



Impact of Health Technology Assessment Bodies on Health System Outcomes in Low-and-Middle-Income Countries

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INTRODUCTION

- Over one-third of the global population lacks access to essential medicines, with a larger gap in low- and middle-income countries (LMICs)
- LMICs have adopted strategies like innovative partnerships, donor funding, and Health Technology Assessments (HTA) to address this gap
- Limited case studies, such as Thailand’s increased access to the HPV vaccine, demonstrate HTA’s potential impact in LMICs
- There is a lack of large-scale quantitative studies on the impact of adopting HTA

AIM

This study aims to assess the impact of government-operated Health Technology Assessment Bodies (HTAs) on healthcare spending changes and health outcomes.

METHODS

Sample Identification

- Inclusion: LMICs
- Exclusion: no clear HTA year or defined non-governmental HTA
- HTA Identification: WHO’s 2021 global survey, lit reviews, google search
- Treatment: HTA Body

Data

- Sources: WHO, World Bank, Health Nutrition, and Population Statistics Database; all data averaged over 5 years
- Dependent: Out-of-pocket (OOP) expenditure, current health expenditure (CHE), chronic condition mortality, life expectancy (LE)
- Covariates: population, gender mix, GDP, Gini index, population over 65

Statistical Method

- Staggered difference-in-differences
- Calloway-and-Sant’anna

RESULTS

- The study included 69 countries in the control group and 28 in the treatment group.
- Most countries established an HTA body between 2015 and 2020.

	Average Treatment Effect on the Treated	P-Value
OOP	28.69	0.82
Mortality from Chronic Conditions	-0.69	0.75
Current Health Expenditure	-0.45	0.68
Life Expectancy	0.22	0.91

- The introduction of HTA led to a non-significant increase in annual OOP spending (\$28.69 per year) and in life expectancy (0.22 years)
- HTA introduction resulted in a non-significant decrease in mortality from chronic conditions (-0.69%) in current health expenditure by 0.45%

	Before 2000	2000-2005	2005-2010	2010-2015	2015-2020
OOP		-106.62***	40.74	53.49	
Mortality			-1.37	-0.36	0.17
CHE			-2.86	0.35	
Life Expectancy			-1.61	0.53	

- There are variations in the impact of HTA body creation based on which year a country created its organization

DISCUSSION

- Adopting HTA bodies in LMICs may lead to health system changes, but more research needs to be done to show their impact
- Increased OOP cost and life expectancy demonstrate that there may be more drugs that people have access to, increasing overall medical costs but leading to better health outcomes. This is further supported by the decrease in mortality for conditions with medical treatments (e.g. diabetes)
- There are differences in outcome based on year of implementation which may show other factors influence HTA body success

CONCLUSIONS

The introduction of HTA in LMICs did not yield significant changes in the explored outcomes. Future research should focus on non-proxy outcomes and aim to mitigate data gaps to further investigate this topic.

Limitations

- Proxy-outcomes for availability and affordability which are impacted by other treatments
- Aggregation into 5 year time periods due to missing data may hide true effect
- Underpowered study
- Bias in year of HTA implementation

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