

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. 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.

HepBB: percentage of births which received a dose of hepatitis B vaccine within 24 hours of delivery. Estimates of hepatitis B birth dose coverage are produced only for countries with a universal birth dose policy. Estimates are not produced for countries that recommend a birth dose to infants born to HepB virus-infected mothers only or where there is insufficient information to determine whether vaccination is within 24 hours of birth.

HepB3: percentage of surviving infants who received the 3rd dose of hepatitis B containing vaccine following the birth dose.

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

RotaC: percentage of surviving infants who received the final recommended dose of rotavirus vaccine, which can be either the 2nd or the 3rd dose depending on the vaccine.

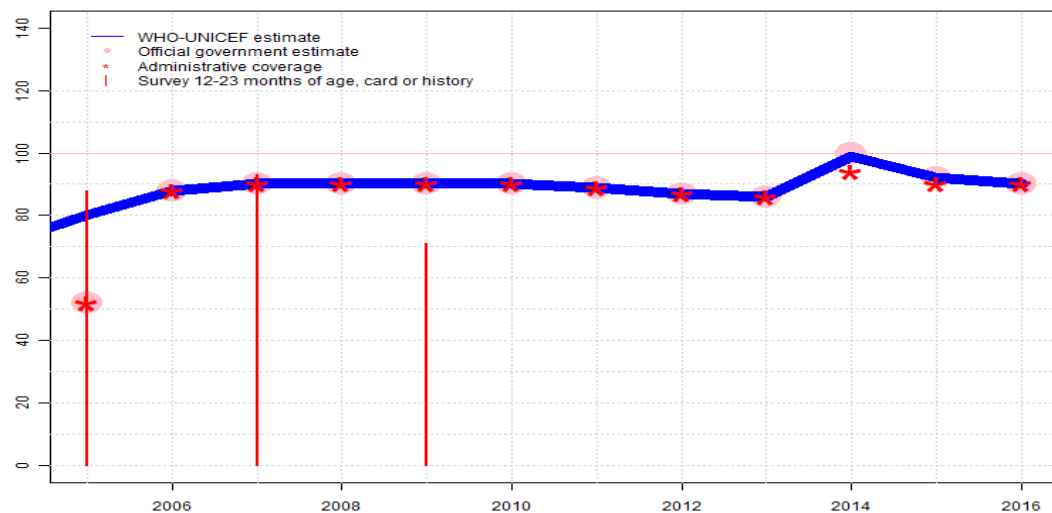
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect the percentage of surviving infants who received two doses of PcV prior to the 1st birthday.

YFV: percentage of surviving infants who received one dose of yellow fever vaccine in countries where YFV is part of the national immunization schedule for children or is recommended in at risk areas; coverage estimates are annualized for the entire cohort of surviving infants.

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Djibouti - BCG

DJI - BCG



Description:

2016: Estimate based on coverage reported by national government. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.

2015: Estimate based on coverage reported by national government. Estimate challenged by: D-2014: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Results from the 2014 coverage survey are reported using only children aged 12-23 m with cards. Recomputed survey coverage using all children aged 12-23 m in the survey sample suggests lower coverage levels than those reported by the government for 2013. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2010: Estimate based on coverage reported by national government. Estimate challenged by: D-

2009: Estimate based on coverage reported by national government. Second Djibouti Family Health Survey 2012 results ignored by working group. Presentation of survey results are not standard. Card coverage greater than percent cards seen. Estimate challenged by: D-

2008: Estimate based on coverage reported by national government. Estimate challenged by: D-

2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 93 percent based on 1 survey(s). GoC=R+ S+ D+

2006: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2005: Estimate based on interpolation between data reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Reported data excluded due to decline in reported coverage from 78 percent to 52 percent with increase to 88 percent. Estimate challenged by: D-S-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	80	88	90	90	90	90	89	87	86	99	92	90
Estimate GoC	•	•••	•••	•	•	•	•	•	•	•	•	•
Official	52	88	90	90	90	90	89	87	86	100	92	90
Administrative	52	88	90	90	90	90	89	87	86	94	90	90
Survey	88	NA	93	NA	71	NA	NA	NA	NA	NA	NA	NA

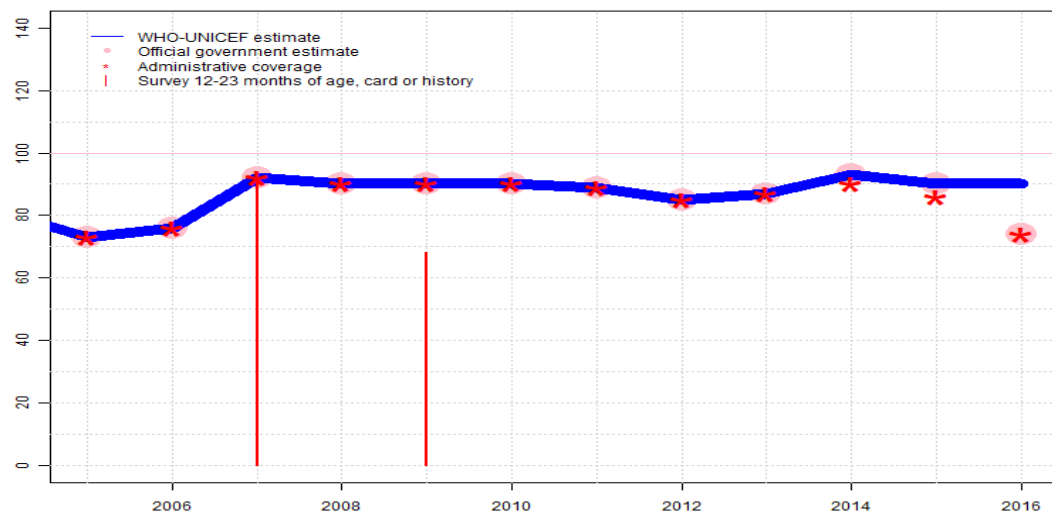
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Djibouti - DTP1

DJI - DTP1



Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to unexplained sudden change in coverage from 90 level to 74 percent. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. Declines in the reported number of children vaccinated compared to levels reported in 2015 are unexplained. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Results from the 2014 coverage survey are reported using only children aged 12-23 m with cards. Recomputed survey coverage using all children aged 12-23 m in the survey sample suggests lower coverage levels than those reported by the government for 2013. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government. Second Djibouti Family Health Survey 2012 results ignored by working group. Presentation of survey results are not standard. Card coverage greater than percent cards seen. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). GoC=R+ S+ D+
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: S-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	73	76	92	90	90	90	89	85	87	93	90	90
Estimate GoC	•	•	•••	•	•	•	•	•	•	•	•	•
Official	73	76	92	90	90	90	89	85	87	93	90	74
Administrative	73	76	92	90	90	90	89	85	87	90	86	74
Survey	NA	NA	91	NA	68	NA	NA	NA	NA	NA	NA	NA

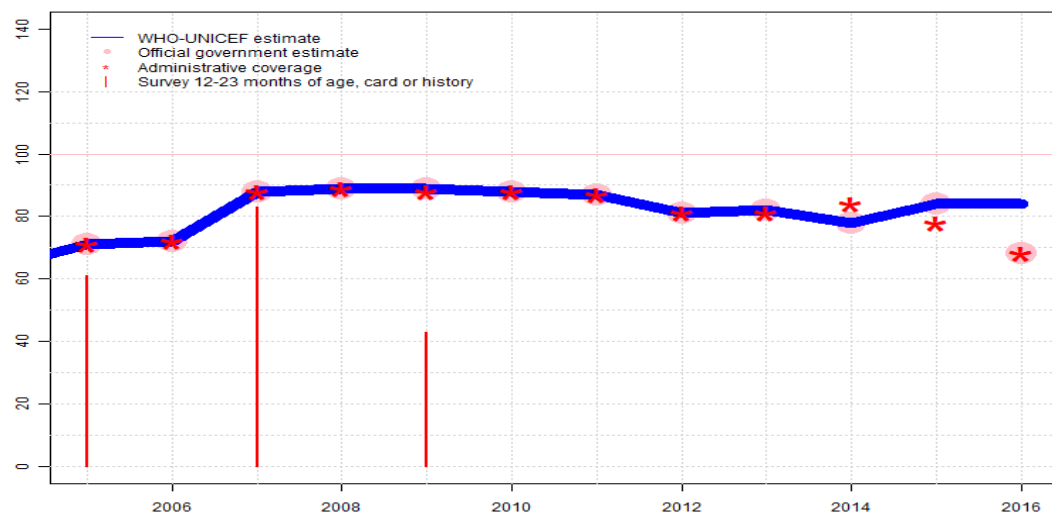
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Djibouti - DTP3

DJI - DTP3



Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to unexplained sudden change in coverage from 84 level to 68 percent. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. Declines in the reported number of children vaccinated compared to levels reported in 2015 are unexplained. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government. Results from the 2014 coverage survey are reported using only children aged 12-23 m with cards. Recomputed survey coverage using all children aged 12-23 m in the survey sample suggests lower coverage levels than those reported by the government for 2013. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government. Second Djibouti Family Health Survey 2012 results ignored by working group. Presentation of survey results are not standard. Card coverage greater than percent cards seen. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 83 percent based on 1 survey(s). Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 61 percent based on 1 survey(s). Estimate challenged by: S-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	71	72	88	89	89	88	87	81	82	78	84	84
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	71	72	88	89	89	88	87	81	82	78	84	68
Administrative	71	72	88	89	88	88	87	81	81	84	78	68
Survey	61	NA	83	NA	43	NA	NA	NA	NA	NA	NA	NA

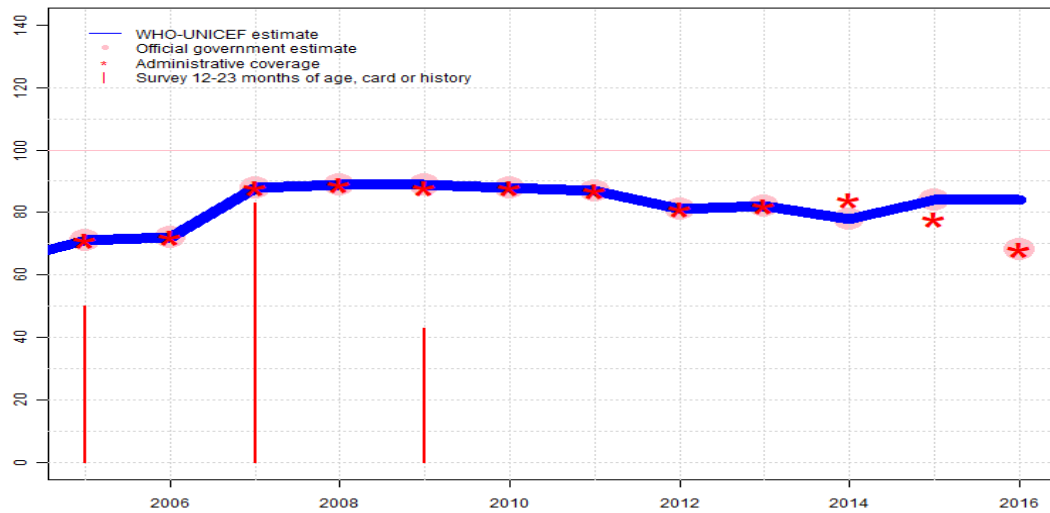
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Djibouti - Pol3

DJI - Pol3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	71	72	88	89	89	88	87	81	82	78	84	84
Estimate GoC	•	•	•••	•	•	•	•	•	•	•	•	•
Official	71	72	88	89	89	88	87	81	82	78	84	68
Administrative	71	72	88	89	88	88	87	81	82	84	78	68
Survey	50	NA	83	NA	43	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: 2015 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:

2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to unexplained sudden change in coverage from 84 level to 68 percent. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. Declines in the reported number of children vaccinated compared to levels reported in 2015 are unexplained. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.

2015: Estimate based on coverage reported by national government. Estimate challenged by: D-

2014: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Results from the 2014 coverage survey are reported using only children aged 12-23 m with cards. Recomputed survey coverage using all children aged 12-23 m in the survey sample suggests lower coverage levels than those reported by the government for 2013. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2010: Estimate based on coverage reported by national government. Estimate challenged by: D-

2009: Estimate based on coverage reported by national government. Second Djibouti Family Health Survey 2012 results ignored by working group. Presentation of survey results are not standard. Card coverage greater than percent cards seen. Estimate challenged by: D-

2008: Estimate based on coverage reported by national government. Estimate challenged by: D-

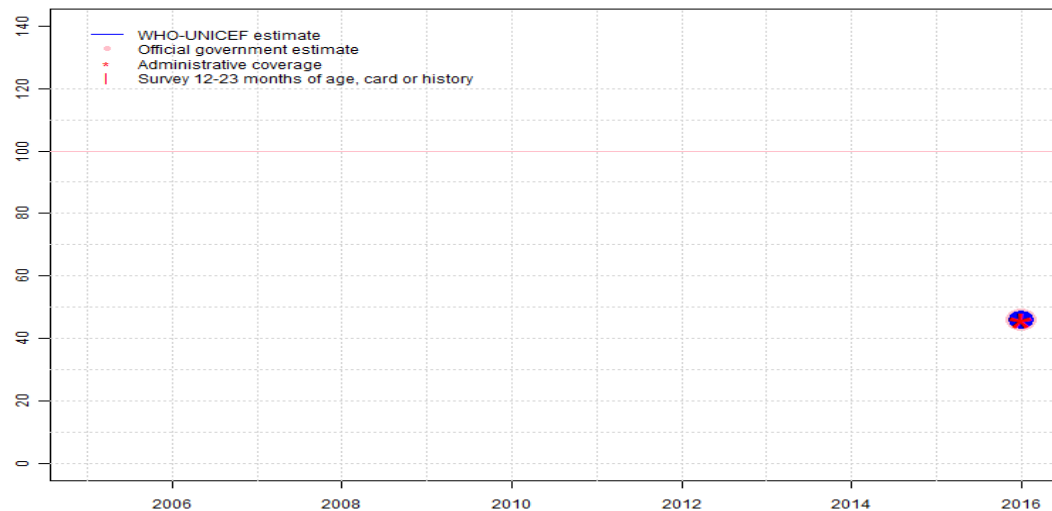
2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 83 percent based on 1 survey(s). GoC=R+ S+ D+

2006: Estimate based on coverage reported by national government. Estimate challenged by: S-

2005: Estimate based on coverage reported by national government. Djibouti Multiple Indicator Cluster Survey 2006 results ignored by working group. Polio results inconsistent with other vaccines. Survey results most likely reflect 4 doses of polio vaccine (birth,1,2,3,4). Estimate challenged by: D-S-

Djibouti - IPV1

DJI - IPV1



Description:

2016: Estimate based on coverage reported by national government. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. Inactivated polio vaccine introduced in 2016. Reporting began in 2016. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46
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	46
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

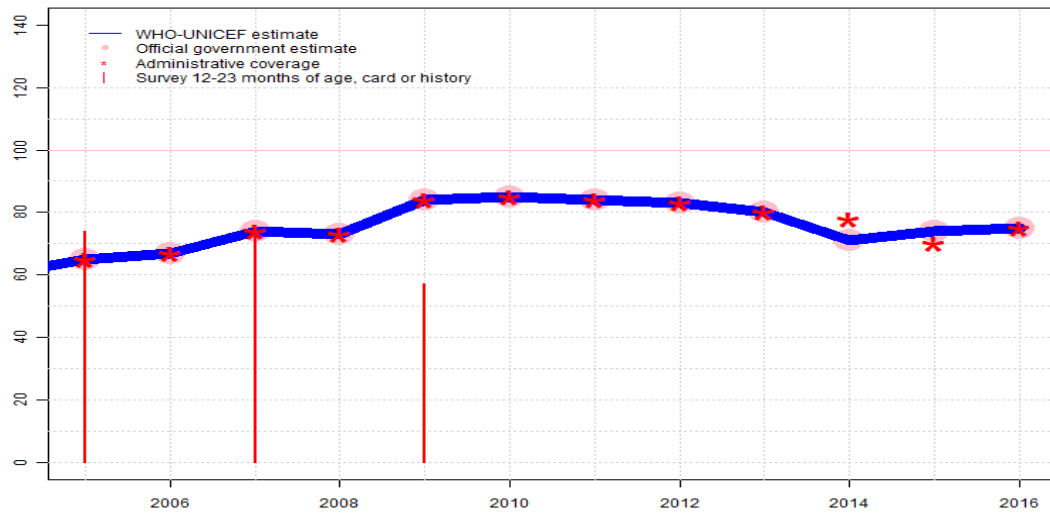
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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Djibouti - MCV1

DJI - MCV1



Description:

2016: Estimate based on coverage reported by national government. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.

2015: Estimate based on coverage reported by national government. Estimate challenged by: D-2014: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Results from the 2014 coverage survey are reported using only children aged 12-23 m with cards. Recomputed survey coverage using all children aged 12-23 m in the survey sample suggests lower coverage levels than those reported by the government for 2013. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2010: Estimate based on coverage reported by national government. Estimate challenged by: D-

2009: Estimate based on coverage reported by national government. Second Djibouti Family Health Survey 2012 results ignored by working group. Presentation of survey results are not standard. Card coverage greater than percent cards seen. Estimate challenged by: D-S-

2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 73 percent based on 1 survey(s). GoC=R+ S+ D+

2006: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 74 percent based on 1 survey(s). GoC=R+ S+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	65	67	74	73	84	85	84	83	80	71	74	75
Estimate GoC	●●●	●●●	●●●	●●●	●	●	●	●	●	●	●	●
Official	65	67	74	73	84	85	84	83	80	71	74	75
Administrative	65	67	74	73	84	85	84	83	80	78	70	75
Survey	74	NA	73	NA	57	NA	NA	NA	NA	NA	NA	NA

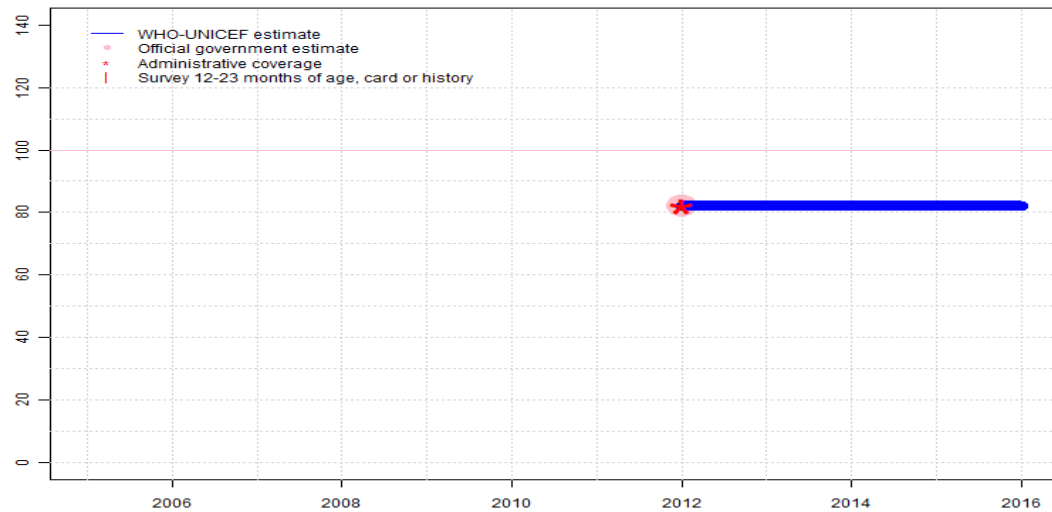
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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Djibouti - MCV2

DJI - MCV2



Description:

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

2016: Estimate based on extrapolation from data reported by national government. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.

2015: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

2014: Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data

2013: Estimate based on extrapolation from data reported by national government. Results from the 2014 coverage survey are reported using only children aged 12-23 m with cards. Recomputed survey coverage using all children aged 12-23 m in the survey sample suggests lower coverage levels than those reported by the government for 2013. GoC=No accepted empirical data

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

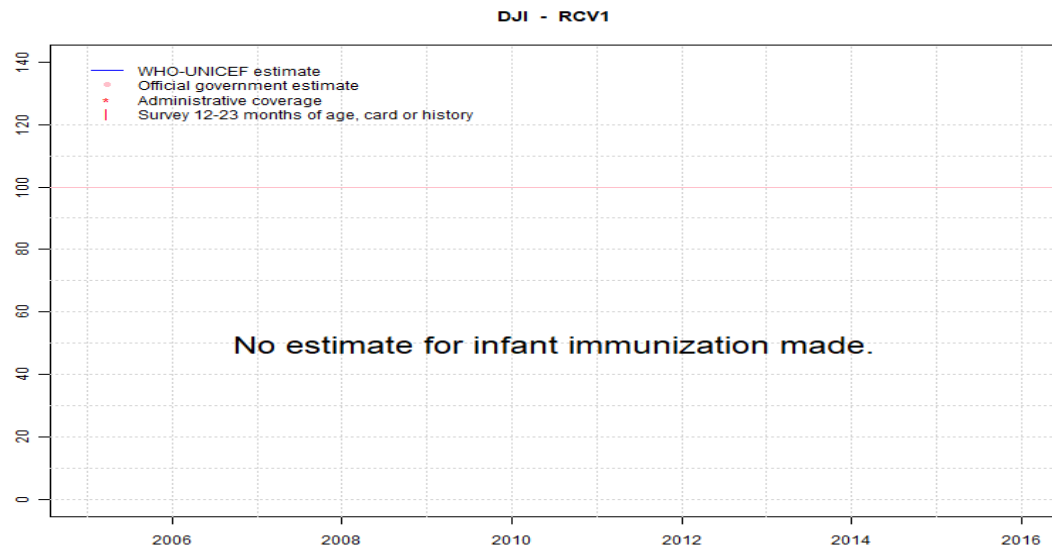
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	82	82	82	82	82
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	●	●	●	●	●
Official	NA	NA	NA	NA	NA	NA	NA	82	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	82	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: 2015 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.

Djibouti - RCV1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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

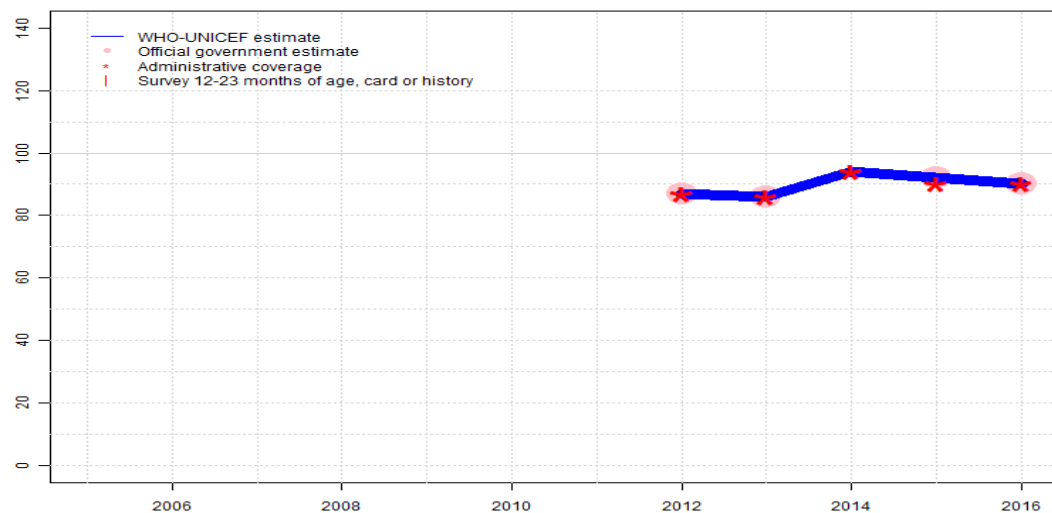
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Djibouti - HepBB

DJI - HepBB



Description:

2016: Estimate based on coverage reported by national government. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.

2015: Estimate based on coverage reported by national government. Estimate challenged by: D-

2014: Estimate based on reported administrative estimate. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Results from the 2014 coverage survey are reported using only children aged 12-23 m with cards. Recomputed survey coverage using all children aged 12-23 m in the survey sample suggests lower coverage levels than those reported by the government for 2013. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	87	86	94	92	90
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	87	86	NA	92	90
Administrative	NA	NA	NA	NA	NA	NA	NA	87	86	94	90	90
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

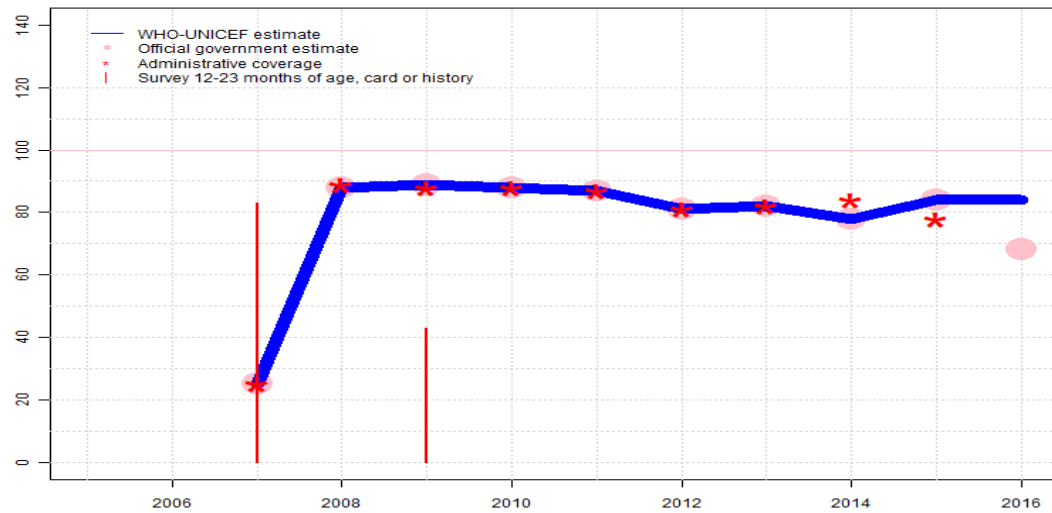
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Djibouti - HepB3

DJI - HepB3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	25	88	89	88	87	81	82	78	84	84
Estimate GoC	NA	NA	•	•	•	•	•	•	•	•	•	•
Official	NA	NA	25	88	89	88	87	81	82	78	84	68
Administrative	NA	NA	25	89	88	88	87	81	82	84	78	NA
Survey	NA	NA	83	NA	43	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: 2015 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.

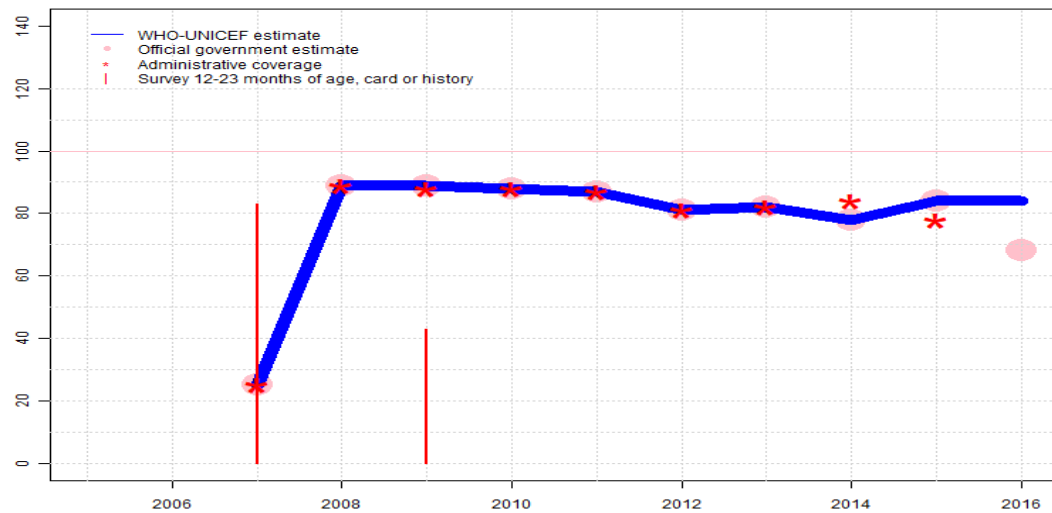
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to unexplained sudden change in coverage from 84 level to 68 percent. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. GoC=Assigned by working group. Consistency with other vaccines.
- 2013: Estimate based on coverage reported by national government. Results from the 2014 coverage survey are reported using only children aged 12-23 m with cards. Recomputed survey coverage using all children aged 12-23 m in the survey sample suggests lower coverage levels than those reported by the government for 2013. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. GoC=Assigned by working group. Consistency with other vaccines.
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government. Second Djibouti Family Health Survey 2012 results ignored by working group. Presentation of survey results are not standard. Card coverage greater than percent cards seen. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. Djibouti Republic Immunisation Coverage Survey 2008 results ignored by working group. Survey results likely to include vaccination with DTP only doses administered prior to introduction of DTP-HepB-Hib. HepB introduced in July 2007 Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-

Djibouti - Hib3

DJI - Hib3



Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to unexplained sudden change in coverage from 84 level to 68 percent. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on coverage reported by national government. GoC=Assigned by working group. Consistency with other vaccines.
- 2013: Estimate based on coverage reported by national government. Results from the 2014 coverage survey are reported using only children aged 12-23 m with cards. Recomputed survey coverage using all children aged 12-23 m in the survey sample suggests lower coverage levels than those reported by the government for 2013. Estimate challenged by: D-
- 2012: Estimate based on coverage reported by national government. GoC=Assigned by working group. Consistency with other vaccines.
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government. Second Djibouti Family Health Survey 2012 results ignored by working group. Presentation of survey results are not standard. Card coverage greater than percent cards seen. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. Djibouti Republic Immunisation Coverage Survey 2008 results ignored by working group. Survey results likely to include vaccination with DTP only doses administered prior to introduction of DTP-HepB-Hib. Hib vaccine introduced in July 2007. Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	25	89	89	88	87	81	82	78	84	84
Estimate GoC	NA	NA	•	•	•	•	•	•	•	•	•	•
Official	NA	NA	25	89	89	88	87	81	82	78	84	68
Administrative	NA	NA	25	89	88	88	87	81	82	84	78	NA
Survey	NA	NA	83	NA	43	NA	NA	NA	NA	NA	NA	NA

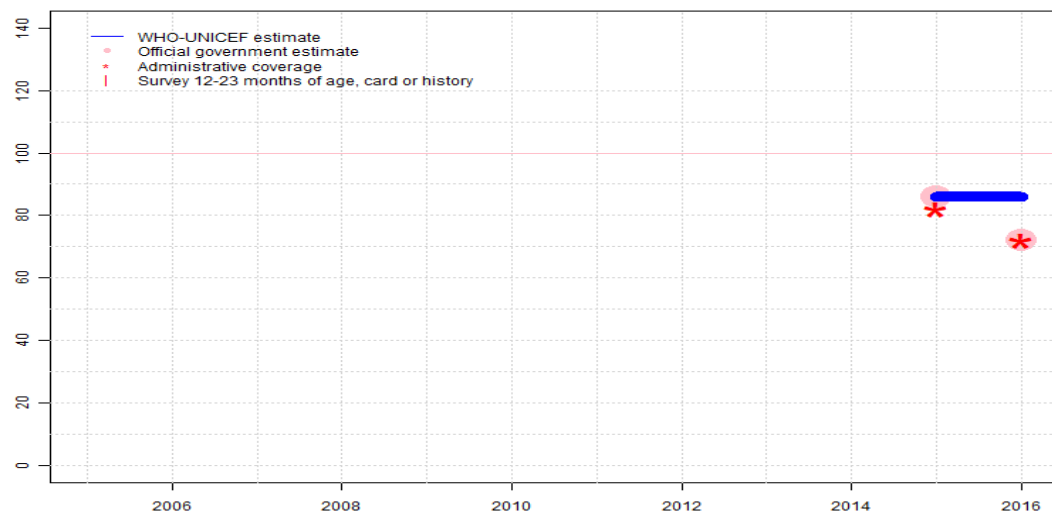
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Djibouti - RotaC

DJI - RotaC



Description:

2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to decline in reported coverage from 86 level to 72 percent. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. Declines in the reported number of children vaccinated compared to levels reported in 2015 are unexplained. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.

2015: Estimate based on coverage reported by national government. Rotavirus vaccine introduced in June 2014. Reporting began in 2015. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	86	86
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	86	72
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82	72
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

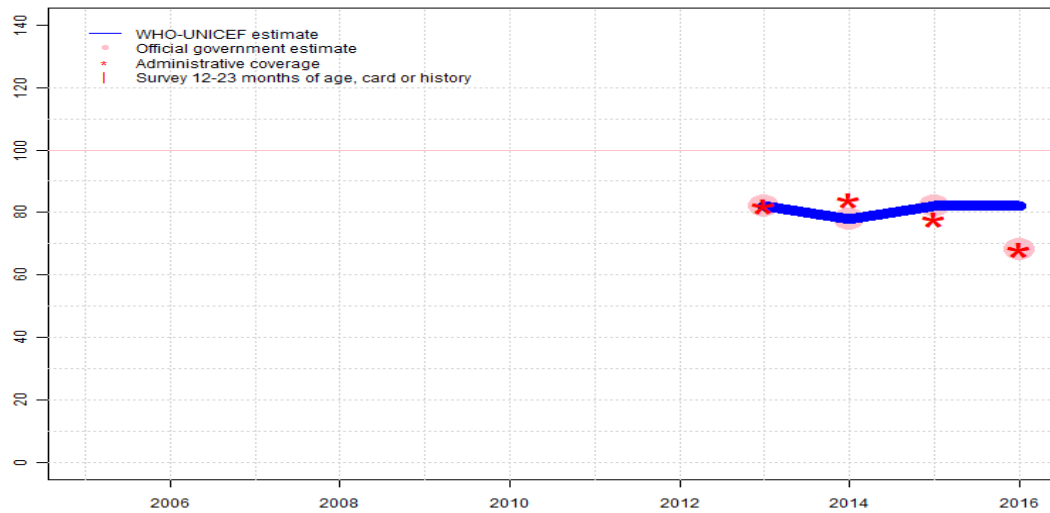
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2015 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.

Djibouti - PcV3

DJI - PcV3



Description:

2016: Estimate based on extrapolation from data reported by national government. Reported data excluded due to decline in reported coverage from 82 level to 68 percent. Programme is in the process of strengthening their health information system which may partly explain apparent declines in reported coverage. Declines in the reported number of children vaccinated compared to levels reported in 2015 are unexplained. GoC=Assigned by working group. Consistency across vaccines in the time-series in recent years with no evidence that would influence confidence in estimate.

2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
 2013: Estimate based on coverage reported by national government. Results from the 2014 coverage survey are reported using only children aged 12-23 m with cards. Recomputed survey coverage using all children aged 12-23 m in the survey sample suggests lower coverage levels than those reported by the government for 2013. Pneumococcal conjugate vaccine introduced in December 2012. Reporting began in 2013. Estimate challenged by: D-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	82	78	82	82
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	82	78	82	68
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	82	84	78	68
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: 2015 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.

Djibouti - survey details

2013 Rapport de l'enquete de couverture vaccinale, 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	76	12-23 m	14715	76
DTP1	Card	74	12-23 m	14715	76
DTP3	Card	69	12-23 m	14715	76
HepB1	Card	74	12-23 m	14715	76
HepB3	Card	69	12-23 m	14715	76
Hib1	Card	74	12-23 m	14715	76
Hib3	Card	69	12-23 m	14715	76
MCV1	Card	63	12-23 m	14715	76
Pol1	Card	74	12-23 m	14715	76
Pol3	Card	69	12-23 m	14715	76

2009 Deuxieme Enquete Djiboutienne sur la Sante de la Famille EDSF PAP-FAM 2 – 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	70	12-23 m	-	15
BCG	Card or History	71	12-23 m	517	15
DTP1	Card	64	12-23 m	-	15
DTP1	Card or History	68	12-23 m	517	15
DTP3	Card	40	12-23 m	-	15
DTP3	Card or History	43	12-23 m	517	15
HepB1	Card	64	12-23 m	-	15
HepB1	Card or History	68	12-23 m	517	15
HepB3	Card	40	12-23 m	-	15
HepB3	Card or History	43	12-23 m	517	15
Hib1	Card	64	12-23 m	-	15
Hib1	Card or History	68	12-23 m	517	15
Hib3	Card	40	12-23 m	-	15
Hib3	Card or History	43	12-23 m	517	15
MCV1	Card	51	12-23 m	-	15
MCV1	Card or History	57	12-23 m	517	15
Pol1	Card	64	12-23 m	-	15
Pol1	Card or History	68	12-23 m	517	15
Pol3	Card	40	12-23 m	-	15
Pol3	Card or History	43	12-23 m	517	15

2007 Rapport de l'enquête de couverture vaccinale Djibouti, 2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	93	12-23 m	1227	-
DTP1	Card or History	91	12-23 m	1227	-
DTP3	Card or History	83	12-23 m	1227	-
HepB1	Card or History	91	12-23 m	1227	-
HepB3	Card or History	83	12-23 m	1227	-
Hib1	Card or History	91	12-23 m	1227	-
Hib3	Card or History	83	12-23 m	1227	-
MCV1	Card or History	73	12-23 m	1227	-
Pol1	Card or History	91	12-23 m	1227	-
Pol3	Card or History	83	12-23 m	1227	-

2005 L'Enquête Djiboutienne à Indicateurs Multiple (EDIM 2006)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	88	12-23 m	450	46
BCG	Card	46	12-23 m	450	46
BCG	Card or History	88	12-23 m	450	46
BCG	History	41	12-23 m	450	46
DTP3	C or H <12 months	57	12-23 m	450	46
DTP3	Card	44	12-23 m	450	46
DTP3	Card or History	61	12-23 m	450	46
DTP3	History	17	12-23 m	450	46
MCV1	C or H <12 months	65	12-23 m	450	46
MCV1	Card	37	12-23 m	450	46
MCV1	Card or History	74	12-23 m	450	46
MCV1	History	37	12-23 m	450	46
Pol3	C or H <12 months	46	12-23 m	450	46
Pol3	Card	44	12-23 m	450	46
Pol3	Card or History	50	12-23 m	450	46
Pol3	History	6	12-23 m	450	46

2002 Enquête Djiboutienne sur la Sante de la Famille, Rapport Preliminaire

Djibouti - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen	MCV1	Card or History	58	12-23 m	-	-
BCG	Card or History	77	12-23 m	-	-	Pol1	Card or History	74	12-23 m	-	-
DTP1	Card or History	75	12-23 m	-	-	Pol3	Card or History	65	12-23 m	-	-
DTP3	Card or History	53	12-23 m	-	-						

Further information and estimates for previous years are available at:

<http://www.data.unicef.org/child-health/immunization>

http://www.who.int/immunization/monitoring_surveillance/routine/coverage/en/index4.html