

Homeless Management Information System (HMIS) Data Quality Plan

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This document describes the Homeless Management System (HMIS) data quality plan for Montgomery County, MD (MD-601). HMIS is a locally administered electronic system that stores client-level information about persons who access homeless services in the community. This document includes a Data Quality Plan and protocols for ongoing data quality monitoring that meet requirements set forth by the Department of Housing and Urban Development (HUD). This HMIS Data Quality Plan is to be updated annually, considering the latest HMIS data standards and locally developed Data Quality Thresholds.

HMIS DATA AND TECHNICAL STANDARDS

Each Continuum of Care (CoC) receiving HUD funding is required to implement and participate in HMIS to capture standardized data about all persons accessing homeless services in the area. The HMIS complies with HUD's official data and technical standards published on HUD's Resource Exchange.

In 2010, the U.S. Interagency Council on Homelessness (USICH) affirmed HMIS as the official method of measuring outcomes for homelessness in *Opening Doors: Federal Strategic Plan to Prevent and End Homelessness*.

The 2020 Data Standards were implemented in October 2019. The standards identify Universal Data Elements and Program-Specific Data Elements that are required of all homeless programs participating in the HMIS. For further reference, please review the requirements at: <https://www.hudexchange.info/resource/3824/hmis-data-dictionary/>

WHAT IS DATA QUALITY?

Data quality is the reliability and validity of client-level data collected. High quality data accurately reflects client information and helps case managers determine appropriate services. Data quality is measured by several factors such as **timeliness, completeness, and accuracy**. For System Performance Measurements, HUD's expectation is that HMIS data be complete and accurate dating back to October 1, 2012.

WHAT IS A DATA QUALITY PLAN?

A data quality plan is a community-level document that assists the CoC in achieving statistically valid and reliable data. The plan sets expectations for both the community and the end users, establishes specific data quality benchmarks for timeliness, completeness, accuracy, and consistency as well as identifying the responsibilities of all parties within the CoC with respect to data quality. The plan also establishes a timeframe for monitoring data quality on a regular basis.

WHAT IS A DATA QUALITY MONITORING PLAN?

A data quality monitoring plan is a set of procedures that outlines a regular, on-going process for analyzing and reporting on the reliability and validity of the data entered into the HMIS at both the program and aggregate system levels. This plan includes roles and responsibilities for the CoC, the HMIS Data Team, and the HMIS Sub-committee, and the CoC providers.

DATA ENTRY EXPECTATIONS UNIVERSAL DATA ELEMENTS (UDES)

The UDEs are baseline data collection elements required for all projects entering data into the HMIS. UDEs include:

- Name
- Social Security Number
- Date of Birth
- Race
- Ethnicity
- Gender
- Veteran Status
- Disabling Condition
- Project Start Date
- Project Exit Date
- Exit Destination
- Relationship to Head of Household
- Client Location
- Housing Move-In Date
- Prior Living Situation

Please refer to HUD's Data Dictionary for the complete and current list.

PROGRAM SPECIFIC DATA ELEMENTS (PDES) Program Specific Data Elements (PDEs) differ from the Universal Data Elements (UDEs) in that no one project must collect every single element in this section. Required data elements are dictated by the reporting requirements set forth by each federal partner for the projects they fund.

Please refer to HUD's [Data Dictionary](#) for Program Specific Data Elements for requirements by funding source.

BENCHMARKS AND GOALS

The HMIS Data Quality Framework (attached) will be used semi-annually to indicate if thresholds should be re-evaluated, or if additional training or materials are required.

Error rates for UDEs (based on DQ Framework)

Name	0%	Entry Date	3%
SSN	10%	Relationship to HoH	5%
DOB	3%	Client Location	1%
Race	2%	Disabling Condition	5%
Ethnicity	2%	Income/Sources at Entry/Annual/Exit	20%
Gender	1%	Destination	10%
Veteran Status	3%		

TIMELINESS: Timeliness refers to necessary client information being entered into HMIS within a reasonable period of time. When data is entered in a timely manner, it can reduce human error due to too much time between data collection and data entry. Relying on notes or memory of a conversation can lead to incorrect or incomplete data entry. Timely data entry also makes information more accessible for the entire CoC.

Timeliness is measured by comparing the date associated with the data in the system with the date that data was inputted. Timeliness cannot be edited, only improved going forward. Assessment information dates/Entry dates should match the date the client interview occurred. **The expectation is that all critical data be entered within 2 business days of collection, as well as Entry/Exits created within 2 business days of the occurrence.**

HOUSING MOVE-IN DATE

The housing move-in date captures the move-in date at an “Occurrence Point.” This was added as a one-time field to capture this date at the time of move-in. This means that the move-in date must be entered if/when a household moves into any type of permanent housing, regardless of funding source or whether the project is providing the rental assistance. The move-in date must be between the Project Start Date and Project Exit Date and may be the same date as Project Start if the client moves into housing on the date they were accepted into the program. *This is applicable to all Rapid Rehousing and Permanent Housing Projects.*

ANNUAL ASSESSMENT DATE

Annual assessments that are required for collection must be entered and completed with created date of no more than 30 days before or after the anniversary of the head of household’s Project Start Date. Information must be accurate as of the created date and must be completed. The annual assessment must include updating both the head of household’s information and any other family member associated with the enrollment at the same time. The data included in these updates impact the CoC’s System Performance

Measures which contribute to HUD's scoring process to determine local funding levels. Annual Assessments must be completed as an Interim on the Entry/Exit for the applicable provider. *This is required of all Transitional Housing, Rapid Rehousing, and Permanent Housing programs.*

COMPLETENESS

Completeness refers to entry of all clients served by an organization's project, as well as all necessary data elements. Complete data is the key to assisting clients in finding the right services and benefits to end their homelessness. Incomplete data may hinder an organization's ability to provide comprehensive care to the clients it serves. Incomplete data can also negatively impact Montgomery County's ability to track patterns in client information and changes within the homeless population and adapt strategies appropriately. HMIS data quality is also part of funding applications, including CoC and ESG funding. Low HMIS data quality scores could result in reduction or denial of future funding requests. Montgomery County's goal is to collect 100% of all universal data elements. Therefore, Data Quality Thresholds set an acceptable range of "null/not collected" and "client doesn't know/client refused" responses depending on the data element. To determine compliance, percentages will be rounded (example: .04% becomes 0%). All programs using the HMIS shall enter data on one hundred percent (100%) of the clients they serve. It is important to note that this includes all required elements and assessments for each member of a household. If a client does not wish to sign a Release of Information, their data must still be entered into the HMIS, but the data sharing must be turned off so it is not shared with other agencies. Agency Admins are expected to know how to do this. All data elements must be asked. In the event that a client genuinely refuses to provide specific data elements, "Client Does Not Know" or "Client Refused" should be used. The necessity of this occasional instance will be taken into consideration.

These standards will be reviewed and revised annually by the HMIS Sub-committee's task group dedicated to Data Quality to make sure the thresholds are reasonable.

BED/UNIT UTILIZATION RATES

One of the primary features of an HMIS is the ability to record the number of client stays or bed nights at a homeless residential facility. Case managers or shelter staff enter a client into the HMIS and assign them to a bed and/or a unit. The client remains there until he or she exits the program. When the client exits the project, they are also exited from the bed or unit in the HMIS. All shelters and housing units funded by the CoC must use the bed check-in software in HMIS. Bed/unit utilization will be determined based on bed check-ins and by project enrollment dates. A bed night record has indicated that the client has utilized a bed in a shelter on that date. Acceptable range of bed/unit utilization rates for established projects are 80%-105% The CoC recognizes that new projects may require time to reach the projected occupancy numbers and will not expect them to meet the utilization rate requirement during the first six months of operating.

ACCURACY

Accuracy refers to reflecting true client information and ensuring necessary data elements are consistently recorded. The best way to measure accuracy of client data is to compare the HMIS information with more accurate sources, such as a social security card, birth certificate, or driver's license. To ensure the most up-to-date and complete data, data entry errors should be corrected on a monthly basis. As a general rule, it is a better practice to select "client doesn't know/refused" than to misrepresent the population. Do not enter invalid data (such as "111-11-1111", or "123-45-6789" for SSN) to render data completeness as this will not be counted. If they do not know or do not have an SSN leave the field blank and answer in SSN data quality field.

DATA CONSISTENCY

Consistent data collection helps promote accuracy. All data in HMIS should be collected and entered in a common and consistent manner across all programs. To that end, all intake and data entry workers will complete an initial training before accessing the live HMIS system, and access additional training opportunities offered by the HMIS Lead. The HMIS staff may check data accuracy and consistency by running reports that check for entry errors such as duplicate files created, overlapping enrollments or inconsistent assessment responses. The HMIS team also reserves the right to provide HMIS client identification numbers to the CoC for their program auditing or monitoring purposes. All users are recommended to use the HMIS training environment to practice data entry or test any functionality. The training environment does not affect the live database and does not save any data that is inputted. The link to the training environment is as follows: https://sp5.servicept.com/mcgov_training. User trainings can be retaken at any time if deemed appropriate. All users will be required to attend a minimum of one annual refresher training.

MONITORING WORKFLOWS

The OIC Performance Measure/Scorecard must be completed for all projects within each Agency by the end of the subsequent month and submitted to HMIS@montgomerycountymd.gov. If report has not been completed within 15 days of the cut of date, an email reminder will be sent on the following business day. Agencies have 3 additional business days after this reminder to enter their data.

Additionally, agencies are expected to monitor their own data quality regularly; recommendations are included in the chart below. Annually, the HMIS Data Team will monitor each agency for data quality. If data quality does not meet expectations, a meeting will be scheduled with the agency to review self-monitoring methodology.

Standard	Goal	Expectation	Monitoring Schedule	Report/steps for monitoring	Impact
Timeliness <i>Applies to all projects</i>	all critical data be entered within 2 business days of collection Entry/Exits created within 2 business days of the occurrence	Decrease the amount of time it takes your agency to enter data by at least .5% each quarter until goal is met.	Because the ability of CMs to enter data quickly can vary greatly based on capacity or time in the field, it is recommended that this be monitored quarterly .	CoC-APR 2019, section 6e	Data not entered timely will impact reporting and services if not entered timely (ie CES)
Housing Move-In Date <i>Applies to all Rapid Rehousing and Permanent Housing Projects</i>	100% of Households that have been moved into a unit have a Move-in Date	Check that the record of the HoH includes a Move-in Date for anyone that was checked into a bed during the month.	Review monthly to ensure all clients that have leased up within the month have a Move-in Date.	ShelterPoint bed list	Missing Housing Move in Dates will show that clients are not housed, keep them on CES lists, reflect poorly on projects and Housed metrics (etc)
Annual Assessment Date <i>Applies to all Transitional Housing, Rapid Rehousing, and Permanent Housing programs, and TH Projects where clients remain >12 months</i>	Annual Assessment has been completed for 100% of households residing in a project.	Annual Assessments are to be completed within 30 days of a client's anniversary date each year for those residing in a project for longer than 12 months.	Review monthly – quarterly depending on the rate at which Households lease up within the program.	ART Gallery Reports>Data Quality (Agency Admin) Reports>0631 – HUD CoC APR Detail, Tab I	Annual Assessments are essential to be able to track changes that have occurred during a client's tenure in a program and are also required to successfully run APR reports for those programs that must submit APRs to HUD.
Completeness <i>Applies to all projects</i> <i>Including UDE Error Rates (see chart)</i> <i>Applies to all projects</i>	At least 95% of all Data Elements be complete for all Household members in all Programs.	All data fields are answered and those that were already populated when a client entered the program are reviewed for accuracy.	Review monthly – quarterly depending on the rate at which Households lease up within the program.	ART Gallery Reports>Data Quality (Agency Admin) Reports>0252 – Data Completeness Report Card (EE)	Any UDEs that are not answered or answered with a Client Doesn't Know/Refused will reflect as null data in reporting, making the data unreliable.
Bed/Utilization Rate <i>Applies to all residential projects</i>	100% of Household members have been checked into or out of a bed within 2 business days.	Head of household and all household members residing with that head of household be entered into a bed within ShelterPoint.	Confirm the ShelterPoint bed list is accurate and up-to-date and the number occupied against the number available is the Utilization Rate. Recommended monthly .	ShelterPoint bed list	Bed utilization is reported to HUD in at least 3 Federal reports, and locally used to assess unmet needs for clients and agencies alike. Inaccurate bed lists will skew an agencies

					utilization as well as length of stay data.
Accuracy <i>Applies to all projects</i>	98% of assessment fields be completed	All data fields are answered and those that were already populated when a client entered the program are reviewed for accuracy.	Recommended monthly review of data by program lead or other party familiar with clients in to check reasonableness. Review of responses by CM EACH TIME changes are made to the record. <small>Particular attention should be paid to Client Location, Residence Prior, and Relationship to Head of Household.</small>	CoC-APR 2019, section 6 or ART Gallery Reports>Data Quality (Agency Admin) Reports>0640-HUD Data Quality Framework	Inaccurate data can have some very significant impacts on reporting. Examples include incorrect household designations resulting in households being missed or reported as unaccompanied youth; inaccurate residence prior information could make it appear a program is not serving homeless clients.
Data Consistency <i>Applies to all projects</i>	98% of assessment fields be completed in consistent manner	Data does not show incongruities (examples may include Veterans under 18 yo, or someone with severe disabilities having 'no' selected for disabilities	Most data consistency errors will be corrected during efforts to monitor accuracy and completeness; however a quarterly review of data incongruity is recommended.	ART Gallery Reports>0220 - Data Incongruity Locator - Age, Gender, Household Relationship Issues	Inconsistent data can trigger errors in chronicity, target populations, and program eligibility. It will skew APRs and cause results to unfavorably reflect data.

This document will be updated in the event of any data monitoring reporting changes, and agencies will be notified.

ATTACHMENTS

HUD Data Quality Report Framework Summary

Reporting Period: 1/1/2020 - 11/3/2020

Q1. Report Validation Table	
Elements	Client Count
Total Number of Persons Served	4,801
Number of Adults (age 18 or over)	3,335
Number of Children (under age 18)	1,417
Number of Persons with Unknown Age	49
Number of Leavers	1,852
Number of Adult Leavers	1,412
Number of Adult and Head of Household Leavers	1,414
Number of Stayers	2,949
Number of Adult Stayers	1,923
Number of Veterans	145
Number of Chronically Homeless Persons	564
Number of Youth Under Age 25	265
Number of Parenting Youth Under Age 25 with Children	66
Number of Adult Heads of Household	2,851
Number of Child and Unknown-Age Heads of Household	7
Heads of Household and Adult Stayers in the Project More Than 365 Days	1,375

Q2. Personally Identifiable Information (PII)					
Data Element	Client Doesn't Know / Refused	Information Missing	Data Issues	Total	% of Error Rate
Name (3.1)	1	0	17	18	0.37%
Social Security Number (3.2)	165	380	58	603	12.56%
Date of Birth (3.3)	9	158	43	210	4.37%
Race (3.4)	137	122		259	5.39%
Ethnicity (3.5)	31	95		126	2.62%
Gender (3.6)	2	49		51	1.06%
Overall Score				841	17.52%

Q3. Universal Data Elements		
Data Element	Error Count	% of Error Rate
Veteran Status (3.7)	186	5.58%
Project Entry Date (3.10)	221	4.60%
Relationship to Head of Household (3.15)	691	14.39%
Client Location (3.16)	71	2.48%
Disabling Condition (3.8)	496	10.33%