

# One for All?

## Exploring the Need for Country Specific Value Sets for Preference-Based Measures of Health

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## INTRODUCTION

- HTA guidelines often recommend **local or country-specific value sets** for preference-based measures of health, which are developed through surveys among local or specific country population, to reflect **unique health priorities** and **preferences** in **diverse** population.<sup>1,2</sup>
- Standardized** protocols for the conduct of valuation studies have been developed in recent years, enhancing the **quality** and **methodological consistency** in value sets across countries and the ability to compare preferences for attributes of health based on country/culture.<sup>3,4,5</sup>
- Given the **standardization** of study designs, if value sets are shown to be similar across countries, **fewer** valuation studies may be needed.

## OBJECTIVE

To explore the need for unique value sets in culturally similar countries for preference-based measures of health.

## METHOD

- Value Sets:** FACT-8D value sets from US, Canada, and Australia.<sup>4,8,9</sup>
- Sample:** Secondary analysis of cross-sectional data collected from 543 cancer patients who participated in a validation study of cancer symptoms scales.<sup>6</sup>
- Measures:** Each participant completed the Functional Assessment of Cancer Therapy (FACT) questionnaire that included items that comprise the FACT-8D, a descriptive system that includes 8 dimensions closely related to quality-of-life of cancer patients. Performance status was evaluated with the Eastern Cooperative Oncology Group (ECOG) by both the physician and the patient.<sup>7</sup>
- Statistical Analysis**
  - Value sets were compared using ranking of coefficients; by comparing empirical tests on dataset using known groups comparisons based on ECOG status.
  - Analysis of Variance (ANOVA) was used to compare discriminative ability of FACT-8D index scores across ECOG levels.
  - Discriminative power of Canadian and Australian, relative to the US value set, were quantified by relative efficiency (RE) ratios.
    - RE = 1: similar efficiency versus US value set
    - RE > 1: less efficient versus US value set
    - RE < 1: more efficient versus US value set

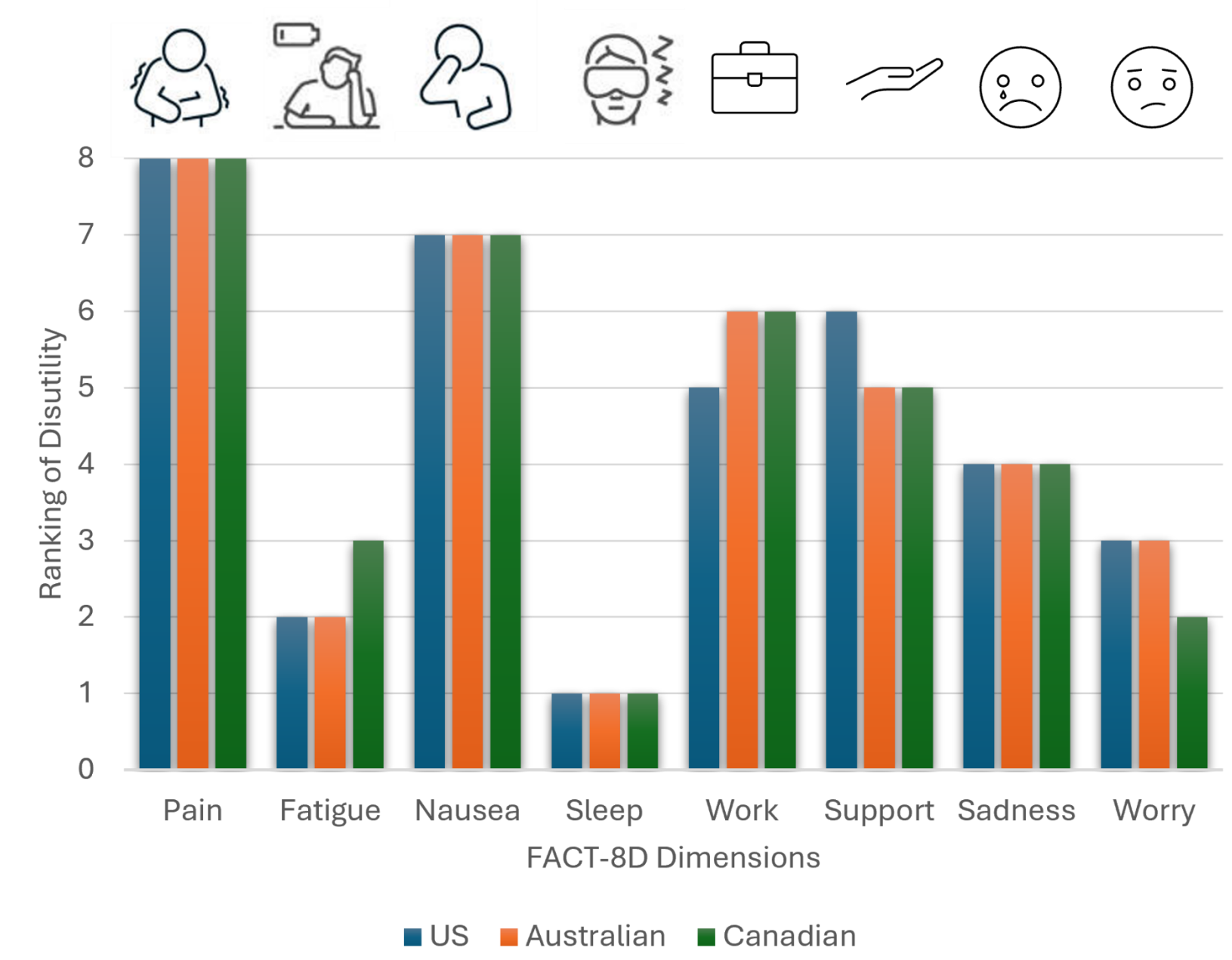
## RESULTS

- Similar order of importance** among the 8 dimensions of FACT-8D was observed (pain then nausea had the highest disutility consistently among three country value sets), with slight reordering in some dimensions (fatigue and worry in Canadian vs US and Australian value set) (Fig 1)
- Utility scores showed **very similar statistical efficiency based on known groups comparisons** using ECOG for US (F=25.5) Canada (F=27.1) and Aus (F=24.4).

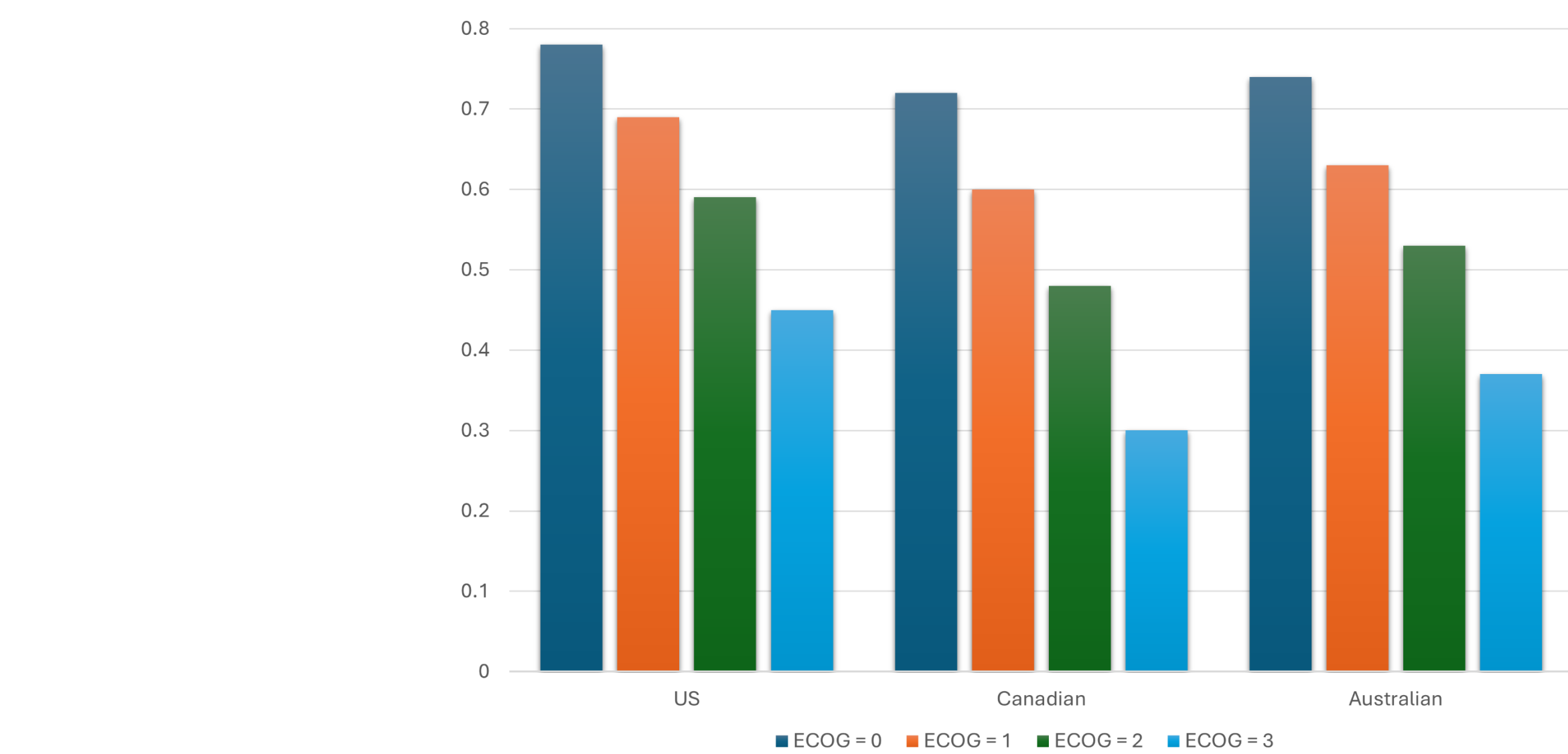
**TABLE 1:** Respondent Characteristics

Characteristics	Overall Sample (n=534)
Age (mean, standard deviation)	59 (12)
Gender – female (n, %)	258 (48%)
Race (n, %)	
White	474 (89%)
Black	44 (8%)
Other	15 (3%)
Of Spanish/Hispanic Ancestry	16 (3%)
ECOG Level	
0	132 (25%)
1	263 (49%)
2	76 (14%)
3	15 (3%)

**FIGURE 1:** Level 4 Ranking of Disutility in Each Dimension by Country Value Sets



**FIGURE 2:** Mean Utility Values for Physician ECOG



Value Set	ECOG=0	ECOG=1	ECOG=2	ECOG=3	F-Stat	RE
US	0.78	0.69	0.59	0.45	25.47	Reference
Canadian	0.72	0.6	0.48	0.3	27.08	1.06
Australian	0.74	0.63	0.53	0.37	24.42	0.96

## DISCUSSION

- The results of this study suggest that a **single value set** could be considered an option for culturally similar countries if **resource constraints exist**. This evidence could inform future HTA policies about countries that could be considered potential substitutes or combined in super studies for emerging preference-based measures.
- Additional evidence** would be helpful to test the robustness of these findings using **multiple country value sets** for other measures like the EQ-5D and QLU-C10D based on the EORTC.

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