



## HMIS Data Quality Plan

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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 deny or reduce future funding. Given the critical need for accurate data, HMIS Agency providers and the HMIS Team work diligently on adhering to the HUD data standards. This ensures that all reports are complete, consistent, accurate, and timely.

This guide details the data quality standards and best practices that HMIS recommends for all its users to follow.

## Why Data Quality is Important

Data quality in HMIS is essential for creating an accurate and truthful representation of homelessness within our community. High-quality data ensures that the narrative conveyed to policymakers, funders, and the public reflects the real circumstances and challenges faced by those experiencing homelessness. This accuracy is crucial for securing appropriate resources and support, and for crafting policies that effectively address the needs of persons experiencing homelessness. Without reliable data, efforts to solve and manage homelessness may be misguided or inefficient, potentially overlooking critical aspects, or misallocating valuable resources.

The integrity of data in HMIS impacts various critical reports and analyses, including System Performance Measures (SPMs), the annual Point-in-Time (PIT) Count, and the Longitudinal System Analysis (LSA). These reports influence federal funding levels and help to assess the performance of homelessness services within the Continuum of Care (CoC). Therefore, ensuring data quality is not just about maintaining compliance with HUD's standards but also about enhancing the operational effectiveness of service delivery. High data quality enables CoCs to make informed, data-driven decisions that improve service allocations, prioritize interventions, and ultimately, better serve individuals and families experiencing and facing homelessness.

The data standards that HMIS adheres to are outlined in the HMIS Data Standards that can be found on the HUD Exchange website at <https://www.hudexchange.info/resource/3824/hmis-data-dictionary/>.

## Goals of the Data Quality Plan

The Data Quality Plan was developed in coordination with the HMIS Data Committee. The goals of this plan are to:

- **Ensure Completeness:** All required data fields across different project types are filled accurately to maintain the integrity of the HMIS database.
- **Maintain Accuracy:** Data reflects a true and precise representation of client situations and the services provided, ensuring reliability for stakeholders and policymakers.
- **Achieve Timeliness:** Data is entered into HMIS promptly to ensure that reports are up-to-date and relevant, facilitating timely decision-making and resource allocation.

- **Promote Consistency:** Standardize data collection and entry processes across all participating agencies to ensure uniformity and comparability of data across the system.
- **Enhance Reporting Quality:** Develop and implement a structured approach to regular data reviews and audits to ensure the ongoing accuracy and completeness of reports.
- **Support Decision Making:** Provide accurate and timely data to support effective decision-making by participating agencies, the CoC, and local government, helping to improve outcomes for individuals and families experiencing homelessness.

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

- **Improved Funding Opportunities:** By adhering to high data quality standards, agencies enhance their credibility and reliability, allowing them to keep and grow their programs.
- **Enhanced Service Delivery:** High-quality data allows agencies to better understand the needs of their clients, tailor services more effectively, and efficiently allocate resources, ultimately leading to improved outcomes for clients.
- **Stronger Strategic Planning:** Accurate and timely data supports more effective strategic planning and policy making. Agencies can use reliable data to identify trends, plan future services, and adjust strategies to better meet the needs of the community.

## Staff Roles and Responsibilities

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.
- Forward data quality reports with identified issues to providers for correction.
- Develop, deliver, and maintain documentation for training programs for new, medium, and advanced-level end users.
- Provide remedial or refresher training as needed.
- Authorize, manage, and revoke HMIS access or licenses for end users based on employment status or violations.
- Review and update HMIS data standards, vendor contracts, and software functionality for correctness and completeness.
- Monitor and ensure the HMIS vendor complies with contract terms and conditions.
- Test and implement new HMIS features and functionality.
- Monitor Data Quality for completeness, timeliness, accuracy, and consistency.
- Analyze project-level and system-level trends in Data Quality performance.

## Agency Program Manager Role

- Review data quality reports sent to you by the HMIS System Administrator to ensure data integrity.
- Address any data quality issues identified as soon as possible to maintain accurate records.
- Ensure that your Emergency Shelter (ES), Transitional Housing (TH), or Rapid Re-Housing/Permanent Supportive Housing (RRH/PSH) programs are accurately listed and inform the HMIS team of any discrepancies.
- Inform the HMIS System Administrator of any changes to housing inventory that is dedicated to persons experiencing homelessness
- Utilize Client Track to run data quality reports monthly and use these in conjunction with your existing data checking reports to frequently verify data accuracy.
- Notify the System Administrator of findings from data quality reports and provide timelines for correcting any issues.

## End-User Role

- Review and ensure the accuracy of data quality reports provided by the Agency Administrator.
- Correct any data quality issues as soon as they are identified.
- Collect and enter the most complete and accurate information possible during client intake and exit, including exit destinations.
- Update HMIS to reflect changes in income, benefits, etc.
- Maintain workstation security and secure paper forms according to privacy and confidentiality standards.
- Sign an HMIS End User Agreement and attend mandatory training sessions for new users.

## Data Committee Role

- Establish comprehensive data quality plans that define standards, procedures, and protocols for data collection, entry, and maintenance to ensure accuracy, completeness, and timeliness.
- Regularly review and assess the quality of data entered into the HMIS, identifying any issues or discrepancies and implementing corrective actions to maintain high data standards.

## 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
- 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.

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

The degree to which data reflects the best representation of the client's real-world situation and the programs that provide housing and services. Accurate data is highly dependent on comprehensive training and a thorough understanding of HUD and federal partner HMIS data standards, as well as data collection protocols.

1. Each HMIS Data Committee will evaluate the quality of all HMIS Member Agency data on the accuracy of the data entered monthly.
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.
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 HMIS 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

The completeness of a person's HMIS record for a given project enrollment, as measured by completed response categories for Universal and Program Specific Data Elements.

1. The HMIS 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.
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 data not collected". These options should only be selected as a last resort as they have a negative impact on overall data quality.
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:
  - Name
  - Social Security Data Quality
  - Date of Birth 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 customized 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

The degree to which all data is collected, entered, stored, and reflective of the use of HMIS as a standard operating procedure. Consistency will be representative of how well completeness, accuracy, and timeliness standards have been operationalized across the data collection and entry stages. In this regard, consistency bridges data quality across data collection, entry, and management stages and should be considered a shared responsibility across multiple HMIS stakeholders.

1. The HMIS 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. If a Member Agency identifies a duplicate client in HMIS they should immediately notify HMIS staff so the records can be merged.

## Timeliness

The length of time that elapses between the participant data collection and HMIS data entry stages. The sooner data is entered into HMIS, the sooner it is available for reporting purposes, prioritization purposes, data analysis purposes, and making data-informed decisions.

1. The HMIS 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. Weekly and Daily Bed Utilization Reports should be run to determine program capacity to ensure an accurate representation of shelter or a projects bed capacity.
3. 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 entry occur within 24 hours of initial contact with the client.**
4. HMIS Agencies will use Coordinated Entry when applicable to centralize and coordinate the process of client intake, assessment, and provision of referrals.
5. 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 date of service or entry/exit must be used.
6. All HMIS 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 inquiries and correction of data quality issues is critical. Many programs have very rigid time frames in which the HMIS staff must provide updated information.
7. All Agency Administrators should respond to HMIS staff inquiries no later than two business days.

## Training

1. HMIS will provide training for Agency Administrators and End Users and facilitate training materials.
2. The following are some of the training opportunities offered by HMIS Staff: virtual training, in-person training, advanced user training, report training, monthly HMIS office hours, one-on-one trainings as needed.
3. HMIS will ensure that adequate End-User support is available.
4. HMIS System Administrators 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.
5. Staff who do not attend the annual HMIS Data Privacy and Security 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 HMIS Data Committee. Should further oversight be deemed necessary, the HMIS 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 reviewed by the agencies' 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 if applicable.
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 a final review to ensure that data is accurate.