

Assessing the public health benefit and the broader economic value of cardiovascular risk reduction with icosapent ethyl in Greece

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Background

- Cardiovascular disease (CVD) imposes considerable and escalating burden as the prevalence of modifiable CVD risk factors, particularly among young adults who experience higher incidence rates and lifetime risk, has been, in the past 20 years, constantly increasing.^{1,2}
- The clinical burden of CVD puts financial pressures on healthcare systems and may also lead to broader economic costs. The clinical and economic burden of CVD can be potentially reduced by implementing prevention strategies, including pharmacological management.³
- Icosapent ethyl 4g daily (2g twice daily) significantly reduces total ischemic events in statin-treated patients with well-controlled LDL-C and cardiovascular risk factors including elevated triglycerides (REDUCE-IT).⁴
- This study aims to translate potential public health gains into broader economic gains from cardiovascular risk reduction with icosapent ethyl for hypertriglyceridemia in Greek population.

Methods

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- Broader economic assessment using efficacy data from a large multicenter, randomized, double-blind, placebo-controlled trial (REDUCE-IT).
- Targeted literature searches were conducted to identify evidence linking cardiovascular events with long-term employment, retirement, short-term absenteeism and disability.
- Macroeconomic and fiscal data were obtained from official sources.
- Projected mortality and morbidity gains were translated into socioeconomic gains by estimating the present value of averted lifetime income, averted absenteeism, and prevented hospitalization costs.
- Societal gains were converted into fiscal gains by calculating averted tax revenue loss and prevented disability costs.
- Costs were discounted, at 3%.

Results

- Treating 132,037 treatment-eligible patients (with mean age 64 years of age) with icosapent ethyl is estimated to prevent 4,549 cardiovascular events (myocardial infarctions or strokes) and 261 deaths.
- Morbidity and mortality gains correspond to 132 productive life years (PLYs) gained, to 14,954 days of prevented absenteeism, and avoidance of 43 disability cases.
- The projected lifetime socioeconomic and fiscal gains of icosapent ethyl for cardiovascular risk reduction are estimated at €125.5 million (Figure 1) and €62.1 million (Figure 2), respectively.

Figure 1: Lifetime socioeconomic gains

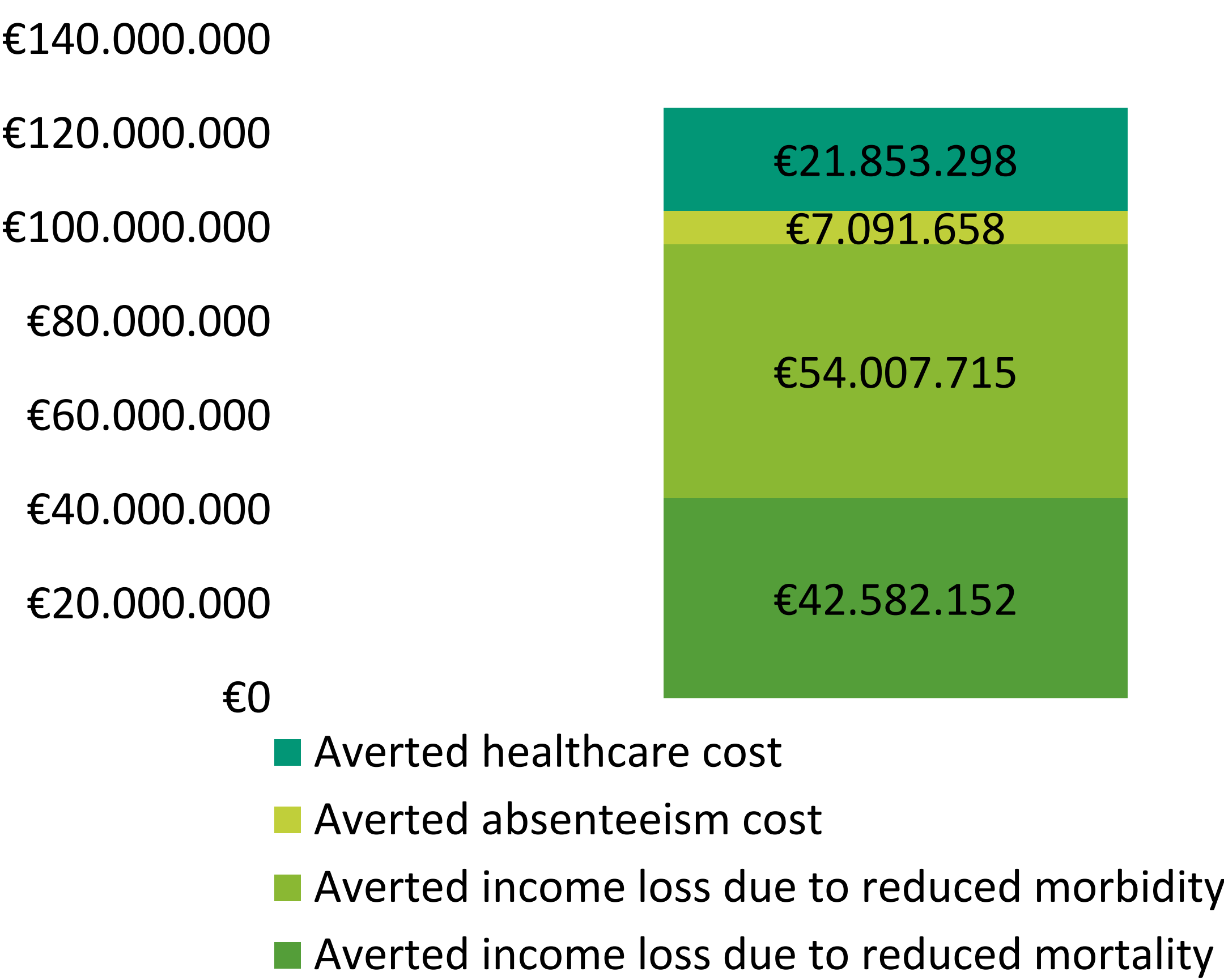
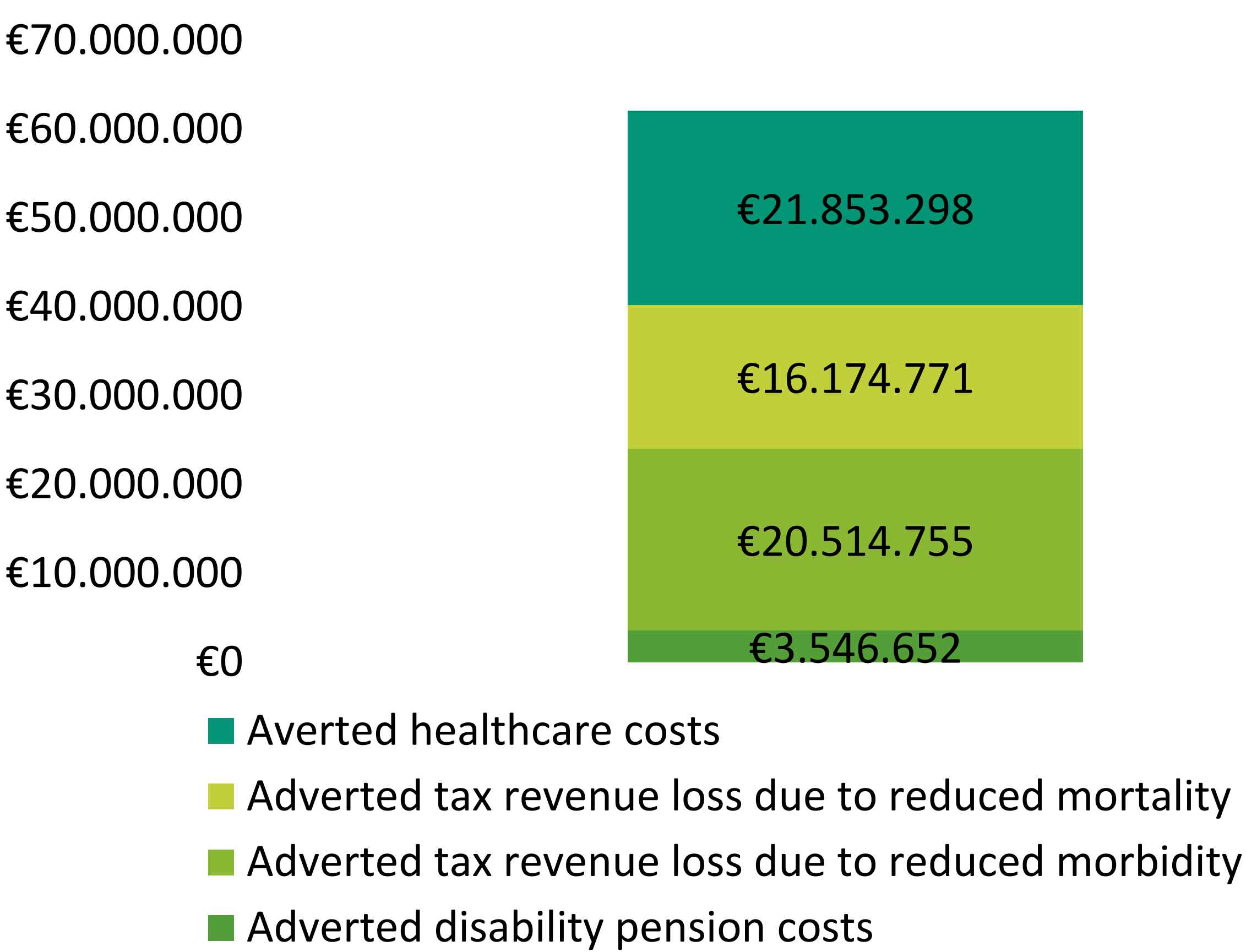


Figure 2: Lifetime fiscal gains



Conclusion

- **Effective triglyceride-lowering treatment of cardiovascular risk reduction may generate public health, socioeconomic and fiscal gains, promoting population's health and the sustainability of tax-financed healthcare systems.**

References

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