

# Facilitating investments in obesity prevention and treatments in the Netherlands

Bart Slob<sup>1,2</sup>, Susan de Braak<sup>1</sup>, Simon van der Schans<sup>1</sup>, Lisa de Jong<sup>1,2</sup>, Cornelis Boersma<sup>1,2,3</sup>

<sup>1</sup>Health-Ecore B.V., Zeist, The Netherlands; <sup>2</sup>Unit of Global Health, Department of Health Sciences, University Medical Center Groningen (UMCG), The Netherlands; <sup>3</sup>Department of Management Sciences, Open University, Heerlen, The Netherlands.

## INTRODUCTION

**50% → 64%**

50% of Dutch adults currently live with overweight or obesity → projected to rise to 64% by 2050<sup>1</sup>

**Current policy**

Dutch policy has not reversed the rising trend, despite recognition of obesity as a disease<sup>2,3</sup>

**Burden of disease**

Overweight and obesity are associated with chronic diseases, reduced well-being, higher healthcare costs and productivity losses<sup>4,5,6</sup>

**Research question**

What are the projected Dutch societal costs of overweight and obesity? And what if we would intervene?

## METHODS

### Model design & inputs

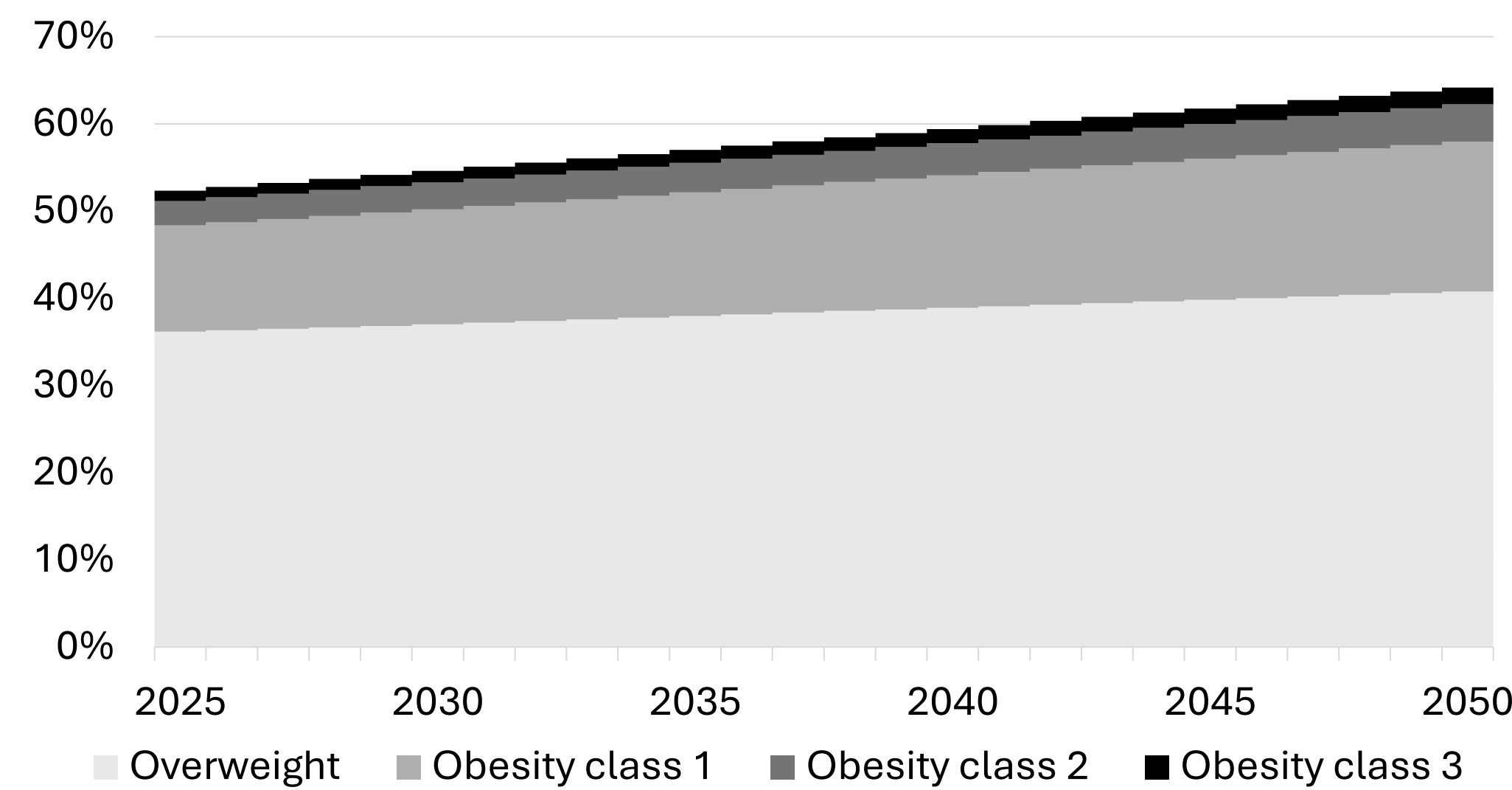
#### Prevalence

- **Model:** population-based
- **Population:** Dutch adults (≥18 years)
- **BMI classes:** <25, overweight, obesity class I/II/III
- **Time horizon:** 2025 – 2050
- **Source:** historical and projected CBS/RIVM prevalence data<sup>1,2</sup>

#### Costs

- **Societal cost categories:** healthcare, patient & family, productivity<sup>7</sup>
- **Analysis:** null-alternative (current prognosis) vs. interventions
- **Outcome measures:** prevalence & (cumulative) societal costs

### Projected prevalence of individuals living with overweight and obesity



### Analysis

#### Null-alternative

- Total societal costs was calculated by multiplying the BMI distribution with the costs of each specific BMI class

#### Interventions

- BMI distribution adjusted per **intervention-specific efficacy**
- Differences presented as **financial headroom** vs. null alternative
  - Scenario corrected for treatment costs<sup>11,12</sup>

### Interventions

**Sugar Tax** PREVENTATIVE

**Tax:** €0.90–€2.70/kg on products with sugar >6%

**Mechanism:** Stimulates reformulation & healthier food choices

**Timing:** Immediate, population-wide, lasting impact<sup>9</sup>

**Effect:** 0.41 BMI reduction

**Healthy Schools** PREVENTATIVE

**Target:** Children 4–18 years old

**Mechanism:** Improved school nutrition & physical activity

**Timing:** Effects builds gradually as cohorts enter adulthood<sup>10</sup>

**Effect:** Reduction in overweight (13.5% → 10.2%) & obesity (2.8% → 2.3%)

**Pharmacotherapy – GLP-1 agonists** TREATMENT

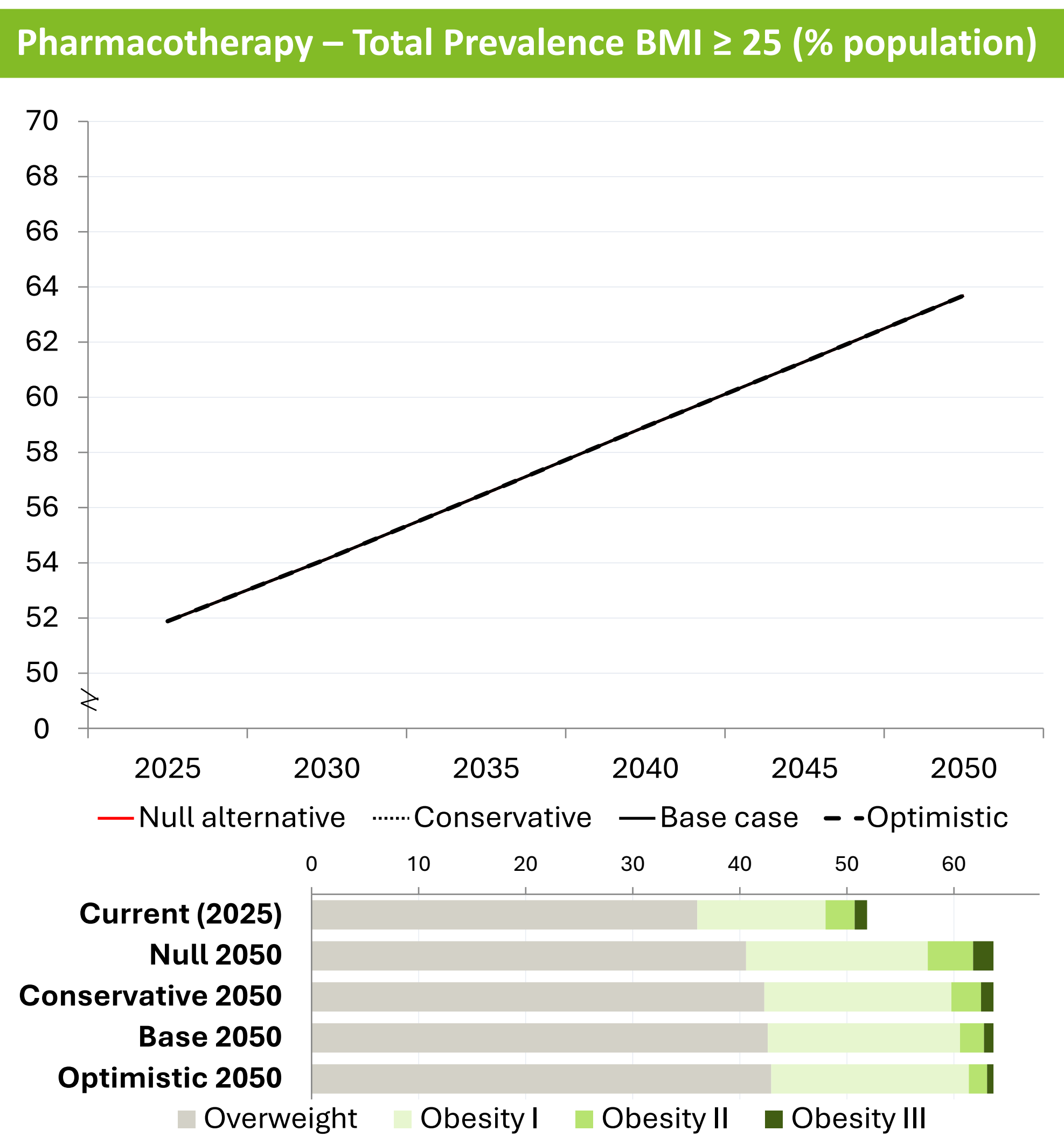
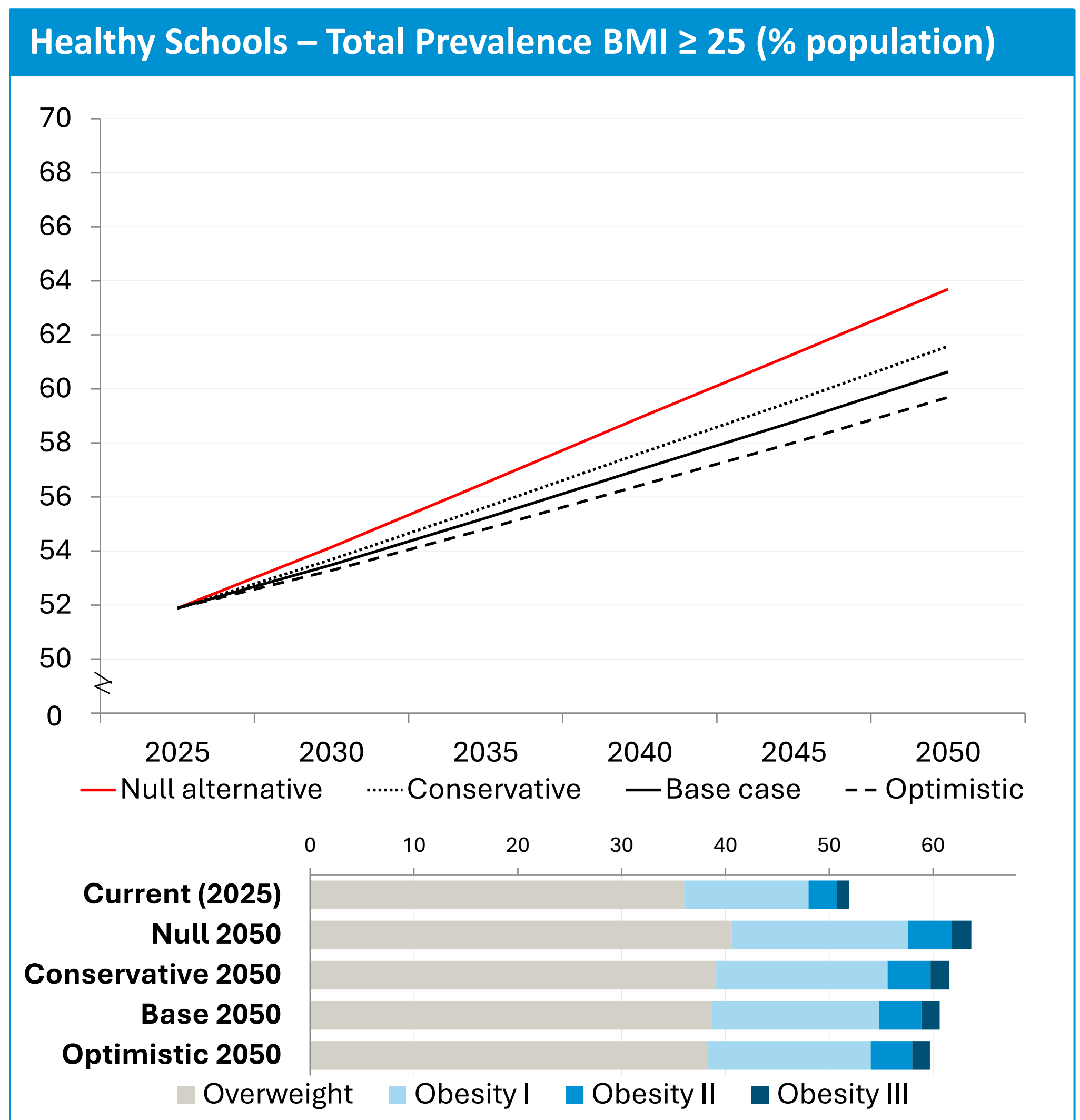
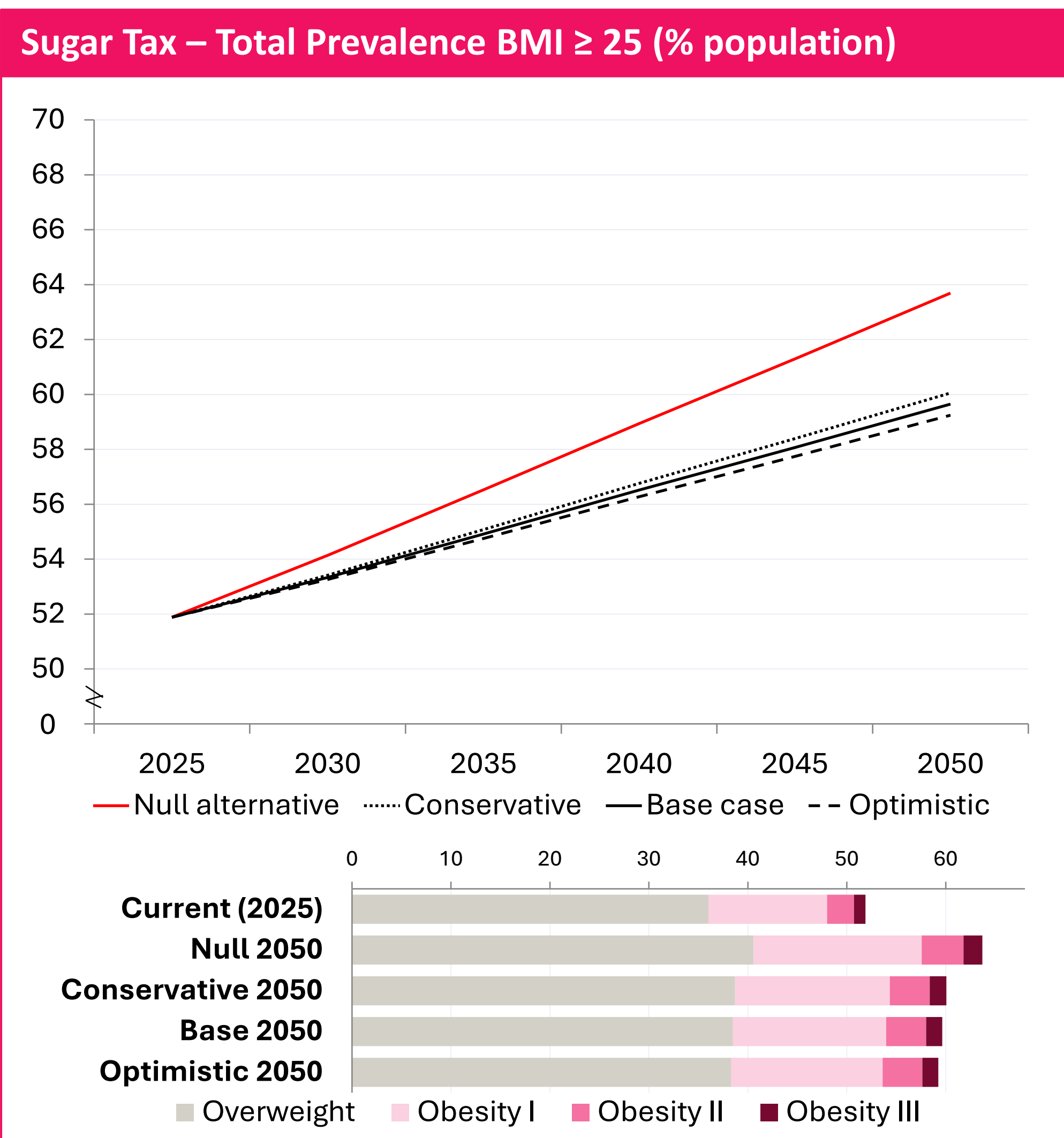
**Drugs:** Semaglutide / tirzepatide for obesity class II–III

**Effect:** Avg. BMI –7 pts · shifts severity, not total prevalence

**Correction:** Analysis includes scenario corrected for treatment costs<sup>11,12</sup>

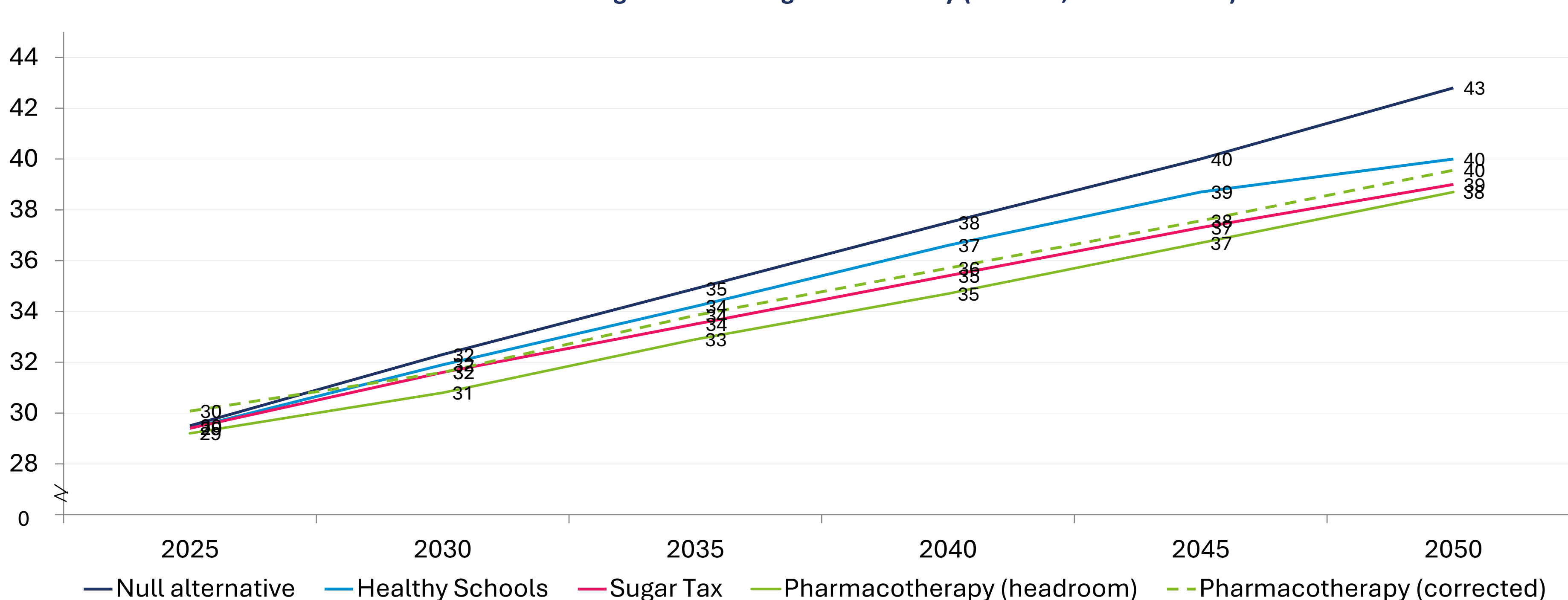
**Uptake:** 50% of eligible patients

## RESULTS – PREVALENCE



## RESULTS — SOCIETAL COSTS OVER TIME

### Annual societal costs associated with individuals living with overweight and obesity (€ billion, undiscounted)



### Cumulative discounted costs (2025–2050)\*

Strategy	2050 cost (€B)	Cum. disc. (€B)	Difference (€B)	Difference (%)
Null alternative	42.8	650.4	—	—
<b>Sugar Tax</b>	39.0	622.1	<b>28.3</b>	4.4%
<b>Healthy Schools</b>	40.0	628.2	<b>22.2</b>	3.4%
<b>Pharmacotherapy</b>	38.4	607.8	<b>42.6</b>	6.5%
<i>Corrected for treatment costs</i>	39.6	626.8	<b>23.6</b>	3.6%

Discounted at 3%/year per Dutch HE guidelines<sup>8</sup>

## DISCUSSION & CONCLUSION

**Prevention** Sugar Tax & Healthy Schools

- Both strategies **reduce total prevalence** across all BMI classes
- Sugar tax acts **broadly** and **creates environmental incentives** that facilitate **healthier choices**
- Healthy Schools builds **gradually** and has the potential to shift population health trajectories **over decades**
- Generates **net societal savings** even under **conservative** scenarios

**Sugar Tax: €28.3B (4.4%) | Healthy Schools: €22.2B (3.4%)**  
cumulative societal headroom vs. null alternative

**Treatment** GLP-1 agonists Pharmacotherapy

- Does **not reduce total prevalence** under current model assumptions; individuals shift to **lower BMI classes**
- Value lies in **reducing severity**: more severe obesity class proportion shrinks
- Prevalence lines overlap null alternative; bar charts show **severity shift**

**€42.6B headroom (6.5%)**  
€23.6B net savings (3.6%) after treatment costs

**Key Conclusions**

- Combine prevention + treatment**  
No single measure reverses the trend. A comprehensive strategy targeting all life stages and severity levels is needed.
- Reframe as investment**  
Interventions for obesity are not costs but investments in public health, economic resilience, and societal well-being.
- Invest now, not later**  
All interventions show substantial financial headroom. Delayed action increases the burden for future generations.

## REFERENCES

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