

Developing a Vision for Immunization Supply Systems in 2020

Landscape analysis summaries

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Background

The next decade will be one of unprecedented growth for immunization programs. With the introduction of new vaccines and the expansion in the populations they target come new challenges. However, along with the challenges come opportunities to re-examine the systems trusted with delivering these vaccines in order to ensure that we are actively seeking out and developing innovative solutions for the future.

A key part of preparing for the coming changes involves long-term thinking and planning around supply chains. Consensus on a vision for 2020 will allow all key stakeholders to agree on what the supply chains of the future should enable, and will provide countries, manufacturers, donors, and partners with a clear direction to strive toward.

Shared vision for the future

Under the auspices of the [Cold Chain and Logistics Task Force](#) led by the United Nations Children's Fund (UNICEF), a group of partners and stakeholders including nongovernmental organizations, industry, UNICEF, World Health Organization (WHO), and others is working to develop a common vision for the future of immunization logistics. This vision will form a platform behind which all key partners at country, regional, and global levels can align their work and efforts.

This work is being facilitated by [project Optimize](#), which is serving as a temporary secretariat for the visioning group. Optimize—a collaboration between the World Health Organization (WHO) and PATH with financial support from the Bill & Melinda Gates Foundation—has been given a unique mandate to think far into the future. The project aims to employ technological and scientific advances by defining ideal specifications for health products and creating a flexible and robust vaccine supply chain that can handle an increasingly large and costly portfolio of vaccines.

During an 18-month period, a draft vision was developed through workshops, meetings, and teleconferences by a wide range of partners. The vision, which is still in draft form, is composed of two parts: a) what supply chains should enable or be able to do and b) the design characteristics essential for getting there.

Five priority areas for future supply chain design have been defined:

- Vaccine and related products.
- Supply system design.
- Environmental impact.
- Information systems.
- Human resources.

Landscape analyses

Multidisciplinary working groups of experts in each area conducted a landscape analysis of ongoing work in order to define the desired future (2020) state of each priority area and to highlight critical gaps that need to be addressed to get there.

The results of their efforts can be seen in the following pages. The next task for the working groups is to develop a more comprehensive, costed plan of action in order to realize the 2020 vision.

Immunization Innovation Fund

To catalyze work in the above five areas and to start addressing the gaps, an Immunization Innovation Fund will be launched at the Pacific Health Summit in June 2011. The first round of funding from the Innovation Fund will provide small grants of up to US\$25,000 for innovative, out-of-the-box approaches and solutions to the gaps identified in the landscaping process.

Future immunization supply systems Vision statement

By 2020, state-of-the-art supply systems meet the changing needs of a changing world in order to enable the right vaccines to be in the right place, at the right time, in the right quantities, in the right condition, at the right cost.

Priority areas

Tenet 1: Vaccine products and packaging

Vaccine products and their packaging are designed with characteristics that best suit the needs and constraints of countries.

Tenet 2: Immunization supply system efficiency

Immunization supply systems are designed to maximize effectiveness, agility, and integration with other supply systems, and to support continuous system improvement through learning, innovation, and leveraging synergies with other sectors.

Tenet 3: Environmental impact of immunization supply systems

The environmental impact of energy, materials, and processes used in immunization supply systems from the international to local levels is assessed and minimized.

Tenet 4: Immunization information systems

Immunization information systems help staff plan and manage immunization activities and resources while ensuring that adequate quantities of vaccines are always available to meet demand.

Tenet 5: Human resources

Human resources policies provide immunization supply systems with adequate numbers of competent, motivated, and empowered personnel at all levels of the health system to overcome existing and emerging immunization supply challenges.

Tenet working groups

The following individuals from across disciplines and organizations serve on the expert working groups for each visioning priority area.

Tenet 1: Vaccine products and packaging

Sheila Cattell, GlaxoSmithKline, representing the International Federation of Pharmaceutical Manufacturers & Associations; Gisele Corrêa Miranda, Bio-Manguinhos/Fiocruz, representing Developing Country Vaccine Manufacturers Network; Rudi Eggers, WHO; Ibrahim El-Ziq, UNICEF Supply Division; Shawn Gilchrist, Consultant; Sharma Inderjit, Serum Institute of India, representing Developing Country Vaccine Manufacturers Network; Bertrand Jacquet, UNICEF; Souleymane Kone, WHO; Debra Kristensen, PATH (group coordinator); Tina Lorensen, PATH; Osman Mansoor, UNICEF; Drew Meek, WHO; Jules Millogo, Merck & Co., Inc.; Yalda Momeni, UNICEF Supply Division; Ann E. Ottosen, UNICEF Supply Division; Jonathan Pearman, GAVI Alliance; Olga Popova, Crucell; Raja Rao, Bill & Melinda Gates Foundation; Robert Steinglass, John Snow, Inc. (JSI); Hardeep Sandhu, US Centers for Disease Control and Prevention (CDC); Simona Zipursky, PATH.

Tenet 2: Immunization supply system efficiency

Beatriz Ayala-Ostrom, Freelance Procurement and Supply Chain Consultant; Magali Babaley, WHO; Sarah Bourhill, PHD; Brent T. Burkholder, CDC; Malcolm Clark, Management Sciences for Health (MSH); Ousman Dia, JSI; Modibo Dicko, WHO; Mike Harrigan, PHD; Alexis Heaton, JSI; David Lee, MSH; John Lloyd, PATH; Tina Lorensen, PATH; Patrick Lydon, WHO (group coordinator); Osman Mansoor, UNICEF; Ian McConnell, Clinton Health Access Initiative; Ishmael Muchemenyi, PHD; Kshem Prasad, Apt Progress for Sustainable Development; Rémy Prohom, Consultant; Raja Rao, Bill & Melinda Gates Foundation; Judith Roberts, Development Consultant; Oliver Sabot, Clinton Health Access Initiative; Adama Sawadogo, WHO/Democratic Republic of the Congo; Robert Steinglass, JSI; Xavier Tomsej, US Agency for International Development; David Ulrich, Abbott Laboratories; Prashant Yadav, Massachusetts Institute of Technology.

Tenet 3: Environmental impact of immunization supply systems

Laila Ackhlaghi, JSI; Dave Ausdemore, CDC; Laurent Dedieu, Médecins Sans Frontières; Victoria Gammino, CDC; Andrew Garnett, Consultant; Tom Layloff, MSH; Carla Lee, CDC; Steve McCarney, PATH; Gisele Corrêa Miranda, Bio-Manguinhos/Fiocruz; Francis (Kofi) Nyame, MSH; Jude Nwokeki, MSH; Joanie Robertson, PATH (group coordinator); Bocar Sada Sy, Services de l'énergie en milieu Sahélien; Ruth Stringer, WHO/Health Care Without Harm; Naomi Wasserman, BD.

Tenet 4: Immunization information systems

Anup Akkihal, Logistics for Global Good, Inc.; Richard Anderson, University of Washington; Kyle Duarte, MSH; Marta Gacic Dobo, WHO; Jan Grevendonk, PATH (group coordinator); Leah Hasselback, VillageReach; Susie Lee, GAVI Alliance; David Lubinski, PATH; Hardeep Sandhu, CDC; Jaspal Sandhu, Gobe Group; David Sinegal, Consultant; Allen Wilcox, VillageReach; Justin Yarrow, Clinton Health Access Initiative.

Tenet 5: Human resources

Véronique Brossette, Bioforce; Hamadou Dicko, Agence de Médecine Préventive/Bioforce; Modibo Dicko, WHO; Serge Ganivet, WHO/Regional Office for Africa; Alain Grall, Syskalis; Richard Jabot, Médecins Sans Frontières; Philippe Jaillard, Agence de Médecine Préventive; David Lubinski, PATH; Kshem Prasad (APT-Progress); Claudio Politi, WHO; Kevin Pilz, US Agency for International Development/Commodity Security and Logistics; Pamela Steele, UNICEF; Benoît Silve, Bioforce.