It is scarcely justifiable to draw the conclusion that the freedom of the men in the later weeks of camp life was a result of either a rapidly acquired immunity to the meningococcus or because the susceptible persons had been eliminated by infection. Either argument would depend on a very widespread dissemination of the meningococcus. More probably the immunity acquired is to the preliminary catarrhs, which would disappear as the men settled down to their new environment.

Influence by Travelling.

The Public Health Committee's report mentions the possibility that travelling in trains and trams affords an opportunity for the dissemination of infection, the crowding-together of men being perhaps greater then than at any other time in their camp life.

It is difficult to trace the significance of the influence of travelling, since between movements of troops and journeys while on leave the men are very constantly travelling, and evidence that the outbreaks had any definite relationship to railway journeys is certainly not strong. There is, however, one instance in which contact during travelling is probable. Two men of the 21st Reinforcement went South on leave from Trentham on the 21st December. One became ill on the 24th December, and was admitted to Dunedin Hospital with meningococcal pneumonia on the 31st December. The other entered Invercargill Hospital with cerebro-spinal meningitis on the 1st January. There is a suggestion here that the first was a carrier of the meningococcus from the camp and infected the other on the journey to Dunedin. Doubtless other cases exist, but without evidence by cross-examination of the patients themselves—and they are generally too ill to question closely—it is not possible to confirm or deny the spread of infection while travelling.

Influence of Contact in Hospital.

It is obvious that the introduction of a meningococcus-carrier into a ward filled with men made receptive by a preliminary infection with catarrh-producing diseases such as measles and influenza makes the dissemination of menigococcal complications a probable consequence. In the majority of cases, however, the period of illness in the wards before meningococcal infection set in was too brief to enable one to say with any confidence that the disease was contracted in the hospital, although it may be admitted to be not unlikely in one or two cases, as, for instance, that of the orderly who developed meningitis while attending on cases of the pneumonic type of infection.

In some cases there is a previous history of influenza, but there is a possibility that the so-called influenza was really an early stage in the meningococcal attack. It has been shown in the report of the Special Committee for investigating Meningococcal Infection in England that a person can carry the organism for weeks before he develops the disease. A patient therefore may carry the meningococcus in a dormant state with him into the ward, and the subsequent condition of his health—the occurrence of measles or influenza—may awaken the organism to active virulence and so to an invasion of the body. He may in this way also be a source of infection to others who are lying near him in the ward. The more crowded the wards the severer would become the type of the preliminary catarrhal invasion and the less the resistance to the meningococcus, whether brought in by the patient himself or conveyed to him in the ward.

It is therefore very necessary that all cases suffering from catarrhal affections should have their throats swabbed periodically, and so also should orderlies, nurses, and medical men in attendance. It is essential that there should be ample room between the beds in the wards to avoid as far as possible contact between patients in the adjacent beds.

Influence of Occupation.

That meningococcal infections are more prevalent among men from the country has been mentioned by several observers, and the Public Health Report shows that it was so also in our camps in New Zealand.

Of the cerebro-spinal infections the occupations of the patient is known in 42 cases, and the proportion and mortality was as follows:—

	Cases.	Deaths.	Case Death-rate.
Indoor occupations	13	4	30 per cent.
Outdoor occupations	29	21	72 per cent.
	42	25	60 per cent. average.

Of the pulmonary infections, the occupations were known in 9 cases, 8 of which were farmers or farm labourers and 1 a bank clerk.

A further analysis in regard to the place of residence of the menigeal infection gives the following result:—

Employed in large towns: 12 cases (21 per cent. of the total), 5 deaths (41 per cent. case death-rate).

Employed in small towns: 7 cases (12 per cent. of the total), 2 deaths (28 per cent. case death-rate).

Employed in the country: 37 cases (66 per cent. of the total), 28 deaths (75 per cent. case death-rate).

The disease was not only twice as common among country dwellers than among town dwellers, but it was also twice as fatal (75 per cent. as against 37 per cent.).

We cannot explain how the town dweller acquires this comparative immunity until we know more about the life of the meingococcus under non-epidemic conditions. It suggests the possi-