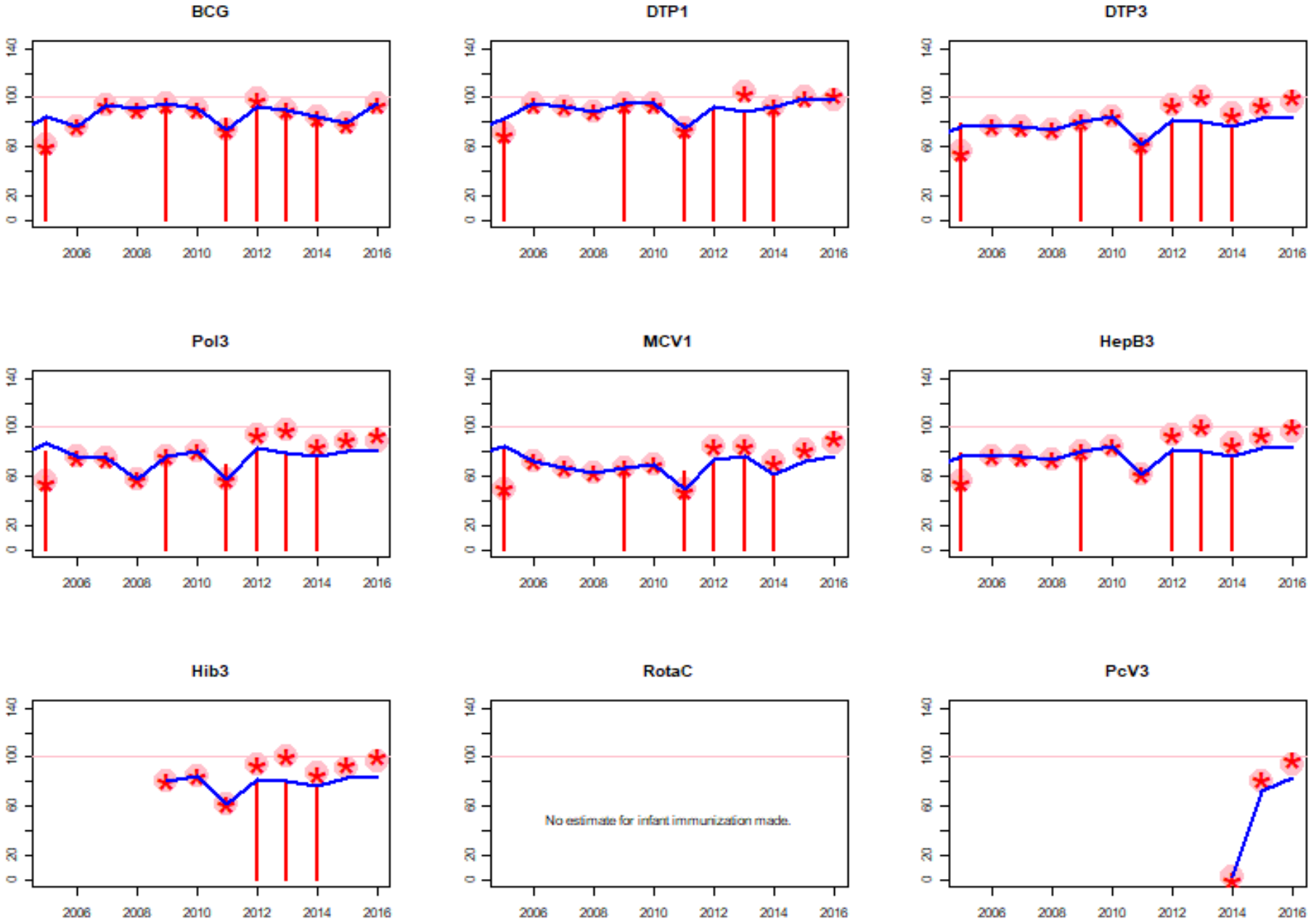

BCG
DTP1
DTP3
Pol3
MCV1
HepB3
Hib3
RotaC
No estimate for infant immunization made.
PcV3
0
20
60
100
140
2006
2008
2010
2012
2014
2016

**B**ACKGROUND 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.

**D**ATA SOURCES.

**ADMINISTRATIVE coverage:** Reported by national authorities and based on aggregated administrative reports from health service providers on the number of vaccinations administered during a given period (numerator data) and reported target population data (denominator data). May be biased by inaccurate numerator and/or denominator data.

**OFFICIAL coverage:** Estimated coverage reported by national authorities that reflects their assessment of the most likely coverage based on any combination of administrative coverage, survey-based estimates or other data sources or adjustments. Approaches to determine OFFICIAL coverage may differ across countries.

**SURVEY coverage:** Based on estimated coverage from population-based household surveys among children aged 12-23 months or 24-35 months following a review of survey methods and results. Information is based on the combination of vaccination history from documented evidence or caregiver recall. Survey results are considered for the appropriate birth cohort based on the period of data collection.

ABBREVIATIONS

**BCG:** percentage of births who received one dose of Bacillus Calmette Guerin vaccine.

**DTP1 / DTP3:** percentage of surviving infants who received the 1st / 3rd dose, respectively, of diphtheria and tetanus toxoid with pertussis containing vaccine.

**Pol3:** percentage of surviving infants who received the 3rd dose of polio containing vaccine. May be either oral or inactivated polio vaccine.

**IPV1:** percentage of surviving infants who received at least one dose of inactivated polio vaccine. In countries utilizing an immunization schedule recommending either (i) a primary series of three doses of oral polio vaccine (OPV) plus at least one dose of IPV where OPV is included in routine immunization and/or campaign or (ii) a sequential schedule of IPV followed by OPV, WHO and UNICEF estimates for IPV1 reflect coverage with at least one routine dose of IPV among infants <1 year of age among countries. For countries utilizing IPV containing vaccine use only, i.e., no recommended dose of OPV, the WHO and UNICEF estimate for IPV1 corresponds to coverage for the 1st dose of IPV.

Production of IPV coverage estimates, which begins in 2015, results in no change of the estimated coverage levels for the 3rd dose of polio (Pol3). For countries recommending routine immunization with a primary series of three doses of IPV alone, WHO and UNICEF estimated Pol3 coverage is equivalent to estimated coverage with three doses of IPV. For countries with a sequential schedule, estimated Pol3 coverage is based on that for the 3rd dose of polio vaccine regardless of vaccine type.

**MCV1:** percentage of surviving infants who received the 1st dose of measles containing vaccine. In countries where the national schedule recommends the 1st dose of MCV at 12 months or later based on the epidemiology of disease in the country, coverage estimates reflect the percentage of children who received the 1st dose of MCV as recommended.

**MCV2:** percentage of children who received the 2nd dose of measles containing vaccine according to the nationally recommended schedule.

**RCV1:** percentage of surviving infants who received the 1st dose of rubella containing vaccine. Co verage estimates are based on WHO and UNICEF estimates of coverage for the dose of measles containing vaccine that corresponds to the first measles-rubella combination vaccine. Nationally reported coverage of RCV is not taken into consideration nor are the data represented in the accompanying graph and data table.

**HepBB:** percentage of births which received a dose of hepatitis B vaccine within 24 hours of delivery. Estimates of hepatitis B birth dose coverage are producted 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.

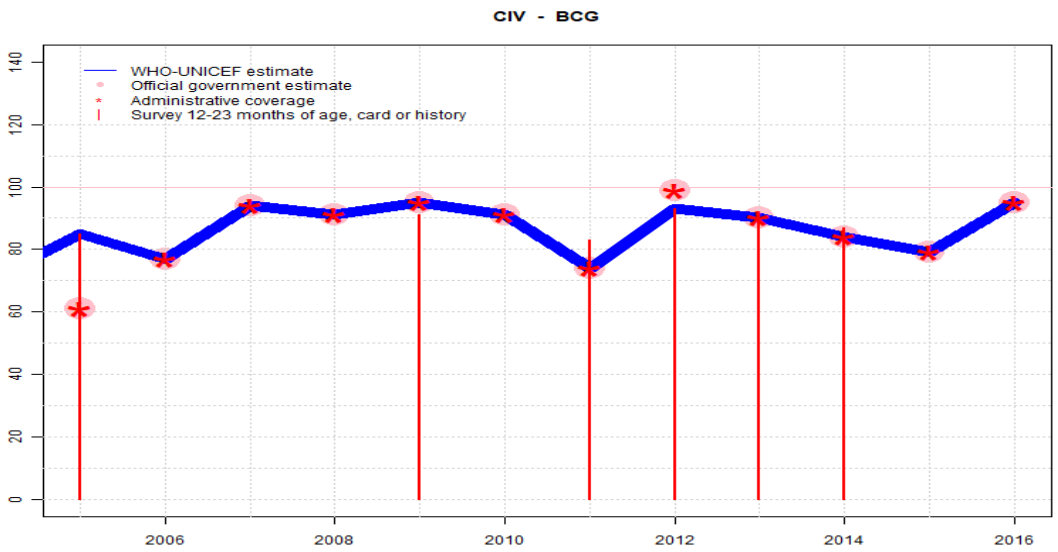
**Hib3:** percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.

**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.

# Côte d'Ivoire - BCG




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimate | 85 | 77 | 94 | 91 | 95 | 91 | 74 | 93 | 90 | 84 | 79 | 95 |
| Estimate GoC | • | • | • | • | • | • | • | • | • | • | • | • |
| Official | 61 | 77 | 94 | 91 | 95 | 91 | 74 | 99 | 90 | 84 | 79 | 95 |
| Administrative | 61 | 77 | 94 | 91 | 95 | 91 | 74 | 99 | 90 | 84 | 79 | 95 |
| Survey | 85 | NA | NA | NA | 91 | NA | 83 | 93 | 91 | 87 | 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 coverage reported by national government. MICS survey conducted in 2015. Working group awaits survey results. Programme reports increasing vaccination sessions and other efforts to increase coverage levels and improve data quality. Increase may be the result of recovering from previous year BCG stock-out. GoC=Assigned by working group. Consistency across vaccines.

2015: Estimate based on reported administrative data. Programme reports three months stock-out at national level. Basis for adjustment to official coverage inconsistent with results from coverage survey. GoC=Assigned by working group. Consistency across vaccines.

2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 87 percent based on 1 survey(s). Programme reports four month stock-out at national level. Estimate is based on reported data. Programme reports that the conduct of supplementary immunization activities for measles and meningitis A as well as enumeration activities during the second half of 2014 was a distraction for routine immunization service delivery. GoC=Assigned by working group. Consistency across vaccines.

2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). Programme reports a two month stock-out at national level. GoC=Assigned by working group. Consistency across vaccines.

2012: Estimate of 93 percent assigned by working group. Estimate is based on survey results consistent with other antigens. Reported coverage might reflect recovery activities following the vaccine shortage in 2011. Estimate challenged by: D-R-

2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 83 percent based on 1 survey(s). Decline in coverage is attributable to vaccine shortages in 70 districts. Estimate challenged by: S-

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

2009: Estimate based on coverage reported by national government. Côte d'Ivoire External EPI Review 2010 results ignored by working group. Survey results are preliminary. Estimate challenged by: D-S-

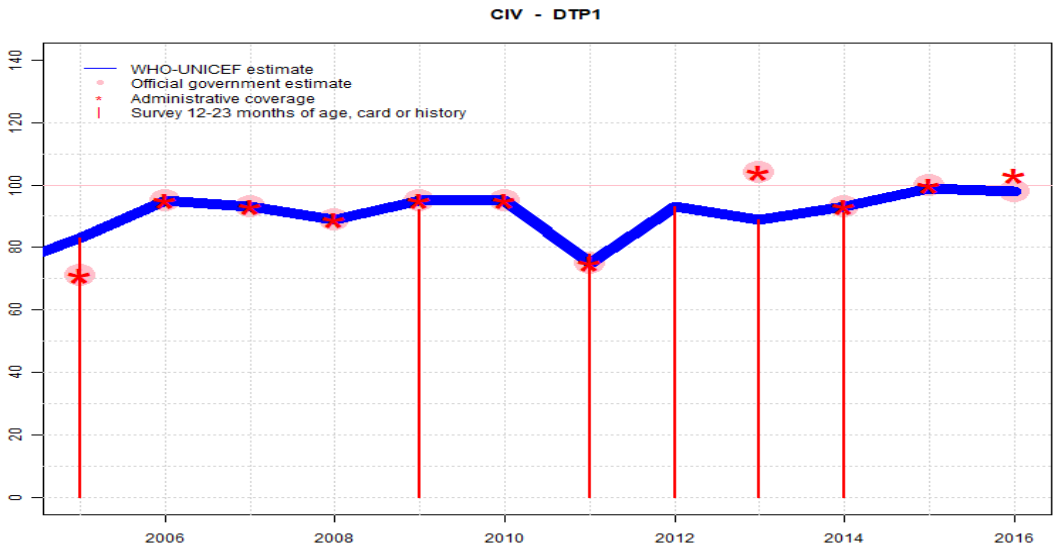
2008: Estimate based on coverage reported by national government. Estimate challenged by: D-

2007: Estimate based on coverage reported by national government. Estimate challenged by: D-

2006: The increase in reported coverage is attributable to revised denominator estimate. Estimate challenged by: D-

2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 85 percent based on 1 survey(s). Estimate challenged by: D-R-

# Côte d'Ivoire - DTP1




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimate | 83 | 95 | 93 | 89 | 95 | 95 | 75 | 93 | 89 | 93 | 99 | 98 |
| Estimate GoC | • | • | ••• | •• | • | • | • | • | • | • | • | • |
| Official | 71 | 95 | 93 | 89 | 95 | 95 | 75 | NA | 104 | 93 | 100 | 98 |
| Administrative | 71 | 95 | 93 | 89 | 95 | 95 | 75 | NA | 104 | 93 | 100 | 103 |
| Survey | 83 | NA | NA | NA | 92 | NA | 78 | 93 | 89 | 91 | 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 coverage reported by national government. MICS survey conducted in 2015. Working group awaits survey results. Programme reports increasing vaccination sessions and other efforts to increase coverage levels and improve data quality. Estimate challenged by: D-

2015: Estimate based on reported administrative data. Basis for adjustment to official coverage inconsistent with results from coverage survey. GoC=Assigned by working group. Consistency across vaccines.

2014: Estimate based on coverage reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). Programme reports seven month stock-out at national level. Survey results do not reflect a decline in coverage as might be expected. Programme reports that the conduct of supplementary immunization activities for measles and meningitis A as well as enumeration activities during the second half of 2014 was a distraction for routine immunization service delivery. GoC=Assigned by working group. Consistency across vaccines.

2013: Estimate of 89 percent assigned by working group. Estimate based on survey result. Reported data excluded because 104 percent greater than 100 percent. Estimate challenged by: D-R-S-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 93 percent based on 1 survey(s). Reported coverage might reflect recovery activities following the vaccine shortage in 2011. GoC=Assigned by working group. No reported data. Consistency with other vaccines.

2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 78 percent based on 1 survey(s). Decline in coverage is attributable to vaccine shortages in 70 districts. Estimate challenged by: S-

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

2009: Estimate based on coverage reported by national government. Côte d'Ivoire External EPI Review 2010 results ignored by working group. Survey results are preliminary. Estimate challenged by: S-

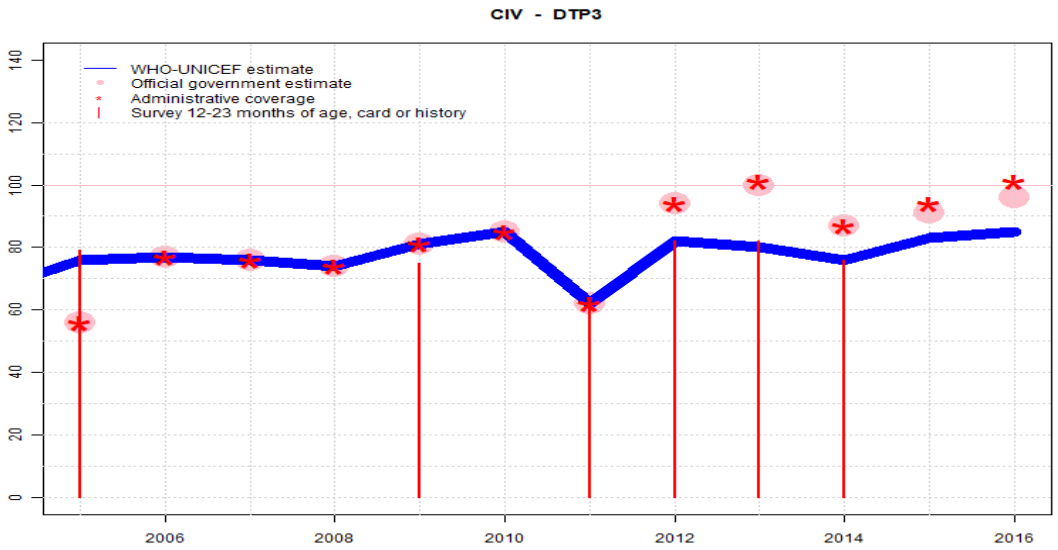
2008: Estimate based on coverage reported by national government. GoC=R+ D+

2007: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2006: The increase in reported coverage is attributable to revised denominator estimate. Estimate challenged by: D-S-

2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 83 percent based on 1 survey(s). Estimate challenged by: R-

# Côte d'Ivoire - DTP3




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimate | 76 | 77 | 76 | 74 | 81 | 85 | 62 | 82 | 80 | 76 | 83 | 85 |
| Estimate GoC | • | ••• | ••• | •• | • | • | • | • | • | • | • | • |
| Official | 56 | 77 | 76 | 74 | 81 | 85 | 62 | 94 | 100 | 87 | 91 | 96 |
| Administrative | 56 | 77 | 76 | 74 | 81 | 85 | 62 | 94 | 101 | 87 | 94 | 101 |
| Survey | 79 | NA | NA | NA | 75 | NA | 64 | 82 | 82 | 76 | 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: Reported data calibrated to 2014 levels. MICS survey conducted in 2015. Working group awaits survey results. Programme reports increasing vaccination sessions and other efforts to increase coverage levels and improve data quality. Estimate challenged by: D-R-

2015: Reported data calibrated to 2014 levels. Drop-out observed in the reported data is inconsistent with that observed in the most recent survey, particularly among those with HBRs where coverage levels would be expected to be highest. Basis for adjustment to official coverage inconsistent with results from coverage survey. Estimate challenged by: D-R-

2014: Estimate of 76 percent assigned by working group. Estimate based on survey level. Programme reports seven month stock-out at national level. Survey results do not reflect a decline in coverage as might be expected. Government disagrees with WHO and UNICEF estimates. Programme reports that the conduct of supplementary immunization activities for measles and meningitis A as well as enumeration activities during the second half of 2014 was a distraction for routine immunization service delivery. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 1 survey(s). Final Report of Evaluation of a Vaccination Campaign against Measles, Cote d Ivoire, 2014 card or history results of 82 percent modifed for recall bias to 80 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 68 percent and 3d dose card only coverage of 61 percent. National programme reports vaccinating 100 percent of children. The programme highlights the conduct of seven weeks of intensification activities that allowed the programme to reach additional children during 2013 compared to previous years. Survey evidence for the 2013 birth cohort challenges the reported coverage level. Estimate challenged by: D-R-S-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 82 percent based on 1 survey(s). Reported coverage might reflect recovery activities following the vaccine shortage in 2011. Estimate challenged by: D-R-S-

2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 67 percent based on 1 survey(s). Côte d'Ivoire Demographic and Health and Multiple Indicator Cluster Survey 2011-2012 card or history results of 64 percent modifed for recall bias to 67 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 65 percent and 3d dose card only coverage of 56 percent. Decline in coverage is attributable to vaccine shortages in 70 districts. Estimate challenged by: S-

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

2009: Estimate based on coverage reported by national government. Côte d'Ivoire External EPI Review 2010 results ignored by working group. Survey results are preliminary. Estimate challenged by: S-

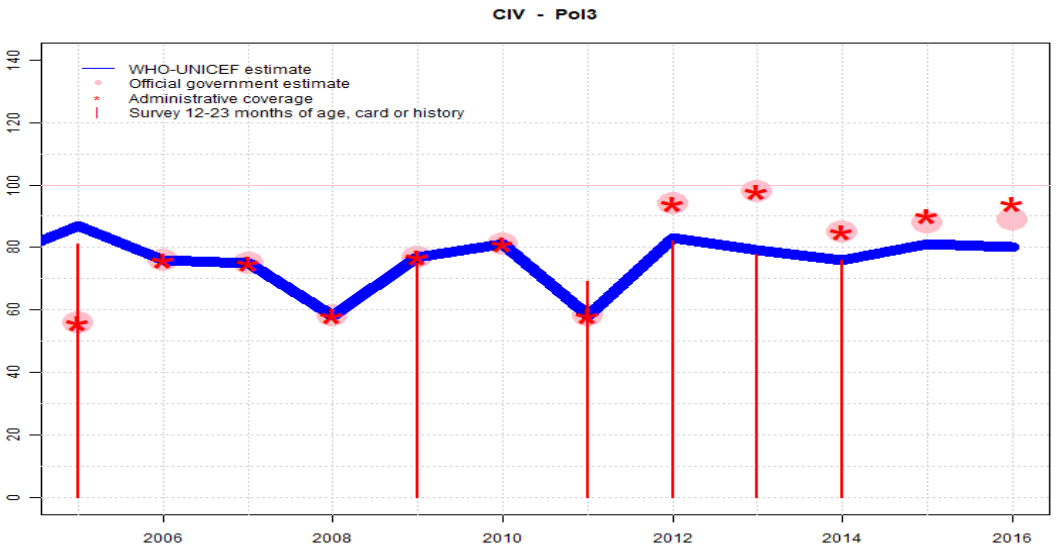
2008: Estimate based on coverage reported by national government. GoC=R+ D+

2007: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2006: The increase in reported coverage is attributable to revised denominator estimate. GoC=R+ S+ D+

2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 76 percent based on 1 survey(s). Côte d'Ivoire Multiple Indicator Cluster Survey, 2006 card or history results of 79 percent modifed for recall bias to 76 percent based on 1st dose card or history coverage of 83 percent, 1st dose card only coverage of 72 percent and 3d dose card only coverage of 66 percent. Estimate challenged by: D-R-

# Côte d'Ivoire - Pol3




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimate | 87 | 76 | 75 | 58 | 77 | 81 | 58 | 83 | 79 | 76 | 81 | 80 |
| Estimate GoC | • | • | • | •• | ••• | ••• | • | • | • | • | • | • |
| Official | 56 | 76 | 75 | 58 | 77 | 81 | 58 | 94 | 98 | 85 | 88 | 89 |
| Administrative | 56 | 76 | 75 | 58 | 77 | 81 | 58 | 94 | 98 | 85 | 90 | 94 |
| Survey | 81 | NA | NA | NA | 75 | NA | 69 | 82 | 78 | 76 | 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: Reported data calibrated to 2014 levels. MICS survey conducted in 2015. Working group awaits survey results. Programme reports increasing vaccination sessions and other efforts to increase coverage levels and improve data quality. Estimate challenged by: D-R-

2015: Reported data calibrated to 2014 levels. Basis for adjustment to official coverage inconsistent with results from coverage survey. Estimate challenged by: D-R-

2014: Estimate of 76 percent assigned by working group. Estimate based on survey level. Programme reports four month stock-out at national level. Government disagrees with WHO and UNICEF estimate. Estimate is based on trend in reported data. Programme reports that the conduct of supplementary immunization activities for measles and meningitis A as well as enumeration activities during the second half of 2014 was a distraction for routine immunization service delivery. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 79 percent based on 1 survey(s). Final Report of Evaluation of a Vaccination Campaign against Measles, Cote d Ivoire, 2014 card or history results of 78 percent modifed for recall bias to 79 percent based on 1st dose card or history coverage of 83 percent, 1st dose card only coverage of 58 percent and 3d dose card only coverage of 55 percent. Programme reports two months stockout at national level. Estimate challenged by: D-R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 83 percent based on 1 survey(s). Vaccination Coverage Survey 2013 card or history results of 82 percent modifed for recall bias to 83 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 88 percent and 3d dose card only coverage of 78 percent. Reported coverage might reflect recovery activities following the vaccine shortage in 2011. Estimate challenged by: D-R-

2011: Survey results likely contain doses administered during campaigns. Côte d'Ivoire Demographic and Health and Multiple Indicator Cluster Survey 2011-2012 card or history results of 69 percent modifed for recall bias to 77 percent based on 1st dose card or history coverage of 91 percent, 1st dose card only coverage of 71 percent and 3d dose card only coverage of 60 percent. Decline in coverage is attributable to vaccine shortages in 70 districts. Estimate challenged by: S-

2010: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2009: Estimate based on coverage reported by national government. Côte d'Ivoire External EPI Review 2010 results ignored by working group. Survey results are preliminary. GoC=R+ S+ D+

2008: Estimate based on coverage reported by national government. Decline in coverage is attributed to two months shortage of vaccine. GoC=R+ D+

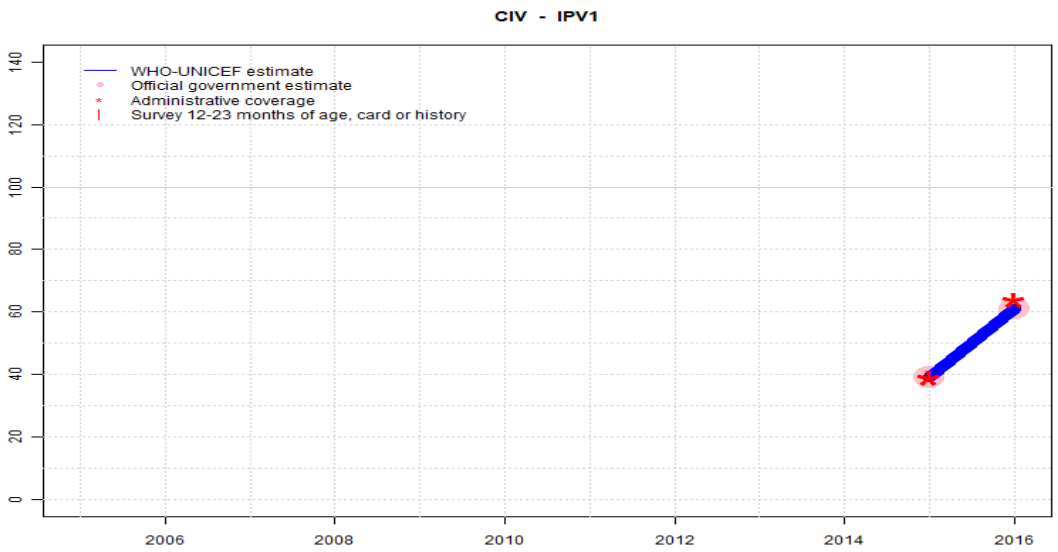
2007: Estimate based on coverage reported by national government. Estimate challenged by: S-

2006: The increase in reported coverage is attributable to revised denominator estimate. Estimate challenged by: S-

2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 87 percent based on 1 survey(s). Côte d'Ivoire Multiple Indicator Cluster

Survey, 2006 card or history results of 81 percent modifed for recall bias to 87 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 71 percent and 3d dose card only coverage of 66 percent. Estimate challenged by: D-R-

# Côte d'Ivoire - IPV1




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimate | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 39 | 61 |
| Estimate GoC | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | • | •• |
| Official | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 39 | 61 |
| Administrative | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 39 | 64 |
| 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.

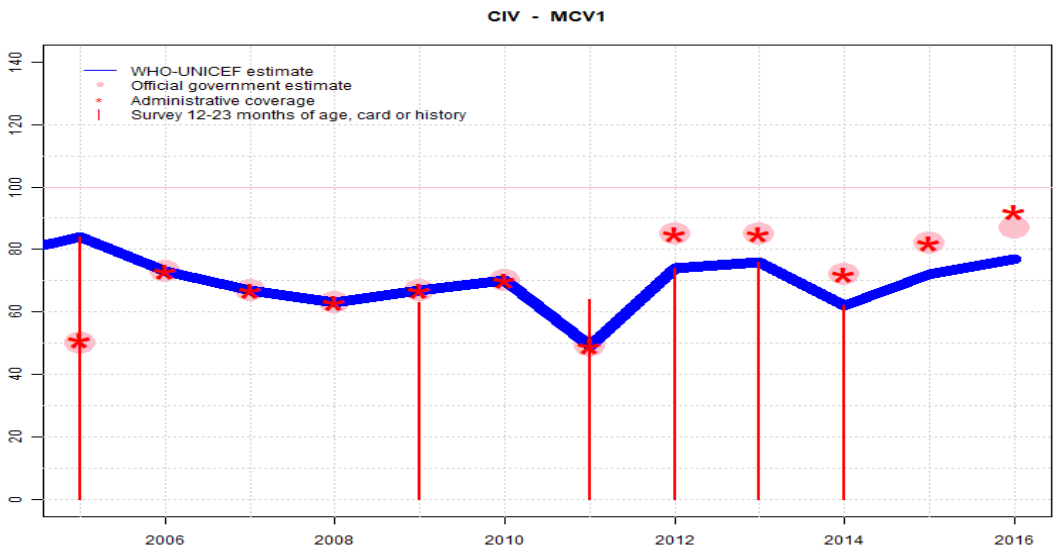
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

2016: Estimate based on coverage reported by national government. MICS survey conducted in 2015. Working group awaits survey results. Programme reports increasing vaccination sessions and other efforts to increase coverage levels and improve data quality.Programme reports a 6 month IPV stock-out. Data reported exceptionally accepted due to year of introduction complicated by reported vaccine stock-outs. GoC=R+ D+

2015: Estimate based on reported administrative estimate. IPV introduced during 2015. Basis for adjustment to official coverage inconsistent with results from coverage survey. GoC=Assigned by working group. Consistency across vaccines.

# Côte d'Ivoire - MCV1




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimate | 84 | 73 | 67 | 63 | 67 | 70 | 49 | 74 | 76 | 62 | 72 | 77 |
| Estimate GoC | • | • | • | •• | ••• | ••• | • | • | • | • | • | • |
| Official | 50 | 73 | 67 | 63 | 67 | 70 | 49 | 85 | 85 | 72 | 82 | 87 |
| Administrative | 51 | 73 | 67 | 63 | 67 | 70 | 49 | 85 | 85 | 72 | 82 | 92 |
| Survey | 84 | NA | NA | NA | 63 | NA | 64 | 74 | 76 | 62 | 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: Reported data calibrated to 2014 levels. MICS survey conducted in 2015. Working group awaits survey results. Programme reports increasing vaccination sessions and other efforts to increase coverage levels and improve data quality. Estimate challenged by: D-R-S-

2015: Reported data calibrated to 2014 levels. Basis for adjustment to official coverage inconsistent with results from coverage survey. Estimate challenged by: D-R-

2014: Estimate of 62 percent assigned by working group. Estimate based on survey level. Programme reports five month stock-out at national level. Government disagrees with WHO and UNICEF estimate. Estimate is based on trend in reported data. Programme reports that the conduct of supplementary immunization activities for measles and meningitis A as well as enumeration activities during the second half of 2014 was a distraction for routine immunization service delivery. Estimate challenged by: D-R-S-

2013: Estimate of 76 percent assigned by working group. Estimate based on survey result. Consistent with other antigens. Programme reports three month stockout at national level. Estimate challenged by: D-R-S-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 1 survey(s). Reported coverage might reflect recovery activities following the vaccine shortage in 2011. Estimate challenged by: D-R-S-

2011: Survey results likely contain doses administered during campaigns. Decline in coverage is attributable to vaccine shortages in 70 districts. Estimate challenged by: S-

2010: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2009: Estimate based on coverage reported by national government. Côte d'Ivoire External EPI Review 2010 results ignored by working group. Survey results are preliminary. GoC=R+ S+ D+

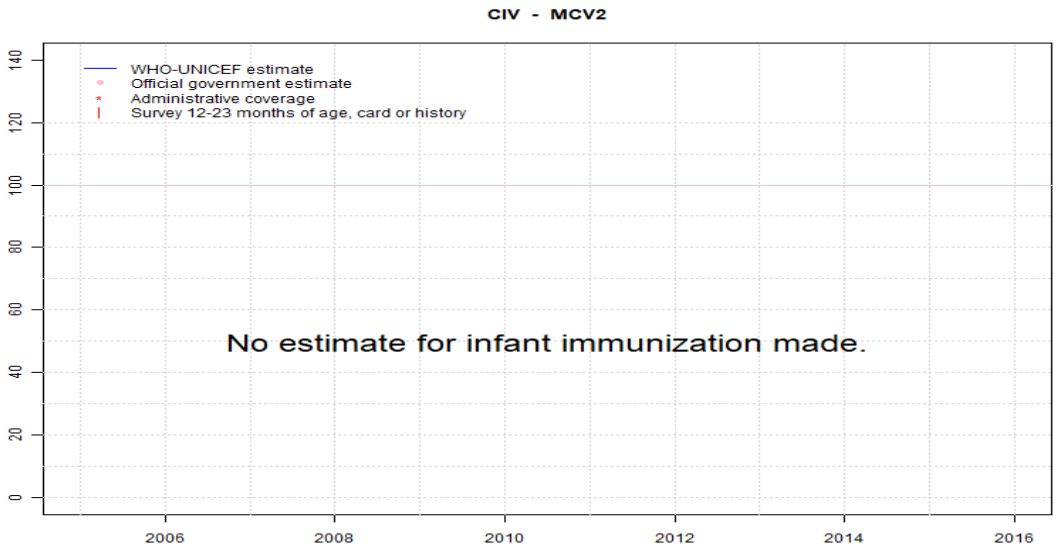
2008: Estimate based on coverage reported by national government. GoC=R+ D+

2007: Estimate based on coverage reported by national government. Estimate challenged by: S-

2006: The increase in reported coverage is attributable to revised denominator estimate. Estimate challenged by: S-

2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 84 percent based on 1 survey(s). Estimate challenged by: D-R-

# Côte d'Ivoire - 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.

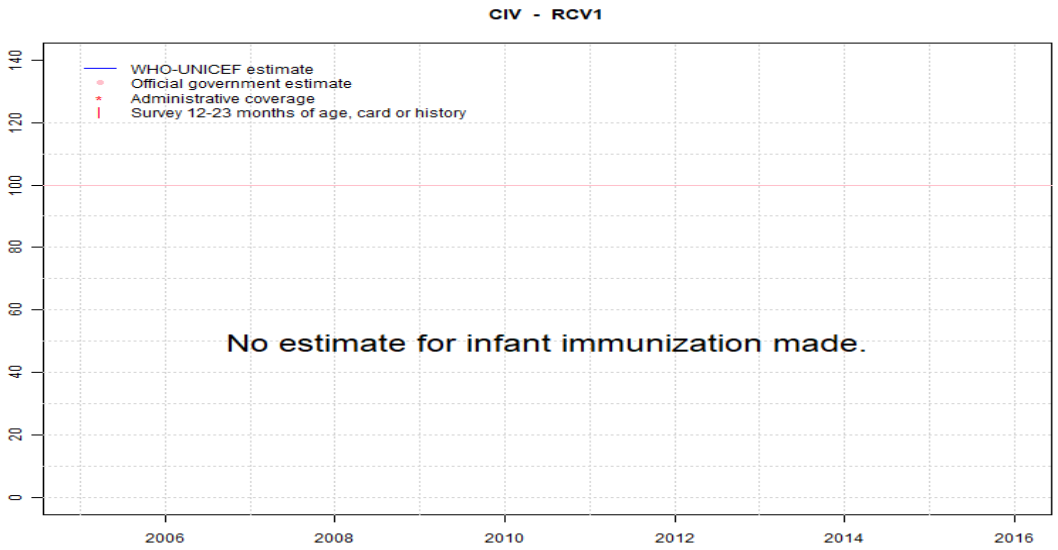
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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.

# Côte d'Ivoire - 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.

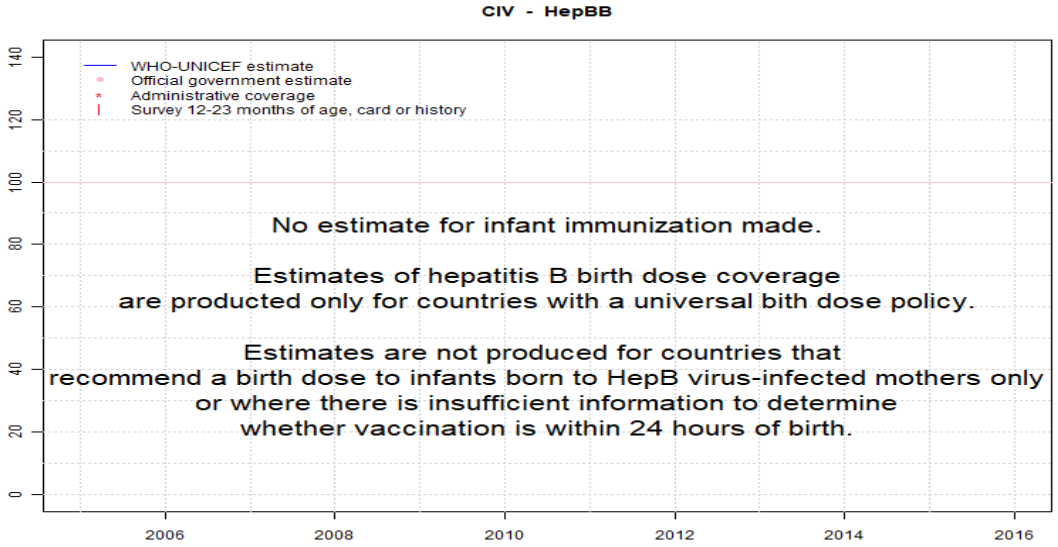
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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.

# Côte d'Ivoire - HepBB




| | 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.

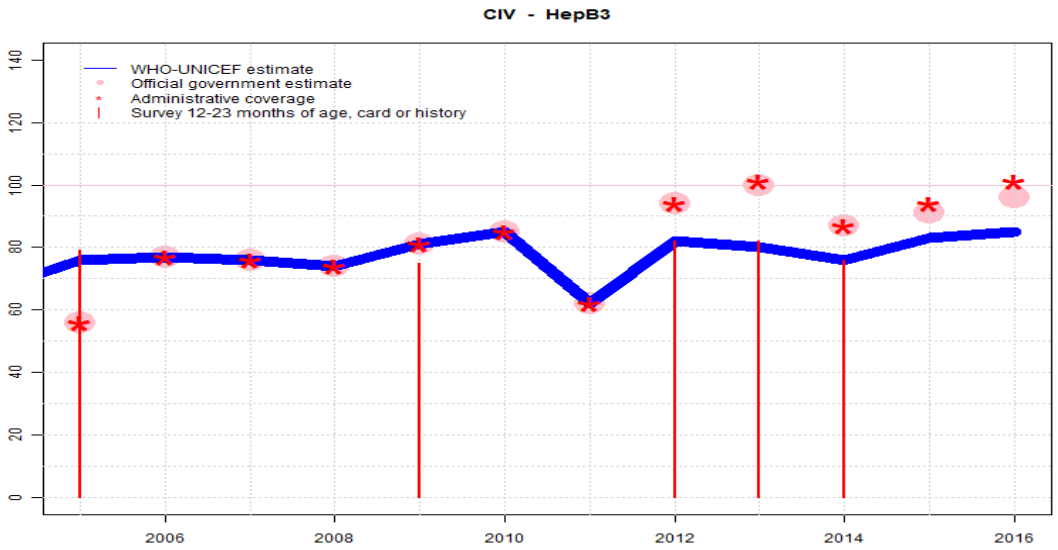
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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.

# Côte d'Ivoire - HepB3




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimate | 76 | 77 | 76 | 74 | 81 | 85 | 62 | 82 | 80 | 76 | 83 | 85 |
| Estimate GoC | • | ••• | ••• | •• | •• | ••• | • | • | • | • | • | • |
| Official | 56 | 77 | 76 | 74 | 81 | 85 | 62 | 94 | 100 | 87 | 91 | 96 |
| Administrative | 56 | 77 | 76 | 74 | 81 | 85 | 62 | 94 | 101 | 87 | 94 | 101 |
| Survey | 79 | NA | NA | NA | 75 | NA | NA | 82 | 82 | 76 | 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: Reported data calibrated to 2014 levels. MICS survey conducted in 2015. Working group awaits survey results. Programme reports increasing vaccination sessions and other efforts to increase coverage levels and improve data quality. Estimate challenged by: D-R-

2015: Reported data calibrated to 2014 levels. Basis for adjustment to official coverage inconsistent with results from coverage survey. Estimate challenged by: D-R-

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 76 percent based on 1 survey(s). Programme reports seven month stock-out at national level. Government disagrees with WHO and UNICEF estimates. Estimate is based on trend in reported data. Programme reports that the conduct of supplementary immunization activities for measles and meningitis A as well as enumeration activities during the second half of 2014 was a distraction for routine immunization service delivery. Estimate challenged by: D-R-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 1 survey(s). Final Report of Evaluation of a Vaccination Campaign against Measles, Cote d Ivoire, 2014 card or history results of 82 percent modifed for recall bias to 80 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 68 percent and 3d dose card only coverage of 61 percent. National programme reports vaccinating 100 percent of children. The programme highlights the conduct of seven weeks of intensification activities that allowed the programme to reach additional children during 2013 compared to previous years. Survey evidence for the 2013 birth cohort challenges the reported coverage level. Estimate challenged by: D-R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 82 percent based on 1 survey(s). Reported coverage might reflect recovery activities following the vaccine shortage in 2011. Estimate challenged by: D-R-

2011: Estimate based on DTP3 coverage level. Decline in coverage is attributable to vaccine shortages in 70 districts. Estimate challenged by: S-

2010: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2009: Estimate based on DTP3 coverage level. Côte d'Ivoire External EPI Review 2010 results ignored by working group. Survey results are preliminary. GoC=R+ D+

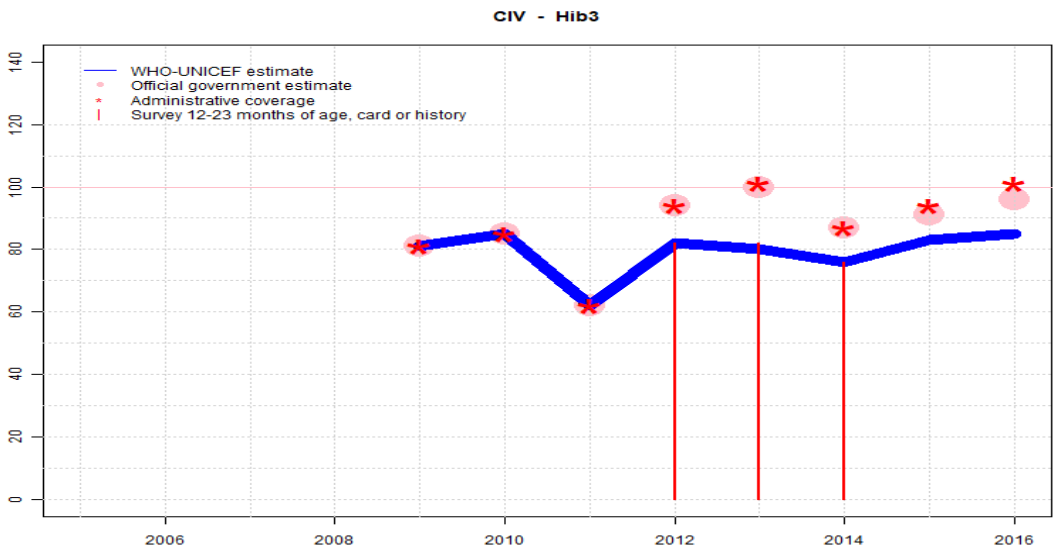
2008: Estimate based on coverage reported by national government. GoC=R+ D+

2007: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2006: The increase in reported coverage is attributable to revised denominator estimate. GoC=R+ S+ D+

2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 76 percent based on 1 survey(s). Côte d'Ivoire Multiple Indicator Cluster Survey, 2006 card or history results of 79 percent modifed for recall bias to 76 percent based on 1st dose card or history coverage of 83 percent, 1st dose card only coverage of 72 percent and 3d dose card only coverage of 66 percent. Estimate challenged by: D-R-

# Côte d'Ivoire - Hib3




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimate | NA | NA | NA | NA | 81 | 85 | 62 | 82 | 80 | 76 | 83 | 85 |
| Estimate GoC | NA | NA | NA | NA | ●● | ●●● | ● | ● | ● | ● | ● | ● |
| Official | NA | NA | NA | NA | 81 | 85 | 62 | 94 | 100 | 87 | 91 | 96 |
| Administrative | NA | NA | NA | NA | 81 | 85 | 62 | 94 | 101 | 87 | 94 | 101 |
| Survey | NA | NA | NA | NA | NA | NA | NA | 82 | 82 | 76 | 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: Reported data calibrated to 2014 levels. MICS survey conducted in 2015. Working group awaits survey results. Programme reports increasing vaccination sessions and other efforts to increase coverage levels and improve data quality. Estimate challenged by: D-R-

2015: Reported data calibrated to 2014 levels. Basis for adjustment to official coverage inconsistent with results from coverage survey. Estimate challenged by: D-R-

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 76 percent based on 1 survey(s). Programme reports seven month stock-out at national level. Government disagrees with WHO and UNICEF estimates. Estimate is based on trend in reported data. Programme reports that the conduct of supplementary immunization activities for measles and meningitis A as well as enumeration activities during the second half of 2014 was a distraction for routine immunization service delivery. Estimate challenged by: D-R-

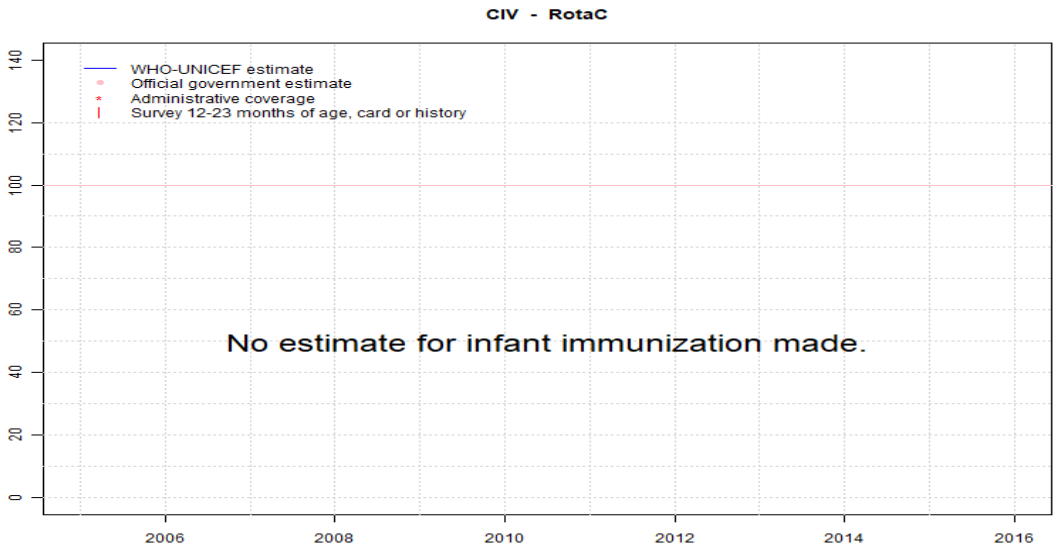
2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 80 percent based on 1 survey(s). Final Report of Evaluation of a Vaccination Campaign against Measles, Cote d Ivoire, 2014 card or history results of 82 percent modifed for recall bias to 80 percent based on 1st dose card or history coverage of 89 percent, 1st dose card only coverage of 68 percent and 3d dose card only coverage of 61 percent. National programme reports vaccinating 100 percent of children. The programme highlights the conduct of seven weeks of intensification activities that allowed the programme to reach additional children during 2013 compared to previous years. Survey evidence for the 2013 birth cohort challenges the reported coverage level. Estimate challenged by: D-R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 82 percent based on 1 survey(s). Reported coverage might reflect recovery activities following the vaccine shortage in 2011. Estimate challenged by: D-R-

2011: Estimate based on DTP3 coverage level. Decline in coverage is attributable to vaccine shortages in 70 districts. Estimate challenged by: S-

2010: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2009: Estimate based on DTP3 coverage level. Hib vaccine introduced in 2009. Vaccine presentation is DTP-HepB-Hib. 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 | 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.

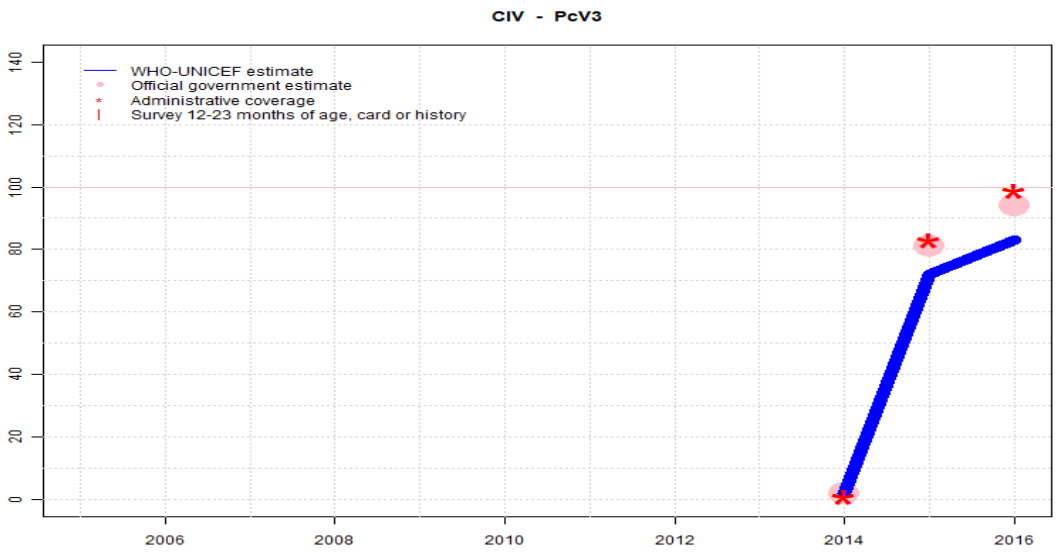
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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.

# Côte d'Ivoire - PcV3




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimate | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2 | 72 | 83 |
| Estimate GoC | NA | NA | NA | NA | NA | NA | NA | NA | NA | • | • | • |
| Official | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2 | 81 | 94 |
| Administrative | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1 | 83 | 99 |
| Survey | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

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

●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 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.

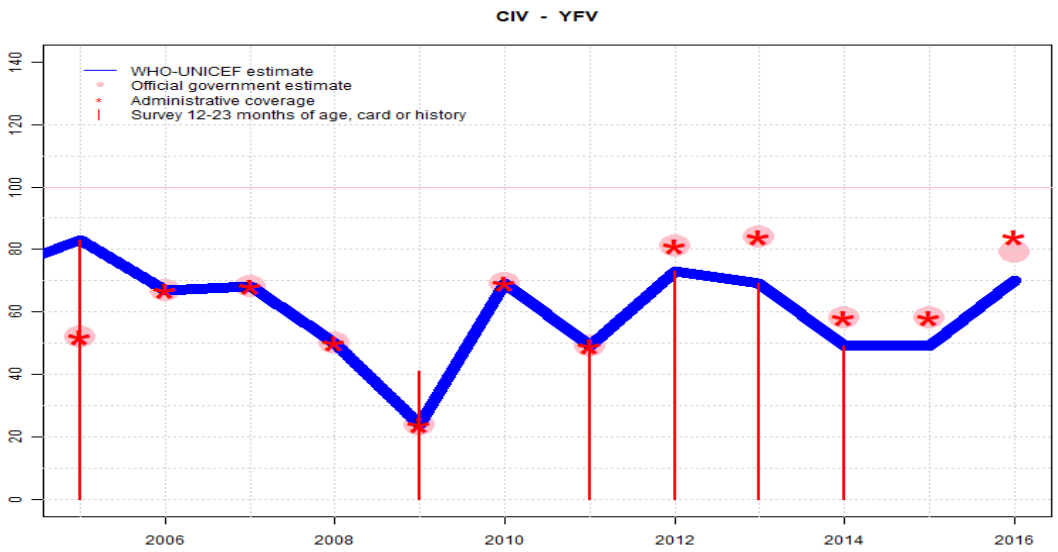
## Description:

2016: Reported data calibrated to 2015 levels. MICS survey conducted in 2015. Working group awaits survey results. Programme reports increasing vaccination sessions and other efforts to increase coverage levels and improve data quality. Estimate challenged by: D-R-

2015: Estimate of 72 percent assigned by working group. Estimate is based on the difference between the administrative coverage and estimate for DTP3. Basis for adjustment to official coverage inconsistent with results from coverage survey. Estimate challenged by: D-R-

2014: Pneumococcal conjugate vaccine introduced during September 2014. Estimate is based on reported data. Programme reports that the conduct of supplementary immunization activities for measles and meningitis A as well as enumeration activities during the second half of 2014 was a distraction for routine immunization service delivery. GoC=Assigned by working group. Consistency across vaccines.

# Côte d'Ivoire - YFV




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimate | 83 | 67 | 68 | 50 | 24 | 69 | 49 | 73 | 69 | 49 | 49 | 70 |
| Estimate GoC | • | • | • | •• | • | • | • | • | • | • | • | • |
| Official | 52 | 67 | 68 | 50 | 24 | 69 | 49 | 81 | 84 | 58 | 58 | 79 |
| Administrative | 52 | 67 | 68 | 50 | 24 | 69 | 49 | 81 | 84 | 58 | 58 | 84 |
| Survey | 83 | NA | NA | NA | 41 | NA | 48 | 73 | 69 | 49 | 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: Reported data calibrated to 2014 levels. MICS survey conducted in 2015. Working group awaits survey results. Programme reports increasing vaccination sessions and other efforts to increase coverage levels and improve data quality.Programme reports a 2 month yellow fever vaccine stock-out. Estimate challenged by: D-R-S-

2015: Reported data calibrated to 2014 levels. Programme reports three months stock-out at national level. Basis for adjustment to official coverage inconsistent with results from coverage survey. Estimate challenged by: D-R-S-

2014: Estimate of 49 percent assigned by working group. Estimate based on survey level. Programme reports six month stock-out at national level. Estimate is based on trend in reported data. Programme reports that the conduct of supplementary immunization activities for measles and meningitis A as well as enumeration activities during the second half of 2014 was a distraction for routine immunization service delivery. Estimate challenged by: D-R-S-

2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 69 percent based on 1 survey(s). Programme reports four month stockout at national level. Estimate challenged by: D-R-S-

2012: Estimate of 73 percent assigned by working group. Estimate is based on survey results consistent with other antigens. Reported coverage might reflect recovery activities following the vaccine shortage in 2011. Estimate challenged by: D-R-S-

2011: Estimate based on coverage reported by national government supported by survey. Survey evidence of 48 percent based on 1 survey(s). Decline in coverage is attributable to vaccine shortages in 70 districts. Estimate challenged by: S-

2010: Estimate based on coverage reported by national government. Increased coverage likely reflects catch-up activities following stockout in the previous year. Estimate challenged by: S-

2009: Estimate based on coverage reported by national government. Côte d'Ivoire External EPI Review 2010 results ignored by working group. Survey results are preliminary. Ten-month vaccine stock-out reported. Estimate challenged by: S-

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

2007: Estimate based on coverage reported by national government. Estimate challenged by: S-

2006: The increase in reported coverage is attributable to revised denominator estimate. Estimate challenged by: S-

2005: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 83 percent based on 1 survey(s). Estimate challenged by: D-R-

# Côte d'Ivoire - survey details

## 2014 Revue Externe du Programme Elargi de Vaccination de Cote d'Ivoire in 2015

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | Card | 85 | 12-23 m | 6416 | 91 |
| BCG | Card or History | 87 | 12-23 m | 6416 | 91 |
| DTP1 | Card | 84 | 12-23 m | 6416 | 91 |
| DTP1 | Card or History | 91 | 12-23 m | 6416 | 91 |
| DTP3 | Card | 70 | 12-23 m | 6416 | 91 |
| DTP3 | Card or History | 76 | 12-23 m | 6416 | 91 |
| HepB1 | Card | 84 | 12-23 m | 6416 | 91 |
| HepB1 | Card or History | 91 | 12-23 m | 6416 | 91 |
| HepB3 | Card | 70 | 12-23 m | 6416 | 91 |
| HepB3 | Card or History | 76 | 12-23 m | 6416 | 91 |
| Hib1 | Card | 84 | 12-23 m | 6416 | 91 |
| Hib1 | Card or History | 91 | 12-23 m | 6416 | 91 |
| Hib3 | Card | 70 | 12-23 m | 6416 | 91 |
| Hib3 | Card or History | 76 | 12-23 m | 6416 | 91 |
| MCV1 | Card | 57 | 12-23 m | 6416 | 91 |
| MCV1 | Card or History | 62 | 12-23 m | 6416 | 91 |
| Pol3 | Card | 70 | 12-23 m | 6416 | 91 |
| Pol3 | Card or History | 76 | 12-23 m | 6416 | 91 |
| YFV | Card | 44 | 12-23 m | 6416 | 91 |
| YFV | Card or History | 49 | 12-23 m | 6416 | 91 |

## 2013 Republique de Cote d'Ivoire Evaluation de la Campagne de Vaccination contre la Rougeole 2014 (Rapport Final)

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | Card | 61 | 12-23 m | - | 75 |
| BCG | Card or History | 91 | 12-23 m | 8787 | 75 |
| DTP1 | Card | 68 | 12-23 m | - | 75 |
| DTP1 | Card or History | 89 | 12-23 m | 8787 | 75 |
| DTP3 | Card | 61 | 12-23 m | - | 75 |
| DTP3 | Card or History | 82 | 12-23 m | 8787 | 75 |
| HepB1 | Card | 68 | 12-23 m | - | 75 |
| HepB1 | Card or History | 89 | 12-23 m | 8787 | 75 |
| HepB3 | Card | 61 | 12-23 m | - | 75 |
| HepB3 | Card or History | 82 | 12-23 m | 8787 | 75 |
| Hib1 | Card | 68 | 12-23 m | - | 75 |
| Hib1 | Card or History | 89 | 12-23 m | 8787 | 75 |
| Hib3 | Card | 61 | 12-23 m | - | 75 |
| Hib3 | Card or History | 82 | 12-23 m | 8787 | 75 |
| MCV1 | Card | 55 | 12-23 m | - | 75 |
| MCV1 | Card or History | 76 | 12-23 m | 8787 | 75 |
| Pol1 | Card | 58 | 12-23 m | - | 75 |
| Pol1 | Card or History | 83 | 12-23 m | 8787 | 75 |
| Pol3 | Card | 55 | 12-23 m | - | 75 |
| Pol3 | Card or History | 78 | 12-23 m | 8787 | 75 |
| YFV | Card | 49 | 12-23 m | - | 75 |
| YFV | Card or History | 69 | 12-23 m | 8787 | 75 |

## 2012 Enquête de Couverture Vaccinale 2013

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | Card | 87 | 12-23 m | - | 88 |
| BCG | Card or History | 93 | 12-23 m | 4751 | 88 |
| DTP1 | Card | 88 | 12-23 m | - | 88 |
| DTP1 | Card or History | 93 | 12-23 m | 4751 | 88 |
| DTP3 | Card | 78 | 12-23 m | - | 88 |
| DTP3 | Card or History | 82 | 12-23 m | 4751 | 88 |
| HepB1 | Card | 88 | 12-23 m | - | 88 |
| HepB1 | Card or History | 93 | 12-23 m | 4751 | 88 |
| HepB3 | Card | 78 | 12-23 m | - | 88 |
| HepB3 | Card or History | 82 | 12-23 m | 4751 | 88 |
| Hib1 | Card | 88 | 12-23 m | - | 88 |
| Hib1 | Card or History | 93 | 12-23 m | 4751 | 88 |
| Hib3 | Card | 78 | 12-23 m | - | 88 |
| Hib3 | Card or History | 82 | 12-23 m | 4751 | 88 |
| MCV1 | Card | 71 | 12-23 m | - | 88 |
| MCV1 | Card or History | 74 | 12-23 m | 4751 | 88 |
| Pol1 | Card | 88 | 12-23 m | - | 88 |
| Pol1 | Card or History | 94 | 12-23 m | 4751 | 88 |
| Pol3 | Card | 78 | 12-23 m | - | 88 |
| Pol3 | Card or History | 82 | 12-23 m | 4751 | 88 |
| YFV | Card | 69 | 12-23 m | - | 88 |
| YFV | Card or History | 73 | 12-23 m | 4751 | 88 |

# Côte d'Ivoire - survey details

2011 Enquête Démographique et de Santé et à Indicateurs Multiples EDSCI-III, Côte d'Ivoire, 2011-2012

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | C or H <12 months | 83 | 12-23 m | 1432 | 74 |
| BCG | Card | 68 | 12-23 m | 1061 | 74 |
| BCG | Card or History | 83 | 12-23 m | 1432 | 74 |
| BCG | History | 15 | 12-23 m | 371 | 74 |
| DTP1 | C or H <12 months | 77 | 12-23 m | 1432 | 74 |
| DTP1 | Card | 65 | 12-23 m | 1061 | 74 |
| DTP1 | Card or History | 78 | 12-23 m | 1432 | 74 |
| DTP1 | History | 12 | 12-23 m | 371 | 74 |
| DTP3 | C or H <12 months | 60 | 12-23 m | 1432 | 74 |
| DTP3 | Card | 56 | 12-23 m | 1061 | 74 |
| DTP3 | Card or History | 64 | 12-23 m | 1432 | 74 |
| DTP3 | History | 8 | 12-23 m | 371 | 74 |
| MCV1 | C or H <12 months | 49 | 12-23 m | 1432 | 74 |
| MCV1 | Card | 53 | 12-23 m | 1061 | 74 |
| MCV1 | Card or History | 64 | 12-23 m | 1432 | 74 |
| MCV1 | History | 12 | 12-23 m | 371 | 74 |
| Pol1 | C or H <12 months | 91 | 12-23 m | 1432 | 74 |
| Pol1 | Card | 71 | 12-23 m | 1061 | 74 |
| Pol1 | Card or History | 91 | 12-23 m | 1432 | 74 |
| Pol1 | History | 20 | 12-23 m | 371 | 74 |
| Pol3 | C or H <12 months | 65 | 12-23 m | 1432 | 74 |
| Pol3 | Card | 60 | 12-23 m | 1061 | 74 |
| Pol3 | Card or History | 69 | 12-23 m | 1432 | 74 |
| Pol3 | History | 9 | 12-23 m | 371 | 74 |
| YFV | C or H <12 months | 34 | 12-23 m | 1432 | 74 |
| YFV | Card | 48 | 12-23 m | 1061 | 74 |
| YFV | Card or History | 48 | 12-23 m | 1432 | 74 |
| YFV | History | 0 | 12-23 m | 371 | 74 |

2010 Enquête Démographique et de Santé et à Indicateurs Multiples EDSCI-III, Côte d'Ivoire, 2011-2012

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | C or H <12 months | 84 | 24-35 m | 1350 | 74 |
| DTP1 | C or H <12 months | 79 | 24-35 m | 1350 | 74 |
| DTP3 | C or H <12 months | 62 | 24-35 m | 1350 | 74 |
| MCV1 | C or H <12 months | 52 | 24-35 m | 1350 | 74 |
| Pol1 | C or H <12 months | 90 | 24-35 m | 1350 | 74 |
| Pol3 | C or H <12 months | 64 | 24-35 m | 1350 | 74 |

2009 Côte D'Ivoire Revue externe 2010 du Programme Elargi de Vaccination

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | Card | 87 | 12-23 m | - | 91 |
| BCG | Card <12 months | 78 | 12-23 m | - | 91 |
| BCG | Card or History | 91 | 12-23 m | 3455 | 91 |
| DTP1 | Card | 78 | 12-23 m | - | 91 |
| DTP1 | Card <12 months | 72 | 12-23 m | - | 91 |
| DTP1 | Card or History | 92 | 12-23 m | 3455 | 91 |
| DTP3 | Card | 64 | 12-23 m | - | 91 |
| DTP3 | Card <12 months | 53 | 12-23 m | - | 91 |
| DTP3 | Card or History | 75 | 12-23 m | 3455 | 91 |
| HepB1 | Card | 78 | 12-23 m | - | 91 |
| HepB1 | Card <12 months | 72 | 12-23 m | - | 91 |
| HepB1 | Card or History | 92 | 12-23 m | 3455 | 91 |
| HepB3 | Card | 64 | 12-23 m | - | 91 |
| HepB3 | Card <12 months | 53 | 12-23 m | - | 91 |
| HepB3 | Card or History | 75 | 12-23 m | 3455 | 91 |
| MCV1 | Card | 57 | 12-23 m | - | 91 |
| MCV1 | Card <12 months | 40 | 12-23 m | - | 91 |
| MCV1 | Card or History | 63 | 12-23 m | 3455 | 91 |
| Pol1 | Card | 81 | 12-23 m | - | 91 |
| Pol1 | Card <12 months | 74 | 12-23 m | - | 91 |
| Pol1 | Card or History | 92 | 12-23 m | 3455 | 91 |
| Pol3 | Card | 66 | 12-23 m | - | 91 |
| Pol3 | Card <12 months | 55 | 12-23 m | - | 91 |
| Pol3 | Card or History | 75 | 12-23 m | 3455 | 91 |
| YFV | Card | 36 | 12-23 m | - | 91 |
| YFV | Card <12 months | 24 | 12-23 m | - | 91 |
| YFV | Card or History | 41 | 12-23 m | 3455 | 91 |

# Côte d'Ivoire - survey details

2009 Enquête Démographique et de Santé et à Indicateurs Multiples EDSCI-III, Côte d'Ivoire, 2011-2012

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | C or H <12 months | 79 | 36-47 m | 1289 | 74 |
| DTP1 | C or H <12 months | 72 | 36-47 m | 1289 | 74 |
| DTP3 | C or H <12 months | 54 | 36-47 m | 1289 | 74 |
| MCV1 | C or H <12 months | 48 | 36-47 m | 1289 | 74 |
| Pol1 | C or H <12 months | 84 | 36-47 m | 1289 | 74 |
| Pol3 | C or H <12 months | 57 | 36-47 m | 1289 | 74 |

2008 Enquête Démographique et de Santé et à Indicateurs Multiples EDSCI-III, Côte d'Ivoire, 2011-2012

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | C or H <12 months | 79 | 46-59 m | 1250 | 74 |
| DTP1 | C or H <12 months | 72 | 46-59 m | 1250 | 74 |
| DTP3 | C or H <12 months | 54 | 46-59 m | 1250 | 74 |
| MCV1 | C or H <12 months | 50 | 46-59 m | 1250 | 74 |
| Pol1 | C or H <12 months | 84 | 46-59 m | 1250 | 74 |
| Pol3 | C or H <12 months | 55 | 46-59 m | 1250 | 74 |

2005 Enquête par grappes à indicateurs multiples, Côte d'Ivoire, 2006

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | C or H <12 months | 85 | 12-23 m | 1751 | 73 |
| BCG | Card | 72 | 12-23 m | 1751 | 73 |
| BCG | Card or History | 85 | 12-23 m | 1751 | 73 |
| BCG | History | 13 | 12-23 m | 1751 | 73 |
| DTP1 | C or H <12 months | 81 | 12-23 m | 1751 | 73 |
| DTP1 | Card | 72 | 12-23 m | 1751 | 73 |
| DTP1 | Card or History | 83 | 12-23 m | 1751 | 73 |
| DTP1 | History | 11 | 12-23 m | 1751 | 73 |
| DTP3 | C or H <12 months | 74 | 12-23 m | 1751 | 73 |
| DTP3 | Card | 66 | 12-23 m | 1751 | 73 |
| DTP3 | Card or History | 79 | 12-23 m | 1751 | 73 |
| DTP3 | History | 12 | 12-23 m | 1751 | 73 |
| HepB1 | C or H <12 months | 81 | 12-23 m | 1751 | 73 |
| HepB1 | Card | 72 | 12-23 m | 1751 | 73 |
| HepB1 | Card or History | 83 | 12-23 m | 1751 | 73 |
| HepB1 | History | 11 | 12-23 m | 1751 | 73 |
| HepB3 | C or H <12 months | 74 | 12-23 m | 1751 | 73 |
| HepB3 | Card | 66 | 12-23 m | 1751 | 73 |
| HepB3 | Card or History | 79 | 12-23 m | 1751 | 73 |
| HepB3 | History | 12 | 12-23 m | 1751 | 73 |
| MCV1 | C or H <12 months | 72 | 12-23 m | 1751 | 73 |
| MCV1 | Card | 68 | 12-23 m | 1751 | 73 |
| MCV1 | Card or History | 84 | 12-23 m | 1751 | 73 |
| MCV1 | History | 16 | 12-23 m | 1751 | 73 |
| Pol1 | C or H <12 months | 91 | 12-23 m | 1751 | 73 |
| Pol1 | Card | 71 | 12-23 m | 1751 | 73 |
| Pol1 | Card or History | 94 | 12-23 m | 1751 | 73 |
| Pol1 | History | 23 | 12-23 m | 1751 | 73 |
| Pol3 | C or H <12 months | 76 | 12-23 m | 1751 | 73 |
| Pol3 | Card | 66 | 12-23 m | 1751 | 73 |
| Pol3 | Card or History | 81 | 12-23 m | 1751 | 73 |
| Pol3 | History | 15 | 12-23 m | 1751 | 73 |
| YFV | C or H <12 months | 71 | 12-23 m | 1751 | 73 |
| YFV | Card | 74 | 12-23 m | 1751 | 73 |
| YFV | Card or History | 83 | 12-23 m | 1751 | 73 |
| YFV | History | 9 | 12-23 m | 1751 | 73 |

2000 Revue externe du PEV 2001

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | Card or History | 87 | 12-23 m | - | 98 |
| DTP1 | Card or History | 87 | 12-23 m | - | 98 |
| DTP3 | Card or History | 70 | 12-23 m | - | 98 |
| MCV1 | Card or History | 69 | 12-23 m | - | 98 |
| Pol3 | Card or History | 70 | 12-23 m | - | 98 |

1999 Côte d'Ivoire, Enquête à Indicateurs Multiples MICS 2000

# Côte d'Ivoire - survey details

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | C or H <12 months | 83 | 12-23 m | 1588 | 77 |
| BCG | Card | 71 | 12-23 m | 1588 | 77 |
| BCG | Card or History | 84 | 12-23 m | 1588 | 77 |
| BCG | History | 13 | 12-23 m | 1588 | 77 |
| DTP1 | C or H <12 months | 75 | 12-23 m | 1588 | 77 |
| DTP1 | Card | 70 | 12-23 m | 1588 | 77 |
| DTP1 | Card or History | 79 | 12-23 m | 1588 | 77 |
| DTP1 | History | 9 | 12-23 m | 1588 | 77 |
| DTP3 | C or H <12 months | 56 | 12-23 m | 1588 | 77 |
| DTP3 | Card | 56 | 12-23 m | 1588 | 77 |
| DTP3 | Card or History | 62 | 12-23 m | 1588 | 77 |
| DTP3 | History | 6 | 12-23 m | 1588 | 77 |
| MCV1 | C or H <12 months | 53 | 12-23 m | 1588 | 77 |
| MCV1 | Card | 52 | 12-23 m | 1588 | 77 |
| MCV1 | Card or History | 62 | 12-23 m | 1588 | 77 |
| MCV1 | History | 10 | 12-23 m | 1588 | 77 |
| Pol1 | C or H <12 months | 82 | 12-23 m | 1588 | 77 |
| Pol1 | Card | 71 | 12-23 m | 1588 | 77 |
| Pol1 | Card or History | 86 | 12-23 m | 1588 | 77 |
| Pol1 | History | 14 | 12-23 m | 1588 | 77 |
| Pol3 | C or H <12 months | 56 | 12-23 m | 1588 | 77 |
| Pol3 | Card | 55 | 12-23 m | 1588 | 77 |
| Pol3 | Card or History | 62 | 12-23 m | 1588 | 77 |
| Pol3 | History | 7 | 12-23 m | 1588 | 77 |
| YFV | Card | 47 | 12-23 m | 1588 | 77 |
| YFV | Card or History | 48 | 12-23 m | 1588 | 77 |
| YFV | History | 1 | 12-23 m | 1588 | 77 |

1997 Enquête Démographique et de Santé, Côte d'Ivoire 1998-99, 2001

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---|---|---|---|---|---|
| BCG | C or H <12 months | 82 | 12-23 m | 439 | 73 |
| BCG | Card | 70 | 12-23 m | 439 | 73 |
| BCG | Card or History | 84 | 12-23 m | 439 | 73 |
| BCG | History | 14 | 12-23 m | 439 | 73 |
| DTP1 | C or H <12 months | 80 | 12-23 m | 439 | 73 |
| DTP1 | Card | 69 | 12-23 m | 439 | 73 |
| DTP1 | Card or History | 83 | 12-23 m | 439 | 73 |
| DTP1 | History | 14 | 12-23 m | 439 | 73 |
| DTP3 | C or H <12 months | 55 | 12-23 m | 439 | 73 |
| DTP3 | Card | 54 | 12-23 m | 439 | 73 |
| DTP3 | Card or History | 61 | 12-23 m | 439 | 73 |
| DTP3 | History | 7 | 12-23 m | 439 | 73 |
| MCV1 | C or H <12 months | 51 | 12-23 m | 439 | 73 |
| MCV1 | Card | 57 | 12-23 m | 439 | 73 |
| MCV1 | Card or History | 66 | 12-23 m | 439 | 73 |
| MCV1 | History | 9 | 12-23 m | 439 | 73 |
| Pol1 | C or H <12 months | 82 | 12-23 m | 439 | 73 |
| Pol1 | Card | 70 | 12-23 m | 439 | 73 |
| Pol1 | Card or History | 86 | 12-23 m | 439 | 73 |
| Pol1 | History | 16 | 12-23 m | 439 | 73 |
| Pol3 | C or H <12 months | 55 | 12-23 m | 439 | 73 |
| Pol3 | Card | 54 | 12-23 m | 439 | 73 |
| Pol3 | Card or History | 61 | 12-23 m | 439 | 73 |
| Pol3 | History | 7 | 12-23 m | 439 | 73 |

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