



Epidemiological situation, weeks 01 - 13

697 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 4% of suspect cases were confirmed (see Table 1).

Table 1. Epidemiological situation, weeks 01 - 13

| Characteristics | Burkina Faso | Mali | Niger | Chad | Togo | MenAfriNet |
|---|--------------|------------|------------|---------|------------|------------|
| | 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† | 63/70(90) | 3/33(9) | 14/72(19) | 0/4(0) | 18/18(100) | 98/197(50) |
| Aggregate suspected cases | 552 | 128 | 92 | 199 | 141 | 1112 |
| MenAfriNet suspected cases | 548 | 44 | 47 | 0 | 58 | 697 |
| Deaths [∞] | 15 | 0 | 3 | 0 | 4 | 22 |
| Laboratory | | | | | | |
| N (% of suspected cases) | | | | | | |
| CSF collected | 548 (100) | 44 (100) | 43 (91) | 0 (0) | 54 (93) | 689 (99) |
| CSF received at NRL | 141 (26) | 43 (98) | 4 (9) | 0 (0) | 0 (0) | 188 (27) |
| CSF analyzed by PCR or culture [‡] | 121 (33) | 43 (98) | 0 (0) | 0 (0) | 22 (41) | 186 (27) |
| CSF analyzed with gram stain | 236 (43) | 43 (98) | 5 (12) | 0 (0) | 45 (83) | 329 (48) |
| Probable bacterial meningitis** | 16 (3) | 0 (0) | 1 (2) | 0 (0) | 2 (4) | 19 (3) |
| Confirmed bacterial meningitis | 27 (5) | 3 (7) | 0 (0) | 0 (0) | 3 (6) | 33 (4) |

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

* Population of MenAfriNet districts—number of districts: Burkina Faso: 70; Mali: 33; Niger: 72; Chad: 4; Togo: 18

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

∞ Deaths listed as outcome in case-based data

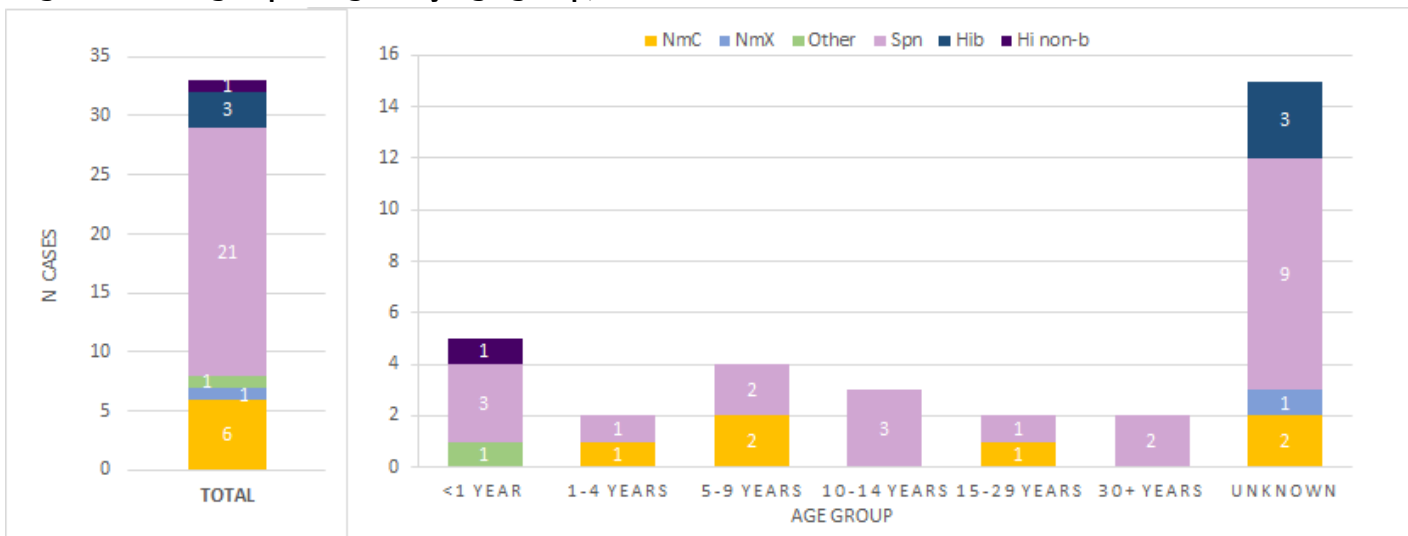
**Tested negative for all pathogens and serogroups

‡ CSF analyzed by PCR or culture at any lab (district, regional, or national levels)

Meningitis pathogens

The leading causes of confirmed meningitis cases were *Streptococcus pneumoniae* and *Neisseria meningitidis C*, accounting for 82% of total confirmed cases. *Streptococcus pneumoniae* was most common in children less than 1 year old and between 10-14 years (see Figure 1).

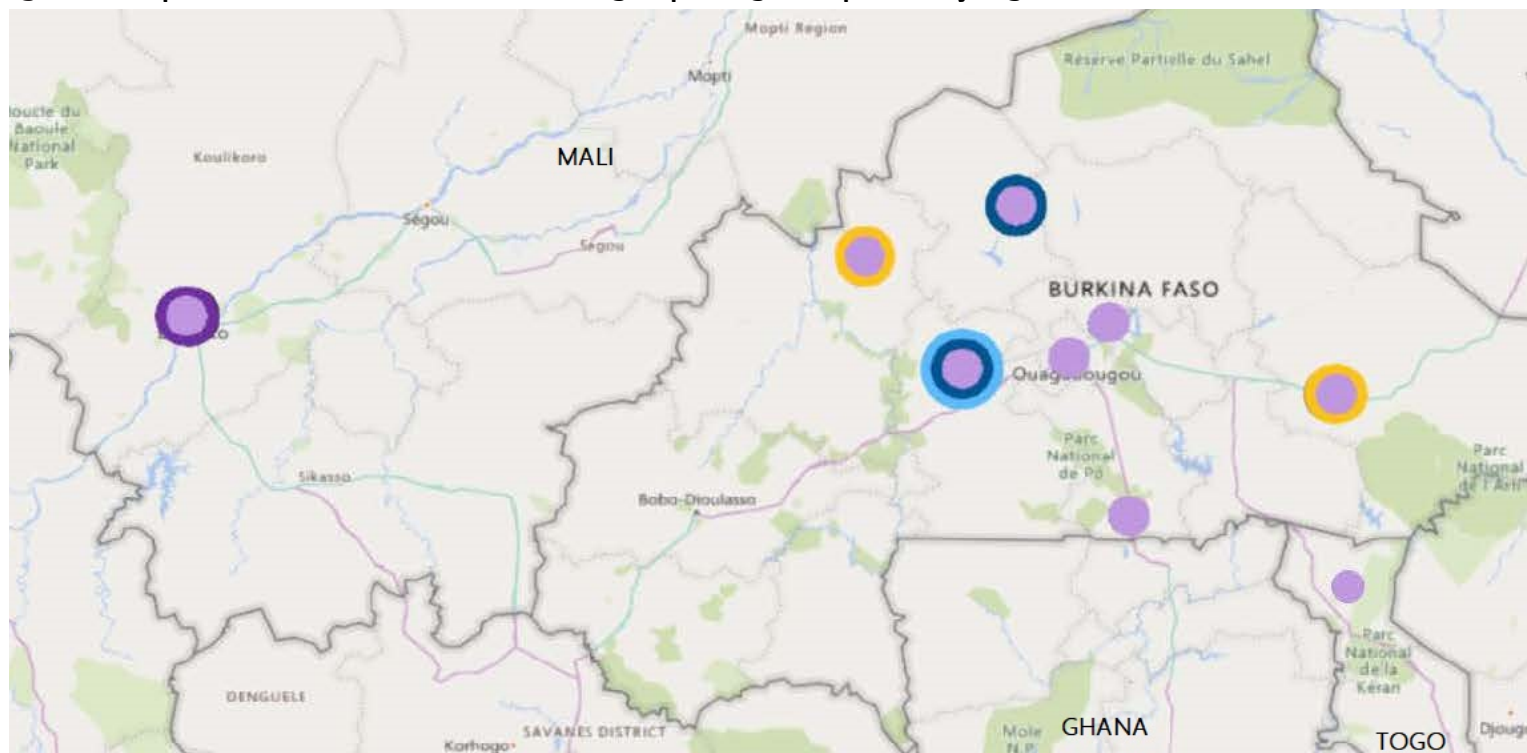
Figure 1. Meningitis pathogens by age group, weeks 01 - 13



Neisseria meningitidis serogroup distribution

Neisseria meningitidis C and X continue to be detected throughout the MenAfriNet countries with zero NmA 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 meningitidis* C
- *Neisseria meningitidis* X
- *Haemophilus influenzae* B
- *Haemophilus influenzae* non B
- *Streptococcus pneumoniae*

Streptococcus pneumoniae serotype distribution

0% of all 21 reported *S. pneumoniae* cases had serotype results reported. Serotyping results have been delayed for this quarter of 2020 due to the COVID pandemic.

MenAfriNet Highlights, week 01-13

- Due to the COVID-19 pandemic bacterial meningitis surveillance, laboratory capacities, and data-related trainings of countries within the MenAfriNet Consortium have been impacted. Case-based data in this bulletin (namely laboratory and serotyping) are reflective of these impacts.
- Relatively few epidemics reported during the 2020 meningitis season, see WHO bulletins for additional information.
- The MenAfriNet Consortium recently released a Supplement for the Journal of Infectious Diseases of 13 articles. To view these articles visit https://academic.oup.com/jid/issue/220/Supplement_4.
- The MenAfriNet Consortium now has a new website, to view it and download resources visit www.menafri.net.org
- World Meningitis Day was celebrated on April 24. To read the World Meningitis story published by the MenAfriNet Consortium visit <https://www.menafri.net.org/stories>

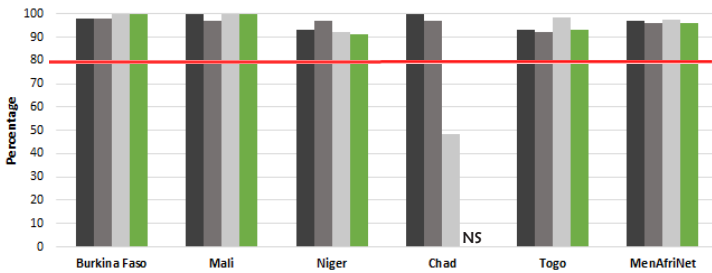
MenAfriNet case-based surveillance performance indicators

- CSF collection rates remain high across MenAfriNet countries with continued low contamination rates
- There were significant missing laboratory data, particularly for Niger and Togo, and no data were submitted for Chad
- Of data submitted, 33% of specimens were received at the NRL
- Mali has consistently increased the percentage of cases received at the NRL within 7 days (100% for Q1 2020)
- The MenAfriNet Consortium aims to more deeply engage and support countries to improve quality of data

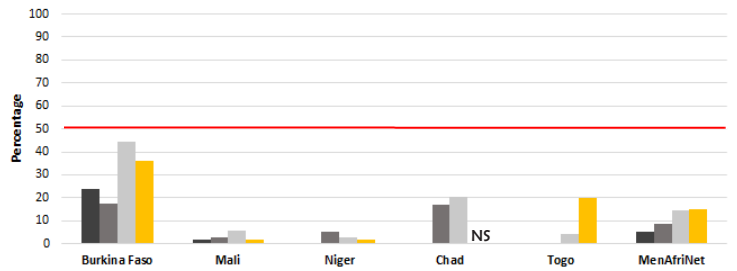
Figure 4. Quarterly Trends of Surveillance and Laboratory Performance Indicators

Key:
 Indicator target
 2017
 2018
 2019
 2020 Q1 - meets target
 2020 Q1 - does not meet target
 NS Case-based data not submitted (2020 only)

Percent cases with CSF collected

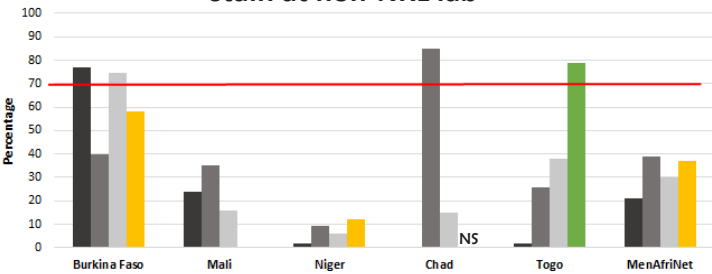


Percent CSF specimens received at any lab in trans-isolate (T-I) media

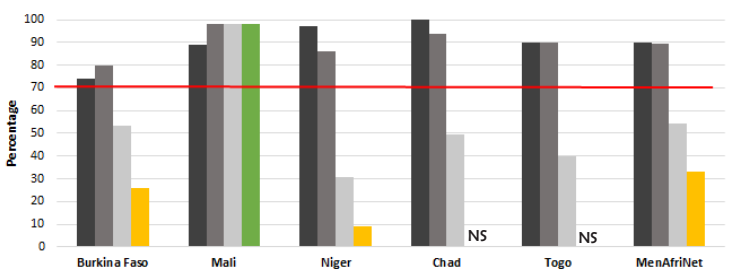


*Togo: TI not required for 3 of 4 hospitals due to proximity to lab

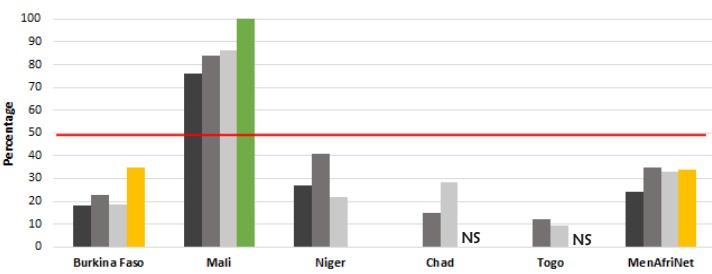
Percent CSF specimens tested by Gram stain at non-NRL lab



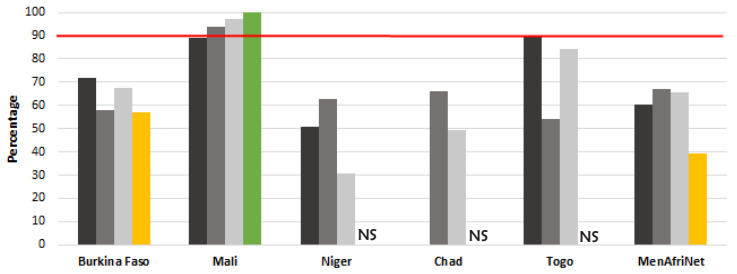
Percent CSF specimens received at NRL



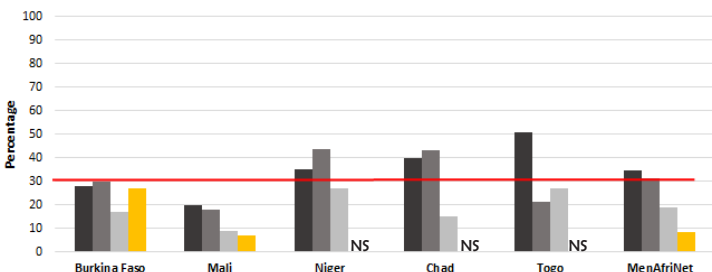
Percent cases with <7 days delay between CSF collection and date of receipt at NRL



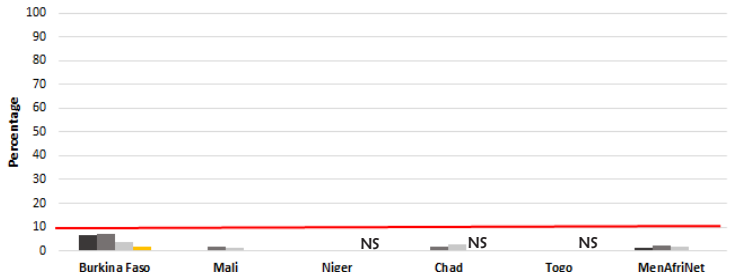
Percent CSF specimens analyzed by culture or PCR at NRL



Percent CSF specimens confirmed at NRL for Hi, Spn, Nm, or other bacterial meningitis pathogen



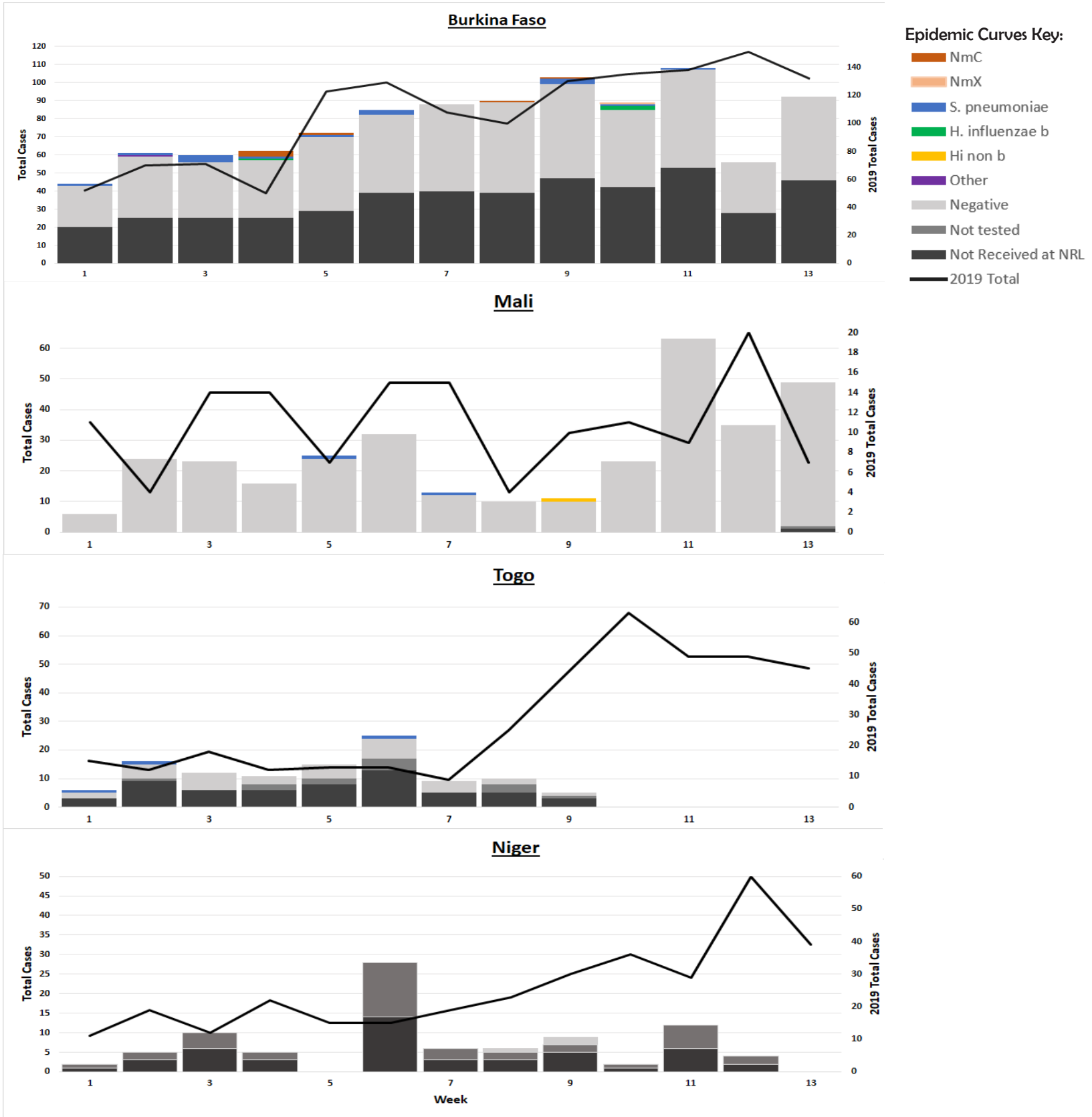
Percent contaminated among CSF tested by culture at NRL



Epidemiological trends over time

Total reported cases continued to trend upward into week 13 except in Niger and Togo where significant case-based data are missing (figure 5). No data were submitted for Chad or for Togo after week 9.

Figure 5. Epidemic curves by country, weeks 01 - 13, 2020



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