disease at Invercargill on the 1st January. One death from cerebro-spinal meningitis which occurred in Timaru is not included in the returns, as the patient, who was shown in the tables for the previous year, died after a very prolonged illness beginning in October, 1916. Of the 13 cases in 1917, 4 occurred in civil hospitals outside the camps, in men absent on leave. The first case occurred in April, but, as in previous years, the bulk of the cases—9 out of 13—occurred in the four months July to October.

Mortality.—Of the 13 cases 8 died, giving a case mortality of 61 per cent., which is exactly the same as last year. The deaths occurred as follows:—

	Trentham.	Featherston.
Cases	3	10
Deaths	1	7

One death occurred in a civil hospital—Dunedin.

Age-incidence.—The following table shows the distribution by age:—

	Under 20.	20 to 24.	20, 21, 22, 23, 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
Cases		2, 0, 1, 1, 1,	5	2	1	3	2
Deaths		1, 0, 1, 1, 1,	4	..	1	1	2

As regards variation in mortality according to age-grouping we find the following:—

Under 25: 5 cases, 4 deaths. Case mortality, 80 per cent.

Ages 25 to 34: 3 cases, 1 death. Case mortality, 33·3 per cent.

Ages 35 to 45: 5 cases, 3 deaths. Case mortality, 60 per cent.

There were an unusual proportion of cases among the older men. The figures are too small to give reliable percentages of mortality, but the extremes of age appear to have suffered most, as has been found in epidemics elsewhere.

Association with Other Diseases.—Measles in the past year has had no influence on the appearance of meningococcal infection, and the absence of malignant pneumonia also may be noted in connection with this fact. The slight epidemic of influenza in September and October probably had an influence, as 7 of the cases of cerebro-spinal meningitis occurred during those months. The experience tends to confirm the conclusion arrived at last year as to the influence of catarrhal epidemics.

Distribution by Unit.—Among 31st Reinforcements 3 cases occurred in September and October. All belonged to separate companies, and came from different localities. In the 33rd Reinforcements 2 cases occurred in October, and 1 in December. They belonged to different companies, and no connection between the two could be traced. No other Reinforcements had more than one case. Three cases occurred among the Mounted Rifles at Featherston on the 27th September and 5th and 6th October. They belonged to separate Reinforcements and came from separate districts, but there may have been contact in these cases.

Influence of Occupation.—As in the previous year, those men who had followed outdoor occupations suffered most, 8 of the 13 being farmers or farm labourers; 9 out of the 13 were employed in the country.

Influence of Locality from which the Patient was recruited.—It was shown in last year's report that at various periods the epidemic was prevalent among men from one district, although they might belong to separate units. To a much less extent the same feature was noticeable in the earlier part of this year, when of the first 6 cases 5 came from the Otago-Southland District. Thereafter it became more generally distributed. During the year 5 came from Auckland Province, 6 from Otago-Southland, 1 from Canterbury, and 1 from Nelson. None came from Wellington or Hawke's Bay Districts. Regarding the prevalence among men from Otago and Southland, some evidence was obtained as to the influence of travelling, since in 3 cases the disease developed a few days after the men had arrived at their homes while on leave. The close association together of a number of men in railway-carriages must give more than at any other time an opportunity for the carrier to distribute infection, while those constitutionally susceptible might readily be made more receptive by the development of catarrhal conditions which are so apt to be contracted in railway journeys, and more especially, doubtless, among men accustomed in camp to an open-air life and freedom from ill-ventilated conditions.

Influence of Carriers.—In the report for 1917 of the Local Government Board evidence is adduced that the organisms of meningococcal type found in the throats of non-contact carriers, who do not subsequently develop the disease, differ in no recognizable way from the organisms from the throats of patients suffering from meningococcal infection. The conclusion seems to follow that the organism has a saprophytic as well as a parasitic existence, and that certain external circumstances—climatic, overcrowding, and so forth—may work up the virulence of the saprophyte till it becomes infective to certain susceptible individuals. They further show that as high as 10 per cent. of an ordinary population may be carriers of the saprophyte. It is