



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



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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.

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

Data Element	Applies to:	Don't Know/ Refused Should Not Exceed
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%

Data Element	Applies to:	Don't Know/ Refused Should Not Exceed
Unit Assignment	Projects tracking inventory in live system at the HoH level	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. However, all “canned” (pre-programmed) reports in Clarity Human Services software will still show those elements as “missing” for anonymized clients.

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	Night by Night: at or before 30 calendar days after last service date. Exit date backdated to last service Entry/Exit: 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 Shelter	Within two business days of intake	At or before 90 calendar days after last service date. Exit date backdated to last service

Entry/Exit Bed/Unit/Slot Assignment

Program Type	Data timeliness Standard at Entry	Data Timeliness at Exit
All HMIS participating housing, Entry/Exit shelter and transitional programs, unless otherwise exception has been granted by the CoC lead.	Within two business days of intake the bed/unit/slot assignment needs to be entered	Within two business days of exit or upon the entry of the next client occupying the unit.

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 (2) workdays.

Program Type	Service Requirement
Night-by-night Emergency Shelters	Services to track bed nights (often called <i>[Program Name] ES Housing</i>), and others as required by local funders such as the system-wide diversion related services (prefixed with [DIV] naming convention). HMIS automatically exits clients from Night-by-night Emergency Shelters after no activity for 30 days.
Emergency Housing Voucher Programs	Case Management Service entered every 90 days from 1 year of move in.
Street Outreach	Services required by local funders, including two specific services (Referral to Shelter, Referral to Authorized Encampment) for City of Seattle-funded programs and such as the system-wide diversion related services (prefixed with [DIV] naming convention).
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. Day Shelters are set up with daily "Attendance/Contact" type service for this purpose. Services may also include the system-wide diversion related services (prefixed with [DIV] naming convention).
RHY-funded Programs	Many additional data elements and services (see RHY HMIS Manual)
PATH-funded Programs	Several additional data elements and services (see PATH HMIS Manual)

Current Living Situation Assessments

Current Living Situation assessments are used to document housing status during each client interaction, enrollment, Coordinated Entry Assessment or update to Coordinated Entry Assessment for clients enrolled in Outreach, Night-by-Night Emergency Shelter, YHDP Coordinated Entry and Services Only programs. This requirement started on October 1, 2019.

Program Type	Service Requirement
Night-by-night Emergency Shelters	A Current Living Situation assessment documents a client interaction when it is designed to engage the client, such as a conversation between staff and the client about the client's well-being or needs, an office visit to discuss their housing plan, or a referral to another community service.
Street Outreach	The Current Living Situation Assessment is used to document each outreach contact.

Annual Assessments

All HMIS enrollments that are active/open require an annual assessment within 30 days of the project start anniversary date each year (a 60-day window).

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. Coordinated Entry for All (CEA) data entry happens directly in HMIS. For programs with inventory, bed/unit/slot assignment or changes will happen directly in HMIS. Client HMIS ROI consent forms must be directly uploaded unless verbal consent was given.

HMIS Inventory Management

HUD requires that every CoC track its bed inventory in the HMIS to be in federal compliance.

To account for the complexities of this system, inventory workflow will be entered using one of two HUD compliant systems:

1. Traditional Inventory System: The traditional system tracks bed and units but are not connected to program enrollments. This system is used for housing, shelter and transitional programs that provide specialized care in which there is not a designated HUD HMIS program type that meets their particular service delivery model, (i.e. Diversion programs for example). Night by Night shelters will also use the Traditional Inventory System, which already connects bed nights to inventory through a program service.

2. **Live Inventory System:** This system is the main system used in King County and connects beds/units/slots of the inventory to the Head of Household enrollments. Agencies will manage their bed/unit/slots, designating them active, inactive, offline as appropriate. Heads of Households will be connected to a bed/unit/slot for the program they currently reside in. Unless otherwise specified above, all programs with inventory requirements will be on the Live Inventory System unless approved by the CoC HMIS lead entity agency.

Traditional Inventory System Requirements: Agency leads will notify HMIS System Administrators when there is a change in bed and units where the change results in a permanent change. (i.e. their is a room that is being turned into an office, and no longer is available for a client to reside in).

Live Inventory Requirements: All programs that are expected to participate in the Live Inventory will follow the below guidance:

1. **Beds/Units/Slots Active, Inactive, and Offline:** Agencies will update inventory of their beds/units/slots within the HMIS, clearly indicating which units are presently active, inactive or offline. Programs have an approved grace period from when a client exits a program and when the unit regains active status. After any approved grace period, the expectation is that within 2 business days the beds/units/slots will be reviewed and updated. This ensures up-to-date and precise information regarding available units and beds.
2. **Add/Removing Building and Beds/Units/Slots:** Agencies will inform and request new buildings and units/beds to be configured or removed by the HMIS lead entity as needed and within 2 days of from when the determination was made that the change is needed.

Coordinated Entry and Live Inventory Requirements: Programs that have bed/units/slots that participate in the HMIS, the following requirements apply.

1. **CE Bed Configuration:** Providers with contractually obligated CE beds/units/slots shall specify the building and/or the beds/units/slots that are CE participating. This ensures beds are properly designated in the system for coordinated entry.
2. **Referral and Enrollment Linkage:** Referrals will be linked to head of household enrollments to properly assign clients to beds/units/slots.
3. **Link Enrollments to Beds/Unit/Slots:** Agencies will link enrollment head of household to specific units/beds at the time of enrollment within the HMIS. DIT agencies will have to link enrollments to units after each data transfer and will exit clients from units from each exit import.
4. **Referral and Enrollment Linkage:** Referrals will be linked to head of household enrollments to properly assign clients to beds/units/slots.

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 the 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 [2019]** (Agency Specific 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 [2022]** (Program Based Reports) - This report allows users 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 [FY 2022]** (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.
- **[GNRL-212] Profile Details Report** (Profile Screen Reports) - This report allows users to review data quality of all profile information. Can be filtered to view specific program enrollments.

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 KCRHA HMIS Helpdesk can provide initial troubleshooting assistance and will escalate issues to the KCRHA 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 KCRHA 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.

ESG CAPER

Recipients of HUD funding through the Emergency Solutions Grants program are required to submit an ESG CAPER electronically to HUD via Sage (formerly e-snaps) every operating year. ESG funds are distributed through State and Local Government agencies which are responsible for submitting the CAPER, based on HMIS data for the funded projects.

Coordinated Entry APR

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

HMIS 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 KCRHA 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.

- Bitfocus: provide trainings on data quality topics.
- Agencies: follow up on data issues as identified by Bitfocus and/or King County staff.
- Agencies: ensure staff understand issues related to data quality through ongoing training and support.
- 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 KCRHA System-Level Data Reporting

Four additional reports are required by HUD annually using data for the entire system of HUD supported services in King County. 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/SysPM</i>			<i>PIT/HIC</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 21

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 to other records.
- Two (2) Months before data is due to HUD:
 - Bitfocus: submit data to PIT vendor
- 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.

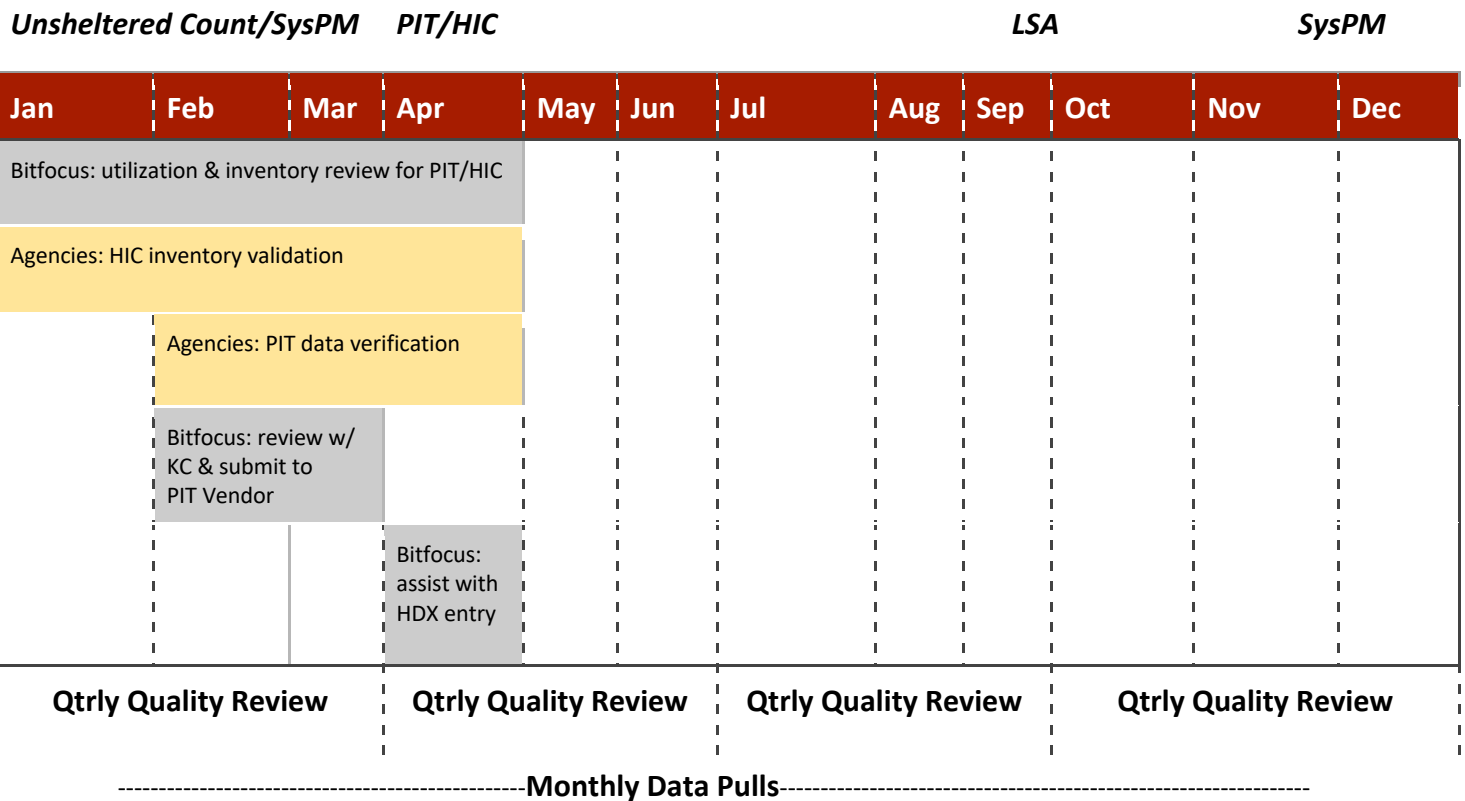
Housing Inventory Count (HIC)

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



Longitudinal Systems Analysis Report (LSA)

A major purpose of the LSA is to produce the Annual Homeless Assessment Report (AHAR), 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 expanded significantly beginning with fiscal year 2018, and CoCs are now expected to submit much more granular data that is used to inform the written AHAR to Congress. The LSA data is submitted in the form of CSV files uploaded to HUD's Homeless Data Exchange.

STELLA

HUD has now made available a strategy and analysis tool called *Stella* that helps CoCs understand how their system is performing and model an optimized system that fully addresses homelessness in their area. This tool can be useful in evaluation and planning our homeless assistance system only to the extent that LSA data is complete and accurate.

Approximate draft due date: October 30

Approximate final due date: December 31

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: upload data into HDX, address validation issues as needed
 - 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 to other records. For example, ensure that veteran status data entered into Clarity is correct.
- Two (2) weeks before draft submission due date:

- Bitfocus: upload data into HDX, address validation issues as needed.
- Bitfocus: Final data review with King County staff as needed.

Unsheltered Count/SysPM

LSA

SysPM

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/HUD Data Cleaning process	
											Bitfocus/KC/ HUD Final Confirmation
Qtrly Quality Review			Qtrly Quality Review			Qtrly Quality Review			Qtrly Quality Review		

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

Data Quality & Reporting Timeline

Unsheltered
Count/SysPM

PIT/HIC

LSA

SysPM

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 PIT Vendor										
			Bitfocus: assist with HDX entry								
Bitfocus: SysPM data quality review										Bitfocus: SysPM data quality review	
Agencies: review/correct for SysPM										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-----