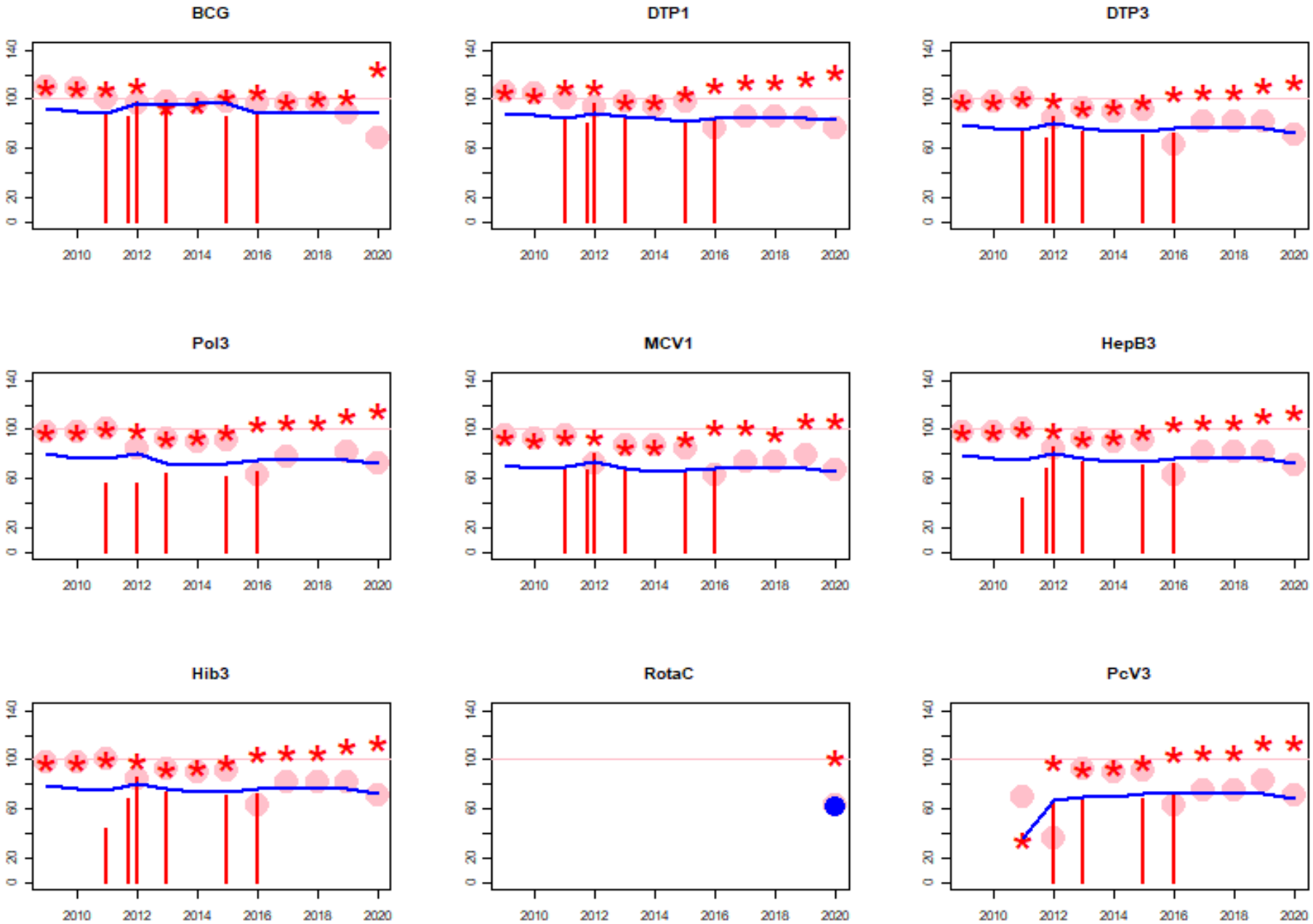

BCG
DTP1
DTP3
Pol3
MCV1
HepB3
Hib3
RotaC
PcV3
0
20
60
100
140
2010
2012
2014
2016
2018
2020

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.

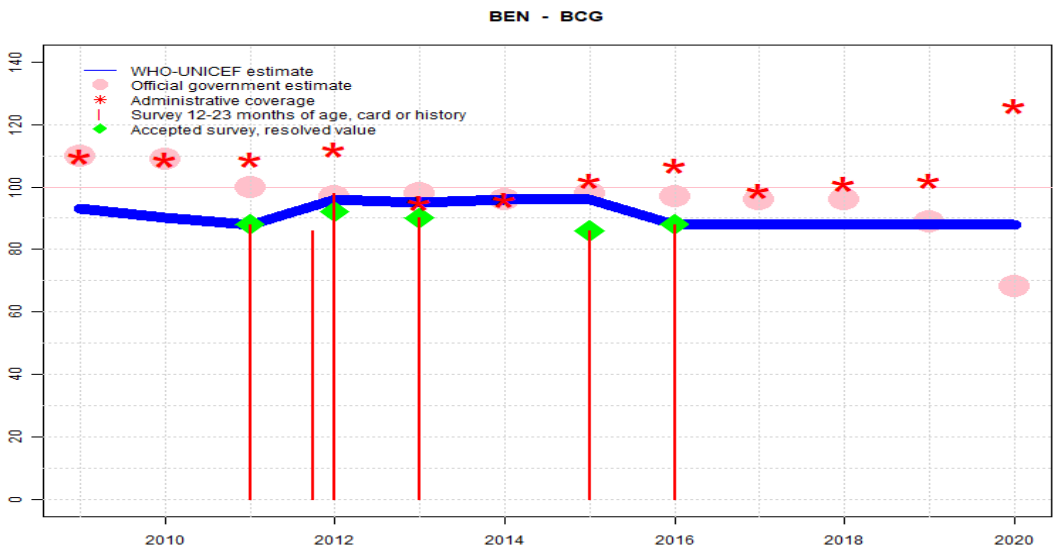
Hib3: percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.

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.

Benin - BCG



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	93	90	88	96	95	96	96	88	88	88	88	88
Estimate GoC	•	•	•	•	•••	•••	•••	•	•	•	•	•
Official	110	109	100	97	98	96	98	97	96	96	89	68
Administrative	110	109	109	112	95	96	102	107	99	101	102	126
Survey	NA	NA	88	*	90	NA	86	88	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: 2020 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:

2020: Estimate exceptionally based on the 2019 WUENIC estimate. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years.Reported data excluded due to sudden change in coverage from 89 level to 68 percent. Programme reports a one month vaccine stock-out at national level. Estimate challenged by: D-R-

2019: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate of 88 percent changed from previous revision value of 89 percent. Estimate challenged by: D-R-

2018: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Estimate of 88 percent changed from previous revision value of 89 percent. Estimate challenged by: D-R-

2017: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Reported target population decreased 8 percentage between 2016 and 2017. Programme reported three month vaccine stock-out. Estimate of 88 percent changed from previous revision value of 89 percent. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2016: Estimate of 88 percent assigned by working group. Estimate based on survey results. Reported data excluded because 107 percent greater than 100 percent. Reported official government estimate is based on results from supervisory reports and results from an external review in 2014. However, the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2015: Estimate based on extrapolation from data reported by national government supported by survey. Survey evidence of 86 percent based on 1 survey(s). Reported data excluded because 102 percent greater than 100 percent. Reported official government estimate is based on results from supervisory reports and results from an external review, however the methodology used to adjust from the administrative coverage levels is not described. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate of 96 percent changed from previous revision value of 86 percent. GoC=R+ S+ D+

2014: Estimate based on reported administrative data. Reported official government estimate is based on DQS results from ten zone sanitaires and supervisory reports, however the methodology used to adjust from the administrative coverage levels is not described. Estimate of 96 percent changed from previous revision value of 91 percent. GoC=R+ S+ D+

2013: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 90 percent based on 1 survey(s). Reported official government estimate based on the results of an external EPI review conducted in 10 communes. GoC=R+ S+ D+

2012: Estimate based on interpolation between data reported by national government supported

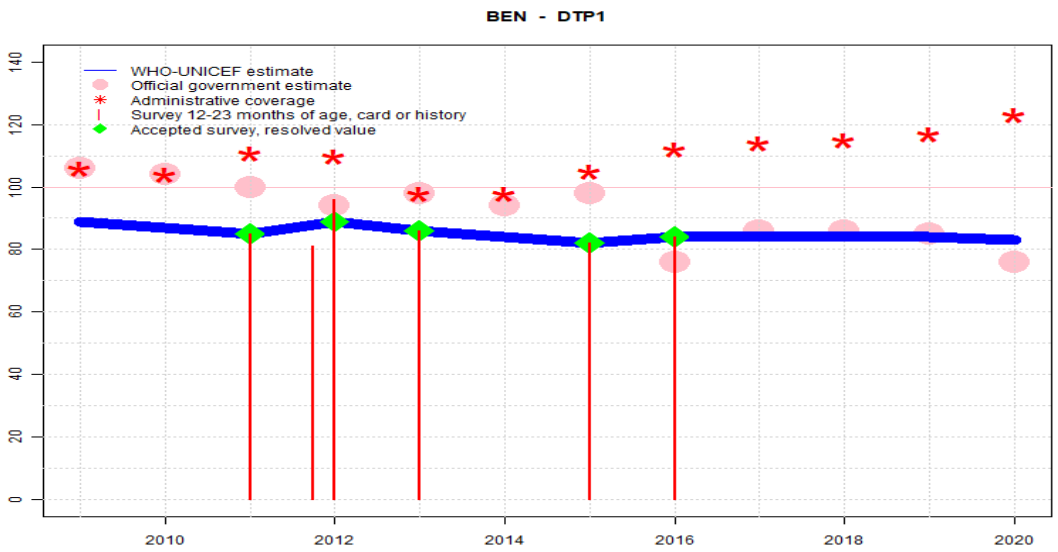
by survey. Survey evidence of 92 percent based on 2 survey(s). Reported data excluded because 112 percent greater than 100 percent. Official government estimate based on survey results. Estimate challenged by: D-

2011: Estimate of 88 percent assigned by working group. Estimate is based on survey result. Reported data excluded because 109 percent greater than 100 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

2010: Reported data calibrated to 2007 and 2011 levels. Reported data excluded because 109 percent greater than 100 percent. Estimate challenged by: D-R-

2009: Reported data calibrated to 2007 and 2011 levels. Reported data excluded because 110 percent greater than 100 percent. Estimate challenged by: D-R-

Benin - DTP1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	89	87	85	89	86	84	82	84	84	84	84	83
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	106	104	100	94	98	94	98	76	86	86	85	76
Administrative	106	104	111	110	98	98	105	112	114	115	117	123
Survey	NA	NA	85	*	86	NA	82	84	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: 2020 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:

2020: Estimate exceptionally based on the difference between administered doses 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years. Programme reports a one month vaccine stock-out at national level. Estimate challenged by: D-R-

2019: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Programme reports one month vaccine stock-out at national level. Estimate challenged by: D-R-

2018: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Programme reports one month vaccine stock-out at national level. Estimate challenged by: D-R-

2017: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Reported target population decreased 8 percentage between 2016 and 2017. Estimate challenged by: D-R-

2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 84 percent based on 1 survey(s). Reported data excluded because 112 percent greater than 100 percent. Reported official government estimate is based on results from supervisory reports and results from an external review in 2014. However, the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 82 percent based on 1 survey(s). Reported data excluded because 105 percent greater than 100 percent. Reported official government estimate is based on results from supervisory reports and results from an external review, however the methodology used to adjust from the administrative coverage levels is not described. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 and 2015 levels. Reported official government estimate is based on DQS results from ten zone sanitaires and supervisory reports, however the methodology used to adjust from the administrative coverage levels is not described. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 86 percent based on 1 survey(s). Reported official government estimate based on the results of an external EPI review conducted in 10 communes. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

2012: Estimate of 89 percent assigned by working group. Estimate based on average between two surveys. Reported data excluded because 110 percent greater than 100 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

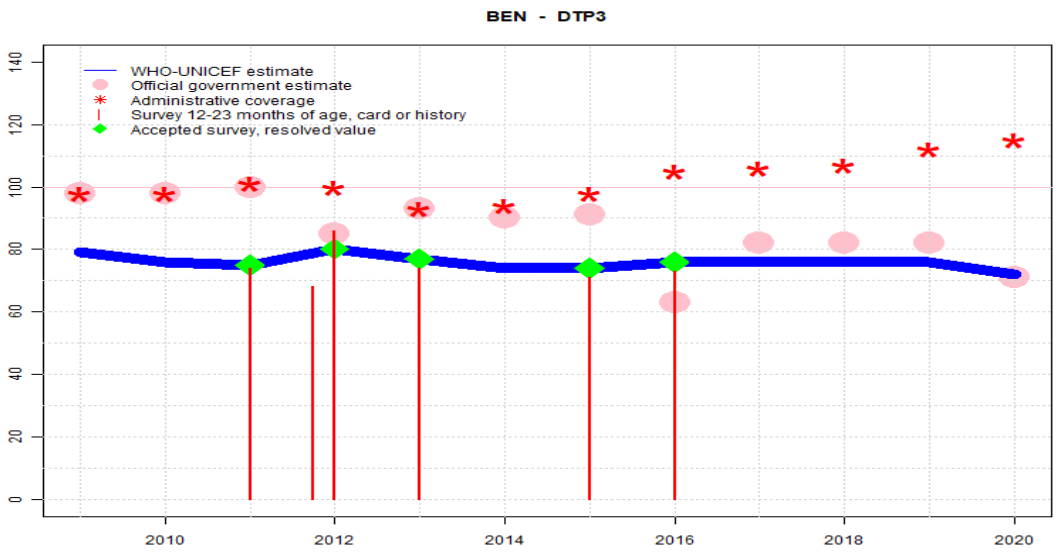
2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 85 percent based on 1 survey(s). Reported data excluded because 111

percent greater than 100 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

2010: Reported data calibrated to 2007 and 2011 levels. Reported data excluded because 104 percent greater than 100 percent. Estimate challenged by: D-R-

2009: Reported data calibrated to 2007 and 2011 levels. Reported data excluded because 106 percent greater than 100 percent. Estimate challenged by: D-R-

Benin - DTP3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	79	76	75	80	77	74	74	76	76	76	76	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	98	98	100	85	93	90	91	63	82	82	82	71
Administrative	98	98	101	100	93	94	98	105	106	107	112	115
Survey	NA	NA	74	*	74	NA	71	73	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: 2020 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:

2020: Estimate exceptionally based on the difference between administered doses 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years.Reported data excluded due to sudden change in coverage from 82 level to 71 percent. Programme reports a one month vaccine stock-out at national level. Estimate challenged by: D-R-

2019: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Programme reports one month vaccine stock-out at national level. Estimate challenged by: D-R-

2018: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Programme reports one month vaccine stock-out at national level. Estimate challenged by: D-R-

2017: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Reported target population decreased 8 percentage between 2016 and 2017. Estimate challenged by: D-R-

2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 76 percent based on 1 survey(s). Benin Demographic and Health Survey 2017-2018 card or history results of 73 percent modifed for recall bias to 76 percent based on 1st dose card or history coverage of 84 percent, 1st dose card only coverage of 66 percent and 3rd dose card only coverage of 60 percent. Reported data excluded because 105 percent greater than 100 percent. Reported official government estimate is based on results from supervisory reports and results from an external review in 2014. However, the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 1 survey(s). Benin Demographic and Health Survey 2017-2018 card or history results of 71 percent modifed for recall bias to 74 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 60 percent and 3rd dose card only coverage of 54 percent. Reported official government estimate is based on results from supervisory reports and results from an external review, however the methodology used to adjust from the administrative coverage levels is not described. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 and 2015 levels. Reported official government estimate is based on DQS results from ten zone sanitaires and supervisory reports, however the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). Benin Multiple Indicator Cluster Survey 2014 card or history results of 74 percent modifed for recall bias to 77 percent based on

1st dose card or history coverage of 86 percent, 1st dose card only coverage of 68 percent and 3rd dose card only coverage of 61 percent. Reported official government estimate based on the results of an external EPI review conducted in 10 communes. Estimate challenged by: D-R-

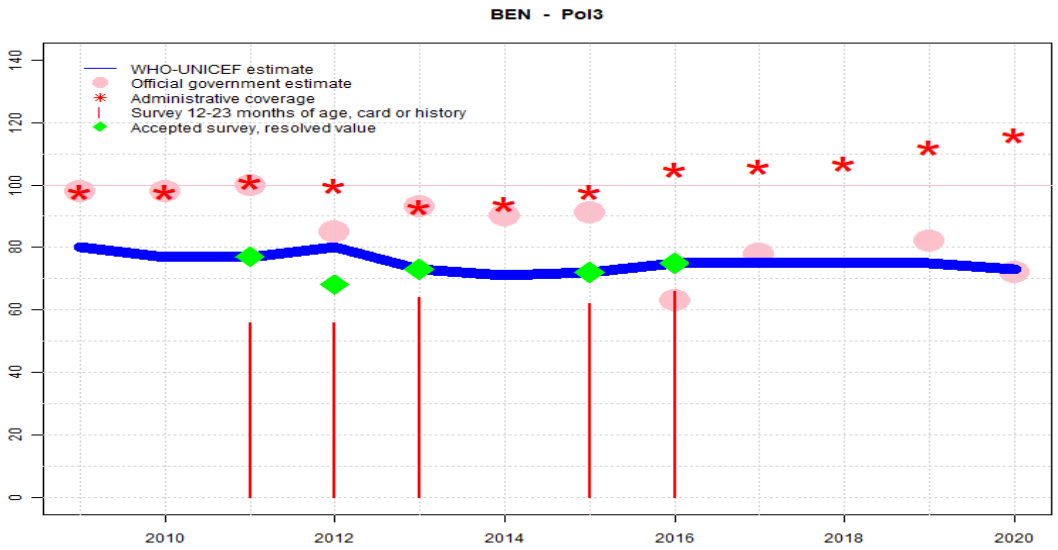
2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 2 survey(s). External Review of the Immunization System in Benin in 2014 card or history results of 86 percent modifed for recall bias to 87 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 82 percent and 3rd dose card only coverage of 74 percent. Benin Multiple Indicator Cluster Survey 2014 card or history results of 68 percent modifed for recall bias to 73 percent based on 1st dose card or history coverage of 81 percent, 1st dose card only coverage of 53 percent and 3rd dose card only coverage of 48 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 75 percent based on 1 survey(s). Benin Demographic and Health Survey EDSB IV 2011-2012 card or history results of 74 percent modifed for recall bias to 75 percent based on 1st dose card or history coverage of 85 percent, 1st dose card only coverage of 52 percent and 3rd dose card only coverage of 46 percent. Reported data excluded because 101 percent greater than 100 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

2010: Reported data calibrated to 2007 and 2011 levels. Estimate challenged by: D-R-

2009: Reported data calibrated to 2007 and 2011 levels. Estimate challenged by: D-R-

Benin - Pol3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	80	77	77	80	73	71	72	75	75	75	75	73
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	98	98	100	85	93	90	91	63	78	NA	82	72
Administrative	98	98	101	100	93	94	98	105	106	107	112	116
Survey	NA	NA	56	56	64	NA	62	66	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: 2020 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:

2020: Estimate exceptionally based on the difference between administered doses 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years. Estimate challenged by: D-R-

2019: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

2018: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value.Reported data excluded because 107 percent greater than 100 percent. Reported data excluded due to an increase from 78 percent to 107 percent with decrease 82 percent. Estimate challenged by: D-R-

2017: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value.Reported data excluded due to decline in reported coverage from 105 percent to 78 percent with increase to 107 percent. Reported target population decreased 8 percentage between 2016 and 2017. Estimate challenged by: D-R-

2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 75 percent based on 1 survey(s). Benin Demographic and Health Survey 2017-2018 card or history results of 66 percent modifed for recall bias to 75 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 66 percent and 3rd dose card only coverage of 60 percent. Reported data excluded because 105 percent greater than 100 percent. Reported official government estimate is based on results from supervisory reports and results from an external review in 2014. However, the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 72 percent based on 1 survey(s). Benin Demographic and Health Survey 2017-2018 card or history results of 62 percent modifed for recall bias to 72 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 60 percent and 3rd dose card only coverage of 54 percent. Reported official government estimate is based on results from supervisory reports and results from an external review, however the methodology used to adjust from the administrative coverage levels is not described. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 and 2015 levels. Reported official government estimate is based on DQS results from ten zone sanitaires and supervisory reports, however the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Benin Multiple Indicator Cluster Survey

2014 card or history results of 64 percent modifed for recall bias to 73 percent based on 1st dose card or history coverage of 84 percent, 1st dose card only coverage of 67 percent and 3rd dose card only coverage of 58 percent. Reported official government estimate based on the results of an external EPI review conducted in 10 communes. Estimate challenged by: D-R-

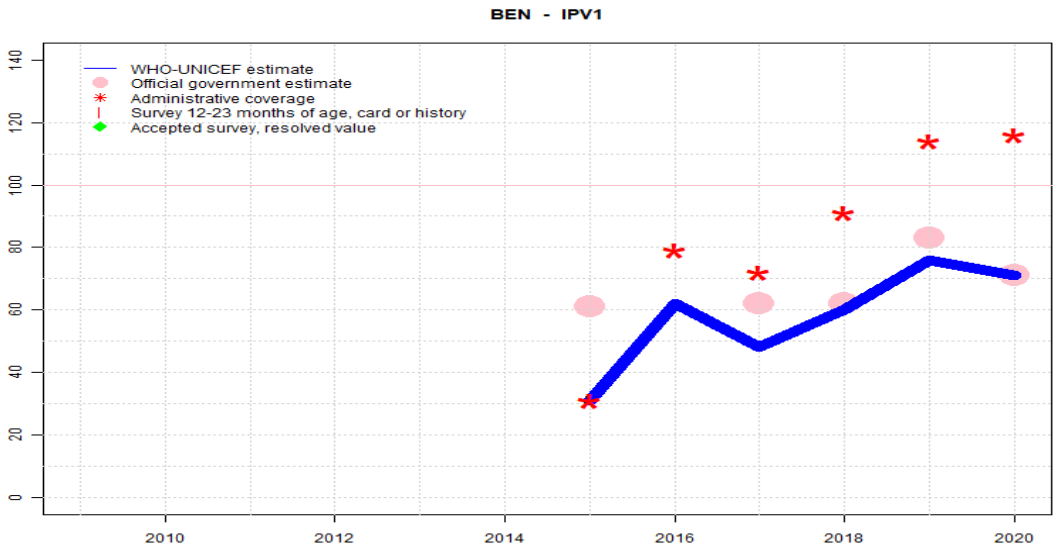
2012: Estimate of 80 percent assigned by working group. Estimate is based on DTP3. Benin Multiple Indicator Cluster Survey 2014 card or history results of 56 percent modifed for recall bias to 68 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 53 percent and 3rd dose card only coverage of 45 percent. Official government estimate based on survey results. Estimate challenged by: D-R-S-

2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). Benin Demographic and Health Survey EDSB IV 2011-2012 card or history results of 56 percent modifed for recall bias to 77 percent based on 1st dose card or history coverage of 85 percent, 1st dose card only coverage of 50 percent and 3rd dose card only coverage of 45 percent. Reported data excluded because 101 percent greater than 100 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

2010: Reported data calibrated to 2007 and 2011 levels. Estimate challenged by: D-R-

2009: Reported data calibrated to 2007 and 2011 levels. Estimate challenged by: D-R-

Benin - IPV1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	31	62	48	60	76	71
Estimate GoC	NA	NA	NA	NA	NA	NA	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	61	NA	62	62	83	71
Administrative	NA	NA	NA	NA	NA	NA	31	79	72	91	114	116
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: 2020 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).

2020: Estimate exceptionally based on the difference between administered doses 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years.Reported data excluded due to sudden change in coverage from 83 level to 71 percent. Programme reports a one month vaccine stock-out at national level. Estimate challenged by: D-R-

2019: Estimate is based on estimated DTP3 level. Reported data excluded. Reported government official estimate based on prior year WUENIC value.Reported data excluded due to an increase from 62 percent to 83 percent with decrease 71 percent. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

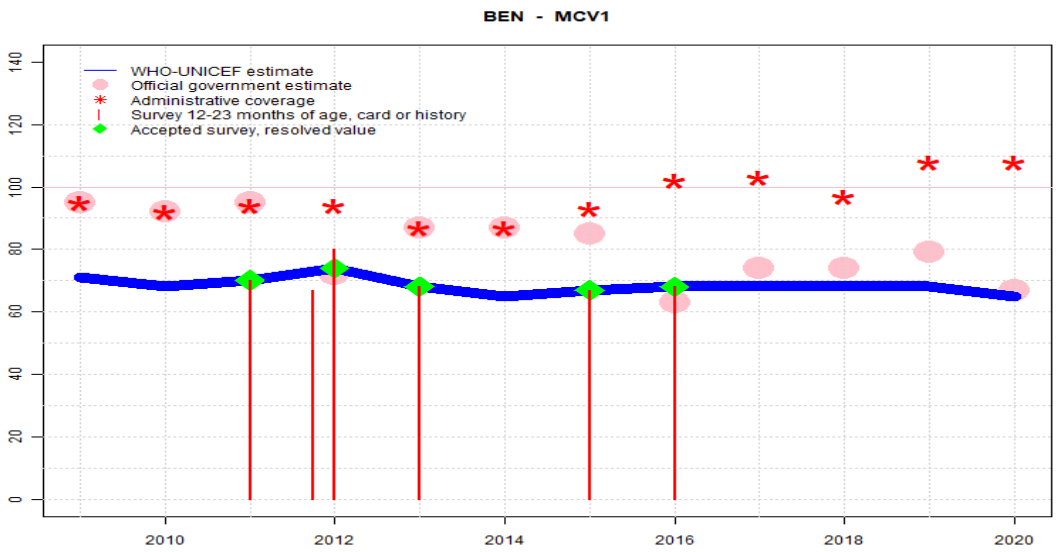
2018: Estimate based on estimated DTP3 coverage. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Estimate challenged by: D-R-

2017: Estimate based on difference between reported DTP3 and IPV coverage. Decline in coverage is unexplained. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Reported target population decreased 8 percentage between 2016 and 2017. Estimate challenged by: D-R-

2016: Estimate based on the relationship between reported DTP3 coverage and number of children vaccinated. Reported data excluded due to an increase from 31 percent to 79 percent with decrease 62 percent. Programme reports a 3-month vaccine stock-out. Reported official government estimate is based on results from supervisory reports and results from an external review in 2014. However, the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2015: Estimate based on reported administrative estimate. Reported official government estimate is based on results from supervisory reports and results from an external review, however the methodology used to adjust from the administrative coverage levels is not described. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. GoC=Assigned by working group. GoC assigned to maintain consistency across vaccines.

Benin - MCV1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	71	68	70	74	68	65	67	68	68	68	68	65
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	95	92	95	72	87	87	85	63	74	74	79	67
Administrative	95	92	94	94	87	87	93	102	103	97	108	108
Survey	NA	NA	70	*	68	NA	67	68	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: 2020 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:

2020: Estimate exceptionally based on the difference between administered doses 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years.Reported data excluded due to sudden change in coverage from 79 level to 67 percent. Estimate challenged by: D-R-

2019: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate of 68 percent changed from previous revision value of 71 percent. Estimate challenged by: D-R-

2018: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Estimate of 68 percent changed from previous revision value of 71 percent. Estimate challenged by: D-R-

2017: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Reported target population decreased 8 percentage between 2016 and 2017. Estimate of 68 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-

2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). Reported data excluded because 102 percent greater than 100 percent. Reported official government estimate is based on results from supervisory reports and results from an external review in 2014. However, the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Reported official government estimate is based on results from supervisory reports and results from an external review, however the methodology used to adjust from the administrative coverage levels is not described. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 and 2015 levels. Reported official government estimate is based on DQS results from ten zone sanitaires and supervisory reports, however the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 68 percent based on 1 survey(s). Reported official government estimate based on the results of an external EPI review conducted in 10 communes. Estimate challenged by: D-R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 2 survey(s). Official government estimate based on survey results. Estimate challenged by: D-R-

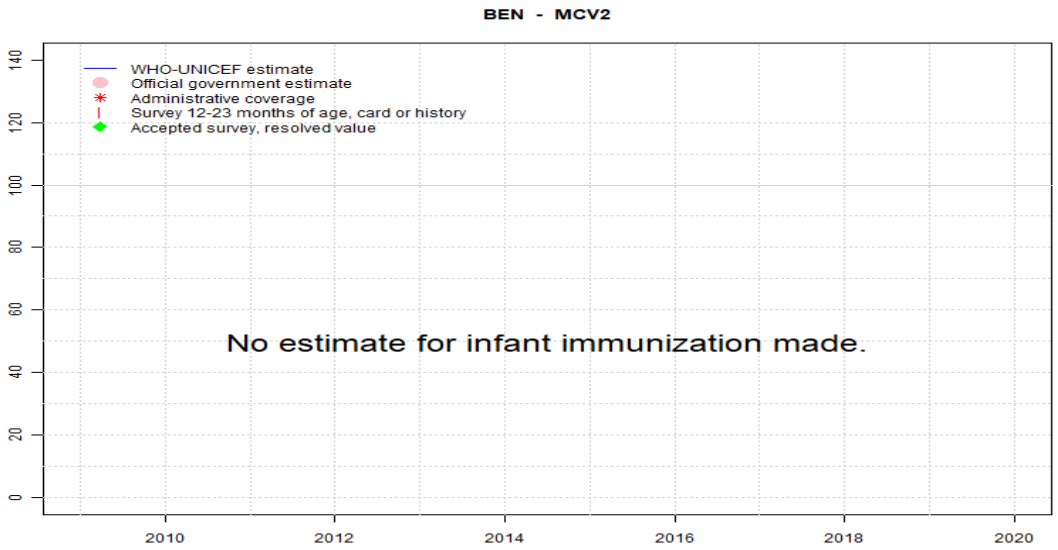
2011: Survey evidence does not support reported data. Estimate based on survey results. Sur-

vey evidence of 70 percent based on 1 survey(s). Official government estimate based on survey results. Estimate challenged by: D-R-

2010: Reported data calibrated to 2007 and 2011 levels. Estimate challenged by: D-R-

2009: Reported data calibrated to 2007 and 2011 levels. Estimate challenged by: D-R-

Benin - MCV2



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
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.

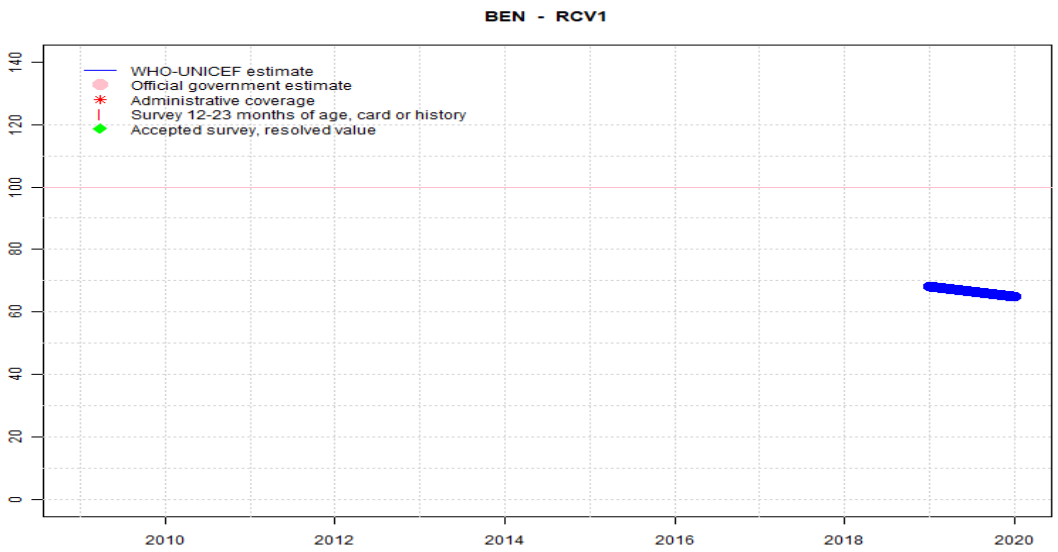
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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.

Benin - RCV1



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68	65
Estimate GoC	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: 2020 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

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

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

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

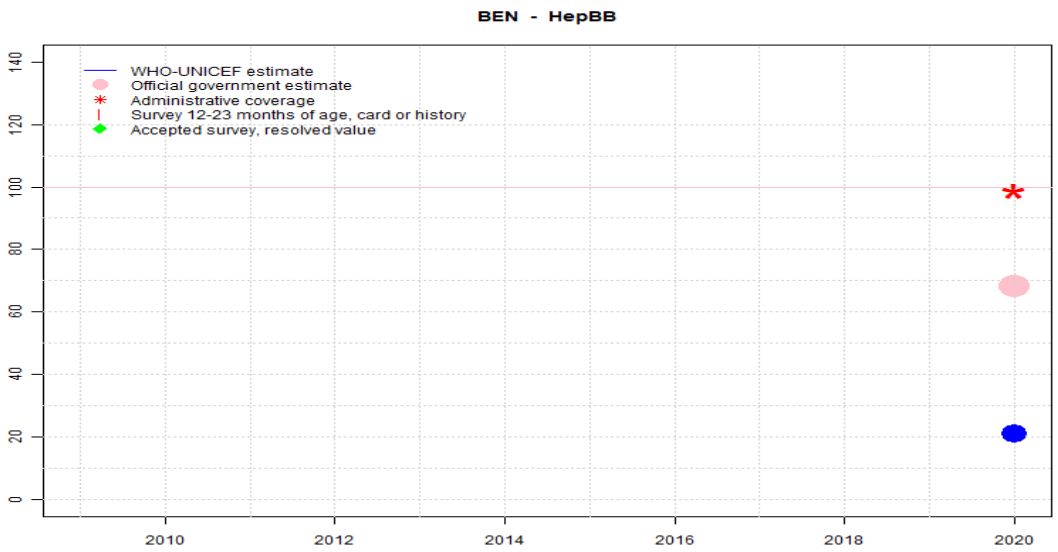
Description:

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

2020: Estimate based on MCV1 estimated coverage. Estimate challenged by: D-R-

2019: Estimate based on estimated MCV1. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Rubella containing vaccine introduced in 2019 as part of measles-rubella vaccine. Estimate of 68 percent changed from previous revision value of 71 percent. Estimate challenged by: D-R-

Benin - HepBB



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	99
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: 2020 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.

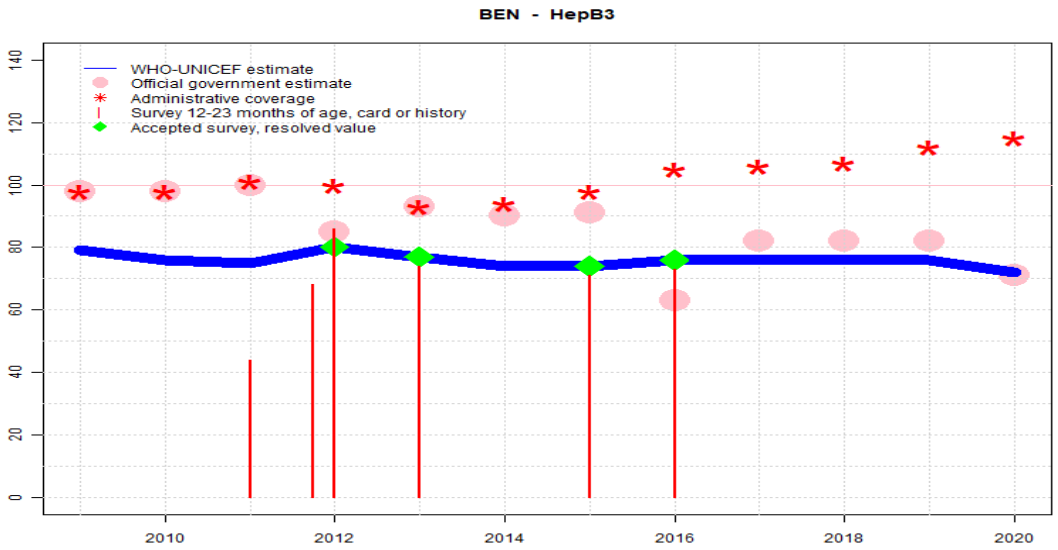
● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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:

2020: Hep B birth dose introduced in August 2020. Estimate is exceptionally based on re-calculated coverage using 2019 BCG denominator. Reported coverage of 99 percent is among twenty-five percent of the national denominator of births that were reported for 2020. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years. Estimate challenged by: R-

Benin - HepB3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	79	76	75	80	77	74	74	76	76	76	76	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	98	98	100	85	93	90	91	63	82	82	82	71
Administrative	98	98	101	100	93	94	98	105	106	107	112	115
Survey	NA	NA	44	*	74	NA	71	73	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: 2020 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:

2020: Estimate exceptionally based on the difference between administered doses 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years.Reported data excluded due to sudden change in coverage from 82 level to 71 percent. Programme reports a one month vaccine stock-out at national level. Estimate challenged by: D-R-

2019: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Programme reports one month vaccine stock-out at national level. Estimate challenged by: D-R-

2018: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Programme reports one month vaccine stock-out at national level. Estimate challenged by: D-R-

2017: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Reported target population decreased 8 percentage between 2016 and 2017. Estimate challenged by: D-R-

2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 76 percent based on 1 survey(s). Benin Demographic and Health Survey 2017-2018 card or history results of 73 percent modifed for recall bias to 76 percent based on 1st dose card or history coverage of 84 percent, 1st dose card only coverage of 66 percent and 3rd dose card only coverage of 60 percent. Reported data excluded because 105 percent greater than 100 percent. Reported official government estimate is based on results from supervisory reports and results from an external review in 2014. However, the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 1 survey(s). Benin Demographic and Health Survey 2017-2018 card or history results of 71 percent modifed for recall bias to 74 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 60 percent and 3rd dose card only coverage of 54 percent. Reported official government estimate is based on results from supervisory reports and results from an external review, however the methodology used to adjust from the administrative coverage levels is not described. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 and 2015 levels. Reported official government estimate is based on DQS results from ten zone sanitaires and supervisory reports, however the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). Benin Multiple Indicator Cluster Survey 2014 card or history results of 74 percent modifed for recall bias to 77 percent based on

1st dose card or history coverage of 86 percent, 1st dose card only coverage of 68 percent and 3rd dose card only coverage of 61 percent. Reported official government estimate based on the results of an external EPI review conducted in 10 communes. Estimate challenged by: D-R-

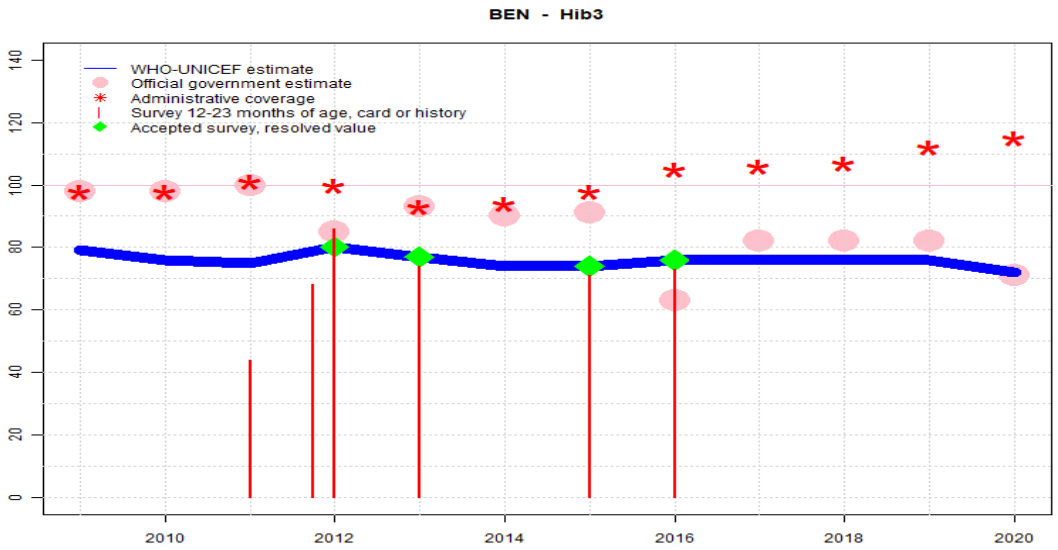
2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 2 survey(s). External Review of the Immunization System in Benin in 2014 card or history results of 86 percent modifed for recall bias to 87 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 82 percent and 3rd dose card only coverage of 74 percent. Benin Multiple Indicator Cluster Survey 2014 card or history results of 68 percent modifed for recall bias to 73 percent based on 1st dose card or history coverage of 81 percent, 1st dose card only coverage of 53 percent and 3rd dose card only coverage of 48 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

2011: Estimate of 75 percent assigned by working group. Estimate follows DTP3 coverage level based on survey. Benin Demographic and Health Survey EDSB IV 2011-2012 results ignored by working group. Survey results for HepB3 are inconsistent with DTP3 results.Reported data excluded because 101 percent greater than 100 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

2010: Reported data calibrated to 2007 and 2011 levels. Estimate challenged by: D-R-

2009: Reported data calibrated to 2007 and 2011 levels. Estimate challenged by: D-R-

Benin - Hib3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	79	76	75	80	77	74	74	76	76	76	76	72
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	98	98	100	85	93	90	91	63	82	82	82	71
Administrative	98	98	101	100	93	94	98	105	106	107	112	115
Survey	NA	NA	44	*	74	NA	71	73	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: 2020 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:

2020: Estimate exceptionally based on the difference between administered doses 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years.Reported data excluded due to sudden change in coverage from 82 level to 71 percent. Programme reports a one month vaccine stock-out at national level. Estimate challenged by: D-R-

2019: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Programme reports one month vaccine stock-out at national level. Estimate challenged by: D-R-

2018: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Programme reports one month vaccine stock-out at national level. Estimate challenged by: D-R-

2017: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Reported target population decreased 8 percentage between 2016 and 2017. Estimate challenged by: D-R-

2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 76 percent based on 1 survey(s). Benin Demographic and Health Survey 2017-2018 card or history results of 73 percent modifed for recall bias to 76 percent based on 1st dose card or history coverage of 84 percent, 1st dose card only coverage of 66 percent and 3rd dose card only coverage of 60 percent. Reported data excluded because 105 percent greater than 100 percent. Reported official government estimate is based on results from supervisory reports and results from an external review in 2014. However, the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 1 survey(s). Benin Demographic and Health Survey 2017-2018 card or history results of 71 percent modifed for recall bias to 74 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 60 percent and 3rd dose card only coverage of 54 percent. Reported official government estimate is based on results from supervisory reports and results from an external review, however the methodology used to adjust from the administrative coverage levels is not described. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 and 2015 levels. Reported official government estimate is based on DQS results from ten zone sanitaires and supervisory reports, however the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 77 percent based on 1 survey(s). Benin Multiple Indicator Cluster Survey 2014 card or history results of 74 percent modifed for recall bias to 77 percent based on

1st dose card or history coverage of 86 percent, 1st dose card only coverage of 68 percent and 3rd dose card only coverage of 61 percent. Reported official government estimate based on the results of an external EPI review conducted in 10 communes. Estimate challenged by: D-R-

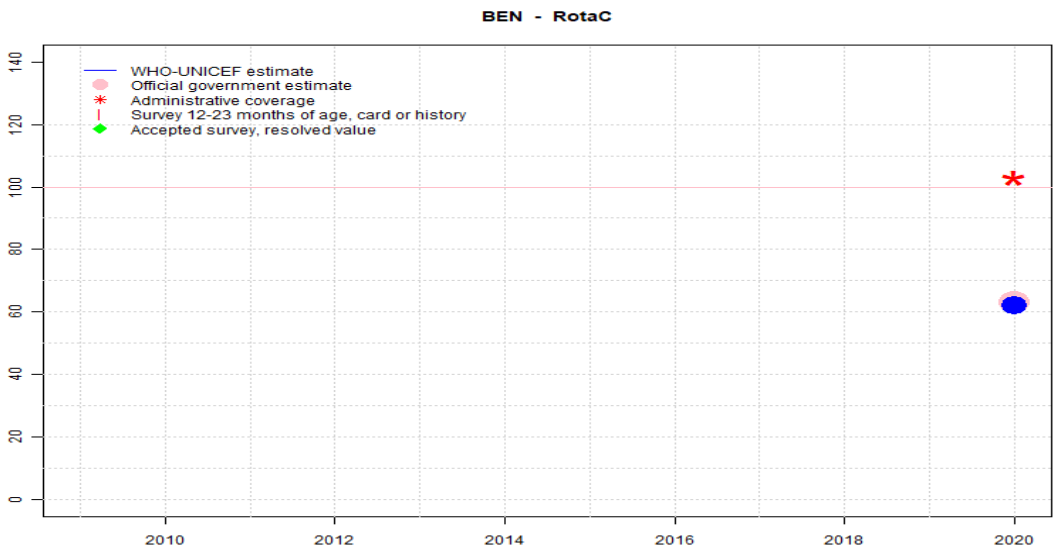
2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 2 survey(s). External Review of the Immunization System in Benin in 2014 card or history results of 86 percent modifed for recall bias to 87 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 82 percent and 3rd dose card only coverage of 74 percent. Benin Multiple Indicator Cluster Survey 2014 card or history results of 68 percent modifed for recall bias to 73 percent based on 1st dose card or history coverage of 81 percent, 1st dose card only coverage of 53 percent and 3rd dose card only coverage of 48 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

2011: Estimate of 75 percent assigned by working group. Estimate follows DTP3 coverage level based on survey. Benin Demographic and Health Survey EDSB IV 2011-2012 results ignored by working group. Survey results for Hib3 are inconsistent with DTP3 results.Reported data excluded because 101 percent greater than 100 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

2010: Reported data calibrated to 2007 and 2011 levels. Estimate challenged by: D-R-

2009: Reported data calibrated to 2007 and 2011 levels. Estimate challenged by: D-R-

Benin - RotaC



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	63
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	103
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: 2020 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.

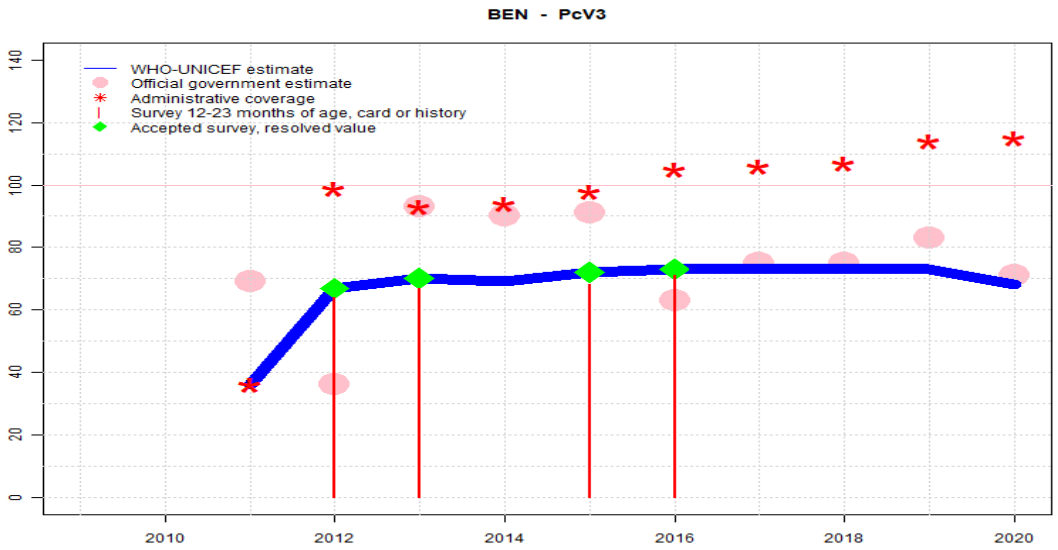
● There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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:

2020: Estimate based on the difference between administered doses between DTP3 and rotavirus last dose. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years. Rotavirus vaccine introduced in December 2019. Reporting started in 2020. Estimate challenged by: D-R-

Benin - PcV3



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	NA	NA	36	67	70	69	72	73	73	73	73	68
Estimate GoC	NA	NA	•	•	•	•	•	•	•	•	•	•
Official	NA	NA	69	36	93	90	91	63	75	75	83	71
Administrative	NA	NA	36	99	93	94	98	105	106	107	114	115
Survey	NA	NA	NA	64	67	NA	68	71	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: 2020 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:

2020: Estimate exceptionally based on the difference between administered doses 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years.Reported data excluded due to decline in reported coverage from 83 level to 71 percent. Estimate challenged by: D-R-

2019: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Programme reports less than one month vaccine stock-out at national level. Estimate challenged by: D-R-

2018: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Estimate challenged by: D-R-

2017: Reported data calibrated to 2016 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Reported target population decreased 8 percentage between 2016 and 2017. Estimate challenged by: D-R-

2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Benin Demographic and Health Survey 2017-2018 card or history results of 71 percent modifed for recall bias to 73 percent based on 1st dose card or history coverage of 81 percent, 1st dose card only coverage of 64 percent and 3rd dose card only coverage of 58 percent. Reported data excluded because 105 percent greater than 100 percent. Reported official government estimate is based on results from supervisory reports and results from an external review in 2014. However, the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 72 percent based on 1 survey(s). Benin Demographic and Health Survey 2017-2018 card or history results of 68 percent modifed for recall bias to 72 percent based on 1st dose card or history coverage of 79 percent, 1st dose card only coverage of 57 percent and 3rd dose card only coverage of 52 percent. Reported official government estimate is based on results from supervisory reports and results from an external review, however the methodology used to adjust from the administrative coverage levels is not described. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 and 2015 levels. Reported official government estimate is based on DQS results from ten zone sanitaires and supervisory reports, however the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

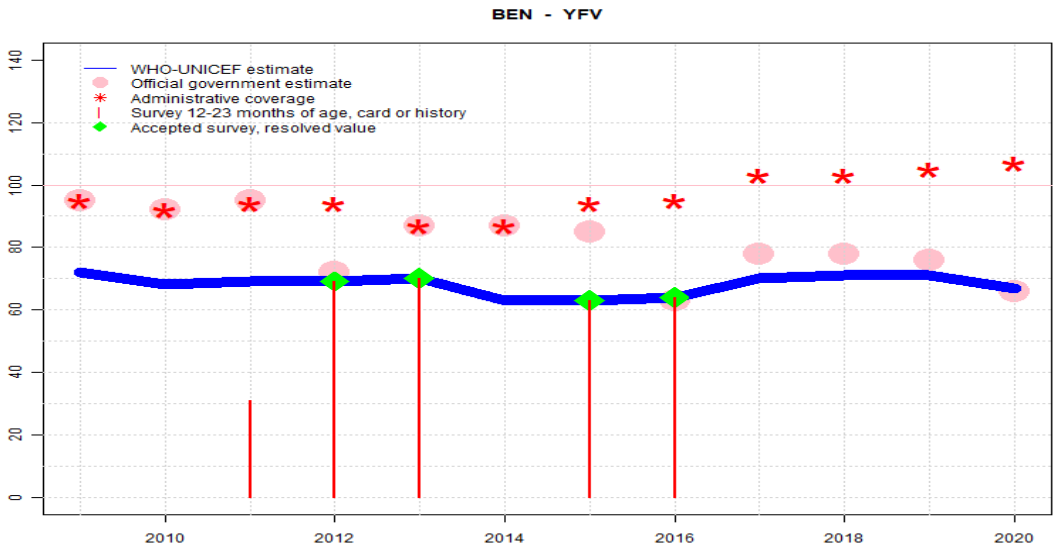
2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 70 percent based on 1 survey(s). Benin Multiple Indicator Cluster Survey 2014 card or history results of 67 percent modifed for recall bias to 70 percent based on 1st dose card or history coverage of 79 percent, 1st dose card only coverage of 61 percent and 3rd dose card only coverage of 54 percent. Reported official government estimate

based on the results of an external EPI review conducted in 10 communes. Estimate challenged by: D-R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Benin Multiple Indicator Cluster Survey 2014 card or history results of 64 percent modifed for recall bias to 67 percent based on 1st dose card or history coverage of 77 percent, 1st dose card only coverage of 48 percent and 3rd dose card only coverage of 42 percent. Official government estimate based on survey results. Estimate challenged by: D-R-

2011: Pneumococcal conjugate vaccine was introduced in 2011. Official government estimate based on survey results. Methodology for adjusted national estimates unclear. Estimate challenged by: S-

Benin - YFV



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimate	72	68	69	69	70	63	63	64	70	71	71	67
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	95	92	95	72	87	87	85	63	78	78	76	66
Administrative	95	92	94	94	87	87	94	95	103	103	105	107
Survey	NA	NA	31	69	70	NA	63	64	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: 2020 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:

2020: Estimate exceptionally based on the difference between administered doses 2019 to 2020 applied to the 2019 WUENIC estimate. Reported data excluded. Inconsistent decrease in reported denominator. Official estimate not explained and inconsistent with previous years. Programme reports a one month vaccine stock-out at national level. Estimate challenged by: D-R-

2019: Reported data calibrated to 2018 levels. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

2018: Estimate of 71 percent assigned by working group. Estimate based on estimated MCV1 coverage. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Estimate challenged by: D-R-

2017: Estimate of 70 percent assigned by working group. Estimate based on estimated MCV1 coverage. Reported data excluded. Reported government official estimate based on prior year WUENIC value. Reported target population decreased 8 percentage between 2016 and 2017. Estimate challenged by: D-R-

2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 64 percent based on 1 survey(s). Programme reports a 3-month vaccine stock-out. Reported official government estimate is based on results from supervisory reports and results from an external review in 2014. However, the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2015: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 63 percent based on 1 survey(s). Reported official government estimate is based on results from supervisory reports and results from an external review, however the methodology used to adjust from the administrative coverage levels is not described. Review of trends in reported number of doses administered is inconsistent with reported coverage levels. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 and 2015 levels. Reported official government estimate is based on DQS results from ten zone sanitaires and supervisory reports, however the methodology used to adjust from the administrative coverage levels is not described. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 70 percent based on 1 survey(s). Reported official government estimate based on the results of an external EPI review conducted in 10 communes. Estimate challenged by: D-R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 69 percent based on 1 survey(s). Official government estimate based on survey results. Estimate challenged by: D-R-

2011: Reported data calibrated to 2008 and 2012 levels. Benin Demographic and Health Survey EDSB IV 2011-2012 results ignored by working group. Survey results for yellow fever

vaccine are based on measles estimates. Official government estimate based on survey results. Estimate challenged by: D-R-

2010: Reported data calibrated to 2008 and 2012 levels. Estimate challenged by: D-R-

2009: Reported data calibrated to 2008 and 2012 levels. Estimate challenged by: D-R-

Benin - survey details

2016 Bénin Enquête Démographique et de Santé 2017-2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	88.1	12-23 m	2515	72
BCG	Card	69.2	12-23 m	1797	72
BCG	Card or History	88.2	12-23 m	2515	72
BCG	History	19	12-23 m	718	72
DTP1	C or H <12 months	84	12-23 m	2515	72
DTP1	Card	66.3	12-23 m	1797	72
DTP1	Card or History	84.2	12-23 m	2515	72
DTP1	History	18	12-23 m	718	72
DTP3	C or H <12 months	72.2	12-23 m	2515	72
DTP3	Card	60.5	12-23 m	1797	72
DTP3	Card or History	73	12-23 m	2515	72
DTP3	History	12.5	12-23 m	718	72
HepB1	C or H <12 months	84	12-23 m	2515	72
HepB1	Card	66.3	12-23 m	1797	72
HepB1	Card or History	84.2	12-23 m	2515	72
HepB1	History	18	12-23 m	718	72
HepB3	C or H <12 months	72.2	12-23 m	2515	72
HepB3	Card	60.5	12-23 m	1797	72
HepB3	Card or History	73	12-23 m	2515	72
HepB3	History	12.5	12-23 m	718	72
Hib1	C or H <12 months	84	12-23 m	2515	72
Hib1	Card	66.3	12-23 m	1797	72
Hib1	Card or History	84.2	12-23 m	2515	72
Hib1	History	18	12-23 m	718	72
Hib3	C or H <12 months	72.2	12-23 m	2515	72
Hib3	Card	60.5	12-23 m	1797	72
Hib3	Card or History	73	12-23 m	2515	72
Hib3	History	12.5	12-23 m	718	72
MCV1	C or H <12 months	64.5	12-23 m	2515	72
MCV1	Card	53.4	12-23 m	1797	72
MCV1	Card or History	67.9	12-23 m	2515	72
MCV1	History	14.6	12-23 m	718	72
PcV1	C or H <12 months	80.9	12-23 m	2515	72
PcV1	Card	63.6	12-23 m	1797	72
PcV1	Card or History	81.2	12-23 m	2515	72
PcV1	History	17.6	12-23 m	718	72
PcV3	C or H <12 months	69.9	12-23 m	2515	72
PcV3	Card	58.3	12-23 m	1797	72
PcV3	Card or History	70.8	12-23 m	2515	72
PcV3	History	12.5	12-23 m	718	72
Pol1	C or H <12 months	81.9	12-23 m	2515	72
Pol1	Card	66.5	12-23 m	1797	72
Pol1	Card or History	82.2	12-23 m	2515	72
Pol1	History	15.7	12-23 m	718	72
Pol3	C or H <12 months	64.8	12-23 m	2515	72
Pol3	Card	60.4	12-23 m	1797	72
Pol3	Card or History	65.5	12-23 m	2515	72
Pol3	History	5.1	12-23 m	718	72
YFV	C or H <12 months	61	12-23 m	2515	72
YFV	Card	50.3	12-23 m	1797	72
YFV	Card or History	64.2	12-23 m	2515	72
YFV	History	13.9	12-23 m	718	72

2015 Bénin Enquête Démographique et de Santé 2017-2018

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	84.6	24-35 m	2365	72
BCG	Card	62.1	24-35 m	1517	72
BCG	Card or History	85.5	24-35 m	2365	72
BCG	History	23.4	24-35 m	849	72
DTP1	C or H <12 months	81.1	24-35 m	2365	72
DTP1	Card	59.9	24-35 m	1517	72
DTP1	Card or History	82.4	24-35 m	2365	72
DTP1	History	22.5	24-35 m	849	72
DTP3	C or H <12 months	69.6	24-35 m	2365	72
DTP3	Card	54.4	24-35 m	1517	72
DTP3	Card or History	71.2	24-35 m	2365	72
DTP3	History	16.7	24-35 m	849	72
HepB1	C or H <12 months	81.1	24-35 m	2365	72
HepB1	Card	59.9	24-35 m	1517	72
HepB1	Card or History	82.4	24-35 m	2365	72
HepB1	History	22.5	24-35 m	849	72
HepB3	C or H <12 months	69.6	24-35 m	2365	72
HepB3	Card	54.4	24-35 m	1517	72
HepB3	Card or History	71.2	24-35 m	2365	72
HepB3	History	16.7	24-35 m	849	72

Benin - survey details

Hib1	C or H <12 months	81.1	24-35 m	2365	72
Hib1	Card	59.9	24-35 m	1517	72
Hib1	Card or History	82.4	24-35 m	2365	72
Hib1	History	22.5	24-35 m	849	72
Hib3	C or H <12 months	69.6	24-35 m	2365	72
Hib3	Card	54.4	24-35 m	1517	72
Hib3	Card or History	71.2	24-35 m	2365	72
Hib3	History	16.7	24-35 m	849	72
MCV1	C or H <12 months	61	24-35 m	2365	72
MCV1	Card	47.9	24-35 m	1517	72
MCV1	Card or History	66.8	24-35 m	2365	72
MCV1	History	18.9	24-35 m	849	72
PcV1	C or H <12 months	77.6	24-35 m	2365	72
PcV1	Card	57.1	24-35 m	1517	72
PcV1	Card or History	78.9	24-35 m	2365	72
PcV1	History	21.8	24-35 m	849	72
PcV3	C or H <12 months	66.2	24-35 m	2365	72
PcV3	Card	51.9	24-35 m	1517	72
PcV3	Card or History	68.1	24-35 m	2365	72
PcV3	History	16.3	24-35 m	849	72
Pol1	C or H <12 months	79.1	24-35 m	2365	72
Pol1	Card	60.3	24-35 m	1517	72
Pol1	Card or History	80.4	24-35 m	2365	72
Pol1	History	20.1	24-35 m	849	72
Pol3	C or H <12 months	60	24-35 m	2365	72
Pol3	Card	54.3	24-35 m	1517	72
Pol3	Card or History	61.6	24-35 m	2365	72
Pol3	History	7.3	24-35 m	849	72
YFV	C or H <12 months	57.3	24-35 m	2365	72
YFV	Card	45.1	24-35 m	1517	72
YFV	Card or History	62.9	24-35 m	2365	72
YFV	History	17.8	24-35 m	849	72

2013 Benin: Enquete par grappes a indicateurs multiples (MICS) 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	89.4	12-23 m	2426	73
BCG	Card	70.8	12-23 m	2426	73
BCG	Card or History	89.8	12-23 m	2426	73
DTP1	C or H <12 months	85.1	12-23 m	2426	73
DTP1	Card	68.2	12-23 m	2426	73
DTP1	Card or History	86.2	12-23 m	2426	73
DTP3	C or H <12 months	71	12-23 m	2426	73
DTP3	Card	61	12-23 m	2426	73
DTP3	Card or History	73.6	12-23 m	2426	73
HepB1	C or H <12 months	85.1	12-23 m	2426	73
HepB1	Card	68.2	12-23 m	2426	73
HepB1	Card or History	86.2	12-23 m	2426	73
HepB3	C or H <12 months	71	12-23 m	2426	73
HepB3	Card	61	12-23 m	2426	73
HepB3	Card or History	73.6	12-23 m	2426	73
Hib1	C or H <12 months	85.1	12-23 m	2426	73
Hib1	Card	68.2	12-23 m	2426	73
Hib1	Card or History	86.2	12-23 m	2426	73
Hib3	C or H <12 months	71	12-23 m	2426	73
Hib3	Card	61	12-23 m	2426	73
Hib3	Card or History	73.6	12-23 m	2426	73
MCV1	C or H <12 months	63.7	12-23 m	2426	73
MCV1	Card	53.3	12-23 m	2426	73
MCV1	Card or History	68.1	12-23 m	2426	73
PCV1	C or H <12 months	77.2	12-23 m	2426	73
PCV1	Card	61.4	12-23 m	2426	73
PCV1	Card or History	79.3	12-23 m	2426	73
PCV3	C or H <12 months	64.1	12-23 m	2426	73
PCV3	Card	54	12-23 m	2426	73
PCV3	Card or History	67.1	12-23 m	2426	73
Pol1	C or H <12 months	83	12-23 m	2426	73
Pol1	Card	67.2	12-23 m	2426	73
Pol1	Card or History	83.9	12-23 m	2426	73
Pol3	C or H <12 months	62.3	12-23 m	2426	73
Pol3	Card	57.8	12-23 m	2426	73
Pol3	Card or History	64	12-23 m	2426	73
YFV	C or H <12 months	65.1	12-23 m	2426	73
YFV	Card	55.1	12-23 m	2426	73
YFV	Card or History	69.8	12-23 m	2426	73

2012 Benin: Enquete par grappes a indicateurs multiples (MICS) 2014

Benin - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	84.7	24-35 m	2415	73
BCG	Card	56	24-35 m	2415	73
BCG	Card or History	86.1	24-35 m	2415	73
DTP1	C or H <12 months	79.5	24-35 m	2415	73
DTP1	Card	53.2	24-35 m	2415	73
DTP1	Card or History	81.4	24-35 m	2415	73
DTP3	C or H <12 months	65.2	24-35 m	2415	73
DTP3	Card	47.8	24-35 m	2415	73
DTP3	Card or History	68.4	24-35 m	2415	73
HepB1	C or H <12 months	79.5	24-35 m	2415	73
HepB1	Card	53.2	24-35 m	2415	73
HepB1	Card or History	81.4	24-35 m	2415	73
HepB3	C or H <12 months	65.2	24-35 m	2415	73
HepB3	Card	47.8	24-35 m	2415	73
HepB3	Card or History	68.4	24-35 m	2415	73
Hib1	C or H <12 months	79.5	24-35 m	2415	73
Hib1	Card	53.2	24-35 m	2415	73
Hib1	Card or History	81.4	24-35 m	2415	73
Hib3	C or H <12 months	65.2	24-35 m	2415	73
Hib3	Card	47.8	24-35 m	2415	73
Hib3	Card or History	68.4	24-35 m	2415	73
MCV1	C or H <12 months	59.8	24-35 m	2415	73
MCV1	Card	42.9	24-35 m	2415	73
MCV1	Card or History	66.9	24-35 m	2415	73
PCV1	C or H <12 months	73.7	24-35 m	2415	73
PCV1	Card	47.5	24-35 m	2415	73
PCV1	Card or History	76.6	24-35 m	2415	73
PCV3	C or H <12 months	60.5	24-35 m	2415	73
PCV3	Card	42	24-35 m	2415	73
PCV3	Card or History	63.5	24-35 m	2415	73
Pol1	C or H <12 months	77.9	24-35 m	2415	73
Pol1	Card	52.6	24-35 m	2415	73
Pol1	Card or History	79.8	24-35 m	2415	73
Pol3	C or H <12 months	53.3	24-35 m	2415	73
Pol3	Card	45.2	24-35 m	2415	73
Pol3	Card or History	55.8	24-35 m	2415	73
YFV	C or H <12 months	61	24-35 m	2415	73
YFV	Card	44.1	24-35 m	2415	73
YFV	Card or History	68.6	24-35 m	2415	73

2012 Revue externe du système de vaccination au Bénin en 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	97	12-23 m	15813	89
BCG	Card or History	98	12-23 m	15813	89
DTP1	Card	82	12-23 m	15813	89
DTP1	Card or History	96	12-23 m	15813	89
DTP3	Card	74	12-23 m	15813	89
DTP3	Card or History	86	12-23 m	15813	89
HepB1	Card	82	12-23 m	15813	89
HepB1	Card or History	96	12-23 m	15813	89
HepB3	Card	74	12-23 m	15813	89
HepB3	Card or History	86	12-23 m	15813	89
Hib1	Card	82	12-23 m	15813	89
Hib1	Card or History	96	12-23 m	15813	89
Hib3	Card	74	12-23 m	15813	89
Hib3	Card or History	86	12-23 m	15813	89
MCV1	Card	68	12-23 m	15813	89
MCV1	Card or History	80	12-23 m	15813	89

2011 Enquête Démographique et de Santé du Bénin EDSB IV 2011-2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	87.1	12-23 m	2535	54
BCG	Card	53.3	12-23 m	1375	54
BCG	Card or History	88.3	12-23 m	2534	54
BCG	History	35	12-23 m	1159	54
DTP1	C or H <12 months	84.5	12-23 m	2535	54
DTP1	Card	51.8	12-23 m	1375	54
DTP1	Card or History	85.4	12-23 m	2534	54
DTP1	History	33.6	12-23 m	1159	54
DTP3	C or H <12 months	80.1	12-23 m	2535	54
DTP3	Card	46.3	12-23 m	1375	54
DTP3	Card or History	73.7	12-23 m	2534	54
DTP3	History	27.4	12-23 m	1159	54
HepB1	C or H <12 months	48.7	12-23 m	2535	54

HepB1	Card	49.2	12-23 m	1375	54
HepB1	Card or History	49.2	12-23 m	2534	54
HepB3	C or H <12 months	42.8	12-23 m	2535	54
HepB3	Card	44.5	12-23 m	1375	54
HepB3	Card or History	44.5	12-23 m	2534	54
Hib1	C or H <12 months	48.7	12-23 m	2535	54
Hib1	Card	49.2	12-23 m	1375	54
Hib1	Card or History	49.2	12-23 m	2534	54
Hib3	C or H <12 months	42.8	12-23 m	2535	54
Hib3	Card	44.5	12-23 m	1375	54
Hib3	Card or History	44.5	12-23 m	2534	54
MCV1	C or H <12 months	62.2	12-23 m	2535	54
MCV1	Card	41.7	12-23 m	1375	54
MCV1	Card or History	70	12-23 m	2534	54
MCV1	History	28.3	12-23 m	1159	54
Pol1	C or H <12 months	83.9	12-23 m	2535	54
Pol1	Card	50.4	12-23 m	1375	54
Pol1	Card or History	84.9	12-23 m	2534	54
Pol1	History	34.5	12-23 m	1159	54
Pol3	C or H <12 months	54.5	12-23 m	2535	54
Pol3	Card	44.7	12-23 m	1375	54
Pol3	Card or History	56.2	12-23 m	2534	54
Pol3	History	11.5	12-23 m	1159	54
YFV	C or H <12 months	23.7	12-23 m	2534	54
YFV	Card	31.2	12-23 m	1375	54
YFV	Card or History	31.2	12-23 m	2534	54

2007 Revue externe 2008 du Programme Elargi de Vaccination

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	94	12-23 m	7105	77
BCG	Card or History	97	12-23 m	7105	77
DTP1	Card	71	12-23 m	7105	77
DTP1	Card or History	94	12-23 m	7105	77
DTP3	Card	62	12-23 m	7105	77
DTP3	Card or History	82	12-23 m	7105	77
HepB1	Card	71	12-23 m	7105	77
HepB1	Card or History	94	12-23 m	7105	77
HepB3	Card	62	12-23 m	7105	77
HepB3	Card or History	82	12-23 m	7105	77
Hib1	Card	71	12-23 m	7105	77
Hib1	Card or History	94	12-23 m	7105	77
Hib3	Card	62	12-23 m	7105	77
Hib3	Card or History	82	12-23 m	7105	77
MCV1	Card	53	12-23 m	7105	77
MCV1	Card or History	70	12-23 m	7105	77
Pol1	Card	70	12-23 m	7105	77
Pol1	Card or History	93	12-23 m	7105	77
Pol3	Card	62	12-23 m	7105	77
Pol3	Card or History	82	12-23 m	7105	77

2005 Enquête Démographique et de Santé au Bénin de 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	87.9	12-23 m	3005	66
BCG	Card	65.2	12-23 m	3005	66
BCG	Card or History	88.3	12-23 m	3005	66
BCG	History	23.1	12-23 m	3005	66
DTP1	C or H <12 months	83.2	12-23 m	3005	66
DTP1	Card	62.2	12-23 m	3005	66
DTP1	Card or History	84	12-23 m	3005	66
DTP1	History	21.8	12-23 m	3005	66
DTP3	C or H <12 months	64.5	12-23 m	3005	66
DTP3	Card	52.1	12-23 m	3005	66
DTP3	Card or History	67	12-23 m	3005	66
DTP3	History	14.9	12-23 m	3005	66
MCV1	C or H <12 months	51.1	12-23 m	3005	66
MCV1	Card	44.6	12-23 m	3005	66
MCV1	Card or History	61.1	12-23 m	3005	66
MCV1	History	16.5	12-23 m	3005	66
Pol1	C or H <12 months	87.6	12-23 m	3005	66
Pol1	Card	63.4	12-23 m	3005	66
Pol1	Card or History	88.6	12-23 m	3005	66
Pol1	History	25.2	12-23 m	3005	66
Pol3	C or H <12 months	61.6	12-23 m	3005	66
Pol3	Card	52.2	12-23 m	3005	66
Pol3	Card or History	63.9	12-23 m	3005	66
Pol3	History	11.7	12-23 m	3005	66

Benin - survey details

2000 Benin, Revue Externe du Programme Elargi de Vaccination, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	94	12-23 m	2699	85
DTP1	Card or History	91	12-23 m	2699	85
DTP3	Card or History	79	12-23 m	2699	85
MCV1	Card or History	72	12-23 m	2699	85
Pol1	Card or History	92	12-23 m	2699	85
Pol3	Card or History	78	12-23 m	2699	85

2000 Enquête Démographique et de Santé au Bénin 2001, 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	89.2	12-23 m	932	73
BCG	Card	72.4	12-23 m	932	73
BCG	Card or History	89.9	12-23 m	932	73
BCG	History	17.5	12-23 m	932	73
DTP1	C or H <12 months	86.2	12-23 m	932	73
DTP1	Card	71.3	12-23 m	932	73
DTP1	Card or History	87.2	12-23 m	932	73
DTP1	History	15.9	12-23 m	932	73
DTP3	C or H <12 months	68.5	12-23 m	932	73
DTP3	Card	62.4	12-23 m	932	73
DTP3	Card or History	72.5	12-23 m	932	73
DTP3	History	10.1	12-23 m	932	73
MCV1	C or H <12 months	55.9	12-23 m	932	73
MCV1	Card	57.8	12-23 m	932	73
MCV1	Card or History	68	12-23 m	932	73
MCV1	History	10.2	12-23 m	932	73
Pol1	C or H <12 months	88.8	12-23 m	932	73
Pol1	Card	71.5	12-23 m	932	73
Pol1	Card or History	90	12-23 m	932	73
Pol1	History	18.5	12-23 m	932	73
Pol3	C or H <12 months	65.9	12-23 m	932	73
Pol3	Card	61.7	12-23 m	932	73
Pol3	Card or History	69.3	12-23 m	932	73
Pol3	History	7.7	12-23 m	932	73

Further information and estimates for previous years are available at:
http://www.data.unicef.org/child-health/immunization
https://www.who.int/teams/immunization-vaccines-and-biologicals/immunization-analysis-and-insights/global-monitoring/data-statistics-and-graphics