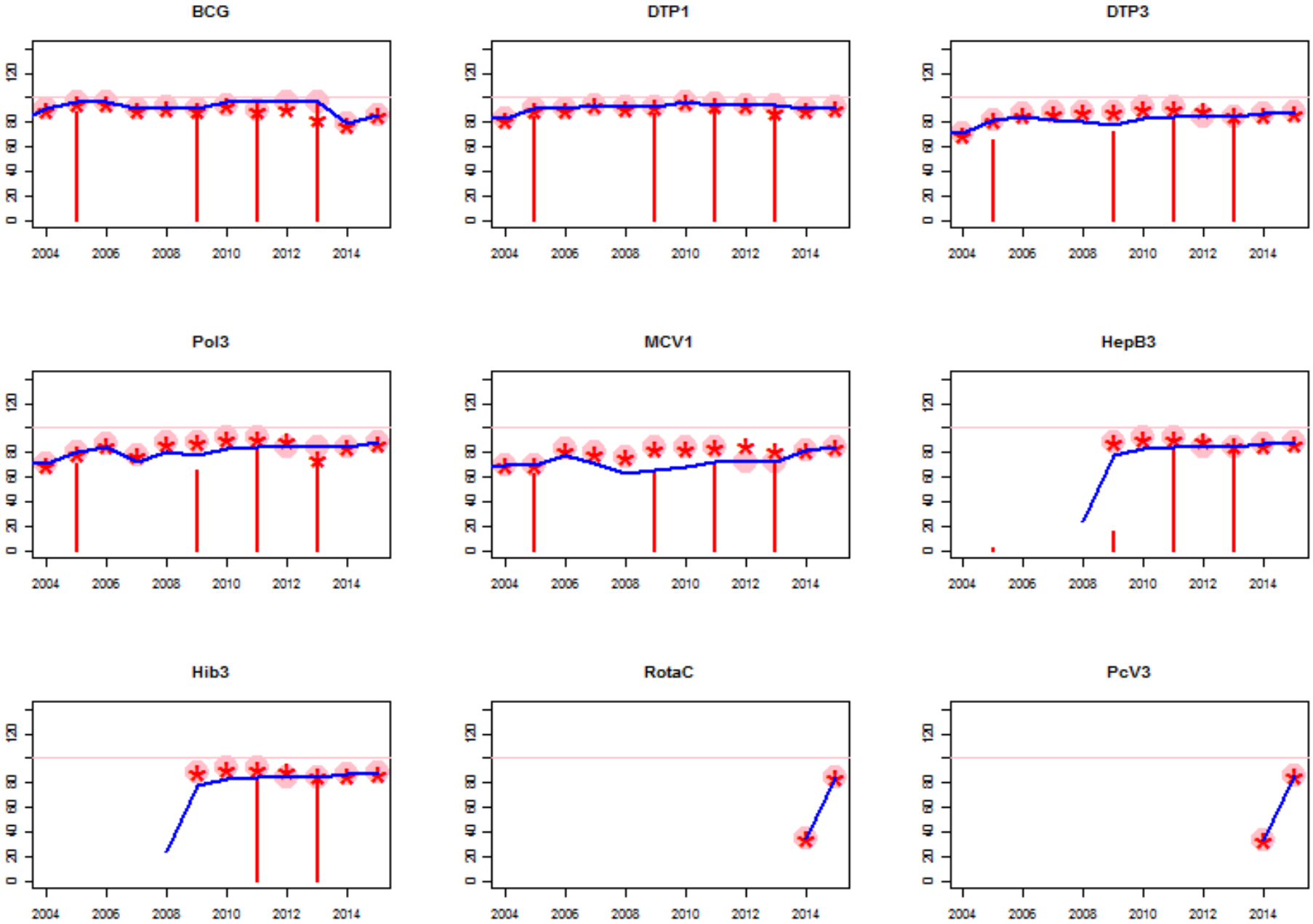
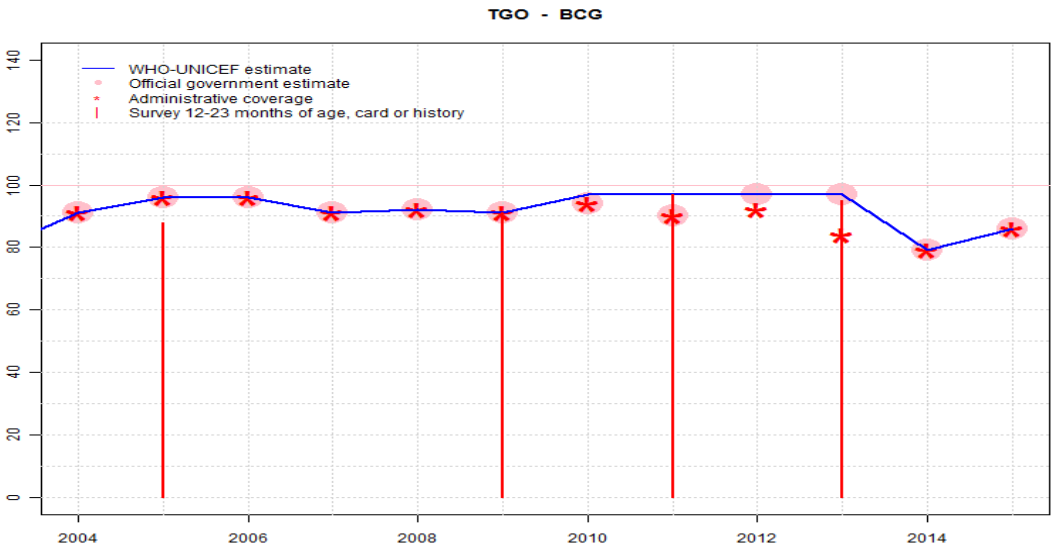

BCG
DTP1
DTP3
Pol3
MCV1
HepB3
Hib3
RotaC
PcV3
0
20
40
60
80
120
2004
2006
2008
2010
2012
2014

Togo - BCG



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	91	96	96	91	92	91	97	97	97	97	79	86
Estimate GoC	●●●	●●●	●●●	●●●	●●●	●●●	●●	●	●	●●●	●	●
Official	91	96	96	91	92	91	94	90	97	97	79	86
Administrative	91	96	96	91	92	91	94	90	92	84	79	86
Survey	NA	88	NA	NA	NA	91	NA	97	NA	95	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:

2004: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). GoC=R+ S+ D+

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

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

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

2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). GoC=R+ S+ D+

2010: Reported data calibrated to 2009 and 2011 levels. GoC=S+ D+

2011: Estimate is based on survey results for the 2011 birth cohort. Estimate challenged by: R-

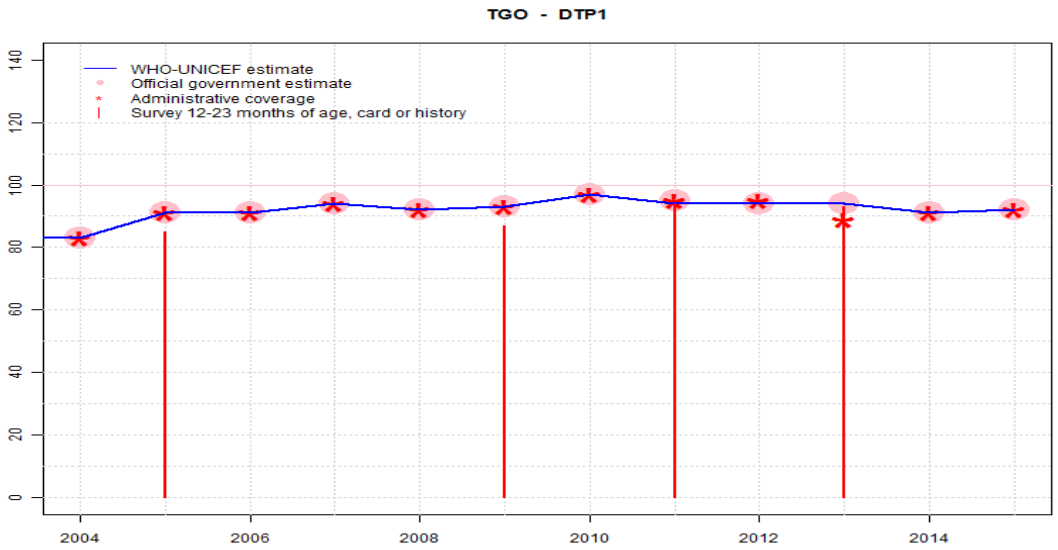
2012: Estimate is based on official government estimate reflecting survey results for the 2011 birth cohort. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). Official government estimate is based on results from a coverage survey reflecting the 2011 birth cohort. GoC=R+ S+ D+

2014: Estimate based on coverage reported by national government. Programme reports stock-out of syringes impacting delivery of vaccine. Estimate of 79 percent changed from previous revision value of 97 percent. Estimate challenged by: D-

2015: Estimate based on coverage reported by national government. Programme reports stock-out of syringes impacting delivery of vaccine. Estimate challenged by: D-

Togo - DTP1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	83	91	91	94	92	93	97	94	94	94	91	92
Estimate GoC	●●●	●●●	●●●	●●●	●●●	●●●	●●	●	●	●●●	●	●
Official	83	91	91	94	92	93	97	95	94	94	91	92
Administrative	83	91	91	94	92	93	97	95	95	89	91	92
Survey	NA	85	NA	NA	NA	87	NA	94	NA	93	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:

2004: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 85 percent based on 1 survey(s). GoC=R+ S+ D+

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

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

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

2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 87 percent based on 1 survey(s). GoC=R+ S+ D+

2010: Reported data calibrated to 2009 and 2011 levels. GoC=S+ D+

2011: Estimate is based on survey results for the 2011 birth cohort. Estimate challenged by: D-R-

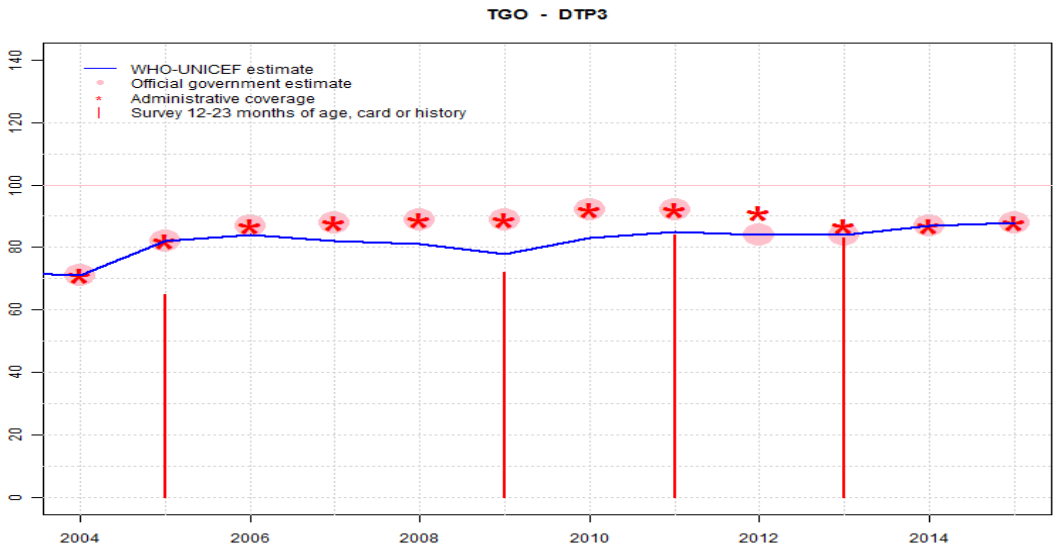
2012: Estimate is based on official government estimate reflecting survey results for the 2011 birth cohort. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 93 percent based on 1 survey(s). Official government estimate is based on results from a coverage survey reflecting the 2011 birth cohort. GoC=R+ S+ D+

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

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

Togo - DTP3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	71	82	84	82	81	78	83	85	84	84	87	88
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	71	82	87	88	89	89	92	92	84	84	87	88
Administrative	71	82	87	88	89	89	92	92	91	87	87	88
Survey	NA	65	NA	NA	NA	72	NA	84	NA	83	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:

2004: Estimate based on coverage reported by national government. Estimate challenged by: S-

2005: Estimate is based on reported data to maintain consistency across vaccines. Togo Multiple Indicator Cluster Survey, 2006 results ignored by working group. Survey results inconsistent with other data. Lower DTP3 results may be reflect vaccine stock out in early 2004 with delayed catch-up.Togo Multiple Indicator Cluster Survey, 2006 card or history results of 65 percent modifed for recall bias to 73 percent based on 1st dose card or history coverage of 85 percent, 1st dose card only coverage of 68 percent and 3d dose card only coverage of 58 percent. Estimate challenged by: S-

2006: Reported data calibrated to 2005 and 2009 levels. Estimate challenged by: S-

2007: Reported data calibrated to 2005 and 2009 levels. Estimate challenged by: D-S-

2008: Reported data calibrated to 2005 and 2009 levels. Estimate challenged by: D-

2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 78 percent based on 1 survey(s). Togo Multiple Indicators Cluster Survey 2010 card or history results of 72 percent modifed for recall bias to 78 percent based on 1st dose card or history coverage of 87 percent, 1st dose card only coverage of 71 percent and 3d dose card only coverage of 64 percent. Estimate challenged by: D-R-

2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-

2011: Estimate is based on survey results for the 2011 birth cohort, adjusted for recall bias. Togo EPI Review 2012 card or history results of 84 percent modifed for recall bias to 85 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 64 percent. Estimate challenged by: D-R-

2012: Estimate is based on official government estimate reflecting survey results for the 2011 birth cohort. Estimate challenged by: D-

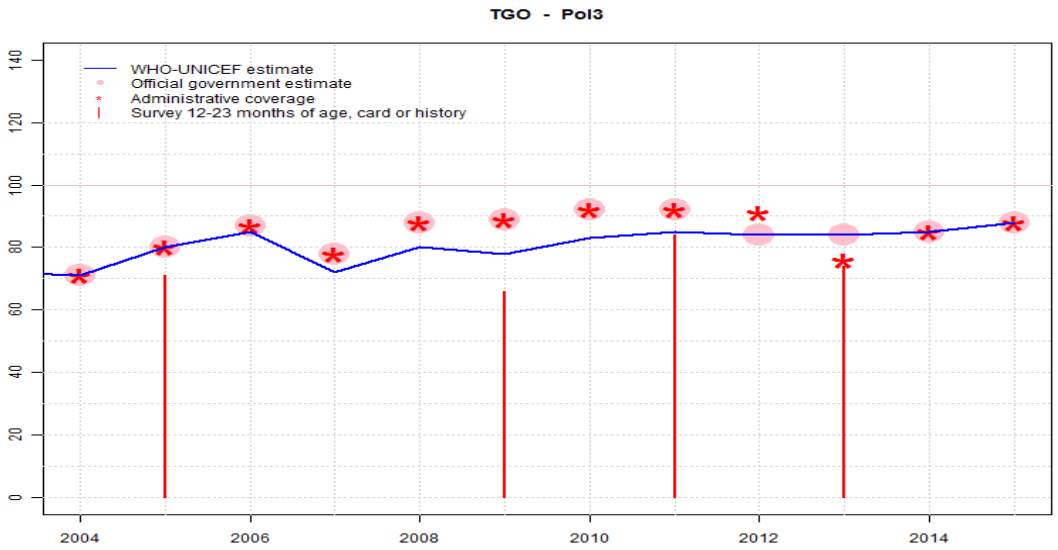
2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 86 percent based on 1 survey(s). Togo Demographic and Health Survey 2013-2014 card or history results of 83 percent modifed for recall bias to 86 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 68 percent and 3d dose card only coverage of 63 percent. Official government estimate is based on results from a coverage survey reflecting the 2011 birth cohort. Estimate challenged by: D-

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

Togo - DTP3

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

Togo - Pol3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	71	80	85	72	80	78	83	85	84	84	85	88
Estimate GoC	●●●	●●●	●●	●	●	●	●	●	●	●	●	●
Official	71	80	87	78	88	89	92	92	84	84	85	88
Administrative	71	80	87	78	88	89	92	92	91	76	85	88
Survey	NA	71	NA	NA	NA	66	NA	84	NA	74	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:

2004: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 80 percent based on 1 survey(s). Togo Multiple Indicator Cluster Survey, 2006 card or history results of 71 percent modifed for recall bias to 80 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 69 percent and 3d dose card only coverage of 60 percent. GoC=R+ S+ D+

2006: Reported data calibrated to 2005 and 2009 levels. GoC=S+ D+

2007: Reported data calibrated to 2005 and 2009 levels. Estimate challenged by: D-S-

2008: Reported data calibrated to 2005 and 2009 levels. Estimate challenged by: D-S-

2009: Estimate is based on DTP3 coverage. Togo Multiple Indicators Cluster Survey 2010 results ignored by working group. Recall bias adjustment of survey results likely skewed by campaign data. Survey results ignored.Togo Multiple Indicators Cluster Survey 2010 card or history results of 66 percent modifed for recall bias to 80 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 66 percent and 3d dose card only coverage of 60 percent. Estimate challenged by: D-R-S-

2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-S-

2011: Estimate is based on survey results for the 2011 birth cohort, adjusted for recall bias. Togo EPI Review 2012 card or history results of 84 percent modifed for recall bias to 85 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 64 percent. Estimate challenged by: D-R-S-

2012: Estimate is based on official government estimate reflecting the survey results for the 2011 birth cohort. Estimate challenged by: D-

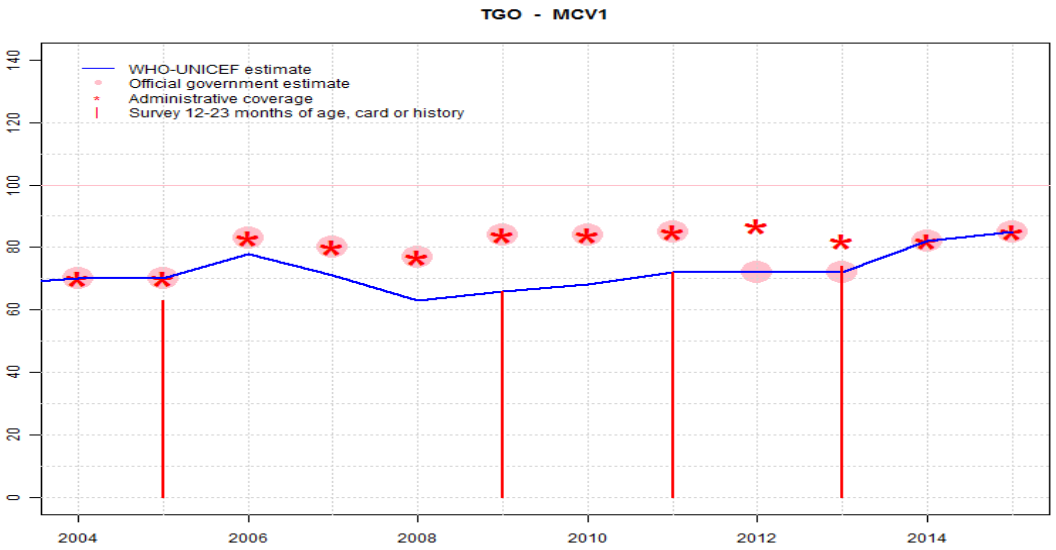
2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Togo Demographic and Health Survey 2013-2014 card or history results of 74 percent modifed for recall bias to 88 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 68 percent and 3d dose card only coverage of 64 percent. Official government estimate is based on results from a coverage survey reflecting the 2011 birth cohort. Programme reports a one month stockout at the national level that appears to be reflected in reported administrative coverage but not the official government estimate. GoC=Assigned by working group. .

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

Togo - Pol3

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

Togo - MCV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	70	70	78	71	63	66	68	72	72	72	82	85
Estimate GoC	●●●	●●●	●●	●	●	●	●	●	●	●	●	●
Official	70	70	83	80	77	84	84	85	72	72	82	85
Administrative	70	70	83	80	77	84	84	85	87	82	82	85
Survey	NA	63	NA	NA	NA	66	NA	72	NA	74	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:

2004: Estimate based on coverage reported by national government. GoC=R+ S+ D+

2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 63 percent based on 1 survey(s). GoC=R+ S+ D+

2006: Reported data calibrated to 2005 and 2009 levels. GoC=D+

2007: Reported data calibrated to 2005 and 2009 levels. Estimate challenged by: D-

2008: Reported data calibrated to 2005 and 2009 levels. Estimate challenged by: D-

2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 66 percent based on 1 survey(s). Estimate challenged by: D-R-

2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-

2011: Estimate is based on survey results for the 2011 birth cohort. Estimate challenged by: D-R-

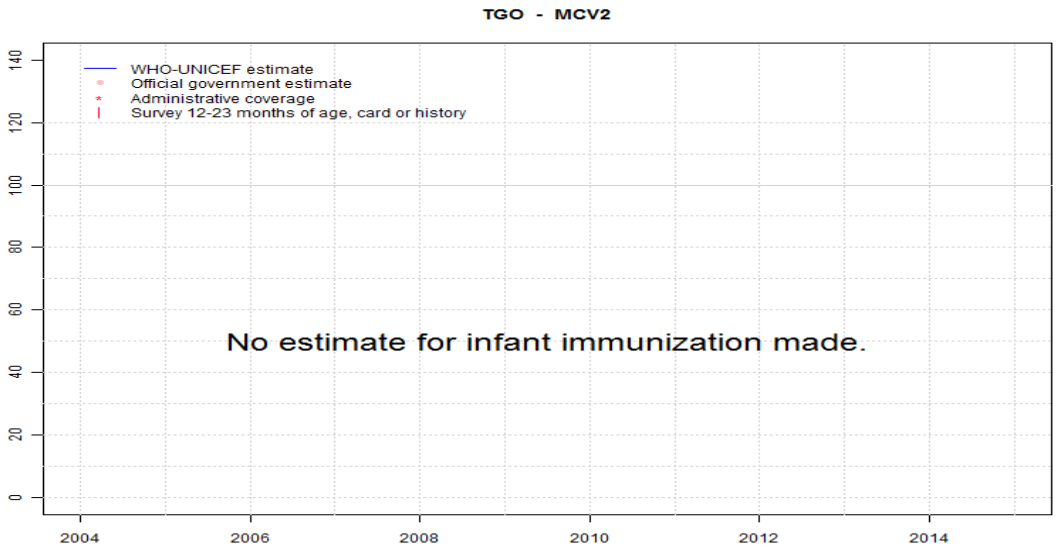
2012: Estimate is based on official government estimate reflecting the survey results for the 2011 birth cohort. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 74 percent based on 1 survey(s). Official government estimate is based on results from a coverage survey reflecting the 2011 birth cohort. Estimate challenged by: D-

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

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

Togo - MCV2



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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.

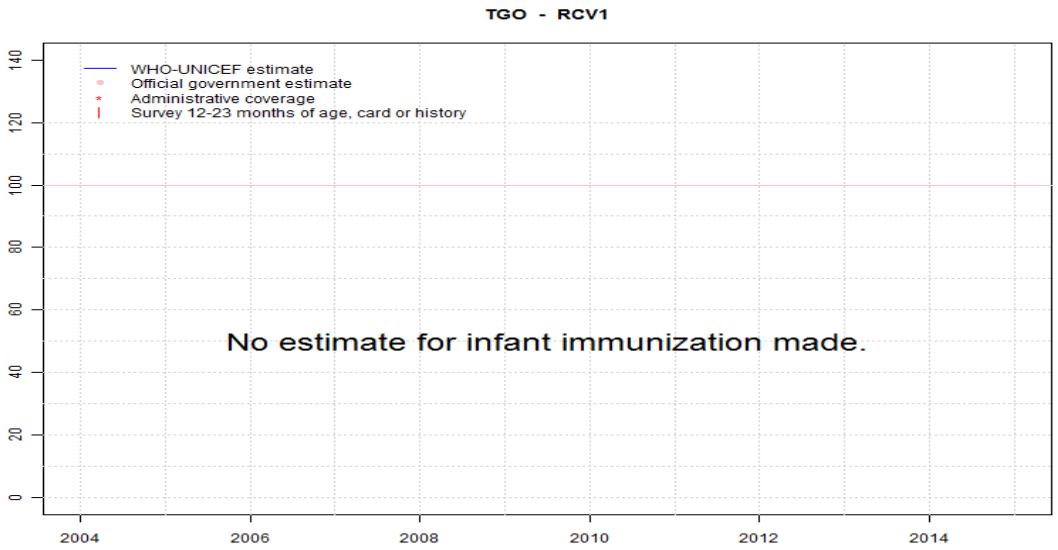
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

Togo - RCV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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.

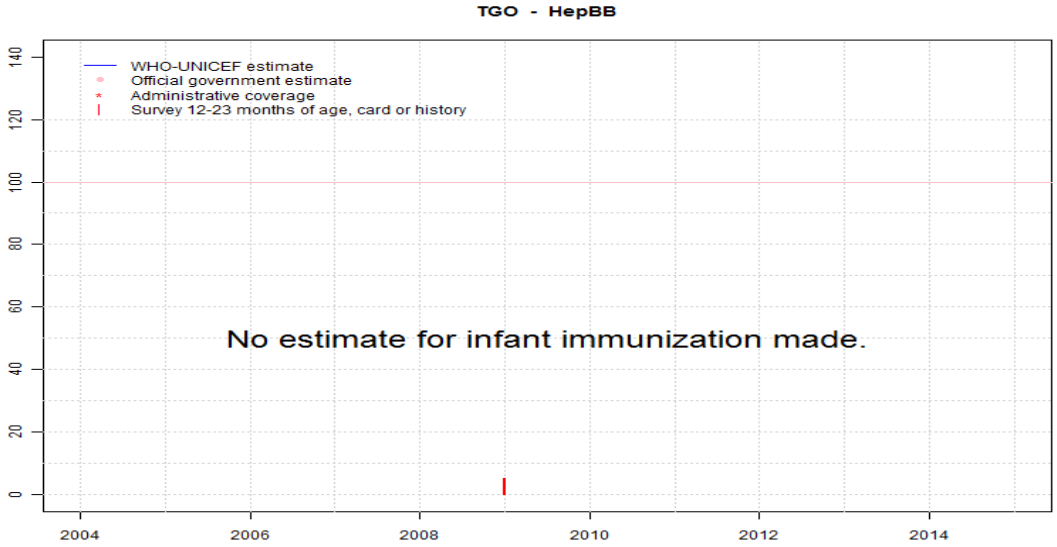
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

Togo - HepBB



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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	5	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.

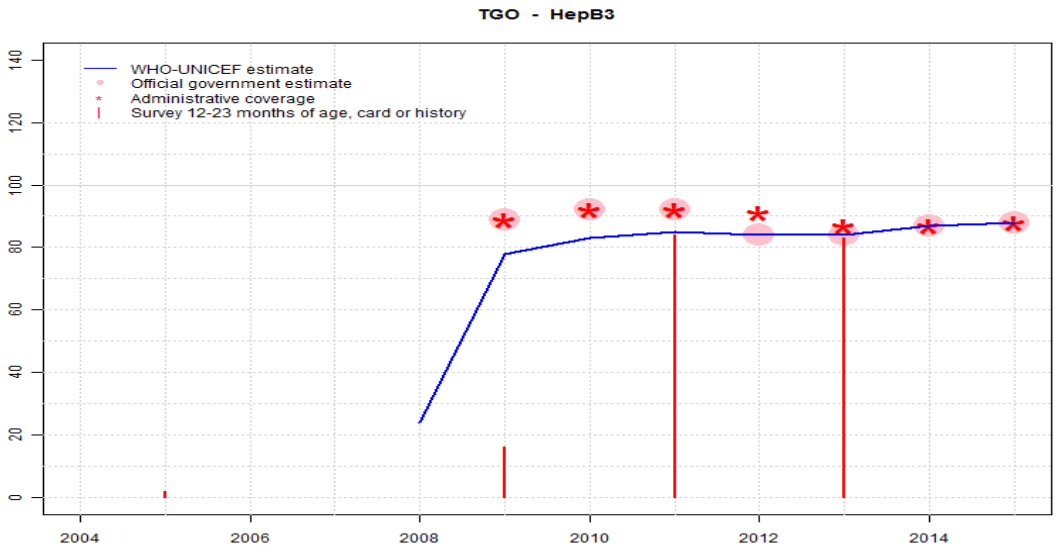
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

Togo - HepB3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	24	78	83	85	84	84	87	88
Estimate GoC	NA	NA	NA	NA	●●	●	●	●	●	●	●	●
Official	NA	NA	NA	NA	NA	89	92	92	84	84	87	88
Administrative	NA	NA	NA	NA	NA	89	92	92	91	87	87	88
Survey	NA	2	NA	NA	NA	16	NA	84	NA	83	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:

2008: Pentavalent DTP-HepB-Hib combination vaccine was introduced in 2008; used nationally since 2009. Forty-eight percent coverage was reached in 50 percent of the national target population. GoC=S+ D+

2009: Estimate is based on DTP3 coverage. Togo Multiple Indicators Cluster Survey 2010 card or history results of 16 percent modifed for recall bias to 19 percent based on 1st dose card or history coverage of 22 percent, 1st dose card only coverage of 16 percent and 3d dose card only coverage of 14 percent. Estimate challenged by: D-R-

2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-

2011: Estimate is based on survey results for the 2011 birth cohort, adjusted for recall bias. Togo EPI Review 2012 card or history results of 84 percent modifed for recall bias to 85 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 64 percent. Estimate challenged by: D-R-

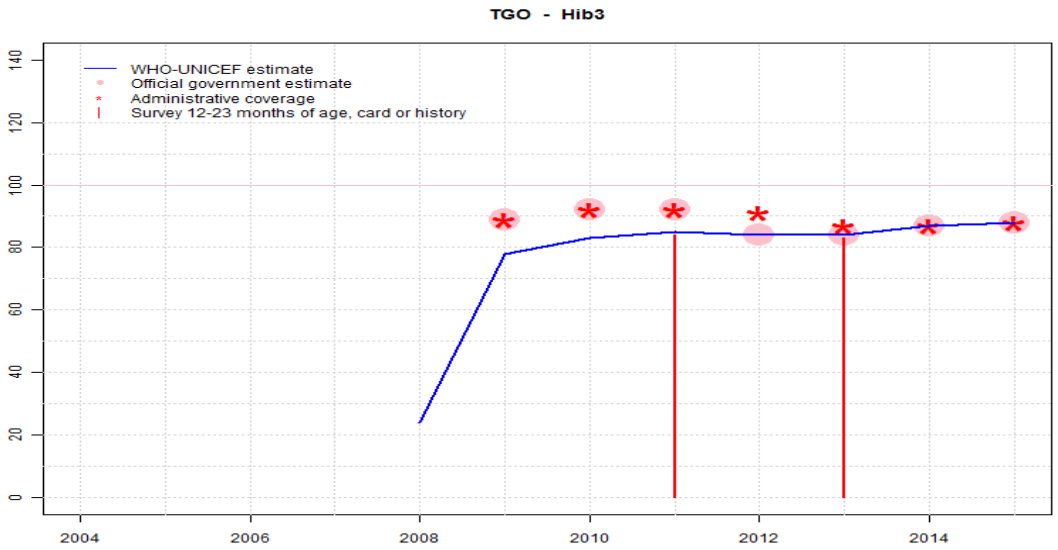
2012: Estimate is based on official government estimate reflecting survey results for the 2011 birth cohort. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 86 percent based on 1 survey(s). Togo Demographic and Health Survey 2013-2014 card or history results of 83 percent modifed for recall bias to 86 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 68 percent and 3d dose card only coverage of 63 percent. Official government estimate is based on results from a coverage survey reflecting the 2011 birth cohort. Estimate challenged by: D-

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

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

Togo - Hib3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	24	78	83	85	84	84	87	88
Estimate GoC	NA	NA	NA	NA	●●	●	●	●	●	●	●	●
Official	NA	NA	NA	NA	NA	89	92	92	84	84	87	88
Administrative	NA	NA	NA	NA	NA	89	92	92	91	87	87	88
Survey	NA	NA	NA	NA	NA	NA	NA	84	NA	83	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:

2008: Pentavalent DTP-HepB-Hib combination vaccine was introduced in 2008; used nationally since 2009. Forty-eight percent coverage was reached in 50 percent of the national target population. GoC=D+

2009: Estimate is based on DTP3 coverage. Estimate challenged by: D-R-

2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-

2011: Estimate is based on survey results for the 2011 birth cohort, adjusted for recall bias. Togo EPI Review 2012 card or history results of 84 percent modifed for recall bias to 85 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 64 percent. Estimate challenged by: D-R-

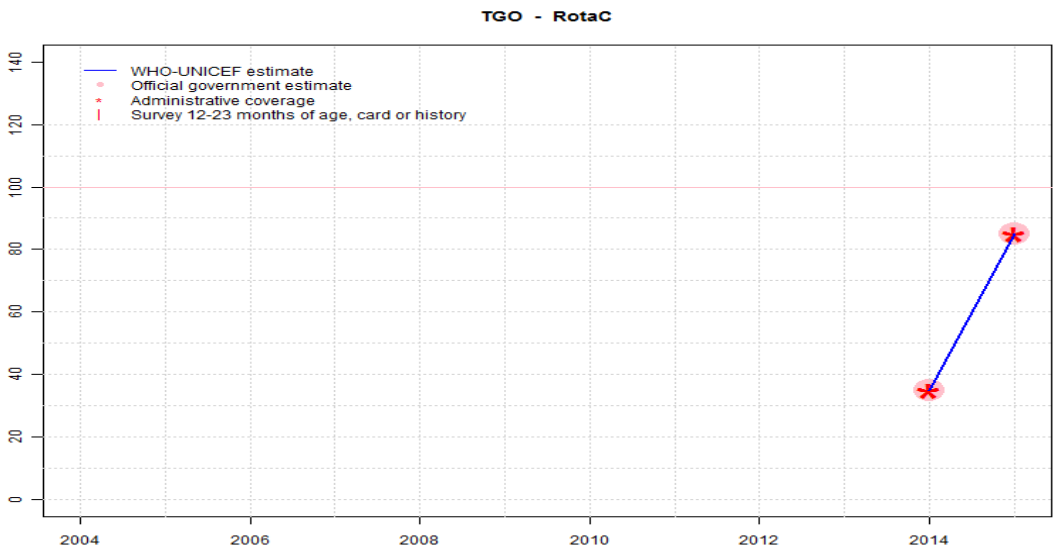
2012: Estimate is based on official government estimate reflecting the survey results for the 2011 birth cohort. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 86 percent based on 1 survey(s). Togo Demographic and Health Survey 2013-2014 card or history results of 83 percent modifed for recall bias to 86 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 68 percent and 3d dose card only coverage of 63 percent. Official government estimate is based on results from a coverage survey reflecting the 2011 birth cohort. Estimate challenged by: D-

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

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

Togo - RotaC



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35	85
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35	85
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35	85
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.

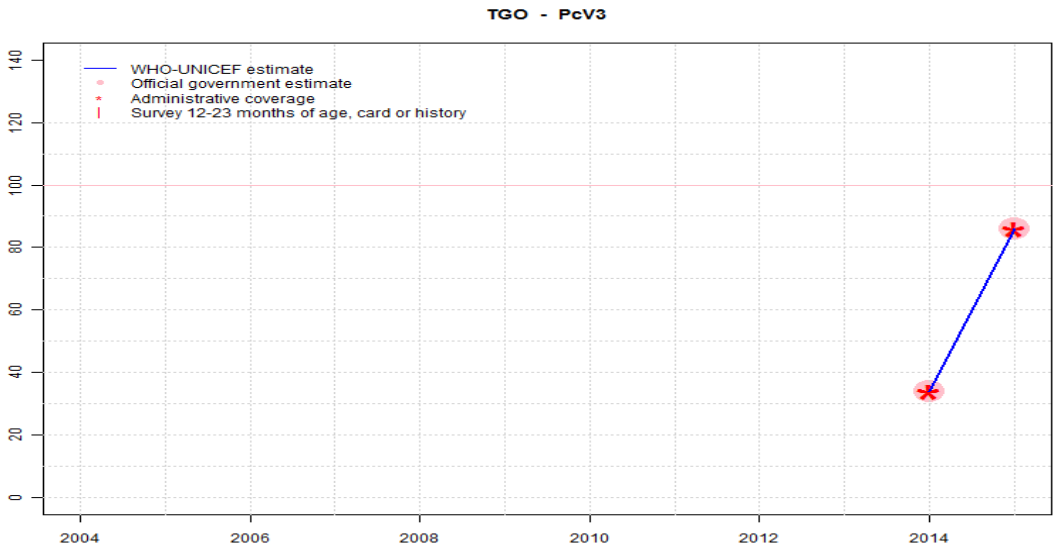
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

2014: Estimate based on coverage reported by national government. Rotavirus vaccine introduced during June 2014. GoC=R+ D+

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

Togo - PcV3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34	86
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34	86
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34	86
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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

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

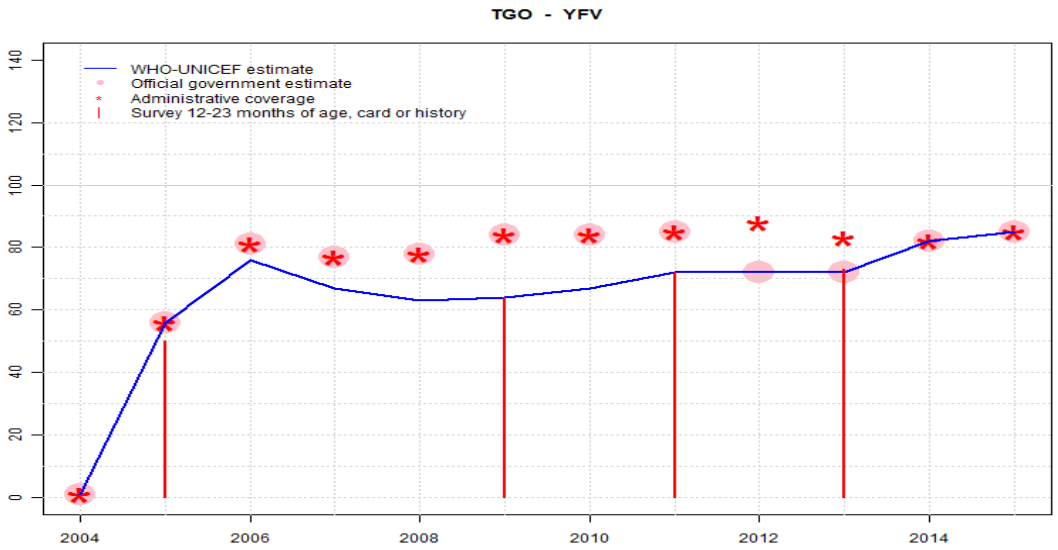
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

2014: Estimate based on coverage reported by national government. Pneumococcal conjugate vaccine introduced during June 2014. GoC=R+ D+

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

Togo - YFV



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	1	56	76	67	63	64	67	72	72	72	82	85
Estimate GoC	••	•••	••	•	•	•	•	•	•	•	•	•
Official	1	56	81	77	78	84	84	85	72	72	82	85
Administrative	1	56	81	77	78	84	84	85	88	83	82	85
Survey	NA	50	NA	NA	NA	64	NA	72	NA	73	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:

2004: Estimate based on reported data. YFV introduced in December 2004. GoC=R+ D+

2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 50 percent based on 1 survey(s). GoC=R+ S+ D+

2006: Reported data calibrated to 2005 and 2009 levels. GoC=D+

2007: Reported data calibrated to 2005 and 2009 levels. Estimate challenged by: D-

2008: Reported data calibrated to 2005 and 2009 levels. Estimate challenged by: D-

2009: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 64 percent based on 1 survey(s). Estimate challenged by: D-R-

2010: Reported data calibrated to 2009 and 2011 levels. Estimate challenged by: D-

2011: Estimate is based on survey results for the 2011 birth cohort. Estimate challenged by: D-R-

2012: Estimate is based on official government estimate reflecting the survey results for the 2011 birth cohort. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government supported by survey. Survey evidence of 73 percent based on 1 survey(s). Official government estimate is based on results from a coverage survey reflecting the 2011 birth cohort. Estimate challenged by: D-

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

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

Togo - survey details

2013 Togo Enquête Démographique et de Santé 2013-2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	95	12-23 m	1395	70
BCG	Card	70	12-23 m	971	70
BCG	Card or History	95	12-23 m	1395	70
BCG	History	26	12-23 m	423	70
DTP1	C or H <12 months	93	12-23 m	1395	70
DTP1	Card	68	12-23 m	971	70
DTP1	Card or History	93	12-23 m	1395	70
DTP1	History	25	12-23 m	423	70
DTP3	C or H <12 months	82	12-23 m	1395	70
DTP3	Card	63	12-23 m	971	70
DTP3	Card or History	83	12-23 m	1395	70
DTP3	History	19	12-23 m	423	70
HepB1	C or H <12 months	93	12-23 m	1395	70
HepB1	Card	68	12-23 m	971	70
HepB1	Card or History	93	12-23 m	1395	70
HepB1	History	25	12-23 m	423	70
HepB3	C or H <12 months	82	12-23 m	1395	70
HepB3	Card	63	12-23 m	971	70
HepB3	Card or History	83	12-23 m	1395	70
HepB3	History	19	12-23 m	423	70
Hib1	C or H <12 months	93	12-23 m	1395	70
Hib1	Card	68	12-23 m	971	70
Hib1	Card or History	93	12-23 m	1395	70
Hib1	History	25	12-23 m	423	70
Hib3	C or H <12 months	82	12-23 m	1395	70
Hib3	Card	63	12-23 m	971	70
Hib3	Card or History	83	12-23 m	1395	70
Hib3	History	19	12-23 m	423	70
MCV1	C or H <12 months	66	12-23 m	1395	70
MCV1	Card	56	12-23 m	971	70
MCV1	Card or History	74	12-23 m	1395	70
MCV1	History	18	12-23 m	423	70
Pol1	C or H <12 months	94	12-23 m	1395	70
Pol1	Card	68	12-23 m	971	70
Pol1	Card or History	94	12-23 m	1395	70
Pol1	History	26	12-23 m	423	70
Pol3	C or H <12 months	73	12-23 m	1395	70
Pol3	Card	64	12-23 m	971	70
Pol3	Card or History	74	12-23 m	1395	70
Pol3	History	10	12-23 m	423	70
YFV	C or H <12 months	65	12-23 m	1395	70
YFV	Card	56	12-23 m	971	70
YFV	Card or History	73	12-23 m	1395	70
YFV	History	18	12-23 m	423	70

2012 Togo Enquête Démographique et de Santé 2013-2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	93	24-35 m	1234	70
DTP1	C or H <12 months	91	24-35 m	1234	70
DTP3	C or H <12 months	77	24-35 m	1234	70
HepB1	C or H <12 months	91	24-35 m	1234	70
HepB3	C or H <12 months	77	24-35 m	1234	70
Hib1	C or H <12 months	91	24-35 m	1234	70
Hib3	C or H <12 months	77	24-35 m	1234	70
MCV1	C or H <12 months	63	24-35 m	1234	70
Pol1	C or H <12 months	93	24-35 m	1234	70
Pol3	C or H <12 months	62	24-35 m	1234	70
YFV	C or H <12 months	62	24-35 m	1234	70

2011 Revue du Programme Elargi de Vaccination (PEV) du Togo en 2012

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	97	12-23 m	4118	79
DTP1	Card	71	12-23 m	4118	79
DTP1	Card or History	94	12-23 m	4118	79
DTP3	Card	64	12-23 m	4118	79
DTP3	Card or History	84	12-23 m	4118	79
HepB1	Card	71	12-23 m	4118	79
HepB1	Card or History	94	12-23 m	4118	79
HepB3	Card	64	12-23 m	4118	79
HepB3	Card or History	84	12-23 m	4118	79
Hib1	Card	71	12-23 m	4118	79
Hib1	Card or History	94	12-23 m	4118	79

Hib3	Card	64	12-23 m	4118	79
Hib3	Card or History	84	12-23 m	4118	79
MCV1	Card	54	12-23 m	4118	79
MCV1	Card or History	72	12-23 m	4118	79
Pol1	Card	71	12-23 m	-	79
Pol1	Card or History	94	12-23 m	4118	79
Pol3	Card	64	12-23 m	-	79
Pol3	Card or History	84	12-23 m	4118	79
YFV	Card	54	12-23 m	-	79
YFV	Card or History	72	12-23 m	4118	79

2011 Togo Enquête Démographique et de Santé 2013-2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	92	36-47 m	1220	70
DTP1	C or H <12 months	90	36-47 m	1220	70
DTP3	C or H <12 months	77	36-47 m	1220	70
HepB1	C or H <12 months	90	36-47 m	1220	70
HepB3	C or H <12 months	77	36-47 m	1220	70
Hib1	C or H <12 months	90	36-47 m	1220	70
Hib3	C or H <12 months	77	36-47 m	1220	70
MCV1	C or H <12 months	68	36-47 m	1220	70
Pol1	C or H <12 months	92	36-47 m	1220	70
Pol3	C or H <12 months	59	36-47 m	1220	70
YFV	C or H <12 months	67	36-47 m	1220	70

2010 Togo Enquête Démographique et de Santé 2013-2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	91	48-59 m	1172	70
DTP1	C or H <12 months	87	48-59 m	1172	70
DTP3	C or H <12 months	75	48-59 m	1172	70
HepB1	C or H <12 months	87	48-59 m	1172	70
HepB3	C or H <12 months	75	48-59 m	1172	70
Hib1	C or H <12 months	87	48-59 m	1172	70
Hib3	C or H <12 months	75	48-59 m	1172	70
MCV1	C or H <12 months	65	48-59 m	1172	70
Pol1	C or H <12 months	89	48-59 m	1172	70
Pol3	C or H <12 months	55	48-59 m	1172	70
YFV	C or H <12 months	63	48-59 m	1172	70

2009 Togo, Enquête par grappes à indicateurs multiples, 2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	91	12-23 m	900	73
BCG	Card	71	12-23 m	900	73
BCG	Card or History	91	12-23 m	900	73
BCG	History	19	12-23 m	900	73
DTP1	C or H <12 months	72	12-23 m	900	73
DTP1	Card	71	12-23 m	900	73
DTP1	Card or History	87	12-23 m	900	73
DTP1	History	16	12-23 m	900	73
DTP3	C or H <12 months	59	12-23 m	900	73
DTP3	Card	64	12-23 m	900	73
DTP3	Card or History	72	12-23 m	900	73
DTP3	History	8	12-23 m	900	73
HepB1	C or H <12 months	18	12-23 m	900	73
HepB1	Card	16	12-23 m	900	73
HepB1	Card or History	22	12-23 m	900	73
HepB1	History	6	12-23 m	900	73
HepB3	C or H <12 months	14	12-23 m	900	73
HepB3	Card	14	12-23 m	900	73
HepB3	Card or History	16	12-23 m	900	73
HepB3	History	2	12-23 m	900	73
HepBB	C or H <12 months	5	12-23 m	900	73
HepBB	Card	1	12-23 m	900	73
HepBB	Card or History	5	12-23 m	900	73
HepBB	History	4	12-23 m	900	73
MCV1	C or H <12 months	65	12-23 m	900	73
MCV1	Card	60	12-23 m	900	73
MCV1	Card or History	66	12-23 m	900	73
MCV1	History	6	12-23 m	900	73
Pol1	C or H <12 months	88	12-23 m	900	73
Pol1	Card	66	12-23 m	900	73
Pol1	Card or History	88	12-23 m	900	73
Pol1	History	22	12-23 m	900	73

Pol3	C or H <12 months	65	12-23 m	900	73
Pol3	Card	60	12-23 m	900	73
Pol3	Card or History	66	12-23 m	900	73
Pol3	History	6	12-23 m	900	73
YFV	C or H <12 months	60	12-23 m	900	73
YFV	Card	49	12-23 m	900	73
YFV	Card or History	64	12-23 m	900	73
YFV	History	15	12-23 m	900	73

2005 Enqête par grappe à indicateurs multiples de Togo, 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	87	12-23 m	888	70
BCG	Card	68	12-23 m	888	70
BCG	Card or History	88	12-23 m	888	70
BCG	History	20	12-23 m	888	70
DTP1	C or H <12 months	84	12-23 m	888	70
DTP1	Card	68	12-23 m	888	70
DTP1	Card or History	85	12-23 m	888	70
DTP1	History	17	12-23 m	888	70
DTP3	C or H <12 months	63	12-23 m	888	70
DTP3	Card	58	12-23 m	888	70
DTP3	Card or History	65	12-23 m	888	70
DTP3	History	7	12-23 m	888	70
HepB1	C or H <12 months	16	12-23 m	888	70
HepB1	Card	2	12-23 m	888	70
HepB1	Card or History	19	12-23 m	888	70
HepB1	History	17	12-23 m	888	70
HepB3	C or H <12 months	1	12-23 m	888	70
HepB3	Card	2	12-23 m	888	70
HepB3	Card or History	2	12-23 m	888	70
HepB3	History	0	12-23 m	888	70
MCV1	C or H <12 months	58	12-23 m	888	70
MCV1	Card	50	12-23 m	888	70
MCV1	Card or History	63	12-23 m	888	70
MCV1	History	13	12-23 m	888	70
Pol1	C or H <12 months	90	12-23 m	888	70
Pol1	Card	69	12-23 m	888	70
Pol1	Card or History	92	12-23 m	888	70
Pol1	History	24	12-23 m	888	70
Pol3	C or H <12 months	69	12-23 m	888	70
Pol3	Card	60	12-23 m	888	70
Pol3	Card or History	71	12-23 m	888	70
Pol3	History	10	12-23 m	888	70
YFV	C or H <12 months	44	12-23 m	888	70
YFV	Card	40	12-23 m	888	70
YFV	Card or History	50	12-23 m	888	70
YFV	History	9	12-23 m	888	70

2000 Togo, Revue Externe du Programme Elargi de Vaccination, Rapport Préliminaire, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	84	12-23 m	1308	79
DTP1	Card or History	80	12-23 m	1308	79
DTP3	Card or History	64	12-23 m	1308	79
MCV1	Card or History	58	12-23 m	1308	79
Pol1	Card or History	83	12-23 m	1308	79
Pol3	Card or History	63	12-23 m	1308	79

1999 Togo MICS 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	81	12-23 m	638	66
DTP1	Card or History	81	12-23 m	638	66
DTP3	Card or History	57	12-23 m	638	66
MCV1	Card or History	57	12-23 m	638	66
Pol1	Card or History	87	12-23 m	638	66
Pol3	Card or History	57	12-23 m	638	66

1997 Enquête Démographique et de Santé Togo 1998, 1999

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	73	12-23 m	1134	58
BCG	Card	57	12-23 m	1134	58
BCG	Card <12 months	56	12-23 m	1134	58

Togo - survey details

BCG	Card or History	76	12-23 m	1134	58
BCG	History	19	12-23 m	1134	58
DTP1	C or H <12 months	64	12-23 m	1134	58
DTP1	Card	52	12-23 m	1134	58
DTP1	Card <12 months	52	12-23 m	1134	58
DTP1	Card or History	67	12-23 m	1134	58
DTP1	History	14	12-23 m	1134	58
DTP3	C or H <12 months	36	12-23 m	1134	58
DTP3	Card	38	12-23 m	1134	58
DTP3	Card <12 months	37	12-23 m	1134	58
DTP3	Card or History	42	12-23 m	1134	58
DTP3	History	4	12-23 m	1134	58
MCV1	C or H <12 months	32	12-23 m	1134	58
MCV1	Card	35	12-23 m	1134	58
MCV1	Card <12 months	34	12-23 m	1134	58
MCV1	Card or History	43	12-23 m	1134	58
MCV1	History	8	12-23 m	1134	58
Pol1	C or H <12 months	74	12-23 m	1134	58
Pol1	Card	54	12-23 m	1134	58
Pol1	Card <12 months	53	12-23 m	1134	58
Pol1	Card or History	78	12-23 m	1134	58
Pol1	History	24	12-23 m	1134	58
Pol3	C or H <12 months	41	12-23 m	1134	58
Pol3	Card	39	12-23 m	1134	58
Pol3	Card <12 months	37	12-23 m	1134	58
Pol3	Card or History	47	12-23 m	1134	58
Pol3	History	8	12-23 m	1134	58

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

Togo
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 receives 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.

The model was used in the mid to late 2000. Currently, the coverage series developed by the model is used as the baseline, and efforts are made to obtain data from all sources that include the JRF and reported trend over the years, routine PAB reporting and its trend over the years, data from surveys (DHS, MICS, EPI), whether countries have been validated for the attainment of maternal and neonatal tetanus elimination and what the TT coverage figures are from the survey etc and all the information is used to arrive at an estimate of the protection-at-birth from TT vaccination.

Year	PAB coverage estimate (%)
2004	79
2005	81
2006	81
2007	82
2008	81
2009	81
2010	81
2011	81
2012	81
2013	77
2014	81
2015	81

[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.