



EFFECTIVENESS OF A HOUSEHOLD WASH PACKAGE ON THE TREATMENT OF SEVERE ACUTE MALNUTRITION IN KANEM, CHAD

Action Against Hunger | ACF International, Chad

The Challenge

In Chad, undernutrition remains a public health concern. Malnutrition has remained high, and in fact has increased between 2000 and 2010.¹ In the Kanem region, global acute malnutrition was 17.3% and severe acute malnutrition (SAM) was 3.5% in 2014.² Malnutrition and illness—such as diarrhoea—are also exacerbated by poor water, sanitation and hygiene (WASH). Studies show improving water quality and hygiene practices at the household level can decrease the incidence of diarrhoea over the short term, and consequently, can improve nutrition and disease prevalence over the long term. Over time, these improvements can yield better child health and development, leading to stronger, more productive populations.

The Intervention

Action Against Hunger | ACF International embedded a WASH component, specifically for children 6 to 59 months of age, into a routine nutrition programme for outpatient SAM management. Participants were randomly selected to the treatment or control group. Both groups received routine outpatient services, including ready-to-use therapeutic food (RUTF) and basic hygiene education. The intervention group also received a household WASH package, including a WASH kit at admission and sensitisation on its use at weekly health centre visits. Designed to last three months, the kit contained a safe drinking water container, water disinfectant, soap for handwashing, a child drinking cup and a leaflet on safe hygiene practices.

The Evaluation

This cluster-randomised controlled trial was conducted in Mondo and Mao districts, Kanem region, Chad. Health centres were



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randomly selected to participate in the study and stratified in pairs to be intervention and control arms. All new SAM admissions were eligible for the study. Field monitors conducted home visits to collect WASH data, and health centre staff collected health and nutrition data. The outcomes of interest included recovery rate from SAM, relapse rate after discharge, time-to-recovery, weight gain and diarrhoea prevalence. The study also looked at hygiene knowledge and care practices and occurrence of diarrhoea symptoms.

The Results

Over a period of 8 months, a total of 1,603 children aged 6 to 59 months participated in the study at 20 health centres. Overall knowledge and practices on WASH improved significantly in the intervention group compared to the control group, except for the use of chlorine and correct storage of water. For example, using correct handwashing practices increased from 43% to 65% in the intervention group

over the course of the intervention. In terms of health outcomes, time to recovery was 4.4 days shorter and the recovery rate was 10.5% higher in the intervention group compared to the control group. However, there was no statistical difference between the relapse rates between the two groups, both at two and six months after recovery. As well, there was a shorter duration of diarrhoea and vomiting, although the reduction in diarrhoea was not statistically different between groups.

The Lessons Learnt

During the evaluation, study health centres experienced shortages of RUTF for beneficiaries. However, these shortages impacted the intervention and control groups equally, so it did not affect the evaluation results. In future studies, it would be important to ensure a contingency stock in the case of shortages. ACF also experienced challenges with data management. Having the appropriate data entry and management staff to ensure double data entry and continuous data quality monitoring is important to the accuracy and quality of the study results.

Looking Ahead

This study demonstrates the advantage of including a WASH package in an already-existing SAM rehabilitation programme. However, because the WASH kit only provided a three-month supply, future interventions should consider the promotion of more sustainable water and hygiene practices in order for health and nutrition results to extend beyond the span of the study. These results demonstrate that a WASH-in-nutrition approach has the potential to improve programme results and ensure better nutrition outcomes for children in developing countries.

References

¹ UNICEF. Multi Indicator Cluster Surveys (MICS). Chad. 2010. Available at: <https://mics-surveysprod.s3.amazonaws.com/MICS4/West and Central Africa/Chad/2010/Final/Chad 2010 MICS French.pdf>. Accessed 11 April 2017.

² UNICEF and Ministry of Public Health (Chad). 2014 SMART survey. Available at: https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/assessments/RAPPO_RT_FINAL_ENQUETE_NUTRITIONNELLE_SAHEL_AOUT_SEPTEMBRE_2014.pdf. Accessed 11 April 2017.

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