EXECUTIVE SUMMARY

COVERAGE SURVEY

IMAM Programme

Zimbabwe

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ABBREVIATIONS

AAH	Action Against Hunger
CI	Confidence Interval
Cin	Case in the IMAM programme
CMAM	Community Management of Acute Malnutrition
Cout	Case not enrolled in the IMAM programme
DHIS2	District Health Information System
EPI	Expanded Programme on Immunisation
FANTA	Food and Nutrition Technical Assistance
FNSC	Food and Nutrition Security Committee
HP	Health Promoter
IEC	Information, Education and Communication
IMAM	Integrated Management of Acute Malnutrition
IMNCI	Integrated Management of Nutrition and Childhood Illness
LQAS	Lot Quality Assurance Sampling
MAM	Moderate Acute Malnutrition
MoHCC	Ministry of Health and Child Care
MUAC	Middle Upper-Arm Circumference
NCD	Non-Communicable Disease
NGO	Non-Governmental Organisation
Rin	Recovering case in the programme
Rout	Recovering case not enrolled in the IMAM programme
RUTF	Ready-To-Use Therapeutic Food, PlumpyNut®
SAM	Severe Acute Malnutrition
SLEAC	Simplified LQAS Evaluation of Access and Coverage
SQUEAC	Semi-Quantitative Evaluation of Access and Coverage
UNICEF	United Nations' Children's Fund
VMAHS	Vital Medicines Availability and Health Services Survey
VHW	Village Health Worker
WHO	World Health Organisation
WHZ	Weight-for-Height z-score
ZimVAC	Zimbabwe Vulnerability Assessment Committee

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Background

In Zimbabwe, child undernutrition is a critical public health issue. The country faces a triple burden of malnutrition including under nutrition, over nutrition and micronutrient deficiencies. More frequent and severe droughts resulting from the climate crisis, the recent COVID-19 pandemic, the HIV epidemic, the economic situation and compromised food system feature among key determinants of increased malnutrition in country.

Zimbabwe has therefore made great investments to address child nutrition from a public health standpoint and has a well-established cadre of trained nutrition personnel across the country at district, provincial and national levels. Zimbabwe has also established a multi-systems approach to prevention of all forms of malnutrition through the National Care Group approach implemented by the Ministry of Health and Child Care and the network of multi-sectoral Food and Nutrition Security Committees (FNSCs) at district and provincial levels managed by the Food and Nutrition Council which sits in the Office of the President and Cabinet. These investments have resulted in Zimbabwe being on-track to meet the global nutrition targets to maintain child wasting and overweight to less than 3 per cent. However emerging threats, including the climate crisis and unregulated food systems are threatening this progress. Routine health information indicates that there is a rise in the number of new cases of diet-related non-communicable diseases (NCDs). In addition, Zimbabwe remains off-track to meet the remaining 4 global nutrition targets (of a 50% reduction in stunting and anaemia, 30% reduction in low birthweight and to increase exclusive breastfeeding to 70%).

Although the prevalence of wasting in Zimbabwe remains lower compared to other countries in the region, the effects of the climate crisis can be seen with cyclical droughts and floods caused by weather phenomena like El Nino and La Nina becoming more regular and more intense, affecting household food security. And while the focus of UNICEF Zimbabwe's nutrition programming remains the prevention of all forms of malnutrition, good quality treatment services must also be available where prevention fails, in order to prevent excess mortality and save lives.

The treatment of severe and moderate acute malnutrition is supported by national Integrated Management of Acute Malnutrition (IMAM) guidelines. In 2019, a guidance note was issued to enable the use of RUTF for children with severe and moderate acute malnutrition during emergencies. In 2023, approximately 160,000 children were estimated to suffer from wasting, including an estimated 19,775 children who needed life-saving treatment for severe wasting. Due to a lack of investment for essential nutrition supplies and quality improvement, only 10,556 children with severe wasting were treated, which represented the lowest admission rate recorded over the course of the last 7 years. As information about treatment coverage is scarce, a coverage assessment was deemed necessary to assess the IMAM programme access and to identify the barriers and boosters of access to treatment in Zimbabwe.

Methodology

This coverage survey consisted of an analysis of routine programme monitoring data at the level of provinces and/or districts, which was integrated into a bottleneck analysis to identify high and low performing provinces and/or districts. In the second stage, a series of SLEAC surveys was conducted across the selected high and low performing districts to classify coverage, identify key barriers and boosters of access and coverage from the community perspective. In the third stage, an in-depth qualitative inquiry was conducted to further deepen the understanding of identified barriers and boosters in Stage 1 and 2 and to formulate meaningful recommendations adapted to the context.

Results

The survey couldn't compare DHIS2 data with source documents (in-patient and out-patient registers) in health facilities, preventing the identification of discrepancies between original data and centralised databases at district, provincial, or national levels. However, in-facility observations during a qualitative inquiry revealed incomplete or inaccurate anthropometric data entries, especially on discharge. This may explain some of the trends below.

Routine data analysis

National protocols say that Growth Monitoring should be carried out for every child 0-59 months of age every month. Among ten provinces of Zimbabwe, two urban provinces, Harare and Bulawayo, demonstrated very low coverage rates (<50%) of **growth monitoring** in comparison to the estimated population of children 0-59 months in both 2022 and 2023. The provinces of Mashonaland Central, Mashonaland East and Midlands demonstrated moderate rates (50-100%) of one growth monitoring act while the remaining provinces recorded a high rate (>100%) of at least one growth monitoring act per child per year across two years.

The highest volume of **admissions** was recorded for Harare, followed by Mashonaland East and Mashonaland West. The lowest volume of admissions is recorded for Matabeleland South. The admission curves do not seem to follow a particular seasonal pattern, some provinces recording bigger variations on a month-to-month basis while others presenting a rather steady curve. When comparing IMAM admissions to the estimated burden of SAM children per province, two provinces (Mashonaland Central and Midlands) demonstrated an exceptionally low capacity (<50%) to enrol children with wasting into the IMAM programme in both 2022 and 2023. Other provinces enrolled more than 60% of the estimated SAM burden of children while Bulawayo and Matabeleland North enrolled substantially more than 100% of the estimated burden.

Harare, Matabeleland South, Masvingo and Midlands demonstrated the lowest **cured rates** in 2022 and 2023. Harare met the SPHERE minimum standard, of 75% of admissions being discharged as cured, for only 3 months within the 24-month surveyed period with an average cured rate of 61%. On the other hand, Manicaland and Bulawayo demonstrated the highest cured rates in 2022 and 2023 with an average cure rate of 76% and 77%, respectively. These provinces met the SPHERE minimum standard of 75% for at least 15 months within the 24-month period.

The highest average rate for **discharge weaknesses**[1] was recorded in Harare (38.62%), Matabeleland South (35.67%) and Masvingo (31.21%), often exceeding 40-50% on a monthly basis. Over the course of 24 surveyed months, Harare recorded only 3 months not exceeding a 25% threshold while Matabeleland South and Masvingo did not exceed it during 5 and 6 months respectively.

Harare demonstrated the highest **defaulter rates** in 2022 and 2023. The average defaulter rate was 31.29%, well above the SPHERE standard of 15%. The province recorded only one month out of 24 months with a defaulter rate lower than 15%. Masvingo, Matabeleland South and Bulawayo provinces indicated a default rate higher than 15% during 8-9 months in the surveyed 24-month period with an average default rate of 21% in rural provinces and 27% in Bulawayo.

Matabeleland South, Midlands and Masvingo provinces demonstrated exceptionally high **non-recovery rates**. For example, the average non-recovery rate in Matabeleland South for 16 months within the 24-month surveyed period was above the agreed threshold of 15%, at

[1] "Discharge weaknesses" can be described as a composite indicator, combining defaulter, non-recovery and death rates, which provides a complex picture about a proportion of children admitted into the IMAM programme, which were not treated successfully until full recovery.

almost 25%, while the highest non-recovery rate exceeded 50%. Midlands and Masvingo did not reach an agreed threshold about half of the time, with the highest non-recovery rates exceeding 30%. Harare recorded the lowest rates of non-recovery (4.32% on average) while Manicaland with the average non-recovery rate of 6.94% is the only province in Zimbabwe that met an agreed threshold of 15% systematically within 24-month surveyed period. The 15% threshold was agreed by the survey team prior to the survey.

The average **death rate** in the IMAM programme across ten provinces of Zimbabwe was 3%. The lowest death rate of 1% was recorded in Bulawayo while the highest rate of 5% was recorded in Manicaland and Matabeleland South. These two provinces recorded a death rate higher than 10% during two months within the 24-month surveyed period, the highest rate of 17% recorded in Matabeleland South.

	Urban districts *Harare, Bulawayo*	**Rural districts** *Chimanimani, Mazowe, Mudzi, Shurugwi*
Number of children screened during the SLEAC survey	**8,308** (62,62%)	**8,148** (71,37%)
Distribution of population 6-59 months by nutritional status in the sample	115-124 mm: **0.98%** <115 mm: **0.09%** Oedema: **0.0%**	115-124 mm: **0.72%** <115 mm: **0.17%** Oedema: **0.11%**
Proxy-GAM	1.1%	1%
Proxy-SAM	0.1%	0.3%
Coverage classification	**Low (<20%)**	**Low (<20%)**
Coverage estimation	**N/A**	**16.96% (IC 95% 10.01%-23.92%).**
Barriers of access and coverage	– Lack of awareness of illness – Lack of awareness of malnutrition – Lack of awareness of IMAM programme – Caregiver's occupation (caregiver too busy) – Failure of health staff to identify the child as malnourished during monthly check-ups	– Lack of awareness of illness – Lack of awareness of malnutrition – Caregiver's lack of action and/or inappropriate treatment choice – Lack of awareness of IMAM programme – Religious beliefs – Lack of financial resources
Boosters of access and coverage	– Diagnosis of malnutrition by health facility staff – Recognition of malnutrition by caregivers themselves – Encouragement by health promoter – Short distance to health facility	– Diagnosis of malnutrition by health facility staff – Recognition of malnutrition by caregivers themselves – Supplementary feeding programme by NGO partner

TABLE 1: Brief summary of key findings of the SLEAC survey, Zimbabwe, March 2024

Classification and estimation of coverage

Unlike in rural districts, the homogeneity chi-square test x^2 demonstrated a significant difference between the results of the two urban districts and therefore a combined classification and/or estimation of coverage was not possible.

The coverage for combined SAM and MAM treatment in both Harare and Bulawayo was classified as "**low**", i.e. below 20% threshold. The coverage in rural districts was also classified as "**low**". Considering that rural districts were confirmed as homogeneous and a sample size reached the minimum of 96 cases, it was possible to estimate the coverage for these 4 districts combined at **16.96%** (IC 95% 10.01%-23.92%) using the single coverage estimator.

Barriers of access and coverage

Among caregivers of **non-covered SAM and MAM cases**, a lack of awareness of illness (in general) constitutes the first barrier to access to the IMAM programme, especially in urban districts where caregivers seemed to be less attentive to their child's health status. While a good half of caregivers who observed their child's illness noticed symptoms associated with acute malnutrition (wasting/oedema), caregivers tended to be more attentive and/or reactive to symptoms of accompanying conditions, such as fever, cough and diarrhoea. Therefore, a lack of awareness of malnutrition itself could constitute the second barrier to access to the IMAM programme in both urban and rural districts, especially if caregivers choose treatment options based on a fractional reading of symptoms.

In this respect, a considerable difference between treatment preferences was observed among caregivers in urban and rural districts. Children in urban districts have a potentially higher chance of being screened and treated for malnutrition as more caregivers in urban districts appeared to choose a consultation at a health facility as their preferred treatment choice. However, between 30% to 40% of caregivers in urban and rural districts respectively did not initiate any treatment after having observed the said symptoms in their child. This is a concerning trend, especially in rural districts, as an observation of child's illness and potentially an accurate reading of symptoms did not translate into an appropriate treatment choice. Therefore, caregiver's lack of action constitutes a barrier to the IMAM programme in rural contexts. It is to be noted that this passivity does not appear to be influenced by a limited decision-making power with regards to child's treatment as most caregivers in urban and rural districts reported being able to take that decision on their own. In rural districts, Village Health Workers took prominence over other family members with respect to decision-making, highlighting their recognition and community compliance with their advice.

Caregivers in rural districts reported being more aware of the existence of the IMAM programme than their counterparts in urban districts. Therefore, a lack of awareness of IMAM programme constitutes a barrier to access services in urban districts while an awareness of the programme in rural districts could also be improved. Most respondents were very aware of growth monitoring activities and how to access them, however as wasting is relatively rare they lacked information about how to access the IMAM programme in the event that their child would be screened as malnourished. Communities further away from health facilities were less aware of IMAM programme services while in Harare a lower level of community engagement creates an important missed opportunity to raise awareness on the IMAM programme. Among caregivers of non-covered SAM and MAM cases in urban districts who were aware of the existence of the IMAM programme, caregiver's occupation (caregiver being too busy), unawareness of the child's malnutrition and failure of health staff to identify the child as malnourished during monthly check-ups at the health facility were cited as predominant reasons for a child's non-enrolment in the programme. The third element is particularly troubling from the point of view of quality care, highlighting a critical weakness in facility level screening and the knowledge and/or application of the IMAM protocol by health facility staff.

Among caregivers of non-covered SAM and MAM cases in rural districts who were aware of the existence of the IMAM programme, religious beliefs, other barriers (not specified by the survey team) and a lack of financial resources for treatment were cited as key reasons of non-enrolment in the programme.

Boosters of access and coverage

Among **covered SAM and MAM cases** enrolled in the IMAM programme in urban districts, most were enrolled for the first time, only one child relapsed. In rural districts, 80% of covered SAM and MAM cases were enrolled in IMAM programme for the first time, three children

relapsed (20% of covered SAM and MAM cases). During the qualitative inquiry, key informants stated that relapses are indeed very rarely seen while relapsed children might also be inadequately recorded as they might be registered as new admissions, especially if taken to treatment to a different health facility.

In both urban and rural districts, a diagnosis of malnutrition by health facility personnel is a key reason for enrolment in the IMAM programme, having been cited by approximately 60% of caregivers. A recognition of malnutrition by caregivers themselves represented a reason for enrolment for three caregivers in urban districts and four caregivers in rural districts. Other reasons for enrolment include a supplementary feeding programme by NGO partner, encouragement of a health promoter and short distance to a health facility.

Among caregivers of SAM and MAM children enrolled in the IMAM programme, almost all caregivers in urban and rural districts expressed being satisfied or very satisfied with the service. Only one caregiver in a rural district was not satisfied. A similar trend could be observed for a satisfaction with the reception, satisfaction with the quality of treatment and satisfaction with provided information. Only one caregiver in each case expressed being unsatisfied. Respective caregivers clarified that they were unsatisfied because of RUTF stockout and/or lacking information on laboratory tests performed on their child.

In-depth qualitative analysis of barriers and boosters of access and coverage

Community outreach. Village Health Workers (VHW) have been playing a vital role in IMAM programme implementation in terms of active screening, referrals to health facilities and health education in rural districts. However, many VHWs report not having been trained on IMAM and/or having been trained only partially. Common challenges experienced by VHWs with an impact on their motivation include mobility constraints, heavy workload, low and delayed remuneration, insufficient airtime, and shortage of essential equipment, such as height boards, scales, MUAC tapes, referral slips or registers. While care group initiatives have shown positive results in raising awareness and boosted regular community participation to prevent and treat malnutrition cases, the number of functional groups has decreased in recent years due to insufficient technical and financial support as well as food insecurity challenges at household level.

Growth monitoring. In rural districts, the community screening takes place at a VHW home, through door-to-door visits or at the Expanded Programme on Immunisation (EPI) points, where children receive vaccination and/or vitamin A supplementation. This allows for multiple screening opportunities each month. Growth monitoring includes MUAC measurements, weight and oedema checks but height is usually not checked due to the unavailability of height boards, even at the health facility level. The majority of caregivers, except for religious objectors, bring their children to growth monitoring sessions systematically each month, understanding the importance of this prevention measure and usefulness of shared advice to maintain their child's health. In Harare, Health Promoters (HP) do not organise regular in-community screening for malnutrition due to the unavailability of financial support.

Training and supervision. Most nursing staff are overdue for their IMAM training refresher, with their last training done five years ago or often even longer. Training was provided only to senior staff who took on a responsibility to cascade to the rest of staff. However, considering their high workload, the cascading training has been most probably considerably truncated as the interviewed staff lacks information on many aspects of IMAM programme, including z-score calculations, dosage for SAM and MAM cases, etc. In addition, a high turnover of trained nurses is constantly causing loss of information about the IMAM programme with most new staff not yet trained on IMAM due to the lack of training opportunities. Nurses reported not having prompt and/or regular access to technical support to address their uncertainties, leading to several grey areas in their understanding of the IMAM protocol and/or their ability

to implement it, per instructions. The limited mentorship opportunities were also linked with an overloaded planning of supervision visits to multiple clinics per day, which then limits the time for a mentor and mentee to address all questions, especially if staff do not happen to be trained on IMAM.

Community barriers of access and coverage. Most barriers perceived at a community level are of socio-cultural nature. Religious beliefs among Apostolic Church members and/or similar religious groups opposing modern health services in general represent a significant barrier of access to the IMAM programme. As seeking medical assistance from health facilities or healthcare providers, including VHWs, is prohibited, caregivers belonging to these religious groups who seek such assistance risk being suspended from the church. However, there is a growing trend of individuals seeking discreet help for their children's medical needs. In fact, some caregivers seek healthcare services at night-time with late visits to VHWs houses who are perceived as more approachable and trustworthy than health facility nurses because they are part of the same community. Other barriers perceived at a community level include caregiver's occupation (juggling multiple income-generating activities), fear of judgment and stigmatisation, and RUTF stockouts. This was said to have discouraged some caregivers from continuing the treatment, especially when they learnt about the stockout after a long journey to a health facility. On the other hand, the community appreciates RUTF treatment efficacy, mostly welcoming staff and religious-sensitive programme adaptations.

IMAM programme quality. Shortage of staff and/or trained staff translates into a heavy workload of existing workforce, which then hinders their ability to adequately engage in the IMAM programme and leads to multiple discrepancies with IMAM programme protocol adhesion, which includes **a)** incorrect treatment protocol, such as prescribing the same RUTF dosage for SAM and MAM cases, **b)** underutilisation of z-scores, which complicates the accurate assessment and management of malnourished patients, **c)** omission of an appetite test**.** Observation of delivery of care highlighted positive interactions between health facility and caregivers and the presence of key resources. Areas requiring improvement include utilisation of height boards, prolonged waiting times and the availability of Information, Education, and Communication (IEC) materials.

IMAM data management. At a community level, VHWs are missing referral slips and/or register to properly record data on screened/referred cases. The communication between health facility staff and VHWs can be hindered by a lack of airtime while VHWs monthly visits at health facilities become irregular if VHW feels demotivated by a delayed quarterly payment. At a health facility level, nurses record enrolled cases data in multiple registers, some facilities having only one register for both SAM and MAM cases. This is problematic not only for a systematic follow-up of SAM and MAM cases, respectively, but additional entry into the IMNCI register may result in data omissions. In addition, a heavy workload and staffing changes negatively affect regular data entry, creating backlogs and increasing a risk of data gaps. While these trends themselves can lead to misreporting, this is further exacerbated during occasional system failures in DHIS2, after which staff other than a sister-in-charge (who is responsible for a quality control) may need to submit the report, without adequate information about the IMAM programme caseload. In in-patient settings, challenges in data retrieval of patient notes can lead to a creation of new patient records for relapsed cases. Stabilised children are discharged to local health facilities for continued outpatient care, but issues with the transfer system often results in them being admitted as new patients in the OTP facility in their catchment area.

Recommendations

Based on the findings of this coverage assessment, the following recommendations are proposed to address the identified barriers of access, the sub-optimal quality and the low coverage of the IMAM programme in Zimbabwe.

- Review the national IMAM Guidelines in line with 2023 WHO guidelines on the prevention and management of wasting and nutritional oedema (acute malnutrition) in children under 5 years of age in order to align in-country practice with new evidence-based recommendations, including consideration of a provision of treatment by Village Health Workers;
- Replace the outdated guidance on the enrolment of SAM and MAM cases into IMAM programme by a new interim-guidance with clear instructions on admission and discharge protocols, RUTF dosage and reporting while waiting for the full review and approval of the IMAM Guidelines;
- Include a comprehensive module on the national IMAM programme in the pre-service training curriculum for all healthcare workers (Nurses, Doctors and VHWs) not only nutritionists – as is currently the case;
- Carry out in-person training sessions on the updated national IMAM protocol for all staff involved in the IMAM programme, especially new staff who have not yet been trained;
- Develop and roll-out the use of online training modules, to be used by all staff in need of refresher training on IMAM protocol. Among other things, a focus should be given to a clear definition of different categories of children (e.g. non-recovery) and a calculation of z-scores;
- Consider the implementation of a helpline for remote technical support and coaching on IMAM protocols, which all staff could have access to when in need of clarifications;
- Develop a specific and comprehensive guidance for VHWs and health facility personnel for screening and enrolment of children from households with religious beliefs, who might otherwise miss out on healthcare service;
- As part of the National IMAM Guidelines update, review and streamline IMAM registers and data management processes to limit duplication of effort, data losses and discrepancies. Maintain one register for the IMAM programme that aligns with the guidelines and the updated T5 form, while working towards integration of nutrition data into digital health reporting platforms. ;
- Consider conducting routine monitoring data analyses every six months at district level and every twelve months at provincial level to track progress against SPHERE standards to inform programme improvements and adjustments;
- Expand and enhance community engagement initiatives to raise awareness about the signs of malnutrition and the availability of the IMAM program, utilizing a diverse range of actors and platforms and with particular emphasis on hotspot areas;