sufficient evidence was obtained to demonstrate the danger, and as even the warning-boards failed to keep off poachers, it was finally decided to destroy the oyster-beds as far as possible—at least, those nearest the road, which offered the most temptation to passers-by. Experiments with various chemicals were not satisfactory, so finally resource was had to destruction by means of a hammer—a tedious business, which occupied some time. The ready co-operation in this matter of Mr. Ridings, Collector of Customs, who controls the oyster-beds, deserves grateful acknowledgment. The mortality within the city and suburbs was 5 cases.

The Native races are again chiefly responsible for the increased number of country cases—Bay of Islands, Thames, Rotorua, Tauranga, Waitomo, and Whakatane Counties have been conspicuous for outbreaks of enteric amongst Natives. Of the 507 cases reported, more than 250 are recognizable as of Maoris or half-castes.

The exemption of Rotorua County, noticed in last report, no longer holds good—the town and county being this year affected to the extent of 71 cases, chiefly amongst the Native population. Of these, only 4 occurred in the town, but many of the settlements round the lakes suffered severely, especially in the spring.

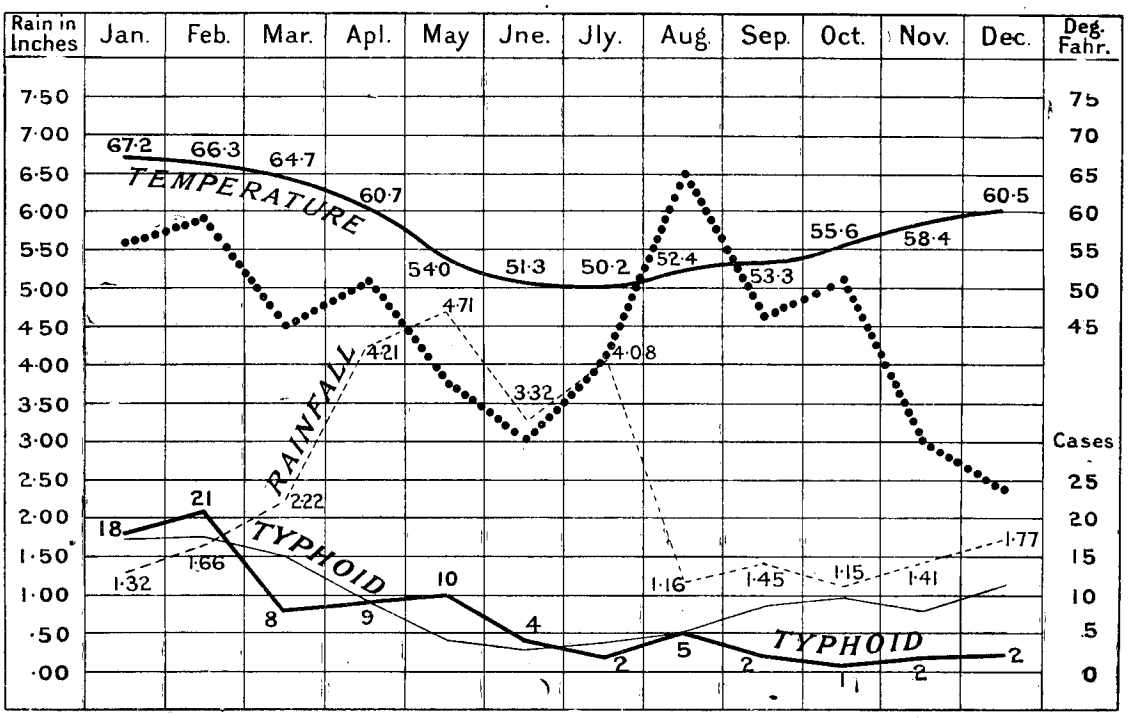
As in former years, many of the severest outbreaks among Maoris occurred in winter and spring, and probably are due to the normal water-supplies being cut off by a shortage of rain. Thus we find at Whakatane 15 cases among Natives in July and 10 in August; 18 cases in Kaitieki County in August and 20 cases in Rotorua County in September. The rainfall, which usually increases steadily each month from March to July, this year began to decrease in June, and fell to a very low point in August and the succeeding months. Correspondingly the typhoid incidence, which was on the decrease till June, rose in July to a total of 41 cases, and reached its maximum in August with 65 cases. After October the severity of the epidemic appeared to have spent itself, and the numbers notified in November and December 30 and 24 cases—were not much above normal in spite of the continued dry weather.

The accompanying chart and table show the relation of temperature, rainfall, and typhoid so far as Auckland and the suburban boroughs and road districts are concerned. It shows that in this area, with a good permanent water-supply, the typhoid rate was not affected by the dry weather in the latter half of the year, in marked contrast to the effect on the country returns, which practically are wholly influenced by the spread among the Natives. Indeed, in the city and suburban districts, with a water-supply free from danger, the influence of temperature is much more apparent than that of rainfall. Thus, though the weather was very dry during the last six months of the year, the mean temperature was considerably below the average, and the typhoid rate correspondingly low. A possible explanation is that typhoid incidence, when not due to water-supply, is greatly the result of localized insanitary conditions, such as areas of soil polluted by cesspools and defective drains. The activity of the organisms in such areas would be retarded by low temperatures and by excessive dryness of the soil, while warm moist weather would encourage their growth.

Typhoid Fever.

Auckland and Suburban Boroughs and Road Districts.

Typhoid, Temperature, and Rainfall Curves.



The thin typhoid line exhibits the average monthly cases during five years 1909-13. The line formed by the large dots exhibits the total number of cases of typhoid recorded within the whole health district during 1914.