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The Accelerated Child Survival and Development Programme in West Africa: a retrospective evaluation

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Introduction

UNICEF implemented the Accelerated Child Survival and Development program (ACSD) in multiple African countries between 2001 and 2005, with the primary objective of speeding up the rate of mortality reductions among children less than five years of age. The ACSD aimed to reduce mortality by increasing the coverage of three packages of interventions, including: 1) community-based delivery of immunizations and vitamin A supplementation (VAS) to children, and distribution of insecticide-treated bednets to children and pregnant women (EPI+); 2) intermittent preventive treatment of malaria, tetanus immunization, and iron-folate supplementation for pregnant women through ante-natal care visits and early post-partum VAS (ANC+); and 3) improved management of pneumonia, malaria, and diarrhea at health facilities and in the community, promotion of appropriate infant and young child feeding (IYCF) practices, and promotion of household consumption of iodized salt (IMCI+). Specific mortality reduction goals were established. This month's edition of NNA reviews a retrospective assessment of the program coverage and mortality reduction in ACSD priority districts and non-ACSD districts over time periods that spanned the ACSD interventions in three West African countries – Benin, Ghana and Mali.

Methodology

The evaluation team compared program coverage indicators, mortality rates, anthropometric indicators of nutritional status, and measures of selected IYCF practices using information available from national Demographic and Health Surveys (DHS) and Multi-Indicator Cluster Surveys (MICS) before and several years after the initiation of the ACSD program. The sample size permitted detection of a 20% change from baseline. Contextual factors, such as relevant national policies, health facility coverage, availability of medicines and other supplies, and the baseline prevalence of selected conditions, were examined by conducting key informant interviews and reviewing relevant literature.

Results

Immunization coverage of young children increased in Ghana and Mali, but not Benin; and the increases tended to be greater in the ACSD districts, except for the increases in measles coverage in Ghana, which was unrelated to the ACSD program. VAS coverage increased in all three countries, and the increases were greater in ACSD districts in Mali, but not in Benin and Ghana. Children's use of bednets increased in all countries, but this was related to ACSD districts only in Ghana. Antenatal care visits increased in Ghana and Mali, but was related to ACSD only in Mali; and delivery of maternal intermittent preventive treatment of malaria increased in all three countries, and was related to the program in both Ghana and Mali. Tetanus toxoid immunization during pregnancy increased only in Mali, but was unrelated to ACSD. Changes in the presence of a skilled birth attendant was inconsistent across sites and program districts, and was related to ACSD only in Ghana. Post-natal VAS increased in both ACSD and non-ACSD districts in Benin and Mali, but more so in ACSD districts. Surprisingly, post-natal VAS went down in ACSD districts in Ghana, whereas it increased in non-ACSD districts.

In general, there were no program-related differences in anti-malarial treatment for fever or care-seeking for pneumonia among young children, and non-ACSD districts actually performed better post-intervention in Ghana and Mali. There were inconsistent relationships between the ACSD program and oral rehydration therapy for diarrhea. Increases in

early initiation of breast feeding were related to ACSD only in Ghana, and exclusive breast feeding until six months was not positively related to the program in any country. The prevalence of stunting decreased more in ACSD districts than non-ACSD districts in Ghana, but not the other countries. The reverse was true for wasting in Ghana, which decreased more in non-ACSD districts; and, again, there was no effect of the program on the prevalence of wasting in the other countries. Under-five mortality rates could be estimated in relation to the ACSD program only in Benin and Mali. Although the mortality rates tended to decrease overall, this was not related to the ACSD districts. Most deaths were due to malaria, pneumonia, diarrhea, and neonatal causes. Notably, the ACSD program did not, for the most part, influence the likelihood of treatment of the diseases causing the major infection-related deaths (i.e., malaria, pneumonia, diarrhea, and neonatal deaths, nor underlying nutritional risk factors for mortality).

Conclusions

The authors concluded that the ACSD program in these three countries did not accelerate child survival during the time period of the evaluation, and they suggested several possible explanations for this observation. Most importantly, the ACSD program did not prioritize interventions directed toward the major causes of death, namely the aforementioned infections, deaths occurring in the neonatal period, and underlying nutritional risk factors for mortality. Although the ACSD promoted improved case management of infections through the IMCI+ package of services, national policies limited these interventions to health facilities rather than community health workers. Because care givers are often unable or unwilling to travel to health centers, policy change is required to permit community-based service delivery. Finally, stock outs of key drugs and other commodities, such as ITNs, were frequent. The authors recommended that future programs should focus more on community-based delivery of health services, with priority to those diseases and nutritional conditions most likely to contribute to child mortality. In particular, they emphasized the importance of strengthening the nutrition component of national programs to reduce child mortality. Finally, the authors recognized the limitations of this type of retrospective evaluation, and they called for renewed efforts to strengthen program evaluation, in general, including monitoring of specific service delivery activities.

***NNA Editors comments:**

This article provides important information for nutritionists concerned with child health and survival. Despite progress achieved in reducing young child mortality throughout Africa, many countries are still not on target to achieve Millennium Development Goal #4 (to reduce the under-five mortality rate by two-thirds from 1990-2015). Thus, this paper provides a timely call to reassess current strategies for mortality reduction. Notably, the failure of the ACSD program to produce a consistent positive impact on breast feeding practices, to deliver VAS for children (except in Mali), to provide therapeutic or preventive zinc supplementation, and to address the treatment of acute malnutrition represent missed opportunities for reducing nutrition-related causes of child mortality.

The publication also serves as a reminder of the importance of rigorous monitoring and evaluation of programs to ensure that they are producing the desired outcomes. Regrettably, the evaluation was done retrospectively, which imposed a number of limitations on the possible inferences and impact on program implementation. Firstly, the authors were not able to examine specific program delivery pathways. Thus, they could not determine whether the interventions were actually being implemented as planned, and they could not assess the quality of these interventions. Interestingly, several of the nutrition-related interventions, namely VAS of children and mothers post-partum and early initiation of breast feeding, increased consistently in all countries, although not necessarily related to ACSD. It is possible that the policy changes and generally heightened awareness of the importance of these interventions instigated by the ACSD program led to “spillover effects” in non-intervention areas, but the retrospective evaluation design does not allow for this type of analysis. The authors did attempt to assess contextual factors that might have influenced the study results and to explain the reasons for the less than

expected mortality impact of the ACSD. However, definitive conclusions were not possible with the present evaluation design. The need for more rigorous, prospective program evaluations is consistent with an associated editorial in the Lancet, which called evaluation “the top priority for global health.”

Citations

Anonymous Editorial. Evaluation: the top priority for global health. The Lancet, online publication January 12, 2010.

Other publications received for information dissemination

The Food and Nutrition Technical Assistance II Project (FANTA-2) announced a new publication entitled, “The Validation of a Measure of Household Hunger for Cross-Cultural Use” (available via the following link: http://www.fantaproject.org/publications/hhs_validation_2010.shtml).

Nutrition Section. Infant and Young Child Feeding Programme Review: Consolidated Report of Six-Country Review of Breastfeeding Programmes, UNICEF, New York, April 2010.