Taking now the direct means by which the infection is conveyed, I believe that a large number of causes are at work. In a district like this in which enteric has been endemic for many years it must follow that there is a considerable degree of pollution with infected matter of soil all over. I have made an effort to trace each of the 240 cases, except where they occur in out-of-the-way country districts. I have visited the houses personally, or sent Inspector Winstanley to make inquiries. I prepared a list of questions, chiefly relating to the supply of food and drink of the patient, which the Inspector asks in each case and fills into his report; this we find useful in such questions as conveyance of infection by milk-supply, &c. Close on two hundred houses were thus visited and reported on by Inspector Winstanley or myself. While in a very large number of cases the origin is not definite, and can only be vaguely attributed to general insanitary surroundings, the following have been traced with fair certainty:—

Infected Oysters (20 cases).—These oysters were presumably in all, and certainly in more than half, the cases traced to a retail shop in Lower Queen Street. One point of interest which did not appear in my special report on the subject—as it only came to my notice later—was the presence of a window, generally kept open- opposite which the oysters were opened and bottled—looking on to an alley-way which was bridged over by the wing of a boardinghouse, in which was a defective water-closet immediately above the window. When I noticed it there was a drip from the closet, which must have splashed into the window and doubtless infected the oysters. This seems as likely a source of infection as the soakage from the sewer into a cellar in which oysters were stored.

Milk-supply.—The Thames outbreaks in July, August, and September were certainly milk-borne, the bulk of the cases being traced to a very ill-kept dairy, the owner of which, with his family, had been ailing for some time with vague febrile symptoms—child had indeed died. The closure of this dairy was followed by almost complete cessation of typhoid.

Another instance of probable milk-borne infection occurred (limited to two cases) in Auckland. The patients were young children in families in no way connected, except that both had the same milk-supply, and the cases occurred simultaneously. No other cases were traceable to the dairy supplying the milk, and no source of infection was found. In all some thirty cases may be considered milk-borne.

Picnicking-ground.—Ten cases have during the autumn months been traced with some certainty to a favourite picnic-ground on an island in the harbour called Motutapu. Hundreds of pleasure-seekers every year resort to this ground. As far as can be judged, this must have resulted in pollution of the stream used as drinking-water. In one case the outbreak was amongst the children of two families who had visited this place on the same day, and three cases of typhoid followed about the same time; subsequently seven other cases were found to have picnicked here a week or two before their illness.

Polluted Foreshore.—Six cases may fairly be considered to have got their infection by bathing or playing on the beaches near the outfall of various sewers along the harbour-front. In one instance the municipal salt-water baths were the probable source of infection. Some few years ago I investigated two cases which were with some probability traceable to these baths, both occurring at the same time, both persons having bathed there on the same day, and both having complained of the foul state of the water. An inspection of these baths tends to confirm the opinion, since they are situated near the outfall of Freeman's Bay sewer. On the bottom is a deposit of black foul-smelling organic mud probably silt from the sewer.

This source of infection is interesting and of great importance as illustrating the growing need for some more cleanly method of disposing of the sewage than emptying it into the harbour. In the case of some of the smaller-sewer outfalls the sewer ends well above high-water mark, and the sewage finds its way across a beach, which is used as a playground by children. An instance of this occurred at St. Mary's Beach, Ponsonby, where one at least of the six cases originated. On having their attention drawn to it the Council continued the sewer to below high-water mark; but this is at the best a makeshift.

Of the remaining cases many can certainly be attributed to local sanitary defects. There is one street in Mount Eden district where five cases have arisen in four houses during the year. The lack of drainage is the possible source of infection. The houses are new, the water-supply is the general city supply, and the milk was not supplied from the same dairy in any two cases. The slop-water from the house runs out into the public road, and forms marshy spots at the edge of the footpaths. How the infection is conveyed from here to the house is another question, but it is easy to see that, given an infected bit of ground at the gate, there are many ways of conveying that infection—such as by boots to the hand, and from the hand to the food, and so forth—more especially where children are concerned.

Many instances have occurred which, had time permitted, would have repaid closer investigation. Thus two or three cases in town were traced to visits paid to a township up the line named Mercer, where the scent failed. In two instances the occurrence simultaneously of several cases in families showed some serious defect; but unless much time can be devoted to each, or the origin is very plain, the true source often goes undetected. One thing is certain, that the cases are more prevalent where dirt accumulates and soil is polluted. I have sometimes thought that the infection was conveyed on fruit fallen from the trees near the open ditch in the orchard which serves for the drainage of so many houses.

Some cases occurring in isolated back-country districts were of great interest. It should be easy to trace the infection in such cases, but in one at least nothing in this way of a previous infection could be traced. In this, as in probably many instances up country, the infection was possibly conveyed from Maori settlements. Much typhoid is present among the Natives, and goes undetected. One back-country case was interesting in that there was a history of the patient drinking water from a swampy spring, near which, two years before, two persons had been sick with what was probably typhoid.