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# SMaRT AFIX

## API Documentation

June 2019



## **Support Services**

For general support on this product, contact your system administrator. For up-to-date documentation, visit the STC Documentation Portal at <https://documentation.stchome.com/>.

(20190621)

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# What's New in this Version?

The following changes have been made for the June 2019 version of this documentation (which corresponds with SMaRT AFIX (v. March 2019)):

General Area	Description of What's New	Link to Page in Documentation
<b>Provider API</b>	Added new attribute to the table: VFC_STATUS	<ul style="list-style-type: none"> <li><a href="#">Provider API</a></li> </ul>
<b>Contraindication API</b>	Added new attributes to the table: <b>PERMANENT_IND,</b> <b>CONTRA_DESC,</b> <b>IS_IMMUNITY,</b> <b>CONTRA_TYPE,</b> <b>CONTRA_CODE</b>	<ul style="list-style-type: none"> <li><a href="#">Contraindication API</a></li> </ul>

## Introduction

For some SMaRT AFIX users, the application does not have direct access to the source IIS. As such, you will need to allocate the necessary data from your source system and provide it to AFIX in a flat file format. This document defines the APIs for each of the six required files that need to be provided for AFIX function.

Each API defines a list of fields required for AFIX and a description of what data the field represents. There is also a Data Validation Table for each API that defines the permitted data type, length and format, where applicable, of each field.

The data for each API should be included in its own unique .txt file. The fields are to be delimited by a pipe character ("|"). Fields should be in the same order as defined in the API, and the first row of each API file should be a header row.

Example:

```

1 PATIENT_ID|FIRST_NAME|LAST_NAME|DATE_OF_BIRTH|PHONE_NUMBER|CELL_NUMBER|GENDER|RACE|ETHNICITY|VFC_ELIGIBLE|CREATED_TS|MODIFIED_TS
2 343|KENNETH|BLAKE|2005-07-12 00:00:00|9736966716|Male|White|NOT Hispanic or Latino|Insured|2006-02-19 08:37:19|2017-10-08 09:24:45
3 862|MARITSA|FINE|2016-08-28 00:00:00|9083266193|9083269794|Female|Unknown|Hispanic or Latino|Medicaid|2017-02-19 08:37:55|2019-02-25 16:33:44
4 509|SHYLA|UNGER|2005-08-16 00:00:00|9083326443|Female|American Indian or Alaska Native|Not Hispanic or Latino|American Indian/Alaska Native|2007-02-20 08:51:22|2017-06-05 12:08:58
5 512|JAELYNN|BICINEAUX|2005-10-07 00:00:00|Female|White|Unknown|Not VFC Eligible-Underinsured|2003-02-20 08:51:40|2008-12-13 07:37:29
6 517|KATE|GARTNER|2006-10-10 00:00:00|9082418475|Female|American Indian or Alaska Native|Not Hispanic or Latino|American Indian/Alaska Native|2008-02-20 08:51:41|2017-10-24 16:26:19
7 519|JACMINE|WASHINGTON|2018-07-04 00:00:00|Female|White|Hispanic or Latino|Medicaid|2019-02-20 08:50:33|2019-05-29 23:56:19
8 520|MICHAEL|JAMERSON|2007-07-06 00:00:00|2015551009|Male|Black or African American|Unknown|Unknown|2010-02-20 08:50:33|2019-02-20 08:50:33
9 1066|PAT|STEMBORSKI|2015-10-11 00:00:00|2012552109|Unknown|White|Not Hispanic or Latino|Medicaid|2006-02-19 04:47:19|2017-10-08 07:24:45
10 1948|LAUREN|HOWE-ANDERSON|2006-12-26 00:00:00|9083212139|Female|Black or African American|Not Hispanic or Latino|Insured|2008-02-19 08:38:58|2013-05-27 14:34:49
11 1958|STUART|AARON|2009-11-21 00:00:00|6235545910|Male|Unknown|Unknown|Medicaid|2013-02-19 08:37:57|2015-07-07 15:28:32
12 1991|OTSU|NORO|2006-11-22 00:00:00|Female|Asian|Not Hispanic or Latino|Not VFC Eligible-Underinsured|2009-02-19 08:37:58|2017-11-06 12:03:10
13 2077|JACOB *JD*|MARTINEZ|2012-12-23 00:00:00|Male|White|Hispanic or Latino|Medicaid|2013-02-19 08:38:00|2018-09-05 13:51:49

```

# Patient API

**File Name:** PatientData.txt

The Patient set should be limited to active patients up to the age of 19 years. The active status is determined by the Patient Active/Inactive Status (PAIS) indicator. Patients should be excluded if they have turned 19 as of the current date. SMaRT AFIX will not display or calculation any information for patients 19 and older.

The Patient API includes the following fields:

**PATIENT\_ID:** This attribute represents the unique patient identifier.

**FIRST\_NAME:** This field represents the first name of a specific patient.

**LAST\_NAME:** This field represents the last name of a specific patient.

**DATE\_OF\_BIRTH:** This field represents the date of birth of a specific patient.

**PHONE\_NUMBER:** This field represents the phone number of a specific patient.

**CELL\_NUMBER:** This field represents the cell phone number of a specific patient.

**GENDER:** This field represents the gender of a specific patient corresponding to a specific patient ID.

**RACE:** This field represents the race of a specific patient corresponding to that particular patient ID.

**ETHNICITY:** This field represents the ethnicity of a specific patient corresponding to that particular patient ID.

**VFC\_ELIGIBLE:** This field represents the VFC eligibility status of a specific patient corresponding to that particular patient ID.

**CREATED\_TS:** This field represents the date and timestamp when the record was created.

**MODIFIED\_TS:** This field represents the date and timestamp when the record was modified.

**Data Validation for Patient API:**

Attribute	Null Check	Data Type	Length	Format
<b>PATIENT_ID</b>	Not null	Integer	10	Must be a whole number value less than 2,147,483,647.
<b>FIRST_NAME</b>	Nullable	String	48	
<b>LAST_NAME</b>	Nullable	String	48	
<b>DATE_OF_BIRTH</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)
<b>PHONE_NUMBER</b>	Nullable	String	10	10 unbroken digits only (#####). Patient records will be rejected due to incorrect formatting.
<b>CELL_NUMBER</b>	Nullable	String	10	10 unbroken digits only (#####). Patient records will be rejected due to incorrect formatting.
<b>GENDER</b>	Nullable	String	10	
<b>RACE</b>	Nullable	String	100	
<b>ETHNICITY</b>	Nullable	String	100	
<b>VFC_ELIGIBLE</b>	Nullable	String	200	
<b>CREATED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)
<b>MODIFIED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)

In case of null values in the attributes GENDER, RACE, ETHNICITY, and VFC\_ELIGIBLE, the null values are set to 'Unknown'.

**Data Integrity:**

Data integrity for the Patient API is validated for the following fields (in line with CDC provided codes listed in CDC\_Codes.xlsx):

- **GENDER:** The data integrity is validated against the values "Female", "Male" and "Undifferentiated". Patients with a value of "Unknown" have been accepted.
- **ETHNICITY:** The data integrity is validated against the values "Hispanic or Latino" and "Not Hispanic or Latino".
- **RACE:** The data integrity is validated against the values "American Indian or Alaska Native", "Asian", "Black or African American", "Native Hawaiian or Other Pacific Islander", "White" and "Other Race".
- **VFC\_ELIGIBLE:** The data integrity is validated against the standard values of "Not VFC Eligible-Underinsured", "VFC Eligible - State Specific Eligibility", "Local-Specific Eligibility", "Not VFC Eligible", "American Indian/Alaska Native", "Uninsured", "Federally Qualified Health Center Patient", and "Medicaid". Additional status categories will need to be added to VFCEligibilityStatus.txt.

# Provider API

**File Name:** ProviderData.txt

In SMaRT AFIX, a provider is represented in a two-tier hierarchy, with a combination of two unique IDs. One is for the Organization the provider belongs to and the other is for the Facility representing where the provider is located. An organization can have multiple Facilities underneath it; however, a Facility can only belong to one Organization. An Organization can also exist as an independent provider with no Facility; in this case the Facility ID is represented as 0.

The Provider API includes the following fields:

**SRC\_ORG\_ID:** This field represents the unique identifier for a specific Organization.

**SRC\_FAC\_ID:** This field represents the unique identifier for a specific Facility that falls under the Organization identified in SRC\_ORG\_ID. In the event the provider exists as only an Organization, the SRC\_FAC\_ID should be set to 0.

**VFC\_PIN:** This field is assigned for each VFC provider. VFC PINs are used for vaccine ordering and accountability for all vaccines issued and administered as part of the VFC program. Note: AFIX will accept providers that do not have an assigned VFC PIN.

**ORG\_NAME:** This field represents the name of an Organization corresponding to the specific SRC\_ORG\_ID.

**FAC\_NAME:** This field represents the name of a Facility corresponding to the specific SRC\_FAC\_ID.

**ADDRESS\_1:** This represents the first line address of the Facility corresponding to SRC\_FAC\_ID. If the SRC\_FAC\_ID is null, this field represents the address of the Organization corresponding to the SRC\_ORG\_ID.

**ADDRESS\_2:** This represents the first line address of the Facility corresponding to SRC\_FAC\_ID. If the SRC\_FAC\_ID is null, this field represents the address of the Organization corresponding to the SRC\_ORG\_ID.

**CITY\_NAME:** This represents the city name of the corresponding Facility. If the SRC\_FAC\_ID is null, this field is referred to the SRC\_ORG\_ID.

**COUNTY\_NAME:** This represents the county name of the corresponding Facility. If the SRC\_FAC\_ID is null, this field is referred to the SRC\_ORG\_ID.

**ZIP\_CODE:** This represents the zip code of the corresponding Facility. If the SRC\_FAC\_ID is null, this field is referred to the SRC\_ORG\_ID.

**STATE:** This represents the state of the corresponding Facility. If the SRC\_FAC\_ID is null, this field is referred to the SRC\_ORG\_ID.

**VFC\_STATUS\_DESC:** Within the IIS, this field may be assigned for each provider to represent the organization’s status with the VFC Program. This value is used only to rank facilities within the Master Rate Comparison Report and does not impact the availability of the Provider’s data within the SMaRT AFIX application.

**CREATED\_TS:** This field represents the date and timestamp when the record was created.

**MODIFIED\_TS:** This field represents the date and timestamp when the record was modified.

**Data Validation for Provider API:**

Attribute	Null Check	Data Type	Length	Format
<b>SRC_ORG_ID</b>	Not null	Integer	10	
<b>SRC_FAC_ID</b>	Not null	String	10	
<b>VFC_PIN</b>	Nullable	String	20	
<b>ORG_NAME</b>	Nullable	String	500	
<b>FAC_NAME</b>	Nullable	String	500	
<b>ADDRESS_1</b>	Not null	String	100	
<b>ADDRESS_2</b>	Nullable	String	100	
<b>CITY_NAME</b>	Not null	String	30	
<b>COUNTY_NAME</b>	Not null	String	30	
<b>ZIP_CODE</b>	Not null	String	10	12345-9999
<b>STATE</b>	Not null	String	2	"AZ"
<b>VFC_STATUS_DESC</b>	Nullable	String	60	
<b>CREATED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)
<b>MODIFIED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)

**Data Integrity:**

Data integrity for the Provider API is validated for the following fields:

- **VFC\_STATUS\_DESC:** The data is validated for the following fields: "Enrolled, Active", "Enrolled, inactive", "Private" and N/A.

# Vaccination API

**File Name:** VaccinationData.txt

The Vaccination set should be limited to only those vaccines given to patients within the Patient set.

The Vaccination API includes the following fields:

**PATIENT\_ID:** This attribute represents a unique patient identifier.



**VACC\_DATE:** This field represents the date the patient received the vaccination.

**CVX\_CODE:** This field represents the standardized code used to indicate the vaccination that was administered.

**CREATED\_TS:** This field represents the date and timestamp when the record was created.

**MODIFIED\_TS:** This field represents the date and timestamp when the record was last modified.

#### Data Validation for Vaccination API:

Attribute	Null Check	Data Type	Length	Format
<b>PATIENT_ID</b>	Not null	Integer	10	Must be a whole number value less than 2,147,483,647.
<b>VACC_DATE</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)
<b>CVX_CODE</b>	Not null	String	25	
<b>CREATED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)
<b>MODIFIED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)

#### Data Integrity:

Data integrity for the Vaccination API is validated for the following fields:

- **CVX\_CODE:** The data is validated against the CDC CVX list [found here](#).

## Contraindication API

**File Name:** ContraindicationData.txt

The contraindication API comprises the following fields:

**PATIENT\_ID:** This attribute represents the unique patient identifier.

**CVX\_CODE:** This field represents the standardized code used to indicate the vaccination that was administered.

**IS\_IMMUNITY:** This field should be "Y" if the contraindication indicates the patient has immunity; "N" otherwise.

**EXEMPTION\_IND:** An exemption indicates either the patient chose not to receive a vaccination (personal, religious reasons), or the physician chose not to administer it

(temporary illness, underlying disorder). A "Y" value in this field represents an exemption; the field should be contain "N" otherwise.

**CONTRAINDICATION\_IND:** A contraindication represents the reason the patient could not or should not receive a vaccine (allergy, negative reaction, immunity). A "Y" value in this field represents a contraindication; the field should contain an "N" otherwise.

**CONTRA\_CODE** Must be valid contraindication code. Refer to ContraList.xlsx.

**CONTRA\_TYPE:** Type of Contraindication or Precaution.

**CONTRA\_DESC:** Text description for the contraindication or precaution as published in Table 6 of General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP) <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6002a1.htm#Tab6>).

**IS\_MEDICAL:** Exemptions may be classified as Medical (Underlying Issues...) or Non-Medical (religious reasons...). A "Y" value in this field represents a Medical Exemption; the field should contain an "N" otherwise.

**IS\_PERMANENT:** Permanent Indicator (Y or N), if applicable. Null or blank are acceptable.

**FAMILY\_CODE:** STC Family Code. Refer to ContraList.xlsx.

**CREATED\_TS:** This field represents the date and timestamp when the record was created.

**MODIFIED\_TS:** This field represents the date and timestamp when the record was modified.

**Data Validation for Contraindication API:**

Attribute	Null Check	Data Type	Length	Format
<b>PATIENT_ID</b>	Not null	Integer	10	Must be a whole number value less than 2,147,483,647.
<b>CVX_CODE</b>	Not null	String	25	
<b>IS_IMMUNITY</b>	Nullable	String	1	"Y"
<b>EXEMPTION_IND</b>	Nullable	String	1	"Y"
<b>CONTRAINDICATION_IND</b>	Nullable	String	1	"Y"
<b>CONTRA_CODE</b>	Nullable	String	30	Must be valid contraindication code supported by CDC. Refer to ContraList.xlsx
<b>CONTRA_TYPE</b>	Nullable	String	60	'Contraindication' or 'Precaution.' Refer to ContraList.xls
<b>CONTRA_DESC</b>	Nullable	String	1000	Contraindication description. Refer to ContraList.xlsx
<b>IS_MEDICAL</b>	Nullable	String	1	"Y"
<b>IS_PERMANENT</b>	Nullable	String	1	"Y" or "N"

<b>FAMILY_CODE</b>	Nullable	String	30	STC Family Code. Refer to ContraList.xlsx
<b>CREATED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)
<b>MODIFIED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)

### Data Integrity:

Data integrity for the Contraindication API is validated for the following fields:

- **CVX\_CODE:** The data is validated against the CDC CVX list [found here](#).
- **CONTRA\_DESC:** The data is validated against the Contraindications and Precautions printed in Table 6 of General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP) <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6002a1.htm#Tab6>.
- **CONTRA\_TYPE:** The data is validated against the Contraindications and Precautions printed in Table 6 of General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP) <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6002a1.htm#Tab6>.
- **CONTRA\_CODE:** The data is validated against ContraList.xlsx.

## Patient Provider Mapping API

**File Name:** PatientProviderData.txt

The Patient Provider comprises of following fields:

**PATIENT\_ID:** This attribute represents a unique patient identifier.

**OWNER\_ORG:** This attribute represents the ID of the Organization that at any time was responsible for this patient.

**OWNER\_FAC:** This attribute represents the ID of the Facility that at any time was responsible for this patient. The Facility represented here must exist under the Organization represented by OWNER\_ORG.

**IS\_PRIMARY:** A "Y" value in this field indicates the Provider represented by OWNER\_ORG and OWNER\_FAC, which is the current owner or primary owner of the patient represented by PATIENT\_ID.

**CREATED\_TS:** This attribute represents the date the patient represented by PATIENT\_ID became associated with the provider represented by OWNER\_ORG and OWNER\_FAC.

**MODIFIED\_TS:** This attribute represents the date of the last time the relationship between the patient represented by PATIENT\_ID and the provider represented by OWNER\_ORG and OWNER\_FAC was modified.

## Data Validation for Patient Provider API:

Attribute	Null Check	Data Type	Length	Format
<b>PATIENT_ID</b>	Not null	Integer	10	Must be a whole number value less than 2,147,483,647.
<b>OWNER_ORG</b>	Not null	Integer	10	
<b>OWNER_FAC</b>	Not null	Integer	10	
<b>IS_PRIMARY</b>	Not null	String	1	"Y"
<b>CREATED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)
<b>MODIFIED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)

# User Data API

**File Name:** UserData.txt

The User Data API comprises of following fields:

**USER\_ID:** The unique User ID and/or User Name that represents the user.

**FIRST\_NAME:** The First Name of the person associated with this User ID.

**LAST\_NAME:** The Last Name of the person associated with this User ID.

**USER\_TYPE:** Identifies if this is a "State" or "Provider" Level User.

**SRC\_ORG\_ID:** This field represents the Organization with which this user is associated.

**SRC\_FAC\_ID:** This field represents the Facility with which this user is associated.

**EMAIL:** The unique email address associated to this user. Must be a valid email address and contain no spaces. Note that this is not a required field for IWeb implementations of SMarT AFIX.

**INACTIVE\_STATUS:** This field represents whether the user is Inactive or Active. A value of *Y* indicates the user is Inactive. A value of *N* indicates the user is Active.

**MULTI-PROVIDER:** This field represents whether or not the user is eligible to be added to a provider group. A value of *Y* indicates the user is eligible to be added to a provider group. A value of *N* indicates the user is not eligible.

**CREATED\_TS:** This field represents the Date and timestamp when the user was created in the source system.

**MODIFIED\_TS:** This field represents the date and timestamp when the user was last modified in the source system.

### Data Validation for User Data API:

Attribute	Null Check	Data Type	Length	Format
<b>USER_ID</b>	Not null	String	100	
<b>FIRST_NAME</b>	Nullable	String	500	
<b>LAST_NAME</b>	Nullable	String	500	
<b>USER_TYPE</b>	Not null	String	100	
<b>SRC_ORG_ID</b>	Nullable	Integer	10	
<b>SRC_FAC_ID</b>	Nullable	Integer	10	
<b>EMAIL</b>	Not null	String	100	
<b>INACTIVE_STATUS</b>	Nullable	String	9	"Y" or "N"
<b>MULTI_PROVIDER</b>	Nullable	String	9	"Y" or "N"
<b>CREATED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)
<b>MODIFIED_TS</b>	Not null	Date	19	(yyyy-MM-dd HH:mm:ss)

### Data Integrity:

Data integrity for the User Data API is validated for the following fields:

- **USER\_TYPE:** The only valid values for USER\_TYPE are "State" and "Provider". Additionally, if the user type is set to "Provider", SRC\_ORG\_ID and SRC\_FAC\_ID must be present. If SRC\_ORG\_ID and SRC\_FAC\_ID are present, they must correspond to an existing provider found in the Provider API.