that province than any other. This was due chiefly to an outbreak among men from the Taranaki District which hitherto had not yielded any cases. The type of infection was very virulent, for of the five men affected all died. The first of this series was a man in the Mounted Rifles at Featherston, who had no official association with the 21st Reinforcement at Trentham, to which all the rest belonged. He had, in fact, died a fortnight before the others had mobilized; yet it seems more than a coincidence that this man's illness should be followed by an outbreak among men from the same district hitherto free from infection. It should be added also that this group was the first to show infection in the 21st Reinforcement. All belonged to B Company, and three lived in one hut, though the fourth *did not*. No further cases came from the Taranaki District, so that the outbreak was much circumscribed, yet it must have been of a virulent type, as all the men affected died. It certainly suggests that a carrier was at this time associating specially with men from Taranaki. Possibly there was also a spread of infection by contact in the hut, but the dates on which the symptoms began make this uncertain.

Canterbury.—During the first twelve days in August men from this district suffered most heavily, 6 being then infected. Three belonged to C Company, 18th Reinforcement, and have already been mentioned; another came from J Company of that Reinforcement, and 2 were non-commissioned officers in the 20th and 21st Reinforcements, which had not then been mobilized. The inclusion of these 2 non-commissioned officers, who would not be in contact with the others officially, certainly suggests contact outside camp among a group of men associating, because they came from the Canterbury District. After this group of cases in August no more came from Canterbury District for a month, and the succeeding cases appear rather to form part of other groups not connected with the main outbreak.

Otago.—The Otago men escaped lightly during the heavy outbreak of July and August, but in September we find that of 5 cases of cerebro-spinal meningitis at Trentham 4 were from Otago. All arose within six days of each other, and all had a mild type of infection, since none of the cases were fatal. Three came from the 17th Reinforcement, which had been free from infection for over a month. They were from separate companies, and one was in the Engineers, and thus had no official association with the other. Probably associated with this group was a man in the 17th Reinforcement Specialists, who was at Papawai Camp and got ill at the same time. He came from the same military district as the others, but unless he met them while on leave had no apparent opportunity for contact. This Otago group, then, was drawn from four separate units, and is an outstanding example of a definite outbreak among men whose only association was that all came from one district.

Several other instances could be given in which men from one neighbourhood—Wanganui and Nelson among others—sickened about the same time, although not associated in huts or companies.

It appears, then, that at different seasons the epidemic prevailed among men coming from one particular district—in July, from Auckland City; in August, from near Te Aroha; in September, from Otago; in October, from Taranaki; and so on. It is of importance to note that these groups were not confined to men from one hut or one company, but involved several wholly separate units between which there was no contact in camp or while on duty. The conclusion therefore seems to be that the infection was spread as a result of association while on leave or in the various places of recreation attached to the camps, the only opportunity for contact between men from various Reinforcements. At such times it is natural that men coming from the same neighbourhood would tend to group together; thus the spread of infection would tend to show the geographical distribution which has been demonstrated.

Conclusion.

The reports of the Public Health Department show that during July, August, and September, when the epidemic was at its height in the camps, there was very little infection among the civil population. The total number of cases of cerebro-spinal meningitis notified in the Dominion during 1916 was 134. This includes all the cases connected with camps, so that the civilian cases for the whole Dominion total only 75, and in many of these the diagnosis was very doubtful. So small a prevalence is not likely to have greatly influenced the distribution in camp, and certainly would not account for the prevalence among men from one particular district.

The cases in camp have to some extent affected the civil population in a fair number of instances, as shown in the report of the Deputy Chief Health Officer dealing with the period October, 1916, to January, 1917, when out of 33 cases a history of contact with troops from the camps was found in 14; but we do not find in the civil population of a district any evidence of an epidemic antecedent to the outbreak in camp among men from that district.

Again, if the infection were spread among men from one district while mobilizing and journeying to the camp, the histories would show a preponderance of attacks within the first week of camp life. This is not the case, as generally from three to six weeks elapsed before the disease showed itself. Carriers of the meningococcal doubtless may arrive in camp from outside, but these are known to exist in civil life without producing harmful results.

The question arises then, what is there in camp life to stir up the organism so carried to virulent activity or to lower the resistance of the individuals exposed to its influence? The general sanitary surroundings of the men in camp are without doubt much better than their surroundings in civil life. The seasonal effect of wet and cold on the epidemic has been shown, as also the influence exerted by the epidemics of measles and influenza. But these influences are also present in civil life without inducing an epidemic of meningococcal infection. Fatigue is frequently mentioned as a predisposing cause, but this would affect men who have followed sedentary occupations in towns more than men from the country, whereas the opposite is the case. What is lacking in civilian life, however, is the essential crowding-together of men while these influences