

# **MARICOPA HMIS PROJECT DATA QUALITY AND MONITORING PLAN**

The Maricopa Homeless Management Information System (HMIS) is a program funded by the U.S. Department of Housing and Urban Development (HUD) and managed by Community Information and Referral Services (CIR). The Maricopa HMIS Project is designated to CIR by the Maricopa County Continuum of Care Regional Committee on Homelessness (CoC).

## **Definition of Data Quality**

HMIS data quality refers to the extent that data recorded in an HMIS accurately reflects the same information in the real world. However, to meet the HMIS goal of presenting accurate and consistent information on homelessness, it is critical that an HMIS have the best possible representation of reality as it relates to homeless people and the programs that serve them. Specifically, it should be our goal to record the most accurate, consistent and timely information in order to draw reasonable conclusions about the extent of homelessness and the impact of homeless services.

*Enhancing HMIS Data Quality July 2005  
U.S. Department of Housing and Urban Development  
Office of Community Planning and Development*

## **Importance of Data Quality for HMIS Goals**

“There has never been an overall review or comprehensive analysis on the extent of homelessness or how to address it. The Committee believes that it is essential to develop an unduplicated count of homeless people and an analysis of their patterns of use of assistance ...including how they enter and exit the homeless assistance system and the effectiveness of assistance.” *2001 Congressional Directive*

These goals are not only important on the federal level but also critical for understanding homelessness and program planning at the local level.

## **Pattern of Homeless Service Utilization**

People who are homeless often use more than one of the programs that are available to help them access housing, resolve their crisis, support them, and link them with other services. Accurate program entry and exit dates and information on residence prior to program entry are critical in determining service use patterns that assess average length of stay and movement among different homeless programs. The collection of accurate identifying information at each program is also necessary in order to identify the extent to which clients appear in multiple programs, how clients move through the system, and to detect cycles of homelessness.

## **Effectiveness of the Homeless Service System**

Assessing the effectiveness of the current homeless service system is critical to finding successful solutions to ending homelessness. For that reason, information at program exit, such as destination and income, are important to learn if and how the system has helped to resolve clients' housing crisis and to improve their overall stability. Data on returning clients also contribute to this goal. Comparing program entry data with program exit data at the aggregate level will also provide a picture of homeless program impacts on the clients they serve.

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## I. Data Quality Plan

### A. Data Quality Benchmarks

As stated in the 2009 HMIS Data Quality Standards issued by HUD, all contributory Homeless Assistance programs need to follow HUD determined data quality benchmarks. These benchmarks are determined by HUD and are required for all Continuums throughout the nation. The goal of the benchmarks is to attain consistent data from all Continuums. The benchmarks in the following areas have been determined.

#### 1. Timeliness of Data

To be most useful for reporting, an HMIS database should include the most current information on the clients served by participating homeless programs. To ensure the most up to date data, information should be entered as soon as it is collected. All Client data will be entered by the fifth day after occurrence.

- a. Client information is entered within 5 days following the occurrence in which the client was served
- b. Client information is updated regularly at exit or annual assessment – per requirements relative to each universal and program specific data elements.

#### 2. Data Accuracy

Information entered into the HMIS database needs to be valid and accurately represent information on the people that enter any of the programs contributing data to the HMIS database. Inaccurate data may be intentional or unintentional. In general, false or inaccurate information is worse than incomplete information, since with the latter, it is at least possible to acknowledge the gap. Thus, it should be emphasized to clients and staff that it is better to enter nothing (or preferably “don’t know” or “refused”) than to enter inaccurate information.

- a. 95% of data entered into the HMIS database must reflect what clients are reporting
- b. Staff entering information into the HMIS database must enter information as stated by the client. Every program must enter data on clients in the same way over time, regardless of which staff person is recording the data in HMIS.

#### 3. Data Completeness

For accurate reporting purposes by the Maricopa HMIS Project, data needs to be as complete as possible, and should contain all required information on all clients served in a program during a specified time period. The goal of achieving HUD defined required HMIS coverage and participation by all local programs is essential for ensuring that the records are representative of all the clients served by these programs.

- a. 100% of all HUD funded homeless assistance programs in Maricopa County must participate in the Maricopa HMIS Project

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- b. 100% of all clients entered will have complete HUD Universal Data Elements
- c. 98% of clients will have complete program data elements entered
- d. 98% will have services entered, if services are required
- e. 98% of clients that exit will have data entered with exit destinations
- f. 10% is the maximum allowance for null or missing data
- g. 5% is the maximum allowance for “don’t know” and “refused” responses of all answered questions
- h. 75% of all beds in non-HUD funded residential homeless assistance programs located in Maricopa County must participate in the Maricopa HMIS Project

#### **4. Training**

Standardized training is provided by the Maricopa HMIS Project and is vital to attaining quality data entry. Software training is performed using a standardized curriculum, presented in a consistent manner by the Maricopa HMIS Project team.

- a. User training will cover how to collect data, how to pass data from front-line staff to data entry staff, how to log questions about the data and how to resolve those questions, how to give feedback, and expectations for participating in user meetings. Some of these issues may be program specific, so they may need to be addressed by custom or specialized training rather than as part of the system-wide software training.
- b. All users must attend a minimum of one training session annually.

#### **B. Consistency Among Agencies**

The Maricopa HMIS Project staff should ensure consistent data collection and quality across all of its participating programs. This can be achieved through some or all of the following mechanisms.

##### **1. Continue HMIS Data Quality Group**

The Data Quality Group is charged with making sure data quality remains prominent in CoC decision-making. Any recommendations will be reported by this group to the HMIS User Group.

##### **2. Continue HMIS User Group meetings**

The HMIS User Group meetings keep HMIS users abreast of HMIS efforts across the CoC. This helps maintain momentum, identify user concerns and software needs, share solutions to common problems and best practices, and provides opportunities to review and refine data quality processes.

##### **3. Continue HMIS Advisory Board meetings:**

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The HMIS Advisory Board advises and supports the Maricopa HMIS Project and CoC's operations. The HMIS Advisory Board makes final approval of all recommendations to be brought to the CoC.

4. Conduct routine analyses/comparisons between programs:

Comparisons among CoC programs can serve as a healthy competition to meet the standards set by the CoC and can also serve to identify best practices in data quality and general usage.

5. Define parameters for data definitions:

The HMIS User Group is uniquely positioned to ensure common parameters (or meaning) to questions in the HMIS database. For example, is asthma a physical disability? Is PTSD a mental illness or a separate category? If there is confusion around questions that the Maricopa HMIS Project Team or software documentation cannot answer easily, the Data Quality Group can discuss and agree upon a convention. This information should be shared throughout the CoC (and also with the software provider).

6. Monthly and/or Quarterly reports will be generated from the HMIS database to verify timely data entry and quality assurance:

Quarterly reports to the Advisory Board and to the CoC are a way to strengthen agencies compliance and promote a culture where data collection and quality is taken seriously and completed.

7. Programming queries and generating regular data quality reports:

The Maricopa HMIS Project team can play an important role by providing agencies with standard queries or tools to help them verify their agency's data quality. Similarly, these reports can be run on the overall system data to identify data errors.

8. Institutionalize a feedback loop to agencies:

The Maricopa HMIS Project team and the Data Quality Group can create a process for all agencies to submit data quality issues in order to remediate discrepancies between program performance and standards. The Data Quality Group can use this information to help the Maricopa HMIS Project assess the quality of data and establish consistency between HMIS participating programs.

## II. Monitoring Plan

Information entered into HMIS must be entered in a timely manner. It is required that all information be entered into Maricopa HMIS Project within 5 days of the occurrence. The programs entering information into the Maricopa HMIS Project must update client information at exit from the program or during regular assessment updates. It is important that information is kept up to date in the Maricopa HMIS database for data quality for reporting.

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### A. Report Utilization

Data Quality reports will be used to assess individual program data quality. The HMIS project team will be responsible for developing Data Quality reports. The individual programs will be able to access the reports relevant to their programs. This will enable each program to monitor their data and improve data quality on an individual basis. It is recommended that each program run data quality reports on a monthly basis to meet the required HUD benchmarks.

### B. Implementation Plan

1. Month 1: Goal: Assess Baseline Compliance Rate = 85% of HMIS Participating Agencies Achieve Data Quality Benchmark Compliance
  - a. All data entered by providers up to current month
  - b. Program data quality reports provided to the HMIS Data Quality Group for initial review
  - c. Data quality reports reviewed by the HMIS Data Quality Group
  - d. Providers correct data errors in HMIS database
  - e. Revised aggregate data quality reports generated and published to the HMIS website
  - f. Data quality progress report developed
  - g. Assess training needs and post training schedule/plan on HMIS website
2. Month 4: Goal: Increase Baseline Compliance Rate = 88%
  - a. Initiate Quarterly Compliance Rate Report reviewed by the HMIS Data Quality Group
  - b. Initiate Quarterly Compliance Rate Report will be posted to the HMIS website
3. Month 7: Goal: Increase Baseline Compliance Rate = 90%
4. Month 10: Goal: Increase Baseline Compliance Rate = 92%
5. Month 12: Goal: Increase Baseline Compliance Rate = 95%
  - a. Annual Compliance Rate Report reviewed by the HMIS Data Quality Group and submitted to and approved by the HMIS Advisory Board
  - b. Annual Compliance Rate Report will be posted to the HMIS website
  - c. Compliance Rate Report will be posted to the HMIS website
  - d. Presentation of data quality progress report at general CoC meeting – Annually

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- e. When a 95% compliance rate is achieved, the goal will be to achieve 98% compliance rate for all data entered in HMIS

### **C. Reporting Requirements**

HUD is requiring as part of the HUD data standards specific reports for data quality. Maricopa HMIS will produce the reports as required by HUD. These reports will change as HUD's regulations change.

1. The first report is a null/missing values report. These reports show what percentages of fields are left blank or marked "don't know" or "refused." It compares those numbers to the potential number if all client records had all required fields complete. The report will show the amount of null/missing information in the HMIS database. This report can reflect the null or missing values for different program types across the CoC.
2. The second required report is an unduplicated data quality report. This report helps determine if clients are entered into the HMIS database more than once. To achieve high quality data it is important that there is only one record per client. If a client is counted multiple times the information in the report will be incorrect.
3. A bed utilization report is required showing the percentage of beds or units filled on any given night. This report can show HUD and the CoC how the Maricopa HMIS Project programs are using their beds. The bed utilization report will also show programs that are reporting an overutilization or underutilization of beds. For example, an agency that shows a repetitive 105% or higher occupancy rate, or an agency that shows a 60% or lower occupancy rate, would present an inconsistent bed utilization.
4. A timeliness report is required to monitor the data timeliness benchmark. This report will show that data is being entered in a timely manner. It will also show differences in dates. For example, the timeliness report will show the gap in time between when the client entered the program and the date that the data was entered into the HMIS database.

D. Programs will comply with HUD Data Standards including Program Elements, Universal Data Elements, Self-Sufficiency Matrix and User Training as stated in the CoC Program Performance Report.

E. As required in the HEARTH ACT, the Maricopa HMIS Project will work in conjunction with the CoC to ensure data coverage to meet the minimum bed coverage rates and service volume coverage rates as established by HUD.

F. Maricopa HMIS Project programs are subject to site visits from the Project team to ensure overall HMIS compliance.

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### HMIS Data Quality Depth of Data Elements

#### Name:

- First and Last Name not the same
- Suffix properly formatted
- No numerals in name fields (except Suffix)
- Suffixes not in last name field
- First name is not "Husband"; "Wife"; "Woman"; "Man"; "Baby" ;"Girl" ;"Boy" of similar

#### Social Security Number/Quality Code:

- SSN has all numbers and no dashes
- 9 digits when quality code indicates complete
- Less than 9 digits when quality code indicates partial
- All digits not the same; all numbers not sequential(123456789)

#### Date of Birth:

- Earlier than current date
- Earlier than program entry date
- Later than 90 years from present
- Not minor in Adult shelter/Adult in youth shelter

#### Ethnicity/Race:

- Primary and secondary race not the same

#### Gender:

- Men not pregnant
- No male in woman's shelter/woman in men's shelter

#### Veteran Status:

- Client under 18 not veteran
- All veterans in veteran shelter
- Those receiving veteran's pension marked as veteran

#### Disabling Condition:

- Those receiving SSDI for themselves are marked as having a disability
- Those indicating substance abuse, mental health, physical disability, developmental disability, HIV/AIDS marked as having disability

#### Residence prior to program entry

- Self-report not contradicted by other HMIS data

#### Zip Code of Last Permanent Address/Quality Code

- Zip code complete if quality code marked as complete
- Zip code five or nine characters

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- Zip code is valid
- Zip code has only numbers

### Program Entry Date/ Program Exit Date

- All clients have a program entry date
- Program entry date later than birth date
- Program entry date prior to Exit date
- Entry and exit date not the same in residential shelter
- Length of program enrollment outliers are reasonable considering program type

### Household ID

- No single person in family shelter
- No family in individual shelter
- One Head of Household per family

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