

GROWTH OF CHILDREN FROM RIO MAIOR, PORTUGAL. COMPARISON WITH LISBON REFERENCES AND THE WORLD HEALTH ORGANISATION (WHO) STANDARDS

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Introduction

Physical growth of a population is an indicator of the quality of life. Better conditions lead to improved physical growth, namely in height (Bogin, 1999).

Aims

- To document the physical growth of children from Rio Maior-Portugal (2007);
- To compare these data with references from Lisbon (2001) (Fragoso & Vieira, in press) and the WHO standards.

Sample

Ages (years)	N	Boys	Origin
3 to 9	823	421	Rio Maior school network

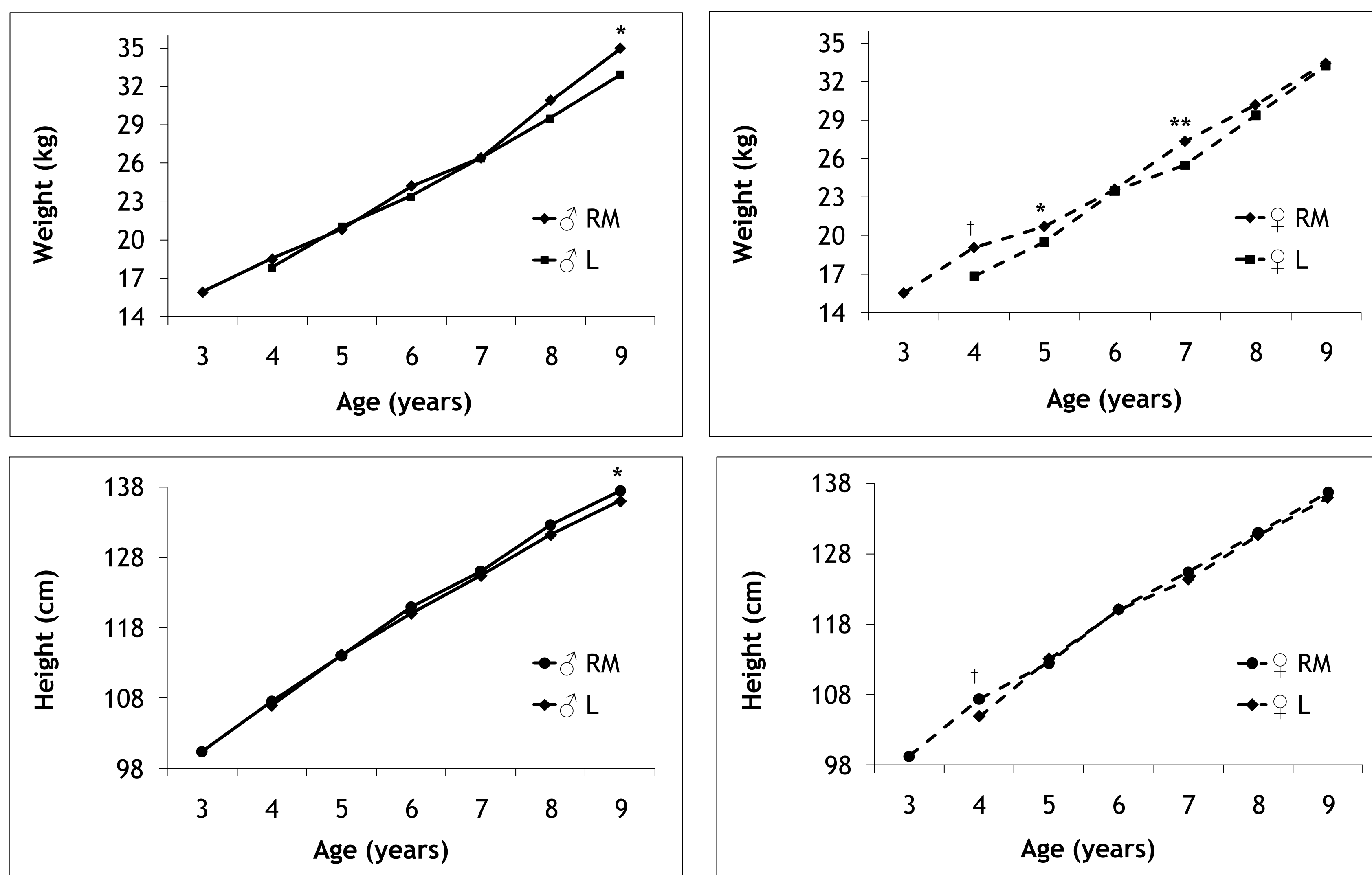
Methods

- Anthropometric assessment: Height, weight, subscapular and triceps skinfolds; Protocol of ISAK (Marfell-Jones et al., 2006).
- Informed consent and assent obtained.
- Statistics: Descriptive and one sample t-test; alpha value less than 0.05.

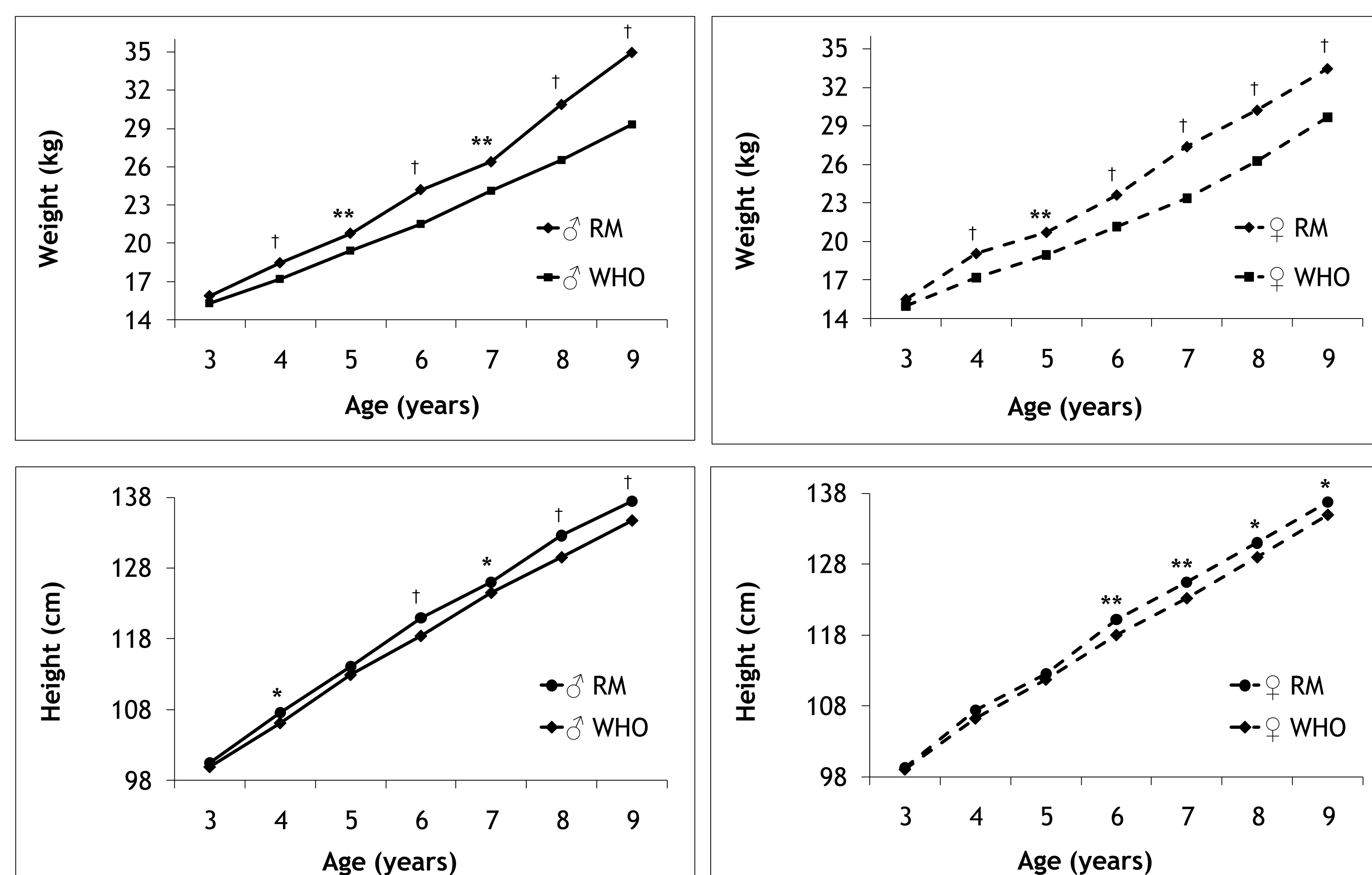
Physical Growth Children Rio Maior-Portugal (2007)

Age	Gender	N	Weight (kg)	Height (cm)	Subscapular Skf (mm)	Triceps Skf (mm)
3	♂	30	15,9	100,5	4,5	7,5
	♀	24	15,5	99,3	5,4	9,0
4	♂	54	18,5	107,6	4,8	8,2
	♀	59	19,1	107,4	6,1	10,5
5	♂	55	20,8	114,1	4,8	8,3
	♀	58	20,7	112,5	6,2	10,8
6	♂	88	24,2	121,0	5,3	8,1
	♀	57	23,6	120,2	6,4	10,04
7	♂	61	26,4	126,1	5,5	8,1
	♀	71	27,4	125,5	7,3	11,4
8	♂	64	30,9	132,6	6,7	9,6
	♀	61	30,2	131,0	8,1	11,8
9	♂	69	35,0	137,5	8,2	11,0
	♀	72	33,5	136,8	8,3	12,2

Rio Maior vs Lisbon



Rio Maior vs WHO



† < 0,001; ** < 0,01; * < 0,05

Discussion

Concerning to physical growth, we infer that children from Rio Maior live in better environmental conditions than those from Lisbon.

Regarding WHO standards Rio Maior children's generally present higher values either in height and weight.

Life conditions should be studied to better understand these differences.

References

- Bogin B (1999). *Patterns of Human Growth*. Cambridge University Press, Cambridge.
- Fragoso I, Vieira F (in press). *Reavaliação Antropométrica da População Infantil de Lisboa. Tendência Secular*. Edição Câmara Municipal de Lisboa, Lisboa.
- Marfell-Jones M, Olds T, Stewart A, Lindsay Carter, JE (2006). *International Standards for Anthropometric Assessment*. The International Society for the Advancement of kinanthropometry, Australia.
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