

in the few remaining burial-caves which have escaped the rifling and desecration of the curio-hunting vandal. Absolute proof, therefore, of the existence of tubercular bone-disease in ancient times is still forthcoming, but I hope to supply the missing link during the coming year.

It has been argued that the Maori would suffer very seriously from consumption, offering as he does virgin soil to the ravages of a disease totally unknown to him, and against which he has developed no immunity which long association with the disease confers. This fate might possibly be that of the North American Indian who is dying out, because consumption is the chief thing that civilisation bestowed upon him. If we can prove that phthisis is not one of the many gifts of the pakeha, we can at all events concentrate our attention upon local conditions without the haunting fear of the "luxuriant growth in new soil" theory. There is no doubt that the lapse in the sanitary regulations and conditions, with the change in clothing, food, and work brought about by the first contact with civilisation, made the conditions more favourable for tuberculosis, which was kept in check by the open-air active life of the old-time Maori. The privations and starvation owing to insufficient food cultivated which followed the Waikato war helped to disseminate the seeds of disease until it became more widespread.

The terraced hilltops, the former home of the fighting Maori, with their trenches and ditches, were practically sanatoria, whilst the constant work in procuring food, and the training in military enterprise, led to the development of a fine physique which, with the fact that very little time was spent indoors, enabled them to withstand the bad effect which the poor ventilation in the houses might have produced. But even in ancient times the meeting-houses had often a *matapihi*, or hole, in the roof near the ridge-pole with a small roof again over it. This was used for the purposes of ventilation, the piece of woven fibre which closed the aperture being removed when the house was too warm. We can therefore understand that, though the disease existed, as the records of several families show, it was held in check by the conditions of life in former times. The dislocation of environment, if I may so term it, together with loss of the old incentive to work and physical exercise, has reacted by deteriorating the racial physique.

The figures I have at my command would show that the weak spot of the Maori is his chest. Such is my own experience, and in this I agree with my colleague Dr. Pomare. I have, however, grouped pulmonary affections, colds, and bronchitis given by him in his last year's report under separate headings under the general heading of "Diseases of the Respiratory System." Excluding phthisis, diseases of the respiratory system form one-fifth of the total cases seen, or 21·822 per cent. Phthisis as quoted above forms 1·725 per cent. of the cases seen, or 7·3 per cent. of the diseases of the respiratory system. Though phthisis is a terrible scourge to the Maori, it is not so prevalent as many think. The high percentage of respiratory affections however must give us cause for alarm, since with the lowering of the vitality of the respiratory tract the way for phthisis is made easier. This brings me to making the following statement:—

Open-air Life.

Nature did not intend the Maori to herd in cities, to shut out fresh air and sunlight and evolve sanitary problems. His place is on the land, both from the commercial and from the equally or more important health point of view. As a case in point, I quote the history of two fellow-students of mine. Both were well endowed with brains. One went to town and entered an office. He died last year of phthisis. The other likewise entered an office, but, his health failing, he sought the healing air of the country. To-day he is a rising farmer on the East Coast, helping his tribe by his advice and by his example. When one of Te Aute's promising students enters a town office with aspirations towards university honours, Mr. Ngata, M.P. for the East Coast, says, "There is another good farmer wasted." I agree with him, and would also add, "There is another useful life in danger." The danger of phthisis amongst the Maori is more serious between the ages of fifteen and twenty-five, just when he is turning his back upon the farm and seeking the employment of the towns. Of the twenty-two cases recorded last year the age-incidence was as follows: Age 1-5, 1 case; 5-15, 1 case; 15-25, 10 cases; 25-35, 6 cases; 35-45, 2 cases; over 45, 2 cases.

Consumptive Camps.—This year Miss Rochefort, Matron of Te Waikato Sanatorium, visited the Rotorua district to give a course of instruction to the Maoris on the treatment of consumption, and the feeding of infants, &c. The treatment at the sanatorium was carefully explained, and in each village a large squad of men, women, and children was mustered and instructed in the breathing-exercises. The lectures were attentively listened to, and the exercises enthusiastically done. I am confident the people derived much benefit from the instruction. But the Maori with a cold or trouble in his chest, like his pakeha brother, has a great prejudice against fresh air. The instruction given in lectures must be followed by actual demonstration. With this end in view the Chief Health Officer has authorised the Native Sanitary Inspectors to visit Te Waikato Sanatorium that they may see with their own eyes, and be the better enabled to educate their people. In addition, if Maori patients could be treated at consumptive camps such as that being established at Whakarewarewa, they could be instructed in their own cases, and complete their treatment at home if necessary. They would in turn disseminate knowledge in the various kaingas, and the result would be for good.

Breathing-exercises.—It is unnecessary for me to dilate upon the good done by breathing-exercises not only upon phthisis, but all troubles of the respiratory system. Especially then would these exercises be useful to the Maori with the weak chest he has developed of late years. Not only do they assist in cure, but they prove of invaluable aid in prevention. They should then be introduced into all the Native schools. Most schools teach physical drill, which, in the majority of cases, becomes a simple mechanical exercise without much contraction of muscle, the mind not being concentrated upon the work. To these exercises the addition of deep inspiration and deep expira-