



UNHCR Bangladesh 2023 Standardized Expanded Nutrition Survey (SENS) Final Executive Summary¹



World Food Programme



Cox's Bazar, Bangladesh
NUTRITION SECTOR



National Nutrition Services
Ensuring Nutrition Services to All



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for every child



Save the Children

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SUMMARY OF THE 2023 SENS FINDINGS:

Two Standardized Expanded Nutrition Survey (SENS) were conducted from 2nd-20th November 2023 with the objective to assess the general nutrition and health situation of Rohingya refugees living in Cox's Bazar district. The first survey, representing Kutupalong Mega Camps (31 unregistered camps), assessed 486 children 6-59 months and 640 women of reproductive age from 554 households while the second survey, representing Nayapara and Kutupalong Registered Camps, assessed 346 children 6-59 months and 727 women of reproductive age from 515 households.

The 2023 SENS results indicate a deteriorating acute malnutrition situation of very high public health concern in Mega Camps (15.4%) and an unchanged situation of medium public health concern in Registered Camps (9.6%). The differences in the surveys can be attributed to varying in coping mechanisms among the old refugees and the post-2017 influx, IYCF indicators, and the incidence of diarrhoea at the time of the survey which was higher in the Mega camps as described below.

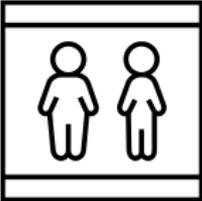
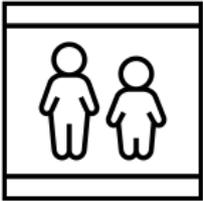
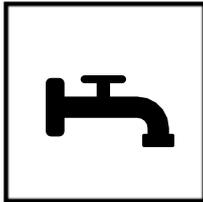
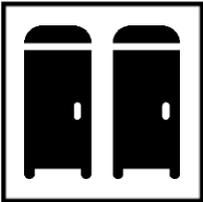
In both surveys, chronic malnutrition (stunting) remained critical and unchanged (41.2%) compared to 2022 while anemia improved among refugees compared to 2021 although still near critical levels among children under five (38.2%) and medium levels among women of reproductive age (24.1%).

Breastfeeding practices among children under two years old in both surveys were acceptable but children did not consume adequate diets in terms of diversity or frequency during the complementary feeding period. Early initiation of breastfeeding was 93.3% and exclusive breastfeeding was 69.9%. Only 16.3% of children 6-23 months consumed a minimum acceptable diet.

Measles vaccinations (98.5%), vitamin A supplementation (90.6%), deworming (97.4%), and program coverage for BSFP (93.5%) were above targets for children under five. Program coverage for women of reproductive age was 89.3% for ANC and 86.0% for BSFP which was slightly below the 90% UNHCR target.

Household access to improved water sources (99.9%) and soap (95.8%) were sufficient although open defecation was practiced by more than two-thirds (69.9%) of the children under five. Access and utilization of long-lasting insecticide-treated nets (LLIN) were above or near targets across all camps and improved compared to previous survey rounds. 82.3% of households owned at least one LLIN while 70% of under-five children and 79.2% of pregnant women slept under a LLIN.

Highlights of 2023 SENS in Cox's Bazar Rohingya Camps

<p>Under-5 Wasting (by WHZ) Very high public health significance</p> <p>15.1%</p> <p><i>Worsening Trend</i></p> 	<p>Under-5 Stunting (by HAZ) Very high public health significance</p> <p>41.2%</p> <p><i>No Change</i></p> 
<p>Under-5 Anemia Medium public health significance</p> <p>38.2%</p> <p><i>Improving Trend</i></p> 	<p>Women Anemia Medium public health significance</p> <p>24.1%</p> <p><i>Trends N/A</i></p> 
<p>Exclusive Breastfeeding for infants <6 months Under UNHCR Target $\geq 75\%$</p> <p>69.9%</p> <p><i>Improving Trend</i></p> 	<p>Minimum Acceptable Diet (MAD) for children 6-23 months No established target</p> <p>16.5%</p> <p><i>Worsening Trend</i></p> 
<p>Under-5 Coverage of Blanket Supplementary Feeding Programs Above UNHCR Target $>90\%$</p> <p>93.5%</p> <p><i>No Change</i></p> 	<p>% HH owning at least one treated mosquito net (LLIN) Above UNHCR Target $>80\%$</p> <p>82.3%</p> <p><i>Improving Trend</i></p> 
<p>Average amount of water collected/ person/ day in protected containers Above UNHCR Target >20lppd</p> <p>35.8 L</p> <p><i>No Change</i></p> 	<p>% Under-5 using a toilet/latrine No established target</p> <p>30.1%</p> <p><i>Trends N/A</i></p> 

Background

Violence in Rakhine State, Myanmar, which began on 25 August 2017, drove more than 700,000 Rohingyas across the border to Cox's Bazar, Bangladesh². Those fleeing the violence joined an estimated 200,000 people who had fled earlier waves of displacement. The pre-existing refugee camps (Kutupalong and Nayapara Registered Camps and Kutupalong Mega Camps*) were expanded to host the new influx, which put an immense strain on the existing infrastructure and humanitarian services. UNHCR, on behalf of the Nutrition Sector and partners, has been conducting annual nutrition surveys since the 2017 influx to monitor the health and nutrition situation in the camps.

This report summarizes the 2023 SENS conducted from 2nd - 20th November 2023 led by UNHCR in collaboration with UNICEF and WFP; implemented by Concern Worldwide with support from Action Against Hunger, Eco-Social Development Organization (ESDO), Gonoshasthaya Kendra (GK), Society for Health Extension and Development (SHED) and Social Assistance and Rehabilitation for the Physically Vulnerable (SARPV). Approvals were sought from the National Nutrition Services (NNS), the Refugee Relief and Repatriation Commissioner (RRRC), and the Civil Surgeons' office in Cox's Bazar. Technical support was provided by the Nutrition Sector Assessment and Information Management Technical Working Group.

Survey Objectives

The objectives of 2023 SENS were to determine the health and nutrition status of children aged 6-59 months and pregnant and lactating women 15-49 years. The main indicators collected included household demography, anthropometry, health, and nutrition indicators of children and women of reproductive age 15-49 years, morbidity, mosquito net coverage, and Water, Sanitation, and Hygiene (WASH). The findings of the survey will be used to inform nutrition programs through the designing of responsive interventions aimed at improving the overall maternal, infant, and young child health and nutrition status for the refugees as well as advocacy for humanitarian support to improve the food security situation that has shown to impact on the nutrition status among the Rohingya refugees.

Methodology

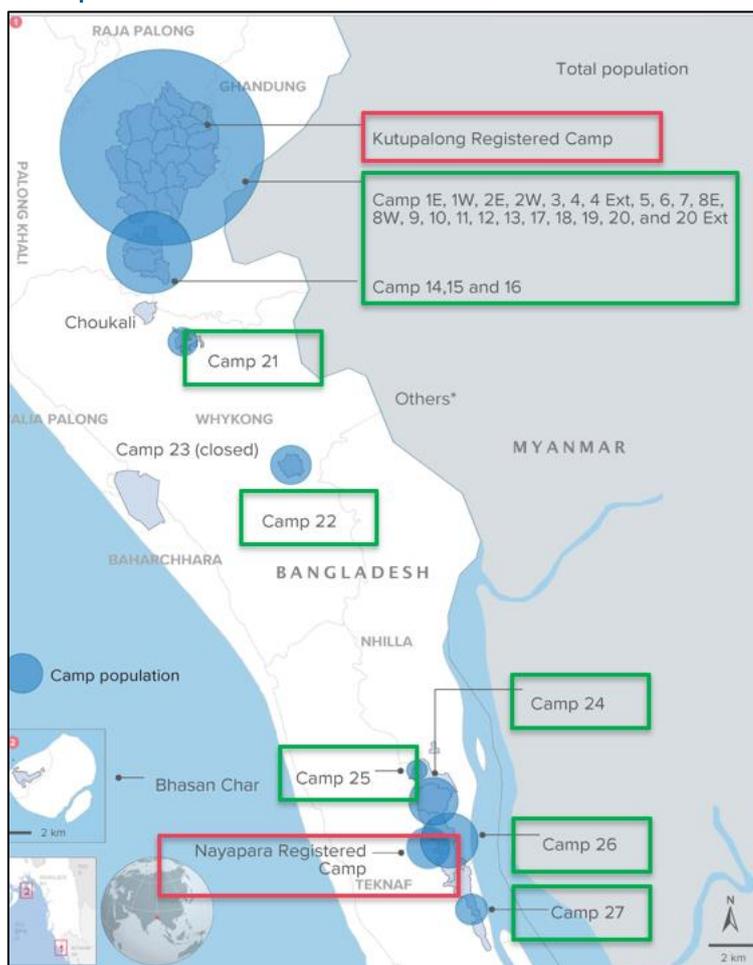
Two cross-sectional nutrition surveys were conducted following the SMART methodology and UNHCR Standardized Expanded Nutrition Survey (SENS) guidelines. In Kutupalong Mega camps two-stage cluster sampling was applied and in Nayapara and Kutupalong registered camps, simple random sampling was applied. The surveys were conducted with a representative sample of 1069 households including anthropometric measurements for 832 children aged 6 to 59 months and 1323 women of reproductive age (15-49 years). A qualitative assessment was planned for December 2023 to triangulate the quantitative findings from the SENS through small-scale key informant interviews and focused group discussions.

Training occurred for 5 days including theoretical sessions, anthropometric standardization, and a pilot test. Demography, anthropometry, IYCF, and child and women questionnaires were administered in all randomly selected households across, while WASH and mosquito net data were collected in every other household. Teams comprised five members including a team leader, two anthropometric measurers, a hemoglobin measurer, and an interviewer. Supervisors from partner organizations continually supervised the teams and performed data quality checks. Community nutrition volunteers and block leaders guided the survey teams to the selected households during data collection.

² <https://www.unhcr.org/rohingya-emergency.html>

*Mega camps refer to 31 camps in Ukhiya and Teknaf hosting the unregistered refugees

Figure 1: Geographic Representation of 2023 SENS Surveys in Cox's Bazar Rohingya Camps



The first SENS represented the 31 unregistered camps from post 2017 influx in Ukhiya and Teknaf → results referred to as **“Mega Camps”** in this report.

The second SENS represents Kutupalong and Nayapara Registered Camps → results referred to as **“Registered Camps”** in this report.

Interpretation of the Severity of Malnutrition

WHO/UNICEF CLASSIFICATION OF PUBLIC HEALTH SIGNIFICANCE FOR CHILDREN <5 YEARS OF AGE

Indicators	Very High	High	Medium	Low	Very low
Wasting	≥ 15	10 - < 15	5 - < 10	2.5 - < 5	< 2.5
Stunting	≥ 30	20 - < 30	10 - < 20	2.5 - < 10	< 2.5
Anaemia*		≥40	20-39%	5-19%	

*WHO Classification of Public Health Significance for all population groups

Key Findings for Children 6-59 months

Acute Malnutrition by WHZ: The 2023 SENS results indicated a deteriorating global acute malnutrition (GAM) situation of very high public health concern (15.1%) and the worst situation reported since the 2017 influx (Figure 1).

- In Mega Camps, the GAM prevalence worsened to 15.4%, and in Registered Camps, the prevalence remained an unchanged situation of medium public health concern at 9.6% (Table 1).
- Severe acute malnutrition (SAM) of 2.0% is at the threshold of the acceptable target for UNHCR refugee settings. At 2.1% in Mega Camps, it surpassed the threshold while the prevalence was lower in Registered Camps (0.9%).
- GAM was almost 1.5 times higher among children 6-23 months (19.0%) compared to children 24-59 months (12.7%). There were no major differences in prevalence by sex (15.3% for females vs. 16.6% for males).

Acute Malnutrition by MUAC: MUAC based GAM prevalence (4.4%) was three times lower than GAM by WHZ. The majority of the low MUAC cases (90.1%; 30/33) were among children 6-23 months.

Combined Acute Malnutrition (cGAM): The combined acute malnutrition prevalence (cGAM) by weight-for-height Z-score (WHZ) and/or low MUAC and/or edema is the most relevant indicator for caseload planning for nutrition treatment programs³. Combined GAM showed an overall prevalence of 16.1%.

Chronic Malnutrition (Stunting): The prevalence remained at 41.2%, which is considered critical and there was no change compared to the 2022 survey. Prevalence in mega camps was 41.3% and in Registered Camps was 38.5%. Stunting increased with age, affecting 30.5% of children 6-23 months and 47.6% of children 24-59 months.

Anemia: The overall prevalence is 38.1%, improved among refugees in both survey contexts compared to 2021 (50.3%) although still at or near the high threshold of 40%. Prevalence was 38.1% in Mega Camps and 40.1% in Registered Camps. Children 6-23 months were more affected by anemia (56.2%) than children 24-59 months (27.3%).

Figure 2: Overall Weighted Wasting, Stunting, and Anemia Prevalence Trends (2017-2023) among Children 6-59 months in Cox's Bazar Rohingya Camps (2023)⁴

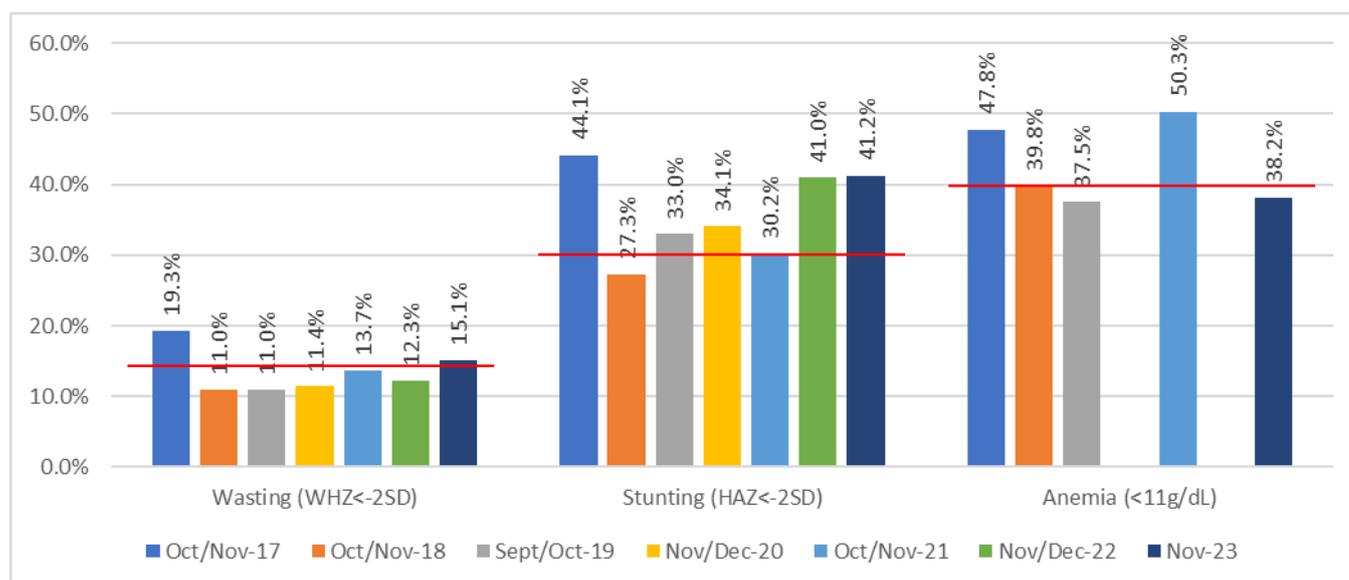


Table 1: Prevalence of Acute Malnutrition by WHZ, MUAC, and Combined Criteria among Children 6-59 months in Cox's Bazar Rohingya Camps (2023)

Indicators		Mega Camps (95% CI)	Registered Camps (95% CI)	Overall (Weighted)
Acute Malnutrition by Weight for Height Z-score (WHZ) Very high if ≥ 15% (WHO-UNICEF)	Combined GAM	15.4% (11.9 - 19.5)	9.6% (6.9 - 13.2)	15.1%
	Combined MAM	13.3% (10.2 - 17.1)	8.7% (6.2 - 12.2)	13.1%
	Combined SAM	2.1% (1.1 - 3.9)	0.9% (0.3 - 2.5)	2.0%
Acute Malnutrition by Mid Upper Arm Circumference (MUAC)	Combined GAM	4.5% (2.8 - 7.1)	3.2% (1.8 - 5.6)	4.4%
	Combined MAM	3.3% (1.9 - 5.7)	2.9% (1.3 - 5.1)	3.3%
	Combined SAM	1.2% (0.6 - 2.6)	0.3% (0.1 - 1.6)	1.2%
Acute Malnutrition by combined criteria	Combined GAM	16.3% (12.7 - 20.5)	11.3% (8.4 - 15.0)	16.1%
	Combined MAM ⁵	13.6%	10.1%	13.4%

³ Outpatient therapeutic programs/ stabilization centers and targeted supplementary feeding programs.

⁴ Weighting provides the overall nutrition situation across all the 33 camps.

⁵ Based on manual calculation since ENA for SMART software only provides prevalence of combined GAM and combined SAM.

(WHZ and/or MUAC and /or edema)	Combined SAM	2.7% (1.5 - 4.6)	1.2 % (0.5 - 2.9)	2.6%
Acute Malnutrition by Weight for Height Z-score (WHZ) by Age Group	6-23 months	19.3% (13.3 - 27.8)	12.3% (4.8 – 24.4)	19.0%
	24-59 months	12.9% (8.3 - 19.5)	8.2% (5.6 - 11.9)	12.7%
Acute Malnutrition by Weight for Height Z-score (WHZ) by Sex	Male	15.4% (11.9 - 19.5)	12.4% (8.2 - 18.1)	15.3%
	Female	17.1% (12.1 - 23.6)	6.9% (4.0 - 11.7)	16.6%

Table 2: Prevalence of Stunting (2023) among Children 6-59 months in Cox’s Bazar Rohingya Camps (2023)

Indicators	Mega Camps (95% CI)	Registered Camps (95% CI)	Overall (Weighted)
Stunting (HAZ), Very high if ≥ 30% (WHO-UNICEF)			
6-59 months	41.3% (37.0 - 45.8)	38.5% (33.5 - 43.7)	41.2%
6-23 months	30.6% (27.0 - 34.4)	29.2% (23.3 - 35.9)	30.5%
24-59 months	47.8% (41.3 - 54.5)	42.9% (35.7 - 50.4)	47.6%

Concurrent forms of malnutrition: Two-thirds (66.7%) of children 6-59 months were affected by at least one of the assessed forms of malnutrition (wasting, stunting, underweight, and anemia). A quarter of children were affected by two or more forms of malnutrition with the most common burden being stunting and anemia (12%), primarily affecting children 6-23 months (Figure 3).

Figure 3: Forms of Malnutrition among Children 6-59 months

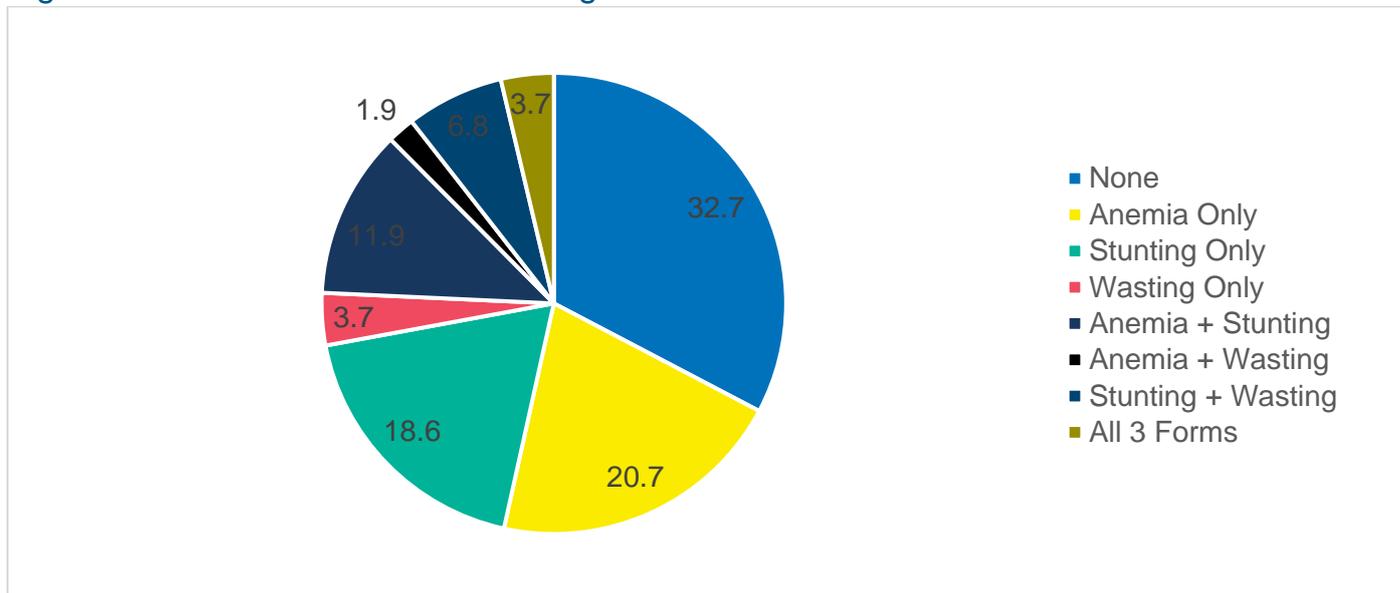


Table 3: Prevalence of Anemia (2023) among Children 6-59 months in Cox's Bazar Rohingya Camps (2023)

Indicators	Mega Camps (95% CI)	Registered Camps (95% CI)	Overall (Weighted)
Total Anemia (<11.0 g/dL), High if ≥ 40% (WHO)			
6-59 months	38.1% (32.2 - 44.3)	40.1% (32.4 - 48.4)	38.2%
6-23 months	56.0% (46.9 - 64.7)	60.0% (51.0 - 68.4)	56.2%
24-59 months	27.2% (22.3 - 32.7)	30.1% (21.6 - 40.3)	27.3%

Health and Nutrition Program Coverage and 2 Weeks Period Prevalence of Diarrhea

The overall prevalence of diarrhea among children 6-59 months in the past two weeks was 21.6% and 31.5% among younger children aged 6-23 months with a lower prevalence in Registered Camps than Mega Camps in both age groups. Of children with diarrhea, 81.8% received ORS while 52.6% received zinc, with a higher proportion of proper management of diarrhea in Registered Camps than in Mega Camps. Diarrhea was higher among wasted children (28%) than non-wasted children (18%). Coverage of measles vaccination, vitamin A supplementation, and blanket supplementary feeding programs were above targets for children under five (Table 4).

Table 4: Health and Nutrition Program Indicators among Children 6-59 months in Cox's Bazar Rohingya Camps (2023)

Indicator	Mega Camps (95% CI)	Registered Camps (95% CI)	Overall (Weighted)	Targets
Prevalence of diarrhea (two-week recall) among children 6-59 months	22.0% (18.1 - 26.4)	14.9% (11.3 - 19.3)	21.6%	
Use of ORS during diarrhea episode among children 6-59 months	81.3% (69.5 - 89.2)	92.3% (82.1 - 96.9)	81.8%	
Use of zinc during diarrhea episode among children 6-59 months	51.4% (32.8 - 67.2)	78.8% (56.4 - 91.5)	52.6%	
Measles vaccination with card or recall among children 9-59 months	97.2% (94.7 - 98.6)	98.5% (96.1 - 99.4)	97.3%	≥ 95%
Vitamin A supplementation within past 6 months with card or recall among children 6-59 months	91.8% (86.0 - 95.3)	90.6% (82.9 - 95.0)	91.7%	≥ 90%
Deworming coverage results among children 24-59 months	94.7% (90.0 - 97.3)	97.4% (94.2 - 98.9)	94.8%	>75%
Coverage of blanket supplementary feeding programs (BSFP):				
6-59 months	Not Applicable	96.9% (93.0 - 98.7)	93.5%	>90%
6-23 months	92.3% (80.7 - 97.1)	Not Applicable		
Nutrition-sensitive e-voucher coverage (24-59 months)	94.4% (91.5 - 96.4)			

Infant and Young Child Feeding Practices among Children 0-23 months

Exclusive Breastfeeding: Exclusive breastfeeding was 69.9% among infants in the camps an improvement compared to the 2022 IYCF assessment (62.3%) but below the UNHCR target of 75%. For the 30% of infants who did not exclusively breastfeed, non-breastmilk liquids were introduced in the first two days including sweetened tea, cocoa, and water mixed with honey/sugar/glucose (Figure 5). The main reason for introducing non breastmilk liquids was family, cultural, social, and religious beliefs. Continued breastfeeding for the first two years occurred at acceptable levels, but complementary feeding practices were suboptimal.

Complementary Feeding: While 79.2% of young children were introduced to semisolid food at the appropriate time (6-8 months), the diversity and frequency of foods were insufficient and remained low throughout the first two years. 26.9% of young children consumed a minimally diverse diet (at least 5 groups) and 47.3% of young children ate a minimum number of times for an overall minimum acceptable diet prevalence of 16.3%, which marks a reduction since the 2022 IYCF assessment.⁶ Children consumed an average of 3.7 food groups out of 8, primarily breastmilk and grains/roots/tubers, with some contribution from meat/poultry/fish and vitamin A rich fruits and vegetables (Figure 4). Compared to 2022, fewer children consumed legumes, eggs, dairy products, and non-vitamin A rich fruits and vegetables. More than half of children (54.5%) consumed unhealthy food and almost a third (28.8%) consumed sugar sweetened beverages although these were reductions since 2022. Stunting prevalence concurrently rose rapidly throughout the young child's life from 18.8% at age 6-8 months to 44.0% by age 21-23 months due in part to insufficient complementary feeding practices (Figure 6).

Table 5: IYCF Indicators among Children 0-23 months in Cox's Bazar Rohingya Camps

Indicator	Age Range	Mega Camps (95% CI)	Registered Camps (95% CI)	Overall (Weighted)	Targets
Early initiation of breastfeeding (within 1 hour of birth)	0-23m	93.2% (87.3 - 96.2)	94.4% (89.2 - 97.2)	93.3%	≥ 85%
Child fed colostrum	0-23m	93.2% (87.3 - 96.2)	96.9% (90.0 - 99.1)	93.4%	
Child given other liquids than breast milk in the first 2 days after delivery	0-23m	26.9% (15.5 - 42.5)	11.7% (6.9 - 18.9)	26.2%	
Exclusive breastfeeding under 6 months	0-5m	70.0% (52.9 - 82.9)	68.1% (45.8 - 84.3)	69.9%	≥ 75%
Continued breastfeeding at 1 year	12-15m	97.2% (81.4 - 99.6)	94.7% (63.9 - 99.5)	97.1%	≥90%
Continued breastfeeding at 2 years	20-23m	63.6% (45.6 - 78.5)	62.1% (30.5 - 85.9)	63.5%	≥60%
Bottle feeding	0-23m	4.7% (2.2 - 9.8)	8.0% (2.8 - 20.4)	4.8%	<5%
Introduction of solid, semi-solid or soft foods	6-8m	78.9% (62.1 - 89.6)	86.7% (64.8 - 95.8)	79.2%	>60%
Consumption of iron-rich or iron-fortified foods	6-23m	89.1% (80.4 - 94.3)	94.8% (87.4 - 98.4)	89.4%	>60%
Consumption of eggs and/ or flesh food	6-23m	51.6% (34.2 - 68.7)	56.0% (38.8 - 71.9)	51.8%	
Consumption of zero vegetables and fruits	6-23m	44.0% (34.2 - 54.4)	40.5% (23.9 - 59.6)	43.8%	
Unhealthy food consumption	6-23m	54.3% (43.0 - 65.3)	59.5% (49.5 - 68.8)	54.5%	
Sugar sweetened beverage consumption	6-23m	29.3% (21.6 - 38.4)	17.2% (10.8 - 26.3)	28.8%	
Average daily number of food groups consumed (out of 8)	6-23m	3.7	4.0	3.7	≥5
Minimum Diet Diversity (MDD)	6-23m	26.6% (18.8 - 36.0)	32.8% (19.1 - 50.1)	26.9%	
Minimum Meal Frequency (MMF)	6-23m	47.3% (35.3 - 59.1)	48.3% (30.5 - 66.5)	47.3%	
Minimum Acceptable Diet (MAD)	6-23m	16.3% (8.0 - 30.2)	20.7% (10.7 - 36.2)	16.5%	

⁶ ACF/UNICEF. Infant and Young Child Feeding Survey. Rohingya Camps, Cox's Bazar, Bangladesh. October 2022.

Figure 4: Proportion of Children (0-23 months) that consumed the food group in the past 24 hours

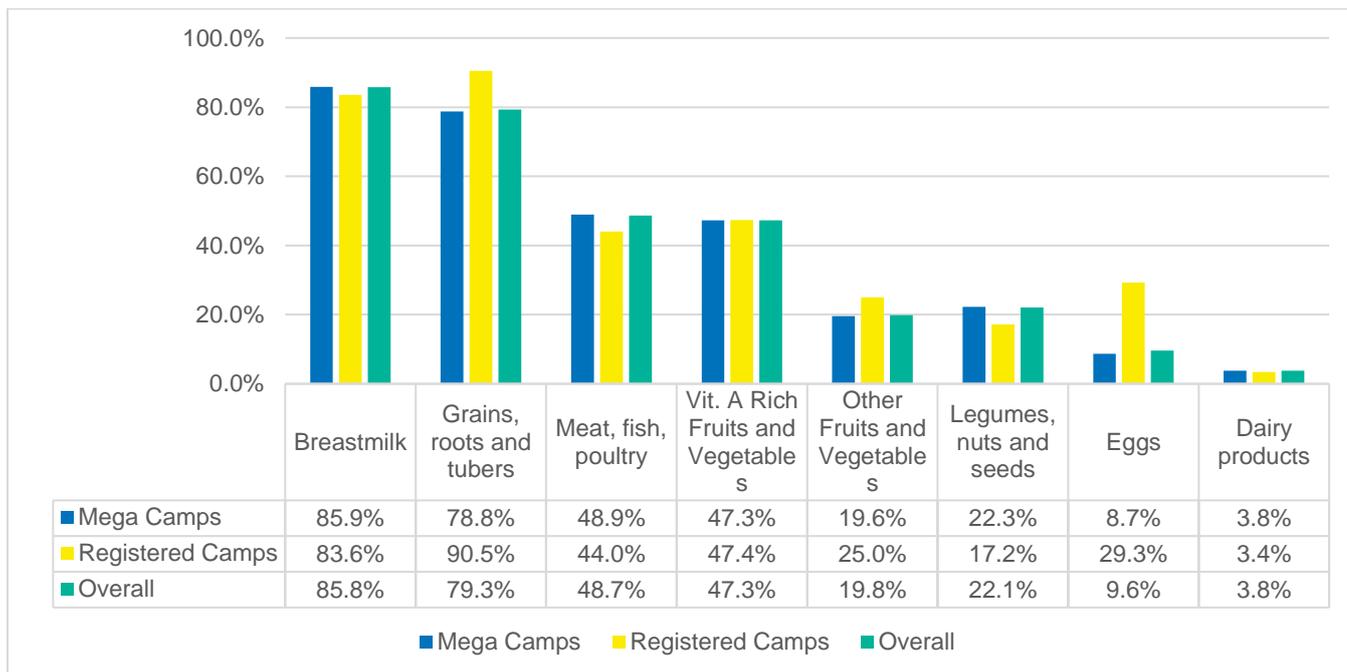


Figure 5: Patterns of infant feeding practices by age group (0-5 months)

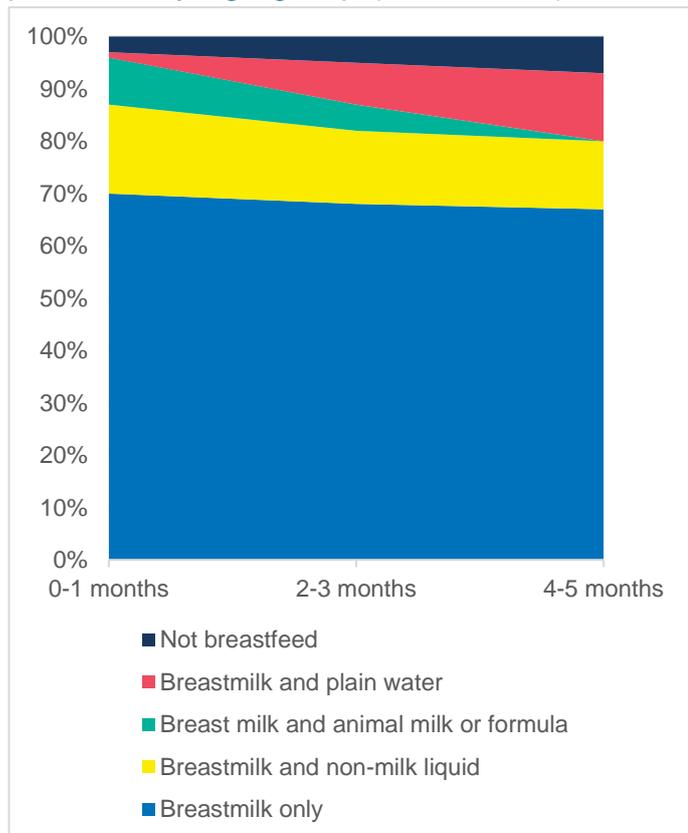


Figure 6: Stunting prevalence by age group (6-23 months)

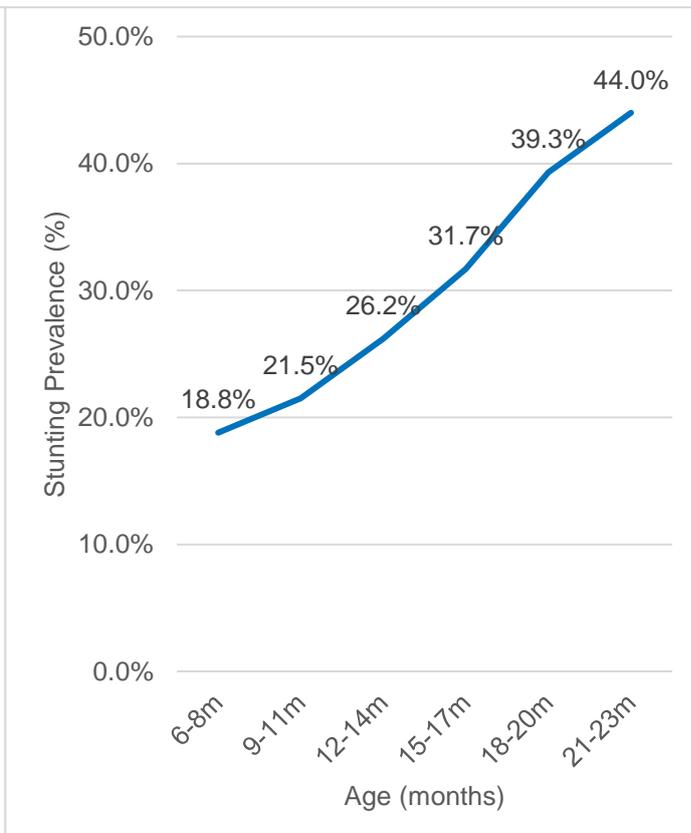
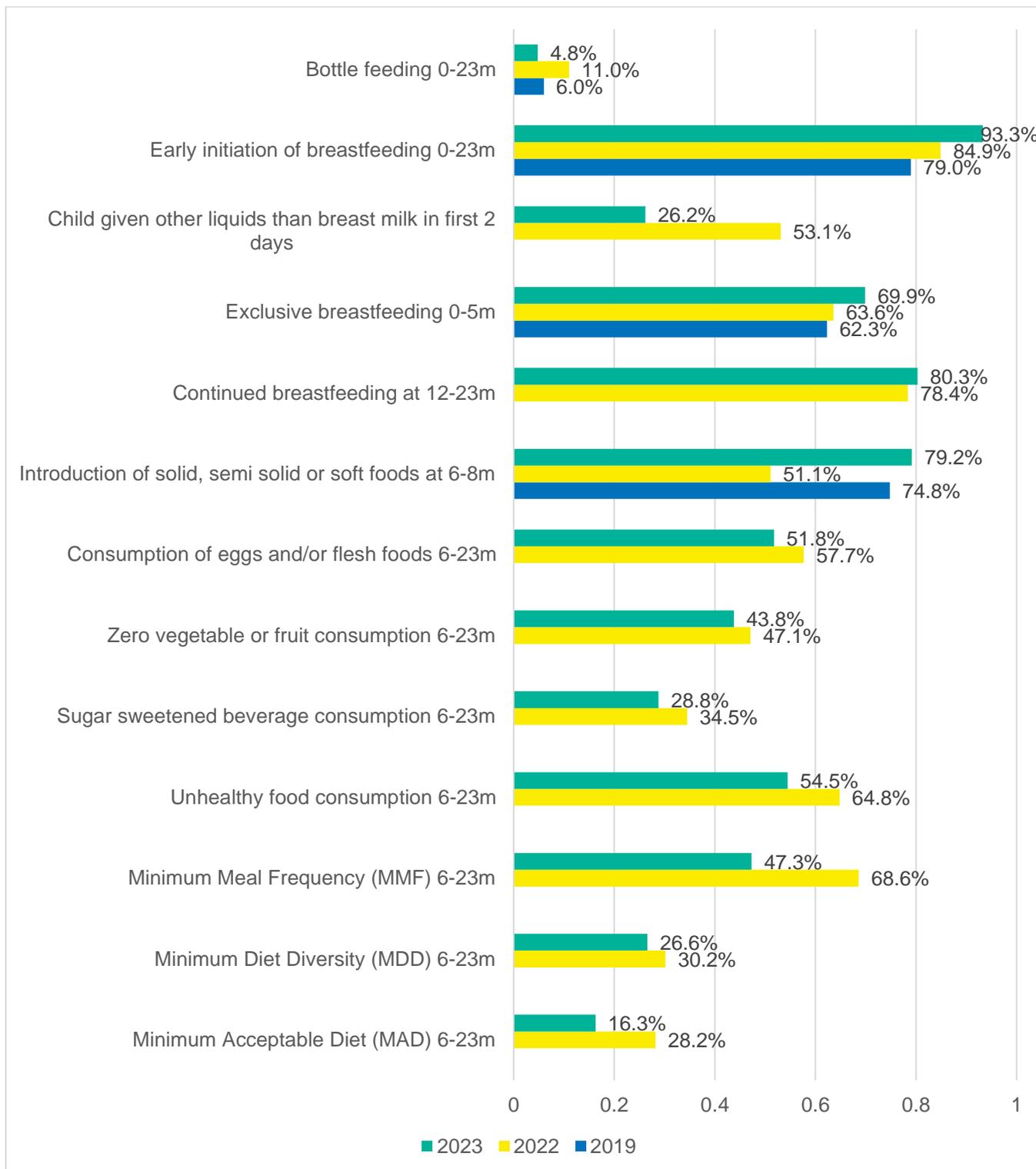


Figure 7: IYCF Prevalence Trends among Children 0-23 months in Cox’s Bazar Rohingya Camps (2019-2023)⁷



⁷ Some IYCF indicators were not assessed in 2019(continued breastfeeding, MMF, MDD, MAD, etc).

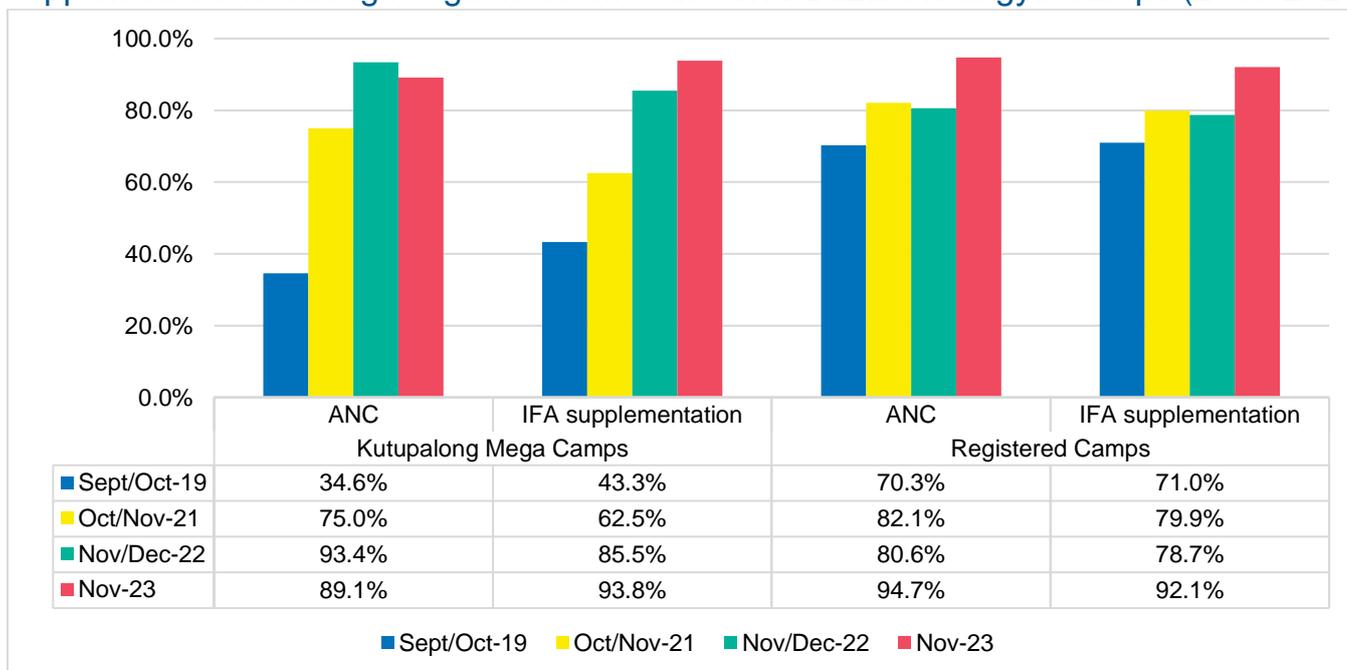
Indicators for Women of Reproductive Age (15-49 years)

Among women of reproductive age, acute malnutrition was low (1.8%) and anemia was of medium public health significance (24.1%). Program coverage (antenatal care, iron folic acid supplementation and blanket supplementary feeding) was high for pregnant and lactating women, a continuation of the trend for the past rounds of SENS although BSFP coverage was slightly below the 90% target in Mega Camps at 85.5% (Fig.8).

Table 6: Health and Nutrition Indicators among Women of Reproductive Age in Cox’s Bazar Rohingya Camps (2023)

Indicator	Mega Camps (95% CI)	Registered Camps (95% CI)	Overall (Weighted)
Low MUAC (<210mm) among women of reproductive age	1.8% (0.9 - 3.3)	1.3% (0.7 - 2.4)	1.8%
Low MUAC (<210mm) among PLW with child<6 months	1.8% (0.4 - 7.0) ⁸	0.0% (0.0 - 0.0)	1.8%
Mean women’s MUAC (mm)	265.2 (259.8 - 270.5)	282.7 (277.9 - 287.5)	266.0
Total Anemia (<12.0 g/dL)	24.1% (21.6 - 26.9)	24.5% (18.2 - 32.1)	24.1%
Antenatal care coverage (pregnant)	89.1% (77.4 - 95.1)	94.7% (78.6 - 98.9)	89.3%
Iron folic acid supplementation coverage (pregnant)	93.8% (80.3 - 98.2)	92.1% (80.3 - 97.1)	93.7%
Blanket supplementary feeding coverage (pregnant and lactating) <i>Target ≥90%</i>	85.5% (76.9 - 91.2)	96.2% (87.8 - 98.9)	86.0%

Figure 8: Prevalence Trends for Antenatal Care Coverage and Iron Folic Acid supplementation among Pregnant Women in Cox’s Bazar Rohingya Camps (2019-2023)



Household Water, Sanitation and Hygiene (WASH)

Access to Protected Water: Rohingya refugee households had universal access to protected or treated water sources (public taps, handpumps/ boreholes, and piped household connections). Most households (62.0%) collected their water from a piped connection (Figure 9). Refugees collected an average of 35.8 liters of water per person per day in protected containers which is above the UNHCR standard of 20 liters per person per day. Refugees in registered camps accessed more water than those in Mega Camps (46.1 vs. 35.4 liters per person).

Access to Soap: More than 95% of households in both camps had access to soap.

Access to Latrines: More than 99% of households in both camps used a toilet but the proportion of children under 5 using a toilet was lower (30.1%). Two-thirds of children (67.6%) practiced open defecation which is a vector for the spread of infectious disease and is an increase from the 58% reported in the 2022 WASH KAP survey (Figure 10).⁹

Table 7: WASH Indicators among Households in Cox’s Bazar Rohingya Camps (2023)

Indicator	Mega Camps (95% CI)	Registered Camps (95% CI)	Overall (Weighted)
Proportion of households collecting drinking water from protected/ treated sources <i>Target: ≥95%</i>	100.0% (100.0 - 100.0)	98.8% (91.2 - 99.9)	99.9%
Average water collected per person/day (protected containers) <i>Target: ≥ 20 L/ person/ day</i>	35.4 L	46.1 L	35.8 L
≥ 20 L/ person/ day	60.3% (41.8 - 73.1)	67.4% (50.6 - 80.7)	60.6%
15 - <20 L/ person/ day	8.5% (6.3 - 11.2)	8.8% (4.5 - 8.8)	8.5%
<15 L/ person/ day	31.2% (20.9 - 43.7)	23.8% (14.8 - 35.8)	30.9%
Proportion of households using a latrine/ toilet	99.0% (95.7 - 99.8)	100.0% (100.0 - 100.0)	99.0%
Proportion of children under 5 using a latrine/ toilet	29.9% (23.7 - 37.0)	34.3% (25.4 - 44.4)	30.1%
Proportion of households with access to soap	95.9% (79.2 - 99.3)	93.8% (82.1 - 98.1)	95.8%

Figure 9: Primary Household Water Source (%)

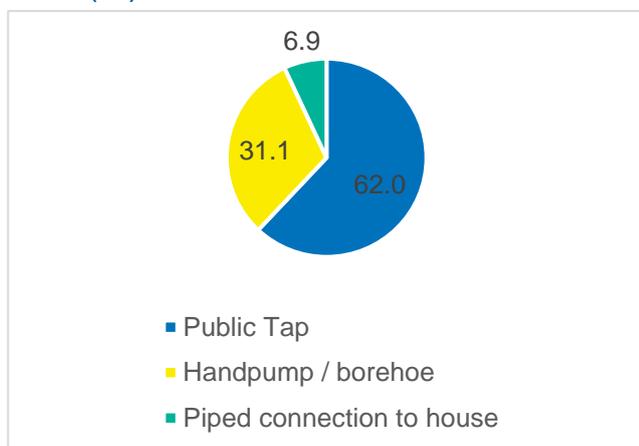
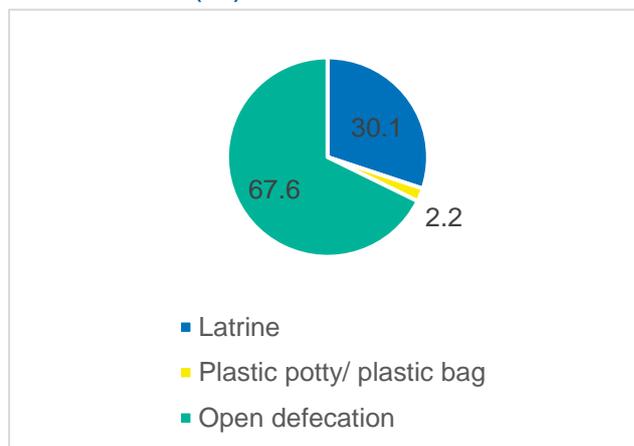


Figure 10: Where do under-five children defecate? (%)



⁹ UNHCR/REACH. WASH and Shelter Third Party Monitoring. WASH Household KAP Survey. Rohingya Camps, Cox’s Bazar, Bangladesh. 2022.

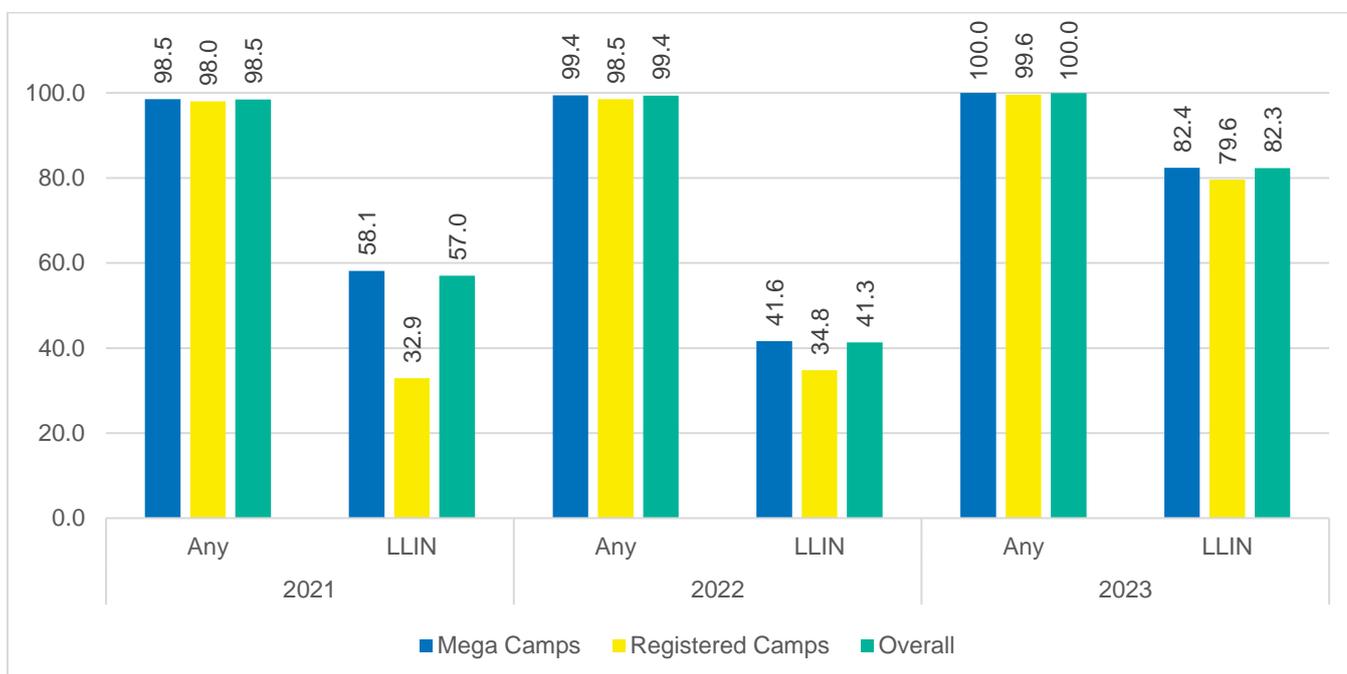
Indicators for Mosquito Net Access and Utilization

Ownership of long-lasting insecticide treated nets (LLINs) was 82.3% across all camps which was above the UNHCR target of 80% for the first time (Figure 11). In Rohingya camps, 3.3 people shared a LLIN compared to the UNHCR goal of 2 persons per LLIN). About two-thirds of household members (67.6%) slept under an LLIN with higher utilization among at-risk populations of children under five (70.0%) and pregnant women (79.2%). Under-five children and pregnant women are protected from dengue transmission when all age groups are covered by LLIN.

Table 8: Mosquito Net Access and Utilization in Cox’s Bazar Rohingya Camps (2023)

Indicator	Mega Camps (95% CI)	Registered Camps (95% CI)	Overall (Weighted)	Targets
Proportion of households owning at least one mosquito net (any type)	100.0% (100.0 - 100.0)	99.6% (96.8 - 100.0)	99.9%	
Proportion of households owning at least one treated LLIN	82.4% (64.9 - 92.2)	79.6% (70.4 - 86.5)	82.3%	Target of > 80%
Average number of persons per LLIN	3.3	3.1	3.3	2 persons/LLIN
Proportion of household members who slept under an LLIN:				
All ages	67.6%	67.2%	67.6%	
Children 0-59 months	69.9%	71.2%	70.0%	
Pregnant women	80.6%	48.0%	79.2%	

Figure 11: Proportion of Households with at least one Mosquito Net, (2021-2023)



Discussion / Focus Areas

Acute Malnutrition (Wasting)	<ul style="list-style-type: none"> • In Mega Camps, there was a deteriorating acute malnutrition situation of very high public health concern (15.4%) and the highest prevalence since the 2017 Influx. In Registered Camps, wasting was 9.6% and of medium public health concern. • Focus on the identification and treatment of acute illnesses among malnourished children enrolled in nutrition programs to improve recovery outcomes. • Enhance the effectiveness of the GMP, ensuring regular follow-ups for children, particularly those exhibiting static weight or weight loss. Strengthen the referral system between BSFP, TSFP, and OTP including the use of accurate anthropometric equipment, automatic look up charts, and trained staff. Most children who missed enrolment in treatment programs were solely identified by low WHZ. Untreated cases of wasting contribute to higher prevalences of acute malnutrition and stunting. • Consider expansion of community based MUAC screening criteria to identify missed children with low WHZ. Screening criteria of MUAC ≤ 140mm could identify up to 80% of the low WHZ acute malnutrition cases with confirmatory anthropometric measurements at nutrition centers or screening by WHZ could be done to avoid false positives from expanded MUAC. • Conduct a coverage survey to determine whether the proportion of unenrolled acutely malnourished children reflects the accurate camp situation. • Conduct a follow-up nutrition assessment in 6 months in Mega Camps to determine whether acute malnutrition is still above the very high prevalence threshold and whether program changes are having an impact on the reduction of malnutrition. • Determine reasons for the difference in GAM between Mega vs Registered Camps through data triangulation with the qualitative assessment and secondary data sources (e.g., food security data, IYCF assessments, coverage assessments).
Chronic Malnutrition (Stunting)	<ul style="list-style-type: none"> • Stunting remained the most persistent and prevalent form of malnutrition affecting refugee children in 2023 with little progress made on this indicator since 2017. Age group trends in stunting suggest inadequate nutrient intake during the complementary feeding period from 6-23 months. • Assess and improve the intra-household utilization of supplementary food products provided for children 6-23 months and E-voucher top up for children 24-59 months and any differences in outcomes for wasting and stunting between younger and older children since they are enrolled in different modalities. • Review and analyze the drivers of stunting in the Rohingya context to develop clear recommendations, actions, and targets for reduction.
IYCF	<ul style="list-style-type: none"> • The average under two child breastfeeds and eats 2.5 times per day and consumes food from the grains/roots and tubers group with occasional contribution from meat, fish, and poultry group and vitamin A rich fruits and vegetables group. To achieve MAD, children need to eat at least one more time per day and from two more food groups (e.g., eggs, dairy, legumes, other fruits, and vegetables). 43.8% of children did not consume fruits or vegetables while 54.5% consumed unhealthy food and 28.8% consumed sugar sweetened beverages. • Continue promoting early initiation and improving exclusive breastfeeding by addressing the introduction of non-breastmilk liquids in the first few days after birth. • Emphasize improved complementary feeding practices including increased diversity and frequency. The focus of the complementary feeding initiation (<i>mukhe bhaat</i>) ceremony could be shifted to more nutrient dense foods such as WSB+ with added ingredients and other types of rice-based porridges that include multiple food groups. • Partners could set joint targets for standard IYCF indicators like MDD, MMF, MAD, consumption of egg/flesh foods, etc. as there are no currently established targets but the prevalences are low.
Anaemia	<ul style="list-style-type: none"> • Anemia, as a marker of access to micronutrients (vitamins and minerals), is of medium public health significance among women and children (although at the high end of the range in children).

	<ul style="list-style-type: none"> • Prevalence of anemia by child's age suggests poor iron stores were laid down among pregnant women. With near universal enrolment in ANC/BSFP and reported consumption of iron folic acid by pregnant women, high BSFP coverage among PLWs and children 6-23 months, and high vitamin A supplementation deworming coverage among children, other factors may be influencing anemia in the Rohingya camps such as low consumption of heme iron and co-factors like the retinol form of vitamin A, magnesium, and copper. • Conduct an anemia causal study to determine the anemia etiology in the camp setting. • Explore various avenues to improve micro-nutrient intake through the introduction of other sources like kitchen gardens, increased access to animal source foods, micronutrient powders (MNPs), and/or rice fortification.
Food Security	<ul style="list-style-type: none"> • Ration cuts from USD12 to USD8 per person occurred in 2023. As of the November 2023 post distribution monitoring (PDM), 90% of the refugee population did not have adequate food consumption, a 12% increase since May 2023. Analysis done both by the nutrition sector as well as the PDMs have shown an associated worsening of both the food security and nutrition situation.¹⁰ • Low diet diversity among 6-23 months old children indicates issues with food access availability or utilization and is associated with overall poor household diet diversity and low diet diversity among women (MDD-W). Women's nutrition status impacts child anemia and stunting prevalence. By 6 months of age, a sizable proportion of children are already stunted (18.8%) and anemic (72.7%). • Assess women's diet diversity in the next SENS or food security monitoring. The limited data that exist on the diets of women and adolescent girls in refugee contexts suggests that their diets are poor and that this contributes to malnutrition in their children. The high nutrient needs of adolescent girls and PLW constitute a significant portion of the household cost of a nutritious diet. Increased focus should be placed on SBCC campaigns targeted towards decision makers of household resources to allocate appropriate resources for adolescent girls' nutrient requirements as a time of life that may allow for catch up and as future mothers.
Health	<ul style="list-style-type: none"> • Maintain the high coverage of measles vaccination, vitamin A supplementation, and deworming campaigns. • Work with health sector partners to address the increased prevalence of diarrhea and treatment with ORS and zinc. • Maintain high coverage and utilization of long-lasting insecticide treated nets through regular distribution, and sensitization about utilization among priority groups (under-five children and pregnant women).
WASH	<ul style="list-style-type: none"> • Maintain water access above UNHCR standards (≥ 20 lpppd) with a focus on minimizing geographic disparities in camps. • Prioritize awareness and behavior change around open defecation for under-five children. Only 25% of households mentioned latrine use as a diarrhea prevention measure in the 2022 UNHCR WASH KAP Survey.
Cross Cutting	<ul style="list-style-type: none"> • Develop and implement a multi-sectoral action plan across nutrition, health, food security, WASH, education, and protection sectors for stronger collaboration, advocacy, and investment including joint targets for multisectoral indicators (i.e., stunting, anemia, minimum acceptable diet). • Scale up and increase investments in nutrition prevention approaches including social behavior change programs. • Conduct a technical review of the ongoing/ current treatment and prevention nutrition programs to identify areas to strengthen for quality interventions and better outcomes. • Consider the lifecycle approach for nutrition prevention and treatment services during the most nutritionally vulnerable stages of life. Female adolescence is a missed opportunity to focus on a high intake of micronutrient rich foods when biological needs are especially high and the cost of a nutritious diet increases.

¹⁰ WFP. Post Distribution Monitoring, Cox's Bazar, Bangladesh. November 2023.

2023 STANDARDIZED EXPANDED NUTRITION SURVEY EXECUTIVE SUMMARY

UNHCR COX'S BAZAR BANGLADESH

Focal point: Dr. Vincent Kahi, Senior Public Health Officer, <mailto:kahivi@unhcr.org>

Technical support: Information Management, <mailto:bgdcoim@unhcr.org>

For related SENS reports and updates from the operation, please visit: [UNHCR SENS Data Dashboard](#)



UNHCR Sub-Office Cox's Bazar Motel Road (Probal), 4700 Cox's Bazar, Bangladesh Mailing Address: New Cottage, Motel Road, 4700 Cox's Bazaar, Bangladesh