

HMIS CSV DATA QUALITY TOOL

Version 1.0 | January 2022

DISCLAIMER

This resource is prepared by technical assistance providers and intended only to provide guidance. The contents of this document, except when based on statutory or regulatory authority or law, do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

UPDATES

The newly released version 1.0 of the HMIS CVS Data Quality (DQ) tool is now available for your CoC's local use. Since the first beta version of the DQ tool was released on November 15th, 2021, the following updates and changes have been made because of communities' feedback:

Changes that make it easier for you to investigate errors and warnings in your local data:

- Column orders in the Flagged IDs window are now consistent across all the DQ Checks.
- **DQ Check 1 and 2** pulls the most recent *EntryDate* for any flagged records.
- **DQ Check 6, 7, and 8** includes *ExitDate* in the Flagged IDs window.
- **DQ Check 11** includes *OperatingStartDate* and *OperatingEndDate* in the Flagged IDs window.
- **DQ Check 13** includes the fields *InventoryStartDate*, *Household Type*, *TotalDedicatedBeds* and *BedInventory* in the Flagged IDs window.
- **DQ Check 13** to **DQ Check 14** relabeled to keep checks grouped together by type.

Changes that will help you identify even more potential data quality issues:

- **DQ Checks 13a to 13d** were added to flag overlapping enrollments.

Changes that fix an issue in the Beta version of the tool.

- **DQ Check 11** now only flags records where the enrollment's *ExitDate* or *EntryDate* is AFTER (rather than AFTER OR EQUAL TO) the *OperatingEndDate*.
- **DQ Check 11** does not flag records where the project's *OperatingEndDate* was null and *ExitDate* was after the *ExportEndDate*.

OVERVIEW

Background

Homeless Management Information Systems (HMIS) have undergone a high degree of development in recent years. The national shift in data collection for the [Annual Homeless Assessment Report \(AHAR\)](#) to the [Longitudinal System Analysis \(LSA\)](#) has highlighted the opportunity to advance data quality analysis. Many communities' assessment of data quality has been limited by standard data quality reports that are dependent on the completeness of data elements and timeliness of data entry.

Purpose of this Tool

HMIS has become a major data source about homelessness in the US for multiple funders, including the US Department of Housing and Urban Development (HUD), the US Department of Veteran Affairs (VA), Health and Human Services (HHS), plus state and local governments and other non-governmental funders and communities. Good data quality is foundational to reporting to these agencies and communities for better policy making and improved funding opportunities.

Some federal reports using HMIS data include the [System Performance Measures](#), the LSA, the [Housing Inventory Count](#), the [Point in Time Count](#), and others

The **HMIS CSV Data Quality Tool (DQ) Tool** was developed for CoCs local use, and it is not required by HUD. It applies logical data checks to a CoC's [HMIS CSV Export](#), a tool common to every HMIS implementation. The DQ Tool is then able to list primary IDs associated with common data quality issues.

Future Use

In the future, communities utilizing their HMIS to track Coordinated Entry (CE) events and assessments will have access to an interactive CE System Wide dashboard. This workbook will pre-process HMIS CSVs and prepare the data for the CE System Wide dashboard, which is currently under development.

Support for Version 1

Currently, this tool is supported on Windows and Windows Excel versions 2003 and later. Excel for Mac is not supported at this time. If you have an older version of Excel, you may need to download and install the [Microsoft Access Database Engine 2010 Redistributable](#).

If a community experiences an issue with the tool, they can log an issue on the [Bitbucket issues](#) page through the end of January 2022. To submit an issue and receive updates on the DQ Tool it is required to sign up for a free Bitbucket account. Starting in February 2022, questions about the DQ tool will need to be submitted to the [Ask a Question](#) page on the HUD Exchange. Select

HMIS: Homeless Management Information Systems, under Reporting Systems to submit a question.

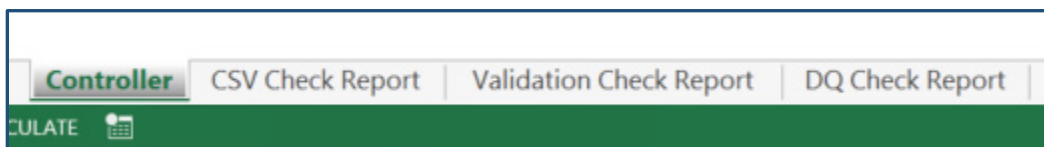
To Use the Tool:

- Navigate to <https://bitbucket.org/abtassociates/hmis-csv-dq-tool/downloads/>.
- Locate the file **HMIS CSV Data Quality Tool_v1.xlsx** and click the file name to download.
- Save the workbook to a directory you can locate again.
- Open the tool, use the first button to navigate to the directory where you saved your unzipped HMIS CSV Export files.

TOOL USER GUIDE

Summary of Tabs

The HMIS CSV Data Quality (DQ) Tool runs three reports to validate and check the quality of a community's HMIS data. The first tab – **Controller** – conducts the checks and the following three tabs – **CSV Check Report**, **Validation Check Report**, **Data Quality (DQ) Check Report** - details these data checks. As you complete each step, the report tabs associated with each step will appear so that you can investigate data errors and warnings.



Report Tabs:

- **CSV Check Report**
 - This report checks that the community has all the HMIS CSV files necessary to use this tool. **Please note this is not an exhaustive list of all HMIS CSV files.** The table below includes all the HMIS CSVs according to the FY2022 HMIS Data Standards and whether those CSVs are required for this tool. If you do not see the required files in your HMIS CSV Export, then you may have run the wrong export. For example, it could be that you ran the export for the Annual Performance Report (APR) or the LSA.

HMIS CSV File Name	Required for the DQ Tool?
Export	No
Organization	Yes
User	No
Project	Yes
Funder	No
Project CoC	No
Inventory	Yes
Affiliation	No
Client	Yes
Enrollment	Yes
EnrollmentCoC	Yes
Exit	Yes
IncomeBenefits	No
HealthandDV	No
EmploymentEducation	No
Disabilities	No
Services	No*
CurrentLivingSituation	No
Assessment	No
AssessmentQuestions	No
AssessmentResults	No
Event	Yes
YouthEducationStatus	No

*Exclusion of the Services file, or a file that is empty, will not prevent a user from using the tool. However, if your continuum has a night-by-night shelter, the results for calculations using bed nights will be inaccurate.

- **Validation Check Report**

- This report checks that the data is valid and highlights critical issues for each data field. Issues here may indicate programming errors with the HMIS CSV Export created and maintained by your HMIS vendor.

- **DQ Check Report**

What is a data error versus a warning?

Error: a data field has a missing value or one that does not comply with the FY 2022 HMIS Data Standards.

Warning: a data field has a value that is possible, but unlikely based on the FY 2022 HMIS Data Standards.

- This report checks logical data quality and displays data errors and data warnings. Issues here will indicate data entry errors and warnings that may impact reporting.

Getting Ready to Use the Tool

If you are not sure how to run a HMIS CSV Export from your HMIS, please check with your vendor for guidance. **Please be sure you are using the FY 2022 version of the HMIS CSV Export for use with this Data Quality Tool.** If your vendor does not yet have the FY 2022 version of the tool available, please contact your vendor to request it.

Run your HMIS CSV Export on a date range that includes the time period(s) of any reporting you will need. If you are preparing for System Performance Measures or the LSA for FY22, for example, you would want to run it back to October 1, 2018, because both reports utilize a three-year period of data.

While your reporting to HUD (or other funder) may require that you report on one CoC at a time, it is perfectly acceptable to run your HMIS CSV Export on your entire implementation for the purposes of Data Quality checking, if your vendor allows that. The Data Quality Tool will not require that all your data be from the same CoC. Conversely, you could choose to filter the data to include only certain project types.

Once you have downloaded your HMIS CSV Export from your HMIS, save it to a directory on your computer that you will remember and **unzip the files there.**

Any HMIS CSVs will contain Personally Identifying Information (PII) and must be stored in compliance with the [Homeless Management Information Systems \(HMIS\): Data and Technical Standards Final Notice](#).

Tips for Using the DQ Tool:

- Your HMIS CSV Export **must be unzipped** before you use the tool.
- It is recommended to not have any other Excel files open while you are running the tool, as doing so can cause unexpected results.
- Do not open your csv files in Excel. If you do this by accident, please delete and re-download the file(s) from the original zip file. Opening the files results in certain fields being reformatted.
- Each step may take a few minutes to complete, especially the validation and DQ checks. Allow the tool up to seven minutes to complete each step. If, after that time, the tool is still running, there may be a problem and you can try to restart Excel.

Note: The tool can be run using a hashed CSV, however, the hashing will result in validation errors for Social Security Number.

Detailed Tool Instructions

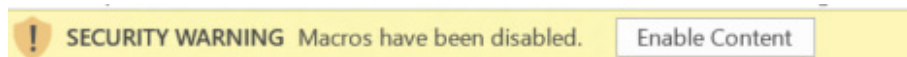
A description and instructions for each tab can be found below.

Tab 1—Controller

Purpose:

This tab loads HMIS data into the tool and completes the CSV, validation, and data quality checks. You will locate your HMIS CSVs and complete each step. After each step is completed, the corresponding report tabs will appear as a tab and populate.

Before using the tool, users must **enable the content** of the workbook.



Description and Instructions:

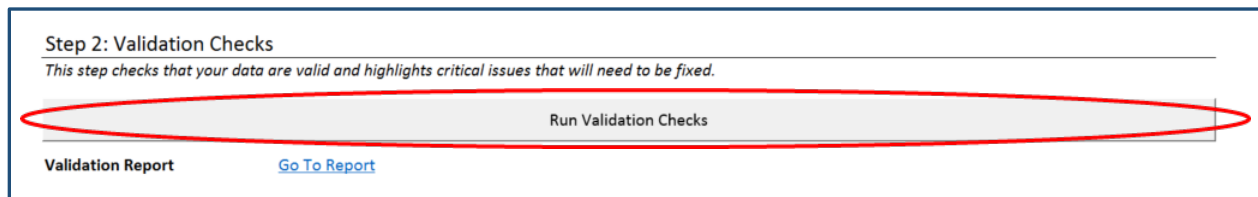
1) CSV Check:

- You will select the **Locate and Check CSVs** button (shown in the screenshot below). This button will prompt you to locate the folder where the HMIS CSVs are saved. You only need to select the main folder where the CSVs are saved, not the individual CSV files.
- After the CSVs are located and checked, the CSV Check Report tab will appear. Additionally, the *Raw CSV Files Folder*, *Initial Cleaned CSV Folder*, and *CSV Check Report* boxes will appear and populate (shown in the screenshot below):
 - The *Raw CSV Files Folder* will show the folder path of the main folder that you selected.
 - The *Initial Cleaned CSV Folder* generates a hyperlink to a folder where alternate versions of the CSV files are saved. These files are a version of the CSV files with a subset of columns and in some cases a subset of rows. They will be used for the validation and data quality checks. Do not alter or delete these files.
 - The “[Go to Report](#)” hyperlink navigates you to the second tab in the workbook – the **CSV Check Report**.
 - After reviewing the CSV Checks, return to the **Controller tab** by clicking ‘*Controller*’ at the bottom left of the screen.

Step 1: CSV Check	
This step checks that you have all required CSV files.	
Locate and Check CSVs	
Raw CSV Files Folder	S:\Projects\CE_Data_Toolkit\Data Sets\Data Lab 2022 HMIS
Initial Cleaned CSV Folder	S:\Projects\CE_Data_Toolkit\Data Sets\Data Lab 2022 HMIS\1. Initially Cleaned CSVs
CSV Check Report	Go To Report

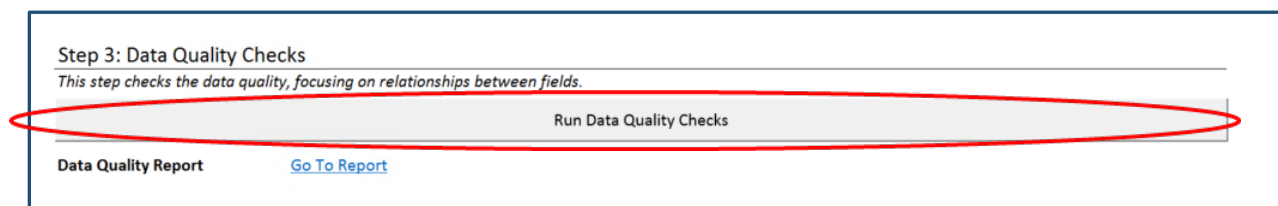
2) Validation Checks:

- You will select the **Run Validation Checks** button (shown in the screenshot below). This button will prompt you to confirm that they are ready to run the validation checks. To run the checks, select OK. Once the checks are complete, the **Validation Check Report** tab will appear.
- The tool will either let you know that the data has passed all the validation checks OR that you need to address validation issues to move on to the next step – DQ checks.
- The “[Go to Report](#)” hyperlink navigates you to the third tab in the workbook – **Validation Check Report**.



3) Data Quality Checks

- You will select the **Run Data Quality Checks** button (shown in the screenshot below). This button will prompt you to confirm that they are ready to run the data quality checks. To run the checks, select OK. Once the checks are complete, the **DQ Check Report** tab will appear.
- The tool will either let you know that the data has passed all the data quality checks OR that you needs to address a data error or warning displayed on the **DQ Check Report** tab.
- The “[Go to Report](#)” hyperlink navigates you to the fourth tab in the workbook – **DQ Check Report**.



Tab 2—CSV Check Report

Purpose:

This tab displays the results of the CSV checks and allows you to access each file through a hyperlink.

Description and Instructions:

The **CSV Check Report** tab does not require any data entry from you. This tab displays the following information about each CSV file:

- a) **File Name** - The file name and a [hyperlink](#) that opens the CSV file.
- a) **File in Folder?** - If the CSV file exists in the main folder.
 - If all the necessary CSV files are present, then green text to the right of the table will say “You have all required CSVs!”
 - If the main folder is missing a file, then the text to the right of the table will say, “You are missing some CSVs!”
- b) **# Records** -The number of records in each CSV file.
- c) **Missing Columns?** - If the CSV file is missing any columns that should be present in the file according to the FY 2022 HMIS Data Standards.
- d) **Required?** – If the CSV file is required for the validation or data quality checks.

Tips for Troubleshooting the CSV Check Report:

- If you are missing CSVs double check that your export generated all your CSVs. If not, contact your vendor.
- If you are missing a column, check if the column’s name matches the [FY 2022 HMIS Data Standards](#). If the column is missing, then contact your vendor. If the column is named correctly and you are getting this message in error, report the issue to Abt Associates*.
- If you are missing records (for example you are expecting 50 Organization records but only seeing 1), ensure there were no unintended filters set when you exported the data from your HMIS. If you have confirmed that any filtering was intentional, contact Abt Associates* for assistance.

*Assistance from Abt Associates can be obtained through the [Bitbucket issues](#) site through January 2022. After that time, submit a question to the [Ask a Question](#) page on the HUD Exchange. Select HMIS: Homeless Management Information Systems, under Reporting Systems to submit a question.

Table 1: File Checks

File Name	File in Folder?	# Records	Missing Colum	Required?
Client	Yes	4,632	No	TRUE
Enrollment	Yes	7,020	No	TRUE
Exit	Yes	6,564	No	TRUE
Services	Yes	386	No	FALSE
CurrentLivingSituation	Yes	2,800	No	FALSE
Project	Yes	32	No	TRUE
Inventory	Yes	17	No	TRUE
EnrollmentCoC	Yes	5,371	No	TRUE
Organization	Yes	1	No	TRUE

You have all required CSVs!

Tab 3—Validation Check Report

Purpose:

This tab displays critical errors (invalid values, and duplicate primary IDs) in select data fields across the CE files. It also allows you to investigate potential issues in your data by displaying the relevant IDs associated with each data error.

What is an invalid value?

An **invalid value** is a value of a data field that should be impossible according to the FY 2022 HMIS Data Standards. For example, for the data field, *DisablingCondition*, the only valid values are 0,1,8,9, and 99. If the data is showing any other value besides 0,1,8,9 or 99 for *DisablingCondition* (for example, 2 or 3) then that value is invalid.

Description and Instructions:

The **Validation Check Report** tab does not require any data entry from you. This tab displays detailed information about each data fields (the **blue** columns in the screenshot below) and their accompanying errors (the **red** columns in the screenshot below), including:

- a) **File Name** - The CSV file name associated with the data field.
- b) **Field** - The name of the data field.
- c) **Valid Names** - Valid values associated with that data field.
- d) **Invalid Values** - The number and percent of invalid values.
- e) **Duplicate Primary IDs** - The number and percent of duplicate primary IDs for *some* data fields.
- f) **Total Flags** - The total number of flags associated with each data field.

Table 2: Validation Flags

Double click on a cell to see the underlying IDs

File Name	Field	Valid Values	Invalid Value	Duplicate Primary IDs	Total Flags
Client	BlackAfAmerican	0,1,99	0 (0%)	N/A	0
Client	NativeHlPacific	0,1,99	0 (0%)	N/A	0
Client	White	0,1,99	0 (0%)	N/A	0
Client	Ethnicity	0,1,8,9,99	0 (0%)	N/A	0
Client	GenderNone	8,9,99,NULL	0		0
Client	Female	0,1,99	0		0
Client	Male	0,1,99	0		0
Client	NoSingleGender	0,1,99	0		0
Client	Transgender	0,1,99	0		0
Client	Questioning	0,1,99	0		0
Enrollment	EnrollmentID	ID	N/A	0	0
Enrollment	DisablingCondition	0,1,8,9,99	0 (0%)	N/A	0
Enrollment	LivingSituation	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34	289 (9%)	N/A	289
Enrollment	RelationshipToHoH	1,2,3,4,5,99	0 (0%)	N/A	0
Exit	ExitDate	D	0 (0%)	N/A	0
Exit	Destination	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34	1 (0%)	N/A	1
Services	DateProvided	D	0 (0%)	N/A	0
CurrentLivingSituation	CurrentLivingSituation	1,2,3,4,5,6,7,8,9,10,11,14,15,16,17,18,19,20,21,25,28,29,31,32,33,34,35,36,37,99	0 (0%)	N/A	0
Assessment	AssessmentID	ID	N/A	0 (0%)	0
AssessmentResults	AssessmentResultID	ID	N/A	0	0
Project	ProjectID	ID	N/A	0 (0%)	0
Project	ProjectType	1,2,3,4,6,7,8,9,10,11,12,13,14	0 (0%)	N/A	0
Inventory	InventoryID	ID	N/A	0 (0%)	0
EnrollmentCoC	CoCCode	S6	0 (0%)	N/A	0
EnrollmentCoC	EnrollmentCoCID	ID	N/A	0	0
Organization	OrganizationID	ID	N/A	0	0

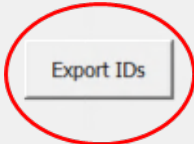
Investigating Data Errors:

Each **red** column reports the number and percent of records with a data error.

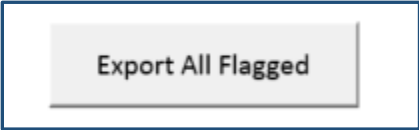
For example, in the screenshot above, there are 289 records with an invalid value for *Living Situation* (circled in **red**). If you double click on the cell that displays the number and percent of invalid *Living Situations*, then a **Flagged IDs** window (shown in the screenshot below) will appear. For the example of *Living Situation*, *Personal ID*, *Project ID*, *Project Name*, *Entry Date* and *Living Situation* are all displayed. The window also includes an **Export IDs** button that will export the list of information in the window into an Excel workbook.

You can view and export a list of IDs related to each data error by selecting any cell in the **red** columns with a value greater than 0. Each **Flagged IDs** window will contain the IDs most relevant to that data flag.

Flagged IDs				
EnrollmentIDs with invalid LivingSituations from Enrollment.csv				
PersonalID	ProjectID	ProjectName	EntryDate	LivingSituation
61947	1099	DataLab - VA	4/13/2019	36
61952	240	DataLab - Em	9/8/2019	36
61953	240	DataLab - Em	6/11/2019	36
61963	240	DataLab - Em	7/28/2020	36
61965	240	DataLab - Em	1/14/2018	36
61985	1099	DataLab - VA	4/20/2020	36
61987	240	DataLab - Em	3/27/2019	36
61990	1497	DataLab - HO	9/13/2017	36
61996	240	DataLab - Em	9/18/2017	50
61996	1099	DataLab - VA	2/5/2018	50
61996	240	DataLab - Em	4/8/2018	50
61996	240	DataLab - Em	1/6/2019	50
61996	240	DataLab - Em	8/16/2020	50
62032	1099	DataLab - VA	10/2/2019	36
62033	240	DataLab - Em	8/11/2017	36
62034	240	DataLab - Em	5/24/2019	36
62048	1497	DataLab - HO	5/26/2019	36
62075	1099	DataLab - VA	6/12/2019	36
62090	1099	DataLab - VA	5/6/2019	36
62095	1099	DataLab - VA	8/12/2018	36
62097	527	DataLab - VA	11/17/2016	36
62099	527	DataLab - VA	12/31/2017	36
62107	240	DataLab - Em	8/11/2019	36
62108	240	DataLab - Em	7/15/2019	36
62119	527	DataLab - VA	8/15/2018	36
62119	1099	DataLab - VA	3/30/2019	36
62128	240	DataLab - Em	1/11/2017	36
62129	527	DataLab - VA	8/20/2017	36
62133	1099	DataLab - VA	12/25/2017	36
62133	1099	DataLab - VA	7/7/2020	36
62157	240	DataLab - Em	5/7/2020	36
62160	1099	DataLab - VA	4/27/2020	36
62163	1099	DataLab - VA	11/2/2019	36
62174	1099	DataLab - VA	2/9/2017	36
62192	240	DataLab - Em	5/17/2017	36



You can also export all the validation data flags by selecting the **Export All Flagged** button located in the upper right corner. This will generate a workbook with a tab for each check containing the flagged records.



Tab 4—DQ Check Report

Purpose:

This tab displays select data quality checks and allows you to investigate data issues by displaying the relevant IDs. The data quality checks fall into two categories: errors and warnings. **Errors** are critical issues that need to be fixed and **warnings** are potential issues that could be valid, but also could be an error.

Description and Instructions:

The **DQ Check Report** tab does not require any data entry from you. This tab displays the following information and features:

- a) **Check Status** – the first column includes the status of the check which is represented by either an exclamation point, an x mark, or a check mark. A legend is provided for the status symbols.

Legend	
✓	= no issues
!	= one or more records have a value that is improbable
×	= one or more records have a value that is impossible or in violation of data standards

- b) **Check Description** – the second column includes the name and a description of the data check.
- c) **Flagged Records**– the third column lists the number of errors/warnings by unit for each check. The units (households, enrollments, or people) vary by check.
- d) **Time Period** – the fourth column includes a drop-down menu where you can select different time periods which will then apply to the check (circled in blue in the screenshot below). This feature is only available for *some* checks.

Check Description		Flagged Records: Double click a cell in this column to review the underlying records
!	Check 1: Missing or Invalid DOBs <i>Complete dates of birth are needed to determine household composition. This check flags any record that is null or prior to 10/10/1910</i>	2,592 of 4,632 people
!	Check 2: Unaccompanied Youth < 12 Years Old <i>Youth under 12 are generally expected to be accompanied. The presence of an unaccompanied youth under the age of 12 may indicate a error in how the Household ID was created</i>	40 of 4,632 people
×	Check 3: No Head of Household <i>Every household must have exactly 1 head of household present during the reporting period</i>	1 of 5,371 households
×	Check 4: Multiple Head of Households <i>Every household must have exactly 1 head of household present during the reporting period</i>	1 of 5,371 households
×	Check 5: Head of Household is Missing Client Location <i>Client location is required to be collected at entry for all heads of household</i>	2 of 5,371 enrollments
!	Check 6: Possible Missed Exit - Emergency Shelter <i>Use the dropdown menu to the right to indicate the maximum number of days you would expect someone to be enrolled in Emergency Shelter. All enrollments longer than that number of days will be flagged for your review.</i>	36 of 4,305 enrollments

Days passed without exit
365

Using the DQ Tool with the LSA

If you are using the DQ Tool for the LSA consider the following:

- Running your HMIS CSV export for the data quality cohort (10/1/2018 to 9/30/2021).
- If you can limit the project types, limit them to:
 - Emergency shelter, transitional, safe haven, rapid rehousing, permanent supportive housing, and other permanent housing with and without services (OPH).

You may be wondering, why OPH?

We recommend including OPH because LSA includes project and inventory (not client) data for OPH.

- What if we are a big CoC and we can't export a file that large?
 - You may want to export one year at a time and use the tool for each file.

Investigating Data Errors:

The third column of the DQ report displays the number of records with a specific data error or warning. When double clicked each cell shows the underlying IDs associated with that data error/warning in the **Flagged IDs** window (like the **Validation Check Report**). For example, in the screenshot above, the workbook shows that there are 40 people under the age of 12 that are unaccompanied youth. This is possible, but not likely given that youth under the age of 12 are usually accompanied. If you double clicks the cell circled in red then the window in the screenshot below will appear. You can then select the **Export IDs** button to export the information in the window into Excel.

What records are displayed in the Flagged IDs window?

For data quality issues at the client-level, only the most recent enrollment and project level records will be displayed in the Flagged IDs window.

Flagged IDs					
People with unaccompanied youth < 12 years old					
PersonalID	EnrollmentID	ProjectID	ProjectName	MostRecentE	age
67599	171778_23695	527	DataLab - VA	12/14/2018	11
73360	176986	960	DataLab - Em	9/1/2020	11
73378	177025	960	DataLab - Em	5/1/2020	11
73560	177323	960	DataLab - Em	5/9/2017	11
73590	177370	960	DataLab - Em	8/12/2018	11
73613	177412	960	DataLab - Em	11/27/2020	11
73690	177556	960	DataLab - Em	11/16/2019	11
73700	177568	960	DataLab - Em	10/9/2019	0
73760	177658	960	DataLab - Em	5/26/2019	11
73819	177743	960	DataLab - Em	11/11/2020	11
73865	177832	960	DataLab - Em	3/11/2017	0
73922	177931	960	DataLab - Em	1/9/2017	11
74021	178087	960	DataLab - Em	4/1/2020	11
74076	178179	960	DataLab - Em	11/23/2018	10
74143	178295	960	DataLab - Em	4/25/2020	11
74197	178380	960	DataLab - Em	12/6/2020	11
74217	178413	960	DataLab - Em	4/10/2020	10
74261	178480	960	DataLab - Em	3/15/2020	11
74450	178784	960	DataLab - Em	1/21/2019	11
74459	178801	960	DataLab - Em	3/20/2017	11
74464	178808	960	DataLab - Em	11/28/2020	10
74474	178827	960	DataLab - Em	1/13/2020	11
74518	178911	960	DataLab - Em	11/4/2017	11
74656	179158	960	DataLab - Em	12/23/2020	11
74668	179175	960	DataLab - Em	10/8/2019	0
74724	179280	960	DataLab - Em	12/1/2017	10
74748	179331	960	DataLab - Em	4/4/2020	11
74773	179369	960	DataLab - Em	12/26/2019	11
74789	179410	960	DataLab - Em	11/2/2018	11
75127	179750	527	DataLab - VA	8/10/2021	11
76772	181389	942	DataLab - Coe	4/1/2021	1
76779	181397	808	DataLab - RRI	5/1/2020	5
76779	181425	240	DataLab - Em	5/1/2020	5
76779	181452	882	DataLab - Em	5/1/2020	5
76779	181479	242	DataLab - Tra	5/1/2020	5

Export IDs

You can also export all the data quality flags by selecting the **Export All Flagged** button in the upper right corner. This will generate a workbook with a tab for each check containing the flagged records.

Export All Flagged

ADDITIONAL RESOURCES

For more resources, please view the [FY 2022 HMIS Data Standards Resources](#) page on HUD Exchange. This page will include the most recent documentation on the FY 2022 HMIS Data Standards.