

# CLIMATE & HEALTH BULLETIN: MENINGITIS VIGILANCE ZONES

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Development  
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N°: 11 from 20<sup>th</sup> to 29<sup>th</sup> March 2017

**Climate conditions are favorable for a high vigilance for meningitis cases over extreme eastern Mali, southern Niger, north-eastern Nigeria, northern Cameroon and western Chad.**

**Moderate vigilance is detected over much of Senegal, Mali and Burkina Faso, northern Guinea, Côte d'Ivoire and Ghana, central northern Nigeria and Cameroon, southern Chad and Sudan.**

**Low vigilance is required over the remaining parts of the meningitis belt.**

**Due to the northward movement of the ITD climate conditions will be less favorable for meningitis vigilance detection.**

## OBSERVED CLIMATE SITUATION: 20<sup>th</sup> to 26<sup>th</sup> March 2017

- The northern parts of meningitis belt experienced low humidity (below 20%) in particular over eastern Senegal, much of Mauritania, Mali, Niger, Chad and Sudan, northern Burkina Faso, Nigeria and Cameroon. Relative humidity between 20 and 40% prevailed over central parts of the belt while relative humidity above 40% prevailed over the rest of the belt (Figure 2).
- Moderate concentrations (50 to 200 $\mu\text{g}/\text{m}^3$ ) prevailed over much of Mauritania, Gulf of Guinea countries, much of Mali and Burkina, northern Niger and Chad, much of Sudan and northern South Sudan. The concentrations of 200 to 500  $\mu\text{g}/\text{m}^3$  were observed, extreme northern Senegal, north-eastern Mali, much Niger, north-eastern Nigeria, central Cameroon and Chad. The highest concentrations of above 500 to 2000  $\mu\text{g}/\text{m}^3$  prevailed over south-eastern Niger, extreme north-eastern Nigeria and western (Figure 3).
- Negative meridian winds were dominant over much of the meningitis belt in particular over Senegal, Gambia, Mauritania, Mali, Niger, Nigeria, Cameroon, Chad and Sudan. (Figure 4).
- The ITD is located over Sierra Leon, Côte d'Ivoire, Ghana, Togo, Benin, Nigeria and Cameroon. (See figure 2 No. 07 Decadal bulletin 2017).

**Given these climate conditions, a high vigilance is required for meningitis cases over extreme eastern Mali, southern Niger, north-eastern Nigeria, northern Cameroon and western Chad.**

**Moderate vigilance is detected over much of Senegal, Mali and Burkina Faso, northern Guinea, Côte d'Ivoire and Ghana, central northern Nigeria and Cameroon, southern Chad and Sudan.**

**Low vigilance is required over the remaining parts of the meningitis belt.**

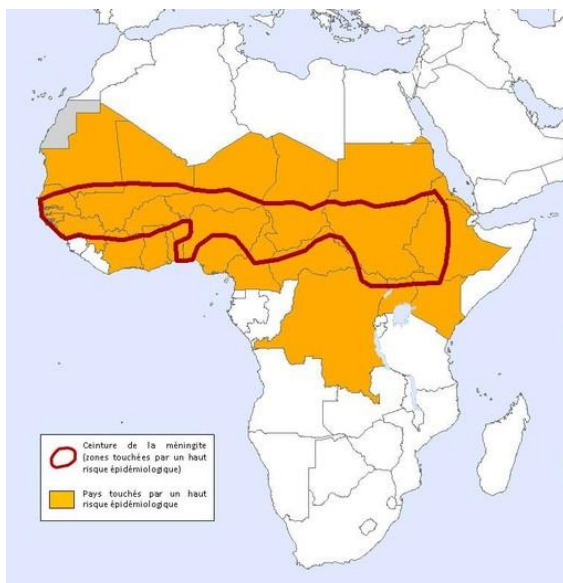


Figure 1: African Meningitis Belt

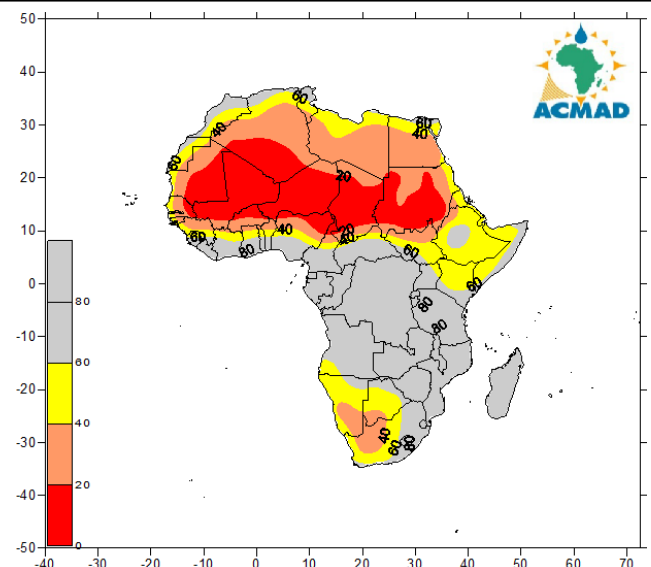
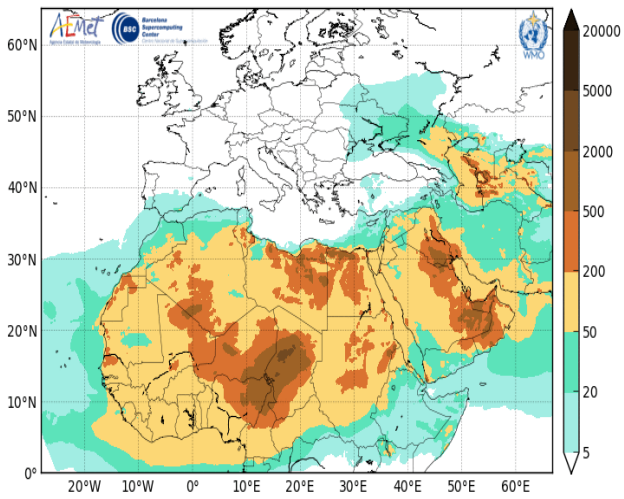
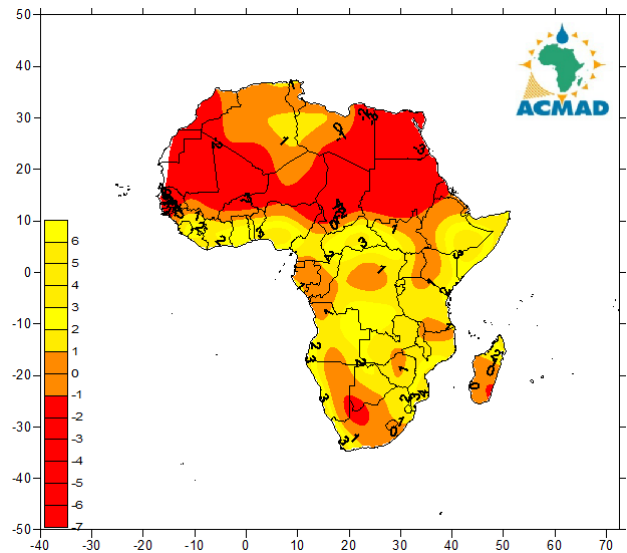


Figure 2: Relative Humidity 20<sup>th</sup> to 26<sup>th</sup> March 2017  
Source: .NOAA/.NCEP-.NCAR/.CDAS-1/.DAILY



**Figure 3 : Dust Concentration ( $\mu\text{g}/\text{m}^3$ ) 20<sup>th</sup> to 26<sup>th</sup> March 2017**  
 (Source WMO SDS-WAS: BSC-DREAM8b)



**Figure 4: Meridional Wind 20<sup>th</sup> to 26<sup>th</sup> March 2017**  
 Source: .NOAA/.NCEP-NCAR/.CDAS-1/.DAILY

