

IGM Highlight 3: EQ-5D a reasonable preference-based index of quality-of-life of patients after acute cardiac event

Economic evaluation requires a health outcome which can be measured in a single index ranging from zero (worst imaginable health state, dead) to one (best imaginable health state, full health), and that this index is based on consumer preferences.

The EQ-5D represents a user-friendly, generic questionnaire that allows to describe health related quality of life and to value the result on the basis of individual preferences. It thus renders a single index. The objective of this study was to analyze the acceptance, validity, reliability and responsiveness of this questionnaire in patients with acute coronary syndromes (ACS) and to evaluate the appropriateness of its use in this patient group.

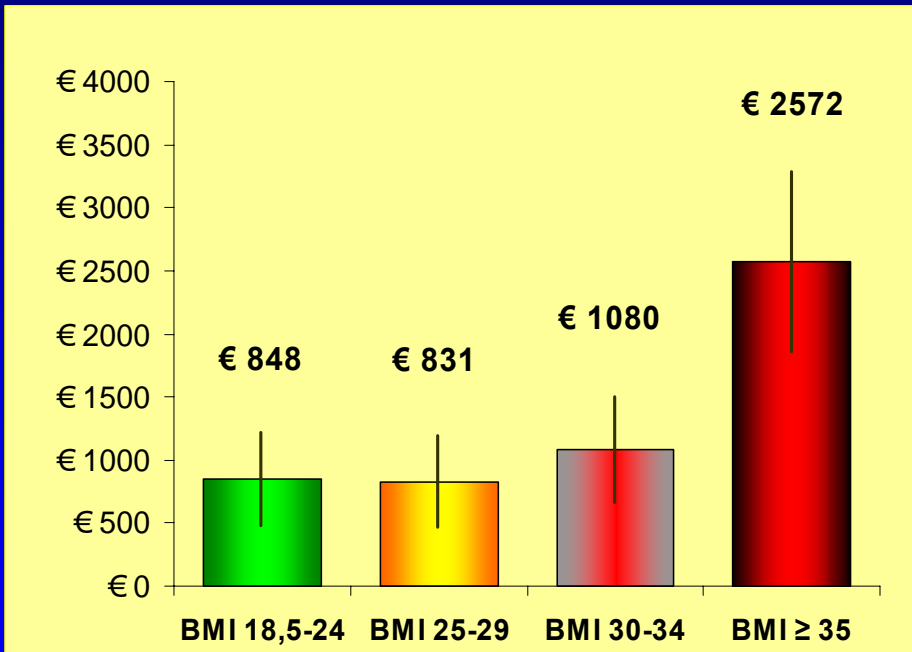
Data were collected from 106 consecutive patients receiving inpatient rehabilitation after an ACS. They completed the EQ-5D, the SF-36, and the MacNew questionnaire at admission, discharge and three months after rehabilitation. A high response rate and a low number of missing entries indicated that the EQ-5D was highly accepted in this patient population. After rehabilitation, a considerable share of patients rated their health at the top of the scale, thus showing substantial ceiling effects of the EQ-5D. As expected, the EQ-5D scores were significantly better for patients with myocardial infarction than for patients who underwent surgery. Significant correlations were found between the EQ-5D score and domains of the widely accepted SF-36, and even higher ones with the MacNew sub scores and global score. With repeated measurement the EQ-5D showed reasonable reliability in stable patients (intraclass correlation 0.91-0.54). EQ-5D was responsive in patients who indicated improvement in health states between admission and discharge (effect size 0.74-0.82).

This study shows that the EQ-5D is a reasonably valid, reliable and responsive instrument in patients with ACS, but it may be of less discriminative power in less affected patients. The psychometric properties are acceptable for a use of the EQ-5D in this patient group.

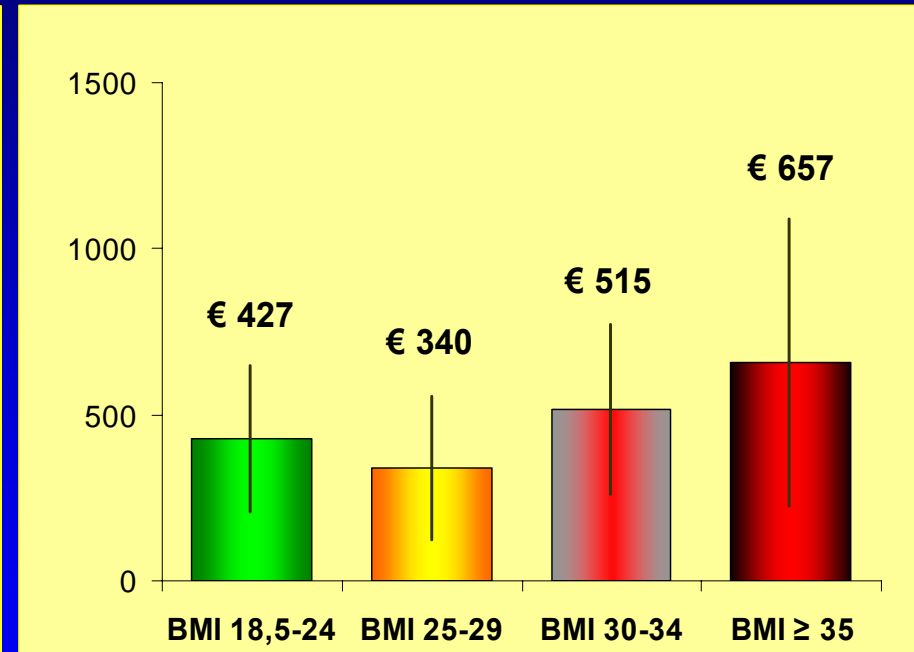
Source: Schweikert B, Hahmann H, Leidl R: Validation of the EuroQol Questionnaire in cardiac rehabilitation. Heart. 92:62-7 (2006).

Severe obesity increases health care cost and productivity loss

Mean annual health care cost by BMI groups*



Mean annual productivity losses by BMI groups*

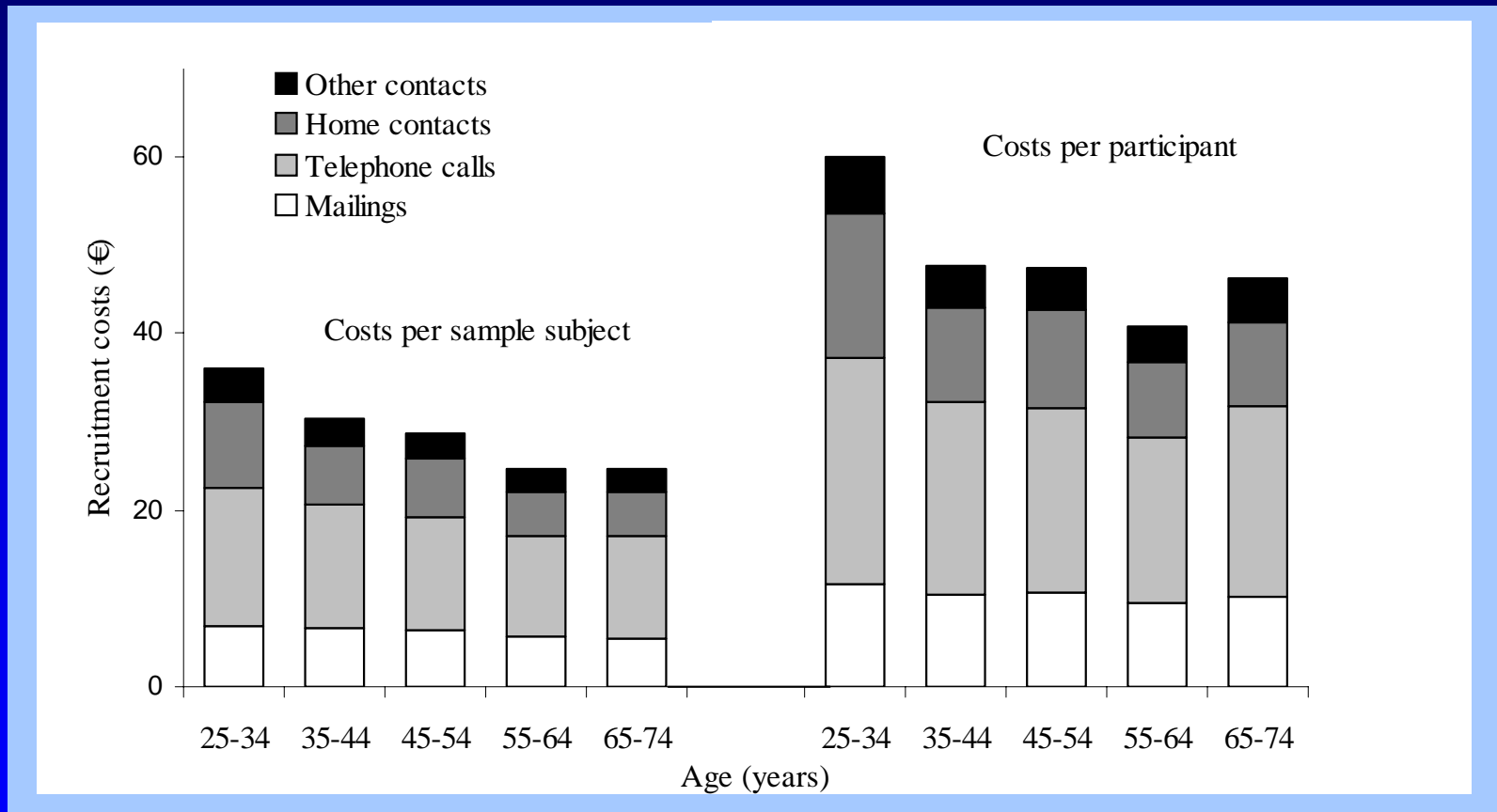


* adjusted for age, sex, socioeconomic status (Helmert-Index), region and health insurance

Lengerke T von, Reitmeir P, John J: Direkte medizinische Kosten der (starken) Adipositas: ein Bottom-up-Vergleich über- vs. normalgewichtiger Erwachsener in der KORA-Studienregion. Das Gesundheitswesen 68, 110-115 (2006).

Prolonged recruitment only slightly increases representativeness – at increasing marginal costs

Recruitment costs are highest in younger age groups who are more difficult to reach and less willing to participate



Holle R, Hochadel M, Reitmeir P, Meisinger C, Wichmann H-E. for the KORA Study Group: Prolonged recruitment efforts in health surveys. Effects on response, costs, and potential bias. *Epidemiology* 17, 639-643 (2006)

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For patients in rehabilitation after an acute cardiac event, EQ-5D VAS scores (utilities) mostly correlate well with established quality-of-life measures

	Admission	Discharge	3 Months
SF-36 Subscales			
General health perception	0.61	0.58	0.69
Physical functioning	0.68	0.71	0.71
Social functioning	0.61	0.49	0.55
Pain	0.57	0.67	0.61
Vitality	0.54	0.63	0.60
Role limitations (physical problems)	0.50	0.57	0.67
Mental health	0.46	0.46	0.49
Role limitations (emotional problems)	0.21	0.33	0.32
Mac New			
Global score	0.63	0.63	0.68
Subscale: social functioning	0.59	0.61	0.65
Subscale: emotional functioning	0.55	0.52	0.60
Subscale: physical functioning	0.68	0.68	0.72

Schweikert B, Hahmann H, Leidl R: Validation of the EuroQol Questionnaire in cardiac rehabilitation. Heart 92:62-7 (2006).

Higher cost sharing in health insurance reduces moral hazard *and* increases risk selection

Higher cost sharing lowered the number of physician visits

Effects of higher cost sharing: about 1/3 due to incentives, 2/3 due to selection

