

# **Obesity and Cardiovascular Risk factor analysis of Adults and Older Adults in an Inner London Borough**

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# Introduction

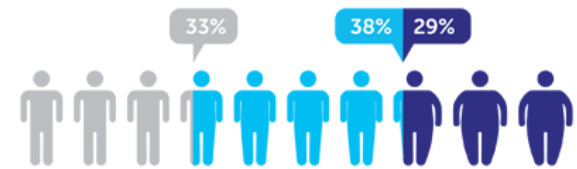
- Diabetes risk increasing due to lack of physical activity and obesity.
- NHS “slow to act” (BBC,2016)
- £5.5bn a year for 16+
- 5% increase annually



IF TRENDS CONTINUE,  
ALMOST 4 IN 10 ADULTS ARE PREDICTED  
TO BE OBESE BY 2035

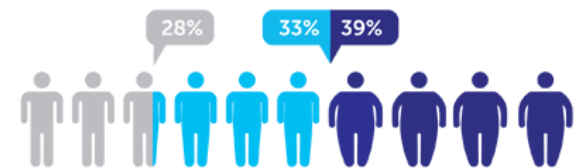
 Healthy Weight  Overweight  Obese

IN  
2015



Around 3 in 10 adults are obese.

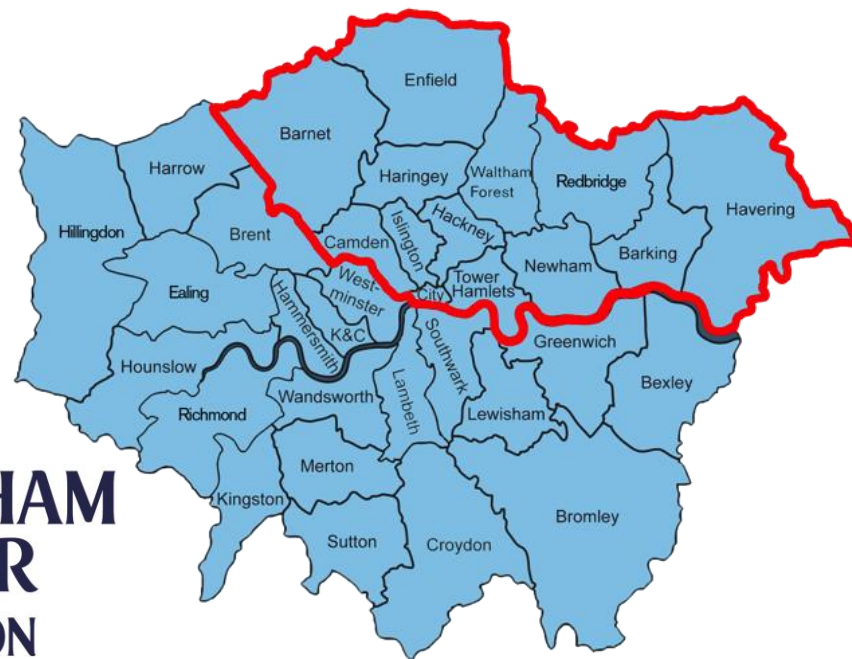
IN  
2035



Around 4 in 10 adults will be obese.

# Introduction to Haringey

- Haringey-4th most deprived borough in London & 13th most deprived local authority area in England (out of 326).
- Polarisation - deprivation of East v West
- Life expectancy
  - 7.7 years lower for men
  - 3.4 years lower for women



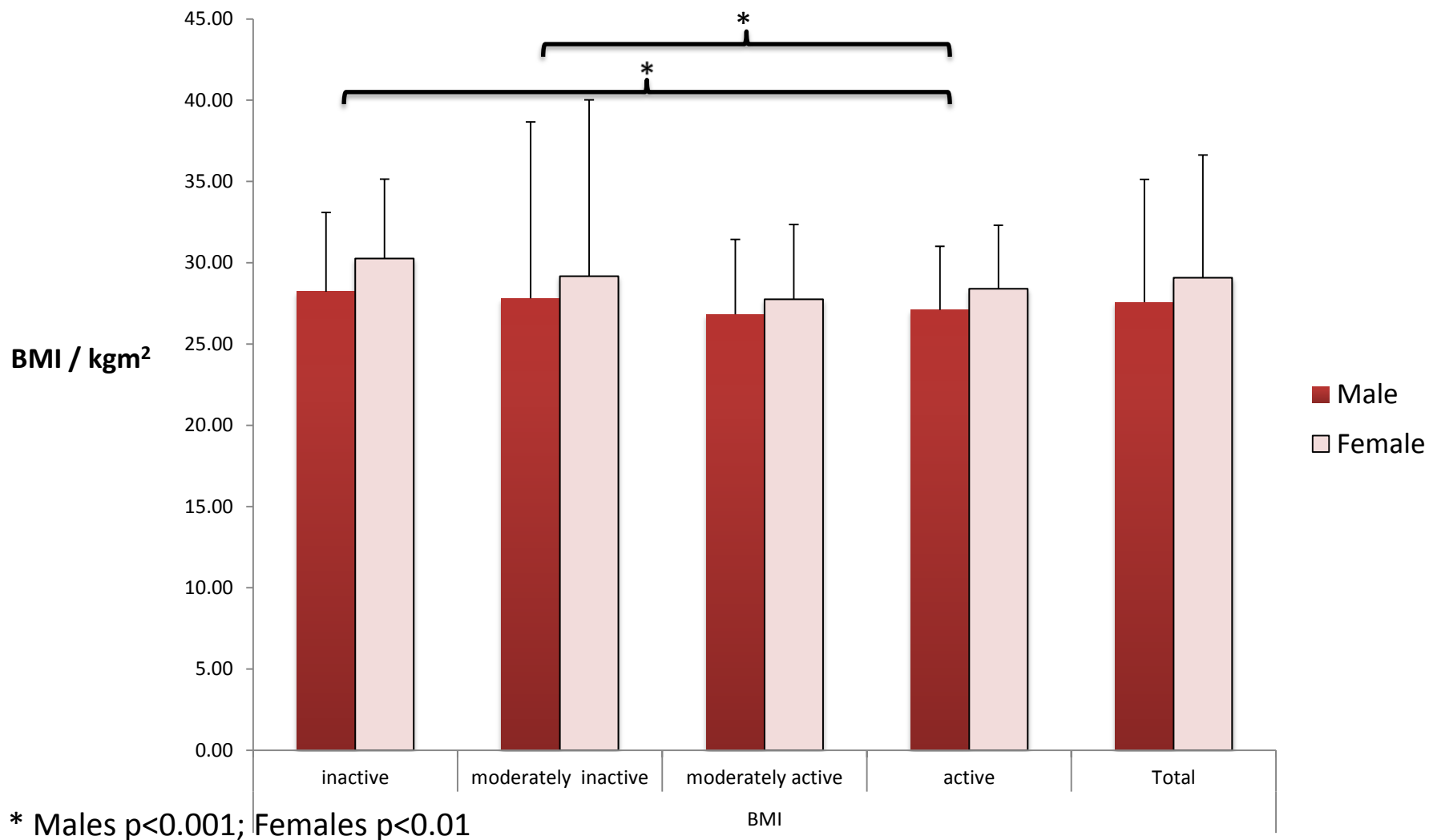
# Why Tottenham Hotspur?

- Large proportion of non GP registered population compared to London.
- Uptake of NHS Health Checks in the East of the borough was very low compared to West and London.
- Haringey council teamed up with THF to offer Health checks at local community hubs/facilities via the community nurse.

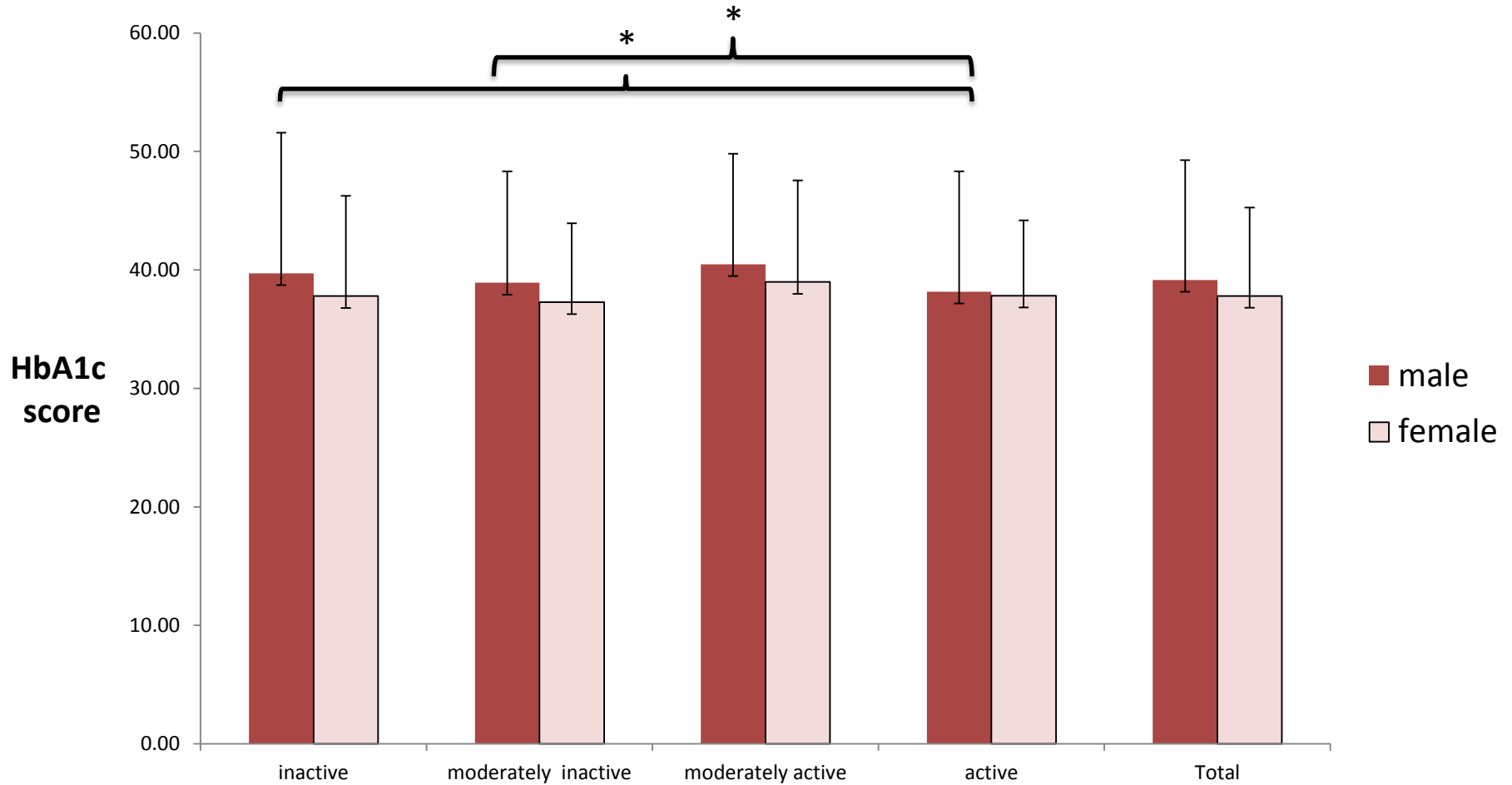
# Aim and Method

- To Identify and analyse obesity related risk factors in Haringey.
- 3000 health checks (N=2254) were carried out between March 2014 and July 2015
- 23.4% females (N=529) and 76.6% males (N=1729).
- The mean age for males was  $49.4 \pm 8.0$  years and  $50.2 \pm 8.0$  years for females.
- Health checks carried out by the THF community nurse
- 25 locations in the east of the Borough at supermarkets, public libraries, cultural centres and post offices.
- Target males aged 40-75

# Physical Activity and BMI (kg/m<sup>2</sup>)

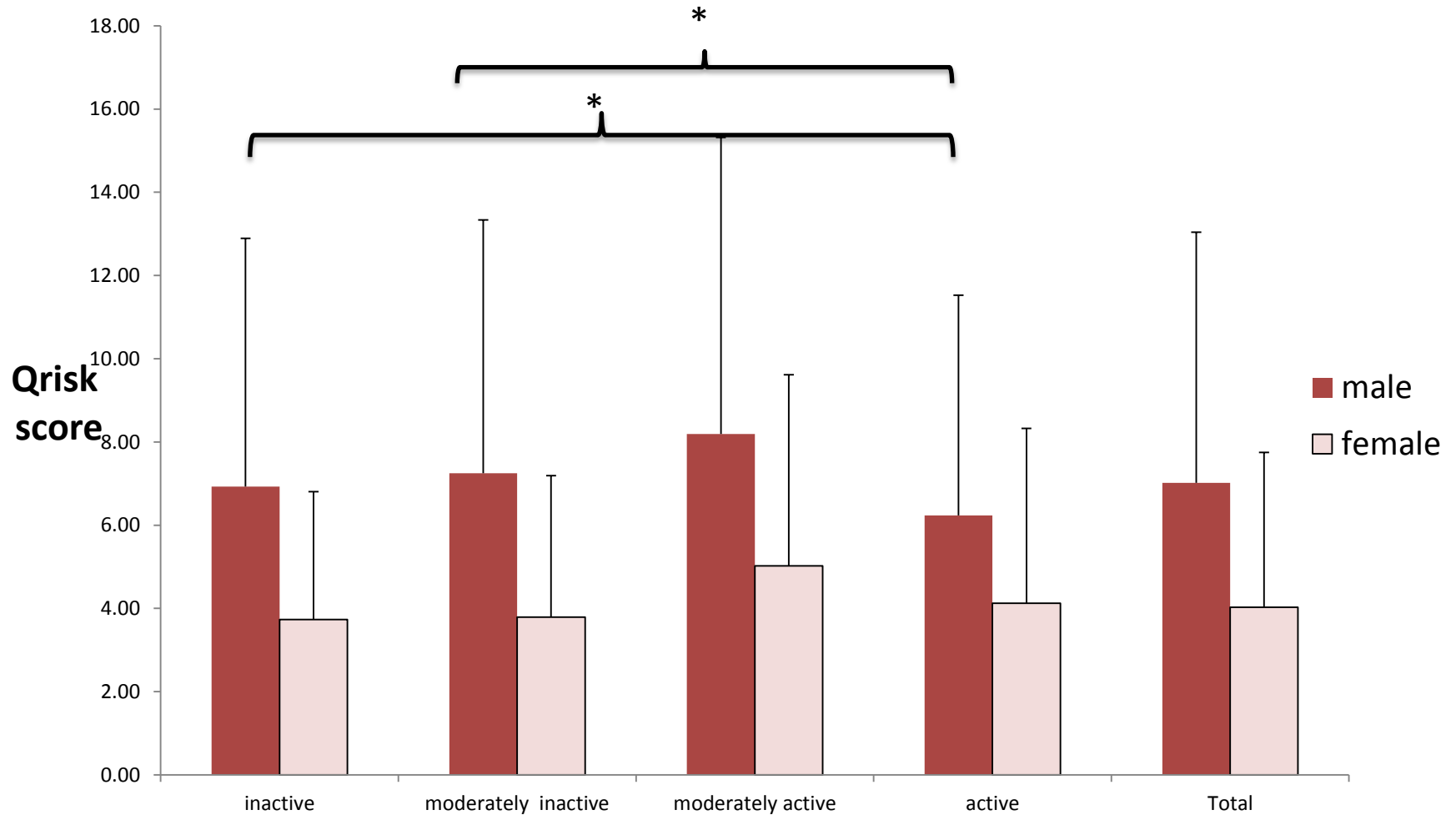


# Physical Activity & HbA1c score



\* Males  $p < 0.001$

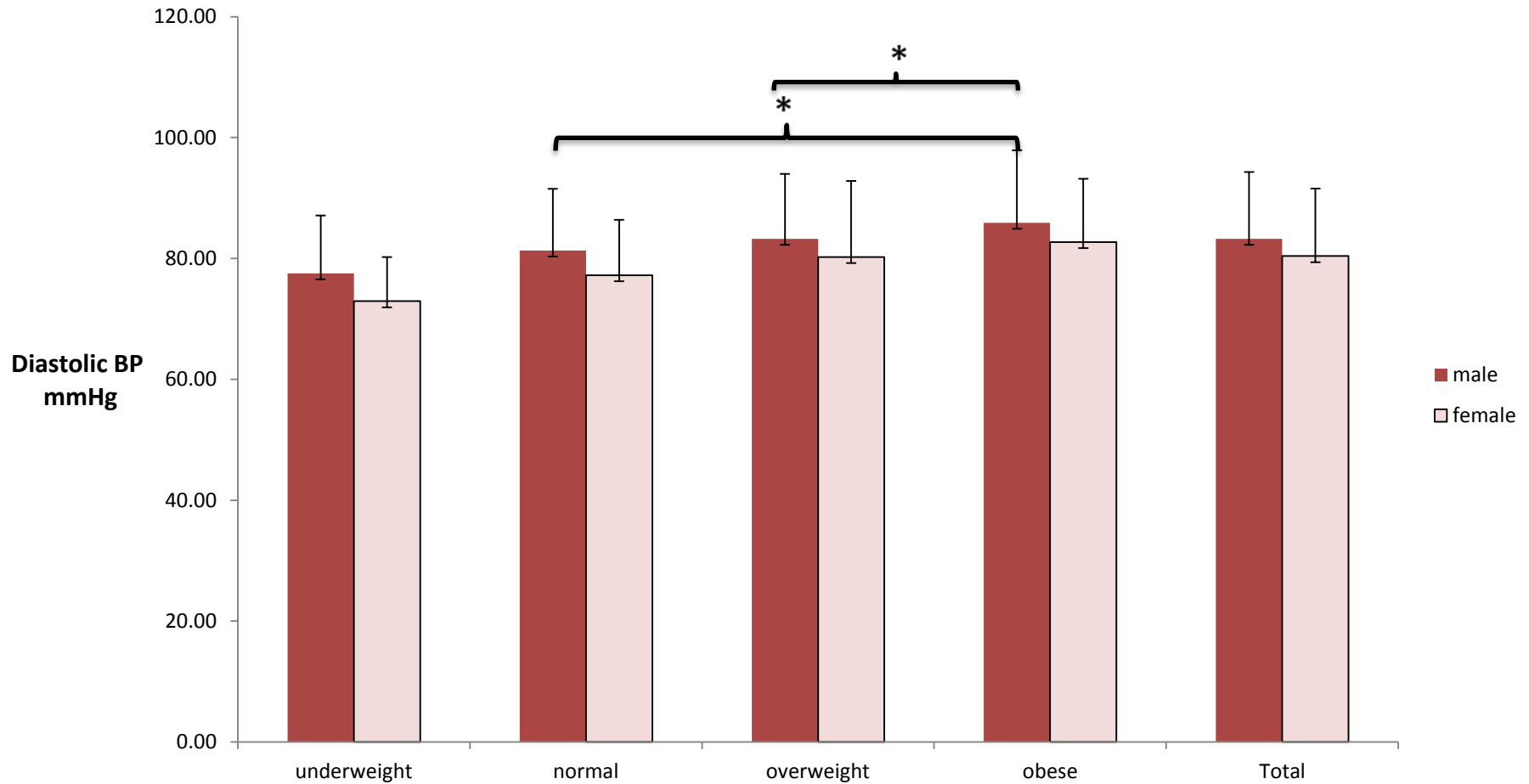
# Qrisk & Physical Activity



Males  $p < 0.001$

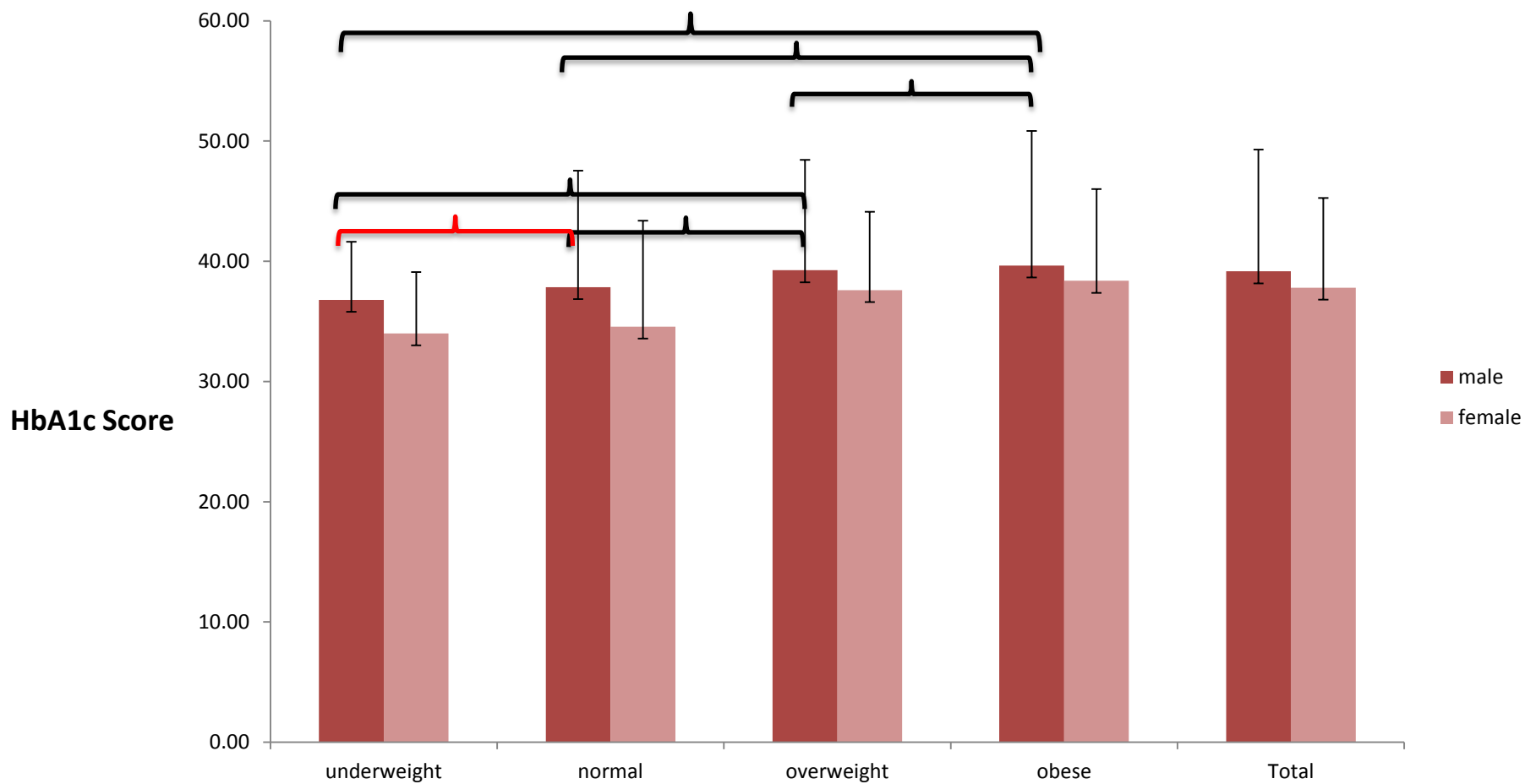


# Diastolic Blood Pressure & BMI



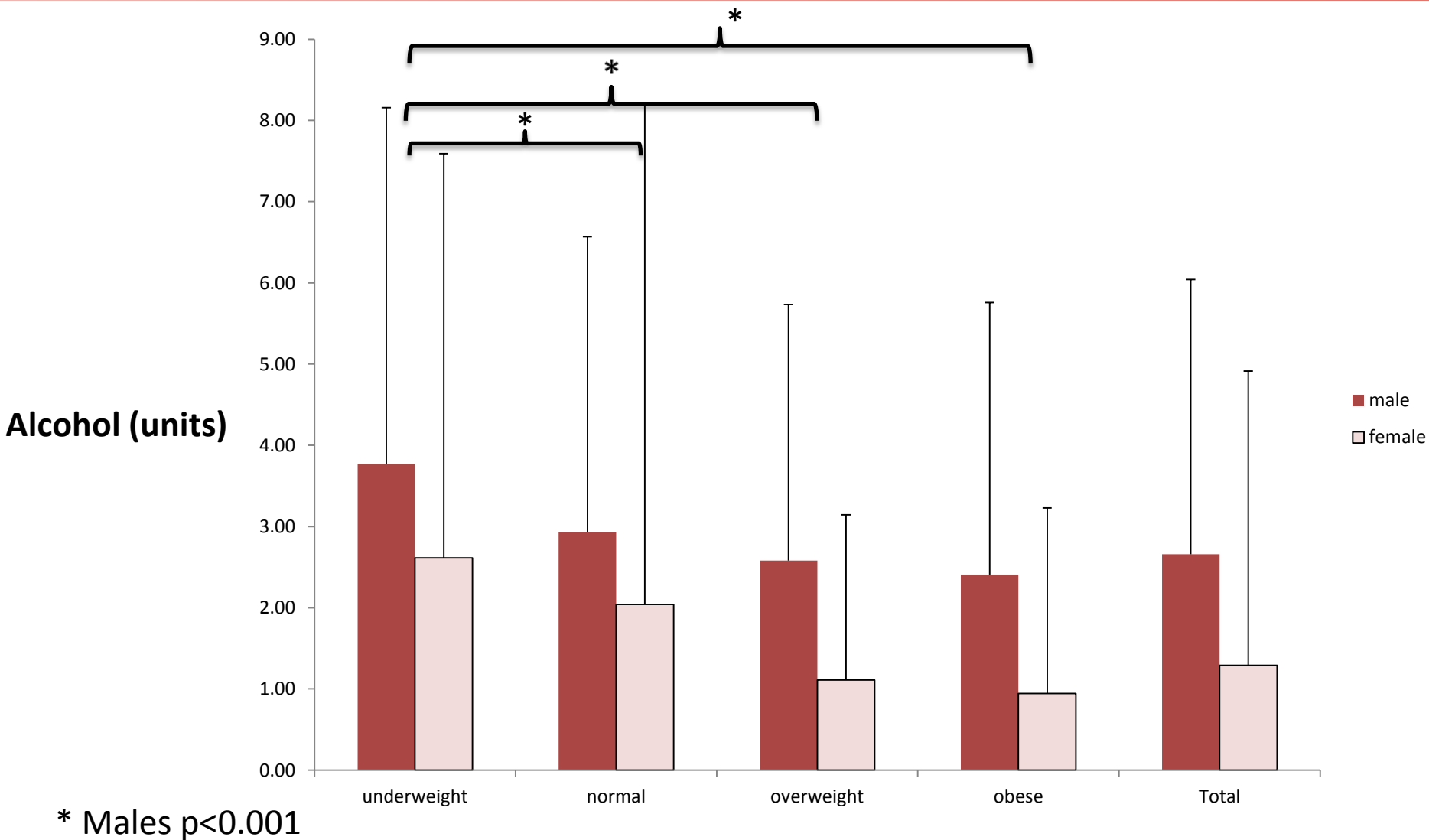
\* Males & Females  $p < 0.01$

# Blood sugar & BMI

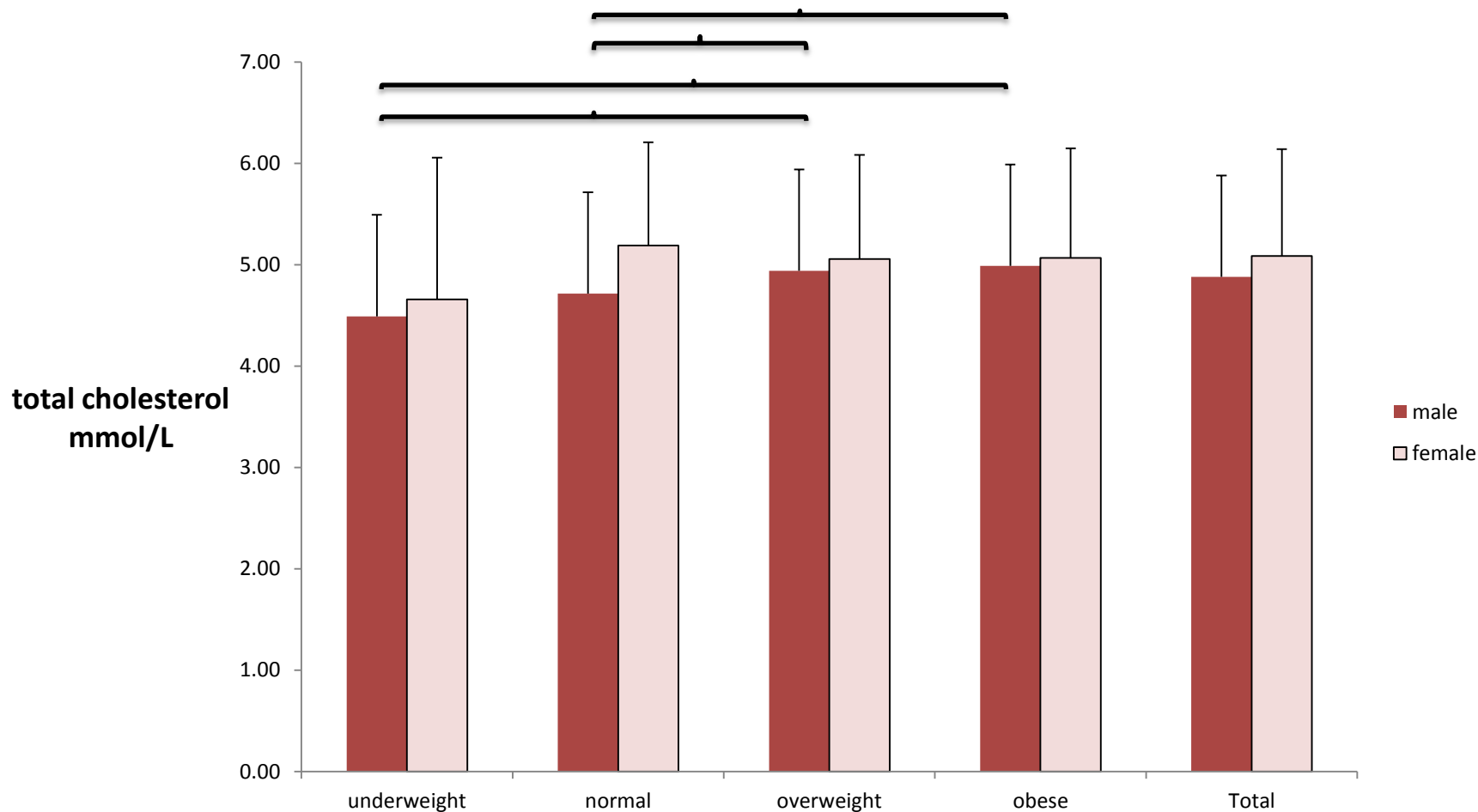


\* Males & Females  $p < 0.01$

# BMI & alcohol units

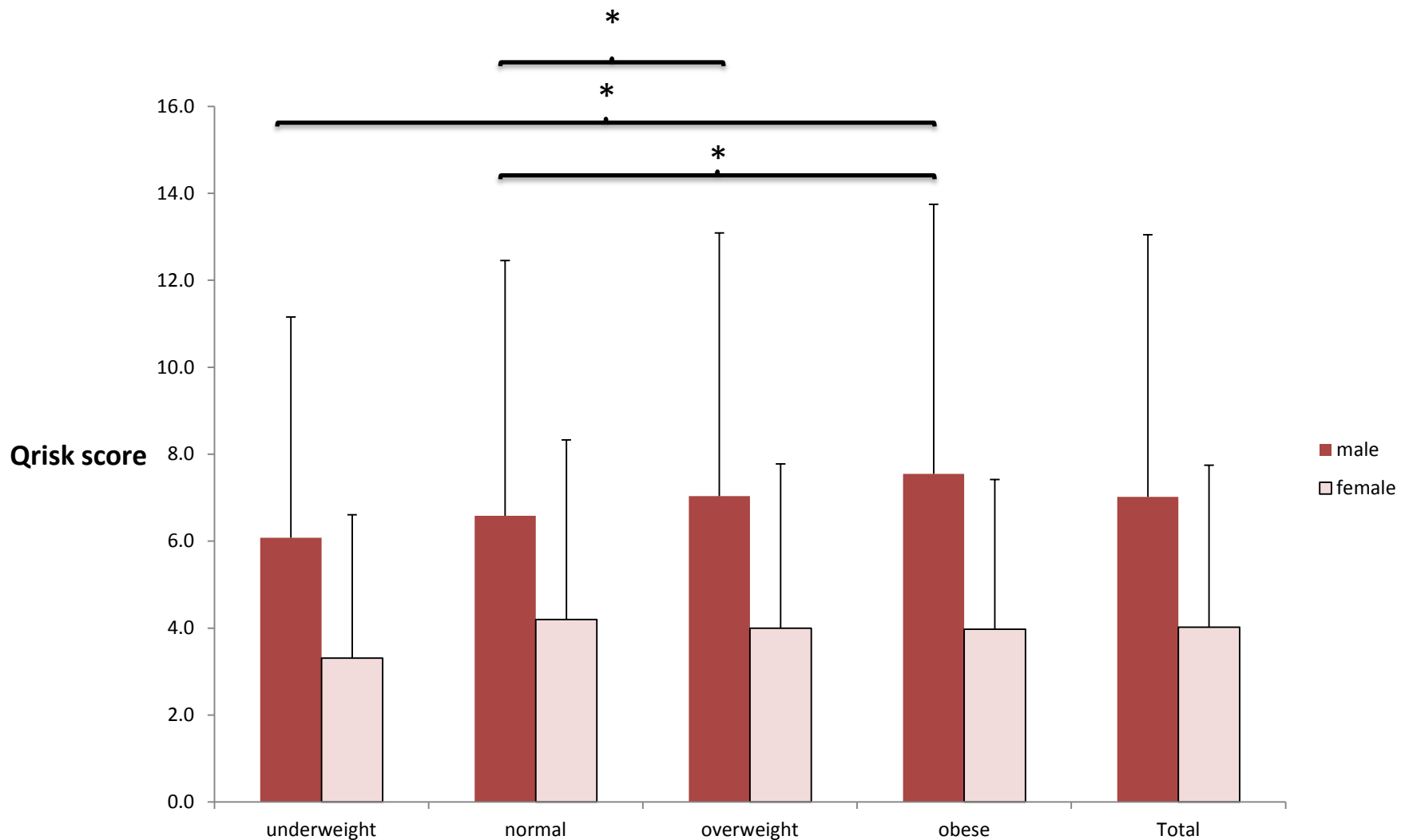


# Total cholesterol & BMI



\* Males & Females  $p < 0.01$

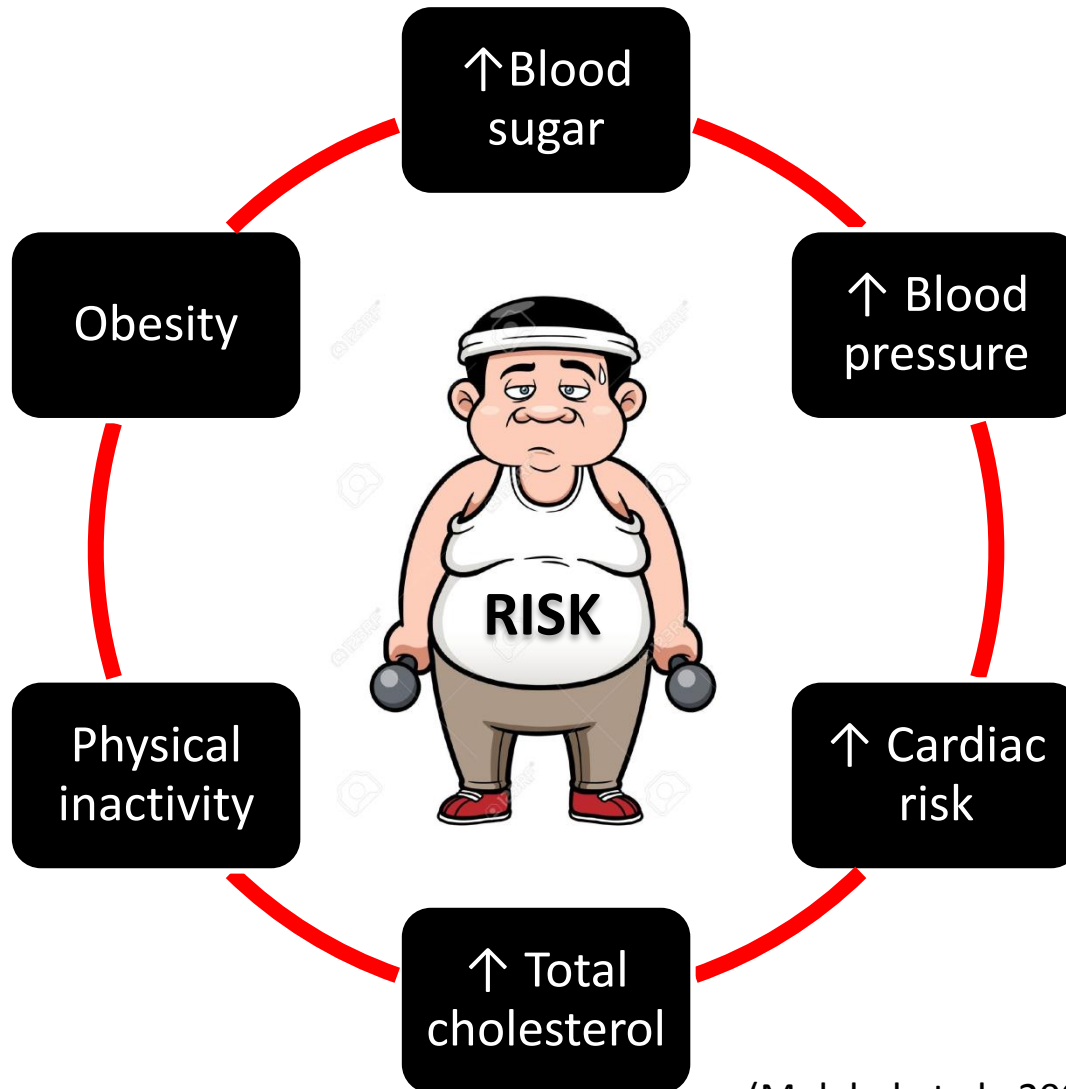
# Qrisk & BMI



\* Males  $p < 0.01$

- 11% ↑ females classed as OW/OB
  - 4% ↑ males classed as OW/OB
  
  - 34% ↓ females meet the PA guidelines
  - 36% ↓ males meet the PA guidelines
- (HSCIC, PHE, 2015)

# Discussion: Supports prior research that suggests that .....

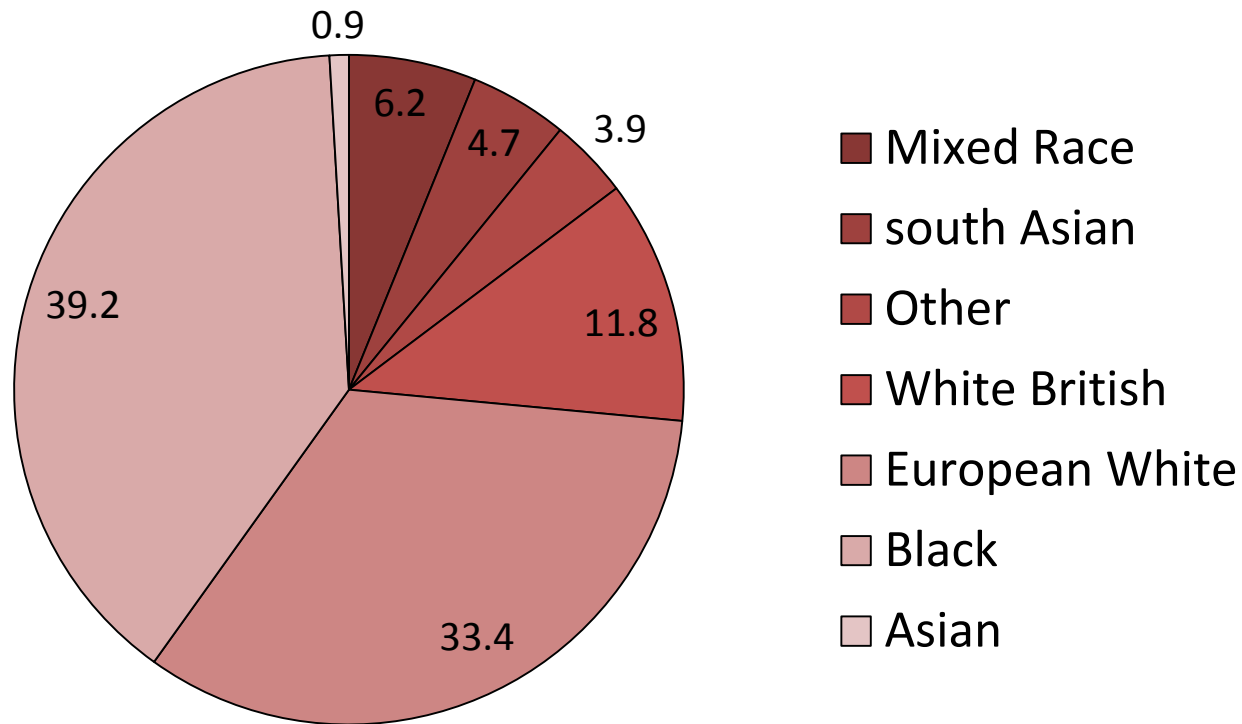


(Mokdad et al., 2003; Sullavan et al., 2005)

- Weight loss over time in older adults is a sign of malnutrition (Beck and Ovesen 1998)
- Poor nutritional status was associated with the prevalence of type 2 diabetes (Castaneda et al., 2000)
- Low dietary magnesium was associated with risk of type 2 diabetes (Lopez-Ridaura et al., 2004).
- Normal BMI had lower blood sugar than underweight BMI group



# Discussion – ethnicity analysis needed



- Interventions must be sought to address obesity and activity in Haringey particularly in the 40-60 year old age group
- Females should not be overlooked in NHS or other initiatives.
- Over  $\frac{3}{4}$  of the sample were male

- HSCIC, PHE, Statistics on Obesity, Physical Activity and Diet (2015)  
<http://www.hscic.gov.uk/catalogue/PUB16988/obes-phys-acti-diet-eng-2015.pdf>
- Mokdad, A.H., Ford, E. S., Bowman, B. A., Dietz, W. H., Vinicor, F., Bales, V. S. and Marks, J. S. (2003) Prevalence of Obesity, Diabetes, and Obesity-Related Health Risk Factors. JAMA, 289 (1) 76-79
- Sullivan, P. W., Morrato, E. H., Ghushchyan, V., Wyatt, H. R., Hill, J. O. (2005) Obesity, Inactivity, and the Prevalence of Diabetes and Diabetes-Related Cardiovascular Comorbidities in the U.S. Diabetes Care, 1599-1603
- Beck AM., Ovesen L., At which body mass index and degree of weight loss should hospitalized elderly patients be considered at nutritional risk? Clin. Nutr., 1998, 17: 195-198
- Castaneda C, Bermudez OI, Tucker KL: Protein nutritional status and function are associated with type 2 diabetes in Hispanic elders. Am J Clin Nutr 72:89–95, 2000
- Lopez-Ridaura R, Willett WC, Rimm EB, Liu S, Stampfer MJ, Manson JE, Hu FB: Magnesium intake and risk of type 2 diabetes in men and women. Diabetes Care 27:134–140, 2004

# Thank you

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