

Immunization coverage

Fact sheet N°378

Reviewed November 2014

Key facts

- Immunization prevents illness, disability and death from vaccine-preventable diseases including cervical cancer, diphtheria, hepatitis B, measles, mumps, pertussis, pneumonia, polio, rotavirus diarrhoea, rubella and tetanus.
 - Global vaccination coverage is holding steady.
 - Immunization currently averts an estimated 2 to 3 million deaths every year.
 - But an estimated 21.8 million infants worldwide are still missing out on basic vaccines.
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Overview

Immunization averts an estimated 2 to 3 million deaths every year from diphtheria, tetanus, pertussis (whooping cough), and measles. Global vaccination coverage—the proportion of the world's children who receive recommended vaccines—has remained steady for the past few years.

During 2013, about 84% (112 million) of infants worldwide received 3 doses of diphtheria-tetanus-pertussis (DTP3) vaccine, protecting them against infectious diseases that can cause serious illness and disability or be fatal. By 2013, 129 countries had reached at least 90% coverage of DTP3 vaccine.

Global immunization coverage 2013

Haemophilus influenzae type b (Hib) causes meningitis and pneumonia. Hib vaccine had been introduced in 189 countries by the end of 2013. Global coverage with 3 doses of Hib vaccine is estimated at 52%. There is great variation between regions. In the Americas, coverage is estimated at 90%, while it is only 18% and 27% in the Western Pacific and South-East Asia Regions respectively.

Hepatitis B is a viral infection that attacks the liver. Hepatitis B vaccine for infants had been introduced nationwide in 183 countries by the end of 2013. Global coverage with 3 doses of hepatitis B vaccine is estimated at 81% and is as high as 92% in the Western Pacific.

Human papillomavirus — the most common viral infection of the reproductive tract—can cause cervical cancer, and other types of cancer and genital warts in both men and women. Human papillomavirus vaccine was introduced in 55 countries by the end of 2013.

Measles is a highly contagious disease caused by a virus, which usually results in a high fever and rash, and can lead to blindness, encephalitis or death. By the end of 2013, 84% of children had received 1 dose of measles vaccine by their second birthday, and 148 countries had included a second dose as part of routine immunization.

Meningitis A is an infection that can cause severe brain damage and is often deadly. By the end of 2013—3 years after its introduction—more than 150 million people in African countries affected by the disease had been vaccinated with MenAfriVac, a vaccine developed by WHO and PATH.

Mumps is a highly contagious virus that causes painful swelling at the side of the face under the ears (the parotid glands), fever, headache and muscle aches. It can lead to viral meningitis. Mumps vaccine had been introduced nationwide in 120 countries by the end of 2013.

Pneumococcal diseases include pneumonia, meningitis and febrile bacteraemia, as well as otitis media, sinusitis and bronchitis. Pneumococcal vaccine had been introduced in 103 countries by the end of 2013, and global coverage was estimated at 25%.

Polio is a highly infectious viral disease that can cause irreversible paralysis. In 2013, 84% of infants around the world received 3 doses of polio vaccine. Targeted for global eradication, polio has been stopped in all countries save 3—Afghanistan, Nigeria and Pakistan. Polio-free countries have been infected by imported virus, and all countries—especially those experiencing conflict and instability—remain at risk until polio is fully eradicated.

Rotaviruses are the most common cause of severe diarrhoeal disease in young children throughout the world. Rotavirus vaccine was introduced in 52 countries by the end of 2013, and global coverage was estimated at 14%.

Rubella is a viral disease which is usually mild in children, but infection during early pregnancy may cause fetal death or congenital rubella syndrome, which can lead to defects of the brain, heart, eyes and ears. Rubella vaccine was introduced nationwide in 137 countries by the end of 2013.

Tetanus is caused by a bacterium which grows in the absence of oxygen, e.g. in dirty wounds or in the umbilical cord if it is not kept clean. It produces a toxin which can cause serious complications or death. The vaccine to prevent maternal and neonatal tetanus had been introduced in 103 countries by the end of 2013. An estimated 82% of newborns were protected through immunization. Maternal and neonatal tetanus persist as public health problems in 25 countries, mainly in Africa and Asia.

Yellow fever is an acute viral haemorrhagic disease transmitted by infected mosquitoes. As of 2013, yellow fever vaccine had been introduced in routine infant immunization programmes in 35 of the 44 countries and territories at risk for yellow fever in Africa and the Americas and coverage was estimated at 41%.

Key challenges

Despite improvements in global vaccine coverage during the past decade, there continue to be regional and local disparities resulting from:

- limited resources;
- competing health priorities;
- poor management of health systems; and
- inadequate monitoring and supervision.

In 2013, an estimated 21.8 million infants worldwide were not reached with routine immunization services, of whom nearly half live in 3 countries: India, Nigeria and Pakistan.

Priority needs to be given to strengthening routine vaccination globally, especially in the countries that are home to the highest number of unvaccinated children. Particular efforts are needed to reach the underserved, especially those in remote areas, in deprived urban settings, in fragile states and strife-torn regions.

WHO response

WHO is working with countries and partners to improve global vaccination coverage, including through these initiatives adopted by the World Health Assembly in May 2012.

The Global Vaccine Action Plan

The Global Vaccine Action Plan (GVAP) is a roadmap to prevent millions of deaths through more equitable access to vaccines. Countries are aiming to achieve vaccination coverage of $\geq 90\%$ nationally and $\geq 80\%$ in every district by 2020. While the GVAP should accelerate control of all vaccine-preventable diseases, polio eradication is set as the first milestone. It also aims to spur research and development for the next generation of vaccines.

The plan was developed by multiple stakeholders—UN agencies, governments, global agencies, development partners, health professionals, academics, manufacturers and civil society. WHO is leading efforts to support regions and countries as they adapt the GVAP for implementation.

At the World Health Assembly in 2014, Member States discussed progress towards the GVAP goals and highlighted issues that must be addressed if they are to be achieved:

- sustainable access to vaccines—especially newer vaccines—at affordable prices for all countries;
- technology transfer to facilitate local manufacture of vaccines as a means of ensuring vaccine security;
- improved data quality including through the use of new technologies like electronic registries;
- risk communication and management to address misinformation on immunization and its impact on vaccination coverage; and
- evidence reviews and economic analysis for informed decision-making based on local priorities and needs.

World Immunization Week

The last week of April each year is marked by WHO and partners as World Immunization Week. It aims to raise public awareness of how immunization saves lives, encouraging people everywhere to vaccinate themselves and their children against deadly diseases.

In 2014, under the global slogan "Are you up-to-date?", more than 180 countries, territories and areas marked the week with activities including vaccination campaigns, training workshops, round-table discussions and public information campaigns.