How to Conduct the Environmental Scan for Quality Measure Development

An environmental scan is part of the information-gathering stage of quality measure development. It is used to build the case for measures and helps to establish the measurement plan. A strong environmental scan includes information from several key areas:

- Relevant peer-reviewed and grey literature
- Review of clinical practice guidelines
- Related measures currently in use or under consideration
- The economics of the measure construct
- Considerations for stakeholders that may be affected by the measure, including patients

A clear understanding of this information will allow the measure developer to focus on the most important constructs in quality and to avoid duplicating the efforts of other measure developers. As such, environmental scans increase the likelihood that a measure development project will succeed.

This article describes each of the key areas of information included in environmental scans. It also includes guidance for how to search for information in each area.

Literature Review

A literature review is conducted as part of the environmental scan in order to:

- Establish the quality issues associated with a topic or setting of interest prior to measure development
- Determine if any areas of controversy exist that could be relevant to quality measure development
- Identify possible unintended consequences of measure use
- Demonstrate that there is an achievement gap in one of the CMS’s priority areas

Measure developers should use the Measure Evaluation criteria (importance, scientific acceptability, feasibility, usability, and harmonization) to develop the literature search and to organize relevant findings.

The literature review needs to include:

- Peer-reviewed publications, with an emphasis on articles written within the last five years and based on data collected within the past 10 years
- Existing literature reviews, including systematic reviews; use these to evaluate the strength of the body of evidence surrounding the measure topic
- Recent studies that contradict established findings; these must be included in the report, even if their results are not deemed strong enough to base new measures on
- Unpublished studies and reports that are relevant to the measure topic, such as those prepared by government agencies like AHRQ, CMS, and CDC

For CMS measure developers, the Blueprint requires measure developers to submit:

- A complete explanation of the search process used to develop the literature review, including:
  - Online databases searched (e.g., PubMed, Medline)
  - Keywords included (e.g., “diabetes” “A1c”)
  - Boolean logic used to identify relevant studies (e.g., “diabetes AND A1c” vs. “diabetes NOT A1c”)
• A complete list of relevant citations
• Details about the characteristics of each study included (e.g., population, sample size, study type, data sources)
• Measure evaluation criteria (e.g., feasibility, face validity, importance) addressed by each study

Clinical Practice Guidelines Review

The environmental scan must also include a search of recent clinical practice guidelines applicable to the measure topic. Clinical practice guidelines developed by American national healthcare programs and federal agencies should be given the greatest weight in the report. However, guidelines from non-American organizations should also be assessed to determine if they are an appropriate basis for measure development. The ECRI Guidelines Trust™ maintains a database of clinical guidelines that measure developers should consult. Other guideline databases should also be searched as appropriate.

In reviewing clinical practice guidelines, measure developers should document the strength of the evidence base for the guideline. Guideline developers often use grading schemes that rate the strength of the evidence on which the guideline is based. These systems make it easier for measure developers to identify which guidelines are based on stronger evidence. If the guideline developers did not indicate what grading scheme was used to evaluate the strength of the evidence, the measure developer should examine the peer-reviewed literature to determine if the guideline is valid, useful, and applicable. When guidelines contradict one another, the measure developer should determine which guideline is a more appropriate basis for measure development and document their rationale for that decision.

Search for Existing Measures

The environmental scan must also include information about existing similar and/or related measures. Searching existing measures will help identify measurement gaps and existing measures which could be adapted to suit a new topic.

Information about existing measures needs to be obtained from a variety of databases and sources, including the Centers for Medicare & Medicaid Services Measures Inventory Tool (CMIT) and other resources linked in the Blueprint. Measures endorsed by multi-stakeholder organizations should be included in the environmental scan, as well as measures developed in the private sector. Other sources of measures that are relevant to the topic should also be searched, including performance indicators, accreditation standards, or preferred practices.

When searching for existing measures, the Blueprint states that the search should identify:

• Measures used in the same setting, but for a different topic (e.g., 30-day mortality rates for hospitalized pneumonia patients and 30-day mortality rates for hospitalized COPD patients)
• Measures used in a different setting, but for the same topic (e.g., influenza immunization in home health care settings and influenza immunization in acute care settings)
• Measures constructed in a similar manner (e.g., patient reported outcome measures, regardless of condition or treatment)
• Quality indicators
• Accreditation standards
• National Quality Forum (NQF) preferred practices for the same topic.

Call for Measures

If the environmental scan yields relatively few existing measures, a Call for Measures may be needed. During the information gathering stage of measure development, a Call for Measures is an opportunity for stakeholder groups, including measure developers, medical societies, and quality alliances, to
submit candidate measures or measure concepts relevant to the specific topic being studied. Submissions will be accepted during a set timeframe and will be assessed for applicability to the topic in question. If the measure is deemed applicable, the measure developer may request additional information about the measure including testing information.

If the measure is being developed for CMS, the measure developer should discuss the possibility of issuing a Call for Measures with the Contracting Officer’s Representative (COR), who will help determine whether or not a Call for Measures should be released to the public. A Call for Measures during this phase of measure development is for information-gathering purposes only. It is not the same as a call for developed measures seeking consideration for implementation in CMS programs. If a Call for Measures is determined to be necessary, the COR will help to develop a list of relevant stakeholder organizations and individuals to notify about the Call for Measures before it is issued. Measures and measure concepts that are submitted in response to the Call for Measures will then need to be evaluated using the measure evaluation criteria and included in the environmental scan report.

**Stakeholder Input**

Attaining input from a variety of stakeholders helps ensure that measures are meaningful and practical. CMS measure developers are required to incorporate input from several different types of stakeholders that may be affected by the new measure:

- ** Patients** can provide input that establishes meaningful outcomes of interest and provides insight into the importance of measure concepts from a patient perspective. Input can be obtained via informal conversations, focus groups, or including patients in a Technical Expert Panel (TEP).
- **Front-line clinicians** can provide valuable insight on the potential feasibility and reporting burden of a new measure.
- **Feedback from other relevant stakeholders (e.g., payers) and other measure developers** can help identify related measures that are currently in use or under development.

**Conclusion**

The final product of an environmental scan is an overview of the current understanding of a measure concept. The investigation will provide the measure developer with the information needed to create a measure that is important, consistent with current clinical practice guidelines, usable, meaningful to key stakeholders, and well aligned with existing measures.