

Creating the RSR Client-Level Data File

Ryan White HIV/AIDS Program Services Report (RSR)

HIV/AIDS Bureau

January 18, 2023



Welcome to today's Webinar. Thank you so much for joining us today!

My name is Ellie Coombs. I'm a member of the DISQ Team, one of several groups engaged by the HIV/AIDS Bureau or HAB to provide training and technical assistance to recipients and providers for the Ryan White HIV/AIDS Program Services Report or RSR.

Today's Webinar is Presented by:



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Today's Webinar is presented by Hunter Robertson from the DISQ Team. Hunter will be walking you through strategies for creating the RSR client-level data file. This is intended for folks who are doing the RSR for the first time as well as a refresher for those who have done it before.

Throughout the presentation, we will reference some resources that we think are important. To help you keep track of these and make sure you have access to them immediately, my colleague Isia is going to chat out the link to a document right now that includes the locations of all the resources mentioned in today's webinar.

At any time during the presentation, you'll be able to send us questions using the "Q&A" function on the settings bar on the bottom of the screen. All questions will be addressed at the end of the webinar in our live Q&A portion. During that time, you will also be able to ask questions live if you'd like to unmute yourself and chat with us directly.

Before we start, I'm going to answer one of the most commonly asked questions about the slides. The recording of today's webinar will be available on the TargetHIV website within one week of the webinar; the slides and written question and answer are usually available within two weeks. We will also send an email to everyone registered for this webinar when the recording, slides, and Q&A document are posted.

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Today's webinar is supported by the following organizations and the contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, the Health Resources and Services Administration (HRSA), the U.S. Department of Health and Human Services (HHS), or the U.S. government.

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Now I'd like to turn the webinar over to Hunter.

Agenda

Overview of Requirements

RSR-Ready Systems

TRAX

Your Own Export Function

Questions

Thanks, Ellie! Welcome everyone. Today's presentation is about creating the RSR client-level data file. I'll start the presentation with a brief overview of what's required in the client-level data XML file. I'll then discuss the three strategies available to create the XML: an RSR-Ready System, TRAX, and developing your own export function. Finally, we'll take your questions in the live Q&A portion at the end of the webinar.

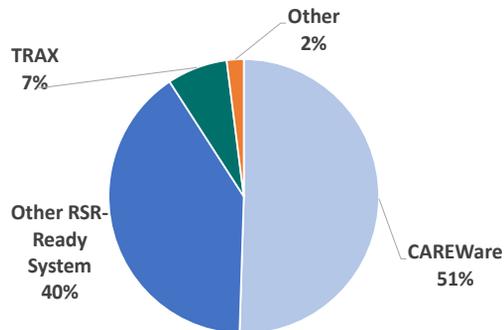
RSR Client-Level Data File

- One record for each RWHAP eligible client, including:
 - Demographics
 - Services
 - Clinical data
- Must be uploaded in specific XML format

For the RSR Client-level data file, you are required to submit de-identified client-level demographic, service, and clinical data.

You must also upload these data in a specific XML format. Much of what we will discuss today is about how your agency gets the file into the XML format.

Systems Used to Create the Client-level Data XML File in 2021



There are three main strategies for creating your client-level data file. The first is to use one of the many RSR-Ready Systems. These data management systems create the XML file for you. As you can see on this pie chart, over 90% of provider files created in 2021 were created with an RSR-Ready System with CAREWare being the most frequently used.

7% of files in 2021 were created by TRAX.

And, finally, about 2% of files were created by providers that developed their own file generation functions.

Poll #1



Before I talk about each of these strategies in more depth, I wanted to check in with everyone on the call about how your agency creates the RSR client-level data file. Isia, can you please launch the poll?

Which of the following best describes your agency's strategy to create the client-level data file?

- RSR-Ready System, such as CAREWare
- TRAX
- Own export function
- Multiple
- I'm not sure

RSR-Ready Systems

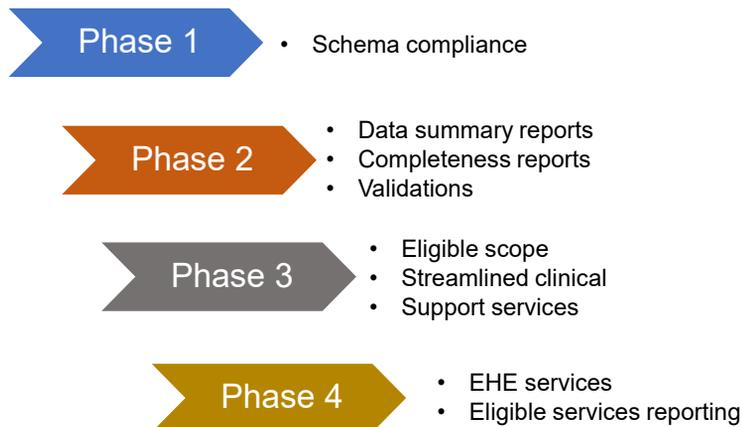
System	Sponsored By:				EHR
	HRSA HAB	Part A Recipient	Part B Recipient	Independent	
AIRS			▲		
ARIES			▲		
AWARDS				▲	
Azara				▲	
CAREWare	▲				
Casewatch Millennium		▲			
CHAMP		▲			
COHEART			▲		
CPCDMS		▲			
eClinicalWorks				▲	▲
eCOMPAS				▲	
Epic					▲
eSHARE		▲			
NextGen				▲	▲
Provide Enterprise				▲	
SCOUT			▲		
Take Charge Texas			▲		

Now, let's talk more about RSR-Ready Systems. The graphic on the screen lists all the systems that are RSR-Ready. This information can be found on TargetHIV. If you use one of these systems, the process for creating the RSR should be relatively straightforward, with minimal or one-time only data mapping and manipulation. RSR-Ready Systems are great because the logic for clients, services, and demographics are already built into the system. This table also shows who sponsored the creation each system.

HAB provides CAREWare free of charge. As you can see, many of these software systems were developed by Part A or B recipients to manage their provider contracts.

Other RSR-Ready Systems are products of independent software vendors that offer their services for a fee. Most are HIV care management systems and just three are full electronic health records or EHRs. EHRs are often customizable, so getting one to become RSR-Ready is a challenge because it's difficult to create a single report for all users that would include the right data.

What Does it Mean to Be “RSR-Ready”?



In order to be RSR-Ready, systems must be able to create files that continue to be compliant with the XML schema, meaning they are in the correct structure.

As the RSR has matured, we have worked with the systems to build internal data quality reports to mirror those available in the RSR Web System so providers can check their data throughout the year.

With the 2014 change in schema and the onset of eligible scope reporting for 2015, HAB created a more extensive testing process that involved both schema compliance and data validity.

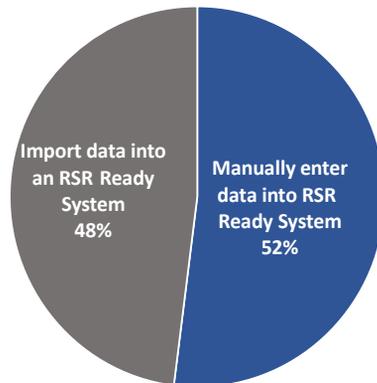
In recent years, we have continued to work with systems, so they are aware of the reporting requirements and can adjust. Most recently, we’ve been providing guidance on how to incorporate services funded through program income or pharmaceutical rebates, known as Eligible Services Reporting, and funding received through the Ending the HIV Epidemic or EHE initiative.

EHR and RSR-Ready Systems Users

- Many of you use an electronic health record (EHR) and an RSR-Ready System
- Data across systems are shared through
 - Manual data entry
 - Electronic imports

Most RSR-Ready System users also use an EHR for their regular clinical care. The EHR is really the source system and providers move data into the RSR-Ready System through manual entry or electronic imports.

Most Providers Manually Enter Data



The data in the pie chart comes from the most recent Needs Assessment DISQ conducted with providers. The blue area represents the percentage of respondents that indicated they manually enter data into an RSR-Ready System. However, the share of providers doing manual entry has declined somewhat over time. Providers indicated they enter data manually because they don't have the capacity to build an electronic import, they feel that manual entry leads to more accurate and complete data, or simply don't have enough clients to warrant the import. All of these are important considerations. It's important to choose a path that works for your agency and that best helps you to present the most accurate picture of the great work you do.

Electronic Imports

- Can help you save time and have more accurate and complete data
- Must be monitored carefully
- Contact DISQ for help with CAREWare or other RSR-Ready Systems

We encourage providers to develop an import process to save time and improve data completeness. However, import processes must be monitored carefully and updated to reflect new service and medication codes.

If you use CAREWare or another RSR-Ready System, contact the DISQ team or your vendor to help identify an import option for you.

Find the Systems on the TargetHIV

System name and build number	RSR-Ready System Version #	Providers in 2021	Contact	Info on the RSR	2022 Version Release Timeline
	AIRS  (9.0.44)	79	Ron Massaroni  212-417-4469	RSR  Data Quality Reports 	September 2022
# of providers	ARIES CA  (Version 8.0.0.0 R44)	128	CA ARIES Help Desk 	Contact the CA ARIES Help Desk 	January 2023
Contact	AWARDS  (TBD)	1	Yehuda Charm  212-780-1450 ext 8026	Check with system representative	TBD

[RSR-Ready Data Systems Webpage Link](#)

Earlier, I showed a table with a list of all the available RSR-Ready Systems. The link on the page will take you to TargetHIV where this information is found. This information might be helpful if your agency is thinking about selecting a new system. TargetHIV will give the name of the system, the number of providers that used it for the last year's RSR, contact information for the system vendor, information on using the system for the RSR, and the timeline for releasing the new version to complete the RSR.

Make Sure You... (RSR-Ready System)

- Use the latest build
- Enter all required data
- Run the available data quality reports after creating your file
- Obtain or develop a crosswalk that maps data system fields to RSR data elements

If you use an RSR-Ready System, there are a few things that will help you feel more comfortable with your data and what you're reporting to HAB. First, make sure you are using the latest build of the system. Second, make sure you are entering all required data – the RSR manual has a table in Appendix A of the required client-level data elements for RWHAP Services. Third, run the available data quality reports in the system. Finally, make sure you have a crosswalk that maps your system data elements to RSR data elements so you can know where to input and correct your data.

Example Crosswalk (CAREWare)

Field ID	Field Name	Coding	Location in CAREWare
SV4	Unique client ID (eUCI)-Encrypted	Encrypted using hash function	Auto-calculated by CAREWare from first and last name, date of birth, and gender of each client
4	Client's year of birth	YYYY	Demographic tab from the Date of Birth of Client
5	What is the client's ethnicity?	Hispanic/Latino Non-Hispanic/Latino	Demographics tab
68	Hispanic Subgroups (Select one or more)	<ul style="list-style-type: none"> • Mexican, Mexican American, Chicano/a • Puerto Rican • Cuban • Other Hispanic, Latino/a or Spanish origin 	Demographics tab Activated if Hispanic ethnicity is true.

RSR data element

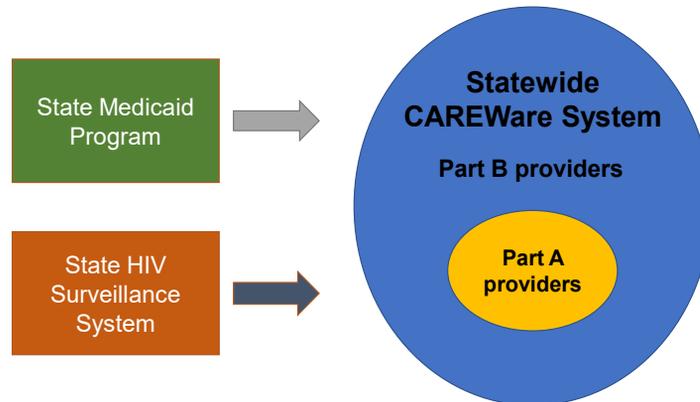
Where it lives in CAREWare

Here's what an example crosswalk looks like for CAREWare.

As you can see, the crosswalk will identify the responses that are required for the RSR client-level data, as well as where that information is housed in the system. These crosswalks will help you become familiar with where your RSR data is coming from.

If you use a system other than CAREWare, contact your vendor to receive your system's crosswalk.

Using an RSR-Ready System: Best Practice



Before we move on to our next topic, I want to present a common scenario for an RSR-Ready System user. In this example, there is a statewide networked CAREWare system that links all Part B and Part A providers. The system is also linked to Surveillance and Medicaid data, so providers see a complete client record with all the client's service and clinical data regardless of where the care was received.

Using an RSR-Ready System: Best Practice

- Data capture:
 - Larger providers import data from their EHRs with recipient support
 - Smaller providers manually enter data
- Recipient monitors data quality on a monthly basis
- Recipient gives provider feedback on data quality well before the submission period
- Providers generate and upload their own XML files

In this example, some medical providers worked with the state to develop imports into CAREWare from their EHRs. Other providers that don't have the capacity to maintain those imports do manual data entry.

The Part B recipient monitors data quality on a monthly basis, letting providers know what data elements are missing, and does a big data quality push well before the deadline.

Providers are still responsible for creating the client-level data from CAREWare and uploading it to the RSR Web System. This is HAB's preferred approach because it helps providers take ownership of the quality of their data.

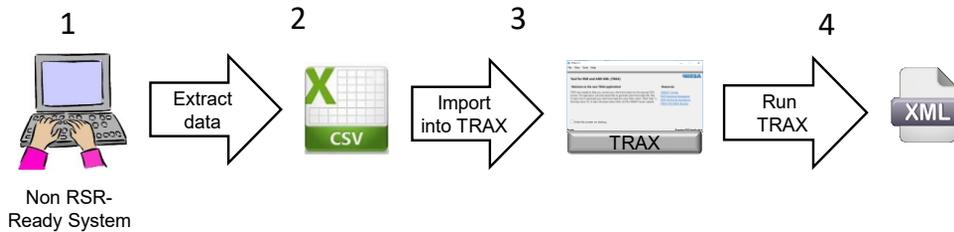
TRAX

- HAB-sponsored tool that converts structured data into the XML file
- Why use TRAX?
 - You have an EHR that is not RSR-Ready
 - You only use an RSR-Ready System to generate the RSR
- Continue to use an RSR-Ready System for:
 - Care Coordination
 - Performance Measures
 - Quality Improvement

The second strategy to generate your client-level data file is TRAX, which is a free tool developed by HAB. TRAX accepts data into a structured format and converts it to the correct XML file.

You might use TRAX because you have an EHR that is not RSR-Ready. You might also use TRAX if your site wants to move away from your RSR-Ready System because you're just using it for reporting purposes. If the only reason you use an RSR-Ready System is to generate the RSR, then you may want to consider TRAX as an option.

TRAX Process



[RSR TRAX Manual](#)

Here is a simplified version of the TRAX process. First, data is entered into your non RSR-Ready System as usual. When you are ready to create the XML file, you move to step 2, and extract the RSR client-level data from that system, then format those data into twelve .CSV files as input. .CSV is basically a spreadsheet format, like Excel. TRAX generally involves extraction of EHR data, although some small providers collect data in Excel or Access and convert the data into the correctly structured XML format.

In step 3, you import these files into TRAX. Finally, in Step 4, you run TRAX to generate the XML file.

TRAX is an easy to install, self-updating application. As I said before, this diagram is simplified. The link on the screen will take you to the download package and manual on TargetHIV. The hardest part by far is getting data out of your system and into those 12 .CSV files, which is the second step.

Make Sure You... (TRAX Process)

- Get your IT staff on board now
- Have all required fields within your system
 - Map current fields to RSR data elements
 - Create new fields

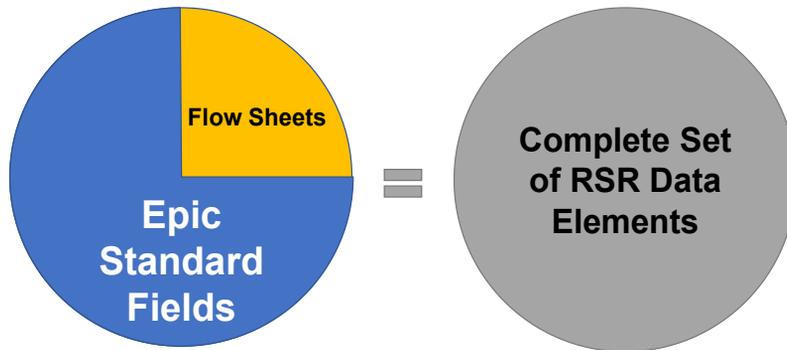
If you plan to use TRAX, one of the most important things you can do is to get your IT staff on board now. Your IT folks will do the work of getting the data out of your EHR and formatted correctly. This work will involve mapping data elements you are already collecting to those in the RSR. It's possible that you aren't collecting all the RSR data elements. If that's the case, then you'll need to add the fields into your data collection process.

Additional Resources

- [TRAX download package](#)
- [TRAX webinar](#)
- [Previous webinar with recipient/provider presentations](#)

Here are some additional resources for TRAX and more information about generating your XML file. There is a detail user guide on TargetHIV with the .CSV file template. My colleagues did a webinar in late November about TRAX, so check out the recording. That webinar had a live demo of the system as well. The third link is to an older webinar with fellow grant recipients sharing their own experiences using EHR data to create the RSR.

Using TRAX: Best Practice



Here's another best practice from the field specific to TRAX. In this example, a medical provider uses Epic as their EHR. Because the EHR does not capture all required data elements, the provider's IT staff created flow sheets which help to create a complete set of RSR data elements.

Using TRAX: Best Practice

- Clinicians must be trained and monitored on correct use of flow sheets
- Data monitored monthly to check for missing items
- Daily reports on clients with an appointment, highlighting missing items

In this example, the provider monitors the data entered into the flow sheet and trains clinicians on proper data entry.

The provider also runs a list the clients for the day and the data that might be missing, so the intake staff can make sure to complete those fields.

Using TRAX: Best Practice

- Initial effort:
 - SQL code to pull data
 - Crystal Reports to format data in correct .CSV file structure
- Ongoing effort: 1-2 hours to create and upload the RSR

The provider uses SQL code to pull data from the Epic database and Crystal Report to format the data in the correctly structured .CSV file template. While this initial programming took some time, now it takes only an hour or two to create the XML file and upload it to the RSR Web System.

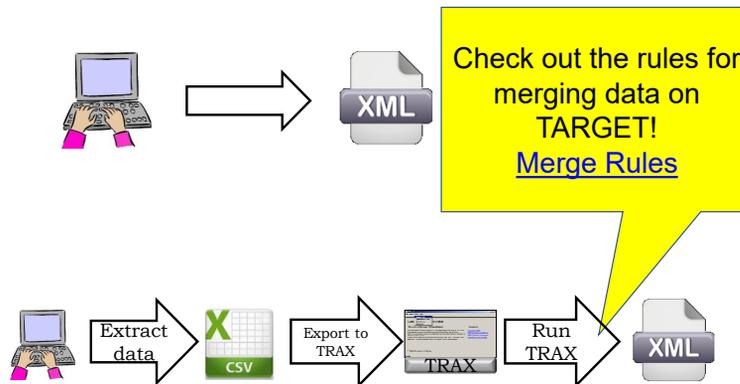
Your Own XML Export Function

- Requires the most programming expertise
- [Follow the XML schema](#)
- [Use the eUCI Application](#)

So far, we've discussed using an RSR-Ready System or TRAX to create the XML. But there is a third strategy: building your own export function. This is the most resource-intensive option for creating your XML and requires the most expertise. Typically, it's the Part A and B recipients that adopt this approach.

For creating your own XML export function, make sure you follow the requirements defined by the XML schema and use the eUCI Application, which creates and encrypts the UCI from data elements in your system. You can download the resources on this slide from TargetHIV, but they are also included in the document my colleague Isia chatted out earlier.

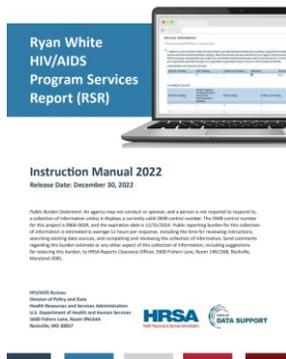
You Can Use Multiple Strategies



You can also submit multiple files, such as the one generated from your RSR-Ready System and one from your other, non RSR-Ready system. You can use TRAX to create the file from the non RSR-Ready System.

Once you've uploaded the files to HAB, HAB will merge client records in these files based on the eUCI. If this is your approach, make sure to check out the merge rules on TARGET. You'll want to know when and why data are overwritten or appended.

Key Documents



[RSR Instruction Manual](#)

Ryan White Services Report (RSR)
Web Application

Data Dictionary and XML Schema Implementation Guide
Version 3.9
August 27, 2020

Submitted by
HRSA
Health Resources and Services Administration
Office of Information Technology
3501 Fairview Lane
Rockville, MD 20857

[RSR Data Dictionary](#)



Now that we've discussed the options to create your XML file, let's take a closer look at what an XML is and the process for uploading your data.

These 2 key documents will guide you in completing your RSR and getting your client-level data ready for upload. On the left is the RSR Instruction Manual, which gives detailed information about the reporting requirements and RSR data elements. The 2022 RSR Instruction Manual was just uploaded to TargetHIV earlier in the month, so be sure to visit and download it if you have not done so already.

On the right is the RSR Data Dictionary and Schema Implementation Guide, which provides the assigned codes for the data elements and response options. Together, these documents demonstrate how to complete your report.

RSR In Focus on EHR Data

Using Your Electronic Health Record (EHR) to Capture and Report RSR Data

DISO
Using Your Electronic Health Record (EHR) to Capture and Report RSR Data

Most Ryan White HIV/AIDS Program providers use electronic health record (EHR) systems to capture client demographic, health and service data. However, these systems don't always have features that make creating the Ryan White Services Report (RSR) easy. This memo has tips for making the most out of your EHR data for RSR reporting. Tips are related to three major steps.

Step 1: Collect RSR Data in Your EHR
 Your EHR system should capture all required data elements.

Step 2: Get Data out of your EHR
 You'll need to map EHR data to RSR data for extraction.

Step 3: Move your data into a tool that creates the RSR
 Create a compliant file to importing your data into TRAX or an RSR-Ready System.

Step 1: Collect RSR Data in Your EHR
 The required RSR data elements must live within your EHR if you want to use the system for RSR reporting.

Challenge: This is not always the case. EHRs may not capture key support services, HIV-specific items (e.g., risk factor) and clinical markers, or demographic characteristics that may be important social determinants of health. These data elements are not only essential for you to manage client health, but also required for the RSR.

Solution:

- Use the [RSR Instruction Manual](#), [Data Dictionary](#) and EHR screenshots or technical guidance to identify how your system captures RSR data. Create a data element [lookup](#) that maps your EHR data elements to the RSR data elements and responses.

Ryan White Services Report (RSR) Crosswalk

RSR		Your System													
ID	Variable	Definition	Value												
2	Vital Status	The client's vital enrollment status at the end of the reporting period.	<table border="1"> <thead> <tr> <th>Variable</th> <th>Value</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>Alive</td> <td></td> </tr> <tr> <td>6</td> <td>Deceased</td> <td></td> </tr> <tr> <td>7</td> <td>Unknown</td> <td></td> </tr> </tbody> </table>	Variable	Value	Notes	12	Alive		6	Deceased		7	Unknown	
Variable	Value	Notes													
12	Alive														
6	Deceased														
7	Unknown														

This resource was prepared by CAI and their partners ARI Associates and Pivotal Analytics under Cooperative Agreement #2019-0001 from the Health Resources and Services Administration (HRSA) through its contract #HHS-2019-0001. Content are under the responsibility of ARI and its participating partners and are not necessarily endorsed or approved by HRSA.

A project of CAI in partnership with ARI and Pivotal Analytics

Additionally, the TARGETHIV website has short cheat sheets called “RSR in Focus,” which highlight different aspects of reporting. The In Focus on the screen is about using your EHR for capturing and reporting data for the RSR.

Uploading Your File

- Completing the Provider Report: [Register](#) now for February 1 webinar!
- Schema errors
 - Help you identify problems with your XML
 - Must be resolved before you can upload
- Validation messages
 - Help you correct data that you have uploaded

For detailed instructions on how to upload your client-level data file, there is a webinar on February 1st on how to complete the RSR Provider Report. That webinar walks you step-by-step through completing the report, including the process for uploading your data file.

While we hope the RSR process is relatively painless, it is not uncommon to experience some hurdles in uploading your XML file and ensuring your data are accurate. The RSR system has built-in checks to help you. One type are schema checks, which make sure that the XML tags correspond to the requirements outlined in the Data Dictionary. These messages can be daunting at first, but once you're familiar with the language of the XML files, the messages will guide you to fix any issues you have in your file. If you see a schema message that you're unsure of, please contact the DISQ Team. We are happy to assist you in getting your file ready for upload, and we use your feedback to improve the system messages so that they best meet your needs.

Once you have successfully uploaded your file; you may receive validation messages related to your data. These point you toward potential issues that you may be able to resolve before your final submission.

RSR System Opens Soon!

- Important dates:
 - **February 6**: RSR Web System Provider Report opens
 - **March 6**: Target date for submission of Provider Reports
 - **March 27, 6:00pm ET**: Final RSR deadline!
- [Webinar series](#)
 - Recordings, slides, and Q/A docs of previous webinars
 - Registration links to upcoming webinars

Hopefully, you feel more confident in selecting a method of preparing your data and preparing your data for upload. The RSR Provider Report opens on February 6th, so you'll soon be able to get into your report and upload your data.

HAB strongly encourages you to upload your client-level data and submit your Provider Report no later than March 6, 2023, to allow you and your recipients plenty of time to review your data prior to the final deadline, which is March 27, 2023. All reports must be in 'Submitted' status by 6pm ET on the 27th or they will be marked late by the system.

As I've mentioned throughout today's webinar, there is a full webinar series that we and our TA colleagues are hosting throughout the submission cycle, which will equip you with all the tools you need for a successful RSR submission. The link on the screen will take you to the schedule of webinars where you can register for future presentations or watch our previous broadcasts.

Technical Assistance Resources

- The DISQ Team:
 - Data.TA@caiglobal.org
 - [Sign up for the DISQ listserv](#)
 - [Submit a DISQ TA request](#)
- Ryan White HIV/AIDS Program Data Support:
 - RyanWhiteDataSupport@wrma.com
 - 888-640-9356
- EHBs Customer Support Center:
 - 877-464-4772
 - [Submit an EHBs TA Request](#)
- CAREWare Help Desk:
 - cwhelp@jprog.com
 - 877-294-3571
 - [Join the CAREWare listserv](#)

This may feel like a lot to do. There are several resources available to help you.

(1) The DISQ Team addresses questions for those needing significant assistance to meet data reporting requirements. DISQ also deals with data quality issues, as well as providing TA on TRAX and support in creating documentation.

(2) Data Support addresses RSR-related content and submission questions. Topics include: Interpretation of the Instruction Manual and HAB's reporting requirements; Allowable responses to data elements; Policy questions related to the data reporting requirements; and Data-related validation questions.

(3) The EHBs Customer Support Center addresses software-related questions. Topics include: Electronic Handbook (EHB) navigation, registration, access and permissions and Performance Report submission statuses.

(4) Finally, the CAREWare help desk is your best resource for any TA requests related to CAREWare. We encourage you to register for the listserv to join the conversation with other CAREWare users across the country.

Most importantly, there is no wrong door for TA – if we can't assist you we're happy to refer you to someone who can!



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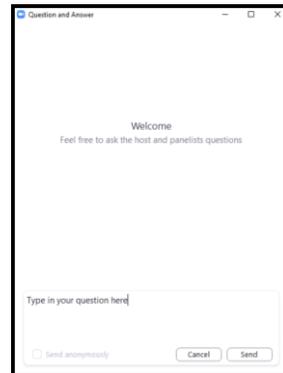
Finally, to connect with and find out more about HRSA, check out HRSA.gov.

Let's Hear From You!

- Please use the “raise hand” function to speak. We will unmute you in the order that you appear.

OR

- Type your question in the question box by clicking the Q&A icon on the bottom toolbar.



Before Ellie and I go to the Q&A portion, I would like to remind you that a brief evaluation will appear on your screen as you exit, to help us understand how we did and what other information you would have liked included on this webinar. We really appreciate your feedback and use this information to plan future webinars. My colleague Isia is going to put a link out in the chat feature if you would prefer to access the evaluation right now. We'll also send a final reminder via email shortly after the webinar.

As a reminder, you can send us questions using the “Q&A” button on your control panel on the bottom of your screen. You can also ask questions directly “live.” You can do this by clicking the “raise hand” button, which is also on your control panel. If you raise your hand, we'll be able to allow you to unmute and ask your question. We hope you consider asking questions “live” because we really like hearing voices other than our own.

We do want to get all your questions answered, and we do not usually run over an hour. If you have submitted your question in the question box and we cannot respond to your question today, we will contact you via email to follow up. Sometimes we need to do some follow-up before providing you with a final answer, so stay tuned for the written Q&A as well for answers to all your questions.