BOOK REVIEWS

Gussow, Zachary. *Leprosy, Racism, and Public Health; Social Policy in Chronic Disease Control.* Boulder, Colorado, U.S.A.: Westview Press, Inc., 1989. Hardback, 265 pp., indexed, US$35.00, ISBN 0-8133-0674-4.

Diseases have often been used as metaphors for the consequences of things considered socially or morally wrong, particularly diseases that are not understood and have no normal cause or cure. Leprosy is perhaps the ultimate disease in this regard. Skinsnes' theory of leprosy stigma is that the unique pathology of leprosy provokes a unique social response. Historians suggest that leprosy stigma existed in pre-biblical times and was firmly entrenched in medieval Europe, persisting to the present. Another explanation of leprosy stigma is that biblical leprosy, a morally unclean state, and modern day leprosy, an infectious disease, should be separated and that destigmatization depends upon public education. In the late 19th century there was an expanding European imperialism, the discovery of many leprosy cases in newly colonized territories, a fear of reintroducing leprosy back into Europe, an assumption that leprosy was highly contagious, a religious revival in England, an intensification of missionary activity, and heightened restrictions on immigration from leprosy-endemic areas. The stage was thus set for renewed leprosy stigmatization and a worldwide leprosarium movement under missionary care. As the old colonial empires have dissolved, new Third World nations emerged, and leprosy has increasingly been integrated into general public health, leprosy stigma should decline.

The public health history of the city of New Orleans, Louisiana, gives a background for the leprosy endemic in Louisiana in the 19th century and the establishment of the "Louisiana Home for Lepers." The first leprosy patients were transported to the Indian Camp Plantation (Carville) 30 November 1894. This policy of isolation and confinement reinforced the fear of leprosy and its stigma. In contrast, Norway's isolation of leprosy patients was very lax, and the leprosy epidemic there was in rapid decline by the late 19th century. Hawaii, at the same time, adhered to a policy of rigid isolation at Kalaupapa on Molokai, the first patients arriving 6 January 1866. In the mainland U.S. there was no apparent concern about the focus of imported leprosy cases among Norwegian immigrants in the last half of the 19th century (for practical purposes, the disease did not transmit) but there was apparently considerable concern that leprosy would be imported and spread if Chinese were allowed to freely immigrate. On 1 February 1921, the Federal government took possession of the leprosy hospital at Carville. Segregation remained the official policy until the first effective treatment of the disease, Promin, was developed in the early 1940s. In the early 1950s, the first U.S. outpatient clinic for leprosy was established in New Orleans. Ten years later the second such clinic was established in San Francisco. By the mid-1950s, emphasis at Carville was being placed on rehabilitation, research, and health education as well as patient care.

The author takes the position that a structured, biblically oriented, Western perception of leprosy came about as a result of the organized activities of mission societies as they raised funds to do their leprosy work. Since missionaries were essentially the only organized group concerned with leprosy, they were, and to some extent still are, the predominant influence in shaping public opinion about the disease. The author feels that exaggeration of the effects of the disease may have been a natural consequence of enthusiastic fund raising, and that this may have contributed to the stigma of the disease. In defense of missionaries, there was a natural tendency for leprosy institutions to collect the most advanced cases and mission societies were likely to have been truthfully reporting on the types of patients with whom they usually worked. The special nature of fund raising by volunteer agencies led to special hospitals, special clinics, special health care workers, and special physicians involved in leprosy work. Converse-

ly, leprosy workers themselves were effectively isolated from the mainstream of medical work.

Three events following World War II led to decreasing the traditional leprosy separatism: the development of modern chemotherapy, the dissolution of colonial empires, and the formation of the World Health Organization (WHO). Modern chemotherapy permitted successful outpatient treatment of leprosy patients. Independence for former colonies shifted the ultimate responsibility for the care of leprosy patients from expatriate missionaries to Third World countries. And WHO began coordinating leprosy work internationally and urging that leprosy policies and practices be planned within the framework of general public health. "The negative stereotypes that once elevated and then held leprosy prominent as an international social problem are now diminishing. Now the disease remains."

Dr. Gussow puts forth an interesting and well-documented history of leprosy in Louisiana, as well as a thought-provoking discussion of the causes of stigma in leprosy. The book is well worth reading. The career leprosy worker may well disagree with some of Dr. Gussow's conclusions, but at least some of his points are likely to strike very close to home.—RCH

Harahap, Mawali, ed. *Mycobacterial Skin Diseases.* Dordrecht, The Netherlands: Kluwer Academic Publishers Group, 1989. Hardcover, black and white illustrations, 142 pp. including index, US$52.50, £30.00, Dfl. 125.00. ISBN 0-7462-0119-2.

This book is the tenth volume in The *New Clinical Applications in Dermatology* Series, the Series editor being Dr. Julian Verbov. It contains five chapters. The first chapter by J. M. Grange deals with the bacterial, pathological, and immunological aspects of tuberculosis and environmental mycobacterioses. The environmental mycobacteria are particularly associated with water—wet soil, marshes, sphagnum bogs, lakes, streams, rivers, man-made water supplies, etc. Exposure to environmental bacteria is unavoidable, and it is inevitably variable from country to country and from region to region within a country. There are about 50 species in the genus *Mycobacterium,* about half of which can be causes of human disease. The point is made that complex mycobacterial cell wall fragments can be relatively stable and not easily cleared from lesions. These substances can be responsible for continuing "disease," even in the virtual absence of viable mycobacteria. The harmful clinical effects of delayed-type hypersensitivity to mycobacterial antigens in pulmonary tuberculosis are pointed out—the necrosis creating a cavity in which tubercle bacilli can readily multiply. Polar forms of cutaneous mycobacterial disease similar to those seen in leprosy have been described, but evidence for the intermediate or borderline forms is not conclusive. Erythema nodosum, although not specific for tuberculosis and currently rare, was classically seen in children with primary tuberculosis at the time of onset of tuberculin reactivity. It was sometimes accompanied by fever and a vesicular conjunctivitis. *M. ulcerans* is thought to be an environmental saprophyte that is inoculated into the skin by spiky or thorny plants or by other forms of injury, and induces Buruli ulcers. Initially the patient is anergic but a point is reached when the patient becomes Burulin- and tuberculin-positive, the histology of the lesion changes from one resembling lepromatous leprosy to one resembling tuberculoid leprosy, and the bacilli disappear and the ulcer heals.

Chapter 2 by Drs. J. Convit and M. I. Ulrich deals with the bacterial, pathological, immunological and immunopathological aspects of leprosy. Virtually all important aspects of the disease are masterfully summarized. Several points bear repeating. Only active, well-developed lesions are adequate for histopathologic study. Regressive lesions in the intermediate or borderline areas often present indeterminate-type characteristics. There does not yet appear to be a single mechanism which can adequately explain the *M. leprae*-specific anergy of lepromatous leprosy. Based on immunologic and clinical responses to immunotherapy, there appear to be subtypes of lepromatous leprosy; in a high proportion of lepromatous patients, nonresponsiveness to *M. leprae* can be overcome by appropriate immunotherapy.

The third chapter covers clinical aspects of skin tuberculosis by Professor M. Harahap. *M. tuberculosis* and *M. bovis* cause identical skin manifestations. Primary inoculation tuberculosis follows exogenous inoculation through the skin in tuberculin-negative individuals. In tuberculin-positive individuals, exogenous inoculation results in tuberculosis verrucosa cutis or lupus vulgaris. Scrofuloderma results from contiguous extension of underlying infected lymph nodes in tuberculin-positive individuals.

Chapter 4 by Dr. K. J. Tomecki discusses the clinical aspects of environmental (atypical) mycobacterial infections. There is no evidence for transmission of disease with these mycobacteria between humans or between animals and humans. They have no known vector and, except for *M. smegmatis,* they are not part of normal human flora. In contrast to tuberculosis, skin tests with antigens prepared from the environmental mycobacteria are useless in the evaluation of patients infected with one of them. *M. kansasii* and *M. avium-intracellulare-scrofulaceum* (MAIS) infections of the lung are the most common diseases caused by environmental mycobacteria, although a great many can cause nonspecific disease in humans. *M. marinum* (swimming pool or fish tank granuloma), *M. ulcerans* (Buruli ulcer), *M. fortuitum* and *M. chelonei* are the most common environmental mycobacteria to cause skin disease. Although it is accepted that *M. ulcerans* is an environmental mycobacterium and minor trauma precedes most infections, there is no report of isolation of the organism from the environment.

The fifth and final chapter is by Professor A. C. McDougall on clinical aspects of leprosy. The essentials of diagnosis, classification, and reactions are expertly summarized. Emphasis is placed on the 30% of the total 10 to 12 million estimated cases expected to have significant disabilities and the importance of "disability control" as well as "bacillus control" both for individual patients and for control programs. Antibacterial and antireaction treatment and the social and psychological aspects of the disease are covered. The chapter concludes with the challenges which lie ahead in achieving leprosy control.

The book is an interesting combination of leprosy, tuberculosis, and environmental mycobacterial involvement of the skin. From the leprosy standpoint, there are a number of parallels which come to mind in reading about environmental mycobacteria and tuberculosis as to their transmission, immunology, chemotherapy, etc. The actual and potential impact of a spreading AIDS prevalence on all these mycobacterial diseases is justifiably mentioned in virtually every chapter. Perhaps it is in order for leprosy workers to take some pride in the knowledge that leprosy is now sufficiently in the mainstream to be able to offer insights of potential value to those working with tuberculosis and environmental mycobacteria.—RCH

Levin, Wayne and Law, Anwei Skinsnes. *Kalaupapa: A Portrait.* Honolulu, Hawaii: Arizona Memorial Museum Association and Bishop Museum Press, 1989. Hardcover, 104 pp., many black and white photographs, ISBN 0-930897-43-5.

This book is a documentation of the historic community of Kalaupapa, the infamous leprosy settlement in Hawaii, through the photographs of Wayne Levin and others, with text by Anwei Skinsnes Law and the quotations of many.

There is little text but what there is contains a concise, historical chronology of leprosy in Hawaii from the 1830s to the present. There are quotations from Robert Louis Stevenson, Gandhi, Father Damien, and government officials past and present. But it is the quotations from the patients that reveal "the pain of losing one's identity to a disease, the struggle to regain dignity and self-worth that has been crushed by years of isolation and institutionalization, and the suffering that society, in fear and ignorance, has placed on a few of its members. Taken together, the images and statements implore us never again to curtail the rights of the sick nor to remove them from society, however frightening or poorly understood their disease may be."

The Levin photographs of the patients were all made with the written permission of the patients. But, while this provision protects their privacy, to quote Levin, ". . . it also perpetuates the stigma of Hansen's

Disease by implying that there is something shameful about having it and continues a long history of paternalism. . . . The people of Kalaupapa . . . are proud survivors of an extraordinary injustice and are fully prepared to defend their own rights. They have a deeply significant story to tell and deserve to be seen and heard, not hidden away any longer."

"Looking at Kalaupapa today," Law writes, "one sees deteriorating buildings and an aging population. The deterioration of the buildings is a triumph of sorts, for it signals the end of a tragic chapter in the history of Hawaii. We are coming to the end of Kalaupapa as a leprosy settlement and seeing it evolve into a national historical park where the lessons and memories of the past will be preserved. . . . Kalaupapa's history teaches us that it is important to keep in mind the potential social effects of any medical decision, for they will persist long after the disease itself is under control."

All of Levin's photographs and those by others, which come from the collections of Anwei Skinsnes Law, the Damien Museum, and the Bishop Museum, are in black and white. It is interesting that there are no page numbers.

The book is well done, the pictures reach out to you, and the text is readable history with a message for the present and the future.—DDG

McDougall, A. C. *Implementing Multiple Drug Therapy for Leprosy.* Oxford: Oxfam, 1988. Paperback, 43 pp., £2.95. ISBN 0-85598-092-3.

This slender paperbacked volume started out in 1983 as "an aid to the interpretation of the WHO publication *Chemotherapy of leprosy for control programmes.*" It is the author's express intention that that work, which details multiple drug therapy (MDT) for leprosy, should first be studied thoroughly. It is written in a simple question/answer format and the fact that it has achieved a 4th edition in such a short space of time is surely ample evidence of its value. But it is certainly not yet another text for the primary health care worker or medical assistant; on the contrary, it is meant for doctors working in developing countries, together with medical students, managers and supervisors of leprosy control programs, those running medical and paramedical training schools or leprosy training centers, senior pharmacy staff, and also personnel engaged in the planning of leprosy and leprosy/tuberculosis programs in ministries of health. Information gathered from two sources in 1988 (the 13th International Leprosy Congress at The Hague, and the WHO Expert Committee on Leprosy, Technical Report Series No. 768), as well as a contribution on the possible effect of AIDS on leprosy control, is incorporated into this edition.

The main substance of the book—which begins with "What is MDT?" and ends with "Is the implementation of MDT proceeding fast enough and covering adequate numbers of patients?"—occupies a mere 25 pages; dosages for adults and children (in pauci- and multibacillary disease), and important points about leprosy reactions are tabulated. But despite the book's brevity it contains an astonishing amount of factual information. Ten appendices which incorporate numerous simple line-diagrams serve to underline the advice offered in the text; suggested charts for recording clinical lesions and slit-skin smears are provided, as are illustrations of bacterial index. Blister-calendar packs (from which medication can be "pressed out" on appropriate days of the month) are also illustrated. Some relevant book and literature references to further reading are incorporated in the text. There is no index, but six pages for notes are provided at the back.

Here then is a commendably short text which effectively deals with many aspects of the care and management of patients undergoing MDT—an extremely effective form of management which when widely implemented will doubtless result in a dramatic decline in the overall incidence and severity of this ancient disease. One minor point: the binding is inadequate and as I turned over the pages in my review copy several began to fall out. In a book produced for the Third World this is simply not good enough and this aspect should receive due attention in the 5th edition. This text is, however, to be warmly commended to all

of the groups for whom it is intended.—G. C. Cook (Trop. Dis. Bull.)

The Use of Synthetic Antigens for Diagnosis of Infectious Diseases; Report of a WHO Scientific Group. Geneva: World Health Organization, 1989 (WHO Tech. Rep. Ser. No. 784). 74 pp., Sw.fr. 9, US$7.20. ISBN 92-4-120784.

"Addressed to research workers, this report evaluates more than 200 recent studies in an effort to define which lines of investigation are most likely to produce significant gains in accurate diagnosis. Applications in viral, bacterial, and parasitic diseases are considered together with prospects for the development of improved diagnostic tests for the detection and monitoring of infection with the human immunodeficiency virus (HIV). Throughout, an effort is made to pinpoint specific applications where the use of synthetic antigens offers distinct advantages over natural epitopes. Guidelines for the use of existing synthetic peptides are also provided.

"Readers learn how the ability to produce synthetic antigens has opened exciting prospects for the design of new screening reagents and the development of urgently needed assays for monitoring the progress of infection and therapy, for routinely following up asymptomatic carriers, and for establishing a prognosis for carriers and patients at various stages of disease severity. In view of the practical and commercial benefits as well as the scientific advantages promised by synthetic antigens, the report should prove particularly useful in helping scientists assess the status of current progress and in determining the lines of further investigation most likely to result in practical gains."—Bull. WHO **67** (1989) 760.