

Table 1. Epidemiological situation, week 01 - 13

97% of suspect cases reported in the MenAfriNet database had a lumbar puncture, 20% of whom were classified as probable bacterial meningitis. 31% of cases with a specimen collected tested positive for bacterial meningitis. Vaccination status was complete (yes or no) for 38% of all suspect cases in MenAfriNet countries.

| Characteristics | Burkina Faso [£] | Mali | Niger | Tchad* | Togo | MenAfriNet |
|------------------------------------|---------------------------|-----------------|-----------------|-------------|----------------|-----------------|
| | N (%) | | | | | |
| Demographics | | | | | | |
| Population** | 20,244,079 (100) | 12,805,246 (66) | 13,986,624 (65) | 847,057 (5) | 1,413,472 (19) | 49,296,478 (58) |
| MenAfriNet District† | 67/70 (96) | 27/33 (82) | 36/43 (84) | 3/4 (75) | 7/7 (100) | 140/157 (89) |
| Weekly suspected cases | 869 | 180 | 436 | 72 | 103 | 1 660 |
| MenAfriNet suspected cases | 956 | 167 | 292 | 76 | 149 | 1 640 |
| Death | 21 (2) | 4 (2) | 14 (5) | 1 (1) | 9 (6) | 48 (3) |
| Age (year) | | | | | | |
| <1 | 76 (17) | 59 (40) | 48 (17) | 21 (39) | 32 (22) | 234 (22) |
| 1-4 | 154 (34) | 37 (25) | 80 (28) | 9 (17) | 23 (16) | 303 (28) |
| 5-9 | 81 (18) | 23 (16) | 48 (17) | 9 (17) | 21 (14) | 182 (17) |
| 10-14 | 71 (16) | 6 (4) | 45 (16) | 6 (11) | 12 (8) | 139 (13) |
| 15-29 | 32 (7) | 12 (8) | 43 (15) | 4 (7) | 37 (25) | 128 (12) |
| ≥30 | 36 (8) | 10 (7) | 20 (7) | 5 (9) | 22 (15) | 93 (9) |
| Sex | | | | | | |
| Male | 283 (53) | 89 (54) | 170 (58) | 38 (65) | 81 (54) | 599 (56) |
| Vaccination status known | | | | | | |
| MenAfriVac§ | 12 (4) | 22 (20) | 7 (7) | 6 (15) | 1 (1) | 47 (8) |
| Laboratory †† | | | | | | |
| CSF collected | 935 (98) | 165 (99) | 281 (96) | 76 (100) | 137 (92) | 1,594 (97) |
| Probable bacterial meningitis | 148 (16) | 51 (31) | 28 (10) | 20 (26) | 64 (47) | 311 (20) |
| Probable meningococcal meningitis | 21 (2) | 3 (1) | 1 (0,4) | 0 (0) | 0 (0) | 25 (2) |
| Confirmed bacterial meningitis | 167 (18) | 38 (23) | 83 (30) | 31 (41) | 40 (29) | 341 (22) |
| Confirmed meningococcal meningitis | 29 (3) | 4 (2) | 54 (19) | 14 (18) | 5 (4) | 106 (7) |

Abbreviation: CSF, cerebrospinal fluid;

*Chad data will be presented in Table 1 and 2. Performance indicators will not be presented as the country has not started implementing activities.

**Population of MenAfriNet supported districts—number of districts: Burkina Faso: 70; Mali: 33; Niger: 43; Tchad: 4; Togo: 7

†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 or rapid diagnostic tests

£Missing values for age and sex variables in Burkina Faso: Age: n = 450 (47%); Sex: n = 408 (43%)

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, 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 01 - 13

72% of specimens collected in MenAfriNet countries were tested by culture, PCR, Latex or a rapid diagnostic test. Among these samples, 31% were positive. *S. pneumoniae* was the predominant pathogen (19%), followed by *Neisseria meningitidis* (9%) and *Haemophilus influenzae* (2%).

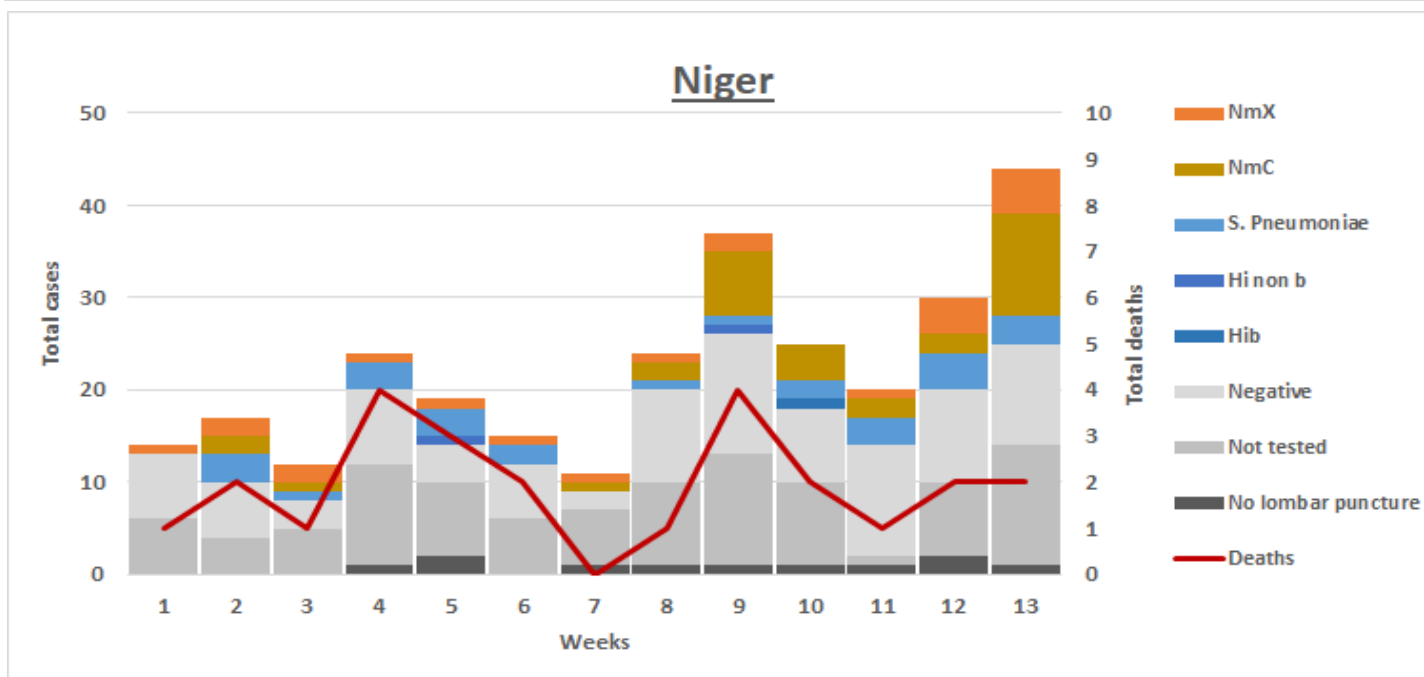
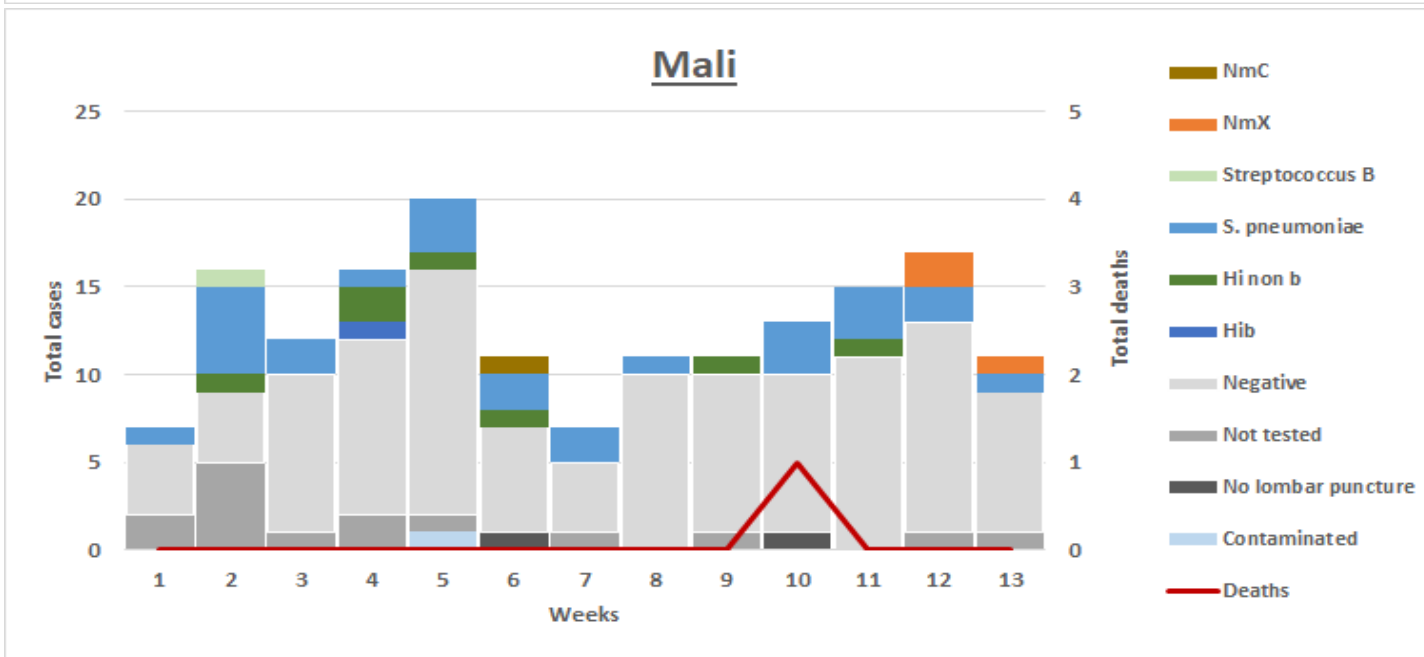
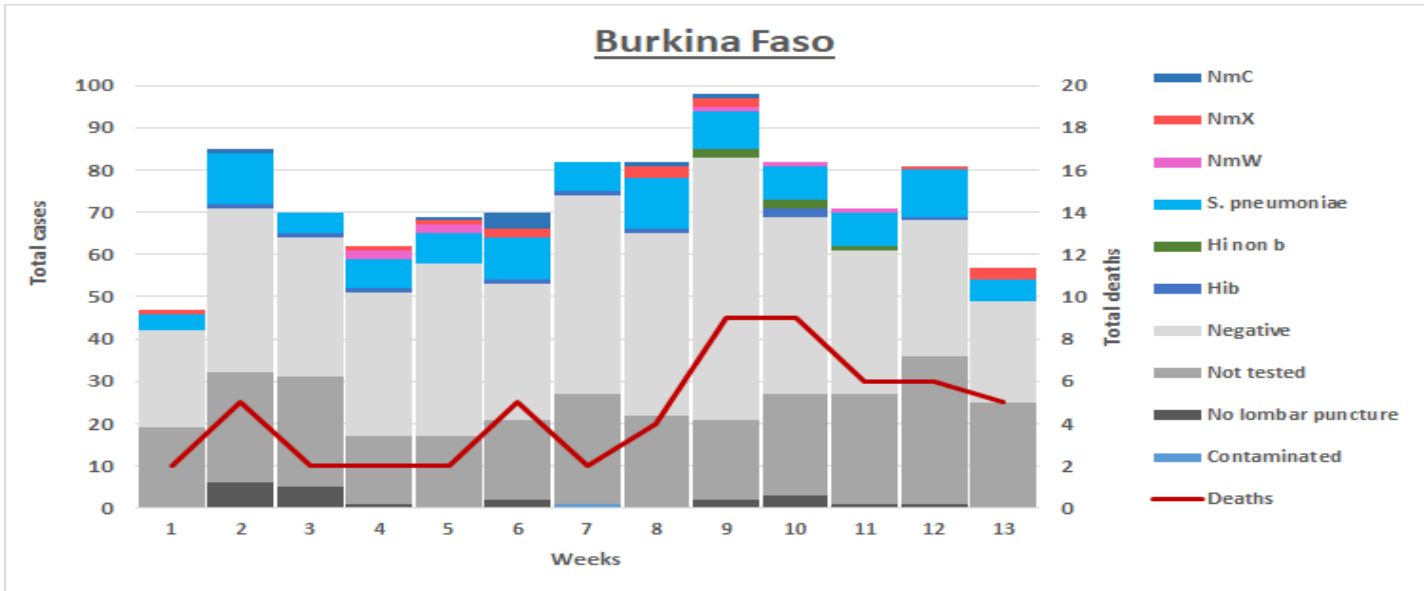
| Results | Burkina Faso | Mali | Niger | Tchad | Togo | MenAfriNet |
|---|--------------|-----------|-----------|----------|----------|-------------|
| | N (%) | | | | | |
| CSF Collected | 935 (98) | 165 (99) | 281 (96) | 76 (100) | 137 (92) | 1,594 (97) |
| Aspect | 473 (50) | 164 (98) | 243 (86) | 52 (68) | 128 (86) | 1,060 (66) |
| Gram stain | 469 (50) | 69 (42) | 19 (7) | 40 (53) | 45 (33) | 642 (40) |
| CSF received at the LNR | 782 (84) | 151 (92) | 243 (86) | 76 (100) | 86 (63) | 1,338 (84) |
| CSF analysed by confirmatory test* | 635 (68) | 151 (92) | 194 (69) | 76 (100) | 86 (63) | 1,142 (72) |
| Culture | 172 (27) | 150 (99) | 90 (46) | 56 (74) | 67 (78) | 535 (47) |
| PCR | 631 (81) | 151 (100) | 192 (79) | 76 (100) | 86 (100) | 1,136 (85) |
| Real Time-PCR | 631 (100) | 151 (100) | 192 (100) | 76 (100) | 86 (100) | 1,136 (100) |
| Conventional-PCR | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| Latex | 124 (13) | 151 (92) | 5 (2) | 1 (1) | 59 (43) | 340 (21) |
| RDT | 0 (0) | 0 (0) | 23 (8) | 0 (0) | 0 (0) | 23 (1) |
| Final Result | | | | | | |
| N. meningitidis | 29 (5) | 4 (3) | 54 (28) | 14 (14) | 5 (6) | 106 (9) |
| NmA | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| NmC | 8 (1) | 1 (1) | 32 (16) | 0 (0) | 0 (0) | 41 (4) |
| NmW | 7 (1) | 0 (0) | 0 (0) | 1 (1) | 2 (2) | 10 (1) |
| NmX | 14 (2) | 3 (2) | 22 (11) | 13 (17) | 3 (3) | 55 (5) |
| Nm ind | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| S. pneumoniae | 105 (17) | 26 (17) | 26 (13) | 23 (30) | 35 (41) | 215 (19) |
| H. influenzae | 14 (2) | 8 (5) | 3 (2) | 3 (4) | 0 (0) | 28 (2) |
| b | 9 (1) | 1 (1) | 1 (1) | 1 (1) | 0 (0) | 12 (1) |
| Non-b | 5 (1) | 7 (5) | 2 (1) | 2 (3) | 0 (0) | 16 (1) |
| Other germs | 0 (0) | 1 (1) | 0 (0) | 0 (0) | 0 (0) | 1 (0) |
| Négative** | 486 (77) | 110 (73) | 111 (57) | 36 (47) | 46 (53) | 789 (69) |

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 01 - 13



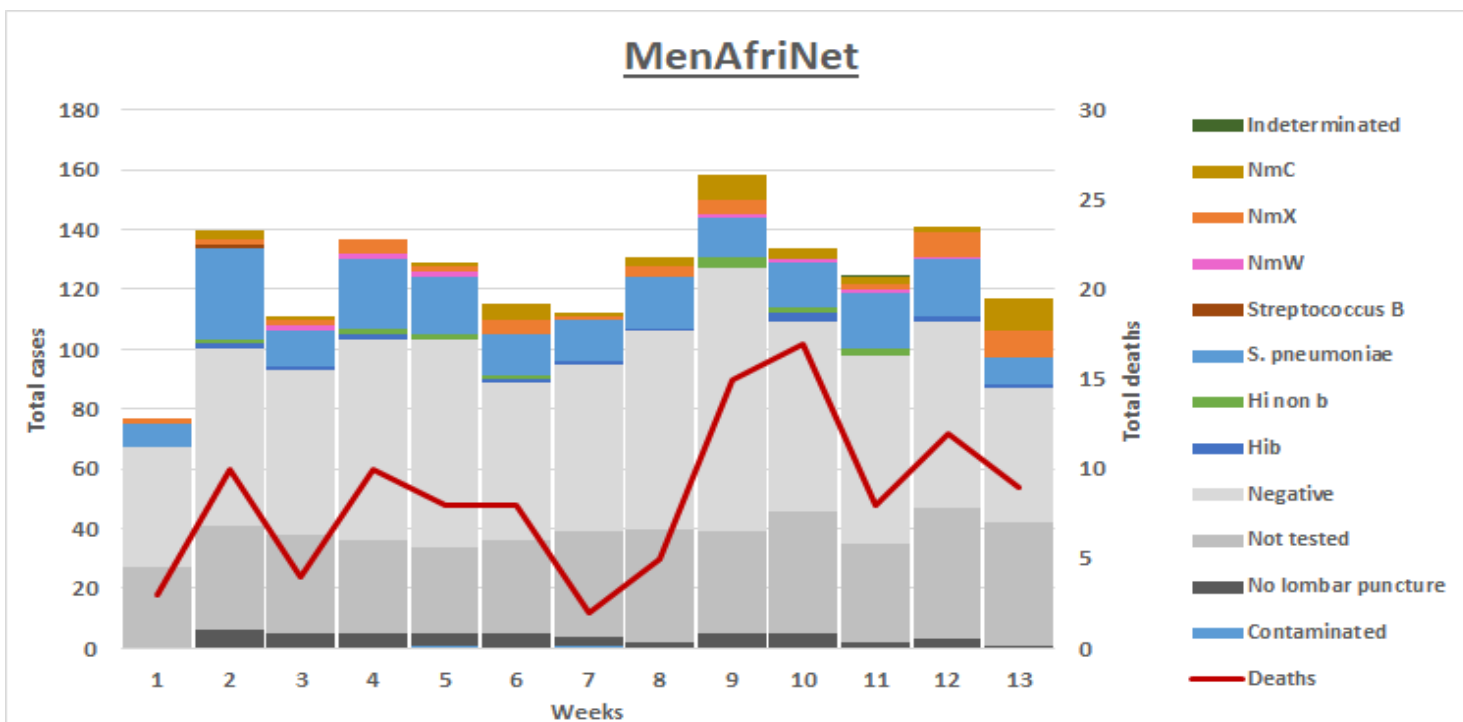
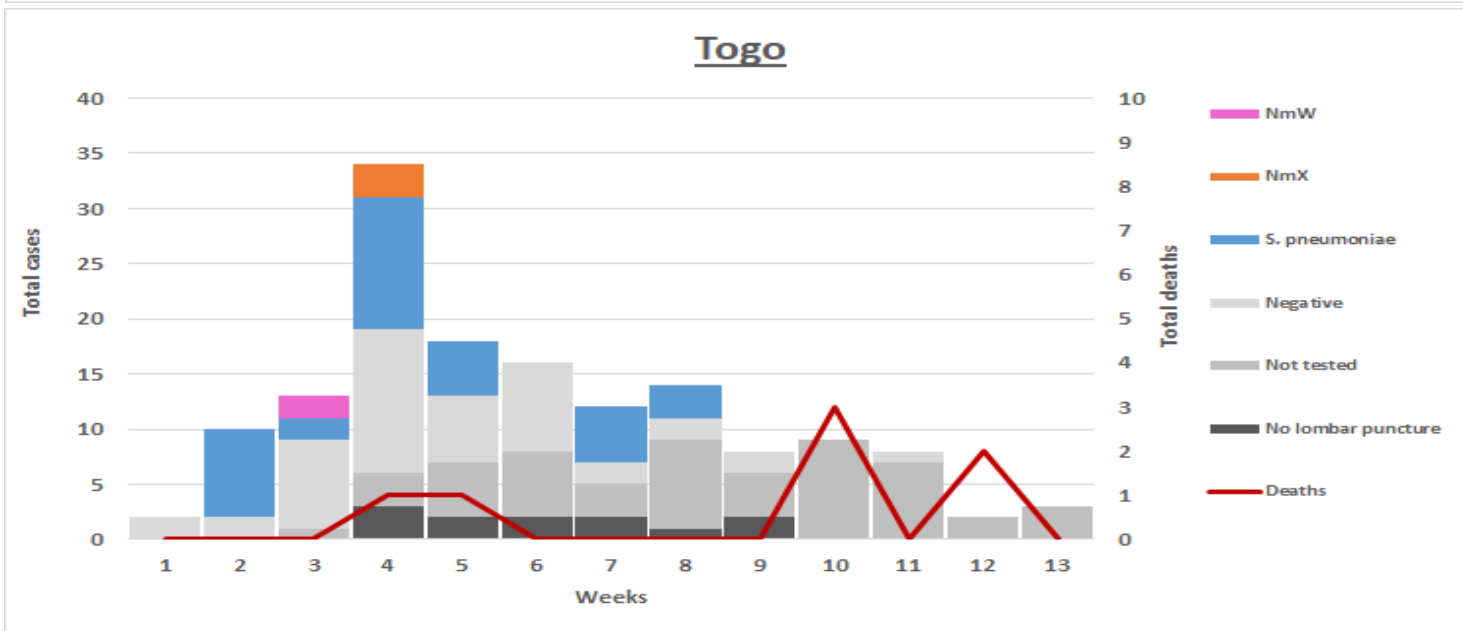
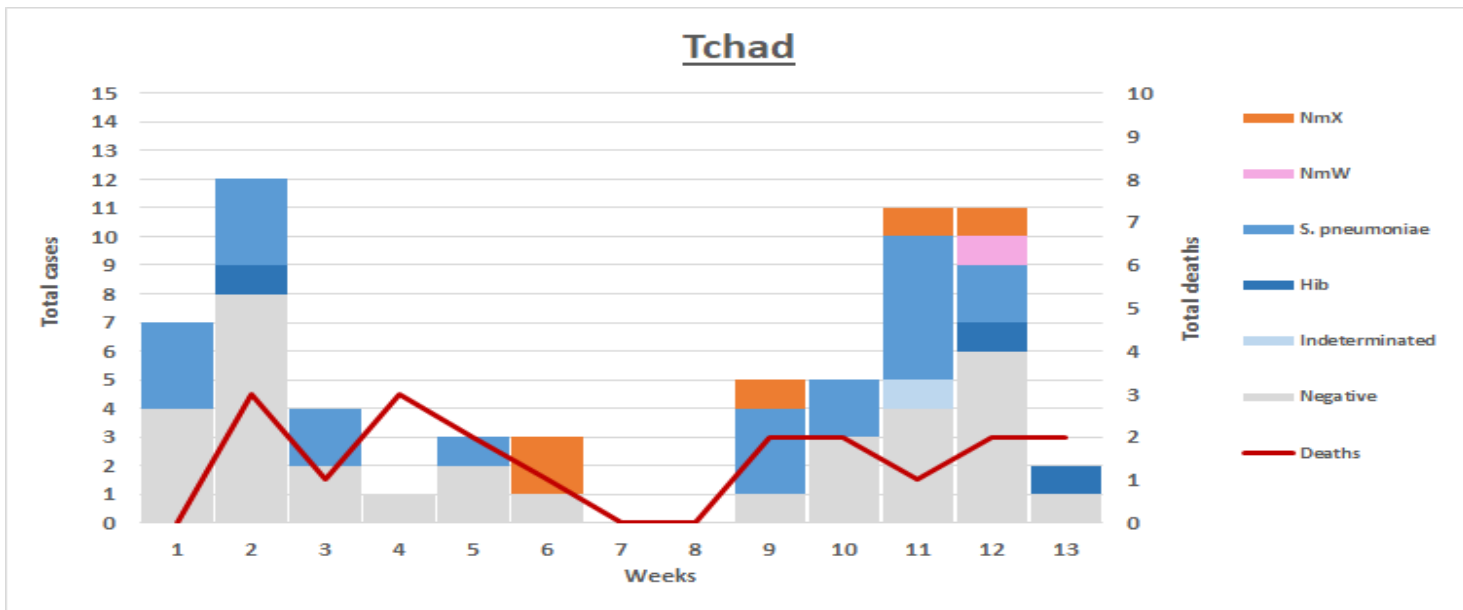
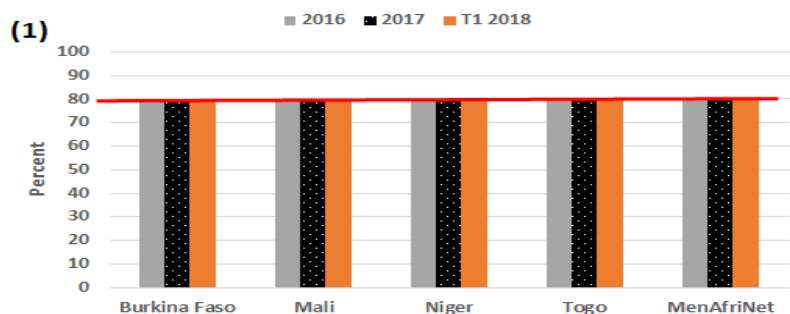


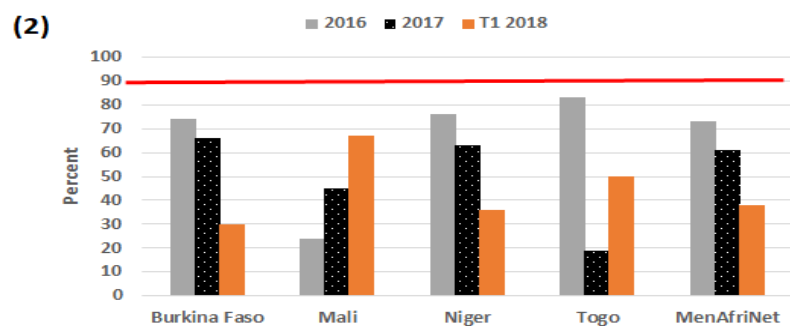
Figure 2. Annual and Quarterly Trends of Surveillance and Laboratory Performance Indicators, 2016, 2017 and Quarter 1 2018



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

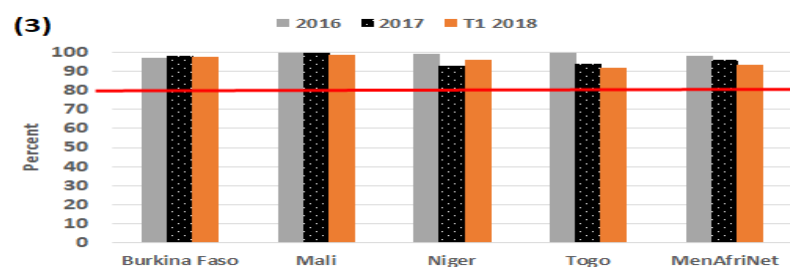
Threshold: > 80%

*Indicator was modified in 2016 to allow the project to evaluate the timely submission of data at the regional level



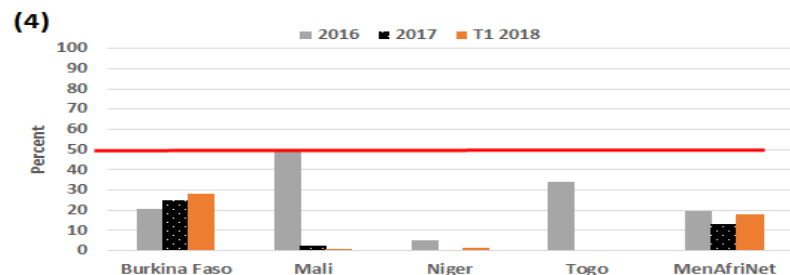
(2) — Percentage of cases with vaccination status known

Threshold: > 90%



(3) — Percentage of cases with CSF collected

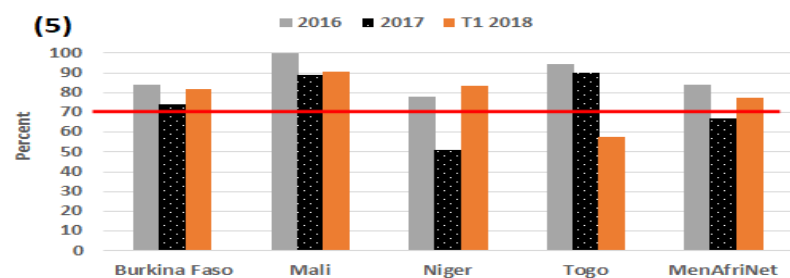
Threshold: > 80%



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

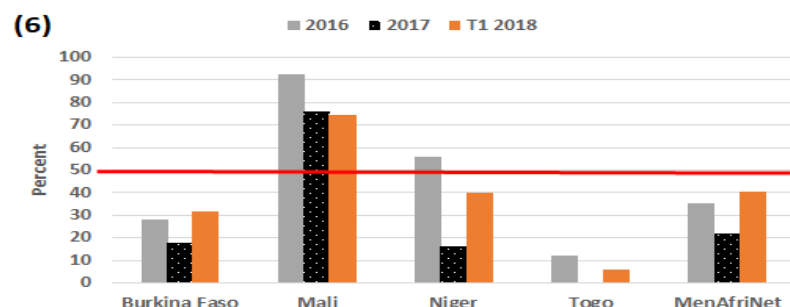
Threshold: > 50%

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



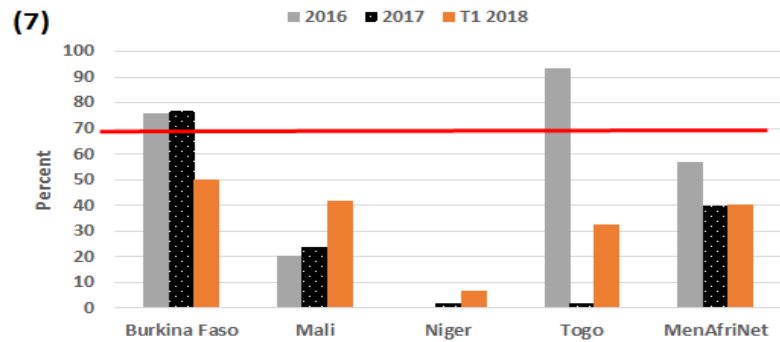
(5) — Percentage of CSF specimens received at the NRL

Threshold: > 70%

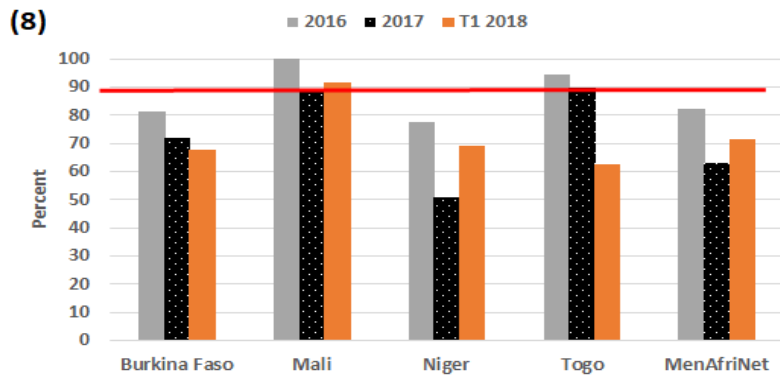


(6) — Percentage of cases with a delay of <7 days between CSF collection date and date CSF received at NRL

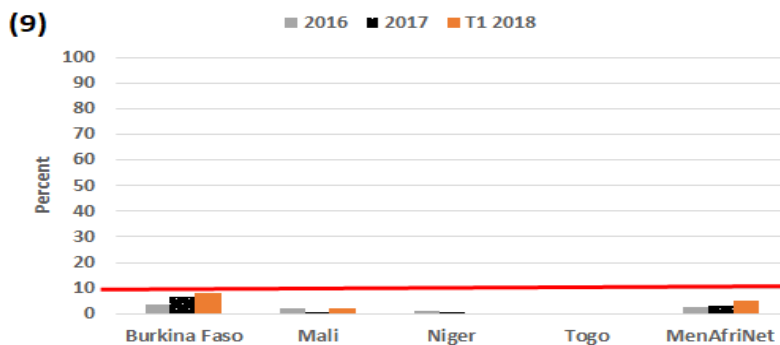
Threshold: > 50%



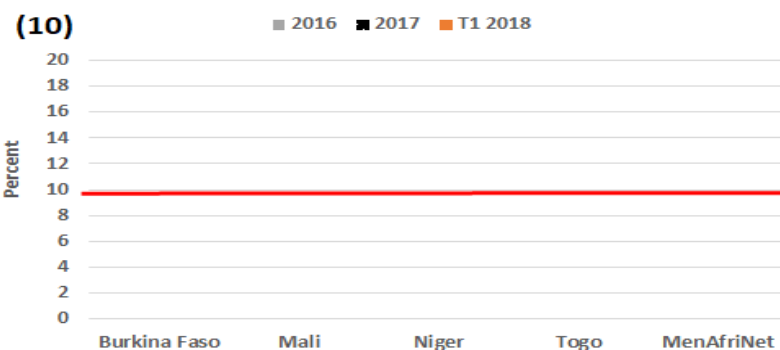
(7) —Percentage of CSF specimen tested at labs other than the NRL by a Gram stain test
Threshold: > 70%



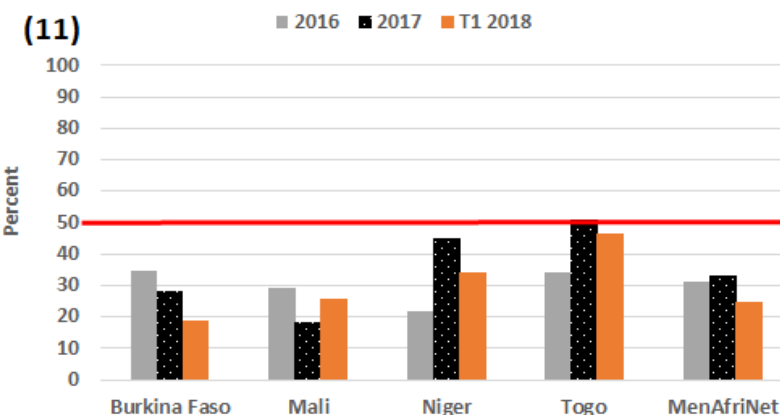
(8) — Percentage of CSF specimen received at the NRL and analyzed by a confirmatory test (culture, PCR, latex or rapid diagnostic test)
Threshold: > 90%



(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

