

# 13<sup>th</sup> Euro Obesity and Endocrinology Congress and 16<sup>th</sup> World Congress on Nutrition and Food Chemistry

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## The epidemiology of dietary patterns in the NESCAV study

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**Background:** In nutritional epidemiology, the traditional approach of studying relationships between a single food and a health outcome has been complemented by the use of dietary patterns that consider how foods are consumed together. Dietary pattern analysis has many advantages and is believed to represent more closely the real world.

**Aim:** The aim of this study was to investigate the epidemiology of dietary patterns in the greater region (Luxembourg, Wallonia (Belgium), Lorraine (France)). Associations with several characteristics, namely cardiovascular risk factors, socio-demographics as well as lifestyle factors, were also explored.

**Methods:** The methods used to compute dietary patterns were dimension reduction techniques, cluster analysis as well as mixture models. We used data from the NESCAV survey (Nutrition, environment and cardiovascular health), an interregional cross-sectional study of 3133 individuals living in the greater region. Cardiovascular health was assessed with self-administered questionnaire as well as clinical and anthropometric measurements. Dietary intakes were collected by using a food frequency questionnaire (FFQ) based on 134 food items.

**Results:** Although the different methods led to comparable results, obtained dietary patterns also showed some differences across methods. Briefly, non-prudent/convenient, convenient and animal protein and alcohol dietary patterns were associated with a higher cardiovascular risk. By contrast, prudent, breakfast and low starchy foods/high vegetables and dairy products patterns were associated with a lower cardiovascular risk. Finally, associations of dietary patterns with others factors showed that younger adults, men, less educated people, smokers, less physically active people as well as those living in Luxembourg and Wallonia are more likely to adopt unhealthy dietary patterns.

**Conclusion:** From a methodological standpoint, in order to have complementary insights, dietary patterns should be computed with both dimension reduction techniques and mixture models. From a public health perspective, these findings highlight the need for targeted health prevention campaigns promoting healthy diet and lifestyles.

### Biography

Nicolas Sauvageot has expertise in Nutritional Epidemiology. In the previous years, he has been working on measurement errors in dietary assessment methods as well as statistical methods used to assess relationships between diet and health. His main research interests are dietary patterns as well as their relationships with other factors.

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