

The District Health Officer reports that the disease spread by rail and steamer from Auckland, the earliest known cases at Wellington being those on board the cable-steamer.

In Taranaki the severe type appeared about the 26th October among persons arriving by train from Auckland. (This date coincides with that for the introduction into Featherston Camp.)

In Palmerston North district the agricultural show at the beginning of November appears to have been a factor in spreading the epidemic, which came thence to Waipawa district.

In Hawke's Bay Province the secondary wave can be traced to the arrival at Gisborne of the s.s. "Mako" from Auckland on the 27th October, Napier being reached later.

In Canterbury there appears to have been some increase in the early part of October though not at first of a fatal type. Thus we learn of a sharp outbreak at Christ College, beginning on the 8th October and reaching its crest on the 15th October, when 127 boys had been attacked. Virulent pneumonic influenza had been met as far back as August, and pneumonia seems to have been fairly prevalent in September and October, as there were in these months sixteen and thirty-five cases respectively admitted to Christchurch Hospital, as compared to twelve and seven in 1917; but the definite secondary wave outburst does not appear to have established itself in Christchurch till about the 6th November, when seven cases were admitted to hospital. The greatest number of admissions was on the 20th November, which may be taken as the crest of the wave in this city. The principal factor in the spread of the epidemic in this district was the race-carnival week, beginning on the 4th November, which brought many people from Auckland and Wellington and produced temporary overcrowding in hotels, trams, and trains. The crowd assembling in the streets on the 8th November, on the occasion of the first Armistice reports, aggravated matters here as elsewhere.

In Otago and Southland the District Health Officer found that the second wave was introduced about the 6th November by people returning from the Christchurch race carnival. In Southland the winter race meeting seems to have been a factor in spreading the infection. Here deaths began to be recorded about the 9th November. In Dunedin the largest number of deaths were on the 24th November; in Invercargill on the 26th November, and this latter date may be taken to represent the crest of the epidemic throughout the provinces. It may be said to have disappeared by the 25th December.

It is thus obvious that the second outbreak took the form of a distinct wave which travelled from Auckland southwards by means of railway and shipping, beginning to spread as a wave about the 26th October, and reaching the southern districts about the 9th November, thus taking about a fortnight to travel through the Dominion. It is interesting to note that the wave seems to have lessened in virulence as it advanced.

The Government Statistician's returns show that the death-rate per 1,000 of the population in the cities during 1917 and 1918 was as follows:—

	1917.	1918.
Auckland	12·36	21·40
Wellington	10·05	16·59
Christchurch	12·13	17·15
Dunedin	12·23	16·40

Dunedin city, which generally has the highest death-rate, this year, in which the figures are all abnormal by reason of the epidemic, shows the lowest rate, while that of Auckland is strikingly high.

The following table shows the death-rate during the epidemic in each provincial district:—

Table XV.—Deaths from Influenza during Epidemic, showing Deaths in each Provincial District.

Provincial District.	Number of Deaths.	Deaths per 10,000 of the Population (1916 Census).
Auckland .. .. .	1,680	54·45
Hawke's Bay .. .. .	296	54·55
Taranaki .. .. .	282	50·56
Wellington .. .. .	1,406	62·83
Nelson .. .. .	62	12·91
Marlborough .. .. .	39	23·94
Westland .. .. .	83	58·90
Canterbury .. .. .	743	41·55
Otago { Otago .. .. .	436	33·08
{ Southland .. .. .	444	74·81
Total .. .. .	5,471	50·16

GENERAL MEASURES ADOPTED TO COMBAT THE EPIDEMIC.

As is to be expected in the case of an epidemic so explosive in its onset and so general in its incidence as was the influenza of November, 1918, the organized efforts of the whole community were required to provide aid for the sufferers and to stay the course of the disease. Citizens' committees were set up in the various districts, whose functions were to provide food and attention for stricken households, to summon medical assistance where necessary, and to arrange for the transport of serious cases to the hospital. In addition, in some districts these committees undertook the equip-