

Measuring Coverage in Community-based Therapeutic Care Programmes through Semi-Quantitative Evaluation of Access and Coverage (SQUEAC): An Overview

Severe acute malnutrition (SAM) affects about 13 million children under five years worldwide and is associated with 1-2 million preventable deaths annually. Over the last few years a new model for the management of SAM has been used, known as **Community-based Therapeutic Care (CTC)**, also referred to as **Community Management of Acute Malnutrition (CMAM)**¹. This approach enables care to be brought closer to the family through decentralised treatment services, ideally placed at existing health facilities. It has been shown to be highly effective in emergency settings and was recently endorsed as the recommended method of treatment for SAM by the UN in 2003². It is now being widely adopted by various ministries of health as part of routine health services.

In addition to achieving low levels of mortality, the success of this approach is its improved engagement and access to communities, leading to the achievement of **high levels of coverage**.

It is essential to measure coverage to see whether a programme is functioning optimally and reaching the maximum number of malnourished children in need. Even for a programme that is achieving good clinical outcomes (high cure rates and low death rates), impact is diminished if it only achieves low levels of coverage, as illustrated in Figure 1³. Some programme reviews have demonstrated acceptable performance outcomes but low coverage meaning many malnourished children are being missed; eg in Ethiopia some NGO-run programme sites showed <50% coverage⁴.

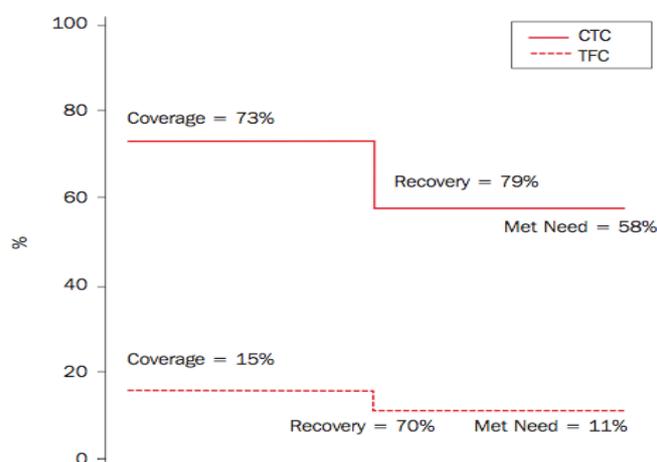


Figure 1: Coverage, Cure Rate and Impact

Current **internationally accepted standards for coverage** of CMAM programmes from SPHERE are 50% for rural areas, 70% for urban contexts and 90% for camp settings⁵.

In the recent past, **measurement of coverage** has been mainly through two-stage cluster sampled surveys either as part of a nutrition assessment or through a specific coverage survey known as Centric Systematic Area Sampling (CSAS)⁶. However, such methods are resource intensive^{7,8} and often only used for final programme evaluation meaning results arrive too late for programme adaptation. SQUEAC, which stands for **Semi-Quantitative Evaluation of Access and Coverage**, is a new low resource method designed specifically to address this limitation and is used regularly for monitoring, planning and importantly, timely improvement to **programme quality**, both for agency and Ministry of Health (MoH) led programmes.

What is SQUEAC?

SQUEAC is an investigation into existing barriers to service access:

- A mixture of *quantitative* and *qualitative* data, collecting and analysing diverse data to identify what facilitates or blocks access and coverage
- Employs specific statistical analysis (Bayesian probability theory) to provide an overall coverage estimate
- A rapid and low resource tool useful for regular programme monitoring and evaluation
- Action-oriented and practical, highlighting specific interventions (where needed) to increase coverage

Case Study: CSAS and SQUEAC in Kasongo, DRC

SQUEAC was first field-tested in 2007 during a CSAS coverage assessment of a CMAM programme in Kasongo, DRC. SQUEAC was done concurrently with CSAS to be able to assess how the two methods compared.

By the end of the assessment, both methods were able to report the same results:

- 1) the **level of coverage** of the programme was below SPHERE standards
- 2) **coverage was unevenly distributed spatially** with specified areas identified as having high or low coverage
- 3) **specific barriers** to service access and uptake were distance of beneficiaries to health centres and lack of broader community engagement with the programme.

Both methods achieved these results in about 14 days. However, the SQUEAC method only needed a team of 4 people while CSAS required 4 teams of 4 people each

When to do SQUEAC?

SQUEAC can be done as early as 3 months after CMAM programme setup and thereafter every 3 months providing a framework for routine programme monitoring, evaluation and improvement of quality.

- Initial training and investigation: 18-21 days
- Subsequent SQUEAC investigations: 8-10 days

Who can do SQUEAC?

SQUEAC is a tool for

- Programme managers or supervisors
- Monitoring and evaluation personnel

It is applicable for use in resource-constrained settings including health ministries.

Where SQUEAC has been carried out

During its initial development, SQUEAC was field-tested by Valid International in the Democratic Republic of Congo, Ethiopia and in Zambia. These studies helped in improving and contextualising the methodology. Since then, Valid has provided SQUEAC support for various organisations and in numerous countries (Table 1).

Subsequently agencies have increasingly used SQUEAC when **working with MoH departments for routine programme monitoring**. Concern Worldwide have supported and trained MoH staff in Ethiopia⁹ and Malawi to use SQUEAC in monitoring coverage of CMAM programmes. More recently, through work with UNICEF, Valid has trained and supported MoH personnel in Lusaka, Zambia and Kebbi and Gombe States in Nigeria, in implementing SQUEAC and establishing mechanisms to incorporate the method into the ministry's routine monitoring and evaluation.

Technical support for SQUEAC

Valid offers:

- A **roster of experienced personnel** with expertise not only in coverage assessments but also on CMAM programming and implementation
- A **training support package** (tools, logistical requirements), training, hands-on implementation and remote mentorship
- Reviews of programmes with a focus on “boosters and barriers” to service access and uptake
- High-level advice on programme-specific actions to improve or maintain coverage and quality

Valid works together with relevant CMAM programme staff, both MoH and NGO. It uses a problem-based, hands-on, participatory and learning-by-doing training approach.

Coverage is an essential part of CMAM activities in both emergency and development contexts and Valid International continues to advocate for the inclusion of coverage measurements, in addition to routine performance indicators, as a key part of ensuring maximum impact and quality of services for treating severely malnourished children.

Organisations/Agencies

Concern Worldwide, World Vision International, Save the Children US, Save the Children UK, Accion Contra La Faim, Oxfam Novib, United Nations Children's Fund, Lusaka District Health Management Team, Kebbi State Government, Gombe State Government

Countries

Afghanistan, Bangladesh, Burkina Faso, Burundi, Democratic Republic of Congo, Ethiopia, Kenya, Mozambique, Niger, Nigeria, Rwanda, Sudan IDP camps, Zambia, Zimbabwe

Table 1: Where SQUEAC has been carried out

For further information please contact: Basia Benda (basia@validinternational.org) or Ernest Guevarra (ernest@validinternational.org) www.validinternational.org Tel: Tel:+44 (0)1865 722180

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