

**Table 1. Epidemiological situation, week 27 - 52**

99% of suspect cases reported in the MenAfriNet database had a lumbar puncture, 17% of whom were classified as probable bacterial meningitis. 7% of cases with a specimen collected tested positive for meningococcal meningitis. Vaccination status was complete (yes or no) for 49% of all suspect cases in MenAfriNet countries.

Characteristics	Burkina Faso	Mali	Niger	Chad*	Togo	MenAfriNet
	N (%)					
Demographics						
Population**	19,034,397 (100)	1,602,530 (63)	9,765,466 (47)	677,783 (5)	164,686 (15)	42,742,614 (53)
MenAfriNet District†	53 / 70 (76)	26 / 33 (79)	20 / 32 (63)	4 / 4 (100)	5 / 5 (100)	108 / 144 (75)
Weekly suspect cases	762	268	57	62	29	1,178
MenAfriNet suspected cases	501	219	330	54	20	1,124
Deaths	9 (2)	0 (0)	0 (0)	0 (0)	2 (10)	11 (1)
Age (years)						
<1	61 (12)	47 (22)	33 (10)	15 (29)	3 (16)	159 (14)
1-4	238 (48)	86 (39)	66 (21)	12 (24)	4 (21)	406 (37)
5-9	110 (22)	42 (19)	70 (22)	9 (18)	3 (16)	234 (21)
10-14	40 (8)	18 (8)	56 (18)	2 (4)	2 (11)	118 (11)
15-29	29 (6)	8 (4)	60 (19)	4 (8)	3 (16)	104 (9)
≥30	17 (3)	17 (8)	30 (10)	9 (18)	4 (21)	77 (7)
Sex						
Male	279 (56)	122 (56)	184 (56)	28 (52)	9 (47)	622 (56)
Vaccination status known	403 (80)	75 (34)	0 (0)	54 (100)	14 (70)	546 (49)
MenAfriVac§	14 (3)	16 (21)	0 (0)	4 (7)	3 (21)	37 (7)
Laboratory††						
CSF collected	491 (98)	219 (100)	329 (100)	54 (100)	20 (100)	1,113 (99)
Probable bacterial meningitis	85 (17)	59 (27)	30 (9)	16 (30)	4 (20)	194 (17)
Probable meningococcal meningitis	0 (0)	4 (2)	7 (2)	1 (2)	2 (10)	14 (1)
Confirmed bacterial meningitis	50 (10)	24 (11)	96 (29)	14 (26)	4 (20)	188 (17)
Confirmed meningococcal meningitis	2 (0)	0 (0)	78 (24)	1 (2)	1 (5)	82 (7)

**Abbreviation:** CSF, cerebrospinal fluid;

\*Performance indicators will not be presented for Chad as a data management system with complete variables to calculate the performance indicators has not been deployed.

\*\*Population of MenAfriNet supported districts—number of districts: Burkina Faso: 70; Mali: 33; Niger: 32; Tchad: 4; Togo: 5;

†Supported MenAfriNet districts submitting case-based data (denominator = Total number of supported MenAfriNet districts)

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

††Identification by culture, PCR, latex ou test de diagnostic rapide

Laboratory classification definitions (denominator = CSF collected):

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

**Table 2. Laboratory results, week 27 - 52**

99% of specimens collected in MenAfriNet countries were tested by culture, PCR, Latex or a rapid diagnostic test.

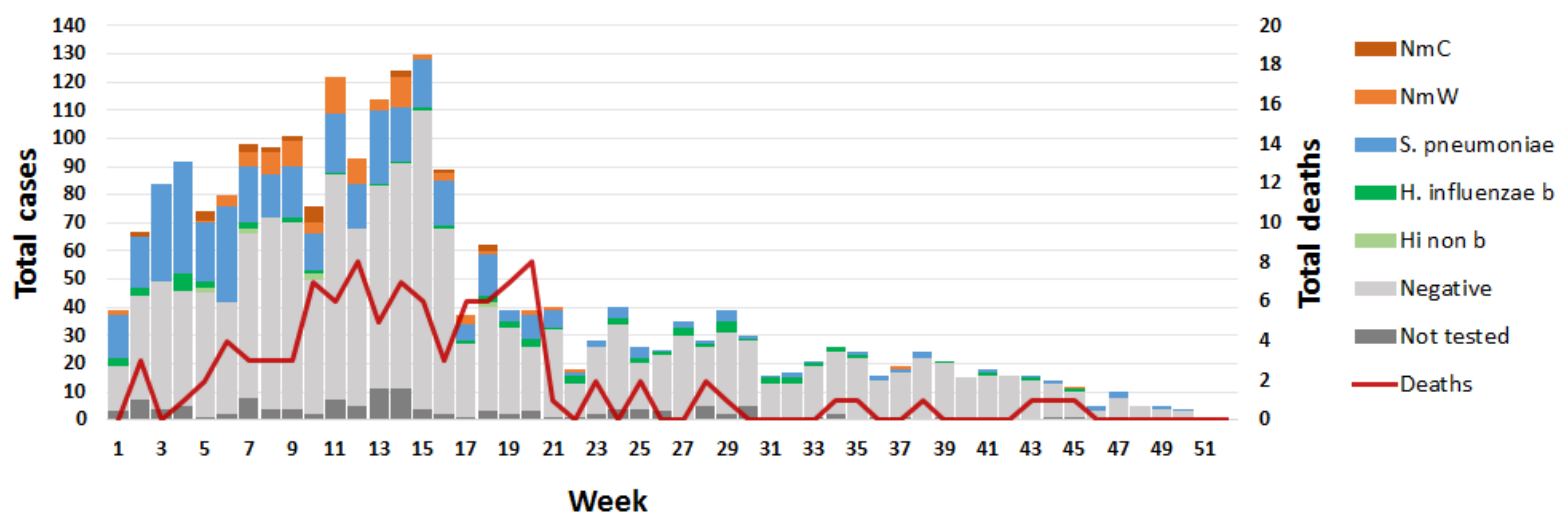
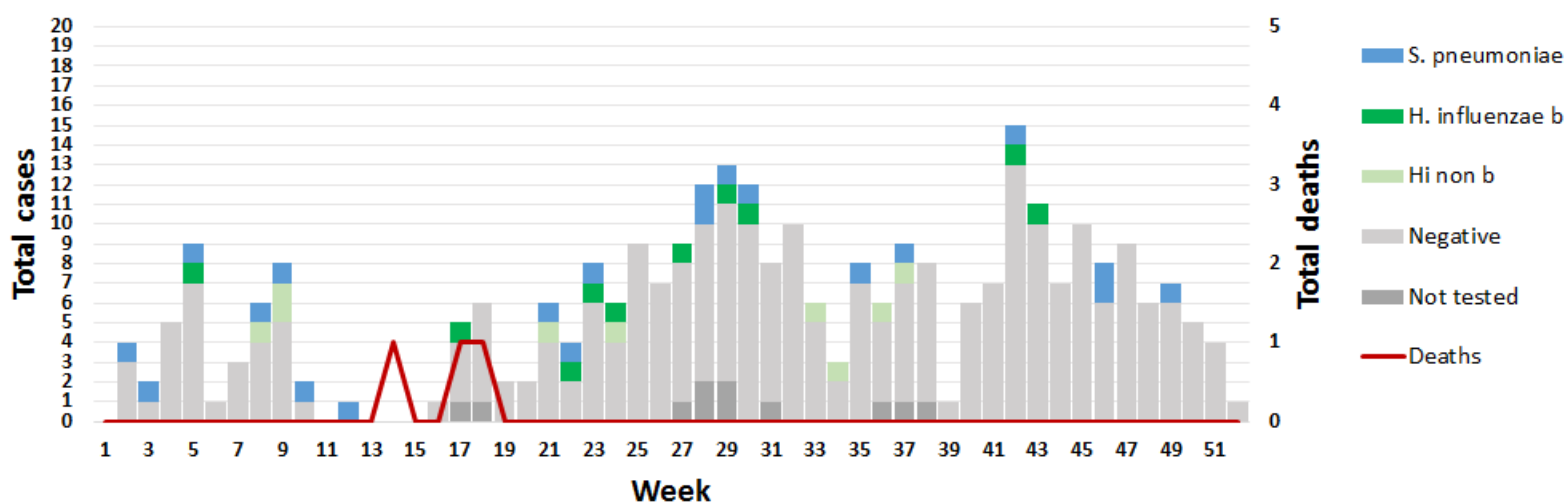
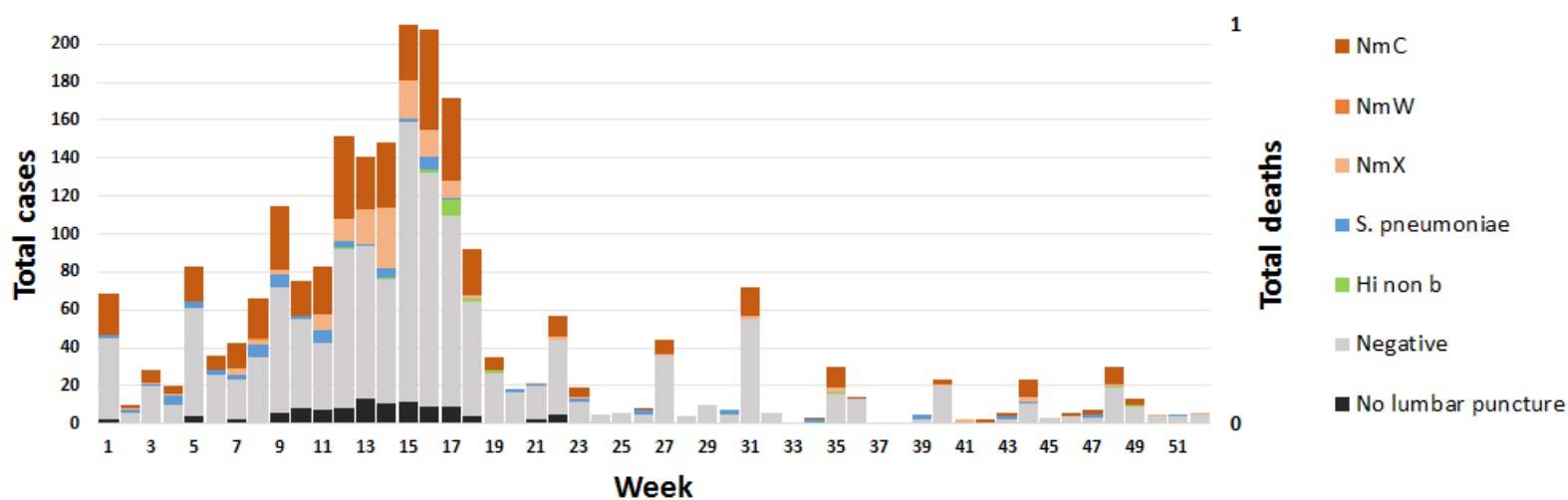
*N. meningitidis* serogroup C (6%) and *S. pneumoniae* (6%) were the predominant pathogens followed by *N. meningitidis* serogroup X (1%).

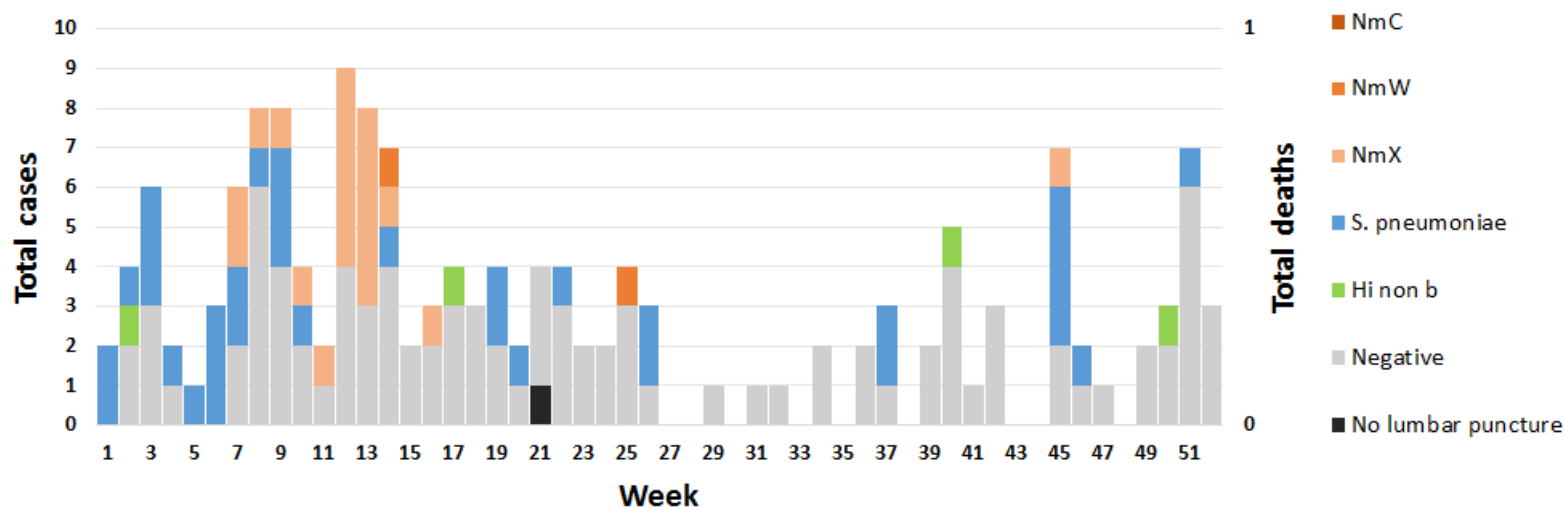
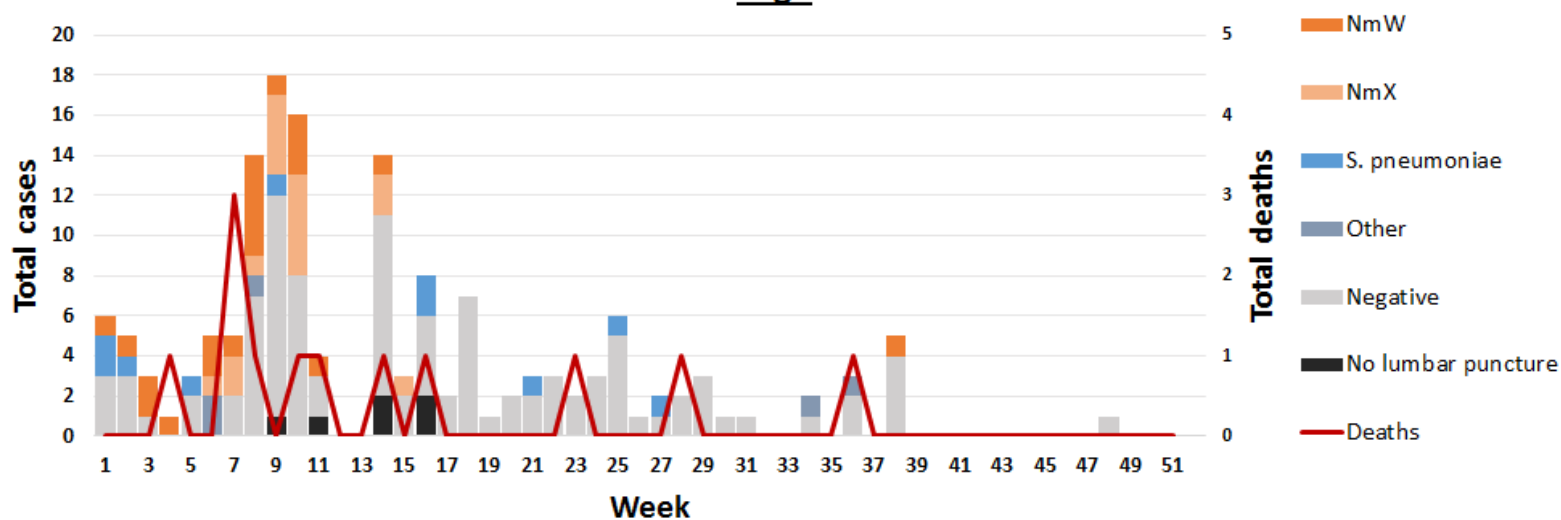
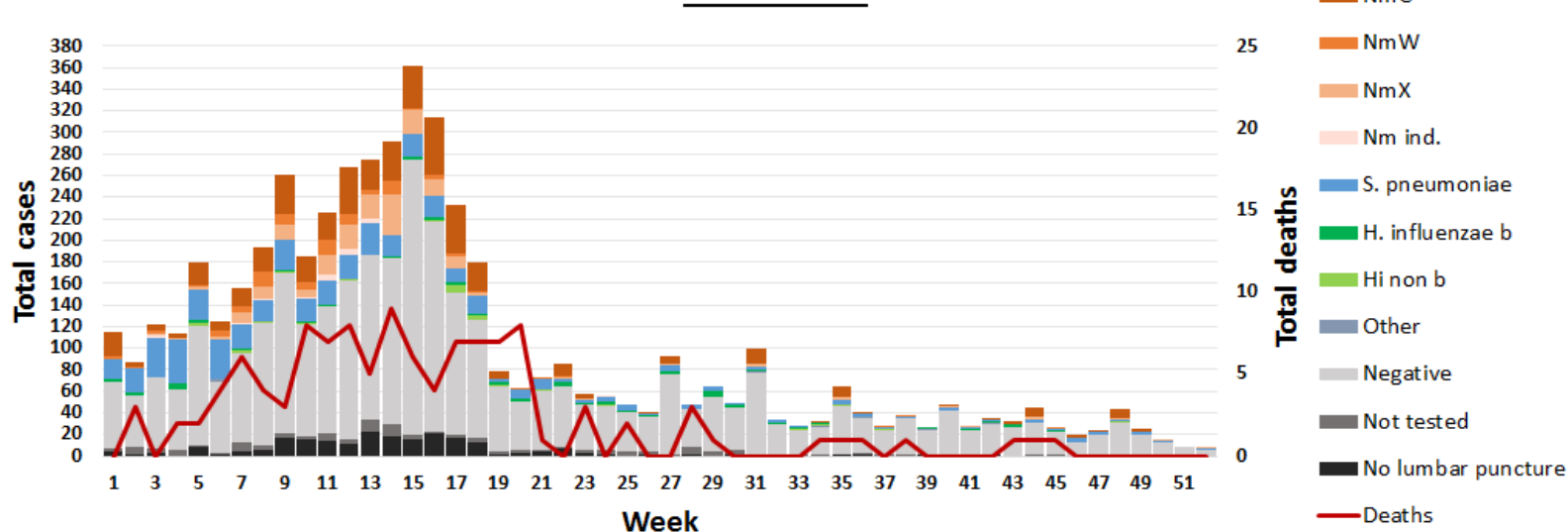
Results	Burkina Faso	Mali	Niger	Chad	Togo	MenAfriNet
	N (%)					
<b>CSF collected</b>	491 (98)	219 (100)	329 (100)	54 (100)	20 (100)	1,113 (99)
<b>Macroscopy</b>	356 (73)	218 (100)	45 (14)	47 (87)	0 (0)	666 (60)
<b>Gram Stain</b>	196 (40)	211 (96)	52 (16)	43 (80)	18 (90)	520 (47)
<b>CSF analyzed by a confirmatory test</b>	470 (96)	210 (96)	329 (100)	54 (100)	20 (100)	1,083 (97)
Culture	109 (23)	204 (97)	39 (12)	53 (98)	8 (40)	413 (38)
PCR	367 (78)	204 (97)	329 (100)	49 (91)	4 (20)	953 (88)
Real-time PCR	367 (100)	204 (100)	329 (100)	49 (100)	0 (0)	949 (100)
Conventional	0 (0)	0 (0)	0 (0)	0 (0)	4 (100)	4 (0)
Latex	28 (6)	207 (99)	0 (0)	0 (0)	9 (45)	244 (23)
RDT	0 (0)	0 (0)	20 (6)	0 (0)	0 (0)	20 (2)
<b>CSF received at the NRL</b>	388 (79)	204 (93)	329 (100)	54 (100)	15 (75)	990 (89)
<b>Final Result</b>						
<b><i>N. meningitidis</i></b>						
NmA	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
NmC	0 (0)	0 (0)	65 (20)	0 (0)	0 (0)	65 (6)
NmW	2 (0)	0 (0)	0 (0)	0 (0)	1 (5)	3 (0)
NmX	0 (0)	0 (0)	12 (4)	1 (2)	0 (0)	13 (1)
Nm ind	0 (0)	0 (0)	1 (0)	0 (0)	0 (0)	1 (0)
<b><i>S. pneumoniae</i></b>	27 (6)	11 (5)	15 (5)	10 (19)	1 (5)	64 (6)
<b><i>H. influenzae</i></b>						
b	21 (5)	5 (2)	0 (0)	1 (2)	0 (0)	27 (3)
Non-b	0 (0)	4 (2)	3 (1)	2 (4)	0 (0)	9 (1)
<b>Other germs</b>	0 (0)	4 (2)	0 (0)	0 (0)	2 (10)	6 (1)
<b>Negative§</b>	363 (87)	180 (86)	233 (71)	40 (74)	16 (80)	832 (81)

**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;

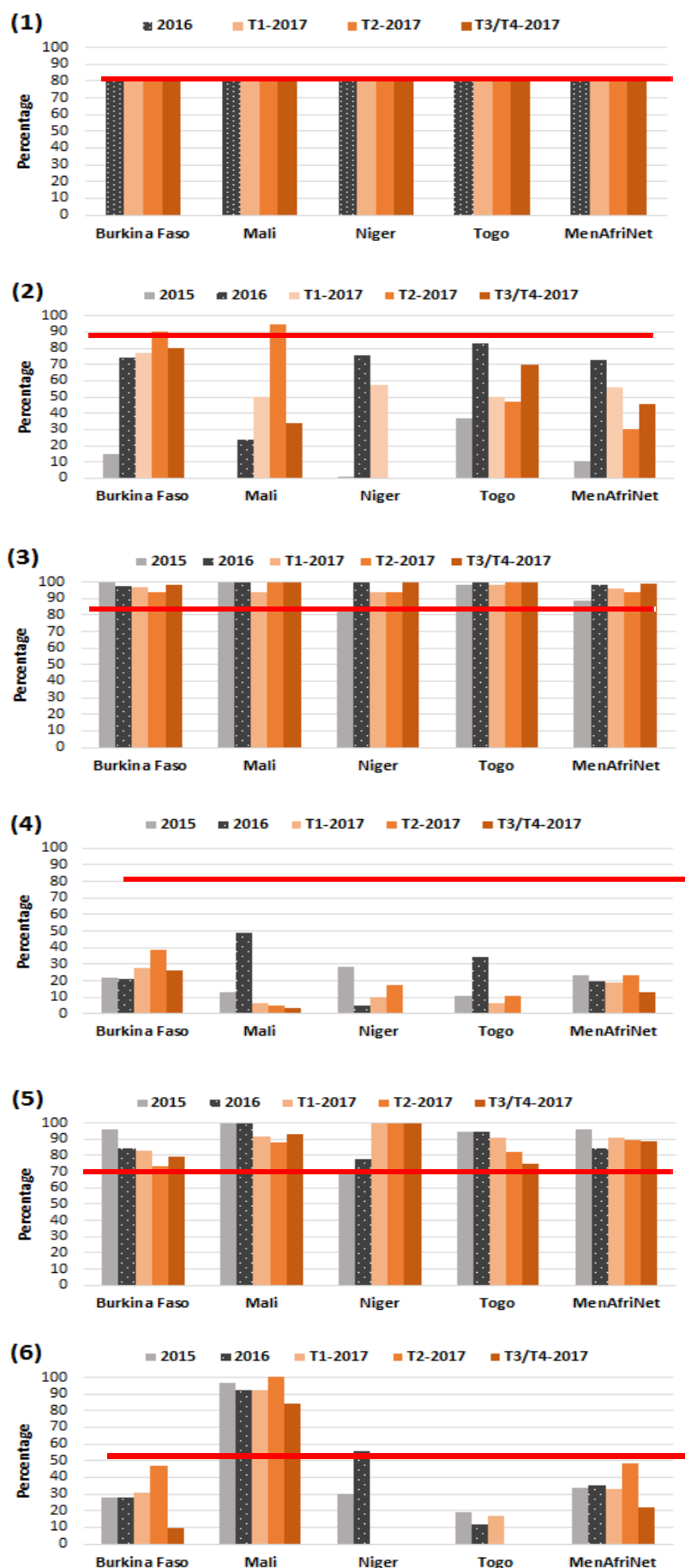
§ Tested negative for all pathogens and serogroups

Figure 1. Epidemic Curve, Week 1 - 52

Burkina FasoMaliNiger

ChadTogoMenAfriNet

**Figure 2. Annual and Quarterly Trends of Surveillance and Laboratory Performance Indicators, 2015, 2016, Quarter 1 and 2 and Combined Quarter 3 and 4 of 2017**



**(1)** — Percentage of months that data were submitted on time to WHO-IST/WA by the 7th day of each month

**(2)** — Percentage of suspected cases with vaccination status known (Yes or No)

Threshold: > 90%

**(3)** — Percentage of cases with CSF collected

Threshold: > 80%

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

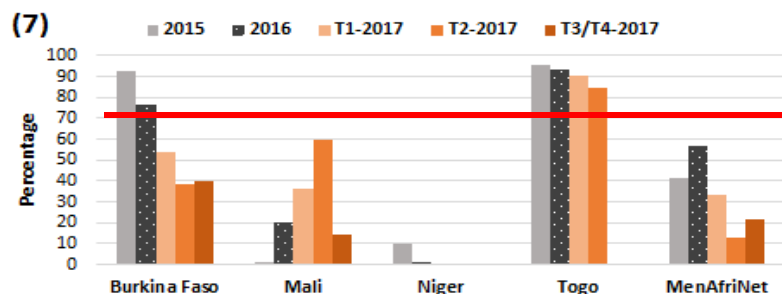
Threshold: > 50%

**(5)** — Percentage of CSF specimens received at the NRL

Threshold: > 70%

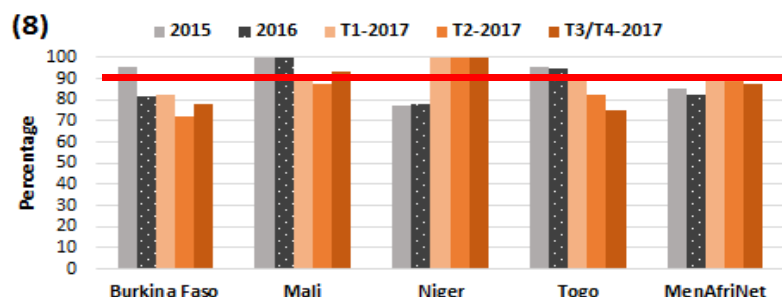
**(6)** — Percentage of cases with a delay of <7 days between CSF collection date and date CSF received at NRL

Threshold: > 70%



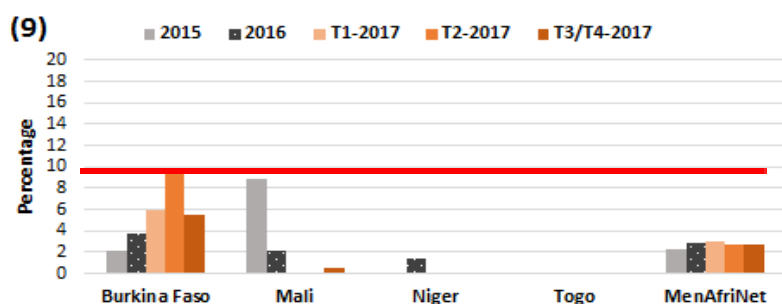
**(7)** — Percentage of CSF specimen tested at labs other than the NRL by a Gram stain test

Threshold: > 70%



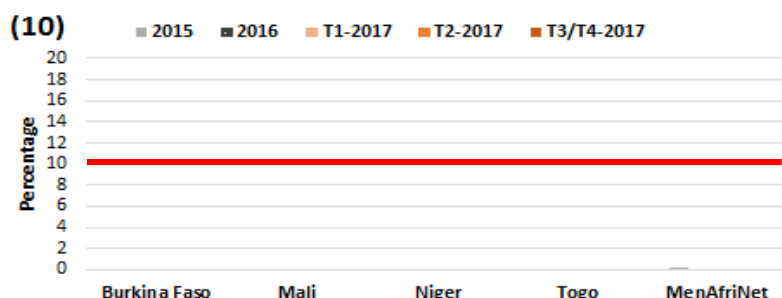
**(8)** — Percentage of CSF specimen received at the NRL and analyzed by a confirmatory test (culture, PCR, latex or rapid diagnostic test)

Threshold: > 90%



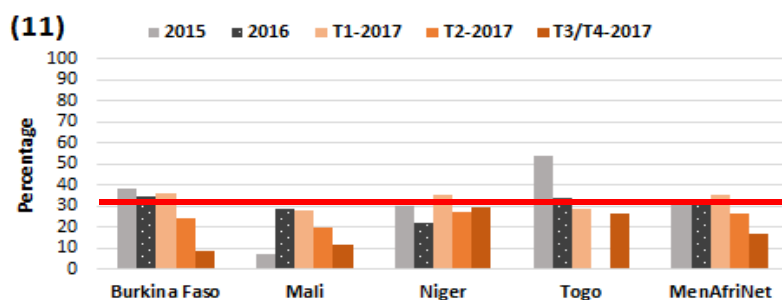
**(9)** — Percentage of CSF specimen contaminated for culture procedure at the NRL

Threshold: < 10%



**(10)** — Percentage of CSF specimen contaminated for PCR procedure at the NRL

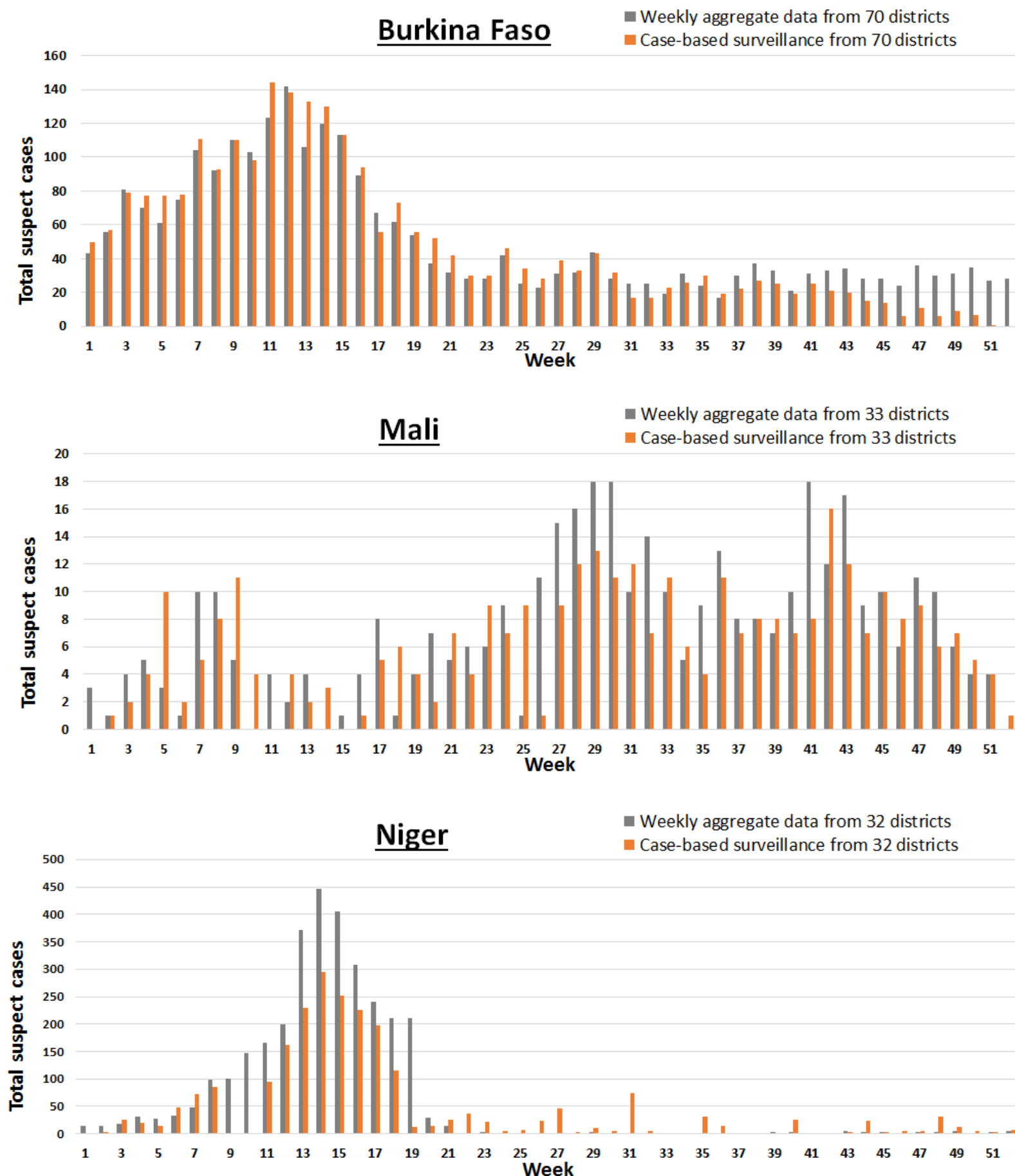
Threshold: < 10%



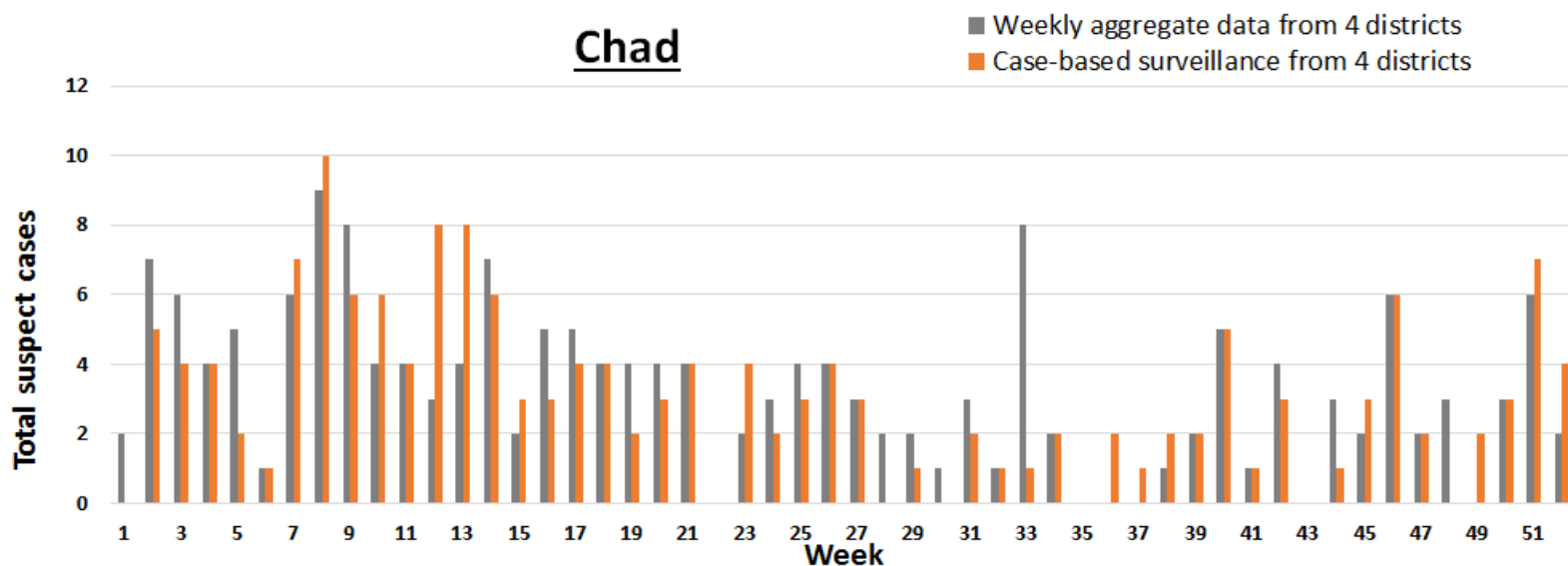
**(11)** — Percentage of CSF confirmed at the NRL for Hi, Sp and Nm and other pathogens

Threshold: > 30%

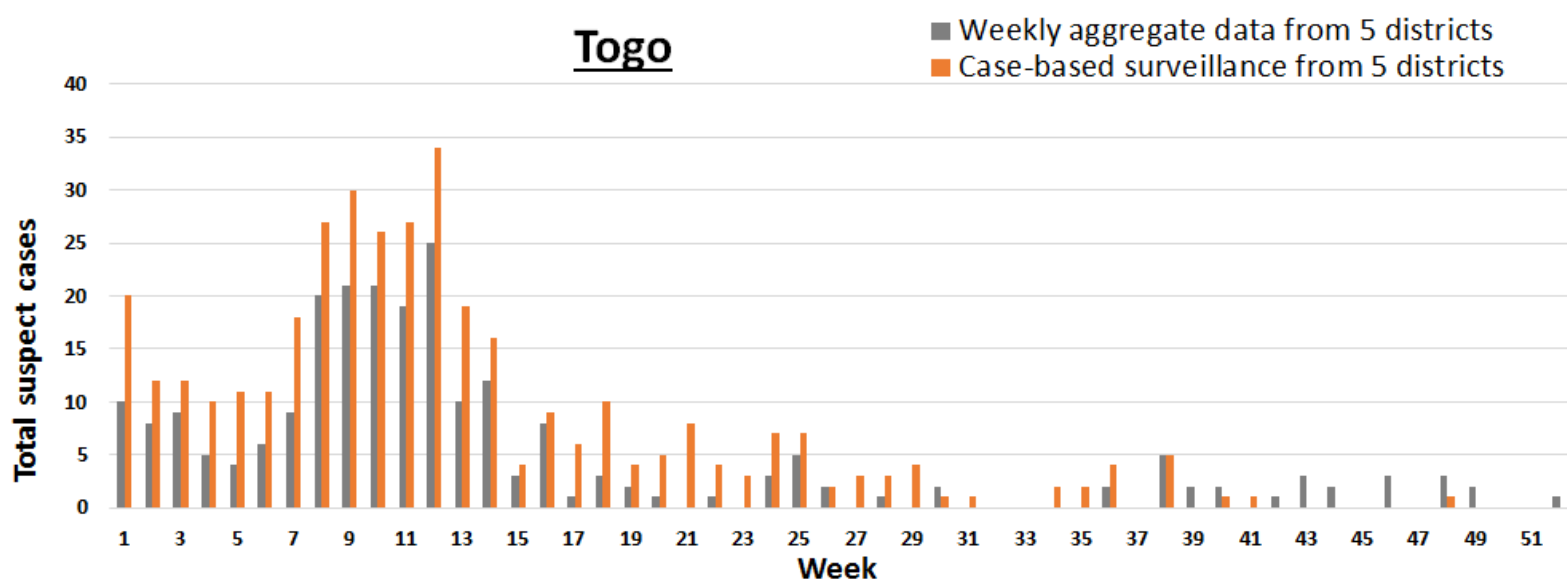
Figure 3. Comparison between aggregate reporting and case-based surveillance data from MenAfriNet supported districts, week 1 - 52



## Chad



## Togo



## MenAfriNet

