

July 1, 2023; page 1

WHO and UNICEF estimates of national immunization coverage - next revision available July $15,\,2024$

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

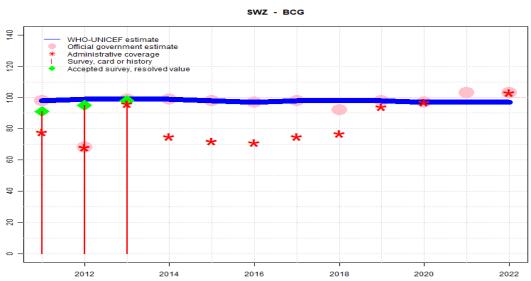
- BCG: percentage of births who received one dose of Bacillus Calmette Guerin vaccine.
- DTP1 / DTP3: percentage of surviving infants who received the 1st / 3rd dose, respectively, of diphtheria and tetanus toxoid with pertussis containing vaccine.
- Pol3: percentage of surviving infants who received 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.

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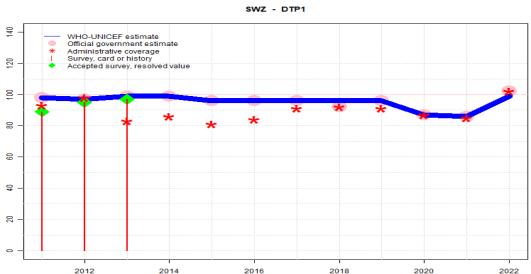


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	98	99	99	99	98	97	98	98	98	97	97	97
Estimate GoC	•	•	•	•	•	•	•	••	••	••	••	•
Official	98	68	99	99	98	97	98	92	98	97	103	103
Administrative	78	68	96	75	72	71	75	77	94	97	NA	103
Survey	91	95	98	NA								

- ••• 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.

- 2022: Estimate based on extrapolation from data reported by national government. Reported data excluded because 103 percent greater than 100 percent. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Estimate challenged by: D-
- 2021: Estimate based on extrapolation from data reported by national government. Reported data excluded because 103 percent greater than 100 percent. Programme reports four months vaccine stockout at national level. GoC=R+
- 2020: Estimate informed by reported data. GoC=R+ D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by interpolation between reported data. Reported data excluded. Reported decline in administrative coverage appears to be due to an increase in the reported target population. Number of children vaccinated increased between 2017 and 2018. Programme reports one month vaccine stockout at national level. GoC=R+D+
- 2017: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. Programme reports three months vaccine stockout at national level Estimate challenged by: D-
- 2016: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. Programme reports five month vaccine stockout at national and district levels. Estimate challenged by: D-
- 2015: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. Estimate challenged by: D-
- 2014: Estimate informed by reported data. Estimate challenged by: D-
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 98 percent based on 1 survey(s). Estimate challenged by: D-
- 2012: Estimate informed by interpolation between reported data supported by survey. Survey evidence of 95 percent based on 1 survey(s). Reported data excluded due to decline in reported coverage from 98 percent to 68 percent with increase to 99 percent. Estimate challenged by: D-
- 2011: Estimate informed by reported data supported by survey. Survey evidence of 91 percent based on 1 survey(s). Estimate challenged by: D-



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	98	97	99	99	96	96	96	96	96	87	86	99
Estimate GoC	•••	•••	•	•	•	••	••	••	••	••	••	•
Official	98	97	99	99	96	96	96	92	96	87	86	102
Administrative	93	98	83	86	81	84	91	92	91	87	85	102
Survey	89	95	97	NA								

- ••• 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.

- 2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Reported coverage appears to reflect recovery following COVID-19 pandemic disruptions, despite reported four months vaccine stockout. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Programme reports four months vaccine stockout at national level. GoC=R+D+
- 2020: Estimate informed by reported data. Programme reports one month vaccine stockout at national level. GoC=R+D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by interpolation between reported data. Reported data excluded. Reported decline in administrative coverage appears to be due to an increase in the reported target population. Number of children vaccinated increased between 2017 and 2018. GoC=R+D+
- 2017: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+D+
- 2016: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+ D+ $\,$
- 2015: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. Estimate challenged by: D-
- 2014: Estimate informed by reported data. Estimate challenged by: D-
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 97 percent based on 1 survey(s). Estimate challenged by: D-
- 2012: Estimate informed by reported data supported by survey. Survey evidence of 95 percent based on 1 survey(s). GoC=R+S+D+
- 2011: Estimate informed by reported data supported by survey. Survey evidence of 89 percent based on 1 survey(s). GoC=R+S+D+

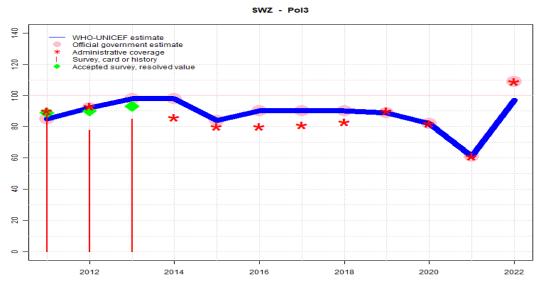


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	91	95	98	98	90	90	90	90	90	83	77	97
Estimate GoC	•••	•••	•	•••	•••	••	••	••	••	••	••	•
Official	91	95	98	98	90	90	90	90	90	83	77	97
Administrative	90	95	79	88	82	80	87	87	91	83	77	97
Survey	88	90	92	NA								

- ••• 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.

- 2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Reported coverage appears to reflect recovery following COVID-19 pandemic disruptions, despite reported four months vaccine stockout. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Programme reports four months vaccine stockout at national level. GoC=R+D+
- 2020: Estimate informed by reported data. Programme reports one month vaccine stockout at national level. GoC=R+ D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+ D+
- 2016: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+ D+ $\,$
- 2015: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+ S+ D+
- 2014: Estimate informed by reported data. GoC=R+S+D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). Swaziland Multiple Indicator Cluster Survey 2014 card or history results of 92 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 88 percent and 3rd dose card only coverage of 87 percent. Estimate challenged by: D-
- 2012: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Swaziland Multiple Indicator Cluster Survey 2014 card or history results of 90 percent modified for recall bias to 93 percent based on 1st dose card or history coverage of 95 percent, 1st dose card only coverage of 81 percent and 3rd dose card only coverage of 79 percent. GoC=R+ S+ D+
- 2011: Estimate informed by reported data supported by survey. Survey evidence of 89 percent based on 1 survey(s). Kingdom of Swaziland Immunization Coverage Survey 2013 Final Report card or history results of 88 percent modified for recall bias to 89 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 84 percent and 3rd dose card only coverage of 84 percent. GoC=R+S+D+



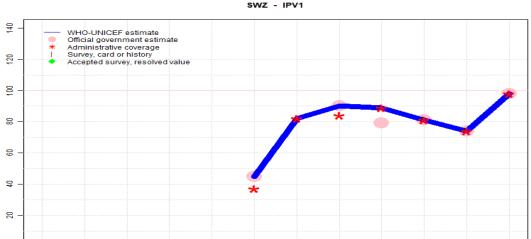
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	85	92	98	98	84	90	90	90	89	82	61	97
Estimate GoC	•••	•••	••	•••	•••	••	••	••	••	••	••	•
Official	85	92	98	98	84	90	90	90	89	82	61	109
Administrative	90	93	NA	86	80	80	81	83	90	82	61	109
Survey	88	78	85	NA								

- ••• 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.

- 2022: Estimate informed by estimated DTP3 coverage level. Reported data excluded because 109 percent greater than 100 percent. Reported data excluded due to sudden change in coverage from 61 level to 109 percent. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Estimate challenged by: D-R-
- 2021: Estimate informed by reported data. Programme reports four months vaccine stockout at national level. GoC=R+D+
- 2020: Estimate informed by reported data. Programme reports one month vaccine stockout at national level. GoC=R+D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by reported data. Programme reports two months vaccine stockout at the national level. GoC=R+ D+ $\,$
- 2017: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. Programme reports three months vaccine stockout at national level GoC=R+D+
- 2016: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+D+
- 2015: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+S+D+
- 2014: Estimate informed by reported data. GoC=R+S+D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Swaziland Multiple Indicator Cluster Survey 2014 card or history results of 85 percent modifed for recall bias to 93 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 88 percent and 3rd dose card only coverage of 84 percent. GoC=R+S+
- 2012: Estimate informed by reported data supported by survey. Survey evidence of 90 percent based on 1 survey(s). Swaziland Multiple Indicator Cluster Survey 2014 card or history results of 78 percent modified for recall bias to 90 percent based on 1st dose card or history coverage of 95 percent, 1st dose card only coverage of 81 percent and 3rd dose card only coverage of 77 percent. GoC=R+ S+ D+
- 2011: Estimate informed by reported data supported by survey. Survey evidence of 89 percent based on 1 survey(s). Kingdom of Swaziland Immunization Coverage Survey 2013 Final Report card or history results of 88 percent modifed for recall bias to 89 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 84 percent and 3rd dose card only coverage of 84 percent. GoC=R+S+D+

2022



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	45	82	90	89	81	74	98
Estimate GoC	NA	NA	NA	NA	NA	••	••	••	•	••	••	•
Official	NA	NA	NA	NA	NA	45	NA	90	79	81	74	98
Administrative	NA	NA	NA	NA	NA	37	82	84	89	81	74	98
Survey	NA											

2016

2018

2020

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).

2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Reported coverage appears to reflect recovery following COVID-19 pandemic disruptions, despite reported three months vaccine stockout. Reported coverage may include contribution of acceleration activities. Estimate challenged by: D-

2021: Estimate informed by reported data. Programme reports two and a half month vaccine stockout at national level. GoC=R+D+

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

2019: Estimate exceptionally based on administrative coverage as large difference with official report unexplained. Estimate challenged by: R-

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

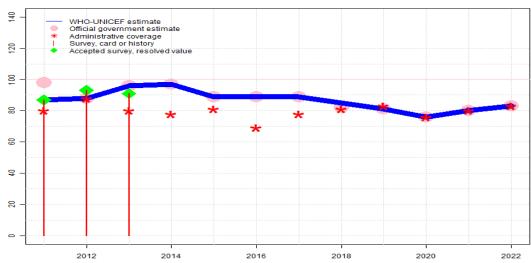
2017: Estimate informed by reported administrative data. Reported official coverage levels based on preliminary results from the 2014 MICS. Increase following introduction year. Programme reports three months vaccine stockout at national level GoC=R+ D+

2016: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. Inactivated polio vaccine introduced during 2016. Reporting began in 2016. GoC=R+ D+

2012

2014



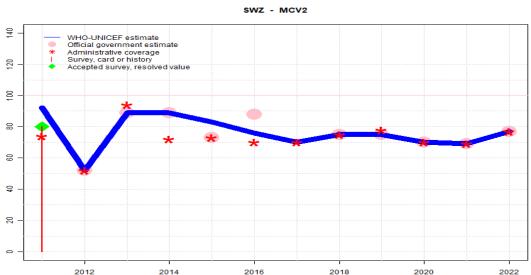


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	87	88	96	97	89	89	89	85	81	76	80	83
Estimate GoC	•	•••	•	•	•••	•	••	••	••	••	••	••
Official	98	88	96	97	89	89	89	82	81	76	80	83
Administrative	80	88	80	78	81	69	78	81	83	76	80	83
Survey	87	93	91	NA								

- ••• 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.

- 2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Programme reports a five month vaccine stockout at national and subnational levels. GoC=R+D+
- 2021: Estimate informed by reported data. Programme reports two months vaccine stockout at national level. Increase in reported coverage may partially reflect MR follow-up campaign activities. GoC=R+ D+
- 2020: Estimate informed by reported data. Programme reports four months vaccine stockout at national and subnational levels. GoC=R+ D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by interpolation between reported data. Reported data excluded. Reported decline in administrative coverage appears to be due to an increase in the reported target population. Number of children vaccinated increased between 2017 and 2018. GoC = R + D +
- 2017: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. Programme reports two months vaccine stockout at national level GoC=R+ D+
- 2016: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. Programme reports three months vaccine stockout at national level Estimate challenged by: D-
- 2015: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+S+D+
- 2014: Estimate informed by reported data. Estimate challenged by: D-
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 91 percent based on 1 survey(s). Estimate challenged by: D-
- 2012: Estimate informed by reported data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Programme reports one month vaccine stockout. GoC=R+S+
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 87 percent based on 1 survey(s). Estimate challenged by: R-S-



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	92	52	89	89	83	76	70	75	75	70	69	77
Estimate GoC	•	•	•	•	••	••	••	••	•	••	••	••
Official	NA	52	89	89	73	88	NA	75	75	70	69	77
Administrative	74	52	94	72	73	70	70	75	78	70	69	77
Survey	80	NA										

- ••• 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.

2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Programme reports a five month vaccine stockout at national and subnational levels. GoC=R+ D+

2021: Estimate informed by reported data. Programme reports two months vaccine stockout at national level. GoC=R+D+

2020: Estimate informed by reported data. Programme reports four months vaccine stockout at national and subnational levels. GoC=R+D+

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

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

2017: Estimate informed by reported administrative data. Reported official coverage levels based on preliminary results from the 2014 MICS. Programme reports two months vaccine stockout at national level GoC=R+ D+

2016: Estimate informed by interpolation between reported data. Reported data excluded due to an increase from 73 percent to 88 percent with decrease 70 percent. Reported official coverage levels based on preliminary results from the 2014 MICS. Programme reports three months vaccine stockout at national level GoC=R+D+

2015: Estimate informed by interpolation between reported data. Reported data excluded due to decline in reported coverage from 89 percent to 73 percent with increase to 88 percent. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+D+

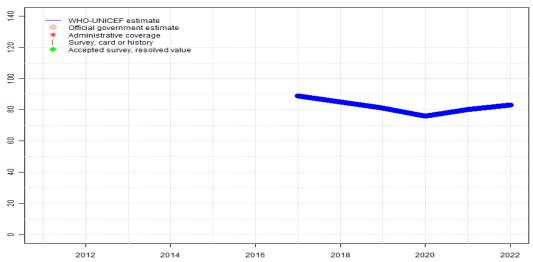
2014: Estimate informed by reported data. Estimate challenged by: D-

2013: Estimate based on reported data. No stockout reported. Estimate challenged by: D-

2012: Estimate of 52 percent assigned by working group. Estimate is based on reported data. Programme reports one month vaccine shortage. Reported data excluded due to decline in reported coverage from 74 percent to 52 percent with increase to 89 percent. Estimate challenged by: D-R-S-

2011: Estimate of 92 percent assigned by working group. Estimate based on MCV first dose adjustment factor Estimate challenged by: D-R-S-





	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	89	85	81	76	80	83
Estimate GoC	NA	NA	NA	NA	NA	NA	••	••	••	••	••	••
Official	NA											
Administrative	NA											
Survey	NA											

- ••• 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 Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. GoC=R+ D+

2021: Estimate based on estimated MCV1. GoC=R+ D+

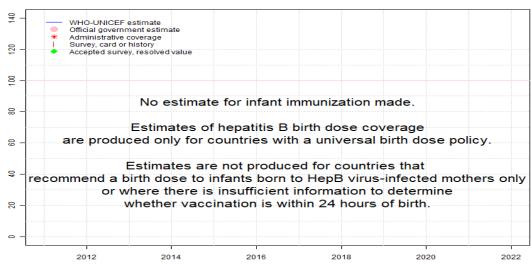
2020: Estimate based on estimated MCV1. GoC=R+ D+

2019: Estimate based on estimated MCV1. GoC=R+ D+

2018: Estimate based on estimated MCV1. GoC=R+ D+

2017: Estimate based on estimated MCV1. Reported official coverage levels based on preliminary results from the 2014 MICS. Introduction of MR at 9 and 18 months in 2016. Reporting started in 2017. Programme reports two months vaccine stockout at national level. GoC=R+D+



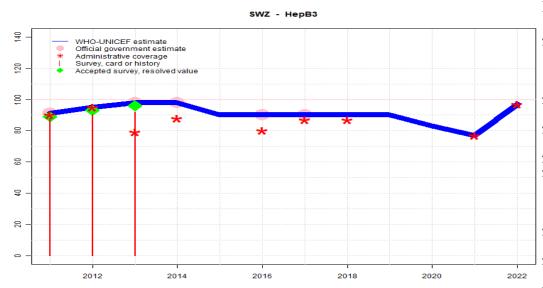


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA											
Estimate GoC	NA											
Official	NA											
Administrative	NA											
Survey	NA											

- ••• 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.

Eswatini - HepB3



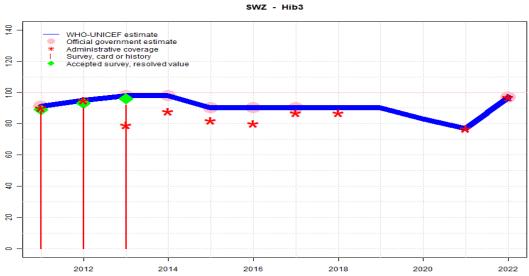
	0011	0010	0010	0014	0015	0010	0015	0010	0010	0000	0001	0000
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	91	95	98	98	90	90	90	90	90	83	77	97
Estimate GoC	•••	•••	•	•••	••	••	••	•	•	•	••	•
Official	91	NA	98	98	NA	90	90	NA	NA	NA	NA	NA
Administrative	90	95	79	88	NA	80	87	87	NA	NA	77	97
Survey	88	90	92	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.

- 2022: Estimate informed by reported administrative data. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Reported coverage appears to reflect recovery following COVID-19 pandemic disruptions. Estimate challenged by: D-
- 2021: Estimate informed by reported administrative data. Programme reports four months vaccine stockout at national level. GoC=R+D+
- 2020: Estimate based on estimated DTP3 coverage. Programme reports one month vaccine stockout at national level. GoC=No accepted empirical data
- 2019: Estimate based on estimated DTP3. GoC=No accepted empirical data
- 2018: Estimate based on estimated DTP3. Reported data excluded. Reported decline in administrative coverage appears to be due to an increase in the reported target population. Number of children vaccinated increased between 2017 and 2018. Estimate challenged by: R-
- 2017: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+D+
- 2016: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+ D+
- 2015: Estimate is based on estimated DTP3 level. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=S+
- 2014: Estimate informed by reported data. GoC=R+S+D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). Swaziland Multiple Indicator Cluster Survey 2014 card or history results of 92 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 88 percent and 3rd dose card only coverage of 87 percent. Estimate challenged by: D-
- 2012: Estimate informed by reported administrative data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Swaziland Multiple Indicator Cluster Survey 2014 card or history results of 90 percent modifed for recall bias to 93 percent based on 1st dose card or history coverage of 95 percent, 1st dose card only coverage of 81 percent and 3rd dose card only coverage of 79 percent. GoC=R+S+D+
- 2011: Estimate informed by reported data supported by survey. Survey evidence of 89 percent based on 1 survey(s). Kingdom of Swaziland Immunization Coverage Survey 2013 Final Report card or history results of 88 percent modifed for recall bias to 89 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 84 percent and 3rd dose card only coverage of 84 percent. GoC=R+S+D+

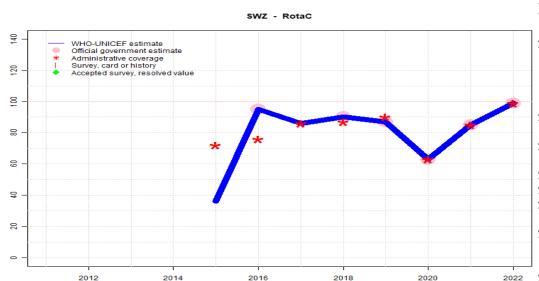


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	91	95	98	98	90	90	90	90	90	83	77	97
Estimate GoC	•••	•••	•	•••	•••	••	••	•	•	•	••	•
Official	91	NA	98	98	90	90	90	NA	NA	NA	NA	97
Administrative	90	95	79	88	82	80	87	87	NA	NA	77	97
Survey	88	90	92	NA								

- ••• 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.

- 2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Reported coverage appears to reflect recovery following COVID-19 pandemic disruptions. Estimate challenged by: D-
- 2021: Estimate informed by reported administrative data. Programme reports four months vaccine stockout at national level. GoC=R+D+
- 2020: Estimate based on estimated DTP3 coverage. Programme reports one month vaccine stockout at national level. GoC=No accepted empirical data
- 2019: Estimate based on estimated DTP3. GoC=No accepted empirical data
- 2018: Estimate based on estimated DTP3. Reported data excluded. Reported decline in administrative coverage appears to be due to an increase in the reported target population. Number of children vaccinated increased between 2017 and 2018. Estimate challenged by: R-
- 2017: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+D+
- 2016: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+D+
- 2015: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+S+D+
- 2014: Estimate informed by reported data. GoC=R+S+D+
- 2013: Estimate informed by reported data supported by survey. Survey evidence of 96 percent based on 1 survey(s). Swaziland Multiple Indicator Cluster Survey 2014 card or history results of 92 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 88 percent and 3rd dose card only coverage of 87 percent. Estimate challenged by: D-
- 2012: Estimate informed by reported administrative data supported by survey. Survey evidence of 93 percent based on 1 survey(s). Swaziland Multiple Indicator Cluster Survey 2014 card or history results of 90 percent modifed for recall bias to 93 percent based on 1st dose card or history coverage of 95 percent, 1st dose card only coverage of 81 percent and 3rd dose card only coverage of 79 percent. GoC=R+S+D+
- 2011: Estimate informed by reported data supported by survey. Survey evidence of 89 percent based on 1 survey(s). Kingdom of Swaziland Immunization Coverage Survey 2013 Final Report card or history results of 88 percent modifed for recall bias to 89 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 84 percent and 3rd dose card only coverage of 84 percent. GoC=R+S+D+

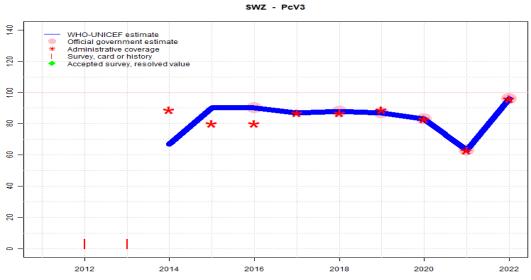


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	36	95	86	90	87	63	85	99
Estimate GoC	NA	NA	NA	NA	•	•	••	••	•	••	••	•
Official	NA	NA	NA	NA	NA	95	NA	90	87	63	85	99
Administrative	NA	NA	NA	NA	72	76	86	87	90	63	85	99
Survey	NA											

- ••• 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.

- 2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Programme reports a three months vaccine stockout at national and subnational levels that do not appear to have impacted reported coverage. Reported coverage may include contribution of acceleration activities. Estimate challenged by: D-
- 2021: Estimate informed by reported data. Programme reports one month vaccine stockout at national level. GoC=R+D+
- 2020: Estimate informed by reported data. Decline in reported coverage is unexplained by country but aligns with COVID-19 pandemic service disruptions. GoC=R+ D+
- 2019: Estimate informed by reported data. Estimate challenged by: D-
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported administrative data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+ D+
- 2016: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. Programme reports three months vaccine stockout at national level. Estimate challenged by: D-
- 2015: Programme reports 72 percent coverage in 50 percent of the national target population. Estimate is based on coverage achieved in total national annual birth cohort. Reported official coverage levels based on preliminary results from the 2014 MICS. Rotavirus vaccine introduced during 2015. Estimate challenged by: R-



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	67	90	90	87	88	87	83	63	96
Estimate GoC	NA	NA	NA	•	•	••	••	••	••	••	••	••
Official	NA	NA	NA	NA	NA	90	NA	88	87	83	63	96
Administrative	NA	NA	NA	89	80	80	87	87	89	83	63	96
Survey	NA	6	6	NA								

- ••• 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.

- 2022: Estimate informed by reported data. WHO and UNICEF are aware of an ongoing Multiple Indicator Cluster Survey (MICS) in 2022 and await the final results. Programme reports a five month vaccine stockout at national and subnational levels that do not appear to have impacted reported coverage. Reported coverage may include contribution of acceleration activities. GoC=R+D+
- 2021: Estimate informed by reported data. Programme reports four months vaccine stockout at national level. GoC=R+D+
- 2020: Estimate informed by reported data. Programme reports one month vaccine stockout at national level. GoC=R+D+
- 2019: Estimate informed by reported data. GoC=R+ D+
- 2018: Estimate informed by reported data. GoC=R+ D+
- 2017: Estimate informed by reported administrative data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+D+
- 2016: Estimate informed by reported data. Reported official coverage levels based on preliminary results from the 2014 MICS. GoC=R+ D+ $^{+}$
- 2015: Estimate is based on DTP3 coverage level. Reported official coverage levels based on preliminary results from the 2014 MICS. Estimate challenged by: R-
- 2014: Pneumococcal conjugate vaccine introduced during 2014. Programme achieved 89 percent coverage in 25 percent of the national target population. Estimate is based on the total national target population. Estimate challenged by: R-

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.

2013 Swaziland Multiple Indicator Cluster Survey 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H $<$ 12 months	97.5	$12\text{-}23~\mathrm{m}$	533	89
BCG	Card	88.9	$12\text{-}23~\mathrm{m}$	533	89
BCG	Card or History	98.4	$12\text{-}23~\mathrm{m}$	533	89
DTP1	C or H $<$ 12 months	96.4	$12\text{-}23~\mathrm{m}$	533	89
DTP1	Card	88.3	$12\text{-}23~\mathrm{m}$	533	89
DTP1	Card or History	96.8	12-23 m	533	89
DTP3	C or H $<$ 12 months	90.1	$12\text{-}23~\mathrm{m}$	533	89
DTP3	Card	86.9	$12-23 \mathrm{m}$	533	89
DTP3	Card or History	91.6	$12-23 \mathrm{m}$	533	89
HepB1	C or H < 12 months	96.4	$12-23 \mathrm{m}$	533	89
HepB1	Card	88.3	$12-23 \mathrm{m}$	533	89
HepB1	Card or History	96.8	$12-23 \mathrm{m}$	533	89
HepB3	C or H < 12 months	90.1	$12\text{-}23~\mathrm{m}$	533	89
HepB3	Card	86.9	$12-23 \mathrm{m}$	533	89
HepB3	Card or History	91.6	12-23 m	533	89
Hib1	C or H < 12 months	96.4	$12\text{-}23~\mathrm{m}$	533	89
Hib1	Card	88.3	$12-23 \mathrm{m}$	533	89
Hib1	Card or History	96.8	12-23 m	533	89
Hib3	C or H < 12 months	90.1	$12\text{-}23~\mathrm{m}$	533	89
Hib3	Card	86.9	$12-23 \mathrm{m}$	533	89
Hib3	Card or History	91.6	12-23 m	533	89
MCV1	C or H < 12 months	89.3	$12\text{-}23~\mathrm{m}$	533	89
MCV1	Card	81.1	$12\text{-}23~\mathrm{m}$	533	89
MCV1	Card or History	91.4	12-23 m	533	89

PCV1	C or H $<$ 12 months	16.7	$12\text{-}23~\mathrm{m}$	533	89
PCV1	Card	7.6	$12\text{-}23~\mathrm{m}$	533	89
PCV1	Card or History	19.2	12-23 m	533	89
PCV3	C or H $<$ 12 months	5.1	12-23 m	533	89
PCV3	Card	4.8	12-23 m	533	89
PCV3	Card or History	5.8	12-23 m	533	89
Pol1	C or H $<$ 12 months	96.6	12-23 m	533	89
Pol1	Card	88.2	12-23 m	533	89
Pol1	Card or History	96.8	12-23 m	533	89
Pol3	C or H < 12 months	83.9	12-23 m	533	89
Pol3	Card	84.1	12-23 m	533	89
Pol3	Card or History	85	$12\text{-}23~\mathrm{m}$	533	89

2012 Swaziland Multiple Indicator Cluster Survey 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H $<$ 12 months	94.8	24-35 m	594	89
BCG	Card	80.4	$24-35 \mathrm{\ m}$	594	89
BCG	Card or History	95.4	$24\text{-}35~\mathrm{m}$	594	89
DTP1	C or H $<$ 12 months	94.4	$24\text{-}35~\mathrm{m}$	594	89
DTP1	Card	81.2	$24\text{-}35~\mathrm{m}$	594	89
DTP1	Card or History	95.4	$24\text{-}35~\mathrm{m}$	594	89
DTP3	C or H $<$ 12 months	87.5	$24\text{-}35~\mathrm{m}$	594	89
DTP3	Card	79.2	$24\text{-}35~\mathrm{m}$	594	89
DTP3	Card or History	89.6	$24\text{-}35~\mathrm{m}$	594	89
HepB1	C or H $<$ 12 months	94.4	$24\text{-}35~\mathrm{m}$	594	89
HepB1	Card	81.2	$24\text{-}35~\mathrm{m}$	594	89
HepB1	Card or History	95.4	$24\text{-}35~\mathrm{m}$	594	89
HepB3	C or H $<$ 12 months	87.5	$24\text{-}35~\mathrm{m}$	594	89
HepB3	Card	79.2	$24\text{-}35~\mathrm{m}$	594	89
HepB3	Card or History	89.6	$24\text{-}35~\mathrm{m}$	594	89
Hib1	C or H < 12 months	94.4	$24-35~\mathrm{m}$	594	89
Hib1	Card	81.2	$24-35~\mathrm{m}$	594	89
Hib1	Card or History	95.4	$24\text{-}35~\mathrm{m}$	594	89
Hib3	C or H $<$ 12 months	87.5	$24\text{-}35~\mathrm{m}$	594	89
Hib3	Card	79.2	$24\text{-}35~\mathrm{m}$	594	89
Hib3	Card or History	89.6	$24\text{-}35~\mathrm{m}$	594	89
MCV1	C or H $<$ 12 months	86.2	$24\text{-}35~\mathrm{m}$	594	89
MCV1	Card	77.6	$24\text{-}35~\mathrm{m}$	594	89

MCV1	Card or History	93.3	$24\text{-}35~\mathrm{m}$	594	89	Pol3	Card or History	88.4	24-35 m	482	85
PCV1	C or H $<$ 12 months	17	$24\text{-}35~\mathrm{m}$	594	89						
PCV1	Card	4.7	$24-35 \mathrm{\ m}$	594	89	2000 0			~1 ~ ~		
PCV1	Card or History	18.1	$24-35 \mathrm{\ m}$	594	89	2009 Sw	aziland Multiple In	dicator (Cluster Su	ırvey 20)10
PCV3	C or H <12 months	5.2	$24-35 \mathrm{\ m}$	594	89						
PCV3	Card	4.3	$24-35 \mathrm{\ m}$	594	89	Vaccine	Confirmation method	Coverage	Age cohor	t Sample	e Cards seen
PCV3	Card or History	5.8	$24-35 \mathrm{\ m}$	594	89	BCG	C or H <12 months	97.9	12-23 m	521	88
Pol1	C or H <12 months	93.8	$24-35 \mathrm{\ m}$	594	89	BCG	Card	87.6	12-23 m	521	88
Pol1	Card	81.1	$24-35 \mathrm{\ m}$	594	89	BCG	Card or History	98.2	12-23 m	521	88
Pol1	Card or History	94.8	$24-35 \mathrm{\ m}$	594	89	BCG	History	10.6	12-23 m	521	88
Pol3	C or H <12 months	76.8	$24-35 \mathrm{\ m}$	594	89	DTP1	C or H <12 months	96.4	12-23 m	521	88
Pol3	Card	76.6	$24-35 \mathrm{\ m}$	594	89	DTP1	Card	87.8	12-23 m	521	88
Pol3	Card or History	78.2	$24-35 \mathrm{\ m}$	594	89	DTP1	Card or History	97.8	12-23 m	521	88
	v					DTP1	History	10.1	12-23 m	521	88
0011 TZ:	1 60 11	1 T			C 2012 F: 1 D	DTP3	C or H <12 months	89.4	12-23 m	521	88
2011 Ki	ngdom of Swaziland	d Immur	nization Co	overage	Survey 2013 Final Re-	DTP3	Card	84.1	12-23 m	521	88
po	ort					DTP3	Card or History	90.6	12-23 m	521	88
						DTP3	History	6.5	12-23 m	521	88
Vaccine	Confirmation method	Coverag	e Age cohor	t Sample	e Cards seen	HepB1	C or H <12 months	96.4	12-23 m	521	88
BCG	Card	84.4	24-35 m	-	85	HepB1	Card	87.8	12-23 m	521	88
BCG	Card or History	91.3	24-35 m	482	85	HepB1	Card or History	97.8	12-23 m	521	88
DTP1	Card	84.4	24-35 m	-	85	HepB1	v	10.1	12-23 m	521	88
DTP1	Card or History	89.2	24-35 m	482	85	HepB3	C or H <12 months	89.4	12-23 m	521	88
DTP3	Card	83.6	24-35 m	-	85	HepB3	Card	84.1	12-23 m	521	88
DTP3	Card or History	88.4	24-35 m	482	85	HepB3	Card or History	90.6	12-23 m	521	88
HepB1	Card	84.4	24-35 m	_	85	HepB3	History	6.5	12-23 m	521	88
HepB1	Card or History	89.2	24-35 m	482	85	Hib1	C or H <12 months	96.4	12-23 m	521	88
HepB3	Card	83.6	24-35 m	_	85	Hib1	Card	87.8	12-23 m	521	88
HepB3	Card or History	88.4	$24-35 \mathrm{\ m}$	482	85	Hib1	Card or History	97.8	12-23 m	521	88
Hib1	Card	84.4	$24-35 \mathrm{\ m}$	_	85	Hib1	History	10.1	12-23 m	521	88
Hib1	Card or History	89.2	$24-35 \mathrm{\ m}$	482	85	Hib3	C or $H < 12$ months	89.4	12-23 m	521	88
Hib3	Card	83.6	$24-35 \mathrm{\ m}$	_	85	Hib3	Card	84.1	12-23 m	521	88
Hib3	Card or History	88.4	$24-35 \mathrm{\ m}$	482	85	Hib3	Card or History	90.6	$12\text{-}23 \mathrm{\ m}$	521	88
MCV1	Card	82.1	$24-35 \mathrm{\ m}$	_	85	Hib3	History	6.5	12-23 m	521	88
MCV1	Card or History	86.9	$24\text{-}35~\mathrm{m}$	482	85	MCV1	C or $H < 12$ months	93.9	12-23 m	521	88
MCV2	Card	75.9	$24-35 \mathrm{\ m}$	_	85	MCV1	Card	84.7	12-23 m	521	88
MCV2	Card or History	80.5	24-35 m	482	85	MCV1	Card or History	97.8	12-23 m	521	88
Pol1	Card	84.4	24-35 m	_	85	MCV1	History	13.1	12-23 m	521	88
Pol1	Card or History	89.2	24-35 m	482	85	Pol1	C or H <12 months	96.3	12-23 m	521	88
D 10	G 1	00.2	24.05		00 0 -	D 11	G 1	00.0	10.00	521	00

Card

83.6

 $24-35 \mathrm{m}$

85

Pol3

Pol1

Card

87

12-23 m

521

88

Pol1	Card or History	97	$12\text{-}23 \mathrm{\ m}$	521	88
Pol1	History	10	$12\text{-}23~\mathrm{m}$	521	88
Pol3	C or H $<$ 12 months	83.8	$12\text{-}23~\mathrm{m}$	521	88
Pol3	Card	82.7	$12\text{-}23~\mathrm{m}$	521	88
Pol3	Card or History	85	$12\text{-}23 \mathrm{\ m}$	521	88
Pol3	History	2.3	12-23 m	521	88

2008 Swaziland 2008 National Nutrition Survey

Vaccine	Confirmation method	Coverage	Age	cohort	Sample	Cards seen
MCV1	C or H $<$ 12 months	71.6	9-11	m	-	-
MCV1	Card < 12 months	63.6	9-11	\mathbf{m}	-	-
MCV1	History <12 months	8	9-11	m	-	-

2007 Swaziland 2008 National Nutrition Survey

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
MCV1	Card	83.9	$12\text{-}23 \mathrm{\ m}$	754	-
MCV1	Card or History	94.7	$12\text{-}23~\mathrm{m}$	754	-
MCV1	History	10.8	$12\text{-}23~\mathrm{m}$	754	-

2005 Swaziland Demographic and Health Survey 2006-07

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H $<$ 12 months	97	$12-23 \mathrm{m}$	531	84
BCG	Card	83.9	$12\text{-}23~\mathrm{m}$	531	84
BCG	Card or History	97.2	$12\text{-}23~\mathrm{m}$	531	84
BCG	History	13.3	$12\text{-}23~\mathrm{m}$	531	84
DTP1	C or H $<$ 12 months	95.4	$12\text{-}23~\mathrm{m}$	531	84
DTP1	Card	83.7	$12\text{-}23~\mathrm{m}$	531	84
DTP1	Card or History	96	$12\text{-}23~\mathrm{m}$	531	84
DTP1	History	12.2	$12\text{-}23~\mathrm{m}$	531	84
DTP3	C or H $<$ 12 months	90.2	$12\text{-}23~\mathrm{m}$	531	84
DTP3	Card	82.4	$12\text{-}23~\mathrm{m}$	531	84
DTP3	Card or History	91.7	$12\text{-}23~\mathrm{m}$	531	84

DITIDO	TT* /	0.0	10.00	F01	0.4
DTP3	History	9.2	12-23 m	531	84
HepB1	C or H < 12 months	95.2	12-23 m	531	84
HepB1	Card	83.1	$12\text{-}23~\mathrm{m}$	531	84
HepB1	Card or History	95.5	$12\text{-}23~\mathrm{m}$	531	84
HepB1	History	12.4	$12\text{-}23~\mathrm{m}$	531	84
HepB3	C or H $<$ 12 months	89.6	$12\text{-}23~\mathrm{m}$	531	84
HepB3	Card	82.1	$12\text{-}23~\mathrm{m}$	531	84
HepB3	Card or History	91.1	$12\text{-}23~\mathrm{m}$	531	84
HepB3	History	9	$12\text{-}23~\mathrm{m}$	531	84
MCV1	C or H $<$ 12 months	82.7	$12\text{-}23~\mathrm{m}$	531	84
MCV1	Card	79.4	$12\text{-}23~\mathrm{m}$	531	84
MCV1	Card or History	91.5	$12\text{-}23~\mathrm{m}$	531	84
MCV1	History	12.1	$12\text{-}23~\mathrm{m}$	531	84
Pol1	C or H $<$ 12 months	96.3	12-23 m	531	84
Pol1	Card	83.9	12-23 m	531	84
Pol1	Card or History	97	12-23 m	531	84
Pol1	History	13	12-23 m	531	84
Pol3	C or H $<$ 12 months	85.9	12-23 m	531	84
Pol3	Card	82.9	12-23 m	531	84
Pol3	Card or History	87.3	12-23 m	531	84
Pol3	History	4.4	$12\text{-}23~\mathrm{m}$	531	84

2005 Swaziland measles post campaing evaluation and EPI coverage survey reports, July $2006\,$

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	99.6	12-23 m	581	79
BCG	Card or History	99.7	$12\text{-}23 \mathrm{\ m}$	581	79
DTP1	Card	98.3	$12\text{-}23~\mathrm{m}$	581	79
DTP1	Card or History	97.4	$12\text{-}23~\mathrm{m}$	581	79
DTP3	Card	95.7	$12\text{-}23~\mathrm{m}$	581	79
DTP3	Card or History	95.2	$12\text{-}23~\mathrm{m}$	581	79
HepB1	Card	98.3	$12\text{-}23~\mathrm{m}$	581	79
HepB1	Card or History	97.4	$12\text{-}23~\mathrm{m}$	581	79
HepB3	Card	95.7	$12\text{-}23~\mathrm{m}$	581	79
HepB3	Card or History	95.2	$12\text{-}23~\mathrm{m}$	581	79
MCV1	Card	89.2	$12\text{-}23~\mathrm{m}$	581	79
MCV1	Card or History	91.2	$12\text{-}23 \mathrm{\ m}$	581	79
Pol1	Card	97.2	$12-23 \mathrm{m}$	581	79

Pol1 Pol3	Card or History Card	96.6 95.7	12-23 m 12-23 m	581 581	79 79	Pol3	Card or History	97.1	12-23 m	209	94
Pol3	Card or History	95.2	12-23 m	581	79	1999 Sw	aziland Multiple In	dicator (Cluster Su	rvey 20	00, 2002
2002 Sw	aziland, Report on	National	EPI Rev	iew, 200	03	Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
						BCG	C or H <12 months	94.1	12-23 m	-	86
Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen	DTP1	C or H <12 months	92.6	12-23 m	_	86
BCG	Card or History	97.6	12-23 m	_	94	DTP3	C or H $<$ 12 months	77.7	12-23 m	_	86
DTP1	Card or History	98.1	$12\text{-}23~\mathrm{m}$	209	94	MCV1	C or H $<$ 12 months	72.3	12-23 m	_	86
DTP3	Card or History	97.1	$12\text{-}23 \mathrm{\ m}$	209	94	Pol1	C or H $<$ 12 months	91.4	12-23 m	-	86
HepB3	Card or History	95.6	$12\text{-}23 \mathrm{\ m}$	209	94	Pol3	C or H $<$ 12 months	75.1	$12\text{-}23~\mathrm{m}$	-	86

MCV1 Card or History

95.6

12-23 m

209

94

Further information and estimates for previous years are available at:

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

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