

TITLE: Estimating direct diabetes-related healthcare expenditures in Slovenia to improve diabetes care in inform future resource allocation decisions

Introduction

The burden of diabetes on individuals, healthcare systems, and society must be explored to improve diabetes care and prevent costly complications, to assess future healthcare needs and to continue assuring sufficient resources for patient care in view of rapid demographic change.

Methods

Analysis of expenditures during the 2019-2022 period was based on individual patient data on expenditures for seven groups of diabetes-related medical conditions coded based on ICD from the population-level database of the Health Insurance Institute of Slovenia. The structure of expenditures was also observed by gender, age and type of healthcare services and products. The projections of future direct diabetes-related healthcare expenditures were based on the age and gender profiles (i.e., per capita averages) of the expenditures for each group of medical conditions. Expenditure projections were prepared using the European Commission's methodology for budgetary projections. The baseline scenario (the Ageing Working Group reference scenario) used for EU fiscal surveillance was followed. In this scenario, healthcare expenditures are driven by the assumption that half of the future gains in life expectancy are spent in good health, and income elasticity of healthcare spending is converging linearly from 1.1 in 2019 to unity by the end of the projection period. By using this methodology, the projections of direct diabetes-related healthcare expenditures up to 2050 were prepared using 2019 data to avoid the impact of the epidemic and to assure comparability of estimated diabetes-related expenditures with projected growth of overall healthcare expenditures.

Results

In the 2019-2022 period, average annual diabetes-related expenditures equalled €174.1 million (€1,108 per patient), with their average annual growth rate reaching 12.5%. These expenditures represented, on average, 4.8% of the total national healthcare expenditures funded through compulsory and complementary voluntary health insurance that covered co-payments during the observed period. Expenditures due to inpatient care (33%) and drugs used in diabetes (24%) had the highest shares. More than half of the expenditures were due to complications of diabetes. The diabetes-related expenditures as a share of GDP are projected to increase by 19.2% from 2019 to 2030, with slower yet continued growth up to 2050.

Discussion

Diabetes-related expenditures in Slovenia continue to rise. By focusing on the prevention and optimal management of diabetes, its impact on the healthcare system could be reduced significantly, given the magnitude of expenditures attributed to complications. While notable cost savings could be generated by optimizing diabetes care, demographic changes will fuel future diabetes-related expenditure growth indicating the need to carefully plan future needs of diabetic patients and assure adequate health care resources for their care.