HTA328

The Rise of Optimisation in NICE Guidance: A Two-Decade Review With a Focus on Prevention

Exploring whether preventive medicines face greater barriers to full NICE recommendations

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Introduction

The National Institute for Health and Care Excellence (NICE) are England's HTA body, determining whether a medicine is funded by NHS England. NICE can ***recommend***, ***optimise***, or ***not recommend*** a medicine. Optimised recommendations limit use to a narrower group than that licensed. Few studies have tried to quantify the impact of optimisation on patient access *(Darrow et al, 2025; Bulut et al 2020; O'Neill et all 2010).*

While UK health policy increasingly prioritises prevention, preventive medicines may face particular challenges gaining full NICE recommendations. This study examined whether they are more often optimised than fully approved.

Objectives

Does optimisation of Technology Appraisal recommendations disproportionally affect certain therapy areas?

With a focus on prevention due to the current policy shift, are preventive medicines more likely to be awarded an optimised recommendation than non-preventive medicines?

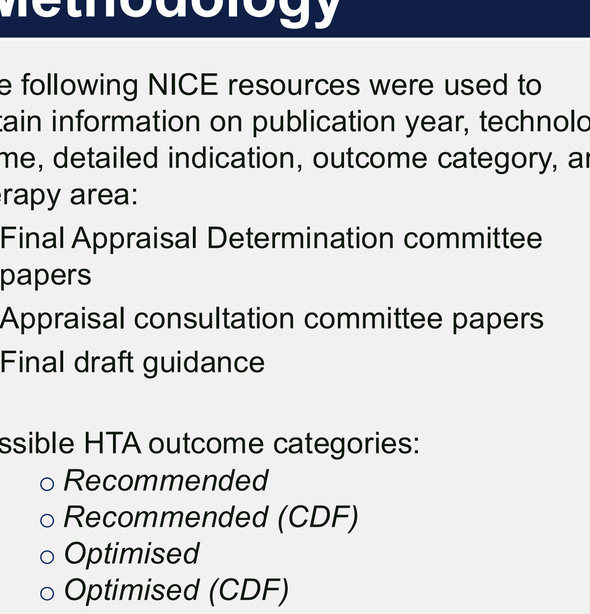
Methodology

The following NICE resources were used to obtain information on publication year, technology name, detailed indication, outcome category, and therapy area:

- Final Appraisal Determination committee papers
- Appraisal consultation committee papers
- Final draft guidance

Possible HTA outcome categories:

- *Recommended*
- *Recommended (CDF)*
- *Optimised*
- *Optimised (CDF)*
- *Only in research*
- *Not recommended*
- *Terminated appraisal*

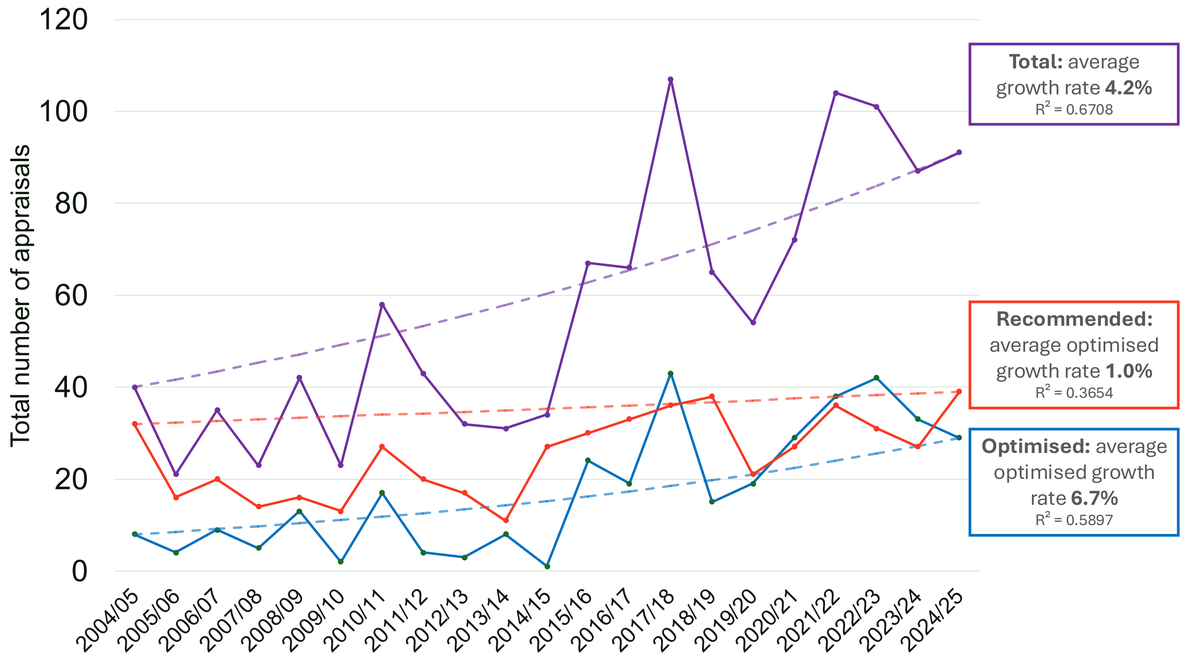


Some of the key "preventative health" search terms, as per NICE:

"Prevention", "Prophylaxis", "Prophylactic", "Prevent", "Sleep", "Preventing", "Cessation", "Alcohol", "Vitamin", "Cholesterol, "Falls", "Fatigue", "Hypertension", "Lipid"," Screening", "Screen", "Multimorbidity", "Obesity"

Results

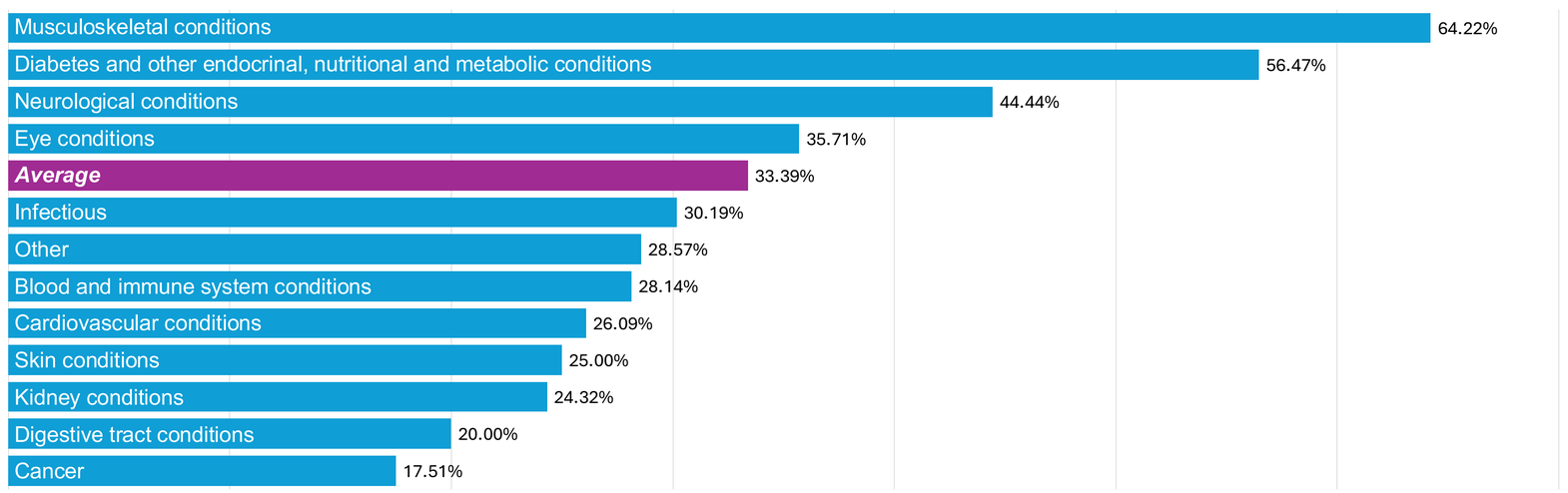
The proportion of Technology Appraisals optimised is increasing and is beginning to overtake the proportion receiving full recommendations.



Optimised recommendations have had an average growth rate over the last 20 years of 6.7%, vs a growth rate of 4.2% for all appraisals.

Approximately 20% of appraisals were optimised in 2004, versus 32% in 2024. However, the R-value shows us that this is highly variable year-on-year.

Medicines for both **MSK and diabetes and endocrine were the most likely to be optimised**



Percentage of Technology Appraisals optimised, 2004/05-2024/25

- **On average, 33.39% of recommendations per therapy area are optimised.**
- Musculoskeletal conditions saw the highest proportion of recommendations optimised (64.22% vs 33.39% overall average).
- Comparatively few cancer therapies are optimised when therapy areas are compared directly (17.51% for cancer vs 33.39% overall average).

Preventive medicines are **1.83 times more likely to be optimised** than non-preventive medicines

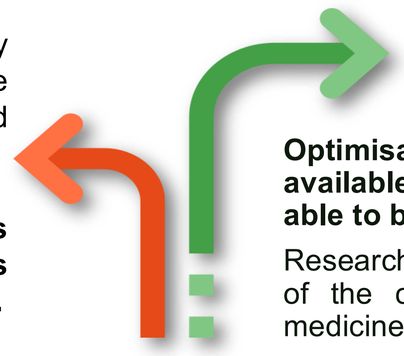
- Risk of optimisation for non-preventive medicines = 29.5%
- Risk of optimisation for preventive medicines = 43.5%
  Chi-square (χ^2): 6.73, P value: 0.0095

44% of TA recommendations for preventive medicines were optimised, and 40% were given a full recommendation. By comparison, **only 29% of non-preventive medicines were optimised and 45% gained full recommendations.**

Discussion

Preventive medicines are significantly more likely to be optimised by NICE than non-preventive therapies. Optimisation may limit reach and undermine population-level prevention aims.

Understanding and addressing this pattern is critical if NICE is to support the UK's ambition to shift from sickness to prevention.



Optimisation may be making medicines available which would otherwise not be able to be made available at all.

Research is needed into the nuanced impact of the current HTA process on preventive medicines.