



Strategies for Improving Data Quality on Your APR & CAPER

June 2018



Purpose of Today's Presentation

- Understand the ways that data quality impacts the APR & CAPER
- Review sample data quality issues and their solutions
- Learn how CoCs and ESG recipients can leverage data quality improvements in community planning and evaluation efforts



Overview

- Audience for this training
- What is Data Quality?
- Data quality impacts to APR & CAPER
 - Examples of issues and resolutions
- Leveraging data quality improvements locally
- Next steps/additional trainings



Audience

- This training is targeted towards:
 - CoC Staff and Collaborative Applicants
 - CoC Program Recipients
 - ESG Program Recipients and Subrecipients
- This training may also be of benefit to:
 - HMIS Leads/System Admins
 - HMIS Vendors

This training has a prerequisite: Intro to the APR and CAPER



What is Data Quality?

- Culture Shift Time: Data are exported from HMIS and uploaded directly into Sage! You can't "fix" your data anywhere else but inside your HMIS!
- Data Quality is defined as
 - Completeness – known and documented (includes coverage & utilization)
 - Accuracy – real and verifiably true
 - Timeliness – available when needed
 - Consistency – similar over time



Why does Data Quality matter?

- Data Quality matters because
 - Anecdotal evidence is no longer good enough – funders need proof
 - Limited funding and greater community need means projects have to compete for funding and be more efficient with their hard-earned dollars
 - Provable results and evidence of best practices are critical funding criteria
 - Data quality means integrity!



Data Quality Impacts to APR & CAPER



- Project Types
- Operating Start/End dates
- Validations
- Volume
- Special Populations

- Data Quality Framework
- Missing Values
- Special Populations

- Data Quality Framework
- Annual Assessment

- Annual Assessment
- Volume



Project Types

Accuracy

- Data related to project type is necessary to identify corresponding data collection requirements and for reporting purposes.
- Your ESG or CoC funding is designated for specific project type(s)
- Each funder's HMIS Program Manual describes specific project type information for each funded component
- If project type(s) from uploaded data don't match the Sage information regarding funded components, uploads may be returned as unsubmitted



Operating Start and End Dates

Accuracy

- Each APR upload pertains to the operating year of the funded grant
- Each CAPER upload pertains to the recipient's program year and captures aggregate data associated with all active grants
- For APRs: Grant extensions change the operating year end dates!
- Each HMIS software vendor may have particular rules about how to set *report filters* appropriately to ensure the correct *operating start and end dates* match the data being exported from HMIS
- Work with your HMIS Leads and/or HMIS vendors to ensure your upload contains data relevant to the operating year on which you are reporting



Validation Rules

Accuracy

- When possible, Sage will compare the total persons (or households or adults or children or stayers or leavers) from *each question* to the totals reported in Q5
- If any of the totals from a Question that *logically should* match don't match with Q5 the upload will be rejected
- This is mostly a programming issue for HMIS Leads/Vendors to be aware of, but it can help troubleshoot rejected uploads and improve data quality overall
- All validation rules can be found in the Sage Guidebooks for each report and in the programming specifications



Data Quality Framework



Completeness



Timeliness

- Provides a percentage rate of error of all data compared to certain values within the data:
 - “Client doesn’t know”
 - “Client refused”
 - “Data Not Collected”
 - “Other”
 - NULL (blank) values
 - Data validation rules broken (i.e.: SSNs, Relation to HOH, etc.)



Impacts of Missing and Unknown Values

Completeness

- No error rate threshold at this time
- The higher the percentage of errors, the worse it is considered – higher rates of errors verge on potentially unusable data for HUD
- When in doubt, enter an AAQ to ask HUD for the best selection if it is possible to choose something other than “Other.”
- A small error rate is expected – nobody will be perfect, but it doesn't hurt to try!



Impacts of Missing and Unknown Values

Completeness

- Missing and Unknown values jeopardize your special population data, too!
 - Missing/Unknown in 3.917 means clients can't be counted as "Chronically Homeless"
 - Missing/Unknown in Date of Birth means clients can't be counted as "Youth"
 - Missing/Unknown in Veteran Status means clients can't be counted as "Veterans"



Annual Assessments

Consistency

- Data Quality Q4 - should not count an error if the HH member isn't in the project upon the anniversary date of the HOH.
- Discrepancies between date conducted and date entered/required
- Q20b - "Data Not Collected"
- Remember the ESG HP program has a 3 month re-evaluation requirement

Timeliness



Special Populations

Completeness

- HUD has recently released the [Client Level System Use and Length of Time Homeless Report](#) which can help provide more accurate CH reporting
- The SQUARES database can help you validate Veteran Status – as can partnering locally with Veteran’s Administration services like SSVF, GDP, and HCHV as well as the HUD-VASH program
- Are there YHDP grantees in your community? RHY grantees? Are there partnership opportunities to ensure accurate counts of youth served?



Volume Metrics

Accuracy

Consistency

- Longitudinally – are you serving generally the same amount of people from one year to the next?
 - For example, run APR or CAPER for 2015, 2016, 2017 and see if your volume of clients entered, clients served, and/or clients exited has drastically changed
- Comparatively – does the amount of money you spend align closely to the number of people you serve?
 - For example, \$200,000 annual budget and 300 people served means roughly \$600 per person. Is that reasonable for your area/costs expected? Has that changed over time?



Leveraging Data Quality Locally

- CAPER & APR data can be used for Performance Monitoring & Funding Decisions
- Use the Project Rating and Ranking tool during the CoC Competition
 - Adding a review of APR results by project to each competition cycle will create even more incentive to maintain a high level of quality in HMIS data
- Run your data at least monthly
 - A regular review of APR and CAPER data will ensure that when it comes time to submit you will spend less time cleaning up
 - Use the Sage test upload feature
- Create a Data Quality Monitoring Plan
 - Across multiple projects and fund sources, it is important to use data quality as an impetus for regularly monitoring HMIS data collection protocols



Key Resources

Sage Guidance: <https://www.hudexchange.info/programs/sage/>

CoC APR Guidebook:

<https://www.hudexchange.info/resources/documents/sage-coc-apr-guidebook-for-coc-grant-funded-programs.pdf>

ESG CAPER Guidebook:

<https://www.hudexchange.info/resources/documents/Sage-ESG-CAPER-Guidebook-for-ESG-funded-Programs.pdf>

Ask a Question Help Desk: <https://www.hudexchange.info/program-support/my-question/>