Maine Homeless Management Information System (Maine HMIS)

Data Quality Plan and Best Practices Guide

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About this Guide

This guide outlines the Maine HMIS best practices for data quality.

Data quality is vitally important to the success of the Maine Homeless Management Information System (Maine HMIS), its Participating Agencies, Lead Agency, and the program and clients impacted by that data. The Department of Housing and Urban Development (HUD) monitors the quality of the HMIS data through programs such as the Longitudinal System Analysis (LSA), System Performance Measures, and the Notice of Funding Availability (NOFA). As a result, poor data quality could result in a decrease in grant funds or for these funds to cease completely. Since it is imperative that the data is correct, HMIS Agency providers and the Lead Agency work diligently to adhere to the HUD data standards and to ensure all reports are complete, consistent, accurate, and timely.

Why Data Quality is Important

Data quality can be measured by the reliability and validity of client data collected in the HMIS. When reliable, accurate data is entered into the HMIS database, the MCoC can portray a true accounting of the population experiencing homelessness in Maine. Since the HMIS database will only process what it is given, if incorrect data is input into the HMIS, the output is not likely to be useful or complete when your reports are generated. The Lead Agency requires Participating Agencies to continue addressing data quality issues and run available reports at least monthly, which are detailed below.

The data standards that HMIS must follow can be found in the document titled

> The HUD HMIS Data Standards Manual
> https://files.hudexchange.info/resources/documents/HMIS-Data-Standards-Manual.pdf;

Additional information on the HMIS Data and Data Quality can be found in the;

> The HMIS Data Dictionary
>
> https://files.hudexchange.info/resources/documents/HMIS-Data-Dictionary.pdf;
>
> The HUD 12/09/2011 Proposed Rule of Homeless Management Information Systems Requirements
>
> https://www.federalregister.gov/documents/2011/12/09/2011-31634/homeless-management-information-systems-requirements.

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Goals of the Data Quality Plan

The Maine HMIS Data Committee, the MCoC, and the HMIS Lead Agency have 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;
- Identify problems early and increase the usability of data;
- Prepare data for the CoC NOFA process;
- Support Coordinated Entry;
- Prepare for the LSA, System Performance Measures, and other Federally required reports;
- Prepare for other community-level reporting requests.

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

- Having 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.

Roles and Responsibilities

In order to ensure data quality, the HMIS Lead, Agency Admins, and End Users should understand what tasks they are responsible for in regard to data quality.

HMIS Lead Agency Role

- Oversight of the Maine HMIS implementation;
- Project Management and Guidance of the HMIS annual grant application process;
- Review the data quality reports for the CoC and all CoC programs;
- Provide expertise and data quality reports, at least monthly, to the Maine HMIS Data Committee;
- Assist providers on data quality issues and assist in troubleshooting to correct data discrepancies;
- Ensure that all appropriate providers and corresponding data are included in each report;
- If there are missing or incorrect providers on the list, confirm those with the program provider(s);

- Monitor and audit the quality of provider and program data entry on a regular basis and provide reports to the Maine HMIS Data Committee;

- Ensure system availability;

- Provide expertise at and attend HMIS-related meetings;

- Ensure funds are used for the intended purpose and are in compliance with all Federal, State and contract regulations;

- Obtain and retain necessary provider and user agreements;

- Ensure confidentiality, privacy, and security;

- Run and submit required Federal reports;

- All matters related to hiring, staffing, and managing the Maine HMIS Team who serves as subject matter experts for the HMIS application and its appropriate use.

Agency Admin Role

- Run data quality reports available in ART or canned reports to check client data on a monthly basis;

- Correct data quality issues as soon as possible;

- Let the HMIS team know if any program is missing from the list or if they shouldn't be included;

- Notify the HMIS Team of findings and timelines for correction;

- Re-run reports for errant Agencies and/or programs, as requested, and follow up with the HMIS Team, if necessary;

- Notify the HMIS Team regarding any uncorrected data quality issues.

End User Role

- Sign an HMIS User Agreement;

- Successfully complete assigned on-line training courses with a score of 80% or higher;

- Attend all trainings required by the HMIS Team (in person or virtual);

- Meet and follow the expectations of the Agency Admins;

- At intake, gather and enter the most complete and accurate information you can about each client and the services they need according to the workflow provided at the HMIS training;

- Review data quality reports sent to you by the HMIS Team and/or Agency Admin;

- Correct data quality issues as soon as possible;

- Adhere to all of the policy and procedures outlined in the Maine HMIS Policies & Procedures.

Data Quality Reports

In ServicePoint, there are several data quality Advanced Reporting Tool (ART) reports that Agencies should run frequently. These reports can be used in conjunction with your current data checking reports and practices monthly.

0260 – HUD CoC APR Data Quality/Completeness Report - This report is a HUD CoC APR Data Quality and Completeness report that provides information about both missing data (Data Completeness) and accuracy (Data Quality). Prompts allow the user to specify a date range and to select the provider(s) on which to base the report. The report includes a detail section to assist users in finding and fixing data entry omissions. This report should be run at the project level by agency administrators or support staff to monitor a single project's performance for an entire year's time range.

0640 – HUD Data Quality Report Framework – v8 - This report is intended to be used to provide HUD with Data Quality metrics on a CoC for use in the Annual CoC Program Competition. It is also consistent with CoC and ESG Program Data Quality reporting. Programming specifications are provided for this report as a part of the HMIS Reporting Glossary. This report should be run as needed to report to HUD and to maintain data quality throughout the year.

0220 – Data Incongruity Locator – Age, Gender, Household Relationship Issues – v5 - This data quality report assists users in locating data entry errors resulting in incongruous information related to the client's recorded age, gender and/or household relationship(s). Both summary and detail information is displayed for 12 different types of errors. User prompts allow both provider(s) and date range to be specified.

In addition to the ART reports referenced above, Agencies should also run either an APR or CAPER. Agencies receiving ESG funds should run the CAPER, all others should run an APR. These reports should be run for a period of one year.

The HMIS Team will run the **0640 – HUD Data Quality Report Framework – v8** report monthly. The report will be run by Program Type and individual provider.

Data Quality Components Definitions

In this guide, the following terms are used to define data quality. All of these components are important to consider when trying to prevent and correct poor data quality.

Accuracy: ensures that what is being recorded in a database is an accurate and true portrayal of the client's situation and the services they need. For example, if inaccurate income is recorded for a client it could impact their eligibility for a particular program or at a broader level it could impact an Agency's score on performance indicators relative to income.

Completeness: means ensuring that all of the appropriate and relevant data that Agencies or funders need is being collected about clients and the services they are accessing. While the ability to record "Don't Know" or "Refused" responses for various data elements ensures completeness in the system, it is important to minimize the use of these responses for data quality purposes. Complete data is required by HUD programs and is particularly important when generating reports such as the NOFA and LSA which can affect funding for the MCoC and its providers.

Consistency: encompasses two components: There should be no contradictions in the data, and Agencies and staff members must utilize the same definitions for capturing data When entering data into the HMIS, it is important that all users follow the HUD HMIS Data Standards, which defines each data element collected in the HMIS.

Timeliness: refers to how recent the information is in the HMIS database. How up-to-date the data is becomes an important component and ultimately impacts the accuracy of the data as well. For example, if a manager asks how many clients are currently in the program and no data entry has taken place, that information could not be easily pulled by the Agency without pulling client hardcopy files or other spreadsheets. Additionally, if a Participating Agency serves a client and previous assistance received by the client has not been recorded or updated in the HMIS, services may be duplicated. Likewise, client information may change over time. If updated information is not recorded in the system, analysis is done on old, inaccurate information.

Training: helps ensure that Participating Agencies and End Users are all kept up-to-date on the latest ServicePoint software releases, are entering data correctly into the HMIS, and are adhering to policies and procedures. Training resources include: the HMIS website https://mainehmis.org/, training videos, guides, intake forms, workflows for multiple programs and the online Learning Management System (LMS).

Monitoring: helps to ensure accurate data by frequently reviewing data and making necessary corrections to meet the data standards outlined by HUD; thereby allowing quick resolution of any data quality issues.

Data Quality Improvements Process policies are an important part of the HMIS Data Quality Plan since they provide incentives for staff and reinforce the importance of good data quality client data.

Data Quality Components Detail

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

Accuracy

1. The Maine HMIS Data Committee will evaluate the quality of all HMIS 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 the 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. HUD procedures allow case managers to make changes to client data not reported by the client.

3. All client data entered into the 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 shelter 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 the HMIS as the 'record of record', if Agencies use paper-based files, they must match information entered into the HMIS. All client data entered into the HMIS should match the information captured and filed in the HMIS Agencies client record/case file. Any discrepancies could be subject to audit by HUD, the HMIS Team, a local government entity or other community planner.

5. The Maine HMIS Data Committee, the Participating Agencies, and the HMIS Team 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 Maine HMIS Data Committee will evaluate the quality of all HMIS Participating 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. All data entered into the HMIS shall be complete with a goal to collect 100% of all

data elements; however, the MCoC recognizes that this may not be possible in all cases. Therefore, the MCoC established an acceptable range of null/missing and unknown/don't know/refused responses, depending on the data element and the type of program entering data.

Data Element	TH, PSH, RRH, HP, SSO		ES (ESG), SH		OUTREACH-date of Enrollment	
	Missing	DKR	Missing	DKR	Missing	DKR
Name	0%	0%	0%	0%	0%	0%
SSN	0%	0%	0%	5%	0%	5%
Date of birth	0%	0%	0%	2%	0%	2%
Race	0%	5%	0%	5%	0%	5%
Ethnicity	0%	5%	0%	5%	0%	5%
Gender	0%	0%	0%	0%	0%	0%
Veteran Status (Adults)	0%	5%	0%	5%	0%	5%
Disabling Condition	0%	0%	0%	5%	0%	5%
Living Situation - 3.917A	N/A	N/A	0%	0%	0%	0%
Living Situation - 3.917B	0%	0%	N/A	N/A	N/A	N/A
Destination (Exit)	0%	5%	0%	10%	0%	10%
Relationship to Head of Household	0%	0%	0%	0%	0%	0%
Client Location	0%	0%	0%	0%	0%	0%
Zip Code of Last Permanent Address						
Income Received (Yes/No)	0%	0%	0%	5%	0%	5%
Income Source HUD Verification	0%	5%	0%	5%	0%	5%
Income Amount (for all valid sources)	0%	0%	0%	0%	0%	0%

Acceptable Missing or Unknown Response Range by Program Type Table

3. For all clients served and entered into the HMIS by an HMIS Participating Agency, all system data quality fields must be completed. In the 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 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:

   o Social Security Data Quality

   o Date of Birth Data Quality

   o Zip Code of Last Permanent Address Data Quality

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

4. All Participating Agencies are also responsible for ensuring that the Program Specific Data Elements, as defined by the most current HUD *HMIS Data Standards Manual*, are collected from all clients that are served by applicable HUD-funded programs.

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Participating Agencies must provide client-level data for the Program-specific Data Elements using the required response categories detailed in sections "Required Response Categories" and "Program-Specific Data Elements" shown in the most current HUD *HMIS Data Standards Manual.* These standards are already incorporated into the HMIS.

The Program-specific Data Elements are located in the assessments, which are on the ServicePoint Entry and Exit screens, respectively.

Consistency

1. The Maine HMIS Data Committee will evaluate the quality of all the Participating Agency data on the consistency of the data entered.

2. All HMIS End Users should work consistently to reduce duplication in the HMIS by **following workflow practices** outlined in training. The Participating Agencies are trained to search for existing clients in the system before adding a new client. Client data can be searched by Client ID, Name, Social Security Number, and Client Alias. The Participating Agencies are encouraged to follow this protocol.

3. For programs that share basic client-specific data, corrections and updates to client information will be made by the most current program.

4. Every effort should be made to avoid duplicate records. When End Users find duplicate client records, the HMIS Team should be contacted to merge the records by emailing hmishelp@mainehousing.org. The HMIS Team will review the records and determine if merge can be completed. All impacted providers will be notified through email.

5. All Participating Agency client data should adhere to HMIS capitalization guidelines. Participating Agencies are trained on the current method and style to enter client level data. **No Participating Agency should enter a client name in any of the following ways:**
   o ALL CAPS
   o all lower case
   o Mix of lower and UPPER cAse LeTters
   o Nicknames in the Name space -- use the Alias box instead

Timeliness

1. The Maine HMIS Data Committee will evaluate the quality of all Participating 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, Participating Agencies should ensure that their internal processes facilitate real-time data entry.

2. All data must be entered and updated as required, including data elements that are monitored such as Universal Data Elements (for HUD and VA), entry/exits, and

services.

3. Participating Agencies should run Daily Unit Reports on a weekly basis to determine program capacity.

4. All Participating Agency client data should be entered in real-time after intake, assessment, or program\service entry\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 Participating Agencies and clients. The goal is to get all program intake and assessment data into HMIS in real-time.

5. All Participating 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 the time frame specified in the table below.

6. All HMIS Participating Agency providers should correct client data in HMIS within the designated time constraints, depending on the program, as described in the table below:

Each program type enters applicable data as soon as possible but within the prescribed timeframe:

Data Entry Timeframe Table

PROGRAM TYPE	DATA ELEMENT	TIMEFRAME ENTRY
Emergency Shelters:	Universal Data Elements, Program Specific Data Elements, Project Entry/Exit Dates	5 calendar days after the check- in/check-out time
Transitional and Permanent Supportive Housing Programs:	Universal Data Elements, Program Specific Data Elements, Project Entry/Exit Dates	Within 30 calendar days
Rapid Re-Housing and Homelessness Prevention Programs:	Universal Data Elements, Program-Specific Data Elements, Project Entry/Exit Dates	7 calendar days after enrollment/ eligibility is established
Outreach Programs:	Limited data elements; non-identified client information or aliases are allowed while outreach staff develops client relationships and when client refuses to provide information. Programs are required to keep track of non- identified client and alias information and must not create a new record if one already exists	2 calendar days of the initial encounter. Upon engagement for services, the client record must be amended with individually identifiable information, all remaining Universal Data Elements, and all Program Specific Data Elements and be entered within 2 calendar days of client engagement.
Services Only Programs:	Universal Data Elements, Program Specific Data Elements, Project Entry/Exit Dates	2 calendar days after the check-in/check-out time

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Training

1. HMIS Team will provide training for Participating Agencies / End Users and facilitate training to be provided by our HMIS software vendor.

2. The HMIS Team will ensure that adequate End-User support is available.

3. Participating Agencies are responsible for sending staff to trainings offered by the CoC, HUD or other Community Planners to ensure ongoing understanding of the development of HMIS, improved technical reporting capabilities, system updates, etc.

4. All End Users will be required to successfully complete HMIS New User training courses that covers various topics of HMIS privacy, data collection, system security, and software usage to obtain an account in HMIS. Successful completion is defined as achieving a score of 80 or above on each assigned training course.

5. End Users who do not complete annual required training will be unable to access the Maine HMIS.

Monitoring – Agency Administrators

1. The Agency Admin will review monthly reports and make any necessary corrections.

2. Agency Admins will provide timely updates to the HMIS Team regarding any changes to programs.

3. Agency Admins must work to prevent duplicate data and will notify the HMIS Team when a client merge is needed.

4. Agency Admins must review hardcopy intake forms against the HMIS data to ensure they match.

5. HMIS Team will assist Agency Admins in correcting data and updating program information as needed.

Data Quality Improvement Process

The Data Quality Improvement Process provides a structure for identifying end user and agency needs for additional training, detecting data collection issues, and provide targeted support. This process will help to ensure sufficient data on clients, their demographic characteristics, and service use to facilitate confident reporting and analysis on the extent and characteristics of the homelessness including:

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1. Unduplicated counts of clients served at the local level;

2. Patterns of use of people entering and exiting the homeless assistance system;

3. Evaluation of the effectiveness of homeless systems.

Data Quality Review

The data entry, data review, and data quality improvement cycle is a continuous never ending process. For HMIS data to present accurate and consistent information on homelessness, it is critical that the HMIS data be the best possible representation of reality as it relates to homeless people and the programs that serve them. The review process will review accuracy, timeliness of information and when appropriate review data beyond the minimum standards.

1. On or about the 10th of each month, the HMIS Team will run an APR or CAPER report for each provider. (Determined by program type) The same report can be run by Agency Admins for their own use.

2. The scores will be recorded in the Data Quality Monitoring Log and shared with the Maine HMIS Data Committee prior to their monthly meeting.

3. Providers who show error rates above that of those defined in the "*Acceptable Missing or Unknown Response Range by Program Type Table*", will be notified by the HMIS Team. Notification will be sent via an email to the Agency Admin.

4. The Provider will be given until the next month to update/correct the data to meet data quality standards.

5. Where identified as needed by the HMIS Team, or if requested by the provider, targeted support and training will be scheduled and conducted.

6. If the data quality continues to fall below data quality standards, the provider is notified of the problem, and given adequate time and support to correct the data, the Maine HMIS Data Committee and the agency staff will be given a formal notice of non-compliance.