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Planning for health in Mali

On the basis of information gathered in epidemiological, sociological and socioeconomic surveys in rural Mali a comprehensive national plan has been drawn up for the provision of water supplies and the improvement of health. It is intended that responsibility for bringing the projected schemes to fruition will be shared by the people and the State.

Health planners are often faced with the need to strike a balance between the views of technicians and those of the general population in the matter of priorities. Villagers tend to be concerned about day-to-day treatment whereas technicians are motivated by considerations of public health. It is well known that epidemiological, sociological and socioeconomic surveys are of value in the preparation of viable primary care projects because of the insight they give into community life and concerns. Health care needs in Mali have been identified by conducting such surveys and a plan of action has subsequently been drawn up.

Epidemiological survey

This study was carried out by students of the National School of Medicine and Pharmacy under the direction of their teaching staff. The survey took in a sample of 15 of the 756 villages in an area of more than 70 000 km² with a population of some 500 000. The area is difficult of access and communications are practically nonexistent.

Economic activity is essentially agricultural. The school attendance rate is 20–25% but there is an active campaign to teach the people to read and write in the local languages.

Each administrative district in the area has a district health centre with two doctors and subdistrict (arrondissement) health centres, each with a junior nurse and assistants; coverage is estimated at 5%.

The purpose of the survey, which covered 3300 individuals, was to analyse health problems and work out priorities for action. The cooperation of the villagers was obtained by explaining to them what the survey would involve. A preliminary contact-making exercise was conducted to this end. The activities included asking questions on civil status, collecting sociodemographic and medical data, and making clinical examinations and biological tests. The field work, which took over a month to complete, was done by 70 people with nine cross-country vehicles and a truck for carrying technical equipment and supplies.

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health lost by the community were attributable to this disease. Special attention was necessary for children between the ages of six months and four years, who accounted for 84% of days lost through malaria. More immunization was recommended to avoid the loss of 14.7% of days of good health by the community. It was expected that hepatitis B vaccination would reduce the incidence of cirrhosis of the liver and liver cancer. It was also recommended that measures be taken to reduce obstetric and neonatal pathology, lung disease, gastroenteritis, and guinea-worm disease, which accounted for 19%, 8.2%, 8.5% and 0.5% of days lost respectively. Onchocerciasis and schistosomiasis will be dealt with by special programmes.

Sociological survey

The object here was to discover the felt needs of the people, their knowledge of illnesses, their behaviour as it affected their health, and what organizational structures would be capable of promoting participation. Two kinds of village were identified among the 16 studied:

- those with 100–500 inhabitants, no basic infrastructure (school, dispensary, maternity home, etc.), and a highly traditional organization;
- those with more than 500 inhabitants, a basic infrastructure including an agricultural advisory service, and modern organizational structures alongside the traditional ones.

Decision-taking structures were more gerontocratic in the wholly traditional villages than in the others.

A pressing need for a good water supply was felt in all villages in the sample. This was because of persistent drought and the

sociological importance of water. Water is the main token of hospitality and is offered as such to visiting strangers; it is also used as an offering to the dead.

The culture of this region has it that man is made up of water and earth, which explains the difficulty that the people have in grasping the qualitative relationship between water, the environment, and their health. However, it is commonly said that guinea-worm disease and onchocerciasis are contracted by intake of the “seed of the disease” in drinking-water, and that schistosomiasis, scabies and eye diseases are contracted as a result of the infiltration of the “seed of the disease” into the water of bathing places in rivers and streams.

On the other hand, no causal connection is perceived between an unhealthy environment and the diseases it may provoke. This explains why there was no controlled treatment of household waste and waste-water. There were very few latrines in

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traditional villages but many more in semi-traditional ones. Domestic animals were kept on householders' land and attracted flies, mosquitos, and other insect pests.

The survey revealed that dietary behaviour was heavily influenced by taboos and that food hygiene was poor. The diet consisted predominantly of carbohydrates in the form

of tubers and grain. Children's food was not specially treated, with the exception of the afternoon meal, which consisted of leftovers. After weaning, children had the same diet as adults and meals were taken communally or

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in groups by sex and age. Sick people, even when suffering from contagious diseases, ate from the same plates as everybody else.

As regards the diseases about which the people expressed concern, it is worth noting, in addition to the endemic diseases mentioned above, common complaints such as hernia, stomach-ache, chronic constipation, colds, general debility, headache, backache, sexual impotence, and fever.

People believed that a considerable proportion of disease had mystical causes. This explains the following behaviour in the face of illness:

- initial recourse to traditional medical consultation and treatment to detect the cause and treat the condition with medicinal plants and incantations;
- should that not be successful, recourse to illegal itinerant salesmen who offer modern medicines based on psychotropic drugs that relieve pain and create an illusion of stamina;
- in the last resort, attendance at health centres, generally when diseases have already become quite serious.

Socioeconomic survey

In this survey it was desired to study how participation might be organized and to determine the ability of the people to contribute to the cost of a project. A sample of 38 villages was used and the households to be surveyed were drawn by lot.

In demographic terms, the area was found to be one of heavy migration (10% of the population moving in or out) and an extremely high infant mortality rate (370 per 1000). Although expenditure exceeded income, 98% of the respondents stated that they were prepared to contribute financially to a water supply project and 85% said that they would contribute to a project for health improvement.

Proposed plan

On the basis of the information gained it was decided to work out a plan for drinking-water supply and the improvement of health. The planning principles adopted were as follows.

- Programming was to be of the bottom-up kind, i.e., based on the needs of the rural communities as established by surveys and field visits.
- Programming was to have regard to existing resources and to envisage their possible reorientation before the identification of new needs.
- Activities related to defined aims were to determine the facilities needed, e.g., nothing would have to be built in a village if the intended activities did not require this.
- It was intended that prevention and promotion should take precedence among activities for disease control and the safeguarding of health.

- Maximum integration of activities was to be the rule.
- By contrast with what had been done previously, participation by the people would not be essentially geared to investment but rather to the operation of the established facilities.
- A "least cost" approach was to be adopted, particularly with a view to minimizing recurring costs without losing sight of efficiency, e.g., local building materials were to be used.
- The general approach to implementation of the plan was to be from above downward, with activities extending outward from the centre to the periphery, having regard to the ability of the available personnel to manage them.
- A degree of technical competence was to be acquired by the villagers so as to meet their concerns over health and to avoid long and costly travel, e.g., State-registered nurses were to be appointed in subdistrict health centres.
- Traditional village manpower resources were to supplement those of the State, e.g., traditional birth attendants were to be trained.
- The plan was envisaged as being socially and economically acceptable to the people and within the means of the country.
- Changes of an institutional and structural kind were to be made, if required, at all

levels of the health pyramid for the purpose of carrying out the plan throughout the country.

Two integrated schemes for drinking-water supply and health improvement were drawn up. They include activities connected with immunization, the hygienic use of drinking-water from wells to prevent waterborne diseases and stomach-ache, the treatment of the main diseases identified by the survey workers and the common diseases referred to by the people, health education, support for small grass-roots projects, and the elimination of illiteracy.

Reforms have been undertaken at national level for the division of responsibility between the people and the State. Thus the State is assuming responsibility for some aspects of the operation. With regard to drug supply, for example, a national drug-importing and distribution facility is being established. A list has been drawn up of essential drugs that are exempt from taxes and dues. Other measures intended to reduce the cost of drugs further include purchase by international tender, the adoption of international nonproprietary names for pharmaceutical substances, and the rationalization of prescribing.

The people are taking direct responsibility for the cost of health care, the charges for which they themselves fix. When the two schemes have been carried out a coverage of 45% should be possible.