

PREVALENCE OF OBESITY IN PORTUGAL

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BACKGROUND

Obesity has become an increasing problem in industrialized countries, namely in Portugal. The lack of robust data about this disease has emerged a strong reason for the implementation of this study.

OBJECTIVES

The main goal of this study was to estimate the prevalence of obesity and its association with socio-demographic and lifestyle factors.

METHODS

Design: National observational cross-sectional study.

Setting: This study was conducted in 2003. Data was collected from a cross-sectional epidemiological study conducted to estimate the prevalence of hypertension¹. The sample was defined in order to be representative by region - Norte, Centro, LVT (Lisboa e Vale do Tejo), Alentejo and Algarve. A total of 4992 adults were enrolled, with ages between 18 and 97 years.

Main outcome measures: Anthropometrics were measured by a trained team using standardized methods. Weight was measured once with grade scales and height was as shown in ID.

Obesity was defined using the standardized classification based on the body mass index (BMI), agreed by the World Health Organization (WHO), as follows:

BMI < 18.5 – underweight 25 ≤ BMI ≤ 29.9 – overweight
18.5 ≤ BMI ≤ 24.9 – normal BMI ≥ 30 – obesity

RESULTS

The main results of this study show that:

- 14.5% of the adults, in Portugal, are obese (95% CI: 13.5%-15.5%) with a BMI mean value of 33 Kg/m²;
- 14.4% of men and 14.7% of women are obese, showing no statistical differences between gender;
- the mean weight was 75.9 Kg for men and 63.5 Kg for women and the age group with higher value was 45-54 years old (71.8 Kg) (data not shown);
- the mean age for the obese group was 52.4±15.6 years old; housewives, illiterate and non-smokers shown higher prevalence's.

Figure 1 Distribution by BMI classes and corresponding weight and BMI averages

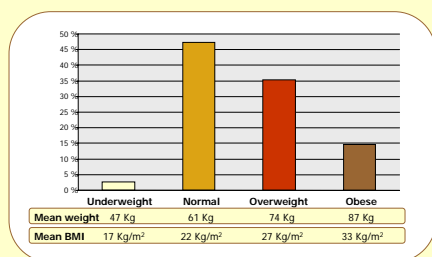


Figure 2 Prevalence of BMI classes by gender

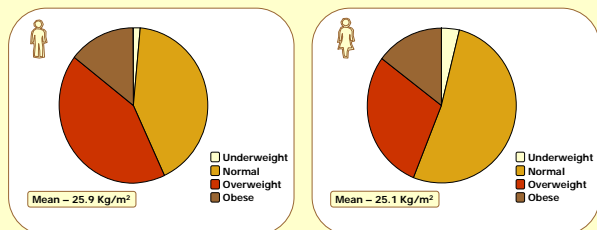


Figure 3 Prevalence of BMI classes by age group

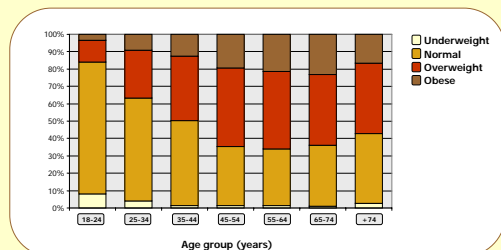


Figure 4 Prevalence of obesity by region and gender

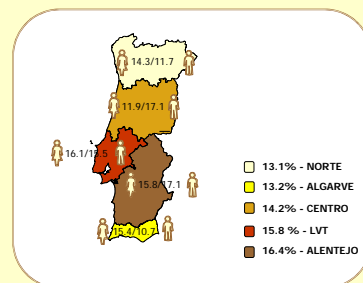
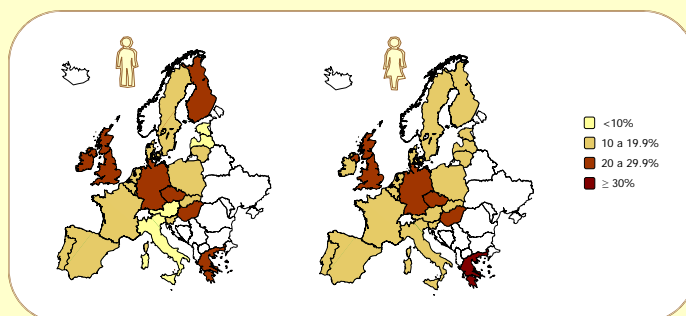


Table 1 Associations of obese and non-obese with socio-demographic and lifestyle factors

Factors	Normal	Overweight	Obese	p-value*
Age (years), Mean ± SD	41.2 ± 17.8	49.8 ± 16.2	52.4 ± 15.6	<0.0001
Professional activity				<0.0001
Primary	30.0 %	48.0 %	22.0 %	
Secondary	47.0 %	35.8 %	15.3 %	
Tertiary	47.8 %	36.9 %	13.0 %	
Housewives	38.1 %	24.2 %	25.3 %	
Retired	33.5 %	43.0 %	21.7 %	
Unemployed	48.7 %	29.5 %	15.4 %	
Students	75.9 %	12.5 %	3.0 %	
School level				<0.0001
Illiterate	32.6 %	42.8 %	23.1 %	
Up to compulsory	52.1 %	32.7 %	12.1 %	
Compulsory or higher level	56.1 %	31.3 %	7.8 %	
Exercise practice				<0.0001
Yes	55.2 %	32.3 %	9.3 %	
No	44.1 %	36.6 %	16.6 %	
Smoking				<0.0001
Smoker	54.7 %	31.4 %	9.8 %	
Ex-smoker	38.9 %	42.9 %	15.6 %	
Non-smoker	46.1 %	35.1 %	16.6 %	

* p-value was calculated according to the classes obese and non-obese.

Figure 5 Prevalence of obesity in EU-25 adults by gender²



CONCLUSIONS

- Estimated prevalence's in Portugal are: overweight and obesity, 49.8%; overweight, 35.3% and obesity, 14.5%.
- Age, professional activity, school level, exercise practice and smoking have shown association with obesity.
- Obesity increases with age.
- Centro and Algarve show statistical differences between gender.
- Among the countries of EU-25, Portugal is at intermediate levels of obesity, both for male and female.

REFERENCES

- 1 – Espiga M et al. Prevalence, awareness, treatment and control of hypertension in Portugal: the PAP study. Journal of Hypertension 2005; 23(9):1661-1666.
- 2 - International Association for the Study of Obesity (IASO).