Online Resource Table 1: Cross-tabulation of Change Groups Based on Item Response Theory (columns) and Classical Test Theory (rows) Standard Errors for Simulated Random Change in Physical Function (Two-tailed, p < 0.05)

Classical Test Theory	Worse	Same	Better	Total
Worse	31229	672	0	31901
Same	3637	58946	3646	66229
Better	0	684	31186	31870
Total	34866	60302	34832	130000

Item Response Theory

From: Using Item Response Theory to Identify Responders to Treatment: Examples with the Patient Reported Outcomes Measurement Information System (PROMIS®) Physical Functioning and Emotional Distress Scales

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