

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

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## **Introduction**

The prevalence of obesity has more than doubled in West Africa over the past 15 years. Obesity is increasing at a faster rate in developing countries compared with developed countries. Possible explanations include epidemiological and nutritional transition, increased consumption of processed foods, and urbanisation. A 1996 study revealed a double burden of over- and under-weight in The Gambia. We examined overweight and obesity prevalence and the associated risk factors in Gambian adults.

## **Methods**

This study uses a random nationally-representative sample of 4111 adults aged 25-64years (78% response rate) collected in 2010 using the WHO STEPwise survey methods, restricted to non-pregnant participants with valid weight and height measurements (N=3533). We categorised body mass index from measured height and weight to determine underweight, overweight and obesity (WHO thresholds). Analyses were stratified by gender. All analyses were weighted for non-response and adjusted for complex survey design using STATA14. We conducted multivariate multinomial regression analysis to identify factors associated with underweight, overweight and obesity, using normal weight as reference. Fully adjusted relative risk ratios (ARRR) with their corresponding 95% confidence intervals (CI) are reported.

## **Results**

Two-fifths of adults in The Gambia were overweight or obese, with a higher prevalence of obesity in women (17.0%, [95%CI: 14.7-19.7%] vs 8.1% in men, [6.0-11.0%]) and urban residents. Urban residence, abdominal obesity, higher education, and age were significantly associated with obesity among both men and women. Obesity was also significantly associated with low fruit and vegetable intake in men, and with hypertension and ethnicity in women. Most of these variables were also significantly associated with overweight. Compared with rural residents, the risk of overweight and obesity among urban residents were three- and six-fold higher respectively in men (overweight: ARRR 3.1, 95% CI: 1.7-5.6; obesity: 6.6, 2.5-17.2) and in women (overweight: 3.2, 1.9-5.4; obesity: 5.9, 3.1-11.2). No significant associations were found for underweight, except for smoking and ethnicity in men and old age and ethnicity in women.

**Conclusion**

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