

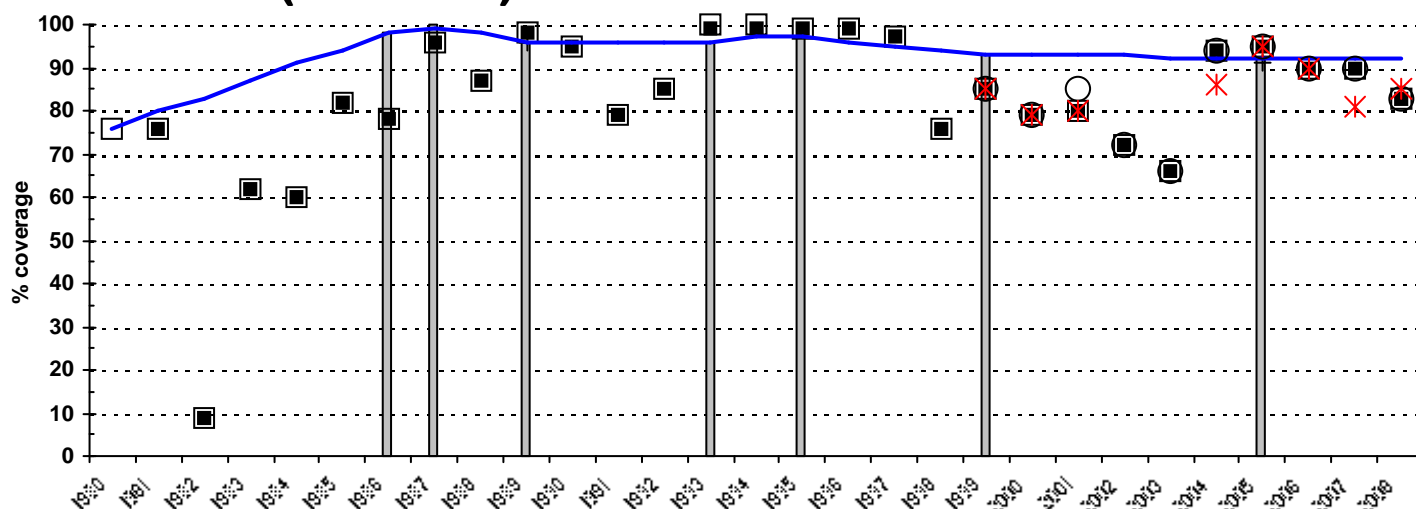
**WHO/UNICEF
Review of National Immunization Coverage
1980-2008**

Iraq

July, 2009

Iraq

BCG (1980-2008)



Description of trend

Estimates since 1989 based on survey results.

Data presented in chart

| Year | WHO/ UNICEF estimate (%) — | Reported to:* | | Government official estimate (%) ○ | Reported doses administered (%)** ✕ | Survey data (%)*** | |
|------|--|---------------------|------------------------|--|---|-----------------------------------|----------------------------------|
| | | WHO (%) □ | UNICEF (%) ■ | | | Survey 12-23 months | Survey <12 months + |
| 1980 | 76 | 76 | | | | | |
| 1981 | 80 | 76 | 76 | | | | |
| 1982 | 83 | 9 | 9 | | | | |
| 1983 | 87 | 62 | 62 | | | | |
| 1984 | 91 | 60 | 60 | | | | |
| 1985 | 94 | 82 | 82 | | | | |
| 1986 | 98 | 78 | 78 | | | 98 | |
| 1987 | 99 | 96 | 96 | | | 100 | |
| 1988 | 98 | 87 | 87 | | | | |
| 1989 | 96 | 98 | 98 | | | 96 | 96 |
| 1990 | 96 | 95 | 95 | | | | |
| 1991 | 96 | 79 | 79 | | | | |
| 1992 | 96 | 85 | 85 | | | | |
| 1993 | 96 | 100 | 99 | | | 96 | |
| 1994 | 97 | 100 | 99 | | | | |
| 1995 | 97 | 99 | 99 | | | 97 | |
| 1996 | 96 | 99 | 99 | | | | |
| 1997 | 95 | 97 | 97 | | | | |
| 1998 | 94 | 76 | 76 | | | | |
| 1999 | 93 | 85 | 85 | 85 | 85 | 93 | |
| 2000 | 93 | 79 | 79 | 79 | 79 | | |
| 2001 | 93 | 80 | 80 | 85 | 80 | | |
| 2002 | 93 | 72 | 72 | 72 | | | |
| 2003 | 92 | 66 | 66 | 66 | | | |
| 2004 | 92 | 94 | 94 | 94 | 86 | | |
| 2005 | 92 | 95 | 95 | 95 | 95 | 92 | 91 |
| 2006 | 92 | 90 | 90 | 90 | 90 | | |
| 2007 | 92 | 90 | 90 | 90 | 81 | | |
| 2008 | 92 | 83 | 83 | 83 | 85 | | |

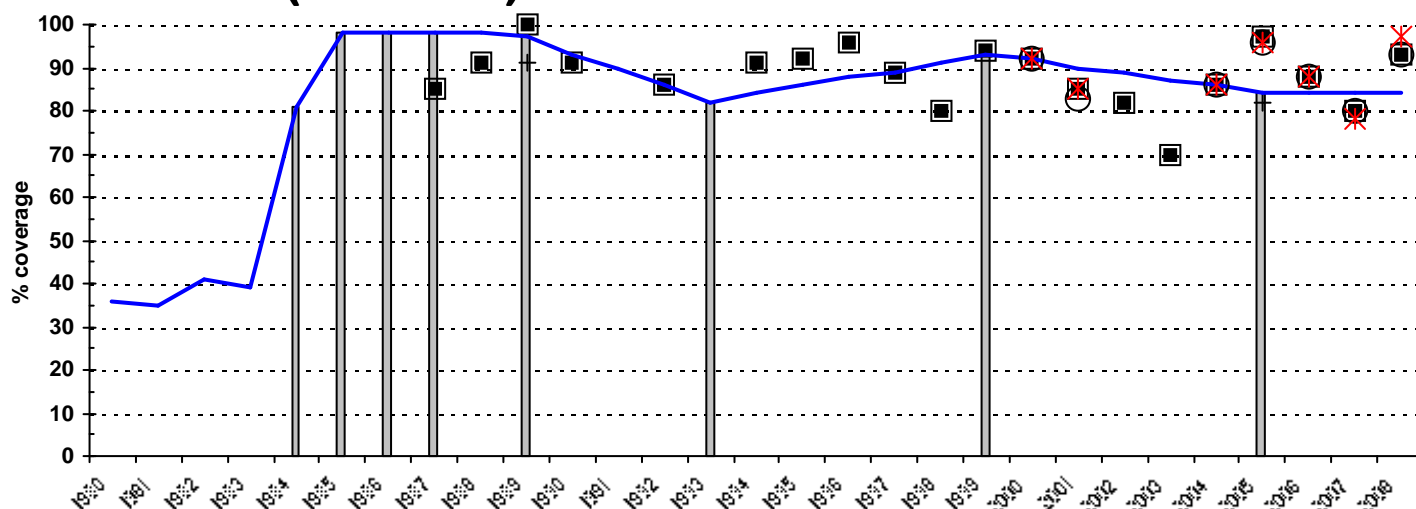
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**Coverage based on registration of doses administered by health care providers.

***In case more than one survey was implemented in a certain year the highest value is presented. Details of all data are presented in the second section of this report.

Iraq

DTP1 (1980-2008)



Description of trend

Estimates since 1989 based on survey results.

Data presented in chart

| Year | WHO/ UNICEF estimate (%) — | Reported to:* | | Government official estimate (%) ○ | Reported doses administered (%)** ✕ | Survey data (%)*** | |
|------|--|---------------------|------------------------|--|---|------------------------------------|----------------------------------|
| | | WHO (%) □ | UNICEF (%) ■ | | | Survey 12-23 months ▮ | Survey <12 months + |
| 1980 | 36 | | | | | | |
| 1981 | 35 | | | | | | |
| 1982 | 41 | | | | | | |
| 1983 | 39 | | | | | | |
| 1984 | 81 | | | | | 81 | |
| 1985 | 98 | | | | | 98 | |
| 1986 | 98 | | | | | 98 | |
| 1987 | 98 | 85 | 85 | | | 98 | |
| 1988 | 98 | 91 | 91 | | | | |
| 1989 | 97 | 100 | 100 | | | 97 | 91 |
| 1990 | 93 | 91 | 91 | | | | |
| 1991 | 90 | | | | | | |
| 1992 | 86 | 86 | 86 | | | | |
| 1993 | 82 | | | | | 82 | |
| 1994 | 84 | 91 | 91 | | | | |
| 1995 | 86 | 92 | 92 | | | | |
| 1996 | 88 | 96 | 96 | | | | |
| 1997 | 89 | 89 | 89 | | | | |
| 1998 | 91 | 80 | 80 | | | | |
| 1999 | 93 | 94 | 94 | | | 93 | |
| 2000 | 92 | 92 | 92 | 92 | 92 | | |
| 2001 | 90 | 85 | 85 | 83 | 85 | | |
| 2002 | 89 | 82 | 82 | | | | |
| 2003 | 87 | 70 | 70 | | | | |
| 2004 | 86 | 86 | 86 | 86 | 86 | | |
| 2005 | 84 | 97 | 97 | 96 | 96 | 84 | 82 |
| 2006 | 84 | 88 | 88 | 88 | 88 | | |
| 2007 | 84 | 80 | 80 | 80 | 78 | | |
| 2008 | 84 | 93 | 93 | 93 | 97 | | |

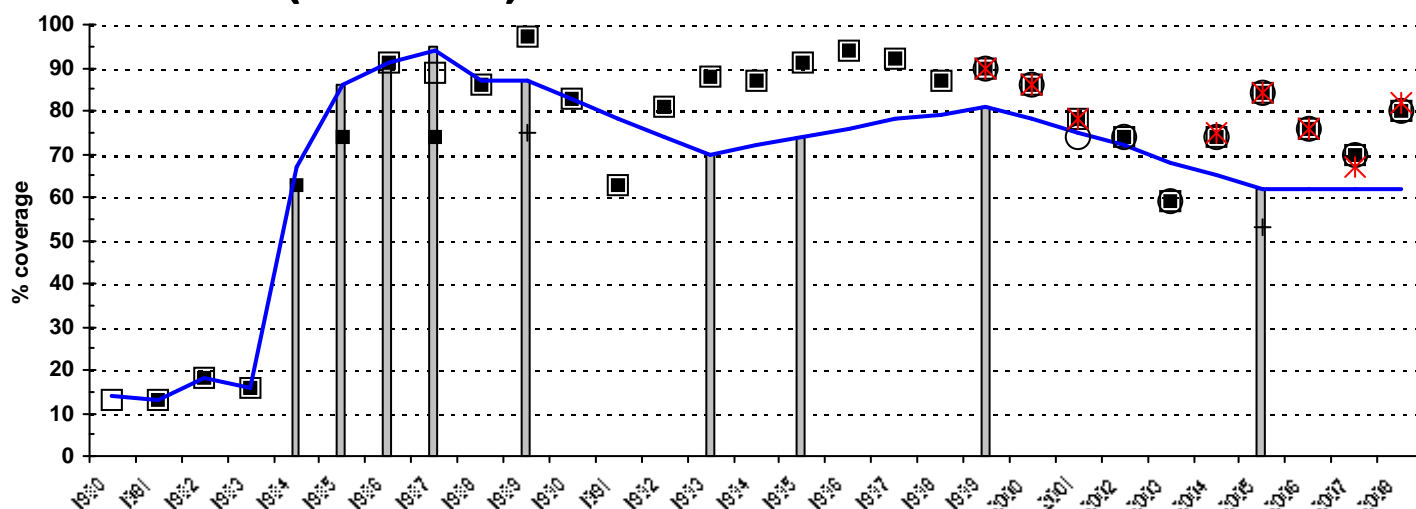
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**Coverage based on registration of doses administered by health care providers.

***In case more than one survey was implemented in a certain year the highest value is presented. Details of all data are presented in the second section of this report.

Iraq

DTP3 (1980-2008)



Description of trend

Estimates since 1989 based on survey results.

Data presented in chart

| Year | WHO/ UNICEF estimate (%) — | Reported to:* | | Government official estimate (%) ○ | Reported doses administered (%)** ✕ | Survey data (%)*** | |
|------|--|---------------------|------------------------|--|---|-----------------------------------|----------------------------------|
| | | WHO (%) □ | UNICEF (%) ■ | | | Survey 12-23 months | Survey <12 months + |
| 1980 | 14 | 13 | | | | | |
| 1981 | 13 | 13 | 13 | | | | |
| 1982 | 18 | 18 | 18 | | | | |
| 1983 | 16 | 16 | 16 | | | | |
| 1984 | 67 | | 63 | | | 63 | |
| 1985 | 86 | | 74 | | | 86 | |
| 1986 | 91 | 91 | 91 | | | 91 | |
| 1987 | 94 | 89 | 74 | | | 95 | |
| 1988 | 87 | 86 | 86 | | | | |
| 1989 | 87 | 97 | 97 | | | 87 | 75 |
| 1990 | 83 | 83 | 83 | | | | |
| 1991 | 78 | 63 | 63 | | | | |
| 1992 | 74 | 81 | 81 | | | | |
| 1993 | 70 | 88 | 88 | | | 70 | |
| 1994 | 72 | 87 | 87 | | | | |
| 1995 | 74 | 91 | 91 | | | 74 | |
| 1996 | 76 | 94 | 94 | | | | |
| 1997 | 78 | 92 | 92 | | | | |
| 1998 | 79 | 87 | 87 | | | | |
| 1999 | 81 | 90 | 90 | 90 | 90 | 81 | |
| 2000 | 78 | 86 | 86 | 86 | 86 | | |
| 2001 | 75 | 78 | 78 | 74 | 78 | | |
| 2002 | 72 | 74 | 74 | 74 | | | |
| 2003 | 68 | 59 | 59 | 59 | | | |
| 2004 | 65 | 74 | 74 | 74 | 75 | | |
| 2005 | 62 | 84 | 84 | 84 | 84 | 62 | 53 |
| 2006 | 62 | 76 | 76 | 76 | 76 | | |
| 2007 | 62 | 70 | 70 | 70 | 67 | | |
| 2008 | 62 | 80 | 80 | 80 | 82 | | |

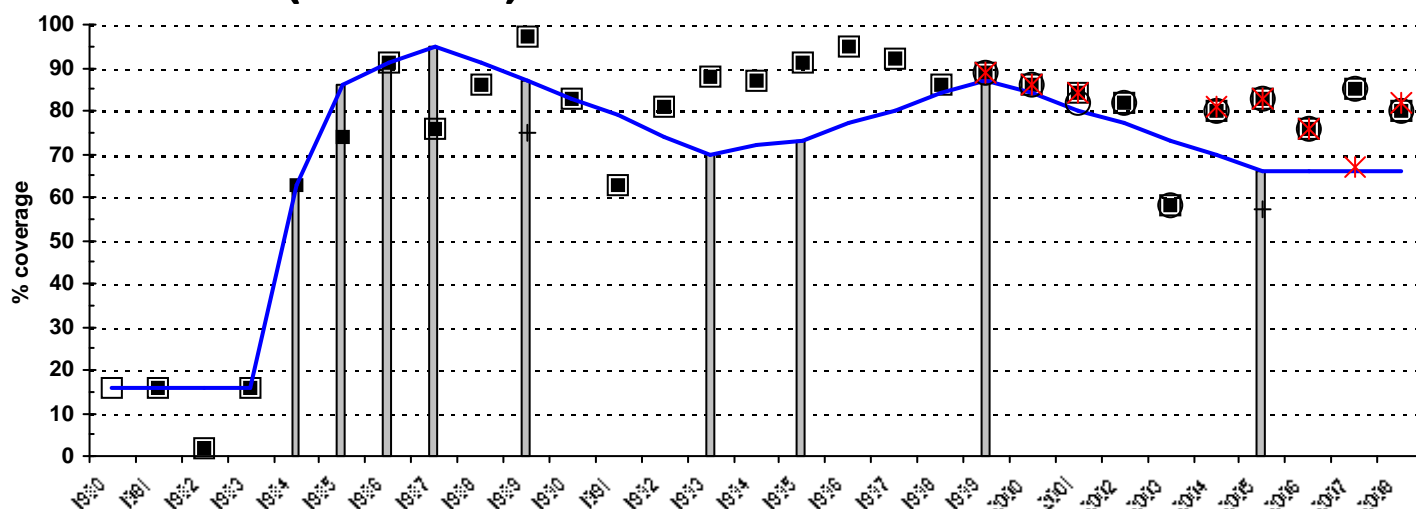
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**Coverage based on registration of doses administered by health care providers.

***In case more than one survey was implemented in a certain year the highest value is presented. Details of all data are presented in the second section of this report.

Iraq

Pol3 (1980-2008)



Description of trend

Estimates since 1989 based on survey results.

Data presented in chart

| Year | WHO/ UNICEF estimate (%) — | Reported to:* | | Government official estimate (%) ○ | Reported doses administered (%)** ✕ | Survey data (%)*** | |
|------|--|---------------------|------------------------|--|---|------------------------------------|----------------------------------|
| | | WHO (%) □ | UNICEF (%) ■ | | | Survey 12-23 months ▮ | Survey <12 months + |
| 1980 | 16 | 16 | | | | | |
| 1981 | 16 | 16 | 16 | | | | |
| 1982 | 16 | 2 | 2 | | | | |
| 1983 | 16 | 16 | 16 | | | | |
| 1984 | 63 | | 63 | | | 63 | |
| 1985 | 86 | | 74 | | | 86 | |
| 1986 | 91 | 91 | 91 | | | 91 | |
| 1987 | 95 | 76 | 76 | | | 95 | |
| 1988 | 91 | 86 | 86 | | | | |
| 1989 | 87 | 97 | 97 | | | 87 | 75 |
| 1990 | 83 | 83 | 83 | | | | |
| 1991 | 79 | 63 | 63 | | | | |
| 1992 | 74 | 81 | 81 | | | | |
| 1993 | 70 | 88 | 88 | | | 70 | |
| 1994 | 72 | 87 | 87 | | | | |
| 1995 | 73 | 91 | 91 | | | 73 | |
| 1996 | 77 | 95 | 95 | | | | |
| 1997 | 80 | 92 | 92 | | | | |
| 1998 | 84 | 86 | 86 | | | | |
| 1999 | 87 | 89 | 89 | 89 | 89 | 87 | |
| 2000 | 84 | 86 | 86 | 86 | 86 | | |
| 2001 | 80 | 84 | 84 | 82 | 84 | | |
| 2002 | 77 | 82 | 82 | 82 | | | |
| 2003 | 73 | 58 | 58 | 58 | | | |
| 2004 | 70 | 80 | 80 | 80 | 81 | | |
| 2005 | 66 | 83 | 83 | 83 | 83 | 66 | 57 |
| 2006 | 66 | 76 | 76 | 76 | 76 | | |
| 2007 | 66 | 85 | 85 | 85 | 67 | | |
| 2008 | 66 | 80 | 80 | 80 | 82 | | |

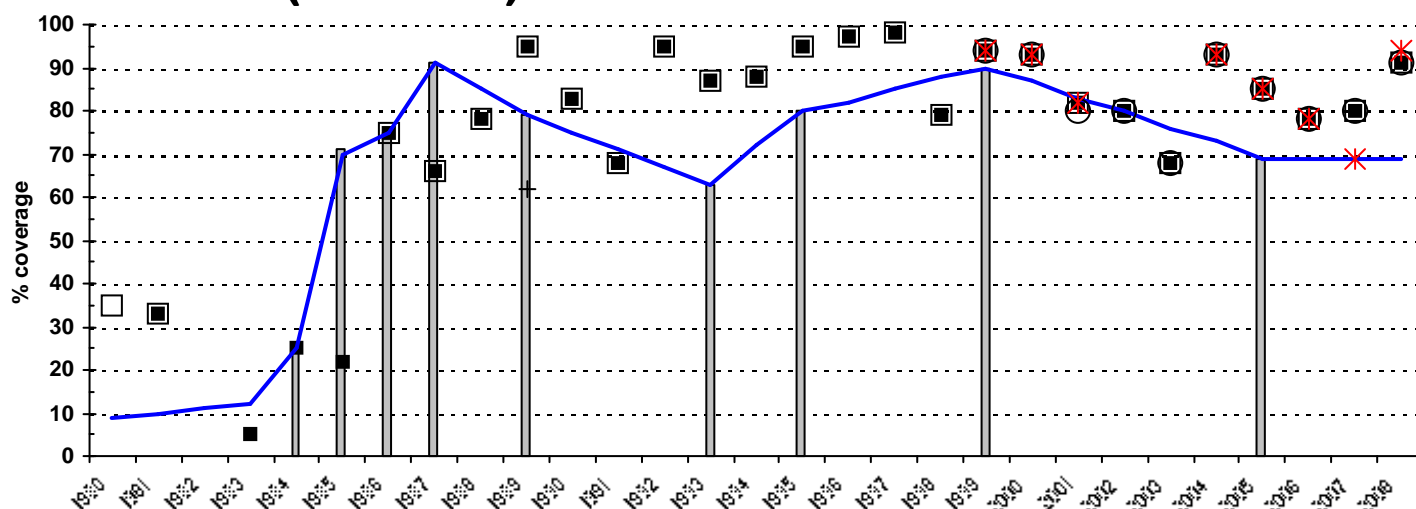
*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**Coverage based on registration of doses administered by health care providers.

***In case more than one survey was implemented in a certain year the highest value is presented. Details of all data are presented in the second section of this report.

Iraq

MCV (1980-2008)



Description of trend

Estimates since 1989 based on survey results.

Data presented in chart

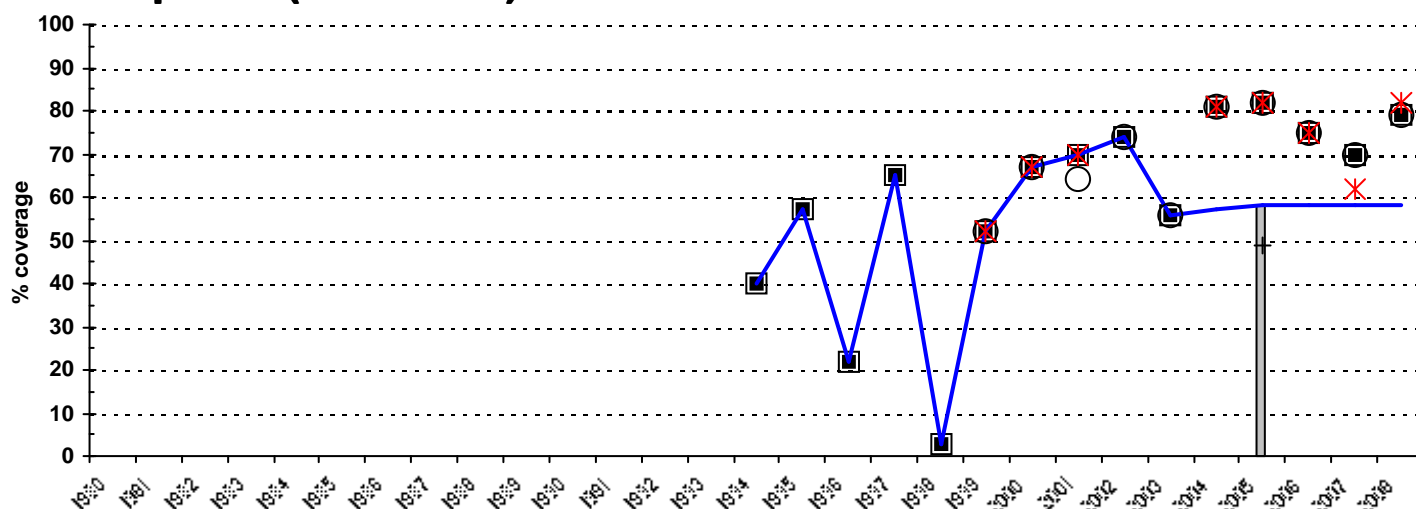
| Year | WHO/ UNICEF estimate (%) — | Reported to:* | | Government official estimate (%) ○ | Reported doses administered (%)** ✕ | Survey data (%)*** | |
|------|--|---------------------|------------------------|--|---|-----------------------------------|----------------------------------|
| | | WHO (%) □ | UNICEF (%) ■ | | | Survey 12-23 months | Survey <12 months + |
| 1980 | 9 | 35 | | | | | |
| 1981 | 10 | 33 | 33 | | | | |
| 1982 | 11 | | | | | | |
| 1983 | 12 | | 5 | | | | |
| 1984 | 25 | | 25 | | | 25 | |
| 1985 | 70 | | 22 | | | 71 | |
| 1986 | 75 | 75 | 75 | | | 75 | |
| 1987 | 91 | 66 | 66 | | | 91 | |
| 1988 | 85 | 78 | 78 | | | | |
| 1989 | 79 | 95 | 95 | | | 79 | 62 |
| 1990 | 75 | 83 | 83 | | | | |
| 1991 | 71 | 68 | 68 | | | | |
| 1992 | 67 | 95 | 95 | | | | |
| 1993 | 63 | 87 | 87 | | | 63 | |
| 1994 | 72 | 88 | 88 | | | | |
| 1995 | 80 | 95 | 95 | | | 80 | |
| 1996 | 82 | 97 | 97 | | | | |
| 1997 | 85 | 98 | 98 | | | | |
| 1998 | 88 | 79 | 79 | | | | |
| 1999 | 90 | 94 | 94 | 94 | 94 | 90 | |
| 2000 | 87 | 93 | 93 | 93 | 93 | | |
| 2001 | 83 | 82 | 82 | 80 | 82 | | |
| 2002 | 80 | 80 | 80 | 80 | | | |
| 2003 | 76 | 68 | 68 | 68 | | | |
| 2004 | 73 | 93 | 93 | 93 | 93 | | |
| 2005 | 69 | 85 | 85 | 85 | 85 | 69 | |
| 2006 | 69 | 78 | 78 | 78 | 78 | | |
| 2007 | 69 | 80 | 80 | 80 | 69 | | |
| 2008 | 69 | 91 | 91 | 91 | 94 | | |

*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**Coverage based on registration of doses administered by health care providers.

***In case more than one survey was implemented in a certain year the highest value is presented. Details of all data are presented in the second section of this report.

HepB3 (1980-2008)



Description of trend

Hepatitis B vaccine was introduced in 1994 and the dramatic fluctuations are most likely the result of an unstable supply of the vaccine. Estimates since 1999 assume that supply issues have been resolved and coverage reaches that of DTP3 (both vaccines given at the same time). No reliable data are available to show current levels of immunization coverage. WHO & UNICEF recommend a high quality coverage survey verify administrative data. Estimates since 1989 based on survey results.

Data presented in chart

| Year | WHO/ UNICEF estimate (%) | Reported to:* | | Government official estimate (%) | Reported doses administered (%)** | Survey data (%)*** | |
|------|-----------------------------------|---------------|---------------|---|--|---------------------------|-------------------------|
| | | WHO (%) | UNICEF (%) | | | Survey 12-23 months | Survey <12 months |
| 1980 | | | | | | | |
| 1981 | | | | | | | |
| 1982 | | | | | | | |
| 1983 | | | | | | | |
| 1984 | | | | | | | |
| 1985 | | | | | | | |
| 1986 | | | | | | | |
| 1987 | | | | | | | |
| 1988 | | | | | | | |
| 1989 | | | | | | | |
| 1990 | | | | | | | |
| 1991 | | | | | | | |
| 1992 | | | | | | | |
| 1993 | | | | | | | |
| 1994 | 40 | 40 | 40 | | | | |
| 1995 | 57 | 57 | 57 | | | | |
| 1996 | 22 | 22 | 22 | | | | |
| 1997 | 65 | 65 | 65 | | | | |
| 1998 | 3 | 3 | 3 | | | | |
| 1999 | 52 | 52 | 52 | 52 | 52 | | |
| 2000 | 67 | 67 | 67 | 67 | 67 | | |
| 2001 | 70 | 70 | 70 | 64 | 70 | | |
| 2002 | 74 | 74 | 74 | 74 | | | |
| 2003 | 56 | 56 | 56 | 56 | | | |
| 2004 | 57 | 81 | 81 | 81 | 81 | | |
| 2005 | 58 | 82 | 82 | 82 | 82 | 58 | 49 |
| 2006 | 58 | 75 | 75 | 75 | 75 | | |
| 2007 | 58 | 70 | 70 | 70 | 62 | | |
| 2008 | 58 | 79 | 79 | 79 | 82 | | |

*Prior to 1998 national reports to WHO/UNICEF did not specify whether information was derived from administrative records, surveys or other sources.

**Coverage based on registration of doses administered by health care providers.

***In case more than one survey was implemented in a certain year the highest value is presented. Details of all data are presented in the second section of this report.

Iraq

Details Survey Data

Year Source

| Antigen | Confirmation method | % coverage | Compliance with schedule | Age group | Sample size | % cards seen | Survey year | Comments |
|---|---------------------|------------|--------------------------|-----------|-------------|--------------|-------------|----------|
| 2005 Iraq Multiple Indicator Cluster Survey 2006 | | | | | | | | |
| BCG | Card or History | 92.3 | | 18-29 m | 3329 | 55.1 | 2006 | |
| BCG | C or H <12 month | 91.4 | | 18-29 m | 3329 | 55.1 | 2006 | |
| DTP1 | Card or History | 84.5 | | 18-29 m | 3329 | 55.1 | 2006 | |
| DTP1 | C or H <12 month | 81.9 | | 18-29 m | 3329 | 55.1 | 2006 | |
| DTP3 | Card or History | 61.5 | | 18-29 m | 3329 | 55.1 | 2006 | |
| DTP3 | C or H <12 month | 52.8 | | 18-29 m | 3329 | 55.1 | 2006 | |
| Pol3 | Card or History | 65.6 | | 18-29 m | 3329 | 55.1 | 2006 | |
| Pol3 | C or H <12 month | 57 | | 18-29 m | 3329 | 55.1 | 2006 | |
| MCV | Card or History | 69.3 | | 18-29 m | 3329 | 55.1 | 2006 | |
| HepB | Card or History | 57.6 | | 18-29 m | 3329 | 55.1 | 2006 | |
| HepB | C or H <12 month | 49.4 | | 18-29 m | 3329 | 55.1 | 2006 | |
| PAB | n.a. | 61.4 | | CBAW | 6551 | | 2006 | |
| 1999 Iraq MICS 2000 | | | | | | | | |
| BCG | Card or History | 92.7 | | 12-23 m | 434 | 78.4 | 2000 | |
| DTP1 | Card or History | 93 | | 12-23 m | 434 | 78.4 | 2000 | |
| DTP3 | Card or History | 81.1 | | 12-23 m | 434 | 78.4 | 2000 | |
| Pol3 | Card or History | 87.2 | | 12-23 m | 434 | 78.4 | 2000 | |
| MCV | Card or History | 90 | | 12-23 m | 434 | 78.4 | 2000 | |
| 1995 The 1996 Multiple Indicator Cluster Survey, Northern Governorates, 1997 | | | | | | | | |
| BCG | Card or History | 95.9 | | 12-23 m | | | 1996 | |
| DTP1 | Card or History | | | 12-23 m | | | 1996 | |
| DTP3 | Card or History | 72.2 | | 12-23 m | | | 1996 | |
| Pol3 | Card or History | 72.2 | | 12-23 m | | | 1996 | |
| MCV | Card or History | 79.1 | | 12-23 m | | | 1996 | |
| 1995 The 1996 Multiple Indicator Cluster Survey, South/Centre Governorates, 1996 | | | | | | | | |
| BCG | Card or History | 97 | | 12-23 m | | | 1996 | |
| DTP1 | Card or History | | | 12-23 m | | | 1996 | |
| DTP3 | Card or History | 74 | | 12-23 m | | | 1996 | |
| Pol3 | Card or History | 73 | | 12-23 m | | | 1996 | |
| MCV | Card or History | 80.3 | | 12-23 m | | | 1996 | |
| 1993 Situation Analysis of Children and Women in Iraq, 1998 (MICS) | | | | | | | | |
| BCG | Card or History | 96.2 | | 12-23 m | 3150 | 79.5 | 1994 | |
| DTP1 | Card or History | 82.3 | | 12-23 m | 3150 | 79.5 | 1994 | |
| DTP3 | Card or History | 70.1 | | 12-23 m | 3150 | 79.5 | 1994 | |
| Pol3 | Card or History | 70.1 | | 12-23 m | 3150 | 79.5 | 1994 | |
| MCV | Card or History | 63.3 | | 12-23 m | 3150 | 79.5 | 1994 | |
| 1989 Iraq, Immunization, Diarrhoeal Disease, Maternal and Childhood Mortality Survey 1990, Evaluation Series No. 9 | | | | | | | | |
| BCG | Card or History | 96 | | 12-23 m | | 88 | 1990 | |
| BCG | C or H <12 month | 96 | | 12-23 m | | 88 | 1990 | |
| DTP1 | Card or History | 97 | | 12-23 m | | 88 | 1990 | |
| DTP1 | C or H <12 month | 91 | | 12-23 m | | 88 | 1990 | |
| DTP3 | Card or History | 87 | | 12-23 m | | 88 | 1990 | |
| DTP3 | C or H <12 month | 75 | | 12-23 m | | 88 | 1990 | |

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Details Survey Data

Year Source

| Antigen | Confirmation method | % coverage | Compliance with schedule | Age group | Sample size | % cards seen | Survey year | Comments |
|---------|---------------------|------------|--------------------------|-----------|-------------|--------------|-------------|----------|
| Pol3 | Card or History | 87 | | 12-23 m | | 88 | 1990 | |
| Pol3 | C or H <12 month | 75 | | 12-23 m | | 88 | 1990 | |
| MCV | Card or History | 79 | | 12-23 m | | 88 | 1990 | |
| MCV | C or H <12 month | 62 | | 12-23 m | | 88 | 1990 | |

1987 Iraq, Report on the Immunization Coverage Survey 1988

| | | | | | | | | |
|------|-----------------|------|-------------|---------|-----|------|------|--|
| BCG | Card or History | 99.5 | | 12-23 m | 642 | 91.2 | 1988 | |
| DTP1 | Card or History | 97.8 | | 12-23 m | 642 | 91.2 | 1988 | |
| DTP3 | Card or History | 94.9 | | 12-23 m | 642 | 91.2 | 1988 | |
| Pol3 | Card or History | 94.9 | | 12-23 m | 642 | 91.2 | 1988 | |
| MCV | Card or History | 90.9 | | 12-23 m | 642 | 91.2 | 1988 | |
| PAB | Card or History | 70.6 | Women 15-49 | | | | 1988 | |

1986 Evaluation of Immunization Coverage and Diarrhoeal Diseases Programme in Iraq 1987

| | | | | | | | | |
|------|-----------------|----|--|---------|------|----|------|---|
| BCG | Card or History | 98 | | 12-23 m | 5668 | 88 | 1987 | Confirmation method assumed, weighted average |
| DTP1 | Card or History | 98 | | 12-23 m | 5668 | 88 | 1987 | Confirmation method assumed, weighted average |
| DTP3 | Card or History | 91 | | 12-23 m | 5668 | 88 | 1987 | Confirmation method assumed, weighted average |
| Pol3 | Card or History | 91 | | 12-23 m | 5668 | 88 | 1987 | Confirmation method assumed, weighted average |
| MCV | Card or History | 75 | | 12-23 m | 5668 | 88 | 1987 | Confirmation method assumed, weighted average |

1985 Evaluation of Immunization Coverage and Diarrhoeal Diseases Programme in Iraq 1987 + Report on the Immunization Coverage Survey 1988

| | | | | | | | | |
|------|-----------------|----|--|---------|------|----|------|--|
| BCG | Card or History | | | 12-23 m | | | 1986 | |
| DTP1 | Card or History | 98 | | 12-23 m | 5077 | 92 | 1986 | Confirmation method assumed, weighted average, % cards seen according to National EPI Programme 1987 |
| DTP3 | Card or History | 86 | | 12-23 m | 5077 | 92 | 1986 | Confirmation method assumed, weighted average, % cards seen according to National EPI Programme 1987 |
| Pol3 | Card or History | 86 | | 12-23 m | 5077 | 92 | 1986 | Confirmation method assumed, weighted average, % cards seen according to National EPI Programme 1987 |
| MCV | Card or History | 71 | | 12-23 m | 5077 | 92 | 1986 | Confirmation method assumed, weighted average, % cards seen according to National EPI Programme 1987 |

1984 Iraq, Report on the Immunization Coverage Survey 1988

| | | | | | | | | |
|------|-----------------|----|--|---------|-----|--|------|--------------|
| DTP1 | Card or History | 81 | | 12-23 m | 422 | | 1985 | Pre-Campaign |
| DTP3 | Card or History | 63 | | 12-23 m | 422 | | 1985 | Pre-Campaign |
| Pol3 | Card or History | 63 | | 12-23 m | 422 | | 1985 | Pre-Campaign |
| MCV | Card or History | 25 | | 12-23 m | 422 | | 1985 | Pre-Campaign |

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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.

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.

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| Year | PAB coverage estimate (%) |
|-------------|----------------------------------|
| 1980 | 4 |
| 1981 | 5 |
| 1982 | 4 |
| 1983 | 4 |
| 1984 | 16 |
| 1985 | 31 |
| 1986 | 47 |
| 1987 | 59 |
| 1988 | 53 |
| 1989 | 46 |
| 1990 | 70 |
| 1991 | 62 |
| 1992 | 69 |
| 1993 | 68 |
| 1994 | 82 |
| 1995 | 81 |
| 1996 | 79 |
| 1997 | 75 |
| 1998 | 70 |
| 1999 | 73 |
| 2000 | 75 |
| 2001 | 86 |
| 2002 | 87 |
| 2003 | 88 |
| 2004 | 88 |
| 2005 | 71 |
| 2006 | 70 |
| 2007 | 69 |
| 2008 | 69 |