

Demography & Sampling

The FIT Sentinel Surveillance was designed as a sample-census in which 15 settlements were selected per ward and 5 health facilities per LGA. Data was collected in 5 settlements each in the 144 wards from all the 23 accessible LGAs. The demography of the sample is as indicated in the diagram below;

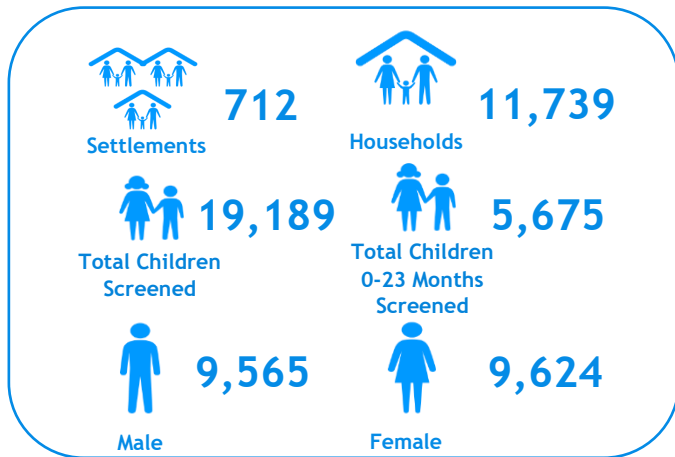


Figure 1: Demographic characteristics of the sample

Nutrition & Health Status

The results of the nutritional status of children 6-59 months using MUAC measurement reveals an overall Global Acute Malnutrition (GAM) rate of 6.0% which represent an increase of 0.2% when compared to previous round and SAM rate of 0.8% (an increase of 0.2% from previous round) for the whole state with only Kaga, Kala Balge & Magumeri LGAs having a high GAM rate of above 15% and SAM rate of more than 2.0%. However, disaggregating the data for the most vulnerable age group (6-23 months old) reveals a more than two-fold increase in the rates to 14.2% and 1.9% for GAM and SAM respectively. Further disaggregation of the data for 6-23 months old by LGA shows that 14 of 23 LGAs have SAM rates of 2 or more percent while on the other hand, 18 out of 23 LGAs have GAM rates above 10% (figure 2 & Annex I).

Analysis of diarrhea results shows that 2 of the 23 LGAs (Mobbar & Nganzai) had a number above 10% for children 0-59 months old. Further, disaggregating the data for the most vulnerable children (0-23 months old) reveals that 4 LGAs (Damboa, Dikwa, Mobbar & Ngala) have rates of above 10% with the rest having numbers below 10% see Annex I for details.

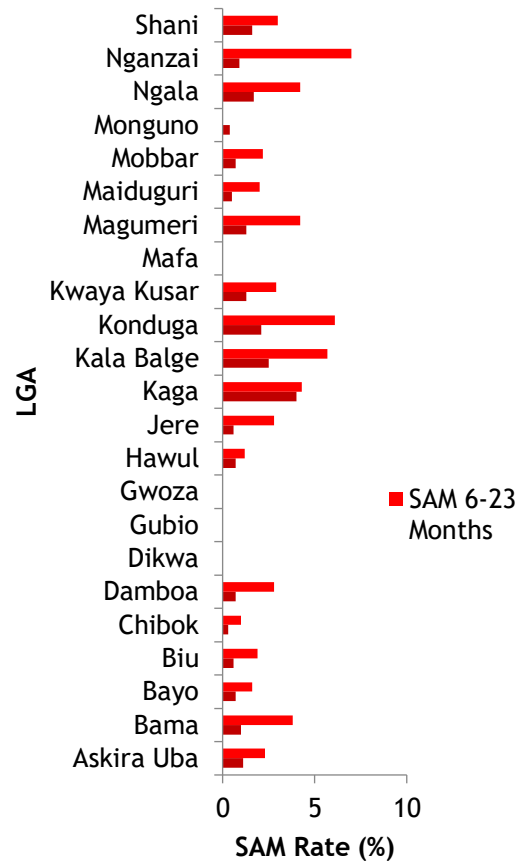


Figure 2: Severe acute malnutrition rates for children 6-59 months and 6-23months

Alerts Threshold

The aim of the surveillance system is to generate alerts that will guide the project implementation. The alerts are a form of early warning system that will flag changes (deterioration and improvement) between rounds that will guide the project response to emerging crisis and documentation of lessons learnt in improving scenarios. Changes (percentage point change) between rounds in GAM (5%), SAM (1%) and diarrhea (5%) as well as outbreak of either measles or cholera are considered as alerts. Positive changes or improvement (decrease from previous round) are considered positive alerts while deterioration or negative changes (increase from previous rounds) are considered as negative alerts.

The alerts thresholds are as presented in the chart below;

ALERTS THRESHOLD		
1	GAM prevalence Threshold = 5%	
	≥5% Reduction	Positive Alert
	≥5% Increase	Negative Alert
2	SAM prevalence Threshold = 1%	
	≥1% Reduction	Positive Alert
	≥1% Increase	Negative Alert
3	Diarrhea prevalence Threshold = 5%	
	≥5% Reduction	Positive Alert
	≥5% Increase	Negative Alert
4	Outbreak of Measles & or Cholera	
	Cholera outbreak	Negative Alert
	Measles outbreak	Negative Alert

Alerts Generated

Although the caregivers of 317 children 6-59 months of age in 18 out of 21 LGAs (all except Dikwa, Kala Balge and Nganzai) reported that the children have shown signs of measles within the last 2 weeks (see Annex II). There was no confirmation from the DSNO as the results are currently being awaited. Thus, no confirmed cases of measles and cholera were reported, hence no alerts were registered for them.

Table 2: Shows changes in GAM, SAM and Diarrhea as compared to the data obtained in the last round

LGA	Change from Last Round (%)		
	GAM	SAM	Diarrhea
Askira Uba	-4.3	1.5	-1.1
Bama	23.6	3.8	-5.4
Bayo	-2.0	-0.5	0.1
Biu	7.5	0.7	-0.5
Chibok	7.6	0.5	0.3
Damboa	8.1	1.1	11.1
Dikwa	5.0	0.0	17.5
Gubio	2.7	-4.5	0.0
Gwoza	-1.1	-0.5	1.1
Hawul	1.6	0.1	-1.6
Jere	1.4	1.7	-0.6
Kaga	21.8	1.6	0.0
Kala Balge	8.0	4.6	0.0
Konduga	12.3	5.1	2.0
Kwaya Kusar	-1.2	0.9	-1.0
Mafa	22.9	0.0	0.9
Magumeri	-28.5	0.7	-5.3
Maiduguri	7.9	1.4	-0.8
Mobbar	31.1	2.2	20.0
Monguno	-40.5	0.0	0.0
Ngala	0.0	4.2	30.2
Nganzai	5.5	3.0	0.0
Shani	-2.8	-2.1	-1.8

Alerts Legend

■	Normal
■	Positive Alert or Improvement
■	Negative Alert or Deterioration
■	Malnutrition Alert LGA
■	Diarrhea Alert LGA
■	Diarrhea & Malnutrition Alert LGA

Six deterioration or negative alerts for malnutrition were registered for Bama, Kaga, Kala Balge, Konduga, Maiduguri and Nganzai LGAs with percentage point changes $\geq 5\%$ and $\geq 1\%$ for GAM and SAM respectively. While on the other hand, combined malnutrition/diarrhea alert with $\geq 5\%$ deterioration in GAM or Diarrhea and or $\geq 1\%$ for SAM were recorded in 4 LGAs (Damboa, Dikwa, Mobbar & Ngala). Finally, 5 LGAs (Biu, Chibok and Mafa:- high GAM deterioration & Askira Uba and Jere:-high SAM deterioration) should be observed more due to high changes in GAM and SAM rates from last round. None of the 23 LGAs showed a Diarrhea alert. In total, 10 LGAs have alerts (see the table 1 above for details). None of the LGAs showed improvement across all the 3 indicators when compared to last round of data collection.

Overall, 10 LGAs have alerts (6 malnutrition and 4 malnutrition/diarrhea alerts) which needs to be investigated further with a small study or analysis of additional data. None of the alerts met the criteria for an emergency response as there was no confirmed outbreak of cholera or measles.

Recommendations

Based on the findings above, we recommend that;

- i. The high deterioration in GAM, SAM and Diarrhea numbers in Damboa and Mobbar LGAs makes it imperative to investigate further the drivers of malnutrition in these LGAs.
- ii. The high deterioration in diarrhea rates in Damboa, Dikwa, Mobbar and Ngala LGAs should also be investigated.
- iii. A meeting of the FIT Implementation Committee be convened immediately to decide possible response implementation strategy to identified alerts.
- iv. Finally, even though Biu, Chibok and Mafa which shows high GAM changes as well as Askira Uba and Jere LGAs that shows high SAM changes did not meet the criteria of malnutrition alert, the data reveals changes GAM rate and SAM rates of above the set thresholds for SAM and GAM alert individually. These necessitated the need for the nutrition team and partners to keep an eye these LGAs and ensure that every child that requires treatment is responded to accordingly.

Annex I: Table of GAM, SAM and Diarrhea rates for children 6-23 months and 6-59 months old

LGA	GAM		SAM		Diarrhoea		Change from Last Round (%)			Total Children 6-23 Months	Total Under 5 Children
	6-59 Months	6-23 Months	6-59 Months	6-23 Months	6-59 Months	6-23 Months	GAM	SAM	Diarrhea		
Askira Uba	4.4	9.2	1.1	2.3	0.7	1.2	-4.3	1.5	-1.1	347	1,183
Bama	7.9	26.9	1.0	3.8	0.0	0.0	23.6	3.8	-5.4	26	101
Bayo	5.5	12.6	0.7	1.6	1.5	3.0	-2.0	-0.5	0.1	508	1,562
Biu	5.7	16.5	0.6	1.9	2.2	4.5	7.5	0.7	-0.5	322	1,101
Chibok	5.3	13.4	0.3	1.0	0.2	0.3	7.6	0.5	0.3	323	1,200
Damboa	6.0	15.4	0.7	2.8	9.7	28.0	8.1	1.1	11.1	160	599
Dikwa	0.7	5.0	0.0	0.0	6.6	17.5	5.0	0.0	17.5	40	272
Gubio	6.9	9.5	0.0	0.0	0.0	0.0	2.7	-4.5	0.0	809	1,173
Gwoza	0.0	0.0	0.0	0.0	4.7	9.2	-1.1	-0.5	1.1	122	598
Hawul	4.0	9.0	0.7	1.2	2.2	4.3	1.6	0.1	-1.6	528	1,608
Jere	3.4	12.5	0.6	2.8	2.3	7.9	1.4	1.7	-0.6	477	2,164
Kaga	48.9	56.5	4.0	4.3	0.6	0.0	21.8	1.6	0.0	23	176
Kala/Balge	15.0	22.9	2.5	5.7	0.0	0.0	8.0	4.6	0.0	36	80
Konduga	11.3	31.3	2.1	6.1	3.1	5.0	12.3	5.1	2.0	183	609
Kwaya Kusar	6.3	13.1	1.3	2.9	1.1	1.9	-1.2	0.9	-1.0	624	1,698
Mafa	8.4	27.9	0.0	0.0	0.2	0.9	22.9	0.0	0.9	111	490
Magumeri	17.9	41.7	1.3	4.2	1.3	0.0	-28.5	0.7	-5.3	48	151
Maiduguri	5.9	19.1	0.5	2.0	0.4	1.0	7.9	1.4	-0.8	407	1,835
Mobbar	9.9	31.1	0.7	2.2	15.4	20.0	31.1	2.2	20.0	45	273
Monguno	7.9	16.0	0.4	0.0	0.0	0.0	-40.5	0.0	0.0	25	239
Ngala	3.2	15.7	1.7	4.2	11.5	31.3	0.0	4.2	30.2	115	845
Nganzai	7.7	37.5	0.9	7.0	0.9	0.0	5.5	3.0	0.0	24	117
Shani	8.4	16.5	1.6	3.0	1.6	3.0	-2.8	-2.1	-1.8	372	1,115
Total	6.0	14.2	0.8	1.9	1.9	3.6				5,675	19,189

Annex II: Summary of locations sampled, suspected measles and birth registration reported by LGA

LGA	Number of Locations Sampled/LGA			Birth Registration Reported			Self-Reported Measles**		Total Under 5 Children
	Wards	Settlements	Households*	Certificate Sighted	Certificate Not Sighted		Suspected Cases	Confirmed Cases	
					DoB Known	DoB Unknown / Not Registered			
Askira/Uba	12	60	807	7.2	80.8	12.0	11	0	1,183
Bama	3	15	101	53.5	2.0	44.6	0	0	101
Bayo	10	50	888	5.1	22.3	72.6	4	0	1,562
Biu	9	45	595	16.1	51.8	32.1	17	0	1,101
Chibok	10	50	653	28.8	25.2	46.0	10	0	1,200
Damboa	3	15	180	26.9	2.7	70.5	8	0	599
Dikwa	1	5	186	0.4	15.8	83.8	25	0	272
Gubio	3	15	330	0.0	0.1	99.9	1	0	1173
Gwoza	5	25	492	12.4	74.1	13.6	3	0	598
Hawul	12	60	969	42.7	39.6	17.8	21	0	1,608
Jere	11	55	1,146	7.7	19.1	73.3	18	0	2,164
Kaga	4	20	162	0.0	14.8	85.2	0	0	176
Kala/Balge	1	5	64	91.3	8.8	0.0	0	0	80
Konduga	5	25	412	33.0	20.2	46.8	28	0	609
Kwaya Kusar	10	50	938	45.2	19.3	35.4	10	0	1,698
Mafa	3	15	367	0.6	62.4	36.9	1	0	490
Magumeri	3	15	82	0.0	2.6	97.4	0	0	151
Maiduguri	15	75	1,388	8.6	39.6	51.9	21	0	1,835
Mobbar	2	10	256	0.0	0.4	99.6	40	0	273
Monguno	2	10	137	0.0	15.5	84.6	0	0	239
Ngala	4	20	683	0.4	14.2	85.4	20	0	845
Nganzai	1	5	110	0.0	0.0	100.0	13	0	117
Shani	11	55	793	16.1	41.8	42.0	66	0	1,115
Total	140	700	11,739				317	0	19,189

***Note:** only households with children 6-59 months were visited during data collection. The list of the households was generated from the sampling frame developed during the sample-census in July-October 2019 and updated in February-April 2020.

**This is self-reported by the caregivers where they were asked if their children have shown signs of measles within the last 2 weeks. Reports were shared with the LGA DSNO for further investigation. While the confirmed cases were as confirmed by the DSNO or in the EWARS as well as the weekly IDSR reports.