MenMap
The Meningitis & Septicemia Mapping Network

MenMap Quarterly Epidemiological Bulletin

Issue 04

MenMap Quarterly Epidemiological Bulletin – 1st Quarter, Year 2

2025

About This Bulletin

The **Meningitis and Septicemia Mapping Network (MenMap)** Quarterly Epidemiological Bulletin presents key findings for the period of **December 2024 to February 2025,** marking the first quarter of Year 2. It provides a consolidated overview of bacterial meningitis surveillance activities across **Jordan, Egypt, and Iraq,** with detailed insights into case trends, pathogen distribution, demographic characteristics, and clinical outcomes.

During this quarter, the network observed an increase in suspected cases compared to the same period in the previous year, alongside consistent laboratory confirmation of *Streptococcus pneumoniae (S. pneumoniae)* as the predominant pathogen.

MenMap remains committed to strengthening regional laboratory capacity and enhancing data-driven meningitis control efforts across the Eastern Mediterranean Region.

1. Overview of Meningitis Case Counts and Trends

1.1 Total Cases Overview

This quarter yielded several critical epidemiological insights across the MenMap network:

496

suspected meningitis cases were reported across Jordan, Egypt, and Iraq.

34 cases (14.58%)

were laboratory-confirmed using PCR.

33 of 34

confirmed cases (97.05%) were attributed to *Streptococcus pneumoniae.*

December 2024

recorded the highest number of suspected cases (n=216).

Egypt

reported the highest number of confirmed cases (n=21), including the only *N. meningitidis* case this quarter.

All confirmed cases (n=34)

were hospitalized.

6–14 years

was the most affected age group, comprising (47.06%) of all confirmed cases.

One death

was reported in Egypt; the case had *S. pneumoniae,* but cause of death remains unverified.

As of the end of February 2025, MenMap has documented a cumulative total of **2,600 suspected and 225 confirmed** bacterial meningitis cases since surveillance began in **December 2023.**

1.2 Case Counts by Country *(Jordan, Egypt, Iraq)*

Jordan

In Jordan, MenMap's continued surveillance efforts across four sentinel hospitals. The facilities collectively enrolled a total of **144 suspected cases** during the first quarter of Year 2. While *S. pneumoniae* remained the only pathogen detected, Jordan reported a low overall confirmation rate, consistent with trends observed in previous quarters.

Key Statistics

Total Cases Enrolled: 144 (Figure 1)

Gender Distribution: Female: **61** cases **(42.36%)**, Male: **83** cases **(57.64%)** (Figure 2)

Top Age Group: <1 year (**52.08%** of enrolled cases) (Figure 3)

Positive Cases Across Sentinel Hospitals: 3 (2.08%) Confirmed Cases with *(S. pneumoniae)* leading across all cases. (Figure 4)

Year-over-year comparison:

In Q1 of Year 1 (Dec 2023–Feb 2024), Jordan reported **183 suspected and 4 confirmed cases.** This quarter reflects a **modest decline in suspected cases and a slightly lower confirmation rate**, although improved case distribution across sentinel sites is noted.

Figure 1: Suspected vs Confirmed Meningitis Cases by Hospital Name in Jordan (Dec 2024 – Feb 2025)

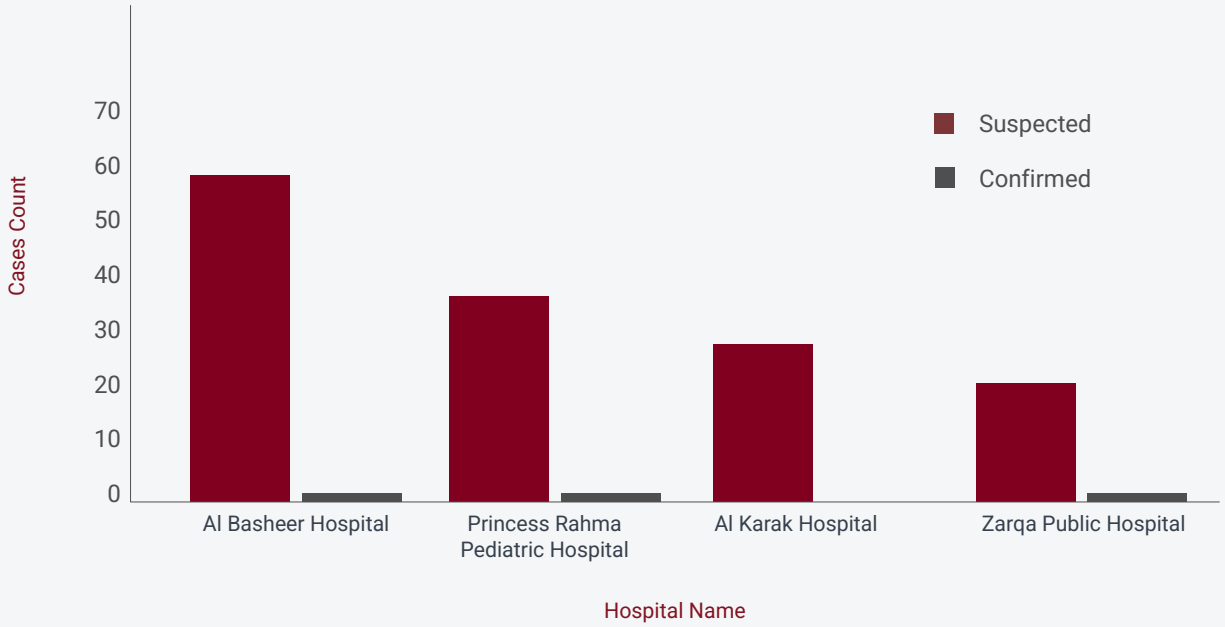


Figure 2: Gender Distribution of Enrolled Meningitis Cases in Jordan (Dec 2024-Nov 2025)

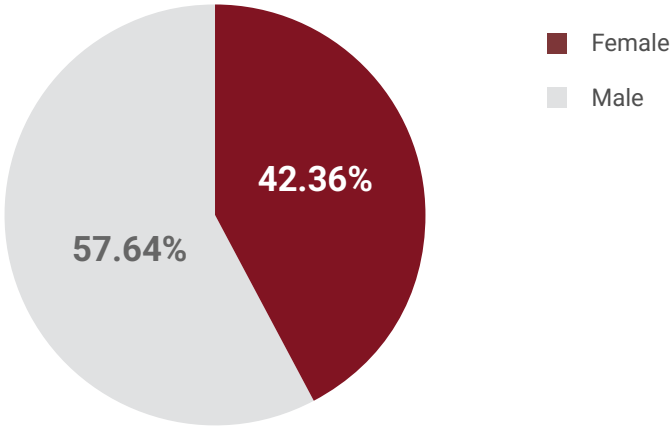


Figure 3: Percentage of Enrolled Meningitis Cases According to Age Group in Jordan (Dec 2024-Feb 2025)

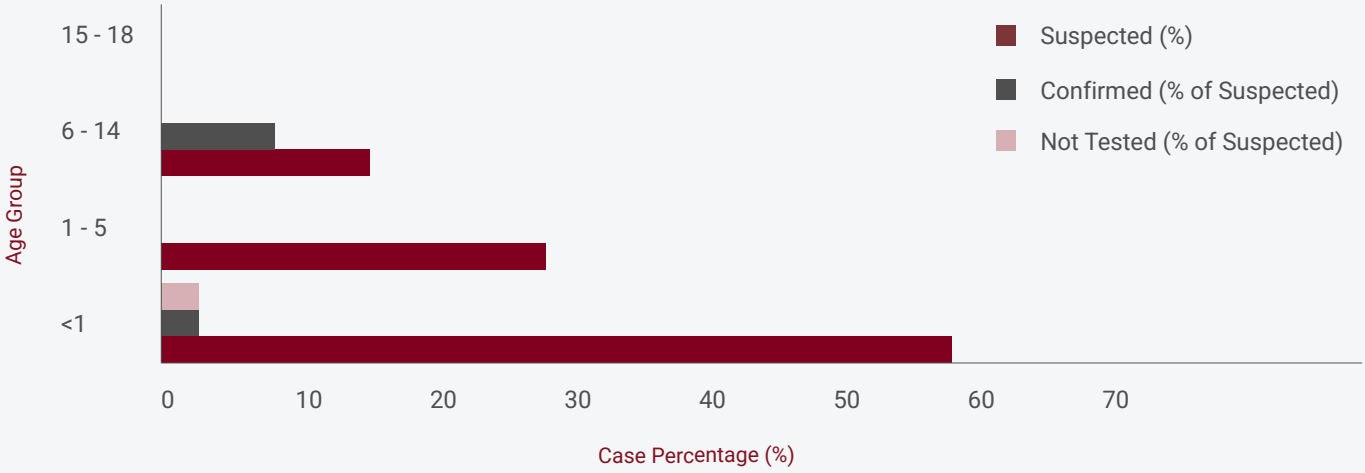
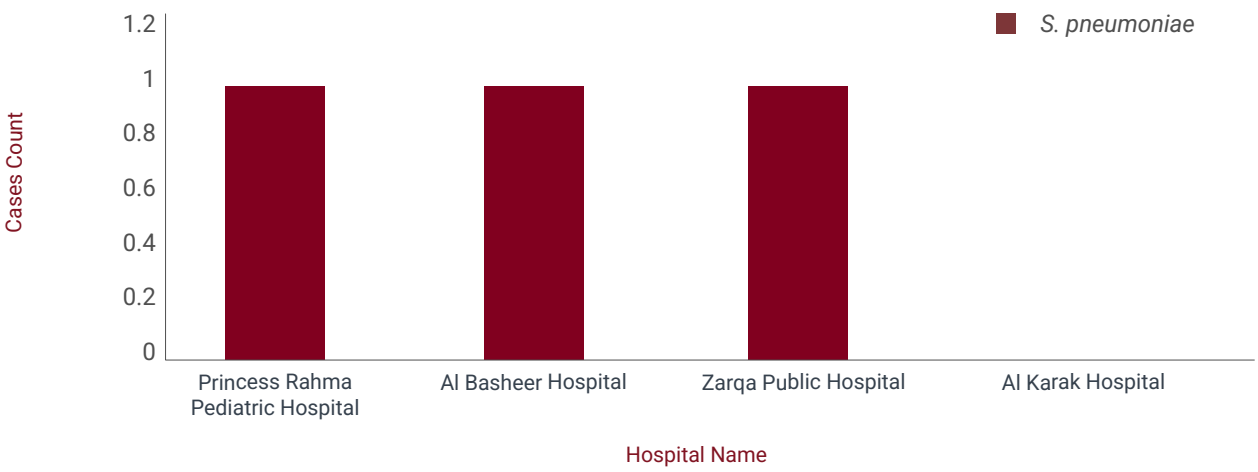


Figure 4: Laboratory-Confirmed Meningitis Cases by Pathogen Across Hospitals in Jordan (Dec 2024-Feb 2025)



Egypt

In Egypt, MenMap's surveillance activities were carried out across the four sentinel hospitals. These facilities collectively enrolled **112 suspected cases** during the first quarter of Year 2. Abbasia Fever Hospital continued to contribute the largest share of enrolled and confirmed cases, with *S. pneumoniae* remaining the predominant pathogen.

One case of *Neisseria meningitidis (N. Meningitis)* was identified in February—representing the only confirmed non-pneumococcal infection reported this quarter across all countries. This highlights the importance of sustained molecular testing capacity in maintaining pathogen-specific vigilance.

Key Statistics

Total Cases Enrolled: 112 (Figure 5)

Gender Distribution: Female: **48** cases **(42.86%)**, Male: **64** cases **(57.14%)** (Figure 6)

Top Age Group: 6–14 years (**38.39%** of enrolled cases) (Figure 7)

Positive Cases Across Sentinel Hospitals: 21 (18.75%) Confirmed Cases with *S. pneumoniae* leading across all but one case *(N. meningitidis)* (Figure 8)

Year-over-year comparison:

In Q1 of Year 1 (Dec 2023–Feb 2024), Egypt reported **77 suspected** and **15 confirmed cases.** This quarter reflects a **notable increase in both suspected and confirmed cases,** as well as a **stronger positivity rate,** largely driven by sustained PCR testing and consistent performance at high-volume sites like Abbasia Fever Hospital.

Figure 5:Suspected vs Confirmed Meningitis Cases by Hospital Name in Egypt (Dec 2024 – Feb 2025)

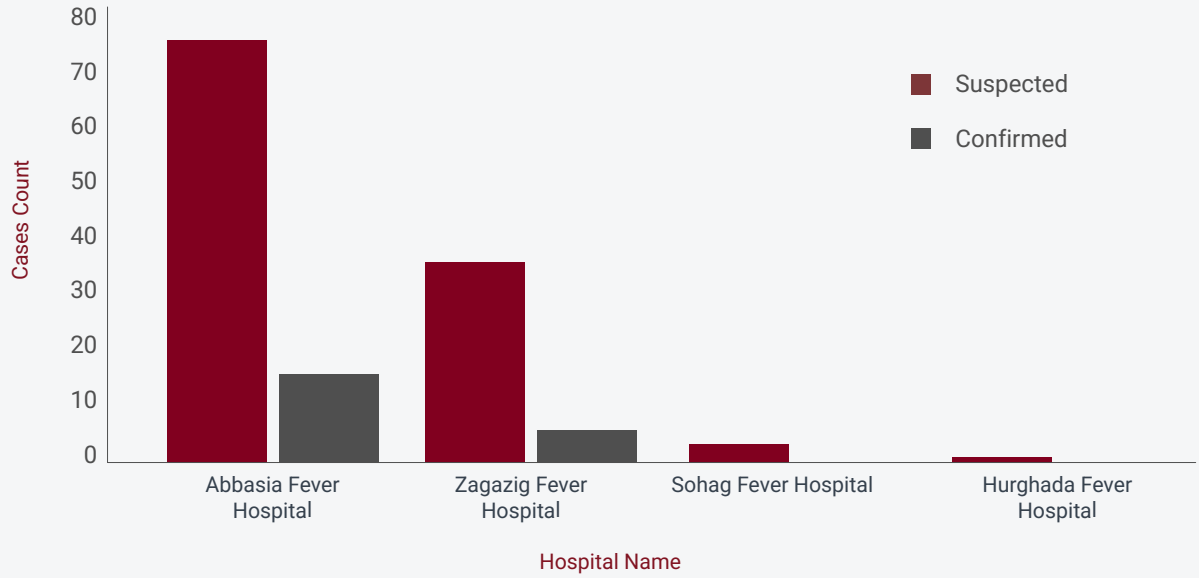


Figure 6: Gender Distribution of Enrolled Meningitis Cases in Egypt (Dec 2024-Nov 2025)

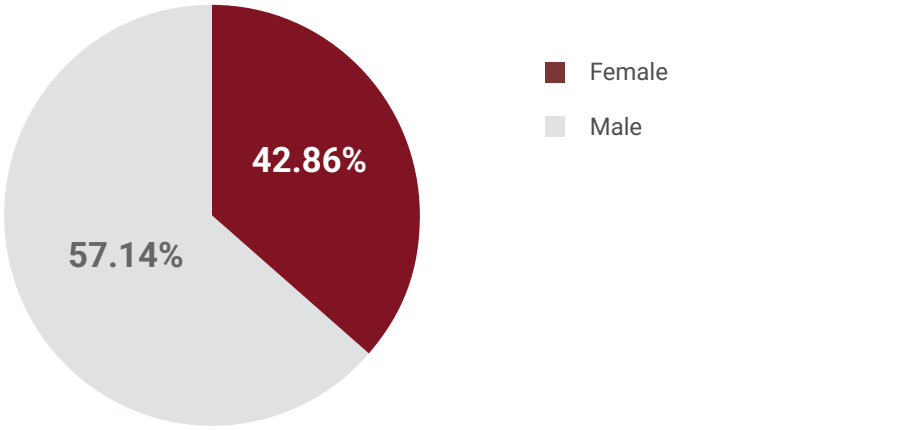


Figure 7: Percentage of Enrolled Meningitis Cases According to Age Group in Egypt (Dec 2024-Feb 2025)

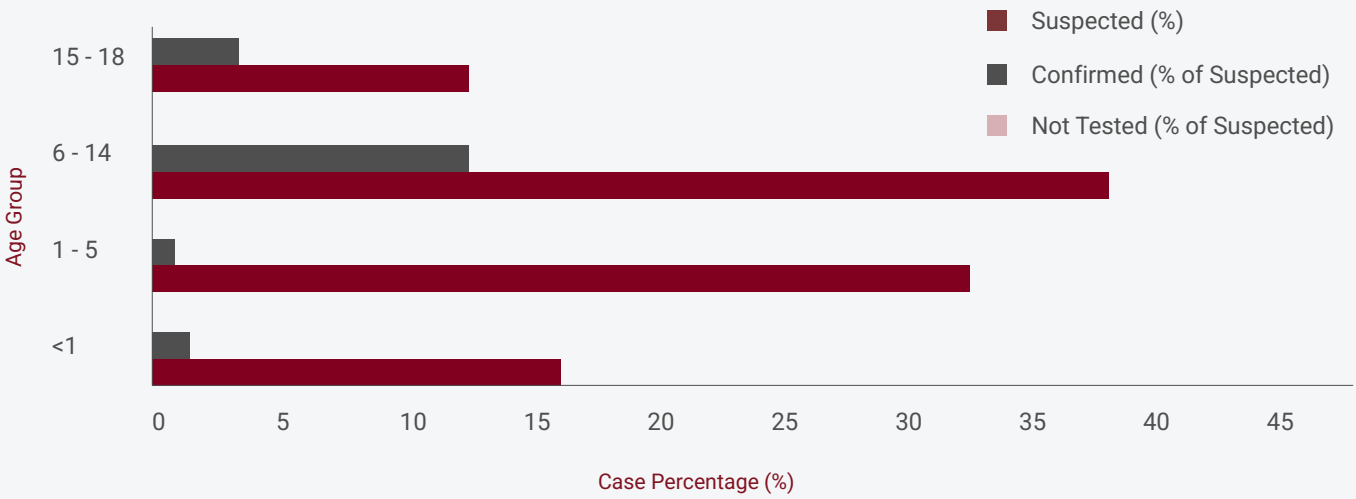
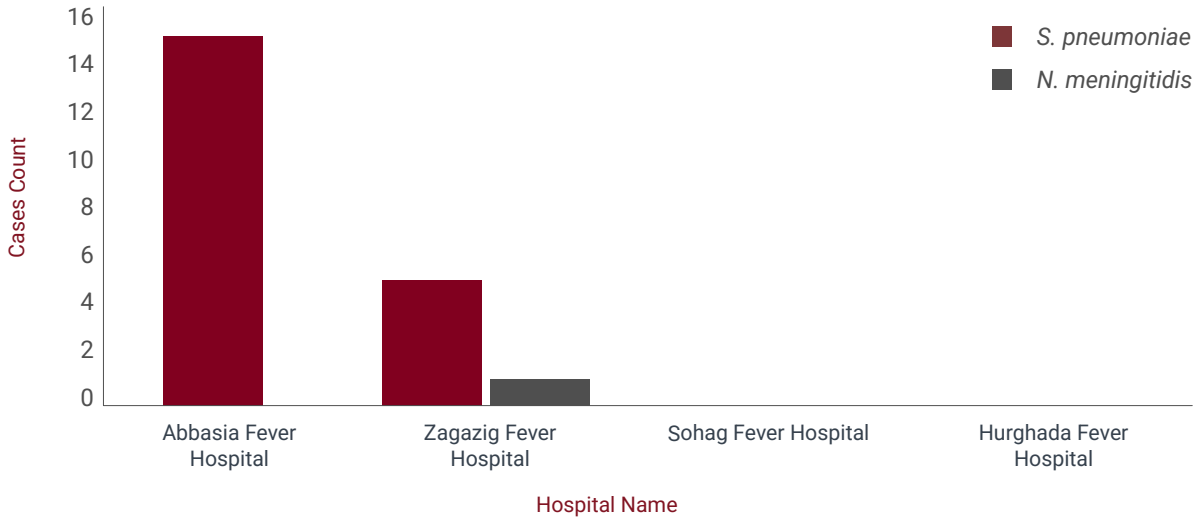


Figure 8: Laboratory-Confirmed Meningitis Cases by Pathogen Across Hospitals in Egypt (Dec 2024-Feb 2025)



Iraq

In Iraq, MenMap's sentinel surveillance continued across eight hospitals. Although Al Kadhimiya Pediatric Hospital contributed with reported cases in **December 2024**, it was officially phased out at the start of **Year 2.** The facilities collectively reported **240 suspected cases** during the first quarter of Year 2, with **10 laboratory-confirmed infections**—all attributed to *S. pneumoniae.* Central Pediatric Hospital and Karbala Pediatric Hospital together accounted for more than half of the confirmed cases.

Key Statistics

Total Cases Enrolled: 240 (Figure 9)

Gender Distribution: Female: **94 cases (39.17%),** Male: **146 cases (60.83%)** (Figure 10)

Top Age Group: 1–5 years (44.58% of enrolled cases) (Figure 11)

Positive Cases Across Sentinel Hospitals: 10 (4.17%) Confirmed Cases, all attributed to *S. pneumoniae* (Figure 12)

Year-over-year comparison:

In Q1 of Year 1 (Dec 2023–Feb 2024), Iraq reported **164 suspected** and **34 confirmed cases.** While suspected case numbers have increased significantly this quarter, the number of confirmed cases has **declined notably,** resulting in a lower positivity rate.

Figure 9: Suspected vs Confirmed Meningitis Cases by Hospital Name in Iraq (Dec 2024 – Feb 2025)

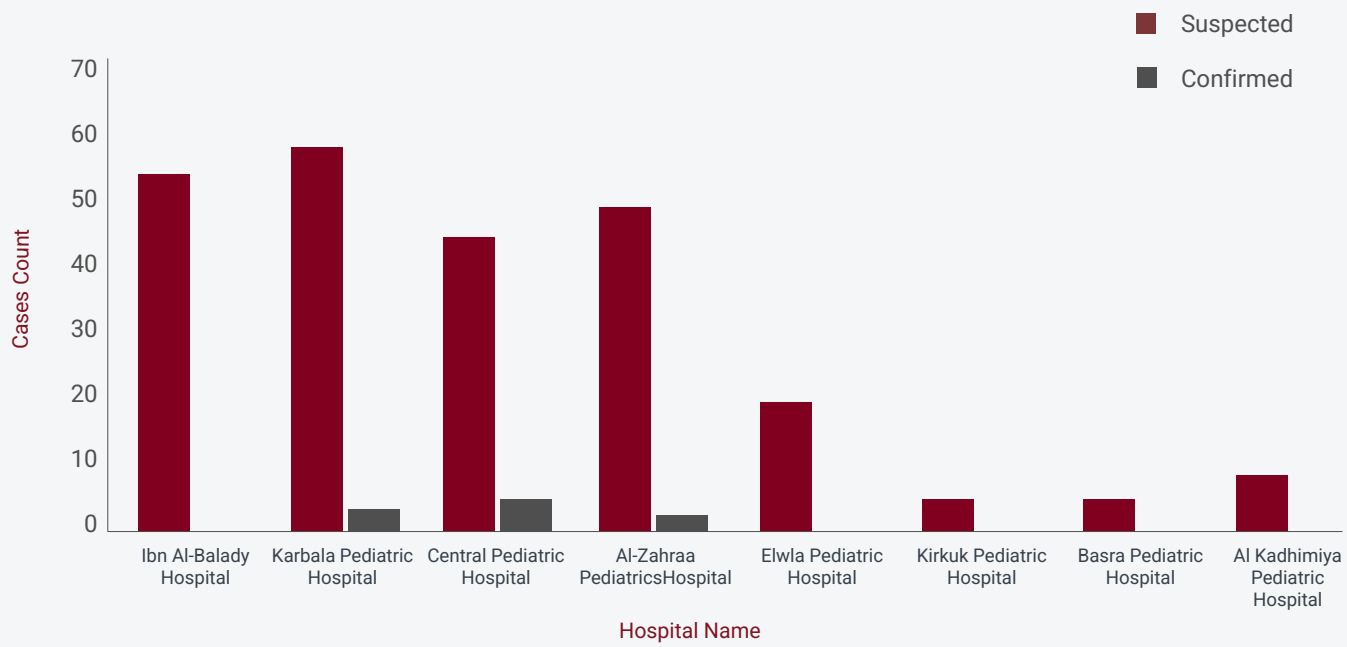


Figure 10: Gender Distribution of Enrolled Meningitis Cases in Iraq (Dec 2024-Nov 2025)

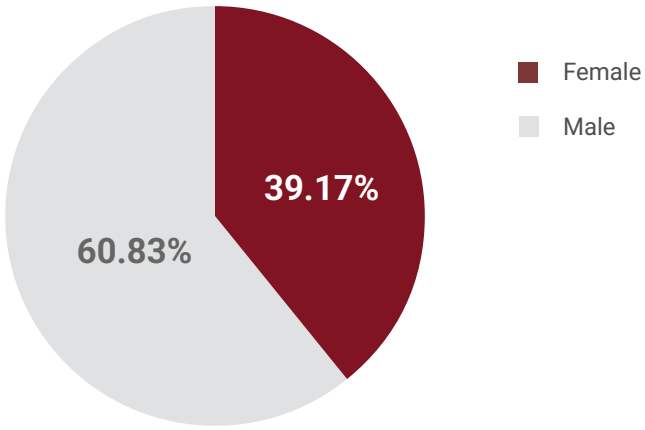


Figure 11: Percentage of Enrolled Meningitis Cases According to Age Group in Iraq (Dec 2024-Feb 2025)

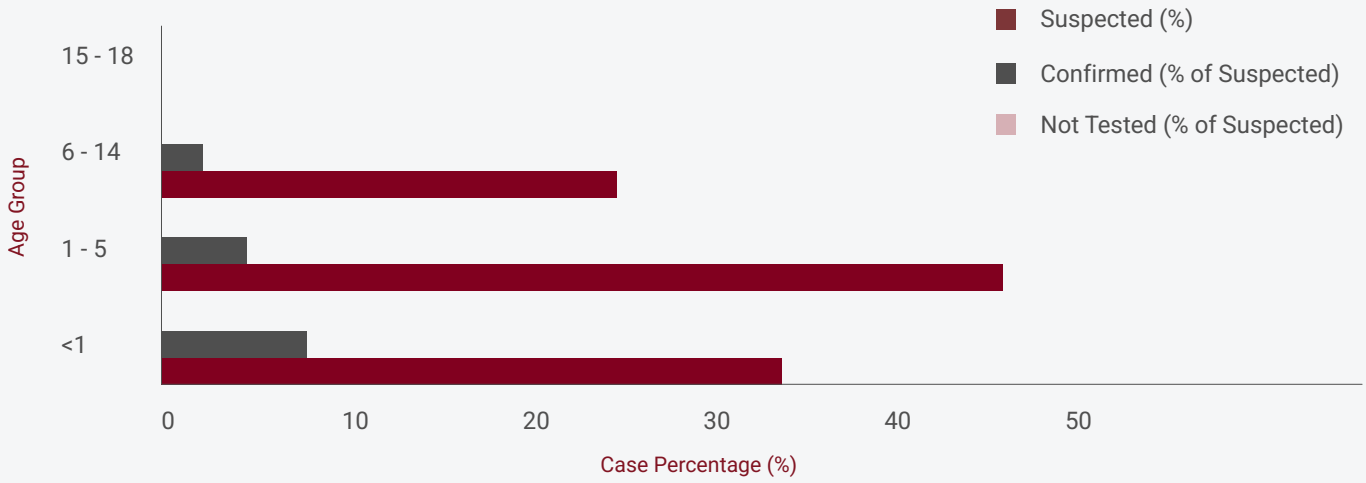
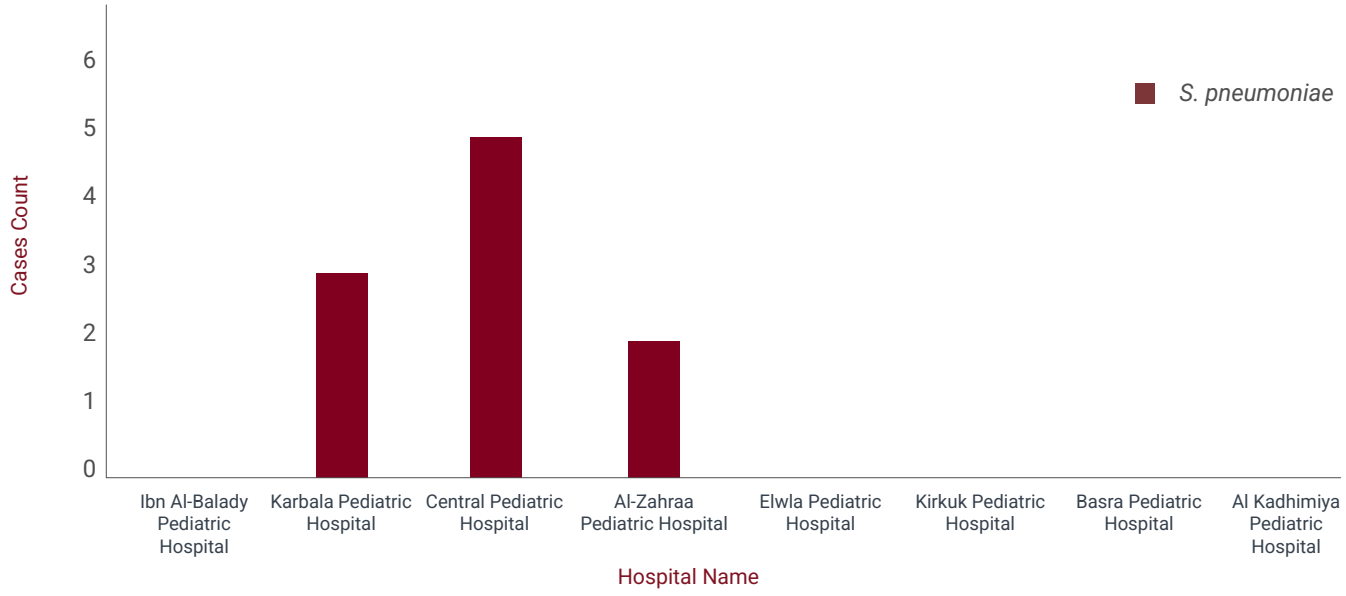


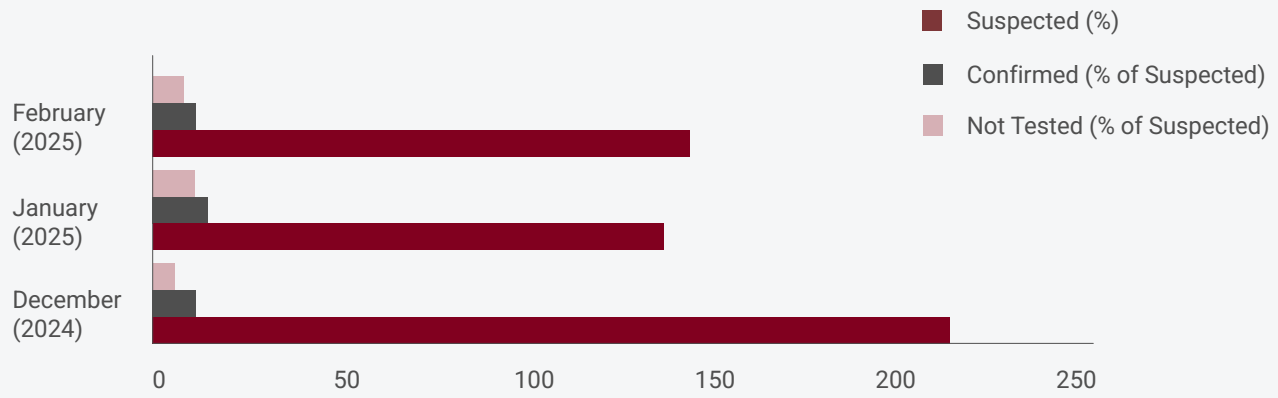
Figure 12: Laboratory-Confirmed Meningitis Cases by Pathogen Across Hospitals in Iraq (Dec 2024-Feb 2025)



1.3 Temporal Trends within the Quarter

Analysis of monthly trends from December 2024 to February 2025 reveals notable variations in suspected and confirmed meningitis cases across the three participating countries.

Figure 13: Temporal Distribution of Suspected and Confirmed Meningitis Cases (Dec 2024–Feb 2025)



Suspected cases peaked in December 2024, however, positivity rates increased in January, despite the drop in overall suspected case volume. This trend might suggest improved clinical targeting and/or true clustering of confirmed cases during this period.

1.5 Cross-Quarter Performance Snapshot

When compared to the first quarter of Year 1, the period of **December 2024 to February 2025** presents a **notable shift in surveillance patterns** across all three countries:

Metric	First Quarter (Year 1)	First Quarter (Year 2)	Change (%)
Enrolled Cases	424	496	▲ 17.00
Confirmed Cases	53	34	▼ 35.85
Positivity Rate (%)	12.50	6.85	▼ 45.20

While the total number of suspected cases increased by **17%,** the number of confirmed cases dropped by **35.85%,** resulting in a **45.20%** decline in the **overall positivity rate**. This suggests that while case detection efforts have expanded, the precision in identifying true bacterial meningitis cases may require reinforcement — particularly in low-confirmation sites such as Jordan.

To help address these gaps, a refresher training is scheduled for early to mid–second quarter of Year 2. The training will focus on reinforcing adherence to case definitions and improving data quality in case detection and reporting.