

Digital Diabetes Prevention Program Reduces Medical Costs in the First 2 Years of Implementation in a Workplace Setting

Background

- The Centers for Disease Control and Prevention (CDC) developed the National Diabetes Prevention Program (DPP), which can cost-effectively reduce body weight and incidence of diabetes.¹
- Digital versions of the DPP (dDPP) involve online lessons for healthy lifestyle modifications and tools for tracking individual health goals. When implemented in a workplace setting, they reduce risk factors for diabetes and cardiovascular disease.²
- However, the cost-effectiveness of dDPPs has not been fully assessed.
- **Objective:** Investigators examined the effect of a dDPP on healthcare costs.

Methods

- A retrospective analysis was conducted using deidentified claims data of employees and spouses at Quest Diagnostics who met the following study inclusion criteria:
 - Had prediabetes (fasting blood glucose level of 100-125 mg/dL or an HbA1c of 5.7%-6.4%) and BMI ≥ 25 kg/m², based on an employer-sponsored health assessment during September to December 2017
 - Were enrolled continuously in a health plan from September 2016 to December 2019
- The intervention group included employees or spouses who completed at least 1 digital lesson of the dDPP (offered by Omada Health) during 2018.
- The control group included employees or spouses who met study inclusion criteria and did not participate in dDPP; they were matched to dDPP participants by baseline age, sex, race, region of residence, comorbidities, health plan type, medical costs, and pharmacy costs.
- Healthcare costs after dDPP implementation (2017-2019) were compared to those before dDPP implementation (2016-2017); dDPP costs were not included.

Results

- Of 3,098 employees and spouses who met the study inclusion criteria, 432 were included in the intervention group and 856 were included in the control group.
- For the control group (non-dDPP participants), healthcare costs were higher per member per month (PMPM) in 2017-2019 than in 2016-2017: \$696 vs \$558 ($P < 0.001$).
 - Inpatient (\$124 vs \$64; $P = 0.01$) and pharmacy (\$183 vs \$155; $P = 0.02$) costs were higher in 2017-2019, but outpatient (\$199 vs \$161; $P = 0.06$) and professional services (\$190 vs \$171; $P = 0.30$) costs did not differ in 2017-2019 and 2016-2017.
- For the intervention group (dDPP participants), average healthcare costs PMPM in 2017-2019 (after intervention) did not significantly differ from those in 2016-2017 (before intervention): \$540 vs \$543 ($P = 0.96$).
- Because costs of the control group increased while those of the intervention group stayed the same, the total costs were \$141 lower PMPM for the intervention group than the control group ($P = 0.02$).

Conclusions

- Two years after offering a dDPP, healthcare costs did not change among program participants, but costs increased among those who did not participate.
- These data indicate that a dDPP can save healthcare costs.

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