CMS/OA/COO/OEI/SAG/Division of Enterprise Architecture

CMS Data Reference Model: Data Taxonomy Description

Version 4, May 2015

(formerly known as CMS Data Classification Scheme)

Enterprise Architecture

CONTENTS

INTRODUCTION

The purpose of this document is to describe the purpose, structure and content of the CMS Data Taxonomy. This categorization scheme is a product of the Chief Enterprise Architect and collaboratively managed with Central Data Administration.

The Data Taxonomy is a hierarchical structure that describes the types of data that are necessary to accomplish the CMS mission. It is a three level approach for conceptually grouping CMS data.   It is used to:

- Provide a means for relating data creation and usage to other aspects of the Enterprise Architecture (e.g., business functions, IT systems) supporting business assessments and impact analyses.
- Assist discovery, cataloging, and navigation of data assets and information products.
- Provides a means for organizing the content of enterprise data models (e.g., Enterprise Logical Data Model, Unified Medicaid & CHIP Data Model) for use in data engineering solutions.

Subject Area (9)
A *Subject Area* is a broad type of data that that identifies the major entities (e.g., people, organizations, structures, events, and resources) that are of interest and about which information is needed.

Data Category (30)
A *Data Category* is a type of data, within a *Subject Area*, that supports business functions across business lines. It represents sets of information about the major entities (e.g., people, organizations, structures, events, and resources) identified as subject areas.

Category Subtype (19)
A *Category Subtype* is a type of data, within a *Data Category*, that supports business functions within a business line or further defines information about a type of major entity.
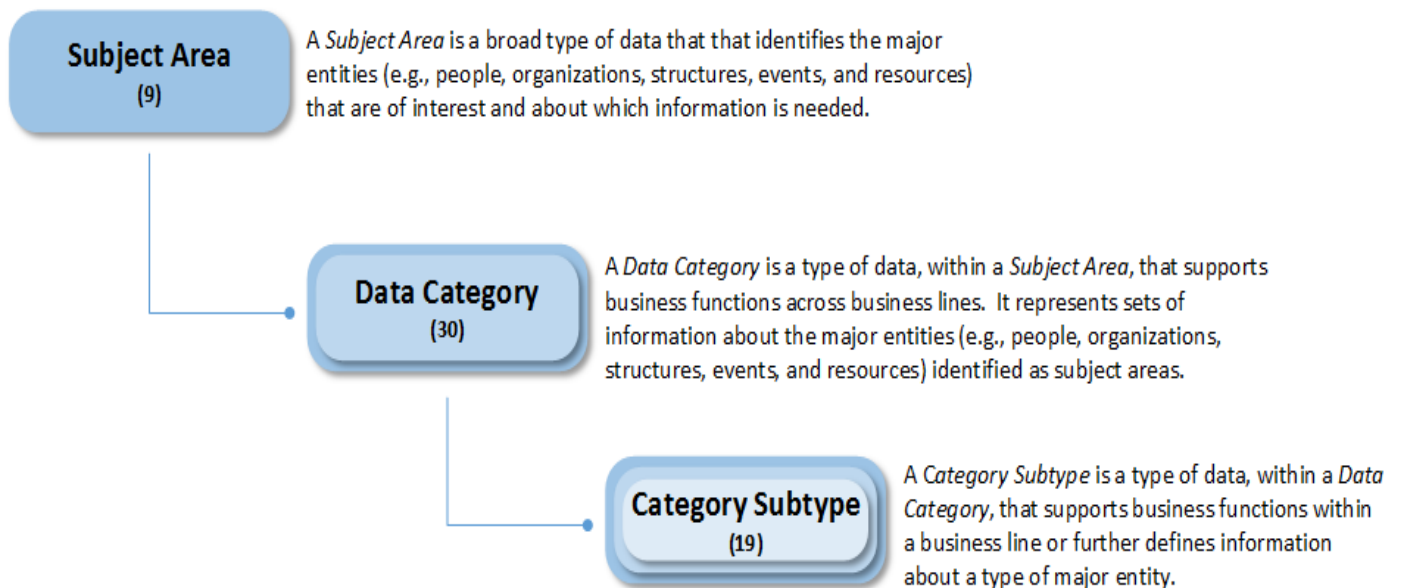
Figure 1 - Data Taxonomy Structure

CMS Data Reference Model: Data Taxonomy Description

The *Subject Areas* are the most stable level of the taxonomy, as they represent fundamental topics across CMS business lines. They reflect the overall information needs of the core mission and common business functions described in the CMS Business Reference Model (BRM).

CMS Data Taxonomy: Subject Areas
Version 4 – May 2015

Beneficiary & Consumer

Information about an individual in their role as it pertains to the receipt of health care benefits and services under a CMS-administered Health Insurance Program, or private insurance coverage facilitated through CMS.

Health Insurance Plan

Information about health insurance coverage options available to consumers and used by populations served by CMS.

Health Care Quality

Information about the measures, methods, assessments and outcomes used to evaluate the administrative and clinical quality of health care service delivery.

Provider

Information about an individual's or organization's role and relationships in the delivery of health services to populations served by CMS.

Health Care Service

Information about the events and products associated with the usage and delivery of health care services that support the health and well-being of populations served by CMS.

Health Care Payment

Information about the payments made associated with the delivery of health services to populations served by CMS.

Organization

Information about the organizations that serve as business agents or partners in expanding access to quality health benefits and services, and enabling coordinated care at lower cost.

Health Insurance Program

Information about sets of legislatively authorized health care benefits and services for eligible populations. Includes regulations, policies, and supporting oversight processes.

Supporting Resource

Information about the items, objects, and property used to support the activities required to keep the CMS enterprise operating.

Figure 2 - Subject Areas

CMS Data Reference Model: Data Taxonomy Description

Data categories provide recognizable subsets of the information needs represented by each subject area. They illustrate the major sets of information within a subject area. For select categories, a third level provides more business line specific categorization.

CMS Data Taxonomy: Data Categories
Version 4 – May 2015

Beneficiary & Consumer
- Consumer Demographics
- Consumer Eligibility & Enrollment
  - Medicare FFS
  - MMA
  - Medicaid
  - CHIP
  - Supplemental Coverage
  - Other Minimal Essential Coverage
- Beneficiary Attribution
- Beneficiary Benefit Utilization
- Beneficiary Cost Sharing

Health Insurance Plan
- Plan Profile *(e.g., covered benefits & services, pricing, service area)*
- Plan Management *(e.g., authorizing program, operating organization)*

Health Care Quality
- Health Quality Measures
- Clinical Data *(e.g., claims-based assessments)*
- Consumer Assessments *(e.g., Survey Data)*
- Organization Assessments
- Provider Assessments

Provider
- Provider Demographics
  - Facility Characteristics
  - Physician & Professional Provider Characteristics
  - Pharmacy Characteristics
  - Supplier Characteristics
- Provider Eligibility & Enrollment
- Provider Participation

Health Care Service
- Communication Cases
- Health Service Delivery
  - Medicare Claims
  - Medicaid Claims
  - Managed Care Encounters
  - Prescription Drug Events
- Diagnosis, Procedure and Pricing Reference Data

Health Care Payment
- Beneficiary Payments
- Organization Payments
- Provider Payments

Organization
- Organization Demographics
- Organization Eligibility & Enrollment

Health Insurance Program
- Program Policy
  - Population Eligibility
  - Benefit & Service Coverage
  - Geographic Coverage
  - Service Delivery System *(e.g., Fee-for-Service)*
  - Cost Sharing & Payment
- Program Evaluation

Supporting Resource
- Administrative Resources
- Financial Resources
- Human Resources
- Information Resources
- Material Resources

Figure 3 - Data Categories and Category Subtypes

DATA TAXONOMY

BENEFICIARY & CONSUMER

Information about an individual in their role as it pertains to the receipt of health care benefits and services under a CMS-administered Health Insurance Program, or private insurance coverage facilitated through CMS.

DATA CATEGORIES:

Consumer Demographics - Information about an individual's identity, basic personal characteristics (e.g., gender, age, ethnicity), location, communication and data sharing preferences, and other attributes that may be used for eligibility and cost sharing determination.

Consumer Eligibility & Enrollment - Information about an individual's qualifications for coverage under a CMS-administered Health Insurance Program, or other minimal essential coverage through a qualified health plan.

CATEGORY SUBTYPES

Medicare FFS, MMA, Medicaid, CHIP, Supplemental Coverage, Other Minimal Essential Coverage

Beneficiary Attribution - Information about an individual's relationship to an entity (e.g., provider practice, Innovation Model) for the purpose of tracking aspects of care delivery and shared savings.

Beneficiary Benefit Utilization - Information about an individual's use of health equipment, facilities, programs, services, and health personnel through their coverage under a CMS-administered Health Insurance Program.

Beneficiary Cost Sharing - Information about an individual's financial responsibilities and reimbursements for health care products and services payments such as premiums, co-payments, and subsidy payments.

PROVIDER

Information about an individual's or organization's role and relationships in the delivery of health services to populations served by CMS.

DATA CATEGORIES:

Provider Demographics - Information about a provider's identity, locations, credentials, specialties, business structure and affiliations.

CATEGORY SUBTYPES

Facility Characteristics, Physician & Professional Provider Characteristics, Pharmacy Characteristics, Supplier Characteristics

Provider Eligibility & Enrollment - Information about a provider's qualifications to render health care services / products and receive payment under a CMS-administered health insurance program.

Provider Participation - Information about the agreements that a provider has with organizations, either directly or indirectly through another organization (e.g., network), to render health care services to plan enrollees and receive payment for services rendered.

ORGANIZATION

Information about the organizations that serve as business agents or partners in expanding access to quality health benefits and services, and enabling coordinated care at lower cost.

DATA CATEGORIES:

Organization Demographics - Information about an organization's identity, capabilities, relationships, financial status, and product or services it may provide to populations served by CMS.

Organization Eligibility & Enrollment - Information about an organization's qualifications to operate health insurance plans, demonstrations, models or other health insurance arrangements under a CMS-administered health insurance program.

HEALTH INSURANCE PLAN

Information about private and public health insurance benefit options available to consumers.

DATA CATEGORIES:

Plan Profile - Information about a plan's characteristics such as covered benefits and services, pricing, and service area. (e.g., covered benefits & services, pricing, service area)

Plan Management - Information about the organization and legal authorities under which a plan is operated. (e.g., authorizing program, operating organization)

HEALTH SERVICE

Information about the costs and expenditures associated with the delivery of health services to populations served by CMS.

DATA CATEGORIES:

Communication Cases - Information about communication events such as inquiries, complaints, and grievances received from parties served by CMS.

Health Service Delivery - Information about the events and requests for payment associated with the delivery of health care services and products.

CATEGORY SUBTYPES

Medicare Claims, Medicaid Claims, Managed Care Encounters, Prescription Drug Events

Diagnosis, Procedure, and Pricing Reference Data - Information about the pricing schedules and standard coding systems for identifying products and services provided during the delivery of health services.

HEALTH INSURANCE PROGRAM

Information about sets of legislatively authorized health care benefits and services for targeted populations in defined geographic areas. Area includes regulations, policies, and supporting oversight processes.

DATA CATEGORIES:

Program Policy - Information about the rules under which the program is operated. Category includes topics such as population eligibility criteria, benefit and service coverage, beneficiary cost sharing and provider payments.

CATEGORY SUBTYPES

Population Eligibility, Benefit & Service Coverage, Cost Sharing, Payment

Program Evaluation - Information about a program's performance in areas such as improving care quality, lowering cost, administrative efficiency.

HEALTH CARE QUALITY

Information about the measures, methods, assessments and outcomes used to evaluate the administrative and clinical quality of health care service delivery.

DATA CATEGORIES:

Health Quality Measures - Information about the quantitative tools that provide an indication of an individual or organization's performance in relation to a specified process or outcome via the measurement of an action, process or outcome of clinical care.

Consumer Assessment Data - Information about an individual's assessment, experience, and outcomes related to health care delivery; gathered through surveys.

Clinical Data - Information about an individual's clinical assessment and outcomes; gathered through claims.

Organization Assessments - Information about an organization's performance in areas such as efficiency, process, or outcomes for targeted quality measures.

Provider Assessments - Information about a provider's performance in areas such as efficiency, process, and patient outcomes for targeted health quality measures. Category includes sanction and integrity information.

HEALTH CARE PAYMENT

Information about the payments made associated with the delivery of health services to populations served by CMS.

DATA CATEGORIES:

Beneficiary Payments - Information about the monies distributed to beneficiaries through a CMS-administered health insurance program. (e.g., incentive payments)

Organization Payments - Information about the monies distributed to organizations through a CMS-administered health insurance program.

Provider Payments - Information about the monies distributed to providers through a CMS-administered health insurance program.

SUPPORTING RESOURCE

Information about the items, objects, and property used to support the activities required to keep the CMS enterprise functioning.

DATA CATEGORIES:

Administrative Resources - Information about the processes, activities, products, and services required to carry out the day-to-day functions of CMS.

Financial Resources - Information about the costs to support the processes and activities required to carry out the day-to-day functions of CMS.

Human Resources - Information about all aspects of personnel management required to carry out the day-to-day functions of CMS.

Information Resources - Information about data, knowledge, educational materials, internal policy guides, plans, manuals and other products used to support the activities required to carry out the day-to-day functions of CMS.

Material Resources - Information about tangible assets used to support the activities required to carry out the day-to-day functions of CMS.