Toledo HMIS: Guide to Data Quality

Definition of Data Quality

Data Quality refers to the how closely HMIS data reflects reality.

If Data Quality were rated with a percentage, then a rating of zero percent would mean a set of data did not overlap with the real world at all. Meanwhile, a rating of 100 percent would mean that the set of data matched reality perfectly.

While no data system is capable of reflecting reality 100 percent, the mission to prevent, reduce, and eliminate homelessness depends on having high quality data for decision-making.

Value of Data Quality

HMIS data is the primary source of information for HUD and Congress to make decisions about program design and funding, and HMIS data is increasingly becoming a primary source for Continuums of Care to make similar decisions about outcomes, unmet needs, and gaps in services at a local level. Additionally, HMIS-generated reports to funders—such as HUD APR's or monthly CDBG and ESG tracking reports—will only be as high quality as the data in the system itself.

Ensuring High Quality Data

Toledo HMIS uses three "layers" to ensure high data quality, which are Completeness, Validity, and Accuracy. We periodically produce reports to check for the first two layers; these are reports of Data Completeness and Data Validity. We work with program monitors to check the final layer, Data Accuracy.
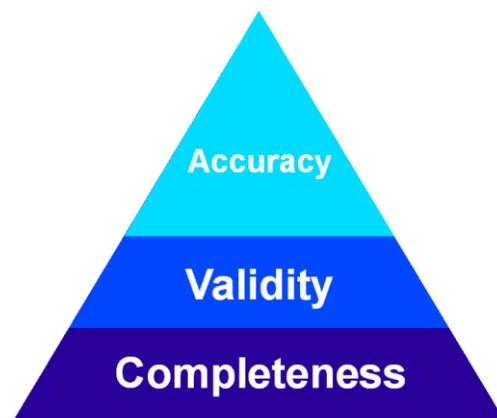
Completeness

Data Completeness refers to the number of data elements which are actually completed compared to the number that are expected to be completed. Data completeness is usually described as a percentage; if a CHO served 100 clients in a given time period and only completed Date of Birth information for 87 of them, that CHO would show an 87 percent completion rate for Data of Birth.

Each month, Toledo HMIS provides preliminary reports, technical assistance, and final reports of Data Completeness. For Contributory HMIS Organizations (CHO's)

participating in Toledo HMIS, the standards for completion are 95 percent for all data elements.

Reports of Data Completeness are summarized each month in a report to the Toledo Lucas County Homelessness Board, which is the lead agency for the Continuum of Care and oversees the Toledo HMIS project.

Summary of Data Completeness Issues

- Data Completeness is elements completed compared to elements expected (e.g., 87 out of 100 clients with Date of Birth information is 87% complete)

- Coverage of all clients served during the given time period (including "carry-forward" clients)

- Targets for completion: 95% for all data elements

- Summary of CHO performance on completeness provided to TLCHB each month after CHO's have an opportunity to make corrections

- Rubric for assessing performance and participation in HMIS, which can be adopted by funders with HMIS requirements as an objective evaluation of a given agency

Validity

Data Validity refers to how well HMIS data "lines up" with itself. For example, a client who is reported as 9 years old but is listed as "grandmother" within their household is considered an invalid case.

Each month, Toledo HMIS will provide preliminary reports, technical assistance, and final reports for Data Validity similar to reports of Data Completeness. These Data Validity reports will review HMIS records for several of the most common invalid cases, including:

- Clients reported as younger than 18 years old, but listed as U.S. Military Veterans;

- Clients reported with a negative age based on their Date of Birth;

- Clients reported as both male and pregnant;

- Clients reported as Head of Household, but with a relationship to Head of Household other than "Self" or Clients reported as not Head of Household, but with a relationship to Head of Household listed as "Self";

- Clients reported less than 12 years old but with a relationship to Head of Household such as "Mother," "Grandfather," etc.

Summary of Data Validity Issues

- Data Validity is how well HMIS data lines up with itself, rather than contradicts itself (e.g., client listed as both male and pregnant)

- Reports for Data Validity will be provided to CHO's each month, similarly to Data Completeness reports, and CHO's have an opportunity to make corrections

- Performance standard set to less than one half percent (0.5%) of clients exhibiting any category of non-missing data incongruity error

Accuracy

Data Accuracy refers to how well HMIS data matches the data collected by the agency, such as intake interviews, client-provided documentation, and case notes. One example of inaccurate HMIS data is a client reported as for their housing status "Stably Housed" while staying in an emergency shelter.

Data Accuracy does <u>not</u> refer to scenarios where clients provide false or misleading information to the agency. Rather, "accuracy" in this case means more like "Does the data in HMIS reflect the data we have collected in the case file?"

Toledo HMIS is working with program monitors to develop HMIS "face sheets" to be used as part of their standard program monitoring. The intent is that monitors will compare the HMIS face sheets to the contents of case files to help ensure that client data in case files is accurately entered in HMIS.

Reports of Data Accuracy are not yet provided to TLCHB on a regular basis, but the HMIS Advisory Committee is examining standards for Data Accuracy and expects to review and implement them in the near future. Any changes to HMIS Policies and Procedures regarding Data Accuracy will be discussed with HMIS Agency Directors ahead of implementation.

Summary of Data Accuracy Issues

- Data Accuracy is how well HMIS data lines up with information in case files

- Toledo HMIS is working with program monitors to incorporate a comparison of HMIS data to case files as part of their standard monitoring

- No standards have been set yet for Data Accuracy, but are expected soon

Reports

Toledo HMIS generates draft reports for a given month on the sixth day of the following month, and provides final reports on the eleventh day. This allows agencies time to identify and correct errors in reports and seek technical assistance as needed.

The same timeline applies to quarterly reports except it will be the month following the quarter. For example, the draft report for data incongruity in the fourth quarter of 2013 would be issued on 6 January 2014.

Agencies may request reports outside the standard timeframe. They may also purchase an ART reporting license for $90/year that allows them to run standard reports for their programs at any time and for any time period.

HMIS Rubric

While Toledo HMIS does not itself award grant monies to agencies, we are occasionally asked by funders to provide information about HMIS performance for participating CHO's. We have developed a rubric for HMIS performance and provide scores to funders based on that.

Data Completeness – 18/30 points (60% of total points) Evaluated monthly (twelve times/year) through HMIS data extraction and agency confirmation (agencies asked to confirm that the number of entry/exit records shown on HMIS data extraction is accurate—subsequent reports monitored for irregularity)	
Rating/Scoring	**Performance**
"On-Target" / Full points for that month (1.5)	Ninety-five percent (95%) of all required data elements, all new entries in, all exits in, data updated at exit (where appropriate)
"Below Target" / No points for that month	Less than ninety-five percent (95%) of all required data elements in or some entries or exits missing
"Below Target" / No points for that month, formal letter notifying agency of low performance and non-compliance	Less than ninety percent (90%) of all required data elements or gross negligence in updating client entries or exits

Data Validity – 7/30 points (23% of total points)
Evaluated quarterly (four times/year) through HMIS data extraction

Rating/Scoring	Performance
"On-Target" / Full points for that quarter (1.75)	Less than one half of one percent (0.5%) of clients exhibiting any category of non-missing data incongruity error*
"Below Target" / No points for that quarter	One half of one percent (0.5%) or more clients exhibiting any category of non-missing data incongruity error*

*date of birth indicating negative age, date of birth indicating age greater than one hundred years old, date of birth same as date client was created in HMIS, age inconsistent with household relationship (nine year old grandmother, etc.), Veteran status is yes but age is less than eighteen, gender conflicts with household relationship (male grandmother), listed as head of household but relationship to head of household is not "self," not listed as head of household but relationship to head of household is "self," household membership but no household relationship, client listed as pregnant but not a female between twelve and fifty-five years old

Workstation Security and Privacy – 5/30 points (17% of total points)
Evaluated at least annually by on-site monitoring visits

Rating/Scoring	Performance
"Fully Compliant" / Full points for that visit (5.0)	All required HMIS notices properly posted and all primary end user workstations compliant with security standards; all other security and privacy practices properly observed; HMIS disclosure forms properly logged and hard copies retained
"Compliant With Minor Corrections" / Half points for that visit (2.5)	Minor gaps in posting notices, primary end user workstation security, or other security and privacy practices; all gaps corrected and re-evaluated by HMIS staff within thirty (30) days of initial site visit; all HMIS Disclosure forms properly logged and hard copies retained in case files
"Non-Compliant" / No points for that visit	Major gap in posting notices, primary end user workstation security, or other security and privacy practices OR minor gaps not corrected and re-evaluated by HMIS staff within thirty (30) days of initial site visit; one or more HMIS Disclosure forms mismatched with or hard copies