Editorial

WHAT IS LEPROSY?

The question is neither facetious nor superfluous. It is directed, as a very serious and practical interrogation, to all workers in leprosy—from epidemiologists, clinicians and administrators to reconstructive surgeons and microbiologists. It is prompted by a reacquaintance with leprosy programmes in the Far East and South-East Asia and by conversations with patients and non-specialist doctors, with dedicated laymen and public health officials. The varying answers given to the question, dependent, as they largely are, upon the field of activity, professional experience, and personal bias of the individual, not only account for the present trends of leprosy treatment/control programmes, but will determine the future prospects of success in the world-wide attack on the disease

The most abiding impression gained from recent contacts is one of disillusionment, amounting in some situations almost to resignation and despair. In some quarters the prevailing attitude is an apparent unawareness of the dimensions and intractability of the leprosy endemic, coupled with failure to keep abreast of new knowledge. There is enthusiasm, granted, and excellent work is being done—many more leprosy patients are being treated, and the disease is being arrested in the individual. But patients still come forward for diagnosis and treatment in an undiminishing, unending stream. The total patient load increases, since programmes are reluctant to release patients from control. And drug-resistance, presumed on clinical grounds, is appearing with increasing frequency, as is the number of patients with acid-fast degenerate mycobacteria persisting in the tissues. It is not surprising to note, therefore, that a pall of gloom seems to have enveloped not only many percipient leprosy workers, but also those concerned—at government level or in voluntary agencies—with providing money and staff for leprosy work.

It is here suggested quite seriously that the question "What is leprosy?" should be asked, and answered, in the light of experience gained during the past decade. The answers given will provide clues to the disappointing conclusions that are inevitable in any objective appraisal of the general situation.

In far too many countries, among far too many doctors and educated laymen, leprosy is equated with deformity, with claw-hand, plantar ulceration, lagophthalmos and the rest. The signs of "early leprosy" are thought to be epistaxis, or ulnar paresis, or drop-foot. A widespread nodular rash, pathologically and clinically "late", is often considered to be "early leproma". If medical men think along these lines, the general public can scarcely be blamed for regarding leprosy in terms of the distal secondary results of a fibrotic neuropathy.

The sad consequences of this failure to recognize early leprosy are seen in the typical cross-section of patients presenting themselves voluntarily at a diagnostic clinic. The great majority come because of some obvious or stigmatizing

deformity. In lepromatous disease it may be facial or helical nodules, madarosis, collapsed columellae, symmetrical ulceration of the extremities, or hoarseness. In tuberculoid disease it is often an extensive skin lesion that can no longer be concealed by clothing, or it may be plantar ulceration, or an infected, painless wound.

Interrogation of the patients themselves, and sometimes regrettably also of the doctors or paramedical workers in charge, reveals the glaring disparity between the answer they give to the question "What is leprosy?" and that given by those who appreciate the time differential between an initial delimited or generalized specific mycobacterial infection and the consequential fibrosis within the peripheral nerves that follows the established histopathological patterns.

Part of the present predicament is attributable to the new knowledge about nerve damage in leprosy gained by neurohistopathologists on the one hand and by reconstructive surgeons on the other. With new knowledge has come a far better understanding of the pathological processes involved—though some of these require further clarification—and the possibility of surgical interventions of various kinds that have brought some measure of mechanical and cosmetic hope. Some of the welcome newer emphases, however, are being over-emphasized in some medical teaching and public propaganda, so that the popular belief that leprosy is to be equated with deformity is being intensified and reinforced by misapplied knowledge.

Furthermore, some leprosy treatment/control schemes appear to be less effective than they were because doctors are devoting more time to rehabilitation (in the larger sense) than to case-finding and treatment of early leprosy. This subtle shifting of emphasis appeals to the surgically-oriented professional and to the supporter of leprosy work who is impressed by photogenic "before-and-after" pictures. It is not only that patients, because of their ignorance of the real "early lesion" of leprosy, present themselves (or are diagnosed) after advanced and irreversible damage to peripheral nerves has occurred, but that the expenditure of time and effort to discover and treat (medically and surgically) the great mass of patients makes the whole exercise prohibitively expensive for a developing country.

Rehabilitation, whether surgical or social, is costly in man-hours and in money. Ideally, it should not be necessary. An equivalent expenditure of effort on education and integrated treatment would undoubtedly be more productive of results in the individual leprosy sufferer and in the community. Some patients, especially among the lighter-skinned Mongolians or Caucasians, are going to suffer nerve damage despite our best efforts, but in many others—perhaps in most—judicious treatment of leprosy in its early stages will forestall and prevent clinically evident impairment of motor and sensory modalities.

The patient suffering from what is frequently miscalled "leprosy" may no longer require treatment for *leprosy,* yet he may be advised to trudge weary miles every week (on insensitive feet) to obtain a supply of an anti-leprosy drug that will have no effect whatever on his neuropathic ulcers. Moreover, from the epidemiological standpoint, such a patient may no longer constitute a source of infection to the community.

Perhaps one of the most important aspects of the presentation of patients with evidence of advanced peripheral nerve damage is the indication it affords of the existence of untreated leprosy. It is, in fact, an index of neglect, or at least of the non-availability of leprosy treatment in the past. A progressive reduction in the

proportion of newly-diagnosed patients already exhibiting some deformity indicates the success of treatment campaigns and health education.

A scarcely less important aspect of the problem relates to the false impression created concerning the real prevalence of leprosy in the community. The numbers of patients with lesions that are recognized as such and openly admitted to be leprous in nature by the doctor and the layman, may represent a small proportion of those actually suffering from leprosy, and moreover, may provide misleading data of the numbers and location of index cases disseminating viable bacilli, and of the success of a treatment programme.

Another point: if the question "What is leprosy?" is answered in terms of incurable established deformity and peripheral ulceration, then efforts will be directed towards custodial care of patients thought to be contagious. On the other hand, where leprosy is still regarded as a mysterious visitation or as a uniquely "unclean" condition, money may be expended in ways having little relevance to the reduction of contagious foci or the control of the disease.

The time is more than ripe to initiate a world-wide campaign of education and re-education among medical students and doctors (especially in countries where leprosy constitutes a major health problem), and also among community health leaders, auxiliaries and teachers, politicians, and ordinary people. If a greater and more lasting impression is to be made on the leprosy problem in these countries, current misconceptions must be exposed and replaced, whether they derive from pre-scientific traditional lore or from the recent admirable emphases on the surgical aspects of "leprosy".

Economic considerations correspond to and supplement humanitarian urges: it is cheaper, as well as better, to prevent peripheral nerve damage than to attempt to restore function (but not, unfortunately, sensation) to denervated muscles, to prevent cartilaginous and bony collapse of the nose than to restore lost contours and channels.