

# QUARTERLY DATA QUALITY USER INSTRUCTIONS

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## PURPOSE OF THIS INSTRUCTION GUIDE

This document is intended to be a resource for the Quarterly Data Quality (QDQ) process. It contains information to help end users navigate the QDQ report, data corrections, and submission of provider scores to the QDQ Portal. All users should review this instruction guide carefully before working through the QDQ process.

This guide is provided as a resource by the Institute for Community Alliances (ICA). For more information and the most up to date content on the QDQ process, visit the [Quarterly Data Quality webpage](#).

## WHO SHOULD USE THIS GUIDE?

Anyone involved with data corrections in HMIS or submission of scores to the data portal should review this guide. You must be an HMIS user to make data corrections or submit scores.

## QUARTERLY DATA QUALITY

Four times per year, agencies will hear from their CoC coordinator. Agencies will run a special report that ‘scores’ their providers’ data quality based on the extent to which the HUD and MN universal data elements meet criteria for completeness, accuracy and consistency, and timeliness. Agencies will have time to correct issues and then re-run the report, with support from ICA in HMIS User Groups and via the HMIS MN Helpdesk during that time.

Agencies will then submit a form indicating they reviewed their report and documenting their scores. In return, agencies will receive charts that can help them track and celebrate their data quality progress.

CoC leadership and state funding partners will be briefed on agencies’ participation and progress every quarter, and all partners will work together to make sure agencies receive support and recognition aligned with their performance and needs.

## FLOW CHART

This flow chart shows the process in a visual format. For agencies, your focus is on the orange section of the flow chart. Note that there will be multiple times when the report is re-run after data corrections have been made and before you are ready to submit the scores.

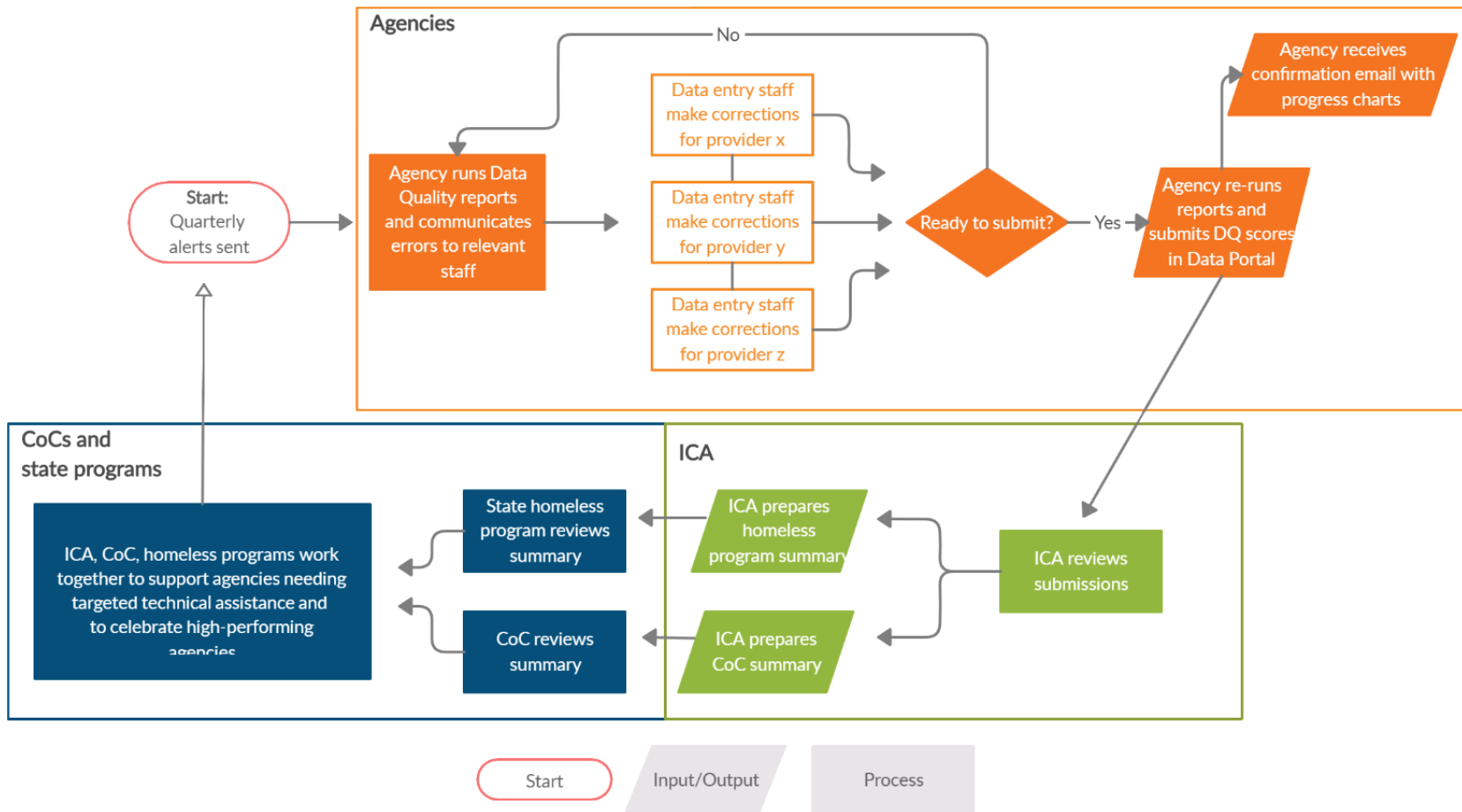


Figure 1: The Flow Chart Showing the QDQ Process

## WHO PARTICIPATES IN QDQ?

All HUD funded HMIS projects, as well as state and other federally funded HMIS projects will be included in the QDQ process. Additionally, other privately funded agencies and projects that are entering data into Minnesota's HMIS will be included.

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### HUD FUNDED HMIS PROJECTS

- CoC
- ESG
- HOPWA
- YHDP

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### STATE & OTHER FEDERALLY FUNDED HMIS PARTICIPATING PROJECTS

- All sources of state funding
  - Minnesota Housing (LTH, FHPAP, etc.)
  - Department of Human Services (DHS)
- Veterans Affairs-SSVF
- Health and Human Services (PATH & RHY)

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### PROJECT TYPES

- Permanent Housing (PH)
  - PH-HO
  - PH-S
  - PSH-D
  - RRH
- Transitional Housing (TH)
- Safe Haven (SH)
- Emergency Shelter (ES)
- Street Outreach (SO)
- Supportive Services Only (SSO)
- Homeless Prevention (HP)
- Day Shelter (DS) – excluded from QDQ if only using Service Transactions

## WHO DOES NOT PARTICIPATE IN QDQ?

Because most HMIS project types *are* included in QDQ, it's important to know the project types and providers that are not going to have scores submitted during the Quarterly Data Quality

monitoring process. All coordinated entry providers will be excluded from the QDQ process, no matter what workflow they follow. Non-participating providers, or NPPs, and providers that only create service transactions for clients (no Entry/Exits) will be excluded as well.

## NOT INCLUDED IN QDQ MONITORING PROCESS

- Coordinated Entry Providers
  - Entry Exit Workflow: “Coordinated Entry Assessment” providers
  - Referrals Workflow: “Coordinated Entry Referrals” providers
- Non-Participating Providers (NPPs)
  - These HMIS providers do not have client data, and therefore do not participate in QDQ submissions
- Service Transaction ONLY providers
  - For example: Day Shelters that do not use Entry/Exits for clients

## TIMELINE

The timeline for Quarterly Data Quality is shown below. The yellow highlights represent a recommended timeline, and the green highlights represent a hard deadline.

| Activity  | Lead                        | Report Period:          | Report Period:       | Report Period:    | Report Period:        |
|---|-----------------------------|-------------------------|----------------------|-------------------|-----------------------|
|   |                             | October 1 – December 31 | January 1 – March 31 | April 1 – June 30 | July 1 – September 30 |
|   |                             | Q4 Submission           | Q1 Submission        | Q2 Submission     | Q3 Submission         |
| Time to finish data entry                           | Agency data entry staff     | Jan 1 - 14              | Apr 1 - 14           | Jul 1 - 14        | Oct 1 - 14            |
| Quarterly alerts                                    | CoC                         | Jan 15 - 21             | Apr 15 - 21          | Jul 15 - 21       | Oct 15 - 21           |
| Reports run and errors communicated                 | Agency data quality lead(s) | Jan 22 - 28             | Apr 22 - 28          | Jul 22 - 28       | Oct 22 - 28           |
| Errors resolved                                     | Agency data entry staff     | Jan 29 – Feb 11         | Apr 29 – May 11      | Jul 29 – Aug 11   | Oct 29 – Nov 11       |
| Final reports run and form submitted in Data Portal | Agency data quality lead(s) | By Feb 11               | By May 11            | By Aug 11         | By Nov 11             |
| Submissions reviewed                                | ICA                         | Feb 12 - 28             | May 12 - 28          | Aug 12 - 28       | Nov 12 - 28           |
| Summaries submitted                                 | ICA                         | By Feb 28               | By May 28            | By Aug 28         | By Nov 28             |
| Summaries reviewed                                  | CoCs, state partners        | By Mar 15               | By Jun 15            | By Sep 15         | By Dec 15             |
| Feedback to agencies                                | ICA, CoCs, state partners   | By Mar 31               | By Jun 30            | By Sep 30         | By Dec 31             |

Figure 2: QDQ Timeline

## TERMS AND DEFINITIONS

- **BusinessObjects:** The reporting tool used to run the QDQ Report.
- **Data Corrections:** The corrections made by users and agencies that will then improve their data quality and their scoring on the QDQ report.
- **Data Elements:** Pieces of client information (questions) collected by projects.
- **Data Keys:** The information located at the top of a report tab that provides insight into the details of a particular tab in the report.
- **Knowledge Base:** A collection of some frequently asked questions with answers from the team at ICA sorted into topics.
- **Report Tabs:** The sections of the report shown on the bottom of the report.
- **Portal:** The form used to upload the results of the QDQ scores for a provider.
- **Provider:** A mechanism used to organize data into groups for data entry and reporting purposes.

## THE QDQ REPORT

The Quarterly Data Quality Monitoring report was built in 2019 by ICA Minnesota to support HMIS data quality monitoring and the Quarterly Data Quality process. It is designed to show the overall quality of data entered at the project level for a given time period and generates scores to measure projects' data quality.

## REPORT LOCATION

The QDQ report is located in the BusinessObjects reporting tool. To find the report, open these folders in order: **Public Folders** >> **minnesota\_live\_folder** >> **SSA Report Gallery (Funder Reports) (Secure)** >> **2. MN Data Quality Tools**

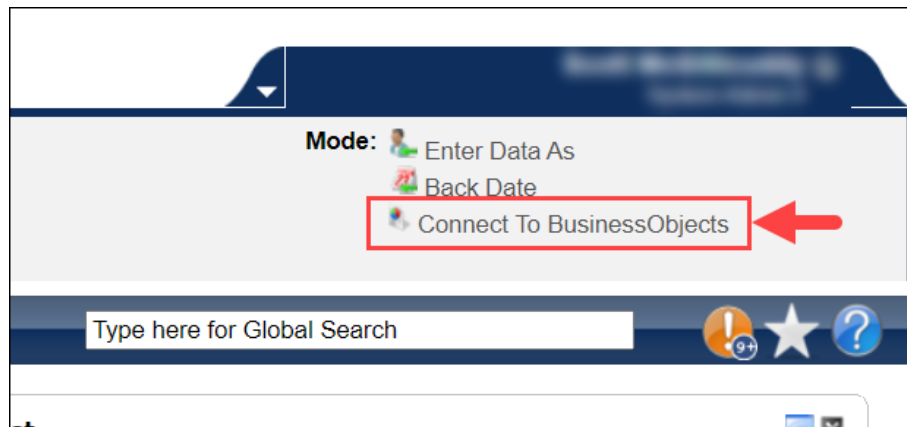


Figure 3: Connect to BusinessObjects Using the One-Click Method

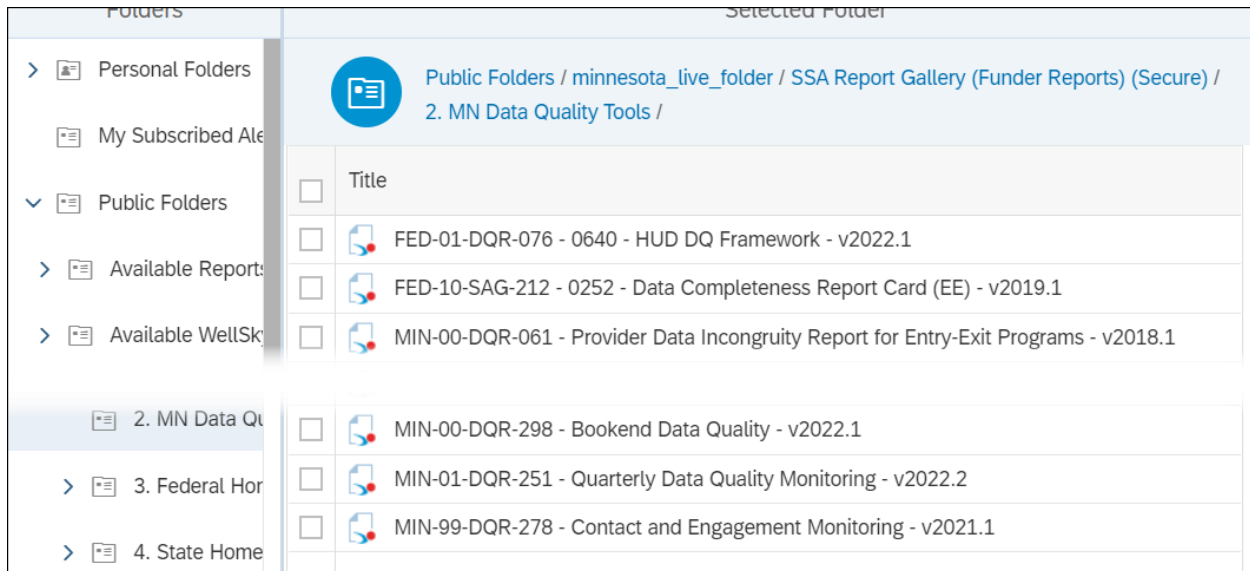


Figure 4: Location of the QDQ Report in BusinessObjects

## REPORT PROMPTS

The report is designed to be run a variety of ways, depending on the user’s role and needs. Most users will run this report for a single provider or multiple providers and can skip prompts for Reporting Group and CoC Code.

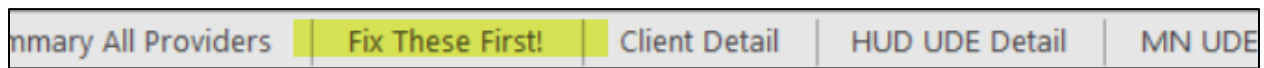
| Prompt                                      | Description  |
|---|--|
| <b>Select Reporting Group(s):</b>           | If you have one or more reporting groups you typically use to run reports for your applicable data entry providers, select the reporting group(s) whose data you’d like to include. Otherwise, leave this empty. |
| <b>Select Provider(s):</b>                  | Select the provider(s) whose data you’d like included.   |
| <b>Select CoC Code(s):</b>                  | Leave empty.   |
| <b>Select Retired CoC Code(s) ICA ONLY:</b> | Leave empty. This prompt is here for ICA use only.   |
| <b>EDA Provider:</b>                        | Leave as is.   |
| <b>Enter Start Date:</b>                    | Enter the first day of the quarter for which you’re running data (e.g. 10/1/2019 12:00 AM).  |
| <b>Enter End Date (PLUS 1 Day):</b>         | Enter the date one day after the last day of the quarter for which you’re running data (e.g. 1/1/2020 12:00 AM).   |
| <b>Enter effective date</b>                 | Enter the same date you entered for End Date (e.g. 1/1/2020 12:00 AM).   |

## CORRECTING DATA

For the information in HMIS to be useful in measuring our progress or understanding our homeless response system, it must be accurate, complete, consistent, and timely. Reviewing and correcting errors on your QDQ Monitoring Report will improve the usefulness of HMIS data.

### FIX THESE FIRST!

Unless the first report you run returns a perfect data set (no errors) you will need to rerun the report. Plan to run the report at least three times. The first report run will be for your initial baseline data. When you have the baseline data, look at the report tab labeled **Fix These First!**



This tab displays only client with errors in the Date of Birth (DOB) or Relationship to Head of Household (Relate HoH) elements. If a client has a DOB or Relate HoH error, the report can't properly count them in other areas.

**IMPORTANT: Fixing these errors will have an impact on the errors that appear in later tabs of the report. Rerun the report after fixing the errors on this tab. You must wait until BusinessObjects refreshes before data corrections will show up in reports.**

| Quarterly Data Quality Monitoring   |           |   |               |   |           |            |           |          |                         |     |           |                           |  |
|---|-----------|---|---------------|---|-----------|------------|-----------|----------|-------------------------|-----|-----------|---------------------------|--|
| High Impact Errors: Fix These First!  |           |   |               |   |           |            |           |          |                         |     |           |                           |  |
| Report Dates: 10/1/2019 - 12/31/2019  |           |   |               |   |           |            |           |          |                         |     |           |                           |  |
| HMIS-Generated Report developed by the Institute for Community Alliances. Copyright © 2018 Institute for Community Alliances. All Rights Reserved.  |           |   |               |   |           |            |           |          |                         |     |           |                           |  |
| Table/Report Information  |           |   |               |   |           |            |           |          |                         |     |           |                           |  |
| This tab displays only clients with errors in the Date of Birth (DOB) or Relationship to Head of Household (Relate HoH) elements. If a client has a DOB or Relate HoH error, the report can't properly count them in other areas. IMPORTANT: Fixing these errors will have an impact on the errors that appear in later tabs of the report. Rerun the report after fixing the errors on this tab. |           |   |               |   |           |            |           |          |                         |     |           |                           |  |
| Key   |           |   |               |   |           |            |           |          |                         |     |           |                           |  |
| Data Element  | Indicator | Reason  |               |   |           |            |           |          |                         |     |           |                           |  |
| Relate HoH  | Null      | This household has no client marked Head of Household in the Relationship to Head of Household data element.                |               |   |           |            |           |          |                         |     |           |                           |  |
| DOB Type  | Null      | This client is missing information in the Date of Birth Type data element.  |               |   |           |            |           |          |                         |     |           |                           |  |
| DOB Error   | Error     | There are inconsistencies between the value recorded for DOB and the value recorded for Date of Birth type for this client. |               |   |           |            |           |          |                         |     |           |                           |  |
| Relate HoH Error  | Missing   | This client is missing information in the Relationship to Head of Household data element.                                   |               |   |           |            |           |          |                         |     |           |                           |  |
| Relate HoH Error  | HoH Error | This client's household is missing a Head of Household.   |               |   |           |            |           |          |                         |     |           |                           |  |
| Client Id   | Group Id  | HoH   | Entry Exit Id | Provider  | Proj Type | Entry Date | Exit Date | at Entry | Date of Birth           |     |           | Relationship to Household |  |
| 7194  | 1363735   | Null  | 1363735       | ICA-PH S-HCC-DHS-OEO HYA- Training Provider(3410) | PH-S      | 6/15/2017  |           | 47       | Full DOB Reported (HUD) | DOB | DOB Error | Relate HoH                |  |
|   |           |   |               |   |           |            |           |          | 3/1/1970                | Ok  | Missing   |                           |  |

Figure 5: A View of the **Fix These First!** Tab



As the tab states, these are the first errors that should be corrected. It is highly likely that fixing these errors will have an impact on other errors that are showing up on the baseline report. Use the Data Corrections articles in the [Knowledge Base](#) to address the errors.

## DATA CORRECTION ARTICLES

You can find step-by-step instructions for correcting data entry at [Minnesota's HMIS Knowledge Base](#).

When you access the Knowledge Base you will see a section labeled **Data Corrections**. This is the location of the articles related to data clean up.

The most effective way to find the article you need on the Knowledge Base is to use the Search Bar. Using key words will help you locate the article you need for corrections.

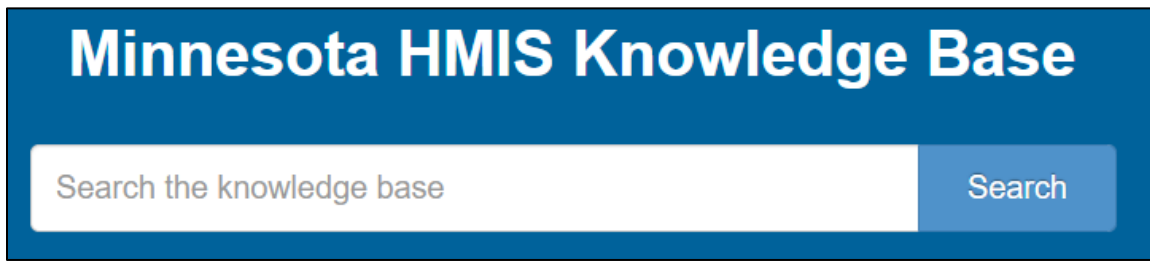


Figure 6: Use the Search Bar for Minnesota HMIS Knowledge Base

Alternatively, if you click on the **Data Corrections** button, you will be routed to a set of articles pertaining to specific data elements and the details on how to correct errors.

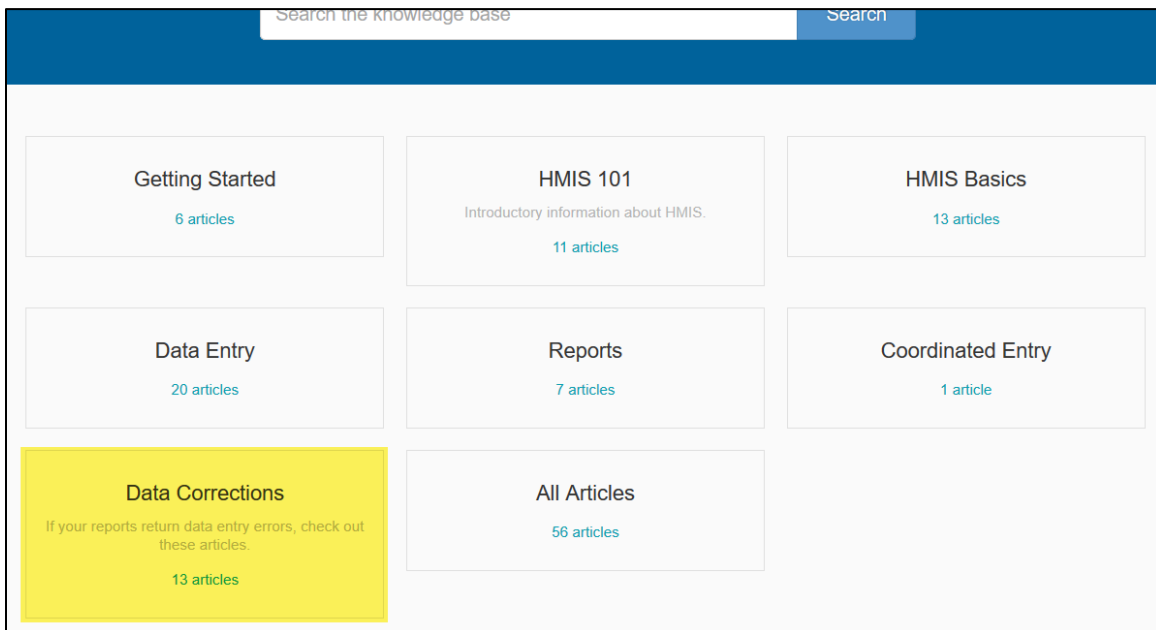


Figure 7: The Data Corrections Button

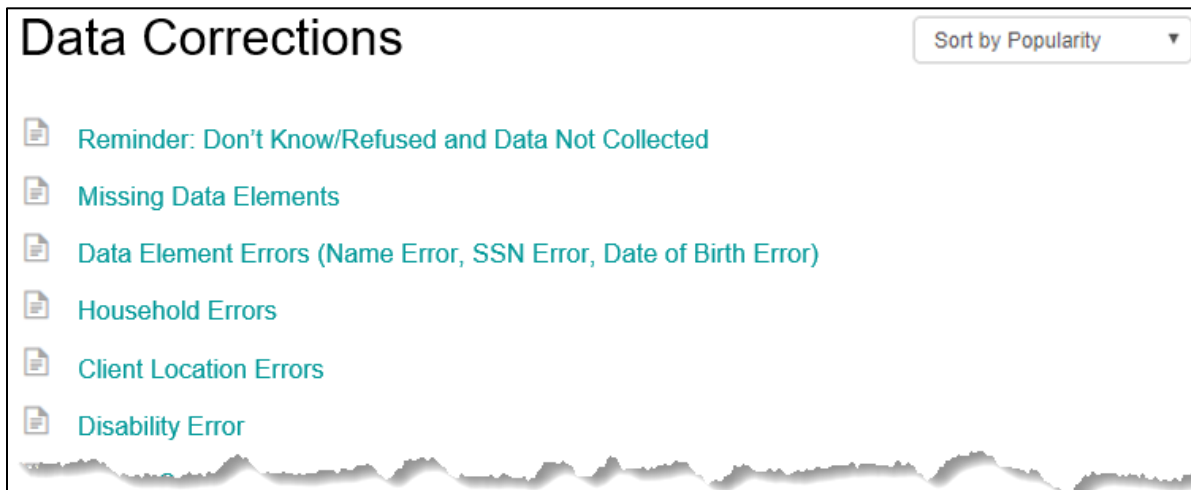


Figure 8: Data Correction Articles

Choose the data element you wish to correct by clicking on the label for the element. You will be routed to a new page with the data correction instructions. We anticipate these articles to address most data corrections. However, if you cannot find what you are looking for in the Knowledge Base, you can contact the ICA Helpdesk.

You will find a [Contact Us](#) link at the bottom of every article and at the upper right-hand corner. You can also use these links to let us know if you need information that the Knowledge Base just did not seem to have.

## RE-RUNNING THE REPORT

When you have cleaned up the errors on the **Fix These First!** report tab, run the report a second time. The results from the second run will show you any remaining errors. Again, use the Data Corrections articles in the [Knowledge Base](#) to address the errors.

**NOTE: You must wait until BusinessObjects refreshes before data corrections will show up in reports.**

## REPORTING SCORES

You can continue to rerun the report until you feel you are ready to submit your provider scores. Use the [QDQ Data Portal Instructions](#) to submit the provider scores.

You'll complete the form once per data entry provider. This allows for the ability to understand and track progress across providers, project types, CoCs, and funding programs.

## DATA ELEMENTS

The Quarterly Data Quality Monitoring report considers every HUD and Minnesota Universal Data Element, which are important in annually occurring HUD projects, and additionally considers other important (but not Universal) elements: Income and Sources, and Date of ROI Consent and Client Alias.

Some data elements do not apply to all clients; the report accounts for that by looking at the characteristics of the client (e.g. their age, their Relationship to Head of Household, and their responses to dependent elements). If the element does not apply to the client, it will not count against the provider's score.

Some programs do not require all Universal Data Elements; the report accounts for that by looking at the program of the data entry provider. If the provider represents a program where the element is not collected, it will not count against the provider's score.

For a more detailed look at the data elements and more details on the report itself, check the [Report Guide](#).

## SCORING RUBRIC

The data elements are assessed, and a score is given. The score a provider receives is based on a scoring rubric that can be viewed on the [QDQ Scoring Rubric](#).

Data Quality is typically thought of in terms of its component parts: completeness, consistency, accuracy, and timeliness.

- **Completeness** ensures that all the appropriate and relevant data that agencies or funders need is being collected and recorded, and that a community can accurately

describe both its clients, and the full scope of services provided to those clients accessing services.

- **Consistency and Accuracy**, often considered separately, work together and in this rubric are scored together. It is critical that all aspects of a client’s profile and assessment data “agree with” each other, and that there are no contradictions among the data. It is also critical that data within the system accurately reflects reality as provided by the client and as documented in the client’s file.
- **Timeliness impacts the other components of data quality**: reducing the time between data collection and data entry will increase the accuracy and completeness of client data. If updated information is not recorded in the system, analysis is done on outdated and inaccurate information – data that’s not present can’t be analyzed.

## PLANNING YOUR QDQ APPROACH

Neither your CoC Coordinator nor ICA will tell you how to manage the Quarterly Data Quality (QDQ) process at your agency. It is up to every agency to decide how this will be best accomplished. There are, however, some considerations that may start the conversation about how your agency will approach QDQ.

1. **Number of HMIS Providers**: Consider the size of your agency in HMIS. Agencies will likely have multiple providers in HMIS. How many providers does your agency have in HMIS?
2. **Number of Data Corrections Staff**: Consider the people in your agency that can make data corrections in HMIS. How many people will be cleaning the data?
3. **Number of Staff Submitting Scores**: Consider the number of staff that will be reporting scores into the QDQ Portal. Only HMIS users may submit scores.

Cleaning up the data will take the most time. However, like any task, breaking it down into smaller pieces can make it easier all around. As stated above, if the focus is first put on the **Fix These First!** tab, then further clean up may get easier. If you have multiple HMIS users who can clean up the data, you can break the list from this tab down and everyone can do a part.

Each provider will receive a QDQ score. Once data has been cleaned, that score will need to be entered into the QDQ Portal. Thus, an agency with 22 providers will need 22 forms filled out.

This process should take no more than 2 minutes per provider as the report can be pulled to show you every provider's score on one page.

***If you are the sole HMIS user at an agency***, the recommendation is that you will be the one to run the QDQ report, clean the data, and report the data to the portal.

***If you are in an agency that has an abundance of providers across multiple CoCs***, you may want to consider the possibility that your agency should have a few HMIS point staff. Those individuals would be given a set of providers that can be managed in the QDQ process. The point staff could be simply responsible for submitting data to the portals. The points staff might also be responsible for some of the data clean up.

***If your agency is somewhere in between these extremes***, then it might be better to meet with all of your agencies HMIS users to figure out how this quarterly process will work.

Regardless of the method, keep in mind that, over time, your data quality will likely improve and the process you put in place will likely get easier too.