

The SF-6D

Although the SF-36® Health Survey was not originally designed for use in economic evaluation or to determine quality adjusted life years (QALYs), research has shown that a meaningful health state classification measure, the SF-6D, can be created by applying a scoring method developed by Brazier and colleagues (Brazier et al., 2002; Brazier et al., 1998). The SF-6D focuses on seven of the eight health domains covered by the SF-36v2™ Health Survey: physical functioning, role participation (combined role-physical and role-emotional), social functioning, bodily pain, mental health, and vitality. Only the general health domain is not included. The specific areas or activities contributing to this index include current ability to engage in both moderate and vigorous activities and current ability to bathe and dress one's self. Scoring of the SF-6D takes into consideration any limitations in the kind of work or other activities as the result of physical health; accomplishing less due to emotional problems; bodily pain and its interference with normal work; nervousness, depression, and energy level; and interference with social activities due to physical or emotional problems. The 11 items used to score the SF-6D are indicated in Table 13.16.

Table 13.16
*SF-36v2™ Health Survey Items Scored for
the SF-6D*

SF-6D Domains	SF-36v2™ Health Survey Items
Physical Functioning	3a, 3b, 3j
Role Participation (RP & RE)	4c, 5b
Social Functioning	10
Bodily Pain	7, 8
Mental Health	9b, 9f
Vitality	9e

The SF-6D is an attempt to derive a single index from either version of SF-36® Health Survey for use in economic evaluation studies. From the SF-36v2™ Health Survey data, individual respondents can be classified on any of four to six levels of functioning or limitations, on each of six domains (with RP and RE considered a single dimension), thus allowing a respondent to be classified into any of 18,000 possible unique health states (O'Brien et al., 2003). Brazier et al. (2002) used the standard gamble

valuation technique to obtain utility values on 249 of the possible health states of 836 respondents. The resulting SF-6D index, scored from 0.0 (worst health state) to 1.0 (best health state), can be used in the assessment of the QALYs and the cost-effectiveness of various healthcare interventions. Note that utility weights for the SF-6D have been developed for Great Britain. For a discussion of the advantages and disadvantages of developing country-specific weights, see Brazier et al. (2002), Brazier and Roberts (2004), and Walters and Brazier (2003).

Currently, both versions of each of the SF-36® Health Survey and the SF-12® Health Survey are the only measures available that can provide both a description of health (through their eight health domain scales and two component summary measures) and the capability to conduct an economic evaluation (through the SF-6D utility index).