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- The data indicate that there was **good prevention practices** with more than half of the caregivers [230, 53.7%] engaged in one or more preventive practices

On the contrary there was **poor knowledge and perception** of caregivers on CSM (poor knowledge 249 (58.2%) and more than half of the caregivers had **negative perceptions** [229, 53.5%])

The data suggests that **CSM vaccination coverage** is relatively high at **63.3%** among the under five children in the study

The binary logistics regression analysis identifies **age of child, antenatal care during pregnancy of index child, knowledge and perception of caregiver** as key factors associated with **missed CSM vaccination**

## BACKGROUND

- Cerebrospinal meningitis (CSM) remains a global burden that contributes to the preventable deaths of 5.0 million children among under five, including 2.4 million new-borns<sup>1</sup>
- Africa continues to record epidemics of bacterial meningitis with devastating morbidity and mortality among children under five with severe complications<sup>2</sup>
- In sub-Saharan Africa, 26 countries in the meningitis belt, including The Gambia, suffer the highest burden of meningitis with frequent epidemics<sup>3</sup>
- This study assessed the risk perception, preventive practices, and vaccine utilization of CSM among caregivers of children under five years of age in Brikama, The Gambia

## METHODS

- A cross-sectional study was conducted among 428 caregivers using a multi-stage sampling procedure
- Data were collected using an adapted standardized interviewer-administered questionnaire deployed in the Kobo Toolbox
- The outcome variables in this study were risk perception, preventive practices, and vaccine utilization
- Data are presented as frequencies and percentages to describe the findings
- Bivariate and logistic regression analyses were performed to determine statistically significant factors ( $\alpha=0.05$ )

## RESULTS

- The mean age of the caregivers was 30.6 ( $\pm 6.1$ ) in years and that of the under-five children was 19.9 ( $\pm 12.5$ ) in months
- Overall, 249 (58.2%) participants had poor knowledge, 299 (53.5%) had negative perceptions, and 198 (46.3%) had poor preventive practices
- The estimated CSM vaccine coverage among the under-five sample was 63.3%
- Caregivers' knowledge and perception of CSM were significantly associated with missed CSM vaccination (AOR= 2.292, 95% CI: 1.377-3.816, p 0.001) and (AOR= 4.230, 95% CI: 2.591-6.905, p <0.001) respectively

Table 1. Socio-demographic Characteristics of Respondents

PARTICIPANT CHARACTERISTICS	FREQUENCY (PERCENTAGE) n=428 (%)
<b>Age of Caregivers</b>	
<24	3 (0.7)
25-29	74 (17.3)
30-34	144 (33.6)
35-39	115 (26.9)
40-44	55 (12.9)
45-49	25 (5.8)
>=50	12 (2.8)
<b>Gender of Caregiver</b>	
Male	31 (7.2)
Female	397 (92.8)
<b>Highest Educational Level</b>	
No Formal Education	80 (18.7)
Primary	60 (14.0)
Secondary	142 (33.2)
Higher	146 (34.1)
<b>Marital status</b>	
Single	21 (4.9)
Married	387 (90.4)
Others	20 (4.7)

## RESULTS CONTINUED

Figure 1: Scores for Knowledge, Risk perception and Preventive practices

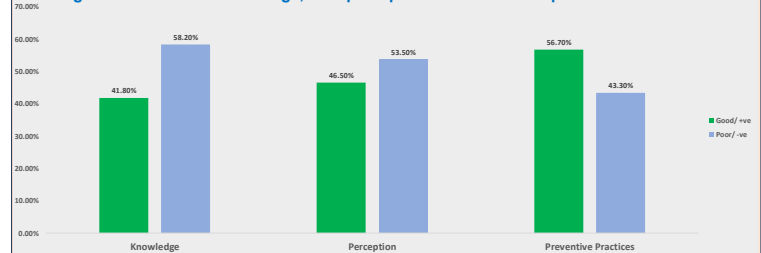


Table 2. Logistic Regression of Factors Associated with Missed CSM Vaccination

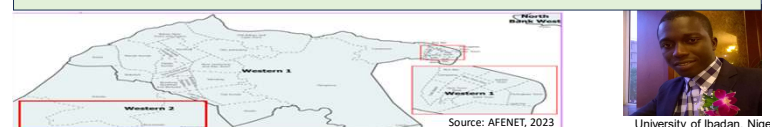
VARIABLE	AOR	LOWER LIMIT	UPPER LIMIT	P-VALUE
<b>Age of Child (in months)</b>				
0-5 (reference)	1			
6-11	0.046	0.015	0.143	<0.001*
12-23	0.374	0.198	0.706	0.002*
<b>Antenatal care</b>				
Yes (reference)	1			
No	7.892	1.373	45.367	0.020*
<b>Knowledge score</b>				
Good (reference)	1			
Poor	2.292	1.377	3.816	0.001*
<b>Perception score</b>				
Positive (reference)	1			
Negative	4.230	2.591	6.905	<0.001*

## CONCLUSIONS

- The study found poor knowledge, negative perception, and good prevention practices for CSM infection among caregivers of children under five years of age in The Gambia
- The age of child, antenatal care during pregnancy, knowledge, and perception of caregivers were associated with missed CSM vaccination
- This study provides data to support decision making related to CSM infection in order to contribute to the global efforts in reducing the related morbidity and mortality among children in Gambia
- This finding will help guide public health interventions and decision making in relation to CSM infection prevention and control in The Gambia

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