Reference Brief

Leveraging Data Standardization for dQMs

Leveraging Data Standardization for Digital Quality Measures (dQMs)

Data standards are created to ensure that all entities use the same language and the same approach to exchange and interpret health information. Data standards make interoperability possible. The Centers for Medicare & Medicaid Services (CMS) aims to ensure that digital quality measures (dQMs) use standardized data, that is used across the healthcare ecosystem for multiple other purposes as well, to help drive value by making data more accessible, and measurement more accurate and relevant at the point of care. By leveraging data standardization for digital quality measurement, CMS is contributing to the establishment of a functional learning health system, in which standardized data are the staple. Learning health systems generate knowledge from data captured during routine care. The standardization of data used for quality measurement, as part of a learning health system, is critical for high quality care for patients.

Fast Healthcare Interoperability Resources (FHIR®), United States Core Data for Interoperability (USCDI) and USCDI+ Quality

CMS intends to use several data standards to facilitate dQM. By only using data that aligns with widely available standards in dQMs, collection and reporting burden is reduced, data extraction can be more automated, and data mapping processes can become more streamlined and reliable. Specifically, CMS is leveraging the following standards for dQM:

Fast Healthcare Interoperability Resources (FHIR®)

- The use of FHIR® standardized data reduces burden by aligning CMS electronic clinical quality measure (eCQM) reporting with industry clinical data exchange framework and clinical decision support (CDS). The flexibility of the standard also allows access to and exchange of information, which is suitable for use in a variety of contexts.

United States Core Data for Interoperability (USCDI)

- The Office of the National Coordinator for Health Information Technology's (ONC) stated goal for the United States Core Data for Interoperability (USCDI) is to set a foundation for broader sharing of standardized electronic health information to support patient care by developing a standardized set of health data classes and constituent data elements for nationwide interoperability. ONC continues to expand the USCDI through a transparent and collaborative process and enables health information technology (IT) developers to incorporate newer versions via the Standards Version Advancement Process (SVAP).
- By leveraging the USCDI as the basis for standardized data used in CMS dQMs, standardized data needs for digital quality measurement better align with standardized data also necessary for patient care and broad interoperability. This alignment supports focusing the community on advancing sets of data agreed to be important for health care, and reduces the burden of measurement by using data elements for measurement already required to be made available in FHIR® standards.
- The FHIR® US Core Implementation Guide incorporates US Core profiles to reflect changes to the USCDI, as new versions are released. This connects the standardized datasets defined by ONC in the USCDI to representation in FHIR®.

USCDI+ Quality

- The USCDI includes some foundational data elements necessary for quality measurement, such as laboratory results, encounter information, patient demographic information, and social determinants of health (SDOH) information. However, there are additional data necessary for quality measurement. ONC created the USCDI+ initiative to support development of standardized sets of data for specific use cases. The USCDI+ Quality initiative supports the goal of identifying additional priority data needs for quality measurement while maintaining alignment of data standards and priorities.
- By supplementing the USCDI data elements in CMS dQMs with additional data elements, like those identified in USCDI+ Quality, CMS will continue to align measurement data needs with data needs of the broader healthcare ecosystem to support achievement of learning health systems and reduction of burden associated with quality measurement.

Pathways to Advancing Data Standardization for Use in dQMs

CMS has been, and will continue to, engage in data standardization efforts including Health Level Seven International (HL7®) FHIR® and ONC's USCDI and USCDI+ Quality work. An example of how CMS assesses dQM data needs and priorities and feeds those priorities into the data standardization efforts focused on improving interoperability in the context of a learning health system, is depicted below in Figure 1. The data standardization engagement processes include:

- Collaborating with ONC and other federal agencies to support the expansion of the USCDI
- Collaborating with federal partners and the quality measurement community to identify shared priority data needs, standards, and implementation guides
- Engaging with standards setting bodies (for example, HL7®)
- Supporting the development and maintenance of complementary standards, including USCDI+ Quality

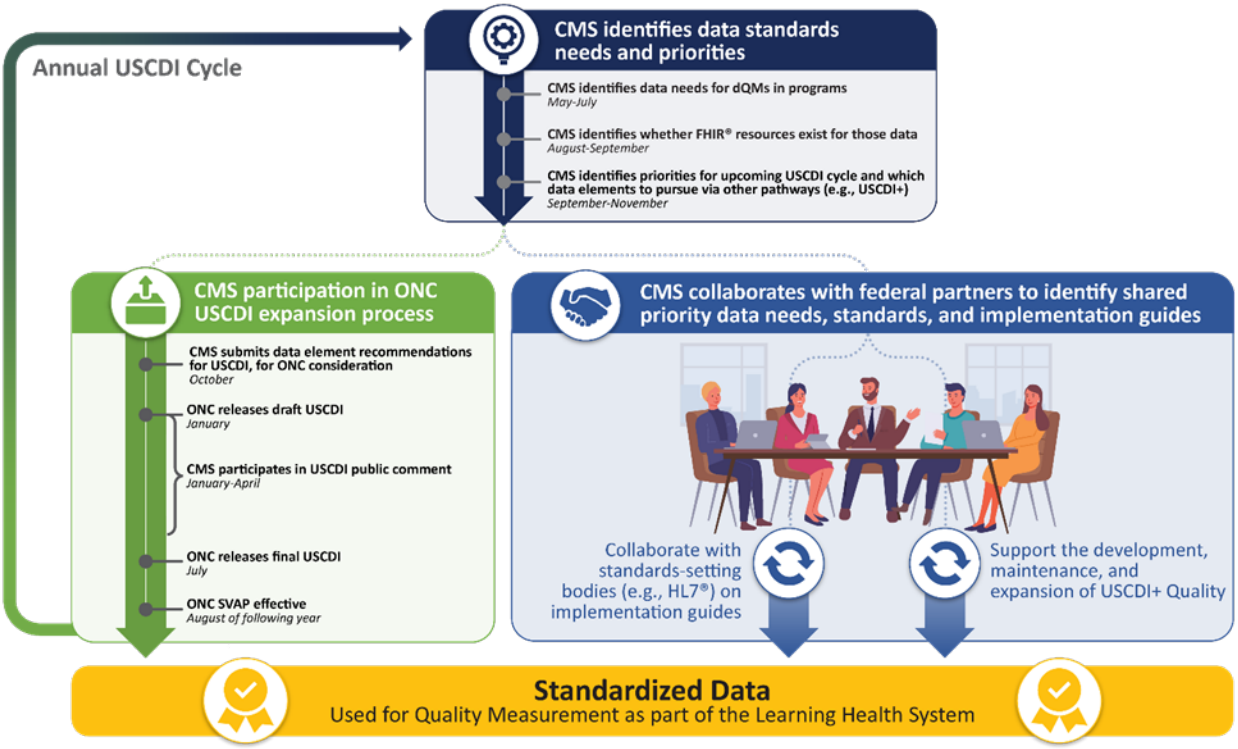

Figure 1. Pathways to advance data standardization, to be leveraged in digital quality measures