

Editorial

WILL THERE BE A NEED FOR LEPROSY CONTROL SERVICES IN THE 21ST CENTURY?*

Since the introduction of MDT in the early 1980s the global number of leprosy patients registered for chemotherapy has been reduced by more than 60%. What will be the consequences of this changing leprosy situation for the implementation of leprosy control? Will there still be a need for leprosy control services in the next century? Before we can answer this question, it must be made clear what actually is the leprosy problem and the change we are talking about.

What do we mean by 'the leprosy problem' and how do we express this problem? The suffering due to leprosy is caused by irreversible damage to the peripheral nerves, which leads to sensory loss, paralysis and loss of function of hands, feet and eyes. The resulting deformities are the main cause of the stigma attached to the disease. This stigma especially leads to the serious psychological, social and economical consequences for leprosy patients as well as for their families. The *raison d'être* of leprosy control is that leprosy is a disabling disease. For the public leprosy is synonymous with deformity. Basically leprosy control means prevention of leprosy related deformity and disability. With the current definition of a case of leprosy (a patient in need of antileprosy chemotherapy), there is a danger that we neglect the actual leprosy problem as it is perceived by patients and communities: the physical, social, economical and psychological impact of the disease on the affected individuals, their families and their communities. Mere data on the number of patients in need of MDT (prevalence) insufficiently reflect the leprosy problem. However, as we do not have adequate methods to measure the magnitude of the suffering caused by leprosy, the prevalence of registered leprosy cases, the incidence (as reflected by case detection figures) and the number of persons with leprosy associated disability remain the best possible indicators for the leprosy problem. But we must be aware of the limited value of these figures.

At present we do have the knowledge and tools to control leprosy. These tools are early diagnosis, MDT and early identification and appropriate treatment of nerve function impairment. Yet many leprosy control programmes have not been very successful in this respect, because most health services have proved incapable of adequately delivering these tools. A wide gap exists between the number of estimated cases and the number actually diagnosed and less than 50% of the cases registered are on MDT and a smaller proportion completes full course MDT treatment. Moreover, even

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among registered cases impairment of nerve function, resulting in new disabilities and worsening of existing disabilities, occurs with distressing frequency.

In April 1993 the total number of patients was estimated to be 3.1 million in 90 endemic countries. There were 2.3 million patients registered for treatment ('known prevalence') of which only 1.1 million cases were on MDT (47.8%). The number of persons with leprosy related disability probably lies between 5 and 7 million. The estimated number of new cases (incidence) is 900,000 per year (WHO 1993). While the annual number of new cases is slowly decreasing in some countries (especially those showing socio-economic development and having well functioning leprosy control programmes based on dapsone monotherapy already existing a long time before the introduction of MDT), on a global scale case detection increased from 575,000 in 1990 to 590,000 in 1991 and 650,000 in 1992. Although this increase of case detection figures may partly be attributed to improved self-reporting and intensified active case finding, and to the lack of precision inherent to global data based on routine field reports, it definitely does not reflect a worldwide declining incidence.

Let me now come back to my introductory question: what are the consequences regarding the need for leprosy control services in view of the reduced prevalence since the introduction of MDT? The declining prevalence is largely caused by the shortening of treatment duration with MDT as compared with dapsone monotherapy and the clearing of the registers of patients not requiring chemotherapy any more; each account approximately for 50% of the observed reduction in prevalence. While the introduction of MDT had a tremendous impact on the prevalence, the incidence figures (as reflected by case detection) so far show little change in many countries where MDT is implemented. We have not controlled the disease until the incidence is contained. Unless incidence is reduced all problems regarding case finding, diagnosis, treatment and disability prevention remain basically unchanged. In summary: reduced prevalence does not necessarily reflect a decline in incidence, and we do not yet have convincing evidence that MDT has an additional impact on the incidence of leprosy.

In view of the long incubation period of leprosy and the fact that wide MDT coverage has only been established in some countries during recent years, it is, however, too early to already expect clear evidence that the implementation of MDT has an impact on the incidence. I am convinced that leprosy is a disappearing problem and that in the long run even complete eradication of leprosy is feasible as a result of a combination of various factors, including socioeconomic development, BCG vaccination and early diagnosis and MDT. This will, however, be a slow process. Despite a slowly declining trend the incidence of leprosy will remain a significant problem till far beyond the turn of the century.

All new cases have to be detected at an early stage of the disease and be submitted to regular and complete treatment with MDT. Moreover, a significant proportion of new cases will already show disability at diagnosis and many patients will develop disability after diagnosis. In addition, all current patients with nerve function impairment are at risk of developing additional disabilities. In conclusion: despite the strongly declining prevalence leprosy and leprosy related disabilities will, for decades to come, continue to exist as an important problem, not only for the patients and their relatives, but also for the health services and social services. Leprosy services will be needed in the 21st century.

The 44th World Health Assembly (1991) adopted in a resolution the goal of attaining global elimination of leprosy as a public health problem by the year 2000. 'Elimination'

is defined as reaching a level of prevalence below 1 case per 10,000 population. This important initiative has, at least temporarily, promoted the commitment of endemic countries to leprosy control. However, the elimination goal should not give the false impression that the leprosy problem will have been solved by the year 2000. After a WHO press release on the elimination goal in July 1993 the Dutch press brought the news under headings such as: 'leprosy will have disappeared by the year 2000'. In creating overexpectation we lay the foundation for disappointment and thus future demotivation of the health workers, administrators, politicians and the public, including the contributors to the donor agencies. We must be extremely careful in the way we inform the public. Overoptimistic information may easily become counterproductive as the funds required for the treatment of all cases with MDT will not be available any more.

With the reducing number of patients the cost per patient cured will increase. WHO has roughly estimated the direct cost for the health services to diagnose and cure a leprosy patient under different prevalence situations. With a prevalence of more than 10 per 10,000 the average costs for a PB patient are US\$30 and for an MB patient \$150; at a prevalence rate of about 5 per 10,000 the costs are \$70 and \$280 respectively and at a prevalence below 1 per 10,000 \$100 for a PB patient and \$400 for an MB patient. It may be expected that with the declining incidence and prevalence of leprosy and thus the decreasing relative importance of leprosy as a public health problem, governments in the endemic countries will make less funds available for leprosy control. In order to achieve eradication there will be a continuing need during the next decades for technical and financial resources from international donor agencies. Here we face the danger that the recent success of leprosy control may have negative effects on fund raising by the NGOs. It is usually not a problem to sell a success story, but this may become the case in leprosy control. Leprosy control should not become a victim of its own success, just as we are getting close to our goal to eradicate the disease. Therefore, whenever the elimination goal is presented it should be made clear that even when this goal is attained, there will continue to be significant numbers of (new) cases of leprosy and people with severe psychological, economical and social problems caused by leprosy who need assistance. Leprosy will not be under control when the 'elimination' goal has been achieved.

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