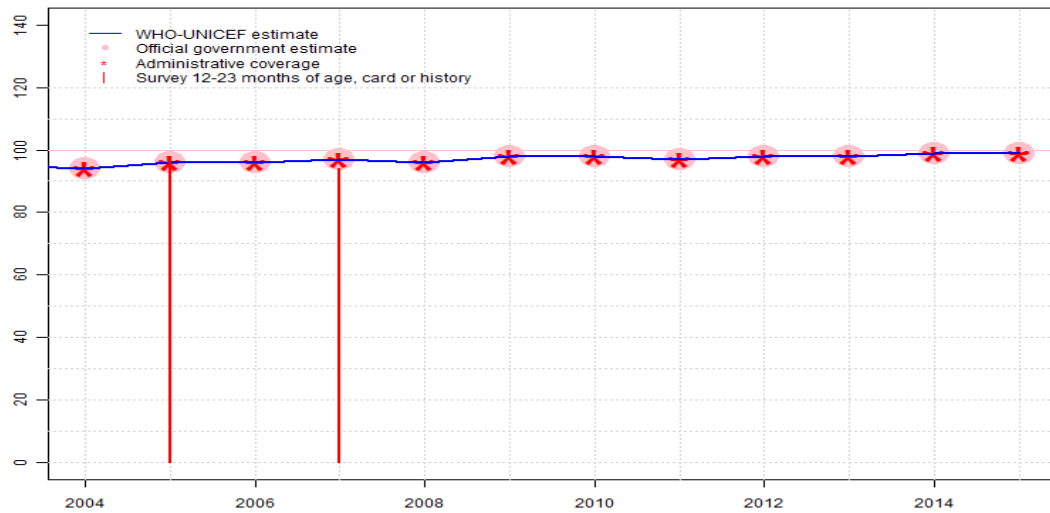


# Guyana - BCG

GUY - BCG



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	94	96	96	97	96	98	98	97	98	98	99	99
Estimate GoC	●●●	●	●	●	●	●	●●	●●	●●	●●	●●	●●
Official	94	96	96	97	96	98	98	97	98	98	99	99
Administrative	94	96	96	97	96	98	98	97	98	98	99	99
Survey	NA	98	NA	94	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.

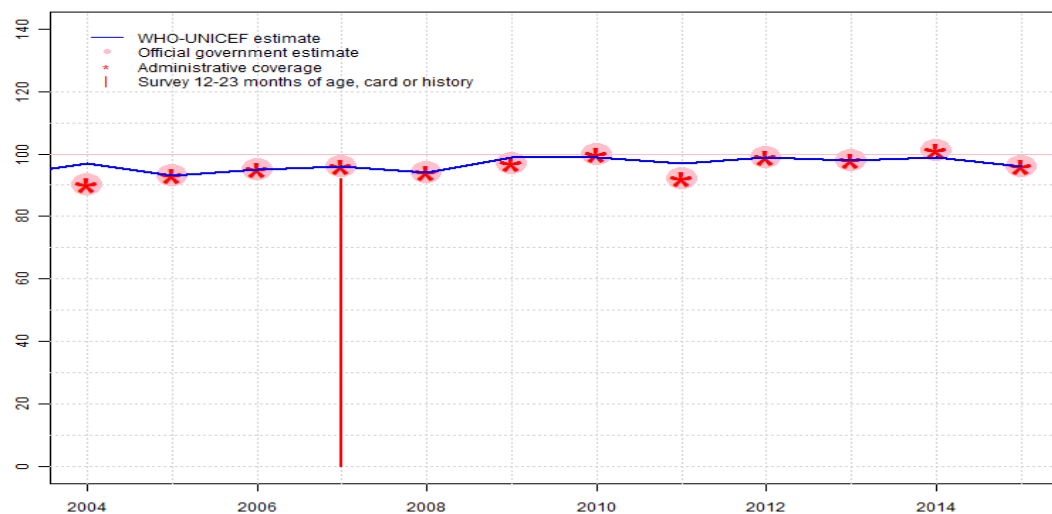
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. Guyana Demographic and Health Survey 2009 results ignored by working group. Survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG. Estimate challenged by: S-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 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. Preliminary results from the 2014 Multiple Indicator Cluster Survey suggest coverage of 94 percent. WHO and UNICEF await the final survey results. 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 2014 Multiple Indicator Cluster Survey and await the final results. Programme reports national level stock-out of less than one month. GoC=R+ D+

# Guyana - DTP1

GUY - DTP1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	97	93	95	96	94	99	99	97	99	98	99	96
Estimate GoC	•		•	•	•	•	••	•	••	••	•	••
Official	90	93	95	96	94	97	100	92	99	98	101	96
Administrative	90	93	95	96	94	97	100	92	99	98	101	96
Survey	NA	NA	NA	92	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.

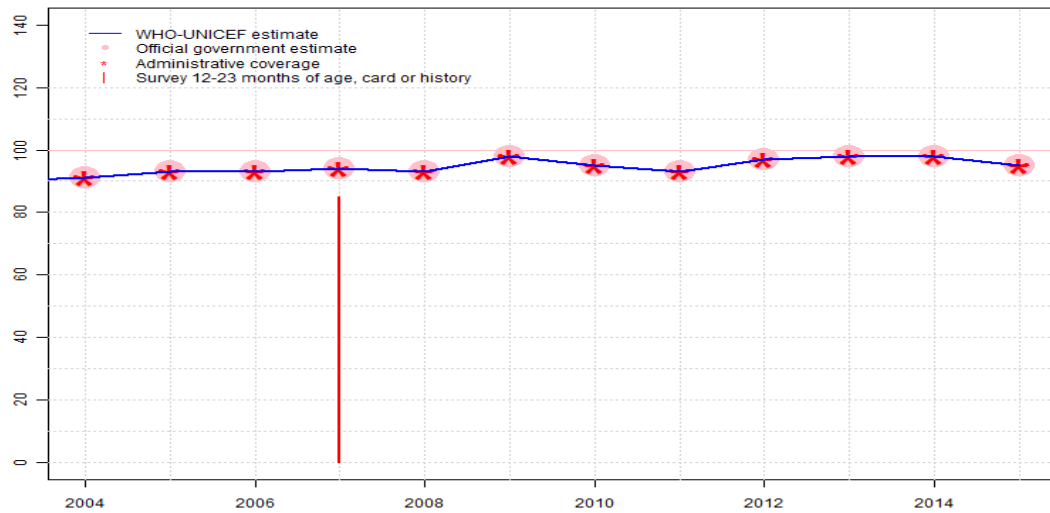
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: DTP1 coverage estimated based on DTP3 coverage of 91. Estimate challenged by: R-
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. Guyana Demographic and Health Survey 2009 results ignored by working group. Survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG. Estimate challenged by: S-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: DTP1 coverage estimated based on DTP3 coverage of 98. Estimate challenged by: R-S-
- 2010: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: DTP1 coverage estimated based on DTP3 coverage of 93. Estimate challenged by: R-
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. Preliminary results from the 2014 Multiple Indicator Cluster Survey suggest coverage of 96 percent. WHO and UNICEF await the final survey results. GoC=R+ D+
- 2014: DTP1 coverage estimated based on DTP3 coverage of 98. Reported data excluded. 101 percent greater than 100 percent. Estimate of 99 percent changed from previous revision value of 98 percent. Estimate challenged by: R-
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+

# Guyana - DTP3

GUY - DTP3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	91	93	93	94	93	98	95	93	97	98	98	95
Estimate GoC	●●	●	●	●	●	●	●●	●●	●●	●●	●●	●●
Official	91	93	93	94	93	98	95	93	97	98	98	95
Administrative	91	93	93	94	93	98	95	93	97	98	98	95
Survey	NA	NA	NA	85	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.

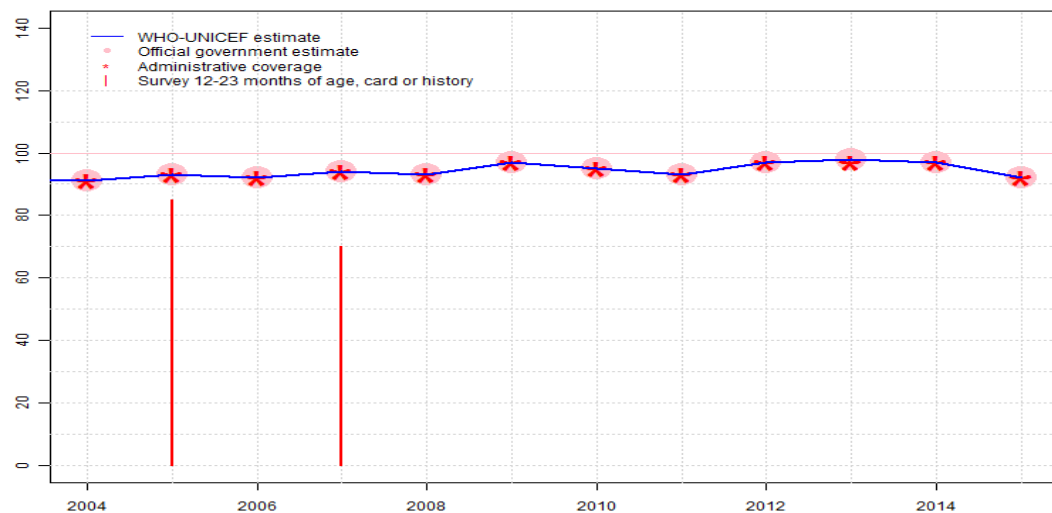
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. Guyana Demographic and Health Survey 2009 results ignored by working group. Survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG. Guyana Demographic and Health Survey 2009 card or history results of 85 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 86 percent and 3d dose card only coverage of 82 percent. Estimate challenged by: S-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 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. Preliminary results from the 2014 Multiple Indicator Cluster Survey generally support reported coverage levels. WHO and UNICEF await the final survey results. 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 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+

# Guyana - Pol3

GUY - Pol3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	91	93	92	94	93	97	95	93	97	98	97	92
Estimate GoC	●●●	●	●	●	●	●	●●	●●	●●	●●	●●	●●
Official	91	93	92	94	93	97	95	93	97	98	97	92
Administrative	91	93	92	94	93	97	95	93	97	97	97	92
Survey	NA	85	NA	70	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.

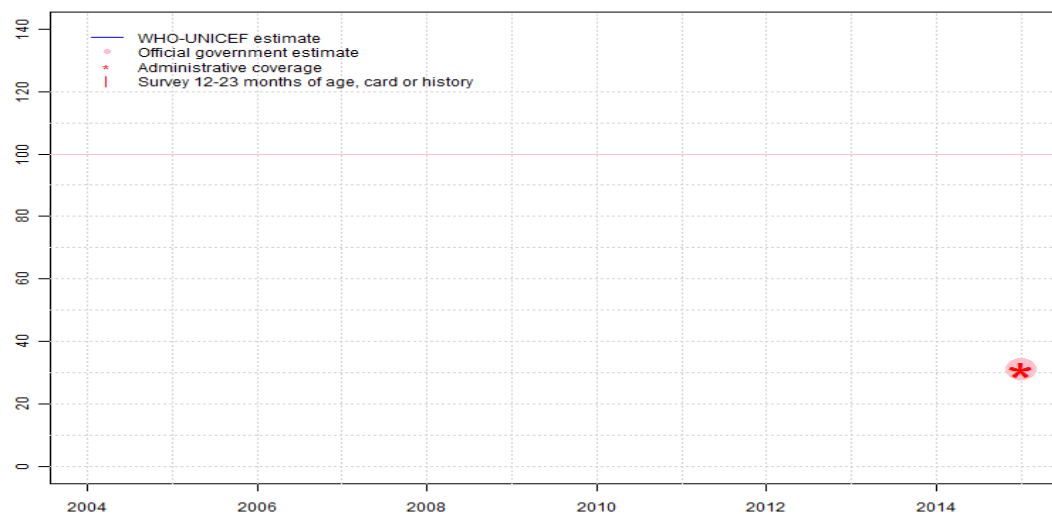
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Guyana Multiple Indicator Cluster Survey 2006 card or history results of 85 percent modified for recall bias to 98 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 76 percent. Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. Guyana Demographic and Health Survey 2009 results ignored by working group. Survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG. Guyana Demographic and Health Survey 2009 card or history results of 70 percent modified for recall bias to 75 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 72 percent and 3d dose card only coverage of 69 percent. Estimate challenged by: S-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 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. Preliminary results from the 2014 Multiple Indicator Cluster Survey generally support reported coverage levels. WHO and UNICEF await the final survey results. 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 2014 Multiple Indicator Cluster Survey and await the final results. Programme reports national level stock-out of less than one month. GoC=R+ D+

# Guyana - IPV1

GUY - IPV1



## Description:

2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

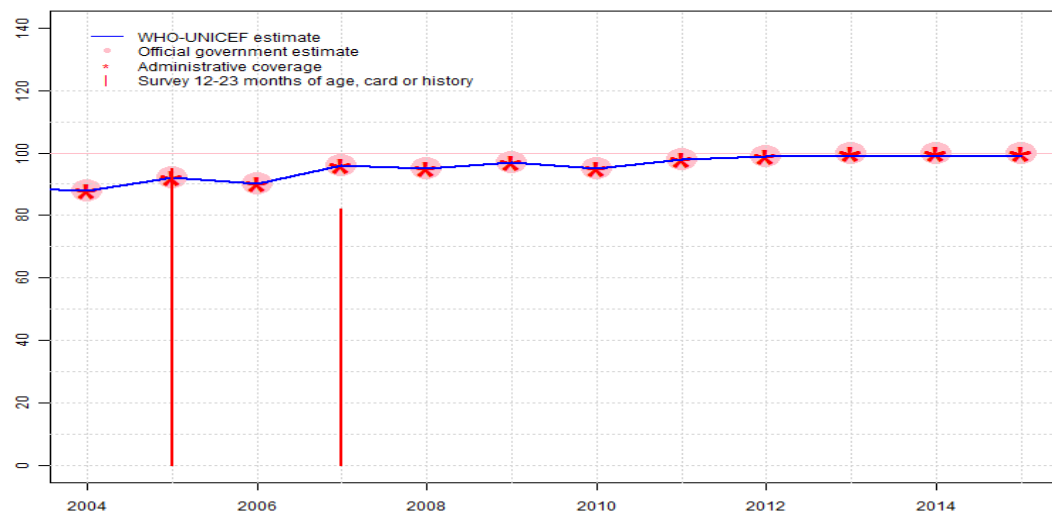
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Guyana - MCV1

GUY - MCV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	88	92	90	96	95	97	95	98	99	99	99	99
Estimate GoC	●●●	●	●	●	●	●	●●	●●	●●	●●	●●	●●
Official	88	92	90	96	95	97	95	98	99	100	100	100
Administrative	88	92	90	96	95	97	95	98	99	100	100	100
Survey	NA	95	NA	82	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.

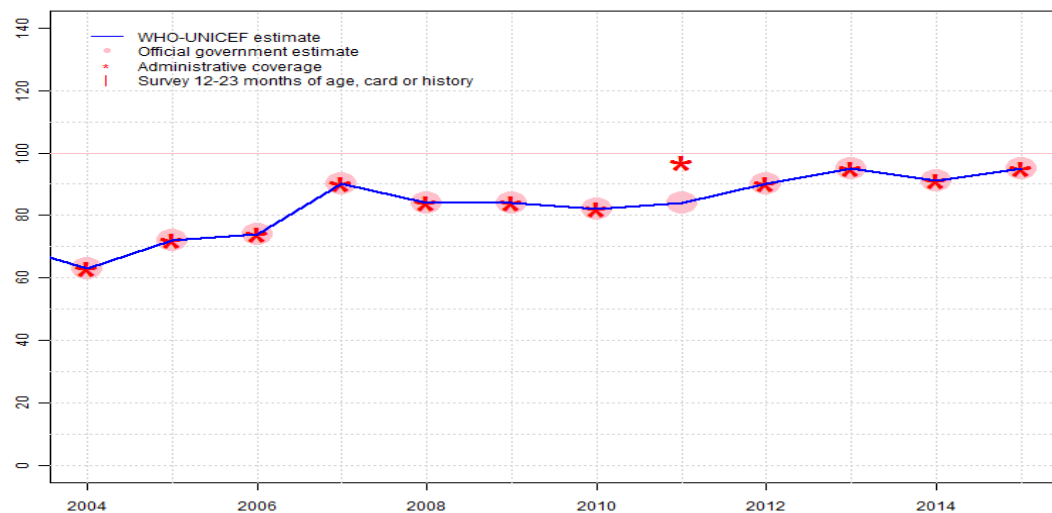
## Description:

- 2004: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. Guyana Demographic and Health Survey 2009 results ignored by working group. Survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG. Estimate challenged by: S-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 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. Preliminary results from the 2014 Multiple Indicator Cluster Survey suggest coverage between 65-69 percent for children born during 2012-13, inconsistent with reported coverage levels. WHO and UNICEF await the final survey results. 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 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+



# Guyana - MCV2

GUY - MCV2



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	63	72	74	90	84	84	82	84	90	95	91	95
Estimate GoC	●●	●	●	●	●	●	●●	●●	●●	●●	●●	●●
Official	63	72	74	90	84	84	82	84	90	95	91	95
Administrative	63	72	74	90	84	84	82	97	90	95	91	95
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:

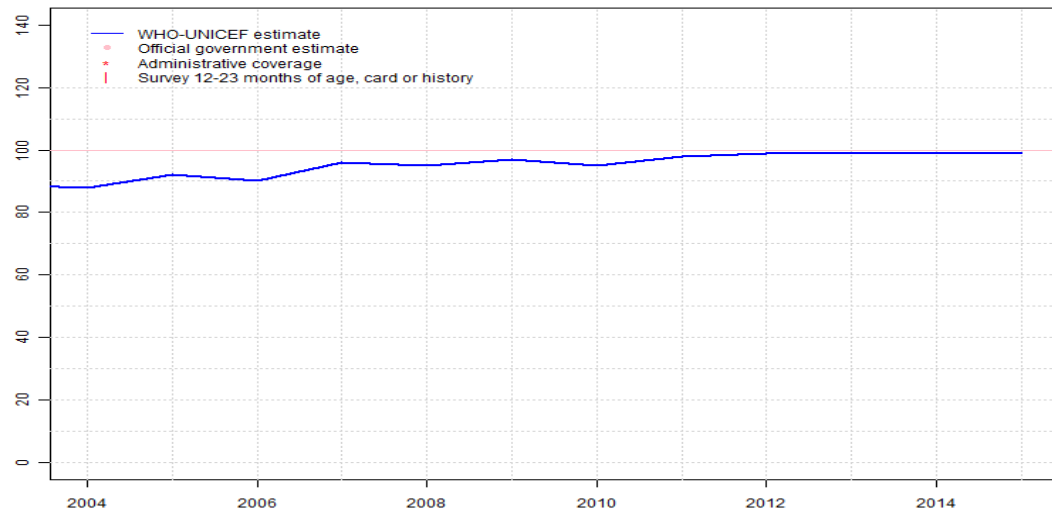
Coverage estimates for the second dose of measles containing vaccine are for children by the nationally recommended age.

- 2004: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 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. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. WHO and UNICEF are aware of the 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+



# Guyana - RCV1

GUY - RCV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	88	92	90	96	95	97	95	98	99	99	99	99
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.

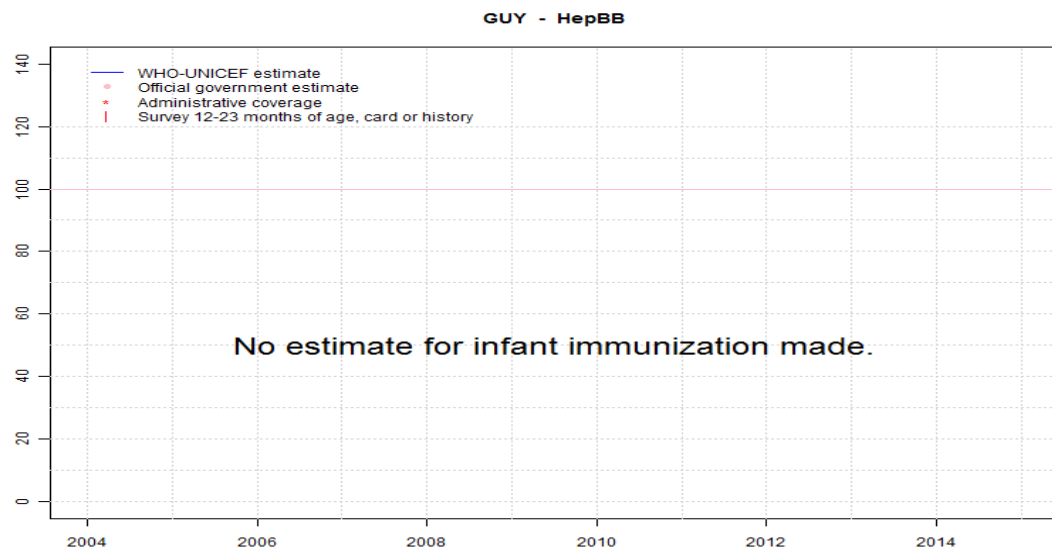
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## 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. GoC=R+ S+ D+
- 2005: Estimate based on estimated MCV1. Estimate challenged by: S-
- 2006: Estimate based on estimated MCV1. Estimate challenged by: S-
- 2007: Estimate based on estimated MCV1. Estimate challenged by: S-
- 2008: Estimate based on estimated MCV1. Estimate challenged by: S-
- 2009: Estimate based on estimated MCV1. Estimate challenged by: S-
- 2010: Estimate based on estimated MCV1. GoC=R+ 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 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+

# Guyana - 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	NA	NA	NA	NA	NA	NA	NA

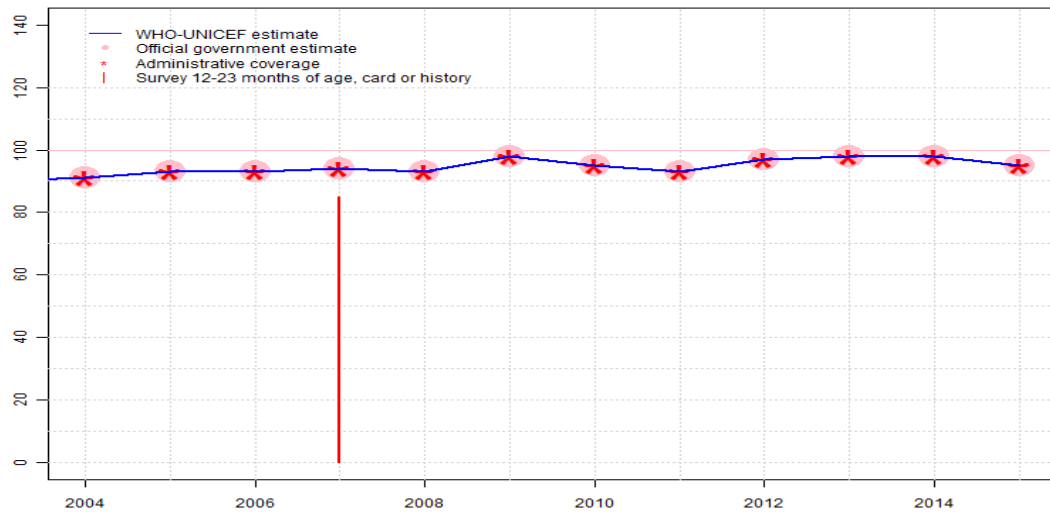
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Guyana - HepB3

GUY - HepB3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	91	93	93	94	93	98	95	93	97	98	98	95
Estimate GoC	••	•	•	•	•	•	••	••	••	••	••	••
Official	91	93	93	94	93	98	95	93	97	98	98	95
Administrative	91	93	93	94	93	98	95	93	97	98	98	95
Survey	NA	NA	NA	85	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.

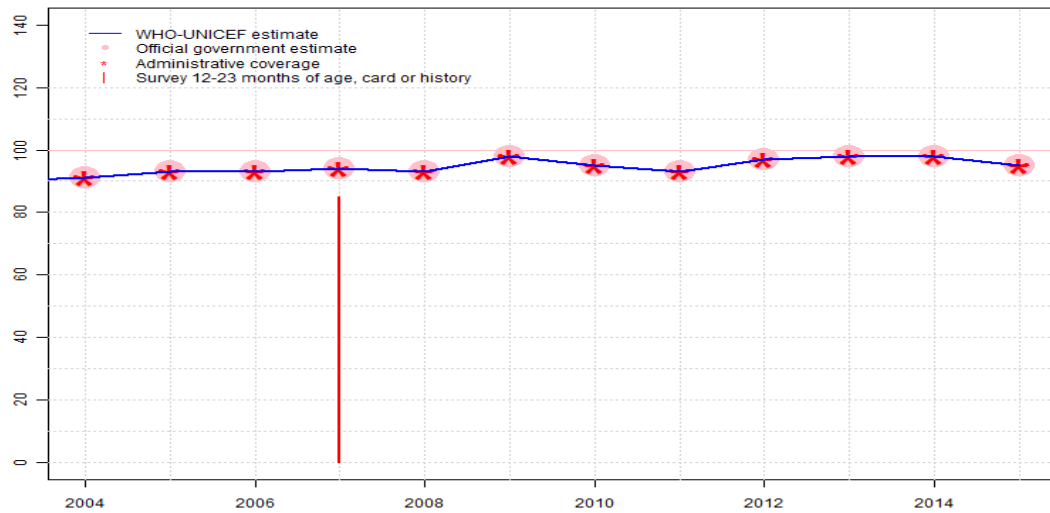
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate follows reported data. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. Guyana Demographic and Health Survey 2009 results ignored by working group. Survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG. Guyana Demographic and Health Survey 2009 card or history results of 85 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 86 percent and 3d dose card only coverage of 82 percent. Estimate challenged by: S-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 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. Preliminary results from the 2014 Multiple Indicator Cluster Survey generally support reported coverage levels. WHO and UNICEF await the final survey results. 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 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+

# Guyana - Hib3

GUY - Hib3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	91	93	93	94	93	98	95	93	97	98	98	95
Estimate GoC	●●	●	●	●	●	●	●●	●●	●●	●●	●●	●●
Official	91	93	93	94	93	98	95	93	97	98	98	95
Administrative	91	93	93	94	93	98	95	93	97	98	98	95
Survey	NA	NA	NA	85	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.

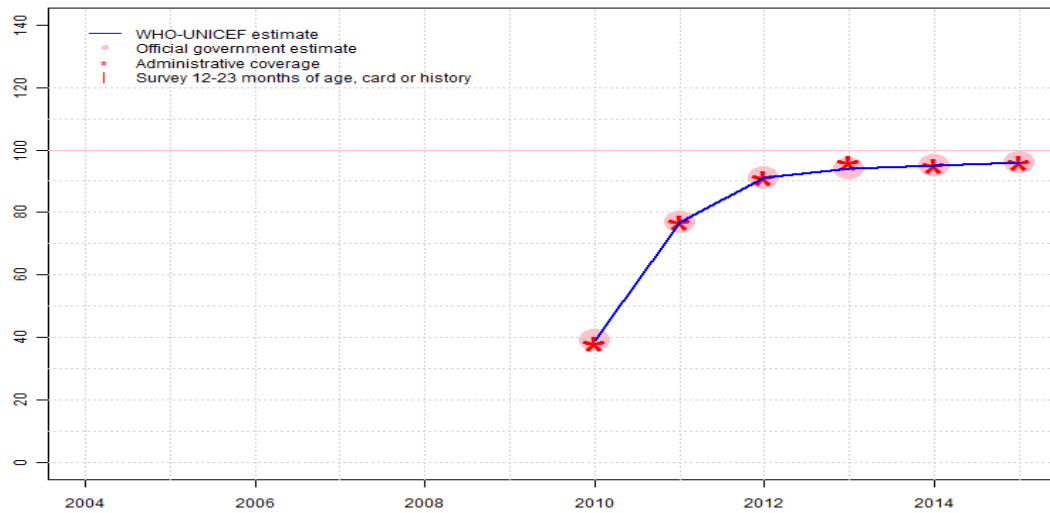
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate based on coverage reported by national government. GoC=R+ D+
- 2005: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. Guyana Demographic and Health Survey 2009 results ignored by working group. Survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG. Guyana Demographic and Health Survey 2009 card or history results of 85 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 86 percent and 3d dose card only coverage of 82 percent. Estimate challenged by: S-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 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. Preliminary results from the 2014 Multiple Indicator Cluster Survey generally support reported coverage levels. WHO and UNICEF await the final survey results. 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 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+

# Guyana - RotaC

GUY - RotaC



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	39	77	91	94	95	96
Estimate GoC	NA	NA	NA	NA	NA	NA	•	••	••	••	••	••
Official	NA	NA	NA	NA	NA	NA	39	77	91	94	95	96
Administrative	NA	NA	NA	NA	NA	NA	38	77	91	96	95	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.

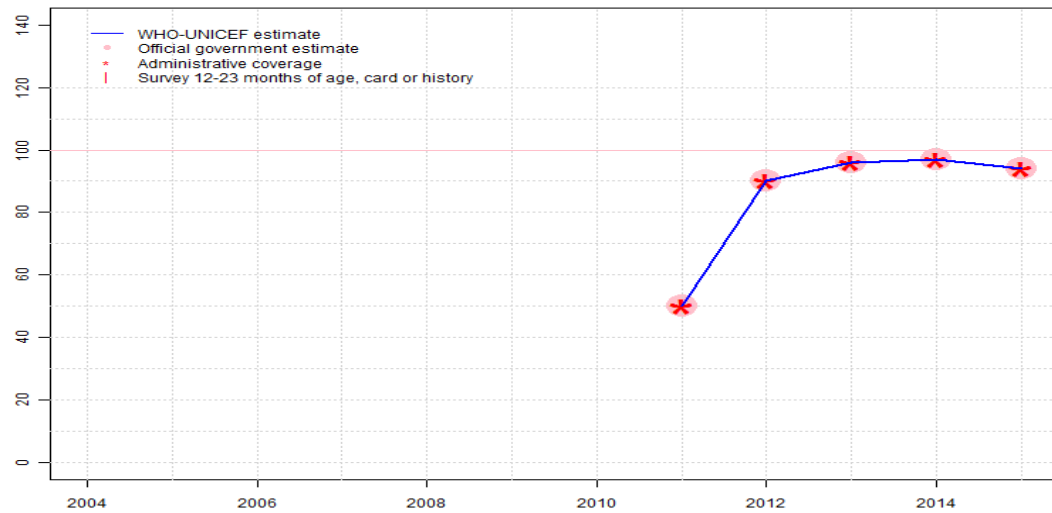
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2010: Estimate based on coverage reported by national government. Rotavirus vaccine introduced in 2010. 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. Preliminary results from the 2014 Multiple Indicator Cluster Survey generally support reported coverage levels. WHO and UNICEF await the final survey results. 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 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+

# Guyana - PcV3

GUY - PcV3



## Description:

- 2011: Estimate based on coverage reported by national government. Pneumococcal conjugate vaccine was introduced in 2011. GoC=R+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. Preliminary results from the 2014 Multiple Indicator Cluster Survey generally support reported coverage levels. WHO and UNICEF await the final survey results. 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 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	50	90	96	97	94
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	••	••	••	••	••
Official	NA	NA	NA	NA	NA	NA	NA	50	90	96	97	94
Administrative	NA	NA	NA	NA	NA	NA	NA	50	90	96	97	94
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

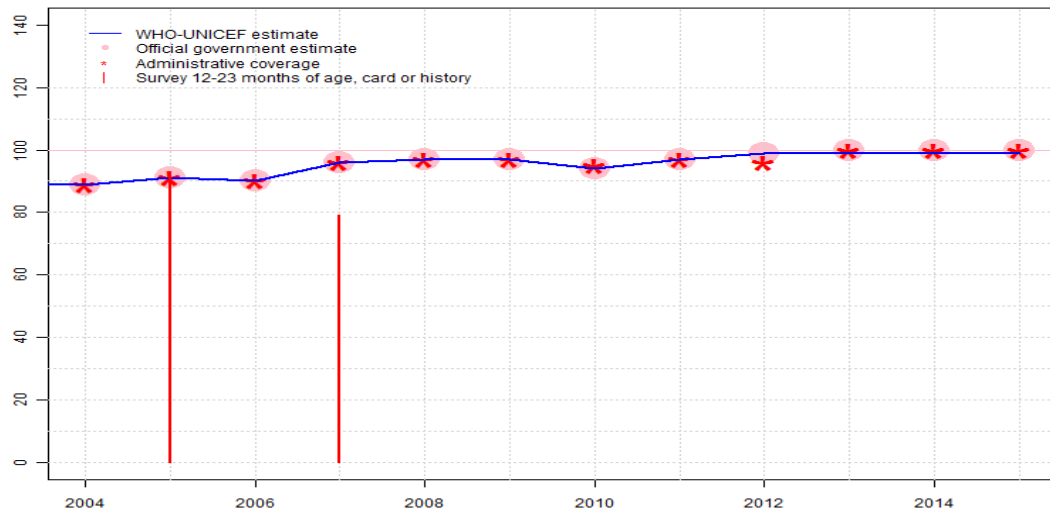
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Guyana - YFV

GUY - YFV



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	89	91	90	96	97	97	94	97	99	99	99	99
Estimate GoC	●●●	●	●	●	●	●	●●	●●	●●	●●	●●	●●
Official	89	91	90	96	97	97	94	97	99	100	100	100
Administrative	89	91	90	96	97	97	95	97	96	100	100	100
Survey	NA	92	NA	79	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 reported data. GoC=R+ S+ D+
- 2005: Estimate based on coverage reported by national government supported by survey. Survey evidence of 92 percent based on 1 survey(s). Estimate challenged by: S-
- 2006: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2007: Estimate based on coverage reported by national government. Guyana Demographic and Health Survey 2009 results ignored by working group. Survey data internally inconsistent. Levels of measles, yellow fever and polio coverage are significantly lower than DTP and BCG. Estimate challenged by: S-
- 2008: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 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. Preliminary results from the 2014 Multiple Indicator Cluster Survey suggest coverage of 92 percent for children born during 2012. WHO and UNICEF await the final survey results. 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 2014 Multiple Indicator Cluster Survey and await the final results. GoC=R+ D+



# Guyana - survey details

## 2007 Guyana Demographic and Health Survey 2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <18 months	94	18-29 m	384	88
BCG	Card	86	18-29 m	384	88
BCG	Card or History	94	18-29 m	384	88
BCG	History	8	18-29 m	384	88
DTP1	C or H <18 months	92	18-29 m	384	88
DTP1	Card	86	18-29 m	384	88
DTP1	Card or History	92	18-29 m	384	88
DTP1	History	6	18-29 m	384	88
DTP3	C or H <18 months	83	18-29 m	384	88
DTP3	Card	82	18-29 m	384	88
DTP3	Card or History	85	18-29 m	384	88
DTP3	History	2	18-29 m	384	88
HepB1	C or H <18 months	92	18-29 m	384	88
HepB1	Card	86	18-29 m	384	88
HepB1	Card or History	92	18-29 m	384	88
HepB1	History	6	18-29 m	384	88
HepB3	C or H <18 months	83	18-29 m	384	88
HepB3	Card	82	18-29 m	384	88
HepB3	Card or History	85	18-29 m	384	88
HepB3	History	2	18-29 m	384	88
Hib1	C or H <18 months	92	18-29 m	384	88
Hib1	Card	86	18-29 m	384	88
Hib1	Card or History	92	18-29 m	384	88
Hib1	History	6	18-29 m	384	88
Hib3	C or H <18 months	83	18-29 m	384	88
Hib3	Card	82	18-29 m	384	88
Hib3	Card or History	85	18-29 m	384	88
Hib3	History	2	18-29 m	384	88
MCV1	C or H <18 months	77	18-29 m	384	88
MCV1	Card	76	18-29 m	384	88
MCV1	Card or History	82	18-29 m	384	88
MCV1	History	6	18-29 m	384	88
Pol1	C or H <18 months	78	18-29 m	384	88
Pol1	Card	72	18-29 m	384	88
Pol1	Card or History	78	18-29 m	384	88
Pol1	History	6	18-29 m	384	88
Pol3	C or H <18 months	68	18-29 m	384	88

Pol3	Card	69	18-29 m	384	88
Pol3	Card or History	70	18-29 m	384	88
Pol3	History	1	18-29 m	384	88
YFV	C or H <18 months	75	18-29 m	384	88
YFV	Card	74	18-29 m	384	88
YFV	Card or History	79	18-29 m	384	88
YFV	History	5	18-29 m	384	88

## 2005 Guyana Multiple Indicator Cluster Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	96	18-29 m	488	75
BCG	Card	76	18-29 m	488	75
BCG	Card or History	98	18-29 m	488	75
BCG	History	22	18-29 m	488	75
DTP1	C or H <12 months	95	18-29 m	488	75
DTP3	C or H <12 months	74	18-29 m	488	75
MCV1	C or H <12 months	90	18-29 m	488	75
MCV1	Card	77	18-29 m	488	75
MCV1	Card or History	95	18-29 m	488	75
MCV1	History	18	18-29 m	488	75
Pol1	C or H <12 months	95	18-29 m	488	75
Pol1	Card	76	18-29 m	488	75
Pol1	Card or History	98	18-29 m	488	75
Pol1	History	21	18-29 m	488	75
Pol3	C or H <12 months	74	18-29 m	488	75
Pol3	Card	76	18-29 m	488	75
Pol3	Card or History	85	18-29 m	488	75
Pol3	History	9	18-29 m	488	75
YFV	C or H <12 months	88	18-29 m	488	75
YFV	Card	75	18-29 m	488	75
YFV	Card or History	92	18-29 m	488	75
YFV	History	17	18-29 m	488	75

## 1999 Multiple Indicator Cluster Survey Guyana 2000, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	97	12-23 m	16442	89

## Guyana - survey details

---

BCG	Card	88	12-23 m	16442	89	MCV1	Card	88	12-23 m	16442	89
BCG	Card or History	98	12-23 m	16442	89	MCV1	Card or History	92	12-23 m	16442	89
BCG	History	10	12-23 m	16442	89	MCV1	History	4	12-23 m	16442	89
DTP1	C or H <12 months	95	12-23 m	16442	89	Pol1	C or H <12 months	94	12-23 m	16442	89
DTP1	Card	87	12-23 m	16442	89	Pol1	Card	88	12-23 m	16442	89
DTP1	Card or History	96	12-23 m	16442	89	Pol1	Card or History	94	12-23 m	16442	89
DTP1	History	9	12-23 m	16442	89	Pol1	History	6	12-23 m	16442	89
DTP3	C or H <12 months	86	12-23 m	16442	89	Pol3	C or H <12 months	85	12-23 m	16442	89
DTP3	Card	85	12-23 m	16442	89	Pol3	Card	85	12-23 m	16442	89
DTP3	Card or History	89	12-23 m	16442	89	Pol3	Card or History	88	12-23 m	16442	89
DTP3	History	4	12-23 m	16442	89	Pol3	History	2	12-23 m	16442	89
MCV1	C or H <12 months	45	12-23 m	16442	89						

Further information and estimates for previous years are available at:

<http://www.data.unicef.org/child-health/immunization>

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

## Guyana

### 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	85
2005	91
2006	92
2007	91
2008	90
2009	90
2010	97
2011	97
2012	97
2013	99
2014	99
2015	99

<sup>1</sup> 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.