Successful contracting of prevention services: fighting malnutrition in Senegal and Madagascar

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There are very few documented large-scale successes in nutrition in Africa, and virtually no consideration of contracting for preventive services. This paper describes two successful large-scale community nutrition projects in Africa as examples of what can be done in prevention using the contracting approach in rural as well as urban areas. The two case-studies are the Secaline project in Madagascar, and the Community Nutrition Project in Senegal. The article explains what is meant by ‘success’ in the context of these two projects, how these results were achieved, and how certain bottlenecks were avoided. Both projects are very similar in the type of service they provide, and in combining private administration with public finance.

The article illustrates that contracting out is a feasible option to be seriously considered for organizing certain prevention programmes on a large scale. There are strong indications from these projects of success in terms of reducing malnutrition, replicability and scale, and community involvement. When choosing that option, a government can tap available private local human resources through contracting out, rather than delivering those services by the public sector. However, as was done in both projects studied, consideration needs to be given to using a contract management unit for execution and monitoring, which costs 13–17% of the total project’s budget. Rigorous assessments of the cost-effectiveness of contracted services are not available, but improved health outcomes, targeting of the poor, and basic cost data suggest that the programmes may well be relatively cost-effective. Although the contracting approach is not presented as the panacea to solve the malnutrition problem faced by Africa, it can certainly provide an alternative in many countries to increase coverage and quality of services.

The extent of malnutrition in Africa

The United Nations Sub-Committee on Nutrition reported in July 1997 that ‘several countries, particularly the poorest, still lack the human and financial resources necessary for implementation of their Plans of Action for Nutrition’.1 In the meantime, while the nutritional situation is improving on other continents, it is getting worse in sub-Saharan Africa2 (Figure 1), where the number of underweight children up to 5 years of age rose from 21 to 28 million between 1985 and 1995. Malnutrition remains one of the main causes of child mortality as 56% of all under-five deaths is indirectly associated with some form of malnutrition in low and middle-income countries.3

Much has been invested in nutrition in Africa, but with few documented large-scale community-based successes. A review of projects’ evaluation in Africa4 showed that except for Iringa in Tanzania and another project in Botswana, there is not much to show. The two projects presented here, the Secaline project in Madagascar and the Community Nutrition Project in Senegal,1 constitute a new approach to malnutrition, which seems to be working, namely the use of the contracting approach.

The extent of the contracting approach for preventive services in Africa

The contracting approach for public health goals is little documented in Africa. There are examples of contracting for nonclinical and clinical services in hospitals,5 including preventive services such as pre-natal care and well-baby clinics provided by missionary health centres and hospitals, or immunization and other preventive services provided by some industrial and agricultural companies to their workers and their families. However, except for social marketing of contraceptives,6 there

Figure 1. Underweight children (0–60 months) by region, 1985–1995
There is no documented attempt at solving a major public health problem by contracting out the services. Many authors who have documented the value of the contracting approach tried to explain why. McPake and Banda mentioned in 1994 that some of the prerequisites of more extensive contracting out models appear to be the development of information systems and human resources to that end. Foreit explained this deficiency in Africa by the size of the private sector, by the fact it often lacks efficiency and management skills, and by the little support some governments have provided to that sector. Mills, when analyzing conditions for success of the contracting approach in developing countries, expresses concern around the unavailability of service providers, the quality of the private sector, and the inexperience in contract design and management by governments.

The two projects described here avoided most bottlenecks mentioned above by using a delegated contract management unit or agency. This allowed the projects to successfully use available human resources by contracting the management, delivery, training, operations research and supervision of nutrition services to local NGOs, associations and institutions. The two projects have filled a niche not being adequately served by the government nor another provider by targeting very poor areas and by providing preventive nutrition services. They are reaching directly tens of thousands of malnourished children and their mothers by implementing the delegated contract management approach, which permits adequate handling of a large number of contracts and implementation of strict efficiency criteria. Both projects developed a simple management information system used by all levels for decision-making. Governments in both countries provided the highest political support to these projects.

**Description of the two projects**

Both projects were designed based on the lessons learnt from India’s Tamil Nadu and Tanzania’s Iringa nutrition projects in terms of targeting, community approach and types of intervention. However, they go further in implementing the contracting approach as a strategy to provide quality services on a large scale.

In Senegal, the Community Nutrition Project (CNP) started in 1996 in poor peri-urban areas, and has directly attended 100 000 children up to 3 years of age along with 131 000 women in 14 cities. In Madagascar, a similar project but aimed at rural areas, Secaline, started in 1994 in the two most vulnerable regions of the country, and has directly attended over four years 241 000 children under 5 years of age and their mothers in 534 villages. Both projects are executed outside the Ministry of Health but follow the national health policy. In Senegal, the project is managed by Agetip, an NGO which works on the principles of delegated contract management and which signed a Convention with the government to execute the project. The inter-ministerial National Commission against Malnutrition located at the Presidency of the Republic closely monitors this project (see Figure 2). In Madagascar, a project staff directly linked to the office of the Prime Minister and whose workers are all contractors manages the project (see Figure 3). Agetip and Secaline’s project units manage contracts for the government, monitor them and are fully responsible for project implementation and results.

In both projects, children stay in the programme for a limited amount of time: 6 months in Senegal, 4 months in Madagascar. Both projects provide the following services at the community level:

- monthly growth monitoring of the children;
- weekly nutrition and health education sessions to women;
- referral to health services for unvaccinated children and pregnant women, for severely malnourished children, for sick beneficiaries;
- home visits to follow up on beneficiaries who were referred or who do not come to the services;

![Figure 2. Organigram: Senegal’s Community Nutrition Project](image-url)
food supplementation to malnourished children (in Senegal, a flour mix made of local ingredients; in Madagascar, locally bought non-manufactured food);
• improved access to water stand pipes (in Senegal) or referral to a social fund for income generating activities (in Madagascar).

In urban Senegal these services are provided in a rented building called the Community Nutrition Center (CNC), while in rural Madagascar they are provided in a thatch and bamboo structure.

What is contracted out?

Services are delivered by a Community Nutrition Worker (CNW) in Madagascar, who is usually a woman from the target village, or a Groupement d’Interet Economique (GIE), in Senegal, which consists of four young people, previously usually unemployed, living in the target neighbourhood, having created a legal entity. These people are trained by the project staff (in Madagascar) or by local consultants or training institutions (in Senegal) (see Table 1). They are supervised by NGOs (in Madagascar) or other GIEs or NGOs (in Senegal). In Madagascar each NGO supervises eight to ten CNWs, while in Senegal each supervisor looks after five GIEs each managing a CNC. Operational research and impact studies are also carried out through contracts with universities or research organizations. All relationships are contracts. In Senegal the Community GIE is paid the minimum salary, while in Madagascar the Community Nutrition Worker is paid in kind (rice) equivalent to a salary.

Why can these two community nutrition projects be called successful?

Success is defined here by (1) a positive impact on the nutritional status of children reached by the project; (2) a large-scale intervention (not just a pilot); (3) activities that can be replicated; and (4) community involvement. There are other elements to success, but for the purpose of this article, we will consider these main ones.

Impact on the nutritional status of children

The graphs below show that in both projects malnutrition rates decrease rapidly among the children directly reached by the projects. In Madagascar the coverage rate by the project in the targeted zones increased from 50 to 87% by September 1997, while malnutrition rates among beneficiary children diminished steadily (Figure 4). In Senegal, a similar trend is observed (Figure 5), and a community-based study in one city confirmed with two cross-sectional surveys that malnutrition rates decreased in the entire neighbourhoods which benefit from the project. Indeed, that study showed that after 17 months of project implementation, severe malnutrition (weight for age below –3 Z scores) disappeared among children of 6–11 months (going from 6 to 0%, p = 0.0053), and moderate malnutrition among those of 6–35 months went from 28 to 24% (weight for age below –2 Z scores, based on an exhaustive survey). The impact seems directly linked to the project as there was no significant change in socioeconomic characteristics between the base-line and the impact studies, and also because the study showed that malnutrition rates were lower among children who benefited in the past from the project compared to those who never benefited (for example, 23% low weight/age among children of 12–17 months who benefited in the past from the project, compared to 30% among those who never benefited from the project).

Scale of the intervention

Both projects are large scale (see Table 2).

Table 1. Types of services being contracted out in each project

<table>
<thead>
<tr>
<th>Type of service contracted</th>
<th>Senegal</th>
<th>Madagascar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service delivery</td>
<td>GIE</td>
<td>CNW</td>
</tr>
<tr>
<td>Training</td>
<td>Local consultant; local training institution</td>
<td>NGO</td>
</tr>
<tr>
<td>Supervision</td>
<td>GIE or NGO</td>
<td>Local consultant; local research institution; university</td>
</tr>
<tr>
<td>Operational research</td>
<td>Local consultant; local research institution; university</td>
<td>Project’s Unit (Secaline)</td>
</tr>
<tr>
<td>Overall project management</td>
<td>Agetip</td>
<td></td>
</tr>
</tbody>
</table>

GIE = Groupement d’Interet Economique; CNW = Community Nutrition Worker; NGO = non-governmental organization
Contracting in community nutrition projects

Figure 4. Madagascar’s Secaline project: percentage of malnourished children (weight for age below 80% of median) among project’s beneficiaries, by intervention zone (1994–1997)

Figure 5. Senegal’s Community Nutrition Project: percentage of malnourished children (weight for age below 80% of median) among cohorts of project’s beneficiaries (1996–1998), by target neighbourhood
Replication

In terms of expansion

Both projects expanded nation-wide. Senegal’s project started with a 6-month pilot phase and 25 CNCs in three cities. Three years later, there are 176 CNCs in 14 cities. Madagascar’s project is reaching its end, it was implemented in two regions and a new project has been designed to extend the services to all the regions of the country.

In terms of costs

The contribution by government and donors brings the yearly cost per capita of Secaline to US$0.24 and that of the CNP to US$0.77. Just for comparison of scale, health expenditures by government and donors in 1990 were US$3.60/capita in Madagascar and US$18.16/capita in Senegal.11 Senegal’s project costs of US$21/direct beneficiary (including women and children) are comparable to the costs of Tanzania’s Iringa project which were US$17/beneficiary/year (1988 dollars).12

A study showed that 79% of the CNP’s costs are spent in the poor target neighbourhoods, for service delivery. This is quite an achievement considering recent evidence11 which seems to indicate that contrary to expectations, in many African countries the richest people tend to benefit more than the poorest from public spending on health. For example, in Madagascar in 1993, the richest 20% of persons received 1.33 times more in terms of public sector health expenditures than the poorest 20%. In the Ivory Coast the ratio was 3 to 1 in favour of the rich, in Guinea in 1994 it was 12 to 1.

In spite of these favourable comparisons, the managers of each community nutrition project are still trying to reduce costs. In Senegal for example, where food accounts for 27% of the CNP’s cost at the local level, a study13 showed that out of the 100 g/child/day of food supplement given to each malnourished child, the child eats only 25 g. An operational research was thus launched to implement CNCs without supplementary food. Such research, if conclusive, along with increased coverage should help decrease costs substantially. Project managers believe that the decrease in malnutrition rates is due more to the better care provided by mothers to their children through regular growth monitoring and promotion, as well as to the education these women receive, rather than to the food supplement itself.

In terms of sustainability

In both projects, communities contribute about 4% of the cost,14 the government gives 5%, and the donors provide the rest. Again, a comparison with other health expenditures shows that the private contribution to health expenditure represents 50% in Madagascar, and 39% in Senegal,15 a heavy cost paid by the population.

The heavy donor contribution brings about the question of sustainability. However, if one puts this in perspective, public sector programmes of many African countries are in general heavily financed by donors. For example, donors finance 74% of the national health programme of Guinea-Bissau.15 In order to increase community ownership and financing of recurrent expenditures, Senegal’s CNP is developing a system of ‘graduating communities’. The principle is for communities which showed success in terms of impact on nutritional status and with good community cohesion, where a menu of new activities can be financed, including early childhood development centres and more water standpipes. These side projects will contribute a percentage of their profits to the CNCs. Already some women’s groups, gathering 115 women who run water standpipes, contribute 15% of their profits to their CNCs. Obviously, donor support will need to be sustained for each project to continue, but on a decreasing basis.

Both projects are also ensuring sustainability through strong capacity building (1) at the community level, by training community nutrition committee members, local GIEs in charge of service delivery; and (2) at the institutional level by contracting with local institutions and consultants, and by training Ministry of Health staff in nutrition, monitoring and evaluation.

Community involvement and ownership

Both projects start in a neighbourhood or a village only if the community agrees and is involved in the execution. Communities form a local steering committee in charge of monitoring the community nutrition centre’s performance and solving eventual problems. Communities also participate financially in the project by contributing (in Madagascar) to the construction of the CNC, and in both projects by paying a symbolic amount for weekly services.

In both projects new stakeholders took interest in nutrition (Table 3). These new stakeholders improved ownership and thus commitment to the project’s goal.
Dealing with common bottlenecks of contracting

One problem faced by both projects is the referral of severely malnourished children to government health services as these are either not available or not properly equipped. In Senegal, a partial answer has been to develop a home rehabilitation scheme, which should be implemented soon. Another problem encountered at the start of these projects is that Ministries of Health expressed concern about the potential duplication of services with public services, but opinions have since changed, based on the results achieved. In Senegal, the Ministry of Health now sees the CNP as a way, (1) to increase coverage in areas not covered by its own services, and (2) to delegate certain preventive activities to the private sector, in order for government to focus its efforts on other activities and services which cannot be provided by the private sector.

Both projects deal in the following manner with some of the elements that need to be taken into consideration in contractual agreements, as classified by Mills and Broomberg.16

Transaction costs of introducing and maintaining contracting

In Senegal these costs are 17% of the project’s costs,14 which is what Agetip charges the government to manage the project, to operate its central management team, to monitor and evaluate the project (Table 4). In Madagascar, technical coordination and project management constitute 13% of the project’s costs.17

Equity

This concern is at the centre of these two projects as they were designed to reach the most vulnerable groups among the poor people. A first level of targeting was geographical, in vulnerable regions or poor neighbourhoods. A second level of targeting was through the nutritional status of children and the status of women (pregnant, lactating). This allowed the projects to reach people who had little coverage by other providers. This market segmentation permitted the projects to fill a niche.

The bidding process

For the overall execution of the project: In Senegal non-competitive tendering resulted in a Convention between Agetip and the government. In Madagascar, a project unit was simply set up by government with individual contractors, and two regional units were established with full responsibility for management.

For the selection of supervising NGOs or GIEs: In both countries there is open tendering with criteria of eligibility stated. In Senegal, once an NGO/GIE has been selected, it undertakes training during which further selection is made, which means that only the best among those who enter the training will be selected.

For the selection of community nutrition workers: In Madagascar, the community nutrition worker is chosen by the community based on strict criteria, and a verbal contract is agreed between the worker, the community and Secaline. In Senegal, the GIE in charge of the Community Nutrition Center is selected by the community based also on strict criteria, and it signs a contract with Agetip. The criterion of proximity for the service deliverer, that is having to live in the concerned community, is very important, and an aspect hardly ever found in service providers from the public sector. This aspect means that the community nutrition worker is motivated and accountable; the result is good quality of services provided.

Contract specifications

In both projects, contracts given to NGOs and GIEs state the work to be done as well as the performance expected. Requiring a minimum amount of services to be delivered in terms of number of beneficiaries served and percentage of weekly attendance to the health and nutrition education sessions requires a good management information system, which both projects have put in place.

Contract implementation

In their review of literature, Mills and Broomberg16 mention that contracts rarely include sufficient specifications or allocation of responsibilities to allow contract performance to be monitored. In both projects, what is different from public sector management is that efficiency and accountability are enforced. In both countries, contracts have already been cancelled based on poor performance. Because performance is judged on the numbers provided by the management information system, risks of falsifying data exist. This is dealt with through close supervision from Agetip in Senegal and from Secaline’s management unit in Madagascar, as well as through community-based surveys and operations research. In Senegal, a reliability and validity study18 undertaken on the project’s
Management Information System’s data found it to be valid and reliable. In addition, Agetip hires international consultants on sensitive research. This is the case for the study on reliability and validity of data which was done in collaboration with a well-known nutritionist from a reputable North American university, as well as for the community impact study which is contracted to a European scientific research institute. In Senegal, if performance of a community nutrition centre is not up to standard, its supervisor is fired after a warning period. This is based on the analysis of the data provided by the management information system. When community nutrition workers do not perform well, the project managers have to inform the community before the worker can be fired and another one chosen. This is not an easy task, but it can be done.

Some of the usual problems anticipated in contracting for preventive services as expressed by Mills’ were dealt with as follows.

**Competition**

In Senegal, provider competition is among local youth groups as well as local NGOs to win the bid and to provide the minimum performance that will allow them to have their contract renewed. Another aspect of competition is emulation among neighbourhoods to achieve the best performance, as every year there is a Community Nutrition Center of Excellence.

Regarding competition for consumers, consumers have the choice to go to the public facilities to monitor the weight of their children or to go to the Community Nutrition Project outlets. However, because of proximity and better quality of services, the CNP seems to attract women very well. In one Senegalese city studied,10 neighbourhoods with the project had 72% of their children weighed monthly, while in non-project but similar neighborhoods this percentage was 35%. A beneficiary assessment found that women liked to come to the CNP ‘because they were welcomed properly’.

In Madagascar, because it is a rural project, service providers are scarce, and competition is not as developed, although quality standards have been developed and have to be reached for a community nutrition site to remain open.

**Capacity of the contracting agency**

Because government in both countries identified a delegated contract management agency (Agetip in Senegal) or a Project Management Unit (Secaline in Madagascar) to deal with contract management and monitoring, the usual problem of weak managerial capacity of the public, or even of the private sector, was avoided.

**Quality of services**

A simple yet effective management information system was put in place in both countries, with three to five main indicators monitored and with minimum thresholds identified. The supervision system uses these data for supervision and to monitor progress. The main indicators are:

1. percentage of children weighed monthly in the cohort of beneficiaries;
2. percentage of women attending the weekly health and nutrition education sessions;
3. percentage of children malnourished in cohort.

**Conclusion and prospects**

Both projects were able to achieve results in providing preventive nutrition services through the private sector and outside the dominance of health care professionals, thus showing that this type of service can be contracted out to non-specialists. In many African countries, competition for service providers exists, especially in urban areas where unemployment rates are very high, and the unemployed are often highly educated and can put their skills to the service of the community if they are given a chance. In Madagascar, for example, 40% of medical doctors are unemployed.19 This untapped pool of human resources, as well as local associations, institutions and traditional NGOs, can be mobilized and organized if the rules of the game are clear, understood, and transparent.

The next step is for these two projects to form the basis for a dialogue with Ministries of Health on health sector reforms, in order to extend these examples and to duplicate them in other countries and for other preventive services such as AIDS/STD prevention, or family planning services. Most governments continue to be very shy in including the contracting approach in their national health strategies. All development partners need to push in that direction to obtain political consensus, and to ensure proper regulatory, financial and legal frameworks which will make the contracting approach better recognized and widely used as a tool to implement national health policies.

**Endnotes**

1 Senegal’s Community Nutrition Project is financed by the Government of Senegal, the World Bank, the World Food Program, the Senegalese people and the KfW. Madagascar’s SECALINE project is financed by the Government of Madagascar, the World Bank, the World Food Program, the Malagasy people, Japan and Unicef.

**References**

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