

ACCME Criteria 11 and 12 mandate that accredited providers of CME measure Outcomes for all its activities. What we measure depends on our CME mission and other expectations in the environments in which we work.

Some Things to Consider for Outcomes Measurement

1. **Everything must connect** – Performance gaps, educational needs, instructional design and outcomes assessment must all align. This cannot be an afterthought. It has to be planned.
2. **Learn from Your Data**–The ACCME asks us to show the impact of our CME effort on achieving our CME mission.

RWMC employs a number of techniques to assess the outcomes of our educational activities. The type of technique will depend on the educational format of a continuing medical education (CME) activity and the level of outcome that we are aiming to assess.

RWMC espouses the model described by Donald Moore, Jr., PhD, Joseph Green, PhD, and Harry Gallis, MD^{[i],[ii]} in developing our outcomes-based evaluations.

The Moore, Green, and Gallis model describes 7 outcome levels as follows:

- **Level 1** **Participation**
- **Level 2** **Satisfaction**
- **Level 3A** **Learning: Declarative Knowledge (Knows)**
- **Level 3B** **Learning: Procedural Knowledge (Knows How)**
- **Level 4** **Learning: Competence (Shows How)**
- **Level 5** **Performance (Does)**
- **Level 6** **Patient Health**
- **Level 7** **Community Health**

All of our activities are assessed for Levels 1, 2 and 3 by our registration data (Level 1) and our standard activity evaluation which asks participants to rate their level of satisfaction with the activity (Level 2) and the degree to which they believe the learning objectives were met (Level 3A).

RWMC aspires to achieve **Levels 4 – 5** for all its CME programs.

Careful consideration to choosing your outcomes level and method is encouraged. For assistance with this choice and how to measure it contact the CME office.

Measurement of objectives achieved

Activity participants are tested based on the behavioral learning objectives established for a CME activity. For example, one of the objectives might be – “At the conclusion of this activity, participants will be able to list three of the currently approved statin drugs.” As part of the evaluation form, participants would be asked to actually list three of the currently approved statin drugs. In the absence of a pre-test, there is no guarantee that the learning occurred as a result of the activity. Yet, this process demonstrates whether or not the objectives were achieved – important information for the faculty and CME staff. This method can be employed with live meetings, enduring and Internet-based CME activities.

Pre- and post-tests

Activity participants complete multiple choice questions concerning activity content before and immediately after a CME activity. This method measures learning that occurred as a result of the activity. The benefit of this type of measurement is that the participants, the faculty and the CME staff have immediate feedback regarding what learning has occurred (Level 3B measurement). This method may not necessarily predict retention of the learning or change in performance. Pre- and post-tests can be used in conjunction with live meetings, printed enduring materials and Internet-based CME activities.

Commitment to Change

Participants of live and enduring material activities are asked to write one to three changes that they plan to make as a result of our activities (Level 4 measurement). Jocelyn Lockyer and her associates have found that a commitment to change (CTC) predicts actual change in practice^[iii]. According to Lockyer, et al., “Three quarters of CTCs were fully or partially implemented” in her study (p. 76). A summary of these reveals the immediate impact of the CME activity, providing useful needs assessment data for planning future activities.

Post activity surveys (“fax-back” or online surveys)

Post activity surveys go further in measuring change by venturing into performance based change – the Level 5 outcome. Participants are asked, at the conclusion of a CME activity, to list three changes that they intend to make as a result of the activity.

Within one to three months of the CME activity participants are contacted and asked if they have fully implemented, partially implemented or were unable to implement the changes they intended to make.

The limitation of this data is that it is self-reported. However, in the absence of actual observation of a physician’s performance in practice, this information serves as a surrogate marker that, according to Lockyer’s research, is indicative of actual change.

Case based assessment

In a comparison of chart audits, standardized patients (where actors take on the role of patients and physicians are evaluated on their interactions with the “patients”), and case vignettes, case vignettes were found to be as effective as the other two methods in determining outcomes^[iv]. Aimed at measuring Level 3B and Level 4 outcomes, we have asked physicians in live meetings to answer key multiple choice questions in response to a case presentation. The cases and questions are presented before and after the CME activity to measure learning. Case vignettes can also be administered to a control group, i.e. a group of physicians who share a professional profile with the activity participants but who did not participate in the activity.