

Epidemiological situation, weeks 40 - 53

346 suspect cases were reported this quarter from MenAfriNet districts conducting case-based surveillance with the largest number of cases reported from Burkina Faso. CSF samples were collected from 97% of suspect cases and 3% of all suspect cases were confirmed (see Table 1). National Reference laboratory data for Togo and all case-based data for Niger were not submitted in time for inclusion in this bulletin.

Table 1. Epidemiological situation, weeks 40 - 53

	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†	49/70(70)	4/33(12)	0/72(0)	1/4(25)	2/35(6)	56/214(26)
Aggregate suspected cases	336	188	341	79	39	983
MenAfriNet suspected cases	229	106	N/A	6	5	346
Deaths [∞]	6	0	N/A	0	0	6
Laboratory	N (% of suspected cases)					
CSF collected	214 (93)	106 (100)	N/A (N/A)	6 (100)	5 (100)	331 (96)
CSF received at NRL	49 (21)	102 (96)	N/A (N/A)	6 (100)	0 (0)	157 (57)
CSF analyzed by PCR or culture ‡	35 (15)	102 (96)	N/A (N/A)	6 (100)	5 (100)	148 (42)
CSF analyzed with gram stain	146 (64)	0 (0)	N/A (N/A)	2 (33)	5 (100)	153 (44)
Probable bacterial meningitis**	6 (3)	5 (5)	N/A (N/A)	2 (33)	0 (0)	13 (4)
Confirmed bacterial meningitis	6 (3)	5 (5)	N/A (N/A)	1 (17)	0 (0)	12 (3)

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

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

∞ Deaths listed as outcome in case-based data

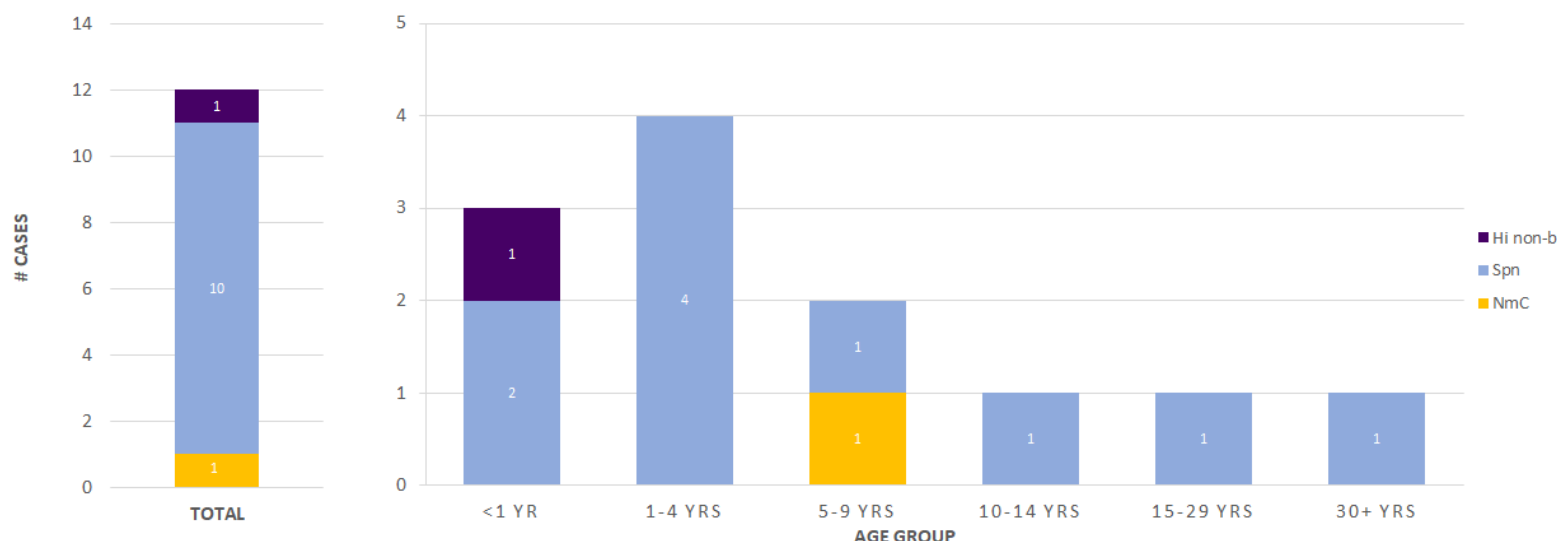
‡ CSF analyzed by PCR or culture at any lab (district, regional, or national levels)

** 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>

Meningitis pathogens

The leading reported causes of confirmed meningitis cases were *Streptococcus pneumoniae*, accounting for 83% of total confirmed cases. *Streptococcus pneumoniae* was most common in children 1 to 4 years old (see Figure 1).

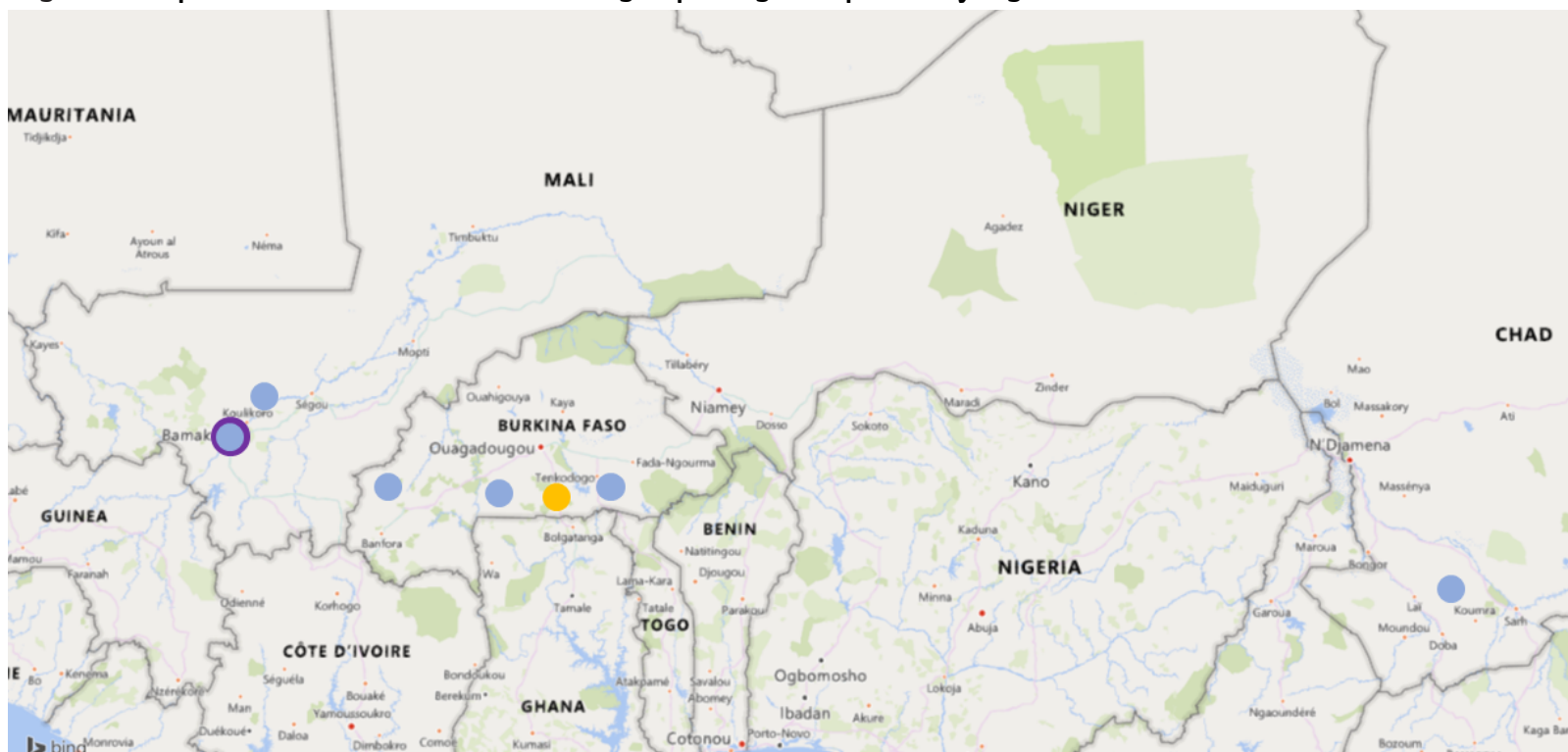
Figure 1. Meningitis pathogens by age group, weeks 40 - 53



Neisseria meningitidis serogroup distribution

Neisseria meningitidis C continues to be detected throughout the MenAfriNet countries with one case of NmC being reported in Burkina Faso. Zero *Neisseria meningitidis* A cases have been reported for this season. *Streptococcus pneumoniae* remains the leading cause of confirmed bacterial meningitis.

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



Map Key:

- *Neisseria meningitidis* C
- *Haemophilus influenzae* non-B
- *Streptococcus pneumoniae*

* 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.

Streptococcus pneumoniae serotype distribution

To date 0% of the 10 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.

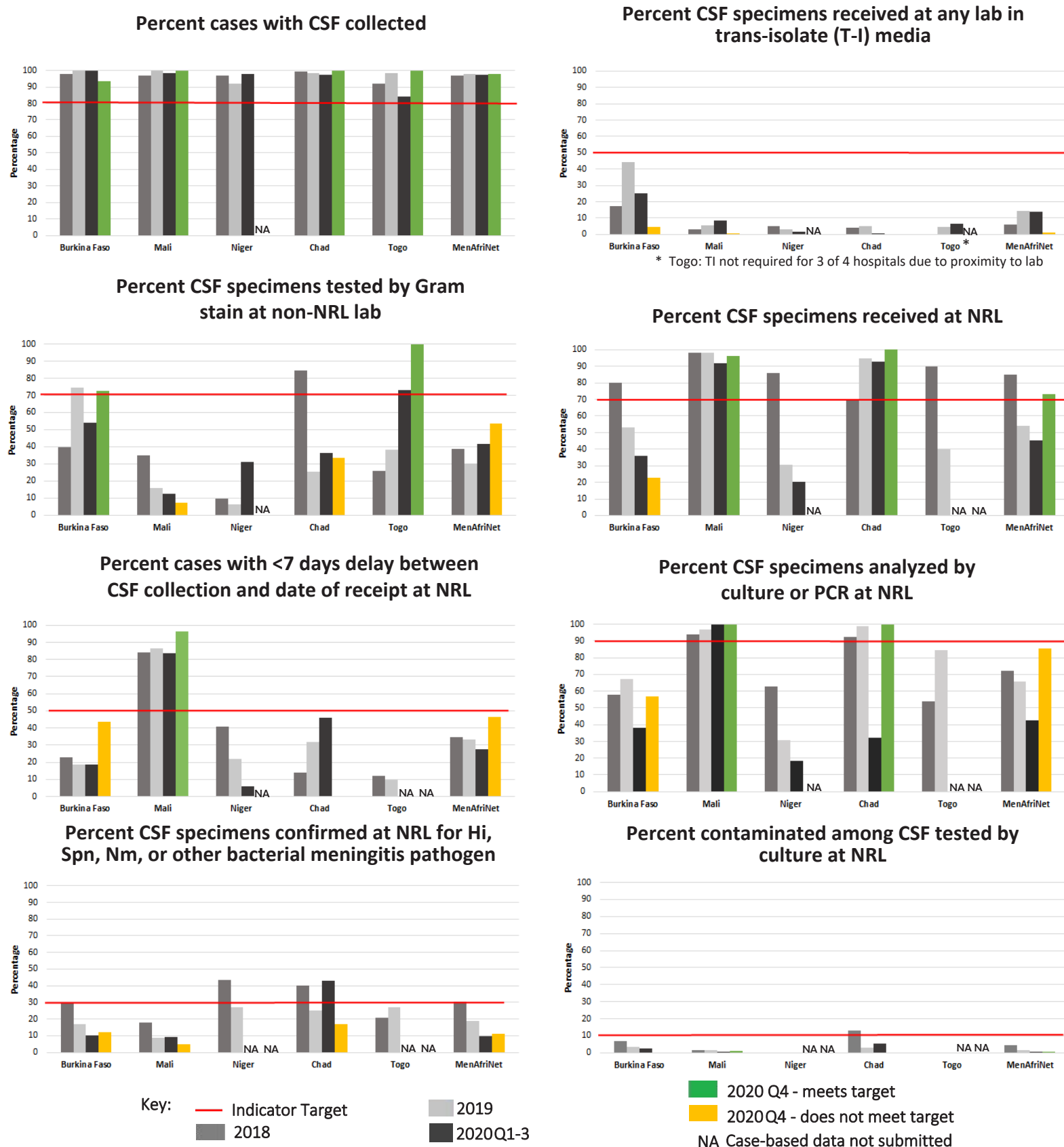
MenAfriNet Highlights, week 40 - 53

- 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, which can be observed in Figure 4 below. Case-based data in this bulletin, particularly laboratory data, are reflective of these impacts.
- In December, 2020, the combined 17th annual meeting on meningitis surveillance, preparedness and response to meningitis outbreaks and the 7th annual meeting of MenAfriNet partners was successfully held virtually, hosted by Chad. Thirty-nine recommendations were adopted for 2021 meningitis activities at the closure of the meeting. You can read more about the meeting here: <https://www.cdcfoundation.org/blog/virtual-international-annual-meeting-meningitis-outbreaks-africa>

MenAfriNet case-based surveillance performance indicators

- CSF collection rates remain high across y MenAfriNet countries
- No data were received from Niger and there were significant missing laboratory data from Togo
- Of specimens collected for which data were submitted, 73% of specimens were received at the NRL
- The MenAfriNet Consortium aims to more deeply engage and support countries to improve quality of data

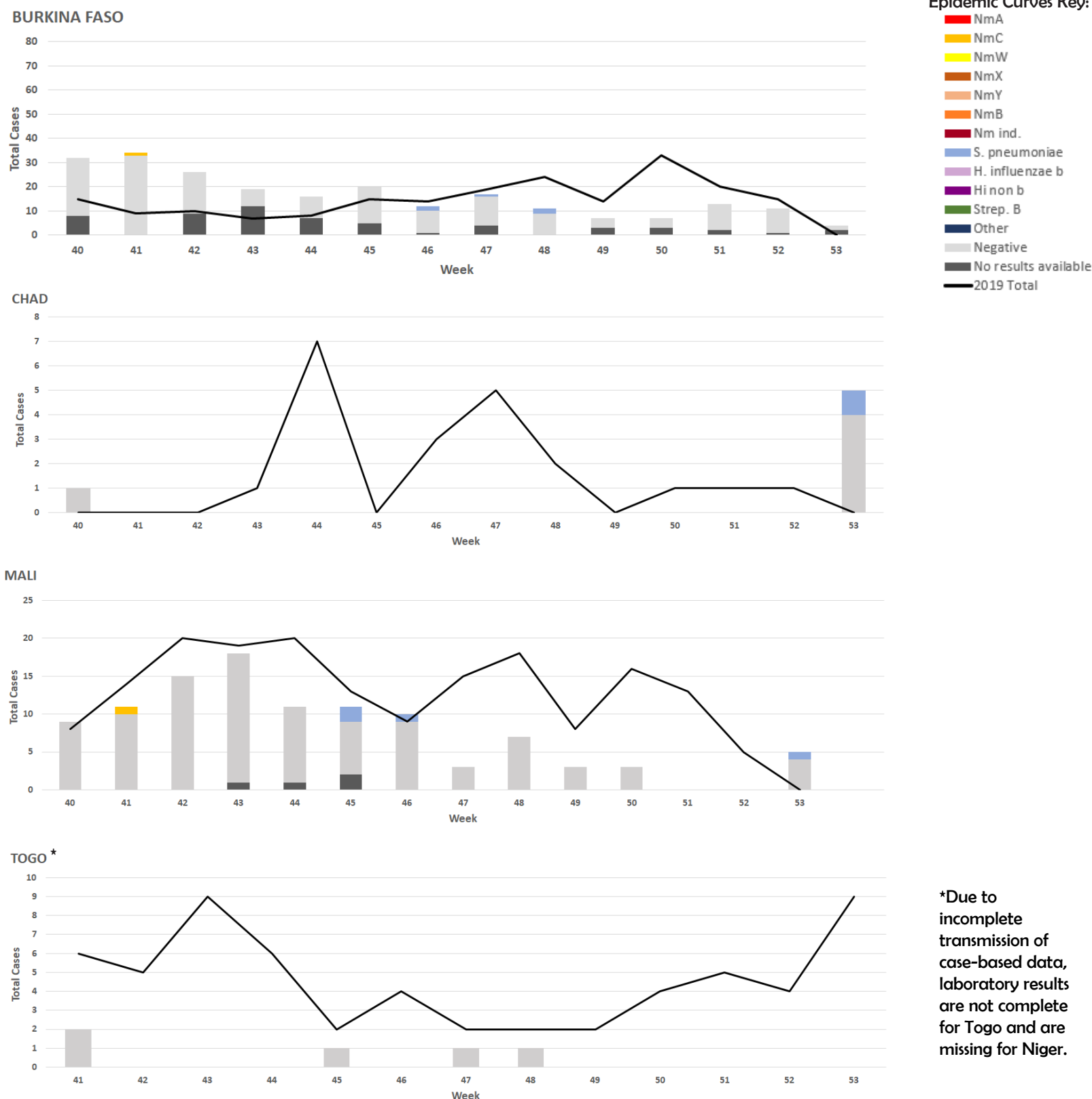
Figure 4. Quarterly Trends of Surveillance and Laboratory Performance Indicators



Epidemiological trends over time

While a significant amount of case-based data were not submitted in time for this bulletin (likely due to the COVID-19 pandemic) resulting in challenges identifying trends, reported total cases by week generally remained lower than those reported in 2019. No data were submitted for Niger and all National Reference Laboratory data are missing for Togo.

Figure 5. Epidemic curves by country, weeks 40 - 53, 2020 (Note y-axes vary by country)



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