

Are Empirical Cost-Effectiveness Thresholds Ready for Policy-Making?

From Validation to Dynamic Prediction for India

OBJECTIVES

- 1 Assess construct validity (scope sensitivity and proportionality) of WTP estimates.
- 2 Evaluate predictive validity of the regression model for WTP per QALY in an external sample.
- 3 Develop a dynamic predictor tool to periodically revise the National CET and estimate state-level thresholds.

METHODOLOGICAL APPROACH

KEY MESSAGE

96% Agreement between observed and predicted WTP/QALY Values

- Strong Construct Validity**: Demonstrates theoretical consistency of WTP-based CETs
- Strong Predictive Validity**: Demonstrates reliable prediction of WTP/QALY values
- Dynamic predictor tool**: Enables future and state-specific CET estimation

1 CONSTRUCT VALIDITY

Scope Sensitivity and Proportionality

Mild health gains	Moderate health gains	Severe health gains
Mean QALY gain: 3.42	Mean QALY gain: 5.57	Mean QALY gain: 14.28
Mean WTP: ₹ 679,963	Mean WTP: ₹ 976,570	Mean WTP: ₹ 3,199,673

P-value: <0.0001 (between Mild and Moderate)

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MILD → MODERATE: 3.80 – 3.92X

MODERATE → SEVERE: 1.56 – 1.79X

As health gains increase from mild to moderate to severe, the average WTP increases proportionally, providing strong evidence of scope sensitivity and approximate proportionality.

2 PREDICTIVE VALIDITY

Agreement between Predicted and Observed WTP/QALY

96% of observations lie within the 95% limits of agreement, indicating strong agreement between predicted and observed WTP per QALY values.

3 PREDICTOR TOOL DEVELOPMENT

A dynamic tool to periodically revise the National CET and predict State CETs

DATA AND PREDICTORS:

- Individual level: age, consumer expenditure
- State level: education, employment, health insurance, GSOP per capita

OUTCOME: Periodic updating of national-level threshold and state-level prediction

Dynamic CET Prediction Tool

Scan to Access the Tool

POLICY AND HTA IMPLICATIONS This study provides a robust, validated, and dynamic framework for WTP-based cost-effectiveness thresholds in India, advancing evidence-informed HTA decision-making

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