Cancer Mortality in New Zealand

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The New Zealand Official Year-book, 1926, contains a very valuable article on "Cancer in New Zealand," an elaboration of a previous article which appeared in 1917, and which reflects great credit on the Census and Statistics Office. The year 1872 marks the beginning of our statistical knowledge of the mortality of cancer in New Zealand, but in a form by no means complete. However, in the year 1899 statistics begin to reveal the location of fatal cancer in the human system, and the year 1914 marks the beginning of a statistical survey of cancer cases treated in public hospitals. The number of cases of this disease in New Zealand is too small to provide a sufficient basis for definite conclusions as to the causation and incidence of cancer, but conclusions based on New Zealand figures serve to confirm results obtained from the study of the disease in more populous countries. In 1924 in New Zealand 1245 people died of cancer, and if the total deaths for the previous fifty-two years are added, the fact is revealed that 26,532 people lost their lives through cancer, a number greater than the combined populations of the Boroughs of Napier and Hastings. There is consolation in the fact that cancer, unlike epidemic influenza or consumption, in the main cuts off people in advanced age, when their life's work is likely to end in the ordinary course of nature. Cancer as a cause of death is mainly confined to the period of life after the forty-fifth year, and the proportion of population above that age in New Zealand is steadily increasing. Alteration of sex-proportion is also an important factor. On a basis of standardisation more detailed that the method employed in arriving at the international index of mortality the Government Statistician shows a very rapid upward movement in the age-distribution at death, which means, of course, that death from cancer is on the average now occurring later in life than formerly. At the same time there has been an increase for the age-group under 20, and the New Zealand figures support the conclusion drawn in America that juvenile cancer is increasing. The average age at death from cancer is considerably higher for men than women. The death-rate of females from cancer has increased at a much lower rate than that of males ; the average rate among females was 34 per cent. higher than among males in the period 1875-84, but 4 per cent. lower in the period 1915-24. Cancer of the uterus is much more frequent in married women than in single women, and the death-rate of cancer in women falls with a decline in the birth-rate, as is shown by the statistics for New Zealand. For the period 1875-79, 39 per cent. of the total defined deaths from cancer in women were cases of cancer of the uterus, and in this quinquennium the birth-rate was high, whereas in the period 1908-24, when the birth-rate was falling, cancer of the uterus accounted for only 16 per cent. of the defined deaths from cancer. Careful midwifery and the efficient surgical treatment of severe lacerations of the cervix have an important bearing on this aspect of the cancer problem. Although married women suffer more frequently than single women from cancer of the uterus, the New Zealand statistics confirm the view, based upon English statistics, that single women are more liable to concern of the breast and ovaries.

Sex-proportions for most non-malignant diseases of individual organs vary in the same direction as in the case of cancer. In New Zealand for every sixty-five women who die of cancer there are a hundred deaths among men. Occupation, habits, manner of living and many other factors enter into a consideration of the possible reasons for the different rate in the sexes.

In the buccal-cavity class it is not unexpected that there should be a higher mortality in men than in women. It is also not surprising that men predominate in cases of cancer of the bladder and women in cancer of the thyroid gland. Cancer of the stomach is responsible for three-fifths of the total cancer deaths, and, like cancer of the oesophages, throat and rectum, is much more common in men than in women. Men drink more alcohol than women, and up to the present time smoke more tobacco, but they drink less very hot tea. If constipation be a prime factor in the causation of rectal cancer it is surprising that women do not suffer so much as men from this form of cancer.

The statistical study of cancer in New Zealand has extended to geographical distribution of the disease, but without obtaining any very definite conclusions. Questions of rainfall, temperature,

topography, altitude and so on, are very complex and not so important as the factor of age-constitution, and no investigation on a large scale has been attempted in New Zealand. Statistics of cancer in the Maori race are not reliable, but sufficient to show that, compared with tuberculosis and typhoid, cancer is not a common cause of death in the Maoris.

The valuable report to which we have referred throughout shows that the diagnosis of cancer has become much more accurate in later years, and also statistics are fuller and better collated than in former times. Yet, while all allowances are made for error, there is no doubt that there is a definite and substantial increase of cancer in New Zealand. The Statistician very shrewdly remarks : "Paradoxical though it may seem, even this real increase is in large part a reflection of the progress that has been made in the science of medicine and sanitation," and our statistical co-worker, leaving aside for the nonce his figures, tables and percentages, falls into a genial philosophic vein that shows the inner man, and in somewhat Aeschylean phrase concludes :—"But by an unalterable law of nature a man must die in due course, and if he survives the years of childhood and reaches middle life without having fallen a victim to accident, epidemic disease, tuberculosis, or some other cause, he finds his selection of diseases in his older age considerable limited, being largely confined to heart-disease in some form or other, arterial degeneration, cancer and old age. If we could eliminate or reduce cancer, this would have no effect on the death-rate after the first few years, and little immediate effect even, as the average death from cancer occurs after age sixty."