

## **Screening for acute childhood malnutrition during the National Nutrition Week in Mali increases treatment referrals.**

Nyirandutiye DH, Ag Iknane A, Fofana A, Brown KH. PLoS ONE 6: e14818. doi:10.1371/journal.pone.0014818, 2011.

### **Introduction**

Early experience with the community-based management of acute malnutrition (CMAM) program in Mali indicated that fewer than the expected number of affected children were presenting for treatment. Possible explanations for the low service utilization rate were that children either were not participating in nutritional status screening activities or, once identified as malnourished, they did not attend the treatment centers. In an attempt to increase screening opportunities and treatment referrals, Malian authorities decided to introduce screening for acute malnutrition during the semi-annual National Nutrition Week (known locally as "SIAN"). Children attending the SIAN posts were also invited to participate in screening for acute malnutrition, which included measurement of mid-upper arm circumference (MUAC) and inspection for bi-pedal edema. This month's NNA describes the results of a survey conducted subsequently to assess the results of this novel screening program.

### **Methods**

A cross-sectional, multi-stage cluster sample survey was completed in the Nara and Kolokani health districts in southwestern Mali, approximately 4-5 months after the first experience of conducting nutritional status screening during the SIAN activities. Interviews were conducted with a total of 1741 caregivers of children 6-59 months of age, of whom 1543 children were 6-59 months of age at the time of the last SIAN. Information was obtained on whether the eligible children participated in the previous round of SIAN and whether they were included in nutritional screening. Among those who were reportedly identified as acutely malnourished at the time of SIAN, information was also elicited on their utilization of treatment services. Finally, qualitative information was collected from both the caregivers and health service staff members regarding their satisfaction with the nutritional screening activities.

### **Results and Conclusions**

The children's caregivers reported that 83% of their eligible children participated in the previous round of SIAN. Among the SIAN participants, 98% received vitamin A supplements, 84% received deworming medication, and 52% were screened for acute malnutrition. Although the number of children screened for malnutrition was less than those who received the other services, the percent of children who were screened still exceeded the combined coverage achieved by routine community-based screening (22%) and health center evaluations (5%) during the 4-5 months prior to the survey (since the previous round of SIAN). Because the preparations for nutritional screening started relatively late in the cycle of SIAN activities, health personnel felt that it would be possible to increase screening coverage even further in subsequent rounds.

Of the children who were screened during SIAN, 27% were reportedly identified as malnourished, according to their caregivers' statements during the survey. Of those children originally identified as being malnourished, 57% subsequently reported to a health center for further evaluation and treatment.

The vast majority of child caregivers, volunteers responsible for community-based screening, and health center staff members who were interviewed felt that nutritional screening during SIAN was feasible and beneficial.

### **Program and Policy Implications**

This survey confirmed the feasibility of including screening for acute malnutrition among the set of activities carried out during periodic national child health days/weeks in sub-Saharan Africa. Although only about half of the eligible children were screened during the child health week, this proportion of children served still exceeded the coverage attained by all other forms of routine screening during the prior 4-5 months. Thus, nutritional screening during child health weeks should be continued and expanded, at least until these other strategies for routine screening can be strengthened. According to information collected during the survey, these other screening opportunities are not functioning efficiently because of inadequate staff training, supervision and financial motivation, and because insufficient numbers of health personnel and community volunteers are available to implement these activities.

The percent of caregivers of acutely malnourished children who took advantage of available treatment services was disappointingly low, possibly because they lacked transportation or financial resources to attend the health center or they failed to understand the potential value of treatment. Additional information is needed on why caregivers do not utilize the services that are currently available.

### **NNA Editors' Comments\***

Child health days/weeks have become an essential part of the health system in an increasing number of countries in sub-Saharan Africa and have demonstrated a remarkable ability to deliver key child survival interventions to nearly all children 6-59 months twice-yearly. Institutionalization of child health days/weeks is supported by a consensus statement from the pan-African meeting of the Global Alliance for Vitamin A (GAVA - <http://www.hki.org/press-room/archive/2009/03/23/global-alliance-for-vitamin-a-issues-consensus-statement/>), and the 2009 nutrition resolution of the Assembly of Health Ministers of the Economic Community of West African States (ECOWAS - <http://www.hki.org/press-room/archive/2009/07/24/groundbreaking-nutrition-resolution-passed-in-west-africa/>).

The present survey results indicate that health programs can take advantage of the high coverage already being achieved by child health days/weeks to enhance coverage of other programs, such as CMAM. Thus, the range of other possible nutrition and health services that can be delivered, including preventive nutrient supplementation and/or counseling on infant and young child feeding, should also be explored. However, it will be important not to overload these service delivery mechanisms to the extent that provision of the core services, namely vitamin A distribution and supplemental vaccine delivery, begin to suffer.

It was surprising to learn that such a large percentage of children with acute malnutrition did not avail themselves of treatment services. In some countries, overnight facilities and meals are provided to

attendants of children hospitalized for severe, acute malnutrition and complications, thereby encouraging family participation when they otherwise might not be able to afford taking the child to the health center for inpatient care. Provision of this kind of family assistance may help increase service utilization.

\*These comments have been added by the editorial team and are not part of the cited publication.



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