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News and Notes

Global strategy for elimination

The following item is reproduced from *LEP News*, December 1993:

BLUEPRINT FOR THE CONQUEST OF AN AGE-OLD DISEASE

The introduction of the WHO-recommended standard multidrug therapy (MDT) has dramatically changed the situation of leprosy in the world since the early 1980s. This treatment with a 'drug cocktail'—which in most multibacillary cases adds rifampicin and clofazimine to dapsone—has reduced almost to zero the possibility of *Mycobacterium leprae* becoming resistant to all 3 substances. By late 1993, some 4·3 million patients had been cured, and the global cumulative MDT coverage of registered patients had reached 85%. The number of registered cases has fallen from 5·4 million in 1985 to 1·9 million in 1993.

The striking progress had already encouraged the World Health Assembly in 1991 to set the goal of eliminating leprosy as a public health problem by the year 2000—specifically, reducing the prevalence to less than 1 case per 10,000 population in endemic areas. As a consequence, WHO has now elaborated a *Global Strategy for the Elimination of Leprosy as a Public Health Problem.* This blueprint for the conquest of an age-old disease calls for resource allocation and priority setting at global, regional and country levels, while underlining the fact that public awareness at the community level will be vital to ensure early detection of cases.

ESTIMATED COST

The elimination strategy envisages identifying and treating with MDT a total of about 6·5 million cases until the year 2000. The cost of dealing with these cases has been estimated at US$ 420 million, including US$ 140 million for the drugs. It will be possible to mobilize these resources over the next 5 to 7 years, provided that the need to eliminate leprosy as a public health problem is fully recognized, and provided all interested agencies actively work together in a spirit of partnership.

The elimination strategy aims to stratify the situation at different levels, identify priority areas for action, set intermediate targets and monitor them. The size and intensity of the problem and the accessibility of leprosy control services, including MDT, will determine the level of each stratum.

Political commitment as well as the mobilization and coordination of resources, including those from donor NGOs, will be essential prerequisites for the strategy. The core activities will continue to focus on implementing MDT, together with intensive case-detection. Programme monitoring and evaluation and epidemiological surveillance will also be important elements. The WHO Working Group on Leprosy Control will continue to monitor the progress towards elimination from the global point of view. For that goal to be attained, it is important for everyone to recognize and seize this opportunity to solve a major problem of international public health.

LEPROSY SITUATION 1993

No. of affected countries:	87		
Estimated cases:	5·5 million (1991) 3·1 million (1993)	Registered cases:	3·2 million (1991) 1·9 million (1993)
Cumulative total of patients cured through MDT over the last 8 years:			4·3 million
Global reduction in prevalence over the last 8 years:			64%
Cumulative MDT coverage:			85%

Leprosy on the way out, but still 'a formidable problem', *TDR News*

TDR News, published by the UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases, No. 45, June 1994, carries the following section on leprosy:

'There are still about 2½ million people in the world with leprosy, according to estimates released by CTD's leprosy unit. This is, however, a nearly 70% fall from the 1985 estimate of 10–12 million cases. Actual registered cases have also plummeted over the past decade from 5·4 to 1·7 million, a 69% fall. The unit attributes the decline mostly to multidrug therapy (MDT), a treatment scheme introduced by WHO in 1981 that uses a combination of drugs.

Shaik K. Noordeen, chief of the unit, presented these figures in May to the World Health Assembly in Geneva. The trend, he said, is 'clearly promising and suggests that leprosy is not an endless problem and that it can be eliminated'. In its 1991 session, the Assembly made elimination of leprosy—which means cutting its prevalence rate down to less than 1 case per 10,000 population—a target for the year 2000.

'We're going in the right direction and the target seems to be within reach, but the task ahead,' Dr Noordeen cautioned, 'is formidable.' There are still 80 countries with prevalence rates greater than 1 per 10,000. Some, notably in South-East Asia, which has two-thirds of the world's estimated cases, have rates over 10 per 10,000. Africa's rate is 5·3 per 10,000. Moreover, of the estimated 2·5 million people with leprosy in the world, about 800,000 are not receiving any treatment.

With an additional 600,000 new cases being discovered every year, this means that to meet WHO's target, over 5 million patients will have to be put on MDT between now and the year 2000.'

The same issue includes the following under the heading:

'What has TDR been up to in the past years?'

Ofloxacin, a drug which holds the promise of 1-month or even 1-day treatments to halt leprosy, entered field trials in 15 centres in 8 endemic countries. Preliminary results should be available in 1997.

Two more drugs—minocycline and clarithromycin—were shown to have strong anti-leprosy action in experimental animals and short-term clinical trials.

Leprosy in women may be substantially under-reported and cause extreme social disgrace, hindering women's admission of the problem and access to care, according to a study from India.

By the end of 1994, more than 60% of the total genetic material of the organism *Mycobacterium leprae*, which causes leprosy, will have been mapped and sequenced, making it accessible to molecular genetics and the development of new vaccines, drugs and diagnostic tests.

Electronic Braille for anaesthetic fingers

The following item is reprinted from the latest issue of *Actionaid Disability News*, (1994) **5** (No. 2), page 95:

Until now, visually impaired people have had access to literacy through Braille which is a tactile script. However, what happens to those who are not only visually impaired but also have no sensation in their fingers to 'read' or 'write' tactile braille? Sensation in the fingers is lost due to leprosy which may incidentally cause blindness. Are they condemned to remain illiterate? An electronic substitute system devised by Mr K. G. K. Murthy, attempts to provide a universal cost-effective system that requires no computer backing and instead, standard morse code is modified and adopted in this device.

Fingers that cannot read tactile braille are figuratively termed as 'blind fingers'. This electronic substitute system is made to suit all visually impaired people in their reading and writing needs, particularly those who have no sensation in their fingers.

The system consists of an electronic device which is a simple A.F. oscillator that works on a 3 volt dry battery. It is an RC circuit whose frequency is inversely proportionate to varying resistance. The sensitized print material consists of paper which is a thin plastic sheet to ensure durability and dielectric properties. It has appropriate perforations—small and big. When the user's finger touches the small perforation, the oscillator produces low frequency a.f. and when the finger touches the big perforation, it produces high frequency a.f. The low frequency here is denoted by L and high frequency by H. The standard morse code is modified and adopted in this system. Morse code is made up of short sounds called dit (.) and a long sound called dah (–). There are a maximum of 6 notes in morse which is also there in the modified system. Between each alphabet there is a gap of note space. Thus the dits are equated to low frequency L and dahs are equated to high frequency H covering the alphabet. In practice, this combination is decoded as easily as in morse. Morse code can be learnt in about 2 months, and a speed of about 20 words per minute can be achieved after a few months of practice.

The present prototype works on 3 VDC. An oscillator circuit that is more compact and consumes less power is being researched. Also, rechargeable cells, photo-cells etc. are yet to be tried. For domestic use, a compact battery eliminator is useful thus economizing on battery cells. The perforating mechanical device needs development for ultimate use.

For those who have multiple disabilities like hearing and speech impairment, the output of this device can be made to drive another amplification circuit which gives safe but perceptible pulses on the skin comparable to the audible signals.

A diagram for assembly is supplied with the kit. Further developments towards a cost-effective oscillator with minimum maintenance and improved printing techniques are under consideration, subject to availability of funds. Since it is completely service oriented with no profit orientation, patent rights will be given to any agency/organization who will undertake its manufacture and promotion. Mr Murthy feels that this system deserves optimum development and welcomes any comments, suggestions or requests for more information.

For details write to: Mr K. G. K. Murthy, Health Aid Institute, P.B.2, Kothagundem 507 101, Andhra Pradesh, India.

Botswana combines leprosy with tuberculosis

Writing in the *East African Medical Journal*, Vol. 70, Number 10, 1993, page 635, Dr J. A. Kumaresan and colleagues describe a 'Case finding survey for leprosy in Botswana', carried out in July and August 1991 in the northern part of the country, where most cases have been recorded through the years. Out of a total of 799 contacts of 127 index cases and 8235 school children, 44 active cases of leprosy were registered and started on multiple drug therapy, but of this total only 32% were newly identified during the survey. In view of this modest outcome, surveillance and control of leprosy has now been integrated into the existing tuberculosis control programme (which has been well developed for many years). The majority of recorded cases are lepromatous and the age distribution indicates that 84% of the cases found were older than 25 years. The

authors consider that leprosy is possibly dying out in Botswana, but they draw attention to the considerable number of patients who still require medical attention for disability and deformity.

Tropical Health and Education Trust, London, UK

Fellows of the Society have always been actively involved in many tropical countries in establishing and developing medical schools and other training institutions. But some of these schools, particularly in poorer African countries, face severe hardships. Students have no books, there is no foreign exchange for journals, equipment lacks spares, research cannot be supported and external aid is directed towards primary health care.

The Tropical Health Education Trust has started to relieve, with support from many individuals, trusts and organizations, some of these disadvantages.

Basic books have been sent to all the rural hospitals in 2 African countries, sets of books have been given for students in a number of others. Links between medical schools overseas and home departments have been started with fellowships for students in training and research methods also.

The Tropical Health and Education Trust aims to extend support like this to more countries, hospitals, medical schools and students and needs funds to do it: Fellows of the Society who would like to take this opportunity to help our colleagues overcome some of their obstacles can do so through a single gift, a 4-year or a deposited covenant, or even through a legacy.

Trustees include: R. M. Anderson, K. P. W. J. McAdam, E. H. O. Parry (Chairman), D. A. Warrell.

For more information about THET please write or telephone: 21 Edenhurst Avenue, Fulham, London, SW6 3PD, UK. Tel: 071 927 2411, Fax: 071 637 4314.

Travelling abroad; personal protection against malaria, unclean water, non-sterile medical equipment and contaminated blood for transfusion

MASTA, Medical Services to Travellers Abroad, Keppel Street, London WC1E 7HT, England (071 631 4408), produce a wide range of products for personal protection against malaria, unclean water and non-sterile medical equipment, all of which have been approved and recommended by the London School of Hygiene and Tropical Medicine. These include various bed nets (adults and children), sprays and repellants for malaria, a medical equipment pack of syringes, needles, sutures and dressings and blood group label, water purifiers and an emergency dental pack to replace dental crowns, bridges and inlays. Their brochure also includes details of the 'Blood Care Foundation', a charity dedicated to the provision of fully screened and tested blood for travellers in countries where this is not readily available. The programme is based on a worldwide network of blood banks and regional supply points. In the event of an emergency abroad, a supply of grouped and tested clean blood will be made available to those registered in the programme by telephoning the BCF Alarm Centre in Switzerland. Further information on the BCF: (UK) 0274 531723, or through MASTA at the above address.