



# Cerebrospinal Meningitis Situation Report

## APRIL 2023 REPORT 04

Epidemiological week 14 - 17: (03 April to 30 April 2023)

### Key Points

Table 1: Summary of current week (17), cumulative Epi week 40 (2022) - 17 (2023)

Reporting Period	Suspected cases	Confirmed cases	Deaths (Suspected cases)	Case Fatality Ratio (CFR)	States and LGAs affected
Current week (week 17)	158	0	7	3.6%	State(s): 8 LGA(s): 23
Cumulative (Epi week 40 in 2022 – 17 2023)	2376	270	176	7.3%	State(s): 22 LGA(s): 111

Table 2: Weekly trend of CSF collection & confirmed cases from week 14 - 17, 2023

Epi-Week	Suspected Cases	Sample Collection	Confirmed Cases	CSF Collection Rate %	Serotype				
					NmC	NmW	NmX	Spn	HiB
14	213	14	6	42.86	6	0	0	0	0
15	219	30	8	26.67	7	0	0	1	0
16	210	18	4	22.22	4	0	0	0	0
17	158	27	0	0.00	0	0	0	0	0
<b>Total</b>	<b>800</b>	<b>89</b>	<b>18</b>	<b>20.22</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>

**N.B:** Three states, Katsina (9 NmC & 1 Spn), Jigawa (6 NmC) and Bauchi (2 NmC) account for all positive cases recorded in epi week 14 – 17, 2023

## Highlights

- From the beginning of the seasons, the following twenty-two (22) states reported suspected CSM cases in 2022/2023, Abia, Adamawa, Bauchi, Bayelsa, Benue, Borno, Ebonyi, Gombe, Imo, Jigawa, Kano, Katsina, Kebbi, Kogi, Nasarawa, Niger, Oyo, Plateau, Sokoto, Taraba, Yobe and Zamfara.
  - **Number of new suspected cases** in Epi week 17 (158), **decreased by 24%** compared with Epi week 16 (210)
  - National multi-sectoral Cerebrospinal Meningitis TWG continues to monitor response across states.
- **Reporting week 17 (158),**
  - One hundred and fifty-eight (158) suspected CSM cases were reported in seven (7) states,
    - Yobe (65 cases), Jigawa (44 cases), Oyo ( 18 cases), Bauchi (16 cases), Katsina (10 cases), Gombe (3 cases), Sokoto (1 case) and Adamawa (1 case)
    - Yobe (65 cases) and Jigawa (43 cases) - accounted for 78% of the (139) suspected CSM cases.
  - 7 deaths recorded from Yobe (2), Bauchi (2), Oyo (2) and Gombe (1)
  - 2 LGAs crossed alert threshold, Jigawa (Babura) and Bauchi (Dambam)
  - 3 LGAs crossed epidemic threshold, Yobe (Machina and Nangere) and Jigawa (Gagarawa)
- **Jigawa State**
  - Has been in an outbreak since Epi week 40 (2022) – week 17(2023)
    - 22 LGAs affected,
    - Over 1438 suspected cases, 65 deaths with CFR 4.5% as at week 17,
    - 233 confirmed cases,
      - *Nm C* = 226,
      - *Streptococcus Pneumoniae* = 6,
      - *Nm X=1*,
  - **Epi week 17 (44)**
    - No samples collected
    - No sample was tested for PCR
  - NCDC and partners deployed RRT and materials to support Jigawa and Yobe States outbreak response.

## Cumulative Epi-Summary

- As of **30<sup>th</sup> April 2023**,
  - **Total of 2376 suspected cases including 176 deaths (CFR 7.5%) reported from 22 states** in 2022/2023 CSM seasons,
  - **Total of 632 samples collected, 270 confirmed with 43% positivity rate** since beginning of the CSM seasons 2022/2023,
  - **Age group 5 -14 years** was the most affected age group,
  - **Males were 54%, females were 46%**
  - **91% of all cumulative cases were from four (4) states – Jigawa (1438 cases), Yobe (464 cases), Katsina (145 cases) and Bauchi (119 cases)**
  - **Nineteen LGAs across five states**, Jigawa (10), Katsina (4), Yobe (2), Bauchi (2) and Zamfara (1), reported more than 20 cases each this CSM seasons 2022/2023

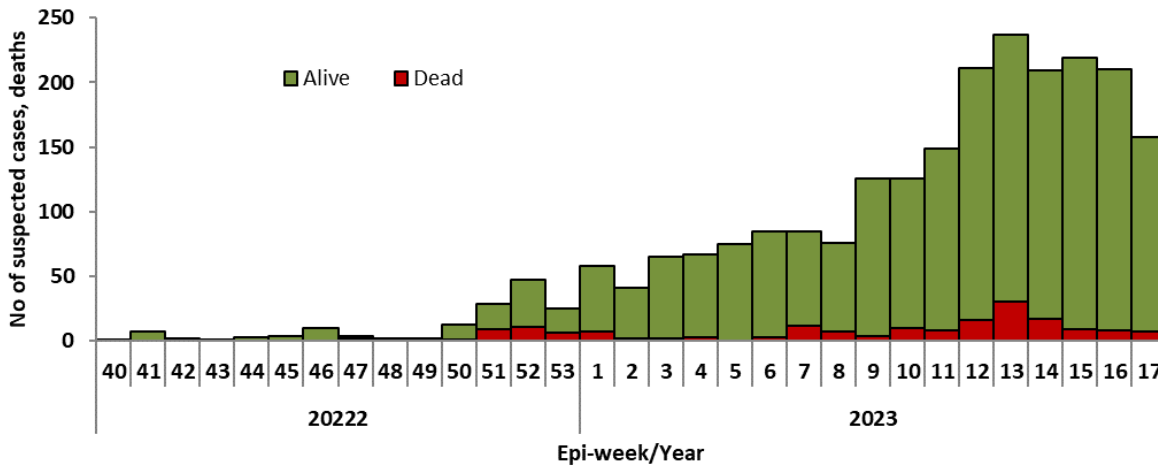


Figure 1: National Epidemic curve of weekly reported CSM cases, week 40, 2022 to week 17, 2023

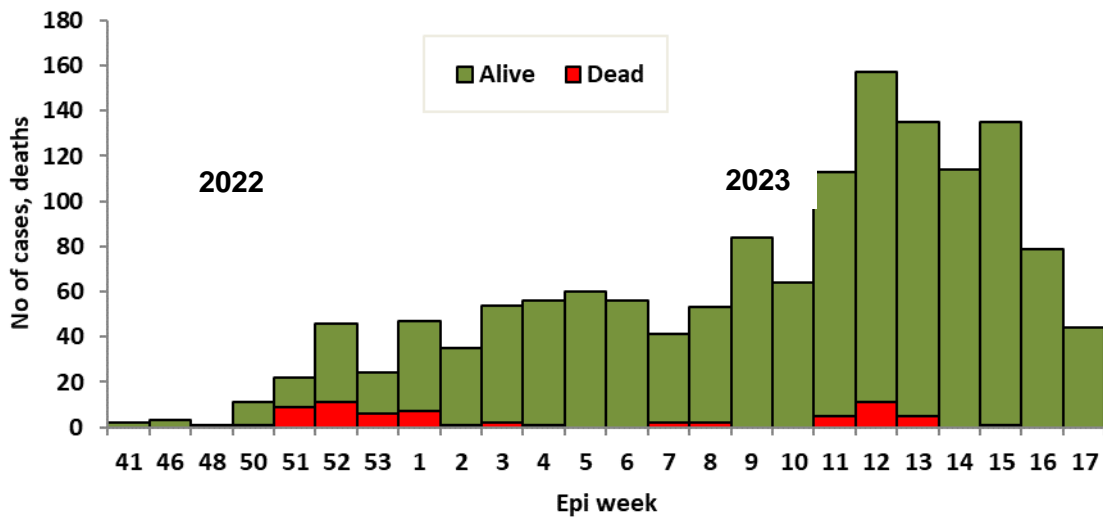


Figure 2: Jigawa epidemic curve, Week 40, 2022 - Week 17, 2023

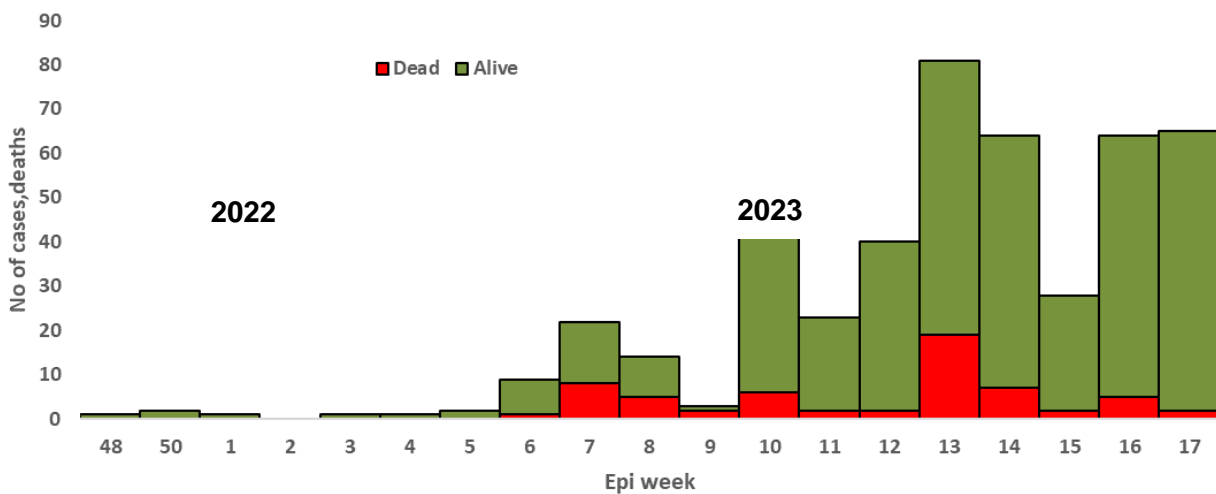


Figure 3: Yobe epidemic curve, Week 40, 2022 to Week 17, 2023

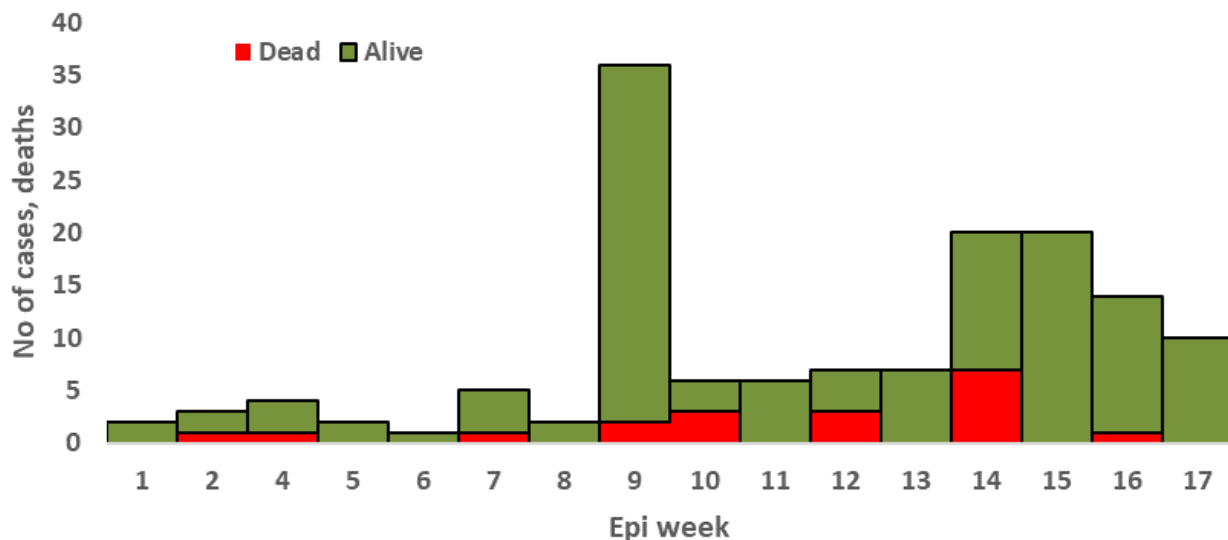


Figure 4: Katsina epidemic curve, Week 40, 2022 to Week 17, 2023

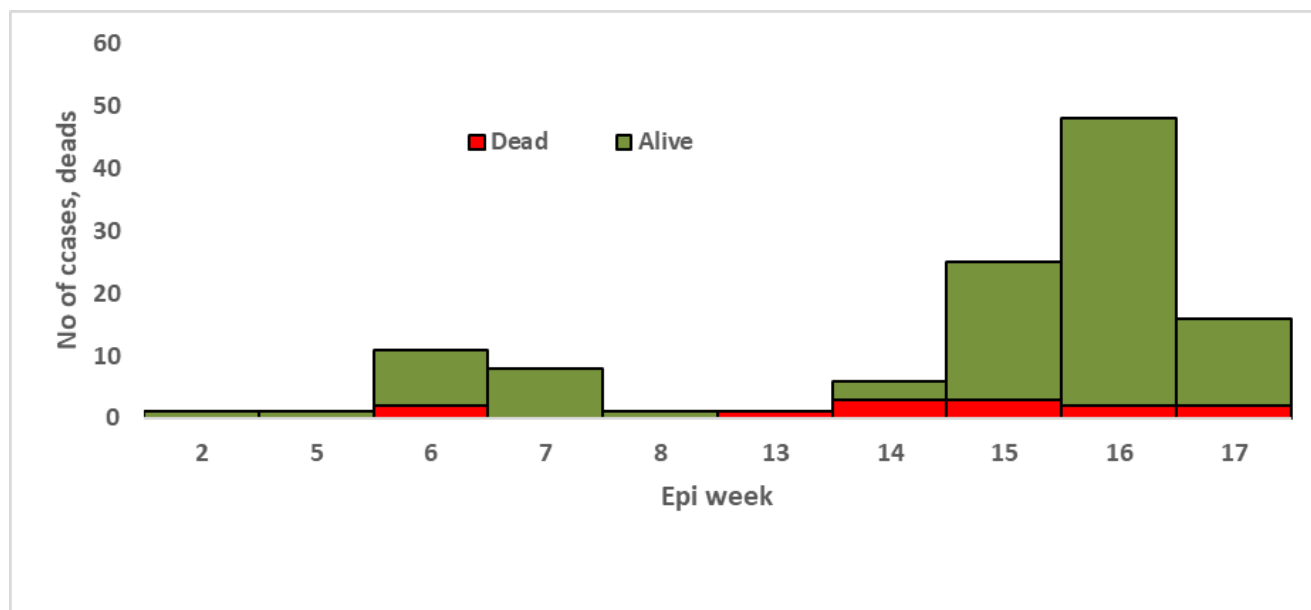


Figure 5: Bauchi epidemic curve, Week 40, 2022 to Week 17, 2023

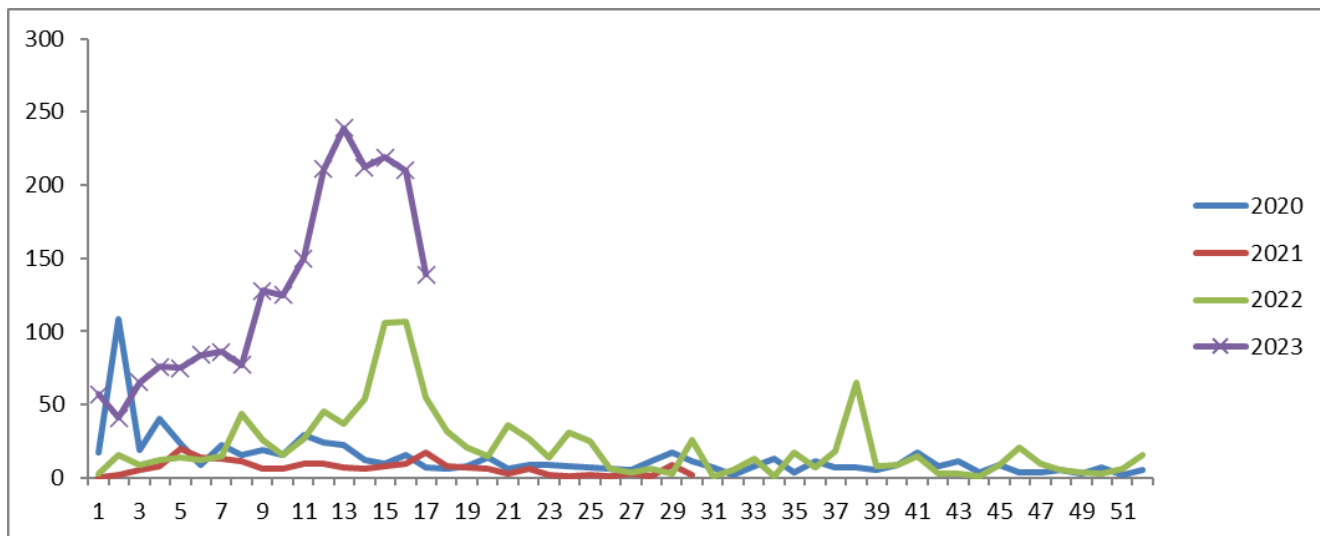


Figure 6: Weekly epidemiological trend of CSM cases from 2020 to 2023

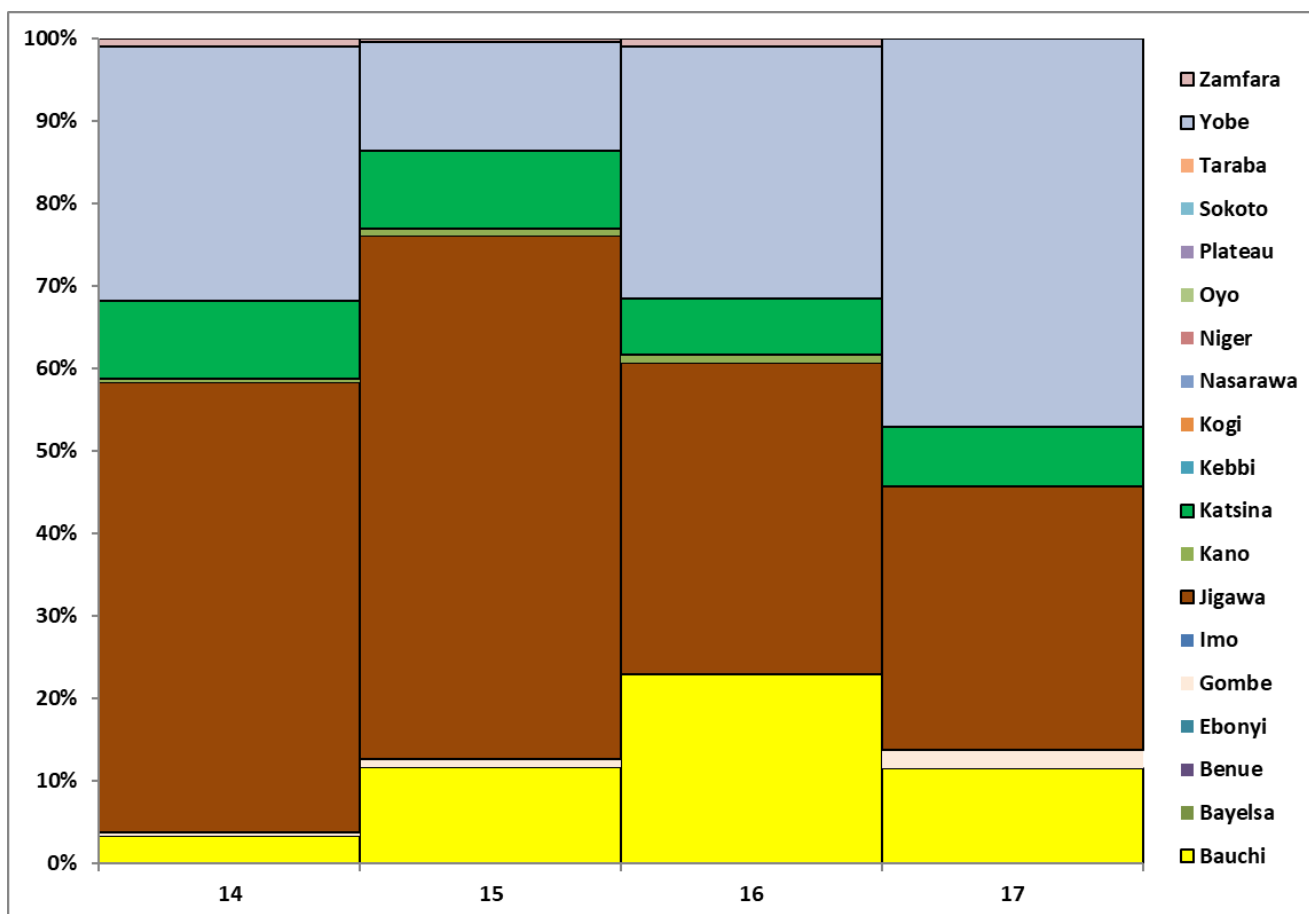


Figure 7: Percentage contribution of weekly cases by state in recent 4 weeks, week 14 - 17, 2023

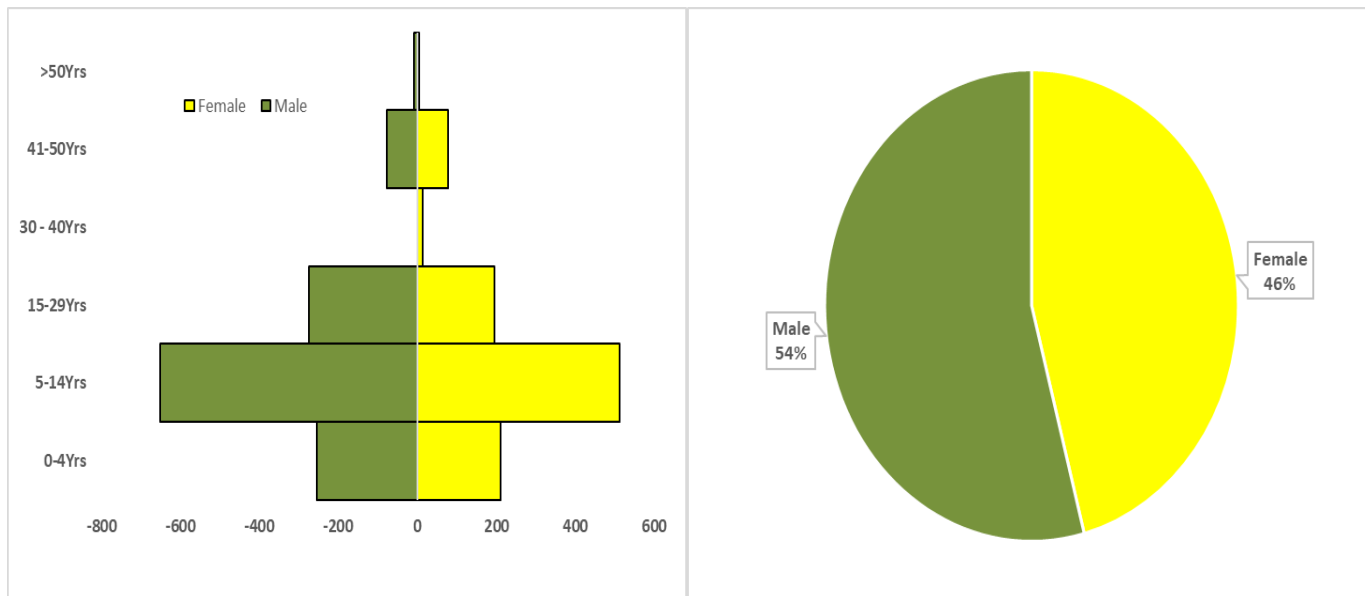


Figure 8: Age – Sex Pyramid and Sex Aggregation for CSM cases week 40, 2022 - 17, 2023.

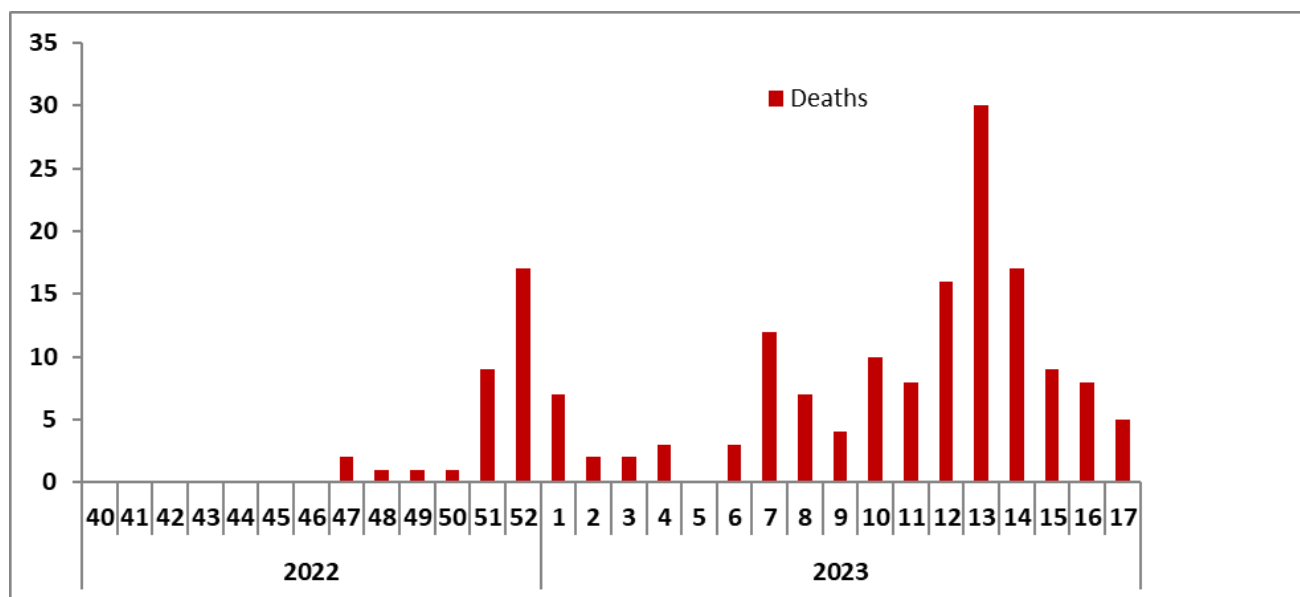


Figure 9: Trends in deaths, week 40, 2022 - 17, 2023, Nigeria

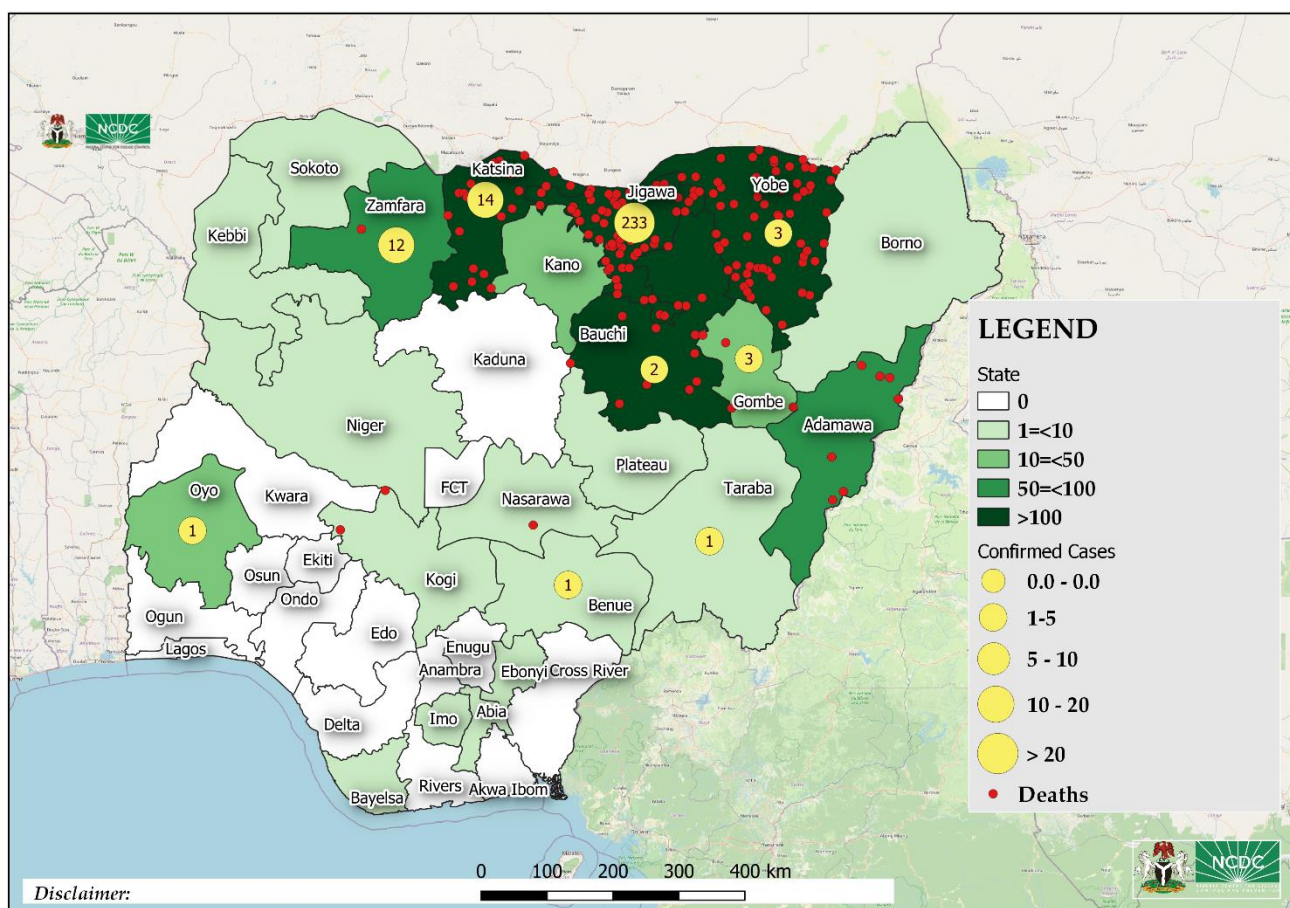


Figure 10. Map of Nigeria showing states with confirmed positive cases and deaths, week 40, 2022 - 17, 2023

Table 3. Reporting Status for Weekly & Cumulative number of CSM Cases, for 2022/2023 seasons

Weekly and Cumulative number of suspected and confirmed cases for 2022/2023 seasons																		
Current week: (Week 17, 2023)										Cumulative (Week 40, 2022 - Week 17, 2023)								
States	Suspected	Trend of outbreaks status	Cases				CFR%	Confirmed PCR% Positive	Suspected	Deaths	CFR %	Confirmed PCR% Positive	Serotype					
			Number of LGAs on alert	Number of LGAs with epidemic	Deaths	Confirmed							NmA	NmC	NmW	NmX	Spn	Hib
1	Abia							1	0		1 (0%)	0	0	0	0	0	0	
2	Adamawa	1						45	7	15.56	24(0%)	0	0	0	0	0	0	
3	Bauchi	16	Active	1	2			119	13	10.92	2(100%)	0	2	0	0	0	0	
4	Bayelsa							1	0		1(0%)	0	0	0	0	0	0	
5	Benue							6	0		1(100%)	0	0	0	0	1	0	
6	Borno							1	0	0.00	1(0%)	0	0	0	0	0	0	
7	Ebonyi							3	0		0(0%)	0	0	0	0	0	0	
8	Gombe	3			1			26	4	15.38	24(13%)	0	3	0	0	0	0	
9	Imo							6	0		3(0%)	0	0	0	0	0	0	
10	Jigawa	44	Active	1	1		0.00	1438	65	4.52	427(56%)	0	226	0	1	6	0	
11	Kano							10	0		0(0%)	0	0	0	0	0	0	
12	Katsina	10	Active					145	19	13.10	40(35%)	0	12	0	0	2	0	
13	Kebbi							1	0		0(0%)	0	0	0	0	0	0	
14	Kogi							5	2	40.00	1(0%)	0	0	0	0	0	0	
15	Nasarawa							3	1	33.33	1(0%)	0	0	0	0	0	0	
16	Niger							4	0		4(0%)	0	0	0	0	0	0	
17	Oyo	18	Active			2		32	2		17(6%)	0	0	0	0	1	0	
18	Plateau							7	0		1(0%)	0	0	0	0	0	0	
19	Sokoto	1						8	0		3(0%)	0	0	0	0	0	0	
20	Taraba							6	0		6(17%)	0	0	0	0	0	1	
21	Yobe	65	Active		2	2		464	61	13.15	30(10%)	0	3	0	0	0	0	
22	Zamfara							45	1	2.22	43(28%)	0	4	0	0	7	1	
	Total	158	5	2	3	7	4.43	2376	174	7.32	632(43%)	0	250	0	1	17	2	

Table 4: Response activities

Pillar	Activities to date	Next steps
<b>Coordination</b>	<ul style="list-style-type: none"> <li>The National multi-sectoral TWG hosted at NCDC, is coordinating response activities in collaboration with Federal Ministry of Health (FMOH), National Primary Health Care Development Agency (NPHCDA), NIMET and development partners.</li> </ul>	<ul style="list-style-type: none"> <li>Continue response coordination by the TWG.</li> <li>Continue sub-national level preparedness and response support.</li> <li>Continue ongoing onsite and offsite support outbreaks to Jigawa and Zamfara.</li> <li>Plan to deploy NRRT to support CSM response in Yobe state</li> </ul>
<b>Surveillance</b>	<ul style="list-style-type: none"> <li>Ongoing surveillance in all states through routine Integrated Disease Surveillance and Response (IDSR) and Event-Based Surveillance (EBS)</li> <li>Providing offsite/onsite support to states and follow up for daily reporting and progress with response activities</li> </ul>	<ul style="list-style-type: none"> <li>Continue data collation and harmonisation.</li> <li>Enhanced surveillance (active case search and contact tracing) in affected states and LGAs,</li> <li>Deployment of SORMAS application to secondary and tertiary HFs.</li> </ul>
<b>Case Management &amp; IPC</b>	<ul style="list-style-type: none"> <li>Provision of technical support and response commodities to affected states,</li> <li>Management of suspected/confirmed cases at designated treatment centres across the states.</li> </ul>	<ul style="list-style-type: none"> <li>Continue providing technical support on case management and IPC to states</li> <li>Continue training of Health Care Workers (HCW) on management of CSM and LP procedures</li> <li>Continuous follow up with states for updates and support</li> </ul>
<b>Laboratory</b>	<ul style="list-style-type: none"> <li>CSM culture testing across state-level laboratories</li> <li>Sample shipment of aliquots samples to PCR NCDC National Reference Laboratory (NRL) and CPHL Yaba-Lagos for molecular diagnosis (PCR)</li> </ul>	<ul style="list-style-type: none"> <li>Continue to support ongoing CSM culture testing across state-level laboratories</li> <li>Continue shipment of aliquots samples to PCR NCDC National Reference Laboratory (NRL) and CPHL Yaba-Lagos for molecular diagnosis (PCR)</li> </ul>
<b>Logistics</b>	<ul style="list-style-type: none"> <li>Distribution of essential response commodities to all CSM affected states</li> </ul>	<ul style="list-style-type: none"> <li>Continue supporting affected states with essential response commodities</li> </ul>
<b>Vaccination (led by NPHCDA)</b>	<ul style="list-style-type: none"> <li>Monitoring of epidemiological trend to guide plans for reactive vaccination campaigns,</li> <li>Planning for Implementation of CSM reactive vaccination campaign in high burden LGAs/Wards in Jigawa state</li> </ul>	<ul style="list-style-type: none"> <li>Continue monitoring epidemiological trend to guide plans for vaccination campaigns,</li> <li>Continue implementation of CSM reactive vaccination campaign in high burden LGAs/Wards in Jigawa state</li> </ul>
<b>Risk communication</b>	<ul style="list-style-type: none"> <li>Implementation of targeted risk communication activities across high-risk states</li> </ul>	<ul style="list-style-type: none"> <li>Continue airing of CSM jingles and distribution of Information, Education and Communication (IEC) materials.</li> </ul>



	<ul style="list-style-type: none"> <li>• CSM jingles are being aired in English and local languages in all affected states</li> <li>• Community social mobilisation, media interviews, distribution of IEC materials and awareness campaigns ongoing in affected communities</li> <li>• CSM advisory developed and circulated across high-risk states.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue media engagement meetings and training of journalists, other media professionals</li> <li>• Continued follow-up with states for update on risk communication</li> </ul>
<b>State Response</b>	Multi-sectoral State-level Emergency Operation Centres (EOCs) was activated in Jigawa and Yobe and ICC also in operation in Katsina, Bauchi and Gombe states	Continue supporting state response activities and implementation of CSM IAP for ownership and sustainability

### Challenges

- Difficulty in accessing some communities due to security concerns (i.e., Zamfara)
- Inadequate trained personnel in states for case management (i.e., LP procedures)
- Poor and inconsistent reporting from states
- Poor health seeking behaviour due to (Poor terrain, high cost of transportation to the treatment centres hard-to-reach communities)
- Poor personal and community hygiene promotion

### Next Steps

- Maintain communication with and support to states for data reporting and response
- Continue advocacy to State Governments to fund CSM IAP for ownership and sustainability
- Continue distributing response commodities across states
- Build capacity for sample collection, transportation, laboratory diagnosis and data management.
- Scale up risk communications.

## Notes on the report

### Data Source

Information for this disease was from routine case-based data and outbreak line-lists retrieved by the National CSM Technical Working Group

### Case definitions

**Suspected case:** Any person with a sudden onset of fever (>38.5C rectal or 38.0C axillary) and one of the following meningeal signs: neck stiffness, altered consciousness or other meningeal signs like Kernings, Bruzinski, nuchal rigidity, raised intracranial pressure including bulging fontanelle in toddlers.

**In infants:** Any toddler with sudden onset of fever (>38.5 C rectal or 38.0 C axillary) and one of the following signs: neck stiffness, or flaccid neck, bulging fontanelle, convulsion, or other meningeal signs.

**Probable meningitis case:** Any suspected case with cerebrospinal fluid (CSF) turbid, cloudy, or purulent on visual inspection; or with a CSF leukocyte count >10 cells/mm<sup>3</sup> on doing a cell count or with bacteria identified by Gram Stain of CSF.

**Confirmed case:** A suspected case that is laboratory-confirmed (positive IgM antibody, PCR or virus isolation) or epidemiologically linked to a laboratory-confirmed case

ALERT THRESHOLD	DEFINITION
Populations 30,000 – 100,000	Attack Rate of 3 suspected cases per 100,000 Inhabitants in one week
Populations < 30,000	2 suspected cases in one week OR Increase in number of cases compared to previous Non-epidemic years
EPIDEMIC THRESHOLD	DEFINITION
Populations 30,000 – 100,000	Attack Rate of 10 suspected cases per 100,000 inhabitants
Populations < 30,000	5 suspected cases in one week OR Doubling of number of cases over a three-week period

DATA AS REPORTED AND ACCURATE BY NCDC AS AT MIDNIGHT 30<sup>th</sup> April 2023