

Archives of Disease in Childhood, 1976, **51**, 170.

Clinical longitudinal standards for height, weight, height velocity, weight velocity, and stages of puberty

J. M. TANNER and R. H. WHITEHOUSE

From the Department of Growth and Development, Institute of Child Health, University of London

Apresentação: Pietro Pinheiro Alves
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Gráficos de Crescimento

1

Estudos transversais

X

Curvas de Crescimento Individuais longitudinais

Tanner and Whitehouse, 1976

Estudos transversais ²

Distorção

**O estirão pubertário
pode ser mais precoce
ou tardio acompanhando
desenvolvimento puberal.**

**Maior em relação a velocidade
de crescimento do que altura.**

Tanner and Whitehouse, 1976

**Primeira vez usado gráfico
longitudinal para uso clínico 1966.**

Estudo longitudinal e também usado
percentis.

3,10,25,75,90 e 97

Tanner and Whitehouse, 1976

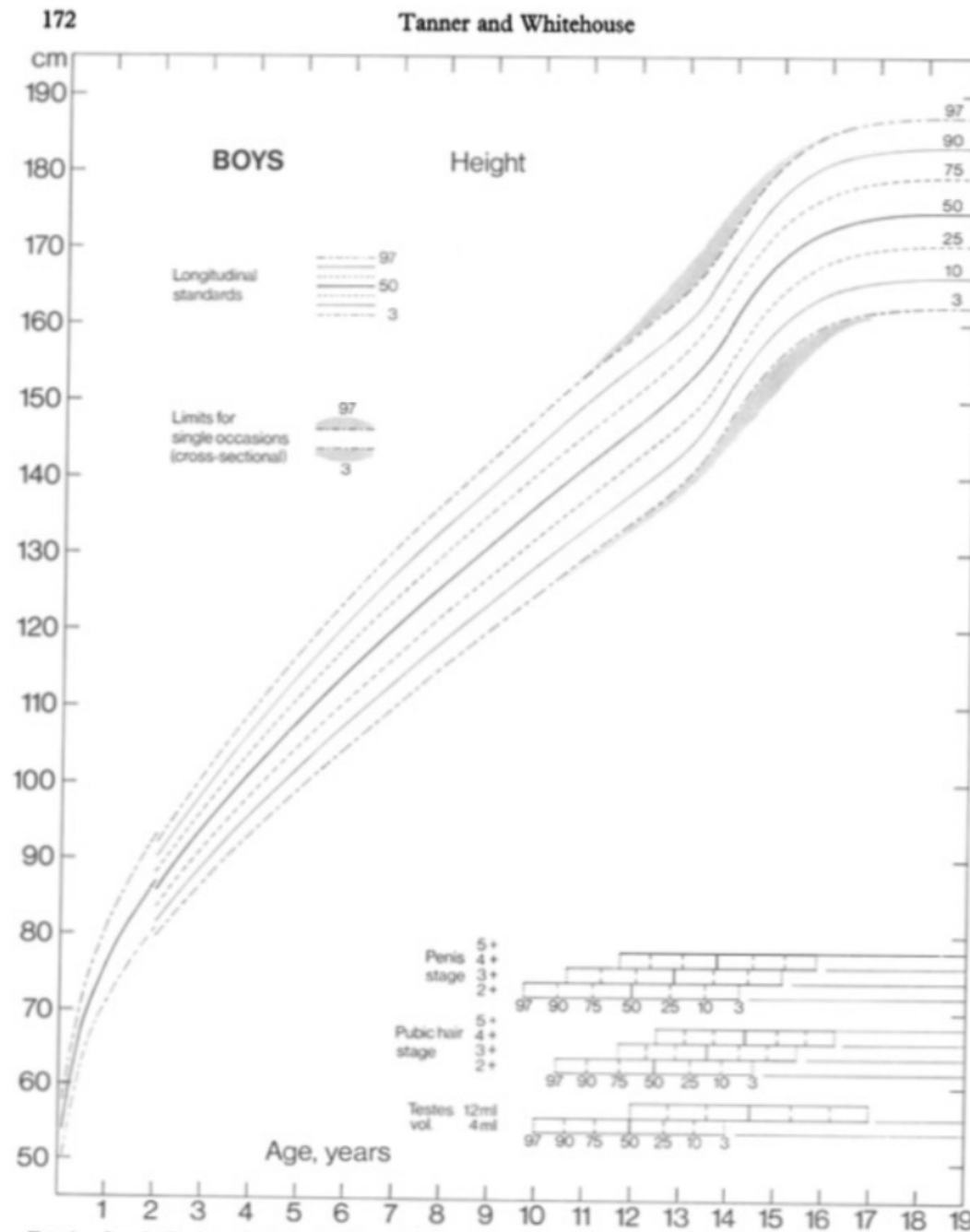


FIG. 1.—Longitudinal standards for height attained at given age, boys. The shaded areas represent the 97th and 3rd centile limits of cross-sectionally derived standards.

Tanner and Whitehouse, 1976

Estágios de desenvolvimento da genitália



G1 - Estágio 1
Pré-púbere
(Infantil)



G2 - Estágio 2
Aumento do escroto e dos testículos, sem aumento do pênis. Pele da bolsa escrotal fina e rosada.



G3 - Estágio 3
Aumento do pênis em comprimento. Continua o aumento de testículos e escroto.



G4 - Estágio 4
Aumento do diâmetro do pênis e desenvolvimento da glândula. Continua o aumento de testículos e escroto, cuja pele escurece e engrossa.



G5 - Estágio 5
Genital adulto em tamanho e forma

Estágios de desenvolvimento dos pelos pubianos



P1 - Estágio 1
Pré-púbere
(Infantil)



P2 - Estágio 2
Pelos longos, finos e lisos na base do pênis



P3 - Estágio 3
Pelos mais escuros, mais espessos e encaracolados sobre o púbis



P4 - Estágio 4
Pelos escuros, espessos e encaracolados, cobrindo totalmente o púbis, sem atingir as raízes das coxas



P5 - Estágio 5
Pelos estendendo-se até as raízes das coxas

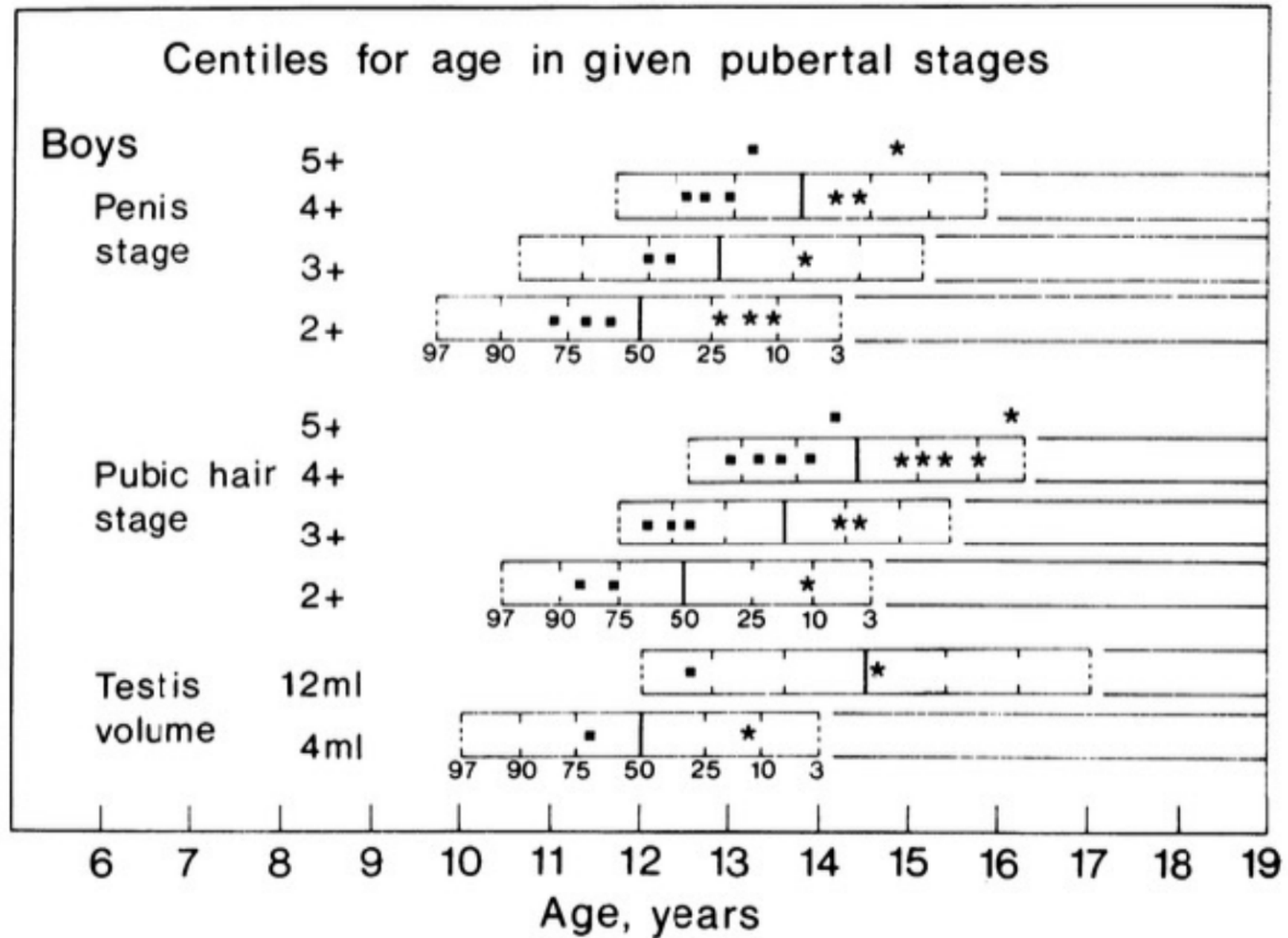


FIG. 7.—A generally early-maturing boy (■) and a generally late-maturing (*) boy plotted at successive ages on the puberty standards.

Tanner and Whitehouse, 1976

Tanner and Whitehouse, 1976

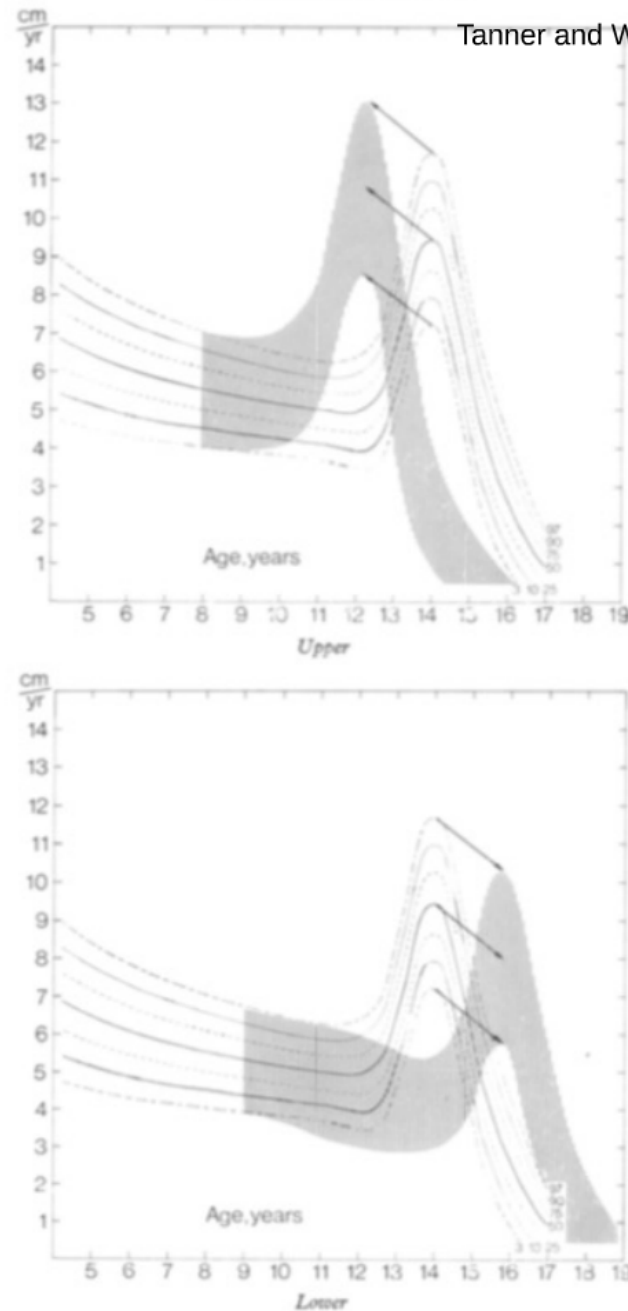


FIG. 3.—Construction of longitudinal standards for height velocity. Centiles represent boys having peak velocity at average age of peak. Upper, hatched area represents centiles for boys with peak occurring 2 SDs of age before mean age (approximately 2 years early). Lower, hatched area represents centiles for boys with peak occurring 2 SDs after mean age (approximately 2 years late).

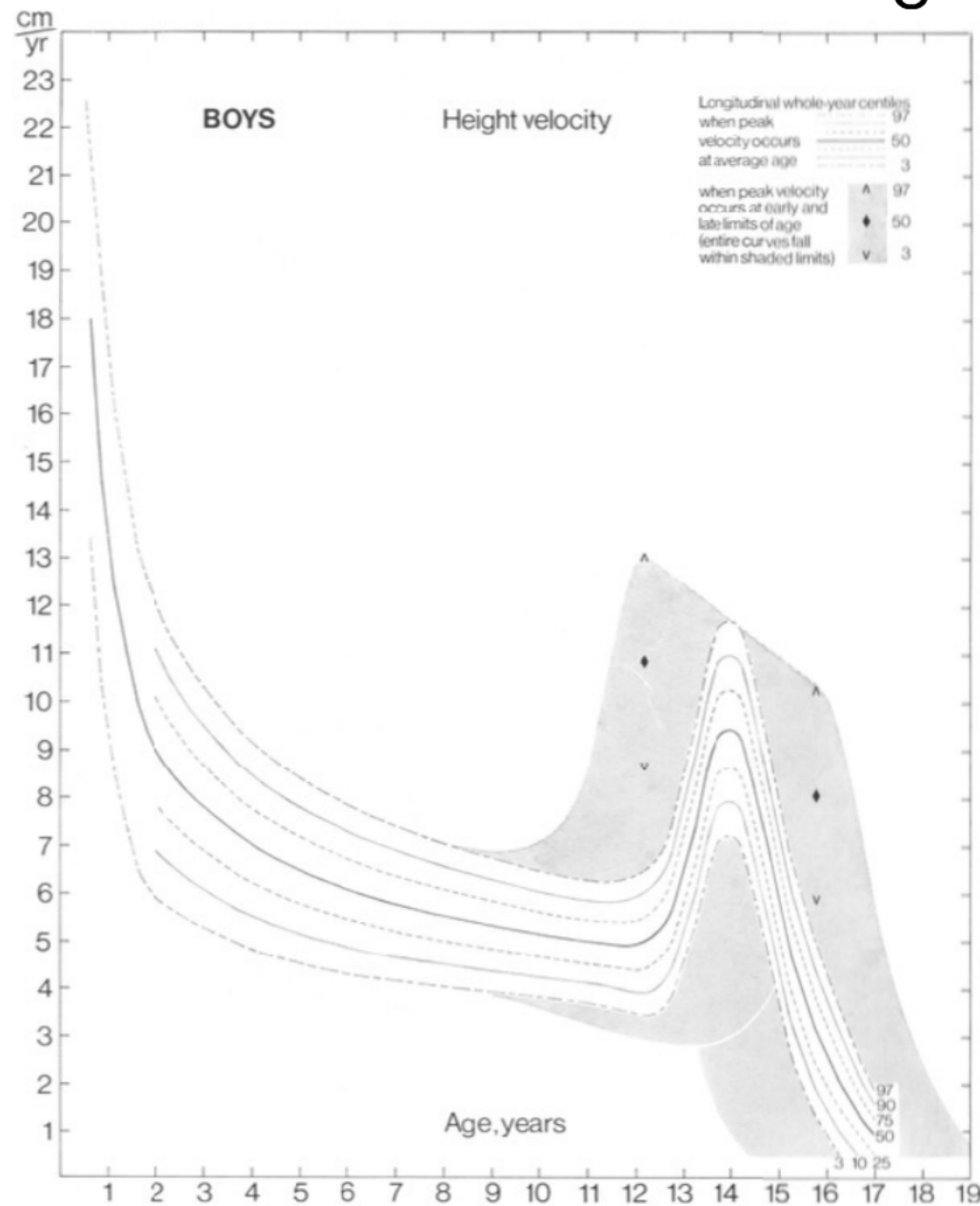


FIG. 4.—Longitudinal standards for height velocity, boys. Shaded area represents total of hatched areas in Fig. 3 upper and lower; it thus encloses all velocity curves within 3rd–97th centile limits for age and for peak velocity. 3rd, 50th, and 97th centiles for early- and late-maturing boys are indicated by arrowhead and diamond symbols.

Tanner and Whitehouse, 1976

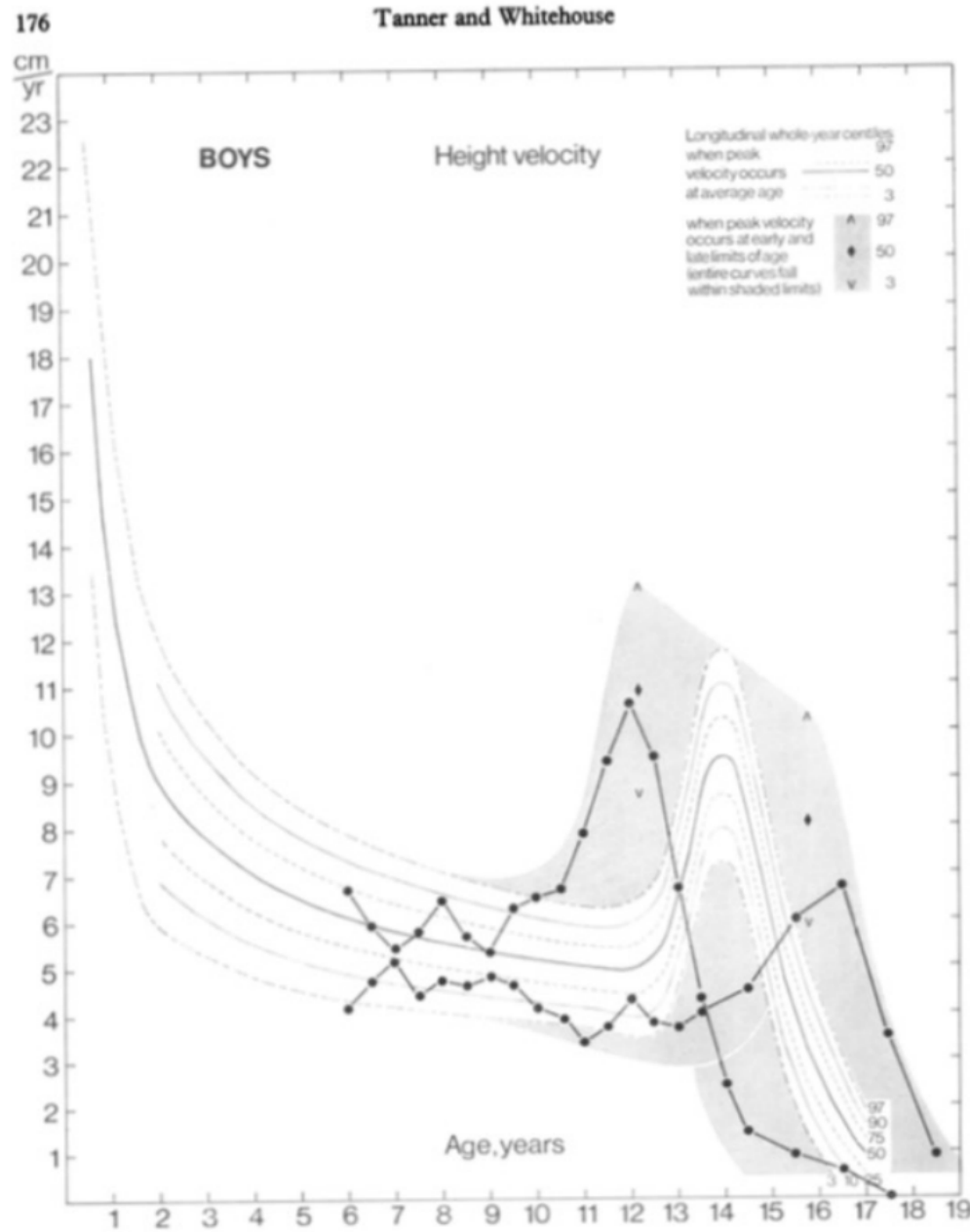


FIG. 5.—Height velocities of an early and a late maturing boy. Whole-year velocities plotted every 6 months, at central point of last completed year, except from age 14 onwards, where only annual measurements were available.

Tanner and Whitehouse, 1976

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