NUTRITION SMART SURVEY REPORT

Sokoto, Katsina, Zamfara, Kebbi and Jigawa States

NORTHWEST NIGERIA

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Foreword

The 2025 Nutrition SMART Survey in Northwest Nigeria 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 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 Surveys reflects the strong collaboration between government institutions at national and sub-national levels, development partners, and implementing actors.

We acknowledge the continuous engagement of our development partners including United States Government 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.

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We gratefully acknowledge the invaluable technical and financial support provided by the United Nations Children's Fund (UNICEF) in coordination with the Government.

We further appreciate the contributions of Action Against Hunger and other nutrition partners who provided technical expertise, training support and independent data quality reviews.

Sincere thanks are extended to the survey managers, supervisors and enumerators, whose commitment, professionalism and adherence to ethical standards ensured credible results despite logistical and environmental challenges.

We also wish to express our heartfelt gratitude to all the mothers, caregivers, children and the wider communities who participated in this survey. Their openness, patience and willingness to share their experiences and allow measurements in their homes made it possible to generate the evidence presented in this report.

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Abbreviations

ARI	ACUTE RESPIRATORY INFECTION
cGAM	combined GLOBAL ACUTE MALNUTRITION
CI	CONFIDENCE INTERVAL
CMR	CRUDE MORTALITY RATE
cSAM	combined SEVERE ACUTE MALNUTRITION
GAM	GLOBAL ACUTE MALNUTRITION
HAZ	HEIGHT-FOR-AGE Z-SCORE
HH	HOUSEHOLD
IFAS	IRON AND FOLIC ACID SUPPLEMENTATION
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
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 2025 Northwest Nigeria Nutrition SMART Survey was conducted across Sokoto, Kebbi, Katsina, Zamfara and Jigawa states under the leadership of the Federal Ministry of Health and Social Welfare and the respective state primary health care development agencies/boards, with technical support from the United Nations Children's Fund (UNICEF), the SMART team at Action Against Hunger Canada and nutrition sector partners.

Data collection commenced on 12 August 2025 in Sokoto and Zamfara states and concluded on 27 September 2025 in Jigawa and Kebbi states. The survey aimed to determine the prevalence and severity of acute malnutrition, morbidity and other key nutrition and health indicators among children aged 0-59 months and among girls and women of reproductive age (15-49 years), providing reliable evidence to inform policy, programming and humanitarian response.

A two-stage cluster sampling approach was applied in each state, following the Standardized Monitoring and Assessment of Relief and Transitions (SMART) methodology. Anthropometric and household data were collected electronically using the SMART Collect mobile application. Indicators assessed include nutritional status of children aged 0-59 months (weight for height-wasting), height for age (stunting), weight for age (underweight), and mid-upper arm circumference (MUAC); child morbidity; maternal, infant and young child nutrition (MIYCN) practices; food consumption; maternal nutrition; and access to health, water and sanitation services. Data quality was verified through plausibility checks and inter-observer standardization, ensuring reliability and comparability across states.

Table ES-1. Summary of findings

Indicator	Sokoto (95% confidence interval (CI))	Katsina (95% CI)	Zamfara (95% CI)	Kebbi (95% CI)	Jigawa (95% CI)
Global acute malnutrition (GAM) prevalence among children aged 0-59 months, defined as weight-for-height z-score (WHZ) <-2 standard deviations (SD)	11.2 (9.9, 12.6)	7.4 (6.5, 8.4)	8.5 (6.9, 10.4)	11.3 (9.2, 13.8)	7.8 (6.7, 9.0)
Severe acute malnutrition (SAM) prevalence among children aged 0-59 months per WHZ <-3SD	1.4 (1.0, 2.0)	1.0 (0.7, 1.4)	0.8 (0.4, 1.5)	1.6 (1.0, 2.7)	0.9 (0.7, 1.3)
GAM prevalence among children aged 0-59 months per mid-upper arm circumference (MUAC) <125 mm	9.8 (8.5, 11.3)	6.6 (5.6, 7.7)	7.7 (6.1, 9.7)	8.8 (6.8, 11.4)	5.6 (4.6, 6.8)
SAM prevalence among children aged 0-59 months per MUAC <115 mm	2.3 (1.7, 3.1)	1.8 (1.4, 2.4)	1.8 (1.1, 2.8)	1.9 (1.2, 3.1)	2.0 (1.4, 2.7)
Combined GAM prevalence among children aged 0-59 months per WHZ <-2SD or MUAC <125 mm	14.6 (13.1, 16.2)	10.4 (9.3, 11.7)	11.6 (9.6, 13.9)	14.4 (12.0, 17.1)	10.2 (8.9, 11.7)
Combined SAM prevalence among children aged 0-59 months per WHZ <-3SD or MUAC <115 mm	3.0 (2.4, 3.8)	2.3 (1.9, 2.9)	1.9 (1.3, 2.9)	2.9 (2.0, 4.2)	2.4 (1.8, 3.0)
Stunting among children aged 0-59 months per height-for-age z-score (HAZ) <-2SD	43.8 (40.9, 46.7)	46.3 (43.9, 48.8)	42.6 (37.9, 47.5)	40.9 (36.7, 45.3)	34.5 (31.9, 37.2)
Severe stunting among children aged 0-59 months per HAZ <-3SD	15.5 (13.8, 17.3)	15.0 (13.3, 16.9)	17.2 (14.1, 20.9)	16.3 (13.7, 19.3)	13.9 (12.3, 15.5)
Underweight among children aged 0-59 months per weight-for-age z-score (WAZ) <-2SD	29.8 (27.6, 32.2)	25.8 (23.6, 28.1)	26.7 (23.2, 30.5)	30.9 (27.3, 34.7)	23.8 (21.4, 26.2)
Severe underweight among children aged 0-59 months per WAZ <-3SD	9.0 (7.8, 10.3)	7.3 (6.2, 8.5)	8.5 (6.5, 11.0)	8.6 (6.8, 10.8)	6.8 (5.7, 8.1)
Crude mortality rate	0.22 (0.15, 0.32)	0.31 (0.24, 0.40)	0.39 (0.24, 0.63)	0.25 (0.16, 0.39)	0.29 (0.21, 0.40)

Indicator	Sokoto (95% confidence interval (CI))	Katsina (95% CI)	Zamfara (95% CI)	Kebbi (95% CI)	Jigawa (95% CI)
Under-five mortality rate	0.62 (0.36, 1.07)	0.61 (0.40, 0.91)	0.67 (0.31, 1.58)	0.85 (0.46, 1.56)	0.86 (0.57, 1.30)
Proportion of households with access to improved drinking and cooking water (%)	40.3 (34.8, 46.2)	69.8 (64.6, 74.5)	83.6 (76.3, 89.0)	74.9 (65.8, 82.3)	87.0 (82.8, 90.4)
Proportion of households with access to improved sanitation facilities (%)	38.30 (33.2, 43.6)	50.70 (45.7, 55.7)	88.30 (80.5, 93.3)	45.5 (47.8, 64.7)	30.90 (26.0, 36.3)
Proportion of households with access to a designated handwashing facility (%)	7.60 (4.6, 12.4)	2.10 (1.3, 3.4)	6.80 (3.3, 13.5)	3.00 (1.4, 6.2)	2.00 (1.0, 4.0)
Coverage of multiple micronutrient powder (MNP) supplementation for children aged 6-59 months	1.80 (1.0, 3.1)	5.60 (3.7, 8.3)	3.20 (1.9, 5.3)	15.30 (9.2, 24.2)	1.30 (0.7, 2.4)
Vitamin A supplementation coverage for children aged 6-59 months within the past six months	31.80 (27.3, 36.6)	49.90 (44.9, 55.0)	33.90 (27.0, 41.5)	45.60 (37.3, 54.2)	69.40 (64.8, 73.6)
Deworming coverage for children aged 12-59 months within the past six months	10.0 (7.4, 13.4)	23.30 (19.7, 27.3)	12.70 (8.4, 18.6)	69.1 (59.9, 77.0)	33.80 (29.2, 38.7)
Measles vaccination coverage for children aged 9-59 months	36.70 (32.2, 41.3)	63.30 (58.5, 67.8)	55.30 (49.4, 61.1)	53.80 (45.4, 61.9)	78.90 (74.9, 82.3)
Measles vaccination coverage for children aged 9-23 months	36.10 (30.7, 42.0)	63.60 (58.0, 68.8)	54.70 (47.2, 62.0)	52.90 (42.8, 62.8)	76.40 (71.6, 80.7)
Prevalence of acute respiratory infection (ARI) symptoms in the two weeks preceding the survey for children aged 0-59 months	0.8 (0.5, 1.4)	0.3 (0.2, 0.6)	1.4 (0.6, 3.1)	1.6 (0.9, 2.9)	0.6 (0.4, 1.0)
Prevalence of fever in the two weeks preceding the survey for children aged 0-59 months	26.8 (23.6, 30.3)	20.5 (18.2, 23.0)	34.2 (29.4, 39.3)	33.3 (27.6, 39.6)	22.5 (19.7, 25.6)
Prevalence of diarrhoea in the two weeks preceding the survey for children aged 0-59 months	15.4 (13.6, 17.4)	8.0 (6.7, 9.6)	22.7 (18.7, 27.3)	18.1 (14.0, 23.0)	9.5 (7.9, 11.4)
	16.6	28.3	22.1	41.6	33.7

Indicator	Sokoto (95% confidence interval (CI))	Katsina (95% CI)	Zamfara (95% CI)	Kebbi (95% CI)	Jigawa (95% CI)
Coverage of oral rehydration salts (ORS) use during diarrhoea episodes (%)	(12.7, 21.4)	(23.0, 34.3)	(15.3, 30.8)	(33.0, 50.8)	(25.2, 43.3)
Coverage of zinc tablet or syrup use during diarrhoea episodes (%)	30.5 (24.7, 37.0)	25.2 (19.9, 31.4)	34.0 (24.7, 44.7)	38.3 (29.3, 48.2)	30.3 (22.1, 40.1)
Coverage of combined oral rehydration salts (ORS) and zinc use during diarrhoea episodes (%)	8.8 (6.1, 12.6)	17.1 (12.6, 22.7)	12.2 (7.1, 20.1)	30.9 (23.0, 40.2)	19.2 (12.0, 29.2)
Care seeking for symptoms of acute respiratory infection (ARI) from an appropriate provider (%)	50.3 (26.2, 74.2)	53.5 (27.2, 78.1)	58.2 (14.9, 91.7)	76.5 (44.4, 93.0)	53.8 (29.5, 76.4)
Care seeking for fever from an appropriate provider (%))	61.0 (53.8, 67.7)	81.9 (77.8, 85.3)	77.8 (70.0, 84.1)	59.1 (50.4, 67.4)	58.5 (51.8, 64.8)
Care seeking for diarrhoea from an appropriate provider (%)	45.0 (38.5, 51.6)	69.6 (61.9, 76.4)	63.8 (52.7, 73.5)	57.1 (46.6, 67.0)	43.2 (36.5, 50.2)
Prevalence of ever breastfed children (%)	94.50 (92.5, 95.9)	97.90 (96.7, 98.7)	96.2 (93.0, 98.0)	95.5 (92.7, 97.3)	95.3 (93.4, 96.7)
Prevalence of early initiation of breastfeeding (%)	32.10 (26.9, 37.8)	19.80 (15.7, 24.8)	32.6 (25.7, 40.4)	39.1 (31.0, 47.8)	26.7 (22.6, 31.3)
Prevalence of exclusive breastfeeding during the first two days after birth (%)	44.70 (38.7, 50.8)	38.00 (33.1, 43.1)	57.8 (49.6, 65.6)	40.5 (32.7, 48.8)	37.1 (32.8, 41.6)
Prevalence of exclusive breastfeeding among infants under 6 months of age (%)	28.80 (22.8, 35.7)	21.20 (16.2, 27.1)	28.8 (20.5, 38.7)	23.4 (12.3, 40.1)	30.5 (24.6, 37.1)
Prevalence of mixed milk feeding among infants under 6 months of age (%)	2.50 (1.1, 5.9)	6.20 (3.8, 9.8)	3.0 (1.1, 7.7)	8.3 (3.4, 18.7)	1.9 (0.9, 4.3)
Prevalence of continued breastfeeding (%)	65.50 (60.2, 70.4)	62.90 (58.9, 66.7)	73.6 (65.9, 80.1)	77.5 (70.9, 83.0)	67.2 (62.8, 71.3)
Prevalence of introduction of solid, semi-solid or soft foods (%)	59.30 (47.9, 69.7)	73.90 (67.2, 79.6)	76.4 (62.2, 86.4)	57.2 (43.1, 70.2)	68.7 (59.8, 76.5)
Prevalence of minimum dietary diversity (%)	24.20 (19.7, 29.3)	28.50 (24.3, 33.2)	29.6 (22.6, 37.8)	48.2 (40.3, 56.2)	14.6 (11.5, 18.5)

Indicator	Sokoto (95% confidence interval (CI))	Katsina (95% CI)	Zamfara (95% CI)	Kebbi (95% CI)	Jigawa (95% CI)
Prevalence of minimum meal frequency (%)	40.80 (35.6, 46.2)	46.60 (42.4, 50.8)	52.9 (45.7, 60.0)	44.0 (36.2, 52.0)	44.6 (40.1, 49.3)
Prevalence of minimum milk feeding frequency among non-breastfed children (%)	7.50 (4.3, 12.9)	14.10 (9.6, 20.4)	28.9 (16.3, 45.8)	22.4 (13.0, 35.9)	6.3 (3.7, 10.6)
Prevalence of minimum acceptable diet (%)	10.80 (8.1, 14.2)	16.60 (13.7, 20.0)	16.8 (11.3, 24.2)	26.7 (20.8, 33.6)	8.7 (6.4, 11.6)
Prevalence of egg and/or flesh food consumption (%)	13.90 (10.8, 17.6)	17.30 (13.7, 21.7)	37.3 (29.2, 46.3)	45.8 (38.3, 53.5)	11.5 (8.7, 15.1)
Prevalence of sweet beverage consumption (%)	10.50 (7.8, 13.8)	13.40 (10.1, 17.5)	31.1 (24.1, 39.1)	33.0 (26.5, 40.2)	10.0 (7.2, 13.9)
Prevalence of unhealthy food consumption (%)	11.20 (8.5, 14.7)	12.80 (9.5, 17.1)	33.1 (26.0, 41.1)	26.5 (20.6, 33.5)	6.4 (4.2, 9.8)
Prevalence of zero vegetable or fruit consumption (%)	28.50 (24.3, 33.0)	24.50 (20.9, 28.6)	49.6 (41.7, 57.5)	30.8 (24.9, 37.4)	37.6 (33.3, 42.1)
Prevalence of bottle feeding (%)	10.30 (7.0, 14.8)	10.90 (8.6, 13.7)	14.1 (8.9, 21.5)	23.4 (16.7, 31.7)	16.3 (13.0, 20.2)
Prevalence of severe child food poverty (0-2 food groups) (%)	31.40 (26.9, 35.9)	24.90 (20.5, 29.3)	45.50 (36.5, 54.5)	25.60 (19.3, 40.0)	41.20 (38.3, 44.1)
Prevalence of non-pregnant, non-lactating girls/women aged 15-49 years (%)	60.90 (58.4, 63.5)	59.10 (56.6, 61.5)	64.00 (60.1, 67.7)	58.00 (54.9, 61.0)	51.30 (48.6, 54.0)
Prevalence of pregnant girls/women aged 15-49 years (%)	12.20 (10.8, 13.8)	12.20 (10.9, 13.6)	9.10 (7.4, 11.1)	12.90 (11.0, 15.1)	14.20 (12.9, 15.7)
Prevalence of lactating girls/women aged 15-49 years with an infant <6 months (%)	27.90 (24.6, 31.5)	30.40 (27.5, 33.4)	32.90 (27.4, 39.0)	28.00 (23.0, 33.7)	31.60 (28.4, 34.9)
Prevalence of lactating girls/women aged 15-49 years with an infant ≥6 months (%)	72.10 (68.5, 75.4)	69.60 (66.6, 72.5)	67.10 (61.0, 72.6)	72.00 (66.3, 77.0)	68.40 (65.1, 71.6)
Mean age of girls/women of reproductive age (15-49 years)	28.04 (27.7, 28.4)	27.84 (27.5, 28.2)	27.99 (27.6, 28.4)	28.51 (28.0, 29.0)	27.85 (27.5, 28.2)
	8.10	7.30	5.50	2.20	8.30

Indicator	Sokoto (95% confidence interval (CI))	Katsina (95% CI)	Zamfara (95% CI)	Kebbi (95% CI)	Jigawa (95% CI)
Prevalence of MUAC malnutrition among non-pregnant, non-lactating girls/women (MUAC <210 mm) (%)	(6.2, 10.6)	(5.8, 9.1)	(4.1, 7.1)	(1.3, 3.7)	(6.8, 10.0)
Prevalence of MUAC malnutrition among non-pregnant, non-lactating girls/women (MUAC <230 mm) (%)	24.10 (21.3, 27.1)	26.50 (23.9, 29.3)	25.10 (21.5, 29.1)	13.10 (10.6, 16.0)	70.80 (68.2, 73.4)
Prevalence of MUAC malnutrition among pregnant girls/women and lactating girls/women with an infant <6 months (MUAC <210 mm) (%)	2.30 (1.3, 4.1)	3.30 (2.1, 5.0)	0.70 (0.3, 1.8)	1.10 (0.3, 3.4)	4.10 (2.9, 5.8)
Prevalence of MUAC malnutrition among pregnant girls/women and lactating girls/women with an infant <6 months (MUAC <230 mm) (%)	16.40 (13.4, 19.9)	21.10 (17.9, 24.8)	12.00 (8.0, 17.5)	9.60 (6.7, 13.5)	20.00 (16.9, 23.6)
Coverage of iron, folate, or multiple micronutrient supplementation (MMS) possession or access (%)	32.50 (26.9, 38.1)	56.10 (51.2, 61.0)	44.00 (36.0, 52.1)	56.30 (44.8, 67.8)	60.30 (56.9, 63.7)
Adherence to iron, folate, or multiple micronutrient supplementation for ≥90 days (%)	13.30 (10.0, 16.6)	30.30 (26.6, 34.0)	19.90 (13.5, 26.3)	28.80 (21.1, 36.5)	31.60 (33.2, 40.0)
Coverage of iron tablet supplementation (%)	5.60 (3.0, 8.2)	9.30 (6.5, 12.1)	4.70 (1.0, 8.4)	20.30 (11.4, 29.1)	0.30 (0.0, 2.1)
Coverage of iron and folic acid supplementation (IFAS) (%)	22.70 (17.6, 27.8)	47.50 (42.5, 52.5)	26.10 (19.1, 33.1)	46.20 (35.0, 57.4)	58.30 (54.9, 61.7)
Coverage of multiple micronutrient supplementation (MMS) (%)	16.40 (12.6, 20.1)	12.80 (9.5, 16.0)	20.30 (14.2, 26.4)	38.20 (28.5, 48.0)	17.80 (15.1, 20.5)
Coverage of iron syrup supplementation (%)	1.60 (0.0, 0.2)	0.40 (0.0, 0.7)	0.00 (0.0, 0.0)	13.80 (6.4, 21.3)	0.00 (0.0, 0.0)

The findings reveal a population experiencing chronic nutritional vulnerability compounded by elevated levels of acute malnutrition. Across the Northwest region of Nigeria, the prevalence of global acute malnutrition (GAM) ranges from 7.4 per cent in Katsina state to 11.3 per cent in Kebbi state, while combined GAM (cGAM) levels remain between 10.0 and 14.6 per cent, indicating medium to high severity according to the World Health Organization (WHO) classification. These results suggest that many children continue to suffer from recent nutritional deterioration linked to inadequate dietary intake, recurrent illness, limited access to quality health services, and poor environmental sanitation.

While mortality rates suggest no acute emergency, the persistent burden of acute malnutrition, coupled with high morbidity and low micronutrient coverage, underscores a situation of serious and sustained public health concern.

Strategic recommendations

- Accelerate preventive nutrition services. Achieve over 80 per cent coverage for vitamin A, deworming, and iron supplementation; integrate MIYCN counselling and micronutrient delivery into routine services.
- Address food insecurity and diet quality. Promote nutrition-sensitive agriculture, cash transfers and food fortification to diversify diets and reduce child food poverty.
- Invest in maternal nutrition and girls' and women's empowerment. Enhance antenatal nutrition, promote girls' and women's decision-making and reduce gender-based barriers to food and health care access.
- Strengthen coordination and surveillance. Institutionalize SMART surveys and multisectoral nutrition coordination to guide timely, evidence-based decision-making.

The situation calls for sustainable and coordinated actions by the Government of Nigeria, United Nations agencies and development partners to protect and nourish the vulnerable populations.

By scaling up integrated interventions across nutrition, health, food systems, and water, sanitation and hygiene (WASH) and by empowering communities, especially girls and women, Nigeria can prevent further deterioration and move decisively toward achieving the Sustainable Development Goals and the Global Action Plan on Child Wasting.

1.0 Introduction

1.1 Organization

The 2025 Northwest Nigeria Nutrition SMART Survey was conducted under the leadership of the Federal Government of Nigeria, through the Federal Ministry of Budget and Economic Planning, the Federal Ministry of Health and Social Welfare and the Federal Ministry of Agriculture and Food Security, with coordination support from the National Bureau of Statistics (NBS) and the respective state bureau of statistics.

Technical and financial assistance was provided by the United Nations Children's Fund (UNICEF), with additional support from Action Against Hunger and other partners within the nutrition sector.

At the state level, the survey was implemented by the state primary health care development agencies/boards of Sokoto, Katsina, Zamfara, Kebbi and Jigawa, working in close collaboration with their respective state ministries of health.

The activity was made possible through the generous contributions of development partners and donors, including the United States Government; UK Foreign, Commonwealth and Development Office; European Civil Protection and Humanitarian Aid Operations; and Global Affairs Canada.

1.2 Background

The Northwest region of Nigeria, comprising Jigawa, Katsina, Kebbi, Sokoto and Zamfara states, is predominantly semi-arid, characterized by short rainy seasons and prolonged dry spells that influence food production, livelihoods and household food access. The economy is largely agriculture-based, supported by livestock rearing and informal trade, yet productivity remains constrained by climate variability, insecurity and recurrent market disruptions.

Since the early 2010s, armed violence, farmer-herder conflicts and population displacement have significantly disrupted livelihoods and access to basic services. Many rural communities face restricted access to health care, safe water, and markets, resulting in increased vulnerability to malnutrition and disease. The region's socio-economic conditions remain fragile; rising inflation and reduced purchasing power have eroded household food security; and limited female literacy and constrained decision-making power continue to affect child feeding and care practices. Environmental degradation, erratic rainfall and pest infestations have further reduced agricultural productivity, leaving many households dependent on humanitarian assistance for survival.

In addition, recurrent droughts, flash floods and localized disease outbreaks have weakened household resilience and strained the capacity of primary health care systems. Persistent insecurity has disrupted the continuity of essential services such as immunization, vitamin A supplementation and deworming, while population displacement has increased pressure on host communities and limited access to arable land. Despite sustained humanitarian and development support, acute and chronic malnutrition remain major public health concerns, reflecting both structural poverty and recurrent shocks that erode coping mechanisms.

1.2.1 Survey area

The 2025 Northwest Nigeria Nutrition SMART Survey was implemented across five states: Sokoto, Katsina, Zamfara, Kebbi and Jigawa, each divided into independent survey domains. Domains were designed to capture geographical, administrative and livelihood diversity within each state. Survey results were analysed per domain and later weighted to derive representative state-level estimates.

Table 2. Survey domains and local government areas covered

State	Domain	Local government areas included
Sokoto	Central Sokoto 1	Bodinga, Dange-Shuni, Sokoto North, Sokoto South, Wamako
	Central Sokoto 2	Binji, Gudu, Silame, Tangaza
	Eastern Sokoto 1	Goronyo, Isa, Rabah, Sabon-Birni
	Eastern Sokoto 2	Gada, Gwadabawa, Illela, Wurno
	Southern Sokoto	Kebbe, Shagari, Tambuwal, Tureta, Yabo
Katsina	Central Katsina 1	Batagarawa, Batsari, Jibia, Kaita, Katsina
	Central Katsina 2	Danmusa, Dutsinma, Kurfi, Rimi, Safana
	Northern Katsina 1	Baure, Daura, Mashi, Sandamu, Zango
	Northern Katsina 2	Bindawa, Charanchi, Dutsi, Mani, Mashi
	Southern Katsina 1	Dandume, Faskari, Funtua, Sabuwa
	Southern Katsina 2	Bakori, Danja, Kafur, Kankara, Malumfashi
	Southern Katsina 3	Ingawa, Kankia, Kusada, Matazu, Musawa
Zamfara	Central Zamfara	Bungudu, Gusau, Maru, Tsafe
	Western Zamfara	Anka, Bukuyum, Gummi, Maradun, Talata-Mafara
	Northern Zamfara	Bakura, Birnin-Magaji, Kaura-Namoda, Shinkafi, Zurmi
Kebbi	Central Kebbi 1	Aleiro, Arewa-Dandi, Argungu, Augie, Birnin Kebbi, Gwandu, Kalgo
	Central Kebbi 2	Bagudo, Bunza, Dandi, Jega, Koko/Besse, Maiyama, Suru
	Southern Kebbi	Fakai, Ngaski, Sakaba, Shanga, Wasagu/Danko-Yauri, Zuru
Jigawa	Jigawa South	Birnin Kudu, Buji, Dutse, Gwaram, Kiyawa
	Jigawa Central	Auyo, Jahun, Kafin-Hausa, Miga, Ringim, Taura
	Jigawa East	Birniwa, Guri, Hadejia, Kaugama, Kirikasamma, Mallam Madori
	Jigawa North	Gagarawa, Garki, Gumel, Maigatari, Sule Tankarkar
	Jigawa West	Babura, Gwiwa, Kazaure, Roni, Yankwashi

All domains are predominantly rural, with a mix of agrarian and pastoral livelihoods. The terrain across the region is flat to gently undulating, typical of the Sudano-Sahelian ecological zone, and the climate is semi-arid, characterized by a short rainy season (June-September) and a long dry season (October-May).

Data collection was carried out in August and September 2025.

1.2.2 Survey population

The survey population comprised households and individuals residing in the Northwest region of Nigeria, which comprises Sokoto, Katsina, Zamfara, Kebbi and Jigawa states. Populations in the

surveyed domains include permanent residents, temporarily displaced persons, and households in areas affected by insecurity. No formal refugee camps were included.

The region is predominantly inhabited by Hausa and Fulani communities, with smaller minority groups in certain border local government areas (LGAs). The population is largely Muslim, with strong community structures and social cohesion that influence care practices, health-seeking behaviour and access to services.

Major livelihoods across the survey area include rainfed agriculture, livestock herding, fishing, petty trade and seasonal wage labour. Insecurity and climate variability have disrupted normal livelihood patterns in several domains, leading to reduced agricultural production and income opportunities.

1.2.3 Humanitarian assistance

Humanitarian and development partners continue to support government-led efforts to address food insecurity, malnutrition and limited access to basic services in the Northwest region. Assistance is focused on strengthening the delivery of nutrition; health; water, sanitation and hygiene (WASH); and social protection programmes in both stable and crisis-affected locations.[1]

The Integrated Management of Acute Malnutrition (IMAM) programme remains the principal framework for the prevention and treatment of acute malnutrition, complemented by infant and young child feeding (IYCF) counselling, micronutrient supplementation and routine immunization. Supplementation and routine immunization services remain functional across most LGAs in Jigawa, Katsina, Kebbi, Sokoto and Zamfara, although service coverage varies due to differences in physical access, security conditions and operational constraints[1].

Households in the most vulnerable LGAs benefit from food and cash-based safety net assistance, while primary health care facilities and mobile outreach teams extend routine nutrition and health services to remote communities. Road and market access remain generally good along major corridors but may be constrained during the rainy season, affecting movement of supplies and service delivery.

1.2.4 Health and safety situation update

The health and safety environment in the Northwest region of Nigeria remains fragile but improving, with essential services available across most LGAs. Primary health care facilities form the backbone of service delivery, though staffing gaps, intermittent medical supply shortages and seasonal access challenges continue to limit full coverage, particularly in remote settlements.

Analyses conducted in 2024 under the Integrated Food Security Phase Classification (IPC) Acute Malnutrition and Cadre Harmonisé frameworks showed that several LGAs, particularly in Sokoto, Katsina and Zamfara, at that time remained above the Serious (IPC Phase 3) to Critical (Phase 4) thresholds for acute malnutrition. These outcomes reflect the combined effects of frequent

[1] Cadre Harmonisé, Cadre Harmonisé Analysis – Nigeria, 2024.

Integrated Food Security Phase Classification, IPC Nigeria Analysis, 2025.

childhood illness, reduced dietary diversity and limited access to preventive health and nutrition services.[2]

Illnesses like malaria, diarrhoeal diseases and respiratory infections remain major public health concerns. Inflation and transport costs have increased the price of medical commodities and constrained households' ability to seek timely care.

Access to safe water and sanitation has improved in some LGAs within the region through ongoing WASH and immunization programmes, though coverage remains below national targets. Periodic cholera and diarrhoeal outbreaks underscore the need for stronger water quality monitoring and hygiene promotion.

1.3 Survey type

The survey conducted was a full SMART survey, which uses the complete Standardized Monitoring and Assessment of Relief and Transitions (SMART) methodology. This approach encompasses all standard modules, including anthropometry, mortality and key nutrition, health and WASH indicators. The full SMART design allowed for a comprehensive assessment of the nutritional status and contributing factors among children aged 0-59 months and girls/women of reproductive age (15-49 years), thereby providing robust and representative data to inform evidence-based planning and decision-making.

1.4 Survey timing

Data collection for the 2025 Northwest Nigeria Nutrition SMART Survey was conducted in August and September 2025 across all participating states: Sokoto, Katsina, Zamfara, Kebbi and Jigawa.

This period corresponds to the late rainy/lean season, when household food stocks are typically low and disease incidence (especially malaria and diarrhoeal infections) tends to rise.

Field activities were sequenced by domain and state to minimize overlaps, ensuring data quality and operational efficiency.

1.5 Type of setting

The survey was conducted primarily in rural settings, where most of the population resides and engages in subsistence agriculture and livestock rearing. Settlements are typically dispersed, with limited access to basic infrastructure and social amenities. Urban centres such as Sokoto, Katsina, Gusau (Zamfara), Birnin Kebbi (Kebbi) and Dutse (Jigawa) were included to ensure representativeness.

1.6 Survey location

The 2025 Northwest Nigeria Nutrition SMART Survey was conducted across five states - Sokoto, Katsina, Zamfara, Kebbi and Jigawa - representing the Northwest geopolitical zone of Nigeria.

[2] Integrated Food Security Phase Classification, IPC Acute Malnutrition Analysis – Nigeria, 2024.

Each state was stratified into independent survey domains comprising selected LGAs with similar livelihood and agroecological characteristics. The domains were designed to ensure statistically representative estimates for nutrition and mortality indicators at the state level.

The Northwest region borders Niger to the north and Nigeria's North Central and Northeast regions to the south and east.

1.7 Excluded areas

Some settlements within the Northwest region were not included in the 2025 SMART Survey due to limited access resulting from insecurity during data collection. Exclusions were agreed upon in consultation with state and federal authorities to ensure the safety of survey teams and maintain data quality. (For a list of excluded settlements, see Annex 3.)

2.0 Survey goal and objectives

2.1 Survey goal and primary objective

To determine the prevalence of malnutrition among children aged 0-59 months and girls and women of reproductive age (15-49 years), and to assess the current mortality situation in the surveyed population.

2.2 Specific survey objectives

i. To estimate the prevalence of acute malnutrition (wasting) among children aged 0-59 months using weight-for-height z-scores (WHZ) and mid-upper arm circumference (MUAC).
ii. To estimate the prevalence of chronic malnutrition (stunting) using height-for-age z-scores (HAZ) and underweight using weight-for-age z-scores (WAZ) among children aged 0-59 months.
iii. To estimate retrospective mortality rates, specifically the crude mortality rate (CMR) and under-five mortality rate (U5MR) for the recall period.
iv. To assess the nutritional status of girls/women of reproductive age (15-49 years), including pregnant and breastfeeding girls/women.
v. To estimate retrospective morbidity (fever, diarrhoea and cough) among children under 5 years of age.
vi. To determine the coverage of measles vaccination among children aged 9-59 months.
vii. To determine the coverage of vitamin A supplementation (aged 6-59 months).
viii. To determine the coverage of deworming (aged 12-59 months)
ix. To determine the coverage of multiple micronutrient powders (MNP).
x. To assess infant and young child feeding (IYCF) practices among households with children under 2 years of age in the target population.
xi. To assess the nutritional status of girls/women of reproductive age (15-49 years), including pregnant and lactating girls/women, using MUAC.
xii. To assess the coverage of iron-containing supplements - iron and folic acid supplementation (IFAS) and multiple micronutrient supplementation (MMS) - among girls/women aged 15-49 years who had a live birth in the 0-23 months preceding the survey.
xiii. To determine household access to and use of safe drinking water, sanitation facilities and handwashing facilities and practices.
xiv. To draw recommendations for addressing identified gaps to support advocacy, planning, decision-making and monitoring purposes.

2.3 Survey justification

Reliable and up-to-date information on the nutrition and mortality situation is essential for guiding evidence-based planning, policy formulation and humanitarian response in Nigeria's Northwest region. Previous SMART surveys and sector analyses have shown persistently high levels of acute and chronic malnutrition, driven by insecurity, limited access to health and WASH services, and declining household food security.

Given the dynamic socio-economic and climatic context - including rising inflation, population displacement and seasonal disease outbreaks - current data are required to:

- update nutrition and mortality estimates to reflect recent changes in population health and access to services
- support national and subnational planning for nutrition, health and WASH interventions
- provide a reliable evidence base for resource allocation, advocacy and progress monitoring by government and partners
- strengthen the nutrition information system and ensure comparability of data with previous SMART surveys.

In this context, the 2025 SMART Survey was undertaken to fill current information gaps and provide high-quality, representative data for timely decision-making and response coordination across the Northwest region.

2.4 Overview of indicators

Table 3. Standardized integrated SMART indicators

Indicator	Target population
Household indicators	
Mortality	
Mortality	Total population
WASH	
Access to safe/improved water for drinking and cooking	Total population
Access to improved sanitation facilities	Total population
Access to a handwashing system	Total population
Child indicators	
Anthropometry	0-59 months
Vitamin A supplementation coverage	6-59 months
Deworming coverage	12-59 months
Measles vaccination coverage	9-59 months
Measles dose 2 vaccination coverage	15-59 months
Episode of acute respiratory infection (ARI), and care-seeking for children with ARI	6-59 months
Episode of diarrhoea, care-seeking for children with diarrhoea, and use of oral rehydration salts (ORS) and zinc during an episode of diarrhoea	6-59 months
Episode of fever, and care-seeking for children with fever	6-59 months
Infant and young child feeding (IYCF) indicators,* child food poverty	0-24 months
Girls/women indicators	
Anthropometry (MUAC)	15-49 years
Iron supplementation	Mothers of children aged 0-23 months

*IYCF indicators include: exclusive breastfeeding under 6 months; early initiation of breastfeeding; exclusive breastfeeding for the first two days after birth; continued breastfeeding; mixed milk feeding; introduction of complementary foods; minimum dietary diversity; minimum meal frequency; minimum acceptable diet; egg and/or flesh food consumption; sweet beverage consumption; zero vegetable or fruit consumption; bottle feeding.

2.4.1 Anthropometric indicators

Anthropometric indicators were evaluated using age, weight (kilograms), height/length (centimetres), MUAC (millimetres) and bilateral pitting oedema. The measurement procedures and criteria are detailed as follows:

- Age: Recorded as the date of birth (day/month/year) when documented on official papers like health or baptism cards and birth certificates. In cases of missing documentation, a local event calendar was used to estimate birth month and year.
- Weight (in kilograms): Children's weight was measured without clothing to the nearest 100 grams using a Seca electronic scale. Standing children were weighed directly on the scale, while non-standing children were measured using the double-weighing method.
- Height/length (in centimetres): A measuring board was employed to measure bareheaded and barefoot children with a precision of 0.1 centimetre. Children under 2 years of age were measured lying down (length), while those aged 2 years and above were measured standing up (height). Two measurers, assisted by caregivers, conducted each measurement.
- Mid-upper arm circumference (MUAC): Measured using a flexible, non-elastic tape midway between the tip of the acromion and the tip of the olecranon of the left arm, with the arm hanging freely. MUAC measurements were recorded in millimetres (nearest 1 millimetre precision).
- Bilateral pitting oedema: Evaluated by applying moderate thumb pressure on both feet for three seconds. The presence of oedema was confirmed if a shallow pit remained after releasing pressure. Only children with bilateral oedema were considered positive for nutritional oedema, with all cases confirmed by supervisors.

Table 4. MUAC cut-off points for children aged 6-59 months

Nutritional status	Definition
No malnutrition	MUAC ≥125 mm
Global acute malnutrition (GAM)	MUAC <125 mm
Moderate acute malnutrition (MAM)	MUAC ≥115 mm and <125 mm
Severe acute malnutrition (SAM)	MUAC <115 mm

Table 5. Cut-off points for the WHZ index, WHO Child Growth Standards*

Nutritional status	Definition
No undernutrition	WHZ ≥-2 and no oedema
Global acute malnutrition (GAM)	WHZ <-2 or bilateral oedema (or both)
Moderate acute malnutrition (MAM)	WHZ ≥ -3 and < -2, without bilateral pitting oedema
Severe acute malnutrition (SAM)	WHZ <-3 or bilateral oedema (or both)
Overweight	WHZ >2 and no oedema
Overweight	WHZ >+2 and ≤+3 and no bilateral pitting oedema
Severe overweight	WHZ >+3 and no bilateral pitting oedema

*Source: WHO Multicentre Growth Reference Study Group. 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. Geneva: World Health Organization; 2006.

Table 6. Cut-off points for the HAZ index expressed in z-score,

Nutritional status	Definition
Not stunted	HAZ ≥-2
Stunted	HAZ <-2
Moderate stunting	-3≤ HAZ <-2
Severe stunting	HAZ <-3

Table 7. Cut-off points for WAZ index expressed in z-scores,

Nutritional status	Definition
Not underweight	WHZ ≥-2
Global underweight	WAZ <-2
Moderate underweight	-3≤ WAZ <-2
Severe underweight	WAZ <-3

2.4.2 Mortality

The mortality indicator is a critical measure used in SMART surveys to assess population health and survival. It includes the crude mortality rate (CMR), which reflects the overall mortality rate in the population, and the under-five mortality rate (U5MR), a sensitive indicator of child health and survival. These metrics provide insights into the severity of health risks and the effectiveness of health systems.[3]

2.4.3 Water, sanitation and hygiene

Additional indicators relating to WASH are detailed below:

- Access to safe/improved water for drinking and cooking: Percentage of households with access to safe/improved water for drinking and cooking.
- Access to improved sanitation facilities: Percentage of households with access to improved sanitation facilities.
- Access to a handwashing system: Percentage of households with access to a handwashing system.

2.4.4 Child health and nutrition

Additional indicators relating to maternal, infant and young child nutrition (MIYCN) practices[4] are outlined below:

Breastfeeding indicators

[3] World Food Programme, *Emergency Food Security Assessment Handbook*, WFP, Rome, 2005.

[4] World Health Organization and United Nations Children's Fund, *Indicators for Assessing Infant and Young Child Feeding Practices: Definitions and measurement methods*, World Health Organization, 2021.

- Ever breastfed: Percentage of children born in the last 24 months who were ever breastfed.
- Early initiation: 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.
- Exclusive breastfeeding under 6 months of age: Percentage of infants aged 0-5 months who were fed exclusively with breast milk during the previous day.
- Mixed milk feeding under 6 months of age: 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: Percentage of children aged 12-23 months who were fed breast milk during the previous day.

Complementary feeding indicators

- Introduction of solid, semi-solid or soft foods: Percentage of infants aged 6-8 months who consumed solid, semi-solid or soft foods during the previous day.
- Minimum dietary diversity: Percentage of children aged 6-23 months who consumed foods and beverages from at least five out of eight defined food groups during the previous day.
- Minimum meal frequency: Percentage of children aged 6-23 months who consumed solid, semi-solid or soft foods (but also including milk feeds for non-breastfed children) at least the minimum number of times during the previous day.
- Minimum milk feeding frequency for non-breastfed children: 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: Percentage of children aged 6-23 months who consumed egg and/or flesh food during the previous day.
- Sweet beverage consumption: Percentage of children aged 6-23 months who consumed a sweet beverage during the previous day.
- Unhealthy food consumption: Percentage of children aged 6-23 months who consumed selected sentinel unhealthy foods during the previous day.
- Zero vegetable or fruit consumption: Percentage of children aged 6-23 months who did not consume any vegetables or fruits during the previous day.

Other MIYCN indicators

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

Additional child health indicators

Additional indicators relating to child health are outlined below:

- Vitamin A supplementation coverage: Percentage of children aged 6-59 months who received a vitamin A capsule in the six months preceding the survey.
- Deworming coverage: Percentage of children aged 12-59 months who were given deworming medication in the six months preceding the survey.
- Measles vaccination coverage: Percentage of children aged 9-59 months who received measles vaccination.
- Measles vaccination coverage (dose 2): Percentage of children aged 15-59 months who received the measles second dose vaccine according to the vaccination card, home-based record, or mother's recall at the time of the survey.
- Episode of diarrhoea, care-seeking for children with diarrhoea, and use of oral rehydration salts (ORS) and zinc during an episode of diarrhoea: Percentage of children aged 6-59 months who had a diarrhoea episode in the two weeks preceding the survey. Additional measures include the percentage of caregivers who sought treatment for the child and the percentage of children who received ORS, zinc or both during the episode.
- Episode of fever, and care-seeking for children with fever: Percentage of children aged 6-59 months who had a fever episode in the two weeks preceding the survey and the percentage of caregivers who sought treatment for the child.
- Episode of acute respiratory infection (ARI), and care-seeking for children with ARI: Percentage of children aged 6-59 months who had an ARI episode in the two weeks preceding the survey and the percentage of caregivers who sought treatment for the child.

2.4.5 Maternal nutrition

Iron/multiple micronutrient supplements (consumption): Percentage of mothers of children aged 0-23 months who reported taking iron-containing supplements, either iron and folic acid supplementation (IFAS) or multiple micronutrient supplementation (MMS) for 90 days or more during their most recent pregnancy with their youngest child.

3.0 Methodology

3.1 Survey design

3.1.1 Sample size

The survey employed a cluster sampling methodology, chosen for its efficiency and reliability in large-scale, population-based assessments like the SMART survey.[5] This approach allows for the systematic selection of clusters that represent the population's diverse characteristics, which is essential in resource-limited settings. Since this was a combined anthropometry and mortality survey, the sample sizes for both components were calculated separately using the SMART+ platform. The two sample sizes showed only a small difference, and in line with SMART methodological guidance, the higher sample size was adopted to ensure adequate precision for both indicators (anthropometry or mortality). The assessment of additional survey indicators, including WASH, morbidity prevalence, measles immunization, vitamin A supplementation, deworming, and IYCF practices, was aligned with the two calculated sample sizes (anthropometry or mortality) within each domain.

For cluster sampling, the number of clusters and households per cluster was determined to achieve statistical power while balancing logistical constraints. An optimal number of clusters was calculated to maintain representativeness, and a manageable number of households per cluster was selected to ensure data quality while minimizing survey duration and resource use.

Table 8. Sample size calculation for anthropometry

State	Domain	Estimated GAM (%)	Desired precision (±)	Design effect	Children to be included	Average household (HH) size	% children aged 0-59 months	Non-response rate (%)	HH to be included
Sokoto	Central 1	17.3	4	1.5	561	6.03	15.5	5	632
	Central 2	17.8	4	1.2	459	4.92	20	5	491
	Eastern 1	14.5	3.5	1.5	635	5.2	20	5	643
	Eastern 2	20.6	5	1.5	410	5.28	20	5	409
	Southern	11	3	1.2	546	5.16	20	5	557
Katsina	Central 1	10.8	3.5	1.5	493	5.48	20	5	474
	Central 2	10.8	3.5	1.5	493	5.48	20	5	474
	Northern 1	11.4	3.5	1.5	517	5.7	20	5	478
	Northern 2	11.4	3.5	1.5	517	5.7	20	5	478
	Southern 1	11.4	3.5	1.5	517	5.7	20	5	478
	Southern 2	10.8	3.5	1.5	493	5.48	20	5	474

[5] Action Against Hunger Canada, SMART Methodology: Sampling and survey design, 2017.

State	Domain	Estimated GAM (%)	Desired precision (±)	Design effect	Children to be included	Average household (HH) size	% children aged 0-59 months	Non-response rate (%)	HH to be included
Zamfara	Southern 3	11.4	3.5	1.5	517	5.7	20	5	478
	Central	14.8	3.5	1.3	560	6.19	18.8	5	506
	Northern	13.4	3.5	1.5	594	5.62	20	5	557
	Western	13.9	3.5	1.13	462	6.08	20	5	400
Kebbi	Central 1	7.5	3	1.3	497	6.09	20	5	409
	Central 2	9.4	3.5	1.3	510	6.02	20	5	417
	Southern	8.1	3.5	1.2	485	6.18	20	5	392
	Central	8.8	3	1.5	560	6.12	20	5	457
	Eastern	10.2	3	1.5	560	5.88	20	5	475
Jigawa	Northern	9.8	3	1.5	543	6.05	20	5	463
	Southern	10.5	3	1.5	551	6.23	20	5	470
	Western	9.2	3	1.5	525	6.15	20	5	445
Justifications		Prevalence from previous surveys, such as NW-SOKAZA R3;[6] upper confidence interval used for domains with worsening contributing factors	Based on the estimated GAM prevalence	Rule of thumb 1.5[7] and from previous surveys NW SOKAZA R3	Calculated by SMART+ platform	Estimate from NW-SOKAZA R3 (September 2024), demography and mortality surveys and health records	Estimate from NW-SOKAZA R3 (September 2024), demography and mortality surveys and health records	Anticipated non-response rate and guided by previous surveys	Calculated by SMART+ platform

NW SOKAZA R3 refers to the North-West Sokoto-Zamfara-Katsina Zone, Round 3 assessments (September 2024)

[7] The rule of thumb of a design effect (DEFF) of 1.5 is commonly applied in SMART cluster surveys when recent, context-specific design effect estimates are unavailable.

Table 9. Sample size calculation for under-five mortality (U5MR)

State	Domain	Estimated mortality rate (per 10,000 children under 5 years/day)	Desired precision (per 10,000/day)	Design effect	Recall period (days)	Population to be included	Average household (HH) size	Non-response rate (%)	HH to be included
Sokoto	Central 1	0.21	±0.20	1.16	107	2,380	6.03	5	416
	Central 2	0.33	±0.30	1.12	107	1,605	4.92	5	343
	Eastern 1	0.45	±0.30	1.5	115	2,727	5.2	5	552
	Eastern 2	0.32	±0.30	1.2	113.5	1,572	5.28	5	313
	Southern	0.21	±0.20	1.3	119	2,399	5.18	5	487
Katsina	Central 1	0.42	±0.30	1.2	148	1,582	5.48	5	304
	Central 2	0.42	±0.30	1.2	148	1,582	5.48	5	304
	Northern 1	0.42	±0.30	1.2	148	1,817	5.7	5	336
	Northern 2	0.42	±0.30	1.2	148	1,817	5.7	5	336
	Southern 1	0.42	±0.30	1.2	148	1,817	5.7	5	336
	Southern 2	0.42	±0.30	1.2	148	1,582	5.48	5	304
	Southern 3	0.64	±0.38	1.5	153	1,817	5.7	5	336
Zamfara	Central	0.26	±0.25	1.5	108	2,416	6.19	5	411
	Northern	0.26	±0.25	1.5	108	2,416	5.62	5	411
	Western	0.26	±0.25	1.13	108	2,122	6.08	5	400
Kebbi	Central 1	0.27	±0.25	1.2	108	2,122	6.09	5	354
	Central 2	0.29	±0.25	1.2	108	2,230	6.02	5	370
	Southern	0.30	±0.25	1.2	108	2,260	6.18	5	375
Jigawa	Central	0.36	±0.30	1.5	110	2,554	6.12	5	417
	Eastern	0.36	±0.30	1.5	113	2,554	5.88	5	434
	Northern	0.35	±0.30	1.5	103	2,498	6.05	5	414
	Southern	0.38	±0.30	1.5	104	2,575	6.23	5	428
	Western	0.34	±0.30	1.5	105	2,480	6.15	5	410
Justifications		Estimates from NW-SOKAZA R3 (September 2024)	Recommended precision	To cater for small differences between the clusters	Based on the memorable event. Counted from the event date to the midpoint	Calculated by SMART+ platform	Estimate from NW-SOKAZA R3 (September 2024), demography and mortality	Anticipated non-response rate and guided by previous surveys	Calculated by SMART+ platform

State	Domain	Estimated mortality rate (per 10,000 children under 5 years/day)	Desired precision (per 10,000/day)	Design effect	Recall period (days)	Population to be included	Average household (HH) size	Non-response rate (%)	HH to be included
					of data collection		surveys and health records		

3.1.2 Sampling procedure: Cluster sampling

The survey employed a two-stage cluster sampling methodology in accordance with the SMART 2022 guidelines[8]

3.1.3 First stage (selection of clusters)

In the first stage, clusters (primary sampling units) were selected using the probability proportional to size method, based on the most up-to-date sampling frame provided by the respective state primary health care development agencies/boards. Population figures were drawn from the latest state administrative and demographic data.

The probability proportional to size selection and randomization were executed digitally using the SMART+ platform.

3.1.4 Second stage (selection of households)

In the second stage, households were randomly selected within each cluster using a simple random sampling approach. Upon arrival in a cluster, the field team conducted a complete household listing, supported by community leaders or guides, to establish the local sampling frame. The SMART+ Random Number Generator was then used to randomly select 12 households per cluster for inclusion in the survey, ensuring an unbiased and systematic approach to household selection.

This method guaranteed that every household in the cluster had an equal chance of being included in the survey, thereby enhancing the representativeness and reliability of the data collected. The use of the SMART+ application also streamlined the sampling process, reducing errors and improving efficiency.

A household was defined as “a group of people who regularly eat from the same pot and share living arrangements within one dwelling or compound, recognizing one adult as the head of household.”

3.1.5 Training, team composition and supervision

A comprehensive training for enumerators and supervisors was conducted prior to field data collection across the five participating states. This was done to equip field teams with the technical skills and standardized understanding required to implement the SMART methodology using the SMART+ digital platform.

The training combined classroom sessions, hands-on practice and field simulation exercises. Key topics included:

- overview of SMART methodology and survey objectives
- sampling design, segmentation and household selection using the SMART+ Random Number Generator
- standardized procedures for anthropometric measurement (weight, height/length, MUAC, oedema assessment) and use of local event calendars for age estimation

[8] Action Against Hunger Canada, SMART Methodology: Sampling and survey design, 2017

- digital data collection with SMART Collect, including in-app skip logic (automatic routing of questions based on responses), plausibility checks and real-time monitoring
- ethical conduct, informed consent and respondent confidentiality
- mock interviews and full field pretesting to evaluate enumerator readiness.

Standardization tests were conducted to assess accuracy and inter-observer variability. Only participants meeting acceptable technical error of measurement thresholds were selected for field deployment.

Each field team comprised one team leader and two or three enumerators. Each state had a state coordinator to provide oversight and daily supervision of teams. Overall coordination and technical oversight were provided by the survey managers, SMART trainers, and representatives from UNICEF, Action Against Hunger Canada and the state primary health care development agencies/boards.

Daily supervision was carried out at cluster level. Survey managers and supervisors used SMART+ dashboards to monitor data quality, completeness and anthropometric flag rates in real time.

Regular feedback sessions were held with teams to address measurement or data entry issues. Joint supervision visits by the National Bureau of Statistics (NBS)/Federal Ministry of Health and Social Welfare technical team, alongside representatives of UNICEF, Action Against Hunger and the state primary health care development agencies/boards, ensured adherence to SMART standards, ethical procedures and data quality benchmarks across all surveyed states.

3.1.6 Data analysis

The survey data were collected using the SMART+ data collection platform. Team leaders used SMART Collect to enter data directly in the field, ensuring real-time data capture and minimizing the risk of transcription errors. Quality control procedures were implemented rigorously, including random checks on a percentage of the collected records and regular data validation checks by supervisors to ensure data accuracy and completeness.

Data analysis was performed using the SMART+ platform for key nutrition indicators, with additional indicators analysed in R software for comprehensive data assessment. Outliers in the anthropometry data were excluded from the analysis following SMART methodology guidelines. Specifically, the boundaries for exclusion were defined as values beyond +/- 3 standard deviations (SD) of the weight-for-height z-score (WHZ) from the observed WHZ mean, as recommended in the SMART manual. This approach ensured that the data used in the analysis were accurate and representative of the surveyed population.

3.2 Questionnaire

The survey questionnaire was initially written in English but was administered in the local language(s) based on cluster location. During training, significant time was dedicated to familiarizing the teams with the questionnaire to ensure accurate administration. Pretesting of the questionnaire was conducted in nearby villages that were not included in the sampling, and feedback gathered from this exercise was shared with the survey teams to further refine the questionnaire.

3.3 Limitations

While the survey adhered to SMART methodological standards, a few limitations should be noted. Some indicators, particularly those related to WASH, morbidity and IYCF practices, relied on caregiver self-reports, which may have been subject to recall bias or social desirability bias, potentially affecting accuracy. In addition, seasonal variations at the time of data collection may have influenced the reported prevalence of certain indicators such as diarrhoea and fever.

Although rigorous training, standardization tests and daily supervision were implemented to minimize measurement and recording errors, the possibility of minor inconsistencies cannot be ruled out. Further, population movement and insecurity in some clusters posed logistical challenges that may have limited access to certain households, potentially introducing slight representation gaps (for a list of excluded settlements, *see Annex 3*). Despite these limitations, the survey results remain robust and provide reliable estimates that reflect the nutrition and health situation of the population across the surveyed domains.

3.4 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 with no direct identifiers collected. Survey approval was sought from the relevant government institutions, local authorities and community leaders.

4.0 Survey findings

4.1 Survey sample

The survey covered 23 domains across five states in the Northwest region of Nigeria - Sokoto, Katsina, Zamfara, Kebbi and Jigawa. A total of 965 clusters were planned, of which 950 were successfully surveyed. Household participation was also high, with most domains recording consent rates above 95 per cent. For children aged 0-59 months, the proportion measured for anthropometry varied across domains but generally met or exceeded the minimum SMART requirement of 80 per cent, demonstrating good data completeness. A few domains recorded slightly lower measurement rates, mainly due to temporary absences of eligible children and minor access constraints. Overall, the achieved sample was adequate and representative, ensuring reliable estimates of nutrition and mortality indicators across all surveyed states.

Table 10. Proportion of household and child samples achieved (anthropometry data)

Domain	Number of clusters			Number of households			Number of children aged 0-59 months			
	Planned	Surveyed	%	Planned	Consented	%	Planned	Surveyed	Measured	%
Central Sokoto 1	53	53	100.0	636	621	97.6	561	518	514	91.6
Central Sokoto 2	41	39	95.1	492	460	93.5	459	463	460	100.2
Eastern Sokoto 1	54	52	96.3	648	616	95.1	635	601	597	94.0
Eastern Sokoto 2	35	35	100.0	420	414	98.6	410	405	402	98.0
Southern Sokoto	47	45	95.7	564	532	94.3	546	538	535	98.0
Central Katsina 1	39	39	100.0	468	453	96.8	440	542	540	122.7
Central Katsina 2	39	37	94.9	468	442	94.4	493	499	496	100.6
Northern Katsina 1	37	37	100.0	444	437	98.4	445	499	498	111.9
Northern Katsina 2	48	48	100.0	576	572	99.3	549	710	710	129.3
Southern Katsina 1	38	36	94.7	456	422	92.5	424	454	454	107.1
Southern Katsina 2	40	39	97.5	474	465	98.1	493	614	614	124.5
Southern Katsina 3	40	37	92.5	478	440	92.1	517	520	520	100.6
Central Zamfara	43	42	97.7	516	494	95.7	560	455	453	80.9
Western Zamfara	34	34	100.0	408	405	99.3	462	416	416	90.0

Domain	Number of clusters			Number of households			Number of children aged 0-59 months			
	Planned	Surveyed	%	Planned	Consented	%	Planned	Surveyed	Measured	%
Northern Zamfara	47	47	100.0	564	557	98.8	594	562	562	94.6
Central Kebbi 1	35	35	100.0	417	409	98.1	461	376	375	81.3
Central Kebbi 2	33	32	97.0	457	383	83.8	461	405	402	87.2
Southern Kebbi	33	31	93.9	457	370	81.0	461	379	376	81.6
Jigawa South	47	47	100.0	564	562	99.6	587	708	708	120.6
Jigawa Central	47	47	100.0	564	559	99.1	587	805	799	136.1
Jigawa East	47	47	100.0	564	561	99.5	587	849	847	144.3
Jigawa North	47	47	100.0	564	562	99.6	587	676	676	115.2
Jigawa West	47	47	100.0	564	559	99.1	587	753	752	128.1

The demographic characteristics across the 23 survey domains show a generally balanced population structure between males and females, with the female share of the population ranging from 48.7 to 53.2 per cent across domains. The average household size varies from 4.9 to 6.5 persons. The proportion of children under 5 years of age, expressed as a share of the total population, ranges from 16 to 25 per cent, indicating a predominantly young population. Migration rates remain modest across most domains, with both in-migration and out-migration below 5 per cent, while birth rates vary slightly across domains, from 0.7 to 2.0 per cent, reflecting typical regional fertility patterns.

Table 11. Demographic summary (mortality data)

Domain	Number of clusters surveyed	Number of households (HH) surveyed	HH with child under 5 years (%)	Average HH size	Under-five population (%)	Birth rate (%)	In-migration rate (%)	Out-migration rate (%)	Female % of the population	Male % of the population
Central Sokoto 1	53	621	56.13	5.23	16.14	0.66	2.13	3.11	50.4	49.6
Central Sokoto 2	39	460	65	5.34	19.33	0.95	2.21	3.16	49.4	50.6
Eastern Sokoto 1	52	616	61.53	5.11	19.7	0.69	1.71	2.49	49.8	50.2
Eastern Sokoto 2	35	414	59.66	5.42	18.23	0.55	1.46	3.08	49.5	50.5
Southern Sokoto	45	532	63.16	5.59	18.41	0.76	4.97	2.48	50.5	49.5
Central Katsina 1	39	453	67.55	6.18	19.86	0.98	2.36	3.00	51.0	49.0
Central Katsina 2	37	442	64.03	5.5	20.66	1.45	1.00	1.51	51.1	48.9
Northern Katsina 1	37	437	68.19	5.77	20.63	1.97	1.03	1.94	50.8	49.2
Northern Katsina 2	48	572	67.13	5.27	23.82	1.44	1.23	1.07	50.5	49.5
Southern Katsina 1	36	422	63.03	5.82	19.20	0.92	1.04	2.53	49.6	50.4
Southern Katsina 2	39	465	67.31	5.50	23.98	1.02	1.10	0.76	50.9	49.1
Southern Katsina 3	37	440	67.73	5.59	21.95	1.22	0.64	1.46	52.5	47.5
Central Zamfara	42	494	61.74	5.17	18.20	0.80	3.26	3.12	51.6	48.4
Western Zamfara	34	405	69.88	5.24	19.93	1.02	0.78	1.02	50.7	49.3
Northern Zamfara	47	557	66.61	5.00	20.38	1.00	1.03	1.16	50.7	49.3
Central Kebbi 1	35	409	63.14	4.97	18.59	1.34	15.17	3.02	48.7	51.3
Central Kebbi 2	32	383	70.35	5.29	20.62	1.59	0.75	1.12	49.6	50.4
Southern Kebbi	31	370	62.70	5.76	17.87	1.81	0.65	3.87	51.0	49.0
Jigawa South	47	562	70.41	5.56	23.26	1.77	5.73	6.55	51.8	48.2
Jigawa Central	47	559	75.31	6.14	24.08	1.75	3.72	5.00	51.8	48.2
Jigawa East	47	561	75.94	5.74	26.84	1.38	2.37	3.81	52.7	47.3
Jigawa North	47	562	76.16	5.96	22.15	1.22	3.57	7.77	52.1	47.9
Jigawa West	47	559	73.88	5.60	24.80	1.28	2.53	5.24	53.2	46.8

4.2 Data quality

The plausibility checks indicate overall high data quality across the 23 domains, with most of them achieving excellent or good scores. Indicators such as sex ratio, age ratio, digit preference and SD WHZ are within SMART-recommended ranges, confirming internal consistency of anthropometric data. A few domains, notably Central Kebbi 1, Jigawa Central, Jigawa West and Jigawa South, show minor deviations but remain within acceptable limits. Overall, the results demonstrate reliable, high-quality data consistent with SMART methodological standards across all five Northwest states.

Table 12. Plausibility check

Domain	Flagged data	Sex ratio	Age ratio (months)	Digit preference			SD WHZ	Skewness WHZ	Kurtosis WHZ	Poisson WHZ	Overall score (%)
		M:F	0-29:30-59	Weight	Height	MUAC					
Central Sokoto 1	1.4	0.99	0.95	4	8	3	1.07	-0.02	-0.3	p=0.260	3
Central Sokoto 2	2	1.14	1.01	4	12	6	1.04	-0.27	-0.48	p=0.080	8
Eastern Sokoto 1	1	1.2	0.96	5	7	8	1.06	-0.15	-0.22	p=0.839	7
Eastern Sokoto 2	1.2	1.14	1.07	6	10	3	0.98	-0.12	0.04	p=0.486	6
Southern Sokoto	0.6	0.93	0.96	2	5	5	1.01	-0.19	-0.14	p=0.958	0
Central Katsina 1	0.7	0.96	0.87	4	7	5	1.03	0	0.12	P=0.669	0
Central Katsina 2	0.8	0.84	0.9	5	4	7	1.01	-0.09	-0.15	P=0.118	2
Northern Katsina 1	0.6	1	1.04	4	7	4	1.02	-0.13	0.06	P=0.042	5
Northern Katsina 2	1.5	1.07	0.99	6	4	4	0.99	-0.25	0.39	P<0.001	9
Southern Katsina 1	0.9	1.1	0.95	6	6	6	0.93	-0.07	-0.17	p=0.571	0
Southern Katsina 2	0.8	1.06	0.79	4	6	5	0.89	-0.03	0.57	p=0.012	9
Southern Katsina 3	0.8	0.84	0.96	4	7	5	0.89	-0.01	0.29	p=0.536	8
Central Zamfara	1.1	0.85	0.91	2	7	4	0.98	0.02	-0.17	p=0.773	2

Domain	Flagged data	Sex ratio	Age ratio (months)	Digit preference			SD WHZ	Skewness WHZ	Kurtosis WHZ	Poisson WHZ	Overall score (%)
		M:F	0-29:30-59	Weight	Height	MUAC					
West Zamfara	1.7	1.03	1.08	2	9	7	1.05	-0.05	-0.45	p=0.955	9
North Zamfara	0.5	1.16	0.98	2	7	6	1.03	-0.16	-0.13	p=0.376	2
Central Kebbi 1	2.7	0.064	0.459	5	10	8	1.06	0.17	-0.15	P=0.010	12
Central Kebbi 2	1.5	0.459	0.426	7	10	5	1.1	-0.03	-0.42	P=0.285	5
Southern Kebbi	0.8	0.418	0.949	7	10	10	1.08	-0.18	-0.04	p=0.002	7
Jigawa South	1.8	0.91	0.94	8	8	7	1.07	-0.25	-0.21	P<0.001	11
Jigawa Central	0.9	1.09	1.01	6	6	4	1.07	-0.37	-0.15	P<0.001	10
Jigawa East	2.1	0.97	0.77	5	8	4	1.06	-0.38	0.06	P=0.150	3
Jigawa North	1.5	1.05	0.96	4	6	7	1.01	-0.29	-0.49	P=0.024	5
Jigawa West	1.3	0.91	0.87	5	4	4	0.93	-0.62	0.09	P<0.001	10

Legend	
Excellent	
Good	
Acceptable	
Problematic	

The mean z-scores for the three anthropometric indices - weight for height, weight for age and height for age - are negative, indicating a prevalence of both acute and chronic malnutrition within the population. The SD for all indices falls within acceptable ranges, suggesting that the data are reliable and of good quality. Overall, the data provide valuable insights into the nutritional status of the surveyed population, enabling informed decision-making for intervention strategies.

Table 13. Mean z-scores, design effects, and missing and out-of-range data for anthropometric indicators among children aged 0-59 months (SMART exclusions)

Indicator	n	Mean z-scores ± SD	Design effect (z-score <-2)	Unavailable z-scores	Out-of-range z-scores
Weight for height					
Central Sokoto 1	506	-0.78 ± 1.07	1.08	5	7
Central Sokoto 2	451	-0.82 ± 1.04	1.30	4	9
Eastern Sokoto 1	590	-0.71 ± 1.06	1.00	5	6
Eastern Sokoto 2	397	-0.64 ± 0.98	1.02	3	5
Southern Sokoto	530	-0.59 ± 1.01	1.00	5	3
Central Katsina 1	536	-0.60 ± 1.03	1.00	2	4
Central Katsina 2	492	-0.56 ± 1.01	1.34	3	4
Northern Katsina 1	495	-0.77 ± 1.02	1.23	1	3
Northern Katsina 2	699	-0.65 ± 0.99	3.22	0	11
Southern Katsina 1	449	-0.58 ± 0.93	1.00	1	4
Southern Katsina 2	609	-0.46 ± 0.89	1.49	1	5
Southern Katsina 3	515	-0.51 ± 0.89	1.00	2	4
Central Zamfara	446	-0.56 ± 0.98	1.00	6	5
Western Zamfara	409	-0.49 ± 1.05	1.00	0	7
Northern Zamfara	558	-0.63 ± 1.03	1.08	1	3
Central Kebbi 1	363	-0.70 ± 1.06	1.65	3	10
Central Kebbi 2	392	-0.74 ± 1.10	1.21	6	6
Southern Kebbi	371	-0.63 ± 1.08	1.83	5	3
Jigawa South	692	-0.55 ± 1.07	2.01	3	13
Jigawa Central	790	-0.48 ± 1.07	1.81	8	7
Jigawa East	829	-0.30 ± 1.06	1.39	2	18
Jigawa North	665	-0.53 ± 1.01	1.47	2	10
Jigawa West	742	-0.15 ± 0.93	3.19	2	10

Indicator	n	Mean z-scores ± SD	Design effect (z-score <-2)	Unavailable z-scores	Out-of-range z-scores
Weight for age					
Central Sokoto 1	504	-1.55 ± 1.04	1.00	4	10
Central Sokoto 2	450	-1.50 ± 1.10	1.54	4	9
Eastern Sokoto 1	593	-1.70 ± 1.11	1.01	4	4
Eastern Sokoto 2	398	-1.46 ± 0.97	1.46	3	4
Southern Sokoto	531	-1.45 ± 1.01	2.09	3	4
Central Katsina 1	540	-1.54 ± 1.03	1.40	2	2
Central Katsina 2	490	-1.31 ± 1.01	3.05	3	6
Northern Katsina 1	498	-1.82 ± 0.97	1.84	0	1
Northern Katsina 2	703	-1.59 ± 0.99	5.12	0	7
Southern Katsina 1	450	-1.46 ± 0.88	1.30	0	4
Southern Katsina 2	609	-1.31 ± 0.84	2.05	1	4
Southern Katsina 3	517	-1.39 ± 0.87	2.45	1	2
Central Zamfara	446	-1.38 ± 1.08	1.61	4	5
Western Zamfara	411	-1.41 ± 1.05	1.28	0	5
Northern Zamfara	552	-1.48 ± 1.01	1.76	0	10
Central Kebbi 1	368	-1.45 ± 1.05	1.38	1	7
Central Kebbi 2	392	-1.53 ± 1.07	1.85	5	7
Southern Kebbi	371	-1.47 ± 1.03	2.01	3	5
Jigawa South	696	-1.50 ± 1.18	2.26	0	12
Jigawa Central	769	-1.01 ± 1.11	2.29	7	29
Jigawa East	826	-0.76 ± 1.04	3.19	2	21
Jigawa North	742	-1.40 ± 1.11	4.15	1	9
Jigawa West	730	-0.80 ± 1.08	4.48	1	22

Indicator	n	Mean z-scores ± SD	Design effect (z-score <-2)	Unavailable z-scores	Out-of-range z-scores
Height for age					
Central Sokoto 1	493	-1.74 ± 1.14	1.34	4	21
Central Sokoto 2	442	-1.65 ± 1.19	1.97	3	18
Eastern Sokoto 1	575	-2.08 ± 1.20	1.20	5	21
Eastern Sokoto 2	397	-1.82 ± 1.07	2.14	3	5
Southern Sokoto	525	-1.86 ± 1.18	2.16	4	9
Central Katsina 1	540	-1.94 ± 1.20	2.22	2	14
Central Katsina 2	479	-1.61 ± 1.13	3.24	3	17
Northern Katsina 1	491	-2.25 ± 1.12	1.50	0	8
Northern Katsina 2	701	-2.01 ± 1.04	2.96	0	9
Southern Katsina 1	445	-1.86 ± 1.02	1.39	0	9
Southern Katsina 2	606	-1.75 ± 0.96	2.35	0	8
Southern Katsina 3	514	-1.79 ± 1.06	1.66	0	6
Central Zamfara	436	-1.78 ± 1.22	2.33	3	16
Western Zamfara	405	-1.87 ± 1.25	2.08	0	11
Northern Zamfara	541	-1.87 ± 1.19	1.86	0	21
Central Kebbi 1	349	-1.66 ± 1.29	1.47	3	24
Central Kebbi 2	382	-1.76 ± 1.21	2.2	4	18
Southern Kebbi	369	-1.77 ± 1.19	2.29	5	5
Jigawa South	673	-1.97 ± 1.34	1.83	0	35
Jigawa Central	744	-1.25 ± 1.28	2.67	7	54
Jigawa East	828	-1.00 ± 1.17	2.94	2	19
Jigawa North	701	-1.82 ± 1.27	3.32	0	30
Jigawa West	720	-1.25 ± 1.26	4.69	0	33

4.3 Prevalence of acute malnutrition

Among children aged 0-59 months, the prevalence of global acute malnutrition (GAM), defined as weight-for-height z-score (WHZ <-2) and/or the presence of bilateral pitting oedema, ranges from 4.1 to 14.6 per cent across the 23 survey domains, corresponding to low to high public health concern based on the WHO classification[9].

At the state-weighted level, GAM prevalence stands at 11.2 per cent in Sokoto, 7.4 per cent in Katsina, 8.5 per cent in Zamfara, 11.3 per cent in Kebbi and 7.8 per cent in Jigawa, indicating that acute malnutrition remains a medium to high public health problem across most states. High GAM levels (10.0-14.9 per cent) were observed in eight domains, namely Central Sokoto 1 and Central Sokoto 2, Eastern Sokoto 1, Northern Katsina 1 and Northern Katsina 2, and Central Kebbi 1, Central Kebbi 2 and Southern Kebbi, highlighting geographic pockets where wasting persists as a serious public health issue.

Conversely, moderate GAM levels (5-9.9 per cent) were recorded in several domains across Zamfara and Jigawa states, as well as parts of Katsina and Southern Sokoto, while low GAM levels (<5 per cent) were observed in Southern Katsina 2, Southern Katsina 3 and Jigawa West. These findings underscore both the spatial variability and the persistent burden of acute malnutrition across the Northwest region, necessitating targeted interventions to address underlying causes and seasonal aggravating factors.

Table 14. Prevalence of acute malnutrition by WHZ (and/or oedema) by severity and sex among children aged 0-59 months (SMART exclusions), WHO 2006 reference

Domain/state	Prevalence of global acute malnutrition (<-2 z-score and/or oedema) (95% confidence interval (CI))			Prevalence of moderate acute malnutrition (WHZ ≥ -3 and < -2, without bilateral pitting oedema) (95% CI)			Prevalence of severe acute malnutrition (<-3 z-score and/or oedema) (95% CI)			No. of children aged 0-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Sokoto state	(290) 11.2 (9.9, 12.6)	(155) 11.4 (9.7, 13.3)	(135) 11.1 (9.2, 13.2)	(250) 9.8 (8.6, 11.1)	(129) 9.7 (8.2, 11.5)	(121) 9.9 (8.2, 11.9)	(40) 1.4 (1.0, 2.0)	(26) 1.6 (1.1, 2.4)	(14) 1.2 (0.7, 2.0)	2,473
Central Sokoto 1	(71) 14.0	(28) 11.5	(43) 16.3	(62) 12.3	(24) 9.9	(38) 14.4	(9) 1.8	(4) 1.6	(5) 1.9	506

[9] World Health Organization (WHO); United Nations Children's Fund (UNICEF). 2018. New child malnutrition prevalence thresholds. Geneva/New York. Wasting prevalence thresholds: <2.5% (very low), 2.5–<5.0% (low), 5.0–<10.0% (medium), 10.0–<15.0% (high), ≥15.0% (very high).

Domain/state	Prevalence of global acute malnutrition (<-2 z-score and/or oedema) (95% confidence interval (CI))			Prevalence of moderate acute malnutrition (WHZ ≥ -3 and < -2, without bilateral pitting oedema) (95% CI)			Prevalence of severe acute malnutrition (<-3 z-score and/or oedema) (95% CI)			No. of children aged 0-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
	(11.1, 17.6)	(8.2, 16)	(12.0, 22.0)	(9.6, 15.5)	(7.0, 13.8)	(10.3, 20.0)	(0.9, 3.5)	(0.6, 4.3)	(0.8, 4.4)	
Central Sokoto 2	(66) 14.6	(38) 16.0	(28) 13.1	(54) 12.0	(30) 12.6	(24) 11.3	(12) 2.7	(8) 3.4	(45) 1.9	451
	(11.2, 18.9)	(11.2, 22.3)	(9.2, 18.4)	(9.6, 15.5)	(8.5, 18.3)	(7.6, 16.4)	(1.6, 4.5)	(1.8, 6.2)	(0.7, 4.9)	
Eastern Sokoto 1	(71) 12.0	(44) 13.9	(27) 9.9	(59) 10.0	(34) 10.8	(25) 9.1	(12) 2.0	(10) 3.2	(2) 0.7	590
	(9.8, 14.8)	(10.7, 17.9)	(6.6, 14.4)	(7.8, 12.7)	(8.2, 14.1)	(5.9, 13.8)	(1.2, 3.4)	(1.8, 5.5)	(0.2, 2.9)	
Eastern Sokoto 2	(32) 8.1	(17) 8.2	(15) 7.9	(29) 7.3	(16) 7.7	(13) 6.9	(3) 0.8	(1) 0.5	(2) 1.1	397
	(5.7, 11.4)	(5.2, 12.6)	(4.7, 13.1)	(9.6, 15.5)	(4.7, 12.4)	(4.2, 11.1)	(0.2, 2.3)	(0.1, 3.4)	(0.3, 4.3)	
Southern Sokoto	(50) 9.4	(28) 11.1	(22) 7.9	(46) 8.7	(25) 9.9	(21) 7.6	(4) 0.8	(3) 1.2	(1) 0.4	530
	(7.4, 11.9)	(7.9, 15.5)	(5.1, 12.0)	(6.7, 11.2)	(6.8, 14.3)	(4.8, 11.6)	(0.3, 2.0)	(0.4, 3.8)	(0.0, 2.7)	
Katsina state	(283) 7.4	(149) 8.0	(134) 6.8	(244) 6.4	(125) 6.7	(119) 6.1	(39) 1.0	(24) 1.3	(15) 0.7	3,795
	(6.5, 8.4)	(6.7, 9.5)	(5.6, 8.2)	(5.5, 7.3)	(5.5, 8.0)	(5.0, 7.4)	(0.7, 1.4)	(0.9, 2.0)	(0.4, 1.3)	
Central Katsina 1	(46) 8.6	(25) 9.6	(21) 7.6	(40) 7.5	(20) 7.7	(20) 7.2	(6) 1.1	(5) 1.9	(1) 0.4	536
	(6.6, 11.1)	(7.0, 13.1)	(4.5, 12.5)	(5.6, 9.9)	(5.3, 11.0)	(4.2, 11.5)	(0.5, 2.3)	(0.9, 4.3)	(0.0, 2.7)	
Central Katsina 2	(36) 7.3	(15) 6.8	(21) 7.8	(32) 6.5	(14) 6.3	(18) 6.7	(4) 0.8	(1) 0.5	(3) 1.1	492
	(5.0, 10.6)	(3.8, 11.7)	(5.0, 12.0)	(4.4, 9.5)	(3.6, 10.9)	(4.2, 10.4)	(0.3, 2.1)	(0.1, 3.4)	(0.4, 3.4)	
Northern Katsina 1	(52) 10.5	(32) 12.7	(20) 8.2	(42) 8.5	(27) 10.7	(15) 6.2	(10) 2.0	(5) 2.0	(5) 2.1	495
	(7.8, 14.0)	(8.9, 17.7)	(5.0, 13.3)	(6.2, 11.5)	(7.7, 14.7)	(3.6, 10.3)	(1.0, 3.9)	(0.9, 4.5)	(0.7, 5.7)	
Northern Katsina 2	(70) 10.0	(42) 11.6	(28) 8.3	(59) 8.4	(34) 9.4	(25) 7.4	(11) 1.6	(8) 2.2	(3) 0.9	699
	(6.6, 14.9)	(6.8, 19.2)	(5.3, 12.7)	(5.5, 12.7)	(5.4, 15.9)	(4.6, 11.6)	(0.8, 3.1)	(1.0, 4.7)	(0.3, 2.8)	
Southern Katsina 1	(31) 6.9	(13) 5.7	(18) 8.1	(30) 6.7	(12) 5.3	(18) 8.1	(1) 0.2	(1) 0.4	(0) 0.0	449
	(5.0, 9.5)	(3.5, 9.2)	(5.1, 12.8)	(4.7, 9.4)	(3.1, 8.8)	(5.1, 12.8)	(0.0, 1.7)	(0.1, 3.2)	(0.0, 0.0)	
Southern Katsina 2	(25) 4.1	(11) 3.5	(14) 4.7	(19) 3.1	(8) 2.6	(11) 3.7	(6) 1.0	(3) 1.0	(3) 1.0	609
	(2.5, 6.6)	(1.7, 7.4)	(2.6, 8.2)	(1.7, 5.6)	(0.9, 6.8)	(1.8, 7.3)	(0.4, 2.4)	(0.3, 2.9)	(0.3, 3.2)	

Domain/state	Prevalence of global acute malnutrition (<-2 z-score and/or oedema) (95% confidence interval (CI))			Prevalence of moderate acute malnutrition (WHZ ≥ -3 and < -2, without bilateral pitting oedema) (95% CI)			Prevalence of severe acute malnutrition (<-3 z-score and/or oedema) (95% CI)			No. of children aged 0-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Southern Katsina 3	(25) 4.9	(13) 5.4	(12) 4.4	(22) 4.3	(10) 4.1	(12) 4.4	(3) 0.6	(3) 1.2	(0) 0.0	515
	(3.2, 7.3)	(3.2, 9.0)	(2.4, 7.8)	(2.8, 6.5)	(2.2, 7.6)	(2.4, 7.8)	(0.2, 1.8)	(0.4, 3.7)	(0.0, 0.0)	
Zamfara state	(121) 8.5	(71) 9.6	(50) 7.4	(109) 7.7	(61) 8.5	(48) 7.1	(12) 0.8	(10) 1.2	(2) 0.4	1,413
	(6.9, 10.4)	(7.6, 12.2)	(5.4, 10.2)	(6.3, 9.6)	(6.6, 10.8)	(5.1, 9.9)	(0.4, 1.5)	(0.5, 2.6)	(0.1, 1.8)	
Central Zamfara	(38) 8.5	(19) 9.4	(19) 7.8	(35) 7.8	(17) 8.4	(18) 7.4	(3) 0.7	(2) 1.0	(1) 0.4	446
	(6.3, 11.4)	(6.5, 13.3)	(5.1, 11.9)	(5.7, 10.7)	(5.7, 12.1)	(4.7, 11.5)	(0.2, 2.0)	(0.2, 3.9)	(0.1, 3.1)	
Western Zamfara	(28) 6.8	(18) 8.6	(10) 5.0	(26) 6.4	(17) 8.1	(9) 4.5	(2) 0.5	(1) 0.5	(1) 0.5	409
	(5.1, 9.2)	(5.4, 13.4)	(2.8, 8.8)	(4.7, 8.6)	(5.2, 12.6)	(2.4, 8.3)	(0.1, 2.0)	(0.1, 3.6)	(0.1, 3.8)	
Northern Zamfara	(55) 9.9	(33) 11.0	(22) 8.6	(48) 8.6	(27) 9.0	(21) 8.2	(7) 1.3	(6) 2.0	(1) 0.4	558
	(7.5, 12.8)	(7.8, 15.2)	(5.0, 14.2)	(6.4, 11.4)	(6.2, 12.8)	(4.9, 13.3)	(0.5, 2.8)	(0.8, 4.9)	(0.1, 2.8)	
Kebbi state	(125) 11.3	(66) 12.1	(59) 10.6	(106) 9.7	(57) 10.5	(49) 8.8	(19) 1.6	(9) 1.5	(10) 1.7	1,125
	(9.2, 13.8)	(9.4, 15.3)	(8.1, 13.7)	(7.9, 11.8)	(8.2, 13.5)	(6.7, 11.5)	(1.0, 2.7)	(0.7, 3.0)	(0.9, 3.5)	
Central Kebbi 1	(38) 10.5	(18) 9.4	(20) 11.6	(34) 9.4	(17) 8.9	(17) 9.9	(4) 1.1	(1) 0.5	(3) 1.7	363
	(7.0, 15.5)	(5.1, 16.8)	(7.4, 17.8)	(6.1, 14.2)	(4.7, 16.1)	(6.3, 15.2)	(0.4, 2.9)	(0.1, 3.9)	(0.6, 5.3)	
Central Kebbi 2	(51) 13.0	(29) 14.6	(22) 11.3	(45) 11.5	(26) 13.1	(19) 9.8	(6) 1.5	(3) 1.5	(3) 1.5	392
	(9.6, 17.3)	(10.3, 20.3)	(7.6, 16.5)	(8.7, 15.0)	(9.4, 18.0)	(6.5, 14.4)	(0.6, 3.7)	(0.5, 4.7)	(0.4, 6.6)	
Southern Kebbi	(37) 10	(20) 11.6	(17) 8.5	(27) 7.3	(14) 8.1	(13) 6.5	(10) 2.7	(6) 3.5	(4) 2.0	371
	(6.4, 15.2)	(7.2, 18.3)	(4.4, 15.8)	(4.6, 11.2)	(4.8, 13.4)	(3.2, 12.7)	(1.3, 5.7)	(1.4, 8.4)	(0.8, 5.2)	
Jigawa state	(281) 7.8	(152) 8.4	(129) 7.2	(247) 6.8	(132) 7.2	(115) 6.5	(34) 0.9	(20) 1.2	(14) 0.7	3,716
	(6.7, 9.0)	(7.0, 10.0)	(6.0, 8.6)	(5.9, 8.0)	(5.9, 8.7)	(5.4, 7.8)	(0.7, 1.3)	(0.8, 1.8)	(0.4, 1.1)	
Jigawa South	(63) 9.1	(33) 9.9	(30) 8.4	(53) 7.7	(25) 7.5	(28) 7.8	(10) 1.4	(8) 2.4	(2) 0.6	692
	(6.4, 12.8)	(6.1, 15.7)	(6.1, 11.4)	(5.6, 10.8)	(4.9, 11.3)	(5.6, 10.8)	(0.6, 3.7)	(0.9, 6.0)	(0.1, 2.2)	
Jigawa Central	(69) 8.7	(39) 9.4	(30) 8.0	(57) 7.2	(30) 7.2	(27) 7.2	(12) 1.5	(9) 2.2	(3) 0.8	790

Domain/state	Prevalence of global acute malnutrition (<-2 z-score and/or oedema) (95% confidence interval (CI))			Prevalence of moderate acute malnutrition (WHZ ≥ -3 and < -2, without bilateral pitting oedema) (95% CI)			Prevalence of severe acute malnutrition (<-3 z-score and/or oedema) (95% CI)			No. of children aged 0-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
	(6.4, 11.9)	(6.6, 13.1)	(5.3, 11.9)	(5.2, 10.0)	(4.9, 10.4)	(4.7, 11.0)	(0.8, 2.9)	(1.1, 4.2)	(0.3, 2.4)	
Jigawa East	(60) 7.2	(32) 7.8	(28) 6.7	(50) 6.0	(27) 6.6	(23) 5.5	(10) 1.2	(5) 1.2	(5) 1.2	829
	(5.4, 9.7)	(8.9-17.7)	(5.5, 11.0)	(4.5, 8.1)	(4.6, 9.4)	(3.7, 8.0)	(0.6, 2.3)	(0.4, 3.4)	(0.5, 2.8)	
Jigawa North	(59) 8.9	(33) 9.7	(26) 8.0	(55) 8.3	(32) 9.4	(23) 7.1	(4) 0.6	(1) 0.3	(3) 0.9	665
	(6.5, 12.0)	(6.6, 14.1)	(5.3, 12.0)	(6.0, 11.3)	(6.3, 13.9)	(4.6, 10.7)	(0.2, 1.6)	(0.0, 2.2)	(0.3, 2.8)	
Jigawa West	(33) 4.4	(18) 5.0	(15) 3.9	(32) 4.3	(18) 5.0	(14) 3.6	(1) 0.1	(0) 0.0	(1) 0.3	742

Source: World Health Organization (WHO) and United Nations Children's Fund (UNICEF). New child malnutrition prevalence thresholds. Geneva/New York; 2018.

Note: Wasting prevalence thresholds: <2.5% (very low), 2.5-<5.0% (low), 5.0-<10.0% (medium), 10.0-<15.0% (high), ≥15.0% (very high).

The prevalence of severe acute malnutrition (SAM), assessed by weight-for-height z-score (WHZ <-3) and/or presence of bilateral pitting oedema, ranges from 0.1 to 2.7 per cent across the 23 survey domains.

The highest SAM prevalence was observed in Central Sokoto 2 (2.7 per cent) and Southern Kebbi (2.7 per cent), while most domains in Zamfara, Jigawa and Katsina recorded low levels of prevalence (<2 per cent).

4.4 Prevalence of acute malnutrition by MUAC and/or oedema

The prevalence of acute malnutrition based on MUAC (and/or bilateral pitting oedema) is 5.6 per cent in Jigawa, 6.6 per cent in Katsina, 7.7 per cent in Zamfara, 8.8 per cent in Kebbi and 9.8 per cent in Sokoto; all five states fall within the medium category (5-<10 per cent).

Across states, girls consistently exhibit a higher prevalence of GAM than boys. At the state level, GAM prevalence among girls is 12.0 per cent in Sokoto, 7.0 per cent in Katsina, 9.4 per cent in Zamfara, 10.5 per cent in Kebbi and 6.1 per cent in Jigawa, compared with 7.8 per cent, 6.1 per cent, 5.8 per cent, 7.2 per cent and 5.0 per cent, respectively, among boys.

Among girls, moderate acute malnutrition (MAM) ranges from 6.1 to 9.9 per cent, while severe acute malnutrition (SAM) ranges from 0.7 to 1.7 per cent. Among boys, MAM ranges from 6.7 to 10.5 per cent, while SAM ranges from 1.2 to 1.6 per cent across the five states.

Table 15. Prevalence of acute malnutrition based on MUAC cut-offs (and/or oedema) and by sex

Domain/state	Prevalence of global acute malnutrition (<125 mm and/or oedema) (95% CI)			Prevalence of moderate acute malnutrition (<125 mm and >=115 mm, no oedema) (95% CI)			Prevalence of severe acute malnutrition (<115 mm and/or oedema) (95% CI)			No. of children aged 6-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Sokoto state	(239) 9.8 (8.5, 11.3)	(104) 7.8 (6.4, 9.4)	(135) 12.0 (9.8, 14.5)	(183) 7.5 (6.4, 8.7)	(76) 5.9 (4.7, 7.3)	(107) 9.2 (7.4, 11.3)	(56) 2.3 (1.7, 3.1)	(28) 1.9 (1.3, 2.9)	(28) 2.8 (1.9, 4.2)	2,268
Central Sokoto 1	(49) 10.8 (8.0, 14.5)	(19) 8.4 (5.6, 12.5)	(30) 13.2 (8.9, 19.1)	(36) 7.9 (5.8, 10.8)	(14) 6.2 (4.0, 9.5)	(22) 9.7 (6.3, 14.6)	(13) 2.9 (1.6, 5.1)	(5) 2.2 (0.9, 5.1)	(8) 3.5 (1.8, 6.8)	453
Central Sokoto 2	(50) 12.1 (8.3, 17.3)	(29) 13.1 (8.2, 20.3)	(21) 10.9 (6.3, 18.0)	(38) 9.2 (6.2, 13.4)	(22) 10.0 (6.1, 15.7)	(16) 8.3 (4.6, 14.5)	(12) 2.9 (1.6, 5.0)	(7) 3.2 (1.5, 6.7)	(5) 2.6 (1.1, 5.8)	414
Eastern Sokoto 1	(71) 13.0 (10.3, 16.3)	(31) 10.4 (7.2, 14.9)	(40) 16.1 (12.3, 20.8)	(54) 9.9 (7.7, 12.7)	(18) 6.1 (3.8, 9.5)	(36) 14.5 (11.0, 18.9)	(17) 3.1 (1.9, 5.2)	(13) 4.4 (2.4, 8.0)	(4) 1.6 (0.6, 4.3)	545
Eastern Sokoto 2	(27) 7.3 (4.8, 11.1)	(9) 4.6 (2.6, 7.8)	(18) 10.5 (6.1, 17.6)	(19) 5.2 (3.2, 8.3)	(7) 3.6 (1.8, 6.8)	(12) 7.0 (3.6, 13.2)	(8) 2.2 (1.0, 4.5)	(2) 1.0 (0.2, 4.0)	(6) 3.5 (1.4, 8.5)	368
Southern Sokoto	(42) 8.6 (6.5, 11.3)	(16) 6.8 (4.4, 10.3)	(26) 10.3 (6.7, 15.4)	(36) 7.4 (5.5, 9.9)	(15) 6.4 (4.1, 9.9)	(21) 8.3 (5.1, 13.2)	(6) 1.2 (0.6, 2.7)	(1) 0.4 (0.1, 3.1)	(5) 2.0 (0.8, 4.6)	488
Katsina state	(234) 6.6 (5.6, 7.7)	(107) 6.1 (4.9, 7.6)	(127) 7.0 (5.8, 8.5)	(168) 4.7 (4.0, 5.6)	(76) 4.3 (3.4, 5.5)	(92) 5.2 (4.2, 6.4)	(66) 1.8 (1.4, 2.4)	(31) 1.8 (1.2, 2.8)	(35) 1.9 (1.3, 2.6)	3,482

Domain/state	Prevalence of global acute malnutrition (<125 mm and/or oedema) (95% CI)			Prevalence of moderate acute malnutrition (<125 mm and >=115 mm, no oedema) (95% CI)			Prevalence of severe acute malnutrition (<115 mm and/or oedema) (95% CI)			No. of children aged 6-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Central Katsina 1	(33) 6.7	(18) 7.4	(15) 6.0	(26) 5.3	(13) 5.4	(13) 5.2	(7) 1.4	(5) 2.1	(2) 0.8	491
	(4.4, 10.2)	(4.5, 12.2)	(3.3, 10.7)	(3.4, 8.0)	(3.0, 9.4)	(2.8, 9.4)	(0.5, 3.8)	(0.8, 5.5)	(0.2, 3.3)	
Central Katsina 2	(28) 6.2	(12) 5.8	(16) 6.5	(21) 4.6	(9) 4.3	(12) 4.9	(7)1.5	(3) 1.4	(4) 1.6	455
	(4.1, 9.2)	(3.2, 10.3)	(3.8, 11.0)	(3.1, 6.9)	(2.2, 8.5)	(2.7, 8.5)	(0.6, 3.7)	(0.3, 6.2)	(0.6, 4.2)	
Northern Katsina 1	(43) 9.3	(21) 9.1	(22) 9.5	(32) 6.9	(15) 6.5	(17) 7.3	(11) 2.4	(6) 2.6	(5) 2.2	463
	(6.5, 13.0)	(5.2, 15.3)	(6.2, 14.3)	(4.7, 10.1)	(3.6, 11.3)	(4.7, 11.2)	(1.2, 4.6)	(1.0, 6.3)	(0.9, 5.0)	
Northern Katsina 2	(70) 11.0	(35) 10.6	(35) 11.4	(54) 8.5	(28) 8.5	(26) 8.5	(16) 2.5	(7) 2.1	(9) 2.9	636
	(8.1, 14.8)	(7.1, 15.6)	(7.9, 16.1)	(6.2, 11.5)	(5.8, 12.4)	(5.7, 12.4)	(1.4, 4.4)	(0.9, 4.8)	(1.5, 5.7)	
Southern Katsina 1	(13) 3.2	(2) 0.9	(11) 5.6	(11) 2.7	(2) 0.9	(9) 4.6	(2) 0.5	(0) 0.0	(2) 1.0	409
	(1.6, 6.3)	(0.2, 3.7)	(2.9, 10.6)	(1.3, 5.4)	(0.2, 3.7)	(2.4, 8.6)	(0.1, 1.9)	(0.0, 0.0)	(0.3, 4.1)	
Southern Katsina 2	(27) 4.8	(13) 4.5	(14) 5.1	(11) 1.9	(6) 2.1	(5) 1.8	(16) 2.8	(7) 2.4	(9) 3.3	567
	(3.0, 7.4)	(2.2, 8.7)	(2.8, 9.1)	(1.1, 3.4)	(0.9, 4.4)	(0.8, 4.2)	(1.6, 4.8)	(0.9, 6.1)	(1.5, 6.8)	
Southern Katsina 3	(20) 4.3	(6) 2.8	(14) 5.6	(13) 2.8	(3) 1.4	(10) 4.0	(7) 1.5	(3) 1.4	(4) 1.6	461
	(2.6, 7.1)	(1.2, 6.6)	(3.3, 9.4)	(1.6, 4.8)	(0.5, 4.2)	(2.2, 7.2)	(0.8, 3.0)	(0.5, 4.2)	(0.6, 4.1)	
Zamfara state	(111) 7.7	(46) 5.8	(65) 9.4	(85) 5.9	(34) 4.1	(51) 7.6	(26) 1.8	(12) 1.8	(14) 1.8	1,289
	(6.1, 9.7)	(4.2, 8.0)	(7.2, 12.3)	(4.6, 7.6)	(2.7, 6.0)	(5.5, 10.4)	(1.1, 2.8)	(0.9, 3.5)	(1.0, 3.4)	
Central Zamfara	(27) 6.6	(8) 4.3	(19) 8.6	(21) 5.2	(5) 2.7	(16) 7.2	(6) 1.5	(3) 1.6	(3) 1.4	407
	(4.5, 9.7)	(2.3, 7.8)	(5.6, 12.9)	(3.4, 7.8)	(1.2, 6.1)	(4.5, 11.4)	(0.7, 3.1)	(0.5, 4.8)	(0.4, 4.1)	

Domain/state	Prevalence of global acute malnutrition (<125 mm and/or oedema) (95% CI)			Prevalence of moderate acute malnutrition (<125 mm and >=115 mm, no oedema) (95% CI)			Prevalence of severe acute malnutrition (<115 mm and/or oedema) (95% CI)			No. of children aged 6-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Western Zamfara	(42) 11.2	(17) 8.9	(25) 13.6	(28) 7.5	(12) 6.3	(16) 8.7	(14) 3.7	(5) 2.6	(9) 4.9	374
	(8.6, 14.5)	(5.9, 13.3)	(9.5, 19.1)	(5.2, 10.7)	(3.5, 11.2)	(5.4, 13.8)	(2.2, 6.3)	(1.1, 5.9)	(2.5, 9.2)	
Northern Zamfara	(42) 8.3	(21) 7.7	(21) 8.9	(36) 7.1	(17) 6.2	(19) 8.1	(6) 1.2	(4) 1.5	(2) 0.9	508
	(5.7, 11.8)	(4.6, 12.6)	(5.5, 14.1)	(5.0, 10.0)	(3.8, 10.2)	(5.1, 12.5)	(0.5, 2.9)	(0.4, 4.8)	(0.2, 3.4)	
Kebbi state	(90) 8.8	(38) 7.2	(52) 10.5	(71) 6.9	(29) 5.4	(42) 8.5	(19) 1.9	(9) 1.8	(10) 2.0	1,049
	(6.8, 11.4)	(4.9, 10.6)	(8.0, 13.7)	(5.1, 9.3)	(3.5, 8.4)	(6.4, 11.4)	(1.2, 3.1)	(1.0, 3.3)	(1.0, 3.8)	
Central Kebbi 1	(34) 9.6	(16) 8.2	(18) 11.3	(29) 8.1	(14) 7.1	(15) 9.4	(5) 1.4	(2) 1.0	(3) 1.9	356
	(5.6, 15.8)	(4.4, 14.8)	(6.1, 20.0)	(4.5, 14.2)	(3.6, 13.7)	(5.0, 16.9)	(0.4, 4.5)	(0.2, 4.1)	(0.4, 8.0)	
Central Kebbi 2	(37) 10.5	(15) 8.2	(22) 12.9	(28) 7.9	(10) 5.5	(18) 10.5	(9) 2.5	(5) 2.7	(4) 2.3	353
	(7.5, 14.5)	(4.5, 14.7)	(9.0, 18.1)	(5.5, 11.4)	(2.8, 10.5)	(7.1, 15.3)	(1.3, 4.9)	(1.2, 6.3)	(0.9, 6.1)	
Southern Kebbi	(19) 5.6	(7) 4.3	(12) 6.7	(14) 4.1	(5) 3.1	(9) 5.0	(5) 1.5	(2) 1.2	(3) 1.7	340
	(3.0, 10.2)	(1.5, 12.0)	(4.0, 11.1)	(1.8, 9.2)	(0.7, 12.2)	(2.6, 9.7)	(0.6, 3.4)	(0.3, 4.9)	(0.6, 5.0)	
Jigawa state	(189) 5.6	(81) 5.0	(108) 6.1	(121) 3.6	(52) 3.2	(69) 4.0	(68) 2.0	(29) 1.8	(39) 2.1	3,418
	(4.6, 6.8)	(3.8, 6.5)	(4.9, 7.6)	(2.8, 4.7)	(2.3, 4.6)	(3.0, 5.2)	(1.4, 2.7)	(1.1, 2.8)	(1.5, 3.0)	
Jigawa South	(36) 5.7	(19) 6.3	(17) 5.1	(24) 3.8	(11) 3.7	(13) 3.9	(12) 1.9	(8) 2.7	(4) 1.2	632
	(3.6, 9.0)	(3.5, 11.3)	(3.2, 8.0)	(2.1, 6.8)	(1.6, 8.2)	(2.3, 6.6)	(0.9, 4.0)	(1.1, 6.3)	(0.5, 3.1)	
Jigawa Central	(42) 5.9	(20) 5.4	(22) 6.5	(29) 4.1	(15) 4.1	(14) 4.1	(13)1.8	(5) 1.4	(8) 2.4	710
	(3.9, 8.9)	(3.3, 8.7)	(4.0, 10.3)	(2.6, 6.5)	(2.2, 7.4)	(2.3, 7.3)	(1.1, 3.2)	(0.6, 3.1)	(1.3, 4.4)	
Jigawa East	(44) 5.7	(17) 4.5	(27) 6.8	(27) 3.5	(9) 2.4	(18) 4.5	(17) 2.2	(8) 2.1	(9) 2.3	777
	(3.6, 8.8)	(2.4, 8.0)	(4.1, 11.1)	(2.0, 6.0)	(1.0, 5.5)	(2.4, 8.4)	(0.9, 5.1)	(0.9, 5.1)	(0.8, 6.0)	
Jigawa North	(30) 4.9	(12) 3.8	(18) 6.0	(19) 3.1	(9) 2.9	(10) 3.3	(11) 1.8	(3) 1.0	(8) 2.7	614

Domain/state	Prevalence of global acute malnutrition (<125 mm and/or oedema) (95% CI)			Prevalence of moderate acute malnutrition (<125 mm and >=115 mm, no oedema) (95% CI)			Prevalence of severe acute malnutrition (<115 mm and/or oedema) (95% CI)			No. of children aged 6-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
	(3.1, 7.6)	(1.9, 7.3)	(3.5, 10.3)	(1.7, 5.6)	(1.3, 6.0)	(1.5, 7.1)	(0.9, 3.6)	(0.2, 4.2)	(1.2, 6.0)	
Jigawa West	(37) 5.4	(13) 4.0	(24) 6.7	(22) 3.2	(8) 2.5	(14) 3.9	(15) 2.2	(5) 1.5	(10) 2.8	685
	(3.6, 8.1)	(2.2, 7.1)	(4.1, 10.7)	(1.8, 5.7)	(1.1, 5.3)	(2.1, 7.2)	(1.4, 3.5)	(0.6, 3.6)	(1.5, 5.3)	

4.5 Prevalence of combined global acute malnutrition (cGAM) and combined severe acute malnutrition (cSAM) based on WHZ and MUAC (and/or bilateral pitting oedema)

The combined global acute malnutrition (cGAM) prevalence, defined as acute malnutrition identified by WHZ and/or MUAC (and/or bilateral pitting oedema), among children aged 0-59 months ranges from 10.2 per cent in Jigawa to 14.6 per cent in Sokoto, followed by Zamfara (11.6 per cent), Kebbi (14.4 per cent) and Katsina (10.4 per cent). These levels fall within the medium (5 to <10 per cent) to high (10 to <15 per cent) categories of prevalence, indicating a sustained nutrition concern across all five states. Sokoto recorded the highest prevalence at 14.6 per cent, which approaches the upper limit of the high category.

The combined severe acute malnutrition (cSAM) ranges between 2.0 and 3.0 per cent, which is within the low to medium range.

Across states, girls consistently show slightly higher combined GAM (cGAM) than boys, notably in Sokoto (15.0 per cent vs 14.2 per cent) and Zamfara (12.0 per cent vs 11.2 per cent), implying possible gender-related differences in dietary access or care.

Table 16. Prevalence of combined GAM (cGAM) and combined SAM (cSAM) based on WHZ and MUAC cut-offs (and/or oedema) and by sex

State/domain	Prevalence of combined global acute malnutrition (WHZ <-2 and/or MUAC <125 mm and/or oedema) (95% CI)			Prevalence of combined severe acute malnutrition (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	
Sokoto state	(389) 14.6 (13.1, 16.2)	(198) 14.2 (12.3, 16.2)	(191) 15.0 (12.8, 17.4)	(82) 3.0 (2.4, 3.8)	(47) 3.0 (2.2, 4.0)	(35) 3.0 (2.1, 4.3)	2,504
Central Sokoto 1	(81) 15.8 (12.8, 19.3)	(34) 13.7 (10.0, 18.3)	(47) 17.8 (13.4, 23.2)	(20) 3.9 (2.5, 6.1)	(8) 3.2 (1.7, 6.1)	(12) 4.5 (2.6, 7.9)	513
Central Sokoto 2	(88) 19.2 (14.8, 24.4)	(53) 21.7 (15.7, 29.3)	(35) 16.3 (11.5, 22.5)	(20) 4.4 (2.9, 6.6)	(13) 5.3 (3.2, 8.7)	(7) 3.3 (1.6, 6.4)	459
Eastern Sokoto 1	(105) 17.6 (14.9, 20.7)	(54) 16.8 (13.1, 21.2)	(51) 18.6 (14.4, 23.8)	(24) 4.0 (2.7, 6.0)	(19) 5.9 (3.7, 9.3)	(5) 1.8 (0.8, 4.3)	596
Eastern Sokoto 2	(45) 11.2 (8.0, 15.4)	(22) 10.5 (7.3, 15.0)	(23) 11.9 (7.4, 18.7)	(9) 2.2 (1.1, 4.3)	(3) 1.4 (0.5, 4.2)	(6) 3.1 (1.2, 7.6)	402
Southern Sokoto	(70) 13.1 (10.7, 16.0)	(35) 13.8 (10.2, 18.5)	(35) 12.5 (8.7, 17.4)	(9) 1.7 (0.9, 3.1)	(4) 1.6 (0.6, 4.3)	(5) 1.8 (0.7, 4.2)	534
Katsina state	(404) 10.4 (9.3, 11.7)	(204) 10.7 (9.0, 12.5)	(200) 10.2 (8.8, 11.9)	(92) 2.3 (1.9, 2.9)	(48) 2.5 (1.8, 3.5)	(44) 2.1 (1.6, 2.9)	3,825
Central Katsina 1	(63) 11.7 (9.0, 15.0)	(33) 12.5 (8.8, 17.5)	(30) 10.8 (7.4, 15.6)	(11) 2.0 (1.0, 4.1)	(8) 3.0 (1.4, 6.5)	(3) 1.1 (0.3, 3.3)	540
Central Katsina 2	(47) 9.5 (6.7, 13.2)	(19) 8.4 (5.1, 13.6)	(28) 10.3 (7.0, 15.0)	(10) 2.0 (0.9, 4.3)	(4) 1.8 (0.5, 6.7)	(6) 2.2 (1.1, 4.6)	496
Northern Katsina 1	(69) 14.3 (10.9, 18.5)	(39) 15.8 (10.9, 22.4)	(30) 12.7 (8.7, 18.0)	(17) 3.4 (2.1, 5.6)	(9) 3.6 (1.9, 6.7)	(8) 3.3 (1.5, 6.8)	498
Northern Katsina 2	(109) 15.4	(64) 17.3	(45) 13.2	(24) 3.4	(14) 3.8	(10) 2.9	709

State/domain	Prevalence of combined global acute malnutrition (WHZ <-2 and/or MUAC <125 mm and/or oedema) (95% CI)			Prevalence of combined severe acute malnutrition (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	
	(11.1, 20.9)	(11.5, 25.3)	(9.5, 18.2)	(2.1, 5.4)	(2.0, 7.0)	(1.6, 5.5)	
Southern Katsina 1	(38) 8.4	(15) 6.5	(23) 10.4	(3) 0.7	(1) 0.4	(2) 0.9	453
	(6.1, 11.5)	(3.9, 10.5)	(6.7, 15.6)	(0.2, 2.0)	(0.1, 3.1)	(0.2, 3.5)	
Southern Katsina 2	(39) 6.4	(19) 6.1	(20) 6.6	(20) 3.3	(9) 2.9	(11) 3.7	613
	(4.3, 9.3)	(3.3, 10.8)	(4.1, 10.6)	(2.0, 5.3)	(1.3, 6.2)	(1.8, 7.3)	
Southern Katsina 3	(37) 7.2	(14) 5.8	(23) 8.4	(8) 1.6	(4) 1.7	(4) 1.5	516
	(5.2, 9.8)	(3.5, 9.4)	(5.6, 12.4)	(0.8, 2.9)	(0.6, 4.2)	(0.6, 3.7)	
Zamfara state	(175) 11.6 (9.6, 13.9)	(87) 11.2 (9.0, 13.9)	(88) 12.0 (9.3, 15.3)	(32) 1.9 (1.3, 2.9)	(17) 2.2 (1.2, 3.8)	(15) 1.7 (0.9, 3.1)	1,427
Central Zamfara	(49) 10.8	(21) 10.1	(28) 11.4	(7) 1.5	(4) 1.9	(3) 1.2	452
	(8.0, 14.5)	(7.0, 14.5)	(7.9, 16.3)	(0.8, 3.0)	(0.7, 4.9)	(0.4, 3.7)	
Western Zamfara	(58) 14.0	(29) 13.6	(29) 14.4	(15) 3.6	(5) 2.3	(10) 5.0	415
	(11.3, 17.2)	(10.2, 18.0)	(10.2, 19.9)	(2.2, 6.0)	(1.0, 5.4)	(2.7, 8.9)	
Northern Zamfara	(69) 12.3	(37) 12.2	(32) 12.4	(10) 1.8	(7) 2.3	(3) 1.2	561
	(9.5, 15.8)	(8.7, 16.9)	(8.4, 17.9)	(0.9, 3.6)	(1.0, 5.2)	(0.3, 4.9)	
Kebbi state	(162) 14.4 (12.0, 17.1)	(83) 14.8 (11.8, 18.4)	(79) 14.0 (11.2, 17.4)	(33) 2.9 (2.0, 4.2)	(16) 2.8 (1.7, 4.5)	(17) 3.1 (1.8, 5.2)	1,146
Central Kebbi 1	(55) 14.7	(25) 12.4	(30) 17.3	(7) 1.9	(3) 1.5	(4) 2.3	375
	(10.0, 21.0)	(7.5, 19.7)	(11.0, 26.3)	(0.8, 4.6)	(0.5, 4.5)	(0.7, 7.5)	
Central Kebbi 2	(64) 16.1	(36) 17.9	(28) 14.3	(13) 3.3	(6) 3.0	(7) 3.6	397
	(12.7, 20.3)	(13.0, 24.1)	(10.6, 19.1)	(1.8, 5.7)	(1.4, 6.4)	(1.5, 8.5)	
Southern Kebbi	(43) 11.5	(22) 12.6	(21) 10.6	(13) 3.5	(7) 4.0	(6) 3.0	374
	(7.7, 16.8)	(7.9, 19.4)	(6.2, 17.3)	(1.9, 6.2)	(1.8, 8.6)	(1.4, 6.2)	
Jigawa state	(378) 10.2	(194) 10.6	(184) 9.9	(90) 2.4	(45) 2.5	(45) 2.2	3,768

State/domain	Prevalence of combined global acute malnutrition (WHZ <-2 and/or MUAC <125 mm and/or oedema) (95% CI)			Prevalence of combined severe acute malnutrition (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	
	(8.9,11.7)	(8.9, 12.4)	(8.4, 11.5)	(1.8, 3.0)	(1.8, 3.5)	(1.6, 3.1)	
Jigawa South	(76) 10.8	(41) 12.0	(35) 9.7	(16) 2.3	(12) 3.5	(4) 1.1	704
	(8.0, 14.4)	(8.1, 17.4)	(7.3, 12.8)	(1.2, 4.2)	(1.8, 6.7)	(0.4, 2.9)	
Jigawa Central	(90) 11.3	(48) 11.4	(42) 11.1	(23) 2.9	(13) 3.1	(10) 2.7	797
	(8.7, 14.6)	(8.4, 15.4)	(7.9, 15.5)	(1.8, 4.5)	(1.8, 5.3)	(1.4, 4.9)	
Jigawa East	(88) 10.4	(42) 10.1	(46) 10.7	(25) 3.0	(13) 3.1	(12) 2.8	845
	(7.8, 13.8)	(7.4, 13.6)	(7.5, 15.3)	(1.6, 5.4)	(1.6, 6.1)	(1.3, 6.0)	
Jigawa North	(71) 10.6	(38) 11.1	(33) 10.0	(13) 1.9	(4) 1.2	(9) 2.7	672
	(7.9, 14.1)	(7.7, 15.7)	(6.8, 14.6)	(1.1, 3.5)	(0.3, 3.9)	(1.3, 5.7)	
Jigawa West	(56) 7.5	(27) 7.5	(29) 7.5	(15) 2.0	(5) 1.4	(10) 2.6	750
	(4.9, 11.2)	(4.5, 12.3)	(4.8, 11.4)	(1.2, 3.2)	(0.6, 3.2)	(1.3, 4.9)	

4.6 Prevalence of chronic malnutrition, based on height-for-age z-scores

Chronic malnutrition, or stunting, is defined as a height-for-age z-score (HAZ) less than -2 standard deviations (SDs) from the based on the WHO Child Growth Standards,[10] indicating long-term nutritional deficits. The prevalence of stunting among children remains very high across all surveyed states in Northwest Nigeria. Overall stunting prevalence is 34.5 per cent in Jigawa, 40.9 per cent in Kebbi, 42.6 per cent in Zamfara, 43.8 per cent in Sokoto and 46.3 per cent in Katsina. All five states fall within the very high (≥30 per cent) category of prevalence, signifying a chronic nutrition challenge in the region.

[10] World Health Organization, *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*, WHO, Geneva, 2006.

Table 17. Prevalence of chronic malnutrition, by HAZ, by severity and sex among children aged 6-59 months (SMART exclusions)

Domain/state	Prevalence of stunting (<-2 z-score) (95% CI)			Prevalence of moderate stunting (<-2 z-score and >=-3 z-score) (95% CI)			Prevalence of severe stunting (<-3 z-score) (95% CI)			No. of children aged 0-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Sokoto state	(1,074) 43.8 (40.9, 46.7)	(585) 47.1 (43.7, 50.6)	(489) 40.4 (36.7, 44.2)	(680) 28.3 (26.1, 30.6)	(352) 29.0 (26.3, 31.9)	(328) 27.7 (24.8, 30.7)	(394) 15.5 (13.8, 17.3)	(233) 18.2 (15.7, 20.9)	(161) 12.8 (10.7, 15.1)	2,430
Central Sokoto 1	(207) 42.0 (36.9, 47.2)	(109) 46.4 (39.5, 53.4)	(98) 38.0 (31.5, 45.0)	(140) 28.4 (24.0, 33.2)	(70) 29.8 (23.6, 36.9)	(70) 27.1 (21.4, 33.7)	(67) 13.6 (10.9, 16.9)	(39) 16.6 (12.3, 21.9)	(28) 10.9 (7.4, 15.7)	493
Central Sokoto 2	(181) 41.0 (34.5, 47.7)	(105) 45.7 (39.6, 51.9)	(76) 35.8 (27.4, 45.3)	(121) 27.4 (22.9, 32.3)	(63) 27.4 (22.1, 33.4)	(58) 27.4 (21.1, 34.7)	(60) 13.6 (9.9, 18.3)	(42) 18.3 (12.6, 25.7)	(18) 8.5 (5.0, 13.9)	442
Eastern Sokoto 1	(279) 48.5 (44.0, 53.1)	(157) 51.1 (45.0, 57.2)	(122) 45.5 (38.8, 52.4)	(154) 26.8 (22.8, 31.1)	(88) 28.7 (23.1, 35.0)	(66) 24.6 (19.0, 31.3)	(125) 21.7 (18.4, 25.5)	(69) 22.5 (18.2, 27.5)	(56) 20.9 (16.1, 26.6)	575
Eastern Sokoto 2	(170) 42.8 (35.6, 50.3)	(96) 46.6 (38.2, 55.2)	(74) 38.7 (29.6, 48.7)	(117) 29.5 (24.1, 35.4)	(63) 30.6 (24.9, 37.0)	(54) 28.3 (21.5, 36.1)	(53) 13.4 (9.6, 18.2)	(33) 16.0 (10.7, 23.3)	(20) 10.5 (6.6, 16.2)	397
Southern Sokoto	(236) 45.0 (38.6, 51.4)	(117) 46.6 (39.1, 54.3)	(119) 43.4 (35.9, 51.3)	(148) 28.2 (24.1, 32.7)	(68) 27.1 (22.2, 32.7)	(80) 29.2 (24.0, 35.0)	(88) 16.8 (13.1, 21.2)	(49) 19.5 (14.5, 25.8)	(39) 14.2 (10.2, 19.6)	525
Katsina state	(1727) 46.3 (43.9, 48.8)	(926) 50.4 (47.3, 53.5)	(801) 42.3 (39.6, 45.1)	(1180) 31.3 (29.5, 33.1)	(610) 32.6 (30.1, 35.1)	(570) 30.0 (27.8, 32.3)	(547) 15.0 (13.3, 16.9)	(316) 17.8 (15.6, 20.3)	(231) 12.3 (10.5, 14.5)	3,755
Central Katsina 1	(258) 49.0 (34.1, 50.4)	(138) 54.8 (33.9, 56.1)	(120) 43.8 (31.4, 48.6)	(160) 30.4 (23.3, 36.1)	(80) 31.7 (19.6, 36.7)	(80) 29.2 (23.5, 39.6)	(98) 18.6 (7.9, 20.1)	(58) 23.0 (10.0, 28.5)	(40) 14.6 (5.0, 14.8)	345
Central Katsina 2	(182) 38.0 (30.3, 46.4)	(92) 42.2 (31.9, 53.2)	(90 34.5 (26.8, 43.0)	(130) 27.1 (21.4, 33.8)	(65) 29.8 (21.3, 40.0)	(65) 24.9 (19.4, 31.3)	(52) 10.9 (7.3, 15.9)	(27) 12.4 (7.1, 20.8)	(25) 9.6 (5.6, 16.0)	479
Northern Katsina 1	(283) 57.6 (52.0, 63.1)	(151) 60.9 (54.2, 67.2)	(132) 54.3 (47.1, 61.4)	(166) 33.8 (29.2, 38.8)	(84) 33.9 (27.9, 40.4)	(82) 33.7 (27.8, 40.2)	(117) 23.8 (18.0, 30.9)	(67) 27.0 (20.4, 34.8)	(50) 20.6 (14.1, 29.1)	491
Northern Katsina 2	(347) 49.5 (43.0, 56.0)	(176) 48.4 (40.6, 56.1)	(171) 50.7 (43.2, 58.3)	(232) 33.1 (28.9, 37.6)	(113) 31.0 (25.6, 37.1)	(119) 35.3 (29.8, 41.3)	(115) 16.4 (11.7, 22.5)	(63) 17.3 (12.4, 23.6)	(52) 15.4 (9.9, 23.2)	701
Southern Katsina 1	(208) 46.7	(121) 53.3	(87) 39.9	(156) 35.1	(91) 40.1	(65) 29.8	(52) 11.7	(30) 13.2	(22) 10.1	445

Domain/state	Prevalence of stunting (<-2 z-score) (95% CI)			Prevalence of moderate stunting (<-2 z-score and >=-3 z-score) (95% CI)			Prevalence of severe stunting (<-3 z-score) (95% CI)			No. of children aged 0-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
	(41.1, 52.4)	(46.3, 60.1)	(32.9, 47.3)	(31.2, 39.1)	(35.0, 45.4)	(24.8, 35.4)	(8.3, 16.2)	(8.9, 19.2)	(6.1, 16.2)	
Southern Katsina 2	(238) 39.3	(139) 45.0	(99) 33.3	(183) 30.2	(104) 33.7	(79) 26.6	(55) 9.1	(35) 11.3	(20) 6.7	606
	(33.3, 45.6)	(37.1, 53.1)	(26.4, 41.1)	(25.9, 34.9)	(27.3, 40.7)	(21.2, 32.8)	(6.2, 13.1)	(7.8, 16.2)	(3.9, 11.5)	
Southern Katsina 3	(214) 41.6	(110) 45.6	(104) 38.1	(153) 29.8	(73) 30.3	(80) 29.3	(61) 11.9	(37) 15.4	(24) 8.8	514
	(36.1, 47.4)	(37.9, 53.6)	(31.9, 44.7)	(25.3, 34.7)	(24.0, 37.4)	(23.8, 35.4)	(8.3, 16.6)	(9.9, 23.1)	(5.8, 13.1)	
Zamfara state	(616) 42.6	(314) 44.0	(302) 41.4	(375) 25.4	(188) 25.9	(187) 24.9	(241) 17.2	(126) 18.0	(115) 16.5	1,383
	(37.9, 47.5)	(38.3, 49.8)	(35.5, 47.5)	(22.5, 28.5)	(21.5, 30.9)	(21.3, 28.8)	(14.1, 20.9)	(14.6, 22.1)	(12.5, 21.5)	
Central Zamfara	(177) 40.6	(84) 42.6	(93) 38.9	(103) 23.6	(49) 24.9	(54) 22.6	(74) 17.0	(35) 17.8	(39) 16.3	436
	(33.6, 48.0)	(34.1, 51.6)	(30.7, 47.8)	(19.6, 28.2)	(18.3, 32.9)	(17.8, 28.2)	(12.5, 22.7)	(12.8, 24.1)	(10.8, 23.9)	
Western Zamfara	(187) 46.2	(95) 46.3	(92) 46.0	(111) 27.4	(51) 24.9	(60) 30.0	(76) 18.8	(44) 21.5	(32) 16.0	405
	(39.0, 53.5)	(36.3, 56.7)	(38.2, 54.0)	(22.6, 32.8)	(18.8, 32.1)	(24.2, 36.5)	(14.4, 24.1)	(15.8, 28.5)	(10.8, 23.0)	
Northern Zamfara	(252) 46.6	(135) 46.1	(117) 47.2	(161) 29.8	(88) 30.0	(73) 29.4	(91) 16.8	(47) 16.0	(44) 17.7	541
	(40.8, 52.5)	(38.7, 53.6)	(40.3, 54.1)	(25.4, 34.5)	(24.5, 36.2)	(23.9, 35.7)	(13.0, 21.6)	(11.6, 21.8)	(12.7, 24.2)	
Kebbi state	(449) 40.9	(234) 42.9	(215) 39.0	(269) 24.6	(137) 25.1	(132) 24.2	(180) 16.3	(97) 17.8	(83) 14.8	1,100
	(36.7, 45.3)	(37.5, 48.4)	(34.3, 43.9)	(21.8, 27.7)	(21.2, 29.4)	(20.6, 28.1)	(13.7, 19.3)	(14.2, 22.1)	(11.6, 18.8)	
Central Kebbi 1	(133) 38.1	(69) 37.7	(64) 38.6	(74) 21.2	(39) 21.3	(35) 21.1	(59) 16.9	(30) 16.4	(29) 17.5	349
	(31.9, 44.7)	(30.1, 46.0)	(30.0, 47.9)	(16.5, 26.8)	(14.7, 29.9)	(16.3, 26.8)	(12.3, 22.8)	(10.6, 24.5)	(11.7, 25.3)	
Central Kebbi 2	(161) 42.1	(86) 44.8	(75) 39.5	(100) 26.2	(50) 26.0	(50) 26.3	(61) 16.0	(36) 18.8	(25) 13.2	382
	(34.7, 49.9)	(35.0, 55.0)	(31.9, 47.6)	(21.7, 31.2)	(20.5, 32.5)	(19.9, 34.0)	(11.9, 21.2)	(12.7, 26.8)	(8.4, 20.1)	
Southern Kebbi	(155) 42.0	(79) 45.7	(76) 38.8	(95) 25.7	(48) 27.7	(47) 24.0	(60) 16.3	(31) 17.9	(29) 14.8	369
	(34.3, 50.1)	(36.3, 55.3)	(30.4, 47.9)	(20.2, 32.2)	(19.8, 37.4)	(18.4, 30.6)	(11.9, 21.9)	(12.5, 25.1)	(9.2, 23.0)	
Jigawa state	(1,193) 34.5	(620) 36.0	(573) 33.0	(713) 20.6	(359) 20.8	(354) 20.4	(480) 13.9	(261) 15.1	(219) 12.6	3,602
	(31.9, 37.2)	(32.9, 39.2)	(30.1, 36.0)	(18.9, 22.4)	(18.7, 23.2)	(18.2, 22.8)	(12.3, 15.5)	(13.2, 17.3)	(10.9, 14.5)	
Jigawa South	(332) 49.3	(170) 52.6	(162) 46.3	(175) 26.0	(86) 26.6	(89) 25.4	(157) 23.3	(84) 26.0	(73) 20.9	673

Domain/state	Prevalence of stunting (<-2 z-score) (95% CI)			Prevalence of moderate stunting (<-2 z-score and >=-3 z-score) (95% CI)			Prevalence of severe stunting (<-3 z-score) (95% CI)			No. of children aged 0-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
	(44.1, 54.6)	(46.4, 58.7)	(39.9, 52.8)	(22.8, 29.4)	(22.2, 31.5)	(21.3, 30.1)	(19.7, 27.3)	(21.0, 31.7)	(16.6, 25.9)	
Jigawa Central	(218) 29.3	(118) 30.3	(100) 28.2	(151) 20.3	(82) 21.0	(69) 19.5	(67) 9.0	(36) 9.2	(31) 8.8	744
	(24.1, 35.1)	(24.0, 37.3)	(22.3, 35.0)	(16.3, 25.0)	(16.2, 26.8)	(14.0, 26.4)	(6.4, 12.5)	(6.1, 13.8)	(5.9, 12.8)	
Jigawa East	(166) 20	(84) 20.5	(82) 19.6	(104) 12.6	(45) 11.0	(59) 14.1	(62) 7.5	(39) 9.5	(23) 5.5	828
	(15.7, 25.3)	(15.3, 26.9)	(15.0, 25.1)	(9.8, 16.0)	(7.8, 15.2)	(10.6, 18.5)	(5.1, 10.9)	(6.2, 14.5)	(3.5, 8.4)	
Jigawa North	(294) 45.5	(148) 44.6	(146) 46.5	(171) 26.5	(88) 26.5	(83) 26.4	(123) 19.0	(60) 18.1	(63) 20.1	646
	(38.5, 52.8)	(36.8, 52.6)	(38.6, 54.6)	(22.7, 30.6)	(21.3, 32.4)	(21.5, 32.1)	(14.8, 24.2)	(13.6, 23.6)	(15.1, 26.1)	
Jigawa West	(194) 26.9	(104) 30.1	(90) 24.0	(112) 15.6	(58) 16.8	(54) 14.4	(82) 11.4	(46) 13.3	(36) 9.6	720
	(20.4, 34.7)	(22.1, 39.6)	(17.7, 31.6)	(11.8, 20.3)	(12.0, 23.1)	(10.5, 19.4)	(7.9, 16.1)	(8.8, 19.7)	(6.3, 14.4)	

4.7 Prevalence of underweight, based on weight-for-age z-scores

Among children aged 0-59 months, the prevalence of underweight, defined as a weight-for-age z-score (WAZ) <-2, is 23.8 per cent in Jigawa, 25.8 per cent in Katsina, 26.7 per cent in Zamfara, 29.8 per cent in Sokoto and 30.9 per cent in Kebbi. According to WHO public health significance thresholds for underweight,[11] all five states fall within the high category of prevalence (20 to <30 per cent), with Kebbi exceeding the upper threshold, indicating a substantial public health concern related to chronic food insecurity and suboptimal child feeding practices.

[11] World Health Organization, *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*, WHO, Geneva, 2006.

Underweight is defined as WAZ <-2 standard deviations; severe underweight as WAZ <-3.

Table 18. Prevalence of underweight, by WAZ, by severity and sex among children aged 0-59 months (SMART exclusions)

Domain/state	Prevalence of underweight (<-2 z-score) (95% CI)			Prevalence of moderate underweight (<-2 z-score and >=-3 z-score) (95% CI)			Prevalence of severe underweight (<-3 z-score) (95% CI)			No. of children aged 0-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
Sokoto state	(774) 29.8 (27.6, 32.2)	(421) 31.6 (28.6, 34.7)	(353) 28.1 (25.2, 31.2)	(535) 20.9 (19.1, 22.8)	(285) 21.9 (19.4, 24.7)	(250) 19.8 (17.3, 22.5)	(239) 9.0 (7.8, 10.3)	(136) 9.6 (7.9, 11.6)	(103) 8.4 (6.8, 10.3)	2,478
Central Sokoto 1	(153) 30.4 (26.8, 34.1)	(70) 28.7 (23.7, 34.2)	(83) 31.9 (26.2, 38.2)	(106) 21.0 (17.7, 24.8)	(49) 20.1 (15.5, 25.6)	(57) 21.9 (16.8, 28.0)	(47) 9.3 (7.1, 12.1)	(21) 8.6 (5.6, 13.0)	(26) 10 (7.0, 14.1)	504
Central Sokoto 2	(142) 31.6 (26.3, 37.3)	(86) 36.1 (30.2, 42.5)	(56) 26.4 (20.1, 33.9)	(97) 21.6 (17.4, 26.5)	(56) 23.5 (18.3, 29.7)	(41) 19.3 (13.8, 26.4)	(45) 10.0 (7.0, 14.1)	(30) 12.6 (8.7, 18.0)	(15) 7.1 (4.1, 12.0)	450
Eastern Sokoto 1	(225) 37.9 (34.0, 42.0)	(125) 39.1 (33.9, 44.5)	(100) 36.6 (31.0, 42.7)	(149) 25.1 (21.5, 29.1)	(77) 24.1 (19.3, 29.5)	(72) 26.4 (21.1, 32.4)	(76) 12.8 (10.3, 15.9)	(48) 15.0 (11.3, 19.7)	(28) 10.3 (7.0, 14.7)	593
Eastern Sokoto 2	(101) 25.4 (20.4, 31.1)	(57) 27.4 (20.5, 35.6)	(44) 23.2 (17.2, 30.5)	(73) 18.3 (14.9, 22.4)	(42) 20.2 (15.0, 26.6)	(31) 16.3 (11.2, 23.1)	(28) 7.0 (4.8, 10.3)	(15) 7.2 (4.2, 12.2)	(26) 10 (7.0, 14.1)	398
Southern Sokoto	(152) 28.6 (23.3, 34.7)	(82) 32.5 (25.5, 40.4)	(70) 25.1 (19.3, 32.0)	(110) 20.7 (16.5, 25.7)	(61) 24.2 (18.2, 31.4)	(49) 17.6 (13.2, 23.0)	(42) 7.9 (5.8, 10.7)	(21) 8.3 (5.2, 13.2)	(21) 7.5 (4.7, 11.7)	531
Katsina state	(966) 25.8 (23.6, 28.1)	(488) 26.6 (23.9, 29.4)	(478) 25.0 (22.5, 27.7)	(698) 18.5 (16.9, 20.2)	(345) 18.7 (16.7, 20.8)	(353) 18.3 (16.3, 20.6)	(268) 7.3 (6.2, 8.5)	(143) 7.9 (6.5, 9.6)	(125) 6.7 (5.4, 8.1)	3,800
Central Katsina 1	(70) 20.1 (13.8, 28.3)	(35) 21.6 (13.7, 32.3)	(35) 18.8 (12.3, 27.6)	(52) 14.9 (10.8, 20.4)	(27) 16.7 (10.6, 25.2)	(25) 13.4 (9.1, 19.4)	(18) 5.2 (2.6, 10.0)	(8) 4.9 (2.3, 10.3)	(10) 5.4 (2.1, 12.9)	348
Central Katsina 2	(115) 23.5 (17.4, 30.9)	(49) 22.2 (15.1, 31.4)	(66) 24.5 (17.7, 32.9)	(84) 17.1 (12.6, 22.8)	(31 14.0 (9.0, 21.2)	(53) 19.7 (14.1, 26.8)	(31) 6.3 (4.2, 9.4)	(18) 8.1 (4.7, 13.7)	(13) 4.8 (2.9, 8.0)	490
Northern Katsina 1	(183) 36.7 (31.0, 42.9)	(100) 39.5 (33.1, 46.4)	(83) 33.9 (26.7, 41.8)	(116) 23.3 (20.0, 27.0)	(64) 25.3 (19.4, 32.2)	(52) 21.2 (16.1, 27.5)	(67) 13.5 (9.6, 18.5)	(36) 14.2 (9.2, 21.3)	(31) 12.7 (8.5, 18.4)	498
Northern Katsina 2	(192) 27.3 (20.4, 35.6)	(100) 27.4 (19.8, 36.5)	(92) 27.2 (20.0, 35.8)	(129) 18.3 (13.9, 23.8)	(64) 17.5 (12.7, 23.7)	(65) 19.2 (14.1, 25.7)	(63) 9.0 (5.9, 13.4)	(36) 9.9 (6.0, 15.7)	(27) 8.0 (4.9, 12.8)	703
Southern Katsina 1	(114) 25.3	(57) 24.8	(57) 25.9	(92) 20.4	(48) 20.9	(44) 20.0	(22) 4.9	(9) 3.9	(13) 5.9	450

Domain/state	Prevalence of underweight (<-2 z-score) (95% CI)			Prevalence of moderate underweight (<-2 z-score and >=-3 z-score) (95% CI)			Prevalence of severe underweight (<-3 z-score) (95% CI)			No. of children aged 0-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
	(20.9, 30.4)	(19.2, 31.4)	(19.2, 34.0)	(16.7, 24.7)	(16.4, 26.2)	(14.0, 27.7)	(3.3, 7.2)	(2.0, 7.4)	(3.5, 9.8)	
Southern Katsina 2	(102) 16.7	(54) 17.4	(48) 16.1	(86) 14.1	(46) 14.8	(40) 13.4	(16) 2.6	(8) 2.6	(8) 2.7	609
	(12.8, 21.6)	(12.9, 23.1)	(11.5, 21.9)	(10.3, 19.0)	(10.5, 20.5)	(9.0, 19.4)	(1.5, 4.5)	(1.2, 5.5)	(1.3, 5.6)	
Southern Katsina 3	(101) 19.5	(50) 20.7	(51) 18.5	(74) 14.3	(38) 15.7	(36) 13.1	(27) 5.2	(12) 5.0	(15) 5.5	517
	(14.6, 25.7)	(14.3, 28.9)	(13.4, 25.1)	(10.9, 18.5)	(10.9, 22.1)	(9.7, 17.4)	(3.2, 8.5)	(2.6, 9.1)	(2.8, 10.5)	
Zamfara state	(381) 26.7	(190) 25.9	(191) 27.5	(260) 18.2	(123) 16.7	(137) 19.6	(121) 8.5	(67) 9.1	(54) 7.8	1,409
	(23.2, 30.5)	(22.4, 29.7)	(22.7, 32.9)	(16.1, 20.6)	(14.0, 19.9)	(16.3, 23.5)	(6.5, 11.0)	(6.7, 12.3)	(5.4, 11.2)	
Central Zamfara	(118) 26.5	(51) 25.0	(67) 27.7	(81) 18.2	(33) 16.2	(48) 19.8	(37) 8.3	(18) 8.8	(19) 7.9	446
	(21.5, 32.1)	(19.9, 30.9)	(20.9, 35.6)	(15.1, 21.6)	(12.3, 21.0)	(15.3, 25.3)	(5.5, 12.2)	(5.4, 14.1)	(4.7, 12.9)	
Western Zamfara	(104) 25.3	(59) 28.0	(45) 22.5	(66) 16.1	(38) 18.0	(28) 14.0	(38) 9.2	(21) 10.0	(17) 8.5	411
	(20.7, 30.6)	(22.3, 34.4)	(17.3, 28.8)	(12.5, 20.4)	(13.3, 23.9)	(9.6, 20.0)	(6.3, 13.3)	(6.8, 14.3)	(5.0, 14.1)	
Northern Zamfara	(159) 28.8	(80) 26.7	(79) 31.3	(113) 20.5	(52) 17.3	(61) 24.2	(46) 8.3	(28) 9.3	(18) 7.1	552
	(23.9, 34.2)	(21.6, 32.4)	(24.6, 38.9)	(16.5, 25.0)	(12.8, 23.1)	(18.7, 30.7)	(5.7, 12.0)	(5.9, 14.6)	(4.1, 12.1)	
Kebbi state	(347) 30.9	(181) 32.3	(166) 29.4	(252) 22.3	(122) 21.7	(130) 22.9	(95) 8.6	(59) 10.6	(36) 6.5	1,131
	(27.3, 34.7)	(27.8, 37.2)	(25.2, 34.1)	(19.6, 25.3)	(18.4, 25.4)	(19.3, 27.0)	(6.8, 10.8)	(8.0, 13.9)	(4.4, 9.3)	
Central Kebbi 1	(114) 31.0	(58) 29.6	(56) 32.6	(85) 23.1	(43) 21.9	(42) 24.4	(29) 7.9	(15) 7.7	(14) 8.1	368
	(25.5, 37.0)	(22.3, 38.1)	(24.9, 41.2)	(18.8, 28.0)	(15.7, 29.7)	(18.2, 32.0)	(5.4, 11.4)	(4.6, 12.6)	(4.5, 14.1)	
Central Kebbi 2	(126) 32.1	(71) 36.0	(55) 28.2	(88) 22.4	(46) 23.4	(42) 21.5	(38) 9.7	(25) 12.7	(13) 6.7	392
	(26.0, 39.0)	(27.8, 45.2)	(21.9, 35.5)	(17.8, 27.9)	(18.0, 29.7)	(16.2, 28.1)	(6.5, 14.2)	(8.0, 19.5)	(3.4, 12.8)	
Southern Kebbi	(107) 28.8	(52) 29.5	(55) 28.2	(79) 21.3	(33) 18.8	(46) 23.6	(28) 7.5	(19) 10.8	(9) 4.6	371
	(22.5, 36.1)	(23.2, 36.8)	(20.0, 38.2)	(16.7, 26.7)	(14.3, 24.2)	(16.7, 32.2)	(5.0, 11.3)	(6.7, 17.0)	(2.3, 8.9)	
Jigawa state	(840) 23.8	(460) 26.0	(380) 21.5	(603) 17.0	(335) 18.6	(268) 15.3	(237) 6.8	(125) 7.3	(112) 6.2	3,694
	(21.4, 26.2)	(23.2, 29.0)	(19.1, 24.2)	(15.2, 19.0)	(16.5, 21.0)	(13.3, 17.6)	(5.7, 8.1)	(5.9, 9.1)	(5.0, 7.8)	
Jigawa South	(239) 34.3	(124) 36.6	(115) 32.2	(162) 23.3	(80) 23.6	(82) 23.0	(77) 11.1	(44) 13.0	(33) 9.2	696

Domain/state	Prevalence of underweight (<-2 z-score) (95% CI)			Prevalence of moderate underweight (<-2 z-score and >=-3 z-score) (95% CI)			Prevalence of severe underweight (<-3 z-score) (95% CI)			No. of children aged 0-59 months
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	
	(29.1, 40.0)	(30.1, 43.5)	(26.7, 38.3)	(19.4, 27.6)	(19.1, 28.7)	(18.3, 28.4)	(7.7, 15.6)	(8.6, 19.0)	(5.9, 14.1)	
Jigawa Central	(151) 19.6	(90) 22.4	(61) 16.6	(110) 14.3	(64) 15.9	(46) 12.5	(41) 5.3	(26) 6.5	(15) 4.1	769
	(15.6, 24.4)	(17.2, 28.5)	(12.7, 21.5)	(10.6, 19.0)	(11.5, 21.7)	(8.9, 17.4)	(3.8, 7.5)	(4.3, 9.7)	(2.5, 6.7)	
Jigawa East	(121) 14.6	(73) 17.9	(48) 11.5	(96) 11.6	(60) 14.7	(36) 8.6	(25) 3.0	(13) 3.2	(12) 2.9	826
	(10.8, 19.6)	(13.2, 23.8)	(7.8, 16.6)	(8.5, 15.7)	(10.8, 19.7)	(5.5, 13.1)	(1.9, 4.8)	(1.9, 5.4)	(1.5, 5.4)	
Jigawa North	(206) 30.9	(112) 32.8	(94) 28.9	(149) 22.4	(87) 25.5	(62) 19.1	(57) 8.6	(25) 7.3	(32) 9.8	666
	(24.1, 38.7)	(24.8, 42.0)	(21.8, 37.2)	(17.8, 27.7)	(19.5, 32.7)	(14.1, 25.3)	(5.7, 12.7)	(4.3, 12.3)	(6.6, 14.5)	
Jigawa West	(119) 16.3	(59) 16.9	(60) 15.8	(86) 11.8	(44) 12.6	(42) 11.0	(33) 4.5	(15) 4.3	(18) 4.7	730
	(11.3, 23.0)	(11.7, 23.7)	(10.3, 23.5)	(8.1, 16.8)	(8.3, 18.6)	(7.0, 17.0)	(2.9, 7.0)	(2.7, 6.7)	(2.5, 8.9)	

4.8 Mortality results

The mortality assessment indicates that both crude and under-five mortality rates remain below emergency thresholds across all surveyed states.

The crude mortality rate (CMR) ranges from 0.22 deaths/10,000 persons/day in Sokoto to 0.39 deaths/10,000 persons/day in Zamfara. All values are well below the WHO emergency threshold of 1 death/10,000 persons/day, suggesting no acute excess mortality at the time of the survey.

The under-five mortality rate (U5MR) ranges from 0.61 deaths/10,000 children under 5 years/day in Katsina to 0.86 in Jigawa, also below the emergency threshold, which is 2 deaths/10,000 children under 5 years/day. The highest U5MRs were observed in Jigawa (0.86) and Kebbi (0.85), while Sokoto (0.62) and Katsina (0.61) recorded the lowest rates.

Table 19. Mortality rate by age and sex with reported design effect

State/domain	Crude mortality rate (total deaths/10,000 persons/day)		Under-five mortality rate (deaths/10,000 children under 5 years/day)		Total population surveyed	Number of households
	Rate (95% CI)	Design effect	Rate (95% CI)	Design effect		
Sokoto state	0.22 (0.15, 0.32)	1.23	0.62 (0.36, 1.07)	1.32	14,066	2,642
Central Sokoto 1	0.26 (0.12, 0.54)	1.26	0.34 (0.16, 0.73)	1.00	3,241	621
Central Sokoto 2	0.23 (0.11, 0.48)	1.00	0.63 (0.21, 1.84)	1.00	2,457	460
Eastern Sokoto 1	0.55 (0.35, 0.87)	1.06	1.46 (0.77, 2.74)	1.01	3,148	616
Eastern Sokoto 2	0.12 (0.03, 0.48)	1.65	0.45 (0.07, 2.73)	2.03	2,244	414
Southern Sokoto	0.08 (0.03, 0.25)	1.00	0.50 (0.17, 1.49)	1.00	2,976	532
Katsina state	0.31 (0.24, 0.40)	1.31	0.61 (0.40, 0.91)	1.38	18,282	3,231
Central Katsina 1	0.31 (0.16, 0.60)	1.33	0.56 (0.17, 1.81)	1.47	2,928	453
Central Katsina 2	0.41 (0.25, 0.69)	1.00	0.62 (0.19, 1.99)	1.47	2,528	442
Northern Katsina 1	0.56 (0.35, 0.88)	1.05	1.74 (0.94, 3.17)	1.06	2,601	437
Northern Katsina 2	0.23 (0.11, 0.49)	1.46	0.32 (0.08, 1.24)	1.62	3,100	572

State/domain	Crude mortality rate (total deaths/10,000 persons/day)		Under-five mortality rate (deaths/10,000 children under 5 years/day)		Total population surveyed	Number of households
	Rate (95% CI)	Design effect	Rate (95% CI)	Design effect		
Southern Katsina 1	0.16	1.58	0.31	1.00	2,458	422
	(0.06, 0.45)		(0.08, 1.18)			
Southern Katsina 2	0.34	1.00	0.35	1.00	17	2,582
	(0.19, 0.59)		(0.12, 0.99)			
Southern Katsina 3	0.32	4.54	0.79	4.07	2,460	440
	(0.10, 1.03)		(0.15, 3.59)			
Zamfara state	0.39	1.93	0.67	1.93	7,460	1,456
	(0.24, 0.63)		(0.31, 1.58)			
Central Zamfara	0.36	1.57	0.63	1.63	2,555	494
	(0.17, 0.79)		(0.15, 2.51)			
Western Zamfara	0.57	1.19	1.08	1.00	2,122	405
	(0.32, 1.03)		(0.47, 2.45)			
Northern Zamfara	0.34	1.00	0.64	1.00	2,782	557
	(0.20, 0.58)		(0.25, 1.63)			
Kebbi state	0.25	1.00	0.85	1.00	6,119	1,148
	(0.16, 0.39)		(0.46, 1.56)			
Central Kebbi 1	0.24	1.00	0.59	1.00	2,022	409
	(0.10, 0.56)		(0.15, 2.17)			
Central Kebbi 2	0.19	1.00	0.72	1.00	1,964	383
	(0.07, 0.49)		(0.24, 2.13)			
Southern Kebbi	0.34	1.00	1.31	1.00	2,130	370
	(0.19, 0.64)		(0.56, 3.01)			
Jigawa state	0.29	1.24	0.86	1.40	16,271	2,802
	(0.21, 0.40)		(0.57, 1.30)			

State/domain	Crude mortality rate (total deaths/10,000 persons/day)		Under-five mortality rate (deaths/10,000 children under 5 years/day)		Total population surveyed	Number of households
	Rate (95% CI)	Design effect	Rate (95% CI)	Design effect		
Jigawa South	0.33	1.45	1.25	1.56	3,116	561
	(0.15, 0.69)		(0.52, 2.98)			
Jigawa Central	0.27	1.00	0.54	1.00	3,431	559
	(0.15, 0.49)		(0.21, 1.40)			
Jigawa East	0.15	1.00	0.36	1.00	3,204	561
	(0.07, 0.34)		(0.12, 1.04)			
Jigawa North	0.41	1.41	1.48	1.64	3,350	562
	(0.22, 0.76)		(0.65, 3.27)			
Jigawa West	0.36	1.22	0.99	1.10	3,177	559
	(0.20, 0.66)		(0.47, 2.06)			

4.9 Other indicator results

4.9.1 Indicators at the household level

4.9.1.1 WASH

Access to safe/improved water for drinking and cooking

Access to safe and improved water sources for drinking and cooking is crucial not only for public health but also for nutrition outcomes, as safe water plays a vital role in food safety, proper hygiene and overall health.[12] Access to improved water sources varies substantially across the five surveyed states. Overall, the proportion of households using improved sources ranges from 40.3 per cent in Sokoto to 83.6 per cent in Zamfara, indicating notable disparities in water infrastructure coverage.

[12] World Health Organization and United Nations Children's Fund, *Progress on Household Drinking Water, Sanitation and Hygiene 2000–2020: Five years into the SDGs*, WHO and UNICEF, Geneva, 2021.

The most common improved sources are handpumps or boreholes, and protected wells. The most common improved drinking water sources, measured as the proportion of households reporting use of each source, are handpumps or boreholes, and protected wells. Boreholes are the predominant improved source in Jigawa (72.1 per cent of households), Zamfara (41.1 per cent) and Katsina (39.4 per cent), while protected wells are more commonly used in Kebbi (42.0 per cent) and Sokoto (13.1 per cent). Use of public taps or standpipes remains relatively low, ranging from 7.4 per cent of households in Sokoto to 12.1 per cent in Katsina, reflecting limited access to piped water systems in predominantly rural areas.

Table 20. Water sources

State/ domain	Improved water source (% HHs, 95% CI)	Types of protected/treated source								Unprotected/untreated sources				No. of HHs
		Public tap or standpipe (% HHs, 95% CI)	Handpump or borehole (% HHs, 95% CI)	Protected well (% HHs, 95% CI)	Water seller/kiosk (% HHs, 95% CI)	Piped connection to house (or neighbour's house) (% HHs, 95% CI)	Protected spring (% HHs, 95% CI)	Bottled water, water sachets (% HHs, 95% CI)	Tanker trucks (% HHs, 95% CI)	Unprotected hand-dug well (% HHs, 95% CI)	Surface water (lake, pond, dam, river) (% HHs, 95% CI)	Unprotected spring (% HHs, 95% CI)	Rain water collection % HHs, 95% CI)	
Sokoto state	(1,066) 40.3	(195) 7.4	(493) 18.7	(346) 13.1	(14) 0.5	(4) 0.2	(0) 0.0	(0) 0.0	(14) 0.5	(1,577) 59.7	(4.0) 0.1	(20) 0.8-	(73) 2.8	2,643
	(34.8, 46.2)	(5.0, 10.8)	(14.8, 23.2)	(9.7, 17.5)	(0.2, 1.4)	(0, 0.5)	(0, 0)	(0, 0)	(0.1, 2.0)	(54, 65.2)	(0.1, 0.4)	(0.3, 1.7)	(1.4, 5.4)	
Central Sokoto 1	(408) 65.7	(98) 15.8	(181) 29.1	(104) 16.7	(12) 1.9	(2) 0.3	(0) 0	(0) 0	(11) 1.8	(200) 32.2	(1) 0.2	(6) 1.0	(6) 1.0	621
	(53.1, 76.5)	(9.1, 26.0)	(20.2, 40.0)	(10.5, 25.7)	(0.7, 5.0)	(0.0, 2.4)	(0, 0)	(0, 0)	(0.4, 7.7)	(21.7, 44.8)	(0.0, 1.2)	(0.3, 2.7)	(0.3, 2.7)	
Central Sokoto 2	(145) 31.5	(7) 1.5	(88) 19.1	(47) 10.2	(0) 0	(2) 0.4	(0) 0	(0) 0	(1) 0.2	(289) 62.8	(1) 0.2	(2) 0.4	(23) 5.0	480
	(20.2, 45.6)	(0.3, 6.5)	(10.4, 32.5)	(4.2, 22.9)	(0, 0)	(0.1, 1.8)	(0, 0)	(0, 0)	(0.0, 1.6)	(47.8, 75.7)	(0.0, 1.6)	(0.1, 1.8)	(1.7, 13.6)	
Eastern Sokoto 1	(350) 56.8	(49) 8.0	(202 32.8	(97) 15.7	(0) 0	(1) 0.2	(0) 0	(0) 0	(1) 0.2	(264) 42.9	(1) 0.2	(0) 0	(1) 0.2	616

State/ domain	Improved water source (% HHs, 95% CI)	Types of protected/treated source								Unprotected/untreated sources				No. of HHs
		Public tap or standpipe (% HHs, 95% CI)	Handpump or borehole (% HHs, 95% CI)	Protected well (% HHs, 95% CI)	Water seller/kiosk (% HHs, 95% CI)	Piped connection to house (or neighbour's house) (% HHs, 95% CI)	Protected spring (% HHs, 95% CI)	Bottled water, water sachets (% HHs, 95% CI)	Tanker trucks (% HHs, 95% CI)	Unprotected hand-dug well (% HHs, 95% CI)	Surface water (lake, pond, dam, river) (% HHs, 95% CI)	Unprotected spring (% HHs, 95% CI)	Rain water collection % HHs, 95% CI)	
	(44.3, 68.5)	(3.3, 18.0)	(22.7, 44.8)	(8.9, 26.2)	(0, 0)	(0.0, 1.2)	(0, 0)	(0, 0)	(0.0, 1.2)	(31.2, 55.4)	(0.0, 1.2)	(0, 0)	(0.0, 1.2)	
Eastern Sokoto 2	(75) 18.1	(2) 0.5	(34) 8.2	(39) 9.4	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(306) 73.9	(1) 0.2	(3) 0.7	(29) 7.0	414
	(8.7, 34.1)	(0.1, 3.6)	(2.7, 22.2)	(3.3, 23.9)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(58.6, 85.0)	(0.0, 1.8)	(0.2, 2.2)	(2.5, 18.2)	
Southern Sokoto	(157) 29.5	(39) 7.3	(51) 9.6	(67) 12.6	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(365) 68.6	(0) 0	(6) 1.1	(4) 0.8	532
	(18.6, 43.3)	(3.0, 16.8)	(4.8, 18.3)	(6.4, 23.2)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(55.1, 79.5)	(0, 0)	(0.1, 8.0)	(0.1, 5.5)	
Katsina state	(2,250.8) 69.8	(390.6) 12.1	(1,272.0) 39.4	(412.6) 12.8	(117.4) 3.6	(29.6) 0.9	(5.7) 0.2	(3.2) 0.1	(19.7) 0.6	(796.5) 24.7	(107.6) 3.3	(51.1) 1.6	(20.2) 0.6	3,226
	(64.6, 74.5)	(9.4, 15.4)	(34.5, 44.6)	(10.0, 16.3)	(2.2, 5.9)	(0.4, 2.0)	(0.1, 0.4)	(0.0, 0.3)	(0.1, 3.4)	(20.3, 29.7)	(1.8, 6.0)	(0.6, 3.8)	(0.3, 1.3)	
Central Katsina 1	(361) 79.7	(96) 21.2	(196) 43.3	(21) 4.6	(33) 7.3	(3) 0.7	(0) 0.0	(0) 0.0	(12) 2.6	(62) 13.7	(2) 5.7	(2) 0.4	(0) 0.4	453
	(65.9, 88.8)	(13.1, 32.4)	(31.4, 56.0)	(2.0, 10.5)	(3.1, 16.0)	(0.2, 2.1)	(0, 0)	(0, 0)	(0.3, 17.8)	(6.3, 27.1)	(1.7, 18.1)	(0.1, 3.3)	(0.1, 1.8)	
Central Katsina 2	(345) 78.1	(118) 26.7	(127) 28.7	(94) 21.3	(0) 0.0	(0) 0.0	(4) 0.9	(1) 0.2	(1) 0.2	(50) 11.3	(7) 1.6	(25) 5.7	(15) 3.4	442
	(63.1, 88.1)	(15.8, 41.4)	(17.7, 43.0)	(12.2, 34.5)	(0, 0)	(0, 0)	(0.3, 3.0)	(0.0, 1.7)	(0.0, 1.7)	(5.1, 23.2)	(0.3, 8.7)	(1.6, 18.5)	(1.0, 10.4)	
Northern Katsina 1	(280) 64.1	(65) 14.9	(180) 541.2	(12) 2.7	(17) 3.9	(6) 1.4	(0) 0.0	(0) 0.0	(0) 0.0	(155) 35.5	(1) 0.2	(0) 0.0	(1) 0.2	437
	(48.3, 77.3)	(7.5, 27.5)	(28.6, 55.1)	(0.7, 10.6)	(1.1, 13.0)	(0.2, 7.4)	(0, 0)	(0, 0)	(0, 0)	(22.3, 51.2)	(0.0, 1.7)	(0, 0)	(0.0, 1.7)	

State/ domain	Improved water source (% HHs, 95% CI)	Types of protected/treated source								Unprotected/untreated sources				No. of HHs
		Public tap or standpipe (% HHs, 95% CI)	Handpump or borehole (% HHs, 95% CI)	Protected well (% HHs, 95% CI)	Water seller/kiosk (% HHs, 95% CI)	Piped connection to house (or neighbour's house) (% HHs, 95% CI)	Protected spring (% HHs, 95% CI)	Bottled water, water sachets (% HHs, 95% CI)	Tanker trucks (% HHs, 95% CI)	Unprotected hand-dug well (% HHs, 95% CI)	Surface water (lake, pond, dam, river) (% HHs, 95% CI)	Unprotected spring (% HHs, 95% CI)	Rain water collection % HHs, 95% CI)	
Northern Katsina 2	(354) 61.9	(62) 10.8	(155) 27.1	(130) 22.7	(7) 1.2	(0) 0.0	(0) 0.0	(0) 0.0	(0) 0.0	(177) 30.9	(27) 4.7	(13) 2.3	(1) 0.2	572
	(48.2, 73.9)	(5.4, 20.7)	(16.7, 40.8)	(13.5, 35.7)	(0.2, 6.7)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(20.0, 44.5)	(1.5, 13.8)	(0.3, 13.5)	(0.0, 1.3)	
Southern Katsina 1	(304) 72.0	(23) 5.5	(185) 43.8	(46) 10.9	(40) 9.5	(8) 1.9	(0) 0.0	(1) 0.2	(1) 0.2	(118) 28.0	(0, 0)	(0, 0)	(0, 0)	422
	(57.5, 83.0)	(2.3, 12.6)	(30.8, 57.8)	(5.3, 21.1)	(3.8, 21.9)	(0.3, 10.7)	(0, 0)	(0.0, 1.8)	(0.0, 1.8)	(17.0, 42.5)	(0) 0.0	(0) 0.0	(0) 0.0	
Southern Katsina 2	(297) 64.0	(25) 5.4	(156) 33.6	(97) 20.9	(3) 0.6	(10) 2.2	(3) 0.6	(2) 0.4	(1) 0.2	(165) 35.6	(1) 0.2	(1) 0.2	(0) 0.0	464
	(49.5, 76.3)	(1.8, 14.7)	(21.5, 48.3)	(12.3, 33.3)	(0.1, 2.8)	(0.3, 12.5)	(0.2, 2.0)	(0.1, 1.8)	(0.0, 1.6)	(23.3, 50.1)	(0.0, 1.6)	(0.0, 1.6)	(0, 0)	
Southern Katsina 3	(298) 67.7	(7) 1.6	(219) 49.8	(57) 13.0	(12) 2.7	(3) 0.7	(0) 0.0	(0) 0.0	(0) 0.0	(97) 22.0	(29) 6.6	(13) 3.0	(3) 0.7	440
	(53.4, 79.3)	(0.4, 5.7)	(35.9, 63.7)	(6.0, 25.9)	(0.6, 11.6)	(0.1, 5.0)	(0, 0)	(0, 0)	(0, 0)	(12.0, 37.0)	(2.5, 16.1)	(0.4, 17.4)	(0.2, 3.0)	
Zamfara state	(1,214) 83.6	(166) 11.4	(597) 41.1	(375) 25.8	(22) 1.5	(21) 1.5	(32) 2.2	(2) 0.1	(0) 0.0	(91) 6.2	(111) 7.6	(8) 0.5	(29) 2.0	1,452
	(76.3, 89.0)	(7.6, 16.9)	(34.7, 47.9)	(20.3, 32.2)	(0.8, 2.8)	(0.8, 2.8)	(0.9, 5.0)	(0.0, 0.3)	(0, 0)	(3.2, 11.7)	(4.2, 13.4)	(0.2, 1.7)	(0.9, 4.2)	
Central Zamfara	(414) 83.8	(52) 10.5	(189) 38.3	(152) 30.8	(7) 1.4	(9) 1.8	(5) 1.0	(0) 0.0	(0) 0.0	(80) 16.2	(40) 8.1	(28) 5.7	(11) 2.2	494
	(72.3, 91.1)	(5.7, 18.7)	(29.6, 47.7)	(23.0, 39.8)	(0.6, 3.5)	(0.4, 8.6)	(0.2, 5.2)	(0, 0)	(0, 0)	(8.9, 27.7)	(3.5, 17.5)	(2.0, 15.2)	(0.8, 6.1)	
Western Zamfara	(329) 81.2	(50) 12.3	(145) 35.8	(100) 24.7	(5) 1.2	(1) 0.2	(27) 6.7	(1) 0.2	(0) 0.0	(47) 11.6	(15) 3.7	(9) 2.2	(5) 1.2	405

State/ domain	Improved water source (% HHs, 95% CI)	Types of protected/treated source								Unprotected/untreated sources				No. of HHs
		Public tap or standpipe (% HHs, 95% CI)	Handpump or borehole (% HHs, 95% CI)	Protected well (% HHs, 95% CI)	Water seller/kiosk (% HHs, 95% CI)	Piped connection to house (or neighbour's house) (% HHs, 95% CI)	Protected spring (% HHs, 95% CI)	Bottled water, water sachets (% HHs, 95% CI)	Tanker trucks (% HHs, 95% CI)	Unprotected hand-dug well (% HHs, 95% CI)	Surface water (lake, pond, dam, river) (% HHs, 95% CI)	Unprotected spring (% HHs, 95% CI)	Rain water collection % HHs, 95% CI)	
	(67.5, 90.0)	(5.4, 25.9)	(23.4, 50.5)	(13.9, 39.9)	(0.2, 6.3)	(0.0, 1.9)	(1.9, 20.8)	(0.0, 1.9)	(0, 0)	(5.4, 23.1)	(0.7, 16.4)	(0.4, 10.4)	(0.3, 4.6)	
Northern Zamfara	(474) 85.1	(77) 13.8	(311) 55.8	(53) 9.5	(11) 2.0	(7) 1.3	(13) 2.3	(2) 0.4	(0) 0.0	(19) 3.4	(53) 9.5	(1) 0.2	(10) 1.8	557
	(74.9, 91.6)	(7.5, 24.2)	(43.5, 67.5)	(4.3, 19.7)	(0.9, 4.3)	(0.4, 4.2)	(0.4, 12.3)	(0.1, 1.5)	(0, 0)	(1.0, 11.3)	(4.5, 19.0)	(0.0, 1.3)	(0.6, 5.0)	
Kebbi state	(872) 74.9	(134) 11.5	(228) 19.6	(488) 42.0	(9) 0.8	(8) 0.6	(3) 0.2	(2) 0.2	(0) 0.0	(251) 21.6	(28) 2.4	(12) 1.0	(0) 0.0	1,163
	(65.8, 82.3)	(7.6, 17.1)	(13.9, 26.9)	(33.8, 50.6)	(0.3, 1.9)	(0.2, 1.9)	(0.1, 0.9)	(0.0, 0.8)	(0, 0)	(14.7, 30.4)	(0.8, 7.1)	(0.4, 2.8)	(0, 0)	
Central Kebbi 1	(359) 87.8	(86) 21.0	(126) 30.8	(128) 31.3	(10) 2.4	(9) 2.2	(0) 0.0	(0) 0.0	(0) 0.0	(48) 11.7	(0) 0.0	(1) 0.2	(0) 0.0	409
	(73.7, 94.8)	(11.9, 34.4)	(19.1, 45.6)	(19.8, 45.7)	(0.9, 6.2)	(0.7, 6.7)	(0, 0)	(0, 0)	(0, 0)	(4.8, 26.1)	(0, 0)	(0.0, 1.8)	(0, 0)	
Central Kebbi 2	(270) 70.5	(0) 0.0	(37) 9.7	(230) 60.1	(0) 0.0	(0) 0.0	(2) 0.5	(1) 0.3	(0) 0.0	(106) 27.7	(0) 0.0	(7) 1.8	(0) 0.0	383
	(52.8, 83.6)	(0, 0)	(3.4, 24.5)	(43.4, 74.6)	(0, 0)	(0, 0)	(0.1, 2.1)	(0.0, 2.0)	(0, 0)	(15.1, 45.1)	(0, 0)	(0.5, 6.6)	(0, 0)	
Southern Kebbi	(253) 68.4	(71) 19.2	(86) 23.2	(94) 25.4	(1) 0.3	(0) 0.0	(0) 0.0	(1) 0.3	(0) 0.0	(83) 22.4	(32) 8.6	(2) 0.5	(0) 0.0	370
	(51.7, 81.4)	(9.5, 35.0)	(12.9, 28.3)	(14.7, 40.2)	(0.0, 2.1)	(0, 0)	(0, 0)	(0.0, 2.1)	(0, 0)	(11.8, 38.4)	(2.7, 24.6)	(0.1, 4.1)	(0, 0)	
Jigawa state	(2,440.3) 87.0	(339.7) 12.1	(2,021.6) 72.1	(27.9) 1.0	(9.9) 0.4	(41.3) 1.5	(0) 0.0	(0) 0.0	(0) 0.0	(339.3) 12.1	(20.2) 0.7	(4.0) 0.1	(0) 0.0	2,804
	(82.8, 90.4)	(9.1, 16.0)	(67.0, 76.7)	(0.4, 2.4)	(0.2, 0.8)	(0.8, 2.6)	(0, 0)	(0, 0)	(0, 0)	(8.9, 16.3)	(0.2, 3.0)	(0.0, 0.4)	(0, 0)	

State/ domain	Improved water source (% HHs, 95% CI)	Types of protected/treated source								Unprotected/untreated sources				No. of HHs
		Public tap or standpipe (% HHs, 95% CI)	Handpump or borehole (% HHs, 95% CI)	Protected well (% HHs, 95% CI)	Water seller/kiosk (% HHs, 95% CI)	Piped connection to house (or neighbour's house) (% HHs, 95% CI)	Protected spring (% HHs, 95% CI)	Bottled water, water sachets (% HHs, 95% CI)	Tanker trucks (% HHs, 95% CI)	Unprotected hand-dug well (% HHs, 95% CI)	Surface water (lake, pond, dam, river) (% HHs, 95% CI)	Unprotected spring (% HHs, 95% CI)	Rain water collection % HHs, 95% CI)	
Jigawa South	(358) 63.7	(40) 7.1	(300) 53.4	(14) 2.5	(3) 0.5	(1) 0.2	(0) 0.0	(0) 0.0	(0) 0.0	(189) 33.6	(12) 2.1	(3) 0.5	(0) 0.0	562
	(50.0, 75.5)	(3.0, 16.0)	(40.1, 66.2)	(0.7, 8.4)	(0.1, 2.3)	(0.0, 1.3)	(0, 0)	(0, 0)	(0, 0)	(22.4, 47.1)	(0.3, 12.6)	(0.2, 1.7)	(0, 0)	
Jigawa Central	(549) 98.2	(33) 5.9	(507) 90.7	(5) 0.9	(1) 0.2	(3) 0.5	(0) 0.0	(0) 0.0	(0) 0.0	(10) 1.8	(0) 0.0	(0) 0.0	(0) 0.0	559
	(94.1, 99.5)	(2.2, 14.7)	(81.6, 95.5)	(0.2, 3.7)	(0.0, 1.3)	(0.1, 3.9)	(0, 0)	(0, 0)	(0, 0)	(0.5, 5.9)	(0, 0)	(0, 0)	(0, 0)	
Jigawa East	(562) 100.0	(81) 14.4	(465) 82.7	(0) 0.0	(1) 0.2	(15) 2.7	(0) 0.0	(0) 0.0	(0) 0.0	(0) 0.0	(0) 0.0	(0) 0.0	(0) 0.0	562
	(100, 100)	(7.3, 26.6)	(71.0, 90.4)	(0, 0)	(0.0, 1.3)	(1.2, 5.8)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	
Jigawa North	(523) 93.1	(102) 18.1	(416) 74.0	(3) 0.5	(1) 0.2	(1) 0.2	(0) 0.0	(0) 0.0	(0) 0.0	(36) 6.4	(3) 0.5	(0) 0.0	(0) 0.0	562
	(81.3, 97.6)	(10.3, 30.1)	(61.0, 83.9)	(0.2, 1.7)	(0.0, 1.3)	(0.0, 1.3)	(0, 0)	(0, 0)	(0, 0)	(2.1, 18.2)	(0.1, 2.3)	(0, 0)	(0, 0)	
Jigawa West	(487) 87.1	(130) 23.3	(323) 57.8	(1) 0.2	(4) 0.7	(29) 5.2	(0) 0.0	(0) 0.0	(0) 0.0	(69) 12.3	(3) 0.5	(0) 0.0	(0) 0.0	559
	(75.6, 93.7)	(13.9, 36.3)	(44.9, 69.7)	(0.0, 1.3)	(0.1, 3.4)	(2.0, 12.9)	(0, 0)	(0, 0)	(0, 0)	(5.9, 24.0)	(0.1, 3.9)	(0, 0)	(0, 0)	

Access to improved sanitation facilities

The indicator for coverage by an improved toilet facility measures the proportion of households with access to sanitation solutions that effectively prevent human waste from contaminating the environment. Safe excreta disposal plays a crucial role in protecting health and supporting nutritional well-being by preventing the spread of diseases that impair nutrient absorption.

Access to improved sanitation facilities varies considerably across the surveyed states. Zamfara recorded the highest proportion of households with improved sanitation (88.3 per cent), followed by Katsina (50.7 per cent), Kebbi (45.5 per cent) and Sokoto (38.3 per cent), while Jigawa (30.9 per cent) has the lowest coverage. The majority of these improved facilities are private or household-level improved disposal facilities, with coverage reaching between 28 per cent (Jigawa) and 60.2 per cent (Zamfara) of total households per state.

Table 21. Household excreta disposal facilities

State/domain	Proportion of HHs using improved sanitation facilities (95% CI)	Types of improved sanitation facilities			Total no. of HHs
		Improved disposal facilities (95% CI)	Shared family toilet (95% CI)	Communal toilet (95% CI)	
Sokoto state	(1,011) 38.3 (33.2, 43.6)	(911) 34.5 (29.8, 39.5)	(54) 2.0 (1.3, 3.1)	(47) 1.8 (1.2, 2.7)	2,643
Central Sokoto 1	(390) 62.8 (51.8, 72.6)	(368) 59.3 (48.7, 69.0)	(5) 0.8 (0.3, 1.9)	(17) 2.7 (1.3, 5.5)	621
Central Sokoto 2	(107) 23.3 (14.0, 36.1)	(80) 17.4 (9.8, 28.9)	(16) 3.5 (1.6, 7.3)	(11) 2.4 (1.0, 5.4)	460
Eastern Sokoto 1	(221) 35.9 (25.3, 48.1)	(201) 32.7 (22.8, 44.4)	(4) 0.7 (0.2, 2.2)	(16) 2.6 (1.0, 6.6)	615
Eastern Sokoto 2	(92) 22.2 (12.7, 36.0)	(78) 18.8 (10.6, 31.3)	(10) 2.4 (0.9, 6.1)	(4) 1.0 (0.4, 2.5)	414
Southern Sokoto	(187) 35.2 (24.6, 47.4)	(166) 31.2 (21.3, 43.2)	(17) 3.2 (1.5, 6.8)	(4) 64.8 (52.6, 75.4)	532
Katsina state	(1,635.4) 50.7 (45.7, 55.7)	(1,357.6) 42.1 (37.5, 46.8)	(169.9) 5.3 (4.2, 6.5)	(107.9) 3.3 (2.5, 4.4)	3,226
Central Katsina 1	(289) 53.9 (50.0, 75.9)	(260) 57.5 (44.5, 69.5)	(17) 3.8 (1.9, 7.3)	(12) 2.7 (1.3, 5.5)	452

State/domain	Proportion of HHs using improved sanitation facilities (95% CI)	Types of improved sanitation facilities			Total no. of HHs
		Improved disposal facilities (95% CI)	Shared family toilet (95% CI)	Communal toilet (95% CI)	
Central Katsina 2	(218) 49.3	(179) 40.5	(24) 5.4	(15) 3.4	442
	(35.4, 63.3)	(28.2, 54.2)	(2.8, 10.4)	(1.8, 6.3)	
Northern Katsina 1	(167) 38.2	(128) 29.3	(17) 3.9	(22) 5.0	437
	(26.0, 52.1)	(19.2, 42.0)	(1.6, 8.9)	(2.2, 11.3)	
Northern Katsina 2	(228) 39.9	(188) 32.9	(24) 4.2	(16) 2.8	572
	(28.4, 52.6)	(23.0, 44.6)	(2.2, 7.7)	(1.3, 6.0)	
Southern Katsina 1	(300) 71.1	(208) 49.3	(58) 13.7	(34) 8.1	422
	(60.1, 80.1)	(41.0, 57.7)	(9.1, 20.3)	(4.7, 13.4)	
Southern Katsina 2	(257) 55.4	(224) 48.3	(22) 4.7	(11) 2.4	464
	(42.2, 67.8)	(35.7, 61.0)	(2.7, 8.2)	(1.1, 4.9)	
Southern Katsina 3	(188) 42.7	(157) 35.7	(23) 5.2	(8) 1.8	440
	(30.5, 56.0)	(24.6, 48.5)	(3.2, 8.5)	(0.7, 4.4)	
Zamfara state	(1,282) 88.3	(873) 60.2	(184) 12.7	(224) 15.4	1,451
	(80.5, 93.3)	(52.7, 67.2)	(9.9, 16.2)	(11.7, 20.2)	
Central Zamfara	(443) 89.7	(311) 63.0	(60) 12.1	(72) 14.6	494
	(76.3, 95.9)	(51.5, 73.1)	(8.2, 17.7)	(9.4, 21.9)	
Western Zamfara	(334) 82.7	(219) 54.2	(47) 11.6	(68) 16.8	404
	(69.5, 90.9)	(43.6, 64.4)	(8.2, 16.3)	(11.1, 24.7)	
Northern Zamfara	(494) 88.7	(311) 55.8	(87) 15.6	(96) 17.2	557
	(78.2, 94.5)	(47.4, 64.0)	(11.5, 20.9)	(12.1, 24.0)	
Kebbi state	(655) 45.5	(529) 45.5	(44.0) 3.8	(82) 7.1	1,161
	(47.8, 64.7)	(37.5, 53.8)	(2.2, 6.4)	(4.4, 11.3)	
Central Kebbi 1	(253) 62.0	(213) 52.2	(9) 2.2	(31) 7.6	408
	(46.6, 75.3)	(37.4, 66.6)	(0.7, 6.4)	(3.8, 14.6)	

State/domain	Proportion of HHs using improved sanitation facilities (95% CI)	Types of improved sanitation facilities			Total no. of HHs
		Improved disposal facilities (95% CI)	Shared family toilet (95% CI)	Communal toilet (95% CI)	
Central Kebbi 2	(196) 51.3	(134) 35.1	(24) 6.3	(38) 9.9	382
	(37.2, 65.2)	(23.1, 49.3)	(3.1, 12.4)	(4.7, 19.9)	
Southern Kebbi	(216) 58.4	(202) 54.6	(6) 1.6	(8) 2.2	370
	(42.0, 73.1)	(38.9, 69.4)	(0.4, 6.5)	(0.8, 6.0)	
Jigawa state	(866.0) 30.9	(784.6) 28.0	(33.1) 1.2	(48.4) 1.7	2,802
	(26.0, 36.3)	(23.5, 33.0)	(0.7, 1.9)	(1.0, 3.0)	
Jigawa South	(162) 28.8	(151) 26.9	(7) 1.2	(4) 0.7	562
	(18.9, 41.2)	(17.4, 39.0)	(0.5, 3.4)	(0.2, 2.4)	
Jigawa Central	(172) 30.8	(144) 25.8	(7) 1.3	(21) 3.8	559
	(20.6, 43.2)	(17.1, 36.9)	(0.4, 3.7)	(1.6, 8.6)	
Jigawa East	(230) 40.9	(209) 37.2	(8) 1.4	(13) 2.3	562
	(29.5, 53.4)	(26.9, 48.8)	(0.6, 3.2)	(0.9, 5.8)	
Jigawa North	(104) 18.6	(101) 18.0	(3) 0.5	(0) 0.0	560
	(10.8, 30.0)	(10.4, 29.3)	(0.2, 1.7)	(0, 0)	
Jigawa West	(192) 34.3	(180) 32.2	(7) 1.3	(5) 0.9	559
	(23.7, 46.8)	(22.4, 43.9)	(0.4, 4.2)	(0.2, 3.7)	

Access to handwashing facilities

Access to handwashing facilities is a critical component of maintaining hygiene and preventing disease transmission. Access to handwashing facilities remains limited across the surveyed states, with wide disparities in both availability and completeness of facilities. The proportion of households with any handwashing facilities ranges from 2.0 per cent in Jigawa to 7.6 per cent in Sokoto, indicating generally low access to dedicated handwashing points.

Table 22. Access to a specific handwashing device, and types of handwashing device

State/domain	% of HHs with handwashing device (95% CI)	% of HHs with handwashing device with water (95% CI)	% of HHs with handwashing device with soap (95% CI)	% of HHs with handwashing device with water and soap (95% CI)	Types of handwashing device				Total no. of HHs
					Sink with tap water (95% CI)	Bucket with tap (95% CI)	Pouring device (95% CI)	Other (95% CI)	
Sokoto state	(202) 7.6 (4.6, 12.4)	(189) 92.7 (85.2, 96.6)	(12) 5.6 (2.0, 14.6)	(12) 5.6 (2.0, 14.6)	(10) 4.9 (1.5, 14.7)	(4) 1.7 (0.2, 13.2)	(186) 92.2 (79.6, 97.3)	(2) 1.2 (0.1, 9.3)	2,643
Central Sokoto 1	(11) 1.8 (0.6, 5.0)	(9) 69.2 (21.7, 94.8)	(8) 61.5 (19.0, 91.6)	(8) 61.5 (19.0, 91.6)	(8) 72.7 (12.9, 98.0)	(3) 27.3 (2.0, 87.1)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	11
Central Sokoto 2	(67) 14.6 (6.5, 29.7)	(58) 85.3 (65.3, 94.7)	(1) 1.5 (0.2, 11.8)	(1) 1.5 (0.2, 11.8)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	(67) 100.0 (100, 100)	(0) 0.0 (0, 0)	67
Eastern Sokoto 1	(1) 0.2 (0.01, 1.2)	- -	- -	- -	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	1
Eastern Sokoto 2	(60) 14.5 (5.9, 31.5)	(58) 96.7 (85.5, 99.3)	(1) 1.7 (0.1, 18.0)	(1) 1.7 (0.1, 18.0)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	(60) 100.0 (100, 100)	(0) 0.0 (0, 0)	60
Southern Sokoto	(44) 8.3 (3.1, 20.4)	(43) 97.7 (66.3, 99.9)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	(42) 95.5 (47.2, 99.8)	(2) 4.5 (0.2, 52.8)	44
Katsina state	(68.5) 2.1 (1.3, 3.4)	(52.5) 76.7 (53.3, 90.5)	(20.7) 30.3 (16.9, 48.2)	(20.0) 29.2 (16.0, 47.3)	(16.2) 23.7 (8.5, 51.1)	(13.9) 20.3 (8.8, 40.3)	(28.7) 41.9 (22.1, 64.7)	(9.7) 14.1 (5.2, 33.0)	3,226
Central Katsina 1	(22) 4.9 (2.2, 10.2)	(15) 68.2 (24.6, 93.4)	(4) 18.2 (6.3, 42.2)	(4) 18.2 (6.3, 42.2)	(6) 27.3 (3.4, 79.8)	(3) 13.6 (3.6, 40.3)	(13) 59.1 (18.5, 90.2)	(0) 0.0 (0, 0)	22
Central Katsina 2	(14) 3.2 (0.9, 10.5)	(13) 92.9 (59.9, 99.11)	(12) 85.7 (41.9, 98.0)	(12) 85.7 (41.9, 98.0)	(3) 21.4 (3.7, 66.1)	(10) 71.4 (25.7, 94.7)	(0) 0.0 (0, 0)	(1) 7.1 (0.2, 78.8)	14
Northern Katsina 1	(8) 1.8 (0.6, 5.4)	(4) 50.0 (12.0, 88.0)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	(2) 25.0 (2.0, 84.8)	(6) 75.0 (15.2, 98.0)	(8) 0.0 (0, 0)	8
Northern Katsina 2	(8) 1.4 (0.4, 4.4)	(7) 87.5 (13.0, 99.7)	(2) 25.0 (4.3, 71.2)	(1) 12.5 (1.6, 55.2)	(1) 12.5 (0.3, 87.0)	(0) 0.0 (0, 0)	(0) 0.0 (0, 0)	(7) 87.5 (13.0, 99.7)	8
Southern Katsina 1	(1) 0.2	(1) 100	(0) 0.0	(0) 0.0	(0) 0.0	(0) 0.0	(1) 100	(0) 0.0	1

State/domain	% of HHs with handwashing device (95% CI)	% of HHs with handwashing device with water (95% CI)	% of HHs with handwashing device with soap (95% CI)	% of HHs with handwashing device with water and soap (95% CI)	Types of handwashing device				Total no. of HHs
					Sink with tap water (95% CI)	Bucket with tap (95% CI)	Pouring device (95% CI)	Other (95% CI)	
	(0.0, 1.8)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(100, 100)	(0, 0)	
Southern Katsina 2	(12) 2.6	(12) 100.0	(5) 41.7	(5) 41.7	(5) 41.7	(0) 0.0	(3) 25.0	(4) 33.3	12
	(0.7, 8.8)	(100, 100)	(9.8, 82.4)	(9.8, 82.4)	(4.6, 91.3)	(0, 0)	(6.8, 60.4)	(1.3, 95.1)	
Southern Katsina 3	(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
	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	
Zamfara state	(88) 6.8	(73) 29.2	(47) 18.8	(43) 17.1	(25) 28.5	(11) 12.1	(33) 37.9	(19) 21.6	1,451
	(3.3, 13.5)	(13.3, 52.6)	(13.3, 52.6)	(7.7, 33.8)	(9.0, 61.6)	(5.5, 24.6)	(12.6, 72.1)	(7.5, 48.4)	
Central Zamfara	(41) 9.3	(34) 36.2	(21) 22.3	(19) 20.2	(12) 29.3	(4) 9.8	(15) 36.6	(10) 24.4	494
	(4.0, 20.0)	(13.4, 67.5)	(8.3, 47.7)	(7.3, 44.8)	(7.5, 68.0)	(2.9, 28.0)	(9.2, 76.7)	(7.3, 56.7)	
Western Zamfara	(4) 1.1	(4) 6.8	(1) 1.7	(1) 1.7	(3) 75.0	(1) 25.0	(0) 0.0	(0) 0.0	404
	(0.4, 3.0)	(1.5, 25.4)	(0.1, 17.3)	(0.1, 17.3)	(6.7, 99.2)	(0.8, 93.3)	(0, 0)	(0, 0)	
Northern Zamfara	(16) 3.2	(13) 16.9	(14) 18.2	(13) 16.9	(1) 6.3	(5) 31.3	(10) 62.5	(0) 0.0	557
	(1.3, 8.1)	(4.6, 46.1)	(4.9, 46.1)	(4.6, 46.1)	(0.4, 55.3)	(7.2, 72.7)	(22.3, 90.6)	(0, 0)	
Kebbi state	(35) 3.0	(29) 84.4	(17) 48.2	(17) 48.2	(8) 24.1	(20) 56.6	(4) 11.9	(3) 7.4	1,161
	(1.4, 6.2)	(65.3, 93.9)	(25.9, 71.2)	(25.9, 71.2)	(7.1, 56.7)	(18.2, 88.4)	(1.6, 28.7)	(1.6, 28.7)	
Central Kebbi 1	(32) 7.8	(27) 84.4	(16) 50.0	(16) 50.0	(8) 25.0	(18) 56.2	(5) 15.6	(1) 3.1	409
	(2.9, 19.4)	(57.2, 95.6)	(21.3, 78.7)	(21.3, 78.7)	(4.7, 69.2)	(9.2, 94.2)	(2.3, 58.9)	(0.2, 37.6)	
Central Kebbi 2	(3) 0.8	(2) 66.7	(0) 0.0	(0) 0.0	(0) 0.0	(3) 100	(0) 0.0	(0) 0.0	383
	(0.2, 3.5)	(0, 0)	(0, 0)	(0, 0)	(0, 0)	(100, 100)	(0, 0)	(0, 0)	
Southern Kebbi	(5) 1.4	(5) 100	(4) 80.0	(4) 80.0	(2) 40.0	(1) 20.0	(0) 0.0	(2) 40.0	370
	(0.5, 3.8)	(100, 100)	(8.3, 99.4)	(8.3, 99.4)	(1.6, 96.5)	(0.6, 91.7)	(0, 0)	(2.3, 94.9)	
Jigawa state	(57.0) 2.0	(28.2) 48.3	(13.8) 23.7	(13.8) 23.7	(21.8) 38.1	(4.1) 7.2	(16.8) 29.4	(14.4) 25.3	57
	(1.0, 4.0)	(20.4, 77.3)	(8.1, 52.3)	(8.1, 52.3)	(15.3, 67.8)	(2.1, 21.7)	(8.8, 64.4)	(3.5, 76.0)	
Jigawa South	(9) 1.6	(8) 80.0	(7) 70.0	(7) 70.0	(7) 77.8	(1) 11.1	(1) 11.1	(0) 0.0	562

State/domain	% of HHs with handwashing device (95% CI)	% of HHs with handwashing device with water (95% CI)	% of HHs with handwashing device with soap (95% CI)	% of HHs with handwashing device with water and soap (95% CI)	Types of handwashing device				Total no. of HHs
					Sink with tap water (95% CI)	Bucket with tap (95% CI)	Pouring device (95% CI)	Other (95% CI)	
	(0.6, 4.5)	(27.0, 97.7)	(12.6, 97.4)	(12.6, 97.4)	(19.0, 98.1)	(0.5, 76.4)	(0.5, 76.4)	(0, 0)	
Jigawa Central	(14) 2.5	(2) 14.3	(0) 0.0	(0) 0.0	(2) 14.3	(1) 7.1	(0) 0.0	(11) 78.6	559
	(0.5, 11.8)	(0.1, 95.7)	(0, 0)	(0, 0)	(0.1, 95.7)	(0.0, 94.7)	(0, 0)	(1.6, 99.9)	
Jigawa East	(3) 0.5	(2) 66.7	(1) 33.3	(1) 33.3	(2) 66.7	(0) 0.0	(1) 33.3	(0) 0.0	562
	(0.2, 1.7)	(1.0, 99.8)	(0.2, 99.0)	(0.2, 99.0)	(1.0, 99.8)	(0, 0)	(0.2, 99.0)	(0, 0)	
Jigawa North	(17) 3.0	(7) 41.2	(2) 11.8	(2) 11.8	(4) 23.5	(1) 5.9	(12) 70.6	(0) 0.0	560
	(0.7, 12.0)	(8.4, 84.2)	(0.8, 68.5)	(0.8, 68.5)	(2.0, 82.6)	(0.2, 62.0)	(12.2, 97.6)	(0, 0)	
Jigawa West	(16) 2.9	(11) 68.7	(3) 18.8	(3) 18.8	(7) 43.8	(1) 6.3	(8) 50.0	(0) 0.0	559
	(0.8, 9.8)	(3.3, 99.3)	(6.9, 41.8)	(6.9, 41.8)	(7.6, 88.1)	(0.3, 56.2)	(6.5, 93.5)	(0, 0)	

4.9.2 Indicators at individual level: Children aged 6-59 months

4.9.2.1 Nutrition and health

Vitamin A supplementation

Vitamin A supplementation is a crucial public health intervention that plays a significant role in reducing child morbidity and mortality by strengthening the immune system, improving vision and enhancing overall health. It is particularly vital for children aged 6-59 months, as they are most vulnerable to the adverse effects of vitamin A deficiency, which can lead to severe infections, blindness and even death.

Coverage of vitamin A supplementation within the six months preceding the survey varies notably across states. The proportion of children aged 6-59 months who had received vitamin A ranges from 31.8 per cent in Sokoto to 69.4 per cent in Jigawa. Katsina (49.9 per cent), Kebbi (45.6 per cent) and Zamfara (33.9 per cent) show intermediate coverage levels. Verification by card is low in most states, with only 3.8 to 25.5 per cent of children having visible documentation, suggesting high reliance on caregiver recall. Overall, vitamin A coverage in the Northwest region remains below the recommended target of 80 per cent.

Table 23. Vitamin A supplementation coverage for children aged 6-59 months within the past six months

State/domain	Children aged 6-59 months given vitamin A in last six months		Vitamin A coverage		
			Yes, card seen	Yes, recall	No. of children aged 6-59 months
	% (95% CI)	No. of children aged 6-59 months	% (95% CI)	% (95% CI)	
Sokoto state	(727) 31.8	2,286	(154) 6.7	(572) 25.0	2,287
	(27.3, 36.6)		(4.7, 9.5)	(21.0, 29.5)	
Central Sokoto 1	(196) 43.1	455	(49) 10.8	(147) 32.3	455
	(34.2, 52.4)		(6.6, 17.0)	(25.2, 40.4)	
Central Sokoto 2	(134) 32.1	417	(51) 12.2	(83) 19.9	417
	(22.0, 44.3)		(6.6, 21.6)	(11.4, 32.4)	
Eastern Sokoto 1	(173) 31.5	550	(2) 0.4	(171) 31.1	550
	(22.8, 41.6)		(0.1, 1.5)	(22.5, 41.3)	
Eastern Sokoto 2	(96) 25.9	370	(21) 5.7	(75) 20.3	370
	(16.7, 38.0)		(1.9, 16.0)	(12.2, 31.8)	
Southern Sokoto	(125) 25.5	491	(23) 4.7	(102) 20.8	491
	(16.7, 36.7)		(2.1, 10.3)	(12.9, 31.7)	
Katsina state	(1,741.0) 49.9	3,487	(176.6) 5.1	(1,564.5) 44.9	1,741
	(44.9, 55.0)		(3.7, 6.9)	(40.0, 49.8)	
Central Katsina 1	(243) 49.4	243	(35) 7.1	(208) 42.3	492
	(37.8, 61.1)		(3.6, 13.6)	(31.4, 54.0)	
Central Katsina 2	(231) 50.4	458	(43) 9.4	(188) 41.0	458
	(37.1, 63.7)		(5.3, 16.0)	(29.8, 53.4)	
Northern Katsina 1	(194) 41.9	463	(38) 8.2	(156) 33.7	463
	(31.7, 52.9)		(4.0, 16.3)	(25.0, 43.7)	

State/domain	Children aged 6-59 months given vitamin A in last six months		Vitamin A coverage		
			Yes, card seen	Yes, recall	No. of children aged 6-59 months
	% (95% CI)	No. of children aged 6-59 months	% (95% CI)	% (95% CI)	
Northern Katsina 2	(343) 53.9	636	(17) 2.7	(326) 51.3	636
	(39.8, 67.5)		(1.0, 6.8)	(37.8, 64.6)	
Southern Katsina 1	(190) 46.5	409	(9) 2.2	(181) 44.3	409
	(36.0, 57.3)		(1.0, 4.9)	(34.0, 55.0)	
Southern Katsina 2	(300) 52.9	567	(22) 3.9	(278) 49.0	567
	(38.1, 67.2		(1.3, 10.7)	(34.8, 63.4)	
Southern Katsina 3	(245) 53.1	461	(9) 2.0	(236) 51.2	461
	(38.8, 67.0)		(0.6, 6.6)	(36.7, 65.5)	
Zamfara state	(434) 33.9	1,281	(182) 14.2	(252)19.7	1,209
	(27.0, 41.5)		(10.1, 19.6)	(14.9, 25.5)	
Central Zamfara	(17) 4.1	410	(65) 15.9	(76) 18.5	410
	(2.2, 7.5)		(9.9, 24.5)	(11.9, 27.6)	
Western Zamfara	(135) 36.1	374	(52) 13.9	(83) 22.2	374
	(27.4, 45.8)		(8.7, 21.6)	(16.0, 29.9)	
Northern Zamfara	(153) 30.1	508	(45) 8.9	(108) 21.3	508
	(21.6, 40.2)		(5.4, 14.3)	(14.3, 30.5)	
Kebbi state	(481) 45.6	1,053	(268) 25.5	(212) 20.1	1,053
	(37.3, 54.2)		(18.5, 34.1)	(15.6, 25.7)	
Central Kebbi 1	(164) 46.1	356	(88) 24.7	(76) 21.3	356
	(33.1, 59.6)		(15.3, 37.3)	(14.7, 29.9)	
Central Kebbi 2	(201) 56.3	357	(137) 38.4	(64) 17.9	357
	(39.8, 71.5)		(23.3, 56.1)	(28.5, 60.2)	
Southern Kebbi	(100) 29.2	343	(24) 7.0	(76) 22.2	343

State/domain	Children aged 6-59 months given vitamin A in last six months		Vitamin A coverage		
			Yes, card seen	Yes, recall	No. of children aged 6-59 months
	% (95% CI)	No. of children aged 6-59 months	% (95% CI)	% (95% CI)	
	(18.7, 42.4)		(3.0, 15.3)	(13.4, 34.4)	
Jigawa state	(2,365.2) 69.4 (64.8, 73.6)	3,408	(129.7) 3.8 (2.8, 5.2)	(2,235.5) 65.6 (61.2, 69.7)	2,365
Jigawa South	(475) 75.3	631	(8) 1.3	(467) 74.0	475
	(66.1, 82.6)		(0.6, 2.8)	(65.2, 81.3)	
Jigawa Central	(506) 71.1	712	(48) 6.7	(458) 64.3	506
	(60.5, 79.7)		(4.0, 11.2)	(54.5, 73.1)	
Jigawa East	(497) 63.8	779	(28) 3.6	(469) 60.2	497
	(52.1, 74.1)		(1.8, 7.0)	(49.2, 70.3)	
Jigawa North	(418) 68.1	614	(28) 4.6	(390) 63.5	418
	(58.9, 76.1)		(2.1, 9.7)	(54.8, 71.5)	
Jigawa West	(444) 64.8	685	(18) 2.6	(426) 62.2	444
	(52.7, 75.3)		(1.4, 4.9)	(50.6, 72.5	

Deworming coverage

Deworming is a critical intervention aimed at improving child health and development by reducing the burden of intestinal parasites, which can otherwise lead to malnutrition, anaemia and impaired cognitive function. The proportion of children aged 12-59 months who received deworming medication in the six months preceding the survey is highest in Kebbi (69.1 per cent), followed by Jigawa (33.8 per cent) and Katsina (23.3 per cent), while Zamfara (12.7 per cent) and Sokoto (10.0 per cent) reported notably lower coverage. Although Kebbi performed comparatively better, overall deworming coverage across the states remains below the national target of 80 per cent, indicating the need to strengthen routine child health and school-based deworming initiatives.

Table 24. Deworming coverage for children aged 12-59 months within the past six months

State/domain	Proportion of Children aged 12-59 months dewormed in last six months, %	(95% CI)	No. of children aged 12-59 months
Sokoto state	(198) 10.0	(7.4, 13.4)	1,976
Central Sokoto 1	(68) 18.2	(12.6, 25.5)	374
Central Sokoto 2	(19) 5.3	(88.9, 97.6)	360
Eastern Sokoto 1	(20) 4.2	(2.0, 8.6)	475
Eastern Sokoto 2	(22) 6.5	(2.2, 18.2)	336
Southern Sokoto	(45) 10.6	(5.6, 19.3)	424
Katsina state	(714.7) 23.3	(19.7, 27.3)	3,070
Central Katsina 1	(153) 34.7	(25.0, 45.8)	441
Central Katsina 2	(66) 16.4	(10.7, 24.3)	403
Northern Katsina 1	(120) 30.4	(20.3, 42.8)	395
Northern Katsina 2	(114) 19.5	(12.6, 29.1)	584
Southern Katsina 1	(93) 26.4	(17.8, 37.3)	352
Southern Katsina 2	(73) 14.7	(8.0, 25.6)	496
Southern Katsina 3	(66) 16.4	(8.7, 28.8)	402
Zamfara state	(134) 12.7	(8.4, 18.6)	1,054
Central Zamfara	(284) 85.5	(75.9, 91.7)	332
Western Zamfara	(41) 13.2	(7.7, 21.7)	310
Northern Zamfara	(29) 6.6	(3.5, 12.0)	439
Kebbi state	(588) 69.1	(59.9, 77.0)	851
Central Kebbi 1	(86) 30.8	(18.9, 46.1)	279
Central Kebbi 2	(121) 40.1	(25.1, 57.2)	302
Southern Kebbi	(43) 16.1	(8.7, 27.8)	267
Jigawa state	(986.9) 33.8	(29.2, 38.7)	2,919
Jigawa South	(191) 36.7	(27.1, 47.5)	520
Jigawa Central	(215) 35.1	(25.3, 46.3)	613
Jigawa East	(214) 31.3	(21.6, 43.0)	684
Jigawa North	(195) 37.8	(27.4, 49.4)	516
Jigawa West	(164) 26.8	(18.0, 38.0)	611

Measles vaccination coverage

Measles vaccination is a critical immunization effort to protect children from a highly contagious and potentially fatal disease. Measles vaccination coverage shows marked variation across states and domains for both age groups, with all states remaining below the national target of 90 per cent coverage.

At state level, Sokoto state records the lowest coverage, at 36.7 per cent among children aged 9-59 months and 36.1 per cent among those aged 9-23 months. Several domains perform even worse on coverage, most notably Eastern Sokoto 1 (31.9 per cent and 18.1 per cent coverage of the respective age groups) and Southern Sokoto (28.1 per cent and 27.5 per cent, respectively), indicating substantial immunity gaps.

Katsina state reports comparatively higher measles vaccination coverage at 63.3 per cent among children aged 9-59 months and 63.6 per cent among children aged 9-23 months. Across its domains, coverage ranges from 52.4 to 72.8 per cent among children aged 9-59 months and from 56.6 to 73.1 per cent among children aged 9-23 months, although levels remain below the threshold required for herd immunity. Zamfara and Kebbi states reflect similar patterns, with coverage at 55.3 per cent (aged 9-59 months) and 54.7 per cent (aged 9-23 months) in Zamfara, and 53.8 per cent and 52.9 per cent, respectively, in Kebbi, although domain-level disparities persist.

Table 25. Measles vaccination coverage for children aged 9-59 months and 9-23 months

State/domain	Children aged 9-59 months				Children aged 9-23 months			
	Measles vaccination coverage (95% CI)	Percentage with vaccination card seen (95% CI)	Percentage with vaccination card not seen, recall (95% CI)	No. of children aged 9-59 months	Measles vaccination coverage (95% CI)	Percentage with vaccination card seen (95% CI)	Percentage with vaccination card not seen, recall (95% CI)	No. of children aged 9-23 months
Sokoto state	(804) 36.7 (32.2, 41.3)	(244) 11.1 (8.6, 14.3)	(560) 25.5 (21.8, 29.7)	2,194	(264) 36.1 (30.7, 42.0)	(90) 12.3 (9.3, 16.2)	(174) 23.8 (19.2, 29.1)	730
Central Sokoto 1	(213) 49.4 (39.9, 59.0)	(63) 14.6 (9.6, 21.6)	(150) 34.8 (27.4, 43.0)	431	(68) 45.9 (34.9, 57.5)	(20) 13.5 (8.0, 21.9)	(48) 32.4 (23.5, 42.8)	148
Central Sokoto 2	(170) 42.5 (31.5, 54.3)	(72) 18.0 (10.7, 28.6)	(98) 24.5 (15.9, 35.8)	400	(60) 46.9 (33.6, 60.6)	(28) 21.9 (12.8, 34.9)	(32) 25.0 (15.9, 37.1)	128

State/domain	Children aged 9-59 months				Children aged 9-23 months			
	Measles vaccination coverage (95% CI)	Percentage with vaccination card seen (95% CI)	Percentage with vaccination card not seen, recall (95% CI)	No. of children aged 9-59 months	Measles vaccination coverage (95% CI)	Percentage with vaccination card seen (95% CI)	Percentage with vaccination card not seen, recall (95% CI)	No. of children aged 9-23 months
Eastern Sokoto 1	(166) 31.9	(31) 6.0	(135) 25.9	521	(30) 18.1	(5) 3.0	(25) 15.1	166
	(24.7, 40.1)	(3.0, 11.6)	(19.4, 33.7)		(11.5, 27.2)	(0.8, 10.5)	(9.4, 23.3)	
Eastern Sokoto 2	(116) 31.8	(39) 10.7	(77) 21.1	365	(48) 38.1	(19) 15.1	(29) 23.0	126
	(22.8, 42.3)	(5.5, 19.8)	(13.4, 31.5)		(26.3, 51.5)	(8.2, 26.1)	(13.0, 37.4)	
Southern Sokoto	(131) 28.1	(36) 7.7	(95) 20.4	466	(41) 27.5	(13) 8.7	(28) 18.8	149
	(19.1, 39.3)	(3.9, 14.7)	(13.0, 30.5)		(16.9, 41.4)	(4.6, 16.0)	(10.4, 31.6)	
Katsina state	(2,086.9) 63.3	(498.9) 15.1	(1,588.0) 48.1	3,299	(619.6) 63.6	(191.6) 19.7	(427.9) 43.9	974.1
	(58.5, 67.8)	(12.7, 18.0)	(43.6, 52.7)		(58.0, 68.8)	(16.1, 23.9)	(38.7, 49.3)	
Central Katsina 1	(279) 58.9	(75) 15.8	(204) 43.0	474	(80) 59.7	(30) 28.4	(50) 40.5	134
	(46.3, 70.4)	(9.9, 24.4)	(32.6, 54.1)		(44.5, 73.2)	(13.9, 34.0)	(25.8, 50.5)	
Central Katsina 2	(274) 63.3	(89) 20.6	(185) 42.7	433	(76) 61.3	(23) 18.5	(53) 42.7	124
	(48.7, 75.8)	(12.7, 31.5)	(31.5, 54.8)		(45.1, 75.3)	(10.1, 31.6)	(28.8, 58.0)	
Northern Katsina 1	(228) 52.4	(77) 17.7	(151) 34.7	435	(82) 56.6	(39) 26.9	(43) 29.7	145
	(40.2, 64.3)	(11.6, 26.0)	(25.5, 45.3)		(41.6, 70.4)	(16.6, 40.6)	(18.4, 44.0)	
Northern Katsina 2	(411) 67.6	(80) 13.2	(331) 54.4	608	(118) 72.4	(26) 16.0	(92) 56.4	163
	(53.5, 79.1)	(8.1, 20.6)	(41.8, 66.6)		(60.1, 82.0)	(8.9, 26.9)	(44.0, 68.1)	
Southern Katsina 1	(234) 60.5	(68) 17.6	(166) 542.9	387	(77) 59.2	(35) 26.9	(42) 32.3	130
	(49.1, 70.8)	(11.1, 26.6)	(33.8, 52.5)		(45.1, 72.0)	(15.9, 41.8)	(22.6, 43.8)	
Southern Katsina 2	(382) 72.8	(76) 14.5	(306) 58.3	525	(95) 73.1	(25) 19.2	(70) 53.8	130
	(57.5, 84.0)	(8.6, 23.2)	(45.1, 70.4)		(57.9, 84.2)	(10.7, 32.1)	(40.0, 67.5)	
Southern Katsina 3	(295) 68.0	(45) 10.4	(250) 57.6	434	(91) 65.9	(15) 10.9	(76) 55.1	138

State/domain	Children aged 9-59 months				Children aged 9-23 months			
	Measles vaccination coverage (95% CI)	Percentage with vaccination card seen (95% CI)	Percentage with vaccination card not seen, recall (95% CI)	No. of children aged 9-59 months	Measles vaccination coverage (95% CI)	Percentage with vaccination card seen (95% CI)	Percentage with vaccination card not seen, recall (95% CI)	No. of children aged 9-23 months
	(56.7, 77.5)	(6.0, 17.3)	(44.5, 69.7)		(51.9, 77.6)	(5.2, 21.3)	(39.8, 69.4)	
Zamfara state	(672) 55.3	(447) 36.8	(225) 18.5	1,214	(209) 54.7	(146) 38.3	(63) 16.5	381
	(49.4, 61.1)	(31.9, 42.0)	(13.9, 24.2)		(47.2, 62.0)	(31.8, 45.2)	(11.6, 22.8)	
Central Zamfara	(234) 60.0	(158) 40.5	(76) 19.5	390	(71) 60.2	(50) 42.4	(21) 17.8	118
	(51.2, 68.2)	(33.7, 47.7)	(12.9, 28.3)		(48.6, 70.7)	(33.1, 52.2)	(10.8, 27.9)	
Western Zamfara	(177) 51.0	(120) 34.6	(57) 16.4	347	(62) 51.2	(41) 33.9	(21) 17.4	121
	(42.0, 60.0)	(24.6, 46.2)	(10.8, 24.2)		(38.6, 63.8)	(21.4, 49.1)	(10.3, 27.8)	
Northern Zamfara	(210) 43.2	(127) 26.1	(83) 17.1	486	(64) 40.8	(46) 29.3	(18) 11.5	157
	(34.3, 52.5)	(18.6, 35.4)	(10.8, 26.0)		(30.4, 52.0)	(19.6, 41.3)	(5.9, 21.1)	
Kebbi state	(524) 53.8	(333) 34.1	(192) 19.7	974	(144) 52.9	(109) 39.9	(35) 13.0	272
	(45.4, 61.9)	(26.6, 42.6)	(15.1, 25.2)		(42.8, 62.8)	(30.4, 50.3)	(8.8, 18.7)	
Central Kebbi 1	(188) 56.6	(117) 35.2	(71) 21.4	332	(60) 61.2	(42) 42.9	(18) 18.4	98
	(44.5, 68.0)	(24.3, 48.0)	(13.9, 31.4)		(46.9, 73.8)	(28.5, 58.5)	(11.7, 27.7)	
Central Kebbi 2	(193) 58.3	(129) 39.0	(64) 19.3	331	(55) 57.3	(43) 44.8	(12) 12.5	96
	(42.3, 72.7)	(24.5, 55.6)	(11.8, 30.1)		(37.6, 74.9)	(27.1, 63.9)	(5.8, 25.0)	
Southern Kebbi	(137) 43.8	(80) 25.6	(57) 18.2	313	(26) 33.8	(21) 27.3	(5) 6.5	77
	(30.3, 58.2)	(15.8, 38.6)	(11.4, 27.8)		(20.7, 49.9)	(15.8, 42.9)	(2.6, 15.5)	
Jigawa state	(2,544.5) 78.9	(459.3) 14.2	(2,085.2) 64.6	3,226	(743.4) 76.4	(189.2) 19.5	(554.1) 57.0	972.4
	(74.9, 82.3)	(11.7, 17.2)	(60.5, 68.5)		(71.6, 80.7)	(15.9, 23.5)	(52.1, 61.8)	
Jigawa South	(484) 81.1	(120) 20.1	(364) 61.0	597	(144) 75.0	(44) 22.9	(100) 52.1	192
	(73.0, 87.2)	(13.4, 29.1)	(52.2, 69.1)		(64.0, 83.5)	(14.8, 33.7)	(41.3, 62.7)	

State/domain	Children aged 9-59 months				Children aged 9-23 months			
	Measles vaccination coverage (95% CI)	Percentage with vaccination card seen (95% CI)	Percentage with vaccination card not seen, recall (95% CI)	No. of children aged 9-59 months	Measles vaccination coverage (95% CI)	Percentage with vaccination card seen (95% CI)	Percentage with vaccination card not seen, recall (95% CI)	No. of children aged 9-23 months
Jigawa Central	(525) 78.0	(68) 10.1	(457) 67.9	673	(166) 77.6	(36) 16.8	(130) 60.7	214
	(68.3, 85.4)	(6.6, 15.1)	(58.6, 76.0)		(66.3, 85.9)	(10.9, 25.0)	(50.6, 70.1)	
Jigawa East	(555) 74.9	(62) 8.4	(493) 66.5	741	(130) 69.1	(24) 12.8	(106) 56.4	188
	(64.0, 83.4)	(5.0, 13.6)	(56.3, 75.4)		(56.5, 79.5)	(7.8, 20.3)	(45.4, 66.8)	
Jigawa North	(454) 77.9	(113) 19.4	(341) 58.5	583	(152) 81.3	(57) 30.5	(95) 50.8	187
	(69.6, 84.4)	(13.5, 27.0)	(49.8, 66.6)		(70.2, 88.9)	(20.9, 42.1)	(38.8, 62.7)	
Jigawa West	(532) 82.5	(90) 14.0	(442) 68.5	645	(145) 80.1	(25) 13.8	(120) 66.3	181
	(73.3, 89.0)	(9.2, 20.7)	(59.3, 76.5)		(70.0, 87.4)	(8.8, 21.0)	(55.6, 75.6)	

Morbidity results and health-seeking behaviour

The prevalence of illnesses among children aged 6-59 months during the two weeks preceding the survey sheds light on the health challenges faced by communities and the associated care-seeking practices.

Reports of childhood illnesses within the two weeks preceding the survey were generally low for acute respiratory infection (ARI) but higher for fever and diarrhoea.

The prevalence of ARI ranges from 0.3 per cent in Katsina to 1.6 per cent in Kebbi, remaining below 2 per cent across all states. Fever was the most frequently reported illness, with prevalence ranging from 20.5 per cent in Katsina to 34.2 per cent in Zamfara, followed closely by Kebbi (33.3 per cent) and Sokoto (26.8 per cent).

The prevalence of diarrhoea ranges from 8.0 per cent in Katsina to 22.7 per cent in Zamfara, with higher levels also observed in Kebbi (18.1 per cent) and Sokoto (15.4 per cent).

Table 26. Prevalence of ARI, fever and diarrhoea in the two weeks preceding the survey for children aged 0-59 months

State/domain	Prevalence of ARI in the last two weeks		Prevalence of fever in the last two weeks		Prevalence of diarrhoea in the last two weeks		No. of children aged 0-59 months
	%	(95% CI)	%	(95% CI)	%	(95% CI)	
Sokoto state	(20) 0.8	(0.5, 1.4)	(678) 26.8	(23.6, 30.3)	(390) 15.4	(13.6, 17.4)	2,504
Central Sokoto 1	(7) 1.4	(0.6, 3.0)	(141) 27.2	(23.0, 31.9)	(110) 21.2	(17.2, 26.0)	514
Central Sokoto 2	(3) 0.6	(0.2, 1.9)	(135) 29.2	(21.4, 38.4)	(73) 15.8	(10.9, 22.3)	460
Eastern Sokoto 1	(6) 1.0	(0.4, 2.4)	(190) 31.8	(25.6, 38.6)	(105) 17.5	(13.6, 22.2)	597
Eastern Sokoto 2	(1) 0.2	(0.0, 1.8)	(92) 22.8	(15.1, 32.8)	(50) 12.3	(9.1, 16.5)	402
Southern Sokoto	(4) 0.7	(0.2, 3.6)	(145) 27.0	(19.5, 36.0)	(57) 10.6	(7.3, 15.2)	535
Katsina state	(12.7) 0.3	(0.2, 0.6)	(787.6) 20.5	(18.2, 23.0)	(309.0) 8.0	(6.7, 9.6)	3,825
Central Katsina 1	(1) 0.2	(0.0, 1.4)	(149) 27.5	(21.3, 34.8)	(45) 8.3	(5.6, 12.2)	492
Central Katsina 2	(4) 0.8	(0.2, 3.7)	(103) 20.6	(14.0, 29.4)	(76) 15.3	(9.2, 24.2)	458
Northern Katsina 1	(0) 0.0	(0.0, 0.0)	(109) 21.0	(15.4, 30.1)	(40) 8.0	(4.9, 12.9)	463
Northern Katsina 2	(6) 0.8	(0.4, 1.8)	(119) 16.8	(12.7, 21.9)	(78) 11.0	(7.2, 16.5)	636
Southern Katsina 1	(0) 0.0	(0.0, 0.0)	(113) 24.9	(17.2, 34.6)	(26) 5.7	(3.3, 9.9)	409
Southern Katsina 2	(3) 0.5	(0.1, 2.2)	(87) 14.2	(10.0, 19.8)	(22) 3.6	(2.3, 5.7)	567
Southern Katsina 3	(1) 0.2	(0.0, 1.4)	(89) 17.1	(12.3, 23.2)	(33) 6.3	(3.5, 11.1)	461
Zamfara state	(19) 1.4	(0.6, 3.1)	(485) 34.2	(29.4, 39.3)	(323) 22.7	(18.7, 27.3)	1,427
Central Zamfara	(9) 2.0	(0.8, 4.8)	(168) 36.9	(30.0, 44.4)	(120) 26.4	(20.5, 33.3)	455
Western Zamfara	(2) 0.5	(0.1, 1.9)	(117) 28.2	(20.2, 37.8)	(65) 15.6	(9.8, 24.0)	374
Northern Zamfara	(0) 0.0	(0.0, 0.0)	(169) 30.1	(22.8, 38.6)	(93) 16.6	(12.2, 22.2)	508
Kebbi state	(19) 1.6	(0.9, 2.9)	(387) 33.3	(27.6, 39.6)	(209) 18.1	(14.0, 23.0)	1,146
Central Kebbi 1	(8) 2.1	(0.9, 4.9)	(142) 37.9	(28.5, 48.3)	(80) 21.3	(14.3, 30.5)	356
Central Kebbi 2	(9) 2.2	(1.0, 5.1)	(154) 38.0	(27.90, 49.3)	(88) 21.8	(14.4, 31.6)	358
Southern Kebbi	(1) 0.3	(0.0, 2.1)	(81) 21.4	(13.3, 32.6)	(34) 9.0	(5.1, 15.3)	343
Jigawa state	(23.4) 0.6	(0.4, 1.0)	(850.9) 22.5	(19.7, 25.6)	(359.9) 9.5	(7.9, 11.4)	3,768
Jigawa South	(6)0.9	(0.4, 2.1)	(197) 27.9	(20.3, 37.1)	(105) 14.9	(10.4, 20.7)	631
Jigawa Central	(2) 0.2	(0.1, 1.0)	(200) 24.9	(20.2, 30.3)	(76) 9.5	(6.9, 12.8)	712
Jigawa East	(4) 0.5	(0.1, 1.6)	(138) 16.3	(11.6, 22.2)	(47) 5.5	(3.4, 8.8)	779
Jigawa North	(6) 0.9	(0.3, 2.5)	(169) 25.1	(19.6, 31.5)	(76) 11.2	(8.0, 15.7)	614

State/domain	Prevalence of ARI in the last two weeks		Prevalence of fever in the last two weeks		Prevalence of diarrhoea in the last two weeks		No. of children aged 0-59 months
	%	(95% CI)	%	(95% CI)	%	(95% CI)	
Jigawa West	(6) 0.8	(0.3, 2.0)	(108) 14.4	(9.3, 21.5)	(28) 3.7	(2.2, 6.3)	685

Among children who experienced diarrhoea in the two weeks preceding the survey, the use of oral rehydration salts (ORS) and zinc supplementation remained low. Only a limited proportion of children received ORS or zinc, and even fewer received both treatments as recommended.

The combined use of ORS and zinc (the standard protocol for managing diarrhoea) is generally suboptimal, indicating missed opportunities for effective case management at the household and community levels.

Table 27. Oral rehydration salts and zinc use during diarrhoea episode for children aged 0-59 months

State/domain	Oral rehydration salts (ORS)		Zinc		Both (ORS and zinc)	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
Sokoto state	(65) 16.6	(12.7, 21.4)	(119) 30.5	(24.7, 37.0)	(34.) 8.8	(6.1, 12.6)
Central Sokoto 1	(24) 21.8	(14.0, 32.3)	(32) 29.1	(21.2, 38.4)	(15) 13.6	(8.0, 22.4)
Central Sokoto 2	(20) 27.4	(17.0, 41.0)	(23) 31.5	(20.2, 45.6)	(11) 15.1	(7.5, 27.9)
Eastern Sokoto 1	(17) 16.2	(10.6, 24.0)	(24) 22.9	(14.2, 34.7)	(5) 4.8	(2.0, 11.0)
Eastern Sokoto 2	(4) 8.0	(2.2, 25.0)	(18) 36.0	(19.2, 57.1)	(2) 4.0	(0.9, 15.8)
Southern Sokoto	(5) 8.8	(3.9, 18.6)	(19) 33.3	(17.5, 54.1)	(2) 3.5	(0.9, 13.1)
Katsina state	(87.5) 28.3	(23.0, 34.3)	(77.9) 25.2	(19.9, 31.4)	(52.8) 17.1	(12.6, 22.7)
Central Katsina 1	(17) 37.8	(22.5, 56.0)	(11) 24.4	(12.3, 42.8)	(11) 24.4	(12.3, 42.8)
Central Katsina 2	(23) 30.3	(20.7, 41.8)	(22) 28.9	(20.9, 38.6)	(13) 17.1	(10.3, 27.1)
Northern Katsina 1	(7) 17.5	(7.8, 34.7)	(5) 12.5	(5.0, 28.1)	(3) 7.5	(1.9, 25.8)
Northern Katsina 2	(30) 38.5	(22.1, 57.9)	(30) 38.5	(21.6, 58.6)	(21) 26.9	(14.1, 45.3)
Southern Katsina 1	(2) 7.7	(2.0, 25.3)	(3) 11.5	(3.3, 33.5)	(0) 0.0	(0, 0)
Southern Katsina 2	(7) 31.8	(13.5, 58.2)	(7) 31.8	(16.0, 53.3)	(5) 22.7	(8.5, 48.3)
Southern Katsina 3	(6) 18.2	(10.1, 30.6)	(7) 21.2	(10.1, 39.2)	(3) 9.1	(2.4, 28.6)
Zamfara state	(71) 22.1	(15.3, 30.8)	(110) 34.0	(24.7, 44.7)	(39) 12.2	(7.1, 20.1)
Central Zamfara	(29) 24.2	(15.2, 36.2)	(35) 29.2	(18.2, 43.2)	(16) 13.3	(6.8, 24.5)

State/domain	Oral rehydration salts (ORS)		Zinc		Both (ORS and zinc)	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
Western Zamfara	(11) 16.9	(9.8, 27.6)	(38) 58.5	(39.4, 75.3)	(4) 6.2	(2.2, 16.3)
Northern Zamfara	(14) 15.1	(8.8, 24.7)	(37) 39.8	(25.3, 56.4)	(10) 10.8	(5.0, 21.5)
Kebbi state	(87) 41.6	(33.0, 50.8)	(80) 38.3	(29.3, 48.2)	(64) 30.9	(23.0, 40.2)
Central Kebbi 1	(31) 38.8	(23.7, 56.3)	(25) 31.6	(18.1, 49.3)	(22) 27.8	(14.9, 45.9)
Central Kebbi 2	(43) 48.9	(36.0, 61.8)	(39) 44.3	(30.4, 59.2)	(34) 38.6	(26.7, 52.2)
Southern Kebbi	(7) 21.2	(8.3, 44.3)	(11) 32.4	(16.9, 52.9)	(3) 9.1	(2.4, 29.1)
Jigawa state	(121.1) 33.7	(25.2, 43.3)	(109.2) 30.3	(22.1, 40.1)	(69.0) 19.2	(12.0, 29.2)
Jigawa South	(51) 48.6	(32.3, 65.2)	(49) 46.7	(31.0, 63.0)	(37) 35.2	(20.7, 53.2)
Jigawa Central	(24) 31.6	(19.9, 46.2)	(14) 18.4	(10.3, 30.7)	(6) 7.9	(3.3, 17.7)
Jigawa East	(4) 8.5	(2.9, 22.5)	(10) 21.3	(9.3, 41.5)	(2) 4.3	(0.9, 17.3)
Jigawa North	(17) 22.4	(13.8, 34.2)	(14) 18.4	(10.1, 31.1)	(10) 13.2	(6.9, 23.7)
Jigawa West	(5) 17.9	(6.0, 42.5)	(6) 21.4	(8.3, 45.0)	(1) 3.6	(0.4, 25.1)

The treatment coverage for ARI symptoms, fever and diarrhoea among children aged 0-59 months provides critical insights into health-seeking behaviour and access to care.

Among children who experienced illness in the two weeks preceding the survey, care-seeking behaviour varied by type of illness. For ARI, about half of affected children (about 50 per cent) were taken for treatment. Care-seeking for fever was generally higher, with approximately 60 to 80 per cent of caregivers reporting that they sought medical care. For diarrhoea, care-seeking ranged from 43 to 70 per cent, indicating that while most caregivers recognized the need for treatment, a considerable proportion still managed cases at home or did not seek care promptly.

Table 28. Treatment for ARI symptoms, fever and diarrhoea for children aged 6-59 months

State/domain	Those who sought care for ARI		Those who sought care for fever		Those who sought care for diarrhoea	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
Sokoto state	(10) 50.3	(26.2, 74.2)	(414) 61.0	(53.8, 67.7)	(176) 45.0	(38.5, 51.6)
Central Sokoto 1	(6) 85.7	(25.4, 99.1)	(83) 58.9	(45.2, 71.3)	(52) 47.3	(36.3, 58.5)
Central Sokoto 2	(1) 33.3	(0.2, 99.0)	(84) 62.2	(48.0, 74.6)	(31) 42.5	(28.3, 58.0)
Eastern Sokoto 1	(1) 16.7	(0.8, 82.7)	(80) 42.1	(30.8, 54.3)	(42) 40.0	(27.8, 53.6)
Eastern Sokoto 2	(0) 0	(0, 0)	(77) 83.7	(67.3, 92.8)	(26) 52.0	(35.5, 68.1)

State/domain	Those who sought care for ARI		Those who sought care for fever		Those who sought care for diarrhoea	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
Southern Sokoto	(1) 25.0	(0, 0)	(79) 54.5	(38.1, 70.0)	(21) 36.8	(20.1, 57.6)
Katsina state	(6.8) 53.5	(27.2, 78.1)	(645.0) 81.9	(77.8, 85.3)	(215.1) 69.6	(61.9, 76.4)
Central Katsina 1	(1) 100.0	(-)	(126) 84.6	(75.7, 90.6)	(31) 68.9	(47.2, 84.6)
Central Katsina 2	(3) 75.0	(-)	(86) 83.5	(74.3, 89.9)	(53) 69.7	(53.8, 82.0)
Northern Katsina 1	(-)	(-)	(86) 78.9	(66.2, 87.7)	(31) 77.5	(55.5, 90.5)
Northern Katsina 2	(2) 33.3	(5.0, 82.6)	(94) 79.0	(69.2, 86.3)	(54) 69.2	(55.3, 80.4)
Southern Katsina 1	(-)	(-)	(102) 90.3	(79.4, 95.7)	(25) 96.2	(70.3, 99.6)
Southern Katsina 2	(2) 66.7	(-)	(62) 71.3	(54.4, 83.7)	(13) 59.1	(31.6, 81.9)
Southern Katsina 3	(0) 0.0	(0, 0)	(73) 82.0	(67.3, 91.0)	(19) 57.6	(31.1, 80.3)
Zamfara state	(11) 58.2	(14.9, 91.7)	(378) 77.8	(70.0, 84.1)	(206) 63.8	(52.7, 73.5)
Central Zamfara	(5) 55.6	(12.0, 92.0)	(130) 77.4	(66.0, 85.8)	(71) 59.2	(45.2, 71.8)
Western Zamfara	(2) 100	(100, 100)	(101) 86.3	(74.7, 93.1)	(57) 87.7	(72.9, 95.0)
Northern Zamfara	(0) 0.0	(0, 0)	(123) 72.8	(63.1, 80.7)	(62) 68.8	(54.3, 80.4)
Kebbi state	(15) 76.5	(44.4, 93.0)	(229) 59.1	(50.4, 67.4)	(120) 57.1	(46.6, 67.0)
Central Kebbi 1	(3) 37.5	(5.2, 86.7)	(88) 62.0	(46.3, 75.5)	(58) 72.5	(58.4, 83.2)
Central Kebbi 2	(9) 100	(100, 100)	(86) 55.8	(42.8, 68.1)	(47) 53.4	(36.6, 69.5)
Southern Kebbi	(1) 100	(100, 100)	(51) 63.0	(43.8, 78.7)	(11) 32.4	(16.9, 53.0)
Jigawa state	(12.6) 53.8	(29.5, 76.4)	(497.4) 58.5	(51.8, 64.8)	(155.2) 43.2	(36.5, 50.2)
Jigawa South	(1) 16.7	(0.8, 82.7)	(103) 52.3	(38.2, 66.1)	(41) 39.0	(27.6, 51.9)
Jigawa Central	(2) 100.0	(-)	(126) 63.0	(49.6, 74.7)	(33) 43.4	(30.6, 57.2)
Jigawa East	(4) 100.0	(100, 100)	(107) 77.5	(70.0, 83.6)	(27) 57.4	(40.3, 73.0)
Jigawa North	(3) 50.0	(6.7, 93.3)	(90) 53.3	(41.4, 64.8)	(33) 44.0	(29.9, 59.1)
Jigawa West	(4) 66.7	(12.7, 96.5)	(51) 47.2	(31.6, 63.5)	(12) 42.9	(24.9, 62.9)

(-) Confidence interval not calculated due to insufficient number of cases (n<5)

Maternal, infant and young child nutrition practices

Optimal maternal, infant and young child nutrition (MIYCN) practices are essential for ensuring proper growth, health and development in children under 2 years of age. According to extensive research and global guidance, including frameworks established by WHO, effective feeding practices can significantly reduce the risk of malnutrition and enhance child survival rates.[13]

Breastfeeding practices are generally widespread across the surveyed states. The proportion of children aged 0-23 months who were ever breastfed is consistently high, ranging from 94 to 98 per cent, indicating near-universal take-up of breastfeeding. Early initiation of breastfeeding within the first hour after birth remains low, however, with coverage ranging from 20 to 39 per cent across the five states. Similarly, only 38 to 58 per cent of infants per state were breastfed during the first two days after birth, reflecting delays in establishing early feeding.

The percentage of children under 6 months of age who were exclusively breastfed the previous day ranged from 23 to 31 per cent, below the recommended minimum rate of 50 per cent, while rates of mixed milk feeding remain low (<10 per cent) across all five states. Rates of continued breastfeeding at 12-23 months are encouraging, ranging from 63 to 77 per cent by state, showing that breastfeeding is frequently sustained into the second year of life.

Table 29. Prevalence of MICYN practices: Breastfeeding indicators

State/domain	Percentage of children aged 0-23 months who were ever breastfed (95% CI)	Percentage of children aged 0-23 months who were put to the breast within one hour of birth (95% CI)	Percentage of children aged 0-23 months who were exclusively breastfed during the first two days after birth (95% CI)	Percentage of children aged 0-5 months who were exclusively breastfed during the previous day (95% CI)	Percentage of children aged 0-5 months who received mixed milk feeding during the previous day (95% CI)	Percentage of children aged 12-23 months who were breastfed during the previous day (95% CI)
Sokoto state	(1,008) 94.5 (92.5, 95.9)	(343) 32.1 (26.9, 37.8)	(478) 44.7 (38.7, 50.8)	(71) 28.8 (22.8, 35.7)	(6) 2.5 (1.1, 5.9)	(370) 65.5 (60.2, 70.4)
Central Sokoto 1	(218) 92.8 (88.3, 95.6)	(106) 45.1 (34.1, 56.7)	(103) 43.8 (33.2, 55.0)	(23) 37.1 (25.5, 50.4)	(3) 4.8 (1.5, 14.3)	(68) 61.3 (50.1, 71.4)

[13] World Health Organization and United Nations Children's Fund, Indicators for Assessing Infant and Young Child Feeding ractices: Definitions and measurement methods. Geneva: WHO and UNICEF, Geneva, 2021.

State/domain	Percentage of children aged 0-23 months who were ever breastfed (95% CI)	Percentage of children aged 0-23 months who were put to the breast within one hour of birth (95% CI)	Percentage of children aged 0-23 months who were exclusively breastfed during the first two days after birth (95% CI)	Percentage of children aged 0-5 months who were exclusively breastfed during the previous day (95% CI)	Percentage of children aged 0-5 months who received mixed milk feeding during the previous day (95% CI)	Percentage of children aged 12-23 months who were breastfed during the previous day (95% CI)
Central Sokoto 2	(180) 94.7	(28) 14.7	(82) 43.2	(6) 13.0	(0) 0.0	(67) 70.5
	(88.3, 97.7)	(7.6, 26.7)	(29.4, 58.1)	(4.9, 30.5)	(0, 0)	(60.0, 79.2)
Eastern Sokoto 1	(227) 93.0	(98) 39.8	(121) 49.2	(24) 48.0	(1) 2.0	(66) 50.4
	(87.0, 96.4)	(30.3, 50.2)	(39.7, 58.7)	(32.2, 64.2)	(0.3, 12.7)	(41.1, 59.6)
Eastern Sokoto 2	(160) 97.0	(40) 24.1	(72) 43.4	(6) 17.1	(1) 2.9	(74) 74.0
	(91.5, 99.0)	(14.0, 38.3)	(29.0, 58.9)	(7.8, 33.7)	(0.5, 16.0)	(60.6, 84.0)
Southern Sokoto	(209) 94.6	(60) 27.1	(100) 45.2	(12)25.5	(0) 0.0	(77) 66.4
	(89.7, 97.2)	(17.1, 40.3)	(32.6, 58.6)	(14.0, 41.9)	(0, 0)	(55.7, 75.6)
Katsina state	(1,485.3) 97.9	(301.0) 19.8	(576.2) 38.0	(75) 21.2	(21.8) 6.2	(495.9) 62.9
	(96.7, 98.7)	(15.7, 24.8)	(33.1, 43.1)	(16.2, 27.1)	(3.8, 9.8)	(58.9, 66.7)
Central Katsina 1	(191) 94.6	(63) 31.2	(70) 34.7	(9) 18.4	(7) 14.3	(64) 57.7
	(89.4, 97.3)	(19.3, 46.1)	(25.5, 45.1)	(8.5, 35.2)	(6.2, 29.7)	(47.2, 67.5)
Central Katsina 2	(189) 99.5	(40) 21.1	(57) 30.0	(10) 24.4	(2) 4.9	(75) 75.0
	(96.2, 99.9)	(10.4, 38.1)	(19.4, 43.4)	(11.6, 44.1)	(1.2, 17.4)	(62.6, 84.3)
Northern Katsina 1	(204) 97.6	(27) 12.9	(81) 38.8	(7) 19.4	(5) 13.9	(62) 54.9
	(93.2, 99.2)	(6.7, 23.4)	(27.0, 52.0)	(8.2, 39.6)	(5.3, 31.7)	(43.4, 65.8)
Northern Katsina 2	(263) 99.2	(35) 13.2	(99) 37.4	(10) 13.5	(2) 2.7	(90) 63.8
	(96.9, 99.8)	(6.6, 24.8)	(26.0, 50.3)	(6.4, 26.2)	(0.7, 10.5)	(54.5, 72.2)
Southern Katsina 1	(195) 99.0	(47) 23.9	(81) 41.1	(12) 26.7	(1) 2.2	(54) 56.2
	(95.8, 99.8)	(14.3, 37.1)	(27.7, 55.9)	(14.3, 44.2)	(0.3, 13.6)	(43.8, 68.0)
Southern Katsina 2	(218) 99.5	(37) 16.9	(83) 37.9	(5) 10.6	(1) 2.1	(73) 70.9
	(96.6, 99.9)	(7.4, 34.0)	(24.7, 53.2)	(3.1, 31.0)	(0.3, 15.2)	(59.0, 80.5)
Southern Katsina 3	(220) 98.2	(40) 17.9	(96) 42.9	(18) 30.5	(1) 1.7	(76) 66.7
	(94.3, 99.5)	(9.2, 31.8)	(29.4, 57.5)	(17.9, 46.9)	(0.2, 12.1)	(58.2, 74.2)

State/domain	Percentage of children aged 0-23 months who were ever breastfed (95% CI)	Percentage of children aged 0-23 months who were put to the breast within one hour of birth (95% CI)	Percentage of children aged 0-23 months who were exclusively breastfed during the first two days after birth (95% CI)	Percentage of children aged 0-5 months who were exclusively breastfed during the previous day (95% CI)	Percentage of children aged 0-5 months who received mixed milk feeding during the previous day (95% CI)	Percentage of children aged 12-23 months who were breastfed during the previous day (95% CI)
Zamfara state	(565) 96.2 (93.0, 98.0)	(192) 32.6 (25.7, 40.4)	(340) 57.8 (49.6, 65.6)	(40) 28.8 (20.5, 38.7)	(4) 3.0 (1.1, 7.7)	(203) 73.6 (65.9, 80.1)
Central Zamfara	(176) 96.2 (90.6, 98.5)	(60) 32.8 (23.0, 44.4)	(101) 55.2 (43.0, 66.8)	(14) 31.1 (19.3, 46.0)	(1) 2.2 (0.3, 13.1)	(63) 76.8 (43.0, 66.8)
Western Zamfara	(183) 96.3 (91.2, 98.5)	(58) 30.5 (19.4, 44.5)	(121) 63.7 (50.1, 75.4)	(8) 19.0 (8.9, 36.1)	(3) 7.1 (2.3, 20.4)	(58) 65.2 (53.1, 75.5)
Northern Zamfara	(223) 96.1 (90.9, 98.4)	(79) 34.1 (23.1, 47.0)	(141) 60.8 (49.4, 71.1)	(16) 29.6 (17.1, 46.1)	(1) 1.9 (0.2, 12.9)	(90) 72.0 (62.5, 79.9)
Kebbi state	(437) 95.5 (92.7, 97.3)	(179) 39.1 (31.0, 47.8)	(185) 40.5 (32.7, 48.8)	(25) 23.4 (12.3, 40.1)	(9) 8.3 (3.4, 18.7)	(172) 77.5 (70.9, 83.0)
Central Kebbi 1	(135) 95.1 (89.2, 97.8)	(49) 34.5 (22.5, 48.8)	(66) 46.5 (33.3, 60.2)	(3) 15.0 (3.0, 50.2)	(1) 5.0 (0.5, 33.6)	(65) 81.3 (69.9, 89.0)
Central Kebbi 2	(161) 95.3 (89.6, 97.9)	(74) 43.8 (30.1, 58.4)	(57) 33.7 (21.4, 48.7)	(13) 28.3 (10.5, 56.9)	(5) 10.9 (3.3, 30.5)	(64) 79.0 (67.4, 87.3)
Southern Kebbi	(137) 96.5 (90.3, 98.8)	(51) 35.9 (22.2, 52.3)	(65) 45.8 (32.4, 59.8)	(7) 19.4 (9.3, 36.2)	(2) 5.6 (1.2, 22.3)	(40) 69.0 (55.3, 80.0)
Jigawa state	(1,460.0) 95.3 (93.4, 96.7)	(409.5) 26.7 (22.6, 31.3)	(567.9) 37.1 (32.8, 41.6)	(115.0) 30.5 (24.6, 37.1)	(7.3) 1.9 (0.9, 4.3)	(525.9) 67.2 (62.8, 71.3)
Jigawa South	(278) 92.4 (87.6, 95.4)	(87) 28.9 (19.6, 40.3)	(118) 39.2 (30.2, 49.0)	(22) 28.9 (17.9, 43.2)	(2) 2.6 (0.6, 10.9)	(105) 66.9 (56.5, 75.9)
Jigawa Central	(331) 95.9 (89.4, 98.5)	(91) 26.4 (18.1, 36.7)	(111) 32.2 (24.2, 41.3)	(27) 29.7 (18.5, 43.9)	(3) 3.3 (1.0, 10.0)	(103) 61.3 (52.2, 69.7)
Jigawa East	(291) 98.3	(77) 26.0	(107) 36.1	(27) 38.6	(0) 0.0	(104) 68.9

State/domain	Percentage of children aged 0-23 months who were ever breastfed (95% CI)	Percentage of children aged 0-23 months who were put to the breast within one hour of birth (95% CI)	Percentage of children aged 0-23 months who were exclusively breastfed during the first two days after birth (95% CI)	Percentage of children aged 0-5 months who were exclusively breastfed during the previous day (95% CI)	Percentage of children aged 0-5 months who received mixed milk feeding during the previous day (95% CI)	Percentage of children aged 12-23 months who were breastfed during the previous day (95% CI)
	(93.7, 99.6)	(18.3, 35.6)	(25.3, 48.6)	(23.9, 55.7)	(0, 0)	(58.5, 77.6)
Jigawa North	(274) 97.9	(59) 21.1	(110) 39.3	(15) 24.2	(1) 1.6	(110) 78.6
	(95.5, 99.0)	(13.9, 30.6)	(29.0, 50.6)	(13.7, 39.2)	(0.2, 11.9)	(69.4, 85.5)
Jigawa West	(272) 94.1	(86) 29.8	(120) 41.5	(22) 32.4	(0) 0.0	(105) 66.0
	(89.3, 96.8)	(23.0, 37.6)	(32.7, 50.9)	(20.2, 47.5)	(0, 0)	(56.2, 74.6)

Introduction of complementary foods among infants aged 6-8 months stands at moderate levels, with 57 to 76 per cent of children across the five states reported to have received solid, semi-solid or soft foods. This indicates that while most caregivers introduce foods at the recommended age, a considerable proportion of infants may still experience delayed initiation.

Among children aged 6-23 months, only 15 to 48 per cent were reported to meet the criteria for minimum dietary diversity, showing limited consumption of foods from at least five out of eight food groups. Minimum meal frequency was achieved by 40 to 53 per cent of children across the states, while achievement of minimum acceptable diet, which combines dietary diversity and feeding frequency, remains low - ranging from 9 to 27 per cent across states. Achievement of minimum milk feeding frequency among non-breastfed children is particularly low at 7 to 29 per cent.

Table 30. Prevalence of MIYCN practices: Complementary feeding indicators

State/domain	Percentage receiving solid, semi-solid or soft foods (6-8 months) (95% CI)	Percentage of children aged 6-23 months who received:			
		Minimum dietary diversity (95% CI)	Minimum meal frequency (95% CI)	Minimum milk feeding frequency for non-breastfed children (95% CI)	Minimum acceptable diet (95% CI)
Sokoto state	(60) 59.3	(200) 24.2	(336) 40.8	(16) 7.5	(89) 10.8

State/domain	Percentage receiving solid, semi-solid or soft foods (6-8 months) (95% CI)	Percentage of children aged 6-23 months who received:			
		Minimum dietary diversity (95% CI)	Minimum meal frequency (95% CI)	Minimum milk feeding frequency for non-breastfed children (95% CI)	Minimum acceptable diet (95% CI)
	(47.9, 69.7)	(19.7, 29.3)	(35.6, 46.2)	(4.3, 12.9)	(8.1, 14.2)
Central Sokoto 1	(17) 68.0	(43) 24.9	(72) 41.6	(5) 10.9	(19) 11.0
	(42.9, 85.8)	(17.5, 34.0)	(31.8, 52.1)	(4.0, 26.4)	(6.5, 18.0)
Central Sokoto 2	(10) 62.5	(21) 14.6	(70) 48.6	(3) 9.7	(11) 7.6
	(29.3, 87.0)	(8.1, 24.9)	(36.1, 61.3)	(3.2, 25.6)	(3.8, 14.7)
Eastern Sokoto 1	(14) 48.3	(36) 18.4	(61) 31.1	(5) 6.3	(19) 9.7
	(28.2, 68.9)	(11.9, 27.3)	(22.7, 41.0)	(2.2, 17.0)	(5.1, 17.6)
Eastern Sokoto 2	(4) 80.0	(25) 19.1	(59) 45.0	(3)11.5	(14) 10.7
	(14.6, 98.9)	(10.3, 32.6)	(32.2, 58.6)	(3.6, 31.3)	(5.4, 20.0)
Southern Sokoto	(12) 48.0	(63) 36.2	(65) 37.4	(0) 0.0	(22) 12.6
	(29.7, 66.9)	(25.0, 49.1)	(27.4, 48.5)	(0, 0)	(7.0, 21.8)
Katsina state	(139.6) 73.9	(331.7) 28.5	(541.6) 46.6	(42.6) 14.1	(193.4) 16.6
	(67.2, 79.6)	(24.3, 33.2)	(42.4, 50.8)	(9.6, 20.4)	(13.7, 20.0)
Central Katsina 1	(14) 73.7	(62) 40.5	(70) 45.8	(9) 19.1	(30) 19.6
	(52.8, 87.5)	(28.7, 53.5)	(37.3, 54.4)	(8.8, 36.7)	(12.5, 29.4)
Central Katsina 2	(16) 64.0	(26) 17.4	(64) 43.0	(4) 15.4	(19) 12.8
	(39.9, 82.6)	(10.7, 27.2)	(29.3, 57.8)	(4.8, 39.4)	(7.2, 21.5)
Northern Katsina 1	(20) 71.4	(68) 39.3	(77) 44.5	(11) 21.6	(35) 20.2
	(51.2, 85.6)	(27.5, 52.6)	(35.3, 54.1)	(9.2, 42.8)	(13.7, 28.9)
Northern Katsina 2	(19) 67.9	(26) 13.6	(73) 38.2	(4) 7.5	(19) 9.9
	(49.9, 81.8)	(7.8, 22.7)	(26.8, 51.1)	(2.8, 19.0)	(4.8, 19.6)
Southern Katsina 1	(19) 86.4	(54) 35.5	(82) 53.9	(3) 7.0	(28) 18.4
	(61.5, 96.2)	(24.5, 48.3)	(43.6, 64.0)	(2.0, 21.4)	(11.9, 27.4)
Southern Katsina 2	(28) 66.7	(36) 20.9	(71) 41.3	(2) 5.9	(32) 18.6
	(47.3, 81.7)	(12.7, 32.6)	(27.2, 56.9)	(1.3, 22.4)	(10.6, 30.7)
Southern Katsina 3	(23) 85.2	(39) 23.6	(91) 55.2	(5) 12.5	(24) 14.5

State/domain	Percentage receiving solid, semi-solid or soft foods (6-8 months) (95% CI)	Percentage of children aged 6-23 months who received:			
		Minimum dietary diversity (95% CI)	Minimum meal frequency (95% CI)	Minimum milk feeding frequency for non-breastfed children (95% CI)	Minimum acceptable diet (95% CI)
	(68.4, 93.9)	(14.0, 37.0)	(44.7, 65.1)	(4.2, 31.8)	(8.1, 24.6)
Zamfara state	(48) 76.4	(132) 29.6	(236) 52.9	(21) 28.9	(75) 16.8
	(62.2, 86.4)	(22.6, 37.8)	(45.7, 60.0)	(16.3, 45.8)	(11.3, 24.2)
Central Zamfara	(14) 73.7	(45) 32.6	(76) 55.1	(7) 36.8	(25) 18.1
	(50.1, 88.6)	(22.5, 44.7)	(44.0, 65.6)	(14.1, 67.5)	(10.2, 30.2)
Western Zamfara	(21) 77.8	(34) 23.0	(76) 51.4	(4) 12.5	(19) 12.8
	(53.3, 91.5)	(12.2, 38.9)	(41.4, 61.2)	(4.2, 31.9)	(7.1, 22.1)
Northern Zamfara	(17) 85.0	(47) 26.4	(84) 47.2	(10) 28.6	(29) 16.3
	(64.1, 94.7)	(16.3, 39.8)	(37.4, 57.2)	(15.0, 47.6)	(9.0, 27.6)
Kebbi state	(45) 57.2	(170) 48.2	(155) 44.0	(14) 22.4	(94) 26.7
	(43.1, 70.2)	(40.3, 56.2)	(36.2, 52.0)	(13.0, 35.9)	(20.8, 33.6)
Central Kebbi 1	(14) 58.3	(67) 54.9	(60) 49.2	(5) 29.4	(41) 33.6
	(36.3, 77.4)	(40.5, 68.6	(35.7, 62.8)	(11.2, 57.9)	(22.8, 46.4)
Central Kebbi 2	(13) 50.0	(54) 43.9	(54) 43.9	(4) 18.2	(27) 22.0
	(25.6, 74.4)	(30.2, 58.6)	(31.4, 57.2)	(5.2, 47.4)	(13.0, 34.6)
Southern Kebbi	(19) 65.5	(50) 47.2	(40) 37.7	(5) 22.7	(28) 26.4
	(42.6, 83.0)	(35.9, 58.7)	(24.2, 53.5)	(10.0, 43.8)	(17.2, 38.2)
Jigawa state	(124.9) 68.7	(168.8) 14.6	(515.2) 44.6	(17.6) 6.3	(99.9) 8.7
	(59.8, 76.5)	(11.5, 18.5)	(40.1, 49.3)	(3.7, 10.6)	(6.4, 11.6)
Jigawa South	(25) 75.8	(39) 17.3	(101) 44.9	(7) 12.5	(24) 10.7
	(54.1, 89.2)	(10.5, 27.2)	(33.5, 56.8)	(5.5, 25.9)	(5.8, 18.9)
Jigawa Central	(28) 70.0	(30) 11.8	(110) 43.3	(2) 2.9	(17) 6.7
	(50.1, 84.4)	(6.7, 20.0)	(34.6, 52.5)	(0.7, 12.1)	(3.2, 13.4)
Jigawa East	(25) 65.8	(29) 12.8	(105) 46.5	(1) 1.9	(10) 4.4
	(41.7, 83.8)	(7.9, 20.2)	(39.1, 53.9)	(0.2, 14.2)	(2.4, 8.1)
Jigawa North	(19) 61.3	(41) 18.8	(98) 45.0	(1) 2.7	(34) 15.6
	(39.8, 79.1)	(10.9, 30.6)	(34.9, 55.4)	(0.3, 19.6)	(9.0, 25.6)

State/domain	Percentage receiving solid, semi-solid or soft foods (6-8 months) (95% CI)	Percentage of children aged 6-23 months who received:			
		Minimum dietary diversity (95% CI)	Minimum meal frequency (95% CI)	Minimum milk feeding frequency for non-breastfed children (95% CI)	Minimum acceptable diet (95% CI)
Jigawa West	(26) 65.0	(28) 12.7	(98) 44.3	(5) 8.2	(14) 6.3
	(45.9, 80.3)	(6.4, 23.4)	(35.2, 53.9)	(3.2, 19.5)	(3.2, 19.5)

Child food poverty

Child food poverty is an important indicator that reflects the diversity and adequacy of children's diets, which is essential for their growth, development and long-term health.[14] It is measured by the number of food groups a child consumes, with severe food poverty defined as consuming two or fewer groups, moderate poverty as three to four groups and no food poverty as five or more groups.

The analysis of child food poverty shows that a significant proportion of children aged 6-23 months experience inadequate dietary diversity. The proportion of children living in severe child food poverty - that is, those consuming foods from two or fewer food groups - ranges from 25 to 45 per cent across the five states, indicating widespread poor-quality diets among young children.

Moderate child food poverty, defined as consumption from three to four food groups, affects roughly one third to nearly half of children across the states. Only a small proportion of children, ranging from 13 to 30 per cent by state, are not living in child food poverty, meaning that they consume foods from five or more food groups.

Table 31. Child food poverty

State/domain	Severe child food poverty (0-2 groups) (95% CI)	Moderate child food poverty (3-4 groups) (95% CI)	Not living in child food poverty (5+ groups) (95% CI)	No. of children aged 6-23 months
Sokoto state	(272) 31.4 (26.9, 35.9)	(358) 44.5 (39.1, 50.0)	(188) 24.1 (16.6, 31.6)	818
Central Sokoto 1	(51) 29.5	(79) 45.7	(43) 24.9	173
	(22.8, 36.9)	(38.1, 53.4)	(18.6, 32.0)	
Central Sokoto 2	(54) 37.5	(69) 47.9	(21) 14.6	144

[14] United Nations Children's Fund, *Child Food Poverty: Nutrition deprivation in early childhood*, UNICEF, New York, 2024.

State/domain	Severe child food poverty (0-2 groups) (95% CI)	Moderate child food poverty (3-4 groups) (95% CI)	Not living in child food poverty (5+ groups) (95% CI)	No. of children aged 6-23 months
	(29.6, 45.9)	(39.5, 56.4)	(9.3, 21.4)	
Eastern Sokoto 1	(80) 40.8	(80) 40.8	(36) 18.4	196
	(33.9, 48.0)	(33.9, 48.0)	(13.2, 24.5)	
Eastern Sokoto 2	(36) 27.5	(70) 53.4	(25) 19.1	131
	(20.0, 36.0)	(44.5, 62.2)	(12.7, 26.9)	
Southern Sokoto	(51) 29.3	(60) 34.5	(63) 36.2	174
	(22.7, 36.7)	(27.5, 42.1)	(29.1, 43.8)	
Katsina state	(294) 24.9	(550) 47.1	(311) 27.9	1,155
	(20.5, 29.3)	(43.5, 50.8)	(23.4, 32.4)	
Central Katsina 1	(31) 20.3	(60) 39.2	(62) 40.5	153
	(14.2, 27.5)	(31.4, 47.4)	(32.7, 48.7)	
Central Katsina 2	(53) 35.6	(70) 47.0	(26) 17.4	149
	(27.9, 43.8)	(38.8, 55.3)	(11.7, 24.5)	
Northern Katsina 1	(30) 17.3	(75) 43.4	(68) 39.3	173
	(12.0, 23.8)	(35.9, 51.1)	(32.0, 47.0)	
Northern Katsina 2	(63) 33.0	(102) 53.4	(26) 13.6	191
	(26.4, 40.1)	(46.1, 60.6)	(9.1, 19.3)	
Southern Katsina 1	(17) 11.2	(81) 53.3	(54) 35.5	152
	(6.7, 17.3)	(45.0, 61.4)	(27.9, 43.7)	
Southern Katsina 2	(61) 35.5	(75) 43.6	(36) 20.9	172
	(28.3, 43.1)	(36.1, 51.4)	(15.1, 27.8)	
Southern Katsina 3	(39) 23.6	(87) 52.7	(39) 23.6	165
	(17.4, 30.9)	(44.8, 60.5)	(17.4, 30.9)	
Zamfara state	(211) 45.5	(127) 25.5	(126) 29.6	464
	(36.5, 54.5)	(18.5, 31.4)	(18.6, 38.4)	
Central Zamfara	(63) 45.7	(30) 21.7	(45) 32.6	138
	(37.2, 54.3)	(15.2, 29.6)	(24.9, 41.1)	
Western Zamfara	(64) 43.2	(50) 33.8	(34) 23.0	148

State/domain	Severe child food poverty (0-2 groups) (95% CI)	Moderate child food poverty (3-4 groups) (95% CI)	Not living in child food poverty (5+ groups) (95% CI)	No. of children aged 6-23 months
	(35.1, 51.6)	(26.2, 42.0)	(16.5, 30.6)	
Northern Zamfara	(84) 47.2	(47) 26.4	(47) 26.4	178
	(39.7, 54.8)	(20.1, 33.5)	(20.1, 33.5)	
Kebbi state	(88) 25.6	(92) 26.3	(171) 48.1	351
	(19.3, 40.0)	(19.9, 32.7)	(39.0, 57.1)	
Central Kebbi 1	(26) 21.3	(29) 23.8	(67) 54.9	122
	(14.4, 29.6)	(16.5, 32.3)	(45.7, 63.9)	
Central Kebbi 2	(36) 29.3	(33) 26.8	(54) 43.9	123
	(21.4, 38.1)	(19.2, 35.6)	(35.0, 53.1)	
Southern Kebbi	(26) 24.5	(30) 28.3	(50) 47.2	106
	(16.7, 33.8)	(20.0, 37.9)	(37.4, 57.1)	
Jigawa state	(471) 41.2	(527) 46.0	(146) 12.8	1,144
	(38.3, 44.1)	(43.1, 49.0)	(10.9, 14.9)	
Jigawa South	(85) 37.8	(101) 44.9	(39) 17.3	225
	(31.4, 44.5)	(36.3, 53.0)	(10.3, 22.7)	
Jigawa Central	(110) 43.3	(121) 47.6	(23) 9.1	254
	(37.1, 49.6)	(41.4, 54.0)	(5.8, 13.3)	
Jigawa East	(92) 40.7	(111) 49.1	(23) 10.2	226
	(34.2, 47.4)	(42.4, 55.8)	(6.6, 14.9)	
Jigawa North	(89) 40.8	(90) 41.3	(39) 17.9	218
	(34.2, 47.7)	(34.7, 48.1)	(13.0, 23.6)	
Jigawa West	(95) 43.0	(102) 46.2	(24) 10.9	221
	(36.4, 49.8)	(39.4, 53.0)	(7.1, 15.7)	

4.9.3 Indicators at individual level: Girls and women of reproductive age (15-49 years)

Physiological status and age

Understanding the physiological status of girls and women of reproductive age (15-49 years) is crucial for effective maternal and child health programming, as nutritional needs change significantly during pregnancy and breastfeeding. The distribution of girls/women of

reproductive age by physiological status indicates that the majority of this age group - from 51 to 64 per cent across the five states - were non-pregnant and non-lactating at the time of the survey. The proportion of pregnant women reported was relatively low, varying from 11 to 14 per cent across states, which is consistent with expected population fertility patterns.

Among those breastfeeding, 28 to 33 per cent reported breastfeeding infants aged less than 6 months, while a larger proportion - 67 to 72 per cent - reported breastfeeding infants older than 6 months of age.

Table 32. Physiological status of girls and women aged 15-49 years

State/domain	Non-pregnant, non-lactating (95% CI)	Pregnant (95% CI)	Lactating with infant less than 6 months (95% CI)	Lactating with an infant greater than 6 months (95% CI)
Sokoto state	(1,804) 60.9 (58.4, 63.5)	(361) 12.2 (10.8, 13.8)	(225) 27.9 (24.6, 31.5)	(583) 72.1 (68.5, 75.4)
Central Sokoto 1	(452) 63.5	(83)11.7	(59) 32.4	(123) 67.6
	(58.2, 68.4)	(9.2, 14.7)	(25.4, 40.3)	(59.7, 74.6)
Central Sokoto 2	(306) 59.3	(56) 10.9	(42) 26.9	(114) 73.1
	(53.8, 64.6)	(7.5, 15.5)	(19.8, 35.4)	(64.6, 80.2)
Eastern Sokoto 1	(403) 60.4	(91) 13.6	(48) 27.7	(125) 72.3
	(55.9, 64.8)	(11.3, 16.4)	(21.3, 35.2)	(64.8, 78.7)
Eastern Sokoto 2	(269) 59.9	(54) 12.0	(33) 25.8	(95) 74.2
	(53.5, 66.0)	(9.0, 15.9)	(17.8, 35.7)	(64.3, 82.2)
Southern Sokoto	(371) 60.1	(79) 12.8	(44) 25.9	(126) 74.1
	(54.6, 65.4)	(9.8, 16.7)	(21.0, 31.5)	(68.5, 79.0)
Katsina state	(2,269.0) 59.1 (56.6, 61.5)	(466.7) 12.2 (10.9, 13.6)	(342.7) 30.4 (27.5, 33.4)	(784.7) 69.6 (66.6, 72.5)
Central Katsina 1	(379) 63.8	(73) 12.3	(49) 33.6	(97) 66.4
	(57.1, 70.0)	(9.2, 16.2)	(26.2, 41.8)	(58.2, 73.8)
Central Katsina 2	(282) 55.2	(82) 16.0	(43) 28.7	(107) 71.3
	(449.6, 60.7)	(12.8, 19.9)	(19.8, 39.5)	(60.5, 80.2)
Northern Katsina 1	(318) 63.5	(37) 7.4	(33) 22.1	(116) 77.9

State/domain	Non-pregnant, non-lactating (95% CI)	Pregnant (95% CI)	Lactating with infant less than 6 months (95% CI)	Lactating with an infant greater than 6 months (95% CI)
	(55.9, 70.5)	(4.9, 11.1	(15.2, 31.1)	(68.9, 84.8)
Northern Katsina 2	(349) 54.4	(87) 13.6	(73) 34.9	(136) 65.1
	(48.8, 59.8)	(10.3, 17.6)	(28.0, 42.5)	(57.5, 72.0)
Southern Katsina 1	(319) 33.4	(48) 9.6	(42) 30.2	(97) 69.8
	(57.5, 69.0)	(7.2, 12.7)	(22.4, 39.4)	(60.6, 77.6)
Southern Katsina 2	(344) 58.8	(83) 14.2	(47) 29.2	(114) 70.8
	(53.1, 64.3)	(11.1, 18.1)	(21.4, 38.5)	(61.5, 78.6)
Southern Katsina 3	(276) 54.2	(63) 12.4	(55) 32.0	(117) 68.0
	(48.0, 60.3)	(9.0, 16.9)	(25.7, 39.0)	(61.0, 74.3)
Zamfara state	(1,113) 64.0 (61.0, 72.6)	(158) 9.1 (7.4, 11.1)	(154) 32.9 (27.4, 39.0)	(314) 67.1 (61.0, 72.6)
Central Zamfara	(412) 66.3	(55) 8.9	(54) 35.3	(99) 64.7
	(60.6, 71.6)	(6.6, 11.9)	(26.6, 45.1)	(54.9, 73.4)
Western Zamfara	(291) 59.8	(42) 8.6	(45) 28.8	(111) 71.2
	(53.9, 65.4)	(6.2, 11.8)	(21.7, 37.3)	(62.7, 78.3)
Northern Zamfara	(380) 59.7	(66) 10.4	(58) 30.1	(135) 69.9
	(54.3, 64.8)	(7.9, 13.4)	(23.8, 37.2)	(62.8, 76.2)
Kebbi state	(765) 58.0 (54.9, 61.0)	(170) 12.9 (11.0, 15.1)	(109) 28.0 (23.0, 33.7)	(279) 72.0 (66.3, 77.0)
Central Kebbi 1	(296) 63.7	(55) 11.8	(27) 23.5	(88) 76.5
	(57.3, 69.6)	(8.5, 16.2)	(14.6, 35.4)	(64.6, 85.4)
Central Kebbi 2	(235) 55.0	(51) 11.9	(43) 30.5	(98) 69.5
	(50.5, 59.5)	(9.0, 15.6)	(22.4, 40.0)	(60.0, 77.6)
Southern Kebbi	(241) 56.6	(66) 15.5	(34) 27.9	(88) 72.1
	(50.4, 62.6)	(12.1, 19.6)	(20.4, 36.8)	(63.2, 79.6)
Jigawa state	(1,701.9) 51.3	(470.9) 14.2	(370.6) 31.6	(803.6) 68.4

State/domain	Non-pregnant, non-lactating (95% CI)	Pregnant (95% CI)	Lactating with infant less than 6 months (95% CI)	Lactating with an infant greater than 6 months (95% CI)
	(48.6, 54.0)	(12.9, 15.7)	(28.4, 34.9)	(65.1, 71.6)
Jigawa South	(307) 45.5	(124) 18.4	(85) 34.1	(164) 65.9
	(39.2, 52.1)	(15.3, 22.0)	(27.5, 41.4)	(58.6, 72.5)
Jigawa Central	(330) 48.2	(104) 15.2	(86) 33.3	(172) 66.7
	(43.4, 53.0)	(12.6, 18.2)	(26.5, 40.9)	(59.1, 73.5)
Jigawa East	(389) 57.0	(85) 12.4	(66) 30.6	(150) 69.4
	(50.7, 63.0)	(9.5, 16.1)	(24.6, 37.3)	(62.7, 75.4)
Jigawa North	(353) 55.5	(58) 9.1	(59) 25.9	(169) 74.1
	(48.2, 62.6)	(6.8, 12.1)	(20.4, 32.2)	(67.8, 79.6)
Jigawa West	(358) 56.0	(77) 12.1	(63) 30.0	(147) 70.0
	(50.1, 61.8)	(9.3, 15.6)	(22.8, 38.3)	(61.7, 77.2)

MUAC in girls and women of reproductive age

Mid-upper arm circumference (MUAC) is a key indicator used to assess malnutrition, particularly among non-pregnant, non-lactating girls/women in the reproductive age group, as it provides a simple, reliable proxy of body mass and nutritional reserves that is less influenced by pregnancy-related weight gain, lactation-associated physiological changes, or gestational age. The nutritional assessment of girls and women aged 15-49 years using MUAC shows measurements of 230 mm or above for the majority, with a smaller proportion having values below this threshold.

At the state level, the weighted results show that the proportion of women with MUAC <230 mm among non-pregnant, non-lactating girls/women ranges from 13.1 per cent in Kebbi to 29.2 per cent in Jigawa, with Sokoto (24.1 per cent), Zamfara (25.1 per cent) and Katsina (26.5 per cent) also recording higher levels of nutritional vulnerability. Among pregnant and lactating girls/women, the state-level weighted proportions with MUAC <230 mm are 9.6 per cent in Kebbi, 12.0 per cent in Zamfara, 16.4 per cent in Sokoto, 20.0 per cent in Jigawa and 21.1 per cent in Katsina.

Within the five states, there are pockets where the situation is more concerning at domain level. For example, proportions of girls/ women with MUAC <230 mm are higher in Central Katsina 1 (32.9 per cent among non-pregnant, non-lactating girls/women; 21.3 per cent among pregnant and lactating girls/women), Northern Katsina 1 (33.0 per cent and 37.1 per cent, respectively), Jigawa Central (34.5 per cent and 21.6 per cent, respectively) and Jigawa North (31.7 per cent and 24.8 per cent, respectively). These results indicate areas where girls/women are more likely to fall below the 230 mm threshold for malnutrition and hence are areas that may require closer programmatic attention.

Table 33. Prevalence of MUAC-based malnutrition among women of reproductive age (15-49 years), by pregnancy and lactation status

State/domain	Non-pregnant and non-lactating		Pregnant and lactating	
	Using MUAC <230 mm		Using MUAC <230 mm	
	<230 mm (95% CI)	≥230 mm (95% CI)	<230 mm (95% CI)	≥230 mm (95% CI)
Sokoto state	(433) 24.1 (21.3, 27.1)	(1,365) 75.9 (72.9, 78.7)	(96) 16.4 (13.4, 19.9)	(490) 83.6 (80.1, 86.6)
Central Sokoto 1	(127) 28.2 (24.0, 32.8)	(323) 71.8 (67.2, 76.0)	(19) 13.4 (8.2, 21.1)	(123) 86.6 (78.9, 91.8)
Central Sokoto 2	(68) 22.2 (16.2, 29.8)	(238) 77.8 (70.2, 83.8)	(16) 16.3 (9.9, 25.8)	(82) 83.7 (74.2, 90.1)
Eastern Sokoto 1	(79) 19.7 (14.9, 25.5)	(322) 80.3 (74.5, 85.1)	(25) 18.2 (13.0, 24.9)	(112) 81.8 (75.1, 87.0)
Eastern Sokoto 2	(64) 23.8 (16.3, 33.4)	(205) 76.2 (66.6, 83.7)	(15) 17.2 (10.8, 26.4)	(72) 82.8 (73.6, 89.2)
Southern Sokoto	(84) 22.7 (17.6, 28.8)	(286) 77.3 (71.2, 82.4)	(22) 17.9 (11.9, 26.1)	(101) 82.1 (73.9, 88.1)
Katsina state	(588.6) 26.5 (23.9, 29.3)	(1,629.1) 73.5 (70.7, 76.1)	(170.4) 21.1 (17.9, 24.8)	(635.3) 78.9 (75.2, 82.1)
Central Katsina 1	(124) 32.9 (27.5, 38.8)	(253) 67.1 (61.2, 72.5)	(26) 21.3 (13.6, 31.8)	(96) 78.7 (68.2, 86.4)
Central Katsina 2	(63) 22.3 (18.0, 27.3)	(219) 77.7 (72.7, 82.0)	(27) 21.8 (14.9, 30.6)	(97) 78.2 (69.4, 85.1)

State/domain	Non-pregnant and non-lactating		Pregnant and lactating	
	Using MUAC <230 mm		Using MUAC <230 mm	
	<230 mm (95% CI)	≥230 mm (95% CI)	<230 mm (95% CI)	≥230 mm (95% CI)
Northern Katsina 1	(99) 33.0	(201) 67.0	(26) 37.1	(44) 62.9
	(24.2, 43.2)	(56.8, 75.8)	(22.7, 54.3)	(45.7, 77.3)
Northern Katsina 2	(88) 25.3	(260) 74.7	(34) 21.3	(26) 78.7
	(19.9, 31.5)	(68.5, 80.1)	(15.2, 28.9)	(71.1, 84.8)
Southern Katsina 1	(68) 22.5	(234) 77.5	(14) 15.9	(74) 84.1
	(18.0, 27.8)	(72.2, 82.0)	(9.8, 24.7)	(75.3, 90.2)
Southern Katsina 2	(62) 18.0	(282) 82.0	(13) 10.2	(115) 89.8
	(12.9, 24.5)	(75.5, 87.1)	(5.5, 17.9)	(82.1, 94.5)
Southern Katsina 3	(65) 24.5	(200) 75.5	(26) 22.0	(92) 78.0
	(17.3, 33.5)	(66.5, 82.7)	(15.0, 31.2)	(68.8, 85.0)
Zamfara state	(278.6) 25.1	(832.2) 74.9	(37.3) 12.0	(274.0) 88.0
	(21.5, 29.1)	(70.9, 78.5)	(8.0, 17.5)	(82.5, 92.0)
Central Zamfara	(106) 25.8	(305) 74.2	(12) 11.0	(97) 89.0
	(20.8, 31.5)	(68.5, 79.2)	(5.7, 20.2)	(79.8, 94.3)
Western Zamfara	(77) 26.6	(213) 73.4	(9) 10.5	(77) 89.5
	(20.9, 33.1)	(66.9, 79.1)	(5.0, 20.7)	(79.3, 95.0)
Northern Zamfara	(80) 21.1	(300) 78.9	(20) 16.3	(103) 83.7
	(15.6, 27.7)	(72.3, 84.4)	(10.9, 23.5)	(76.5, 89.1)
Kebbi state	(98.7) 13.1	(657.4) 86.9	(26.6) 9.6	(251.4) 90.4
	(10.6, 16.0)	(84.0, 89.4)	(6.7, 13.5)	(86.5, 93.3)
Central Kebbi 1	(42) 14.3	(251) 85.7	(12) 14.8	(69) 85.2
	(10.3, 19.6)	(80.4, 89.7)	(8.3, 25.0)	(75.0, 91.7)
Central Kebbi 2	(28) 11.9	(207) 88.1	(8) 8.5	(86) 91.5
	(8.0, 17.5)	(82.5, 92.0)	(4.5, 15.6)	(84.5, 95.5)
Southern Kebbi	(31) 13.2	(203) 86.8	(7) 7.0	(93) 93.0
	(8.8, 19.4)	(80.6, 91.2)	(3.3, 14.2)	(85.8, 96.7)

State/domain	Non-pregnant and non-lactating		Pregnant and lactating	
	Using MUAC <230 mm		Using MUAC <230 mm	
	<230 mm (95% CI)	≥230 mm (95% CI)	<230 mm (95% CI)	≥230 mm (95% CI)
Jigawa state	(495.6) 29.2 (26.6, 31.8)	(1,204.2) 70.8 (68.2, 73.4)	(168.5) 20.0 (16.9, 23.6)	(672.1) 80.0 (76.4, 83.1)
Jigawa South	(75) 24.5	(231) 75.5	(45) 21.5	(164) 78.5
	(20.0, 29.6)	(70.4, 80.0)	(15.9, 28.5)	(71.5, 84.1)
Jigawa Central	(114) 34.5	(216) 65.5	(41) 21.6	(149) 78.4
	(27.9, 41.9)	(58.1, 72.1)	(14.7, 30.5)	(69.5, 85.3)
Jigawa East	(115) 29.6	(2731) 70.4	(22) 14.7	(128) 85.3
	(24.3, 35.6)	(64.4, 75.7)	(9.1, 22.7)	(77.3, 90.9)
Jigawa North	(112) 31.7	(241) 68.3	(29) 24.8	(88) 75.2
	(27.0, 36.8)	(63.2, 73.0)	(16.9, 34.8)	(65.2, 83.1)
Jigawa West	(88) 24.6	(270) 75.4	(22) 15.7	(118) 84.3
	(19.5, 30.5)	(69.5, 80.5)	(10.3, 23.3)	(76.7, 89.7)

Iron-containing supplementation during pregnancy

During pregnancy, girls/women have higher needs for micronutrients and hence are at risk of micronutrient deficiencies, including iron deficiency, which is a primary cause of anaemia. Severe anaemia can place the mother and baby in danger through increased risk of blood loss during labour, preterm delivery, low birthweight and perinatal mortality.[15] To help address maternal anaemia, interventions provide iron tablets or syrup and/or iron-containing multiple micronutrient tablets to pregnant girls/women.[16]

Across the Northwest region of Nigeria, access and adherence to iron and folic acid supplementation (IFAS) or multiple micronutrient supplementation (MMS) among girls/women who gave birth in the last 24 months remain below recommended levels. The proportion

[15] Haider, B.A., I. Olofin, M. Wang, D. Spiegelman, M. Ezzati and W.W. Fawzi, "Anaemia, Prenatal Iron Use, and Risk of Adverse Pregnancy Outcomes: Systematic review and meta-analysis", *BMJ*, 2013, 346, f3443.

[16] World Health Organization, *WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience*, WHO, Geneva, 2016.

of girls/women who reported receiving or possessing IFAS/MMS ranges from 32 to 60 per cent across the five states.Adherence to IFAS (defined as consumption for 90 days or more during pregnancy) remains low, with rates ranging from 13 to 37 per cent across states. This indicates that while many girls/women are reached with supplementation, a smaller proportion adhere to the recommended duration of intake.

Table 34. Iron-containing supplementation during pregnancy

State/domain	IFAS/MMS possession/coverage/access (95% CI)	IFAS/MMS consumption/adherence (≥ 90 days) (95% CI)	No. of girls/women who gave birth in last 24 months
Sokoto state	(267) 32.5 (26.9, 38.1)	(109) 13.3 (10.0, 16.6)	821
Central Sokoto 1	(86) 44.8 (37.6, 52.1)	(42) 21.9 (16.2, 28.4)	192
Central Sokoto 2	(44) 30.8 (23.3, 39.0)	(18) 12.6 (7.6, 19.2)	143
Eastern Sokoto 1	(61) 30.7 (24.3, 37.6)	(20) 10.1 (6.3, 15.1)	199
Eastern Sokoto 2	(36) 30.0 (22.0, 39.0)	(11) 10.1 (4.7, 15.8)	120
Southern Sokoto	(41) 23.3 (17.3, 30.3)	(18) 10.2 (6.2, 15.7)	176
Katsina state	(719) 56.1 (51.2, 61.0)	(388) 30.3 (26.6, 34.0)	1,282
Central Katsina 1	(101) 62.3 (54.4, 69.8)	(51) 31.5 (24.4, 39.2)	162
Central Katsina 2	(88) 48.4 (40.9, 55.9)	(47) 25.8 (19.6, 32.8)	182
Northern Katsina 1	(77) 49.4 (41.3, 57.5)	(41) 26.3 (19.6, 33.9)	156

State/domain	IFAS/MMS possession/coverage/access (95% CI)	IFAS/MMS consumption/adherence (≥ 90 days) (95% CI)	No. of girls/women who gave birth in last 24 months
Northern Katsina 2	(116) 45.0	(61) 23.6	258
	(38.8, 51.3)	(18.6, 29.3)	
Southern Katsina 1	(112) 70.4	(68) 42.8	159
	(62.7, 77.4)	(35.0, 50.8)	
Southern Katsina 2	(127) 62.3	(76) 37.3	204
	(55.2, 68.9)	(30.6, 44.3)	
Southern Katsina 3	(105) 58.3	(54) 30.0	180
	(50.8, 65.6)	(23.4, 37.3)	
Zamfara state	(234) 44.0	(106) 19.9	532
	(36.0, 52.1)	(13.5, 26.3)	
Central Zamfara	(85) 50	(41) 24.1	170
	(42.3, 57.8)	(17.9, 31.3)	
Western Zamfara	(64) 35.6	(24) 13.3	180
	(28.6, 43.0)	(8.7, 19.2)	
Northern Zamfara	(83) 36.1	(34) 14.8	230
	(29.9, 42.7)	(10.5, 20.0)	
Kebbi state	(220) 56.3	(113) 28.8	392
	(44.8, 67.8)	(21.1, 36.5)	
Central Kebbi 1	(64) 53.8	(30) 25.2	119
	(44.4, 63.0)	(17.7, 34.0)	
Central Kebbi 2	(67) 54.0	(24) 19.4	124
	(44.9, 63.0)	(12.8, 27.4)	
Southern Kebbi	(91) 60.7	(65) 43.3	150
	(52.4, 68.5)	(35.3, 51.7)	
Jigawa state	(792) 60.3	(281) 36.6	1,326
	(56.9, 63.7)	(33.2, 40.0)	
Jigawa South	185 (62.7)	40 (21.6)	295
	(56.9, 68.2)	(15.9, 28.3)	

State/domain	IFAS/MMS possession/coverage/access (95% CI)	IFAS/MMS consumption/adherence (≥ 90 days) (95% CI)	No. of girls/women who gave birth in last 24 months
Jigawa Central	177 (61.0)	82 (46.3)	294
	(55.2, 66.7)	(38.8, 54.0)	
Jigawa East	138 (59.0)	68 (49.3)	234
	(52.4, 65.3)	(40.7, 57.9)	
Jigawa North	170 (63.2)	35 (20.6)	269
	(57.1, 69.0)	(14.8, 27.5)	
Jigawa West	129 (55.1)	59 (45.7)	234
	(48.5, 61.6)	(36.9, 54.7)	

The types of nutritional supplement received by girls/women during pregnancy vary by formulation. The most reported supplement was iron and folic acid tablets, received by 23 to 58 per cent of girls/women who gave birth in the last 24 months.

Use of MMS is lower, with coverage ranging from 13 to 38 per cent of this group, while iron tablets alone were less frequently reported (5 to 20 per cent). The use of iron syrup is minimal across all five states.

Table 35. Iron-containing supplementation during pregnancy among girls/women who gave birth in the last 24 months, by type and state/domain

	Type of supplement received during pregnancy				
State/domain	Iron tablets (95% CI)	IFAS (95% CI)	MMS (95% CI)	Iron syrup (95% CI)	No. of girls/women who gave birth in last 24 months
Sokoto state	(46) 5.6 (3.0, 8.2)	(186) 22.7 (17.6, 27.8)	(134) 16.4 (12.6, 20.1)	(1) 16.4 (0.0, 0.2)	821
Central Sokoto 1	(9) 4.7	(46) 24.0	(52) 27.1	(0) 0.0	192
	(2.2, 8.7)	(18.1, 30.6)	(20.9, 34.0)	(0.0, 1.9)	
Central Sokoto 2	(9) 6.3	(28) 19.6	(27) 18.9	(1) 0.7	143
	(2.9, 11.6)	(13.4, 27.0)	(12.8, 26.3)	(0.0, 3.8)	

State/domain	Type of supplement received during pregnancy				
	Iron tablets (95% CI)	IFAS (95% CI)	MMS (95% CI)	Iron syrup (95% CI)	No. of girls/women who gave birth in last 24 months
Eastern Sokoto 1	(2) 1.0	(43) 21.6	(28) 14.1	(0) 0.0	199
	(0.1, 3.6)	(16.1, 28.0)	(9.6, 19.7)	(0.0, 1.8)	
Eastern Sokoto 2	(12) 10.0	(33) 27.5	(10) 8.3	(0) 0.0	120
	(5.3, 16.8)	(19.7, 36.4)	(4.1, 14.8)	(0.0, 3.0)	
Southern Sokoto	(8) 4.5	(32) 18.2	(23) 13.1	(0) 0.0	176
	(2.0, 8.8)	(12.8, 24.7)	(8.5, 19.0)	(0.0, 2.1)	
Katsina state	(119) 9.3	(608) 47.5	(164) 12.8	(5) 0.4	1,282
	(6.5, 12.1)	(42.5, 52.5)	(9.5, 16.0)	(0.0, 0.7)	
Central Katsina 1	(20) 12.3	(67) 45.7	(12) 7.4	(1) 0.6	162
	(7.7, 18.4)	(37.8, 53.7)	(3.9, 12.6)	(0.0, 3.4)	
Central Katsina 2	(26) 14.3	(67) 36.8	(33) 18.1	(2) 1.1	182
	(9.5, 20.2)	(29.8, 44.3)	(12.8, 24.5)	(0.1, 3.9)	
Northern Katsina 1	(1) 0.6	(69) 44.2	(15) 9.6	(0) 0.0	156
	(0.0, 3.5)	(36.3, 52.4)	(5.5, 15.4)	(0.0, 2.3)	
Northern Katsina 2	(23) 8.9	(102) 39.5	(31) 12.0	(0) 0.0	258
	(5.7, 13.1)	(33.5, 45.8)	(8.3, 16.6)	(0.0, 1.4)	
Southern Katsina 1	(20) 12.6	(85) 53.5	(16) 10.1	(3) 1.9	159
	(7.9, 18.8)	(45.4, 61.4)	(5.9, 15.8)	(0.4, 5.4)	
Southern Katsina 2	(35) 17.2	(125) 61.3	(37) 18.1	(0) 0.0	204
	(12.3, 23.0)	(54.2, 68.0)	(13.1, 24.1)	(0.0, 1.8)	
South Katsina 3	(7) 3.9	(92) 51.1	(26) 14.4	(0) 0.0	180
	(1.6, 7.8	(43.6, 58.6)	(9.7, 20.4)	(0.0, 2.0)	
Zamfara state	(25) 4.7	(139) 26.1	(108) 20.3	(0) 0.0	532
	(1.0, 8.4)	(19.1, 33.1)	(14.2, 26.4)	(0, 0)	
Central Zamfara	(12) 7.1	(45) 26.5	(44) 25.9	(0) 0.0	170
	(3.7, 12.0)	(20.0, 33.8)	(19.5, 33.1)	(0.0, 2.1)	
Western Zamfara	(3) 1.7	(46) 25.6	(21) 11.7	(0) 0.0	180
	(0.3, 4.8)	(19.4, 32.6	(7.4, 17.3)	(0.0, 2.0)	
Northern Zamfara	(3) 1.3	(59) 25.7	(31) 13.5	(0) 0.0	230

State/domain	Type of supplement received during pregnancy				
	Iron tablets (95% CI)	IFAS (95% CI)	MMS (95% CI)	Iron syrup (95% CI)	No. of girls/women who gave birth in last 24 months
	(0.3, 3.8)	(20.1, 31.8)	(9.3, 18.6)	(0.0, 1.6)	
Kebbi state	(79) 20.3 (11.4, 29.1)	(181) 46.2 (35.0, 57.4)	(150) 38.2 (28.5, 48.0)	(54) 13.8 (6.4, 21.3)	392
Central Kebbi 1	(25) 21.0	(59) 49.6	(45) 37.8	(12) 10.1	119
	(14.1, 29.4)	(40.3, 58.9)	(29.1, 47.2)	(5.3, 17.0)	
Central Kebbi 2	(36) 29.0	(51) 41.1	(56) 45.2	(27) 21.8	124
	(21.2, 37.9)	(32.4, 50.3)	(36.2, 54.3)	(14.9, 30.1)	
Southern Kebbi	(13) 8.7	(75) 50.0	(45) 30.0	(10) 6.7	150
	(4.7, 14.4)	(41.7, 58.3	(22.8, 38.0)	(3.2, 11.9)	
Jigawa state	(1.5) 0.3 (0.0, 2.1)	(385.8) 58.3 (54.9, 61.7)	(117.8) 17.8 (15.1, 20.5)	0.0 (0, 0)	1,326
Jigawa South	(1) 0.5	(142) 76.8	(13) 7.0	0.0	295
	(0.0, 3.0)	(70.0, 82.6)	(3.8, 11.7)	(0, 0)	
Jigawa Central	0.0	(19) 34.5	(29) 52.7	0.0	294
	(0, 0)	(22.2, 48.6)	(38.8, 66.3)	(0, 0)	
Jigawa East	0.0	(60) 43.5	(49) 35.5	0.0	234
	(0, 0)	(35.1, 52.2)	(27.6, 44.1)	(0, 0)	
Jigawa North	(1) 0.6	(109) 64.1	(7) 4.1	0.0	269
	(0.0, 3.2)	(56.4, 71.3)	(1.7, 8.3)	(0, 0)	
Jigawa West	0.0	(54) 41.9	(17) 13.2	0.0	234
	(0, 0)	(33.2, 50.9)	(7.9, 20.3)	(0, 0)	

5.0 Discussion

5.1 Nutritional status of the Northwest region

The 2025 SMART Survey results show that acute malnutrition (wasting) among children aged 0-59 months, measured by weight-for-height z-score (WHZ), is present across all five states of Nigeria's Northwest region. Wasting prevalence is 7.4 per cent in Katsina, 7.8 per cent in Jigawa and 8.5 per cent in Zamfara, reaching higher levels still in Sokoto (11.2 per cent) and Kebbi (11.3 per cent). Severe

wasting prevalence, again based on WHZ, varies from 0.8 to 1.6 per cent, with the highest levels recorded in Kebbi (1.6 per cent) and Sokoto (1.4 per cent) and comparatively lower proportions in Katsina (1.0 per cent), Jigawa (0.9 per cent) and Zamfara (0.8 per cent).

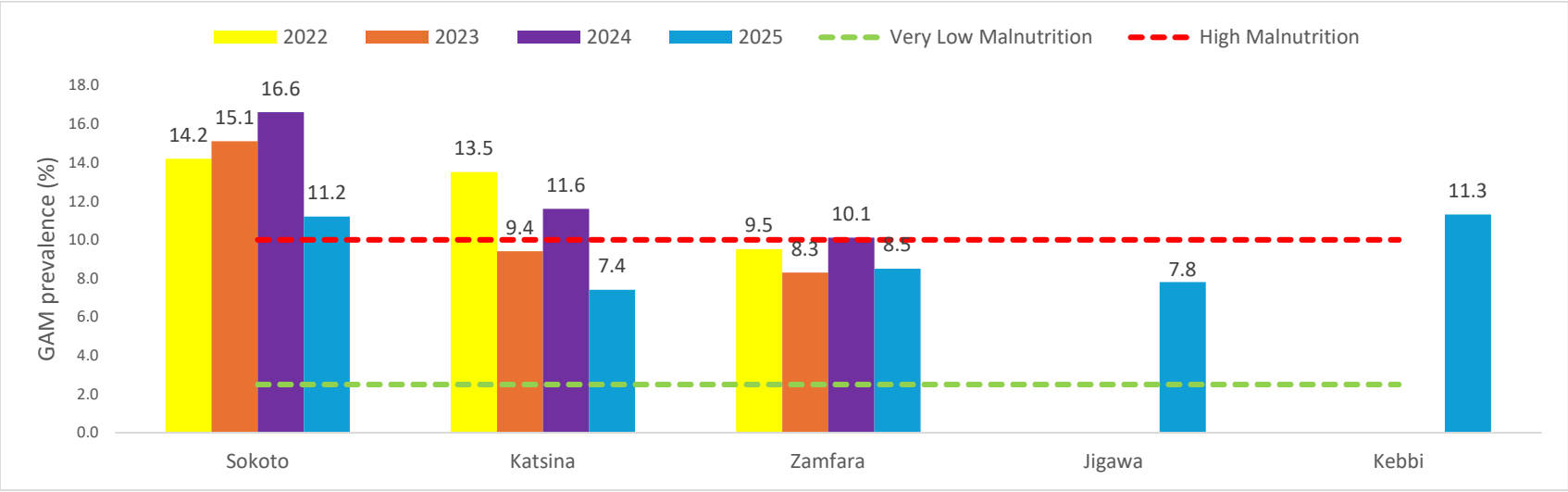
When mid-upper arm circumference (MUAC) is used as the indicator, the pattern of acute malnutrition is broadly similar. Wasting prevalence based on MUAC <125 mm ranges from 5.6 per cent in Jigawa and 6.6 per cent in Katsina to 7.7 per cent in Zamfara, 8.8 per cent in Kebbi and 9.8 per cent in Sokoto. Prevalence of severe wasting, based on MUAC <115 mm, ranges from 1.8 per cent in Katsina and Zamfara to 2.3 per cent in Sokoto, with Jigawa (2.0 per cent) and Kebbi (1.9 per cent) falling within this narrow interval

Sex-disaggregated analysis indicates small differences in wasting prevalence between boys and girls across states, with no consistent or substantial sex-based pattern observed.

Trends in the prevalence of global acute malnutrition (2022-2025)

A review of global acute malnutrition (GAM) prevalence trends from 2022 to 2025 shows a mixed picture across the three states with comparable historical data (Katsina, Sokoto and Zamfara), while the inaugural survey of Jigawa and Kebbi during the 2025 round provides a baseline for these two states.

Figure 1. Trends in GAM prevalence (2022-2025)



The trend analysis across the four survey years shows variation in wasting prevalence among the three states with historical data, albeit with most values falling within the medium or high prevalence bands. In Sokoto, wasting prevalence shifted from 14.2 per cent in 2022 (high) to 16.6 per cent in 2024 (very high), before declining to 11.2 per cent in 2025, which again falls within the high category. Katsina shows year-to-year fluctuation, declining from 13.5 per cent in 2022 to 9.4 per cent in 2023, increasing to 11.6 per cent in 2024, and subsequently falling to 7.4 per cent in 2025. Despite the temporary rise in 2024, the overall change between 2022 and 2025 reflects a net reduction, with the state now falling within the medium prevalence category. Zamfara shows year-to-year variability, with wasting prevalence ranging from 9.5 per cent to 10.1 per cent from 2022 to 2024 (bordering the medium-high threshold), before decreasing to 8.3 per cent in 2025, which falls within the medium category.

Kebbi and Jigawa, included for the first time in the 2025 survey, reported wasting prevalence of 11.3 per cent and 7.8 per cent, respectively. This places Kebbi in the high prevalence category, aligning closely with Sokoto's profile, whereas Jigawa's result belongs in the medium category, comparable to Katsina and Zamfara. These baseline data now provide essential reference points for future surveillance and programme monitoring in Kebbi and Jigawa states.

Overall, the inter-state trends show a gradual reduction in GAM prevalence in several states, with values clustering around the WHO medium-high severity threshold of 10 per cent. Localized areas with prevalence above this threshold persist.

5.2 Mortality

The mortality component of the survey assessed both the crude mortality rate (CMR) and under-five mortality rate (U5MR) within the defined recall period, providing an indication of recent population-level health conditions and the broader humanitarian situation.

Across the five surveyed states, the CMR in each case remains below the emergency threshold of 1 death/10,000 persons/day, while the under-five mortality rate (U5MR) in each state remains below the WHO emergency threshold of 2 deaths/10,000 children under 5 years/day, indicating that no acute mortality crisis was identified at the time of data collection.

5.3 Determinants of malnutrition

5.3.1 Food consumption

The analysis of food consumption patterns highlights that inadequate dietary intake remains a major driver of acute malnutrition across the surveyed states. Most children are consuming limited food groups, and meal frequency is below the recommended minimum. This indicates that children's diets are not only insufficient in quantity but also poor in quality, lacking essential nutrients needed for healthy growth and immunity.

Across the domains, findings reveal widespread child food poverty, with a large proportion of children consuming foods from very few food groups. In most cases, staples such as cereals and tubers dominate the diet, while nutrient-dense foods like animal proteins, fruits and vegetables are rarely consumed. This monotonous dietary pattern is a key factor underlying the medium to high prevalence of acute malnutrition observed in the region.

Complementary feeding practices are similarly weak. A low proportion of children are receiving both the minimum dietary diversity and the minimum acceptable diet, reflecting limited access to diverse foods, as well as suboptimal feeding behaviours. These gaps are more pronounced in settings where household food insecurity and maternal undernutrition are prevalent. The coexistence of poor diet quality and frequent childhood illness further compounds the problem, leading to a cycle of inadequate intake, disease and wasting.

5.3.2 Disease burden

Child morbidity remains a key immediate determinant of acute malnutrition across all surveyed states. The data reveal that fever, diarrhoea and acute respiratory infection (ARI) are the most frequently reported illnesses among children under 5 years of age, with fever and diarrhoea particularly common. These illnesses directly contribute to nutrient losses, reduced appetite and impaired nutrient absorption, creating a cyclical relationship between infection and undernutrition.

Fever was the most reported illness, consistent with the high malaria endemicity in the Northwest region. States such as Zamfara and Kebbi recorded notably higher fever prevalence, aligning with their relatively elevated GAM levels. Diarrhoea is also common, particularly in Zamfara and Sokoto, indicating poor water quality and hygiene conditions. Although levels of care-seeking behaviour for fever are encouraging in several states, treatment coverage for diarrhoea remains low, with limited use of oral rehydration salts (ORS) and zinc. This gap suggests weaknesses in both household health knowledge and access to supplies at the community level.

ARIs were less frequently reported, but their occurrence - combined with the high prevalence of fever and diarrhoea - signals continued vulnerability to infectious diseases. The presence of multiple overlapping illnesses in the same households further exacerbates nutritional depletion among young children.

The observed pattern demonstrates that disease exposure and inadequate management of childhood illness are critical pathways driving acute malnutrition in the region. Persistent morbidity, when combined with poor dietary intake and low micronutrient supplementation, intensifies the risk of wasting.

5.3.3 Caring and feeding practices

Maternal, infant and young child nutrition (MIYCN) practices play a central role in determining nutrition outcomes, particularly during the first two years of life. The findings show that while breastfeeding is almost universal across the surveyed states, the quality and timing of feeding practices are suboptimal.

Most mothers reported having breastfed their children at some point, indicating that breastfeeding is well-established culturally. Yet early initiation of breastfeeding, a critical step for promoting immunity and colostrum intake, remains low in most states. Delayed initiation often results from delivery practices, cultural beliefs or lack of skilled postnatal support.

Exclusive breastfeeding during the first six months of life is also below recommended levels in nearly all domains. Many infants are introduced to water or foods other than breast milk too early, diluting nutrient intake and exposing them to infection risks. This early introduction of mixed feeding is particularly concerning in contexts where access to safe water and good hygiene practices is limited, as it heightens exposure to pathogens and contributes to diarrhoeal illness and growth faltering.

Despite the low rates of exclusive breastfeeding, rates of continued breastfeeding into the second year of life are relatively high, showing that mothers value the practice even if early feeding practices are inconsistent with WHO recommendations. The challenge therefore lies not in acceptance of breastfeeding itself, but in the timing and exclusivity of breastfeeding during the first six months, when nutritional and immunological benefits are most crucial.

Overall, these results highlight that feeding practices, rather than breastfeeding coverage, are the critical constraint. Poor adherence to recommended early initiation and exclusive breastfeeding, combined with delayed complementary feeding and inadequate dietary diversity, undermines optimal child growth and immunity.

5.3.4 Health services and environmental conditions

Access to preventive health services and a healthy living environment are fundamental determinants of nutritional well-being. The survey results show that while essential child health interventions such as vitamin A supplementation, deworming, and micronutrient distribution are being implemented across the surveyed states, coverage remains far below national targets.

Vitamin A supplementation is inconsistent, with fewer than half of eligible children receiving the supplements in most domains. Deworming coverage is similarly low, indicating limited reach of preventive health campaigns at the community level. Multiple micronutrient powder (MNP) distribution is minimal, showing that routine micronutrient interventions are not yet established as part of household nutrition practices. The cumulative effect of these gaps is weakened immunity and increased vulnerability to infection, both of which exacerbate the risk of wasting.

Iron supplementation coverage among girls and women of reproductive age (15-49 years) remains low across the surveyed domains, with fewer than half of pregnant girls/women reporting consistent intake for at least 90 days during their last pregnancy. This falls significantly below national and WHO targets. Low adherence is often attributed to limited antenatal care attendance, inconsistent supply at facility level and poor awareness of the benefits of supplementation. The resulting maternal iron deficiency and anaemia not only increase the risk of low birthweight and premature births but also contribute to intergenerational cycles of malnutrition by predisposing infants to poor growth and increased morbidity.

Environmental conditions further compound this challenge. Although access to improved water sources is relatively high in some states, particularly Zamfara, Kebbi and Jigawa, a large proportion of households still rely on unprotected hand-dug wells and surface water. Such sources are prone to contamination and are key drivers of diarrhoeal disease transmission.

Sanitation coverage is uneven, with the majority of households in several domains lacking access to improved sanitation facilities. Even where improved toilets exist, shared use and inadequate maintenance reduce their protective effect. The situation is worsened by the near absence of functional handwashing stations where both water and soap are available, especially in rural areas, indicating poor hygiene practices and limited behaviour change support.

6.0 Conclusion and recommendations

6.1 Conclusion

The survey findings indicate that wasting remains a public health concern across the Northwest region of Nigeria. While mortality levels are within acceptable ranges, the prevalence of wasting, ranging from 7.4 to 11.3 per cent across the surveyed states, falls within the medium to high categories of prevalence, highlighting ongoing vulnerability among children under 5 years of age. These levels reflect a context of multiple and interconnected constraints, including inadequate dietary intake, recurring illness, limited access to quality health and water, sanitation and hygiene (WASH) services, and insufficient coverage of maternal and child nutrition interventions.

These patterns suggest that children continue to face conditions that compromise adequate growth and health, reflected in both the acute and chronic forms of malnutrition observed in the region. If these conditions remain unchanged, the risks of preventable illness, impaired development and long-term nutrition challenges are likely to continue.

6.2 Recommendations

The following recommendations are anchored in the survey's evidence and aligned with the Government of Nigeria's National Multi-Sectoral Plan of Action for Food and Nutrition (2021-2025).

Scale up life-saving nutrition response in high-risk local government areas (LGAs) with global acute malnutrition (GAM) prevalence above 10 per cent:

- Expand the Integrated Management of Acute Malnutrition programme to all high-burden LGAs, ensuring uninterrupted supply of ready-to-use therapeutic food and essential medicines.
- Strengthen community-based active case finding through community health workers and mother-to-mother support groups, integrated with routine health and outreach services.

Prevent malnutrition before it starts:

- Scale up vitamin A supplementation, deworming, and multiple micronutrient supplementation (MMS) to reach at least 80 per cent of target populations.
- Intensify infant and young child feeding (IYCF) counselling using social and behaviour change communication strategies that empower caregivers to adopt optimal feeding practices and leverage community influencers to shift social norms.

Address food insecurity and improve diet quality:

- Integrate nutrition-sensitive agriculture into ongoing livelihood and climate resilience programmes to enhance dietary diversity and year-round food availability.
- Expand cash and voucher assistance, targeting nutritionally vulnerable households during lean seasons.
- Promote fortified complementary foods, small livestock rearing and food fortification as sustainable, market-driven solutions.

Improve health, and water, sanitation and hygiene (WASH) systems:

- Strengthen WASH-nutrition convergence, prioritizing areas with high GAM and diarrhoea prevalence exceeding 15 per cent.
- Accelerate community-led sanitation efforts and ensure functional handwashing facilities are available in households, schools and health facilities.
- Expand access to safe water through rehabilitation of boreholes, solar-powered systems and protection of groundwater sources.

Empower girls and women and strengthen maternal nutrition:

- Expand maternal nutrition interventions, including iron and folic acid supplementation (IFAS) and MMS, through antenatal care and community platforms.
- Support girls' and women's empowerment, and education initiatives to improve decision-making over household food, income and childcare.
- Engage men and community leaders to promote gender-equitable nutrition and health practices.

Build resilience and strengthen governance:

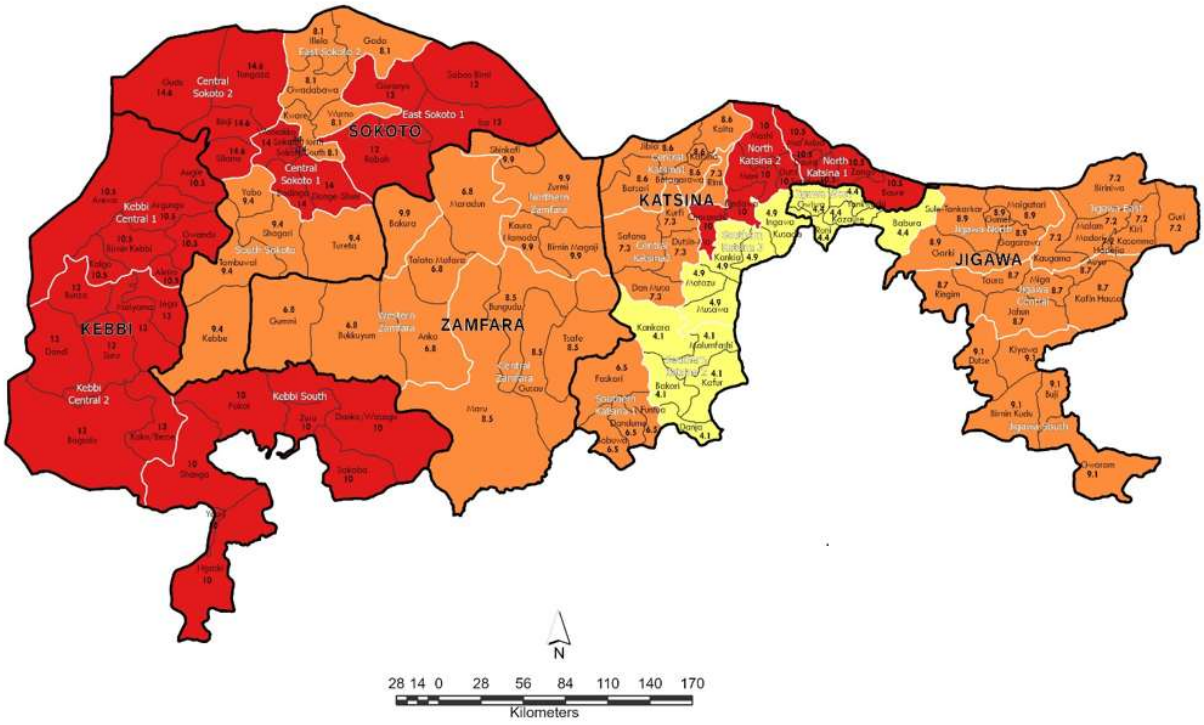
- Strengthen nutrition surveillance and SMART surveys for evidence-based decision-making at the state level.
- Strengthen multisectoral coordination platforms, led by state committees on food and nutrition, to ensure coherence across sectors.
- Promote joint humanitarian-development planning between government and partners to transition from emergency response to long-term resilience.

Annexes

Annex 1. Cluster selection

NW_SMART Cluster Assingment 2025.xlsx

Annex 2. Map of survey area: Northwest region of Nigeria



The map is for illustration purposes only

Annex 3. List of excluded settlements

Zamfara_Excluded settlements.xlsx

Katsina_excluded_settlements.xlsx

Excluded Sokoto settlements by dom

Annex 4. List of survey managers

S/No	Name	Role	Organization
1	Edward Kutondo	National survey coordinator	United Nations Children's Fund (UNICEF)
2	Nura Shehu	Survey manager	UNICEF
3	Tobi Olukemitan	Survey manager	UNICEF
4	Bashir Modu	Survey manager	UNICEF
5	Abolaji Olarewaju	Survey manager	National Bureau of Statistics (NBS)
6	Patricia Bitiyong	Survey manager	NBS
7	Mbani Juliana	Survey manager	NBS
8	Uwaye Gift Esele	Survey manager	NBS
9	Afeez Adeniran	Survey manager	NBS
10	Aliyu Abubakar	Survey manager	NBS
11	Akilu Sada	Survey manager	Umaru Musa Yaradua University, Katsina
12	Abdulbasir Iliyasu	Survey manager	Katsina State Primary Health Care Agency
13	Jamilu Garba	Survey manager	Jigawa State Bureau of Statistics
14	Saifullahi Sani Ibrahim	Survey manager	Katsina State Bureau of Statistics
15	Abubakar Aliyu Ibrahim	Survey manager	Katsina State Primary Health Care Development Agency
16	Dahiru Muhammad Bello	Survey manager	Sokoto State Primary Health Care Development Agency
17	Brian Asande	Survey manager	Action Against Hunger Canada
18	Kevin Mutegi	Survey manager	Action Against Hunger Canada
19	Demis Teklu	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).