

Introduction: Type 2 diabetes mellitus (T2DM) is a significant global health concern, requiring a thorough understanding of its population-level features and impact. This study aims to compare the characteristics of T2DM in Malta and Luxembourg, two European nations with distinctive healthcare systems and societal attributes.

Methods: Data from national health surveys conducted in Malta and Luxembourg, encompassing various factors such as socio-demographics, medical history, biochemical metrics, and anthropometric measurements, were analysed to investigate the features of T2DM. Comparative analyses were conducted utilizing chi-square tests, independent t-tests, and multivariable binary regression.

Results: Malta (8.23%) and Luxembourg (7.82%) shared similar T2DM prevalence, with a predominance of men having T2DM. Malta exhibited a higher prevalence of obesity among the individuals having T2DM. Multivariable analysis showed no significant association between living in Malta or Luxembourg and diabetes. However, being male (OR: 1.49, CI 95%: 1.07–2.08, $p = 0.02$), an occasional smoker (OR: 2.49, CI 95%: 1.54–4.03, $p < 0.01$), increasing age (OR: 1.05, CI 95%: 1.03–1.67), and larger waist circumference (OR: 1.02, CI 95%: 1.01–1.04, $p = 0.01$) were positively associated with diabetes.

Conclusions: Understanding similarities and differences in T2DM between Malta and Luxembourg is crucial for identifying common challenges to formulate effective prevention and management strategies. Despite similar T2DM prevalence rates, notable differences in obesity rates and socioeconomic factors may contribute to disparities in disease burden. The complex interplay of numerous population characteristics underscores the importance of tailored public health interventions. This study accentuates the need for interventions and evidence-based policies to address modifiable risk factors, and advocate for cross-national cooperation to reduce the T2DM epidemic, especially in the context of post-COVID public health planning and resource allocation.

Key messages:

- Malta and Luxembourg share similar T2DM prevalence despite differences in other factors, hypothesised to be attributed to differences in risk factor profiles and health care infrastructure.
- This study underscores the necessity for tailored interventions and cross-national cooperation to address common challenges in T2DM management in the two small countries.

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Cross-national characteristics and differences in type 2 diabetes: Malta versus Luxembourg

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