

Comparing this with the return of last year it will be seen that there is a marked diminution in scarlet fever—from a total of 370 in 1905, to 309 this year. Typhoid has slightly increased—by 19 cases, and diphtheria by 36 cases.

Scarlet Fever.

The cases of this disease which have occurred have mostly been more or less isolated, and with the exception of small outbreaks at Carterton, Eltham, and Martinborough, nothing in the form of an epidemic has taken place.

At Carterton in November six cases arose, apparently due to milk-borne infection, as all were supplied by the same dairy. However, no case could be found to have occurred at the dairy, and the origin was not discovered.

In Wellington City there has been a marked decrease—from 164 last year to 113. It was not found necessary to close any of the schools, the outbreaks being localised generally to a few children living in adjacent houses or playing together at their own homes.

Of the boroughs, Petone and Eltham alone show any marked increase from last year, the figures for the former being 7 in 1905, and 20 in 1906, and for the latter none in 1905, and 14 this year. Palmerston North shows a small increase from 19 to 26.

The town districts, with the exception of Martinborough, show a gratifying freedom from infection, while the counties also show a like diminution.

This disease is generally of a mild type in New Zealand, and this leads people to carelessness in regard to the spread of infection. In one case it was found necessary to prosecute a patient who appeared to have travelled by rail while in an infected state. The case has not yet been completed.

Enteric Fever.

Owing to the wet and cold season one might have expected a marked decrease in typhoid during the year, but the reverse has been the case to a slight extent. The only marked outbreak during the year has been at Wanganui, where the return shows 30 cases, against 8 last year. The majority of these cases can be attributed to one outbreak in November, when 11 cases arose within a week or two of one another, all but 2 being directly traceable to the milk supplied from an unregistered dairy. This dairy was situated in a block which for many years has been subject to outbreaks of typhoid, and this year was again responsible for many of the cases.

The history of two of these cases is of interest, as it suggests the possibility of the life of the typhoid bacillus in polluted soil for many years. We know from the experiments of Dr. Sydney Martin and Dr. Robertson that such a saprophytic life does take place in soil soaked with organic matter, and in the case in point the environment was in every way suitable for the growth of the germ. Some eight years ago Dr. Valentine dealt with an epidemic in Wanganui in the same area as that affected in 1905. In tracing back the history we found that two of the sufferers in the present outbreak lived in a house in which a case had occurred in the epidemic of eight years ago. The infected stools from this case had then been buried in a pit-privy in the garden, and by way of precaution the pit had been filled up and the privy removed. The ground had lain undisturbed till last year, when the present occupier had started gardening operations, in the course of which he dug into the old cesspit. A week or so after he was attacked by enteric, and his niece—a child who had been playing about him when he turned over the polluted soil—was also affected. This, though not of course conclusive, is strong evidence as to the viability of typhoid bacilli in a soil impregnated with filth.

Another point worthy of note is that this garden abutted on the dairy referred to above, which was the means of spreading the disease. It seems probable that the infection could have been carried from the soil to the milk in the form of air-borne dust or by flies, the conditions under which the milk was stored offering ample opportunities for such process of inoculation.

The only other definite outbreak of this disease was a very localised one in Wellington City, where 7 cases occurred in one block of houses. No cause could be found for this, but as we could exclude milk- and water-borne infection, it seems probable that there is some focus of contagion in that neighbourhood. Otherwise there has been a slight decline in the number of cases in the city, though it would be more satisfactory to be able to record the practical extinction of this disease. This, however, is not likely to be the case so long as there are weak spots caused by the lack of drainage in some of the suburbs. It is also possible that some cases have received the infection about certain of the foreshores where drain-outfalls exist which, although reputedly storm-water only, seem to possess properties not generally found in mere surface drainage.

In the country districts generally there has been a decline in the number of enteric cases—especially marked in the Hutt County, where the number is only half that of last year. A certain number of cases seem to arise in the Hawera and Eltham districts, of which many may be traced to the Township of Kaponga, where there is a very marked focus of infection, due, doubtless, to the primitive sanitary condition in that small centre. The repeated cases which can be traced to one house here are probably accounted for by the method which was in vogue of digging up the buried nightsoil and spreading it about as manure, close to where the milk and food was stored. This seems to be further evidence of the influence of polluted ground and of how easily infection may be air-borne.

Diphtheria.

There has been a marked epidemic of this disease at Pahiatua, both in the borough and in the country, the figures being 33 in the borough this year as against 7 the previous year, and 15 in the county which last year was free from the disease. The cause for this is doubtless the absence of facilities for disposal of slop-waters in the borough, but the adoption of the sewerage system, which is rapidly being carried forward, should go far to remove this reproach in the future.