Indonesia: WHO and UNICEF estimates of immunization coverage: 2022 revision

BCG

DTP1

DTP3

Pol3

MCV1

HepB3

Hib3

RotaC

No estimate for infant immunization made.

PcV3
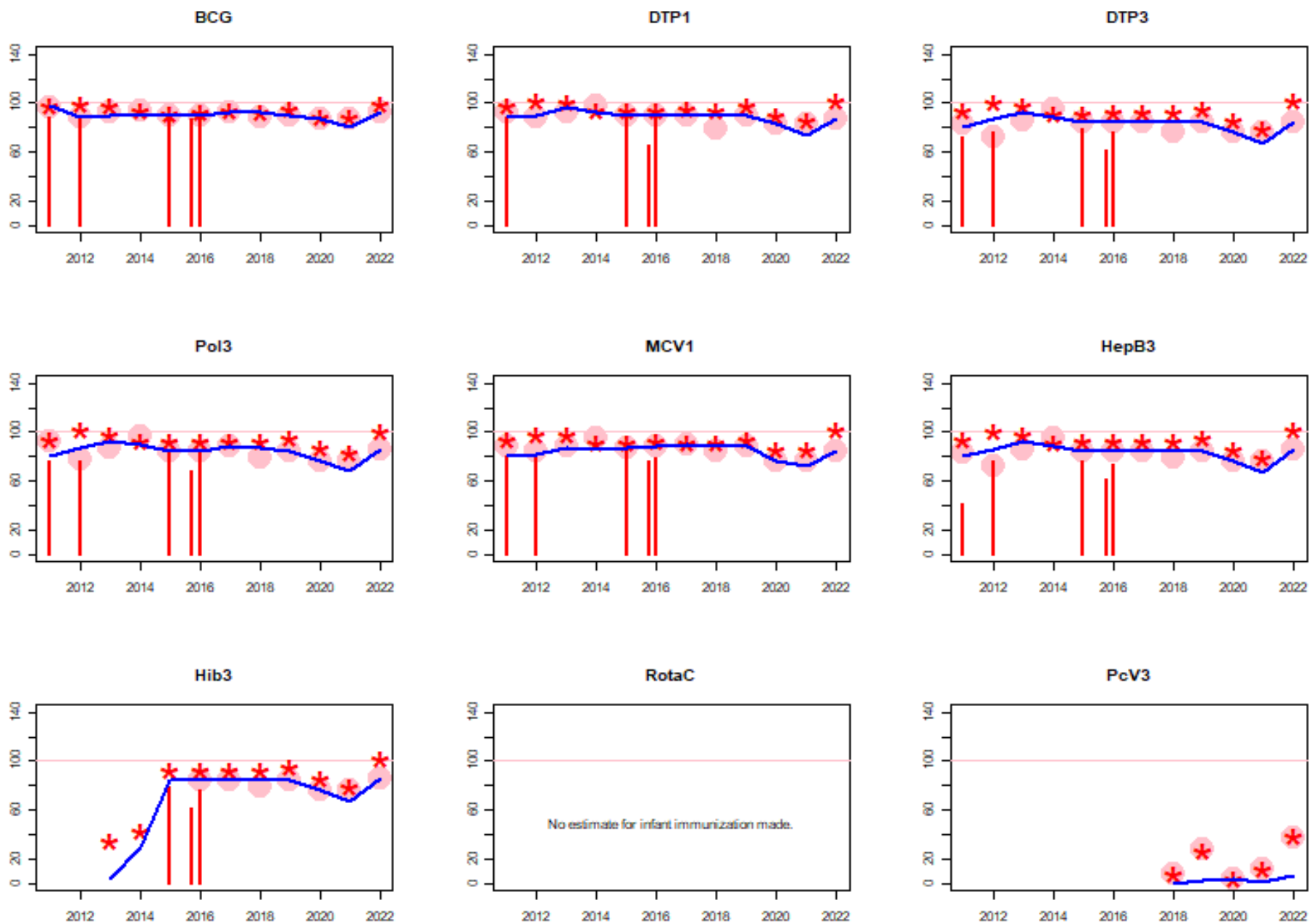
BACKGROUND NOTE: Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from the published and grey literature. Based on these data, with due consideration to potential biases and the views of local experts, WHO and UNICEF attempt to distinguish between situations where the available empirical data accurately reflect immunization system performance and those where the data are likely to be compromised and present a misleading view of immunization coverage while jointly estimating the most likely coverage levels for each country.

 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. WHO and UNICEF estimates of national infant immunization coverage: methods and processes.
*Burton et al. 2012. A formal representation of the WHO and UNICEF estimates of national immunization coverage: a computational logic approach.
*Brown et al. 2013. An introduction to the grade of confidence used to characterize uncertainty around the WHO and UNICEF estimates of national immunization coverage.

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 months 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 the period of data collection.

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 among countries. For countries utilizing IPV containing vaccine use only, i.e., no recommended dose of OPV, the 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.

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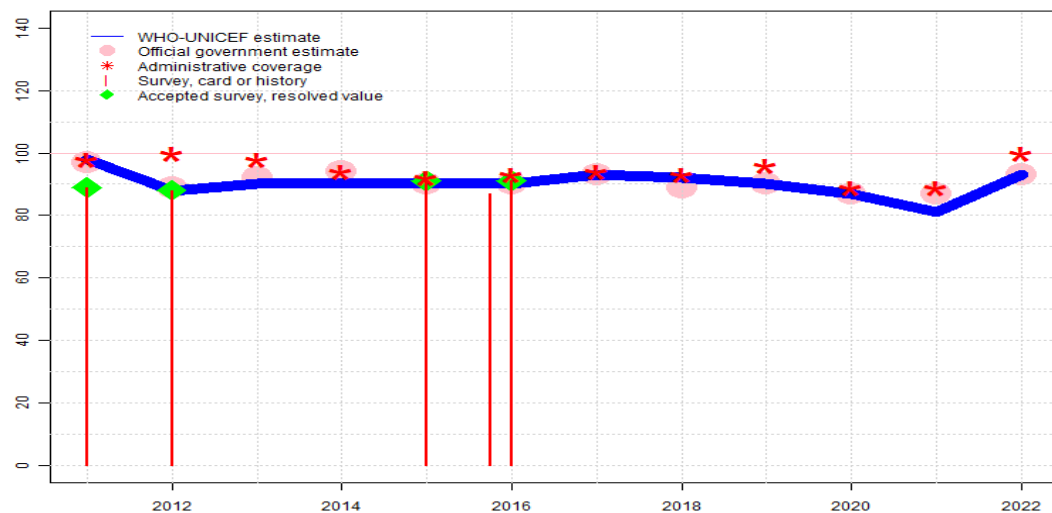
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

Indonesia - BCG

IDN - BCG

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	98	88	90	90	90	90	93	92	90	87	81	93
Estimate GoC	•	•	•	•	•••	•••	•••	•••	•	••	•	••
Official	97	89	92	94	90	90	93	89	90	87	87	93
Administrative	98	100	98	94	92	93	94	93	96	89	89	100
Survey	89	88	NA	NA	91	*	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.
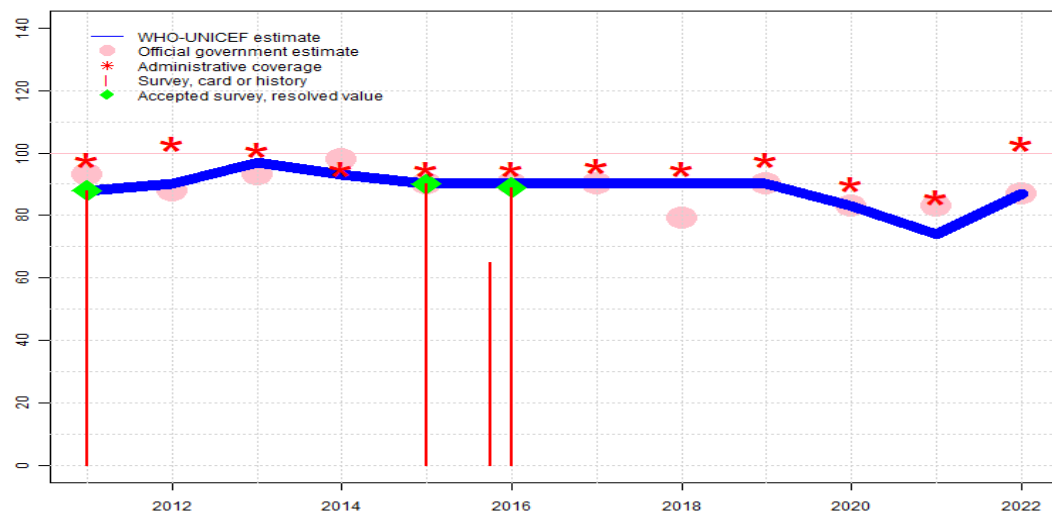
In all cases these estimates should be used with caution and should be assessed in light
of the objective for which they are being used.

Description:

2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. GoC=R+ D+

2021: Reported number of doses administered declined between 2020 and 2021. Estimated coverage is derived from the relative change in the reported number of doses for 2021 compared with 2020 and applies this value to the 2020 estimated coverage. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: R-

2020: Estimate informed by reported data. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. GoC=R+ D+

2019: Estimate informed by reported data. Estimate challenged by: D-

2018: Estimate informed by interpolation between reported data. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach. GoC=R+ S+ D+

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

2016: Estimate informed by reported data supported by survey. Survey evidence of 91 percent based on 1 survey(s). Indonesia Laporan Nasional Riskesdas 2018 results ignored by working group. Internal, external, and historical trend inconsistencies observed in Riskesdas 2018 survey values. GoC=R+ S+ D+

2015: Estimate informed by reported data supported by survey. Survey evidence of 91 percent based on 1 survey(s). GoC=R+ S+ D+

2014: Reported data calibrated to 2012 and 2015 levels. Programme reports six month stockout during first half of year. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2013: Reported data calibrated to 2012 and 2015 levels. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 88 percent based on 1 survey(s). Calibration applied to administrative coverage levels. Estimate challenged by: R-

2011: Estimate informed by reported administrative data supported by survey. Survey evidence of 89 percent based on 1 survey(s). Calibration applied to administrative coverage levels. Estimate challenged by: S-

Indonesia - DTP1

IDN - DTP1

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

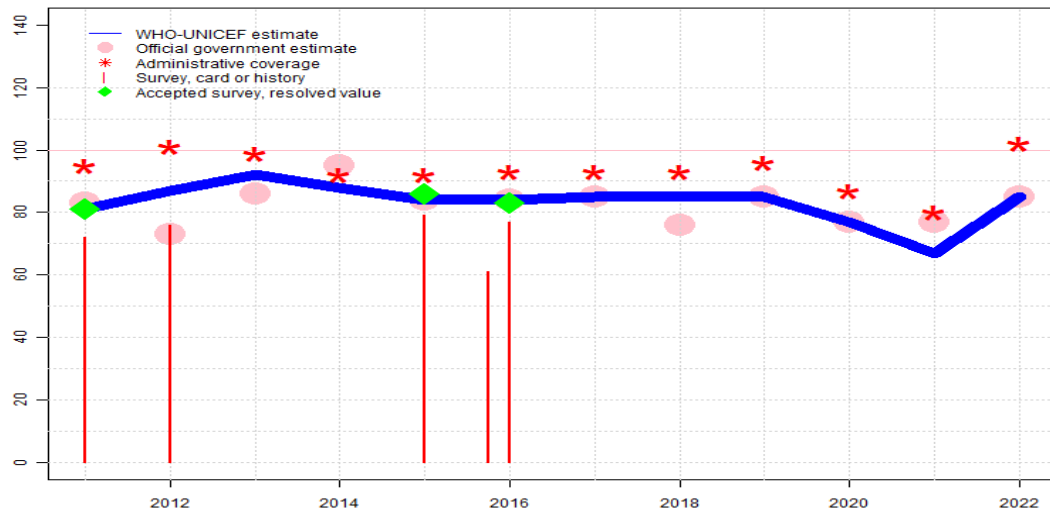|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	88	90	97	93	90	90	90	90	90	83	74	87
Estimate GoC	●	●	●	●	●●●	●●●	●●●	●●●	●	●	●	●●
Official	93	88	93	98	90	90	90	79	90	83	83	87
Administrative	98	103	101	95	95	95	96	95	98	90	86	103
Survey	88	NA	NA	NA	90	*	NA	NA	NA	NA	NA	NA

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:

2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. GoC=R+ D+

2021: Reported number of doses administered declined between 2020 and 2021. Estimated coverage is derived from the relative change in the reported number of doses for 2021 compared with 2020 and applies this value to the 2020 estimated coverage. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: D-R-

2020: Estimate informed by reported data. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Estimate challenged by: D-

2019: Estimate informed by reported data. Estimate challenged by: D-

2018: Estimate informed by interpolation between reported data. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach.Reported data excluded due to decline in reported coverage from 90 percent to 79 percent with increase to 90 percent. GoC=R+ S+ D+

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

2016: Estimate informed by reported data supported by survey. Survey evidence of 89 percent based on 1 survey(s). Indonesia Laporan Nasional Riskesdas 2018 results ignored by working group. Internal, external, and historical trend inconsistencies observed in Riskesdas 2018 survey values. GoC=R+ S+ D+

2015: Estimate informed by reported data supported by survey. Survey evidence of 90 percent based on 1 survey(s). GoC=R+ S+ D+

2014: Reported data calibrated to 2011 and 2015 levels. Programme reports four months stockout during first half of year. Estimates based on a calibration applied to administrative coverage levels. Estimate challenged by: R-

2013: DTP1 coverage estimated based on DTP3 coverage of 92. Reported data excluded because 101 percent greater than 100 percent. Estimates based on a calibration applied to administrative coverage levels. Estimate challenged by: R-

2012: Reported data calibrated to 2011 and 2015 levels. Reported data excluded because 103 percent greater than 100 percent. Estimates based on a calibration applied to administrative coverage levels. Estimate challenged by: R-

2011: Estimate of 88 percent assigned by working group. Estimate is based on survey result. Estimates based on a calibration applied to administrative coverage levels. Estimate challenged by: R-

Indonesia - DTP3

IDN - DTP3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	81	87	92	88	84	84	85	85	85	77	67	85
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	83	73	86	95	84	84	85	76	85	77	77	85
Administrative	95	101	99	92	92	93	93	93	96	87	80	102
Survey	72	76	NA	NA	79	*	NA	NA	NA	NA	NA	NA

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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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●●● 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.

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In all cases these estimates should be used with caution and should be assessed in light
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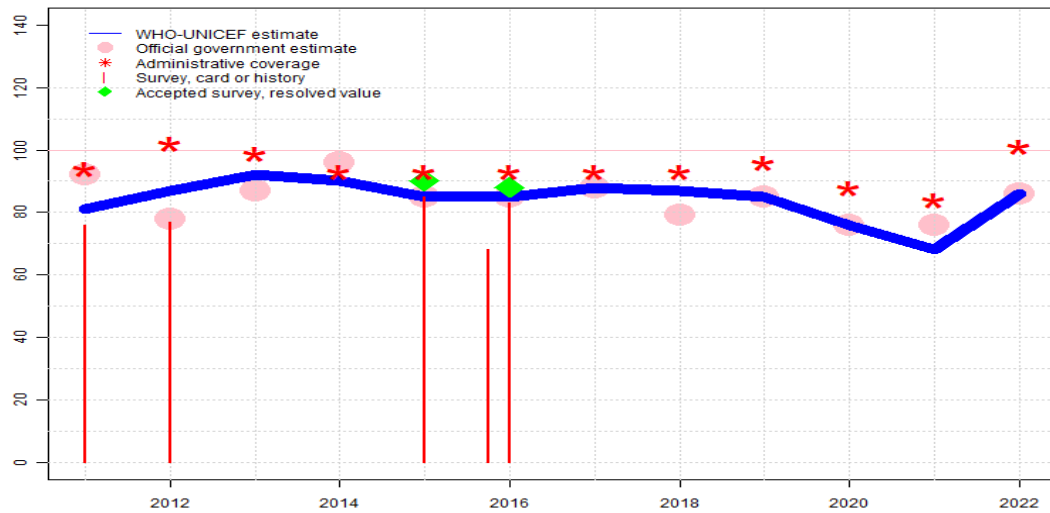
Description:

2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. Estimate challenged by: D-

2021: Estimate is based on the relative decline in the number of doses reported for 2021 compared with 2020 applied to 2020 estimated coverage. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: D-R-

2020: Estimate informed by reported data. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Estimate challenged by: D-

2019: Estimate informed by reported data. Estimate challenged by: D-

2018: Estimate informed by interpolation between reported data. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach. Estimate challenged by: D-

2017: Estimate informed by reported data. Estimate challenged by: D-

2016: Estimate informed by reported data supported by survey. Survey evidence of 83 percent based on 1 survey(s). Indonesia Laporan Nasional Riskesdas 2018 results ignored by working group. Internal, external, and historical trend inconsistencies observed in Riskesdas 2018 survey values.Indonesia Demographic and Health Survey 2017 card or history results of 77 percent modifed for recall bias to 83 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 56 percent and 3rd dose card only coverage of 52 percent. Estimate challenged by: D-

2015: Estimate informed by reported data supported by survey. Survey evidence of 86 percent based on 1 survey(s). Indonesia Demographic and Health Survey 2017 card or history results of 79 percent modifed for recall bias to 86 percent based on 1st dose card or history coverage of 90 percent, 1st dose card only coverage of 42 percent and 3rd dose card only coverage of 40 percent. Estimate challenged by: D-

2014: Reported data calibrated to 2011 and 2015 levels. Programme reports four months stockout during first half of year. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2013: Reported data calibrated to 2011 and 2015 levels. Calibration applied to administrative coverage levels. Estimate challenged by: R-S-

2012: Reported data calibrated to 2011 and 2015 levels. Indonesia Basic Health Survey (RISKESDAS) 2013 results ignored by working group. Insufficient evidence to correct for recall bias.Reported data excluded because 101 percent greater than 100 percent. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 81 percent based on 1 survey(s). Indonesia Demographic and Health Survey 2012 card or history results of 72 percent modifed for recall bias to 81 percent based on

1st dose card or history coverage of 88 percent, 1st dose card only coverage of 40 percent and 3rd dose card only coverage of 37 percent. Calibration applied to administrative coverage levels. Estimate challenged by: D-R-

IDN - Pol3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	81	87	92	90	85	85	88	87	85	76	68	86
Estimate GoC	●	●	●	●	●	●	●●●	●	●	●	●	●●
Official	92	78	87	96	85	85	88	79	85	76	76	86
Administrative	94	102	99	93	93	93	93	93	96	88	84	101
Survey	76	77	NA	NA	85	*	NA	NA	NA	NA	NA	NA

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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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●●● 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.

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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.
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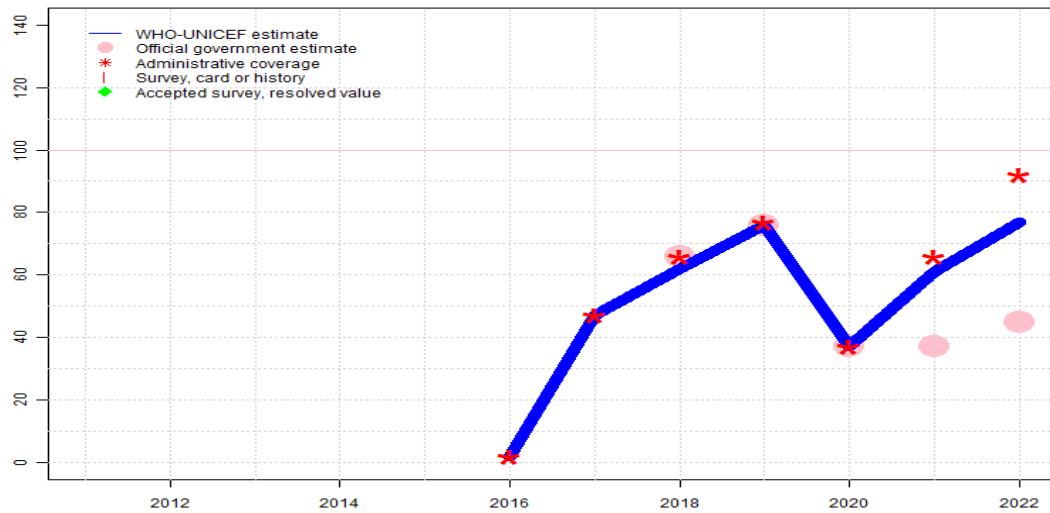
Description:

2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. GoC=R+ D+

2021: Reported number of doses administered declined between 2020 and 2021. Estimated coverage is derived from the relative change in the reported number of doses for 2021 compared with 2020 and applies this value to the 2020 estimated coverage. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: D-R-

2020: Estimate informed by reported data. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Estimate challenged by: D-

2019: Estimate informed by reported data. Estimate challenged by: D-

2018: Estimate informed by interpolation between reported data. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach. Estimate challenged by: D-

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

2016: Estimate informed by reported data supported by survey. Survey evidence of 88 percent based on 1 survey(s). Indonesia Laporan Nasional Riskesdas 2018 results ignored by working group. Internal, external, and historical trend inconsistencies observed in Riskesdas 2018 survey values.Indonesia Demographic and Health Survey 2017 card or history results of 83 percent modifed for recall bias to 88 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 56 percent and 3rd dose card only coverage of 54 percent. Programme reports three months vaccine stockout at national level. Estimate challenged by: D-

2015: Estimate informed by reported data supported by survey. Survey evidence of 90 percent based on 1 survey(s). Indonesia Demographic and Health Survey 2017 card or history results of 85 percent modifed for recall bias to 90 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 42 percent and 3rd dose card only coverage of 41 percent. Estimate challenged by: D-

2014: Reported data calibrated to 2011 and 2015 levels. Programme reports six month stockout during first half of year. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2013: Reported data calibrated to 2011 and 2015 levels. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2012: Reported data calibrated to 2011 and 2015 levels. Indonesia Basic Health Survey (RISKESDAS) 2013 results ignored by working group. Insufficient evidence to correct for recall bias.Reported data excluded because 102 percent greater than 100 percent. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2011: Estimate of 81 percent assigned by working group. Based on DTP survey results adjusted

for recall bias. Indonesia Demographic and Health Survey 2012 results ignored by working group. Survey result likely includes polio doses administered during supplementary immunization activities.Indonesia Demographic and Health Survey 2012 card or history results of 76 percent modifed for recall bias to 84 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 41 percent and 3rd dose card only coverage of 38 percent. Calibration applied to administrative coverage levels. Estimate challenged by: D-R-

IDN - IPV1

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	2	47	62	76	37	61	77
Estimate GoC	NA	NA	NA	NA	NA	●	●	●	●●	●●	●	●
Official	NA	NA	NA	NA	NA	NA	NA	66	76	37	37	45
Administrative	NA	NA	NA	NA	NA	2	47	66	77	37	66	92
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.

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

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

Description:

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).

2022: Estimate informed by the relative relationship between estimated and reported administrative DTP3 coverage applied to the administrative coverage for IPV1. Reported data excluded due to sudden change in coverage from 66 level to 92 percent. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. Inconsistent adjustment between official and administrative coverage. Estimate challenged by: R-

2021: Estimate is based on the relative change in the number of doses reported for 2021 compared with 2019 applied to 2019 estimated coverage. 2020 was not used as the reference year because of the reported IPV stockout. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: R-

2020: Estimate informed by reported data. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Programme reports an eight month vaccine stockout at national and subnational levels. GoC=R+ D+

2019: Estimate informed by reported data. Programme reports a three months national level vaccine stockout. GoC=R+ D+

2018: Estimate informed by interpolation between reported data. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach. Estimate exceptionally based on reported coverage following introduction.. GoC=Assigned by working group. Consistency with GoC for other vaccines.

2017: Estimate informed by reported administrative data. Estimate exceptionally based on reported coverage following introduction.. GoC=Assigned by working group. Consistency with GoC for other vaccines.

2016: Estimate informed by reported administrative data. Inactivated polio vaccine introduced in 2016. Estimate exceptionally based on reported coverage following introduction. GoC=Assigned by working group. Consistency with GoC for other vaccines.

Indonesia - MCV1

IDN - MCV1

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	80	82	87	86	87	88	90	89	88	76	72	84
Estimate GoC	•	•	•	•	•••	•••	•	•••	•	•	•	•
Official	89	84	89	95	87	88	90	85	88	76	76	84
Administrative	94	99	98	92	92	93	92	92	95	86	87	103
Survey	80	82	NA	NA	85	*	NA	NA	NA	NA	NA	NA

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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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●●● 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.

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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.
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Description:

2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. Estimate challenged by: D-

2021: Reported number of doses administered declined between 2020 and 2021. Estimated coverage is derived from the relative change in the reported number of doses for 2021 compared with 2020 and applies this value to the 2020 estimated coverage. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: D-R-

2020: Estimate informed by reported data. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. Estimate challenged by: D-

2019: Estimate informed by reported data. Estimate challenged by: D-
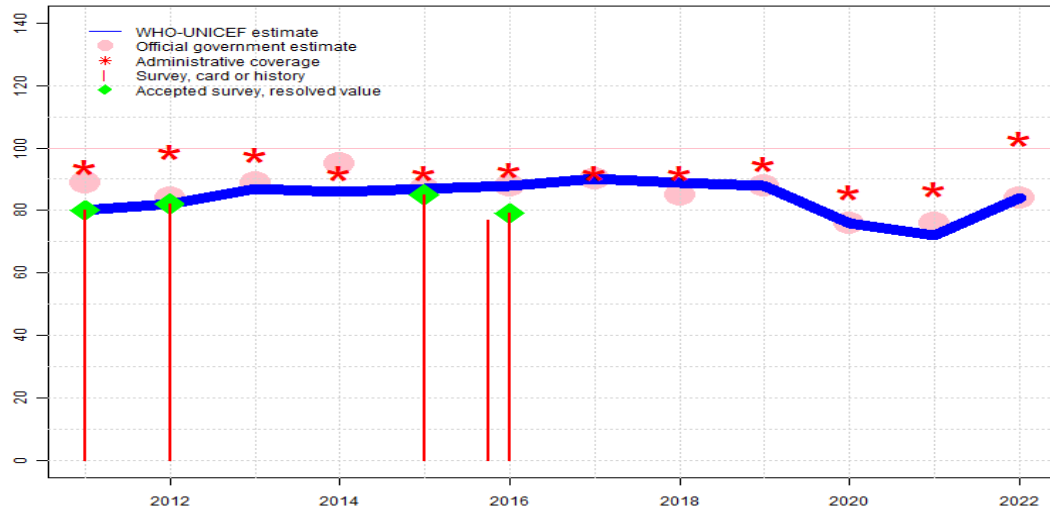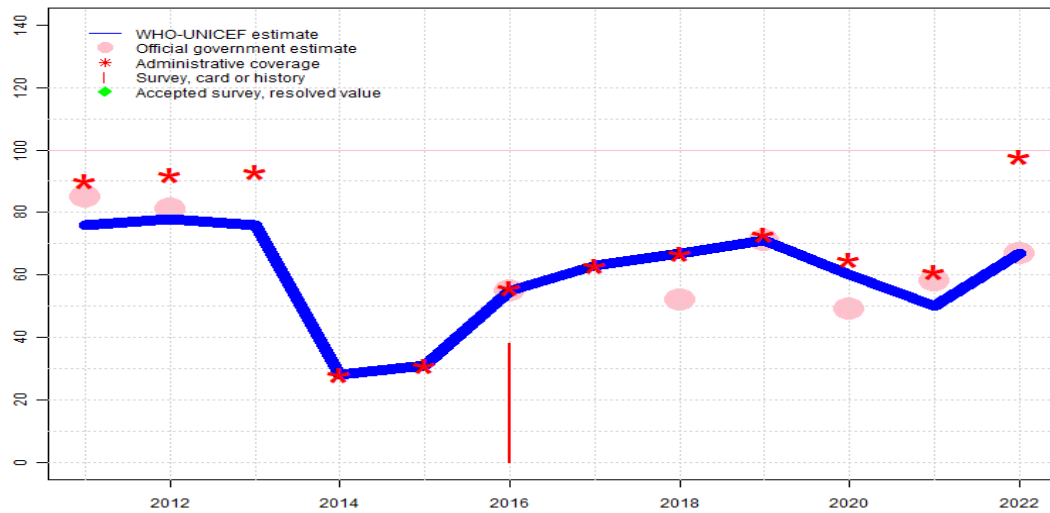
2018: Estimate informed by interpolation between reported data. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach. GoC=R+ S+ D+

2017: Estimate informed by reported data. Estimate challenged by: S-

2016: Estimate informed by reported data supported by survey. Survey evidence of 79 percent based on 1 survey(s). Indonesia Laporan Nasional Riskesdas 2018 results ignored by working group. Internal, external, and historical trend inconsistencies observed in Riskesdas 2018 survey values. GoC=R+ S+ D+

2015: Estimate informed by reported data supported by survey. Survey evidence of 85 percent based on 1 survey(s). GoC=R+ S+ D+

2014: Reported data calibrated to 2012 and 2015 levels. Programme reports two months stockout during first half of year. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2013: Reported data calibrated to 2012 and 2015 levels. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 82 percent based on 1 survey(s). Calibration applied to administrative coverage levels. Estimate challenged by: R-

2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 1 survey(s). Calibration applied to administrative coverage levels. Estimate challenged by: D-R-

Indonesia - MCV2

IDN - MCV2

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	76	78	76	28	31	55	63	67	71	60	50	67
Estimate GoC	●	●	●	●●	●	●	●	●	●●	●	●	●
Official	85	81	NA	NA	NA	55	NA	52	71	49	58	67
Administrative	90	92	93	28	31	56	63	67	73	65	61	98
Survey	NA	NA	NA	NA	NA	38	NA	NA	NA	NA	NA	NA

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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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●●● 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.

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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.
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Description:

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

2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. Estimate challenged by: D-

2021: Reported number of doses administered declined 10 percent from 2020 to 2021. Estimate is based on this relative change applied to the estimated coverage level for 2020. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: D-R-

2020: Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. The reported number of doses administered declined 11 percent between 2019 and 2020. Estimated coverage reflects the relative change in reported doses applied to the estimated 2019 coverage level. Reported data excluded due to decline in reported coverage from 71 percent to 49 percent with increase to 61 percent. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Estimate challenged by: R-

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

2018: Estimate informed by interpolation between reported data. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach. Estimate exceptionally based on reported coverage following change in schedule. Estimate is based on reported administrative coverage.. GoC=Assigned by working group. Consistency with GoC for other vaccines.

2017: Estimate informed by reported administrative data. Estimate exceptionally based on reported coverage following change in schedule. GoC=Assigned by working group. Consistency with GoC for other vaccines.

2016: Estimate informed by reported data. Indonesia Laporan Nasional Riskesdas 2018 results ignored by working group. Internal, external, and historical trend inconsistencies observed in Riskesdas 2018 survey values. Estimate is based on reported administrative coverage following change in schedule. GoC=Assigned by working group. Consistency with GoC for other vaccines.

2015: Estimate informed by reported administrative data. No explanation provided for continued low levels of reported coverage for second dose of MCV following change in schedule. Reported target population appears to cover multiple birth cohorts. Estimate challenged by: D-

2014: Decline in administrative coverage reflects change in reporting for children under 3 years following a transition in the recommended schedule. School-based administration to chil-

dren aged 6-7 years was 92 percent during 2014, similar to levels reported in prior years for this age group. . GoC=R+ D+

2013: Estimate of 76 percent assigned by working group. Estimate follows reported data calibrated based on MCV adjustment factor. Calibration applied to administrative coverage levels.. Estimate challenged by: D-R-

2012: Estimate of 78 percent assigned by working group. Estimate follows reported data calibrated based on MCV adjustment factor. Calibration applied to administrative coverage levels.. Estimate challenged by: D-R-

2011: Estimate of 76 percent assigned by working group. Estimate follows reported data calibrated based on MCV adjustment factor. Calibration applied to administrative coverage levels.. Estimate challenged by: D-R-

Indonesia - RCV1

IDN - RCV1

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value
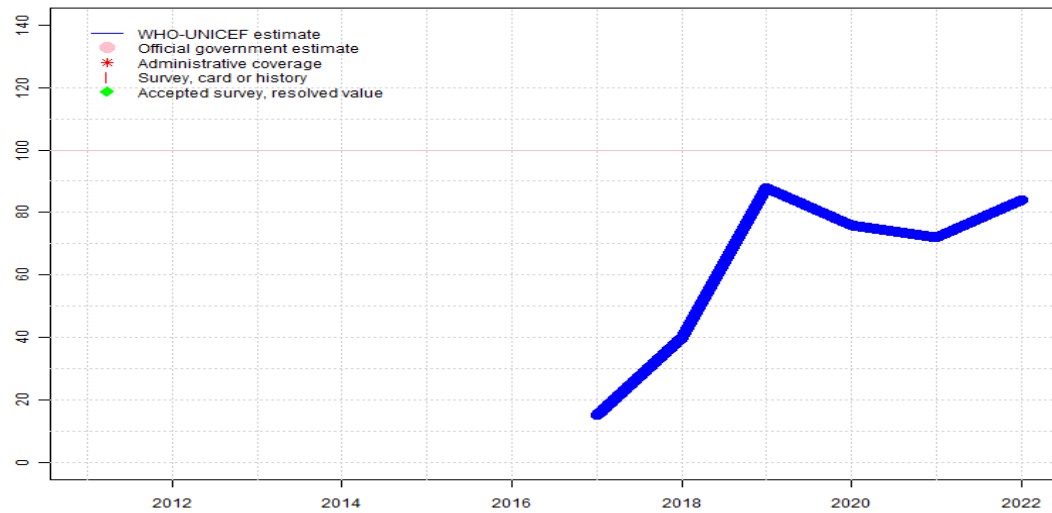
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	15	40	88	76	72	84
Estimate GoC	NA	NA	NA	NA	NA	NA	●	●●●	●	●	●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

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.

2022: Estimate based on estimated MCV1. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. Estimate challenged by: D-

2021: Reported number of doses administered declined between 2020 and 2021. Estimated coverage is derived from the relative change in the reported number of doses for 2021 compared with 2020 and applies this value to the 2020 estimated coverage. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: D-R-

2020: Estimate based on estimated MCV1. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Estimate challenged by: D-

2019: Estimate based on estimated MCV1. Estimate challenged by: D-

2018: Rubella containing vaccine continues to be partially introduced across the country. Estimates is based on an adjustment to the reported administrative data based on the difference between estimated and reported coverage for MCV1. GoC=R+ S+ D+

2017: Programme introduce rubella-containing vaccine in part of the country. Estimate challenged by: S-

Indonesia - HepBB

IDN - HepBB

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	32	58	84	73	70	85
Estimate GoC	NA	NA	NA	NA	NA	NA	●	●	●●	●	●	●
Official	80	80	84	86	82	NA	NA	54	84	73	73	92
Administrative	81	86	87	86	85	NA	32	55	85	82	85	91
Survey	85	NA	NA	NA	86	*	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:

2022: Estimate informed by the relative relationship between estimated and reported administrative BCG coverage applied to the administrative coverage for HepB birth dose. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. Estimate challenged by: R-

2021: Reported number of doses administered declined between 2020 and 2021. Estimated coverage is derived from the relative change in the reported number of doses for 2021 compared with 2020 and applies this value to the 2020 estimated coverage. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: D-R-

2020: Estimate informed by reported data. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. Estimate challenged by: D-
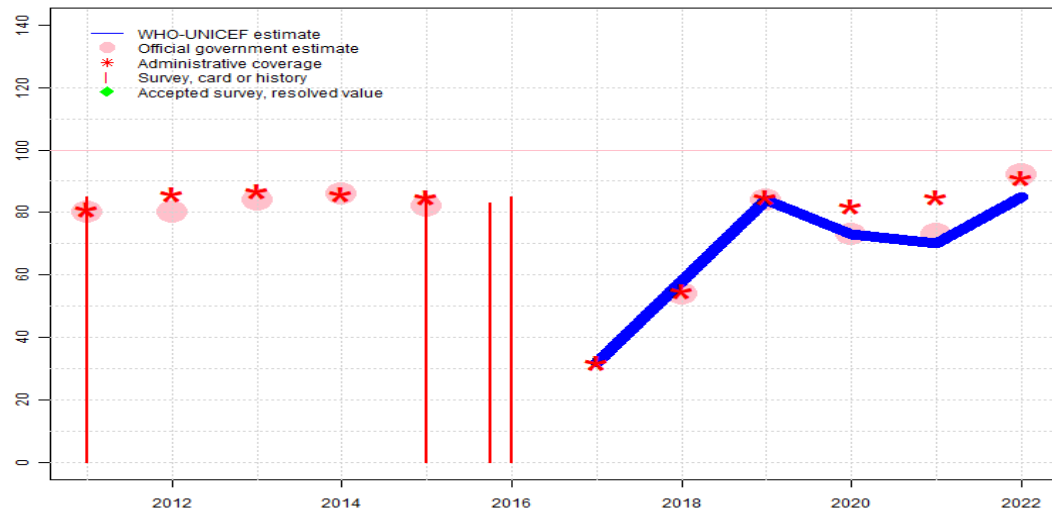
2019: Estimate informed by reported data. . GoC=R+ D+

2018: Estimate informed by interpolation between reported data. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach. Estimate exceptionally based on reported coverage. GoC=Assigned by working group. Consistency with GoC for other vaccines.

2017: Estimate informed by reported administrative data. Estimate exceptionally based on reported coverage. Beginning in 2017 the Programme reports doses given within 24 hours separate from later doses. GoC=Assigned by working group. Consistency with GoC for other vaccines.

Indonesia - HepB3

IDN - HepB3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

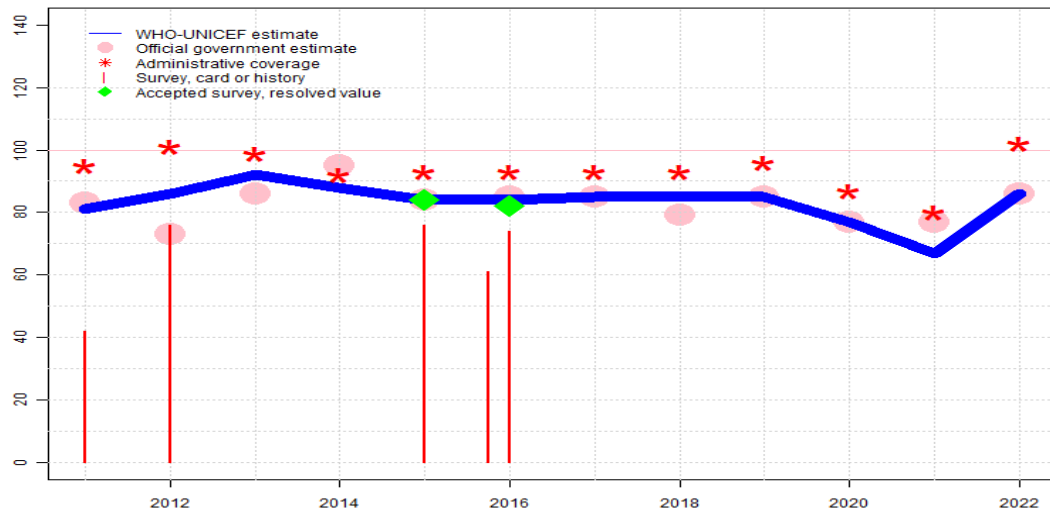|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	81	86	92	88	84	84	85	85	85	77	67	86
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	••
Official	83	73	86	95	84	85	85	79	85	77	77	86
Administrative	95	101	99	92	93	93	93	93	96	87	80	102
Survey	42	76	NA	NA	76	*	NA	NA	NA	NA	NA	NA

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.
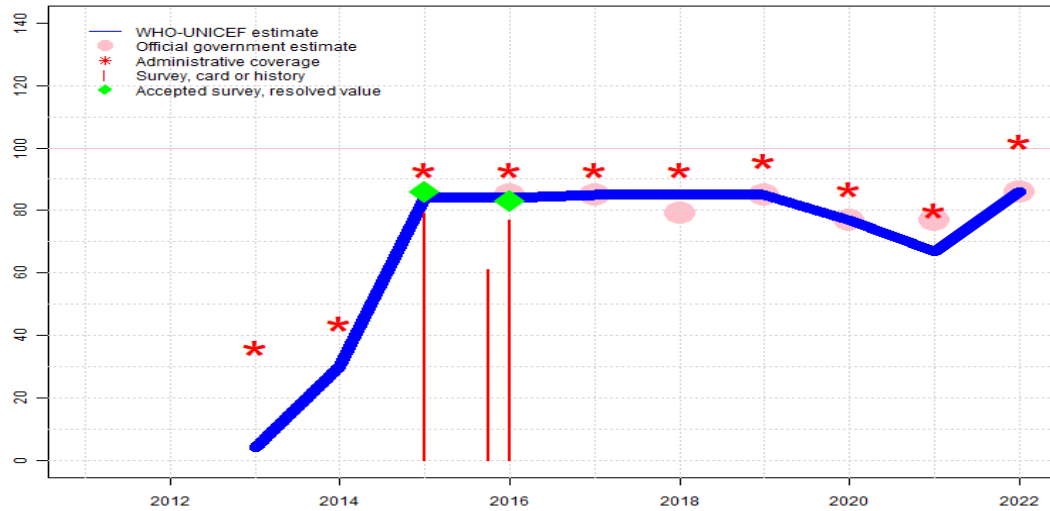
Description:

2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. GoC=R+ D+

2021: Reported number of doses administered declined between 2020 and 2021. Estimated coverage is derived from the relative change in the reported number of doses for 2021 compared with 2020 and applies this value to the 2020 estimated coverage. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: D-R-

2020: Estimate informed by reported data. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Estimate challenged by: D-

2019: Estimate is based on estimated DTP3 level. Estimate challenged by: D-R-

2018: Estimate informed by interpolation between reported data. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach. Estimate challenged by: D-

2017: Estimate is based on estimated DTP3 level. Estimate challenged by: D-R-

2016: Estimate is based on estimated DTP3 level. Indonesia Laporan Nasional Riskesdas 2018 results ignored by working group. Internal, external, and historical trend inconsistencies observed in Riskesdas 2018 survey values.Indonesia Demographic and Health Survey 2017 card or history results of 74 percent modifed for recall bias to 82 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 56 percent and 3rd dose card only coverage of 52 percent. Estimate challenged by: D-R-

2015: Estimate informed by reported data supported by survey. Survey evidence of 84 percent based on 1 survey(s). Indonesia Demographic and Health Survey 2017 card or history results of 76 percent modifed for recall bias to 84 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 42 percent and 3rd dose card only coverage of 40 percent. Estimate challenged by: D-

2014: Estimate of 88 percent assigned by working group. Estimate is based on estimated DTP3 level. Programme reports four months stockout during first half of year. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2013: Reported data calibrated to 2011 and 2014 levels. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2012: Reported data calibrated to 2011 and 2014 levels. Indonesia Basic Health Survey (RISKESDAS) 2013 results ignored by working group. Insufficient evidence to correct for recall bias.Reported data excluded because 101 percent greater than 100 percent. Calibration applied to administrative coverage levels. Estimate challenged by: R-

2011: Estimate of 81 percent assigned by working group. Based on DTP survey results adjusted for recall bias. Indonesia Demographic and Health Survey 2012 results ignored by working group. Survey results for HepB3 inconsistent with DTP3 while vaccine presentation

is DTP-HepB tetravalent vaccine.Indonesia Demographic and Health Survey 2012 card or history results of 42 percent modifed for recall bias to 58 percent based on 1st dose card or history coverage of 74 percent, 1st dose card only coverage of 37 percent and 3rd dose card only coverage of 29 percent. Calibration applied to administrative coverage levels. Estimate challenged by: D-R-

Indonesia - Hib3

IDN - Hib3

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	4	30	84	84	85	85	85	77	67	86
Estimate GoC	NA	NA	•	•	•	•	•	•	•	•	•	••
Official	NA	NA	NA	NA	NA	85	85	79	85	77	77	86
Administrative	NA	NA	36	44	93	93	93	93	96	87	80	102
Survey	NA	NA	NA	NA	79	*	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.
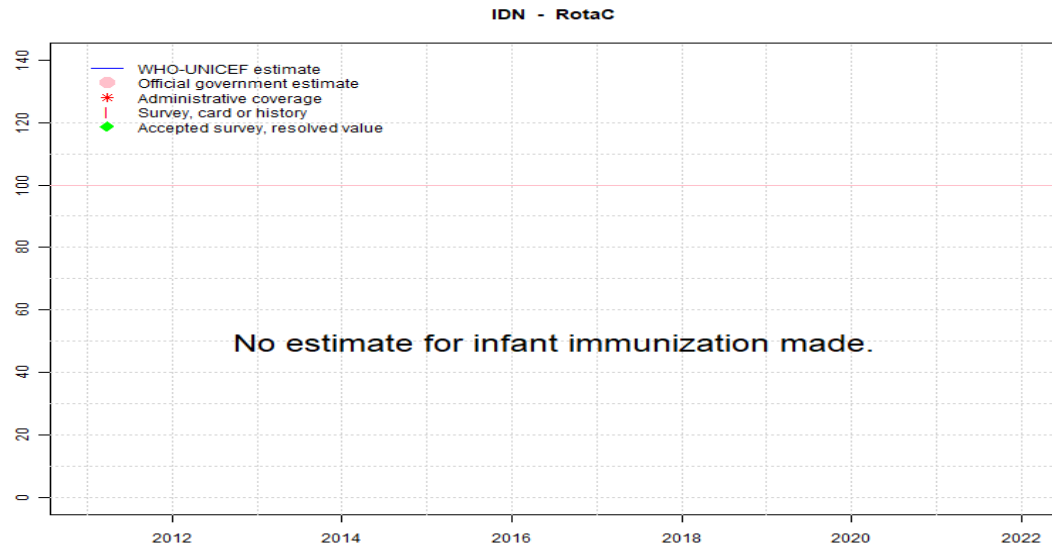
••• Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2022 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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:

2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. GoC=R+ D+

2021: Reported number of doses administered declined between 2020 and 2021. Estimated coverage is derived from the relative change in the reported number of doses for 2021 compared with 2020 and applies this value to the 2020 estimated coverage. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: D-R-

2020: Estimate informed by reported data. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Estimate challenged by: D-

2019: Estimate is based on estimated DTP3 level. Estimate challenged by: D-R-

2018: Estimate informed by interpolation between reported data. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach. Estimate challenged by: D-

2017: Estimate is based on estimated DTP3 level. Estimate challenged by: D-R-

2016: Estimate is based on estimated DTP3 level. Indonesia Laporan Nasional Riskesdas 2018 results ignored by working group. Internal, external, and historical trend inconsistencies observed in Riskesdas 2018 survey values. Indonesia Demographic and Health Survey 2017 card or history results of 77 percent modifed for recall bias to 83 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 56 percent and 3rd dose card only coverage of 52 percent. Estimate challenged by: D-R-

2015: Estimate of 84 percent assigned by working group. Reported data based on national target population. Estimate is based on estimated DTP3 level. Indonesia Demographic and Health Survey 2017 card or history results of 79 percent modifed for recall bias to 86 percent based on 1st dose card or history coverage of 90 percent, 1st dose card only coverage of 42 percent and 3rd dose card only coverage of 40 percent. Estimate challenged by: D-R-

2014: Estimate of 30 percent assigned by working group. Reported data based on national target population. Estimate is based on calibrated DTP3 level. Estimate challenged by: D-R-S-

2013: Estimate of 4 percent assigned by working group. DTP-HepB-Hib pentavalent combination vaccine introduced in part of the country in August 2013. Thirty-six percent coverage achieved in 24 percent of national target population. Estimate challenged by: R-S-

Indonesia - RotaC

IDN - RotaC

No estimate for infant immunization made.

Legend:
- WHO-UNICEF estimate
- Official government estimate
- Administrative coverage
- Survey, card or history
- Accepted survey, resolved value

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
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.

Indonesia - PcV3

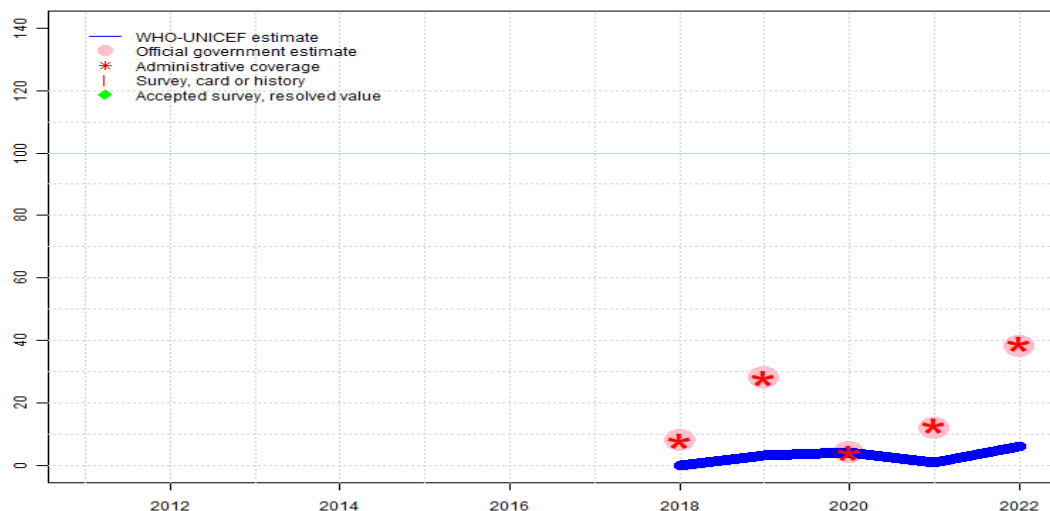|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	NA	0	3	4	1	6
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	●	●	●	●	●
Official	NA	NA	NA	NA	NA	NA	NA	8	28	4	12	38
Administrative	NA	NA	NA	NA	NA	NA	NA	8	28	4	13	39
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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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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●●● 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.

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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.
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Description:

2022: A nationwide launch was held in September 2022. Prior to this point, the vaccine was available in 30 districts. Country reports 39 percent coverage in 16 percent of the national target population. Estimated coverage reflects doses delivered across annualized, national target population. WHO and UNICEF are aware of an ongoing Demographic and Health Survey and await the final results. Estimate challenged by: R-

2021: Estimate is based on the relative change in the number of doses reported for 2021 compared with 2019 applied to 2019 estimated coverage. 2020 was not used as the reference year because of the reported vaccine stockout. Reported administrative coverage data reflect incomplete reporting and a decrease in reported target population (7 percent for births, 6 percent for surviving infants). Official estimate, based on 2020 administrative data and prior year survey results, does not appear to reflect the trend in the number of doses between 2020 and 2021. Estimate challenged by: R-

2020: Estimate based on reported data. Programme reports a nine month vaccine stockout at national and subnational levels. Programme adjustments from administrative data to derive official coverage is based on a review of administrative data, national and subnational coverage survey results, and vaccine supply data. Estimate challenged by: R-

2019: Programme reports 28 percent coverage achieved among three percent of the national target population. Estimate reflects annualized coverage in the national target population. Reported data excluded due to an increase from 8 percent to 28 percent with decrease 4 percent. Programme reports a three months national level vaccine stockout. Estimate challenged by: R-

2018: Programme reports 8 percent coverage achieved among one percent of the national target population. Estimate reflects annualized coverage in the national target population. Reported data excluded. Methods used to derive official coverage estimates differed from neighbouring years. WHO and UNICEF encourage the country to revise the official estimate time series using a consistent approach. Pneumococcal conjugate vaccine partially introduced in 2017 with full roll out expected in 2019. Reporting began in 2018. GoC=Assigned by working group. Consistency with GoC for other vaccines.

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

2016 Indonesia Demographic and Health Survey 2017

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	90.6	12-23 m	3399	58
BCG	Card	56.6	12-23 m	1987	58
BCG	Card or History	91.1	12-23 m	3399	58
BCG	History	34.5	12-23 m	1413	58
DTP1	C or H <12 months	88.5	12-23 m	3399	58
DTP1	Card	56.2	12-23 m	1987	58
DTP1	Card or History	88.9	12-23 m	3399	58
DTP1	History	32.6	12-23 m	1413	58
DTP3	C or H <12 months	76	12-23 m	3399	58
DTP3	Card	52.1	12-23 m	1987	58
DTP3	Card or History	76.7	12-23 m	3399	58
DTP3	History	24.6	12-23 m	1413	58
HepB1	C or H <12 months	87.2	12-23 m	3399	58
HepB1	Card	55.8	12-23 m	1987	58
HepB1	Card or History	87.6	12-23 m	3399	58
HepB1	History	31.8	12-23 m	1413	58
HepB3	C or H <12 months	73.6	12-23 m	3399	58
HepB3	Card	51.6	12-23 m	1987	58
HepB3	Card or History	74.5	12-23 m	3399	58
HepB3	History	22.9	12-23 m	1413	58
HepBB	C or H <12 months	81	12-23 m	3399	58
HepBB	Card	52.7	12-23 m	1987	58
HepBB	Card or History	85.1	12-23 m	3399	58
HepBB	History	32.3	12-23 m	1413	58
Hib1	C or H <12 months	88.5	12-23 m	3399	58
Hib1	Card	56.2	12-23 m	1987	58
Hib1	Card or History	88.9	12-23 m	3399	58
Hib1	History	32.6	12-23 m	1413	58
Hib3	C or H <12 months	76	12-23 m	3399	58
Hib3	Card	52.1	12-23 m	1987	58
Hib3	Card or History	76.7	12-23 m	3399	58
Hib3	History	24.6	12-23 m	1413	58
MCV1	C or H <12 months	71.7	12-23 m	3399	58
MCV1	Card	49.7	12-23 m	1987	58
MCV1	Card or History	78.8	12-23 m	3399	58
MCV1	History	29.1	12-23 m	1413	58
Pol1	C or H <12 months	90.3	12-23 m	3399	58
Pol1	Card	56.5	12-23 m	1987	58
Pol1	Card or History	90.8	12-23 m	3399	58
Pol1	History	34.2	12-23 m	1413	58
Pol3	C or H <12 months	82.7	12-23 m	3399	58
Pol3	Card	54.4	12-23 m	1987	58
Pol3	Card or History	83.3	12-23 m	3399	58
Pol3	History	28.9	12-23 m	1413	58

2016 Indonesia Laporan Nasional Riskesdas 2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	86.9	12-23 m	18165	35
DTP1	Card or History	65.4	12-23 m	18165	35
DTP3	Card or History	61.3	12-23 m	18165	35
HepB1	Card or History	65.4	12-23 m	18165	35
HepB3	Card or History	61.3	12-23 m	18165	35
HepBB	Card or History	83.1	12-23 m	18165	35
Hib1	Card or History	65.4	12-23 m	18165	35
Hib3	Card or History	61.3	12-23 m	18165	35
MCV1	Card or History	77.3	12-23 m	18165	35
MCV2	Card or History	38.3	24-35 m	18986	35
Pol3	Card or History	67.6	12-23 m	18165	35

2015 Indonesia Demographic and Health Survey 2017

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	89.7	24-35 m	3265	58
BCG	Card	41.9	24-35 m	1411	58
BCG	Card or History	91	24-35 m	3265	58
BCG	History	49.1	24-35 m	1854	58
DTP1	C or H <12 months	88.8	24-35 m	3265	58
DTP1	Card	41.9	24-35 m	1411	58
DTP1	Card or History	89.9	24-35 m	3265	58
DTP1	History	48	24-35 m	1854	58
DTP3	C or H <12 months	77.3	24-35 m	3265	58
DTP3	Card	40.2	24-35 m	1411	58
DTP3	Card or History	79.2	24-35 m	3265	58
DTP3	History	39.1	24-35 m	1854	58
HepB1	C or H <12 months	87.3	24-35 m	3265	58
HepB1	Card	41.7	24-35 m	1411	58
HepB1	Card or History	88.5	24-35 m	3265	58
HepB1	History	46.8	24-35 m	1854	58
HepB3	C or H <12 months	74	24-35 m	3265	58
HepB3	Card	39.7	24-35 m	1411	58
HepB3	Card or History	76.2	24-35 m	3265	58
HepB3	History	36.5	24-35 m	1854	58
HepBB	C or H <12 months	82.5	24-35 m	3265	58
HepBB	Card	39.4	24-35 m	1411	58
HepBB	Card or History	86.3	24-35 m	3265	58
HepBB	History	46.9	24-35 m	1854	58
Hib1	C or H <12 months	88.8	24-35 m	3265	58
Hib1	Card	41.9	24-35 m	1411	58
Hib1	Card or History	89.9	24-35 m	3265	58
Hib1	History	48	24-35 m	1854	58
Hib3	C or H <12 months	77.3	24-35 m	3265	58
Hib3	Card	40.2	24-35 m	1411	58
Hib3	Card or History	79.2	24-35 m	3265	58
Hib3	History	39.1	24-35 m	1854	58
MCV1	C or H <12 months	73.8	24-35 m	3265	58
MCV1	Card	39.5	24-35 m	1411	58
MCV1	Card or History	84.7	24-35 m	3265	58
MCV1	History	45.2	24-35 m	1854	58
Pol1	C or H <12 months	90.7	24-35 m	3265	58
Pol1	Card	42.1	24-35 m	1411	58
Pol1	Card or History	91.9	24-35 m	3265	58
Pol1	History	49.8	24-35 m	1854	58
Pol3	C or H <12 months	83.3	24-35 m	3265	58
Pol3	Card	41	24-35 m	1411	58
Pol3	Card or History	84.9	24-35 m	3265	58
Pol3	History	43.9	24-35 m	1854	58

2012 Riset Kesehatan Dasar (RISKESDAS) 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	87.6	12-23 m	15727	-
DTP3	Card or History	75.6	12-23 m	15727	-
HepB3	Card or History	75.6	12-23 m	15727	-
MCV1	Card or History	82.1	12-23 m	15727	-
Pol3	Card or History	77	12-23 m	15727	-

2011 Indonesia Demographic and Health Survey 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	88.6	12-23 m	3333	41
BCG	Card	39.7	12-23 m	1370	41
BCG	Card or History	89.3	12-23 m	3333	41
BCG	History	49.6	12-23 m	1963	41
DTP1	C or H <12 months	87.6	12-23 m	3333	41
DTP1	Card	40.2	12-23 m	1370	41
DTP1	Card or History	88.1	12-23 m	3333	41
DTP1	History	47.9	12-23 m	1963	41
DTP3	C or H <12 months	70.6	12-23 m	3333	41
DTP3	Card	37	12-23 m	1370	41
DTP3	Card or History	72	12-23 m	3333	41
DTP3	History	35	12-23 m	1963	41
HepB1	C or H <12 months	74	12-23 m	3333	41
HepB1	Card	37.1	12-23 m	1370	41
HepB1	Card or History	74.5	12-23 m	3333	41
HepB1	History	37.5	12-23 m	1963	41
HepB3	C or H <12 months	40.9	12-23 m	3333	41
HepB3	Card	28.9	12-23 m	1370	41

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
HepB3	Card or History	42.4	12-23 m	3333	41
HepB3	History	13.6	12-23 m	1963	41
HepBB	C or H <12 months	84.8	12-23 m	3333	41
HepBB	Card	39.6	12-23 m	1370	41
HepBB	Card or History	85.3	12-23 m	3333	41
HepBB	History	45.7	12-23 m	1963	41
MCV1	C or H <12 months	74.2	12-23 m	3333	41
MCV1	Card	35.7	12-23 m	1370	41
MCV1	Card or History	80.1	12-23 m	3333	41
MCV1	History	44.4	12-23 m	1963	41
Pol1	C or H <12 months	90.7	12-23 m	3333	41
Pol1	Card	40.7	12-23 m	1370	41
Pol1	Card or History	91.2	12-23 m	3333	41
Pol1	History	50.5	12-23 m	1963	41
Pol3	C or H <12 months	74.6	12-23 m	3333	41
Pol3	Card	37.5	12-23 m	1370	41
Pol3	Card or History	75.9	12-23 m	3333	41
Pol3	History	38.4	12-23 m	1963	41

2009 Riset Kesehatan Dasar (RISKESDAS) 2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	77.9	12-23 m	4505	-
DTP3	Card or History	61.9	12-23 m	4505	-
HepB3	Card or History	61.9	12-23 m	4505	-
MCV1	Card or History	74.4	12-23 m	4505	-
Pol3	Card or History	66.7	12-23 m	4505	-

2006 Indonesia Demographic and Health Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	84.4	12-23 m	3094	37
BCG	Card	34.6	12-23 m	3094	37
BCG	Card or History	85.4	12-23 m	3094	37
BCG	History	50.8	12-23 m	3094	37
DTP1	C or H <12 months	82.9	12-23 m	3094	37
DTP1	Card	35.8	12-23 m	3094	37
DTP1	Card or History	84.4	12-23 m	3094	37
DTP1	History	48.7	12-23 m	3094	37
DTP3	C or H <12 months	64.3	12-23 m	3094	37
DTP3	Card	31.2	12-23 m	3094	37
DTP3	Card or History	66.7	12-23 m	3094	37
DTP3	History	35.4	12-23 m	3094	37
HepB1	Card or History	80.5	12-23 m	3094	37
HepB3	Card or History	60.3	12-23 m	3094	37
MCV1	C or H <12 months	67	12-23 m	3094	37
MCV1	Card	30.9	12-23 m	3094	37
MCV1	Card or History	76.4	12-23 m	3094	37
MCV1	History	45.5	12-23 m	3094	37
Pol1	C or H <12 months	87.2	12-23 m	3094	37
Pol1	Card	35.9	12-23 m	3094	37
Pol1	Card or History	89.2	12-23 m	3094	37
Pol1	History	53.3	12-23 m	3094	37
Pol3	C or H <12 months	71.1	12-23 m	3094	37
Pol3	Card	32.3	12-23 m	3094	37
Pol3	Card or History	73.5	12-23 m	3094	37
Pol3	History	41.2	12-23 m	3094	37

2006 Report of Result of National Basic Health Research (RISKEDAS) 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	86.9	12-23 m	438	23
DTP3	Card or History	67.7	12-23 m	438	23
HepB3	Card or History	62.8	12-23 m	438	23
MCV1	Card or History	81.6	12-23 m	438	23
Pol3	Card or History	71	12-23 m	438	23

2006 Republic of Indonesia Immunization Coverage Survey 2007

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	91	12-23 m	18204	52
DTP1	Card or History	87	12-23 m	18204	52
DTP3	Card or History	75	12-23 m	18204	52
HepB3	Card or History	74	12-23 m	18204	52

MCV1	Card or History	80	12-23 m	18204	52
Pol3	Card or History	83	12-23 m	18204	52

2001 Indonesia Demographic and Health Survey 2002-2003

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	93.1	12-23 m	2819	31
BCG	Card or History	82.5	12-23 m	2819	31
BCG	History	77.8	12-23 m	2819	31
DTP1	Card	93.8	12-23 m	2819	31
DTP1	Card or History	81.4	12-23 m	2819	31
DTP1	History	75.9	12-23 m	2819	31
DTP3	Card	80.6	12-23 m	2819	31
DTP3	Card or History	58.3	12-23 m	2819	31
DTP3	History	48.4	12-23 m	2819	31
MCV1	Card	70.9	12-23 m	2819	31
MCV1	Card or History	71.6	12-23 m	2819	31
MCV1	History	68.5	12-23 m	2819	31

Pol1	Card	95.9	12-23 m	2819	31
Pol1	Card or History	87.3	12-23 m	2819	31
Pol1	History	83.5	12-23 m	2819	31
Pol3	Card	87.9	12-23 m	2819	31
Pol3	Card or History	66.1	12-23 m	2819	31
Pol3	History	56.5	12-23 m	2819	31

2001 NID + Routine Coverage Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	76.4	12-35 m	-	66
DTP1	Card or History	76.9	12-35 m	-	66
DTP3	Card or History	66.6	12-35 m	-	66
HepB3	Card or History	62	12-35 m	-	66
MCV1	Card or History	69.5	12-35 m	-	66
Pol3	Card or History	67.4	12-35 m	-	66

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