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:

*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. Coverage estimates are based on WHO and UNICEF estimates of coverage for the dose of measles containing vaccine that corresponds to the first measles-rubella combination vaccine. Nationally reported coverage of RCV is not taken into consideration nor are the data represented in the accompanying graph and data table.

**HepB3**: 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.

Disclaimer: All reasonable precautions have been taken by the World Health Organization and United Nations Children’s Fund to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization or United Nations Children’s Fund be liable for damages arising from its use.
Equatorial Guinea - BCG

Description:

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 stock-outs. While noting these stated improvements in performance, WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage as there has not been a nationally representative household survey within the last 5 years. 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 percent 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 stock-out 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.

2010: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 71 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.
Description:

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 stock-outs. While noting these stated improvements in performance, WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage as there has not been a nationally representative household survey within the last 5 years. 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 month stock-out 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 administr-
Equatorial Guinea - DTP1

tive 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. Fluctua-
tion 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.

2010: Estimate based on coverage reported by national government supported by survey. Survey
evidence of 59 percent based on 1 survey(s). The use of pentavalent DTP-HepB-Hib com-
bination vaccine or trivalent DTP vaccine is unclear based on inconsistent information
received by WHO and UNICEF from the programme, the 2011 DHS report and review
of existing home-based vaccination records used at GoC=Assigned by working group.
Fluctuation in reported coverage across the time series suggests challenges in routine
monitoring system.
Equatorial Guinea - DTP3

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:

- **2021:** Reported data calibrated to 2016 levels. Reported data excluded. Programmes note 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, intensified activities resulted in an increased number of vaccinated children. Programmes note an increase in the number of health posts delivering vaccination and efforts have been made with UNICEF Supply Division to address challenges with vaccine stock-outs. While noting these stated improvements in performance, WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage as there has not been a nationally representative household survey within the last 5 years. 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 month stock-out 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-
tive 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 modified 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.

2010: Estimate of 54 percent assigned by working group. Estimate is based on survey. Equatorial Guinea Demographic and Health Survey 2011 card or history results of 41 percent modified for recall bias to 54 percent based on 1st dose card or history coverage of 59 percent, 1st dose card only coverage of 33 percent and 3rd dose card only coverage of 30 percent. The use of pentavalent DTP-HepB-Hib combination vaccine or trivalent DTP vaccine is unclear based on inconsistent information received by WHO and UNICEF from the programme, the 2011 DHS report and review of existing home-based vaccination records used at GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.
Equatorial Guinea - Pol3

**Description:**

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 stock-outs. While noting these stated improvements in performance, WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage as there has not been a nationally representative household survey within the last 5 years. 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 33 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

---

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.

---

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Official</td>
<td>39</td>
<td>53</td>
<td>40</td>
<td>40</td>
<td>52</td>
<td>23</td>
<td>10</td>
<td>20</td>
<td>13</td>
<td>54</td>
<td>65</td>
<td>67</td>
</tr>
<tr>
<td>Survey</td>
<td>34</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>60</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

---

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.

---

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Official</td>
<td>39</td>
<td>53</td>
<td>40</td>
<td>40</td>
<td>52</td>
<td>23</td>
<td>10</td>
<td>20</td>
<td>13</td>
<td>54</td>
<td>65</td>
<td>67</td>
</tr>
<tr>
<td>Survey</td>
<td>34</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>60</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
Equatorial Guinea - Pol3

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 modified 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.

2010: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 59 percent based on 1 survey(s). Equatorial Guinea Demographic and Health Survey 2011 card or history results of 34 percent modified for recall bias to 59 percent based on 1st dose card or history coverage of 64 percent, 1st dose card only coverage of 35 percent and 3rd dose card only coverage of 32 percent. Reported data excluded due to decline in reported coverage from 68 percent to 39 percent with increase to 53 percent. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.
Equatorial Guinea - IPV1

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).

2021: Estimate based on 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 stock-outs. While noting these stated improvements in performance, WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage as there has not been a nationally representative household survey within the last 5 years. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Estimate based on 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 based on 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 based on 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 based on 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

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 - IPV1

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

Description:

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 stock-outs. While noting these stated improvements in performance, WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage as there has not been a nationally representative household survey within the last 5 years. 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 percent 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.

The WHO and UNICEF estimates of national immunization coverage (vaccines) 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.
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.

2010: Estimate of 44 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.
**Equatorial Guinea - MCV2**

Description:

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

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 stock-outs. While noting these stated improvements in performance, WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage as there has not been a nationally representative household survey within the last 5 years. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

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 - RCV1

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.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Estimate GoC</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Official</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Administrative</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Survey</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
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

Description:

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 stock-outs. While noting these stated improvements in performance, WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage as there has not been a nationally representative household survey within the last 5 years. 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 percent 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 month stock-out 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 work-

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 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

ing 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 modified 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

Description:

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 stock-outs. While noting these stated improvements in performance, WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage as there has not been a nationally representative household survey within the last 5 years. 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 percent 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 month stock-out 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 percent in target population between 2014 and 2016. GoC=Assigned by work-
Equatorial Guinea - Hib3

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 modified 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.
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.
The WHO and UNICEF estimates of national immunization coverage (vaccn) 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.
The WHO and UNICEF estimates of national immunization coverage (wunec) 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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>2</td>
<td>53</td>
<td>53</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>Estimate GoC</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Official</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>2</td>
<td>39</td>
<td>46</td>
<td>44</td>
<td>53</td>
</tr>
<tr>
<td>Administrative</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Description:

2021: Estimate based on 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 stock-outs. While noting these stated improvements in performance, WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage as there has not been a nationally representative household survey within the last 5 years. GoC=Assigned by working group. Fluctuation in reported coverage across the time series suggests challenges in routine monitoring system.

2020: Estimate based on 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 based on 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 based on 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 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.

The WHO and UNICEF estimates of national immunization coverage (wunec) 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.
### 2014 Revue Externe 2016 du PEV - Enquete de Couverture Vaccinale

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

### 2010 Guinée Équatoriale Enquête Démographique et de Santé 2011

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Confirmation method</th>
<th>Coverage</th>
<th>Age cohort</th>
<th>Sample</th>
<th>Cards seen</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>C or H &lt;12 months</td>
<td>70.8</td>
<td>12-23 m</td>
<td>529</td>
<td>37</td>
</tr>
<tr>
<td>BCG</td>
<td>Card</td>
<td>36.8</td>
<td>12-23 m</td>
<td>197</td>
<td>37</td>
</tr>
<tr>
<td>BCG</td>
<td>Card or History</td>
<td>70.8</td>
<td>12-23 m</td>
<td>529</td>
<td>37</td>
</tr>
<tr>
<td>BCG</td>
<td>History</td>
<td>34.2</td>
<td>12-23 m</td>
<td>332</td>
<td>37</td>
</tr>
<tr>
<td>DTP1</td>
<td>C or H &lt;12 months</td>
<td>58.6</td>
<td>12-23 m</td>
<td>529</td>
<td>37</td>
</tr>
<tr>
<td>DTP1</td>
<td>Card</td>
<td>33</td>
<td>12-23 m</td>
<td>197</td>
<td>37</td>
</tr>
<tr>
<td>DTP1</td>
<td>Card or History</td>
<td>58.9</td>
<td>12-23 m</td>
<td>529</td>
<td>37</td>
</tr>
<tr>
<td>DTP1</td>
<td>History</td>
<td>26</td>
<td>12-23 m</td>
<td>332</td>
<td>37</td>
</tr>
<tr>
<td>DTP3</td>
<td>C or H &lt;12 months</td>
<td>41</td>
<td>12-23 m</td>
<td>529</td>
<td>37</td>
</tr>
<tr>
<td>DTP3</td>
<td>Card</td>
<td>30.2</td>
<td>12-23 m</td>
<td>197</td>
<td>37</td>
</tr>
<tr>
<td>DTP3</td>
<td>Card or History</td>
<td>41</td>
<td>12-23 m</td>
<td>529</td>
<td>37</td>
</tr>
</tbody>
</table>

### 2009 Guinée Équatoriale Enquête Démographique et de Santé 2011

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Confirmation method</th>
<th>Coverage</th>
<th>Age cohort</th>
<th>Sample</th>
<th>Cards seen</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>C or H &lt;12 months</td>
<td>70.8</td>
<td>24-35 m</td>
<td>499</td>
<td>37</td>
</tr>
<tr>
<td>DTP1</td>
<td>C or H &lt;12 months</td>
<td>53.5</td>
<td>24-35 m</td>
<td>499</td>
<td>37</td>
</tr>
<tr>
<td>DTP3</td>
<td>C or H &lt;12 months</td>
<td>31</td>
<td>24-35 m</td>
<td>499</td>
<td>37</td>
</tr>
<tr>
<td>HepB1</td>
<td>C or H &lt;12 months</td>
<td>53.5</td>
<td>24-35 m</td>
<td>499</td>
<td>37</td>
</tr>
<tr>
<td>HepB3</td>
<td>C or H &lt;12 months</td>
<td>31</td>
<td>24-35 m</td>
<td>499</td>
<td>37</td>
</tr>
<tr>
<td>Hib1</td>
<td>C or H &lt;12 months</td>
<td>53.5</td>
<td>24-35 m</td>
<td>499</td>
<td>37</td>
</tr>
<tr>
<td>Hib3</td>
<td>C or H &lt;12 months</td>
<td>31</td>
<td>24-35 m</td>
<td>499</td>
<td>37</td>
</tr>
<tr>
<td>MCV1</td>
<td>C or H &lt;12 months</td>
<td>41.3</td>
<td>24-35 m</td>
<td>499</td>
<td>37</td>
</tr>
<tr>
<td>Pol1</td>
<td>C or H &lt;12 months</td>
<td>62.6</td>
<td>24-35 m</td>
<td>499</td>
<td>37</td>
</tr>
<tr>
<td>Pol3</td>
<td>C or H &lt;12 months</td>
<td>25.4</td>
<td>24-35 m</td>
<td>499</td>
<td>37</td>
</tr>
</tbody>
</table>

### 2008 Guinée Équatoriale Enquête Démographique et de Santé 2011

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Confirmation method</th>
<th>Coverage</th>
<th>Age cohort</th>
<th>Sample</th>
<th>Cards seen</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>C or H &lt;12 months</td>
<td>66.5</td>
<td>36-47 m</td>
<td>460</td>
<td>37</td>
</tr>
<tr>
<td>DTP1</td>
<td>C or H &lt;12 months</td>
<td>55.2</td>
<td>36-47 m</td>
<td>460</td>
<td>37</td>
</tr>
<tr>
<td>DTP3</td>
<td>C or H &lt;12 months</td>
<td>32.2</td>
<td>36-47 m</td>
<td>460</td>
<td>37</td>
</tr>
<tr>
<td>HepB1</td>
<td>C or H &lt;12 months</td>
<td>55.2</td>
<td>36-47 m</td>
<td>460</td>
<td>37</td>
</tr>
<tr>
<td>HepB3</td>
<td>C or H &lt;12 months</td>
<td>32.2</td>
<td>36-47 m</td>
<td>460</td>
<td>37</td>
</tr>
<tr>
<td>Hib1</td>
<td>C or H &lt;12 months</td>
<td>55.2</td>
<td>36-47 m</td>
<td>460</td>
<td>37</td>
</tr>
<tr>
<td>Hib3</td>
<td>C or H &lt;12 months</td>
<td>32.2</td>
<td>36-47 m</td>
<td>460</td>
<td>37</td>
</tr>
</tbody>
</table>
### Equatorial Guinea - survey details

#### 2007 Guinée Équatoriale Enquête Démographique et de Santé 2011

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Confirmation method</th>
<th>Coverage</th>
<th>Age cohort</th>
<th>Sample</th>
<th>Cards seen</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCV1</td>
<td>C or H &lt;12 months</td>
<td>37.1</td>
<td>36-47 m</td>
<td>460</td>
<td>37</td>
</tr>
<tr>
<td>Pol1</td>
<td>C or H &lt;12 months</td>
<td>59</td>
<td>36-47 m</td>
<td>460</td>
<td>37</td>
</tr>
<tr>
<td>Pol3</td>
<td>C or H &lt;12 months</td>
<td>23.3</td>
<td>36-47 m</td>
<td>460</td>
<td>37</td>
</tr>
</tbody>
</table>

#### 1999 Equatorial Guinea MICS 2000

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Confirmation method</th>
<th>Coverage</th>
<th>Age cohort</th>
<th>Sample</th>
<th>Cards seen</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCV1</td>
<td>C or H &lt;12 months</td>
<td>30.6</td>
<td>48-59 m</td>
<td>399</td>
<td>37</td>
</tr>
<tr>
<td>Pol1</td>
<td>C or H &lt;12 months</td>
<td>56</td>
<td>48-59 m</td>
<td>399</td>
<td>37</td>
</tr>
<tr>
<td>Pol3</td>
<td>C or H &lt;12 months</td>
<td>20.9</td>
<td>48-59 m</td>
<td>399</td>
<td>37</td>
</tr>
</tbody>
</table>

Further information and estimates for previous years are available at:
- [https://immunizationdata.who.int/listing.html](https://immunizationdata.who.int/listing.html)