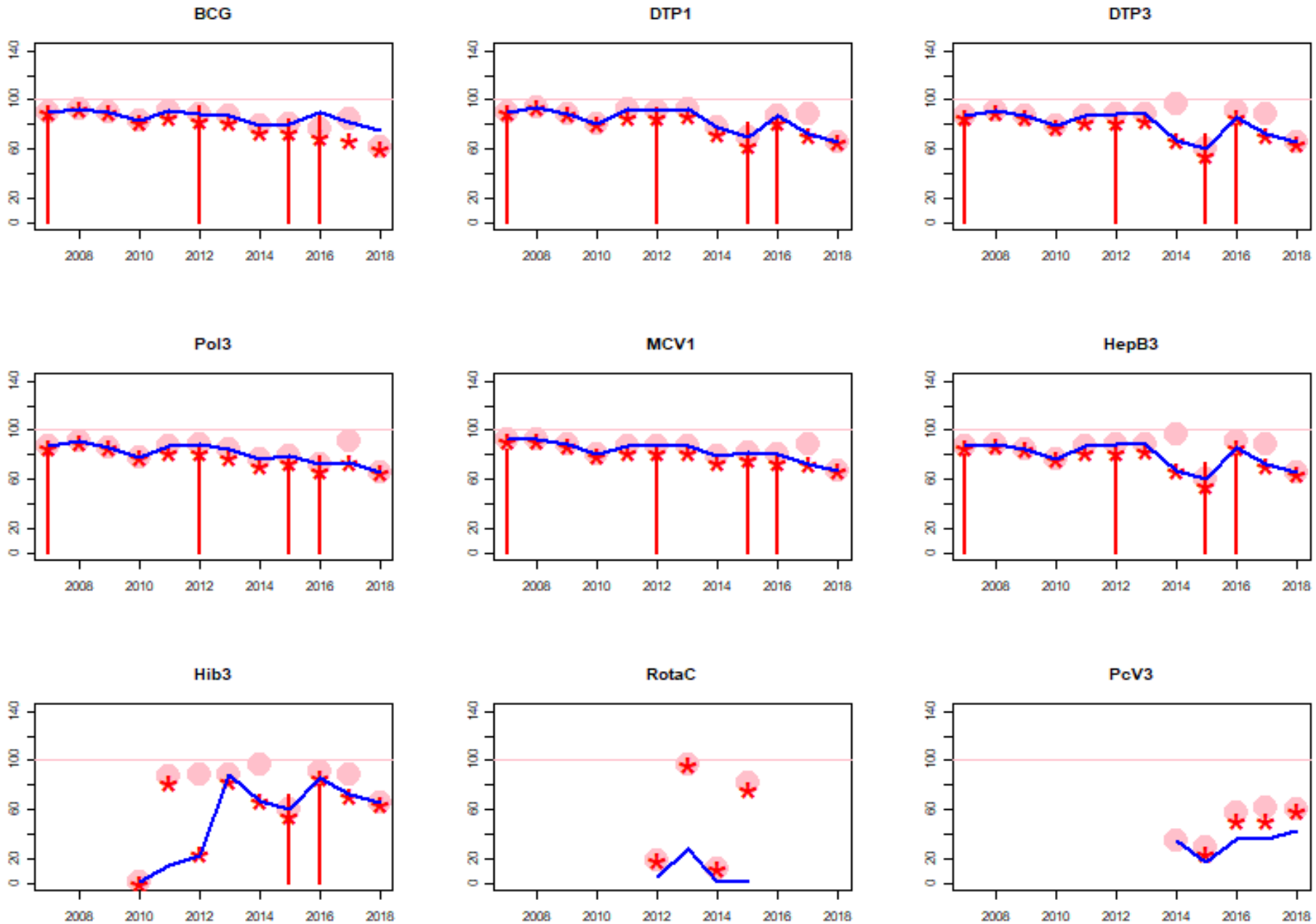


Philippines: WHO and UNICEF estimates of immunization coverage: 2018 revision



Philippines: WHO and UNICEF estimates of immunization coverage: 2018 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.

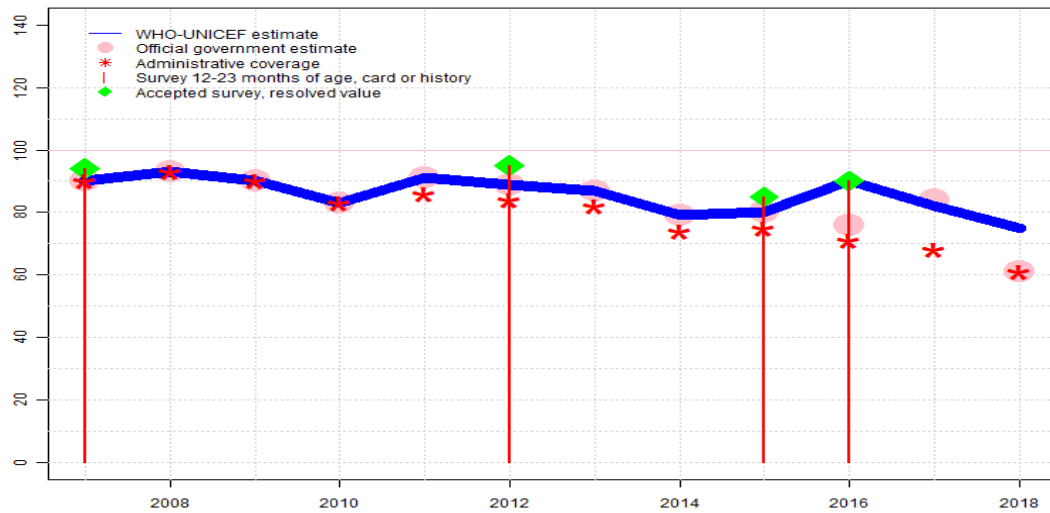
PcV3: percentage of surviving infants who received the 3rd dose of pneumococcal conjugate vaccine. In countries where the national schedule recommends two doses during infancy and a booster dose at 12 months or later based on the epidemiology of disease in the country, coverage estimates may reflect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

PHL - BCG



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	90	93	90	83	91	89	87	79	80	90	82	75
Estimate GoC	●●●	●●●	●●●	●	●●●	●●●	●●●	●	●●●	●	●	●
Official	90	93	90	83	91	89	87	79	80	76	84	61
Administrative	90	93	90	83	86	84	82	74	75	71	68	61
Survey	94	NA	NA	NA	NA	95	NA	NA	85	90	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: 2017 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.

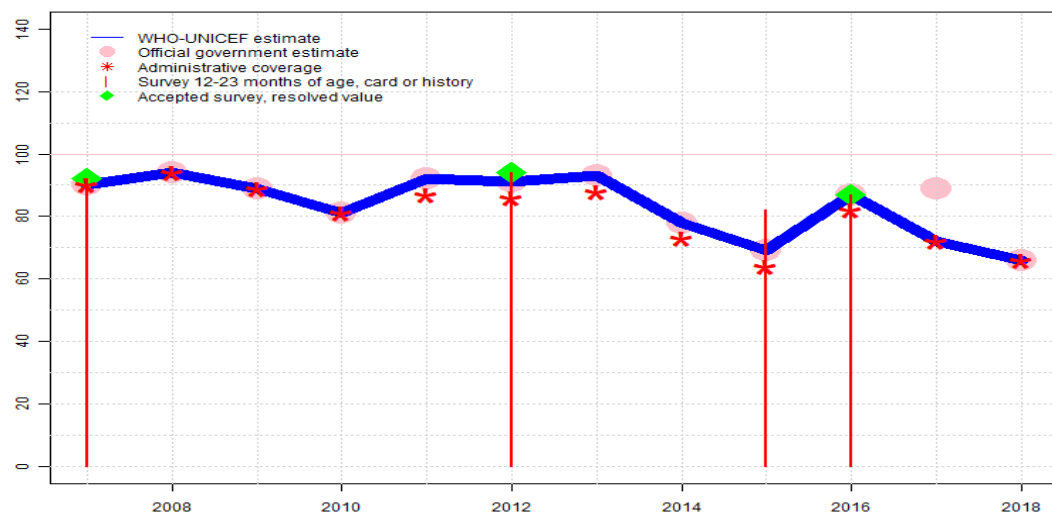
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2018: Reported data calibrated to 2016 levels. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. Programme reports one month vaccine stock-out at national level. Estimate challenged by: R-S-
- 2017: Reported data calibrated to 2016 levels. Programme reports one month vaccine stock-out at national level. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 82 percent changed from previous revision value of 84 percent. Estimate challenged by: R-
- 2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 90 percent based on 1 survey(s). Estimate of 90 percent changed from previous revision value of 76 percent. Estimate challenged by: R-
- 2015: Estimate based on coverage reported by national government supported by survey. Survey evidence of 85 percent based on 1 survey(s). Reported administrative coverage is lower than expected given delayed reporting from 18 regions. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. Programme reports a four month stock-out of BCG vaccine. Estimate challenged by: S-
- 2013: Estimate based on coverage reported by national government. Programme reports two month vaccine stock-out at national level. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 95 percent based on 1 survey(s). GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). GoC=R+ S+ D+

Philippines - DTP1

PHL - DTP1



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	90	94	89	81	92	91	93	78	69	87	72	66
Estimate GoC	●●●	●●●	●●●	●	●●●	●●●	●●●	●	●	●	●	●
Official	90	94	89	81	92	91	93	78	69	87	89	66
Administrative	90	94	89	81	87	86	88	73	64	82	72	66
Survey	92	NA	NA	NA	NA	94	NA	NA	82	87	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: 2017 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.

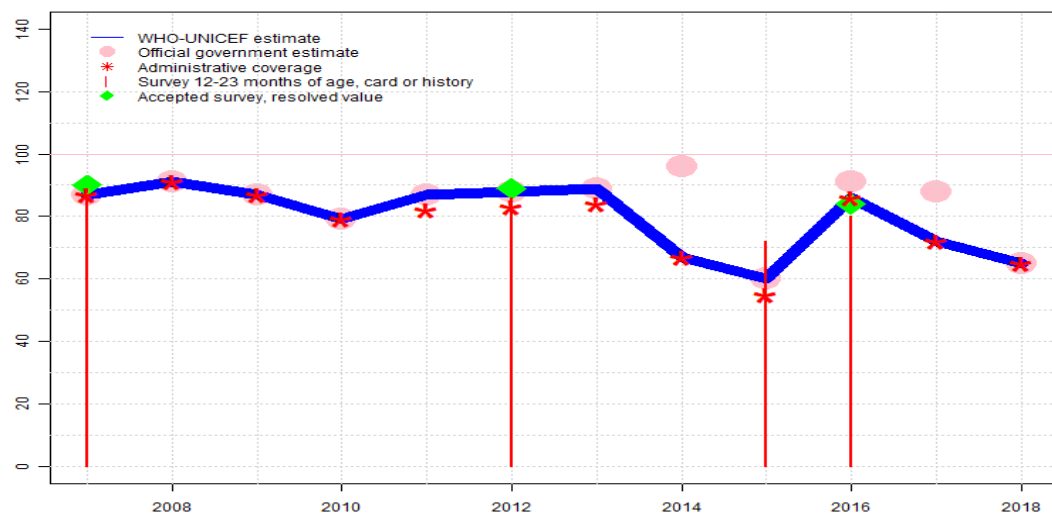
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2018: Estimate based on coverage reported by national government. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. Estimate challenged by: D-S-
- 2017: Estimate based on reported administrative data. Programme reports one month vaccine stock-out at national level. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 72 percent changed from previous revision value of 89 percent. Estimate challenged by: D-S-
- 2016: Estimate based on coverage reported by national government supported by survey. Survey evidence of 87 percent based on 1 survey(s). Programme seems to have recovered from 2015 vaccine stock-out. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Philippines National Demographic and Health Survey 2017 results ignored by working group. Survey results do not appear consistent with immunization service delivery disruptions that occurred during 2015. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. Programme reports a six to nine month vaccine stock-out. Estimate challenged by: S-
- 2014: Estimate based on coverage reported by national government. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. Programme reports four month vaccine stock-out for DTP containing vaccine. Estimate challenged by: S-
- 2013: Estimate based on coverage reported by national government. One month national stock-out reported. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 94 percent based on 1 survey(s). GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. Estimate challenged by: S-
- 2009: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 92 percent based on 1 survey(s). GoC=R+ S+ D+

Philippines - DTP3

PHL - DTP3



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	87	91	87	79	87	88	89	67	60	86	72	65
Estimate GoC	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●	●	●	●	●
Official	87	91	87	79	87	88	89	96	60	91	88	65
Administrative	87	91	87	79	82	83	84	67	55	86	72	65
Survey	86	NA	NA	NA	NA	86	NA	NA	72	80	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: 2017 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:

2018: Estimate based on coverage reported by national government. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. See comment in 2016 for a note on drop-out. Estimate challenged by: D-S-

2017: Estimate based on reported administrative data. Programme reports one month vaccine stock-out at national level. See comment in 2016 for a note on drop-out. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 72 percent changed from previous revision value of 88 percent. Estimate challenged by: D-S-

2016: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Philippines National Demographic and Health Survey 2017 card or history results of 80 percent modified for recall bias to 84 percent based on 1st dose card or history coverage of 87 percent, 1st dose card only coverage of 62 percent and 3rd dose card only coverage of 60 percent. Programme seems to have recovered from 2015 vaccine stock-out. Survey evidence for the 2016 birth cohort suggests 5 percent relative drop-out among children with documented evidence. Appearance of zero drop-out between estimated DTP1 and DTP3 is the result of survey support of reported administrative coverage, for which there is no reported drop-out. Official estimate excluded as increase after recovering from vaccine shortages goes above any coverage reported previously. DTP-Hib-HepB3 reported coverage higher than reported coverage for DTP-Hib-HepB1. Estimate challenged by: D-

2015: Estimate based on coverage reported by national government. Philippines National Demographic and Health Survey 2017 results ignored by working group. Survey results do not appear consistent with immunization service delivery disruptions that occurred during 2015. Philippines National Demographic and Health Survey 2017 card or history results of 72 percent modified for recall bias to 74 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 51 percent and 3rd dose card only coverage of 46 percent. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. Programme reports a six to nine month vaccine stock-out. Estimate challenged by: S-

2014: Estimate based on reported administrative data. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. Programme reports four month vaccine stock-out. Official estimate is inconsistent with reported admin data. Estimate challenged by: D-S-

2013: Estimate based on coverage reported by national government. One month national stock-

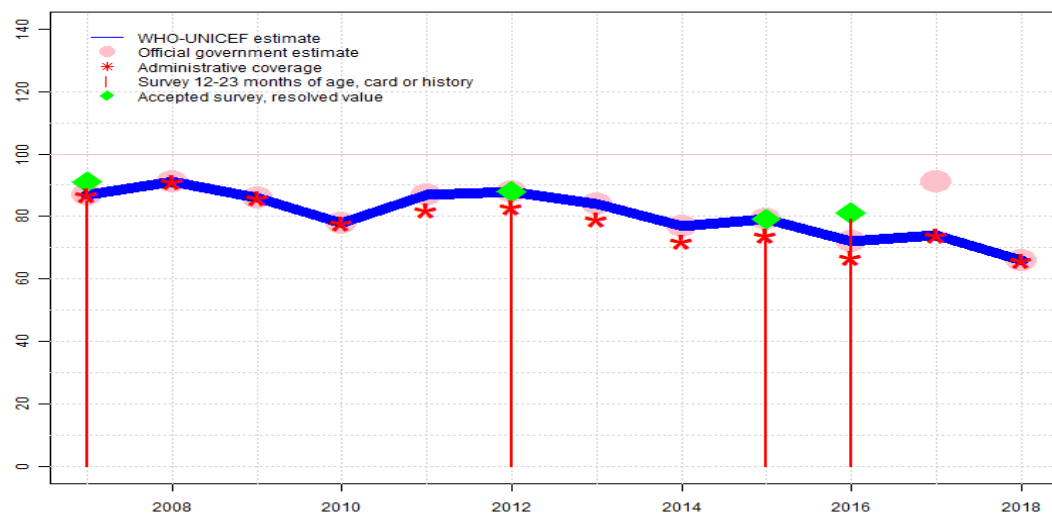
Philippines - DTP3

out reported. GoC=R+ S+ D+

- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 89 percent based on 1 survey(s). Philippines National Demographic and Health Survey, 2013 card or history results of 86 percent modified for recall bias to 89 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 57 percent and 3rd dose card only coverage of 54 percent. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 90 percent based on 1 survey(s). Philippines National Demographic and Health Survey (NDHS) 2008 card or history results of 86 percent modified for recall bias to 90 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 42 percent and 3rd dose card only coverage of 41 percent. GoC=R+ S+ D+

Philippines - Pol3

PHL - Pol3



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	87	91	86	78	87	88	84	77	79	72	74	66
Estimate GoC	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●	●●●	●●●	●	●
Official	87	91	86	78	87	88	84	77	79	72	91	66
Administrative	87	91	86	78	82	83	79	72	74	67	74	66
Survey	85	NA	NA	NA	NA	85	NA	NA	76	79	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: 2017 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:

- 2018: Estimate based on coverage reported by national government. Programme reports two month vaccine stock-out at national level. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. Estimate challenged by: D-S-
- 2017: Estimate based on reported administrative data. Programme reports four month vaccine stock-out at national level. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 74 percent changed from previous revision value of 91 percent. Estimate challenged by: D-
- 2016: Estimate based on coverage reported by national government supported by survey. Survey evidence of 81 percent based on 1 survey(s). Philippines National Demographic and Health Survey 2017 card or history results of 79 percent modified for recall bias to 81 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 62 percent and 3rd dose card only coverage of 57 percent. Programme reports four month vaccine stock-out at national level. GoC=R+ S+ D+
- 2015: Estimate based on coverage reported by national government supported by survey. Survey evidence of 79 percent based on 1 survey(s). Philippines National Demographic and Health Survey 2017 card or history results of 76 percent modified for recall bias to 79 percent based on 1st dose card or history coverage of 84 percent, 1st dose card only coverage of 51 percent and 3rd dose card only coverage of 48 percent. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. Estimate challenged by: S-
- 2013: Estimate based on coverage reported by national government. One month national stock-out reported. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 88 percent based on 1 survey(s). Philippines National Demographic and Health Survey, 2013 card or history results of 85 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 56 percent and 3rd dose card only coverage of 53 percent. GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ S+ D+

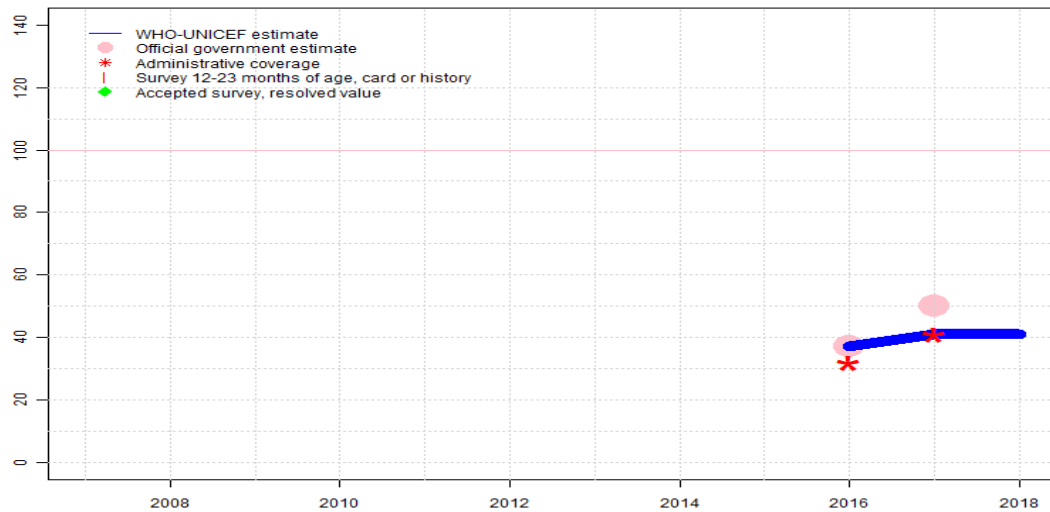
Philippines - Pol3

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

2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 91 percent based on 1 survey(s). Philippines National Demographic and Health Survey (NDHS) 2008 card or history results of 85 percent modified for recall bias to 91 percent based on 1st dose card or history coverage of 93 percent, 1st dose card only coverage of 42 percent and 3rd dose card only coverage of 41 percent. GoC=R+ S+ D+

Philippines - IPV1

PHL - IPV1



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	37	41	41
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	••	••	•
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	37	50	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	32	41	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: 2017 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:

Estimates for a dose of inactivated polio vaccine (IPV) begin in 2015 following the Global Polio Eradication Initiative's Polio Eradication and Endgame Strategic Plan: 2013-2018 which recommended at least one full dose or two fractional doses of IPV into routine immunization schedules as a strategy to mitigate the potential consequences should any re-emergence of type 2 poliovirus occur following the planned withdrawal of Sabin type 2 strains from oral polio vaccine (OPV).

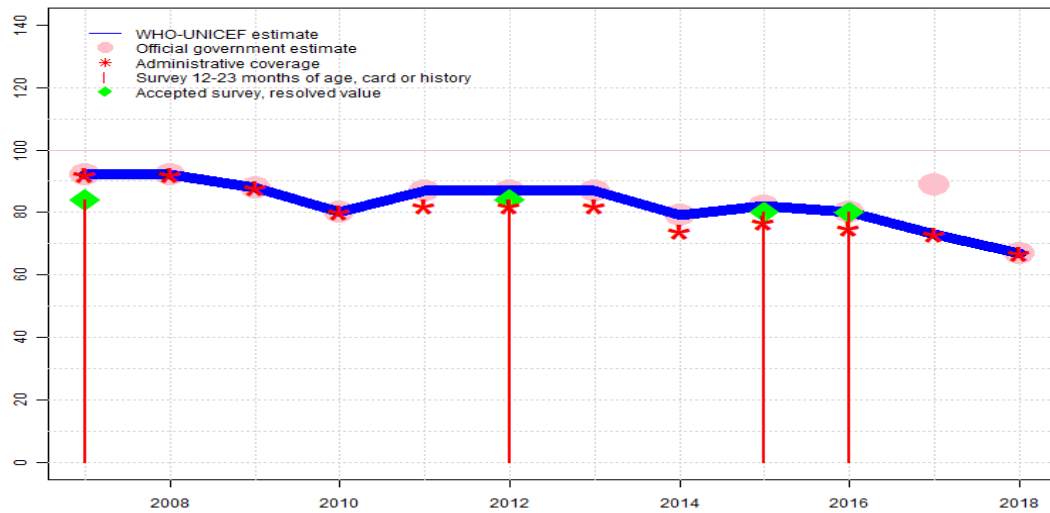
2018: Estimate based on extrapolation from data reported by national government. Programme reports two month vaccine stock-out at national level. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. GoC=No accepted empirical data

2017: Estimate based on reported administrative estimate. Programme reports three month vaccine stock-out at national level. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 41 percent changed from previous revision value of 50 percent. GoC=R+ D+

2016: Estimate based on coverage reported by national government. Programme reports six month vaccine stock-out at national level. GoC=R+ D+

Philippines - MCV1

PHL - MCV1



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	92	92	88	80	87	87	87	79	82	80	73	67
Estimate GoC	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●	●
Official	92	92	88	80	87	87	87	79	82	80	89	67
Administrative	92	92	88	80	82	82	82	74	77	75	73	67
Survey	84	NA	NA	NA	NA	84	NA	NA	80	80	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: 2017 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.

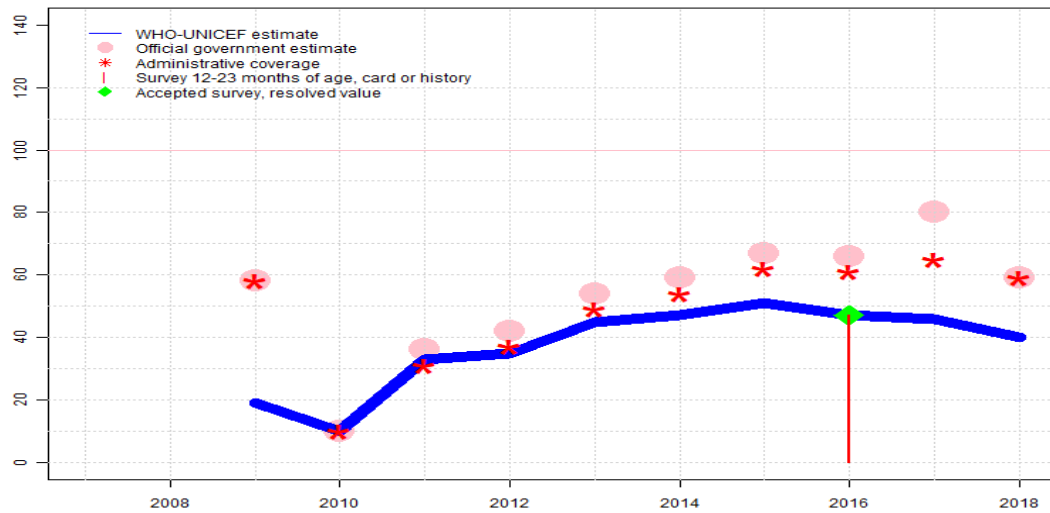
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2018: Estimate based on coverage reported by national government. Programme reports three vaccine month stock-out at national level. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. Estimate challenged by: D-S-
- 2017: Estimate based on reported administrative data. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 73 percent changed from previous revision value of 89 percent. Estimate challenged by: D-
- 2016: Estimate based on coverage reported by national government supported by survey. Survey evidence of 80 percent based on 1 survey(s). GoC=R+ S+ D+
- 2015: Estimate based on coverage reported by national government supported by survey. Survey evidence of 80 percent based on 1 survey(s). Programme reports a one month stock-out at the national level. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. GoC=R+ S+ D+
- 2014: Estimate based on coverage reported by national government. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. GoC=R+ S+ D+
- 2013: Estimate based on coverage reported by national government. Two months national stock-out reported. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). GoC=R+ S+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ S+ D+
- 2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). GoC=R+ S+ D+

Philippines - MCV2

PHL - MCV2



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	NA	NA	19	10	33	35	45	47	51	47	46	40
Estimate GoC	NA	NA	•	••	•	•	•	•	•	•	•	•
Official	NA	NA	58	10	36	42	54	59	67	66	80	59
Administrative	NA	NA	58	10	31	37	49	54	62	61	65	59
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	47	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: 2017 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.

2018: Reported data calibrated to 2016 levels. Programme reports three month vaccine stock-out at national level. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. Estimate challenged by: D-R-

2017: Reported data calibrated to 2016 levels. . Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 46 percent changed from previous revision value of 80 percent. Estimate challenged by: D-R-

2016: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 47 percent based on 1 survey(s). Estimate of 47 percent changed from previous revision value of 66 percent. Estimate challenged by: D-R-

2015: Reported data calibrated to 2010 and 2016 levels. Programme reports a one month stock-out at the national level. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. Estimate of 51 percent changed from previous revision value of 67 percent. Estimate challenged by: D-R-

2014: Reported data calibrated to 2010 and 2016 levels. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. Increasing coverage related to the continued expansion of a second dose of measles containing vaccine. Estimate of 47 percent changed from previous revision value of 59 percent. Estimate challenged by: D-R-

2013: Reported data calibrated to 2010 and 2016 levels. Two months national stock-out reported. Increasing coverage related to the expansion of a second dose of measles containing vaccine. Estimate of 45 percent changed from previous revision value of 54 percent. Estimate challenged by: D-R-

2012: Reported data calibrated to 2010 and 2016 levels. Estimate of 35 percent changed from previous revision value of 42 percent. Estimate challenged by: R-

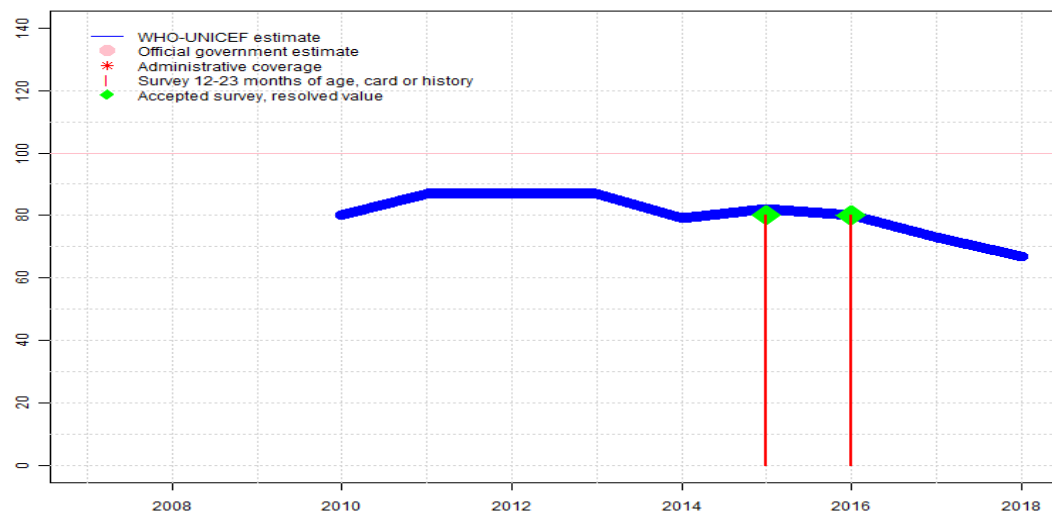
2011: Reported data calibrated to 2010 and 2016 levels. Estimate of 33 percent changed from previous revision value of 36 percent. Estimate challenged by: R-

2010: Estimate based on reported data. . GoC=R+ D+

2009: Fifty-eight percent coverage achieved in 32 percent of national target population. Estimate challenged by: R-

Philippines - RCV1

PHL - RCV1



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	NA	NA	NA	80	87	87	87	79	82	80	73	67
Estimate GoC	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	80	80	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: 2017 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

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

Description:

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

2018: Estimate based on estimated MCV1. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. Estimate challenged by: D-S-

2017: Estimate based on estimated MCV1. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 73 percent changed from previous revision value of 89 percent. Estimate challenged by: D-

2016: Estimate based on estimated MCV1. GoC=R+ S+ D+

2015: Estimate based on estimated MCV1. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. GoC=R+ S+ D+

2014: Estimate based on estimated MCV1. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. GoC=R+ S+ D+

2013: Estimate based on estimated MCV1. GoC=R+ S+ D+

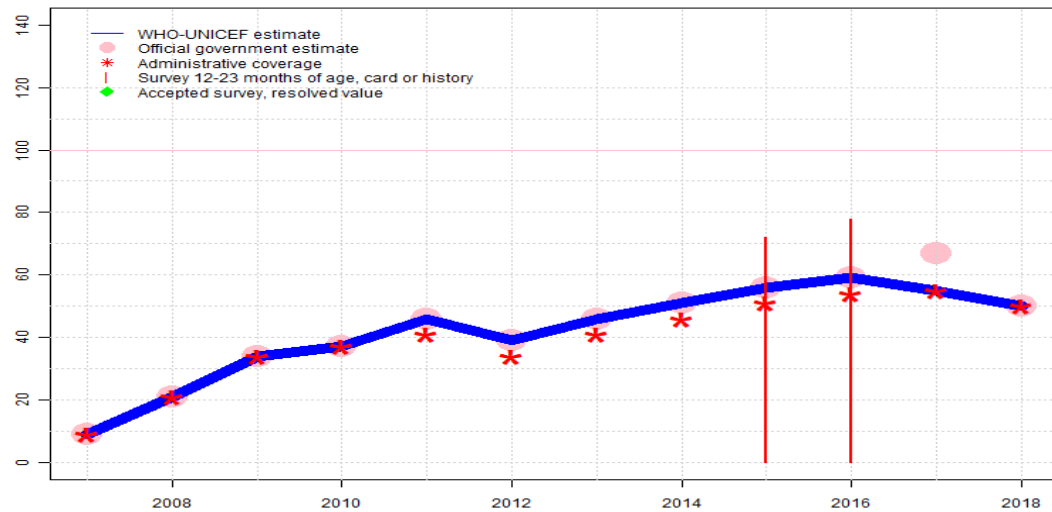
2012: Estimate based on estimated MCV1. GoC=R+ S+ D+

2011: Estimate based on estimated MCV1. GoC=R+ S+ D+

2010: Estimate based on estimated MCV1. GoC=R+ S+ D+

Philippines - HepBB

PHL - HepBB



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	9	21	34	37	46	39	46	51	56	59	55	50
Estimate GoC	••	••	••	••	••	••	••	••	••	••	••	••
Official	9	21	34	37	46	39	46	51	56	59	67	50
Administrative	9	21	34	37	41	34	41	46	51	54	55	50
Survey	NA	NA	NA	NA	NA	NA	NA	NA	72	78	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: 2017 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.

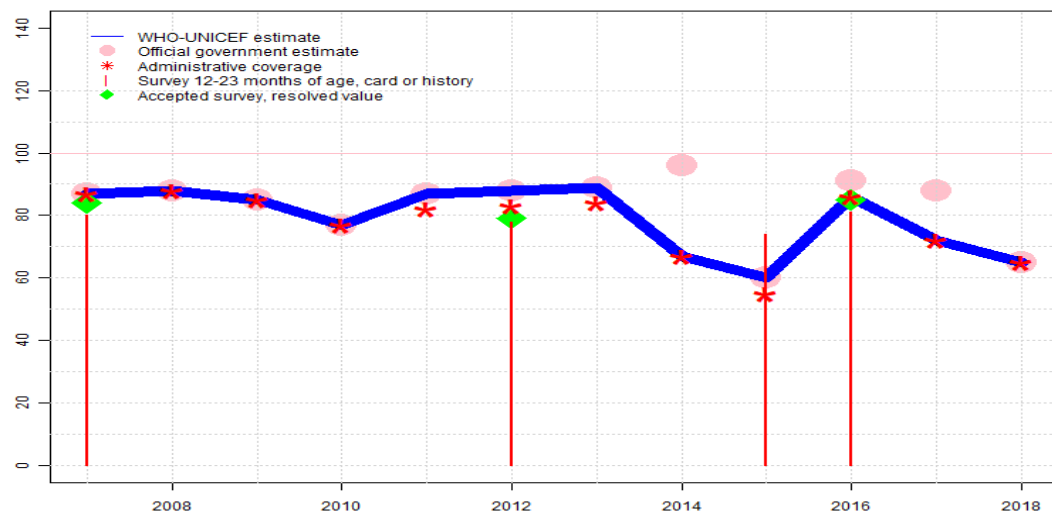
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

Description:

- 2018: Estimate based on coverage reported by national government. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. Programme reports six month vaccine stock-out at national level. GoC=R+ D+
- 2017: Estimate based on reported administrative estimate. Programme reports three month vaccine stock-out at national level. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 55 percent changed from previous revision value of 67 percent. GoC=R+ D+
- 2016: Estimate based on coverage reported by national government. Philippines National Demographic and Health Survey 2017 results ignored by working group. Survey results are unable to differentiate doses received within 24 hours from those received after. GoC=R+ D+
- 2015: Estimate based on coverage reported by national government. Philippines National Demographic and Health Survey 2017 results ignored by working group. Survey results are unable to differentiate doses received within 24 hours from those received after. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. GoC=R+ D+
- 2014: Estimate based on coverage reported by national government. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. GoC=R+ D+
- 2013: Estimate based on coverage reported by national government. Four months stock-out at national level and in 28 districts reported. GoC=R+ D+
- 2012: Estimate based on coverage reported by national government. GoC=R+ D+
- 2011: Estimate based on coverage reported by national government. GoC=R+ D+
- 2010: Estimate based on coverage reported by national government. GoC=R+ D+
- 2009: Estimate based on coverage reported by national government. GoC=R+ D+
- 2008: Estimate based on coverage reported by national government. GoC=R+ D+
- 2007: Estimate based on coverage reported by national government. GoC=R+ D+

Philippines - HepB3

PHL - HepB3



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	87	88	85	77	87	88	89	67	60	86	72	65
Estimate GoC	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●	●	●	●	●
Official	87	88	85	77	87	88	89	96	60	91	88	65
Administrative	87	88	85	77	82	83	84	67	55	86	72	65
Survey	80	NA	NA	NA	NA	78	NA	NA	74	81	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: 2017 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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- 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:

- 2018: Estimate based on coverage reported by national government. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. Estimate challenged by: D-S-
- 2017: Estimate based on reported administrative data. Programme reports one month vaccine stock-out at national level. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 72 percent changed from previous revision value of 88 percent. Estimate challenged by: D-S-
- 2016: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 85 percent based on 1 survey(s). Philippines National Demographic and Health Survey 2017 card or history results of 81 percent modified for recall bias to 85 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 62 percent and 3rd dose card only coverage of 60 percent. Programme seems to have recovered from 2015 vaccine stock-out. Official estimate excluded as increase after recovering from vaccine shortages goes above any coverage reported previously. DTP-Hib-HepB3 reported coverage higher than reported coverage for DTP-Hib-HepB1. Estimate challenged by: D-
- 2015: Estimate based on coverage reported by national government. Philippines National Demographic and Health Survey 2017 results ignored by working group. Survey results do not appear consistent with immunization service delivery disruptions that occurred during 2015. Philippines National Demographic and Health Survey 2017 card or history results of 74 percent modified for recall bias to 75 percent based on 1st dose card or history coverage of 83 percent, 1st dose card only coverage of 51 percent and 3rd dose card only coverage of 46 percent. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. Programme reports a six to nine month stock-out. Estimate challenged by: S-
- 2014: Estimate based on reported administrative data. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. Programme reports four month vaccine stock-out. Programme reports four month vaccine stock-out. Official estimate is inconsistent with reported admin data. Estimate challenged by: D-S-
- 2013: Estimate based on coverage reported by national government. One month national stock-out reported. Consistency with DTP containing vaccine. GoC=R+ S+ D+
- 2012: Estimate based on coverage reported by national government supported by survey. Survey evidence of 79 percent based on 1 survey(s). Philippines National Demographic and

Philippines - HepB3

Health Survey, 2013 card or history results of 78 percent modified for recall bias to 79 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 55 percent and 3rd dose card only coverage of 47 percent. GoC=R+ S+ D+

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

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

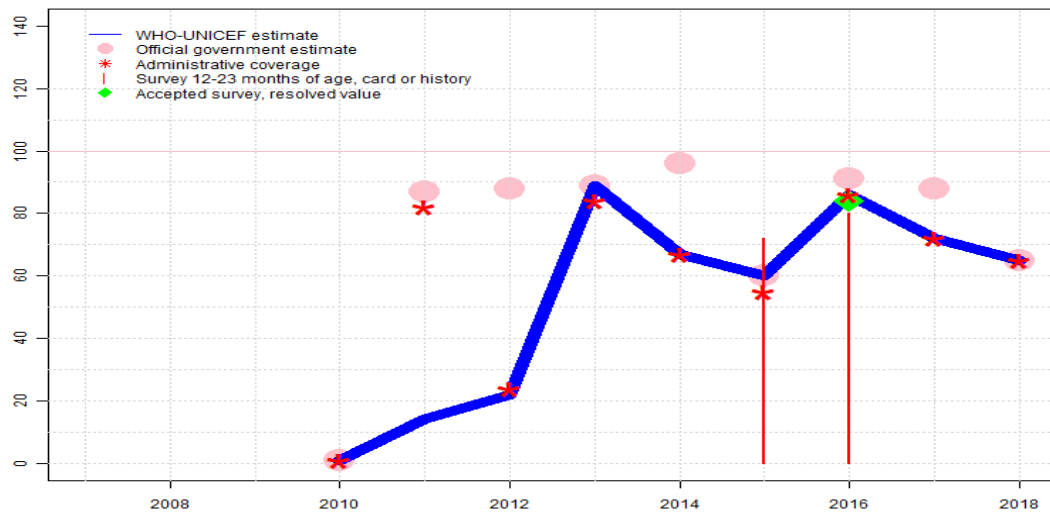
2009: Estimate based on coverage reported by national government. GoC=R+ S+ D+

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

2007: Estimate based on coverage reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Philippines National Demographic and Health Survey (NDHS) 2008 card or history results of 80 percent modified for recall bias to 84 percent based on 1st dose card or history coverage of 88 percent, 1st dose card only coverage of 42 percent and 3rd dose card only coverage of 40 percent. GoC=R+ S+ D+

Philippines - Hib3

PHL - Hib3



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	NA	NA	NA	1	14	22	89	67	60	86	72	65
Estimate GoC	NA	NA	NA	••	•	•	••	•	•	•	•	•
Official	NA	NA	NA	1	87	88	89	96	60	91	88	65
Administrative	NA	NA	NA	1	82	24	84	67	55	86	72	65
Survey	NA	NA	NA	NA	NA	NA	NA	NA	72	80	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: 2017 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:

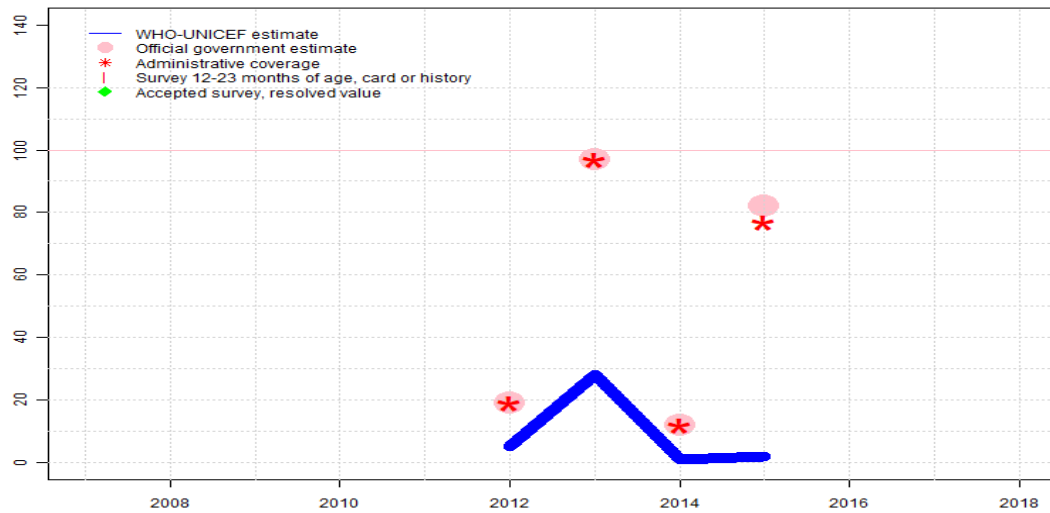
- 2018: Estimate based on coverage reported by national government. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. Estimate challenged by: D-S-
- 2017: Estimate based on reported administrative data. Programme reports one month vaccine stock-out at national level. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 72 percent changed from previous revision value of 88 percent. Estimate challenged by: D-S-
- 2016: Estimate based on administrative data reported by national government supported by survey. Survey evidence of 84 percent based on 1 survey(s). Philippines National Demographic and Health Survey 2017 card or history results of 80 percent modified for recall bias to 84 percent based on 1st dose card or history coverage of 87 percent, 1st dose card only coverage of 62 percent and 3rd dose card only coverage of 60 percent. Preliminary results from the 2017 Demographic and Health Survey (DHS) report 80 percent coverage. Programme seems to have recovered from 2015 vaccine stock-out. Official estimate excluded as increase after recovering from vaccine shortages goes above any coverage reported previously. DTP-Hib-HepB3 reported coverage higher than reported coverage for DTP-Hib-HepB1. Estimate challenged by: D-
- 2015: Estimate based on reported data. Philippines National Demographic and Health Survey 2017 results ignored by working group. Survey results do not appear consistent with immunization service delivery disruptions that occurred during 2015. Philippines National Demographic and Health Survey 2017 card or history results of 72 percent modified for recall bias to 74 percent based on 1st dose card or history coverage of 82 percent, 1st dose card only coverage of 51 percent and 3rd dose card only coverage of 46 percent. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. Programme reports a six to nine month vaccine stock-out. Estimate challenged by: S-
- 2014: Estimate based on reported data. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. Programme reports four month vaccine stock-out. Programme reports four month vaccine stock-out for DTP containing vaccine. Official estimate is inconsistent with reported admin data. Estimate challenged by: D-S-
- 2013: Estimate based on reported data. One month national stock-out reported. Consistency with DTP containing vaccine. GoC=R+ D+
- 2012: Coverage of 82 percent is for 14 percent of the national target population. Estimate is coverage among the national birth cohort. Estimate challenged by: R-

Philippines - Hib3

- 2011: Coverage of 82 percent is for 14 percent of the national target population. Estimate is coverage among the national birth cohort. Estimate challenged by: R-
- 2010: Estimate based on reported data. Hib vaccine introduced subnationally in 2010 as a DTP-HepB-Hib combination vaccine. GoC=R+ D+

Philippines - RotaC

PHL - RotaC



Description:

2015: Programme reports eighty-two percent coverage achieved in three percent of the national birth cohort. Estimate based on coverage for the entire birth cohort. Programme reports a six month vaccine stock-out at the national level. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. Rotavirus introduction was part of a pilot project during 2012 and 2015 and subsequently discontinued. Estimate challenged by: R-

2014: Twelve percent coverage achieved in eight percent of the target population. Estimate is based on coverage among the annualized national birth cohort. Reported data excluded due to decline in reported coverage from 97 percent to 12 percent with increase to 82 percent. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. During 2014, the programme noted in 2013 was curtailed and rotavirus vaccine was provided to children in Caraga and ARMM regions only. Low coverage levels are also due to incomplete reporting from these areas. Estimate challenged by: R-

2013: Ninety-seven percent coverage achieved in 30 percent of annualized national birth cohort. Reported data excluded due to an increase from 19 percent to 97 percent with decrease 12 percent. The increased number of children reached with rotavirus vaccine during 2013 may be explained by a programme (implemented in priority provinces in all 17 regions) to provide rotavirus vaccine to poor families listed under the National Household Targeting System of the Department of Social Welfare Development as part of a service package along with a monthly conditional cash incentive. Estimate challenged by: R-

2012: Nineteen percent coverage achieved in 29 percent of the national target population. Rotavirus vaccine was introduced in 2012. Estimate challenged by: R-

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	NA	NA	NA	NA	NA	5	28	1	2	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	•	•	•	•	NA	NA	NA
Official	NA	NA	NA	NA	NA	19	97	12	82	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	19	97	12	77	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

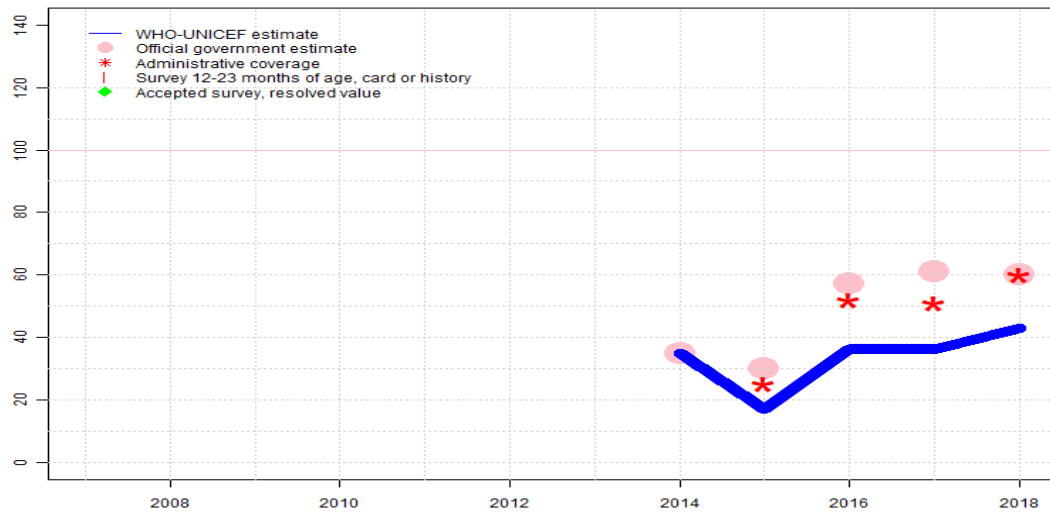
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability 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: 2017 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.

Philippines - PcV3

PHL - PcV3



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Estimate	NA	NA	NA	NA	NA	NA	NA	35	17	36	36	43
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	••	•	•	•	•
Official	NA	NA	NA	NA	NA	NA	NA	35	30	57	61	60
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	25	52	51	60
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2017 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:

- 2018: Programme reports 60 percent coverage achieved in 71 percent of national target population in 14 provinces. Estimate reflects annualized coverage in the national target population. Programme reports three month vaccine stock-out at national level. Declines in reported coverage during 2017 and 2018 may reflect public perceptions of doubt related to vaccination following the dengue vaccine issue as well as challenges with service delivery including access issues in hard-to-reach areas. Estimate challenged by: R-
- 2017: Programme reports 51 percent coverage achieved in 71 percent of national target population in 14 provinces. Estimate reflects annualized coverage in the national target population. Programme reports four month vaccine stock-out at national level. Country reports that official estimates apply a five percent increase to account for the private sector and underreporting. Additionally, the source of target population changed from census projections to aggregated provincial population data. Nevertheless, reported data for 2018 remains more consistent with administrative data for 2017. Estimate of 36 percent changed from previous revision value of 61 percent. Estimate challenged by: R-
- 2016: Programme reports 52 percent coverage achieved in 69 percent of the target population. Estimate is based on annualized coverage achieved in national target population. Programme reports one month vaccine stock-out at national level. Estimate challenged by: R-
- 2015: Programme reports 25 percent coverage achieved in 70 percent of the national birth cohort. Estimate reflects coverage achieved in the annualized national target population. Reported administrative coverage is lower than expected given delayed reporting from 18 regions. Estimate challenged by: R-
- 2014: Estimate based on coverage reported by national government. Ten percent of the eligible population are served by the private sector and not included in the routine coverage monitoring system. Official government estimate includes children reached through the private sector and assumes that those estimated to be served by the private sector are all appropriately vaccinated. Whether the private sector contribution to official coverage has been included in prior years remains unclear. GoC=R+

Philippines - survey details

2016 Philippines National Demographic and Health Survey 2017

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	89.6	12-23 m	1933	64
BCG	Card	63.3	12-23 m	1235	64
BCG	Card or History	90	12-23 m	1933	64
BCG	History	26.7	12-23 m	699	64
DTP1	C or H <12 months	86.4	12-23 m	1933	64
DTP1	Card	62.3	12-23 m	1235	64
DTP1	Card or History	86.6	12-23 m	1933	64
DTP1	History	24.3	12-23 m	699	64
DTP3	C or H <12 months	78.5	12-23 m	1933	64
DTP3	Card	59.5	12-23 m	1235	64
DTP3	Card or History	79.8	12-23 m	1933	64
DTP3	History	20.3	12-23 m	699	64
HepB1	C or H <12 months	87.3	12-23 m	1933	64
HepB1	Card	62.3	12-23 m	1235	64
HepB1	Card or History	87.5	12-23 m	1933	64
HepB1	History	25.2	12-23 m	699	64
HepB3	C or H <12 months	79.8	12-23 m	1933	64
HepB3	Card	59.5	12-23 m	1235	64
HepB3	Card or History	81.2	12-23 m	1933	64
HepB3	History	21.7	12-23 m	699	64
HepBB	C or H <12 months	77.6	12-23 m	1933	64
HepBB	Card	52.8	12-23 m	1235	64
HepBB	Card or History	77.9	12-23 m	1933	64
HepBB	History	25.1	12-23 m	699	64
Hib1	C or H <12 months	86.4	12-23 m	1933	64
Hib1	Card	62.3	12-23 m	1235	64
Hib1	Card or History	86.6	12-23 m	1933	64
Hib1	History	24.3	12-23 m	699	64
Hib3	C or H <12 months	78.5	12-23 m	1933	64
Hib3	Card	59.5	12-23 m	1235	64
Hib3	Card or History	79.8	12-23 m	1933	64
Hib3	History	20.3	12-23 m	699	64
MCV1	C or H <12 months	65.3	12-23 m	1933	64
MCV1	Card	57.7	12-23 m	1235	64
MCV1	Card or History	80.4	12-23 m	1933	64
MCV1	History	22.7	12-23 m	699	64
MCV2	C or H <24 months	45.6	24-35 m	1835	64

MCV2	Card	33.9	24-35 m	955	64
MCV2	Card or History	46.8	24-35 m	1835	64
MCV2	History	12.9	24-35 m	880	64
Pol1	C or H <12 months	87.6	12-23 m	1933	64
Pol1	Card	61.6	12-23 m	1235	64
Pol1	Card or History	87.9	12-23 m	1933	64
Pol1	History	26.4	12-23 m	699	64
Pol3	C or H <12 months	76	12-23 m	1933	64
Pol3	Card	57.1	12-23 m	1235	64
Pol3	Card or History	79	12-23 m	1933	64
Pol3	History	21.8	12-23 m	699	64

2015 Philippines National Demographic and Health Survey 2017

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	84.6	24-35 m	1835	64
BCG	Card	51.4	24-35 m	955	64
BCG	Card or History	85.4	24-35 m	1835	64
BCG	History	34	24-35 m	880	64
DTP1	C or H <12 months	80.7	24-35 m	1835	64
DTP1	Card	50.9	24-35 m	955	64
DTP1	Card or History	82.5	24-35 m	1835	64
DTP1	History	31.6	24-35 m	880	64
DTP3	C or H <12 months	65.5	24-35 m	1835	64
DTP3	Card	46.5	24-35 m	955	64
DTP3	Card or History	71.6	24-35 m	1835	64
DTP3	History	25.1	24-35 m	880	64
HepB1	C or H <12 months	81.5	24-35 m	1835	64
HepB1	Card	50.7	24-35 m	955	64
HepB1	Card or History	83.3	24-35 m	1835	64
HepB1	History	32.5	24-35 m	880	64
HepB3	C or H <12 months	67.8	24-35 m	1835	64
HepB3	Card	46.4	24-35 m	955	64
HepB3	Card or History	74.1	24-35 m	1835	64
HepB3	History	27.8	24-35 m	880	64
HepBB	C or H <12 months	70.4	24-35 m	1835	64
HepBB	Card	40.1	24-35 m	955	64
HepBB	Card or History	71.9	24-35 m	1835	64
HepBB	History	31.8	24-35 m	880	64

Philippines - survey details

Hib1	C or H <12 months	80.7	24-35 m	1835	64
Hib1	Card	50.9	24-35 m	955	64
Hib1	Card or History	82.5	24-35 m	1835	64
Hib1	History	31.6	24-35 m	880	64
Hib3	C or H <12 months	65.5	24-35 m	1835	64
Hib3	Card	46.5	24-35 m	955	64
Hib3	Card or History	71.6	24-35 m	1835	64
Hib3	History	25.1	24-35 m	880	64
MCV1	C or H <12 months	63.2	24-35 m	1835	64
MCV1	Card	49.9	24-35 m	955	64
MCV1	Card or History	80.5	24-35 m	1835	64
MCV1	History	30.6	24-35 m	880	64
Pol1	C or H <12 months	82.9	24-35 m	1835	64
Pol1	Card	50.7	24-35 m	955	64
Pol1	Card or History	83.5	24-35 m	1835	64
Pol1	History	32.8	24-35 m	880	64
Pol3	C or H <12 months	73.4	24-35 m	1835	64
Pol3	Card	48.3	24-35 m	955	64
Pol3	Card or History	76	24-35 m	1835	64
Pol3	History	27.7	24-35 m	880	64

HepB1	History	37.2	12-23 m	592	58
HepB3	C or H <12 months	74.4	12-23 m	1397	58
HepB3	Card	46.6	12-23 m	805	58
HepB3	Card or History	77.6	12-23 m	1397	58
HepB3	History	31	12-23 m	592	58
MCV1	C or H <12 months	78.2	12-23 m	1397	58
MCV1	Card	50.1	12-23 m	805	58
MCV1	Card or History	83.9	12-23 m	1397	58
MCV1	History	33.8	12-23 m	592	58
Pol1	C or H <12 months	92.5	12-23 m	1397	58
Pol1	Card	56.2	12-23 m	805	58
Pol1	Card or History	93.2	12-23 m	1397	58
Pol1	History	37	12-23 m	592	58
Pol3	C or H <12 months	83.1	12-23 m	1397	58
Pol3	Card	53.3	12-23 m	805	58
Pol3	Card or History	84.6	12-23 m	1397	58
Pol3	History	31.3	12-23 m	592	58

2007 Philippines National Demographic and Health Survey (NDHS) 2008

2012 Philippines National Demographic and Health Survey, 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	94.8	12-23 m	1397	58
BCG	Card	57.1	12-23 m	805	58
BCG	Card or History	95.4	12-23 m	1397	58
BCG	History	38.3	12-23 m	592	58
DTP1	C or H <12 months	93.5	12-23 m	1397	58
DTP1	Card	57	12-23 m	805	58
DTP1	Card or History	94.2	12-23 m	1397	58
DTP1	History	37.2	12-23 m	592	58
DTP3	C or H <12 months	84.7	12-23 m	1397	58
DTP3	Card	53.9	12-23 m	805	58
DTP3	Card or History	86.1	12-23 m	1397	58
DTP3	History	32.2	12-23 m	592	58
HepB1	C or H <12 months	91.5	12-23 m	1397	58
HepB1	Card	55.3	12-23 m	805	58
HepB1	Card or History	92.5	12-23 m	1397	58

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	92.3	12-23 m	1286	42
BCG	Card	42.2	12-23 m	1286	42
BCG	Card or History	93.9	12-23 m	1286	42
BCG	History	51.7	12-23 m	1286	42
DTP1	C or H <12 months	91.2	12-23 m	1286	42
DTP1	Card	42.3	12-23 m	1286	42
DTP1	Card or History	92.5	12-23 m	1286	42
DTP1	History	50.2	12-23 m	1286	42
DTP3	C or H <12 months	82.8	12-23 m	1286	42
DTP3	Card	40.9	12-23 m	1286	42
DTP3	Card or History	85.6	12-23 m	1286	42
DTP3	History	44.7	12-23 m	1286	42
HepB1	C or H <12 months	86.5	12-23 m	1286	42
HepB1	Card	42.1	12-23 m	1286	42
HepB1	Card or History	88.2	12-23 m	1286	42
HepB1	History	46.2	12-23 m	1286	42
HepB3	C or H <12 months	75.7	12-23 m	1286	42
HepB3	Card	39.6	12-23 m	1286	42

Philippines - survey details

HepB3	Card or History	80.3	12-23 m	1286	42
HepB3	History	40.7	12-23 m	1286	42
MCV1	C or H <12 months	76.2	12-23 m	1286	42
MCV1	Card	39	12-23 m	1286	42
MCV1	Card or History	84.5	12-23 m	1286	42
MCV1	History	45.5	12-23 m	1286	42
Pol1	C or H <12 months	91.2	12-23 m	1286	42
Pol1	Card	42.2	12-23 m	1286	42
Pol1	Card or History	92.6	12-23 m	1286	42
Pol1	History	50.4	12-23 m	1286	42
Pol3	C or H <12 months	82.6	12-23 m	1286	42
Pol3	Card	40.9	12-23 m	1286	42
Pol3	Card or History	85.2	12-23 m	1286	42
Pol3	History	44.2	12-23 m	1286	42

2002 National Demographic and Health Survey 2003

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	89	12-23 m	1348	39
BCG	Card	38.3	12-23 m	1348	39
BCG	Card or history	90.8	12-23 m	1348	39
BCG	History	52.5	12-23 m	1348	39
DTP1	C or H <12 months	88.4	12-23 m	1348	39
DTP1	Card	38.4	12-23 m	1348	39
DTP1	Card or history	89.9	12-23 m	1348	39
DTP1	History	51.6	12-23 m	1348	39
DTP3	C or H <12 months	75	12-23 m	1348	39
DTP3	Card	35.8	12-23 m	1348	39
DTP3	Card or history	78.9	12-23 m	1348	39
DTP3	History	43.1	12-23 m	1348	39
MCV1	C or H <12 months	69.7	12-23 m	1348	39
MCV1	Card	34.1	12-23 m	1348	39
MCV1	Card or history	79.7	12-23 m	1348	39
MCV1	History	45.6	12-23 m	1348	39
Pol1	C or H <12 months	90	12-23 m	1348	39
Pol1	Card	38.7	12-23 m	1348	39
Pol1	Card or history	91.3	12-23 m	1348	39
Pol1	History	52.6	12-23 m	1348	39
Pol3	C or H <12 months	75.8	12-23 m	1348	39

Pol3	Card	36.1	12-23 m	1348	39
Pol3	Card or history	79.8	12-23 m	1348	39
Pol3	History	43.7	12-23 m	1348	39

2001 Philippines, Maternal and Child Health Survey 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	92.1	12-23 m	1885	91
DTP1	Card or History	91.6	12-23 m	1885	91
DTP3	Card or History	80.6	12-23 m	1885	91
MCV1	Card or History	80.2	12-23 m	1885	91
Pol3	Card or History	78.1	12-23 m	1885	91

1999 Philippines, Maternal and Child Health Survey 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	92.2	12-23 m	2227	89
DTP1	Card or History	90.7	12-23 m	2227	89
DTP3	Card or History	80.5	12-23 m	2227	89
HepB1	Card or History	62.5	12-23 m	2227	89
HepB3	Card or History	32.4	12-23 m	2227	89
MCV1	Card or History	79.7	12-23 m	2227	89
Pol1	Card or History	90.3	12-23 m	2227	89
Pol3	Card or History	79.2	12-23 m	2227	89

1997 Philippines, National Demographic and Health Survey 1998, 1999

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	90.6	12-23 m	1474	41
BCG	Card	40.6	12-23 m	1474	41
BCG	Card or History	90.8	12-23 m	1474	41
BCG	History	50.1	12-23 m	1474	41
DTP1	C or H <12 months	90.1	12-23 m	1474	41
DTP1	Card	41	12-23 m	1474	41
DTP1	Card or History	90.3	12-23 m	1474	41
DTP1	History	49.3	12-23 m	1474	41
DTP3	C or H <12 months	78.7	12-23 m	1474	41

Philippines - survey details

DTP3	Card	37.8	12-23 m	1474	41	Pol1	Card	41.3	12-23 m	1474	41
DTP3	Card or History	80.9	12-23 m	1474	41	Pol1	Card or History	91.7	12-23 m	1474	41
DTP3	History	43	12-23 m	1474	41	Pol1	History	50.4	12-23 m	1474	41
MCV1	C or H <12 months	70.9	12-23 m	1474	41	Pol3	C or H <12 months	80.6	12-23 m	1474	41
MCV1	Card	34.9	12-23 m	1474	41	Pol3	Card	38.2	12-23 m	1474	41
MCV1	Card or History	78.9	12-23 m	1474	41	Pol3	Card or History	81.7	12-23 m	1474	41
MCV1	History	44	12-23 m	1474	41	Pol3	History	43.5	12-23 m	1474	41
Pol1	C or H <12 months	91.5	12-23 m	1474	41						

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