



SPONSORED BY:  
THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
OFFICE OF COMMUNITY PLANNING AND DEVELOPMENT



FLEXIBLE RESOURCES, DATA-DRIVEN SOLUTIONS:  
USING HMIS AND HEARTH TO END HOMELESSNESS

# Clean Data: Using a Data Quality Plan to minimize “Garbage” Data





## Presenters

- Kimberly Woolaver, Vermont Balance of State
- Laura Archambault, Rhode Island Balance of State
- Kat Freeman, The Cloudburst Group





## Learning Objectives

- Learn about Data Quality and its necessity
- Understand how to develop benchmarks for completeness, timeliness, and accuracy
- Understand how to develop and implement a Data Quality Compliance Plan
- Learn about the Data Quality Toolkit





## Overview

- Hands – on workshop to develop a Data Quality Standard and Compliance Plan
- Instruction on use of HUD’s Data Quality Plan Toolkit
- Guidance on how to make and document decisions





## Agenda

- What is Data Quality?
- Vermont Balance of State
- Rhode Island Balance of State
- Developing a Data Quality Standard
- Developing a Data Quality Monitoring Plan
- Resources and Tools





## What is....

- Data Quality?
- A Data Quality Standard?
- A Data Quality Monitoring and Compliance Plan?





## Vermont's Data Quality Standard

- Rural State
- Accurate data critical to obtaining funding (locally and federally)
- Gaps analysis
- HUD and AHAR!





## Vermont Participants

- The Balance of State Continuum of Care partnered with the Vermont Interagency Council on Homelessness
  - State staff (attorneys, case workers & deputy secretaries)
  - Housing Organizations
  - Emergency and Transitional housing providers
  - Supportive Services Organizations





## Vermont Standards Impact

- “Report cards” have created great enthusiasm at CoC
- Data Quality as increased
  - 60% of providers have 97% or higher percentages
  - Other 40% have 80% to 96%
    - PATH is using “report cards” as part of their annual review.
    - State of Vermont is looking to utilize DQ Standard as a benchmark for their homeless funding.





## Rhode Island's Data Quality Standard

- HUD requiring more data to be drawn from HMIS
- Lack of consistent quality throughout the CoC
- Had addressed all other barriers for accurate data submission:
  - Upgraded computers of sub-grantees
  - Developed training workshops
  - Streamlined entry/exit information





## Rhode Island Participants

- HMIS Steering Committee: overworked/underappreciated
- Created a 'Data Quality and Evaluation Committee' with everything on the table
  - Software
  - Data standards
  - Review of current data quality and determine causes for this
- Committee Make-Up: Executive Directors of homeless providers of different sizes and target populations
- The committee makes recommendations to the Office of Homelessness for approval – little discussion.





## Rhode Island Standards Impact

- Key impact was that agencies are excited about 'getting this right'
- Case workers saw they were being supported, very bottom up discussions
- HMIS staff had less 'enforcement' tasks, are now able to be trainers and helpers
- Communication regarding HMIS come from coordinators of the programs requiring HMIS data submissions





FLEXIBLE RESOURCES, DATA-DRIVEN SOLUTIONS:  
USING HMIS AND HEARTH TO END HOMELESSNESS

# Developing a Data Quality Standard





## Developing a Data Quality Standard

- The Data Quality Plan Toolkit
- Components of a Data Quality Plan
  - Definition of a Record
  - Timeliness
  - Completeness
  - Accuracy
  - Monitoring
  - Incentives and Enforcement





## Definition of a Record

- Purpose: To understand the complete set of data elements required to meet CoC and funding requirements
- Record definitions may be different depending on the program type.
- Includes a list of the data elements expected to be collected.





## Definition of a Record - Examples

- For Emergency Shelters,
  - minimum all of the Universal Data Elements (UDEs) and
  - documentation of at least the emergency bed service transaction.
- For Transitional Housing,
  - minimum all of the UDE's,
  - the APR required PDEs, and
  - documentation of at least the transitional housing service transaction.
- For Prevention Programs,
  - minimum all of the Universal Data Elements (UDEs),
  - the HPRP QPR required PDEs, and
  - documentation of at least one prevention service transaction.





## Timeliness

- Rationale:
  - Length of time between data collection and entry impacts the correctness of the data entered
  - Timeliness impacts accessibility when it is needed
- Factors:
  - Document, by program type, expectations for the length of time between data collection and entry
- Special Issues/Exceptions:
  - CoC may want to adopt different timelines for different programs





## Timeliness Policy - Examples

- *General Standard*
  - All HMIS participating programs will ensure entry of data for new clients, services, and entry/exits for a month is completed by the 15<sup>th</sup> of the following month.
- *Exception to the General Standard*
  - Emergency Shelters: All HMIS Emergency Shelter participating programs will ensure daily entry of data for new clients, services, and entry/exits.





# Completeness

- Rationale:
  - Incompleteness impacts client care and service delivery
  - Impacts data analysis and report validity/confidence
- Factors:
  - Document, by program type, expectations for the completeness of data element sets
    - All Clients Served
    - Bed/Services Utilization
- Special Issues/Exceptions:
  - Include “Don’t Know”, “Unknown”, and “Refused” as a category
  - Standard is likely to be different for different program types or subpopulations





## Completeness Policy - Examples

- *General Standard*
  - All clients served by the program entered into the HMIS with the data set outlined in the program type's definition of record and in accordance with the corresponding data element percentage standard. No anonymous allowed.
- *Exception to the General Standard*
  - Outreach programs: Outreach programs are allowed to use the anonymous function of the HMIS in lieu of client identifiable information. Outreach programs are allowed up to 10% of their client records to be identified as anonymous.





## Accuracy

- **Rationale:**
  - Reflects information as provided by client
  - Data is understood, collected, entered the same by all
- **Factors:**
  - Document, by program type, expectations for collecting and entering accurate data
- **Special Issues/Exceptions:**
  - Data validation practices
  - Consistency in data gathering forms
  - Regular training on data elements and definitions
  - Tools that achieve a common understanding of elements and responses





## Accuracy Policy - Examples

- Accuracy: Data Collection and Entry
  - *The Universal Data Elements (UDEs) for all clients served by the program are to be collected at initial intake. Program Specific Data Elements (PDEs) must be collected within 24 hours of program entry or at program exit, whichever comes first.*





## Accuracy Policy - Examples

- Accuracy: Consistency:
  - Regular training of intake and data entry staff: *Intake and data entry staffs must annually show proficiency on data elements, their definitions, response categories, and best practices for collection. In addition, intake and data entry staffs must annually show proficiency on HMIS software and data entry requirements. New intake and data entry staff must complete training on both data collection and software prior to conducting client assessments and/or acquiring access to the HMIS system.*





## Monitoring

- Rationale:
  - Ensure the CoC's Standards are being met
- Factors:
  - Document expectation for monitoring activities and the methods data quality will be monitored
- Special Issues/Exceptions:
  - This is NOT the DQ Monitoring Plan
  - Outlines the general guidelines
  - Sets forth expectations and tasks in general terms





## Monitoring Policy - Examples

- *General Standard*
  - The CoC Data Committee is responsible for developing and implementing an ongoing data quality plan. It will, in tandem with the Data Quality Plan, regularly review data quality reports, assist agencies in gaining compliance, and insure that required reports and trainings are made available for the agencies. It will regularly update the CoC on progress of the data quality plan and provide regular reports on the quality of the CoC's data.





## Monitoring Policy - Examples

- *General Standard, continued...*
  - The CoC Monitoring Committee will monitor at least annually the projects that are funded by the CoC and any of its funding streams. It will review data quality reports, bed utilization reports, and compliancy with the Data Quality Plan. It will report and make recommendations to the CoC Scoring Committees of community funding streams on the quality and usability of agency data.





## Incentives and Enforcement

- Rationale:
  - Reinforce importance of quality data through incentives and enforcement
- Factors:
  - List and describe incentive and enforcement measures for complying with the DQ Standard
- Special Issues/Exceptions:
  - Public recognition for compliance and/or progress
  - Bonus points on local scoring of funding applications
  - Funding impacts for non-compliance





## Incentives & Enforcement Policy - Examples

- *Good Incentive Language*
  - HMIS participating agencies who consistently meet the Data Quality Standard will receive 25 bonus points on their NOFA application.
  - HMIS participating agencies who consistently meet the Data Quality Standard will receive first priority for technology upgrades.
  - HMIS participating agencies who consistently meet the Data Quality Standard will receive a 10% discount off their HMIS participation fees.
  - HMIS participating agencies who consistently meet the Data Quality Standard will receive first priority status for bonus projects, RFPs, and special funding availability.





## Incentives & Enforcement Policy - Examples

- *Not So Good Incentive Language*
  - HMIS participating agencies who do not meet the Data Quality Standard will automatically be docked 25 bonus points on their NOFA application.
  - HMIS participating agencies who do not meet the Data Quality Standard will not be eligible for technology upgrades.
  - HMIS participating agencies who do not meet the Data Quality Standard will be charged an additional 25% surcharge on their HMIS participation fees.
  - HMIS participating agencies who do not meet the Data Quality Standard will receive secondary priority status for bonus projects, RFPs, and special funding availability.





FLEXIBLE RESOURCES, DATA-DRIVEN SOLUTIONS:  
USING HMIS AND HEARTH TO END HOMELESSNESS

# Developing a Monitoring Plan





## Developing a Data Quality Monitoring Plan

- Establishing Benchmarks and Goals
- Defining Roles and Responsibilities
- Establishing Timelines
- Calculating Compliance Rates
- Data Quality Reports





## Establishing Benchmarks and Goals

- What is the data quality now? (the baseline)
- What should the data quality be? (the Standard)
- What are the interim goals? What are the acceptable goals over the time period to achieve the Standard?
- Make interim goals and compliance timelines realistic





## Defining Roles and Responsibilities

- Four primary entities with roles and responsibilities in data quality management
  - CoC Executive Committee
  - Data Quality Subcommittee
  - HMIS Lead Agency
  - Providers
    - Intake/ Case management staff
    - Data Entry Staff





## Establishing Timelines

- Make timelines for compliance realistic
- May be based on CoC goals (2011 AHAR contribution, HUD Pulse)
- Establish specific tasks that must be done each month to monitor progress
  - What, who, when
- Make data quality progress a standing agenda item at monthly CoC meetings





## Calculating Compliance Rates

- Determined at Program and Program Type levels
- Program compliance rates: Compare completeness rates for each data element to acceptable rates established under the Completeness Section of the Standard for that Program's type (emergency shelter rates)
- Roll this rate up to an overall average across all program's of that type (average for all emergency shelters)





## Data Quality Monitoring Tool

- Import acceptable rates from Standard
- Enter programs
- Enter data from monthly Data Quality Reports
- Tool will calculate and report compliance rates
- Includes a Compliance Plan and Task list template





## Data Quality Reports

- Needed to understand if data is entered timely, completely and accurately
- Generated regularly (monthly)
- Have a process to allow for data correction prior to public recognition or CoC monthly review





## Other Things to Think About...

- Outreach Programs: include record building model in DQ Standard
- Definitions: include all definitions that might impact understanding or data quality
- Documentation: include processes for ensuring documentation of disabilities is present (Program Specific Data Elements)
- Include Standards for other Funding stream requirements (PATH, SOAR, VA, etc.)





# Questions





## Resources and Tools

- Intake to Analysis: A Toolkit for Developing a Continuum of Care Data Quality Plan
- Data Quality Monitoring Tool (excel spreadsheet)
- [www.HUDhre.info](http://www.HUDhre.info)
- [www.HMIS.info](http://www.HMIS.info)

