



HMIS and DV ClientTrack Data Quality Plan

IN BOS 502 CoC Board Approved 09/15/22- Effective 10/01/2022

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Introduction

To better understand the nature of homelessness, HUD requires the use of a structured data system called a Homeless Management Information System (HMIS). This data system is a software application capable of collecting and reporting information as specified in HUD Notice and Regulations found in the HUD [Data and Technical Standards Final Notice](#) which the current version was published in 2004.

Pursuant to the standards outlined in the CoC Rule (578.7(b) 3 Responsibilities of the Continuum of Care (CoC): Designating and operating an HMIS, the following is the Data Quality Plan for the Indiana Balance of State 502 (IN BoS 502) Continuum of Care. The calculations, client universe, and applicable data for the Data Quality Plan use the design specifications for [HUD's Annual Performance Report](#). The Data Quality Plan is reviewed and revised on an annual basis or as needed by the Performance and Outcomes Committee of the Board of Directors in the IN BOS 502 Continuum of Care (CoC).

Quality data entered in the HMIS permits longitudinal data analysis to identify system duplication, high-frequency users, performance, and recidivism among many different possibilities. This document will outline responsibilities, expectations, and benchmarks that need to be met to produce reliable data. Moreover, it will outline the monitoring plan to ensure the expectations and benchmarks are being met by organizations using HMIS/DV ClientTrack. The Data Quality and Monitoring Plan will help our Balance of State IN-502 identify the areas needing the most attention in our planned efforts to end homelessness.

Data Quality Elements

According to the Data Quality Toolkit created by HUD, for data or information to be relevant and useful, it needs to have three basic elements: Timeliness, Completeness, and Accuracy. This means that data entered in the HMIS system needs to be entered within a time frame, needs to be complete for all the data elements required in the system, and the information entered needs to be accurate to best represent the populations we are serving.

Timeliness

It is expected that participating HMIS organizations and individual end users enter data that is timely, complete, and accurate. Data that is entered closer to the date of occurrence tends to be more complete and more

accurate. Therefore, data should not be entered in large amounts at the end of a quarter or reporting year. It is understandable that sometimes client information cannot be collected all at once. However, **we require HMIS users to enter all client information required within the first 5 calendar days from the client's entry into the program.**

Additionally, we require **Annual Assessments to be completed within 14 days prior to or 14 days after the 12-month anniversary of the project start date.** This is to avoid annual assessment data quality errors in different reports.

It is important that all information be entered within the established timeframes mentioned above to avoid data quality errors, but more importantly to serve clients efficiently according to their needs.

Completeness

All participating HMIS Organizations are expected to collect the data elements required by HUD, the CoC, or other federal entities (such as the Veteran Administration) for their projects. While the HUD Data and Technical Standards outline the minimum requirements, the CoC may require stricter standards for collection and reporting. **All residential projects and HUD funded projects are required to collect the Universal Data Elements and Program Descriptor Data Elements on all clients who are enrolled.** Additional data elements may be required by the CoC for planning purposes, community outcomes, gap analysis, coordinated entry, or other reporting purposes.

To enforce complete data, our assessments are grouped by workflows (to avoid missing assessments) and have mandatory fields designed to reduce the number of Missing responses. **End users should not create blank assessments and save them against an enrollment to be filled in later.** This tends to create more Missing responses.

Requirements for data collection (including specific elements and frequency) not explicitly mentioned in this document should be obtained from documentation from the funding source, other regulation, or other federal notice.

The expectation of the IN BOS 502 CoC is to have all Program Descriptor Data Elements collected and entered in the system within the first 5 calendar days of obtaining this information. These elements are created by the

HMIS Lead or provided by the HMIS software itself. Please review the Universal Data Elements and the Project Specific Data Elements in sections 3 and 4 of the [FY 2022 HMIS Data Standards](#) manual respectively.

Accuracy

When data is entered, it should reflect the most accurate answer for the client. Linked with completeness, if accuracy is poor, then data is unreliable.

Accuracy means the data entered is truthful and reliable to the responses provided by the client. For example, if the client's name is Jane Doe, you should not enter J D since this might cause duplication issues. Also, if the client's date of birth is 10/10/1910 you should not enter 1/1/1910 since this might also cause duplication and inaccuracy issues.

Accuracy can be improved by real-time entry (entered during a client meeting) or end of day entry. Accuracy can also be improved by waiting to enter client and enrollment information until all the information has been gathered, rather than entering data a piece at a time. For example, if a program has a two-step process for intakes (one basic eligibility interview and one in depth goal setting and plan setting interview), the records will be more accurate after the second interview. Entering the data after the second interview reduces the need to go back and edit records. Accuracy impacts the ability we have to de-duplicate records, and accurately reflect the total number of unduplicated clients served by program type and project. Duplication also impacts other data elements that affect the System Performance Measures, Longitudinal System Analysis, Housing Inventory Count, and Point-In-Time count among other reports.

Moreover, the data input in the system is a main determinant of the annual funding allocated by the federal Housing and Urban Development agency through the Notice of Funding Availability (NOFA). Therefore, the better the data front-line workers input, the better outcomes and challenges can be demonstrated for future funding opportunities.

Benchmarks

Entering Data in the System

Information will be entered in the system within 5 calendar days after gathering the information from the client(s).

HUD recommends real time data entry as mentioned in the [HUD SNAPS Data TA Strategy to Improve Data and Performance](#). For all organizations in our Balance of State, data for high volume programs such as emergency shelters and other programs such as Transitional Housing, Permanent Supportive Housing, Housing Prevention, and Rapid Rehousing, should have their information entered within 5 business days maximum. IHCD recommends entering case notes no more than 3 business days following a scheduled appointment or intake with client. Individual agencies may require stricter timeliness standards for entry.

APR/CAPER Review Tool The APR/CAPER Review Tool in ClientTrack is a useful tool to make sure the data is being entered accurately, completely, and timely. The APR/CAPER Review Tool shows the percentage for information missing, data issues, and “Don’t Know/Refused” responses. This tool also shows the percentage of error rate for the different data elements for the clients in that project for the specified reporting period

What makes the APR/CAPER Review Tool a wonderful resource to address data quality issues is the fact that it provides client level data. This function allows agencies to focus on one client at a time to address different data quality issues.

Agencies are encouraged to run APRs for CoC-funded projects and CAPERs for ESG-funded projects as often as possible and review the APR/CAPER Review Tool to fix data quality issues. A how to guide on how to use the APR/CAPER Review tool can be found [here](#).

High rates of 20% or more of “Missing” elements indicates a repeated incorrect entry process. As a CoC, we expect organizations to address **all** missing data elements and error rates. Permanent and Transitional housing programs should have few missing data points for the Universal and Program Descriptor Data Elements. For all programs, the rate of “Don’t Know/Refused” responses should be kept to a minimum. Clients identifying as Hispanic/Latino tend to show higher rates of “Don’t Know” or “Refused” for race, however, if possible, these answers should be kept to a minimum. For more information about reporting race and definitions please see the [2022 HMIS Data Standards on page 74](#).

Keep in mind that if the name, social security number, or date of birth are entered incorrectly, this will throw data issues, which will impact the overall error rate for such data elements. This means that if only the first name or only the last name are entered, it will throw a data issue. If the social security is partially entered, it will throw data issues. Lastly, if the date of birth is after the date the record was created, it will throw data issues, since a record should not be created for a client who is not yet born at the time of creating a new record.

The rationale behind strict benchmarks is the length of time allowed for increased and more accurate data collection. Moreover, after looking at combined data quality reports for the different project types, it was determined that to ensure a realistic and optimal data quality in our Balance of State, the following Universal Data Elements should be kept within the error rate range listed in the table below.

Acceptable range of missing (null) and unknown (don't know/refused) responses by program type						
Data Element	PSH, RRH, TH, HUD SSO, ESG Prevention, Safe Haven		Emergency Shelter (night-by-night beds), non-HUD SSO)		Outreach	
	Missing	Don't Know/Refused	Missing	Don't Know/Refused	Missing	Don't Know/Refused
3.1 Name	0%	0%	0%	0%	<5%	<10%
3.2 Social Security Number	<3%	<5%	<5%	<10%	<1%	<5%
3.3 Date of birth	<1%	<1%	<1%	<1%	0%	<2%
3.4 Race	<2%	<2%	<3%	<3%	<1%	<2%
3.5 Ethnicity	<2%	<2%	<3%	<3%	<1%	<2%
3.6 Gender	<1%	<1%	<1%	<1%	0%	<1%
3.7 Veteran	<3%	<3%	<3%	<3%	<3%	<3%
3.8 Disabling Condition	<2%	<2%	<5%	<5%	<6%	<6%
3.10 Project Start Date	<5%	<5%	<10%	<10%	<1%	<1%
3.11 Project Exit Date	<3%	<3%	<10%	<10%		
3.12 Destination	<15%	<15%	<25%	<25%	<25%	<25%
3.15 Relationship to the Head of Household	<3%	<3%	<5%	<5%	0%	0%
3.16 Client Location	<2%	<2%	<2%	<2%	<1%	<1%
3.20 Housing Move-In Date	<5%	<5%	n/a	n/a	n/a	n/a

Furthermore, different elements apply to different client universes in our Data Quality section of the Annual Performance Report (APR). For example, some data elements only apply to adults, not to all clients enrolled in the program, such as “Veteran Status”. If a program had a total of 30 clients enrolled during the reporting period, 12 of them adults with 3 of the persons marked as missing Veteran Status, then the rate of missing would be 25%, not 10%. Even if a client is outside the applicable universe (like children for Veteran Status), the information may still be required for data entry. For age specific elements such as Veteran Status, the standard will apply when they are 18 years old.

Please see the table below to understand what data elements apply to which client universe.

Data Element

Universe

First Name	All Clients
Last Name	All Clients
SSN	All Clients
Date of Birth	All Clients
Gender	All Clients
Ethnicity	All Clients
Race	All Clients
Veteran Status	All Adults
Disabling Condition	All Clients
Living Situation & Prior living situation	Head of Household and adults
Project Entry Date	All Clients
Project Exit Date	All Clients
Destination	All Head of Households & adults
Relationship to Head of Household	All Clients
Client Location	Head of Household
Income and Sources	Head of Household and adults
Non-Cash Benefits	Head of Household and adults
Health Insurance	All Clients
Physical Disability	All Clients
Developmental Disability	All Clients
Chronic Health Condition	All Clients
HIV/AIDS	All Clients
Mental Health Problem	All Clients
Substance Abuse	All Clients
Domestic Violence	Head of Household and adults
Residential Move-In Date	All Clients – SSVF, RRH
Housing Assessment at Exit	All Clients (HOPWA and CE)
Contact	All Street Outreach Clients – Head of household and adults (CE)
Date of Engagement	All Street Outreach Clients (ES Outreach, CoC Outreach & PATH)
Services Provided	All Clients enrolled in SSVF, PATH, RHY and HOPWA

Financial Assistance Provided	All Clients enrolled in SSVF, RRH, HOPWA
Program Entry	All Clients
Program Exit	All Clients
Housing Move In	All Clients- Head of Household and adults

While most data errors are recorded or tracked for elements at program entry, data elements collected at program exit are just as important as it is the basis for measuring outcomes and progress. Therefore, it is expected that all HUD funded, and non-HUD funded programs have exit assessments for every client entered. “No exit interview” completed should be rarely used unless the client has absconded from your program. For emergency shelters and street outreach projects this means 20% of all clients or less, and for transitional housing or permanent supportive housing it means 10% of all clients or less.

Project Entry and Project Exit Dates

All residential projects use project entry and exit dates to identify length of stay in a program. For example, the project entry date is the date the client or family moved into the shelter or moved into the apartment in a tenant based rental assistance program. Similarly, the project exit date should be the date the client or family moves out of the shelter or apartment.

Project entry and exit dates for day shelter, supportive services only, and outreach program components operate differently.

For day shelters, the enroll date will be the day the client or household first receives services.

For supportive services only and street outreach project types, the enroll date is the date that the client or household agreed to participate in services with the project. **The date of the initial contact or the first outreach attempt is not the enrollment date.**

Project exit date for day shelter, supportive services only, and outreach programs is the day that the client or household is no longer being actively served in the program. As an example, an intensive case management program exit date could be the agreed upon service contract end date or the date of the final case management meeting. For some of these project types there is no definitive final meeting or pre-defined service contract end date.

Bed Coverage

While high standards of data quality can increase reliability of data, increased coverage of data increases usefulness of System Performance Measure reports. The IN CoC-502 will achieve 100% bed coverage of HUD required organizations and 80% of non-HUD required beds (excluding HUD-VASH vouchers and DV beds). Bed coverage will be assessed annually by the HMIS Lead. Agencies can positively affect bed coverage by entering all their clients in the system in a timely manner.

Monitoring Plan

To ensure the benchmarks and expectations mentioned above are being met, roles and responsibilities, along with a timeline will be outlined in the next subsections. A monitoring plan will help IHEDA and subrecipients work together to ensure the information in the Homeless Management Information System is accurate, complete, and reliable to help the Indiana Balance of State key players take effective action to help end homelessness in our Balance of State.

These benchmarks are expected to be met on a quarterly basis. Agencies should review their data monthly by running the APR if COC-funded and CAPER if ESG-funded along with the APR/CAPER Review tool and any other relevant reports. Please refer to Appendix A to see what the established benchmarks are per project type.

Roles and Responsibilities

HMIS Team/Data Quality Analyst

Any agency entering data into HMIS/DV ClientTrack system can run a report for data quality for their own purposes at any time in the system. Moreover, they can run an APR for CoC-funded projects or a CAPER for ESG-funded project and use the [APR/CAPER Review tool](#) to drill down to the client level. IHEDA HMIS staff and contractors will run a combined APR/CAPER per project type quarterly during the first calendar week of the months (January, April, July, and October to better understand the trends and common data quality issues per project type. This information will be shared with Site Administrators, Deputy Site Administrators, and staff in the data quality coffee talks held quarterly.

Moreover, the HMIS team will reach out via email to agencies who have several clients throwing data quality errors, and they will provide the resources to make the necessary corrections.

Agencies

While Data Quality Reports can verify that information is entered, it can only identify that data is present not that it is accurate. To check for accuracy, client level data held by the organization will be checked against the data in HMIS during grant monitoring.

The Site Administrator or Deputy Site Administrator of the organizations will designate a staff who is an active HMIS/DV ClientTrack user to

- Run APR/CAPER and review the APR/CAPER Review Tool at a minimum 4 times a year, after the first coffee talk session for that specific project type Reporting periods will be specified during the data quality coffee talks.
- Attend the data quality coffee talks and participate in the data quality office hours. Make the necessary corrections specified by the HMIS team within the agreed upon timeframe by following the step by step guides provided by the HMIS team.
- Failure to correct errors by the organization will result in the HMIS team forwarding the data quality report, communications with the agency, and any other relevant materials to the Performance and Outcomes Committee of the Indiana BoS CoC Board of Directors for further action/correction. Input will be sought on how your performance could impact funding.

Incentives

Agencies have the responsibility to ensure their data quality meets and exceed standards set in this data quality plan. To support in these efforts the HMIS team will monitor aggregate data to reach out to agencies who might need more support. Moreover, the HMIS team will provide a digital certificate to agencies who meet and exceed the forementioned standards starting in 2023

Agencies will need to as attend the coffee talk and correct data in the system to meet data standards and receive the digital certificate of data quality excellence. This digital certificate will be made available to the agency through the designated site administrator and could be used to encourage staff to improve their intake, data usage, and reporting.

HUD Reports

Data review will include reviewing the local project performance as it relates to the Point in Time, System Performance Measures (SPM) and the Longitudinal Systems Analysis (LSA). It will also include reviewing this data through Stella P and Stella M.

System Performance Measures

Entering complete, accurate, and timely information in the system ensures that the System Performance Measures accurately reflect how the clients in the system are moving through the Continuum of Care system.

The SPM analyze the performance of the system in our Continuum of Care by measuring the following criteria:

- **Measure 1:** The Length of Time Persons Remain Homeless
- **Measure 2:** The Extent to which Persons who Exit Homelessness to Permanent Housing Destinations Return to Homelessness
- **Measure 3:** Number of Homeless Persons
- **Measure 4:** Employment and Income Growth for Homeless Persons in CoC Program-funded Projects
- **Measure 5:** Number of Persons who Become Homeless for the First Time
- **Measure 6:** Homeless Prevention and Housing Placement of Persons Defined by Category 3 of HUD's Homeless Definition in CoC Program-funded Projects
- **Measure 7:** Successful Placement from Street Outreach and Successful Placement in or Retention of Permanent Housing

The LSA also covers the same criteria of performance for the SPM, but it analyzes how the households are moving through the CoC's system by using the Head of Household's data only, and not all the persons served like the SPM.

Housing Inventory Count and Point in Time Count

Entering complete, accurate, and timely information also impacts the Point in Time Count and the Housing Inventory Count. To make sure the information in the system is correctly reported in these reports, end users will be required to complete the following:

- Make sure the number of people in the month of January up to the date of the Point in Time count is correct.

- Exit the clients who are no longer in the program enrollment
- Make sure people in Rapid Rehousing have a move in date that accurately reflects when they moved into the project
- If children and their guardians are in the same program, make sure they are in the same enrollment to avoid households with only children who have been enrolled mistakenly by themselves

Frequently Asked Questions

What if I cannot gather all the Social Security Numbers from all my clients?

It is okay if you cannot gather 100% of Social Security Numbers, but if people are willing and able to provide this information, you should gather it and record it.

What does “Data Issues” mean?

Data issues come up when the information entered does not conform to the required format in the system. For example, if you have data issues for social security numbers, that possible means you entered only the last four digits of the social security number, and the system does not register that as a fully reported social security number.

What if people refuse to answer or do not know how to identify their race?

You will not be penalized if people report they either do not want to identify with one or more races, or if they do not know how to identify their race. However, you should give clients an opportunity to identify their race if they want to and record it accordingly.

What does it mean when I have an error rate for Income and Sources at Start?

If the project start date is different than the Master Assessments or the Universal Data Assessment, this might cause the issue.

What does it mean when I have an error rate for Income and Sources at Annual Assessment?

This possibly means you did not enter the annual assessment within the 60-day window (30 days prior to or 30 days following the anniversary date of the enrollment’s Project Start Date). It could also mean you entered the annual assessment under Common Client Assessments, instead of the program enrollment. For more information about Income and Sources at Annual assessment, please visit the 2022 HMIS Data Standards on page 111-112.

Who should be reported as a veteran?

Veteran Status is defined as a person who has ever served on active duty. Persons who were in reserves or National Guard and not called up to active duty for other than training purposes should answer “No” to this question. Programs that require a stricter eligibility standard on veteran status (such as SSVF, Veterans

Administration) would still operate as normal and would still input the information for their enrolled clients as normal.

Appendix: HUD Data Quality Report Benchmarks

Acceptable range of error rate for data elements in the HUD Data Quality Report						
Data Element	Permanent Supportive Housing	Rapid Re-Housing	Transitional Housing	Emergency Shelter and Non-HUD SSO	Outreach	ESG Prevention
	Error Rate	Error Rate	Error Rate	Error Rate	Error Rate	Error Rate
Q2. Personal Identifiable Information (PII) - Overall Score	<5%	<15%	<10%	<15%	<15%	<10%
3.1 Name	<1%	<1%	<1%	<2%	<1%	<1%
3.2 Social Security Number	<5%	<10%	<10%	<15%	<10%	<10%
3.3 Date of birth	<2%	<2%	<2%	<2%	<5%	<5%
3.4 Race	<2%	<3%	<2%	<4%	<5%	<5%
3.5 Ethnicity	<2%	<3%	<3%	<3%	<5%	<4%
3.6 Gender	<1%	<2%	<2%	<2%	<2%	<2%
Q3. Universal Data Elements						
3.7 Veteran	<2%	<2%	<2%	<3%	<5%	<3%
3.10 Project Start/Entry Date	<2%	<2%	<2%	<2%	<2%	<2%
3.15 Relationship to the Head of Household	<2%	<3%	<2%	<2%	<1%	<2%
3.16 Client Location	<3%	<3%	<4%	<4%	<3%	<5%
3.8 Disabling Condition	<5%	<5%	<5%	<10%	<10%	<5%
Q4. Income and Housing Data Quality						
3.12 Destination	<5%	<10%	<17%	<25%	<30%	<15%
4.2 Income and Sources at Start	<10%	<10%	<15%	<15%	<10%	<15%
4.2 Income and Sources at Annual Assessment	<35%	<50%	<50%	<50%	<50%	<75%
4.2 Income and Sources at Exit	<10%	<10%	<20%	<30%	<30%	<10%
Q5. Chronic Homelessness						
3.917.2 Missing time in institution	<1%	<1%	<2%	n/a	n/a	n/a
3.917.2 Missing time in housing	<3%	<3%	<3%	n/a	n/a	n/a
3.917.3 Approximate Date started DK/R/missing	<1%	<1%	<2%	<3%	<3%	n/a
3.917.4 Number of times DK/R/missing	<3%	<3%	<5%	<15%	<15%	n/a
3.917.5 Number of months DK/R/missing	<3%	<3%	<5%	<15%	<15%	n/a

Q.6 Timeliness (of the total of persons served)						
0-3 days	at least 60%	at least 65%	at least 60%	at least 70%	at least 80%	at least 80%
4-6 days	at most 20%	at most 20%	at most 15%	at most 10%	at most 10%	at most 10%
7-10 days	at most 10%	at most 10%	at most 15%	at most 10%	at most 5%	at most 5%
11+days	at most 10%	at most 5%	at most 10%	at most 10%	at most 5%	at most 5%