



Healthcare Cost Savings of Phytosterol Food Supplements in the European Union

Abstract

This case study explores the possible direct economic benefit that could be expected from the daily use of 1.7 grams of phytosterols – through fortified food sources or food supplements – as a means to reduce low-density lipoprotein (LDL) cholesterol concentration by those target individuals at the highest risk of developing cardiovascular disease (CVD). This report examines aggregated indications demonstrating that the use of phytosterols can potentially reduce CVD-attributed hospital utilisation costs in the European Union (EU) among those at a high risk of experiencing a costly, CVD-attributed event. Thus, a targeted phytosterol regimen is recommended as a means to help control rising societal healthcare costs and as a means for high-risk individuals to lower LDL-cholesterol and minimise the chance of having to deal with potentially detrimental disease-attributed events.

Target Population – 31.1 million adults age 55 and older with severe hypercholesterolemia in the EU have an expected 24.3% risk of experiencing a costly CVD-attributed hospital event. The total cost of addressing CVD in the EU will be €1,328 billion over the next 5 years, or €34,637 per event over the same period.

Science-based Impact of Phytosterols Use – The relative risk of experiencing a CVD event is reduced by 26.6% for every 1 mmol/L reduction in LDL cholesterol levels, irrespective of how LDL-cholesterol is reduced. The expected reduction in LDL cholesterol levels given the use of 1.7 grams of a phytosterols food supplement daily is 0.372 mmol/L among severe hypercholesterolemic adults age 55 and older. This translates to an absolute risk reduction risk of 2.3% basis points given a 24.3% CVD-event risk level for the average European.

Economic Findings (Total EU)

- Total Avoidable CVD-attributed Costs per year (S): €5.30 billion
- Net Avoidable CVD-attributed Costs per year (B): €4.09 billion
- Net Avoidable CVD-attributed Costs per person per year (B/Pop): €170.66 per target person
- Benefit/cost ratio (€ Avoided CVD-attributed Costs per €1 spent on phytosterols): €4.37



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