# Table of Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Services Overview</td>
<td>3</td>
</tr>
<tr>
<td>Swagger Developer Tool</td>
<td>4</td>
</tr>
<tr>
<td>Web Services Reference</td>
<td>5</td>
</tr>
<tr>
<td>CDC Content Model</td>
<td>6</td>
</tr>
<tr>
<td>Term Aliases and Attributes</td>
<td>7</td>
</tr>
</tbody>
</table>
Vaccine Code Sets Web Service

Overview

The web service provides an opportunity for users to directly access the code set content model via web service queries. With this new feature, developers can use the Swagger API to query specific catalog content in real time.

This User Guide is intended for developers and provides an introduction on how to access all published code set content model catalogs, maps, and relationships based on their medium of access.
Swagger Developer Tool

The Swagger developer tool provides an interface to design and test queries with a direct connection to the code set catalog.

Click [here](#) to access Swagger developer tool
NOTE: Web Services exposes the **entire** CDC Content Model for Vaccines. The model database contains many additional fields and metadata that are only used internally by the curation application processing. These additional data elements are NOT part of the public, validated content that should be downloaded to end user sites.

The content model is comprised of catalogs and the relationships between the terms/code set in one catalog to those in another catalog.

Each record in a catalog has a term source code, and a term description.

In addition, each term has alias description types and attributes fields.

The following two slides provide the core catalog identifiers, relationships, and term field types used to query the CDC’s vaccine code set content.
The CDC Content Model: *Essential* Catalogs, Term Identifiers and Relationship types

**Vaccine Group**

"CDC_IMMUN_VAC_GRP"

VG to CVX: RelationshipMnemonic: "HASMEMBER"
CVX to VG: RelationshipMnemonic: "IS_MEMBER_OF"

**CVX**

"CDC_IMMUN_CVX"

CVX to NDC UoU: RelationshipMnemonic: "HASCHILD"
NDC UoU to CVX: RelationshipMnemonic: "HAS_PARENT"

**CPT**

"CDC_IMMUN_AMA_CPT"

CPT to CVX: RelationshipMnemonic: "PROC_FOR"
CVX to CPT: RelationshipMnemonic: "ASSOC_PROC"

**CDC Product**

"CDC_IMMUN_VAC_PROD"

Product to CVX: RelationshipMnemonic: "IS_MEMBER_OF"
CVX to Product: RelationshipMnemonic: "HASMEMBER"

**VIS**

"CDC_IMMUN_VIS"

VIS to CVX: RelationshipMnemonic: "RELATES_TO_ADVICE"
CVX to VIS: RelationshipMnemonic: "RELATED_TO_TERM"

**NDC UoU**

"CDC_IMMUN_FDA_NDC_UOU"

NDC UoU to NDC UoS: RelationshipMnemonic: "HAS_UNIT_SALE"
NDC UoS to NDC UoU: RelationshipMnemonic: "HAS_UNIT_USE"

**NDC UoS**

"CDC_IMMUN_FDA_NDC_UOS"

NDC UoS to MVX: RelationshipMnemonic: "HAS_MANUFACTURER"
MVX to NDC UoS: RelationshipMnemonic: "IS_MANUFACTURER_OF"

**MVX**

"CDC_IMMUN_MVX"

**CDC Content Model Mnemonic**

CDC_IMMUN_VAC_MODEL

**CDC IMMUN VAC_GRP**

**CDC_IMMUN_CVX**

**CDC_IMMUN_AMA_CPT**

**CDC_IMMUN_VAC_PROD**

**CDC_IMMUN_VIS**

**CDC_IMMUN_FDA_NDC_UOU**

**CDC_IMMUN_FDA_NDC_UOS**

**CDC_IMMUN_MVX**
CDC Content Model: Essential Vaccine Content - Term Aliases and Attributes

<table>
<thead>
<tr>
<th>Select Catalog and Term</th>
<th>Catalog term aliases and attributes constitute the core catalog content curated and published by the CDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each Term has multiple Alias Types</td>
<td>Each Term has multiple Attribute Fields</td>
</tr>
<tr>
<td>Each Term has multiple Attribute Fields</td>
<td>Characteristics are elements automatically derived from the terms to aid with the Symedical® application’s algorithmic searching and matching. <em>They are not validated by the CDC and should not be included in vaccine data set downloads</em></td>
</tr>
<tr>
<td>Each Term also includes “Characteristics” fields</td>
<td></td>
</tr>
</tbody>
</table>

7
Questions and Comments

- Please let us know if you have questions, comments, or suggestions for improving this user guide
- Email us at iisinfo@cdc.gov