

## Eight Years Later: Charting Malta's Metabolic Health



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*The UM conducted a cross-sectional study in 2014 examining the metabolic health of the local population with a focus on type 2 diabetes mellitus (T2DM) and obesity. The question is, how has Malta's health changed since then? **THINK** takes a look at an upcoming follow-up study to find out!*

**D**iabetes was recognised as a health concern among the Maltese population as early as 1886. Since then, the prevalence of T2DM has been periodically examined. Nevertheless, these subsequent investigations were limited and might not have accurately portrayed the rapidly changing health status of the country.

Responding to the evolving health scenario and the need for rigorous research investigating Malta's metabolic health, Dr Sarah Cuschieri, lecturer with the Faculty of Medicine and Surgery at UM, conducted the pivotal 'SAHHTEK – The University of Malta Health and Wellbeing Study' between November 2014 and November 2015. This cross-sectional study involved recalling 4,000 adults aged 18 to 70, residing in Malta for at least six months. Cuschieri investigated health indicators such as blood pressure, weight, height, waist circumference, and blood tests across various social demographics.

Gender disparities were highlighted, showing that males were more likely to be obese and older obese males were more prone to high blood pressure and abnormal cholesterol profiles, increasing the risk of heart disease. Yet, although the highest prevalence of overweight individuals was in the 55 to 65 age group, there was no significant difference between genders in this regard. ➔



**The SAHHTeK team, from left to right: Dr Sarah Cuschieri, Dr Elizabeth Grech, and Prof. Neville Calleja**  
*Photo by Kristov Scicluna*

The SAHHTeK study, involving a cross-sectional examination of a random sample of Maltese adults, identified a type 2 diabetes prevalence of 10.39%. Males exhibited a higher susceptibility compared to females. Among the total type 2 diabetes group, 6.31% were previously diagnosed, while 4.08% received a new diagnosis during the study. Beyond diabetes, the research revealed a prevalent presence of chronic diseases, notably with obesity levels reaching around 70% from as early as 18 years old.

SAHHTeK initiated a cascade of questions. The initial study revealed not just static numbers but a dynamic landscape, marked by high levels of overweight-obesity from an early age and the early emergence of chronic diseases. However, eight years is an especially long time in the fast-paced field of medicine. What happened in the years following the initial examination? How many individuals developed new chronic conditions, and what risk factors influenced them? The spectre of the COVID-19 pandemic further intensified the need for answers, sparking the decision for a follow-up study.

## **THE FOLLOW-UP LONGITUDINAL COHORT STUDY**

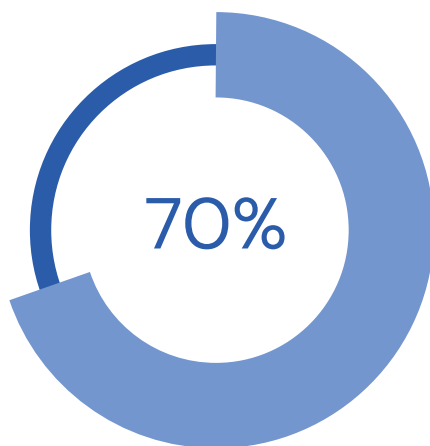
To answer these questions, Dr Elizabeth Grech, overseen by Cuschieri and Prof. Neville Calleja, is conducting a follow-up longitudinal study to re-examine a subset of the original SAHHTeK participants. This study, titled 'Analysis of the Metabolic Status of the Maltese Population: A Longitudinal Cohort Study,' is a collaborative initiative between the

Ministry of Education, Sport, Youth, Research, and Innovation, and UM through the Research, Innovation, and Development Trust (RIDT). Its objective is to address significant gaps in our understanding of how the health dynamics of the Maltese population have evolved. By uncovering long-term repercussions and identifying evolving risk factors, this study aims to provide crucial knowledge for shaping targeted public health strategies in response to the increasing prevalence of chronic diseases.

What sets this study apart in the European health research landscape is its focus on a smaller, yet representative sample of the population. While many health surveys across the continent are often cross-sectional, the longitudinal nature of this cohort study distinguishes it by providing a unique opportunity to track health changes over time. Moreover, as this unique study unfolds, expectations rise. Anticipations include an increase in the percentage of chronic diseases, a surge in multimorbidity, and the identification of elusive risk factors that weave the intricate fabric of metabolic health. The study will unveil, for the first time, incidence rates of diabetes mellitus, obesity, hypertension, and metabolic syndrome, providing crucial benchmarks for understanding the evolving health landscape of Malta.

## **BEYOND RESEARCH: IMPLICATIONS FOR NATIONAL AND EU PRIORITIES**

This longitudinal study serves not only as a scientific endeavor but also as a response to both national and



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European health priorities. The importance of up-to-date evidence cannot be overstated. Malta's significant role in European studies on obesity further underscores the national commitment to address this chronic disease. By identifying potential risk factors, the study actively contributes valuable insights for policy and preventative strategies.

As the inaugural health examination study to assess the metabolic status of the Maltese population post-pandemic, this research provides invaluable information for both national and international contexts. This information is essential for driving effective preventative and management strategies and policies. Notably, Malta's dominance in the realm of obesity, as reported by EUROSTAT through various European studies, makes targeting this chronic disease a national priority. Unveiling evidence on potential risk factors contributing to obesity is vital in addressing this issue.

As the study progresses, it holds promise for shaping public health policies and interventions. The insights derived will function as a guiding compass, facilitating the formulation of evidence-based strategies to tackle the challenges posed by chronic diseases and the post-COVID-19 era. In the pursuit of global health targets, this study becomes a beacon, offering real-time data to inform policies that align with the ever-evolving health needs of the Maltese population. The SAHHTEK legacy extends beyond numbers and charts; it illuminates the path toward a healthier, more resilient future for the Maltese population and beyond. [T](#)

#### Acknowledgments

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#### Further Reading

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Cuschieri, S., Vassallo, J., Calleja, N., Pace, N., & Mamo, J. (2016). Diabetes, pre-diabetes and their risk factors in Malta: A study profile of national cross-section prevalence study. *Global Health, Epidemiology, and Genomics*, 1, e21. <https://doi.org/10.1017/gheg.2016.18>