NUTRITION SMART SURVEY REPORT

Final Report

Benue State, Nigeria

OCTOBER 2025

Foreword

The 2025 Nutrition SMART Survey in Benue State constitute an important national evidence-generation aimed at strengthening Nigeria's nutrition data landscape and supporting informed policy and programme decision-making. Conducted at a critical period, the survey provides timely, credible, and high-quality data required to assess the nutrition situation of children and women and to guide targeted evidence-based interventions across development and humanitarian contexts.

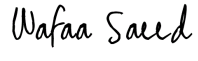
The survey was coordinated by the National Bureau of Statistics (NBS), in fulfilment of its statutory mandate to produce official statistics for national development planning, in collaboration with the SMART Initiative at Action Against Hunger (ACF) Canada and with technical and financial support from UNICEF. The application of the internationally recognized SMART Methodology following the SMART+ infrastructure ensured the production of reliable, comparable, and policy-relevant data on key nutrition indicators, including acute malnutrition, stunting and maternal infant and young child nutrition (MIYCN) practices. These data are essential for monitoring trends, identifying geographic and population-level disparities, and prioritizing actions for the most vulnerable groups. The successful implementation of the 2025 Nutrition SMART Survey reflects the strong collaboration between government institutions at national and sub-national levels, development partners, and implementing actors.

We acknowledge the investment by our development partners including European Commission's Civil Protection and Humanitarian Aid Department, Global Affairs Canada and UK Foreign Commonwealth and Development Office (FCDO) for their unwavering support to the Government of Nigeria's efforts to eliminate malnutrition. We commend the dedication and professionalism of the SMART survey managers, technical teams, field supervisors, enumerators, and community stakeholders whose collective efforts ensured the successful completion of the surveys, often under challenging operational conditions.

The findings from these surveys will serve as a critical evidence base to inform national and sub-national planning, programme design, monitoring and evaluation, humanitarian response, and resilience-building efforts. They will also support alignment with national nutrition policies, strategies, and investment frameworks, reinforcing the Government of Nigeria's commitment to improving nutrition outcomes and reducing all forms of malnutrition.

We encourage policymakers, programme managers, development partners, and other stakeholders to make effective use of the data and recommendations presented in this report to strengthen coordinated action and accelerate progress towards national nutrition targets.

Prince Adeyemi Adeniran
Statistician-General of the Federation/CEO
National Bureau of Statistics, Nigeria



Wafaa Saeed
Country Representative
United Nations Children's Fund, Nigeria

Acknowledgements

We would like to express our sincere appreciation to the National Bureau of Statistics (NBS) in Nigeria for its exemplary leadership in overseeing the implementation of the SMART survey in Benue state. We also acknowledge the Federal Ministry of Budget and Economic Planning, Federal Ministry of Health and Social Welfare, Federal Ministry of Agriculture and Food Security, Benue State Bureau of Statistics and Benue State Primary Health Care Board for their effective collaboration and steadfast commitment, which were instrumental to the successful completion of the survey.

Special recognition goes to the United Nations Children's Fund (UNICEF) in Nigeria for providing technical and financial support for the implementation of the survey in Benue state. The SMART initiative at Action Against Hunger Canada is appreciated for overseeing the technical aspects of the survey and the continuous capacity building and mentorship of SMART survey managers.

We extend our appreciation to the team of survey managers who took the overall leadership for the implementation of the field survey. Their efforts were key in ensuring survey planning, training, data collection, data analysis, final report writing and results dissemination.

A profound thank you goes to the survey teams of field supervisors, team leaders and enumerators for successfully collecting data despite facing numerous challenges in the field. Their dedication and commitment are highly appreciated. We also acknowledge the cluster guides, who helped the survey teams to navigate through the selected clusters.

We extend our heartfelt gratitude to the community members and households who warmly welcomed the survey teams into their homes and generously shared their time and information. Their cooperation and trust were central to the success of this important survey. We also appreciate the communities in the selected clusters for welcoming the survey teams and supporting the sampling procedure.

Finally, we acknowledge the continuous engagement of our development partners, including the European Commission's Civil Protection and Humanitarian Aid Department, Global Affairs Canada and the UK Foreign, Commonwealth and Development Office, and their unwavering support to the Government of Nigeria's efforts to eliminate malnutrition and strengthen community resilience.

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Abbreviations

ANC	Antenatal Care
ARI	Acute Respiratory Infection
cGAM	combined Global Acute Malnutrition
CI	Confidence Interval
CMR	Crude Mortality Rate
cSAM	combined Severe Acute Malnutrition
DTM	Displacement Tracking Matrix
EPI	Essential Programme on Immunization
GAM	Global Acute Malnutrition
HAZ	Height-for-Age z-score
HH	Household
IFAS	iron and folic acid supplementation
IMAM	Integrated Management of Acute Malnutrition
IOM	International Organization for Migration
IPC	Integrated Food Security Phase Classification
IYCF	Infant and Young Child Feeding
LGA	Local Government Area
MAM	Moderate Acute Malnutrition
MIYCN	Maternal, Infant and Young Child Nutrition
MMS	Multiple Micronutrient Supplementation
MNP	Multiple Micronutrient Powder
MUAC	Mid-Upper Arm Circumference
NBS	National Bureau of Statistics
ORS	Oral Rehydration Salts
PNC	Postnatal Care
SAM	Severe Acute Malnutrition
SD	Standard Deviation
SMART	Standardized Monitoring and Assessment of Relief and Transitions
U5MR	Under-Five Mortality Rate
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WAZ	Weight-for-Age z-score
WHO	World Health Organization
WHZ	Weight-for-Height z-score

Executive summary

The main objective of the SMART survey was to assess the nutritional status of children aged 0–59 months and retrospective death rates of the survey population in Benue state. Additionally, the survey investigated the water, sanitation and hygiene (WASH) practices, morbidity status and health-seeking behaviours, coverage of nutrition interventions (multiple micronutrient powder [MNP], vitamin A supplementation, deworming, and measles immunization), infant and young child feeding practices, nutritional status and uptake of iron and folic acid supplementation (IFAS), and intake of multiple micronutrient supplementation (MMS) among girls and women of reproductive age (15–49 years).

In total, SMART survey was conducted in five locations: the three domains were: Benue South, Benue Northwest and Benue Northeast, and two camps were from internally displaced persons (the International Market and Daudu 2 camps). The Standardized Monitoring and Assessment of Relief and Transitions (SMART) methodology was used adopting the SMART+ infrastructure which is an end-to-end digital infrastructure. A cross-sectional study design with two-stage cluster sampling was applied. Stage one involved the random selection of clusters, while stage two involved the selection of households using simple random sampling in the three survey domains. An exhaustive survey was conducted in the International Market Camp and simple random sampling was applied in Daudu 2 Camp. A household was the basic sampling unit.

Table 1: Summary findings of Benue SMART+ survey, October 2025

Indicator	State (Benue South, Northwest and Northeast) (95% confidence interval CI)	International Market Camp (exhaustive survey)	Daudu 2 Camp (95% CI)
Global Acute Malnutrition prevalence among children aged 0–59 months per Weight-for-Height Z-score < -2 Standard Deviations	5.8 (4.6, 7.3)	8.4	4.7 (2.8, 7.9)
Moderate Acute Malnutrition prevalence among children aged 0–59 months per Weight-for-Height Z-score >-2 - ≤-3 Standard Deviations	5.5 (4.3, 7.0)	8.2	4.7 (2.8, 7.9)
Severe Acute Malnutrition prevalence among children aged 0–59 months per Weight-for-Height Z-score < -3 Standard Deviations	0.3 (0.1, 0.5)	0.3	0.0 (0.0, 0.0)
Global Acute Malnutrition prevalence among children aged 0–59 months per Mid-Upper Arm Circumference [MUAC] <125 mm	2.3 (1.5, 3.4)	5.4	5.0 (2.9, 8.6)
Severe Acute Malnutrition prevalence among children aged 0–59 months per Mid-Upper-Arm Circumference (MUAC) <115 mm	0.2 (0.0, 0.8)	0.5	0.8 (0.2, 3.0)
Combined GAM prevalence among children aged 0–59 months per Weight-for-Height Z-score < -2 Standard Deviations or Mid-Upper-Arm Circumference <125 mm	6.7 (5.4, 8.3)	10.5	6.5 (4.8, 11.6)
Combined Severe Acute Malnutrition prevalence among children aged 0–59 months per WHZ < -3 Standard Deviations or MUAC <115 mm	0.5 (0.2, 1.2)	0.6	0.7 (0.2, 3.0)
Stunting prevalence among children aged 0–59 months per Height-for-Age < -2 Standard Deviations	27.3 (24.2, 30.6)	32.7	32.3 (27.0, 38.1)
Severe stunting prevalence among children aged 0–59 months per Height-for-Age < -3 Standard Deviations	6.9 (5.4, 8.9)	9.8	9.7 (6.7, 13.8)
Underweight prevalence among children aged 0–59 months per Weight-for-Age < -2 Standard Deviations	14.8 (12.6, 17.3)	24	20.1 (15.8, 25.2)
Severe underweight prevalence among children aged 0–59 months per Weight-for-Age < -3 Standard Deviations	2.5 (1.6, 3.6)	4.5	2.9 (1.5, 5.7)

Crude mortality rate [deaths per 10,000 population per day]	0.65 (0.45, 0.94)	0.67	0.48 (0.21, 1.07)
Under-five mortality rate [deaths per 10,000 children under 5 years per day]	0.50 (0.23, 1.11)	0.69	1.70 (0.78, 3.65)
Additional Indicators			
Proportion of population with access to improved water for drinking and cooking	67.7 (61.6, 73.2)	N/A	N/A
Proportion of population using unprotected/untreated water	32.3 (26.8, 38.4)	N/A	N/A
Proportion of population with access to improved sanitation facilities	52.5 (46.0, 58.9)	N/A	N/A
Proportion of population with access to a specific handwashing device	1 (0.3, 3.4)	N/A	N/A
Coverage of multiple micronutrient powder [MNP] supplementation for children aged 6–59 months	5.2 (3.0, 8.8)	9.1	5.5 (3.2, 9.2)
Vitamin A supplementation coverage for children aged 6–59 months within past six months	73.9 (71.1, 76.5)	60.7	59.2 (52.9, 65.5)
Deworming coverage for children aged 12–59 months within past six months	32.9 (26.5, 40.0)	26.8	29.6 (23.5, 36.6)
Measles vaccination coverage for children aged 9–59 months	72.1 (69.4, 74.9)	64.7	52.0 (45.3, 58.2)
Prevalence of acute respiratory infection [ARI] symptoms in the two weeks preceding the survey for children aged 0–59 months	0.3 (0.1, 1.4)	1.2	1.1 (0.3, 3.3)
Prevalence of fever in the two weeks preceding the survey for children aged 0–59 months	12.1 (9.8, 15.0)	19.7	21.4 (16.9, 26.6)
Prevalence of diarrhoea in the two weeks preceding the survey for children aged 0–59 months	7.8 (5.9, 10.2)	18.5	12.0 (8.6, 16.4)
Proportion of ORS use during diarrhoea episode	18.9 (11.4, 29.7)	62.0	37.5 (22.2, 55.9)
Proportion of zinc tablet or syrup use during diarrhoea episode	20.2 (12.3, 31.2)	57.0	50.0 (32.7, 67.3)
Proportion of diarrhoea cases managed with ORS and zinc tablet or syrup.	10.5 (4.8, 21.5)	48.3	37.5 (22.2, 55.9)

Proportion of care-seeking for symptoms of ARI from an appropriate provider	100	90.0	100
Proportion of care-seeking for fever from an appropriate provider	80.2 (71.4, 86.8)	84.9	89.8 (78.8, 95.4)
Proportion of care-seeking for diarrhoea from an appropriate provider	59.5 (48.0, 70.0)	83.9	84.4 (66.6, 93.6)
Early initiation to breastfeeding	47.7 (41.4, 54.1)	41.5	37.9 (29.9, 46.5)
Exclusively breastfed for the first two days after birth	61.8 (55.6, 67.7)	83.9	76.5 (68.4, 83.0)
Exclusive breastfeeding under 6 months	48.1 (40.0, 56.2)	78.7	76.3 (59.8, 87.5)
Mixed milk feeding for newborn aged under 6 months	6.9 (3.1, 14.3)	0	0
Continued breastfeeding	42.4 (35.5, 49.6)	63.3	58.1 (45.3, 69.9)
Introduction of solid, semi-solid or soft foods	82.6 (65.4, 92.2)	58.8	91.7 (52.4, 99.1)
Minimum dietary diversity	49.9 (42.9, 57.0)	15.7	10.6 (5.8, 18.8)
Minimum meal frequency	28.8 (22.8, 35.6)	25.9	33.0 (24.1, 43.2)
Minimum milk feeding frequency for non-breastfed children	11.5 (7.2, 17.9)	2.8	3.7 (0.5, 23.9)
Minimum acceptable diet	12.4 (9.3, 16.4)	5.5	2.1 (0.5, 8.3)
Egg and/or flesh food consumption	67.8 (61.6, 73.4)	20.4	23.4 (15.8, 33.2)
Sweet beverage consumption	31.7 (25.7, 38.5)	9.4	3.2 (1.0, 9.6]
Unhealthy food consumption	39.4 (32.4, 46.9)	18.8	12.8 (7.3, 21.3)
Zero vegetable or fruit consumption	20.3 (16.1, 25.2)	42.0	44.7 (34.8, 55.0)

Bottle feeding	20.2 (16.2, 25.0)	6.6	12.1 (7.5, 19.0)
Severe child food poverty	17.9 (14.2, 22.1)	39.2	82.5 (74.0, 89.0)
Non-pregnant, non-lactating	72.8 (69.9, 75.5)	61.4	56.4 (50.7, 62.0)
Pregnant	8.7 (7.2, 10.5)	10.3	10.1 (7.2, 14.2)
Lactating with an infant less than 6 months	47.0 (40.5, 53.5)	46.8	36.4 (27.4, 46.4)
Lactating with an infant greater than 6 months	53.0 (46.5, 59.5)	53.2	63.6 (53.6, 72.6]
Women of reproductive age [mean age, years]	28.30 (27.9, 28.7)	29.98	29.77 (28.8, 30.7)
Prevalence [%] of MUAC malnutrition in non-pregnant, non-lactating women, MUAC <210 mm	2.7 (1.5, 4.9)	0.4	0.6 (0.1, 4.2)
Prevalence of MUAC malnutrition in non-pregnant, non-lactating women, MUAC <230 mm	8.3 (5.8, 11.8)	3.6	4.2 (2.0, 8.6)
Prevalence of MUAC malnutrition in pregnant women and lactating women with an infant under 6 months, MUAC <210 mm	2.8 (0.7, 10.1)	0.4	0
Prevalence of MUAC malnutrition in pregnant women and lactating women with an infant under 6 months, MUAC <230 mm	6.8 (3.6, 12.5)	6.7	7.6 (3.1, 17.2)
Rate of iron/folate/multiple micronutrient supplementation [MMS] possession or access	1.9 (1.1, 2.5)	0	0
Rate of iron/folate/MMS adherence [≥90 days]	48.6 (40.1, 56.7)	51.5	67.6 (55.9, 77.9)
Iron tablets	14.0 (11.0, 19.3)	0	0
Iron and folic acid tablets [IFA]	1.9 (1.1, 2.5)	0	0
Multiple micronutrient supplements	24.6 (22.1, 25.9)	0	0

Prevalence of acute malnutrition based on weight-for-height z-scores and/or oedema

Across the three assessed domains of Benue state, the overall prevalence of global acute malnutrition (GAM) defined by weight-for-height z-scores (WHZ) below -2 and/or the presence of oedema is 5.8 per cent. Boys are more affected by acute malnutrition (7.1 per cent) than girls (4.6 per cent), but this difference in acute malnutrition by gender is not statistically significant.

Results by domain show that GAM based on WHZ <-2 is considered medium level (according to World Health Organization [WHO] classification) in Benue South (8.4 per cent), but low in the Benue Northwest (3.9 per cent) and Benue Northeast (4.0 per cent) domains. In the camps, the International Market Camp also has a medium level of GAM (8.4 per cent), but Daudu 2 Camp has a lower-level GAM (4.7 per cent).

The prevalence of severe acute malnutrition (SAM) is very low across all the survey areas (<0.6 per cent). Additionally, not one case of oedema was identified.

The GAM prevalence, based on mid-upper arm circumference (MUAC) <125 mm and/or oedema, shows low levels of acute malnutrition in all three domains, ranging from 0.5 per cent in Benue Northwest to 3.8 per cent in Benue Northeast. This compares with 5.4 per cent in the International Market Camp and 5.0 per cent in Daudu 2 Camp. The SAM prevalence based on MUAC (<115 mm) and/or oedema shows low rates across the three domains.

At the state level, the overall prevalence of combined global acute malnutrition (cGAM), defined as WHZ <-2 and/or MUAC <125 mm and/or oedema, is 6.7 per cent, categorized as medium level. Results by domain and camp reveal medium levels in Benue South (9.5 per cent), Benue Northeast (5.8 per cent) and Daudu 2 Camp (6.5 per cent). Strikingly, the International Market Camp has a high cGAM prevalence of 10.5 per cent, while the Benue Northwest domain has a low cGAM prevalence of 3.9 per cent.

The combined severe acute malnutrition (cSAM), defined as WHZ <-3 and/or MUAC <115 mm and/or oedema, also shows very low prevalence across the three domains, averaging 0.5 per cent.

Figure 1: GAM and SAM prevalence in Benue State

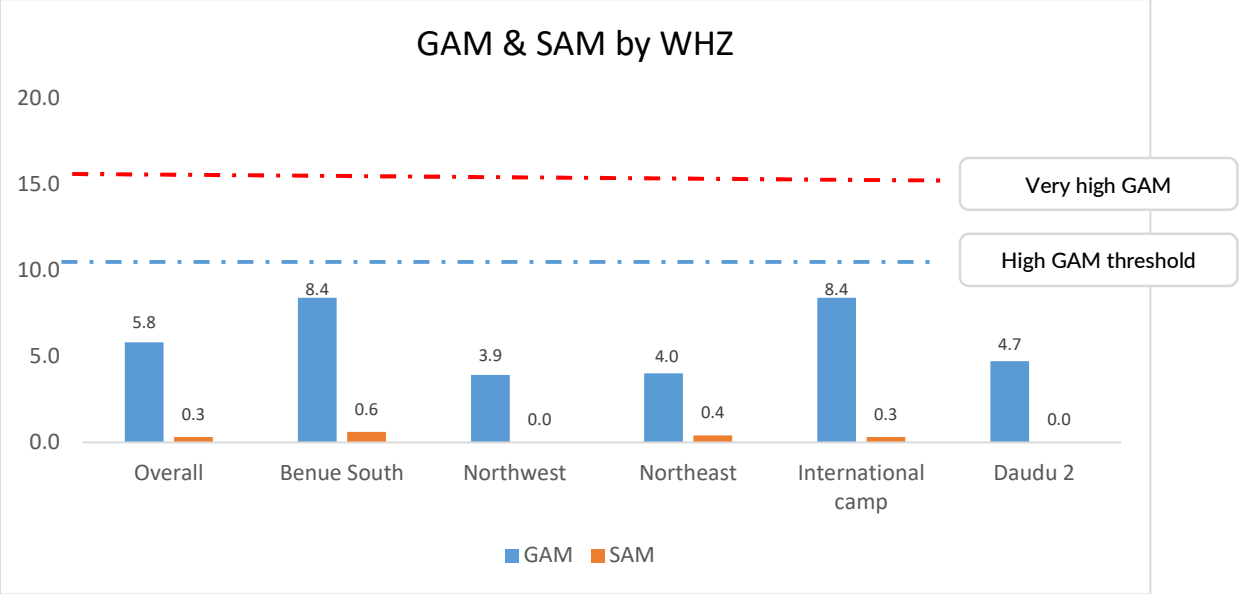
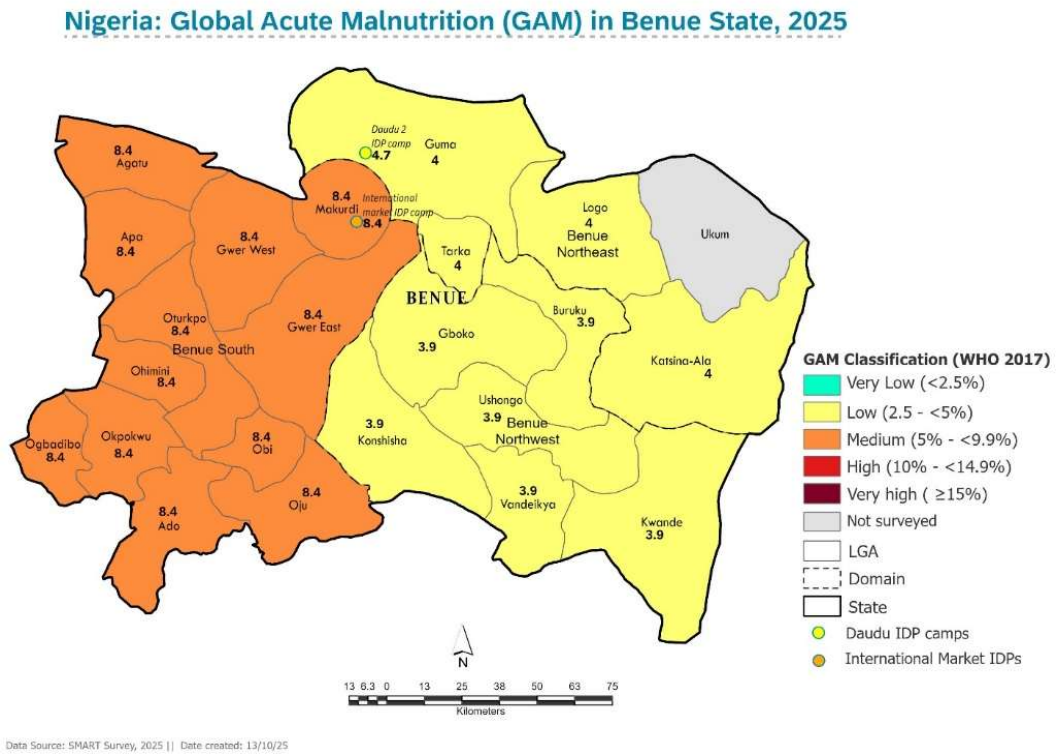


Figure 2: Map of GAM prevalence in Benue State



Disclaimer: *This map does not reflect administrative area or a position by UNICEF on the legal status of any geopolitical zone within Nigeria. Rather, it depicts the prevalence of malnutrition based on the WHO classification of malnutrition for purposes of visualizing the nutrition status.*

Prevalence of underweight based on weight-for-age z-scores by state and domain

The weighted prevalence for underweight is almost 15 per cent at the state level, indicating a widespread nutrition concern in Benue state. The International Market Camp is the most affected survey area, with nearly one in four children underweight (24 per cent), and severe underweight prevalence at 4.5 per cent – nearly double the domain average. Boys are more vulnerable to underweight than girls, especially in the Benue Northwest domain and Daudu 2 Camp. Generally, severe underweight is present in all survey areas but remains below 5 per cent prevalence, which suggests a low level of severe underweight.

Prevalence of stunting based on height-for-age z-scores by state and domain

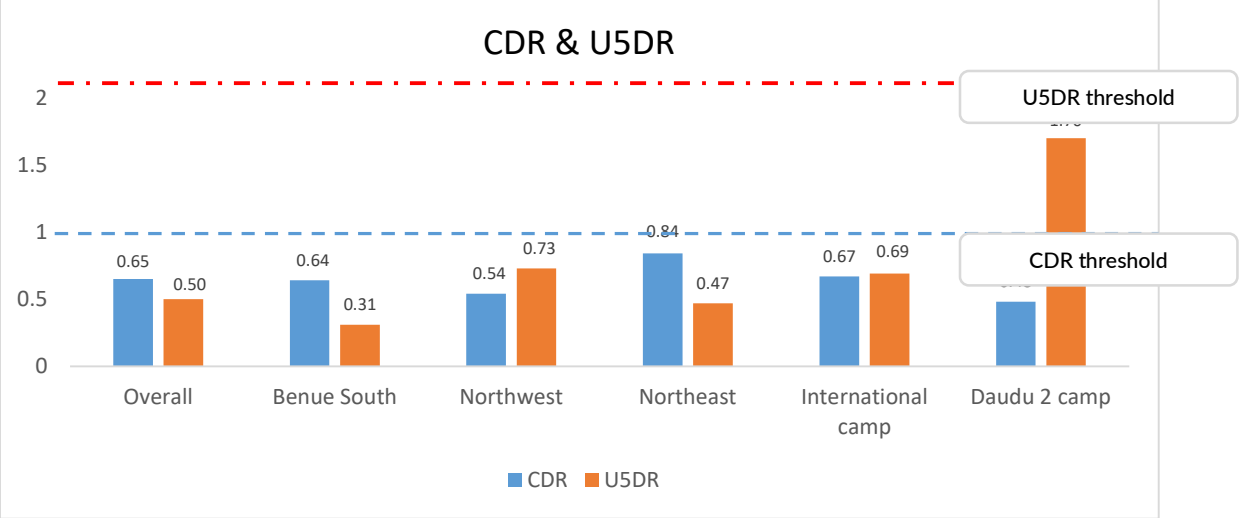
Stunting is high, affecting over one quarter of children (27.3 per cent) in the three assessed domains of Benue state and over 30 per cent in the two camps. Boys are more affected, especially in the Benue Northwest domain, where stunting prevalence is 34.4 per cent among boys compared to 20.1 per cent among girls.

Severe stunting is present in all survey areas, with camps showing a higher prevalence (international market with 9.8 per cent and Daudu 2 camp with 9.7 per cent) than the domains (6.9 per cent).

Retrospective crude and under-five mortality rates

According to the results, no domain or camp reaches the emergency mortality thresholds. The Benue Northeast domain recorded the highest crude mortality rate (CMR), at 0.84 deaths/10,000 persons/day; however, Daudu 2 Camp has the highest under-five mortality rate (U5MR), at 1.70 deaths/10,000 children under 5 years/day. Yet the upper limits of the CMR confidence intervals in the three domains exceed the emergency threshold of 1 death/10,000 persons/day. Similarly, the upper limits of the U5MR confidence intervals in Benue Northwest and Daudu 2 Camp surpass the emergency threshold of 2 deaths/10,000 children under 5 years/day, which calls for close monitoring.

Figure 3: Crude and under-five mortality rates in Benue state



WASH results

The survey assessed access to safe water for drinking and cooking only in the three domains. Results at state level show that two thirds of the population (67.7 per cent) rely on protected water sources, with protected wells (50.2 per cent) and water seller kiosks (26.0 per cent) the most commonly used sources. About one third of the population (32.3 per cent) depend on unprotected sources, especially surface water (15.6 per cent).

Benue Northeast and Northwest have better access to protected water sources at 83.7 per cent and 75 per cent, respectively. The main source of water in both domains is protected wells. In contrast, just over half of the households (51.8 per cent) in Benue South use protected water sources. There is also a high reliance on unprotected water sources, used by 48.2 per cent of the population in this domain.

Regarding access to improved sanitary facilities, slightly over half of households (52.5 per cent) in Benue state use improved sanitation facilities. Among the domains, Benue South has the highest proportion of households using improved sanitation facilities (61.1 per cent), while Benue Northeast and Northwest lag behind at 47.2 per cent and 46.0 per cent, respectively. Over half of the households in Benue Northwest (53.1 per cent) and Northeast (51.3 per cent) use unimproved toilets. In Benue South, 37.8 per cent also use unimproved toilets. Across all the domains, the sharing of toilets with family ranges from 12.1 per cent of households in Benue Northwest to 6.1 per cent in Benue South, while the use of communal toilets ranges from 16.1 per cent of households in Benue South to 11.3 per cent in Benue Northeast.

In terms of access to a handwashing system, state-level findings indicate that a mere 1 per cent of households in Benue state own a specific handwashing device. Results by domain show that only 1.3 per cent of households in both Benue South and Northwest, and 0.2 per cent in Benue Northeast reported having a specific handwashing device. Among the few households with

handwashing devices, 85.7 per cent of households in Benue Northeast and 37.5 per cent in Benue South reported that their handwashing devices have both water and soap.

Coverage of nutrition and health programmes

Coverage of multiple micronutrient powder (MNP) is very low (5.2 per cent) in Benue state. Results by domain show that Benue Northwest has the highest MNP coverage at 9.4 per cent, while coverage in the Benue South and Northeast domains stands at about 3 per cent. In the camps, MNP coverage is 9.1 per cent in the International Market Camp and 5.5 per cent in Daudu 2 Camp.

Coverage of vitamin A supplementation in the state is 73.9 per cent. Vitamin A supplementation coverage, assessed by both card presentation and caregiver recall, is highest in Benue Northeast (80.6 per cent). This is followed by Benue South (73.7 per cent) and Benue Northwest (69.4 per cent), both of which fall below the ≥80 per cent coverage recommended by the Sphere Standards. Lower rates were also observed in the International Market Camp and Daudu 2 Camp at 60.7 per cent and 59.2 per cent, respectively.

Generally, coverage of deworming is low across all the survey areas. Benue South leads the way with coverage of 40.9 per cent, while coverage is 28.2 per cent in Benue Northwest and 26.7 per cent in Benue Northeast. Similar rates were recorded in the camps, which average 28.2 per cent coverage.

In Benue state, measles vaccination coverage, based on card and caregiver's recall, is 72.1 per cent, slightly below the targeted ≥80 per cent. Across the domains and camps, measles vaccination coverage also falls below the 80 per cent threshold. Benue South and Northeast each have coverage of about 74 per cent, while Daudu 2 Camp has the lowest coverage at 52 per cent. These results indicate access barriers and/or weak service delivery, which increase the risk of outbreaks of vaccine-preventable diseases.

The results at the state level show low morbidity rates, with higher health-seeking behaviour. Acute respiratory infection (ARI) has a very low prevalence (0.3 per cent), with treatment sought for all cases. Fever affects 12.1 per cent of children under 5 years of age, and 80.2 per cent of those affected receive treatment. Prevalence of diarrhoea is 7.8 per cent, with 59.5 per cent of cases receiving treatment.

Morbidity prevalence and health-seeking behaviours show variations between the domains and the camps. ARI cases are rare, with only a handful of instances reported. Fever is more common, especially in the camps, affecting about 20 per cent of children under 5 years in both camps. The three domains show lower prevalence, ranging from 8.9 per cent in Benue Northeast to 16.6 per cent in Benue South. Care-seeking during fever is relatively high across all the survey areas, with about 80 per cent of affected children in the domains receiving care and 87.4 per cent of those in the camps. Diarrhoea prevalence ranges from 5.9 to 9.8 per cent in the domains, but it is slightly higher in the camps, averaging 15.3 per cent. Treatment-seeking for diarrhoea stands at about 60 per cent in the domains, rising to over 80 per cent in the camps. Treatment of diarrhoea with oral rehydration salts (ORS) and zinc is below 30 per cent in the Benue South and Northeast domains, but slightly higher in the camps, which average coverage of 50 per cent.

Maternal, infant and young child nutrition practices

Breastfeeding practices

Breastfeeding practices vary widely. Across all survey areas, about 96 per cent of the children under 5 years of age were ever breastfed. Early initiation within one hour is much less common, however, with rates at slightly above 50 per cent in Benue South and Northwest, 27.0 per cent in Benue Northeast and about 40 per cent in the two camps. The rate of exclusive breastfeeding for the first two days averages 61.8 per cent in the domains, rising to 80.2 per cent in the camps. Prevalence of exclusive breastfeeding for infants under 6 months ranges from 39.5 to 56.1 per cent in the domains but reaches over 76 per cent in the two camps. Mixed milk feeding (formula and/or animal milk in addition to breast milk) is low in the domains (6.9 per cent) and absent in the camps. The rate of continued breastfeeding (for infants aged 12–23 months) averages 42.4 per cent in the domains and 61 per cent in the camps. Bottle feeding is more prevalent in the domains (20 per cent) than in the camps (9.4 per cent).

Complementary feeding practices

Complementary feeding practices show mixed results. Introduction of solid, semi-solid or soft foods is high (>80 per cent) in Benue South, Benue Northwest and Daudu 2 Camp. The minimum meal frequency among breastfed children aged 6–23 months is low across the survey areas: Only 28.9 per cent of breastfed children aged 6–23 months were fed the recommended number of feedings of solid, semi-solid or soft foods (at least two feedings for children aged 6–8 months and at least three feedings for those aged 9–23 months).

The minimum dietary diversity, which measures the proportion of children aged 6–23 months consuming foods from at least five of the eight main food groups, ranges from 44.2 to 52.9 per cent in the domains and from only 10.6 to 15.7 per cent in the camps. Overall, only 12.4 per cent of children meet the minimum acceptable diet in the state, with the camps reporting very low rates of between 2.1 and 5.5 per cent. Consumption of eggs and flesh foods is relatively high in the domains (67.8 per cent) but critically low in the camps (average of 21.9 per cent). Consumption of sweet beverages is notably higher in the domains (31.7 per cent) than in the camps (average of 9.5 per cent). The proportion of children who consume no fruits or vegetables is highest in the camps (average of 43.4 per cent) compared to an average of 20 per cent in the domains.

Child food poverty

Child food poverty affects over half of the assessed children, with 50.4 per cent experiencing moderate or severe deprivation in dietary diversity. Benue Northwest has the highest rate of severe child food poverty (21.7 per cent) and the lowest proportion of children with adequate diets (44.2 per cent). Striking disparities were noted in the two camps: While 39.2 per cent of children in the International Market Camp are living in severe child food poverty, 82.5 per cent of children in Daudu 2 Camp are in the same predicament, constituting a severe crisis.

Nutritional status of women, IFAS and multiple micronutrient intake

The survey reveals low wasting prevalence among girls and women of reproductive age (15–49 years). Across the domains, the overall prevalence of wasting among non-pregnant, non-lactating girls and women, based on MUAC <210 mm, is 2.7 per cent, and 8.3 per cent fall below MUAC <230 mm. Among pregnant and lactating girls and women with infants aged under 6 months, 2.8 per cent of mothers are malnourished, based on MUAC <210 mm, and 6.8 per cent have a MUAC <230 mm. In the camps, prevalence of wasting (MUAC <210 mm) is very low among non-pregnant, non-lactating girls and women with an average of 0.5 per cent, with an average of 3.9 per cent having a MUAC <230 mm. Among pregnant and lactating girls and women with infants aged under 6 months, only one case of severe wasting (MUAC <210 mm) was reported in the International Market Camp, with an average of 7.2 per cent having a MUAC <230 mm in the two camps.

Iron and folic acid supplementation (IFAS) coverage shows great variation. In the domains, Benue South has the highest coverage (75.8 per cent), with the lowest coverage (46.0 per cent) in Benue Northeast. Both camps recorded moderate coverage with an average of over 52 per cent. The duration of IFAS intake also varies, with the proportion of girls/women in the camps taking IFAS for a longer duration (more than 90 days) averaging 59.6 per cent, compared to 48.6 per cent on average in the domains.

Multiple micronutrient supplementation (MMS) remains limited overall, with its uptake highest in the Benue Northwest domain (39.6 per cent) and lowest in Benue South (11.0 per cent).

Domain-specific recommendations

Acute malnutrition prevalence

Scale up mobile and outreach integrated management of acute malnutrition services to ensure community-level screening, referral and treatment of wasting, focusing especially on Benue South.

Strengthen strategies for prevention of wasting.

Chronic malnutrition prevalence

Strengthen nutrition education, highlighting the importance of the first 1,000 days – from conception to 23 months of age – to continue to reduce the levels of underweight and stunting.

Implement multisectoral programmes to address structural causes of stunting (poverty, poor WASH, food insecurity).

Coverage of health programmes

Strengthen and expand routine vaccination programmes, along with vitamin A supplementation and deworming interventions for children under 5 years of age, aiming to achieve over 80 per cent coverage.

Establish routine progress reviews to identify gaps in vaccination, deworming and supplementation programmes, and adjust strategies as needed for continuous improvement.

Maternal, infant and young child nutrition

Continue group sessions and home visits promoting early initiation of breastfeeding and exclusive breastfeeding for the first six months of life.

Conduct health education to encourage consumption of nutrient-rich foods, vegetables and fruits and discourage consumption of unhealthy foods.

Promote the use of locally available, nutrient-rich foods by engaging community health workers and local volunteers to lead ongoing sensitization activities and cooking demonstrations, and incorporate maternal, infant and young child nutrition (MIYCN) topics into existing community dialogue platforms.

Integrate MIYCN promotion and counselling into antenatal/postnatal care as well as routine health services to ensure sustainability.

Camp-specific recommendations

Acute malnutrition prevalence

Integrate acute malnutrition management into routine primary health care services offered at the camp health posts to ensure prevention and treatment of wasting, especially in the International Market Camp.

Chronic malnutrition prevalence

Enhance nutrition education, highlighting the importance of the first 1,000 days – from conception to 23 months of age – and continue to promote improved infant and young child feeding practices to address high levels of underweight and stunting in the camps.

Invest in food security, provide fortified foods and improve the WASH infrastructure in the camps to tackle the underlying causes of underweight and stunting.

Coverage of health programmes

Strengthen child health interventions by organizing monthly outreach sessions led by camp health workers and community volunteers, in which MNP and deworming tablets are distributed alongside routine services. Pair this with health education among caregivers on the importance of these interventions.

Strengthen the data system for children under 5 years of age in the two camps to document for every child during health visits the coverage of interventions – measles vaccine, vitamin A supplementation, deworming, and MNP.

Maternal, infant and young child nutrition

Continue supporting peer counsellors and community health volunteers to provide immediate support for early initiation and exclusive breastfeeding during antenatal visits, deliveries and

postnatal follow-ups in the camps. Additionally, continue to assist support groups for mothers and integrate lactation counselling into routine health services in the camps.

Enhance camp-based cooking demonstrations and nutrition education sessions using locally available and affordable foods to improve dietary diversity and meal frequency.-based cooking demonstrations and nutrition education sessions

Invest in camp food systems and livelihood programmes that expand access to diverse foods – for example, small-scale kitchen gardens, poultry rearing, and fortified food distribution-scale.

1.0 Introduction

1.1 Background

1.1.1 Geography and demography

Benue state is located in Nigeria's North-Central region and lies within the Middle Belt agroecological zone. Geographically, Benue state is bordered by Nasarawa state to the north, Taraba to the east, Cross River to the south and Enugu and Kogi to the west, with the River Benue running through its centre, providing vital water resources for farming and fishing. The terrain is predominantly lowland interspersed with hills, and the climate is tropical with distinct wet and dry seasons, making it suitable for crops like yam, cassava, rice and soybeans.[1]

The state has an estimated population of over 7 million people, with the Tiv and Idoma ethnic groups forming the majority. The population is largely rural, and subsistence agriculture remains the dominant livelihood. Benue state is administratively divided into 23 local government areas (LGAs), with Makurdi serving as the capital.[2]

Benue state features a mosaic of savannah and forest-savannah transitional zones, with bimodal rainfall that supports diverse staple crops such as maize, yam, cassava, sorghum and rice. The state has long been referred to as Nigeria's 'food basket' due to its high agricultural productivity.[3] Within Benue, the geographic areas of Benue South, Benue Northwest and Benue Northeast comprise several LGAs known for both rural farming communities and increasing exposure to conflict.

According to International Organization for Migration (IOM) Displacement Tracking Matrix (DTM) data, there were large population movements in 2024 and 2025, driven by conflict and significant internal displacement, returnee flows, and shifts in settlement density in host communities.[4] Benue State Government has established camps such as the International Market Camp, located in the International Market area in Makurdi, and Daudu camps, located within Guma LGA. These camps accommodate families displaced by violent attacks, including the Yelwata incident of June 2025 in Guma LGA.

1.1.2 Political and economic outlook

At present, Benue state is shaped by persistent insecurity, economic hardship and a struggle to strengthen local governance and improve service delivery while protecting vulnerable populations affected by the ongoing crisis. The state has faced recurring violence, particularly the farmer–herder conflicts and attacks by armed groups that have displaced thousands and strained local

[1] Benue State Government, 'About. A brief history of Benue state', <https://benuestate.gov.ng
[2] National Bureau of Statistics, Nigeria, *Benue State Population Estimates*, 2022.
[3] Ministry of Finance and Economic Planning, Nigeria, 'Explore Benue. History of Benue state', <www.mofep.be.gov.ng/
[4] International Organization for Migration, Displacement Tracking Matrix, 'North-central Nigeria – Benue state. Flash Report 216 – Population displacement', 2 June 2025.

governance capacity.[5] Tensions linked to land disputes, resource allocation and ethnic divisions continue to undermine peacebuilding and inclusive governance.

Benue state continues to face economic pressures including inflation, currency depreciation and elevated food prices, which erode household purchasing power. The Comprehensive Food Security and Vulnerability Analysis and analysis by the Integrated Food Security Phase Classification (IPC) show that many households in Nigeria, including in Benue state, are increasingly constrained economically, which compounds the impact of conflict disruptions on food access. Additionally, households in both the International Market and Daudu camps remain economically vulnerable, relying heavily on food aid and sporadic relief distributions. Opportunities for livelihoods are extremely limited, contributing to dependence on external assistance.

1.1.3 Conflict, displacement and their impacts

Conflict in Benue state since 2015 has increasingly centred on farmer–herder clashes, with rural communities frequently targeted in retaliatory attacks. In 2025, multiple flash reports by IOM documented large civilian attacks in LGAs such as Guma (notably the Yelwata community attack in June 2025) and Gwer West, Apa and adjacent areas.[6] These violent incidents have triggered mass displacement, caused casualties and disrupted agricultural cycles, market supply routes and access to basic services. In addition, reports by Amnesty International estimate that tens of thousands of people were displaced across Benue in 2025. Many displaced households refuse to return to their homes for security reasons. Further, reports by various humanitarian actors describe increasing difficulties in reaching rural communities, including road closures, and security escorts required for access. As a result of the insecurity, reductions in crop and livestock output have been reported, which illustrates the direct impact of the conflict on livelihoods. Many families have reported losses of income, food stocks, and assets, leading to nutrition vulnerability among affected populations.

The camps for internally displaced persons – both the International Market Camp and Daudu 2 Camp – shelter populations displaced by persistent farmer–herder violence and communal clashes in Benue state. Amnesty International notes that the displacement crisis has been compounded by insecurity, leaving civilians vulnerable to attacks and secondary displacement.

1.1.4 Humanitarian situation

According to a multisectoral needs assessment conducted by Save the Children in April 2024, Benue state is grappling with a multifaceted humanitarian crisis driven by violent farmer–herder conflicts over land and water, an influx of internally displaced persons and recurrent flooding that

[5] United Nations Children's Fund Nigeria, 'EU, UNICEF, and ILO Partner with the Nigerian Government to Launch a Social Protection Project in Benue', Press release, UNICEF Nigeria, Makurdi, 25 June 2025, www.unicef.org/nigeria/press-releases/eu-unicef-and-ilo-partner-nigerian-government-launch-social-protection-project-benue.

[6] Displacement Tracking Matrix (DTM), International Organization for Migration (IOM), Flash Report 248 – Population Displacement, North-central Nigeria – Benue State (May–July 2025), 1 August 2025.

has devastated livelihoods. This assessment also reveals that food, education, health and water are the top priority needs, with nearly 40 per cent of households displaced and most unable to return owing to safety concerns.[7]

The crisis has also led to widespread child protection issues, severe food insecurity, reliance on unsafe water sources, open defecation and limited access to affordable health care, underscoring the urgent need for coordinated humanitarian interventions across all sectors. In 2025, violent clashes between farmers and herders over land and water resources, for instance, in Yelwata community, have continued to drive displacement. These conflicts have led to widespread insecurity, forcing many residents to flee their homes. The displacement disrupts livelihoods, strains access to basic services and contributes to the broader humanitarian crisis affecting the region.

In many LGAs, health and nutrition service delivery has been disrupted due to staff displacement, supply stockouts or facility damage. According to a UNICEF situation report of June 2025, humanitarian needs across Benue Northeast and Northwest are escalating amid declining resources. In camps for internally displaced persons, overcrowding, inadequate infrastructure and poor sanitary conditions increase the risk of disease outbreaks. Additionally, delayed food aid deliveries and limited humanitarian presence increases vulnerability to hunger and disease. Protection and child health risks also remain acute, with UNICEF documenting child protection gaps across Benue's camps.[8]

1.1.5 Food security situation

Based on the Cadre Harmonisé food security analysis covering the period June–August 2025, Benue state is classified as being in IPC Phase 3 (Crisis), with some areas approaching Phase 4 (Emergency). This indicates that a significant portion of the population is experiencing high levels of acute food insecurity, with households experiencing food consumption gaps, high malnutrition rates and the use of negative coping strategies. Benue also suffers conflict-induced disruptions, including farm abandonment, destroyed crops, livestock losses and market disruptions, which have eroded both food availability and access. Inflation and the high cost of staple foods, especially in conflict-affected and remote LGAs, exacerbates food insecurity. In the camps for internally displaced persons, food distributions are irregular and households remain dependent on external aid. Delays in food supply deliveries have left populations acutely vulnerable to food insecurity.[9]

1.1.6 Health and nutrition situation

Benue state is facing a deteriorating health and nutrition crisis, compounded by displacement, insecurity and limited access to essential services. Although 72 per cent of households report having access to health facilities, the majority are unable to use them owing to their prohibitive

[7] Save the Children, *Multi-sectoral Needs Assessment*, *Benue State*, *Nigeria*, *April* 2024.

[8] United Nations Children's Fund Nigeria, 'EU, UNICEF, and ILO Partner with the Nigerian Government to Launch a Social Protection Project in Benue', Press release, UNICEF Nigeria, Makurdi, 25 June 2025,

[9]https://www.fao.org/nigeria/news/detailevents/en/c/1735060/#:~:text=Abuja%20%2D%20The%20Government%20of%20Nigeria,(133%20000)%20following%20closely; https://www.ipcinfo.org/ch/

costs, with 78 per cent of households with access citing financial barriers as the primary reason for non-use. Child nutrition indicators are alarming, with only 11.8 per cent of households with children under 5 years of age enrolled in therapeutic feeding programmes, and just 43 per cent of girls and women of reproductive age (15–49 years) meet minimum dietary diversity standards, reflecting widespread nutritional deficiencies.[10] The situation is further exacerbated by poor water and sanitation conditions, with many households relying on surface water for drinking and cooking, as well as practising open defecation, which heightens the risk of outbreaks of waterborne diseases such as cholera.

In Benue state, there are limited data on the prevalence of acute malnutrition. A pilot study in a Benue camp for internally displaced persons, which explored anthropometry and gut bacteria, highlighted undernutrition among the displaced population, but the sample size was too small to provide reliable estimates.[11]

There are no recent comprehensive surveys to estimate malnutrition prevalence across LGAs affected by recent displacements in Benue state. Given the convergence of conflict, displacement, food insecurity and service disruptions, the risk of acute malnutrition is expected to be high among children aged 6–59 months in the target LGAs.

1.2 Survey justification

The protracted conflict and recurrent communal violence in Benue state have led to massive internal displacement, with thousands of vulnerable populations, particularly women and children, forced to reside in camps for internally displaced persons such as the International Market and Daudu 2 camps, among others in the state. Both the host communities and displaced populations experience limited access to food, safe water and sanitation, and health services, which heightens the risk of acute malnutrition. The population in Benue state faces conflict-induced disruptions, including farm abandonment, destroyed crops, livestock losses and market disruptions, which have eroded both food availability and access. Rising inflation and food price shocks further constrain household food access, undermining resilience.

Although basic health services exist, capacity is overstretched, and the health needs of the population – particularly in the camps – are only partially addressed, which creates a higher risk of acute malnutrition. Access to safe drinking water and sanitation remains poor, increasing the risk of disease outbreaks.

With no recent nutrition data available, conducting the SMART survey in Benue state was necessary to determine the current prevalence of malnutrition and related risk factors. The survey provides updated nutrition information on the nutritional status of children aged 6–59 months, and girls and women of reproductive age (15–49 years), plus mortality rates, morbidity status and

[10] Save the Children, *Multi-sectoral Needs Assessment, Benue State, Nigeria, April* 2024.
[11] Nyinoh, Iveren Winifred, et al., 'Gut Bacteria and Nutritional Status of Nigerian Children at an Internally Displaced Persons' Camp in Benue State, Nigeria: A pilot study', *Journal of Biosciences and Medicines*, vol. 11, no. 6, June 2023, pp. 118–134.

health-seeking practices, health programme coverage, infant and young child feeding (IYCF) practices, and access to water, sanitation and hygiene (WASH) services in both the host communities and camps, to provide critical data to inform humanitarian responses.

1.3 Main objective

The overall objective of the SMART survey in Benue state was to assess the nutrition situation among children aged 0–59 months and the retrospective death rates of the survey population, as well as to determine the probable factors contributing to malnutrition.

1.3.1 Specific objectives

- To determine the prevalence of malnutrition (wasting, stunting and underweight) among children aged 0–59 months.
- To assess the retrospective crude and under-five mortality rates in the survey areas.
- To determine the general morbidity (diarrhoea, fever and acute respiratory infection) among children aged 0–59 months based on a two-week recall period.
- To assess the health-seeking behaviour of mothers or caregivers of children aged 0–59 months.
- To assess the coverage of multiple micronutrient powder among children aged 6–59 months.
- To estimate the coverage of measles vaccination among children aged 9–59 months.
- To assess coverage of vitamin A supplementation among children aged 6–59 months in the last six months.
- To determine deworming coverage among children aged 12–59 months in the last six months.
- To determine the coverage of iron and folic acid supplementation in girls and women of reproductive age (15–49 years).
- To determine the infant and young child feeding practices among children aged 0–23 months.
- To determine access to safe water, improved sanitation and a handwashing system.

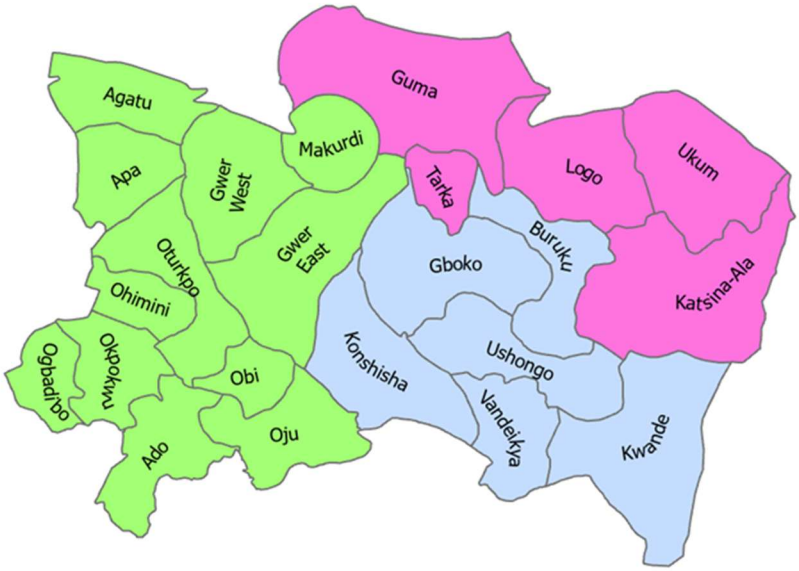
2.0 Methodology

2.1 Survey design

The SMART survey adopted a cross-sectional study design using the two-stage cluster sampling based on the SMART methodology in the three survey domains. Clusters were selected using the probability proportional to population size method. Stage one sampling involved sampling of clusters to be included in the survey, while stage two sampling involved the selection of households from the sampled clusters.

An exhaustive survey design was conducted in the International Market Camp and simple random sampling was applied in Daudu 2 Camp.

Figure 4: Domain grouping by LGAs



Disclaimer: *This map does not reflect administrative area or a position by UNICEF on the legal status of any geopolitical zone within Nigeria. Rather, it depicts domains of the survey area, which are group of LGAs put together based on geographic proximity and livelihood and socio-cultural homogeneity, to facilitate survey management and representativeness.*

Table 2: Survey domain composition by LGAs

Domain	LGAs included
Benue South	Ado, Agatu, Apa, Gwer East, Gwer West, Makurdi, Obi, Ogbadibo, Ohimini, Oju, Okpokwu, Otukpo
Benue Northeast	Guma, Katsina Ala, Logo, Tarka, Ukum
Benue Northwest	Buruku, Gboko, Konshish, Kwande, Ushongo, Vandekiya

2.2 Target groups, and inclusion and exclusion criteria

The target population for the anthropometric survey was children aged 0–59 months, and girls and women of reproductive age (15–49 years). Mothers or caregivers were interviewed to obtain information on WASH, childhood morbidity and health-seeking behaviours, measles vaccination, vitamin A supplementation, and IYCF practices.

Table 3: Survey indicators and target groups

	Key indicator	Survey target group
Nutrition status		
1.	Prevalence of wasting, stunting and underweight	Children aged 0–59 months
2.	Prevalence of wasting among girls and women of reproductive age	Girls and women aged 15–49 years
	Mortality rates	
3.	Crude mortality rate	All household members in the surveyed households
4.	Under-five mortality rate	All children under 5 years in the surveyed households
Health		
5.	Multiple micronutrient powder	Children aged 6–59 months
6.	Child morbidity (e.g., fever, acute respiratory infection, diarrhoea)	Children aged 0–59 months
7.	Measles vaccination coverage	Children aged 9–59 months
8.	Vitamin A supplementation coverage	Children aged 6–59 months
9.	Deworming coverage	Children aged 12–59 months
10.	Iron and folic acid supplementation	Girls and women aged 15–49 years
	WASH	
11.	Main source of water for drinking and cooking	All surveyed households
12.	Type of latrine/toilet used	
13.	Type of handwashing device, water and soap availability	
	Maternal, Infant and Young Child Nutrition	
14.	Ever breastfed	Children aged 0–23 months
15.	Early initiation of breastfeeding	Children aged 0–23 months
16.	Exclusive breastfeeding for the first two days	Children aged 0–5 months
17	Exclusive breastfeeding under 6 months of age	Children aged 0–5 months
18.	Mixed milk feeding under 6 months of age	Children aged 0–5 months
19.	Continued breastfeeding at 12–23 months	Children aged 12–23 months
20.	Bottle feeding	Children aged 0–23 months
21.	Introduction of solid, semi-solid or soft foods aged 6–8 months	Children aged 6–8 months
22.	Minimum meal frequency for breastfed children aged 6–8 months	Children aged 6–8 months

23.	Minimum meal frequency for breastfed children aged 9–23 months	Children aged 9–23 months
24.	Minimum meal frequency for breastfed and non-breastfed children aged 6–23 months	Children aged 6–23 months
25.	Minimum meal frequency for non-breastfed children aged 6–23 months	Children aged 6–23 months
26.	Minimum milk feeding frequency for non-breastfed children	Children aged 6–23 months
27.	Minimum dietary diversity	Children aged 6–23 months
28.	Minimum acceptable diet	Children aged 6–23 months
29.	Egg and/or flesh food consumption	Children aged 6–23 months
30.	Sweet beverage consumption	Children aged 6–23 months
31.	Unhealthy food consumption	Children aged 6–23 months
32.	Zero vegetable or fruit consumption	Children aged 6–23 months
	Child food poverty	
33.	Child food poverty	Children aged 6–23 months

2.3 Cut-offs for nutrition indices and malnutrition classification

Table 4: Cut-offs for the indices of WHZ, HAZ, WAZ and MUAC

Malnutrition status	Malnutrition status classification			
	Acute malnutrition		Chronic malnutrition	Underweight
	Weight-for-height z-score (WHZ)	Mid-upper arm circumference (MUAC)	Height-for-age z-score (HAZ)	Weight-for-age z-score (WAZ)
Global	Weight-for-height (WHZ) <-2 standard deviation (SD) and/or oedema)	Mid-upper arm circumference (MUAC) <125 mm and/or oedema)	Height-for-age (HAZ) <-2 SD	Weight-for-age (WAZ) <-2 SD
Moderate	WHZ <-2 SD to ≥-3 SD	MUAC ≤115 mm to <125 mm	HAZ <-2 SD to ≥-3 SD	WAZ <-2 SD to ≥-3 SD
Severe	WHZ <-3 SD and/or oedema	MUAC <115 mm and/or oedema	HAZ <-3 SD	WAZ <-3 SD

Table 5: World Health Organization/UNICEF classification for the severity of malnutrition by prevalence

	Prevalence threshold level (%)				
	Very high	High	Medium	Low	Very low
Wasting (WHZ)	≥15	10–<15	5–<10	2.5–<5	<2.5
Overweight (WHZ)	≥15	10–<15	5–<10	2.5–<5	<2.5
Stunting (HAZ)	≥30	20–<30	10–<20	2.5–<10	<2.5

WHO/UNICEF latest public health emergency thresholds for the prevalence of wasting, overweight and stunting in children under 5 years, August 2018

2.4 Indicator measurements

Nutrition data

Age: Children aged 0–59 months from the selected households were considered eligible for the survey. Age was obtained from official written documents such as vaccination or birth registration cards. If documentation was unavailable, a local calendar of events was used to estimate age.

Sex: This was recorded as either 'F' for female or 'M' for male.

Weight: Standardized Seca scales were used for weight measurement of children aged 0–59 months. The weight was recorded to the nearest 100 g (0.1 kg). Direct weighing option was used for older children who could easily stand, while the double weighing option was applied for younger children or children who could not stand.

Height: Standard height boards were used for taking length and height of children. Children under 24 months of age were measured lying down, and children aged 24 months and above were measured standing. The precision of the measurement is 0.1 cm.

Mid-upper arm circumference (MUAC): This was measured using a flexible, non-elastic tape, midway between the tip of the acromion process and the tip of the olecranon process of the left arm, with the arm hanging freely by the individual's side. MUAC measurements were recorded to the nearest 0.1 cm or 1.0 mm.

Bilateral oedema: Assessed by applying moderate thumb pressure on both feet for three seconds. If oedema was present, a shallow pit remained after releasing pressure from the feet. Only children with bilateral oedema (oedema on both feet) were diagnosed positive for nutritional oedema. The team leader confirmed all cases of oedema and referred the cases for immediate inpatient care.

Maternal nutrition: The nutritional status of girls/women of reproductive age was assessed using MUAC measurements. The MUAC measurements were recorded to the nearest 0.1 cm or 1.0 mm.

Crude and under-five mortality rates

The survey questionnaire included questions on deaths and demographic information during the recall period of approximately three months. Specifically, the survey collected the following data:

- total number of people in the household
- number of children under 5 years of age
- number of people who left the household within the recall period (total and children under 5 years)
- number of people who joined the household within the recall period (total and children under 5 years)
- number of births in the household within the recall period
- number of deaths in the household within the recall period (total and children under 5 years)
- cause of deaths.

Water, sanitation and hygiene

Main source of water for drinking and cooking: This was assessed in all the selected households by asking respondents to identify their main water sources.

Type of toilet/latrine used: This was assessed by asking the respondents about the kind of toilet/latrine used.

Sharing of toilet/latrine with other households: This was assessed by asking the respondents whether they shared their sanitary facility with other households.

Type of handwashing device used by the household: This was assessed by asking the respondents about the kind of handwashing device used, and through observation of the reported device.

Availability of water at the handwashing device: This was assessed through observations.

Availability of soap at the handwashing device: This was assessed through observations.

Morbidity

Retrospective morbidity: Mothers or caregivers were asked about illnesses that had affected their children (aged 0–59 months) in the two weeks prior to the survey date.

Diarrhoea: This was assessed among children aged 0–59 months during a two-week recall period. Diarrhoea is defined as the passage of three or more loose or liquid stools in a day.

Cough (with fast, short, rapid or difficulty breathing): This was assessed among children aged 0–59 months during a two-week recall period. This indicator was used as a proxy for suspected acute respiratory infection (ARI) or pneumonia.

Fever (without cough or rash): This was assessed among children aged 0–59 months during a two-week recall period. Fever in the absence of respiratory symptoms (cough) or rash was assessed.

Multiple micronutrient powder, vitamin A supplementation, deworming, and measles vaccination

Multiple micronutrient powder (MNP): This was assessed among children aged 6–59 months by recall and showing the mother or caregiver the MNP sachet.

Measles vaccination: This was assessed among children aged 9–59 months by checking for the measles vaccine on the Essential Programme on Immunization (EPI) card, if available, or by asking the caregiver to recall (where no EPI card was available).

Vitamin A supplementation: This was assessed among children aged 6–59 months by checking the EPI card or health card, if available, or by asking the caregiver to recall (where no card was available). An image of a vitamin A capsule was shown to the caregiver when asked to recall.

Deworming: This was assessed among children aged 12–59 months by asking the caregiver to recall. A deworming tablet was shown to the caregiver when asked to recall.

Maternal, infant and young child nutrition

Based on the standard World Health Organization (WHO) guidelines of 2021,[12] IYCF practices were assessed as follows.

1. Breastfeeding indicators

Ever breastfed: Percentage of children born in the last 24 months who were ever breastfed.

Early initiation of breastfeeding: Percentage of children born in the last 24 months who were put to the breast within one hour of birth.

Exclusively breastfed for the first two days after birth: Percentage of children born in the last 24 months who were fed exclusively with breast milk for the first two days after birth.

Exclusively breastfeeding under 6 months: Percentage of infants aged 0–5 months who were fed exclusively with breast milk during the previous day.

Mixed milk feeding under 6 months: Percentage of infants aged 0–5 months who were fed formula and/or animal milk in addition to breast milk during the previous day.

Continued breastfeeding for children aged 12–23 months: Percentage of children aged 12–23 months who were fed breast milk during the previous day.

Bottle feeding for children aged 0–23 months: Percentage of children aged 0–23 months who were fed from a bottle with a nipple during the previous day.

[12] Indicators for assessing infant and young child feeding practices: definitions and measurement methods. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2021.

2. Complementary feeding indicators

Introduction of solid, semi-solid or soft foods for infants aged 6–8 months: Percentage of infants aged 6–8 months who consumed solid, semi-solid or soft foods during the previous day.

Minimum dietary diversity for children aged 6–23 months: Percentage of children aged 6–23 months who consumed foods and beverages from at least five out of eight food groups during the previous day.

Minimum meal frequency for children aged 6–23 months: Percentage of children aged 6–23 months who consumed solid, semi-solid or soft foods (but also including milk feeds for non-breastfed children) the minimum number of times or more during the previous day.

Minimum milk feeding frequency for non-breastfed children aged 6–23 months: Percentage of non-breastfed children aged 6–23 months who consumed at least two milk feeds during the previous day.

Minimum acceptable diet: Percentage of children aged 6–23 months who consumed a minimum acceptable diet during the previous day.

Egg and/or flesh food consumption among children aged 6–23 months: Percentage of children aged 6–23 months who consumed egg and/or flesh foods during the previous day.

Sweet beverage consumption among children aged 6–23 months: Percentage of children aged 6–23 months who consumed a sweet beverage during the previous day.

Unhealthy food consumption among children aged 6–23 months: Percentage of children aged 6–23 months who consumed selected sentinel unhealthy foods during the previous day.

Zero vegetable or fruit consumption among children aged 6–23 months: Percentage of children aged 6–23 months who did not consume any vegetables or fruits during the previous day.

2.5 Sample size determination

Sample size calculation for the domains and camps depended on the sampling methodology used. In the International Market Camp, all households within the camp were targeted to collect data from all eligible children aged 0–59 months. In Daudu 2 Camp and the three domains, sample sizes were calculated using the SMART+ platform. In Daudu 2 Camp, simple random sampling was used to select the required number of households and children using a complete list of all the households in the camp. Across the three domains, sample sizes were calculated taking into account several parameters, including the expected global acute malnutrition (GAM) prevalence, desired precision, design effect, average household size, percentage of children under 5 years of age, and the percentage of households anticipated to be non-responsive. Table 5 presents the total sample sizes.

Table 6: Survey sample sizes calculation

Anthropometry parameters	Benue state					Source and rationale
Parameters	**Benue South**	**Benue Northwest**	**Benue Northeast**	**International Market Camp**	**Daudu 2 Camp**	
Estimated prevalence of GAM (%)	6.7	6.7	6.7	N/A	6.7	Point estimate from Nigerian Demographic Health Survey 2023 – 2024 has been used to estimate the prevalence of GAM
Precision (%)	3.0	3.0	3	N/A	3	Recommended precision for the estimated prevalence of GAM
Design effect for WHZ	1.5	1.5	1.5	N/A	1.0	Based on SMART recommendations, a conservative design effect has been considered to cater for the expected differences between clusters
Sample size: children	**436**	**436**	**436**	N/A	**267**	

Average household size	5	5	5	N/A	4	Estimate from Benue State Primary Health Care Board (2025)
% of children under 5 years	16.0	16.0	16	N/A	16	Estimate from Benue State Primary Health Care Board and adjusted to the rule of thumb for children under 5 years in Nigeria, (National Population Commission, 2006 projection)
% of non-responsive households	5	5	5	N/A	5	Anticipated non-response based on contextual information
Sample size: households	**573**	**573**	**573**	**N/A**	**439**	Calculated by the SMART+ platform
Mortality sample size						
Parameters	**Benue South**	**Benue Northwest**	**Benue Northeast**	**International Market Camp**	**Daudu 2 Camp**	
Estimated crude mortality rate (CMR), per 10,000 persons/day	0.32	0.32	0.32	0.31	0.32	Estimate from World Bank, 2023
Precision	0.3	0.3	0.3	0.3	0.3	Recommended precision for CMR <1/10,000/day according to SMART guideline
Design effect for CMR	1.5	1.5	1.5	1.0	1.0	Rule of thumb applied in the domains

Recall period in days	90	95	95	95	90	From 12 June 2025 (Democracy Day 2025), with different midpoints of data collection for each domain and the two camps
No. of persons to be included	**2,478**	**2,348**	**2,348**	**N/A**	**1,518**	
Average household size	5.6	5	5	4.6	4	Estimate from State Primary Health Care Board for 2025
% of non-responsive households	5	5	5	2	5	Anticipated to be non-responsive based on contextual information
Sample size: households	**522**	**494**	**494**	**N/A**	**399**	

2.5.1 Number of households per cluster

The number of households (HH) to be visited in every cluster per day in the three domains was determined according to the time the team could spend in the field, excluding transportation, other procedures and break times. The details below are taken into consideration when performing this calculation based on the given context (*see Table 6*).

Table 7: Number of clusters, households and population

State	Domain/camp	Required no. of HH per cluster	Anthropometry			Mortality		
			No. of children	Total HH	Cluster	Population	Total HH	Clusters
Benue	Benue South	14	436	576	**42**	2,478	522	**38**
	Benue Northwest	14	436	576	**42**	2,348	494	**36**
	Benue Northeast	14	436	576	**42**	2,348	494	**36**
	International Market Camp	N/A	All eligible children	All eligible children	N/A	N/A	N/A	N/A
	Daudu 2 Camp	N/A	267	439	N/A	1,518	399	N/A

2.5.2 Sample size for additional indicators

The estimated number of households per survey domain presented above was the final sample size (*see Table 6*). Sample size calculation for the additional survey indicators – WASH; morbidity; health; maternal, infant and young child nutrition (MIYCN); and girls'/women's MUAC – were based on the calculated sample size for anthropometry.

2.6 Sampling methodology

First-stage sampling (selection of clusters)

Random selection of clusters (settlements) was conducted from a master sampling frame, which was an updated list of all accessible settlements. The required number of clusters were selected by applying the probability proportional to size method. The list of villages was prepared jointly by representatives of the Benue State Primary Health Care Board, National Bureau of Statistics (NBS), UNICEF field office and Action Against Hunger. Insecure or inaccessible villages were excluded from the final sampling frame. Reserve clusters were also selected. Reserve clusters would only be visited if at least 10 per cent of the selected clusters, or less than 80 per cent of the children under 5 years, could not be reached during the survey.

In each selected settlement, the local leader was approached and asked to help the survey teams list all the households and randomly select the required number. Selected clusters in the urban

areas were segmented if they had >150 households, and rural clusters were segmented if they had >100 households. Cluster segmentation was done based on existing administrative boundaries, streets, natural landmarks (such as a river) or public places (like markets, schools and mosques).

Second-stage sampling (selection of households)

Simple random sampling was used to select 12 households per cluster. In each cluster, the survey team compiled a list of all households with the help of the village leader. The team leader working with the village leader used household enumeration lists to randomly select the required 12 households. The teams would start the survey from any convenient household among the randomly selected households, by administering the survey questionnaires and taking anthropometric measurements. All children aged 0–59 months living in the selected household were included in the anthropometric survey. If more than one eligible child was found in a household, all the children were included. Children aged 0–23 months in a selected household took part in the MIYCN survey. All the selected households were asked to respond to questions relating to the other indicators, including on WASH practices, coverage of health programmes, morbidity status and health-seeking behaviour, and health of girls/women of reproductive age.

The household was the basic sampling unit. The term 'household' was defined as all the people living together and sharing food from the same pot. The teams also worked with the village leader to identify compounds, which were listed as a single household if members lived together and shared their meals; in compounds where members lived together but did not share meals, households were listed separately.

2.6.1 Exhaustive survey

An exhaustive survey was conducted for the International Market Camp; all the households in the camp were surveyed and all eligible children aged 0–59 months, and girls and women of reproductive age (15–49 years) were assessed.

2.6.2 Simple random sampling

In Daudu 2 Camp, simple random sampling was used. The household sample size was determined using the SMART+ platform. The required number of households were selected from a complete list of all the households in the camps using a random number generator.

2.7 Referral

All children identified as meeting the case definition for severe acute malnutrition (SAM) were referred to the nearest outpatient therapeutic feeding programme or health centre. Similarly, children meeting the case definition for moderate acute malnutrition (MAM) were referred to the nearest targeted supplementary feeding programme. Girls and women of reproductive age who had MUAC <230 mm were also referred to the nearest targeted supplementary feeding programme or health centre.

2.8 Special cases

No children in the household: Only the household questionnaire was administered. The survey teams were cautioned not to replace a household with no children.

Abandoned household: All abandoned households were removed prior to household listing and selection.

Absent household: The teams skipped absent households and continued to the next household according to the sampling procedure. Any absent household was revisited before leaving the field. A household was only marked absent after at least two revisits had been made.

Absent children: If a child was absent at the time of the survey, the team collected the other household-related data and told the mother that they would return later that day to meet with the missing child before departure from the survey area.

Children with disability/handicap: All data not influenced by the disability were collected. The team determined if it was possible to measure all anthropometric indicators. If it was not possible to measure height and weight, the team gave the child an identification number and recorded data as missing and reported the reason.

A cluster control form was used to record the assessment outcome for every selected household.

2.9 Survey team composition, training and supervision

2.9.1 Survey team composition

The survey was implemented by 10 teams in the five survey areas of Benue (Benue South, Benue Northeast, Benue Northwest, International Market Camp and Daudu 2 Camp), but only five teams were assigned to Benue Northwest and Benue Northeast for the implementation in these survey areas. Each survey team consisted of the team leader (interviewer), a measurer, an assistant measurer and the team supervisor. Each team member had designated roles, as explained below:

Team leader: He/she led the field survey team. The team leader organized a meeting with the village leader and local authorities to conduct cluster mapping and segmentation (if required); ensured complete household listing; ensured random household selection during the second stage of cluster sampling; monitored and supervised anthropometric measurement; conducted household interviews; and filled in the cluster control form.

Measurer: He/she measured weight, height, oedema and MUAC of children and girls/women of reproductive age. The measurer also took proper care of measuring equipment and assisted the team leader with cluster mapping and other requests.

Assistant measurer: He/she assisted the measurer in taking anthropometric measurements, taking proper care of the measuring equipment and carrying the equipment while in the field.

Field supervisor: The field supervisors – technical staff drawn from Benue State Primary Health Care Board, Benue State Bureau of statistics, Federal Ministry of Health and Social Welfare, NBS,

UNICEF and Action Against Hunger – provided technical support, including to ensure that proper procedures were followed during household selection, that interviews were done correctly and consistently in every household, and that data were captured accurately. They also provided feedback to the survey team while in the field.

2.10 Survey team training

The survey team underwent a six-day SMART survey enumerators training. The training focused on the survey objectives, household selection techniques, demonstration of anthropometric measurements and familiarization with the questionnaire, and included a standardization test. The training incorporated classroom lectures, discussions and practical sessions.

The quality of anthropometric measurements was assessed through the standardization test. This included a minimum of 10 healthy children under 5 years of age in the state. During the standardization test, a team of two enumerators measured each child twice to evaluate enumerator accuracy and precision of measurements.

Field tests were conducted on the last day of training to assess survey teams' readiness for data collection. Before the pretest, the survey questionnaire was translated into the local language of the survey areas. The team composition was based on performance in a written evaluation (pretest and post-test), standardization test and field test.

2.11 Survey equipment

Weight was measured using Seca electronic scales that allow for double measurement. Weight scales were calibrated every morning before starting data collection. Standard UNICEF height boards were used for measuring height. The MUAC of both children and girls/women of reproductive age (15-49 years) were measured using MUAC tapes.

2.12 Data collection

Data collection in the three domains and two camps ran from 3rd September to 4th October 2025, excluding Sundays.

2.13 Data entry and management

Data were collected using smartphones, with questionnaires developed and hosted on the SMART+ infrastructure. Data were automatically transmitted to a central server via internet connection, enabling daily quality checks and giving feedback to the survey teams throughout the data collection period.

2.14 Quality assurance

Several measures were employed to ensure data quality, including:

1. Use of the SMART+ Collect application for digital data collection to minimize the possibility of errors when recording data
2. The six-day comprehensive training, together with standardization test and field pretest
3. Field supervision of the survey teams during data collection
4. Calibration and standardization of the survey equipment
5. Use of the cluster control forms to track the assessment outcome for every household
6. Daily plausibility checks and sharing of feedback with the teams for continuous improvement as data collection continued.

2.15 Data analysis, dissemination and report writing

All the survey data were automatically analysed in the SMART+ platform. Anthropometric data were analysed with the exclusion of SMART flags (WHZ values that are ±3 standard deviations (SD) from the observed WHZ mean). Preliminary findings were shared with stakeholders (Benue State Primary Health Care Board, Benue State Bureau of Statistics, NBS, UNICEF and other non-governmental organization partners) for validation. A Nutrition Cluster technical working group composed of experts from the participating agencies validated the results before dissemination. A preliminary report and datasets were shared with stakeholders within one month of completing the data collection. Feedback was incorporated and the final report will be shared when finalized.

2.16 Ethical approval and considerations

Informed consent was obtained from all participants prior to data collection. Participation in the survey was voluntary. The survey objectives were clearly explained to the respondents before gathering data. Collected data were treated confidentially. Survey approval was sought from the relevant government ministries and institutions, the Nutrition Cluster technical working group, local authorities and community leaders.

3.0 Survey results

3.1 Anthropometric results (based on WHO standards 2006)[13]

3.1.1 Survey response rates

The minimum sample sizes in the three domains and Daudu 2 Camp were met, with the survey reaching more than 97.0 per cent of planned clusters, while the number of households and children surveyed exceeded the minimum 80 per cent across the three domains and the two camps. Overall, the number of children surveyed in the three domains was overachieved; this may be attributed to a possible underestimation during planning of the proportion of children under 5 years of age in the domains/camps (*see Table 8*).

Table 8: Survey response rates

Domain	No. of clusters			No. of households			No. of children (0–59 months)		
	Planned	Surveyed	%	Planned	Surveyed	%	Planned	Surveyed	%
Benue South	48	47	97.9	576	527	91.5	436	367	84.2
Benue Northwest	48	48	100.0	576	556	96.5	436	441	101.1
Benue Northeast	48	47	98	576	555	96.4	436	459	105.3
International Market Camp	N/A	N/A	N/A	N/A	N/A	N/A	N/A	812	N/A
Daudu 2 Camp	N/A	N/A	N/A	439	439	N/A	267	276	N/A
Total	144	142	98.6	1,728	1,677	97.0	1,308	2,079	158.9

1.0 [13] **WHO child growth standards: length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: methods and development. November 2006.**

3.1.2 Data quality report

Quality of anthropometry data for the three domains and Daudu 2 Camp is excellent, and good for the International Market Camp (*see Table 9*). Overall, the proportion of flagged data across all survey areas is excellent, suggesting minimal errors in measurements. The sex ratio across the survey areas is excellent, indicating balanced gender representation and absence of selection bias. The overall age ratio for the three domains is excellent, but it is problematic and acceptable in the International Market Camp and Daudu 2 Camp, respectively. This shows significant deviations from expected age ratios for the camps, likely due to demographic differences. The digit preference scores for weight, height and MUAC are either excellent or good across the survey areas. The standard deviations (SDs) of weight-for-height z-scores (WHZ) are all within acceptable limits, while skewness, kurtosis and the Poisson's distribution for WHZ appear normal.

Table 9: Plausibility report of data quality by domains and camps

Domain/ camp	Flagged data	Sex ratio	Age ratio	Digit preference			SD WHZ	Skewness WHZ	Kurtosis WHZ	Poisson WHZ	Overall score (%)	Rating
		M:F	6–29: 30–59	Weight	Height	MUAC						
Benue South	0 (0.3%)	0 (p=0.657)	0 (p=0.899)	0 (3)	2 (11)	0 (5)	0 (1.04)	0 (-0.16)	0 (-0.15)	0 (p=0.931)	2	Excellent
Benue Northwest	0 (0.9%)	0 (p=0.959)	0 (p=0.420)	0 (6)	0 (6)	0 (4)	0 (0.98)	0 (0.02)	0 (0.04)	1 (p=0.043)	1	Excellent
Benue Northeast	0 (0.4%)	0 (p=0.921)	0 (p=0.332)	0 (3)	2 (9)	0 (7)	0 (0.91)	0 (-0.19)	0 (0.13)	1 (p=0.011)	3	Excellent
International Market Camp	0 (0.6%)	0 (p=0.558)	10 (p<0.001)	0 (2)	0 (6)	0 (5)	0 (0.99)	0 (0.05)	1 (-0.30)	0	11	Good
Daudu 2 Camp	0 (0.0%)	0 (p=0.795)	4 (p=0.030)	0 (5)	2 (9)	0 (7)	0 (0.98)	0 (0.08)	0 (-0.01)	0	6	Excellent

	Excellent
	Good
	Acceptable
	Problematic

3.1.3 Prevalence of acute malnutrition based on weight for height and by sex

A weighted analysis of the results for the state shows medium GAM prevalence of 5.8 per cent (95 per cent confidence interval [CI]: 4.6, 7.3) based on WHZ <-2, with a low SAM prevalence of 0.3 per cent (95 per cent CI: 0.1, 0.5).

The prevalence of GAM, based on WHZ <-2 and/or oedema, is medium level (5 to <10 per cent) in Benue South (8.4 per cent; 95 per cent CI: 6.3, 11.1) and the International Market Camp (8.4 per cent). Low GAM prevalence was observed in Benue Northwest at 3.9 per cent (95 per cent CI: 2.2, 6.8), Benue Northeast at 4.0 per cent (2.2, 6.8) and Daudu 2 Camp at 4.7 per cent (2.8, 7.9).

The prevalence of SAM is low in Benue South at 0.6 per cent (95 per cent CI: 0.1, 2.3), Benue Northeast at 0.4 per cent (0.1, 1.8) and the International Market Camp at 0.3 per cent. Benue Northwest domain and Daudu 2 Camp recorded no SAM cases. Additionally, no case of oedema was identified.

Generally, GAM prevalence is higher among boys than girls in most areas. Differences in GAM prevalence based on gender are significant in Benue South (χ^2 = 4.42, p = 0.035) and Daudu 2 Camp (χ^2 = 4.35, p = 0.037). On the other hand, GAM prevalence by gender does not show significant differences in the Benue Northwest and Northeast domains and the International Market Camp.

Across the three domains, the weighted data show a difference in GAM prevalence between boys (7.1 per cent) and girls (4.6 per cent), but this is not statistically significant (χ^2 = 1.52, p = 0.218).

Table 10: Prevalence of GAM, MAM and SAM in children aged 6-59 months based on WHZ and/or oedema, by sex

	Prevalence of GAM WHZ <-2 and/or oedema (95% confidence interval [CI])			**Prevalence of MAM** WHZ <-2 and >=-3, no oedema (95% CI)			**Prevalence of SAM** WHZ <-3 and/or oedema (95% CI)			**No. of children aged 0–59 months**
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Benue state weighted analysis	(65) 5.8% (4.6, 7.3)	(37) 7.1% (5.3, 9.5)	(28) 4.6% (3.1, 6.9)	(61) 5.5% (4.3, 7.0)	(34) 6.5% (4.7, 8.9)	(27) 4.5% (3.0, 6.7)	(4) 0.3% (0.1, 0.5)	(3) 0.6% (0.2, 1.9)	(1) 0.1% (0.0, 0.8)	**1,238**
Domain and camp results										

	Prevalence of GAM WHZ <-2 and/or oedema (95% confidence interval [CI])			Prevalence of MAM WHZ <-2 and >=-3, no oedema (95% CI)			Prevalence of SAM WHZ <-3 and/or oedema (95% CI)			No. of children aged 0–59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Benue South	(30) 8.4% (6.3, 11.1)	(20) 11.6% (7.8, 16.9)	(10) 5.4% (2.9, 9.9)	(28) 7.9% (5.8, 10.6)	(18) 10.5% (6.9, 15.6)	(10) 5.4% (2.9, 9.9)	(2) 0.6% (0.1, 2.3)	(2) 1.2% (0.3, 4.8)	0.0% (0.0, 0.0)	**356**
Benue Northwest	(17) 3.9% (2.2, 6.8)	(9) 4.2% (2.1, 8.2)	(8) 3.7% (1.6, 8.2)	(17) 3.9% (2.2, 6.8)	(9) 4.2% (2.1, 8.2)	(8) 3.7% (1.6, 8.2)	0.0% (0.0, 0.0)	0.0% (0.0, 0.0)	0.0% (0.0, 0.0)	**432**
Benue Northeast	(18) 4.0% (2.2, 7.1)	(8) 3.6% (1.9, 6.7)	(10) 4.4% (2.2, 8.8)	(16) 3.6% (1.9, 6.4)	(7) 3.1% (1.6, 6.2)	(9) 4.0% (2.0, 7.8)	(2) 0.4% (0.1, 1.8)	(1) 0.4% (0.1, 3.3)	(1) 0.4% (0.1, 3.3)	**450**
International Market Camp	(67) 8.4%	(35) 8.4%	(32) 8.5%	(65) 8.2%	(33) 7.9%	(32) 8.5%	(2) 0.3%	(2) 0.5%	0.0%	**797**
Daudu 2 Camp	(13) 4.7% (2.8, 7.9)	(10) 7.4% (4.1, 13.1)	(3) 2.1% (0.7, 6.1)	(13) 4.7% (2.8, 7.9)	(10) 7.4% (4.1, 13.1)	(3) 2.1% (0.7, 6.1)	0.0% (0.0, 0.0)	0.0% (0.0, 0.0)	0.0% (0.0, 0.0)	**275**

3.1.4 Prevalence of acute malnutrition based on MUAC cut-offs and/or oedema by sex

The weighted results based on MUAC (<125 mm) show a low GAM prevalence of 2.3 per cent (95 per cent CI: 1.5, 3.4), with a SAM prevalence of 0.2 per cent (0.0, 0.8).

The GAM prevalence based on MUAC (<125 mm) and/or oedema shows low levels of acute malnutrition in all three domains: 2.8 per cent (95 per cent CI: 1.6, 4.9) in Benue South, 0.5 per cent (95 per cent CI: 0.1, 2.1) in Benue Northwest and 3.8 per cent (95 per cent CI: 1.9, 7.2) in Benue Northeast. Medium levels of acute malnutrition were recorded in the camps for internally displaced persons, with the International Market Camp at 5.4 per cent prevalence and Daudu 2 Camp at 5.0 per cent (95 per cent CI: 2.9, 8.6). The SAM prevalence based on MUAC (<115 mm) and/or oedema shows low rates across the three domains and the two camps, averaging just 0.4 per cent.

Table 11: Prevalence of GAM, MAM and SAM in children aged 6–59 months based on MUAC and/or oedema, by sex

	Prevalence of GAM MUAC <125 mm and/or oedema (95% confidence interval [CI])			Prevalence of MAM MUAC <125 mm and ≥115 mm, no oedema (95% CI)			Prevalence of SAM MUAC <115 mm and/or oedema (95% CI)			No. of children aged 0–59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Benue state weighted analysis	(26) 2.3% (1.5, 3.4)	(9) 1.5% (0.8, 2.9)	(17) 3.0% (1.8, 5.1)	(24) 2.1% (1.3, 3.2)	(9) 1.5% (0.8, 2.9)	(15) 2.6% (1.5, 4.6)	(2) 0.2% (0.0, 0.8)	(0) 0.0% (0.0, 0.0)	(2) 0.4% (0.1, 1.7)	**1,101**
Domain and camp results										
Benue South	(9) 2.8% (1.6, 4.9)	(2) 1.3% (0.3, 5.0)	(7) 4.3% (2.1, 8.5)	(8) 2.5% (1.3, 4.6)	(2) 1.3% (0.3, 5.0)	(6) 3.7% (1.7, 7.9)	(1) 0.3% (0.0, 2.2)	(0) 0.0% (0.0, 0.0)	(1) 0.6% (0.1, 4.4)	**320**
Benue Northwest	(2) 0.5% (0.1, 2.1)	(2) 1.0% (0.2, 4.2)	(0) 0.0% (0.0, 0.0)	(2) 0.5% (0.1, 2.1)	(2) 1.0% (0.2, 4.2)	(0) 0.0% (0.0, 0.0)	0.0% (0.0, 0.0)	0.0% (0.0, 0.0)	0.0% (0.0, 0.0)	**381**
Benue Northeast	(15) 3.8% (1.9, 7.2)	(5) 2.5% (1.1, 5.8)	(10) 5.0% (2.2, 10.7)	(14) 3.5% (1.7, 7.0)	(5) 2.5% (1.1, 5.8)	(9) 4.5% (1.9, 10.2)	(1) 0.3% (0.0, 1.9)	(0) 0.0% (0.0, 0.0)	(1) 0.5% (0.1, 3.7)	**400**
International Market Camp	(35) 5.4%	(16) 4.8%	(19) 5.9%	(32) 4.9%	(15) 4.5%	(17) 5.3%	(3) 0.5%	(1) 0.3%	(2) 0.6%	**654**
Daudu 2 Camp	(12) 5.0% (2.9, 8.6)	(6) 5.1% (2.4, 10.7)	(6) 5.0% (2.3, 10.4)	(10) 4.2% (2.3, 7.6)	(4) 3.4% (1.3, 8.5)	(6) 5.0% (2.3, 10.4)	(2) 0.8% (0.2, 3.0)	(2) 1.7% (0.5, 6.0)	(0) 0.0% (0.0, 3.1)	**238**

3.1.5 Prevalence of combined GAM and combined SAM based on WHZ and MUAC cut-offs (and/or oedema), by sex

The state weighted analysis reveals medium prevalence of combined GAM (cGAM), defined as WHZ <-2 and/or MUAC <125 mm and/or oedema, at 6.7 per cent (95 per cent CI: 5.4, 8.3), and very low prevalence of combined SAM (cSAM), defined as WHZ <-3 and/or MUAC <115 mm and/or oedema, at 0.5 per cent (95 per cent CI: 0.2, 1.2).

Across domains and camps, cGAM prevalence is at medium levels in Benue South at 9.5 per cent (95 per cent CI: 7.9, 14.1), Benue Northeast at 5.8 per cent (95 per cent CI: 3.9, 10.7) and Daudu 2 Camp at 6.5 per cent (95 per cent CI: 4.8, 11.6). Contrastingly, the International Market Camp shows a high cGAM prevalence of 10.5 per cent while Benue Northwest indicates low cGAM prevalence of 3.9 per cent (95 per cent CI: 2.5, 7.8).

The prevalence of cSAM is also very low across the three domains and the two camps, averaging just 0.6 per cent.

Table 12: Prevalence of GAM, MAM and SAM in children aged 6–59 months based on MUAC and/or oedema, by sex

	Prevalence of cGAM WHZ <-2 and/or MUAC <125 mm and/or oedema (95% confidence interval [CI])			Prevalence of cSAM WHZ <-3 and/or MUAC <115 mm and/or oedema (95% CI)			No. of children aged 0–59 months
	All	Boys	Girls	All	Boys	Girls	
Benue state weighted analysis	(77) 6.7% (5.4, 8.3)	(39) 7.4% (5.6, 9.8)	(38) 6.0% (4.3, 8.4)	(6) 0.5% (0.2, 1.2)	(3) 0.6% (0.2, 1.9)	(3) 0.4% (0.1, 1.5)	**1,244**
Domain and camp results							
Benue South	(34) 9.5% (7.9, 14.1)	(21) 12.1% (8.9, 19.6)	(13) 7.1% (4.7, 13.1)	(3) 0.8% (0.3, 2.9	(2) 1.2% (0.3, 5.4)	(1) 0.5% (0.1, 4.4)	**357**
Benue Northwest	(17) 3.9% (2.5, 7.8)	(9) 4.2% (2.3, 9.1	(8) 3.6% (1.8, 9.5)	0.0% (0.0, 0.0)	0.0% (0.0, 0.0)	0.0% (0.0, 0.0)	**435**

	Prevalence of cGAM WHZ <-2 and/or MUAC <125 mm and/or oedema (95% confidence interval [CI])			Prevalence of cSAM WHZ <-3 and/or MUAC <115 mm and/or oedema (95% CI)			No. of children aged 0–59 months
	All	Boys	Girls	All	Boys	Girls	
Benue Northeast	(26) 5.8% (3.9, 10.7)	(9) 4.0% (2.4, 8.2)	(17) 7.5% (4.8, 14.4)	(3) 0.7% (0.2, 2.3)	(1) 0.4% (0.1, 3.7)	(2) 0.9% (0.2, 4.1)	**452**
International Market Camp	(84) 10.5%	(43) 10.2	(41) 10.8	(5) 0.6%	(3) 0.7%	(2) 0.5%	**801**
Daudu 2 Camp	(18) 6.5% (4.8, 11.6)	(12) 8.9% (6.0, 17.1)	(6) 4.3% (2.3, 10.4)	(2) 0.7% (0.2, 3.0)	(2) 1.5% (0.5, 6.0)	(0) 0.0% (0.0, 3.1)	**275**

3.1.6 Prevalence of underweight based on weight-for-age z-scores, by sex

Based on weight-for-age z-scores (WAZ), the survey found an underweight prevalence of 14.8 per cent at the state level and comparable medium prevalence of underweight in the three domains, with Benue South at 14.4 per cent (95 per cent CI: 10.6, 19.2), Benue Northwest at 15.2 per cent (95 per cent CI: 11.6, 19.5) and Benue Northeast at 14.9 per cent (95 per cent CI: 12.0, 18.5). High underweight levels (exceeding 20 per cent prevalence) were observed in the International Market Camp at 24.0 per cent and Daudu 2 Camp at 20.1 per cent (95 per cent CI: 15.8, 25.2).

Differences in underweight between boys and girls are not statistically significant ($p>0.05$) in any of the survey areas, except Benue Northwest ($\chi^2 = 6.52$, $p = 0.011$). Similarly, no significant differences were observed in underweight by gender using the weighted data for the three domains.

Table 13: Prevalence of global, moderate and severe underweight in children aged 0–59 months based on WAZ, by sex

	Prevalence of global underweight WAZ <-2 (95% confidence interval [CI])			Prevalence of moderate underweight WAZ <-2 and ≥3 z-score (95% CI)			Prevalence of severe underweight WAZ <-3 (95% CI)			No. of children aged 0–59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Benue state weighted analysis	(184) 14.8% (12.6, 17.3)	(100) 16.5% (13.6, 19.8)	(84) 13.2% (10.8, 16.1)	(153) 12.4% (10.4, 14.6)	(82) 13.6% (10.9, 16.9)	(71) 11.1% (8.9, 13.9)	(31) 2.5% (1.6, 3.6)	(18) 2.9% (1.7, 4.7)	(13) 2.1% (1.2, 3.5)	**1,237**
Domain and camp results										
Benue South	(51) 14.4% (10.6, 19.2)	(26) 15.2% (10.2, 22.0)	(25) 13.7% (9.6, 19.1)	(43) 12.1% (8.7, 16.7)	(22) 12.9% (8.1, 19.9)	(21) 11.5% (7.7, 16.7)	(8) 2.3% (1.2, 4.3)	(4) 2.3% (0.9, 6.1)	(4) 2.2% (0.9, 5.5)	**354**
Benue Northwest	(66) 15.2% (11.6, 19.5)	(41) 19.2% (14.7, 24.6)	(25) 11.3% (7.6, 16.5)	(55) 12.6% (9.6, 16.4)	(34) 15.9% (11.7, 21.2)	(21) 9.5% (6.2, 14.3)	(11) 2.5% (1.2, 5.4)	(7) 3.3% (1.5, 6.9)	(4) 1.8% (0.7, 4.8)	**435**
Benue Northeast	(67) 14.9 (12.0, 18.5)	(33) 14.7% (11.1, 19.2)	(34) 15.2% (11.4, 20.0)	(55) 12.2% (9.5, 15.6)	(26) 11.6% (8.3, 15.9)	(29) 12.9% (9.3, 17.8)	(12) 2.7% (1.4, 5.1)	(7) 3.1% (1.3, 7.0)	(5) 2.2% (1.0, 5.0)	**449**
International Market Camp	(192) 24%	(100) 23.8%	(92) 24.3%	(156) 19.5%	(76) 18.1%	(80) 21.1%	(36) 4.5%	(24) 5.7%	(12) 3.2%	**800**
Daudu 2 Camp	(55) 20.1% (15.8, 25.2)	(30) 22.4% (16.2, 30.2)	(25) 17.9% (12.4, 25.0)	(47) 17.2% (13.2, 22.1)	(24) 17.9% (12.3, 25.3)	(23) 16.4% (11.2, 23.4)	(8) 2.9% (1.5, 5.7)	(6) 4.5% (2.1, 9.4)	(2) 1.4% (0.4, 5.1)	**274**

3.1.7 Prevalence of stunting based on height-for-age z-scores, by sex

Stunting prevalence, based on height-for-age z-scores (HAZ), is high in the three domains, with Benue South at 27.9 per cent (95 per cent CI: 22.1, 34.6), Benue Northwest at 27.2 per cent (95 per cent CI: 22.4, 32.7) and Benue Northeast at 26.5 per cent (95 per cent CI: 22.5, 31.0). The two camps recorded very high stunting levels exceeding the WHO threshold of 30 per cent, with prevalence in the International Market Camp standing at 32.7 per cent and Daudu 2 Camp at 32.3 per cent (95 per cent CI: 27.0, 38.1). Severe stunting levels are comparable, averaging about 7 per cent in the three domains and 9.8 per cent in the camps.

It is worth noting that results for Benue South and Northwest are presented with the observed prevalence, as opposed to prevalence calculated with an SD of 1, as the SD exceeded 1.2. The observed prevalence did not differ significantly with prevalence calculated with an SD of 1. Overall, the weighted results show a statistically significant difference in stunting prevalence between boys and girls (χ^2 = 9.24, p = 0.0024). Boys are more likely to be stunted, suggesting a broader gender disparity in chronic malnutrition in Benue state. Looking at the stunting results by domain, a statistically significant difference in stunting was found only in Benue Northwest (χ^2 = 10.11, p = 0.0015).

Table 14: Prevalence of global, moderate and severe stunting in children aged 0–59 months based on HAZ, by sex

	Prevalence of global stunting			Prevalence of moderate stunting			Prevalence of severe stunting			No. of children aged 0–59 months
	HAZ <-2 (95% confidence interval [CI])			HAZ <-2 and >=-3 (95% CI)			HAZ <-3 (95% CI)			
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Benue state weighted analysis	(328) 27.3% (24.2, 30.6)	(187) 31.4% (27.0, 36.1)	(141) 23.4% (19.8, 27.4)	(244) 20.4% (17.9, 23.0)	(132) 22.5% (18.8, 26.7)	(112) 18.3% (15.4, 21.6)	(84) 6.9% (5.4, 8.9)	(55) 8.9% (6.9, 11.4)	(29) 5.1% (3.3, 7.6)	**1,210**
Domain and camp results										
Benue South	(96) *27.9% (22.1, 34.6)	(50) 30.1% (21.7, 40.1)	(46) 25.8% (19.5, 33.4)	(74) *21.5% (17.1, 26.7)	(39) 23.5% (16.8, 31.9)	(35) 19.7% (4.7, 25.8)	(22) *6.4% (3.8, 10.5)	(11) 6.6% (3.6, 11.9)	(11) 6.2% (3.1, 11.9)	**344**

	Prevalence of global stunting			Prevalence of moderate stunting			Prevalence of severe stunting			No. of children aged 0–59 months
	HAZ <-2 (95% confidence interval [CI])			HAZ <-2 and >=-3 (95% CI)			HAZ <-3 (95% CI)			
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Benue Northwest	(116) *27.2% (22.4, 32.7)	(73) 34.4% (28.1, 41.3)	(43) 20.1% (14.6, 27.0)	(81) *19.0% (15.2, 23.5)	(48) 22.6% (17.1, 29.4)	(33) 15.4% (10.7, 21.7)	(35) *8.2% (5.8, 11.6)	(25) 11.8% (8.3, 16.4)	(10) 4.7% (2.4, 8.9)	**426**
Benue Northeast	(117) 26.5 (22.5, 31.0)	(65) 29.4% (23.6, 36.0)	(52) 23.6% (18.6, 29.5)	(89) 20.2% (16.6, 24.2)	(45) 20.4% (15.0, 27.1)	(44) 20.0% (15.8, 25.0)	(28) 6.3% (4.4, 9.2)	(20) 9.0% (6.0, 13.3)	(8) 3.6% (1.6, 7.9)	**441**
International Market Camp	(256) 32.7%	(138) 33.3%	(118) 32%	(179) 22.9%	(91) 22%	(88) 23.8%	(77) 9.8%	(47) 11.4%	(30) 8.1%	**783**
Daudu 2 Camp	(87) 32.3% (27.0, 38.1)	(45) 34.4% (26.8, 42.8)	(42) 30.4% (23.4, 38.6)	(61) 22.7% (18.1, 28.0)	(30) 22.9% (16.5, 30.8)	(31) 22.5% (16.3, 30.1)	(26) 9.7% (6.7, 13.8)	(15) 11.5% (7.1, 18.0)	(11) 8.0% (4.5, 13.7)	**269**

*SD for stunting exceeded 1.2 in Benue South & Northwest

3.2 Mortality rates and demographic results

Generally, the crude mortality rate (CMR) in any of the survey areas is below the WHO emergency threshold of 1 death/10,000 population/day. Among the three domains, Benue Northeast has the highest CMR (0.84), with the upper confidence interval exceeding the emergency threshold. Benue Northwest has the highest under-five mortality rate (U5MR), with its upper confidence interval also exceeding the emergency threshold. Within the camps, the CMRs of 0.67 in the International Market Camp and 0.48 in Daudu 2 Camp are below the emergency levels. The U5MR for Daudu 2 camp of 1.70 deaths/10,000 children under 5 years/day stands out for its upper confidence interval of 3.65, which is well above the emergency threshold of 1 death/10,000 children under 5 years/day.

Table 15: Crude and under-five mortality rates in Benue state

	Crude mortality rate (total deaths/10,000 persons/day)		Under-five mortality rate (deaths/10,000 children under 5 years/day)		Total population sampled	Number of households
	Rate (95% CI)	Design effect	Rate (95% CI)	Design effect		
Benue state weighted analysis	0.65 (0.45, 0.94)	1.61	0.50 (0.23, 1.11)	1.00	7,624.5	1,638
Domain and camp results						
Benue South	0.64 (0.33, 1.25)	1.57	0.31 (0.05, 1.81)	1	2,420	527
Benue Northwest	0.54 (0.25, 1.13)	1.87	0.73 (0.24, 2.18)	1	2,691	556
Benue Northeast	0.84 (0.53, 1.33)	1.08	0.47 (0.12, 1.75)	1	2,513.50	555
International Market Camp	0.67	1	0.69	1	3,613.50	39
Daudu 2 Camp	0.48 (0.21, 1.07)	1	1.70 (0.78, 3.65)	1	1,169.50	15

3.3 Other survey results

3.3.1 WASH conditions

The SMART survey assessed access to protected water sources across the three domains only. Over half of the households (51.8 per cent) in Benue South rely on protected water sources, with protected wells (32.1 per cent) and boreholes (10.1 per cent) most often used. Close to the remaining half of this domain's population (48.2 per cent), however, depend on unprotected sources, especially surface water (26.6 per cent), which poses serious health risks owing to potential contamination.

In Benue Northwest, the situation is more favourable, with 75.0 per cent of households accessing protected sources. The most common sources are protected wells (59.0 per cent) and boreholes (10.8 per cent). The reliance on unprotected sources is notably lower at 25.0 per cent, though surface water (15.6 per cent) and unprotected wells (7.9 per cent) remain in use.

In Benue Northeast, access to safe water is high at 83.7 per cent, with the majority of households mostly depending on protected wells (68.0 per cent) and boreholes (14.8 per cent). Only 16.3 per cent rely on unprotected sources, with surface water (8.1 per cent) most often used.

Table 16: Access to safe water and the main sources of water for drinking and cooking in Benue state

	Protected water sources (95% confidence interval [CI])										Unprotected water sources (95% CI)						
	N	Public tap/standpipe	Handpumps/boreholes	Protected well	Water seller/kiosks	Piped connection to house	Protected spring	Bottled water, water sachets	Tanker trucks	Overall	Unprotected hand-dug well	Surface water	Unprotected spring	Rain water collection	Other unprotected	Don't know	Overall
Benue state weighted	**1,633.3**	(28.2) 1.7% (0.7, 4.0)	(187.8) 11.5% (8.1, 16.0)	(819.9) 50.2% (44.8, 55.6)	(42) 26% (1.1, 5.9)	(2) 0.1% (0.0, 0.9)	(8.8) 0.5% (0.2, 1.8)	(1.3) 0.1% (0.0	(152) 0.9% (0.4,	**(1,105.2) 67.7% (61.6, 73.2)**	(145.3) 8.9% (6.3, 12.4)	(254.5) 15.6% (11.1,	(48.7) 3.0% (1.5, 5.9)	(67.7) 4.1% (2.1, 7.9)	(11.9) 0.7% (0.2%, 2.3%)	0	(528.1) 32.3% (26.8, 38.4)

	Protected water sources (95% confidence interval [CI])										Unprotected water sources (95% CI)						
	N	Public tap/standpipe	Handpumps/boreholes	Protected well	Water seller/kiosks	Piped connection to house	Protected spring	Bottled water, water sachets	Tanker trucks	Overall	Unprotected hand-dug well	Surface water	Unprotected spring	Rain water collection	Other unprotected	Don't know	Overall
analysis								, 0.6)	2.1)			21.4)					
Domain and camp results																	
Benue South	**527**	(1) 0.2% (0.0, 1.4)	(53) 10.1% (5.0, 19.2)	(169) 32.1% (23.2, 42.4)	(32) 6.1% (2.5, 14.2)	0	(5) 0.9% (0.2, 4.8)	(1) 0.2% (0.0, 1.4)	(12) 2.3% (1.0, 5.3)	**(273) 51.8% (40.0, 63.4)**	(38) 7.2% (3.3, 15.0)	(140) 26.6% (17.0, 39.1)	(17) 3.2% (1.0, 9.5)	(52) 9.9% (4.9, 18.9)	(7) 1.3% (0.3, 5.7)	0	(254) 48.2% (36.6, 60.0)
Benue Northwest	**556**	(26) 4.7% (1.8, 11.5)	(60) 10.8% (5.9, 18.9)	(328) 59.0% (50.6, 66.9)	0	(2) 0.4% (0.0, 2.7)	(1) 0.2% (0.0, 1.3)	0	0	**(417) 75.0% (66.6, 81.9)**	(87) 15.6% (10.7, 22.4)	(44) 7.9% (4.1, 14.6)	(4) 0.7% (0.1, 3.4)	(1) 0.2% (0.0, 1.3)	(3) 0.5% (0.1, 2.4)	0	(139) 25.0% (18.1, 33.4)
Benue Northeast	**541**	(1) 0.2% (0.0, 1.3)	(83) 14.8% (8.7, 24.1)	(380) 68.0% (56.8, 77.4)	(2) 0.4% (0.1, 1.5)	0	(2) 0.4% (0.0, 2.6)	0	0	**(468) 83.7% (73.0, 90.7)**	(13) 2.3% (1.2, 4.6)	(45) 8.1% (3.2, 18.9)	(32) 5.7% (2.0, 15.3)	(1) 0.2% (0.0, 1.3)	0	0	(91) 16.3% (9.3, 27.0)

Access to sanitation in the three domains shows notable differences in the use of improved sanitation facilities. In Benue South, 61.1 per cent of households reported using improved sanitation facilities, the highest proportion among the three domains. Within this group, 38.9 per cent use improved disposal facilities, 6.1 per cent rely on shared family toilets and 16.1 per cent use communal toilets. Yet 37.8 per cent depend on unimproved toilets, while a small proportion (1.1 per cent) said they did not know about their sanitation facility.

In Benue Northwest, access to improved sanitation facilities is lower at 46.0 per cent. Only 22.3 per cent of households use improved disposal facilities, while 12.1 per cent and 11.7 per cent rely on shared family and communal toilets, respectively. The majority (53.1 per cent) use unimproved toilets, indicating significant gaps in sanitation infrastructure and hygiene safety.

Access to improved sanitation in Benue Northeast is similar to the Northwest domain, with 47.2 per cent of households accessing improved sanitation. Of these, 27.7 per cent use improved disposal facilities, 8.2 per cent use shared family toilets and 11.3 per cent use communal toilets. Unimproved toilet use is high at 51.3 per cent, while 1.4 per cent of the respondents reported not knowing their sanitation status.

Table 17: Type of toilet/latrine used and sharing of facilities in the surveyed domains

Domain	N	Proportion of HHs using improved sanitation facilities (95% confidence interval [CI])	Improved disposal facilities (95% CI)	Shared family toilet (95% CI)	Communal toilet (95% CI)	Unimproved toilet (95% CI)	Don't know (95% CI)
Benue state weighted analysis	**1,633.3**	(857.4) 52.5% (46.0, 58.9)	(497.1) 30.4% (26.0, 35.3)	(141.4) 8.7% (6.5, 11.4)	(218.9) 13.4% (10.4, 17.0)	(757.4) 46.4% (39.9, 52.9)	(18.4) 1.1% (0.5, 2.5)
Domain results							
Benue South	**527**	(322) 61.1% (48.3, 72.5)	(205) 38.9% (30.0, 48.6)	(32) 6.1% (3.5, 10.4)	(85) 16.1% (10.7, 23.5)	(199) 37.8% (26.3, 50.8)	(6) 1.1% (0.3, 4.6)
	556	(256) 46.0% (35.8, 56.6)	(124) 22.3% (16.6, 29.3)	(67) 12.1% (7.4, 19.0)	(65) 11.7% (7.2, 18.3)	(295) 53.1% (42.7, 63.2)	(5) 0.9% (0.2, 3.7)

Domain	N	Proportion of HHs using improved sanitation facilities (95% confidence interval [CI])	Improved disposal facilities (95% CI)	Shared family toilet (95% CI)	Communal toilet (95% CI)	Unimproved toilet (95% CI)	Don't know (95% CI)
Benue Northwest							
Benue Northeast	**559**	(264) 47.2% (38.5, 56.1)	(155) 27.7% (21.5, 35.0)	(46) 8.2% (6.0, 11.2)	(63) 11.3% (8.0, 15.6)	(287) 51.35 (42.1, 60.5)	(8) 1.4% (0.4, 4.7)

The survey also evaluated handwashing practices in the three domains. Very few households reported having a specific handwashing device: only 1.3 per cent of households in Benue South and Benue Northwest, and a mere 0.2 per cent in Benue Northeast. Among the few households with handwashing devices, access to water and soap varies. In Benue South, only 37.5 per cent of devices had both water and soap available at the time of the survey; in Benue Northwest, 85.7 per cent of devices had both water and soap. Only one household in Benue Northeast reported having a handwashing device, which lacked both water and soap at the time of the survey.

Device types also vary slightly. In Benue South, handwashing devices are mostly buckets with taps; in Benue Northwest, several types of devices are used, including sinks with tap water, pouring devices and other unspecified devices. In Benue Northeast, the sole device reported was a bucket with a tap.

Table 18: Access to handwashing systems in Benue domains

Domain	N	Proportion of HHs with a specific handwashing device (95% confidence interval [CI])	Proportion of HHs with a specific handwashing device, with water (95% CI)	Proportion of HHs with a specific handwashing device, with soap (95% CI)	Proportion of HHs with a specific handwashing device, with water and soap (95% CI)	Handwashing devices			
						Sink with tap water	Buckets with taps	Pouring device	Other
Benue state weighted analysis		(16.7) 1% (0.3, 3.4)	(10.9) 58.2% (7.3, 96.1)	(16.9) 90.7% (16.5, 99.8)	(9.9) 52.8% (9.5, 92.3)	(13.6) 81.8%	0	(1) 6.1%	(2) 12.1%
Domain results									
Benue South	**7**	(7) 1.3% (0.2, 9.5)	(3) 37.5%	(8) 100%	(3) 37.5%	(7) 98.9%	(0.7) 1.1	0	0
Benue Northwest	**7**	(7) 1.3% (0.3, 5.1)	(7) 100%	(6) 85.7%	(6) 85.7%	(4) 57.1%	0	(1) 14.3%	(2) 28.6%
Benue Northeast	**1**	(1) 0.2% (0.0, 1.3)	0	(1) 50%	0	(1) 100%	0	0	0

3.3.2 Multiple micronutrient powder, measles immunization, vitamin A supplementation, and deworming

Several indicators were assessed to examine programme coverage including the coverage of multiple micronutrient powder (MNP), vitamin A supplementation, deworming, and measles vaccination. MNP coverage is consistently low across all survey areas. In Benue South and Northeast, coverage is very low at about 3 per cent, while Benue Northwest shows a slightly higher level at 9.4 per cent. The two camps show similar trends, with the International Market Camp reaching 9.1 per cent coverage and Daudu 2 Camp slightly lower at 5.5 per cent. These figures suggest that micronutrient interventions are either underused or face significant barriers to distribution and uptake.

Regarding vitamin A supplementation, Benue Northeast reaches the ≥80 per cent coverage recommended by the Sphere Standards, when assessed based on card presentation (38.2 per cent) plus caregiver recall (42.3 per cent). Benue South and Northwest show comparable coverage, totalling 73.7 per cent and 69.4 per cent, respectively. Coverage is lower in the camps, totalling 60.7 per cent in the International Market Camp and 59.2 per cent in Daudu 2 Camp, though mostly based on caregiver recall.

Deworming coverage shows more variation. Benue South leads the way with 40.9 per cent coverage, while Benue Northwest and Northeast lag behind at 28.2 per cent and 26.7 per cent, respectively. Deworming coverage is slightly higher in Daudu 2 Camp (29.6 per cent) than in the International Market Camp (26.8 per cent).

Overall, measles vaccination coverage across the survey areas is below the recommended target of ≥80 per cent. About three quarters of children in Benue South (74.8 per cent) and Northeast (74.3 per cent) were reported as vaccinated, based on card presentation plus recall. Lower coverage of measles vaccination was reported in Benue Northwest (67.4 per cent), International Market Camp (64.7 per cent) and Daudu 2 Camp (52 per cent). The two camps have the lowest coverage based on card presentation, which underscores potential gaps in both service delivery and recordkeeping.

Table 19: Coverage of MNP, vitamin A, deworming, and measles vaccination

Domain	Children aged 6–59 months who received MNP (95% confidence interval [CI])				Children aged 6–59 months who received vitamin A in last 6 months (95% CI)				Children aged 12–59 months who received deworming (95% CI)				Children aged 9–59 months who received measles vaccine (95% CI)			
	Yes	No	Don't know	N	Yes, card	Yes, recall	No or don't know	N	Yes	No	Don't know	N	Yes, card	Yes, recall	No or don't know	N
Benue state weighted analysis	(57.3) 5.2% (3.0, 8.8)	(1,036.3) 93.8% (90.1, 96.2)	(11.4) 1% (0.4, 2.6)	**1,105**	(417) 37.8% (31.6, 44.4)	(398.8) 36.1% (30.4, 42.3)	(287.8) 26.1% (20.4, 32.7)	**1,103.6**	(311.1) 32.9% (26.5, 40.0)	(634.1) 67.1% (60.0, 73.5)	0	**945.2**	(404.7) 38.0% (31.9, 44.5)	(363.5) 34.1% (28.6, 40.1)	(296.8) 27.9% (22.4, 34.0)	**1,105**
Domain and camp results																
Benue South	(10) 3.1% (1.3, 7.1)	(308) 95.1%	(6) 1.9% (0.5, 6.2)	**324**	(120) 37.2%	(118) 36.5%	(85) 26.3%	**323**	(110) 40.9%	(159) 59.1%	0	**269**	(117) 37.9%	(114) 36.9%	(78) 25.2%	**309**

Domain	Children aged 6–59 months who received MNP (95% confidence interval [CI])				Children aged 6–59 months who received vitamin A in last 6 months (95% CI)				Children aged 12–59 months who received deworming (95% CI)				Children aged 9–59 months who received measles vaccine (95% CI)			
	Yes	No	Don't know	N	Yes, card	Yes, recall	No or don't know	N	Yes	No	Don't know	N	Yes, card	Yes, recall	No or don't know	N
		(90.1, 97.6)			(27.2, 48.3)	(2.68, 47.6)	(16.6, 39.0)		(29.3, 53.6)	(46.4, 70.7)			(27.3, 49.8)	(27.0, 48.0)	(15.9, 37.6)	
Benue Northwest	(36) 9.4% (4.1, 20.1)	(346) 89.9% (79.5, 95.3)	(3) 0.8% (0.2, 2.4)	**385**	(147) 38.2% (27.4, 50.3)	(120) 31.2% (22.5, 41.4)	(118) 30.6% (20.6, 42.9)	**385**	(96) 28.2% (18.4, 40.5)	(245) 71.8% (59.5, 81.6)	0	**341**	(138) 36.9% (27.4, 47.5)	(114) 30.5% (22.1, 40.4)	(122) 32.6% (23.3, 43.6)	**374**
Benue Northeast	(12) 3.0% (1.3, 6.9)	(390) 97.0% (93.1, 98.7)	0	**402**	(154) 38.3% (28.1, 49.7)	(170) 42.3% (31.7, 53.7)	(78) 19.4% (13.3, 27.5)	**402**	(92) 26.7% (17.5, 38.5)	(252) 73.3% (61.5, 82.5)	0	**344**	(155) 39.7% (29.8, 50.7)	(135) 34.6% (25.9, 44.5)	(100) 25.6% (19.2, 33.4)	**390**
International Market Camp	(60) 9.1%	(594) 90.4%	(3) 0.5%	**657**	(58) 8.8%	(341) 51.9%	(258) 39.3%	**657**	(147) 26.8%	(401) 73.2%	0	**548**	(69) 11.1%	(334) 53.6%	0	**623**
Daudu 2 Camp	(13) 5.5% (3.2, 9.2)	(221) 92.9% (88.8, 95.5)	(4) 1.7% (0.6, 4.4)	**238**	(30) 12.6% (8.9, 17.5)	(111) 46.6% (40.3, 53.0)	(97) 40.8% (34.7, 47.2)	**238**	(56) 29.6% (23.5, 36.6)	(133) 70.4% (63.4, 76.5)	0	**189**	(19) 8.4% (5.4, 12.9)	(98) 43.6% (37.2, 50.2)	(108) 48.0% (41.5, 54.6)	**225**

3.3.3 Children's morbidity and caregivers' health-seeking behaviour

The survey assessed recent illness patterns among children aged 0–59 months and treatment-seeking behaviours on their behalf across the three domains and two camps. Acute respiratory infection (ARI) prevalence is notably low across all survey areas, with very few

cases reported: two in Benue South, one in Benue Northeast and three in Daudu 2 Camp. All children with ARI reportedly received treatment, suggesting strong care-seeking despite the few reported cases.

Fever is more common, especially in the camps. Daudu 2 Camp reported the highest prevalence at 21.4 per cent, followed by the International Market Camp at 19.7 per cent. Among the domains, Benue South has the highest prevalence of fever (16.6 per cent), while prevalence in Benue Northwest and Northeast is slightly lower, at about 9 per cent in each case. Treatment-seeking behaviour for fever is encouraging across all survey areas, with over 80 per cent of affected children receiving treatment, except in Benue Northeast (61 per cent). This suggests good caregiver awareness and access to treatment.

Diarrhoea prevalence shows a similar pattern, with the highest rates in the International Market Camp (18.5 per cent) and Daudu 2 Camp (12.0 per cent). Of the domains, Benue Northwest has the highest prevalence (9.8 per cent), followed by Benue South (7.4 per cent) and Benue Northeast (5.9 per cent). Treatment-seeking for diarrhoea is generally good, especially in the camps, where over 83 per cent of affected children received care. Benue South and Northeast show lower treatment rates of about 52 per cent, indicating potential gaps in access to treatment.

Regarding the type of treatment given for diarrhoea, in the International Market Camp, over 60 per cent of affected children received oral rehydration salts (ORS), and nearly half received both ORS and zinc, which reflects better access to treatment. Daudu 2 Camp shows moderate treatment coverage, with 38 per cent of affected children receiving ORS and 50 per cent receiving zinc. In contrast, the domains show much lower rates of combined ORS and zinc treatment. In Benue South, no children received both, and only 15 per cent received ORS. Benue Northeast performed slightly better, with 33 per cent receiving ORS and 56 per cent receiving zinc.

Table 20: Morbidity among children aged 0–59 months in Benue state

Domain	No. of children aged 0–59 months	Prevalence of ARI in the last two weeks (95% CI)	Those who sought treatment for ARI	Prevalence of fever in the last two weeks (95% CI)	Those who sought treatment for fever (95% CI)	Prevalence of diarrhoea in the last two weeks (95% CI)	Those who sought treatment for diarrhoea (95% CI)	No. of children with diarrhoea	Type of treatment for diarrhoea, children (95% CI)		
									ORS	Zinc	Both ORS and zinc
Benue state weighted analysis	**1,267**	(3.5) 0.3% (0.1, 1.4)	(3.5) 100%	(152.8) 12.1% (9.8, 15.0)	(122.5) 80.2% (71.4, 86.8)	(98.3) 7.8% (5.9, 10.2)	(58.5) 59.5% (48.0, 70.0)	**97**	(18.6) 18.9% (11.4, 29.7)	(19.8) 20.2% (12.3, 31.2)	(10.3) 10.5% (4.8, 21.5)
Domain and camp results											
Benue South	**367**	(2) 0.5% (0.1, 3.9)	(2) 100%	(61) 16.6% (12.0, 22.6)	(50) 82.0% (68.1, 90.6)	(27) 7.4% (4.3, 12.2)	(14) 51.9% (31.1, 72.0)	**27**	(4) 14.8% (6.0, 32.0)	(2) 7.4% (2.1, 23.3)	0
Benue Northwest	**441**	0	0	(40) 9.1% (6.1, 13.3)	(36) 90.0% (74.3, 96.6)	(43) 9.8% (6.6, 14.2)	(30) 69.8% (49.6, 84.4)	**43**	(7) 16.3% (7.7, 31.3)	(7) 16.3% (7.7, 31.3)	(5) 11.6% (4.9, 25.2)
Benue Northeast	**459**	(1) 0.2 (0.0, 1.6)	(1) 100%	(41) 8.9% (5.5, 14.3)	(25) 61.0% (43.8, 75.8)	(27) 5.9% (3.4, 10.0)	(14) 51.9% (37.8, 65.6)	**27**	(9) 33.3% (11.1, 66.6)	(15) 55.6% (27.7, 80.3)	(8) 29.6% (8.2, 66.6)
International Market Camp	**812**	(10) 1.2%	(9) 90.0%	(160) 19.7%	(135) 84.9%	(150) 18.5%	(125) 83.9%	**150**	(93) 62.0%	(85) 57.0%	(72) 48.3%
Daudu 2 Camp	**276**	(3) 1.1% (0.3, 3.3)	(3) 100%	(59) 21.4% (16.9, 26.6)	(53) 89.8% (78.8, 95.4)	(33) 12.0% (8.6, 16.4)	(27) 84.4% (66.6, 93.6)	**33**	(12) 37.5% (22.2, 55.9)	(16) 50.0% (32.7, 67.3)	(12) 37.5% (22.2, 55.9)

3.3.4 Maternal, infant and young child nutrition practices

Breastfeeding practices

The survey collected information on infant and young child feeding (IYCF) practices across the three domains and two camps. Nearly all children aged 0–23 months had been breastfed at some point, with a very high ever breastfed rate of 95.8 per cent. Early initiation, which is defined as breastfeeding within the first hour of birth, is less consistent. While Benue South and Northwest show moderate uptake of early initiation (55.8 per cent and 54.0 per cent, respectively), Benue Northeast recorded a low rate of 27.0 per cent, which indicates gaps in this practice. Both camps also show lower early initiation rates, with the International Market Camp at 41.5 per cent and Daudu 2 Camp at 37.9 per cent.

Overall, exclusive breastfeeding during the first two days after birth was practised for 61.8 per cent of children, with Benue Northwest leading slightly at 65.9 per cent. The camps show high performance in this regard, with rates of 83.9 per cent in the International Market Camp and 76.5 per cent in Daudu 2 Camp. Regarding exclusive breastfeeding of infants under 6 months, the overall rate stands at 48.1 per cent, with Benue Northeast having the highest prevalence (56.1 per cent) and Benue South the lowest (39.5 per cent). Both camps outperformed the domains, with rates exceeding 76 per cent, which suggests that interventions in the camps may be more effective in promoting exclusive breastfeeding.

Mixed milk feeding is relatively rare, with an overall rate of just 6.9 per cent. The domains show low but present levels of mixed feeding, while both camps reported zero cases, reflecting the strong commitment of mothers to exclusive breastfeeding practices.

Continued breastfeeding among children aged 12–23 months was observed in 42.4 per cent of cases overall. Benue South leads the way with 53.4 per cent coverage, while Benue Northwest was at 32.9 per cent. The two camps show higher rates, with 63.3 per cent coverage in the International Market Camp and 58.1 per cent in Daudu 2 Camp, reflecting better breastfeeding practices.

Bottle feeding among children aged 6–23 months is more prevalent in the domains, particularly in Benue South (26.5 per cent), while the International Market Camp reported a very low rate of 6.6 per cent. This suggests that bottle feeding may be more common in the domains.

Table 21: Breastfeeding practices among infant and young children aged 0–23 months in Benue State

	Ever breastfed		Early initiation of breastfeeding		Exclusively breastfed for the first two days after birth		Exclusive breastfeeding under 6 months of age		Mixed milk feeding under 6 months of age		Continued breastfeeding aged 12–23 months		Bottle feeding aged 0–23 months	
	Percentage ever breastfed (95% CI)	No. of children aged 0–23 months	Percentage breastfed for less than 1 hour (95% CI)	No. of children aged 0–23 months	Percentage exclusively breastfed for first two days (95% CI)	No. of children aged 0–23 months	Percentage exclusively breastfed (95% CI)	No. of children aged 0–5 months	Percentage fed on formula and/or animal milk as well as breast milk (95% CI)	No. of children aged 0–5 months	Percentage of children aged 12–23 months fed breast milk on previous day (95% CI)	No. of children aged 12–23 months	Percentage of bottle-fed children aged 6–23 months (95% CI)	No. of children aged 0–23 months
Benue state weighted analysis	(490.3) 95.8% (93.2, 97.4)	***512**	(244.2) 47.7% (41.4, 54.1)	***512**	(316.6) 61.8% (55.6, 67.7)	**512**	(74) 48.1% (40.0, 56.2)	***154**	(10.5) 6.9% (3.1, 14.3)	**156**	(106.7) 42.4% (35.5, 49.6)	***252**	(103.5) 20.2% (16.2, 25.0)	***512**
Domain and camp results														
Benue South	(143) 97.3% (93.0, 99.0)	**147**	(82) 55.8% (44.2, 66.8)	**147**	(88) 59.9% (47.0, 71.5)	**147**	(17) 39.5% (25.9, 55.0)	**43**	(3) 7.0% (1.5, 27.1)	**43**	(39) 53.4% (40.4, 66.0)	**73**	(39) 26.5% (18.7, 36.1)	**147**
Benue Northwest	(168) 95.5% (89.0, 98.2)	**176**	(95) 54.0% (43.4, 64.2)	**176**	(115) 65.9% (56.7, 74.1)	**176**	(29) 51.8% (40.3, 63.1)	**56**	(3) 5.4% (1.7, 15.9)	**56**	(28) 32.9% (21.4, 46.9)	**85**	(24) 13.6% (8.6, 20.9)	**147**
Benue Northeast	(184) 93.9%	**196**	(53) 27.0%	**196**	(117) 59.7%	**196**	(32) 56.1% (40.3, 70.8)	**57**	(5) 8.8% (2.4, 27.5)	**57**	(36) 37.1% (28.8, 46.2)	**130**	(37) 18.9%	**196**

	Ever breastfed		Early initiation of breastfeeding		Exclusively breastfed for the first two days after birth		Exclusive breastfeeding under 6 months of age		Mixed milk feeding under 6 months of age		Continued breastfeeding aged 12–23 months		Bottle feeding aged 0–23 months	
	Percentage ever breastfed (95% CI)	No. of children aged 0–23 months	Percentage breastfed for less than 1 hour (95% CI)	No. of children aged 0–23 months	Percentage exclusively breastfed for first two days (95% CI)	No. of children aged 0–23 months	Percentage exclusively breastfed (95% CI)	No. of children aged 0–5 months	Percentage fed on formula and/or animal milk as well as breast milk (95% CI)	No. of children aged 0–5 months	Percentage of children aged 12–23 months fed breast milk on previous day (95% CI)	No. of children aged 12–23 months	Percentage of bottle-fed children aged 6–23 months (95% CI)	No. of children aged 0–23 months
	(87.8, 97.0)		(18.3, 37.9)		(51.5, 67.4)								(12.7, 27.1)	
International Market Camp	(397) 96.8%	**410**	(170) 41.5%	**410**	(344) 83.9%	**410**	(122) 78.7%	**155**	0	**155**	(107) 63.3%	**169**	(27) 6.6%	**169**
Daudu 2 Camp	(128) 97.0% (92.1, 98.9)	**132**	(50) 37.9% (29.9, 46.5)	**132**	(101) 76.5% (68.4, 83.0)	**132**	(29) 76.3% (59.8, 87.5)	**38**	0	**38**	(36) 58.1% (45.3, 69.9)	**62**	(16) 12.1% (7.5, 19.0)	**132**

Complementary feeding practices

Overall, 82.6 per cent of children aged 6–8 months were reported to have begun consuming solid, semi-solid or soft foods. Benue South and Daudu 2 Camp perform especially well in this regard, with over 85 per cent of children receiving complementary foods. The International Market Camp lags behind, however, with only 58.8 per cent of children aged 6–8 months introduced to solids, which suggests delays in initiating complementary feeding.

Meal frequency among breastfed children aged 6–23 months is low across all the survey areas, with only 28.8 per cent of this group meeting the minimum recommended frequency. Daudu 2 Camp leads at 33 per cent, while the International Market Camp and the three domains reported rates of between 25 and 30 per cent.

Only 11.5 per cent of the children across the survey areas meet the minimum milk feeding frequency, with the lowest rates observed in the camps at only 2.8 per cent in the International Market Camp and 3.7 per cent in Daudu 2 Camp.

Dietary diversity was achieved at a moderate level across the domains, with 44.2–52.9 per cent of children aged 6–23 months meeting the minimum dietary diversity criteria, defined as consumption of foods from at least five out of eight food groups in the previous 24 hours. In contrast, the camps show very low diversity at 15.7 per cent in the International Market Camp and 10.6 per cent in Daudu 2 Camp, which suggests limited access to varied food groups. The same trend was observed for the minimum acceptable diet, with only 12.4 per cent of children aged 6–23 months meeting this standard overall. The camps reported rates as low as 2.1 per cent and 5.5 per cent for Daudu 2 camp and International market camp, respectively.

Consumption of protein-rich foods such as eggs and flesh foods is relatively high in the three domains (averaging 67.8 per cent) but very low in the camps (21.9 per cent on average).

Consumption of sweet beverages and unhealthy foods is notably higher in Benue South, where over 44 per cent of children consume sugary drinks and more than half (51.9 per cent) consume unhealthy foods. Camps show lower rates of consumption of sweet beverages, averaging 6.3 per cent, and consumption of unhealthy foods, averaging 15.8 per cent.

The proportion of children who consume no fruits or vegetables is highest in the camps – 42 per cent in the International Market Camp and 44.7 per cent in Daudu 2 Camp – compared to 17–23 per cent in the domains. This suggests a lack of micronutrient-rich foods in camp diets.

Table 22: Complementary feeding practices among children aged 6–23 months in Benue state

Domain	Percentage who consumed solid, semi-solid or soft foods (95% CI)	No. of children aged 6–8 months	Minimum meal frequency for breastfed children aged 6–23 months (95% CI)	No. of children aged 6–23 months	Minimum milk feeding frequency for non-breastfed children aged 6–23 months (95% CI)	No. of non-breastfed children aged 6–23 months	Minimum dietary diversity (95% CI)	Minimum acceptable diet (95% CI)	Egg and/or flesh food consumption (95% CI)	Sweet beverage consumption (95% CI)	Unhealthy food consumption (95% CI)	Zero vegetable or fruit consumption (95% CI)	No. of children aged 6–23 months
Benue state weighted analysis	(32.2) 82.6% (65.4, 92.2)	**37**	(103.1) 28.8% (22.8, 35.6)	***357**	(17.5) 11.5% (7.2, 17.9)	***152**	(178.8) 49.9% (42.9, 57.0)	(44.4) 12.4% (9.3, 16.4)	(242.6) 67.8% (61.6, 73.4)	(113.6) 31.7% (25.7, 38.5)	(141.2) 39.4% (32.4, 46.9)	(72.6) 20.3% (16.1, 25.2)	***358**
Domain and camp results													
Benue South	(13) 86.7% (53.3, 97.4)	**15**	(32) 30.8% (21.1, 42.5)	**104**	(7) 18.9% (9.1, 35.4)	**37**	(55) 52.9% (40.6, 64.9)	(16) 15.4% (10.3, 22.3)	(71) 68.3% (57.6, 77.3)	(46) 44.2% (32.6, 56.6)	(54) 51.9% (38.8, 64.8)	(24) 23.1% (15.9, 32.2)	**104**
Benue Northwest	(8) 80.0% (38.5, 96.2)	**10**	(33) 27.5% (17.2, 40.9)	**120**	(5) 8.6% (3.7, 18.9)	**58**	(53) 44.2% (32.1, 56.9)	(12) 10.0% (5.2, 18.5)	(80) 66.7% (55.8, 76.0)	(27) 22.5% (13.5, 35.0)	(41) 34.2% (23.4, 46.9)	(21) 17.5% (11.2, 26.2)	**120**
Benue Northeast	(9) 75.0% (41.6, 92.7)	**12**	(38) 27.3% (17.9, 39.3)	**139**	(4) 6.3% (2.4, 15.7)	**64**	(73) 52.5% (41.1, 63.7)	(15) 10.8% (6.1, 18.5)	(95) 68.3% (56.5, 78.2)	(33) 23.7% (15.9, 33.9)	(37) 26.6% (18.6, 36.6)	(27) 19.4% (13.0, 27.9)	**139**
International Market Camp	(20) 58.8%	**34**	(66) 25.9%	**255**	(2) 2.8%	**71**	(40) 15.7%	(14) 5.5%	(52) 20.4%	(24) 9.4%	(48) 18.8%	(107) 42.0%	**255**

Domain	Percentage who consumed solid, semi-solid or soft foods (95% CI)	No. of children aged 6–8 months	Minimum meal frequency for breastfed children aged 6–23 months (95% CI)	No. of children aged 6–23 months	Minimum milk feeding frequency for non-breastfed children aged 6–23 months (95% CI)	No. of non-breastfed children aged 6–23 months	Minimum dietary diversity (95% CI)	Minimum acceptable diet (95% CI)	Egg and/or flesh food consumption (95% CI)	Sweet beverage consumption (95% CI)	Unhealthy food consumption (95% CI)	Zero vegetable or fruit consumption (95% CI)	No. of children aged 6–23 months
Daudu 2 Camp	(11) 91.7% (52.4, 99.1)	**12**	(31) 33.0% (24.1, 43.2)	**94**	(1) 3.7% (0.5, 23.9)	**27**	(10) 10.6% (5.8, 18.8)	(2) 2.1% (0.5, 8.3)	(22) 23.4% (15.8, 33.2)	(3) 3.2% (1.0, 9.6)	(12) 12.8% (7.3, 21.3)	(42) 44.7% (34.8, 55.0)	**94**

*Denominator contains missing values

3.3.5 Child food poverty

The assessment of child food poverty reveals significant disparities in dietary adequacy among children aged 6–23 months across the three domains and two camps. Using dietary diversity as a proxy, children were classified into three categories: living in severe food poverty (consuming foods from zero to two groups), living in moderate food poverty (three to four groups) and not living in food poverty (five or more groups).

Overall, about half of the surveyed children (49.6 per cent) are not living in food poverty, indicating access to a diverse diet. The remaining 50.4 per cent of children, however, are experiencing some level of food poverty, with 32.5 per cent living in moderate food poverty and 17.9 per cent in severe food poverty. This highlights widespread nutritional vulnerability in Benue state.

Across the domains, Benue South performs best, with 52.9 per cent of children consuming foods from five or more food groups and only 14.4 per cent living in severe food poverty. Benue Northeast shows similar results, with 51.8 per cent of children not living in food poverty and 17.3 per cent living in severe food poverty. Benue Northwest has the highest proportion of children living in severe food poverty (21.7 per cent) and the lowest share not living in food poverty (44.2 per cent), which suggests the need for targeted support.

In the camps, the International Market Camp displays a concerning situation, with 39.2 per cent of children living in severe food poverty and only 22.4 per cent consuming a sufficiently diverse diet. Daudu 2 Camp is in severe crisis, with over 82 per cent of children living in severe food poverty.

Table 23: Classification of child food poverty in Benue state

	Classification of child food poverty status (aged 6–23 months)			
	Severe child food poverty (0–2 food groups) (95% CI)	Moderate child food poverty (3–4 food groups) (95% CI)	Not living in child food poverty (5+ food groups) (95% CI)	Total no. of children aged 6–23 months
Benue state weighted analysis	(65) 17.9% (14.2, 22.1)	(118) 32.5% (27.8, 37.4)	(180) 49.6% (44.5, 54.7)	363
Domain and camp findings				
Benue South	(15) 14.4% (8.7, 22.1)	(34) 32.7% (24.2, 42.1)	(55) 52.9% (43.3, 62.3)	104
Benue Northwest	(26) 21.7% (15.0, 29.7)	(41) 34.2% (26.1, 42.9)	(53) 44.2 (35.5, 53.1)	120
Benue Northeast	(24) 17.3% (11.7, 24.2)	(43) 30.9% (23.7, 39.0)	(72) 51.8% (43.5, 60.0)	139
International Market Camp	(100) 39.2% (33.4, 45.3)	(98) 38.4% (32.6, 44.5)	(57) 22.4% (17.6, 27.8)	255
Daudu 2 Camp	(80) 82.5% (74.0, 89.0)	(9) 9.3% (4.7, 16.2)	(8) 8.2% (4.0, 15.0)	97

3.3.6 Nutritional status of girls/women and IFAS and multiple micronutrient intake

Overall, the prevalence of acute malnutrition is low for both groups of girls/women of reproductive age (15–49 years), with only 2.7 per cent of non-pregnant, non-lactating girls/women severely malnourished (MUAC <210 mm) and 8.3 per cent falling below the MUAC threshold of <230 mm. Among pregnant and lactating girls/women, the situation is similar, with just 2.8 per cent classified as severely malnourished and 6.8 per cent falling below the MUAC threshold of <230 mm.

Benue South shows slightly higher levels of acute malnutrition among both groups. In contrast, Benue Northeast and the two camps recorded the lowest prevalence, with no cases of severe malnutrition among pregnant and lactating girls/women in Daudu 2 Camp.

Iron and folic acid supplementation (IFAS) coverage varies widely. Benue South domain leads the way with 75.8 per cent of girls/women reporting intake, followed closely by Benue Northwest and Daudu 2 Camp. Benue Northeast lags behind, with less than half of women (46 per cent) reporting having received IFAS. The duration of IFAS intake also varies. The camps have higher rates of intake of the recommended duration, with Daudu 2 Camp reporting that about 68 per cent of girls/women had consumed IFAS for more than 90 days. Benue South and Northwest show moderate levels of the recommended 90-day intake (55.2 per cent and 47.5 per cent of girls/women, respectively, had consumed IFAS for more than 90 days), while Benue Northeast lags behind with only 39.1 per cent reaching the recommended duration.

Multiple micronutrient supplementation (MMS) remains limited overall. The highest uptake was observed in Benue Northwest and Daudu 2 Camp, where about one third (32 per cent) of girls/women receive MMS. Benue Northeast has the lowest coverage, with only 11.3 per cent of girls/women reporting intake of MMS.

Table 24: Nutritional status and IFAS and MMS intake among girls and women of reproductive age (15–49 years)

Domain	No. of non-PLW	Acute malnutrition in non-pregnant, non-lactating girls/women aged 15–49 years (95% confidence interval [CI])				No. of PLW with an infant aged <6 months	Acute malnutrition among pregnant and lactating girls/women with an infant aged <6 months (95% CI)				IFAS intake (95% CI)				Duration of IFAS intake (95% CI)					MMS coverage (95% CI)
		MUAC <210 mm	MUAC ≥210 mm	MUAC <230 mm	MUAC ≥230 mm		MUAC <210 mm (N=268)	MUAC ≥210 mm (N=268)	MUAC <230mm (N=268)	MUAC ≥230 mm (N=268)	Yes	No	Don't know	No. of girls/ women who gave birth in past 24 months	>90 days	60–90 days	30–<60 days	<30 days	No. of women who consumed IFAS	
Benue state weighted analysis	**1,035**	(28) 2.7% (1.5, 4.9)	(1,006.2) 97.3% (95.1, 98.5)	(85.9) 8.3% (5.8, 11.8)	(948.3) 91.7% (88.2, 94.2)	**292**	(7.7) 2.8% (0.7, 10.1)	(264.5) 97.2% (89.9, 99.3)	(18.6) 6.8% (3.6, 12.5)	(253.5) 93.2% (87.5, 96.4)	(274) 68.7% (64.2, 73.3)	(113) 28.3% (23.9, 32.4)	(12) 3.0% (1.3, 4.7)	**399**	(123.9) 48.6% (40.1–56.7)	(53) 20.8% (13.0–27.1	(37.5) 14.7% (8.1, 20.1)	(37.5) 14.7% (8.1, 20.1)	**255**	(62.2) 24.6% (22.1, 25.9)
Domain and camp findings																				
Benue South	**342**	(16) 4.7% (2.1, 10.2)	(326) 95.3% (89.8, 97.9)	(39) 11.4% (6.4, 19.6)	(303) 88.6% (80.4, 93.6)	**77**	(4) 5.2% (0.7, 30.2)	(73) 94.8% (69.8, 99.3)	(5) 6.5% (1.3, 27.4)	(72) 93.5% (72.6, 98.7)	(91) 75.8% (68.0, 83.5)	(20) 16.7% (10.1, 24.1)	(9) 7.5% (3.3, 12.3)	**120**	(48) 55.2% (44.8, 66.5)	(20) 23.0% (14.9, 32.2)	(2) 2.3% (0.0, 5.7)	(17) 19.5% (11.5, 27.6)	***87**	(27) 22.5% (15.0, 30.0)

Domain	No. of non-PLW	Acute malnutrition in non-pregnant, non-lactating girls/women aged 15–49 years (95% confidence interval [CI])				No. of PLW with an infant aged <6 months	Acute malnutrition among pregnant and lactating girls/women with an infant aged <6 months (95% CI)				IFAS intake (95% CI)				Duration of IFAS intake (95% CI)					MMS coverage (95% CI)
		MUAC <210 mm	MUAC ≥210 mm	MUAC <230 mm	MUAC ≥230 mm		MUAC <210 mm (N=268)	MUAC ≥210 mm (N=268)	MUAC <230mm (N=268)	MUAC ≥230 mm (N=268)	Yes	No	Don't know	No. of girls/ women who gave birth in past 24 months	>90 days	60–90 days	30–<60 days	<30 days	No. of women who consumed IFAS	
Benue Northwest	**375**	(6) 1.6% (0.7, 3.8)	(369) 98.4% (96.2, 99.3)	(25) 6.7% (4.2, 10.5)	(350) 93.3% (89.5, 95.8)	**93**	(2) 2.2% (0.5, 8.2)	(91) 97.8% (91.8, 99.5)	(8) 8.6% (4.2, 16.7)	(85) 91,4% (83.3, 95.8)	(103) 73.0 % (65.1, 80.5)	(37) 26.2 % (18.8, 34.1)	(1) 0.7% (0.0, 2.4)	**141**	(48) 47.5% (37.6, 57.4)	(10) 9.9% (4.0, 15.8)	(25) 24.8 % (16.8, 32.7)	(18) 17.8 % (10.9, 25.7)	***101**	(45) 31.9% (24.8, 40.4)
Benue Northeast	**318**	(3) 0.9% (0.3, 2.9)	(315) 99.1% (97.1, 99.7)	(17) 5.3% (3.1, 9.1)	(301) 94.7% (90.9, 96.9)	**122**	(1) 0.9% (0.1, 6.2)	(111) 99.1% (93.8, 99.9)	(6) 5.4% (2.3, 12.0)	(106) 94.6% (88.0, 97.7)	(69) 46.0 % (38.0, 54.0)	(77) 51.3 % (43.3, 60.0)	(4) 2.7% (0.7, 53.0)	**150**	(27) 39.1% (27.5, 50.7)	(23) 33.3 % (23.2, 44.9)	(13) 18.8 % (10.1, 29.0)	(6) 8.7% (2.9, 15.9)	**69**	(17) 11.3% (6.7, 16.7)
International Market Camp	**690**	(3) 0.4%	(687) 99.6%	(25) 3.6%	(665) 96.4%	**268**	(1) 0.4%	(267) 99.6%	(18) 6.7%	(250) 93.3%	(206) 52.2 % (46.8, 570)	(180) 45.6 % (40.5, 50.6)	(9) 2.3% (1.0, 3.8)	**395**	(106) 51.5% (44.7, 58.3)	(67) 32.5 % (26.2, 38.8)	(25) 12.1 % (7.3, 17.0)	(8) 3.9% (1.5, 6.8)	**206**	(108) 27.3% (22.8, 31.6)

Domain	No. of non-PLW	Acute malnutrition in non-pregnant, non-lactating girls/women aged 15–49 years (95% confidence interval [CI])				No. of PLW with an infant aged <6 months	Acute malnutrition among pregnant and lactating girls/women with an infant aged <6 months (95% CI)				IFAS intake (95% CI)				Duration of IFAS intake (95% CI)					MMS coverage (95% CI)
		MUAC <210 mm	MUAC ≥210 mm	MUAC <230 mm	MUAC ≥230 mm		MUAC <210 mm (N=268)	MUAC ≥210 mm (N=268)	MUAC <230mm (N=268)	MUAC ≥230 mm (N=268)	Yes	No	Don't know	No. of girls/ women who gave birth in past 24 months	>90 days	60–90 days	30–<60 days	<30 days	No. of women who consumed IFAS	
Daudu Camp 2	**166**	(1) 0.6% (0.1, 4.2)	(165) 99.4% (95.8, 99.9)	(7) 4.2% (2.0, 8.6)	(159) 95.8% (91.4, 98.0)	**66**	0	(66) 100%	(5) 7.6% (3.1, 17.2)	(61) 92.4% (82.8, 96.9)	(69) 57.0 % (47.9, 66.1)	(50) 41.3 % (32.2, 50.4)	(2) 1.7% (0.0, 4.1)	**121**	(46) 67.6% (55.9, 77.9)	(217) 25.0 % (14.7 , 35.3)	(5) 7.4% (1.5, 14.7)	0	***68**	(39) 32.2% (24.0, 40.5)

*Analysis excludes missing values

4.0 Discussion and conclusions

4.1 Acute malnutrition

Overall, the prevalence of global acute malnutrition (GAM) based on WHZ <-2 reveals a concerning pattern of acute malnutrition among children aged 0–59 months, with notable differences across the domains and camps. Results based on WHZ <-2 indicate that Benue South and the International Market Camp are the most nutritionally vulnerable areas, with GAM prevalence of 8.4 per cent, which is classified as medium level. The remaining survey areas recorded low GAM prevalence (<5 per cent). GAM is higher among boys than girls in most areas, with a statistically significant difference observed in Benue South. Prevalence of SAM is generally low across all the survey areas. Although SAM prevalence is low, the higher GAM prevalence in Benue South and the International Market Camp highlight the need for urgent, targeted nutrition support.

The weighted GAM and SAM results for the state show medium GAM prevalence of 5.8 per cent based on WHZ <-2, with a low SAM prevalence of 0.3 per cent. GAM prevalence differs between boys (7.1 per cent) and girls (4.6 per cent), but this difference is not statistically significant.

The GAM prevalence based on MUAC (<125 mm) and/or oedema shows low levels of acute malnutrition in all three domains (<3.8 per cent), but higher levels in the two camps (>5 per cent). SAM prevalence by MUAC remains very low across all survey areas. Similarly, the weighted results of GAM prevalence by MUAC are also low. Generally, GAM prevalence based on MUAC is notably lower compared to GAM prevalence by WHZ <-2, which suggests that MUAC alone may underestimate the burden of malnutrition.

The combined GAM (cGAM) indicator, which includes WHZ, MUAC and oedema, reveals medium GAM levels (5 to <10 per cent) in Benue South, Benue Northeast and Daudu 2 Camp. Benue Northeast and the International Market Camp show high GAM prevalence exceeding 10 per cent. In contrast, the combined SAM (cSAM) indicator shows very low SAM prevalence across the three domains and two camps, averaging 0.6 per cent.

Based on these findings, Benue South and the International Market Camp emerge as the priority zones for intervention, given GAM prevalence at higher levels. In addition, boys show higher malnutrition rates across the domains and camps, suggesting gender-specific vulnerability. Interventions should prioritize Benue South and the International Market Camp.

4.2 Underweight

The underweight findings also raise concerns, particularly in the two camps. Across the three domains, the prevalence of underweight is consistent, ranging from 14.4 to 15.2 per cent. Benue Northwest domain stands out, however, for its notable gender difference, with underweight affecting more boys (19.2 per cent) than girls (11.3 per cent), which is a statistically significant difference ($\chi^2 = 6.52$, $p = 0.011$). This finding indicates possible differences in feeding practices and access to childcare. The situation is worse in the camps. The International Market Camp has

the highest burden, with 24 per cent of children underweight. In Daudu 2 Camp, high underweight prevalence (20.1 per cent) was noted, again with more boys affected (22.4 per cent) than girls (17.9 per cent), but the observed difference is not statistically significant ($\chi^2 = 0.92$, $p = 0.34$).

These results show that underweight is a widespread concern across all survey areas, with the camps having a higher burden of underweight. The notable gender differences in Benue Northwest and Daudu 2 Camp highlight the need for gender-sensitive programming.

4.3 Stunting

The prevalence of stunting in Benue state is worrying and reveals a widespread problem of chronic malnutrition among children under 5 years of age across all survey areas. With an overall weighted prevalence of 27.3 per cent for the state, stunting affects more than one in four children in Benue. In the camps, this figure rises above 30 per cent. Boys are more vulnerable, with a statistically significant gender difference noted in Benue Northwest, where 34.4 per cent of boys are stunted compared to 20 per cent of girls. The two camps emerge as the most affected areas, with stunting rates exceeding those in the domains. This highlights potential systemic issues such as poor living conditions, limited access to diverse diets or inadequate maternal and child health services in the camps.

4.4 Mortality rates

Based on the weighted results for the three domains, the crude mortality rate (CMR) is estimated at 0.65 deaths per 10,000 persons per day, and the under-five mortality rate (U5MR) at 0.50 deaths per 10,000 children under 5 years per day. These figures indicate that during the assessment, the population was not experiencing a mortality crisis. At the domain level, Benue Northeast has the highest CMR at 0.84, with its upper confidence limit surpassing the emergency threshold of 1 death/10,000 persons/day. This may reflect the impact of the ongoing conflict in Benue state. Meanwhile, Benue Northwest shows the highest U5MR at 0.73, with a wide confidence interval that is beyond the emergency threshold of 2 deaths/10,000 children under 5 years/day. This indicates a deterioration of child health outcomes.

Of the two camps, Daudu 2 Camp recorded the higher U5MR of 1.70. Its upper confidence limit of 3.65 is above the emergency threshold, indicating a serious concern for child survival in this camp. In contrast, the CMR in Daudu 2 Camp is relatively low at 0.48. The high U5MR highlights the need for targeted child health interventions. The International Market Camp also shows a higher CMR (0.67), which is above the baseline level.

4.5 Water, sanitation and hygiene

Benue Northeast has the highest proportion of households using protected water sources (83.7 per cent), followed closely by Benue Northwest (75.0 per cent). Conversely, Benue South shows reliance on unprotected sources, with nearly half of its population (48.2 per cent) obtaining water from potentially unsafe sources, like surface water. Protected wells are the most commonly used safe water source across all domains, indicating their important role in community water access.

Surface water remains the dominant unprotected source, especially in Benue South and Northwest, and this poses a high risk of contamination. These results highlight the urgent need for the expansion of access to protected water sources, especially in Benue South.

Regarding access to sanitation, Benue South leads the way with 61.1 per cent of households using improved sanitation facilities; however, over one third (38.9 per cent) of households rely on unimproved toilets, and a significant portion (22.2 per cent) use communal or shared facilities, which may compromise cleanliness. Benue Northwest and Northeast have lower access to improved sanitation at 46.0 per cent and 47.2 per cent, respectively, with more than half of the households in each domain using unimproved toilets. This widespread reliance on unsafe sanitation options poses serious public health risks and underscores the need for urgent expansion of sanitation facilities.

Regarding access to handwashing systems, the survey reveals a notable lack of handwashing devices. Very few households reported having a handwashing device, at only 1.3 per cent in Benue South and Northwest. In Benue Northeast, just 0.2 per cent of households – that is, a single household – reported having a handwashing device.

Among the few households with devices, access to water and soap is also limited. In Benue South, only three in seven households with a device had both water and soap available at the time of the survey, though six in seven households in Benue Northwest with a device had water and soap. The single household in Benue Northeast with a handwashing device had no water or soap available at the time of the survey. Buckets with taps are the most common type of handwashing device, especially in Benue South and Northeast. Benue Northwest reported different types of handwashing devices, including sinks with tap water and pouring devices, which suggests variation in access to handwashing devices.

4.6 Micronutrient and vitamin A supplementation, deworming, and measles vaccination

Multiple micronutrient powder (MNP) distribution is one of the most pressing concerns. Across all domains and camps, MNP coverage remains very low, ranging from 3 per cent in Benue South and Northeast to 9.4 per cent in Benue Northwest. In the camps, coverage barely exceeds 9 per cent. This may indicate significant barriers in both contexts, including supply chain limitations, limited caregiver awareness, or logistical constraints.

l. Vitamin A supplementation in Benue Northeast is encouraging, exceeding 80 per cent based on card presentation (38.3%) and caregiver recall (42.3%). However, figures in the camps are significantly lower. Overall, coverage in the camps stands at approximately 60 per cent, mostly based on caregiver recall (51.9 per cent in the International market camp and 46.6 percent in Daudu 2 camp), with very low coverage verified from cards, which reached only 8.8 per cent in the International market camp and 12.6 per cent in Daudu 2 camp. The overreliance on caregiver recall raises concerns about data accuracy and the need to strengthen the use of health cards and recordkeeping.

Deworming coverage is inadequate and generally suboptimal. Benue South has relatively higher coverage at 41 per cent, but Benue Northwest and Northeast and the two camps have coverage below 30 per cent. These figures imply that deworming campaigns may not be reaching all eligible children or that follow-up and reporting are insufficient. Targeted deworming campaigns could help close this gap.

Measles vaccination coverage varies significantly across the survey areas. Benue Northeast leads the way with nearly 75 per cent of children vaccinated against measles, based on both card presentation and caregiver recall. This indicates immunization coverage slightly lower than the recommended threshold of ≥80 per cent. In contrast, the situation in Daudu 2 Camp is highly concerning: card presentation confirmed the vaccination of only 8.4 per cent of children, and nearly half of the mothers reported not knowing their child's immunization status. This high level of uncertainty and the lack of documentation show potential weaknesses in service delivery. To improve coverage of measles vaccination, catch-up vaccination campaigns and improved tracking through registers or enhanced community-based monitoring should be prioritized in the camps.

4.7 Morbidity and health-seeking behaviours

Acute respiratory infections (ARIs) are rare, with only a few cases reported across all the survey areas. Additionally, every child with ARI received treatment, suggesting high levels of care-seeking behaviour. The low ARI prevalence may, however, reflect seasonal factors or underreporting, which calls for continued surveillance and community-level awareness.

Fever is more prevalent, particularly in the camps. Daudu 2 Camp recorded the highest rate at 21.4 per cent, followed by the International Market Camp at 19.7 per cent. In the domains, Benue South has the highest prevalence of fever at 16.6 per cent. Treatment-seeking for fever is high across all survey areas, with over 80 per cent of affected children receiving care. This points to strong caregiver awareness and relatively better access to health services.

Diarrhoea is present, especially in the camps, where prevalence reached 18.5 per cent in the International Market Camp and 12.0 per cent in Daudu 2 Camp. The three domains show lower rates, with Benue Northwest leading at 9.8 per cent. Treatment-seeking for diarrhoea is high in the camps, with over 83 per cent of affected children receiving care. In the domains, however, care-seeking shows more variation, with about half of caregivers of affected children seeking treatment in Benue South and Northeast.

The type of treatment provided for diarrhoea shows notable differences. The camps reported high use of oral rehydration salts (ORS) and zinc. In the International Market Camp, 62 per cent of affected children received ORS and nearly half received both ORS and zinc. In Daudu 2 Camp, coverage is moderate, with 50 per cent receiving zinc and 38 per cent receiving ORS. In contrast, the domains lag. In Benue South, no affected children received both ORS and zinc, and only 15 per cent received ORS alone. Benue Northeast performs slightly better but falls short of expected standards.

Although treatment-seeking is high for fever and diarrhoea, especially in the camps, treatment for diarrhoea needs improvement, particularly in the three domains. To improve this situation requires the strengthening of the supply chain for ORS and zinc, continuous training for community health workers and education for caregivers on proper diarrhoea management.

4.8 Maternal, infant and young child nutrition practices

Breastfeeding practices

Breastfeeding practices vary widely. Over 95 per cent of children aged 0–23 months had ever been breastfed. This is consistent across all the survey areas, indicating the widespread acceptance of breastfeeding.

Early initiation of breastfeeding is generally low. Benue Northeast stands out for its low rate of early initiation (27 per cent). Conversely, Benue South and Northwest show moderately better performance, though still below optimal thresholds. The two camps also reflect this trend, with early initiation rates reaching about 40 per cent, which remains suboptimal.

The rate of exclusive breastfeeding during the first two days after birth averages 61.8 per cent across the three domains. The camps recorded higher rates at 83.9 per cent and 76.5 per cent in the International Market Camp and Daudu 2 Camp, respectively. This implies that camp-based interventions may be more effective. A similar pattern was observed with exclusive breastfeeding of infants under 6 months of age. A lower overall rate of 48.1 per cent was recorded in the three domains, but the two camps recorded significantly higher rates, exceeding 76 per cent. These findings point to consistent interventions within the camps that may be supporting improved breastfeeding practices.

The practice of mixed milk feeding is not common, averaging 7.0 per cent across the three domains. Notably, both camps reported zero cases, reflecting the strong commitment of mothers to exclusive breastfeeding.

Overall, the rate of continued breastfeeding among children aged 12–23 months is 42.4 per cent. Benue South leads the way at 53.4 per cent, with Benue Northwest following at 32.9 per cent. The two camps outperformed the domains, with the International Market Camp at 63.3 per cent and Daudu 2 Camp at 58.1 per cent. This indicates that long-term breastfeeding practices are stronger in the camps.

Bottle feeding among children aged 6–23 months is more prevalent in domains, especially in Benue South (26.5 per cent). In contrast, the International Market Camp reported a low rate of 6.6 per cent, while Daudu 2 Camp has a rate of 12.1 per cent. In general, the two camps show stronger breastfeeding practices than the domains. This calls for enhanced targeted interventions in the domains.

Complementary feeding

Complementary feeding practices show mixed results across the survey areas. While the introduction of solid, semi-solid or soft foods is mostly timely, especially in Benue South and Daudu 2 Camp, there are notable gaps in the quality and frequency of feeding.

Meal frequency among breastfed children is low across all the survey areas, with less than one third of children receiving the recommended number of meals per day. Among the non-breastfed children, milk feeding frequency is very low – at 11.3 per cent in the domains and less than 4 per cent in the camps. These findings highlight a major vulnerability among non-breastfed children, who are at higher risk of malnutrition.

Dietary diversity remains a big concern. While the domains show moderate performance, with about half of children consuming foods from at least four food groups, the situation in the camps is worrying. In Daudu 2 Camp and the International Market Camp, less than 16 per cent of children meet the minimum dietary diversity. This is also reflected in the low rates of minimum acceptable diet, which combines both diversity and frequency. In the camps, only 2–5 per cent of children meet this standard, which underscores a critical gap in overall dietary quality.

Consumption of protein-rich foods such as eggs and flesh foods is more common in the domains than the camps, where only about one in five children consume such foods. This variation indicates a potential deficiency in essential nutrients among the displaced population living in the camps.

The consumption of sweet beverages and unhealthy foods is notably high in Benue South, indicating a shift toward less nutritious foods. In contrast, the camps reported lower levels of consumption of such foods. There is, however, a significant lack of consumption of fruits and vegetables in both camps, with over 40 per cent of children in either case reporting that they did not consume fruits and vegetables.

Overall, these findings point to the urgent need for targeted nutrition interventions that address both access and caregiver knowledge, with a special focus on improving dietary diversity, meal frequency and nutrient-rich food consumption among vulnerable populations.

4.9 Child food poverty

The assessment of child food poverty reveals critical nutritional inequality among children aged 6–23 months. Although close to half (49.6 per cent) of the children assessed are not living in food poverty, a significant portion experience dietary deprivation. Over 32 per cent are classified as living in moderate food poverty, and nearly 18 per cent are living in severe food poverty, consuming foods from only two or fewer groups.

Among the domains, Benue South and Northeast show better performance, with over half of children not living in food poverty. Benue Northwest, however, has the highest rate of severe food poverty, which suggests that children in this domain may have more limited access to diverse foods or face greater barriers to adequate feeding.

The situation is much worse in the camps. In the International Market Camp, only 22.4 per cent of children are not in food poverty, and nearly 40 per cent are severely deprived. In Daudu 2 Camp, the situation is alarming, with more than 82 per cent of children living in severe food poverty, and less than 9 per cent having access to a sufficiently diverse diet. These figures point to extreme nutritional vulnerability and highlight the urgent need for targeted interventions.

4.10 Nutritional status of girls/women, and IFAS and MMS intake

Generally, the nutritional status of girls and women of reproductive age (15–49 years) shows very low prevalence of wasting among both non-pregnant, non-lactating girls/women and pregnant or lactating girls/women with infants under 6 months. Across all the survey areas, the proportion of girls/women with severe wasting (MUAC <210 mm) is below 2 per cent, except Benue South where the prevalence is 4.7 per cent, suggesting higher vulnerability.

Iron and folic acid supplementation (IFAS) coverage varies significantly across the survey areas. Benue South leads with 75.8 per cent of girls/women reporting intake, followed by Benue Northwest and Daudu 2 Camp. Contrastingly, Benue Northeast lags, with less than half of girls/women reporting having received IFAS. The duration of IFAS intake also differs widely. Both camps show higher rates of intake of longer duration, especially in Daudu 2 Camp, where close to 68 per cent of girls/women reported consuming IFAS for more than 90 days. Benue South and Northwest show a moderate rate of 90-day intake (51.4 per cent), while Benue Northeast has a lower rate, with only 39.1 per cent of girls/women reaching the recommended duration.

Multiple micronutrient supplementation (MMS) remains limited overall. The highest uptake was observed in Benue Northwest and Daudu 2 Camp, where about one third of women receive these supplements. Benue Northeast has the lowest MMS coverage at only 11.3 per cent.

While acute malnutrition is not widespread among girls and women of reproductive age, the uneven coverage and duration of supplementation, especially in Benue Northeast, highlights the need for strengthened maternal nutrition programmes. The uptake of both IFAS and MMS remains low, necessitating actions to increase access and consistent messaging around supplementation to improve maternal health outcomes across all the survey areas.

5.0 Recommendations

Survey findings	Short-term recommendations	Medium- to long-term recommendations	Responsible actor
Acute malnutrition (GAM/SAM) Medium GAM levels (5 to <10%) based on WHZ and/or oedema in Benue South and International Market Camp. Low GAM levels (2.5 to <5%) by WHZ and/or oedema in Benue Northwest and Northeast and Daudu 2 Camp. Combined GAM levels range from low to medium, and cGAM is highest in International Market Camp (10.5%).	Scale up mobile and outreach integrated management of acute malnutrition (IMAM) services to ensure community-level screening, referral and treatment of wasting, focusing especially on hard-to-reach areas. All health facilities and mobile clinics, especially in the camps, should be equipped and adequately staffed to provide nutrition treatment for SAM and MAM, including follow-up care led by Federal Ministry of Health and Social Welfare with support from UNICEF and other partners. Integrate the management of at-risk mothers and infants under 6 months into existing nutrition services to support small and nutritionally vulnerable infants and their mothers. Enhance routine mass screening and active case finding through regular mass MUAC screenings and community-based active case finding to improve early identification and enrolment of malnourished children. Screening should be linked to immediate service delivery and follow-up. Implement blanket food-based prevention of moderate acute malnutrition, targeting children aged 6–23 months with MUAC between 125 mm and <135 mm.	Integrate nutrition screening into routine primary health care services to strengthen early detection of acute malnutrition. Strengthen continuous growth monitoring and community nutrition surveillance. Continue and expand food assistance through appropriate modalities including in-kind distributions, cash transfers, or vouchers based on market functionality and household preferences.	Federal Ministry of Health and Social Welfare; UNICEF and other humanitarian partners

Survey findings	Short-term recommendations	Medium- to long-term recommendations	Responsible actor
Underweight Medium levels of underweight in the three domains: 14.4% in Benue South, 15.2% in Benue Northwest and 14.9% in Benue Northeast. High levels of underweight in the International Market Camp (24%) and Daudu 2 Camp (20.1%).	Distribute targeted food supplements such as fortified blended foods or ready-to-use supplementary food to underweight children under 5 years of age. Encourage the use of locally available, nutrient-rich foods for complementary feeding, and MNP to improve the nutritional quality of young children's diets in food-insecure areas, particularly in the camps. Strengthen nutrition education, highlighting the importance of the first 1,000 days from conception to 23 months of age to continue to reduce the prevalence of underweight.	Strengthen existing livelihood/resilience projects and establish new ones, for instance, to support farming communities with seeds and tools, and sensitize them on ways of growing more food.	
Stunting High levels of stunting in the domains: 27.9% in Benue South, 27.2% in Benue Northwest and 26.5% in Benue Northeast. Very high stunting prevalence exceeding 30% in the International Market Camp and Daudu 2 Camp.	Strengthen nutrition education, highlighting the importance of the first 1,000 days from conception to 23 months of age to continue to reduce the prevalence of stunting. Intensify routine growth monitoring for children under 2 years of age at health posts and through community outreach to identify growth faltering early on. Promote optimal MIYCN through targeted counselling and group sessions on exclusive breastfeeding for infants under 6 months of age and timely introduction of diverse complementary foods. Improve hygiene and sanitation practices by distributing hygiene kits, and promote handwashing with soap, particularly in the camps. Integrate infection treatment and deworming as part of the nutrition treatment to address chronic malnutrition.	Implement multisectoral programmes to address structural causes of stunting (poverty, poor WASH, food insecurity). Institutionalize nutrition-sensitive interventions in the agriculture, WASH and education sectors.	Federal Ministry of Health and Social Welfare; UNICEF and other humanitarian partners

Survey findings	Short-term recommendations	Medium- to long-term recommendations	Responsible actor
Mortality (CMR/U5MR) CMR and U5MR are below emergency thresholds, but at alert levels in Daudu 2 Camp.	Strengthen disease surveillance and outbreak response within camps.	Improve the local health system by providing additional resources to improve provision of curative and preventive health care.	Federal Ministry of Health and Social Welfare and partners
WASH High levels of reliance on unprotected water sources: 48.2% of households in Benue South, 25% in Benue Northwest and 16.3% in Benue Northeast. High levels of reliance on unimproved sanitation facilities: 37.8% of households in Benue South, 53.1% in Benue Northwest and 51.3% in Benue Northeast. Only 1.3% of households in Benue South and Northwest and 0.2% in Benue Northeast have access to handwashing devices.	Implement water trucking and point-of-distribution systems in areas lacking access to safe drinking water. Conduct health education on water harvesting and safe water storage. Increase the availability of basic handwashing stations equipped with soap and water in households, schools, health facilities and public spaces. Integrate hygiene promotion into community outreach and school-based programming. Provide comprehensive hygiene kits, including soap, water and containers, to improve personal hygiene practices and reduce the transmission of infectious diseases.	Develop and rehabilitate safe, reliable drinking water sources, including boreholes and protected wells, to ensure long-term functionality and community ownership. Ensure that the Federal Ministry of Water Resources is actively engaged in providing access to safe water for local communities. Invest in large-scale distribution of soap to the community and provide continuous hygiene education to create lasting behavioural change.	Federal Ministry of Health and Social Welfare, Federal Ministry of Water Resources; UNICEF and other humanitarian partners
Coverage of health programmes Very low coverage of MNP across the domains and camps (3.0 to 9.4%).	Strengthen and expand routine vaccination programmes, along with vitamin A supplementation and deworming interventions for children under 5 years of age, aiming to achieve over 80% coverage.	Establish routine progress reviews to identify gaps in vaccination, deworming and supplementation	Federal Ministry of Health and Social Welfare; UNICEF and other

Survey findings	Short-term recommendations	Medium- to long-term recommendations	Responsible actor
Low vitamin A coverage in the domains and the camps except Benue Northeast, which achieved coverage of ≥80%. Very low deworming coverage, ranging from 26.7 to 40.9%. Less than 80% coverage of measles vaccine across all the survey areas.	Conduct catch-up campaigns for vitamin A, deworming, and MNP distribution. Leverage outreach services, Child Health Days, and immunization campaigns integrated with IMAM to ensure consistent and widespread service delivery. Conduct mass measles vaccination campaigns in camps and underserved LGAs. Improve cold chain functionality and deploy mobile vaccination teams.	programmes, and adjust strategies as needed for continuous improvement. Provide child health cards/booklets and systematically record data on vitamin A supplementation, measles vaccinations and deworming to support tracking and evidence-based decision-making. Strengthen the routine immunization system and supply chain management. Improve data management and tracking of EPI coverage.	humanitarian partners
Morbidity and health-seeking behaviour Very low prevalence of ARI, averaging 0.2% in the domains and 1.2% in the camps. Prevalence of fever in the domains (8.9 to 16.6%), but higher in the camps (19.7% in International Market Camp and 21.4% in Daudu 2 Camp). Prevalence of diarrhoea in the domains (5.9 to 9.8%), but slightly higher in the camps (12 to 18.5%).	Strengthen and scale up existing mobile health and nutrition clinics. Expand integrated management of childhood illness and integrated community case management in all health facilities to reach all the sick children for treatment. Ensure availability of essential drugs in existing health facilities. Provide additional resources to local health facilities to ensure timely and effective treatment for common illnesses like fever and cough.	Strengthen the primary health care system, by hiring adequate human resources; strengthen health and nutrition information system and supply chain. Establish or strengthen community outreach worker programmes that support health and nutrition education through government health system. Strengthen public health monitoring and preparedness for disease outbreaks.	Federal Ministry of Health and Social Welfare; WHO, UNICEF and other humanitarian partners

Survey findings	Short-term recommendations	Medium- to long-term recommendations	Responsible actor
	Conduct indoor residual spraying and distribute mosquito nets to decrease cases of fever in the area. Distribute ORS and zinc kits to households and train caregivers on home management of diarrhoea.	Maintain active disease surveillance in collaboration with WHO and health partners.	
Maternal infant and young child feeding Low rates of early initiation to breastfeeding: 47.7% in the domains and 39.7% in the camps. Low rates of exclusive breastfeeding for the first two days (61.8%) and for infants under 6 months (48.1%) in the domains. Low rates of continued breastfeeding of children aged 12–23 months in the domains (42.4%). Poor rates of minimum meal frequency among breastfed children in the domains (28.8%) and in the camps (29.5%). Poor rates of minimum dietary diversity: 49.9% in the domains	Strengthen MIYCN counselling on optimal breastfeeding practices, especially on importance of exclusive breastfeeding for infants under 6 months of age. Continue group sessions and home visits promoting early initiation of breastfeeding and exclusive breastfeeding for the first 6 months of age. Strengthen the knowledge of mothers/caretakers on complementary feeding through various behaviour change communication mediums and mothers' groups. Conduct health education to encourage consumption of nutrient-rich foods, vegetables and fruits and to discourage consumption of unhealthy foods. Promote the use of locally available, nutrient-rich foods by engaging community health workers and local volunteers to lead ongoing sensitization activities and cooking demonstrations and incorporate MIYCN topics into existing community dialogue platforms. Support local production of foods and vegetables through livelihood and resilience projects that can in turn be used to improve access to diversified diet for infants and children aged 6–23 months.	Integrate MIYCN promotion into antenatal care (ANC)/postnatal care (PNC) services and community platforms. Integrate MIYCN counselling services into routine health systems to ensure sustainability. Strengthen capacity of government health personnel through annual and biennial training on MIYCN and complementary feeding. Promote behaviour change communication among community leaders by holding discussions and through provision of trainings.	Federal Ministry of Health and Social Welfare; UNICEF and other humanitarian partners

Survey findings	Short-term recommendations	Medium- to long-term recommendations	Responsible actor
and 13.2% in the camps. Poor rates of minimum acceptable diet: 44.4% in the domains and 3.8% in the camps. Very low consumption of eggs and flesh foods in the camps (21.9%). High consumption of sweet beverages in the domains (31.7%). High consumption of unhealthy foods in the domains (39.4%). High rate of children not consuming fruits and vegetables in the camps (43.4%).			
Child food poverty Across survey areas, 17.9% of children are living in severe food poverty, 32.5% are living in moderate food poverty and, overall, 50.4% of children are	Launch urgent food assistance programmes in Daudu 2 Camp, including distribution of diverse, nutrient-rich foods and fortified complementary products. Train health workers and community volunteers to promote diverse and age-appropriate feeding practices.	Support local agriculture and market linkages to improve availability of diverse foods, especially in domains with moderate food poverty. Introduce kitchen gardening and small livestock programmes to	

Survey findings	Short-term recommendations	Medium- to long-term recommendations	Responsible actor
experiencing some level of dietary deprivation.	Use culturally relevant messaging to encourage inclusion of multiple food groups in daily meals. Use child food poverty data to identify and prioritize households for targeted interventions. Integrate food poverty screening into routine child health services to ensure early detection and response.	enhance household-level food production. Collaborate across the health, agriculture and social protection sectors to address underlying drivers of food poverty.	
Malnutrition among girls/women, and IFAS and MMS uptake IFAS coverage is low in Benue Northeast. Duration of IFAS intake varies widely, with <40% taking IFAS for 90 days in Benue Northeast. Limited intake of MMS.	Conduct follow-up assessments in Benue South to understand drivers of higher cases of wasting. Scale up IFAS distribution and monitoring during ANC visits. Expand community-based education campaigns to raise awareness about the importance of IFAS and MMS. Train health workers to provide consistent messaging during antenatal and postnatal visits, especially in underperforming areas like Benue Northeast. Ensure regular and equitable supply of IFAS and MMS across all domains and camps. Ensure regular follow-ups by community health volunteers to encourage girls/women to complete the full 90-day IFAS intake.	Introduce tracking systems to monitor stock levels and prevent supply gaps, particularly in remote or underserved areas. Integrate supplementation tracking into maternal health records to improve continuity of care.	

Annexes

Annex 1: Standardization test results

standardization-report.xlsx

Annex 2: Local events calendar

Benue_SMART_SURVEY_Local_Event_Calenda

Annex 3: List of Survey Managers and Coordinator

Name	Role	Organization
Dr Anefu Okpotu Gabriel	Survey manager	Benue State Primary Health Board
Abolaji Benjamin Olarewaju	Survey manager	National Bureau of Statistics
Lubem Robert Aboh	Survey manager	Benue State Bureau of Statistics
Ayowale Akingbade	Survey manager	UNICEF
Edward Kutondo	National Survey coordinator	UNICEF
Morris Chui	Survey manager	Action Against Hunger Canada
Stephen Kimanzi	Survey manager	Action Against Hunger Canada

The survey managers were supported by **a steering/advisory team** comprising of Akinloye A. Elutade (NBS), Abigail Solademi (NBS), Abatta Emmanuel (FMOHSW), Okoro Clementina Ebere (FMBEP), Nemat Hajeebhoy (UNICEF), Prosper Dakurah (UNICEF) and Yejimmawork Ayalew (UNICEF).