OMOP Standard Vocabulary
Version 4.4 2013-10-15
Release Notes

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Release

This document reflects all the changes to the Vocabulary introduced since the Version 4.3 of 2013-09-15. In addition to executing standard updates (see Appendix for latest content), the following changes were made:

List of changes

1. REVISED MAPPING ICD-9-CM TO SNOMED-CT

ICD-9-CM (vocabulary_id=2) to SNOMED-CT (vocabulary_id=2) mapping records in the SOURCE_TO_CONCEPT_MAP have been revised and an improved mapping is now available. In addition, many ICD-9-CM codes that had no mapping are now also mapped.

The new mapping introduces a change to the mapping conventions: In the past, at any given time maximally one primary mapping was allowed for each source code in the SOURCE_TO_CONCEPT_MAP table. This facilitates the correct processing of combination ICD-9-CM codes. For example, ICD-9-CM 804.93 "Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness" now maps to SNOMED 381966 "Moderate duration loss of consciousness", 439384 "Open fracture of skull" and 4302223 "Fracture of bone of head".

Note: This will have an impact on the ETL of ICD-9-CM containing source data. For each combination ICD-9-CM where two or more mapping records are defined, two or more records in the CONDITION_OCCURRENCE have to be written. This will break the one-to-one record convention of the past, and one to many record transformations are now possible.

ICD-9-CM to MedDRA mapping was left unchanged, but it is only available for convenience and will not be updated over time. It may be deprecated entirely in a future release. We recommend using the improved SNOMED-CT to MedDRA relationships which also have been revised (see below).

2. REVISED MAPPING READ TO SNOMED-CT

Read code (vocabulary_id=34) mapping to SNOMED-CT (vocabulary_id=1) has been revised, and Read codes now more correctly map to SNOMED-CT concepts. In addition, the field mapping_type correctly points the Read code map to "Condition", "Procedure" and "Observation".

Note: The implication of this is that when performing an ETL from Read-coded source data, a refresh of the ETL using this release will require writing records to the CONDITION_OCCURRENCE, PROCEDURE_OCCURRENCE or OBSERVATION tables, respectively.

3. REVISED MAPPING FDA SPL TO RxNORM

Structure Product Labels (SPL, vocabulary_id=50) mapping to RxNorm (vocabulary_id=8) have been revised. SPL records from the FDA NDC distribution file at http://www.fda.gov/drugs/informationondrugs/ucm142438.htm have been included. This allowed a more complete and up-to-date mapping.

4. REVISED RELATIONSHIP SNOMED-CT TO MEDDRA

SNOMED-CT (vocabulary_id=1) to MedDRA (vocabulary_id=15) relationship records have been introduced to the CONCEPT_RELATIONSHIP table. The records have relationship_id=239 "SNOMED to MedDRA equivalent (OMOP)". Not all SNOMED-CT records have a relationship to MedDRA. For now, only a selection has been mapped, mostly consisting of those that also have a mapping record from ICD-9-CM in the SOURCE_TO_CONCEPT_MAP table (as discussed above).

5. CORRECTION OF 3-DIGIT ICD-9-CM CODES WITH DOT

3-digit ICD-9-CM codes had an additional dot at the end of the code in the SOURCE_TO_CONCEPT_MAP table for some records. The convention is to write 3-digit ICD-9-CM codes without a dot. This has been corrected for the erroneous codes.
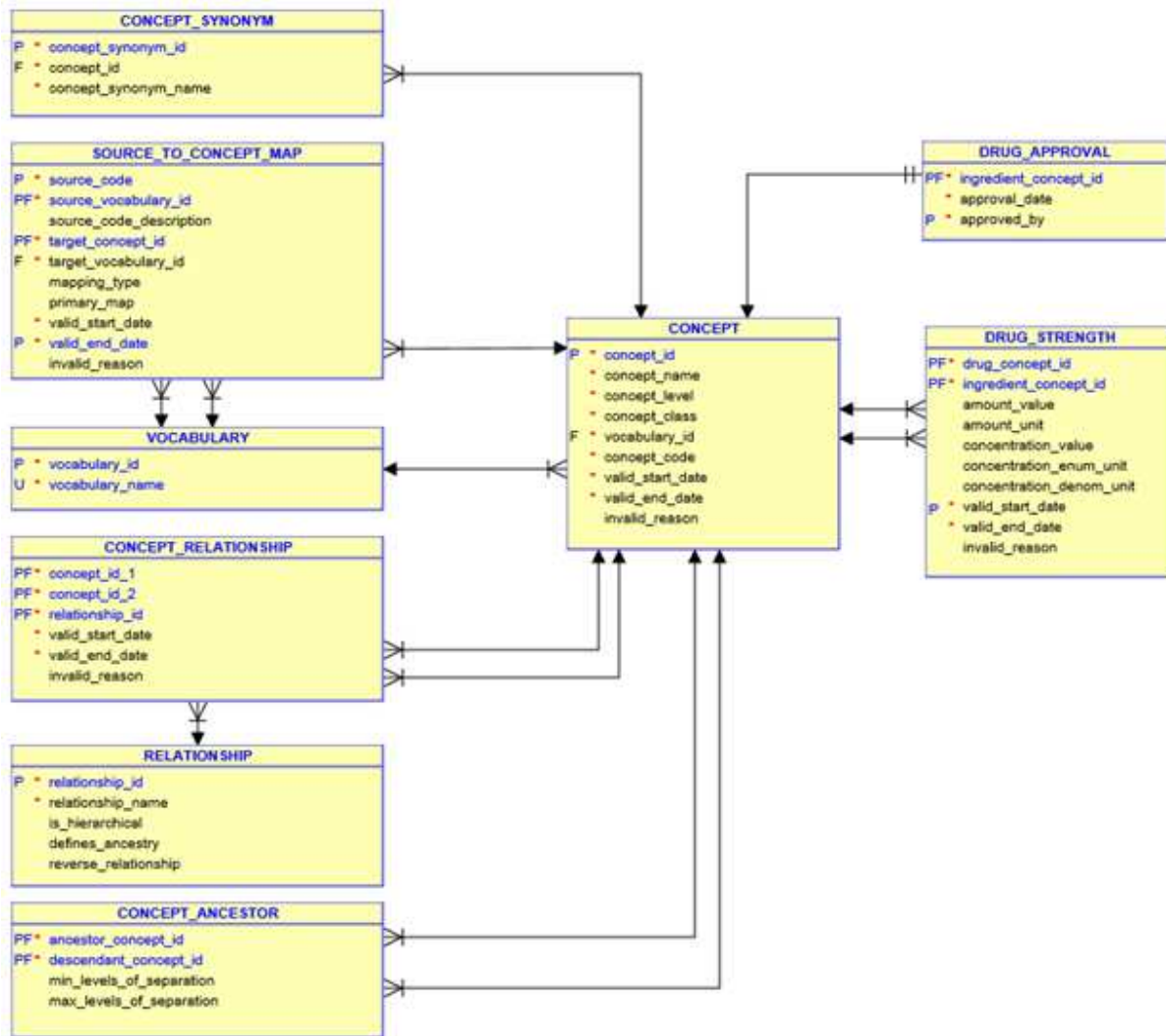
6. INTRODUCTION OF NEW TABLE DRUG_STRENGTH

A new table containing the strength of RxNorm drug products (vocabulary_id=8, concept_level=1) was added. It provides the values and units for either the absolute content of ingredient or concentration of ingredient. For details, visit http://omop.org/drugstrength. This table allows calculating a daily dose for each ingredient that patients were exposed to, using the DRUG_EXPOSURE table in OMOP Common Data Model. Tools and scripts for daily_dose calculation and dose-effect relationship methods will be released in future.

7. INTRODUCTION OF NEW TABLE DRUG_APPROVAL

A new table containing the approval date of RxNorm ingredients (vocabulary_id=8, concept_level=2) was added. It provides the earliest date the FDA approved a drug with the ingredient, either standalone or in combination with other ingredients. Please visit http://omop.org/DrugApprovals for details.

Note: Not all drug ingredients received formal NDA marketing approvals. The FDA started approving drugs only when they were proven to be safe in 1938, and the coverage become increasingly comprehensive over the years and decades. Please let us know if you find an approval date missing.

The two tables will be added to the Standard Vocabulary data model:

Appendix A: Statistic about Concepts, Vocabularies, Classes and Levels

This table is no longer provided in the release notes. But it can be produced by a standardized query. Please visit https://sites.google.com/site/omopqueries/general-queries/g15.

Appendix B: Statistics about Relationships between Concepts

This table is no longer provided in the release notes. But it can be produced by a standardized query. Please visit https://sites.google.com/site/omopqueries/general-queries/g14.

Appendix C: Updated Statistics about Mapping of Source Vocabularies

This table is no longer provided in the release notes. But it can be produced by a standardized query. Please visit https://sites.google.com/site/omopqueries/general-queries/g16.

Appendix D: Source Vocabulary Versions and Sources

The following table contains the location for all external source vocabularies used for the OMOP Standard Vocabularies

Voca-bulary ID	Vocabulary Name	Source	Date used for Vocabulary
1	SNOMED-CT	UMLS distribution, http://www.nlm.nih.gov/research/umls/licensedcontent/umlsknowledgesources.html	31-Jul-2013
2	ICD-9-CM	Diagnosis and Procedure Codes: Abbreviated and Full Code Titles, Version 31, http://www.cms.gov/Medicare/Coding/ICD9ProviderDiagnosticCodes/codes.html	13-Jun-2013
3	ICD-9-Procedure		
4	CPT-4	UMLS distribution, http://www.nlm.nih.gov/research/umls/licensedcontent/umlsknowledgesources.html	8-May-2013
5	HCPCS	UMLS distribution, http://www.nlm.nih.gov/research/umls/licensedcontent/umlsknowledgesources.html	8-May-2013
6	LOINC	LOINC distribution, http://loinc.org/downloads/loinc	29-Jun-2013
7	NDF-RT	RxNorm distribution, http://www.nlm.nih.gov/research/umls/rxnorm/docs/rxnormfiles.html	7-Oct-2013
8	RxNorm	RxNorm distribution, http://www.nlm.nih.gov/research/umls/rxnorm/docs/rxnormfiles.html	7-Oct-2013
9	NDC	RxNorm distribution, http://www.nlm.nih.gov/research/umls/rxnorm/docs/rxnormfiles.html	7-Oct-2013
		FDB distribution package	20-Jun-2013
		FDA NDC distribution, http://www.fda.gov/downloads/Drugs/DevelopmentApprovalProcess/UCM070838.zip	2-Oct-2013
10	GPI	Medi-Span distribution package	1-May-2011
11	UCUM	The Unified Code for Units of Measure, Version 1.8.2, http://aurora.regenstrief.org/~ucum/ucum.html#section-Alphabetic-Index	5-Apr-2010
12	HL7 Administrative Sex	HL7, Appendix A: Data Definition Tables, http://www.hl7.org/special/committees/vocab/v26_appendix_a.pdf	27-Nov-2007
13	CDC Race	http://www.cdc.gov/nchs/data/dvs/Race_Ethnicity_CodeSet.pdf	27-Jun-2000
14	CMS Place of Service	Place of Service Codes for Professional Claims Database, http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/downloads//Website_POS_database.pdf	1-Nov-2009
15	MedDRA	MedDRA Version 16.1, http://www.meddramsso.com/subscriber_download.asp	13-Jun-2013
16	Multum	RxNorm distribution, http://www.nlm.nih.gov/research/umls/rxnorm/docs/rxnormfiles.html	7-Oct-2013
17	Read	UMLS distribution, http://www.nlm.nih.gov/research/umls/licensedcontent/umlsknowledgesources.html	2-May-2011
18	OXMIS	Codes extracted from GPRD database, courtesy of GSK	1-Mar-2009
19	FDB Indication	FDB US distribution package	20-Jun-2013

Voca-bulary ID	Vocabulary Name	Source	Date used for Vocabulary
20	FDB ETC	FDB US distribution package	20-Jun-2013
21	WHO ATC	FDB US distribution package	20-Jun-2013
22	Multilex	FDB UK distribution package	5-Jun-2013
28	VA Product	RxNorm distribution, http://www.nlm.nih.gov/research/umls/rxnorm/docs/rxnormfiles.html	7-Oct-2013
31	SMQ	Standardised MedDRA Queries (SMQs) http://www.meddramsso.com/secure/smq/SMQ_Spreadsheet_14_0_English_update.xlsx	23-Jan-2013
32	VA Class	RxNorm distribution, http://www.nlm.nih.gov/research/umls/rxnorm/docs/rxnormfiles.html	7-Oct-2013
34	ICD-10-CM	2011 ICD-10-PCS and GEMs, Code Descriptions, http://www.cms.gov/Medicare/Coding/ICD10/2012-ICD-10-CM-and-GEMs.html	21-Nov-2011
35	ICD-10-PCS	2012 ICD-10-PCS and GEMs, Code Descriptions, http://www.cms.gov/Medicare/Coding/ICD10/2012-ICD-10-PCS.html	8-Jun-2011
40	DRG	List of Diagnosis Related Groups (DRGs), FY 2005, http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareFeeforSvcPartsAB/downloads//DRGDesc05.pdf	5-Dec-2006
	MS-DRG	Acute Inpatient - Files for Download , https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Acute-Inpatient-Files-for-Download.html, Files for FY 20XX Final Rule and Correction Notice, Table 5	18-Feb-2011
41	MDC	MDC Description File, http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Acute-Inpatient-Files-for-Download-Items/CMS1247844.html	1-Jun-2013
42	APC	Hospital Outpatient PPS, Addendum A and Addendum B Updates, http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalOutpatientPPS/Addendum-A-and-Addendum-B-Updates.html	28-Sep-2011
46	NLM MeSH	RxNorm distribution, http://www.nlm.nih.gov/research/umls/rxnorm/docs/rxnormfiles.html	7-Oct-2013
47	NUCC	http://www.nucc.org/images/stories/CSV/nucc_taxonomy_131.csv, Version 13.1	7-Jan-2013
48	CMS Specialty	http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/MedicareProviderSupEnroll/downloads/JSMTDL-08515MedicarProviderTypetoHCPTaxonomy.pdf	22-09-2008
50	FDA SPL	RxNorm distribution, http://www.nlm.nih.gov/research/umls/rxnorm/docs/rxnormfiles.html	7-Oct-2013
		FDA NDC distribution, http://www.fda.gov/downloads/Drugs/DevelopmentApprovalProcess/UCM070838.zip	2-Oct-2013
53	FDB Genseqno	FDB US distribution package	25-Aug-2011