



Global Immunization Data

October 2012

Summary: Global immunization coverage in 2011

Immunization currently averts an estimated 2 to 3 million deaths every year in all age groups from diphtheria, tetanus, pertussis (whooping cough), and measles.

In 2011, an estimated 83% (107 million) of infants worldwide were vaccinated with three doses of diphtheria-tetanus-pertussis (DTP3) vaccine.

Three regions — the Americas, Europe and Western Pacific — maintained over 90% DTP3 immunization coverage.

Number of countries reaching 80% or more immunization coverage with DTP3 vaccine in 2011: 162 countries compared to 158 in 2010.

The number of countries reaching over 90% DTP3 coverage remained at 130 in 2010 and 2011.

Increasing uptake of new and underused vaccines

Hepatitis B vaccine for infants was introduced nationwide in 180 countries by the end of 2011. Global hepatitis B vaccine coverage is estimated at 75% and is as high as 91% in the Western Pacific and 90% in the Americas. Coverage in the South-East Asia Region reached 56% in 2011.

Haemophilus influenzae type B (Hib) vaccine was introduced in 177 countries by the end of 2011 (including in parts of Belarus, India and the Philippines), up from 168 countries in 2010. Global coverage with three doses of Hib vaccine is estimated at 43% in 2011, reaching 90% in the Americas, but only 11% and 14% in the South-East Asia Region and in the Western Pacific Region, respectively.

Rubella vaccine was introduced nationwide in 130 countries by the end of 2011, up from 83 countries in 1996. There has been remarkable progress towards the elimination of rubella and congenital rubella syndrome in the Americas with a reduction of 99.99% of confirmed cases between 1998 and 2011.

Mumps vaccine was introduced nationwide in 120 countries by the end of 2011.

Yellow fever vaccine was introduced in routine infant immunization programmes in 36 countries and territories out of the 48 at risk for yellow fever in Africa and the Americas.

Maternal and neonatal tetanus (MNT): the vaccine to prevent MNT was introduced as part of routine immunization programmes in over 100 countries by the end of 2011. Vaccination coverage with at least two doses of tetanus toxoid vaccine or tetanus-diphtheria toxoid vaccine was estimated at 70% in 2011 and an estimated 82% of newborns were protected against neonatal tetanus through immunization. As of December 2011, maternal and neonatal tetanus persist as public health problems in 36 countries, mainly in Africa and Asia.

Pneumococcal vaccine was introduced in 72 countries (including the Democratic Republic of the Congo where the vaccine was partially introduced) by the end of 2011, up from 54 countries in 2010.

Rotavirus vaccine was introduced in 31 countries by the end of 2011 (including three countries where the vaccine was partially introduced), up from 28 in 2010.

Human papillomavirus (HPV) vaccine was introduced in 43 countries (including three in parts of the country only) by the end of 2011, up from 33 countries by the end of 2010.

The unprotected children

Number of children under one year of age who did not receive DTP3 vaccine worldwide: 22.4 million in 2011 compared to 21.1 million in 2010.

More than seventy percent of these children live in ten countries: Afghanistan, Chad, Democratic Republic of the Congo, Ethiopia, India, Indonesia, Nigeria, Pakistan, Philippines and South Africa.

Deaths due to vaccine-preventable diseases

Total number of children who died from diseases preventable by vaccines currently recommended by WHO: 1.5 million.

- Hib: 199 000^b
- Pertussis: 195 000^a
- Measles: 118 000^{a&g}
- Neonatal tetanus: 59 000^a
- Tetanus (non-neonatal): 2 000^a
- Pneumococcal disease: 476 000^b
- Rotavirus: 453 000^b

Estimated number of all deaths in children under five (0-59 months) in 2008: 8.8 million. Nearly 17% of all deaths in children under five is vaccine preventable.

Estimated number of all deaths in children 1-59 months of age: 5.2 million. About 29% of deaths in children 1-59 months of age are vaccine preventable.

DTP

Global coverage of infants in 2011 with DTP3 vaccine: 83%^c.

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

Estimated number of children vaccinated with DTP3 vaccine in 2011: 107 million^c.

Polio

Global coverage of infants with three doses of polio vaccine in 2011: 84%^c.

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

Reported number of polio cases in 2011: 716 confirmed polio cases (including 650 wild virus confirmed cases)^d.

Estimated number of polio cases in 1988: 350 000.

Number of polio-endemic countries in 2011: 4.
Number countries with re-established transmission of wild polio virus in 2011: 3.

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 2011: 84%^c.

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

Number of countries with a second dose of measles vaccine in routine immunization schedule: 141 (73% of 194 countries)^e.

Number of estimated measles deaths in 2008: 164 000 [115 000 - 222 000]*

MNT

Number of countries that had not yet eliminated MNT in 2011: 36^f.

Number of countries that had not yet eliminated MNT in 2000: 58^f.

Number of women living in high-risk areas protected with at least two doses of tetanus toxoid vaccine given during supplementary immunization activities (1999-2011): more than 113 million^f.

Hepatitis B

Global coverage of infants with three doses of hepatitis B vaccine in 2011: 75%^c.

Global coverage of infants with three doses of hepatitis B vaccine in 1990: 1%^c.

Yellow Fever

Global yellow fever vaccine coverage in 2011: 42% (includes only the 48 countries and territories at risk)^e.

Notes:

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

WHO has 194 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.

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

^a Global Burden of disease 2008 update, WHO, data as of June 2010.

^b WHO/IVB estimates based on Global Burden of Diseases estimates 2008, data as of March 2012.

^c WHO/UNICEF immunization coverage estimates, data as of July 2012.

^d Polio Eradication programme data as of July 2012.

^e WHO Department of Immunization, Vaccines and Biologicals, data as of September 2012.

^f WHO/UNICEF MNT, data as of September 2012.

^g For measles, 2010 estimates are now available: 114,000 children <5 years of age died from measles in 2010 (source: IVB/measles model 2012) available from www.thelancet.com Published online April 24, 2012 DOI:10.1016/S0140-6736(12)60522-4