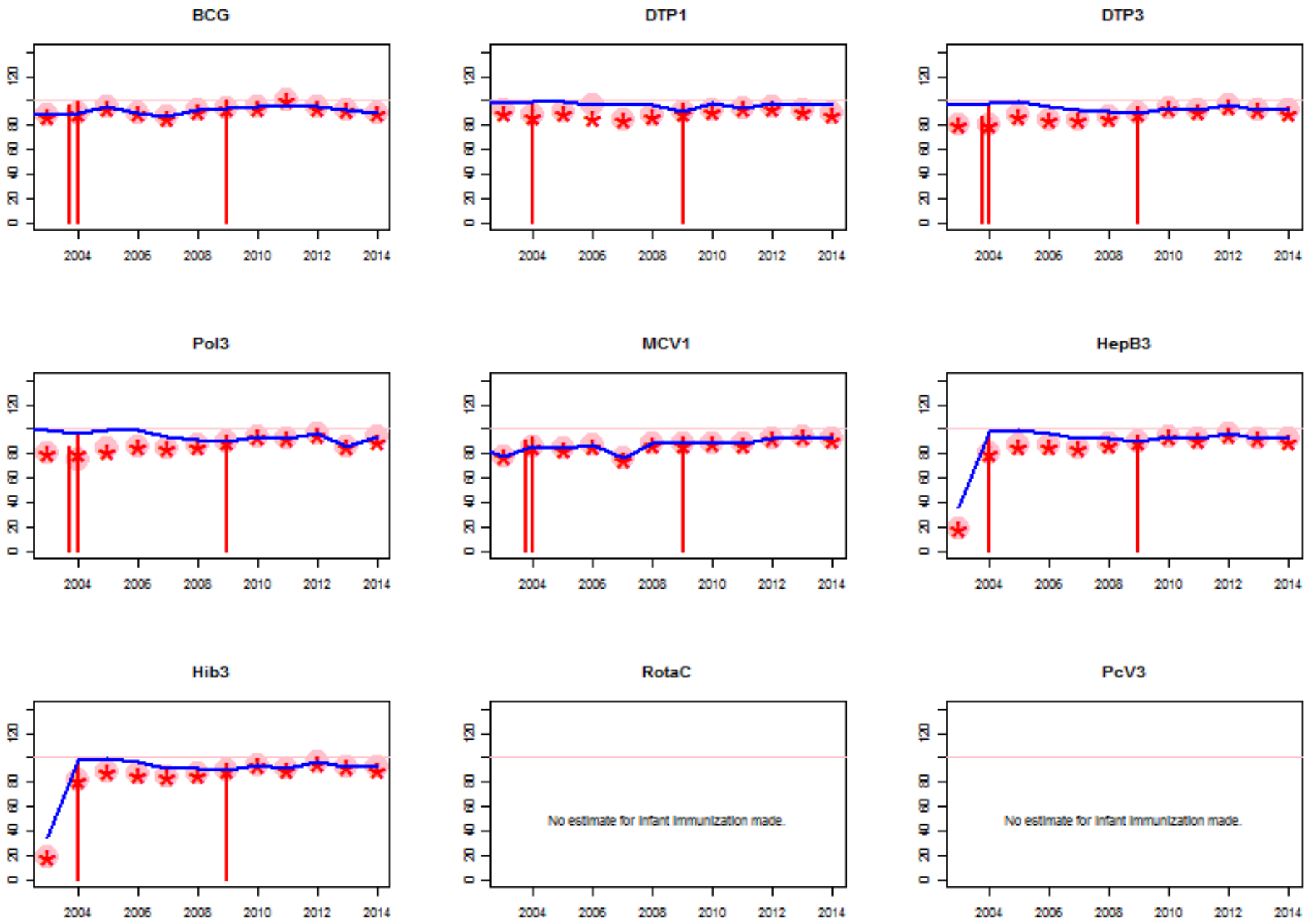
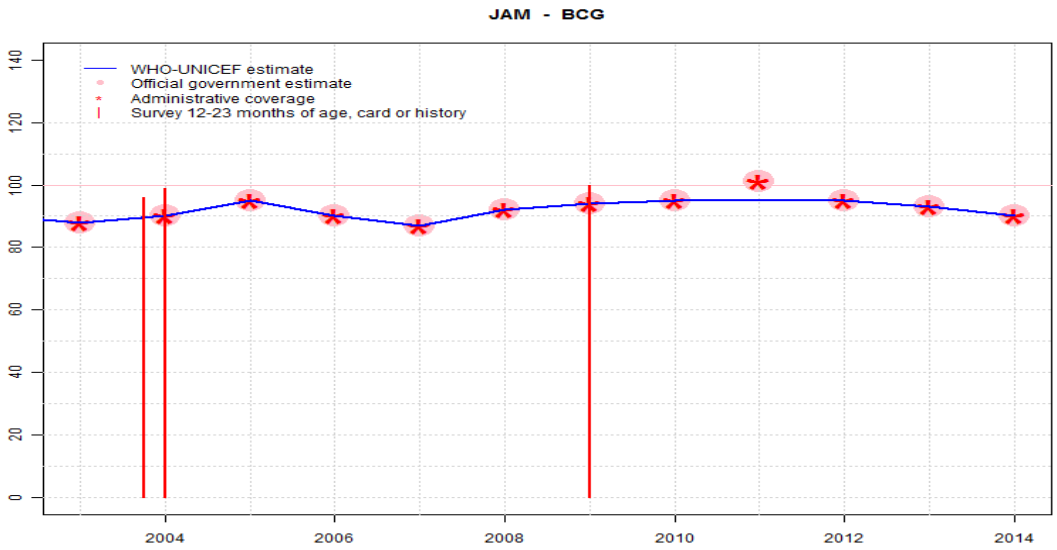

BCG
DTP1
DTP3
Pol3
MCV1
HepB3
Hib3
RotaC
PcV3
No estimate for infant immunization made.
No estimate for infant immunization made.
0
20
40
60
80
120
2004
2006
2008
2010
2012
2014

Jamaica - BCG



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	88	90	95	90	87	92	94	95	95	95	93	90
Estimate GoC	••	•	•••	•••	••	•	•	•	•	•	•	•
Official	88	90	95	90	87	92	94	95	101	95	93	90
Administrative	88	90	95	90	87	92	94	95	101	95	93	90
Survey	NA	*	NA	NA	NA	NA	100	NA	NA	NA	NA	NA

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

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

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

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

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

Description:

2003: Estimate based on coverage reported by national government. GoC=R+ D+

2004: Estimate based on coverage reported by national government supported by survey. Survey evidence of 99 percent based on 1 survey(s). Survey results ignored. Sample size 298 less than 300. . Estimate challenged by: D-

2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

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

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

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

2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 100 percent based on 1 survey(s). Estimate challenged by: D-

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

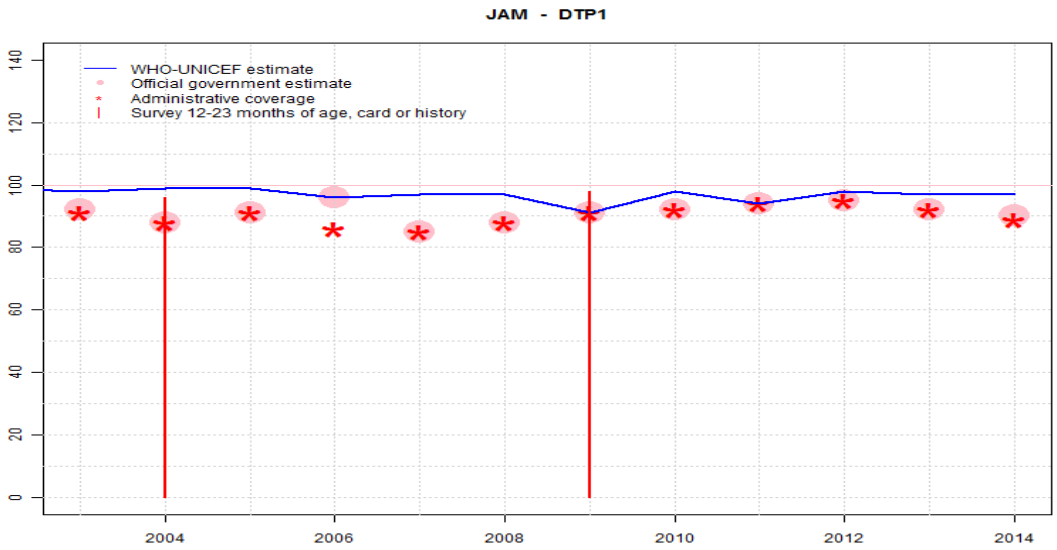
2011: Estimate based on interpolation between data reported by national government. Reported data excluded. 101 percent greater than 100 percent. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Estimate challenged by: D-

2014: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: D-

Jamaica - DTP1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	98	99	99	96	97	97	91	98	94	98	97	97
Estimate GoC	•	•	•	•	•	•	•••	•	•	•	•	•
Official	92	88	91	96	85	88	91	92	94	95	92	90
Administrative	91	88	91	86	85	88	91	92	94	95	92	89
Survey	NA	96	NA	NA	NA	NA	98	NA	NA	NA	NA	NA

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

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

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

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

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

Description:

2003: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate challenged by: R-

2004: DTP1 coverage estimated based on DTP3 coverage of 98. Survey results ignored. Sample size 298 less than 300. . Estimate challenged by: D-R-

2005: DTP1 coverage estimated based on DTP3 coverage of 101. Estimate challenged by: D-R-

2006: Estimate based on coverage reported by national government. Estimate challenged by: D-

2007: DTP1 coverage estimated based on DTP3 coverage of 92. Estimate challenged by: D-R-

2008: DTP1 coverage estimated based on DTP3 coverage of 91. Estimate challenged by: D-R-

2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). GoC=R+ S+ D+

2010: DTP1 coverage estimated based on DTP3 coverage of 94. Estimate challenged by: D-R-

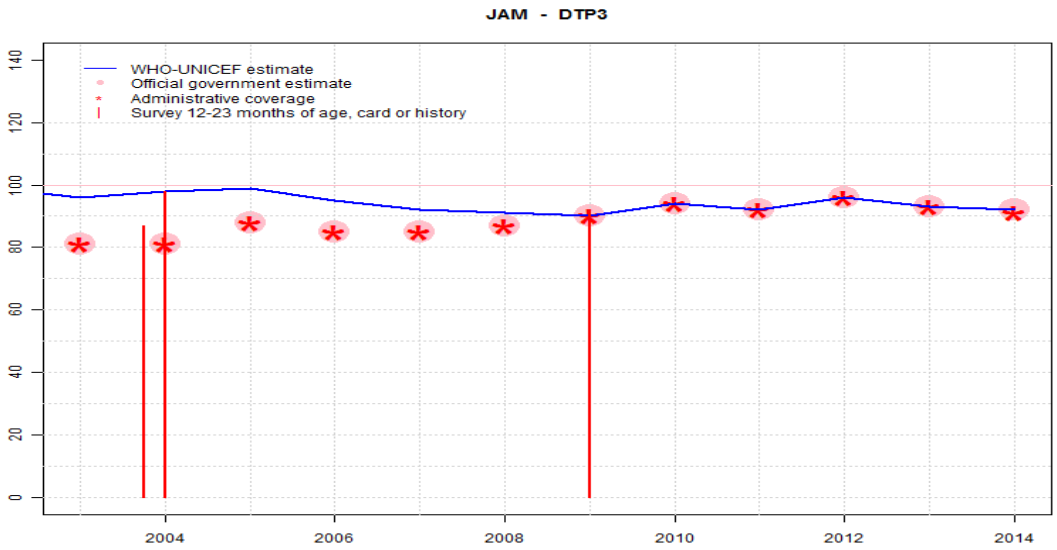
2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2012: DTP1 coverage estimated based on DTP3 coverage of 96. Estimate challenged by: D-R-

2013: DTP1 coverage estimated based on DTP3 coverage of 93. Official government estimate includes trivalent DTP coverage and does not include DTP doses administered as DTP-HepB-Hib pentavalent vaccine. Estimate challenged by: D-R-

2014: DTP1 coverage estimated based on DTP3 coverage of 92. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: D-R-

Jamaica - DTP3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	96	98	99	95	92	91	90	94	92	96	93	92
Estimate GoC	•	•	•	•	•	•	•••	•	•	•	•	•
Official	81	81	88	85	85	87	90	94	92	96	93	92
Administrative	81	81	88	85	85	87	90	94	92	96	93	91
Survey	NA	*	NA	NA	NA	NA	92	NA	NA	NA	NA	NA

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

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

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

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

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

Description:

2003: Reported data calibrated to 1997 and 2004 levels. Estimate challenged by: D-

2004: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 98 percent based on 1 survey(s). Survey results ignored. Sample size 298 less than 300. Jamaica Multiple Indicator Cluster Survey 2005 card or history results of 87 percent modifed for recall bias to 95 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 74 percent and 3d dose card only coverage of 73 percent. . Estimate challenged by: D-R-

2005: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2006: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2007: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2008: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Jamaica Multiple Indicator Survey 2011 card or history results of 92 percent modifed for recall bias to 98 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 78 percent. GoC=R+ S+ D+

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

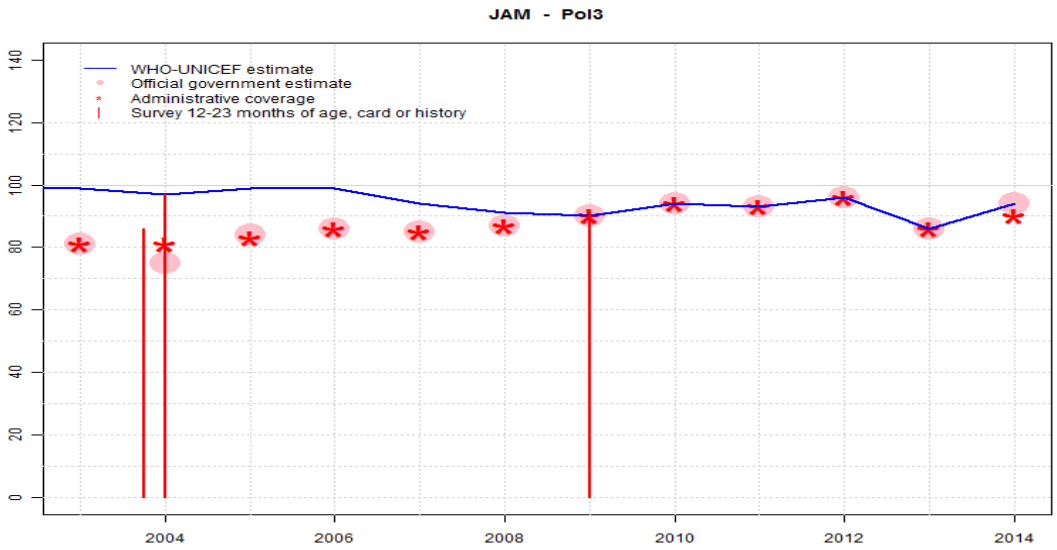
2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on reported administrative data. Official government estimate includes trivalent DTP coverage and does not include DTP doses administered as DTP-HepB-Hib pentavalent vaccine. Estimate challenged by: D-

2014: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: D-

Jamaica - Pol3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	99	97	99	99	94	91	90	94	93	96	86	94
Estimate GoC	•	•	•	•	•	•	•••	•	•	•	•	•
Official	81	75	84	86	85	87	90	94	93	96	86	94
Administrative	81	81	83	86	85	87	90	94	93	96	86	90
Survey	NA	*	NA	NA	NA	NA	92	NA	NA	NA	NA	NA

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

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

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

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

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

Description:

2003: Reported data calibrated to 1997 and 2004 levels. Estimate challenged by: D-

2004: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 97 percent based on 1 survey(s). Survey results ignored. Sample size 298 less than 300. Jamaica Multiple Indicator Cluster Survey 2005 card or history results of 86 percent modifed for recall bias to 95 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 74 percent and 3d dose card only coverage of 73 percent. . Estimate challenged by: R-

2005: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2006: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2007: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2008: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 97 percent based on 1 survey(s). Jamaica Multiple Indicator Survey 2011 card or history results of 92 percent modifed for recall bias to 97 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 76 percent. GoC=R+ S+ D+

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

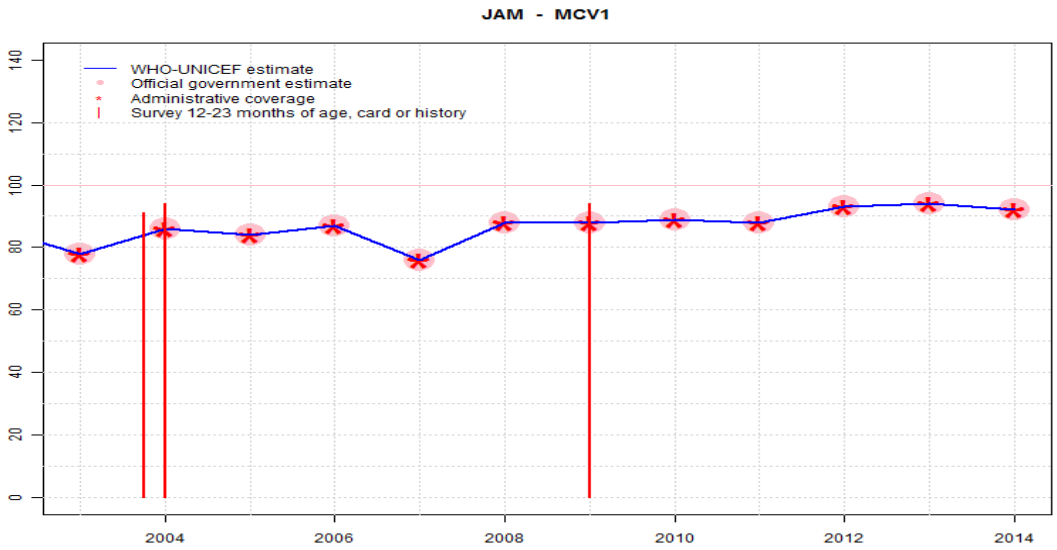
2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on reported administrative data. Decline in reported administrative coverage is most likely due to national stock out for 1.5 months.Reported decline in government official estimate most likely a reporting error. Estimate challenged by: D-

2014: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: D-

Jamaica - MCV1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	78	86	84	87	76	88	88	89	88	93	94	92
Estimate GoC	●●	●●●	●●●	●●●	●●	●●●	●●●	●●●	●	●	●	●
Official	78	86	84	87	76	88	88	89	88	93	94	92
Administrative	78	86	84	87	76	88	88	89	88	93	94	92
Survey	NA	*	NA	NA	NA	NA	94	NA	NA	NA	NA	NA

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

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

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

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

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

Description:

2003: Estimate based on coverage reported by national government. GoC=R+ D+

2004: Estimate based on coverage reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). Survey results ignored. Sample size 298 less than 300. . GoC=R+ S+ D+

2005: Estimate based on coverage reported by national government. GoC=R+ S+ D+

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

2007: Estimate based on coverage reported by national government. Interruption in routine services because of hurricane Dean GoC=R+ D+

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

2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). GoC=R+ S+ D+

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

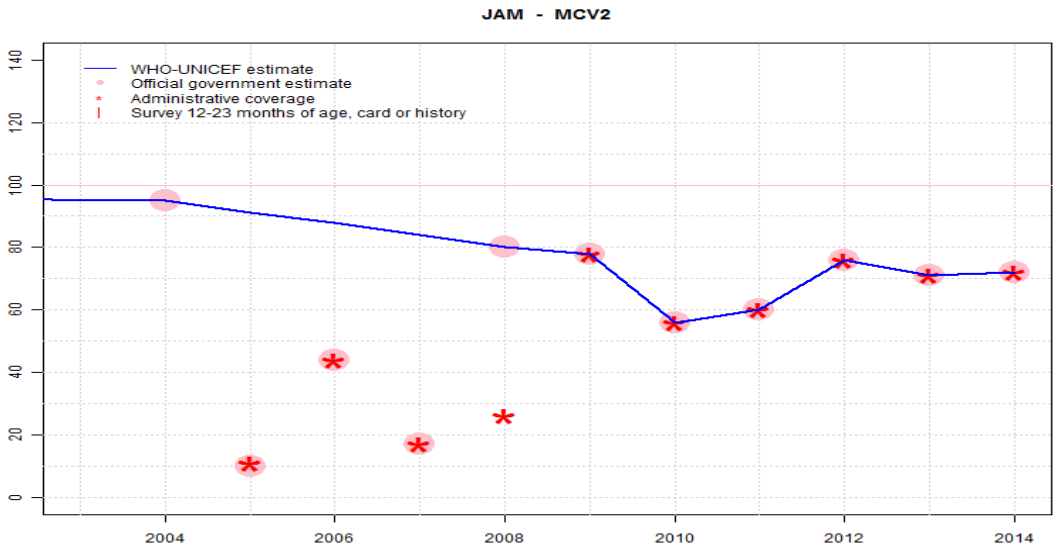
2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Estimate challenged by: D-

2014: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: D-

Jamaica - MCV2



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	95	95	91	88	84	80	78	56	60	76	71	72
Estimate GoC	•	••	•	•	•	••	••	••	••	••	••	••
Official	NA	95	10	44	17	80	78	56	60	76	71	72
Administrative	NA	NA	11	44	17	26	78	56	60	76	71	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: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.

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

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

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

Description:

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

2003: Estimate based on interpolation between reported values. GoC=No accepted empirical data

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

2005: Estimate based on interpolation between reported values. Reported data excluded. Decline in reported coverage from 95 percent to 10 percent with increase to 44 percent. Estimate challenged by: D-

2006: Estimate based on interpolation between reported values. Reported data excluded. Unexplained increase from 10 percent to 44 percent with decrease 17 percent. Estimate challenged by: D-

2007: Estimate based on interpolation between reported values. Reported data excluded. Decline in reported coverage from 44 percent to 17 percent with increase to 80 percent. 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. Recommended schedule changed from 4-6 years of age to 12-23 months. GoC=R+ D+

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

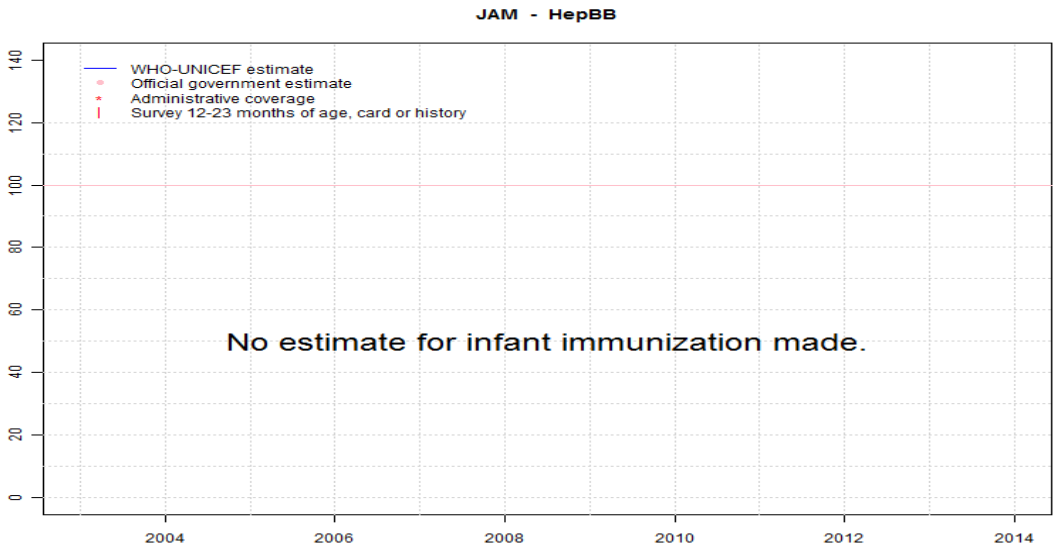
2011: Estimate based on coverage reported by national government. GoC=R+ D+

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. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. GoC=R+ D+

Jamaica - HepBB



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

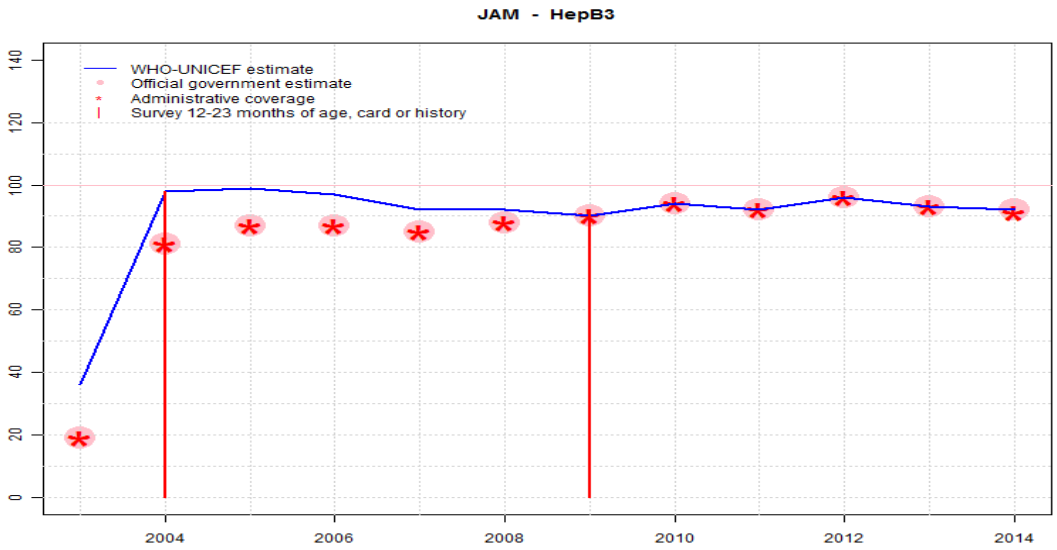
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

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

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

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

Jamaica - HepB3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	36	98	99	97	92	92	90	94	92	96	93	92
Estimate GoC	•	•	•	•	•	•	•••	•	•	•	•	•
Official	19	81	87	87	85	88	90	94	92	96	93	92
Administrative	19	81	87	87	85	88	90	94	92	96	93	91
Survey	NA	98	NA	NA	NA	NA	92	NA	NA	NA	NA	NA

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

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

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

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

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

Description:

2003: Reported data calibrated to 2004 levels. HepB vaccine introduced in 2003. Estimate challenged by: D-

2004: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 98 percent based on 1 survey(s). Estimate challenged by: D-R-

2005: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2006: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2007: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2008: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Jamaica Multiple Indicator Survey 2011 card or history results of 92 percent modifed for recall bias to 98 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 78 percent. GoC=R+ S+ D+

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

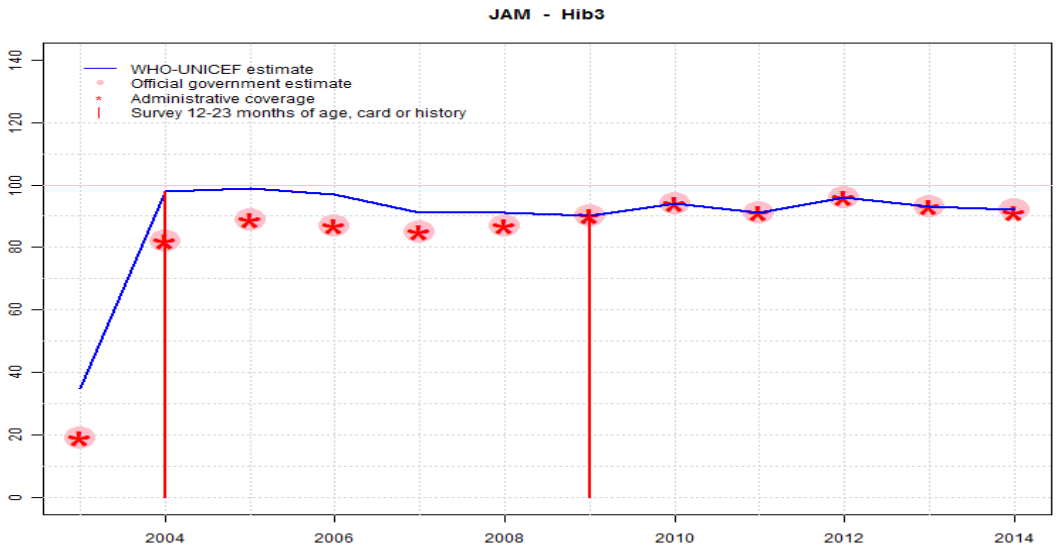
2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Estimate challenged by: D-

2014: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: D-

Jamaica - Hib3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	35	98	99	97	91	91	90	94	91	96	93	92
Estimate GoC	•	•	•	•	•	•	•••	•	•	•	•	•
Official	19	82	89	87	85	87	90	94	91	96	93	92
Administrative	19	82	89	87	85	87	90	94	91	96	93	91
Survey	NA	98	NA	NA	NA	NA	92	NA	NA	NA	NA	NA

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

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

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

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

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

Description:

2003: Reported data calibrated to 2004 levels. Hib vaccine introduced in 2003. GoC=No accepted empirical data

2004: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 98 percent based on 1 survey(s). Estimate challenged by: D-R-

2005: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2006: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2007: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2008: Reported data calibrated to 2004 and 2009 levels. Estimate challenged by: D-

2009: Estimate based on coverage reported by national government supported by survey. Survey evidence of 98 percent based on 1 survey(s). Jamaica Multiple Indicator Survey 2011 card or history results of 92 percent modifed for recall bias to 98 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 78 percent and 3d dose card only coverage of 78 percent. GoC=R+ S+ D+

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

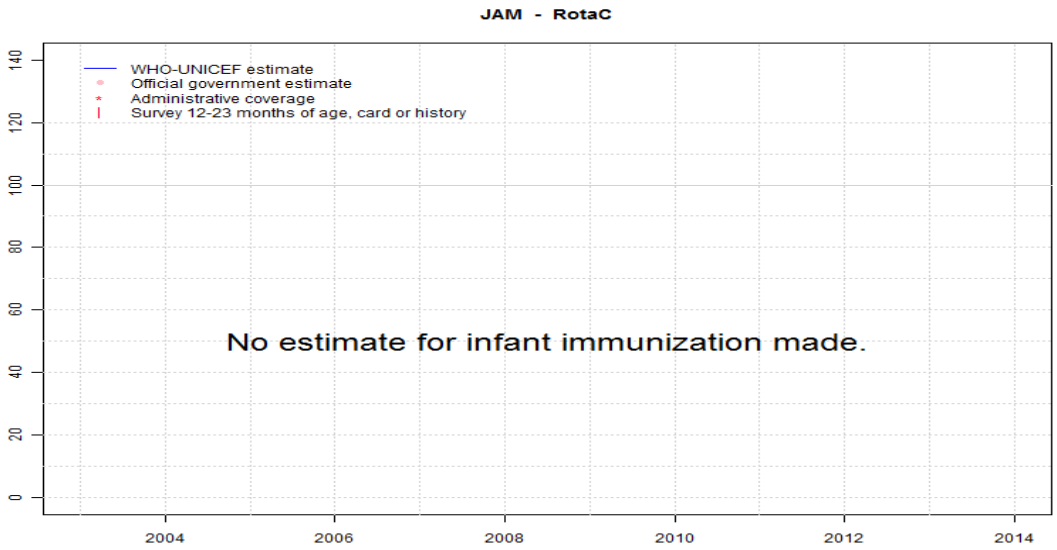
2011: Estimate based on coverage reported by national government. Estimate challenged by: D-

2012: Estimate based on coverage reported by national government. Estimate challenged by: D-

2013: Estimate based on coverage reported by national government. Estimate challenged by: D-

2014: Estimate based on coverage reported by national government. No nationally representative household survey within the last 5 years. WHO and UNICEF recommend a high-quality survey to confirm reported levels of coverage. Estimate challenged by: D-

Jamaica - RotaC



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

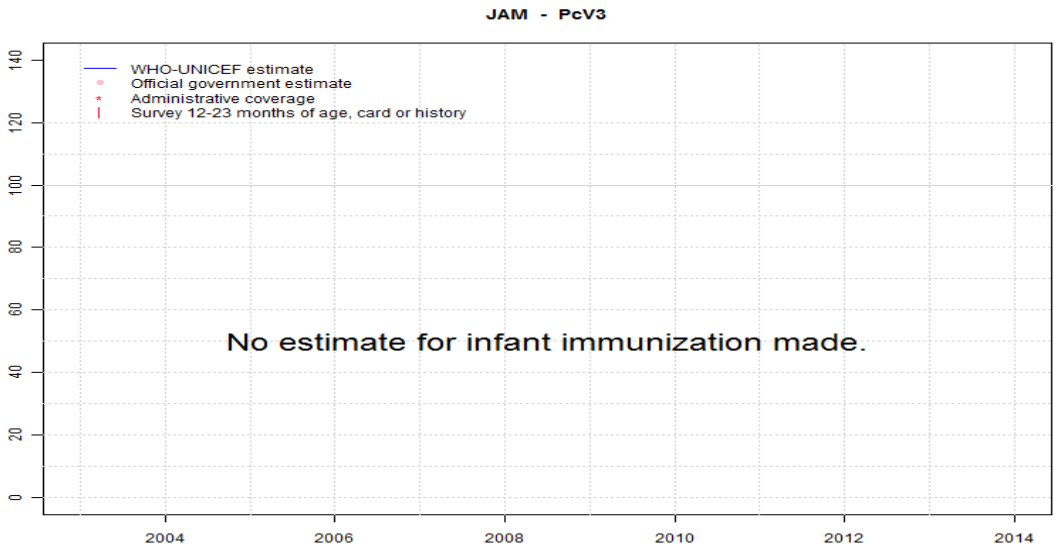
●●● Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2012 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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

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

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

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

Jamaica - PcV3



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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

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

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

Jamaica - survey details

2009 Jamaica Multiple Indicator Survey 2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	100	18-29 m	320	78
BCG	Card	78	18-29 m	-	78
BCG	Card or History	100	18-29 m	320	78
BCG	History	22	18-29 m	-	78
DTP1	C or H <12 months	97	18-29 m	320	78
DTP1	Card	78	18-29 m	-	78
DTP1	Card or History	98	18-29 m	320	78
DTP1	History	20	18-29 m	-	78
DTP3	C or H <12 months	90	18-29 m	320	78
DTP3	Card	78	18-29 m	-	78
DTP3	Card or History	92	18-29 m	320	78
DTP3	History	14	18-29 m	-	78
HepB1	C or H <12 months	97	18-29 m	320	78
HepB1	Card	78	18-29 m	-	78
HepB1	Card or History	98	18-29 m	320	78
HepB1	History	20	18-29 m	-	78
HepB3	C or H <12 months	90	18-29 m	320	78
HepB3	Card	78	18-29 m	-	78
HepB3	Card or History	92	18-29 m	320	78
HepB3	History	14	18-29 m	-	78
Hib1	C or H <12 months	97	18-29 m	320	78
Hib1	Card	78	18-29 m	-	78
Hib1	Card or History	98	18-29 m	320	78
Hib1	History	20	18-29 m	-	78
Hib3	C or H <12 months	90	18-29 m	320	78
Hib3	Card	78	18-29 m	-	78
Hib3	Card or History	92	18-29 m	320	78
Hib3	History	14	18-29 m	-	78
MCV1	C or H <12 months	92	18-29 m	320	78
MCV1	Card	76	18-29 m	-	78
MCV1	Card or History	94	18-29 m	320	78
MCV1	History	18	18-29 m	-	78
Pol1	C or H <12 months	97	18-29 m	320	78
Pol1	Card	76	18-29 m	-	78
Pol1	Card or History	97	18-29 m	320	78
Pol1	History	21	18-29 m	-	78
Pol3	C or H <12 months	92	18-29 m	320	78
Pol3	Card	76	18-29 m	-	78
Pol3	Card or History	92	18-29 m	320	78
Pol3	History	16	18-29 m	-	78

2006 Jamaica Survey of Living Conditions 2008

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	NA	99	6-59 m	-	-
DTP3	NA	92	6-59 m	-	-
HepB3	NA	58	6-59 m	-	-
Hib3	NA	66	6-59 m	-	-
MCV1	NA	86	6-59 m	-	-
Pol3	NA	92	6-59 m	-	-

2004 Jamaica Multiple Indicator Cluster Survey 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	94	18-29 m	298	74
BCG	Card	74	18-29 m	298	74
BCG	Card or History	96	18-29 m	298	74
BCG	History	22	18-29 m	298	74
DTP1	C or H <12 months	91	18-29 m	298	74
DTP1	Card	74	18-29 m	298	74
DTP1	Card or History	96	18-29 m	298	74
DTP1	History	22	18-29 m	298	74
DTP3	C or H <12 months	82	18-29 m	298	74
DTP3	Card	73	18-29 m	298	74
DTP3	Card or History	87	18-29 m	298	74
DTP3	History	14	18-29 m	298	74
MCV1	C or H <12 months	87	18-29 m	298	74
MCV1	Card	70	18-29 m	298	74
MCV1	Card or History	91	18-29 m	298	74
MCV1	History	21	18-29 m	298	74
Pol1	C or H <12 months	96	18-29 m	298	74
Pol1	Card	74	18-29 m	298	74
Pol1	Card or History	96	18-29 m	298	74
Pol1	History	22	18-29 m	298	74
Pol3	C or H <12 months	80	18-29 m	298	74

Pol3	Card	73	18-29 m	298	74
Pol3	Card or History	86	18-29 m	298	74
Pol3	History	13	18-29 m	298	74

2004 Survey of Childhood Vaccine Coverage in the Parishes of Jamaica

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	99	12-23 m	3744	100
DTP3	Card or History	98	12-23 m	3744	100
HepB3	Card or History	98	12-23 m	3744	100
Hib3	Card or History	98	12-23 m	3744	100
MCV1	Card or History	94	12-23 m	3744	100
Pol3	Card or History	97	12-23 m	3744	100

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

Jamaica
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 (%)
2003	52
2004	59
2005	51
2006	53
2007	54
2008	58
2009	62
2010	80
2011	80
2012	80
2013	80
2014	80

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