

## LETTER TO THE EDITOR

# Prevalence of type 2 diabetes in the southwest Albanian adult population

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## Dear Editor

We would like to bring to your attention our study, which investigated the prevalence of type 2 diabetes in a sample of the southwestern Albanian adult population. Stratified random sampling was used to select 3709 volunteers (1966 males and 1743 females) from southwestern Albanian towns and villages, in the years 2005 and 2006. This region has a total population of 278 000.

The subjects were evaluated at the Internal Medicine Department of the Military Hospital of Gyrocastar in Albania, which is run by both Greek and Albanian military health personnel. Serum glucose, lipids (total cholesterol, triglycerides) were measured enzymatically on a Technicon RA-XT analyzer (Technicon, Dublin, Ireland). The personal information, medical history and the somatometric values of

the subjects were obtained by the hospital's medical staff. The diagnosis of type 2 diabetes was established using the 1999 WHO criteria<sup>1</sup>. Results were analyzed using SPSS v12 software (SPSS Inc, Chicago, IL, USA).

The mean  $\pm$  SD age of the studied subjects was  $49.2 \pm 18.1$  years with a range of 20 to 103 years. Of the 3709 subjects, 155 (4.17%) were found to have type 2 diabetes (interestingly, 47 participants (30.3%) in the diabetic group had undiagnosed diabetes). The mean known duration of diabetes of those who had known diabetes was  $7.8 \pm 6.7$  years. The mean age of onset in the group of subjects with type 2 diabetes was  $56 \pm 13$  years. The mean values of total cholesterol and triglycerides of this group were  $229 \pm 55$  mg/dL and  $197 \pm 94$  mg/dL, respectively, while the mean value of fasting blood glucose was  $210 \pm 90$  mg/dL ( $11.66 \pm 5$  mmol/L).



The prevalence of type 2 diabetes in southwestern Albania was found to be 4.17%. This rate was very close to the International Diabetes Federation's (IDF) *Diabetes Atlas* rates published in 2003 (3,8%)<sup>2</sup>, showing only a small, but possibly expected increase. According to other recent studies, the prevalence of diabetes in urban areas of Albania was much higher<sup>3,4</sup>. We would like to emphasise that our study participants came from a rural part of the country, with less exposure to the western lifestyle and nutritional habits than those in urban areas. This probably explains the difference in diabetes rates between rural and urban areas in Albania.

The difference of diabetes prevalence in Albania compared with other European countries, according to data provided by the IDF<sup>2</sup>, may be explained by a difference in nutritional habits and lifestyle in the Albanian population. Albania's economy, especially in rural areas, is mostly based on agriculture and cattle raising. Thus, the physical activity of the population is much higher than in other European countries.

The increase in the prevalence of type 2 diabetes in Albania during the last 3 years is probably explained by the adoption of a western lifestyle and nutritional habits. An increasing trend in the prevalence of type 2 diabetes is frequently reported in other developing countries<sup>3,4</sup> and possibly reflects changes in culture, physical activity and nutrition.

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