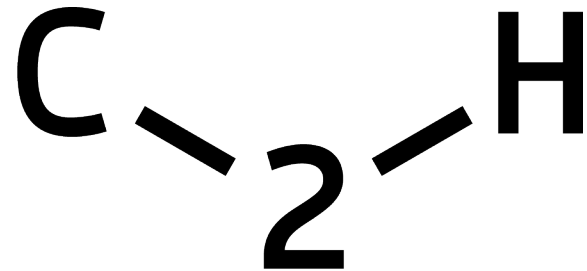


- AP-7D results in Japan -

Yasuhiro Morii

C2H, Japan



For the detailed methods and results,
please refer to the article below



Social Science & Medicine 393 (2026) 119022



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed



Departures from health universalism? A value set of AP-7D in Japan as an attempt to develop a “culture-specific” preference-based measure

Takeru Shiroyiwa^{a,*} , Yasuhiro Morii^a , Eri Hoshino^b, Tatsunori Murata^c, Richard Norman^d, Brendan Mulhern^e, Nan Luo^f, Donna Rowen^g, Takashi Fukuda^a

^a Center for Outcomes Research and Economic Evaluation for Health (C2H), National Institute of Public Health, Wako, Japan

^b Division of Policy Evaluation, Department of Health Policy, Research Institute, National Center for Child Health and Development, Tokyo, Japan

^c CRECON Medical Assessment Inc., Tokyo, Japan

^d School of Population Health, Curtin University, Perth, WA, Australia

^e Centre for Health Economics Research and Evaluation, University of Technology Sydney, Sydney, NSW, Australia

^f Saw Swee Hock School of Public Health, National University of Singapore and National University Health System, Singapore

^g Sheffield Centre for Health and Related Research, University of Sheffield, Sheffield, UK

Methods: Valuation survey

Survey form	Web-based survey
Methods	Ternary DCE
# of respondents	2681, quota-sampled by sex and age
Inclusion criteria	• residents in Japan • speaking language • Aged 20-79
Other information collected	• AP-7D and EQ-5D-5L responses • Demographic information

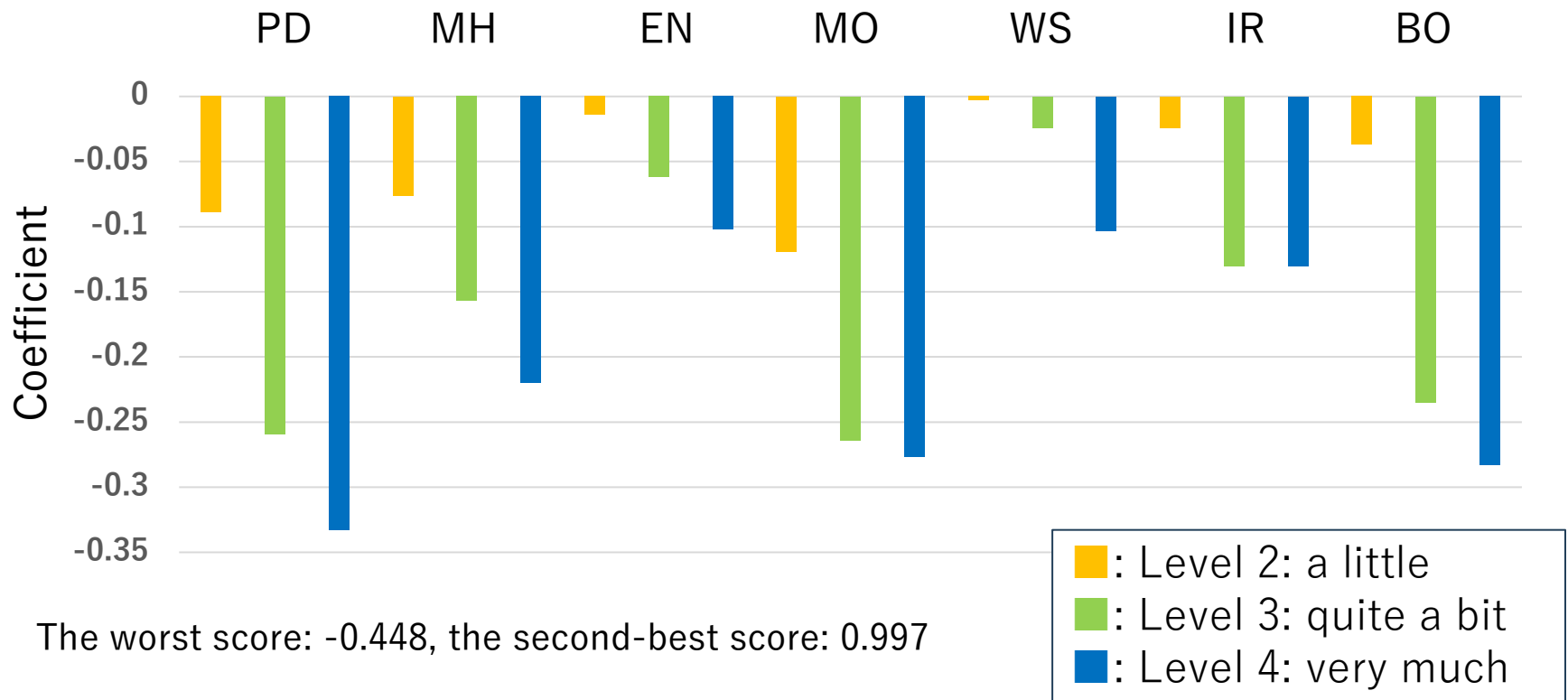
Methods and results: Statistical analysis

- ✓ Six models were applied
- ✓ Mixed-effects constrained model was chosen for a value set

		Mixed effects model				Fixed effects model							
		Model 1 (unconstrained)		Model 2 (Constrained)		Model 3 (unconstrained, N4)		Model4 (unconstrained, N34)		Model5 (unconstrained)		Model6 (panel logit)	
Effect		Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Time		1.265	0.021	1.214	0.029	1.279	0.026	1.066	0.022	0.369	0.007	0.225	0.007
PD x Time	2	-0.113	0.014	-0.114	0.010	-0.081	0.012	-0.102	0.013	-0.018	0.003	0.014	0.003
	3	-0.332	0.011	-0.319	0.010	-0.287	0.010	-0.297	0.010	-0.065	0.003	-0.026	0.003
	4	-0.413	0.013	-0.430	0.014	-0.369	0.010	-0.363	0.011	-0.097	0.003	-0.022	0.003
AD x Time	2	-0.105	0.011	-0.109	0.012	-0.093	0.011	-0.062	0.012	-0.044	0.004	-0.014	0.004
	3	-0.209	0.010	-0.198	0.011	-0.228	0.011	-0.209	0.010	-0.064	0.003	-0.019	0.003
	4	-0.258	0.012	-0.280	0.011	-0.269	0.011	-0.211	0.013	-0.088	0.004	-0.030	0.004
EN x Time	2	-0.020	0.011	-0.013	0.011	-0.036	0.010	-0.020	0.011	0.007	0.004	0.004	0.004
	3	-0.079	0.012	-0.080	0.012	-0.084	0.013	-0.113	0.011	-0.003	0.003	-0.028	0.003
	4	-0.125	0.012	-0.134	0.011	-0.156	0.012	-0.111	0.012	-0.020	0.003	-0.028	0.003
MO x Time	2	-0.147	0.013	-0.144	0.011	-0.165	0.010	-0.112	0.011	-0.040	0.003	-0.029	0.003
	3	-0.339	0.012	-0.326	0.013	-0.333	0.011	-0.296	0.011	-0.086	0.003	-0.076	0.003
	4	-0.353	0.010	-0.339	0.012	-0.383	0.013	-0.308	0.016	-0.088	0.003	-0.086	0.003
WS x Time	2	-0.004	0.012	-0.005	0.010	-0.027	0.013	-0.037	0.009	0.003	0.003	-0.023	0.003
	3	-0.059	0.011	-0.027	0.011	-0.057	0.012	-0.087	0.010	-0.016	0.004	-0.050	0.004
	4	-0.136	0.012	-0.110	0.013	-0.183	0.013	-0.155	0.010	-0.023	0.003	-0.046	0.003
II x Time	2	-0.049	0.011	-0.030	0.013	-0.052	0.011	-0.017	0.012	-0.030	0.003	-0.021	0.003
	3	-0.162	0.011	-0.154	0.009	-0.185	0.011	-0.138	0.011	-0.050	0.003	-0.031	0.003
	4	-0.152	0.011			-0.214	0.011	-0.145	0.011	-0.051	0.004	-0.051	0.004
BO x Time	2	-0.028	0.012	-0.043	0.013	-0.047	0.012	-0.044	0.014	-0.015	0.004	-0.007	0.004
	3	-0.297	0.012	-0.288	0.014	-0.320	0.011	-0.300	0.010	-0.064	0.003	-0.072	0.003
	4	-0.349	0.012	-0.337	0.011	-0.380	0.010	-0.356	0.011	-0.081	0.003	-0.077	0.003
N4						0.947	0.026						
N34								1.783	0.059				
Number of inconsistencies	1			0		0		1		2		4	
Number of observations		201,075		201,075		201,075		201,075		201,075		201,075	
DIC		91,282.1		90,768.7		88,401.8		84,556.2		NA		NA	
AIC		NA		NA		NA		NA		131971.5		125722.1	

Value set for Japan

- ✓ The coefficients for PD, followed by MO and BO
- ✓ Larger disutility for BO Level 4 than in other countries



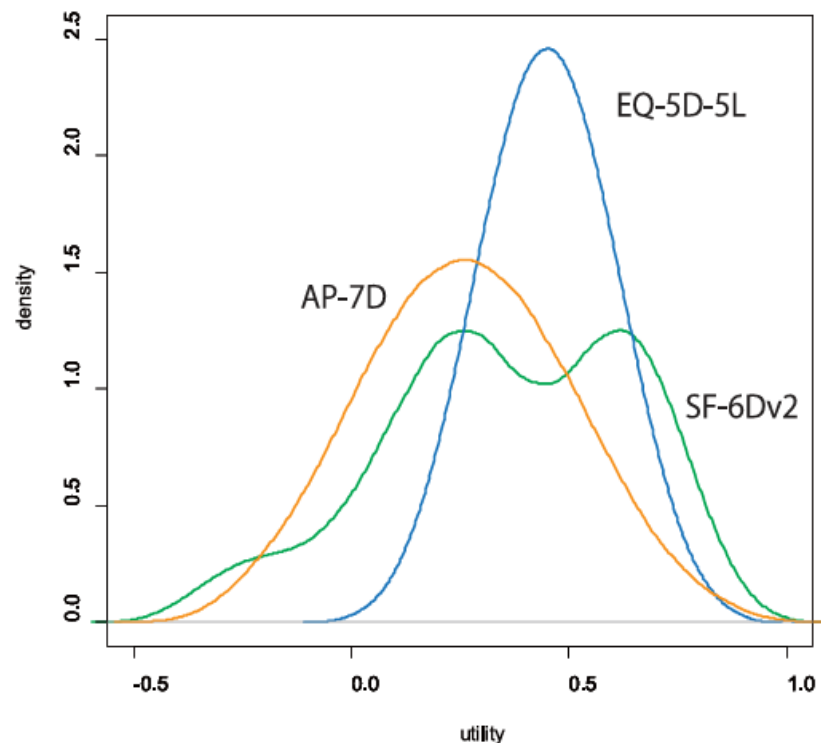
Comparison with EQ-5D-5L responses

- ✓ Moderate correlations were observed with similar items of EQ-5D-5L
- ✓ Correlations were weak for other pairs of items

		EQ-5D				
		Mobility	Self-care	Usual activities	Pain/discomfort	Anxiety/depression
AP-7D	Pain/discomfort	0.009	0.077	0.13	0.578	0.188
	Mental health	0.011	0.133	0.12	0.136	0.495
	Energy	0.109	-0.004	0.173	0.197	0.368
	Mobility	0.411	-0.013	0.118	0.159	-0.009
	Work/school	0.069	-0.022	0.275	0.328	0.171
	Social relations	0.036	-0.016	0.187	0.131	0.24
	Burden to others	0.139	-0.02	0.104	0.245	0.175

Value distribution and further steps

- ✓ Different score distributions were observed between AP-7D and EQ-5D-5L
 - ✓ Further studies are required for AP-7D to be practically used
- The Japanese team is planning to conduct validation studies.



Thank you for listening!
Check our website for AP-7D related information!



Contact morii.y.aa@niph.go.jp for any queries.

