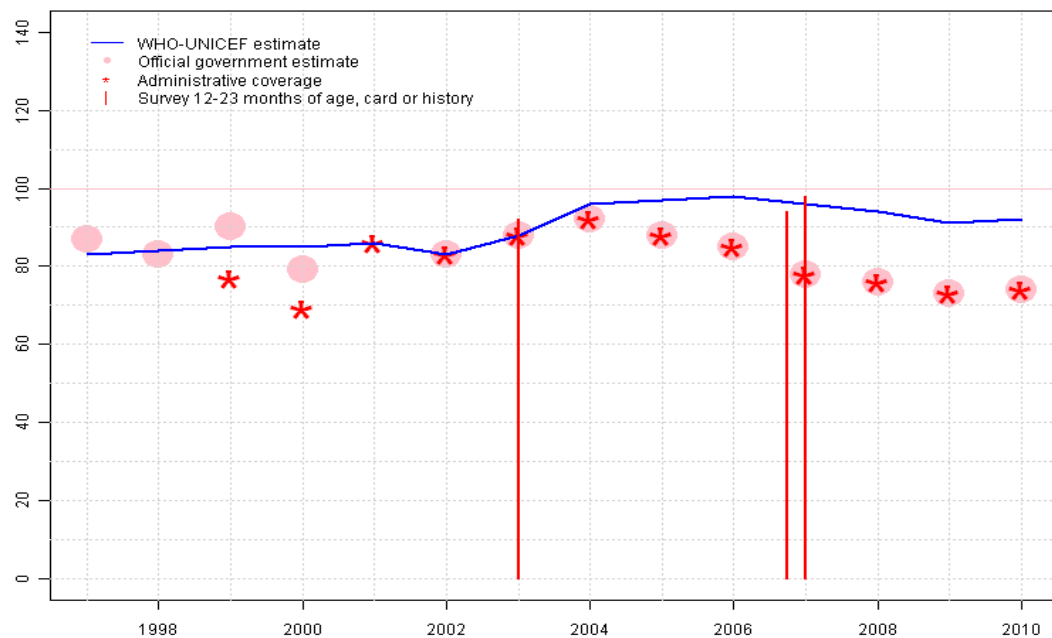


# Paraguay - BCG

PRY - BCG



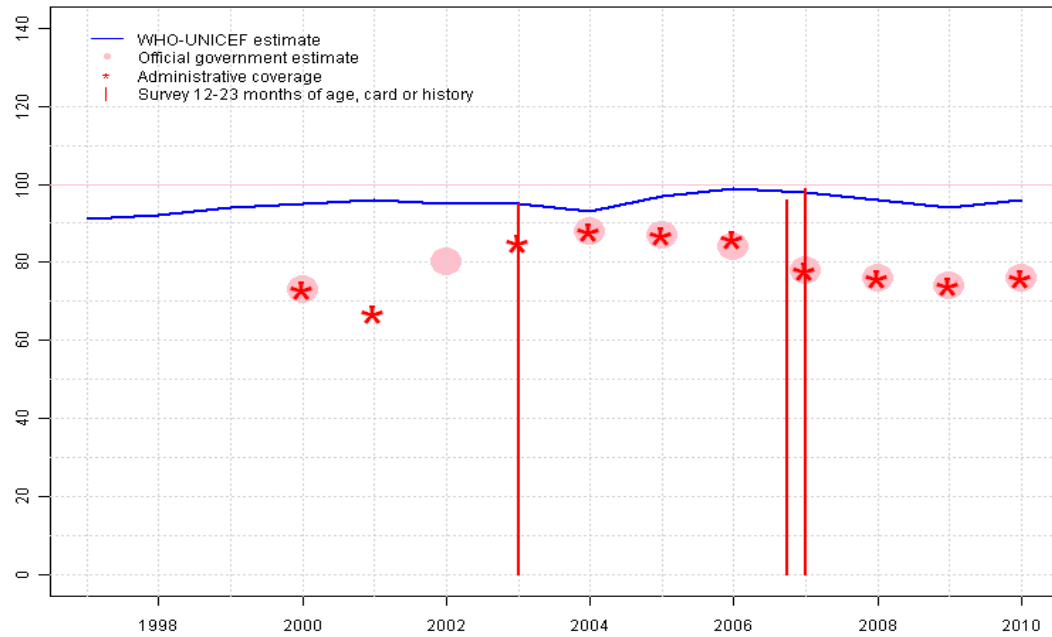
## Description:

- 1997: Legacy estimate.
- 1998: Estimate based on interpolation between 1997 and 2001. Interpolation from 1995 survey results.
- 1999: Estimate based on interpolation between 1997 and 2001. Interpolation from 1995 survey results.
- 2000: Estimate based on interpolation between 1997 and 2001. Interpolation from 1995 survey results.
- 2001: Survey supports reported data from 2001
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data. 92 percent survey results supports reported data of 88 percent.
- 2004: Reported data calibrated to 2003 and 2007 levels. Current estimate of 96 percent changed from previous revision value of 90 percent.
- 2005: Reported data calibrated to 2003 and 2007 levels. Current estimate of 97 percent changed from previous revision value of 92 percent.
- 2006: Reported data calibrated to 2003 and 2007 levels. Current estimate of 98 percent changed from previous revision value of 94 percent.
- 2007: Estimate based on survey results. \*Summary survey results of 96 percent based on 2 surveys (see survey summary page) does not support reported data of 78 percent.
- 2008: Reported data 76 percent calibrated to 2007 levels. Current estimate of 94 percent changed from previous revision value of 96 percent.
- 2009: Reported data 73 percent calibrated to 2007 levels. An in-depth assessment of data quality suggested higher coverage than reported. Estimate of births are under review by the National Statistical Office. Current estimate of 91 percent changed from previous revision value of 96 percent.
- 2010: Reported data 74 percent calibrated to 2007 levels.

|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate       | 83   | 84   | 85   | 85   | 86   | 83   | 88   | 96   | 97   | 98   | 96   | 94   | 91   | 92   |
| Official       | 87   | 83   | 90   | 79   | NA   | 83   | 88   | 92   | 88   | 85   | 78   | 76   | 73   | 74   |
| Administrative | NA   | NA   | 77   | 69   | 86   | 83   | 88   | 92   | 88   | 85   | 78   | 76   | 73   | 74   |
| Survey         | NA   | NA   | NA   | NA   | NA   | NA   | 92   | NA   | NA   | NA   | *    | NA   | NA   | NA   |

# Paraguay - DTP1

PRY - DTP1



## Description:

1997: Legacy estimate.

1998: Estimate based on interpolation between 1997 and 2001. Current estimate of 92 percent changed from previous revision value of 90 percent.

1999: Estimate based on interpolation between 1997 and 2001. Current estimate of 94 percent changed from previous revision value of 89 percent.

2000: Estimate based on interpolation between 1997 and 2001. Current estimate of 95 percent changed from previous revision value of 88 percent.

2001: DTP1 coverage estimated based on DTP3 coverage of 89.

2002: DTP1 coverage estimated based on DTP3 coverage of 87.

2003: DTP1 coverage estimated based on DTP3 coverage of 86.

2004: Reported data calibrated to 2003 and 2007 levels. Current estimate of 93 percent changed from previous revision value of 88 percent.

2005: Reported data calibrated to 2003 and 2007 levels. Current estimate of 97 percent changed from previous revision value of 92 percent.

2006: Reported data calibrated to 2003 and 2007 levels. Current estimate of 99 percent changed from previous revision value of 95 percent.

2007: Estimate based on survey results. \*Summary survey results of 98 percent based on 2 surveys (see survey summary page) does not support reported data of 78 percent.

2008: Reported data 76 percent calibrated to 2007 levels. Current estimate of 96 percent changed from previous revision value of 98 percent.

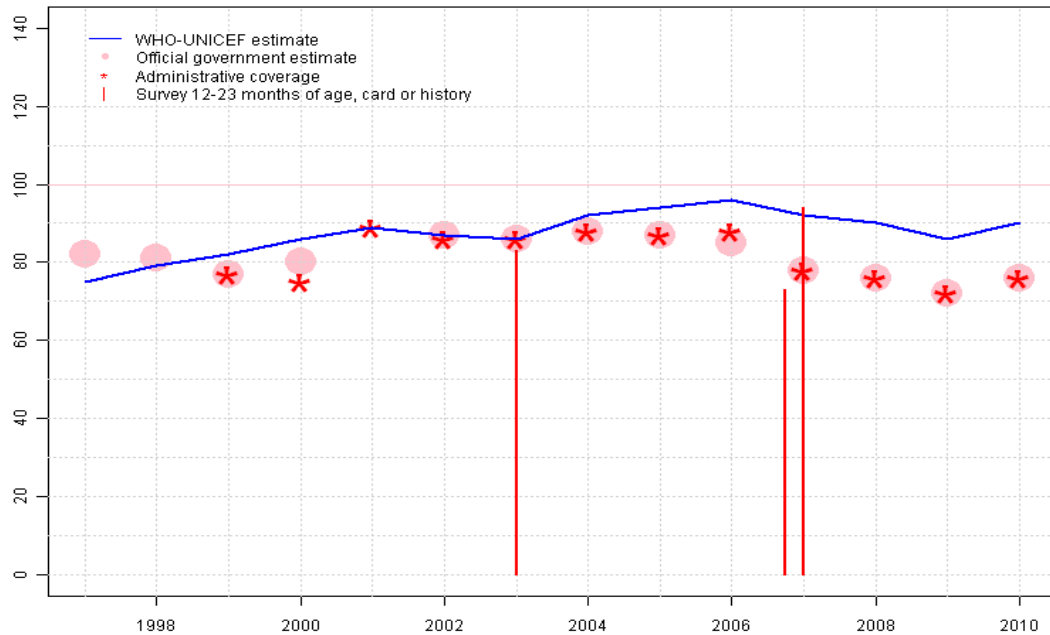
2009: Reported data 74 percent calibrated to 2007 levels. An in-depth assessment of data quality suggested higher coverage than reported. Estimate of births are under review by the National Statistical Office. Current estimate of 94 percent changed from previous revision value of 98 percent.

2010: Reported data 76 percent calibrated to 2007 levels.

|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate       | 91   | 92   | 94   | 95   | 96   | 95   | 95   | 93   | 97   | 99   | 98   | 96   | 94   | 96   |
| Official       | NA   | NA   | NA   | 73   | NA   | 80   | NA   | 88   | 87   | 84   | 78   | 76   | 74   | 76   |
| Administrative | NA   | NA   | NA   | 73   | 67   | NA   | 85   | 88   | 87   | 86   | 78   | 76   | 74   | 76   |
| Survey         | NA   | NA   | NA   | NA   | NA   | NA   | 95   | NA   | NA   | NA   | *    | NA   | NA   | NA   |

# Paraguay - DTP3

PRY - DTP3



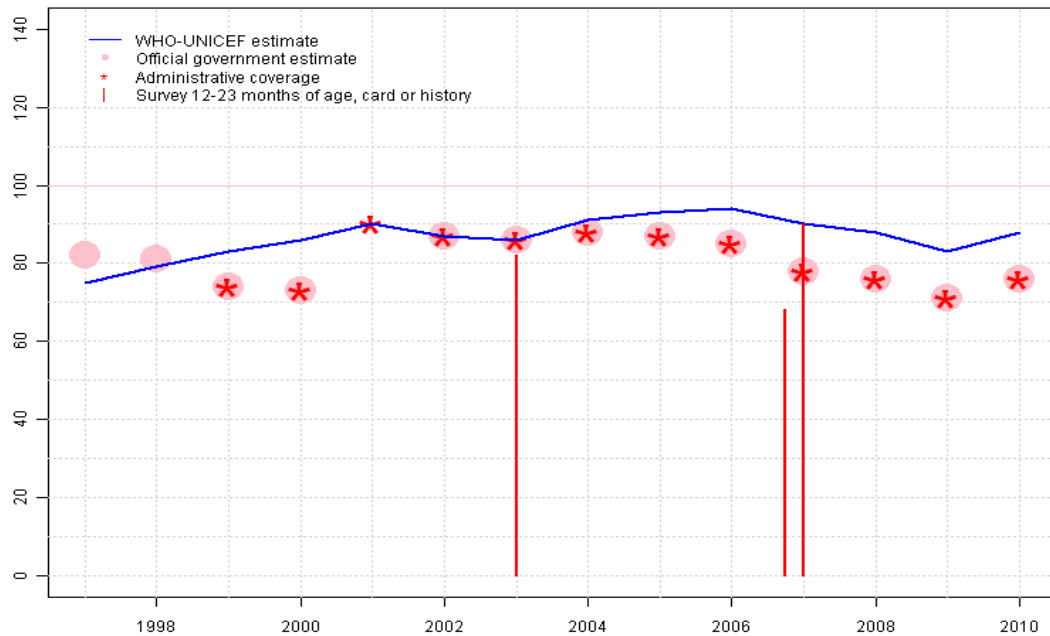
|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate       | 75   | 79   | 82   | 86   | 89   | 87   | 86   | 92   | 94   | 96   | 92   | 90   | 86   | 90   |
| Official       | 82   | 81   | 77   | 80   | NA   | 87   | 86   | 88   | 87   | 85   | 78   | 76   | 72   | 76   |
| Administrative | NA   | NA   | 77   | 75   | 89   | 86   | 86   | 88   | 87   | 88   | 78   | 76   | 72   | 76   |
| Survey         | NA   | NA   | NA   | NA   | NA   | NA   | 83   | NA   | NA   | NA   | *    | NA   | NA   | NA   |

## Description:

- 1997: Legacy estimate.
- 1998: Estimate based on interpolation between 1997 and 2001. Interpolation from 1995 survey results.
- 1999: Estimate based on interpolation between 1997 and 2001. Interpolation from 1995 survey results.
- 2000: Estimate based on interpolation between 1997 and 2001. Interpolation from 1995 survey results.
- 2001: Survey supports reported data from 2001
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data. 83 percent survey results supports reported data of 86 percent.
- 2004: Reported data calibrated to 2003 and 2007 levels. Current estimate of 92 percent changed from previous revision value of 88 percent.
- 2005: Reported data calibrated to 2003 and 2007 levels. Current estimate of 94 percent changed from previous revision value of 89 percent.
- 2006: Reported data calibrated to 2003 and 2007 levels. Current estimate of 96 percent changed from previous revision value of 91 percent.
- 2007: Estimate based on survey results. \*Summary survey results of 92 percent based on 2 surveys (see survey summary page) does not support reported data of 78 percent. Survey results of 73 percent modified for recall bias to 89 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 65 percent and 3d dose card only coverage of 60 percent. Survey results of 94 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 99 percent, 1st dose card only coverage of 71 percent and 3d dose card only coverage of 68 percent.
- 2008: Reported data 76 percent calibrated to 2007 levels. Current estimate of 90 percent changed from previous revision value of 92 percent.
- 2009: Reported data 72 percent calibrated to 2007 levels. An in-depth assessment of data quality suggested higher coverage than reported. Estimate of births are under review by the National Statistical Office. Current estimate of 86 percent changed from previous revision value of 92 percent.
- 2010: Reported data 76 percent calibrated to 2007 levels.

# Paraguay - Pol3

PRY - Pol3



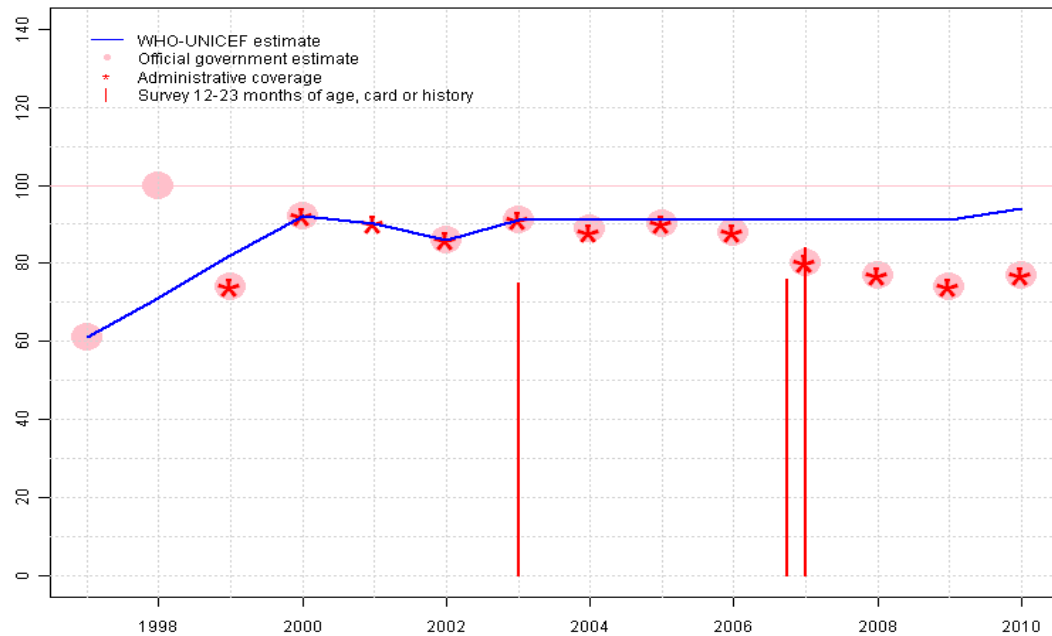
|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate       | 75   | 79   | 83   | 86   | 90   | 87   | 86   | 91   | 93   | 94   | 90   | 88   | 83   | 88   |
| Official       | 82   | 81   | 74   | 73   | NA   | 87   | 86   | 88   | 87   | 85   | 78   | 76   | 71   | 76   |
| Administrative | NA   | NA   | 74   | 73   | 90   | 87   | 86   | 88   | 87   | 85   | 78   | 76   | 71   | 76   |
| Survey         | NA   | NA   | NA   | NA   | NA   | NA   | 82   | NA   | NA   | NA   | *    | NA   | NA   | NA   |

## Description:

- 1997: Legacy estimate.
- 1998: Estimate based on interpolation between 1997 and 2001. Interpolation from 1995 survey results.
- 1999: Estimate based on interpolation between 1997 and 2001. Interpolation from 1995 survey results.
- 2000: Estimate based on interpolation between 1997 and 2001. Interpolation from 1995 survey results.
- 2001: Survey supports reported data from 2001
- 2002: Estimate based on reported data.
- 2003: Estimate based on reported data. 82 percent survey results supports reported data of 86 percent.
- 2004: Reported data calibrated to 2003 and 2007 levels. Current estimate of 91 percent changed from previous revision value of 87 percent.
- 2005: Reported data calibrated to 2003 and 2007 levels. Current estimate of 93 percent changed from previous revision value of 88 percent.
- 2006: Reported data calibrated to 2003 and 2007 levels. Current estimate of 94 percent changed from previous revision value of 89 percent.
- 2007: Estimate based on survey results. \*Summary survey results of 90 percent based on 2 surveys (see survey summary page) does not support reported data of 78 percent. Survey results of 68 percent modified for recall bias to 85 percent based on 1st dose card or history coverage of 92 percent, 1st dose card only coverage of 63 percent and 3d dose card only coverage of 58 percent. Survey results of 90 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 68 percent and 3d dose card only coverage of 67 percent.
- 2008: Reported data 76 percent calibrated to 2007 levels. Current estimate of 88 percent changed from previous revision value of 90 percent.
- 2009: Reported data 71 percent calibrated to 2007 levels. An in-depth assessment of data quality suggested higher coverage than reported. Estimate of births are under review by the National Statistical Office. Current estimate of 83 percent changed from previous revision value of 90 percent.
- 2010: Reported data 76 percent calibrated to 2007 levels.

# Paraguay - MCV

PRY - MCV



|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate       | 61   | 71   | 82   | 92   | 90   | 86   | 91   | 91   | 91   | 91   | 91   | 91   | 91   | 94   |
| Official       | 61   | 100  | 74   | 92   | NA   | 86   | 91   | 89   | 90   | 88   | 80   | 77   | 74   | 77   |
| Administrative | NA   | NA   | 74   | 92   | 90   | 86   | 91   | 88   | 90   | 88   | 80   | 77   | 74   | 77   |
| Survey         | NA   | NA   | NA   | NA   | NA   | NA   | 75   | NA   | NA   | NA   | *    | NA   | NA   | NA   |

## Description:

1997: Legacy estimate.

1998: Estimate based on interpolation between 1997 and 2000. Reported data not accepted due to an increase from 61 percent to 100 percent with a subsequent decrease to 74 percent.

1999: Estimate based on interpolation between 1997 and 2000. Reported data not accepted due to a decline from 100 percent to 74 percent with a subsequent increase to 92 percent.

2000: Estimate based on reported data.

2001: Estimate based on reported data.

2002: Estimate based on reported data.

2003: Estimate based on reported data. Survey not accepted. Measles vaccination is recommended between 12 and 23 months of age. Survey cohort under-estimates coverage.

2004: Estimate based on interpolation between 2003 and 2009. Estimate based on 2003 reported data. 2003 reported data supported by survey for other vaccines.

2005: Estimate based on interpolation between 2003 and 2009. Estimate based on 2003 reported data. 2003 reported data supported by survey for other vaccines.

2006: Estimate based on interpolation between 2003 and 2009. Estimate based on 2003 reported data. 2003 reported data supported by survey for other vaccines.

2007: Estimate based on interpolation between 2003 and 2009. Survey not accepted. Measles vaccine is recommended at age 12-23 months of age. Survey results underestimate coverage. Survey not accepted. Measles vaccine is recommended at age 12-23 months of age. Survey results underestimate coverage. Estimate based on 2003 reported data. 2003 reported data supported by survey for other vaccines.

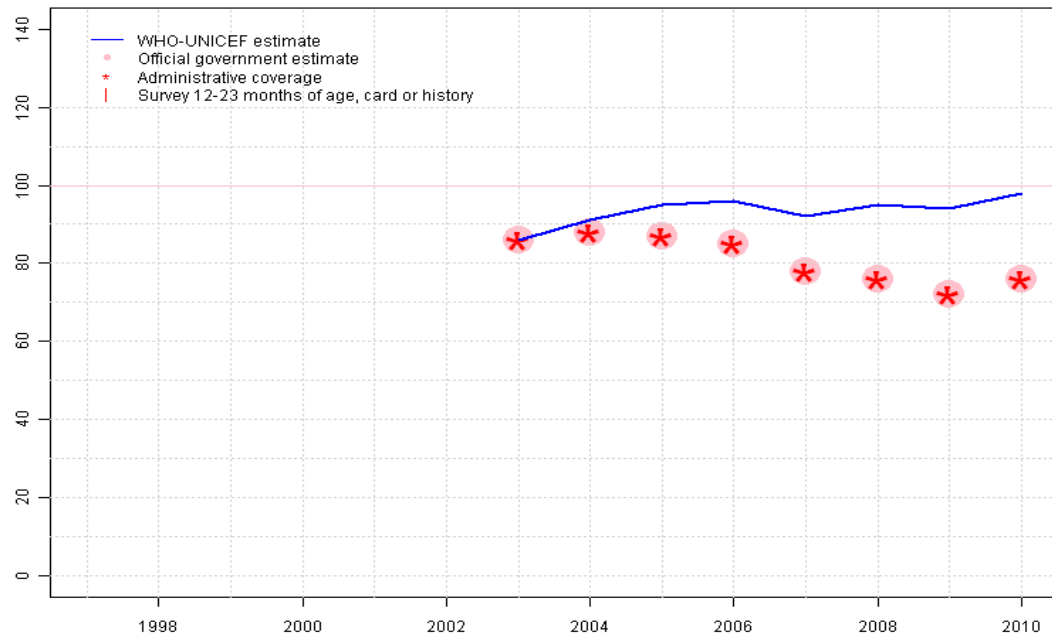
2008: Estimate based on interpolation between 2003 and 2009. Estimate based on 2003 reported data. 2003 reported data supported by survey for other vaccines.

2009: Administrative coverage based on population estimate under review. An in-depth assessment of data quality suggested higher coverage than reported. Estimate of births are under review by the National Statistical Office.

2010: Reported data 77 percent calibrated to 2009 levels.

# Paraguay - HepB3

PRY - HepB3

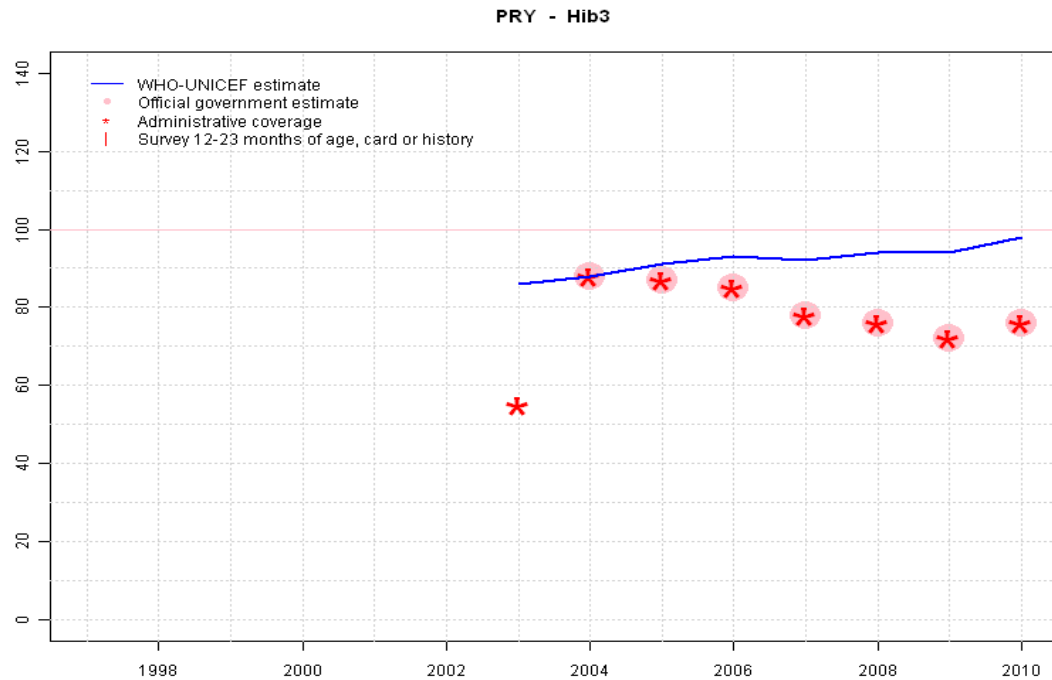


## Description:

- 2003: HepB vaccine delivered in combination DTP-HepB-Hib vaccine. Estimate based on DTP3 levels HepB introduced in 2002. Reporting started in 2003. Vaccine presentation is DTP-HepB-Hib.
- 2004: Reported data calibrated to 2003 and 2009 levels. Current estimate of 91 percent changed from previous revision value of 87 percent.
- 2005: Reported data calibrated to 2003 and 2009 levels. Current estimate of 95 percent changed from previous revision value of 89 percent.
- 2006: Reported data calibrated to 2003 and 2009 levels. Current estimate of 96 percent changed from previous revision value of 90 percent.
- 2007: Reported data calibrated to 2003 and 2009 levels. Current estimate of 92 percent changed from previous revision value of 91 percent.
- 2008: Reported data calibrated to 2003 and 2009 levels. Current estimate of 95 percent changed from previous revision value of 93 percent.
- 2009: HepB vaccine delivered in combination DTP-HepB-Hib vaccine. Estimate based on DTP3 levels An in-depth assessment of data quality suggested higher coverage than reported. Estimate of births are under review by the National Statistical Office.
- 2010: Reported data 76 percent calibrated to 2009 levels.

|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate       | NA   | NA   | NA   | NA   | NA   | NA   | 86   | 91   | 95   | 96   | 92   | 95   | 94   | 98   |
| Official       | NA   | NA   | NA   | NA   | NA   | NA   | 86   | 88   | 87   | 85   | 78   | 76   | 72   | 76   |
| Administrative | NA   | NA   | NA   | NA   | NA   | NA   | 86   | 88   | 87   | 85   | 78   | 76   | 72   | 76   |
| Survey         | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |

# Paraguay - Hib3



## Description:

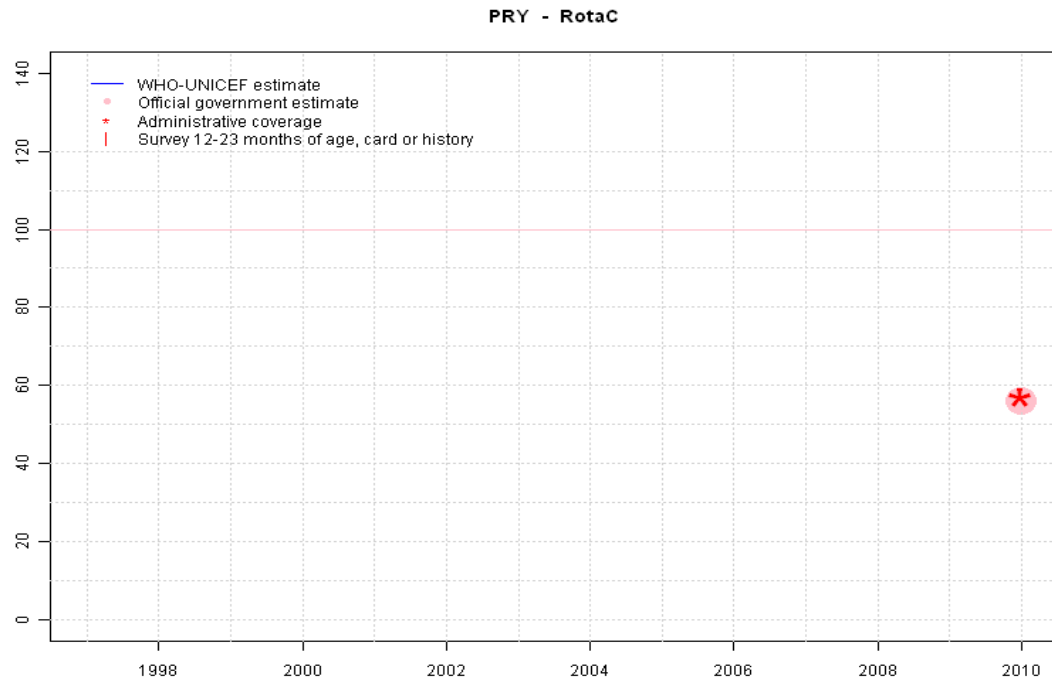
- 2003: Hib vaccine delivered in combination DTP-HepB-Hib vaccine. Estimate based on DTP3 levels Hib introduced in 2002. Reporting started in 2003. Vaccine presentation is DTP-HepB-Hib.
- 2004: Estimate based on DTP3 estimate.
- 2005: Reported data calibrated to 2004 and 2009 levels. Current estimate of 91 percent changed from previous revision value of 89 percent.
- 2006: Reported data calibrated to 2004 and 2009 levels. Current estimate of 93 percent changed from previous revision value of 90 percent.
- 2007: Reported data calibrated to 2004 and 2009 levels.
- 2008: Reported data calibrated to 2004 and 2009 levels. Current estimate of 94 percent changed from previous revision value of 93 percent.
- 2009: Hib vaccine delivered in combination DTP-HepB-Hib vaccine. Estimate based on DTP3 levels An in-depth assessment of data quality suggested higher coverage than reported. Estimate of births are under review by the National Statistical Office.
- 2010: Reported data 76 percent calibrated to 2009 levels.

|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate       | NA   | NA   | NA   | NA   | NA   | NA   | 86   | 88   | 91   | 93   | 92   | 94   | 94   | 98   |
| Official       | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 88   | 87   | 85   | 78   | 76   | 72   | 76   |
| Administrative | NA   | NA   | NA   | NA   | NA   | NA   | 55   | 88   | 87   | 85   | 78   | 76   | 72   | 76   |
| Survey         | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |

# Paraguay - RotaC

## Description:

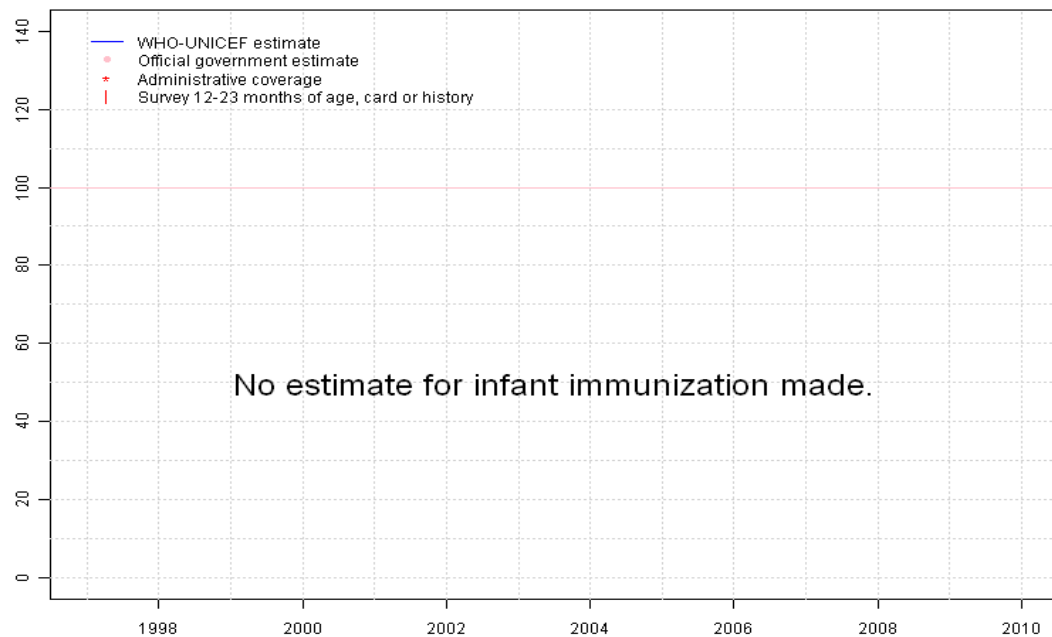
2010: Estimate based on reported data. Rotavirus vaccine introduced in 2010.



|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate       | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 56   |
| Official       | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 56   |
| Administrative | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 57   |
| Survey         | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |

# Paraguay - PcV3

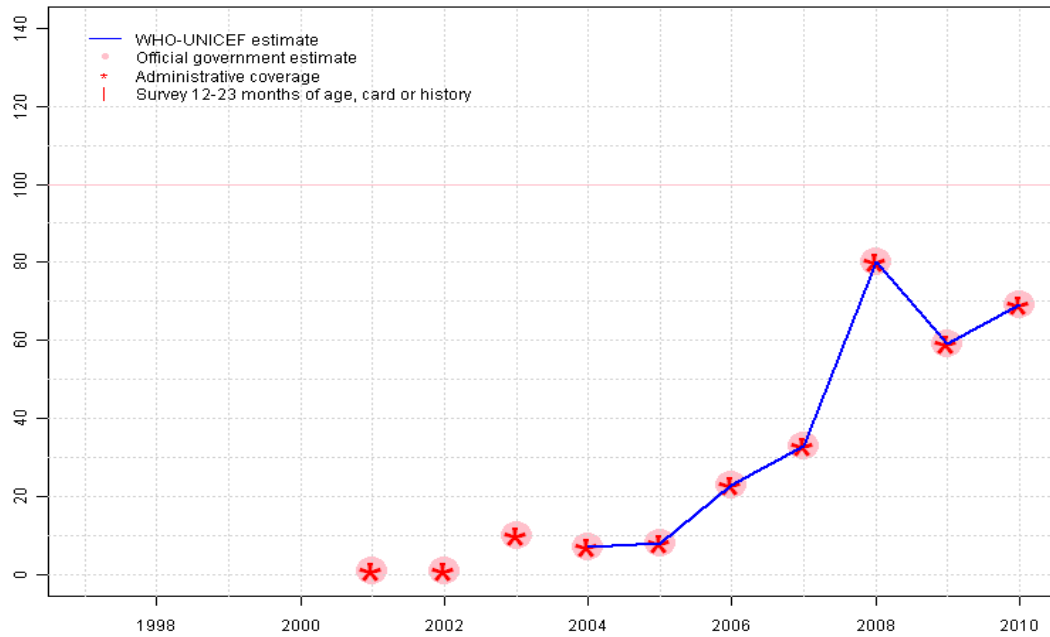
PRY - PcV3



|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate       | NA   | 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   | NA   |
| Administrative | NA   | 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   | NA   |

# Paraguay - YFV

PRY - YFV



## Description:

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. An in-depth assessment of data quality suggested higher coverage than reported. Estimate of births are under review by the National Statistical Office.na

2010: Estimate based on reported data.

|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estimate       | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 7    | 8    | 23   | 33   | 80   | 59   | 69   |
| Official       | NA   | NA   | NA   | NA   | 1    | 1    | 10   | 7    | 8    | 23   | 33   | 80   | 59   | 69   |
| Administrative | NA   | NA   | NA   | NA   | 1    | 1    | 10   | 7    | 8    | 23   | 33   | 80   | 59   | 69   |
| Survey         | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |

# Paraguay - survey details

## 2007 Encuesta Demográfica y de Salud Familiar-ENDES Continua, 2009

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG     | C or H <12 months   | 94       | 18-29 m    | 1639   | 66         |
| BCG     | Card                | 61       | 18-29 m    | 1639   | 66         |
| BCG     | Card or History     | 94       | 18-29 m    | 1639   | 66         |
| BCG     | History             | 32       | 18-29 m    | 1639   | 66         |
| DTP1    | Card                | 65       | 18-29 m    | 1639   | 66         |
| DTP1    | History             | 31       | 18-29 m    | 1639   | 66         |
| DTP1    | Card or History     | 96       | 18-29 m    | 1639   | 66         |
| DTP1    | C or H <12 months   | 95       | 18-29 m    | 1639   | 66         |
| DTP3    | C or H <12 months   | 71       | 18-29 m    | 1639   | 66         |
| DTP3    | Card or History     | 73       | 18-29 m    | 1639   | 66         |
| DTP3    | History             | 13       | 18-29 m    | 1639   | 66         |
| DTP3    | Card                | 60       | 18-29 m    | 1639   | 66         |
| MCV     | History             | 23       | 18-29 m    | 1639   | 66         |
| MCV     | Card or History     | 76       | 18-29 m    | 1639   | 66         |
| MCV     | Card                | 53       | 18-29 m    | 1639   | 66         |
| MCV     | C or H <12 months   | 70       | 18-29 m    | 1639   | 66         |
| Pol1    | History             | 29       | 18-29 m    | 1639   | 66         |
| Pol1    | Card or History     | 92       | 18-29 m    | 1639   | 66         |
| Pol1    | C or H <12 months   | 92       | 18-29 m    | 1639   | 66         |
| Pol1    | Card                | 63       | 18-29 m    | 1639   | 66         |
| Pol3    | Card                | 58       | 18-29 m    | 1639   | 66         |
| Pol3    | History             | 10       | 18-29 m    | 1639   | 66         |
| Pol3    | Card or History     | 68       | 18-29 m    | 1639   | 66         |
| Pol3    | C or H <12 months   | 67       | 18-29 m    | 1639   | 66         |

## 2007 Encuesta Nacional de Demografía y Salud Sexual y Reproductiva (ENDSSR-2004)

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG     | Card                | 71       | 12-23 m    | 427    | 71         |
| BCG     | Card or History     | 98       | 12-23 m    | 427    | 71         |
| DTP1    | Card or History     | 99       | 12-23 m    | 427    | 71         |
| DTP1    | Card                | 71       | 12-23 m    | 427    | 71         |
| DTP3    | Card                | 68       | 12-23 m    | 427    | 71         |
| DTP3    | Card or History     | 94       | 12-23 m    | 427    | 71         |
| MCV     | Card                | 59       | 12-23 m    | 427    | 71         |
| MCV     | Card or History     | 84       | 12-23 m    | 427    | 71         |
| Pol1    | Card or History     | 96       | 12-23 m    | 427    | 71         |
| Pol1    | Card                | 68       | 12-23 m    | 427    | 71         |
| Pol3    | Card                | 67       | 12-23 m    | 427    | 71         |
| Pol3    | Card or History     | 90       | 12-23 m    | 427    | 71         |

## 2003 Encuesta Nacional de Demografía y Salud Sexual y Reproductiva 2004 (ENDSSR-2004)

| Vaccine | Confirmation method | Coverage | Age cohort | Sample | Cards seen |
|---------|---------------------|----------|------------|--------|------------|
| BCG     | Card or History     | 92       | 12-23 m    | 898    | 69         |
| DTP1    | Card or History     | 95       | 12-23 m    | 898    | 69         |
| DTP3    | Card or History     | 83       | 12-23 m    | 898    | 69         |
| MCV     | Card or History     | 75       | 12-23 m    | 898    | 69         |
| Pol1    | Card or History     | 94       | 12-23 m    | 898    | 69         |
| Pol3    | Card or History     | 82       | 12-23 m    | 898    | 69         |

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)

## Paraguay

### 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 | 67                        |
| 1998 | 61                        |
| 1999 | 55                        |
| 2000 | 47                        |
| 2001 | 39                        |
| 2002 | 61                        |
| 2003 | 61                        |
| 2004 | 68                        |
| 2005 | 78                        |
| 2006 | 81                        |
| 2007 | 74                        |
| 2008 | 74                        |
| 2009 | 74                        |
| 2010 | 85                        |

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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.