

The prevalence of Type 2 diabetes mellitus is increasing all around the world. This chronic disease leads to a decrease in quality of life and brings a significant financial burden to the national health systems. While diabetes not being completely reversible, it can be well controlled by introducing and maintaining healthy living habits. Nowadays, such intervention can be delivered through digital devices with less medical staff time needed. This thesis investigates the cost-effectiveness of the lifestyle intervention delivered by a mobile application on a German study sample of 42 patients. The analysis is performed using a discrete-time Markov chain for the different lifetimes of the model. The robustness of the results is checked using both deterministic and probabilistic sensitivity analysis. Results suggest that digital intervention can be considered cost-effective in both the short and long-term compared to the current standards of care.