



WEEKLY MENINGITIS VIGILANCE FOR AFRICA

BULLETIN No. 15

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VALID UNTIL: MAY 05, 2022

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1. MENINGITIS VIGILANCE HIGHLIGHTS

WEEK 1: FROM 22ND TO 28TH APRIL 2022

- Meningitis cases are very likely over eastern Senegal, north-eastern Mali, southern Algeria, northern Niger, central-northern parts of Chad and parts of Sudan.
- Meningitis outbreaks are likely over southern parts of Mauritania, eastern most of Senegal, most of Mali, most of Niger, northern Burkina Faso, southern Algeria, southern Libya, northern most of Nigeria, central most parts of Chad, most of Sudan and parts of southern Egypt.
- Meningitis cases are less likely over the rest of the African meningitis belt.

WEEK 2: FROM 29TH APRIL TO 5TH MAY 2022

- Meningitis cases are very likely over a few parts of eastern Senegal, most of north-eastern Mali, southern Algeria, north-eastern Niger, central-to-northern parts of Chad and parts of Sudan.
- Meningitis outbreaks are likely over southern parts of Mauritania, most of Mali, most of Senegal, northern Burkina Faso, southern Algeria, most of Niger, southern Libya, northern Nigeria, northern Cameroon, parts of Chad, most of Sudan and southern part of Egypt.
- Meningitis cases are less likely over the rest of the African meningitis belt.

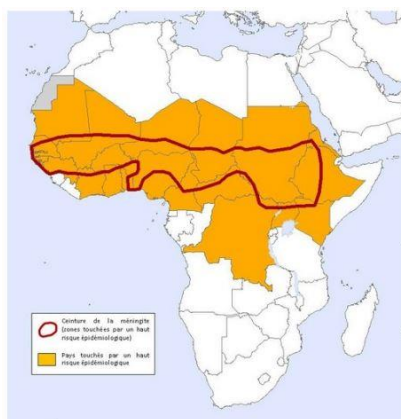


Figure 1 – Africa Meningitis Belt.

2. ATMOSPHERIC CONDITIONS

2.1 RELATIVE HUMIDITY

Weekly mean relative humidity (RH) at 1000hPa predicted by ECMWF Model for the periods from 22nd to 28th April 2022 and from 29th April to 5th May 2022 issued on 21st April 2022 indicates that during the next two weeks, **very dry atmospheric conditions with RH below 20 %** will remain over most of the meningitis belt (most of Sudan, southern Egypt, parts of Libya, most of northern Chad, northern tip of Cameroon, northern fringes of Nigeria, parts of Algeria, most of Niger, Mali, western Senegal, northern parts of Burkina Faso and western Mauritania). Moistening atmospheric conditions (**RH between 20 and 40 %**) are projected over parts of the northern Sahelian zone, Ethiopia, extreme northern Gulf of Guinea countries, Libya, central Egypt, northern Algeria eastern fringes of Morocco, southern Angola, western Namibia and western South Africa. **Wet atmospheric conditions (relative humidity more than 60 %)** will prevail over most parts in central and southern Gulf of Guinea countries under the monsoon flow, southern part of Nigeria, central Africa, Madagascar, much parts across eastern Southern Africa, and East Africa. Atmospheric conditions are expected to reduce in northern Nigeria, Algeria and improve over southern Sudan, northern Nigeria, Ethiopia and Burkina Faso over the meningitis belt during the week from 29th April to 5th May 2022.

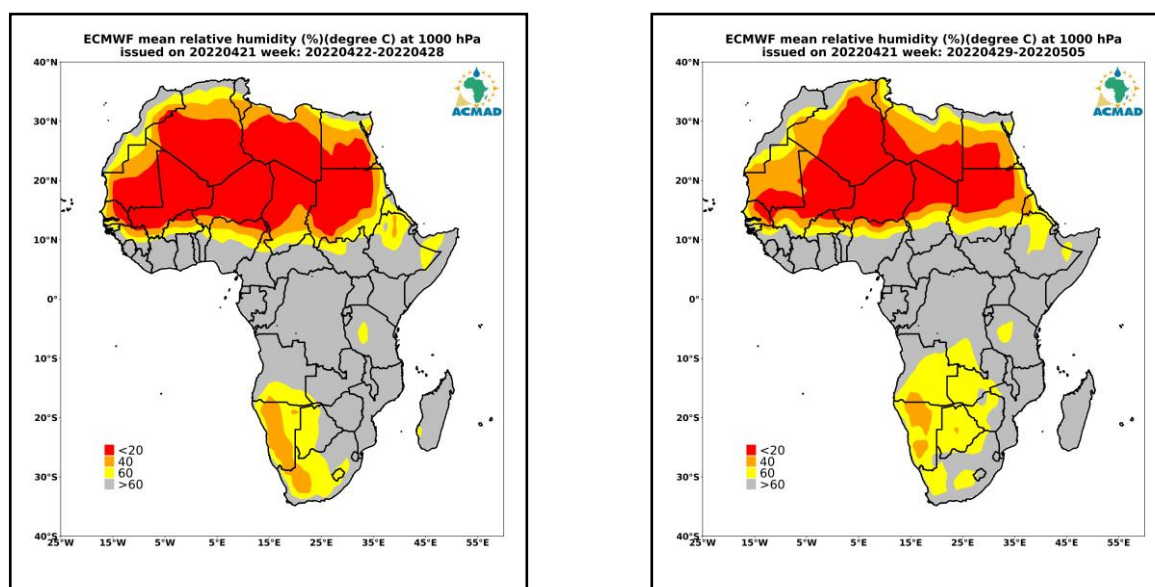


Figure 2: – ECMWF forecast of weekly mean Relative Humidity (%) at 1000 hPa for the week 22 – 28 April 2022 (left) and week 29 April – 05 May 2022 (right). The forecast data were issued on 21st April 2022 and the mean is computed using 50 ensemble members from 1981 to 2010 period.

Figure 4 shows the weekly projected mean temperature at 1000 hPa during the weeks from 22nd to 28th April 2022 and 29th April to 5th May 2022 forecasted by ECMWF model issued on 21st April 2022 using 50 ensemble members. During the first week of the forecast, warmest temperatures associated with the Saharan Heat Low (SHL) are predicted over southern Sahel with temperature greater than 33°C. Heat waves are expected over eastern Senegal, east Mauritania, Mali, southern western Algeria, Burkina Faso, northern Ghana, northern Togo, northern Benin, most of Niger, northern Nigeria, northern Cameroon, most of Chad, most of Sudan and southern Libya. Moderate temperatures are expected over Central and western parts of East Africa, most parts in Southern Africa and north of the meningitis belt. Temperatures are expected to increase over the African meningitis belt during the following week from 29th April to 5th May 2022.

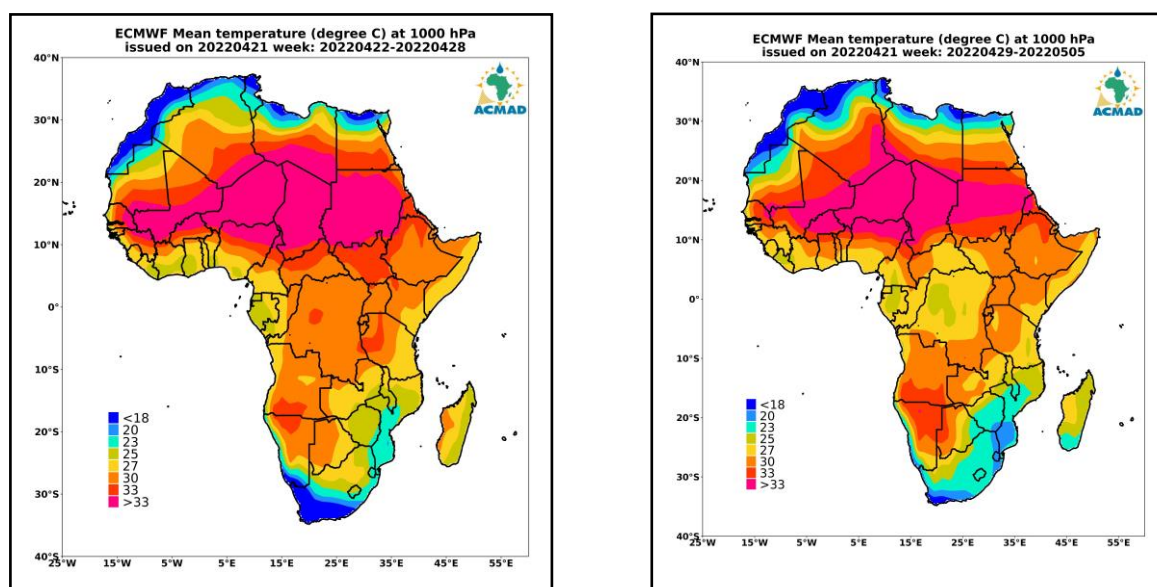


Figure 4 – ECMWF forecast of weekly mean air temperature (C) at 1000 hPa for the week 22 – 28 April 2022 (left) and week 29 April – 05 May 2022 (right). The forecast data were issued on 21st April 2022 and the mean is computed using 50 ensemble members.

3. VIGILANCE MAP FOR MENINGITIS OUTBREAKS

VALID FROM 22ND TO 28TH APRIL 2022.

Phenomenon:

- Dust concentration between 150 to 400µg/m³
- Relative humidity between 20 & 40%
- Temperature above 27°C

Hazards:

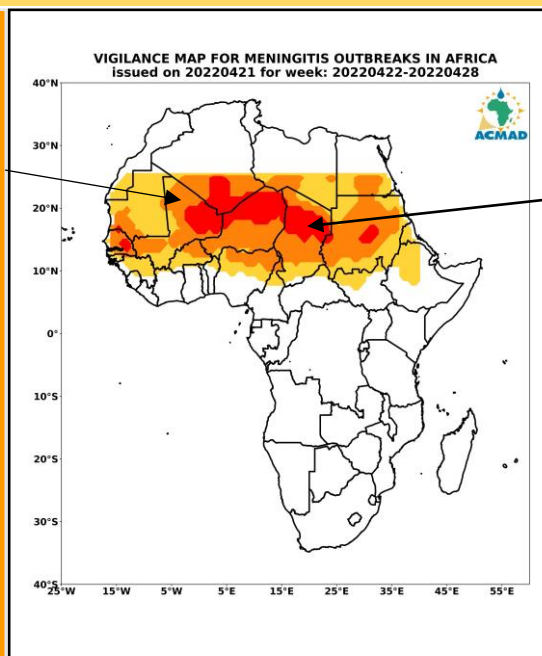
Emergence of Meningitis cases very likely

Potentials Impacts:

Loss of life, pressure on the health system

Measures/Advisories:

Activation of surveillance systems at regional and national levels



Phenomenon:

- Dust Concentration at least 400µg/m³ and above
- Relative humidity less than 20%
- Temperature above 30°C

Hazards:

Emergence of Meningitis cases very likely and epidemic status possible

Potentials Impacts:

Loss of life, increased pressure on the health system

Measures/Advisories:

Strengthen meningitis surveillance systems at both regional and national levels

VALID FROM 29TH TO 5TH MAY 2022.

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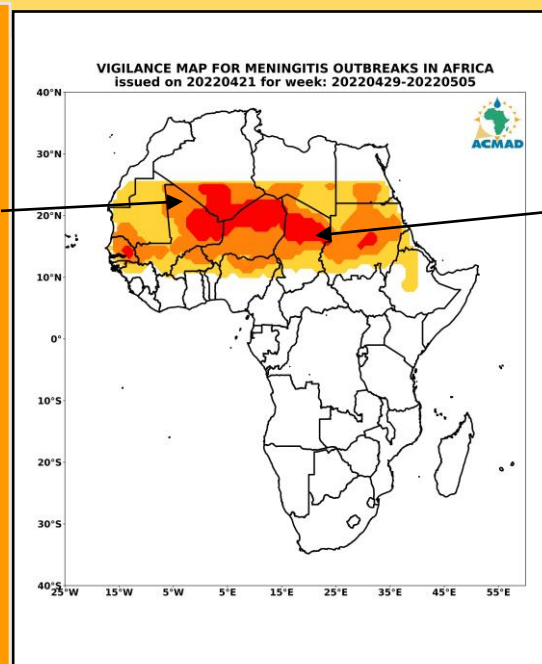
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