Assessing the broader economic value of selected healthcare interventions in Greece

Rigopoulos P.,[1] **Stratopoulos A.,[1]** Kougioumtzoglou I.,[1] Chatzigeorgiou L.,[1] Kotsopoulos N.,[2,3] Kapaki V.,[4] Lagiou A.[5]
[1]VIANEX S.A., [2]University of Athens (UoA MBA), [3]Global Market Access Solutions, [4]Institute of Agri-food and Life Sciences, Hellenic Mediterranean University, [5]University of West Attica

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Objective

- Vaccines and pharmacotherapies may prevent morbidity and avert disease-attributable mortality.[1]
- This study aims to translate public health benefits into broader economic gains resulting from selected healthcare interventions:
- Pediatric vaccinations, lipid-lowering therapies and treatments for osteoporosis, glaucoma, pain, mental health and autoimmune disorders (ankylosing spondylitis, rheumatoid arthritis and ulcerative colitis).

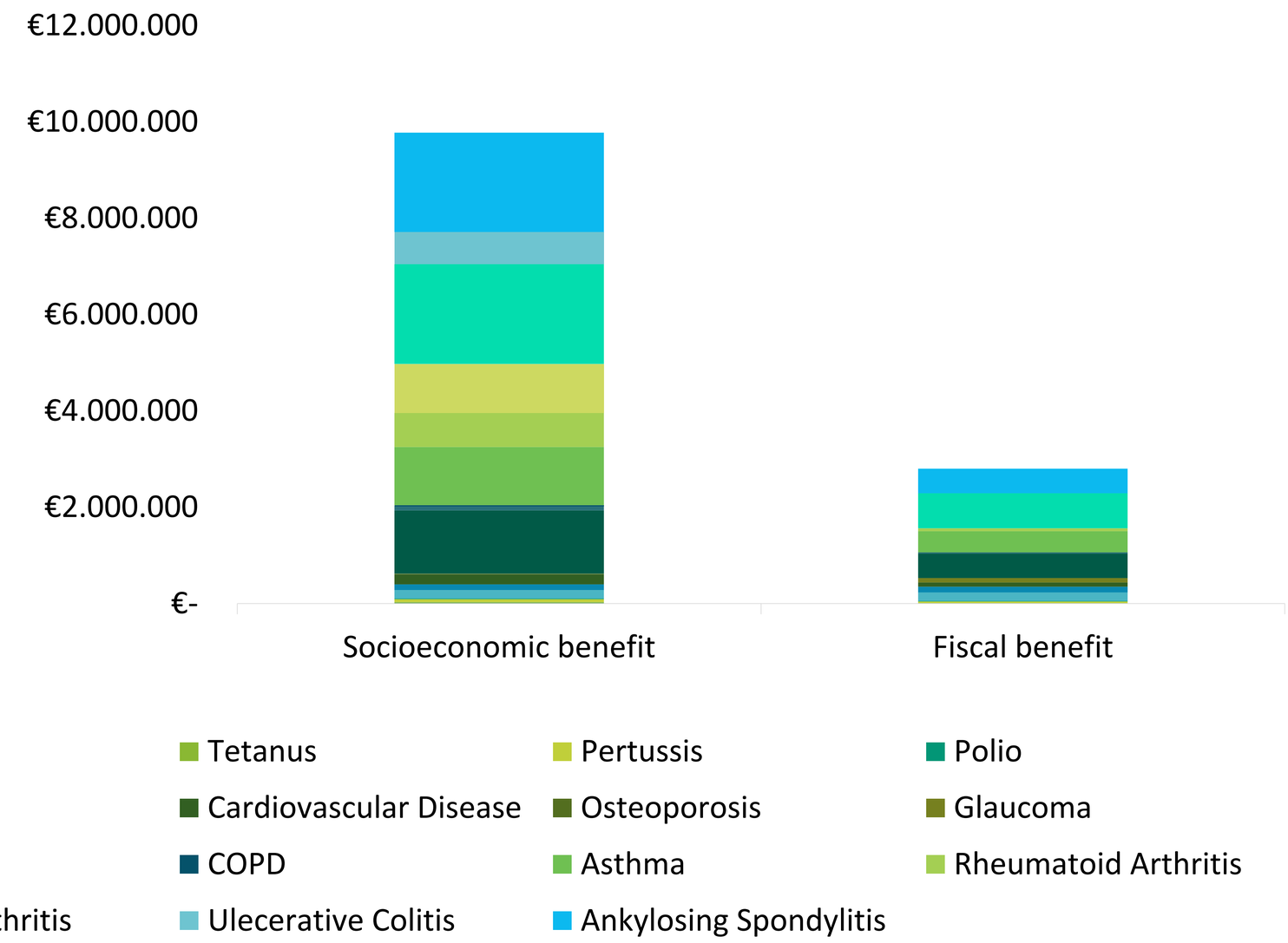
Methods

- A mathematical model was constructed converting vaccine and treatment-induced mortality and morbidity gains into present values of averted lifetime or annual income loss, absenteeism, hospitalization costs, tax revenue loss and prevented disability pensions.
- Results were assessed using societal and fiscal analytic perspectives, utilizing different mean ages per scope disease and were reported per 1,000 persons.
- Evidence for the effectiveness of the under-study healthcare interventions was obtained from literature.
- Economic data were obtained from official sources.

Results

- The lifetime socioeconomic and fiscal gain from vaccinating an annual cohort of 1,000 children is estimated at €0.4 million and €0.3 million, respectively.
- Treatment-induced reductions of cardiovascular morbidity and mortality [N=1000 patients, mean 63 years of age (YoA)] are expected to yield lifetime societal and fiscal gains of €0.2 and €0.1 million, respectively.
- The combined lifetime societal and fiscal benefits from treating glaucoma (69 YoA) and osteoporosis (64 YoA) are estimated at €0.02 and €0.09 million, respectively.
- Treating mental health (patients aged 25 YoA) may yield annual societal and fiscal gains of €1.3 and €0.5 million, respectively.
- Treating autoimmune disorders among working-aged adults may generate annual societal and fiscal gains of €6.5 and €1.3 million, respectively.
- The combined annual societal and fiscal gains from treating pain and respiratory diseases are estimated at €1.3 million and €0.5 million, respectively.

Figure 1: Lifetime socioeconomic and fiscal gains



Conclusion

Prevention and treatment of ill-health in Greece may result in considerable economic returns which, in turn, increase fiscal space and contribute to the sustainability of public finances.

References

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