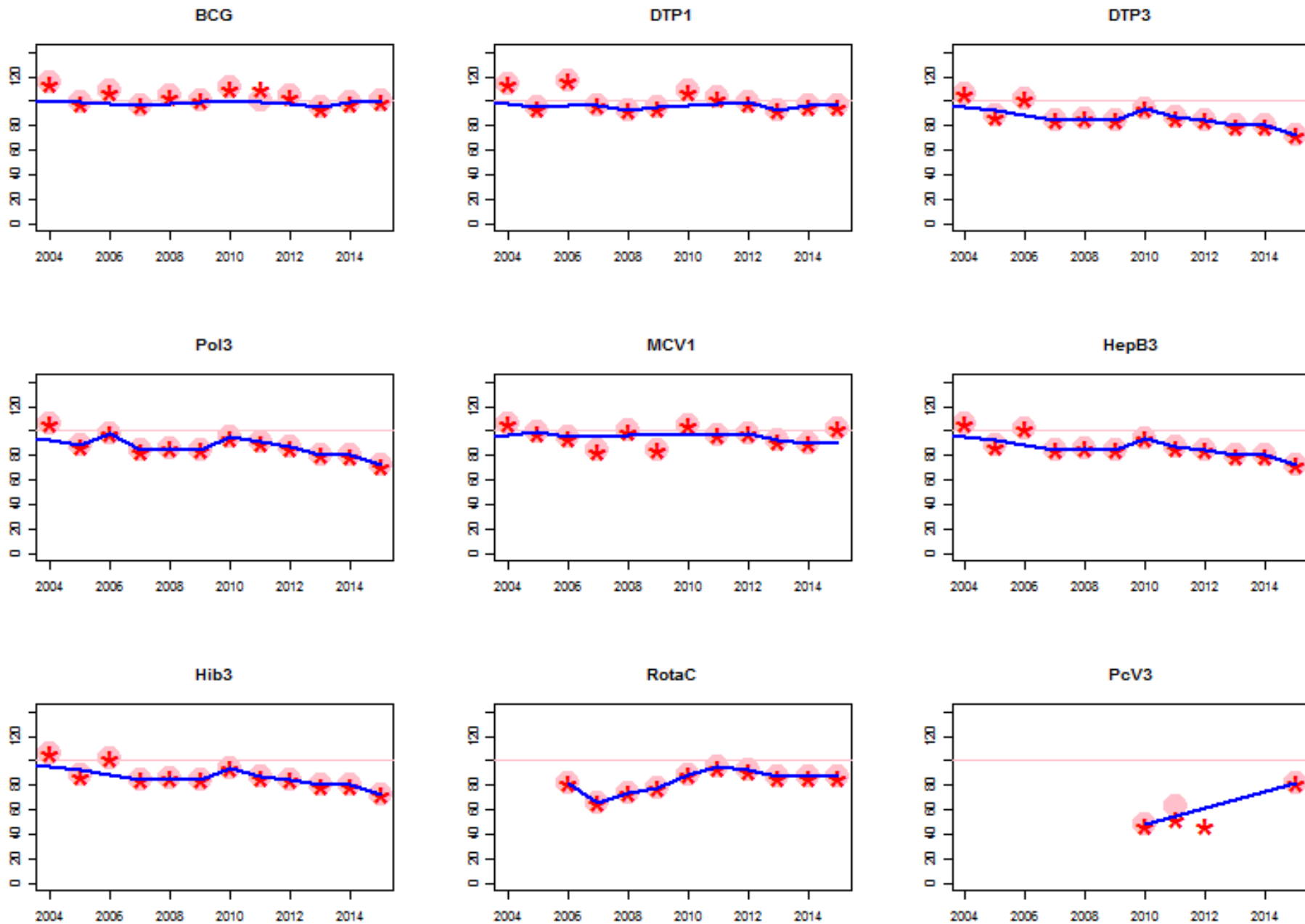
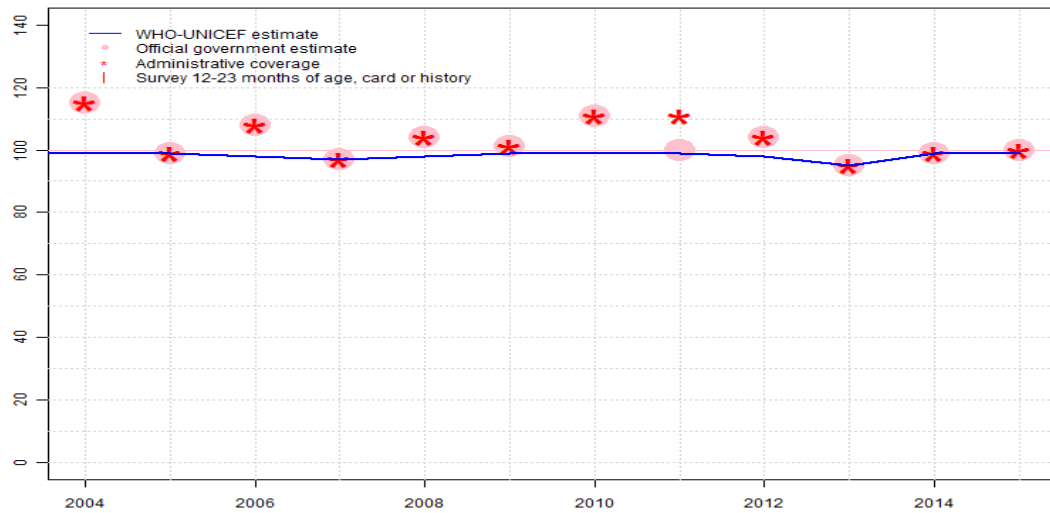


Panama: WHO and UNICEF estimates of immunization coverage: 2015 revision



Panama - BCG

PAN - BCG



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	99	99	98	97	98	99	99	99	98	95	99	99
Estimate GoC	●	●●	●	●●	●●	●●	●●	●●	●●	●●	●●	●●
Official	115	99	108	97	104	101	111	100	104	95	99	100
Administrative	115	99	108	97	104	101	111	111	104	95	99	100
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.

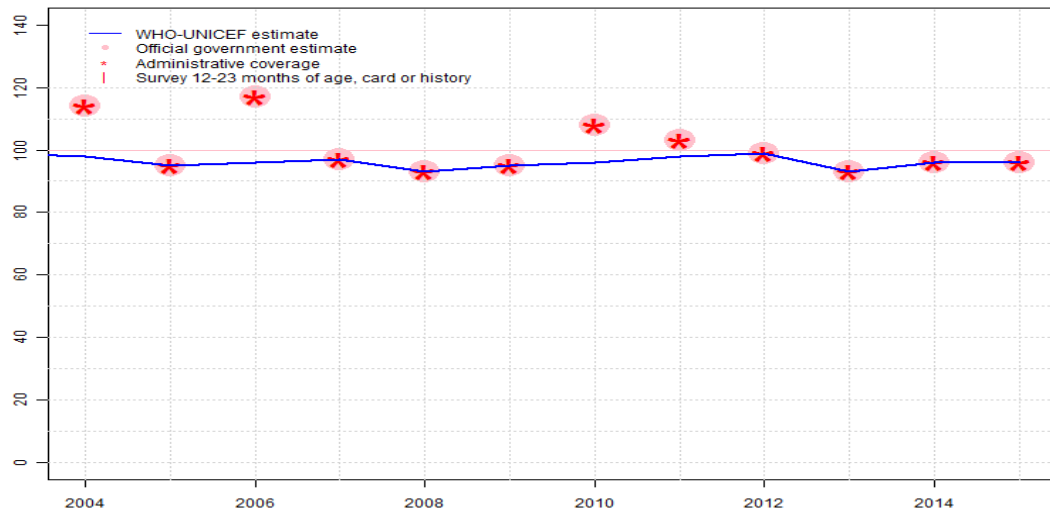
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on interpolation between data reported by national government. Reported data excluded. 115 percent greater than 100 percent. Reported data excluded. Unexplained increase from 99 percent to 115 percent with decrease 99 percent. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on interpolation between data reported by national government. Reported data excluded. 108 percent greater than 100 percent. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on interpolation between data reported by national government. Reported data excluded. 104 percent greater than 100 percent. GoC=D+
- 2009: Estimate based on interpolation between data reported by national government. Reported data excluded. 101 percent greater than 100 percent. GoC=D+
- 2010: Estimate based on interpolation between data reported by national government. Reported data excluded. 111 percent greater than 100 percent. GoC=D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on interpolation between data reported by national government. Reported data excluded. 104 percent greater than 100 percent. Preliminary results from the 2013 Multiple Indicator Cluster Survey for the 2012 birth cohort suggest coverage of 96 percent. GoC=D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. GoC=R+ D+

Panama - DTP1

PAN - DTP1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	98	95	96	97	93	95	96	98	99	93	96	96
Estimate GoC	•	••	••	••	••	••	••	••	••	••	••	••
Official	114	95	117	97	93	95	108	103	99	93	96	96
Administrative	114	95	117	97	93	95	108	103	99	93	96	96
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.

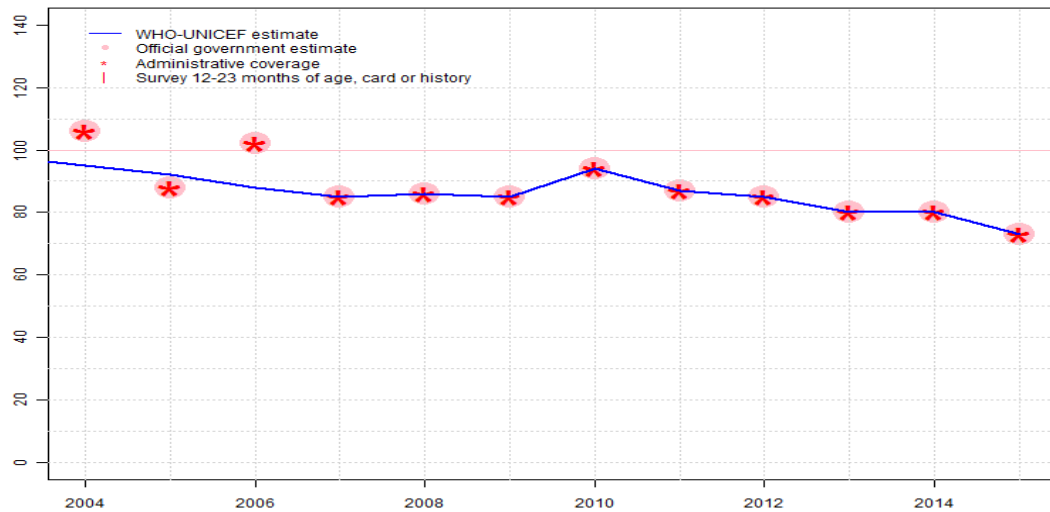
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: DTP1 coverage estimated based on DTP3 coverage of 95. Reported data excluded. 114 percent greater than 100 percent. Reported data excluded. Unexplained increase from 92 percent to 114 percent with decrease 95 percent. Estimate challenged by: R-
- 2005: Estimate based on interpolation between data reported by national government. Reported data excluded. Decline in reported coverage from 114 percent to 95 percent with increase to 117 percent. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2006: Estimate based on interpolation between data reported by national government. Reported data excluded. 117 percent greater than 100 percent. Reported data excluded. Unexplained increase from 95 percent to 117 percent with decrease 97 percent. GoC=D+
- 2007: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on interpolation between data reported by national government. Reported data excluded. 108 percent greater than 100 percent. GoC=D+
- 2011: Estimate based on interpolation between data reported by national government. Reported data excluded. 103 percent greater than 100 percent. GoC=D+
- 2012: Estimate based on coverage reported by national government. Preliminary results from the 2013 Multiple Indicator Cluster Survey for the 2012 birth cohort suggest coverage of 92 percent. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. GoC=R+ D+

Panama - DTP3

PAN - DTP3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	95	92	88	85	86	85	94	87	85	80	80	73
Estimate GoC	••	•	•	••	••	••	•	••	••	••	••	••
Official	106	88	102	85	86	85	94	87	85	80	80	73
Administrative	106	88	102	85	86	85	94	87	85	80	80	73
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.

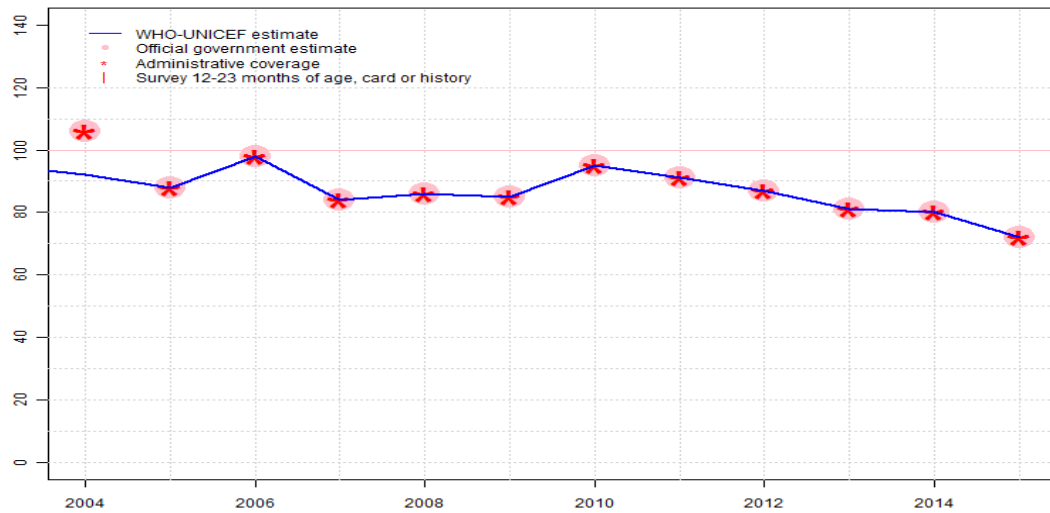
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on interpolation between data reported by national government. Reported data excluded. 106 percent greater than 100 percent. GoC=D+
- 2005: Estimate based on interpolation between data reported by national government. Reported data excluded. Decline in reported coverage from 106 percent to 88 percent with increase to 102 percent. Denominator based on number of children receiving BCG. Estimate challenged by: D-
- 2006: Estimate based on interpolation between data reported by national government. Reported data excluded. 102 percent greater than 100 percent. Reported data excluded. Unexplained increase from 88 percent to 102 percent with decrease 85 percent. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. Preliminary results from the 2013 Multiple Indicator Cluster Survey for the 2011 birth cohort supports reported coverage levels. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. GoC=R+ D+

Panama - Pol3

PAN - Pol3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	92	88	98	84	86	85	95	91	87	81	80	72
Estimate GoC	••	••	•	••	••	••	•	••	••	••	••	••
Official	106	88	98	84	86	85	95	91	87	81	80	72
Administrative	106	88	98	84	86	85	95	91	87	81	80	72
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

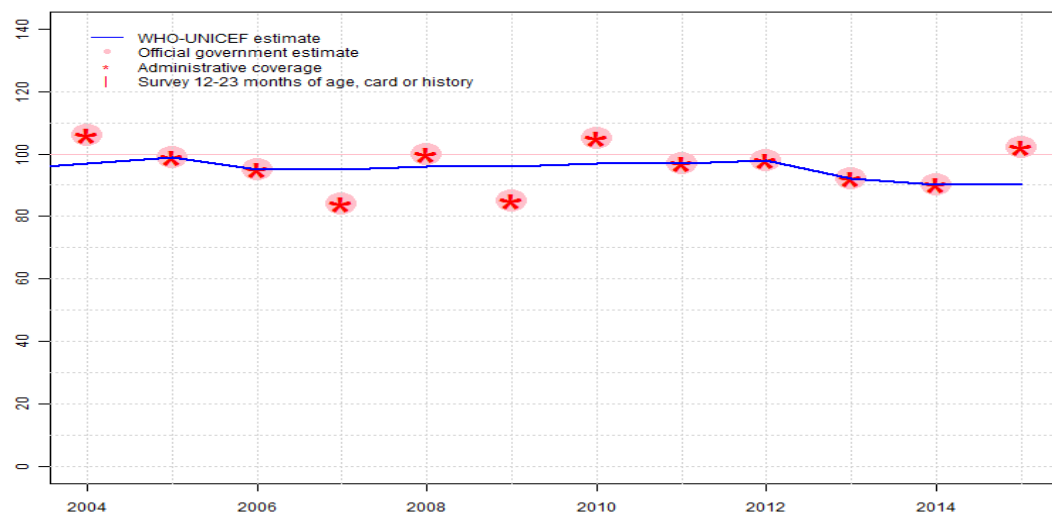
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on interpolation between data reported by national government. Reported data excluded. 106 percent greater than 100 percent. Reported data excluded. Unexplained increase from 95 percent to 106 percent with decrease 88 percent. GoC=D+
- 2005: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. Preliminary results from the 2013 Multiple Indicator Cluster Survey for the 2012 birth cohort supports reported coverage levels. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. GoC=R+ D+

Panama - MCV1

PAN - MCV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	97	99	95	95	96	96	97	97	98	92	90	90
Estimate GoC	•	••	••	•	•	•	••	••	••	••	••	•
Official	106	99	95	84	100	85	105	97	98	92	90	102
Administrative	106	99	95	84	100	85	105	97	98	92	90	102
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.

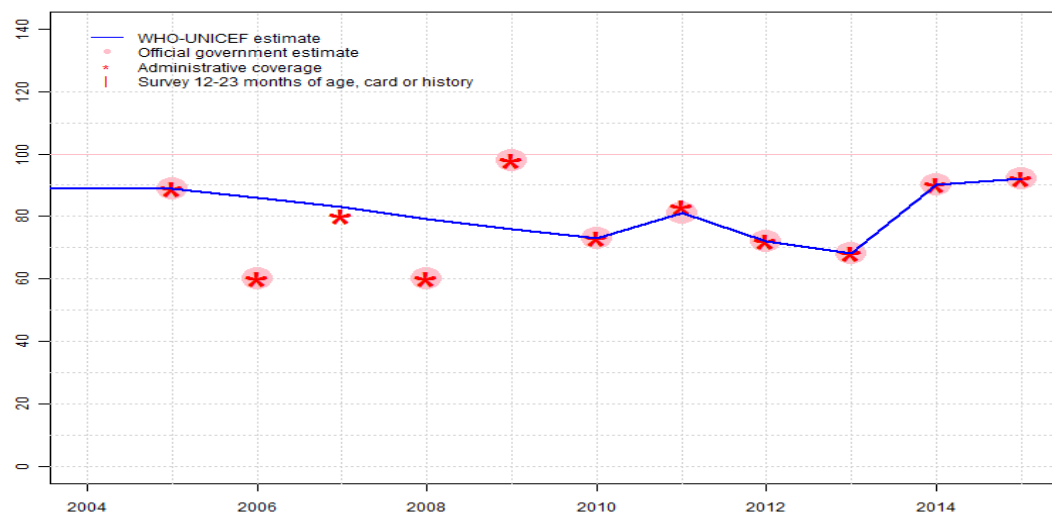
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on interpolation between data reported by national government. Reported data excluded. 106 percent greater than 100 percent. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2006: Estimate based on coverage reported by national government. GoC=R+ D+
- 2007: Estimate based on interpolation between data reported by national government. Reported data excluded. Decline in reported coverage from 95 percent to 84 percent with increase to 100 percent. Denominator based on number of children receiving BCG. Estimate challenged by: D-
- 2008: Estimate based on interpolation between data reported by national government. Reported data excluded. Unexplained increase from 84 percent to 100 percent with decrease 85 percent. Denominator based on number of children receiving BCG. Estimate challenged by: D-
- 2009: Estimate based on interpolation between data reported by national government. Reported data excluded. Decline in reported coverage from 100 percent to 85 percent with increase to 105 percent. Estimate challenged by: D-
- 2010: Estimate based on interpolation between data reported by national government. Reported data excluded. 105 percent greater than 100 percent. GoC=D+
- 2011: Estimate based on coverage reported by national government. Preliminary results from the 2013 Multiple Indicator Cluster Survey for the 2012 birth cohort suggest coverage of 87 percent. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on extrapolation from data reported by national government. Reported data excluded. 102 percent greater than 100 percent. Reported data excluded. Change in reported coverage from 90 level to 102 percent. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. Estimate challenged by: D-

Panama - MCV2

PAN - MCV2



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	89	89	86	83	79	76	73	81	72	68	90	92
Estimate GoC	•	•	•	•	•	•	••	••	••	••	•	••
Official	NA	89	60	NA	60	98	73	81	72	68	90	92
Administrative	NA	89	60	80	60	98	73	83	72	68	90	92
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.

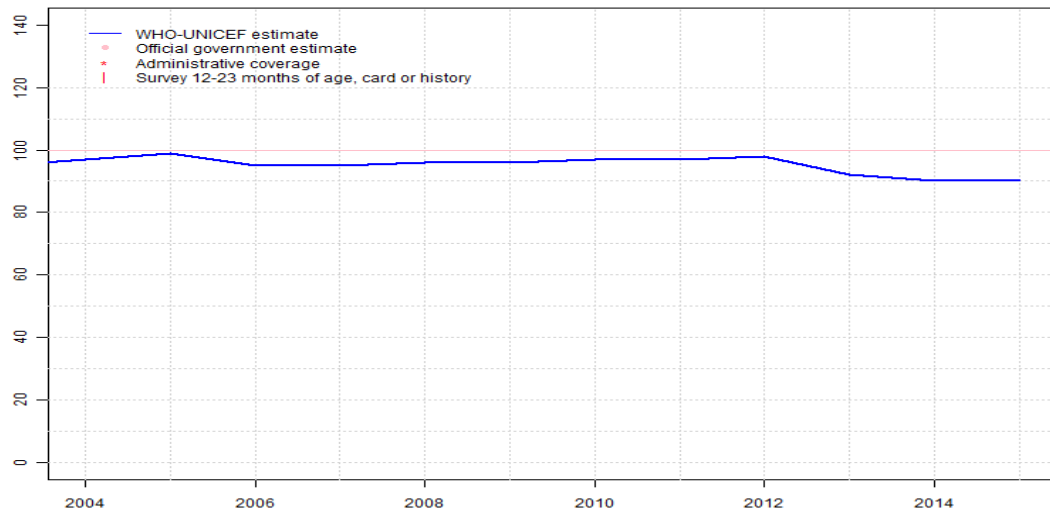
Description:

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

- 2004: Estimate based on interpolation between reported values. GoC=No accepted empirical data
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2006: Estimate based on interpolation between reported values. Reported data excluded. Decline in reported coverage from 89 percent to 60 percent with increase to 80 percent. Estimate challenged by: D-
- 2007: Estimate based on interpolation between reported values. Reported data excluded. Unexplained increase from 60 percent to 80 percent with decrease 60 percent. Estimate challenged by: D-
- 2008: Estimate based on interpolation between reported values. Reported data excluded. Decline in reported coverage from 80 percent to 60 percent with increase to 98 percent. Estimate challenged by: D-
- 2009: Estimate based on interpolation between reported values. Reported data excluded. Unexplained increase from 60 percent to 98 percent with decrease 73 percent. Estimate challenged by: D-
- 2010: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Recommended age for the second dose of measles containing vaccine changed from 4 years of age to 18 months during 2014. Estimate of 90 percent changed from previous revision value of 68 percent. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. GoC=R+ D+

Panama - RCV1

PAN - RCV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	97	99	95	95	96	96	97	97	98	92	90	90
Estimate GoC	•	••	••	•	•	•	••	••	••	••	••	•
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.

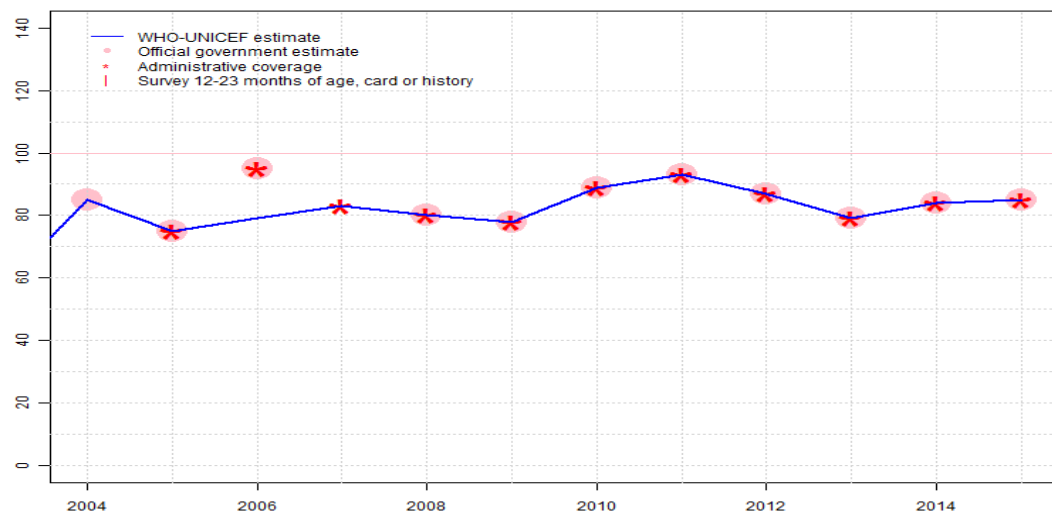
Description:

For this revision, coverage estimates for the first dose of rubella containing vaccine are based on WHO and UNICEF estimates of coverage of measles containing vaccine. Nationally reported coverage of rubella containing vaccine is not taken into consideration nor are they represented in the accompanying graph and data table.

- 2004: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2005: Estimate based on estimated MCV1. GoC=R+ D+
- 2006: Estimate based on estimated MCV1. GoC=R+ D+
- 2007: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2008: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2009: Estimate based on estimated MCV1. Estimate challenged by: D-
- 2010: Estimate based on estimated MCV1. GoC=D+
- 2011: Estimate based on estimated MCV1. GoC=R+ D+
- 2012: Estimate based on estimated MCV1. GoC=R+ D+
- 2013: Estimate based on estimated MCV1. GoC=R+ D+
- 2014: Estimate based on estimated MCV1. GoC=R+ D+
- 2015: Estimate based on estimated MCV1. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. Estimate challenged by: D-

Panama - HepBB

PAN - HepBB



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	85	75	79	83	80	78	89	93	87	79	84	85
Estimate GoC	●●	●●	●●	●	●●	●●	●	●●	●●	●●	●●	●●
Official	85	75	95	NA	80	78	89	93	87	79	84	85
Administrative	NA	75	95	83	80	78	89	93	87	79	84	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.

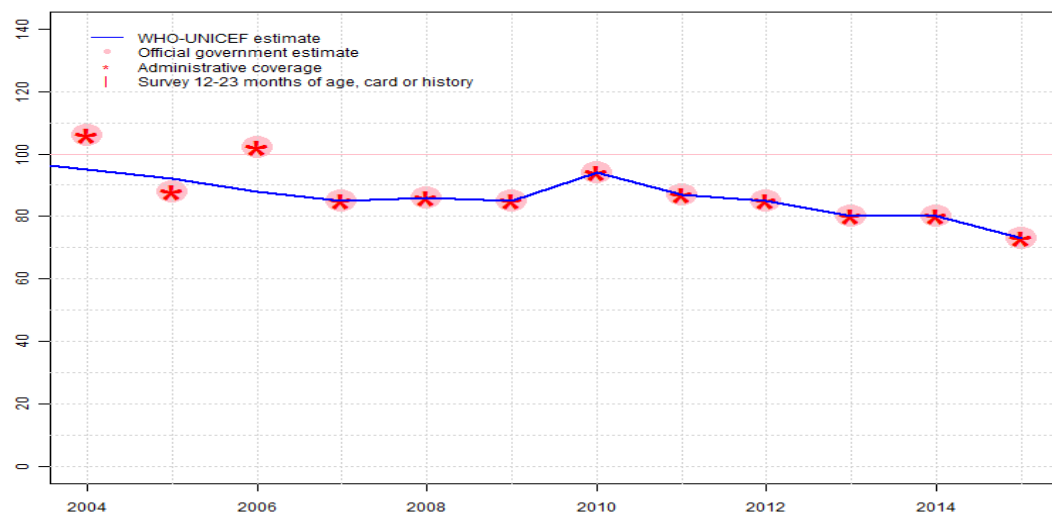
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. GoC=R+ D+
- 2006: Estimate based on interpolation between reported values. Reported data excluded. Unexplained increase from 75 percent to 95 percent with decrease 83 percent. GoC=D+
- 2007: Estimate based on reported administrative estimate. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. GoC=R+ D+

Panama - HepB3

PAN - HepB3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	95	92	88	85	86	85	94	87	85	80	80	73
Estimate GoC	●●	●	●	●●	●●	●●	●	●●	●●	●●	●●	●●
Official	106	88	102	85	86	85	94	87	85	80	80	73
Administrative	106	88	102	85	86	85	94	87	85	80	80	73
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.

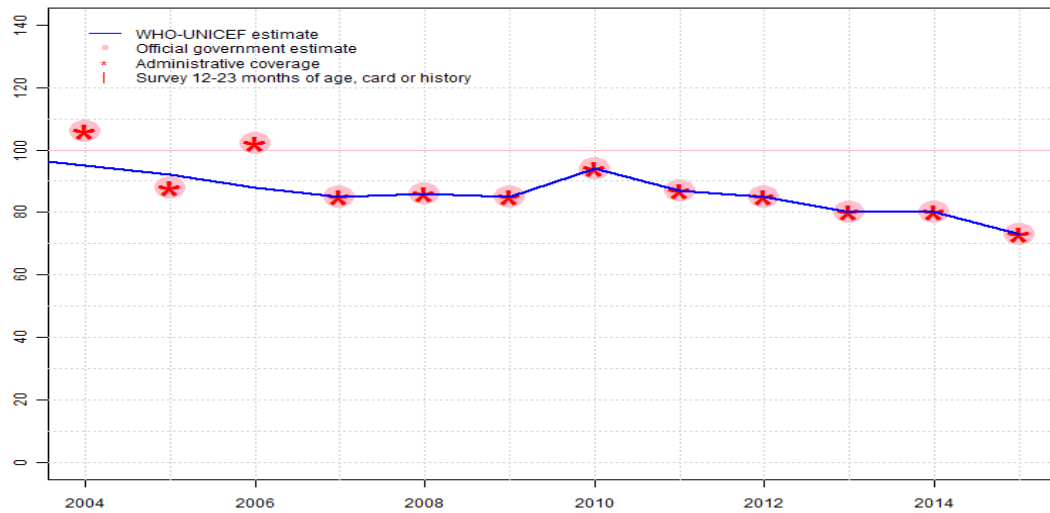
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on interpolation between reported values. Reported data excluded. 106 percent greater than 100 percent. GoC=D+
- 2005: Estimate based on interpolation between reported values. Reported data excluded. Decline in reported coverage from 106 percent to 88 percent with increase to 102 percent. Denominator based on number of children receiving BCG. Estimate challenged by: D-
- 2006: Estimate based on interpolation between reported values. Reported data excluded. 102 percent greater than 100 percent. Reported data excluded. Unexplained increase from 88 percent to 102 percent with decrease 85 percent. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. GoC=R+ D+

Panama - Hib3

PAN - Hib3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	95	92	88	85	86	85	94	87	85	80	80	73
Estimate GoC	●●	●	●	●●	●●	●●	●	●●	●●	●●	●●	●●
Official	106	88	102	85	86	85	94	87	85	80	80	73
Administrative	106	88	102	85	86	85	94	87	85	80	80	73
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.

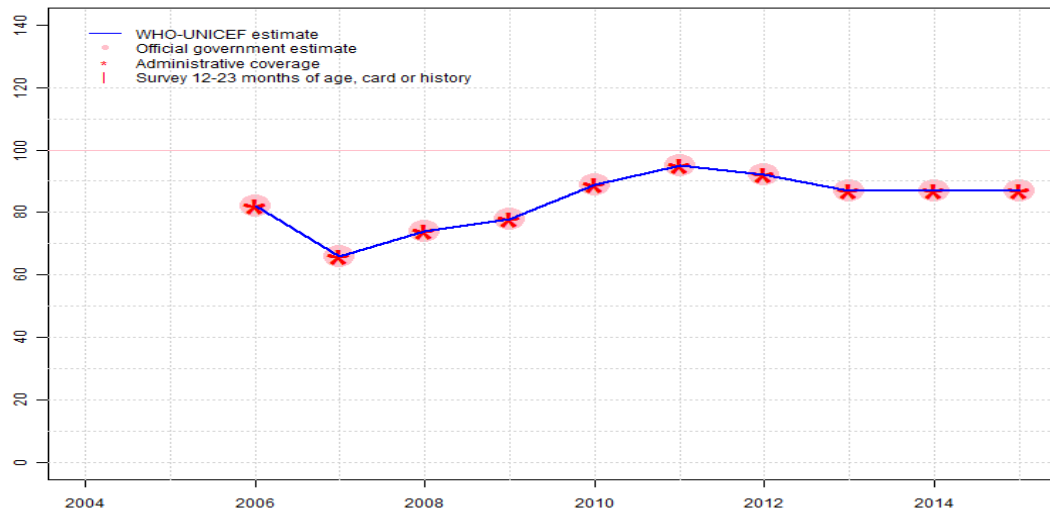
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2004: Estimate based on interpolation between reported values. Reported data excluded. 106 percent greater than 100 percent. GoC=D+
- 2005: Estimate based on interpolation between reported values. Reported data excluded. Decline in reported coverage from 106 percent to 88 percent with increase to 102 percent. Denominator based on number of children receiving BCG. Estimate challenged by: D-
- 2006: Estimate based on interpolation between reported values. Reported data excluded. 102 percent greater than 100 percent. Reported data excluded. Unexplained increase from 88 percent to 102 percent with decrease 85 percent. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. Denominator based on number of children receiving BCG. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. GoC=R+ D+

Panama - RotaC

PAN - RotaC



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	82	66	74	78	89	95	92	87	87	87
Estimate GoC	NA	NA	●●	●●	●●	●●	●	●●	●●	●●	●●	●●
Official	NA	NA	82	66	74	78	89	95	92	87	87	87
Administrative	NA	NA	82	66	74	78	89	95	92	87	87	87
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.

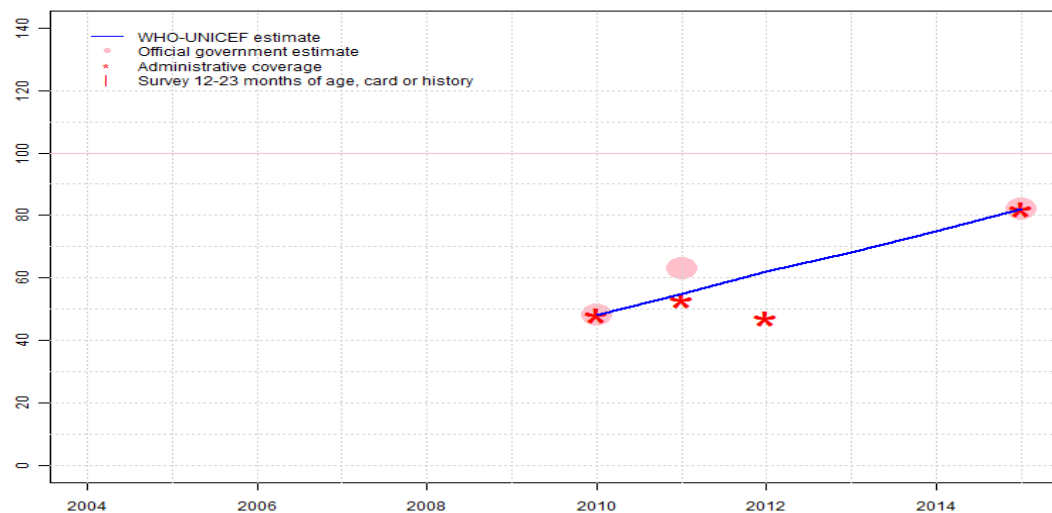
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2006: Estimate based on coverage reported by national government. GoC=R+
- 2007: Estimate based on coverage reported by national government. GoC=R+
- 2008: Estimate based on coverage reported by national government. Rotavirus vaccine introduced in 2006. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: D-
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. Preliminary results from the 2013 Multiple Indicator Cluster Survey for the 2011 birth cohort suggest coverage of 78 percent. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. GoC=R+ D+

Panama - PcV3

PAN - PcV3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	48	55	62	68	75	82
Estimate GoC	NA	NA	NA	NA	NA	NA	●●	●●	●	●	●	●●
Official	NA	NA	NA	NA	NA	NA	48	63	NA	NA	NA	82
Administrative	NA	NA	NA	NA	NA	NA	48	53	47	NA	NA	82
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.

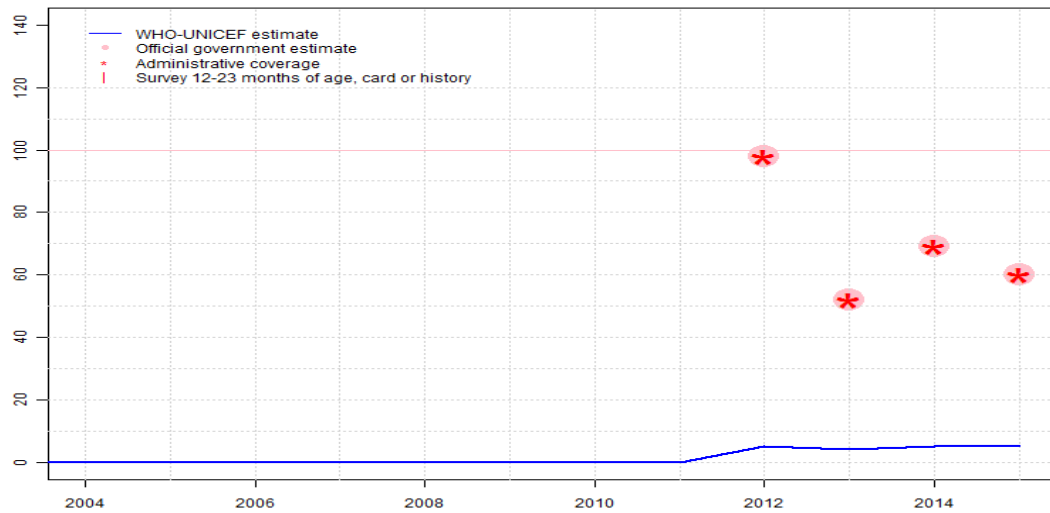
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2010: Estimate based on coverage reported by national government. Pneumococcal conjugate vaccine introduced in 2010. GoC=R+ D+
- 2011: Estimate based on interpolation between reported values. Reported data excluded. Unexplained increase from 48 percent to 63 percent with decrease 47 percent. Estimate of 55 percent changed from previous revision value of 48 percent. GoC=D+
- 2012: Estimate based on interpolation between reported values. Reported data excluded. Changes in PcV schedule affected data reporting and coverage calculation. Preliminary results from the 2013 Multiple Indicator Cluster Survey for the 2012 birth cohort suggest coverage of 78 percent. Estimate of 62 percent changed from previous revision value of 48 percent. Estimate challenged by: D-
- 2013: Estimate based on interpolation between reported values. Changes in PcV schedule affected data reporting and coverage calculation. Estimate of 68 percent changed from previous revision value of 48 percent. GoC=No accepted empirical data
- 2014: Estimate based on interpolation between reported values. Changes in PcV schedule affected data reporting and coverage calculation. The recommended age is 2, 4 and 12 months. Coverage for the second dose of PcV is 91 percent. Data are not reported for the third dose. Estimate of 75 percent changed from previous revision value of 48 percent. GoC=No accepted empirical data
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. GoC=R+ D+

Panama - YFV

PAN - YFV



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	0	0	0	0	0	0	0	0	5	4	5	5
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	98	52	69	60
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	98	52	69	60
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:

- 2004: YFV introduced in 1974 for areas at risk. Data available are not sufficient to produce an estimate. GoC=Assigned by working group. .
- 2005: YFV introduced in 1974 for areas at risk. Data available are not sufficient to produce an estimate. GoC=Assigned by working group. .
- 2006: YFV introduced in 1974 for areas at risk. Data available are not sufficient to produce an estimate. GoC=Assigned by working group. .
- 2007: YFV introduced in 1974 for areas at risk. Data available are not sufficient to produce an estimate. GoC=Assigned by working group. .
- 2008: YFV introduced in 1974 for areas at risk. Data available are not sufficient to produce an estimate. GoC=Assigned by working group. .
- 2009: YFV introduced in 1974 for areas at risk. Data available are not sufficient to produce an estimate. GoC=Assigned by working group. .
- 2010: YFV introduced in 1974 for areas at risk. Data available are not sufficient to produce an estimate. GoC=Assigned by working group. .
- 2011: YFV introduced in 1974 for areas at risk. Data available are not sufficient to produce an estimate. Preliminary results from the 2013 Multiple Indicator Cluster Survey for the 2011 birth cohort suggest coverage of 80 percent. GoC=Assigned by working group. .
- 2012: Ninety eight percent coverage achieved in five percent of the total population. Estimate is based on coverage achieved among the annualized total national birth cohort. GoC=Assigned by working group. .
- 2013: Fifty two percent coverage reached in seven percent of the national birth cohort. Reported data excluded. Decline in reported coverage from 98 percent to 52 percent with increase to 69 percent. GoC=Assigned by working group. .
- 2014: Sixty-nine percent coverage reached in eight percent of the national birth cohort. Estimate is based on annualized coverage among the total national birth cohort. GoC=Assigned by working group. .
- 2015: Sixty percent coverage reached in eight percent of the national birth cohort. Estimate is based on annualized coverage among the total national birth cohort. WHO and UNICEF are aware of the conduct of the 2013 MICS and await the final results. Estimate challenged by: R-

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