

Tool for RSR XML Generation (TRAX)

Ryan White HIV/AIDS Program (RWHAP) Services Report (RSR)

HIV/AIDS Bureau

December 16, 2020

This webcast will help you decide if TRAX is for you and give you detailed instructions on how to use TRAX for the RSR.

We'll post the recording within a week of the webinar and the 508 compliant slides and written Q/A on TargetHIV within two weeks of the webinar.

Disclaimer

Today's webinar is supported by the following agency and the contents are those of the author and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

- CAI and their partners Abt Associates and Mission Analytics, supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as

2

Today's webinar is supported by the DISQ Team, comprised of CAI, Mission Analytics and Abt Associates. The content of today's webinar is that of the presenters and does not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

Outline

Overview of TRAX

Steps for Using TRAX

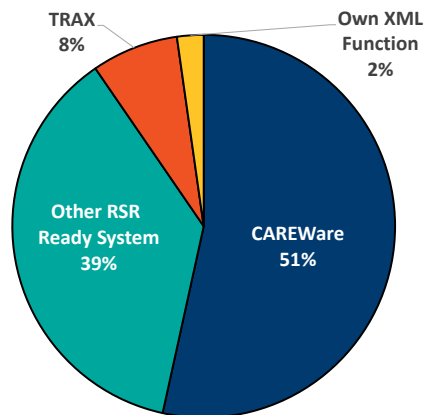
Questions

TRAX is a free tool that you can download from the TargetHIV website. It takes files with your client-level data as input and converts those data to the correctly structured XML file.

I'll start with an overview of TRAX. Then, we'll go into more detail about each step. Throughout this discussion, we'll be pulling up resources and demoing key activities.

This webcast is very detailed, but don't worry. There is a detailed user manual with the same information in the TRAX download package. The webcast recording and slides will also be posted on TargetHIV. This webcast just focuses on TRAX for the RSR; ADR TRAX users can find a recording of a similar webinar that targets the ADR. Also, the TRAX process has not changed in the last couple of years, so if you are a seasoned user, you may not need to be here. But you may want a quick refresher to get your head around the RSR!

Systems Used to Create the Client-Level Data XML File in 2019



Let's take a step back. There are three main strategies for creating your client-level data file. The first is to use an RSR-Ready System. These are data management systems that create the XML file for you. As you can see by the blue on this pie chart, the vast majority of provider files created in 2019 were created with one of these systems. CAREWare is the most commonly used RSR-Ready System.

About 2% of files were created by providers that developed their own file generation functions. These are typically subrecipients of Part A or B recipients that developed their own data management systems and added the XML generation function. Finally, 8% of files in 2019 were created by TRAX. So, you can see that this tool plays an important part in the RSR.

Why Use TRAX?

- You don't use an RSR-Ready System to capture RSR data
- You are tired of doing double data entry into your Electronic Health Record (EHR) and an RSR-Ready System
- You don't have the resources to create your own XML export

Some of you may be wondering if you should be here. TRAX is a good tool for you if you don't already input or export your data into an RSR-Ready System. TRAX is also good for folks who input data into an RSR-Ready System, but are tired of it and you want to start using your EHR to create the RSR. Finally, you don't have the resources or desire to create the XML export function yourself. Why do it yourself when there is a great tool that can do it for you? If this sounds like you, then you are in the right place!

Steps to Using TRAX

Become familiar with RSR data elements

Identify structure of the required input files

Prepare your input files

Use CHEX to check data quality

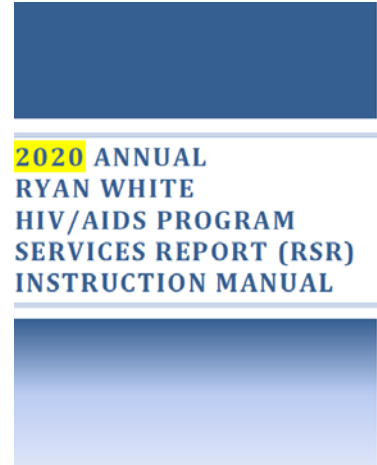
Install TRAX

Load data into TRAX and create the XML file

1. Become familiar with the RSR data elements.
2. Identify structure of the required input files.
3. Prepare your input files (12 .CSV files).
4. Use CHEX to check data quality.
5. Install TRAX.
6. Load data into TRAX and create the client-level data XML file.

Instruction Manual

- Detailed description of RSR data elements
- [RSR instruction manual](#)



2020 ANNUAL
RYAN WHITE
HIV/AIDS PROGRAM
SERVICES REPORT (RSR)
INSTRUCTION MANUAL

Become familiar
with data elements

Identify structure of
input files

Prepare input
files

Use CHEX

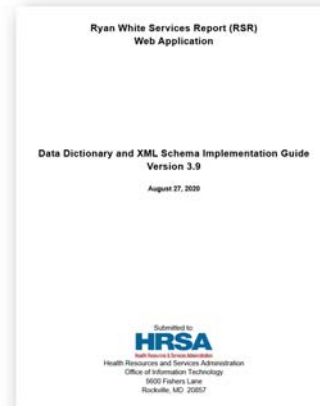
Install TRAX

Load data and
create file

To start preparing your input files, you need to become very familiar with the RSR data elements. If you haven't already done so, check out the instruction manual, which has a detailed description of each item required.

Data Dictionary

- Required values for each data element
- [RSR Data Dictionary](#)



Become familiar with data elements

Identify structure of input files

Prepare input files

Use CHEX

Install TRAX

Load data and create file

You'll also need the data dictionary, which provides values for each data element and response option. You'll need this to know which values to put in your input files. The Data Dictionary has been updated this year to incorporate the new data elements in the RSR.

Create an RSR Crosswalk

- Where do these data elements live in your system(s)?
 - What is the field name?
 - What are the response options?
- How do I need to transform my data?

Your Data (Race)		RSR Data (RaceID)
White	→	1
Black	→	2
Asian	→	3
Hawaiian/PI	→	4
Native American (AK Native)	→	5



9

Next, you'll need to map the data elements in the RSR to the data elements in your data management system.

By creating a crosswalk, you will identify the field name and response options of the data elements in your system that correspond to the RSR. This will help you assess the data you have and determine what, if any, changes are necessary to correctly format and report your data using the RSR.

In this example, with the RaceID variable, your own database might categorize clients as "white", "black", etc. However, the RSR requires this variable be categorized as numbers 1 through 5. Using this crosswalk, it will be easier to see and track what data transformations are necessary, as "white" becomes "1", "black" becomes "2", and so on.

Create an RSR Crosswalk (continued)

RSR				Your System		
ID	Variable	Definition	Value	Variable	Value	Notes
Demographics						
2	Vital Status	The client's vital enrollment status at the end of the reporting period.	12. Alive 6. Deceased 7. Unknown			
4	Birth Year	Client's year of birth. This value should be on or before all service date years for the client.	yyyy			
5	Ethnicity	Client's ethnicity.	1. Hispanic/Latino/a, or Spanish origin 2. Non-Hispanic/Latino(a), or Spanish origin			
68	Hispanic Subgroup	If Ethnicity = Hispanic/Latino(a).	1. Mexican, Mexican American, Chicano/a			

Become familiar with data elements

Identify structure of input files

Prepare input files

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Install TRAX

Load data and create file

10

We've created a crosswalk template for you to fill out. You can access this through the TRAX download package.

Download Support Materials

- User guide
- RSR crosswalk
- **Templates for input files (12 .CSV files)**
- CHEX
- [RSR TRAX Manual](#)

Note: We require that you enter a valid email address before downloading the TRAX package. This is so we can keep track of TRAX users, and keep you informed about updates.

Please enter your email address *

Proceed to Download

The TRAX zip package contains the following support materials:

- **TRAX User Manual:** This manual has detailed instructions for creating your input files, loading data into TRAX, and creating the client-level data XML file.
- **TRAX Sample Input Files:** These CSV files support the development of TRAX input files by providing you the required table structure.
- **CHEX:** This Excel template is pre-populated with drop down menus and conditional formatting to help you validate your data prior to importing it into TRAX.

Install TRAX®

Review the [webcast and slides](#) on using TRAX.

While TRAX can be used for both the RSR and ADR, the above support materials relate to TRAX for the RSR. (See also [support materials for TRAX for the ADR](#).)

Part of Collection

- [XML File - All Things XML](#)

Become familiar with data elements

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Load data and create file

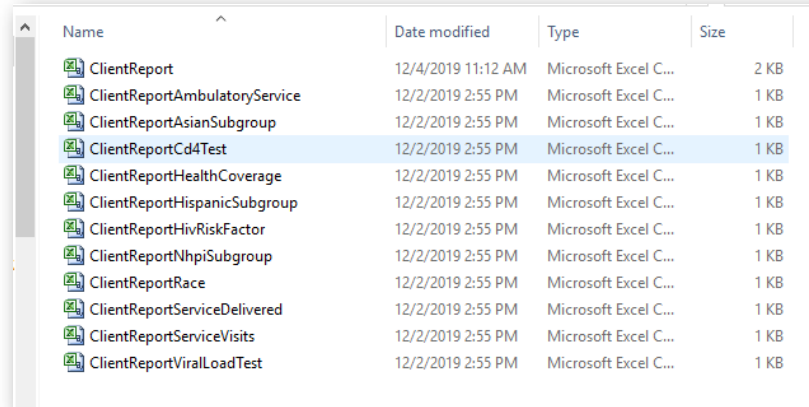
11

Speaking of the TRAX download package we encourage you to download support materials.

Now that you have a good idea of what is required for the RSR, you'll need to start creating the input files, which consist of 12 .CSV files. If you don't know what .CSV is, don't worry. It is essentially the same as Excel, and you can easily create a .CSV file from an Excel file using Save As.

To know how to structure your data, go to the TargetHIV website, input your email address, and download the support package. The support package is a zip file with the TRAX user manual and templates for the 12 input files.

TRAX .CSV Files (part 1)



Name	Date modified	Type	Size
ClientReport	12/4/2019 11:12 AM	Microsoft Excel C...	2 KB
ClientReportAmbulatoryService	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportAsianSubgroup	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportC4Test	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportHealthCoverage	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportHispanicSubgroup	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportHivRiskFactor	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportNhpiSubgroup	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportRace	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportServiceDelivered	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportServiceVisits	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportViralLoadTest	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB

Become familiar
with data elements

Identify structure of
input files

Prepare input files

Use CHEX

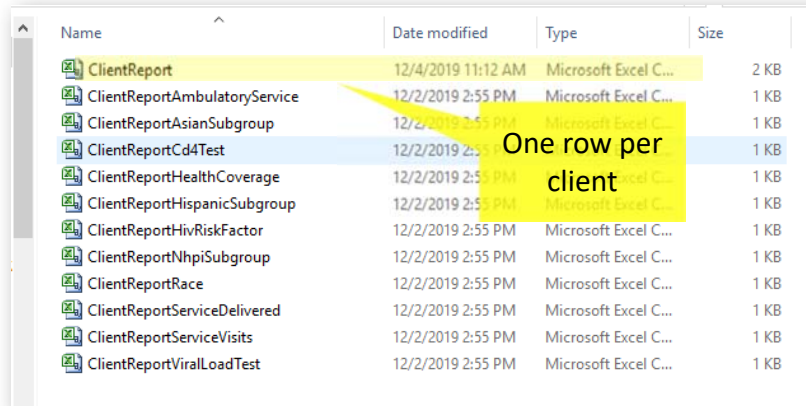
Install TRAX

Load data and
create file

12

Here is a view of the inside of the folder you'll download from the TARGETHIV website with the 12 .CSV files. You'll create a folder that looks exactly like this, but the files will be populated with your data.

TRAX .CSV Files (part 2)



Name	Date modified	Type	Size
ClientReport	12/4/2019 11:12 AM	Microsoft Excel C...	2 KB
ClientReportAmbulatoryService	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportAsianSubgroup	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportCd4Test	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportHealthCoverage	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportHispanicSubgroup	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportHivRiskFactor	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportNhpiSubgroup	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportRace	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportServiceDelivered	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportServiceVisits	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportViralLoadTest	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB

Become familiar
with data elements

Identify structure of
input files

Prepare input files

Use CHEX

Install TRAX

Load data and
create file

13

The first file contains the bulk of the data elements in the RSR. It has all the data elements with just one response per client, like ethnicity. You'll have just one row per client in this file.

TRAX .CSV Files (part 3)

Name	Date modified	Type	Size
ClientReport	12/4/2019 11:12 AM	Microsoft Excel C...	2 KB
ClientReportAmbulatoryService	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportAsianSubgroup	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportCd4Test	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportHealthCoverage	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportHispanicSubgroup	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportHivRiskFactor	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportNhpiSubgroup	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportRace	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportServiceDelivered	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportServiceVisits	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB
ClientReportViralLoadTest	12/2/2019 2:55 PM	Microsoft Excel C...	1 KB

Multiple rows per client

Become familiar with data elements

Identify structure of input files

Prepare input files

Use CHEX

Install TRAX

Load data and create file

14

Each of the subsequent files represent one data element that allows for multiple responses. So, for example, an individual might have more than one Race or multiple viral load counts.

Extract Data from Your System

- Most time-consuming part of the process!
- Meet with your IT staff and take:
 - Data Dictionary
 - RSR Crosswalk

Become familiar
with data elements

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create file

15

After you have completed the RSR Crosswalk and downloaded the example input files, you need to extract client-level data from your system or from multiple systems. Some providers have set up an automated process that pulls data from the EHR and spits it out in the correct .CSV file format. Others have to do the work manually. Either way, getting data out of your EHR is the hardest part of the process. Most likely, you'll need to meet with your IT staff. Take your crosswalk and data dictionary, so they understand exactly what data you need. Please Start now! IT staff are notoriously busy, so it could take some time to create the files you need.

Prepare Input Files

- Your files must have identical names as the templates
- Column order does not matter, but column headers should be identical
- Replace your values with RSR-required values

Become familiar with data elements

Identify structure of input files

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Use CHEX

Install TRAX

Load data and create file

16

Then, you will structure your data to mirror TRAX's 12 .CSV files. First, file names must be identical to those in the folder on TargetHIV.

Second, within the file, although the column order does not matter, the columns headers do – they must be identical to the ones in the .CSV files. As a reminder, capitalization in the header names matters!

You also must replace your values with the RSR-required values.

ClientID is the Primary Key

- Unique sequential or internal number
- First column in every table
- Must be the same for a given client across files

	A	B	C	D
1	ClientID	FirstName	LastName	ClientDateofBi
2	1	Carmelo	Salte	11/2/1983
3	2	Noel	Cordova	4/12/1998
4	3	Kiana	Winslow	12/18/2001
5	4	Aysha	Camelarii	6/19/2014

File1: Client Report

	A	B	C
	ClientID	MedicalInsurance	
	1	16	
	1	11	
	2	16	
	3	12	

File 2: Health Insurance

Same person

Become familiar
with data elements

Identify structure of
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Install TRAX

Load data and
create file

17

Now, let's talk about a couple of specific data elements.

The tables are linked by the Client ID. It is the first column in every file.

This number must be unique for every client. It can be a sequential number or internal number, like a medical record number and It does not show up on the XML file.

You must make sure that the same client has the same ID in each table.

Let's look at an example. Through the linking ClientID 1, you know which health insurance status Carmelo has

TRAX and the eUCI

- There are multiple identifier fields that relate to the eUCI in the ClientReport tab
- The ones you populate depend on whether you already create the eUCI or would like TRAX to do it for you
- If you want TRAX to create the eUCI for you, populate:
 - First name
 - Last name
 - Full date of birth
 - Gender
- More information in the TRAX user guide!

Become familiar with data elements

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Use CHEX

Install TRAX

Load data and create file

18

Another important data element I want to go over is the eUCI. It's the identifier HAB uses to link data across providers. It's made up of letters within the first and last name, date of birth, and a gender code. This 11-digit number is then encrypted to a 40-digit number. The last digit is used to indicate whether more than one client shares the same eUCI.

That first .CSV file – ClientReport – has multiple data elements related to the eUCI. The ones you populate depend on whether you already create the eUCI or want TRAX to create it for you.

If you do not already create the eUCI and you want TRAX to create it for you, you need to populate the first and last name, full date of birth, and gender ID.

For more information please take a look at the user guide!

Services: Two Files

- Service Delivered: Pharmacy and Premium Assistance

	A	B	C
1	ClientID	ServiceID	DeliveredID
2	1	9	2
3	11	12	2
4	11	9	2
5	18	9	2
6	22	12	2
7			

Client received pharmacy and premium assistance during the reporting period

- Service Visits: All Other Services

	A	B	C
1	ClientID	ServiceID	Visits
2	1	8	2
3	2	18	3
4	11	8	1
5	11	18	4

Client received 1 OAHS and 4 medical case management services during the reporting period

Become familiar with data elements

Identify structure of input files

Prepare input files

Use CHEX

Install TRAX

Load data and create file

Let's talk a little about reporting services. You report services in two files in TRAX. One file captures two services: AIDS Pharmaceutical Assistance and Health Insurance Premium and Cost Sharing Assistance for Low-Income Individuals. The other one is for all other services. For each of these files, you report the ClientID and the ServiceID. For the pharmacy and premium assistance file, or the services delivered file, you just indicate that the client received the service with the value of 2.

Note that you do not have to report services that were not delivered. So, for the service delivered file, you'll report 2 across the board, indicating the client indeed received the service.

For all other services, you actually have to put the number of visits in the year.

Viral Load

- For “undetectable” viral load counts:
 - Report the lower test limit for the viral load count
 - If you don’t know the threshold, report 0 for clients with “undetectable” status

	A	B	C
1	ClientId	ServiceDat	Count
2	29	2/15/2019	11,546
3	29	6/19/2019	350
4	35	3/2/2019	20
5	40	4/14/2019	0
6			

Undetectable viral loads

Become familiar
with data elements

Identify structure of
input files

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Install TRAX

Load data and
create file

20

We also get questions about viral load. Values under a certain threshold are captured as “undetectable.” The RSR does not accept text or less than signs for the viral load value. Therefore, you should input the threshold value in the count field. In this example, you see these clients have undetectable viral loads. The test has a threshold of 20. If you don’t know the threshold, report 0.

Avoid Common Mistakes

- Eliminate:
 - Duplicate values
 - CD4 count or viral load dates without a corresponding value
- How to deal with missing data:
 - In the Client Report file, leave cell blank
 - In the other files, exclude clients entirely

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with data elements

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Load data and
create file

21

Here are some more tips for developing clean files and avoiding errors at upload. Make sure to eliminate duplicate values.

Also, if you have a CD4 count or viral load date, make sure there is a value, and vice versa.

Finally, TRAX allows you to create files with missing data. In the ClientReport file, just leave that cell empty. In the other files, exclude those clients entirely.

CHEX: Checking Data Quality

- An Excel spreadsheet pre-loaded with drop down menus and conditional formatting
- Copy and paste your data into each tab
- “Validate” data to find invalid values
- Review color-coded cells to identify other validation issues

Become familiar with data elements

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Install TRAX

Load data and create file

22

The next step is to use a tool called CHEX. It is an Excel spreadsheet pre-loaded with drop down menus and conditional formatting to help you check the quality of your data. It is also located in the support package.

There is a tab for each of the 12 .CSV files. Once you have your .CSV files populated, you can copy and paste them into the 12 tabs. You “validate” data to find invalid values and review color coded cells to identify other validation issues.

The first check is on valid values. The drop down menu tells you which values are acceptable. To make sure my values match those, go to Data, Data Validations, and Circle Invalid values.

Through conditional formatting, CHEX also color codes cells if there are issues. To know what the issues are, check out the notes by hovering your cursor over the cell.

Install TRAX
TRAX application

Health Resources and Services Administration (HRSA)
Tool for RSR and ADR XML (TRAX)

Name: TRAX
Version: 5.1.0.0
Publisher: HRSA

The following prerequisites are required:

- Microsoft .NET Framework 4 Client Profile (x86 and x64)
- Windows Installer 3.1

Click the button below to install the prerequisites and run the application.

Become familiar with data elements → Identify structure of input files → Prepare input files → Use CHEX → **Install TRAX** → Load data and create file

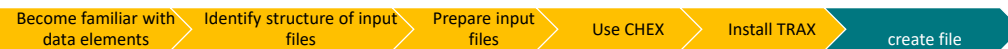
DISQ

23

Our next step is to install TRAX. When you click on the link, this is what you'll see. Click install; it'll walk you through the process.

Import Data into TRAX

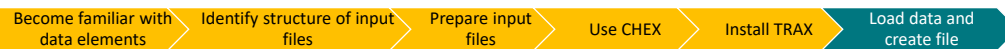
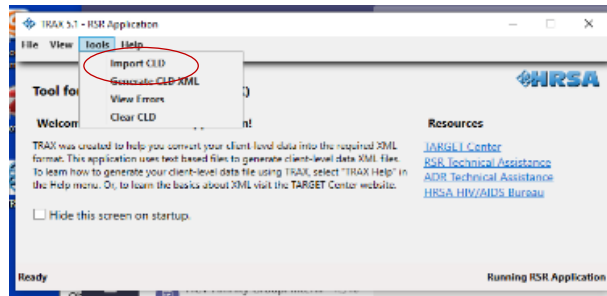
- Close files prior to upload
- Include all required files even if you don't have data (just the header row) and no other files



In terms of importing Data into TRAX, please be sure to Close files prior to upload and Include all files even if you don't have data (just the header row), and no other files

Import Data into TRAX (continued)

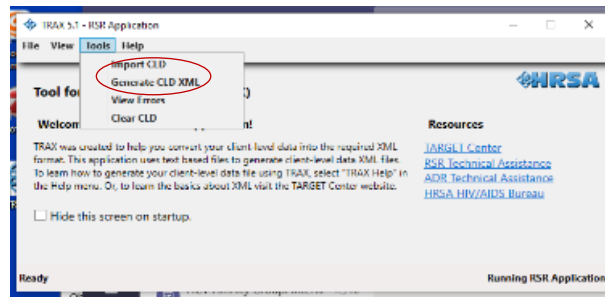
- Open TRAX, click Tools and Import CLD
- Browse to and upload your folder



Open TRAX, click Tools and Import CLD, and browse to and upload your folder.

Generate the XML

- Click Tools and Generate CLD XML
- Browse to location where you want file saved
- Type in name of file, including .xml extension



Become familiar with data elements

Identify structure of input files

Prepare input files

Use CHEX

Install TRAX

Load data and create file

26

Click Tools and Generate CLD XML. Browse to location where you want file saved and type in name of file, including .xml extension.

Other TRAX Features

- Data are deleted once you close TRAX
- TRAX does not serve as a merging tool; new data imported overwrite pre-existing data
- After you generate your file, go to View Client Report to obtain a crosswalk of eUCI to Client ID (copy and paste table into Excel)

Data are deleted once you close TRAX.

TRAX does not serve as a merging tool; new data imported overwrite pre-existing data.

After you generate your file, go to View Client Report to obtain a crosswalk of eUCI to Client ID (copy and paste table into Excel).

Data Security

- Keep the populated Excel and .CSV files secure:
 - Store on a secure system
 - Only use secure transfer methods
- Lots of resources on TargetHIV:
 - [Data Security Refresher](#)
 - [Data Academy](#)

Lastly, I want to discuss data security. The client XML does not contain personally identifying information, like name or full date of birth. However, most likely, your Excel spreadsheet or .CSV file will. So, I want to emphasize the importance of keeping these data secure. Store your .CSV files on secure systems, such as behind firewalls, and only use secure transfer mechanisms to transfer the files.

If you would like more information about data security, just go to TARGET and do a search on “data security.” There are lots of archived webcasts and resources there.

Resources and Questions

- Download [TRAX support package](#)
- Install [TRAX](#)
- Start with the DISQ Team: Data.TA@caiglobal.org
 - Be prepared to share your desktop with us through webinar software (we'll send you a link)

TA Resources

- [RSR TA brochure](#)
- The DISQ Team: Data.TA@caiglobal.org
- Ryan White HIV/AIDS Program Data Support
 - 888.640.9356;
 - [Email](#)
- EHBs Customer Support Center
 - 877.Go4.HRSA (877.464.4772);
 - [Request form](#)
- CAREWare Help Desk
 - 877-294-3571
 - [Email](#)
- [RSR listserv](#)

So how can we help? There are several resources available to help you. You don't need to write all these down because you can just download the RSR TA brochure and have the information at your fingertips.

The DISQ Team addresses questions for those needing significant assistance to meet data reporting requirements; helps in determining if recipient systems currently collect required data; assists recipients in extracting data from their systems and reporting it using the required XML schema; and connects recipients that use the same data systems to provide assistance. DISQ also deals with data quality issues and provides TA for the TRAX Application. Data Support addresses RSR-related content and submission questions. The areas they can help you with most include: interpretation of the RSR Instruction Manual and HAB's reporting requirements; step-by-step instructions for completing the RSR Recipient and Provider Reports; data validation questions; and any general questions you have about the RSR. The EHBs Customer Support Center addresses RSR software-related questions, such as registering for and navigating the EHBs and RSR Web System, resetting passwords, and making sure that you have the right permissions to complete the reports. The CAREWare helpdesk provides technical assistance for CAREWare and is available by phone or email. If you haven't already signed up for the CAREWare listserv, be sure to do that! Remember that they have two phone lines now and have increased their hours:

Finally you can sign up for the RSR listserv to get important updates at the link listed on the slide. Remember, there is no wrong door!