



Community management of acute malnutrition (CMAM): Lessons from the WINNN programme

Key messages

- **Political support for CMAM services is critical for public financing and sustainability**, and can be developed through evidence-based advocacy to highlight the severity of the problem of malnutrition in northern Nigeria.
- **Engaging community leaders and local organisations in CMAM oversight** promoted strong local ownership and community support.
- **The resources required to treat the current burden of SAM in northern Nigeria are many times higher than the amounts currently spent.** Continued advocacy is needed to increase awareness among senior political leaders of the health and economic benefits of effective treatment of SAM.
- **Alternative ways of treating SAM may be needed in severely under-resourced health systems**, like those in northern Nigeria. These could include integration of RUTF provision with existing primary health care services, or less frequent visits to health facilities by caregivers to collect RUTF (which will be trialled in Sokoto).
- **Inadequate human resources for health** were a key challenge for the provision of CMAM services. CMAM services require adequate planning and allocation of human resources. The government will need to consider hiring more health workers if it is to sustain and scale up the CMAM service.

Northern Nigeria has a high prevalence of child malnutrition, with around 10% of children (aged 6–59 months) acutely malnourished, one-third underweight, and over 50% stunted.¹ This brief summarises learning from a **Community management of acute malnutrition (CMAM)** intervention implemented in three Local Government Areas (LGAs) in each of five states in northern Nigeria (Jigawa, Katsina, Kebbi, Zamfara and Yobe) in northern Nigeria, with the support of the Working to Improve Nutrition in Northern Nigeria (WINNN) programme.²

200,000

children with SAM treated in WINNN-supported CMAM programme

20,000

children's lives saved in WINNN-supported CMAM programme

WINNN worked with the government to develop the required systems and skills for the implementation of CMAM services in around five outpatient facilities (OTPs) in each of three focal LGAs in each state, and at least one stabilisation centre per focal LGA. Working with other development partners, WINNN also promoted political commitment to, and public funding for, CMAM.

CMAM is a methodology for treating severe acute malnutrition (SAM) in young children via therapeutic feeding in inpatient or outpatient facilities. SAM contributes to child mortality, severity of childhood illness and irreversible developmental damage. Effective management of SAM through CMAM programmes can reduce mortality and improve child growth and development. The CMAM service uses a case-finding and triage approach to identify children with SAM in communities. It includes screening, provision of ready-to-use therapeutic food (RUTF) and medicines, infant and young child feeding (IYCF) counselling, and community sensitisation on malnutrition.

Context

The prevalence of SAM among children under the age of five is high in northern Nigeria, and there was high demand for treatment in WINNN-supported facilities. The WINNN-supported CMAM intervention was implemented in a challenging context. The primary health care (PHC) system is weak and under-resourced, with inadequate basic amenities at many facilities, and insufficient human resources. The fiscal crisis in Nigeria led to the non-payment of health workers' salaries during 2015–16 in some WINNN states.

Key findings

The purpose of the WINNN intervention was to demonstrate to state governments how a CMAM programme could be integrated into routine government health services, while at the same time providing key lifesaving nutrition and health interventions. The intervention was not expected to achieve universal coverage.

Between 2013 and 2016, over 200,000 children with SAM were treated in the WINNN-supported CMAM sites. This may represent at least 20,000 lives saved.³ This was only a small proportion of children with SAM in the focal LGAs: the endline survey estimated that 18% of children 6–35 months old with SAM at the time of the survey had received CMAM treatment, although an unknown number of children resident outside the focal LGAs who were treated were not captured in the survey. The low proportion of children with SAM in the focal LGAs treated by the programme demonstrates the high need and demand for the service, and the high level of resources that would be needed to treat all children with SAM.

What worked well?

WINNN's experience demonstrates that CMAM services can be effectively integrated into routine health services, and provides some valuable lessons on good practice.

Political support for CMAM services is critical for public financing and sustainability.

It can be developed through advocacy that uses research findings to highlight the severity of the problem of malnutrition and the efficacy of the CMAM response. WINNN supported government and civil society nutrition champions to pursue advocacy toward political

leaders, which included one-to-one meetings with governors, retreats, taking political leaders to CMAM sites, media publicity, and the use of data and photos to evidence SAM. These approaches helped to build significant political commitment for CMAM, including the allocation and release of public funds.

Monthly CMAM coordination meetings at state and LGA level strengthened CMAM management and planning, as well as government ownership. WINNN built capacity for commodity forecasting and systems to monitor supply through these meetings. These systems have contributed to the adequate provision of routine drugs for CMAM in many facilities.

Engaging community leaders and local organisations in CMAM oversight promoted strong local ownership. Community leaders and organisations provided leadership for local accountability and resolved problems in communities and at health facilities, such as crowd control on CMAM days, and counselling caregivers who were unwilling to use the service.

WINNN's gender-sensitive approach helped to increase community acceptance and uptake of the CMAM service. The recruitment of both male and female community volunteers (CVs) enabled gender-targeted sensitisation. This included counselling husbands who were initially unwilling to allow their wives and children to use the service, drawing on Qur'anic teaching about male responsibilities for family health.

What more needs to be done?

The present level of public funding is insufficient to sustain

‘Lawal ... was really thin and could have died’

Umaima Mustapha is a full-time housewife in Bungudu LGA, Zamfara State. Her first two children were severely malnourished, and were treated in the CMAM outpatient centre. Her first-born, Lawal, now five, ‘was really thin and could have died if not for the RUTF’. She has fully recovered and is now living a healthy life. After Umaima’s second child was also treated for severe malnutrition, she was finally convinced to try exclusive breastfeeding with her next child. She joined the community IYCF Support Group a few months after she got pregnant with her third child, Hauwa. She exclusively breastfed Hauwa for six months before weaning her. Umaima has nothing but good words to say about breastmilk and how different Hauwa, now aged two, is from her siblings. Umaima said taking the first two children for treatment caused her constant worry and was very stressful. She is happy to be free from such stress and is amazed by the effect of exclusive breastfeeding on Hauwa’s health.



and scale up the CMAM service.

In 2016, the 12 northern states, where at least 89% of children with SAM live, provided just over US\$1.5 million for CMAM.³ This is clearly insufficient given the average cost of treating a child in the WINNN-supported programme (around £75⁴ (US\$117)), even though services that are integrated into routine government systems should cost somewhat less than in the WINNN programme. State governments should be encouraged to increase their funding for nutrition, and to access federal and donor funding sources.

Continued advocacy is needed to increase awareness among senior political leaders of the considerable health and economic benefits of effective

treatment of SAM. ORIE evidence on the cost-effectiveness of the WINNN-supported CMAM service (cost per disability adjusted life-years (DALY) averted of £31 (US\$48),⁷ and cost per life saved of £1,138 (US\$1,778)) can be used to support advocacy.

Given the current inadequacy of public funding the government may need to consider alternative ways of treating children with SAM in the short term. This could include treating children with SAM when they present at health facilities for other illnesses, without active case-finding. This would reduce the number of children treated, which, while undesirable, would reduce the cost of RUTF and the costs of CMAM days. A planned trial funded by the Children’s Investment Fund

Foundation in Sokoto, with monthly rather than weekly visits to OTP, and training for mothers to notice danger signs in their children, may help reduce the costs to government and caregivers. Another option, planned by WINNN, is to train IYCF Care Group promoters to screen children for SAM and moderate acute malnutrition (MAM). This would help with early detection and treatment of MAM, which would reduce the number of children who progress to SAM.

Inadequate human resources have been a constraint for OTP CMAM services. The service has been quite reliant on CVs and health workers borrowed from other facilities, in addition to existing health staff. This has addressed staffing needs in the

short term, but some facilities from which staff are seconded are closed on CMAM days. The inadequacy of human resources affected workloads and thus the quality of the service: ORIE found strong observance of most CMAM protocols, but weaker observance of a few.⁸ This highlights the need for more adequate allocation of human resources. **Sustaining CV motivation is a**

challenge. Many CVs incur direct and opportunity costs, which are not reimbursed. Government officials and WINNN staff reported that the CVs continue to anticipate financial incentives. This is a concern if the full CMAM model, with active case-finding in communities, is to be implemented and scaled up.

Evidence suggests that mothers who are poorer, less educated,

and/or live further away from health facilities, were less likely to access CMAM treatment. For some mothers, a lack of money to pay for the costs of repeat visits inhibited attendance. In a few communities, local leaders provided buses to transport mothers to CMAM day, or free travel was provided by local taxis. Such local strategies can help to strengthen access and equity.

References

¹WINNN is a six-year programme (2011–2017) funded by the UK Department for International Development. The Operational Research and Impact Evaluation (ORIE) project is a separate component of the programme, undertaking independent research around, and evaluation of, WINNN. This brief draws on evidence collected between 2013 and 2016. ²Assuming CMAM treatment with RUTF results in an estimated mortality of less than 10% (Bahwere et al. (2012) 'Long-term mortality after community and facility based treatment of severe acute malnutrition: Analysis of data from Bangladesh, Kenya, Malawi and Niger', *Journal of Public Health and Epidemiology* Vol. 4(8), pp. 215–225), which compares with an estimated mortality of 18% or more among untreated children with SAM (Vella et al. (1993) 'Anthropometry and Childhood Mortality in Northwest and Southwest Uganda', *American Journal of Public Health* Vol. 83, No. 11), giving an estimated 10% reduction in mortality. ³UNICEF budget tracking data, November 2016. ⁴ORIE calculations have been converted from US dollars to British pounds using the average of representative rates for September 2011 to August 2016 (Source: IMF). ⁵This is well within the World Health Organization (WHO) threshold for cost-effectiveness (www.who.int/choice/costs/CER_levels/en/) and compares well with other similar programmes. Cost per DALY averted and per life saved are incremental cost-effectiveness ratios from a societal perspective. ⁶Temperature checks were not undertaken in 66% of facilities, handwashing with soap was not undertaken in 29% of facilities, Amoxicillin was not given to first-time clients in 66% of facilities (ORIE Health Facility Survey, May 2016; data refer to a CMAM day in August 2015).

Photos: J. Ucheh; Flint Productions /WINNN

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