

# High prevalence of obesity in The Gambia: Evidence from a nationwide population-based cross sectional health examination survey

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## Introduction

- Non-communicable diseases account for 70% of global deaths; 80% of these occur in low and middle income countries.<sup>1</sup>
- A reflection of this transition is the rapid increase of obesity in sub-Saharan Africa due to epidemiological and nutritional transition, urbanisation, and harmful cultural practices and beliefs on overweight.<sup>2,3</sup>
- We recently demonstrated a high prevalence of hypertension in The Gambia with a greater burden in rural areas and the obese.<sup>5</sup>
- In this study, we examined underweight, overweight and obesity prevalence and the associated risk factors in Gambian adults.

## Results

- 40% of Gambian adults were overweight or obese with a higher prevalence in women and urban residents; 9% were underweight.

Figure 1: Prevalence of underweight, overweight and obesity by age in men

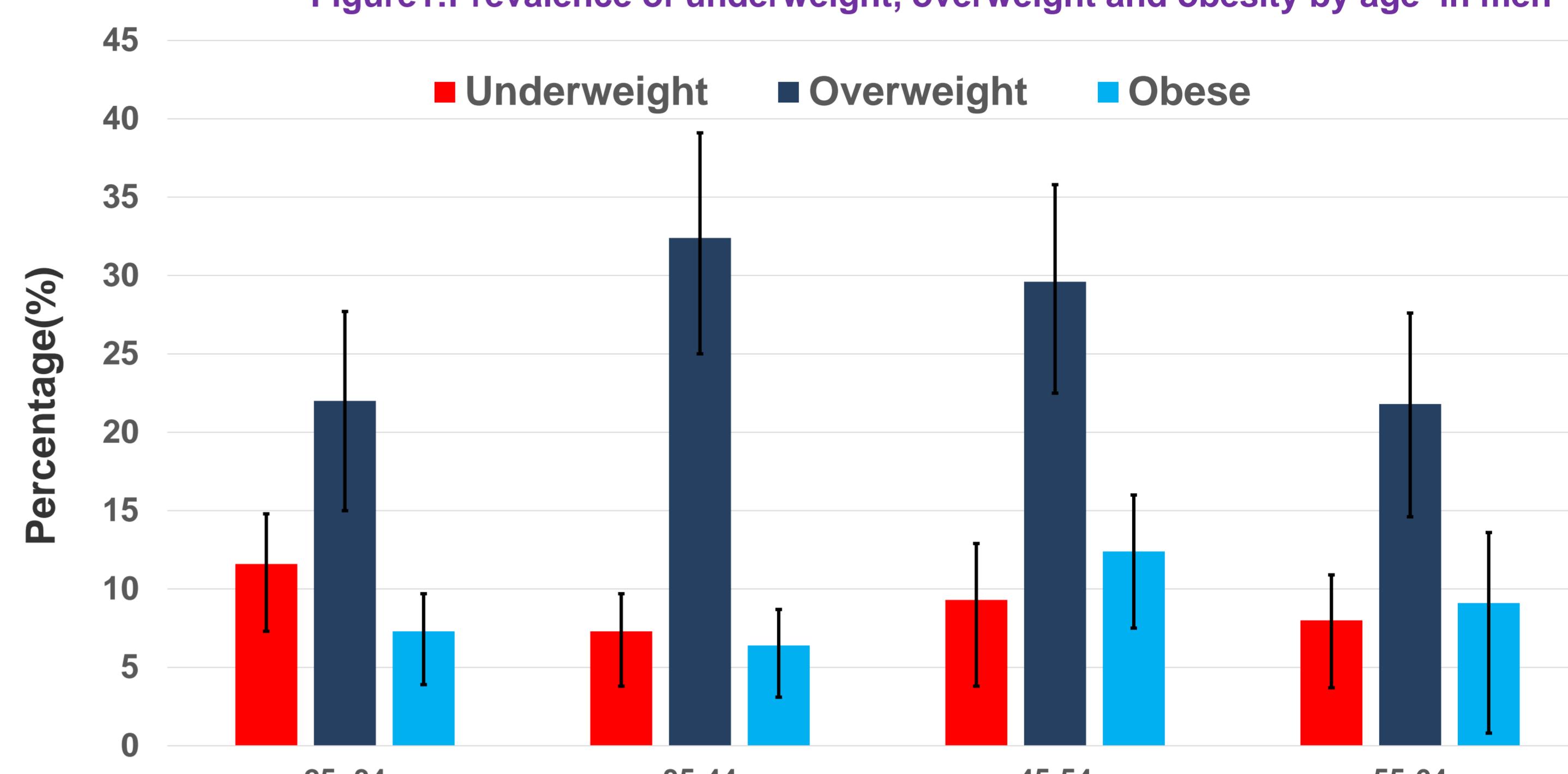
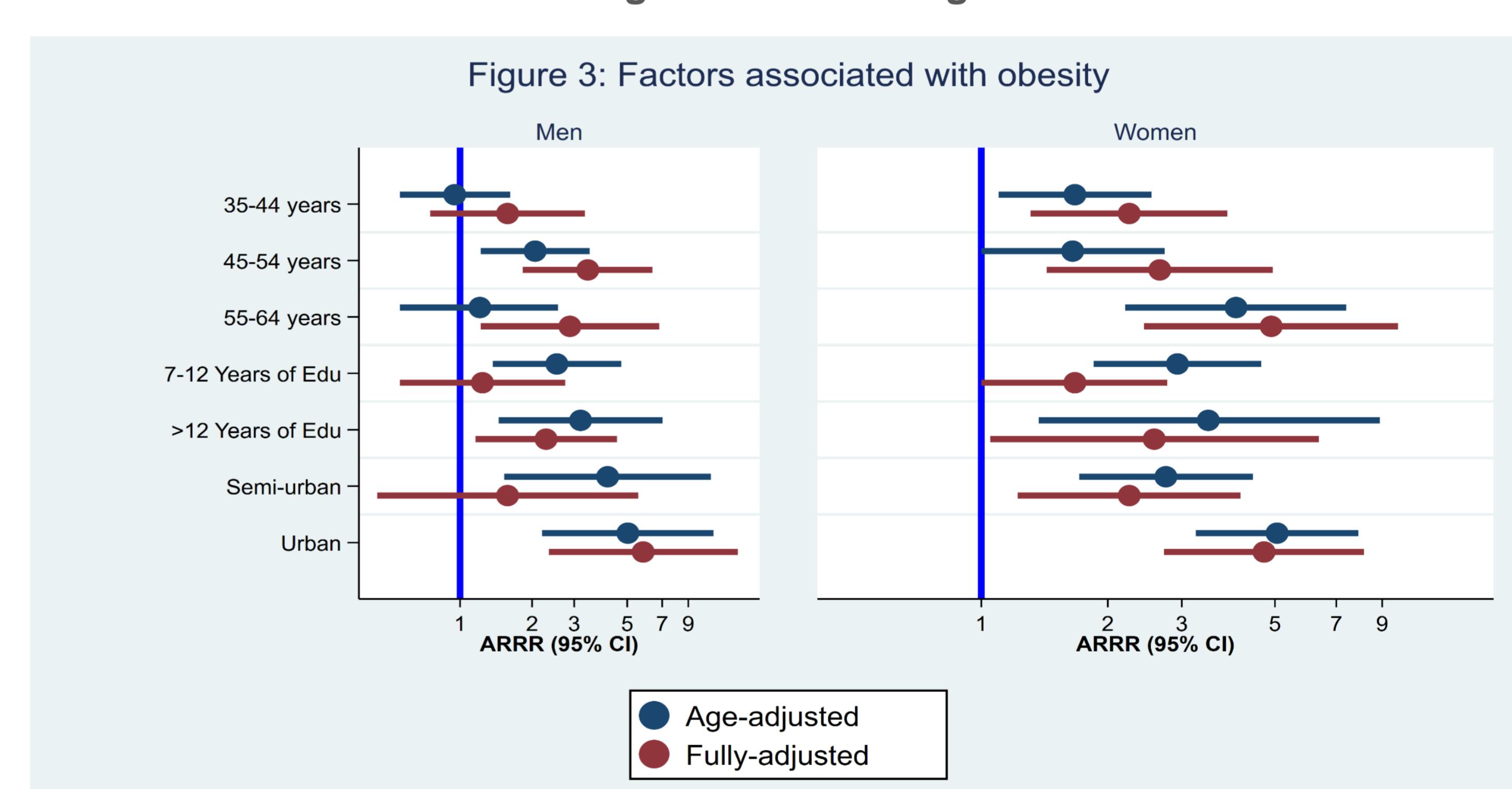
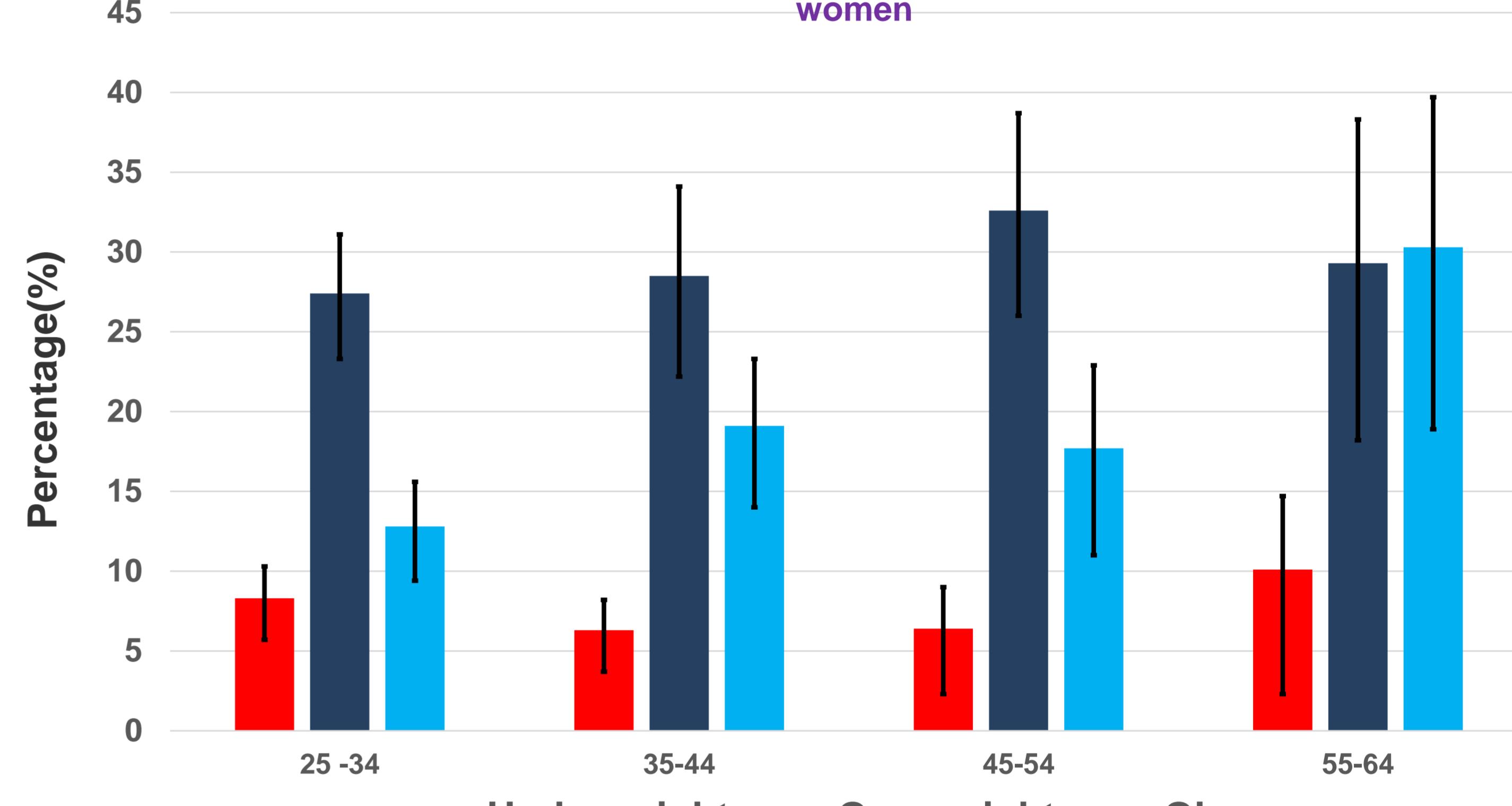


Figure 2: Prevalence of underweight, overweight and obesity by age in women



- For both sexes, we estimate that the fully-adjusted relative risk of being obese versus normal-weight was roughly 5 times higher for persons living in urban as opposed to rural areas (Figure 3).

## Conclusions

- This study reveals that the burden of obesity is high in The Gambia, especially among women and urban residents.
- Preventive strategies should be directed at raising awareness of the risk factors, discouraging harmful beliefs on weight, and promotion of healthy diet and physical activity particularly in urban areas and among women.

### Underweight, overweight, and obesity (WHO thresholds)

**Socio-demographic / confounding variables**

- Age
- Ethnicity
- Education
- Residence

**Behavioural risk factors**

- Smoking
- Physical inactivity
- Low fruit & veg. intake

## References

- Dalal S, Beunza JJ, Volmink J, et al. Non-communicable diseases in sub-Saharan Africa: what we know now. *Int J Epidemiol*. 2011;40(4):885-901.
- Bosu WK. An overview of the nutrition transition in West Africa: implications for non-communicable diseases. *Proc Nutr Soc*. 2015;74(4):466-77.
- Siervo M, Grey P, Nyan OA, Prentice AM. A pilot study on body image, attractiveness and body size in Gambians living in an urban community. *Eating and weight disorders*. 2006;11(2):100-109.
- Scott A, Ejikeme CS, Clottey EN, Thomas JG. Obesity in sub-Saharan Africa: development of an ecological theoretical framework. *Health Promot Int*. 2012;das038
- Cham B, Scholes S, Ng Fat L, Badjie O, Mindell JS. 2018. Burden of hypertension in The Gambia: evidence from a national World Health Organization (WHO) STEP survey. *Int J Epidemiol*. 2018; 47(3) : 860-871  
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