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#### Review

## Developing Countries Vaccine Manufacturers Network: Doing good by making high-quality vaccines affordable for all<sup>☆</sup>

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#### ABSTRACT

The Developing Countries Vaccine Manufacturers Network (DCVMN) is a unique model of a public and private international alliance. It assembles governmental and private organizations to work toward a common goal of manufacturing and supplying high-quality vaccines at affordable prices to protect people around the world from known and emerging infectious diseases. Together, this group of manufacturers has decades of experience in manufacturing vaccines, with technologies, know-how, and capacity to produce more than 40 vaccines types. These manufacturers have already contributed more than 30 vaccines in various presentations that have been prequalified by the World Health Organization for use by global immunization programmes. Furthermore, more than 45 vaccines are in the pipeline. Recent areas of focus include vaccines to protect against rotavirus, human papillomavirus (HPV), Japanese encephalitis, meningitis, hepatitis E, poliovirus, influenza, and pertussis, as well as combined pentavalent vaccines for children. The network has a growing number of manufacturers that produce a growing number of products to supply the growing demand for vaccines in developing countries.

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#### 1. Introduction

The Developing Countries Vaccine Manufacturers Network (DCVMN) is a unique model of an international alliance. It assembles public and private organizations to work toward a common goal of manufacturing and supplying high-quality vaccines at affordable prices to protect people around the world from known and emerging infectious diseases. Notably, the network is a voluntary public health-driven alliance of manufacturers with facilities established in developing countries and owned in majority by stakeholders in those countries [1,2]. It does not include multinational companies with manufacturing facilities in developing countries, or their subsidiaries.

Networking is the simplest model of partnership, where organizations come together regularly to share best practices and discuss areas of commonality. The aim is to enhance the organizations' abilities to take up opportunities, such as co-development of products or technology transfer, or to deliver specific services or products.

The network is steadily growing. As of September 2012, it has 37 members in 14 countries in Latin America, the Middle East and Africa, and the Asia-Pacific region (Fig. 1). Together, these manufacturers employ more than 42,000 skilled workers, with about 70% in the Asia-Pacific region, 15% in the Middle East and Africa, and 15% in Latin America. This employment contributes to the welfare and health of families and communities and the success of national economies. The vaccine industry not only offers the prospect of long-term professional careers and skills development for

individuals but also contributes actively to sustainable development and empowerment of emerging economies.

The network strengthens the capacity of manufacturers to supply high-quality vaccines by facilitating information sharing and workshops, encouraging technology transfer initiatives and innovative research, and educating the public about the availability of safe and effective vaccines from developing-country manufacturers. Since the network was established in 2000 [1], member companies have helped to significantly increase access to high-quality vaccines, at affordable prices, for people who need them most, in the poorest countries of the world.

Collectively, network members have the technologies, knowhow, and capacity to produce more than 40 vaccines types. They have contributed more than 30 vaccines in various presentations that have been prequalified by the World Health Organization (WHO) for immunization programmes around the world (Fig. 2). Furthermore, more than 45 products are in the pipeline. DCVMN members, for example, will soon likely launch the next rotavirus vaccine and the next human papillomavirus (HPV) vaccine to become available globally. Also, the first prequalified Japanese encephalitis vaccine may become available from DCVMN members for global procurement in 2013.DCVMN members have played a critical role in increasing global access to vaccines, which now prevent an estimated 2.5 million deaths each year, according to WHO. A key success story has been a global increase in measles vaccination rates, which contributed to a 74% percent drop in measles deaths from 2000 to 2010 [3].

### **DCVMN: 37 manufacturers from 14 countries**

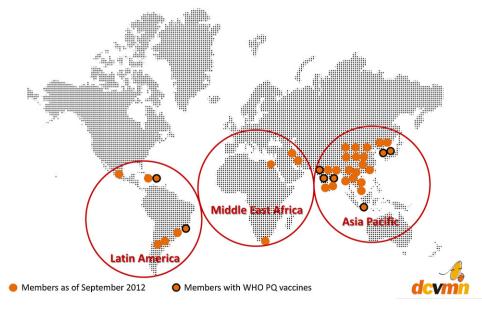


Fig. 1. Distribution of 37 DCVMN members in 14 countries: Argentina, Bangladesh, Brazil, China, Cuba, Egypt, India, Indonesia, Mexico, Republic of Iran, Republic of Korea, South Africa, Thailand, and Vietnam. Seven members (indicated with dark-rim circles) have products that have been prequalified by the World Health Organization.

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