



September 2017

NQF Scientific Methods Panel

Frequently Asked Questions

Why did NQF create a Scientific Methods Panel?

NQF recently underwent a [redesign](#) of its Consensus Development Process (CDP). This effort involved 50 stakeholders, NQF member organizations, federal government representatives, and NQF staff. One of the recommendations from that effort was to establish a Scientific Methods Panel that would help ensure higher-level and more consistent evaluation of the scientific acceptability of complex measures. Shifting the methodological evaluation of measures to this panel and to NQF staff should encourage greater engagement and participation by consumers, patients, and purchasers on NQF standing committees.

What will the Scientific Methods Panel do?

The new panel will have two specific charges:

- Evaluate complex measures for the criterion of scientific acceptability, with a focus on reliability and validity analyses and results
- Serve in an advisory capacity to NQF on methodologic issues related to measure testing, risk adjustment, and emerging measurement approaches

What expertise do you need to be a member of the Scientific Methods Panel?

The NQF Scientific Methods Panel will consist of up to 25 individuals with expertise in statistics, risk adjustment, measure testing, psychometrics, economics, composite measures and eMeasures. It will be co-led by NQF staff and two co-chairs designated by NQF. Each panel member will serve an initial term of either two or three years, with an optional three-year term to follow. The Consensus Standards Approval Committee (CSAC) will oversee the work of the Scientific Methods Panel.

Will the Scientific Methods Panel be a multistakeholder group?

Because the charge of the Scientific Methods Panel is methodological in nature, NQF sought individuals with specific methodological expertise rather than those with particular stakeholder perspectives. While not quite as diverse as other NQF committees, the membership of the Scientific Methods Panel does include academicians and researchers, health care providers, and informaticists, consumers, and measure developers.

Does each NQF standing committee have its own Scientific Methods Panel?

There is only one Scientific Methods Panel. The Scientific Methods Panel will support all 15 topical area standing committees.

What defines a measure as complex or non-complex?

The following types of measures are considered complex and therefore qualify for a methods review by the Scientific Methods Panel:

- Outcome measures, including intermediate clinical outcomes
- Instrument-based measures (e.g., patient-report outcome-based performance measures)
- Cost/resource use measures
- Efficiency measures (those combining concepts of resource use and quality)
- Composite measures

Measures that do not fall under these categories are considered non-complex. As part of their initial review of submitted measure, NQF staff will identify and share with the Scientific Methods Panel complex measures for evaluation.

How will the new Scientific Methods Panel work?

Similar to the current work of NQF staff, the Scientific Methods Panel will provide NQF standing committees with evaluations and ratings of reliability and validity for new complex measures and for previously endorsed complex measures with updated testing. Standing committees will consider this input when making their endorsement decision. All panel members will complete an annual general disclosure of interest (DOI) form, as well as measure-specific disclosure forms to identify any need for recusal for specific measures. NQF staff will assign measures to panel members for review based on relevant expertise, availability, and disclosures. A minimum of three panel members will independently evaluate each measure. The majority recommendation from the three evaluations will serve as the overall assessment of reliability and validity. However, if there is substantial disagreement in the ratings between the three reviewers (i.e., disagreement as to whether the measure does or does not “pass” the reliability or validity subcriteria), the panel co-chairs will evaluate the measure and determine the overall recommendation from the panel. As per the current measure evaluation process, information about measures being evaluated will continue to be posted on NQF’s public webpages.

Do the Scientific Methods Panel members provide the final vote regarding Scientific Acceptability?

No. The Scientific Methods Panel will focus on issues related to methods and results of reliability and validity testing, as well as other methodological issues (e.g., statistical adequacy of risk-adjustment methodology). Their ratings will be provided as input for the standing committee’s decision.

Will the standing committee vote on reliability and validity? What if it disagrees with the recommendations of Scientific Methods Panel?

If a standing committee agrees with the recommendations from the panel and has no other concerns regarding the scientific acceptability of the measure (e.g., clinical perspectives that impact validity), it can accept the ratings provided by the Scientific Methods panel. Otherwise, the Committee will discuss their concerns and then vote on the criteria. Committee members can “overrule” any preliminary recommendations and ratings provided by the Scientific Methods Panel (or NQF staff).

What is the process if the Scientific Methods Panel rates a measure as “low” or “insufficient” for reliability or validity?

Measures rated by the Scientific Methods Panel as “low” or “insufficient” for reliability or validity will be removed from the current evaluation cycle and will not be forwarded to the standing committee for evaluation. The developer can decide when, if at all, to re-submit the measure to a subsequent review cycle. All Scientific Methods Panel reviews will be available to the developer, and therefore, any future resubmission can address the concerns of the Panel. NQF will inform the standing committee of the results of the Scientific Methods Panel evaluation and the anticipated timing of resubmission.

Will the Scientific Methods Panel and standing committee review measures simultaneously?

Evaluation of complex measures by the Scientific Methods Panel and the standing committee will not be simultaneous. The Scientific Methods Panel will complete its evaluation of reliability and validity, and then NQF staff will complete the preliminary analysis for the remaining criteria. NQF staff will then collect all preliminary analyses for each topic area and forward those to developers for review. The developers will have two weeks to submit clarifications/additional data. NQF staff will revise the preliminary analyses and recommendations, if needed, and then release all submission information, including the preliminary analyses from the methods panel, to the appropriate standing committee for evaluation.

How will NQF ensure consistent evaluations by the Scientific Methods Panel?

NQF will provide a guidance document for the Scientific Methods Panel that is similar to those currently provided to standing committees. The guidance document will contain the Scientific Methods Panel charge, terms and conditions, roles and responsibilities of panel members, and instructions on evaluating a measure for scientific acceptability. Panel members will use the same algorithms for rating reliability and validity as used by standing committees. Panel members will use a templated worksheet to aid their evaluations. Panel co-chairs will provide additional evaluations if there is disagreement on the ratings among the panel reviewers.

Further, NQF will convene the panel monthly to discuss methodological issues and how they should be considered relative to NQF's evaluation criteria.

What is the expected workload of Scientific Methods Panel members?

Using our knowledge of currently endorsed measures as well as past experience regarding the number, type, and complexity of new measures, NQF anticipates that each Panel member will evaluate the scientific acceptability of 15-20 measures per year (depending on availability, need for recusal, expertise, etc.). Panel members also will participate on monthly webinars and an annual in-person meeting to discuss methodologies and other testing-related issues, provide guidance regarding these issues, and promote consistency in the evaluation of measures against NQF's endorsement criteria.

Will Scientific Methods Panel members be available during evaluation meetings to answer questions from the standing committee?

NQF will provide the full recommendations and rationale of the Scientific Methods Panel members on evaluated measures to the relevant standing committee.

In general, however, panel members will not be available during evaluation meetings. However, some Panel members are also standing committee members. In the event that the standing committee has a Scientific Methods Panel member who evaluated a specific measure before the committee, this person can discuss the measure and answer questions from the standing committee. However, the individual, as a member of the standing committee, will not be allowed to vote on the criteria of reliability and validity for that measure. The individual can vote on the other measure criteria.

If the Scientific Methods Panel only evaluates complex measures, how will non-complex measures be evaluated?

Following the current process, NQF staff will evaluate non-complex measures and provide preliminary ratings for reliability and validity. Standing Committees should consider these ratings as input to inform their endorsement decisions.