Senegal moves nearer the goals of Alma-Ata

A project in Senegal aims to extend the range and coverage of first-line health service activities, raise their quality, provide them with a readily available referral structure, and dynamize community involvement.

In 1978 the Alma-Ata Conference advocated comprehensive primary health care in a spirit of social development. A year later this was said to be unattainable and attempts were made to reduce its scope. Selective primary health care was proposed with a view to tackling a limited range of major diseases (1), and numerous agencies adopted this approach.

The advocates of comprehensive primary health care encountered serious difficulty in demonstrating that they were not defending a utopian concept. Whereas in Europe the family doctor has long offered relatively comprehensive, continuous and integrated care, in Africa this has not been the case, mainly because the public services have not provided a suitable framework while the private sector has been financially and geographically inaccessible to the majority of people. Although promising results have been achieved by some comprehensive primary care projects run by public services for up to 300 000 people, the general application of such schemes continues to pose problems (2).

In Senegal the Thiès project, conducted by the present authors and Professor H. Van Balen, adopted a new approach that involves defining and implementing health development strategies for each district. It should be noted that health administration follows territorial divisions. The 30 medical districts cover the 30 departments and form ten medical regions. The first institutional level is the health post, directed by a nurse and serving about 10 000 people. In villages remote from health posts, health huts staffed by community health workers have been established where a need for them has been expressed. On average, 15 health posts are administered by a health centre under a physician. A medical or health district comprises a full complement of health posts, a health centre and the corresponding administrative structure.

By 1984 the country had set up a large number of dispensaries and health huts. The Ministry of Health wished to improve the quality of their services and to integrate the specialized services into primary health care. The project covered both the training of

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district medical officers in public health and the organization of health districts. The Institute of Tropical Medicine, Antwerp, was selected by WHO to execute it.

The objectives were to extend the range and coverage of first-line health service activities throughout the country, to raise their quality, to provide them with a readily available referral structure and to dynamize community involvement.

The main features of the strategy were as follows.

• Training sessions on the organization of health services were offered to district medical officers in order to establish a common language for them and their supervisors (the project staff members), to propose alternative methods for the development and evaluation of services, and to give them a view of such services in action based on the Institute’s experience in the Kasongo health area of Zaire.

• Because of the need to adapt the solutions advocated to each particular situation, basic training was continued through supervision in the medical districts as an aid to management and through periodic reviews of the selected strategy.

• The observations made at Thiès and in the course of supervision indicated the kind of research that was necessary in order to fulfil national health policy and that was feasible within the project.

• The knowledge gained through field experience, discussions with doctors, qualitative observation, and operational research was passed on to the Ministry of Health to help it to provide support for the districts.

• A method was devised for revitalizing the health services through supervision of the chief medical officers in the districts.

Training doctors in health service organization

Let us imagine a doctor taking up his post in a health district. After a week at work, he is overwhelmed with primary clinical activities, and the services directed by the nurses are deserted. Prescriptions are costly and often not honoured, undermining the confidence of the population, so that even preventive activities suffer. Self-financing dries up. The staff are dissatisfied and have created a cumbersome administration. Even in his medical practice, the doctor becomes frustrated by a lack of diagnostic and therapeutic tools. This has been the background for a problem-orientated teaching programme, the overall goal of which was to put together an integrated health system. The modular structure of the teaching method was based on the participants’ observations on local health services, made with the help of a form indicating possible defects. The identification of weaknesses in the services was followed by lectures on subjects including statistics and decision analysis,

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with a view to avoiding the proposal of solutions that were merely automatic formulae. The solutions were spelt out in detail and described the support or written instructions to be given to nurses in charge of health posts.
The first modules dealt with all the functions of health posts and health centres. Subsequent ones identified inefficiencies in the utilization of resources and suggested remedies for them. Among the problems that the teaching of management sought to solve were wastage or misappropriation of money, underutilization and poor deployment of staff, acquisition of expensive or unsuitable drugs, failure of populations to participate, and ineffectiveness of information systems. In the final module, participants had to draw up a plan for the health coverage of a district, together with a plan of action.

A plan of action for every district

The preparation of a chart setting out doctors’ intentions helps them to clarify their ideas and represents a commitment and a source of motivation. Provided that all the plans are structured in a similar fashion, they facilitate the evaluation of progress and comparisons between districts. To ensure that the plans conform to a standard and logical structure, the following objectives should be pursued simultaneously.

Extension of coverage

We have asked that each district plan should include details of:

— coverage, specifying where health posts will be sited, the populations in their catchment areas and the priorities justifying the opening of new health posts;
— integration of new activities into existing facilities, and the associated delegation of activities by the medical officer to nurses.

Rationalization of activities

The introduction of a new activity is pointless if it does not help to improve health. It should therefore be given due consideration and analysed before being delegated to nurses. The plan should define priorities for such analysis and delegation.

Rationalization of services

The plan of action should deal with the redeployment of personnel, financing, the establishment of a departmental supply pharmacy, the redefinition of the role of vertical services, and the improvement of the performance of health centres as referral facilities. A particular need for the introduction of certain techniques has often been felt in the more remotely situated health centres, including emergency surgery, blood transfusion, vacuum extraction, and intensive care.

Training

Rationalization requires personnel capable of carrying out the new activities. The plan of action should therefore provide for training in accordance with the objectives. Rather than holding large numbers of seminars, we opted for the slower but more effective alternative of field demonstrations preceded by brief theoretical training and accompanied by written instructions and supervision.
Coordinating teams in the districts

The district chief medical officer is at present the only supervisor. But one physician for 150,000 inhabitants cannot supervise 15 health posts once a month, treat referred cases, develop rationalized strategies, carry out operational research, train personnel, manage a health district and direct a health centre. We therefore suggested that he should become the leader of a coordinating team that would share these tasks, without specialization. This team was to be recruited from the physicians in the hospitals, the medical region, the service for the control of major endemic diseases, and from among expatriate cooperation staff. The plan of action had to specify the composition of the team, how its members would be trained, and what rules would govern its functioning.

There have been numerous obstacles to the proper functioning of supervisory teams: reduction of the concept to one of mere dialogue, refusal to share authority, lack of experience of group work, and distrust. Substantial reorganization was necessary, as some hospital physicians were prepared to increase their work-load only on condition that the team would assist them in carrying out their former duties. The results consequently varied from place to place.

Technical supervision of district chief medical officers

The implementation of the plans of action by the district medical officers was supervised by the members of the Thiès project. This was considered vital as obstacles were likely to discourage the physicians, who had not seen rationalized services in action, could not imagine all the possible solutions, and did not possess a complete theoretical grounding.

This supervision involved seeking solutions to the immediate problems encountered in the transformation of the district into an integrated system, selecting priority problems as stated in the plan of action, observed in practice, or raised by the personnel being supervised, and devising a range of possible responses. The tools available to the supervisor were operational research, action demonstrations, personnel training, and the drafting of documents. Each plan was distinct, and the supervisory work undertaken by the Thiès project team was analogous to the task of a chess player engaged in several games simultaneously.

Feedback to central level

The project attempted to solve field problems with local resources and to see how national strategies could be adapted to each situation. When important problems proved insurmountable and no additional resources from the Ministry were expected, solutions were suggested to officers at national level; where necessary, modifications of the programme were suggested. At the initiative of the Ministry, the project staff participated in research on

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national strategies or questions affecting the functions of the central organs.

This liaison between the field and national levels had the major objective of helping the Ministry to give better support to operations
in the field, something that cannot be taken for granted since many officials are inclined to think of field operations as an aid to them.

Provisional results

After two years of the project, 25 of the 47 medical districts or health centres in the country have a trained medical officer, as do eight of the ten regions. These officers are generally satisfied with their training. The project included 504 days of supervision in the field, operational research in the context of initial training, supervision or evaluation of national programmes, action research in the areas of antenatal consultation, infant care, leprosy and tuberculosis, and a contribution to national planning.

The impact of these activities on the system varies widely. Roughly speaking, six of the 19 districts that have been analysed show little or no change; referral levels have been improved in eight cases; the range and quality of first-level activities has been enhanced in nine districts; in only two cases has the district as a whole begun to take shape as an integrated system. Successes are more common in the border areas than elsewhere, suggesting that the comparatively long average time spent by supervisors in the districts (seven days instead of two) was significant. Another vital factor has been the imagination and determination of the district chief medical officers.

As regards participation, results have been slow to emerge because of the strategies applied in the field, combining the creation of dynamic health committees with the rehabilitation of services. Community initiatives have, in fact, only been directly instigated in emergencies.

Alternative national strategies

It is worth outlining the range of strategy options that has been available to cooperation agencies.

Pilot projects cover given health areas and study the functioning of services whose characteristics should serve as a national model. They can be used for training and the testing of programmes. Unfortunately, the general application of their results has proved to be slow and difficult for the following reasons.

- High cost.
- Requirement for scientific supervision of high quality at national level.
  Unfortunately, scientists in developing countries are often isolated in academic institutions and nearly always lack the means or imagination to become involved in field work.
- Indifference or incomprehension of central authorities.
- Failure to continue practical training when trainees return to their districts, with the result that they tend to resort to bureaucratic practices and the mechanical replication of formulae.
- Failure to disseminate results systematically at national level because of a greater concern with international publicity.

The reproduction of the results of pilot projects on a larger scale has not been
achieved, but these projects have been indispensable tools in the study of requirements for future health services.

Large-scale multisectoral health development projects may affect a quarter to half a million people. Their components may include agriculture, health, nutrition, water supply and sanitation. Financial assistance for the health component is usually less than US$ 4 per person annually. So far there has been no comparative evaluation of such projects, although a protocol has been developed.

Operational research projects are designed to test the biological impact of programmes or services. For vertical programmes, the results are generally technical rather than organizational. These studies seem to have been more useful for cooperation agencies than for ministries of health in developing countries, since they focus primarily on the scientific input of programmes and less on operational research in the organization of dispensaries and hospitals.

Health ministry support projects originate at the centre and reach out to the peripheral services. Their essential tactic is the training of trainers, who are professors or ministry officials often with little field experience. The training neglects the importance of making good quality medicine accessible to the majority and tends to present the community in a passive role. This approach is slanted towards simplification and has been criticized for imitating business management or for a naive faith in the efficacy of technological innovations.

Trainers are sometimes trained in education on the assumption that the difficulties of primary health care have less to do with the shortcomings of chief medical officers in the technical field than with their difficulties in making themselves understood by their subordinates. Yet these physicians have not usually been trained to imagine solutions to the problems posed by primary health care and so have little of value to communicate to their colleagues.

Technical seminars for the promotion of vertical programmes, e.g., on oral rehydration, make a tangible impact on the functioning of services, unlike the kinds of project described above. However, each programme may develop to the detriment of others unless full integration is achieved and the overall balance between different structures is maintained.

In delineating a new strategy (see figure) we have attempted to take account of the disadvantages of those outlined above.

The underlying assumptions are as follows.

- Activities deal with the entire national health system, so as to minimize the barriers experienced in pilot projects and to ensure that complex patterns of interdependence are taken into consideration and written into the functioning of projects when the results of research are disseminated.

The Thiès strategy

![Thiès strategy diagram](image-url)
• Key emphasis is given to the rehabilitation of services. As ministry of health budgets diminish, their partial replacement is only likely to be possible through self-financing. However, communities will not agree to pay for a service unless it responds to their demands. This, and the need to integrate curative and preventive care, places curative medicine at the centre of debate in the public service.

• The hospital and dispensaries complex, i.e., the district, is chosen as the pivotal structure in planning because it is particularly well suited to serve as the interface for “bottom-up” and “top-down” planning. The regions, constituting the intermediate level, are too large and too remote from social reality, while the localities do not possess the minimum components of a health system. The appropriateness of the choice of the district as the key entity for the management of the health services has become clear. While policy is defined by the ministry of health, strategies differ from one district to another because of variation in resources, problems, medical interest, and social and geographical conditions. Antenatal consultations may be introduced first in one health post, nutrition in another; one department may start with the problem of drug supply, another with that of financing.

The district is also a suitable entity in which to proceed to the rationalization of health services, the importance of which is often overlooked by analysts who are unable to apprehend the need for the strengthening of health facilities that are not involved in the launching of vertical programmes. Such analysts tend to concentrate their operational research on the introduction of techniques and health promotion activities.

• Training provides the point of entry to the health system and aims to establish a common language among those involved in the project and the district and regional chief medical officers. The initial training for district medical officers is problem-orientated and is only really valid if followed by continuing training, i.e., supervision in the field which is more likely to be translated into practice than would otherwise be the case.

• As supervision proceeds, observations are made and data are collected with a view to introducing changes in practice at the periphery as well as making improvements to national programmes and central planning. This requires dialogue between district chief medical officers and project workers on the one hand and officials at the central level on the other, in the form of joint supervision, meetings and, probably with greatest benefit, regular informal contacts. The training of district medical officers before their hierarchical superiors is justified because the advice that project leaders could give to the central level would not necessarily be pertinent, given their initial unfamiliarity with field conditions.

• The same university team, investing its skills in operational rather than fundamental research, combines the functions of training, assistance for district management in the matter of supervision, operational research, and assistance to central planning.

The project cost US$ 632 000 in two years, including investments and recurrent expenditure. It has been calculated that it would cost 50–60 million CFA francs per annum, i.e., 0.5% of the present annual budget, for the Ministry of Health to take over the project activities; this could only be justified if significant gains in efficacy and efficiency were achieved. The results
obtained so far give grounds for optimism. A strategy to revitalize the services has been developed, district and project staff have been trained, training courses and a methodology of supervision have been worked out, and changes are beginning to be felt in the districts.

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It is too early to claim that comprehensive primary health care is on the right road in Senegal. But there have been undoubted advances in basic primary health care. One of the objectives of the project was to postpone health promotion interventions so as to ensure that they were designed to reflect the existence of accessible and accepted health services. This is the price of dialogue with the community: professionals with nothing but words, vaccines, or oral rehydration solution would probably fail if they were to attempt to mobilize people on non-medical health questions.

We should have liked to be able to say that the experiments under way in the medical districts offer models that could be applied to the rest of the country by ministerial decision, but reality is more complex. It is difficult to extend the application of models that are constantly being refined. Change comes about not through the use of new terminology but through determination and extra activity. Perhaps “effort” should come into the definition of primary health care. One can only hope that the transformation of the work of regional and district chief medical officers into a creative process will give them the energy to carry it through. If there are no profound socioeconomic changes affecting the non-medical determinants of health, pragmatism and a step-by-step policy will be needed.

References


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**Media influence**

*The media are more interested in polls, paid commercials, photo opportunities... than in housing, poverty, education, health and the city’s infrastructure.*