

# Qualeffo-41

## Scoring algorithm (January 2020)

1. All answers are standardized so that 1 represents the best and 5 (or 3, or 4) represents the worst quality of life (reverse scores on questions 33, 34, 35, 37, 39, 40).
2. Answers of questions with 3 answer options (23-26):
  - disregard "not applicable" (question 24) and "no cinema ...." (question 26)
  - in case of "not applicable" or "no cinema" it is a missing
  - score 1 →1, 2→ 3, 3 → 5.
3. Answers of questions with 4 answer options (27-28):
  - score 1 →1, 2→2.3, 3→ 3.6, 4→5.
4. Domain scores are calculated by averaging the answers of one domain and transforming the scores to a 100-score, e.g. pain questions 1-5; the average score ranges from 1 to 5 and this is transformed to scores from 0 to 100. Missing values should be disregarded. Of course, when 30% or more of the questions are not answered, the calculation of domain scores and total score becomes questionable.

Examples: Pain

Q1: 3, Q2: 3, Q3: 4, Q4: 1, Q5: 3. Domain score  $14/5 = 2.8$ .

transformed to 0-100 score: 45 (see below for formula)

Q1: 3, Q2: 3, Q3: 4, Q4: 1, Q5: missing. Domain score  $11/4 = 2.75$ .

transformed to 0-100 score: 43.75

5. The total score is calculated by summing all answers of questions 1-41. The raw total score ranges from 41 to 205 (or less when some answers are missing) and this is transformed to scores from 0 to 100.

$$\frac{(\text{Total score} - \text{Lowest possible score}) \times 100}{\text{Total score range}} = \text{Total Qualeffo score}$$

Examples of total score range:

- In case of no missing answers  
Total score range  
 $205-41 = 164$
- In case of 1 missing answer:  
Total score range  
 $(205-5) - (41-1) = 160$
- In case of 5 missing answers:  
Total score range  
 $(205-25) - (41-5) = 144$

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