ALTERNATIVE FORECAST OF AVOIDABLE MORTALITY IN LITHUANIA WITH REGARD TO RISK FACTORS

Study conducting period: April-December 2015

Aim of the study: To forecast presumable changes of general mortality and specific mortality rates due to some avoidable causes in Lithuania up until 2080 considering prevalence of risk factors in the population.

Tasks of the study:
1. To forecast a presumable decrease of mortality due to some avoidable causes by applying different preventive measure scenarios to reduce smoking and alcohol consumption.
2. To forecast a presumable changes in general mortality due to reduced smoking and alcohol consumption.
3. To determine the level to which the life expectancy would be prolonged after reducing mortality with different effectiveness measures to reduce smoking and alcohol consumption.

Study methodology
Prevent Plus 3.01 (beta) software is used to forecast the mortality due to avoidable causes. This software applies L. Gunning-Schepers and J. Barendregt's Prevent model created in 1989. The advantage of the model is that several risk factors and diseases can be used simultaneously. The current risk factor prevalence, demographic prognosis, relative risk, latent period of a specific disease, current health state of the population, and other factors are taken into account. Risk factor prevalence changes in the population have influence on the morbidity change with regard to the latent period of a specific disease, and the years necessary for the disease risk to fall down to the minimum after the risk factor exposition is gone. The Prevent model provides two scenarios: without intervention ("reference") and with intervention ("intervention"). These scenarios are different. No intervention is applied in the first scenario while it is applied in the intervention scenario. The difference between the results of these two scenarios is considered to be the health benefit that can be expressed by mortality or life expectancy. The risk factors chosen for the study are smoking and the consumption of alcohol, which increase the possibility of dying from avoidable causes, such as lung cancer, chronic obstructive pulmonary disease, ischemic heart disease, cirrhosis of the liver, and liver cancer.

Contacts: Romualdas Gurevičius, head of the Institute of Hygiene Health Information Centre, tel. (370 5) 262 2781, e-mail: Romualdas.Gurevicius@hi.lt