

# Meningococcal A conjugate vaccine roll-out in the African meningitis belt

## Summary update

*prepared by the Meningitis Vaccine Project & partners*

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## Background

Over the last century sub-Saharan Africa has been plagued by repeated epidemics of meningococcal meningitis. Almost all of the major outbreaks have been caused by group A *Neisseria meningitidis*. Reactive immunizations with polysaccharide vaccines have been used for the last 30 years but have not succeeded in controlling the problem. After the disastrous 1996–1997 epidemic with more than 250,000 cases and 25,000 deaths, there arose renewed interest in developing a preventive strategy based on new meningococcal conjugate vaccines.

In June 2001, the Bill & Melinda Gates Foundation provided core funding for the establishment of the Meningitis Vaccine Project (MVP), a partnership between PATH and the World Health Organization (WHO), with the goal of eliminating epidemic meningitis as a public health problem in sub-Saharan Africa through the development, testing, licensure, and widespread introduction of meningococcal conjugate vaccines. A monovalent group A meningococcal (MenA) conjugate vaccine, MenAfriVac, a registered trademark of the Serum Institute of India, was developed through the MVP. The vaccine was licensed, for use in individuals aged 1 to 29 years, in 2009 and prequalified by WHO in 2010.

Comprehensive mass immunization campaigns of 1- to 29-year olds with a single dose of MenAfriVac have been a cornerstone of the MenA conjugate vaccine introduction plan. This strategy aims to strongly and immediately protect individuals directly and reduce bacterial carriage and transmission, and thereby rapidly reduce overall disease-related morbidity and mortality rates within the community. As large population groups are immunized within a short period of time, the public health benefits of immunization should be rapidly visible and considerable. Following the initial mass vaccination campaigns, countries will have the option of protecting new birth cohorts through routine immunization, catch-up campaigns, or a mixed approach so that population protection is maintained in the long term against the deadly and devastating meningitis A epidemics. The introduction strategy of the MenA conjugate vaccine was presented as an investment case to the GAVI Alliance Board in June 2008. The GAVI Alliance and Fund Boards approved the strategy of the Meningitis Investment Case committing to support the initial mass preventive campaigns, surveillance, and the launch of introduction into routine immunization in 26 countries of the African meningitis belt. Furthermore, resources were set aside to fund a meningitis vaccine stockpile for emergency outbreaks. The financial sustainability plan, as set forth in the investment case, assumed that countries would be able to mobilize donor funds and health system funds to provide increasing country support to routine immunization. All the 26 countries are expected to have received support for preventive mass immunization campaigns and introduced MenAfriVac by 2016 with high coverage of the target population aged 1 to 29 years.

## Summary of progress

As at 30 September 2014, 17/26 countries have or are in the process of implementing MenA preventive campaigns, as illustrated in Figure 1.

- Over 153 million persons living in 12 countries of the meningitis belt have received one dose of MenAfriVac since the vaccine was first introduced in Africa in 2010, with high overall vaccine coverage, ranging from 93% to 105% (administrative coverage) or 90% to 98% (survey assessed coverage), except in some areas in Northern Nigeria and in Northern Chad with overall administrative coverage reaching 77% to 79%. National campaigns have been completed in 10 countries (Benin, Burkina Faso, Cameroun, Chad, Ghana, Mali, Niger, Senegal, Sudan and The Gambia) and are ongoing in two countries (Ethiopia and Nigeria).
- In 2014 and/or early 2015, two countries will pursue their campaign (fourth and last campaign in Nigeria; second campaign in Ethiopia) and five new countries are expected to launch their first national campaign (Côte d'Ivoire, Guinea, Mauritania, South Sudan and Togo).
- The remaining nine countries are planning to conduct campaigns, immunizing their 1 to 29 year-olds at-risk population in 2015-2016 (Burundi, Central African Republic, Democratic Republic of Congo, Guinea Bissau, Eritrea, Kenya, Rwanda, Tanzania and Uganda), with the expectation of over 250 million persons immunized throughout the 26 belt countries by the end of 2016.

**Figure1. MenAfriVac roll-out in the African meningitis belt from 2010 to 2014**

