



MDE and DQE

Missing Data Estimation (MDE)

Missing survey responses are an indicator of the quality of your data. Ideally, a fully completed survey is optimal. However, the reality is that surveys may only be partially completed. QualityMetric's MDE provides a reliable and valid solution to scoring SF-36[®] and SF-12[®] Health Survey scales and summary measures from partially completed surveys. MDE vastly improves methods of data recovery, making it possible to calculate scale and summary measure scores for respondents who do not answer every survey item, and for whom scores would be missing using standard scoring algorithms. These improvements result in a substantial reduction in subject loss and a minimization of bias in score estimates.

For more information on the development and validation of the MDE algorithms, see:

Kosinski M, Bayliss MM, Bjorner JB, Ware JE, Jr. Improving Estimates of SF-36[®] Health Survey Scores for Respondents With Missing Data. *Medical Outcomes Trust Monitor*, 2000; 5(1):8-10.

Data Quality Evaluation (DQE)

DQE proactively identifies problems with data quality. It provides tests of the conceptual framework of the SF-36 and SF-12 Health Surveys in your data and makes it easy to compare the results from psychometric tests (e.g. scoring assumptions, reliability) in a clinical trial in relation to accepted standards in the field. An evaluation of data quality is conducted when a data file is submitted using a minimum of eight indicators:

1. Completeness of data
2. Responses within range
3. Estimable scores
4. Item convergent validity
5. Item discriminant validity
6. Tests of conceptual framework
7. Tests of assumptions underlying the scoring of scales and summary measures
8. Score reliability

The FDA has consistently accepted the scoring algorithms recommended by the developers of the SF-36[®] Health Survey and other QualityMetric health surveys, including those applied to Data Quality Evaluation (DQE) and Missing Data Estimation (MDE). However, the application of standard and accepted algorithms does not guarantee that your data is of good quality. Empirical support for the conceptual framework developed for the SF-36 and SF-12 Health Surveys is an important component in determining the quality of your SF-36 and SF-12 data, and is also necessary for the interpretation of scale and summary measure scores.