Centers for Disease Control and Prevention   **Draft: January 30, 2003**

Annex 7

Data Exchange Format Requirements

Smallpox Vaccination Program Guidance: Annex 7

Data Exchange Format Requirements

1.0 Description

1.1 Sending Files to PVS

The CDC will provide an Import Utility user interface as part of the PVS system to facilitate the upload of import files for any Public Health entity (e.g., Smallpox Vaccination Program Grantee) authorized to give vaccinations ("Grantee") that is certified to use their own vaccination administration support system and send a data file to the CDC Pre-Event Vaccination System (PVS). The PVS will reside on the CDC's Secure Data Network (SDN), which is only accessible from a computer that has the appropriate security certificate. Access to the Import Utility will require logging onto the PVS application using a user id and password; in addition, the Upload Utility will only be accessible by those users with the appropriate user role. In other words, the security structure of the SDN, PVS, and the Import Utility is a 3-level security structure; the Import Utility is only accessible by a user with a valid PVS user id, password, and the appropriate PVS user role from a computer with a valid SDN digital certificate.

1.2 File Validation

Validation of the import file is a 3-step process. The first step verifies that the file has been transferred correctly, the second step validates the file format and performs some of the field validation, and the third step validates that the imported data loads into the PVS database correctly.

1. Verification of File Transfer will be performed during transfer or upload of the file. There will be a "success notification" component of the system, which will notify the user that the file has been transferred successfully.
2. Validation of the File Format involves validating the XML file layout, any cardinality and valid value rules provided as part of the data extract (see Section 2 of this Annex). Any errors will be sent to the sending entity for correction. For example, the validation of the XML file will ensure that:
    - There is only one header section per XML file.
    - The Sending Entity field in each of the sections matches the Sending Entity value in the Header section.
    - Every occurrence of the Gender field has values of either "M" or "F".
    - All State fields (Organization State, Patient State of Residence, etc) are characters (no numbers), only 2 characters in length, and conform to the USPS state abbreviation list.

      – Users will be notified of any error found by the file format validation process.

3. Validation of the PVS DataBase (DB) Load will be performed during load of the import file to the PVS DB. This is a data quality validation and any record that is not loaded into the database will be noted with the error indicated and sent back to the sender for correction. An example of this type of error is sending a Take Response record for a patient for which there is no corresponding Vaccination record in the database.

1.3 PVS Database Load Process

During the load of the PVS database, the records in the import file will be checked against the existing records in the database using the identifying fields (e.g., Internal Identifier for Organizations, Internal Identifier for Patients, and Vaccination Internal Identifier for Vaccinations and Take Response). If the records in the upload are not in the database, the data in the upload will be loaded to the database as new records. If the records in the upload are in the database, the records in the database will be replaced/overwritten with the records in the upload; the database records will be updated with the new information. If there are records in the database that is not in the upload, the records in the PVS database will be marked for deletion. To help maintain data integrity within the database, only records previously sent by the Sending Entity can be updated by data in a new upload from the same Sending Entity. In addition, to maintain a record of database activity, all activity in a PVS database table generates a record in a corresponding audit table with the date and time of activity.

1.4 Communication

As described in the File Validation steps above, the PVS system will notify the sender in the event that:
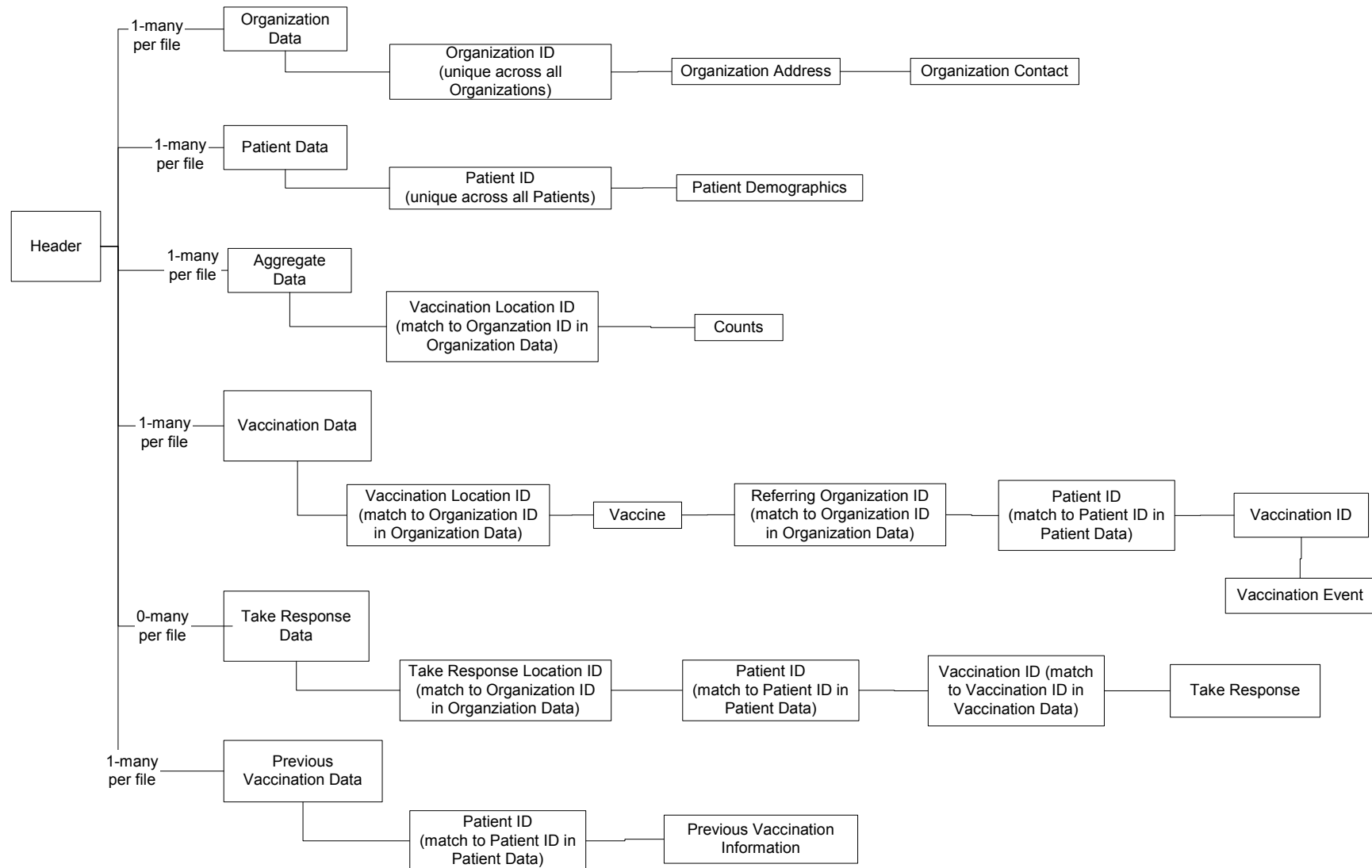1. The file does transfer properly (success notification)
2. The file does not match the defined XML schema
3. The fields in the XML file do not contain an expected value
4. The data does not load properly

In addition, upon successful load of an Import file, the PVS system will provide notification of a successful transfer and load and the availability of the data.

2.0 Data Exchange Format Requirements

2.1 Import File Descriptions

The import consists of up to 7 sections. In order to capture all the necessary data and relate it properly, some of the sections refer to other sections using unique keys. Each section and the applicable data elements are displayed in the diagram below and described in the accompanying text (the information in this description matches to the xml layout by name): The diagram below shows the import hierarchy.

Import Data Hierarchy

1. Header - Identifies global information such as the date of the extract and the sending entity. The Sending Entity data element must match to the name of an organization that has been previously submitted to PVS for the purpose of doing uploads. There are 3 data elements in the header section of the import; all are required, and the Sending Entity field must be unique across all entities sending data to PVS. All sections in an import contain the Sending Entity field; this field links all sections together during transformation to the Import Staging Area and the PVS database.

2. Organization – Contains organization information for all organizations (vaccination locations, take response locations, and referring organizations) that are in the import file. All organization identifiers in the import (vaccination location id, referring organization id, and take location id) must relate back to one of the organization records.

3. Patient - Contains patient information for all patients (people who received vaccinations) that are in the import file. All patient identifiers in the import (e.g., Patient Internal Id in Vaccination, Take Response, and Previous Vaccination sections) must relate back to one of the patient records.

4. Aggregate Counts – Contains vaccination counts for all vaccination locations. Each location will have one aggregate record with the total counts up to and including the extract date indicated in the Header Section (data element #2). For example, the Aggregate Count section sent in the import with the Header Section Extract Date = 10/14/2002 would contain the total counts for all activity through 10/14/2002.

5. Vaccination – Contains vaccination activity that occurred at the vaccination location up to and including the extract date indicated in the Header Section (data element #2). For each patient that is vaccinated, all information must be sent. The information in this section contains:

   • Vaccination Event Primary Key – A set of fields that unique identifies the vaccination event for one patient. This section consists of the Sending Entity and the Vaccination Internal Identifier (data elements #1 & #2).

   • Vaccination Location identification – Identifies the vaccination location where a patient was vaccinated. Vaccination location identification data is contained in data element #5 of the Vaccination Section Data Elements table and relates back to information in the Organization section.

   • Vaccine information – Provides identification and some detail data about the vaccine given to the patient, including vaccine and diluent lots used to create the batch and the maximum number of doses in the batch. This information is contained in data elements #6-#15 of the Vaccination Section Data Elements table.

   • Referring Organization – Identifies the organization that referred the patient to be vaccinated. Data element #16 of the Vaccination Section Data Elements table contains the referring organization identifier. This identifier relates back to information in the Organization section.

   • Patient – Identifies the patient that received the vaccination. Patient identification data is contained in element #16 and relates back to Patient section data.

   • Vaccination Event – Identifies the event of vaccination. The unique key for the vaccination event is in data elements #2. Vaccination details are provided in data elements #3, #4, & #18-#25 of the Vaccination Section Data Elements table.

6. Take Response – Because the Take Response readings are taken 6-8 days after the vaccination and may occur at a different location than the vaccination (e.g., the referring organization location), a separate schema has been provided. The Take Response section has four sections:

    - Take Response Primary Key – A set of fields that uniquely identifies the take response for one patient. This section consists of the Sending Entity and the Vaccination Internal Identifier (data elements #1 & #5).
    - Take Response Location identification – Identifies the location where the take response reading occurred. This information is contained in data element #2 of the Take Response Section Data Elements table and relates back to information sent in the Organization section of the import.
    - Patient – Identifies the patient that received the take response. Patient identification data is contained in element #4 and relates back to Patient section data.
    - Take Response results – Contains the take response results for each vaccination event and is linked to the Vaccination record using the Vaccination Internal Identifier, data element #5. This take response information is in data elements #6-#15 of the Take Response Section Data Elements table.

7. Previous Vaccination – Contains historical vaccination information (i.e., vaccination that occurred before the current round of vaccinations such as childhood) for each patient; at least one Previous Vaccination section per Patient is expected in the import. The Previous Vaccination section has 2 parts:

    - Patient Identification – Identifies the patient to which the Previous Vaccination information applies. This information is contained in data element #2 of the Previous Vaccination Section Data Elements table and must relate back to information sent in the Patient section of the import.
    - Previous Vaccination detail – Contains the historical vaccination information such as vaccination data source, date of vaccination, and take response. This information is contained in data elements #3-#9 of the Previous Vaccination Section Data Elements table.

Cardinality and Repeatability

- The Header section occurs once per import.
- Each import must contain data from one or more Organizations; therefore, the Organization section of the import will be repeated once for each organization in the import. If an organization has more than one role (vaccination location, referring organization, or take response location) in the import, then there will only be one Organization record.
- Each import must contain data from one or more Patients. The Patient section of the import will be repeated once for each patient in the import. If a patient has vaccination, take response, and previous vaccination information in the import, the patient section occurs once for that patient. It is expected that only patients who have been vaccinated will be uploaded to PVS; patients who were scheduled for screening or screened but not vaccinated should not be sent to PVS.
- Each import must contain aggregate count data from one or more Vaccination Locations; therefore, the Aggregate Counts section of the import will be repeated for each vaccination location. Each vaccination location with aggregate count data

must have corresponding Organization data in the import. It is expected that all vaccination locations will have Aggregate Count data.

- Each import must contain data from more than one vaccination event (patient who was vaccinated); therefore, the Vaccination section of the import may be repeated. It is expected that every patient in the Patient section will have at least one Vaccination section record. For each Vaccination Location in the Vaccination section, there must be corresponding Organization data in the Organization section; for each Referring Organization, there must be corresponding Organization data in the Organization section; and, for each Patient vaccinated, there must be corresponding Patient data in the Patient section.
- Each import may contain data from zero, one, or more than one take responses; data from zero take responses is allowed when only vaccination information is sent (i.e., before any take responses have been done). It is expected that each vaccination event will have a corresponding take response after the 6-8 day delay. For each Take Response Location in the Take Response section, there must be corresponding Organization data in the Organization section and, for each Patient with a take response, there must be corresponding Patient data in the Patient section.
- Each import must contain data from one or more than one Previous Vaccinations. For each Patient with Previous Vaccination data, there must be corresponding Patient data in the Patient section. It is expected that all patients in the Patient section will have at least one record in the Previous Vaccination section.

2.2   Minimum Data Set

Header Section Minimum Data

The header section is required in the import. One and only one header section can be sent per import. The minimum required data elements are listed in the table below; any and all format, uniqueness, and valid value requirements must be followed and will be validated during upload and/or transformation to the PVS database.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80		Yes	Yes		Full information must be previously sent to PVS in order to allow imports to be sent by this entity.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
2	Extract Date	The end date to which the data contained in the extract belongs. Each extract will contain data for dates up to and including the extract date.	Date	10	yyyy-mm-dd		Yes		This date may not be the same as the Extract Create Date, e.g., the extract was created on 10/15/2002 but contains data collected up to and including 10/14/2002, the Extract Date is 10/14/2002 while the Extract Create Date is 10/15/2002.
3	Extract Create Date	The date on which the extract(s) was created.	Date	10	yyyy-mm-dd		Yes		This date may not be the same as the Extract Create Date, e.g., the extract was created on 10/15/2002 but contains data collected up to and including 10/14/2002, the Extract Date is 10/14/2002 while the Extract Create Date is 10/15/2002.

Organization Section Minimum Data

The organization section is required in the import. All organizations referenced in the import - Vaccination Locations in the Aggregate and Vaccination sections, Referring Organizations in the Vaccination section, and Take Response Locations in the Take Response section – must have corresponding data in the Organization section. The minimum required data elements are listed in the table below; any and all format, uniqueness, and valid value requirements must be followed and will be validated during upload and/or transformation to the PVS database.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
2	Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the organization participating in the vaccination campaign.	Alphanumeric	80		Yes	Yes		
3	Name		Alphanumeric	50			Yes		
4	Street Address Line 1		Alphanumeric	80			Yes		
6	City		Character	20			Yes		
8	State		Character	2			Yes	See State valid values	State codes from the United States Postal Service (USPS) web site (http://www.usps.com/ncsc/lookups/usps_abbreviations.html).
9	Zip Code		Alphanumeric	10	'nnnnn' or 'nnnnn-nnnn'		Yes		Both the 5-digit and 5+4-digit codes will be accepted.
10	Phone Area Code		Number	3			Yes		
11	Phone Exchange Number		Number	3			Yes		
12	Phone Line Number		Number	4			Yes		
18	Contact First Name		Character	50			Yes		
20	Contact Last Name		Character	50			Yes		

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
22	Category	Indicates if the organization is referring patients for the Healthcare Response Team or the Public Health Response Team, or is not referring patients (Category = Not Applicable).	Character	80			Yes	See Organization Category list	
23	Organization Type	Indicates the general category of organization.	Character	20			Yes	See Organization Type list	Used to establish PVS functionality and user types.

Patient Section Minimum Data

The patient section is required in the import. All patients referenced in the import – in the Vaccination, Take Response, and Previous Vaccination sections – must have corresponding data in the Patient section. The minimum required data elements are listed in the table below; any and all format, uniqueness, and valid value requirements must be followed and will be validated during upload and/or transformation to the PVS database.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.
2	Internal Identifier	A unique internal identifier assigned or used by the sending system to identify a patient.	Alphanumeric	80		Yes	Yes		

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
3	Initial Patient Vaccination Number	A unique value used to identify the patient's vaccination record for the initial (first) vaccination. This number is given to the patient and provides linking between the initial vaccination, any revaccination(s), and any post-vaccination communication (e.g., with Healthcare Providers or for Adverse Events reporting).	Alphanumeric	13	"PVN" + 10 digits	Yes	Conditional		Generated by the PVS System and provided to the clinic; will be verified upon load. Used as an additional patient identifier, to support revaccinations, and to facilitate post vaccination communication. Required if using the CDC-supplied PVNs.
4	Initial Substitute Patient Vaccination Number	A unique value, issued by the vaccinating grantee as a substitute patient vaccination number. This number is given to the patient and provides linking between the initial vaccination, any revaccination(s), and any post-vaccination communication (e.g., with Healthcare Providers or for Adverse Events reporting).	Alphanumeric	20		Yes	Conditional		Used as an additional patient identifier, to support revaccinations, and to facilitate post vaccination communication. Required if not using the CDC-supplied PVN.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
13	Residence State	The home state of the patient	char	2			Yes	See State valid values	State codes from the United States Postal Service (USPS) web site (http://www.usps.com/ncsc/lookups/usps_abbreviations.html).
32	Date of Birth	Either the date of birth of the patient or the year of birth.	Alphanumeric	10	yyyy or yyyy-mm-dd		Yes		The year of birth is required (format yyyy); the full date may be sent (yyyy-mm-dd).
33	Gender		Character	1			Yes	See Gender valid values	
40	Occupation		Character	50			Yes	See Occupation valid values.	Occupation codes are based on **The 1998 Standard Occupational Classification**. This document can be found on the US Department of Labor, Bureau of Labor Statistics web site (http://www.bls.gov/soc/).

Aggregate Counts Section Minimum Data

An Aggregate Count section is required for each vaccination location in the import. The minimum required data elements for the Aggregate Count section are listed in the table below; any and all format, uniqueness, and valid value requirements must be followed and will be validated during upload and/or transformation to the PVS database.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
2	Vaccination Location Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the vaccination location where vaccinations occurred.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the vaccination location records. Must match to the Internal Identifier in the Organization structure.
3	Count Date	Identifies the last date the counts include.	Date	10	yyyy-mm-dd		Yes		
4	Number Vaccinated	The total number of patients vaccinated by the Vaccination Location.	Number	10			Yes		
7	Number Not Vaccinated	The total number of patients who were screened but did not receive the vaccination at the Vaccination Location.	Number	10			Yes		

Vaccination Section Minimum Data Elements

The Vaccination section is required in the import; vaccination section data is expected for every patient vaccinated. The minimum required data elements for the Vaccination section are listed in the table below; any and all format, uniqueness, and valid value requirements must be followed and will be validated during upload and/or transformation to the PVS database.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.
2	Vaccination Internal Identifier	A unique value assigned or used by the sending system to identify the vaccination event record. Each time a patient is vaccinated, a new Vaccination Internal Identifier is assigned.	Alphanumeric	20		Yes	Yes		

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
3	Patient Vaccination Number	A unique value, issued by the CDC, used to identify the patient vaccination record. Each time a patient is vaccinated, a Patient Vaccination Number (PVN) is assigned.	Alphanumeric	13	"PVN" + 10 digits	Yes	Conditional		Generated by the PVS System and provided to the clinic; will be verified upon load. This number is given to the patient and facilitates any post-vaccination communication (e.g., with Healthcare Providers or for Adverse Events reporting). Required if using the CDC-supplied PVNs.
4	Substitute Patient Vaccination Number	A unique value, issued by the grantee in lieu of the CDC-supplied PVN, used to identify the patient vaccination record. Each time a patient is vaccinated, a substitute Patient Vaccination Number (PVN) is assigned.	Alphanumeric	20		Yes	Conditional		This number is given to the patient and facilitates any post-vaccination communication (e.g., with Healthcare Providers or for Adverse Events reporting). Required if not using the CDC-supplied PVN.
5	Vaccination Location Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the vaccination location where vaccinations occurred.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the vaccination location records. Must match to the Internal Identifier in the Organization structure.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
8	Batch Number	Unique identifier assigned by the vaccination location when vaccine is either opened or created (reconstituted) that is used to uniquely identify the vaccine that is administered to patients. This batch is defined as a combination of vaccination location, vaccine lot, vaccine manufacturer, diluent lot, diluent manufacturer, and batch date.	Alphanumeric	20		Yes	Yes		Each Vaccination Location will need a unique list of values for the batch number.
11	Batch Date	The date the batch is ready to be administered to a patient (creation date or opened date if no reconstitution needs to take place).	Date	10	yyyy-mm-dd hr:mi		Yes		All values are required, including hours (hr) (24 hour clock) and minutes (mi). All letters in the format represent numbers, the dashes (-) and colon (:) are literal.
12	Vaccine Lot Number	The lot number on the vaccine lot container sent to the clinic in the vaccine kit.	Alphanumeric	20			Yes		
13	Vaccine Lot Manufacturer	The name of the vaccine lot manufacturer sent to the clinic in the vaccine kit.	Alphanumeric	50			Yes		
14	Diluent Lot Number	The lot number on the diluent lot container that may have been sent to the clinic in the vaccine kit if a diluent is needed with the vaccine lot.	Alphanumeric	20			Conditional		If a diluent is used to create the batch, the diluent lot number is required.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
15	Diluent Manufacturer	The name of the diluent lot manufacturer that may have been sent to the clinic in the vaccine kit if a diluent is needed with the vaccine lot.	Alphanumeric	50			Conditional		If a diluent is used to create the batch, the diluent manufacturer is required.
16	Referring Location Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the organization that requested that the patient receive the current vaccination.	Alphanumeric	80		Yes	Yes		Must match to the Internal Identifier in the Organization structure.
17	Patient Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the patient.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the patient records. Must match to the Internal Identifier in the Patient structure.
18	Date of Vaccination	The date the current vaccination was given.	Date	10	yyyy-mm-dd		Yes		
22	Vaccine Administered by First Name	The first name of the person who administered the current vaccine.	Character	50			Yes		
24	Vaccine Administered by Last Name	The last name of the person who administered the current vaccine.	Character	50			Yes		

Take Response Section Minimum Data Elements

The Take Response section is not required in the import; however, take response sections are expected for every patient with a vaccination and subsequent take reading. The minimum required data elements for the Take Response section are listed in the table below; any and all format, uniqueness, and valid value requirements must be followed and will be validated during upload and/or transformation to the PVS database.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.
2	Take Response Location Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the take response location where take readings occurred.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the take response location records. Must match to the Internal Identifier in the Organization structure.
3	Take Response Exam Date	The date the take response for the current vaccination (administered vaccination) is read.	Date	10	yyyy-mm-dd		Yes		
4	Patient Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the patient.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the patient records. Must match to the Internal Identifier in the Patient structure.
5	Vaccination Internal Identifier	A unique value assigned or used by the sending system used to identify the patient vaccination record. Each time a patient is vaccinated, a new Vaccination Internal Identifier is assigned.	Alphanumeric	20		Yes	Yes		Provides the ability to specify the vaccination event for which the take response applies. Must match to the Vaccination Internal Identifier in the Vaccination structure.
6	Patient Vaccination Number	A unique value, supplied by the CDC, used to identify the patient vaccination record. Each time a patient is vaccinated, a Patient Vaccination Number (PVN) is assigned.	Alphanumeric	13	"PVN" + 10 digits	Yes	Conditional		Provides the ability to specify the vaccination event for which the take response applies. Required if using the CDC-supplied PVN.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
7	Substitute Patient Vaccination Number	A unique value, issued by the grantee in lieu of the CDC-supplied PVN, used to identify the patient vaccination record. Each time a patient is vaccinated, a substitute Patient Vaccination Number (PVN) is assigned.	Alphanumeric	20		Yes	Conditional		Required if not using the CDC-supplied PVN.
8	Take Response	The take response of the current vaccination.	Character	10			Yes	See Take Response valid values.	
12	Take Response Examiner First Name		Character	50			Yes		
14	Take Response Examiner Last Name		Character	50			Yes		

Previous Vaccination Section Minimum Data Elements

The previous vaccination section is required in the import. All patients in the Patient section must have at least one instance of corresponding data in the Previous Vaccination section. The minimum required data elements are listed in the table below; any and all format, uniqueness, and valid value requirements must be followed and will be validated during upload and/or transformation to the PVS database.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
2	Patient Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the patient.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the patient records. Must match to the Internal Identifier in the Patient structure.
3	Previous Vaccination Source	Indicates whether the patient has (1) never had a previous vaccination (Never), (2) had a previous vaccination in childhood (Childhood), (3) had a previous vaccination and recalls the date (Recall), or (4) had a previous vaccination and has the date documented (Document).	Character	10			Yes	See Previous vaccination Source valid values	
4	Previous Vaccination Date		Date	10	yyyy-mm-dd		Conditional		Required if Previous Vaccination Source = "Document" or "Recall".

2.3 Export Data Elements

Header Section Data Elements

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80		Yes	Yes		Full information must be previously sent to PVS in order to allow imports to be sent by this entity.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
2	Extract Date	The end date to which the data contained in the extract belongs. Each extract will contain data for dates up to and including the extract date.	Date	10	yyyy-mm-dd		Yes		This date may not be the same as the Extract Create Date, e.g., the extract was created on 10/15/2002 but contains data collected up to and including 10/14/2002, the Extract Date is 10/14/2002 while the Extract Create Date is 10/15/2002.
3	Extract Create Date	The date on which the extract(s) was created.	Date	10	yyyy-mm-dd		Yes		This date may not be the same as the Extract Create Date, e.g., the extract was created on 10/15/2002 but contains data collected up to and including 10/14/2002, the Extract Date is 10/14/2002 while the Extract Create Date is 10/15/2002.

Organization Section Data Elements

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
2	Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the organization participating in the vaccination campaign.	Alphanumeric	80		Yes	Yes		
3	Name		Alphanumeric	50			Yes		
4	Street Address Line 1		Alphanumeric	80			Yes		
5	Street Address Line 2		Alphanumeric	80					
6	City		Character	20			Yes		
7	County		Character	40					See http://www.itl.nist.gov/fipspubs/co-codes/states.htm for a complete list of counties and their codes.
8	State		Character	2			Yes	See State valid values	State codes from the United States Postal Service (USPS) web site (http://www.usps.com/ncsc/lookups/usps_abbreviations.html).
9	Zip Code		Alphanumeric	10	'nnnnn' or 'nnnnn-nnnn'		Yes		Both the 5-digit and 5+4-digit codes will be accepted.
10	Phone Area Code		Number	3			Yes		
11	Phone Exchange Number		Number	3			Yes		
12	Phone Line Number		Number	4			Yes		
13	Phone Number Extension		Number	6					
14	Fax Area Code		Number	3					
15	Fax Exchange Number		Number	3					

Draft Version 2.3

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#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
16	Fax Line Number		Number	4					
17	Contact Name Prefix	Any text that precedes the name; this may be an academic title such as "Dr." or other title such as "Mr.", "Ms.", or "Mrs.".	Character	20					
18	Contact First Name		Character	50			Yes		
19	Contact Middle Name		Character	50					
20	Contact Last Name		Character	50			Yes		
21	Contact Name Suffix	Any text that comes after the name; this may be an academic degree such as "M.D." or "R.N." or other suffix such as "Jr.", "Sr.", or "III".	Character	20					
22	Category	Indicates if the organization is referring patients for the Healthcare Response Team or the Public Health Response Team, or is not referring patients (Category = Not Applicable).	Character	80			Yes	See Organization Category list	
23	Organization Type	Indicates the general category of organization.	Character	20			Yes	See Organization Type list	Used to establish PVS functionality and user types.

Patient Section Data Elements

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.
2	Internal Identifier	A unique internal identifier assigned or used by the sending system to identify a patient.	Alphanumeric	80		Yes	Yes		
3	Initial Patient Vaccination Number	A unique value used to identify the patient's vaccination record for the initial (first) vaccination. This number is given to the patient and provides linking between the initial vaccination, any revaccination(s), and any post-vaccination communication (e.g., with Healthcare Providers or for Adverse Events reporting).	Alphanumeric	13	"PVN" + 10 digits	Yes	Conditional		Generated by the PVS System and provided to the clinic; will be verified upon load. Used as an additional patient identifier, to support revaccinations, and to facilitate post vaccination communication. Required if using the CDC-supplied PVNs.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
4	Initial Substitute Patient Vaccination Number	A unique value, issued by the vaccinating grantee as a substitute patient vaccination number. This number is given to the patient and provides linking between the initial vaccination, any revaccination(s), and any post-vaccination communication (e.g., with Healthcare Providers or for Adverse Events reporting).	Alphanumeric	20		Yes	Conditional		Used as an additional patient identifier, to support revaccinations, and to facilitate post vaccination communication. Required if not using the CDC-supplied PVN.
5	Name Prefix	Any text that precedes the name; this may be an academic title such as "Dr." or other title such as "Mr.", "Ms.", or "Mrs.".	Character	20					
6	First Name		Character	50					
7	Middle Name		Character	50					
8	Last Name		Character	50					
9	Name Suffix	Any text that comes after the name; this may be an academic degree such as "M.D." or "R.N." or other suffix such as "Jr.", "Sr.", or "III".	Character	20					

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
10	Residence Street Address Line 1		Alphanumeric	80					
11	Residence Street Address Line 2		Alphanumeric	80					
12	Residence City		Character	20					
13	Residence County		Character	40					See http://www.itl.nist.gov/fipspubs/co-codes/states.htm for a complete list of counties and their codes.
14	Residence State	The home state of the patient	char	2			Yes	See State valid values	State codes from the United States Postal Service (USPS) web site (http://www.usps.com/ncsc/lookups/usps_abbreviations.html).
15	Residence Zip Code		Alphanumeric	10	'nnnnn' or 'nnnnn-nnnn'				Both the 5-digit and 5+4-digit codes will be accepted.
16	Identifier Type		Character	4				See Identifier Type valid values.	Default to SSN if not provided. If Id number is a driver's license number, populate with "DLN".
17	Identification Number		Alphanumeric	20	nnn-nn-nnnn, if SSN	Yes, for given type.			If SSN is not collected, but another id (such as Driver's License number) is collected, send that number with Patient Identifer Type populated with "DLN".
18	Identification Number Issuing Authority	The agency or organization who issued the id to the patient.	Alphanumeric	20					SSA will be assumed if SSN is sent (identified by Patient Identifier Type = "SSN").
19	Home Phone Area Code		Number	3					

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
20	Home Phone Exchange Number		Number	3					
21	Home Phone Line Number		Number	4					
22	Work Phone Area Code		Number	3					
23	Work Phone Exchange Number		Number	3					
24	Work Phone Line Number		Number	4					
25	Work Extension		Number	6					
26	Cell Phone Area Code		Number	3					
27	Cell Phone Exchange Number		Number	3					
28	Cell Phone Line Number		Number	4					
29	Fax Area Code		Number	3					
30	Fax Exchange Number		Number	3					
31	Fax Line Number		Number	4					
32	E-mail Address		Alphanumeric	255					
33	Date of Birth	Either the date of birth of the patient or the year of birth.	Alphanumeric	10	yyyy or yyyy-mm-dd		Yes		The year of birth is required (format yyyy); the full date may be sent (yyyy-mm-dd).
34	Gender		Character	1			Yes	See Gender valid values	

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
35	Ethnicity		Character	1				See Ethnicity valid values.	Ethnicity values are compliant with **Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity** dated October 30, 1997; located at http://www.whitehouse.gov/omb/fedreg/ombdir15.html.
36	Race - Asian	Indicates if the patient is Asian or part Asian.	Boolean					TRUE or FALSE	Race values are compliant with **Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity** dated October 30, 1997; located at http://www.whitehouse.gov/omb/fedreg/ombdir15.html.
37	Race - African American	Indicates if the patient is Black or African American or part Black or African American.	Boolean					TRUE or FALSE	Race values are compliant with **Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity** dated October 30, 1997; located at http://www.whitehouse.gov/omb/fedreg/ombdir15.html.
38	Race - Hawaiian	Indicates if the patient is Native Hawaiian or Other Pacific Islander or part Native Hawaiian or Other Pacific Islander.	Boolean					TRUE or FALSE	Race values are compliant with **Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity** dated October 30, 1997; located at http://www.whitehouse.gov/omb/fedreg/ombdir15.html.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
39	Race - American Indian or Alaskan	Indicates if the patient is American Indian or Alaska Native or part American Indian or Alaska Native.	Boolean					TRUE or FALSE	Race values are compliant with **Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity** dated October 30, 1997; located at http://www.whitehouse.gov/omb/fedreg/ombdir15.html.
40	Race - White	Indicates if the patient is White or part White.	Boolean					TRUE or FALSE	Race values are compliant with **Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity** dated October 30, 1997; located at http://www.whitehouse.gov/omb/fedreg/ombdir15.html.
41	Occupation		Character	50			Yes	See Occupation valid values.	Occupation codes are based on **The 1998 Standard Occupational Classification**. This document can be found on the US Department of Labor, Bureau of Labor Statistics web site (http://www.bls.gov/soc/).

Aggregate Counts Section Data Elements

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
2	Vaccination Location Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the vaccination location where vaccinations occurred.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the vaccination location records. Must match to the Internal Identifier in the Organization structure.
3	Count Date	Identifies the last date the counts include.	Date	10	yyyy-mm-dd		Yes		
4	Number Vaccinated	The total number of patients vaccinated by the Vaccination Location.	Number	10			Yes		
5	Number scheduled for screening	The total number of patients scheduled for vaccination screening at the Vaccination Location.	Number	10					
6	Number Screened	The total number of patients receiving vaccination screening at the Vaccination Location.	Number	10					
7	Number Not Vaccinated	The total number of patients who were screened but did not receive the vaccination at the Vaccination Location.	Number	10			Yes		
8	Number Not Vaccinated - Contraindications	The total number of patients who were screened but were not vaccinated due to contraindications (medical reasons) at the vaccination location.	Number	10					
9	Number Not Vaccinated - Non-consenting	The total number of patients who were screened but were not vaccinated due to patient choice (no consent) at the Vaccination Location.	Number	10					

Vaccination Section Data Elements

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.
2	Vaccination Internal Identifier	A unique value assigned or used by the sending system to identify the vaccination event record. Each time a patient is vaccinated, a new Vaccination Internal Identifier is assigned.	Alphanumeric	20		Yes	Yes		
3	Patient Vaccination Number	A unique value, issued by the CDC, used to identify the patient vaccination record. Each time a patient is vaccinated, a Patient Vaccination Number (PVN) is assigned.	Alphanumeric	13	"PVN" + 10 digits	Yes	Conditional		Generated by the PVS System and provided to the clinic; will be verified upon load. This number is given to the patient and facilitates any post-vaccination communication (e.g., with Healthcare Providers or for Adverse Events reporting). Required if using the CDC-supplied PVNs.
4	Substitute Patient Vaccination Number	A unique value, issued by the grantee in lieu of the CDC-supplied PVN, used to identify the patient vaccination record. Each time a patient is vaccinated, a substitute Patient Vaccination Number (PVN) is assigned.	Alphanumeric	20		Yes	Conditional		This number is given to the patient and facilitates any post-vaccination communication (e.g., with Healthcare Providers or for Adverse Events reporting). Required if not using the CDC-supplied PVN.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
5	Vaccination Location Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the vaccination location where vaccinations occurred.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the vaccination location records. Must match to the Internal Identifier in the Organization structure.
6	Vaccine Type	The name of the vaccine given to the patient.	Character	20				Smallpox	Default to "Smallpox".
7	Program	The name of the vaccination event under which the vaccines have been provided.	Alphanumeric	20					Default to "Responder".
8	Batch Number	Unique identifier assigned by the vaccination location when vaccine is either opened or created (reconstituted) that is used to uniquely identify the vaccine that is administered to patients. This batch is defined as a combination of vaccination location, vaccine lot, vaccine manufacturer, diluent lot, diluent manufacturer, and batch date.	Alphanumeric	20		Yes	Yes		Each Vaccination Location will need a unique list of values for the batch number.
9	# of vaccines per batch	The maximum number of vaccines in the batch.	Number	4					
10	Dilution Strength	A ratio expressing the amount of vaccine lot mixed with diluent lot.	Alphanumeric	5	nn:nn				If sent, nn must be between 1 and 99. If diluent information is sent but the Dilution Strength is not sent, a Dilution Strength of 1:1 will be assumed.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
11	Batch Date	The date the batch is ready to be administered to a patient (creation date or opened date if no reconstitution needs to take place).	Date	10	yyyy-mm-dd hr:mi		Yes		All values are required, including hours (hr) (24 hour clock) and minutes (mi). All letters in the format represent numbers, the dashes (-) and colon (:) are literal.
12	Vaccine Lot Number	The lot number on the vaccine lot container sent to the clinic in the vaccine kit.	Alphanumeric	20			Yes		
13	Vaccine Lot Manufacturer	The name of the vaccine lot manufacturer sent to the clinic in the vaccine kit.	Alphanumeric	50			Yes		
14	Diluent Lot Number	The lot number on the diluent lot container that may have been sent to the clinic in the vaccine kit if a diluent is needed with the vaccine lot.	Alphanumeric	20			Conditional		If a diluent is used to create the batch, the diluent lot number is required.
15	Diluent Manufacturer	The name of the diluent lot manufacturer that may have been sent to the clinic in the vaccine kit if a diluent is needed with the vaccine lot.	Alphanumeric	50			Conditional		If a diluent is used to create the batch, the diluent manufacturer is required.
16	Referring Location Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the organization that requested that the patient receive the current vaccination.	Alphanumeric	80		Yes	Yes		Must match to the Internal Identifier in the Organization structure.
17	Patient Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the patient.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the patient records. Must match to the Internal Identifier in the Patient structure.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
18	Date of Vaccination	The date the current vaccination was given.	Date	10	yyyy-mm-dd		Yes		
19	Consent to Photo		Boolean					TRUE or FALSE	
20	Consent to Survey		Boolean					TRUE or FALSE	
21	Vaccine Administered by Prefix	Any text that precedes the name; this may be an academic title such as "Dr." or other title such as "Mr.", "Ms.", or "Mrs.".	Character	20					
22	Vaccine Administered by First Name	The first name of the person who administered the current vaccine.	Character	50			Yes		
23	Vaccine Administered by Middle Name	The middle name of the person who administered the current vaccine.	Character	50					
24	Vaccine Administered by Last Name	The last name of the person who administered the current vaccine.	Character	50			Yes		
25	Vaccine Administered by Suffix	Any text that comes after the name; this may be an academic degree such as "M.D." or "R.N." or other suffix such as "Jr.", "Sr.", or "III".	Character	20					

Take Response Section Data Elements

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
2	Take Response Location Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the take response location where take readings occurred.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the take response location records. Must match to the Internal Identifier in the Organization structure.
3	Take Response Exam Date	The date the take response for the current vaccination (administered vaccination) is read.	Date	10	yyyy-mm-dd		Yes		
4	Patient Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the patient.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the patient records. Must match to the Internal Identifier in the Patient structure.
5	Vaccination Internal Identifier	A unique value assigned or used by the sending system used to identify the patient vaccination record. Each time a patient is vaccinated, a new Vaccination Internal Identifier is assigned.	Alphanumeric	20		Yes	Yes		Provides the ability to specify the vaccination event for which the take response applies. Must match to the Vaccination Internal Identifier in the Vaccination structure.
6	Patient Vaccination Number	A unique value, supplied by the CDC, used to identify the patient vaccination record. Each time a patient is vaccinated, a Patient Vaccination Number (PVN) is assigned.	Alphanumeric	13	"PVN" + 10 digits	Yes	Conditional		Provides the ability to specify the vaccination event for which the take response applies. Required if using the CDC-supplied PVN.
7	Substitute Patient Vaccination Number	A unique value, issued by the grantee in lieu of the CDC-supplied PVN, used to identify the patient vaccination record. Each time a patient is vaccinated, a substitute Patient Vaccination Number (PVN) is assigned.	Alphanumeric	20		Yes	Conditional		Required if not using the CDC-supplied PVN.

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
8	Take Response	The take response of the current vaccination.	Character	10			Yes	See Take Response valid values.	
9	Adverse Event Text	Text for any adverse events associated with the current vaccination.	Text	2000					
10	Comment Text	Text for any comments associated with the current vaccination.	Text	2000					
11	Take Response Examiner Name Prefix	Any text that precedes the name; this may be an academic title such as "Dr." or other title such as "Mr.", "Ms.", or "Mrs.".	Character	20					
12	Take Response Examiner First Name		Character	50			Yes		
13	Take Response Examiner Middle Name		Character	50					
14	Take Response Examiner Last Name		Character	50			Yes		
15	Take Response Examiner Name Suffix	Any text that comes after the name; this may be an academic degree such as "M.D." or "R.N." or other suffix such as "Jr.", "Sr.", or "III".	Character	20					

Previous Vaccination Section Data Elements

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
1	Sending Entity	The Grantee organization name that sent the extract and to which the data contained in the extract belongs.	Alphanumeric	80			Yes		Must match to the Sending Entity data element in the Header section.
2	Patient Internal Identifier	A unique internal identifier assigned or used by the sending system to identify the patient.	Alphanumeric	80		Yes	Yes		Provides uniqueness to the patient records. Must match to the Internal Identifier in the Patient structure.
3	Previous Vaccination Source	Indicates whether the patient has (1) never had a previous vaccination (Never), (2) had a previous vaccination in childhood (Childhood), (3) had a previous vaccination and recalls the date (Recall), or (4) had a previous vaccination and has the date documented (Document).	Character	10			Yes	See Previous vaccination Source valid values	
4	Previous Vaccination Date		Date	10	yyyy-mm-dd		Conditional		Required if Previous Vaccination Source = "Document" or "Recall".
5	Previous Vaccination Take Response Normal		Boolean					TRUE or FALSE	If no value is sent, "False" is assumed, and the take response may be considered to be "Unknown".
6	Previous Vaccination Take Response No Take		Boolean					TRUE or FALSE	If no value is sent, "False" is assumed, and the take response may be considered to be "Unknown".

#	Data Element Name	Description	Data type	Size	Format?	Unique?	Req'd?	Valid Values?	Notes
7	Previous Vaccination Take Response Scar		Boolean					TRUE or FALSE	If no value is sent, "False" is assumed, and the take response may be considered to be "Unknown".
8	Previous Vaccination Take Response Adverse Event		Boolean					TRUE or FALSE	If no value is sent, "False" is assumed, and the take response may be considered to be "Unknown".
9	Previous Vaccination Take Response Equivocal		Boolean					TRUE or FALSE	If no value is sent, "False" is assumed, and the take response may be considered to be "Unknown".

Valid Value Lists

Gender

Value	Name
M	Male
F	Female

Ethnicity

Ethnicity values are compliant with **Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity** dated October 30, 1997; located at http://www.whitehouse.gov/omb/fedreg/ombdir15.html.

Value	Name
H	Hispanic or Latino
N	Non-Hispanic

Identifier Type

Value	Name	Description
SSN	Social Security Number	Indicates that the supplied Identifier is the Social Security Number

Value	Name	Description
DLN	Driver's License Number	Indicates that the supplied Identifier is a Driver's License Number

Previous Vaccination Source

Value	Description
Childhood	Indicates that the patient received the previous vaccination in childhood, but either does not have a document for proof or doesn't recall the date of vaccination (date is not supplied).
Document	Indicates that the Previous Vaccination Date supplied was obtained from a document (e.g., vaccination record).
Never	Indicates that the patient has never been vaccinated (date is not supplied).
Recall	Indicates that the Previous Vaccination Date supplied was obtained from recall (the patient's memory).

Occupation

Based on The 1998 Standard Occupational Classification on the US Department of Labor, Bureau of Labor Statistics web site (http://www.bls.gov/soc/). Some additions have been made to support public health occupations and the names have been updated to support alphabetical sorting.

Value	Name	Notes
31-1011	Aides - Home Health	
31-1012	Aides - Nursing Aides, Orderlies, and Attendants	
31-2012	Aides - Occupational Therapist	
31-9095	Aides - Pharmacy	
31-2022	Aides - Physical Therapist	
31-1013	Aides - Psychiatric	
31-9091	Assistants - Dental	

Value	Name	Notes
31-9092	Assistants - Medical	
31-2011	Assistants - Occupational Therapist	
31-2021	Assistants - Physical Therapist	
29-1071	Assistants - Physician	
29-1011	Chiropractors	
29-2021	Dental Hygienists	
29-1021	Dentists - General	

Value	Name	Notes
29-1022	Dentists - Oral and Maxillofacial Surgeons	
29-1023	Dentists - Orthodontists	
29-1029	Dentists - Other	
29-1024	Dentists - Prosthodontists	
29-1031	Dietitians and Nutritionists	
29-2041	Emergency Medical Technicians and Paramedics	
19-1041	Epidemiologist	Added 1/21/03 - new code for previous value.
33-2011	Fire Fighter	Added 1/21/03
33-1021	Fire Fighter - Manager	Added 1/21/03
33-2022	Fire Inspector - Forest	Added 1/21/03
33-2021	Fire Inspectors and Investigators	Added 1/21/03
29-1199	Health Diagnosing and Treating Practitioners, All Other	
P-004	Infectious Control Professionals	
P-001	Infectious Disease Specialist	
33-3011	Law Enforcement - Bailiffs	Added 1/21/03
33-3012	Law Enforcement - Correctional Officer	Added 1/21/03
33-3021	Law Enforcement - Detectives and Criminal Investigators	Added 1/21/03
33-1011	Law Enforcement - Manager Correction Officer	Added 1/21/03
33-1012	Law Enforcement - Manager Police and Detectives	Added 1/21/03
33-3051	Law Enforcement - Police and Sheriff's Patrol Officers	Added 1/21/03
33-9032	Law Enforcement - Security Guards	Added 1/21/03 - new code for Security - Healthcare Facility in previous list.

Value	Name	Notes
33-3052	Law Enforcement - Transit and Railroad Police	Added 1/21/03
29-2012	Medical and Clinical Laboratory Technicians	
29-2011	Medical and Clinical Laboratory Technologists	
P-002	Medical Consultant	
31-9093	Medical Equipment Preparers	
31-9094	Medical Transcriptionists	
29-9091	Miscellaneous - Athletic Trainers	
29-9090	Miscellaneous - Health Practitioners and Technical Workers	
29-9099	Miscellaneous - Healthcare Practitioners and Technical Workers, All Other	
29-2061	Nurse - Licensed Practical and Licensed Vocational Nurses	
29-1111	Nurse - Registered	
29-9011	Occupational Health and Safety Specialists	
29-1041	Optometrists	
31-9099	Other Healthcare Support Workers	
P-003	Pathologists	
29-1051	Pharmacists	
29-1061	Physician - Anesthesiologists	
29-1062	Physician - Family and General Practitioners	
29-1064	Physician - Obstetricians and Gynecologists	
29-1065	Physician - Pediatricians	
29-1066	Physician - Psychiatrists	
29-1067	Physician - Surgeons	
29-1063	Physician/Surgeon - Internists, General	

Value	Name	Notes	Value	Name	Notes
29-1069	Physicians and Surgeons, All Other		29-2033	Technologist/Technician - Nuclear Medicine	
29-1081	Podiatrists		29-2034	Technologist/Technician - Radiologic	
33-1099	Protective Services - Manger, Other	Added 1/21/03	29-2091	Technologist/Technicians - Orthotists and Prosthetists	
33-9099	Protective Services - Other	Added 1/21/03	29-2099	Technologist/Technicians - Other	
P-006	Public Health Advisor		29-1129	Therapists - All Other	
29-2051	Technician - Dietetic		29-1121	Therapists - Audiologists	
29-2071	Technician - Medical Records and Health Information		31-9011	Therapists - Massage Therapists	
29-2052	Technician - Pharmacy		29-1122	Therapists -Occupational Therapists	
29-2053	Technician - Psychiatric		29-1123	Therapists -Physical Therapists	
29-2054	Technician - Respiratory Therapy		29-1124	Therapists -Radiation Therapists	
29-2055	Technician - Surgical Technologists		29-1125	Therapists -Recreational Therapists	
29-9012	Technicians - Occupational Health and Safety		29-1126	Therapists -Respiratory Therapists	
29-2031	Technologist/Technician - Cardiovascular		29-1127	Therapists -Speech-Language Pathologists	
29-2032	Technologist/Technician - Diagnostic Medical Sonographers				

Organization Type

Value	Name
S	State Department of Health
L	Local Department of Health
H	Healthcare Facility
V	Veteran's Administration

Referring Organization Category

Value
Healthcare Response Team
Public Health Response Team

State

From the United States Postal Service (USPS) web site (http://www.usps.com/ncsc/lookups/usps_abbreviations.html).

Value	Name	Value	Name	Value	Name
AA	Armed Forces Americas	IA	Iowa	NM	New Mexico
AE	Armed Forces Africa	ID	Idaho	NV	Nevada
AE	Armed Forces Canada	IL	Illinois	NY	New York
AE	Armed Forces Europe	IN	Indiana	OH	Ohio
AE	Armed Forces Middle East	KS	Kansas	OK	Oklahoma
AK	Alaska	KY	Kentucky	OR	Oregon
AL	Alabama	LA	Louisiana	PA	Pennsylvania
AP	Armed Forces Pacific	MA	Massachusetts	PR	Puerto Rico
AR	Arkansas	MD	Maryland	PW	Palau
AS	American Samoa	ME	Maine	RI	Rhode Island
AZ	Arizona	MH	Marshall Islands	SC	South Carolina
CA	California	MI	Michigan	SD	South Dakota
CO	Colorado	MN	Minnesota	TN	Tennessee
CT	Connecticut	MO	Missouri	TX	Texas
DC	District Of Columbia	MP	Northern Mariana Islands	UT	Utah
DE	Delaware	MS	Mississippi	VA	Virginia
FL	Florida	MT	Montana	VI	Virgin Islands
FM	Federated States Of Micronesia	NC	North Carolina	VT	Vermont
		ND	North Dakota	WA	Washington
GA	Georgia	NE	Nebraska	WI	Wisconsin
GU	Guam	NH	New Hampshire	WV	West Virginia
HI	Hawaii	NJ	New Jersey	WY	Wyoming

Take Response

Value
No Take
Equivocal
Major