



# PHIN Vocabulary Services

## Background

One of the primary challenges facing public health today is the use of standardized vocabularies to represent public health information within numerous applications and messages. Currently, some public health professionals use their own terminology and codes to represent public health concepts, often with inconsistent meaning. Even when controlled vocabularies are used, inconsistencies among versions challenge interpretation. The use of these non-standard vocabularies makes it almost impossible for precise communication to occur across applications.

Controlled vocabularies, such as the Systematic Nomenclature for Medicine (SNOMED) or Logical Observation Identifiers Names and Codes (LOINC), establish standard, version-controlled coded concepts, which, if used consistently, could significantly reduce the level of semantic ambiguity in public health information.

## Purpose

PHIN Vocabulary Services strives to enable the consistent and accurate representation of information by encouraging and supporting the use of Vocabulary Standards to promote semantic interoperability among public health systems. Working with Standard Development Organization (SDOs) terminology experts, the PHIN Vocabulary Team actively participates in the development and identification of vocabularies important to the public health arena. SDOs include Health Level 7 (HL7), Consolidated Health Informatics Initiative (CHI), Health Information Technology Initiative (HITSP) and American Health Information Community (AHIC).

## PHIN Vocabulary Access and Distribution System (PHIN VADS)

PHIN VADS is a Web-based enterprise vocabulary system for accessing, searching, and distributing vocabularies used within the PHIN. PHIN VADS provides standard vocabularies to CDC and its Public Health Partners in one place. It promotes the use of standards-based vocabulary within PHIN systems to support the exchange of consistent information among public health partners. Currently, there are 267 value sets and almost 700,000 concepts in PHIN VADS based on the code system/domain recommendations from Consolidated Health Informatics (CHI). Users access and view vocabularies in the context of public health with file download options for Value Sets, Value Set Concepts, Code Systems, and Code System Concepts available in a tab-delimited text, Excel, or XML format. To access the PHIN VADS site, use the following URL: <http://www.cdc.gov/PhinVSBrowser/StrutsController.do>



## PHIN OID Registry

PHIN uses Object Identifiers (OIDs) as its unique identifiers for namespaces, enabling HL7-compliant messaging and precise data storage. The PHIN OID Registry enables the viewing, searching, and creation of OIDs used within PHIN. For additional information, please contact the PHIN Helpdesk at PHINVS@cdc.gov.

**NOTE:** PHIN VADS and OID Registry are developed and maintained by the PHIN Vocabulary & Messaging Team within the Division of Informatics Shared Services/National Center for Public Health Informatics (NCPHI).

## PHIN Vocabulary Metadata Standards

Use of agreed-upon vocabulary metadata across PHIN enables data from different programs to be documented in a consistent fashion so that users can understand PHIN vocabulary more easily. This leads to a heightened ability to understand PHIN data semantically, and increases the interoperability of data across PHIN. For example, requiring that all PHIN data share a consistently described “Definition” metadata element allows a straightforward comparison of one PHIN data element’s definition to another PHIN data element’s definition.

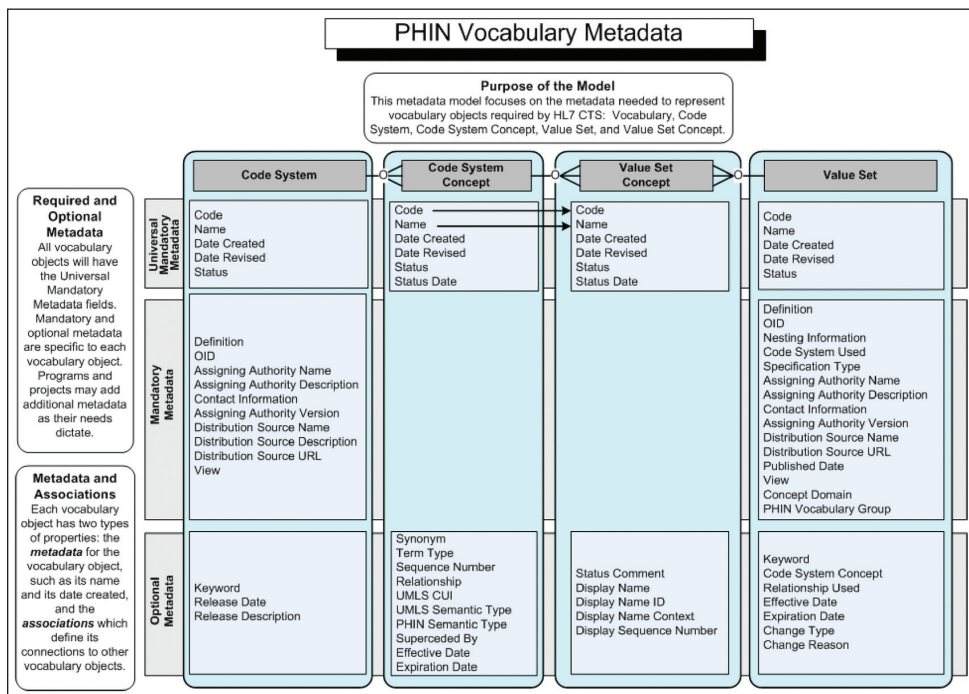
PHIN Vocabulary metadata standards are based on ISO 11179\* standards for data elements. The vocabulary objects to which these metadata standards apply are drawn from HL7’s Common Terminology Server (CTS) vocabulary model.

PHIN Vocabulary has developed a metadata model of required and optional attributes for Code Systems, Code System Concepts, Value Sets, and Value Set Concepts. CDC internal authors of PHIN-compliant vocabularies will utilize this model in creating and expanding code systems and value sets.

## Vocabulary Community of Practice

This community was established to promote the exchange of consistent information among public health partners by fostering and promoting the use of standards-based vocabularies. We invite you to access CDC Sitescape for more information about the Vocabulary CoP. If you should need access to these folders, please contact the CDC Team Helpdesk at cdcteamsupport@cdc.gov.

\*International Organization of Standardization. ISO is a non-governmental network of the national standards institutes of 153 countries.



## Key PHIN Contact Information

**Email:** PHINVS@cdc.gov    **Help Desk:** 800-532-9929    **Website:** http://www.cdc.gov/phin