



HMIS

The Data Does Matter!

Maine Homeless Management Information
System
(Maine HMIS)

Data Quality Plan and Best Practices Guide

July 2017

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 Quality Components Definitions.....	5
Data Quality Components Detail.....	6
Accuracy.....	7
Completeness	7
Consistency.....	8
Timeliness	9
Training.....	10
Monitoring.....	10
Data Quality.....	11

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 AHAR (Annual Homelessness Assessment Report) 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.

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

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://www.hudexchange.info/resources/documents/HMIS-Data-Standards-Manual-2017.pdf>).

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

The HMIS Data Dictionary (<https://www.hudexchange.info/resources/documents/HMIS-Data-Dictionary-2016.pdf>);

And 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>).

Goals of the Data Quality Plan

The HMIS Advisory Council, MCoC, and 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;
- Catch problems early and increase the usability of data;
- Prepare data for the CoC NOFA process;
- Support Coordinated Entry;
- Prepare for the Annual Homeless Assessment Report (AHAR) to Congress and other

Federally required reports;

- And 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;
- And 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 in regards to data quality.

HMIS Lead Agency Role

- Oversight of the Maine HMIS implementation.
- Project Management and Guidance of the 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 MCoC Data Committee;
- Interface with 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);
- Monitors and audits the quality of provider and program data entry on a regular basis and provides reports to the MCoC Data Committee;
- Ensure system availability;
- Provide expertise at, and attends all, 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;
- Running and submitting 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

- Review data quality reports on a regular basis;
- If data quality issues are noted, to correct them as soon as possible;
- Let the HMIS team know if any program is missing from the list or if they shouldn't be included;
- Run data quality reports available in ART 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 Incongruities Reports, and other data quality reports as determined by the HMIS Advisory Committee, MCoC, and the Maine HMIS;
- 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 other HMIS Team, if necessary;
- Notify the HMIS Team regarding any uncorrected data quality issues.

End-User Role

- Review data quality reports sent to you by the HMIS Team and/or Agency Admin;
- Correct data quality issues as soon as possible;
- 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;
- Attend all trainings required by the HMIS staff.
- Sign an HMIS New User Agreement.
- After the HMIS training, pass the certification test with a score of 80% or better;
- Meet and follow the expectations of the Agency Admins;
- And 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.

0252 = Data Completeness Report Card (EE) – v17 - This report is a data completeness monitoring tool that produces a letter grade for the system as well as the individual providers. Prompts allow the user to specify a date range and to select the provider(s) on which to base the report as well as the option to include services or not. The report includes a detail section to assist users in finding and fixing data entry omissions. (Does not include the Chronic Homelessness Fields)

0260 – HUD CoC APR Data Quality/Completeness Report - This report is a HUD CoC APR Data Quality and Completeness monitoring tool for the upcoming 2015 version of the HUD CoC APR. It 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. Also includes the Chronic Homelessness Fields.

0640 – HUD Data Quality Report Framework – v5 - This report is a HUD CoC APR Data Quality and Completeness monitoring tool for the upcoming 2015 version of the HUD CoC APR. It 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 includes all of the UDE's however, it does not look at the Chronic Homelessness fields as fields but rather as total number of people considered to be Chronic.

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.

The HMIS Team will run several reports monthly:

0640 – HUD Data Quality Report Framework – v5 – The HMIS Team will run this at the CoC level and use it to identify problems at the Provider level. It will also be used to report to the Data Committee. Once problems have been identified, the report will be run at the provider level and sent to the provider for remediation.

CoC Data Quality Report v1.2 - This report is a data completeness and quality (DKR/DNC) monitoring tool that produces a letter grade for HUD and Maine data collection elements. This report will also be submitted to the Data Committee on monthly basis.

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. These components are described in more detail later in this guide.

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 AHAR 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 Maine 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 Maine 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 www.mainehmis.org, where training videos and extensive documentation including guides, intake forms, and workflows for multiple programs; and online Maine HMIS Academy video training.

The HMIS Team and Lead Agency also provides annual Agency Training. For this training, a trainer from the current HMIS Vendor comes to Maine and classes are provided in multiple locations. This End- User / Agency Training is a major component to ensuring that data quality procedures are followed.

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 MCoC 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. Data captured for entry into the 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 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:
 - o is a program for men, you should not enter data on women
 - o has 20 beds; there should not be any more than 20 people in your shelter unless you are using the overflow beds
 - o 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 staff, a local government entity or other community planner.
5. All MCoC Data Committees, the HMIS Agency providers, and the 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 MCoC 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.

Policy: All Clients Served

All HMIS Participating Programs enter data on one hundred percent (100%) of their served clients except for those clients who refuse to have their data entered into HMIS.

Policy: Missing/Unknown data

Must meet the following thresholds for data completeness:

Acceptable Missing or Unknown Response Range by Program Type Table

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%

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 receive completeness credit. These fields in conjunction with the associated data element field will be used to assess data quality issue

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.

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 CoC Data Committee will evaluate the quality of all the HMIS Participating Agency data on the consistency of the data entered.
2. All HMIS Participating Agency users should work consistently to reduce duplication in the HMIS by **following workflow practices** outlined in training. The HMIS Participating 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. The HMIS Member 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. The HMIS staff review data entries in the database for duplicate entries as every effort should be made to avoid duplicate records. When HMIS users find duplicate client records the HMIS staff should be contacted to merge the records by emailing hmishelp@mainehousing.org. The HMIS staff will review the records and determine if merge can be completed. All impacted providers will be notified through email.
5. All HMIS Agency client data should adhere to HMIS capitalization guidelines. HMIS Participating Agencies are trained on the current method and style to enter client level data. **No HMIS 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
 - o

Timeliness

1. The CoC Data Committee will evaluate the quality of all HMIS 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 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 Participating 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 Participating Agencies and clients. The goal is to get all program intake and assessment data into HMIS in real-time.

5. All HMIS 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 time frame specified in the table below.
6. All CoC Data Committees, HMIS Participating 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 Participating 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.
7. All Agency Administrators should respond to HMIS staff inquiries, on data quality, no later than 3 business days. In instances of vacation or illness, the back-up Agency Administrator or alternate contact will be contacted.
8. After a report that outlines data corrections has been sent to the Agency Administrator or back-up Agency Administrator, it is the responsibility of the Participating Agency to correct the issues within 5 business days. Once the corrections have been made, the Agency Administrator or back-up Agency Administrator should update the CoC Data Committee chair and HMIS staff.
9. All HMIS Participating Agency providers should correct client data in HMIS within the designated time constraints, depending on the program, as described 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

Training

1. HMIS will provide training for Agency / End Users and facilitate training to be provided by our HMIS software vendor.
2. HMIS will ensure that adequate End-User support is available.
3. Agencies are responsible for sending staff to trainings offered by the CoC, HUD or other software vendors to ensure ongoing understanding of the development of HMIS, improved technical reporting capabilities, system updates, etc.
4. All HMIS users must take a test that covers various topics of HMIS privacy, data collection, system security, and software usage to obtain an “account.” This certification is a requirement to using the HMIS system. Without a passing grade of at least 80% on this certification test, users will not have access to the HMIS database.
5. Staff who do not attend the annual training will be unable to access the Maine HMIS database.

Monitoring – Agency Administrators

1. On a monthly basis, an HMIS client detail report will be printed from the HMIS to ensure that the list of current, exited clients, and service transactions are accurate;
2. The results and corrections of monthly reports will be reviewed by the HMIS Agency. Should further oversight be deemed necessary, the HMIS Team will review all findings;
3. Participating 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 Agency Admin;
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. Participating Agency staff should meet at the end of each month for final review to ensure the APRs will be accurate.

Data Quality Improvement Process

The Data Quality Improvement Process provides a structure for identifying individual user and agency needs for extra training, identify 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:

- Unduplicated counts of clients served at the local level;
- Patterns of use of people entering and exiting the homeless assistance system;
- Evaluation of the effectiveness of homeless systems;
- Where reporting shows that data quality falls below the data quality standard for

a given provider;

- The provider will be contacted by HMIS staff to advise them that their data quality is below standard;
- The provider's data quality score will be recorded in the data quality log maintained by the Lead Agency;
- The Agency Admin for the agency with below standard data will be contacted by email to advise them of the finding.
- The Provider will be given at least 10 days from the HMIS notification of the identified data quality issue(s) to update / correct data in system to meet data quality standards.
 - Where identified as needed by the HMIS staff or if requested by the provider targeted support and training will be scheduled and conducted.
 - In the last week of the month revised data completeness and DKR by data standard report will be run.
 - A copy of the revised data completeness and DKR by data standard report for those providers which had been identified as not meeting standards will be distributed to the chairman of the CoC data committee monthly for review by the CoC data committee.
 - The provider's revised score will be recorded in the HMIS data quality log.
- Where data quality continues to fall below data quality standard and following the provider being notified and given adequate time and support to correct the data. The CoC data committee and the agency staff will be given a formal notice of non-compliance.