# **Eva - Quick Start Guide Upload HMIS Data**

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### **Overview**

The purpose of this guide is to walk users through how to upload your HMIS data into **Eva**, a web-based tool that can help you assess the accuracy and completeness of the data collected within your Homeless Management Information System (HMIS), also known as data quality. Specifically, this guide will walk you through:

- Generating a hashed <u>HMIS CSV</u> export and storing it in a secure location.
- Launching Eva.
- Uploading your hashed HMIS CSV export to Eva.
- Understanding your upload status.
- Next steps after you've successfully uploaded data to Eva.

For more general information on **Eva**, and why you should use **Eva** to review your HMIS data quality and export file structure, please refer to the <u>Eva Quick Start Guide</u>.

## Generating a hashed HMIS CSV export and storing it in a secure location

In your local HMIS system, generate and export a hashed HMIS CSV .zip file (also referred to as the HMIS CSV export) and store it securely on your computer per federal, state, and local rules and regulations, including the <u>2004 HMIS Data and Technical Standards</u>.

If you are unsure of how to generate a hashed HMIS CSV export, contact your HMIS vendor.

#### What is a hashed HMIS CSV file?

A "hashed" file means personal identifiers (i.e., First Name, Middle Name, Last Name, SSN) are obscured in the Client.csv file when the export is generated.

**HUD requires HMIS software to generate** .csv files that can be used for applications like Eva. The HMIS CSV export is different from other exports such as the Longitudinal System Analysis (LSA) or the Annual Performance Report (APR), which are both at the aggregate level and do not contain the necessary Client.csv file.

Click here for more about comma-separated values (CSV) files.

## Launching Eva

Navigate to <u>https://hmis.abtsites.com/eva/</u> in your web browser to launch **Eva**. Launching **Eva** opens its Home page ("Welcome to Eva!").

## Uploading your hashed HMIS CSV export to Eva

You need to navigate to the Upload HMIS CSV Export page to upload your HMIS CSV export. The redorange "Click here to get started" button will take you to directly the Upload HMIS CSV Export page. Alternatively, you can directly click on the "Upload HMIS CSV Export" menu option on Navigation Menu.

| 💥 Eva                  |  |
|------------------------|--|
| Home                   |  |
| Upload HMIS CSV Export | Welcome to Eva!  |
| Edit Local Settings    | Eva is an open-source project intended for local use by HMIS Administrators in Continuums of Care (CoCs) around the U.S. and its territories. Eva is designed to help you assess the accuracy and completeness of the data within your HMIS. In future iterations it will also assist communities in |
| View Client Counts     | analyzing HMIS performance data, including coordinated entry, if your community utilizes HMIS for this purpose. Use of this tool is not required<br>by HUD.  |
| Assess Data Quality 🔨  | Eva is a web-based tool built with R Shiny. This means:  |
| ≫ Check PDDEs          | <ul> <li>Eva will only access your CoC's data during your session, no CoC data is being retained or viewed by anyone besides you. Eva does retain metadata about the upload file itself, such as the name of your software vendor, your export dates, hash status, and data source</li> </ul>        |
| >> System-level        | information. This is collected for troubleshooting and tool planning purposes.   |
| >> Organization-level  | <ul> <li>You can upload a zipped CSV Export of up to 200 MB. The file must be hashed.</li> <li>You can stay up to date with the new features by visiting the Changelog tab.</li> </ul>   |
| View Changelog         | Click here to get started  |
|                        |  |
|                        | Instructions +   |
|                        |  |
|                        | Need help?   |
|                        | Citations and Special Thanks   |
|                        | · · ·  |

On the Upload HMIS CSV Export page, use the red-orange "Browse" button to navigate to the hashed HMIS CSV .zip file you generated and downloaded from your HMIS.

| 🇱 Eva                          | =   |
|--------------------------------|---|
| Home<br>Upload HMIS CSV Export | This tab will show relevant data once you have uploaded your HMIS CSV Export. |
| Edit Local Settings            | Instructions  |
| View Client Counts             |   |
| Assess Data Quality <          | Browse No file selected   |
| View Changelog                 |   |

Once you have navigated to your file, click on it to select it, then click "Open" to begin the upload. During a session, **Eva** can access only one .zip file at a time.

|                                   |              |                            | Open              |                   |                     |        | 2 |
|-----------------------------------|--------------|----------------------------|-------------------|-------------------|---------------------|--------|---|
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| 🚖 Favorites                       | ^            | Name                       | Date modified     | Туре              | Size                |        |   |
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| Pictures                          | $\sim$       |                            |                   |                   |                     |        |   |
| 1                                 | -<br>ile nam | Hashed HMIS CSV File.zip   |                   | ×                 | WinZip File (*.zip) |        | , |
|                                   |              |                            |                   |                   | Open                | Cancel |   |
|                                   |              |                            |                   |                   | Open                | Cance  | 1 |

**Eva** might take a few moments to process your selected file. The upload progress bar below the browser button represents the progress on **Eva**'s check that your HMIS CSV Export file is hashed. If it is not, **Eva** will reject the file with an error message, and clear **Eva**'s memory until you upload a hashed HMIS CSV Export.

| 🇱 Eva                  | ≡  |  |  |
|------------------------|--|--|--|
| Home                   |  |  |  |
| Upload HMIS CSV Export | This tab will show relevant data once you have uploaded your HMIS CSV Export.  |  |  |
|                        |  |  |  |
| Edit Local Settings    | Instructions   |  |  |
| View Client Counts     |  |  |  |
| Assess Data Quality    | Browse HMIS CSV Export 1.zip   |  |  |
|                        | HMIS CSV Export Luip   |  |  |
| View Changelog         |  |  |  |
|                        |  |  |  |
|                        | HMIS CSV Export File Structure Analysis  |  |  |
|                        | Users should contact their vendor to resolve high priority errors identified in the HMIS CSV Export File Structure Analysis, as well as any other structural issues which you feel need to be corrected. |  |  |

After confirming your export is hashed, **Eva** will review and process the file structure and data quality of your upload. A window depicting **Eva**'s progress processing your HMIS CSV Export file will pop-up at the bottom right-hand corner of your screen.

|                                  | × |
|----------------------------------|---|
| Processing Prepping initial data |   |

While processing your upload, **Eva** goes through multiple stages, including reading your files, checking file structure, prepping initial data, assessing your data quality, and checking your Project Descriptor Data Elements (PDDEs).

After processing your upload, **Eva** will notify the user with a pop-up indicating the official upload status stating whether the upload was successful or not.

## Understanding your upload status

When users upload an HMIS CSV export to **Eva**, the .zip file goes through the File Structure Analysis. The File Structure Analysis assesses the structural components of the uploaded .zip file and determines if it meets **Eva**'s file structure requirements.

Once your upload is processed and **Eva** has finished assessing the file structure integrity of your upload, **Eva** will provide a pop-up message alerting you of your upload status. You can have either a successful upload or an unsuccessful upload based on the structural integrity of your HMIS CSV export. The key difference between a successful upload and an unsuccessful upload is if the upload has any High Priority File Structure Errors.

While any error identified during the File Structure Analysis represent components in the uploaded HMIS CSV export file that do not meet the most recent <u>HMIS CSV Format Specifications</u>, there are some file structural errors that are more relevant to the functionality of **Eva**.

- High Priority File Structure Errors are file structure issues that will cause Eva to not work.
- **General File Structure Errors** are file structure issues that will *not* impact **Eva**'s ability to work, but do not meet HMIS CSV format specifications.

High Priority File Structure Errors impact **Eva**'s ability to read the uploaded .zip file and result in an unsuccessful upload. **Eva** relies on certain column names and value formats etc. to be accurate so the analysis can be run. When these important, or high priority, structural factors of the HMIS CSV Export are not met, **Eva** cannot successfully run its analysis.

| Upload Status   | Description   | Action  |
|---|---|---|
| Unsuccessful Upload:<br>Missing Files                                     | The uploaded .zip file does not<br>contain all of the required files<br>to do an analysis of your HMIS<br>data. Thus, <b>Eva</b> cannot read the<br>.zip file.  | If you receive this message, please check<br>that you uploaded a <i>hashed</i> HMIS CSV<br>export. If you did not, please upload again<br>with the hashed .zip file. If you did upload<br>the correct file—a hashed HMIS CSV<br>export—and received this error, please<br>contact your HMIS vendor and inform<br>them of all the files listed in your upload<br>status message that are missing in your<br>.zip file. |
| Unsuccessful Upload:<br>Your HMIS CSV export<br>is not structurally valid | The uploaded .zip file, though it<br>is not missing any files, has at<br>least one High Priority File<br>Structure Error that your HMIS<br>vendor needs to resolve in<br>order for <b>Eva</b> to read the .zip<br>file. | If you receive this message, please<br>download your file structure analysis and<br>share it with your HMIS vendor to work<br>out the listed file structure errors.<br>The High Priority File Structure Errors<br>must be fixed before users can utilize <b>Eva</b><br>to assess their HMIS data quality.   |
| Successful Upload:<br>No High Priority File<br>Structure Errors           | The uploaded .zip file has file<br>structure errors, but none are<br>High Priority File Structure<br>Errors, and thus <b>Eva</b> can read<br>the .zip file.   | If you receive this message, please<br>download your file structure analysis<br>detail and share it with your HMIS vendor<br>to work out the listed General File<br>Structure Errors.<br>Additionally, you can now navigate to the<br>other tabs in <b>Eva</b> and assess your HMIS<br>data quality.  |
| Successful Upload:<br>No file structure errors                            | The uploaded .zip file has no<br>file structure errors that <b>Eva</b><br>checks for and thus <b>Eva</b> can<br>read the .zip file.   | If you receive this message, you can now<br>navigate to the other tabs in <b>Eva</b> and<br>assess your HMIS data quality.<br>There are no file structure issues that <b>Eva</b><br>checks for that need to be resolved.  |

However, while **Eva** requires successful HMIS CSV export uploads to have no *High Priority* File Structure Errors, this does not mean the uploaded .zip file has no file structure errors at all. Both successful and unsuccessful uploads may have General File Structure Errors to address, they are just less disruptive to **Eva**'s analysis process than High Priority File Structure Errors.

Additionally, please note that the fields on the View Client Counts page and the Assess Data Quality pages will be blank until you have successfully uploaded a .zip file containing your hashed HMIS data.

For more information on what file structure errors Eva checks for, please refer to the <u>EvaChecks</u> files published on the Public Resources folder on Eva's GitHub.

### Review the File Structure Analysis Results

The results of the File Structure Analysis—or the identification of all High Priority File Structure Errors and General File Structure Errors in your uploaded HMIS CSV export—are available to review for both successful and unsuccessful uploads that are *not* missing files. The errors are listed in the File Structure Analysis Panel on the Upload HMIS CSV Export page and can be downloaded by clicking on the red-orange "Download Structure Analysis Detail" button.

| HMIS CSV Export File Structure Analysis     |                            |   |                         |                 |
|---|----------------------------|---|-------------------------|-----------------|
| Туре  | *                          | Issue   | Å                       | Count 🔶         |
| High Priority                               |                            | Incorrect Date Format   |                         | 2               |
| High Priority                               |                            | Incorrect Columns   |                         | 1               |
| High Priority                               |                            | Nulls not allowed or incorrect data type  |                         | 1               |
| Error                                       |                            | Nulls not allowed or incorrect data type  |                         | 2               |
| Error                                       |                            | Incorrect Columns   |                         | 1               |
| Error                                       |                            | Incorrect Date Format   |                         | 1               |
| Error                                       |                            | Invalid value in Client file  |                         | 1               |
| Jsers should contac<br>as any other structu | ct their ve<br>Iral issues | ndor to resolve high priority errors identified in the HMIS CSV E<br>which you feel need to be corrected. | xport File Structure An | alysis, as well |

📥 Download Structure Analysis Detail

The Structure Analysis Detail and the File Structure Analysis Panel will show no data if there are no *structural* issues with the .zip file. However, this does not mean that there are no *data quality* issues.

Since the file structure of your HMIS CSV export file is determined and created by your HMIS vendor, it is important to note that only your HMIS vendor can fix these file structure issues. To fix file structure issues identified during the File Structure Analysis, please download the Structure Analysis Detail and share or review the errors with your HMIS vendor, prioritizing the High Priority File Structure Errors. If your upload resulted in any High Priority File Structure Errors, your HMIS vendor must resolve the problem(s) for you to be able to successfully upload your HMIS CSV export file to Eva and thus be able to review your HMIS data quality.

## Next steps after you've successfully uploaded data to Eva

#### **Edit Local Settings**

Once you have successfully uploaded an HMIS CSV export file, you can make **Eva** reporting more useful at the local level by adjusting a couple local settings to better analyze your data in a way that is meaningful to your CoC. To edit these, click on the "Edit Local Settings" menu option on the Navigation Menu. This will take you to the Edit Local Settings page.

| 🗱 Eva                  | :    | ≡  |
|------------------------|------|--|
| Home                   |      |  |
| Upload HMIS CSV Export |      | Edit Local Settings                                  |
| Edit Local Settings    |      | Date Range of Current File: 10-01-2022 to 09-30-2023 |
| View Client Counts     |      |  |
|                        |      | Instructions   |
| Assess Data Quality 🔨  | ۲. I |  |
| ≫ Check PDDEs          |      | Outstanding Referrals                                |
| >> System-level        |      |  |
| >> Organization-level  |      | Long Stayers +                                       |
| View Changelog         |      |  |

There are two key local settings you can adjust on the Edit Local Settings page based on your communities' data trends.

- 1) **Outstanding Referrals**: The maximum number of days a referral can stay open according to the CoC's Coordinated Entry Referral process.
  - a. The default for the maximum days for an outstanding referal is 14 days, but users can update this to a value that more reflects their community. Please note this default does not imply any HUD recommendations.
- 2) **Long Stayers**: The expected maximum period of assistance envisioned for the project type, meaning the timeframe after which you would want an organization to confirm the client is still active in the project.
  - a. The default for the maximum period of assistance for a variety of project types (Emergency Shelter (NbN only), Street Outreach, Day Shelter, Services Only, Coordinated Entry, and Other) is 90 days. Users can update these default values to more reflect their community. Please note this default does not imply any HUD recommendations.

The Edit Local Settings page also explains **Eva**'s long stayers flag logic for other project types where the user *cannot* specify or change the expected maximum period of assistance:

- For permanent housing and Permanent Supportive Housing projects, **Eva** will identify and flag the projects with the top 1% longest enrollments.
- For all other project types (Emergency Shelter Entry/Exit, Safe Haven, Transisitonal Housing, Rapid Rehousing, and Homeless Prevention), Eva will identify and flag the projects with the top 2% longest enrollments.

### Review your HMIS data quality

Navigate to the "View Client Counts" and "Assess Data Quality" menu options on the Navigation Menu to 1) check that your project-level client counts are accurate and 2) check for data quality issues at the at the project, system, and organization levels. For more information on these pages, please refer to their individual quick start guides:

- Eva Quick Start Guide- View Client Counts
- Eva Quick Start Guide- Assess Data Quality: Check Project Data
- Eva Quick Start Guide- Assess Data Quality: System-level & Organization-level

## Additional resources and providing feedback

- Additional resources can be found on the Eva page of the HUD Exchange.
- For more general information on **Eva**, and why you should use **Eva** to review your HMIS data quality, please refer to the <u>Eva Quick Start Guide</u>.
- For more information on **Eva** and its code, including a list of all data quality checks, visit the <u>Code tab on the Abt Eva GitHub</u>.
- To provide feedback or report issues regarding **Eva**, visit the <u>Issue tab on the Abt Eva GitHub</u>. To add a new issue, click the "New issue" button on the right-hand side of the page.

This resource is prepared by technical assistance providers and intended only to provide guidance.

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