ImmTrac

Texas Immunization Registry

Electronic Transfer Standards for Providers

Implementation Date: June 2002

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Texas Department of State Health Services
ImmTrac - Immunization Registry
Electronic Transfer Standards for Providers

The following describes the electronic transfer standards for a file to be exported to ImmTrac – includes file format, importance of data quality, transmitting data instructions, and information on receiving ImmTrac consent notification for clients. The detailed file structure (map) is shown on pages 5-8.

File Format

This section contains information about the record structure and record design.

Record Structure

Each line in a file represents a record. A record is composed of record segments. Each record segment is identified by a segment code, and has a specific, fixed segment length. There are four record segments defined by ImmTrac:
1) The Client Basic Demographic segment – "C" segment – consists of demographic information about the client;
2) The Client Extended Demographic segment – "CX" segment – consists of extra demographic information;
3) The Immunization segment – "I" segment – contains information about the vaccine the client received; and
4) The Terminating Record segment – "TR" segment – indicates the end of the record.

Segment Code	Segment Description	Segment Length
C	Client Basic Demographic segment	336 characters
CX	Client Extended Demographic segment (optional)	366 characters
I	Immunization segment	46 characters
TR	Terminating Record segment	2 characters

Record Design

To build a record from record segments, the record segments must be in a certain order. Some record segments are dependent on the presence of other record segments. The order and dependencies are described by the following rules:

❖ Each record must contain a "C" segment, at least one "I" segment, and a "TR" segment. "CX" segments are optional.
❖ Each record segment is of the specified segment length (see table above). Use blank spaces to fill in for data not present, no tabs. After the full segment length is achieved, the next segment may follow.
❖ Each subsequent record segment is placed at the end of the previous segment without any delimiters, like commas, tabs, or spaces, between the segments.
❖ All records must start with a "C" segment.
❖ The "CX" segment follows the "C" segment. A "CX" segment is only submitted if it contains data. If the "CX" segment would be blank, do not include it in the record.
❖ The "I" segment follows the "C" segment, or the "I" segment follows the "CX" segment if it is present.
❖ All records must have at least one "I" segment containing valid immunization information. Records without at least one valid "I" segment will be rejected.
❖ Multiple "I" segments are allowed.
❖ All records must end with a "TR" segment. A carriage return/line feed (ASCII codes 13 and 10, respectively) must follow the "TR" segment.

Records can be of fixed lengths or variable lengths depending on the number of "I" segments included and if the "CX" segment is used.

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Example 1 shows an export file with several records for the same client with each record having one "I" segment i.e. one record for each vaccine being reported.			
1	Fixed	CITR CITR CITR CITR	These records have a Client Basic Demographic segment, one Immunization segment, and a Terminating Record segment. **SORT** – Sort records so multiple records for a child are grouped together, in descending order by immunization date.
Example 2 shows an export file with several records for the same client with each record having a "CX" segment and one "I" segment i.e. one record for each vaccine being reported.			
2	Fixed	CCXITR CCXITR CCXITR CCXITR	These records have a Client Basic Demographic segment, a Client Extended Demographic segment, one Immunization segment, and a Terminating Record segment. **SORT** – Sort records so multiple records for a child are grouped together, in descending order by immunization date.
Example 3 shows an export file with one record for a client with that record containing multiple "I" segments i.e. one "I" segment for each vaccine being reported.			
3	Variable	CIIIITR	This record has a Client Basic Demographic segment, four Immunization segments, and a Terminating Record segment. *This record is reporting the same information as in example 1.* **SORT** – Sort records by name (last, first, middle).
Example 4 shows an export file with one record for a client with that record containing one "CX" segment and multiple "I" segments i.e. one "I" segment for each vaccine being reported.			
4	Variable	CCXIIIITR	This record has a Client Basic Demographic segment, a Client Extended Demographic segment, four Immunization segments, and a Terminating Record segment. *This record is reporting the same information as in example 2.* **SORT** – Sort records by name (last, first, middle).

Note: A new record segment starts at the end of the preceding record segment. There are no spaces or tabs between adjoining record segments.

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Importance of Data Quality

Providers throughout Texas share the data in ImmTrac. Submitting correct and complete information in each record segment will not only help reduce the possibility of creating duplicate records, but will give other providers the necessary information needed to provide proper health care. ImmTrac staff will periodically review data that is submitted for data quality. A provider may be notified of data quality issues that need to be resolved in their data system and/or in ImmTrac.

Transmitting Data

To transmit data to ImmTrac, a site must first be assigned an ImmTrac Provider Number (PFS). The ImmTrac Provider Number is a unique, 10-digit number used to link a site to **ITS** clients' immunization information. If this site receives or maintains immunization information from "other sites or clinics" (i.e. a satellite office, a WIC clinic, a private physicians office/entity/group, etc) and will report this immunization information to ImmTrac, **EACH** of the "other sites or clinics" must be assigned and use a separate, unique ImmTrac Provider Number if this site wants to distinguish each clinic's clients. Contact ImmTrac Customer Support at (800)348-9158 to receive information about registering with ImmTrac and obtaining an ImmTrac Provider Number.

1. **Rules for using the ImmTrac Provider Number (also known as the PFS# or Provider/Facility/Site Number):**

➢ The ImmTrac Provider Number is transmitted in the "I" segment.
➢ The ImmTrac Provider Number **is included** in the "I" segment if the reporting site, or one of its "other sites or clinics", administered the vaccine.   Use the ImmTrac Provider Number that corresponds to the site that actually administered the vaccine. In this case the History Flag would be "N".
➢ The ImmTrac Provider Number **is NOT included** in the "I" segment if the reporting site is submitting history information for vaccines not given at the site or not given at one of its "other sites or clinics". In this case the History Flag would be "Y".

File Naming Convention

When the first data file has been created and is ready to send to ImmTrac, please contact ImmTrac Customer Support. Please follow this file naming convention:

Provider Import Code = a code ImmTrac staff will give the provider to identify the source of the file. Use this code on every file submitted.
YY = Year
DDD = Ordinal Date, which is the day of the year, ex. For February 4, the DDD is 035 (http://www.esrl.noaa.gov/gmd/grad/neubrew/Calendar.jsp?year=2013&col=4)
Use *.imp* as the file extension.

Example of the file name for a provider submitting a file on January 4, 20NN with a Provider Import Code of ABCD is **ABCDNN004.imp**

If you need to send more than one file on the same day with the same filename, you may include a letter on the end of the filename to distinguish between the two. Ex: ABCDNN004A.imp and ABCDNN004B.imp.

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File Transfer

A file can be sent to ImmTrac by uploading the file to the ImmTrac web site or via secure FTP to ImmTrac's secure FTP server. Call ImmTrac Customer Support for more information on how to use the secure FTP method at (800)348-9158.

Please note:
➢ When sending files via the ImmTrac web site, the file size limit is 25 MB. If the import file is larger than this, please split it into smaller files before sending.

Receiving ImmTrac consent verification notification for clients

Parental consent is required for inclusion of a child's data in the registry. Effective January 1, 2005, as a result of implementation of H.B. 1921, DSHS must verify that parental consent has been obtained prior to inclusion of client records in the registry. DSHS is required to notify a provider that submits immunization data for a client for whom consent cannot be verified. DSHS will also inform the provider of procedures for obtaining and submitting consent for the client and for resubmitting the client's immunization data. Providers submitting immunization data via electronic transfer will receive an electronic notification file of client consent status for each import file submitted. The electronic consent verification notification file must be downloaded by the provider from the ImmTrac web site or ImmTrac's secure FTP server. The file will contain a C segment (see format below) for each client for whom valid data was submitted in the import file. The ImmTrac consent status (Y, N or Q) will be returned in column 222, and the ImmTrac Client ID for verified clients will be returned in columns 3-12. The provider may use this file to notify parents about how they can grant consent for inclusion of their child's immunization records in ImmTrac. In addition, the provider may upload this file into their data system to update ImmTrac consent status and may maintain the ImmTrac Client ID in association with their own patient id for the child. Please call ImmTrac Customer Support at (800)348-9158 for more information about the format of the electronic consent verification notification file or to request an example of a notification data file in a flat text file format.

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C – CLIENT BASIC DEMOGRAPHIC SEGMENT
This segment is required. Required data is shaded.

* Field Location is the position number where the first character of each field starts. Refer to page 7 for further explanation.

Field #	*Field Location	Field Description	Data Type	Field Length	Rules
1	**1**	**Segment Code (C)**	**Text**	**2**	**Required data, cannot be blank – Left-justified 'C '**
2	3	Reserved	Leave Blank	10	Leave Information Blank
3	**13**	**Last Name**	**Text**	**20**	**Required data; cannot be blank –** First character cannot be numeric (See footnotes D, E, F)
4	**33**	**First Name**	**Text**	**20**	**Required data; cannot be blank –** First character cannot be numeric (See footnotes D, E)
5	53	Middle Name	Text	20	First character cannot be numeric (See footnotes D, E, H)
6	73	SSN	Numeric	9	If present, must be 9 digits. (See footnote H)
7	**82**	**Gender**	**Text (M or F)**	**1**	**Required data; cannot be blank – Use 'M' or 'F'**
8	83	Race	ImmTrac code	2	Use ImmTrac Race Codes (See footnote H and refer to page 9)
9	85	Medicaid Number	Numeric	9	If present, must be 9 digits (See footnote H)
10	**94**	**Date of Birth**	**YYYYMMDD**	**8**	**Required data; cannot be blank –** Must be valid date; cannot be greater than today's date
11	102	Mother's First Name	Text	20	(See footnotes D, E, H)
12	122	Mother's Middle Name	Text	20	(See footnotes D, E)
13	142	Mother's Maiden Name	Text	20	(See footnotes D, E, H)
14	162	Father's Last Name	Text	20	(See footnotes D, E)
15	182	Father's First Name	Text	20	(See footnotes D, E)
16	202	Father's Middle Name	Text	20	(See footnotes D, E)
17	222	(Consent Flag) Reserved	Leave Blank	1	**Formerly "Consent Flag". Effective 1/1/05 – no longer used, leave blank**
18	223	Residence Address Line 1	Text	32	**Required data; cannot be blank** Do not pad addresses with leading zeros (See footnotes E, H)
19	255	Residence Address Line 2	Text	20	For example, Apt 123. (See footnotes E, H)
20	275	Residence City	Text	20	**Required data; cannot be blank.** Do not allow abbreviations, e.g. 'Hou' for Houston, or 'SA' for San Antonio (See footnotes E, H)
21	295	Residence State	Text	2	**Required data; cannot be blank** Use Postal Codes, i.e. 'TX' for Texas
22	297	Residence Zip	Numeric	5	**Required data; cannot be blank** (See footnote H)
23	302	Residence Zip4	Numeric	4	
24	306	Residence County	FIPS Code	3	Use FIPS county codes. Use 999 for out of state. (See footnote G)
25	309	Residence Country	ImmTrac Code	2	Use ImmTrac Country Codes (refer to page 9).
26	311	Phone	Numeric	10	Includes the area code and phone number. A blank area code must contain spaces, not zeros.
27	321	Source System Client ID	Text	16	**Required data; cannot be blank. Unique** number or Code the system submitting information to ImmTrac uses for identifying the provider's clients (Patient ID). This information is helpful in consent notification (see pg 4 – Receiving ImmTrac consent verification notification for clients) and error reconciliation.

Extra Notes for "C" segment:
- A. Do not use fabricated data in any field.   If data is not known, leave the field blank (spaces).
- B. Data is left justified in each field.
- C. The "C" segment must be 336 characters long. Use blank spaces for fields where the field description is marked "Reserved".
- D. For all NAME information, do not use special characters or punctuation other than hyphen or apostrophe.   Do not allow values representing "Unknown" or "None" or "Test".
- E. If the data in any of the name or address fields exceeds the field length, simply truncate the data to fit the field. Do not include any punctuation to indicate truncation.
- F. Suffix information may be included at the end of the last name – **separate suffix and last name with a blank space**. Ex. Smith Jr. Valid suffix values are Jr, Sr, II, III, IV,V.
- G. Federal Information Processing Standards (FIPS) codes. Use 999 for out of state. Codes available at: http://www.itl.nist.gov/fipspubs/co-codes/tx.txt.
- H. If your site collects this data, it **must** include the data in the record **-** middle name, SSN, race, Medicaid number, mother's first name, mother's maiden name, and residence address information are used by ImmTrac to match client records during import. Accurate and complete data is necessary to prevent the creation of duplicate records.

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CX – CLIENT EXTENDED DEMOGRAPHIC SEGMENT
This segment is <u>not</u> required.

* Field Location is the position number where the first character of each field starts. Refer to page 7 for further explanation.

Field #	*Field Location	Field Description	Data Type	Field Length	Rules
1	337	Segment Code (CX)	Text	2	**Required data only when CX segment is submitted; cannot be blank – Left-justified 'CX'**
2	339	Reserved	Leave Blank	6	Leave Information Blank
3	345	Client Suffix	Text	4	(See footnotes J, N, O)
4	349	Mother's Last Name	Text	20	
5	369	Mother's DOB	YYYYMMDD	8	Must be valid date. Must be prior to today's date and prior to Client's date of birth.
6	377	Reserved	Leave Blank	4	Leave Information Blank
7	381	Relationship to Client	ImmTrac code	2	Use ImmTrac Relationship Codes (refer to page 9).
8	383	Reserved	Leave Blank	1	Leave Information Blank
9	384	Guardian Last Name	Text	20	
10	404	Guardian First Name	Text	20	
11	424	Guardian Middle Name	Text	20	
12	444	Guardian Suffix	Text	4	
13	448	Comments	Text	255	Field can be blank if data not known (there will be 255 blank spaces for this field if empty).

Extra Notes for "CX" segment:

I. **Do not send a blank "CX" segment.**   A "CX" segment should only be included in a client's import record if there is information collected for the "CX" segment. If the only information in the "CX" segment would be for suffix, the suffix can be added to the client's Last Name in the "C" segment as specified on page 5, footnote F; therefore, the "CX" segment would not need to be sent.

J. **Do not use fabricated data in any field.   If data is not known, leave the field blank <u>(spaces)</u>.**

K. Data is left justified in each field.

L. The "CX" segment must be 366 characters long. Use blank spaces for fields where the field description is marked "Reserved".

M. For all NAME information, do not use special characters or punctuation other than hyphen or apostrophe. Do not allow values representing "Unknown" or "None" to be used.

N. The valid suffix values are Jr, Sr, II, III, IV, V.

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I – IMMUNIZATION SEGMENT
This segment is required. Required data is shaded.
One or more immunizations ("I" segments) can be reported in a single record.

The *Field Location denotes where each field begins. The Field Location is found by adding the Field Length to the corresponding Field Location.   As shown below for the first "I" segment, in a record where a "CX" segment is **NOT** included, the Segment Code (I) field starts at 337, the Vaccine Code field starts at 339 (337 + 2 = 339), and so forth with the History Flag field starting at 382.

If a second "I" segment were added to this record, its Segment Code (I) field would start at 383. A new segment starts after the last field of the previous segment, with no spaces between the last field of the previous segment and the first field of the next segment (i.e. no spaces between the History Flag field of the previous "I" segment or the Segment Code (I) field of the next "I" segment). The Vaccine Code field would start at 385 (383 + 2 = 385), and so forth with the History Flag field starting at 428. For a third "I" segment, the Segment Code (I) would start at 429.

The Field Location noted in the parentheses - (703) - is the starting position of the first "I" segment when a "CX" segment **IS** included (the "I" segment follows the comments field of the "CX" segment). A second and third "I" segment would start at 749 and 795 respectively.

Field #	*Field Location for first I segment ( ) if CX seg present	Field Description	Data Type	Field Length	Rules
1	337 (703)	**Segment Code (I)**	**Text**	**2**	**Required data; cannot be blank– Left-justified 'I '**
2	339 (705)	**Vaccine Code**	**CPT™ code**	**10**	**Required data; cannot be blank –** (see footnotes S, T, or refer to page 9)
3	349 (715)	Reserved	Leave Blank	1	Leave Information Blank
4	350 (716)	**Immunization Date**	**YYYYMMDD**	**8**	**Required data; cannot be blank –** Must be a valid date on or after the Client's date of birth; cannot be greater than today's date.
5	358 (724)	ImmTrac Provider Number (also referred to as **PFS#** – 'Provider/Facility/Site' number)	ImmTrac code	10	(See footnotes V, W and refer to page 3 – Transmitting Data). Required if History Flag is N.
6	368 (734)	Vaccine Lot Number	Text	10	Field may contain letters, numbers, slashes, dashes, and spaces. Field can be blank if data not known.
7	378 (744)	Vaccine Manufacturer Code	MVX code	3	(See footnote U or refer to page 9)
8	381 (747)	Texas VFC Status	ImmTrac code	1	Use ImmTrac Texas VFC codes (refer to page 9).
9	382 (748)	**History Flag**	**Text (Y/N)**	**1**	**Required data; cannot be blank – Use 'Y' or 'N'** (See footnotes V, W)

Extra Notes for "I" segment:

O. **Do not use fabricated data in any field. If data is not known, leave the field blank (spaces).**
P. Data is left justified in each field.
Q. The "I" segment must be 46 characters long.
R. In the Vaccine Code field, use the appropriate CPT™ code for the vaccine administered. A copy of CPT™ codes can be found on the Centers for Disease Control (CDC) website: http://www2a.cdc.gov/nip/IIS/IISStandards/vaccines.asp?rpt=cpt Health Level Seven (HL7) defined codes for Vaccines Administered, CVX codes, will also be accepted.   A copy of CVX codes can be found on the CDC website: http://www2a.cdc.gov/nip/IIS/IISStandards/vaccines.asp?rpt=cvx . Use either CPT™ or CVX codes, not a mix of both.
S. If a combo vaccine is given, such as HepB – Hib, then it should be recorded in one "I" segment, use the combination vaccine CPT™ or CVX code.
T. Use Health Level Seven (HL7) defined codes for Manufacturers of Vaccines, MVX code.   A copy of MVX codes can be found on the Centers for Disease Control (CDC) website: http://www2a.cdc.gov/nip/IIS/IISStandards/vaccines.asp?rpt=mvx .
U. Include the ImmTrac Provider Number in the "I" segment if the reporting site, or one of its "other sites or clinics", administered the vaccine. Set the History Flag to "N".
V. Do **NOT** include the ImmTrac Provider Number in the "I" segment if the reporting site is submitting history information for vaccines **not given at the site** or not given at one of its "other sites or clinics".   If not given by the reporting site(s) then that means to set the History Flag to "Y".

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TR – TERMINATING RECORD SEGMENT
This segment is required. Required data is shaded.

The "TR" segment follows the History Flag field for the last "I" segment used.

*Note: The Field Location – 383 – listed below is for the "TR" segment of a record where **one** "I" segment is used and the "CX" segment is **NOT** included. If a second "I" segment is included in a record without a "CX" segment, the "TR" segment starts at 429.

The Field Location noted in the parentheses – (749) – is for the "TR" segment of a record where one "I" segment is used and the "CX" segment **IS** included. If a second "I" segment is included in a record with a "CX" segment, the "TR" segment starts at 795.

Field #	Field Location ( ) if CX seg present	Field Description	Data Type	Field Length	Rules
1	383 (749)	Segment Code (TR)	Txt	2	Required data; cannot be blank – Left-justified 'TR'

Extra Notes for "TR" segment:

W.   The "TR" segment is 2 characters long.
X.   A carriage return/line feed (ASCII codes 13 and 10, respectfully) follows the "TR" segment.
Y.   Remember, the "TR" segment is the end of a record. Begin the next record on the following line.

****Note: Updates to the links were made February 2013.

ImmTrac Codes

C segment

Race
B	Black or African American
H	Hispanic
I	American Indian or Alaskan Native
N	Not Specified
P	Asian or Pacific Islander
W	White

Residence County
Federal Information Processing Standards (FIPS) codes available at:
http://www.itl.nist.gov/fipspubs/co-codes/tx.txt
Use 999 for out of state.

Residence Country
CD	Canada
MX	Mexico
RW	Other
UN	Unknown
US	United States

CX segment

Relationship to Client
A	Aunt
B	Brother
F	Father
G	Guardian
GF	Grandfather
GM	Grandmother
M	Mother
S	Sister
U	Unknown
UN	Uncle

I segment

Vaccine Code
Use the appropriate CPT™ code for the vaccine administered. A copy of CPT™ codes can be found on the Centers for Disease Control (CDC) website:
http://www2a.cdc.gov/nip/IIS/IISStandards/vaccines.asp?rpt=cpt

Health Level Seven (HL7) defined codes for Vaccines Administered, CVX codes, will also be accepted. A copy of CVX codes can be found on the CDC website:
http://www2a.cdc.gov/nip/IIS/IISStandards/vaccines.asp?rpt=cvx

Evidence of Immunity to Varicella (VAR-HadVAR)
To record a child's history of Varicella disease (chickenpox), use the following:

- VAR-HadVAR for Vaccine Code
- Date of Disease for Immunization Date

If a specific Date of Disease is not known:
- If only the year of disease is known, please use 01 as the month and day. For example, if the child had chickenpox in 1999, use 01/01/1999.

- If the month and year are known, please use 01 for the day. For example, if the child had chickenpox in March 1999, use 03/01/1999.

Vaccine Manufacturer Code
Use Health Level Seven (HL7) defined codes for Manufacturers of Vaccines - MVX code. A copy of MVX codes can be found on the Centers for Disease Control (CDC) website:
http://www2a.cdc.gov/nip/IIS/IISStandards/vaccines.asp?rpt=mvx

Texas VFC Status
1	Enrolled in Medicaid
2	No Health Insurance
3	American Indian
4	Alaskan Native
5	Underinsured, FQHC/Rural
6	Underinsured, Not FQHC/Rural
7	Insured or Private Pay
8	Other (not classified)
9	CHIP (Children's Health Insurance Program)
U	Unknown

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