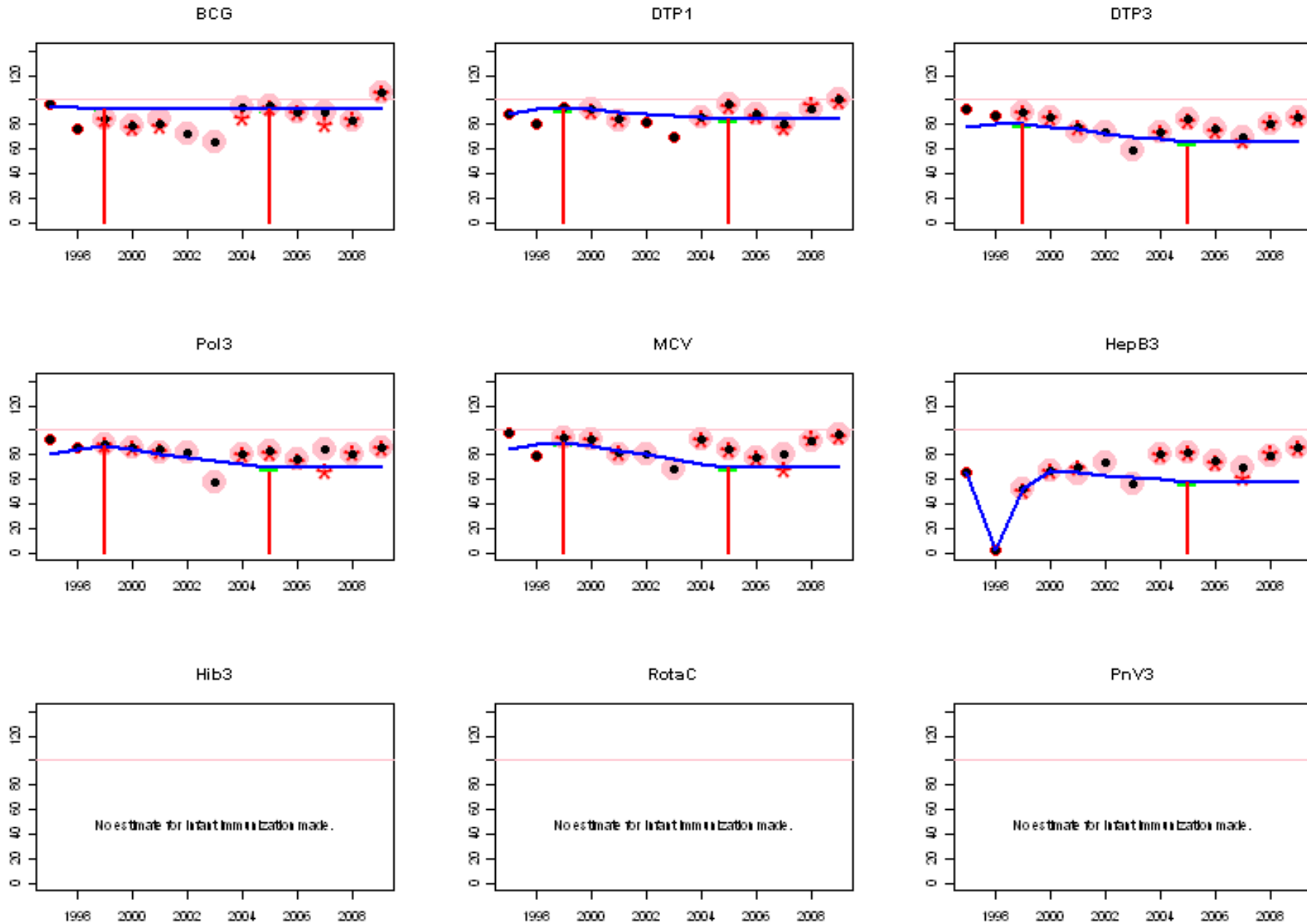
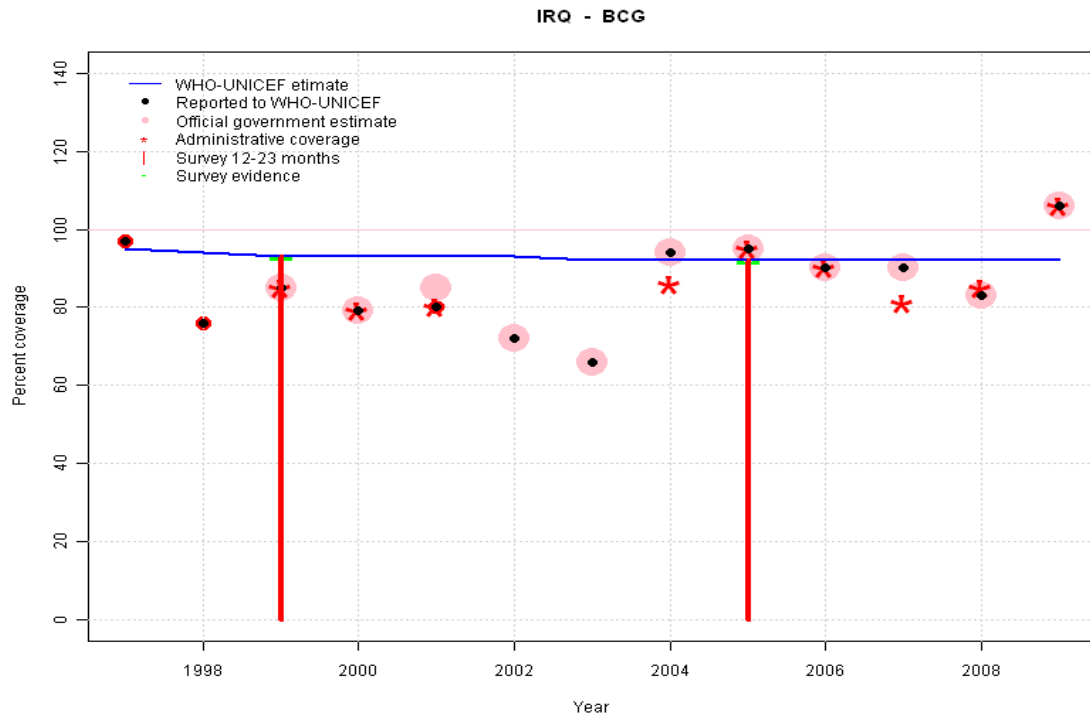


Iraq: WHO and UNICEF estimates of immunization coverage, 1997 - 2009



Iraq - BCG

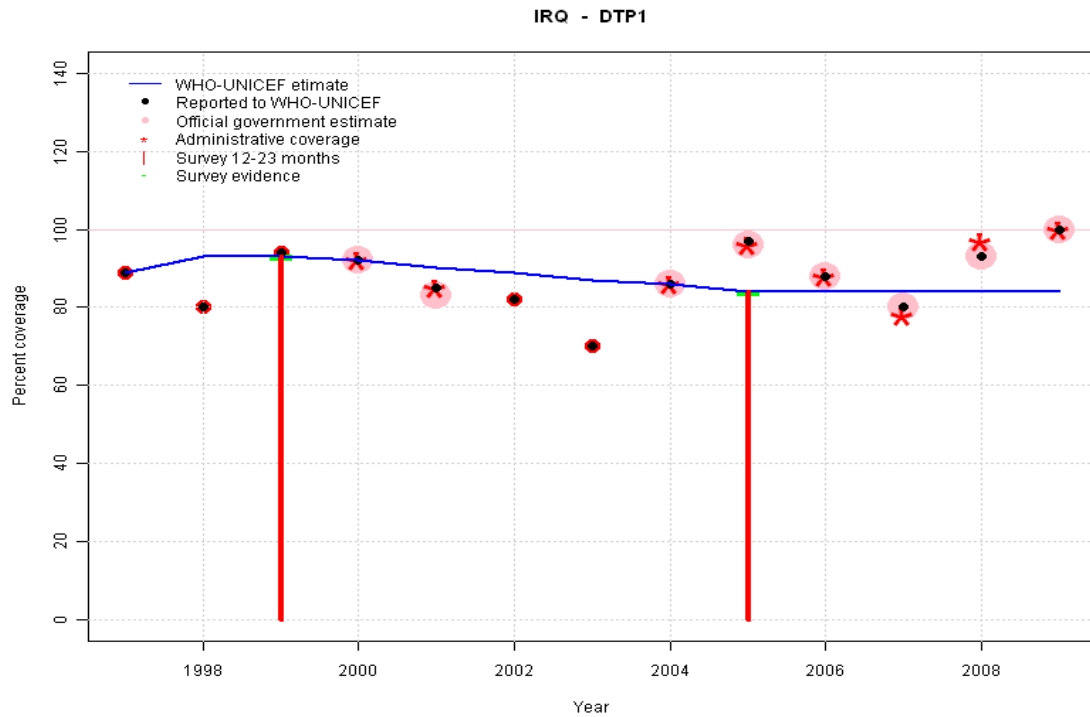


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	95	94	93	93	93	93	92	92	92	92	92	92	92
Reported	97	76	85	79	80	72	66	94	95	90	90	83	106
Official	NA	NA	85	79	85	72	66	94	95	90	90	83	106
Administrative	NA	NA	85	79	80	NA	NA	86	95	90	81	85	106
Survey	NA	NA	93	NA	NA	NA	NA	NA	92	NA	NA	NA	NA

Description:

- 1997: Legacy estimate.
- 1998: Estimate based on working group decision to interpolated between 1997 and 1999. Service and reporting system effected by local situation
- 1999: Service and reporting system effected by local situation
- 2000: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2001: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2002: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2003: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2004: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2005: Service and reporting system effected by local situation
- 2006: Estimate extrapolated from 2005 level (92 percent).
- 2007: Estimate extrapolated from 2005 level (92 percent).
- 2008: Estimate extrapolated from 2005 level (92 percent).
- 2009: Estimate extrapolated from 2005 level (92 percent). 2009 reported data (106 percent) ignored; greater than 100 percent. 2009 reported data (106 percent) inconsistent with data from other years. Ministry of Health highlights increases in coverage since 2007. Upcoming MICS4 survey results awaited to confirm the rise in coverage.

Iraq - DTP1

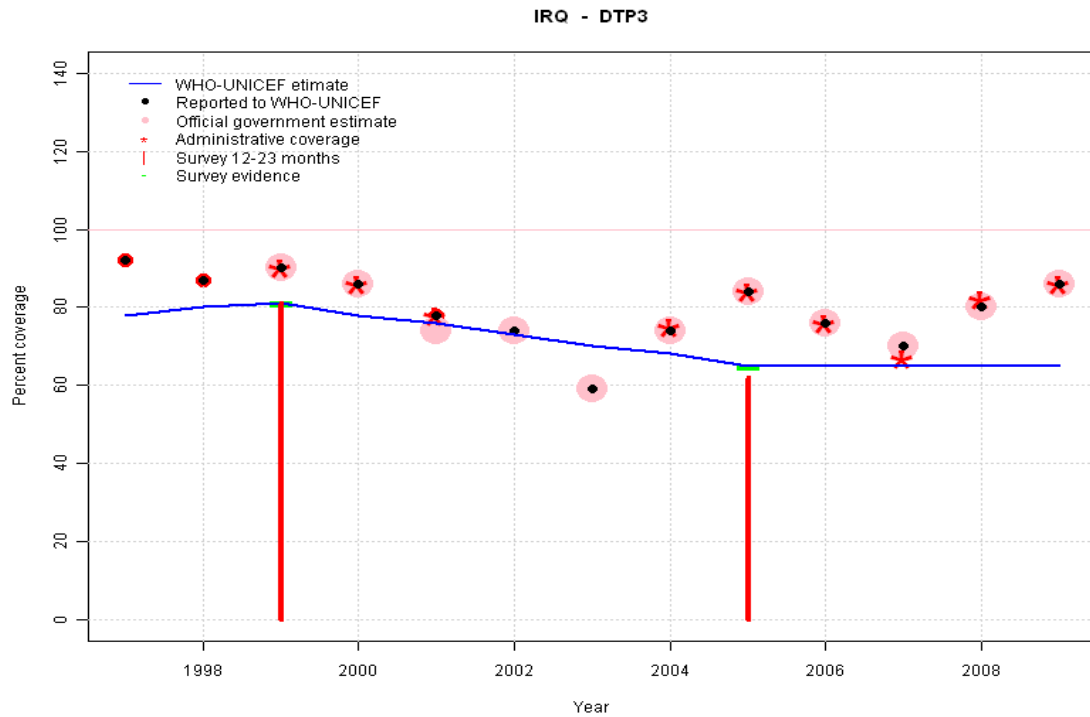


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	89	93	93	92	90	89	87	86	84	84	84	84	84
Reported	89	80	94	92	85	82	70	86	97	88	80	93	100
Official	NA	NA	NA	92	83	NA	NA	86	96	88	80	93	100
Administrative	NA	NA	NA	92	85	NA	NA	86	96	88	78	97	100
Survey	NA	NA	93	NA	NA	NA	NA	NA	84	NA	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: Service and reporting system effected by local situation
- 2000: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2001: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2002: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2003: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation 2003 reported data (70 percent) inconsistent with data from other years.
- 2004: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2005: Service and reporting system effected by local situation
- 2006: Estimate extrapolated from 2005 level (84 percent).
- 2007: Estimate extrapolated from 2005 level (84 percent).
- 2008: Estimate extrapolated from 2005 level (84 percent).
- 2009: Estimate extrapolated from 2005 level (84 percent). Ministry of Health highlights increases in coverage since 2007. Upcoming MICS4 survey results awaited to confirm the rise in coverage.

Iraq - DTP3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	78	80	81	78	76	73	70	68	65	65	65	65	65
Reported	92	87	90	86	78	74	59	74	84	76	70	80	86
Official	NA	NA	90	86	74	74	59	74	84	76	70	80	86
Administrative	NA	NA	90	86	78	NA	NA	75	84	76	67	82	86
Survey	NA	NA	81	NA	NA	NA	NA	NA	65	NA	NA	NA	NA

Description:

1997: Legacy estimate.

1998: Estimate interpolated between 1997 and 1999 estimates.

1999: Service and reporting system effected by local situation

2000: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation

2001: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation

2002: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation

2003: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation 2003 reported data (59 percent) inconsistent with data from other years.

2004: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation

2005: Service and reporting system effected by local situation Survey results (62 percent) adjusted for recall bias to 65 percent based on first dose card or history coverage (84 percent) and documented drop-out between first (49 percent) and third (38 percent) doses.

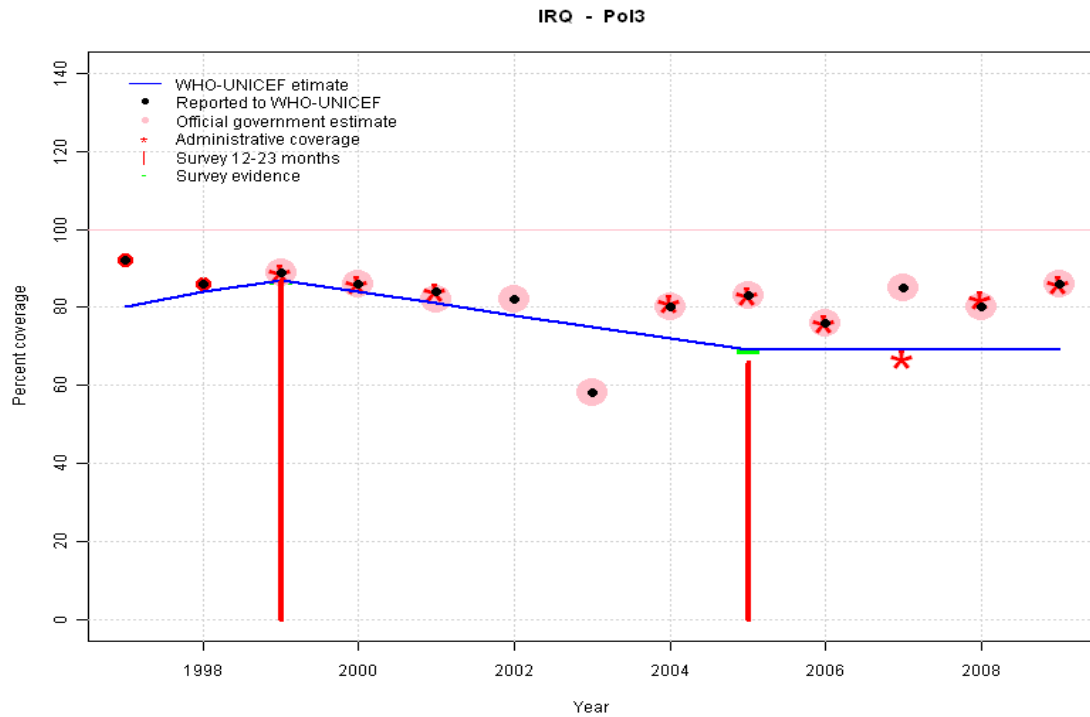
2006: Estimate extrapolated from 2005 level (65 percent).

2007: Estimate extrapolated from 2005 level (65 percent).

2008: Estimate extrapolated from 2005 level (65 percent).

2009: Estimate extrapolated from 2005 level (65 percent). Ministry of Health highlights increases in coverage since 2007. Upcoming MICS4 survey results awaited to confirm the rise in coverage.

Iraq - Pol3

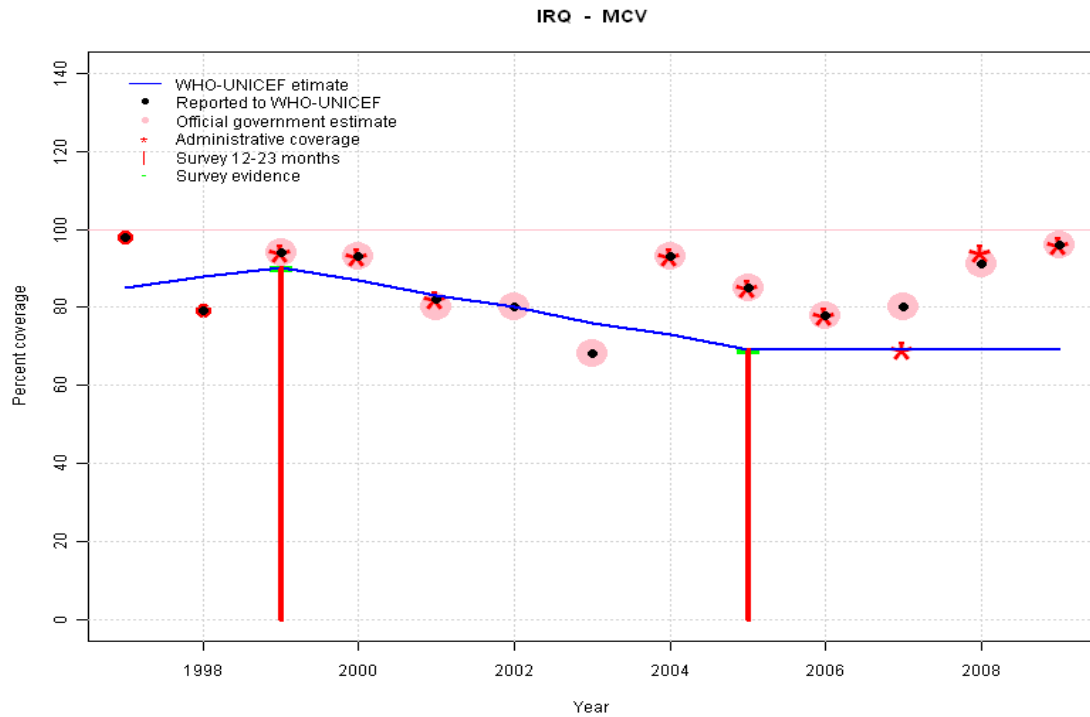


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	80	84	87	84	81	78	75	72	69	69	69	69	69
Reported	92	86	89	86	84	82	58	80	83	76	85	80	86
Official	NA	NA	89	86	82	82	58	80	83	76	85	80	86
Administrative	NA	NA	89	86	84	NA	NA	81	83	76	67	82	86
Survey	NA	NA	87	NA	NA	NA	NA	NA	69	NA	NA	NA	NA

Description:

- 1997: Legacy estimate.
- 1998: Estimate interpolated between 1997 and 1999 estimates.
- 1999: Service and reporting system effected by local situation
- 2000: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2001: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2002: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2003: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation 2003 reported data (58 percent) inconsistent with data from other years.
- 2004: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2005: Service and reporting system effected by local situation Survey results (66 percent) adjusted for recall bias to 69 percent based on first dose card or history coverage (91 percent) and documented drop-out between first (49 percent) and third (37 percent) doses.
- 2006: Estimate extrapolated from 2005 level (69 percent).
- 2007: Estimate extrapolated from 2005 level (69 percent).
- 2008: Estimate extrapolated from 2005 level (69 percent).
- 2009: Estimate extrapolated from 2005 level (69 percent). Ministry of Health highlights increases in coverage since 2007. Upcoming MICS4 survey results awaited to confirm the rise in coverage.

Iraq - MCV

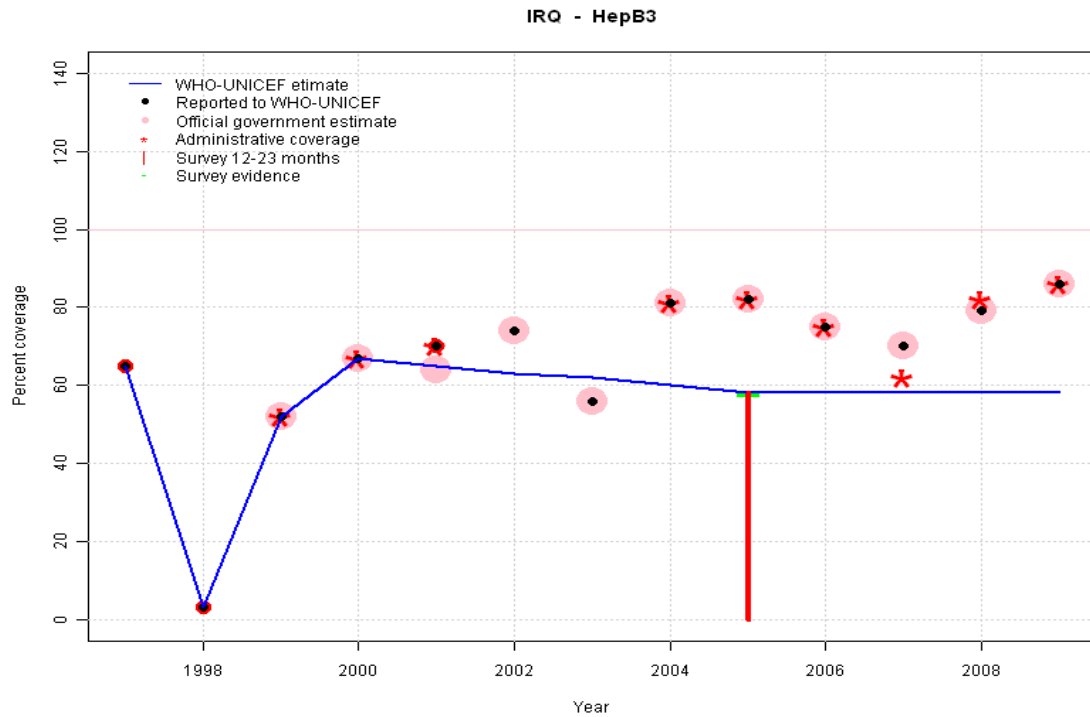


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	85	88	90	87	83	80	76	73	69	69	69	69	69
Reported	98	79	94	93	82	80	68	93	85	78	80	91	96
Official	NA	NA	94	93	80	80	68	93	85	78	80	91	96
Administrative	NA	NA	94	93	82	NA	NA	93	85	78	69	94	96
Survey	NA	NA	90	NA	NA	NA	NA	NA	69	NA	NA	NA	NA

Description:

- 1997: Legacy estimate.
- 1998: Estimate interpolated between 1997 and 1999 estimates. 1998 reported data (79 percent) inconsistent with data from other years.
- 1999: Service and reporting system effected by local situation
- 2000: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2001: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2002: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2003: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation 2003 reported data (68 percent) inconsistent with data from other years.
- 2004: Estimate based on working group decision to interpolated between 1999 and 2005. Service and reporting system effected by local situation
- 2005: Service and reporting system effected by local situation
- 2006: Estimate extrapolated from 2005 level (69 percent).
- 2007: Estimate extrapolated from 2005 level (69 percent).
- 2008: Estimate extrapolated from 2005 level (69 percent).
- 2009: Estimate extrapolated from 2005 level (69 percent). Ministry of Health highlights increases in coverage since 2007. Upcoming MICS4 survey results awaited to confirm the rise in coverage.

Iraq - HepB3

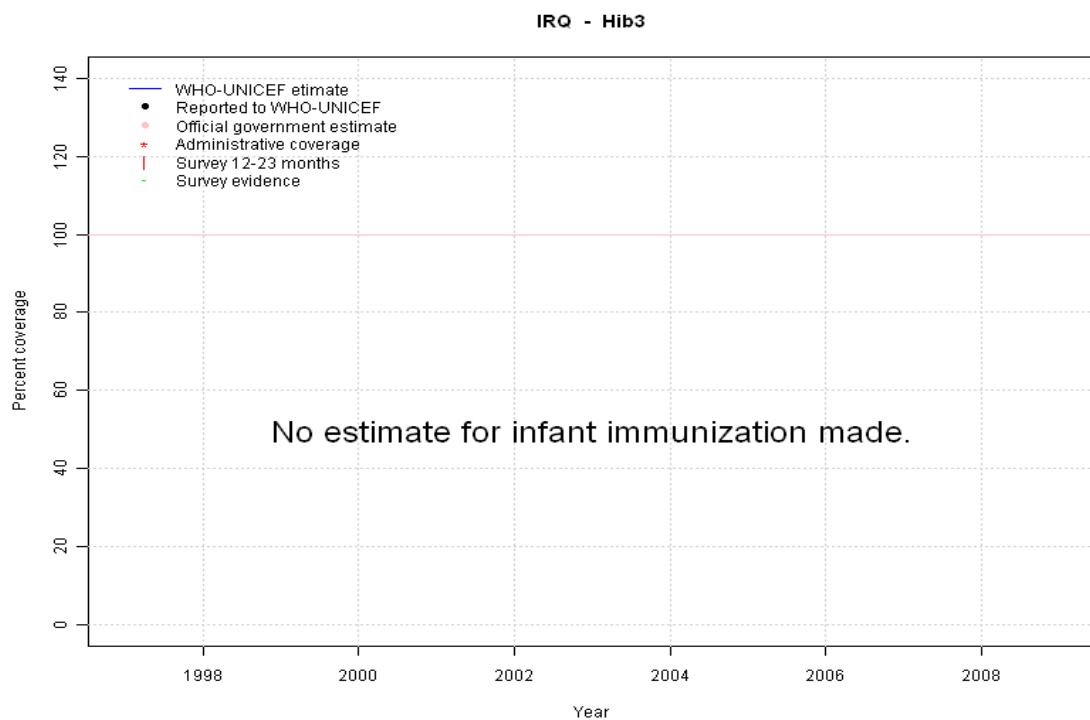


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	65	3	52	67	65	63	62	60	58	58	58	58	58
Reported	65	3	52	67	70	74	56	81	82	75	70	79	86
Official	NA	NA	52	67	64	74	56	81	82	75	70	79	86
Administrative	NA	NA	52	67	70	NA	NA	81	82	75	62	82	86
Survey	NA	NA	NA	NA	NA	NA	NA	NA	58	NA	NA	NA	NA

Description:

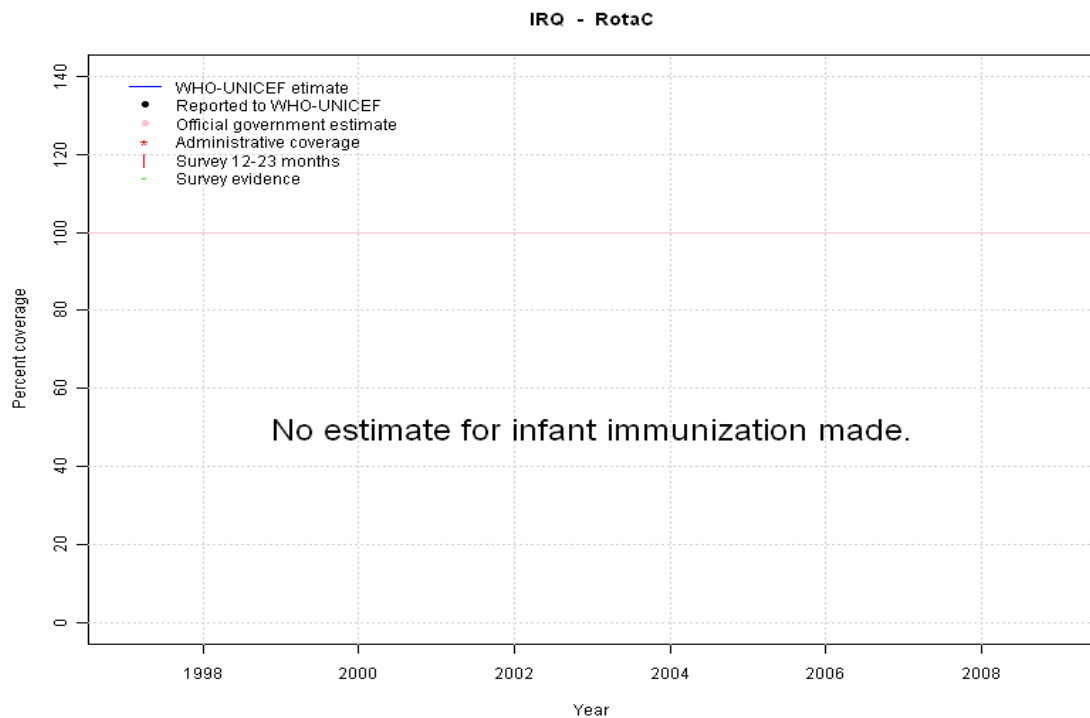
- 1997: Legacy estimate.
- 1998: Hepatitis B vaccine introduced in 1994 and Fluctuations are most likely the result of unstable vaccine supply. 1998 reported data (3 percent) inconsistent with data from other years.
- 1999: Hepatitis B vaccine introduced in 1994 and Fluctuations are most likely the result of unstable vaccine supply.
- 2000: Estimates since 1999 assume that supply issues have been resolved and coverage reaches DTP3 levels - both vaccines are recommended at the same ages.
- 2001: Estimate based on working group decision to interpolated between 2000 and 2005. Service and reporting system effected by local situation
- 2002: Estimate based on working group decision to interpolated between 2000 and 2005. Service and reporting system effected by local situation
- 2003: Estimate based on working group decision to interpolated between 2000 and 2005. Service and reporting system effected by local situation 2003 reported data (56 percent) inconsistent with data from other years.
- 2004: Estimate based on working group decision to interpolated between 2000 and 2005. Service and reporting system effected by local situation
- 2005: Estimate based on survey results. Reported data (82 percent) not consistent with survey results (58 percent).
- 2006: Estimate extrapolated from 2005 level (58 percent).
- 2007: Estimate extrapolated from 2005 level (58 percent).
- 2008: Estimate extrapolated from 2005 level (58 percent).
- 2009: Estimate extrapolated from 2005 level (58 percent). Ministry of Health highlights increases in coverage since 2007. Upcoming MICS4 survey results awaited to confirm the rise in coverage.

Iraq - Hib3



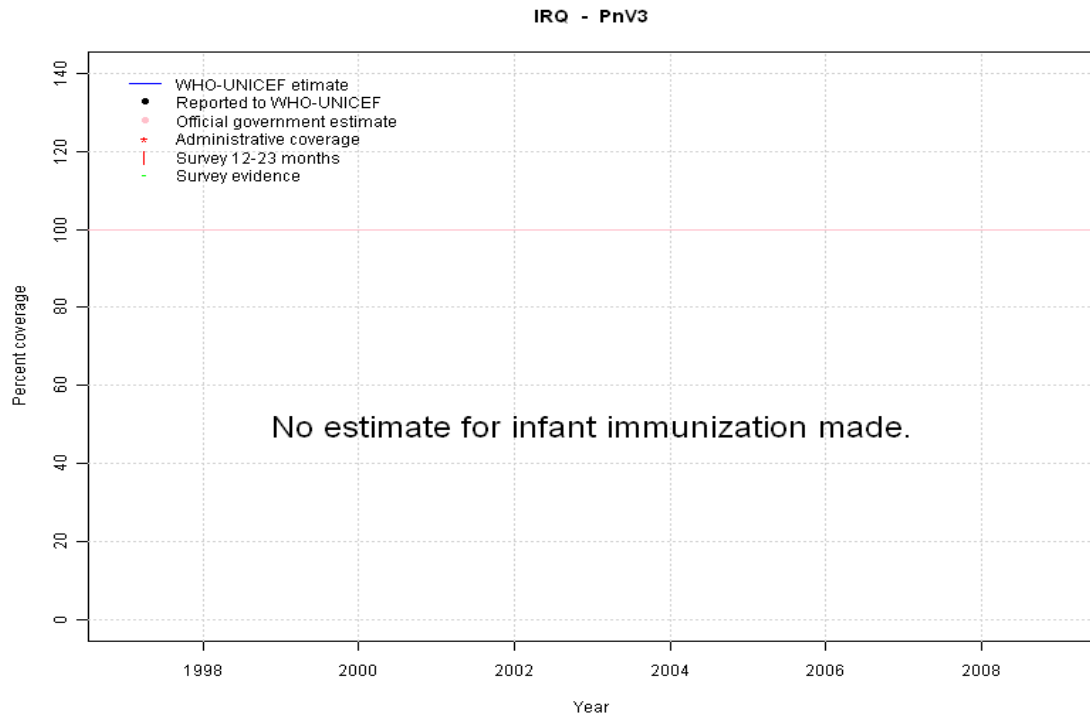
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA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

Iraq - 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

Iraq - 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

Iraq - survey details

2005 Iraq Multiple Indicator Cluster Survey 2006

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	91	18-29 m	3329	55
BCG	Card	54	18-29 m	3329	55
BCG	Card or History	92	18-29 m	3329	55
BCG	History	39	18-29 m	3329	55
DTP1	C or H <12 months	82	18-29 m	3329	55
DTP1	Card	49	18-29 m	3329	55
DTP1	Card or History	84	18-29 m	3329	55
DTP1	History	36	18-29 m	3329	55
DTP3	History	24	18-29 m	3329	55
DTP3	C or H <12 months	53	18-29 m	3329	55
DTP3	Card	38	18-29 m	3329	55
DTP3	Card or History	62	18-29 m	3329	55
HepB1	Card	54	18-29 m	3329	55
HepB1	Card or History	88	18-29 m	3329	55
HepB1	History	34	18-29 m	3329	55
HepB1	C or H <12 months	87	18-29 m	3329	55
HepB3	Card	38	18-29 m	3329	55
HepB3	Card or History	58	18-29 m	3329	55
HepB3	History	19	18-29 m	3329	55
HepB3	C or H <12 months	49	18-29 m	3329	55

MCV	Card	39	18-29 m	3329	55
MCV	Card or History	69	18-29 m	3329	55
MCV	History	31	18-29 m	3329	55
Pol1	Card	49	18-29 m	3329	55
Pol1	Card or History	91	18-29 m	3329	55
Pol1	C or H <12 months	88	18-29 m	3329	55
Pol1	History	42	18-29 m	3329	55
Pol3	History	28	18-29 m	3329	55
Pol3	C or H <12 months	57	18-29 m	3329	55
Pol3	Card	37	18-29 m	3329	55
Pol3	Card or History	66	18-29 m	3329	55

1999 Iraq MICS 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	93	12-23 m	434	78
DTP1	Card or History	93	12-23 m	434	78
DTP3	Card or History	81	12-23 m	434	78
MCV	Card or History	90	12-23 m	434	78
Pol1	Card or History	96	12-23 m	434	78
Pol3	Card or History	87	12-23 m	434	78

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

http://www.childinfo.org/immunization_countryreports.html

http://www.who.int/immunization_monitoring/routine/immunization_coverage/en/index4.html

Iraq

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	75
1998	70
1999	73
2000	75
2001	86
2002	87
2003	88
2004	88
2005	71
2006	70
2007	69
2008	69
2009	69

¹ 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.