

Endemic Goitre in certain parts of Auckland

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This survey of the incidence of goitre in parts of the Auckland Health District makes no pretence at being complete and exhaustive. It does, I believe, represent approximately the amount of goitre present in certain localities in North Auckland, Coromandel, the Bay of Plenty and the City of Auckland as measured by the incidence in school children. The accompanying table of results and graphs is based upon the examination of 10,725 children.

Basis of Classification.—The classification used was that laid down by Drs. Hercus and Baker as described in this Journal for April, 1921, and was used by me in a previous report on goitre in Otago, which appeared in this Journal for August, 1923. I have, however, relied throughout on palpation of the thyroid in preference to inspection, and I believe that the resultant classification is more accurate.

For convenience in recording the results I have grouped the enlargement of the thyroid found in percentages and under two headings. "Total goitre" is self-explanatory, while "visible goitre" includes goitres classed as small, medium, and large. The difference between the "total goitre" and "visible goitre" represents the percentage of children with "incipient goitre."

I may say that I entirely agree with Drs. Hercus and Baker that this slight enlargement of the thyroid is pathological.

In certain areas the number of children examined was too small to allow of much weight being attached to the findings. This is particularly the case in the Maori children examined in the Tauranga and Opotiki districts, though the figures show a certain relative agreement with those for the European children in the same areas. In order to give a clearer picture of the incidence I have separated the records for boys and girls and those for Europeans and Maoris.

In the country districts all the children were examined in the smaller schools, while in the latter schools and in the city only those in the primers, standard 2 and standard 6 were examined. This, however, forms a fair cross-section of the

school population. In Bayfield every child was examined. In goitrous areas such as the Urewera and Whakatane every child was examined.

Districts Covered.—In the Russel-Kaitaia area practically every school is included to the north of Russel and south of Waipapakauri. Whangarei area includes all schools within a radius of about fifteen miles of that town. The Upper Wairoa group comprises seven small schools all situated upon the watershed of the Upper Wairoa in the near neighbourhood of Whangarei.

The Hokianga group is made up of three small schools close to Rawene on the Hokianga River. Rawene is not included in this group for the reason that all the children with goitre in Rawene came daily from other localities to attend the High School.

All the schools visited in the City of Auckland lay between the Waitemata and Manukau Harbours. They are grouped for the sake of convenience, but the incidence of goitre varied from 2.3 per cent in Beresford Street to 20.3 per cent. in Bayfield. Grey Lynn with 10.6 per cent., Curran Street with 8.4 per cent., and Ponsonby with 8.1 per cent., rank next to Bayfield, while Pt. Chevalier with 2.1 per cent., Napier Street with 2.9 per cent., and Newton East with 3.3 per cent, approach most closely the figures for Beresford Street.

The eight schools on the Coromandel Peninsula comprise all the larger schools north of Thames itself. Here, as in the case of other areas with a low goitre incidence, a part only of the children were examined in each school.

The schools in the Tauranga area are fairly representative of the country from Tauranga to Te Puke.

The Whakatane area includes all schools from Matata to Kutarere, and inland to Te Teko in the Bay of Plenty. This area represents roughly the deltas of the Rangitaiki and Whakatane rivers.

The Opotiki area includes two schools in the town and one a few miles away. All Maori school children in the Urewera country were examined.

The amount of goitre recorded in the individual schools included in these various groups showed

no appreciable variation from the average for the group. Any exceptions have been noted separately.

Results of Survey.—No attempt was made to eliminate from the figures recent immigrants to any district. As a result a proportionately large number of cases of goitre in the areas of low incidence, such as the City of Auckland, had a history of a recent arrival from a known goitrous area elsewhere.

It should be noted that all the city schools examined and found to have a relatively high incidence of goitre lie more or less contiguous to each other. I was unable to find any local cause to explain the high incidence at Bayfield. If the forty-six girls from a nearby orphanage are excluded from the numbers for this school, the goitre incidence is reduced to 17.9 per cent., which is still much higher than any of the neighbouring schools.