Closing the Coverage Gap: Strategic Interventions to Address Inequity and Volatility in Child Malnutrition Screening in Sidama

1. Executive Summary

While the average child malnutrition screening coverage in the Sidama Region has shown a promising increase from approximately 40% to around 70% during the three-year analysis period from July 2022 to June 2025, this progress conceals significant systemic challenges. The effectiveness of Acute Malnutrition (AM) treatment programs centers on the consistent early identification of cases through rigorous community and facility-based screening. The study employed 36 months of routine program screening records to pinpoint specific operational weaknesses in delivering these critical public health services. Persistent spatial inequities across districts result in unstable and unequal coverage, with district-level analysis revealing stark disparities; some towns achieve nearly full coverage, while others, such as Leku Town at 1.4% and Wondogenet Town at 11.2%, report critically low rates. The Northern Sidama Zone, in particular, consistently underperforms, and overall instability leads to unpredictable monthly performance declines.

Inconsistent screening practices in low-performing districts lead to missed cases and delayed treatment, exacerbating health disparities and contributing to increased child mortality rates. This brief addresses two key failures: deep-seated spatial inequity and high operational volatility. To effectively bridge the gap between regional performance goals and local service delivery realities, it is essential for the Regional Health Bureau and its partners to implement a Targeted Equity-Driven Resource Strategy, coupled with proactive operational planning. These policy recommendations, centered on targeted resource reallocation and accountability, are designed to enhance health equity and institutionalize evidence-informed decision-making within the health sector. Urgent, district-specific interventions are necessary to strengthen weaker areas

and advance life-saving screening initiatives throughout the region.

2. Problem

Acute malnutrition remains a serious public health challenge, disproportionately affecting children under five. The core problem lies in the wide distribution of screening coverage rates: while high-performing districts approach 100%, low-performing counterparts consistently remain below 50%. This structural failure means that malnutrition cases are being systematically missed in certain geographic areas. These missed cases inevitably result in delayed treatment, a higher prevalence of Severe Acute Malnutrition (SAM), and subsequently, increased child mortality and a greater long-term economic burden on the health system. The lack of equitable coverage perpetuates health disparities, leaving the most vulnerable populations underserviced.

3. Context or Evidence Summary

An analysis of routine program data from July 2022 to June 2025 identifies two interconnected factors driving the current crisis: spatial inequity and temporal instability.

Spatial Inequity: Data at the zone level highlights a significant disparity, with Central Sidama Zone achieving an average coverage of approximately 80%, while Northern Sidama Zone lags considerably behind. Additionally, district-level data reveals substantial variation, even within high-performing zones, pointing to localized operational challenges such as inadequate supervision, staff turnover, and logistical obstacles that remain unaddressed.

Temporal Instability: The monthly coverage analysis shows marked volatility, with significant dips occurring at predictable intervals. These fluctuations indicate a systemic inability to sustain services during critical times, such as the rainy seasons, major holidays, or peak agricultural periods when community access is limited. This evidence underscores that the current uniform resource allocation fails to meet the unique needs of different areas, highlighting the necessity for tailored interventions.

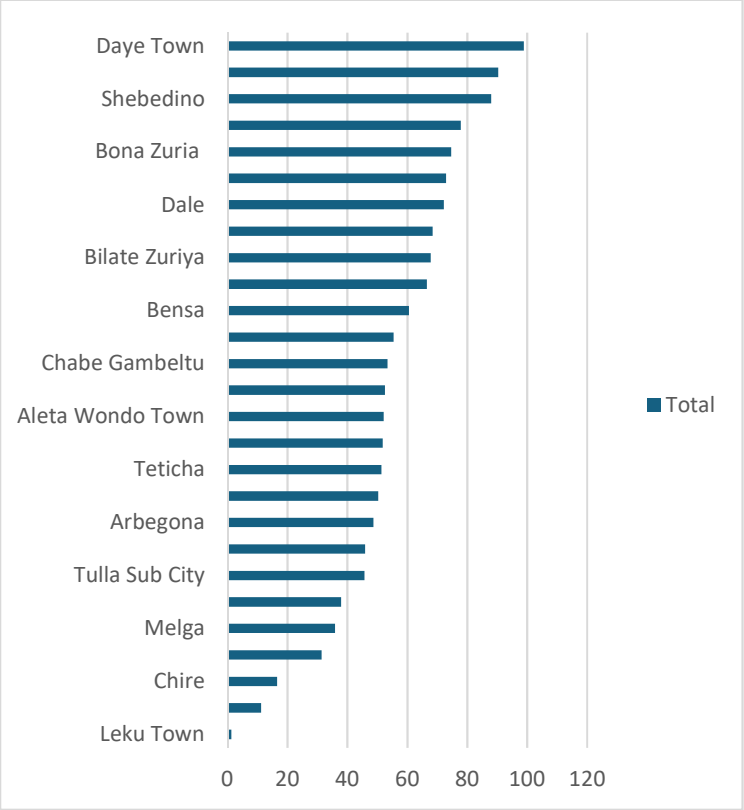

Fig 1: Sidama Region District-Level Screening Performance Variation Across All Months (3-Year Average)

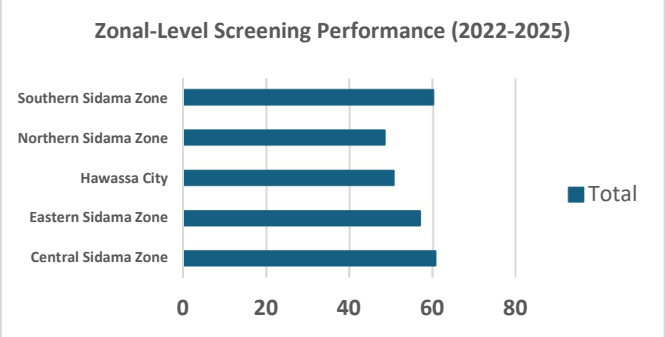

Fig 2: Sidama Region Zonal-Level Screening Performance Variation Across All Months (3-Year Average)

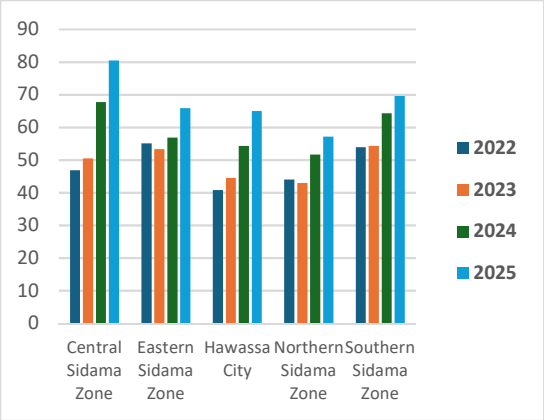

Fig 3: Average Monthly Screening Coverage Rate by Zone, Highlighting Intra-Annual Volatility (3-Year Aggregation)

4. Policy Options

Policy makers can consider the following options to address the coverage and equity challenge:

- **Option 1: Status Quo (Uniform Resource Allocation):** Continue with current region-wide resource and support distribution. This is simple to manage but risks widening the equity gap as high performers improve and low performers remain stagnant or face continued volatility.
- **Option 2: Targeted Equity-Driven Resource Strategy (Recommended):** Re-allocate resources (staff, supplies, monitoring visits, and targeted funding) based on a triage system derived from the coverage data. This prioritizes the lowest-performing Districts and Zones (e.g., Northern Sidama, and the lowest-performing districts within other zones) to accelerate their improvement.
- **Option 3: Performance-Based Incentives with Mandatory Minimums:** Introduce incentives for districts meeting high, equitable coverage targets, but pair this with non-negotiable minimum monthly coverage requirements enforced by zonal authorities to reduce performance volatility and enforce accountability.

5. Recommendations

The Regional Health Bureau (RHB), in collaboration with the Ministry of Health (MOH) and implementing partners, must adopt Option 2: Targeted Equity-Driven Resource Strategy**.** We recommend establishing a quarterly "Equity Scorecard" that triggers the immediate deployment of technical support and additional resources to any District that falls below the regional coverage average for two consecutive months. This strategy is feasible, cost-conscious by redirecting existing resources, and directly addresses the observed spatial inequities and temporal instability

Limitations of the Analysis

The findings are limited by the reliance on routine DHIS2 data, which can be affected by inconsistent quality, incomplete reporting at the facility level, and potential errors in data entry.

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