



Data Quality Workshop

BFZ v4.11 Report - WellSky Community Services

August 22, 2023

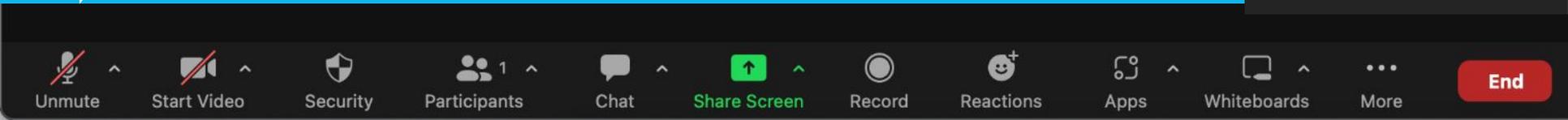
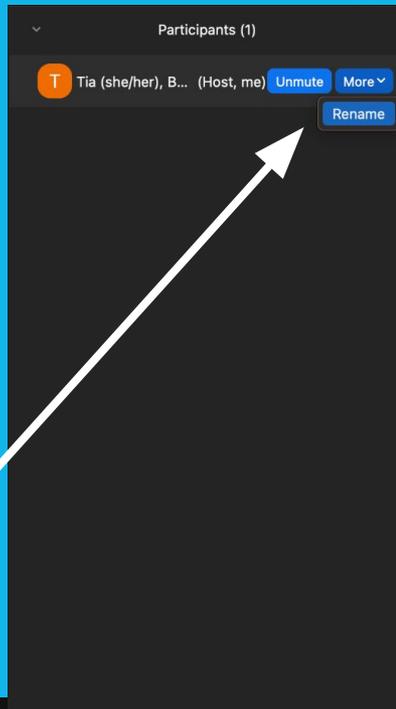
****Reminder****
This will be recorded!

Welcome!

Please have an export of the **Case Conferencing and Housed Clients Exiting** report downloaded in Excel or Google Sheets

Mute your audio!

Change your zoom name to include your first name, pronouns (if you'd like), and your community.



Agenda



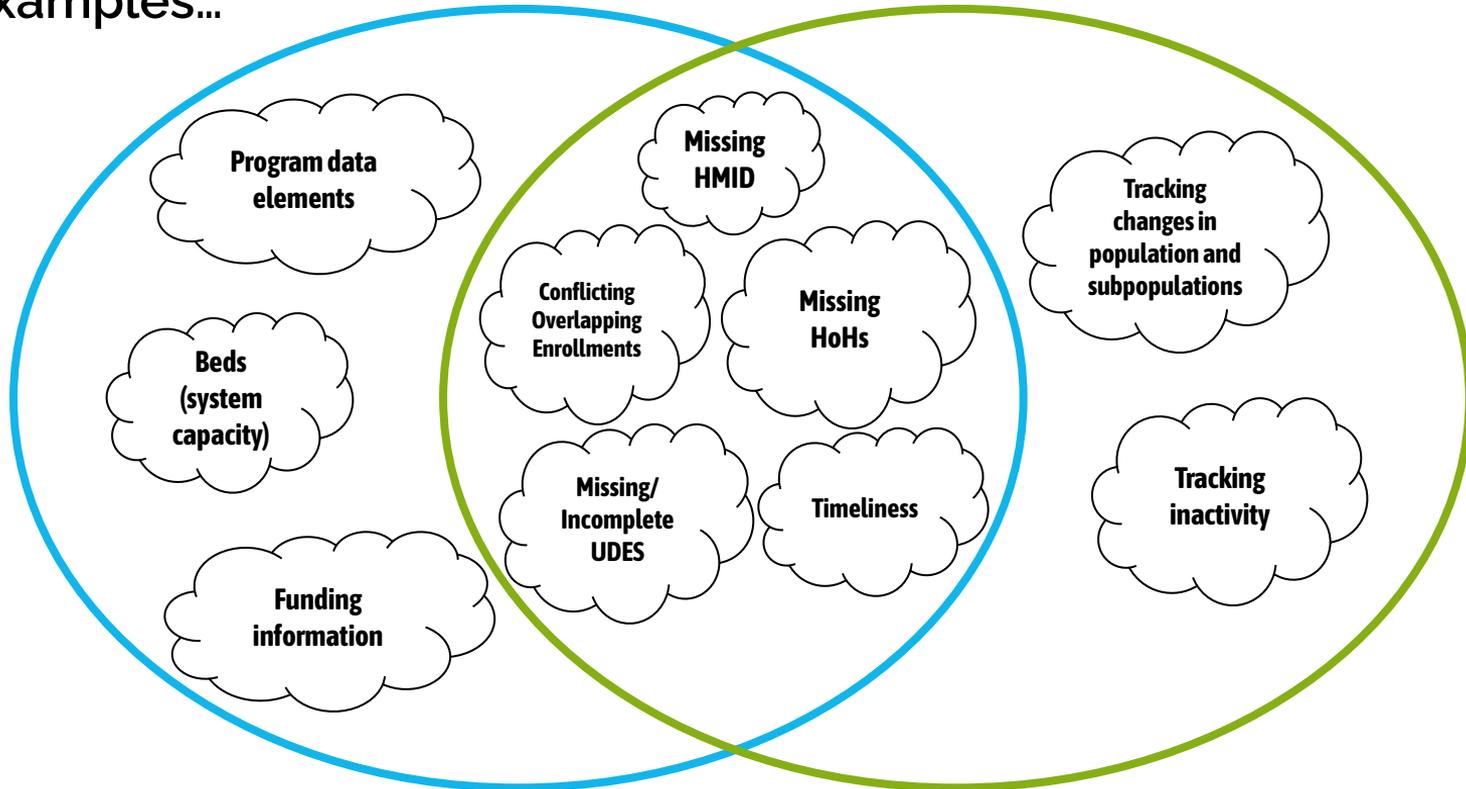
- Relationship between BNL and HMIS Data Quality
- Getting started with a plan
- Critical errors
 - Checking for duplicate clients
 - Reviewing No HoH
 - Reviewing DOB missing
- Housed Clients Exiting Report
- Other monitoring ideas
- Finalize **your** monitoring plan

Data quality monitoring

Some examples...

HMIS Data Quality

By-Name Data Quality



Data quality monitoring

When **one** improves, so does the **other**!!

Use this report suite to help you with other reporting such as the LSA, SPMs, CAPERs, APRs.

Rising tides raise all the ships!



How to get started!

Data quality monitoring

Data quality - how do I even start??!

Some recommendations for how to get started:

1. Start with more “critical” data errors.
2. Resolve the errors coming up in the Housing Clients Exit report.
3. Get to know your data and listen to questions from your team.
4. Create an ongoing data monitoring plan to address your community's needs.



Data Quality Monitoring Toolkit

A BFZ created tool to help you **create a data quality monitoring plan** and **track data monitoring over time**.



Today, we will start to use this tool for the purpose of the exercises. To get started **make a local copy** of the workbook by either making a copy to your local Google Drive OR downloading the workbook to excel.

★ **Feel free to use this as a starting point, and edit your copy to meet your local needs.**

Data Quality Monitoring Toolkit

Data Quality Monitoring Plan

<Community Name> Data Quality Monitoring Plan

Task	Report	Frequency	Person Responsible	Notes
Resolve duplicate records	Case Conferencing: Active Client Details			
Resolve missing HoHs	Case Conferencing: Active Client Details			
Resolve missing DOB cases	Case Conferencing: Active Client Details			
Resolve housing placement errors	Housing Clients Exiting			

Pre-populated examples based on what we will cover today!

Data Quality Monitoring Toolkit

Data Quality Checks

Check 1: Duplicate Clients ▾

Check 2: Missing HoH ▾

Check 3: Missing DOB ▾

Check 3: Overlapping Enrollments (HCE) ▾

Data Quality Check 1: Duplicate Clients

Number of cases	Baseline (July)	August Actual	August Goal	September Actual	September Goal	October Actual	October Goal
HMIS ID	Notes	Month					
A & B	Report shows they are duplicates, but Client A and B are twins	July					

Tracking progress and create an improvement plan!

A place to add notes about individual cases to keep track of nuances and edge cases.

Let's get started!

Quick check!



Google Sheets

OR



Microsoft Excel

Addressing “Critical” Data Errors

“Critical” Data Errors

A focus on key client information:

1. Do you have **duplicate people** in your system?
2. Do you have folks that are **missing head of households**?
3. Do you have folks that are **missing DOBs**?

Why are we suggesting these are critical?

Because resolving this information is critical to being able to understand how many people and households are experiencing homelessness by population.

For example, if a 30 year old single adult is missing a DOB entry, they will not be included in the Single Adult category in the household type field.

1. Duplicates

Q: Do you have **duplicate people** in your system?

1,610 Clients on the Active List in 1,497 households.	Client in CE only	Client has enrollment in PH Project
Client in SO TH ES or SH	Client has no CE Enrollment	Possible Merge of client with more than one Client ID

How the report can help you answer this question:

- **Step 1:** open your **case conferencing report** and go to the **active clients tab**.
- **Step 2:** filter by red text color to pull a list of folks that are potential duplicates based on their first name, last name, and DOB.
- **Step 3:** conduct individual consumer lookups to resolve duplicate cases.



1. Duplicates

How many duplicate people do you have in your system?

How to do this?

- The bad news is that you can't use text color as an option to create formulas or pivot tables (that I know of!).
- The good news is that it is still really easy to get this number!

One method:

1. Filter by the red text color.
2. Copy and paste all of the Client Unique IDs into a new tab.
3. Select the column with the Client Unique IDs and use remove duplicates.
4. Get a count of the number of unique IDs.

How to remove duplicates:



Data > Data Cleanup >
Remove Duplicates



Data > Remove
Duplicates

1. Duplicates

Causes of duplicates:

- Potential duplicates can be caused by simple data entry error. For example, if someone does not check if a person is already in HMIS before they create a new profile. Another reason may be that a provider has limited access to HMIS and is unable to see if a person is already in the system when they create a new profile.
- There are some cases where the report may flag a record as potential duplicate when it is not. For example, with family members or even a pure coincidence that someone has the same birth date and name as another person.

What impact does a duplicate have?

- Potential to overcount of the number of people that are actively experiencing homelessness.
- If multiple profiles exist and they are not all being updated to have the same information, you could run into the situation where the same person is showing up as inflow and/or outflow and active. This will impact data reliability.

1. Duplicates

Let's Pause.

Were you able to identify how many potential duplicates there are?

- If no, where did you get stuck?
- If yes, **type in the chat** the number of potential duplicates?



★ **ACTION item:** add the number of duplicates to your Data Quality Monitoring Workbook as your baseline.

Data Quality Check 1: Duplicate Clients					
Number of cases	Baseline (July)	August Actual	August Goal	September Actual	September Goal

2. No Head of Household

Q: Do you have **people in your system with no HoH listed?**

How the report can help you answer this question:

- **Step 1:** open your **case conferencing report** and go to the **active client details tab**.
- **Step 2:** filter the **BFZ Household Type** column for “No HoH or DOB Missing” only
- **Step 3:** filter the **HoH Relate** column to exclude “Self (head of household)”
 - the remaining records are individuals that are part of group enrollments where there is no HoH or a single individual enrolled, but not listed as HoH

BFZ Household Type
No HoH or DOB Missing

HoH Relate
Head of household's child
Head of household's other relation member (other
Head of household's spouse or partner
Head of household's spouse or partner

**What values are you seeing in the HoH Relate field?
Type it in the chat!**

- **Step 4:** conduct individual consumer lookups to resolve head of household issues.

2. No Head of Household

Try it in a pivot table:

- **Step 1:** open your *case conferencing report* and go to the *active clients for viz tab*.
- **Step 2:** create a pivot table:
 - **Rows:** Household Identifier, Client Uid
 - **Columns:** HoH Relate or *Blank*
 - **Values:** Client Uid (Count)
 - **Filter:**
 - BFZ Household Type - include "No HoH or DOB Missing" only
 - HoH Relate - exclude "Self (head of household)"
- **Step 3:** retain this list to work through the cases of missing HoH

Household Identifier	Client Uid	COUNTA of Client Uid
10,159	24883	1
12,091	28748	1
13,100	33753	1
13,252	34139	1
13,472	34797	1
13,689	35515	1
13,793	35832	1
13,902	36120	1
	36121	1
13,972	36375	1
	36377	1
	36378	1
	36379	1
14,132	36928	1
	36960	1
14,172	37094	1
14,201	5550	1
	37178	1
	37179	1
	37180	1
14,226	36965	1
	37259	1
4,914	5522	1
5,105	21594	1
7,915	15507	1
	15509	1
8,386	19569	1
	19573	1
8,414	19679	1
	19680	1
8,664	20429	1
9,001	19123	1
	21596	1
cao 0000000c623a100	37309	1
Grand Total		34

2. No Head of Household

What causes a HoH issue?

- HoH issues could be related to how a person's enrollment was entered in HMIS or could be a result of status updates being made to only the the assigned HoH's enrollment record
- These may be one-off issues or you may uncover patterns associated with a specific HMIS user or project

What impact does a missing HoH have?

- Potential to inflate your active numbers because it is likely that individuals with no HoH are part of a household where the HoH was already exited from the active project.
- Potential to undercount a population due to individuals with no HoH assigned not being included in a HH type.

2. No Head of Household

Let's Pause.

Were you able to identify how many people are missing a head of household?

- If no, where did you get stuck?
- If yes, **type in the chat** the number of households missing a head of household?



★ **ACTION item:** add the number of people missing a HoH to your Data Quality Monitoring Workbook as your baseline.

Data Quality Check 2: Missing HoH

Number of cases	Baseline (July)	August Actual	August Goal	September Actual

3. Missing Date of Birth

Q: Do you have **people in your system with no DOB listed?**

How the report can help you answer this question:

- **Step 1:** open your **case conferencing report** and go to the **active client details tab**.
- **Step 2:** Review the **Age** or **DOB** column and filter for null values (*blanks*)
- **Step 3:** conduct individual consumer lookups to resolve head of household issues.

Age

DOB

Keep in mind that if the report parameters indicate to hide names, the DOB field will always display "Hidden" even if there is no DOB entered

3. Missing Date of Birth

Try it in a pivot table:

- **Step 1:** open your *case conferencing report* and go to the *active client details for viz tab*.
- **Step 2:** create a pivot table:
 - **Rows:** Client Uid
 - **Columns:** *Blank*
 - **Values:** Client Uid (Count)
 - **Filters:**
 - Age - include null values "(Blanks)" only
- **Step 4:** retain this list to work through the cases of missing DOB

	A	B
1	Age	(blank)
2		
3	Row Labels	Count of Client Uid
4	36417	1
5	37276	1
6	37277	1
7	37278	1
8	37279	1
9	37309	1
0	37324	1
1	37325	1
2	37326	1
3	37327	1
4	37483	1
5	37484	1
6	37485	1
7	37486	1
8	Grand Total	14

Also take a look at any age outliers? How many 100+ year olds are in your data set?

3. Missing Date of Birth

Other considerations for missing DOB:

- A missing DOB indicates that the Data Quality value selected for the entry was "Client doesn't know," "Client refused," or "Data not collected"
- If you have no missing DOB in your data, you may want to check for outlier data (i.e. entries with a DOB of 1/1/1900 or many 123 year olds)
- DOB issues may not be able to be resolved due to individuals choosing not to provide that information.
- These may be one-off issues or you may uncover patterns associated with a specific HMIS user or project

What impact does a missing DOB have?

- Potential to undercount a population due to individuals with no DOB not being included in a HH type.

3. Missing Date of Birth

Let's Pause.

Were you able to identify how many people are missing a DOB?

- If no, where did you get stuck?
- If yes, **type in the chat** the number of people missing a DOB?



★ **ACTION item:** add the number of people missing a DOB to your Data Quality Monitoring Workbook as your baseline.

Data Quality Check 3: Missing DOB

Number of cases	Baseline (July)	August Actual	August Goal	September Actual

Housing Clients Exiting Report

The Housed Clients Exiting (HCE) Report

This report helps you identify when someone in HMIS is both enrolled in a program serving those experiencing literal homelessness and ALSO showing up as housed in another program.

Open Enrollment Details ▾

Built for Zero Housed Clients Exiting Report v04.11 Open Enrollment Details for CS report(43):FY 22 PSH DQ(67):FY 22 RRH DQ(66) All Locations

4 Clients who have exited to housing with open enrollments in other projects in 4 Households.

Client Uid	Entry Date	Exit Date	Housing Move-in Date	Program Type	Exit Destination
35093	10/20/2022			Coordinated Entry (HUD)	
37243	03/20/2023		04/15/2023	Coordinated Entry (HUD)	
37243	03/16/2023		04/15/2023	Coordinated Entry (HUD)	
37243	03/13/2023		04/15/2023	Coordinated Entry (HUD)	
23268	10/14/2022			Coordinated Entry (HUD)	
33671	04/29/2022			Coordinated Entry (HUD)	

Newly Housed Details ▾

Built for Zero Housed Clients Exiting Report v04.11 Newly Housed Details for CS report(43):FY 22 PSH DQ(67):FY 22 RRH DQ(66) All Locations between 4/1/23 and 5/1/23. Execution Time 8 seconds. Run by danville live:elockley on 5/17/23.

17 Clients who have exited to housing in 10 Households.

Client Uid	Entry Date	Exit Date	Housing Move-in Date	Program Type	Exit Destination
35738	12/13/2022	04/03/2023		Emergency Shelter (HUD)	Rental by client, with other ongoing housing subsidy (HUD)
35739	12/13/2022	04/03/2023		Emergency Shelter (HUD)	Rental by client, with other ongoing housing subsidy (HUD)
35740	12/13/2022	04/03/2023		Emergency Shelter (HUD)	Rental by client, with other ongoing housing subsidy (HUD)
34631	01/02/2023	04/28/2023		Emergency Shelter (HUD)	Staying or living with family, permanent tenure (HUD)
36791	01/02/2023	04/28/2023		Emergency Shelter (HUD)	Staying or living with family, permanent tenure (HUD)
37502	03/20/2023	04/10/2023	04/01/2023	PH - Rapid Re-Housing (HUD)	Rental by client, with other ongoing housing subsidy (HUD)
37503	03/20/2023	04/10/2023		PH - Rapid Re-Housing (HUD)	Rental by client, with other ongoing housing subsidy (HUD)
23268	02/03/2023	04/05/2023		Emergency Shelter (HUD)	Rental by client, no ongoing housing subsidy (HUD)
23269	02/03/2023	04/05/2023		Emergency Shelter (HUD)	Rental by client, no ongoing housing subsidy (HUD)
23270	02/03/2023	04/05/2023		Emergency Shelter (HUD)	Rental by client, no ongoing housing subsidy (HUD)
11867	02/08/2019	04/01/2023	04/26/2019	PH - Permanent Supportive Housing (c)	Rental by client, with other ongoing housing subsidy (HUD)
11869	02/08/2019	04/01/2023	04/26/2019	PH - Permanent Supportive Housing (c)	Rental by client, with other ongoing housing subsidy (HUD)
35093	09/26/2022	04/10/2023		Emergency Shelter (HUD)	Rental by client, with HCV voucher (tenant or project based) (HUD)
37243	04/12/2023		04/15/2023	PH - Rapid Re-Housing (HUD)	
37153	03/13/2023	04/09/2023		Coordinated Entry (HUD)	Rental by client, no ongoing housing subsidy (HUD)
33671	05/03/2022	04/02/2023		Emergency Shelter (HUD)	Rental by client, with HCV voucher (tenant or project based) (HUD)
22865	03/04/2018	04/18/2023	03/04/2018	PH - Permanent Supportive Housing (c)	Staying or living with friends, permanent tenure (HUD)

For example:

Open Enrollment Details ▾

Client Uid	Entry Date	Exit Date	Housing Move-in Date	Program Type	Exit Destination
35093	10/20/2022			Coordinated Entry (HUD)	

Open enrollment in a CE project

Newly Housed Details ▾

Client Uid	Entry Date	Exit Date	Housing Move-in Date	Program Type	Exit Destination
35093	09/26/2022	04/10/2023		Emergency Shelter (HUD)	Rental by client, with HCV voucher (tenant or project based) (HUD)

Exit to a PH Exit Destination

For example:

Open Enrollment Details ▾

Client Uid	Entry Date	Exit Date	Housing Move-in Date	Program Type	Exit Destination
37243	03/20/2023		04/15/2023	Coordinated Entry (HUD)	
37243	03/16/2023		04/15/2023	Coordinated Entry (HUD)	
37243	03/13/2023		04/15/2023	Coordinated Entry (HUD)	

Open enrollment in a CE project

Newly Housed Details ▾

Client Uid	Entry Date	Exit Date	Housing Move-in Date	Program Type	Exit Destination
37243	04/12/2023		04/15/2023	PH - Rapid Re-Housing (HUD)	

Has an entry into a housing program AND a housing move-in-date.

Overlapping Enrollments

Q: Are there people in your system **that are housed, but continue to show up as active** because of inaccurate program enrollment information?

1. Open your **Housed Clients Exiting** report.
2. Make your way to the **Open Enrollments** tab.
3. Take a look at **how many people** are showing up on the Open Enrollments tab.

Built for Zero Housed Clients Exiting Report v04.11 Open Enrollment Details
for CS report(43);FY 22 PSH DQ(67);FY 22 RRH DQ(66) All Locations

4 Clients who have exited to housing with open enrollments in other projects in 4 Households.

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37243	03/16/2023		04/15/2023	Coordinated Entry (HUD)	
37243	03/13/2023		04/15/2023	Coordinated Entry (HUD)	
23268	10/14/2022			Coordinated Entry (HUD)	
33671	04/29/2022			Coordinated Entry (HUD)	

Overlapping Enrollments

Let's Pause.

Were you able to identify how many people have overlapping enrollments?

- If no, where did you get stuck?
- If yes, **type in the chat** the the number of people that are showing open enrollments in the HCE report?

★ **ACTION item:** add the number of people with an overlapping enrollment to your Data Quality Monitoring Workbook.

Data Quality Check 4: Overlapping Enrollments (HCE Report)

Number of cases	Baseline (July)	August Actual	August Goal	September Actual



A tip! Want some more information? The **Case Conferencing report - Lookback Details tab** has limited information about every program enrollment a person has in the system during the lookback period. It's a great place to start to get some more information.

**You're turn! What else would
you like to monitor?**

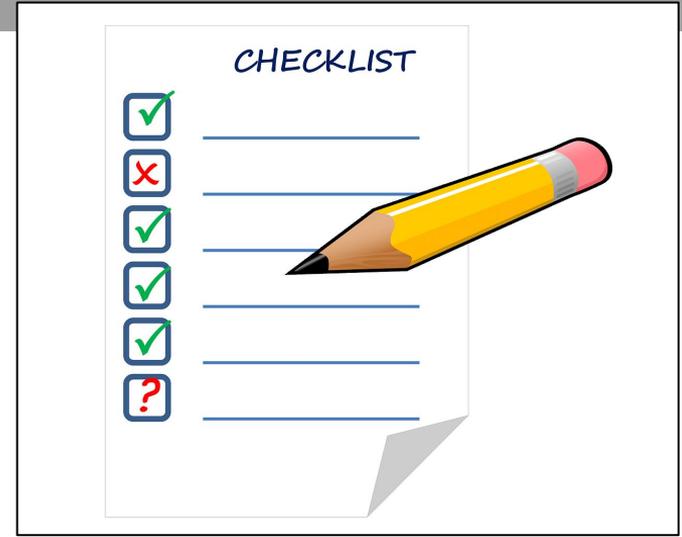
Take a deeper look...

Reviewed today	Other things to monitor using these reports
Duplicates	No CE enrollment
Missing HoH	Only a CE enrollment
Missing DOB	<ul style="list-style-type: none">- Individuals with no chronic status (No PLS answers)- Individuals with Disability, but non-chronic
Housing placement inconsistencies	Long stayers
	Multiple open CE enrollments
	Missing HMIDs

Creating a plan

Prioritize and delegate

- Decide which practices are the most critical for **your system** and how frequently they need to be addressed
- Determine which issues need to be resolved to have confidence in the information this report is producing
- Get with your team and ask them what they think is important to review - build them into your monitoring plan!



Do not let perfect be the enemy good enough!

Track your progress - Lite

Choose your level:

- A. Review data monthly and address issues as you go
- B. Use the Data Quality Monitoring tool to record Client IDs and track changes month after month
- C. Use the Data Quality Monitoring tool to set monthly goals and track progress

Remember those numbers you put in the chat earlier? Add them to this tracking tool as your baseline!

Number of cases	Baseline (July)	August Actual	August Goal	September Actual	September Goal	October Actual	October Goal

HMIS ID	Notes	Month
A & B	Report shows they are duplicates, but Client A and B are twins	July

Tracking progress and set goals

A place to add notes about individual cases to keep track of nuances and edge cases.

Track your progress - BFZ Style

Take it a step further...

- Put together and document an improvement plan for each data quality issue and document the change ideas you are testing, use your monthly total errors as a way to track if a change was an improvement
- Look for trends and patterns of the errors you are finding - are there specific providers or individuals that are responsible for inflated number of errors?
 - Create improvement plans that address those patterns and trends

What changes could help improve these data quality issues?

Number of cases	Baseline (July)	August Actual	August Goal	September Actual	September Goal	October Actual	October Goal
Test #1	Add an alert in HMIS Housing Project profiles reminding staff to add a HMID when the client has physically moved into housing						
	Start Date: September 1st						
	Review: Changes will impact September data, review in October						

Track progress and document an improvement plan here, too!

We challenge you!

- If you haven't already, create a copy of the Data Quality Monitoring tool
- Adapt it to meet your local needs (feel free to delete/add more sheets)
- Put together an initial monitoring plan including *at least* the four areas for review that were covered today
- Share it back with your data coach and/or internal team.



Questions and Survey

Tell us what you think!





Thank You

**COMMUNITY
SOLUTIONS**