

Table 1. Epidemiological situation, week 27 - 52

99% of suspect cases reported in the MenAfriNet database had a lumbar puncture. Vaccination status was complete (yes or no) for 38% of all suspect cases in MenAfriNet countries. The most complete data was received from Mali with 73% of cases having a known vaccination status (yes or no) and 65% having completed MenAfriVac vaccination status data. Chad did not submit data for this bulletin.

Characteristics	Burkina Faso	Mali	Niger	Chad*	Togo	MenAfriNet
	N (%)					
Demographics						
Population**	19,632,147 (100)	11,602,530 (62)	0,651,070 (100)	677,785 (5)	064,686 (15)	53,628,218 (67)
MenAfriNet District†	70 (100)	33 (44)	72 (100)	4 (4)	5 (13)	184 (54)
Aggregate (weekly) suspect cases	171	322	93	157	177	920
MenAfriNet suspected cases	285	177	14	0	88	564
Deaths	0 (0)	1 (1)	1 (7)	0 (0)	0 (0)	2 (0)
Age (years)‡						
<1	31 (19)	32 (18)	5 (38)	0 (0)	6 (7)	74 (17)
1-4	85 (51)	60 (34)	3 (23)	0 (0)	30 (35)	178 (40)
5-9	29 (17)	42 (24)	1 (8)	0 (0)	25 (28)	97 (22)
10-14	12 (7)	18 (11)	2 (15)	0 (0)	6 (9)	38 (9)
15-29	1 (1)	11 (6)	0 (0)	0 (0)	8 (9)	20 (4)
≥30	8 (5)	13 (7)	2 (15)	0 (0)	11 (12)	34 (8)
Sex‡						
Male	50 (54)	100 (58)	8 (57)	0 (0)	48 (54)	209 (56)
Vaccination status known	52 (18)	116 (73)	5 (36)	0 (0)	40 (43)	214 (38)
MenAfriVac§	6 (15)	26 (65)	2 (5)	0 (0)	6 (15)	40 (14)
Laboratory††						
CSF collected	285 (100)	177 (100)	13 (93)	0 (0)	86 (97)	566 (99)
Appearance	245 (86)	177 (100)	11 (79)	0 (0)	84 (95)	522 (92)
Probable bacterial meningitis	20 (7)	0 (0)	0 (0)	0 (0)	0 (0)	20 (4)
Probable meningococcal meningitis	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Confirmed bacterial meningitis	9 (3)	6 (3)	0 (0)	0 (0)	0 (0)	15 (3)
Confirmed meningococcal meningitis	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Abbreviation: CSF, cerebrospinal fluid;

* Chad aggregate suspect cases collected from WHO Meningitis Surveillance bulletins (published monthly during this time period)

**Population of MenAfriNet supported districts—number of districts: Burkina Faso: 70; Mali: 33; Niger: 72; Chad: 4; Togo: 5

†Supported MenAfriNet districts (denominator = Total number of districts)

§Denominator = number of cases with known (yes or no) vaccination status

††Identification by culture, PCR, latex or rapid diagnostic tests

Laboratory classification definitions (denominator = CSF collected):

1. Probable bacterial meningitis: cloudy appearance, or white blood cell count > 10 cells/mm³ or any positive Gram stain test result
2. Probable meningococcal meningitis: gram negative diplococci only
3. Confirmed bacterial meningitis: cases confirmed by culture or PCR, regardless of the germ
4. Confirmed meningococcal meningitis: laboratory confirmation by culture or PCR of *N. meningitidis* serogroup A, C, W, Y or X

Table 2. Laboratory results, week 27 - 52

While significant laboratory data were missing due to security and strikes, 73% of specimens collected in MenAfriNet countries were tested by culture, PCR, Latex or a rapid diagnostic test. Among these samples, 4% were positive. *S. pneumoniae* (2%) and *H. influenzae* (2%) were the predominant pathogens.

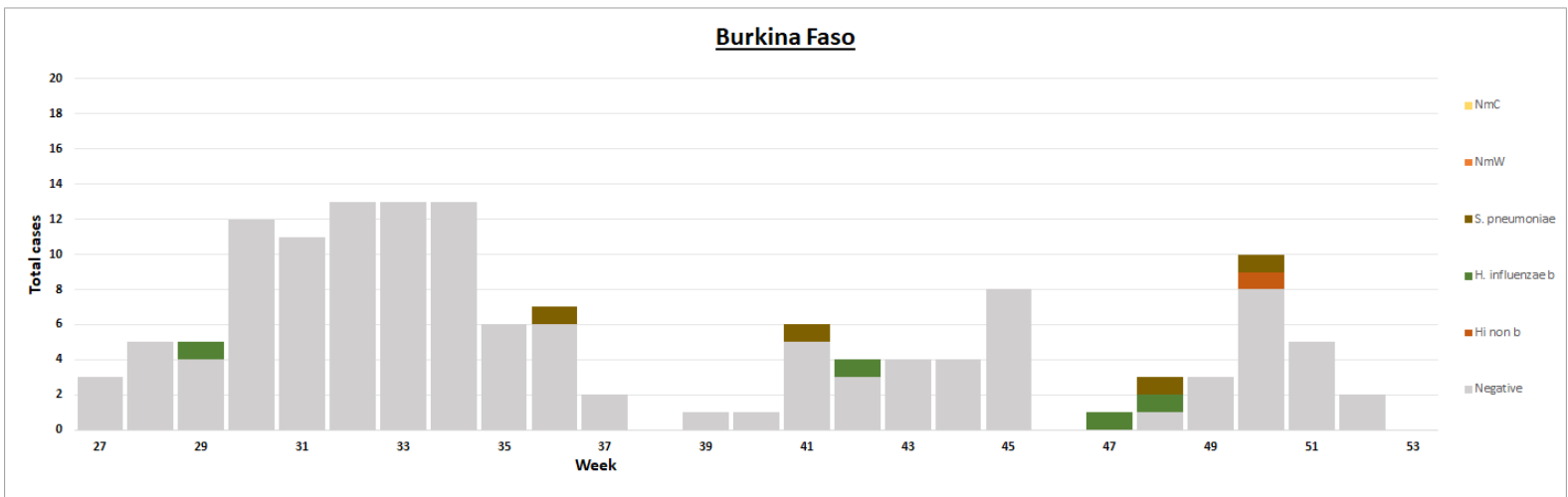
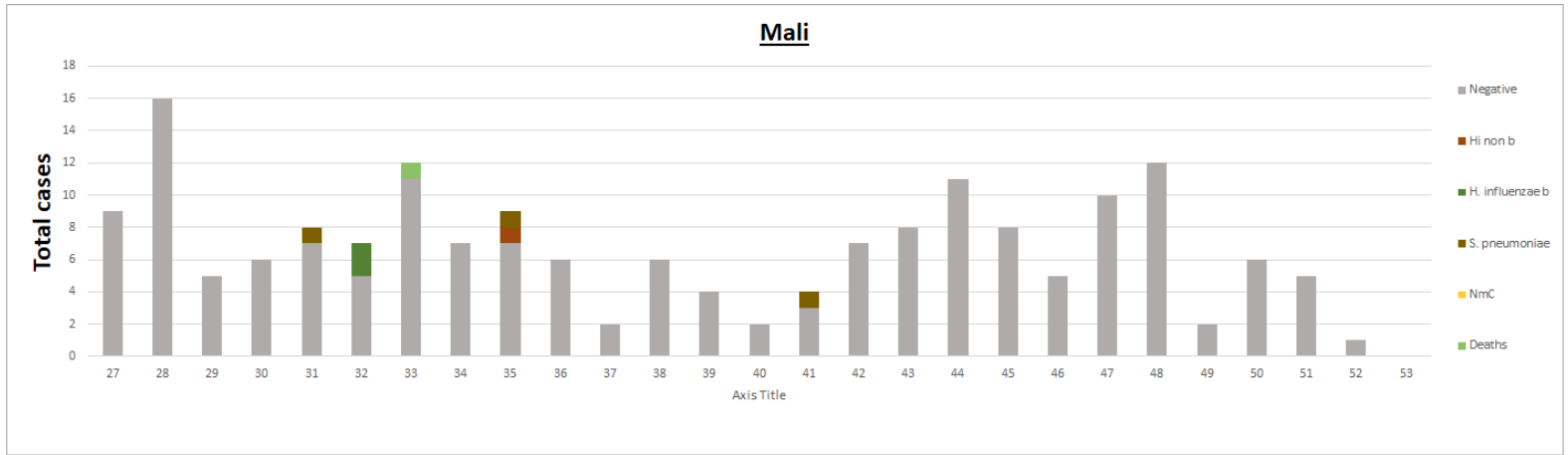
Results	Burkina Faso	Mali	Niger	Chad	Togo	MenAfriNet
	N (%)					
CSF collected	285 (100)	177 (100)	13 (93)	0 (0)	86 (97)	566 (99)
Gram Stain	233 (82)	177 (100)	1 (8)	0 (0)	58 (66)	472 (83)
CSF received at the NRL	150 (53)	177 (100)	0 (0)	0 (0)	4 (4)	333 (59)
CSF analyzed by a confirmatory test*	203 (71)	177 (100)	3 (23)	0 (0)	27 (30)	412 (73)
Culture	127 (45)	177 (100)	1 (8)	0 (0)	25 (28)	332 (59)
PCR	141 (49)	177 (100)	0 (0)	0 (0)	4 (4)	324 (57)
Real-time PCR	141 (100)	177 (100)	0 (0)	0 (0)	4 (100)	324 (100)
Conventional	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Latex	5 (2)	176 (99)	2 (15)	0 (0)	1 (1)	186 (33)
RDT	0 (0)	6 (3)	3 (23)	0 (0)	0 (0)	10 (2)
Final Result	9 (4)	6 (3)	0 (0)	0 (0)	0 (0)	15 (4)
<i>N. meningitidis</i>	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
NmA	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
NmC	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
NmW	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
NmX	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Nm ind	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<i>S. pneumoniae</i>	4 (3)	3 (2)	0 (0)	0 (0)	0 (0)	7 (2)
<i>H. influenzae</i>	5 (3)	3 (2)	0 (0)	0 (0)	0 (0)	8 (2)
b	4 (3)	2 (1)	0 (0)	0 (0)	0 (0)	6 (2)
Non-b	1 (1)	1 (1)	0 (0)	0 (0)	0 (0)	2 (1)
Other germs	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Negative**	133 (89)	171 (97)	0 (0)	0 (0)	4 (5)	310 (93)

Abbreviation: b, *H. influenzae* serotype b; CSF, cerebrospinal fluid; Hi, *H. influenzae*, NmA, *N. meningitidis* serogroup A; NmC, *N. meningitidis* serogroup C; NmW, *N. meningitidis* serogroup W; NmX, *N. meningitidis* serogroup X; non-b, *H. influenzae* serotype non-b; NRL, national reference laboratory; Nm Ind, *N. meningitidis* indeterminate; Sp, *S. pneumoniae*; RDT, rapid diagnostic test;

*Identification by : Culture, PCR, latex or RDT

**Tested negative for all pathogens and serogroups

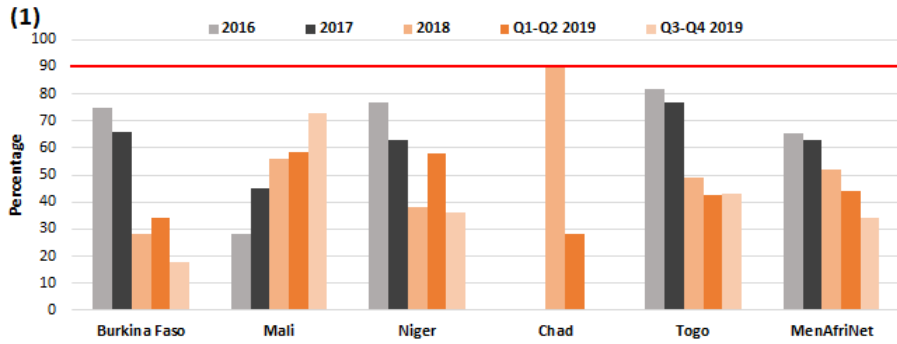
Figure 1. Epidemic Curve, Week 27 - 52



No confirmed cases reported by Niger or Togo.

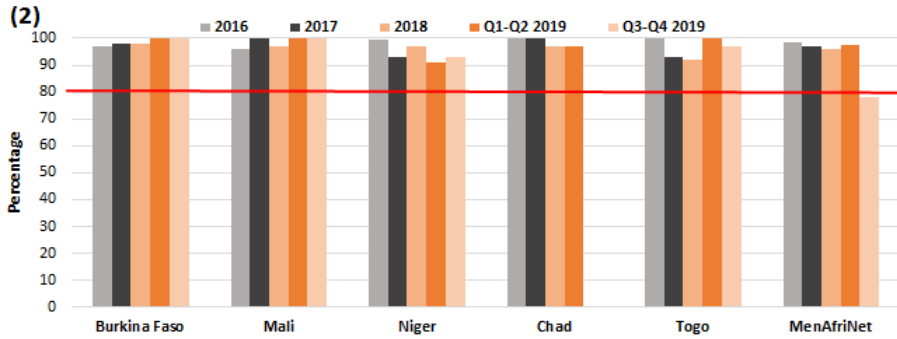
Chad did not submit data for this report.

Figure 2. Quarterly Trends of Surveillance and Laboratory Performance Indicators



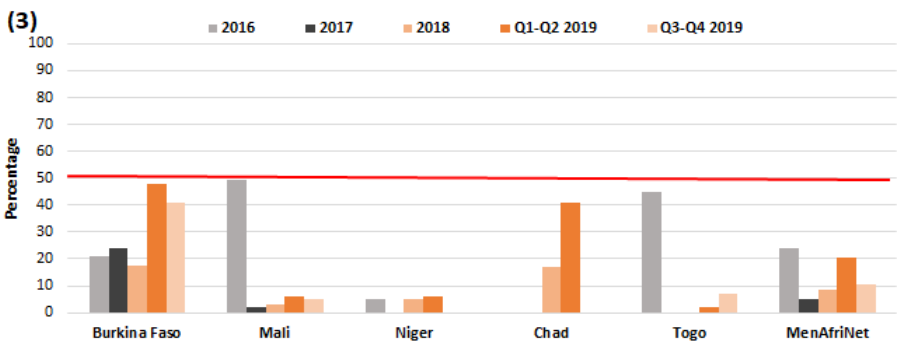
(1) — Percentage of cases with vaccination status known

Threshold: > 90%



(2) — Percentage of cases with CSF collected

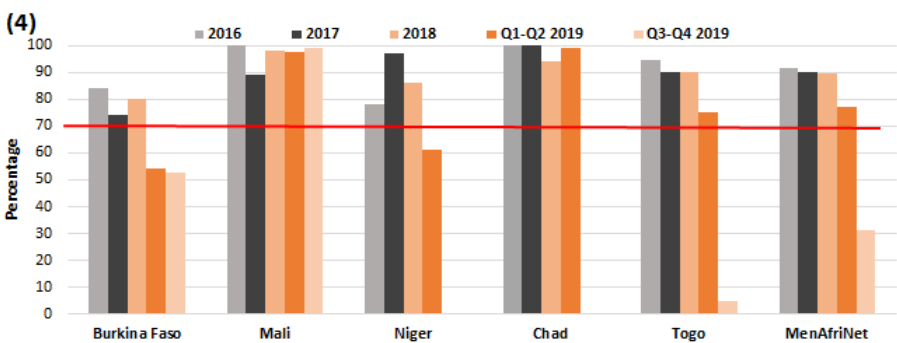
Threshold: > 80%



(3)* — Percentage of CSF specimen received at any lab in trans-isolate (T-I)

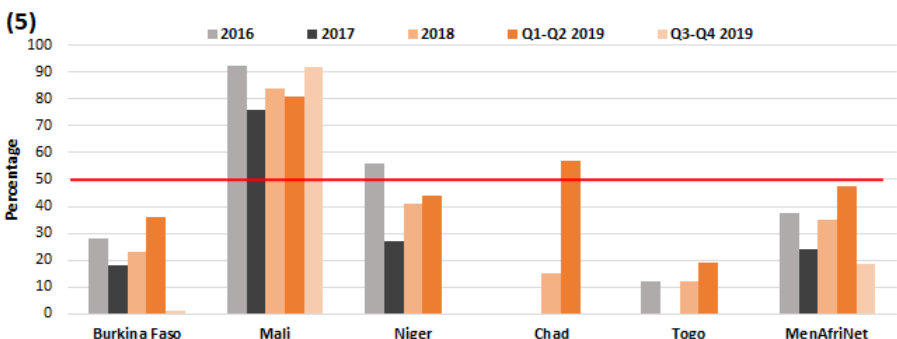
Threshold: > 50%

*Togo: the protocol does not require the use of TI for 3 of the 4 hospitals because of their proximity to the lab.



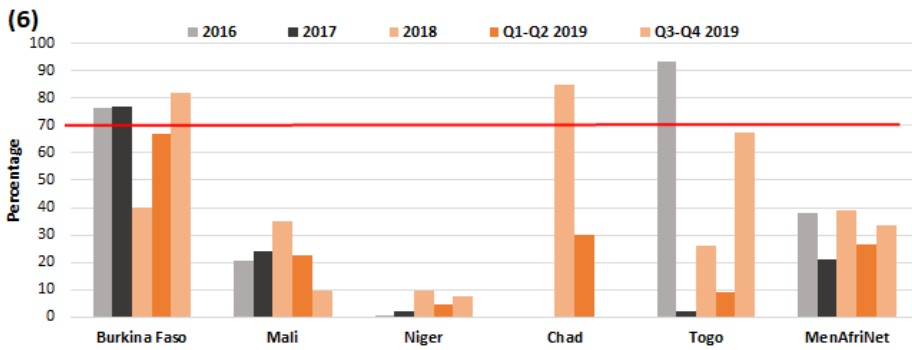
(4) — Percentage of CSF specimens received at the NRL

Threshold: > 70%

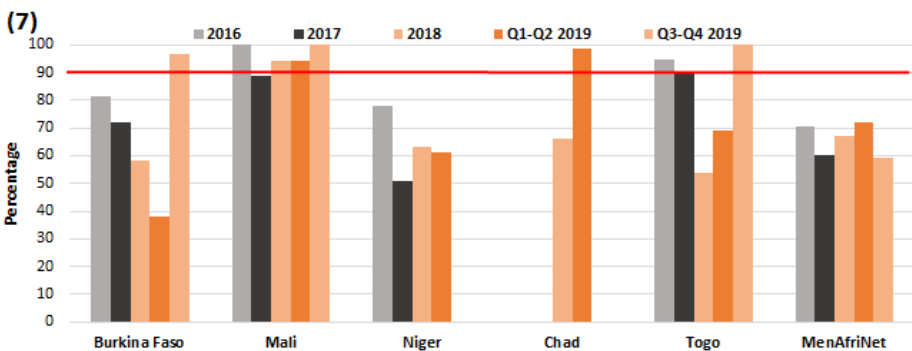


(5) — Percentage of cases with a delay of <7 days between CSF collection date and date CSF received at NRL

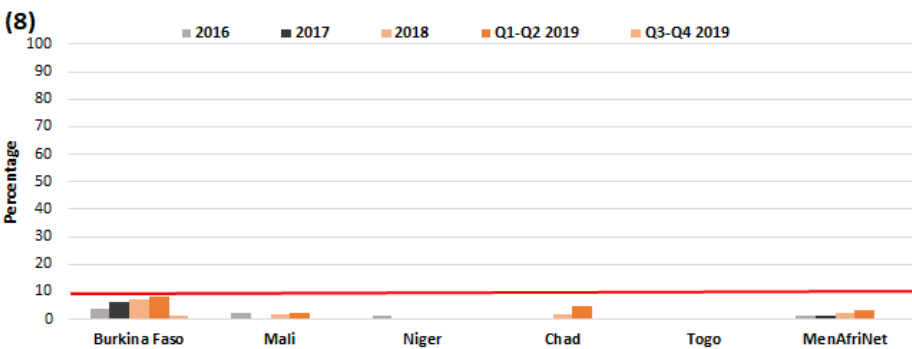
Threshold: > 50%



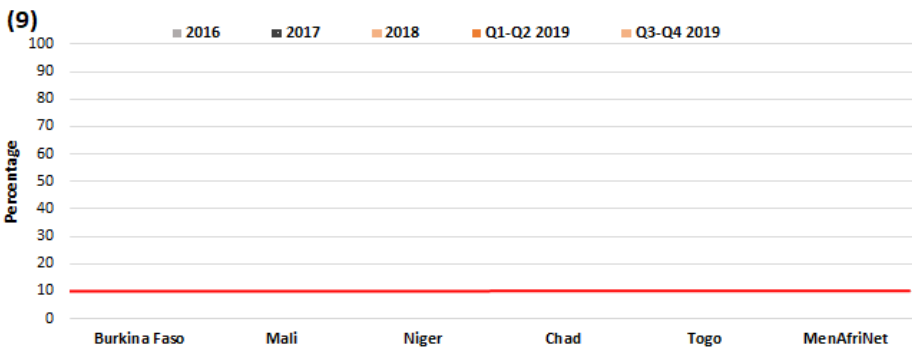
(6) —Percentage of CSF specimen tested at labs other than the NRL by a Gram stain test
Threshold: > 70%



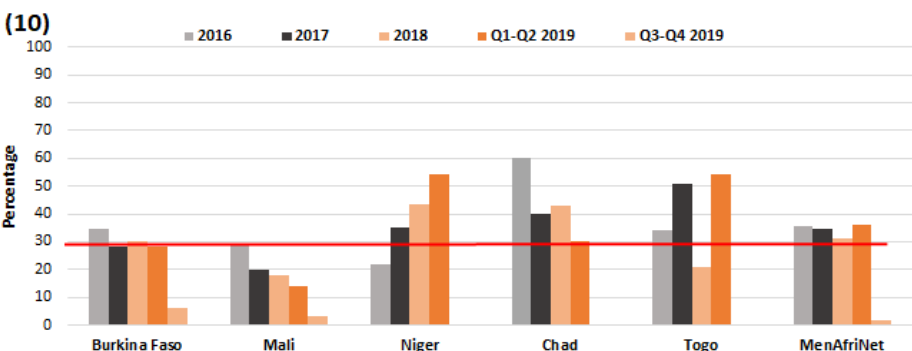
(7) — Percentage of CSF specimen received at the NRL and analyzed by a confirmatory test (culture, PCR, latex or rapid diagnostic test)
Threshold: > 90%



(8) — Percentage of CSF specimen contaminated for culture procedure at the NRL
Threshold: < 10%

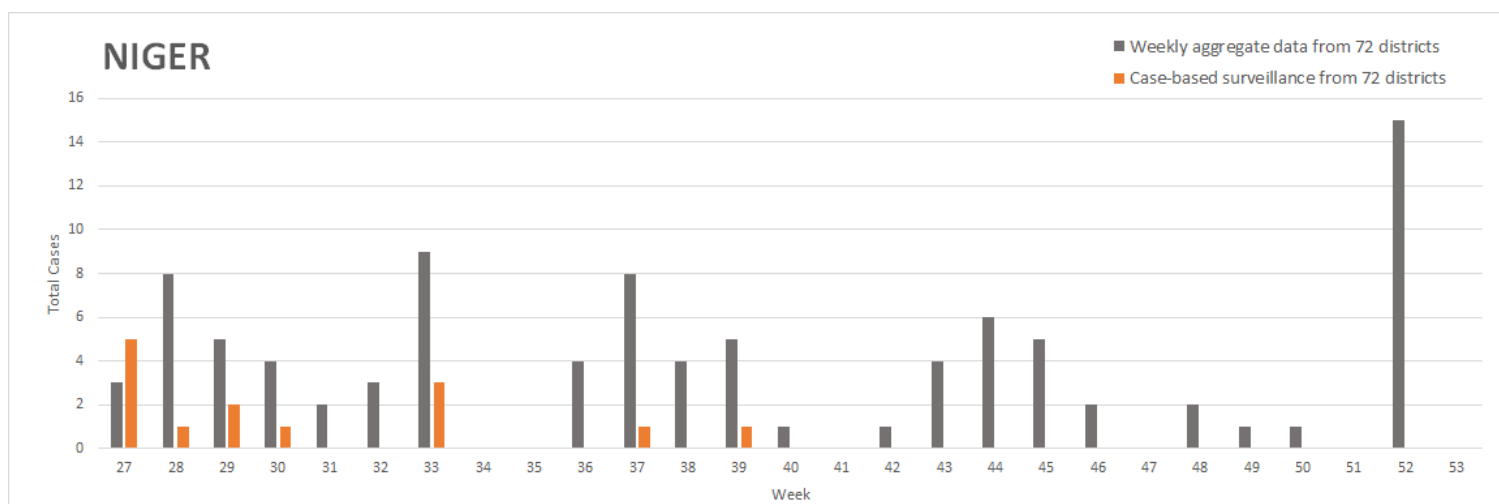
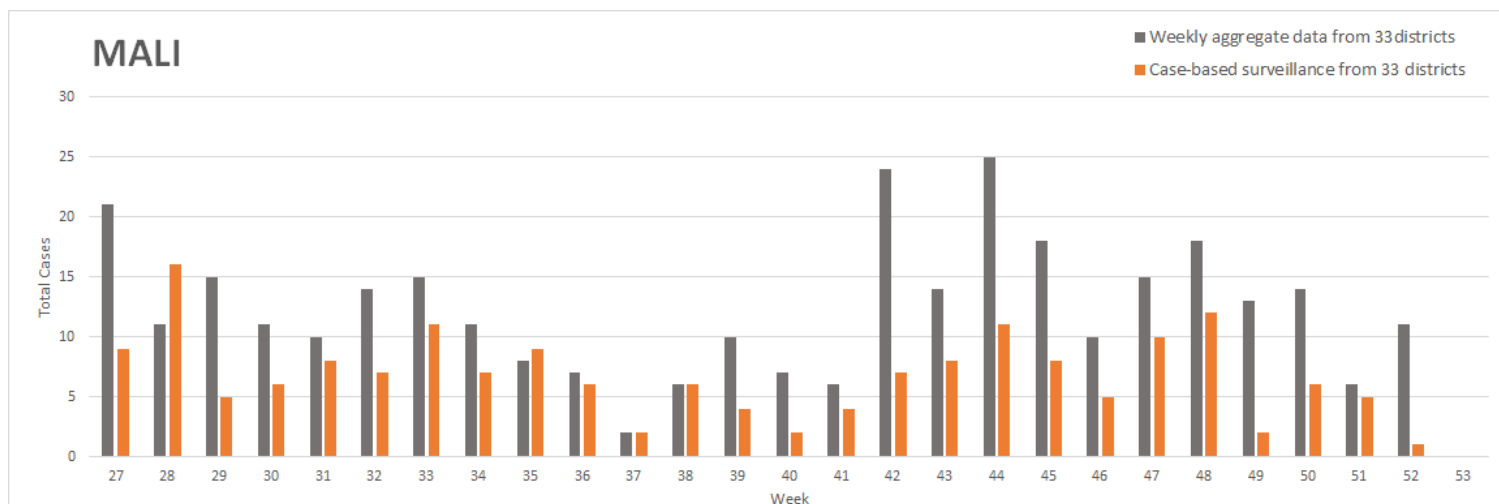
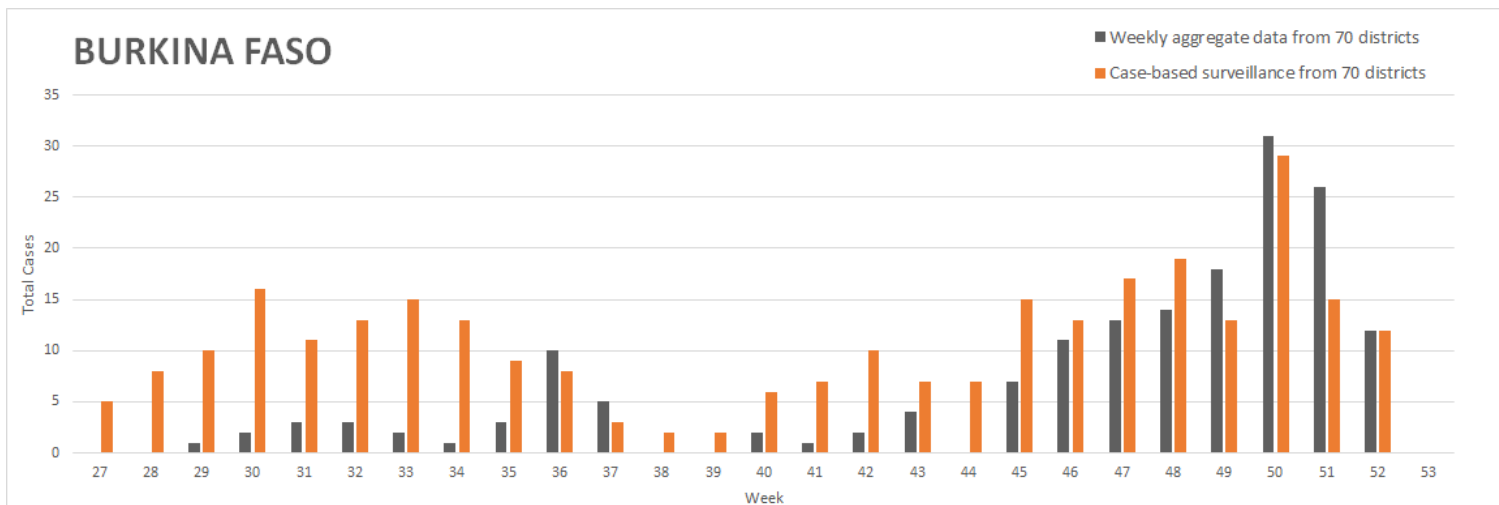


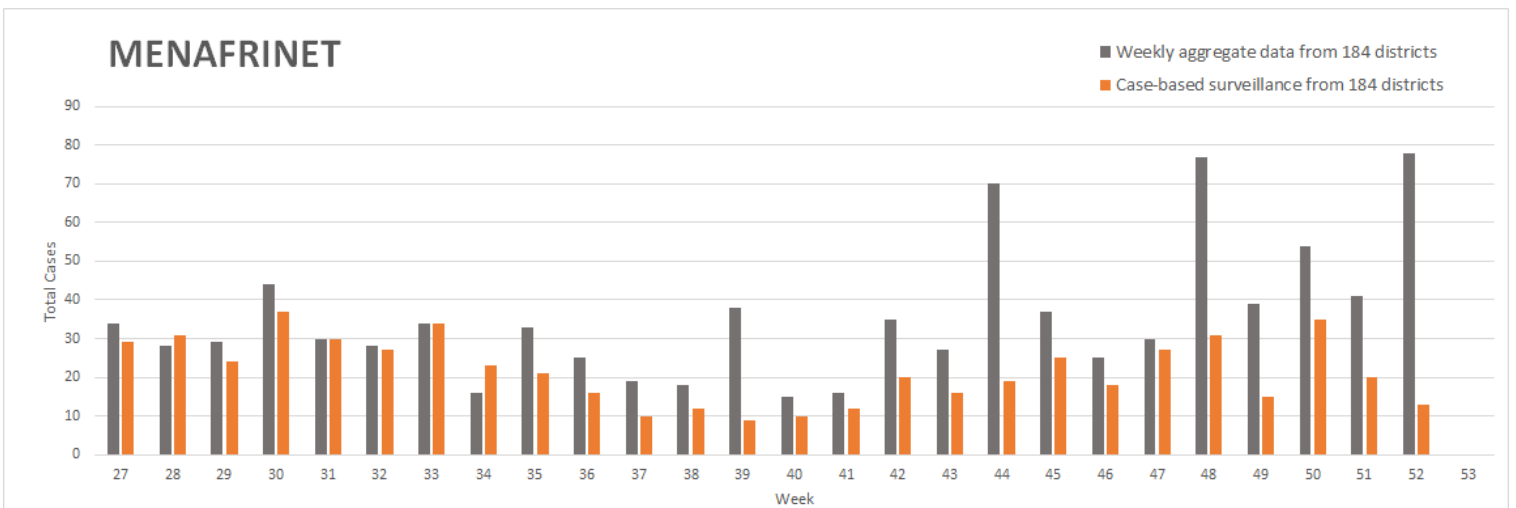
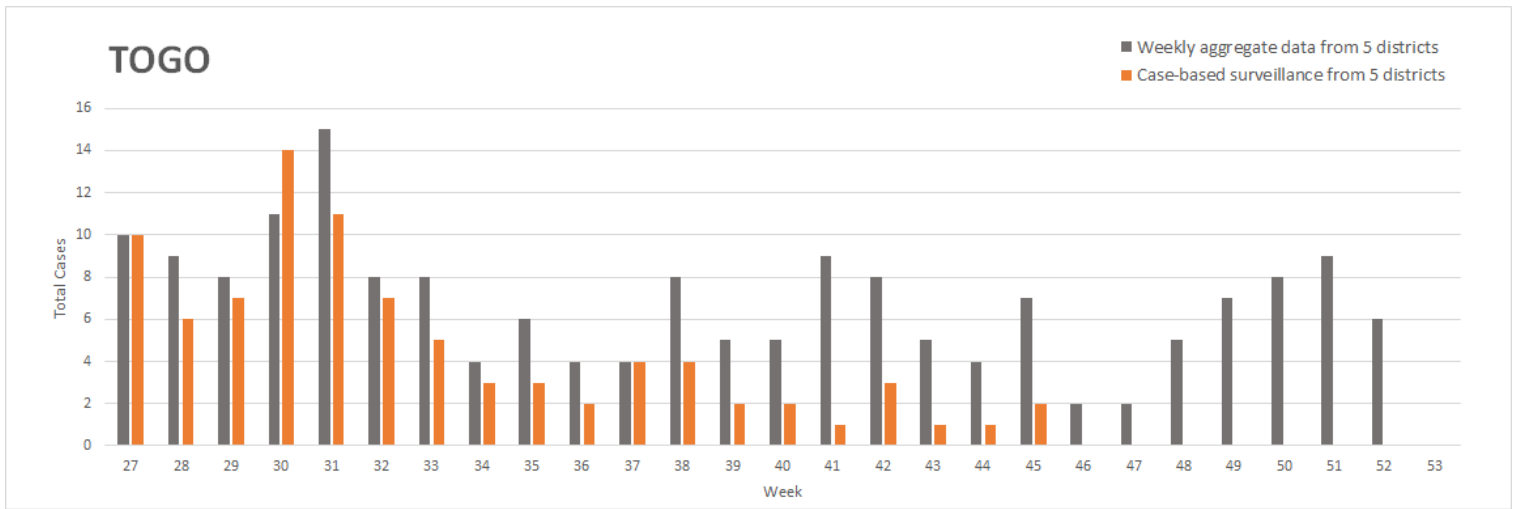
(9) — Percentage of CSF specimen contaminated for PCR procedure at the NRL
Threshold: < 10%



(10) — Percentage of CSF confirmed at the NRL for Hi, Sp and Nm and other pathogens
Threshold: > 30%

Figure 3. Comparison between aggregate reporting and case-based surveillance data from MenAfriNet supported districts





Chad did not submit data for this report.