



**Seattle/King County Continuum of Care  
Homeless Management Information System  
Continuous Data Quality Improvement Process**



## Table of Contents

<b>Table of Contents</b>	<b>2</b>
<b>Data Quality Defined</b>	<b>3</b>
<b>Data Quality Standards</b>	<b>3</b>
Data Completeness	3
Data Timeliness	4
Entry/Exit Data	4
Service Data	5
Data Integration	6
<b>Continuous Data Quality Improvement Process</b>	<b>6</b>
Roles & Responsibilities	6
Data Quality Review	6
Minimizing Data Quality Issues	7
Support for Agencies and HMIS Users	7
Recommended Reports for Data Review	7
Technical Assistance	8
Key Reports and Processes that Rely on Data Quality	8
Annual Performance Review (APR) - Program	8
HMIS Annual Performance Review (APR)	8
King County Funding and Performance Measurement Data	8
Annual CoC Competition Application to HUD	8
Seattle/King County Outcomes Report	9
<b>Data Quality Activities for Scheduled King County Data Reporting</b>	<b>9</b>
Point In Time Count (PIT)	10
Housing Inventory Count (HIC)	10
System Performance Measures (SysPM)	11
Longitudinal Systems Analysis Report (Formerly AHAR)	12
Data Quality & Reporting Timeline	14

# Data Quality Defined

Data quality is a term that refers to the reliability and validity of client-level data in HMIS. It is measured by the extent to which data in the system reflects actual information in the real world. With good data quality, a Continuum of Care can accurately tell the story of the individuals and families it serves.

## Data Quality Standards

Data quality can be measured by data completeness, the extent to which accurate data are entered for all data elements; and data timeliness, the amount of time that passes between data collection and entry into HMIS.

### Data Completeness

HUD HMIS data standards expect no null (missing) data for required data elements, and “Don’t Know” or “Refused” responses should not exceed percentages listed below.

NOTE: Programs serving those experiencing domestic violence will have much higher data incompleteness rates for name, social security number and date of birth, and programs serving those who may not be documented residents of this country will likely have higher rates of data incompleteness for social security numbers. These programs should focus on other areas of data quality. For large-scale night-by-night shelters, lower targets for data completeness will be considered based on past performance.

A missing rate of below 5 percent missing represents an ideal state and the CoC should work toward this level of data completeness for all programs.

<b>Data Element</b>	<b>Applies to:</b>	<b>Don't Know/ Refused Should Not Exceed</b>
First Name*	All Clients	5%
Last Name*	All Clients	5%
SSN*	All Clients	5%
Date of Birth*	All Clients	5%
Race	All Clients	5%
Ethnicity	All Clients	5%
Gender	All Clients	5%

<b>Data Element</b>	<b>Applies to:</b>	<b>Don't Know/ Refused Should Not Exceed</b>
Veteran Status	Adults Only	5%
Disabling Condition	All Clients	5%
Living Situation	Adults & HoH	5%
Zip Code of Last Permanent Address	All Clients	5%
Income and Sources (at entry)	Adults & HoH	5%
Income and Sources (at annual update)	Adults & HoH enrolled in program 365 days or more	5%
Income and Sources (at exit)	Leavers - Adults & HoH	5%
Non-Cash Benefits (at entry)	Adults & HoH	5%
Non-Cash Benefits (at annual update)	Adults & HoH enrolled in program 365 days or more	5%
Non-Cash Benefits (at exit)	Leavers - Adults & HoH	5%
Physical Disability	All Clients	5%
Developmental Disability	All Clients	5%
Chronic Health Condition	All Clients	5%
Mental Health	All Clients	5%
Substance Abuse	All Clients	5%
Domestic Violence	Adults & HoH	5%
Destination	Leavers - Adults & HoH	5%
Move-in Date	Adults & HoH enrolled in PH with move-in date	5%

\*For anonymized clients the following data elements will be exempted from the 95% completeness standard: (1) Social Security Number; (2) first name; (3) last name; (4) date of birth.

## Data Timeliness

In order to ensure that system-wide data is as accurate as possible, all Universal Data Elements and Program-specific Data Elements should be entered according to the following timeliness standards.

## Entry/Exit Data

Program Type	Data Timeliness Standard: At Entry	Data Timeliness Standard: At Exit
Emergency Shelter	Within two business days of intake	<b>Night by Night:</b> at or before 30 calendar days after last service date. Exit date backdated to last service <b>Entry/Exit:</b> Within two business days of exit
Transitional Housing Permanent Supportive Housing Homelessness Prevention Services Only	Within two business days of intake	Within two business days of exit
Outreach	Within two business days of intake	At or before 30 calendar days after last service date. Exit date backdated to last service
Day Centers	Within two business days of intake	At or before 90 calendar days after last service date. Exit date backdated to last service

## Service Data

Some programs choose to enter services into HMIS and others are required to do so as part of funding contracts or HMIS specifications. Programs required to enter services should enter them into HMIS within one (1) workday.

Program Type	Service Requirement
Night-by-night Emergency Shelters	Services to track bed nights (often called <i>[Program Name] ES Housing</i> )
Street Outreach	Services to track outreach contacts (called Outreach Contacts), plus two specific services (Referral to Shelter, Referral to Authorized Encampment) for City of Seattle-funded programs
Day Shelters	HMIS automatically exits clients from day shelters once they haven't received services in 90 days, so these programs must enter at least one service for clients every day they are served.
RHY-funded Programs	Many additional data elements and services (see <a href="#">RHY HMIS Manual</a> )
PATH-funded Programs	Several additional data elements and services (see <a href="#">PATH HMIS Manual</a> )

## Data Integration

Agencies participating in data integration are expected to enter data into their own data systems in a manner that complies with the timelines and completeness expectations stated above. Agencies are required to upload all data elements into HMIS at least weekly.

## Continuous Data Quality Improvement Process

A continuous data quality improvement process facilitates the ability of the CoC to achieve statistically valid and reliable data. It sets expectations for both the community and end users for capturing reliable and valid data on persons accessing agency programs and services.

## Roles & Responsibilities

Bitfocus, as the HMIS System Administrator, will provide the following services to assist agencies in correctly entering data into HMIS, and in addressing data quality issues:

- Work with Agency management to identify at least one agency employee as an HMIS agency lead.
- Provide end user trainings and workflow documents.
- Produce data quality reports and information on how to correct any identified data quality issues.
- Work to identify and, in conjunction with agencies, resolve data quality issues that will impact local or federal reporting.
- Provide technical assistance to agencies requesting assistance in identifying what steps need to be taken in order to correct data quality issues.
- Provide other services as contracted with King County and/or agency.

Working with their agency lead, agencies will take primary responsibility for entering, verifying, and correcting data entry:

- Agency staff will measure completeness by running recommended data quality reports, then distribute those reports to staff tasked with improving data quality and completeness.
- It is the responsibility of Agency management to ensure staff tasked with correcting data quality issues do so in a timely manner.

## Data Quality Review

At the CoC level, data are reviewed regularly and issues are identified for follow up.

### **Monthly**

Data quality dashboards, listing records with missing data or other data quality issues are provided in the Data Analysis Tab or sent in scheduled emails monthly to assist agencies in identifying data errors. Staff reports are emailed monthly to all agency leads to assist in monitoring agency staff usage of the system.

## Quarterly

On a quarterly basis, Bitfocus staff review staff usage and data quality statistics and inform agencies of compliance issues.

## Reporting Preparation

Approximately two months before any significant local or federal reporting deadlines, data impacting the reports are thoroughly reviewed by Bitfocus HMIS System Administration staff, with agency follow up and technical assistance as needed.

At an agency level, data quality reports should be run at least once per month throughout the year. In the weeks prior to submitting a report (e.g. APR), data quality reports may need to be run on a daily basis to ensure that any issues identified by the agency or by HMIS system administration staff are being addressed.

Agencies that review data regularly are likely to have higher levels of data quality in general, and are less likely to find themselves asked to correct significant data issues under pressure of a reporting deadline.

## Minimizing Data Quality Issues

How to minimize data quality issues:

- Enter client data as soon as possible. The more time that passes between collecting data and entering the data into HMIS, the greater the odds that there will be data quality issues (see section above for data timeliness standards).
- Whenever possible, consider entering data during client visits so that clients may help identify potential inaccuracies.
- Review Data Quality at least once a month and work to address any issues as soon as possible.
- Problem solve with program and HMIS staff around any ongoing issues.

## Support for Agencies and HMIS Users

In order to ensure that agencies and HMIS users have the tools necessary to address data quality issues as efficiently as possible, King County and Bitfocus HMIS System Administration staff provide a range of support resources.

## Recommended Reports for Data Review

Clarity Human Services includes an extensive library of reports. The following reports are recommended as a starting place for reviewing data and identifying data quality issues:

- **[KCWA-101] Seattle-KC Program Outcomes Report** (Program Based Reports) - This report was developed to track local, community-defined outcomes and can be used as an indicator of potential issues with program or agency data.
- **[GNRL-106] Program Roster** (Program Based Reports) - This report allows users to identify all individuals and families currently enrolled in a program, and to confirm correct household configuration.

- **[GNRL-220] Program Details Report** (Program Based Reports) - This report allows user to efficiently review all data collected at enrollment, annual update, and/or exit for clients enrolled in a program, and is particularly useful for identifying missing or unexpected data.
- **[GNRL-400] Program Linked Service Review** (Program Based Reports)- This report can be used to ensure that services are being provided as expected in programs required to provide client services.
- **[HUDX-225] HMIS Data Quality Report** (HUD Reports) - This report is tied directly to HUD data quality standards and provides a concise assessment of data quality issues according to those standards.

## Technical Assistance

When agencies either need assistance identifying data quality issues, or have identified issues and are unsure how to proceed, there are several avenues of technical assistance available. The King County HMIS Helpdesk can provide initial troubleshooting assistance, and will escalate issues to the King County HMIS System Administration team as needed. The system administration team may also reach out to agencies directly, or may reach out at the request of funders or the agency itself. Additionally, the system administration team frequently produces guides, trainings, dashboards and other resources to help agencies proactively identify and resolve data quality issues on their own.

## Key Reports and Processes that Rely on Data Quality

A number of reports and processes rely on data quality for individual program reporting to funders as well as CoC-level information for system improvement. Data quality issues such as high rates of missing client data, missing or inaccurate enrollment, annual assessment and exit data can impact program funding. Data quality issues would also prevent King County from producing accurate systemwide reports for funders, elected officials and other constituents. The Continuous Data Quality Improvement Process described above supports accurate HMIS information for these processes, including but not limited to:

### Annual Performance Review (APR) - Program

Recipients of HUD funding through the homeless grant competition are required to submit an Annual Performance Report (APR) electronically to HUD via Sage (formerly e-snaps) every operating year. The APR is required of projects funded through the HUD CoC grant program.

### HMIS Annual Performance Review (APR)

The HMIS is also a recipient of HUD funding through the homeless grant competition, and King County is required to submit a special HMIS Annual Performance Report (APR) electronically to HUD, via Sage every operating year. The HMIS APR includes data from the HMIS as well as narrative questions.

## King County Funding and Performance Measurement Data

Local funders pull a complete set of HMIS data on a monthly basis to meet a variety of data needs, including generating a rank order for competitive funding rounds, populating the All Home Systems Performance Dashboard, and other performance measurement initiatives.

## Annual CoC Competition Application to HUD

The Seattle/King County Continuum of Care competes in an annual national competition for HUD Continuum of Care Program funds. System-wide data is required as part of that application, as is aggregate data for all projects receiving Continuum of Care funding.

## Seattle/King County Outcomes Report

Many local funding programs require regular reports using the Seattle/King County Outcomes Report. This report contains a variety of outcome data such as bed utilization rates, entries from homelessness, and exits to permanent housing. It includes program type-specific measures for Permanent Housing, Rapid Rehousing, Day Shelter, Outreach, Homelessness Prevention as well as data completeness measures.

In preparation for each of these processes, agencies and Bitfocus will employ the continuous data quality improvement practices described above. Specifically:

- Throughout the year:
  - Bitfocus: Conduct data quality reviews based on feedback from King County staff and from agencies, following up with agencies as needed.
  - Bitfocus: Provide Agencies regularly with dashboards and other information about specific data quality issues that need to be addressed.
  - Agencies: Follow up on data issues as identified by Bitfocus and/or King County staff.
  
- As a report deadline approaches:
  - Agencies: begin data quality review well in advance, focused on ensuring the correct number of clients are enrolled and there are no null values. Make corrections as needed. For example, ensure that no required information, such as veteran status, is missing.
  - Bitfocus: provide assistance to agencies upon request.

# Data Quality Activities for Scheduled King County Data Reporting

The following schedule details timelines for all regularly scheduled reporting to HUD. These timelines help provide context and expectations for additional data quality activities throughout the year.

<i>Unsheltered count</i>			<i>PIT/HIC SysPM</i>				<i>LSA</i>				
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bitfocus: Conduct data quality reviews as needed											
Agencies: Follow up on data issues as needed											
Qtrly Quality Review			Qtrly Quality Review			Qtrly Quality Review			Qtrly Quality Review		
-----Monthly Data Pulls-----											

## Point In Time Count (PIT)

The Point-in-Time (PIT) count is a count of sheltered and unsheltered homeless persons on a single night in January. HUD requires that the sheltered portion be generated from HMIS data. The sheltered portion consists of clients sheltered in emergency shelter, transitional housing, and Safe Havens on this single night.

**Approximate PIT date: January 25**

**Approximate due date: April 30**

Preparation and submission schedule:

- Three (3) Months before data is due to HUD:
  - Bitfocus: run report drafts, identify issues around utilization and/or missing data, notify agencies as needed.
  - Agencies: review data with relevant program managers and/or staff to verify accuracy of data compared other records.
- Two (2) Months before data is due to HUD:
  - Bitfocus: submit data to ASR
- One (1) Month before data is due to HUD:
  - Bitfocus: Address validation issues as needed.
- Two (2) weeks before data is due to HUD:
  - Bitfocus: Final data review with King County staff as needed.

## Housing Inventory Count (HIC)

The Housing Inventory Count (HIC) is a comprehensive inventory for all housing that is dedicated to

servicing homeless and formerly homeless individuals and families within a CoC. All beds/units/bed vouchers should be counted.

**Approximate due date: April 30**

Preparation and submission schedule:

- Four (4) Months before data is due to HUD:
  - Bitfocus: begin program setup review, focusing on inventory and project changes throughout the year. Make corrections as needed. Work with King County Staff to update non-participating permanent housing project data. Update housing inventory.
  - Agencies: work with Bitfocus staff to address issues.
- One (1) month before data is due to HUD:
  - Bitfocus: enter data into HDX, address validation issues as needed.
- Two (2) weeks before data is due to HUD:
  - Bitfocus: Final data review with King County staff as needed.

<i>Unsheltered count</i>			<i>PIT/HIC SysPM</i>			<i>APR</i>			<i>LSA</i>		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bitfocus: utilization & inventory review for PIT/HIC											
Agencies: HIC inventory validation											
	Agencies: PIT data verification										
	Bitfocus: review w/ KC & submit to ASR										
			Bitfocus: assist with HDX entry								
Qtrly Quality Review			Qtrly Quality Review			Qtrly Quality Review			Qtrly Quality Review		
-----Monthly Data Pulls-----											

# System Performance Measures (SysPM)

HUD System Performance Measures are a tool used to measure the local homeless response as a coordinated system rather than individual programs and funding sources. HUD uses the system-level performance information as a competitive element in its annual CoC Program Competition and to gauge the state of the homeless response system nationally.

**Approximate due date: May 31st**

Preparation and submission schedule:

- Three (3) Months before data is due to HUD:
  - Bitfocus: begin system-wide data quality review. Notify agencies of issues as needed.
  - Agencies: begin data quality review, focused on ensuring the correct number of clients are enrolled and there are no null values. For example, ensure that no required information, such as veteran status, is missing. Make corrections as needed.
- Two (2) Months before data is due to HUD:
  - Bitfocus: run report drafts, identify issues and/or discrepancies from previous year, notify agencies as needed.
  - Agencies: review data with relevant program managers and/or staff to verify accuracy of data compared other records. For example, ensure that veteran status data entered into Clarity is correct.
- Two (2) weeks before data is due to HUD:
  - Bitfocus: enter data into HDX, address validation issues as needed.
  - Bitfocus: Final data review with King County staff as needed.

<i>Unsheltered count</i>		<i>PIT/HIC SysPM</i>			<i>APR</i>				<i>LSA</i>		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Bitfocus: SysPM data quality review									
		Agencies: review/correct for SysPM									
				Bitfocus: enter & validate data in HDX (KC review)							
Qtrly Quality Review			Qtrly Quality Review			Qtrly Quality Review			Qtrly Quality Review		
-----Monthly Data Pulls-----											

## Longitudinal Systems Analysis Report (Formerly AHAR)

The AHAR is a HUD report to the U.S. Congress that provides nationwide estimates of homelessness, including information about the demographic characteristics of homeless persons, service use patterns, and the capacity to house homeless persons. The LSA data provided by CoCs contains community-level information on people and households served by continuum projects over the course of one year. The scope of this annual report is expanding significantly beginning with fiscal year 2018, and CoCs are now expected to submit much more granular data that will be used to inform the written AHAR to Congress. The LSA data will be submitted in the form of csv files uploaded to HUD's Homeless Data Exchange. A variety of reports may then be generated from the HDX platform to report to HUD and Congress as well as local uses.

**Approximate draft due date: Oct 31**

**Approximate final due date: Dec 10**

Preparation and submission schedule:

- Quarterly throughout the year:
  - Bitfocus: Conduct data quality reviews one month after LSA PIT dates and notify agencies of any issues.
  - PIT dates:
    - Oct 31
    - Jan 31
    - Apr 30
    - Jul 31
- Two (2) Months before draft submission due date:
  - Bitfocus: begin program setup review, focusing on inventory and project changes throughout the year. Make corrections as needed, update housing inventory.
  - Agencies: begin data quality review, focused on ensuring the correct number of clients are enrolled and there are no null values. For example, ensure that no required information, such as veteran status, is missing. Make corrections as needed.
- One (1) Month before draft submission due date:
  - Bitfocus: run report drafts, identify issues and/or discrepancies from previous year, notify agencies as needed.
  - Agencies: review data with relevant program managers and/or staff to verify accuracy of data compared other records. For example, ensure that veteran status data entered into Clarity is correct.
- Two (2) weeks before draft submission due date:
  - Bitfocus: enter data into HDX, address validation issues as needed.
  - Bitfocus: Final data review with King County staff as needed.

**Unsheltered count**

**PIT/HIC SysPM**

**APR**

**LSA**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
								Bitfocus: review programs and inventory; run and upload draft LSA to HDX 2.0			
								Agencies: review/correct for LSA			
									Bitfocus: run/upload draft LSA; KC review		
									Bitfocus: enter & validate in HDX 2.0; KC Submit	HUD review & validate	
<b>Qtrly Quality Review</b>			<b>Qtrly Quality Review</b>			<b>Qtrly Quality Review</b>			<b>Qtrly Quality Review</b>		

-----Monthly Data Pulls-----

# Data Quality & Reporting Timeline

<i>Unsheltered count</i>			<i>PIT/HIC SysPM</i>		<i>APR</i>				<i>LSA</i>			
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Bitfocus: utilization & inventory review for PIT/HIC												
Agencies: HIC inventory validation												
	Agencies: PIT data verification											
	Bitfocus: review w/ KC & submit to ASR											
			Bitfocus: assist with HDX entry									
		Bitfocus: SysPM data quality review										
		Agencies: review/correct for SysPM										
				Bitfocus: enter & validate data in HDX (KC review)								
							Bitfocus: review programs and inventory; run and upload draft LSA to HDX 2.0					
							Agencies: review/correct for LSA					
							Bitfocus: run/upload draft LSA; KC review					
							Bitfocus: upload & validate in HDX 2.0; KC Submit		HUD review & validate			
Qtrly Quality Review			Qtrly Quality Review			Qtrly Quality Review			Qtrly Quality Review			
-----Monthly Data Pulls-----												