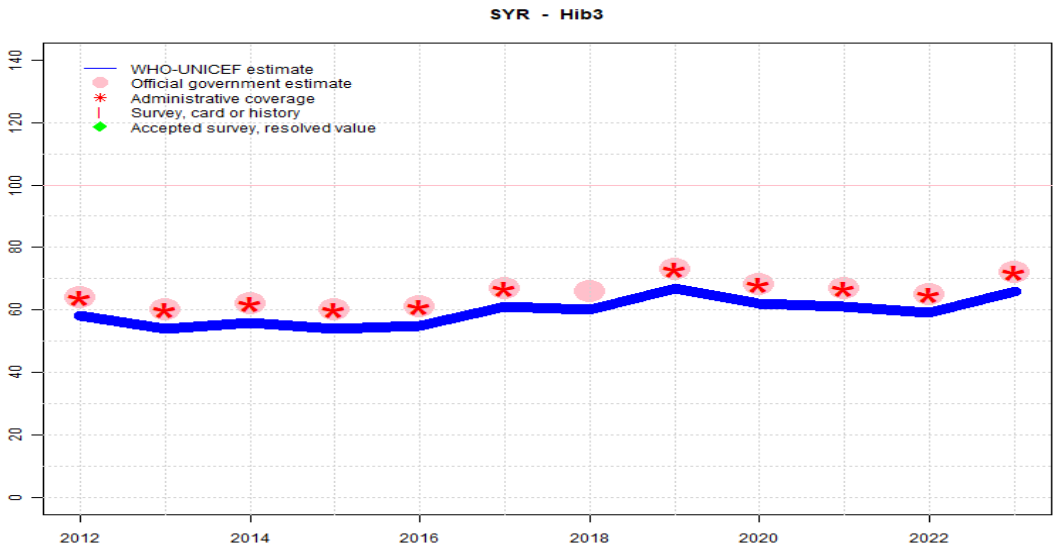
2015: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Reported target population estimates have exceptionally remained largely unchanged during the period of civil unrest between 2014 and 2015. Estimate of 50 percent changed from previous revision value of 41 percent. Estimate challenged by: D-R-

2014: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Estimate of 56 percent changed from previous revision value of 47 percent. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2013: Reported data calibrated to 2012 levels. Higher levels of reported HepB3 may be due in part to use of monovalent HepB vaccine. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 80 percent changed from previous revision value of 71 percent. Estimate challenged by: R-

2012: Estimate of 52 percent assigned by working group. Estimate is based on reported coverage adjusted by the difference in recalculated coverage using reported number of doses and an independent target population. First dose of HepB was given at birth and third dose delivered with DTP2. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 52 percent changed from previous revision value of 43 percent. Estimate challenged by: R-

Syrian Arab Republic - Hib3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	58	54	56	54	55	61	60	67	62	61	59	66
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	64	60	62	60	61	67	66	73	68	67	65	72
Administrative	64	60	62	60	61	67	NA	73	68	67	65	72
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

2023: Reported data calibrated to 2012 levels. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Estimate challenged by: D-R-

2022: Reported data calibrated to 2012 levels. Estimate of 59 percent changed from previous revision value of 46 percent. Estimate challenged by: D-R-

2021: Reported data calibrated to 2012 levels. Estimate of 61 percent changed from previous revision value of 48 percent. Estimate challenged by: D-R-

2020: Reported data calibrated to 2012 levels. Reporting from some districts is incomplete. The denominator used for administrative coverage has been estimated from the coverage of the polio campaigns of 2017 in addition to vaccinated children per health facility. The last population census was conducted in 2004. The estimated target population is likely inaccurate due to the constant movement outside and inside the country. Estimate of 62 percent changed from previous revision value of 49 percent. Estimate challenged by: D-R-

2019: Reported data calibrated to 2012 levels. Estimate of 67 percent changed from previous revision value of 54 percent. Estimate challenged by: D-R-

2018: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 60 percent changed from previous revision value of 47 percent. Estimate challenged by: R-

2017: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 61 percent changed from previous revision value of 48 percent. Estimate challenged by: D-R-

2016: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Programme reports a one month stockout at the national level. Estimate of 55 percent changed from previous revision value of 42 percent. Estimate challenged by: D-R-

2015: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Reported target population estimates have exceptionally remained largely unchanged during the period of civil unrest between 2014 and 2015. Estimate of 54 percent changed from previous revision value of 41 percent. Estimate challenged by: D-R-

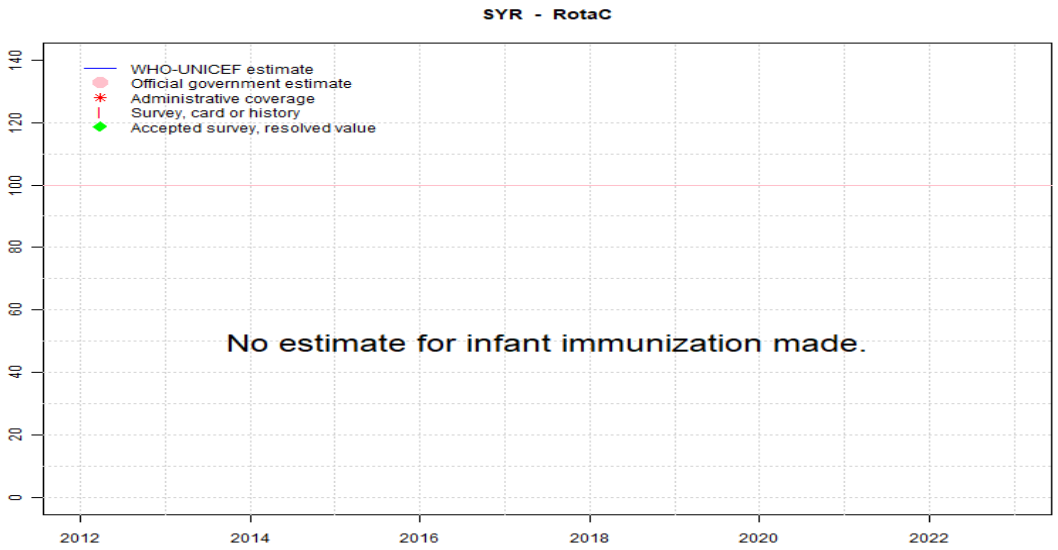
2014: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Estimate of 56 percent changed from previous revision value of 43 percent. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2013: Reported data calibrated to 2012 levels. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 54 percent changed

from previous revision value of 41 percent. Estimate challenged by: R-

2012: Estimate of 58 percent assigned by working group. Estimate is based on reported coverage adjusted by the difference in recalculated coverage using reported number of doses and an independent target population. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 58 percent changed from previous revision value of 45 percent. Estimate challenged by: R-

Syrian Arab Republic - RotaC



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

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

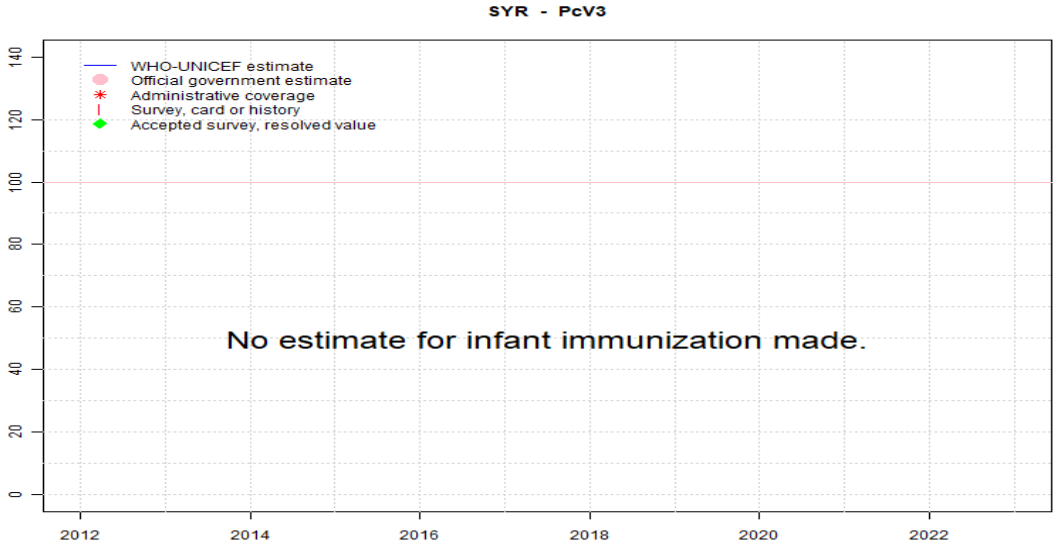
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Syrian Arab Republic - PcV3



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

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

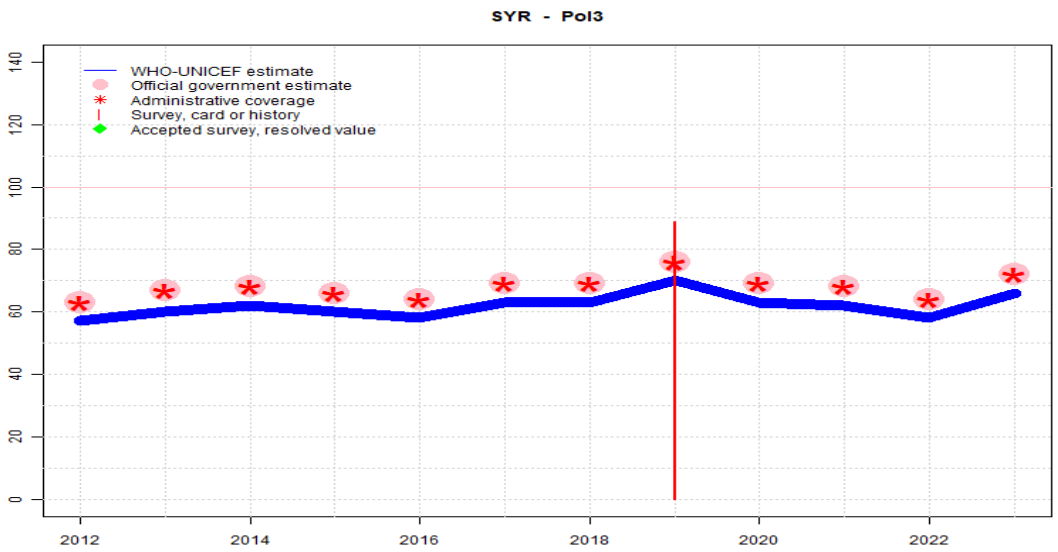
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Syrian Arab Republic - Pol3



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	57	60	62	60	58	63	63	70	63	62	58	66
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	63	67	68	66	64	69	69	76	69	68	64	72
Administrative	63	67	68	66	64	69	69	76	69	68	64	72
Survey	NA	NA	NA	NA	NA	NA	NA	89	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

2023: Reported data calibrated to 2012 levels. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Estimate challenged by: D-R-

2022: Reported data calibrated to 2012 levels. Estimate of 58 percent changed from previous revision value of 48 percent. Estimate challenged by: D-R-

2021: Reported data calibrated to 2012 levels. Higher estimated coverage levels versus those for the third dose of DTP containing vaccine may suggest inclusion of campaign doses. Estimate of 62 percent changed from previous revision value of 52 percent. Estimate challenged by: D-R-

2020: Reported data calibrated to 2012 levels. Reporting from some districts is incomplete. The denominator used for administrative coverage has been estimated from the coverage of the polio campaigns of 2017 in addition to vaccinated children per health facility. The last population census was conducted in 2004. The estimated target population is likely inaccurate due to the constant movement outside and inside the country. Higher estimated coverage levels versus those for the third dose of DTP containing vaccine may suggest inclusion of campaign doses. Estimate of 63 percent changed from previous revision value of 53 percent. Estimate challenged by: D-R-

2019: Reported data calibrated to 2012 levels. Vaccination and Equity Coverage Survey among Syrian children under two years and women in reproductive age, 2020 results ignored by working group. Following review of the 2020 survey report and results, concerns remain regarding the analysis. Higher estimated coverage levels versus those for the third dose of DTP containing vaccine may suggest inclusion of campaign doses. Estimate of 70 percent changed from previous revision value of 60 percent. Estimate challenged by: D-R-

2018: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Higher estimated coverage levels versus those for the third dose of DTP containing vaccine may suggest inclusion of campaign doses. Estimate of 63 percent changed from previous revision value of 53 percent. Estimate challenged by: D-R-

2017: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Higher estimated coverage levels versus those for the third dose of DTP containing vaccine may suggest inclusion of campaign doses. Estimate of 63 percent changed from previous revision value of 53 percent. Estimate challenged by: D-R-

2016: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Higher estimated coverage levels versus those for the third dose of DTP containing vaccine may suggest inclusion of campaign doses. Estimate of 58 percent changed from previous revision value

of 48 percent. Estimate challenged by: D-R-

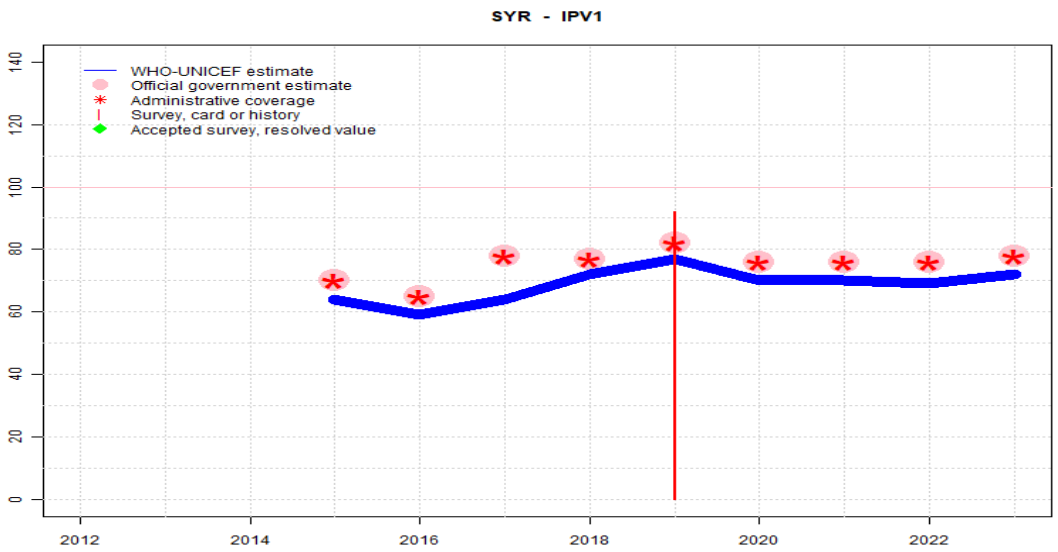
2015: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Reported target population estimates have exceptionally remained largely unchanged during the period of civil unrest between 2014 and 2015. Higher estimated coverage levels versus those for the third dose of DTP containing vaccine may suggest inclusion of campaign doses. Estimate of 60 percent changed from previous revision value of 50 percent. Estimate challenged by: D-R-

2014: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Higher estimated coverage levels versus those for the third dose of DTP containing vaccine may suggest inclusion of campaign doses. Estimate of 62 percent changed from previous revision value of 52 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Reported coverage levels may reflect doses delivered during campaign. Higher estimated coverage levels versus those for the third dose of DTP containing vaccine may suggest inclusion of campaign doses. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 60 percent changed from previous revision value of 50 percent. Estimate challenged by: D-R-

2012: Estimate of 57 percent assigned by working group. Estimate is based on reported coverage adjusted by the difference in recalculated coverage using reported number of doses and an independent target population. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 57 percent changed from previous revision value of 47 percent. Estimate challenged by: R-

Syrian Arab Republic - IPV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	64	59	64	72	77	70	70	69	72
Estimate GoC	NA	NA	NA	•	•	•	•	•	•	•	•	•
Official	NA	NA	NA	70	65	78	77	82	76	76	76	78
Administrative	NA	NA	NA	70	65	78	77	82	76	76	76	78
Survey	NA	NA	NA	NA	NA	NA	NA	92	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

Estimates for a dose of inactivated polio vaccine (IPV) begin in 2015 following the Global Polio Eradication Initiative's Polio Eradication and Endgame Strategic Plan: 2013-2018 which recommended at least one full dose or two fractional doses of IPV into routine immunization schedules as a strategy to mitigate the potential consequences should any re-emergence of type 2 poliovirus occur following the planned withdrawal of Sabin type 2 strains from oral polio vaccine (OPV).

2023: Estimate informed by reported IPV1 coverage, adjusted for the difference between reported and estimated DTP1 coverage. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Estimate challenged by: D-R-

2022: Estimate informed by reported IPV1 coverage adjusted for the difference between reported and estimated DTP1 coverage. Estimate of 69 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-

2021: Estimate based on reported IPV1 coverage adjusted for the difference between reported and estimated DTP1 coverage. Estimate of 70 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-

2020: Estimate based on reported IPV1 coverage adjusted for the difference between reported and estimated DTP1 coverage. Reporting from some districts is incomplete. The denominator used for administrative coverage has been estimated from the coverage of the polio campaigns of 2017 in addition to vaccinated children per health facility. The last population census was conducted in 2004. The estimated target population is likely inaccurate due to the constant movement outside and inside the country. Estimate of 70 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-

2019: Estimate based on reported IPV1 coverage adjusted for the difference between reported and estimated DTP1 coverage. Vaccination and Equity Coverage Survey among Syrian children under two years and women in reproductive age, 2020 results ignored by working group. Following review of the 2020 survey report and results, concerns remain regarding the analysis. Estimate of 77 percent changed from previous revision value of 71 percent. Estimate challenged by: D-R-

2018: Estimate based on reported IPV1 coverage adjusted for the difference between reported and estimated DTP1 coverage. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Reported data reflect coverage for the second full dose of IPV. Estimate of 72 percent changed from previous revision value of 66 percent. Estimate challenged by: D-R-

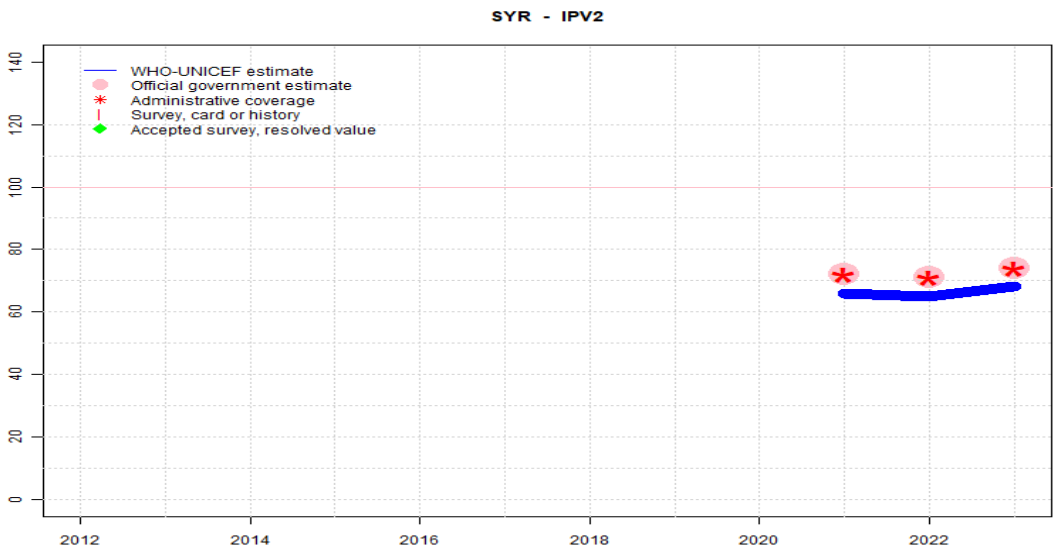
2017: Estimate based on reported IPV1 coverage adjusted for the difference between reported and estimated DTP1 coverage. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 64 percent changed

from previous revision value of 67 percent. Estimate challenged by: D-R-

2016: Inactivated polio vaccine in 2008 as part of a sequential schedule. Estimate is based on the relationship between estimated and reported DTP1 applied to IPV1. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Programme reports a three months stockout at the national level. Estimate of 59 percent changed from previous revision value of 58 percent. Estimate challenged by: D-R-

2015: Estimate is based on the relationship between estimated and reported DTP1 applied to IPV1. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Reported target population estimates have exceptionally remained largely unchanged during the period of civil unrest between 2014 and 2015. Estimate of 64 percent changed from previous revision value of 59 percent. Estimate challenged by: D-R-

Syrian Arab Republic - IPV2



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	66	65	68
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	72	71	74
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	72	71	74
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

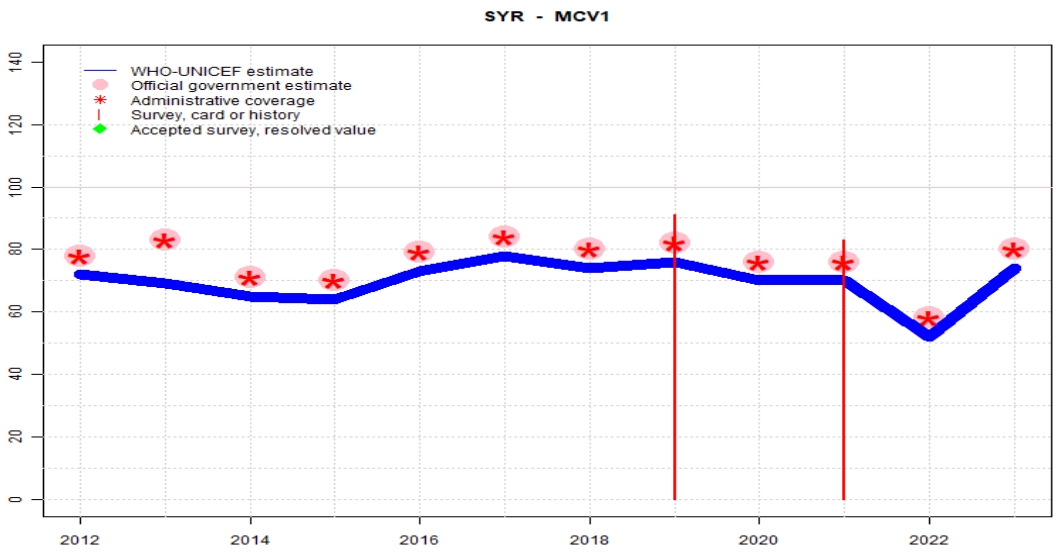
Estimates for a second dose of inactivated polio vaccine (IPV) begin in 2021 following a Strategic Advisory Group of Experts on Immunization (SAGE) recommendation in October 2020 that a second IPV dose increases protection against all polioviruses, including protection against paralysis caused by vaccine derived polio virus (type 2) (VDPV2). The addition of IPV2 is the next step towards complete OPV withdrawal. IPV2 coverage estimates produced for OPV using countries.

2023: . Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Estimate challenged by: D-R-

2022: . Estimate challenged by: D-R-

2021: Estimate is based on reported coverage adjusted by the difference in recalculated coverage using reported number of doses and an independent target population. Second dose of inactivated polio vaccine introduced prior to 2021. Estimate challenged by: D-R-

Syrian Arab Republic - MCV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	72	69	65	64	73	78	74	76	70	70	52	74
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	78	83	71	70	79	84	80	82	76	76	58	80
Administrative	78	83	71	70	79	84	80	82	76	76	58	80
Survey	NA	NA	NA	NA	NA	NA	NA	91	NA	83	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

2023: Reported data calibrated to 2012 levels. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Post campaign coverage survey done in 2022, reflecting the 2019 birth cohort, suggests high measles coverage in areas were the measles rubella supplementary immunization activity was conducted which includes about 87 percent of the population. Estimated coverage levels may be underestimated. Programme reports four month vaccine stockout at the national and subnational levels. Estimate challenged by: D-R-

2022: Reported data calibrated to 2012 levels. Programme reports a three months vaccine stockout at the national and subnational level. Estimate of 52 percent changed from previous revision value of 41 percent. Estimate challenged by: D-R-

2021: Reported data calibrated to 2012 levels. Post measles and rubella vaccination campaign coverage survey, Syria, 2022 results ignored by working group. Survey results ignored due to exclusion of inaccessible areas. Estimate of 70 percent changed from previous revision value of 59 percent. Estimate challenged by: D-R-

2020: Reported data calibrated to 2012 levels. Reporting from some districts is incomplete. The denominator used for administrative coverage has been estimated from the coverage of the polio campaigns of 2017 in addition to vaccinated children per health facility. The last population census was conducted in 2004. The estimated target population is likely inaccurate due to the constant movement outside and inside the country. Estimate of 70 percent changed from previous revision value of 59 percent. Estimate challenged by: D-R-

2019: Reported data calibrated to 2012 levels. Vaccination and Equity Coverage Survey among Syrian children under two years and women in reproductive age, 2020 results ignored by working group. Following review of the 2020 survey report and results, concerns remain regarding the analysis. Estimate of 76 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-

2018: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 74 percent changed from previous revision value of 63 percent. Estimate challenged by: D-R-

2017: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 78 percent changed from previous revision value of 67 percent. Estimate challenged by: D-R-

2016: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 73 percent changed from previous revision value of 62 percent. Estimate challenged by: D-R-

2015: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Reported target popula-

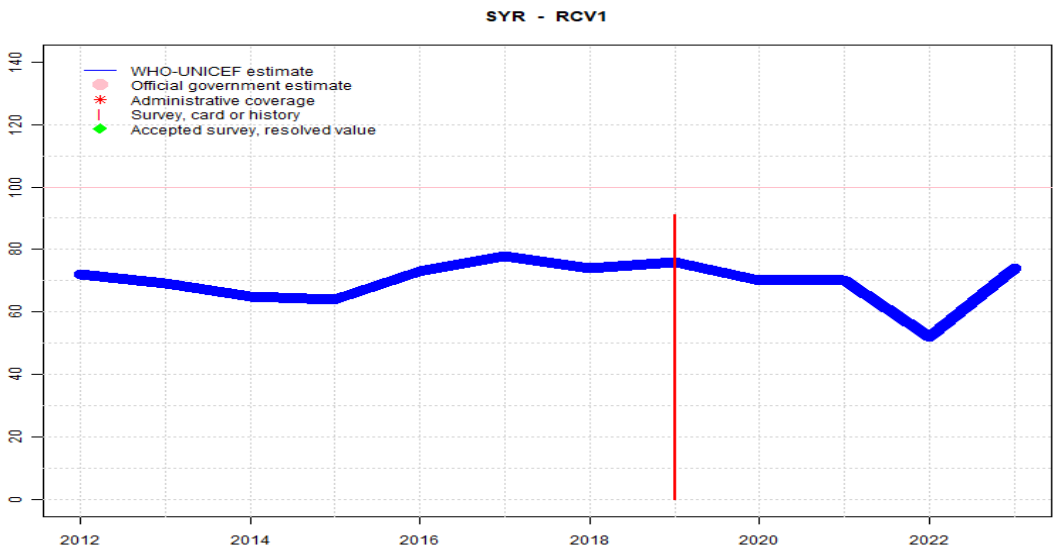
tion estimates have exceptionally remained largely unchanged during the period of civil unrest between 2014 and 2015. Estimate of 64 percent changed from previous revision value of 53 percent. Estimate challenged by: D-R-

2014: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest.. Estimate of 65 percent changed from previous revision value of 54 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Reported coverage levels may reflect doses delivered during campaign. Programme reports a four months stockout at the national level and in 60 districts. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 69 percent changed from previous revision value of 58 percent. Estimate challenged by: D-R-

2012: Estimate of 72 percent assigned by working group. Estimate is based on reported coverage adjusted by the difference in recalculated coverage using reported number of doses and an independent target population. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 72 percent changed from previous revision value of 61 percent. Estimate challenged by: R-

Syrian Arab Republic - RCV1



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	72	69	65	64	73	78	74	76	70	70	52	74
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	91	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

For this revision, coverage estimates for the first dose of rubella containing vaccine are based on WHO and UNICEF estimates of coverage of measles containing vaccine. Nationally reported coverage of rubella containing vaccine is not taken into consideration nor are they represented in the the accompanying graph and data table.

2023: Estimate based on estimated MCV1. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Programme reports four month vaccine stockout at the national and subnational levels. Estimate challenged by: D-R-

2022: Estimate based on estimated MCV1. Estimate of 52 percent changed from previous revision value of 41 percent. Estimate challenged by: D-R-

2021: Estimate based on estimated MCV1. Estimate of 70 percent changed from previous revision value of 59 percent. Estimate challenged by: D-R-

2020: Estimate based on estimated MCV1. Reporting from some districts is incomplete. The denominator used for administrative coverage has been estimated from the coverage of the polio campaigns of 2017 in addition to vaccinated children per health facility. The last population census was conducted in 2004. The estimated target population is likely inaccurate due to the constant movement outside and inside the country. Estimate of 70 percent changed from previous revision value of 59 percent. Estimate challenged by: D-R-

2019: Estimate based on estimated MCV1. Vaccination and Equity Coverage Survey among Syrian children under two years and women in reproductive age, 2020 results ignored by working group. Following review of the 2020 survey report and results, concerns remain regarding the analysis. Estimate of 76 percent changed from previous revision value of 65 percent. Estimate challenged by: D-R-

2018: Estimate based on estimated MCV1. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 74 percent changed from previous revision value of 63 percent. Estimate challenged by: D-R-

2017: Estimate based on estimated MCV1. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 78 percent changed from previous revision value of 67 percent. Estimate challenged by: D-R-

2016: Estimate based on estimated MCV1. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 73 percent changed from previous revision value of 62 percent. Estimate challenged by: D-R-

2015: Estimate based on estimated MCV1. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Reported target population estimates have exceptionally remained largely unchanged during the period of civil unrest

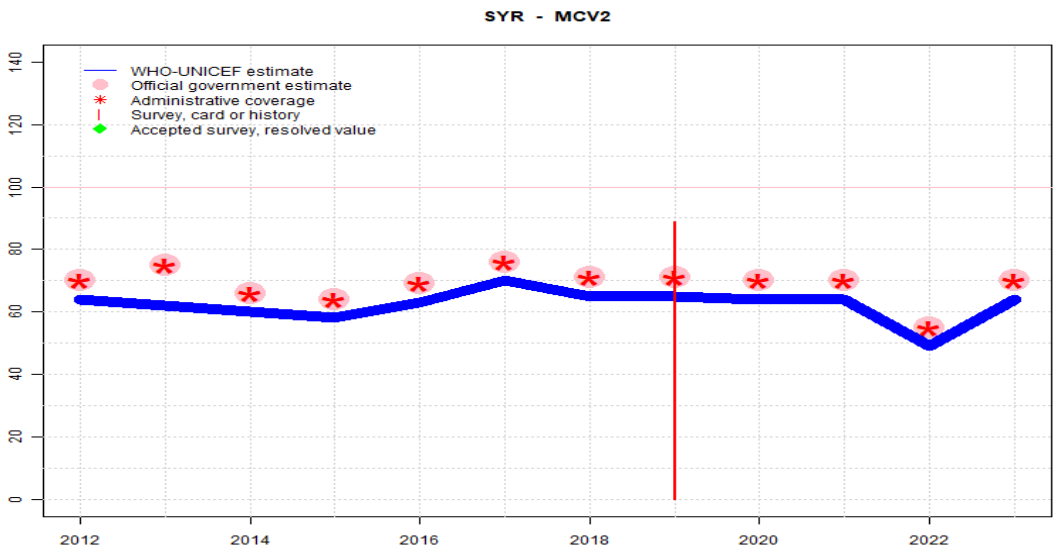
between 2014 and 2015. Estimate of 64 percent changed from previous revision value of 53 percent. Estimate challenged by: D-R-

2014: Estimate based on estimated MCV1. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Estimate of 65 percent changed from previous revision value of 54 percent. Estimate challenged by: D-R-

2013: Estimate based on estimated MCV1. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 69 percent changed from previous revision value of 58 percent. Estimate challenged by: D-R-

2012: Estimate based on estimated MCV1. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 72 percent changed from previous revision value of 61 percent. Estimate challenged by: R-

Syrian Arab Republic - MCV2



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Estimate	64	62	60	58	63	70	65	65	64	64	49	64
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	70	75	66	64	69	76	71	71	70	70	55	70
Administrative	70	75	66	64	69	76	71	71	70	70	55	70
Survey	NA	NA	NA	NA	NA	NA	NA	89	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

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

●● Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.

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

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

Description:

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

2023: Reported data calibrated to 2012 levels. Country reported implementing intensified immunization service delivery activities in 2023. Since 2012, estimates are based on a calibration factor given by the recalculated coverage using the reported number of doses and an independent estimate of the target population in the context of civil unrest. Recent surveys, though they exclude part of the population, suggest coverage levels that are closer to official coverage estimates compared to prior to 2012. Programme reports four month vaccine stockout at the national and subnational levels. Estimate challenged by: D-R-

2022: Reported data calibrated to 2012 levels. Programme reports a three months vaccine stockout at the national and subnational level. Estimate of 49 percent changed from previous revision value of 38 percent. Estimate challenged by: D-R-

2021: Reported data calibrated to 2012 levels. Estimate of 64 percent changed from previous revision value of 53 percent. Estimate challenged by: D-R-

2020: Reported data calibrated to 2012 levels. Reporting from some districts is incomplete. The denominator used for administrative coverage has been estimated from the coverage of the polio campaigns of 2017 in addition to vaccinated children per health facility. The last population census was conducted in 2004. The estimated target population is likely inaccurate due to the constant movement outside and inside the country. Estimate of 64 percent changed from previous revision value of 53 percent. Estimate challenged by: D-R-

2019: Reported data calibrated to 2012 levels. Vaccination and Equity Coverage Survey among Syrian children under two years and women in reproductive age, 2020 results ignored by working group. Following review of the 2020 survey report and results, concerns remain regarding the analysis. Estimate of 65 percent changed from previous revision value of 54 percent. Estimate challenged by: D-R-

2018: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 65 percent changed from previous revision value of 54 percent. Estimate challenged by: D-R-

2017: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 70 percent changed from previous revision value of 59 percent. Estimate challenged by: D-R-

2016: Reported data calibrated to 2012 levels. Low levels of coverage, associated with the interruption of health services during a period of civil unrest, continue. Estimate of 63 percent changed from previous revision value of 52 percent. Estimate challenged by: D-R-

2015: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Reported target population estimates have exceptionally remained largely unchanged during the period of civil unrest between 2014 and 2015. Estimate of 58 percent changed from previous revision

value of 47 percent. Estimate challenged by: D-R-

2014: Reported data calibrated to 2012 levels. Low levels of coverage continue associated with the interruption of health services during period of civil unrest. Estimate of 60 percent changed from previous revision value of 49 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Reported data excluded. Reported coverage levels may reflect doses delivered during campaign. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 62 percent changed from previous revision value of 51 percent. Estimate challenged by: D-R-

2012: Estimate of 64 percent assigned by working group. Estimate is based on reported coverage adjusted by the difference in recalculated coverage using reported number of doses and an independent target population. Low levels of coverage associated with the interruption of health services during period of civil unrest. Estimate of 64 percent changed from previous revision value of 53 percent. Estimate challenged by: R-

Syrian Arab Republic - survey details

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

2021 Post measles and rubella vaccination campaign coverage survey, Syria, 2022

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV1	Card or History	82.8	12-23 m	725	-

2019 Post measles and rubella vaccination campaign coverage survey, Syria, 2022

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV1	Card or History	93.6	24-59 m	2584	-

2019 Vaccination and Equity Coverage Survey among Syrian children under two years and women in reproductive age, 2020

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	91	12-23 m	3000	52
DTP1	Card or History	91.7	12-23 m	3000	52
DTP3	Card or History	91	12-23 m	3000	52
HepB1	Card or History	91	12-23 m	3000	52
HepB3	Card or History	90.7	12-23 m	3000	52
IPV1	Card or History	91.6	12-23 m	3000	52
MCV1	Card or History	91	12-23 m	3000	52
MCV2	Card or History	88.7	12-23 m	3000	52
Pol1	Card or History	91	12-23 m	3000	52
Pol3	Card or History	88.7	12-23 m	3000	52

2008 Syria 2009 Household Survey (PAPFAM)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	92.5	12-23 m	-	66
DTP1	Card or History	88	12-23 m	-	66
DTP3	Card or History	82.1	12-23 m	-	66
MCV1	Card or History	81.9	12-23 m	-	66
Pol1	Card or History	87	12-23 m	-	66
Pol3	Card or History	80.5	12-23 m	-	66

2005 Syrian Arab Republic Multiple Indicator Cluster Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	89.6	12-23 m	2083	55
BCG	Card	56.6	12-23 m	2083	55
BCG	Card or History	89.8	12-23 m	2083	55
BCG	History	33.2	12-23 m	2083	55
DTP1	C or H <12 months	87.8	12-23 m	2083	55
DTP1	Card	57	12-23 m	2083	55
DTP1	Card or History	88.5	12-23 m	2083	55
DTP1	History	31.4	12-23 m	2083	55
DTP3	C or H <12 months	74.5	12-23 m	2083	55
DTP3	Card	52.5	12-23 m	2083	55
DTP3	Card or History	76.6	12-23 m	2083	55
DTP3	History	24.1	12-23 m	2083	55
HepB1	C or H <12 months	88.6	12-23 m	2083	55
HepB1	Card	57.3	12-23 m	2083	55
HepB1	Card or History	88.8	12-23 m	2083	55
HepB1	History	31.4	12-23 m	2083	55
HepB3	C or H <12 months	71.4	12-23 m	2083	55
HepB3	Card	53.1	12-23 m	2083	55
HepB3	Card or History	77.1	12-23 m	2083	55
HepB3	History	24	12-23 m	2083	55
MCV1	C or H <12 months	74.4	12-23 m	2083	55

Syrian Arab Republic - survey details

MCV1	Card	52	12-23 m	2083	55
MCV1	Card or History	80.7	12-23 m	2083	55
MCV1	History	28.7	12-23 m	2083	55
Pol1	C or H <12 months	88.5	12-23 m	2083	55
Pol1	Card	56.2	12-23 m	2083	55
Pol1	Card or History	89.2	12-23 m	2083	55
Pol1	History	33.1	12-23 m	2083	55
Pol3	C or H <12 months	73.5	12-23 m	2083	55
Pol3	Card	51.7	12-23 m	2083	55
Pol3	Card or History	75.8	12-23 m	2083	55
Pol3	History	24.1	12-23 m	2083	55

Syrian Arab Republic - survey details

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