In Wellington City it was decided to offer prophylactic treatment by the injection of an adult serum to susceptible contacts in the most congested residential area of the city. Dr. Mary Champtaloup, in a report on this work, states :—

" Forty-two young child contacts of measles (ten months to five years and a half) were given prophylactic injections of adult human serum for the purpose of producing an attenuated attack of measles. The subsequent sickness of these children was compared with that of the forty-six unimmunized controls from the same families, observations extending over a period of three months. The results are favourable, in that 69·1 per cent. of the immunized were either protected or had very slight attacks, while only 21·7 per cent. of the controls (of a less susceptible age) had equally mild attacks. Three children, or 7·2 per cent. of the immunized, showed marked symptoms, but there were no severe cases, whilst among the controls 43·3 per cent. fell in the marked and severe groups. Recovery was more prompt in the immunized, and there were no serious complications, while 10·7 per cent. of the controls (five children) were seriously ill with pneumonia, with one death. The milder incidence of disease and absence of serious illness in the immunized group, as compared with the controls of less susceptible age, demonstrates the beneficial results from the injection of adult human serum for purposes of prophylaxis. It may reasonably be assumed that this work has prevented some serious illness and may have even saved life. The supplies of serum used in this work were obtained from the donors of the Blood Transfusion Service. Considerable assistance in the follow-up of cases was given by the nurses of St. John District Nursing Guild."

Dr. Davis, Medical Officer of Health, Gisborne, reports :—

" Many of the schools were closed for varying periods, and it may be of interest to record the effect of this closure in a few cases. In two schools in the Urewera Country, very similar in size and general condition, when the epidemic had just commenced and the first few cases only had occurred in each school, one was closed and the other allowed to remain open. In the schools where the closure was not adopted the disease spread rapidly, and after about three weeks closure was necessary for a week of two, as barely a third of the children were present. After the school reopened about five weeks from the commencement of the epidemic attendances were good and very few fresh cases occurred. In the school were the closure was adopted the disease slowly simmered away, and after three months only half of the children had been affected. Again, in the case of another school where the disease commenced just prior to the Christmas holidays and the school was closed a week early, the epidemic appeared to be completely aborted, but commenced again as soon as the school was reopened. From these observations in other places I am of opinion that school closure does tend to slow up a measles epidemic, but that it does not prevent it.

" An excellent example of the infectious nature of measles was shown in one school where the only source of infection was one child present at school for one day, a stranger who sat by himself in the front of the class. That night he developed a rash and was kept at home. Nevertheless, out of this very small contact eight cases developed within ten days, all members of the same class.

" The actual number of cases is difficult to estimate, but it is safe to say that 50 per cent. of the children were attacked. Complications were numerous and severe. There were well over one hundred cases of pneumonia with at least twenty-four deaths from this cause, four cases of encephalitis with one death. In some districts as many as 50 per cent. suffered from severe conjunctivitis. Otitis media was a common complication, and one case each of pleurisy, jaundice, strabismus, and nephritis was recorded. The nephritis case died, making the total number of European and Maori deaths in the district from complications of measles twenty-six."

Tuberculosis.—The death-rate from tuberculosis (all forms) was 3·93 per 10,000, representing a slight rise on the rate of 3·91 in 1937.

In 1872 there was a mortality rate of 12·66, so there has been a considerable reduction in this rate since that year. This is due largely to the active campaign waged against this enemy along lines outlined in the 1937 report. However, the ravages of tuberculosis, particularly among young adults, is still a matter of grave concern. Steps are being taken to organize more systematic and comprehensive methods in follow-up and prevention work.

The question whether there is or is not an abnormal prevalence of tuberculosis among nurses in general hospitals or in sanatoria received a good deal of publicity during the year. Dr. J. W. Craven, Medical Superintendent of the Auckland Hospital, investigated this question very closely, and as the result reported that in a five-year period 1934–38 only six nurses in training developed tuberculosis. The average daily number of nurses in training in this hospital was about 350. Careful selection and medical examination of nurses was one of the reasons given for the low incidence of the disease. The satisfactory position was also attributed to the diet of the nurses and the strict attention to their health, adequate sick-leave and constant instruction as to how to avoid contracting the disease, either from acknowledged or suspected cases. Dr. Craven considered that the result of the survey would indicate that employment in a properly controlled hospital is fraught with no greater risk than any other walk of life. However, the whole question of tuberculosis among nurses is to be considered by means of a special inquiry during the ensuing year.

The Committee of the Medical Research Council has undertaken a statistical survey of the incidence of tuberculosis in New Zealand.