



Global Immunization Data

December 2008

Summary: Global immunization coverage in 2007

Based on the latest World Health Organization (WHO)/UNICEF global estimates for 2007, trends related to global vaccination coverage continue to be positive.

Immunization currently averts more than 2.5 million deaths every year in all age groups from diphtheria, tetanus, pertussis (whooping cough), and measles.

More countries achieve high levels of vaccination coverage

Three regions — the Americas, Europe and Western Pacific — maintained over 90% immunization coverage, while the Eastern Mediterranean region reached 87%.

Number of countries reaching 90% or more immunization coverage with three doses of diphtheria-tetanus-pertussis (DTP3) in 2007: 117 countries compared to 113 in 2006.

Countries reaching over 80% DTP3 coverage continue to increase: 156 countries in 2007 compared to 151 in 2006.

Increasing uptake of underused vaccines

Hepatitis B vaccine for infants was introduced nationwide in 169 countries and in parts of India and Sudan by the end of 2007, up from 164 countries in 2006. Global coverage is estimated at 65% and is as high as 88% in the Americas. This contrasts with 30% in the South-East Asia Region. The African Region has reached 69% in 2007, compared to 48% in 2006.

Haemophilus influenzae type B (Hib) vaccine was introduced nationwide in 122 countries and in parts of Belarus, Bosnia and Herzegovina and Mongolia by the end of 2007, up from 108 countries in 2006. Global coverage (three doses of Hib) is estimated at 26% in 2007, reaching 91% in the Americas, but only 34% in Africa. The first South-East Asian countries that have decided to introduce Hib vaccine are Sri Lanka (2008), Bangladesh, Bhutan and Nepal (2009).

Rubella vaccine was introduced nationwide in 125 countries and in parts of China by the end of 2007, up from 82 countries in 1996. There has been remarkable progress towards the elimination of rubella and congenital rubella syndrome in the Americas with a reduction of 98% of confirmed cases between 1998 and 2007.

Mumps vaccine was introduced nationwide in 113 countries and in parts of China, by the end of 2007.

Yellow fever vaccine was introduced in routine infant immunization programmes in 33 countries and territories out of the 44 at risk for yellow fever in Africa and the Americas.

Maternal and neonatal tetanus (MNT): The vaccine for adult women to prevent MNT was introduced in 92 countries by the end of 2007, based on reported data. Vaccination coverage with at least two doses of tetanus toxoid vaccine or tetanus-diphtheria toxoid vaccine was estimated at 70% in 2007 and an estimated 81% of newborns were protected against neonatal tetanus through immunization.

Pneumococcal vaccine was introduced in 20 countries (including two in part of the country) by the end of 2007.

Rotavirus vaccine was introduced in 13 countries (including one in part of the country) by the end of 2007.

Human papillomavirus (HPV) vaccine was introduced in 10 countries by the end of 2007.

The unprotected children

Number of children under one year of age who did not receive DTP3: 24.1 million in 2007 compared to 24.6 million in 2006.

Seventy-three percent of these children live in ten countries: Bangladesh, China, Democratic Republic of Congo, Ethiopia, India, Indonesia, Niger, Nigeria, Pakistan and Uganda.

Deaths due to vaccine-preventable diseases

Total number of children who died in 2002 from diseases preventable by vaccines currently recommended by WHO, plus diseases for which vaccines are expected soon: 2.5 million.^b

Estimated number of deaths in all age groups from diseases preventable by vaccines (excluding measles) currently recommended by the WHO in 2002: 1.5 million.

- Hepatitis B: 600 000^a
- *Haemophilus influenzae* type b (Hib): 386 000^a
- Pertussis: 294 000^a
- Tetanus: 213 000^a
- Other (polio, diphtheria, yellow fever): 36 000^a

Estimated number of deaths in children under age five from diseases preventable (excluding measles) by vaccines currently recommended by WHO in 2002: 890 000.

- Hib: 386 000^b
- Pertussis: 294 000^b
- Neonatal tetanus: 180 000^b
- Tetanus (non-neonatal): 18 000^b
- Other (polio, diphtheria, yellow fever): 19 000^b

Estimated number of deaths due to rotavirus, meningococcus and pneumococcus in 2002: 2.1 million, of which 1.1 million were children.

- Pneumococcal disease: 1 612 000, of which 716 000 under age five
- Meningococcal disease: 26 000, of which 10 000 under age five
- Rotavirus: 449 000, of which 402 000 under age five

Diphtheria-tetanus-pertussis (DTP)

Global coverage of infants in 2007 with DTP3 vaccine: 81%.^c

Global coverage of infants in 1990 with DTP3 vaccine: 75%.^c

Estimated number of children vaccinated with DTP3 in 2007: 105 million.^c

Number of countries that achieved more than 80% DTP3 vaccine coverage in all districts: 53 (27%).^d

Number of countries that achieved 90% or more DTP3 vaccine coverage in 2007: 117 (61%).^c

Polio

Global coverage of infants with three doses of polio vaccine in 2007: 82%.^c

Global coverage of infants with three doses of polio vaccine in 1990: 75%.^c

Reported number of polio cases in 2007: 1387 confirmed polio cases (including 1315 wild virus confirmed cases).^e

Estimated number of polio cases in 1988: 350 000.

Number of polio-endemic countries in 2007: 4.

Number of polio-endemic countries in 1988: 125.

Measles

Global coverage of children by their second birthday with one dose of measles-containing vaccine in 2007: 82%.^c

Global coverage of children by their second birthday with one dose of measles-containing vaccine in 1990: 72%.^c

Number of countries in which a second opportunity for measles immunization was provided in 2007: 183 (95% of 193 countries).^d

Number of estimated measles deaths in 2007: 197 000 [141 000 - 267 000]*, of which 177 000 [126 000 - 240 000]* were under age five.^f

Maternal and neonatal tetanus (MNT)

Number of countries that had not yet eliminated MNT in 2007: 46.^g

Number of countries that had not yet eliminated MNT in 1994: 82.^g

Estimated number of pregnant women who remained in need of immunization against maternal tetanus in 2004: 40 million.^g

Number of women living in high-risk areas protected with at least two doses of tetanus toxoid vaccine given during supplementary immunization activities (1999-2007): 79 million.^g

Hepatitis B

Global coverage of infants with three doses of hepatitis B vaccine in 2007: 65%.^c

Global coverage of infants with three doses of hepatitis B vaccine in 1992: 3%.^c

Yellow Fever

Global yellow fever vaccine coverage in 2007: 52% (includes only the 44 countries at risk).^d

Notes:

All numbers referring to deaths are rounded to the nearest thousand (000).

WHO has 193 Member States.

* Estimates of the uncertainty intervals have been made by assuming a probability distribution around the immunization coverage, vaccine efficacy, age-specific distributions of cases, and age-specific case-fatality rates. From these distributions 10 000 simultaneous samples of the parameter values were drawn and the estimate of deaths re-calculated. The uncertainty intervals represent the interval within which 95% of all 10 000 sample mortality estimates occurred.

Sources:

^a WHO Department of Immunization, Vaccines and Biologicals estimates for vaccine-preventable deaths for the year 2002 (latest available data).

^b WHO Department of Immunization, Vaccines and Biologicals estimates for under-five child deaths for the year 2002 (latest available data).

^c WHO/UNICEF immunization coverage estimates, data as of August 2008.

^d WHO Department of Immunization, Vaccines and Biologicals, data as of December 2008.

^e Polio Eradication programme data as of September 2008.

^f WHO/UNICEF measles mortality estimates, data as of December 2008

^g WHO/UNICEF MNT data as of September 2008.

More information, including more detailed immunization data and graphs, can be found at http://www.who.int/immunization_monitoring/data/en/