

# MEASURES MANAGEMENT SYSTEM

## Data Sources for Quality Measurement

Data are essential for quality measurement. Selecting the best source(s) of data for a quality measure is critical. The data source affects the reliability, validity, and feasibility of the measure. Using multiple data sources for one measure is possible, but the measure specification must provide detail as to how each data source is to be used.

The primary data sources used for quality measurement are

- Administrative records
- Patient medical records (paper and electronic)
- Health information technology (IT)
- Patient assessments
- Registries
- Patient-reported data

Administrative data includes demographic information about the patient and usually includes claims information such as diagnosis and procedure codes in the form of International Classification of Diseases, 10<sup>th</sup> Revision, Clinical Modification and Procedural Classification System (ICD-10-CM/PCS) and Current Procedural Terminology (CPT) codes. Additional quality measure data may be added to claims submissions in the form of Quality Data Codes (QDCs). A QDC may be a CPT II code or a G-code.

Patient medical records can be paper or electronic. Measures developed specifically for data extracted from electronic health records (EHRs) are electronic clinical quality measures (eCQMs). EHRs are much more prevalent now than they were ten years ago. Some providers solely use electronic medical record systems, some are still using paper records, and others use both. Chart-abstracted measures are still part of many CMS quality reporting and incentive programs and the data for these measures must still be manually abstracted even if the patient record is electronic.

The Office of the National Coordinator for Health Information Technology (ONC) describes [Health IT](#) as “the electronic systems health care professionals – and increasingly, patients – use to store, share, and analyze health information.” Health IT includes EHRs, but also includes other electronic systems such as laboratory information systems or e-prescribing systems. Health IT as a source of data for quality measurement data is likely to grow.

Patient assessment data from standardized instruments is also used for quality measurement. Examples are the Long-term Care (LTC) Facility Resident Assessment Instrument (RAI), the Outcome and Assessment Information Set (OASIS), and the Minimum Data Set (MDS).

A registry is a collection of information. Registries have been used for many years to collect disease-specific data for public health purposes, for example, immunization registries. The [National Quality Registry Network](#) states a clinical registry “records information about the health status of patients and the health care they receive over varying periods of time.” CMS is using data from qualified clinical data registries (QCDRs) and qualified registries in the [Quality Payment Program](#).

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Patient-reported data is often collected via surveys or standardized instruments. The different Consumer Assessment of Healthcare Providers and Systems (CAHPS®) surveys are used in many CMS programs. Patient or caregiver-completed standardized instruments assessing things such as health-related quality of life, functional status, and symptoms are becoming more prevalent.

Most of these data sources are patient-specific information. Aggregate data are used as part of quality measurement, for example calculating benchmarks for regional or national comparative rates. Structural measures often use non-patient administrative data such as staffing information or information about organizational policies. Use of other types of data such as census data may be incorporated into quality measures.

The key to data sources in quality measurement always goes back to reliability, validity, and feasibility. The [Blueprint](#) and the [National Quality Forum](#) note that feasibility is the “extent to which the specifications, including measure logic, require data that are readily available or that could be captured without undue burden and can be implemented for performance measurement.” When considering feasibility, there is the question of the feasibility of the data source, but also of the individual data elements. It may be feasible to use a specific data source, but are the individual data elements easily collected from the data source? In addition, measure developer must also consider the reliability and validity of the data source. Reliability is about the repeatability of the data elements. Are the data elements consistently found in the data source? Validity addresses the correctness of the data elements. Is the data source an accurate representation of the data elements?

In the future we may see more devices as data sources. Data may come from personal devices, biosensors in smart phones, or environmental sensors in the home.