

**African Centre of Meteorological
Application for Development**

**Centre Africain pour les
Applications de la Météorologie
au Développement**



***Direction Générale ACMAD
85 Avenue des Ministères
BP 13184, Niamey - Niger
Tél. (227) 20 72 36 27
Fax : (227) 20 72 36 27
E-mail : dgacmad@acmad.ne
Web : <http://www.acmad.org>***

MENINGITIS VIGILANCE FOR AFRICA

Bulletin No. 008

Issued on March 12, 2019

Valid until March 19, 2019

SUMMARY

- The week from February 18-24, 2019 was marked by an increase in meningitis cases over Guinea, Central African Republic, Mali, Niger, Nigeria, Chad and Togo. A decrease in the occurrence of meningitis was observed over Ghana, and Ivory Coast.
- High vigilance is needed for meningitis cases over southern Mauritania and Mali, Burkina Faso, Niger, Chad, northern Nigeria, Cameroon, Ghana, Togo, Benin, and central Sudan.
- Moderate vigilance is required over central and eastern Senegal, central Mali, northern Nigeria, southern Chad, South Sudan and northern Gulf of Guinea countries.
- Low to no vigilance is needed over the remaining parts of the meningitis belt.



FIGURE 1 – African Meningitis Belt.

18th to 24th February 2019

I. SITUATION EPIDEMIOLOGIQUE DE LA SEMAINE 08 / EPIDEMIOLOGICAL SITUATION OF WEEK 08

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 ^P	20	4	20.0	2	0	100.0
Burkina Faso ^T	95	9	9.5	3	0	100.0
Burundi ^T	-	-	-	-	-	-
Cameroun ^P	-	-	-	-	-	-
Centrafrique ^P	12	2	16.7	1	0	51.4
Côte d'Ivoire ^P	3	0	0.0	0	0	100.0
Ethiopia ^T	-	-	-	-	-	-
Ghana ^P	43	2	4.7	4	0	100.0
Guinea ^P	11	0	0.0	0	0	89.5
Guinée Bissau	-	-	-	-	-	-
Gambia ^T	-	-	-	-	-	-
Kenya	-	-	-	-	-	-
Mali ^T	13	0	0.0	0	0	100.0
Mauritania ^P	-	-	-	-	-	-
Niger ^T	9	1	11.1	0	0	100.0
Nigeria ^P	30	0	0.0	0	0	100.0
RD Congo ^{P**}	-	-	-	-	-	-
Senegal ^P	-	-	-	-	-	-
South Sudan ^P	2	0	0.0	0	0	100.0
Sudan ^T	1	0	0.0	0	0	100.0
Tanzania	-	-	-	-	-	-
Tchad ^T	67	7	10.4	2	1	100.0
Togo ^P	22	0	0.0	0	0	93.2
Uganda ^P	-	-	-	-	-	-
Total	328	25	7.6	12	1	42.9

^P = Pays partiellement vacciné avec le MenAfriVac / Country partially vaccinated with MenAfriVac
^T = Pays entièrement vacciné avec le MenAfriVac / Country entirely vaccinated with MenAfriVac
^{**} 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 seuls 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.

FIGURE 2 – Inventory of meningitis occurrence in Africa during the 8th week of the year, 2019. Data source : <https://www.who.int/emergencies/diseases/meningitis/meningitis-bulletin-8-2019.pdf?ua=1>

(Semaines notifiées / Reported weeks 01-08)

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

Pays Country	Cas Cases	Décès Deaths	Létalité (%) CFR (%)	Distriet en Alerte District in Alert	Distriet en Épidémie District in Epidemic	Semaines notifiées Reported weeks	En districts (%) In districts (%)	En semaines(%) In weeks(%)
Benin^P	88	17	19.3	2	0	01-08	100.0	100.0
Burkina Faso^T	587	36	6.1	6	0	01-08	100.0	100.0
Burundi ⁱ	-	-	-	-	-	-	-	-
Cameroun ^P	125	5	4.0	5	0	01-07	93.7	97.5
Centrafrique^P	60	8	13.3	1	0	01-08	74.3	85.6
Côte d'Ivoire^P	53	1	1.9	0	0	01-08	100.0	100.0
Ethiopia ^T	-	-	-	-	-	-	-	-
Ghana^P	406	12	3.0	10	4	01-08	100.0	100.0
Guinea^P	39	3	7.7	0	0	01-08	100.0	98.7
Guinée Bissau	-	-	-	-	-	-	-	-
Gambia ^T	10	1	10.0	2	0	01-07	100.0	100.0
Kenya	27	0	0.0	0	0	01-07	100.0	100.0
Mali^T	93	0	0.0	0	0	01-08	100.0	99.8
Mauritania ^P	-	-	-	-	-	-	-	-
Niger^T	109	7	6.4	0	0	01-08	100.0	100.0
Nigeria^P	255	12	4.7	0	0	01-08	100.0	100.0
RD Congo ^{P**}	877	68	7.8	-	-	01-06	15.9	90.7
Senegal	-	-	-	-	-	-	-	-
South Sudan^P	15	2	13.3	1	0	01-08	100.0	100.0
Sudan^T	3	0	0.0	0	0	01-08	100.0	100.0
Tanzania	9	7	77.8	0	0	01-07	100.0	100.0
Tchad^T	243	22	9.1	3	1	01-08	100.0	100.0
Togo^P	104	2	1.9	0	0	01-08	93.2	100.0
Uganda ^P	-	-	-	-	-	-	-	-
Total	3 103	203	6.5	30	5	01-08	61.8	99.5

^P = Pays partiellement vacciné avec le MenAfriVac / Country partially vaccinated with MenAfriVac
^T = Pays entièrement vacciné avec le MenAfriVac / Country entirely vaccinated with MenAfriVac
^{**} 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 3 – Inventory of meningitis occurrence in Africa during the first seven weeks of year 2019. Data source : <https://www.who.int/emergencies/diseases/meningitis/meningitis-bulletin-8-2019.pdf?ua=1>

Figure 4 shows that during the week from 2 to 9 March 2019, very dry atmospheric conditions (relative humidity below 20 %) was observed over Burkina Faso, eastern Senegal, Mauritania, southern Mali, Niger, northern Nigeria, Benin, Togo, Ghana, and Sudan. Relative humidity between 20 and 40 % prevailed over South Sudan, central Senegal, northern Uganda, and a small band over the Gulf of Guinea countries. Wet (relative humidity above 40 %) atmospheric conditions were recorded over the coast of the remaining parts of the meningitis belt.

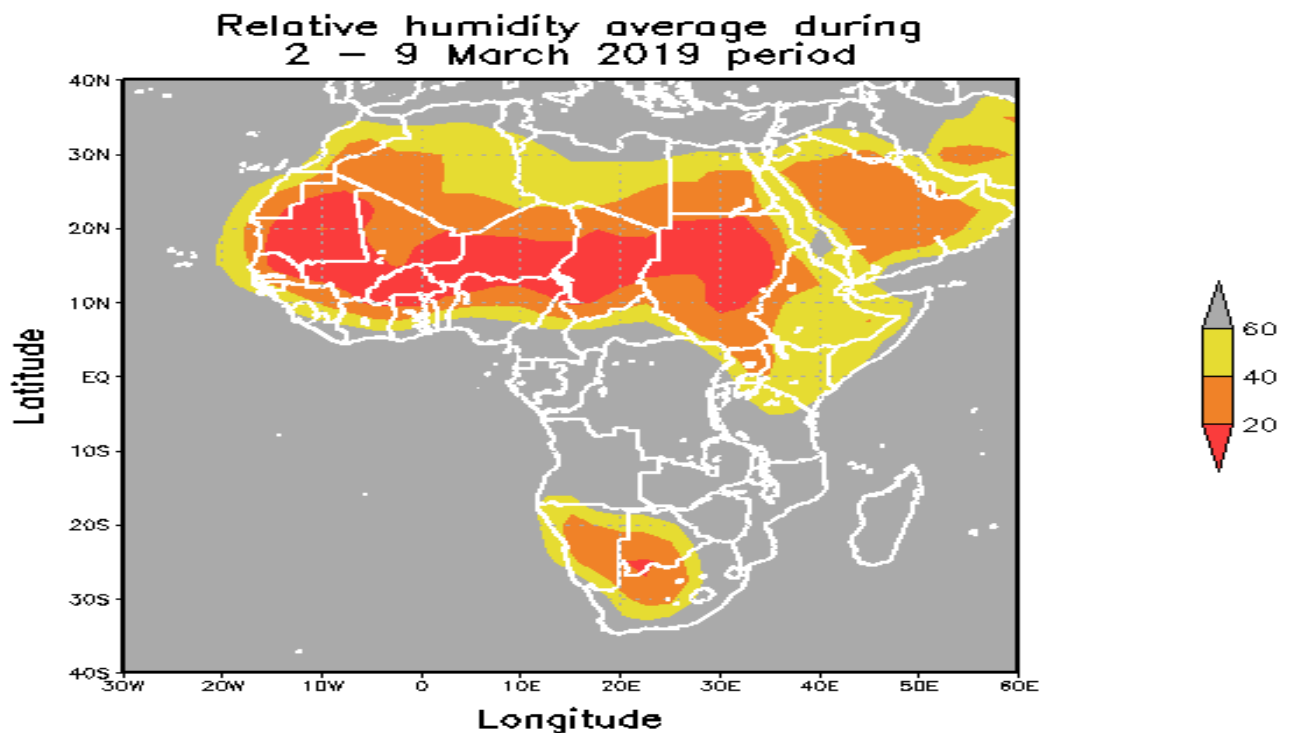


FIGURE 4 – Mean relative humidity (%) for the period from 2 to 9 March 2019.

Figure 5 indicates that high surface dust concentrations over the West Africa on 9th March 2019 at 00 :00 UTC. Highest values of surface dust concentrations are observed over northern Senegal, western and northern Mauritania, Algeria, northern Mali, central Niger, Nigeria, western Cameroon, Libya, and central Chad.

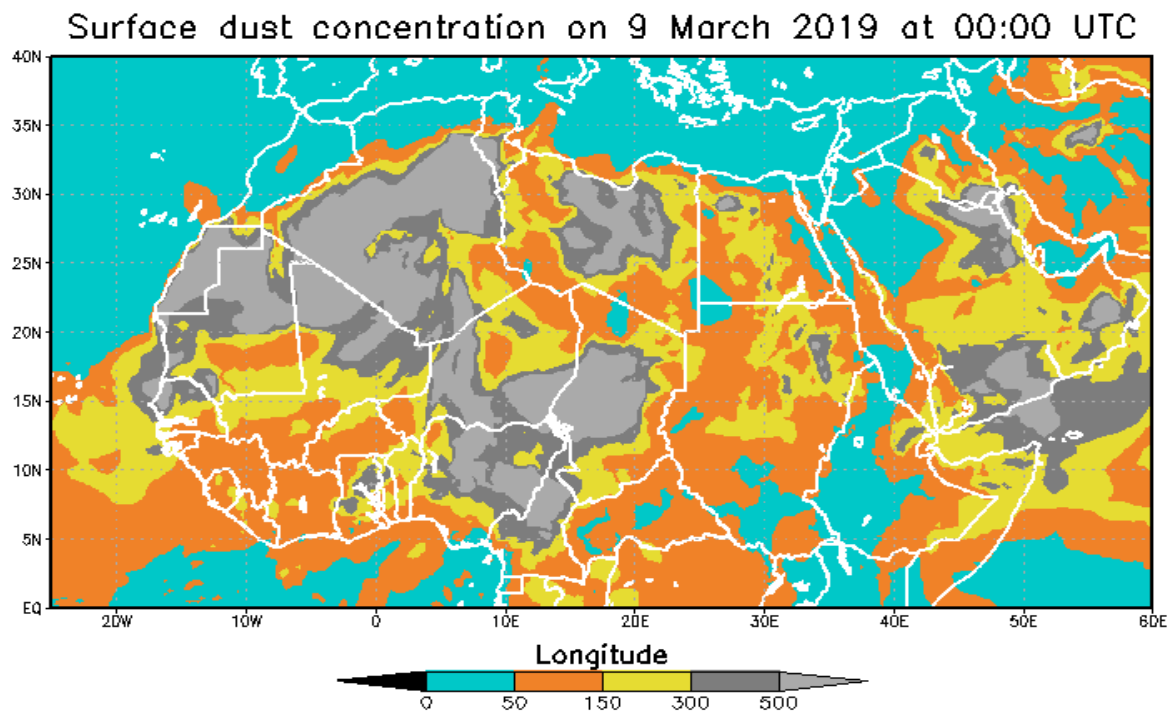


FIGURE 5 – Surface dust concentration ($\mu\text{g m}^3$) estimated on March 9, 2019 at 00 :00 UTC from NASA-GEOS data.

Figure 6 indicates that the week from 2 to 9 March 2019 was marked by Harmattan flow over Senegal, Gambia, Guinea Bissau, Burkina Faso, Mauritania, Mali, Niger, northern Nigeria, Chad, and Sudan. It also shows a northward migration of the ITD. Monsoon flow prevailed over the Gulf of Guinea countries. This flow favors the cessation of the meningitis occurrence in this area.

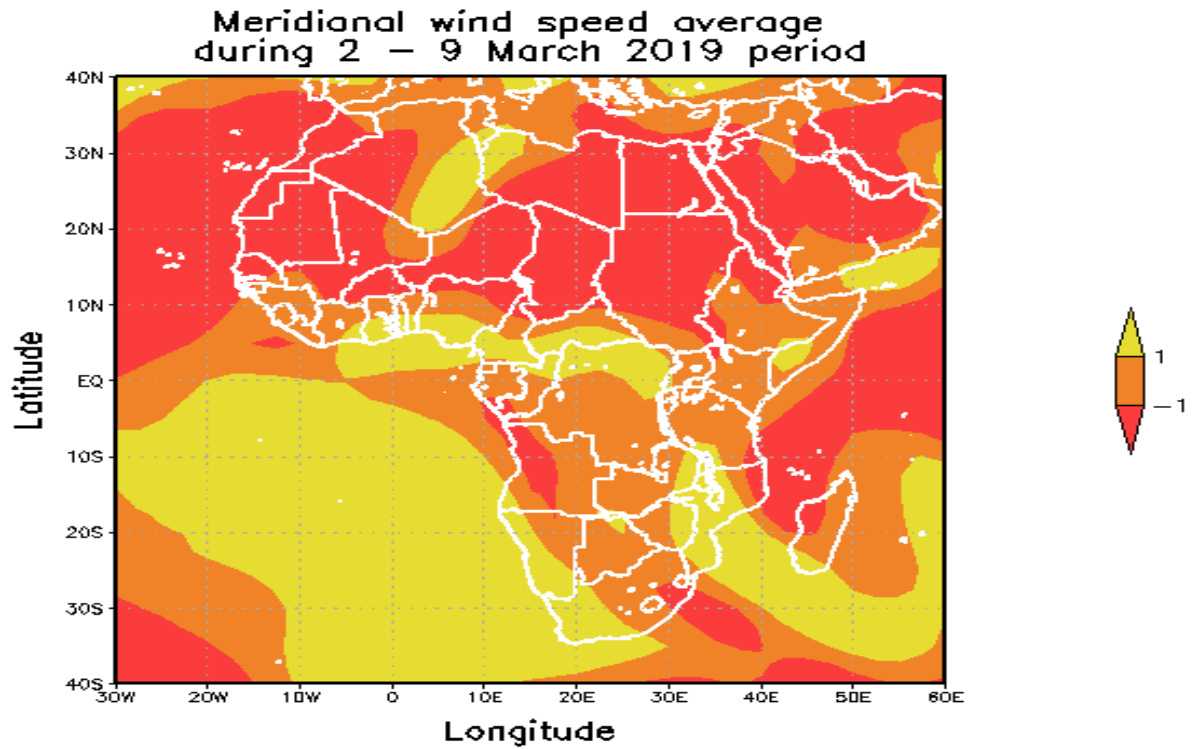
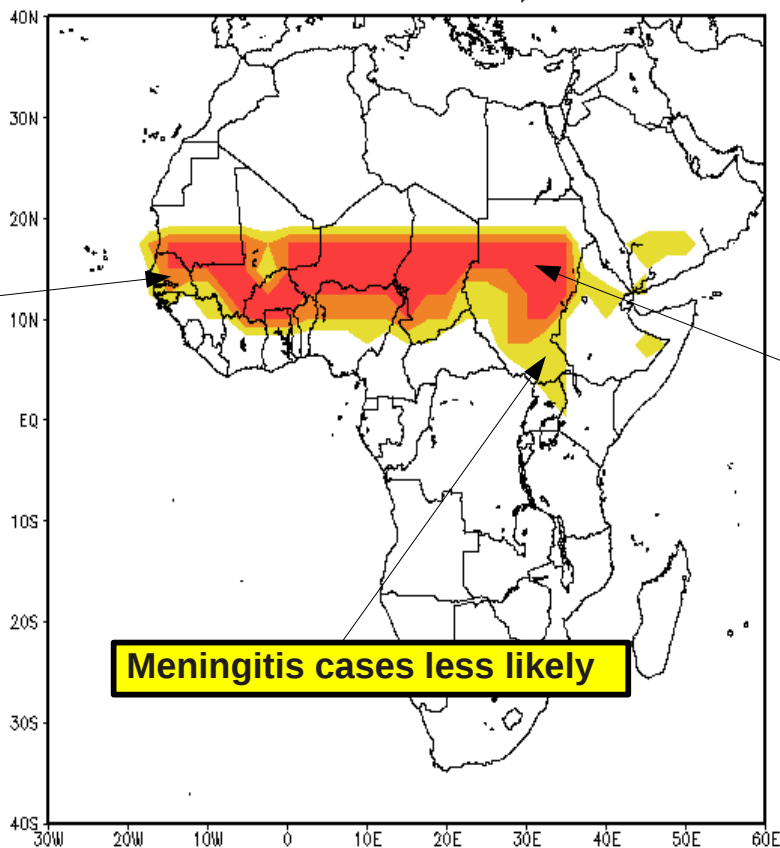


FIGURE 6 – Mean meridional wind speed (m s^{-1}) for the period from 2 to 9 March 2019.

VIGILANCE MAP FOR EMERGENCE OF MENINGITIS IN AFRICA
ISSUED ON March 12, 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

Meningitis cases less likely