

# Zimbabwe's National Children's Supplementary Feeding Program

The struggle for health in Zimbabwe has been a long uphill battle, with many achievements and disappointments.<sup>8</sup> The country achieved independence from Britain in 1980 after a protracted and bitter liberation war fought by the black majority against white minority rule. In Zimbabwe inequitable distribution of land has been a key cause of undernutrition and poor health. Before independence, 45 million acres of prime agricultural land was allocated to about 5,000 white settler farmers and a few agro-industries owned by multinational corporations. Meanwhile, some 750,000 peasant families were crowded into a similar number of acres in "Tribal Trust Lands" which were much inferior in soil type and rainfall.

Economic and social conditions declined during the liberation war, largely due to externally-imposed economic sanctions, increased military spending and social disruption. While chronic food problems from historical inequities in land tenure and income distribution had already existed for many years, they worsened dramatically during and after the war due to the destruction of agricultural resources by the old regime and the return of refugees.

## Economic Adjustment

Although the first two years after liberation brought a number of improvements to the general population, since then they have been steadily eroded. National minimum wages were introduced by the government in July 1980. Real wages (what people can buy with what they earn), on the average, rose significantly until early 1982 and were substantially greater than pre-independence levels. But the early gains following independence were undermined by a wage freeze between January 1982 and September 1983, and by the 1982 devaluation and subsequent depreciation of the Zimbabwean dollar.

These measures were associated with an economic "stabilization" package imposed by the government in 1982 as part of an International Monetary Fund (IMF) stand-by credit scheme. (Although the IMF agreement was suspended in 1991, the government retained most of its elements, and in 1991 a new structural adjustment program [SAP] was adopted, adding further stringent measures to reduce government spending and to "liberalize trade.")

As part of the IMF stabilization package, the government removed subsidies on basic foods in 1982 and 1983,

and prices of the basic staples of the poor rose dramatically: by some 100 percent for maize meal, 69–95 percent for beef, 50 percent for milk, 25–30 percent for bread, and 25 percent for edible oils. Further price increases have occurred regularly since then, especially following the introduction of the 1991 SAP.

## Preparing for Crisis

Surveys by OXFAM shortly after independence in 1980 revealed that 30% of children aged under 5 years were underweight. A more extensive Health Ministry survey confirmed a high prevalence of severe undernutrition in children which correlated directly with the availability of food in the areas where they lived. An estimated 150,000 children were at risk.



To forestall an impending hunger crisis in the 1980–1981 planting season, a nutrition intervention program was set up by the Ministry of Health and concerned nongovernmental organizations. This focused on high risk areas where provincial committees were set up to address the issue. These committees consisted of health workers, school teachers, community development workers and women's advisors. The program's had three important objectives: (1) immediate short-term relief, (2) long term nutritional education, and (3) influencing agricultural practices towards production of more nutritious foods.

In approaching all of these objectives, emphasis was placed on extensive community involvement. This involvement was key to the evolution and sustainability of the programs, even after government and outside input was severely cut.

### Immediate, short-term relief

Understanding the unfolding relationship between the state and popular organizations is central to understanding the process of the population's involvement in all areas of social development, including health. It is in situations where the old order and power structures are being contested or have recently been overthrown by a unified popular struggle that comprehensive primary health care often has the best chance of succeeding. This was the case in Zimbabwe in 1980, as it was in revolutionary China, Cuba, and Sandinista Nicaragua (which we will discuss in Chapter 20). It is under such conditions that popular participation in decision-making, and collective—rather than individual—self-reliance, grow and flourish.<sup>9</sup>

In Zimbabwe, this situation was most evident in the semi-liberated communal areas, where ZANU, the leading party in the national liberation movement, had long been active. In these areas the party had created popular organizations, initially responsible for supporting the liberation effort but later structured to perform essential social and economic tasks, as an alternative to the Rhodesian state's rudimentary district administration. Grassroots village committees dealt with the day-to-day problem of feeding and clothing the ZANU guerrillas and of providing basic services to the community. Matters involving larger outlays of money were passed to higher-level committees.

The existing community-based administrative infrastructure that had developed during the war permitted a more rapid and better-organized implementation of the nutrition program than would otherwise have been possible. Mothers evaluated the children's nutritional status by measuring and recording their upper arm circumferences. Those with mid-upper-arm-circumferences less than 13 cms were included in the program. The reasons for this cut-off point were explained to all parents, both those of children admitted to the program, as well as those considered not at risk. Then they established locations

for supplementary feedings (which the mothers preferred to be located close to their homes and fields), and themselves cooked the food and fed the underweight children.

To understand the rationale for the foods that were chosen for the nutrition program, it is important to realize that the primary cause of undernutrition is *energy deficiency*, not shortage of protein. This is because children are typically fed a watery porridge of unrefined cereal or root staple. Their stomachs fill before they get enough calories to meet their needs. Usually, such diets have a crude energy density of 1 kcal g<sup>-1</sup> (4.2kJg<sup>-1</sup>). This means that a 1-year-old child would have to eat a kilogram of food each day simply to meet her energy needs, which is between two and three times the amount that an English child of the same age has to eat. These bulky, low-energy foods, coupled with infrequent feedings, result in an insufficient energy-intake by children. This then leads to secondary protein deficiency, as the child burns up the protein she eats for lack of other adequate sources of energy.

Taking this into account, the program emphasized supplements prepared with high-energy, commonly used local foods. It offered a daily meal—based on maize, beans, groundnuts and oil—that provided about one half of the daily energy requirement of one-to-three-year-olds, and about one third of the daily energy needs of three-to-five-year-olds. The rest of the child's nutritional needs were provided by their parents or the community.

The first feeding point opened in January 1981 and during the next three months feeding points were established all over the country. The number of children registered rose from 5,824 in January to 56,200 in March. It peaked at 95,988 in May with over 2000 feeding points and fell gradually to 57,556 in August. Screening and remeasuring of children registered by the mothers at feeding points was performed regularly, ensuring turnover.



The Shakir Strip for Measuring upper arm circumference.

### Long-Term Nutritional Education

An informative poster in the local languages (and in English) was displayed and discussed at the feeding points as well as in health facilities. The poster, which read, "With Sadza have groundnuts, beans and oil," helped to reinforce the message that *high-energy foods that could be grown locally would provide a nutritious meal for young children if added to the staple maize meal porridge.* (Sadza is a porridge made by cooking maize meal with water.) Thus the relief effort prompted greater self-reliance by affirming the value of locally cultivable foods.

The discussions about the poster helped to influence people's thinking about nutrition. It replaced the old "3 food groups" approach with a much more useful and relevant message, that of providing a more energy-rich diet. This new, more appropriate information proved to have a far-reaching impact on the nutritional health of the children, even after the decline of the program.

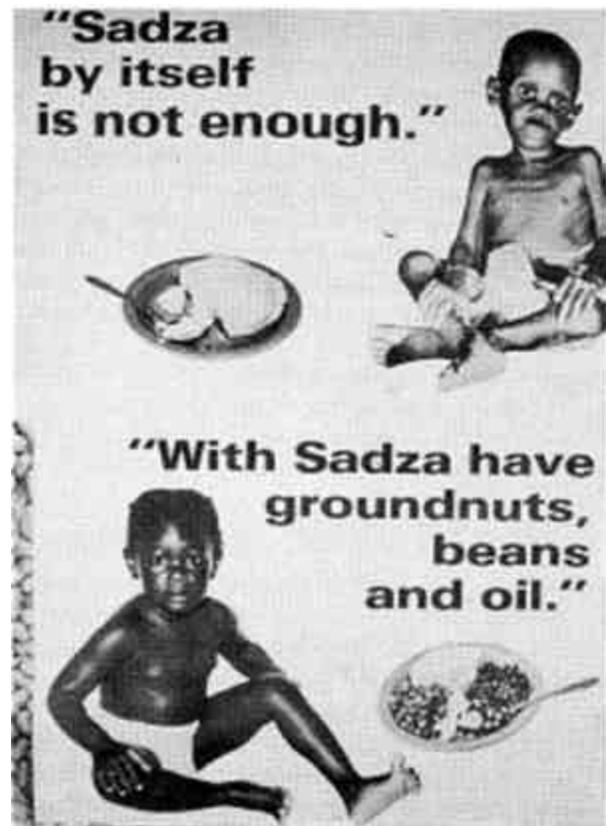
The Children's Supplementary Feeding Program was evaluated in 1981. Children in the program were weighed and compared to children of a similar age range who lived in the same area, who had not been in the program. On average, children attending the program put on weight at twice the rate of the other children. Children who had attended 30 or more meals gained weight at three times the rate of the better nourished children who had not participated in the program.<sup>10</sup> Many of the children graduated out of the program when their arm circumferences improved significantly and their families had sufficient food at home.

During the evaluation most mothers reported improvement in their children's health, and were therefore enthusiastic about the educational messages. However, home production and use of foods varied widely. Although some families were producing considerable amounts of crops, others had very little. Significantly, the percentage of parents who stated their desire to grow groundnuts in the following agricultural season increased from 48 to 80 percent.<sup>11</sup> In fact, many said that they wanted to participate in expanding the program into a food production phase (a possibility that had been considered at the outset, when the relief foods were chosen).

### Local production of supplementary food

The intention of the supplementary food production phase of the program was to move from relief and education to local production. Through community discussions, it was agreed that communal farming plots should be established.

The harvest from these plots would go to preschool centers which, if not already in existence, would be constructed adjacent to the plots. It was calculated that roughly one half hectare of land could yield enough



groundnuts to provide 70 children with 30 grams of groundnuts each day (providing about 280 calories), leaving ten percent for seed for the following season. The land selected for this use, taken from communal grazing lands, was allocated by the local government authorities. The national feeding program committee provided the initial seed and fertilizer. Such community decisions were possible because the popular mobilization during that period of Zimbabwe's history was significant in influencing both national and local development thinking and programs.

It should be emphasized that the food grown for the preschool centers was not intended to meet the full dietary needs of the children. Rather it was intended as a supplement for those children whose nutritional needs were not being otherwise met. The rest of the child's food was provided by either the parents or through a self-imposed levy by the community members. This functioned as a sort of community determined progressive taxation to assure that these children had proper meals.

Through this communal farming enterprise, the weaker people in the community were helped by the better off members who farmed with them, and by technical support given by government agricultural extension workers. While almost all of the groups grew groundnuts, some opted for more diversity, including crops of maize and beans.

In some areas, the pre-school centers adjacent to communal plots became community focal points for various child care activities. In time, many of these centers developed into comprehensive child health centers, and formed part of the infrastructure used later for immunization programs.

By 1983–84 there were 292 supplementary food production units in 31 districts. Unfortunately, because of a severe and recurrent drought, most of these failed. However, the existing infrastructure facilitated the rapid remounting of relief efforts. (Again in 1991 and 1992, when the worst drought in recorded history hit Southern Africa, it was remarkable to see how this infrastructure for supplementary feeding, which had been created 10 years before, was revitalized within a few weeks. This occurred even though outside support for the program had largely been withdrawn in the late 1980s.)

By the late 1980s, there were between two and three thousand supplementary food plots distributed throughout all eight provinces of Zimbabwe. In some districts this scheme has been highly successful, with all of the young child population in large areas being served.

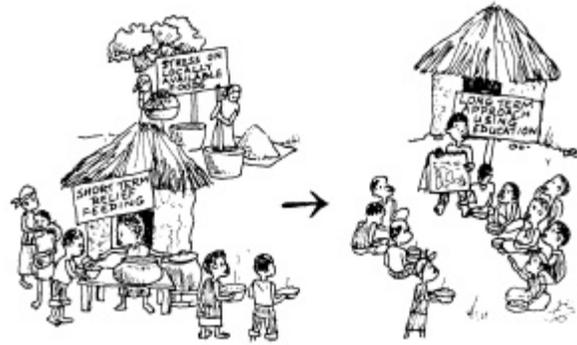
Perhaps the best example is in the Musami area of the Murehwa District, some 80 kilometers from Harare, where there were over 50 food production plots and associated pre-school centers. Maize, groundnuts and beans were produced, and in several centers a surplus existed even after the allocation for all pre-school children and retention for seed had taken place.

In Musami these centers served not only as activity and day care centers for all pre-school children, but also as outreach points for health services. Each month immunization, health education and growth monitoring were performed. The registers kept at Musami's Mission Hospital indicated that the prevalence of child undernutrition in the program areas declined markedly from the early 1980s, and was considerably lower than the national average.

### Impact on children's health

Looking at studies of Zimbabwe as a whole, trends in child mortality and under-nutrition during the 1980s show a revealing discrepancy. From 1980 to 1988 the infant mortality rate was cut in half (from 110 to 53 per 1000), an astonishing accomplishment. Likewise, the percentage of wasted (severely underweight) young children fell impressively (from 17.7 to 1.3%). However, the percentage of stunted (under-height, chronically undernourished) young children remained disproportionately high (having dropped only from 35.6% in 1982 to 29% in 1988).

Zimbabwe's data, though sketchy, suggest a marked divergence between mortality indicators on the one hand, and long-term nutrition indicators (stunting) on the other.



**Emergency feeding, with emphasis on the use of local foods, evolved into a long term nutrition program.**

The fall in mortality probably resulted from the energetic expansion and reorganization of health care, and especially the greatly improved coverage of immunization, ORT, and later, the treatment of malaria and pneumonia. Likewise, the relief child feeding programs which grew into a broad health care and food production initiative helped to partially offset the adverse effects of droughts, recession and stabilization policies. However, as the recession and economic stabilization reduced real incomes for large numbers of households, even relatively comprehensive health services and feeding programs could not offset the effects of growing poverty and difficulty in obtaining enough food.

### Conclusion

The Children's Supplementary Feeding Program in Zimbabwe is an example of the ways in which a relatively progressive government can help to initiate an empowering, community-based program providing preferential benefits to those in greatest need. Strong community decisions were possible because the popular mobilization during that period was successful in significantly influencing both national and local development thinking.

In evaluating the overall effect of the Program, many factors need to be considered. As a relief effort, it certainly had its benefits. But more importantly, as a broader, community-based approach, there have been long-term benefits which have endured beyond the original inputs to the system. The education and production aspects of the program continue to promote better nutrition and health for the participants in these communities.

As important as these gains are, however, they still have not addressed the larger question of social inequity (including persisting land maldistribution) and increasing economic hardship which put the children of these families at risk. The Structural Adjustment Programs of the 1990s, and the enforcement of user fees for many health services, have only added to the burden of poor families and have partially reversed earlier improvements in child health and nutrition.