

A Community's Perspective on Implementing and Operationalizing a Data Quality Assurance Program

Mike Lindsay (ICF), Natalie Matthews (Abt Associates), and Gerry
Leslie (MICAH)



Putting It All Together:
Uniting Data, Technology, and People



Building a Data Quality Management Program
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Learning Objectives

1. Understand all components of a Data Quality Management Program and how this work fits into the overall efforts of the CoC, including the System Performance Measures
2. Discuss the roles that CoCs, HMIS Leads, and agencies play in implementing a Data Quality Management Program
3. Learn from the experiences of other communities in implementing a Data Quality Management Program



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What is Data Quality?

1. Data quality refers to the reliability and comprehensiveness of the data in your CoC's HMIS
2. Components of data quality include
 - Completeness
 - Timeliness
 - Accuracy
 - Consistency



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Completeness

- Completeness is defined as the degree to which HMIS records do not include partial or missing data (e.g. partial date of birth)
- Completeness can also capture the lack of data from projects not participating in HMIS (e.g. low bed coverage rate)



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Timeliness

- Timeliness reflects the period between when client data is collected/known and when that information is entered into HMIS
- If data is not entered into HMIS shortly after it is known, then there is likely an increase in the potential for inaccuracies or errors in the data once it is in HMIS



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Accuracy

- Accuracy is evident when the data in HMIS reflects the actual characteristics and experiences of clients
- Inaccurate data significantly limits the ability of HMIS to serve as a tool in the community's efforts to reduce homelessness



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Consistency

- Consistency is the degree to which the data is collected and stored in a uniform manner, across all users of the HMIS
- If users do not have a shared understanding of when, how and why data should be collected in HMIS, then it is likely that the data will not be accurate



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DATA QUALITY MANAGEMENT PROGRAM



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Data Quality Management Program

- In anticipation of the HMIS Final Rule, and in response to NOFA scoring criteria for the CoC Program, many CoCs have created data quality plans
- There are not yet HUD requirements for these data quality plans, but more guidance is anticipated
- Generally, Data Quality Plans should include guidance on:
 - Baseline expectations for ***accuracy, completeness, and timeliness***
 - Protocols for reviewing and monitoring for ***accuracy, completeness, and timeliness***



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Why a DQ Management Program?





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Components of a DQ Management Program

1. Identify Your Baseline
2. Secure CoC Buy-In
3. Develop a Data Quality Plan
4. Execute enforceable agreements
5. Ongoing monitoring and reporting
6. Create incentives and enforce expectations



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Creating your DQ Management Program



Identify Your Baseline

- Important to take stock of where you are now
 - Do you know how many of the homeless assistance and homelessness prevention projects in your CoC, are actively participating in HMIS? **Baseline for bed coverage**
 - Have you recently run data completeness reports for your full HMIS implementation? **Baseline data completeness**
 - When CoC leaders, project staff and HMIS Lead staff review reports, does the data seem accurate? **Baseline for accuracy**

Ensure CoC Leadership Buy-In

- Important to clarify up front what the expectations are for the data quality program
 - CoC will need to review and approve the DQ Plan
 - CoC should also be heavily involved in determining expectations for monitoring and compliance
- **This work cannot and should not fall just on the shoulders of the HMIS Lead Agency**

Develop Your Data Quality Plan

- Data Quality Plan should be informed by your understanding of your baseline, and should reflect where your CoC wants to move the system
- Plan should be clear and concrete, and should set standards across all four elements of data quality
- Plan should also outline what the impact will be if an agency does not meet the standards
- Development and approval of the Plan must go through your CoC's governance structure, as identified in your CoC Governance Charter

Execute Enforceable Agreements

- Enforceable agreements are critical
- Need to be completed by all agencies participating in HMIS
- Should provide guidance on what the consequences are for failure to meet the standards in the DQ Plan, as well as the incentives
- Identify the process for notification of failure to meet a standard
- Lay out the responsibilities of BOTH the HMIS participating agency and the HMIS Lead and CoC

Ongoing Monitoring and Reporting

- Once the HMIS Data Quality Plan has been reviewed and approved by the CoC and agreements are in place, it's time to get out there and implement
- Will need to train/communicate to agencies and users first, to ensure that all users understand the expectations
- Encourage the CoC to allow for a grace period
- **Transparency with results is key**

Ongoing Monitoring and Reporting

- Set of procedures that outlines a regular, ongoing process for analyzing and reporting on the reliability and validity of data
 - Program and aggregate systems levels
- Primary tool for tracking and generating information necessary to identify areas for data quality improvement
- Includes procedures and frequency for data review
- Highlights expected data quality goals, steps to measure progress and the roles and responsibilities for ensuring data is reliable and valid

Create Incentives and Enforce Agreements

- Important to celebrate successes and to allow room for growth
- Make the connection between the HMIS DQ efforts and other CoC lead efforts
 - Impact of improved data quality on the accuracy of System Performance Measures and other local data analysis
 - Impact of improved data quality on the ability to generate a By-Name or Prioritization List, to use HMIS for coordinated entry, etc.

Key Considerations

- Ensure all stakeholders are clear on roles and responsibilities
 - Establish tasks and timing of tasks
- Make data quality a standing CoC meeting agenda topic
- Ensure data quality monitoring and compliance procedures conclude **BEFORE** project level/system level data is published or reported
- Compare data element completion rates for every project
- Use quality data to measure system/program performance

Key Considerations

- Have they been discussed in a public forum, to allow for feedback and to generate buy-in from the CoC?
- How far back do you need to go in terms of data quality improvements? Are you looking at “old” data? How does poor data quality impact your reporting efforts?
- Will these expectations extend to all homeless assistance and homeless prevention programs in the community?

Next Steps for Communities

- **Don't wait!!** The quality of your data now will impact your reporting capacity, including the APR and System Performance Measure reports (submitted this Spring)
 - Map out your baseline
 - Discuss the Data Quality Framework results with your CoC leadership
 - Work with the CoC on the development of a DQ Management Program
 - Review sample HMIS Data Quality Plans (they're on the web!)
 - Spend time thinking through monitoring and compliance

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COMMUNITY PERSPECTIVE

Practical Solutions for Data Quality Plans

- A Data Quality Plan can either be a standalone document or incorporated into your CoC's HMIS Policies and Procedures
- A Data Quality Plan needs to be updated periodically (For example, updated annually to coincide with the HUD fiscal year)
- This update window should be a recognized timeframe that the CoC and local agencies expect.

Practical Solutions for DQ Management Programs

- DQ Management Programs should include representation from a wide variety of agencies and staffing levels, to help ensure local buy-in
- Establishing a Continuous Quality Improvement (CQI) Committee is a great tool for assisting agencies and systems of care with improving data quality and performance

Establishing Benchmarks (Data Timeliness)

Ensuring data is entered in a timely manner is critical to establishing a complete and accurate data set. The following steps can help:

- Talk to your agencies to see how long after client intake they typically enter data
- Look for ways to incentivize real-time data entry
- If agencies do not enter in real-time, what are the hurdles limiting their capability?

Establishing Benchmarks (Data Timeliness)

- A short window for entering data after client interaction helps ensure the client may still be available if data issues are identified
- Also, CoCs should look into policies surrounding the updating of client info. If a CoC is sharing data, the question should be asked about who is responsible for updating information and when?

Establishing Benchmarks (Data Completeness)

There are several sources you can pull from to obtain benchmark data for your data quality plan:

- Individual CoC Project APRs
- Your HMIS APR
- The new HUD Data Quality Framework Reports
- Other Data Completeness Reports published by your Vendor or developed internally.

Establishing Benchmarks (Data Completeness)

- The typical maximum number for missing or null values has been 10%.
- A target of less than 5% missing or null values is attainable for well functioning communities
- Remember, when HUD/Federal Partners introduce new data elements, they need to be updated for all clients participating in the project on the date of implementation of the new standards. (Failure to do so can lead to high missing/null values)

Establishing Benchmarks (Outcomes)

The following can be useful for determining outcome baselines for your CoC's System of Care

- Review the HUD System Performance Measures (SPM) reports for the past two cycles
- See if similar sized CoCs with similar demographic and geographic population characteristics would be willing to share their SPM reports with you

Establishing Benchmarks (Outcomes)

Reviewing project performance

- Remember, not all outcome measures are equally as applicable at the project level as they are at the system level!
- For example, returns to homelessness can often be impacted by systemic issues, such as availability of the right type of housing intervention, accurate evaluation at Coordinated Assessment, and links to supportive services.

Establishing Benchmarks (Outcomes)

Reviewing project performance

- Target population served by a project can also impact client outcomes
- When comparing outcomes, compare similar project types who serve similar subpopulation groups

Additional Benchmarks (HMIS Participation)

If your CoC has a low HMIS Participation Rate, the following are good questions to investigate

- What issues are there that impact participation on the system? Lack of trust? Lack of resources? Overall lack of capacity?
- If key stakeholders do not participate on the system, what assistance can we offer to get them on board?

Writing your Data Quality Plan

- Enlist a diverse group from your CoC to assist in authoring (Will help with buy in)
- Understand “political hurdles” upfront and discuss best strategies for how to address
- Set a reasonable timeline for completion, review and approval by the CoC

Strategy for Assisting with Data Quality Compliance

In our experience, we have found that putting points for data quality as a scoring factor for ranking projects is a great way to encourage high levels of performance without seeming too heavy handed.

Reviewing/Monitoring Data Quality

- Our experience has taught us that agencies and users have to buy in to data quality plans in order for them to be truly effective
- Policies should be implemented that require funded projects to submit regular reports which look at clients served, data quality and performance (See the SSVF Program for a National Model of how this is implemented)

Reviewing/Monitoring Data Quality

- It is very difficult to drive data quality as a top down process!
- Build a culture around data quality from the ground up.
- Train agencies how to run reports and have user meetings be a place to review data
- At the end of the day accountability is all about making sure we serve our clients in the best manner possible

Using CQI in a DQ Management Program

- Implementing CQI or Continuous Quality Improvement Workgroups/Committees is a best practice for improving overall data quality and outcomes
- CQI is centered around creating stabilized and efficient processes, which are monitored by data to measure change/improvement

Using CQI in a DQ Management Program

- CQI Groups are setup to encourage transparent/honest dialog around challenges
- They are places where problem solving takes place in a positive environment, review processes, don't blame agencies and people
- CQI is a place to address problems in a constructive way... not a place to be punitive
- Create a culture where agencies are encouraged to work within a CQI process