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+

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

2006: Estimate based on coverage reported by national government. Production of multiple injection device was halted in January 2006 leading to a dramatic decrease in coverage in children born in 2006 (year of assessment 2008). GoC=R+

2007: Estimate based on coverage reported by national government. BCG vaccination was universal and mandatory until July 2007. From July 2007 onwards, BCG has been only recommended to high risk groups. WHO UNICEF estimates for infant immunization coverage discontinued. GoC=R+
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; \([R^+], [S^+], [D^+]\); and no data source, \([R^-], [D^-], [S^-]\), 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 extrapolation from data reported by national government. GoC=No accepted empirical data
- **2005:** Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data
- **2006:** Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data
- **2007:** Estimate based on extrapolation from data reported by national government. GoC=No accepted empirical data
- **2008:** Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year \(N\) are then analyzed in year \(N+1\) and released year \(N+2\). GoC=No accepted empirical data
- **2009:** Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year \(N\) are then analyzed in year \(N+1\) and released year \(N+2\). GoC=No accepted empirical data
- **2010:** Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year \(N\) are then analyzed in year \(N+1\) and released year \(N+2\). GoC=No accepted empirical data
- **2011:** Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year \(N\) are then analyzed in year \(N+1\) and released year \(N+2\). GoC=No accepted empirical data
- **2012:** Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year \(N\) are then analyzed in year \(N+1\) and released year \(N+2\). GoC=R+
- **2013:** Estimate based on interpolation between data reported by national government. The Ministry of Health informs that routine vaccination data collected in year \(N\) are then analyzed in year \(N+1\) and released year \(N+2\). GoC=R+
- **2014:** Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year \(N\) are then analyzed in year \(N+1\) and released year \(N+2\). GoC=R+
- **2015:** Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year \(N\) are then analyzed in year \(N+1\) and released year \(N+2\). 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=No accepted empirical data
The WHO and UNICEF estimates of national immunization coverage (vuemic) 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+
- 2005: Estimate based on coverage reported by national government. GoC=R+
- 2006: Estimate based on coverage reported by national government. GoC=R+
- 2007: Estimate based on coverage reported by national government. GoC=R+
- 2008: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- 2009: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- 2010: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- 2011: Estimate based on reported administrative data. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- 2012: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- 2013: Estimate based on reported administrative data. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- 2014: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. Estimate of 98 percent changed from previous revision value of 99 percent. GoC=R+
- 2015: Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. 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=No accepted empirical data

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July 6, 2016; page 4  
WHO and UNICEF estimates of national immunization coverage - next revision available July 15, 2017  
data as of July 5, 2016
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.

- Three stars (***): 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.
- Two stars (**): Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- One star (*): 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+.
- **2005:** Estimate based on coverage reported by national government. GoC=R+.
- **2006:** Estimate based on coverage reported by national government. GoC=R+.
- **2007:** Estimate based on coverage reported by national government. GoC=R+.
- **2008:** Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+.
- **2009:** Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+.
- **2010:** Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+.
- **2011:** Estimate based on reported administrative data. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+.
- **2012:** Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+.
- **2013:** Estimate based on reported administrative data. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+.
- **2014:** Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. Estimate of 98 percent changed from previous revision value of 99 percent. GoC=R+.
- **2015:** Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. 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=No accepted empirical data.
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.

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July 6, 2016; page 6
WHO and UNICEF estimates of national immunization coverage - next revision available July 15, 2017 data as of July 5, 2016
The WHO and UNICEF estimates of national immunization coverage (wuniec) 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+  
- **2005:** Estimate based on interpolation between reported values. GoC=No accepted empirical data  
- **2006:** Estimate based on interpolation between reported values. GoC=No accepted empirical data  
- **2007:** Estimate based on interpolation between reported values. GoC=No accepted empirical data  
- **2008:** Estimate based on interpolation between reported values. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=No accepted empirical data  
- **2009:** Estimate based on interpolation between reported values. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=No accepted empirical data  
- **2010:** Estimate based on interpolation between reported values. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=No accepted empirical data  
- **2011:** Estimate based on reported administrative estimate. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+  
- **2012:** Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+  
- **2013:** Estimate based on reported administrative estimate. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+  
- **2014:** Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. Estimate of 77 percent changed from previous revision value of 74 percent. GoC=R+  
- **2015:** Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=No accepted empirical data
France - RCV1

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.

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### Estimate

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### 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+
- **2005:** Estimate based on estimated MCV1. GoC=R+
- **2006:** Estimate based on estimated MCV1. GoC=R+
- **2007:** Estimate based on estimated MCV1. GoC=R+
- **2008:** Estimate based on estimated MCV1. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- **2009:** Estimate based on estimated MCV1. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=No accepted empirical data
- **2010:** Estimate based on estimated MCV1. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- **2011:** Estimate based on estimated MCV1. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- **2012:** Estimate based on estimated MCV1. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- **2013:** Estimate based on estimated MCV1. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- **2014:** Estimate based on estimated MCV1. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
- **2015:** Estimate based on estimated MCV1. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. 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=No accepted empirical data
The WHO and UNICEF estimates of national immunization coverage (wunic) 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.
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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.
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.

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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.

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- 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.

2004: Estimate based on coverage reported by national government. GoC=R+
2005: Estimate based on coverage reported by national government. GoC=R+
2006: Estimate based on coverage reported by national government. GoC=R+
2007: Estimate based on coverage reported by national government. GoC=R+
2008: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
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2013: Estimate based on reported administrative estimate. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
2014: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. Estimate of 83 percent changed from previous revision value of 82 percent. GoC=R+
2015: Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. 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=No accepted empirical data
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+
2005: Estimate based on coverage reported by national government. GoC=R+
2006: Estimate based on coverage reported by national government. GoC=R+
2007: Estimate based on coverage reported by national government. GoC=R+
2008: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
2009: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
2010: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
2011: Estimate based on reported administrative estimate. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
2012: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
2013: Estimate based on reported administrative estimate. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+
2014: Estimate based on reported administrative estimate. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. Estimate of 97 percent changed from previous revision value of 98 percent. GoC=R+
2015: Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. 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=No accepted empirical data
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.
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. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. Pneumococcal conjugate vaccine introduced in 2006. Reporting began in 2010. GoC=R+

2011: Estimate based on reported administrative estimate. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+

2012: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+

2013: Estimate based on reported administrative estimate. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+

2014: Estimate based on coverage reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. GoC=R+

2015: Estimate based on extrapolation from data reported by national government. The Ministry of Health informs that routine vaccination data collected in year N are then analyzed in year N+1 and released year N+2. 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=No accepted empirical data.

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Further information and estimates for previous years are available at:
http://www.data.unicef.org/child-health/immunization