



# Measuring and Valuing Health for Children

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CADTH is committed to continually updating our guidance documents to reflect the evolving nature of methodologies. Assessing the benefits of health interventions for children and young people (i.e., those younger than aged 18 years; hereafter referred to as children) is an important aspect of economic evaluations and is a priority area for us.

As part of our commitment to updating our guidance, we sought to determine whether there is consensus in the literature about the optimal methods for measuring and valuing health-related quality of life (HRQoL) in children, and for incorporating this information into economic evaluations. Specifically, we sought to understand whether there is consensus on:

- what dimensions of HRQoL should be considered for children across developmental stages
- who should be asked to complete the instruments (e.g., self-report versus proxy report by parents, caregivers, or clinicians)
- how health states should be valued and by whom (e.g., adults, children)
- whether or how the impact of interventions on the HRQoL of caregivers and family members of pediatric patients (i.e., spillover effects) should be incorporated.

Despite significant progress in recent years and ongoing work to advance methods of measuring and valuing HRQoL in children, and thus to support the assessment of health technologies and resource allocation decisions about these technologies, there is no consensus in the literature about how to best address these issues. Importantly, there is currently no consensus about how to best quantify or incorporate the impact of spillover effects on family members or caregivers in economic evaluations. Other notable research gaps remaining at this time include:

- Canada-specific value sets were available only for the Health Utility Index Mark 2 (HUI2) and Mark 3 (HUI3), with preferences obtained from the general adult population. Children may have lower preferences compared to adults for the same health states, yet the implication of this on estimates within cost-effectiveness analyses that span a lifetime horizon are unknown.
- The appropriateness of using adult health-state preferences to estimate child preferences remains under investigation.
- The relevance of using the same preference-based instruments for children and adults is being assessed.



- The impact of different approaches to handling age transitions when modelling over a lifetime horizon remains to be evaluated.
- The number and type of caregivers that could be included in the assessment of spillover effects and the ethical implications of including spillover in economic evaluations remain unknown.

We acknowledge that work in this area is ongoing and we intend to periodically revisit these issues.

#### **Key finding from this review:**

The existing literature lacks consensus on optimal methods for measuring and valuing HRQoL, and the impact of methodological and normative choices on cost-effectiveness estimates relies on the ongoing research. Because this remains an evolving area, CADTH deemed that no updates to the 2017 *Guidelines for the Economic Evaluation of Health Technologies* are warranted at this time. We recommend that sponsors provide sufficient detail and transparency in submissions with respect to the methodologies used to measure and value child HRQoL, as well as justify the choice of generic preference-based instrument(s) and value set for the intended age range(s). Should sponsors wish to consider spillover to populations beyond the Health Canada indication, this should be done in non-reference-case analyses, consistent with guidance in the 2017 guidelines. In scenarios where spillover is included, sponsors should justify the number and type of caregivers for whom spillover is incorporated, and provide methodological details describing how spillover was measured and incorporated into the economic evaluation.

## **Reference**

1. Measuring and Valuing Health for Children: A Review of the Evidence. Can J Health Technol. 2024;4(9). <https://canjhealthtechnol.ca/index.php/cjht/article/view/MH0023>.