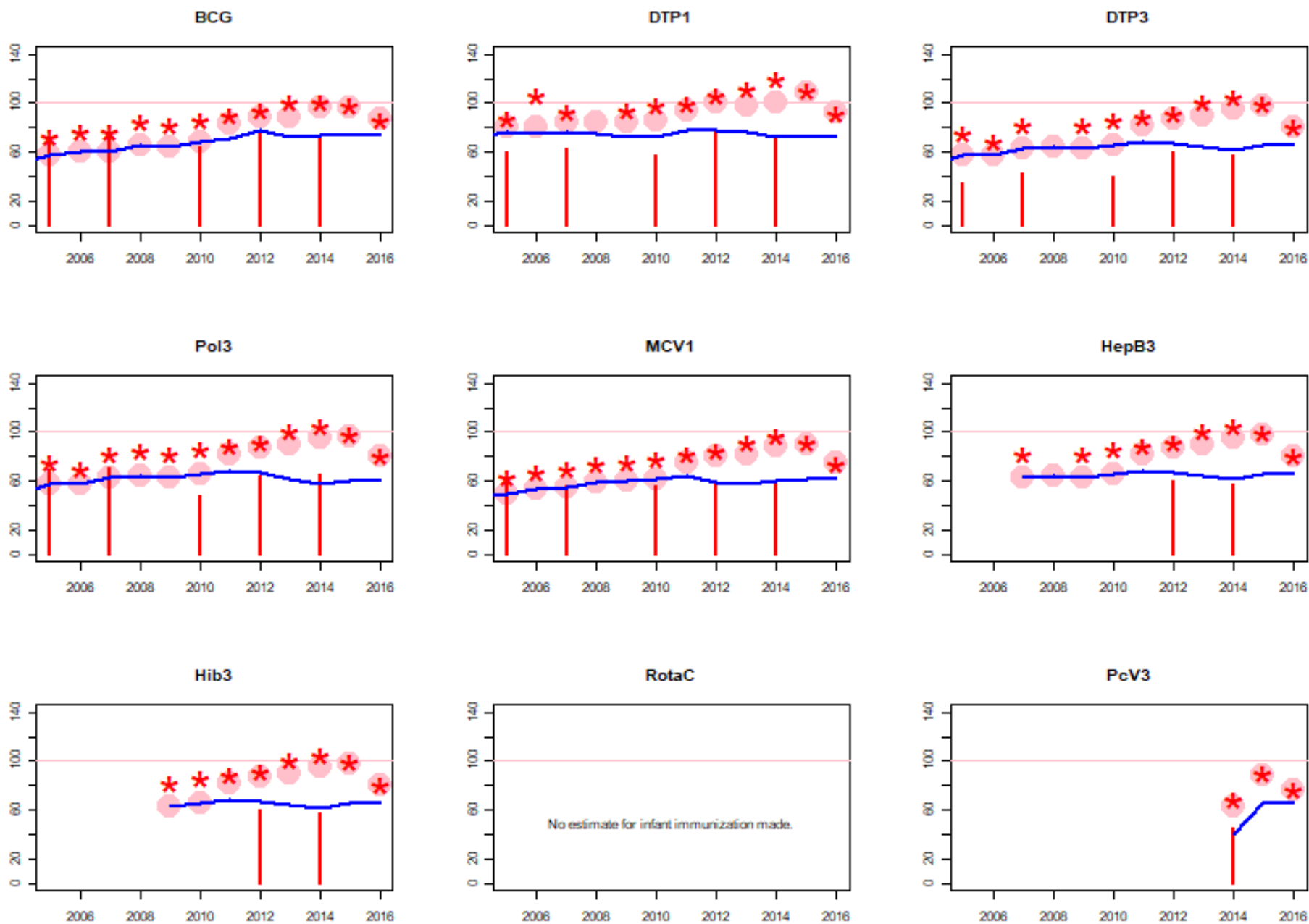


# Afghanistan: WHO and UNICEF estimates of immunization coverage: 2016 revision



# Afghanistan: WHO and UNICEF estimates of immunization coverage: 2016 revision

**BACKGROUND NOTE:** Each year WHO and UNICEF jointly review reports submitted by Member States regarding national immunization coverage, finalized survey reports as well as data from the published and grey literature. Based on these data, with due consideration to potential biases and the views of local experts, WHO and UNICEF attempt to distinguish between situations where the available empirical data accurately reflect immunization system performance and those where the data are likely to be compromised and present a misleading view of immunization coverage while jointly estimating the most likely coverage levels for each country.

WHO and UNICEF estimates are country-specific; that is to say, each country's data are reviewed individually, and data are not borrowed from other countries in the absence of data. Estimates are not based on ad hoc adjustments to reported data; in some instances empirical data are available from a single source, usually the nationally reported coverage data. In cases where no data are available for a given country/vaccine/year combination, data are considered from earlier and later years and interpolated to estimate coverage for the missing year(s). In cases where data sources are mixed and show large variation, an attempt is made to identify the most likely estimate with consideration of the possible biases in available data. For methods see:

\*Burton et al. 2009. WHO and UNICEF estimates of national infant immunization coverage: methods and processes.

\*Burton et al. 2012. A formal representation of the WHO and UNICEF estimates of national immunization coverage: a computational logic approach.

\*Brown et al. 2013. An introduction to the grade of confidence used to characterize uncertainty around the WHO and UNICEF estimates of national immunization coverage.

## DATA SOURCES.

**ADMINISTRATIVE coverage:** Reported by national authorities and based on aggregated administrative reports from health service providers on the number of vaccinations administered during a given period (numerator data) and reported target population data (denominator data). May be biased by inaccurate numerator and/or denominator data.

**OFFICIAL coverage:** Estimated coverage reported by national authorities that reflects their assessment of the most likely coverage based on any combination of administrative coverage, survey-based estimates or other data sources or adjustments. Approaches to determine OFFICIAL coverage may differ across countries.

**SURVEY coverage:** Based on estimated coverage from population-based household surveys among children aged 12-23 months or 24-35 months following a review of survey methods and results. Information is based on the combination of vaccination history from documented evidence or caregiver recall. Survey results are considered for the appropriate birth cohort based on the period of data collection.

## ABBREVIATIONS

**BCG:** percentage of births who received one dose of Bacillus Calmette Guerin vaccine.

**DTP1 / DTP3:** percentage of surviving infants who received the 1st / 3rd dose, respectively, of diphtheria and tetanus toxoid with pertussis containing vaccine.

**Pol3:** percentage of surviving infants who received the 3rd dose of polio containing vaccine. May be either oral or inactivated polio vaccine.

**IPV1:** percentage of surviving infants who received at least one dose of inactivated polio vaccine. In countries utilizing an immunization schedule recommending either (i) a primary series of three doses of oral polio vaccine (OPV) plus at least one dose of IPV where OPV is included in routine

immunization and/or campaign or (ii) a sequential schedule of IPV followed by OPV, WHO and UNICEF estimates for IPV1 reflect coverage with at least one routine dose of IPV among infants <1 year of age among countries. For countries utilizing IPV containing vaccine use only, i.e., no recommended dose of OPV, the WHO and UNICEF estimate for IPV1 corresponds to coverage for the 1st dose of IPV.

Production of IPV coverage estimates, which begins in 2015, results in no change of the estimated coverage levels for the 3rd dose of polio (Pol3). For countries recommending routine immunization with a primary series of three doses of IPV alone, WHO and UNICEF estimated Pol3 coverage is equivalent to estimated coverage with three doses of IPV. For countries with a sequential schedule, estimated Pol3 coverage is based on that for the 3rd dose of polio vaccine regardless of vaccine type.

**MCV1:** percentage of surviving infants who received the 1st dose of measles containing vaccine. In countries where the national schedule recommends the 1st dose of MCV at 12 months or later based on the epidemiology of disease in the country, coverage estimates reflect the percentage of children who received the 1st dose of MCV as recommended.

**MCV2:** percentage of children who received the 2nd dose of measles containing vaccine according to the nationally recommended schedule.

**RCV1:** percentage of surviving infants who received the 1st dose of rubella containing vaccine. Coverage estimates are based on WHO and UNICEF estimates of coverage for the dose of measles containing vaccine that corresponds to the first measles-rubella combination vaccine. Nationally reported coverage of RCV is not taken into consideration nor are the data represented in the accompanying graph and data table.

**HepBB:** percentage of births which received a dose of hepatitis B vaccine within 24 hours of delivery. Estimates of hepatitis B birth dose coverage are produced only for countries with a universal birth dose policy. Estimates are not produced for countries that recommend a birth dose to infants born to HepB virus-infected mothers only or where there is insufficient information to determine whether vaccination is within 24 hours of birth.

**HepB3:** percentage of surviving infants who received the 3rd dose of hepatitis B containing vaccine following the birth dose.

**Hib3:** percentage of surviving infants who received the 3rd dose of Haemophilus influenzae type b containing vaccine.

**RotaC:** percentage of surviving infants who received the final recommended dose of rotavirus vaccine, which can be either the 2nd or the 3rd dose depending on the vaccine.

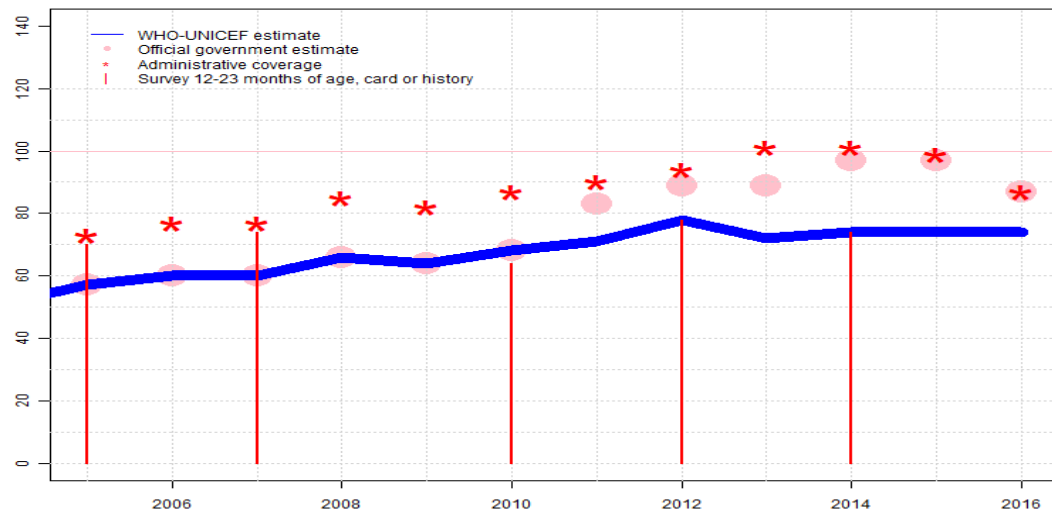
**PcV3:** percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect the percentage of surviving infants who received two doses of PcV prior to the 1st birthday.

**YFV:** percentage of surviving infants who received one dose of yellow fever vaccine in countries where YFV is part of the national immunization schedule for children or is recommended in at risk areas; coverage estimates are annualized for the entire cohort of surviving infants.

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# Afghanistan - BCG

AFG - BCG



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	57	60	60	66	64	68	71	78	72	74	74	74
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	57	60	60	66	64	68	83	89	89	97	97	87
Administrative	73	77	77	85	82	87	90	94	101	101	99	87
Survey	70	NA	74	NA	NA	64	NA	78	NA	74	NA	NA

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

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

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

## Description:

- 2016: Estimate is based on extrapolation from prior year estimate. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2014 levels. Refer to comment on the first year showing on this description column. Estimate of 74 percent changed from previous revision value of 86 percent. Estimate challenged by: D-R-
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 74 percent based on 1 survey(s). Reported official government estimate is based on a recomputed target population by the Ministry of Public Health using a year-to-year growth rate of 2.7 percent. Estimate is based on trend in reported number of doses administered. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery. Refer to comment on the first year showing on this description column. Programme reports a two month stock-out of BCG vaccine at the national level. Estimate of 74 percent changed from previous revision value of 86 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 and 2014 levels. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. In 2013 a multi-antigen SOS-like intervention (except BCG) was implemented in high and intermediate risk districts. Refer to comment on the first year showing on this description column. Estimate of 72 percent changed from previous revision value of 78 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 78 percent based on 1 survey(s). Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-
- 2011: Estimate of 71 percent assigned by working group. Following the trend in administrative levels from 2010. Apparent increase in official reported data between 2010 to 2011 is unexplained as is the inconsistency in adjustments to administrative coverage levels. Refer to comment on the first year showing on this description column. Estimate challenged

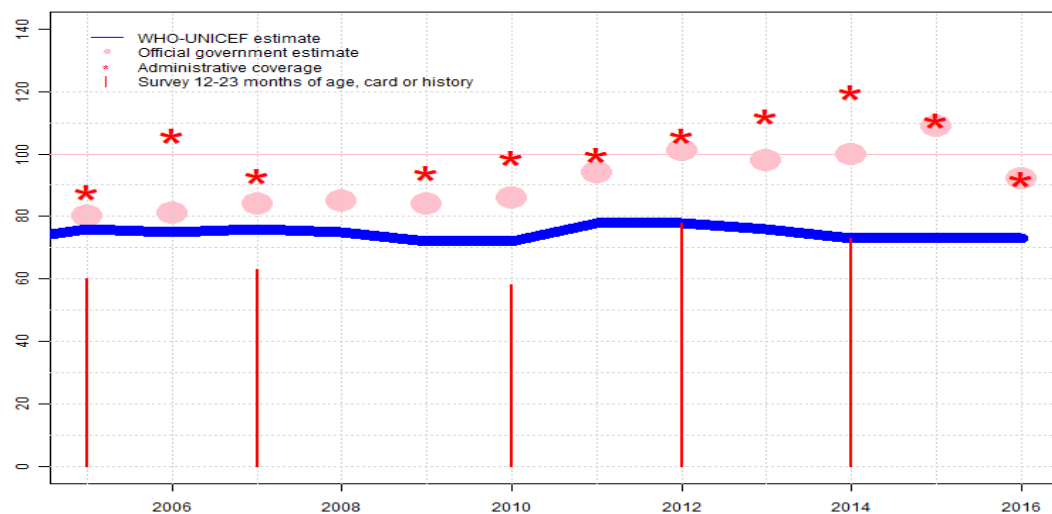
# Afghanistan - BCG

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- by: D-R-
- 2010: . Afghanistan Multiple Indicator Cluster Survey 2010-2011 results ignored by working group. Card only data suggest no drop out. Data quality self-assessment conducted in 22 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government. Data quality self-assessment conducted in 12 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. National Risk and Vulnerability Assessment 2007/8: A profile of Afghanistan results ignored by working group. Survey shows inconsistent results between levels of BCG and DTP coverage. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Afghanistan Health Survey 2006 results ignored by working group. Survey is not nationally representative and does not include 5 provinces. Card retention was 17 percent. Trend in official government estimate follows trend in administrative data. There is substantial uncertainty in the provisional estimate due to uncertainty in denominator (last census in 1979) and difficulties in recording and reporting the number of vaccinations delivered by some service providers. Refer to comment on the first year showing on this description column. Estimate challenged by: D-

# Afghanistan - DTP1

AFG - DTP1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	76	75	76	75	72	72	78	78	76	73	73	73
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	80	81	84	85	84	86	94	101	98	100	109	92
Administrative	88	106	93	NA	94	99	100	106	112	120	111	92
Survey	60	NA	63	NA	NA	58	NA	78	NA	73	NA	NA

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

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

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

## Description:

- 2016: Reported data calibrated to 2014 levels. Reported data excluded due to unexplained sudden change in coverage from 109 level to 92 percent. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2014 levels. Reported data excluded because 109 percent greater than 100 percent. Refer to comment on the first year showing on this description column. Estimate of 73 percent changed from previous revision value of 82 percent. Estimate challenged by: D-R-
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 73 percent based on 1 survey(s). Reported official government estimate is based on a recomputed target population by the Ministry of Public Health using a year-to-year growth rate of 2.7 percent. Estimate is based on trend in reported number of doses administered. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery. Refer to comment on the first year showing on this description column. Estimate of 73 percent changed from previous revision value of 82 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 and 2014 levels. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. In 2013 a multi-antigen SOS-like intervention (except BCG) was implemented in high and intermediate risk districts. Refer to comment on the first year showing on this description column. Estimate of 76 percent changed from previous revision value of 80 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 78 percent based on 1 survey(s). Reported data excluded because 101 percent greater than 100 percent. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-
- 2011: Reported data calibrated to 2003 and 2012 levels. Apparent increase in official reported data between 2010 to 2011 is unexplained as is the inconsistency in adjustments to admin-

# Afghanistan - DTP1

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istrative coverage levels. Refer to comment on the first year showing on this description column. Following the trend in administrative levels from 2010. Estimate challenged by: D-R-

2010: Reported data calibrated to 2003 and 2012 levels. Afghanistan Multiple Indicator Cluster Survey 2010-2011 results ignored by working group. Card only data suggest no drop out. Data quality self-assessment conducted in 22 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2009: Reported data calibrated to 2003 and 2012 levels. Data quality self-assessment conducted in 12 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2008: Reported data calibrated to 2003 and 2012 levels. Refer to comment on the first year showing on this description column. Estimate challenged by: R-

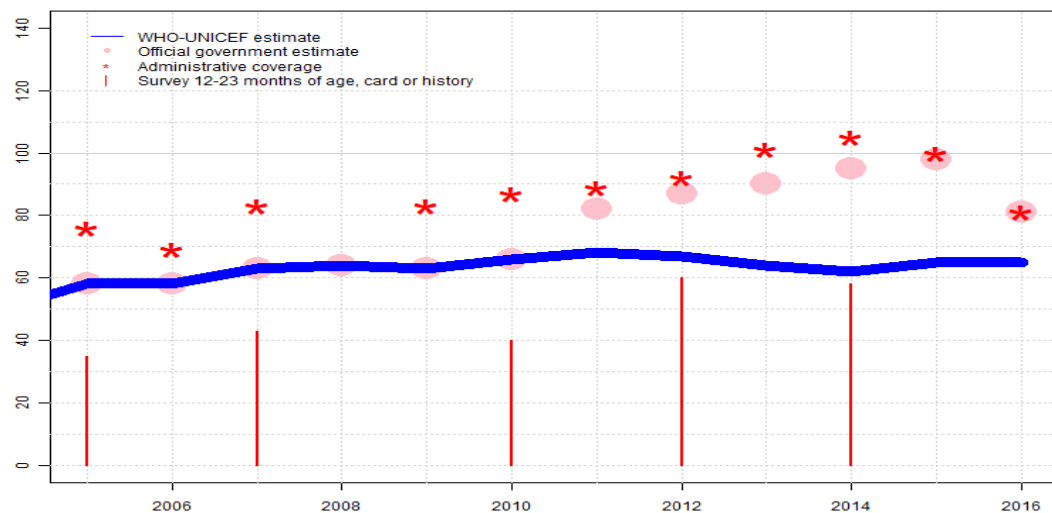
2007: Reported data calibrated to 2003 and 2012 levels. National Risk and Vulnerability Assessment 2007/8: A profile of Afghanistan results ignored by working group. Survey shows inconsistent results between levels of BCG and DTP coverage. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2006: Reported data calibrated to 2003 and 2012 levels. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2005: Reported data calibrated to 2003 and 2012 levels. Afghanistan Health Survey 2006 results ignored by working group. Survey is not nationally representative and does not include 5 provinces. Card retention was 17 percent. Trend in official government estimate follows trend in administrative data. There is substantial uncertainty in the provisional estimate due to uncertainty in denominator (last census in 1979) and difficulties in recording and reporting the number of vaccinations delivered by some service providers. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

# Afghanistan - DTP3

AFG - DTP3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	58	58	63	64	63	66	68	67	64	62	65	65
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	58	58	63	64	63	66	82	87	90	95	98	81
Administrative	76	69	83	NA	83	87	89	92	101	105	100	81
Survey	35	NA	43	NA	NA	40	NA	60	NA	58	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:

2016: Reported data calibrated to 2014 levels. Reported data excluded due to unexplained sudden change in coverage from 98 level to 81 percent. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2015: Reported data calibrated to 2014 levels. Refer to comment on the first year showing on this description column. Estimate of 65 percent changed from previous revision value of 78 percent. Estimate challenged by: D-R-

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 62 percent based on 1 survey(s). Afghanistan Demographic and Health Survey 2015 card or history results of 58 percent modified for recall bias to 62 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 55 percent and 3d dose card only coverage of 47 percent. Reported official government estimate is based on a recomputed target population by the Ministry of Public Health using a year-to-year growth rate of 2.7 percent. Estimate is based on trend in reported number of doses administered. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery. Refer to comment on the first year showing on this description column. Estimate of 62 percent changed from previous revision value of 75 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 and 2014 levels. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. In 2013 a multi-antigen SOS-like intervention (except BCG) was implemented in high and intermediate risk districts. Refer to comment on the first year showing on this description column. Estimate of 64 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Afghanistan National EPI Coverage Survey, 2013 card or history results of 60 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 63 percent and 3d dose card only coverage of 54 percent. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in

# Afghanistan - DTP3

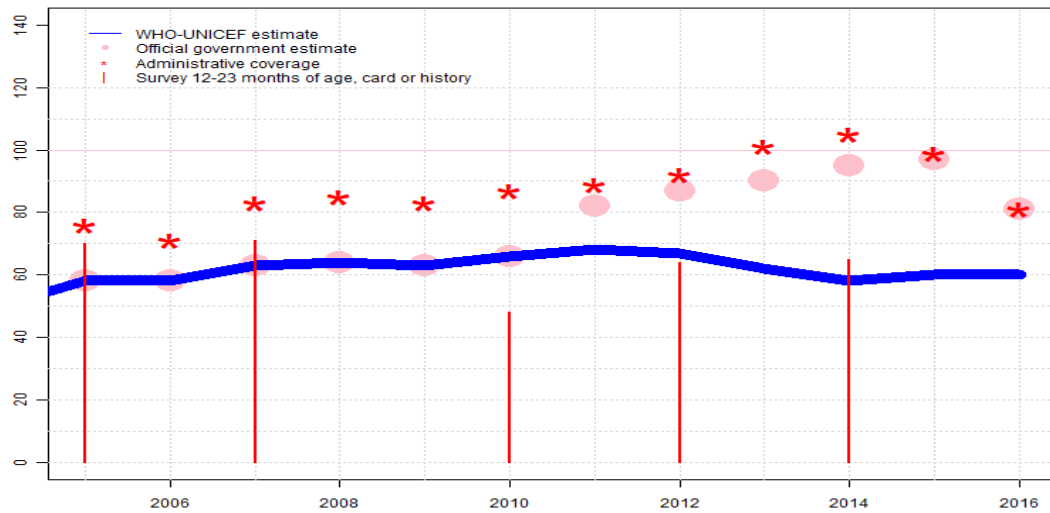
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- reported number of doses administered. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-
- 2011: Estimate of 68 percent assigned by working group. Following the trend in administrative levels from 2010. Apparent increase in official reported data between 2010 to 2011 is unexplained as is the inconsistency in adjustments to administrative coverage levels. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-
- 2010: . Afghanistan Multiple Indicator Cluster Survey 2010-2011 results ignored by working group. Card only data suggest no drop out. Afghanistan Multiple Indicator Cluster Survey 2010-2011 card or history results of 40 percent modified for recall bias to 58 percent based on 1st dose card or history coverage of 58 percent, 1st dose card only coverage of 32 percent and 3d dose card only coverage of 32 percent. Data quality self-assessment conducted in 22 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government. Data quality self-assessment conducted in 12 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. National Risk and Vulnerability Assessment 2007/8: A profile of Afghanistan results ignored by working group. Survey shows inconsistent results between levels of BCG and DTP coverage. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Afghanistan Health Survey 2006 results ignored by working group. Survey is not nationally representative and does not include 5 provinces. Card retention was 17 percent. Trend in official government estimate follows trend in administrative data. There is substantial uncertainty in the provisional estimate due to uncertainty in denominator (last census in 1979) and difficulties in recording and reporting the number of vaccinations delivered by some service providers. Refer to comment on the first year showing on this description column. Estimate challenged by: D-



# Afghanistan - Pol3

AFG - Pol3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	58	58	63	64	63	66	68	67	62	58	60	60
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	58	58	63	64	63	66	82	87	90	95	97	81
Administrative	76	71	83	85	83	87	89	92	101	105	99	81
Survey	70	NA	71	NA	NA	48	NA	64	NA	65	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:

2016: Reported data calibrated to 2014 levels. Reported data excluded due to unexplained sudden change in coverage from 97 level to 81 percent. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-S-

2015: Reported data calibrated to 2014 levels. Refer to comment on the first year showing on this description column. Estimate of 60 percent changed from previous revision value of 77 percent. Estimate challenged by: D-R-S-

2014: Estimate of 58 percent assigned by working group. Estimate based on estimate for DTP3. Survey estimates may include OPV campaign doses. Afghanistan Demographic and Health Survey 2015 card or history results of 65 percent modified for recall bias to 74 percent based on 1st dose card or history coverage of 85 percent, 1st dose card only coverage of 55 percent and 3d dose card only coverage of 48 percent. Reported official government estimate is based on a recomputed target population by the Ministry of Public Health using a year-to-year growth rate of 2.7 percent. Estimate is based on trend in reported number of doses administered. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery. Refer to comment on the first year showing on this description column. Estimate of 58 percent changed from previous revision value of 75 percent. Estimate challenged by: D-R-S-

2013: Reported data calibrated to 2012 and 2014 levels. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. In 2013 a multi-antigen SOS-like intervention (except BCG) was implemented in high and intermediate risk districts. Refer to comment on the first year showing on this description column. Estimate of 62 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-S-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Afghanistan National EPI Coverage Survey, 2013 card or history results of 64 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 63 percent and 3d dose card only coverage of 54 percent. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in

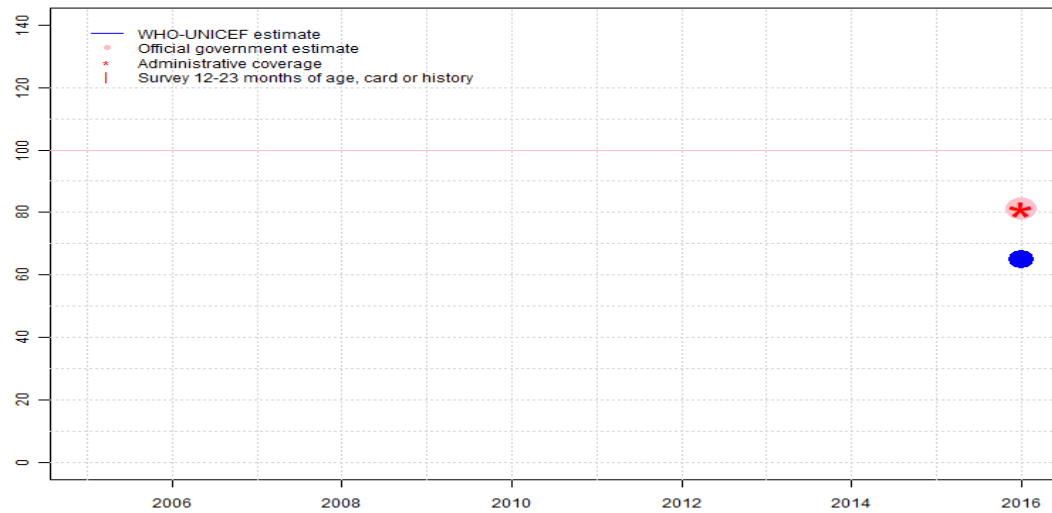
# Afghanistan - Pol3

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- reported number of doses administered. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-
- 2011: Estimate of 68 percent assigned by working group. Following the trend in administrative levels from 2010. Apparent increase in official reported data between 2010 to 2011 is unexplained as is the inconsistency in adjustments to administrative coverage levels. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-
- 2010: . Afghanistan Multiple Indicator Cluster Survey 2010-2011 results ignored by working group. Card only data suggest no drop out. Afghanistan Multiple Indicator Cluster Survey 2010-2011 card or history results of 48 percent modified for recall bias to 71 percent based on 1st dose card or history coverage of 71 percent, 1st dose card only coverage of 30 percent and 3d dose card only coverage of 30 percent. Data quality self-assessment conducted in 22 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Polio coverage may reflect campaign doses. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government. Data quality self-assessment conducted in 12 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. National Risk and Vulnerability Assessment 2007/8: A profile of Afghanistan results ignored by working group. Survey shows inconsistent results between levels of BCG and DTP coverage. Refer to comment on the first year showing on this description column. Survey includes doses delivered during measles control campaign. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Afghanistan Health Survey 2006 results ignored by working group. Survey is not nationally representative and does not include 5 provinces. Card retention was 17 percent. Trend in official government estimate follows trend in administrative data. There is substantial uncertainty in the provisional estimate due to uncertainty in denominator (last census in 1979) and difficulties in recording and reporting the number of vaccinations delivered by some service providers. Refer to comment on the first year showing on this description column. Estimate challenged by: D-

# Afghanistan - IPV1

AFG - IPV1



## Description:

2016: Estimate of 65 percent assigned by working group. IPV introduced in September 2015. Estimate based on DTP3 coverage. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	65
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	81
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

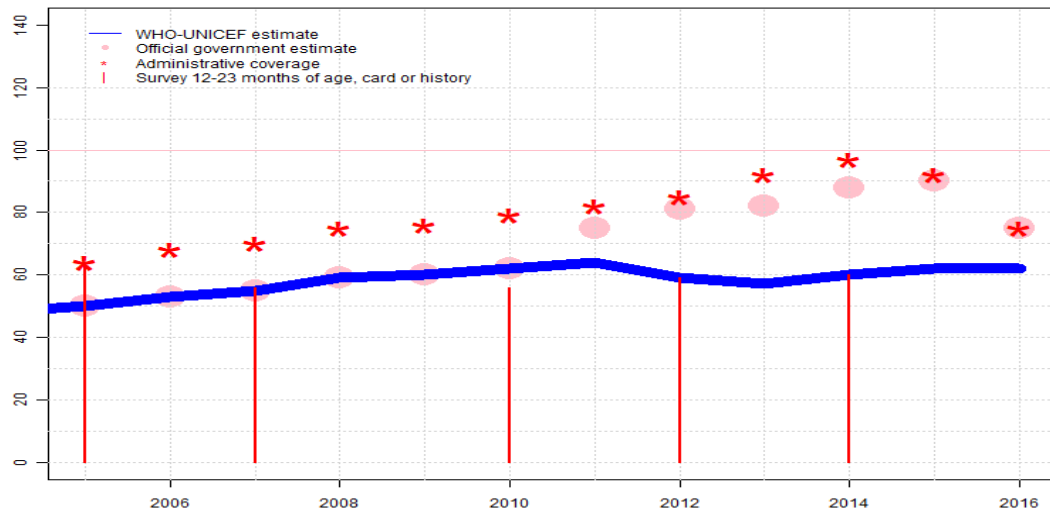
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Afghanistan - MCV1

AFG - MCV1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	50	53	55	59	60	62	64	59	57	60	62	62
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	50	53	55	59	60	62	75	81	82	88	90	75
Administrative	64	68	70	75	76	79	82	85	92	97	92	75
Survey	63	NA	56	NA	NA	56	NA	59	NA	60	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:

2016: Reported data calibrated to 2014 levels. Reported data excluded due to unexplained sudden change in coverage from 90 level to 75 percent. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2015: Reported data calibrated to 2014 levels. Refer to comment on the first year showing on this description column. Estimate of 62 percent changed from previous revision value of 68 percent. Estimate challenged by: D-R-

2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 60 percent based on 1 survey(s). Reported official government estimate is based on a recomputed target population by the Ministry of Public Health using a year-to-year growth rate of 2.7 percent. Estimate is based on trend in reported number of doses administered. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery. Refer to comment on the first year showing on this description column. Estimate of 60 percent changed from previous revision value of 66 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 and 2014 levels. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. In 2013 a multi-antigen SOS-like intervention (except BCG) was implemented in high and intermediate risk districts. Refer to comment on the first year showing on this description column. Estimate of 57 percent changed from previous revision value of 60 percent. Estimate challenged by: D-R-

2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 59 percent based on 1 survey(s). Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2011: Reported data calibrated to 2010 and 2012 levels. Apparent increase in official reported data between 2010 to 2011 is unexplained as is the inconsistency in adjustments to administrative coverage levels. Refer to comment on the first year showing on this description column. Following the trend in administrative levels from 2010. Estimate challenged by:

# Afghanistan - MCV1

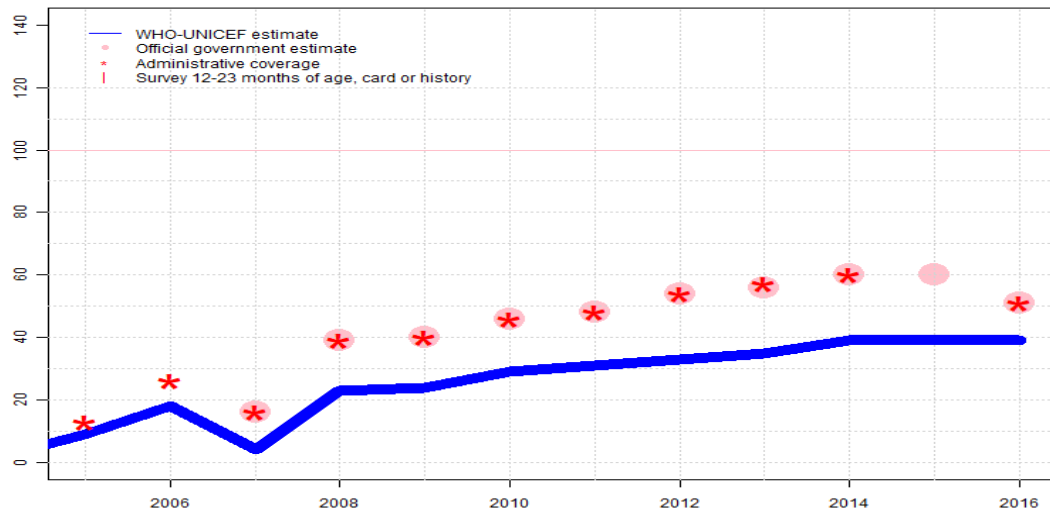
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D-R-

- 2010: . Afghanistan Multiple Indicator Cluster Survey 2010-2011 results ignored by working group. Card only data suggest no drop out. Data quality self-assessment conducted in 22 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2009: Estimate based on coverage reported by national government. Data quality self-assessment conducted in 12 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2008: Estimate based on coverage reported by national government. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2007: Estimate based on coverage reported by national government. National Risk and Vulnerability Assessment 2007/8: A profile of Afghanistan results ignored by working group. Survey shows inconsistent results between levels of BCG and DTP coverage. Refer to comment on the first year showing on this description column. Survey includes doses delivered during measles control campaign. Estimate challenged by: D-
- 2006: Estimate based on coverage reported by national government. Refer to comment on the first year showing on this description column. Estimate challenged by: D-
- 2005: Estimate based on coverage reported by national government. Afghanistan Health Survey 2006 results ignored by working group. Survey is not nationally representative and does not include 5 provinces. Card retention was 17 percent. Trend in official government estimate follows trend in administrative data. There is substantial uncertainty in the provisional estimate due to uncertainty in denominator (last census in 1979) and difficulties in recording and reporting the number of vaccinations delivered by some service providers. Refer to comment on the first year showing on this description column. Estimate challenged by: D-

# Afghanistan - MCV2

AFG - MCV2



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	9	18	4	23	24	29	31	33	35	39	39	39
Estimate GoC	●	●	●	●	●	●	●	●	●	●	●	●
Official	NA	NA	16	39	40	46	48	54	56	60	60	51
Administrative	13	26	16	39	40	46	48	54	57	60	NA	51
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.

2016: Estimate is based on extrapolation from prior year estimate. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2015: Reported data calibrated to 2012 levels. Refer to comment on the first year showing on this description column. Estimate challenged by: R-

2014: Reported data calibrated to 2012 levels. Reported official government estimate is based on a recomputed target population by the Ministry of Public Health using a year-to-year growth rate of 2.7 percent. Estimate is based on trend in reported number of doses administered. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2013: Reported data calibrated to 2012 levels. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. In 2013 a multi-antigen SOS-like intervention (except BCG) was implemented in high and intermediate risk districts. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2012: Estimate of 33 percent assigned by working group. Estimates follows reported data calibrated based on MCV adjustment factor. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2011: Estimate of 31 percent assigned by working group. Estimates follows reported data calibrated based on MCV adjustment factor. Apparent increase in official reported data between 2010 to 2011 is unexplained as is the inconsistency in adjustments to administrative coverage levels. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2010: Estimate of 29 percent assigned by working group. Estimates follows reported data cali-

## Afghanistan - MCV2

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brated based on MCV adjustment factor. Data quality self-assessment conducted in 22 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2009: Estimate of 24 percent assigned by working group. Estimates follows reported data calibrated based on MCV adjustment factor. Data quality self-assessment conducted in 12 provinces found instances of over reporting and errors in recording and reporting. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

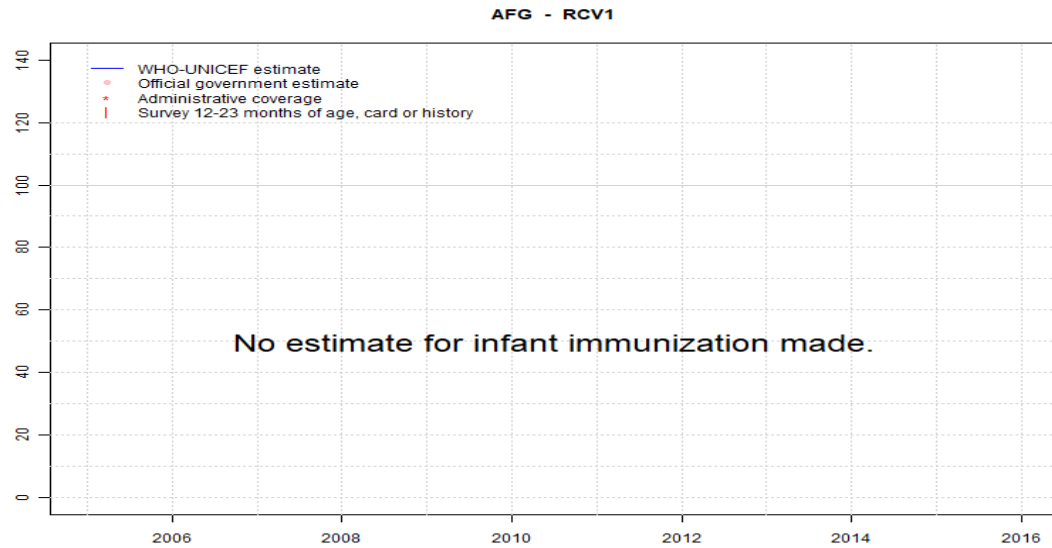
2008: Estimate of 23 percent assigned by working group. Estimates follows reported data calibrated based on MCV adjustment factor (difference between reported administrative and official coverage). Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2007: Reported data calibrated to 2004 and 2008 levels. Refer to comment on the first year showing on this description column. Estimate challenged by: D-R-

2006: Reported data calibrated to 2004 and 2008 levels. Refer to comment on the first year showing on this description column. Estimate challenged by: R-

2005: Reported data calibrated to 2004 and 2008 levels. Trend in official government estimate follows trend in administrative data. There is substantial uncertainty in the provisional estimate due to uncertainty in denominator (last census in 1979) and difficulties in recording and reporting the number of vaccinations delivered by some service providers. Refer to comment on the first year showing on this description column. Estimate challenged by: R-

# Afghanistan - RCV1



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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.

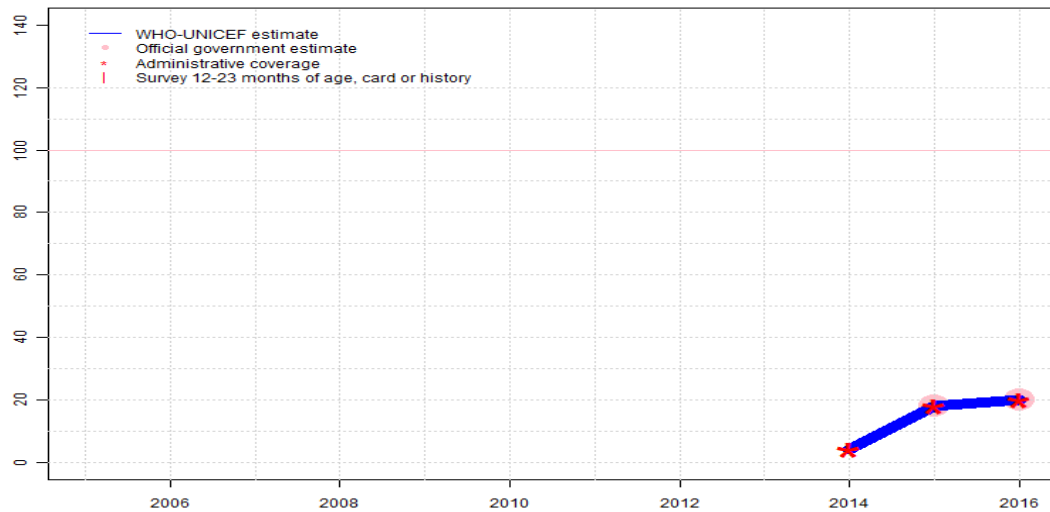
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk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



# Afghanistan - HepBB

AFG - HepBB



## Description:

- 2016: Estimate based on coverage reported by national government. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. GoC=Assigned by working group. Consistent with other vaccines.
- 2015: Estimate based on coverage reported by national government. Reported coverage using national target population. GoC=Assigned by working group. Consistent with other vaccines.
- 2014: Estimate based on reported administrative estimate. Reported official government estimate is based on a recomputed target population by the Ministry of Public Health using a year-to-year growth rate of 2.7 percent. Estimate is based on trend in reported number of doses administered. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery. Hepatitis B birth dose introduced during August 2014. Primarily administered to infants born in health facilities. GoC=Assigned by working group. Introduction period and consistency with other vaccines.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	18	20
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18	20
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	18	20
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

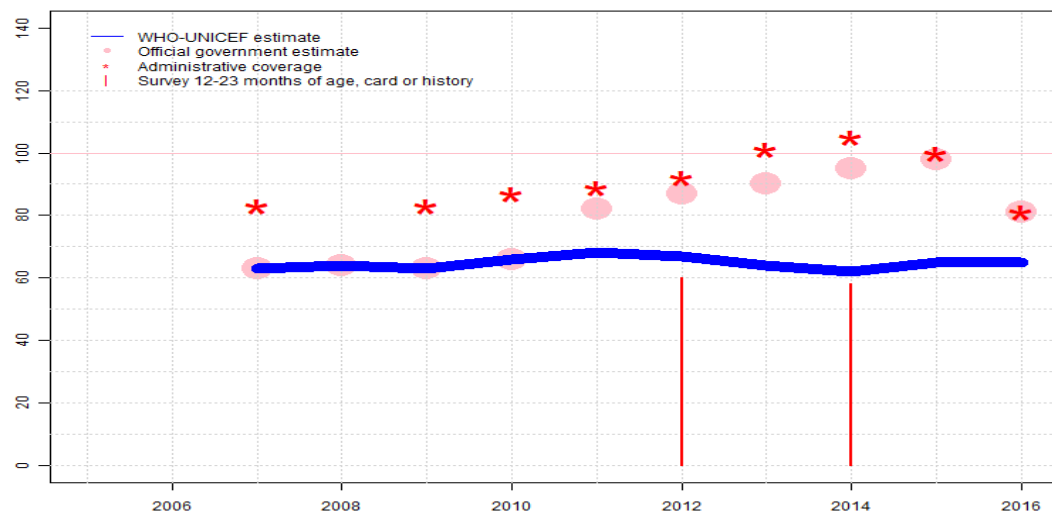
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Afghanistan - HepB3

AFG - HepB3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	63	64	63	66	68	67	64	62	65	65
Estimate GoC	NA	NA	•	•	•	•	•	•	•	•	•	•
Official	NA	NA	63	64	63	66	82	87	90	95	98	81
Administrative	NA	NA	83	NA	83	87	89	92	101	105	100	81
Survey	NA	NA	NA	NA	NA	NA	NA	60	NA	58	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:

- 2016: Reported data calibrated to 2014 levels. Reported data excluded due to unexplained sudden change in coverage from 98 level to 81 percent. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2014 levels. Estimate of 65 percent changed from previous revision value of 78 percent. Estimate challenged by: D-R-
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 62 percent based on 1 survey(s). Afghanistan Demographic and Health Survey 2015 card or history results of 58 percent modified for recall bias to 62 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 55 percent and 3d dose card only coverage of 47 percent. Reported official government estimate is based on a recomputed target population by the Ministry of Public Health using a year-to-year growth rate of 2.7 percent. Estimate is based on trend in reported number of doses administered. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery. Estimate of 62 percent changed from previous revision value of 75 percent. GoC=Assigned by working group. Consistent with other vaccines.
- 2013: Reported data calibrated to 2012 and 2014 levels. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. In 2013 a multi-antigen SOS-like intervention (except BCG) was implemented in high and intermediate risk districts. Estimate of 64 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Afghanistan National EPI Coverage Survey, 2013 card or history results of 60 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 63 percent and 3d dose card only coverage of 54 percent. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. Estimate challenged by: D-R-
- 2011: Estimate of 68 percent assigned by working group. Following the trend in administra-

# Afghanistan - HepB3

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tive levels from 2010. Apparent increase in official reported data between 2010 to 2011 is unexplained as is the inconsistency in adjustments to administrative coverage levels. Estimate challenged by: D-R-

2010: . Data quality self-assessment conducted in 22 provinces found instances of over reporting and errors in recording and reporting. Estimate challenged by: D-

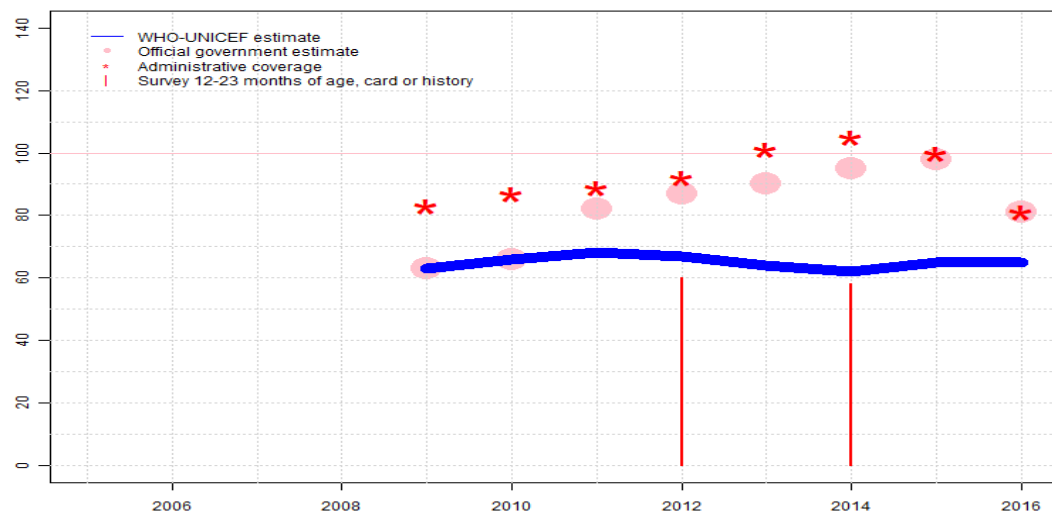
2009: Estimate based on reported data. Data quality self-assessment conducted in 12 provinces found instances of over reporting and errors in recording and reporting. Estimate challenged by: D-

2008: Estimate based on reported data. See comment for 2007 estimates. Estimate challenged by: D-

2007: Estimate based on reported data. HepB vaccine introduced in 2006. Reporting started in 2007. Trend in official government estimate follows trend in administrative data. There is substantial uncertainty in the provisional estimate due to uncertainty in denominator (last census in 1979) and difficulties in recording and reporting the number of vaccinations delivered by some service providers. Estimate challenged by: D-

# Afghanistan - Hib3

AFG - Hib3



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	63	66	68	67	64	62	65	65
Estimate GoC	NA	NA	NA	NA	•	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	63	66	82	87	90	95	98	81
Administrative	NA	NA	NA	NA	83	87	89	92	101	105	100	81
Survey	NA	NA	NA	NA	NA	NA	NA	60	NA	58	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:

- 2016: Reported data calibrated to 2014 levels. Reported data excluded due to unexplained sudden change in coverage from 98 level to 81 percent. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. See comment for 2009 estimates. Estimate challenged by: D-R-
- 2015: Reported data calibrated to 2014 levels. See comment for 2009 estimates. Estimate of 65 percent changed from previous revision value of 78 percent. Estimate challenged by: D-R-
- 2014: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 62 percent based on 1 survey(s). Afghanistan Demographic and Health Survey 2015 card or history results of 58 percent modified for recall bias to 62 percent based on 1st dose card or history coverage of 73 percent, 1st dose card only coverage of 55 percent and 3d dose card only coverage of 47 percent. Reported official government estimate is based on a recomputed target population by the Ministry of Public Health using a year-to-year growth rate of 2.7 percent. Estimate is based on trend in reported number of doses administered. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery. See comment for 2009 estimates. Estimate of 62 percent changed from previous revision value of 75 percent. Estimate challenged by: D-R-
- 2013: Reported data calibrated to 2012 and 2014 levels. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. In 2013 a multi-antigen SOS-like intervention (except BCG) was implemented in high and intermediate risk districts. See comment for 2009 estimates. Estimate of 64 percent changed from previous revision value of 70 percent. Estimate challenged by: D-R-
- 2012: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 67 percent based on 1 survey(s). Afghanistan National EPI Coverage Survey, 2013 card or history results of 60 percent modified for recall bias to 67 percent based on 1st dose card or history coverage of 78 percent, 1st dose card only coverage of 63 percent and 3d dose card only coverage of 54 percent. Unexplained inconsistency in adjustments to administrative coverage levels. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery as reflected by the trend in reported number of doses administered. See comment for 2009 estimates. Estimate

# Afghanistan - Hib3

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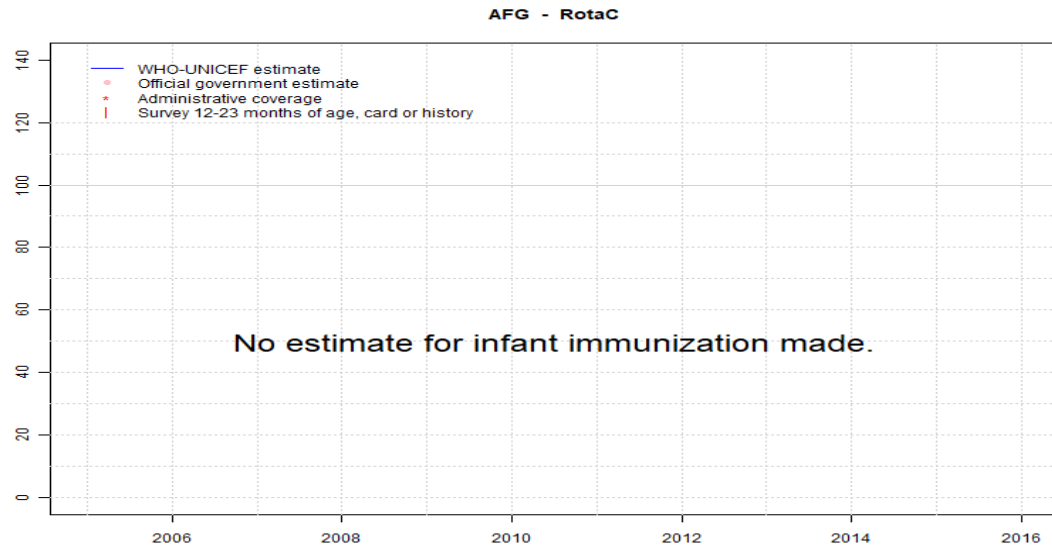
challenged by: D-R-

2011: Estimate of 68 percent assigned by working group. Following the trend in administrative levels from 2010. Apparent increase in official reported data between 2010 to 2011 is unexplained as is the inconsistency in adjustments to administrative coverage levels. See comment for 2009 estimates. Estimate challenged by: D-R-

2010: . Data quality self-assessment conducted in 22 provinces found instances of over reporting and errors in recording and reporting. See comment for 2009 estimates. Estimate challenged by: D-

2009: Estimate based on reported data. Data quality self-assessment conducted in 12 provinces found instances of over reporting and errors in recording and reporting. Hib vaccine introduced in 2009 Vaccine presentation is DTP-HepB-Hib. Trend in official government estimate follows trend in administrative data. There is substantial uncertainty in the provisional estimate due to uncertainty in denominator (last census in 1979) and difficulties in recording and reporting the number of vaccinations delivered by some service providers. Estimate challenged by: D-

# Afghanistan - RotaC



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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

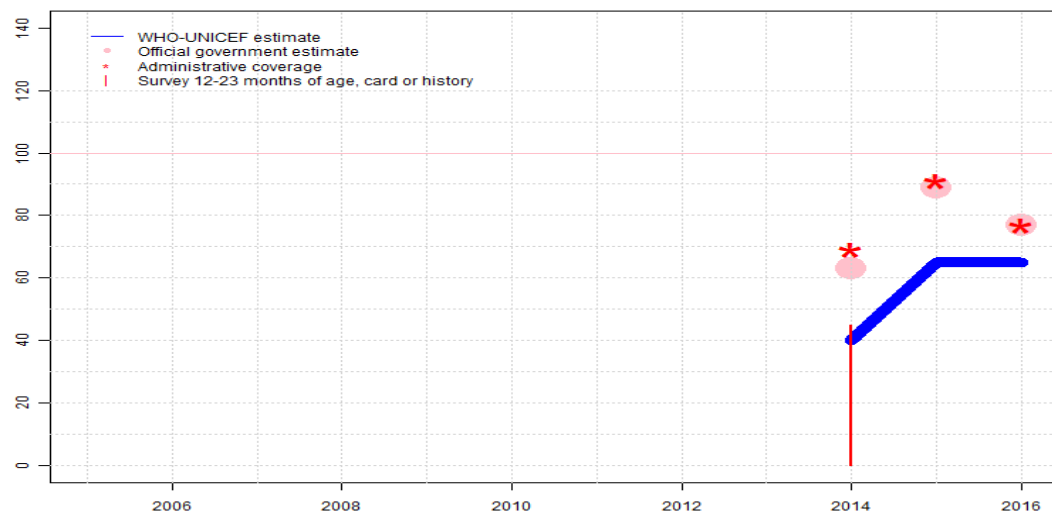
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability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

# Afghanistan - PcV3

AFG - PcV3



## Description:

- 2016: Estimate of 65 percent assigned by working group. Estimate based on DTP3 coverage. It may result in an overestimation. Reported data excluded due to decline in reported coverage from 89 level to 77 percent. Programme reports declines in number of children vaccinated and in target population size for 2016 compared to prior years following data quality focused corrective activities. Programme expresses concerns about adverse implications for performance based financing because of perceived declines resulting from data related changes. Consistent with SAGE recommendations from November 2011 published in the WER January 2012, WHO and UNICEF caution against use of these estimates as the basis for performance based financing decisions. Estimate challenged by: D-R-S-
- 2015: Estimate of 65 percent assigned by working group. Estimate based on DTP3 coverage. It may result in an overestimation. Reported data excluded due to an unexplained increase from 63 percent to 89 percent with decrease 77 percent. Estimate of 65 percent changed from previous revision value of 66 percent. Estimate challenged by: D-R-S-
- 2014: Estimate of 40 percent assigned by working group. Pneumococcal conjugate vaccine introduced during 2014. Estimate is based on calibrated DTP3 level. Afghanistan Demographic and Health Survey 2015 card or history results of 45 percent modified for recall bias to 49 percent based on 1st dose card or history coverage of 63 percent, 1st dose card only coverage of 48 percent and 3d dose card only coverage of 37 percent. Reported official government estimate is based on a recomputed target population by the Ministry of Public Health using a year-to-year growth rate of 2.7 percent. Estimate is based on trend in reported number of doses administered. Beginning around 2012, immunization became an important indicator for performance monitoring of the service providing NGOs and may be associated with gradual improvements in service delivery. Estimate challenged by: D-R-

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	40	65	65
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	63	89	77
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	69	91	77
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	45	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.

# Afghanistan - survey details

## 2014 Afghanistan Demographic and Health Survey 2015

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	73	12-23 m	5708	56
BCG	Card	54	12-23 m	3217	56
BCG	Card or History	74	12-23 m	5708	56
DTP1	C or H <12 months	71	12-23 m	5708	56
DTP1	Card	55	12-23 m	3217	56
DTP1	Card or History	73	12-23 m	5708	56
DTP3	C or H <12 months	55	12-23 m	5708	56
DTP3	Card	47	12-23 m	3217	56
DTP3	Card or History	58	12-23 m	5708	56
HepB1	C or H <12 months	71	12-23 m	5708	56
HepB1	Card	55	12-23 m	3217	56
HepB1	Card or History	73	12-23 m	5708	56
HepB3	C or H <12 months	55	12-23 m	5708	56
HepB3	Card	47	12-23 m	3217	56
HepB3	Card or History	58	12-23 m	5708	56
Hib1	C or H <12 months	71	12-23 m	5708	56
Hib1	Card	55	12-23 m	3217	56
Hib1	Card or History	73	12-23 m	5708	56
Hib3	C or H <12 months	55	12-23 m	5708	56
Hib3	Card	47	12-23 m	3217	56
Hib3	Card or History	58	12-23 m	5708	56
MCV1	C or H <12 months	51	12-23 m	5708	56
MCV1	Card	44	12-23 m	3217	56
MCV1	Card or History	60	12-23 m	5708	56
PCV1	C or H <12 months	61	12-23 m	5708	56
PCV1	Card	48	12-23 m	3217	56
PCV1	Card or History	63	12-23 m	5708	56
PCV3	C or H <12 months	42	12-23 m	5708	56
PCV3	Card	37	12-23 m	3217	56
PCV3	Card or History	45	12-23 m	5708	56
Pol1	C or H <12 months	85	12-23 m	5708	56
Pol1	Card	55	12-23 m	3217	56
Pol1	Card or History	85	12-23 m	5708	56
Pol3	C or H <12 months	63	12-23 m	5708	56
Pol3	Card	48	12-23 m	3217	56
Pol3	Card or History	65	12-23 m	5708	56

## 2013 Afghanistan Demographic and Health Survey 2015

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	64	24-35 m	6598	56
DTP1	C or H <12 months	61	24-35 m	6598	56
DTP3	C or H <12 months	44	24-35 m	6598	56
HepB1	C or H <12 months	61	24-35 m	6598	56
HepB3	C or H <12 months	44	24-35 m	6598	56
Hib1	C or H <12 months	61	24-35 m	6598	56
Hib3	C or H <12 months	44	24-35 m	6598	56
MCV1	C or H <12 months	45	24-35 m	6598	56
Pol1	C or H <12 months	77	24-35 m	6598	56
Pol3	C or H <12 months	56	24-35 m	6598	56

## 2012 Afghanistan National EPI Coverage Survey, 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	64	12-23 m	-	66
BCG	Card <12 months	62	12-23 m	6125	66
BCG	Card or History	78	12-23 m	6125	66
BCG	History	14	12-23 m	-	66
DTP1	Card	63	12-23 m	-	66
DTP1	Card <12 months	78	12-23 m	6125	66
DTP1	Card or History	78	12-23 m	6125	66
DTP1	History	14	12-23 m	-	66
DTP3	Card	54	12-23 m	-	66
DTP3	Card <12 months	51	12-23 m	6125	66
DTP3	Card or History	60	12-23 m	6125	66
DTP3	History	6	12-23 m	-	66
HepB1	Card	63	12-23 m	-	66
HepB1	Card <12 months	78	12-23 m	6125	66
HepB1	Card or History	78	12-23 m	6125	66
HepB1	History	14	12-23 m	-	66
HepB3	Card	54	12-23 m	-	66
HepB3	Card <12 months	51	12-23 m	6125	66
HepB3	Card or History	60	12-23 m	6125	66
HepB3	History	6	12-23 m	-	66
Hib1	Card	63	12-23 m	-	66



# Afghanistan - survey details

Hib1	Card <12 months	78	12-23 m	6125	66
Hib1	Card or History	78	12-23 m	6125	66
Hib1	History	14	12-23 m	-	66
Hib3	Card	54	12-23 m	-	66
Hib3	Card <12 months	51	12-23 m	6125	66
Hib3	Card or History	60	12-23 m	6125	66
Hib3	History	6	12-23 m	-	66
MCV1	Card	50	12-23 m	-	66
MCV1	Card <12 months	39	12-23 m	6125	66
MCV1	Card or History	59	12-23 m	6125	66
MCV1	History	9	12-23 m	-	66
Pol1	Card	63	12-23 m	-	66
Pol1	Card <12 months	61	12-23 m	6125	66
Pol1	Card or History	78	12-23 m	6125	66
Pol1	History	14	12-23 m	-	66
Pol3	Card	54	12-23 m	-	66
Pol3	Card <12 months	49	12-23 m	6125	66
Pol3	Card or History	64	12-23 m	6125	66
Pol3	History	10	12-23 m	-	66

## 2010 Afghanistan Multiple Indicator Cluster Survey 2010-2011

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	61	12-23 m	2497	31
BCG	Card	31	12-23 m	2497	31
BCG	Card or History	64	12-23 m	2497	31
BCG	History	33	12-23 m	2497	31
DTP1	C or H <12 months	53	12-23 m	2497	31
DTP1	Card	32	12-23 m	2497	31
DTP1	Card or History	58	12-23 m	2497	31
DTP1	History	26	12-23 m	2497	31
DTP3	C or H <12 months	35	12-23 m	2497	31
DTP3	Card	32	12-23 m	2497	31
DTP3	Card or History	40	12-23 m	2497	31
DTP3	History	9	12-23 m	2497	31
MCV1	C or H <12 months	44	12-23 m	2497	31
MCV1	Card	30	12-23 m	2497	31
MCV1	Card or History	56	12-23 m	2497	31
MCV1	History	26	12-23 m	2497	31

Pol1	C or H <12 months	66	12-23 m	2497	31
Pol1	Card	30	12-23 m	2497	31
Pol1	Card or History	71	12-23 m	2497	31
Pol1	History	41	12-23 m	2497	31
Pol3	C or H <12 months	42	12-23 m	2497	31
Pol3	Card	30	12-23 m	2497	31
Pol3	Card or History	48	12-23 m	2497	31
Pol3	History	18	12-23 m	2497	31

## 2007 National Risk and Vulnerability Assessment 2007/8: A profile of Afghanistan

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	74	12-23 m	4520	34
DTP1	Card or History	63	12-23 m	4520	34
DTP3	Card or History	43	12-23 m	4520	34
MCV1	Card or History	56	12-23 m	4520	34
Pol3	Card or History	71	12-23 m	4520	34

## 2005 Afghanistan Health Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	70	12-23 m	1665	17
DTP1	Card or History	60	12-23 m	1665	17
DTP3	Card or History	35	12-23 m	1665	17
MCV1	Card or History	63	12-23 m	1665	17
Pol3	Card or History	70	12-23 m	1665	17

## 2002 Moving Beyond 2 decades of war: Progress of Provinces

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
DTP3	NA	30	12-23 m	-	61
Pol3	NA	51	12-23 m	-	61

## 1999 Afghanistan Multiple Indicator Cluster Survey, 2000, East of Afghanistan

# Afghanistan - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen						
BCG	Card or History	78	12-23 m	223	-	BCG	History	30	12-23 m	1681	48
DTP1	Card or History	71	12-23 m	223	-	DTP1	Card	46	12-23 m	1681	48
DTP3	Card or History	45	12-23 m	223	-	DTP1	Card or History	76	12-23 m	1681	48
MCV1	Card or History	57	12-23 m	223	-	DTP1	History	29	12-23 m	1681	48
Pol1	Card or History	88	12-23 m	223	-	DTP3	Card	27	12-23 m	1681	48
Pol3	Card or History	58	12-23 m	223	-	DTP3	Card or History	47	12-23 m	1681	48
						DTP3	History	20	12-23 m	1681	48
						MCV1	Card	37	12-23 m	1681	48
						MCV1	Card or History	57	12-23 m	1681	48
						MCV1	History	20	12-23 m	1681	48
						Pol1	Card	46	12-23 m	1681	48
						Pol1	Card or History	76	12-23 m	1681	48
						Pol1	History	29	12-23 m	1681	48
						Pol3	Card	27	12-23 m	1681	48
						Pol3	Card or History	47	12-23 m	1681	48
						Pol3	History	20	12-23 m	1681	48

1998 EPI Coverage Situation in Women and Children of Afghanistan, Report of Post NID's, Routine Coverage and Acceleration Campaign Survey in Afghanistan (1999)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	40	12-23 m	1681	48
BCG	Card or History	70	12-23 m	1681	48

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)