unusual in nutrition, and only 29·2 per cent. subnormal, the proportion of bad postures in the subnormal group is relatively much higher. In the subnormal group roughly 30 per cent. had bad posture as against 12 per cent. in the normal group.

In 10 per cent. subnormal group 29 per cent. had bad posture; in 7·9 per cent. subnormal group, 31 per cent.; and in normal group, 12 per cent.

This confirms the natural supposition that poor nutrition produces flabby muscles, whose bone is insufficient to maintain good posture.

The relationship between malnutrition and poor posture emphasizes the fact that this is a problem of various aspects. Not by physical education alone can the ideal be attained for our New Zealand children. The question involves also a consideration of diet and general conditions of living.

Angle of Pelvic Inclination.

Since it has been suggested that the increased inclination of the pelvis is the primary defect leading to a series of maladjustments and producing bad posture, it is of interest to study this question. The "pelvic angle" is that angle subtended to the horizontal by a line drawn between the anterior and superior iliac spines. The readings varied between 3° and 31°. The average for the whole group is approximately an angle of 15°.

	7–8.	9–10.	11–12.	13–15.	Total.
Girls	15·0	16·0	15·4	14·2	15·4
Boys	14·4	15·3	15·8	14·5	15·3

In calculating deviations from the normal an angle of 20° was considered to indicate inclination of the pelvis excessive. This is in accord with the estimate of Dr. Bakewell, who found such an inclination of the pelvis to be always associated with lordosis. In the present survey, although there is a definite relationship between the two factors, this is not as well marked as one would have expected. Of the children showing 20° or more inclination of the pelvis there were 5 per cent. with perfectly normal lumbar region; 42 per cent. with slight lumbar curve; 35 per cent. with definite lordosis (Class 2); 18 per cent. with marked lordosis (Classes 3 and 4), so that only 53 per cent. could be said to have lordosis.

Of the cases of lordosis 59 per cent. were unaccompanied by any increase in the pelvic angle. In the cases where lordosis was accompanied by increased pelvic inclination, however, in 62 per cent. reduction of the angle was associated with an improvement in lordosis.

It appears that increased pelvic inclination and lordosis may be associated or may occur independently. That where they are associated remedial treatment directed towards corrections of the pelvis tends to improve in lordosis.

The association of pelvic inclination with general posture has been noted, and again this is less marked than might have been expected. It is considerably more definite with girls, who show a much higher percentage of associated postural deformity, or general faulty posture. The following figures indicate the proportion of those showing increased pelvic inclination who have also one or more postural deformities:—

	Boys. Per Cent.		Girls. Per Cent.	
Increased pelvic inclination only	52		30	
Associated with one deformity	29	48	31	70
Associated with more than one deformity	19		39	

Where only one deformity was associated this was much more frequently lordosis. Second in frequency came forward head in girls and flat chest in boys. The incidence of associated lax abdomen was relatively low.

It does not appear that the pelvis is altogether the foundation of posture, or that excessive inclination necessarily involves the whole body balance.

Respiratory Excursion.

The average respiratory excursion, or difference between positions of full inspiration and expiration, for the whole group was approximately 3 in. There was a remarkable uniformity in range. Children of seven years and those of fourteen presented only ½ in. difference. One would have expected the older child with larger chest to have a relatively considerably greater range.

	7–8. In.	9–10. In.	11–12. In.	13–15. In.	Total. In.
Girls	2·7	2·9	3·8	3·5	3·019
Boys	2·9	2·9	3·2	3·4	3·1

Chest measurements were taken in three positions: (1) Position of full expiration; (2) position of full inspiration; (3) resting position.

It was felt that an improvement in posture affecting the position of the chest should mean that the chest would habitually be held in a position nearer to that of full inspiration, than formerly. That this is so has been demonstrated by taking these measurements on the same child in both poor posture and after assuming correct posture.