

# 2004 Global Immunization Data



## Deaths averted by immunization

Estimated number of deaths averted by immunization in 2003: more than 2 million, as well as an additional 600 000 hepatitis-B-related deaths that would otherwise have occurred in adulthood (from liver cirrhosis and cancer).

## Deaths due to vaccine-preventable diseases

Estimated number of deaths in all age groups from diseases preventable by vaccines currently recommended by the World Health Organization (WHO) in 2002: 2.1 million.

- Measles: 610 000<sup>b</sup>
- Hepatitis B: 600 000<sup>b</sup>
- *Haemophilus influenzae* type b (Hib): 386 000<sup>b</sup>
- Pertussis: 294 000<sup>b</sup>
- Tetanus: 213 000<sup>b</sup>
- Other (polio, diphtheria, yellow fever): 36 000<sup>b</sup>

Estimated number of deaths in children under age five from diseases preventable by vaccines currently recommended by WHO in 2002: 1.4 million.

- Measles: 540 000<sup>b</sup>
- Hib: 386 000<sup>b</sup>
- Pertussis: 294 000<sup>b</sup>
- Neonatal tetanus: 180 000<sup>b</sup>
- Tetanus (non-neonatal): 18 000<sup>b</sup>
- Other (polio, diphtheria, yellow fever): 19 000<sup>b</sup>

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

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.<sup>b</sup>

## Diphtheria-tetanus-pertussis

Global coverage of infants in 2004 with three doses of diphtheria-tetanus-pertussis (DTP3) vaccine: 78%.<sup>a</sup>

Global coverage of infants in 1980 with DTP3 vaccine: 20%.<sup>a</sup>

Estimated number of children vaccinated with DTP3 in 2004: 98 million<sup>a</sup>

Estimated number of children who did not receive DTP3 in 2004: at least 27 million.<sup>a</sup>

Estimated diphtheria deaths in 2002: 5000, of which 4000 were under age five.<sup>b</sup>

Number of countries that achieved more than 80% DTP3 vaccine coverage in all districts: 51 (27%).<sup>b</sup>

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## **Polio**

Global coverage of infants with three doses of polio vaccine in 2004: 80%.<sup>a</sup>

Global coverage of infants with three doses of polio vaccine in 1980: 22%.<sup>a</sup>

Reported number of polio cases in 2004: 1258

Reported number of polio cases in 2003: 784

Estimated number of polio cases in 1988: 350 000

Number of polio-endemic countries in 2004: 6

Number of polio-endemic countries in 1988: 125

Estimated deaths in 2004 from polio: less than 1000.

## **Measles**

Global coverage of children by their 2<sup>nd</sup> birthday with one dose of measles-containing vaccine in 2004: 76%.<sup>a</sup>

Global coverage of children by their 2<sup>nd</sup> birthday with one dose of measles-containing vaccine in 1980: 17%.<sup>a</sup>

Number of countries in which a second opportunity for measles immunization was provided in 2004: 168 (88% of 192 countries.)<sup>b</sup>

Number of estimated measles deaths in 2003: 530 000 (383 000 - 731 000),\* of which 480 000 (345 000 - 663 000)\* were under age five.<sup>b</sup>

## **Maternal and Neonatal Tetanus (MNT)**

Number of countries that had not yet eliminated MNT in 1994: 82.<sup>b</sup>

Number of countries that had not yet eliminated MNT in 2004: 52.<sup>b</sup>

Global coverage of pregnant women with at least two doses of tetanus toxoid vaccine (TT2+) in 2004: 50%.<sup>b</sup>

Estimated number of pregnant women who remained in need of immunization against maternal tetanus in 2004: 40 million.<sup>b</sup>

Number of women living in high-risk areas protected with at least two doses of tetanus toxoid vaccine in Supplementary Immunization Activities (1999-2004): 58 million<sup>c</sup>

## **Hepatitis B**

Number of countries that integrated hepatitis B vaccine into their routine infant immunization schedules by 2004: 153.<sup>b</sup>

Global coverage of infants with three doses of hepatitis B vaccine in 2004: 48%.<sup>a</sup>

Global coverage of infants in 1992 with three doses of hepatitis B vaccine: 3%.<sup>a</sup>

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Estimated deaths in 2002 due to hepatitis B: 600 000, of which less than 1000 were under age five.<sup>b</sup>

## ***Haemophilus influenzae* type b (Hib)**

Number of countries that integrated Hib vaccine into their national routine immunization schedules by 2004: 92<sup>b</sup>

Estimated number of Hib-related deaths in 2002: 386 000 all under age five.<sup>b</sup>

## **Yellow Fever**

In 2004, 33 countries (out of the 44 at risk for yellow fever) that integrated yellow fever vaccine into their national routine immunization schedules: 27, plus 4 countries in high risk areas only and 2 in part of the country.<sup>b</sup>

Global yellow fever vaccine coverage in 2004: 36% (includes only the 44 countries at risk).<sup>b</sup>

Estimated yellow fever deaths in 2002: 30 000, of which 15 000 were under age five.<sup>b</sup>

## **Other**

Number of countries that integrated rubella vaccine into their national immunization schedule by 2004:116<sup>b</sup>

Number countries that integrated mumps vaccine into their national immunization schedule by 2004:109.<sup>b</sup>

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**Notes:** All numbers referring to deaths are rounded to the nearest thousand (000). Only measles deaths estimates are currently available for 2003.

WHO has 192 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:**

<sup>a</sup> WHO/UNICEF immunization coverage estimates, August 2005

<sup>b</sup> WHO Department of Immunization, Vaccines and Biologicals data, September 2005

<sup>c</sup> WHO/UNICEF MNT collected data, June 2005