



## 3M™ Healthcare Data Dictionary: Controlled medical vocabulary server

- Allows multiple information systems to effectively share information, facilitating communication between applications and reference terminology via standard services
- Maps legacy terminologies to standards and provides services and strategies for keeping them synchronized
- Enables users to normalize data coming from disparate sources

### The challenge

Huge amounts of healthcare data are gathered by legacy information systems, but very little can be shared or aggregated in a meaningful way for treatment decisions and outcomes analysis.

Until all of a patient's data can be aggregated into a uniquely identified record, an enterprise cannot assemble comprehensive, longitudinal patient records. In order to leverage computerized healthcare data, that data must be concretely defined and consistently translated into a standard, meaningful language.

### What is the 3M Healthcare Data Dictionary?

The 3M Healthcare Data Dictionary (HDD) is a controlled medical vocabulary server that allows you to translate and integrate healthcare data by:

- Providing a road map to the content and structure of patient data
- Defining and translating every data element and healthcare concept that occurs in an electronic health record (EHR)
- Removing ambiguity by including all possible synonyms that healthcare professionals use for a clinical or administrative concept

The 3M HDD facilitates the coding of clinical data through point-of-service applications and clinical databases, allowing them to exchange, compare, query, and report on data. The 3M HDD has rich content and a flexible data structure that is built with standard healthcare data sources as well as selected, specific vocabularies. It provides coded, computable data that people can understand and applications can use and process in real-time.

### Interfaces and data mapping

Healthcare enterprises and integrated delivery networks understand the importance of interfacing information systems, but the value that a powerful data dictionary brings to the process of information integration and data mapping is often overlooked. Unless a data dictionary is robust enough to “translate” data elements, interpret data relationships, and map each data element to an actual concept, data as basic as vital signs cannot be shared between systems or integrated into a patient's record.

The data dictionary must “know” how vital signs are expressed and stored in each of the enterprise's information systems and be able to reconcile and relate those expressions. When the data dictionary can do this, an enterprise decreases the time and costs of adding, supporting, and maintaining interfaces.

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Data mapping also brings the value of *ad hoc* reporting capabilities to a healthcare enterprise. For example, during strategic planning, an enterprise can perform population studies by facility to see how and where resources and specialties, such as cardiology, are best deployed. 3M also offers **3M™ Terminology Consulting Services (TCS)** to help organizations perform both initial and maintenance mappings of their legacy data to reference terminologies.

### Why do you need the 3M HDD and coded data?

Coded data is the key to communicating healthcare data between information systems and disseminating medical knowledge and expertise throughout an enterprise. The value of the 3M HDD is that it allows data to be stored in a coded format. Because the 3M HDD defines and encodes data consistently:

- Information can be consistently made available to all types of users, ranging from patients to caregivers to administrators.
- Data gathered from diverse sources can be stored and reviewed in one consistent form.
- Data can be “normalized” because the 3M HDD provides unique identifiers and meanings for unique concepts. It clearly and unambiguously defines healthcare terms so they can be interpreted and used correctly by the computer system.
- The data’s content can be preserved. The 3M HDD provides a method of defining data that captures its context in time, space and in relationship with other data. This means:
  - Legacy information systems can remain viable data sources for a longer period of time
  - A data record is available to the user in its original context
  - Clinical information can be displayed in a meaningful way to the caregiver
- Both clinical and administrative decision support can be based on either individual patients or populations.
- Care management (guidelines, pathways, etc.) can be easily implemented.

- Outcomes and clinical research (data warehousing, population queries, etc.) can be performed.

A simple case in point: unless such key data as diagnosis, allergies, medications, laboratory findings, etc., are encoded, it is impossible to combine patient data from multiple legacy systems into one coherent, concise, and integrated display for the clinician. Encoding the data promotes the ability to create the complete data “picture” needed for patient care and population reporting.

### Standards supported by the 3M HDD

The 3M HDD allows you to be compliant with vocabulary standards while removing the burden of managing and maintaining them.

Standards within the 3M HDD include:

- LOINC® (license needed from Regenstrief Institute)
- NDC (license needed from First Data Bank—FDB)
- RxNorm (license needed from the National Library of Medicine—NLM)
- ICD-9-CM
- ICD-10-CM
- ICD-10-PCS
- MS-DRG
- Ambulatory Payment Classifications (APCs)
- CPT® (license needed from the American Medical Association)
- HCPCS
- SNOMED CT® (license needed from the National Library of Medicine)
- Provider Taxonomy
- CVX
- General Equivalence Mappings (GEMs)

### Call today

For more information on how 3M solutions can assist your organization, contact your 3M sales representative, call us toll-free at **800-367-2447**, or visit us online at **www.3Mhis.com**.



#### Health Information Systems

575 West Murray Boulevard  
Salt Lake City, UT 84123  
U.S.A.  
800 367 2447  
www.3Mhis.com

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