

**Report on NMS Round 7**

**NUTRITION AND MORTALITY  
MONITORING IN IDP POPULATIONS**

**October 2023**

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Report finalised: 30/11/2023



## EXECUTIVE SUMMARY

This is the seventh report from the 2022/2023 Nutrition and Mortality Monitoring System project. Data collection for this round was conducted and funded by the BRCiS consortium. Between 19<sup>th</sup> September and 30<sup>th</sup> September, 2023, data was collected from 1,400 IDP households in 14 sites/camps in Khada and Daynille in the Afgooye Corridor, Baidoa, and Kismayo. Overall, there has been continued progress within the sentinel sites covered in Round 7, although the humanitarian response has still not achieved Sphere Standards in key interventions.

In Round 7 data collection we explored reasons for continued displacement. The median time since arrival within the 14 IDP sites/camps ranged from 14 months up to 23 months. An average of 38% of households, and 34% of the total population, had left the camps (out-migrated) since the first round of data collection took place. Of households that were remaining in the camps, 29% reported that at least one member had left to return to their area of origin. Reasons given for remaining in the camps included both *push* and *pull* factors. *Push* factors such as loss of livestock/crops and ongoing conflict were reported more frequently than *pull* factors such as better services and employment opportunities in the IDP sites.

Households reporting the use of water from tankers has continued to drop, except in Baidoa, where this rise increased. Tankers also remained an important water source in Kismayo. In Khada, all the household included in round 7 had access to public taps, or handpumps, and there was increased use of wells or springs in Daynille. The household experience of drinking water adequacy has improved in all areas although about 1 in 3 households are still sometimes experiencing inadequate drinking water in Baidoa and Kismayo. Open defecation in the field was reported by some households in all areas, although the situation has generally improved since round 5. It remains a significant issue in Baidoa and Kismayo.

The trend in GAM by MUAC prevalence indicates that, overall, an improving nutritional situation is continuing, although the prevalence is showing a slow upward trend in Baidoa. In all areas the prevalence is now <10% and in 2 areas it is <5%. However, there is variation between camps, and within the individual camps included in Round 7, the prevalence remains above the critical 15% threshold in one site, and above 10% in one site. Nutrition treatment coverage showed large % differences from the previous round. However, this was expected due to the small number of cases and random variation. There was an overall increase in MAM treatment coverage of 20%, with 84% of cases being treated. Only 4/10 SAM cases were receiving treatment. The target coverage of >90% was only achieved in one area for MAM and the combined coverage for both MAM and SAM treatment remains below standard.

Possession of a child health record card had improved since Round 5 and health record cards are now observed for 58% of all children. However, this is still low and will continue to impede the effective delivery and monitoring of child health and nutrition services. Measles vaccination coverage has continued to improve and the combined coverage is 72%. However, as coverage in 3 out of the 4 areas lies below 90%, there is still a need for further strengthening of routine vaccination services. Cholera vaccination coverage increased and overall coverage on children aged 12-59 mo. is now 62%. There was a continuing downwards trend in cases of measles and AWD.

Crude and under death rates remained stable and well below emergency thresholds.

## Recommendations

1. Action to consolidate the improvements in WASH services are still required to ensure adequate access to potable water and eliminate the use of open field defecation. This is especially important given the expected increase in flooding and disease risk associated with heavy OND rainfall.
2. Efforts to strengthen treatment services for acute malnutrition should continue to try and improve the coverage of selective feeding programmes.
3. Vaccination coverage continues to slowly improve but still remains below Sphere Standards and further action should be taken to improve coverage, including the implementation of on-demand and campaign vaccination services.
4. The outlook over the next 2 months remains concerning and emergency response capacity should be readied. The military action against Al-Shabaab by government forces, local clan militia, and international forces may increase<sup>1</sup> and further population displacement remains possible. Flash floods are expected to occur in riverine districts along the Shabelle and Juba rivers due to the combined effect of the El Nino and the Indian Ocean Dipole.

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## INTRODUCTION

This is the seventh report from the Nutrition and Mortality Monitoring System (NMS) 2022/2023 project, that was set up to track the health and nutrition situation of IDP populations in southern Somalia. During the crisis the NMS sentinel site data collection has provided regular updates about the situation of vulnerable groups in purposively selected locations in Banadir, Baidoa, Dinsoor and Galkayo, Kismayo, and Dollow.<sup>1</sup> The previous round of NMS data collection (Round 6) took place in April 2023 and was funded and conducted by the Caafimaad Plus consortium. This current data collection round was conducted and funded by the BRCiS consortium, led by NRC, in partnership with Evidence for Change (e4c).

The overall situation in southern Somalia has seen a number of changes since April. Through the collaborative efforts of communities, humanitarian partners, and authorities, and with better-than-expected Gu rainfall (March to May) performance, the overall situation has continued to improve, and the immediate effects of the drought emergency have dissipated.<sup>2</sup> But despite the scaled-up implementation of response activities, the health and nutrition situation remains serious, and long term negative impacts on livelihoods and coping strategies are likely to remain for some time. As of September 2023, over 1 million people are projected to remain or fall into IPC Acute Food Insecurity Phase 4 (Emergency) up to the end of 2023.<sup>3</sup> An estimated 1.5 million children under 5 face acute malnutrition between August 2023 and July 2024, including 330,630 who are projected to become severely malnourished.<sup>4</sup>

Conflict has not escalated to the extent that had been feared, but the prospects still remain for continued or increased fighting and the possibility of further population displacement.<sup>5</sup> Flooding is expected to continue in some regions in the coming two months due to El Nino and the Indian Ocean Dipole.<sup>6</sup> This will increase the risk of water-borne disease outbreaks such as AWD and cholera, and an associated increase in malnutrition and risk of death in vulnerable groups such as children and the elderly.

This current report details the results from following up on the camps that were last sampled in Round 5, February-March 2023. The objective was to find out about how the health and nutrition situation had evolved over the last 6 months, and to determine what proportion of the camp population had left to return to their place of origin or move elsewhere.

<sup>1</sup> Nutrition and Mortality Monitoring System (NMS) - Synthesis Report (July 2022- April 2023)

<https://reliefweb.int/report/somalia/nutrition-and-mortality-monitoring-system-nms-synthesis-report-july-2022-april-2023>

<sup>2</sup> EPI watch: Epidemiological Bulletin for Epidemic-prone diseases in Somalia for Week 36-37 of 2023 (4-17 September 2023) <https://reliefweb.int/report/somalia/epi-watch-epidemiological-bulletin-epidemic-prone-diseases-somalia-week-36-37-2023-4-17-september-2023>

<sup>3</sup> IPC Somalia: Acute Food Insecurity Situation for August - September 2023 and Projection for October - December 2023 <https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1156562/?iso3=SOM>

<sup>4</sup> IPC Somalia: Acute Malnutrition Situation for August - September 2023 and Projection for October - December 2023 <https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1156564/?iso3=SOM>

<sup>5</sup> International Crisis Group - Somalia <https://www.crisisgroup.org/crisiswatch/october-alerts-and-september-trends-2023#somalia>

<sup>6</sup> SWALIM, Deyr 2023 Climate Outlook And Its Implication On Livelihoods And Programming Over Somalia [https://www.faoswalim.org/resources/site\\_files/DEYR\\_2023\\_climate\\_outlook\\_and\\_impacts\\_on\\_livelihoods.pdf](https://www.faoswalim.org/resources/site_files/DEYR_2023_climate_outlook_and_impacts_on_livelihoods.pdf)

### Sampling

The Nutrition and Mortality Monitoring System (NMS) approach<sup>7</sup> was used to collect data from a purposively selected sample of IDP sites/camps. Details of the sampling and data collection methods can be found in the Round 1 report.<sup>8</sup>

In Round 7, sampling was continued in sites/camps that had been last sampled in Round 5, back in Feb-Mar 2023. The number of sites included in the current round was 14, due to the partial ending of donor funding. Data collection took place between Sep 19<sup>th</sup> and Sep 30<sup>th</sup>, 2023. Details of the sample achieved is given in Table 1.

### Team training

Hybrid trainings were conducted by e4c consultants with support from health and nutrition officers from BRCiS members. The Team training was conducted either face-to-face or remotely via video link.

One-day refresher training for community health workers (CHW), enumerators, and supervisors who had been involved in previous data collection rounds were conducted. During the training, an overview of different types of malnutrition, a virtual demonstration of MUAC measurements, the assessment of oedema, and the identification of suspected measles were provided.

### Data collection

Data was collected at household level by trained CHW and enumerators. The questionnaire was developed by e4c after consultation with BRCiS and Caafimaad Plus, and other experts working on Somalia. It was developed in English and then translated into Somali. The data collection form was piloted and revised based on the feedback from teams during the training sessions. It was coded in ODK, and data was uploaded to the ONA Systems server. Data collectors used mobile phones or tablets running the Android operating system.

Teams were comprised of two CHW or enumerators, one of which conducted the interviews and one who performed the MUAC measurements. Data collection took approximately 10 minutes for each household and teams averaged 10 households per day.

The questionnaire included questions on household demographics, area of origin and clan affiliation, date of arrival in the IDP site, spoken dialects/languages, household WASH, possession of child-health record cards, vaccination status, morbidity, and mortality. Questions on morbidity included symptoms of measles and acute watery diarrhoea (AWD) experienced during the last 2 weeks. MUAC measurements were taken on children 6-59 months in duplicate and, in the event that the difference in measurements was greater than 0.5 cm, a third measure was taken and the mean of the two measurements with the best agreement was used.

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<sup>7</sup> Seal, A. J., et al. (2021). "Use of verbal autopsy for establishing causes of child mortality in camps for internally displaced people in Mogadishu, Somalia: a population-based, prospective, cohort study." *Lancet Glob Health* 9(9): e1286-e1295.

<sup>8</sup> <https://reliefweb.int/report/somalia/nutrition-and-mortality-monitoring-idp-populations-report-round-1-july-2022-report-issued-15082022>

## Data management

MUAC measurements and questionnaire data, collected by the CHW and enumerators, were entered into an ODK data form on mobile phones or tablets running the Android operating system. Data was uploaded to a server run by ONA Data after forms were finalised, and an internet connection was available. The data files were then downloaded from the ONA server in .csv format and loaded into Excel and R for data quality checks, cleaning, and analysis. Unique IDs for each household and individual were created during data collection using a unique household identifier number and sequential individual ID numbers within each household. To avoid the creation of duplicate ID numbers a paper 'cluster control sheet' was used to monitor the collection of data by each team. To find households that had been previously interviewed, household identifiers were uploaded to the digital devices so that the household identity could be confirmed at the start of each interview.

## Data analysis

Data analysis was performed in R. Graphs and sparkline mini graphs were prepared in Excel and added to tables to aid visualisation. The prevalence of GAM and SAM by MUAC was calculated taking in to account the prevalence of nutritional oedema.

The under-five and crude death rates were measured using the recall period since the memorable date of Eid al-Adha, on June 28, 2023. Household members who joined, left, or died within the recall period contributed half of the recall period to the rate denominator. To cross-check that the date of death fell within the recall period follow-up questions were asked to confirm the number of weeks since the death occurred, and whether the location of the death was consistent with the household's date of arrival in the IDP camp. These were used during analysis to exclude any deaths that occurred outside of the recall period, or deaths that had occurred in a location outside of the IDP camp after the household reported arriving in the camp.

To assess whether conditions within IDP camps are improving or deteriorating over time, bar graphs or tables were prepared to show key indicators for each camp and how they changed between data collection rounds. If the humanitarian response is adequate a positive improvement in performance and outcome indicators is expected as the time since arrival increases.

## IDP Sample Characteristics

The characteristics of the samples collected in each area and IDP site are described in table 1. In total, during Round 7 data was collected from 1,400 IDP households in 14 sites (camps). The sampled households contained 8,298 individuals. The median time since arrival within the 14 IDP sites ranged from 14 months up to 23 months.

An average of 38% of households had left these 14 camps (out-migrated) since the first round of data collection took place. This ranged from a high of 74% down to 2% of households within each camp. Thirty-four % of the total population found in the first data collection round had out-migrated.

In this round, we added some additional questions for households that were still resident in the camps, to find out whether any members of their household had left to return to their village or area of origin. The results from this question are shown in Table 2. Overall, 29% of the households that were remaining in the camps reported that at least one member had left to return to their area of origin. For households members that had remained the main reason for them staying is shown in figure 1. The reasons varied by area, with loss of livestock or crops reported most frequently from camps in the Afgooye Corridor, and 'other' reported in Baidoa. In Kismayo, ongoing conflict in the area of origin was the most frequent reason given for remaining in the camps.



Table 1: Data Collection Summary

Area	Partner	IDP site	Round 1 (18 <sup>th</sup> Jul - 2 <sup>nd</sup> Aug, 2022)			Round 2 (21 <sup>st</sup> Aug - 10 <sup>th</sup> Sep, 2022)			Round 3 (21 <sup>st</sup> Nov - 11 <sup>th</sup> Dec, 2022)			Round 4 (18 <sup>th</sup> Jan - 11 <sup>th</sup> Feb (2023))			Round 5 (27 <sup>th</sup> Feb - 22 <sup>nd</sup> Mar 2023)			Round 7 (17 <sup>th</sup> Sep - 30 <sup>th</sup> Sep, 2023) <sup>2</sup>			Overall Change <sup>2</sup>		Months since arrival <sup>1</sup>						
			Households	Population	Household size	Households	Change	Population	Household size	Households	Change	Population	Household size	Households	Change	Population	Household size	Households	Change	Population	Household size	Households		Pop.					
Kahda - Banadir	Action Against Hunger	Wabiyarow	198	1,092	5.5	190	-8	1079	5.7	166	-24	935	5.6	144	-22	839	5.8	137	-7	802	5.9	127	-10	756	6.0	-71	-336	15.9	(15,17)
		Kuntuwareey	241	1,310	5.4	227	-14	1283	5.7	220	-7	1,203	5.5	192	-28	1055	5.5	174	-18	1030	5.9	159	-15	929	5.8	-82	-381	16.4	(16,17)
		Canooole	164	680	4.1	144	-20	652	4.5	117	-27	527	4.5	75	-42	344	4.6	66	-9	328	5.0	42	-24	225	5.4	-122	-455	18.2	(15,21)
Daynille - Banadir	IRC	Durdur	-	-	-	247	-	1045	4.2	186	-61	898	4.8	173	-13	838	4.8	147	-26	732	5.0	113	-34	608	5	-134	-437	15.0	(15,16)
		Horseed	-	-	-	311	-	1701	5.5	292	-19	1,690	5.8	247	-45	1419	5.7	230	-17	1312	5.7	191	-39	1064	6	-120	-637	14.1	(14,15)
Baidoa City	GREDO	Bogey	109	570	5.2	79	-30	571	5.2	109	30	608	5.6	103	-6	599	5.8	74	-29	435	5.9	71	-3	411	6	-38	-159	16.2	(15,16)
		Abag Dheere	122	511	4.2	110	-12	482	4.1	58	-5	289	5.0	52	-6	254	4.9	50	-2	198	4.0	48	-2	195	4	-74	-316	15.1	(14,16)
		Barbaare	79	511	6.5	63	-16	497	6.4	75	12	521	6.9	67	-8	446	6.7	59	-8	396	6.7	55	-4	358	7	-24	-153	18.1	(16,18)
		War Ajiin	126	754	6.0	113	-13	724	6.4	99	-1	637	6.4	96	-3	597	6.2	91	-5	570	6.3	88	-3	537	6	-38	-217	17.2	(16,18)
		Garas	-	-	-	149	-	869	5.8	146	-3	832	5.7	138	-8	842	6.1	121	-17	774	6.4	83	-38	536	7	-66	-333	15.0	(14,15)
Kismayo	SC	Lowfooraar	-	-	-	131	-	664	5.1	130	-1	750	5.8	130	0	750	5.8	128	-2	761	5.9	115	-13	650	6	-16	-14	14.0	(13,16)
		Buulo Fatura	-	-	-	-	-	-	-	-	-	-	-	228	-	1516	6.6	208	-20	1337	6.4	153	-55	1014	7	-75	-502	13.7	(11,20)
		Dulcade	-	-	-	-	-	-	-	-	-	-	-	105	-	664	6.3	100	-5	626	6.3	75	-25	475	6	-30	-189	16.7	(16,17)
		Gargaar	-	-	-	-	-	-	-	-	-	-	114	-	703	6.2	108	-6	692	6.4	80	-28	540	7	-34	-163	22.7	(21,23)	

<sup>1</sup> Median and IQR

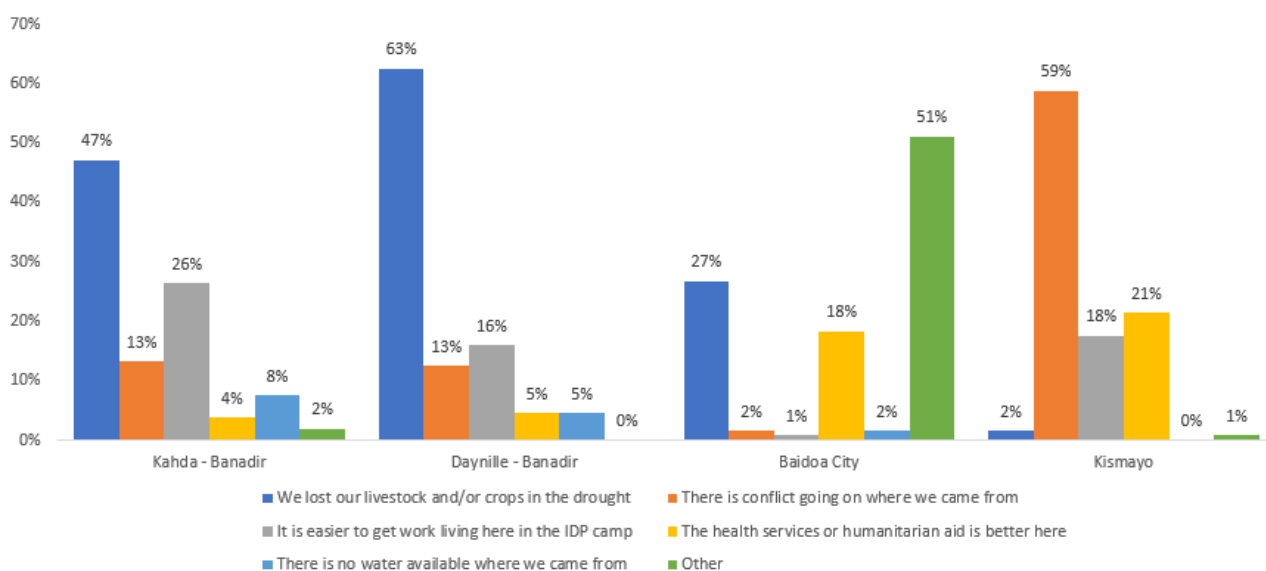
<sup>2</sup> Change in household number is shown since the previous data collection using red and blue bars, and the overall change in household number and population size since the first round is also given.

**Table 2: Households with Members who have Returned to their Village/Area of Origin**

Area	IDP site	Round 7	
		Households with members who have returned to place of origin <sup>1</sup>	%
Kahda - Banadir	Wabiyarow	14/127	11.0
	Kuntuwareey	32/159	20.1
	Canooile	7/42	16.7
Daynille - Banadir	Durdur	56/113	49.6
	Horseed	32/191	16.8
Baidoa City	Bogey	15/71	21.1
	Abag Dheere	7/48	14.6
	Barbaare	41/55	74.6
	War Ajiin	13/88	14.8
	Garas	24/83	28.9
	Lowfooraar	31/115	27.0
Kismayo	Buulo Fatura	68/153	44.4
	Dulcade	34/75	45.3
	Gargaar	30/80	37.5
Combined		404/1,400	28.9

<sup>1</sup> Two non-available responses were recoded to 0

**Figure 1: Main Reason Given for Remaining in IDP Sites/Camps**



## WASH

The household WASH situation in the IDP camps in round 7 is shown in the figures below. In figure 2, the predominant water source is shown for each location.

Households reporting the use of water from tankers has continued to drop, except in Baidoa, where this rose from 54 to 70%. Tankers also remain an important water source in Kismayo. In Khada, all the household included in round 7 had access to public taps, or handpumps. Another notable change was the increased use of wells or springs in Daynille.

The household experience of drinking water adequacy is illustrated in figure 3. Adequacy has improved in all areas and the previously worrying situation in Baidoa has largely resolved, although about 1 in 3 households are still sometimes experiencing inadequate drinking water in Baidoa and Kismayo.

The household's use of defecation sites is presented in figure 4. Open defecation in the field was reported by some households in all areas, although the situation has generally improved since round 5. It remains a significant issue in Baidoa and Kismayo.

Trends in WASH indicators were quantitatively compared between rounds using scores calculated for drinking water inadequacy and latrine use. These are presented in Table 3. The scores illustrate the overall improvement in drinking water adequacy score and large improvement in pit latrine, especially in Daynille, where usage is now over 98%.

Figure 2: Main Sources of Household Drinking Water by Area (n=1,400)<sup>1</sup>

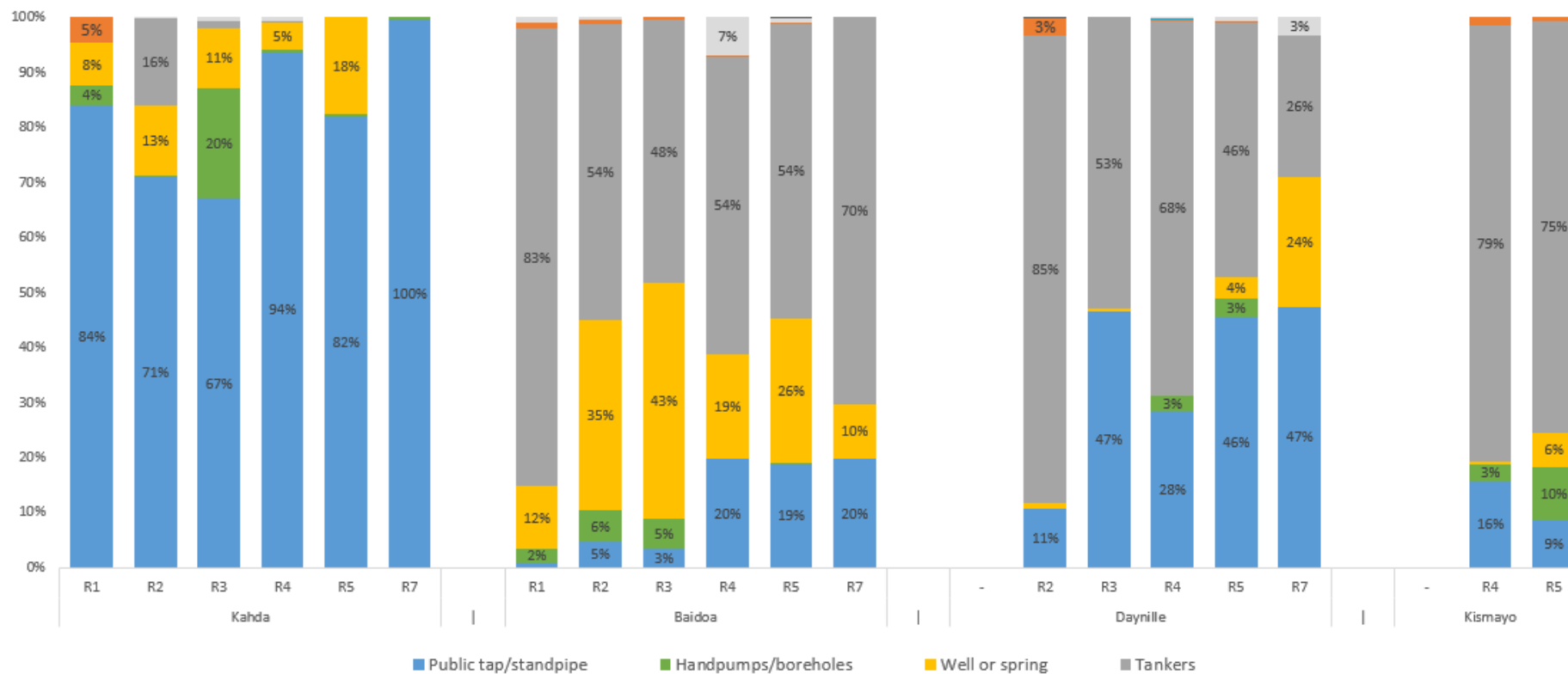


Figure 3: Frequency of Inadequate Household Drinking Water by Area (n=1,400)<sup>1</sup>

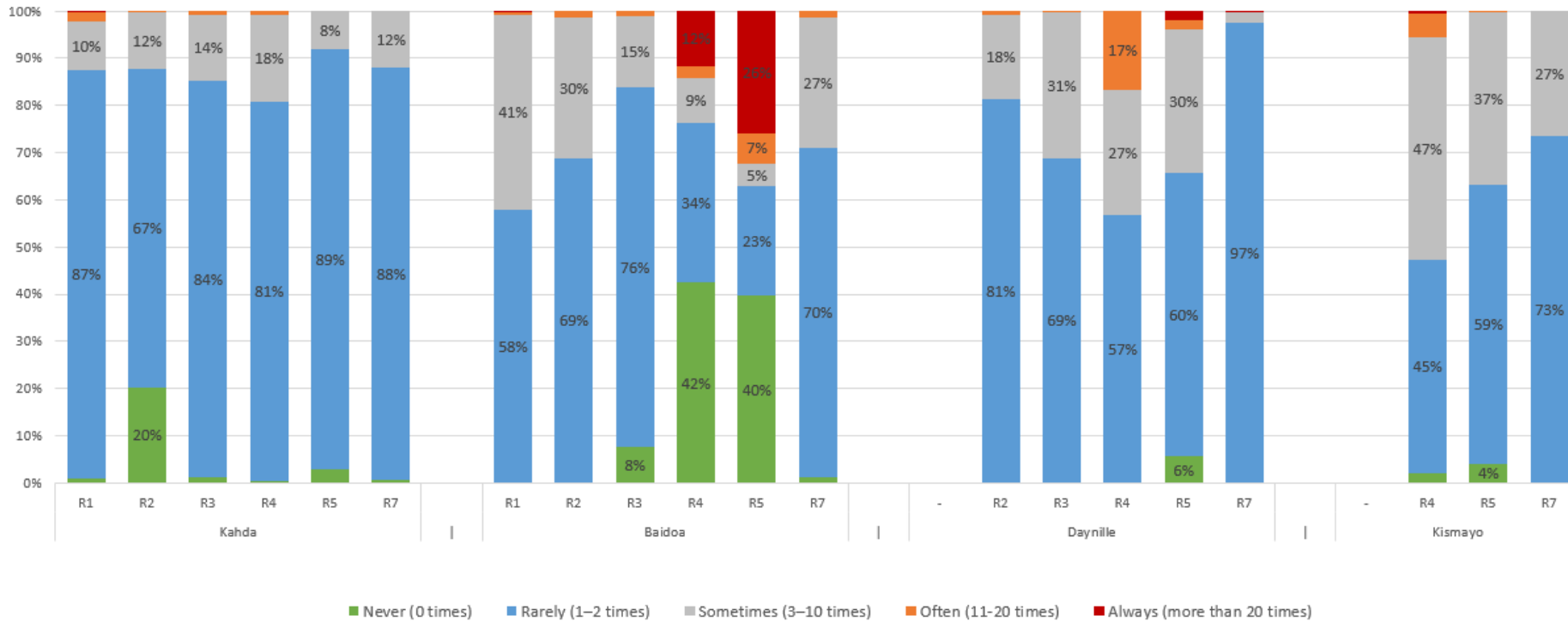
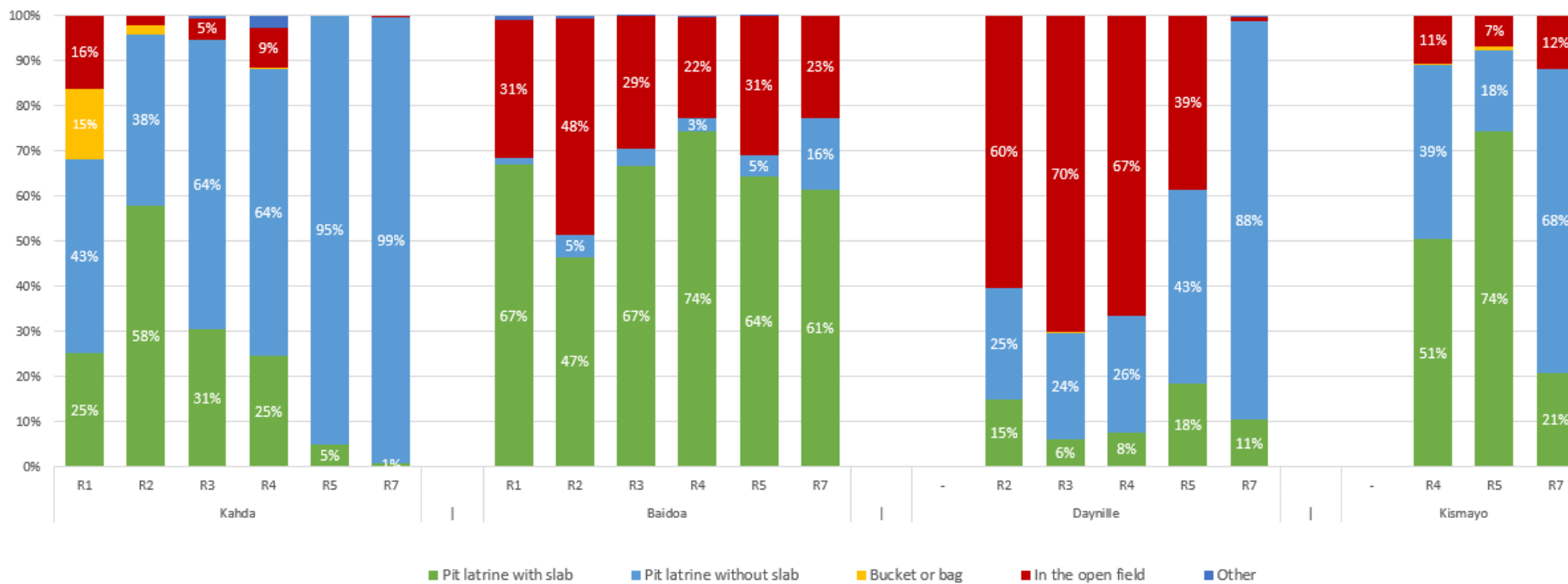


Figure 4: Household Defecation Site by Area (n=1,400)





**Table 3: Changes in Drinking Water Adequacy and Use of Pit Latrines**

	Frequency of inadequate drinking water <sup>1</sup>												Change in score <sup>3</sup>	Use of pit latrines <sup>2</sup>												Change (% points) <sup>3</sup>
	Round 1		Round 2		Round 3		Round 4		Round 5		Round 7			Round 1		Round 2		Round 3		Round 4		Round 5		Round 7		
	N	Score	N	Score	N	Score	N	Score	N	Score	N	Score		N	%	N	%	N	%	N	%	N	%	N	%	
Kahda	596	2.1	561	1.9	637	2.1	543	2.2	377	2.1	328	2.1	0	407/596	68.3%	537/561	95.7%	603/637	94.7%	480/543	88.4%	377/377	100.0%	327/328	99.7%	-0.3%
Baidoa	337	2.4	636	2.5	1217	2.3	1115	2.1	1,067	2.6	460	2.3	-0.3	231/337	68.5%	328/636	51.6%	859/1217	70.6%	893/1,155	77.3%	737/1,067	69.1%	355/460	77.2%	+8.1%
Daynille	-	-	673	2.2	585	2.3	520	2.6	918	2.3	304	2	-0.3	-	-	267/673	39.7%	174/585	29.7%	174/520	33.5%	563/918	61.3%	300/304	98.7%	+37.4%
Kismayo	-	-	-	-	-	-	447	2.6	416	2.3	308	2.3	0	-	-	-	-	-	-	398/447	89.0%	384/416	92.3%	272/308	88.3%	-4.0%
<b>Combined</b>	933	2.4	1,870	2.3	2,439	2.2	2,625	2.3	2,778	2.4	1,400	2.2	-0.2	638/933	68.4%	1132/1870	60.5%	1636/2439	67.1%	1945/2665	73.0%	2061/2778	74.2%	1254/1400	89.6%	+15.4%

<sup>1</sup> Drinking water inadequacy scores are calculated based on the reported frequency of inadequate supply, with a larger score indicating that there was a greater number of times in the last month when there was not adequate drinking water for the household. The score has a possible range from 1 to 5. If all households experienced adequate drinking water the score would equal 1; if all households always experienced inadequate drinking water the score would equal 5.

<sup>2</sup> Use of pit latrines is calculated as the proportion of households that reported using a pit latrine, with or without a slab, as their usual defecation site.

<sup>3</sup> The change in score is shown for the current data collection round compared to the round immediately before it.

## Acute Malnutrition

The GAM by MUAC prevalence is shown for each sentinel site area in Table 3, and the trend is illustrated in Figure 5. The trend in prevalence indicates that the trend towards an improving nutritional situation is continuing, although the prevalence is showing a slow upward trend in Baidoa. However, as with other data presented in this report, caution is needed in interpreting the trend due to the smaller number of sites that were included in the round 7 data collection. It should also be borne in mind that as MUAC is an age-dependent measure, a secular reduction in GAM by MUAC is expected over time as the children included in the sample age.

Figure 5: Trends in the Prevalence of GAM by MUAC in Sentinel Site Camp Areas

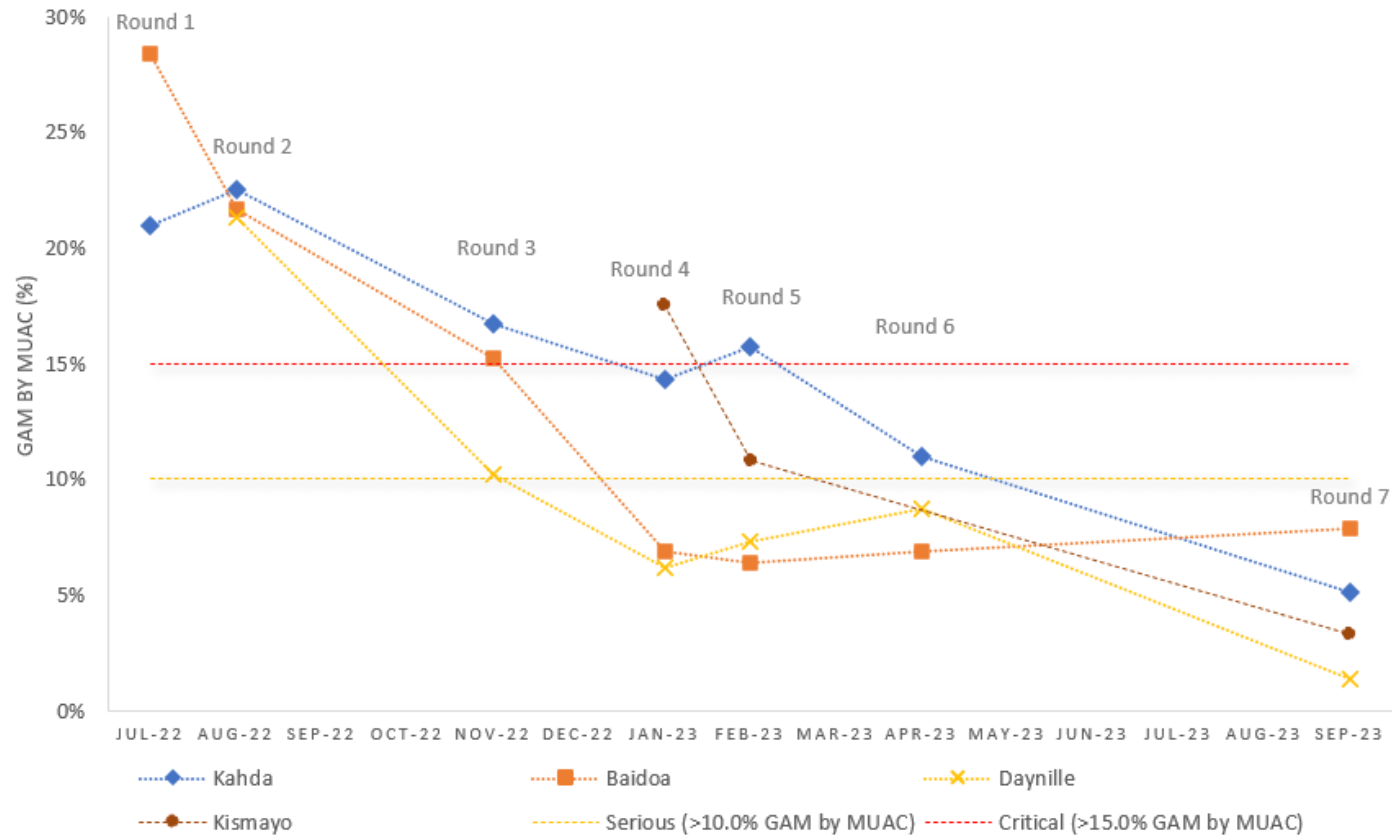


Table 4: Prevalence of GAM by MUAC in Sentinel Site Camp Areas<sup>1</sup>

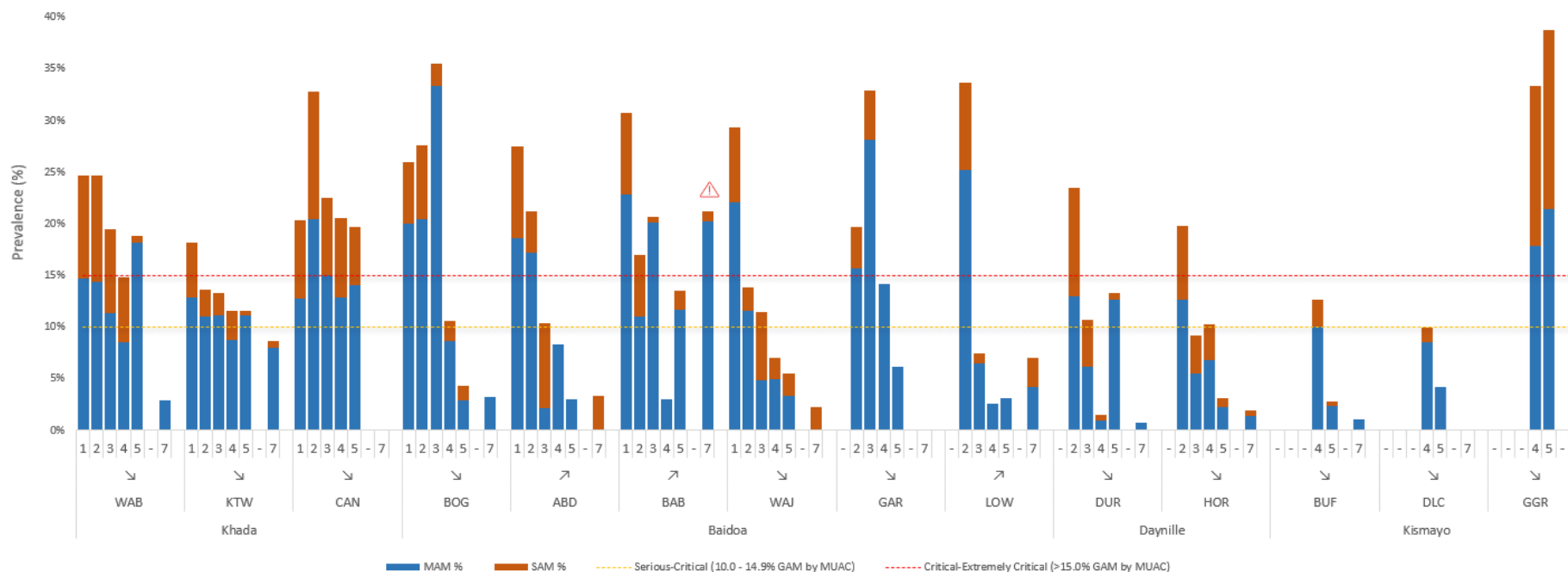
Area	Sex	Round 1				Round 2				Round 3 <sup>2</sup>				Round 4				Round 5				Round 7				Change R5 to R6 (% points)						
		N	Age (mo.)	Oedema	GAM (MUAC < 12.5 cm or oedema)	N	Age (mo.)	Oedema	GAM (MUAC < 12.5 cm or oedema)	N	Age (mo.)	Oedema	GAM (MUAC < 12.5 cm or oedema)	N	Age (mo.)	Oedema	GAM (MUAC < 12.5 cm or oedema)	N	Age (mo.)	Oedema	GAM (MUAC < 12.5 cm or oedema)	N	Age (mo.)	Oedema	GAM (MUAC < 12.5 cm or oedema)							
Kahda	All	752	31.4	4	158	21.0%	680	32.3	2	153	22.5%	813	31.7	3	136	16.7%	651	31.9	6	93	14.3%	414	32.3	1	65	15.7%	356	36.4	0	18	5.1%	-10.6%
	Male	371	31.1	3	69	18.6%	342	32.8	2	66	19.3%	384	31.7	1	64	16.7%	324	30.9	3	54	16.7%	209	31.8	1	31	14.8%	178	35.3	0	12	6.7%	
	Female	381	31.5	1	89	23.4%	338	31.7	0	87	25.7%	429	31.7	2	72	16.8%	327	33.0	3	39	11.9%	205	32.9	0	34	16.6%	178	37.6	0	6	3.4%	
Baidoa	All	423	28.4	4	120	28.4%	681	30.6	1	148	21.7%	1485	29.8	6	225	15.2%	1318	30.0	3	91	6.9%	1194	30.6	5	77	6.4%	390	32.6	3	31	7.9%	+1.5%
	Male	218	27.7	3	58	26.6%	351	30.3	1	75	21.4%	727	29.8	3	110	15.1%	651	29.9	1	42	6.5%	572	29.8	3	34	5.9%	216	32.3	1	18	8.3%	
	Female	205	29.1	1	62	30.2%	330	30.8	0	73	22.1%	758	29.9	3	115	15.2%	667	30.2	2	49	7.3%	622	31.2	2	43	6.9%	174	33.0	2	13	7.5%	
Daynille	All	-	-	-	-	-	581	29.8	10	124	21.3%	499	30.2	1	51	10.2%	418	29.5	2	26	6.2%	924	31.1	5	67	7.3%	355	34.3	0	5	1.4%	-5.9%
	Male	-	-	-	-	-	321	29.5	5	62	19.3%	282	30.0	1	27	9.6%	241	29.6	2	9	3.7%	510	31.6	3	36	7.1%	121	34.6	0	2	0.9%	
	Female	-	-	-	-	-	260	30.3	5	62	23.8%	217	30.5	0	24	11.1%	177	29.5	0	17	9.6%	414	30.7	2	31	7.5%	234	33.9	0	3	2.8%	
Kismayo	All	-	-	-	-	-	-	-	-	-	-	-	-	-	-	486	30.4	3	85	17.5%	461	31.7	3	50	10.8%	396	33.7	0	13	3.3%	-7.5%	
	Male	-	-	-	-	-	-	-	-	-	-	-	-	-	-	272	31.8	2	36	13.2%	267	30.3	1	22	8.2%	219	34.4	0	8	3.7%		
	Female	-	-	-	-	-	-	-	-	-	-	-	-	-	-	214	28.7	1	49	22.9%	194	32.8	2	28	14.4%	177	32.9	0	5	2.8%		

<sup>1</sup>IPC levels of acute malnutrition: Critical-Extremely Critical (≥15.0% GAM by MUAC)  
 Serious-Critical (10.0 - 14.9% GAM by MUAC)  
 Alert-Serious (5.0 - 9.9% GAM by MUAC)  
 Acceptable-Alert (<5.0% GAM by MUAC)

<sup>2</sup>GAM prevalence figures for R3 have been updated following additional verification and data cleaning.

The changes in prevalence of GAM, MAM, and SAM are shown for individual camps in Figure 6. Within the camps included in Round 7, the prevalence remains above the critical 15% threshold in one site (Barbaare), and above 10% in one site (Gargaar). In all the other 12 sites the prevalence has fallen to below 10%, continuing the trend towards improvement that was observed in previous rounds.

**Figure 6: Prevalence of SAM and MAM by MUAC in Individual Camps, Round 1 to Round 5<sup>1,2</sup>**



<sup>1</sup> An increase or decrease in prevalence since the last data collection round is indicated by an up or down arrow for the camps included in R7. A warning exclamation mark is shown when the last measured prevalence of GAM by MUAC exceeded 15%.

Camp/Site Names and Abbreviations									
Abag dheere	ABD	Biilale One	BIL1	Dee	DEE	Horseed	HOR	Mahad Alle	MHA
Al Kariim	ALK	Biilale Two	BIL2	Dulcade	DLC	Kaharey Section 8	KAR8	Nimco	NIM
Alla Qabe	ALQ	Bogey	BOG	Dulmadiid	DUL	Korkaamare	KOR	Qoobey	QOB
Baantu 1	BAN1	Bulojawan 1	BUL1	Durdur	DUR	Korkaamare Area 3	KOR3	Qurdubey Section 11	QDB11
Bansadiiq	BSQ	Buulo Fatura	BUF	Furuqly	FUR	Kuntuwareey	KTW	Tunida	TUN
Barbaare	BAB	Calafsuge	CAL	Garas	GAR	Ladan Section 12	LAD12	Wabiyarow	WAB
Baxsan 1	BAX1	Canoole	CAN	Gargaar	GGR	Lowfooraar	LOW	War Ajiin	WAJ

## Coverage of Nutrition Treatment Programs

Enrolment in Selective Feeding Programmes is described in table 5. Overall, programme coverage for the areas included in Round 7 fluctuated compared to Round 5, with large % differences from the previous round. However, this would be expected due to the reduction in the number of malnutrition cases leading to a small sample size. With the small sample size any variation in the number of cases being treated will have a very large impact on the percentage coverage. Therefore, comparisons between sites should not be over interpreted. There was an overall increase in MAM treatment coverage of 20%, with 84% of cases being treated. Only 4/10 SAM cases were receiving treatment. The target coverage of >90% was only achieved in one area for MAM and the combined coverage for both MAM and SAM treatment remains below standard.

**Table 5: Coverage of Selective Feeding Programmes for Children, Aged 6-59 months, with MAM by MUAC or SAM by MUAC**






Area	Moderate Acute Malnutrition (MUAC < 12.5 & ≥ 11.5 cm)								Severe Acute Malnutrition (MUAC < 11.5 cm or oedema)							
	Percentage and number of cases in OTP or SFP								Percentage and number of cases in OTP							
	Round 1	Round 2	Round 3	Round 4	Round 5	Round 7	Change R5 to R7	> 90% Coverage <sup>1</sup>	Round 1	Round 2	Round 3	Round 4	Round 5	Round 7	Change R5 to R7	> 90% Coverage
<b>Khada</b>	74 % (75/101)	90 % (88/98)	74% (68/92)	73% (48/65)	90% (53/59)	88% (15/17)	- 2%	NO	83 % (45/57)	64 % (34/53)	77% (34/44)	64% (18/28)	50% (3/6)	0% (0/1)	- 50%	NO
<b>Baidoa</b>	39 % (34/88)	42 % (47/112)	66% (124/188)	75% (59/79)	48% (30/63)	96% (24/25)	+ 48%	YES	19 % (6/32)	46 % (16/35)	76 % (28/37)	69% (9/13)	71% (10/14)	33% (2/6)	- 38%	NO
<b>Daynille</b>	-	89 % (65/73)	35% (10/29)	53% (9/17)	40% (21/53)	75% (3/4)	+ 35%	NO	-	73 % (37/51)	27 % (6/22)	56% (5/9)	43% (6/14)	0% (0/1)	- 43%	NO
<b>Kismayo</b>	-	-	-	83% (48/58)	91% (29/32)	55% (6/11)	- 36%	NO				81% (22/27)	72% (13/18)	100% (2/2)	+ 28%	YES
<b>Combined</b>	58% (109/189)	71% (200/283)	65% (202/309)	75% (164/219)	64% (133/207)	<b>84%</b> (48/57)	+ 20%	NO	57% (51/89)	63% (87/139)	66% (68/103)	70% (54/77)	62% (32/52)	<b>40%</b> (4/10)	- 22%	NO

<sup>1</sup> [https://handbook.spherestandards.org/#ch007\\_004\\_001](https://handbook.spherestandards.org/#ch007_004_001)

## Vaccination and Morbidity

Possession of a child health record card was assessed for children less than 5 years of age, and all types of vaccination cards, health passports, and other record cards were counted. Overall, coverage had improved since Round 5 by 14%, with large improvements in Daynille and Kahda, although there was a deterioration seen in Kismayo. Overall, possession of health record cards is now observed for 58% of all children, but this is still low, and will continue to impede the effective delivery and monitoring of essential child health and nutrition services.






Table 6: Possession of a Health Record Card in Children aged 0-59 months

Area	Round 1		Round 2		Round 3		Round 4		Round 5		Round 7		Trend	Change R5 to R7
Kahda	25.0%	199/795	34.1%	245/719	47.4%	388/818	60.1%	406/676	54.1%	235/434	65.6%	235/358		11.5%
Baidoa	10.5%	50/476	15.1%	729	46.7%	1,513	53.7%	1,360	69.7%	859/1232	73.6%	298/405		3.9%
Daynille	-	-	10.1%	65/655	10.9%	58/531	22.8%	101/443	18.8%	180/955	42.1%	155/368		23.3%
Kismayo	-	-	-	-	-	-	41.0%	213/520	59.7%	293/491	48.4%	196/405		-11.3%
<b>Combined</b>	15.7%	278/1,768	18.1%	462/2,559	39.5%	1,411/3,568	42.7%	1,617/3,791	43.4%	1,796/4138	57.5%	883/1536		14.1%



Overall, measles vaccination coverage (Table 7) has continued to increase in Round 7, with an increase of 5 percentage points. Within the areas covered in Round 7, a improvements in coverage were seen on in Daynille and Kahda but this was offset to some extent by a sharp fall in Kismayo. The combined coverage figure now lies at 72%. As coverage in 3 out of the 4 Round 7 areas lie below 90%, there is still a need for further strengthening of routine vaccination services and measles vaccination campaigns (Sphere Child health standard 2.2.1: Childhood vaccine-preventable diseases).

**Table 7: Measles Vaccination (MCV1) Coverage in Children aged 9-59 months**






Area	Indicator	Round 1	Round 2	Round 3	Round 4	Round 5	Round 7	Trend	Change R5 to R7	90% Coverage <sup>2</sup>					
Kahda	Record card	9.80%	70	18.90%	123	21.00%	157	16.50%	104	15.30%	61	16.00%	56		
	Recall	41.60%	298	46.70%	304	58.50%	437	70.30%	442	72.50%	290	76.20%	266		
	<b>Combined</b>	<b>51.30%</b>	<b>368/717</b>	<b>65.60%</b>	<b>427/651</b>	<b>79.50%</b>	<b>594/747</b>	<b>86.80%</b>	<b>546/629</b>	<b>87.80%</b>	<b>351/400</b>	<b>92.30%</b>	<b>322/349</b>		<b>4.50%</b>
Baidoa	Record card	3.20%	13	6.00%	36	23.90%	331	13.70%	172	19.00%	220	32.60%	124		
	Recall	26.90%	111	37.70%	227	39.10%	542	63.40%	794	64.90%	752	48.40%	184		
	<b>Combined</b>	<b>30.00%</b>	<b>124/413</b>	<b>43.70%</b>	<b>263/602</b>	<b>63.00%</b>	<b>873/1386</b>	<b>77.10%</b>	<b>966/1,253</b>	<b>83.90%</b>	<b>972/1159</b>	<b>81.10%</b>	<b>308/380</b>		<b>-2.80%</b>
Daynille	Record card	-	-	0.50%	3	4.50%	21	3.70%	15	13.60%	122	12.50%	44		
	Recall	-	-	24.00%	133	29.40%	138	34.90%	140	35.30%	318	49.60%	174		
	<b>Combined</b>	<b>-</b>	<b>-</b>	<b>24.50%</b>	<b>136/554</b>	<b>33.80%</b>	<b>159/470</b>	<b>38.70%</b>	<b>155/401</b>	<b>48.90%</b>	<b>440/900</b>	<b>62.10%</b>	<b>218/351</b>		<b>13.20%</b>
Kismayo	Record card	-	-	-	-	23.90%	113	25.80%	116	14.90%	58				
	Recall	-	-	-	-	33.00%	156	41.30%	186	36.90%	143				
	<b>Combined</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>56.90%</b>	<b>269/473</b>	<b>67.10%</b>	<b>302/450</b>	<b>51.80%</b>	<b>201/388</b>		<b>-15.30%</b>	<b>NO</b>	
Combined	Record card	5.50%	88	7.40%	162	21.10%	692	15.80%	554	17.70%	688	19.20%	282		
	Recall	31.00%	507	34.80%	760	40.70%	1334	47.80%	1,672	48.60%	1887	52.20%	767		
	<b>Combined</b>	<b>36.90%</b>	<b>595/1,611</b>	<b>42.30%</b>	<b>922/2,181</b>	<b>61.80%</b>	<b>2,026/3,280</b>	<b>63.60%</b>	<b>2,226/3,499</b>	<b>66.30%</b>	<b>2,575/3,884</b>	<b>71.50%</b>	<b>1,049/1,468</b>		<b>5.20%</b>

<sup>1</sup>The change shown is the difference between the vaccination coverage measured in the current round and the coverage measured in the round immediately before.

<sup>2</sup>Sphere standards indicate the need for a measles campaign if vaccination coverage is below 90%. [https://handbook.spherestandards.org/en/sphere/#ch009\\_004\\_001\\_001](https://handbook.spherestandards.org/en/sphere/#ch009_004_001_001)

Suspected measles infection was assessed by asking if a child had a fever *and* a rash, as well as at least one out of the other 3 symptoms (cough, coryza, or conjunctivitis).<sup>9</sup> There was a decrease in the overall two-week period prevalence of suspected measles in all four areas, continuing the fall in incidence seen across the seven rounds of data collection (Table 8).






**Table 8: Two Week Period Prevalence of Suspected Measles in children 6-59 mo.**

Area	Round 1		Round 2		Round 3		Round 4		Round 5		Round 7		Trend	Change R5 to R7
Kahda	9.8%	78/800	4.3%	31/726	2.0%	16/791	2.0%	13/651	2.4%	10/414	1.7%	6/356		-0.7%
Baidoa	6.9%	33/478	4.6%	34/734	1.7%	25/1465	0.9%	12/1,318	1.5%	18/1194	0.3%	1/390		-1.2%
Daynille	-	-	4.0%	26/656	4.4%	22/496	2.6%	11/418	5.6%	52/924	0.3%	1/355		-5.3%
Kismayo	-	-	-	-	-	-	2.9%	14/486	1.7%	8/461	0.0%	0/396		-1.7%
<b>Combined</b>	6.5%	116/1,775	3.6%	93/2,574	3.2%	111/3,441	2.4%	86/3,640	2.4%	95/3999	0.5%	8/1,497		-1.9%

<sup>9</sup> Measles Vaccine-Preventable Diseases Surveillance Standards (2018) WHO <https://www.who.int/publications/m/item/vaccine-preventable-diseases-surveillance-standards-measles>






The coverage of Oral Cholera Vaccine in children between 12 and 59 months is shown in table 9. Overall, coverage has continued to improve since Round 5 and 62% of the children in the sample have now been vaccinated against cholera. Marked improvements were observed in Kahda and Baidoa.

**Table 9: Oral Cholera Vaccine (OCV) Coverage in Children aged 12-59 months**

Area	Indicator	Round 1	Round 2	Round 3	Round 4	Round 5	Round 7	Trend	Change R5 to R7						
Kahda	Record card	7.6%	50	8.1%	48	11.5%	81	8.7%	51	5.9%	22	15.1%	51		
	Recall	26.5%	175	45.8%	273	59.3%	417	67.3%	393	71.5%	266	76.6%	259		
	Combined	<b>34.0%</b>	225/661	<b>53.9%</b>	321/596	<b>70.8%</b>	498/703	<b>76.0%</b>	444/584	<b>77.4%</b>	288/372	<b>91.7%</b>	310/338		14.3%
Baidoa	Record card	1.8%	7	5.0%	28	20.1%	260	12.2%	144	18.4%	201	32.1%	118		
	Recall	22.0%	85	31.4%	177	29.8%	385	41.8%	494	38.2%	419	39.1%	144		
	Combined	<b>23.8%</b>	92/386	<b>36.4%</b>	205/563	<b>49.8%</b>	645/1294	<b>53.9%</b>	638/1,183	<b>56.7%</b>	620/1,094	<b>71.2%</b>	262/368		14.5%
Daynille	Record card	-	-	0.8%	4	1.6%	7	2.7%	10	10.9%	92	7.3%	25		
	Recall	-	-	12.1%	63	7.5%	33	6.7%	25	33.1%	280	38.0%	130		
	Combined	-	-	<b>12.9%</b>	67/520	<b>9.1%</b>	40/441	<b>9.4%</b>	35/374	<b>44.0%</b>	372/845	<b>45.3%</b>	155/342		1.3%
Kismayo	Record card	-	-	-	-	-	-	16.7%	75	11.4%	50	13.7%	51		
	Recall	-	-	-	-	-	-	20.0%	90	29.7%	130	27.6%	102		
	Combined	-	-	-	-	-	-	<b>36.7%</b>	165/449	<b>41.1%</b>	180/438	<b>41.4%</b>	153/370		0.3%
Combined	Record card	4.0%	60	3.9%	80	13.0%	401	9.3%	307	10.7%	394	17.2%	245		
	Recall	23.5%	351	29.9%	607	33.3%	1,026	33.2%	1095	33.3%	1,229	44.8%	635		
	Combined	<b>27.5%</b>	411/1,493	<b>33.8%</b>	687/2,031	<b>46.2%</b>	1,427/3,083	<b>42.5%</b>	1,402/3,302	<b>44.0%</b>	1,025/3,083	<b>62.1%</b>	880/1,148		18.1%

The data in table 10 indicates that the period prevalence of Acute Watery Diarrhoea has fallen in most areas, with an overall fall of 4%. It should be borne in mind that the data was collected before the onset of the heavy Deyr rains.













**Table 10: Two Week Period Prevalence of AWD in children 0-59 mo.**

Area	Round 1		Round 2		Round 3		Round 4		Round 5		Round 7		Trend	Change R5 to R7
Kahda	21.8%	173/795	7.8%	56/719	10.4%	85/818	7.4%	50/676	3.0%	13/434	3.6%	13/358		0.6%
Baidoa	26.9%	128/476	20.0%	146/729	12.3%	186/1,513	1.9%	26/1,360	1.9%	23/1232	0.2%	1/405		-1.7%
Daynille	-	-	15.0%	98/655	6.6%	35/531	5.2%	23/443	12.8%	122/955	1.1%	4/368		-11.7%
Kismayo	-	-	-	-	-	-	13.1%	68/520	5.9%	29/491	2.0%	8/405		-3.9%
<b>Combined</b>	<b>18.8%</b>	<b>332/1,768</b>	<b>13.6%</b>	<b>349/2,559</b>	<b>10.1%</b>	<b>361/3,568</b>	<b>6.1%</b>	<b>232/3,791</b>	<b>5.9%</b>	<b>246/4138</b>	<b>1.7%</b>	<b>26/1,536</b>		<b>-4.2%</b>

## Mortality

Data on mortality is shown in table 11. The recall period used for the assessment of mortality was the time since Eid al-Adha, on June 28, 2023, and was calculated individually for each household. The recall period used for Round 7 is much greater than previous rounds, where we used the time since last interview. Consequently, the person days of observation is also more than twice that reported in Round 5. In Round 7 we observed a stable CDR and a continued decrease in the U5DR since Round 5. Both CDR and U5DR remain well below emergency thresholds.

**Table 11: Crude Death Rate (CDR) and Under-five Death Rate (U5DR) in the Combined Areas**

Indicator	Combined Areas											Change R5 to R7	
	Round 1	Round 2	Round 3	Round 4	Round 5	Round 7							
Persons under observation	8,029	12,400	17,808	20,317	20,946	6,411							
Average recall period (days) <sup>1</sup>	30.4	41.8	78.6	65.3	43.3	203.3							
Person days of observation	244,082	514,878	1,388,362	1,325,871	882,524	1,751,688							
Total deaths reported	23	32	58	39	19	13							
Deaths in children <5 years	17	24	43	27	16	9							
<i>Crude Death Rate<sup>2</sup> (CDR) deaths/10,000/day</i>	0.9		0.6		0.4		0.3		0.2		0.3		+0.1
<i>Under Five Death Rate<sup>3</sup> (U5DR) deaths/10,000/day</i>	3.0		2.2		1.5		1.1		0.9		0.1		-0.8

<sup>1</sup>The recall periods/days of exposure were set at a fixed one month (30.4 days) for each household in round 1 but were calculated for each household individually during subsequent rounds. We used memorable dates to define the recall period for households that were newly recruited in each round: round 2 - 2 Jul 9<sup>th</sup>; round 3 - the end of Mowlid, Oct 9<sup>th</sup>; round 4 - the Zobe 2 explosion on Oct 29<sup>th</sup>; and in round 5 - Jan 1<sup>st</sup> 2023. For household that had been recruited in a previous data collection round we used the date of the last interview to define the recall period. In Round 6 no new camps were included so the recall period for all participants was the time since the previous interview.

<sup>2</sup>Threshold levels for CDR are: 1/10,000/day = Emergency; 2/10,000/day = Out of control

<sup>3</sup>Threshold levels for U5DR are: 2/10,000/day = Emergency; 4/10,000/day = Out of control

Source: Humanitarian Charter and Minimum Standards in Humanitarian Response; Essential health services standard <http://www.spherehandbook.org/en/essential-health-services-standard-1-prioritising-health-services/> and Interpreting and using mortality data in humanitarian emergencies, Checchi and Roberts (2005) <http://odihpn.org/wp-content/uploads/2005/09/networkpaper052.pdf>

## CONCLUSION

Data from Round 7 indicates that there has been a continuing improvement in the overall health and nutrition situation since April 2023. However, the results from this round need to be interpreted in the knowledge that the sample included was much smaller than the sample included in round 5, and only included 14 sites/camps within the 4 areas. Therefore, the changes that we observed may have been affected to some extent by this change in the sample selection.

One of the objectives of Round 7 data collection was to explore how many households had members that had returned to their place of origin and what were the reasons that the remaining IDP had stayed in the camps. Reasons for the prolonged and continued displacement included both *push* and *pull* factors. The *push* factors such as loss of livestock/crops and ongoing conflict were reported more frequently from all areas compared to the *pull* factors such as better services and employment opportunities in the IDP sites. However, in Baidoa this balance is less clear as many people reported 'Other' as the main reason for remaining and this category may include a mix of push and pull factors.

Overall, the GAM by MUAC prevalence has continued to fall, although there was a slight rise in Baidoa. However, the very high prevalence in one camp, Barbaare camp, Baidoa is a cause for concern and we recommend follow-up on the ground to assess the situation and possible reason for the very high levels. Treatment coverage continues to improve overall, but remains below standard in most areas.

The trend in health indicators is similar, with an increase in health card possession, and measles and cholera vaccination coverage, while the period prevalence of AWD and measles continued to fall. However, measles vaccination coverage remains below the coverage target of 90%.

Further attention to WASH services is required, given the findings of persistent problems in Baidoa and elsewhere, and the high risk of increasing water-borne disease outbreak with the high levels of forecast rainfall.

The outlook over the next 2 months remains concerning. The military action against Al-Shabaab by government forces, local clan militia, and international forces may increase<sup>10</sup> and further population displacement as a result of this conflict remains possible. Flash floods are expected to occur in riverine districts along the Shabelle and Juba rivers over the coming weeks due to the combined effect of the El Nino and the Indian Ocean Dipole. These floods may affect 1.2 million people and are likely to cause disease outbreaks due to contamination of water supplies, increase in stagnant water, as well as direct loss of lives, damage to property, crop losses, and more population displacement.<sup>11</sup> We may therefore see an increased risk of displacement and changes in the IDP population.

<sup>10</sup> <https://www.garoweonline.com/en/featured/inside-hassan-sheikh-s-momentous-town-hall-meeting-in-mogadishu>

<sup>11</sup> EPI watch: Epidemiological Bulletin for Epidemic-prone diseases in Somalia for Week 36-37 of 2023 (4-17 September 2023) <https://reliefweb.int/report/somalia/epi-watch-epidemiological-bulletin-epidemic-prone-diseases-somalia-week-36-37-2023-4-17-september-2023>





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