

Expectation of Life.—The New Zealand figures for expectation of life recently received prominence from the use that has been made of them by Lewis I. Dublin and Dr. Alfred J. Lotka, in an article appearing in the *Statistical Bulletin of the Metropolitan Life Insurance Company*. The following is an extract from this article :—

“It is the good fortune and the just pride of New Zealand to hold, of all nations, the record for average longevity. The male infant born in that Island State can expect on an average to live to the age of sixty-five years, and the female to within six weeks of sixty-eight years. This is a very remarkable achievement, and makes one wonder how close New Zealand has already come to the top score which is ultimately attainable in the present state of our medical and sanitary knowledge.”

INFECTIOUS AND OTHER DISEASES.

The total notifications of infectious and other notifiable diseases received by the Department in 1934 was 3,022, or 597 fewer than in 1933. This is the lowest figure since accurate records of notifications have been compiled for the Dominion.

Scarlet Fever.—A total of 762 cases and 8 deaths were reported as against 783 cases and 4 deaths in 1933.

Diphtheria.—Perhaps the outstanding feature of the 1934 returns is the marked drop in the incidence of diphtheria. In all, 436 cases and 26 deaths were recorded, as compared with 963 cases and 27 deaths for the preceding year. Dr. Turbott, Medical Officer of Health, Gisborne, reports that his experience of immunization as carried out in his district in 1932 is wholly favourable. In 1932 the incidence rate for diphtheria in the East Cape Health District was 4.44 per 10,000 population, while in 1933 it had fallen to 3 per 10,000. Dr. Cook, Medical Officer of Health, Whangarei, carried out a successful campaign of immunization, which he describes as follows :—

“Including the inoculations at Awanui, &c., in February and March, 1934, some 900 children, school and pre-school, have received the benefit of this treatment. No active propaganda was instituted to obtain this very satisfactory result; in all cases the facts were explained to the School Committees and parents, and they were left to make their own decision. The people of the Mangonui County have been isolated for so long a period and have had so many tragedies that they were willing to accept any form of prevention, provided they had faith in the medical and nursing personnel. This faith was well tested, and resisted to a remarkable degree the active efforts of the anti-vivisection society who distributed pamphlets in Kaitaia just at the commencement of work in the school. Despite this circumstance, the original programme was carried out almost in its entirety. The courage of the children in this school particularly was splendid, due in great measure to the sensible attitude adopted by both parents and teachers. In other schools conditions were not quite so easy; evidently many parents had been very worried with the subject-matter of the various pamphlets issued, and their courage had faltered for a moment or two. By intuition, and by listening to conversation on the question, many children had had these fears transmitted to themselves; the result was that some children attempted to evade inoculation while others were frightened and showed this in no uncertain manner.

“Anatoxin was used throughout and proved very satisfactory provided that all precautions were taken. Skin tests were used in every case. This test is read after twenty-four hours and it is usual to consider a test positive when the area of reaction is $\frac{1}{2}$ in. or more in diameter. My experience is that sensitive children need not necessarily have a reaction of $\frac{1}{2}$ in. in diameter; I think that the colour of the reaction is as important as size. In my opinion sensitivity is also demonstrated by a bright red reaction of $\frac{1}{4}$ in. diameter or more. This opinion is based on many observations. For example, every severe local reaction is characterized by this bright red colour, very alarming in its appearance, when of any extent.

“I think, therefore, that the use of anatoxin can be rendered safer, particularly in rural areas, when the following additional safeguards are observed :—

- “ (1) All children 6–8 or more to be considered potentially sensitive.
- “ (2) Bright-red reaction of $\frac{1}{4}$ in diameter or more to be considered positive.
- “ (3) Not only the size of the test, but the colour to be considered.
- “ (4) All children 6–8 or more to be questioned before the final inoculation, and the site of previous injection examined.

“Children who give a history of severe local reaction will still show peeling of the skin and pigmentation over a large area at site of the previous inoculation, and should either not receive a final inoculation, or the full dose should not be administered. By attention to all these little details no trouble was experienced—a most necessary precaution in a rural community, particularly when faith has been shaken by anti-propaganda.”

The following comments from a study of mortality trends in the United States are quoted as illustrating the value of immunization :—

“Even though widespread use of immunization started less than ten years ago, we now begin to foresee the virtue of elimination of this disease. In 1927–33 the death-rate in the registration States of 1920 declined from 7.8 to 3.1 per 100,000—a drop of 60 per cent. While diphtheria is a small part of the death-rate, this has meant a saving of the lives of about 5,000 children annually.”—The *Milbank Memorial Fund Quarterly*, April, 1935.