

Introduction

The Global Vaccine Action Plan builds on the success of the Global Immunization Vision and Strategy, 2006–2015, which was launched in 2005 as the first 10-year strategic framework to realize the potential of immunization. Developing the plan has brought together multiple stakeholders involved in immunization, including governments and elected officials, health professionals, academia, manufacturers, global agencies, development partners, civil society, media and the private sector, to define collectively what the immunization community wants to achieve over the next decade. In total, the global consultation process reached over 1100 individuals representing more than 140 countries and 290 organizations, and included two special sessions to brief representatives of the Permanent Missions of the United Nations Offices and other Intergovernmental Organizations in Geneva and New York.



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Immunization is, and should be recognized as, a core component of the human right to health and an individual, community and governmental responsibility. Vaccination prevents an estimated 2.5 million deaths each year. Protected from the threat of vaccine-preventable diseases, immunized children have the opportunity to thrive and a better chance of realizing their full potential. These advantages are further increased by vaccination in adolescence and adulthood. As part of a comprehensive package of interventions for disease prevention and control, vaccines and immunization are an essential investment in a country's—indeed, in the world's—future.

Now is the time for showing commitment to achieving the full potential of immunization. The collective recognition of this opportunity has led the global health community to call for a Decade of Vaccines, in line with the requests made in resolution WHA61.15 on the global immunization strategy. The vision for the Decade of Vaccines (2011–2020) is of a world in which all individuals and communities enjoy lives free from vaccine-preventable diseases. The mission of the Decade of Vaccines is to extend, by 2020 and beyond, the full benefit of immunization to all people, regardless of where they are born, who they are or where they live.

The Global Vaccine Action Plan reiterates existing goals and sets new goals for the decade, proposes six strategic objectives and the actions that will support their achievement, and provides an initial estimate of resource requirements and return on investment. [Annex 1](#) summarizes recommended indicators to monitor and evaluate progress. Beyond the action plan, country, regional and global stakeholders need to take responsibility for specific actions, translate the action plan into detailed operational plans (updating both the action plan and the operational plans as new information becomes available), complete the development of an accountability framework for the Decade of Vaccines (2011–2020) and mobilize resources to ensure that the vision for the Decade of Vaccines becomes a reality. Accomplishing this will require global and national institutions to innovate and to change the way they work. [Annex 2](#) provides a summary of stakeholder responsibilities.



This century promises to be the century of vaccines

The last century was, in many respects, the century of treatment, resulting in dramatic reductions in morbidity and mortality, with the discovery and use of antibiotics as one of the biggest agents of change in health. This century promises to be the century of vaccines, with the potential to eradicate, eliminate or control a number of serious, life-threatening or debilitating infectious diseases, and with immunization at the core of preventive strategies. Ensuring that the vision for the Decade of Vaccines becomes a reality is a powerful step in that direction.



The vision

for the Decade of Vaccines (2011–2020) is of a world in which all individuals and communities enjoy lives free from vaccine-preventable diseases.

The Immunization Landscape Today

Important progress in the last decade

In the last 10 years, great advances have been made in developing and introducing new vaccines and expanding the reach of immunization programmes. More people than ever before are being vaccinated and access and use of vaccines by age groups other than infants is expanding. As a result of immunization combined with other health care and development interventions—including improved access to clean water and sanitation, better hygiene and education—the annual number of deaths among children under five years of age fell from an estimated 9.6 million in 2000 to 7.6 million in 2010, despite an increase in the number of children born each year.



The annual number of deaths among children under five years of age fell an estimated 2 million from 2000 to 2010

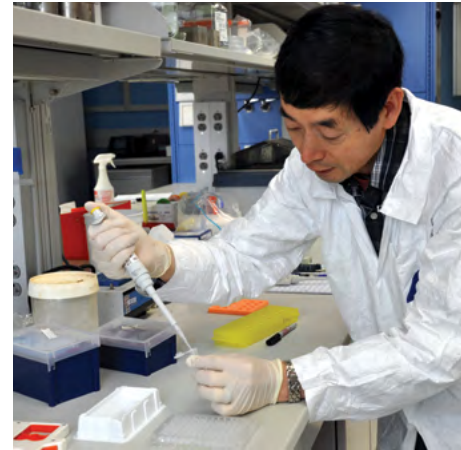
Immunization has helped drive this reduction in child mortality: coverage of vaccines that have been in use since the inception of the Expanded Programme on Immunization has expanded, and new vaccines have been introduced. Vaccines against hepatitis B and *Haemophilus influenzae* type b have become part of national immunization schedules in 179 and 173 countries, respectively; poliomyelitis is nearing eradication; and a large number of deaths from measles are being averted every year. The number of deaths caused by traditional vaccine-preventable diseases (diphtheria, measles, neonatal tetanus, pertussis and poliomyelitis) has fallen from an estimated 0.9 million in 2000 to 0.4 million in 2010.⁴

New and increasingly sophisticated vaccines that have become available in the last decade, including pneumococcal conjugate vaccine and vaccines against infection with rotavirus and human papillomavirus, are currently being rolled out globally. Efforts are being made to shorten the time lag that has historically existed in the introduction of new vaccines between high- and low-income countries. For example, pneumococcal conjugate vaccines were introduced in low-income countries approximately a year after being introduced in high-income countries.

Through an innovative international collaboration, an affordable conjugate vaccine against *Neisseria meningitidis* serogroup A was developed and is now in use in the African meningitis belt.

There are now licensed vaccines being used to prevent, or contribute to the prevention and control of, 25 vaccine-preventable infections (Table 1).


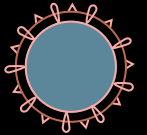
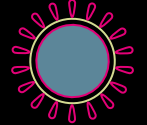
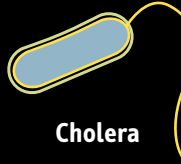

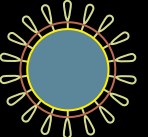
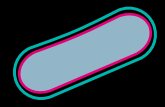
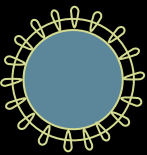

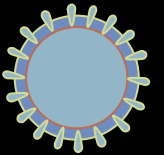

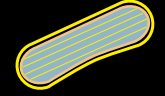
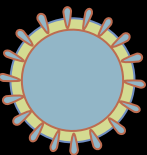

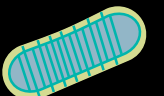
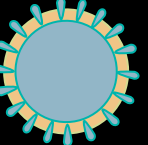
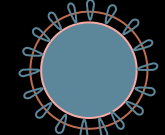
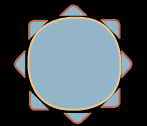
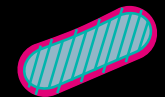

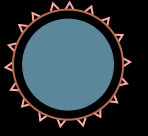
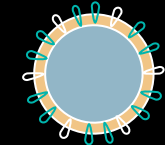
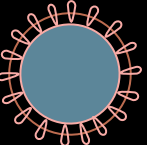
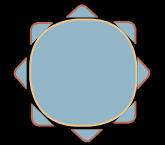
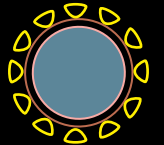
The strengthening by countries of national programmes, aided by improved support from and coordination among local, national, regional and international stakeholders, has succeeded in improving immunization coverage rates. Financing from domestic budgets allocated to immunization programmes has risen over the past decade, as has the flow of international resources dedicated to immunization. According to the immunization programme data for 2010,⁵ 154 of the 193 Member States report having a specific budget line item for immunization, and 147 have developed multi-year national plans to sustain the gains achieved, further enhance performance to reach desired goals and introduce appropriate new vaccines.



Efforts are being made to shorten the time lag that has historically existed in the introduction of new vaccines between high- and low-income countries

⁴ Sources for estimates: measles and neonatal tetanus, in World Health Statistics 2012, Geneva, World Health Organization, 2012; diphtheria and poliomyelitis, for 2000: http://www.who.int/healthinfo/global_burden_disease/estimates_regional_2000_v3/en/index.html (accessed 5 April 2012), for 2008: <http://apps.who.int/ghodata/> (accessed 5 April 2012); pertussis, WHO Secretariat provisional data.
⁵ http://www.who.int/immunization_monitoring/data/en/ (accessed 13 April 2012).

TABLE 1: VACCINE-PREVENTABLE INFECTIOUS AGENTS OR DISEASES

 Anthrax	 Measles	 Rubella	 Cholera	 Meningococcal Disease
 Influenza	 Diphtheria	 Mumps	 Tetanus	 Hepatitis A
 Pertussis	 Tuberculosis	 Hepatitis B	 Pneumococcal disease	 Typhoid fever
 Hepatitis E	 Poliomyelitis	 Tick-borne encephalitis	 Haemophilus influenzae type b	 Rabies
 Varicella and herpes zoster (shingles)	 Human papilloma-virus	 Rotavirus gastroenteritis	 Yellow fever	 Japanese encephalitis

Global and regional immunization initiatives have supported countries in building up their systems and introducing new vaccines. Global goals and milestones established through the Global Immunization Vision and Strategy 2006–2015, the United Nations Millennium Declaration, the United Nations World Summit for Children, the United Nations General Assembly Special Session on Children, and, more recently, the United Nations Secretary-General’s Global Strategy for Women’s and Children’s Health have stimulated expansion of national immunization programmes. In low- and middle-income countries these have been supported by initiatives such as the GAVI Alliance, the Global Polio Eradication Initiative, the Measles Initiative, the vaccine procurement services of UNICEF, and PAHO’s Revolving Fund for Vaccine Procurement.



Reaching underserved populations will be especially challenging, but inequities need to be tackled because these populations often carry a heavier disease burden

Significant unmet needs remain

Despite this progress, vaccine-preventable diseases remain a major cause of morbidity and mortality. Adoption of new vaccines by low- and middle-income countries (where disease burdens are often the highest) has been slower than in high-income countries. In 2010, for example, only 13% of the total high-income country birth cohort lived in countries that did not have pneumococcal conjugate vaccines in their immunization schedules. Of the total low-income country birth cohort, 98% lived in countries that did not have pneumococcal conjugate vaccines in their schedules.

Coverage gaps persist between countries, as well as within countries. The average coverage with three doses of diphtheria-tetanus-pertussis-containing vaccine and with measles-containing vaccine in low-income countries was 16% and 15% below that of high-income countries in 2010, respectively. However, this represents a positive trend in comparison with the coverage gap of 30% for both vaccines in the year 2000.

In some countries, coverage of measles-containing vaccine in rural areas is 33% lower than in urban areas. Similarly, the measles vaccine coverage rate for the richest fifth of the population in some countries is up to 58% higher than for the poorest fifth. Coverage can also be very low in settlements of the urban poor, especially in cities with transitory migrant populations, and in indigenous communities.

Geographical distance from health centres is not the only determinant of low coverage; inequities are also associated with other socioeconomic determinants, such as income levels and the educational status of the mother. A special geographic focus is needed on lower-middle-income countries with large populations, where the majority of the unvaccinated live. Reaching underserved populations will be especially challenging, but inequities need to be tackled because these populations often carry a heavier disease burden and may lack access to medical care and basic services, with the fragile economies of individuals and their families suffering a severe disease-related impact as a consequence.



16%
lower DTP3 coverage in low-income countries than in high-income countries in 2010

New opportunities and challenges for the Decade of Vaccines (2011–2020)

Individuals and communities, governments and health professionals have primary responsibility for exploiting the opportunities and confronting the challenges that this decade will bring. New and improved vaccines are expected to become available, based on a robust pipeline that includes several vaccines for diseases that are not currently preventable through vaccination. The introduction of new vaccines targeted against several important causes of major killer diseases, such as pneumonia, diarrhoea and cervical cancer can be used as a catalyst to scale up complementary interventions. In addition to reducing mortality, these new vaccines will prevent morbidity with resulting economic returns even in countries that have already succeeded in improving mortality rates. Innovations in existing vaccines will bring additional benefits, such as greater effectiveness, thermostability, easier administration and lower cost.

At the same time, the development of vaccines and other immunization innovations is facing increasingly complex manufacturing and regulatory processes, as well as rising research, development and production costs. As new vaccines (for example, against dengue and malaria) become available and underutilized vaccines (for example, those against cholera, human papillomavirus, rabies, rotavirus, rubella and typhoid) are administered more widely, supply and logistics systems—already burdened—will face an even greater need for innovations. Finally, the number of health workers, as well as their knowledge and skills, will need to be enhanced, better coordinated and better supervised. While the challenges are many, the introduction of new vaccines also represents an opportunity to strengthen immunization systems and to act as a catalyst to implement many of the required reforms. As national immunization investments increase, so must government oversight and accountability.



The number of health workers, as well as their knowledge and skills, will need to be enhanced

Immunization funding needs in the areas of research and development, procurement and delivery are expected to more than double in the coming decade. New and more complex vaccines will bring new funding requirements and countries will be confronted with difficult decisions in dealing with competing health priorities. Resources will need to be allocated more efficiently, with the relevant decisions guided by national priorities, capacity, clear information on the costs and benefits of choices, and improved financial management. Expenditures must be linked to outputs and impacts, showing a clear investment case for immunization.

As the economies of many low- and middle-income countries continue to grow, so will their potential to fund immunization. Countries that have relied on development assistance will be able to fund an increasing proportion of their immunization programmes, and may even, eventually, be able to fully sustain them. Some will be able to extend new financial and technical support to global immunization projects. At the same time, vaccine manufacturers in some of these countries will be expected to make an even more significant contribution to the supply of high-quality, affordable vaccines, spreading the sources of production more widely and increasing competition.

The growing availability of information and penetration of mobile telephone and social networks can boost public demand for immunization, and ensure that people are made aware of both the benefits derived from vaccines and their potential risks. The immunization community can take advantage of social networks and electronic media to more effectively allay fears, increase awareness and build trust.

The lessons learnt from past decades, the unmet needs, and the opportunities and challenges that this decade presents have been carefully considered in the formulation of the guiding principles, measures of success and recommended actions articulated in the following sections.



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