

Editorial

LEPROSY CONTROL THROUGH GENERAL HEALTH SERVICES AND/OR COMBINED PROGRAMMES

1. Introduction

CONCEPT OF INTEGRATION

In most countries where leprosy is endemic, activities aimed at controlling the disease first began as vertical programmes. A vertical programme is organized from national level down to operational level and is separate from the other health services, having its own specialized staff and clinics. Since the implementation of multidrug therapy (MDT), however, integration of leprosy control into the general health service has gained much wider acceptance. To a great extent this is based on the best utilization of resources, because with the declining number of registered leprosy cases, vertical programmes have become less cost-effective. The basic justification for integration, however, is the principle of equity: all members of a community including leprosy patients should have access to optimal health care, consisting of general, continuous and comprehensive care. Such care can only be provided by multipurpose, permanent and decentralized health services. General health care means that a patient receives care for all common health problems, whereas the vertical services only provide care for specific health problems. Continuous health care implies the permanent, daily accessibility of the services, contrary to the intermittent availability of vertical services, e.g. monthly clinics. Comprehensive health care means that the patient is cared for by staff who know the personal history and (family) background of the patient.

Integration means that leprosy control activities become the responsibility of the general health service, i.e. a multipurpose, permanent and decentralized health service, that is as close to the community as possible. Integration does *not* mean that specialized elements should disappear from the health service. On the contrary, a specialized component must be available within the general health service at the central and intermediate levels for planning and evaluation, the provision of training, technical supervision, advice, referral services and research.

RATIONALE OF INTEGRATION

In 1966 the WHO Expert Committee on Leprosy, in its Third Report, stated: 'The role of the leprologist is mainly to give technical advice and guidance and to train personnel.

Executive functions in the field should be performed by properly trained public health doctors and paramedical personnel. In countries with leprosy campaigns and concurrently existing general health services, their progressive convergence and ultimate merging must be sought to comply with the accepted view that all problems and programmes in the health field are so interdependent that they must be considered together.¹ Stanley Browne also wrote in 1972: 'There is no medical reason why leprosy should maintain its splendid isolation from the rest of medicine. Leprosy cannot demand special medical consideration or special legislative measures . . . and does not require a separate service.'²

The issue of integration of leprosy control into the general health services has undergone a revival associated with two important developments of the 1980s:

- the international acceptance of the primary health care (PHC) approach, urging decision-makers, in keeping with the principle of equality, to acknowledge that leprosy control should be the integral responsibility of community-based general health services,³ and
- the introduction of MDT, which has dramatically shortened the duration of the treatment.

Based on the significant progress made with MDT and the consequent reduction in the disease prevalence as well as to the increased priority accorded to leprosy control by several countries, the World Health Assembly, during its 44th meeting in May 1991, adopted in a resolution the goal of attaining the elimination of leprosy as a public health problem by the year 2000. Elimination is defined as reaching a prevalence below one case per 10,000 population.⁴ In order to achieve this goal, to which the Member States of the WHO have committed themselves, MDT should be applied to virtually all cases within the next few years. It is obvious that for this purpose the general health services, which usually provide better coverage of the population than vertical programmes, must be involved.⁵

A fourth consideration is becoming increasingly important that is strongly related to the above arguments in favour of integration (equity, cost-effectiveness and coverage), i.e. the sustainability of the leprosy services. After the successful implementation of MDT the prevalence of leprosy will be strongly reduced. In most countries it will not be feasible to maintain a costly vertical service under such conditions. The only way of sustaining leprosy services at their necessary operational level is incorporation with other health services.

2. Limitations of vertical leprosy control programmes

The previous limited levels of achievement in leprosy control may be blamed partially on the limitations inherent to vertical programmes. The main and most frequently reported problems associated with a vertical approach are presented in Table 1.^{3,6} These limitations, most of them interrelated, hinder an optimal relationship between the leprosy services and the community. Poor accessibility results in delayed self-reporting by leprosy patients and reduced compliance with chemotherapy. Although not all of these limitations occur in every vertical leprosy control programme, in many situations most of them demonstrate the need to integrate leprosy control into the general health service.

Table 1. Limitations of vertical leprosy control programmes

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| 1 | Insufficient coverage of populations. |
| 2 | Lack of comprehensive health care. |
| 3 | Lack of continuous health care. |
| 4 | Lack of general health care. |
| 5 | Inefficient use of resources (finances, equipment, manpower). |
| 6 | Reinforcement of the stigma attached to leprosy. |
| 7 | Dependence on donor agencies. |
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3. Obstacles to integration

Although the need for integration is widely recognized, actual progress has been slow in many countries, and even where integration has been implemented, vertical characteristics often remain. A wide variety of (transitional) mixtures exist between fully vertical control programmes and completely integrated programmes.

Many reasons have been suggested as possible explanations for the slow progress of integration. The most prominent problems that hamper integration are indicated in Table 2.^{3,6}

The factors related to commitment mainly concern the resistance to change among various groups at different levels of the health system. These problems should be solved by an adequate explanation of the concept, rationale and benefits of integration. Unacceptable legislation concerning leprosy should be identified and repealed wherever it exists. The problems relating to planning and evaluation can be prevented by carefully planning the process of integration (Section 5). The problems relating to implementation can be prevented by adequate preparation and training of the general and previous vertical staff and, especially in the earlier stages, by intensive supervision.⁷ It should be clearly explained that the additional workload for the general health staff is only marginal (generally about 1–2%).⁵

4. Combination of vertical programmes

The combination of vertical control programmes, such as for leprosy and tuberculosis, should not be confused with integration. The combination of vertical programmes is often considered as an intermediate step towards integration. This may be questioned as, in principle, such combined vertical programmes are subject to the same limitations as vertical programmes for leprosy alone. Apart from the limitations of vertical programmes mentioned in Section 2, there are additional risks and pitfalls related to the combination of leprosy control and other services within a single vertical programme:

- a tendency to isolate the other services, e.g., general health staff may not feel responsible any more for the treatment of common skin diseases, such as scabies, if a separate vertical dermatological service operates in the area; and
- the stigma associated with leprosy may have a negative influence on the implementation of the other components of the programme.

Table 2. Obstacles to integration**Commitment**

- 1 A lack of political commitment to leprosy control and/or integration.
- 2 If leprosy has a low prevalence, the disease may not have a high priority in general health services.
- 3 Specialized vertical staff may not accept that multipurpose health workers can deal adequately with leprosy, and being afraid of losing their jobs, often do not support integration.
- 4 The stigma attached to leprosy reinforces the common belief among health workers, politicians, administrators and the community that leprosy is a special disease which should be treated by a special service.
- 5 Because of the stigma leprosy patients may not accept care from health workers who are members of their own communities.
- 6 Leprosy patients may not accept care from general health workers as they prefer to be seen by 'specialists'.⁷
- 7 Some donor agencies prefer to support vertical programmes with autonomous infrastructures.
- 8 In some countries legislation still prohibits full acceptance of leprosy patients by health services and other service agencies.

Planning and evaluation

- 9 Inadequate planning of the process of integration (often too hurried).
- 10 Conflict between the interests of specialists, who demand a wide range of data for monitoring and evaluation and those of the general health service administrators, who wish to simplify information systems.

Implementation

- 11 Inadequate administrative support.
- 12 The infrastructure and/or managerial capacity of the general health services may be less adequate than that of the (previous) vertical leprosy control programme.
- 13 General health workers may not have adequate knowledge, skills and motivation. This is mainly due to a combination of poor training, inadequate technical supervision and because multipurpose workers see relatively few leprosy patients.
- 14 After integration, resources for leprosy control may be decreased as a result of priority setting (structural adjustment programme); this may lead to a worsening of operational performance.
- 15 General medical staff may be reluctant to do the additional work required for the care of patients with a chronic disease which needs long-term treatment (health education, retrieval of absentees, ulcer care, etc.).

However, the combination of vertical programmes has a number of advantages as indicated in Table 3.

The combination of vertical programmes has already been established in several countries, such as the combination of leprosy control with tuberculosis control, e.g., Tanzania and Zambia. Apart from an epidemiological similarity, leprosy and tuberculosis have common essential operational features for their control.^{9,10} Because of these operational similarities this combination appears to be appropriate, within the above-mentioned limitations.

In other countries vertical leprosy control services are implemented in combination with the dermatological services, e.g., Brazil, Guyana and China. Usually the combined leprosy and dermatological services have developed from vertical leprosy programmes adopting the care for skin diseases in order to decrease the stigma associated with the leprosy programme. As skin clinics are more acceptable than specific leprosy clinics, the combination results in earlier case-finding and improved treatment compliance.¹¹ In Kenya the leprosy services are combined in a single programme with the dermatological and tuberculosis services.

The combination of vertical programmes shares many of its advantages with integration. However, the shared advantages are of a greater magnitude with integration

Table 3. Advantages of combined vertical programmes**More efficient**

- 1 Supervision for both diseases can be implemented by the same persons, reducing the costs of salaries and transport.
- 2 The same applies for laboratory services and health education activities.
- 3 Training of health staff involved in leprosy control and other control programmes (supervisors as well as peripheral staff) can be combined, reducing the number of staff to be trained, the overall time needed for training and, consequently, the costs of training.

Increased coverage

- 4 Combined programmes may exist in areas where one or both of the diseases may have too low a prevalence to justify the existence of specialized monovalent staff.⁸
- 5 The vertical programmes may benefit from each other's existing services network (staff, health service facilities, etc.).

Better sustainability

- 6 After successful implementation of MDT the number of leprosy patients will be considerably reduced. Specialized, monovalent leprosy services would, for reasons of cost-effectiveness, not be justified any more. Combination of leprosy control with another vertical disease control programme would help to sustain leprosy expertise.

Increased acceptance

- 7 Combined programmes may result in better acceptance of leprosy patients as well as leprosy workers by other health staff and the community, thus creating more opportunity for future integration.

Availability of sources of finance

- 8 Other vertical programmes may benefit from the existing voluntary external resources for leprosy work, (e.g., funds, transport, equipment etc).

than with the combination of vertical programmes, e.g., integration will generally result in better coverage and greater reduction of stigma. As, moreover, the combination of vertical programmes is subject to most of the limitations of vertical programmes for leprosy alone, the integration of leprosy control into the general health service is more preferable than combining with another vertical programme. Within the integrated services, however, the specialized technical leprosy component can be combined with that for other diseases. This integrated programmes combination reinforces most of the advantages, therefore an additional increase in efficiency and an extra impact on sustainability can be expected. In view of the declining prevalence of leprosy, this strategy of combining specialized components which are integrated into the general health service appears to be the best possible option for leprosy control programmes. It can already be observed in many countries where combined vertical programmes are carried out that the programmes are not strictly vertical anymore but are, more or less, integrated at the peripheral level of the health services, where general health workers are involved in the detection and treatment of leprosy.

5. Planning integration of leprosy control into the general health services

The change from a vertical to an integrated programme is far from easy. The process must be carefully researched and planned and must be appropriate for the specific local

situation of an area. A situation analysis should identify which obstacles to integration are important under the specific local conditions (Section 3). The plan of action for integration should clearly indicate how these problems are to be solved. Adequate resources should be made available. If the process is hurried and staff and patients are not properly prepared, the quality of patient care and the confidence of patients in the services as well as their willingness to cooperate will deteriorate. If the process is too slow, those who want to negate the achievement of integration by delay will be given the opportunity to do so, and the process is likely to fail by default. It should be realized from the beginning that it may take many years before the patients, community and staff will have fully accepted the new situation.

In addition to the identification of the obstacles and their solutions the following considerations are vital in the planning and implementation of integration:

- It is crucial that staff and public accept leprosy patients' use of general health facilities and that the leprosy patients themselves should be willing to attend these facilities. This can only be achieved by intensive staff training and adequate health education.
- A prerequisite for integration is the existence of an adequately functioning general health service infrastructure. Where this does not yet exist, the vertical programme should, for the time being, be continued. However, it should be explored to what extent the vertical leprosy control programme could be used to strengthen the general health service infrastructure.^{2,12}
- In integrating leprosy control into general health services equity and quality of care for leprosy patients should be assured. This implies that in any country the leprosy service should be of the *same* quality level (not less, but also not more) as the services for other health problems.⁵
- The process of integration requires careful and adequate planning in advance, and needs to be introduced step-by-step (phasing in place, time and activities). An outline for the planning of the integration process is provided in the Report on the WHO Consultation on Implementation of Leprosy Control through PHC.⁶ There is no universally acceptable blueprint for all steps in the transition process. Each country should develop its own strategy, but individual countries using the outline should be able to work out an effective plan of action that is appropriate for their own specific situations.
- It is not possible to identify uniform, globally applicable criteria and standards to indicate when vertical programmes should be integrated. This will have to be decided against the background of the specific situation in each country. Under high-prevalence conditions, for example, it is probably justified that the vertical programme continues until the backlog of patients still registered for dapsone monotherapy have been screened and after the vast majority of the cases have been administered MDT. In general, about 1 year for research and planning the process of integration and at least 6 months for training (including sensitization to the needs of patients) of general and supervisory staff will be required before integration can be implemented.
- It is better that health-related activities are undertaken by adequately-trained workers at the most peripheral possible level of the health service. In high and medium endemic areas peripheral general health staff should be capable of diagnosing and treating leprosy under the technical supervision of specialized workers stationed at the intermediate level. Under low-prevalence conditions general health staff should have

sufficient knowledge and awareness of leprosy in order to identify and refer suspect cases to the centralized, specialized staff for diagnosis and initiation of MDT. This should be guaranteed through appropriate training and regular follow-up during supervisory visits.

- A specialized component must be available within the general health service at the central and intermediate levels for planning and evaluation, the provision of training, technical supervision, advice, referral services and research. Depending on local conditions (e.g., prevalence of leprosy, availability and level of training of various echelons of health staff), each country should decide at which level of the health system such specialized support should be available and whether this should be combined with specialized components for other diseases.
- The tasks of both the multipurpose staff and the specialized staff should be well defined and laid down in a national leprosy control manual. Leprosy control tasks, specified for the respective levels of the health system, are presented in the report of the WHO Consultation on the Implementation of Leprosy Control.⁶ This outline requires adaptation to the specific local situations in the various countries.
- Most vertical programmes have detailed recording and reporting systems. With integration, however, the system needs simplification to allow for appropriate data collection by peripheral multipurpose health workers. Only data directly linked to decision-making should be routinely collected.
- Systematic management training, geared to planning, monitoring and evaluation of integrated leprosy control programmes, is needed for intermediate-level health services managers.
- The incorporation of leprosy control into the curricula of medical faculties and paramedical schools is essential for the successful operation of leprosy control as an integrated part of the general health services and to sustain leprosy expertise within the health services.
- Health systems research directed to decision-making at the operational level is essential to ascertain cost-effective and optimal strategies for achieving early case detection, full MDT coverage and adequate patient management by integrated leprosy control programmes. This includes the identification of the most peripheral level of the health services to which individual tasks in the field of leprosy control can be effectively delegated and the identification of optimal methods for promoting intersectoral co-operation and community participation in leprosy control under specific local conditions.
- Non-governmental organizations supporting leprosy control must be involved in the planning process. They will continue to be important partners with governments in integrated leprosy control programmes, although not directly responsible any more for the implementation of the programme. Their contribution will be mainly required in the fields of technical assistance, training and reorientation of health personnel for integration, provision of teaching and learning materials, supplies of drugs, logistic support and social and physical rehabilitation.

6. Conclusion

Because MDT has proven effectiveness and the member states of the WHO have accepted

the goal of the elimination of leprosy by the year 2000, it is mandatory that all leprosy patients in need of chemotherapy receive MDT as soon as possible. In most countries where the disease is endemic, this objective cannot be achieved through vertical programmes. Full utilization will have to be made of the existing general health service. Integrated leprosy control programmes have advantages over the intermittent and mono-purpose services of vertical programmes, which, moreover, in many situations reinforce the stigma attached to the disease. In reality, it has already been shown in several integrated programmes that leprosy control can be effectively implemented by general health services.^{3,5,6,12} Although the day-to-day patient management and recording and reporting will become the task of general health staff, specialized services must be maintained within the integrated programme at central and intermediate levels, and particularly under low prevalence conditions the integrated specialized leprosy component should be combined with similar services for other diseases, such as tuberculosis.

There *must* be an adequately functioning general health service infrastructure before integration. Where integration is not yet possible, vertical services may still be appropriate but, depending on local conditions, and mainly for the purpose of efficiency, consideration may be given to combining the vertical leprosy service with other vertical health programmes. This should only be accepted as a temporary solution within the framework of a well-planned transition towards full integration.

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