

# Unmet Needs in NICE HTAs: Insights from Obesity and Diabetes Submissions

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## Introduction

- With over one billion people classified as obese in 2022, obesity has reached epidemic proportions worldwide – it is projected that by 2035, ~25% of the world's population will be affected.<sup>1</sup>
- Rising obesity rates contribute to the increasing prevalence of other conditions, such as diabetes, and drive greater demand for health services.<sup>2</sup>
- In 2021/22, the direct costs of diabetes in the UK were estimated at £10.7 billion, with just over 40% related to diagnosis and treatment, and the remainder attributable to the excess costs of diabetes-related complications.<sup>3</sup>
- Despite a range of available interventions, including lifestyle adjustments, insulin and metformin, many patients fail to achieve or maintain adequate glycaemic control and weight loss, indicating persistent unmet need.<sup>4</sup>

## Objective(s)

- This review investigates how unmet needs are described and applied in HTAs for obesity and diabetes treatments submitted to NICE over the previous five years.

## Methods

- HTA submissions to NICE addressing obesity, type 1 diabetes (T1D), and type 2 diabetes (T2D), published between 1st January 2020 and 1st April 2025, were identified.
- Technology appraisals which were replaced by newer guidance or in development were excluded from the analysis.
- Documents (i.e. company submission, final appraisal document, and committee papers) from the included HTAs were reviewed.
- Relevant data were extracted from documents by a single researcher and independently validated by a second, independent researcher.

## Results

### Overview of identified HTAs









- Six HTA submissions were identified, all of which received NICE approval, with three relating to treatments for obesity, two for T1D and one for T2D (Table 1).
- Additionally, three terminated appraisals in adolescent obesity and diabetes were identified (terminated due to a lack of evidence submitted by the company; Table 1).
- All submissions reported unmet needs related to unavailability of alternative treatments, limited effectiveness of current treatments, and reduced quality of life (QoL).
- For interventions aimed at treating obesity, all three approved submissions mentioned efforts to combat stigmas associated with the condition.
- Arguments related to improving QoL both for patients and caregivers were highly represented in interventions aimed at T1D; especially TA943, which included paediatric populations.

## References

- Ahmed SK, Mohammed RA. Obesity: Prevalence, causes, consequences, management, preventive strategies and future research directions. *Metab Open*. 2025;27:100375. doi: 10.1016/j.metop.2025.100375.
- Ruze R, Liu T, Zou X, Song J, Chen Y, Xu R, Yin X, Xu Q. Obesity and type 2 diabetes mellitus: connections in epidemiology, pathogenesis, and treatments. *Front Endocrinol (Lausanne)*. 2023 Apr 21;14:1161521. doi: 10.3389/fendo.2023.1161521.
- Hex N, MacDonald R, Pocock J, Uzdzińska B, Taylor M, Atkin M, Wild SH, Beba H, Jones R. Estimation of the direct health and indirect societal costs of diabetes in the UK using a cost of illness model. *Diabet Med*. 2024 Sep;41(9):e15326. doi: 10.1111/dme.15326.
- Blüher M, Ceriello A, Davies M, Rodbard H, Sattar N, Schnell O, Tonchevska E, Giorgino F. Managing weight and glycaemic targets in people with type 2 diabetes-How far have we come? *Endocrinol Diabetes Metab*. 2022 May;5(3):e00330. doi: 10.1002/edm2.330.

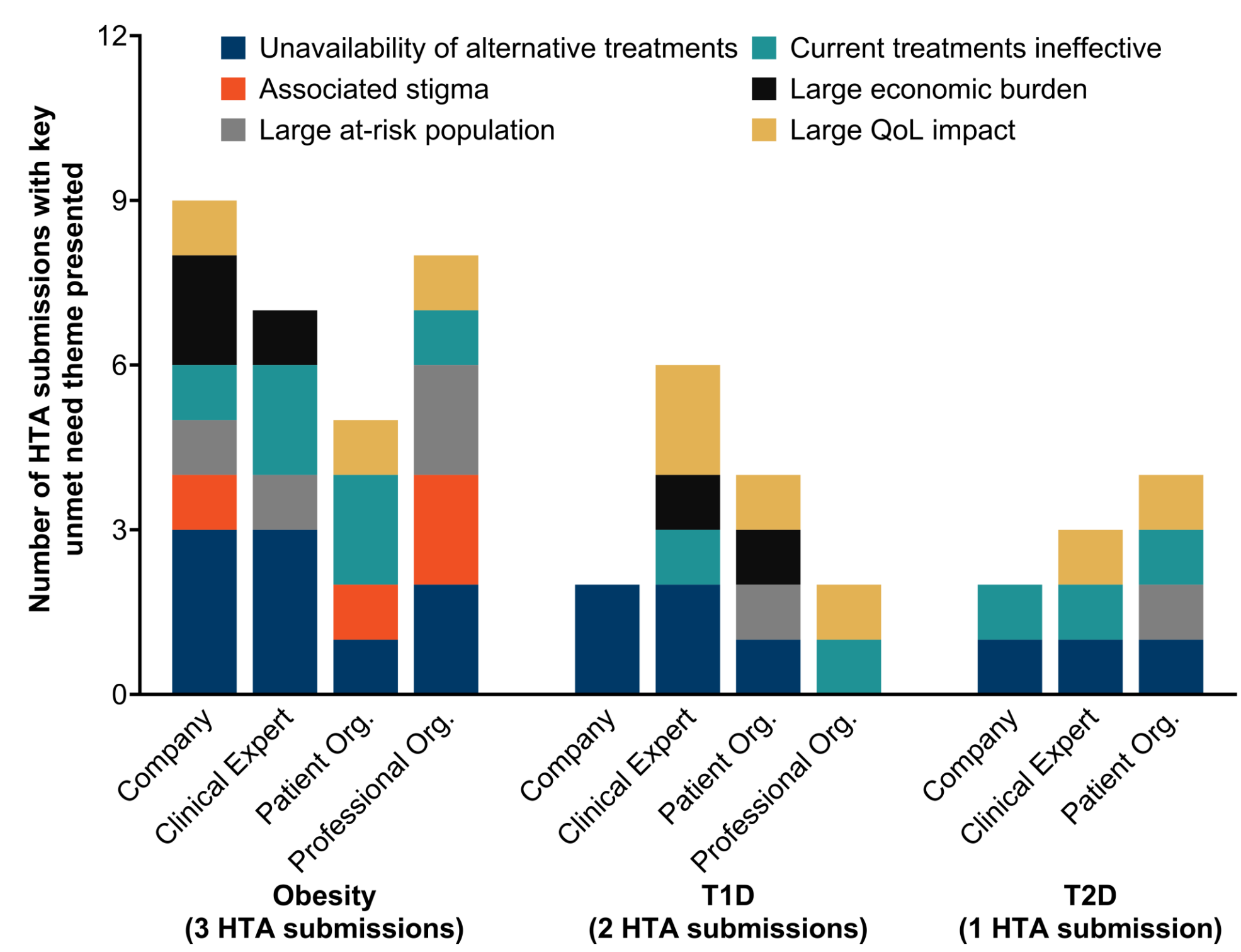
## Results

Table 1. Unmet need themes presented in NICE HTA submissions for diabetes and obesity

Drug	Company	ID	Treatment class	Submission year	Target population	Themes discussed by key bodies					
						Unavailability of alternative treatments	Associated stigma	Large at-risk population	Current treatments ineffective	Large economic burden	Large QoL impact
Tirzepatide		TA1026	GLP-1 agonist	2024	Obesity - adults						
Semaglutide		TA875	GLP-1 agonist	2022	Obesity - adults						
Liraglutide		TA664	GLP-1 agonist	2020	Obesity - adults						
Hybrid closed loop systems	Multiple*	TA943	Hybrid closed loop systems	2023	T1D – adults and children						
Sotagliflozin with insulin		TA622	SGLT2 inhibitor	2020	T1D - adults						
Tirzepatide		TA924	Dual GIP/GLP-1 receptor agonist	2023	T2D - adults						
Semaglutide		TA910	GLP-1 agonist	2023	Obesity - adolescents	Appraisal terminated					
Liraglutide		TA749	GLP-1 agonist	2021	Obesity - adolescents						
Empagliflozin		TA1006	SGLT2 inhibitor	2024	T2D - adolescents						

\*CamDiab, Medtronic, Tandem Diabetes Care, Dexcom

Figure 1. Analysis of unmet need themes presented by key body

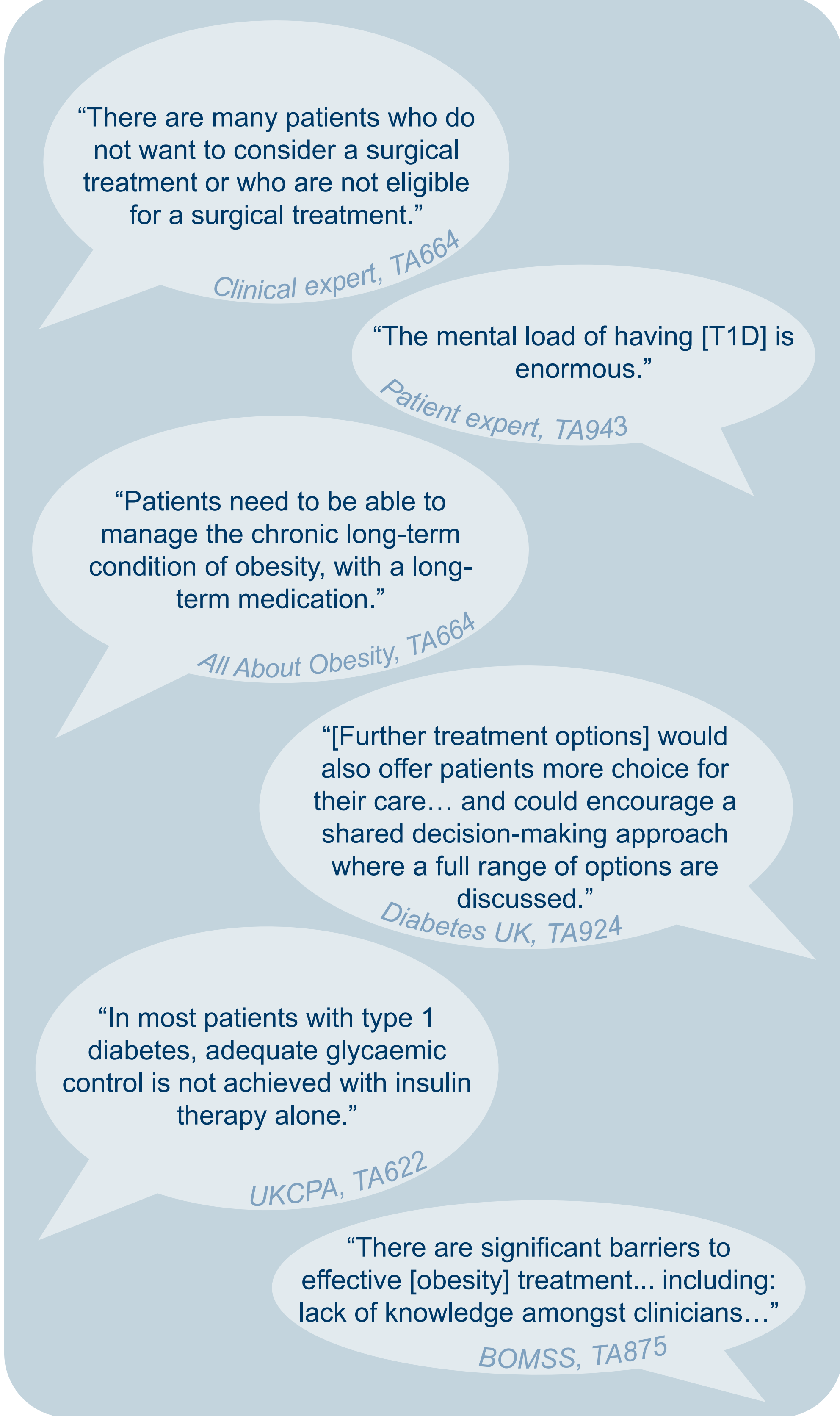


### Benefits not captured in QALY calculations

- Two appraisals (TA1026, obesity; TA924, T2D) included a dedicated section to highlight **benefits not captured by the QALY calculation**. These included:

Comorbid conditions	Reduced risk of cancers and adverse events from respiratory infections such as COVID-19
Social factors	Reduced social isolation and social stigma caused by obesity
Indirect economic factors	Reduced burden on the NHS caused by comorbidities and obesity-related surgeries Reduced absenteeism at work
Other factors	Improved fertility and success rate for in vitro fertilisation The mode and frequency of diabetes drug delivery is important to patients

Figure 2. Key unmet need-related quotes in HTA submissions



## Conclusions

- NICE HTA submissions continue to highlight unmet needs in obesity and diabetes, particularly regarding the limited effectiveness and range of available treatment options (especially long-term options), as well as the wider societal impacts associated with these conditions.
- A lack of education amongst the general population and healthcare professionals contributes to social stigma and can prevent effective care.
- Future appraisals should aim at addressing long-term needs, and needs of adolescents, for whom there was a lack of submitted evidence.

## Abbreviations

BOMSS, British Obesity and Metabolic Specialist Society; COVID-19, coronavirus disease; GIP, glucose-dependent insulinotropic polypeptide; GLP-1, glucagon-like peptide-1; HTA, health technology assessment; NHS, National Health Service; NICE, National Institute for Health and Care Excellence; org. organization; QALY, quality-adjusted life year; QoL, quality of life; SGLT2, sodium-glucose co-transporter-2; T1D, type 1 diabetes; T2D, type 2 diabetes; UKCPA, United Kingdom Clinical Pharmacy Association.