Equatorial Guinea: WHO and UNICEF estimates of immunization coverage: 2022 revision

BCG

DTP1

DTP3

Pol3

MCV1

HepB3

Hib3

RotaC

No estimate for infant immunization made.

PcV3

No estimate for infant immunization made.

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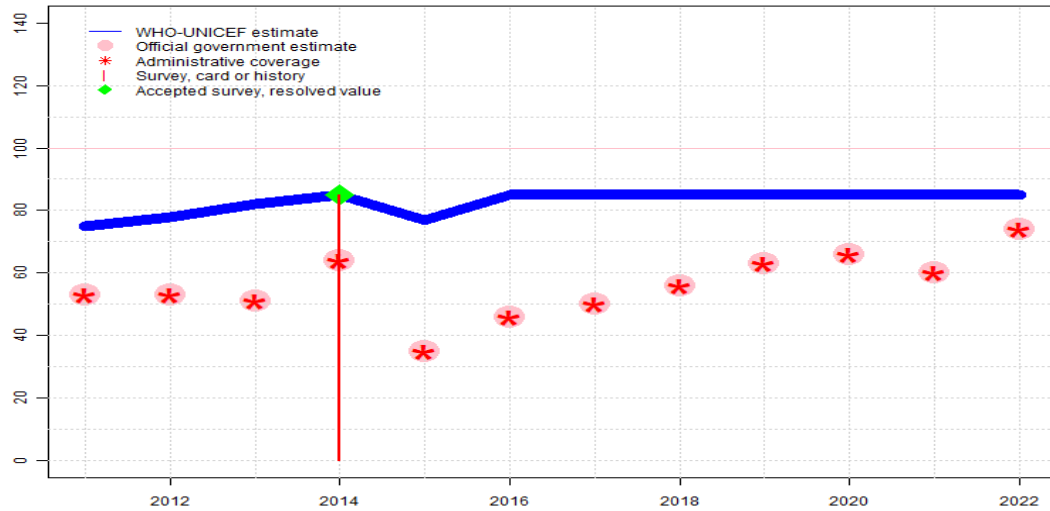
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

Equatorial Guinea - BCG

GNQ - 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	75	78	82	85	77	85	85	85	85	85	85	85
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	53	53	51	64	35	46	50	56	63	66	60	74
Administrative	53	53	51	64	35	46	50	56	63	66	60	74
Survey	NA	NA	NA	85	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:

2022: Reported data calibrated to 2016 levels. Reported data excluded. .Reported data excluded due to sudden change in coverage from 60 level to 74 percent. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey as well as a data review to confirm reported levels of coverage. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2021: Reported data calibrated to 2016 levels. Reported data excluded. . Programme reports improvements in performance following a thorough review of programme performance in 10 of 18 health districts that suggested improvements between 2018 and 2020. During the last several months of 2021, intensification activities resulted in an increased number of vaccinated children. Programme notes an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stockouts. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Reported data calibrated to 2016 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2019: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Appearance of an increase in reported coverage from 2018 to 2019, in spite of reporting similar total number of children vaccinated for both years, is reflective of a decline of 34 percent in the target population. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2018: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. WHO and UNICEF received a subnational EPI survey conducted in 2016 in only 9 districts (50 percent). GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2017: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.
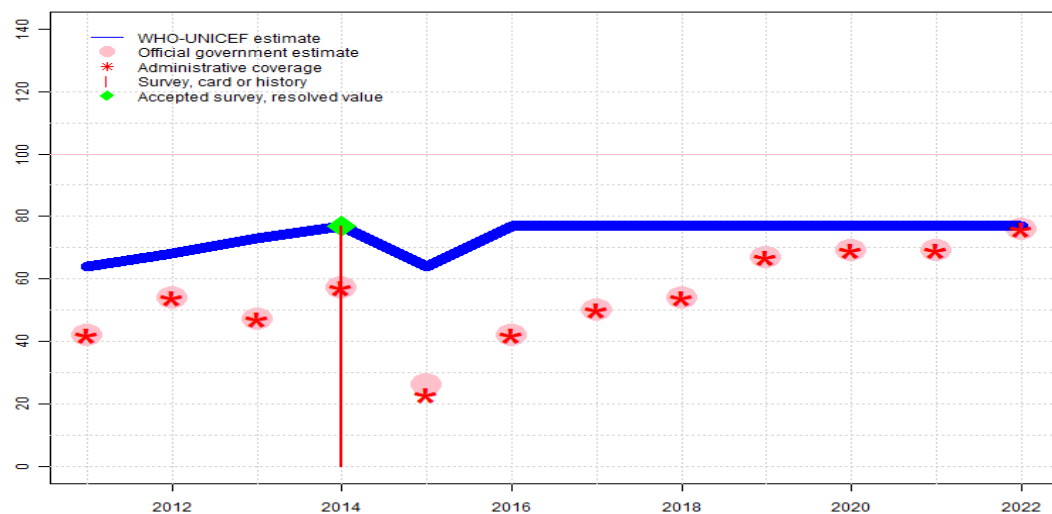
2016: Estimate of 85 percent assigned by working group. Estimate is based on survey estimated coverage for 2014. Reported number of doses in 2016 are similar to that reported in 2014 at the time of the survey. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2015: Programme reports district level stockout of unknown duration. Estimate is based on the change in recomputed coverage between 2014 and 2015, using the reported number of doses and an independent denominator, applied to survey result in 2014. Reported data excluded due to decline in reported coverage from 64 percent to 35 percent with increase to 46 percent. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 85 percent based on 1 survey(s). Reported data excluded due to an increase from 51 percent to 64 percent with decrease 35 percent. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2013: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2012: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2011: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

Equatorial Guinea - DTP1

GNQ - 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	64	68	73	77	64	77	77	77	77	77	77	77
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	42	54	47	57	26	42	50	54	67	69	69	76
Administrative	42	54	47	57	23	42	50	54	67	69	69	76
Survey	NA	NA	NA	77	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:

2022: Reported data calibrated to 2016 levels. Reported data excluded. . No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey as well as a data review to confirm reported levels of coverage. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2021: Reported data calibrated to 2016 levels. Reported data excluded. . Programme reports improvements in performance following a thorough review of programme performance in 10 of 18 health districts that suggested improvements between 2018 and 2020. During the last several months of 2021, intensification activities resulted in an increased number of vaccinated children. Programme notes an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stockouts. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Reported data calibrated to 2016 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2019: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Appearance of an increase in reported coverage from 2018 to 2019, in spite of reporting similar total number of children vaccinated for both years, is reflective of a decline of 34 percent in the target population. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2018: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. WHO and UNICEF received a subnational EPI survey conducted in 2016 in only 9 districts (50 percent). GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2017: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2016: Estimate of 77 percent assigned by working group. Estimate is based on survey value for 2014. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2015: Programme reports four months stockout of DTP-HepB-Hib vaccine. Estimate is based on the change in recomputed coverage between 2014 and 2015, using the reported number of

doses and an independent denominator, applied to survey result in 2014. Reported data excluded due to decline in reported coverage from 57 percent to 26 percent with increase to 42 percent. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.
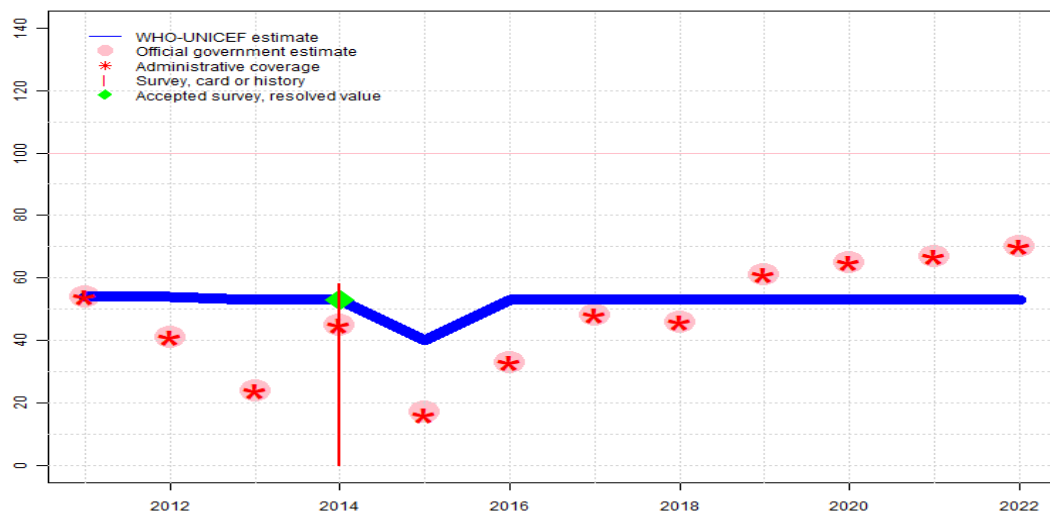
2013: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2012: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2011: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. .Reported data excluded due to decline in reported coverage from 59 percent to 42 percent with increase to 54 percent. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

Equatorial Guinea - DTP3

GNQ - 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	54	54	53	53	40	53	53	53	53	53	53	53
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	54	41	24	45	17	33	48	46	61	65	67	70
Administrative	54	41	24	45	16	33	48	46	61	65	67	70
Survey	NA	NA	NA	58	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: Reported data calibrated to 2016 levels. Reported data excluded. . No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey as well as a data review to confirm reported levels of coverage. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2021: Reported data calibrated to 2016 levels. Reported data excluded. . Programme reports improvements in performance following a thorough review of programme performance in 10 of 18 health districts that suggested improvements between 2018 and 2020. During the last several months of 2021, intensification activities resulted in an increased number of vaccinated children. Programme notes an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stockouts. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Reported data calibrated to 2016 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2019: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Appearance of an increase in reported coverage from 2018 to 2019, in spite of reporting similar total number of children vaccinated for both years, is reflective of a decline of 34 percent in the target population. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2018: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. WHO and UNICEF received a subnational EPI survey conducted in 2016 in only 9 districts (50 percent). GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2017: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2016: Estimate of 53 percent assigned by working group. Estimate is based on survey result for 2014. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2015: Programme reports four months stockout of DTP-HepB-Hib vaccine. Estimate is based on the change in recomputed coverage between 2014 and 2015, using the reported number of

doses and an independent denominator, applied to survey result in 2014. Reported data excluded due to decline in reported coverage from 45 percent to 17 percent with increase to 33 percent. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2014: Estimate of 53 percent assigned by working group. Estimate is based on survey. EPI External Revue 2016 - National Coverage survey card or history results of 58 percent modifed for recall bias to 53 percent based on 1st dose card or history coverage of 77 percent, 1st dose card only coverage of 32 percent and 3rd dose card only coverage of 22 percent. Reported data excluded due to an increase from 24 percent to 45 percent with decrease 17 percent. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2013: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. .Reported data excluded due to decline in reported coverage from 41 percent to 24 percent with increase to 45 percent. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2012: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2011: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.
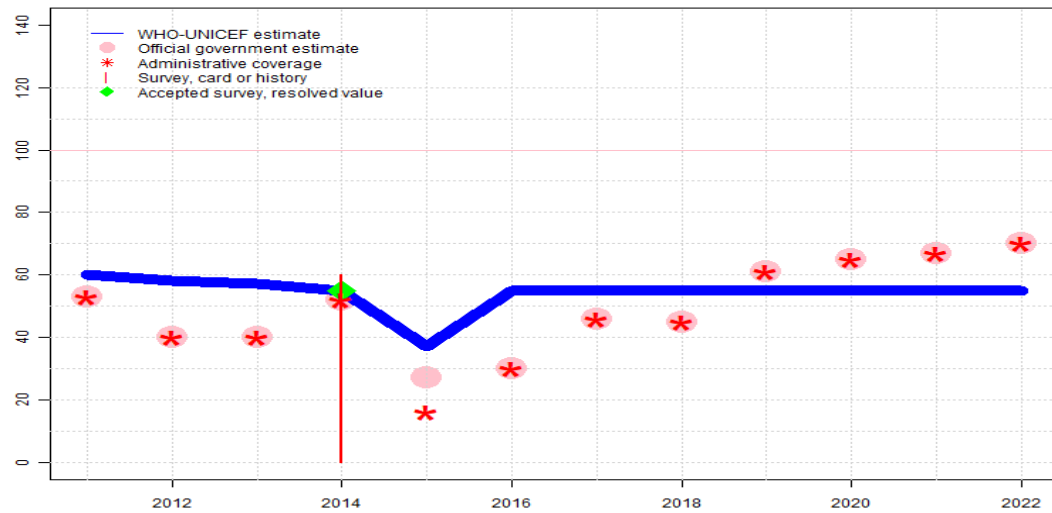
Equatorial Guinea - Pol3

GNQ - 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	60	58	57	55	37	55	55	55	55	55	55	55
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	53	40	40	52	27	30	46	45	61	65	67	70
Administrative	53	40	40	52	16	30	46	45	61	65	67	70
Survey	NA	NA	NA	60	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:

2022: Reported data calibrated to 2016 levels. Reported data excluded. . No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey as well as a data review to confirm reported levels of coverage. Programme reports a one month vaccine stockout at the national level. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2021: Reported data calibrated to 2016 levels. Reported data excluded. . Programme reports improvements in performance following a thorough review of programme performance in 10 of 18 health districts that suggested improvements between 2018 and 2020. During the last several months of 2021, intensification activities resulted in an increased number of vaccinated children. Programme notes an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stockouts. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Reported data calibrated to 2016 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2019: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Appearance of an increase in reported coverage from 2018 to 2019, in spite of reporting similar total number of children vaccinated for both years, is reflective of a decline of 34 percent in the target population. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2018: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. WHO and UNICEF received a subnational EPI survey conducted in 2016 in only 9 districts (50 percent). GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2017: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2016: Estimate of 55 percent assigned by working group. Estimate is based on survey result for 2014. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2015: Estimate is based on the change in recomputed coverage between 2014 and 2015, using
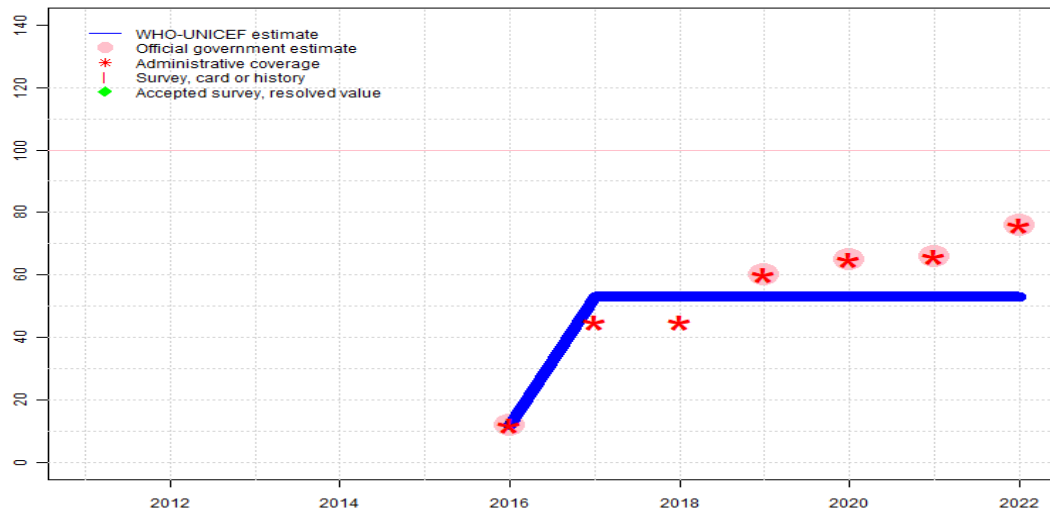
the reported number of doses and an independent denominator, applied to survey result in 2014. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2014: Estimate of 55 percent assigned by working group. Estimate is based on survey. EPI External Revue 2016 - National Coverage survey card or history results of 60 percent modifed for recall bias to 55 percent based on 1st dose card or history coverage of 74 percent, 1st dose card only coverage of 31 percent and 3rd dose card only coverage of 23 percent. Reported data excluded due to an increase from 40 percent to 52 percent with decrease 27 percent. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2013: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2012: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2011: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. .Reported data excluded due to an increase from 39 percent to 53 percent with decrease 40 percent. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

GNQ - 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	12	53	53	53	53	53	53
Estimate GoC	NA	NA	NA	NA	NA	●	●	●	●	●	●	●
Official	NA	NA	NA	NA	NA	12	NA	NA	60	65	66	76
Administrative	NA	NA	NA	NA	NA	12	45	45	60	65	66	76
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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

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

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

Description:

Estimates for a 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 estimated DTP3 coverage. Reported data excluded. . No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey as well as a data review to confirm reported levels of coverage. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2021: Estimate informed by estimated DTP3 coverage. Reported data excluded. . Programme reports improvements in performance following a thorough review of programme performance in 10 of 18 health districts that suggested improvements between 2018 and 2020. During the last several months of 2021, intensification activities resulted in an increased number of vaccinated children. Programme notes an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stockouts. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Estimate informed by estimated DTP3 coverage. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2019: Estimate informed by estimated DTP3 coverage. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Appearance of an increase in reported coverage from 2018 to 2019, in spite of reporting similar total number of children vaccinated for both years, is reflective of a decline of 34 percent in the target population. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2018: Estimate informed by estimated DTP3 coverage. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. WHO and UNICEF received a subnational EPI survey conducted in 2016 in only 9 districts (50 percent). GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2017: Estimate informed by estimated DTP3 coverage. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2016: Estimate is exceptionally based on reported data during introduction year. Reported

data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. Inactivated polio vaccine introduced in 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.
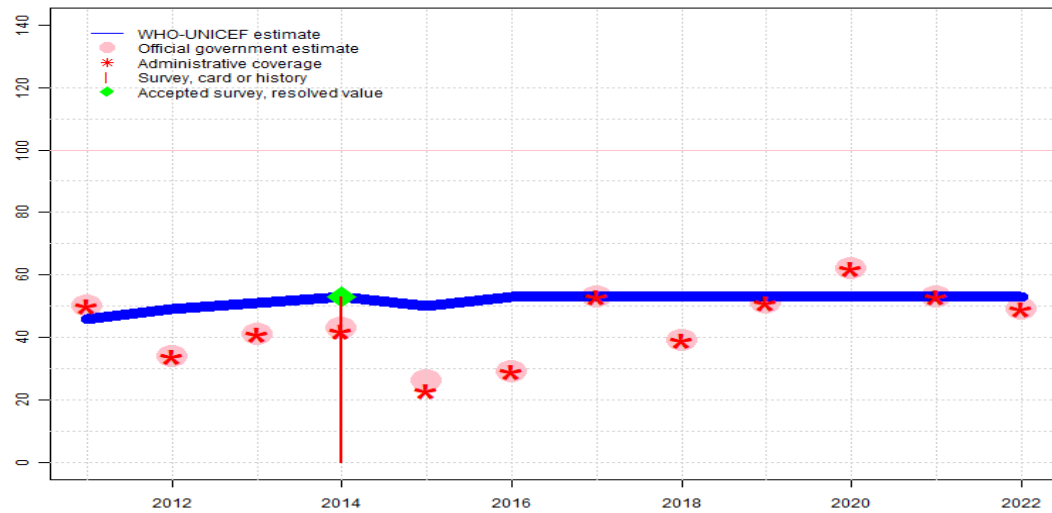
Equatorial Guinea - MCV1

GNQ - 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	46	49	51	53	50	53	53	53	53	53	53	53
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	50	34	41	43	26	29	53	39	51	62	53	49
Administrative	50	34	41	42	23	29	53	39	51	62	53	49
Survey	NA	NA	NA	53	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:

2022: Reported data calibrated to 2016 levels. Reported data excluded. . No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey as well as a data review to confirm reported levels of coverage. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2021: Reported data calibrated to 2016 levels. Reported data excluded. . Programme reports improvements in performance following a thorough review of programme performance in 10 of 18 health districts that suggested improvements between 2018 and 2020. During the last several months of 2021, intensification activities resulted in an increased number of vaccinated children. Programme notes an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stockouts. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Reported data calibrated to 2016 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2019: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Appearance of an increase in reported coverage from 2018 to 2019, in spite of reporting similar total number of children vaccinated for both years, is reflective of a decline of 34 percent in the target population. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2018: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated.Reported data excluded due to decline in reported coverage from 53 percent to 39 percent with increase to 51 percent. WHO and UNICEF received a subnational EPI survey conducted in 2016 in only 9 districts (50 percent). GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2017: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated.Reported data excluded due to an increase from 29 percent to 53 percent with decrease 39 percent. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2016: Estimate of 53 percent assigned by working group. Estimate is based on survey result for 2014. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2015: Estimate is based on the change in recomputed coverage between 2014 and 2015, using the reported number of doses and an independent denominator, applied to survey result in 2014. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2014: Estimate of 53 percent assigned by working group. Estimate is based on survey result. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.
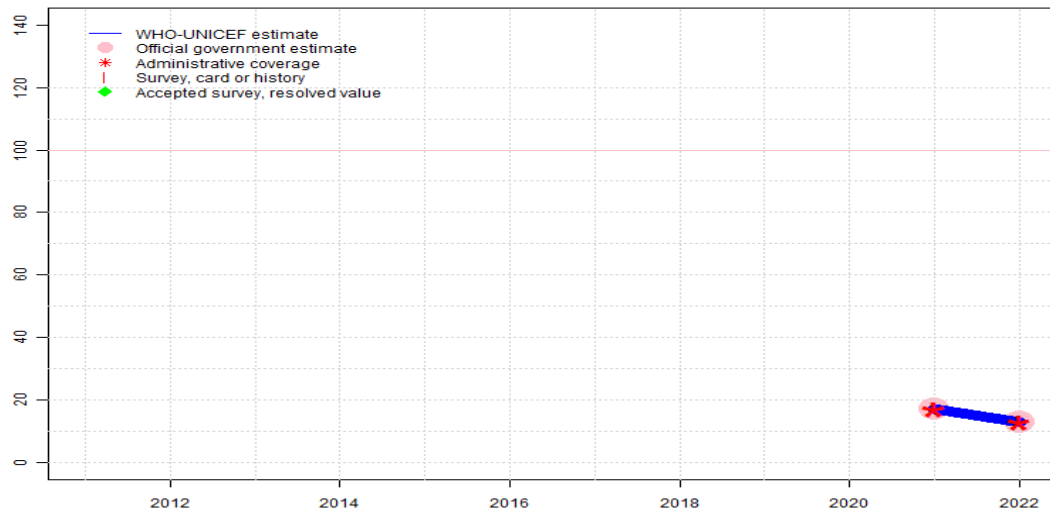
2013: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2012: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2011: Reported data calibrated to 2010 and 2014 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

Equatorial Guinea - MCV2

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17	13
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17	13
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17	13
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:

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

2022: Estimate is exceptionally based on the reported coverage level during introduction. Reported data excluded. . No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey as well as a data review to confirm reported levels of coverage. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2021: Second dose of measles containing vaccine introduced during 2021. Estimate is exceptionally based on the reported coverage level during introduction. Reported data excluded. . Programme reports improvements in performance following a thorough review of programme performance in 10 of 18 health districts that suggested improvements between 2018 and 2020. During the last several months of 2021, intensification activities resulted in an increased number of vaccinated children. Programme notes an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stockouts. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.
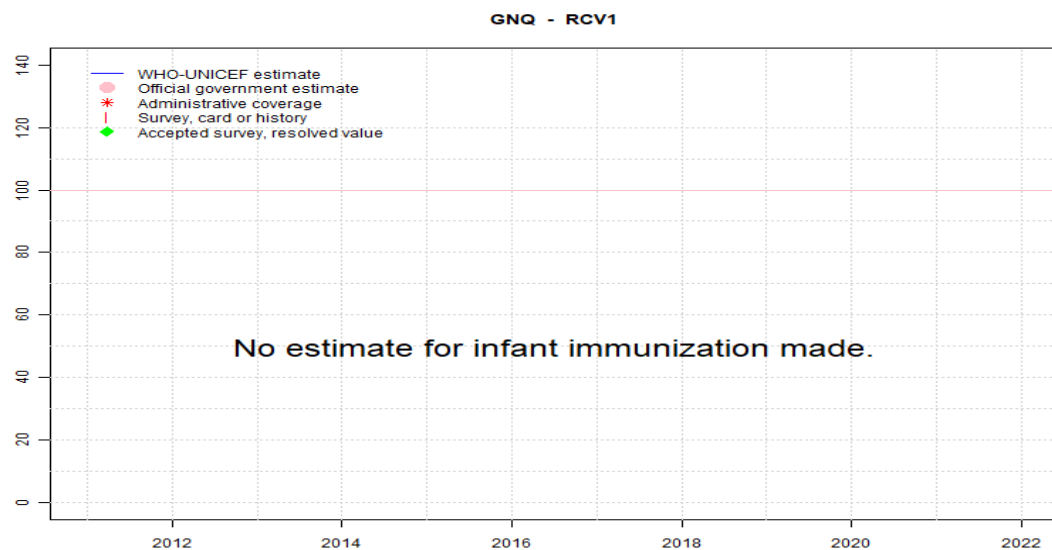
GNQ - RCV1

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

No estimate for infant immunization made.

	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.
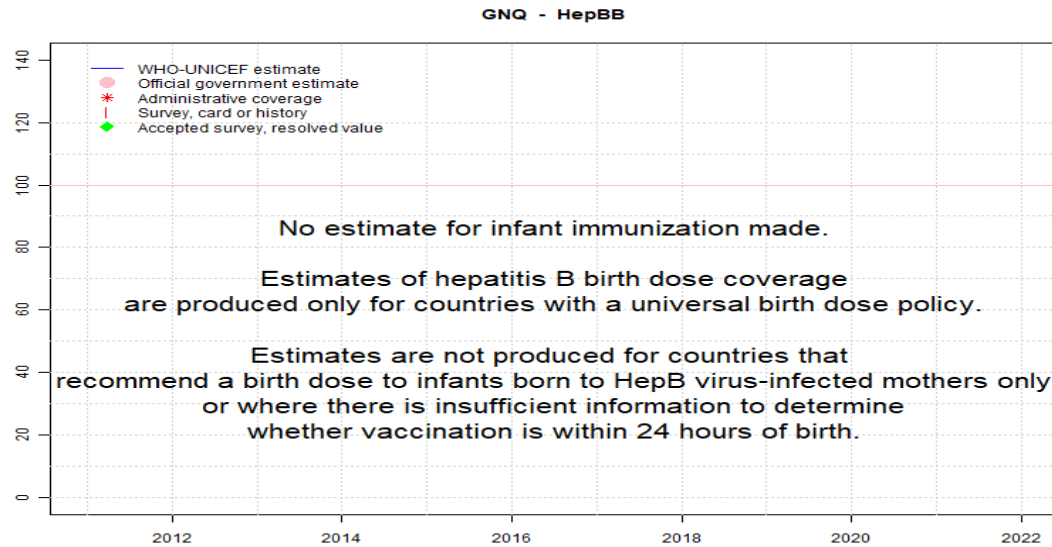
Equatorial Guinea - HepBB

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

No estimate for infant immunization made.

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.

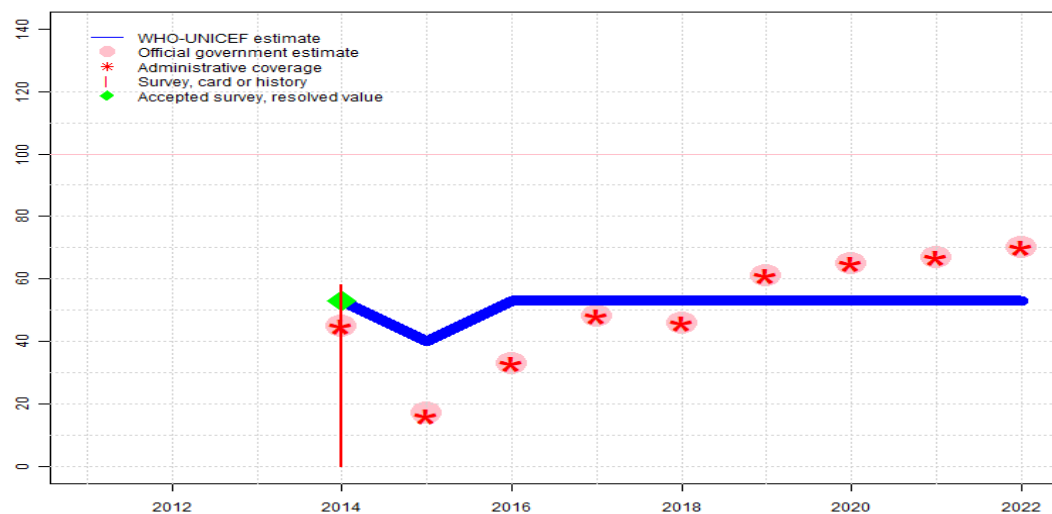|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

Equatorial Guinea - HepB3

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	53	40	53	53	53	53	53	53	53
Estimate GoC	NA	NA	NA	●	●	●	●	●	●	●	●	●
Official	NA	NA	NA	45	17	33	48	46	61	65	67	70
Administrative	NA	NA	NA	45	16	33	48	46	61	65	67	70
Survey	NA	NA	NA	58	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:

2022: Reported data calibrated to 2016 levels. Reported data excluded. . No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey as well as a data review to confirm reported levels of coverage. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2021: Reported data calibrated to 2016 levels. Reported data excluded. . Programme reports improvements in performance following a thorough review of programme performance in 10 of 18 health districts that suggested improvements between 2018 and 2020. During the last several months of 2021, intensification activities resulted in an increased number of vaccinated children. Programme notes an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stockouts. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Reported data calibrated to 2016 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2019: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Appearance of an increase in reported coverage from 2018 to 2019, in spite of reporting similar total number of children vaccinated for both years, is reflective of a decline of 34 percent in the target population. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2018: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. WHO and UNICEF received a subnational EPI survey conducted in 2016 in only 9 districts (50 percent). GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2017: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2016: Estimate of 53 percent assigned by working group. Estimate follows DTP3 Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2015: Programme reports four months stockout of DTP-HepB-Hib vaccine. Estimate follows DTP level. Reported data excluded due to decline in reported coverage from 45 percent
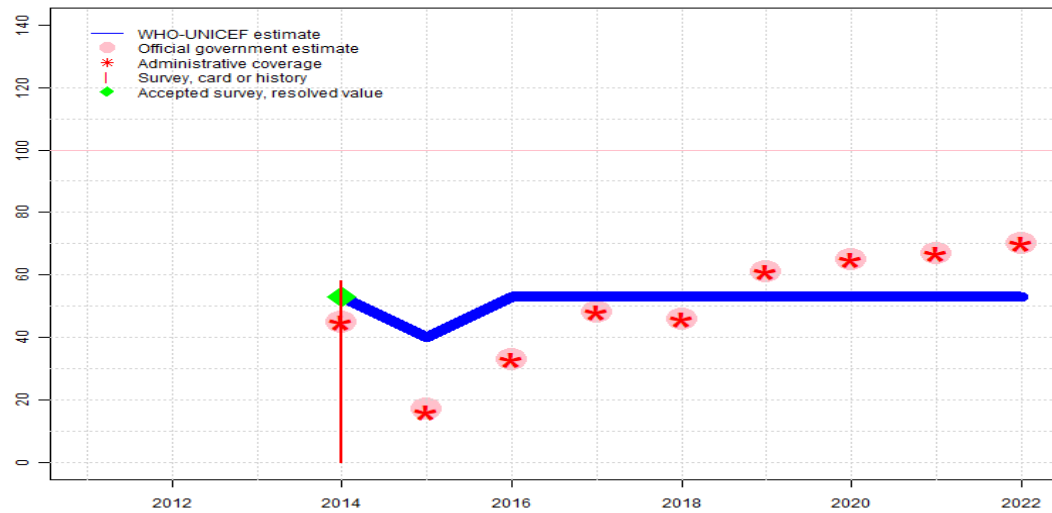
to 17 percent with increase to 33 percent. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2014: Estimate of 53 percent assigned by working group. HepB containing vaccine introduced during 2013 in pentavalent DTP-HepB-Hib. Reporting began during 2014. Estimate is based on estimated DTP coverage level. EPI External Revue 2016 - National Coverage survey card or history results of 58 percent modifed for recall bias to 53 percent based on 1st dose card or history coverage of 77 percent, 1st dose card only coverage of 32 percent and 3rd dose card only coverage of 22 percent. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

Equatorial Guinea - Hib3

GNQ - 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	NA	53	40	53	53	53	53	53	53	53
Estimate GoC	NA	NA	NA	●	●	●	●	●	●	●	●	●
Official	NA	NA	NA	45	17	33	48	46	61	65	67	70
Administrative	NA	NA	NA	45	16	33	48	46	61	65	67	70
Survey	NA	NA	NA	58	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:

2022: Reported data calibrated to 2016 levels. Reported data excluded. . No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey as well as a data review to confirm reported levels of coverage. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2021: Reported data calibrated to 2016 levels. Reported data excluded. . Programme reports improvements in performance following a thorough review of programme performance in 10 of 18 health districts that suggested improvements between 2018 and 2020. During the last several months of 2021, intensification activities resulted in an increased number of vaccinated children. Programme notes an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stockouts. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Reported data calibrated to 2016 levels. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2019: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Appearance of an increase in reported coverage from 2018 to 2019, in spite of reporting similar total number of children vaccinated for both years, is reflective of a decline of 34 percent in the target population. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2018: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. WHO and UNICEF received a subnational EPI survey conducted in 2016 in only 9 districts (50 percent). GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2017: Reported data calibrated to 2016 levels. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2016: Estimate of 53 percent assigned by working group. Estimate follows DTP3 Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.
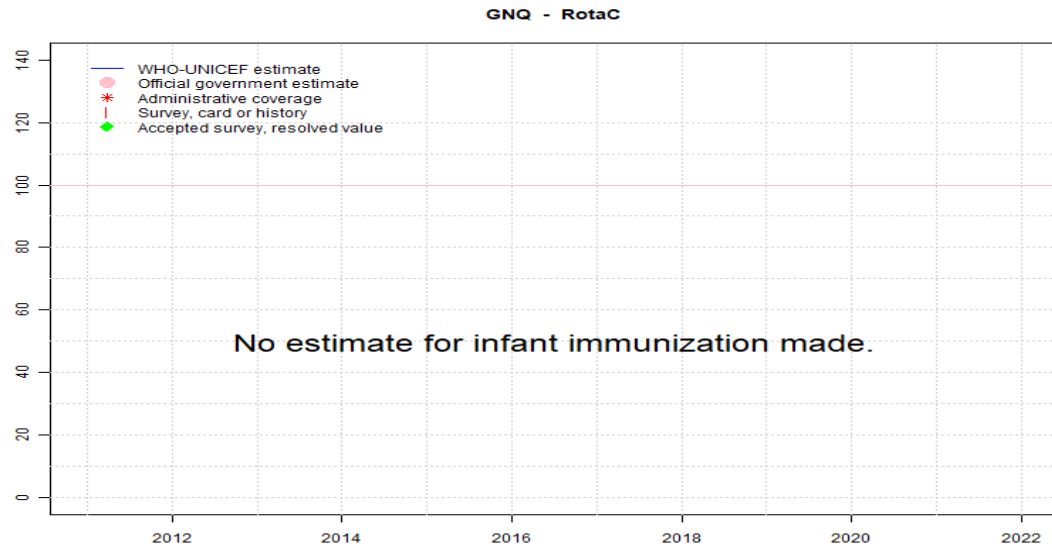
2015: Programme reports four months stockout of DTP-HepB-Hib vaccine. Estimate follows DTP level. Reported data excluded due to decline in reported coverage from 45 percent

to 17 percent with increase to 33 percent. Fluctuations in reported data over time suggest poor quality administrative recording and reporting systems. Unexplained increase of 33 percentage in target population between 2014 and 2016. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2014: Estimate of 53 percent assigned by working group. Hib containing vaccine introduced during 2013 in pentavalent DTP-HepB-Hib. Reporting began during 2014. Estimate is based on estimated DTP coverage level. EPI External Revue 2016 - National Coverage survey card or history results of 58 percent modifed for recall bias to 53 percent based on 1st dose card or history coverage of 77 percent, 1st dose card only coverage of 32 percent and 3rd dose card only coverage of 22 percent. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

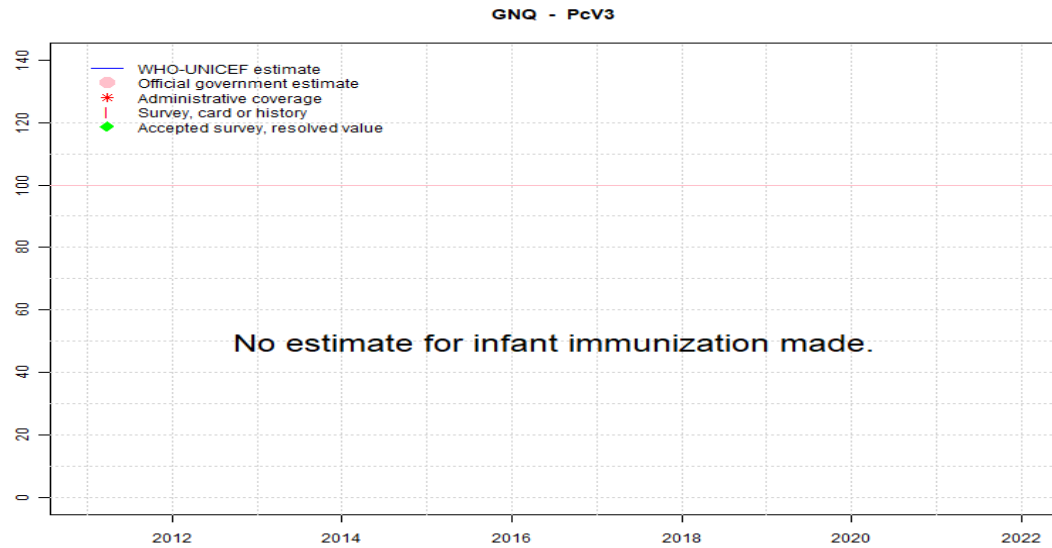|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

```
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.

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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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GNQ - PcV3

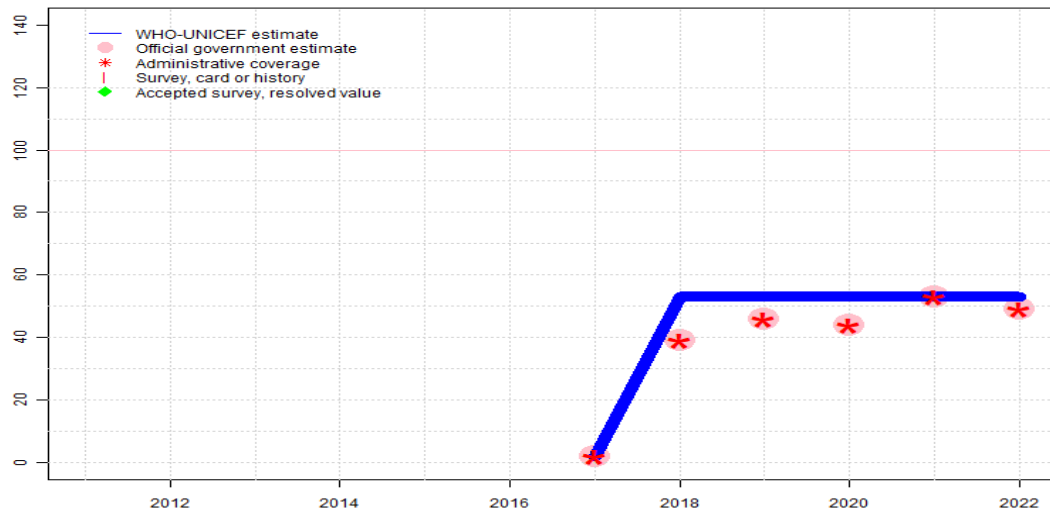|	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

GNQ - YFV

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Estimate	NA	NA	NA	NA	NA	NA	2	53	53	53	53	53
Estimate GoC	NA	NA	NA	NA	NA	NA	●	●	●	●	●	●
Official	NA	NA	NA	NA	NA	NA	2	39	46	44	53	49
Administrative	NA	NA	NA	NA	NA	NA	2	39	46	44	53	49
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:

2022: Estimate informed by estimated MCV1 coverage. Reported data excluded. . No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey as well as a data review to confirm reported levels of coverage. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2021: Estimate informed by estimated MCV1 coverage. Reported data excluded. . Programme reports improvements in performance following a thorough review of programme performance in 10 of 18 health districts that suggested improvements between 2018 and 2020. During the last several months of 2021, intensification activities resulted in an increased number of vaccinated children. Programme notes an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stockouts. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Estimate informed by estimated MCV1 coverage. Reported data excluded. . GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2019: Estimate informed by estimated MCV1 coverage. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Appearance of an increase in reported coverage from 2018 to 2019, in spite of reporting similar total number of children vaccinated for both years, is reflective of a decline of 34 percent in the target population. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2018: Estimate informed by estimated MCV1 coverage. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. WHO and UNICEF received a subnational EPI survey conducted in 2016 in only 9 districts (50 percent). GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2017: Estimate is exceptionally based on reported data. Reported data excluded. Unexplained variation in reported target population as well as in reported number of children vaccinated. Yellow fever vaccine introduced in 2017. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

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.

2014 Revue Externe 2016 du PEV - Enquete de Couverture Vaccinale

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	28.7	12-23 m	1890	41
BCG	Card or History	85.2	12-23 m	1890	41
DTP1	Card	32.5	12-23 m	1890	41
DTP1	Card or History	77.2	12-23 m	1890	41
DTP3	Card	22.5	12-23 m	1890	41
DTP3	Card or History	58.1	12-23 m	1890	41
HepB1	Card	32.5	12-23 m	1890	41
HepB1	Card or History	77.2	12-23 m	1890	41
HepB3	Card	22.5	12-23 m	1890	41
HepB3	Card or History	58.1	12-23 m	1890	41
Hib1	Card	32.5	12-23 m	1890	41
Hib1	Card or History	77.2	12-23 m	1890	41
Hib3	Card	22.5	12-23 m	1890	41
Hib3	Card or History	58.1	12-23 m	1890	41
MCV1	Card	18.9	12-23 m	1890	41
MCV1	Card or History	52.6	12-23 m	1890	41
Pol1	Card	31	12-23 m	1890	41
Pol1	Card or History	74.3	12-23 m	1890	41
Pol3	Card	22.6	12-23 m	1890	41
Pol3	Card or History	60.2	12-23 m	1890	41

2010 Guinée Équatoriale Enquête Démographique et de Santé 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	70.8	12-23 m	529	37
BCG	Card	36.8	12-23 m	197	37
BCG	Card or History	70.8	12-23 m	529	37
BCG	History	34.2	12-23 m	332	37
DTP1	C or H <12 months	58.6	12-23 m	529	37
DTP1	Card	33	12-23 m	197	37
DTP1	Card or History	58.9	12-23 m	529	37
DTP1	History	26	12-23 m	332	37
DTP3	C or H <12 months	41	12-23 m	529	37
DTP3	Card	30.2	12-23 m	197	37
DTP3	Card or History	41	12-23 m	529	37
DTP3	History	11.9	12-23 m	332	37
MCV1	C or H <12 months	40.3	12-23 m	529	37
MCV1	Card	27.4	12-23 m	197	37
MCV1	Card or History	44.4	12-23 m	529	37
MCV1	History	17	12-23 m	332	37
Pol1	C or H <12 months	64	12-23 m	529	37
Pol1	Card	34.9	12-23 m	197	37
Pol1	Card or History	64.4	12-23 m	529	37
Pol1	History	29.5	12-23 m	332	37
Pol3	C or H <12 months	33	12-23 m	529	37
Pol3	Card	31.5	12-23 m	197	37
Pol3	Card or History	33.8	12-23 m	529	37
Pol3	History	2.3	12-23 m	332	37

2009 Guinée Équatoriale Enquête Démographique et de Santé 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	70.8	24-35 m	499	37
DTP1	C or H <12 months	53.5	24-35 m	499	37
DTP3	C or H <12 months	31	24-35 m	499	37
HepB1	C or H <12 months	53.5	24-35 m	499	37
HepB3	C or H <12 months	31	24-35 m	499	37
Hib1	C or H <12 months	53.5	24-35 m	499	37
Hib3	C or H <12 months	31	24-35 m	499	37
MCV1	C or H <12 months	41.3	24-35 m	499	37
Pol1	C or H <12 months	62.6	24-35 m	499	37

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
Pol3	C or H <12 months	25.4	24-35 m	499	37

2008 Guinée Équatoriale Enquête Démographique et de Santé 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	66.5	36-47 m	460	37
DTP1	C or H <12 months	55.2	36-47 m	460	37
DTP3	C or H <12 months	32.2	36-47 m	460	37
HepB1	C or H <12 months	55.2	36-47 m	460	37
HepB3	C or H <12 months	32.2	36-47 m	460	37
Hib1	C or H <12 months	55.2	36-47 m	460	37
Hib3	C or H <12 months	32.2	36-47 m	460	37
MCV1	C or H <12 months	37.1	36-47 m	460	37
Pol1	C or H <12 months	59	36-47 m	460	37
Pol3	C or H <12 months	23.3	36-47 m	460	37

2007 Guinée Équatoriale Enquête Démographique et de Santé 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	62.4	48-59 m	399	37
DTP1	C or H <12 months	47.8	48-59 m	399	37
DTP3	C or H <12 months	27.3	48-59 m	399	37
HepB1	C or H <12 months	47.8	48-59 m	399	37
HepB3	C or H <12 months	27.3	48-59 m	399	37
Hib1	C or H <12 months	47.8	48-59 m	399	37
Hib3	C or H <12 months	27.3	48-59 m	399	37
MCV1	C or H <12 months	30.6	48-59 m	399	37
Pol1	C or H <12 months	56	48-59 m	399	37
Pol3	C or H <12 months	20.9	48-59 m	399	37

1999 Equatorial Guinea MICS 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	73.2	12-23 m	457	42
DTP1	Card or History	65	12-23 m	457	42
DTP3	Card or History	32.9	12-23 m	457	42
MCV1	Card or History	50.8	12-23 m	457	42
Pol1	Card or History	75.8	12-23 m	457	42
Pol3	Card or History	38.7	12-23 m	457	42

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