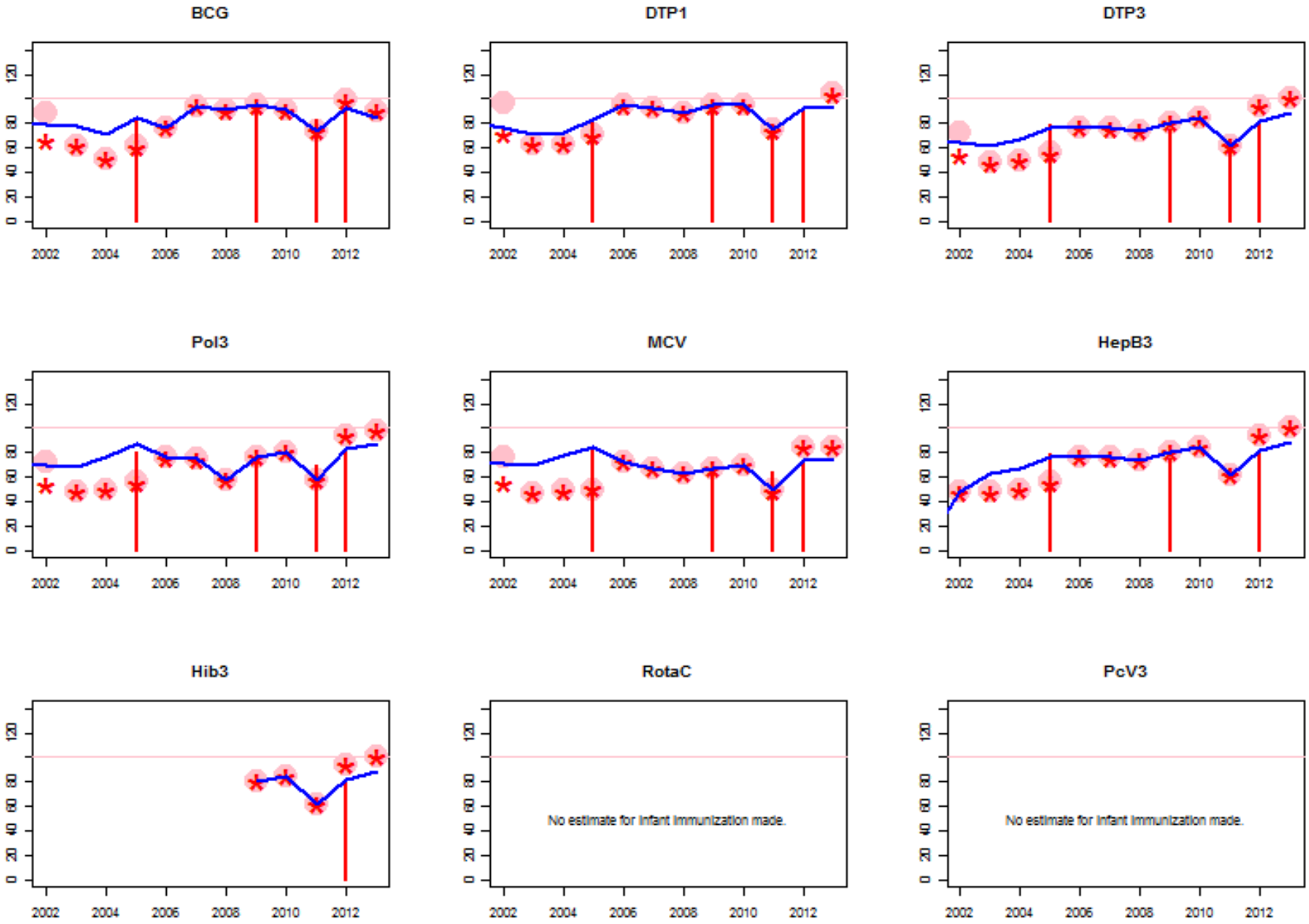
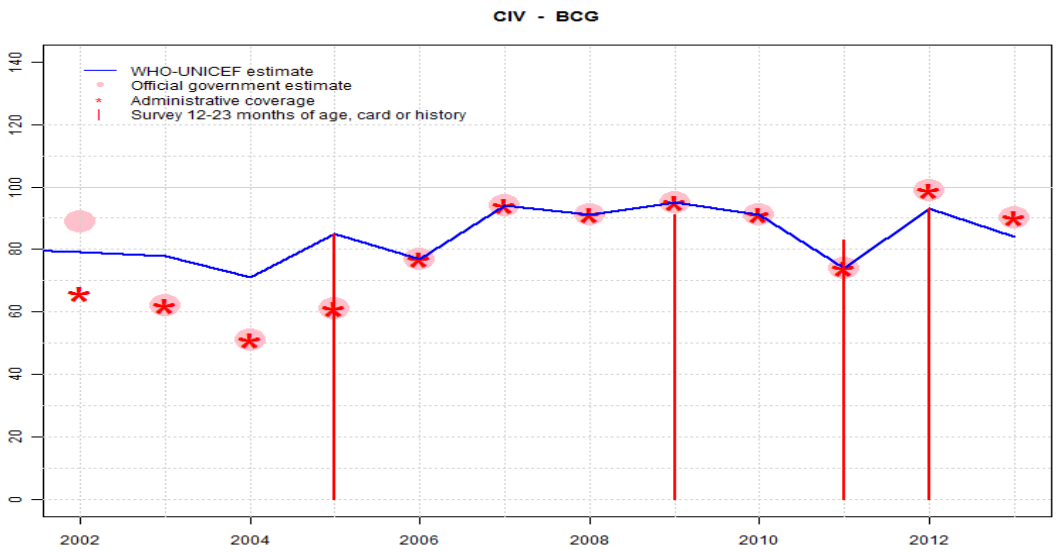

BCG
DTP1
DTP3
Pol3
MCV
HepB3
Hib3
RotaC
PcV3
No estimate for infant immunization made.
No estimate for infant immunization made.
0
20
40
60
80
120
2002
2004
2006
2008
2010
2012

Côte d'Ivoire - BCG



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	79	78	71	85	77	94	91	95	91	74	93	84
Estimate GoC	••	••	•	•	•••	•	•	•	•	•	•	•
Official	89	62	51	61	77	94	91	95	91	74	99	90
Administrative	66	62	51	61	77	94	91	95	91	74	99	90
Survey	NA	NA	NA	85	NA	NA	NA	91	NA	83	93	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: 2012 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:

2002: Reported data calibrated to 1999 and 2005 levels. Reported data excluded. Unexplained increase from 72 percent to 89 percent with decrease 62 percent. GoC=D+

2003: Reported data calibrated to 1999 and 2005 levels. GoC=S+ D+

2004: Reported data calibrated to 1999 and 2005 levels. 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-

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

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

2008: 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-

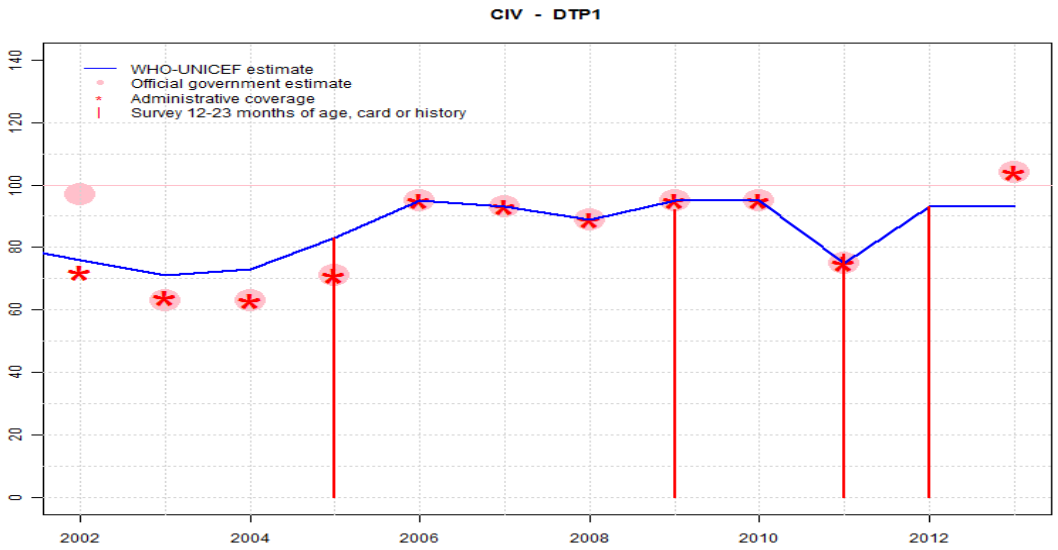
2010: Estimate based on coverage reported by national government. Estimate challenged by: S-

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-

2012: Estimate is based on survey results consistent with other antigens. Reported coverage might reflect recovery activities following the vaccine shortage in 2011. Estimate of 93 percent changed from previous revision value of 99 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Programme reports a two month stock-out at national level. Estimate challenged by: D-

Côte d'Ivoire - DTP1



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	76	71	73	83	95	93	89	95	95	75	93	93
Estimate GoC	•	••	••	•	••	•	•	•	•	•	••	•
Official	97	63	63	71	95	93	89	95	95	75	NA	104
Administrative	72	64	63	71	95	93	89	95	95	75	NA	104
Survey	NA	NA	NA	83	NA	NA	NA	92	NA	78	93	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: 2012 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:

2002: Reported data calibrated to 1999 and 2005 levels. Reported data excluded. Unexplained increase from 77 percent to 97 percent with decrease 63 percent. Estimate challenged by: D-

2003: Reported data calibrated to 1999 and 2005 levels. GoC=D+

2004: Reported data calibrated to 1999 and 2005 levels. GoC=S+ D+

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-

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

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

2008: 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-

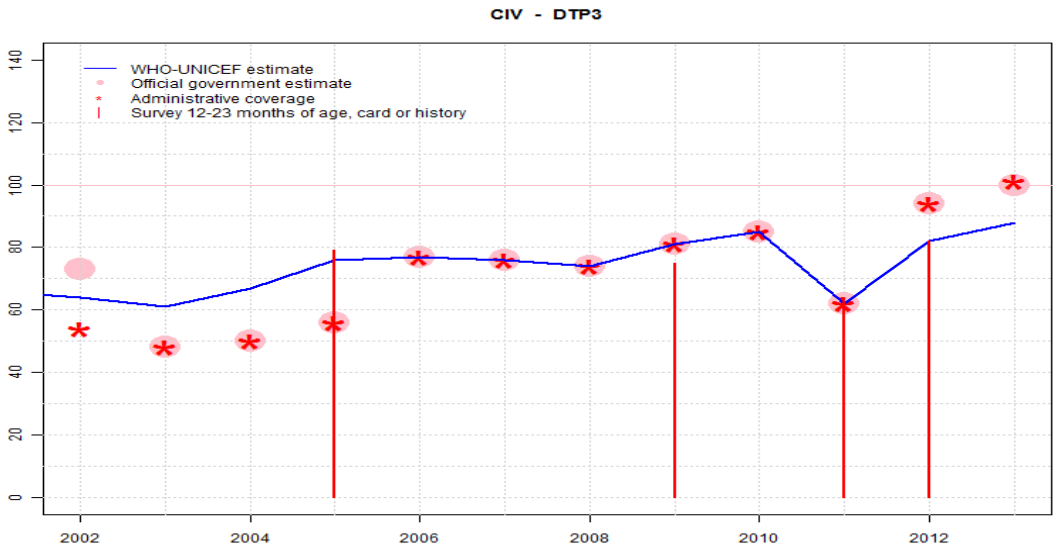
2010: Estimate based on coverage reported by national government. Estimate challenged by: S-

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-

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. Estimate of 93 percent changed from previous revision value of 98 percent. GoC=S+

2013: Reported data calibrated to 2012 levels. Reported data excluded. 104 percent greater than 100 percent. Estimate challenged by: D-

Côte d'Ivoire - DTP3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	64	61	67	76	77	76	74	81	85	62	82	88
Estimate GoC	••	••	••	•	•••	•	•	•	•	•	•	•
Official	73	48	50	56	77	76	74	81	85	62	94	100
Administrative	54	48	50	56	77	76	74	81	85	62	94	101
Survey	NA	NA	NA	79	NA	NA	NA	75	NA	64	82	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: 2012 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:

2002: Reported data calibrated to 1999 and 2005 levels. Reported data excluded. Unexplained increase from 59 percent to 73 percent with decrease 48 percent. GoC=D+

2003: Reported data calibrated to 1999 and 2005 levels. GoC=D+

2004: Reported data calibrated to 1999 and 2005 levels. GoC=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: R-

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

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

2008: 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-

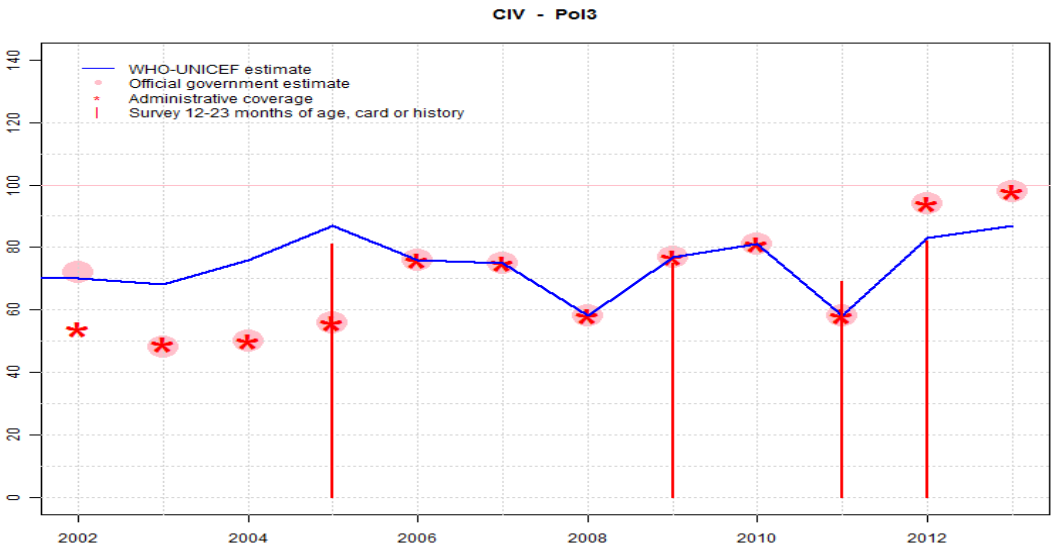
2010: Estimate based on coverage reported by national government. Estimate challenged by: S-

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-

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 of 82 percent changed from previous revision value of 94 percent. Estimate challenged by: D-R-

2013: Estimate is based on trend in reported data. Estimate challenged by: D-R-

Côte d'Ivoire - Pol3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	70	68	76	87	76	75	58	77	81	58	83	87
Estimate GoC	●●	●●	●	●	●●	●	●	●	●	●	●	●
Official	72	48	50	56	76	75	58	77	81	58	94	98
Administrative	54	49	50	56	76	75	58	77	81	58	94	98
Survey	NA	NA	NA	81	NA	NA	NA	75	NA	69	82	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: 2012 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:

2002: Reported data calibrated to 1999 and 2005 levels. Reported data excluded. Unexplained increase from 59 percent to 72 percent with decrease 48 percent. GoC=D+

2003: Reported data calibrated to 1999 and 2005 levels. GoC=D+

2004: Reported data calibrated to 1999 and 2005 levels. Estimate challenged by: D-

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-

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

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

2008: Estimate based on coverage reported by national government. Decline in coverage is attributed to two months shortage of vaccine. 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-

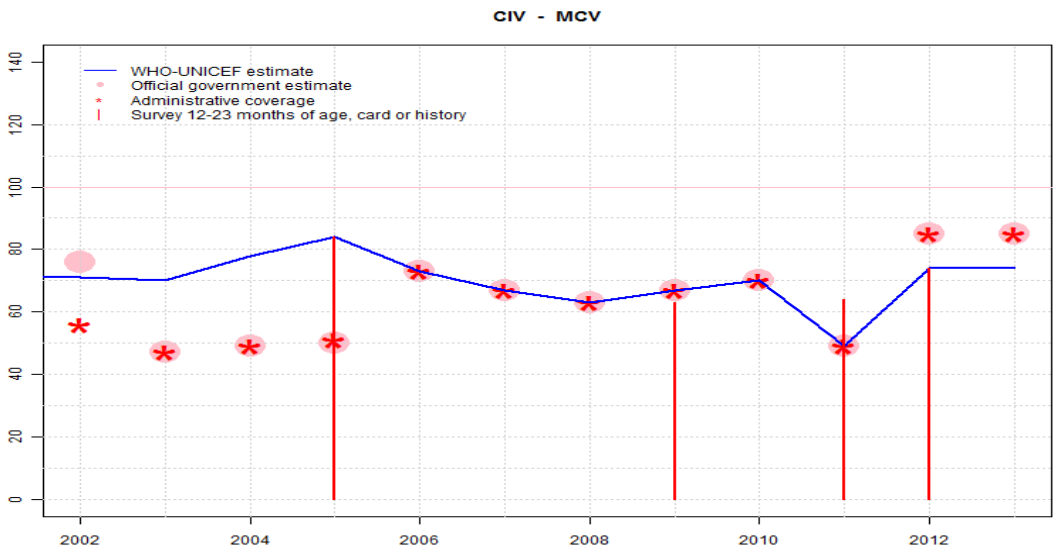
2010: Estimate based on coverage reported by national government. Estimate challenged by: S-

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-

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 of 83 percent changed from previous revision value of 94 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Programme reports two months stockout at national level. Estimate challenged by: D-

Côte d'Ivoire - MCV



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	71	70	78	84	73	67	63	67	70	49	74	74
Estimate GoC	●●	●	●	●	●●	●	●	●	●	●	●	●
Official	76	47	49	50	73	67	63	67	70	49	85	85
Administrative	56	47	49	51	73	67	63	67	70	49	85	85
Survey	NA	NA	NA	84	NA	NA	NA	63	NA	64	74	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: 2012 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:

2002: Reported data calibrated to 1999 and 2005 levels. Reported data excluded. Unexplained increase from 60 percent to 76 percent with decrease 47 percent. GoC=D+

2003: Reported data calibrated to 1999 and 2005 levels. Estimate challenged by: D-

2004: Reported data calibrated to 1999 and 2005 levels. Estimate challenged by: D-

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-

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

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

2008: 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-

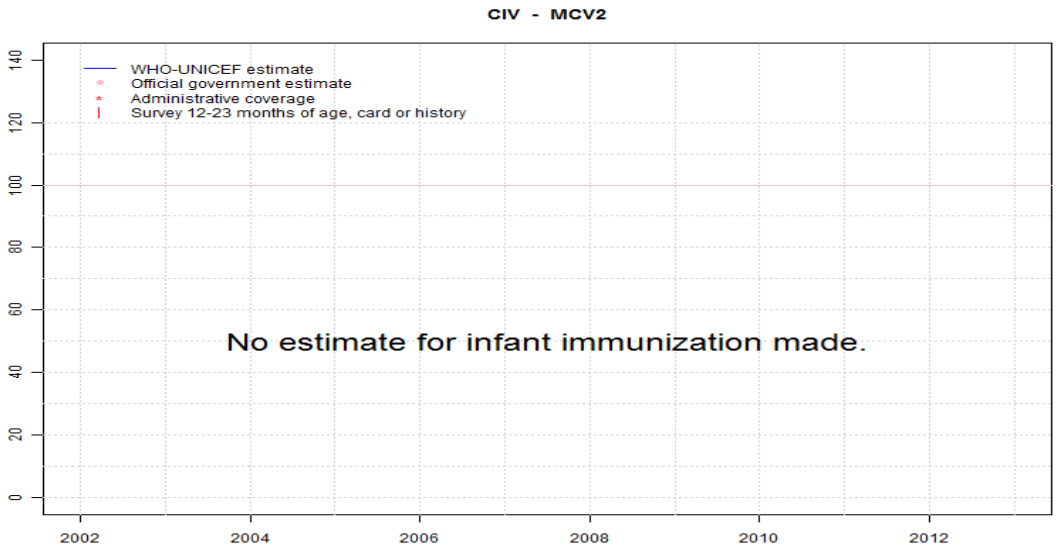
2010: Estimate based on coverage reported by national government. Estimate challenged by: S-

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

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 of 74 percent changed from previous revision value of 85 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Programme reports three month stockout at national level. Estimate challenged by: D-

Côte d'Ivoire - MCV2



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
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.

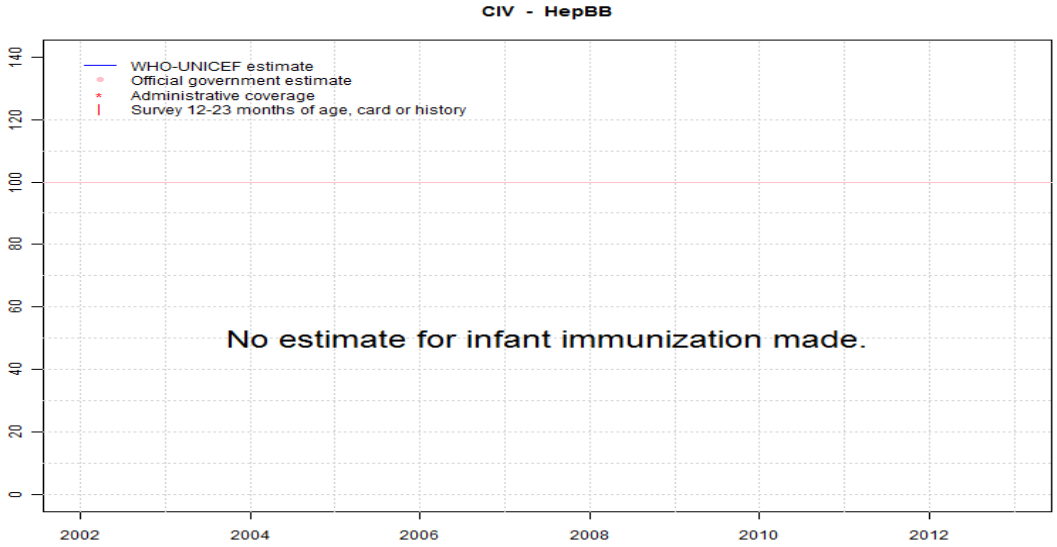
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
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.

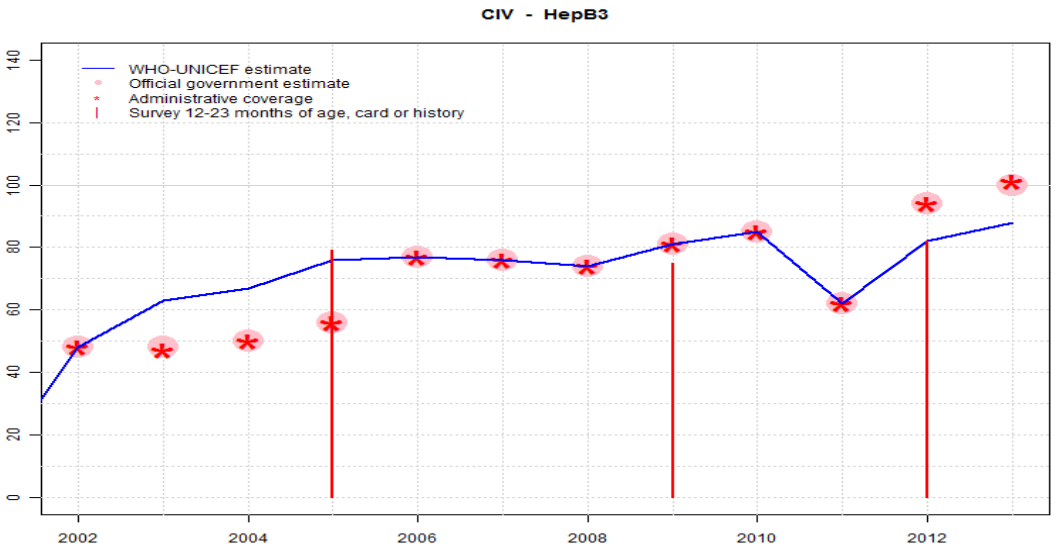
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	48	63	67	76	77	76	74	81	85	62	82	88
Estimate GoC	••	•	•	•	•••	•	•	•	•	•	•	•
Official	48	48	50	56	77	76	74	81	85	62	94	100
Administrative	48	47	50	56	77	76	74	81	85	62	94	101
Survey	NA	NA	NA	79	NA	NA	NA	75	NA	NA	82	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: 2012 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:

2002: Estimate is based on the reported data. GoC=R+ D+

2003: DTP-HepB combination vaccine available nationally. Estimate based on DTP3 estimate. Estimate challenged by: R-

2004: DTP-HepB combination vaccine available nationally. Estimate based on DTP3 estimate. Estimate challenged by: R-

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: R-

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

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

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

2009: Estimate based on DTP3 coverage level. Côte d'Ivoire External EPI Review 2010 results ignored by working group. Survey results are preliminary. Estimate challenged by: S-

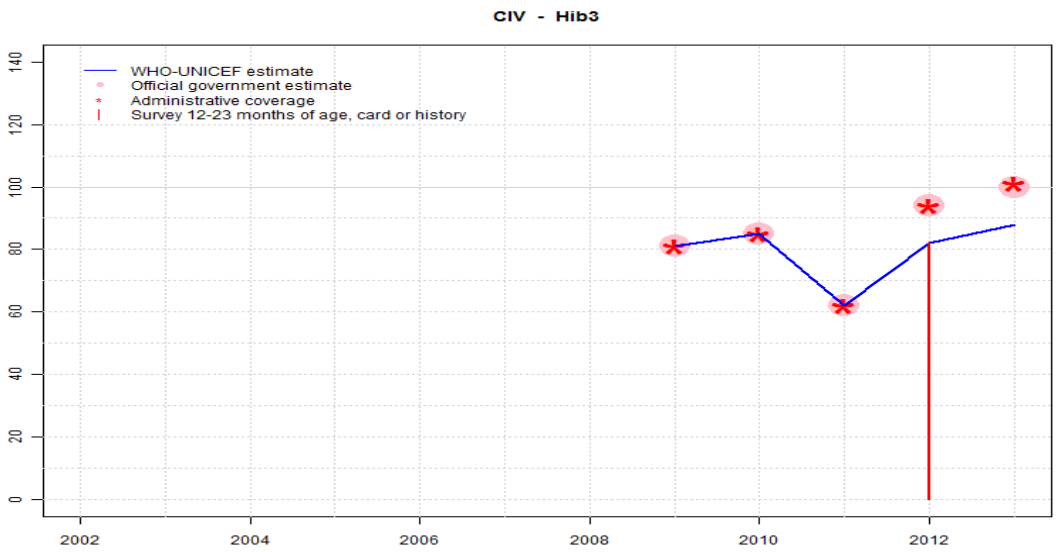
2010: Estimate based on coverage reported by national government. Estimate challenged by: S-

2011: Estimate based on DTP3 coverage level. Decline in coverage is attributable to vaccine shortages in 70 districts. Estimate challenged by: 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 of 82 percent changed from previous revision value of 94 percent. Estimate challenged by: D-R-

2013: Estimate is based on trend in reported data. Estimate challenged by: D-R-

Côte d'Ivoire - Hib3



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	NA	NA	NA	NA	NA	NA	NA	81	85	62	82	88
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	•	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	81	85	62	94	100
Administrative	NA	NA	NA	NA	NA	NA	NA	81	85	62	94	101
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82	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: 2012 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:

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

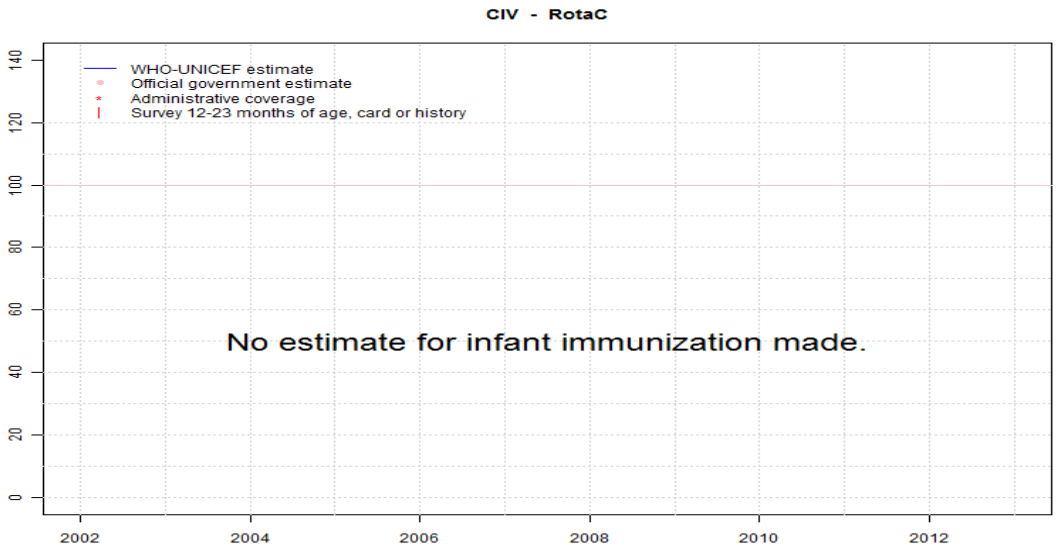
2010: Estimate based on coverage reported by national government. Estimate challenged by: S-

2011: Estimate based on DTP3 coverage level. Decline in coverage is attributable to vaccine shortages in 70 districts. Estimate challenged by: 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 of 82 percent changed from previous revision value of 94 percent. Estimate challenged by: D-R-

2013: Estimate is based on trend in reported data. Estimate challenged by: D-R-

Côte d'Ivoire - RotaC



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
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.

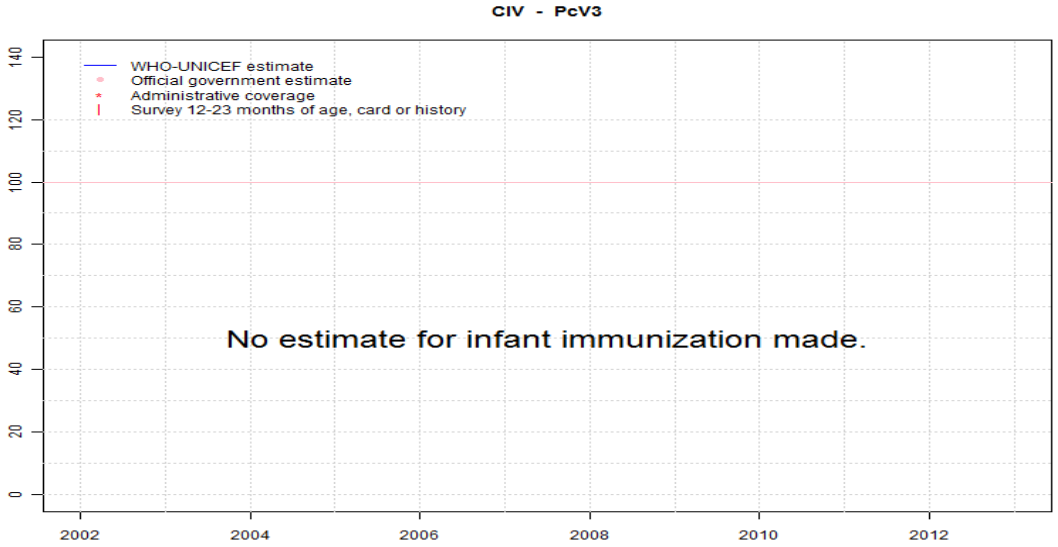
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
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.

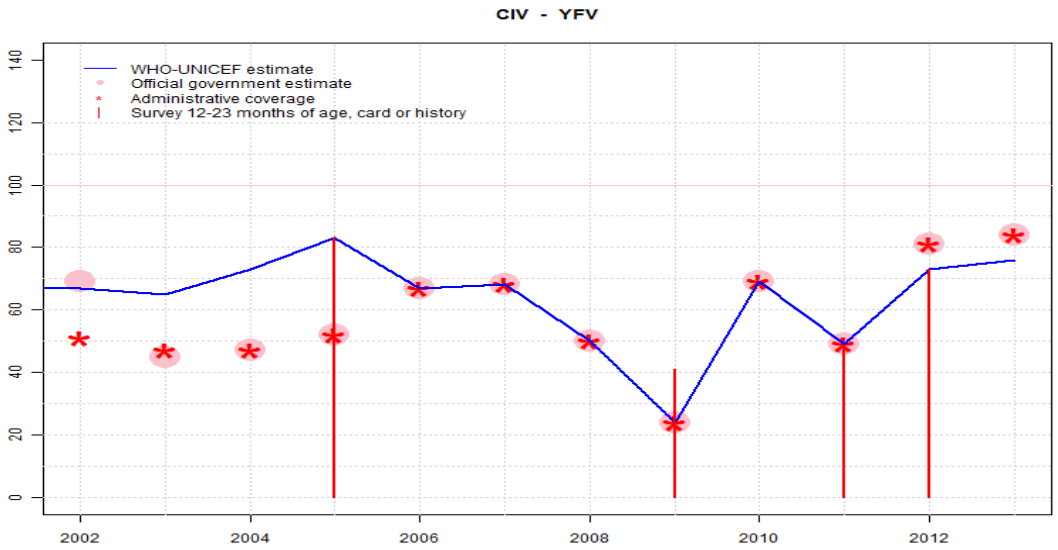
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk 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 - YFV



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estimate	67	65	73	83	67	68	50	24	69	49	73	76
Estimate GoC	••	••	•	•	••	•	•	•	•	•	•	•
Official	69	45	47	52	67	68	50	24	69	49	81	84
Administrative	51	47	47	52	67	68	50	24	69	49	81	84
Survey	NA	NA	NA	83	NA	NA	NA	41	NA	48	73	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: 2012 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:

2002: Reported data calibrated to 1999 and 2005 levels. Reported data excluded. Unexplained increase from 56 percent to 69 percent with decrease 45 percent. GoC=D+

2003: Reported data calibrated to 1999 and 2005 levels. GoC=D+

2004: Reported data calibrated to 1999 and 2005 levels. Estimate challenged by: D-

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-

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

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

2008: 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. Ten-month vaccine stock-out reported. 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-

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-

2012: Estimate is based on survey results consistent with other antigens. Reported coverage might reflect recovery activities following the vaccine shortage in 2011. Estimate of 73 percent changed from previous revision value of 81 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Programme reports four month stockout at national level. Estimate challenged by: D-

Côte d'Ivoire - survey details

2012 Enquête de Couverture Vaccinale 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	87	12-23 m	-	91
BCG	Card or History	93	12-23 m	4751	91
DTP1	Card	88	12-23 m	-	91
DTP1	Card or History	93	12-23 m	4751	91
DTP3	Card	78	12-23 m	-	91
DTP3	Card or History	82	12-23 m	4751	91
HepB1	Card	88	12-23 m	-	91
HepB1	Card or History	93	12-23 m	4751	91
HepB3	Card	78	12-23 m	-	91
HepB3	Card or History	82	12-23 m	4751	91
Hib1	Card	88	12-23 m	-	91
Hib1	Card or History	93	12-23 m	4751	91
Hib3	Card	78	12-23 m	-	91
Hib3	Card or History	82	12-23 m	4751	91
MCV	Card	71	12-23 m	-	91
MCV	Card or History	74	12-23 m	4751	91
Pol1	Card	88	12-23 m	-	91
Pol1	Card or History	94	12-23 m	4751	91
Pol3	Card	78	12-23 m	-	91
Pol3	Card or History	82	12-23 m	4751	91
YFV	Card	69	12-23 m	-	91
YFV	Card or History	73	12-23 m	4751	91

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
MCV	C or H <12 months	49	12-23 m	1432	74
MCV	Card	53	12-23 m	1061	74
MCV	Card or History	64	12-23 m	1432	74
MCV	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
MCV	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
MCV	Card	57	12-23 m	-	91
MCV	Card <12 months	40	12-23 m	-	91
MCV	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

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
MCV	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
MCV	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
MCV	C or H <12 months	72	12-23 m	1751	73
MCV	Card	68	12-23 m	1751	73
MCV	Card or History	84	12-23 m	1751	73
MCV	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
MCV	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

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
MCV	C or H <12 months	53	12-23 m	1588	77
MCV	Card	52	12-23 m	1588	77
MCV	Card or History	62	12-23 m	1588	77
MCV	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
MCV	C or H <12 months	51	12-23 m	439	73
MCV	Card	57	12-23 m	439	73
MCV	Card or History	66	12-23 m	439	73
MCV	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

Côte d'Ivoire - survey details

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 prior to 2002 are available at:
http://www.data.unicef.org/child-health/immunization
http://www.who.int/immunization/monitoring_surveillance/routine/coverage/en/index4.html

Côte d'Ivoire

WHO/UNICEF Estimates of Protection at Birth (PAB) against tetanus

In countries where tetanus is recommended for girls and women coverage is usually reported as "TT2+", i.e. the proportion of (pregnant) women who have received their second or superior TT dose in a given year. TT2 + coverage, however, can under-represent the actual proportion of births that are protected against tetanus as it does not include women who have previously received protective doses, women who received one dose without documentation of previous doses, and women who received doses in TT (or Td) supplemental immunization activities (SIA). In addition, girls who have received DTP in their childhood and are entering childbearing age, may be protected with TT booster doses.

WHO and UNICEF have developed a model that takes into account the above scenarios, and calculates the proportion of births in a given year that can be considered as having been protected against tetanus - "Protection at Birth".

In this model, annual cohorts of women are followed from infancy through their life. A proportion receive DTP in infancy (estimated based on the WHO-UNICEF estimates of DTP3 coverage). In addition some of these women also receive TT through routine services when they are pregnant and may also receive TT during SIAs. The model also adjusts reported data, taking into account coverage patterns in other years, and/or results available through surveys. The duration of protection is then calculated, based on WHO estimates of the duration of protection by doses ever received. The proportion of births that are protected against tetanus as a result of maternal immunization reflects the tetanus immunization received by the mother throughout her life rather than simply the TT immunizations received during the current pregnancy.

Year	PAB coverage estimate (%)
2002	76
2003	76
2004	76
2005	75
2006	75
2007	74
2008	92
2009	92
2010	82
2011	82
2012	82
2013	82

[1] This model is described in: Griffiths U., Wolfson L., Quddus A., Younus M., Hafiz R.. Incremental cost-effectiveness of supplementary immunization activities to prevent neo-natal tetanus in Pakistan. Bulletin of the World Health Organization 2004; 82:643-651.