Montana Immunization Program HL7 Spec Guide

Contact Information

Montana Immunization Program
General Immunization Office
(406) 444-5580

imMTrax Interface Coordinator Deb
Belleau
dbelleau@mt.gov
(406) 444-5952

imMTrax Manager
Michelle Funchess
mfunchess@mt.gov
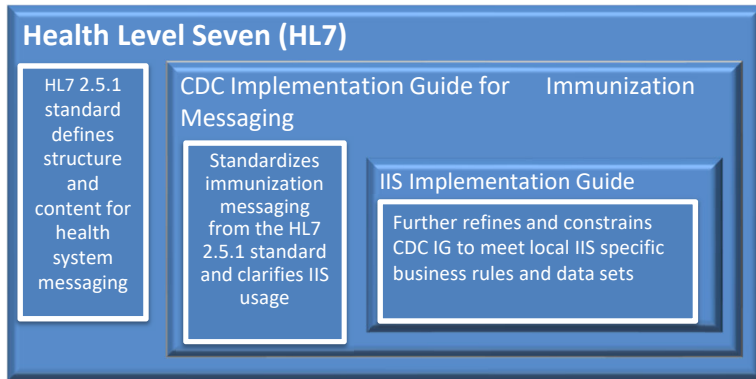(406) 444-2969

Table of Contents

Introduction

The primary purpose of PHC-Hub (Public Health Connection Hub) is to establish connections (interfaces) to improve public health. PHC-Hub facilitates the integration between healthcare provider systems and Immunization Information Systems (IIS) by managing HL7

In order for different health information systems to exchange data, the structure and content of the data to be exchanged must be standardized.

Three controlling documents define how PHC-Hub HL7 data exchange interface works.

They are arranged in a hierarchy of documents, each refining and constraining the HL7 Standard.

Health Level Seven (HL7)

HL7 2.5.1 standard defines structure and content for health system messaging

CDC Implementation Guide for Immunization Messaging

Standardizes immunization messaging from the HL7 2.5.1 standard and clarifies IIS usage

IIS Implementation Guide

Further refines and constrains CDC IG to meet local IIS specific business rules and data sets

The first document is the HL7 2.5.1 standard developed by Health Level Seven, a not-for-profit ANSI-accredited standards developing organization. This standard defines the structure and content of immunization messages, but leaves many specific implementation details undecided. Beneficial information on HL7 and a copy of the HL7 message standard can be obtained from the Health Level Seven website at http://www.hl7.org/.

The second document is the CDC's HL7 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5 (CDC IG). This guide gives specific instructions regarding how to report to immunization information systems, but still leaves some implementation decisions to each state IIS.
This guide and other technical information can be obtained from the CDC website at http://www.cdc.gov/vaccines/programs/iis/technical-guidance/downloads/hl7guide-1-5-2014-11.pdf.

This document, the MT HL7 Implementation Guide, is the third. It finalizes all implementation decisions and defines exactly what the IIS will and will not accept. In cases where this guide differs from the CDC IG, this guide provides the IIS's limitations, identified on each tab in the IWeb Limit column with character limit or not captured. While reading this guide, you can mouse over the elements that have red triangles to see more details.

NOTE: The PV1 segment is used to convey visit specific information. The primary use in immunization messages in previous releases was to carry information about the client's eligibility status. This is now recorded in the immunization event (dose administered) level. Use of this segment for the purpose of reporting client eligibility for a funding program at the visit level is not supported in this Implementation Guide.

Scope

This document is intended to facilitate the exchange of immunization records between Electronic Health Records (EHR) and the IIS.

This includes:

      a. Sending and receiving immunization histories for individuals

      b. Sending and receiving demographic information about the individuals

      c. Requesting immunization histories for individuals

      d. Responding to requests for immunization histories by returning immunization histories

      e. Acknowledging receipt of immunization histories and requests for immunization histories

      f. Reporting errors in the messaging process

      g. Sending observations about an immunization event (this may include funding, reactions, forecasts and evaluations).

It is important to note this guide adheres to the CDC IG on several key aspects, including:

      a. Data type specifications from chapter 4 of the CDC IG have not been redefined and usage has not

Message Transport

HTTP POST Message Transfers

PHC-Hub receives HL7 messages using a protocol defined in the document titled "Transport of Immunization HL7 Transaction over the Internet Using Secure HTTP version 1.0" written by the HL7 Immunization Registry Task Force (Rockmore, Yeatts, and Davidson). It describes sending an username, password, and a HL7 message in an HTTP POST transaction and receiving an HL7 message as a response.

For an external system to connect to the immunization registry it must have two things:
- A connection to the internet so that it can "see" the registry's web interface.
- The ability to send HL7 immunization messages using HTTPS.

Request Encoding

When the sending application sends PHC-Hub an HL7 message via an HTTPS POST command, it must have the following fields:
- **USERID** - Assigned by the PHC-Hub administrator.
- **PASSWORD** - Assigned by the PHC-Hub administrator.
- **MESSAGEDATA** - The HL7 messages.

HL7 messages may be one at a time (one for every HTTPS request) or grouped in a batch. Batch messages do not have any special separators or wrappers, but the standard HL7 batch protocol may be used. The batch is formatted as follows:

[FHS] { [BHS] { [MSH] ...] } [BTS] } [FTS]

Response Encoding

Response Encoding

PHC-Hub returns responses to the sending system. Requests with multiple messages can have multiple responses, one for each request message. Responses are returned as defined in the import profile configuration. The available options are:
- **Always** - Always send a response for a message.
- **Never** - Never send a response for a message.
- **On Error** - Send responses only for those messages that have errors and are not accepted.
- **Determined by Message** - Use the incoming message's MSH segment to determine the response option (Always, Never, or Only on Error).

Responses from the HL7 interface are always in HL7 format. HL7 responses can indicate any one of the following things:
- **Authentication error** - The HL7 user making the request is not allowed to because username and password are incorrect or account does not have permission to accept HL7 messages.
- **Message parsing error** - The HL7 parser is unable to read the incoming message because it doesn't conform to HL7 standards.
- **Message content error** - PHC-Hub cannot accept the data because of missing or incorrect information.
- **Message processing exception** - PHC-Hub cannot process the message because of an unexpected problem.
- **Message accepted** - PHC-Hub has accepted the data and is either holding it for review or submitting it to the IIS for processing.
- **Response to query** - The IIS responds to the query with query results.

CDC WSDL

The standard interface defines the contract between the trading partners (Sender and Receiver). SOAP (Simple Object Access Protocol) web services use a Web Services Definition Language (WSDL) to achieve this. The WSDL for the SOAP web service is used as the contract between the sender and the receiver to pass the HL7 message as a string of data. For further information please refer to http://www.cdc.gov/vaccines/programs/iis/technical-guidance/soap/wsdl.html.

The WSDL tells a program that knows about SOAP exactly how to use the web service. If a tool is available that understands SOAP web services, the following URLs are all that is needed to set up the web service. Please review the EHR documentation to determine all steps in setting up the web service.

The first part of the WSDL URL depends on which version of PHC-Hub is being used, Production or Test.
The WSDL URL is: /soa/ws/HL7Service.wsdl
- For example:
  - imMTrax Test is: https://immtraxtest.org/phc/soa/ws/HL7Service.wsdl

TCP/IP connection and polling a local directory for files to upload are not supported.

VXU

```
MSH|^~\&| HEALTHLAND^2.16.840.1.113883.3.4272.14.1^ISO|MAGNOLIA_PED_
CLINIC|IIS|3724|20160909130000||VXU^V04^VXU_V04|123456|P|2.5.1|||AL|AL||||||Z22^CDCPHINVS|MAGNOLIA_PED_CLINIC|SIISCLIENT1724||
PID|1||A69532^^^^MR||SMITH^MICK^D^^^^L|JONES|20140708|M|^MICKY|2106-3^White^HL70005|123 MAIN
STREET^^CHEYENNE^WY^82002^USA^L^^56021||^PRN^PH^^^406^5551234~^NET^INTERNET^LSMITH@GMAIL.COM|^WPN^PH^^^406^6581255|
EN^ENGLISH^HL70296|||||||2186-5^not Hispanic or Latino^HL70189|CHILDRENS HOSPITAL|Y|1||Y||20160912070000|Y|
PD1|||||||||||02^Reminder/Recall - any method^HL70215|N|20160825|||A|||||
NK1|1|SMITH^WALT|FTH^FATHER^HL70063|123 MAIN STREET^^CHEYENNE^WY^82002^USA|^PRN^PH^^^307^5551289|^WPN^PH^^^307^5564582
NK1|2|SMITH^MARY|MTH^MOTHER^HL70063|123 MAIN STREET^^CHEYENNE^WY^82002^USA|^PRN^PH^^^307^5551562|
ORC|RE|365412^^^|56789^^^|||||||||SIISCLIENT3363^SMITH^MAGGIE||SIISCLIENT3396^WILSON^MATT|||||3724|
RXA|0|1|201609080000||20^DTaP^CVX|0.5|mL^milliliters^UCUM||00^New immunization
record^NIP001|SIISCLIENT3361^MAGNOLIA^IRENE^B^^^^^^^^^^^^^^^MD|^^^SIISCLIENT1724||||3923K|20171115|SKB^GlaxoSmithKline^HL70227|||CP|
A||
RXR|IM^Intramuscular^HL70162|RT^Right Thigh^HL70163
OBX|1|CE|64994-7^Vaccine funding program eligibility category^LN|0|V04^VFC eligible-American Indian^HL70064||||||F|||20160406|||VXC40^Eligibility
captured at the immunization level^CDCPHINVS
OBX|2|CE|30963-3^Vaccine purchased with^LN||VXC1^Federal funds^|||||F||||
OBX|3|CE|30956-7^vaccine type^LN|1|48^HIB^CVX||||||F
OBX|4|DT|29768-9^Date vaccine information statement published^LN|1|20070515|||||F
OBX|5|DT|29769-7^Date vaccine information statement presented^LN|1|201609068|||||F
```

Segment	Segment Header
MSH	Message Header
PID	Patient Identification
PD1	Patient Demographic
NK1	Next of Kin
ORC	Common Order
RXA	Pharmacy/Treatment Administration
RXR	Pharmacy/Treatment Route
OBX	Observation

MSH Segment

Sample: MSH|^~\&|MYEHR|MYSITE|MYIIS|MYFACILITYID|20141121100000||VXU^VO4^VXU_V04|123456|P|2.5.1|||AL|AL|||||Z22^CDCPHINVS|MYORG|MYORGID|

Notes: *MT accepts only "P" as the value in MSH-11.
*We highly recommend that MSH-16 be AL in order view all ACK messages-especially during the test phase.

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMTrax Limit
MSH	**1**	|	**Field Separator**	ST	**R**	
MSH	**2**	^~\&	**Encoding Characters**	ST	**R**	
MSH	3	MYEHR	Sending Application	HD	RE	*Not captured*
MSH	4	MYSITE	Sending Facility	HD	RE	50
MSH	5	MYIIS	Receiving Application	HD	RE	*Not captured*
MSH	6	MYFACILITYID	Receiving Facility	HD	RE	25
MSH	**7**	20141121100000	**Date/Time Of Message**	TS_Z	**R**	
MSH	8		Security	ST	O	*Not captured*
MSH	**9**	VXU^VO4^VXU_V04	**Message Type**	MSG	**R**	
MSH	**10**	123456	**Message Control ID**	ST	**R**	
MSH	**11**	P	**Processing ID**	PT	**R**	
MSH	**12**	2.5.1	**Version ID**	VID	**R**	
MSH	13		Sequence Number	NM	O	*Not captured*
MSH	14		Continuation Pointer	ST	O	*Not captured*
MSH	**15**	AL	**Accept Acknowledgement Type**	**ID**	**R**	
MSH	**16**	AL	**Application Acknowledgment Type**	**ID**	**R**	
MSH	17		Country Code	ID	O	*Not captured*
MSH	18		Character Set	ID	O	*Not captured*
MSH	19		Principal Language of Message	CE	O	*Not captured*
MSH	20		Alternate Character Set Handling Scheme	ID	O	*Not captured*
MSH	**21**	Z22^CDCPHINVS	**Message Profile Identifier (EI) 01598**	**EI**	**R**	
MSH	22	MYORG	Sending Responsible Organization	XON	RE	50
MSH	23	MYORGID	Receiving Responsible Organization	XON	RE	25
MSH	24		Sending Network Address	HD	O	*Not captured*
MSH	25		Receiving Network Address	HD	O	*Not captured*

PID Segment

Notes: *Please do **not** send a social security number in the PID-3 or PID-19.
*Please submit a full address including the MT county code in the PID-11.9.

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMTrax Limit
PID	**1**	1	**Set ID - PID**	**SI**	**R**	
PID	2		Patient ID	CX	X	*Not captured*
PID	**3**	A69532^^^^MR	**Patient Identifier List**	**CX**	**R**	30
PID	4		Alternate Patient ID - 00106	CX	X	*Not captured*
PID	**5**	SMITH^MICK^D^^^^L	**Patient Name**	**XPN**	**R**	48
PID	6	JONES	Mother's Maiden Name	XPN	RE	48
PID	**7**	20140708	**Date of Birth**	**TS_NZ**	**R**	
PID	**8**	M	**Administrative Sex**	**IS**	**R**	1
PID	9	^MICKY	Patient Alias	XPN	X	48
PID	10	2106-3^White^HL70005	Race	CE	RE	20
PID	11	123 MAIN STREET^^CHEYENNE^WY^82002^USA^L^^56021	Patient Address	XAD	RE	
PID	12		County Code	IS	X	*Not captured*
PID	13	^PRN^PH^^^406^5551234	Phone Number - Home	XTN	RE	7 or 10
PID	14	^WPN^PH^^^406^6581255	Phone Number - Business	XTN	O	7 or 10
PID	15	EN^ENGLISH^HL70296	Primary Language	CE	O	30
PID	16		Marital Status	CE	O	*Not captured*
PID	17		Religion	CE	O	*Not captured*
PID	18		Patient Account Number	CX	O	*Not captured*
PID	19		SSN Number - Patient	ST	X	9
PID	20		Driver's License Number - Patient	DLN	X	*Not captured*
PID	21		Mother's Identifier	CX	X	*Not captured*
PID	22	2186-5^not Hispanic or Latino^HL70189	Ethnic Group	CE	RE	37
PID	23	CHILDRENS HOSPITAL	Birth Place	ST	O	100
PID	24	Y	Multiple Birth indicator	ID	RE	1
PID	25	1	Birth Order	NM	C(RE/O)	1
PID	26		Citizenship	CE	O	*Not captured*
PID	27		Veterans Military Status	CE	O	*Not captured*
PID	28		Nationality	CE	O	*Not captured*
PID	29	20160912070000	Patient Death Date and Time	TS	C(RE/X)	14
PID	30	Y	Patient Death Indicator	ID	RE	1
PID	31		Identity Unknown Indicator	ID	O	*Not captured*
PID	32		Indentity Reliability Code	IS	O	*Not captured*
PID	33		Last Update Date/Time	TS	O	*Not captured*
PID	34		Last Update Facility	HD	O	*Not captured*
PID	35		Species Code	CE	O	*Not captured*
PID	36		Breed Code	CE	O	*Not captured*
PID	37		Strain	ST	O	*Not captured*
PID	38		Production Class Code	CE	O	*Not captured*
PID	39		Tribal Citizenship	CWE	O	*Not captured*

PD1 Segment

Sample: PD1|||MYSITE^^SIISCLIENT1724|||||||||02^Reminder/Recall - any method^HL70215|N|20160825|||A|||||

Notes: *PD1-3 identifies the site sending the message and is required. This deviates from the CDC's HL7 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5 (CDC IG).
*PD1-12 identifies if the patient has given consent for their immunization data to be shared. A value is required due to Montana being an "opt-in" state. This deviates from the CDC's HL7 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5 (CDC IG).

Segment	SEQ	Example Segment	Element Name	DataType	Usage	IWeb Limit
PD1	1		Living Dependency	IS	O	*Not captured*
PD1	2		Living Arrangement	IS	O	*Not captured*
PD1	**3**	**MYSITE^^SIISCLIENT1724**	**Patient Primary Facility**	XON	R	50
PD1	4		Patient Primary Care Provider name & ID No.	XCN	X	48
PD1	5		Student Indicator	IS	O	*Not captured*
PD1	6		Handicap	IS	O	*Not captured*
PD1	7		Living Will Code	IS	O	*Not captured*
PD1	8		Organ Donor Code	IS	O	*Not captured*
PD1	9		Separate Bill	ID	O	*Not captured*
PD1	10		Duplicate Patient	CX	O	*Not captured*
PD1	11	02^Reminder/Recall - any method^HL70215	Publicity Code	CE	RE	2
PD1	**12**	**N**	**Protection Indicator**	ID	R	1
PD1	13	20160825	Protection Indicator Effective Date	DT_T	C(RE/X)	
PD1	14		Place of Worship	XON	O	*Not captured*
PD1	15		Advance Directive Code	CE	O	*Not captured*
PD1	16	A	Immunization Registry Status	IS	RE	1
PD1	17		Immunization Registry Status Effective Date	DT_T	C(RE/X)	*Not captured*
PD1	18		Publicity Code Effective Date	DT_T	C(RE/X)	*Not captured*
PD1	19		Military Branch	IS	O	*Not captured*
PD1	20		Military Rank/Grade	IS	O	*Not captured*
PD1	21		Military Status	IS	O	*Not captured*

NK1 Segment

Notes: *NK1 segment is conditional based on patients age. The segment is required for patients under 18 years old.
* imMTrax will process only NK1 segment that have the NK1-3 (Relationship) equal to: FTH (Father), GRD (Guardian), MTH (Mother), or PAR (parent).

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMTrax Limit
NK1	**1**	1	**Set ID - NK1**	SI	**R**	
NK1	**2**	SMITH^WALT	**Name**	XPN	**R**	48
NK1	**3**	FTH^Father^HL70063	**Relationship**	CE	**R**	3
NK1	4	123 MAIN^^CHEYENNE^WY^82002^USA	Address	XAD	RE	
NK1	5	^PRN^PH^^^307^5551289	Phone Number	XTN	RE	9
NK1	6	^WPN^PH^^^307^5564582	Business Phone Number	XTN	O	9
NK1	7		Contact Role	CE	O	*Not captured*
NK1	8		Start Date	DT	O	*Not captured*
NK1	9		End Date	DT	O	*Not captured*
NK1	10		Next of Kin / Associated Parties Job Title	ST	O	*Not captured*
NK1	11		Next of Kin / Associated Parties Job Code/Class	JCC	O	*Not captured*
NK1	12		Next of Kin / Associated Parties Employee Number	CX	O	*Not captured*
NK1	13		Organization Name - NK1	XON	O	*Not captured*
NK1	14		Marital Status	CE	O	*Not captured*
NK1	15		Administrative Sex	IS	O	*Not captured*
NK1	16		Date/Time of Birth	TS	O	*Not captured*
NK1	17		Living Dependency	IS	O	*Not captured*
NK1	18		Ambulatory Status	IS	O	*Not captured*
NK1	19		Citizenship	CE	O	*Not captured*
NK1	20		Primary Language	CE	O	*Not captured*
NK1	21		Living Arrangement	IS	O	*Not captured*
NK1	22		Publicity Code	CE	O	*Not captured*
NK1	23		Protection Indicator	ID	O	*Not captured*
NK1	24		Student Indicator	IS	O	*Not captured*
NK1	25		Religion	CE	O	*Not captured*
NK1	26		Mother's Maiden Name	XPN	O	48
NK1	27		Nationality	CE	O	*Not captured*
NK1	28		Ethnic Group	CE	O	*Not captured*
NK1	29		Contact Reason	CE	O	*Not captured*
NK1	30		Contact Person's Name	XPN	O	*Not captured*
NK1	31		Contact Person's Telephone Number	XTN	O	*Not captured*
NK1	32		Contact Person's Address	XAD	O	*Not captured*
NK1	33		Next of Kin/Associated Party's Identifiers	CX	O	*Not captured*
NK1	34		Job Status	IS	O	*Not captured*
NK1	35		Race	CE	O	*Not captured*
NK1	36		Handicap	IS	O	*Not captured*
NK1	37		Contact Person Social Security Number	ST	O	*Not captured*
NK1	38		Next of Kin Birth Place	ST	O	*Not captured*
NK1	39		VIP Indicator	IS	O	*Not captured*

ORC Segment

Sample: ORC|RE|365412^^^|56789^^^|||||||SIISCLIENT1724^SMITH^MAGGIE||SIISCLIENT1724^WILSON^MATT|||||SIISCLIENT1724|

Notes:

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMTrax Limit
ORC	**1**	RE	**Order Control**	**ID**	**R**	*Not captured*
ORC	2	365412	Placer Order Number	EI	RE	*Not captured*
ORC	**3**	56789	**Filler Order Number**	**EI**	**R**	
ORC	4		Placer Group Number	EI	O	*Not captured*
ORC	5		Order Status	ID	O	*Not captured*
ORC	6		Response Flag	ID	O	*Not captured*
ORC	7		Quantity/Timing	TQ	X	*Not captured*
ORC	8		Parent	EIP	O	*Not captured*
ORC	9		Date/Time of Transaction	TS	O	*Not captured*
ORC	10	SIISCLIENT1724^SMITH^MAGGIE	Entered By	XCN	RE	*Not captured*
ORC	11		Verified By	XCN	O	*Not captured*
ORC	12	SIISCLIENT1724^WILSON^MATT	Ordering Provider	XCN	C(RE/O)	
ORC	13		Enterer's Location	PL	O	*Not captured*
ORC	14		Call Back Phone Number	XTN	O	*Not captured*
ORC	15		Order Effective Date/Time	TS	O	*Not captured*
ORC	16		Order Control Code Reason	CE	O	*Not captured*
ORC	17	SIISCLIENT1724	Entering Organization	CE	RE	
ORC	18		Entering Device	CE	O	*Not captured*
ORC	19		Action By	XCN	O	*Not captured*
ORC	20		Advanced Beneficiary Notice Code	CE	O	*Not captured*
ORC	21		Ordering Facility Name	XON	O	*Not captured*
ORC	22		Ordering Facility Address	XAD	O	*Not captured*
ORC	23		Ordering Facility Phone Number	XTN	O	*Not captured*
ORC	24		Ordering Provider Address	XAD	O	*Not captured*
ORC	25		Order Status Modifier	CWE	O	*Not captured*
ORC	26		Advanced Beneficiary Notice Override Reason	CWE	O	*Not captured*
ORC	27		Filler's Expected Availability Date/Time	TS	O	*Not captured*
ORC	28		Confidentiality Code	CWE	O	*Not captured*
ORC	29		Order Type	CWE	O	*Not captured*
ORC	30		Enterer Authorization Mode	CNE	O	*Not captured*
ORC	31		Parent Universal Service identifier	CWE	O	*Not captured*

RXA Segment

Notes: *RXA-11 identifies the administered at location, therefore; should contain a value for administered immunizations (RXA-9 = 00) only. Historical immunization (RXA-9 = 01-08) should be empty unless original administrative facility is known.

*If RXA-9 indicates an administered vaccine (00), the RXA-11, RXA-15, RXA-16 and RXA-17 are required to be populated.

*RXA-6 is expected to be 999 if one of the following three conditions are met: (1) RXA-20 = RE or (2) RXA-5.3 = 998 or (3) RXA-9 <> 00.

*If RXA-9 indicates a historical vaccine record (01-08), the RXA-11, RXA-15, RXA-16 and RXA-17 fields are expected to be empty.

*Interfaces that enable inventory dose decrementing require the following fields to be populated: RXA-3, RXA-5, RXA-6, RXA-7, RXA-9 (as 00), RXA-11, RXA-15, RXA16, RXA-17. Values not matching existing data in imMTrax will not properly decrement.

*If the RXA-4 is populated, it must equal RXA-3's date.

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMtrax Limit
RXA	**1**	0	**Give Sub-ID Counter**	**NM**	**R**	
RXA	**2**	1	**Administration Sub-ID Counter**	**NM**	**R**	
RXA	**3**	20160908	**Date/Time Start of Administration**	**TS_NZ**	**R**	
RXA	4		Date/Time End of Administration	TS	O	*Not captured*
RXA	**5**	20^DTaP^CVX	**Administered Code**	**CE**	**R**	
RXA	**6**	0.5	**Administered Amount**	**NM**	**R**	
RXA	**7**	mL^milliliters^UCUM	**Administered Units**	**CE**	**C(R/O)**	
RXA	8		Administered Dosage Form	CE	O	*Not captured*
RXA	9	00^New immunization record^NIP001	Administration Notes	varies	C(R/O)	254
RXA	10	SIISCLIENT1724^MAGNOLIA^IRENE^B^^^^^^^^^^^^^^^^^^MD	Administering Provider	XCN	C(RE/O)	
RXA	11	MYSITE^^^SIISCLIENT1724	**Administered- at Location**	LA2	**C(R/X)**	
RXA	12		Administered Per (Time Unit)	ST	O	*Not captured*
RXA	13		Administered Strength	NM	O	*Not captured*
RXA	14		Administered Strength Units	CE	O	*Not captured*
RXA	**15**	3923K	**Substance Lot Number**	**ST**	**C(R/O)**	20
RXA	**16**	20171115	**Substance Expiration Date**	**TS**	**C(RE/O)**	
RXA	**17**	SKB^GlaxoSmithKline^HL70227	**Substance Manufacturer Name**	**CE**	**C(R/O)**	500
RXA	**18**		**Substance/Treatment Refusal Reason**	**CE**	**C(R/X)**	
RXA	19		Indication	CE	O	*Not captured*
RXA	**20**	CP	**Completion Status**	**ID**	**RE**	*Not captured*
RXA	**21**	A	**Action Code - RXA**	**ID**	**C(R/O)**	
RXA	22		System Entry Date/Time	TS	O	*Not captured*
RXA	23		Administered Drug Strength Volume	NM	O	*Not captured*
RXA	24		Administered Drug Strength Volume Units	CWE	O	*Not captured*
RXA	25		Administered Barcode Identifier	CWE	O	*Not captured*
RXA	26		Pharmacy Order Type	ID	O	*Not captured*

RXR Segment

Sample: RXR|C28161^IM^NCIT^Intramuscular^^HL70162|LT^Left Thigh^HL70163|

Notes: *This segment is only used when RXA-9 indicates an administered vaccine (00).

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMTrax Limit
RXR	**1**	**IM^NCIT^Intramuscular^^HL70162**	Route	**CE**	**R**	50
RXR	2	LT^Left Thigh^HL70163	Administration Site	CWE	RE	50
RXR	3		Administration Device	CE	O	*Not captured*
RXR	4		Administration Method	CWE	O	*Not captured*
RXR	5		Routing Instruction	CE	O	*Not captured*
RXR	6		Administration Site Modifier	CWE	O	*Not captured*

OBX Segment

Notes: *The above 5 statements are expected to be submitted with each administered vaccine (RXA-9 = 00). Additional OBX statements may be submitted. Please see the NIP003 and NIP004 tables for more options (found on the "OBX Value Sets" tab).
*Inventory dose decrementing requires the 30963-3 and 64994-7 OBX segments
*The OBX 64994-7 (funding source) values can come from either the NIP008 or the CDCPHINVS table.

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMTrax Limit
OBX	1	1	Set ID – OBX	SI	R	
OBX	2	CE	Value Type	ID	R	
OBX	3	64994-7^FUNDING PGM ELIG^NIP003	Observation Identifier	CE	R	
OBX	4	1	Observation Sub-ID	ST	R	
OBX	5	V02^VFC eligible - Medicaid^HL70064	Observation Value	**varies**	R	
OBX	6		Units	CE	C(R/O)	*Not captured*
OBX	7		References Range	ST	O	*Not captured*
OBX	8		Abnormal Flags	IS	O	*Not captured*
OBX	9		Probability	NM	O	*Not captured*
OBX	10		Nature of Abnormal Test	ID	O	*Not captured*
OBX	11	F	Observation Result Status	ID	R	
OBX	12		Effective Date of Reference Range Values	TS	O	*Not captured*
OBX	13		User Defined Access Checks	ST	O	*Not captured*
OBX	14		Date/Time of the Observation	TS_NZ	O	
OBX	15		Producer's Reference	CE	O	*Not captured*
OBX	16		Responsible Observer	XCN	O	*Not captured*
OBX	17		Observation Method	CE	C(R/O)	*Not captured*
OBX	18		Equipment Instance Identifier	EI	O	*Not captured*
OBX	19		Date/Time of the Analysis	TS	O	*Not captured*
OBX	20		Reserved for harmonization with V2.6		X	*Not captured*
OBX	21		Reserved for harmonization with V2.6		X	*Not captured*
OBX	22		Reserved for harmonizatioin with V2.6		X	*Not captured*
OBX	23		Performing Organization Name	XON	O	*Not captured*
OBX	24		Performing Organization Address	XAD	O	*Not captured*
OBX	25		Performing Organization Medical Director	XCN	O	*Not captured*

OBX 2

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMTrax Limit
OBX	1	2	Set ID – OBX	SI	R	
OBX	2	CE	Value Type	ID	R	
OBX	3	30963-3^VACCINE FUNDING SOURCE^NIP003	Observation Identifier	CE	R	
OBX	4	2	Observation Sub-ID	ST	R	
OBX	5	VXC1^Federal Funds^CDCPHINVS	Observation Value	**varies**	R	
OBX	11	F	Observation Result Status	ID	R	

OBX 3

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMTrax Limit
OBX	1	3	Set ID – OBX	SI	R	
OBX	2	CE	Value Type	ID	R	
OBX	3	30956-7^VACCINE TYPE^NIP003	Observation Identifier	CE	R	
OBX	4	3	Observation Sub-ID	ST	R	
OBX	5	20^DTaP	Observation Value	**varies**	R	
OBX	11	F	Observation Result Status	ID	R	

OBX 4

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMTrax Limit
OBX	1	4	Set ID – OBX	SI	R	
OBX	2	DT	Value Type	ID	R	
OBX	3	29769-7^DATE VIS PRESENTED^NIP003	Observation Identifier	CE	R	
OBX	4	4	Observation Sub-ID	ST	R	
OBX	5	201411211	Observation Value	**varies**	R	
OBX	11	F	Observation Result Status	ID	R	

OBX 5

Segment	SEQ	Example Segment	Element Name	DataType	Usage	imMTrax Limit
OBX	1	5	Set ID – OBX	SI	R	
OBX	2	DT	Value Type	ID	R	
OBX	3	29768-9^DATE VIS PUBLISHED^NIP003	Observation Identifier	CE	R	
OBX	4	5	Observation Sub-ID	ST	R	
OBX	5	20080918	Observation Value	**varies**	R	
OBX	11	F	Observation Result Status	ID	R	

2.5.1 VXU Message

```
MSH|^~\&| HEALTHLAND^2.16.840.1.113883.3.4272.14.1^ISO|MAGNOLIA_PED_
CLINIC|IIS|3724|20160909130000||VXU^V04^VXU_V04|123456|P|2.5.1|||AL|AL|||||Z22^CDCPHINVS|M
AGNOLIA_PED_CLINIC|3724||
PID|1||A69532^^^^MR||SMITH^MICK^D^^^^L|JONES|20140708|M|^MICKY|2106-3^White^HL70005|123
MAIN
STREET^^CHEYENNE^WY^82002^USA^BDL^^56021||^PRN^PH^^^406^5551234~^NET^INTERNET^LSMITH@
GMAIL.COM|^WPN^PH^^^406^6581255| EN^ENGLISH^HL70296|||||||2186-5^not Hispanic or
Latino^HL70189|CHILDRENS HOSPITAL|Y|1||Y||20160912070000|Y|
PD1|||MYSITE^^SIISCLIENT1724|||||||||02^Reminder/Recall - any
method^HL70215|N|20160825|||A|||||
NK1|1|SMITH^WALT|FTH^FATHER^HL70063|123 MAIN
STREET^^CHEYENNE^WY^82002^USA|^PRN^PH^^^307^5551289|^WPN^PH^^^307^5564582
ORC|RE|365412^^^|56789^^^|||||||SIISCLIENT1724^SMITH^MAGGIE||SIISCLIENT1724^WILSON^MATT||
|||3724|
RXA|0|1|201609080000||20^DTaP^CVX|0.5|mL^milliliters^UCUM||00^New immunization
record^NIP001|SIISCLIENT1724^MAGNOLIA^IRENE^B^^^^^^^^^^^^^^MD|MYSITE^^^SIISCLIENT1724|
|||3923K|20171115|SKB^GlaxoSmithKline^HL70227|||CP|A||
RXR|IM^Intramuscular^HL70162|RT^Right Thigh^HL70163
OBX|1|CE|64994-7^Vaccine funding program eligibility category^LN|0|V04^VFC eligible-American
Indian^HL70064|||||||F|||20160406|||VXC40^Eligibility captured at the immunization level^CDCPHINVS
OBX|2|CE|30963-3^Vaccine purchased with^LN||VXC1^Federal funds^||||||F||||
OBX|3|CE|30956-7^vaccine type^LN|1|48^HIB^CVX||||||F
OBX|4|DT|29768-9^Date vaccine information statement published^LN|1|20070515||||||F
OBX|5|DT|29769-7^Date vaccine information statement presented^LN|1|201609068||||||F
RXA|0|1|201407080000||20^DTaP^CVX|999|||01^Historical immunization|^^^3724||||||||||C|A||
```

ACK Message

```
MSH|^~\&|IIS^^|3724^^|HEALTHLAND^2.16.840.1.113883.3.4272.14.1^ISO|MAGNOLIA_PED_
CLINIC^^|20160914052524||ACK^V04^ACK|3974462967.100000008|P|2.5.1|||||||||Z22^CDCPHINVS^^|
MSA|AA|123456|
ERR|||0|I||||Patient A69532 "MICK SMITH" with 2 vaccinations accepted into vaccination staging table|
ERR||OBX^^|999^Application Error^HL70357|W||||vfceligibility and fundingsource are inconsistent|
ERR||OBX^^|999^Application Error^HL70357|W||||vfceligibility and fundingsource are inconsistent|
ERR||RXA^^15|103^Table value not found^HL70357|W||||vaccination lot is unrecognized|
```

VXU Message - With Contraindications

```
MSH|^~\&| HEALTHLAND^2.16.840.1.113883.3.4272.14.1^ISO|MAGNOLIA_PED_
CLINIC|IIS|3724|20160909130000||VXU^V04^VXU_V04|123456|P|2.5.1||||AL|AL|||||Z22^CDCPHINVS|MAGN
OLIA_PED_CLINIC|3724||
PID|1||A69532^^^^MR||SMITH^MICK^D^^^^L|JONES|20140708|M|^MICKY|2106-3^White^HL70005|123
MAIN
STREET^^CHEYENNE^WY^82002^USA^BDL^^56021||^PRN^PH^^^406^5551234~^NET^INTERNET^LSMITH@GMA
IL.COM|^WPN^PH^^^406^6581255| EN^ENGLISH^HL70296||||987654321||||2186-5^not Hispanic or
Latino^HL70189|CHILDRENS HOSPITAL|Y|1||Y||20160912070000|Y|
PD1|||||||||||02^Reminder/Recall - any method^HL70215|Y|20160825|||A|||||
NK1|1|SMITH^WALT|FTH^FATHER^HL70063|123 MAIN
STREET^^CHEYENNE^WY^82002^USA|^PRN^PH^^^307^5551289|^WPN^PH^^^307^5564582
NK1|2|SMITH^MARY|MTH^MOTHER^HL70063|123 MAIN
STREET^^CHEYENNE^WY^82002^USA|^PRN^PH^^^307^5551562|
IN1|1|PL02585|C8909|CIGNA|||||||||5|||||||||||||||20160909130000|
ORC|RE|365412^^^|56789^^^|||||||SIISCLIENT3363^SMITH^MAGGIE||SIISCLIENT3396^WILSON^MATT|||||37
24|
RXA|0|1|201609080000||20^DTaP^CVX|0.5|mL^milliliters^UCUM||00^New immunization
record^NIP001|SIISCLIENT3361^MAGNOLIA^IRENE^B^^^^^^^^^^^^^^^^MD|^^^SIISCLIENT1724||||3923K|20
171115|SKB^G+laxoSmithKline^HL70227|||CP|A||
RXR|IM^Intramuscular^HL70162|RT^Right Thigh^HL70163
OBX|1|CE|64994-7^Vaccine funding program eligibility category^LN|0|V04^VFC eligible-American
Indian^HL70064|||||||F|||20160406|||VXC40^Eligibility captured at the immunization level^CDCPHINVS
OBX|2|CE|30963-3^Vaccine purchased with^LN||VXC1^Federal funds^|||||||F||||
OBX|3|CE|30956-7^vaccine type^LN|1|48^HIB^CVX||||||F
OBX|4|TS|29768-9^Date vaccine information statement published^LN|1|20070515||||||F
OBX|5|TS|29769-7^Date vaccine information statement presented^LN|1|201609068||||||F
NTE|||NTE COMMENT|
RXA|0|1|201407080000||20^DTaP^CVX|999|||01^Historical immunization|^^^3724|||||||||C|A||
ORC|RE|365413^^^|56790^^^|||||||SIISCLIENT3363^SMITH^MAGGIE||SIISCLIENT3396^WILSON^MATT|||||37
24|
RXA|0|1|20140912|20140912|48^HIB PRP-T^CVX|0.5|mL^milliliters^UCUM||00^new immunization
record^NIP001|^Sticker^Nurse|^^^SIISCLIENT1724||||33k2a|20170815|PMC^sanofi^MVX|||CP|A||
RXR|IM^Intramuscular^HL70162|RT^Right Thigh^HL70163
OBX|6|CE|64994-7^Vaccine funding program eligibility category^LN|0|V04^VFC eligible-American
Indian^HL70064|||||||F|||20160406|||VXC40^Eligibility captured at the immunization level^CDCPHINVS
OBX|7|CE|30963-3^Vaccine purchased with^LN||VXC1^Federal funds^|||||||F||||
OBX|8|CE|30956-7^vaccine type^LN|1|48^HIB^CVX||||||F
OBX|9|TS|29768-9^Date vaccine information statement published^LN|1|20070515||||||F
OBX|10|TS|29769-7^Date vaccine information statement presented^LN|1|201609068||||||F
OBX|11|CE|31044-1^Vaccine Reaction^LN|1|17^allergy to 2-
phenoxyethanol^CDCCPHINVS||||||F|||20140913|
RXA|0|1|20160415||998^No vaccine administered^CVX|999||||||||NA|
OBX|12|CE|59784-9^Disease with presumed immunity^LN|38907003^History Varicella^SCT||||||F|||20160415
RXA|0|1|20160722||998^No vaccine administered^CVX|999||||||||NA|
OBX|13|CE|30945-0^Vaccination contraindication^LN|1|91930004^allergy to eggs^SCT||||||F|||20160522
```

Value Sets

Values		User-defined Table 0001 - Sex	
imMTrax	CDC	Description	Definitions
F	F	Female	Person reports that she is female.
M	M	Male	Person reports that he is male.
U	U	Unknown/undifferentiated	No assertion Is made about the gender of the person.
O		Other	

Values		HL7-defined Table 0003 - Event Type	
imMTrax	CDC	Description	Definitions
	>external table>		http://www.cdc.gov/vaccines/programs/iis/technical-guidance/downloads/hl7guide-1-5-2014-11.pdf

Values		User-defined Table 0004 - Patient Class	
imMTrax	CDC	Description	Definitions
	R	Recurring Patient	

Values		User-defined Table 0005 - Race	
imMTrax	CDC	Description	Definitions
1002-5	1002-5	American Indian or Alaska Native	
2028-9	2028-9	Asian	
2076-8	2076-8	Native Hawaiian or Other Pacific Islander	
2054-5	2054-5	Black or African-American	
2106-3	2106-3	White	
2131-1	2131-1	Other Race	
	<empty field>	Unknown/undetermined	

Values		HL7-defined Table 0008 - Acknowledgement Code	
imMTrax	CDC	Description	Definitions
AA	AA	Original mode: Application Accept Enhanced mode: Application acknowledgment: Accept	Message was accepted without error.
AE	AE	Original mode: Application Error Enhanced mode: Application acknowledgment: Error	Message was processed and errors are being imported.
AR	AR	Original mode: Application Reject Enhanced mode: Application acknowledgment: Reject	Message was rejected because one of the following occurred: Unsupported message type, Unsupported event code, Unsupported processing ID, Unable to process for reasons unrelated for format or content
Not supported	CA	Enhanced mode: Accept acknowledgment: Commit Accept	
Not supported	CE	Enhanced mode: Accept acknowledgment: Commit Error	
Not supported	CR	Enhanced mode: Accept acknowledgment: Commit Reject	

Values		User-defined Table 0010 - Physician ID	
imMTrax	CDC	Description	Definitions
NIP*	NIP*	*See National Provider Identifier Recommended	
imMTrax ID		ID assigned to physician or vaccinator	

Values		HL7-defined Table 0061 - Check digit scheme	
imMTrax	CDC	Description	Definitions
Not supported	M10	Mod 10 algorithm	
Not supported	M11	Mod 11 algorithm	
Not supported	ISO	ISO 7064: 1983	
Not supported	NPI	Check digit algorithm in the US National Provider Identifier	

Values		User-defined Table 0063 - Relationship	
imMTrax	CDC	Description	Definitions
FTH	FTH	Father	**NOTE: Only FTH, GRD, MTH, or PAR will insert information into the IIS.
GRD	GRD	Guardian	Relationship codes of BRO, CGV, CHD, FCH, GRP, OTH, SCH, SEL, SIB, SIS, or SPO are valid codes but will not transfer
MTH	MTH	Mother	data into the IIS.
PAR	PAR	Parent	

Values		User-defined Table 0064 - Financial Class	
imMTrax	CDC	Description	Definitions
V01	V01	Not VFC eligible	Client does not qualify for VFC because they do not have one of the statuses below. (V02-V05)
V02	V02	VFC eligible-Medicaid/Medicaid Managed Care	Client is currently on Medicaid and < 19 years old and the vaccine administered is eligible for VFC funding
V03	V03	VFC eligible- Uninsured	Client does not have private insurance coverage and < 19 years old and the vaccine administered is eligible for VFC funding
V04	V04	VFC eligible- American Indian/Alaskan Native	Client is a member of a federally recognized tribe and < 19 years old and the vaccine administered is eligible for VFC funding
V05	V05	VFC eligible-Federally Qualified Health Center Patient (under-insured)	Client has insurance, but insurance does not cover vaccines, limits the vaccines covered, or caps vaccine coverage at a certain amount and so client is eligible for VFC coverage at a Federally Qualified Health Center. The client must be receiving the immunizations at the FQHC or a FQHC designated clinic and < 19 years old and the vaccine administered is eligible for VFC funding.
V23	V23	317 Funding	Client is eligible for vaccines under the state/program immunization policy and the vaccine administered is eligble for 317 funding.

Values		HL7-defined Table 0076 - Message Type	
imMTrax	CDC	Description	Definitions
ACK	ACK	General acknowledgment	
Not supported	ADT	ADT message	
QBP	QBP	Query by Parameter	
RSP	RSP	Response to Query by parameter	
VXU	VXU	Unsolicited vaccination record update	

Values		HL7-defined Table 0078 - Abnormal Flags	
imMTrax	CDC	Description	Definitions
<empty>	<empty>	Expected to be empty	

Values		HL7-definedTable 0085 - Observation result status codes interpretation	
imMTrax	CDC	Description	Definitions
F	F	Final	

Values		User-defined Table 0086 - Plan Type ID	
imMTrax	CDC	Description	Definitions
5	5	Private Insurance	
2	2	Medicaid	
1	1	Medicare	
81	81	Self pay	

Values		HL7-defined Table 0091 - Query Priority	
imMTrax	CDC	Description	Definitions
I	I	Immediate Processing	

Values		HL7-defined Table 0102 - Delayed Acknowledgement Type	
imMTrax	CDC	Description	Definitions
	<empty>	Expected to be empty	

Values		HL7-defined Table 0103 - Processing ID	
imMTrax	CDC	Description	Definitions
Not supported	D	Debugging	Only "P" for Production is valid for imMTrax including while testing.
P	P	Production	
Not supported	T	Training	

Values		HL7-defined Table 0104 - Version ID	
imMTrax	CDC	Description	Definitions
2.5.1	2.5.1	Release 2.5.1 April 2007	

Values		HL7-defined Table 0119 - Order Control Codes	
imMTrax	CDC	Description	Definitions
Not supported	OK	Order accepted & OK	
RE	RE	Observations to follow	

Values		HL7-defined Table 0126 - Quantity Limited Request	
imMTrax	CDC	Description	Definitions
RD	RD	Records	

Values		HL7-defined Table 0136 - Yes/No Indicator	
imMTrax	CDC	Description	Definitions
Y	Y	Yes	
N	N	No	
|""|	|""|	Nullify the value	Nullify the value recorded in the receiving system data base.
||	||	Means do nothing to existing values	Make no changes to the record in the receiving data base. The sending system has no information on this field
<empty>	<empty>	Means do nothing to existing values	Make no changes to the record in the receiving data base. The sending system has no information on this field

Values		HL7-defined Table 0155 - Accept/Application Acknowledgement Conditions	
imMTrax	CDC	Description	Definitions
AL	AL	Always	imMTrax recommendation
NE	NE	Never	
ER	ER	Error/Reject conditions only	
SU	SU	Successful completion only	

Values		NCIT/HL7-defined Table 0162 - Route of Administration	
imMTrax	CDC	Description	Definitions
C38238 or ID	C38238 or ID	Intradermal	within or introduced between the layers of the skin
C28161 or IM	C28161 or IM	Intramuscular	within or into the substance of a muscle
C38284 or NS	C38284 or NS	Nasal	Given by nose
C38276 or IV	C38276 or IV	Intravenous	administered into a vein
C38288 or PO	C38288 or PO	Oral	administered by mouth
OTH	OTH	Other/Miscellaneous	
C38676	C38676	Percutaneous	made, done, or effectged through the skin
C38299 or SC	C38299 or SC	Subcutaneous	Under the skin or between skin and muscles.
C38305 or TD	C38305 or TD	Transdermal	describes something, especially a drug, that is introduced into the body through the skir

Values		HL7-defined Table 0163 - Administrative Site	
imMTrax	CDC	Description	Definitions
LT	LT	Left Thigh	
LA	LA	Left Arm	
LD	LD	Left Deltoid	
LG	LG	Left Gluteous Medius	
LVL	LVL	Left Vastus Lateralis	
LLFA	LLFA	Left Lower Forearm	
RA	RA	Right Arm	
RT	RT	Right Thigh	
RVL	RVL	Right Vastus Lateralis	
RG	RG	Right Gluteous Medius	
RD	RD	Right Deltoid	
RLFA	RLFA	Right Lower Forearm	

Values		CDCREC Value Set (Replaced Table 0189 - Ethnic Group)	
imMTrax	CDC	Description	Definitions
2135-2	2135-2	Hispanic or Latino	
2186-5	2186-5	not Hispanic or Latino	
	<empty>	Unknown	

Values		HL7-defined Table 0190 - Address Type	
imMTrax	CDC	Description	Definitions
C	C	Current or Temporary	
P	P	Permanent	
M	M	Mailing	
B	B	Firm/Business	
O	O	Office	
H	H	Home	
N	N	Birth (nee)	
F	F	Country of Origin	
L	L	Legal Address	
BDL	BDL	Birth Delivery Locaton [use for birth country and state]	
BR	BR	Residence at Birth [use for residence at birth]	
RH	RH	Registry Home	
BA	BA	Bad Address	

Values		HL7-defined Table 0200 - Name Type	
imMTrax	CDC	Description	Definitions
A	A	Alias name	
L	L	Legal name	
D	D	Display name	
M	M	Maiden name	
C	C	Adopted name	
B	B	Name at birth	
P	P	Name of partner/spouse	
U	U	Unspecified	
T		Tribal/Community Name	

Values		HL7-defined Table 0201 - Telecommunication use code	
imMTrax	CDC	Description	Definitions
PRN	PRN	Primary residence number	
ORN	ORN	Other residence number	
WPN	WPN	Work number	
VHN	VHN	Vacation home number	
ASN	ASN	Answering service number	
EMR	EMR	Emergency number	
NET	NET	Network (email) address	
BPN	BPN	Beeper number	

Values		HL7-defined Table 0202 - Telecommunication equipment type	
imMTrax	CDC	Description	Definitions
PH	PH	Telephone	
FX	FX	Fax	
MD	MD	Modem	

CP	CP	Cellular Phone	
BP	BP	Beeper	
Internet	Internet	Internet address: Use only if telecommunication use code is NET	
X.400	X.400	X.400 email address: Use only if telecommunication use code is NET	
TDD	TDD	Telecommunications Device for the Deaf	
TTY	TTY	Teletypewriter	

Values		HL7-defined Table 0203 - Identifier Type	
imMTrax	CDC	Description	Definitions
AN	AN	Account number	An identifier that is unique to an account.
Not supported	ANON	Anonymous identifier	An identifier for a living subject whose real identity is protected or suppressed Justification: For public health reporting purposes, anonymous identifiers are occasionally used for protecting patient identity in reporting certain results. For instance, a state health department may choose to use a scheme for generating an anonymous identifier for reporting a patient that has had a positive human immunodeficiency virus antibody test. Anonymous identifiers can be used in PID 3 by replacing the medical record number or other non-anonymous identifier. The assigning authority for an anonymous identifier would be the state/local health department.
Not supported	ANC	Account number Creditor	Class: Financial A more precise definition of an account number: sometimes two distinct account numbers must be transmitted in the same message, one as the creditor, the other as the debtor.
Not supported	AND	Account number debitor	Class: Financial A more precise definition of an account number: sometimes two distinct account numbers must be transmitted in the same message, one as the creditor, the other as the debtor.
Not supported	ANT	Temporary Account Number	Class: Financial Temporary version of an Account Number. Use Case: An ancillary system that does not normally assign account numbers is the first time to register a patient. This ancillary system will generate a temporary account number that will only be used until an official account number is assigned.
Not supported	APRN	Advanced Practice Registered Nurse number	An identifier that is unique to an advanced practice registered nurse within the jurisdiction of a certifying board
Not supported	BA	Bank Account Number	Class: Financial
Not supported	BC	Bank Card Number	Class: Financial An identifier that is unique to a person's bank card. Replaces AM, DI, DS, MS, and VS beginning in v 2.5.
BR	BR	Birth registry number	
Not supported	CC	Cost Center number	Class: Financial Use Case: needed especially for transmitting information about invoices.
Not supported	CY	County number	
Not supported	DDS	Dentist license number	An identifier that is unique to a dentist within the jurisdiction of the licensing board
Not supported	DEA	Drug Enforcement Administration registration number	An identifier for an individual or organization relative to controlled substance regulation and transactions. Use case: This is a registration number that identifies an individual or organization relative to controlled substance regulation and transactions. A DEA number has a very precise and widely accepted meaning within the United States. Surprisingly, the US Drug Enforcement Administration does not solely assign DEA numbers in the United States. Hospitals have the authority to issue DEA numbers to their medical residents. These DEA numbers are based upon the hospital's DEA number, but the authority rests with the hospital on the assignment to the residents. Thus, DEA as an Identifier Type is necessary in addition to DEA as an Assigning Authority.
Not supported	DFN	Drug Furnishing or prescriptive authority Number	An identifier issued to a health care provider authorizing the person to write drug orders Use Case: A nurse practitioner has authorization to furnish or prescribe pharmaceutical substances; this identifier is in component 1.
DL	DL	Driver's license number	
DN	DN	Doctor number	
Not supported	DPM	Podiatrist license number	An identifier that is unique to a podiatrist within the jurisdiction of the licensing board.
Not supported	DO	Osteopathic License number	An identifier that is unique to an osteopath within the jurisdiction of a licensing board.
Not supported	DR	Donor Registration Number	
EI	EI	Employee number	A number that uniquely identifies an employee to an employer.
EN	EN	Employer number	
FI	FI	Facility ID	
GI	GI	Guarantor internal identifier	Class: Financial
	GL	General ledger number	Class: Financial
GN	GN	Guarantor external identifier	Class: Financial
Not supported	HC	Health Card Number	
Not supported	JHN	Jurisdictional health number (Canada)	Class: Insurance 2 uses: a) UK jurisdictional CHI number; b) Canadian provincial health card number:
Not supported	IND	Indigenous/Aboriginal	A number assigned to a member of an indigenous or aboriginal group outside of Canada.
Not supported	LI	Labor and industries number	
LN	LN	License number	
LR	LR	Local Registry ID	
MA	MA	Patient Medicaid number	Class: Insurance
Not supported	MB	Member Number	An identifier for the insured of an insurance policy (this insured always has a subscriber), usually assigned by the insurance carrier. Use Case: Person is covered by an insurance policy. This person may or may not be the subscriber of the policy.
MC	MC	Patient's Medicare number	Class: Insurance
Not supported	MCD	Practitioner Medicaid number	Class: Insurance
Not supported	MCN	Microchip Number	
Not supported	MCR	Practitioner Medicare number	Class: Insurance
Not supported	MD	Medical License number	An identifier that is unique to a medical doctor within the jurisdicction of a licensing board. Use Case: These license numbers are sometimes used as identifiers. In some states, the same authority issues all three identifiers, e.g., medical, osteopathic, and physician assistant licenses all issued by one state medical board. For this case, the CX data type requires distinct identifier types to accurately interpret component 1. Additionally, the distinction among these license types is critical in most health care settings (this is not to convey full licensing information, which requires a segment to support all related attributes).
Not supported	MI	Military ID number	A number assigned to an individual who has had military duty, but is not currently on active duty. The number is assigned by the DOD or Veterans' Affairs (VA).
MR	MR	Medical record number	An identifier that is unique to a patient within a set of medical records, not necessarily unique within an application. Preferred identifier to be sent.
Not supported	MRT	Temporary Medical Record Number	Temporary version of a Medical Record Number Use Case: An ancillary system that does not normally assign medical record numbers is the first time to register a patient. This ancillary system will generate a temporary medical record number that will only be used until an official medical record number is assigned.
NE	NE	National employer identifier	In the US, the Assigning Authority for this value is typically CMS, but it may be used by all providers and insurance companies in HIPAA related transactions.
NH	NH	National Health Plan Identifier	Class: Insurance Used for the UK NHS national identifier. In the US, the Assigning Authority for this value is typically CMS, but it may be used by all providers and insurance companies in HIPAA related transactions.
NI	NI	National unique individual identifier	Class: Insurance In the US, the Assigning Authority for this value is typically CMS, but it may be used by all providers and insurance companies in HIPAA related transactions.
Not supported	NII	National Insurance Organization Identifier	Class: Insurance In Germany a national identifier for an insurance company. It is printed on the insurance card (health card). It is not to be confused with the health card number itself.
Not supported	NIIP	National Insurance Payor Identifier (Payor)	Class: Insurance Use case: a subdivision issues the card with their identifier, but the main division is going to pay the invoices.
Not supported	NNxxx	National Person Identifier where the xxx is the ISO table 3166 3-character (alphabetic) country code	
Not supported	NP	Nurse practitioner number	An identifier that is unique to a nurse practitioner within the jurisdiction of a certifying board.
NPI	NPI	National provider identifier	Class: Insurance In the US, the Assigning Authority for this value is typically CMS, but it may be used by all providers and insurance companies in HIPAA related transactions.
Not supported	OD	Optometrist license number	A number that is unique to an individual optometrist within the jurisdiction of the licensing board.
Not supported	PA	Physician Assistant number	An identifier that is unique to a physician assistant within the jurisdiction of a licensing board
Not supported	PCN	Penitentiary/correctional institution Number	A number assigned to individual who is incarcerated.
Not supported	PE	Living Subject Enterprise Number	An identifier that is unique to a living subject within an enterprise (as identified by the Assigning Authority).
Not supported	PEN	Pension Number	
PI	PI	Patient internal identifier	A number that is unique to a patient within an Assigning Authority.
PN	PN	Person number	A number that is unique to a living subject within an Assigning Authority.
Not supported	PNT	Temporary Living Subject Number	Temporary version of a Lining Subject Number.

Values		HL7-defined Table 0203 - Identifier Type	
imMTrax	CDC		
Not supported	PPN	Passport number	A unique number assigned to the document affirming that a person is a citizen of the country. In the US this number is issued only by the State Department.
Not supported	PRC	Permanent Resident Card Number	
PRN	PRN	Provider number	A number that is unique to an individual provider, a provider group or an organization within an Assigning Authority. Use case: This allows PRN to represent either an individual (a nurse) or a group/organization (orthopedic surgery team).
PT	PT	Patient external identifier	
Not supported	QA	QA number	
Not supported	RI	Resource identifier	A generalized resource identifier. Use Case: An identifier type is needed to accommodate what are commonly known as resources. The resources can include human (e.g. a respiratory therapist), non-human (e.g., a companion animal), inanimate object (e.g., an exam room), organization (e.g., diabetic education class) or any other physical or logical entity.
Not supported	RPH	Pharmacist license number	An identifier that is unique to a pharmacist within the jurisdiction of the licensing board
Not supported	RN	Registered Nurse Number	An identifier that is unique to a registered nurse within the jurisdiction of the licensing board
RR	RR	Railroad Retirement number	
RRI	RRI	Regional registry ID	
Not supported	SL	State license	
Not supported	SN	Subscriber Number	Class: Insurance An identifier for a subscriber of an insurance policy which is unique for, and usually assigned by, the insurance carrier. Use Case: A person is the subscriber of an insurance policy. The person's family may be plan members, but are not the subscriber.
SR	SR	State registry ID	
SS	SS	Social Security number	
Not supported	TAX	Tax ID number	
U	U	Unspecified identifier	
UPIN	UPIN	Medicare/CMS (formerly HCFA)'s Universal Physician Identification numbers	Class: Insurance
VN	VN	Visit number	
WC	WC	WIC identifier	
Not supported	WCN	Workers' Comp Number	
XX	XX	Organization identifier	

imMTrax	CDC	Description	Definitions
L	L	Legal name	
D	D	Display name	
A	A	Alias name	

Values		HL7-defined Table 0207 - Processing mode	
	<empty>	Expected to be empty	

Values		User-defined Table 0208 - Query Response Status	
imMTrax	CDC	Description	Definitions
OK	OK	Data found, no errors (this is the default)	Simmilar to AA in table HL70008
NF	NF	No data found, no errors	
AE	AE	Application error	Query had an error in content of format.
AR	AR	Application reject	Message was rejected because of one of the following occurred: Unsupported message type, Unsupported event code, Unsupported Processing ID, Unable to process for reasons unrelated for format or content.
TM	TM	Too many candidates found	

Values		User-defined Table 0215 - Publicity Code	
imMTrax	CDC	Description	Definitions
01	01	No reminder/recall	
02	02	Reminder/recall - any method	
03	03	Reminder/recall - no calls	
04	04	Reminder only - any method	
05	05	Reminder only - no calls	
06	06	Recall only - any method	
07	07	Recall only - no calls	
08	08	Reminder/recall - to provider	
09	09	Reminder to provider	
10	10	Only reminder to provider, no recall	
11	11	Recall to provider	
12	12	Only recall to provider, no reminder	

Values		User-defined Table 0220 - Living Arrangement	
imMTrax	CDC	Description	Definitions
	<empty>	Expected to be empty	

Values		HL7-defined Table 0227 - Manufacturers of Vaccines (code=MVX)	
imMTrax	CDC	Description	Definitions
	<external table>		http://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=mvx

Values		User-defined Table 0288 - Census Tract	
imMTrax	CDC	Description	Definitions
	<empty>	Expected to be empty	

Values		User-defined Table 0289 - County/Parish	
imMTrax	CDC	Description	Definitions
	<external table>	Expected to be empty - County Code sent in PID-11.9	

Values		HL7-defined Table 0292 - Codes for Vaccines administered (code=CVX)	
imMTrax	CDC	Description	Definitions
	<external table>		http://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=cvx

Values		User-defined Table 0296 - Language	
imMTrax	CDC	Description	Definitions
	<external table>		http://phinvads.cdc.gov/vads/ViewValueSet.action?id=43D34BBC-617F-DD11-B38D-00188B398520

Values		HL7-definedTable 0301 - Universal ID Type	
imMTrax	CDC	Description	Definitions
OID	OID		

Values		HL7-defined Table 0322 - Completion Status	
imMTrax	CDC	Description	Definitions
CP	CP	Complete	
RE	RE	Refused	
NA	NA	Not Administered	
PA	PA	Partially Administered	

Values		HL7-defined Table 0323 - Action Code	
imMTrax	CDC	Description	Definitions
A	A	Add	

Values		HL7-defined Table 0323 - Action Code	Definitions
D	D	Delete	
U	U	Update	

Values		HL7-definedTable 0354 - Message Structure	
imMTrax	CDC	Description	Definitions
ACK	ACK	ACK	
QBP_Q11	QBP_Q11	QBP	
RSP_K11	RSP_K11	RSP	
VXU_V04	VXU_V04	VXU	

Values		HL7-defined Table 0356 - Alternate character Ste Handling Scheme	
imMTrax	CDC	Description	Definitions
	<empty>	Expected to be empty	

Values		HL7-defined Table 0357 - Message Error Status Codes	
imMTrax	CDC	Description	Definitions
0	0	Message accepted	Success. Optional, as the AA conveys this. Used for systems that must always return a status code.
		Error status codes	
100	100	Segment sequence error	The message segments were not in the proper order or required segments are missing
101	101	Required field missing	A required field is missing from the segment.
102	102	Data type error	The field contained data of the wrong data type, e.g., an NM field contained letters of the alphabet.
103	103	Table value not found	A field of data type ID or IS was compared against the corresponding table, and no match was found.
		Rejection status codes	
200	200	Unsupported message type	The Message type is not supported.
201	201	Unsupported event code	The Event Code is not supported.
202	202	Unsupported processing ID	The Processing ID is not supported.
203	203	Unsupported version ID	The Version ID is not supported.
204	204	Unknown key identifier	The ID of the patient, order, etc. was not found. Used for transactions other than additions, e.g., transfer of a non-existent patient.
205	205	Duplicate key identifier	The ID of the patient, order, etc. already exists. Used in response to addition transactions (Admit, New Order, etc.).
206	206	Application record locked	The transaction could not be performed at the application storage level, e.g., database locked.
207	207	Application internal error	A catchall for internal errors not explicitly covered by other codes.

Values		User-defined Table 0360 - Degree	
imMTrax	CDC	Description	Definitions
PN	PN	Advanced Practice Nurse	
AA	AA	Associate of Arts	
AS	AS	Associate of Science	
BA	BA	Bachelor of Arts	
BN	BN	Bachelor of Nursing	
BS	BS	Bachelor of Science	
BSN	BSN	Bachelor of Science in Nursing	
CER	CER	Certificate	
CANP	CANP	Certified Adult Nurse Practitioner	
CMA	CMA	Certified Medical Assistant	
CNP	CNP	Certified Nurse Practitioner	
CNM	CNM	Certified Nurse Midwife	
CNA	CNA	Certified Nurse's Assistant	
CRN	CRN	Certified Registered Nurse	
CNS	CNS	Certified Nurse Specialist	
CPNP	CPNP	Certified Pediatric Nurse Practitioner	
DIP	DIP	Diploma	
PHD	PHD	Doctor of Philosophy	
MD	MD	Doctor of Medicine	
DO	DO	Doctor of Osteopathy	
EMT	EMT	Emergency Medical Technician	
EMT-P	EMT-P	Emergency Medical Technician – Paramedic	
FPNP	FPNP	Family Practice Nurse Practitioner	
HS	HS	High School Graduate	
JD	JD	Juris Doctor	
LPN	LPN	Licensed Practical Nurse	
MA	MA	Master of Arts	
MBA	MBA	Master of Business Administration	
MPH	MPH	Master of Public Health	
MS	MS	Master of Science	
MSN	MSN	Master of Science – Nursing	
MDA	MDA	Medical Assistant	
MT	MT	Medical Technician	
NG	NG	Non-Graduate	
NP	NP	Nurse Practitioner	
PharmD	PharmD	Doctor of Pharmacy	
PA	PA	Physician Assistant	
PHN	PHN	Public Health Nurse	
RMA	RMA	Registered Medical Assistant	
RN	RN	Registered Nurse	
RPH	RPH	Registered Pharmacist	
SEC	SEC	Secretarial Certificate	
TS	TS	Trade School Graduate	

Values		User-defined Table 0361 - Application	
imMTrax	CDC	Description	Definitions
imMTrax	<locally determinted>	Name assigned to the local IIS	

Values		User-defined Table 0362 - Facility	
imMTrax	CDC	Description	Definitions
>locally determined>	>locally determined>	Facility ID assigned by the IIS	Example: SIISCLIENT9900

Values		User-defined Table 0363 - Assigning Authority	
imMTrax	CDC	Description	Definitions
AK	AKA	ALASKA	
AL	ALA	ALABAMA	
AS	ASA	AMERICAN SAMOA	
AZ	AZA	ARIZONA	
AR	ARA	ARKANSAS	
Not supported	BAA	NEW YORK CITY	
CA	CAA	CALIFORNIA	
Not supported	CHA	CHICAGO	
CO	COA	COLORADO	
CT	CTA	CONNECTICUT	
DE	DEA	DELAWARE	
DC	DCA	DISTRICT OF COLUMBIA	
FL	FLA	FLORIDA	
FM	FMA	FED STATES MICRO	
GA	GAA	GEORGIA	
GU	GUA	GUAM	
HI	HIA	HAWAII	
ID	IDA	IDAHO	
IL	ILA	ILLINOIS	
IN	INA	INDIANA	
IA	IAA	IOWA	
KS	KSA	KANSAS	
KY	KYA	KENTUCKY	
LA	LAA	LOUISIANA	
ME	MEA	MAINE	

MH	MHA	REP MARS ISLANDS	
MD	MDA	MARYLAND	
MA	MAA	MASSACHUSETTS	
MI	MIA	MICHIGAN	
MN	MNA	MINNESOTA	
MS	MSA	MISSISSIPPI	
MO	MOA	MISSOURI	
MP	MPA	NO. MARIANA ISLAND	
MT	MTA	MONTANA	
NE	NEA	NEBRASKA	
NV	NVA	NEVADA	
NH	NHA	NEW HAMPSHIRE	
NJ	NJA	NEW JERSEY	
NM	NMA	NEW MEXICO	
NY	NYA	NEW YORK STATE	
NC	NCA	NORTH CAROLINA	
ND	NDA	NORTH DAKOTA	
OH	OHA	OHIO	
OK	OKA	OKLAHOMA	
OR	ORA	OREGON	
PW	RPA	REPUBLIC PALAU	
PA	PAA	PENNSYLVANIA	
Not supported	PHA	PHILADELPHIA	
PR	PRA	PUERTO RICO	
RI	RIA	RHODE ISLAND	
SC	SCA	SOUTH CAROLINA	
SD	SDA	SOUTH DAKOTA	
Not supported	TBA	SAN ANTONIO	
Not supported	THA	HOUSTON	
TN	TNA	TENNESSEE	
TX	TXA	TEXAS	
UT	UTA	UTAH	
VT	VTA	VERMONT	
VA	VAA	VIRGINIA	
VI	VIA	VIRGIN ISLANDS	
WA	WAA	WASHINGTON	
WV	WVA	WEST VIRGINIA	
WI	WIA	WISCONSIN	
WY	WYA	WYOMING	

Values		User-defined Table 0396 - Coding System	
imMTrax	CDC	Description	Definitions
Not supported	99zzz or L	Local general code (where z is an alphanumeric character)	
Not supported	ART	WHO Adverse Reaction Terms	
Not supported	C4	CPT-4	
Not supported	C5	CPT-5	
Not supported	CDCA	CDC Analyte Codes	
Not supported	CDCM	CDC Methods/Instruments Codes	
CDCPHINVS	CDCPHINVS	PHIN VS (CDC Local Coding System)	
Not supported	CDS	CDC Surveillance	
Not supported	CPTM	CPT Modifier Code	
Not supported	CST	COSTART	
CVX	CVX	CDC Vaccine Codes	
Not supported	E	EUCLIDES	
Not supported	E5	Euclides quantity codes	
Not supported	E6	Euclides Lab method codes	
Not supported	E7	Euclides Lab equipment codes	
Not supported	ENZC	Enzyme Codes	
Not supported	HB	HIBCC	
Not supported	HCPCS	HCFA Common Procedure Coding System	
Not supported	HHC	Home Health Care	
Not supported	HL7nnnn	HL7 Defined Codes where nnnn is the HL7 table number	
Not supported	HPC	HCFA Procedure Codes (HCPCS)	
Not supported	I10	ICD-10	
Not supported	I10P	ICD-10 Procedure Codes	
Not supported	I9	ICD9	
Not supported	I9C	ICD-9CM	
Not supported	ISOnnnn	ISO Defined Codes where nnnn is the ISO table number	
Not supported	LB	Local billing code	
Not supported	LN	Logical Observation Identifier Names and Codes (LOINC®)	
Not supported	MCD	Medicaid	
Not supported	MCR	Medicare	
Not supported	MEDR	Medical Dictionary for Drug Regulatory Affairs (MEDDRA)	
MVX	MVX	CDC Vaccine Manufacturer Codes	
Not supported	NDC	National drug codes	
Not supported	NCIT	NCI Thesaurus	
NPI	NPI	National Provider Identifier	
Not supported	SNM	Systemized Nomenclature of Medicine (SNOMED®)	
Not supported	SCT	SNOMED Clinical Terminology	
Not supported	SCT2	SNOMED Clinical Terms alphanumeric codes	
Not supported	SNM3	SNOMED International	
Not supported	SNT	SNOMED topology codes (anatomic sites)	
Not supported	UML	Unified Medical Language	
Not supported	UPC	Universal Product Code	
Not supported	UPIN	UPIN	
Not supported	W1	WHO record # drug codes (6 digit)	
Not supported	W2	WHO record # drug codes (8 digit)	
Not supported	W4	WHO record # code with ASTM extension	
Not supported	WC	WHO ATC	

Values		User-defined Table 0441 - Immunization Registry Status	
imMTrax	CDC	Description	Definitions
A	A	Active	
I	I	Inactive--Unspecified	
L	L	Inactive-Lost to follow-up (cannot contact)	
M	M	Inactive-Moved or gone elsewhere (transferred)	
P	P	Inactive-Permanently inactive (do not re-activate or add new entries to this record)	
U	U	Unknown	
O		Other	

Values		User-defined Table 0471 - Query Name	
imMTrax	CDC	Description	Definitions
Z33	Z34	Request Immunization History	
Z43	Z44	Request Evaluated History and Forecast	

Values		HL7-defined Table 0516 - Error Severity (use in ERR-4)	
imMTrax	CDC	Description	Definitions
I	I	Information	Transaction successful, but includes returned information.
W	W	Warning	Transaction successful, but there may be issues. These may include non-fatal errors with potential for loss of data.
E	E	Error	Transaction was not successful. The application rejected data that is views as important. This could include required fields or the entire message. The sender should be alerted to review and correcr the message

Values		User-defined Table 0533 - Application Error Code	
imMTrax	CDC	Description	Definitions
1	1	Illogical Date error	Date conflicts with another date in the message.
2	2	Invalid Date	Date is not valid or lacks required precision.
3	3	Illogical Value error	The value conflicts with other data in the message.
4	4	Invalid value	The value is not valid. This applies for fields that are not associated with a table of values.
5	5	Table value not found	The value is not found in the associated table.
6	6	Required observation missing	A required observation, such as VFC eligibility status, is missing.

Values		CDC-defined Table NIP001 - Immunization Information Source	
imMTrax	CDC	Description	Definitions
00	00	New immunization record	The record of a newly administered dose of vaccine. The dose was administered by the organization that is reporting this dose.
01	01	Historical information - source unspecified	The record of a vaccine dose from a reliable historical source, such as an immunization card.
02	02	Historical information - from other provider	The record of a vaccine dose from another health care provider's historical records.
03	03	Historical information - from parent's written record	The record of a vaccine dose from parentally maintained written records.
04	04	Historical information - from parent's recall	The record of a vaccine dose from a parents recall. The reliability of this record is considered low.
05	05	Historical information - from other registry	The record of a vaccine dose from another Immunization Information System (IIS).
06	06	Historical information - from birth certificate	The record of a vaccine dose from a birth record.
07	07	Historical information - from school record	The record of a vaccine dose from a written school record.
08	08	Historical information - from public agency	The record of a vaccine dose from a written public health agency record.

Values		CDC-defined Table NIP002 - Substance Refusal Reason	
imMTrax	CDC	Description	Definitions
Not supported	00	Parental decision	
Not supported	01	Religious exemption	
Not supported	02	Other (must add text component of the CE field with description)	
Not supported	03	Patient decision	

Values		MT County Codes	
	imMTrax	Description	https://phinvads.cdc.gov/vads/ViewValueSet.action?id=20D34BBC-617F-DD11-B38D-00188B398520
	UNKWN	Unknown	
	NONMT	Non-MT resident	
	30001	BEAVERHEAD	
	30003	BIG HORN	
	30005	BLAINE	
	30007	BROADWATER	
	30009	CARBON	
	30011	CARTER	
	30013	CASCADE	
	30015	CHOTEAU	
	30017	CUSTER	
	30019	DANIELS	
	30021	DAWSON	
	30023	DEER LODGE	
	30025	FALLON	
	30027	FERGUS	
	30029	FLATHEAD	
	30031	GALLATIN	
	30033	GARFIELD	
	30035	GLACIER	
	30037	GOLDEN VALLEY	
	30039	GRANITE	
	30041	HILL	
	30043	JEFFERSON	
	30045	JUDITH BASIN	
	30047	LAKE	
	30049	LEWIS AND CLARK	
	30051	LIBERTY	
	30053	LINCOLN	
	30055	MADISON	
	30057	MCCONE	
	30059	MEAGHER	
	30061	MINERAL	
	30063	MISSOULA	
	30065	MUSSELSHELL	
	30067	PARK	
	30069	PETROLEUM	
	30071	PHILLIPS	
	30073	PONDERA	
	30075	POWDER RIVER	
	30077	POWELL	
	30079	PRAIRIE	
	30081	RAVALLI	
	30083	RICHLAND	
	30085	ROOSEVELT	
	30087	ROSEBUD	
	30089	SANDERS	
	30091	SHERIDAN	
	30093	SILVER BOW	
	30095	STILLWATER	
	30097	SWEET GRASS	
	30099	TETON	
	30101	TOOLE	
	30103	TREASURE	
	30105	VALLEY	
	30107	WHEATLAND	
	30109	WIBAUX	
	30111	YELLOWSTONE	

Tables available from the:

CDC Implementation Guide for Immunization Messaging

HL7 2.5.1

CDC-defined NIP003 - Observation identifiers (Use in OBX-3)			
LOINC® Code	**Description**	**Corresponding data type (indicate in OBX-2)**	**Corresponding observation value EXAMPLE OR code table to use (value in OBX-5)**
Vaccine Funding Program Eligibility Category - Use in OBX-3 to indicate that OBX-5 will contain the funding program eligibility category for a given immunization.			
64994-7	Vaccine funding program eligibility category	(CE)	HL70064
Vaccine Funding Source – Use in OBX-3 to indicate that OBX-5 will contain the funding source for a given immunization.			
30963-3	Vaccine funding source	(CE)	Value Set OID - 2.16.840.1.114222.4.11.3287 Value Set Code:: PHVS_ImmunizationFundingSource_IIS
Vaccine Type Identifier			
30956-7	Vaccine Type (Vaccine group or family)	(CE)	HL70292 (CVX codes - use the codes described as "unspecified formulation" as needed.)
38890-0	Component Vaccine Type	(CE)	HL70292 (CVX codes - use the codes described as "unspecified formulation" as needed.)
Contraindications, Precautions, Indications and Immunities			
30946-8	Vaccination contraindication/precaution effective date	(DT)	19970522
30944-3	Vaccination temporary contraindication/precaution expiration date	(DT)	19990523
30945-0	Vaccination contraindication/precaution	(CE)	Value Set OID - 2.16.840.1.114222.4.11.3288 Value Set Code:: PHVS_VaccinationContraindication_IIS
31044-1	Reaction	(CE)	Value Set OID - 2.16.840.1.114222.4.11.3289 Value Set Code:: PHVS_VaccinationReaction_IIS
59784-9	Disease with presumed immunity	(CE)	Value Set OID - 2.16.840.1.114222.4.11.3293 Value Set Code:: PHVS_EvidenceOfImmunity_IIS
59785-6	Indications to immunize	(CE)	Value Set OID - 2.16.840.1.114222.4.11.3290 Value Set Code:: PHVS_VaccinationSpecialIndications_IIS
Vaccine Information Statement (VIS) Dates			
69764-9	Document type	(CE)	Value Set OID: 2.16.840.1.114222.4.11.6041 Value Set Code: PHVS_VISBarcodes_IIS
29768-9	Date Vaccine Information Statement Published	(DT)	19900605
29769-7	Date Vaccine Information Statement Presented	(DT)	19930731
Forecasting and Evaluating Immunizations			
30973-2	30973-2 -- Dose number in series	(NM)	2
30979-9	Vaccines due next	(CE)	HL70292 (CVX)
30980-7	30980-7 – Date vaccine due	(DT)	19980526
30981-5	30981-5 – Earliest date to give	(DT)	19980522

	Forecasting and Evaluating Immunizations		
30982-3	30982-3 – Reason applied by forecast logic to project this vaccine	(CE) or (ST)	Codes for forecast logic reason locally defined.
59779-9	Immunization Schedule used	(CE)	Value Set OID - 2.16.840.1.114222.4.11.3291 Value Set Code:: PHVS_ImmunizationScheduleIdentifier_IIS
59780-7	Immunization Series name	(CE)	Locally Defined
59782-3	Number of doses in primary series	(NM)	2
59781-5	Dose validity	(ID)	Y, N or empty
59783-1	Status in immunization series	(CE)	Locally defined value set
Smallpox Take Read: These codes allow information about evaluation of a smallpox vaccination, called the take response.			
46249-9	Vaccination Take - Response Type	(ST)	Major Take, Equivocal, Not Available
46250-7	Vaccination Take - Response Date	(DT)	20091221
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CDC Implementation Guide for Immunization Messaging

HL7 2.5.1

Value Set Name – Immunization Funding Source					
Concept Code	**Concept Name**	**Definition**	**Used in OBX-5**	**HL7 Table 0396 Code**	**V 2.3.1 Value NIP008**
PHC70	Private Funds	Immunization was funded by private funds, including insurance.		CDCPHINVS	PVF
VXC50	Pandemic	Public funding for pandemic vaccines.		CDCPHINVS	
VXC51	Public VFC	Vaccine stock used was publicly funded by the VFC program.		CDCPHINVS	PUB
		EXAMPLES:	|PHC70^Private funds^CDCPHINVS|		

Value Set Name – Vaccination Contraindications					
Concept Code	**Concept Name**	**Definition**	**Used in OBX-5**	**HL7 Table 0396 Code**	**V 2.3.1 Value NIP004**
VX30	allergy (anaphylactic) to proteins of rodent or neural origin	allergy (anaphylactic) to proteins of rodent or neural origin		CDCPHINVS	
VXC17	allergy (anaphylactic) to 2-phenoxyethanol	allergy (anaphylactic) to 2-phenoxyethanol		CDCPHINVS	
VXC18	allergy to baker's yeast (anaphylactic)	allergy to baker's yeast (anaphylactic)		CDCPHINVS	**03**
91930004	Allergy to eggs (disorder)	allergy to egg ingestion (anaphylactic)		SCT	**04**
294847001	Gelatin allergy (disorder)	allergy to gelatin (anaphylactic)		SCT	**05**
294468006	Neomycin allergy (disorder)	allergy to neomycin (anaphylactic)		SCT	**06**
294466005	Streptomycin allergy (disorder)	allergy to streptomycin (anaphylactic)		SCT	**07**
VXC19	allergy to thimerosal (anaphylactic)	allergy to thimerosal (anaphylactic)		CDCPHINVS	**08**
VXC20	allergy to previous dose of this vaccine or to any of its unlisted vaccine components (anaphylactic)	allergy to previous dose of this vaccine or to any of its unlisted vaccine components (anaphylactic)		CDCPHINVS	**09**
402306009	Allergy to aluminum (disorder)	allergy (anaphylactic) to alum		SCT	
300916003	Latex allergy (disorder)	allergy (anaphylactic) to latex		SCT	
294530006	Polymyxin B allergy (disorder)	allergy (anaphylactic) to polymycin B		SCT	
VXC21	Previous history of intussusception	Previous history of intussusception		CDCPHINVS	
VXC22	encephalopathy within 7 days of previous dose of DTP or DTaP	encephalopathy within 7 days of previous dose of DTP or DTaP		CDCPHINVS	**15**
VXC23	current fever with moderate-to-severe illness	current fever with moderate-to-severe illness		CDCPHINVS	**16**
VXC24	current acute illness, moderate to severe (with or without fever) (e.g., diarrhea, otitis media, vomiting)	current acute illness, moderate to severe (with or without fever) (e.g., diarrhea, otitis media, vomiting)		CDCPHINVS	**21**

Concept Code	Concept Name	Definition	Used in OBX-5	HL7 Table 0396 Code	V 2.3.1 Value NIP004
27624003	Chronic disease (disorder)	chronic illness (e.g., chronic gastrointestinal disease)		SCT	**22**
VXC25	History of Arthus hypersensitivity reaction to a tetanus-containing vaccine administered < 10 yrs previously	History of Arthus hypersensitivity reaction to a tetanus-containing vaccine administered < 10 yrs previously		CDCPHINVS	
VXC26	underlying unstable, evolving neurologic disorders, (including seizure disorders, cerebral palsy, and developmental delay)	underlying unstable, evolving neurologic disorders, (including seizure disorders, cerebral palsy, and developmental delay)		CDCPHINVS	**37**
VXC27	immunodeficiency due to any cause, including HIV (hematologic and solid tumors, congenital immunodeficiency, long-term immunosuppressive therapy, including steroids)	immunodeficiency due to any cause, including HIV (hematologic and solid tumors, congenital immunodeficiency, long-term immunosuppressive therapy, including steroids)		CDCPHINVS	**36**
77386006	Patient currently pregnant (finding)	pregnancy (in recipient)		SCT	**39**
302215000	Thrombocytopenic disorder (disorder)	thrombocytopenia		SCT	**40**
161461006	History of - purpura (situation)	thrombocytopenic purpura (history)		SCT	**41**

EXAMPLES: |VXC18^allergy to bakers yeast^CDCPHINVS|
|77386006^patient currently pregnant^SCT|

Value Set Name – Vaccination Reactions - IIS

Concept Code	Concept Name	Definition	Used in OBX-5	HL7 Table 0396 Code	V 2.3.1 Value NIP004
39579001	Anaphylaxis (disorder)	Anaphylaxis		SCT	
81308009	Disorder of brain (disorder)	Encephalopathy		SCT	
VXC9	persistent, inconsolable crying lasting > 3 hours within 48 hours of dose	persistent, inconsolable crying lasting > 3 hours within 48 hours of dose		CDCPHINVS	
VXC10	collapse or shock-like state within 48 hours of dose	collapse or shock-like state within 48 hours of dose		CDCPHINVS	
VXC11	convulsions (fits, seizures) within 72 hours of dose	convulsions (fits, seizures) within 72 hours of dose		CDCPHINVS	
VXC12	fever of >40.5C (105F) within 48 hours of dose	fever of >40.5C (105F) within 48 hours of dose		CDCPHINVS	
VXC13	Guillain-Barre syndrome (GBS) within 6 weeks of dose	Guillain-Barre syndrome (GBS) within 6 weeks of dose		CDCPHINVS	
VXC14	Rash within 14 days of dose	Rash within 14 days of dose		CDCPHINVS	
VXC15	Intussusception within 30 days of dose	Intussusception within 30 days of dose		CDCPHINVS	

EXAMPLES: |39579001^anaphylaxis^SCT|
|VXC14^Rash within 14 days^CDCPHINVS|

Value Set Name – Vaccination Special Indications - IIS

Concept Code	Concept Name	Definition	Used in OBX-5	HL7 Table 0396 Code	V 2.3.1 Value
VXC7	Rabies exposure within previous 10 days.	Rabies exposure within previous 10 days.		CDCPHINVS	
VXC8	Member of special group	Member of special group		CDCPHINVS	

EXAMPLES: |VXC7^Rabies exposure^CDCPHINVS|

Value Set Name – Immunization Profile Identifiers - IIS

Concept Code	Concept Name	Definition	Used in MSH-21	HL7 Table 0396 Code	V 2.3.1 Value
Z31	Return Candidate Clients	Return Candidate Clients		CDCPHINVS	

Concept Code	Concept Name	Definition	Used in MSH-21	HL7 Table 0396 Code	V 2.3.1 Value
Z32	Return Immunization History	Return Immunization History		CDCPHINVS	
Z33	Return acknowledegment	Return adknowledgement (no match, too many match, error)		CDCPHINVS	
Z34	Request Immunization History	Request Immunization History		CDCPHINVS	
Z44	Request Evaluated History and Forecast	Request Evaluated History and Forecast		CDCPHINVS	
Z42	Return Evaluated History and Forecast	Return Evaluated History and Forecast		CDCPHINVS	

EXAMPLES: |Z34^ CDCPHINVS|

Value Set Name – Immunization Schedule Identifiers - IIS

Concept Code	Concept Name	Definition	Used in OBX-5	HL7 Table 0396 Code	V 2.3.1 Value
VXC16	ACIP Schedule	This indicates that the current ACIP Schedule of recommendations were used to forecast next doses due.		CDCPHINVS	

EXAMPLES: |VXC16^ACIP Schedule^CDCPHINVS|

Value Set Name – History of Disease as Evidence of Immunity - IIS

Concept Code	Concept Name	Definition	Used in OBX-5	HL7 Table 0396 Code	V 2.3.1 Value
409498004	Anthrax (disorder)	History of anthrax infection.		SCT	
397428000	Diphtheria (disorder)	History of diphteria infection.		SCT	24
76902006	Tetanus (disorder)	History of tetanus infection.		SCT	32
27836007	Pertussis (disorder)	History of pertussis infection.		SCT	29
40468003	Viral hepatitis, type A (disorder)	History of Hepatitis A infection.		SCT	
66071002	Type B viral hepatitis (disorder)	History of Hepatitis B infection.		SCT	26
91428005	Haemophilus influenzae infection (disorder)	History of HIB infection.		SCT	25
240532009	Human Papilloma virus infection (disorder)	History of HPV infection.		SCT	
6142004	Influenza (disorder)	History of influenza infection.		SCT	
52947006	Japanese encephalitis virus disease (disorder)	History of Japanese encephalitis infection.		SCT	
14189004	Measles (disorder)	History of measles infection.		SCT	27
36989005	Mumps (disorder)	History of mumps infection.		SCT	28
36653000	Rubella (disorder)	History of rubella infection.		SCT	31
23511006	Meningococcal infectious disease (disorder)	History of meningococcal infection.		SCT	
16814004	Pneumococcal infectious disease (disorder)	History of pneumococcal infection.		SCT	
398102009	Acute poliomyelitis (disorder)	History of polio infection.		SCT	30
14168008	Rabies (disorder)	History of rabies infection.		SCT	
18624000	Disease due to Rotavirus (disorder)	History of rotavirus infection.		SCT	
4834000	Typhoid fever (disorder)	History of typhoid infection.		SCT	
111852003	Vaccinia (disorder)	History of vaccinia infection.		SCT	
38907003	Varicella (disorder)	History of Varicella infection.		SCT	
16541001	Yellow fever (disorder)	History of yellow fever infection.		SCT	

Value Set Name – Funding Eligibility Observation Method (IIS)

Concept Code	Concept Name	Definition	Used in OBX-17	HL7 Table 0396 Code	V 2.3.1 Value
VXC40	Eligibility captured at the immunization level			CDCPHINVS	
VXC41	Eligibility captured at the visit level			CDCPHINVS	

IIS: HL7 Standard Code Sets

CDC Topics		**Get Email Updates:**	https://public.govdelivery.com/accounts/USCDC/subscriber/new?pop=t&topic_id=USCDC_11_31
Changes to CVX and MVX		**Get Email Updates:**	https://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=tradename
Changes to NDC		**Get Email Updates:**	https://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=ndc