Integrating screening for acute malnutrition into the vitamin A supplementation campaign in the Rohingya camps during the COVID-19 pandemic

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Physical distancing at an integrated nutrition facility, Cox's Bazar, Bangladesh, 2020

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What we know: The COVID-19 pandemic has impacted on community screening and vaccination campaigns reducing the coverage of both.

What this article adds: A modified, integrated vitamin A supplementation (VAS) campaign was successfully carried out in Rohingya refugee camps using a door-to-door household strategy instead of traditional mass gatherings at nutrition facilities. Children with severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) were identified using modified Global Nutrition Cluster-recommended (GNC) mid-upper arm circumference (MUAC) cut-offs (SAM <120 mm; MAM ≥120 and <135 mm). The campaign reached 155,080 Rohingya children aged 6-59 months with vitamin A supplementation and MUAC screening (97% of the population in this age group), 7200 of whom were identified as acutely malnourished (SAM or MAM) with the greatest concentration of cases in children aged 6-23 months. Sector partners identified 132 children with disabilities who were referred to appropriate services. Key to the campaign's success was the recruitment of paid Community Nutrition Volunteers (CNVs) from the Rohingya communities and infection prevention and control measures (IPC) that reduced the risk of COVID-19 exposure.

Context

Since the onset of the humanitarian crisis in Cox's Bazaar, Bangladesh in 2017, the Nutrition Sector has overseen the emergency nutrition response for both Rohingya and host communities. Approximately 270,000 children and pregnant and lactating women (PLW) in Rohingya refugee camps are regular beneficiaries of nutrition services. Since January 2020, nutrition services throughout the camps have been consolidated, shifting from 84 distinct outpatient therapeutic programmes (OTPs), therapeutic supplementary feeding programmes (TSFPs) and blanket supplementary feeding programmes (BSFPs) to a network of 46 integrated nutrition facilities (INF). The INF aim to offer a "one-stop-shop" approach where any wasted child can access services at the same location, enabling continuity of care and efficiency of service delivery, and any mother/caregiver needing support for infant and young child feeding and care practices can access the services they need.

The COVID-19 outbreak has negatively affected service provision in both the Rohingya camps and host communities, including nutrition services. Following restrictions on movement put in place by the Government of Bangladesh from March 2020, there was a considerable reduction in the coverage of community nutrition services and outreach activities. Anthropometric measurements using weighing scales and height boards were discontinued and there was a slowdown in visits to INFs, reflected in a considerable fall in admissions to wasting treatment programmes. Com-

Box 1 COVID-19 prevention measures introduced to the vitamin A campaign

- Recruitment of paid Community Nutrition Volunteers (CNVs) from the Rohingya population to support campaign efforts rather than deployment of service providers from outside the area
- Distribution of vitamin A supplements to children door-to-door instead of at fixed distribution sites to prevent large gatherings of children and caregivers
- Physical distancing during home visits between CNVs and household members
- Mandatory face mask usage by CNVs and household members
- CNVs encouraged to wear gloves and regularly disinfect their hands if it was not possible to avoid physical contact
- Provision of hand sanitisers to CNVs for proper hand hygiene
- Use of one mid-upper arm circumference (MUAC) tape per child to avoid the risk of transmission through multiple uses of a MUAC tape.

munity screening for acute malnutrition amongst the host community fell from 41,282 in January 2020 to a low of 1,414 in May 2020. In the Rohingya camps, nutrition screening coverage fell from 132,507 in January 2020 to 64,653 in April (Monthly 4W reports). As a result, the Nutrition Sector had to make urgent adaptations to existing programme approaches to allow the continuation of severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) treatment services.[1] One such adaptation was the integration of acute malnutrition screening into a modified vitamin A supplementation campaign conducted in the Rohingya camps between 21st June and 15th July 2020.

Integrated vitamin A supplementation field strategy

In response to an in-depth analysis of COVID-19 risk factors in the camps, the Nutrition Sector, in consultation with the sector's respective Technical Working Groups (TWG),[2] adopted global recommendations for adaptations to nutrition programming in the COVID-19 context. This included adaptations to the integrated vitamin A supplementation campaign round one (VAS R1) in 2020 (Box 1). The UNICEF Nutrition Section in Cox's Bazar led VAS R1 preparations, facilitated implementation and generated the final reports. Field implementation was supported by all TGW members.[2]

Sector partners agreed to extend the duration of the campaign to a maximum of four weeks due to the limited number of field staff available and to allow extra time for household visits (with some variation on duration within each camp). The campaign involved the distribution of vitamin A supplements to children, the measurement of each child's mid-upper arm circumference (MUAC) with demonstrations to mothers/caregivers on how to use a MUAC tape (Mother-led MUAC), identification of children with disabilities and messaging on infant and young child feeding (IYCF) to pregnant women and mothers with children under two years of age. The purpose of integrating these services was to enable the continuation of these critical nutrition services in spite of restrictions on movement. Integrated training modules were used by Community Nutrition Volunteers (CNVs) to support this including one on the applied Mother-led MUAC (Family MUAC) approach and another on IYCF messaging to promote optimal maternal nutrition, breastfeeding and complementary feeding practices, including avoidance of breast milk substitute usage. Over 200,000 MUAC tapes were printed locally to enable each family to have their own tape to support the implementation of Mother-led MUAC.

Any child diagnosed with either SAM or MAM according to adapted Global Nutrition Cluster (GNC) recommended MUAC cut-offs (SAM, MUAC <120 mm; MAM, MUAC ≥ 120 and <135 mm) (GNC, 2020) was referred to the nearest integrated nutrition facility (INF) for treatment services. Children with disabilities were identified using a simple questionnaire carried out with the caregiver, the purpose of which was to screen and refer children for a more detailed assessment. The questionnaire was based on 'Guidance on strengthening disability inclusion in Humanitarian Response Plans' (DFID, 2019), the simplified Washington Criteria and other recommendations of disability screening. Technical support was given by the disability specialist of the World Food Programme (WFP) and protection specialists of UNICEF Cox's Bazar and included asking the mother about any child disability-related concerns. Children identified with disabilities were referred to available disability services (for example, services provided by Handicap International).

Over 800 CNVs were mobilised for the vitamin A supplementation campaign, recruited by UNICEF, UNHCR and WFP programme partners and paid at pre-agreed, standardised rates

Box 2 Procedures taken by CNVs during the door-to-door vitamin A campaign

- CNVs introduce themselves to the household, explain about the vitamin A supplementation campaign and obtain informed consent to enter the home.
- CNVs identify all children under five years of age in the household and determine the age-specific dose of vitamin A for each child and administer the dose.
- CNVs guide and supervise the mother/caregiver to take the mid-upper arm circumference (MUAC) measurements of each child under five years of age.
- CNVs guide and supervise the mother/caregiver to check for other signs of child malnutrition such as bilateral oedema.
- CNVs observe the child for any signs of physical disability and ask the mother/caregiver about any known disabilities, including mental disabilities.
- CNVs register all obtained data.
- CNVs explain the next steps to the mother/caregiver if MUAC measurements and/or checks for other signs of malnutrition indicate moderate acute malnutrition (MAM) or severe acute malnutrition (SAM).
- CNVs deliver age-appropriate infant and young child feeding (IYCF) messages on the optimal infant, child and maternal feeding.
- CNVs thank the mother/caregiver.

determined by the Refugee Relief and Repatriation Commissioner (RRRC) and the Inter Sector Coordination Group (ISCG). All CNVs had adequate literacy skills to complete registration documentation and some experience of supporting humanitarian work in the camps. CNVs were given intensive training using materials adapted to suit the COVID-19 context. This included the remote training of trainers using an online communication platform. Training was then cascaded to Rohingya CNVs in small face-to-face groups with physical distancing between the participants.

The procedures followed during the campaign are set out in Box 2. All Rohingya VAS CNV teams received supplies of vitamin A supplements, MUAC tapes, pamphlets with IYCF messages for caregivers, data registration sheets, masks, gloves and hand sanitisers. COVID-19 preventive behaviours were emphasised to the CNVs throughout the training including the regular use of hand sanitiser, the wearing of masks and ensuring physical distancing. CNVs were not routinely tested for COVID-19 but any CNV who experienced related symptoms was required to report to a health sector facility and self-isolate.

If any COVID-19 case was reported during the VAS campaign in a camp's block then the entire block was placed under quarantine.

Table 1 SAM, MAM and GAM identified by age in the VAS R1 2020

Age group in month	The number of screened children under five	The number of SAM children	The number of MAM children	The number of GAM children	SAM prevalence by age group	MAM prevalence by age group
06-11	15,316	909	3,588	4,497	5.93%	23.43%
12-23	31,585	1,236	8,063	9,299	3.91%	25.53%
24-59	108,318	431	7,262	7,693	0.40%	6.70%
Total	155,219	2,576	18,913	21,489	3.42%	18.55%
Total prevalence		1.66%	12.18%	13.84%		

[1] For more information see field article in this edition entitled "Adaptations to CMAM programming in Cox's Bazar in the context of the COVID-19 pandemic"

[2] TWGs comprise of representatives of United Nations (UN) (UNHCR, UNICEF, WFP) and non-UN (Action Against Hunger, Care International, Concern Worldwide, World Concern, Save the Children International, Social Assistance and Reha bilitation for the Physically Vulnerable (SARPV), Society for Health Extension and Development (SHED), World Vision International (WVI))

A child at a therapeutic feeding centre, Cox's Bazar, Bangladesh, 2020

WFP

Bangladeshi national staff arriving from outside of the camps were checked for signs and symptoms of COVID-19 before being granted permission to enter the territory of the camp; if symptoms were present, they were reported and the individual self-isolated and took a COVID-19 test. These measures were essential to minimise the risk of COVID-19 transmission during the campaign.

Every evening, teams submitted daily reports to their respective agencies. The Nutrition Sector and UNICEF's information management officers subsequently compiled the data and analysed it against vitamin A supplantation coverage targets.

Outcomes

A total of 155,219 children (97%) of the target 160,026 children aged 6-59 months were reached during the four-week vitamin A supplementation campaign. All these children received the integrated package of interventions (vitamin A supplement, screening for acute malnutrition and age appropriate IYCF messaging. According to the field monitoring reports from CARE International (the technical partner of UNICEF), there was a high acceptance of the vitamin A supplementation campaign among caregivers of children under five years of age.

Using the adapted MUAC thresholds, the overall average prevalence of SAM and MAM amongst screened children by age group is presented in Table 1. The total prevalence of SAM and MAM among children aged under five years was 1.66% and 12.18% respectively; global acute malnutrition (GAM) was 13.84%. The SAM prevalence analysis by age group found that children aged 6-11 months (5.93%) and 12-23 months (3.91%) had the highest prevalence of GAM; results show that these age groups were more susceptible to acute malnutrition than children aged 24-59 months of age. Additionally, 132 children aged under five years of age were identified with various disabilities during the campaign, with more children in the 6-11 month age group with disabilities compared to older age groups. This may be due to the presence of more congenital forms of disability in the younger age group. The nutrition status of these disabled children is unknown but does warrant further analysis given they are a key risk group for malnutrition.

Discussion

The screening of children aged 6-59 months of age with MUAC, integrated within the vitamin A supplementation campaign enabled the identification of almost 21,489 children with SAM and MAM using adjusted MUAC thresholds (MUAC <120 mm and <135 mm respectively). This experience demonstrates that vitamin A supplementation campaigns provide a 'natural fit' for community nutrition services which could be considered in the future.

The finding that SAM and MAM are most prevalent in children aged 6-23 months reconfirms that early childhood is a vulnerable period for children in the Rohingya camps. Ensuring children and their caregivers have access to services to prevent wasting is crucial, including maternal nutrition services to prevent low birth weight and anaemia and support for infant and young child feeding.

The number of cases of COVID-19 infection reported by the Health Sector did not increase following the vitamin A supplementation campaign which suggests that, although many factors are involved, it may be possible to safely implement further rounds during the COVID-19 pandemic using the adapted strategies and implementing infection prevention and control (IPC) measures. Lessons learned during the integrated vitamin A supplementation campaign will be applied for the next round of the campaign, scheduled to begin in November/December 2020.

The sector partners understand that COVID-19-modified GNC – recommended MUAC cut-offs increased nutrition referral rates with particular impact on therapeutic supplementary feeding programmes (TSFPs).[3] This situation is being monitored closely and decisions will be made to ensure continued high coverage of essential nutrition services.

Conclusion

The experiences highlighted in Cox's Bazaar have shown that it is possible to conduct a vitamin A supplementation campaign safely and successfully during the COVID-19 outbreak by using modified approaches, including shifting to door-to-door visits instead of mass gatherings. The recruitment and use of locally hired Community Nutrition Volunteers (CNVs) from the Rohingya communities (rather than the typically used Bangladeshi CNVs) to carry out the campaign reduced the risk of importing COVID-19 infection from outside the camps. By August 2020, screening amongst the host community reached 55,560 children and in the Rohingya camps, 169,997 children, exceeding pre-COVID coverage levels (Monthly 4W reports).The fact that the campaign reached over 97% per cent of children aged 6-59 months shows that, despite containment measures, large numbers of children can be reached through a well-planned and well-implemented approach.

The experience also shows that screening for acute malnutrition can be successfully combined with vitamin A supplementation, given that the target age group is the same. SAM and MAM children identified during the vitamin A supplementation campaign were successfully referred to the relevant nutrition programme (outpatient therapeutic programmes, therapeutic supplementary feeding programmes) as part of the integrated nutrition programme. The implications of the adapted MUAC thresholds, however, had caseload implications that are undergoing further analysis and review by the Nutrition Sector as part of the COVID-19 response strategy. Disabled children were referred to relevant services for children with special needs reflecting the potential for, and the benefits of, linking nutrition with allied programmes and sectors. Finally, the results of the screening highlight the vulnerability of the population to acute malnutrition and the need to improve maternal nutrition, support safe and appropriate breastfeeding and complementary feeding to prevent wasting in infants and young children.

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[3] Read more about this in a field article in this issue entitled *"Adaptations to CMAM programming in Cox's Bazar in the context of the COVID-19 pandemic"* and a research article entitled *"Concordance between weight-for-height z-score (WHZ) and mid-upper arm circumference (MUAC) for the detection of wasting among children in Bangladesh"*

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