



HMIS Data Quality Plan

Version 2, 3/4/2020

Table of Contents

Why Data Quality is Important	3
Goals of the Data Quality Plan	3
Staff Roles and Responsibilities.....	4
Data Analyst Role.....	4
Agency Administrator Role.....	4
End-User Role.....	4
Data Quality Reports.....	5
Data Entry Expectations	5
Data Quality Components Detail	6
Accuracy.....	6
Completeness	7
Consistency	7
Timeliness.....	8
Training.....	8
Monitoring	9

Data quality is vitally important to the success of the Homeless Management Information System (HMIS) and the programs that use this database. The Department of Housing and Urban Development (HUD) monitors the quality of the HMIS data through system performance reports such as the AHAR (Annual Homelessness Assessment Report) and the HUD System Performance Measures (SPM).

Data entry is imperative to the ongoing funding of programs.

If the quality of the data is poor, HUD may refuse to grant funding or trim future funding. Since it is imperative that the data is correct, HMIS Agency providers and the HMIS Team work diligently on adhering to the HUD data standards in order to ensure all reports are complete, consistent, accurate, and timely.

This guide outlines the data quality and best practices that HMIS encourages all users of HMIS to follow.

Why Data Quality is Important

Data quality can be measured by the reliability and validity of client data collected in the HMIS for clients receiving assistance for homeless, prevention, and services. When reliable, accurate data is entered into the HMIS database, the CoC can portray a true accounting of the population experiencing homelessness. Since the HMIS database will only process what it is given, if incorrect data is input into HMIS, the output is not likely to be useful or complete when you run your reports. The HMIS Team encourages Agencies to continue addressing data quality and run your reports at least monthly.

The data standards that HMIS must follow can be found in the document titled HMIS Data Standards Data Dictionary Version 5.1 that can be found on the HUD Exchange website at <https://www.hudexchange.info/resource/3826/hmis-data-standards-manual/>.

Goals of the Data Quality Plan

In coordination with the HMIS Data Quality Committee, HMIS developed a data quality plan. The goals of this plan are to:

- Help ensure the availability of timely and accurate data for use in helping to end homelessness
- Catch problems early and increase the usability of data
- Prepare data for the CoC NOFA process
- Help prepare for the upcoming HEARTH Act implementation, including Coordinated Assessment
- Prepare for the Annual Homeless Assessment Report (AHAR) to Congress
- Prepare for other community-level reporting requests

Agencies and program providers will also benefit from participating in this process by:

- Getting data cleaned up regularly so less correction is needed right before reports are due
- Having more up-to-date information readily available to inform program decisions, monitor client progress, and inform stakeholders about programs
- Implement changes when needed and measure progress against goals

Staff Roles and Responsibilities

In order to ensure data quality, staff should understand what tasks they are responsible for in their role.

HMIS Administration Role

- Review the data quality reports for each provider in the CoC.
- If a provider has data quality issues, forward the report to the provider so they can fix their data.
- Review the provider list for each report.
- If there are missing or incorrect providers on the list, confirm those with the program provider(s).
- Run the Data Completeness Report Card and the Data Incongruity Locator custom reports monthly.

Agency Program Manager Role

- Review data quality reports sent to you by your HMIS System Administrator to ensure data integrity.
- If you have data quality issues, correct them as soon as possible.
- Let the HMIS team know if you have an ES, TH, or PSH program that is missing from the list or one that shouldn't be included.
- Run data quality reports available in Client Track to check client data on a monthly basis. Use these data quality reports in conjunction with your existing data checking reports frequently to check your data.
- Run HUD Universal Data Elements, Data Integrity Reports, and other data quality reports as determined by HMIS and CoC Governing Board.
- Notify the Agency Administrator of findings and timelines for correction.
- Re-run reports for errant Agencies and/or programs, as requested and follow up with other Agency Administrators, if necessary.
- Notify the Agency Executive Director if Agency Administrators are not responsive to required corrective actions.
- Notify the CoC chair and the HMIS Grantee (Changing Homelessness, Inc.) regarding any uncorrected data quality issues.

End-User Role

- Review data quality reports sent to you by your Agency Administrator to ensure data integrity.
- Correct data quality issues as soon as possible.
- At intake, gather the most complete and accurate information you can about each client and the services they need in a timely manner.
- Sign an HMIS End User Agreement and attend mandatory training for initial new users.

Data Quality Reports

In Client Track, there is one data quality report that most Agency Program Managers should run frequently. This report can be used in conjunction with your current data checking reports and practices.

HUD Universal Data Quality - This data quality report facilitates the extraction of data for each of the HMIS projects. This report will highlight the number of enrollment records in the program as well as the percentages of missing data elements. This report should be run once a month at a minimum to confirm that complete and accurate data is being properly recorded in Client Track. A Project is considered to have excellent data quality when the percentage of each missing data elements is below 5%.

Data Entry Expectations: Universal Data Elements (UDEs)

The Universal Data Elements are baseline data collection elements required for all projects reporting data into the HMIS. These include:

- Name
- Social Security Number
- Date of Birth
- Race
- Ethnicity
- Gender
- Veteran Status
- Disabling Condition
- Living situation
- Project Entry Date
- Project Exit Date
- Destination
- Personal ID (Generated by HMIS)
- Household ID (Generated by HMIS)
- Relationship to Head of Household
- Client Location

Program Specific Data Elements (PDEs)

Program Specific Data Elements (PDEs) differ from the Universal Data Elements (UDEs) in that no one project must collect every single element in this section. Required data elements are dictated by the reporting requirements set forth by each Federal partner for the projects they fund. A Partner may require all of the fields or response categories or may specify which of the fields or response categories are required for their report. Data Quality Thresholds are included in Appendix C of the Data Quality Plan outlining required data elements and thresholds for each Federal partner.

The Program Specific Data Elements include the following:

- Housing Status
- Income and Sources
- Non-Cash Benefits
- Health Insurance
- Physical Disability
- Developmental Disability
- Chronic Health Condition

- HIV/AIDS
- Mental Health
- Substance Abuse
- Domestic Violence
- Contact
- Date of Engagement
- Services Provided
- Financial Assistance Provided
- Referrals Provided
- Residential Move-In Date
- Housing Assessment Disposition
- Housing Assessment at Exit

Data Quality Components Detail

The data quality components are described in more detail in this section.

Accuracy

1. Each CoC Data Committee will evaluate the quality of all HMIS Member Agency data on the accuracy of the data entered monthly. Accuracy is the degree to which data correctly reflects the client situation or episode as self-reported by the client.
2. All client data entered into HMIS should reflect what the client self-reported or an accurate assessment of known information by a case manager, where indicated by the HMIS Data Standards. Data captured for entry into HMIS should be what was self-reported by the client or data known by case managers. HUD procedures allow case managers to make changes to client data not reported by the client.
3. All client data entered into HMIS should be consistent with the type of program. Client records entered into HMIS should reflect the client population served, match capacity of enrollment, program type, and entry/exit should fall within service parameters. This information is based on consistency of accurate data entered on clients receiving services. For example, if your program:
 - is a program for men, you should not enter data on women
 - has 20 beds; there should not be any more than 20 people in your program unless you are using the overflow beds
 - is a fully HUD-funded program; you should only use entry/exit types of HUD
4. While HUD has defined HMIS as the 'record of record', if Agencies use paper-based files, they must match information entered into HMIS. All client data entered into HMIS should match the information captured and filed in the HMIS Member Agencies client record/case file. Any discrepancies could be subject to audit by HUD, HMIS staff, a local government entity or other community planner.
5. All CoC Data Committees, HMIS Member Agency providers, and HMIS staff will work together to ensure accuracy of reporting. The HMIS software includes a series of reports to aid in outcome evaluation, data quality monitoring, and analysis of system trends.

Completeness

1. The CoC Data Committee will evaluate the quality of all HMIS Member Agency data on the

completeness of the data entered using detailed Data Quality Reports (DQRs), Agency reports, and other tools. Completeness is the level at which a field has been answered in whole or in its entirety. Measuring completeness can ensure that client profiles are accurately answered in whole and that an entire picture of the client situations emerges.

2. HMIS Member Agencies will be expected to have no more than 5% of all client data "blank/not reported/null" value rate for all clients entered into HMIS (or 95% or above completeness). "blank/not reported/null" values include fields that are left blank or answered with a "don't know, refused, or unknown value". While these options may accurately reflect what the client has self-reported, this data is considered of a low quality value.
3. For all clients served and entered into HMIS by an HMIS Member Agency, all system data quality fields must be completed. In HMIS, there are several data quality fields that are essential to understanding patterns of data entry and client self-reporting. These fields are part of the Universal Data Element (UDE) requirements measured for each HMIS Member Agency. These fields measure the quality of their associated fields. For example, if the Date of Birth field has been left blank, the Date of Birth Data Quality field is used to explain why the field is blank. There are three quality fields in the system:
 - Social Security Data Quality
 - Date of Birth Data Quality
 - Zip Code of Last Permanent Address Data Quality

These fields allow for reporting only partial answers or full answers in order receive completeness credit. These fields in conjunction with the associated data element field will be used to assess data quality issues.

4. The HMIS staff may provide customize reports to HMIS Member Agency providers as a fee- based service. A request must be submitted to the HMIS staff for evaluation and fee determination.

Consistency

1. The CoC Data Committee will evaluate the quality of all HMIS Member Agency data on the consistency of the data entered.
2. All HMIS Member Agency client data should work consistently to reduce duplication in HMIS by following workflow practices outlined in training. HMIS Member Agencies are trained to search for existing clients in the system before adding a new client into the system. Client data can be searched by Client ID, Name, Social Security Number, and Client Alias. HMIS Member Agencies are encouraged to follow this protocol.
3. HMIS staff reviews data entries in the database for duplicate entries. Since there cannot be duplicates, the staff must research and merge client records. When duplicate client records created by HMIS Member Agency providers are discovered, the HMIS staff will contact the designated Agency Administrator to notify and address the user creating the duplication so future duplications can be avoided.
4. All HMIS Member Agency client data should adhere to HMIS capitalization guidelines. HMIS Member Agencies are trained on the current method and style to enter client level data. No HMIS

Member Agency should enter a client name in any of the following ways:

- ALL CAPS
- all lower case
- Mix of lower and UPPER cAse LeTters
- Nicknames or Street names

Timeliness

1. The CoC Data Committee will evaluate the quality of all HMIS Member Agency data on the timeliness of the data entered. Timeliness is an important measure to evaluate daily bed utilization rates and current client system trends. To ensure reports are accurate, Member Agencies should ensure that their internal processes facilitate real-time data entry.
2. All data must be entered and updated as require, including data elements that are monitored such as Universal Data Elements (for HUD and VA), entry/exits, and services.
3. Weekly Daily Unit Reports should be run to determine program capacity.
4. All HMIS Member Agency client data should be entered in real-time (or no later than the number of hours as determined by your type of program) after intake, assessment, or program or service entry or exit. Real-time is defined as "the actual time during which a process takes place or an event occurs." In most cases, client data can be entered into HMIS in real-time - as the client is being interviewed at intake or assessment. The more real-time the data, the more collaborative and beneficial client data sharing will be for all HMIS Member Agencies and clients. The goal is to get all program intake and assessment data into HMIS in real-time. **It is recommended that all data enter occur within 24 hours of initial contact with client.**
5. HMIS Agencies will use Coordinated Entry when applicable to centralize and coordinate the process of client intake, assessment, and provision of referrals.
6. All HMIS Member Agency providers should back date any client data not entered in real-time to ensure that the data entered reflects client service provision dates. All required data elements including program entry/exit, service transactions, universal data elements, and bed management must be entered for each client within 24 hours of program entry/exit or service dates. If the date was entered more than 24 hours later than the program entry/exit or service provision, the actual data of service or entry/exit must be used.
7. All CoC Data Committees, HMIS Member Agency providers, and HMIS staff will work together to ensure the highest quality of data in HMIS. Due to the many reports and projects the HMIS staff is asked to provide, HMIS Member Agency's' response to HMIS staff inquires and correction of data quality issues is critical. Many programs have very rigid time frames in which the HMIS staff must provide updated information.
8. All Agency Administrators should respond to HMIS staff inquiries no later than 24 business hours. In instances of vacation or illness, the back-up Agency Administrator or alternate should be contacted.

Training

1. HMIS will provide training for Agency Administrators and End Users and facilitate training materials.
2. HMIS will ensure that adequate End-User support is available.

3. Agency Administrators who will train new staff on the uses of the HMIS must personally attend trainings offered by the Continuum, HUD or other software vendors to ensure ongoing understanding of the development of HMIS, improved technical reporting capabilities, system updates, etc.
4. Staff who do not attend annual training will be unable to access the HMIS database.

Monitoring

1. On a monthly basis, an HMIS data quality report will be sent from the HMIS Administration team to designated Program Managers to ensure that the quality of their data is accurate.
2. The results and corrections of monthly reports will be reviewed by the HMIS Administration Team and the CoC Data Committee. Should further oversight be deemed necessary, the CoC Data Committee will review all findings.
3. Agencies will provide timely updates to the HMIS Team regarding any changes to programs.
4. Data Quality reports will be printed at a minimum of once a month and be reviewed by senior staff.
5. All staff must work to prevent duplicate data.
6. All staff must review hardcopy intake forms against the HMIS data to ensure they match.
7. HMIS staff will assist programs in correcting data and updating program information as needed.
8. Agency staff should meet at the end of each month for final review to ensure the APRs will be accurate.