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Editorial

TRAINING IN LEPROSY: DOES THE CURRENT STRATEGY NEED REVISION?

The training of medical, paramedical and other health workers in leprosy started long before the advent of dapsone chemotherapy in the mid-1940s, much of it carried out by missions, nongovernment or voluntary agencies in institutions, hospitals or leprosaria, often situated in remote parts of leprosy-endemic countries. The availability of dapsone and the early promise of its effectiveness in arresting or curing the disease in individuals and reducing transmission stimulated the gradual development of leprosy control programmes by ministries of health and nongovernment agencies, the extent and effectiveness of which was heavily dependent on the numbers of staff who could be recruited and trained to carry out a range of essential duties, often under arduous conditions. The crucial importance of training became increasingly apparent from the late 1940s onwards and much effort and money was put into the setting up of regional, national and eventually international centres for this purpose. Literally thousands of health workers, including doctors, programme managers, supervisors, nurses, paramedical workers, laboratory technicians, physiotherapists, social workers and health educators were trained for a wide variety of activities covering all aspects of patient care. The 'control strategy' during this period was based on case detection (preferably early) and the administration of dapsone as monotherapy, often over long periods of time, and it was not until 1982, when the World Health Organization (WHO) published its recommendations for the treatment of all cases of leprosy with multiple drug therapy (MDT)[1] that it became obvious to all involved in leprosy training that radical changes were needed in curriculum content, the design of teaching modules and teaching methods. There was a need to orientate, train or re-train even larger numbers of people (including primary or peripheral health care workers in some situations), to avoid the further spread of dapsone resistance, whilst at the same time bringing the other benefits of MDT to as many patients as possible, without delay. Many of these changes were made expediently, backed by the distribution of a wide range of teaching and learning materials from WHO, ministries of health and members of the International Federation of Anti-Leprosy Associations (ILEP) under the heading of Talmilep (Teaching and Learning Materials in Leprosy). Translations into French, Spanish and Portuguese were made and submitted to training centres in various parts of the world, many of them closely linked or supported by ILEP. A list of training centres and course content is given in the Appendix.

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During the 1980s, the annual reports from most international centres describe active training programmes with many applicants, based on courses which appear to have been both popular through the years and appropriate to the needs of individual applicants, ministries of health, nongovernment agencies and leprosy control programmes in the countries served by any given centre. Criticisms were, however, raised on matters which included: 1, the relevance of the curriculum to the 'real life' conditions which students would encounter on return to their countries of origin; 2, the cost-effectiveness of maintaining such institutions, often of considerable size and expensive in terms of salaries and overheads; and 3, the difficulties of recruiting people with the necessary ability and commitment to the field of training. These criticisms should, however, not conceal the fact that many centres were active, well subscribed and successful in achieving what they considered to be their most important objectives at that time.

By the early 1990s it was fast becoming apparent that the success of control programme strategy based on early case detection/diagnosis and the use of MDT for both paucibacillary and multibacillary cases was so remarkable that further changes would have to be made, not only in operational procedures and programme planning but also in training. Furthermore, the massive reductions in estimated and recorded prevalence rates consequent upon the increasingly wide implementation of MDT, together with the development of an elimination strategy by WHO (based on a figure of less than 1 case per 10,000 of the population), were leading, perhaps inevitably, to the general perception of leprosy in many quarters as a disease no longer calling for serious concern. In a recent editorial in this Journal,[2] Feenstra has drawn attention to the possibility that this may undermine fund-raising and the need for persistent and sustained effort, well into the next century, in order to achieve a realistic level of 'elimination' at national and subnational level, combined with good standards of disability prevention and management.

These developments have not escaped the attention of boards of management and training directors, who have also taken note of the fact that some of their courses are now undersubscribed, for reasons which are so far unclear. Are some courses now seen to be irrelevant? Is the quality of teaching unsatisfactory? Are some centres now short of suitable cases for teaching? Have the referring agencies already concluded that money available for training would be better spent on staff working with other diseases? In seeking the answers to these questions, it also has to be recognized that an increasing amount of teaching, training and orientation is now carried out locally and at low cost, at district, regional or state level, using workshops or short courses, attended by large numbers of health workers.

In view of the remarkable differences between leprosy-endemic countries with regard to (a) the stage of development of their control programmes, and (b) the extent of MDT implementation,[3,4] it is difficult to comment on the world situation in general terms, but there are some important lessons to be learned from the situation in India, which may be relevant elsewhere. From the early days of the National Leprosy Control (later to be changed to Eradication) Programme, the Government placed great emphasis on the establishment and use of training centres in various parts of the country. There are no fewer than 49 centres in India of which 14 are run by voluntary organizations. Between 1955 and 1991 a total of 21,200 paramedical workers and over 5,500 medical officers had been trained.[5] Impressive though these figures may seem, they have to be assessed against the very large number of people working in the NLEP at any given time, whilst also taking into account a list of adverse comments on the activities and achievements of

these centres in successive reports from *Independent Evaluations* of the National Leprosy Eradication Programme. The report of the most recent (1991)[6] drew attention to deficiencies in the recruitment and training of medical officers, nonmedical supervisors, laboratory technicians, physiotherapists and health educators. Capacity utilization was described as extremely poor—and inexplicable in view of substantial numbers of workers found, during the Evaluation, to be untrained in each category. The uptake for medical officers was astonishingly low at 16·7% and site visits to various parts of India confirmed that many medical officers in the NLEP had received no training in leprosy at all. They were frequently unable to recollect any useful input of teaching on the subject during their undergraduate days in medical colleges—a reminder of the view recently expressed by two highly experienced Indian leprologists in a *Letter to the Editor* of this Journal[7] concerning the neglected and untapped potential of medical students, many of whom apparently receive little or no information or teaching on the subject during their course of training. The unsatisfactory situation with regard to training in India is now complicated by the fact that training or orientation is frequently organized at district level (without the involvement of government training centres) and is encountering problems with regard to the needs of (a) specialized (vertical) NLEP staff, who have a vastly reduced workload following MDT implementation; and (b) general (horizontal) multipurpose workers at primary health care level who are reluctant to cooperate because they know full well that NLEP staff have received financial incentives for work in leprosy. India has a vertical programme, but if integration is eventually to be introduced and succeed, there is clearly a need to re-examine the training priorities, paying careful attention to the attitudes of peripheral health care workers.

With regard to the future of the training of professionals in leprosy in general, the participants of Workshop 7 at the 14th International Leprosy Congress in Orlando in 1993 listed 5 recommendations covering: 1, learning and education methods; 2, curricular priorities; 3, training of trainers; 4, production of training materials; and 5, selection of students. Under 2, the need to 'tailor' training courses to low or high MDT coverage was mentioned, including the possible need to shorten courses in some situations, and emphasis was given to 'hidden programme needs', such as patient education, communication skills, management and psychosocial aspects. As events move towards elimination, the need to develop appropriate strategies for integration was also stressed. The Report of this Workshop does not in any way suggest that existing training centres should be closed or reduced in number, rather that continued efforts should be made to '... strengthen and consolidate what has already been achieved'.

Looking at the situation now (early 1995), it seems apparent that the present activities and future contribution of training centres call for yet further analysis and assessment. Despite the inherent difficulties in making generalizations about a disease which still has significant numbers of cases in 79 different countries, ranging from India with 1 million cases, to a group of 40 other countries which are expected to reach their elimination target in the near future, provided that present levels of activity are maintained,[3] it is surely clear that our training strategy in leprosy is due (in some countries overdue) for revision. Combined services with tuberculosis, skin and/or venereal disease have of course already received considerable attention and been established in some countries, but most observers appear to view integration of leprosy into the general health services, using the primary or peripheral health care system with supervision at district level, as a more important option for the future. If this proves correct, as seems very likely, there will be a

need to train large numbers of health care workers and to provide them with appropriate teaching and learning material, including the use of local languages. Ideally, this training should be provided by the teaching staff of paramedical schools or those responsible for the training of primary health care workers, but it is exceptional to find teachers in these situations with even basic knowledge and experience of the subject and they are often poorly supplied (if at all) with information on the national programme, or suitable teaching and learning material, if necessary in their own language. Whether the trainee trainers come from the staff of established paramedical or primary health care schools, or from the ranks of the national leprosy or leprosy–TB programme is a matter for further discussion. Either source could be valuable in pursuing the main objective of achieving a reasonable level of knowledge and awareness in health staff in integrated programmes on a regular and systematic basis.

Some training directors have already proposed that the training of trainers should now become the most important and possibly the only institution-based training activity, arguing; 1, that it is an important matter, calling for urgent attention if the transition from vertical (specialized) to horizontal (general) services is to take place with reasonable safeguards for the level of training of general health staff, and 2, that almost all other courses, with the possible exception of those dealing with management skills for senior staff, are better conducted locally (in districts, states or regions) and not in institutions. It has also been suggested that the job description of expert teaching–training staff members should include site visits to the countries of origin of students on a regular and systematic basis, participation in 'decentralized' training activities in nearby countries, and active involvement in health systems research, including strategies for improved case detection, MDT implementation and the prevention of disability.

Despite the risks, many observers now believe that integration will ensure the widest possible coverage of patients for leprosy control and elimination. If this is so, we must surely revise our strategy for training without delay, if only to ensure that enough trainers are available for the very large numbers of health staff who will be involved. Although written in 1988, the advice of the WHO Expert Committee in their Sixth Report,[8] under the heading of 'Manpower Training' is still highly relevant: 'Experience has shown that considerable training and re-training are necessary to implement the relatively new approaches to leprosy control and patient care that have been recommended. In addition, successful integration of leprosy into the basic health services necessitates training for the staff in those services: even in endemic countries, few doctors or other health staff receive training in leprosy at medical school. Implementation of training on the required scale demands a systematic approach, an appropriate strategy and a thorough command of the technology of training itself on the part of those responsible.'

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References

[1] WHO. Chemotherapy of leprosy for control programmes. *Technical Report Series No, 675*. Report of a WHO Study Group. WHO, Geneva, 1982.

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[2] Feenstra P. Will there be a need for leprosy control services in the 21st century? Editorial. *Lepr Rev*, 1994; **65:** 297–9.
[3] WHO. *Global strategy for the elimination of leprosy as a public health problem. WHO/CTD/LEP/94.2.* WHO, Geneva, 1994.
[4] WHO. Progress towards eliminating leprosy as a public health problem. *Wkly Epid Rec* No. 20, 1994, 145–51 and No. 21, 1994, 153–7.
[5] Leprosy Division, Directorate General of Health Services, New Delhi 110 001. *Background Material for the 4th Independent Evaluation of the National Leprosy Eradication Programme*, 1991.
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[7] Naik SS, Ganapati R. Analysis of competitive examination in leprosy for medical undergraduates in Bombay over 22 years old. Letter to the Editor. *Lepr Rev*, 1994: **65**; 396–8.
[8] WHO. WHO Expert Committee on Leprosy. Sixth Report. *Technical Report Series 768*. WHO, Geneva, 1988.

Appendix

All Africa Leprosy and Rehabilitation Training Centre (ALERT), Ethiopia/Ethiopie. PO Box 165, Addis Ababa, Ethiopia

Prevention and management of disabilities, Leprosy and tuberculosis control, Information, Education and communication, Training of trainers, Essentials of leprosy for non-medical staff, Social rehabilitation, Tropical Dermatology, Essentials of leprosy for medical staff, The eye in leprosy, Supervision of a district leprosy control programme.

Centre for Educational Development in Health (CEDHA), Tanzania/Tanzanie PO Box 1162, Arusha, Tanzania

Tuberculosis control: Epidemiology, Intervention strategies, Operation of a national programme, Bacteriology.

OCCGE—Institut Marchoux, BP 251, Bamako, Mali

Diagnostic et traitement de la lèpre, Réhabilitation du lépreux, Techniques de laboratoire pour la lèpre, Organisation et gestion de la PCT, Techniques d'intervention pour les malades lépreux, Préparation du CES de Dermato-léprologie, Bacilloscopie de la lèpre dans les laboratoires de référence, La lèpre: clinique et PCT, Organisation et Gestion de la PCT, Laboratoire lèpre: Bacilloscopie, Formation à la Gestion des programmes de lèpre, Mission chirurgie-lèpre.

Institute 'Lauro de Souza Lima', Rod. Cte. João Ribeiro de Barros, Km 225/226, Bauru—SP, CEP 17100, Brazil

Hansenology, Prevention of disabilities, Rehabilitation.

Centre Inter-Etats d'Enseignement Supérieur de Santé Publique d'Afrique Centrale (CIESPAC). BP 14513, Brazzaville, République du Congo

Diplôme Professionel de Santé Publique (DPSP), Diplôme de Technicien Supérieur en Santé Publique, Certificat d'Etudes Spéciales de Santé Publique (CES).

Gillis W. Long National Hansen's Disease Centre. United States Public Health Service Hospital, 5445 Point Clair, Carville, LA 70721, USA

Medical seminar in hansen's disease, International seminar on hansen's disease, The, Carville hand seminar: anatomy, biomechanics, insensitivity, Care of the insensitive Foot: the Carville approach.

Leonard Wood Memorial Centre for Leprosy Research, PO Box 727, Cebu City, The Philippines

Clinical research, Epidemiological research, Advanced laboratory techniques.

Institut de Léprologie Appliquée de Dakar (ILAD), BP 11023, Dakar-CD, Sénégal

Cours de Réadaption: Module 1, Cours de Réadaption: Module 2, CES de Léprologie. Cours de cordonnerie pratique, Stages individuels.

Sanatorio de San Francisco de Borja, 03791 Fontilles (Alicante), Espagne

Formation en Léprologie.

Schieffelin Leprosy Research & Training Centre, SLR Sanatorium PO, Tamil Nadu, 632 106 Karigiri, South India

Medical officer's course, Non-medical supervisor's course, Physiotherapy technician's course, Laboratory technician's course, Smear technician's course, Paramedical worker's course, Shoe-maker's course, Diploma course in Prosthetic and Orthotic Engineering. Ophthalmic aspects in leprosy, Condensed courses in leprosy, Refresher course in skin smears, Eye care in leprosy, In-service training in: Medicine, Surgery, Surgical Rehabilitation, Pathology, Laboratory Technology, Ophthalmology, Epidemiology, and Leprosy control. Medical record keeping, Basics of physiotherapy in leprosy, Medical Students course, Psychosocial aspects in leprosy.

'Alfredo da Matta' Institute for Tropical Dermatology, Rua Codajas, No. 25—Cachoeirinha, Manaus CEP 69 065—130 AM Brazil

Leprosy control, Laboratory techniques/bacilloscopy, Leprosy control/Programme management, Medical registrarship in dermatology, Sexually dransmitted diseases (inc. AIDS), Sanitary dermatology, Surgical management: prevention and treatment of ulcers, and septic conditions, Reconstructive surgery (preventive and rehabilitative), Prevention of eye disability, Sanitary dermatology, Laboratory and STD, Out-patient department.

Centro Dermatológico Pascua, Dr. Vértiz 464, Esq. Av. Central, Delegación Cuahutémoc, CP 06780, Mexico City, D.F. Mexique

Spécialisation en dermatologie, léprologie et mycologie, Cours intensifs de dermatologie, léprologie et mycologie.

The Leprosy Mission—Purulia Leprosy Home and Hospital, PO Box 9, Purulia 723 101, West Bengal, India

Paramedical workers, Nursing and medical students, Physiotherapy technicians, Medical officers, Shoe technicians.

Philadelphia Leprosy Hospital, Salur 532 591, Vizianagram District, India

Medical officers, Paramedical workers, Laboratory technicians, MA social workers, Physiotherapy technicians, Medical students, MDT orientation for doctors, MDT orientation for government nonmedical supervisors, MDT orientation for paramedical workers, Orientation for nurses, Orientation in tuberculosis, Orientation for rural health workers, Communications skills and psychosocial aspects in leprosy, Prevention of disability.