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The Practical Realities of Local-Level Economic Evaluations: Toward Informed Decision Making in Health Care

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Health care organizations strive to provide the best possible care to their patients. Unfortunately, quality gaps are all too common, and bridging these gaps can be challenging amid a sea of rapid innovation, an evolving evidence base, and financial constraints.[1] Gray et al. are developing methods to bridge those gaps through the use of local-level economic evaluations (LLEEs), with the ultimate goal of creating a guide that health care organizations could use to enhance their decision making. In this article, the authors further develop LLEE methods by estimating the expected effects of new, evidence-based processes designed to prevent inpatient admissions for hypoglycemia.[2]

Economic evaluations are widely used by decision makers to determine whether to adopt or fund a new treatment or technology, with cost-effectiveness analysis being a commonly used approach. A cost-effectiveness analysis compares 2 or more treatments, by quantifying the incremental costs relative to the incremental benefits.[3] The approach informs the decision maker about the value of alternative treatments. LLEEs extend this framework to the local level in an effort to help individual organizations make optimal decisions regarding whether to implement a new intervention.[4]

The term *LLEE* may be new to many health care organizations, even though some may be already doing LLEEs. For example, when a new drug is approved, many health care organizations use a pharmacy and therapeutics (P&T) committee to review the new evidence and determine how to best use the new drug given the alternative treatments and their relative prices.[5] P&T committees can incorporate a wide range of evidence into their deliberations. These committees may also flag potential implementation issues, such as local availability of health care resources and clinical practice patterns. Thus, it seems plausible that many health care organizations could create a team, much like a P&T committee, that could be charged with conducting LLEEs.

Gray et al. used expert elicitation to tailor effect estimates for 2 interventions that were designed to prevent inpatient admissions for hypoglycemia. The intervention was proven effective in other hospitals, and the authors wanted to determine the likely effects for their hospital. They assembled an expert panel and then had the panel systematically assess the evidence to estimate the expected effects of the interventions.[2]

Practitioners considering whether to set up an LLEE process should pay particular attention to the PowerPoint slides in the supplemental information. The slides provide extremely detailed examples of how to moderate the expert panel to determine the likely effects of implementing new interventions locally. The expert elicitation approach involved presenting local hospital staff with available data, the potential drivers of differences in baseline risks between the local setting and published evaluation, and the effects of potential biases associated with the research study design and implementation. The panel then generated a range of plausible values for the interventions' effects in the local setting.

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The next steps for establishing an LLEE process are not immediately clear, however. We see 3 hurdles that will need to be overcome for more widespread use of LLEEs. First, organizations will need some guidance on which decisions should be put through the rigor of an LLEE. It is not possible for health care organizations to create LLEEs for all the decisions they face every day due to time and cost requirements for these processes.[4] But LLEEs could be very valuable when making major decisions or decisions that require considerable resources. Developing guidance here will be very helpful.

Second, LLEEs will need information on local costs, including the costs of local implementation. This, we suspect, is a complicated task, much more than it may seem at first blush. Economic evaluations often measure resource use and then estimate costs by multiplying resource use by a unit cost.[3] Often evaluations use cost data derived from other health care organizations, and these unit costs can be easily adjusted for some observed local characteristics, such as wages or utility rates (e.g., gas and electricity).[6] However, LLEEs will need to include the costs associated with additional patient requirements (e.g., transportation time and costs) and service modifications (e.g., infrastructure and training) needed for implementation. In addition, the local costs need to factor in whether the organization is efficiently producing care (i.e., minimizing their costs of production) and producing health services that optimize social welfare (i.e., allocative efficiency).[3,7] Measuring organizational efficiency in and of itself can be challenging, but using unit costs from other organizations implies that the organizations are equally efficient. While this assumption greatly simplifies the economic evaluation, it belies local issues, whether that be variations in patient complexity or organizational practices.

Finally, LLEE committees will need to consider the organizational context. We noted that LLEEs could be structured like P&T committees, but P&T committees can leverage existing pharmacies and clinics to dispense new drugs. Implementing new interventions to prevent patient admissions for hypoglycemia, however, requires intervening on organizational practices. The organizational context, including the allocation of human capital, labor contracts, staff capacity, the size and ongoing nature of investment in infrastructure, and the distribution of resources across the organization, affects the effectiveness and the costs of implementation.[8] Thus, these contextual factors must be accounted for when conducting an LLEE and devising implementation strategies to enhance the adoption and sustainability of new interventions. Implementation scientists have discussed some challenges incorporating organizational and implementation science components into economic evaluations,[9] but some issues remain unresolved.

In summary, economic evaluations hold promise for improving local decision making, especially as health care organizations strive to provide patients with the highest quality of care in the face of rapid innovation and competing resource demands. Conducting an LLEE can support health care organizations to navigate decisions regarding whether to implement new interventions given their benefits and costs in the local setting. There is significant opportunity to utilize expert elicitation methods described by Gray et al. to adjust published intervention effects and to derive parameter probabilities when tailoring an economic evaluation for the local context. However, developing guidance on when to use LLEE and how to integrate local factors into LLEEs is required before LLEEs can routinely inform decision making. We look forward to seeing further developments that help organizations conduct LLEE.

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References

1. Kruk ME, Gage AD, Arsenault C, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. *Lancet Glob Health*. 2018;6(11):e1196–252.
2. Gray J, Thynne TR, Eaton V, Larcombe R, Tantiongco M, Karnon J. Using expert elicitation to adjust published intervention effects to reflect the local context. *MDM Policy Pract*. 2024;9(1):23814683231226335. DOI: 10.1177/23814683231226335
3. Gold MR, Siegel JE, Russell LB, Weinstein MC. *Cost-Effectiveness in Health and Medicine*. Oxford (UK): Oxford University Press; 1996.
4. Gray J, Thynne TR, Eaton V, et al. A framework for local-level economic evaluation to inform implementation decisions: health service interventions to prevent hospital-acquired hypoglycemia. *Int J Technol Assess Health Care*. 2023;39(1):e74.
5. Vogenberg FR, Gomes J. The changing roles of P&T Committees. *Pharm Ther*. 2014;39(11):760–72.

6. Drummond M, Barbieri M, Cook J, et al. Transferability of economic evaluations across jurisdictions: ISPOR Good Research Practices Task Force Report. *Value Health*. 2009;12(4):409–18.
7. Sickles RC, Zelenyuk V. *Measurement of Productivity and Efficiency*. Cambridge (UK): Cambridge University Press; 2019.
8. Gold HT, McDermott C, Hoomans T, Wagner TH. Cost data in implementation science: categories and approaches to costing. *Implement Sci*. 2022;17(1):11.
9. Saldana L, Ritzwoller DP, Campbell M, Block EP. Using economic evaluations in implementation science to increase transparency in costs and outcomes for organizational decision-makers. *Implement Sci Commun*. 2022;3:40.