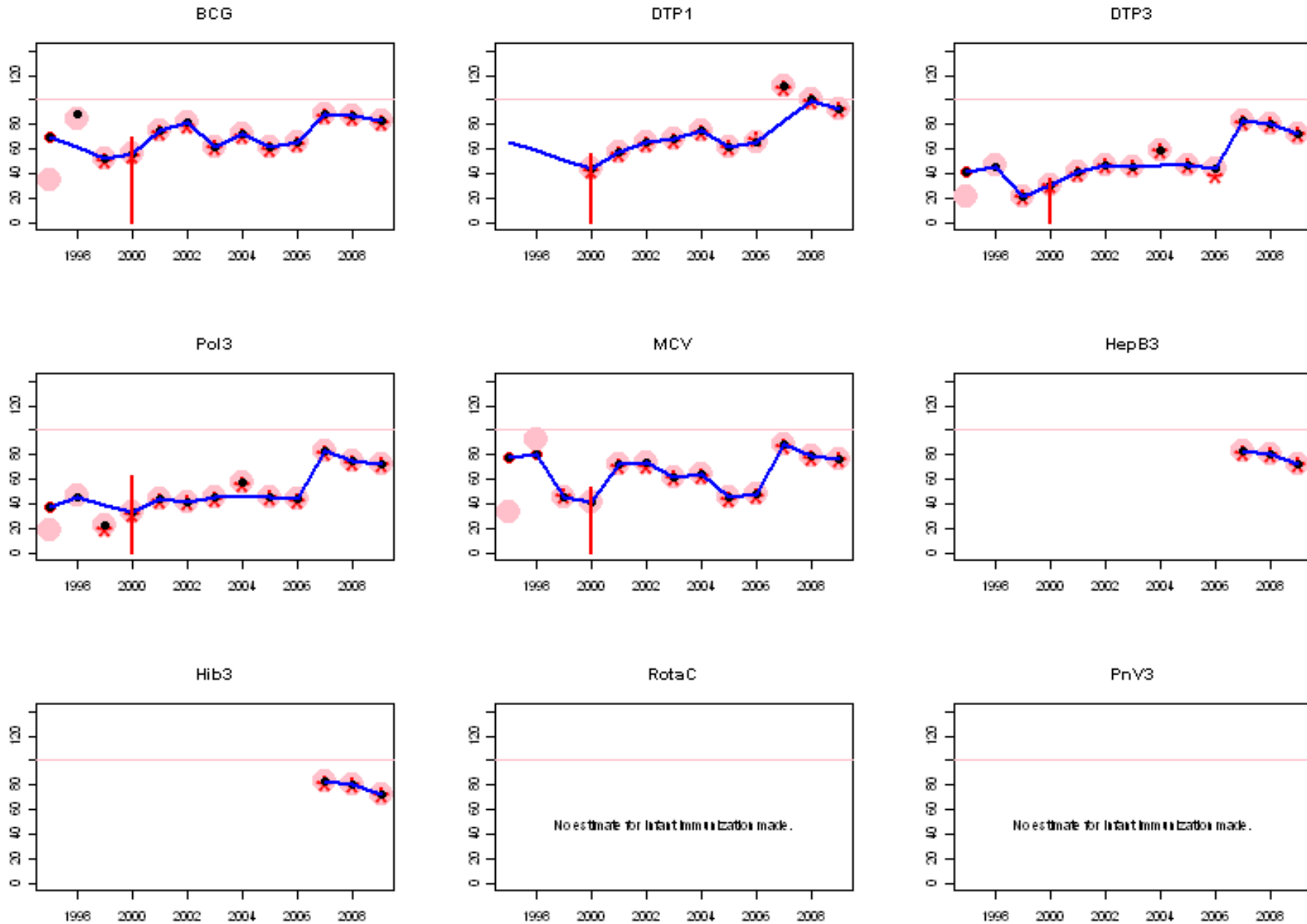
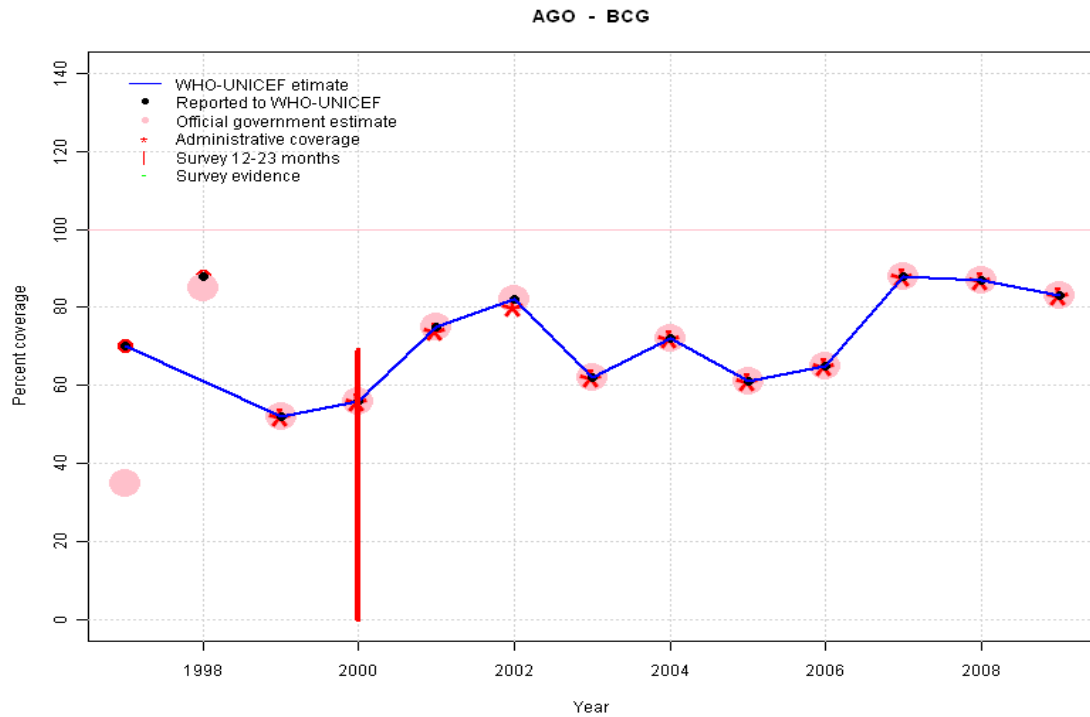


Angola: WHO and UNICEF estimates of immunization coverage, 1997 - 2009



# Angola - BCG



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	70	61	52	56	75	82	62	72	61	65	88	87	83
Reported	70	88	52	56	75	82	62	72	61	65	88	87	83
Official	35	85	52	56	75	82	62	72	61	65	88	87	83
Administrative	NA	NA	52	56	74	80	62	72	61	65	88	87	83
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

## Description:

1997: Legacy estimate.

1998: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 70 percent in 1997 and 52 percent in 1999. 1998 reported data (88 percent) inconsistent with data from other years.

1999: Estimate based on reported data. The resurgence of the war in December 1998 weakened the capacity of the Ministry of Health to carry out immunization activities. In 1999 only 18 of 164 districts reported. Since then there has been an improvement in the number of districts reporting (75 percent in 2003).

2000: Estimate based on reported data. Survey results of 69 percent ignored by working group. Survey results ignored; unexplained discrepancy across antigens.

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.

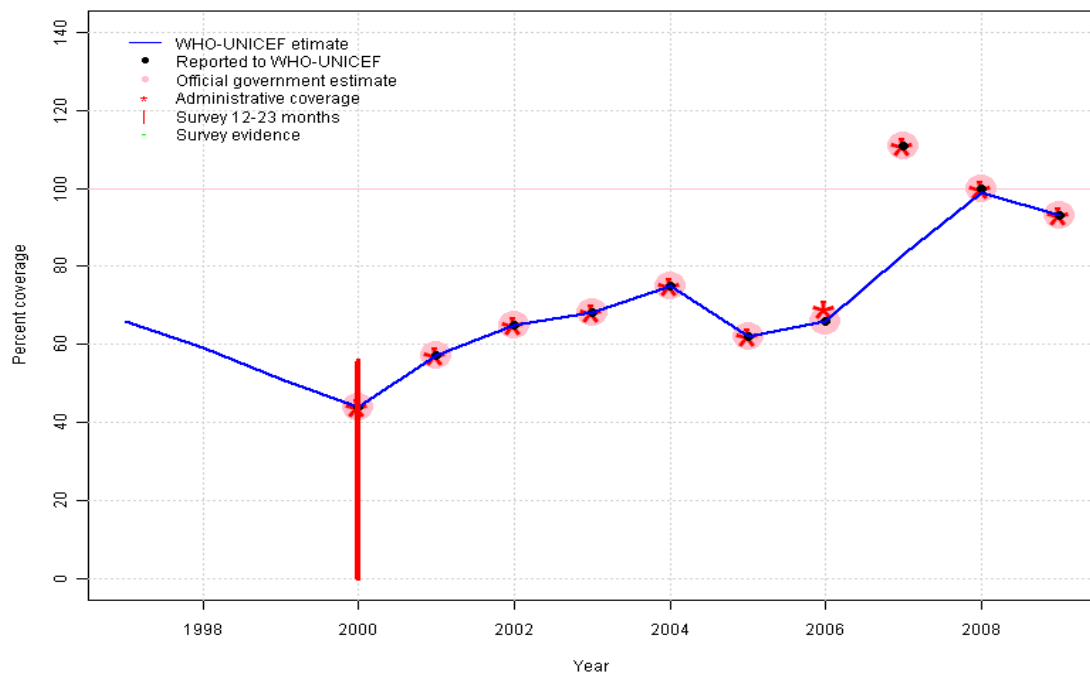
2007: Estimate based on reported data. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach, and mobile teams during the second semester of 2007.

2008: Estimate based on reported data.

2009: Estimate based on reported data.

# Angola - DTP1

AGO - DTP1



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	66	59	51	44	57	65	68	75	62	66	83	99	93
Reported	NA	NA	NA	44	57	65	68	75	62	66	111	100	93
Official	NA	NA	NA	44	57	65	68	75	62	66	111	100	93
Administrative	NA	NA	NA	44	57	65	68	75	62	69	111	100	93
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

## Description:

1997: Legacy estimate.

1998: Estimate interpolated between 1997 and 2000 estimates.

1999: Estimate interpolated between 1997 and 2000 estimates. The resurgence of the war in December 1998 weakened the capacity of the Ministry of Health to carry out immunization activities. In 1999 only 18 of 164 districts reported. Since then there has been an improvement in the number of districts reporting (75 percent in 2003).

2000: Estimate based on reported data. Survey results of 56 percent ignored by working group. Survey results ignored; unexplained discrepancy across antigens.

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.

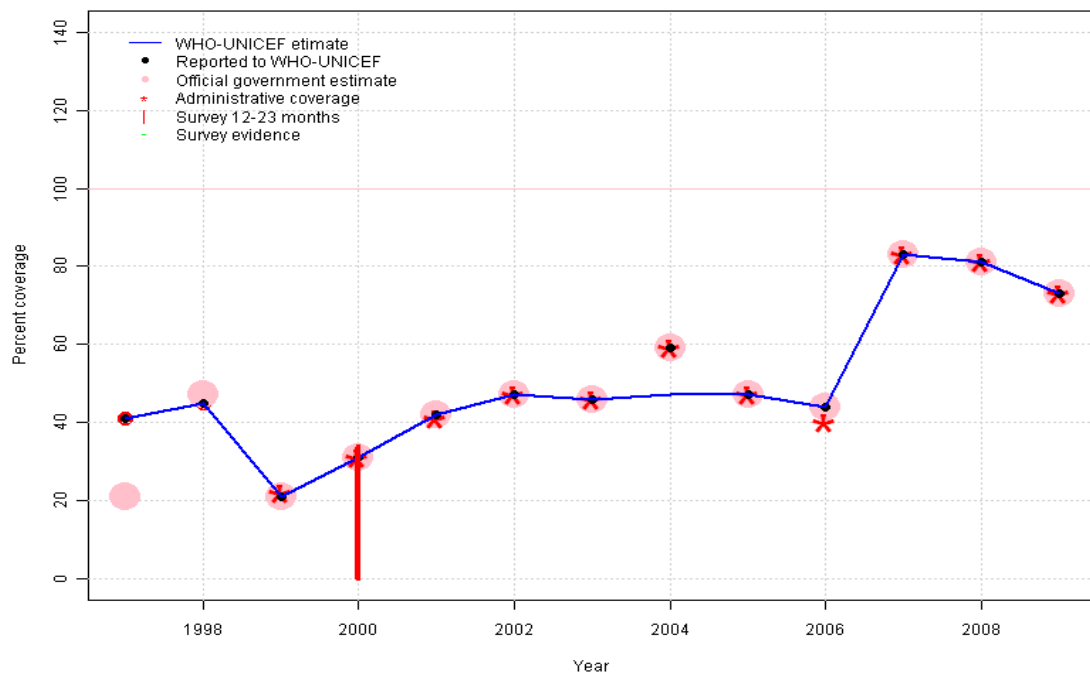
2007: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 66 percent in 2006 and 100 percent in 2008. 2007 reported data (111 percent) ignored; greater than 100 percent. 2007 reported data (111 percent) inconsistent with data from other years. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach, and mobile teams during the second semester of 2007.

2008: Estimate based on reported data.

2009: Estimate based on reported data.

# Angola - DTP3

AGO - DTP3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	41	45	21	31	42	47	46	47	47	44	83	81	73
Reported	41	45	21	31	42	47	46	59	47	44	83	81	73
Official	21	47	21	31	42	47	46	59	47	44	83	81	73
Administrative	NA	NA	22	31	41	47	46	59	47	40	83	81	73
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

## Description:

1997: Legacy estimate.

1998: Estimate based on reported data.

1999: Estimate based on reported data. The resurgence of the war in December 1998 weakened the capacity of the Ministry of Health to carry out immunization activities. In 1999 only 18 of 164 districts reported. Since then there has been an improvement in the number of districts reporting (75 percent in 2003).

2000: Estimate based on reported data. Survey results of 34 percent ignored by working group. Survey results ignored; unexplained discrepancy across antigens.

2001: Estimate based on reported data.

2002: Estimate based on reported data.

2003: Estimate based on reported data.

2004: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 46 percent in 2003 and 47 percent in 2005. 2004 reported data (59 percent) inconsistent with data from other years.

2005: Estimate based on reported data.

2006: Estimate based on reported data.

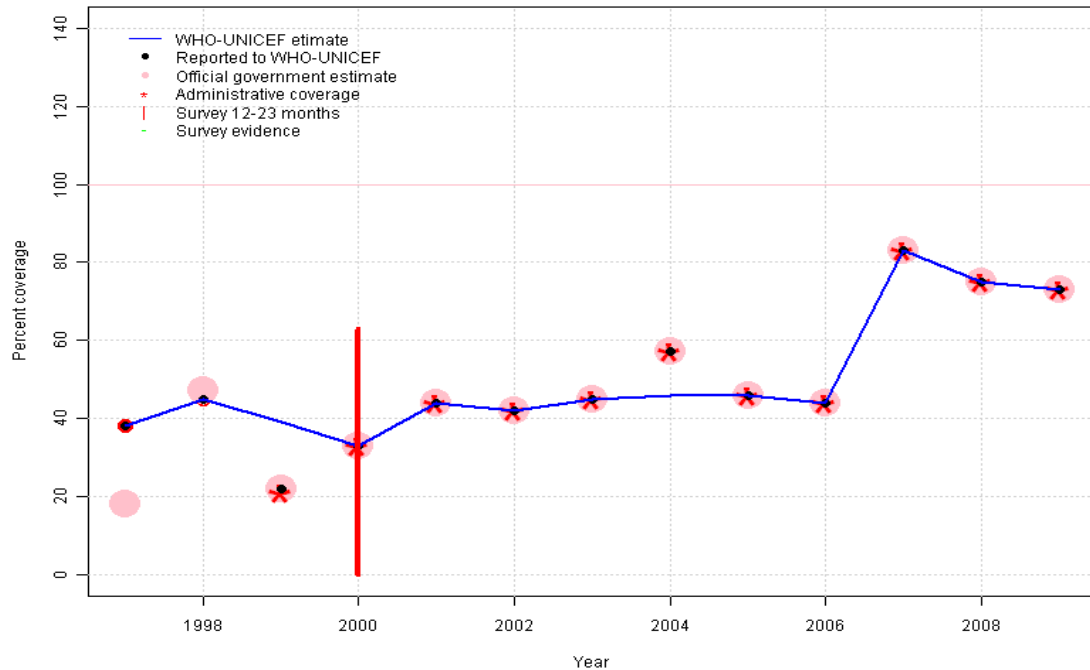
2007: Estimate based on reported data. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach, and mobile teams during the second semester of 2007.

2008: Estimate based on reported data.

2009: Estimate based on reported data.

# Angola - Pol3

AGO - Pol3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	38	45	39	33	44	42	45	46	46	44	83	75	73
Reported	38	45	22	33	44	42	45	57	46	44	83	75	73
Official	18	47	22	33	44	42	45	57	46	44	83	75	73
Administrative	NA	NA	21	33	44	42	45	57	46	44	83	75	73
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

## Description:

1997: Legacy estimate.

1998: Estimate based on reported data.

1999: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 45 percent in 1998 and 33 percent in 2000. 1999 reported data (22 percent) inconsistent with data from other years. The resurgence of the war in December 1998 weakened the capacity of the Ministry of Health to carry out immunization activities. In 1999 only 18 of 164 districts reported. Since then there has been an improvement in the number of districts reporting (75 percent in 2003).

2000: Estimate based on reported data. Survey results of 63 percent ignored by working group. Survey results ignored; unexplained discrepancy across antigens.

2001: Estimate based on reported data.

2002: Estimate based on reported data.

2003: Estimate based on reported data.

2004: Estimate based on trend in reported data. Missing or ignored reported value estimated by interpolation between reported values of 45 percent in 2003 and 46 percent in 2005. 2004 reported data (57 percent) inconsistent with data from other years.

2005: Estimate based on reported data.

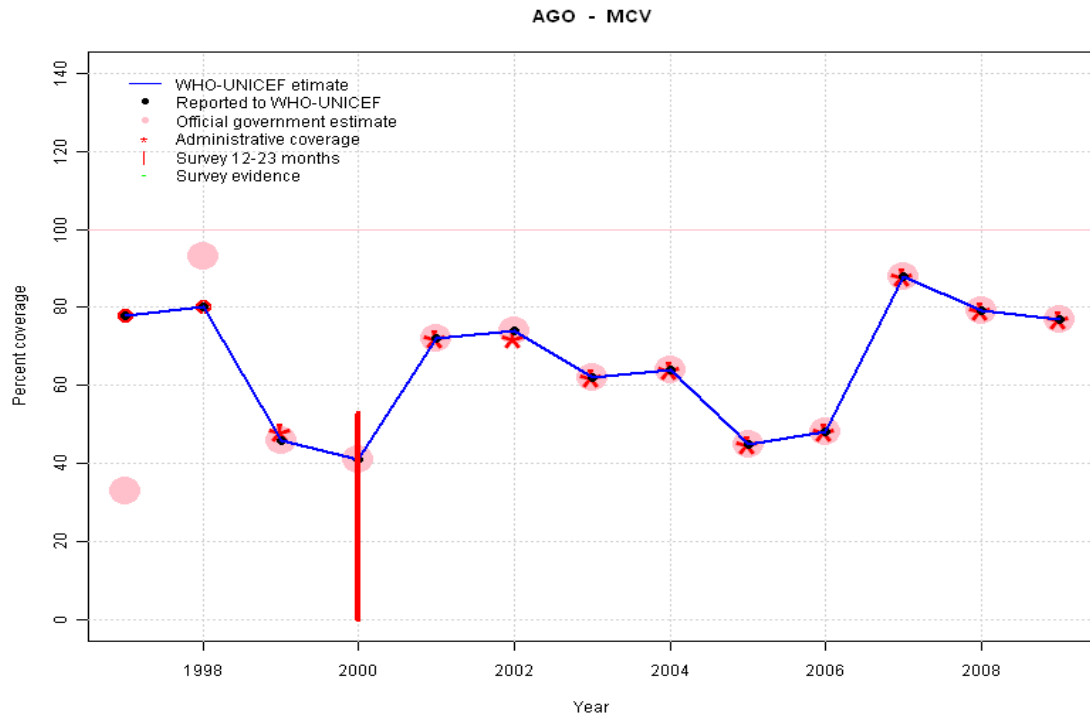
2006: Estimate based on reported data.

2007: Estimate based on reported data. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach, and mobile teams during the second semester of 2007.

2008: Estimate based on reported data.

2009: Estimate based on reported data.

# Angola - MCV



## Description:

1997: Legacy estimate.

1998: Estimate based on reported data.

1999: Estimate based on reported data. The resurgence of the war in December 1998 weakened the capacity of the Ministry of Health to carry out immunization activities. In 1999 only 18 of 164 districts reported. Since then there has been an improvement in the number of districts reporting (75 percent in 2003).

2000: Estimate based on reported data. Survey results of 53 percent ignored by working group. Survey results ignored; unexplained discrepancy across antigens.

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.

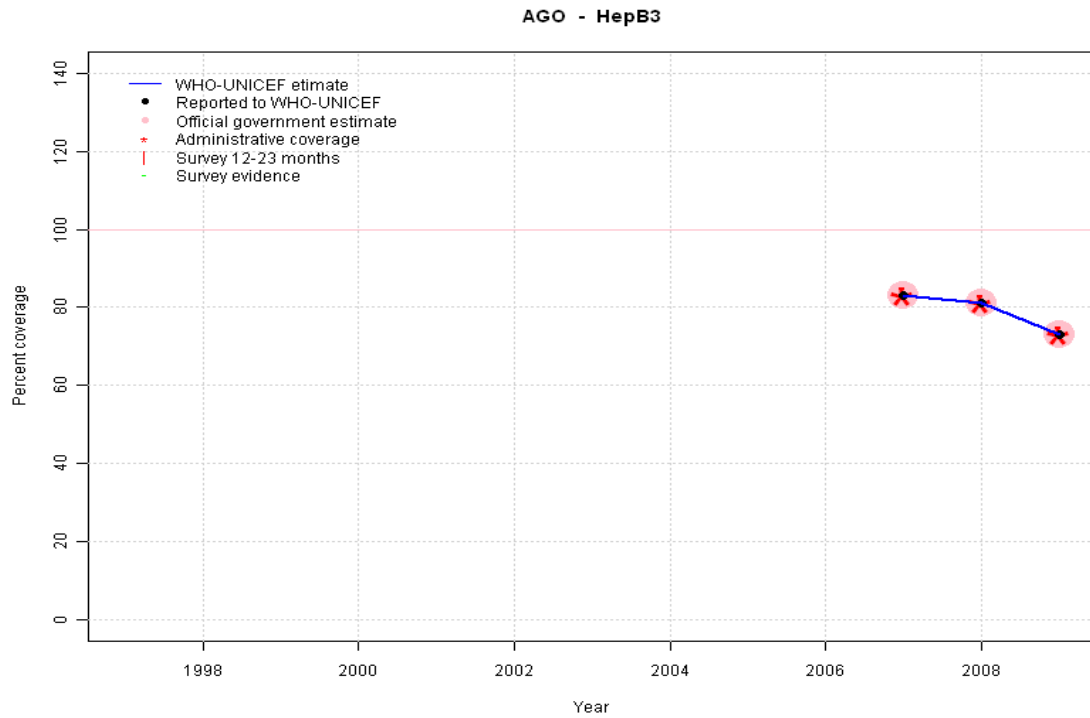
2007: Estimate based on reported data. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach, and mobile teams during the second semester of 2007.

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	78	80	46	41	72	74	62	64	45	48	88	79	77
Reported	78	80	46	41	72	74	62	64	45	48	88	79	77
Official	33	93	46	41	72	74	62	64	45	48	88	79	77
Administrative	NA	NA	48	NA	72	72	62	64	45	48	88	79	77
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Angola - HepB3



## Description:

2007: Estimate based on reported data. HepB introduced in 2006. Reporting started in 2007. Vaccine presentation is DTP-HepB-Hib. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach, and mobile teams during the second semester of 2007.

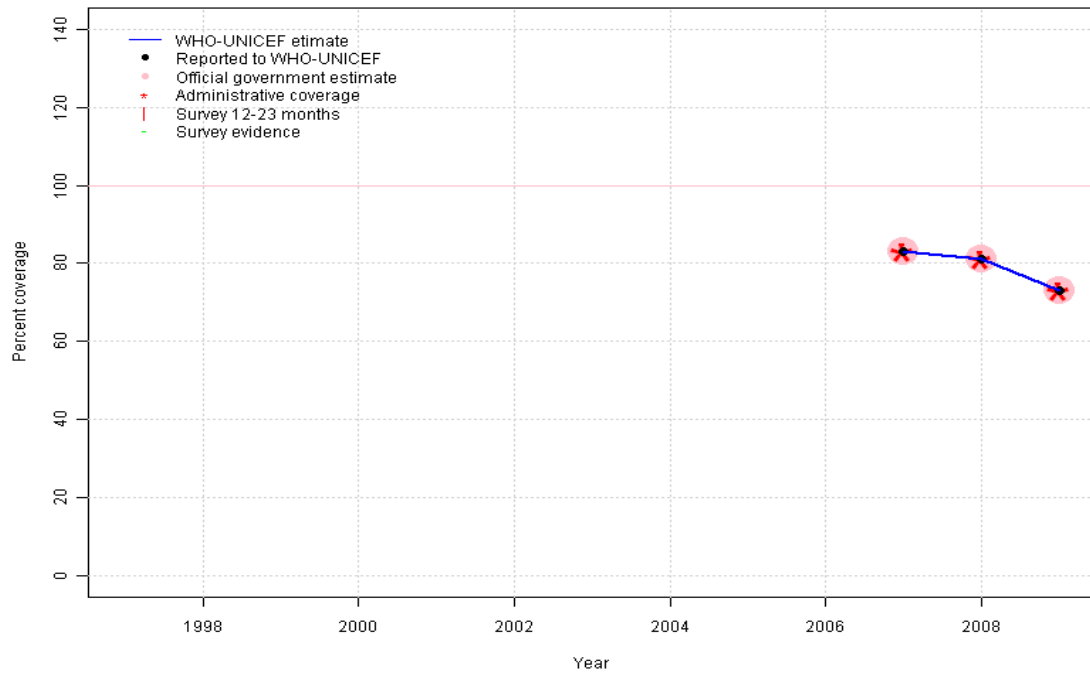
2008: Estimate based on reported data.

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	NA	NA	NA	NA	83	81	73
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83	81	73
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83	81	73
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83	81	73
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Angola - Hib3

AGO - Hib3



## Description:

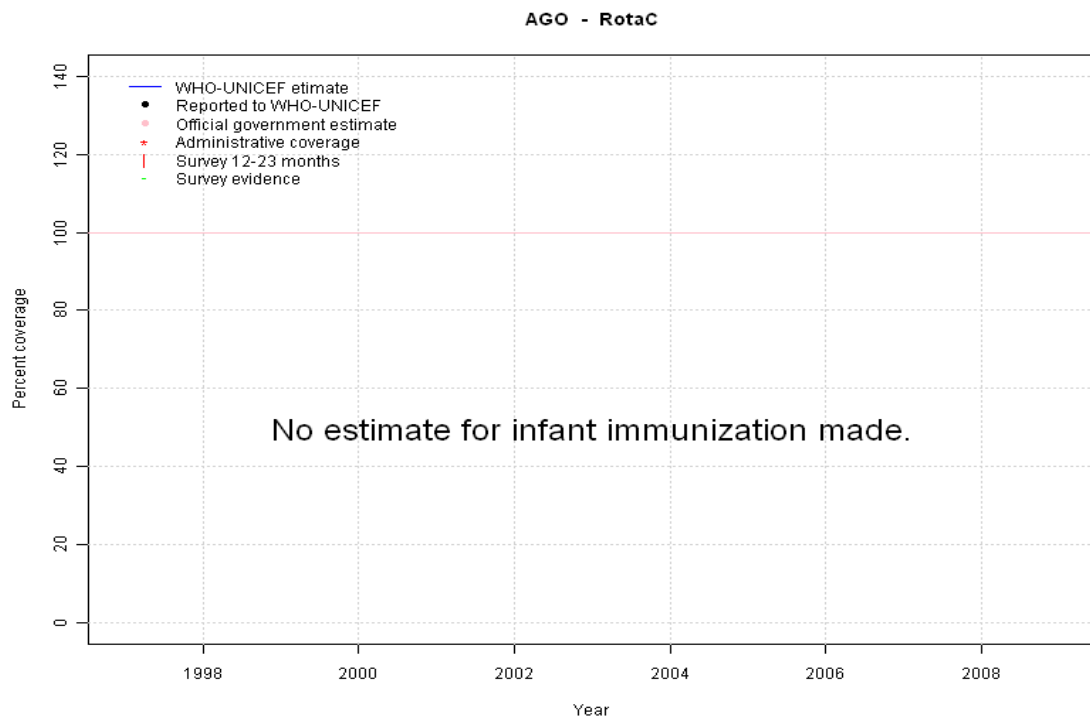
2007: Estimate based on reported data. Hib introduced in 2006. Reporting started in 2007. Vaccine presentation is DTP-HepB-Hib. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach, and mobile teams during the second semester of 2007.

2008: Estimate based on reported data.

2009: Estimate based on reported data.

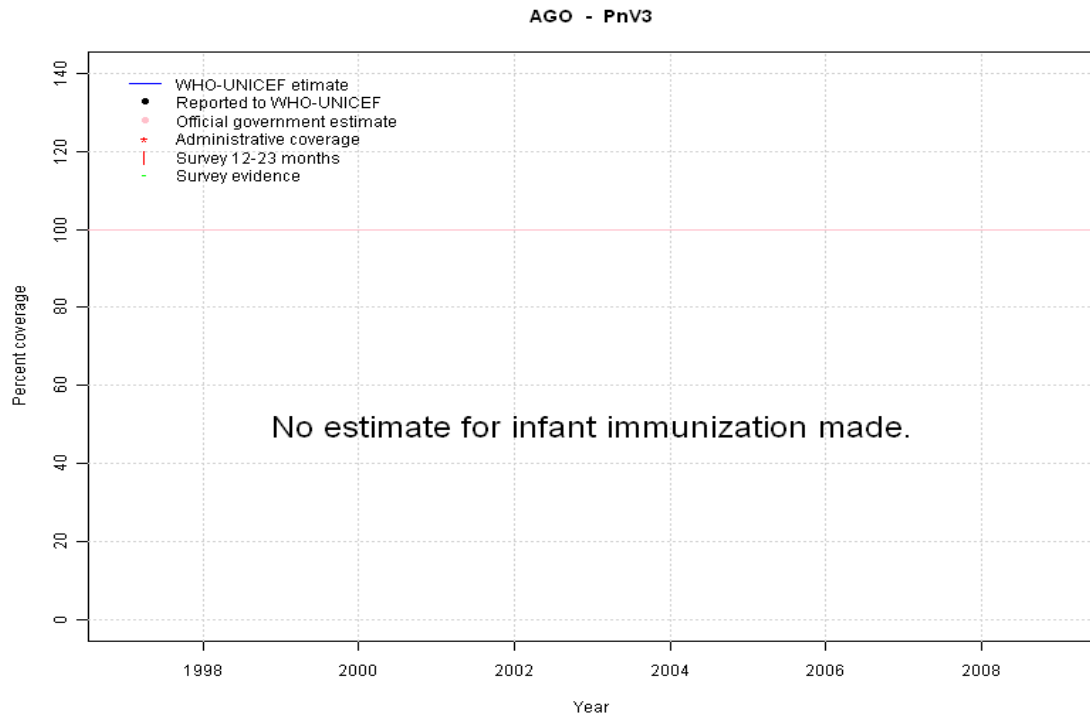
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83	81	73
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83	81	73
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83	81	73
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83	81	73
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Angola - 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

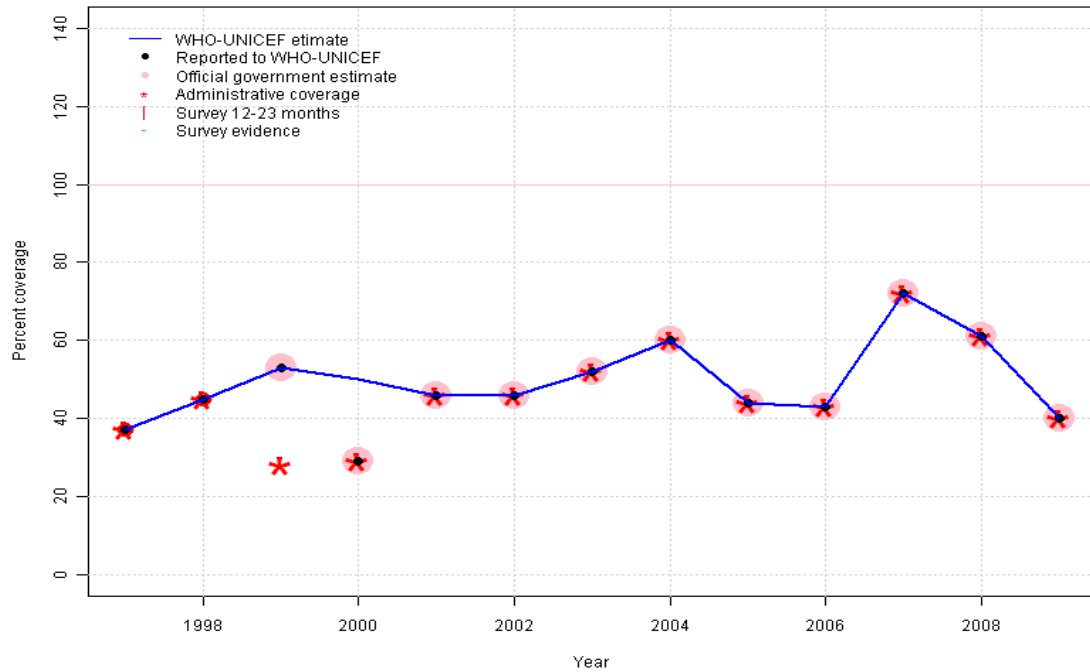
# Angola - PnV3



	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

# Angola - YFV

AGO - YFV



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	37	45	53	50	46	46	52	60	44	43	72	61	40
Reported	37	45	53	29	46	46	52	60	44	43	72	61	40
Official	NA	NA	53	29	46	46	52	60	44	43	72	61	40
Administrative	37	45	28	29	46	46	52	60	44	43	72	61	40
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

## Description:

1997: Estimate based on reported data.

1998: Estimate based on reported data.

1999: Estimate based on reported data. The resurgence of the war in December 1998 weakened the capacity of the Ministry of Health to carry out immunization activities. In 1999 only 18 of 164 districts reported. Since then there has been an improvement in the number of districts reporting (75 percent in 2003).

2000: Estimate based on reported data. Missing or ignored reported value estimated by interpolation between reported values of 53 percent in 1999 and 46 percent in 2001. 2000 reported data (29 percent) inconsistent with data from other years.

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.

2007: Estimate based on reported data. The increase in 2007 is the result of intensive national efforts targeting districts with high levels of unvaccinated children through increased fixed post, outreach, and mobile teams during the second semester of 2007. Reported data accepted for other antigens.

2008: Estimate based on reported data. Decline result of vaccine stock out in 46 districts.

2009: Estimate based on reported data. Decline result of vaccine stock out in 138 districts.

# Angola - survey details

## 2000 Angola Multiple Indicator Cluster Survey 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card <12 months	63	12-23 m	1102	34
BCG	Card or History	69	12-23 m	1102	34
BCG	History	36	12-23 m	1102	34
BCG	Card	33	12-23 m	1102	34
DTP1	Card	29	12-23 m	1102	34
DTP1	Card <12 months	50	12-23 m	1102	34
DTP1	Card or History	56	12-23 m	1102	34
DTP1	History	27	12-23 m	1102	34
DTP3	History	11	12-23 m	1102	34
DTP3	Card	23	12-23 m	1102	34
DTP3	Card <12 months	28	12-23 m	1102	34

DTP3	Card or History	34	12-23 m	1102	34
MCV	Card <12 months	42	12-23 m	1102	34
MCV	Card or History	53	12-23 m	1102	34
MCV	History	28	12-23 m	1102	34
MCV	Card	25	12-23 m	1102	34
Pol1	Card	30	12-23 m	1102	34
Pol1	Card <12 months	74	12-23 m	1102	34
Pol1	Card or History	82	12-23 m	1102	34
Pol1	History	52	12-23 m	1102	34
Pol3	History	40	12-23 m	1102	34
Pol3	Card	24	12-23 m	1102	34
Pol3	Card <12 months	51	12-23 m	1102	34
Pol3	Card or History	63	12-23 m	1102	34

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)

## Angola

### 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	51
1998	52
1999	56
2000	60
2001	64
2002	68
2003	71
2004	73
2005	75
2006	77
2007	78
2008	79
2009	88

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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.