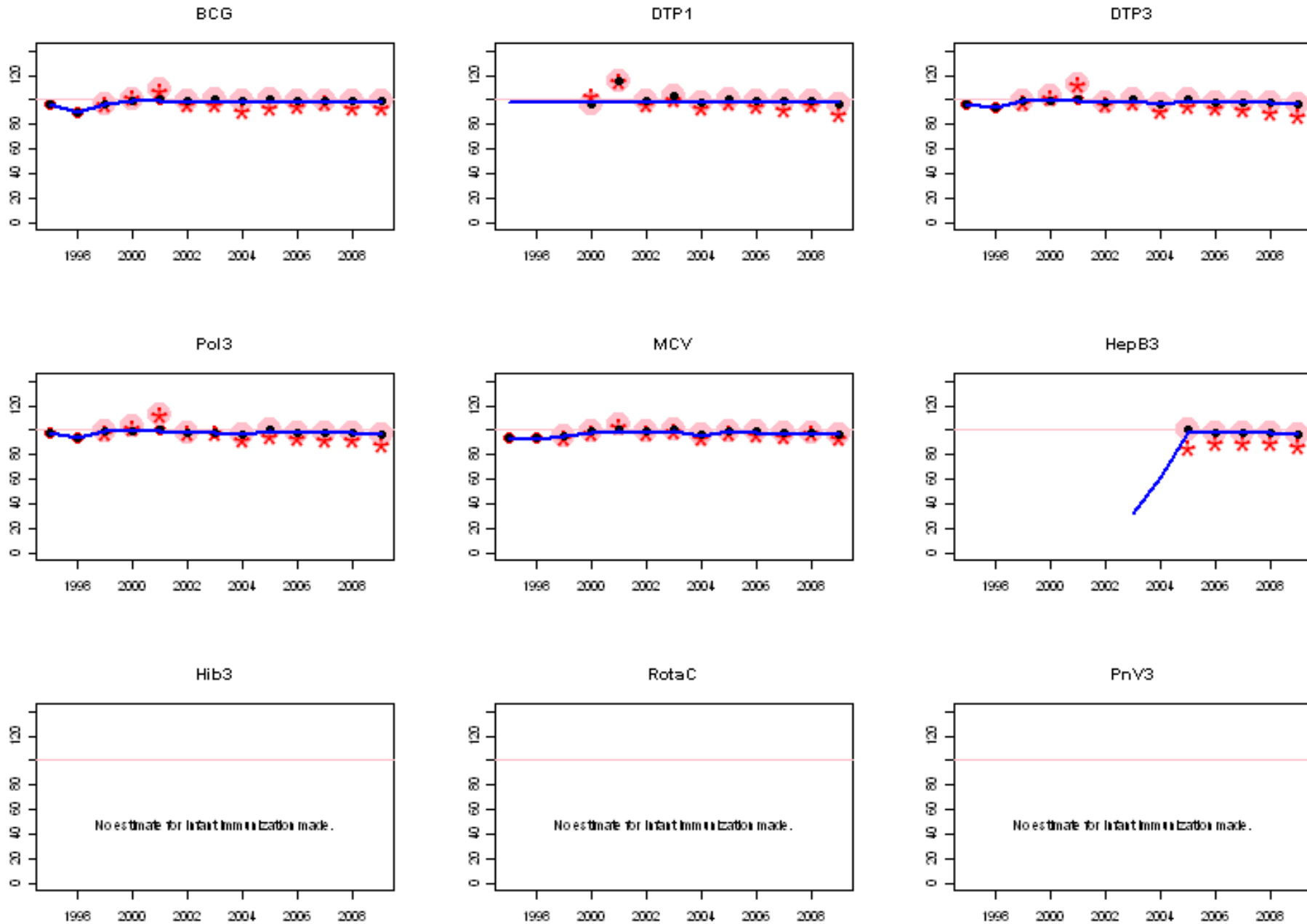
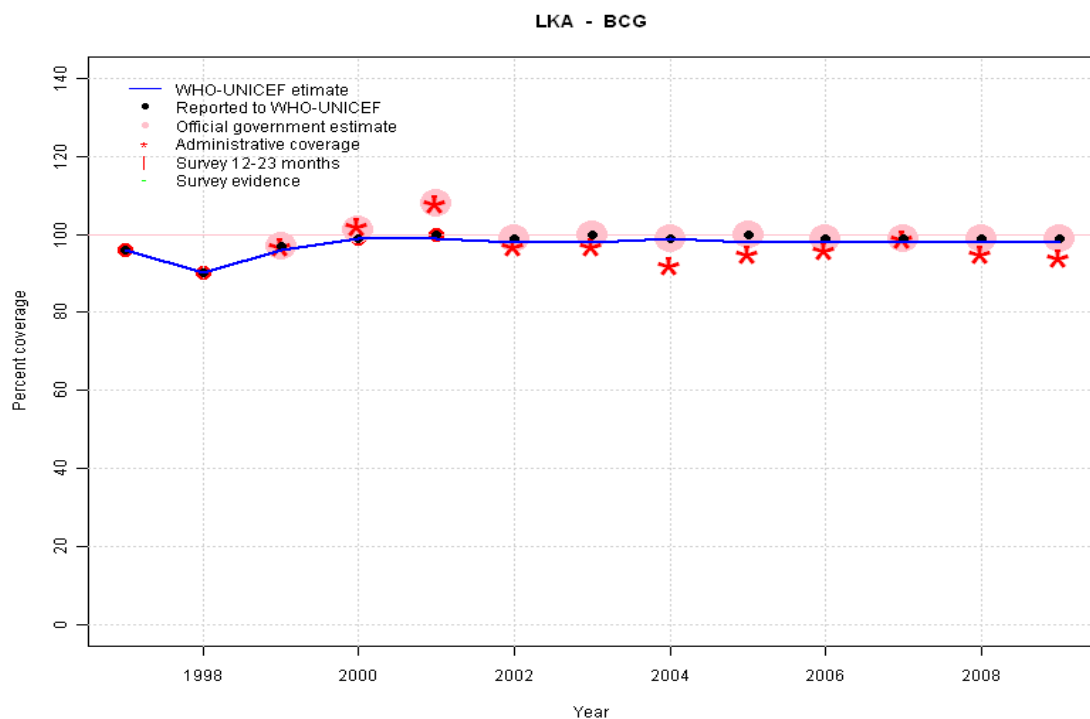


Sri Lanka: WHO and UNICEF estimates of immunization coverage, 1997 - 2009



# Sri Lanka - BCG



## Description:

1997: Legacy estimate.

1998: Reported data (90 percent) calibrated to 1997 and 2006 levels.

1999: Reported data (97 percent) calibrated to 1997 and 2006 levels.

2000: Reported data (99 percent) calibrated to 1997 and 2006 levels.

2001: Reported data (99 percent) calibrated to 1997 and 2006 levels.

2002: Reported data (99 percent) calibrated to 1997 and 2006 levels.

2003: Reported data (99 percent) calibrated to 1997 and 2006 levels.

2004: Reported data (99 percent) calibrated to 1997 and 2006 levels.

2005: Reported data (99 percent) calibrated to 1997 and 2006 levels.

2006:

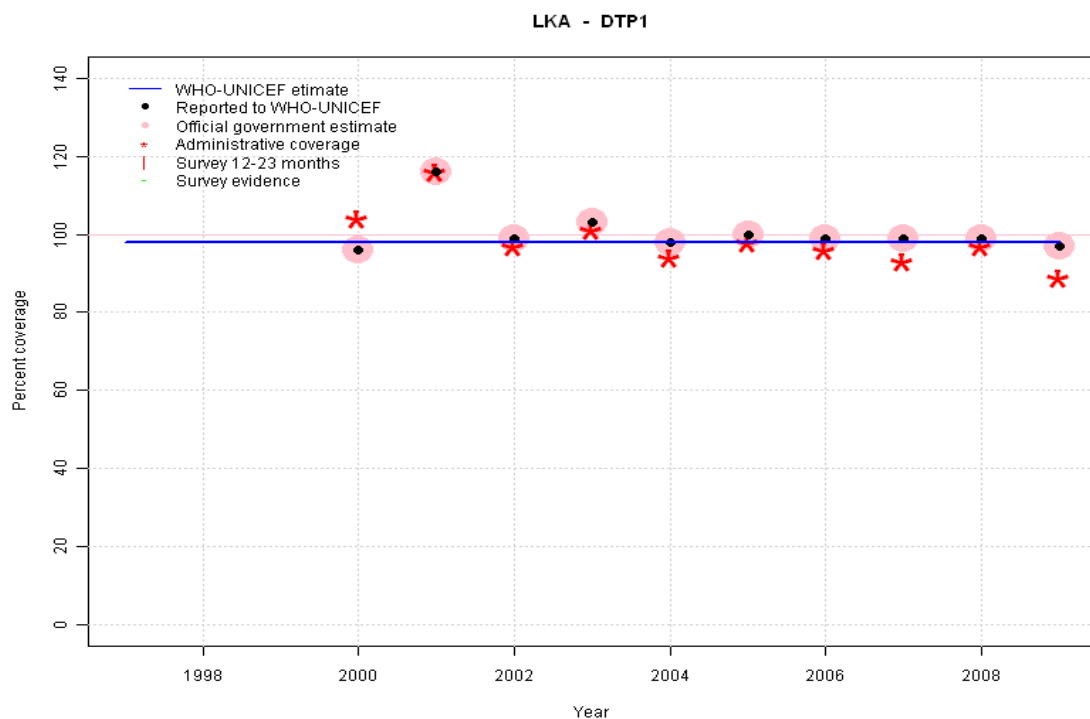
2007: Reported data (99 percent) calibrated to 2006 level (98 percent).

2008: Reported data (99 percent) calibrated to 2006 level (98 percent).

2009: Reported data (99 percent) calibrated to 2006 level (98 percent). In April 2008 Sri Lanka withdrew DTP-HepB-Hib pentavalent vaccine as a precautionary measure following reports of serious adverse events. Subsequent investigation of the reported adverse events and a review of the vaccine quality by WHO concluded that there was no evidence of increased safety risk associated with the vaccine. The suspension of the vaccine led to a high proportion of parents seeking Hib immunization for their children in the private sector. Reporting by the private sector is not complete. Nationally reported estimates have been adjusted to levels of measles coverage provided in the public sector.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	96	90	96	99	99	98	98	99	98	98	98	98	98
Reported	96	90	97	99	100	99	100	99	100	99	99	99	99
Official	NA	NA	97	101	108	99	100	99	100	99	99	99	99
Administrative	NA	NA	97	102	108	97	97	92	95	96	99	95	94
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Sri Lanka - DTP1



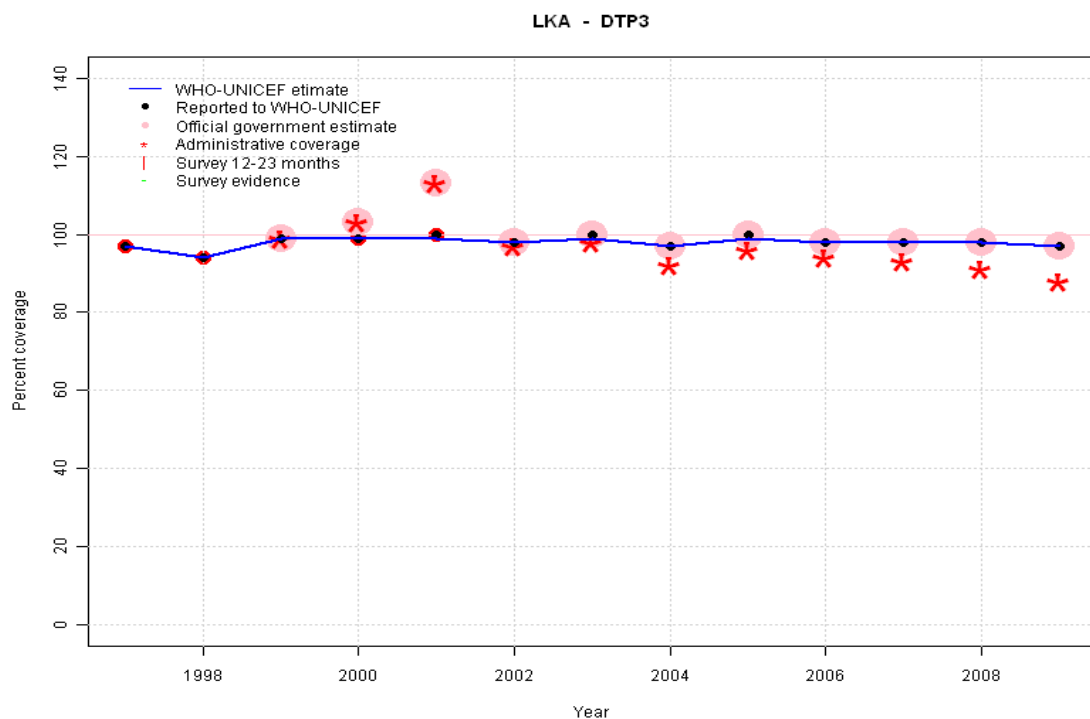
## Description:

- 1997: Legacy estimate.
- 1998: Estimate interpolated between 1997 and 2006 estimates.
- 1999: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2000: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2001: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2002: Estimate interpolated between 1997 and 2006 estimates.
- 2003: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2004: Estimate interpolated between 1997 and 2006 estimates.
- 2005: Estimated DTP3 greater than estimated DTP1; DTP1 estimate based on the relationship between DTP1 and DTP3 from 282 surveys.
- 2006:
- 2007: Estimate extrapolated from 2006 level (98 percent).
- 2008: Estimate extrapolated from 2006 level (98 percent).
- 2009: Estimate extrapolated from 2006 level (98 percent). In April 2008 Sri Lanka withdrew DTP-HepB-Hib pentavalent vaccine as a precautionary measure following reports of serious adverse events. Subsequent investigation of the reported adverse events and a review of the vaccine quality by WHO concluded that there was no evidence of increased safety risk associated with the vaccine. The suspension of the vaccine led to a high proportion of parents seeking Hib immunization for their children in the private sector. Reporting by the private sector is not complete. Nationally reported estimates have been adjusted to levels of measles coverage provided in the public sector.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	98	98	98	98	98	98	98	98	98	98	98	98	98
Reported	NA	NA	NA	96	116	99	103	98	100	99	99	99	97
Official	NA	NA	NA	96	116	99	103	98	100	99	99	99	97
Administrative	NA	NA	NA	104	116	97	101	94	98	96	93	97	89
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Sri Lanka - DTP3

## Description:



1997: Legacy estimate.

1998: Estimate based on reported data.

1999: Estimate based on 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:

2007: Estimate based on reported data.

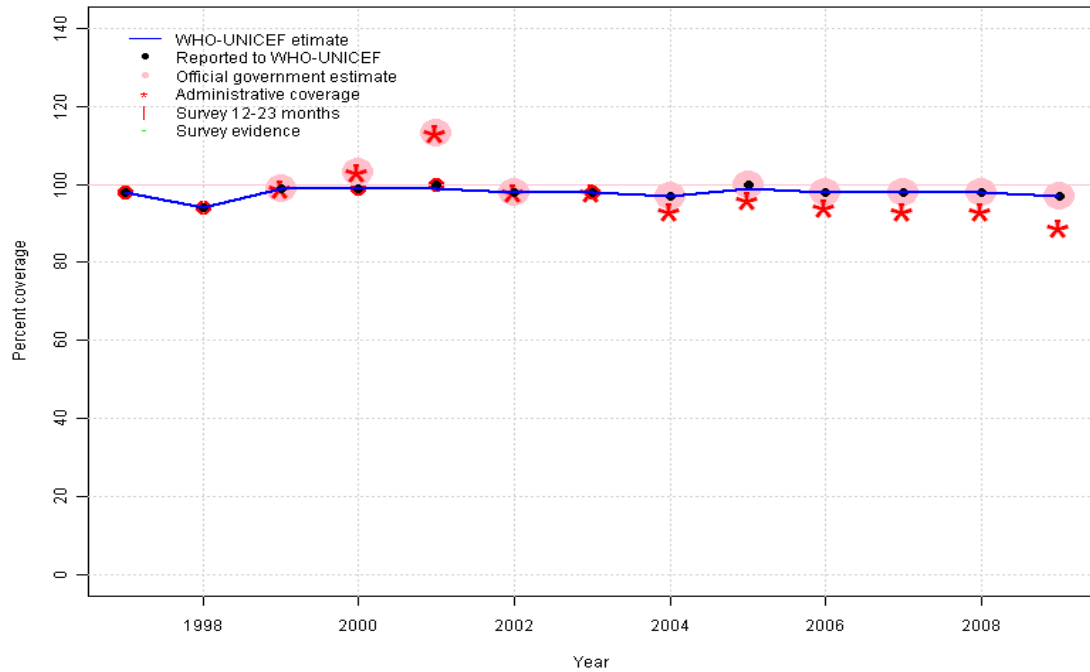
2008: Estimate based on reported data.

2009: Estimate based on reported data. In April 2008 Sri Lanka withdrew DTP-HepB-Hib pentavalent vaccine as a precautionary measure following reports of serious adverse events. Subsequent investigation of the reported adverse events and a review of the vaccine quality by WHO concluded that there was no evidence of increased safety risk associated with the vaccine. The suspension of the vaccine led to a high proportion of parents seeking Hib immunization for their children in the private sector. Reporting by the private sector is not complete. Nationally reported estimates have been adjusted to levels of measles coverage provided in the public sector.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	97	94	99	99	99	98	99	97	99	98	98	98	97
Reported	97	94	99	99	100	98	100	97	100	98	98	98	97
Official	NA	NA	99	103	113	98	100	97	100	98	98	98	97
Administrative	NA	NA	99	103	113	97	98	92	96	94	93	91	88
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Sri Lanka - Pol3

LKA - Pol3



## Description:

1997: Legacy estimate.

1998: Estimate based on reported data.

1999: Estimate based on 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:

2007: Estimate based on reported data.

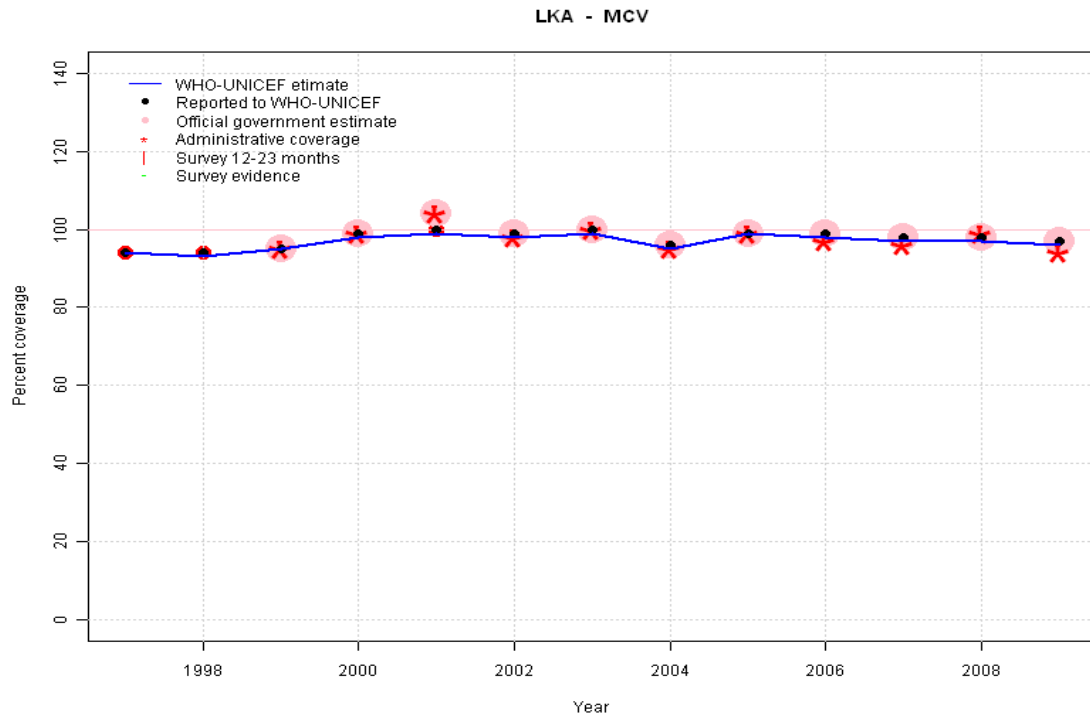
2008: Estimate based on reported data.

2009: Estimate based on reported data. In April 2008 Sri Lanka withdrew DTP-HepB-Hib pentavalent vaccine as a precautionary measure following reports of serious adverse events. Subsequent investigation of the reported adverse events and a review of the vaccine quality by WHO concluded that there was no evidence of increased safety risk associated with the vaccine. The suspension of the vaccine led to a high proportion of parents seeking Hib immunization for their children in the private sector. Reporting by the private sector is not complete. Nationally reported estimates have been adjusted to levels of measles coverage provided in the public sector.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	98	94	99	99	99	98	98	97	99	98	98	98	97
Reported	98	94	99	99	100	98	98	97	100	98	98	98	97
Official	NA	NA	99	103	113	98	NA	97	100	98	98	98	97
Administrative	NA	NA	99	103	113	98	98	93	96	94	93	93	89
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Sri Lanka - MCV

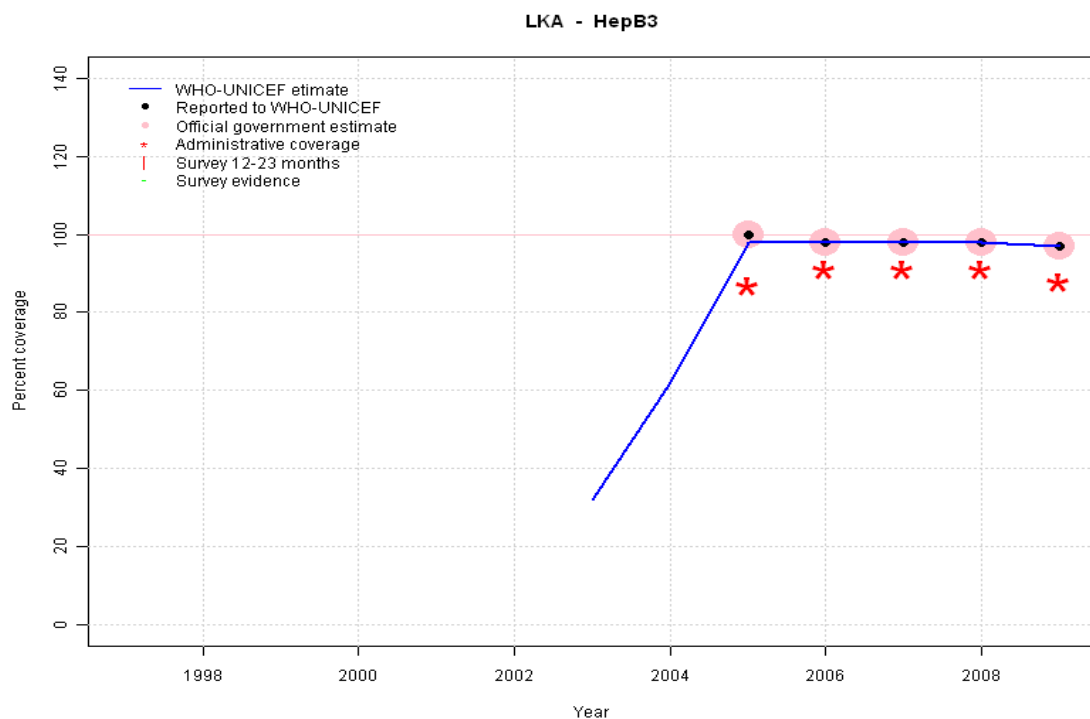
## Description:



1997: Legacy estimate.  
 1998: Reported data (94 percent) calibrated to 1997 and 2006 levels.  
 1999: Reported data (95 percent) calibrated to 1997 and 2006 levels.  
 2000: Reported data (99 percent) calibrated to 1997 and 2006 levels.  
 2001: Reported data (99 percent) calibrated to 1997 and 2006 levels.  
 2002: Reported data (99 percent) calibrated to 1997 and 2006 levels.  
 2003: Reported data (99 percent) calibrated to 1997 and 2006 levels.  
 2004: Reported data (96 percent) calibrated to 1997 and 2006 levels.  
 2005: Reported data (99 percent) calibrated to 1997 and 2006 levels.  
 2006:  
 2007: Reported data (98 percent) calibrated to 2006 level (98 percent).  
 2008: Reported data (98 percent) calibrated to 2006 level (98 percent).  
 2009: Reported data (97 percent) calibrated to 2006 level (98 percent). In April 2008 Sri Lanka withdrew DTP-HepB-Hib pentavalent vaccine as a precautionary measure following reports of serious adverse events. Subsequent investigation of the reported adverse events and a review of the vaccine quality by WHO concluded that there was no evidence of increased safety risk associated with the vaccine. The suspension of the vaccine led to a high proportion of parents seeking Hib immunization for their children in the private sector. Reporting by the private sector is not complete. Nationally reported estimates have been adjusted to levels of measles coverage provided in the public sector.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	94	93	95	98	99	98	99	95	99	98	97	97	96
Reported	94	94	95	99	100	99	100	96	99	99	98	98	97
Official	NA	NA	95	99	104	99	100	96	99	99	98	98	97
Administrative	NA	NA	95	99	104	98	100	95	99	97	96	99	94
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Sri Lanka - HepB3



## Description:

2003: Monovalent Hepatitis B vaccine was introduced in 2003. 93 percent coverage was reached in 35 percent of the country. HepB partially introduced in 2003 nationally in 2005 reporting started in 2003.

2004: Monovalent Hepatitis B vaccine was introduced in 2003. 79 percent coverage was reached in 62 percent of the country.

2005: Monovalent HepB vaccine available nationally.

2006:

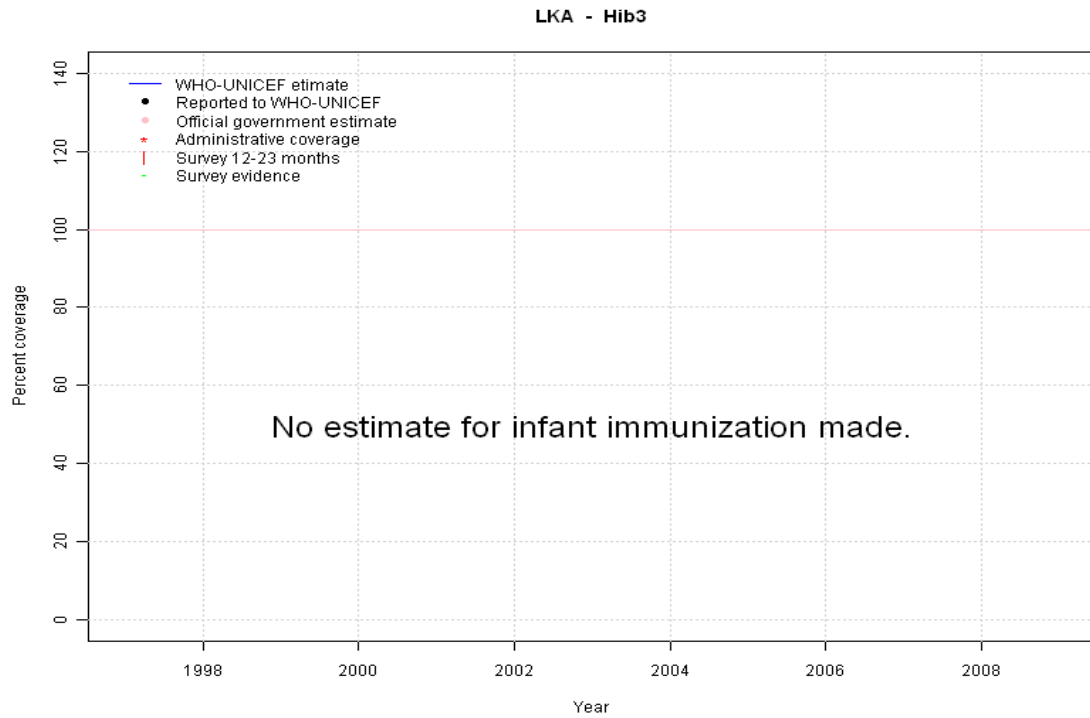
2007: Estimate based on reported data.

2008: Estimate based on reported data.

2009: Estimate based on reported data. In April 2008 Sri Lanka withdrew DTP-HepB-Hib pentavalent vaccine as a precautionary measure following reports of serious adverse events and a review of the vaccine quality by WHO concluded that there was no evidence of increased safety risk associated with the vaccine. The suspension of the vaccine led to a high proportion of parents seeking Hib immunization for their children in the private sector. Reporting by the private sector is not complete. Nationally reported estimates have been adjusted to levels of measles coverage provided in the public sector.

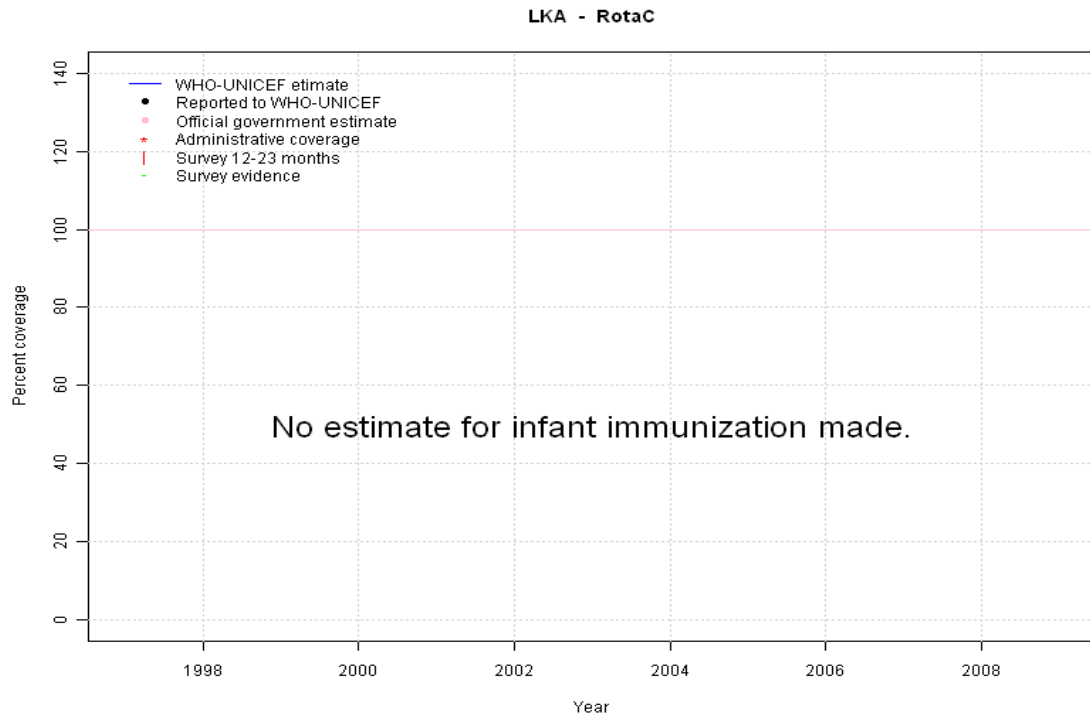
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	32	62	98	98	98	98	97
Reported	NA	NA	NA	NA	NA	NA	NA	NA	100	98	98	98	97
Official	NA	NA	NA	NA	NA	NA	NA	NA	100	98	98	98	97
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	87	91	91	91	88
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Sri Lanka - Hib3



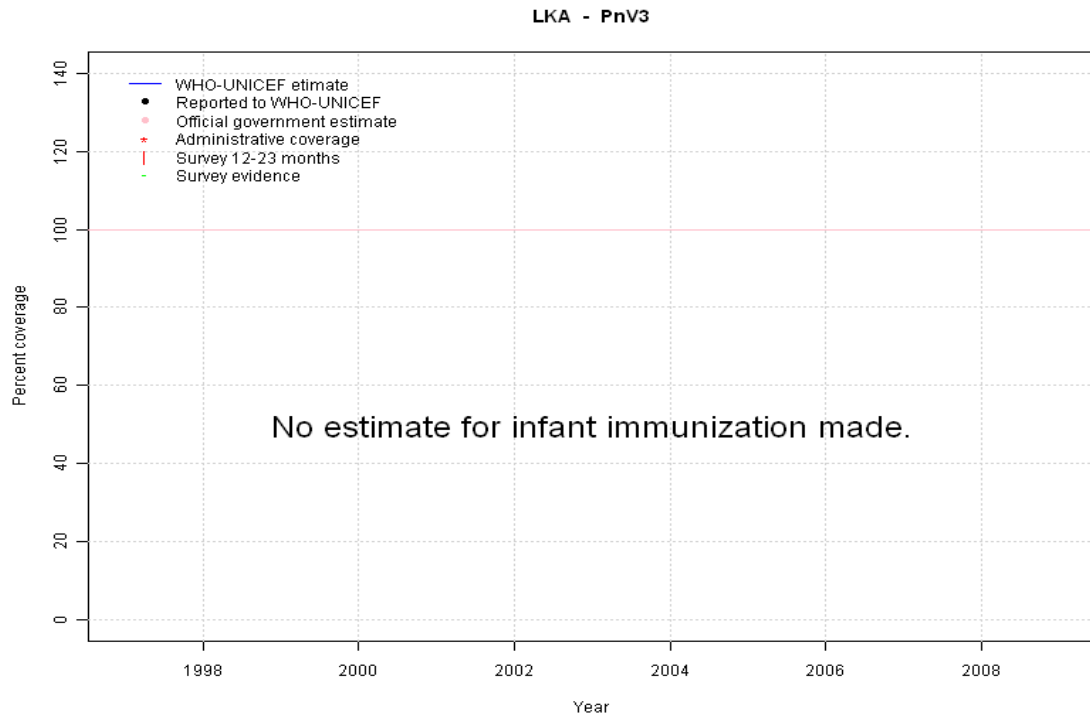
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reported	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA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

# Sri Lanka - 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

# Sri Lanka - 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

# Sri Lanka - survey details

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## 2000 Sri Lanka Demographic and Health Survey 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	91	12-23 m	172	91
DTP3	Card	86	12-23 m	172	91
MCV	Card	85	12-23 m	172	91
Pol3	Card	86	12-23 m	172	91

## 1999 Sri Lanka Demographic and Health Survey 2000

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	88	12-23 m	569	89
DTP3	Card	87	12-23 m	569	89
MCV	Card	83	12-23 m	569	89
Pol3	Card	87	12-23 m	569	89

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)

## Sri Lanka

### 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	85
1998	80
1999	86
2000	92
2001	92
2002	89
2003	91
2004	91
2005	87
2006	90
2007	91
2008	93
2009	93

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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.