

testing of really extensive population groups will always be difficult in the extreme.

The emphasis given the epidemiological aspects should not be interpreted as implying that they are the sole factors in controlling syphilis. The search for cases will find more popular support if there is a better general understanding of the issues at stake and the discovery of cases is, of course, meaningless if adequate treatment for them cannot be provided. The procedure, therefore, has to be coordinated with public health education and the provision of good clinical facilities for adequate diagnosis and treatment. Where this has been done it can be seen that real progress has been made.

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TUBERCULOSIS AMONG NATIVE RACES

VARIOUS studies of tuberculosis among Indians in the United States have indicated a relatively high prevalence of infection and an exceedingly high mortality from the disease. A recent survey of the Alleghany Reservation Indians in Cattaraugus County, the native race in that area, is of considerable interest because the findings among them are compared with those for a group of white persons living in the same general area.¹

Korns states that the 972 Reservation Indians consist of half-breeds or those with less than half Indian blood. Since the Indians are enrolled according to the old custom of following the lineage of the mother, there are no records by which the proportion of Indian blood may be determined accurately. They mingle with the white population outside of the Reservation in high school, at movies, and in domestic or other work.

Two-thirds of the 972 Indians were given an examination consisting of a partial physical, an X-ray of the chest, and the Mantoux tuberculin test with 0.1 mg. of Old Tuberculin. It was believed that those examined were from a health standpoint representative of the Reservation as a whole. The prevalence of tuberculous infection among Indians was found to be considerably higher at each age than the rates noted for a random sample of the white rural families of Cattaraugus County. It

¹Korns, J. H.: Comparative Tuberculosis Findings Among Indians and White Persons in Cattaraugus County, New York. *The American Review of Tuberculosis*, October 1936, xxxiv, No. 4, pp. 550-560.

appears that infection is acquired at an earlier age among the Indians than among the white persons tested. The calculated incidence of infection among Indians reaches its peak (19.7 per cent) at ages 5-9, with a secondary peak at ages 40-49; on the other hand, in the white population the incidence of infection rises slowly and is acquired more frequently in young adult life (ages 20-29) and declines throughout later adult life.

The rate of active cases of tuberculosis found among the Indians was 6.1 per 1,000 population, or about five times the rate of known active cases among white persons for the entire County. The ratio of Indian tuberculosis mortality to that among white persons was six to one.

Among the 625 Indians X-rayed, 9.8 per cent showed evidence of lesions of primary infection. Korn's states, "These Indians show a rather surprising amount of tissue resistance to tuberculosis as judged by their X-ray films. Their resistance appears to compare favorably with that of the white persons" surveyed in the County. "Possibly the large admixture of white blood in these Indians and their exposure as a group for many generations to tuberculosis account for this relatively high resistance."

Another study of interest is an investigation of tuberculosis among the Maori, a native race of New Zealand, made by the Department of Health of New Zealand in conjunction with the Medical Research Council of Great Britain.² Slightly more than 2,000 Maoris (the entire population of Waiapu County) living in a rural area of the East Coast District were surveyed. This population group was considered as generally typical of the Maori of New Zealand.

Every Maori home within the area chosen was visited and all individuals were investigated for the presence or absence of tuberculosis. The investigation consisted of a thorough inquiry into the family history and the possibilities of contact, a careful clinical examination, and the Mantoux tuberculin test. All positive reactors to the tuberculin test were X-rayed, and also those negative reactors who, at clinical examination, showed suspicious signs. The period of the investigation covered one year.

Fifty-three active cases of pulmonary tuberculosis were noted and 30 cases of arrested disease; 11 active cases of nonpulmonary tuberculosis and 21 arrested cases were found among the 2,022 persons examined. The

²Turbott, H. B.: Tuberculosis in the Maori, East Coast, New Zealand. Government Report, Department of Health, New Zealand. 1935.

active case rate among the Maori was 31 per 1,000 population during the period of investigation.

Primary pulmonary lesions were noted in 3.06 per cent of 914 Maori X-rayed; tracheo-bronchial calcification was reported 27 times; and enlarged hilum shadow, without calcification, was noted in 6 individuals.

Turbott states that "Regarding type of lesion, childhood or adult, no dogmatic statement is made. From this investigation it seems as if the adult Maori is not being overwhelmed by the childhood acute first infection type of lesion as in primitive unprotected races, such as Jamaicans, reported upon by Opie,³ but is going through the costly process of building up relative immunity."

The mortality from all forms of tuberculosis among the Maori was found to be approximately nine times that among Europeans in New Zealand with a rate of 49.4 compared with 4.5 per 10,000 population.

The immunological findings among the Maori were similar to those among the Indians in Cattaraugus County. Approximately 49 per cent of the 2,022 Maori had a positive reaction to the Mantoux tuberculin test. Infection was acquired more frequently in the early ages and young adult life than in later life. Among the Maori contact was found to be a serious factor, especially in children up to 15 years of age.

Both of these studies of native races indicate a high morbidity and mortality from tuberculosis among them. However, the fact that both the Indians and the Maori show some resistance to tuberculosis—neither race seems to be overwhelmed by the acute first infection type of lesion—is of considerable interest because of its bearing upon the prospect of control of the disease among them.

JEAN DOWNES

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REPORT ON MATERNAL MORBIDITY AND MORTALITY IN SCOTLAND¹

WITH the publication of this report another detailed analysis of carefully studied cases is added to a rapidly growing literature directed

³Opie, Eugene L.: Epidemiology of Tuberculosis of Negroes. *Bulletin of the International Union Against Tuberculosis*, July, 1931, viii, No. 3.

¹Douglas, Charlotte A., M.D., D.P.H., M.C.O.G., and McKinlay, Peter L., M.D., D.P.H.: Report on Maternal Morbidity and Mortality in Scotland.