



## Improving access

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### Part 1: Access to curative care in first-line health services: an experience in Ecuador

#### Introduction

In LMICs it is generally acknowledged that access to curative care could be improved if primary care health services were strengthened and new health centres opened when required,<sup>1</sup> if in addition skilled teams are organized in these services and if resource allocation does not discriminate against primary care as has historically been the case in many LMICs. Some publications also focus on the importance of good doctor-patient communication, as highlighted in Chapter 17 of this section, to improve access and to ensure effective integration of health services (Haddad & Fournier, 1995; Litvack & Bodart, 1993). There are also important technical dimensions of supporting primary care health services, including sustainable drug supplies in public services (Hanson & Gilson, 1993) (see Part 2 of this chapter).

However, while many publications analyze the determinants of service utilization and the impact of services on health status, little has been published on how to actually improve access to health care because the discussion to date has been part of a larger neoliberal policy framework, that views comprehensive care as rhetoric as well as in isolation from publicly oriented health services.

The following Part 1 describes a study based on empirical research and interventions in several sites which was implemented by an international team to improve access to curative health care in a network of MoH health centres (primary care health services) in Ecuador between 1993 and 1998. Its objective was to explore alternative ways of providing quality CHC in public health facilities which suffered from severe budgetary constraints.

During the 1990s the policy environment in Ecuador was hostile to any enterprise related to public provision, as a result of the implementation of neoliberal health policies. The latter was however to prove fatal to the country's economy and health care system. In 1990 the country's public expenditure on health was 3.7% of its GNP<sup>2</sup> but by 1997 it was even lower having been cut to a mere 2.7% of its total government budget. As a

<sup>1</sup> At relatively low cost as has been argued in Section 5, Chapter 12, by contrast to the high cost disease-specific programmes that have been the trend over the past 3 decades. This approach has been successfully applied in a number of countries such as Nicaragua and Zimbabwe in the 1980s, Costa Rica, Cuba, among others.

<sup>2</sup> INCAE/Progrese. Cuadernos de economía N° 6. Data provided by Cepar in 1997.

result access to health services fell sharply, and was made even worse by a concentration of health professionals in urban centres (Merino, 2007), a lack of drugs, poor stewardship, political nominations for health posts reinforcing job instability, low salaries, and dual employment of physicians in public and private clinics. By 2002 some 30% of the Ecuadorian population were not able to make use of health services in case of illness, and social security funded health services (IESS) admissions and outpatient consultations also dropped by 35% between 1996 and 2003 (Pan American Health Organization & Consejo Nacional de Salud – CONASA, 2007). The demise of health services was reflected in an increase in maternal mortality by 10% between 1990 and 2002 (Hermida, 2007), even though maternal care was meant to be free. The already severely impoverished population suffered increasing out-of-pocket health expenditures, rising from 34.2% to 38.1% of total household expenditure, over the period when the research was implemented (1993 to 2003) (World Health Organization, 2006).

The experience in Ecuador is an illustration of the possibilities for (and limitations of) an intervention to be successfully undertaken in countries where even governments have little or no commitment to improving access to health care. The intervention illustrates some of the challenges that local action in the health sector may face in a hostile setting dominated by neoliberal policies in the health sector for some time.

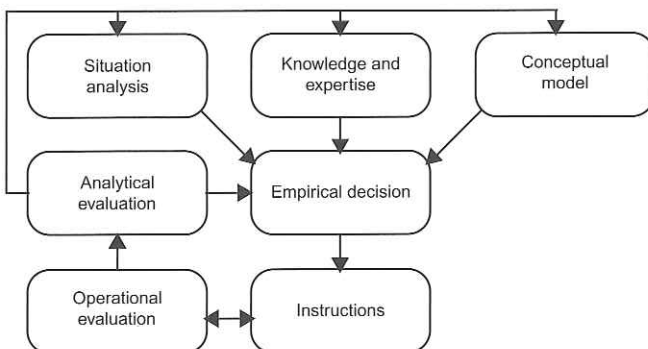
## Methodology

The methodology for the basis of intervention undertaken was action research (Lewin, 1946), which departs from traditional, descriptive studies of health-seeking behaviour as it relies on a set of hypotheses and considers research as a cyclical process of planning, learning and action, which seeks concurrently to solve an immediate problem as well as strengthening the capacity of an organization. The researcher here is implicitly involved in decisions and operations as opposed to playing the role of bystander, as is often the case with more traditional research methodology.

The objective of action research is a dynamic one: to bring about change, to generate new knowledge (and, accessorially, to explain a phenomenon). The steps of action research as utilized are summarized in Figure 18.1.

## Background

The intervention for access to comprehensive care is based on the experiences to improve access in Ecuador by the Primary Health Care (PHC) Project from 1993 until 2003 (those



**Figure 18.1.** Stages of action research. Source: Nitayarumphong, S., Mercenier, P. (1992). Ayutthaya research project: Thailand experiences on health systems research. Life sciences and technologies for developing countries; methodology and relevance of health systems research; research reports. Paper presented at contract holders meeting, 8, 9 and 12 April. pp. 55–78. Centre International de l'Enfance (CIE), Paris.

**Table 18.1.** Demographic and socio-economic context of the research intervention in Ecuador, 1995

Province	Health District	1995 population	Ecosystem	Population living at poverty level (%)
Quevedo	Quevedo	228,751	Coast	43
Cañar	Cañar	67,325	Central Andean Mountains	29
Cañar	Azogues	97,386	Central Andean Mountains	29
Morona santiago	Macas	58,292	Central Andean Mountains	64
Napo	Tena	80,954	Central Andean Mountains	33
Pastaza	Puyo	28,443	Eastern Amazonia	45
Research area	N/A	561,151	N/A	N/A
Ecuador	N/A	11,223,020	N/A	48

Note: N/A means 'not applicable.'

Source: Encuesta de Condiciones de Vida, Ecuador 1995/1996.

presented here were led between 1993 and 1998). The PHC Project was carried out under a long-term bilateral development cooperation agreement between Ecuador and Belgium. It was led in six health districts with a total population of 561,151 in 1995 – which was about 5% of the country's population.

The location for research and the selection of the health districts was chosen to reflect the diversity of the ecosystems of Ecuador. They are represented in Table 18.1 and Figure 18.2.

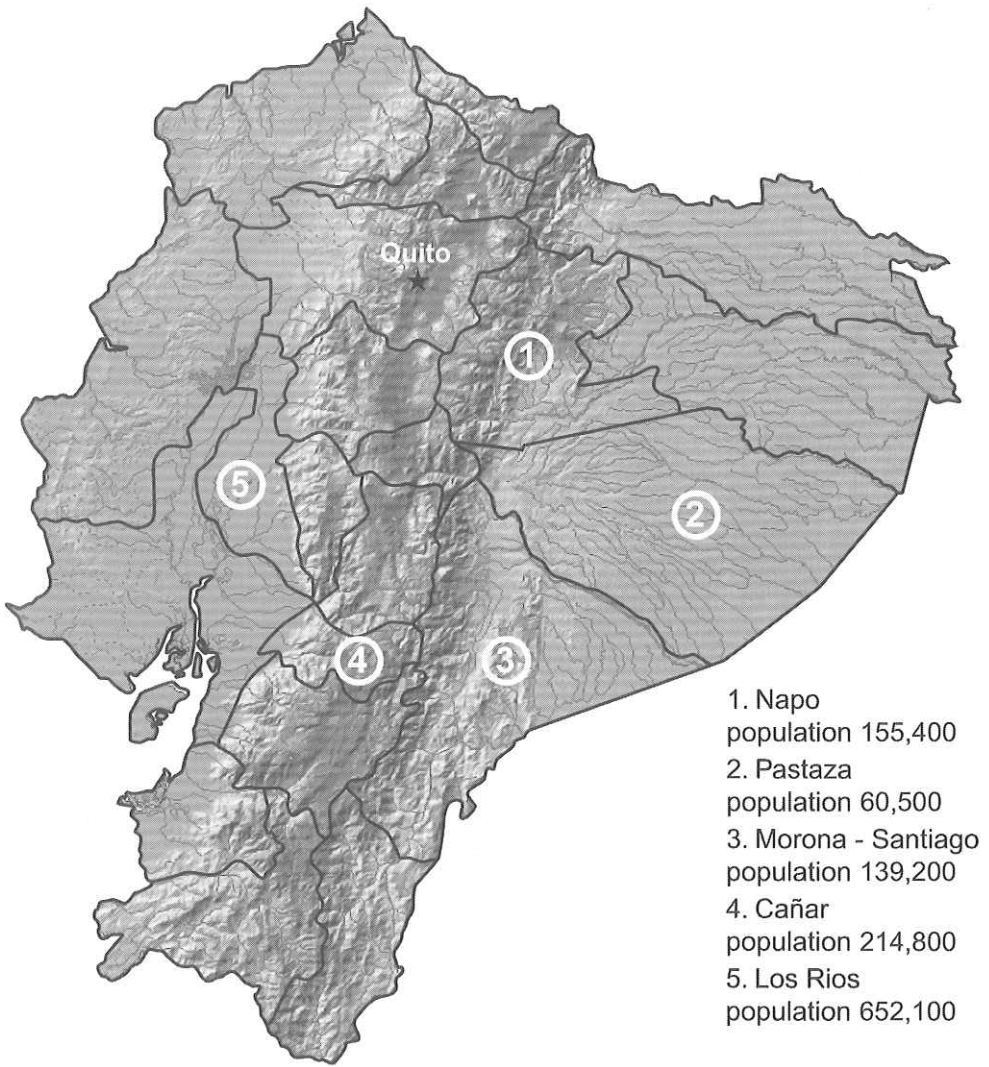
In the period between 1999 and 2000, Ecuador suffered a severe economic crisis, with GDP contracting by more than 6% (Central Intelligence Agency, 2009). Poverty increased significantly over this period. Ecuador's infant mortality rate, for example, fell by 35% between 1970 and 1981, but in 1988 it was still at the high level of 40/1,000 live births excluding the possibility of under-registration (UNICEF, 2009).

## Under-utilization of curative care – local factors

In the selected districts (Table 18.1) medical officers were asked to diagnose the under-utilization of curative care specific to each health centre. They did this with an ad hoc analytical frame incorporating the indicators for utilization. They analyzed possible ways to improve access through a set of strategies for improvement. This analytic process was carried out through a cycle of evaluation and learning over a 10-year period and by different stages, as illustrated by Table 18.2 (p. 214).

The proposed model for access to health care considers different criteria to be put in place simultaneously: geographical, medical, intra-institutional, psycho-socio-cultural, chronological and financial. The intervention undertaken was based on the following hypotheses:

1. Firstly, improving access to quality comprehensive care in primary care public health services is possible – under budgetary constraints and in an otherwise hostile



**Figure 18.2.** Location of the PHC project initial interventions in Ecuador (1993–1997). Population statistics date from 1999. Source: <http://www.populstat.info/Americas/ecuadorp.htm>.

environment – if health staff become motivated to engage in a participatory dialogue with patients individually and with the community as a whole.

2. Secondly, in order for a community to support its primary care public health service it needs to have a positive relationship with the health care providers.
3. Thirdly, we wondered if it was possible to motivate health staff in public health services to engage in delivering quality health care and open up for dialogue without economic incentives, on the basis of a better recognition of their work.
4. Fourthly, that it is not necessary to have access to external funds in order to obtain better access to quality CHC but only external guidance.
5. Fifthly, that it is feasible for the public sector to fund and monitor such a strategy.

**Table 18.2.** Model of analysis and strategic orientation

Type of accessibility	Indicators	Strategies for improvement
Total	New curative consultations per year per inhabitant. Proportion of population with at least one curative consultation yearly. For hospitals inpatient wards: admission rates.	Community participation in decision making process. Promotion of publicly oriented services. Improvement in quality of care and services. Permanent and stable presence of staff. Where needed appropriate task shifting between GPs, nurses, and not GPs.
Geographical	% of total population living at less than 5 km from health centre. Natural obstacles (mountains, rivers, etc.) on the way to a health centre	Redistribution of health teams in smaller health centres. Association of NGOs to the public services network. Changes in preventive consultations. Training of community-based promoters in isolated zones.
Pharmaceutical	% of prescriptions bought outside the health centre. Range of pharmacy stocks interruptions.	Variants of the Bamako Initiative. <sup>1</sup> Ongoing provision of drugs financed with cost recovery.
Intra-institutional	Average duration of consultation. Average time of stay in health centre and obstacles encountered within.	Reorganization of patient flow, task delegation, introduction of health appointments, limiting writing time during consultation, rationalization of information system, priority access to patients from within the centre's responsibility zone.
Psycho-social and cultural (obstacles perceived by the users)	Results from observation of consultation, post-consultation findings from patients through interviews	SOAP method <sup>2</sup> , in-service training, intervention <sup>3</sup> , supervision <sup>4</sup> , promotion of person-centred care, evidence-based medicine, intercultural abilities of hired personnel, human resources stability
Chronological	Degree of compatibility of opening hours with users' activities. Patients refused during consultation hours	Standardizing opening hour schemes, providing also non-financial incentives for personnel
Financial	Price of sickness episode according to family income <sup>5</sup>	Improvement of health centres' problem solving-capacity. Cost control (e.g., rationalization of prescription). Modalities of payment that favour solidarity (prepayment and fee per sickness episode). Exoneration for indigents. Cross-subsidization at district level.

**Notes:**

1 Bamako Initiative, see Part 2 of this chapter;

2 SOAP, method to structure consultations and medical records in first-line services, conceived to take into account the patient's viewpoint in order to enable negotiations between professionals and users on clinical decision making and follow up (Weed, 1969). This method includes the restructuring of curative consultations so as to clearly identify the patient's concerns (Subjective), the collection of physical signs and symptoms (Objective), a joint patient-doctor assessment of the condition (Assessment) and finally the agreement upon treatment and follow up planning (Plan); Is there a problem here in that you exclude all other factors in context as in the patient's background? Does it work to have such an exclusive clinical focus?;

3 Inter-vision: case review performed by peers to improve quality of care;

4 Supervision: in-service training method based on direct observation of clinical practice by an experienced peer;

5 Should be equivalent to 1 and 3 days of monetary income respectively for urban and rural dwellers.

## Obstacles specifically linked to commercial insurance and care delivery

There are also other obstacles specifically linked to commercial insurance and care delivery (some have become widespread in Ecuador).

These include obstacles to care that are linked to commercial health insurance, for example, skyrocketing transaction and administrative costs (to the user and as opportunity cost for MoHs); obstacles to insurance affiliation and risk selection; obstacles to efficient market (local monopolies; lack of consumer information); insufficient package of insured/delivered benefits; inappropriate tier-specific classification of health activities; expensive co-payments; patients' ignorance of administrative procedures; information asymmetry; audits of authorization of payments delaying access to care; low insurance coverage rate; under-the-counter payments and bribes (such as votes against social insurance rights).

Finally, there are obstacles typical of commercial practices in public sector such as gifts and unofficial payments (Smith et al., 2005); ineffective follow-up of contracts with autonomously managed hospitals; sale of hospital drugs; biased distribution of social classification as a basis for tariffs and absenteeism. In the present experience only absenteeism has been tackled. Unofficial payments were an important problem in one of the intervention hospitals but did not prove to be vulnerable.

## Improving strategies

At the inception of the research, criteria relating to the quality of care and health services organization were shared with health professionals. The quality criteria were presented in Section 5, Chapter 14.

In practice, part or all of the following strategies were used in the six health districts:

- Improved pharmaceutical access establishing a management system for medical drugs (see Part 2 of this chapter), based on user fees and with an exemption for the poor and characterized by co-management between community health committees and health teams.
- Improved financial access introducing flat user fees per sickness episode, including most costs related to first, subsequent, and referral consultations for the same health problem. Costs covered included consultation fee, drugs, clinical tests, health imaging, and possibly hospital expenditure in case of referral during a maximum of 15 days.
- Improved psycho-social access by testing techniques to introduce person-centred, bio-psychosocial care in the largest possible number of health centres, at the lowest possible cost (see Section 6, Chapter 19, Part 1). Techniques used were patient-physician communication, bio-psychological checklists, SOAP (subjective, objective, assessment, and plan) structure, and family files (see notes of Table 18.2 and Chapter 19, Part 1).
- Improved overall accessibility strengthening community participation and establishing a link between health professionals and the community through the creation of health committees. Their members were elected in community assemblies.

## Evaluation of impact

From 1993 to 1996 utilization rates (as the proportion of users in the total population) significantly increased, although not evenly in every province (Table 18.3). The increase was related, in our view, to improved organization of the health centres, better dialogue with the local



**Table 18.3.** Trends in utilization of curative care (1993–2005)

	Quevedo	Cañar	Azogues	Macas	Tena	Puyo
Changes in proportion of users of primary care services in the whole population (1993–1996)	+17%	+ 93%	+25%	–9%	+272%	+13%
Utilization rate (new curative cases per inhabitant per year) (1996)	0.27	0.31	0.22	0.3	0.3	0.5
Changes in proportion of outpatient consultations in a hospital on total district consultations (1994–1996)	–3%	–17%	–6%	–4%	–0%	–18%
Proportion of users of primary care services in the whole population (2001 and 2005)	Utilization indicators are on average 20% above the pre-intervention levels.					

Source: De Paepe, 1998.

community, and an adequate supply of drugs. On the other hand, the reasons for these uneven results were found in variable responses to the research protocols due to many health centres being closed because of lack of staff and in the fact that not every district reached a plateau in their performance at the same time. At subsequent controls in 2001 and 2005 the utilization rates continued to be sustained in two of the six districts. Excessive referrals and the undue utilization of hospital care (as a proportion of outpatient consultations in a hospital by district) shrank in five of the six hospitals over the same period, reflecting better access to, and quality of care in, primary care health centres. The results suggest at the least a good indication of sustained, although limited, effectiveness of implemented strategies to improve access to health care.

## Lessons learned

We would venture the opinion that the research framework presented in this chapter can deliver a potentially useful tool for district executive teams. District teams needed to assess levels of accessibility to each particular health centre (and hospital) in their constituency, identify each specific mix of obstacles, set appropriate indicators, and address obstacles progressively. Lessons gleaned from this experience are outlined below.

## Community participation and ownership

The development of community participation is a priority in public services aiming at the delivery of comprehensive care. Virtually all strategies for improvement put forward here – financial and drugs co-management, support to building infrastructures, organization of preventive consultations, and reorganization of activities and opening hour schedules – were made possible through a participatory dialogue. To better engage in this kind of participation a sound

individual patient-physician dialogue is required, for the community to manifest its interest in its health centre, and for the physician to be able to enter into a dialogue with that community.

## Co-payments

An apparent paradox in this case is that co-payments served to improve access to medical care, compared to those which were described as free consultations. This meant that the flat user fee per sickness episode (see above) was kept lower compared to the total price of diagnosis and treatment components incurred separately, minus the price of the consultation. To achieve such sharp flat fees the total cost per disease episode needed reducing. This was achieved through the rationalization of clinical decisions, and the introduction of between-patients, cross-subsidies for direct costs (feasible through the use of generic drugs). The co-payment was introduced in all the districts surveyed with an exoneration clause for the poor which involved also payment methods that favoured solidarity between (moderately and severely ill) patients (payment per episode) and between the healthy and the sick (community health insurance).

## Co-financing

Partial community co-financing of primary care health services is a sustainable way of contributing to public services co-management and community empowerment. It requires, however, continuous core funding by governments. In the health centres of Puyo and Azogues districts these mechanisms prospered after the withdrawal of cooperation by Belgium, in spite of unfavourable national health policies and unstable governments.

## Professional motivation and ownership

Full-time, exclusive dedication of doctors to publicly oriented services, decent salaries, job stability and career perspectives are known to be crucial to not-for-profit services. Unfortunately, these factors could not be influenced for research purposes. Physicians in Ecuadorian primary care services generally worked under unfavourable administrative rules which included short-term contracts, long working hours and a scheme of 1-year mandatory civil service for recent medical graduates, factors known to affect to some extent the commitment of physicians. Results would have been much more important had this constraint been lifted.

## Professionalization of managerial functions in public services

Ten years have followed the end of the research intervention. Two of the six districts, Puyo and Azogues, have managed to sustain the intervention and improve their results. The role of a motivated and stable district management team appears to have been a key feature of the intervention. We learned from this intervention that the function of district medical officer should be professionalized, to include qualifying exams during professional careers.

## Conclusion

Although marked in relative terms, the improvement in access to health care achieved by the strategies presented here were insufficient in absolute terms, because of an external constraint: the scarce allocation of doctors to health centres, many being closed because of lack of staff. This suggests that local initiatives need badly to be supported by a consistent national health policy and resources aiming to secure universal access to CHC (Groupe d'Etude pour une Réforme de la Médecine [G.E.R.M.], 1971; Mercenier, 1971; Unger et al., 2003).



Conversely, the design of national health policies can take advantage of local, pilot experiments. Firstly, with action research, they permit to elaborate health care models, managerial tools, and health development strategies that can be generalized by national authorities. Secondly, pilot experiments can be used to yield demonstration structures useful to convince policy makers. When successful, their health facilities can host teaching practices.

Finally, the strategies presented in this chapter have a domain of validity limited to publicly oriented health services; commercial facilities have little commitment to improving health care accessibility for the general population.

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## Part 2: Improving access to drugs in publicly oriented services: an experience in Senegal

Adapted from: Unger J.-P., Mbaye A. M., Diao M. *Finances and Drugs at the Core of District Health Service Rehabilitation. A Case-Study in Senegal: the Kolda District. Health Policy and Planning* 1990; 5(4): pp. 367–377.

### Introduction

Access to drugs is essential for accessibility to care in any setting. This article examines one experience from Senegal from the angle of health services management. It was conducted to explore how health professionals in charge of publicly oriented hospitals and health centre networks can contribute towards improving access to essential drugs within health services – drugs which were not being subsidized by the government or any other agency. The experience echoes the Bamako Initiative (1986–1996), a WHO-UNICEF programme to sustainably improve access to drugs and curative care in LMIC public services. It has since generated scores of publications – many in favour of continuing with patient payments, as part of the dominant policy paradigm covered in this book so far, while others who support universal health care provision have been vehemently against such a model. This paper thus departs from the hundreds of publications addressing the issue of the supply of medicines in LMICs by a managerial approach and a political concern for public services.

Nowadays, multilateral donor agencies do fund access to drugs in LICs and fragile states, although this access continues to remain quite poor. Twenty years previously, however, the situation was very different. In 1987 WHO and UNICEF launched the Bamako Initiative (BI), a joint programme in some 35 countries which aimed at securing a sustainable supply of drugs in MoH services. NGO health facilities were thus not targeted by the initiative. A second and equally important objective was to contribute towards making public services more democratic, while also promoting the community co-management of these services – which then as now continues to be resisted by professionals and civil servants (Morgan, 2001). The BI explicitly aimed at counter-balancing the power of civil servants and health professionals over users of services and communities where services were located (Diallo et al., 1996; Hanson & Gilson, 1993; Knippenberg et al., 1990). While this objective was certainly a laudable one, if the BI had addressed publicly oriented services as a whole instead of an exclusive focus on MoH facilities, and also hospitals instead of health centres only, it might have contributed to democratizing all of them.

The experience in Kolda, described here, did not depart totally from the essential features of the BI. In the latter, for example, an initial investment enabled the provision of essential and generic drugs to health centres. However, these were to be renewed through user fees. This investment was subject to the acceptance among health professionals of the need to rationalize prescriptions and to introduce co-management with community participation in their facilities. Consequently, the BI managerial tools addressed local financial and pharmaceutical management, organization of community participation, and rationalization of prescription (Newbrander et al., 2001). These relatively complex tasks were supposed to be routinely known amongst health service managers. However, the parameters of a district strategy that was to be conducted by district management teams were neither as well established nor as well known.

Over a period of 9 years, the BI markedly improved (Knippenberg et al., 1997) health services utilization in three countries. In Benin, where it was most successful, service utilization rates increased by a factor of 7 (Levy-Bruhl et al., 1997).<sup>1</sup> This result appeared paradoxical, especially to its opponents, since the BI was based on user fees. This paradox may be explained by the use of cheap, essential generic drugs and low prices on the international market obtained by purchasing large quantities of drugs. The total cost of sickness episodes to patients was therefore significantly lower than it would otherwise have been.

## Pharmaceutical management in Kolda – public services in the 1980s

Kolda is the name both of a town (with a population of then 35,000) and a district (population 184,000). The district, which was predominantly agricultural, had a small 40-bed hospital, 15 government dispensaries, and a few catholic dispensaries. Financing of public services in Senegal largely depended on government funds and revenue from user fees. The former was grossly inadequate. Between 1982 and 1986 government contributions to Kolda health district remained at USD 0.05 per inhabitant per year. User fees were managed by local community committees and were also insufficient. Drug shortage was common, but this was also due to structural problems – an ineffective National Pharmacy organization, the difficulty of health districts to purchase drugs on international markets and poor local management. The key managerial weaknesses were as follows:

- The drug stock recovery rate, in theory permitted by user fees, was quite poor because only a small proportion (less than one-third) of these funds was spent on buying medicines.
- The list of medicines to be purchased was inefficient and included many injectable products and linctuses as well as substances of dubious benefit.
- Health centres bought many products from local retailers, at prices 5 or 10 times higher than charged by wholesalers in Dakar.
- In the health centres in which medicines were ordered on a monthly basis, the health committees tended to hoard their resources.

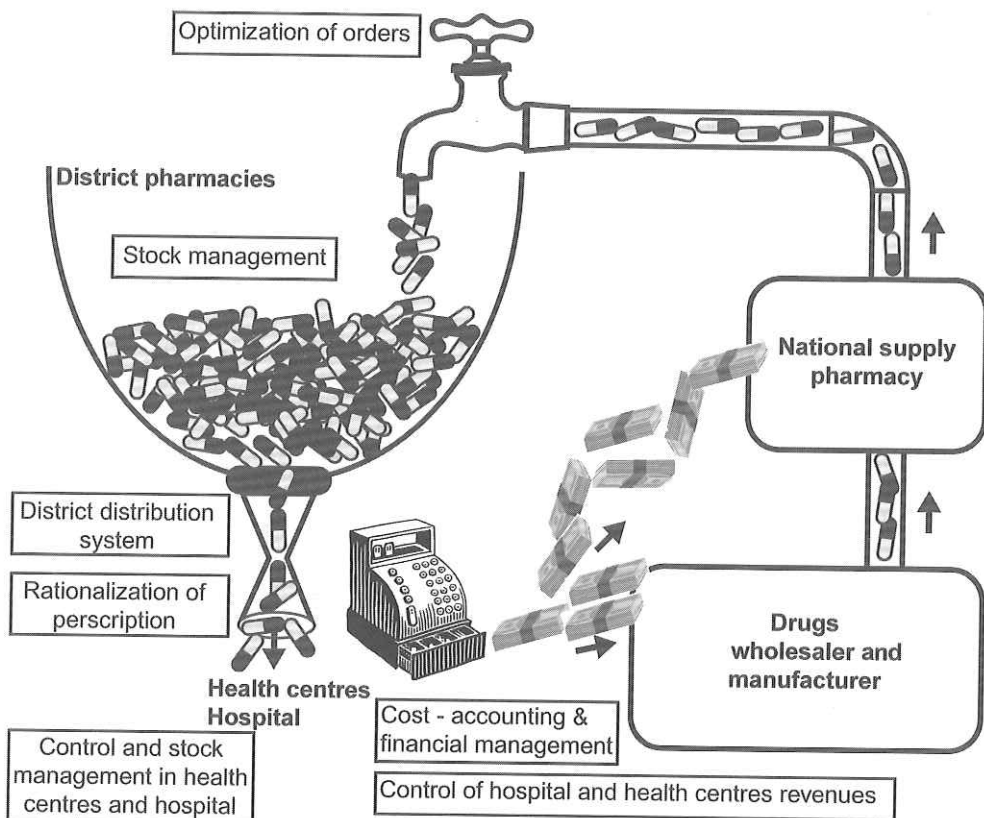
## Management strategy

The strategic priority in Kolda district was to abolish the use of prescriptions issued by the hospital and dispensaries for the purchase of drugs at private pharmacies.

The key elements of the pharmaceutical strategy (described in Figure 18.3) included:

- establishing a limited stock of medicines;
- setting up (financial and pharmaceutical) management control systems;
- organizing a district pharmacy for the hospital and health centres. Stock record cards, with 'warning' levels for reordering based on rates of consumption and delivery times, were introduced in the district pharmacy. Ordering was based on monthly consumption rates;
- granting access to the pharmacy to the hospital services; and

<sup>1</sup> The BI failed in several other countries, due to nepotism and incompetence at district level – sometimes medicines intended for use by communities being sold privately. Such factors are likely to hamper any health policy and are not specific to the BI. Rather the community participation enabled by the BI permitted improved control on civil servants in many instances. In some the community representatives were themselves corrupt.



**Figure 18.3.** Visualizing the relations between components of the managerial strategy.

- extending this opportunity to the health centres as stock in the pharmacy increased, and upon acceptance of reforms by health centre staff.

The 'parameters' for rationalizing the prescription of drugs by health professionals were as follows:

- An accepted list of medicines was drawn up and negotiated with the district doctors.
- The hospital pharmacy was reorganized to a district pharmacy.
- Standardized therapeutic schemes for the commonest syndromes and symptoms were drawn up.
- Prescribers were trained to be empathic to their patients, and medicine stores were established in the various departments of the hospital.
- When all this had been done, hospitals stopped issuing prescriptions for use in private pharmacies, except where patients insisted on vitamins or injections and could not be persuaded otherwise.

Finances were also reorganized:

- Community activities (such as village dances, fairs and lotteries) and local government support made it possible to supplement the quite limited funds provided by the government for the purchase of medicines. Repayment of debts by the health district enabled some health centres to purchase considerable quantities of medicines.

- The district team also set limits for cash advances, introduced a system of auditing, and neutralized health centre committees who had been reluctant to spend their funds on drugs (community participation sometimes gives rise to misappropriation or 'freezing' of funds).
- Notice was given that during 12 months neither health centres' methods of management nor financing were changed (as were those of the hospital). During this period, they were not granted access to the district pharmacy in the hospital.

## Results<sup>2</sup>

Progress varied in the different types of institutions – with the highest gain accruing to the district hospital. Expectedly, the increase in access to, and use of, the hospital was much greater than the rate for the health centres. In January 1988 the dispensary for major endemic diseases became the first recipient of a capital advance (literally a pump) for the purchase of medicines. Thanks to this, and also to good technical supervision, its volume of consultations showed a particularly sharp increase. Receipts from user fees in Kolda hospital between 1985 and 1987 showed that, in 2 years, revenue from this source nearly trebled. However, in spite of this substantial progress, the district's total revenue, expressed in francs per inhabitant per year, remained low. Finally, the increase in recurrent expenditure on medicines followed the total increase in revenues and, in the case of the hospital, the increase in the share of income devoted to medicines.

## Discussion

Several lessons may be learned from the Kolda experience.

### Lessons for local health systems management

The experience allowed the parameters of a district strategy for securing access to drugs in publicly oriented services to be more systematically organized.

The scheme stopped prescriptions being issued by publicly oriented facilities, for use in private pharmacies – a crucial factor in securing use of health services by the population as well as acceptance from health services staff to reform and improve the public services.

The experience showed that, in some instances, the reorganization of a second-line hospital can be the first stage in a strategy designed to improve access to drugs in the facilities network – while it is acknowledged that health centres are crucial to health development. The value of this approach lies in the amount of money released by reforms confined to one big institution. Its disadvantage is the risk of diverting patients resident in a town away from the health centres to the hospital. Counter-reference of patients should thus be planned at a later stage.

The rationalization of financing and of pharmaceutical management must take place simultaneously with the investment. This will mean that staff will see the need for financial control, a *sine qua non* condition to the sustainable supply of medicines. Also, an increase in tariffs without a simultaneous improvement in services proved unacceptable to the population.

The health service may be under-used for reasons other than shortage of medicines (see Section 6, Chapter 18, Part 1). Financial and pharmaceutical reorganization must therefore form part of a more complex district strategy. This complexity, as well as the quality of

<sup>2</sup> For detailed information on cash flows, utilization rates and other quantitative data, see the original article.

management required, makes it essential that district medical officers should have in-service public health training and receive technical supervision directed towards problem-solving.

The merging of pharmaceutical stocks in dispensaries and hospitals, as opposed to the separate sale of medicines, makes it possible to adopt a system of fees for sickness episodes, a method much more amenable to continuity of care than fee-for-service, and which reduces the risk of over-prescribing that is intended to increase the income of health professionals (Association pour la promotion de la santé de Pikine et al., 1988).

## Lessons for national policies

The specific features of Senegalese health policy, which determined the successes and failures recorded in Kolda, may have lessons for other countries.

The district management team can transfer the benefits of the hospital to the health centres or, conversely, use incomes from the dispensaries to provide additional finance for the hospital. This possibility underlines the importance of having the district teams responsible for two tiers of the health system and of adopting a systemic management style.

The MoH must ensure that the district management team receives the technical supervision they require. This must be conceived as a tool for continuous education – not control. While control is needed, its mechanisms should be clearly separated.

The Ministry of Health or of Finance must give public service units freedom to manage the funds earned (together with user representatives). This local independence must not, however, be used as a pretext for cutting government contributions to district finances.

During the experience period, the increase in price was greater than the inflation rate in the case of many essential medicines (tetracycline, aspirin). The prices of non-essential medicines however had been reduced. Pricing was designed to maintain the drug companies' profits, i.e., to maintain the use of non-essential drugs. The supply of cheap medicines to districts depends on a consistent pharmaceutical policy: in particular a national supply pharmacy must be established; essential medicines must be free of tax; international invitations to tender must be even-handed, and the price of essential medicines must be negotiated with producers and importers.

The district also moderately increased its independence from government funding. However, in rural health centres, the improvement in supplies made possible by the release of hoarded resources and the repayment of the hospital's debts was of uncertain sustainability. Again, this shows the need for an effective, national supply system of essential generic drugs to hospitals and health centres belonging to the publicly oriented sector.

Rebuilding drug stocks and improving pharmaceutical management takes time. International cooperation should be adjusted to the pace of a district's development and should not seek to speed it up in order to comply with their external budgetary constraints.

The population had little confidence in community health workers (Walt et al., 1989) because their knowledge is often much the same as the empirical knowledge of lay community members. Priority in pharmaceutical investment should therefore go to professionally staffed health institutions. This is especially important in the context of revamped PHC, at a time where many academics re-interpret it as merely an additional, unprofessional layer in the health care pyramid. PHC is much more than that: it is meant to radically amend the structure and functioning of the entire health care system – starting from health centres and peripheral hospitals.

In Senegal, the temporary effect of intensive immunization campaigns and the inability of health centres to maintain proper levels of cover beyond the initial intensive phase have shown the inappropriateness of integrating specialized programmes in inappropriate circumstances (Unger, 1991). Recruitment of the target population should be achieved by continual contacts



between the health service and individuals during curative consultation – designed to offer discretionary, individual health care – and with the community. In other words a sustainable access to general, essential drugs in publicly oriented services is needed to improve access to care and thus to disease-specific detection and prevention. It constitutes an alternative to the distribution of food (Loevinsohn & Loevinsohn, 1987) or propaganda designed to arouse enthusiasm for preventive activities (Manoff, 1985).

While improvements in pharmaceutical and financial management are a priority for all districts, this shouldn't be conceived as a vertical vision of the strengthening of health systems (Marchal et al., 2009; Smith & Bryant, 1988). Priorities must be decided at district level and may be different for each particular institution, e.g., to take account of local resources.

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