Quarterly Data Quality Scoring Rubric

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Overview

This document is meant to accompany the state of Minnesota's Data Quality Plan. It outlines Minnesota's scoring criteria for data quality.

Scoring

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 If updated information is not recorded in the system, analysis is done on outdated and inaccurate information data that's not present can't be analyzed.

Some of these components are more straightforward to audit and measure than others, and that reality is reflected in the scoring. The scoring is also informed by HUD's vision for the future of HMIS as outlined in <u>HUD's SNAPS Office Data TA Strategy to Improve Data and Performance</u>. Scores will be calculated on a percentage basis, so that, though the point total for permanent housing programs is higher, those programs will not automatically score higher than other programs.

	Permanent Housing programs	Emergency Shelter, Street Outreach, Safe Haven	Transitional Housing, Supportive Services, Homeless Prevention, Day Shelter
Completeness	450	430	440
HUD UDE missing data	180	160	170
HUD UDE Don't Know / Refused responses	65	65	65
MN UDE missing data	155	155	155
MN UDE Don't Know / Refused responses	50	50	50
Consistency and Accuracy	125	115	115
Congruent responses among UDEs, Date of ROI consent, Income and Sources	125	115	115
Timeliness	100	100	100
Average / Median Days between Project Start Date and date record added to system	100	100	100

Project Type Index

The following sections in this document will refer to score rules according to project type, using their abbreviations. More information on the definition of each project type can be found in the <u>HUD HMIS Data Standards Manual</u>.

Abbreviation	Project Type
РН-НО	Permanent Housing – Housing Only (no disability required)
PH-S	Permanent Housing with Services (no disability required)
PSH-D	Permanent Supportive Housing for persons with disabilities
RRH	Rapid Rehousing
тн	Transitional Housing
SH	Safe Haven
ES	Emergency Shelter
SO	Street Outreach*
SSO	Supportive Services Only
HP	Homelessness Prevention
DS	Day Shelter

Note: Street Outreach projects are scored based on data quality only for client records with a valid Date of Engagement. Read more about this standard in the <u>HUD HMIS</u> <u>Data Standards Manual</u>.

Completeness

Completeness ensures that all the appropriate and relevant data that agencies or funders need is being collected and recorded, and that each community can accurately describe both its clients, and the full scope of services provided to those clients accessing services.

Here ICA proposes scoring per Universal Data Element, both as established by HUD and by the state of Minnesota. We also propose scoring missing data separately from responses marked 'client doesn't know' or 'client refused,' and de-prioritizing the latter relative to the former. The 'full points' target is as established by HUD for missing data, and slightly less stringent than HUD standard for 'doesn't know' or 'refused' responses.

HUD Universal Data Elements: Missing Data rates

		RRI	H, PH-S, P	SH-D, PH	-HO		ES, S	H, SO		TH, SSO, HP, DS			
		Full points	Partial	points	No points	Full points	Partial	points	No points	Full points	Partial	points	No points
		10	7	4	0	10	7	4	0	10	7	4	0
HUD Universal Data Element	Applies to	Rate of m	nissing data exceed		Exceed s	Rate of m	nissing data exceed	does not	Exceed s	Rate of m	iissing data exceed	i does not	Exceed s
Name (anonymous clients)	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Social Security Number	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Date of Birth	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Race	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Ethnicity	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Gender	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Veteran Status	Adults Only (18+)	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Disabling Condition	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Project Start Date	All Clients	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Project Exit Date	All Clients	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Destination	All Clients	0.99%	5.99%	10.99%	10.99%	2.99%	10.99%	15.99%	15.99%	2.99%	10.99%	15.99%	15.99%
Relationship to Head of Household	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%

			RRH, PH-S, PSH-D, PH-HO			ES, SH, SO			TH, SSO, HP, DS				
Client Location	HoH Only	0.99%	5.99%	10.99%	10.99%	2.99%	5.99%	10.99 %	10.99 %	2.99%	5.99%	10.99 %	10.99 %
Housing Move-In Date	HoH Only	5.99%	8.99%	12.99%	12.99%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prior Living Situation	HoH and Adults	0.99%	5.99%	10.99%	10.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Length of Stay in Previous Place	HoH and	0.99%	5.99%	10.99%	10.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
On the night before	Adults;	0.99%	5.99%	10.99%	10.99%	N/A	N/A	N/A	N/A	2.99%	5.99%	8.99%	8.99%
Approximate Date	conditional	0.99%	5.99%	10.99%	10.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Regardless of where they stayed last night - Number of times	based on other	0.99%	5.99%	10.99%	10.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%
Total number of months	responses in series	0.99%	5.99%	10.99%	10.99%	2.99%	5.99%	8.99%	8.99%	2.99%	5.99%	8.99%	8.99%

HUD Universal Data Elements: Don't Know / Refused response rates

			RRH, PH-S, P	SH-D, PH-HO			es, sh, so, ti	H, SSO, HP, D	S
		Full points	Partia	l points	No points	Full points	Partia	l points	No points
		5	3	1	0	5	3	1	0
HUD Universal Data Element	Applies to		of DK / R resp es not exceed		Exceeds		of DK / R resp es not exceed		Exceeds
Name (DK/R Name Data Quality)	All Clients	3.99%	4.99%	5.99%	5.99%	3.99%	4.99%	5.99%	5.99%
Social Security Number	All Clients	8.99%	10.99%	12.99%	12.99%	8.99%	12.99%	16.99%	16.99%
Date of Birth	All Clients	3.99%	4.99%	5.99%	5.99%	3.99%	4.99%	5.99%	5.99%
Race	All Clients	3.99%	4.99%	5.99%	5.99%	3.99%	4.99%	5.99%	5.99%
Ethnicity	All Clients	3.99%	4.99%	5.99%	5.99%	3.99%	4.99%	5.99%	5.99%
Gender	All Clients	3.99%	4.99%	5.99%	5.99%	3.99%	4.99%	5.99%	5.99%
Veteran Status	Adults Only (18+)	3.99%	4.99%	5.99%	5.99%	3.99%	4.99%	5.99%	5.99%
Disabling Condition	All Clients	3.99%	4.99%	5.99%	5.99%	3.99%	4.99%	5.99%	5.99%
Project Start Date	All Clients	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Project Exit Date	All Clients	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Destination	All Clients	3.99%	4.99%	5.99%	5.99%	5.99%	8.99%	12.99%	12.99%
Relationship to Head of Household	All Clients	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Client Location	HoH Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Housing Move-In Date	HoH Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prior Living Situation	HoH and Adults	3.99%	5.99%	10.99%	10.99%	5.99%	8.99%	12.99%	12.99%
Length of Stay in Previous Place		0.99%	5.99%	10.99%	10.99%	5.99%	8.99%	12.99%	12.99%
On the night before	HoH and Adults; conditional	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Approximate Date	based on other	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Regardless of where they stayed last night - Number of times	responses in series	3.99%	5.99%	10.99%	10.99%	5.99%	8.99%	12.99%	12.99%
Total number of months		3.99%	5.99%	10.99%	10.99%	5.99%	8.99%	12.99%	12.99%

NOTE: Items marked N/A in this section do not have "Client doesn't know" or "Client Refused" response options

			All Proje	ct Types	
		Full points	Partial	points	No points
		10	7	4	0
MN Universal Data Element	Applies to	Rate of Missir	ng data does r	ot exceed	Exceeds
If Native American, which tribe are you an enrolled member of?	All Clients	0.99%	1.99%	5.99%	5.99%
a. Did you serve on Active Duty, or in the National Guard or Reserves?	Adults Only (18+)	0.99%	3.99%	5.99%	5.99%
b. If Guard or Reserve: Were you ever called to Active Duty as a member of the National Guard or as a Reservist?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%
c. Did you enter Active Duty before 9/7/1980?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%
d. For approximately how many months did you serve?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%
e. What kind of discharge did you have?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%
f. Are you receiving VA disability pay?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%
g. Has client been referred to Homeless Veteran Registry?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%
Are you, or have you ever been, in foster care?	Clients 26 and under only	0.99%	3.99%	5.99%	5.99%
Extent of homelessness by MN definition, on the day before program entry	HoH and Adults	0.99%	1.99%	5.99%	5.99%
Did the client leave any of the places listed in the last 3 months before project start date?	HoH and Adults	0.99%	1.99%	5.99%	5.99%
How long since client had permanent place to live (permanent address)?	HoH and Adults	0.99%	1.99%	5.99%	5.99%
Location of client's last permanent address (State)	HoH and Adults	0.99%	1.99%	5.99%	5.99%
Location of client's last permanent address (County)	HoH and Adults	0.99%	1.99%	5.99%	5.99%
Location of client's last permanent address (City)	HoH and Adults	0.99%	1.99%	5.99%	5.99%
County where resides	HoH Only	0.99%	1.99%	5.99%	5.99%
Have you ever experienced domestic violence?	HoH and Adults	0.99%	1.99%	5.99%	5.99%

			All Proje	ct Types	
If yes, when did the experience occur?	HoH and adults who answer "yes" above	0.99%	1.99%	5.99%	5.99%
If yes, are you currently fleeing?	HoH and adults who answer "yes" above	0.99%	1.99%	5.99%	5.99%

Note: Items displayed with strike-through were retired October 1, 2021, and are no longer scored.

			All Project Types			
		Full points	Partial points		No points	
		5	3	1	0	
MN Universal Data Element	Applies to		of DK / R resp es not exceed		Exceeds	
If Native American, which tribe are you an enrolled member of?	All Clients	0.99%	3.99%	5.99%	5.99%	
a. Did you serve on Active Duty, or in the National Guard or Reserves?	Adults Only (18+)	0.99%	3.99%	5.99%	5.99%	
b. If Guard or Reserve: Were you ever called to Active Duty as a member of the National Guard or as a Reservist?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%	
c. Did you enter Active Duty before 9/7/1980?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%	
d. For approximately how many months did you serve?	Adults Only (18+) who answer "yes" to a.	N/A	N/A	N/A	N/A	
e. What kind of discharge did you have?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%	
f. Are you receiving VA disability pay?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%	
g. Has client been referred to Homeless Veteran Registry?	Adults Only (18+) who answer "yes" to a.	0.99%	3.99%	5.99%	5.99%	
Are you, or have you ever been, in foster care?	Clients 26 and under only	0.99%	3.99%	5.99%	5.99%	
Extent of homelessness by MN definition, on the day before program entry	HoH and Adults	N/A	N/A	N/A	N/A	
Did the client leave any of the places listed in the last 3 months before project start date?	HoH and Adults	0.99%	3.99%	5.99%	5.99%	
How long since client had permanent place to live (permanent address)?	HoH and Adults	N/A	N/A	N/A	N/A	
Location of client's last permanent address (State)	HoH and Adults	N/A	N/A	N/A	N/A	
Location of client's last permanent address (County)	HoH and Adults	N/A	N/A	N/A	N/A	
Location of client's last permanent address (City)	HoH and Adults	N/A	N/A	N/A	N/A	

	All Project Types				
County where resides	HoH Only	N/A	N/A	N/A	N/A
Have you ever experienced domestic violence?	HoH and Adults	0.99%	3.99%	5.99%	5.99%
If yes, when did the experience occur?	HoH and adults who answer "yes" above	0.99%	3.99%	5.99%	5.99%
If yes, are you currently fleeing?	HoH and adults who answer "yes" above	0.99%	3.99%	5.99%	5.99%

Note: Items marked N/A in this section do not have "Client doesn't know" or "Client Refused" response options. Items displayed with strike-through were retired October 1, 2021, and are no longer scored.

Consistency and Accuracy

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. ICA proposes scoring these components together as one, since it is not feasible on a statewide scale to compare HMIS to a client's reality or to their paper file. ICA proposes scoring these components on applicable HUD and Minnesota Universal Data Elements as well as on elements critical to successful referral (Disabling Condition and Income) and proper safeguarding of client information (ROI). The 'full points' target is as established by HUD for permanent housing project types, and slightly less stringent for other project types, acknowledging the complexity in data collection circumstances for those projects.

		RRH	I, PH-S, P	SH-D, P	H-HO	ES, S	H, SO, TH	I, SSO, F	IP, DS
		Full points	Partia	points	No points	Full points	Partia	points	No points
		10	7	4	0	10	7	4	0
Data Element	Applies to		nconsisten not exceed		Exceeds		nconsisten not exceed		Exceeds
Date of Birth	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%
Social Security Number*	All Clients	8.99%	10.99%	12.99%	12.99%	8.99%	12.99%	16.99%	16.99%
Veteran Status	Adults Only (18+)	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%
Disabling Condition	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%
Project Start Date	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%
Project Exit Date	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%
Relationship to Head of Household	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%
Client Location	HoH Only	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	10.99%	10.99%
Housing Move-In Date	HoH Only	5.99%	8.99%	12.99%	12.99%	N/A	N/A	N/A	N/A
Income and Sources	HoH and Adults	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%
Domestic Violence series	HoH and Adults	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%
Veteran series	Adults Only (18+)	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%
Release of Information: Date of ROI consent	All Clients	0.99%	1.99%	5.99%	5.99%	2.99%	5.99%	8.99%	8.99%

*Social Security Number Consistency and Accuracy rates are scored at the scale of Completeness rates where responses are Client Doesn't Know or Client Refused (i.e. worth a maximum of five points).

Examples of Incongruent Responses

Date of Birth	 Date of Birth is after Project Start Date Age is negative or over 105 Incongruencies between Date of Birth and Date of Birth Type 	Client Location	 Incongruent with Provider CoC
Social Security Number	 Incongruencies between Social Security Number and Social Security Number Data Quality 	Housing Move-In Date	 Housing Move-In Date before Project Start Date
Veteran Status	 Veteran status = yes and client is <18 	Income and Sources	 Incongruencies between Income from Any Source and Monthly Income subassessment
Disabling Condition	 Incongruencies between Disabling Condition and Disabilities series 	Domestic Violence series	 Incongruencies between Have you ever experienced domestic violence? and subsequent questions in series
Project Start Date / Project Exit Date	• Overlapping project stays in same project	Veteran Status series	 Incongruencies between Did you serve on Active Duty, or in the National Guard or Reserves? and subsequent questions in series
Relationship to Head of Household	• Multiple or no Head of Household	Release of Information: Date of ROI consent	• Date of ROI Consent missing from a record marked SHARED or incorrectly added to a record not marked SHARED

Timeliness

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.

Timeliness is scored by calculating both the average and the median number of days between the date an HMIS user entered the entry/exit record into the system and Entry Exit Entry Date / Project Start Date; then, the score is measured based on the better of the median or the average. Base scores (the number of days at which a provider receives zero points) are calculated as a proportion of the average/median scores by project type from 2019 Q4 and 2020 Q1.

	SO	ES and SH	DS	SSO	НР	тн	RRH, PH-H, PH-S, PSH-D			
Days to Enter	Point Scale									
0	100	100	100	100	100	100	100			
1	99	99	99	99	99	99	99			
2	98	98	98	98	98	98	98			
3	97	97	97	97	97	97	97			
4	96	96	96	96	96	96	96			
5	95	95	95	95	95	95	95			
6	82.1	47.5	76.0	87.4	84.0	85.7	91.0			
7	69.2	0.0	57.0	79.8	73.0	76.5	87.0			
8	56.4		38.0	72.2	62.0	67.2	83.1			
9	43.5		19.0	64.6	51.0	57.9	79.1			
10	30.6		0.0	57.0	40.1	48.7	75.1			
11	17.7			49.4	29.1	39.4	71.1			
12	4.8			41.8	18.1	30.1	67.1			
13	0.0			34.2	7.1	20.9	63.2			
14				26.6	0.0	11.6	59.2			
15				19.0		2.3	55.2			
16				11.4		0.0	51.2			

Timeliness is scored only for entry/exit records created during the report period.

	SO	ES and SH	DS	SSO	HP	тн	RRH, PH-H, PH-S, PSH-D
17				3.8			47.3
18				0.0			43.3
19							39.3
20							35.3
21							31.3
22							27.4
23							23.4
24							19.4
25							15.4
26							11.4
27							7.5
28							3.5
29							0.0