



The preventable cost of diabetes in the United Kingdom

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INTRODUCTION

The direct cost of diabetes in the UK was estimated as £9.8 billion per year in 2012.¹ Diabetes-related complications made up nearly 80% of that cost and subsequent analysis showed that improvements in glycaemic control at a population level had the potential to reduce the disease burden and associated cost.²

Much has changed in the diabetes landscape since 2012, including continued increases in prevalence of Type 1 and Type 2 diabetes and changes to care processes and pathways, including the introduction of new technologies.

It is timely, therefore, to revisit this analysis to consider the possible impact that those factors have had on the cost burden of diabetes in the UK, to further reinforce the need for effective approaches to primary and secondary prevention of diabetes and its complications.

METHODS

A pragmatic review of relevant data sources for UK nations was conducted, including population-level data sets and published literature, to generate estimates of costs separately for Type 1, Type 2 and gestational diabetes. A comprehensive cost framework, developed in collaboration with experts, was used to create a population- based cost of illness model.³

The key driver of the analysis was prevalence of diabetes and its complications. Estimates were made of the excess costs of diagnosis, treatment and complications compared with the general UK population. Estimates of the indirect costs of diabetes focused on productivity losses due to absenteeism and premature mortality. The impact of reducing the annual prevalence was also analysed (see scenarios and Figure 1).

RESULTS

The proportion of the UK population with a diagnosis of diabetes in 2021/22 is estimated at approximately:

- 0.5% for Type 1 diabetes.
- 5.8% for Type 2 diabetes.

The proportion of pregnancies in which the mother has a diagnosis of gestational diabetes is estimated as 9.8%.

Direct and indirect healthcare cost estimates

Table 1 shows:

- Total direct costs are estimated at £10,652,213,000.
- Total indirect costs are estimated at £3,284,854,000.

Within direct costs of diabetes:

- Diagnosis costs are estimated at £76,405,000.
- Management costs are estimated at £4,405,725,000.
- Complications are estimated at £6,170,083,000.

Cost projections

Table 1 also presents the cost projections over the next fifteen years. Projections are driven by increases in the prevalence of diabetes only and assume that no changes are made to the way diabetes is treated over that time.

Using current forecast estimates, the total annual cost of diabetes is estimated to increase to £17.9 billion within fifteen years (an increase of 68%). Figure 1 presents the direct cost impact of reducing the annual prevalence of diabetes.

Table 1: Estimated costs of diabetes over 15 years

Year	Diagnosis costs	Management costs	Complication costs	Total direct costs	Total indirect costs
1	£76,405,000	£4,405,725,000	£6,170,083,000	£10,652,213,000	£3,284,854,000
2	£80,076,000	£4,626,193,000	£6,463,377,000	£11,169,646,000	£3,442,577,000
3	£83,756,000	£4,847,224,000	£6,757,319,000	£11,688,299,000	£3,600,659,000
4	£87,437,000	£5,068,364,000	£7,051,286,000	£12,207,087,000	£3,758,768,000
5	£91,111,000	£5,289,236,000	£7,344,771,000	£12,725,119,000	£3,916,631,000
6	£94,776,000	£5,509,555,000	£7,637,391,000	£13,241,721,000	£4,074,042,000
7	£98,449,000	£5,730,445,000	£7,930,718,000	£13,759,612,000	£4,231,839,000
8	£102,130,000	£5,951,828,000	£8,224,647,000	£14,278,605,000	£4,389,966,000
9	£105,817,000	£6,173,639,000	£8,524,003,000	£14,803,460,000	£4,548,378,000
10	£109,511,000	£6,395,844,000	£8,814,017,000	£15,319,373,000	£4,707,050,000
11	£113,211,000	£6,618,437,000	£9,109,412,000	£15,841,060,000	£4,865,980,000
12	£116,916,000	£6,841,394,000	£9,405,249,000	£16,363,559,000	£5,025,153,000
13	£120,627,000	£7,064,717,000	£9,701,535,000	£16,886,879,000	£5,184,572,000
14	£124,345,000	£7,288,468,000	£9,998,357,000	£17,411,170,000	£5,344,282,000
15	£128,073,000	£7,512,840,000	£10,295,984,000	£17,936,898,000	£5,504,428,000

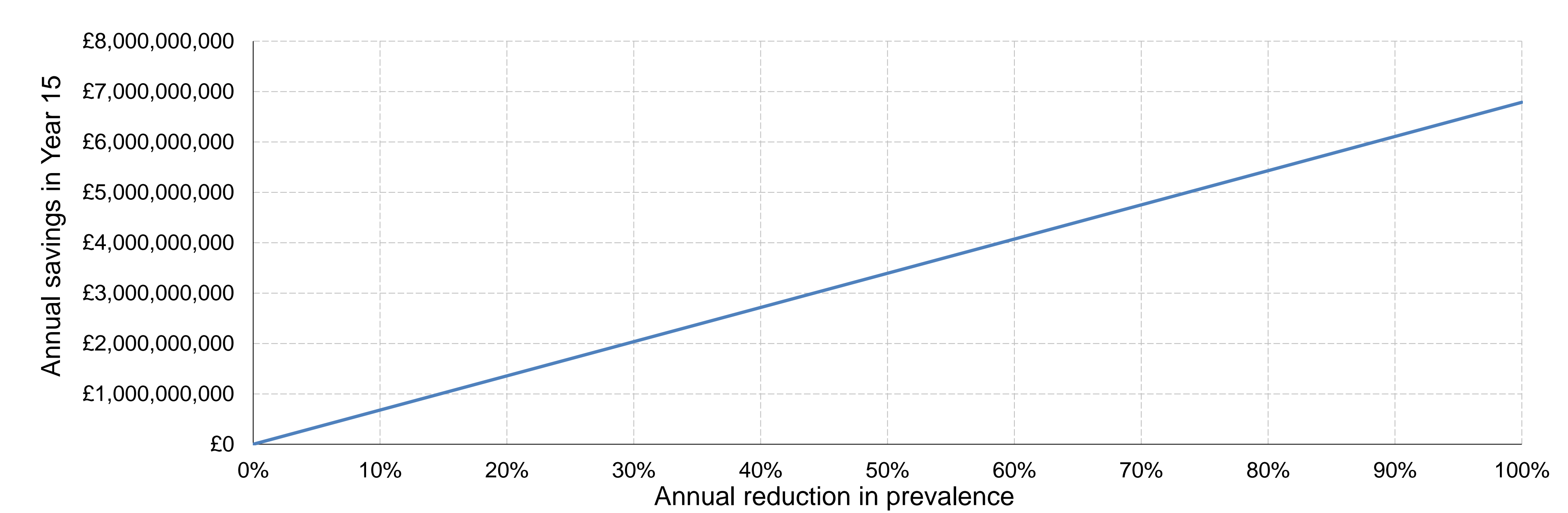
Scenarios

Altering the rate of growth in prevalence

Example scenarios that show the direct cost impact of reducing the annual prevalence of diabetes (figure 1):

Scenario #1 1% reduction in the growth of prevalence. Annual savings of £67.9 million	Scenario #2 10% reduction in the growth of prevalence. Annual savings of £678.7 million	Scenario #3 50% reduction in the growth of prevalence. Annual savings of £3.4 billion
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Figure 1: Impact of annual reduction in prevalence on savings in Year 15



CONCLUSION

The cost of diabetes in the UK for 2021/22 was estimated at approximately £14 billion. Direct costs to the health system are estimated at £10.7 billion.

Even very small decreases in the annual increase in prevalence of diabetes can lead to substantial direct cost savings that can be reinvested in the health system. Larger reductions will have exponentially increased impact, potentially saving billions of pounds for the health system. This suggests that public health efforts to prevent diabetes should be prioritised to avoid devastating impacts on health system funding. Future research is therefore needed to assess the cost-benefit of new interventions (including GLP1-RA drugs and devices) to prevent diabetes and its complications.

REFERENCES

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