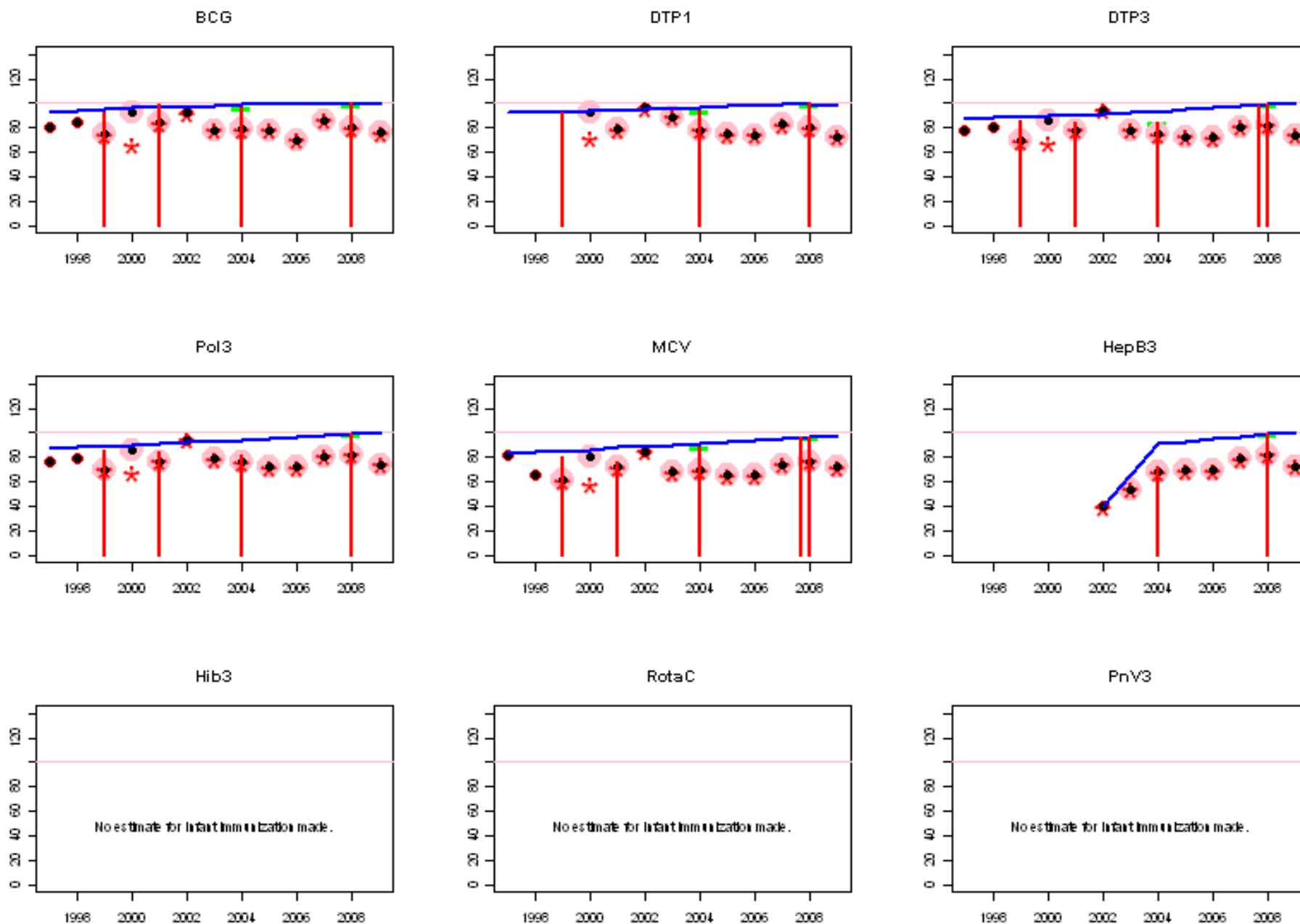
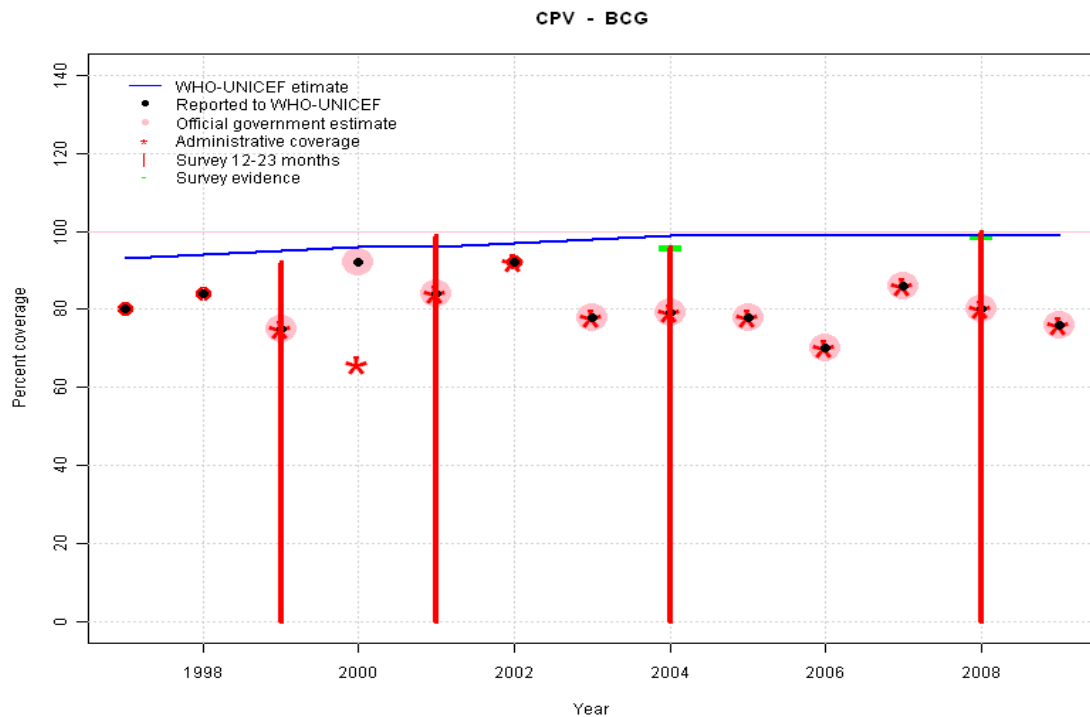


Cape Verde: WHO and UNICEF estimates of immunization coverage, 1997 - 2009



# Cape Verde - BCG

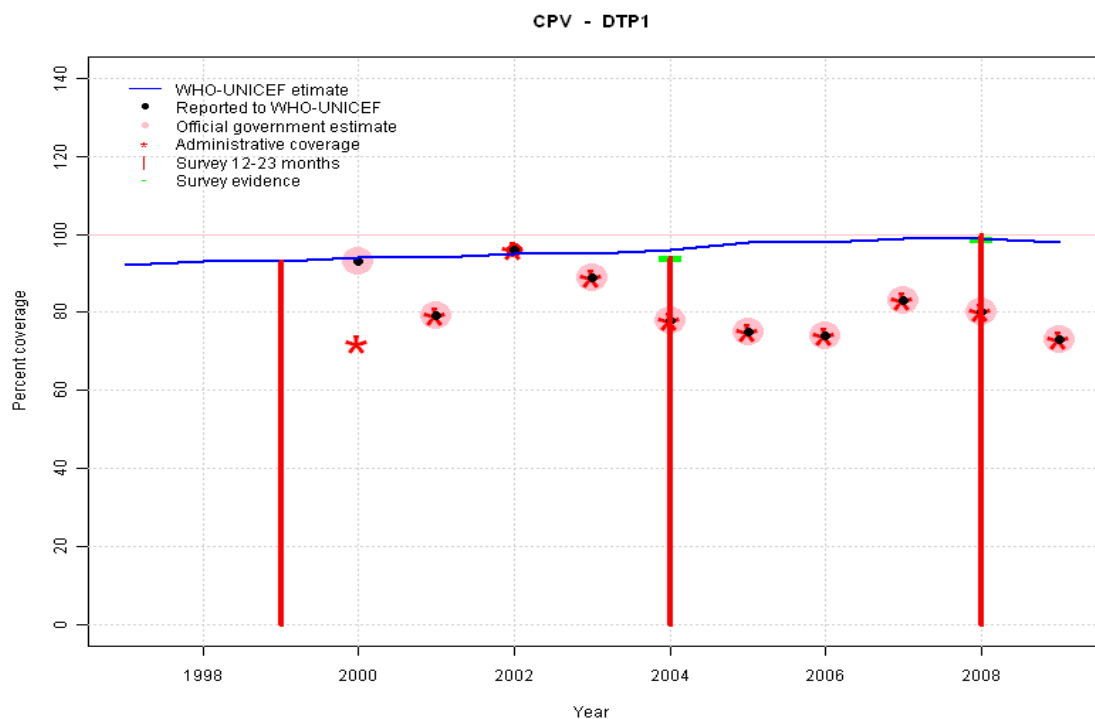


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	93	94	95	96	96	97	98	99	99	99	99	99	99
Reported	80	84	75	92	84	92	78	79	78	70	86	80	76
Official	NA	NA	75	92	84	NA	78	79	78	70	86	80	76
Administrative	NA	NA	75	66	84	92	78	79	78	70	86	80	76
Survey	NA	NA	NA	NA	NA	NA	NA	96	NA	NA	NA	99	NA

## Description:

- 1997: Legacy estimate. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 1998: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 1999: Estimate interpolated between 1997 and 2004 estimates. Survey results of 92 percent with sample size 208 ignored; sample size less than 300. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2000: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2001: Estimate interpolated between 1997 and 2004 estimates. Survey results of 99 percent with sample size 0 ignored; sample size less than 300. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2002: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2003: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2004: The results of the 2005 EPI coverage survey (card-only with retention rate of 97 percent, see survey details page) taken over those of the IDSR-II 2005. Differences between survey results in 2004 may be the result of recall bias. BCG, DTP1, and MCV results are similar with differences between 2004 surveys results only for multi-dose antigens (DTP, Pol, HepB). WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2005: Estimate interpolated between 2004 and 2008 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2006: Estimate interpolated between 2004 and 2008 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2007: Estimate interpolated between 2004 and 2008 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2008: Estimate based on survey results. Reported data (80 percent) not consistent with survey results (99 percent). WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2009: Estimate extrapolated from 2008 level (99 percent). WHO and UNICEF recommend assessment and improvement of the routine monitoring system

# Cape Verde - DTP1

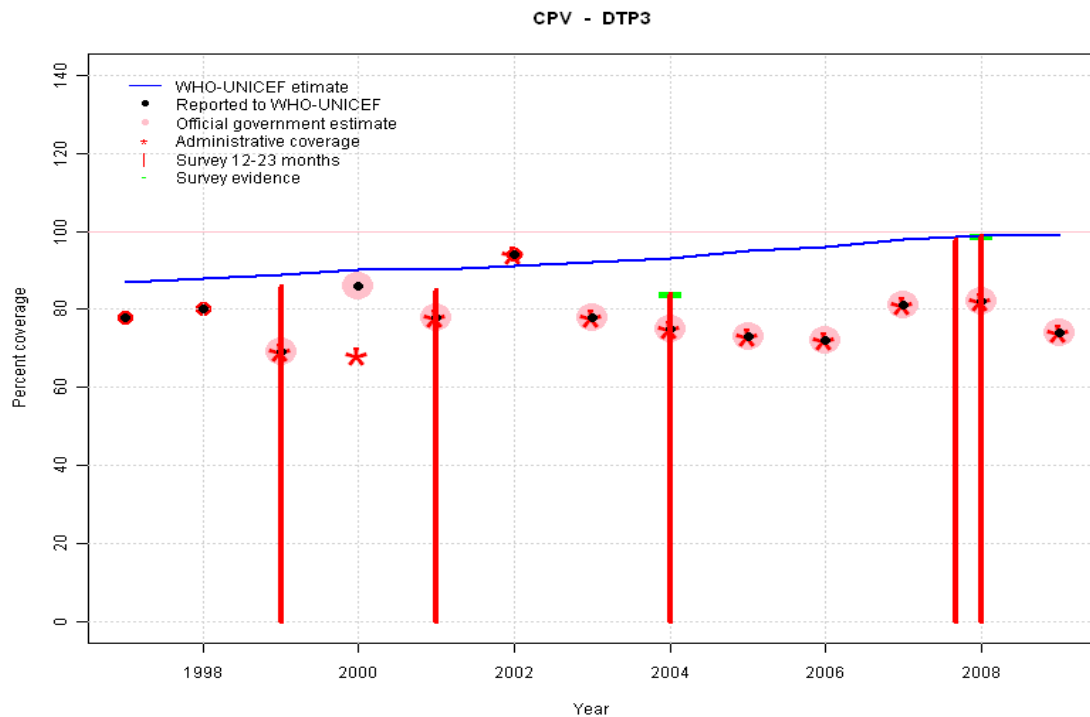


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	92	93	93	94	94	95	95	96	98	98	99	99	98
Reported	NA	NA	NA	93	79	96	89	78	75	74	83	80	73
Official	NA	NA	NA	93	79	NA	89	78	75	74	83	80	73
Administrative	NA	NA	NA	72	79	96	89	78	75	74	83	80	73
Survey	NA	NA	NA	NA	NA	NA	NA	94	NA	NA	NA	99	NA

## Description:

- 1997: Legacy estimate. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 1998: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 1999: Estimate interpolated between 1997 and 2004 estimates. Survey results of 93 percent with sample size 208 ignored; sample size less than 300. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2000: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2001: Estimate interpolated between 1997 and 2004 estimates. 2001 reported data (79 percent) inconsistent with data from other years. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2002: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2003: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2004: The results of the 2005 EPI coverage survey (card-only with retention rate of 97 percent, see survey details page) taken over those of the IDSR-II 2005. Differences between survey results in 2004 may be the result of recall bias. BCG, DTP1, and MCV results are similar with differences between 2004 surveys results only for multi-dose antigens (DTP, Pol, HepB). WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2005: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2006: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2007: Reported data (83 percent) calibrated to 2004 and 2008 levels. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2008: Estimate based on survey results. Reported data (80 percent) not consistent with survey results (99 percent). WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2009: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.

# Cape Verde - DTP3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	87	88	89	90	90	91	92	93	95	96	98	99	99
Reported	78	80	69	86	78	94	78	75	73	72	81	82	74
Official	NA	NA	69	86	78	NA	78	75	73	72	81	82	74
Administrative	NA	NA	69	68	78	94	78	75	73	72	81	82	74
Survey	NA	NA	NA	NA	NA	NA	NA	84	NA	NA	NA	99	NA

## Description:

- 1997: Legacy estimate. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 1998: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 1999: Estimate interpolated between 1997 and 2004 estimates. Survey results of 86 percent with sample size 208 ignored; sample size less than 300. 1999 reported data (69 percent) inconsistent with data from other years. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2000: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2001: Estimate interpolated between 1997 and 2004 estimates. Survey results of 85 percent with sample size 0 ignored; sample size less than 300. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2002: Estimate interpolated between 1997 and 2004 estimates. 2002 reported data (94 percent) inconsistent with data from other years. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2003: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2004: The results of the 2005 EPI coverage survey (card-only with retention rate of 97 percent, see survey details page) taken over those of the IDSR-II 2005. Differences between survey results in 2004 may be the result of recall bias. BCG, DTP1, and MCV results are similar with differences between 2004 surveys results only for multi-dose antigens (DTP, Pol, HepB). WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2005: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2006: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2007: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the rou-

# Cape Verde - DTP3

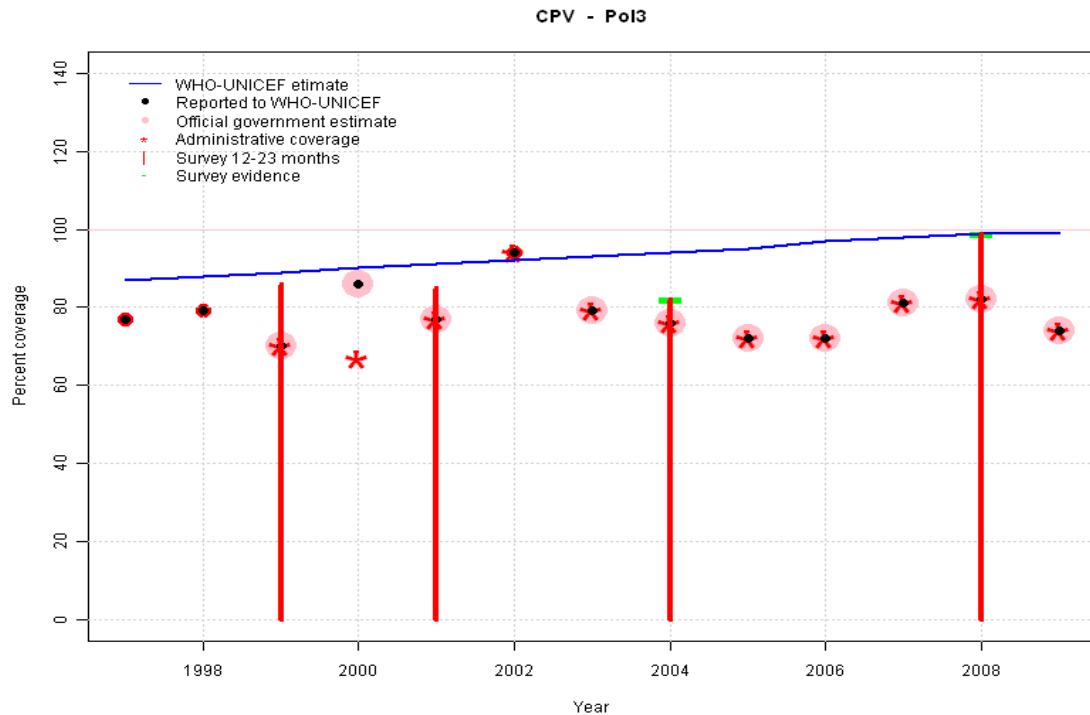
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tine monitoring system

2008: Estimate based on survey results. Reported data (82 percent) not consistent with survey results (99 percent). 2 surveys, results = 98, 99, mean = 99 percent. Survey results (99 percent) adjusted for recall bias to 99 percent based on first dose card or history coverage (100 percent) and documented drop-out between first (98 percent) and third (97 percent) doses. WHO and UNICEF recommend assessment and improvement of the routine monitoring system

2009: Estimate extrapolated from 2008 level (99 percent). WHO and UNICEF recommend assessment and improvement of the routine monitoring system

# Cape Verde - Pol3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	87	88	89	90	91	92	93	94	95	97	98	99	99
Reported	77	79	70	86	77	94	79	76	72	72	81	82	74
Official	NA	NA	70	86	77	NA	79	76	72	72	81	82	74
Administrative	NA	NA	70	67	77	94	79	76	72	72	81	82	74
Survey	NA	NA	NA	NA	NA	NA	NA	82	NA	NA	NA	99	NA

## Description:

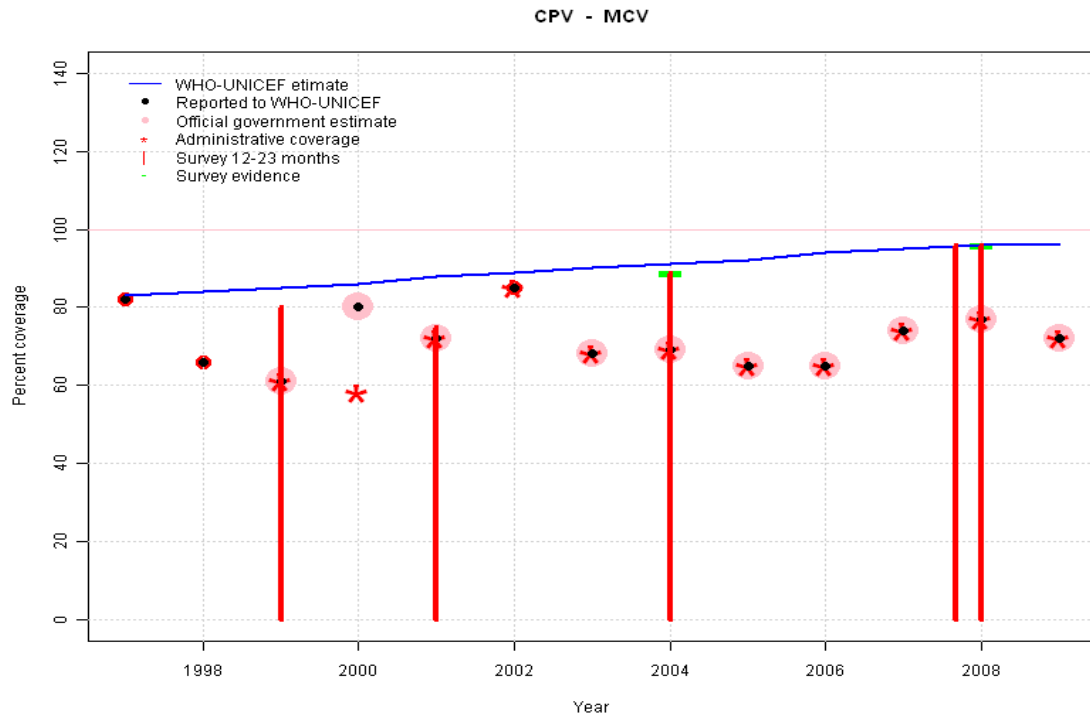
- 1997: Legacy estimate. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 1998: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 1999: Estimate interpolated between 1997 and 2004 estimates. Survey results of 86 percent with sample size 208 ignored; sample size less than 300. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2000: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2001: Estimate interpolated between 1997 and 2004 estimates. Survey results of 85 percent with sample size 0 ignored; sample size less than 300. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2002: Estimate interpolated between 1997 and 2004 estimates. 2002 reported data (94 percent) inconsistent with data from other years. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2003: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2004: The results of the 2005 EPI coverage survey (card-only with retention rate of 97 percent, see survey details page) taken over those of the IDSR-II 2005. Differences between survey results in 2004 may be the result of recall bias. BCG, DTP1, and MCV results are similar with differences between 2004 surveys results only for multi-dose antigens (DTP, Pol, HepB). WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2005: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2006: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2007: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system

# Cape Verde - Pol3

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- 2008: Estimate based on survey results. Reported data (82 percent) not consistent with survey results (99 percent). Survey results (99 percent) adjusted for recall bias to 99 percent based on first dose card or history coverage (100 percent) and documented drop-out between first (98 percent) and third (97 percent) doses. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2009: Estimate extrapolated from 2008 level (99 percent). WHO and UNICEF recommend assessment and improvement of the routine monitoring system

# Cape Verde - MCV



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	83	84	85	86	88	89	90	91	92	94	95	96	96
Reported	82	66	61	80	72	85	68	69	65	65	74	77	72
Official	NA	NA	61	80	72	NA	68	69	65	65	74	77	72
Administrative	NA	NA	61	58	72	85	68	69	65	65	74	77	72
Survey	NA	NA	NA	NA	NA	NA	NA	89	NA	NA	NA	96	NA

## Description:

- 1997: Legacy estimate. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 1998: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 1999: Estimate interpolated between 1997 and 2004 estimates. Survey results of 80 percent with sample size 208 ignored; sample size less than 300. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2000: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2001: Estimate interpolated between 1997 and 2004 estimates. Survey results of 75 percent with sample size 0 ignored; sample size less than 300. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2002: Estimate interpolated between 1997 and 2004 estimates. 2002 reported data (85 percent) inconsistent with data from other years. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2003: Estimate interpolated between 1997 and 2004 estimates. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2004: The results of the 2005 EPI coverage survey (card-only with retention rate of 97 percent, see survey details page) taken over those of the IDSR-II 2005. Differences between survey results in 2004 may be the result of recall bias. BCG, DTP1, and MCV results are similar with differences between 2004 surveys results only for multi-dose antigens (DTP, Pol, HepB). WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2005: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2006: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2007: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system

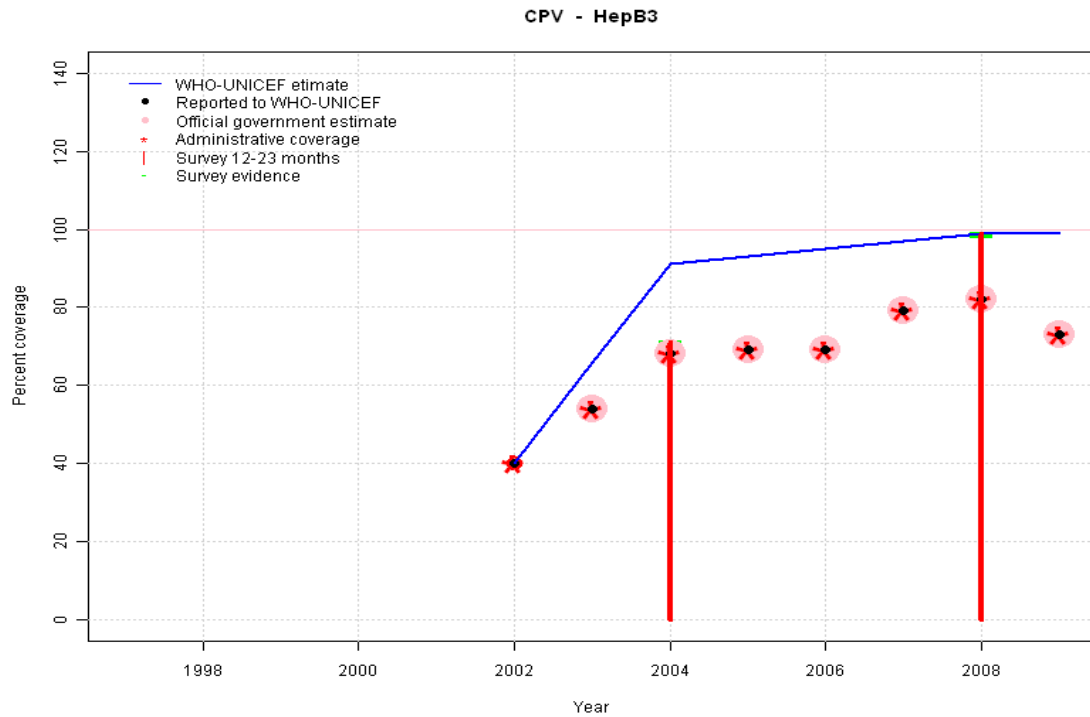
# Cape Verde - MCV

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2008: Estimate based on survey results. Reported data (77 percent) not consistent with survey results (96 percent). 2 surveys, results = 96, 96, mean = 96 percent. WHO and UNICEF recommend assessment and improvement of the routine monitoring system

2009: Estimate extrapolated from 2008 level (96 percent). WHO and UNICEF recommend assessment and improvement of the routine monitoring system

# Cape Verde - HepB3

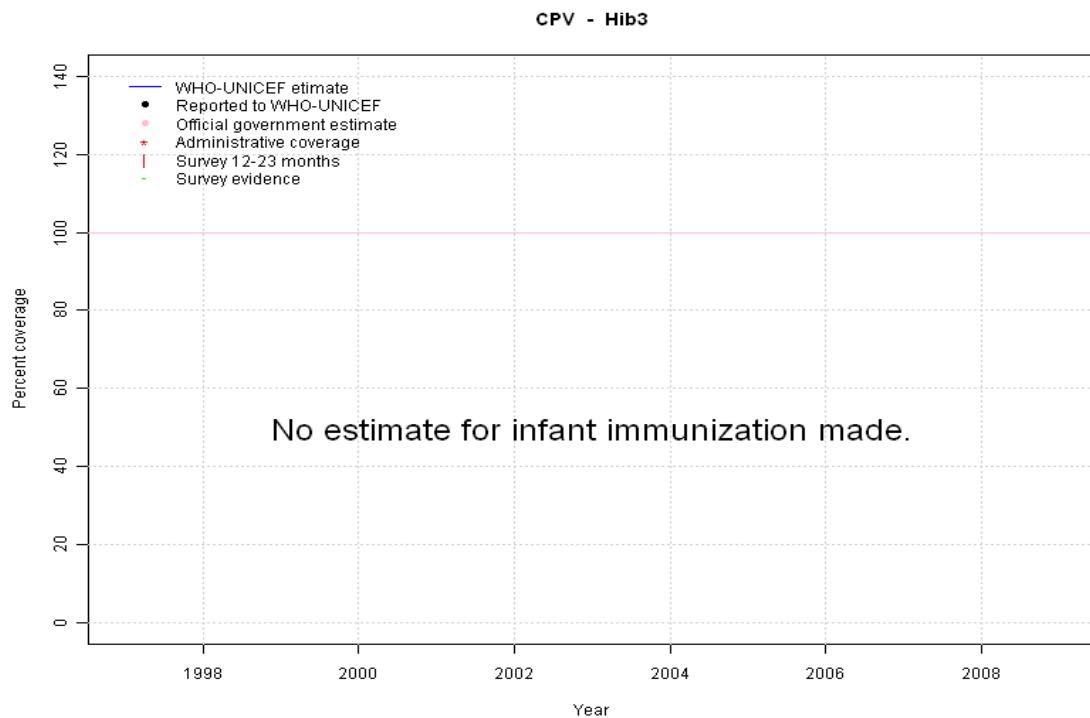


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	40	66	91	93	95	97	99	99
Reported	NA	NA	NA	NA	NA	40	54	68	69	69	79	82	73
Official	NA	NA	NA	NA	NA	NA	54	68	69	69	79	82	73
Administrative	NA	NA	NA	NA	NA	40	54	68	69	69	79	82	73
Survey	NA	NA	NA	NA	NA	NA	NA	71	NA	NA	NA	99	NA

## Description:

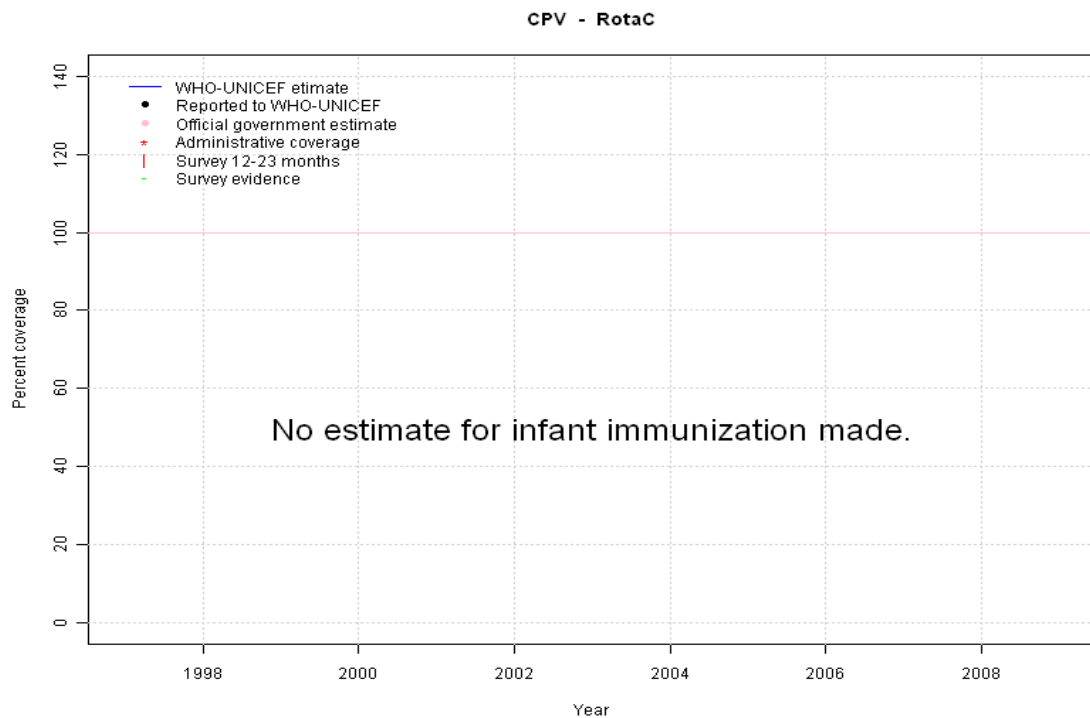
- 2002: Estimate follows nationally reported data. HepB introduced in 2002 Vaccine presentation is HepB . WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2003: Reported data (54 percent) calibrated to 2002 and 2004 levels. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2004: The results of the 2005 EPI coverage survey (card-only with retention rate of 97 percent, see survey details page) taken over those of the IDSR-II 2005. Differences between survey results in 2004 may be the result of recall bias. BCG, DTP1, and MCV results are similar with differences between 2004 surveys results only for multi-dose antigens (DTP, Pol, HepB). WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2005: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2006: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2007: Estimate based on working group decision to interpolated between 2004 and 2008. Estimates based on interpolation between survey results. Fluctuation and nationally reported data suggests poor recording and reporting. WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2008: Estimate based on survey results. Reported data (82 percent) not consistent with survey results (99 percent). WHO and UNICEF recommend assessment and improvement of the routine monitoring system
- 2009: Estimate extrapolated from 2008 level (99 percent). WHO and UNICEF recommend assessment and improvement of the routine monitoring system

# Cape Verde - Hib3



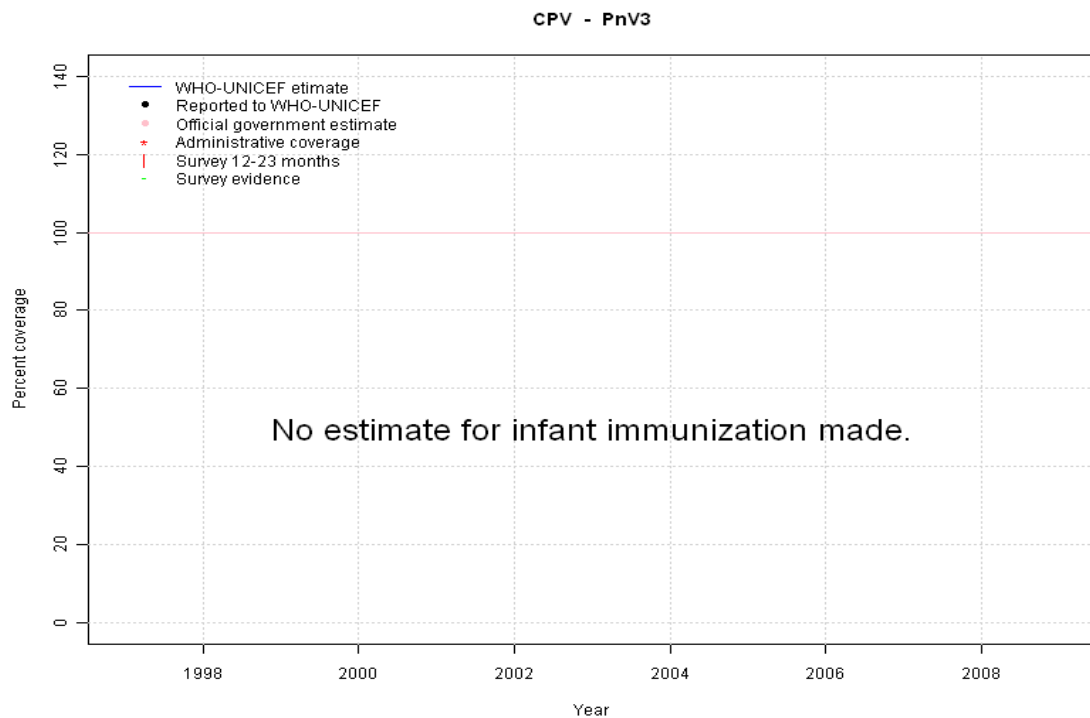
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Cape Verde - RotaC



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	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	NA
Administrative	NA	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	NA

# Cape Verde - PnV3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	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	NA
Administrative	NA	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	NA

# Cape Verde - survey details

2009 Enquête de couverture vaccinale de la 3ème dose de trois vaccins (contre la diphtérie, la coqueluche et le tétanos - DTC3) et la rougeole - Cap-Vert 2010

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
DTP3	Card	98	12-23 m	4458	100
MCV	Card	94	12-23 m	4458	100

2008 Enquête de couverture vaccinale de la 3ème dose de trois vaccins (contre la diphtérie, la coqueluche et le tétanos - DTC3) et la rougeole - Le Cap-Vert 2009

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
DTP3	Card or History	98	12-23 m	1696	98
MCV	Card or History	96	12-23 m	1696	98

2008 Inquérito nacional de cobertura vacinal. Cabo Verde, 2009.

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	98	12-23 m	1684	98
BCG	Card or History	100	12-23 m	1684	98
DTP1	Card or History	100	12-23 m	1684	98
DTP1	Card	98	12-23 m	1684	98
DTP3	Card or History	99	12-23 m	1684	98
DTP3	Card	97	12-23 m	1684	98
HepB1	Card or History	99	12-23 m	1684	98
HepB1	Card	98	12-23 m	1684	98
HepB3	Card or History	99	12-23 m	1684	98
HepB3	Card	97	12-23 m	1684	98
MCV	Card or History	96	12-23 m	1684	98
MCV	Card	94	12-23 m	1684	98
Pol1	Card	98	12-23 m	1684	98
Pol1	Card or History	100	12-23 m	1684	98
Pol3	Card or History	99	12-23 m	1684	98
Pol3	Card	97	12-23 m	1684	98

2004 República de Cabo Verde, Inquérito de avaliação da cobertura vacinal 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	99	12-23 m	1160	97
DTP1	Card	96	12-23 m	1160	97
DTP3	Card	93	12-23 m	1160	97
HepB1	Card	94	12-23 m	1160	97
HepB3	Card	91	12-23 m	1160	97
MCV	Card	91	12-23 m	1160	97
Pol1	Card	96	12-23 m	1160	97
Pol3	Card	94	12-23 m	1160	97

2004 Segundo Inquérito Demográfico e de Saúde Reprodutiva, Cabo Verde, IDSR-II, 2005

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	96	12-23 m	436	81
DTP1	Card or History	94	12-23 m	436	81
DTP3	Card or History	84	12-23 m	436	81
HepB1	Card or History	75	12-23 m	436	81
HepB3	Card or History	71	12-23 m	436	81
MCV	Card or History	89	12-23 m	436	81
Pol1	Card or History	94	12-23 m	436	81
Pol3	Card or History	82	12-23 m	436	81

2001 Capo Verde, Inquérito Nacional de Cobertura Vacinal, 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	99	12-23 m	0	100
DTP3	Card or History	85	12-23 m	0	100
MCV	Card or History	75	12-23 m	0	100
Pol3	Card or History	85	12-23 m	0	100

1999 Capo Verde, Inquérito Nacional de Cobertura Vacinal, 2000

## Cape Verde - survey details

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Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen	MCV	Card or History				
BCG	Card or History	92	12-23 m	208	94	Pol1	Card or History	80	12-23 m	208	94
DTP1	Card or History	93	12-23 m	208	94	Pol3	Card or History	93	12-23 m	208	94
DTP3	Card or History	86	12-23 m	208	94			86	12-23 m	208	94

Further information and estimates for 1980-1996 are available at:

[http://www.childinfo.org/immunization\\_countryreports.html](http://www.childinfo.org/immunization_countryreports.html)

[http://www.who.int/immunization\\_monitoring/routine/immunization\\_coverage/en/index4.html](http://www.who.int/immunization_monitoring/routine/immunization_coverage/en/index4.html)

## Cape Verde

### WHO/UNICEF Estimates of Protection at Birth (PAB) against tetanus

In countries where tetanus is recommended for girls and women coverage is usually reported as "TT2+", i.e. the proportion of (pregnant) women who have received their second or superior TT dose in a given year. TT2 + coverage, however, can under-represent the actual proportion of births that are protected against tetanus as it does not include women who have previously received protective doses, women who received one dose without documentation of previous doses, and women who received doses in TT (or Td) supplemental immunization activities (SIA). In addition, girls who have received DTP in their childhood and are entering childbearing age, may be protected with TT booster doses.

WHO and UNICEF have developed a model that takes into account the above scenarios, and calculates the proportion of births in a given year that can be considered as having been protected against tetanus - "Protection at Birth".

In this model, annual cohorts of women are followed from infancy through their life. A proportion receive DTP in infancy (estimated based on the WHO-UNICEF estimates of DTP3 coverage). In addition some of these women also receive TT through routine services when they are pregnant and may also receive TT during SIAs. The model also adjusts reported data, taking into account coverage patterns in other years, and/or results available through surveys. The duration of protection is then calculated, based on WHO estimates of the duration of protection by doses ever received. The proportion of births that are protected against tetanus as a result of maternal immunization reflects the tetanus immunization received by the mother throughout her life rather than simply the TT immunizations received during the current pregnancy.

Year	PAB coverage estimate (%)
1997	63
1998	62
1999	64
2000	60
2001	46
2002	62
2003	76
2004	78
2005	70
2006	74
2007	77
2008	78
2009	78

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