# 3M Concept Hub

3M Health Information Systems, Inc. (3M HIS) sponsors a terminology wiki called Concept Hub at www.concepthub.org. Concept Hub is designed to facilitate collaboration among users and developers of health care terminologies. Its purpose is to establish a permanent public source of well-defined concepts that can be encoded for data exchange between health care systems worldwide. Concept Hub's content is seeded by contributions from the 3M Healthcare Data Dictionary (HDD), a metadata repository that facilitates interoperability by providing code translations between systems.

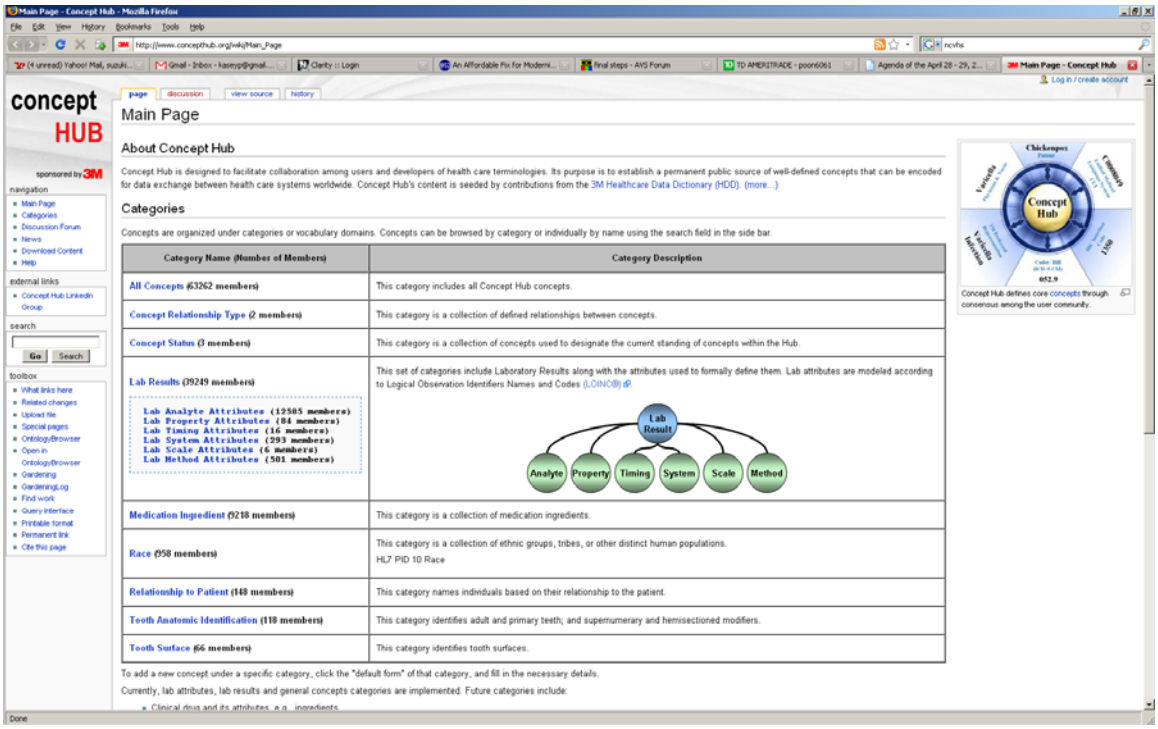


**Figure 1. 3M Concept Hub homepage.**

The main objective of Concept Hub is to promote semantic interoperability, the highest level of interoperabilty between systems as defined by the National Committee on Vital and Health Statistics. Concept Hub provides a central place where users can quickly look up and locate 3M's Numeric Concept Identifier (NCID) codes for medical concepts. The wiki technology facilitates collaboration among subject matter experts globally, creating an open, public forum for defining concepts and sharing the multiple ways they can be represented, their mapping to standard and local terminologies, and how the concepts relate. Through Concept Hub, 3M grants the user "a worldwide, royalty-free, non-exclusive, perpetual license to view, reproduce and use for any lawful commercial or non-commercial purpose, any 3M Content which is accessible to you on this Site" to promote semantic interoperability.

Contributions from the user community are key to the organic growth of Concept Hub and how comprehensive the content will become. Initial concepts are loaded into Concept Hub by 3M HIS. Registered users take an active part in editing the content in Concept Hub. There are several ways users can contribute to Concept Hub:

- Additions: Registered users can add new concepts, representations, relationships, and mappings.
- Deletions/modifications: Registered users can identify invalid and obsolete concepts. Concepts that have been assigned NCID codes are never deleted. Instead, the status of concepts can be set to be inactive or obsolete.
- Creating categories: Registered users can create new categories and subcategories within Concept Hub.
- Creating links: Registered users can create meaningful named relationships among concepts.
- Suggestions: Users can offer recommendations for enhancements to the Concept Hub wiki.

Concept Hub is a work in progress. 3M has provided the working skeleton of a terminology wiki, and the user community will determine how Concept Hub grows. Our operating principles are:

- Adhere to good vocabulary design
- Maintain transparency in the authoring process
- Grow Concept Hub through user contributions
- Make terminology content freely available

We continue to work with the user and medical informatics community to reach our joint goal of semantic interoperability worldwide.