

## Data Quality Matters - Common Causes of Poor Data Quality (Part 3 of 4)



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The previous installment in this series outlined the three most common causes of poor data quality: technical causes, human error, and organizational causes. All of these factors are important to consider when trying to prevent and correct poor data quality, whether it is in HMIS or other internal databases and spreadsheets utilized by agencies.

### Common Causes of Poor Data Quality

Understanding the causes of poor data quality can help an agency look at their own practices and culture to address potential data issues. In the final two installments of this Data Quality Matters series, we will detail the following ways that you can work within your agency to improve data quality:

1. Develop a data quality plan
2. Assess current processes and procedures
3. Avoid redundancy and missing data elements
4. Minimize the utilization of multiple management information systems
5. Make data quality a priority

Now we will specifically dig into the first two strategies for data quality improvement.

### Develop a Data Quality Plan

The best way to avoid poor data quality is to develop a Data Quality Plan and review data on a regular basis. Your plan should outline which data elements will be monitored, the process for pulling and reviewing data to ensure the information is accurate, how often the data will be monitored, and the individual who will be responsible for monitoring, reviewing, and correcting the information.

Data Quality Plans should include those data elements which are crucial to understanding programmatic and client outcomes, such as income or exit destinations for housing programs. In HMIS, the Annual Performance Report (APR) is useful in looking at income and exit destinations to ensure what is being reported is accurate. Also within AWARDS, there are several different Data Quality/Completeness Reports, which are very helpful in reviewing for errors and effectively fixing those errors. The project specific reports encompass those errors when it comes to Project Specific Data Elements.

It may also be helpful to assign one individual to monitor and review data to ensure consistency. Ideally, the individual doing the data entry should also be the individual monitoring and correcting the information in the system to ensure that what is listed in the database matches what's in the hard copy client file. This will typically prevent future data errors from occurring. Lastly, any data quality issue identified needs to be corrected in the system to ensure accuracy. Questions on how to fix data errors in HMIS can be directed to the Helpdesk.

While reviewing data on a regular basis helps to address some of the human causes of poor data quality, it may also help in identifying technical causes, specifically reporting issues. It could be that data entered in the system is accurate, but programming errors prevent certain elements from being reported appropriately. Having a data quality plan can ensure that these technical errors are caught well before your reporting deadlines.

Lastly, having a Data Quality Plan written out will also address some of the organizational causes of poor data quality, particularly in ensuring that a consistent process is followed when there is staff turnover or when new staff is hired.

### Assess Current Processes and Procedures

Assessing current data collection processes and procedures may be helpful in preventing and improving data quality issues. For example, it may be better for staff members to fill out client intake forms through an interview process rather than having clients fill out the form. Typically, having clients fill out the intake form instead of a staff member can lead to incomplete and inaccurate information in the system simply because the client may be uncertain about specific questions.

It is also important to ensure that all staff members who fill out intake forms through an interview process understand the definition of a particular data element to ensure consistency, such as disabling condition or type of residence.

Agencies may also want to consider moving away from paper intake forms to real-time data entry if possible. Real-time data entry means that staff enters data into a system at the same time they collect the information from the client. Moving toward this model may address some of the unintentional human errors that occur when there is a misspelling, a transposition of numbers, or transcription issues when entering data from paper intake forms. However, it is important to keep documentation requirements in mind if agencies choose to move toward real-time data entry.

Research also suggests that the likelihood of data entry error increases when data is collected and entered by different staff. Agencies can prevent poor data quality by minimizing the number of staff doing data entry and ensuring that those who collect the data are the same individuals entering the information into the system. This will ensure consistency in data collection and entry and will also address some of the human causes of poor data quality.

The next and final installment of this Data Quality Matters series will address the three remaining ways to improve data quality: avoiding redundancy and missing data elements, minimizing the utilization of multiple management information systems, and making data quality a priority.