



Nutrition and Mortality Monitoring in IDP Populations

Report on Round 5 – March 2023

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Photo taken by the International Rescue Committee (IRC) data collection team in a camp for newly arrived IDP in Daynille, Mogadishu, March 2023.









Executive Summary

This is the fifth report from the 2022/2023 Nutrition and Mortality Motioning System project. This sentinel site data collection continues to provide periodic data on the evolution of the crisis and the adequacy of the humanitarian response.

Overall, the progress seen in the last round has stalled, with little improvement in many of the main health and nutrition indicators and deterioration in some areas.

Between February 27th and March 22nd, 2023, data was collected from 3,678 IDP households in 35 sites in Khada and Daynille in the Afgooye Corridor, Baidoa, Diinsor, Galkayo, Kismayo, and Dollow.

The predominant water source varied by location with public taps the most frequent in Kahda, Galkayo, and Dollow, while tankers continued to be important sources in Baidoa, Daynille, Kismayo, and Dollow. Water vendors/donkey carts continued to predominate in Dinsoor with an increasing reliance on 'other' water sources. The use of water from tankers has decreased somewhat since round 4 but they still provide water for a substantial proportion of households in the sites where they are used.

Drinking water adequacy has remained fairly constant or improved in Kahda, Dayniile, Galkayo, and Kismayo. However, a *striking deterioration in drinking water adequacy* was reported from Baidoa where 26% of households reported they always have inadequate drinking water. A similar but less severe deterioration was also reported from Dinsoor. *Field investigation* to determine the reasons for the marked deterioration and find solutions are urgently needed.

The trend in acute malnutrition prevalence indicates that the steady improvement observed up to Round 4, has now stopped and an uptick in prevalence is observed in most areas. In both Kahda and Dinsoor, the prevalence has crossed back into the highest category of severity (\geq 15%). While the situation has improved in Kismayo, this area, along with Galkayo and Dollow, still lie in the serious-critical category with a prevalence between 10 and 15%. This data provides a strong warning that the situation remains highly fragile and the IDP population is vulnerable. Overall, malnutrition programme coverage in Round 5 was similar to that seen in round 4, with an overall fall in MAM treatment coverage but an increase in SAM treatment. The target coverage of >90% has been achieved for MAM or SAM treatment in Dinsoor, but remains below standard in all other sites.

Coverage of health record cards remains low, with only 4 out of every child having one, and this will therefore continue to impede the delivery and monitoring of essential child health and nutrition services. Coverage is particularly low in Dinsoor and Dollow.

Measles vaccination coverage slightly improved, overall, since Round 4, with an increase of 2.7 percentage points. A marked improvement in coverage was seen on Galkayo which has now reached the 90% target. However, there is still a need for further measles vaccination campaigns as coverage remains below 90%.

There was no change in the two-week period prevalence of suspected measles and little overall change in the prevalence of AWD, although cases have doubled in Dayniile. There was a continued fall in death rates during the Round 5 recall period. Both CDR and U5DR remain below emergency thresholds.







Recommendations

- 1. Despite some improvements in programme performance indicators, the deterioration in malnutrition indicates a continued and strengthened humanitarian response is still required to deal with the serious health and nutrition situation in IDP populations. The outlook for the next few months remains uncertain with unfavourable weather forecasts, continuing conflict, and global food price volatility.
- 2. Action to further strengthen WASH services is still required to ensure adequate access to potable water and reduce the use of open field defecation.
- 3. **Treatment of acute malnutrition should continue to be scaled up** to ensure an adequate coverage of selective feeding programmes that meets Sphere standards and efforts continued to improve outreach.
- 4. The coverage of vaccination remains below Sphere Standards and additional action should be taken to improve coverage, including the implementation of on-demand and campaign vaccination services. Sphere standards require that at least 95 per cent of newcomers to a settlement aged between six months and 15 years are vaccinated.







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Introduction

This is the fifth 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.

The drought-related emergency continues to impact Somalia with profound impacts on the nutrition and health status of the population. 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 also during round 5 from Dollow. The NMS project is run by the Building Resilient Communities in Somalia consortium (BRCiS), led by the Norwegian Refugee Council, and the Caafimaad Plus consortium, led by Action Against Hunger, in partnership with Evidence for Change (e4c).

Methods

Sampling

The Nutrition and Mortality Monitoring System (NMS) approach¹ 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.²

In Round 5, sampling was continued in the previous areas and, in addition, camps were also included from Dollow. Therefore, the NMS now includes data from all the main urban IDP congregation sites in southern Somalia. The sample is designed to contain a mix of camps that represent IDPs that have been resident in the sentinel sites since the emergency began last year as well the most recent arrivals.

Three additional camps were sampled from Dayniile by Concern Worldwide, that joined the NMS system in Round 5. However, 3 of the 6 camps that had been sampled in Kahda by Action Against Hunger in Round 4 had to be dropped during Round 5 due to time constraints. In Dollow, Trocaire joined the NMS and sampled 2 camps for inclusion in Round 5. A third site had been selected for inclusion, but had to be dropped as flooding of the river prevented access during the data collection period.

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 participating BRCiS and Caafimaad Plus members. Team training was conducted either face-to-face or remotely via video link. Face-to-face trainings were conducted in Mogadishu, and were also planned to take place in Dollow. Unfortunately, the e4c consultant's flight was not permitted to land in Dollow due to a security incident so the training had to be postponed and conducted online instead.

One-day refresher training for community health workers (CHW), enumerators, and supervisors who had been involved in previous data collection rounds were conducted, and a 2-day training was done for the teams that were starting NMS work for the first time. During the training, an overview of different types of malnutrition, a virtual demonstration of MUAC measurements, the assessment of oedema, and the

² <u>https://reliefweb.int/report/somalia/nutrition-and-mortality-monitoring-idp-populations-report-round-1-july-2022-report-issued-15082022</u>



¹ 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.

BRC Sesilient Communities in Somalia



identification of suspected measles were provided. The data collection process was also piloted, and mock interviews were conducted with the CHWs and enumerators. Nutrition officers provided live demonstration of MUAC measurements and the assessment of oedema. In preparation for round 5, 8 online training sessions and one f2f training session were conducted, during which training was provided for 98 data collectors from the 7 different partner organisations.

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.

As summarised in Table 1, in Round 5 data collection took place between 27th Feb and 22nd Mar, 2023. 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 20 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.

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 identify could be confirmed at the start of each interview.

Data analysis

Data analysis was performed in R. Tree charts and graphs were created in Excel. 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 separate recall periods for households newly enrolled during Round 5 and those that had been previously interviewed in Round 4. A memorable date of January 1st, 2023 was used for new households and the time since the previous interview was used for the others. The memorable date was pilot tested during the team training sessions and found to be widely known and readily identifiable. Household members that 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 indictors is expected as the time since arrival increases.

Results

IDP Sample Characteristics

The characteristics of the samples collected in each area and IDP site are described in table 1. In total, during Round 5 data was collected from 3,678 IDP households in 35 sites. The sampled households contained 21,124 individuals.

The median time since arrival within the 35 IDP sites ranged from 0 months up to 39 months. The sites with the most recent arrivals were the new sites in Dayniile and Dollow, that were included in Round 5. IDP sites in Galkayo continue to be camps with the longest duration of residence.

It is notable that, in contrast to previous rounds, no camps saw an increase in the number of households that the teams were able to locate in Round 5. This suggests that there is, in general a move in the population away from the IDP sites. However, the NMS data does not allow an analysis of where they may be moving to or the reasons.

Region of Origin

Figure 1 shows the region of origin for all the IDP Mothers/Carers that had been interviewed for the NMS up to and including Round 5. IDPs had migrated from a range of different regions with high numbers coming from Bay, Bakool, Lower and Middle Juba, and Lower and Middle Shabelle. Districts with more than 200 displaced persons in the sample included Baidoa and Dinsoor in Bay, Buurdhuxunle in Bakool, and Qoriyoley in Lower Shabelle. Sixty-nine mothers/carers reported coming from areas other than the main districts of Somalia.

Clan and Language

The clan affiliation of all the IDP mothers/caregivers who have participated in the NMS is shown in the tree plot, figure 2, below. Well over half were from the Digil and Mirifle (Rahanweyn), with about a quarter coming from the minority (so called 0.5) clans.

The languages spoken by Mothers/Carers are shown in Figure 3. The largest category of Mothers reported speaking only Maay (58%), with about 30% speaking Mahatiri. Other languages included Dabare, Jido, and Garre. While some reported only speaking one main language, others reported speaking a range of languages in different combinations.







Table 1: Data collection summary

			Round	1 (18 th Jul - 2	nd Aug)	Rour	nd 2 (2	1 st Aug - 10 ^{ti}	'Sep)	R	ound 3	(21 st Nov - 11	th Dec)	Roun	d 4 (1	8th Jan - 11th F	eb (2023))	Round	l 5 (27t	h Feb - 22nd M	lar (2023)	_			
Area	Partner	IDP site	Households	Population	Household size	Households	Change	Population	Household size	Households	change	Population	Household size	Households	s Change	Population	Household size	Households	Change	Population	Household size	Overa HH	II Change Pop.	e ² Mor a	iths since rrival ¹
		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	-61	-1,086	9.3	(8,10)
		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	-67	-1,305	10.1	(9,10)
Kahda -	Action	Canoole	164	680	4.1	144	-20	652	4.5	117	-27	527	4.5	75	-42	344	4.6	66	-9	328	5.0	-98	-675	10.2	(8,14)
Banadir	Against Hunger	Al Karim	-	-	-	-		-	-	57	-	263	4.6	55	-2	299	5.4	-	-	-	-	-	-	2.1	(2,3) ³
	Hunger	Calafsuge	-	-	-	-		-	-	29	-	145	5.0	35	6	182	5.2	-	-	-	-	-	-	6.2	(3,11) ³
		Mahad Alle	-	-	-	-		-	-	50	-	298	6.0	42	-8	252	6.0	-	-	-	-	-	-	6.0	(5,7) ³
		Durdur	-	-	-	247		1045	4.2	186	-61	898	4.8	173	-13	838	4.8	147	-26	732	5.0	-100	-313	8.4	(8,9)
	IRC	Horseed	-	-	-	311		1701	5.5	292	-19	1,690	5.8	247	-45	1419	5.7	230	-17	1312	5.7	-81	-389	7.3	(7,8)
Daynille ·		Furuqly	-	-	-	117		566	4.8	107	-10	579	5.4	100	-7	527	5.3	93	-7	448	4.8	-24	-118	9.2	(8,9)
Banadir		Qoobey	-	-	-	-		-	-	-	-	-	-	-	-	-	-	156	-	659	4.2	-	-	4.0	(4,5)
	CWW	Nimco	-	-	-	-		-	-	-	-	-	-	-	-	-	-	91	-	450	4.9	-	-	0.0	(0,3)
		Alla Qabe	-	-	-	-		-	-	-	-	-	-	-	-	-	-	201	-	790	3.9	-	-	3.0	(1,7)
		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	-35	-135	9.3	(9,10)
		Abag Dheere	122	511	4.2	110	-12	482	4.1	58	-52	289	5.0	52	-6	254	4.9	50	-2	198	4.0	-72	-313	8.3	(7,9)
	CREDO	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	-20	-115	11.3	(9,11)
Paidea	GREDO	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	-35	-184	10.5	(10,12)
City		Garas	-	-	-	149		869	5.8	146	-3	832	5.7	138	-8	842	6.1	121	-17	774	6.4	-28	-95	8.3	(7,8)
,		Lowfooraar	-	-	-	131		664	5.1	130	-1	750	5.8	130	0	750	5.8	128	-2	761	5.9	-3	97	7.2	(6,9)
		Dee	-	-	-	-		-	-	200	-	1,210	6.1	193	-7	1314	6.8	192	-1	1312	6.8	-8	102	5.3	(5,5)
	SOS	Dulmadiid	-	-	-	-		-	-	173	-	1,028	5.9	170	-3	1026	6.0	159	-11	976	6.1	-14	-52	5.2	(4,5)
		Bansadiiq	-	-	-	-		-	-	230	-	1,499	6.5	206	-24	1440	7.0	193	-13	1290	6.7	-37	-209	15.1	(9,21)
		Biilale One	119	669	5.6	94	-25	623	5.5	111	17	633	5.7	112	1	648	5.8	112	0	700	6.3	-7	31	15.2	(10,17)
Discort		Biilale Two	165	914	5.5	125	-40	864	6.0	143	18	845	5.9	143	0	855	6.0	143	0	854	6.0	-22	-60	8.6	(7,15)
Town	GREDO	Korkaamare	95	460	4.8	80	-15	423	4.7	90	10	423	4.7	90	0	424	4.7	89	-1	422	4.7	-6	-38	9.4	(8,12)
		Tunida	73	441	6.0	64	-9	366	6.0	57		351	6.2	56	-1	369	6.6	42	-14	268	6.4	-31	-173	8.3	(7,10)
		Korkaamare 3	-	-	-	-	-	-	-	-	-	-	-	146	-	731	5.0	146	0	728	5.0	0	-3	3.1	(2,4)
		Baantu 1	-	-	-	-		-	-	36	-	258	7.2	35	-1	235	6.7	33	-2	187	5.7	-1	-71	39.3	(19,63)
Galkayo	IMC	Baxsan 1	-	-	-	-		-	-	77	-	560	7.3	73	-4	491	6.7	68	-5	471	6.9	-4	-89	11.4	(9,27)
		Bulojawan 1	-	-	-	-		-	-	114	-	826	7.2	86	-28	671	7.8	77	-9	569	7.5	-37	-257	39.2	(5,99)
		Buulo Fatura	-	-	-	-		-	-	-	-	-	-	228		1516	6.6	208	-20	1337	6.4	-20	-179	7.1	(4,13)
Kismayo	SC	Dulcade	-	-	-	-		-	-	-	-	-	-	105		664	6.3	100	-5	626	6.3	-5	-38	10.1	(9,10)
		Gargaar	-	-	-	-		-	-	-	-	-	-	114		703	6.2	108	-6	692	6.4	-6	-11	16.1	(14,16)
		Ladan Section 12	-	-	-	-		-	-	-	-	-	-	-	-	-	-	89	-	416	4.7	-	-	7.0	(4,8)
Dollow	Trocaire	Kaharey Section 8	-	-	-	-		-	-	-	-	-	-	-	-	-	-	101	-	591	5.9	-	-	4.0	(2,7)
		Qurdubey Section 11 ⁴	4 -	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

¹ Median and IQR; ²Change 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. ³ Months since arrival is shown based on data from Round 4









Figure 1a - Region & District of Origin of All IDP Mothers/Caregivers (n=2872)









Figure 2b - Region & District of Origin of All IDP Mothers/Caregivers (n=2872)









Figure 3 - Clan of All IDP Mothers/Caregivers (n=2872)











WASH

The household WASH situation in IDP camps in the seven areas is shown in the 3 figures below. The predominant water source varied by location with public taps the most frequent in Kahda, Galkayo, and Dollow, while tankers continued to be important sources in Baidoa, Daynille, Kismayo, and also in Dollow. Water vendors/donkey carts continued to predominate in Dinsoor with an increasing reliance on 'other' water sources. The use of tankers has decreased somewhat since round 4 but still provide substantial numbers of households in the sites where they are used.

Drinking water adequacy has remained fairly constant or improved in Kahda, Dayniile, Galkayo and Kismayo. However, a striking deterioration in drinking water adequacy was reported from Baidoa where 26% of households reported always have inadequate drinking water. A similar but less severe deterioration was also reported from Dinsoor. Field investigation to determine the reasons for the marked deterioration and find solutions are urgently needed.

Disposal of faeces (Figure 6) was reported to be a continued and significant problem in most areas. Defecation in the open field was reported by respondents in all areas including by 57 % of new arrivals in Dollow. However, progress has been made in some areas and open field defecation has decreased sharply in Dinsoor, Dayniile and Galkayo.

To quantitatively compare trends in WASH indicators between data rounds calculated scores for drinking water inadequacy and latrine use are shown in Table 2. For drinking water, an increasing score indicates a more inadequate access to drinking water. The positive scores for scores for Baidoa and Dinsoor confirm the increase in inadequate drinking water.

The change in the use of pit latrines was compared by looking at the proportion of households that reported using them in Round 4 and Round 5. The results, also shown in Table 2, indicate a marked improvement in access to and usage of pit latrines in all areas except Baidoa. All households reported using pit latrines in Kahda, and usage was over 90% in Galkayo and Kismayo. However, usage was only 43% in Dollow and only 6 out of 10 reported using them in Dayniile.









Figure 5: Main Sources of Household Drinking Water by Area (n=3,678)¹

¹Two households in Dinsoor were excluded during R3 for responding NA











¹Data was not available for one household in Round 5







Figure 7: Household Defecation Site by Area (n=3,677)









				Freque	ncy of in	adequa	te drinki	ng wate	r1							Us	e of pit I	patrines	2			
	Rou	nd 1	Rou	nd 2	Rou	nd 3	Rou	nd 4	Rou	nd 5	Change	Rou	ind 1	Rou	ind 2	Rou	nd 3	Rou	nd 4	Rou	nd 5	Change
	Ν	Score	Ν	Score	Ν	Score	Ν	Score	Ν	Score	in score ³	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	(% points) ³
Kahda	596	2.1	561	1.9	646	2.1	541	2.2	366	2.1	-0.1	407/ 596	68.3%	537/ 561	95.7%	603/ 637	94.7%	480/ 543	88.4%	377/ 377	100.0 %	+11.6%
Baidoa	337	2.4	636	2.5	1289	2.3	665	2.1	644	2.6	+0.5	231/ 337	68.5%	328/ 636	51.6%	859/ 1217	70.6%	893/ 1,155	77.3%	737/ 1,067	69.1%	-8.2%
Dinsoor	333	3.0	409	3.4	401	2.4	542	2.5	532	2.9	+0.4	144/ 333	43.2%	149/ 409	36.4%	339/ 401	85.0%	428/ 547	78.2%	423/ 532	79.5%	+1.3%
Daynille	-	-	673	2.2	585	2.3	520	2.6	867	2.3	-0.3	-	-	267/ 673	39.7%	174/ 585	29.7%	174/ 520	33.5%	563/ 918	61.3%	+27.8%
Galkayo	-	-	-	-	227	1.9	131	2.0	95	1.6	-0.4	-	-	-	-	118/ 227	52.0%	136/ 194	70.1%	166/ 177	93.8%	+23.7%
Kismayo	-	-	-	-	-	-	438	2.6	399	2.3	-0.3	-	-	-	-	-	-	398/ 447	89.0%	384/ 416	92.3%	+3.3%
Dollow	-	-	-	-	-	-	-	-	185	2.0	-	-	-	-	-	-	-	-	-	82/ 190	43.2%	-
Combined	1,266	2.4	2,175	2.3	3,148	2.2	2,837	2.3	3,088	2.4	+0.1	782/ 1,266	61.8%	1,281/ 2,279	56.2%	2,093/ 3,067	68.2%	2,509/ 3,406	73.7%	2,732/ 3,677	74.3%	+0.6%

Table 2: Changes in Drinking Water Adequacy and Use of Pit Latrines

¹ 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.

² 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.

³The 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. In both Kahda and Dinsoor the prevalence has crossed back into the highest category of severity (\geq 15%). While the situation has improved in Kismayo, this area, along with Galkayo and Dollow, still lie in the serious-critical category with a prevalence between 10 and 15%. This data provides a strong warning that the situation remains highly fragile and the IDP population is vulnerable.

The trend in the prevalence of GAM by MUAC is illustrated in Figure 7 for those sites where prevalence data is available over at least 4 rounds of data collection. The trend in prevalence indicates that the steady improvement in nutritional status, observed up to Round 4, how now stopped and an uptick in prevalence is observed in most areas.



Figure 8: Trends in the Prevalence of GAM by MUAC in Sentinel Site Camp Areas Included in at Least 4 Data Collection Rounds







Table 3: Prevalence of GAM by MUAC in Sentinel Site Camp Areas¹

				R	ound	1			Rou	nd 2			R	oun	d 3 ²			F	lour	nd 4			Ro	ounc	15		
Area	Sex	N	Age (mo.)	Oedema	(M	GAM UAC < 12.5 cm or oedema)	N	Age (mo.)	Oedema	(MU. or c	GAM AC < 12.5 cm pedema)	N	Age (mo.)	Oedema	(MU) or o	GAM AC < 12.5 cm pedema)	N	Age (mo.)	Oedema	(MU or	GAM JAC < 12.5 cm oedema)	N	Age (mo.)	Oedm.	(MUA or	GAM AC < 12.5 cm oedema)	Change R4 to R5 (% points)
	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%	+1.4%
Kahda	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	0	31	14.8%	
_	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	1	34	16.6%	
	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%	-0.5%
Baidoa	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	2	34	5.9%	
_	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	3	43	6.9%	
	All	495	29.7	1	115	23.2%	450	31.1	0	96	21.3%	436	32.8	1	77	17.7%	555	32.3	1	68	12.3%	534	32.5	2	91	17.0%	+4.7%
Dinsoor	Male	263	30.1	0	53	20.2%	245	31.6	0	47	19.2%	241	32.8	1	42	17.4%	307	32.6	1	31	10.1%	298	31.4	0	50	16.8%	
_	Female	232	29.1	1	62	26.7%	205	30.5	0	49	23.9%	195	32.7	0	35	17.9%	248	31.9	0	37	14.9%	236	33.3	2	41	17.4%	
	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%	+1.1%
Daynille	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	2	36	7.1%	
	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	3	31	7.5%	
	All	-	-	-	-	-	-	-	-	-	-	254	29.6	2	31	12.2%	212	30.3	5	30	14.2%	212	31.4	0	25	11.8%	-2.4%
Galkayo	Male	-	-	-	-	-	-	-	-	-	-	121	29.6	1	18	14.9%	98	29.1	4	17	17.3%	103	31.5	0	11	12.8%	
	Female	-	-	-	-	-	-	-	-	-	-	133	29.5	1	13	9.8%	114	31.3	1	13	11.4%	109	31.2	0	14	10.7%	
	All	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	486	30.4	3	85	17.5%	461	31.7	3	50	10.8%	-6.7%
Kismayo	Male	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	272	31.8	2	36	13.2%	267	30.3	2	22	8.2%	
	Female	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	214	28.7	1	49	22.9%	194	32.8	1	28	14.4%	
	All	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	260	29.9	0	36	13.8%	-
Dollow	Male	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	135	28.6	0	13	9.6%	-
	Female	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	31.1	0	23	18.4%	-

 1 IPC levels of acute malnutrition: Critical-Extremely Critical ($\geq \! 15.0\%$ 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)

²GAM 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 8. In 8 sites the prevalence is now above the critical 15% threshold and, worryingly, in 6 of these the trend is also upwards.



Figure 9: Prevalence of SAM and MAM by MUAC in Individual Camps, Round 1 to Round 5^{1,2}

¹ An increase or decrease in prevalence since the last data collection round is indicated by an up or down arrow. A warning exclamation mark is shown when the current prevalence of GAM by MUAC exceeds 15%.

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Coverage of nutrition treatment programs

Enrolment in Selective Feeding Programmes is described in table 4. Overall, programme coverage³ in Round 5 was similar to that seen in the last round, with an overall fall in MAM treatment coverage but an increase in SAM treatment. The target coverage of >90% has been achieved for MAM or SAM treatment in Dinsoor, but remains below Sphere Standards in all other sites.

			Moderat (MUAC	e Acute Ma < 12.5 & ≥ 1	Inutrition L1.5 cm)					Severe (MUAC <	Acute Maln 11.5 cm or	utrition oedema)		
		Perce	entage and r	number of ca	ases in OTP o	or SFP			Pe	rcentage ar	nd number o	of cases in O	ТР	
Area	Round 1	Round 2	Round 3	Round 4	Round 5	Change R4 to R5	> 90% Coverage ¹	Round 1	Round 2	Round 3	Round 4	Round 5	Change R4 to R5	> 90% Coverage ¹
Khada	74 % (75/101)	90 % (88/98)	74% (68/92)	73% (48/65)	90% (53/59)	+ 17%	NO	83 % (45/57)	64 % (34/53)	77% (34/44)	64% (18/28)	50% (3/6)	- 14%	NO
Baidoa	39 % (34/88)	42 % (47/112)	66% (124/188)	75% (59/79)	48% (30/63)	- 27%	NO	19 % (6/32)	46 % (16/35)	76 % (28/37)	69% (9/13)	71% (10/14)	+ 2%	NO
Dinsoor	41 % (32/79)	87 % (66/76)	80% (56/70)	77% (40/52)	88% (67/76)	+ 11%	NO	78 % (28/36)	90 % (18/20)	43 % (3/7)	44% (7/16)	100% (15/15)	+ 56%	YES
Daynille	-	89 % (65/73)	35% (10/29)	53% (9/17)	40% (21/53)	- 13%	NO	-	73 % (37/51)	27 % (6/22)	56% (5/9)	43% (6/14)	- 13%	NO
Galkayo	-	-	36% (10/28)	47% (8/17)	0% (0/21)	- 47%	NO	-	-	33 % (1/3)	50% (3/6)	25% (1/4)	- 25%	NO
Kismayo	-	-	-	83% (48/58)	91% (29/32)	+ 8%	YES				81% (22/27)	72% (13/18)	- 9%	NO
Dollow	-	-	-	-	86% (25/29)	-	NO	-	-	-	-	86% (6/7)	-	-
Combined	53 % (141/268)	74 % (266/359)	66 % (268/406)	74% (212/288)	68% (225/333)	- 6%	NO	63 % (79/125)	66 % (105/159)	64 % (72/113)	65% (64/99)	69% (54/78)	+ 4 %	NO

Table 4: Coverage of Selective Feeding Programmes for Children, Aged 6-59 months, with MAM by MUAC or SAM by MUAC

¹ <u>https://handbook.spherestandards.org/#ch007_004_001</u>

³ Programme coverage is measured as the proportion of children with MAM or SAM, diagnosed using MUAC and/or oedema, who report being enrolled in any treatment programme if diagnosed as MAM, or in an OTP if diagnosed with SAM. SFP = Supplementary Feeding Programme, OTP = Outpatient Treatment Programme.







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 slightly but since Round 4, but there was variation between different sites. A large improvement was seen in Baidoa and Kismayo. There was a surprising decrease of 6% card possession reported in Kahda. It is important that the reasons why this might have happened investigated at field level. We recommend that discussions with CHW and caregivers are undertaken by implementing partners to explore possible explanations.

Overall coverage of health record cards remains low, with only 4 out of every child having one, and this will therefore continue to impede the delivery and monitoring of essential child health and nutrition services. Coverage is particularly low in Dinsoor and Dollow.

Area	Rou	und 1	Rou	ınd 2	Rou	und 3	Rou	und 4	Rou	und 5	Trend	Change R4 to R5
Kahda	25.0%	199/795	34.1%	245/719	47.4%	388/818	60.1%	406/676	54.1%	235/434		-6.0%
Baidoa	10.5%	50/476	15.1%	/729	46.7%	/1,513	53.7%	/1,360	<mark>69.7%</mark>	/1232		16.0%
Dinsoor	5.8%	29/497	9.0%	41/456	19.2%	85/442	16.8%	94/561	26.3%	142/540		9.5%
Daynille			10.1%	65/655	10.9%	58/531	22.8%	101/443	18.8%	180/955		-4.0%
Galkayo		-		-	67.0%	177/264	31.6%	73/231	27.1%	60/221	i Baa	-4.5%
Kismayo		-		-		-	41.0%	213/520	59.7%	293/491	- - -	18.7%
Dollow		-		-		-		-	10.2%	27/265	_	-
Combined	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		0.7%

Table 5: Possession of a Health Record Card in Children aged 0-59 months

Measles vaccination coverage (Table 6) has also slightly improved, overall, since Round 4, with an increase of 2.7 percentage points. A marked improvement in coverage was seen on Galkayo which has now reached the 90% target. However, bearing in mind the overall situation, there is still a need for further measles vaccination campaigns as coverage remains below the 90% threshold (Sphere Child health standard 2.2.1: Childhood vaccine-preventable diseases).







Table 6: Measles Vaccination (MCV1) Coverage in Children aged 9-59 months

Area	Indicator	Roi	und 1	Roi	und 2	Ro	und 3	Ro	und 4	Ro	und 5	Trend	Change	90 %
	malcator							No	unu 4			irena	R4 to R5	Coverage ²
	Record card	9.80%	70	18.90%	123	21.00%	157	16.50%	104	15.30%	61			
Kahda	Recall	41.60%	298	46.70%	304	58.50%	437	70.30%	442	72.50%	290			
	Combined	51.30%	368/717	65.60%	427/651	79.50%	594/747	86.80%	546/629	87.80%	351/400		1.00%	NO
	Record card	3.20%	13	6.00%	36	23.90%	331	13.70%	172	19.00%	220			
Baidoa	Recall	26.90%	111	37.70%	227	39.10%	542	63.40%	794	64.90%	752			
	Combined	30.00%	124/413	43.70%	263/602	63.00%	873/1386	77.10%	966/1,253	83.90%	972/1159		6.80%	NO
	Record card	1.04%	5	0.00%	0	14.20%	61	13.70%	74	18.80%	99			
Dinsoor	Recall	20.40%	98	25.70%	96	58.50%	117	9.80%	53	15.00%	79			
	Combined	21.40%	103/481	25.90%	96/374	41.40%	178/430	23.60%	127/539	33.70%	178/528		10.10%	NO
	Record card	-	-	0.50%	3	4.50%	21	3.70%	15	13.60%	122			
Daynille	Recall	-	-	24.00%	133	29.40%	138	34.90%	140	35.30%	318			
	Combined		-	24.50%	136/554	33.80%	159/470	38.70%	155/401	48.90%	440/900	=	10.20%	NO
	Record card	-	-		-	49.40%	122	37.30%	76	25.90%	51			
Galkayo	Recall	-	-		-	40.50%	100	42.60%	87	72.60%	143			
	Combined		-		-	89.90%	222/247	79.90%	163/204	98.50%	194/197		18.60%	YES
	Record card	-	-		-		-	23.90%	113	25.80%	116			
Kismayo	Recall	-	-		-		-	33.00%	156	41.30%	186			
	Combined		-		-		-	56.90%	269/473	67.10%	302/450		10.20%	NO
	Record card	-	-		-		-		-	7.60%	19			
Dollow	Recall	-	-		-		-		-	47.60%	119			
	Combined		-		-		-		-	55.20%	138/250		-	NO
	Record card	5.50%	88	7.40%	162	21.10%	692	15.80%	554	17.70%	688			
Combined	Recall	31.00%	507	34.80%	760	40.70%	1334	47.80%	1,672	48.60%	1887			
	Combined	36.90%	595/1,611	42.30%	922/2,181	61.80%	2,026/3,280	63.60%	2,226/3,499	66.30%	2,575/3,884		2.70%	NO

¹The change shown is the difference between the vaccination coverage measured in the current round and the coverage measured in the round immediately before. ²Sphere standards indicate the need for a measles campaign if vaccination coverage is below 90%. <u>https://handbook.spherestandards.org/en/sphere/#ch009_004_001_001_</u>







There was no change in the two-week period prevalence of suspected measles (Table 7). For each child, questions were asked about the presence of fever, a rash, cough coryza, and conjunctivitis, during the last two weeks. A child was classified as having suspected measles if they had a fever *and* a rash, as well as at least one out of the other 3 symptoms (cough, coryza, or conjunctivitis).⁴

Area	Ro	und 1	Rou	und 2	Ro	und 3	Rou	und 4	Rou	und 5	Trend	Change
												R4 to R5
Kahda	9.80%	78/800	4.30%	31/726	2.00%	16/791	2.00%	13/651	2.40%	10/414	•	0.40%
Baidoa	6.90%	33/478	4.60%	34/734	1.70%	25/1465	0.90%	12/1,318	1.50%	18/1194	• • • • • • • •	0.60%
Dinsoor	1.00%	5/497	0.40%	2/458	5.10%	22/434	5.40%	30/555	0.20%	1/534		-5.20%
Daynille		-	4.00%	26/656	4.40%	22/496	2.60%	11/418	5.60%	52/924		3.00%
Galkayo		-		-	10.20%	26/255	2.80%	6/212	0.90%	2/212	· · · · ·	-1.90%
Kismayo		-		-		-	2.90%	14/486	1.70%	8/461	••	-1.20%
Dollow		-		-		-		-	1.50%	4/260		-
Combined	6.50%	116/1,775	3.60%	93/2,574	3.20%	111/3,441	2.40%	86/3,640	2.40%	95/3999	• • • • • •	0.00%

Table 7: Two Week Period Prevalence of Suspected Measles in children 6-59 mo.

The coverage of Oral Cholera Vaccine in children between 12 and 59 months is shown in table 8. Overall, coverage has slightly improved since Round 4 and is now estimated as 44%. There have been marked improvements in coverage in Dayniile but also, and unexplained decrease in Galkayo. IMC is urged to explore reasons for this, apparently, dramatic fall.

⁴ Measles Vaccine-Preventable Diseases Surveillance Standards (2018) WHO <u>https://www.who.int/publications/m/item/vaccine-preventable-diseases-surveillance-standards-measles</u>







Area	Indicator	Ro	und 1	Ro	und 2	R	ound 3	Ro	ound 4	Ro	und 5	Trend	Change R4 to R5
	Record card	7.6%	50	8.1%	48	11.5%	81	8.7%	51	5.90%	22		
Kahda	Recall	26.5%	175	45.8%	273	59.3%	417	67.3%	393	71.50%	266		
	Combined	34.0%	225/661	53.9%	321/596	70.8%	498/703	76.0%	444/584	77.40%	288/372		1.4%
	Record card	1.8%	7	5.0%	28	20.1%	260	12.2%	144	18.40%	201		
Baidoa	Recall	22.0%	85	31.4%	177	29.8%	385	41.8%	494	38.20%	419		
	Combined	23.8%	92/386	36.4%	205/563	49.8%	645/1294	53.9%	638/1,183	56.70%	620/1094		2.8%
	Record card	0.7%	3	0.0%	0	1.7%	7	0.6%	3	1.90%	10		
Dinsoor	Recall	20.4%	91	26.7%	94	26.3%	110	10.3%	54	15.80%	81		
	Combined	21.1%	94/446	26.7%	94/352	28.0%	117/418	10.9%	57/523	17.70%	91/514		6.8%
	Record card	-	-	0.8%	4	1.6%	7	2.7%	10	10.90%	92		
Daynille	Recall	-	-	12.1%	63	7.5%	33	6.7%	25	33.10%	280		
	Combined	-	-	12.9%	67/520	9.1%	40/441	9.4%	35/374	44.00%	372/845	=	34.6%
	Record card	-	-	-	-	20.3%	46	12.7%	24	0.50%	1		
Galkayo	Recall	-	-	-	-	36.7%	81	20.6%	39	0%	0		
	Combined	-	-	-	-	55.9%	127/227	33.3%	63/189	0.5%	1/185	- - -	-32.8%
	Record card	-	-	-	-	-	-	16.7%	75	11.40%	50		
Kismayo	Recall	-	-	-	-	-	-	20.0%	90	29.70%	130		
	Combined	-	-	-	-	-	-	36.7%	165/449	41.10%	180/438		4.4%
	Record card	-	-	-	-	-	-	-	-	7.70%	18		
Dollow	Recall	-	-	-	-	-	-	-	-	22.60%	53		
	Combined	-	-	-	-	-	-	-	-	30.30%	71/234	_	-
Combined	Record card	4.0%	60	3.9%	80	13.0%	401	9.3%	307	10.70%	394		
	Recall	23.5%	351	29.9%	607	33.3%	1,026	33.2%	1095	33.30%	1229		
	Combined	27.5%	411/1,493	33.8%	687/2,031	46.2%	1,427/3,083	42.5%	1,402/3,302	44.00%	1623/3682		1.5%

Table 8: Oral Cholera Vaccine (OCV) Coverage in Children aged 12-59 months







Overall, the period prevalence of Acute Watery Diarrhoea had not change much, but there was a wide variation from area to area, with a marked drop in Galkayo but cases more than doubling in Dayniile.

												Change
Area	Ro	ound 1	Ro	ound 2	Ro	ound 3	Ro	ound 4	Ro	und 5	Trend	R4 to R5
Kahda	21.8%	173/795	7.8%	56/719	10.4%	85/818	7.4%	50/676	3.0%	13/434	•	-4.4%
Baidoa	26.9%	128/476	20.0%	146/729	12.3%	186/1,513	1.9%	26/1,360	1.9%	23/1232	• • • • • •	0.0%
Dinsoor	6.2%	31/497	10.7%	49/456	10.2%	45/442	5.0%	28/561	8.3%	45/540		3.3%
Daynille		-	15.0%	98/655	6.6%	35/531	5.2%	23/443	12.8%	122/955	· • • • •	7.6%
Galkayo		-		-	3.8%	10/264	16.0%	37/231	0.0%	0/221	~~~	-16.0%
Kismayo		-		-		-	13.1%	68/520	5.9%	29/491		-7.2%
Dollow									5.3%	14/265		-
Combined	18.8%	332/1,768	13.6%	349/2,559	10.1%	361/3,568	6.1%	232/3,791	5.9%	246/4138		-0.2%

Table 9: Two Week Period Prevalence of AWD in children 0-59 mo.

Mortality

Death rates were assessed using separate recall periods for households newly enrolled during Round 5 and these that had been previously interviewed in Round 4. The memorable date used for defining the recall period for new households was January 1st, and the time since the previous interview was used for households that had been interviewed in previous rounds. We observed a continued fall in death rates during the Round 5 recall period. Both CDR and U5DR remain below emergency thresholds.







					Com	bined A	Areas				
Indicator	Round	11	Round	12	Round	3	Round	d 4	Rour	d 5	Change R4 to R5
Persons under observation	8,029	12	2,400		17,808		20,317		20,946		
Average recall period (days) ¹	30.4	2	11.8		78.6		65.3		43.3		
Person days of observation	244,082	51	4,878		1,388,362		1,325,871		882,524		
Total deaths reported	23		32		58		39		19		
Deaths in children <5 years	17		24		43		27		16		
Crude Death Rate ² (CDR) deaths/10,000/day	0.9		0.6		0.4		0.3		0.2		-0.1
Under Five Death Rate ³ (U5DR) deaths/10,000/day	3.0		2.2		1.5		1.1		0.9		-0.4

Table 10: Crude Death Rate (CDR) and Under-five Death Rate (U5DR) in the Combined Areas

¹The 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 susequent rounds. We used memorable dates to define the recall period for households that were newly recruited in each round: round - 2 Jul 9th; round 3 - the end of Mowlid, Oct 9th; round 4 - the Zobe 2 explosion on Oct 29th; and in round 5 - Jan 1st 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.

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

³ 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 <u>http://www.spherehandbook.org/en/essential-health-services-standard-1-prioritising-health-services/</u> and Interpreting and using mortality data in humanitarian emergencies, Checchi and Roberts (2005) http://odihpn.org/wp-content/uploads/2005/09/networkpaper052.pdf







Conclusions

Data from Round 5 indicates that overall, while there is a continuing improvement in some indicators, the trend for improvement seems to be slowing, and in some cases reversing. Not only is there a continued, very high level of malnutrition, it also appears that prevalence is increasing in several areas. Despite one area now having reached Sphere Standards for vaccination coverage for the first time in this round, there are still many gaps in service provision. Inadequate WASH services continue and there is a worrying increase in inadequate drinking water provision in Baidoa and Dinsoor.

The results presented here are in broad agreement with the March-June IPC analysis and projections for IDPs in southern Somalia.⁵ The IPC reported a significant influx of new arrivals into settlements in Baidoa and Mogadishu, critical levels of acute malnutrition, but falling death rates. They expect food consumption gaps to remain through to at least June 2023. The main drivers of acute malnutrition identified for IDPs in Baidoa and Mogadishu included high morbidity, poor access to adequate WASH, low coverage of measles vaccination, inadequate food consumption, population displacement, late registration, and limitations in the referral system for malnutrition treatment.

While the death rates reported by the NMS in Round 5 have continued to decrease, our findings, and the results from the IPC analysis, indicate that efforts still need to be strengthened and sustained to ensure the humanitarian response reaches Sphere standards in all areas and for all indicators, and the risk factors for excess mortality continue to be controlled and reduced. We urge nutrition and health cluster leads and partners to identify challenges that may be impinging on service provision and preventing the delivery of services that meet international standards.

The Gu rainy season has started with good rains in many areas, although excess rainfall has led to serious flooding and loss of life in some places, such as Bardere. There may be an uptick in diarrhoeal diseases and malaria infections associated with the rains that may impact on health and nutrition in the next few weeks and months.

The war in Ukraine, and associated sanctions, continue to impact global food markets. While there has been some progress with ensuring international agreement for grain exports the situation remains precarious.6 Within Somalia, the military action against Al-Shabaab by government forces and local clan militia continues.7 Further population displacement as a result of this conflict remains possible.

⁷ The Offensive & Gatekeeping: Reflections from Somalia <u>https://peacerep.org/2023/03/01/the-offensive-and-gatekeeping-reflections-from-somalia/</u>



⁵ 'Nearly 6.6 million people in Somalia still face Crisis (IPC Phase 3) or worse acute food insecurity outcomes despite relative improvement in rainfall forecast and decline in food prices' April 25th, 2023, Integrated Phase Classification.

⁶ UN Black Sea Grain Initiative Joint Coordination Centre <u>https://www.un.org/en/black-sea-grain-initiative</u>