Fixing Common Data Quality Errors

Introduction

Welcome to Fixing Common Data Quality (DQ) Errors. We hope this guide will walk you through common HMIS DQ errors and how to fix them in ClientTrack.

Background

In this guide, we will be referencing Annual Performance Report (APR) Review Report. If you need additional guidance on how to run this report, please visit our Running Data Quality Reports guide.

We have included some background information below as a reminder; however, this guide will focus on data issues rather than Client Doesn't Know/Prefers Not to Answer and Information Missing errors. We have included a brief summary of those errors below.

Client Doesn't Know: The user has selected this option as the client reported they do not know the information. Users who are reviewing DQ should double check to confirm this information to be accurate.

Client Prefers Not to Answer: The user has selected this option as the client did not want to provide the information to record in HMIS. Users who are reviewing DQ should double check to confirm this information to be accurate.

Information Missing: This category reports on any missing data within HMIS. Errors in this section can be because no information is selected in HMIS, or the user has selected the option Data Not Collected in HMIS. Data Not Collected responses will continue to show up in this category until another choice is selected. If the information is now known, update the information.

Please note, if you make any changes through the Edit Project Entry Workflow, complete the entire workflow by selecting Save in the bottom right corner of each assessment page until you get to the Finish button. Not finishing the entire workflow may cause data quality issues. Only use this process to correct any errors at entry or to add information that was missed at entry, as this will change the baseline data.

Q05a: Report Validations Table

This section will provide an overview of the count of clients in your project.

Be sure to check this table for any data quality errors that may not be obviously listed here. For example, Number of unknown-age heads of households can throw errors in your data set.

Q06a: Personal Identifiable Information (PII)

Errors in this section are related to the client's Name, Social Security Number, Date of Birth, Race/Ethnicity, and Gender. HMIS will record one record of each category mentioned above for

each client across all enrollments, as these are shared demographics. Data issues in this section may be fixed if another user updates information in this section.

Name

A client's Name plays a vital role in deduplication.

- Errors may occur if:
    - The Name Data Quality element does not match the recorded Name value.

Social Security Number (SSN)

Social Security Numbers play a vital role in deduplication.

- Errors may occur if:
    - SSN does not conform to Security Administration Rules:
        - Cannot contain a non-numeric character
        - Must be nine digits long
        - The first three digits cannot be "000," "666," or in the 900 series. For example, 000-11-1111
        - The second group of numbers cannot be "00." For example, 111-00-1111
        - The last four digits cannot be "0000." For example, 111-11-0000
        - There cannot be repetitive or sequential numbers for all nine digits. For example, 123-45-6789
    - The SSN Data Quality element does not match the recorded SSN value.

Date of Birth (DOB)

A complete DOB is needed to calculate the age of clients served in projects and determine their household type.

- Errors may occur if:
    - The DOB Data Quality element does not match the recorded DOB value.

Race/Ethnicity & Gender

These data elements can inform system planning and help understand who is experiencing homelessness within the community.

- Errors may occur if:
  - A response of Additional Race and Ethnicity Detail or Different Identity is selected but nothing is completed in the text box.
  - A response of Client Doesn't Know/Prefers Not to Answer is selected along with an additional selection.

Q06b: Universal Data Elements

Errors in this section are related to Veteran Status, Project Entry Date, Relationship to Head of Household, Enrollment CoC, and Disabling Condition.

Veteran Status

This data element can affect the count of Veterans experiencing homelessness within the community and general understanding of Veterans' service needs.

- Errors may occur if:
  - Any minors under 18 years of age that report an answer other than No, will result in an error.
  - Minors who turn 18 years of age while in the project do not have this information updated.

Project Start Date

Missing or incorrect data can affect the reporting of the time the client spent in the project.

- Errors may occur if:
  - There is more than one Project Start Date per enrollment.

Relationship to Head of Household

Head of Household element is used to determine all members of a household together and can assist with facilitation on reporting household composition.

- Errors may occur if:
  - There is no head of household attached to a specific enrollment.
    - If the remaining family member(s) left the project with the head of household, exit the family member on the same day as the head of household.
    - If the remaining family member(s) are enrolled in the project, contact the HMIS to remove the exit from the head of household. Once the exit is removed, change the head of household to another family member who remains in the project. The original head of household then can be exited from the project.

Enrollment CoC

Enrollment CoC data determines if a client will be associated to the project and the CoC.

- Errors can occur if:
  - The Enrollment CoC is missing when reviewing the Project Entry Workflow. Update to the correct CoC to fix this error.
  - There is a set up issue. If the Enrollment CoC is accurate, please reach out to the HMIS Team for assistance.

Disabling Condition

The Disabling Condition element is used to determine if a client meets the criteria for experiencing chronic homelessness. Data issues will occur when there are inconsistencies between an Indefinite Barrier and Disabling Condition.

- Errors can occur if:
  - The Disabling Condition element is inconsistent with the Indefinite Barrier element. For example, if a client reports they have a Barrier and it is Indefinite, the Disabling Condition must read Yes.
    - There must be one Disabling Condition response per enrollment and should always reflect the most current known status.

> - For example, If the client reports to have an Indefinite Barrier over the course of the enrollment, the user should correct the Project Entry Workflow to match the Disabling Condition to the new Indefinite Barrier.

Q06c: Income and Housing Data Quality

Errors in the section are related to Destination, Income and Sources at Start, Income and Sources at Annual Assessment, and Income and Sources at Exit.

Destination

Providing accurate exit destinations is critical in determining gaps within the community and determining the effectiveness of projects.

- Errors may occur if:
  - A destination is not captured at the time of the client's exit from the project.
    - If project staff receive corrected information from the client, destination responses may be corrected.

Income and Sources at Start & Income and Sources at Exit

Income and Sources collected at Start and Exit can assist in determining whether households are accessing all income sources they are eligible for and can be used as a key performance measure for project outcomes.

- Errors may occur if:
  - Information is missing.
  - There may be conflicting data, resulting in the error. For example, there may be a Yes response to Does Client Have Any Source of Income?, but no income listed.
  - There is a Master Assessment Date error. Please see the Mater Assessments section in this guide for further information on how to fix the errors.

Income and Sources at Annual Assessment

An Annual Assessment must reflect the data collection date which must be no more than 30 days (before or after) their anniversary date of the Head of Household's Project Start Date.

- Errors may occur if:
  - The client needs an Annual Assessment
  - The Annual Assessment was recorded outside of the allowed date rage. Note: this error will not be able to be removed for the client's entire duration enrolled in the project.
  - The Annual Assessment was recorded as a During Program Enrollment

Q06d: Chronic Homelessness

Errors in this section are related to the elements for Chronic Homelessness, or element 3.917. This section is used with other information to assist in identifying whether a client may meet the criteria for experiencing chronic homelessness.

- Errors may occur if:
  - A minor just turned 18 years of age while in the project and does not have this information completed.

Master Assessments

As previously mentioned, the role of the Master Assessment can affect different data quality issues. For the example below, we will be using a Master Assessment Date error in Project Entry.

Master Assessment type errors can be determined by going to the Navigation Pane on the left-hand side of the Client's Dashboard and selecting Common Assessments and Universal Data. Once you select the appropriate Assessment Type, you will see the screen below.
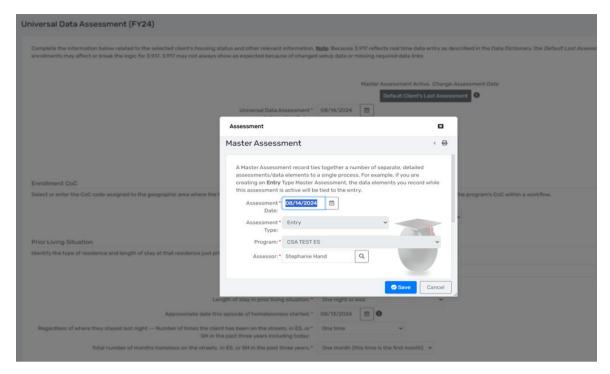
As you can see, the Master Assessment Date and the Assessment Date do not match.

Fixing this error requires the user to return to the specific enrollment on the Client Dashboard and Edit Project Entry Workflow. When the user navigates to the Universal Data Assessment page, a hyperlink to change the assessment date will appear (see below).

A window will pop up on the screen and allow the user to change the Master Assessment Date (see below). Change the date and select Save. The user must continue to navigate through the entire workflow to ensure all of the Assessment Dates match the new Master Assessment Date.

A reminder: If you make any changes through the Project Entry Workflow, complete the entire workflow by selecting Save in the bottom right corner of each assessment page until you get to the finish button. Not finishing the entire workflow may cause data quality issues.

Final Tips & Tricks

Just a Start

This guide is used to provide a general idea of how to fix some commonly seen DQ errors. This is not an exhaustive list of all of the errors users may see while running their DQ.

Familiarize Yourself

As users familiarize themselves with their data quality, potential issues and inconsistences will become easier to spot and fix.

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Utilize HUD Exchange

HUD Exchange can be a great resource for additional information.

Reach Out if You Need Assistance

If you get stuck, please reach out to the HMIS team and we can provide technical assistance to walk you through fixing data quality issues.

Sources

[FY 2024 HMIS Data Standards Manual (hudexchange.info)](hudexchange.info)