

# Surveillance Feedback Bulletin

## 2020 | Quarter 2

Quarterly feedback bulletin on bacterial meningitis

**Epidemiological situation, weeks 14 - 26** 769 suspect cases were reported this quarter with the largest number of cases reported from Burkina Faso. CSF samples were collected from 99% of suspect cases and 8% of suspect cases were confirmed (see Table 1). National Reference laboratory data for Togo and all case-based data for Chad were not submitted in time for inclusion in this bulletin.

Table 1. Epidemiological situation, weeks 14 - 26

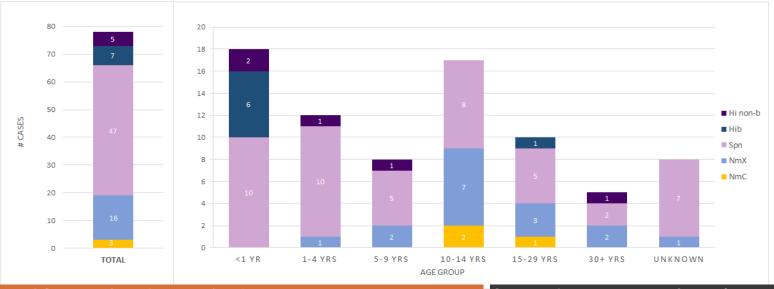
	Burkina Faso	Mali	Niger	Chad	Togo	MenAfriNet
Characteristics						
	N (%)					
Demographics						
Population under Surveillance*	19,632,147	11,602,530	20,651,070	677,785	1,064,686	53,628,218
Districts submitting data†	62/70(89)	14/33(42)	9/72(13)	0/4(0)	21/35(60)	106/197(49)
Aggregate suspected cases	552	128	92	199	141	1112
MenAfriNet suspected cases	500	112	55	N/A	102	769
Deaths <sup>∞</sup>	19	1	5	N/A	8	33
Laboratory		N (% c	of suspected cases	s)		
CSF collected	500 (100)	112 (100)	51 (93)	N/A (0)	100 (98)	763 (99)
CSF received at NRL	298 (60)	105 (94)	40 (73)	N/A (0)	N/A (0)	443 (66)
CSF analyzed by PCR or culture ¥	104 (21)	105 (94)	40 (73)	N/A (0)	30 (29)	279 (36)
CSF analyzed with gram stain	354 (71)	105 (94)	7 (13)	N/A (0)	65 (64)	531 (69)
Probable bacterial meningitis**	98 (20)	16 (14)	15 (27)	N/A (0)	3 (3)	132 (17)
Confirmed bacterial meningitis	37 (7)	16 (14)	11 (20)	N/A (0)	N/A (0)	64 (8)

Abbreviation: CSF, cerebrospinal fluid; NRL, National Reference Laboratory; PCR, Polymerase Chain Reaction (real-time)

Meningitis pathogens

The leading causes of confirmed meningitis cases were Streptococcus pneumoniae and Neisseria meningitidis X, accounting for 81% of total confirmed cases. Streptococcus pneumoniae was most common in children less than 1 year old and 1-4 vears old (see Figure 1).

Figure 1. Meningitis pathogens by age group, weeks 14 - 26



<sup>†</sup> MenAfriNet districts submitting case-based data (denominator = Total number of MenAfriNet districts performing case-based surveillance)

Deaths listed as outcome in case-based data

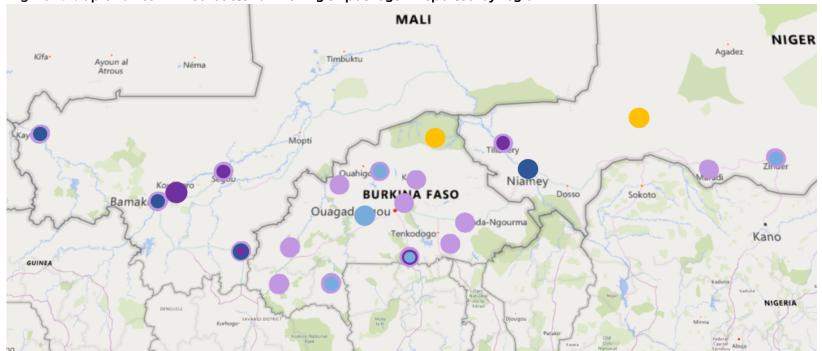
<sup>\*\*</sup>Tested negative for all pathogens and serogroups. Further details of probable meningitis cases can be found here (page 4): https://apps.who.int/iris/ bitstream/handle/10665/312141/9789290234241-eng.pdf

<sup>¥</sup> CSF analyzed by PCR or culture at any lab (district, regional, or national levels)

#### Neisseria meningitidis serogroup distribution

Neisseria meningitidis C and X continue to be detected throughout the MenAfriNet countries with zero Neisseria meningitidis A cases having been reported so far this season.

Figure 2. Map of all confirmed bacterial meningitis pathogens reported by region



Map Key:

\* Note: The size of circles is not reflective of number of cases and is used only to allow for visualization of multiple pathogens in the same geographic area.

Neisseria mengingitidis C

Neisseria mengingitidis X

Haemophilus influenzae B

Haemophilus influenzae non B

Streptococcus pneumoniae

Streptococcus pneumoniae serotype distribution

0% of the 47 reported *S. pneumoniae* cases had serotype results reported. Serotyping results have been delayed for this quarter of 2020 due to the COVID pandemic and insecurity.

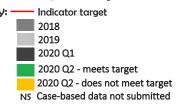
# MenAfriNet Highlights, week 14 - 26

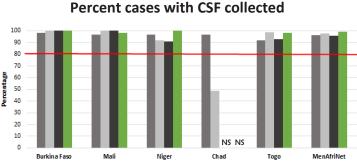
- Due to the COVID-19 pandemic, bacterial meningitis surveillance, laboratory capacities, and datarelated trainings of countries within the MenAfriNet Consortium have been negatively impacted. Case-based data in this bulletin (namely laboratory and serotyping) are reflective of these impacts.
- Relatively few epidemics were reported during the 2020 meningitis season. Of the MenAfriNet countries included in this bulletin, Chad had one district cross the epidemic threshold. See WHO bulletins for additional information, found here: https://www.who.int/publications/m?healthtopics=68897f3c-ec35-4929-9428-b37a1c6092a2,ab05ea4a-d97e-4caf-ba67-b26dd8f30ff1&year=2020

## MenAfriNet case-based surveillance performance indicators

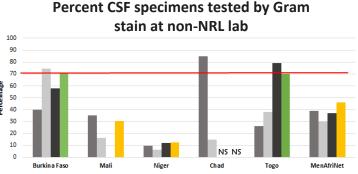
- CSF collection rates remain high across MenAfriNet countries with continued low contamination rates
- No data were received from Chad and there were significant missing laboratory data from Togo
- Of specimens collected for which data were submitted, 66% of specimens were received at the NRL
- The MenAfriNet Consortium aims to more deeply engage and support countries to improve quality of data

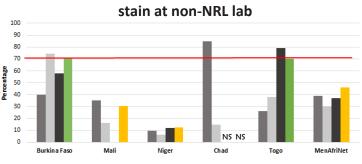
Figure 4. Quarterly Trends of Surveillance and Laboratory Performance Indicators



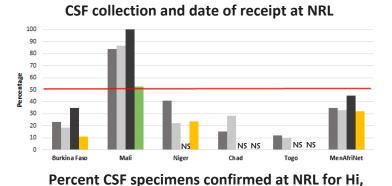


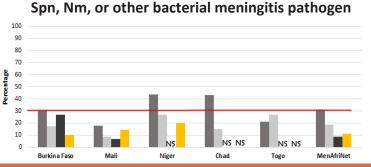
100 90 80 70 60 Percentage 50 40 30 20 10 0 Mali \*Togo: TI not required for 3 of 4 hospitals due to proximity to lab

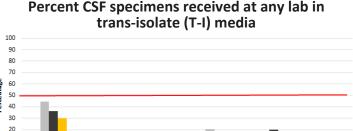




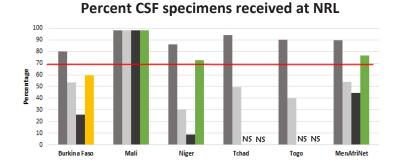
Percent cases with <7 days delay between

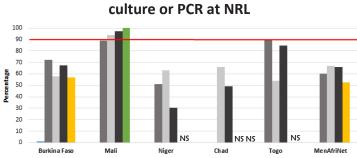




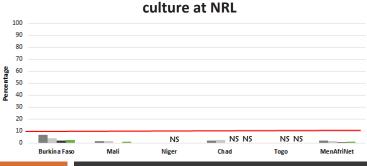


Chad





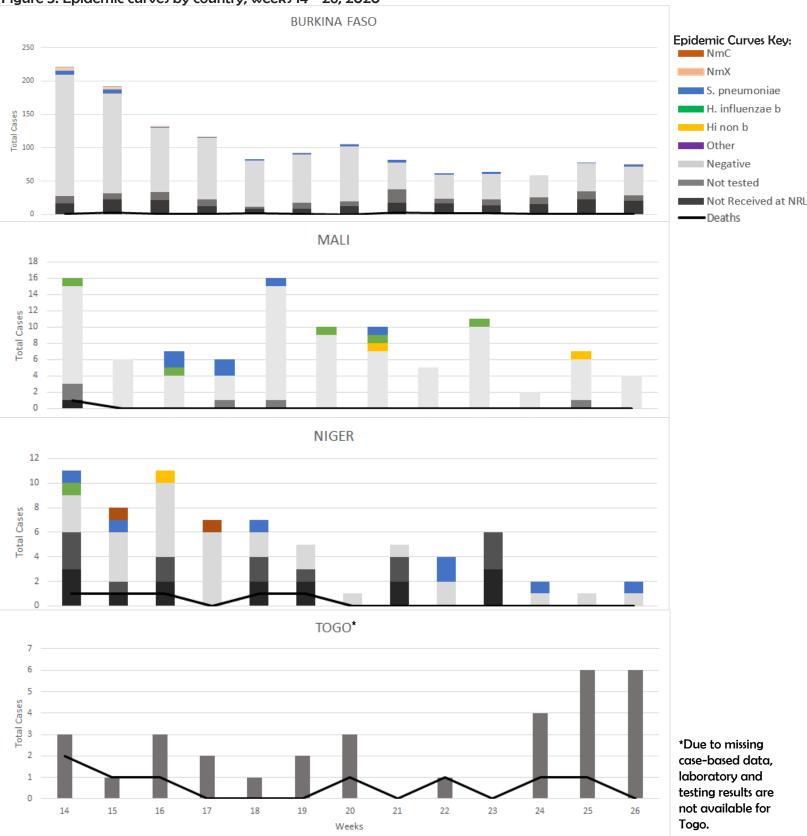
Percent CSF specimens analyzed by



### Epidemiological trends over time

Total reported cases begin to trend slightly downward as weeks progress and the meningitis peak season comes to a close. No data were submitted for Chad and significant Togo laboratory data are missing.

Figure 5. Epidemic curves by country, weeks 14 - 26, 2020



Due to the COVID-19 pandemic, bacterial meningitis surveillance, laboratory capacities, and data-related trainings of countries within the MenAfriNet Consortium have been negatively impacted. Data in this bulletin are reflective of these impacts.