

APPENDICES.

APPENDIX A.

INFLUENZA PANDEMIC.—REPORT ON THE EPIDEMIC IN NEW ZEALAND.

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THE term "influenza" is a comprehensive one and has in the past been loosely applied to any catarrhal condition accompanied by certain general symptoms, such as raised temperature and pains in the limbs, if because of its infective nature it assumed local or general epidemic features. In New Zealand, as in all other countries, each year influenza has been reported generally in the winter months, and a few deaths are attributed to this cause—generally from secondary complications such as pneumonia. From time to time a catarrhal epidemic of more than average severity of symptoms and wideness of incidence arises constituting a pandemic of world-wide significance. Such pandemics so impress themselves on the public mind that they are labelled by some special name, as, for example, "La Grippe" in 1890. In Britain, following on the pandemic of 1890–91, influenza has been manifested each year, with special epidemics in 1895 and in 1900. The pandemic of 1890–91 affected New Zealand markedly, but the British epidemics of 1895 and 1900 were scarcely noticeable here. Prior to November, 1918, influenza was not a notifiable disease, therefore the records for previous years are very unreliable. We learn, however, from the Registrar-General's returns that a certain number of deaths, varying from forty or fifty to over two hundred each year, are attributed to influenza. Thus during the five years prior to 1918 the following deaths from influenza are recorded:—

1913	...	...	...	...	...	...	...	...	56
1914	...	...	...	...	...	...	...	...	63
1915	...	...	...	...	...	...	...	...	110
1916	...	...	...	...	...	...	...	...	73
1917	...	...	...	...	...	...	...	...	38

It is probable also that had other deaths, due to such complications as pneumonia following on influenza, been recorded as from the primary cause these figures would have been increased.

We find in the above years the following deaths from pneumonia, broncho-pneumonia, and bronchitis: 1913, 771; 1914, 722; 1915, 716; 1916, 687; 1917, 608.

The records of the military camps for the years 1915 to 1918 also indicate that a considerable amount of influenza prevails annually in the Dominion. The following figures are available from the camp records: 1915—Influenza prevalent till middle of July, up to which time 1,814 cases were notified. 1916—Epidemic of influenza was severe, especially in July and August. Total cases in the camp during the year were 5,527; among these, nine deaths occurred due to complications. 1917—Influenza was very much less this year, due probably to the use of the inhalation treatment and segregation of recruits. In all 1,156 cases were dealt with, among whom several cases of pneumonia occurred, none of which were fatal.

INFLUENZA IN 1918.

In common with the rest of the civilized world New Zealand suffered very severely from the pandemic of influenza in 1918, and as in other countries it showed itself in two distinct waves, the first of which reached its maximum about August or September, and the second developing about the first two weeks of November. The mortality due to the first wave, though abnormal for New Zealand, was not alarming; but the virulence of the second wave was far in excess of anything which has hitherto been experienced with influenza. A fact of the greatest interest to the epidemiologist is that the same division into first and second waves with undue morbidity of the second wave was experienced all over the world, and that the greatest intensity of the second wave was almost synchronous in countries so widely separated as Britain and New Zealand. The following is a brief summary of the position:—

In Britain.

As has been pointed out by Sir Arthur Newsholme, when President of the Local Government Board, the influenza epidemic in Britain in 1918 showed features never before experienced with the disease. That is to say, there was a primary wave with a peak in July—the first time on record that influenza was most prevalent in this month—and a secondary wave with its peak within sixteen weeks of the first. Never before has there been so brief a period recorded between waves.

The first wave seems to have begun in May, but during that month and June there was no serious mortality. Thus in the *British Medical Journal* of the 13th July we find the comment that "few cases have proved fatal." In July, however, it became more virulent, and the mortality towards the end of July was high, though not abnormally so. During August and September the epidemic declined, but about the middle of October a sudden increase of mortality was found, which marked the beginning of the second wave. This wave was marked by excessive mortality, chiefly from pneumonic complications, and had its peak during the week ending 9th November. The epidemic rapidly declined thereafter and was over in a few weeks. It was then of a very explosive character and of unexampled severity, causing in Britain a very high proportion of deaths. In February and March of 1919 there was another severe recrudescence in the form of a third wave. These facts briefly state the general position in Britain, but there were some localized outbreaks prior to the general October wave, which showed a high mortality. These outbreaks appear to