

# *Data Quality Management Plan*

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## ***Introduction***

This document introduces the Data Quality Plan (DQP) for Oahu's Homeless Management Information System (HMIS). The HMIS covers the Honolulu Continuum of Care (CoC) (HI-501).

**Data Quality** refers primarily to the reliability and validity of client-level data collected by the service provider staff that input these data into HMIS for storage, tabulation, and analysis. **Reliability** refers to the degree to which the data are complete (e.g., all questions answered with valid and useable responses) and consistent (results can be duplicated within and across different sites collecting data using the same instruments). **Validity** measures the degree to which data are accurate and represent, to the best extent possible, the true measure of the concept.

While focusing on data quality for federally-funded projects where data is entered into the HMIS, it is necessary to ensure accurate reporting for those grants, any project that enters data into HMIS contributes to the overall picture of homelessness within the CoC and is expected to participate in this DQP.

Benefits of reliable and valid (accurate) client data include:

1. An increased understanding of characteristics of persons experiencing homelessness and how characteristics may change over time and geography
2. The provision of accurate information about persons who utilize the homeless services system
3. The generation of accurate measures of program performance serving homeless populations
4. The provision of empirical information that can be the basis of new program interventions
5. Is a requirement based on funding the CoC and participating organizations receive;
6. Affects funding opportunities for providers;
7. Affects clients through the Coordinated Entry process and may determine which services they are or are not eligible for
8. The provision of aggregate data that allows the CoC and providers within the CoC to tell the story of homelessness as realistically and completely as possible.

This DQP reflects an effort to document and define procedures and benchmarks that will enhance the ability of the CoC to achieve statistically reliable, accurate and complete data. The DQP sets expectations, methods, and execution standards (benchmarks) that will be implemented by the HMIS Lead Organization in an effort to improve data quality for the purposes of analysis, reporting, and planning.

The DQP includes protocols for on-going data quality monitoring that meet or exceed requirements set forth by the United States Department of Housing and Urban Development (HUD). It has been developed by the HMIS Lead Organization, the PIC Data Committee, HUD Technical Advisors, and local HMIS participating service providers.

The CoC and Data Committee will work in conjunction with the HMIS Administration team to ensure all providers have access to the tools they need to ensure high data quality, including training, data quality reports, encouragements to maintain a high level of data quality, and enforcements for non-responsiveness to data quality concerns. While the HMIS Administration team is responsible for a large part of the overall DQP, the team will look to the CoC and Data Committee to maintain a high level of involvement to ensure providers respond to data quality concerns and that the data quality within the HMIS is both acknowledged and addressed on an ongoing, iterative, continual basis and in an objective, data-driven manner.

This document addresses how the CoC will both encourage and enforce the DQP, with transparency about how a provider's data quality can bring about both incentives and consequences. The DQP is then broken out into the various components of data quality – completeness, timeliness, accuracy, consistency, and bed coverage. The sections will address the baseline minimum requirements to maintain a sufficient level of data quality, and depending on the section, the baseline minimum requirement will be broken out by project type. The Data Quality Monitoring Visit Report and Improvement Plan is a tool that will be used for providers and end users consistently failing to maintain a baseline minimum requirement – specifics of how that will be determined and what the tool includes is described in that section.

The DQP ends with an Appendix about the expectation of the HMIS Administration team and the data quality baseline minimum requirements for provider and system set-up and maintenance of the overall HMIS to ensure it runs effectively and efficiently. This section is used to assist the CoC in ensuring the HMIS Administration team is maintaining a high level of system set-up data quality to ensure accurate reporting on behalf of the CoC.

The DQP is an evolving tool that will change as the community and its HMIS data needs change. It is intended to be updated annually by the PIC Data Committee, taking into account changes to HUD's HMIS Data and Technical Standards, data entry procedures set forth via PIC, needs of varying stakeholders, and enhancements to CoC performance plans.

### ***Encouragements and Enforcements***

The CoC will work with the HMIS Lead Organization to ensure providers have access to all the support and tools they need to maintain a high level of data quality within the HMIS. The CoC will monitor data quality in conjunction with the HMIS Lead Organization. The following encouragements and enforcements are in place to ensure providers understand the importance of data quality within HMIS.

#### ***Encouragements***

The Data Committee will include a data quality meeting agenda item at every Committee Meeting and will acknowledge providers meeting a high level of data quality in the meeting minutes which will be posted on PIC's website. The HMIS Lead Organization will acknowledge the work of providers meeting a high level of data quality during PIC General Membership Meeting and via PIC e-newsletter.

The CoC will use data quality in HMIS during the annual rank and review process for CoC dollars. In order to be eligible for CoC dollars, projects will need to maintain a baseline threshold data quality requirement and will be awarded additional points for going above and beyond the baseline. Guidance on specifics of this process will be released each year with the local CoC NOFA competition process.

The CoC will work with state and local funders to also use data quality metrics when making funding allocation decisions to providers / projects. The CoC will encourage state and local funders to use the same process the CoC uses during the annual rank and review process for CoC dollars.

The CoC will work with providers who do not currently use HMIS and talk through the reasons why they do not use HMIS. Depending on those reasons, the CoC will work with the providers to make HMIS a realistic option.

#### ***Enforcements***

The CoC will work with the HMIS Lead Organization to monitor data quality at the user, project, agency, and system level. Enforcements will depend on where data quality issues lie, and could include the following:

- Locking specific providers or users out of HMIS until they receive remedial or additional training from the HMIS Administration team and show that data quality is a focus.
- Removing the ability of a given user to access and enter data into HMIS if data quality becomes a consistent issue that is not acknowledged or addressed.
- Make recommendations to the CoC for the restriction of or withholding of funding, from projects until data quality meets, at a minimum, the baseline threshold for the given project type.

### ***Improving HMIS Data Quality***

The sections that follow outline protocols and procedures that work to enhance overall data quality in five key areas:

- Fidelity to data entry collection procedures and protocols,

- Reducing HMIS record duplication,
- Increasing data entry timeliness,
- Improving and measuring data completeness, and
- Data accuracy and consistency

The DQP also summarizes procedures for program entry and exit data, how to add assessments in the HMIS, and how to generate data quality and outcomes reports using the HMIS. Using the below methods should help to evaluate current data entry processes and enhance the integrity of an agency's data.

### ***Fidelity to Data Entry Collection Procedures and Protocols***

Maintaining rigorous data entry collection procedures ensures that the HMIS can provide the most up-to-date and accurate information for service providers and policy-makers with respect to programming decisions.

An important area identified through analysis of HMIS data are the protocols and procedures related to the collection of accurate discharge data and annual assessments. Since a formal client discharge interview is not always possible, it is important that key information such as income and disability status are continuously updated in both the HMIS and client case files. The CoC should strive to follow the process for direct entry of client-level data during program entry and exit interviews into the HMIS. This works to minimize the time between client entry/exit and HMIS data entry. Also allowable is the collecting of intake/discharge data using the most updated paper forms provided by the HMIS administrator for data entry within the timeliness standards.

### ***Reduction of Duplicates***

Using the search criteria effectively in the HMIS before adding client-level data is the most important method for reducing duplication in the HMIS. Before adding a new client, it is important that users search for the client to determine if he or she has been entered into the HMIS at some point in the past. The HMIS Administration team provides training and ongoing education on reducing duplication through role-based training sessions, pre-recorded webinars available on the PIC website, written documentation available in Appendix 10 in HMIS Training Policies and Access Requirements Doc, and one-on-one communication.

The HMIS Administration team will identify which users and corresponding organizations create duplicate records. Individual users will be contacted with steps to avoid creating future duplicates. Should future duplication occur, the HMIS Administration team will contact the user's supervisor and provide education and support to the user. The HMIS Administration team will suspend the accounts of users who continue to create duplicates.

### **Merging of Client Records**

A merge function is accessible to the HMIS Lead as a tool in the HMIS software. Please email [hmis@partnersincareoahu.org](mailto:hmis@partnersincareoahu.org) to merge client records.

### **Elimination of Duplicate Intakes**

HMIS users must ensure that duplicate entries are not created that represent the same program entry information. When duplicate program entries are found in the HMIS, the user can delete one of the program entries after ensuring that the most accurate program was selected for retention.

### ***Data Completeness***

Data Completeness looks at how much of the data fields for any given client, project enrollment, provider, agency, or system are filled in or answered. The definition used in the [CoC Data Quality Brief](#) is: "The degree to which all required data is known and documented." Data Completeness looks at missing or null values; "data not collected"

values; and depending on the data field, “client doesn’t know”, “client refused”, and / or “other” values. Partially complete or missing data can increase duplication and affect the provision of services to clients. All programs receiving local, state, or federal funding must enter data on 100% of the clients they serve.

Data Completeness is usually one of the first pieces of overall data quality that is addressed because it is the simplest to measure – it is easy to report on what is or is not in HMIS, based on what is required to be in HMIS for any given project type.

The HMIS Administration team will run the Data Quality report and Annual Performance Report (APR) on a bimonthly basis to determine Data Completeness. They will send the results of these reports to providers. Those providers who fall below the baseline requirement for Data Completeness for their project type will be asked to clean up their data within a certain timeframe. For consistent issues with Data Completeness, providers may be directed to create a Data Quality Improvement Plan (DQIP).

Service Providers should also monitor their own Data Completeness. Generating the Data Quality and Annual Performance Report in the HMIS is relatively straightforward. Refer to the Agency Admin role training materials from the HMIS Administration team for directions on how to run these reports. These materials are available in the HMIS Training Policies and Access Requirements document, on the Partners in Care website, and through role-based training. Service providers should contact [hmis@partnersincareoahu.org](mailto:hmis@partnersincareoahu.org) for further assistance.

### **Homeless Street Outreach Programs:**

HUD does not measure Street Outreach data quality until the Date of Engagement, allowing outreach providers to build the client record as they develop the client relationship. However, the HUD System Performance Measures use all homeless clients in a street outreach program regardless of Date of Engagement. This means that all clients in a pre-engagement stage within HMIS are being counted in the HUD System Performance Measures. Therefore, street outreach programs must coordinate their efforts and reduce the number of clients that are in pre-engagement status.

The goal of the CoC is to collect 100% of all data elements for each client. Often however, this is not always possible or realistic. The CoC has established acceptable thresholds for unknown, refused and missing values rates, which are dependent on data element and program type. Missing value rates for all program types should not be higher than 0%; if data is not available it should be marked as unknown, client refused, or data not collected. Table 4 establishes these thresholds. Additionally, HUD places the responsibility of determining community expectations for length of time clients are to remain enrolled in Street Outreach Projects without being actively engaged. We have set this standard to 90 days, permitting certain exceptions upon discussion with individual providers on a case by case basis. A client without activity (in the form of a service / encounter / Current Living Situation being recorded in HMIS) will be auto-exited from their outreach enrollment at the 90 day mark. The provider will be notified 60 days prior to an auto-exit. **(Addendum added and taking effect 5.10.2022 – PIC Advisory Board approved on 5/5/2022)**

### ***Data Timeliness***

Entering data into the HMIS during program entry and exit, or soon after the interviews have been completed has several benefits.

- Ensures that clients receive the services they need in a quick and efficient manner.
- Ensures that regular, accurate reporting can be done through HMIS. Users who enter data into HMIS in a timely manner are less likely to make data entry errors and are more likely to focus on overall data quality.
- Ensures that program utilization reporting is accurate and reflects actual occupancy relative to program capacity.
- Provides more complete, up-to-date, real-time reports on service utilization at the client and program level. This information is critical in CoC planning activities and for directing solutions for addressing homelessness, since participating homeless service agencies will benefit from shared utilization data that will be reviewed during program entry and exit.

Per a [July 2005 publication](#), HUD recommends that projects enter data into HMIS, at most, within 48 hours of collecting the information from the client. Because of technical infrastructure in rural areas where many agencies are located, Partners in Care expects all agencies to enter data into HMIS within 72 hours of collecting the information from the client.

The HMIS Administration team will run the Data Quality report on a bimonthly basis and send to providers. Those providers who fall below the baseline requirement for Data Timeliness for their project type will be asked to work with the HMIS Administration team to make sure that they can meet the Data Timeliness standard moving forward. For consistent issues with Data Timeliness, providers may be directed to create a Data Quality Improvement Plan (DQIP).

Type of Program	Data Entry Benchmark
1. Emergency Shelter	72 hours from program start, annual update, or exit
2. Transitional Housing and Safe Haven	72 hours from program start, annual update, or exit
3. Permanent Housing	72 hours from program start, annual update, or exit
4. Homeless Street Outreach *	72 hours from program start, annual update, exit, or contact
5. Homeless Prevention and Rapid Re-Housing	72 hours from program start, annual update, exit, or service data
6. Support Service Only (excluding Outreach)	72 hours from program start, contact, annual update, or exit
7. Coordinated Entry Assessment	72 hours from completion of the Vulnerability Index Service Prioritization Decision Assistance Tool (VI SPDAT)

### ***Consistency***

***Data Consistency Checks*** will be used to monitor data accuracy and consistency. Examples of inaccuracies include:

- Program entry and exit dates that overlap
- A client that is missing program exit data from one shelter program when that same client has an active program entry in another shelter program.
- Duplicate open client records in an agency program.

Often, running an unduplicated or duplicated report by client last name in the HMIS can identify inconsistencies in program data. These reports can identify duplicate clients or inaccuracies with data entry. If identified, duplicates should be voided by agency staff or merged by contacting the HMIS administrator.

### ***Data Accuracy***

Information entered into the HMIS needs to accurately reflect actual information for the people being served by any of the homeless service programs contributing data to the HMIS. False or inaccurate information is worse than incomplete information. It must be emphasized to clients and staff that it is better to enter “unknown or refused” than to enter inaccurate information.

All data entered into the HMIS shall be a reflection of information provided by the client and documented by the intake worker, or otherwise updated by case management staff and entered into the HMIS, or relayed to appropriate HMIS administrative staff. Recording inaccurate information in the HMIS is strictly prohibited.

Data Accuracy is not as easy to manage or monitor and requires specific reports that look at congruency between and among responses to data elements within the system, as well as checks between what the client has told an intake worker and what data is entered into HMIS.

The HMIS Administration team will run reports on a bimonthly basis and send to providers. The HMIS Administration Team will examine accuracy between and among responses to data elements including:

1. Date of birth and project start date (ensure the two are not the same, especially for Heads of households);
2. 3.917 data elements (ensure that the responses to residence prior to project entry, length of time in previous place, approximate date homelessness started, number of times experiencing homelessness in the last three years, and number of months experiencing homelessness in the last three years do not conflict with each other);
3. Disabling Condition yes / no and types of disabling conditions (ensure these do not conflict);
4. Health Insurance yes / no and sources of insurance (ensure these do not conflict);
5. Income yes / no and sources of income (ensure these do not conflict);
6. Non-Cash Benefits yes / no and sources of non-cash benefits (ensure these do not conflict);
7. Domestic violence victim / survivor and subsequent data elements (if the first answer is no, are the other questions answered, and vice versa);
8. Relationship to head of household (are there multiple heads of household or no head of household?);
9. Client location (is the client location defined as a community outside of the applicable CoC?);
10. Veteran (is a minor-aged individual defined as a veteran?);
11. A given project only includes clients of a specific gender (if that project is not dedicated to only serving a specific gender)

Additionally, the Longitudinal System Analysis Guide (see Appendix A in the LSA Guide) looks at specific data quality issues in relation to that system-wide submission to HUD on an annual basis. These specific data quality and data accuracy pieces should be addressed in the reports run by the HMIS Administration team on an ongoing basis.

Finally, the HMIS Administration team and support staff will conduct file sampling to measure data accuracy. Staff designated by the lead agency will request a sample of client program entry and exit forms and compare these hardcopy files to information entered into the HMIS. This will be done during annual formal onsite monitoring visits.

The goal for all project types and all data entered into HMIS is 100% Data Accuracy. Those providers who demonstrate issues with Data Accuracy will need to work in conjunction with the HMIS team to develop a timeline and plan for cleaning up their data. For consistent issues with Data Accuracy, providers may be directed to create a Data Quality Improvement Plan (DQIP).

### ***HMIS Bed Coverage***

The importance of a high percentage of HMIS Bed Coverage for all project types is an emphasis of the HUD TA Data Strategy. Without a high percentage of HMIS Bed Coverage within a CoC, the data within HMIS is never wholistic and the story told with HMIS data about homelessness within PIC is never fully accurate. A lack of high HMIS Bed Coverage prevents CoCs from truly understanding how both their system, and the clients served within their system, are functioning.

While extrapolation techniques can work for some research and reporting purposes, the extrapolation will only be as accurate as the similarities between any given projects, processes, and clients served by the projects. Therefore, the goal for HMIS Bed Coverage for all project types is 100%.

The HMIS Lead Organization, in conjunction with the CoC, will ensure that bed coverage is as close to 100% as is possible for all project types. This includes a review of the CoC's most recent Housing Inventory Count (HIC) to know which providers participated in the most recent HIC but are not entering data into HMIS.

Ensuring a CoC's HMIS Bed Coverage reaches 100%, and stays at 100%, also requires implementing a process to ensure that any new projects that become available to serve clients at-risk of or experiencing homelessness are communicated to the HMIS Lead Organization so that HMIS data entry can be encouraged and / or required for the new project.

Below are things to do to ensure HMIS Bed Coverage reaches or maintains at 100%:

- Review the HIC on a quarterly or semi-annual basis to ensure all projects (with the exception of Victim Services Providers) are entering data into HMIS;
- If projects are included on the most recent HIC that do not enter data into HMIS, the CoC and HMIS Lead Organization should find out why this is the case and target any solutions to the specific “why”;
- For any new project that becomes available within the CoC that will serve clients at-risk of or experiencing homelessness, the CoC should be made aware and work with the HMIS Administration team to ensure the new project is encouraged and / or required to enter data into HMIS

The HIC breaks out bed capacity into two categories: 1) beds for households with children, and 2) beds for households without children. The actual occupancy for these categories is easily obtained by running an unduplicated report in the HMIS for a one-day period and using the summary statistics generated at the bottom of the report. These numbers (used as the numerator) are then divided by the actual capacities as stated in the HIC to produce the bed/unit utilization rates.

Acceptable bed/unit utilization ranges for established projects are:

75% to 105% - Emergency Shelter Programs

85% to 105% - Transitional Housing Programs

90% to 105% - Permanent Supportive Housing Programs

In some cases, HIC inventories will need to be expanded or contracted annually to accommodate changes in program capacity. PIC is aware that new projects may need extra time to meet the above thresholds and will not expect them to meet the above in the first operating year.

The bed utilization rate is a good measure to monitor intake/exit data entry. Programs can receive a copy of the most recently submitted HIC by contacting the local HMIS administrator or visiting the [Partners In Care Website](#). It is also online at HUD’s HDX reports site.

The below bullets define some key problem areas that are often overlooked and explain why they are relevant to the LSA and CoC data quality in general.

- **Low Utilization Rates (Below 65%)** – May indicate that clients are not being entered into the database. May also reflect program inability to outreach participants or effectively transition clients into the program.
- **High Utilization Rates (Above 105%)** – May indicate that clients are not being exited on a consistent basis. Data entry timeliness procedures should be referenced above regarding client exits.
- **Length of Stay (LOS)** – Length of stay statistics are generally much longer in transitional and permanent supportive housing projects when compared to emergency shelter programs. It is not unusual to see length of stay statistics for these programs greater than six months or several years. Length of stay numbers longer than 90 days for an isolated ES visit may indicate lack of program exit or inability to transition clients effectively. These cases should be monitored to determine status of clients with length of stay longer than 90 days. Length of stay per visit is calculated as the difference between the date of entry and the date of exit (or a specified date if no exit date is available).
  - **Length of Stay (in days) = Date of Exit (or specified date) – Date of Entry** - Average LOS by program can also be calculated by summing the above for each client and dividing by the total number of clients. Normally, exited clients are separated from clients still in the program for this calculation. LOS statistics coupled with exit destination data gives several good program performance outcomes.
- **Veteran Status for PSH Programs** - Unknown/missing data rate for this category must be 0%. One of HUD’s priorities is on homeless veterans; information on this variable should be able to be captured for each client in PSH. Accurate veteran status reporting enables PIC to effectively monitor performance for this



subpopulation and also helps to ensure that data is usable.

- ***LOS in Prior Living Arrangement*** – Aggregate unknown/missing data rates are high for this category for all contributing HMIS programs. Data for this field should be available at intake or may need to be updated in the HMIS after working with the client after initial intake.
- ***Zip Code of Last Permanent Address*** - Aggregate unknown/missing data rates are high for this category for all contributing HMIS programs. If data is unknown at intake it is helpful to obtain a location which can ultimately be mapped to a zip code. Zip code tables are available online and can be updated via the HMIS after initial data entry. Acceptable rates for this variable and others are defined in the data quality report section below.
- ***Destination at PSH Program Exit*** – High missing/unknown values for PSH program exits are unacceptable. Unknown/Missing values for this measure should be less than 5%. Programs should be credited with positive program exits and PICs can benefit from successful transitions via outcome performance reporting. Case managers should be communicating with administrative staff to limit unknown/missing values.

### ***User Access and Consistency***

Users with access to HMIS should be entering data on a regular and consistent basis, not only to prevent a backlog of data entry, but also to ensure users maintain familiarity with the HMIS and the workflows for which they are responsible.

The HMIS Administration team will monitor user log in and access to HMIS bimonthly by running a report that shows when users last logged into the system. If users have not logged into HMIS within the last 30 days of the report run date, the HMIS Administration team will contact the user and the Authorized Point of Contact (POC) and ask if the user still needs access to the system. If the user does still need access, the HMIS Administration team will ensure that the user has maintained sufficient data quality and does not need remedial training. If the user does not have a high level of data quality, the HMIS Administration team will provide remedial training for the user.

**Additionally, it is mandatory that the HMIS Administration Team be notified immediately as HMIS staff resign or are terminated. This is an extremely important part of the Security and Privacy Plan.** If the HMIS Administration team is informed that the user is no longer an active participant in HMIS data entry, the user's account will be deactivated.

If the user and Authorized POC do not respond within one week to any inquiries about their access to HMIS, the HMIS Administration team will deactivate the user's account.

### ***Data Monitoring***

#### ***Responsibilities and Compliance***

The Data Quality Monitoring Visit Report will be used annually during agency monitoring to ensure that all HMIS participating agencies are in compliance with HMIS policies and procedures, agency agreements, user agreements, and any other documents governing the use of HMIS. If deficiencies are identified in any area during the monitoring visit, the Improvement Plan will be used to assist the agency in addressing issues using concrete, time-bound action steps.

If, at any time, the HMIS Administration team has documented one or more ongoing issues related to data quality with a given agency (ongoing is defined as the issue lasting longer than a specific period of time as defined by the CoC and the HMIS Lead Organization consecutively without resolution), an Improvement Plan will be implemented with the agency, with or without an accompanying monitoring visit.

#### ***A. HMIS Lead Monitoring of Participating Organizations***

It is the responsibility of the CoC, the HMIS Lead Organization, HMIS Participating Organization Executive Directors, and all service providers to conduct monitoring and provide notification to the CoC of the progress of participating programs.

It is the responsibility of HMIS Participating Organizations to comply with the HMIS Data Quality Plan and to collaborate with the HMIS Lead Organization and support staff to quickly correct data that does not meet the compliance thresholds.

The HMIS Administration Team and support staff will run reports to identify data quality successes and concerns. It will send those data, as well as procedures to improve or correct the data, to organizations' Authorized Points of Contacts. It is the responsibility of the HMIS Lead Organization and the Data Committee to communicate Participating Organizations' performance and responsiveness to the CoC, and for the CoC to hold the providers accountable for non-compliance and deviance from acceptable standards. The full Policies and Procedures of Data Quality monitoring can be found in the HMIS Data Quality Plan.

It is the responsibility of HMIS participating programs to comply with the HMIS Security and Privacy Plan and to collaborate with the HMIS Lead Organization and support staff to quickly identify and correct violations of the Plan. It is the responsibility of the CoC to implement effective improvement and enforcement policies and procedures to support the monitoring and improvement process.

The HMIS Lead Organization and support staff will conduct annual on-site monitoring following the steps laid out in the HMIS Security and Privacy Plan. HMIS Participating Organizations should continuously self-monitor following these same steps. The PIC Data Committee and HMIS Lead Organization, in conjunction with the CoC, will review violations and recommend corrective and disciplinary actions. The full policies and procedures of this monitoring can be found in the HMIS Security and Privacy Plan.

### **Data Entry Timeliness**

Monitoring Frequency: Monthly

Measure: Length (days) between program entry and exit and HMIS data entry

Method: Statistical analysis of HMIS program entry data

Standard: See Table 2 for standards

Sample: All clients enrolled in prior six-month period

### **Reduction of Client Duplication**

Monitoring Frequency: Quarterly

Measure: Number of duplicate client records created/unmerged.

Method: Run duplicated and unduplicated client reports for monitoring period. Compare for discrepancies in number of clients.

Standard: Zero duplicate client records and duplicate intake records

Sample: All clients enrolled in prior six-month period

### **Data Completeness**

Monitoring Frequency: Quarterly

Measure: Review of key data elements

Method: Run HMIS data quality report

Standard: Equal to or less than data benchmarks (See Table 4)

Sample: All clients enrolled in prior quarterly period

## Data Accuracy

### Key areas of database verification:

- 1) Sample of client records to compare agency files to HMIS

STANDARD: The CoC will monitor HMIS participating agencies in 2021 to assure accuracy as part of a complete HMIS compliance monitoring.

### Table 1: Benchmarks for Entry/Exit Collection Protocols and Medical/Income Assessments:

#### SUPERIOR:

- 1) Direct entry of client-level data during program entry and exit interviews into the HMIS. This works to minimize the time between client entry/exit and HMIS data entry.
- 2) Medical/income assessments entered within one year of the intake date for eligible clients remaining in the program and annually thereafter.
- 3) Review and compare discharge data with intake data in the areas of disability, income, and non-cash benefits to ensure that original intake data is as accurate as possible given the additional information gathered during the client's program stay.

#### ACCEPTABLE:

- 1) Collecting intake/discharge data using the most updated paper forms provided by the HMIS administrator.
- 2) Intake data is collected through an in-person interview, face-to-face with client.
- 3) Discharge data is collected through a combination of in-person interview and/or case file records.

#### LACKING:

- 1) Collection of intake and discharge data using old versions of the paper forms or not using any CoC produced forms to collect the data.
- 2) Completing intake and discharge data using second hand data recalled from case manager or other staff/volunteers working at the agency.
- 3) No use of client case records for data validation.

**Table 2: Program Entry, Exit, Encounter and Service Data Timeliness Benchmarks:**

<b>Type of Program</b>	<b>Superior</b>	<b>Acceptable</b>	<b>Lacking</b>
1. Emergency Shelter Programs	24 hours from program entry or exit	96 hours from program entry or exit	More than 96 hours from program entry or exit
2. Transitional Housing Programs and Safe Havens	24 hours from program entry or exit	96 hours from program entry or exit	More than 96 hours from program entry or exit
3. Permanent Housing Programs	24 hours from program entry or exit	96 hours from program entry or exit	More than 96 hours from program entry or exit
4. Homeless Street Outreach Programs	24 hours from encounter, 72 hours from program entry or exit	7 days from program entry or exit	More than 7 days from program entry or exit
5. Homeless Prevention and Rapid Re-Housing Programs	72 hours from program entry, exit, or service data	7 days from program entry, exit or service data	More than 7 days from program entry, exit or service data
6. Support Service Only Programs (excluding Outreach):	24 hours from encounter, 72 hours	7 days from program entry,	More than 7 days from program

**Table 3: Benchmarks for Client Duplication:**

<p><b>SUPERIOR:</b> Use three or more (3+) search methods independently, including last name only, first three letters of last name, and first two letters of first or last name. SSN used WITH crosschecking Date of Birth (DOB) and First and Last Name for any client with identical SSN.</p> <p><b>ACCEPTABLE:</b> Use at least two (2) search methods including last name only and first three letters of last name.</p> <p><b>LACKING:</b> Use only full last name for searching records without varying spelling or using only first 3 letters only. Use both full first name and last name during search. Use Social Security WITHOUT crosschecking DOB and First and Last Name with any client with identical SSN.</p>
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Table 4: Data Quality Completeness Thresholds:

<b>Program Type</b>	<b>ES, TH, SH PSH, SSO,</b>	<b>Outreach</b>	<b>HPRP, RRH</b>
	<b>% Unk/Ref.</b>	<b>% Unk/Ref.</b>	<b>% Unk/Ref.</b>
First Name	0%	1%	0%
Last Name	0%	1%	0%
SSN	1%	10%	3%
DOB	1%	4%	1%
Race	1%	2%	1%
Ethnicity	1%	10%	4%
Gender	0%	2%	0%
Vet Status	1%	10%	3%
Disabling Condition	10%	25%	6%
Residence Prior to Entry	5%	10%	2%
Zip of Last Perm. Address	10%	25%	5%
Housing Status (Entry)	1%	10%	2%
Income (Entry)	2%	15%	1%
Income (Exit)	2%	25%	15%
Non-Cash Benefits (Entry)	2%	15%	1%
Non-Cash Benefits (Exit)	2%	25%	15%
Physical Disability (Entry)	5%	15%	N/A
Developmental Disability (Entry)	5%	15%	N/A
Chronic Health Cond. (Entry)	5%	20%	N/A
HIV/AIDS (Entry)	5%	15%	N/A
Mental Health (Entry)	5%	15%	N/A
Substance Abuse (Entry)	5%	15%	N/A
Domestic Violence (Entry)	5%	15%	N/A

# Data Quality Plan

## Appendix

### *HMIS Data and Technical Standards*

The PIC HMIS is a web-based system that stores longitudinal client-level information about persons utilizing homeless assistance services. Aggregate HMIS data can be used to understand key characteristics of the homeless population and to generate statistical reports used by stakeholders in making policy and funding decisions.

HMIS data standards have been established by the U.S. Department of Housing and Urban Development (HUD), the U.S. Department of Health and Human Services (HHS), and the U.S. Department of Veterans Affairs (VA) to allow for standardized data collection on homeless individuals and families across systems. The Interactive HMIS Data Standards Tool, the HMIS Data Dictionary, and the HMIS Data Standards Manual are the documentation of requirements for the programming and use of all HMIS systems and comparable database systems, typically updated annually by HUD.

The HMIS Data Manual supports data collection and reporting efforts of HMIS Lead Agencies, CoCs, HMIS Lead Agencies, HMIS System Administrators, and HMIS Users to help them understand the data elements that are required in an HMIS to meet participation and reporting requirements established by HUD and the federal partners. The HMIS Data Dictionary is designed for HMIS vendors and HMIS Lead Agency system administrators to identify the data elements required in an HMIS and understand the function and specific use of each element by the appropriate federal partner. The Interactive HMIS Data Standards Tool is an interactive, web-based combination of the guidance from both the HMIS Data Manual and the HMIS Data Dictionary.

The final data standards can be downloaded from:

<https://www.hudexchange.info/resources/documents/HMIS-Data-Standards-Manual.pdf>

The Notice outlines four sets of HMIS data elements, which include:

Program Descriptor Data Elements (PDDE)

Universal Data Elements (UDE)

Common Program Specific Data Elements (CPSDE)

Federal Partner Program Specific Data Elements (FPPSDE)

### *Project Descriptor Data Elements (PDDEs)*

The PDDEs are the “back end” data elements required to be completed by the HMIS Administration team to ensure projects in the system are typified correctly. They ensure that standardized information about each CoC program is available to 1) generate Annual Performance Reports (APR), the LSA, and the Housing Inventory Count (HIC), 2) track bed utilization rates, 3) calculate HMIS participation rates among categories of programs (e.g. ES, TH, PH, Outreach, etc.), and 4) monitor data quality. These fields are populated via the HMIS, and updated by agency users and the PIC HMIS Administration team. These fields include:

- Project type which is defined to ensure projects are pulled correctly into reports
- Bed and unit inventory is up-to-date and is available for the Point in Time (PIT) and Longitudinal System Analysis (LSA) reports
- Specific workflow is defined by project type
- Specific grants and / or federal partner funding sources are identified
- Target populations are listed; PIC(s) in which the provider operates is identified

Setup of these PDDEs is detailed in the Software Vendor’s video library, as well as the HMIS Administration team’s video library. PDDEs will be verified annually.

# Data Quality Plan

Projects setup in HMIS after April 2020 should have a consistent naming convention that includes, at a minimum, the Provider Name, Project Type, and Provider ID / Number. It may benefit the HMIS Administration team to also include grant types (CoC, ESG, SSVF, RHY, etc.) in the overall naming convention of projects to easily locate projects funded with specific funding streams.

## ***Universal Data Elements (UDE)***

The UDE establish baseline data collection requirements for all programs utilizing the HMIS. These data elements provide a basis for producing unduplicated estimates of the number of homeless persons accessing services from homeless assistance providers. They assist in gathering key demographic information and help to identify frequency and duration of homelessness. All UDE are collected in the HMIS and are the primary set of variables used to produce the LSA report each year. Data quality for these elements largely determines whether HMIS data will be useable in the national LSA. Useable LSA data also garners points in the annual CoC competition and could mean the difference in funding allocation. A full listing and description for each element are available in the latest version of the HMIS Data Standards.

## ***Common Program Specific Data Elements (CPSDE)***

*The CPSDEs* provide information about the health and medical status of participants, and also enable the calculation of financial outcomes of clients when documented correctly at program entry and exit. These elements can also help to identify persons who are chronically homeless and help with service planning. CPSDE are outlined in the latest version of the HMIS Data Standards.

## ***Federal Partner Program Specific Data Elements (FPPSDE)***

The FPPSDE provide information required for the Federal Partner Programs including: HOPWA, PATH, RHY, RHSAP and the VA. The FPPSDE are outlined in the latest version of the HMIS Data Standards.

Summary exhibits outlining program applicability, who data collection applies to, and when data should be collected are available in the latest version of the HMIS Data Standards. The data standards serve as a great resource and should be referenced if questions arise concerning definitions or instructions for individual data elements.

## ***Visibility***

The HMIS Administration team must ensure that validation rules and user roles allow users to view and edit only the data appropriate for their position and organization. Changes will be recorded on each form's revision tab. These rules and roles will be monitored on an ongoing basis.

## ***Preventing Client Duplication at Program Entry***

Using the search criteria effectively in the HMIS before adding client-level data is the most important method for reducing duplication in the HMIS. Before adding a new client, it is important that users search for the client to determine if he or she has been entered into the HMIS at some point in the past.

Limiting the search to just the SSN or DOB fields is the most effective way to search for clients in the database. Searching for a client using more than one field and a client's full information increases the likelihood of error and the potential that a new client is created that already exists.

## **Data Quality Plan**

Use three or more (3+) search methods independently, including last name only, first three letters of last name, and first two letters of first or last name. SSN used WITH crosschecking Date of Birth (DOB) and First and Last Name for any client with identical SSN.

[Data Quality Monitoring Visit Report](#)

[HMIS Training Policies and Access Requirements Doc](#)