



Contextualization of cost-effectiveness evidence

–382 health interventions for the Ethiopian Essential Health Services Package revision

Summary

Synthesizing the evidence

As a result of the rapid expansion of new technologies and health interventions, priority setting - implicitly or explicitly - is inevitable.

In 2019, the Ethiopian government defined its Essential Health Service Package (EHSP), whereby cost-effectiveness was selected as one of the criteria for prioritizing the health interventions in the revision process.

However, conducting primary health economic evaluations of a broad set of interventions simultaneously is challenging due to cost, time, scarcity of input data, and computational capacity constraints.

The study aimed to synthesize the cost-effectiveness evidence in the available literature and contextualize it for the Ethiopian EHSP.

The evidence synthesis was conducted

in five key steps: search, screen, evaluate, extract, and contextualize.

Studies from low-income settings, in particular sub-Saharan Africa, were given priority before supplementing with data from other settings.

Results

Of the total studies used, 45% were from African low- and middle-income countries (LMICs).

In total, average cost-effectiveness ratios (ACERs) for 382 interventions were synthesized from seven major programs (Fig.1). Thirteen of these interventions were from study sources in Ethiopia.

Values ranged from US\$3 per disability-adjusted life year (DALY) averted (for hepatitis B vaccination at birth) to US\$242,880 per DALY averted (for late-stage liver cancer treatment). Overall, 56% of the interventions have an ACER of less than US\$1000 per DALY, and 80% of the interventions have an ACER of less than US\$10,000 per DALY.

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is an inter-disciplinary research centre that aims to understand and promote ethically fair and efficient priority setting in national health systems.

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Key findings

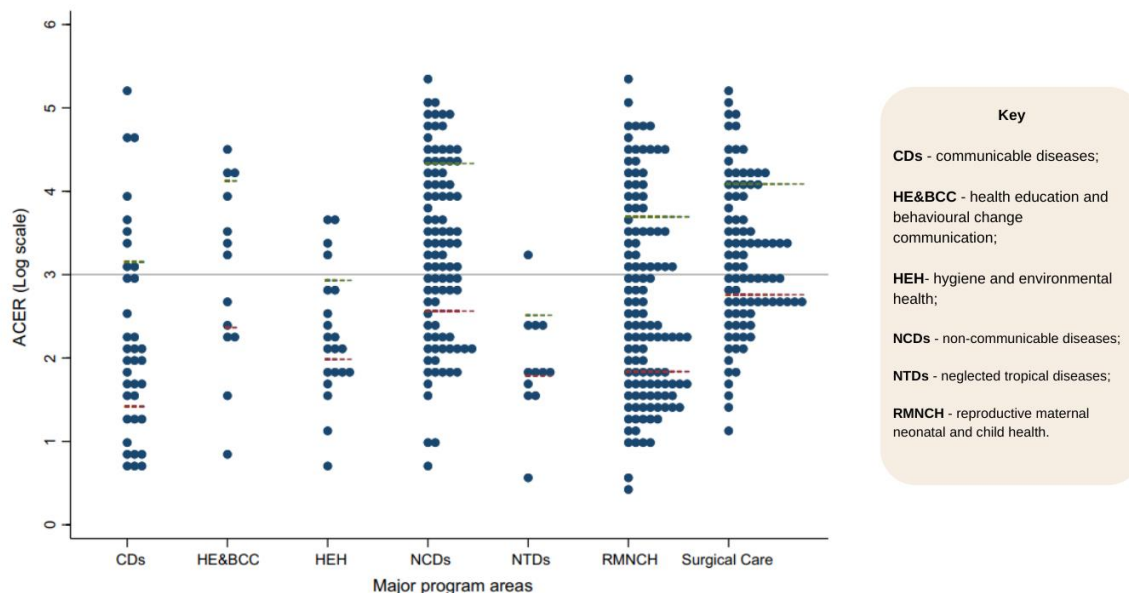


Fig 1. The ACERs for 382 health interventions by major program area. The Y-axis is ACER in the log scale. The horizontal grey line represents ACER = US\$1000 per DALY/QALY/LYG. A dot represents an ACER for a single intervention.

Conclusion

The study found that, while most CDs, NTDs, and hygiene and environmental health interventions had relatively low ACERs, more than half of the NCD interventions had an ACER higher than US\$1,000 per DALY.

It is therefore possible to identify relevant economic evaluations using evidence from the literature, even if transferability remains a challenge. Several cost-effective candidate interventions were identified that could, if scaled up, substantially reduce Ethiopia’s disease burden.

Policy implications/recommendations

- To generate more transferable cost-effectiveness evidence across countries, primary cost-effectiveness studies should be expanded in all of Africa.
- A formal health technology assessment (HTA) body should be institutionalized in Ethiopia to conduct a full-scale assessment of intervention costs and benefits.
- A cost-effectiveness database should be established in Ethiopia to regularly examine the evidence gap and feed strategic information to the Ministry of Health, Health Insurance Agency, and Ethiopian Pharmaceutical Supply Agency in a timely way.

Collaborating partners

