

COURSE OF SPREAD OF INFLUENZA IN NEW ZEALAND.
Primary Wave.

In regard to the primary wave of influenza there is little evidence as to where it first appeared. It was evident in the camps in July, as we have already seen. In Table VII we see a slight increase in deaths from influenza in July in the Auckland and Canterbury Provinces. From the reports of the Native Medical Officers in the Auckland and Wellington Provinces, in which by far the larger part of the Native population is to be found, we learn that severe influenza cases began to be observed also in July.

Then, in the Auckland Province we find the following cases reported :—

Month.	All Catarrhal Diseases.	Influenza.
July	11	4
August	20	3
September	44	15

and in the Wellington Hawke's Bay Provinces :—

July	20	15
August	49	41
September	70	63

It seems to have been specially severe among the Natives of the northern Hawke's Bay districts during these three months, and must also have affected the white population, since in Table V we find twenty-nine deaths from catarrhal diseases in this district alone. Another localized outbreak of marked severity occurring in July was reported from Waione, near Dannevirke, where in a small settlement thirty-one persons were attacked with influenza, of whom eleven had pneumonic complications. Six of the cases occurred in one household, four of whom had pulmonary complications. During August the epidemic seems to have become more general and to have reached an apex in September, as in Table II we find that the figures in the camps for these months were—July, 145; August, 571; September, 1,216. A temporary lull early in October followed, as the camp figures for that month were 1,116, of which most occurred in the latter half of the month when the secondary wave was developing force. An examination of the statistical records of the principal complications of influenza—acute pulmonary bronchitis and cerebro-spinal fever—show a like rise during July, August, and September. Thus in Table V we find 504 deaths from catarrhal diseases during these months, and a higher death-rate in August than in October. Contrasting the months of August and September of the previous year we find 228 deaths, while for 1918 there were 354 deaths.

As regards cerebro-spinal fever, the notifications in the camps showed but one case in the first seven months of the year, four in July, twelve in August, and two in September. Among the civilian population there were seven notifications in the whole of the first half-year, one in July, fourteen in August, and fourteen in September. Of these twenty-nine cases in the latter three months, twenty occurred in Wellington and Hawke's Bay Districts.

So far as one can judge from the imperfect data relating to the primary influenza wave, while it appears to have been universally present in all districts, its appearance was most severely felt in the Wellington and Hawke's Bay Provinces during July and August; but there is no evidence that it spread from there. Doubtless the presence of the military camps increased the incidence. It was characterized by localized explosions of violence such as those already mentioned near Dannevirke, and at Waipiro Bay in July and August. During August also a Cadet camp at Palmerston North suffered somewhat severely. In August Canterbury perhaps suffered most heavily, since there we find forty-nine deaths from catarrhal diseases out of 206 for the Dominion, this being the highest for any province. In September, however, the Auckland and Otago Districts show the heaviest incidence of cases. Thus in Table V we find in that month fifty deaths from catarrhal diseases at Auckland out of a total of 148 for the Dominion, Otago being next with thirty-two deaths. Five of the fifty deaths at Auckland are attributed to influenza, but probably many more would have been so attributed had the medical profession then had the knowledge which was gained from the outbreak of November. In Auckland ninety deaths from catarrhal diseases occurred in August and September, as compared to forty-two in 1917 for these two months.

Comparing the provincial returns we find for the months of August and September,—

	1917.	1918.
Auckland	42	90
Wellington	55	52
Canterbury	58	66
Otago and Southland	36	82

Otago and Southland thus also are seen to have shown an unusual proportion of deaths from acute catarrhal troubles; but it is more noticeable in the case of Auckland, since in the winter months Dunedin has generally a higher percentage of deaths from these causes. Taking the returns for the Auckland metropolitan area the Registrar-General has supplied the following figures :—

Table XIV.—Death-rate per 10,000 from Pneumonia.

Average for Six Years, 1912-17.	1917.		1918.		
	August.	September.	First Seven Months.	August.	September.
3.28	1.79	2.69	2.11	9.50	12.66