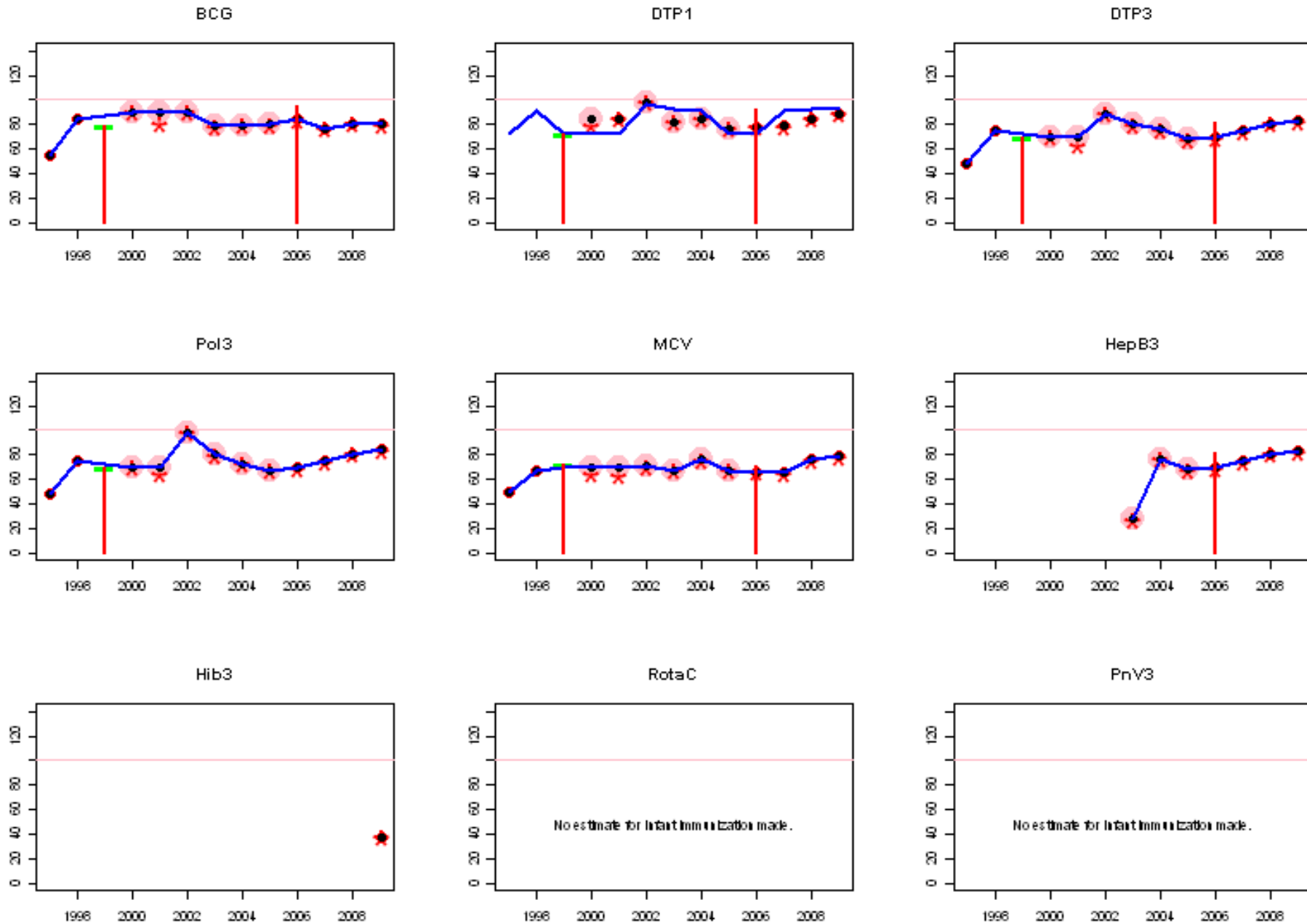
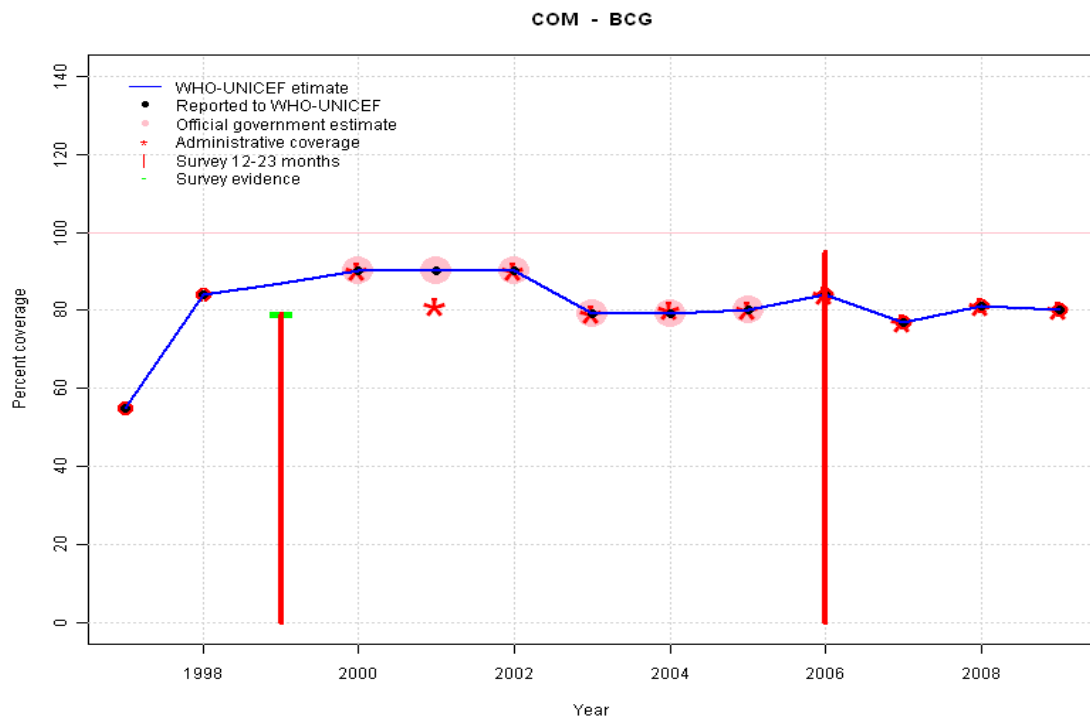


Comoros: WHO and UNICEF estimates of immunization coverage, 1997 - 2009



# Comoros - BCG

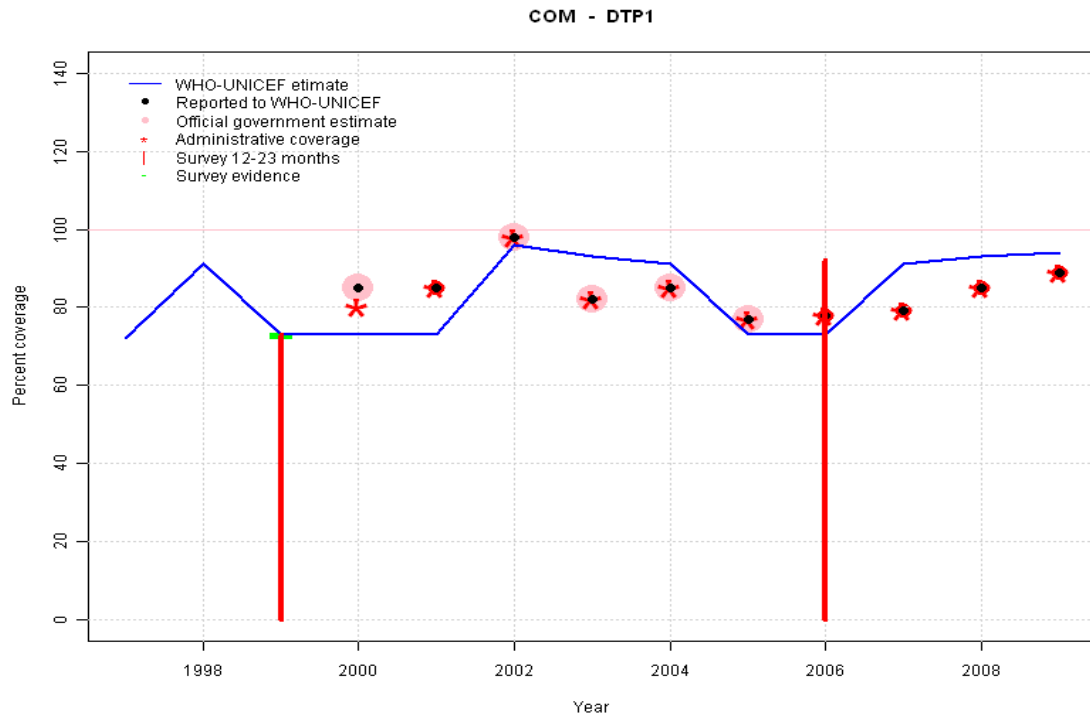
## Description:



- 1997: Legacy estimate.
- 1998: Estimate based on reported data.
- 1999: Estimate based on interpolated value between reported data. Survey (79 percent) confirms trend in reported data.
- 2000: Estimate based on reported data.
- 2001: Estimate based on reported data.
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data. Survey results of 95 percent with sample size 217 ignored; sample size less than 300.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data.
- 2009: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	55	84	87	90	90	90	79	79	80	84	77	81	80
Reported	55	84	NA	90	90	90	79	79	80	84	77	81	80
Official	NA	NA	NA	90	90	90	79	79	80	NA	NA	NA	NA
Administrative	NA	NA	NA	90	81	90	79	80	80	84	77	81	80
Survey	NA	NA	79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Comoros - DTP1



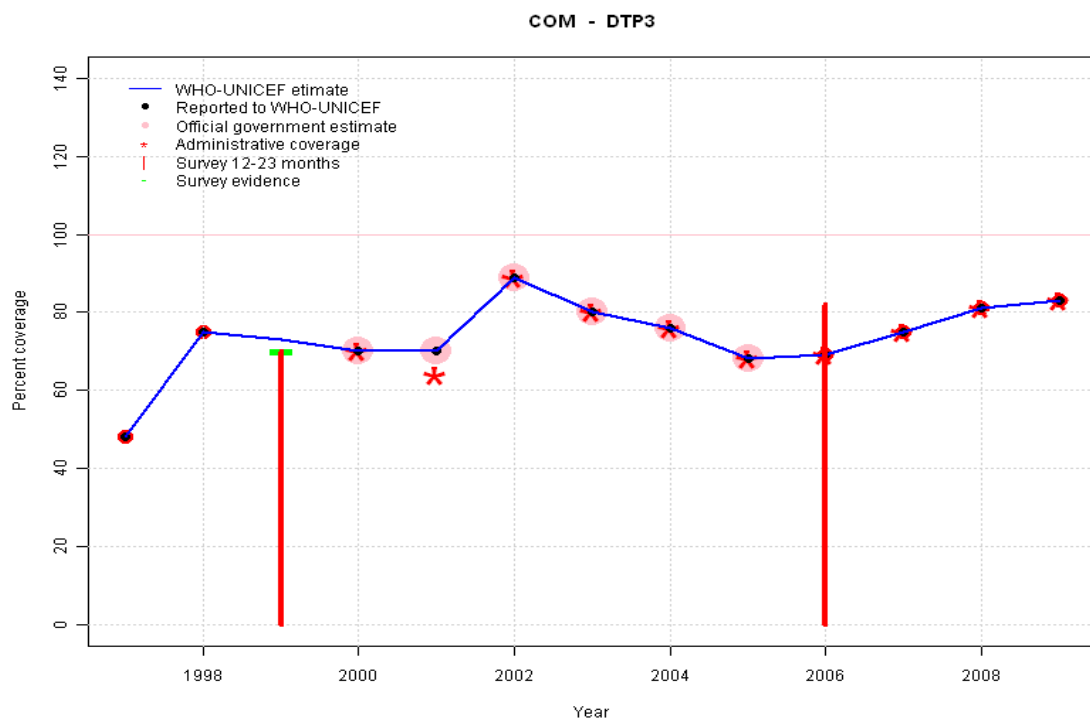
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	72	91	73	73	73	96	93	91	73	73	91	93	94
Reported	NA	NA	NA	85	85	98	82	85	77	78	79	85	89
Official	NA	NA	NA	85	NA	98	82	85	77	NA	NA	NA	NA
Administrative	NA	NA	NA	80	85	98	82	85	77	78	79	85	89
Survey	NA	NA	73	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

## Description:

- 1997: Legacy estimate.
- 1998: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 1999: Estimate based on survey results. Reported data (85 percent) not consistent with survey results (73 percent).
- 2000: Estimate extrapolated from 1999 level (73 percent).
- 2001: Estimate extrapolated from 1999 level (73 percent).
- 2002: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2003: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2004: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2005: Estimate extrapolated from 1999 level (73 percent).
- 2006: Estimate extrapolated from 1999 level (73 percent). Survey results of 92 percent with sample size 217 ignored; sample size less than 300.
- 2007: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2008: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2009: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.

# Comoros - DTP3

## Description:

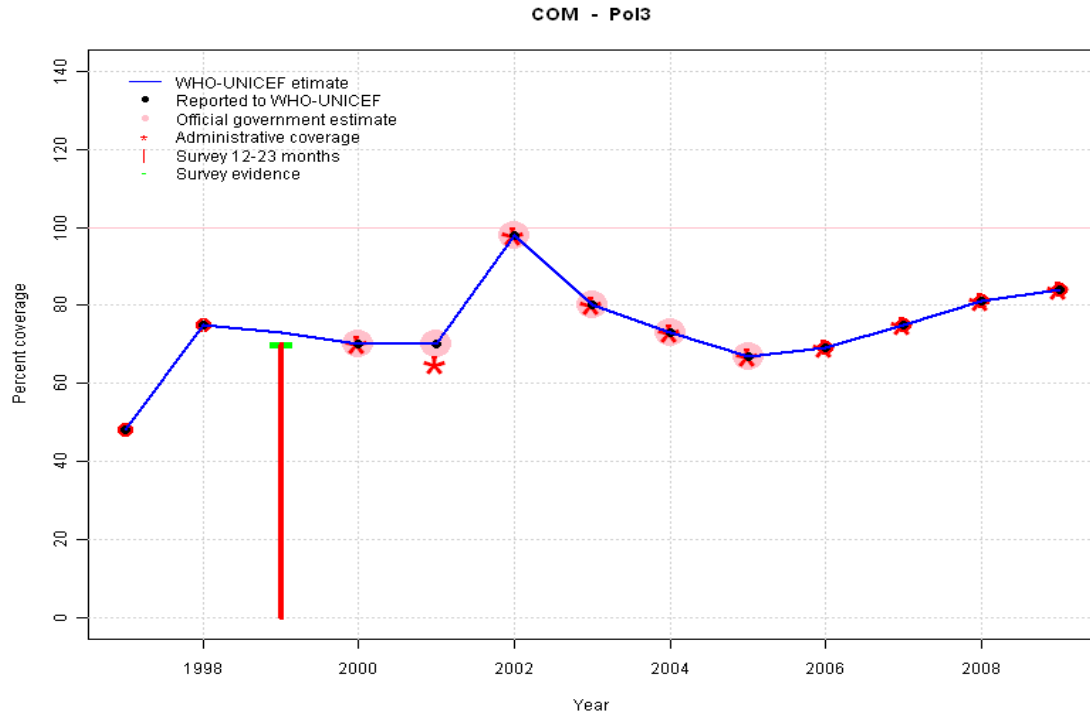


- 1997: Legacy estimate.
- 1998: Estimate based on reported data.
- 1999: Estimate based on interpolated value between reported data. Survey (70 percent) confirms trend in reported data.
- 2000: Estimate based on reported data.
- 2001: Estimate based on reported data.
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data. Survey results of 82 percent with sample size 217 ignored; sample size less than 300.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data.
- 2009: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	48	75	73	70	70	89	80	76	68	69	75	81	83
Reported	48	75	NA	70	70	89	80	76	68	69	75	81	83
Official	NA	NA	NA	70	70	89	80	76	68	NA	NA	NA	NA
Administrative	NA	NA	NA	70	64	89	80	76	68	69	75	81	83
Survey	NA	NA	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Comoros - Pol3

## Description:

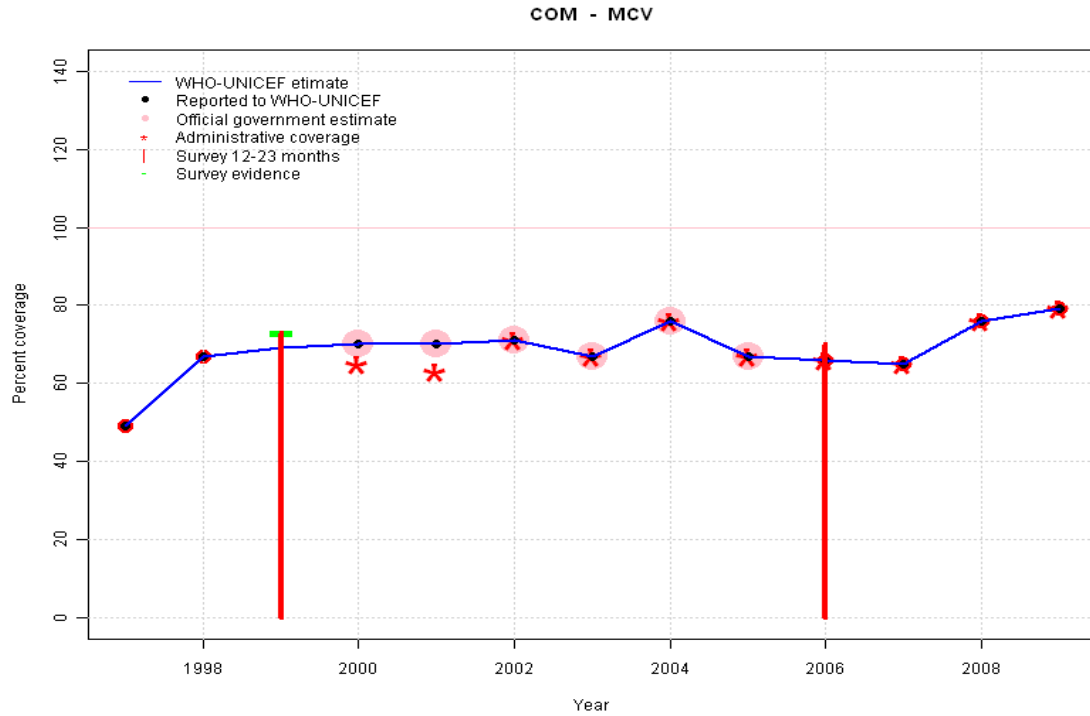


1997: Legacy estimate.  
 1998: Estimate based on reported data.  
 1999: Estimate based on interpolated value between reported data. Survey (70 percent) confirms trend in reported data.  
 2000: Estimate based on reported data.  
 2001: Estimate based on reported data.  
 2002: Estimate based on reported data. Reported coverage accepted for all other vaccines.  
 2003: Estimate based on reported data.  
 2004: Estimate based on reported data.  
 2005: Estimate based on reported data.  
 2006: Estimate based on reported data.  
 2007: Estimate based on reported data.  
 2008: Estimate based on reported data.  
 2009: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	48	75	73	70	70	98	80	73	67	69	75	81	84
Reported	48	75	NA	70	70	98	80	73	67	69	75	81	84
Official	NA	NA	NA	70	70	98	80	73	67	NA	NA	NA	NA
Administrative	NA	NA	NA	70	65	98	80	73	67	69	75	81	84
Survey	NA	NA	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Comoros - MCV

## Description:

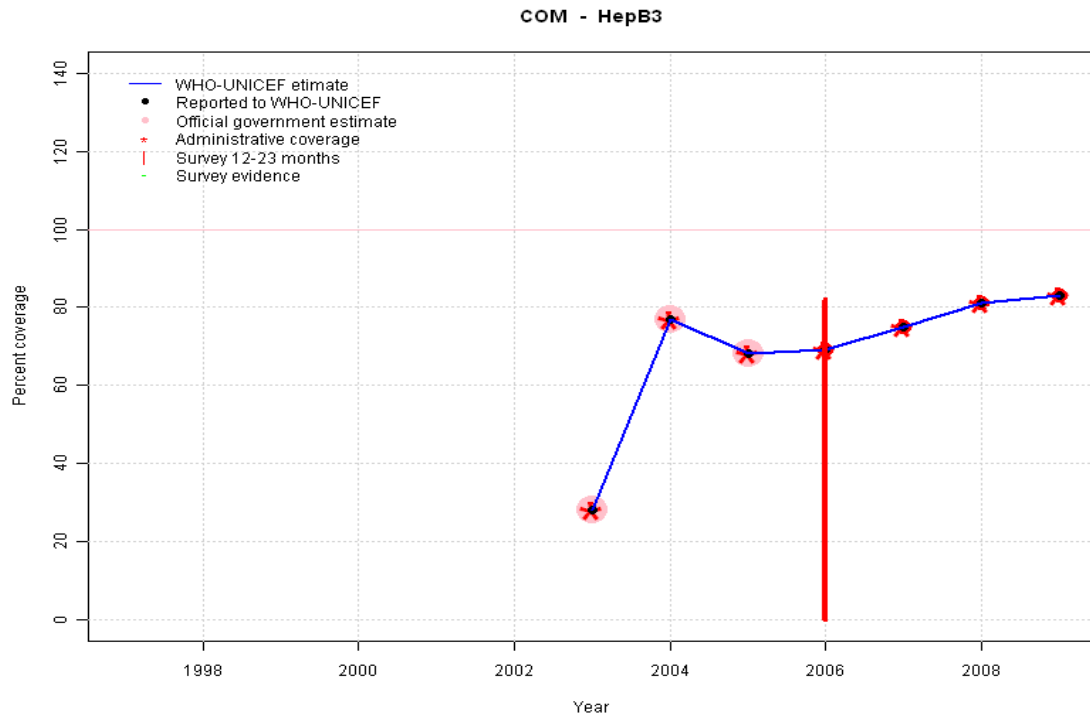


- 1997: Legacy estimate.
- 1998: Estimate based on reported data.
- 1999: Estimate based on interpolated value between reported data. Survey (73 percent) confirms trend in reported data.
- 2000: Estimate based on reported data.
- 2001: Estimate based on reported data.
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data. Survey results of 70 percent with sample size 217 ignored; sample size less than 300.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data.
- 2009: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	49	67	69	70	70	71	67	76	67	66	65	76	79
Reported	49	67	NA	70	70	71	67	76	67	66	65	76	79
Official	NA	NA	NA	70	70	71	67	76	67	NA	NA	NA	NA
Administrative	NA	NA	NA	65	63	71	67	76	67	66	65	76	79
Survey	NA	NA	73	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Comoros - HepB3

## Description:



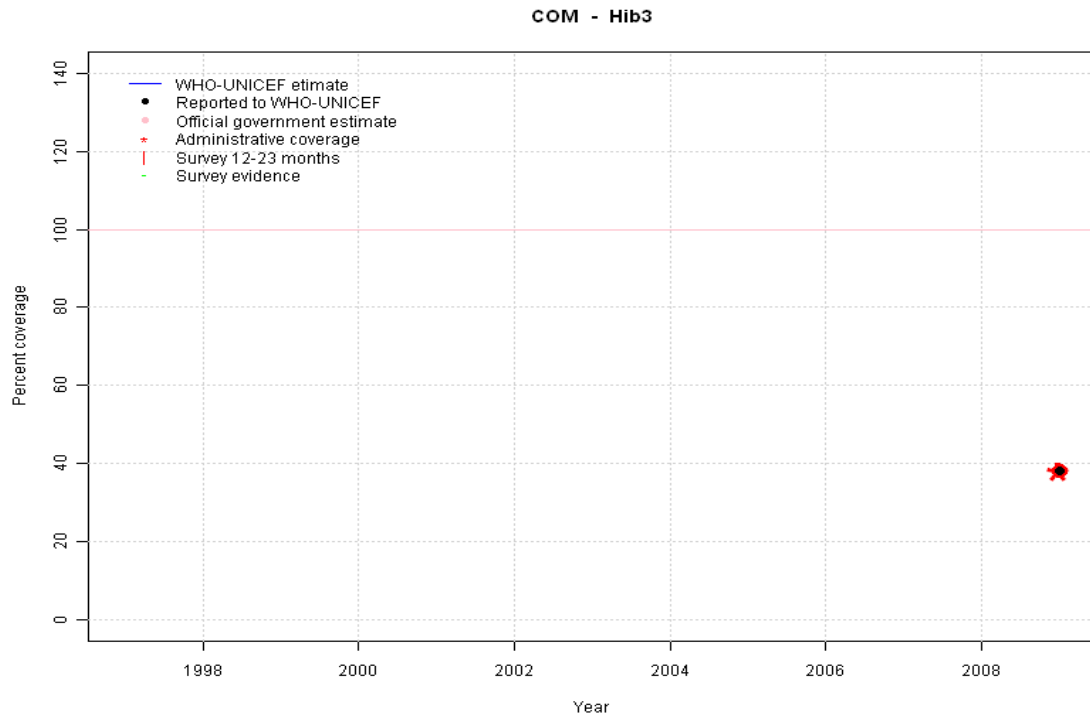
- 2003: Estimate based on reported data. HepB introduced in 2003 Vaccine presentation is DTP-HepB.
- 2004: Estimate based on reported data.
- 2005: Estimate based on reported data.
- 2006: Estimate based on reported data. Survey results of 82 percent with sample size 217 ignored; sample size less than 300.
- 2007: Estimate based on reported data.
- 2008: Estimate based on reported data.
- 2009: Estimate based on reported data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	28	77	68	69	75	81	83
Reported	NA	NA	NA	NA	NA	NA	28	77	68	69	75	81	83
Official	NA	NA	NA	NA	NA	NA	28	77	68	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	28	77	68	69	75	81	83
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Comoros - Hib3

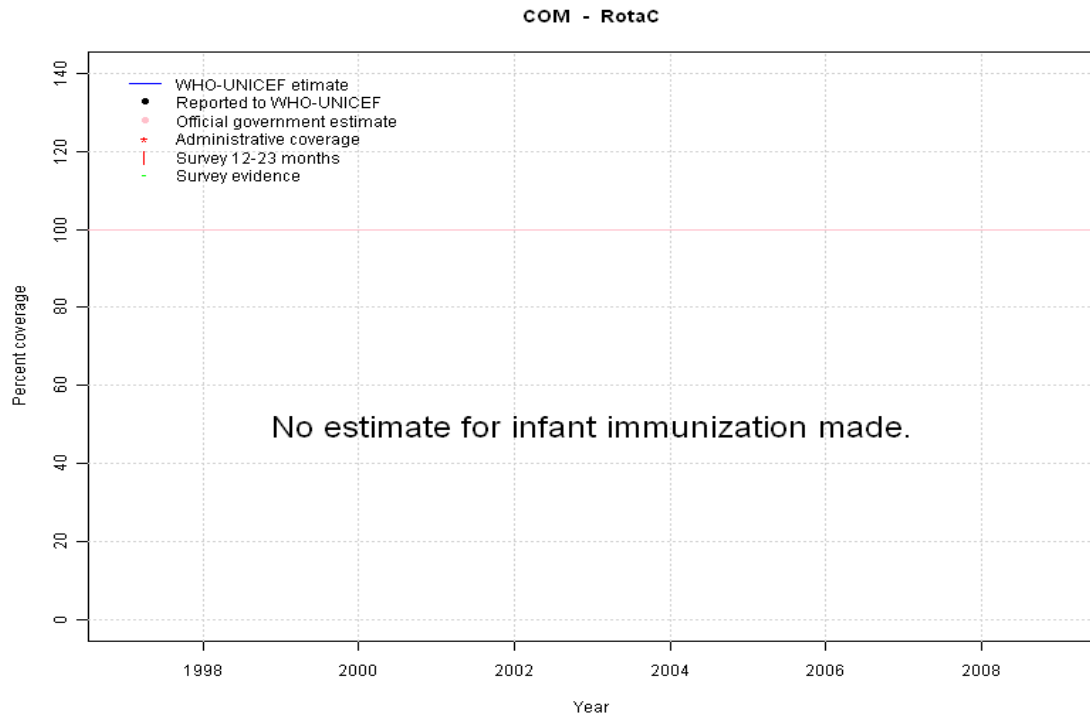
## Description:

2009: Estimate based on reported data. Hib introduced in 2009 Vaccine presentation is DTP-HepB-Hib.



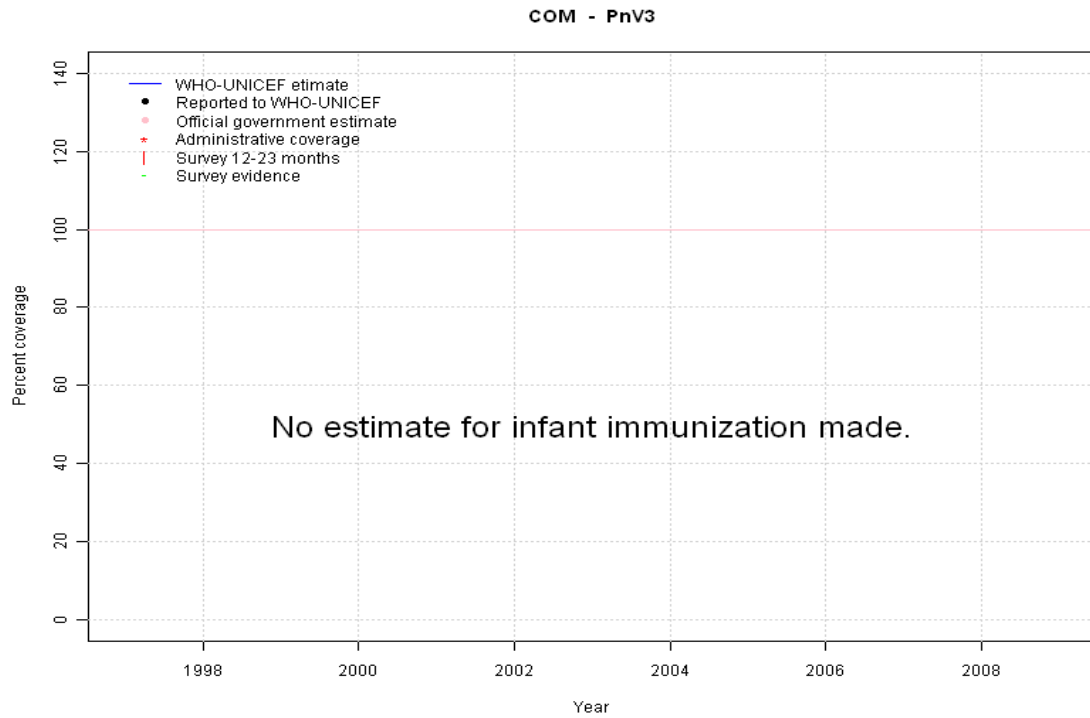
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Comoros - 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

# Comoros - 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

## Comoros - survey details

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### 2006 Enquête de couverture vaccinale en Union des Comores (Novembre 2007)

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	95	12-23 m	217	77
DTP1	Card or History	92	12-23 m	217	77
DTP3	Card or History	82	12-23 m	217	77
HepB1	Card or History	92	12-23 m	217	77
HepB3	Card or History	82	12-23 m	217	77
MCV	Card or History	70	12-23 m	217	77

### 1999 Comores, Enquête à Indicateurs Multiples (MICS 2000), 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	History	4	12-23 m	0	0

BCG	Card or History	79	12-23 m	956	71
BCG	Card	85	12-23 m	0	0
DTP1	History	5	12-23 m	0	0
DTP1	Card	80	12-23 m	0	0
DTP1	Card or History	73	12-23 m	956	71
DTP3	History	3	12-23 m	0	0
DTP3	Card	74	12-23 m	0	0
DTP3	Card or History	70	12-23 m	956	71
MCV	History	4	12-23 m	0	0
MCV	Card	56	12-23 m	0	0
MCV	Card or History	73	12-23 m	956	71
Pol1	Card or History	75	12-23 m	956	71
Pol1	History	3	12-23 m	0	0
Pol1	Card	85	12-23 m	0	0
Pol3	Card	78	12-23 m	0	0
Pol3	Card or History	70	12-23 m	956	71
Pol3	History	2	12-23 m	0	0

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)

## Comoros

### 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	41
1998	44
1999	50
2000	57
2001	70
2002	84
2003	93
2004	92
2005	91
2006	88
2007	89
2008	83
2009	83

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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.