

Rx-REX User Manual

A Tool for Creating the ADAP Data Report (ADR) Client-Level Data File

Health Resources and Services Administration

HIV/AIDS Bureau

Link to Rx-REX: <https://performance.hrsa.gov/hab/rxrex>

Link to Support Materials: <https://careacttarget.org/library/rx-rex-package>

Technical Assistance Contact: Data.TA@CAIglobal.org

TARGET Center Website: <http://www.careacttarget.org/category/topics/adap-data-report-adr>

Release History

| Version | Date | Description |
|-------------------|------------|-------------|
| Rx-REX (1.0.0.10) | March 2013 | Rx-REX |
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Introduction

The ADAP Data Report (ADR) requires ADAPs to submit de-identified client-level demographic, enrollment, service, and clinical data. You must upload the ADR client-level data file to the ADR Web System in a specific XML (eXtensible Markup Language) format. XML is a simple and widely adopted method of formatting data that can be exchanged across different computer platforms, languages, and applications.

Rx-REX helps ADAPs create the ADR client-level data file. It serves the following purposes:

- Converts your client-level data into XML format.
- Serves as a template for you to develop your own data extraction and/or XML conversion tools.
- Allows you to assess the quality of your ADR client-level data. (*This feature is not available in version 1.0.0.10 of Rx-REX.*)

**What do I need to use Rx-REX?**

- MS Access, 2007 or above
- MS Excel, 2007 or above
- An internet connection

Rx-REX is composed of an Access database, titled ADRClients.accdb, and an executable file, titled Rx-REX.exe. You must populate Rx-REX's Access database with your client-level data. You then use the executable file to call the populated Access database to create the client-level XML file. There are multiple ways to load data into the Access database. You could use Access programming code or a mapping software to import your data electronically into the database.¹ Alternatively, you could copy/paste or import your data from a spreadsheet (e.g., Excel or CSV). The method you use depends on the number of clients and your level of programming expertise.

The instructions in this user manual present a **basic approach**, which involves exporting the ADR-required data elements from your data management system(s) into Excel spreadsheets and then copying/pasting or import the data from the Excel spreadsheets into the Rx-REX's Access tables.

This user manual describes in detail the following steps to use Rx-REX:

1. Prepare your input files
2. Install Rx-REX
3. Load data into Rx-REX's Access database
4. Convert data within the Access database into the client-level data XML file with the Rx-REX's executable file

The manual also presents information about the eUCI, which Rx-REX creates for you as long as you have inserted the required data elements into the Access database.

¹ For more information about mapping software, see:
http://en.wikipedia.org/wiki/Extract,_transform,_load#Tools.

1. Prepare Your Input Files

Rx-REX's Access database has five tables. You must create an Excel spreadsheet for each table, matching the table structures in Rx-REX. The data elements in your Excel spreadsheets must be in the same order as the data elements in the Access tables. In addition, you must use the same values as the values required by the ADR.

Become Familiar with ADR Data Elements

First, you need a good understanding of the ADR's required data elements and identify where those data elements are located within your data management system(s).

1. Learn more about the ADR's required data elements by referring to the:
 - Instruction Manual: <http://www.careacttarget.org/library/2012-aids-drug-assistance-program-data-report-adr-instruction-manual>. This document provides you with detailed information on data element definitions.
 - Data Dictionary: <http://www.careacttarget.org/library/adap-data-report-client-data-dictionary>. This document provides you with detailed information on how to code the response options for each ADR data element (e.g., 1= Male).
2. Complete the ADR Crosswalk, located in the Rx-REX zip package on TARGET, to identify the location of ADR **data elements** within your data management system(s). The crosswalk will also help you determine which **values** you input into your data management system(s) for each data element and how these values differ from the ADR values.

For more information on data elements and values, visit the Data Academy and review the module "Getting Data from Existing Sources" at: <http://www.careacttarget.org/dataacademy/>.

Become Familiar with Rx-REX Tables

Now, you must review Rx-REX's Access database table structures, so you know in what format to structure your client-level data in Excel.

Review the ADRClients_Sample_Tables Excel spreadsheet, located in the Rx-REX zip package on TARGET, which contains a tab for every table in the Access database. The first table (tab), *ClientReport*, captures all ADR data elements that just require one response per client; each row should correspond to one client. The subsequent tables capture data elements that may have multiple responses per client; in these cases, multiple rows will correspond to one client. These tables are the following:

- *ClientReportDisenrollmentReason*
- *ClientReportMedicalInsurance*
- *ClientReportMedication*
- *ClientReportRace*

Data elements appear in the first row. The example below shows the data elements in the *ClientReportMedication* spreadsheet.

| | A | B | C | D | E |
|---|----------------|--------------|---------------------|----------------|----------------|
| 1 | ClientReportID | MedicationId | MedicationStartDate | MedicationDays | MedicationCost |
| 2 | | | | | |
| 3 | | | | | |

Prepare Your Input Files

You’ve now reached the most difficult steps to using Rx-REX. You must extract data from your data management system(s) and structure the data in the right format. Remember that these data are very sensitive, so you will want to treat them using the highest security standards!

3. Extract client-level data from your data management system(s). It’s often easier getting data into your data management system than getting them out. Therefore, you may need to work with your IT staff to develop the reports you need. Use the ADR Crosswalk to indicate exactly where each data element is located within your system(s).
4. Create a spreadsheet in Excel for each of the five tables in Rx-REX’s Access database. The table structure of a given Excel table should match the structure of the corresponding Rx-REX table. In other words, the columns should be in the same order. You can use the *ADRClients_Sample_Tables* Excel spreadsheet as a template.
5. Manipulate your data so your values are equal to the values that Rx-REX is expecting – the accepted ADR values. **You will not be allowed to create an XML file with invalid data values.** Once again, you can rely on your ADR Crosswalk to correctly map your data. The below table is an example of how your values for the gender data element may differ from the expected ADR values.

| | ADR | Your System |
|-------------|-----|-------------|
| Male | 1 | M |
| Female | 2 | F |
| Transgender | 3 | T |

Using this example, you’d need to convert “M” to “1”, “F” to “2” and “T” to “3.” There are two approaches you can use to do this. First, you can use the “Replace All” function in Excel. For example, in the Gender column in your *ClientReport* Excel table, you would replace “M” with “1.” You can also use Excel formulas, such as “if/then” statements (e.g., if M, then 1).

You'll note that the ADRClients_Sample_Tables Excel spreadsheet has restricted data values (i.e., drop down menus), as shown below. This will help you ensure your data are in the right format when you load them into the Rx-REX Access database. In addition, you can use the drop down menus as a resource for identifying the ADR data values. However, it means that you'll need to manipulate your data (e.g., change row order and data values) in a different spreadsheet.

| I | J | K |
|-------------|----------------------|---------------|
| EthnicityId | GenderId | TransgenderId |
| | <input type="text"/> | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

1 = Male
2 = Female
3 = Transgender
4 = Unknown

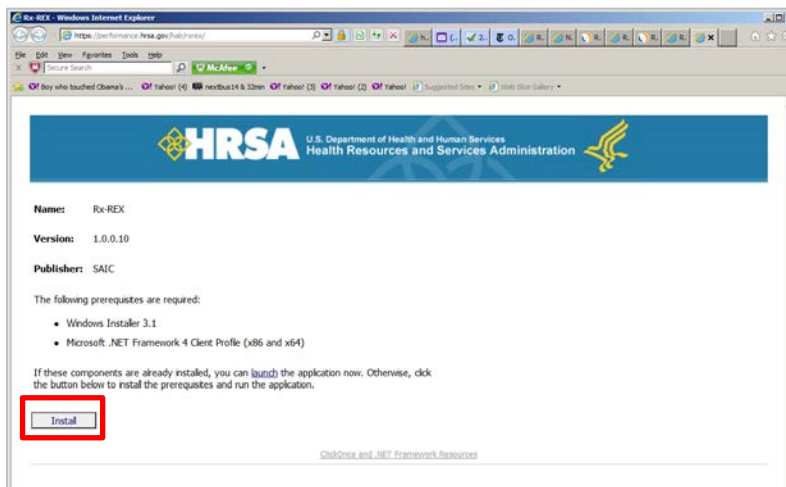
Client_ID: Rx-REX's Linking ID

The first column of every table is the Client_ID. This ID will link clients across the different Rx-REX tables. You can populate this column with a sequential number or an internal ID.

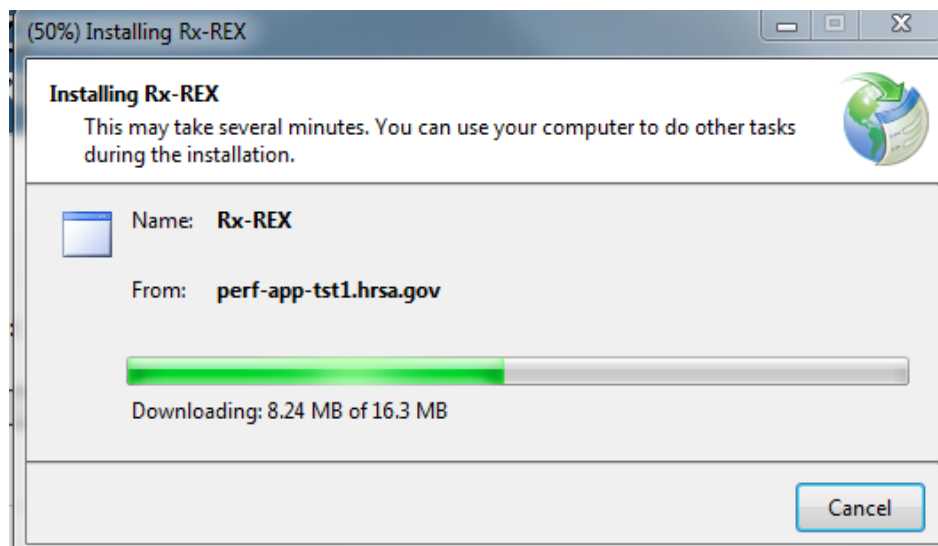
2. Install Rx-REX

Now that you have prepared your input files, you can start working with Rx-REX. You will install the Rx-REX executable file directly onto your computer. The application is linked through an internet connection to a HAB server, so each time you use Rx-REX, the application will check whether you have the most recent version of Rx-REX. If not, you will be asked to automatically download the latest version. Through the executable file, you will download the empty Rx-REX Access database to a secure location on your computer. Here, we walk you through those steps.

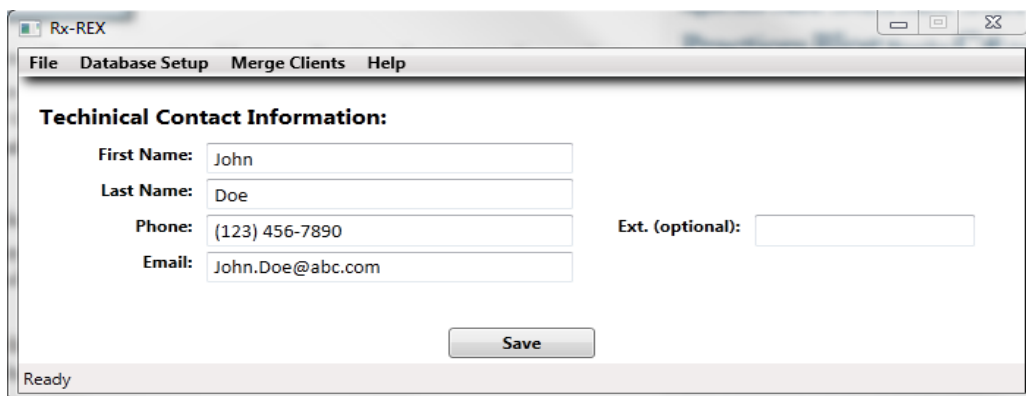
1. To begin, go to <https://performance.hrsa.gov/hab/rxrex> and click “Install” to install Rx-REX.



2. Your browser may ask you to run, save, or cancel the file. Click “Run” or “Install” when prompted. You will see the below window when Rx-REX is being installed. (Note that some browsers may have an alert about the type of file you are downloading. In Internet Explorer 9, select “Actions,” “More Options,” then “Run Anyway.”)

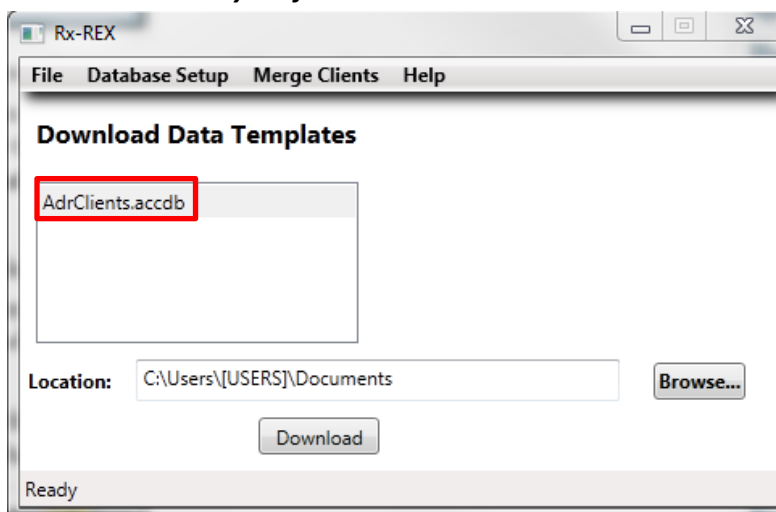


3. After installation, Rx-REX will open the Contact page, where you will need to input and save your information. This information will appear on the client-level data XML file and will be used to contact you regarding that file once it is submitted to HAB.



The screenshot shows the 'Rx-REX' application window with the 'Technical Contact Information' form. The form has a menu bar with 'File', 'Database Setup', 'Merge Clients', and 'Help'. The form fields are: 'First Name' (John), 'Last Name' (Doe), 'Phone' ((123) 456-7890), 'Email' (John.Doe@abc.com), and 'Ext. (optional)' (empty). A 'Save' button is at the bottom right. The status bar at the bottom left says 'Ready'.

4. To download Rx-REX's Access database, click on the top menu "Help", then "Download Templates." Select AdrClients.accdb, browse to where you want to save the Access database, and then click "Download." **Remember your file location!**



The screenshot shows the 'Rx-REX' application window with the 'Download Data Templates' dialog. The dialog has a menu bar with 'File', 'Database Setup', 'Merge Clients', and 'Help'. It shows a list of templates with 'AdrClients.accdb' selected and highlighted with a red box. Below the list is a 'Location' field with the text 'C:\Users\[USERS]\Documents' and a 'Browse...' button. A 'Download' button is at the bottom right. The status bar at the bottom left says 'Ready'.

3. Load Data into Rx-REX

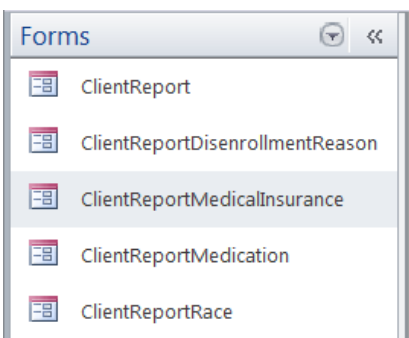
After installing Rx-REX, you can start loading data from your Excel spreadsheets into Rx-REX's Access database. There are two possible methods for entering data: 1) copying and pasting the data from your completed spreadsheet or 2) importing the data directly from Excel to Access. **We recommend the copy and paste method because you can better detect and fix invalid values, as described below.**

Regardless of the data entry method you choose, there are two important steps prior to loading your data:

1. Double-click on the file named *AdrcClients.accdb*. Remember you saved this file on your computer when you installed Rx-REX. This will open Rx-REX's Access database.
2. Create a new copy of Rx-REX's Access database, so the original copy stays empty. That way, you can use Rx-REX multiple times without having to clear the contents of the tables, which may be cumbersome. Go to "File" and "Save As". Save the new copy with a different name in a secure location on your computer. Once again, you will be inputting secure data into the Access tables, so you want to treat the populated database using the highest security standards.

Copy and Paste Method

1. On the left side of the window, you will see a list of forms: *ClientReport*, *ClientReportDisenrollmentReason*, *ClientReportMedicalInsurance*, *ClientReportMedication*, and *ClientReportRace*. These forms are formatted tables for your client-level data.



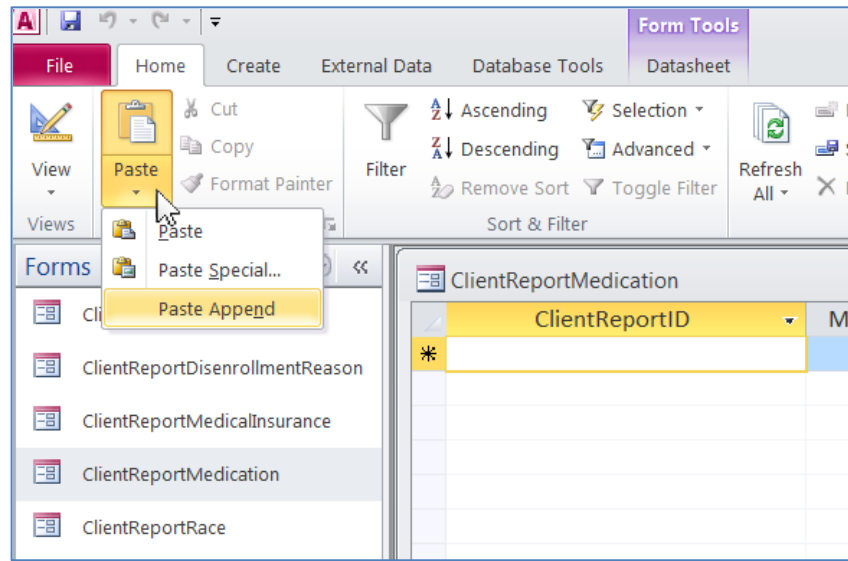
2. You will copy and paste the values from your source spreadsheets into the tables. Before you can copy and paste the values, make sure that your columns in Excel are in the same order as the columns in the Access table.

| | A | B | C | D | E | F | G | H |
|---|----------------|--------------|---------------------|----------------|----------------|---|---|---|
| 1 | ClientReportID | MedicationId | MedicationStartDate | MedicationDays | MedicationCost | | | |
| 2 | | 1 d12345 | 10/16/2012 | 1 | 1 | | | |
| 3 | | 1 d12355 | 10/16/2012 | 1 | 1 | | | |
| 4 | | 2 d12356 | 10/1/2012 | 2 | 5 | | | |
| 5 | | 2 d12357 | 10/11/2012 | 2 | 5 | | | |

Ready | ClientReport | ClientReportDisenrollmentReason | ClientReportMedicalInsurance | ClientReportMedication | ClientReportRace

Select all cells in the Excel spreadsheet by pressing CTRL+A (Select All) or by clicking the upper-left square in Excel. Copy your source spreadsheet pressing CTRL+C or going to “Edit”, then “Copy.” If the selected area includes empty cells at the end of the data, start again and select only those cells that include data.

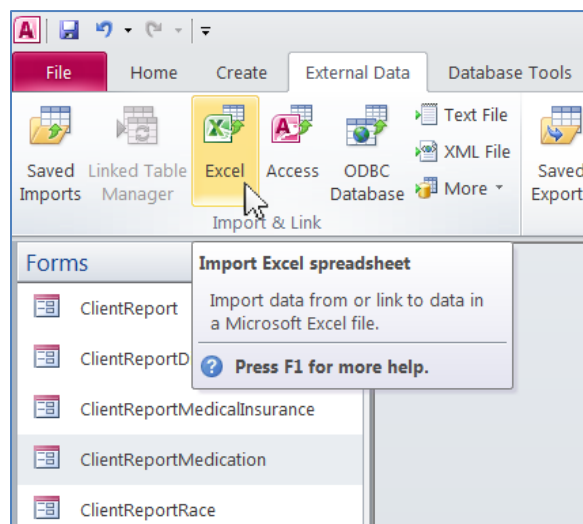
Open the form in AdrClients that corresponds to your selected data. On the Home tab, select “Paste,” then “Paste Append.”



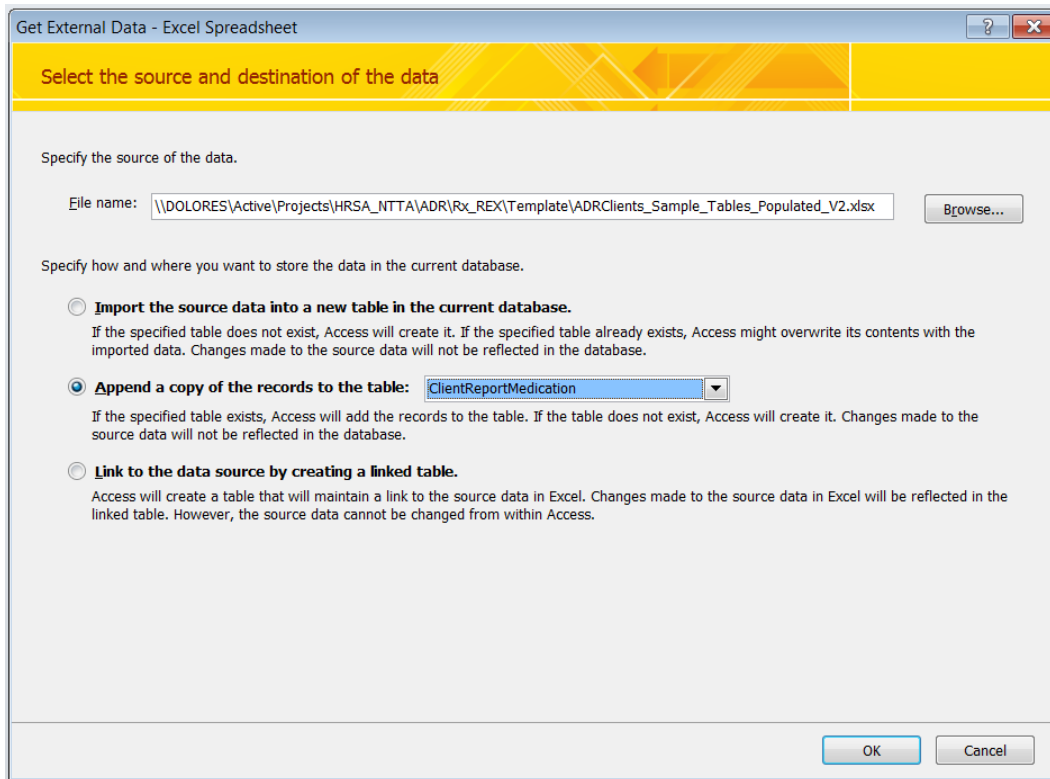
Data is automatically saved in the Access database when it is entered (Click “Yes” to continue with the paste operation pop-ups, if any). Repeat this process for each of the five tables in the Access database.

Import Method

1. Select the External Data tab and choose “Excel” on the “Import & Link” menu.



2. Use the Browse option to navigate to the folder where your spreadsheet is located. Select your spreadsheet, then select “Append a copy of records to the table,” choose the appropriate table, and click “OK.”



The dialog box is titled "Get External Data - Excel Spreadsheet". It has a yellow header bar with the text "Select the source and destination of the data". Below the header, there are two sections. The first section is "Specify the source of the data." and contains a text box for "File name:" with the path "\\DOLORES\\Active\\Projects\\HRSA_NTTA\\ADR\\Rx_REX\\Template\\ADRClients_Sample_Tables_Populated_V2.xlsx" and a "Browse..." button. The second section is "Specify how and where you want to store the data in the current database." and contains three radio button options. The first option is "Import the source data into a new table in the current database." with a description: "If the specified table does not exist, Access will create it. If the specified table already exists, Access might overwrite its contents with the imported data. Changes made to the source data will not be reflected in the database." The second option is selected: "Append a copy of the records to the table:" with a dropdown menu showing "ClientReportMedication" and a description: "If the specified table exists, Access will add the records to the table. If the table does not exist, Access will create it. Changes made to the source data will not be reflected in the database." The third option is "Link to the data source by creating a linked table." with a description: "Access will create a table that will maintain a link to the source data in Excel. Changes made to the source data in Excel will be reflected in the linked table. However, the source data cannot be changed from within Access." At the bottom right, there are "OK" and "Cancel" buttons.

Get External Data - Excel Spreadsheet

Select the source and destination of the data

Specify the source of the data.

File name: \\DOLORES\\Active\\Projects\\HRSA_NTTA\\ADR\\Rx_REX\\Template\\ADRClients_Sample_Tables_Populated_V2.xlsx Browse...

Specify how and where you want to store the data in the current database.

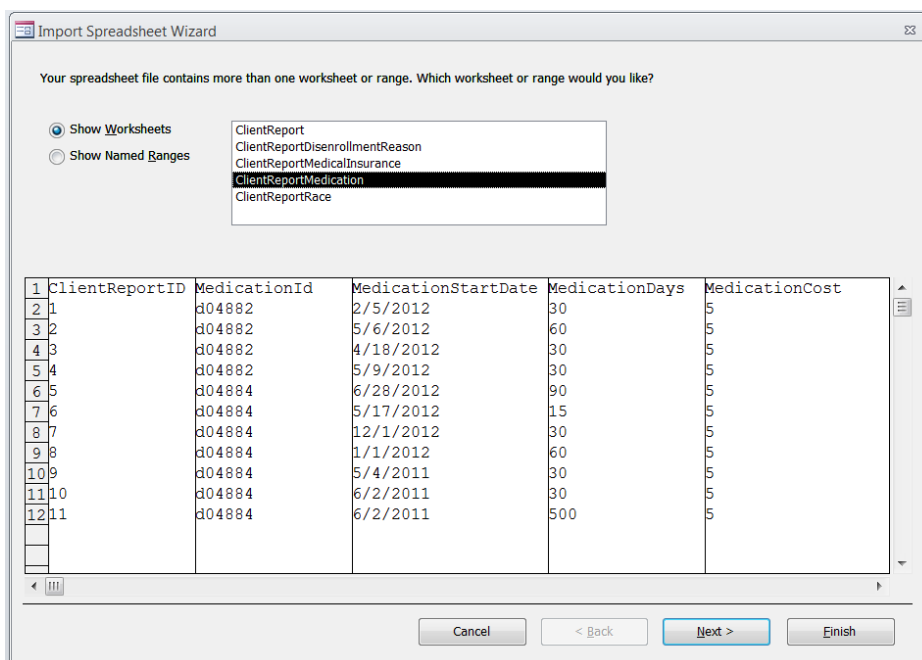
☐ Import the source data into a new table in the current database.
If the specified table does not exist, Access will create it. If the specified table already exists, Access might overwrite its contents with the imported data. Changes made to the source data will not be reflected in the database.

☒ Append a copy of the records to the table: ClientReportMedication
If the specified table exists, Access will add the records to the table. If the table does not exist, Access will create it. Changes made to the source data will not be reflected in the database.

☐ Link to the data source by creating a linked table.
Access will create a table that will maintain a link to the source data in Excel. Changes made to the source data in Excel will be reflected in the linked table. However, the source data cannot be changed from within Access.

OK Cancel

3. You will now see the Import Spreadsheet Wizard. Choose the worksheet that contains the data for the table you wish to populate and click “Next.”



The dialog box is titled "Import Spreadsheet Wizard". It has a question: "Your spreadsheet file contains more than one worksheet or range. Which worksheet or range would you like?". There are two radio button options: "Show Worksheets" (selected) and "Show Named Ranges". Below the options is a list box containing the following items: "ClientReport", "ClientReportDisenrollmentReason", "ClientReportMedicalInsurance", "ClientReportMedication" (highlighted), and "ClientReportRace". Below the list box is a preview of the data from the selected worksheet. The preview shows a table with 5 columns: "ClientReportID", "MedicationId", "MedicationStartDate", "MedicationDays", and "MedicationCost". The data rows are numbered 1 through 12. At the bottom, there are "Cancel", "< Back", "Next >", and "Finish" buttons.

Import Spreadsheet Wizard

Your spreadsheet file contains more than one worksheet or range. Which worksheet or range would you like?

☒ Show Worksheets
☐ Show Named Ranges

ClientReport
ClientReportDisenrollmentReason
ClientReportMedicalInsurance
ClientReportMedication
ClientReportRace

| | ClientReportID | MedicationId | MedicationStartDate | MedicationDays | MedicationCost |
|----|----------------|--------------|---------------------|----------------|----------------|
| 1 | | | | | |
| 2 | 1 | d04882 | 2/5/2012 | 30 | 5 |
| 3 | 2 | d04882 | 5/6/2012 | 60 | 5 |
| 4 | 3 | d04882 | 4/18/2012 | 30 | 5 |
| 5 | 4 | d04882 | 5/9/2012 | 30 | 5 |
| 6 | 5 | d04884 | 6/28/2012 | 90 | 5 |
| 7 | 6 | d04884 | 5/17/2012 | 15 | 5 |
| 8 | 7 | d04884 | 12/1/2012 | 30 | 5 |
| 9 | 8 | d04884 | 1/1/2012 | 60 | 5 |
| 10 | 9 | d04884 | 5/4/2011 | 30 | 5 |
| 11 | 10 | d04884 | 6/2/2011 | 30 | 5 |
| 12 | 11 | d04884 | 6/2/2011 | 500 | 5 |

Cancel < Back Next > Finish

- By default, the Import Spreadsheet Wizard will use the first row of your spreadsheet as the column headings. If you are using the import method, your headings must match those in the AdrClients.accdb database. The template you were provided has the correct column headings. You need only to click “Next” on this screen.

Microsoft Access can use your column headings as field names for your table. Does the first row specified contain column headings?

☒ First Row Contains Column Headings

| | ID | ClientFirstName | ClientLastName | ClientBirthDate | ClientUci | ClientUrn | ReportPeriodId | |
|----|----|-----------------|----------------|-----------------|-----------|-----------|----------------|--|
| 1 | 1 | Michelle | Smith | 4/2/1987 | | | 1 | |
| 2 | 2 | Rachel | Jones | 12/9/1980 | | | 1 | |
| 3 | 3 | David | Rodriguez | 2/5/1958 | | | 1 | |
| 4 | 4 | Joseph | Schmidt | 3/2/1957 | | | 1 | |
| 5 | 5 | Justin | Brown | 5/22/1983 | | | 1 | |
| 6 | 6 | Jason | Bloom | 5/22/1983 | | | 1 | |
| 7 | 7 | Larry | Adebayor | 12/9/1989 | | | 1 | |
| 8 | 8 | Frank | Lampard | 10/19/1973 | | | 1 | |
| 9 | 9 | Fernando | Torres | 6/21/1973 | | | 1 | |
| 10 | 10 | Ashley | Cole | 1/5/1980 | | | 1 | |
| 11 | 11 | Ashley | Cole | 1/5/1980 | | | 1 | |
| | | | | | | | | |
| | | | | | | | | |

Cancel < Back Next > Finish

- You are now at the final step in the import process. Confirm that the Import to Table heading shows the correct table and click “Finish.”

That's all the information the wizard needs to import your data.

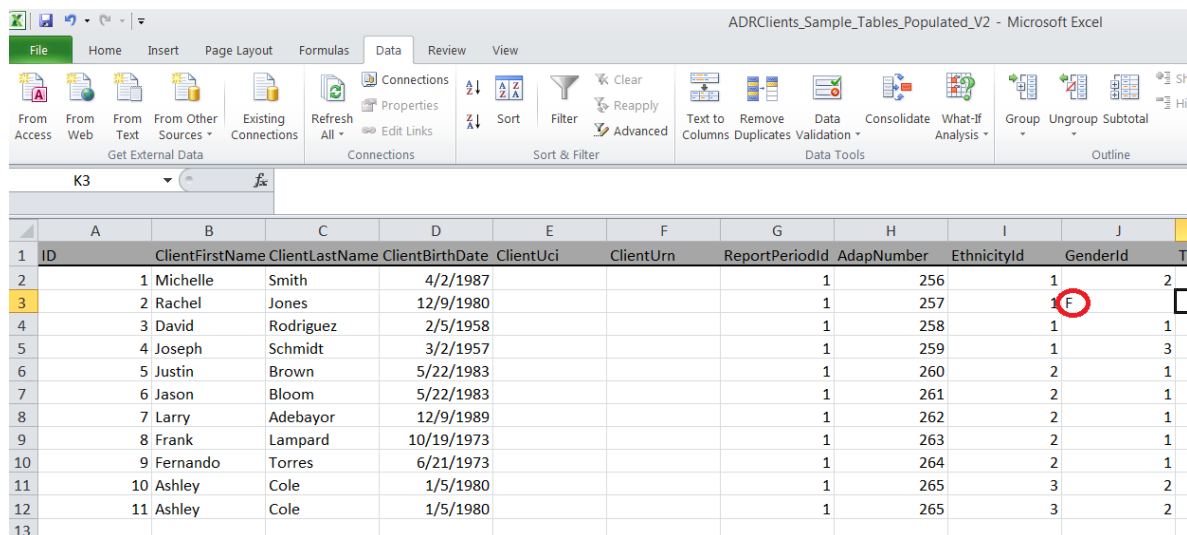
Import to Table:
ClientReportMedication

☐ I would like a wizard to analyze my table after importing the data.

Cancel < Back Next > Finish

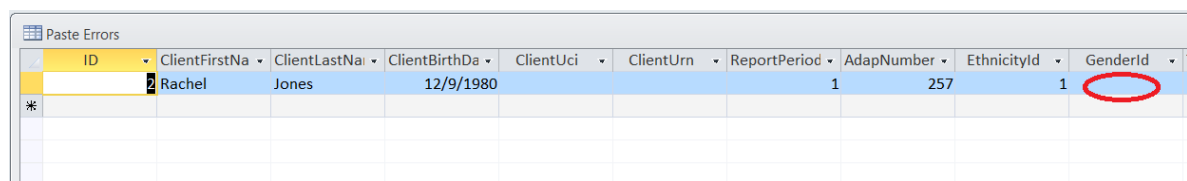
Errors

The AdrClients database verifies that your data conform to the XML schema. If you attempt to paste or import a record that contains a value that does not conform, you will receive an error. We will use the GenderID field again as an example. Recall that values in the GenderID field must be input as follows: “1” for Male, “2” for Female, and “3” for Transgender. In this case, we have a record that indicates “F” for Female.



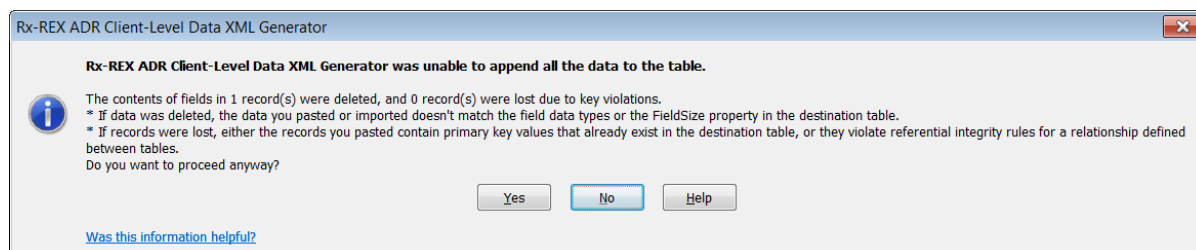
| ID | ClientFirstName | ClientLastName | ClientBirthDate | ClientUci | ClientUrn | ReportPeriodId | AdapNumber | EthnicityId | GenderId | Tr |
|----|-----------------|----------------|-----------------|-----------|-----------|----------------|------------|-------------|----------|----|
| 1 | Michelle | Smith | 4/2/1987 | | | 1 | 256 | 1 | 2 | |
| 2 | Rachel | Jones | 12/9/1980 | | | 1 | 257 | F | 1 | |
| 3 | David | Rodriguez | 2/5/1958 | | | 1 | 258 | 1 | 1 | |
| 4 | Joseph | Schmidt | 3/2/1957 | | | 1 | 259 | 1 | 3 | |
| 5 | Justin | Brown | 5/22/1983 | | | 1 | 260 | 2 | 1 | |
| 6 | Jason | Bloom | 5/22/1983 | | | 1 | 261 | 2 | 1 | |
| 7 | Larry | Adebayor | 12/9/1989 | | | 1 | 262 | 2 | 1 | |
| 8 | Frank | Lampard | 10/19/1973 | | | 1 | 263 | 2 | 1 | |
| 9 | Fernando | Torres | 6/21/1973 | | | 1 | 264 | 2 | 1 | |
| 10 | Ashley | Cole | 1/5/1980 | | | 1 | 265 | 3 | 2 | |
| 11 | Ashley | Cole | 1/5/1980 | | | 1 | 265 | 3 | 2 | |

You will receive error messages regardless of the data input method you choose. In this case, the copy and paste method will give you an error that says, “You must enter a value in the ClientReport.GenderID field.” After you acknowledge the error by clicking OK, Access will finish pasting all the rows except the row with the invalid value. This record will appear in a new table named “Paste Errors,” shown below. You can manually correct the value in the “Paste Errors” table and then copy and paste that row of data into the original table. Note that, in the Paste Errors table, the field with the invalid value is blank.



| ID | ClientFirstNa | ClientLastNa | ClientBirthDa | ClientUci | ClientUrn | ReportPeriod | AdapNumber | EthnicityId | GenderId | Tr |
|----|---------------|--------------|---------------|-----------|-----------|--------------|------------|-------------|----------|----|
| 2 | Rachel | Jones | 12/9/1980 | | | 1 | 257 | 1 | | |
| * | | | | | | | | | | |

If you use the import method, you will receive the following message:



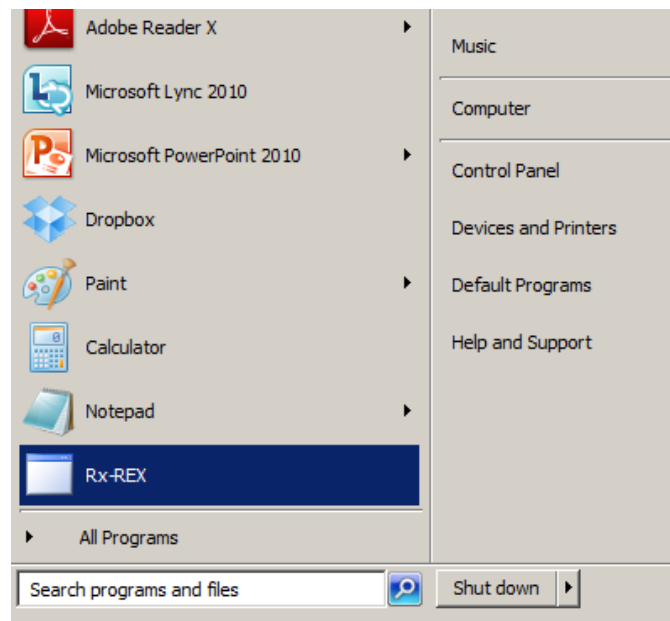
When you click yes, the database will import the records that have correct values, but it will NOT

create a Paste Errors table. If you use the import method, you will need to ensure that all of the rows in your data conform to the XML schema requirements prior to import, as you will not be able to fix records once you have imported them to the AdrClients database.

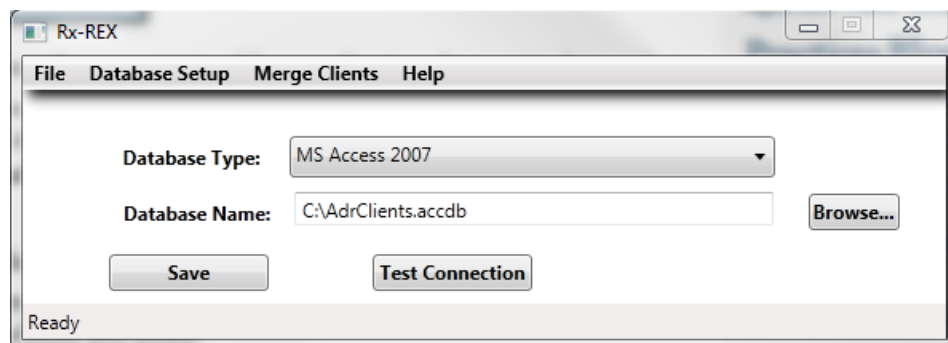
4. Generate the XML File

With Rx-REX's Access tables populated, you can create the client-level data XML file.

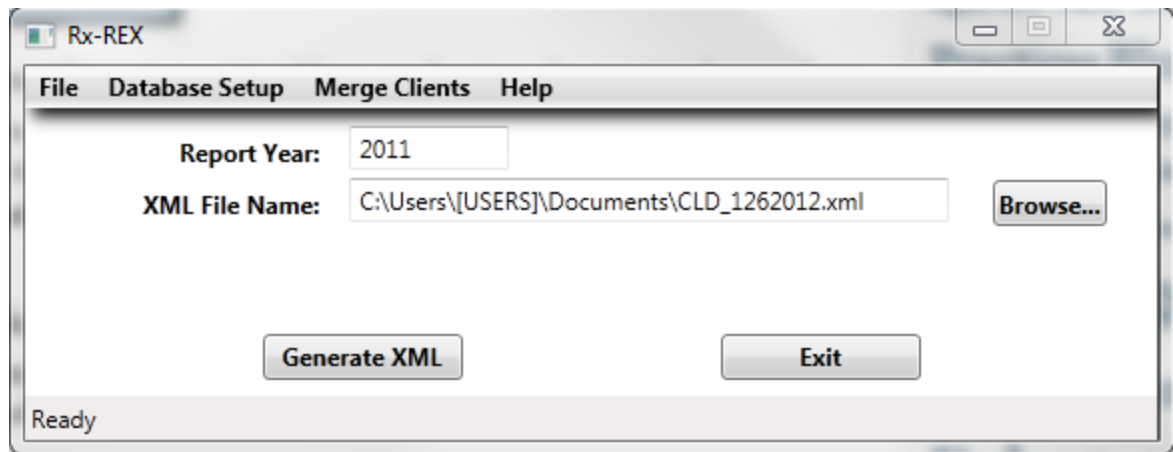
1. To create the XML file from the data within Rx-REX's Access tables, you will use the Rx-REX executable file. Double-click on Rx-REX to open the program. Because you have already installed Rx-REX, you can find it again by going to the Start button.



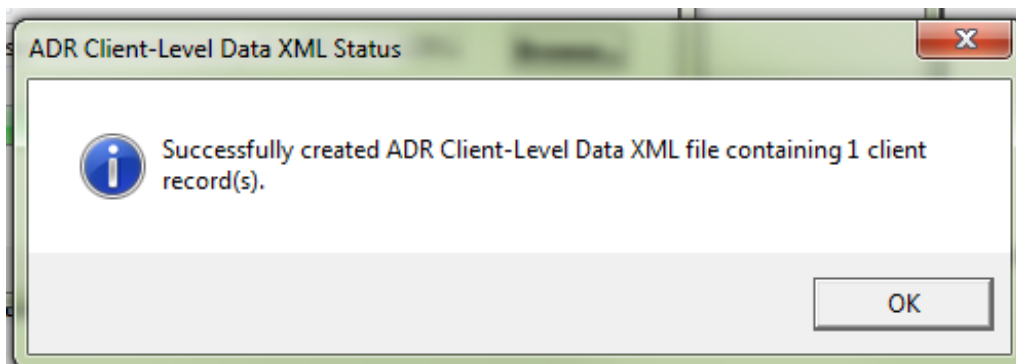
2. Click on the top menu Database Setup to configure where the working copy of Access database is located. Select the Database Type as MS Access 2007. Click "Browse" to find the Access database you just populated. Use "Test Connection" to ensure you have an active connection to the database. Press the "Save" button to save the change.



3. Go to "File." Your XML file will be generated in the location shown below in "XML File Name." If you want to change locations, click "Browse" and choose your file location. The default XML file name is composed of the date in which you created the file. You can also change this name.



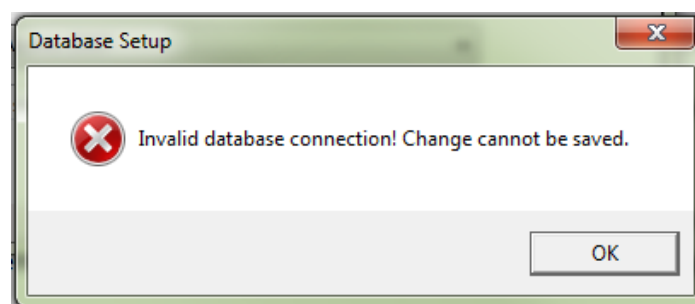
4. Click "Generate XML." You should receive the popup shown below when it is complete. To view your XML file, open the folder location and double click the file specified in the XML File Name.



Errors and Warnings

If you receive an error message, you may have made a common mistake.

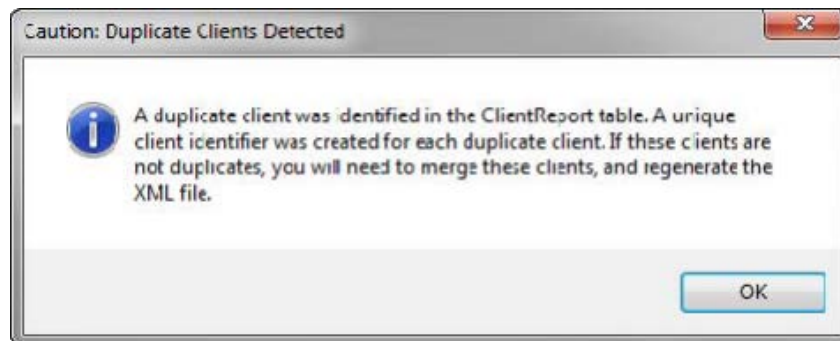
Error Message 1: Invalid database connection! Change cannot be saved.



If the Rx-REX executable file cannot link to the Access database, this error comes up. Check the file name and path and make sure they are correct.

Error Message 2: Duplication of Clients Detected

If more than one record has the same encrypted Unique Client Identifier (eUCI), you will see this error message. Please see the next chapter for more information on the eUCI and how to deal with this error.



5. The eUCI and De-duplication

The ADR client-level data XML file must include an encrypted Unique Client Identifier (eUCI) for each client. This eUCI will allow HAB to link data, while also protecting the client's identity. In this section, we first describe what elements make up the eUCI. We then describe how the eUCI is created within Rx-REX. Finally, we describe how Rx-REX identifies potential duplicates (i.e., records with the same eUCI that belong to the same person) and how to address those records when creating your XML file.

What is the eUCI?

From Client Data to UCI

The UCI, or Unique Client Identifier, is the first step in developing the eUCI. It is composed of the following data elements:

- **First and third characters of first name**
- **First and third characters of last name**
- **Full date of birth:** MMDDYY
- **Gender code:** 1=Male, 2=Female, 3=Transgender, 9=Unknown

Some Ryan White grantee data management systems refer to the UCI as the Unique Record Number (URN).

Encryption

The 11-character UCI is then encrypted with the SHA-1 hashing algorithm to create a 40-character string of letters and numbers. The SHA-1 is a trap door algorithm, meaning that the original UCI is unrecoverable from the eUCI. The SHA-1 algorithm meets the highest privacy and security standards.

De-duplication

It is possible that different clients have identical 40-digit eUCIs. Therefore, ADAPs must add a 41st character at the end of the eUCI to distinguish these clients. If only one client within an ADAP data system has a given UCI, the suffix should be "U" for unique. If more than one client has the same UCI, the final character of the first client's eUCI needs to be "A," the final character of the second client's eUCI needs to be "B," and so on. The suffix prevents multiple clients from having the same eUCI.

ADAPs *must assign the final character* by determining whether two records with the same UCI actually belong to the same client. This can be done through the review of other data elements. If the duplicate records with the same UCI are, in fact, the same client, the client data elements must be merged and reported under one record. If the records represent different clients, the 41st character of the eUCI must be manually assigned based on other information in the system as "A", "B", "C", etc. Through this process, different clients within the same ADAP system should not have the same eUCI. The figure below demonstrates the eUCI creation process:

Name: Joe Smith Gender: Male Birthdate: 12/20/1968



How Rx-REX Creates the eUCI

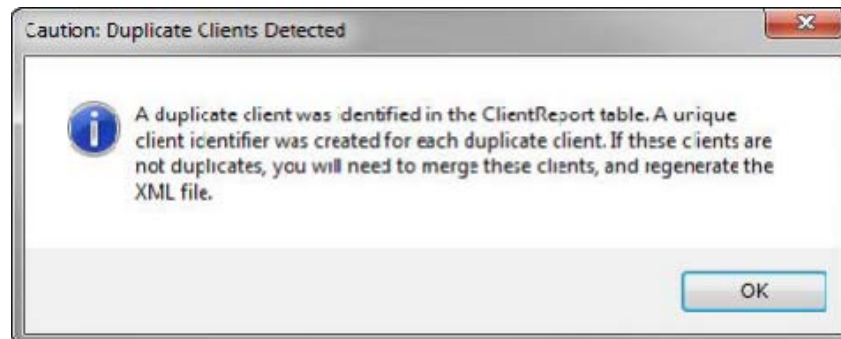
If you use Rx-REX to create the ADR client-level data XML file, you do not have to take additional steps to create the eUCI. The eUCI is generated using the file named UCI_Generator.dll, which is linked to Rx-REX. The input values are read from the Rx-REX Access database and the eUCI is added to the XML file.

Rx-REX will use the value in the ClientUci column (eUCI) if it is already provided in the ClientReport table. If the ClientUci is not provided for a client and the ClientUrn (UCI) is provided, then Rx-REX will use this value to generate the eUCI. If neither the ClientUci or ClientUrn is provided, then Rx-REX will use the client's first name, last name, date of birth and gender code to create the UCI and subsequent eUCI. Make sure that none of these eUCI components begin or end with blanks or special characters. The below table summarizes this information.

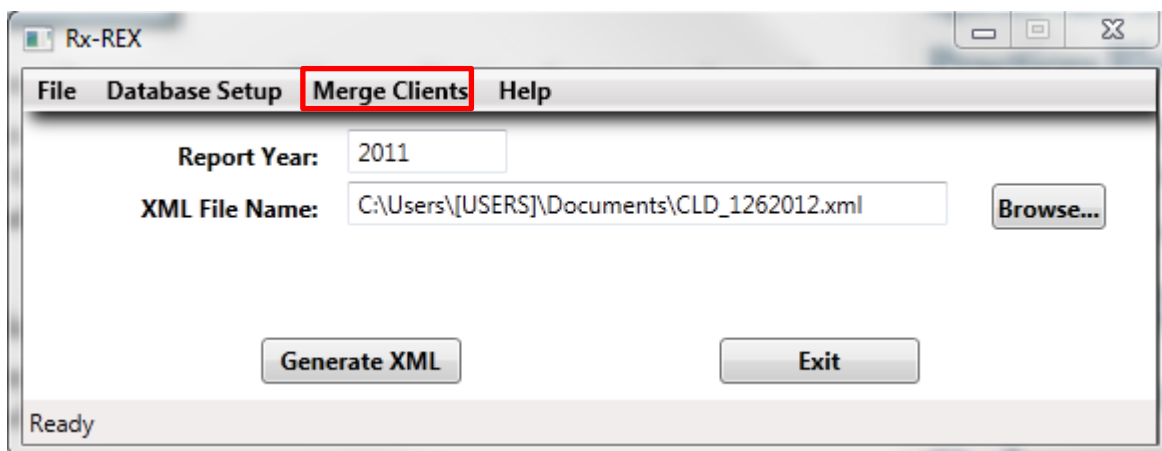
| Creation of eUCI | What to do in Rx-REX |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ADAP already creates the eUCI internally | Populate the ClientUCI field with the pre-created eUCIs. These eUCIs will be exported to the client-level data file. |
| ADAP creates the <i>unencrypted</i> UCI, or URN, internally | Populate the ClientURN field with the pre-created URNs. Rx-REX will encrypt the URNs and export the eUCIs to the client-level data file. Leave the ClientUCI field blank; Rx-REX will populate it for you. |
| ADAP does not already create the eUCI | Populate the name, date of birth and gender fields. Rx-REX will generate the eUCIs for you and export them to the client-level data file. Leave the ClientUCI and ClientURN fields blank. Rx-REX will populate the Client UCI field for you. |

How to Address Duplicate Records Detected by Rx-REX

If more than one record has the same name, date of birth and gender, Rx-REX will assume the records belong to the same person and you will receive the following error message when you generate the XML file:



If this happens, click "OK", and then click "OK" on the success screen. Now back in the main window, click on "Merge Clients."



This will bring up the following window.

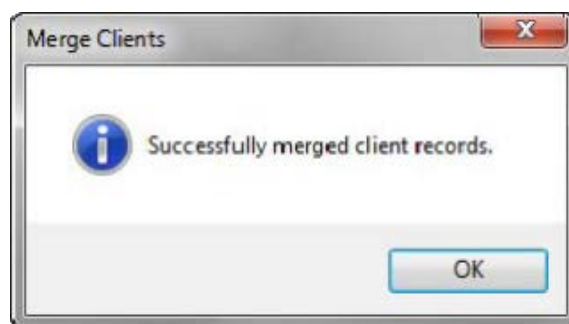
| | Primary Client: | Secondary Client: | Merged Client: |
|----------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------|
| Application Approval Date: | <input type="checkbox"/> Select All <input checked="" type="checkbox"/> 10/23/1990 12:00:00 AM | <input type="checkbox"/> Select All <input type="checkbox"/> 2/1/1995 12:00:00 AM | 10/23/1990 12:00:00 AM |
| Application Received Date: | <input checked="" type="checkbox"/> 10/23/1990 12:00:00 AM | <input type="checkbox"/> 1/1/1995 12:00:00 AM | 10/23/1990 12:00:00 AM |
| Enrollment Status: | <input checked="" type="checkbox"/> 10: Enrolled, services not requested | <input type="checkbox"/> 10: Enrolled, services not requested | 10: Enrolled, services not requested |
| Ethnicity: | <input checked="" type="checkbox"/> 1: Hispanic/Latino | <input type="checkbox"/> 1: Hispanic/Latino | 1: Hispanic/Latino |
| High Risk Insurance: | <input checked="" type="checkbox"/> 1: Yes | <input type="checkbox"/> 1: Yes | 1: Yes |
| Hiv/Aids Status: | <input checked="" type="checkbox"/> 2: HIV-positive, not AIDS | <input type="checkbox"/> 2: HIV-positive, not AIDS | 2: HIV-positive, not AIDS |
| Insurance Assistance Received: | <input checked="" type="checkbox"/> 1: Yes | <input checked="" type="checkbox"/> 1: Yes | 1: Yes |
| Insurance Deductible And Copay Amount: | <input checked="" type="checkbox"/> 1 | <input checked="" type="checkbox"/> 1 | 1 |
| Insurance Premium Amount: | <input checked="" type="checkbox"/> 0 | <input checked="" type="checkbox"/> 0 | 0 |
| Insurance Premium Month Count: | <input checked="" type="checkbox"/> 0 | <input checked="" type="checkbox"/> 0 | 0 |
| Is Last Viral Load Count Detectable: | <input checked="" type="checkbox"/> 0: No | <input checked="" type="checkbox"/> 0: No | 0: No |
| Last Cd4 Count: | <input checked="" type="checkbox"/> 1 | <input checked="" type="checkbox"/> | 1 |
| Last Cd4 Date: | <input type="checkbox"/> Oct 09, 2012 | <input checked="" type="checkbox"/> Jan 01, 0001 | Jan 01, 0001 |
| Last Viral Load Count: | <input checked="" type="checkbox"/> 50 | <input checked="" type="checkbox"/> | 50 |
| Last Viral Load Date: | <input type="checkbox"/> Oct 03, 2012 | <input checked="" type="checkbox"/> Jan 01, 0001 | Jan 01, 0001 |
| Medicare Part D Amount: | <input checked="" type="checkbox"/> 1 | <input checked="" type="checkbox"/> 0 | 1 |
| Medication Dispensing Fee Amount: | <input checked="" type="checkbox"/> 1 | <input checked="" type="checkbox"/> 1 | 1 |
| Medication Dispensing Fee Flag: | <input checked="" type="checkbox"/> 1: Yes | <input checked="" type="checkbox"/> 1: Yes | 1: Yes |
| Medications Dispensed Flag: | <input checked="" type="checkbox"/> 1: Yes | <input checked="" type="checkbox"/> 0: No | 1: Yes |
| New Enrollment: | <input checked="" type="checkbox"/> 1: Yes | <input checked="" type="checkbox"/> 1: Yes | 1: Yes |
| Poverty Level: | <input checked="" type="checkbox"/> 2: 101-200% of the FDL | <input type="checkbox"/> 2: 101-200% of the FDL | 2: 101-200% of the FDL |
| Pregnancy Status: | <input checked="" type="checkbox"/> 1: No | <input type="checkbox"/> 1: No | 1: No |
| Recertification Date: | <input type="checkbox"/> Oct 25, 1990 | <input checked="" type="checkbox"/> Jan 01, 0001 | Jan 01, 0001 |
| Transgender: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | : |

Duplicates detected – primary client and secondary client

Values for each ADR data element for the primary and secondary clients

Click “Apply Default Merge Rules” to populate the checkboxes in the default way of merging. Once clicked, review the data on the right-hand side to ensure that the Merged Client record is accurate. If Rx-REX selected the wrong value, then check the appropriate checkbox to ensure that the final XML files includes the correct record. Click “Merge Clients.”

Once the clients have been merged, you should receive a confirmation message.



Click “OK” to the confirmation message, and then click “Close” in the Merge Clients window. Before moving forward, click “Merge Clients” in the menu again to ensure that there is not another set of duplicates. Continue to merge clients until all duplicates are merged. When there are no more duplicates, click “Generate XML” in the main window to update the XML file with the merged clients.

Multiple Clients with the Same eUCI

Rx-REX will also provide you with a warning if multiple clients have the same 40-digit eUCI, but do not have the same names. In this case, Rx-REX will assign one client with an “A” suffix and another client with a “B” suffix. You will see the updated eUCIs in the XML file and the Access database, as shown in the figure below. All other eUCIs will end with “U” for unique.

| ClientReport | | | | | |
|--------------|-----------------|----------------|-----------------|-------------------------------------------|------|
| ID | ClientFirstName | ClientLastName | ClientBirthDate | ClientUci | Clie |
| 1 | Michelle | Smith | 4/2/1987 | 201816A6295CCDA6465BF40DF4A4D8AA74E4B021U | |
| 10 | Ashley | Cole | 1/5/1980 | BF4201D8289248B401B7379D764B972927A7092EU | |
| 2 | Rachel | Jones | 12/9/1980 | 47834897739C22A789EC804E6F9016764855507U | |
| 3 | David | Rodriguez | 2/5/1958 | E18C9D9CAF70D0375D5644DE2F8690B287851538U | |
| 4 | Joseph | Schmidt | 3/2/1957 | 52E17F5FAE033B6A39200AA0C41A0FB22F556B16U | |
| 5 | Justin | Brown | 5/22/1983 | 9E816954781CA90ECD601C9BC9C663389DEA3E21A | |
| 6 | Jason | Bloom | 5/22/1983 | 9E816954781CA90ECD601C9BC9C663389DEA3E21B | |
| 7 | Larry | Adebayor | 12/9/1989 | BEF2136B03F44AA6AE80EDFCDAFA0F9E2AC9AB47U | |
| 8 | Frank | Lampard | 10/19/1973 | 9B1431223EA0072ACC827FE13643AA0FB6403B95U | |