

## Current major event

### Epidemic management in the African Meningitis Belt

The meningococcal meningitis cases are reported across the world. Nevertheless, large, frequent epidemics affect an extensive region of sub-Saharan Africa known as the “Meningitis Belt” which comprises of 26 countries from Senegal in the west to Ethiopia in the east.

#### Editorial note

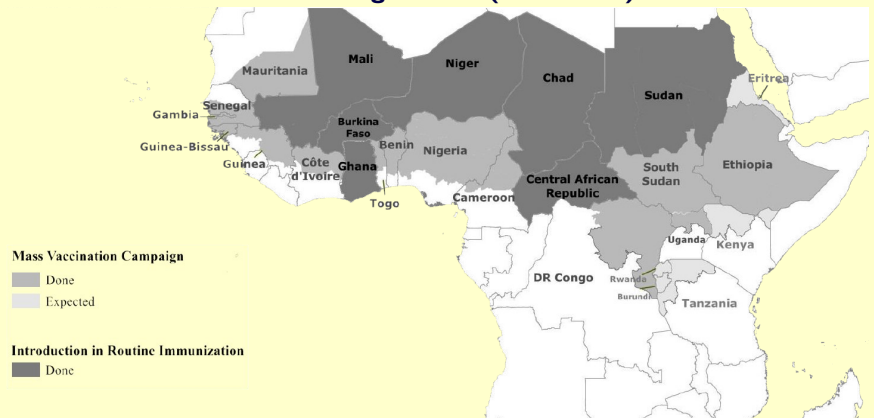
The pathogen responsible for epidemic of bacterial meningitis is *Neisseria meningitidis* (*N.m.*). There are 13 serogroups of this pathogen identified till now and four of them are recognized to be the main cause of epidemics (A, B, C and W). The majority of the meningitis cases and outbreaks occur during the epidemic season, however the exact timing of the season varies (occurring earlier in the East and later in the West).

After 2010, a meningococcal A conjugate vaccine (MACV) was gradually introduced in the epidemic prone areas in countries of this belt through preventive mass vaccination campaigns. This has dramatically reduced *N.m.* A cases and brought a hope of elimination of *N.m.* A epidemics in these areas.

Sudan is the only country in the Eastern Mediterranean Region of WHO which is in the “African Meningitis Belt” and faced repeated outbreaks of meningococcal meningitis during the dry (epidemic) season. During 2013, Sudan implemented a mass preventive campaign using Conjugate-A vaccine, for the age group of 1-29 years. This brought a cohort of immunized population in the community and there was a sharp reduction in the number of the reported cases from meningitis. During 2016, Sudan became the first country in the “African meningitis belt” to introduce meningitis A vaccine into a routine immunization programme.

After the introduction of MACV in the countries of “African Meningitis Belt”, a new strain of serogroup –C emerged causing large scale epidemics in Niger, Nigeria and in some other neighbouring countries of Sudan. Owing to the absence of the immunity against this new strain, the people in Sudan will remain susceptible to infection caused by this new serogroup. This necessitates enhanced surveillance and control strategies for

### Meningococcal A conjugate vaccine introduction in countries of African Meningitis Belt (2010-2017)



### Meningitis cases and deaths in Sudan and its neighboring countries, 2017

Country	Suspected cases*		Deaths	
	Season	Year	Season	Year
Sudan	51	80	1	1
South Sudan	46	67	3	3
Ethiopia	902	1875	13	24
Central African Republic	697	846	73	88
Chad	209	308	19	20
Uganda	130	228	30	30
Kenya	146	146	6	6
Niger	3370	3510	218	232
Nigeria	14542	14766	1166	1207

\* Data for epidemic seasons (weeks 1–26) and for the whole year (weeks 1–52)

meningococcal meningitis caused by serogroup-C in Sudan in the coming years.

As of prevailing circumstances, a continued risk of large scale *N.m.* C epidemics in the region and in Sudan during coming years can be predicted. In order to improve the effectiveness of outbreak response, improved efforts to strengthen meningitis surveillance are needed with enhanced laboratory capacities for early confirmation.

There is a limited supply of vaccines in the international stockpile against *N.m.* C and this remains a huge concern in case a large outbreak unfolds. In order to eliminate meningococcal meningitis outbreaks, the accelerated development of a multivalent conjugate vaccine remains a high priority.

### Update on outbreaks in the Eastern Mediterranean Region

**MERS** in Saudi Arabia; **cholera** in Somalia; **cholera** in Yemen; **dengue** in Sudan.

### Current public health events of international concern [cumulative N° of cases (deaths), CFR %]

#### Avian influenza: 2006-2017

Egypt (A/H5N1) [359 (122), 34%]  
Egypt (A/H9N2) [4 (0)]

#### Avian influenza A (H7N9): 2013-2017

China [1,565 (612), 39.1%]

#### Chikungunya: 2016-2018

Pakistan [8,513 (0)]

#### Cholera: 2017-2018

Somalia [1,613 (9), 0.6%]  
Yemen [1,081,420 (2267), 0.2%]

#### Diphtheria: 2018

Yemen [1,412 (81), 5.7%]  
Bangladesh [6,250 (38), 0.6%]

#### Dengue fever: 2017-2018

Sudan [197 (3), 1.5%]

#### MERS: 2012-2018

Saudi Arabia [1,812 (707), 39.1%]

#### Wild poliovirus: 2018

Afghanistan [5 (0)]

#### Yellow Fever: 2017-2018

Brazil [723 (237)] 32.7 %