



HMIS Lead Standards

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Introduction

The U.S. Department of Housing and Urban Development (HUD) requires Continuums of Care (CoCs) to designate an eligible applicant to manage the CoC's Homeless Management Information System (HMIS), known as the "HMIS Lead." If the CoC has an HMIS grant, only the HMIS Lead can apply for the grant. The requirement was established in the CoC Program interim rule [24 CFR 578.7(b)(2)] and Emergency Solutions Grant (ESG) Program interim rule [24 CFR 576.107(a)(1)(x)]. Details of the requirement, as well as additional policy considerations, are provided there and in several HUD and technical assistance documents:

- [CoC Program Competition](#)
- [HMIS Lead Series Products](#)
- [HUD Guidance on HMIS Governance Requirements \(2013\)](#)
- [The HMIS Governance Models Handout \(2010\)](#)
- [HMIS Data and Technical Standards](#)
- [HMIS APR and CAPER Programming Specifications](#)
- [Homelessness Data Exchange Resources \(CSV, XML, Logic Model\)](#)
- Program Specific HMIS Data Manuals ([CoC](#), [ESG](#), [VA](#), [PATH](#), [HOPWA](#), [RHY](#))
- [HMIS Comparable Database Manual](#)
- [Data Quality Management Program](#)
- [Coordinated Entry Core Elements](#)
- [Coordinated Entry Management and Data Guide](#)

The CoC is required to:

1. designate an HMIS software
2. oversee and approve the development and implementation of HMIS Policies and Procedures, a Data Quality Plan, and a Security and Privacy Plan
3. ensure compliance to those documents through monitoring.

As the designated HMIS eligible applicant, the HMIS Lead assumes responsibility for HMIS operation on behalf of the CoC. Therefore, the CoC may delegate some of its responsibilities to the HMIS Lead. For instance, the CoC is required to ensure that the HMIS software adheres to regulations and guidance related to the collection, management, and reporting of data to meet the requirements set forth by HUD and its federal partners. The CoC may delegate the evaluation of software compliance and the management of policies, procedures, and monitoring for HMIS compliance to the HMIS Lead. There are many types of HMIS

implementations (single CoC implementation, multi-CoC implementation, partially shared governance, fully shared governance, etc.), and these standards take that into account, as each CoC's designated HMIS is ultimately the responsibility of the CoC, even when the HMIS is shared with other CoCs.

Using These Standards

The HMIS Lead is required to perform certain duties related to the management and operation of the CoC's designated HMIS software, as assigned in the CoC Governance Charter, and per any agreements between the HMIS Lead agency, the CoC, the CoC's designee (such as the Collaborative Applicant or CoC subcommittee), or HUD (such as a grant agreement for an HMIS dedicated grant). This document recognizes that HMIS governance, management, and operational structures vary between CoCs. This document articulates the broad spectrum of activities any entity that is designated or assumes responsibility for HMIS may be responsible for and sets forth standards for completing those responsibilities.

In the sections that follow, this document clarifies the role and responsibilities of the HMIS Lead, as well as potential strategies for ensuring compliance with HUD guidance. CoCs can use these HMIS Lead Standards as a reference to:

- help them identify key aspects of the implementation, operation, and management duties of the HMIS Lead
- compare this list against existing practices and responsibilities to gauge HMIS Lead performance to its designated role
- offer a general outline for the policies, procedures, and agreements that govern the responsibilities of the various stakeholders within the CoC

HMIS Governance

"HMIS governance" describes the general decision-making structures and operational requirements that form the basis of HMIS activity within a CoC. Basic requirements around HMIS governance, including those relating to the segment of the broader CoC Governance Charter addressing HMIS operations, may be found in the [CoC Program interim rule](#). In addition to the CoC Governance Charter, HMIS governance should be supported by a series of agreements outlining the roles, responsibilities, and activities of community stakeholders interacting with the HMIS or the data therein. These structures should be incorporated into broader CoC governance documents to improve efficiency and clearly delineate basic required practices.

CoCs should have executed agreements between the various entities involved with HMIS to ensure the proper and beneficial operation of your community's HMIS implementation. Principally, executed agreements should be in place between the HMIS Lead and (1) the CoC, (2) all Covered Homeless Organizations (CHOs), and (3) end users accessing your HMIS.

- 1. Agreement with the CoC:** To ensure clear decision-making processes regarding the community's HMIS implementation, the HMIS Lead should execute a formal agreement with the CoC that clearly identifies, defines, and describes the roles and responsibilities of each organization or party to the agreement. A formal agreement acknowledges the separation of duties, can act in part as a guide to the HMIS Lead's performance, and should include processes for termination. These agreements often take the form of an HMIS governance charter and may be supported with by-laws and contracts.
- 2. Agreement with CHOs:** The HMIS Lead should execute a written HMIS Participation Agreement with each CHO. While HMIS Participation Agreements may cover a host of activities necessary to meet local needs, at a minimum, these executed agreements should address:

- The obligations and authority of the HMIS Lead and the CHO

- The requirements of the CoC's Privacy Policy and Security Plan with which the HMIS Lead and CHOs must abide
- The sanctions for violating the HMIS Participation Agreement (e.g., imposing a financial penalty, requiring completion of standardized or specialized training, suspending, or revoking user licenses, suspending, or revoking system privileges, or pursuing criminal prosecution)
- An acknowledgment that the HMIS Lead and the CHO will process Personally Identifiable Information (PII) consistent with the Agreement
- An acknowledgement on how to ensure the CHO's staff have met the HMIS confidentiality agreement requirement

3. Agreement with end users: To ensure compliance of HMIS and CHO staff with HMIS Policies and Procedures, HMIS Participating Agency Agreements, and Privacy and Security Plans, the HMIS Lead should execute an HMIS End User Agreement with every person with access to the HMIS and its data. At a minimum, these HMIS End User Agreements should include:

- Expectations for ensuring data security
- Expectations for maintaining client privacy and confidentiality
- Expectations for adherence to all HMIS related policies and procedures, including privacy, security, coordinated entry, data quality, and data use and disclosure
- How users are meant to refresh their knowledge of the Privacy and Security Plans on a regular basis and be informed of any updates to the policies
- Responsibilities for reporting deviations from HMIS related policies and procedures
- Statement of potential disciplinary actions for deviations from HMIS related policies and procedures

Comparable Database Responsibilities: Victim Services Providers (VSPs) that are recipients or subrecipients under the CoC and ESG Programs are required to collect client-level data consistent with HMIS data collection requirements. The Violence Against Women Act (VAWA) and the Family Violence Prevention and Services Act (FVPSA) contain strong, legally codified confidentiality provisions that limit VSPs from sharing, disclosing, or revealing victims' PII, including entering information into shared databases like HMIS. To protect clients, VSPs must enter required client-level data into a comparable database that complies with all HMIS requirements.

HMIS Leads can assist VSPs with their comparable databases, and more information is outlined in the [Comparable Database Checklist](#) and the [Comparable Database Manual](#).

Strategies for HMIS Governance

Integrate Governance Materials: HMIS governance documents, including all agreements, should refer to each other and ensure collectively that there are no contradictions in the expectations for compliance to HUD and CoC HMIS policies and procedures. Collectively, HMIS documents should provide clear and transparent expectations.

Incorporate Technology: The CoC may choose to incorporate technology into the distribution, signing, and collection of documents. This could include systems such as electronic signature software or the CoC's HMIS if that functionality exists with the HMIS software.

Define Reporting Standards: The CoC should clearly outline expectations around reporting that is shared or submitted to CHOs, funders, and the general public. The HMIS Lead should adhere to any requirements by the CoC around the release of agency-wide or system-wide public reports or dashboards. Standards should be adopted around reproducibility requirements, code review, and product documentation expectations.

Evaluate Governance: The CoC could conduct a 3rd party evaluation of the HMIS Lead prior to a contract renewal (at regular, defined intervals) to ensure the following:

- The HMIS Governance has been upheld
- A diverse set of HMIS stakeholders are confident in the work done by the HMIS Lead (using both quantitative and qualitative measures)
- A review of the HMIS budget has been done to ensure sufficient capacity to uphold the governance structure of the HMIS and to revise where necessary
- Hiring and retention practices favor equity in personnel, responsibilities, pay, benefits, and training support

Measure Effectiveness: The CoC can utilize the [HMIS Lead Monitoring Tool](#) to measure the effectiveness of the HMIS Lead and ensure a fair review of HMIS Lead performance, taking into account CoC goals around maintaining a diverse and inclusive team.

Communicate: It is highly recommended that the CoC and HMIS Lead have regular communication to keep each other informed of any issues, upcoming events, or requirements, and what is going well. The CoC and HMIS Lead should make HMIS Governance documents readily available for projects and stakeholders to access via websites or other media.

Delineate Roles and Responsibilities: Roles and responsibilities of all entities involved with HMIS should be clearly defined and articulated in an equitable manner. Any agreements, documents, or conversations involving roles and responsibilities should also include how to address any conflicts that arise because of confusion or disagreement about roles and responsibilities across and among various entities involved with HMIS.

HMIS Lead Monitoring Tool: If a CoC is considering transitioning the HMIS Lead role to a new entity, it is highly recommended that the CoC use the [HMIS Lead Monitoring Tool](#) and [request HUD Technical Assistance](#).

Incorporation of People with Lived Experience of Homelessness: Without lived experience and stakeholder input into the types of data and methods in which data is collected, it becomes very challenging to address the issues members of a specific community face. HMIS Leads should consider more client-informed data collection practices that elevate the input of those with lived experience and incorporate unique local community characteristics within the data collection process, including culturally humble practices.

Management

HMIS Leads are responsible for the overall management of the CoC's HMIS implementation. As such, HMIS Leads should take all steps necessary to ensure the efficient and effective operation of the CoC's HMIS; including maintaining sufficient staffing levels to support HMIS Lead activities, identifying and managing financial needs to ensure effective HMIS implementation; and organizing feedback loops to ensure that the HMIS implementation meets the needs of all stakeholders and complies with all applicable HUD, federal partner, and CoC requirements.

The HMIS Lead should conduct an annual evaluation and monitoring of the HMIS implementation to demonstrate fidelity to applicable regulations, requirements, and expectations of HUD, the federal partners, and the CoC, as well as to its own policies and procedures. The evaluation and monitoring should assess the HMIS implementation for gaps and create an annual action plan focused on closing those gaps and enhancing HMIS capacity to support community efforts to prevent and end homelessness, including the incorporation of data-informed decision making as regular practice within the CoC.

As part of the annual evaluation and monitoring of the HMIS implementation, HMIS Leads should consider developing a process to collect and analyze stakeholder satisfaction with the implementation, including but not limited to conducting focus groups and anonymous customer satisfaction surveys. This practice can and should involve stakeholders from all levels of the system, including people who are experiencing homelessness whose data are collected, HMIS front end users who regularly use the system, CHO leaders whose organizations utilize HMIS, and state/local partners who rely on HMIS data.

The HMIS Lead should maintain staffing levels sufficient to adequately support HMIS Lead roles and responsibilities that incorporate equitable hiring and retention practices in alignment with the June 2021 [Executive Order on Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce](#). This includes ensuring adequate supervision of HMIS staff and improving knowledge development through the provision of training opportunities. To ensure that the HMIS Lead maintains staffing levels sufficient to adequately support HMIS Lead roles and responsibilities, the HMIS Lead could ensure that, at a minimum, staffing levels are appropriate to support, for example:

- A ratio of about 75 end users per full-time HMIS System Administrator, considering other factors, such as how many CoCs may be covered by a given HMIS Lead team.
- Access to ad hoc data reporting and analysis tools plus any training needed on these tools.

Staffing levels should be one component of the annual evaluation and monitoring process, with year-to-year adjustments made as appropriate.

In addition to the HMIS-specific considerations outlined here, HMIS Leads should develop standard grant management practices to ensure the long-term viability of the implementation. CoC Program-funded dedicated HMIS grant recipients must designate staff to manage the award through [e-snaps](#), [eLOCCS](#), and [Sage](#). An HMIS Lead without CoC Program funding must still adhere to the technical standards published by HUD.

For HMIS Leads that are dedicated HMIS grant recipients, they must develop and maintain an annual budget for HMIS financial activities and a financial reporting system that tracks revenues, expenditures, and current balances of the HMIS budget. The HMIS Lead must ensure that the expenditures of the HMIS project funded with CoC Program funds are eligible in accordance with §578.57 of the CoC Program interim rule. The HMIS Lead should maintain copies of contracts and invoices, including invoices and payment histories of user fees and other budget resources paid directly to the HMIS Lead. Contracts with the following entities should be on file and readily available:

- HMIS software vendor
- HMIS consultants/contractors
- HMIS Participating Agencies
- HMIS end users
- Any entity that has access to PII maintained within HMIS, including those with access for the purposes of sharing data across HMIS agencies, utilizing the coordinated entry system prioritization list (if maintained within HMIS or by the HMIS Lead), and for internal use in housing a client and providing services (including case conferencing)
- Any entity that is uploading or downloading client data into HMIS, whether that data contains PII or not

To ensure that adequate financial resources are in place going forward, the HMIS Lead, in conjunction with the CoC, should regularly perform strategic and financial planning to match resources to priorities. As part of this strategic planning, the HMIS Lead should develop not just the annual budget for the HMIS implementation but also provide estimates of future budgetary needs so that the CoC can identify additional resources as necessary.

Strategies for Management

Ensure Compliance with Requirements: Depending on capacity, HMIS Leads may wish to implement the following strategies to ensure compliance with HMIS requirements and recommendations regarding management:

- Develop 2 and 5-year strategic plans regarding the management of the HMIS grant and HMIS operations, including planning for funding, software updates/upgrades, and needs for purchasing additional licenses (if applicable) and functionalities as the HMIS grows
- Conduct regular (community defined interval) HMIS software reviews in conjunction with the CoC

Contracts: HMIS Lead should consider including the following in all legally binding contracts related to the HMIS implementation (as appropriate):

- Allowable expenditures, activities, responsibilities, and roles of the contracting parties
- Measurable performance standards for HMIS software vendors and consultants, as well as the consequences for non-performance
- Allowable uses of data, including disclosures of data, particularly PII, in specific circumstances
- Adherence to Privacy Practices
- Roles, responsibilities, and liabilities for breaches of privacy and security of client-level information

Financial Planning: When conducting financial planning for HMIS, the CoC and HMIS Lead should review not only the human capacity within the HMIS Lead to ensure it meets the CoC's needs, but also the technology available to the HMIS Lead to meet the needs and desires of the CoC, including webinar software, interactive training or learning management system software, electronic signature software, help desk software, and data visualization software.

Diversify Funding: The CoC and HMIS Lead should work together to [diversify funding](#) and ensure its sustainability. Any organization or project added to HMIS should involve planning to ensure the HMIS Lead can support the addition of users, training requirements, reporting requirements, and data analysis.

Long-Term Planning: As much as possible, the CoC and HMIS Lead should think about not only what HMIS is and the current needs, but also what the vision for HMIS is in the near and long term and how it aligns with the CoC's vision for ending homelessness. Planning for staffing and resources to fully support the HMIS implementation should include input from stakeholders with various perspectives of what they want to see from HMIS and what is needed to get it.

It is a best practice for CoCs and HMIS Leads to include a diverse group of stakeholders including frontline workers, and other staff from CHOs, Black, Indigenous, all people of color, those with the lived experience of homelessness and other stakeholders reflective of those marginalized and minoritized populations present in the local homeless community. Engaging a diverse group in long-term planning creates buy-in, elevates the needs and input of those being served, and leads to a more inclusive and informed HMIS plan.

Policies and Procedures

HMIS Policies and Procedures are necessary to assure smooth day-to-day operation of the HMIS implementation. Policies articulate the CoC's expectations for the utilization of the HMIS and the data therein. Procedures describe the processes and activities that ensure compliance to the policies. By developing and following standardized Policies and Procedures, the CoC and its community partners are better able to ensure compliance with applicable laws and regulations (both federal and local), develop functional processes for decision-making, and streamline internal practices.

The HMIS Lead should, in conjunction with the CoC, develop, implement, and monitor the use of Policies and Procedures that reflect the expectations of the CoC for the operation and utilization of the HMIS and management of the data therein. The Policies and Procedures should outline specific rules for the operation of the HMIS, specific actions to ensure compliance to the rules, and strategies for monitoring compliance to the rules.

Relatedly, the HMIS Lead should work with the CoC to complete the requirement in the CoC Program interim rule to “[r]eview, revise, and approve a privacy plan, security plan, and data quality plan for the HMIS.” These plans can be stand-alone documents, or part of the broader Policies and Procedures. For more information, please see the Privacy, Security, and Data Quality sections of these Standards. The HMIS Lead should support the CoC to meet its requirements of reviewing and updating the plans and policies at least annually. Gathering CHO and other diverse stakeholder feedback on the revisions to these plans and policies is also recommended. If any Policies and Procedures are part of a separate document (such as the Data Quality Plan), that document should be referenced in the HMIS Policies and Procedures.

The HMIS Lead should ensure the completeness of the Policies and Procedures by addressing the following areas at a minimum:

- Grant Management Requirements and Process
- HMIS Participation Requirements
- HMIS End User Requirements
- HMIS User Fees (if applicable)
- CHO Hardware and Connectivity Requirements (including workstation requirements)
- Privacy and Client Rights
- Data Security Requirements
- HMIS Training Requirements and Process
- HMIS Technical Support Process
- Data Collection Requirements
- Data Quality Requirements
- Data Access, Ownership, and Use
- Performance Measurement
- Grievance Procedure
- CHO Compliance Monitoring
- Consequences for violation of the HMIS Policies and Procedures

Strategies for Policies and Procedures

Clear and Understandable: As much as possible, HMIS Policies and Procedures should be written in accessible, common language that is easily understood and clear.

Accessible: HMIS Policies and Procedures should be [508 compliant](#) and in a format that is compatible with software that is free across all operating systems. Examples would include a 508 compliant webpage or a pdf

document free of any elements that would make it difficult to view by sighted, low-vision, color-blind, or non-sighted readers. All images should contain clear and concise alt text.

Use Examples: The HMIS Lead should consider using client and end-user scenarios in the Policies and Procedures to ensure that they can be operationalized and match how procedures occur or how policies are interpreted.

Review and Update: The HMIS Lead may consider the following strategies to review and update HMIS Policies and Procedures:

- Make the review and update of HMIS Policies and Procedures a community effort, which could include enlisting a HMIS/Data Committee, end users, and people with lived experience of homelessness who are racially diverse and reflective of the local homeless population to review the Policies and Procedures
- Incorporate changes and guidance into the HMIS Policies and Procedures on an ongoing basis or during the annual review process
- Take advantage of peer-to-peer opportunities to share Policies and Procedures and procure language
- Enroll in the HUD mailing list to receive ongoing updates regarding HMIS requirements, roles, and responsibilities
- Attend HUD-sponsored HMIS Lead calls and ask questions related to requirements and recommendations

Availability: The HMIS Policies and Procedures should be readily available via the CoC and HMIS Lead websites.

Ensure Awareness: To ensure all end users are aware of the HMIS Policies and Procedures, the HMIS Lead could include receipt and review of the Policies and Procedures in an HMIS User Agreement or other document signed by each end user upon access to HMIS To maintain user knowledge and be sure any changes made over time are communicated and understood, HMIS Leads could also incorporate end user quizzes as part of an annual renewal process.

Legal Review: It may be beneficial for HMIS Policies and Procedures, and any other documents or agreements surrounding HMIS, to go through a legal review to ensure they meet any relevant state and local requirements.

HMIS Participation

The requirement to increase participation in the HMIS is the responsibility of the CoC; however, the HMIS Lead plays a critical role in advancing participation. From ensuring current end users are happy with the system, to partaking in participation discussions, customizing workflows, providing training, and establishing relationships with potential projects, the HMIS Lead can positively impact the CoC's efforts to increase participation.

The HMIS Lead should coordinate with CoC leadership to develop and implement an outreach strategy to recruit non-participating agencies to expand HMIS coverage. There are several ways HMIS Leads can support the development and implementation of this plan, and to expand HMIS coverage in general, detailed below.

HMIS Leads should establish community connections by:

- Designating staff to participate in professional activities, including local CoC Committee meetings and state, regional, and national events to understand the larger goals of their system to better

operationalize those goals in the context of HMIS

- Communicating with diverse stakeholders clearly, frequently, and transparently
- Sharing regular reports on HMIS participation, coverage, quality, and system-wide performance with community leadership

In addition, HMIS Leads should take the time to understand potential partners. What are the wants, needs, workflows, and regulatory boundaries of non-participating projects?

HMIS Leads should be responsive to the needs of those whose information is included in the HMIS, end users and other stakeholders and build in quality control measures to ensure satisfaction with the system, the HMIS help desk, workflows, grievance processes and trainings.

Strategies for HMIS Participation

Managing Community Relationships: HMIS Leads will need to form relationships with potential projects, and may wish to pursue the following strategies to manage community relationships:

- Articulate HMIS Lead alignment with community goals to end homelessness
- Provide relevant reporting that would be meaningful and useful to the potential agencies
- Facilitate forums for HMIS end users to interact and share HMIS experiences
- Participate in CoC workgroups, planning and strategy sessions
- Ensure HMIS-related agreements include roles and responsibilities and feedback mechanisms
- Establish trust in the HMIS and its leadership, ensuring system integrity at all levels
- Create marketing materials to educate the community and non-participating agencies on the benefit of using HMIS, including the benefits to clients
- Offer to demonstrate the HMIS software to non-participating agencies using a training site or sandbox site
- Help the CoC problem-solve barriers to HMIS participation and customize workflows, data entry guidance questions, and data elements to streamline the data entry process as much as possible
- Be sure that any custom data elements added to workflows are kept to a minimum, the rationale for adding the element has strong CoC support, the data element is worded in a clear and trauma-informed way, and the options are either multi-select or mutually exclusive. Custom data elements should fill a reporting purpose and be retired when that purpose is no longer relevant
- Ensure that HMIS data is easily accessed, interpreted, and able to be acted upon to the necessary stakeholders
- Create strategies to intentionally outreach to “non-traditional” partners and agencies that provide services to historically minoritized populations to understand their data needs and any concerns they may have around participating in HMIS

Customized Solutions: The CoC and HMIS Lead should work with projects one-on-one where needed to provide customized solutions to fit their “why” related to not using HMIS. The HMIS Lead should ensure consistent and ongoing support and follow-up for projects transitioning to using HMIS.

Data Quality Monitoring Toolkit: Components of the [Data Quality Monitoring Toolkit](#) address HMIS Participation and HMIS Bed Coverage, as well as strategies that CoCs and HMIS Leads can use to engage non-HMIS-participating projects.

Meeting Needs: Projects should discuss their needs related to data entry, reporting, and analysis with the CoC and HMIS Lead to ensure a common understanding of what the project expects, as well as what the CoC and HMIS Lead will support.

Subsidize Costs: Where possible, the CoC should work with non-HMIS-participating projects to help

subsidize any user fees or other HMIS-associated costs for a defined period (for example, the first 6 months or year of HMIS participation) to help ease projects into the use of HMIS.

Public Acknowledgement: A CoC or HMIS Lead’s use of public acknowledgment is powerful and can be used to praise a non-HMIS-participating project newly entering data into HMIS. An acknowledgment of how the data entered into HMIS will not only benefit the project but also the CoC and clients served could be an incentive, as can quick but powerful data visualizations of the data entered into HMIS by the project.

Monitoring of HMIS Participating Agencies (CHOs)

To ensure that the HMIS implementation (and the data contained therein) is a functional tool for preventing and ending homelessness within the community, participating agencies should be monitored regularly for compliance to HUD regulations and CoC expectations. This will assist the community to ensure that standardized policies and procedures are being followed throughout the CoC, bolster confidence in the data maintained within the HMIS, and make needed corrections in the event deficiencies are discovered.

The CoC Program interim rule requires the CoC to “**ensure consistent participation of recipients and subrecipients** in the HMIS.” The HMIS Lead should assist the CoC with developing an appropriate plan for monitoring the records and data collection practices of participating agencies, including ensuring that data collection is conducted in a trauma-informed and culturally humble manner, and conducting monitoring at regularly scheduled intervals. At a minimum, a clear and transparent monitoring plan should include:

- References to compliance policies, procedures, and benchmarks, including those included in agreements
- Processes for conducting a monitoring
- Schedules for periodic monitoring
- Methods for communicating monitoring results to the CHO and the CoC

As part of the monitoring plan and process, the HMIS Lead should create a tool for conducting CHO compliance monitoring. At a minimum, the monitoring tool should include a clear and transparent instrument to capture monitoring results which should be shared with the CHO in advance of their monitoring. In accordance with CoC policies and procedures, the HMIS Lead and participating agencies should create plans to address monitoring findings.

Strategies for Monitoring HMIS Participating Agencies (CHOs)

Creating and Executing a Monitoring Plan: HMIS Leads should consider the following practices when creating and executing a monitoring plan:

- Consult the Data Quality Management Program in the HMIS Lead Toolkit
- Schedule monitoring of participating agencies in conjunction with funders (e.g., CoC, ESG recipient)
- Tie monitoring results to funding opportunities through CoC ranking and rating processes in partnership with the CoC
- Incorporate feedback from people with lived experience about the CHO’s data collection practices

Remote vs. On-Site Monitoring: COVID-19 has changed the way many CoCs conduct monitoring. HMIS Leads should do what is best for their staff and the staff of the participating agencies, putting the health of staff and clients first. Most aspects of HMIS Participating Agency monitoring can be completed remotely, such as a review of whether the agency is meeting the baseline requirements, as laid out in the CoC’s Data Quality Plan. Other pieces of monitoring, such as ensuring the HMIS Consumer Notice is posted in a place where clients will see it, may be completed on-site with precautions, or may be deferred to a later

date, as determined by the CoC. An HMIS budget should take into consideration the need for onsite HMIS Participating Agency monitoring on an annual basis.

Integrate Monitoring Efforts: When possible, including the HMIS monitoring with other required monitoring (for example, monitoring required for CoC Program-funded, ESG-funded, or locally funded projects) can be beneficial both for the participating agencies and the parties involved in the monitoring to reduce exposures, streamline the process for agencies, and ensure expectations placed on agencies by different grant and HMIS requirements are consistent.

Well-documented Expectations: The expectations of HMIS Participating Agencies should be transparent and they should know how they will be monitored and what will be reviewed during the monitoring process. The CoC and HMIS Lead should maintain consistency in how agencies are monitored and what criteria are used for monitoring.

HMIS Software Vendor Management

HMIS software is often developed and provided by third-party entities known as “vendors.” To ensure that the HMIS is an effective tool for the community, it is necessary that the CoC and HMIS Lead establish certain expectations regarding the roles and responsibilities of the HMIS software vendor regarding the implementation.

CoCs and HMIS Leads should review the [Tools for Contract Management](#) available on HUD Exchange for comprehensive guidance about software vendor management. The HMIS Lead should execute an enforceable contract with the HMIS solution provider. At a minimum, that contract should ensure:

- The HMIS software meets HUD and CoC data and technical standards
- The HMIS software meets HUD and CoC privacy and security standards
- The HMIS software can produce the reports and data exports required by HUD, other federal partners, and the CoC
- The HMIS software vendor will provide training and technical support to the HMIS Lead
- There is agreement on hosting and backup of HMIS data, including protections to ensure data survival of natural disasters (disaster recovery protocols)
- There is agreement on the costs that will be paid to the HMIS software vendor
- The HMIS software vendor will ensure that all HMIS data can be migrated to another software if needed
- Expectations and a process for contract disputes, termination of the contract, transfer of the data, and financial remediation
- Expectations related to data privacy or security breaches on the part of HMIS software vendor staff

The [HMIS Software Vendor Capacity Checklist](#) contains additional information that will be valuable when an HMIS Lead is managing their vendor contract. When working with a new HMIS software vendor, or when renewing the contract with the existing HMIS software vendor, the HMIS Lead should ensure that the HMIS software will meet the specific local needs of the CoC. The following areas may be useful to consider when negotiating the contract with the HMIS software vendor:

- The degree to which the HMIS software vendor offers technical assistance to the HMIS Lead and participating agencies
- The ability of the software to import all legacy data from the HMIS CSV Export, including the Project Descriptor Data Elements
- The reporting capability of the software
- The degree the software can and will support Coordinated Entry, a Prioritization Report, or Referrals as outlined in the Coordinated Entry Standards

- The ability of the HMIS software to interact with outside data systems (i.e., through an API)
- The costs associated with additional features, adding reports, and integrating data from outside the HMIS
- The development cycle for HUD and federal partner changes being implemented in the HMIS software, and any associated costs with updates

In addition to negotiating a contract with an HMIS solution provider that best meets the needs of the CoC, the HMIS Lead should communicate at regular intervals with the HMIS software vendor to ensure clear and consistent communication. To ensure this kind of communication, the HMIS Lead can:

- Establish designated contact persons between the HMIS software vendor and the HMIS Lead
- Establish communication protocols, including issue escalation practices, non-resolution consequences, and development of customized work plans for HMIS growth

Strategies for HMIS Software Vendor Management

Relationship Management: HMIS Leads may wish to pursue the following strategies to foster a healthy relationship with their HMIS software vendor:

- Fully utilize the materials and tools provided by the HMIS software vendor
- Ask the HMIS software vendor to present at or participate in CoC meetings to ensure CoC membership is comfortable with the vendor and understands the difference between HMIS software vendor and HMIS Lead
- Utilize [Vendor Transition Checklist](#) when changing HMIS software vendors
- Utilize [Vendor Monitoring Tool](#) when monitoring HMIS software vendor
- Utilize [Coordinated Entry Core Elements](#) and [Coordinated Entry Management and Data Guide](#) when utilizing HMIS for Coordinated Entry

Stakeholder Input: Seeking input from a cross-section of HMIS stakeholders about the software and its functionality may be beneficial when determining software vendor contract renewals.

Community Requirements: The CoC and HMIS Lead should know what components of an HMIS implementation they must have (non-negotiables), versus what they want (negotiables). This process exceeds the minimum baseline requirements that all HMIS implementations must meet and looks at local needs and desires for an HMIS implementation.

Privacy

People experiencing homelessness rely on the CoC to provide appropriate housing and services and to do so in such a way that protects their privacy rights. While data sharing is often necessary to provide efficient and effective housing and services, improper release or use of data may jeopardize the privacy, or even the safety, of the people who place their trust in the homelessness system of care. As such, HMIS Leads should take appropriate measures to ensure the privacy of client-level information.

The CoC must review, revise, and approve the privacy plan for the HMIS. The HMIS Lead is well-positioned to create the privacy plan related to HMIS data, often in conjunction with CoC data leadership. The privacy plan must meet all minimum baseline requirements laid out in the [HUD Data and Technical Standards of 2004, Section 4.2](#) and should include or reference CoC established privacy policies and procedures. The HMIS Security and Privacy Plan should also include standards for CHO compliance, references to HMIS Policies and Procedures, references to HMIS Participating Agency and HMIS End User Agreements, and either include or be included in a CHO monitoring process. The plan should clearly state what entities and individuals have

access to HMIS, protections to ensure privacy of client information, policies and procedures for client access and correction to their data, and protocols for use of data related to privacy.

There should be a legal review of state, local, and other federal privacy laws to determine if there are more restrictive or limiting requirements than what is stated below. If so, these laws will need to be considered when developing your local HMIS privacy policies and for making this determination. The HMIS Lead should ensure that the HMIS Policies and Procedures include provisions related to privacy that establish, at a minimum:

- Allowable uses and disclosures of client data
- Whether a client Release of Information (ROI) is required for any allowable use and disclosure included in the privacy policy
- CoC expectations related to the privacy of client data
- Data ownership
- Responsibility for client data
- Data classifications (PII, metadata, other, Administrative vs. client-owned)
- A series of procedures to ensure compliance to the privacy policy
- A series of policies and procedures for managing data breaches
- A requirement for compliance to privacy policies and procedures included in HMIS Agency Participation Agreements, HMIS End User Agreements (including HMIS Lead staff), and any data release agreements
- Protocols for client access to their personal data
- Protocols for managing client requests to correct or remove their personal data
- Policies and procedures for legal access to client personal data
- Policies and procedures for access and use of non-PII
- Policies and procedures for release of information and data sharing
- A process for keeping the Privacy Policies and Procedures current
- A process for monitoring HMIS staff and CHOs for compliance to the Privacy Policies and Procedures
- A process for terminating access to the HMIS and its data

In addition to establishing formal privacy protections as outlined above, the HMIS Lead should work to ensure data privacy by allowing for:

- Easy access of privacy documents on a public website
- Clients to request information via a standardized request process
- Who and what entities can receive data from HMIS, in what form (e.g., aggregate, client-level, PII-level) and how they receive that data
- Require training on privacy and confidentiality policies prior to end user access to HMIS

Strategies for Privacy

Promote Data Privacy: HMIS Leads may wish to pursue the following strategies to promote data privacy in the HMIS community:

- Provide regular training on privacy and confidentiality to program managers, data collection staff, data entry staff, and reporting staff
- Document signed ROI (if applicable) forms on client records in the HMIS and upload the ROI to the client records in HMIS
- Prepare in advance for future monitoring
- Utilize a form or approval process for the release of data and reports

Legal Review: It may be beneficial for any HMIS Privacy Policy to go through a legal review prior to implementation to ensure it addresses any state and local specifics.

Stakeholder Engagement: Significant changes to a Security and Privacy Plan could be presented to a cross-section of HMIS stakeholders prior to implementation for feedback and to help foster buy-in.

Other Privacy Requirements: HMIS implementations that include entities that are covered by additional privacy policies (e.g., HIPAA, CoA, Joint Commission Accreditation) should include these entities in conversations about changes to the CoC's HMIS Privacy Policy to ensure a smooth and efficient process for all entities using HMIS and are bound by more than one privacy policy.

Client Perceptions: Seeking to understand clients' perception of privacy and data sharing could be beneficial to the CoC and HMIS Lead as they review and update the Privacy Policy. Focus groups comprised of a cross-section of people with lived experience of homelessness could help to better understand how clients perceive how and when their data can be used and disclosed, and who has access to their information.

Security

Improper access to HMIS data can be as dangerous to client safety and well-being as violations of privacy and confidentiality. As such, it is imperative that the HMIS Lead ensure that all persons or entities accessing HMIS data do so in an authorized manner.

The CoC must review, revise, and approve the security plan for the HMIS. Similar to the role the HMIS Lead can play in the development of privacy and data quality plans, the HMIS Lead is well-positioned to lead the development of the CoC's HMIS security plan due to familiarity with the software's security protocols and ability to monitor system access by HMIS end users.

The security plan must cover all minimum baseline security requirements laid out in the [HUD Data and Technical Standards of 2004, Section 4.3](#) and should include or reference CoC-established security policies and procedures. The HMIS Security Plan should include standards for CHO compliance, references to HMIS Policies and Procedures, references to HMIS Participating Agency and HMIS End User Agreements, and either include or be included in a CHO monitoring process. The plan should clearly state what entities and individuals have access to HMIS, minimum physical and electronic safeguards, protections to ensure privacy of client information, policies and procedures for client access and correction to their data, and protocols for use of data related to privacy.

The HMIS Lead should ensure that the HMIS Policies and Procedures include provisions related to security that establish, at a minimum:

- CoC expectations for system and data security
- Responsibility for system and client data security
- System and data access classifications and descriptions
- Technical safeguards, such as user authentication, virus and firewall requirements, and physical access to systems and workstations accessing the HMIS and its data, including requirements for updating security software
- Data storage requirements
- Data transfer protection protocols
- Standards, policies, and procedures for determining and implementing a data archiving process
- A series of policies and procedures to ensure the physical security of the HMIS and any devices used to access the HMIS
- A series of procedures to ensure compliance to the security policy
- A series of policies and procedures for managing security breaches

- A requirement for compliance to security policies and procedures included in HMIS Agency Participation Agreements, HMIS End User Agreements (including HMIS Lead staff), and any data release agreements
- A process for keeping the Security Policies and Procedures current
- A process for determining technical and physical safeguard updates
- A process for monitoring HMIS staff and CHOs for compliance to the Security Policies and Procedures
- A process for terminating access to the HMIS and its data

In addition to establishing formal security requirements as outlined above, the HMIS Lead should ensure data security by promoting practices that ensure system and data security, such as:

- Requiring training on security policies prior to end user access to HMIS
- Security Awareness Training and Follow Up
- Requiring an Annual Security Certification by end users, including HMIS staff
- Retaining the services of a system and data security professional to review the Security Policies, Procedures, and requirements on an annual basis
- Retaining the services of a system and data security professional to evaluate and document security risk on an annual basis

Strategies for Security

Promote Security Practices Among CHOs: HMIS Leads may wish to maintain a list of agencies participating in HMIS for ensuring that all CHOs:

- Have valid user licenses
- Are entering data consistently
- Are current on HMIS Training Requirements
- Have a current Agency Agreement on file

Reporting on Security: The HMIS Lead may also choose to add Audit Reports and User Access Reports to a calendar for regular reporting.

The CoC and HMIS Lead should determine the need for a conflict of interest statement that is included in the HMIS End User Agreement that addresses whether end users can access their own client records or any records of their immediate family members in HMIS, where applicable.

The CoC should establish a timeframe for how long electronic and paper documents including client-level information are retained before they are disposed of. The CoC could also include in a Security Policy the way in which paper documents should be disposed of (e.g., shredding, burning).

As more HMIS implementations allow for access on mobile phones and tablets, a Security Policy should address security protections directly related to the use of mobile devices for housing client-level information (e.g., photos of clients, signed Releases of Information) and access to HMIS.

System Administration

An HMIS implementation is only as effective as the administration of the system. As such, it is necessary for the HMIS Lead or system administrator (if they are different entities) to establish clear guidelines regarding the administration of the HMIS, including system maintenance, to ensure that all features are available as needed.

The HMIS Lead is responsible for managing the HMIS for the CoC's geographic area, in accordance with

the requirements of the [CoC Program interim rule](#) and any HMIS requirements prescribed by HUD. If the HMIS Lead awards contracts or subcontracts to other organizations to assist in the administration and management of the HMIS, it must do so in accordance with the procurement and oversight requirements of [2 CFR 200 § 200.318](#).

The HMIS Lead should develop and follow a system maintenance schedule to monitor and ensure the accuracy of the participating agencies, projects, project descriptor data elements (PDDEs), users, data sharing configurations, and data standards configurations.

The HMIS Lead should act as a planning liaison between the CoC, the HMIS end users, and the HMIS software vendor to plan and implement software fixes and upgrades.

The HMIS Lead should facilitate HMIS User Groups to:

- Assist in the early identification of issues and bugs
- Provide for efficient delivery of technical assistance
- Solicit feedback around support needed

Strategies for System Administration

Effectiveness and Efficiency: HMIS Leads may wish to pursue the following strategies to effectively and efficiently administer the HMIS:

- Reference the [System Administrator Checklist](#) to ensure that all required and recommended System Administrator tasks are completed
- Document signed release of information (ROI) forms on client records in the HMIS
- Prepare in advance for future monitoring

Relationship Between CoC and HMIS Lead: The CoC and HMIS Lead may benefit from the [HMIS Lead Improvement Evaluation Matrix](#) and a contract or agreement between the two entities that is actionable, measurable, and time-bound.

HMIS Staffing: The CoC and HMIS Lead may benefit from the [HMIS Staffing and Resourcing Toolkit](#) for tools and resources necessary to adequately manage staff capacity and appropriately utilize available resources to meet the community's HMIS and data needs.

HMIS Vendor Monitoring Tool: For issues related to the HMIS software, the CoC and HMIS Lead should utilize the [HMIS Software Vendor Monitoring tool](#), and ensure that contracts with the HMIS Vendor are actionable, measurable, and time-bound.

HMIS Vendor Capacity: The CoC and HMIS Lead may benefit from the [HMIS Software Vendor Capacity Checklist](#) as an assessment framework to ensure that the HMIS Vendor, solution providers, and other relevant HMIS stakeholders are fulfilling the roles and responsibilities that may be required by the CoC to ensure the operation of an effective HMIS implementation.

Maintain Documentation: The HMIS Lead should maintain documentation of how changes and updates are made to the HMIS implementation, including a project naming convention, PDDE updates that occur and when, and the steps needed to set up a new project in the system.

Maintain a Training Schedule: The HMIS Lead should maintain a regular end user training schedule including regular review or refresher opportunities, as well as new user training opportunities, training specific to reporting from HMIS, and training on advanced or additional features in HMIS. These trainings should be posted on a website calendar or other tool and users should be made aware of them. For specific training topics and best practices, the HMIS Lead may benefit from the [HMIS End User Training Guide](#).

HMIS Training Materials: As much as possible, HMIS Training materials and resources should be in various formats to account for the various ways in which people learn. This could include recorded webinar trainings, written documents, visual guides, interactive trainings, and the opportunity for live or in-person trainings.

HMIS User Group: As mentioned above, the CoC and HMIS Lead could benefit from an HMIS user group that includes a cross-section of HMIS stakeholders. This group could help identify issues related to HMIS administration, potential solutions, and ongoing monitoring and review of how HMIS administration is functioning.

Relationship between CoC and HMIS Lead and Vendor: The CoC or HMIS Lead may benefit from the [Tools for Contract Management](#) in managing the overall contractual relationship with the HMIS Vendor. The CoC or HMIS Lead could request a regularly scheduled call (or other media platform) to connect with the HMIS Vendor to talk through concerns and what is going well. This could be especially beneficial for a CoC and HMIS Lead that are in the first steps of transitioning to a new HMIS solution.

Roles and Responsibilities: The HMIS Lead should have clearly defined roles and responsibilities regarding system administration, separate from the CoC and CHOs, outlined in the Policies and Procedures. If confusion arises, the CoC and HMIS Lead should resolve any issues and further define each entity's distinct responsibilities.

Technical Support

Technical Support is a primary responsibility of the HMIS Lead. Technical support includes a variety of tasks, including resolving end-user HMIS software issues, working with the HMIS Software Vendor to identify and fix software bugs, assisting with report generation, and assistance to end users to identify and fix data quality issues.

The HMIS Lead should **develop and implement a technical support system** including, at a minimum, technical support policies and procedures. The primary purpose of technical support is to resolve end user-initiated inquiries, fix and resolve issues as they are reported in an organized and accurate way to ensure end user satisfaction, and enable continuity and consistency in the HMIS software functionality. The Technical Support Policies and Procedures should contain:

- Instructions for accessing a HMIS help desk (if applicable)
- Processes for documenting issues experienced by projects, their resolution, and resolution timeframe
- Policies and procedures for elevating unresolved issues to the CoC or the data committee
- Protocols for interacting with the HMIS Software Vendor to resolve outstanding issues

It is recommended that the HMIS Lead ensure accessibility and transparency of the technical support policies and procedures by maintaining a HMIS-specific website or maintain HMIS-specific webpages as a component of the CoC's website for posting the policies and procedures, and related documents and tools to support end users.

The HMIS Lead should ensure accessibility to technical support by implementing a CoC-wide HMIS help desk or, alternatively, ensuring access to the HMIS software vendor's help desk. The HMIS Lead should ensure adequate staff is available to manage the volume of questions either as HMIS staff or through contractual assurances from the HMIS software vendor. The HMIS Lead should ensure there is backup coverage for primary help desk staff. The information technology industry currently recognizes one full time equivalent (FTE) help desk staff person per 75 end users as a best practice.

The Technical Support Help Desk should retain documentation and information related to the support it provides, and may also consider collecting customer satisfaction surveys.

Strategies for Technical Support

Technical Support Strategy: A holistic HMIS technical support strategy manages end user inquiries but also designs and manages project data entry workflows as HMIS participation grows. It can also act as a CoC-wide customer service channel on HMIS issues, such as providing support for increasing HMIS participation, data sharing, improving CoC data quality, and responsiveness to ad-hoc reporting. The HMIS Lead may choose to incorporate the following strategies to ensure accessibility and effectiveness of technical support activities:

- Build a knowledge base by posting training materials and Frequently Asked Questions (FAQs) on common end user issues and their associated resolution
- Work with staff conducting training to ensure end users are regularly trained on use of the software and how to access the help desk
- Triage help desk inquiries to staff through automation and in accordance with staff specific skills and technical support focus
- Build canned responses for more efficient help desk response times
- Regularly review help desk inquiries for common themes, and update trainings to address these issues

Self-Evaluation: The HMIS Lead may also engage in self-evaluation activities to improve the technical support structure and policies. The HMIS Lead may choose to:

- Conduct an annual internal evaluation of technical support policies/procedures, including analysis of data on response times, types of questions, responses provided, etc.
- Conduct an annual customer satisfaction survey.
- Leverage an existing HMIS User Group or other stakeholder group to facilitate listening sessions and solicit feedback

Update Practices: The HMIS Lead may use an evaluation process to update technical support practices and negotiate contracts for services.

Training

The HMIS Lead is responsible for ensuring that the community's HMIS implementation is an effective tool for preventing and ending homelessness within the CoC. As such, it is incumbent on the HMIS Lead to ensure through training that all stakeholders and participants in the HMIS implementation have sufficient and adequate training to make effective use of the HMIS.

HMIS training is a core tool in ensuring the appropriate use of the HMIS by end users and in ensuring the availability of quality data for CoC decision-making. To that end, the HMIS Lead should conduct trainings for CHOs on the HMIS. The HMIS Lead should do this by developing and implementing a training plan and schedule, covering:

- HMIS Policies and Procedures
- HMIS-related Coordinated Entry System Policies and Procedures (CES P&P)
- Data entry requirements and techniques
- Workflows
- New agency set up
- Client confidentiality and privacy

- Best practices in data collection (i.e., person-centered, trauma-informed, harm-reducing, etc.)
- Data security
- Data quality

It is recommended that the HMIS Lead require completion of software, client confidentiality and privacy, and data security training prior to initial access to the software application and annually thereafter.

Strategies for Training

Accessibility and Effectiveness: The HMIS Lead may choose to incorporate the following strategies to ensure accessibility and effectiveness of training activities:

- Require training for new end users prior to collecting HMIS data or accessing the live HMIS database
- Require minimum annual refresher training by all users
- Make training available to data collection, entry, and reporting staff and data users such as researchers and analysts
- Create and post end user support tools, such as “At-A-Glance” quick sheets, checklists, workflow data entry guide, and visual guides
- Post the training calendar to the CoC and HMIS website
- Expect CoC program manager participation in the development of the training
- Customize training based on any given agency’s data collection process: If agency staff collecting data from clients are different from the staff entering the data into HMIS, train intake staff on the data elements they are gathering from clients to ensure understanding of those data elements
- Develop a training attendance tracking system
- Offer less structured “office hours” sessions where end users can have their specific questions answered by those with HIMS expertise
- Incorporate a variety of training models to optimize training effectiveness and reach different audiences, such as one-on-one training, web recordings, scheduled group trainings, train the trainer, and the use of visual guides, user manuals, and supplemental resources
- Ensure training materials use plain language to ensure usability by those new to homeless services

Attendance and Funding Allocation: The CoC may choose to use HMIS training attendance as a consideration during resource allocation.

Training Calendar: The HMIS Lead should create a training calendar that is clear and transparent for the CoC and CHOs and is posted on the HMIS Lead’s website. A training calendar should include different types of training opportunities, based on users (e.g., new user, review user, advanced user) and workflows (e.g., shelter, coordinated entry, entry/exit) offered at times that support the network of users (including evening shelter staff). For specific training topics and best practices, the HMIS Lead may benefit from the [HMIS End User Training Guide](#).

Training Availability: An HMIS Lead’s availability for training should be balanced with other roles and responsibilities. A training schedule should be flexible to meet both the users’ and HMIS Lead’s needs to balance other job duties.

Reporting

HMIS Reporting should be a major driver of CoC decision-making. The HMIS serves the CoC as a tool for understanding gaps in services, understanding community needs and the degree to which they are being met, understanding, and addressing racial disparities, coordination between organizations, and coordination of services to clients in a housing crisis.

The HMIS Lead should ensure that HMIS can generate *project-level* reports required by HUD and other federal funding partners, including HMIS CSV Exports for upload to (HUD) Sage Repository, (VA) SSVF Repository, and (HHS) RHYMIS Repository. Required progress reports and companion reports include: CoC APR, ESG CAPER, PATH Annual Report, and HOPWA APR.

The HMIS Lead should also ensure the HMIS can generate required *system-level* reports, including Longitudinal System Analysis (LSA), *formerly known as the Annual Homelessness Assessment Report (AHAR)*, the Coordinated Entry APR, and the HUD System Performance Measures Reports. Many systems also include reports to help with the submission of the Point-in-Time (PIT) count and Housing Inventory Count (HIC). The HMIS Lead should work with the CoC to ensure timely submission of these required reports in HUD's [Homelessness Data Exchange \(HDX\)](#).

Strategies for Reporting

Manage Reporting: HMIS Leads may wish to pursue the following strategies to manage the reporting requirements of the CoC:

- Develop and maintain Data Analysis Policies and Procedures, including an inclusive and diverse stakeholder group involved in any analysis of HMIS data and how the quantitative data from HMIS is informed further by qualitative and contextual information
- Work through the [HMIS Lead Series](#) tools available with the CoC and other stakeholders
- HMIS Leads should develop and follow a reporting calendar, including dates and deadlines for reporting requirements and submissions
- Grant users enough access and training to run their own reports
- Build capacity to ensure designated resources for report design, data analysis, code review, training of data analysis staff, and training of end users and CHO leadership about HMIS reporting
- Set a transparent process for responding to custom data requests from local funders or foundations
- Make educational materials available for various stakeholders that explains what HMIS is as well as what can be reported from the system
- Organize reports so that end users can find them easily
- Include in the Data Analysis Policies and Procedures a style guide that prioritizes accessibility and specifies the ways in which data analyses should utilize accessible data visualization techniques such as using alt text, clear succinct titling and labeling, using color-blind-safe color palettes, avoiding small font sizes, etc.
- Outline a development cycle for custom reports based on the scope of the request, HMIS Lead staff capacity, code review and quality assurance time, and other demands. A development cycle can include phases that repeat as necessary, such as:
 - a. Planning & Design
 - b. Development
 - c. Testing
 - d. Implementation
 - e. Feedback & Maintenance
- Develop and follow a process for release of code, documentation, data, and reports that is included in the Data Analysis Policies and Procedures

- Adopt a process for sharing report code or templates with other CoCs

Custom Reporting: Beyond the project-level and system-level required reports, the HMIS Lead should also ensure that the HMIS can produce other reports that can fill gaps in understanding and lead to better service for people experiencing homelessness, including the ability to disaggregate data by race, ethnicity, gender, age, and disabling condition, as well as intersections of these.

The custom report development cycle should be defined in the MOU or a Scope of Work between the CoC and HMIS Lead. When a request for a custom report is brought to the HMIS Lead, they should consult with the CoC to determine whether the request gets approved, the priority of the request over other work, and the timeline for completion of the request.

Examples of some custom reporting that CoCs may need are:

- Basic client counts at the client, household, project, project type, CoC, and system levels
- Inventory-based reports, such as Bed/Unit Utilization
- Project-level reports for emergency shelter projects available in HMIS for either Project Start/Exit transactions or Night-by-Night transactions (as defined by the workflow)
- Audit report requests (for CoC Governance, Project Staff, and Clients)
- Reports to help with prioritization for Coordinated Entry
- Reports to help the CoC with ranking projects for CoC Competition
- Duplicate client reports
- Data quality metrics to help target assistance to projects struggling with HMIS
- Performance-based reports that disaggregate data by race, ethnicity, gender, age, disability, and intersections of these to better understand disparities and inequities in the homeless response system

HMIS Leads should designate staff to participate in CoC data-related and other relevant committee meetings to better understand the CoC community reporting needs and provide baseline data in discussions of setting CoC performance goals.

Code Review Process for reports maintained by the HMIS vendor: The HMIS Lead should closely monitor and validate all reports that are generated from the HMIS software to ensure accurate report programming, project set-up, and system logic. A code review process should be included in the Data Analysis Policies and Procedures that specifies how the HMIS Lead is to verify and quality-control reports created and maintained by the HMIS vendor.

The HMIS Lead should report any issues to the HMIS software vendor as issues are identified and, if needed, also CoC leadership to pursue appropriate remedies available to the CoC or HMIS Lead in the HMIS software vendor contract.

Code Review Process for custom reports: Custom reports created by the HMIS Lead should be code-reviewed by someone other than the person who created the report, either internally or by a third party. Often vendors will agree to review custom reports created in their system for accuracy, depending on the terms of your contract. As issues are found in custom reporting, the HMIS Lead should iterate through the testing phase of the development cycle until the report is finalized.

Documentation for Report Users: The HMIS Lead should maintain a documentation process for custom reports that includes what need(s) any given report fulfills, how the report is run, what workflow and data quality expectations must be met for the report to be meaningful, and what data is included in the report. Updates to any reports should be recorded in a changelog with dates the change was made available to users, a description of the change, and an explanation of why it was done. This documentation should be easily accessible by any user of the report.

Documentation for Internal Use (Reproducibility): Adopting a reproducible data analysis workflow is important for presenting credible and verifiably accurate data results. A reproducible data analysis workflow should include the following:

- Steps taken to run a given report are well-documented and include exact file paths, document names, document types of any data used, and/or reporting structure signifiers used
- Any actions taken between systems (if applicable), such as modifying a generated spreadsheet prior to connecting it to your data visualization tool
- Any further actions taken inside a data visualization tool (if separate)
- Commented code (if available in your data analysis tool(s))
- Version control
- May require a separate space for documenting various changes to logic over time for a given report or any version control utilities can be used

Data Analysis

The ability of a CoC to analyze the data entered into HMIS is critical to understanding what the data is saying and how it can inform the work done to prevent and end homelessness in the community. Data analysis is listed as an eligible cost of the HMIS Lead Agency under the CoC Program interim rule. When working with the HMIS Lead on data analysis, CoCs are encouraged to take into consideration the HMIS Lead's staff capacity and budget, as well as the scope of work in the HMIS Lead agreement. If the CoC uses a third party to conduct analysis of HMIS data, the HMIS Lead and CoC should ensure that the third party adheres to all necessary agreements such as the Security and Privacy Plan.

The HMIS Lead should work with the CoC to develop Data Analysis Policies and Procedures. This document would describe for a CoC how any data analyses are designed, built, and maintained.

Strategies for Data Analysis

Some elements the HMIS Lead and CoC should be sure are included in their Data Analysis Policies and Procedures:

- Abide by the [2004 HMIS Data and Technical Standards](#), as well as any locally created documents (Privacy Policy, Security Plan, HMIS Consumer Notice, Client Consent and Release of Information) when explaining which entity is responsible for analyzing the data entered into HMIS and for what purposes that analysis will occur
- Ensure that reporting demands are addressed in the scope of work and contract and there is sufficient capacity and budget to support this work, where the HMIS Lead will be the entity to conduct data analysis
- Utilize existing tools such as Stella to help in data analysis
- Specify how and when demographics are included in any analysis (public-facing or not)
- Specify the lowest values allowed for a given grouping for purposes of de-identification (for example, "When displaying Race/Ethnicity data of values less than 10, display the following: 'Less than 10.'")
- Incorporate how and when the CoC will solicit feedback from a stakeholder group when analyzing data, including diversity in experience, identity, expertise, and perspective

In addition to the creation and adherence to Data Analysis Policies and Procedures, the HMIS Lead should work with the CoC and any other stakeholders, to:

- Ensure that any third-party evaluation of HMIS data is backed up by Data Use Agreements,

Business Sharing Agreements, and other relevant agreements and understand the role the evaluations are expected to play in the dissemination of data from HMIS for the purposes of analysis

- Work through realistic report development cycle timelines, accounting for code review and quality assurance time before releasing any results of data analysis externally
- Be sure that detail data represented in the aggregate is made available to users in a way that permits them to easily verify that their data is accurately represented in the aggregate
- Accept feedback from report users and allow for an iterative development process that includes responding to suggestions and fixing discrepancies

Combining HMIS Data with public data sets: While HMIS data helps form a useful picture of how a CoC serves people experiencing homelessness, the data is typically limited to how people interact with the homeless response system. Many publicly available data sets exist that HMIS Leads may incorporate into analyses, especially related to racial equity, housing stability, COVID-19, etc. Some examples are [census](#) data, the [CDC](#), [data.gov](#), [ArcGIS Open Data](#), and HUD's [CoC GIS Tools](#). Integrating this kind of data into analyses can help communities relate homelessness and housing to other systems and entities.

Data Quality

The importance of high data quality in HMIS cannot be overstated. If data quality is poor, the CoC cannot report accurately on their progress in addressing and ending homelessness, and they cannot accurately analyze the data in HMIS to make data-informed decisions.

Data Quality Plan: The CoC must review, revise, and approve a [Data Quality Plan](#) for the HMIS. As with the development of the privacy plan and security plan for the HMIS, the HMIS Lead is well-positioned to develop and implement a Data Quality Plan for the HMIS due to its ability to monitor data quality in real time in the HMIS.

Components of a Data Quality Plan: While not all data quality plans will be the same, below are the primary components of a comprehensive data quality plan:

- Introduction and level-setting
- Locally-defined benchmarks (generally by project type)
- Completeness
- Accuracy
- Timeliness
- Encouragements and Enforcements
- Improvement Plan
- Monitoring and Reporting

Strategies for Data Quality

Understand the Importance: The HMIS Lead should work with all stakeholders to help them understand the importance of data quality and why it matters. This can be done by:

- Ensuring that data quality is monitored on a regular basis
- Connecting the client back to the data quality and demonstrating how it may affect the client's ability to access needed services (e.g., through the Coordinated Entry System process)
- Including data quality in the CoCs rank and review process during the yearly CoC NOFO application process, as well as other competitive grant processes
- Make information on project-level and system-level data quality readily available to the CoC

Data Quality Plan: The CoC and HMIS Lead should create, maintain, and actively use a Data Quality Plan as an overall framework related to data quality as well as a Data Quality Monitoring tool that allows the HMIS Lead to document the data quality process. This plan should be reviewed annually and should evolve with the systems and data it supports.

Data Quality Monitoring Toolkit: The CoC and HMIS Lead would benefit from going through the [HMIS Data Quality Monitoring Toolkit](#) process to help them understand where they currently are in areas related to data quality, why they are where they are, and how to improve where they are. Using the [Data Quality Management Program](#) can also assist the CoC and HMIS Lead in addressing specific reasons they may be lacking in one or more areas of data quality, providing specific solutions and potential tools based on the “why.”

Data Quality Reporting: While HUD publishes specifications for an “HMIS Data Quality Framework” that vendors are encouraged to create and maintain, this report is not intended to serve as the sole data quality report for an entire HMIS. Vendors often create more comprehensive Data Quality Reports that HMIS Leads can use. If your vendor offers a Data Quality Report that works for your CoC, it may be best to include that report in your Data Quality Plan as the report your users run to check their data quality. If neither the “HMIS Data Quality Framework” that HUD specifies nor any of your vendor reports are sufficient, HMIS Leads should create a custom report or set of custom reports for their users.

Some recommended features of project-level data quality reports:

- Succinctly named issues (e.g., “Old Outstanding Referral” instead of “Referral Date 30 or more days in the past”)
- Guidance notes for each issue that tell a user how the error was likely made and what steps are needed to fix it or if there are times when the data may be describing a true outlier and should not be fixed
- Group the issues by importance (e.g., “High Priority”, “Error”, “Warning”) and define them clearly to give end users a clear place to focus their efforts
- Include any data quality issues with any custom data elements required by the CoC or locally
- Real-time reporting (the report runs on current data or frequently refreshed data)
- Can be run on multiple projects at once
- Group household members together in any lists of Personal IDs so that end users can work on correcting issues on groups of clients together, decreasing the amount of clicking from record to record in their work
- Avoid false flags by using Project Type and Funding Source data as a condition for certain data quality issues to show. (e.g., “No PATH Contact Entered at Entry” is only required for PATH-funded Street Outreach projects)

Vendors or HMIS Leads may also want to build a system-level version of this report that gives the CoC some insights about where extra technical assistance may be needed:

- What projects are creating the highest number of High Priority issues/ Errors/ Warnings?
- What issues are present in the largest number of projects’ data? (May indicate a training issue.)
- What issues have the highest frequency on clients across the system?
- What Coordinated Entry-related issues are occurring most frequently?

Encouragement and Enforcement: The CoC and HMIS Lead should think about both encouragements and enforcements in an overall **Data Quality Plan** framework to address both high-functioning and low-functioning end users and projects.

Data Integration

While HMIS data helps form a useful picture of how a CoC serves people experiencing homelessness, the data is typically limited to how people interact with the homeless response system. There has been significant interest in the ability to integrate HMIS data with data from other systems. While there are no requirements for data integration itself, HMIS data used as part of these efforts must adhere to established CoC, HMIS, and CE Policies and Procedures, HUD rules and regulations related to the collection, protection, and use of HMIS data, and state and local data privacy laws.

The HMIS Lead must ensure that data used in data integration projects is released in accordance with formal, written policies and procedures for the use of data and in accordance with the CoC's established privacy and security policies, including adherence to client consent (release of information) boundaries.

The HMIS Lead, in conjunction with the CoC, should establish a formal process for determining involvement in data integration projects and the provision of data to external entities for research. The determination protocol should include, at a minimum:

- A CoC policy related to the release of information to external parties
- A clear and transparent process for making decisions on the release of information for integration and research purposes
- A process to review privacy and security protocols (including client consents) to ensure data release complies with CoC and HMIS Policies and Procedures
- A process for notification to the requesting data entities of data release decision
- A process for notification to clients, if appropriate

The HMIS Lead should require contracts between data integration entities, to include, at a minimum:

- Purpose and business case use for the integration project
- Identification and responsibilities of each entity involved in the data integration
- Data use and disclosure restrictions
- Articulation of the data to be integrated
- Agreement on data stewardship and permissible access, use, and disclosures after integration
- Adherence to applicable CoC, state, and local data privacy and security policies and procedures, including client notification protocols in the event of a breach
- Data destruction and time limitations
- Protocols and procedures for termination of agreement
- Data breach protocols
- Use of reporting

Strategies for Data Integration

Engage the Community: As communities begin to think about HMIS data integration, the HMIS Lead and CoC should include a diverse group of people across race, ethnicity, age, gender, sexual orientation, and experience. HMIS data integration efforts should be in partnership with Black, Brown, Indigenous, and all people of color, as well as people with lived expertise of homelessness when discussing:

- Releasing data from the various data sets and where that data will be stored
- Data points that will be included in the integration, with special attention to any personally identifying client-level data
- Who will have access to the integrated data and who will be responsible for maintaining data quality, privacy, and security
- How the data integration data set will be used, by whom, why, and how it will benefit the clients served

Ensure Compatibility with Data Integration Projects: As HMIS Leads and CoCs begin to think about data integration projects, discussions should occur with the HMIS software vendor to discuss:

- The ability of the HMIS software to successfully work with data integration projects
- Any additional costs associated with a data integration project and building that into the budget
- The capacity of the HMIS software vendor to support a data integration project

Maintain Contact between CoC and HMIS Lead: As the CoC thinks about data integration projects, conversations should occur with the HMIS Lead to ensure:

- Sufficient budgetary and staff resources to support a data integration project
- A common understanding of the scope and timeline of any given data integration project
- How a data integration project may, or may not, affect end users and the data entered into HMIS