



ImmTrac
Texas Immunization Registry
Electronic Transfer Standards for
Immunization History Request Process

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This document defines the standards for electronically requesting immunization histories from ImmTrac. This is not to be used for reporting immunization data.

Texas Department of State Health Services
ImmTrac - Immunization Registry
Electronic Transfer Standards for Immunization History Request Process



Overview: The following describes the electronic transfer standards for an immunization history query (IHQ) request file that will be sent to ImmTrac by a Provider or Payor (i.e. insurance company, health maintenance organization, or another organization that pays a health care provider to provide health care benefits), and for the response file (IHR), which will be generated by ImmTrac and made available to the requestor. This document includes the file format, information concerning data quality, and instructions for transmitting data. The detailed file structure for the IHQ is shown on pages 4-6 and for the IHR is shown on pages 8-10.

Immunization History Query (IHQ)

File Format

This section contains information about the record structure and record design of the input Immunization History Query Request file.

Record Structure

Each record is composed of record segments. Each record segment is identified by a segment code, and has a specific, fixed segment length. There are three record segments for Immunization History Requests:

- 1) The Query segment – “SQ” segment – consists of the requestor’s client ID
- 2) The Client Basic Demographic segment – “C” segment – consists of demographic information about the client.
- 3) The Terminating Record segment – “TR” segment – indicates the end of the record.

Segment Code	Segment Description	Segment Length
SQ	Query segment	39 characters
C	Client Basic Demographic segment	336 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. The order and dependencies are described by the following rules:

- Each record must contain an “SQ” segment, a “C” segment, and a “TR” segment, in that order.
- Each record segment is of the specified segment length (see table above). Use blank spaces to fill in for data not present. After the full segment length is achieved, the next segment will follow.
- Each subsequent record segment is placed at the end of the previous segment without any delimiters, like commas or spaces, between the segments.
- All records must start with an “SQ” segment.
- All records must end with a “TR” segment. A carriage return / line feed (ASCII codes 13 and 10, respectfully) must follow the “TR” segment.
- **Records must be of fixed length.**

Quality of Data

The immunization history request process uses the demographic information in the Client Basic Demographic ('C') segment to find a matching child. Providing accurate and complete information in the 'C' segment will help ImmTrac correctly identify a child's record. If data is incomplete or inaccurate, a match may not be found even though the child may be on file. Not all fields on the 'C' segment are used in ImmTrac's client matching process. The fields used are the following:

- Child's Last Name, First Name, Middle Name and Suffix
- Child's SSN
- Child's Gender
- Child's Medicaid Number
- Child's Date of birth
- Mother's First Name
- Mother's Maiden Name
- Child's Residence Address Line 1
- Child's Residence Address Line 2
- Child's Residence Zip

The other fields on the 'C' segment (other than the segment type) are not used in the matching process and can be left blank.

The SQ segment contains a 'Requestor Client ID'. This is the identifier used by the requestor to identify the client on the requestor's system. The record returned to the requestor will include this identifier so that the requestor can identify the client since the 'C' segment that contains the client's demographic information is not present on the returned file. Therefore it is important that the value in the 'Requestor Client ID' field uniquely identifies the client to the requestor.

Client Matching

ImmTrac uses a sophisticated Client Matching algorithm that considers the demographic information about the child provided in the 'C' segment when determining if the child is in ImmTrac. ImmTrac uses a point-based matching algorithm, with points awarded or deducted based on whether data matches. It is important that the data be as correct and complete as possible to ensure that ImmTrac's Client Matching software can accurately determine if a match exists when comparing incoming client information on the IHQ file to that of existing ImmTrac clients. If the ImmTrac Client Matching software finds a potential (not exact) match to a requested child, the output record returned to the requestor will include a status code that best describes the condition that prevented the exact match. See the **Extra Notes for "S" segment**: below for more information. We recommend the requestor perform a Smart Search in Web ImmTrac to find the potential match.

Transmitting Data

File Naming Convention

The file naming convention of the immunization history request (IHQ) file is: IHQ.immtrac-assigned-code.yyyymmdd.n.TXT, where immtrac-assigned-code is an alpha code that ImmTrac assigns to the requestor, yyyymmdd is the creation date of the file, and n is a one-up number to be used if there is more than one file created on a given day. If only one file is sent in a day, do not include the one-up number.

File Size Limit

Please limit your files to 100,000 records or less. If there are more, please split up the file and use the one-up numbering method to name them as described above. Larger files must be split by ImmTrac staff before they can be processed, and this will significantly delay turnaround time.

File Transfer

A file can be sent to ImmTrac via a secure, encrypted File Transfer Protocol (FTP) process. If secure FTP is not available, an alternative process can be used to send the file via upload to the ImmTrac web site. Call ImmTrac Customer Support for details at (800) 348-9158.

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

Segment Details for Information Received from Requestor

SQ-QUERY REQUEST SEGMENT

This segment is required. Required data is **shaded**.

Segment length is 39.

Field #	*Field Location	Field Description	Data Type	Field Length	Rules
1	1	Segment Code (SQ)	Text	2	Required data, cannot be blank
2	3	Reserved	Leave Blank	10	Leave Information Blank
3	13	Requestor Client ID	Numeric	16	Required data, cannot be blank, must be unique to the client (source system patient's unique identifier, MRN)
4	29	Reserved	Leave Blank	11	Leave Information Blank

* Field Location is the position number where the first character of each field starts within the record.

C – CLIENT BASIC DEMOGRAPHIC SEGMENT

This segment is required. Required data is shaded. Fields used in client matching are shaded in a lighter color. Segment length is 336.

Please only send requests for clients under the age of 18.

Field #	*Field Location	Field Description	Data Type	Field Length	Rules
1	40	Segment Code (C)	Text	2	Required data, cannot be blank
2	42	Reserved	Leave Blank	10	Leave Information Blank
3	52	Last Name	Text	20	Required data - Must be alphabetic with no special characters other than apostrophe or hyphen; cannot be blank. (See footnotes D, E, F, G)
4	72	First Name	Text	20	Required data - Must be alphabetic with no special characters other than apostrophe or hyphen; cannot be blank. (See footnotes D, E, F)
5	92	Middle Name	Text	20	Must be alphabetic with no special characters other than apostrophe or hyphen. (See footnotes D, E, F)
6	112	SSN	Numeric	9	If present, must be 9 digits. Enter only if the SSN is for the child. If not available, leave blank, do not submit 000000000 or 999999999.
7	121	Gender	Text (M or F)	1	Required data -Use 'M' or 'F'; cannot be blank, do not submit U.
8	122	Reserved	Leave Blank	2	Leave Information Blank
9	124	Medicaid Number	Numeric	9	If present, must be 9 digits. Enter only if the Medicaid number is for the child. If not available, leave blank, do not submit 000000000 or 999999999.
10	133	Date of Birth	CCYYMMDD	8	Required data – Must be valid date, must be prior to today's date; cannot be blank.
11	141	Mother's First Name	Text	20	(See footnotes D, E, F)
12	161	Reserved	Leave Blank	20	Leave Information Blank
13	181	Mother's Maiden Name	Text	20	(See footnotes D, E, F)
15	201	Reserved	Leave Blank	61	Leave Information Blank
16	262	Residence Address Line 1	Text	32	Do not pad addresses with leading zeros. (See footnote F)
17	294	Residence Address Line 2	Text	20	(See footnote F)
18	314	Residence City	Text	20	Do not submit abbreviations, e.g. 'Hou' for Houston, or 'SA' for San Antonio. (See footnote F)
19	334	Residence State	Text	2	Use Postal Codes, i.e. 'TX' for Texas
20	336	Residence Zip	Numeric	5	Must be numeric.
21	341	Residence Zip4	Numeric	4	
22	345	Reserved	Leave Blank	31	Leave Information Blank

* Field Location is the position number where the first character of each field starts within the record.

Continued below – see footnotes

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. No records should be sent for clients 18 and over.
- E. For all NAME information, do not use special characters or punctuation other than hyphen or apostrophe. Do not submit ‘Unknown’ or ‘None’ in any field.
- F. 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. Only include address data that meets post office standards (i.e., street number, street name, apartment number, PO Box, and box number). Do not include any data that is not strictly a part of the address.
- G. 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.

TR – TERMINATING RECORD SEGMENT
This segment is required. Required data is shaded.
Segment length is 2.

* Field Location is the position number where the first character of each field starts within the record.

Field #	*Field Location	Field Description	Data Type	Field Length	Rules
1	376	Segment Code (TR)	Text	2	Always present

Extra Notes for “TR” segment:

- H. The “TR” segment is 2 characters long.
- I. A carriage return/line feed (ASCII codes 13 and 10, respectfully) follows the “TR” segment.

The “TR” segment is the end of a record. The next record begins on the following line.

Immunization History Response (IHR)

File Format

This section contains information about the record structure and record design of the output Immunization History Response file.

Record Structure

Each record is composed of record segments. Each record segment is identified by a segment code, and has a specific, fixed segment length. There are three record segments defined by ImmTrac for Immunization History Response (IHR) files:

- 1) The Results segment – “S” segment – consists of the Requestor’s client ID sent with the Immunization History request file, the ImmTrac client ID, if known, and the status code indicating whether or not the client was found in ImmTrac
- 2) The Immunization segment – “I” segment – consists of the immunization information for the client; if client was found, and the immunization (s) on file with ImmTrac for the client
- 3) The Terminating Record segment – “TR” segment – indicates the end of the record

Segment Code	Segment Description	Segment Length
S	Results segment	39 characters
I	Immunization segment	46 characters
TR	Terminating Record segment	2 characters

The example shows a return file for a client with one record containing four 'I' segments, i.e. one 'I' segment for each vaccine being reported. **Example of Record Design:**

1	Variable	IIIIITR	The record has a Results segment, four Immunization segments, and a Terminating Record segment. Records are returned in the same order sent on the input file.
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Note: A new record segment starts at the end of the preceding record segment. There are no spaces between adjoining record segments.

File Naming Convention

The file naming convention of the immunization history response (IHR) file is: IHR.**, where “**” is the name of the corresponding input IHQ request file.

File Transfer

The response file will be placed on the secure FTP site. If FTP is not available, the file will be placed on the ImmTrac Web site where it can be retrieved by the requestor. Call ImmTrac Customer Support for details at (800) 348-9158.

Segment Details for Information Returned to Requestor:

S- REQUEST RESPONSE SEGMENT

Segment length is 39.

Field #	*Field Location	Field Description	Data Type	Field Length	Rules
1	1	Segment Code (S)	Text	2	Required data, cannot be blank
2	3	ImmTrac Client ID	Numeric	10	ImmTrac Client ID, if client found.
3	13	Requestor Client ID	Numeric	16	Requestor's Client ID, echoed from columns 13 – 28 of the SQ segment in the Immunization History Query Request file
4	29	Reserved	Leave Blank	10	Leave Information Blank
5	39	Status Code	Text	1	See note J

Extra Notes for “S” segment:

J. The status code indicates whether or not the client was found in ImmTrac. The status codes are as follows:

- **B** - Birth Date Questionable Match - A potential match was found, but could not be confirmed because the ImmTrac child's date of birth does not agree with the date of birth submitted in the request. No ImmTrac Client ID is listed and no immunization history will be listed.
- **E** - There was an error with the input IHQ record.
- **F** - First Name Questionable Match - A potential match was found, but could not be confirmed because the ImmTrac child's first name does not agree with the first name submitted in the request. No ImmTrac Client ID is listed and no immunization history will be listed.
- **G** - Gender Questionable Match - A potential match was found, but could not be confirmed because the ImmTrac child's gender does not agree with the gender submitted in the request. No ImmTrac Client ID is listed and no immunization history will be listed.
- **H** - A match was found, the ImmTrac Client ID is present and the client's immunization history follows in one or more segments.
- **M** - A match was found, the ImmTrac Client ID is present but the client has no immunizations in ImmTrac.
- **N** - No match was found.
- **Q** - A potential match was found, but could not be confirmed, and we cannot report what data does not agree. No ImmTrac Client ID is listed and no immunization history will be listed.

I – IMMUNIZATION SEGMENT

One or more immunizations (“I” segments) will be reported in a single record.

Segment length is 46.

The *Field Location denotes where each field begins for the first I segment within a record. The Field Location is found by adding the Field Length to the corresponding Field Location. As shown below for the first “I” segment, the Segment Code (I) field starts at 40, the Vaccine Code field starts at 42 (40 + 2 = 42), the Dose Number field starts at 52 (42 + 10 = 52), and so forth with the History Flag field starting at 85.

If a second “I” segment were added to this record, its Segment Code (I) field would start at 86. 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 and the Segment Code (I) field of the next “I” segment). The Vaccine Code field would start at 88 (86 + 2 = 88), the Dose Number field would start at 98 (88 + 10 = 98), and so forth with the History Flag field starting at 131. For a third “I” segment, the Segment Code (I) would start at 132.

Field #	Start of Field	Description	Data Type	Max Chars	Default	Rules
1	40	Segment Code (I)	ImmTrac code	2		
2	42	Vaccine Code	CPT™ code	10		Always present –See note K and ImmTrac Codes on page 10.
3	52	Dose Number	Number	1		This will always be zero. See note L.
4	53	Immunization Date	CCYYMMDD	8		Always present
5	61	ImmTrac ID Provider/Facility/Site# (PFS#)	ImmTrac code	10		ImmTrac Provider/Site/Facility number of provider associated with this immunization.
6	71	Vaccine Lot Number	Text	10		Will be included if available.
7	81	Manufacturer Code	MVX code	3		Will be included if available. See ImmTrac Codes on page 10.
8	84	Texas VFC Status	ImmTrac code	1		Will be included if available. See ImmTrac Codes on page 10.
9	85	Reserved	Blank	1		Left blank.

Extra Notes for I segment:

K. The CPT codes returned might not be the same code initially sent to ImmTrac. Please see table A for the cross reference of the CPT codes

L. ImmTrac no longer stores the dose number, so this field will always be zero (0).

TR – TERMINATING RECORD SEGMENT

The “TR” segment follows the History flag field in the last “I” segment.

Field #	Field Location	Field Description	Data Type	Field Length	Rules
1	86 (40 if no imms)	Segment Code (TR)	Text	2	Always present

Extra Notes for “TR” segment:

O. The “TR” segment is 2 characters long.

P. A carriage return/line feed (ASCII codes 13 and 10, respectfully) follows the “TR” segment, except for the last record (line). No line return on the last record.

The “TR” segment is the end of a record. The next record begins on the following line.

ImmTrac Codes

I Segment

Vaccine Code

The appropriate CPT™ code for the vaccine administered will be returned, using the cross-reference of the CPT codes from Table A. 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>

Vaccine Manufacturer Code

Health Level Seven (HL7) defined codes for Manufacturers of Vaccines - MVX codes are used. 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