



## Immunization Facts and Figures Nov 2015 Update

### Vaccines save children's lives

- Immunization is one of the most successful public health initiatives. Each year, vaccination averts an estimated 2-3 million deaths from diphtheria, tetanus, pertussis (whooping cough) and measles. These are all life-threatening diseases that disproportionately affect children<sup>1</sup>.
- Thanks to immunization, smallpox has been eradicated and we are on the cusp of a world free from polio.
- Since 2000, GAVI, the Vaccine Alliance, of which UNICEF is a founding partner, has supported the vaccination of 500 million children in the world's poorest countries, saving an estimated 7 million lives<sup>2</sup>.

### ...But nearly one in five children still miss out on basic vaccines that could mean the difference between life and death

- Approximately 17% of deaths in children under five are vaccine-preventable. An estimated 1.5 million children die annually from diseases that can be prevented by immunization<sup>3</sup>.
- If all children were immunized with existing vaccines, we could save nearly 25 million lives between 2011 and 2020<sup>4</sup>.
- In 2014, an estimated 86 per cent of infants worldwide were vaccinated with three doses of the vaccine required to fully immunize them against diphtheria, tetanus and pertussis (DTP3 vaccine) – up from 20% in 1980<sup>5</sup>. These three diseases are potentially fatal for children under 5. (Additional data here: <http://data.unicef.org/child-health/immunization>.)
- More than 60 percent of the children who have not received three doses of DTP-containing vaccine during 2014 live in ten countries: Democratic Republic of the Congo, Ethiopia, India, Indonesia, Iraq, Nigeria, Pakistan, Philippines, Uganda and South Africa<sup>6</sup>.
- Children who are born to undereducated women are the most likely to be unimmunized. If all mothers in low and middle income countries had primary education, child vaccination against diphtheria, tetanus and whooping cough would increase by 10%. Child vaccination against these diseases would increase by 43% if all mothers in these countries had secondary education<sup>7</sup>.

### Polio:

- We are closer than ever to ending polio. In 1988 there were 350,000 cases of polio in the world and in 2014, only 359. Never before in the history of the disease have there been so few children in so few countries with the crippling virus<sup>8</sup>.
- Today, thanks to the global effort for polio eradication, all but just two countries (Afghanistan and Pakistan) have eliminated polio within their borders<sup>9</sup>.

<sup>1</sup> <http://www.who.int/mediacentre/factsheets/fs378/en/>

<sup>2</sup> <http://gaviprogressreport.org/2014/#page=15> GAVI 2014 Annual Report Page 7#

<sup>3</sup> [http://apps.who.int/immunization\\_monitoring/diseases/en/](http://apps.who.int/immunization_monitoring/diseases/en/) and <http://www.who.int/gho/immunization/en/> - 2008

<sup>4</sup> Global Vaccine Action Plan, p. 116

<sup>5</sup> [http://www.unicef.org/immunization/files/Global\\_immunization\\_coverage.pdf](http://www.unicef.org/immunization/files/Global_immunization_coverage.pdf)

<sup>6</sup> [http://www.who.int/immunization/monitoring\\_surveillance/Global\\_Immunization\\_Data.pdf?ua=1](http://www.who.int/immunization/monitoring_surveillance/Global_Immunization_Data.pdf?ua=1)

<sup>7</sup> Education for All Monitoring Report 2013/14, p. 160: <http://www.uis.unesco.org/Library/Documents/gmr-2013-14-teaching-and-learning-education-for-all-2014-en.pdf>

<sup>8</sup> <http://www.who.int/mediacentre/factsheets/fs114/en/>

<sup>9</sup> <http://www.polioeradication.org/>

## Measles:

- Measles vaccines have averted an estimated 17.1 million deaths between 2000 and 2014<sup>10</sup>.
- Measles continues to kill about 400 children each day, mainly in Africa and Asia<sup>11</sup>.
- In 2014, more than 60 percent of the estimated 21.5 million children who were not vaccinated against measles, live in only six countries: India, Nigeria, Pakistan, Indonesia, Ethiopia, and the Democratic Republic of Congo<sup>12</sup>.

## Maternal and neonatal tetanus:

- Maternal and neonatal tetanus is a disease that killed 49,000 newborns in 2013 alone<sup>13</sup>.
- While the disease has been eliminated from 35 out of 59 high-risk countries since 1999 through vaccination, it persists as public health problem in 24 countries, mainly in Africa and Asia<sup>14</sup>. This is a 94% reduction from 1998<sup>15</sup>.

## New vaccines can protect against pneumonia and diarrhea<sup>16</sup>- the most prevalent and lethal infections for children.

- A quarter of child deaths are due to pneumonia or diarrhoea<sup>17</sup>.
- By the end of 2014, UNICEF helped protect over 47 million children from pneumonia by supporting the introduction of the pneumococcal conjugate vaccine in 73 Gavi-supported countries<sup>18</sup>.
- With support from UNICEF, over 20 million children were protected from severe diarrhoea with the rotavirus vaccine. Severe diarrhoea kills over 531,000 children each year.

## Oral cholera vaccine<sup>19</sup>

- In 2014, UNICEF and partners supported five countries in stockpiling doses of the oral cholera vaccine: Ethiopia, South Sudan, Guinea, Haiti and Nepal.
- The global stockpile of cholera vaccines has helped vaccinate 600,000 people to date.

## UNICEF's Role in worldwide childhood immunization:

- UNICEF and its partners support immunization programmes in 100 countries to help all children reach their full potential. Activities include:
  - Communication for development to work with communities and create demand for vaccines.
  - Vaccine procurement and cold chain: for vaccine purchases and delivery, improving cold chains and monitoring. In 2014, UNICEF procured 2.71 billion doses of vaccines for a value of nearly US\$1.5 billion.
  - Policy support and technical assistance to help government partners to improve routine immunization services and roll out immunization campaigns more effectively, to reach each and every last child.
- UNICEF is the world's largest buyer of vaccines, reaching 40% of the world's children.
- UNICEF is a core partner of the Global Alliance for Vaccines and Immunization (GAVI), the Measles and Rubella Initiative; the Maternal and Neonatal Tetanus Elimination (MNTE) initiative; and the Global Polio Eradication Initiative (GPEI), in addition to working closely with sister UN Agencies, donor and programme countries governments, international development and finance organizations and the pharmaceutical industry to make immunization accessible to all children.

<sup>10</sup> <http://www.who.int/mediacentre/news/releases/2015/measles-vaccination/en/>

<sup>11</sup> <http://www.measlesrubellainitiative.org/resources/advocacy-tools/2015-fact-sheet/>

<sup>12</sup> <http://www.measlesrubellainitiative.org/wp-content/uploads/2015/04/measles-factsheet2015.pdf>

<sup>13</sup> [http://www.who.int/immunization/diseases/MNTE\\_initiative/en/](http://www.who.int/immunization/diseases/MNTE_initiative/en/)

<sup>14</sup> <http://www.who.int/mediacentre/factsheets/fs378/en/>

<sup>15</sup> *ibid*

<sup>16</sup> *CHERG-WHO 2014 and* <http://www.gavi.org/about/mission/facts-and-figures/>

<sup>17</sup> *ibid*

<sup>18</sup> <http://gaviprogressreport.org/2014/> p.21

<sup>19</sup> GAVI 2014 progress report. P.21

\*\*\*\*\* About vaccine-preventable childhood diseases \*\*\*\*\*

- **Diphtheria** is a serious disease caused by a potent bacterial toxin. It causes a thick coating in the back of the nose or throat that makes it hard to breathe or swallow. It can be deadly<sup>i</sup>.
- **Hepatitis B** is a serious infection that affects the liver. It leads to chronic liver disease and puts people at high risk of death from cirrhosis and cancer of liver<sup>20</sup>.
- **Haemophilus influenzae type B (Hib)** can cause acute respiratory infections, meningitis and other serious diseases almost exclusively in children under the age of 5.
- **Measles** is a highly contagious respiratory disease caused by a virus<sup>ii</sup>. Measles causes fever, runny nose, cough and rashes all over the body. In 2014, there were 114 900 measles deaths globally – about 314 deaths every day or 13 deaths every hour.
- **Pertussis** (whooping cough) is a highly contagious respiratory disease, which produces violent, uncontrollable coughing which often makes it hard to breathe. Pertussis most commonly affects infants and young children and can be fatal, especially in babies less than 1 year of age<sup>iii</sup>.
- **Pneumococcal disease** can cause pneumonia, meningitis, or blood infection. In its worst forms, pneumococcal disease kills one in three people who contract it<sup>iv</sup>. Pneumonia is one of the leading causes of child death around the world.
- **Polio** (poliomyelitis) mainly affects children under five years old. One in 200 infections leads to irreversible paralysis. Among those paralyzed, 5% to 10% die when their breathing muscles become immobilized<sup>v</sup>.
- **Rotavirus** is the leading cause of severe diarrhoea in infants and young children. Globally, diarrhoea causes more than half a million deaths each year in children under 5<sup>vi</sup>.
- Children whose mothers have **rubella** during the early stages of pregnancy often contract congenital rubella syndrome (CRS). Children with CRS are born with lifelong disabilities and are at risk for other developmental problems such as congenital heart disease and mental retardation<sup>vii</sup>.
- Mothers and their newborns contract **tetanus**, an extremely deadly disease, when deliveries happen in unhygienic conditions – especially in remote and areas without access to health facilities<sup>viii</sup>. Tetanus can be easily prevented by tetanus vaccines, hygienic delivery and good cord care practices.
- **Tuberculosis** (TB) is a disease that typically attacks the lungs. If not treated properly, TB disease can be fatal<sup>ix</sup>.
- **Yellow fever** is found in tropical climates and is transmitted to humans by the bite of an infected mosquito. Illness ranges in severity from a self-limited febrile illness to severe liver disease with bleeding. Up to 50% of people who develop severe illness and are not treated may die<sup>x</sup>.

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<sup>i</sup> <http://www.who.int/ith/diseases/diphtheria/en/>

<sup>ii</sup> <http://www.who.int/mediacentre/factsheets/fs286/en/index.html>

<sup>iii</sup> [http://www.who.int/immunization\\_monitoring/diseases/pertussis/en/](http://www.who.int/immunization_monitoring/diseases/pertussis/en/)

<sup>iv</sup> <http://www.cdc.gov/vaccines/vpd-vac/pneumo/default.htm#disease>

<sup>v</sup> <http://www.who.int/mediacentre/factsheets/fs114/en/>

<sup>vi</sup> <http://www.who.int/nuvi/rotavirus/en/>

<sup>vii</sup> <http://www.who.int/mediacentre/factsheets/fs367/en/>

<sup>viii</sup> [http://www.unicef.org/media/media\\_45487.html?p=printme](http://www.unicef.org/media/media_45487.html?p=printme)

<sup>ix</sup> <http://www.who.int/mediacentre/factsheets/fs104/en/index.html>

<sup>x</sup> <http://www.who.int/mediacentre/factsheets/fs100/en/>

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<sup>20</sup> <http://www.who.int/mediacentre/factsheets/fs204/en/>