

# MENINGITIS VIGILANCE FOR AFRICA

Bulletin No. 010

Issued on March 26, 2019

Valid until April 2, 2019

## SUMMARY

- From 9<sup>th</sup> to 10<sup>th</sup> weeks, meningitis cases increased over Cameroon, Central African Republic, Niger and Togo. The occurrence of meningitis was observed over Gambia, Senegal, Kenya and Tanzania. Meningitis cases decreased over Ivory Coast, and Nigeria.
- High vigilance is needed for meningitis cases over central Niger, Chad, northern Nigeria, and Cameroon, and Central Sudan.
- Moderate vigilance is required over southern Mauritania, southern and central Mali, southern Niger, and northern Burkina Faso.
- Low to no vigilance is needed over the remaining parts of the meningitis belt.



FIGURE 1 – African Meningitis Belt.

4<sup>th</sup> to 10<sup>th</sup> March 2019

I. SITUATION EPIDEMIOLOGIQUE DE LA SEMAINE 10 / EPIDEMIOLOGICAL SITUATION OF WEEK 10

**Table 1:** Situation épidémiologique / Epidemiological Situation

Pays	Cas	Décès	Létalité (%)	District en Alerte	District en Epidémie	Complétude (%)
Country	Cases	Deaths	CFR (%)	District in Alert	District in Epidemic	Completeness (%)
Benin <sup>P</sup>	13	0	0.0	0	0	100.0
Burkina Faso <sup>T</sup>	115	6	5.2	2	0	100.0
Burundi <sup>T</sup>	-	-	-	-	-	-
Cameroun <sup>P</sup>	22	6	27.3	1	0	65.8
Centrafrique <sup>P</sup>	31	1	3.2	2	0	71.4
Côte d'Ivoire <sup>P</sup>	5	0	0.0	0	0	100.0
Ethiopia <sup>T</sup>	-	-	-	-	-	-
Ghana <sup>P</sup>	27	0	0.0	3	0	100.0
Guinée <sup>P</sup>	11	0	0.0	0	0	100.0
Guinée Bissau	-	-	-	-	-	-
Gambia <sup>T</sup>	1	0	0.0	0	0	100.0
Kenya	1	0	0.0	0	0	100.0
Mali <sup>T</sup>	11	0	0.0	0	0	100.0
Mauritania <sup>P</sup>	-	-	-	-	-	-
Niger <sup>T</sup>	34	2	5.9	0	0	100.0
Nigeria <sup>P</sup>	60	2	3.3	1	0	100.0
RD Congo <sup>P**</sup>	155	9	5.8	-	-	15.5
Senegal <sup>P</sup>	8	0	0.0	0	0	98.7
South Sudan <sup>P</sup>	0	0	0.0	0	0	100.0
Sudan <sup>T</sup>	1	0	0.0	0	0	100.0
Tanzania	1	0	0.0	0	0	100.0
Tchad <sup>T</sup>	41	2	4.9	2	0	100.0
Togo <sup>P</sup>	49	2	4.1	0	1	93.2
Uganda <sup>P</sup>	-	-	-	-	-	-
<b>Total</b>	<b>586</b>	<b>30</b>	<b>5.1</b>	<b>11</b>	<b>1</b>	<b>61.9</b>

<sup>P</sup> = Pays partiellement vacciné avec le MenAfriVac / Country partially vaccinated with MenAfriVac

<sup>T</sup> = Pays entièrement vacciné avec le MenAfriVac / Country entirely vaccinated with MenAfriVac

<sup>\*\*</sup> La vaste majorité du territoire de la République démocratique du Congo se situe en dehors de la ceinture africaine de la méningite. Par conséquent, les seuils d'alerte et d'épidémie ne sont pas applicables / The majority of the Democratic Republic of the Congo territory is situated outside the African meningitis belt. Thus the alert and epidemic thresholds are not applicable

FIGURE 2 – Inventory of meningitis occurrence in Africa during the 10<sup>th</sup> week of the year, 2019. Data source : <https://www.who.int/emergencies/diseases/meningitis/meningitis-bulletin-10-2019.pdf?ua=1>

(Semaines notifiées / Reported weeks 01- 10)

**Table 2:** SYNTHÈSE DE LA SITUATION EPIDEMIOLOGIQUE / Summary of the Epidemiological situation

Pays	Cas	Décès	Létalité (%)	District en Alerte	District en Epidémie	Semaines notifiées	En districts (%)	En semaines (%)
Country	Cases	Deaths	CFR (%)	District in Alert	District in Epidemic	Reported weeks	In districts (%)	In weeks (%)
Benin <sup>P</sup>	115	19	16.5	3	0	01-10	100.0	100.0
Burkina Faso <sup>T</sup>	818	49	6.0	6	0	01-10	100.0	100.0
Burundi <sup>T</sup>	-	-	-	-	-	-	-	-
Cameroun <sup>P</sup>	183	12	6.6	7	0	01-10	94.2	94.9
Centrafrique <sup>P</sup>	211	14	6.6	4	0	01-10	88.6	86.1
Côte d'Ivoire <sup>P</sup>	70	1	1.4	0	0	01-10	100.0	100.0
Ethiopia <sup>T</sup>	-	-	-	-	-	-	-	-
Ghana <sup>P</sup>	447	13	2.9	11	4	01-10	100.0	100.0
Guinée <sup>P</sup>	62	3	4.8	0	0	01-10	100.0	98.7
Guinée Bissau	-	-	-	-	-	-	-	-
Gambia <sup>T</sup>	11	1	9.1	2	0	01-10	100.0	100.0
Kenya	36	1	2.8	0	0	01-10	100.0	100.0
Mali <sup>T</sup>	114	0	0.0	0	0	01-10	100.0	99.9
Mauritania <sup>P</sup>	-	-	-	-	-	-	-	-
Niger <sup>T</sup>	187	14	7.5	0	0	01-10	100.0	100.0
Nigeria <sup>P</sup>	435	38	8.7	3	1	01-10	100.0	100.0
RD Congo <sup>P***</sup>	1448	107	7.4	-	-	01-10	15.7	91.4
Senegal <sup>P</sup>	101	0	0.0	0	0	01-10	100.0	99.9
South Sudan <sup>P</sup>	16	2	12.5	1	0	01-10	100.0	100.0
Sudan <sup>T</sup>	4	0	0.0	0	0	01-10	100.0	100.0
Tanzania	11	6	54.5	0	0	01-10	100.0	100.0
Tchad <sup>T</sup>	362	31	8.6	6	1	01-10	100.0	100.0
Togo <sup>P</sup>	196	5	2.6	0	1	01-10	93.2	100.0
Uganda <sup>P</sup>	-	-	-	-	-	-	-	-
<b>Total</b>	<b>4 827</b>	<b>316</b>	<b>6.5</b>	<b>43</b>	<b>7</b>	<b>01-10</b>	<b>63.6</b>	<b>99.2</b>

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FIGURE 3 – Inventory of meningitis occurrence in Africa during the first ten weeks of year 2019. Data source : <https://www.who.int/emergencies/diseases/meningitis/meningitis-bulletin-10-2019.pdf?ua=1>

Figure 4 shows that very dry atmospheric conditions (relative humidity below 20 %) was observed over northern Mauritania, Mali, Cameroon, and Nigeria, northern and central Niger, Chad, and Sudan during the week from 16 to 23 March 2019 (Figure 4). It indicates that relative humidity between 20 and 40 % prevailed over eastern Senegal, southern Mali, central Burkina Faso, southern Niger, central Nigeria and northern Benin. Wet (relative humidity above 40 %) atmospheric conditions were recorded over the Gulf of Guinea countries.

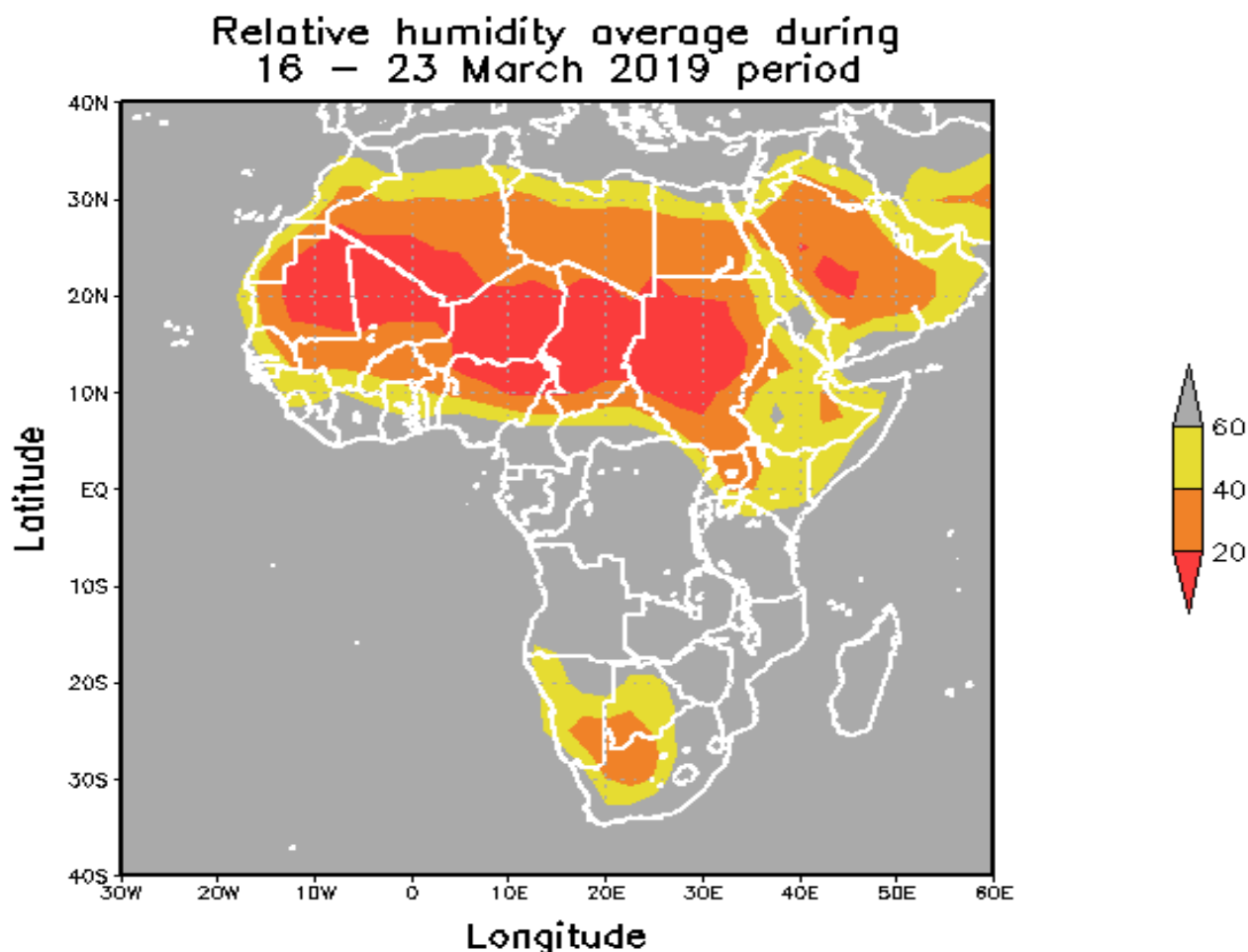


FIGURE 4 – Mean relative humidity (%) for the period from 16 to 23 March 2019 estimated from NCEP reanalysis.

Figure 5 gives an example of surface dust concentrations estimated on 16<sup>th</sup> March 2019 at 00 :00 UTC. It indicates that as the previous week (figure not shown), high surface dust concentrations are observed over the West Africa. Highest values of surface dust concentrations are observed over eastern Senegal, western Mauritania, southern Morocco and Algeria, northern Mali, central and northern Niger, eastern Libya. Moderate surface dust concentrations are found over the remaining part of the meningitis.

Figure 6 shows the mean meridional wind speed during the week from 16 to 23 March 2019. It indicates that the south part of the Gulf of Guinea is under the influence of the monsoon flow and the ITD continued its northward migration. The Harmattan flow was observed over northern Mauritania, Mali, Niger, Nigeria, Chad, and Sudan.

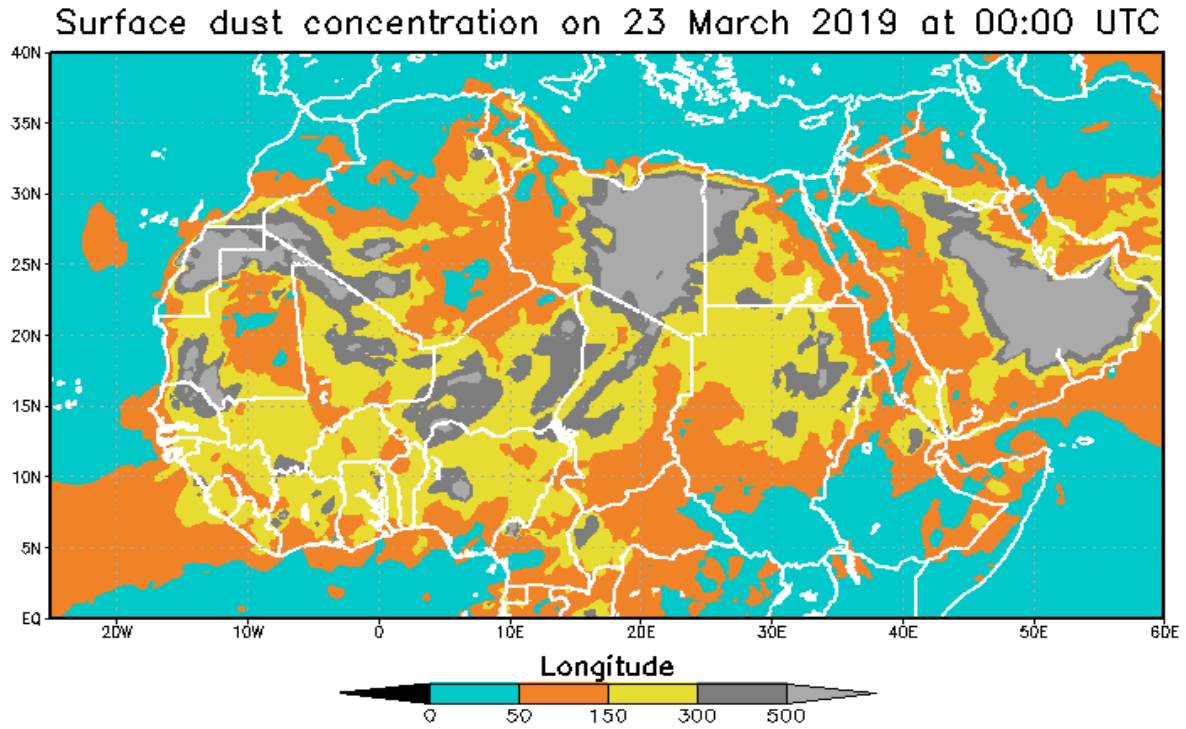


FIGURE 5 – Surface dust concentration ( $\mu\text{g m}^3$ ) estimated on March 23, 2019 at 00 :00 UTC from Goddard Earth Observing Model (GEOS) data.

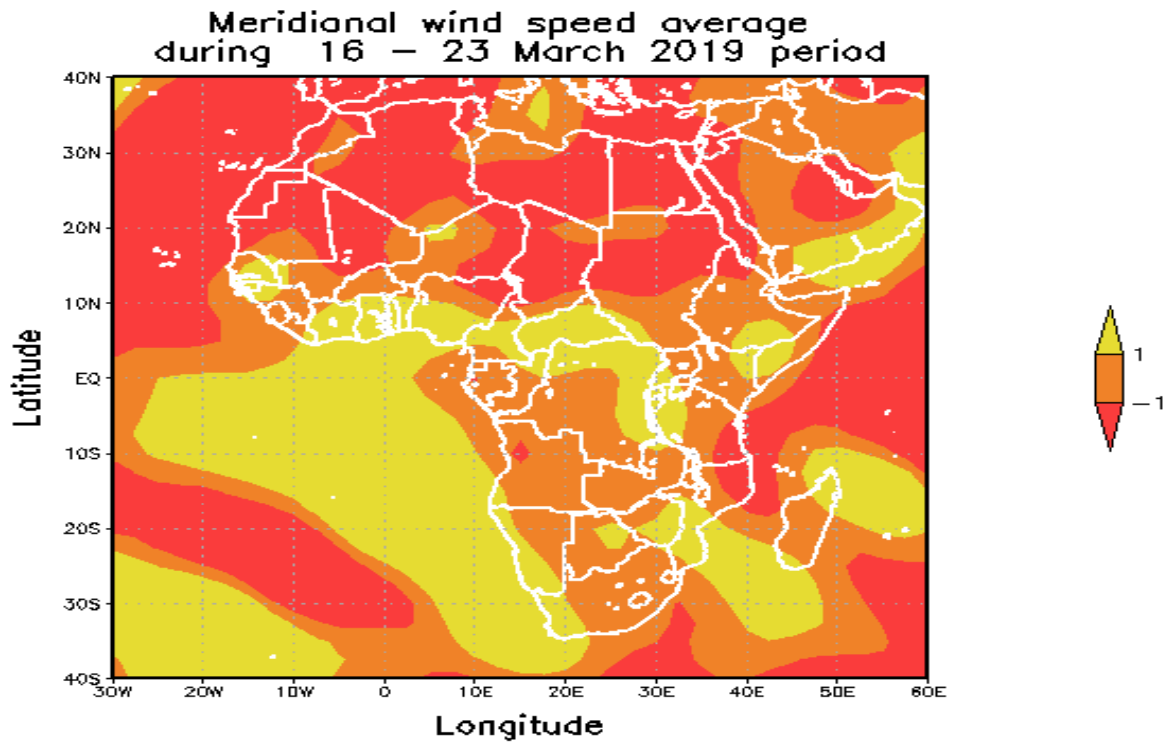


FIGURE 6 – Mean meridional wind speed ( $\text{m s}^{-1}$ ) for the period from 16 to 23 March 2019 estimated from NCEP reanalysis.



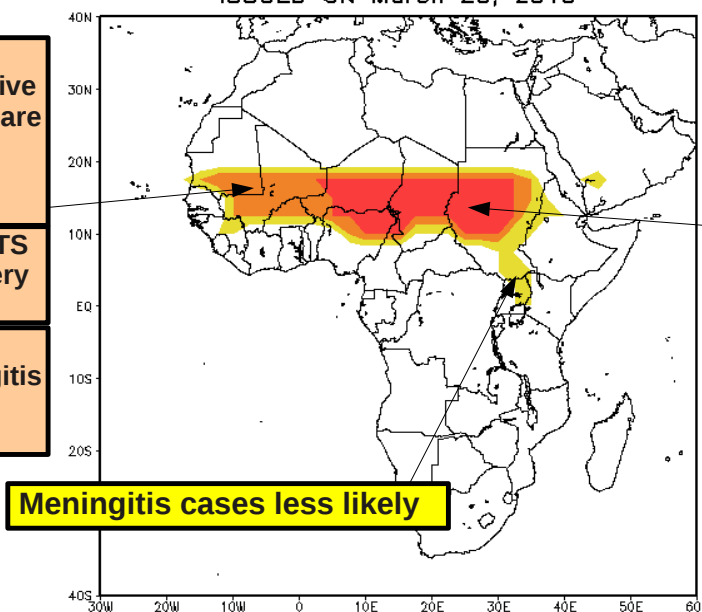
VIGILANCE MAP FOR EMERGENCE OF MENINGITIS IN AFRICA  
ISSUED ON March 26, 2019



**HAZARD**  
Dust, wind and relative humidity conditions are favorable for emergence of meningitis cases

**POTENTIAL IMPACTS**  
Meningitis cases very likely

**MEASURES**  
Activation of meningitis surveillance and systems



**HAZARD**  
Dust, wind and relative humidity conditions are very much favorable for emergence of meningitis cases

**POTENTIAL IMPACTS**  
Meningitis cases very likely and epidemics status possible

**MEASURES**  
Strengthen meningitis surveillance and systems