



Editorial

Vaccines offer one of the most efficacious and cost-effective tools to control, prevent, and eliminate infectious diseases. Significant advances have been made in development and delivery of vaccines in the last two decades. There are now licensed vaccines against 25 vaccine-preventable diseases. Deaths due to traditional vaccine-preventable diseases fell from 1.4 million in 2000 to 0.4 million in 2008. India has been polio-free for more than a year, and eradication of polio is now within our reach. Polio, measles, and rubella have been eliminated from the Western Hemisphere. A conjugate vaccine against *Neisseria Meningitidis* serogroup A, which was recently introduced in the meningitis belt of Africa, has shown remarkable results in reducing meningococcal disease. New vaccines have become available in the last decade, such as pneumococcal conjugate vaccine, the rotavirus vaccine, and the human papillomavirus (HPV) vaccine and are being introduced globally.

Despite this progress, one in five children in developing countries still does not receive basic vaccines. This imbalance in the availability and use of disease-preventing and lifesaving vaccines—which many consider to be both human rights and equity issues—together with the unprecedented expansion of immunization services and impact achieved, have led to the development and global health community's renewed interest in and focus on making the next decade the Decade of Vaccines (DoV).

With a goal of meeting vaccination coverage targets in every community, country, and region, the DoV Collaboration was a collective initiative led by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the GAVI Alliance, the U.S. National Institute of Allergy and Infectious Diseases, and the Bill & Melinda Gates Foundation. The DoV vision is a world where everyone enjoys the benefits of vaccines. Its mission is to extend, by 2020 and beyond, the full benefits of immunization to all people, regardless of where they are born, who they are, and where they live. In May 2011, the Sixty-fourth World Health Assembly (WHA) noted this vision of DoV Collaboration and called for the development of a Global Vaccine Action Plan (GVAP). The GVAP builds on the Global Immunization Vision and Strategy 2006–2015, the United Nations Millennium Declaration, and, more recently, the United Nations Secretary-General's Global Strategy for Women's and Children's Health.

The GVAP was collectively developed through eight working groups—delivery, global access, public and political support, research and development, costing and financing, health and economic benefits, accountability framework indicators, and communication. Over 100 core team members from around the world participated in these working group meetings and contributed to the development of the GVAP. An extensive, year-long, global

consultation process obtained responses from over 1100 professionals from more than 140 countries and 290 organizations involving stakeholders from academia, industry, governments and elected officials, health professionals, global agencies, development partners, civil society, media, and private sector.

In May 2012, during the Sixty-fifth WHA, 194 Member States endorsed the GVAP's goals and the following six strategic objectives:

- (1) All countries commit to immunization as a priority, which means that all stakeholders in a country, not only governments, have primary responsibility and ownership for establishing good governance and for providing effective, high-quality immunization services.
- (2) Individuals and communities should understand the value of vaccines and should demand immunization as both their right and responsibility, so immunization becomes the responsibility of the individual, the community, and the government.
- (3) The benefits of immunization are equitably extended to all people, which means that equitable access to immunization is a core component of the right to health.
- (4) Strong immunization systems are integral parts of well-functioning health systems, so that immunization becomes a part of a broader health system that works in a coordinated manner to achieve national-level goals.
- (5) Immunization programmes should have sustainable access to predictable funding, dependable supplies, and access to innovative technologies. These require an appropriate level of funding, management, and oversight to ensure the sustainability of immunization programmes.
- (6) Country, regional, and global research and development innovation will maximize the benefits of immunization, and continuous improvement and innovation in research and development is necessary in all aspects of immunization, from communication to genomics.

The GVAP reiterates existing goals, sets new goals for the decade, and it also proposes strategic objectives and the actions that will support their achievement. It notes that if the GVAP is translated into action and resources are mobilised, between 24.6 and 25.8 million deaths could be averted by the end of the decade, billions of dollars in productivity will be gained, and immunization will greatly contribute to achieving the Millennium Development Goal 4 target to reduce by two-thirds the under-five mortality rate. At the heart of the GVAP will be country ownership, shared responsibility

and partnership, equity, integration, sustainability, and innovation so that every individual can have access to the lifesaving vaccines.

The responses received during the DoV Collaboration consultations suggested that companion documents be developed to provide additional insights to the GVAP strategic objectives. The papers published in this supplement were commissioned to describe important related topics, including: the needs, challenges, and opportunities in development, delivery, and costing; health benefits; vaccine technologies; science-based regulations; public and political support; pricing and procurement; implementation research and health systems; introduction of new vaccines; vaccine supply and logistics systems; equity; and perspectives of civil society, developing countries, and vaccine manufacturers in developed and developing countries.

There are important observations from all the papers in this supplement, which are relevant to vaccine development and immunization programmes. These papers have identified needs for:

- (1) Innovation in all aspects of immunization, so that vaccines can be produced, procured, and delivered in less time, in a reliable manner, and at affordable cost.
- (2) Collaboration, commitment, and coordination by all stakeholders, including international organizations and development partners, so that there is a 'clear line-of-sight' from discovery through manufacturing to markets and to end users.
- (3) Life-course immunization and community engagement, so that benefits of vaccines are also realized by individuals of all ages in all communities.
- (4) Country ownership of immunization programmes, including, where needed, establishment of functional technical advisory groups and regulatory bodies.
- (5) Better advocacy for the benefits of vaccination and proactively addressing vaccine hesitancy, so that the benefits and adverse effects of vaccines are better understood and appreciated.
- (6) National governments to allocate appropriate levels of funding for basic vaccine research, development, and evaluation of candidate vaccines, epidemiologic and surveillance studies, human resources development, and procurement of vaccines.
- (7) National governments to develop accountability frameworks, so that the investments in immunization can be monitored.
- (8) Immunization to be considered as an essential component of national health programmes and health, to be considered as an infrastructure issue, and to receive appropriate priority for immunization through legal frameworks, line-item funding, and political support at the highest level.

These papers present a 'body of knowledge' in vaccine research, development, and delivery of immunizations that will serve as important information to be used for all stakeholders involved in the GVAP implementation.

The GVAP and this supplement are not the only outcomes of the DoV Collaboration. Recognizing the importance to closely monitor the GVAP implementation progress, the WHA GVAP resolution of May 2012 called for annual reports on the GVAP's goals and

strategic objectives to be presented to all WHO Regional Committees, the WHO Executive Board (EB) and the WHA. The proposed GVAP Monitoring & Evaluation/Accountability Framework will be reviewed the WHO EB and WHA in 2013.

As part of their commitment to the GVAP implementation, the Leadership Council organizations are now also committed to using the GVAP as a roadmap for World Immunization Week. They hope to host a biannual Global Vaccine and Immunization Research Forum to foster a solid contribution to the DoV vision that will be essential to deliver the benefits of vaccines to those that need them the most, and to ensure that the processes and mechanisms strengthened by the DoV Collaboration are kept alive.

The DoV Collaboration produced significant products and outputs. The GVAP was the final outcome of an unprecedented effort that was successful as a result of critical factors, such as:

- A shared purpose and leadership by the Leadership Council and Steering Committee.
- A commitment to undertake an extensive consultative and inclusive process, reaching out to and engaging different stakeholders: country representatives, regional bodies, the private sector, and civil society organizations.
- Dedication and inputs by the hundreds of people that donated and shared their expertise, knowledge, and time to the DoV Collaboration process.
- The DoV Collaboration Secretariat, hosted by the Barcelona Institute for Global Health (ISGlobal), PATH, and the Sabin Vaccine Institute, that built on the strength of each organization and provided a coordination function to drive the DoV Collaboration, support the Leadership Council, different working groups, and Steering Committee.

Finally, we would like to express our gratitude once more to everyone who contributed to the DoV Collaboration and the development of the GVAP, and to those who will help in the years to come to make the DoV vision—a world in which all individuals and communities enjoy lives free from vaccine-preventable diseases—a reality.

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13 February 2013