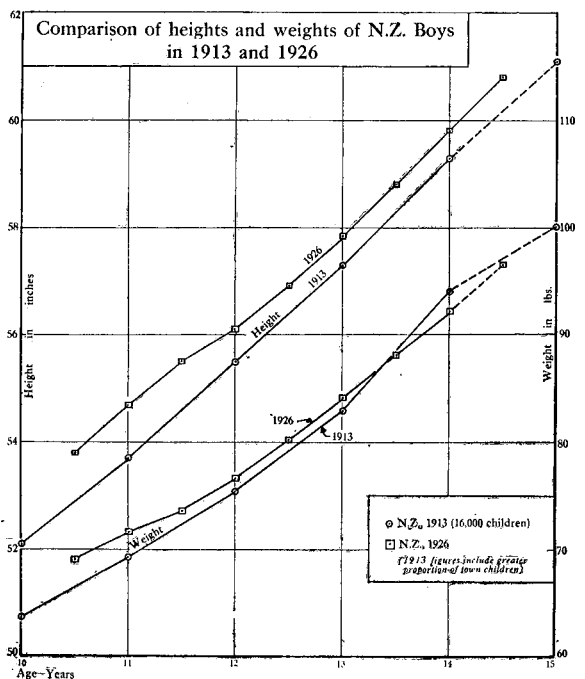
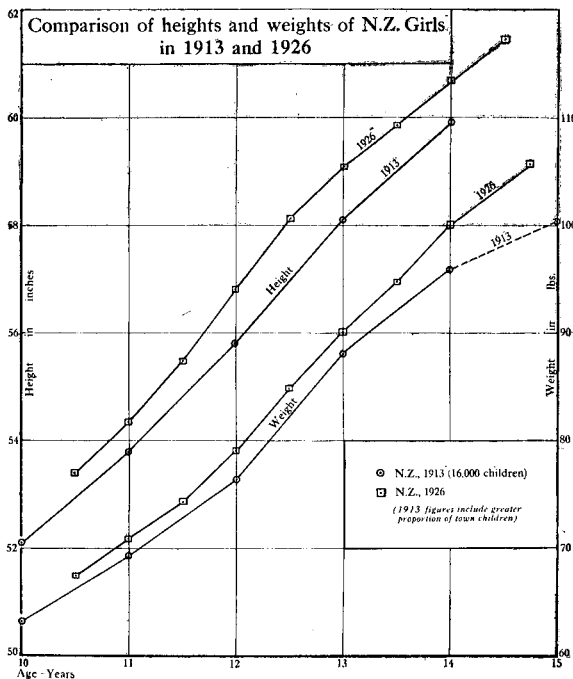


Compare also findings of Boas (height and sitting height for American children), quoted on page 49 in "Poverty, Nutrition, and Growth" (Medical Research Council, 1926), which indicates that the ratio of sitting height to standing height is relatively less in New Zealand children than in American. It is apparent that the ratio of sitting height (or trunk-measurement) is for children over 12 greater in girls than in boys. This is in accordance with the observation of Bowditch, quoted by Stanley Hall in "Adolescence," in which he states, "Women appear to be relatively longer in the body than men." See also "Poverty, Nutrition, and Growth," page 49, in which is quoted the finding of Bean (1922): "From an examination of 1,445 white children (British, American, and German-American) and 776 Filipino children he gives figures to show that sitting height is inverse to stature; while with a small stature the sitting height is relatively great, with a large stature the sitting height is relatively less, within the race . . . The sitting height is greater in the female than in the male, even when they are of the same type and stature."

COMPARISON OF NEW ZEALAND MEASUREMENTS, 1913 AND 1926.

In 1913 a record was obtained showing the heights and weights of 16,000 school-children. A comparison of the 1913 results with those obtained in 1925 for the years 10½ to 14½ indicates a definite improvement in both height and weight during the last twelve years, as is seen in Graph No. 6 A and B. The increase in height is approximately ½ in. for boys in the years 12, 13, and 14, and for girls approximately 1 in. for the same period. The 1925 weight-measurements for boys show an improvement of from 1 lb. to 2 lb. for the years of the survey, with the exception of the fourteenth year, at which time the 1913 records show a temporary advantage of nearly 2 lb. For girls the 1913 results are definitely and consistently lower for both height and weight, 0·8 in. improvement in height being noted, and approximately 2 lb. to 4 lb. advantage in weight, during the age period 11 to 14 years.



Owing to the fact that the school medical service was in 1913 just beginning, and its staff was small, a great proportion of the more accessible and therefore city schools were examined, so that the 1913 survey contains a less proportion of the taller country children. Making allowance for this fact, however, the results indicate a definite improvement in height and weight for New Zealand school-children during the last thirteen years. This is clearly shown by comparing average height and weight of city children, 1925 survey, with the 1913 figures, when we find that the 1925 results show superiority in height (boys and girls) 0·45 in. and in weight 0·7 lb.

Pearson, however, deduced that the race shows a tendency to increase in stature, and Davenport (1917) supports Pearson's finding: see page 106 of "Poverty, Nutrition, and Growth." It is possible that New Zealand conditions of selection tend to increase this tendency.

Similar observations have been made in other countries. Dr. Soren Hansen, Director of the Danish Anthropological Survey, contributed an article at the first International Eugenics Congress (London, 1912), on the "Increase of Stature in certain European Populations," in which he gave statistics to show that the boys attending Marlborough College from 14 to 15 years old increased in height 0·56 in. in twenty-five years, and also states that the height of the fully-grown Dane in the course of fifty years had gone up by 3·69 cm.