

# Caregiver and child perception of overweight and obesity.

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# Objectives

- (1) Are caregivers aware of their children's weight status?**
- (2) Are children aware of their own weight status?**
- (3) Do children and their caregivers hold the same view of the child's weight status?**
- (4) Does the weight status of caregivers impact on their perception of their children's weight status?**

# What does the literature say?

- Parent and child perceptions of their weight status often do not match their measured weight status.
- Parents are more likely to under estimate the weight status of boys than girls.
- Obese children shown to have lower self-esteem which can impact on the child's overall self-concept.  
Children's height and weight does not always correspond to an overweight self-identity.
- In order to address an issue it must first be recognised.
- Non-recognition may be a contributing factor to the ongoing increases in childhood overweight and obesity that we are observing.

# Sample

- **Nine-year-old cohort (N=8,568)**
- **4,381 (51%) boys, 4,187 (49%) girls**
- **Measured height and weight for 8,089 (94%) of sample**
- **98% of self-identified primary caregivers were women.**
- **Average age 39 years (Median=39, SD=5.7).**
- **32% overweight, 20% obese, 46% healthy, 1% underweight**

# Measures

- Measured height and weight of both adults and children
- Scales and measuring stick
- Self-reported weight status of both adults and children

D9. *[Show Card D9]* Looking at Card D9, do you think the Study Child is: [Int: Use codes only if child is present at time of interview]

Very underweight.....	<input type="checkbox"/>	1
Moderately underweight.....	<input type="checkbox"/>	2
Slightly underweight.....	<input type="checkbox"/>	3
About the right weight.....	<input type="checkbox"/>	4
Slightly overweight.....	<input type="checkbox"/>	5
Moderately overweight.....	<input type="checkbox"/>	6
Very overweight.....	<input type="checkbox"/>	7

## 22. How would you describe yourself?

Very skinny	A bit skinny	Just the right size	A bit overweight	Very overweight
<input type="checkbox"/> 1 .....	<input type="checkbox"/> 2 .....	<input type="checkbox"/> 3 .....	<input type="checkbox"/> 4 .....	<input type="checkbox"/> 5

# Introduction – Childhood obesity

**Excess body fat = energy intake > energy expenditure**

## **Causes**

Poor diet

Sedentary behaviour

Low physical activity

## **Consequences**

Health

Psychological

Economic

# Measuring weight status

## **Body Mass Index – Kg/m<sup>2</sup>**

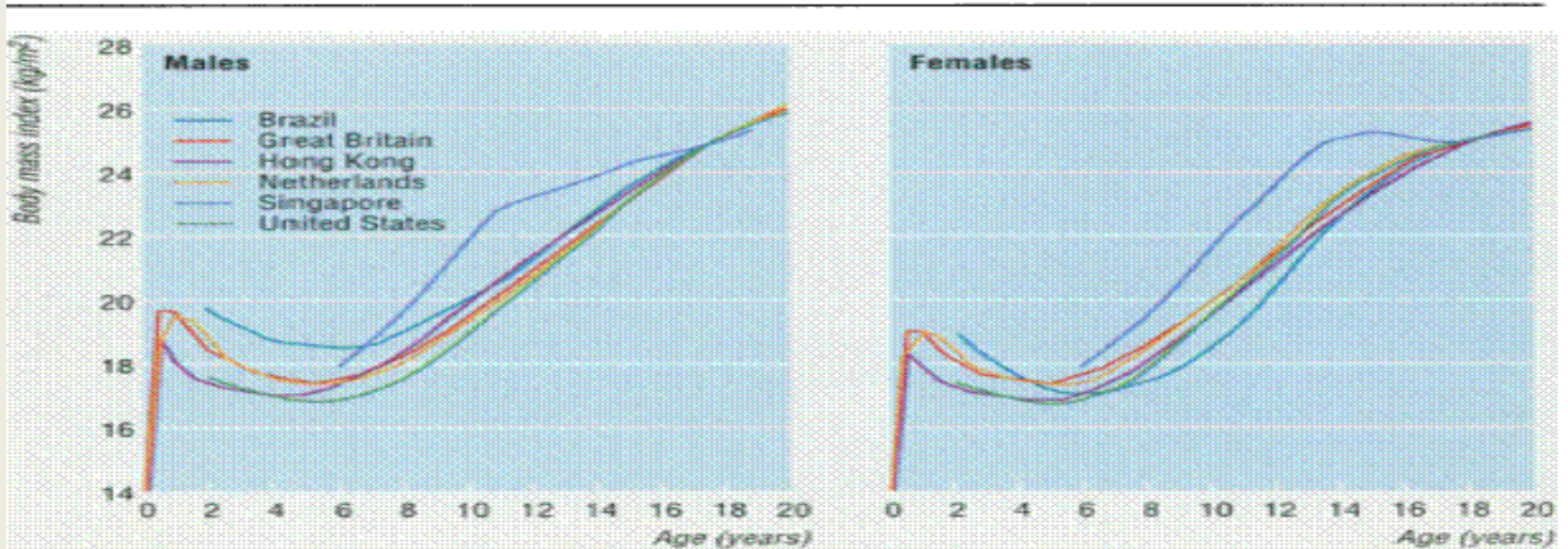
a weight to height ratio expressed as  
(weight divided by height squared)

# Measuring weight status

## Body Mass Index – $\text{Kg}/\text{m}^2$

a weight to height ratio expressed as  
(weight divided by height squared)

## International Obesity Taskforce (IOTF)



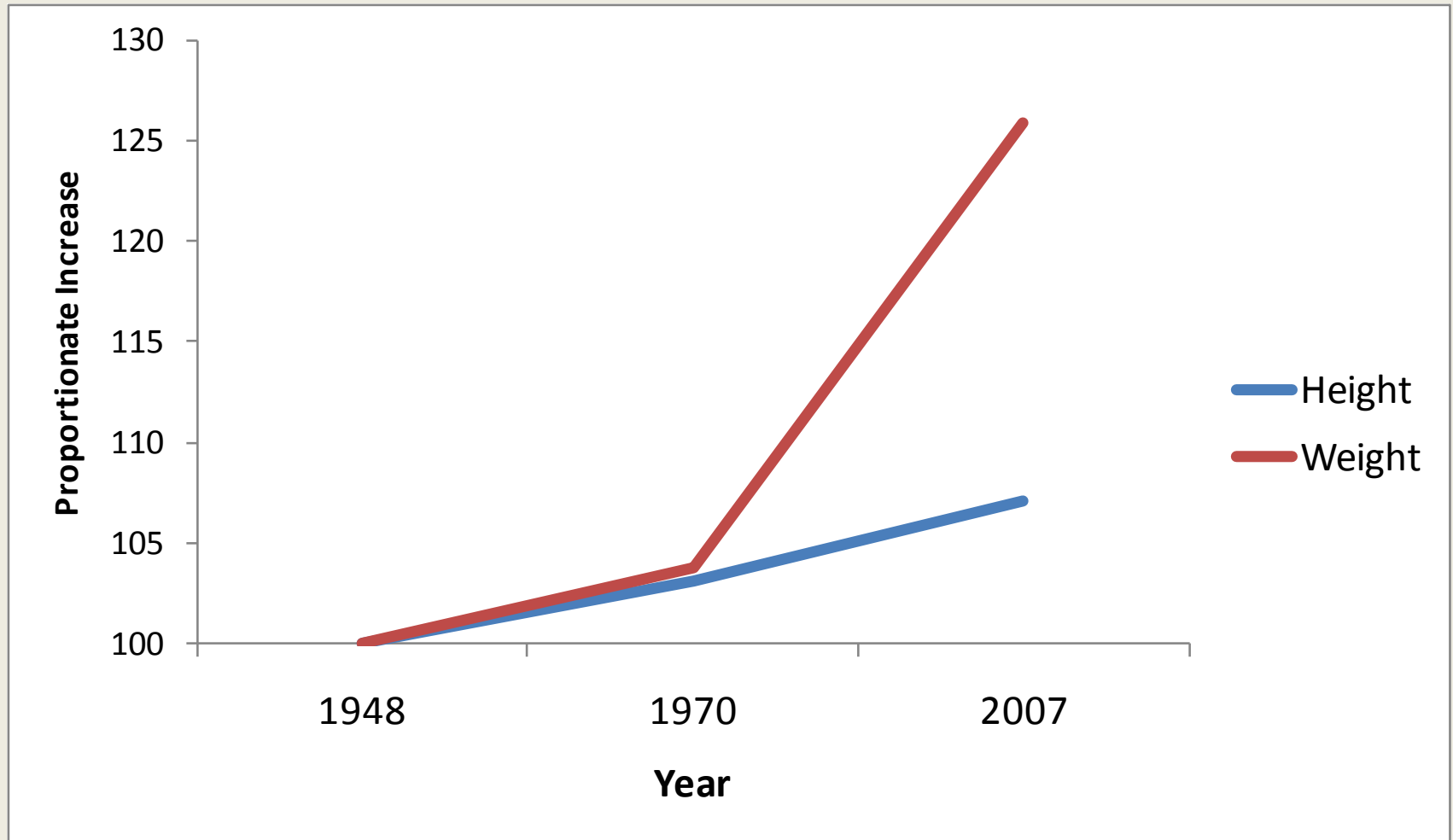
**Fig 1** Centiles for overweight by sex for each dataset, passing through body mass index of  $25 \text{ kg}/\text{m}^2$  at age 18



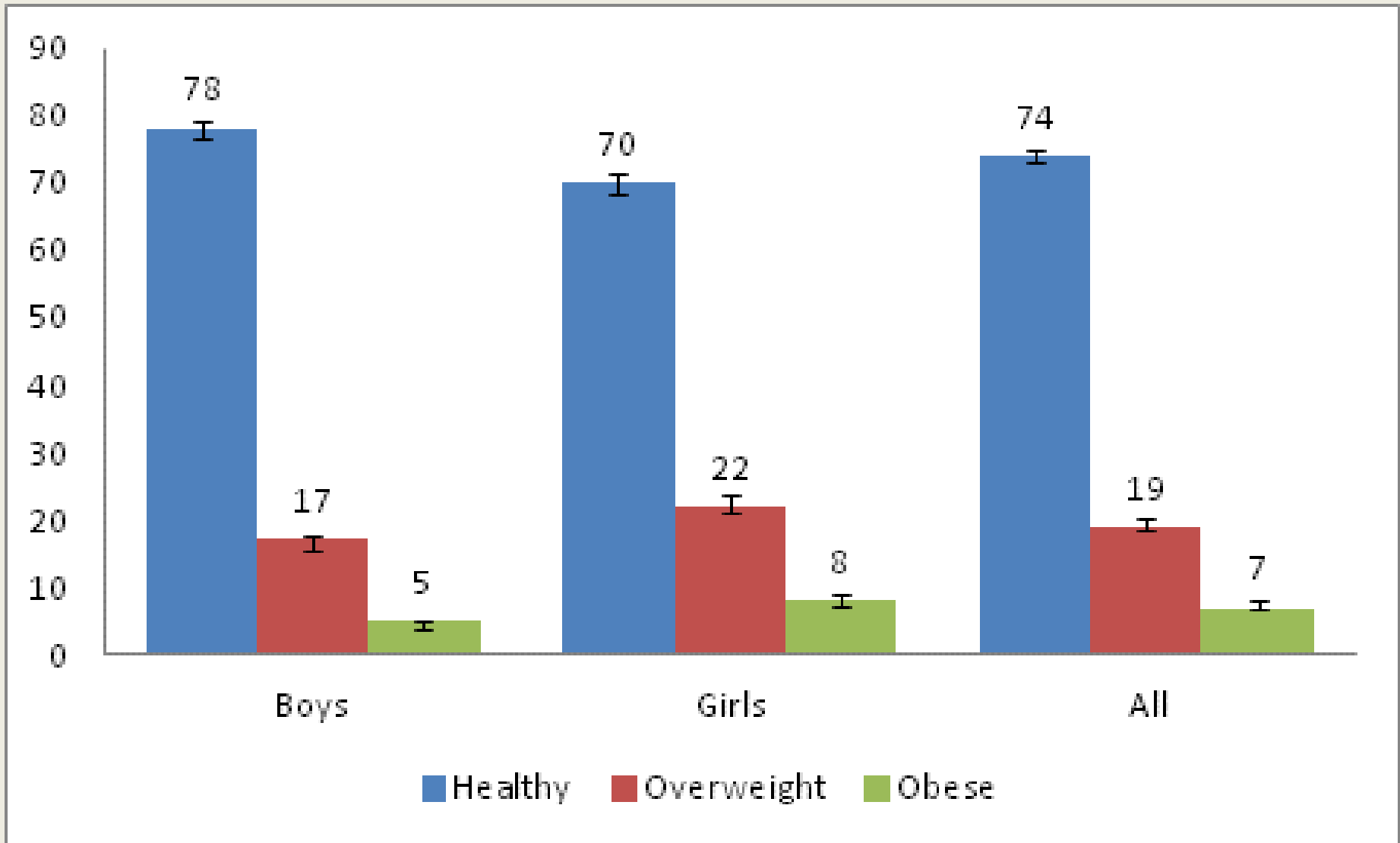
# IOTF cut-offs for overweight and obesity

	Healthy Weight	Overweight	Obese
Boys age 9.5 years	$< 19.5 \text{ Kg/m}^2$	19.5 – 23.4 $\text{Kg/m}^2$	$> 23.4 \text{ Kg/m}^2$
Girls age 9.5 years	$< 19.5 \text{ Kg/m}^2$	19.5 – 23.5 $\text{Kg/m}^2$	$> 23.5 \text{ Kg/m}^2$

# Increase in children's height (cms) and weight (Kgs) in Ireland



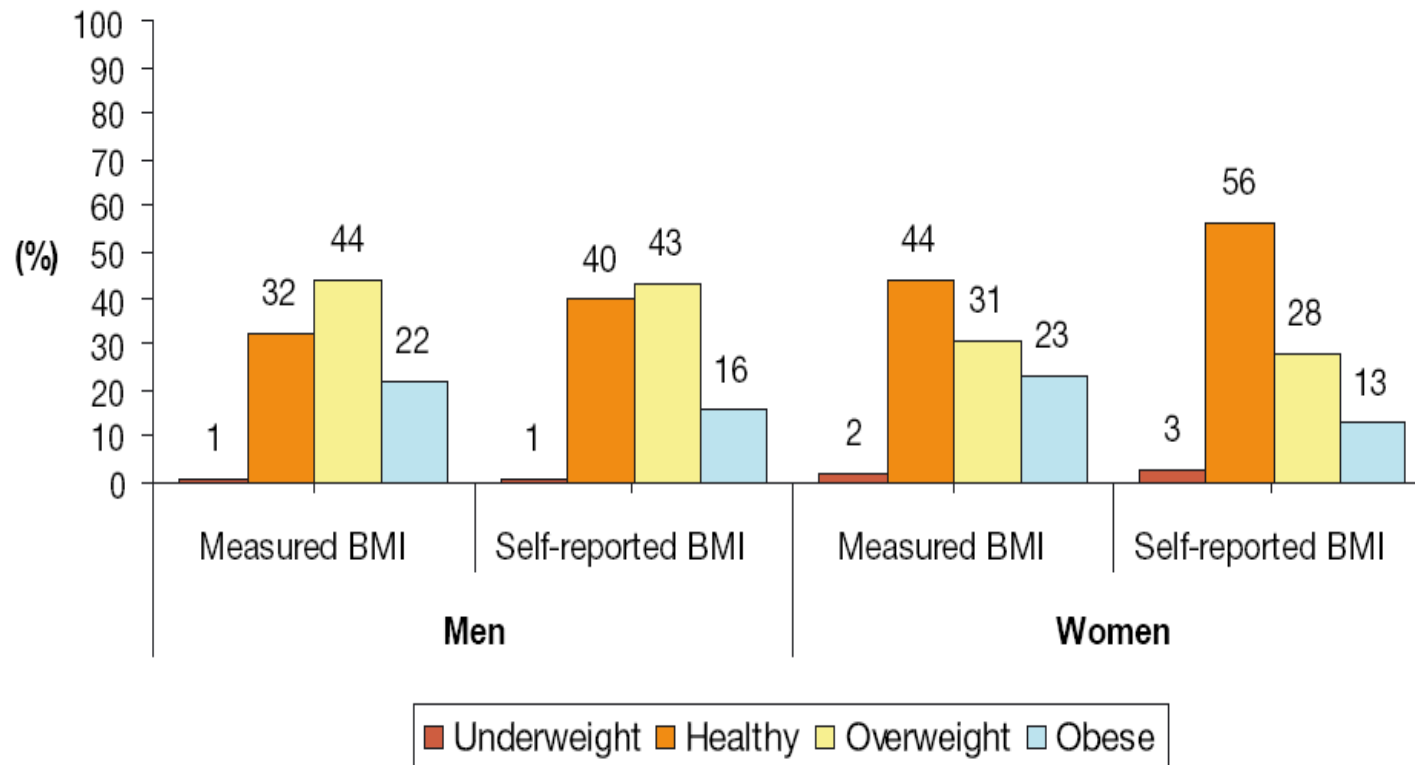
# Prevalence of childhood overweight and obesity in Ireland



# Caregivers

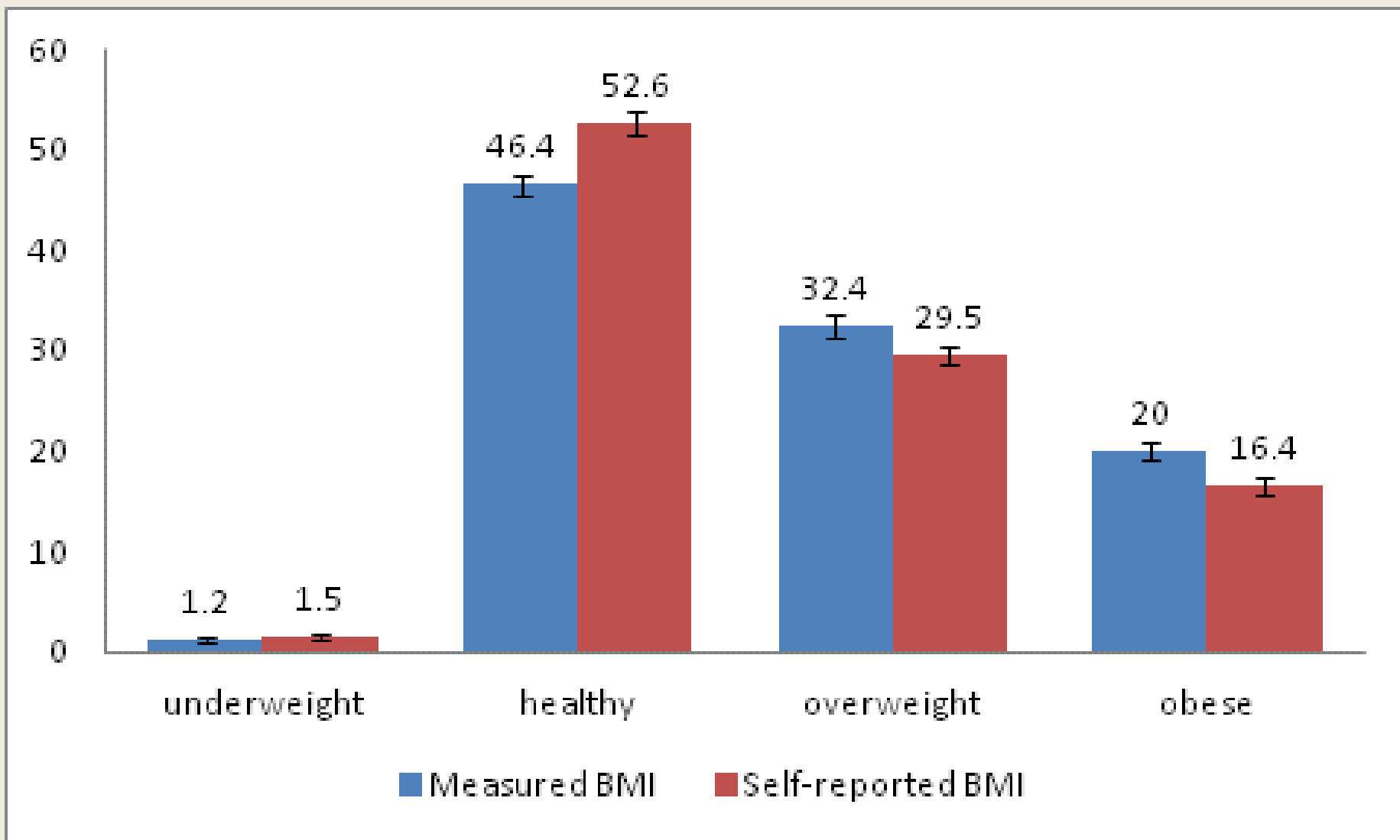
## Self-Reported vs. Measured BMI

Figure 11: BMI distributions comparing measured and self-reported anthropometric data for the combined sub-samples, by gender (2007)



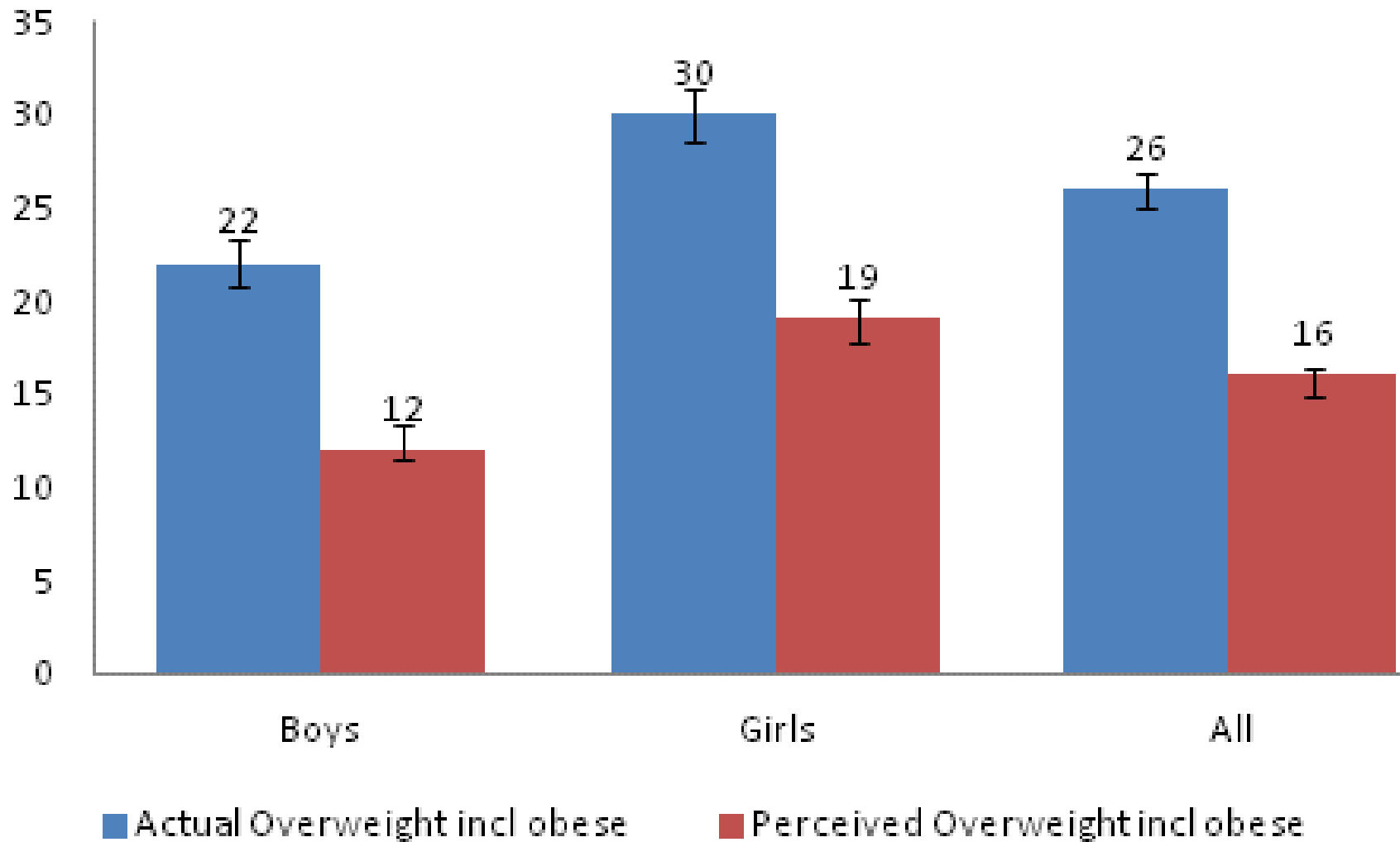
# Caregivers

## Self-Reported vs. Measured BMI



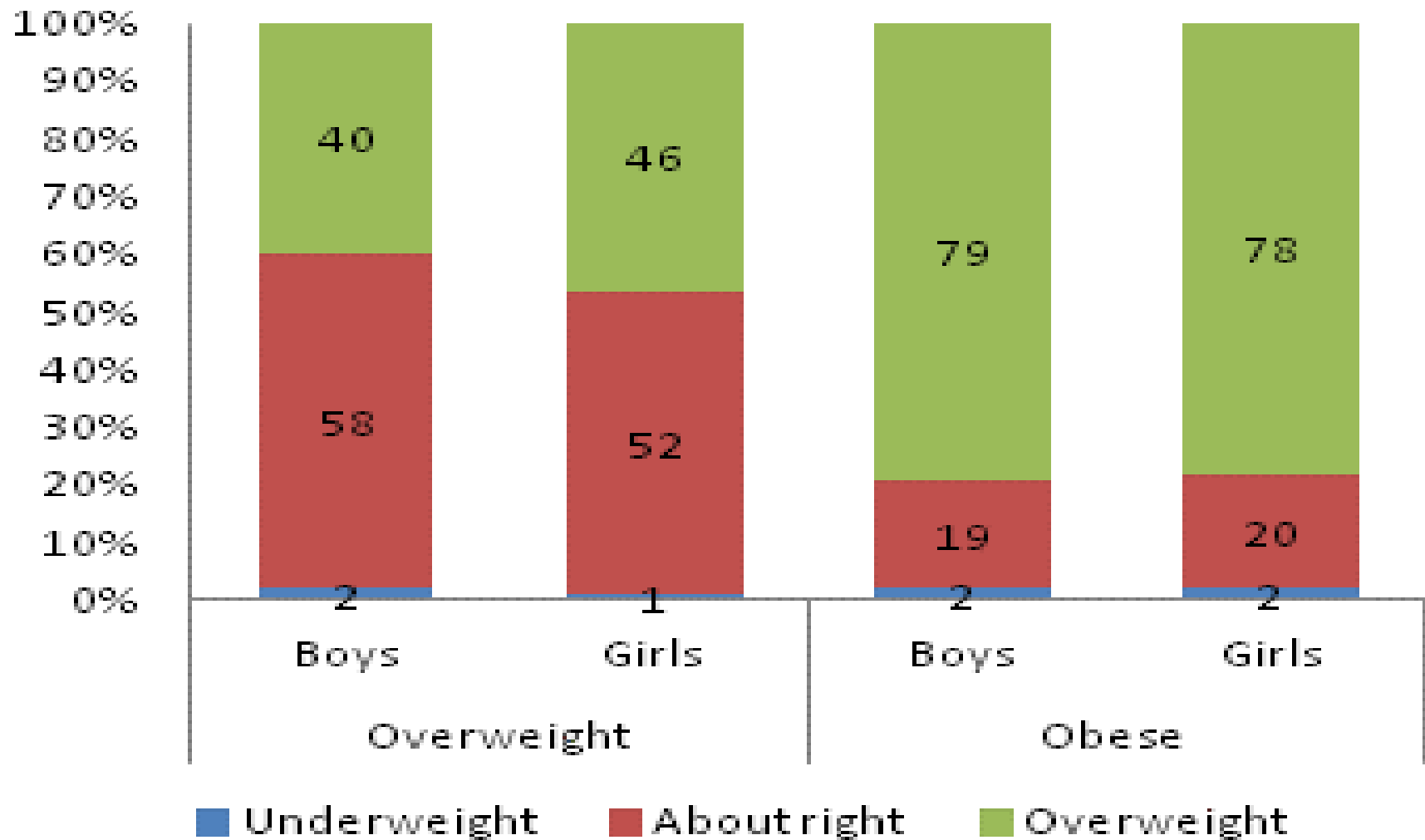
# Caregivers

## Perception of child weight status vs. actual



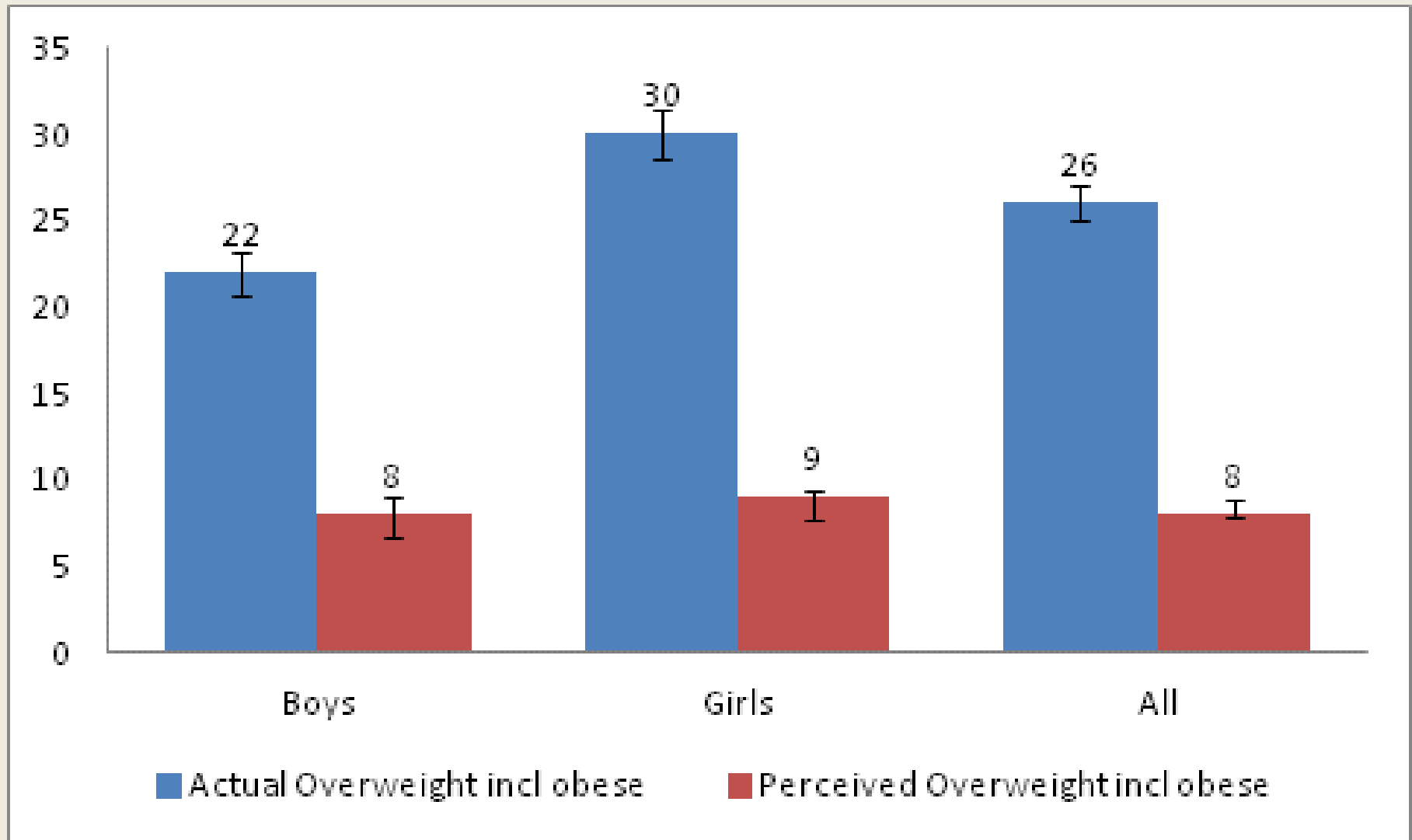
# Caregivers

## perception of child weight status vs. actual



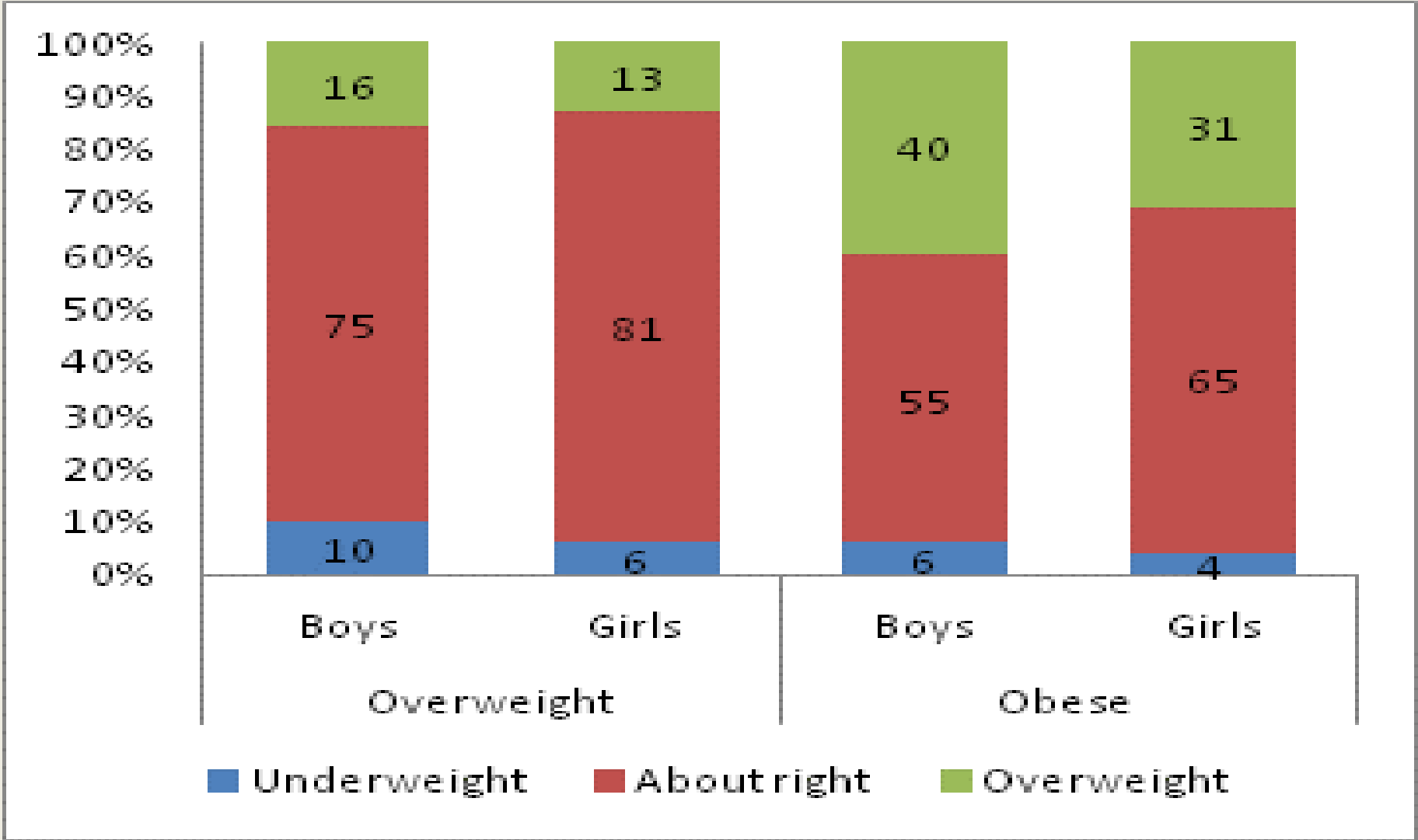
# Study Child

## Perception of child weight status vs. actual





# Study Child perception of weight status vs. actual



# Accuracy of estimates

Poor agreement between the parents' perception and the measured weight status of nine-year-old children

[Kappa: 0.04,  $p < 0.001$ ]

Poor agreement between child's self-identified weight status and measured

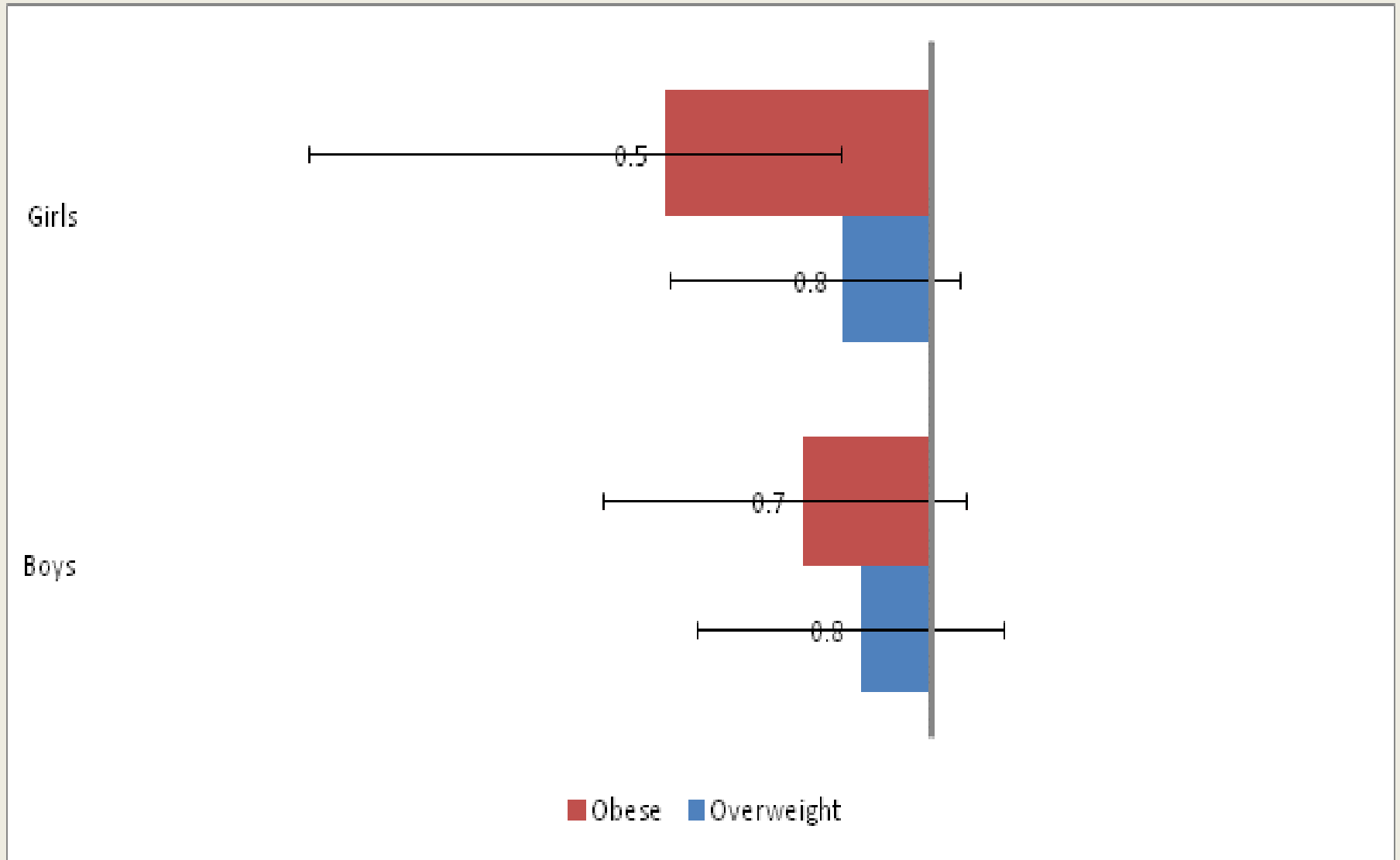
[Kappa: 0.09,  $p < 0.001$ ]

Good agreement between the estimates of caregivers and children

[Kappa: 0.23,  $p < 0.001$ ]

73% dyads correctly estimated the child's weight status,  
11% both under-estimated,  
0.4% over-estimated  
5% differed in their estimates.

# Perceiving children to be overweight - CG measured BMI



# Conclusions

Rates of obesity have increased steadily – the biology of children has not changed.

Both caregivers and children poor judges of children weight status – means problem not identified --→ no corrective measures taken.

CGs better at correctly estimating girls weight status, little difference in the obese category.

Boys better estimating their own weight than girls particularly the obese group.

Obese CGs significantly less likely to perceive girls to be overweight.

# Final thoughts

There is a need for improved recognition of obesity among parents.

Danger of stigmatising children.

Brief intervention by G.P's / public health nurse?

# References

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