

# Frontiers in Thyroidology

Volume 2



# Frontiers in Thyroidology

Volume 2

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METABOLIC ALTERATIONS AND THYROID VOLUME IN IODINE DEFICIENCY

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As shown in an earlier study of adults, palpation is of limited value for epidemiological goiter studies (sensitivity 91%, specificity 63.5%) (1). Palpation is even less reliable in younger subjects, when compared to sonographic volumetry (Figs. 1 and 2). Therefore, sonography was applied for an epidemiological study (2).

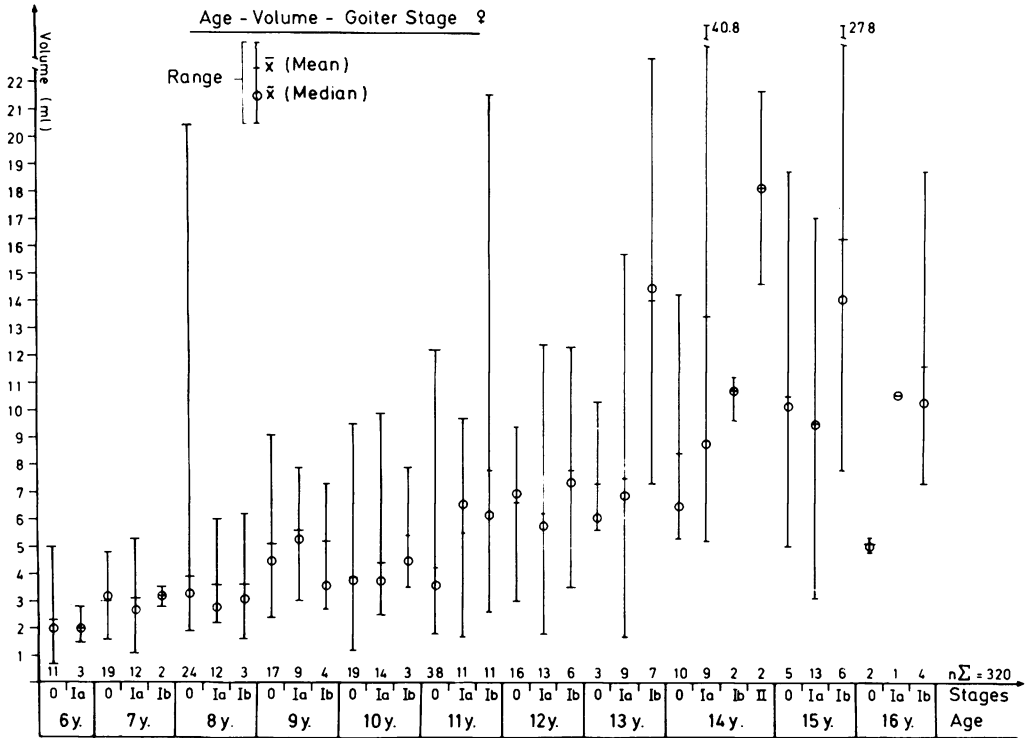


Fig. 1. Sonographically determined thyroid volume as compared with respective palpatory goiter stages for girls 6-16 years old.





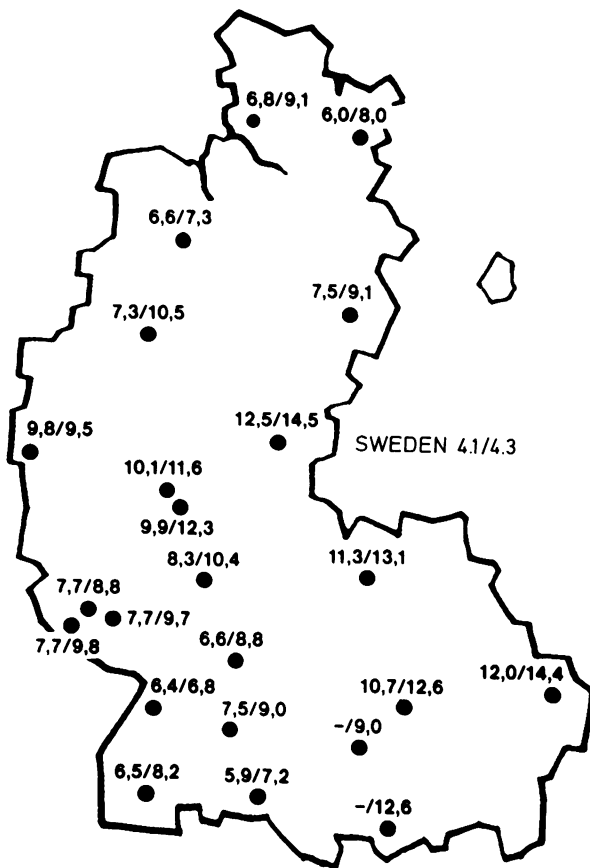


Fig. 3. Thyroid volume (ml; male/female) of 13 year old children (Germany/Sweden;  $p < 0.0001$ ).

#### CONCLUSIONS

1) Thyroid palpation is of limited value for epidemiological goiter studies, especially in children. A new definition of goiter is necessary.

2) Our results indicate again the goitrogenic and metabolic effects of iodine deficiency.

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