



## Data Quality Plan

### 1. Introduction/Purpose

The purpose of this Data Quality Plan is to develop a community-wide understanding and agreement that will facilitate the ability to achieve statistically valid and reliable data for the Greater Virginia Peninsula Homelessness Consortium (GVPHC), Southeastern Virginia Homeless Coalition (SVHC), Central Virginia Continuum of Care (CoC), and the Virginia Beach CoC.

The US Department of Housing and Urban Development (HUD) ties data quality to overall CoC competitiveness for funding, and has developed a Data Quality Framework that is incorporated into the CoC Annual Performance Report (APR), Longitudinal System Analysis (LSA), formerly known as the Annual Homeless Assessment Report (AHAR), and the System Performance Measures (SPMs). This Data Quality Plan references the HUD System Performance Improvement Briefs. This Data Quality Plan is to be implemented by all agencies that participate in the Hampton Roads Homeless Management Information System (HMIS), including Domestic Violence (DV) service providers utilizing a HMIS comparable database, both of which are hereinafter referred to as "HMIS."

#### 1.1 Definition of Data Quality

*Data quality* is a term that refers to the reliability and comprehensiveness of the client-level data that is collected in HMIS. It is measured by evaluating several concepts that are outlined below.

**Completeness:** The degree to which all required data is known and documented. This is evaluated by assessing coverage and utilization.

*Coverage* – The degree to which all homeless assistance providers within a CoC’s geography enter all clients into HMIS. This includes providers funded by the CoC and ESG Program, other federal partner agencies (RHY, HOPWA, PATH, SSVF, etc.), state partner agencies, local government agencies, foundations, and private organizations.

*Utilization* – The degree to which the total number of homeless beds within the HMIS are recorded as occupied divided by the total number of homeless beds within the CoC’s geographic coverage area. This is important because HUD views programs with utilization rates lower than 65% or higher than 105% as a potential indicator of bad data quality.

**Accuracy:** The degree to which data reflects the real-world client or service. Programs should collect accurate data elements based on the requirements applicable to each program’s type and funding source. At a minimum, this includes the HUD Universal Data Elements. Programs funded by one or more of the HMIS federal partner programs are also required to enter the applicable Program Specific Data Elements contained in their assigned assessment. Requirements outlined in the current HMIS Data Standards Manual, and the Continuum of Care (CoC), Emergency Solutions Grants Program (ESG), HOPWA, HUD-VASH, PATH, Runaway & Homeless Youth, and VA Programs HMIS Manuals should be upheld for all HMIS Participating Agencies. The HMIS Data Standards Manual and Program HMIS Manuals for each federal partner can be found by visiting [www.hudexchange.info](http://www.hudexchange.info).

**Timeliness:** The degree to which the data is collected and entered into the HMIS in a timely manner so that it is available when it is needed.

**Consistency:** The degree to which the data is equivalent and consistent in the way it is collected and entered into the HMIS by all HMIS participating agencies.

## 1.2 What is a Data Quality Plan?

A data quality plan is a community-level document that facilitates the ability of a CoC to achieve statistically valid and reliable data. A data quality plan provides standardization and sets expectations across the CoC for all HMIS participating agencies. A data quality plan requires collaboration between the HMIS Lead Agency, the Continuum of Care, and HMIS participating agencies.

## 1.3 What is a Data Quality Monitoring Plan?

A data quality monitoring plan is the practice by which a routine and consistent process is carried out to analyze the validity and reliability of data in the HMIS. A data quality monitoring plan is the primary tool for evaluating data in order to identify areas that may need improvement.

## 1.4 Roles and Responsibilities

Role	Responsibilities
CoC Leadership	<ol style="list-style-type: none"> <li>1. Review the data quality plan</li> <li>2. Review system-level data quality reports</li> <li>3. Work with providers and the HMIS Lead/System Administrator to develop and implement solutions for improving data quality</li> <li>4. Consider data quality in the rating and ranking process for funding decisions</li> </ol>
HMIS Lead/System Administrator	<ol style="list-style-type: none"> <li>1. Work with the HMIS vendor to ensure access to data quality reports</li> <li>2. Understand the data quality elements to be submitted with the SPM and APR</li> <li>3. Systematically monitor the data</li> <li>4. Communicate regularly with the CoC and individual providers to ensure stakeholders are informed and have the resources to address data quality concerns</li> </ol>
Participating Agencies and HMIS End Users	<ol style="list-style-type: none"> <li>1. Set the tone for the agency's commitment to data quality</li> <li>2. Monitor a project's data quality</li> <li>3. Prepare for federal, state, and local report requirements</li> <li>4. Resolve any data quality findings as quickly as possible</li> </ol>

## 2. Data Quality Standards

The data quality standards outlined in this plan are applicable to all HMIS participating agencies and projects, regardless of funding source(s).

<b>Data Quality Standards</b>		
<b>Data Quality Component</b>	<b>Federal Goals/Considerations</b>	<b>Local Goals</b>
<b>Completeness</b>	<ul style="list-style-type: none"> <li>• Does the CoC have the required client-level data?</li> <li>• Are all the required data elements answered for each client?</li> <li>• Are all answers complete?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Error rates &lt;5% based on HUD's data quality framework</b></li> <li>• <b>HMIS Audit Data Quality score of 90% or higher</b></li> </ul>
<i>Coverage</i>	<ul style="list-style-type: none"> <li>• NOFA FY 2017: <b>85% or higher (excluding DV)</b></li> <li>• AHAR: <b>50% of beds community-wide (excluding DV)</b></li> <li>• Are all homeless service providers entering data into HMIS (regardless of funding source)?</li> <li>• Are all programs entering every client served?</li> <li>• Are all programs required to use HMIS entering complete data into HMIS?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>100% of beds community-wide in HMIS or comparable database</b></li> </ul>
<i>Utilization</i>	<ul style="list-style-type: none"> <li>• AHAR: <b>between 65%-105%</b></li> <li>• Are the number of beds recorded in HMIS accurate?</li> <li>• Are providers entering HMIS data for every client served?</li> <li>• Are providers properly exiting clients from HMIS?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Between 65%-105%</b></li> </ul>
<b>Accuracy</b>	<ul style="list-style-type: none"> <li>• Is the data correct? Does it represent the reality of clients and services?</li> <li>• Are providers monitoring to ensure that what is in HMIS is consistent with what is in other paper or electronic files?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Error rates &lt;5% based on HUD's data quality framework</b></li> <li>• <b>HMIS Audit Data Quality score of 90% or higher</b></li> </ul>

	<ul style="list-style-type: none"> <li>Are households properly entered?</li> </ul>	
<b>Timeliness</b>	<ul style="list-style-type: none"> <li>Is data entered in a timely manner?</li> <li>Is the data updated as circumstances change and clients move through the system?</li> </ul>	<ul style="list-style-type: none"> <li><b>7 business days (VB CoC will record project exit data within 3 business days)</b></li> </ul>
<b>Consistency</b>	<ul style="list-style-type: none"> <li>Are the providers in the CoC entering data in the same way?</li> <li>Do end users share the same understanding of what each data element means?</li> <li>Are end users trained in the same way and given access to the same data entry guidance and training materials?</li> </ul>	<ul style="list-style-type: none"> <li><b>HMIS Audit Data Quality score of 90% or higher</b></li> </ul>

**Completeness:**

*Coverage* – Our local goal is to have 100% of community-wide beds that are dedicated to serve the homeless population accounted for in HMIS. The Continuum of Care funding competition awards full points to CoCs that record 85% or higher bed coverage rates. The LSA (formerly known as the AHAR) requires a coverage rate of 50% or higher, excluding domestic violence provider beds, in order for the data to be useable.

*Utilization* – Following guidance related to the AHAR, our local goal is for utilization to be within 65 and 105 percent. HUD guidance explains that “typically, programs that report that less than 65 percent of their beds are occupied at any point in time are failing to enter all clients into their HMIS, while programs that report that over 105 percent of their beds are utilized are failing to exit clients from the HMIS” (<https://www.hudexchange.info/resources/documents/Introductory-Guide-to-the-2017-AHAR.pdf>, page 8).

**Accuracy:** Error rates of 5% or less for any given years’ worth of data based on HUD’s data quality framework as outlined below. Accuracy is also assessed through the annual HMIS Audit that is conducted by the HMIS Lead Agency; HMIS participating agencies should receive no lower than a 90% on the Data Quality portion of the HMIS Audit.

<b>Q2. Personally Identifiable Information (PII)</b>				
<b>Data Element</b>	<b>Client Doesn't Know / Refused</b>	<b>Information Missing</b>	<b>Data Issues</b>	<b>% of Error Rate</b>
Name (3.1)	37	0	1	1.21%
Social Security Number (3.2)	215	2	330	17.45%
Date of Birth (3.3)	5	2	20	0.86%
Race (3.4)	38	3		1.31%
Ethnicity (3.5)	4	7		0.35%
Gender (3.6)	2	3		0.16%
Overall Score				19.01%

### Q3. Universal Data Elements

Data Element	Error Count	% of Error Rate
Veteran Status (3.7)	8	0.33%
Project Entry Date (3.10)	13	0.41%
Relationship to Head of Household (3.15)	440	14.04%
Client Location (3.16)	33	1.52%
Disabling Condition (3.8)	101	3.22%
Destination (3.12)	18	31.03%

### Q4. Income and Housing Data Quality

Data Element	Error Count	% of Error Rate
Income and Sources (4.2) at Entry	338	13.48%
Income and Sources (4.2) at Annual Assessment	2,399	99.75%
Income and Sources (4.2) at Exit	4	9.09%

### Q5. Chronic Homelessness

Entering Into Project Type	Count of Total Records	Missing Time in Institution (3.917.2)	Missing Time in Housing (3.917.2)	Approx Date (3.917.3) DKR/Missing	Num Times (3.917.4) DKR/Missing	Num Months (3.917.5) DKR/Missing	% of Records Unable to Calculate
ES, SH, Street Outreach	51			12	0	4	31.37%
TH	15	0	0	0	0	4	26.67%
PH (all)	231	0	0	3	4	72	33.33%
Total	297						32.66%

**Timeliness:** All client data shall be entered consistently and accurately into the ServicePoint database, and agencies will strive for real-time, or close to real-time data entry. As a set standard, data should be entered into the system within 7 business days. The Virginia Beach CoC will record program exit data within 3 business days. If there are additional timeliness standards set forth in other CoC-related policies or procedures that exceed this expectation, those requirements take precedence.

**Consistency:** 100% of HMIS participating agencies, including DV providers utilizing a comparable system, should collect and enter data in accordance with the HMIS Data Standards as they are set forth in the HMIS Data Standards Manual, and the Continuum of Care (CoC), Emergency Solutions Grants Program (ESG), HOPWA, HUD-VASH, PATH, Runaway & Homeless Youth, and VA Programs HMIS Manuals.

### 3. Monitoring and Reporting

#### Completeness:

*Coverage* – The annual Housing Inventory Count (HIC) is used to assess which homeless assistance providers enter homeless clients into HMIS. In addition, federal, state, and local funding applications ask about HMIS participation. Grant requirements specify that agencies receiving certain funds must certify HMIS participation.

*Utilization* – The AHAR, PIT, and HIC assess utilization rates. CoC-funded agencies are also scored on utilization as a part of the annual CoC scorecard process.

**Accuracy, Timeliness, and Consistency:** Each HMIS Provider will run a CoC APR for their project(s); the first two weeks of the month should be used to run an initial report, and address data quality issues flagged. By the 25<sup>th</sup> of each month, a final APR should be saved as a PDF and submitted to the System Administrator for review. Each data quality section should have an error rate less than 5%. If projects report error rates that are 5% or higher in any section for 3 or more consecutive months, technical assistance and/or training from the HMIS lead agency will be required.

Quarterly system-wide data quality reports (ART Report 0640) will be run by the System Administrator and presented at HMIS committee meetings.

In addition, The Planning Council will conduct annual audits to compare client files with data entered into the HMIS.

#### HMIS Audits:

HMIS audits will monitor two scopes of HMIS compliance; data quality and technical/security standards. Monitoring over these two components will be conducted on an annual basis by the HMIS Lead Agency.

Data quality is monitored by randomly selecting client files of program participants that were/are active during the current fiscal year. These files will be compared to the data entered into the HMIS. All of the HUD Universal Data Elements and applicable Program Specific Data Elements will be evaluated during this monitoring. Agencies that choose to collect elements beyond what is required by their program's funding source will be held accountable and evaluated on those additional elements.

In addition, an agency-wide APR will be produced to verify that there were no Unaccompanied Youth in programs that do not serve that population type (a common data quality issue) and to ensure that error rates are less than 5% in sections 6a-6d (in alignment with HUD's Data Quality Framework).

Technical/Security standards employed by each agency are to be in compliance with the ShelterLink HMIS Security Policy and the [HUD HMIS Data and Technical Standards Final Notice of 2004](#). The HMIS Lead Agency will monitor each agency to ensure compliance of security requirements and system standards. This includes an evaluation of computer password protection, anti-virus, firewall, system updates, wireless connectivity protection, and HMIS password protection.

Scoring of the HMIS Audit is determined on the following basis:

- **Data Quality score** (completeness, accuracy, and consistency)
- **Technical/Security Standards score**

It is expected that each agency obtain a minimum of 90% on the Data Quality section of the audit. Agencies that do not pass the Data Quality portion of the audit will be re-evaluated no later than 3 months, but as early as it is individually requested, following the date of the original audit.

Agencies are required to obtain a score of 100% on the Technical/Security Standards portion of the audit. Should the agency not pass the Technical/Security Standards requirements, all of said agency's HMIS licenses will be immediately, temporarily deactivated until the standards have been met and the agency is deemed to be fully compliant. Licenses will be reactivated as soon as the agency has made the necessary changes to fulfill the 100% score.

A copy of the most current HMIS Audit evaluation form may be requested at any time. Agencies should keep in mind that HMIS is a component of the program performance measures that are used by the CoC for monitoring and evaluating purposes. HMIS Audit scores are shared with the CoC Lead and the PMC.

#### **4. Compliance**

It is the responsibility of each HMIS Participating Agency and all HMIS End Users to ensure compliance with all data quality requirements and standards. Agencies will be notified if data quality requirements and standards are not being met. Continued failure to comply will be presented to CoC Leadership.