Draft Report

NUTRITIONAL ASSESSMENT OF U5 KORKU CHILDREN

Khandwa (Madhya Pradesh) and Amravati (Maharashtra)

Nutritional profiling of children encompassed all 102 villages within the *SABAL* intervention areas in Khandwa district in Madhya Pradesh and Amravati district in Maharashtra. The project initiated with a baseline assessment spanning from January to March 2022, followed by a subsequent evaluation termed the Midline assessment in 2023, conducted from May to July. During this timeframe, a comprehensive census survey was conducted, involving the profiling of all children under five years of age. The profiling process was organized through '*Vajan Mela'* weighing festivals held at the Anganwadi centers, where mothers and children were invited to participate. Children who were missed during these events were profiled through door-to-door visits, facilitated by collaboration with Anganwadi workers.

Data collection was executed using smartphones with the KoBoCollect form, designed based on WHO's anthropometric calculations. To ensure data accuracy, a two-tier verification and validation system was implemented. Community facilitators collected data from the sample population and input it into the KoBoCollect App. The initial round of data verification was carried out by outreach workers, followed by a final review by the program lead before finalizing the database. The data generated by the KoBoCollect App was subsequently transferred to MS Excel to create various tables for analysis. The study also employed count functions, percentage techniques utilizing pivot tables, and other appropriate Excel functions for quantitative analysis.

Assessment of Prevalence of *UNDERWEIGHT*

The census study was conducted of the children who were profiled in three severity levels of *Underweight* category at the beginning of the Sabal-II programme in the month of January – March 2022 and then in May – July 2023 as midline study shows considerable recovery from SAM and MAM categories to normal category. The assessment recorded the nutritional status of 3349 children & 5879 children traced during the assessment survey of 2022 and 2023 respectively.

Change in Wasting (*Weight for Age*) Prevalence of Children Below 5 Years				
Status	**Baseline (2022)** (Jan - Mar)	**Midline (2023)** (May - Jul)	**Variance (Baseline to Midline)**	**Net Change (Baseline to Midline)**
Normal (+2 to -2)	1211 (36.2%)	3417 (58.1%)	(+)22.0%	(+)60.7%
MAM (+/-2 to +/-3)	1235 (36.9%)	1748 (29.7%)	(-)7.1%	(-)19.4%
SAM (>3 or <-3)	903 (27.0%)	714 (12.1%)	(-)14.8%	(-)55.0%
Total	**3349 (100.0%)**	**5879 (100%)**	-	-

** Baseline was conducted when the community members migrate for work while Midline was conducted during the monsoon (Kharif) cultivation season when majority of the families return to their villages for farming.*

The midline assessment unveiled a remarkable 55.0% decrease in severe malnutrition cases, with the children who recovered transitioning to either the normal or moderate categories. The percentage of children classified as normal saw a significant increase, surging from 36.2% in 2022 to 58.1% in 2023.

Notably, the most striking change was the reduction in severe acute malnutrition (SAM) cases, plummeting from 27.0% in 2022 to 12.1% in 2023. Additionally, the prevalence rate of moderate malnutrition among children exhibited a noteworthy 19.4% reduction compared to the rates observed in 2022.

When considering all malnourished children, encompassing both moderate acute malnutrition (MAM) and SAM cases, the positive shift in terms of nutritional recovery is substantial. The percentage of malnourished (underweight) children, including MAM and SAM cases, in 2022 stood at 63.9%, declining to 41.8% in 2023, representing a remarkable 34.6% reduction in malnutrition rates compared to 2022.

Assessment of Prevalence of *WASTING*

Wasting also known as acute malnutrition is one of the three forms of malnutrition associated with low weight for height. It is the most immediate, visible and life-threatening form of malnutrition. Though there are three types of malnutrition (*Underweight, Wasting* and *Stunting*), grassroots public health centres including *Anganwadis* monitor *wasting* because it is the most reliable assessment of the condition of malnutrition.

Change in Underweight (*Weight for Height*) Prevalence of Children Below 5 Years				
Status	**Baseline (2022)** (Jan - Mar)	**Midline (2023)** (May - Jul)	**Variance (Baseline to Midline)**	**Net Change (Baseline to Midline)**
Normal (+2 to -2)	2182 (65.2%)	4269 (72.6%)	7.5%	11.5%
MAM (+/-2 to +/-3)	647 (19.3%)	588 (10.0%)	-9.3%	-48.2%
SAM (>3 or <-3)	520 (15.5%)	1022 (17.4%)	1.9%	12.0%
Total	**3349 (100.0%)**	**5879 (100.0%)**	**-**	**-**

The prevalence of wasting, as displayed in the table above, exhibited a substantial decrease of 48.2% in the moderate acute malnutrition (MAM) category. Conversely, there was a 12.0% increase in severe acute malnutrition (SAM) cases. In parallel, there was an 11.5% uptick in the number of children categorized as "Normal." In 2022, the percentage of children in the "Normal" category stood at 65.2%, experiencing a noteworthy rise to 72.6% in 2023, representing an 11.5% improvement over the prevalence rate observed in 2022. These changes signify a significant reduction in malnutrition rates, contributing to a positive shift in the percentage of children within the healthy nutrition range.

Malnutrition percentage, in terms of Wasting, upon taking together MAM and SAM was 34.8% in 2022. The came down to 27.4% which is a **21.3%** reduction as compared to the malnutrition rate in 2022.

Assessment of Prevalence of *STUNTING*

Stunting, a feature associated with the increased mortality of children, is one of the three forms of malnutrition characterized by impaired growth or a condition where children have a low height for their age. It is the result of chronic or recurrent undernutrition and if left unaddressed can be irreversible and lead to long term developmental risks. Stunted growth refers to the failure to reach one's full potential for growth and may become a permanent impairment for the child. The definition of *stunting* according to the World Health Organization (WHO) is for the 'height for age' value to be less than two standard deviations of the WHO Child Growth Standards median. Once established, *stunting* and its effects typically become permanent. Children may never regain the height lost if they suffer from *stunting* and most stunted children will never gain the corresponding body weight.

Change in Stunting (*Height for Age*) Prevalence of Children Below 5 Years				
Status	**Baseline (2022)** **(Jan - Mar)**	**Midline (2023)** **(May - Jul)**	**Variance** **(Baseline to Midline)**	**Net Change** **(Baseline to Midline)**
Normal (+2 to -2)	1266 (37.8%)	2067 (35.2%)	(-)2.6%	(-)7.0%
MAM (+/-2 to +/-3)	1020 (30.5%)	1697 (28.9%)	(-)1.6%	(-)5.2%
SAM (>3 or <-3)	1063 (31.7%)	2115 (36.0%)	(+)4.2%	(+)13.3%
Total	**3349 (100.0%)**	**5879 (100.0%)**	-	-

The table above presents data on the prevalence of stunting and the recovery status during the project intervention. The 2022 baseline data indicates that 31.7% of children were severely stunted (SAM), while 30.5% were moderately stunted (MAM). However, the nutritional assessment in 2023 reveals a concerning increase of 4.2% in the SAM category. This underscores the critical importance of addressing stunting during early childhood, as it can potentially lead to permanent impairment, unlike the other two forms of malnutrition.

In 2022, the percentage of malnourished children, including both SAM and MAM cases, stood at 62.2%. Unfortunately, this figure increased to 64.9% in 2023, reflecting a 4.2% rise in stunting rates. Unlike Underweight and Wasting, which are relatively more reversible conditions, stunting may result in permanent consequences in many cases. The efforts to recover or reverse malnutrition status have yielded limited success in the Stunting category. Notably, there was a 7.0% decrease in the percentage of normal cases, coupled with a 5.2% reduction in moderate malnutrition (MAM) cases, which concurrently led to a 13.3% increase in severe acute malnutrition (SAM) cases.

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