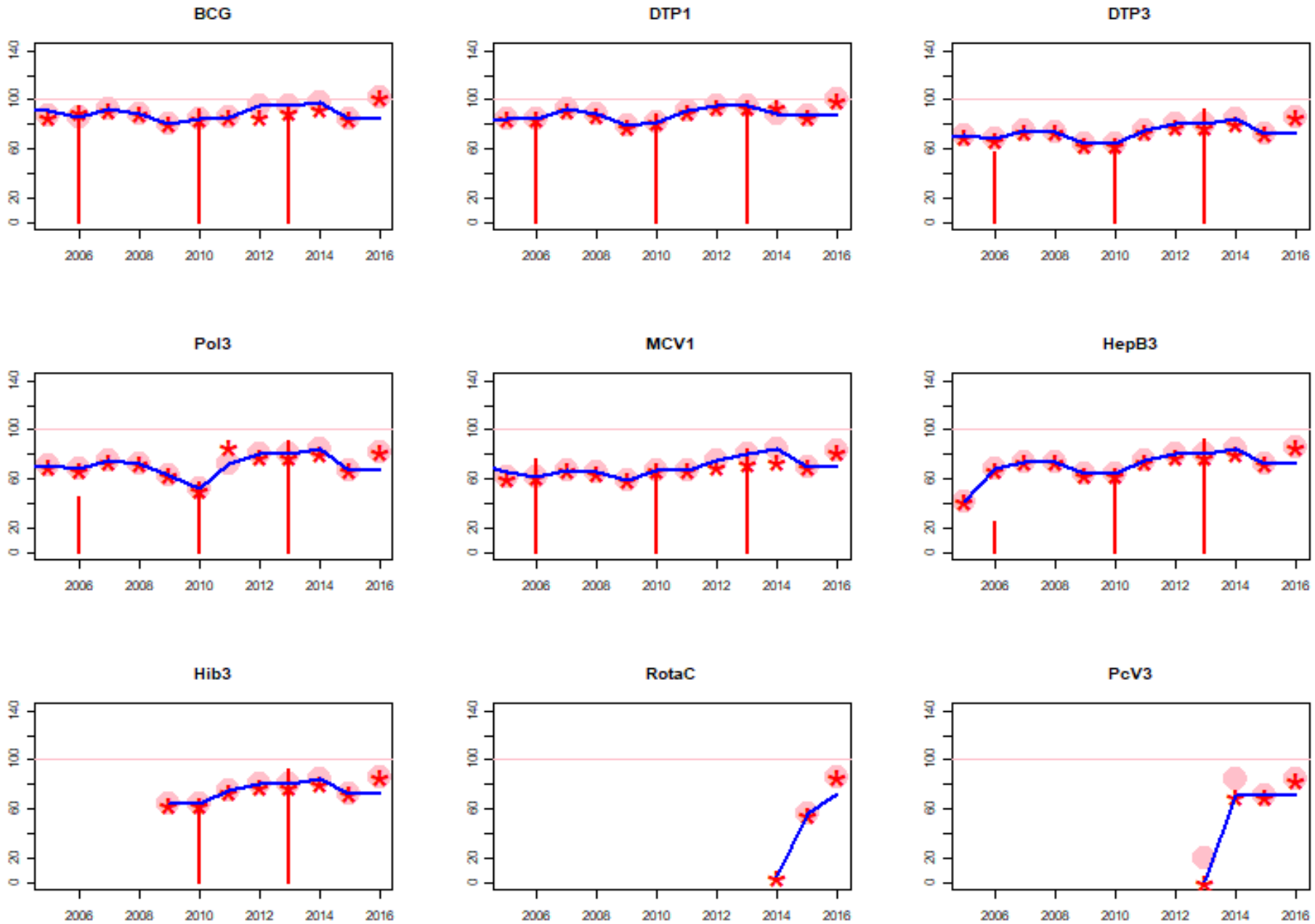


Mauritania: WHO and UNICEF estimates of immunization coverage: 2016 revision



**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.

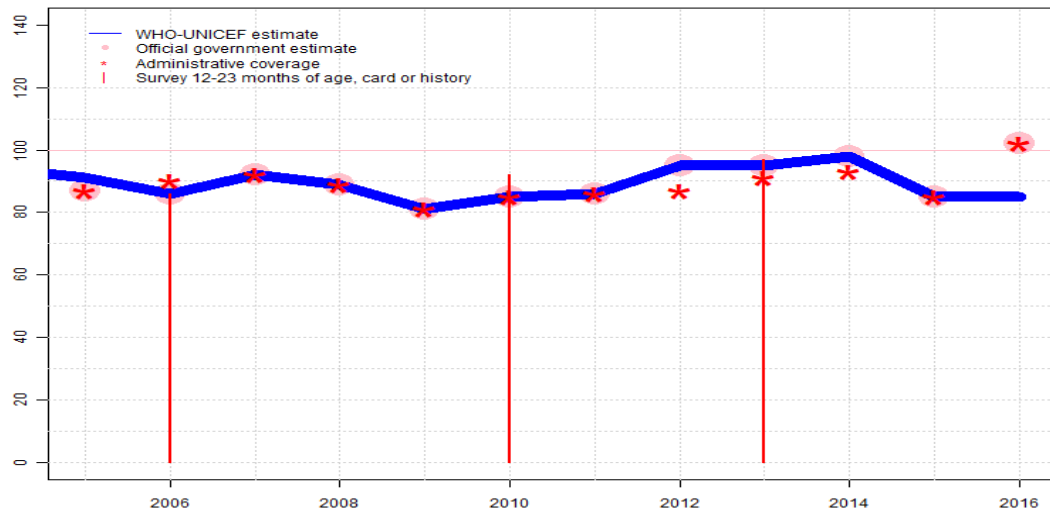
**PcV3:** percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

MRT - BCG



## Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Reported data excluded because 102 percent greater than 100 percent. Reported data excluded due to unexplained sudden change in coverage from 85 level to 102 percent. Preliminary results from 2015 Multiple Indicator Cluster Survey (MICS) suggest coverage of 82 percent. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Unexplained decline in reported coverage between 2014 and 2015. Estimate challenged by: D-S-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 92 percent based on 1 survey(s). GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 86 percent based on 1 survey(s). GoC=R+ S+ D+
- 2005: Reported data calibrated to 2003 and 2006 levels. Estimate challenged by: R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	91	86	92	89	81	85	86	95	95	98	85	85
Estimate GoC	•	•••	•••	•••	•	•••	•	•••	•••	•	•	•
Official	87	86	92	89	81	85	86	95	95	98	85	102
Administrative	87	90	92	89	81	85	86	87	91	93	85	102
Survey	NA	86	NA	NA	NA	92	NA	NA	97	NA	NA	NA

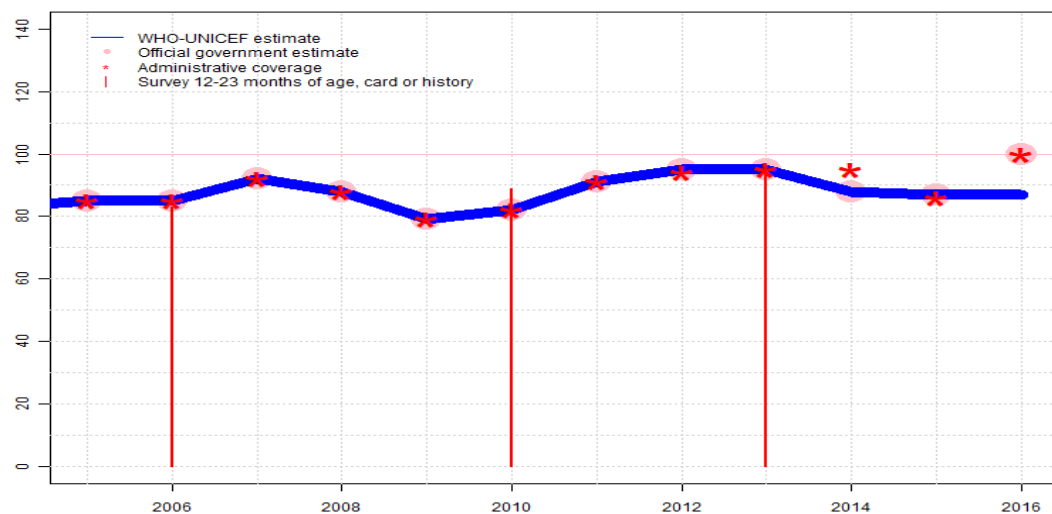
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Mauritania - DTP1

MRT - DTP1



## Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Reported data excluded due to unexplained sudden change in coverage from 87 level to 100 percent. Preliminary results from 2015 Multiple Indicator Cluster Survey (MICS) suggest coverage of 80 percent. Estimate challenged by: D-
- 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 supported by survey. Survey evidence of 96 percent based on 1 survey(s). 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 supported by survey. Survey evidence of 89 percent based on 1 survey(s). Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government. 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. Estimate challenged by: D-
- 2006: 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+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	85	85	92	88	79	82	91	95	95	88	87	87
Estimate GoC	●●●	●●●	●	●	●	●	●	●	●	●	●	●
Official	85	85	92	88	79	82	91	95	95	88	87	100
Administrative	85	85	92	88	79	82	91	94	95	95	86	100
Survey	NA	83	NA	NA	NA	89	NA	NA	96	NA	NA	NA

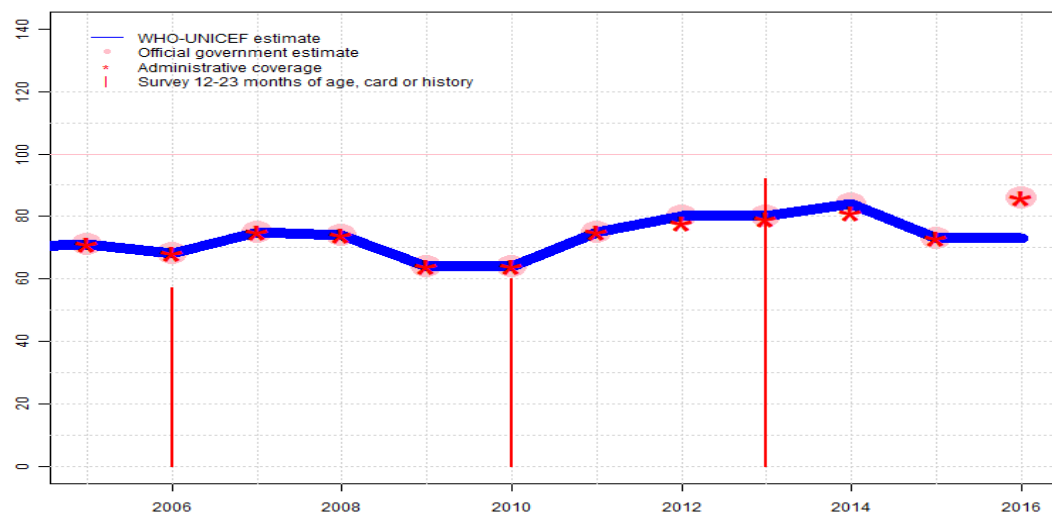
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Mauritania - DTP3

MRT - DTP3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	71	68	75	74	64	64	75	80	80	84	73	73
Estimate GoC	●●●	●●●	●●●	●●●	●	●●●	●	●	●●●	●	●	●
Official	71	68	75	74	64	64	75	80	80	84	73	86
Administrative	71	68	75	74	64	64	75	78	79	81	73	86
Survey	NA	57	NA	NA	NA	60	NA	NA	92	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.

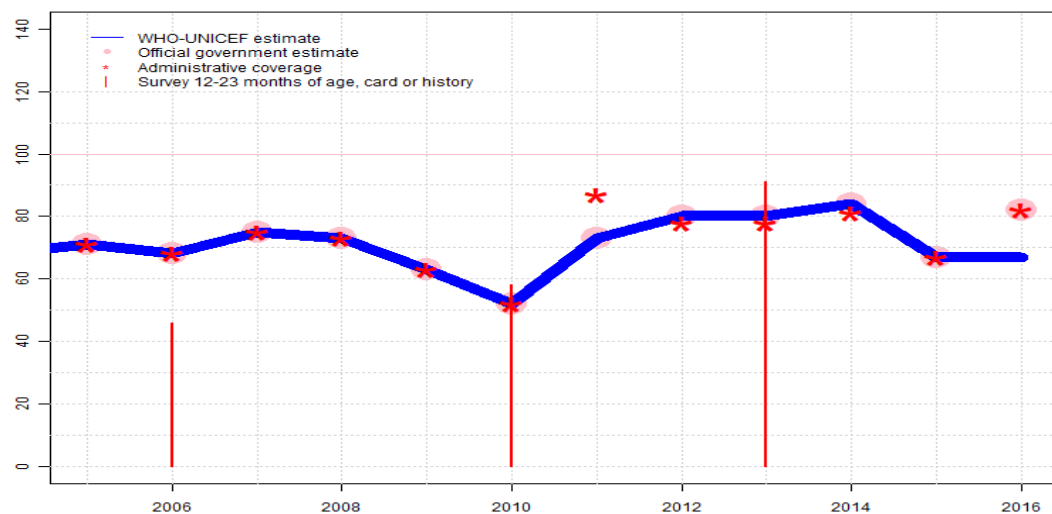
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Reported data excluded due to unexplained sudden change in coverage from 73 level to 86 percent. Preliminary results from 2015 Multiple Indicator Cluster Survey (MICS) suggest coverage of 54 percent. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Programme reports decline in reported coverage due to insufficient funding for conduct of outreach activity. Estimate challenged by: D-S-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Report of the External EPI Review, Mauritania, 2014 card or history results of 92 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 47 percent and 3d dose card only coverage of 43 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2011: Estimate based on coverage reported by national government. Estimate based on reported data. Estimate challenged by: S-
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 68 percent based on 1 survey(s). Mauritania Multiple Indicator Cluster Survey 2011 card or history results of 60 percent modified for recall bias to 68 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 30 percent and 3d dose card only coverage of 23 percent. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 78 percent based on 1 survey(s). Mauritania Multiple Indicator Cluster Survey 2007 card or history results of 57 percent modified for recall bias to 78 percent based on 1st dose card or history coverage of 83 percent, 1st dose card only coverage of 31 percent and 3d dose card only coverage of 29 percent. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

# Mauritania - Pol3

MRT - Pol3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	71	68	75	73	63	52	73	80	80	84	67	67
Estimate GoC	●●●	●●●	●●●	●	●	●●●	●	●	●●●	●	●	●
Official	71	68	75	73	63	52	73	80	80	84	67	82
Administrative	71	68	75	73	63	52	87	78	78	81	67	82
Survey	NA	46	NA	NA	NA	58	NA	NA	91	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.

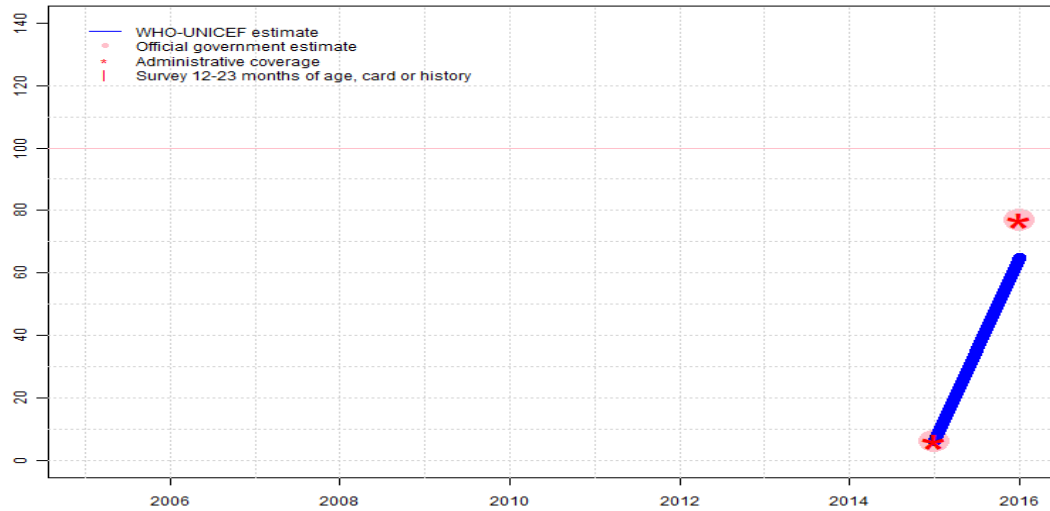
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Reported data excluded due to unexplained sudden change in coverage from 67 level to 82 percent. Preliminary results from 2015 Multiple Indicator Cluster Survey (MICS) suggest coverage of 34 percent. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Programme reports decline in reported coverage due to insufficient funding for conduct of outreach activity. Estimate challenged by: D-S-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 89 percent based on 1 survey(s). Report of the External EPI Review, Mauritania, 2014 card or history results of 91 percent modified for recall bias to 89 percent based on 1st dose card or history coverage of 95 percent, 1st dose card only coverage of 46 percent and 3d dose card only coverage of 43 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2011: Estimate based on coverage reported by national government. Increase is most likely the results of recovery from previous years vaccine shortage. Estimate challenged by: D-S-
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 62 percent based on 1 survey(s). Mauritania Multiple Indicator Cluster Survey 2011 card or history results of 58 percent modified for recall bias to 62 percent based on 1st dose card or history coverage of 85 percent, 1st dose card only coverage of 22 percent and 3d dose card only coverage of 16 percent. Decline is likely the results of three months of vaccine shortage. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Estimate based on coverage reported by national government supported by survey. Survey evidence of 75 percent based on 1 survey(s). Mauritania Multiple Indicator Cluster Survey 2007 card or history results of 46 percent modified for recall bias to 75 percent based on 1st dose card or history coverage of 80 percent, 1st dose card only coverage of 30 percent and 3d dose card only coverage of 28 percent. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

# Mauritania - IPV1

MRT - IPV1



## Description:

2016: Estimate based on the relationship between reported coverage and number of children vaccinated for DTP3. Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Reported data excluded due to unexplained sudden change in coverage from 6 level to 77 percent. Estimate challenged by: D-R-

2015: Estimate based on coverage reported by national government. IPV introduced during November 2015. GoC=R+ D+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6	65
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	••	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6	77
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6	77
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

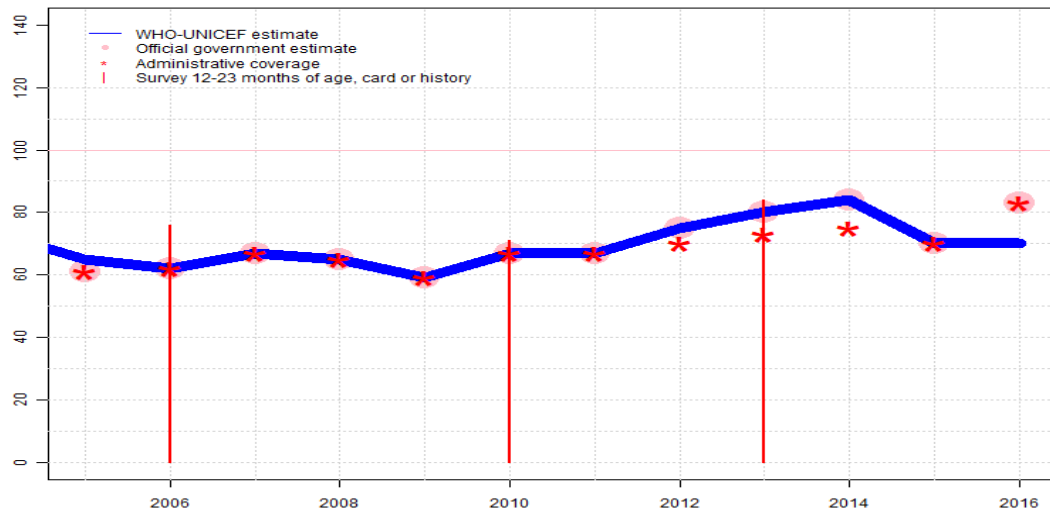
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Mauritania - MCV1

MRT - MCV1



## Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Reported data excluded due to unexplained sudden change in coverage from 70 level to 83 percent. Preliminary results from 2015 Multiple Indicator Cluster Survey (MICS) suggest coverage of 62 percent. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Programme reports decline in reported coverage due to insufficient funding for conduct of outreach activity. Estimate challenged by: D-S-
- 2014: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 71 percent based on 1 survey(s). GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: D-S-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2006: Survey confirms reported data for all antigens. Estimate challenged by: S-
- 2005: Reported data calibrated to 2003 and 2006 levels. Estimate challenged by: R-S-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	65	62	67	65	59	67	67	75	80	84	70	70
Estimate GoC	•	•	•••	•	•	•••	•	•••	•••	•••	•	•
Official	61	62	67	65	59	67	67	75	80	84	70	83
Administrative	61	62	67	65	59	67	67	70	73	75	70	83
Survey	NA	76	NA	NA	NA	71	NA	NA	84	NA	NA	NA

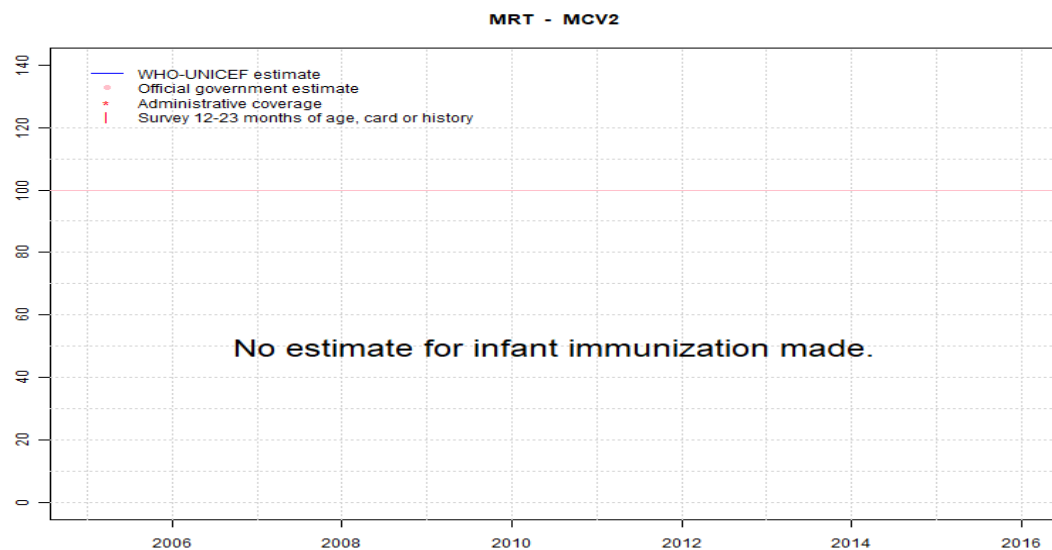
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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



# Mauritania - MCV2



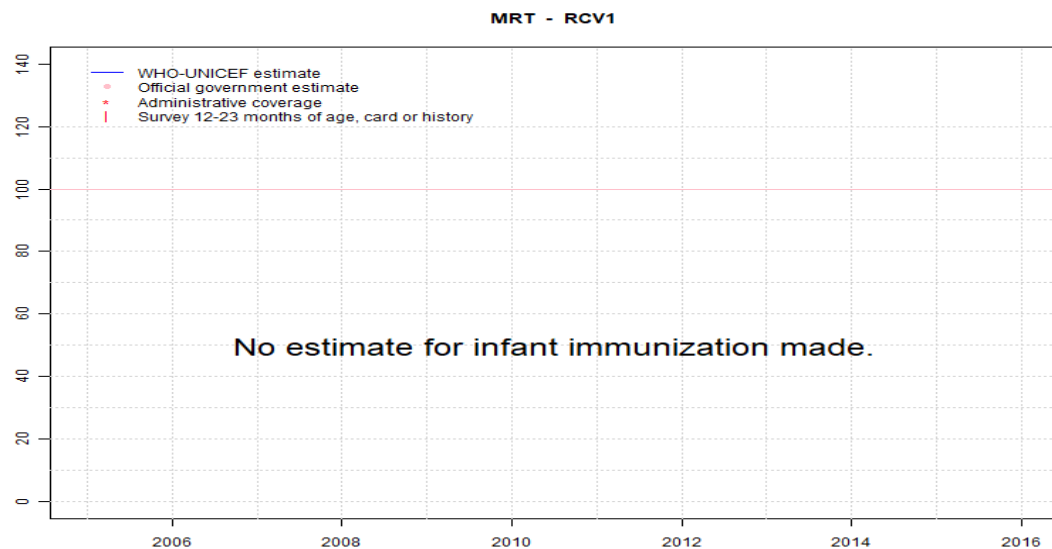
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.

# Mauritania - 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

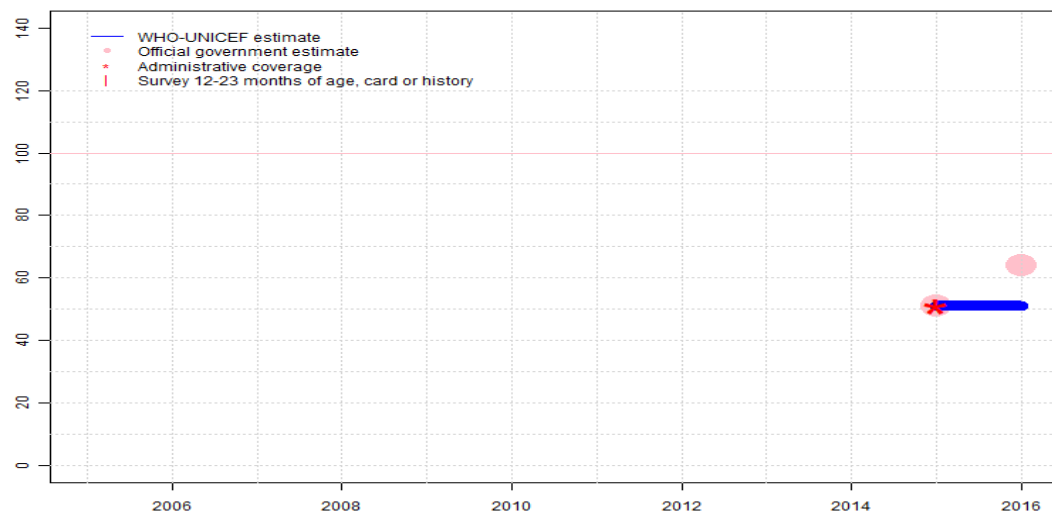
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Mauritania - HepBB

MRT - HepBB



## Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Reported data excluded due to unexplained sudden change in coverage from 51 level to 64 percent. Preliminary results from 2015 Multiple Indicator Cluster Survey (MICS) suggest coverage of 19 percent. It is not clear whether HepB birth dose within 24 hours of birth is monitored. GoC=R+
- 2015: Estimate based on coverage reported by national government. HepB birth dose introduced in January 2013 but reported coverage for 2013 and 2014 reflect doses delivered during first 14 days of life and therefore not a true birth dose. During 2015, reported coverage reflects doses delivered at birth. 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	51	51
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	•	••
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51	64
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

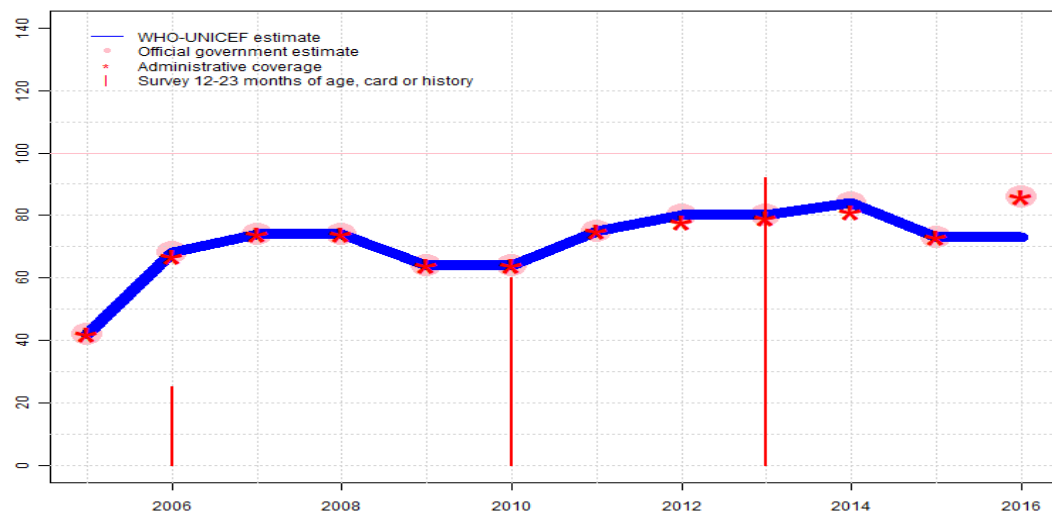
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Mauritania - HepB3

MRT - HepB3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	42	68	74	74	64	64	75	80	80	84	73	73
Estimate GoC	••	••	••	•••	•	•••	•	•	•••	•	•	•
Official	42	68	74	74	64	64	75	80	80	84	73	86
Administrative	42	67	74	74	64	64	75	78	79	81	73	86
Survey	NA	25	NA	NA	NA	60	NA	NA	92	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.

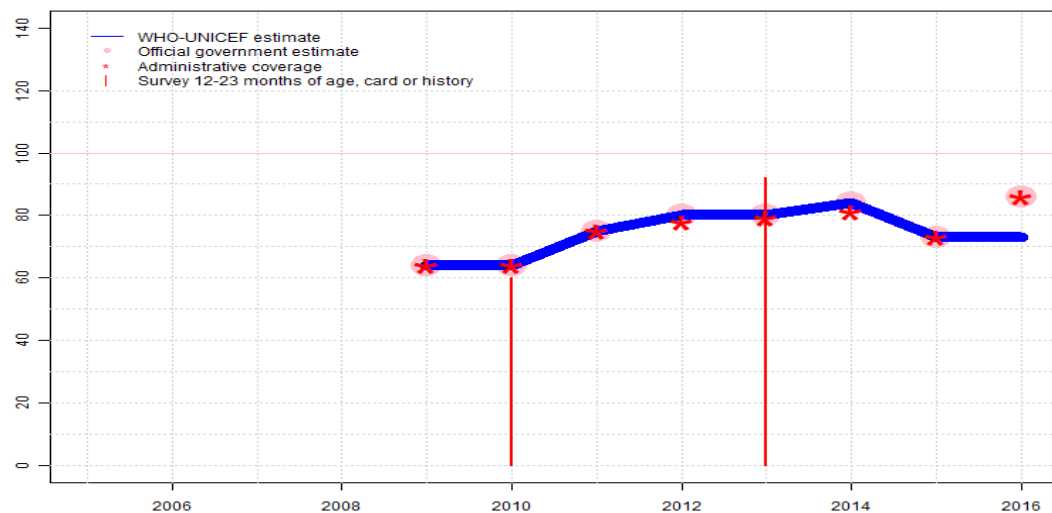
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Reported data excluded due to unexplained sudden change in coverage from 73 level to 86 percent. Preliminary results from 2015 Multiples Indicator Cluster Survey (MICS) suggest coverage of 54 percent. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Programme reports decline in reported coverage due to insufficient funding for conduct of outreach activity. Estimate challenged by: D-S-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Report of the External EPI Review, Mauritania, 2014 card or history results of 92 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 47 percent and 3d dose card only coverage of 43 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 68 percent based on 1 survey(s). Mauritania Multiple Indicator Cluster Survey 2011 card or history results of 60 percent modified for recall bias to 68 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 30 percent and 3d dose card only coverage of 23 percent. GoC=R+ S+ D+
- 2009: Estimate based on reported data. Estimate challenged by: D-
- 2008: Estimate based on reported data. GoC=R+ S+ D+
- 2007: Estimate based on reported data. GoC=R+ D+
- 2006: Estimate based on reported data. Mauritania Multiple Indicator Cluster Survey 2007 results ignored by working group. Insufficient information to adjust survey results for recall bias. GoC=R+ D+
- 2005: Estimate based on reported data. HepB vaccine introduced in 2005. GoC=R+ D+

# Mauritania - Hib3

MRT - Hib3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	64	64	75	80	80	84	73	73
Estimate GoC	NA	NA	NA	NA	•	•••	•	•	•••	•	•	•
Official	NA	NA	NA	NA	64	64	75	80	80	84	73	86
Administrative	NA	NA	NA	NA	64	64	75	78	79	81	73	86
Survey	NA	NA	NA	NA	NA	60	NA	NA	92	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.

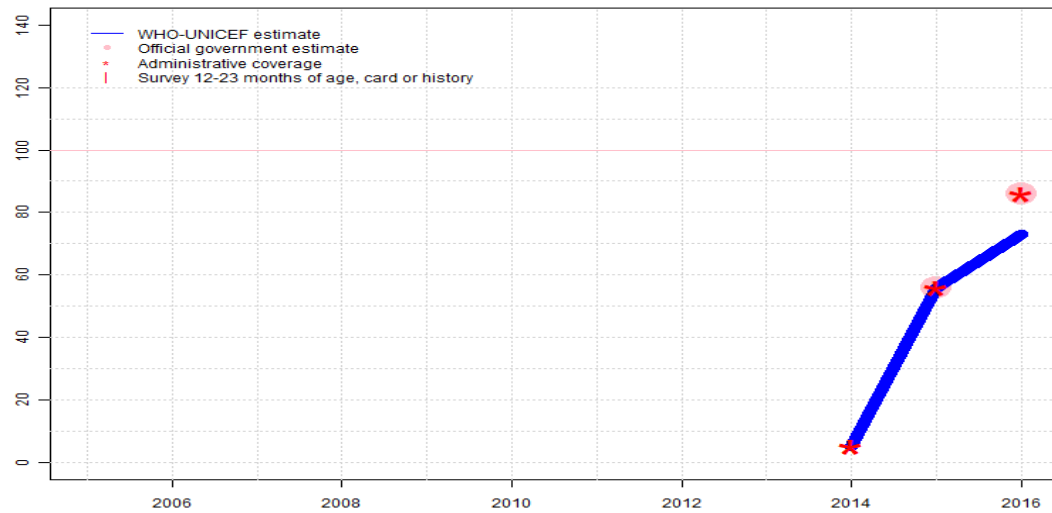
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2016: Estimate based on extrapolation from data reported by national government. Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Reported data excluded due to unexplained sudden change in coverage from 73 level to 86 percent. Preliminary results from 2015 Multiple Indicator Cluster Survey (MICS) suggest coverage of 54 percent. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Programme reports decline in reported coverage due to insufficient funding for conduct of outreach activity. Estimate challenged by: D-S-
- 2014: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Report of the External EPI Review, Mauritania, 2014 card or history results of 92 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 47 percent and 3d dose card only coverage of 43 percent. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2011: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2010: Estimate based on coverage reported by national government supported by survey. Survey evidence of 68 percent based on 1 survey(s). Mauritania Multiple Indicator Cluster Survey 2011 card or history results of 60 percent modified for recall bias to 68 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 30 percent and 3d dose card only coverage of 23 percent. GoC=R+ S+ D+
- 2009: Estimate based on reported data. Hib vaccine introduced in 2009. Vaccine presentation is DTP-HepB-Hib. Estimate challenged by: D-

# Mauritania - RotaC

MRT - RotaC



## Description:

- 2016: Estimate based on coverage for DTP3 Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Preliminary results from 2015 Multiple Indicator Cluster Survey (MICS) suggest coverage of 27 percent. Estimate challenged by: D-R-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on reported administrative estimate. Rotavirus vaccine introduced during December 2014. GoC=Assigned by working group. Consistency with other vaccines during an introduction period.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	56	73
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56	86
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	56	86
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

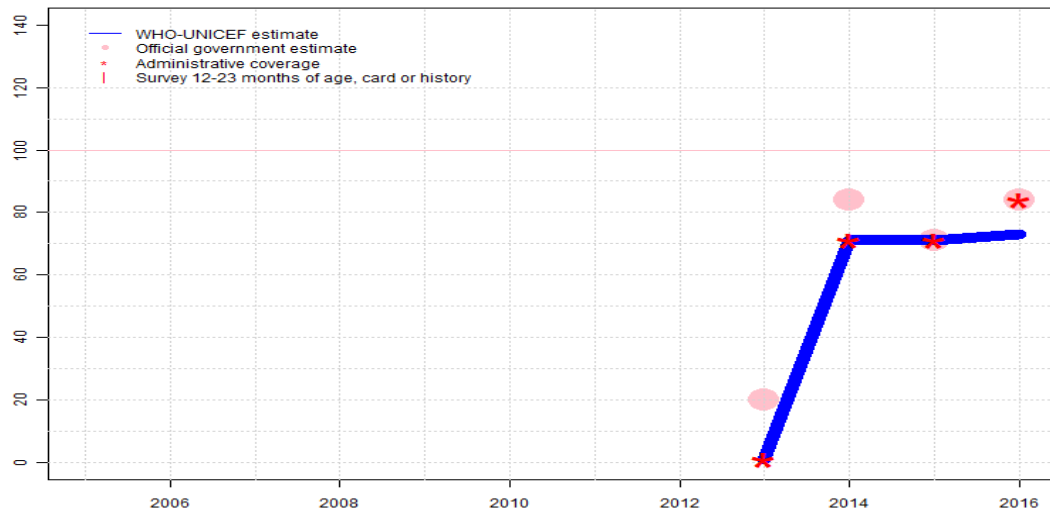
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Mauritania - PcV3

MRT - PcV3



## Description:

- 2016: Estimate based on coverage for DTP3 Reported data excluded. Unexplained reduction in target population of over 16 percent compared to the previous year. Preliminary results from 2015 Multiple Indicator Cluster Survey (MICS) suggest coverage of 50 percent. Estimate challenged by: D-R-
- 2015: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2014: Estimate based on reported administrative estimate. Reported coverage reflects doses administered to national target population following introduction. Adjustment from administrative coverage unexplained. GoC=Assigned by working group. Consistency with other vaccines and during an introduction period.
- 2013: Estimate based on reported administrative estimate. Pneumococcal conjugate vaccine introduced in 2013. GoC=Assigned by working group. Consistency with other vaccines and during an introduction period.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	1	71	71	73
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	20	84	71	84
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	1	71	71	84
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.

# Mauritania - survey details

## 2013 Rapport de la revue externe du PEV Mauritanie 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	52	12-23 m	-	55
BCG	Card or History	97	12-23 m	3727	55
BCG	History	45	12-23 m	-	55
DTP1	Card	47	12-23 m	-	55
DTP1	Card or History	96	12-23 m	3727	55
DTP1	History	49	12-23 m	-	55
DTP3	Card	43	12-23 m	-	55
DTP3	Card or History	92	12-23 m	3727	55
DTP3	History	48	12-23 m	-	55
HepB1	Card	47	12-23 m	-	55
HepB1	Card or History	96	12-23 m	3727	55
HepB1	History	49	12-23 m	-	55
HepB3	Card	43	12-23 m	-	55
HepB3	Card or History	92	12-23 m	3727	55
HepB3	History	48	12-23 m	-	55
Hib1	Card	47	12-23 m	-	55
Hib1	Card or History	96	12-23 m	3727	55
Hib1	History	49	12-23 m	-	55
Hib3	Card	43	12-23 m	-	55
Hib3	Card or History	92	12-23 m	3727	55
Hib3	History	48	12-23 m	-	55
MCV1	Card	37	12-23 m	-	55
MCV1	Card or History	84	12-23 m	3727	55
MCV1	History	47	12-23 m	-	55
Pol1	Card	46	12-23 m	-	55
Pol1	Card or History	95	12-23 m	3727	55
Pol1	History	49	12-23 m	-	55
Pol3	Card	43	12-23 m	-	55
Pol3	Card or History	91	12-23 m	3727	55
Pol3	History	48	12-23 m	-	55

## 2010 Mauritanie Enquête par Grappes à Indicateurs Multiples 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	91	12-23 m	1764	32

BCG	Card	30	12-23 m	-	32
BCG	Card or History	92	12-23 m	1764	32
BCG	History	61	12-23 m	-	32
DTP1	C or H <12 months	88	12-23 m	1764	32
DTP1	Card	30	12-23 m	-	32
DTP1	Card or History	89	12-23 m	1764	32
DTP1	History	59	12-23 m	-	32
DTP3	C or H <12 months	57	12-23 m	1764	32
DTP3	Card	23	12-23 m	-	32
DTP3	Card or History	60	12-23 m	1764	32
DTP3	History	37	12-23 m	-	32
HepB1	C or H <12 months	88	12-23 m	1764	32
HepB1	Card	30	12-23 m	-	32
HepB1	Card or History	89	12-23 m	1764	32
HepB1	History	59	12-23 m	-	32
HepB3	C or H <12 months	57	12-23 m	1764	32
HepB3	Card	23	12-23 m	-	32
HepB3	Card or History	60	12-23 m	1764	32
HepB3	History	37	12-23 m	-	32
Hib1	C or H <12 months	88	12-23 m	1764	32
Hib1	Card	30	12-23 m	-	32
Hib1	Card or History	89	12-23 m	1764	32
Hib1	History	59	12-23 m	-	32
Hib3	C or H <12 months	57	12-23 m	1764	32
Hib3	Card	23	12-23 m	-	32
Hib3	Card or History	60	12-23 m	1764	32
Hib3	History	37	12-23 m	-	32
MCV1	C or H <12 months	63	12-23 m	1764	32
MCV1	Card	15	12-23 m	-	32
MCV1	Card or History	71	12-23 m	1764	32
MCV1	History	57	12-23 m	-	32
Pol1	C or H <12 months	82	12-23 m	1764	32
Pol1	Card	22	12-23 m	-	32
Pol1	Card or History	85	12-23 m	1764	32
Pol1	History	63	12-23 m	-	32
Pol3	C or H <12 months	54	12-23 m	1764	32
Pol3	Card	16	12-23 m	-	32
Pol3	Card or History	58	12-23 m	1764	32
Pol3	History	42	12-23 m	-	32



# Mauritania - survey details

## 2006 L'enquête par grappes à indicateurs multiples de la Mauritanie (MICS 2007)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	84	12-23 m	1681	32
BCG	Card	32	12-23 m	1681	32
BCG	Card or History	86	12-23 m	1681	32
BCG	History	53	12-23 m	1681	32
DTP1	C or H <12 months	79	12-23 m	1681	32
DTP1	Card	31	12-23 m	1681	32
DTP1	Card or History	83	12-23 m	1681	32
DTP1	History	52	12-23 m	1681	32
DTP3	C or H <12 months	53	12-23 m	1681	32
DTP3	Card	29	12-23 m	1681	32
DTP3	Card or History	57	12-23 m	1681	32
DTP3	History	28	12-23 m	1681	32
HepB1	Card or History	27	12-23 m	1681	32
HepB3	Card or History	25	12-23 m	1681	32
MCV1	C or H <12 months	74	12-23 m	1681	32
MCV1	Card	28	12-23 m	1681	32
MCV1	Card or History	76	12-23 m	1681	32
MCV1	History	48	12-23 m	1681	32
Pol1	C or H <12 months	76	12-23 m	1681	32
Pol1	Card	30	12-23 m	1681	32
Pol1	Card or History	80	12-23 m	1681	32
Pol1	History	50	12-23 m	1681	32
Pol3	C or H <12 months	42	12-23 m	1681	32
Pol3	Card	28	12-23 m	1681	32
Pol3	Card or History	46	12-23 m	1681	32
Pol3	History	18	12-23 m	1681	32

## 2003 Enquete sur la couverture vaccinale et la mobilisation sociale, Mauritania, 2004

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or history	96	12-23 m	2774	42
DTP1	Card	36	12-23 m	2774	42
DTP1	Card or history	92	12-23 m	2774	42

DTP3	Card	30	12-23 m	2774	42
DTP3	Card or history	84	12-23 m	2774	42
MCV1	Card	30	12-23 m	2774	42
MCV1	Card or history	84	12-23 m	2774	42
Pol1	Card	34	12-23 m	2774	42
Pol1	Card or history	89	12-23 m	2774	42
Pol3	Card	29	12-23 m	2774	42
Pol3	Card or history	82	12-23 m	2774	42

## 1999 Enquête Démographique et de Santé Mauritanie 2000-2001, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	68	12-23 m	950	34
BCG	Card	33	12-23 m	950	34
BCG	Card or History	75	12-23 m	950	34
BCG	History	42	12-23 m	950	34
DTP1	C or H <12 months	61	12-23 m	950	34
DTP1	Card	33	12-23 m	950	34
DTP1	Card or History	70	12-23 m	950	34
DTP1	History	37	12-23 m	950	34
DTP3	C or H <12 months	33	12-23 m	950	34
DTP3	Card	25	12-23 m	950	34
DTP3	Card or History	40	12-23 m	950	34
DTP3	History	15	12-23 m	950	34
MCV1	C or H <12 months	45	12-23 m	950	34
MCV1	Card	26	12-23 m	950	34
MCV1	Card or History	62	12-23 m	950	34
MCV1	History	36	12-23 m	950	34
Pol1	C or H <12 months	70	12-23 m	950	34
Pol1	Card	34	12-23 m	950	34
Pol1	Card or History	80	12-23 m	950	34
Pol1	History	46	12-23 m	950	34
Pol3	C or H <12 months	37	12-23 m	950	34
Pol3	Card	26	12-23 m	950	34
Pol3	Card or History	44	12-23 m	950	34
Pol3	History	18	12-23 m	950	34

## 1998 Enquête Nationale de Couverture Vaccinale-MSAS, 1999

# Mauritania - survey details

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Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen	MCV1	Card or History	62	12-23 m	2287	78
BCG	Card or Scar	80	12-23 m	2287	78	Pol1	Card or History	56	12-23 m	2287	78
DTP1	Card or History	56	12-23 m	2287	78	Pol3	Card or History	16	12-23 m	2287	78
DTP3	Card or History	16	12-23 m	2287	78						

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