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Title

Development of a health economics study to demonstrate cost-effectiveness of dietitians for treating type-2 diabetes

Abstract

Introduction: Diabetes is responsible for some 10% of all NHS healthcare costs in England. Clinical trials of behaviour change interventions in type 2 diabetes have demonstrated positive impacts on weight and HbA1c as well as associated reductions in complication rates and health insurer costs. In 2016, Oviva developed a new technology-enabled dietitian-delivered type 2 diabetes behaviour change intervention. Using real-world clinical outcome data from this intervention we wished to demonstrate the potential National Health Service (NHS) return on investment for reimbursing this intervention at scale.

Objectives: To demonstrate the potential NHS return on investment of clinical outcome benefits and resulting reductions in health services use achieved by a dietitian-delivered behaviour change intervention.

Methods: Oviva commissioned Frontier Economics, a specialist health economics consultancy firm, to develop a return on investment model. This was created from published clinical trials showing the impact of weight and HbA1c reductions achieved in behaviour change interventions on service use and resulting health insurer costs of treating type 2 diabetes, for example from prescribing and emergency hospital admissions. Savings from reductions in service usage were calculated using current average NHS costs for treating a person with type 2 diabetes. Key studies used included the UK Prospective Diabetes Study and the US Look AHEAD study.

Results: Estimated 5-year savings of the intervention for the NHS were £986/patient, with 86% coming from hospital costs, 8% from prescription savings and 6% from primary care savings, providing a circa 7-fold return on investment.

Conclusion: Combining existing clinical trial data on reductions in service usage with behaviour change interventions with local health insurer costs of treating type 2 diabetes, it is possible to demonstrate the cost effectiveness of dietitians in the treatment of type 2 diabetes.

Key references

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Key messages

- Behaviour change interventions that reduce weight and HbA1c in type 2 diabetes have been shown to result in reductions in future health services usage.
- Reductions in health services usage in type 2 diabetes reduce health insurer costs.
- By combining real-world clinical outcome data of dietetic services with potential local health insurer savings, it is possible to build a return on investment case for dietetic interventions in the treatment of type 2 diabetes.