Abstract

Type2 diabetes and dyslipidemia are major health problems among adult population. Screening aiming to early detect and prompt management for these conditions is the important measures to reduce their impacts on the health of the population. However, cost-effectiveness in whether or not screening for undiagnosed type 2 diabetes in asymptomatic individuals is unknown, and policy statements on this topic are controversial. Concerning dyslipidemia, there is still no information about the performance of available lipid screening methods among Thai population. The purposes of this study were to determine the short-term (1-year period) and long-term (15-year period) performance, cost, and cost-effectiveness of screening methods in identifying individuals with abnormal fasting plasma glucose, type 2 diabetes, and dyslipidemia.

The cross-sectional descriptive study and model simulation for unit cost analysis were utilized respectively for the determination of the short-term (1-year period) and long-term (15-year period) performance, cost, and cost-effectiveness of screening methods. The study populations were people ages 35 - 60 years old with no known type 2 diabetes and pre-diabetes (2,977 people) or dyslipidemia (2,000 people). All subjects completed a set of screening questionnaires followed by fasting plasma glucose (FPG) or serum lipid testings for those with positive result. Universal FPG and serum lipid testings were conducted and used as the references for all other screening methods to compare with. The screening performance and costs were analyzed from societal perspective.

The overview of the study project was presented in Chapter 1 of this report. Detailed information and study results, as well as conclusion, discussion, and recommendation for type 2 diabetes and pre-diabetes screening were provided in Part I-II, while those for dyslipidemia screening were provided in Part III-IV. And the summary of the whole study project was lastly presented in the last section of this report.

Keyword:

Type 2 diabetes, Dyslipidemia, Screening, Risk assessment questionnaire, Fasting plasma glucose, Serum lipid level, Cost, Cost-effectiveness