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TYPE 2 DIABETES MELLITUS IN THE CZECH REPUBLIC: PREDICTION OF PREVALENCE AND COSTS

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Statement of the Problem: Costs associated with the treatment of type 2 diabetes mellitus represent a large share of healthcare costs of developed societies. Being diagnosed with type 2 diabetes mellitus is associated with increased healthcare costs compared to the population not suffering from diabetes. As opposed to published research which analyzes small samples or survey data, we use population-based individual data to predict the number of Czechs that will suffer from diabetes and their healthcare costs.

Methodology & Theoretical Orientation: Individual-level data on healthcare costs and drug consumption for the whole Czech population over 30 years of age for the period 2010- 2015 are used to identify patients with diabetes. Observations are divided into age and sex groups to identify how costs of different age cohorts of diabetics change over time using a GLM model. The share of diabetics in age cohorts and sex groups is predicted using linear regression. Absolute numbers of diabetics are calculated based on the official demographic prediction of the Czech Republic. Future healthcare costs of diabetes reflect different percentiles of distribution and inflation expectations.

Findings: The strongest association between increased healthcare costs and the presence of diabetes was found for 55-69 year-olds Czechs. The highest share of diabetics is among 75-year-olds reaching 21.4 % (22.3 % males; 20.8 % females) in 2015. In the observed period, costs of a 75-old-diabetic increase by 2.7 % on average (3 % males; 2.4 % females) annually. Future costs of diabetes are expected to rise and so is the share of diabetics.

Conclusion & Significance: Given escalating costs and increasing prevalence boosted by population ageing, ceteris paribus, diabetes will represent a significant burden for the Czech healthcare system. The methodology is applicable to other chronic diseases too.

Biography

Jana Votapkova specializes in healthcare economics and economic modelling. She cooperates with the Observatory for Health systems and policies and other international institutions on economic expertise. Her research concentrates on technical and economic efficiency in the healthcare sector, economic analyses of healthcare reforms or analyses of determinants affecting long-term sustainability of healthcare finances.

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