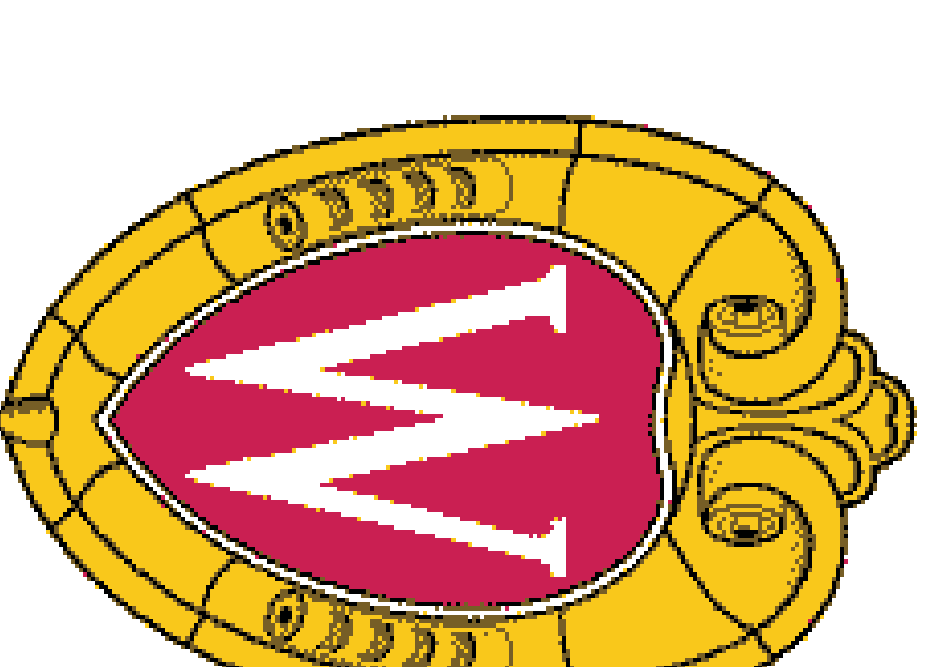


Do Large National Surveys Yield Equivalent Population Norms For Health Related Quality of Life Measures?

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Introduction

Background

- There are now multiple nationally representative surveys that include Health Related Quality of Life (HRQoL) Measures.
- Having nationally normative HRQoL values is important for tracking national health over time and for use as a comparator for subgroups and research samples.
- It is not known if different surveys give disparate or similar values.

Objectives

- To see if two of these surveys give equivalent direct estimates of sex and age stratified HRQoL means.
- To see if imputed scores from one survey give equivalent estimates of sex and age stratified HRQoL means from the other survey.

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Methods

Two Nationally Representative Data Sets

- US Valuation of the EuroQoL EQ-5D Health States Study (Coons et al)¹ in 2002
 - Directly asked EQ-5D
 - Directly asked Health Utilities Index Mark 2 and 3 (HUI3 used here)
- 2001 Medical Expenditures Panel Survey (MEPS)²
 - Directly asked EQ-5D
 - Directly asked SF-12 version 1
 - This study estimated HUI3 scores from the SF-12 using algorithms of:
 - Franks et al³ (community health center sample)
 - Sengupta et al⁴ (managed care sample)

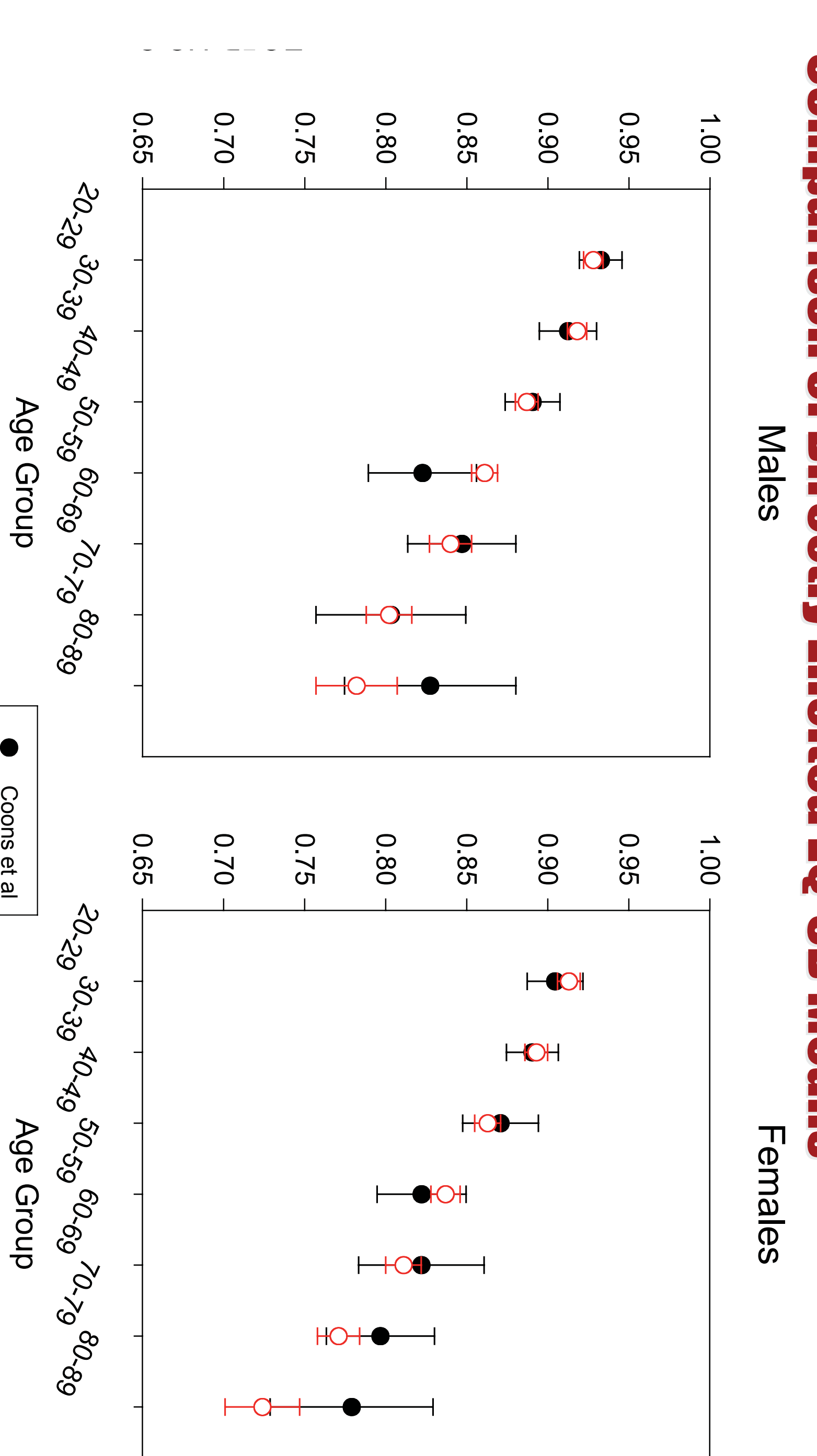
Analysis and Sample Size

- Means were calculated by sex and decade of age from 20-29 to 80-89.
- We applied appropriate weighting to yield nationally representative values for the civilian non-institutionalized adult US population.
- We report 95% confidence intervals around directly elicited measures.
- Individually estimated means do not have 95% confidence intervals because the original papers do not include error terms for the coefficients.
- We used all completed responses.

	Coons et al 2002	MEPS 2001
Total Participants	3,878	22,523
Completed EQ-5D	3,821 (99%)	19,629 (87%)
Completed HUI3 or SF-12	3,878 (100%)	19,853 (88%)

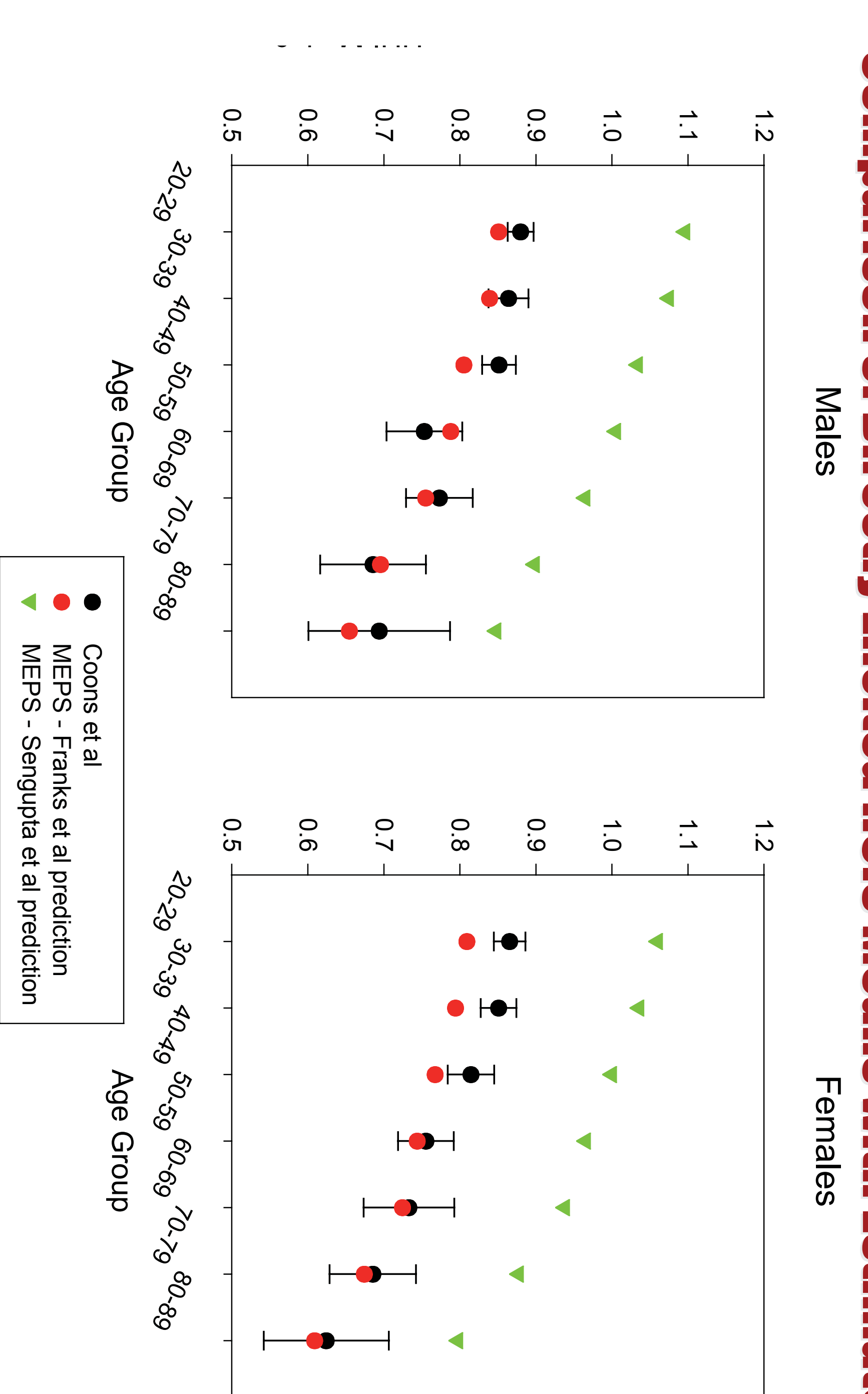
Results

Comparison of Directly Elicited EQ-5D Means



This figure shows that the 95% confidence intervals overlapped for all age groups in both sexes for directly elicited EQ-5D scores. In general, as expected, females report lower HRQoL scores than males for any given age group. The MEPS data show decreasing point estimates with increasing age. The Coons et al data have a less consistent age trend, especially in males.

Comparison of Directly Elicited HUI3 Means with Estimated HUI3 means



Directly elicited HUI3 scores from the Coons et al data show a similar pattern as the directly elicited EQ-5D scores above. Franks et al HUI3 point estimates from MEPS were somewhat lower than the Coons et al confidence intervals in younger age groups, but within the intervals at older age groups for both sexes. Sengupta et al HUI3 point estimates from MEPS were much higher than the Coons et al confidence intervals in all groups, with many point estimates above 1.0.

Discussion

In general, directly assessed EQ-5D estimated means were consistent across the two surveys and use of either would be appropriate for use as US averages. The MEPS sample showed more consistent age trends and may be more desired because of its larger sample size. Users of imputed scores should be wary, especially when applying imputation algorithms to groups beyond the original imputation calculation sample.

References

1. <http://www.ahrq.gov/re/e/e5dproj.htm>
2. <http://meeps.ahrq.gov/>
3. Franks P, Lubetkin EI, Gold MR, Tancredi DJ. Mapping the SF-12 to Preference-Based Instruments: Convergent Validity in a Low-Income, Minority Population. Med Care. 2003;41:1277-1283.
4. Sengupta N, Nichol MB, Wu J, Globe D. Mapping the SF-12 to the HUI3 and VAS in a Managed Care Population. Med Care. 2004;42:927-937.