Putting the 3M™ Healthcare Data Dictionary to work during COVID-19

What is the value of value sets?

A value set is a list of concepts from one or more terminologies. Ideally, value sets group standard codes that identify specific signs and symptoms, comorbidities, lab tests and results, and medications. During the rapidly evolving COVID-19 crisis, many terminologies are needed to support data collection. Accurate coding and reporting to track the disease process, patterns, treatments and effective outcomes will contribute to successful management. By leveraging standard terminology codes in a value set, health systems and data exchange platforms can accurately track, analyze and share data about this pandemic.

How do value sets work in the 3M HDD?

Designed to be flexible and scalable, the 3M™ Healthcare Data Dictionary’s (3M HDD) concept-based vocabulary and knowledge base contain standard and custom value sets. Quality measures are but one example of standard value sets in the 3M HDD. Our subject matter experts have created custom COVID-19 value sets to supplement the publicly available ones. The COVID-19 value sets in the HDD contain codes from ICD-10-CM, CPT®, HCPCS, SNOMED CT®, LOINC® and RxNorm.

How do value sets work in a healthcare application?

Value sets can be used within applications to enhance interoperability and support patient care. In this example, the healthcare application needs to identify patients with a suspected diagnosis of COVID-19. The model below shows how various patient data may be used in the analysis.
How will healthcare applications work with the 3M HDD?

The HDD has standard compliant and custom RESTful Application Programming Interfaces (APIs) for healthcare applications to call upon:

- HL7 Common Terminology Services (CTS) v1 and v2
- HL7 Fast Healthcare Interoperability Resources (FHIR) terminology services
- Custom 3M APIs that provide functionality not supported by standard APIs, such as batch mode operations, operations specific to terminology models used by the 3M HDD, and/or a healthcare IT partner’s terminology content

Together, the 3M HDD APIs provide read, write and search capabilities through a RESTful web services interface for ease of integration.

Footnote: Standard terminologies used for COVID-19 reporting

LOINC®: Logical Observation Identifiers Names and Codes; international standard for identifying laboratory and clinical observations
ICD-10-CM: International classification of diseases, 10th Revision, Clinical Modification; used for reimbursement coding in the US
SNOMED CT®: Systematized Nomenclature of Medicine Clinical Terms; comprehensive coverage of medical terms used in patient care delivery, specifically clinical findings, diagnoses, procedures, etc.
RxNorm: Medication terminology that contains clinical drugs available in the US

Contact us via email for the free COVID-19 value sets/LOINC mapping: hi-hdd@mmm.com.

3M is also offering free assistance with SARS-CoV-2 LOINC mapping.