



Uses of HMIS Data

Using Data to Improve Reporting and Management



Solving problems, guiding decisions – worldwide

Uses of HMIS data

- Meeting HUD and local funder reporting requirements
 - Exhibit 1
 - APR
- Monitoring HMIS participation by service providers
- Adding value to the Continuum of Care

HMIS Stakeholders

Abt

Abt Associates Inc.

Using HMIS to complete the Exhibit 1

- Part II
 - Housing Inventory Chart
 - Bed and unit inventories and HMIS participation code
 - Populations and Subpopulations Charts
 - Sheltered PIT count
 - Homeless subpopulations
 - HMIS charts
 - Client records, data completion chart

Using HMIS data to complete the Exhibit 1

- Part III and IV
 - CoC 10-year plan (baseline) and CoC achievements (accomplishments)
 - Retention in permanent housing, homeless persons moving from TH to PH, employed at exit

CoC Application

- Movement towards more detailed Exhibit One reporting
 - More precise measures of HMIS participation and data quality
 - More quantifiable, data-driven performance measures

Housing Inventory Chart

- Using HMIS to collect bed inventory information
- HMIS Participation Code:
 - **PA** – Client level data in HMIS on at least 75% of the homeless persons served.
 - **PS** – Client level data in HMIS on less than 75% of the homeless persons served (0-74%).
 - **N** – Not yet providing client level data to HMIS but will begin providing data by September 1, 2007.
 - **D** – Declined participation in HMIS or will begin providing data after September 1, 2007.
 - **DV** – Domestic violence service provider: providers whose primary mission is serving victims of domestic violence and are not reporting client-identified data to HMIS.

HMIS Participation Code

- Use daily census, other external source, to find # of persons in program on specific PIT
- Find same info for same night using HMIS
 - Clients with entry dates on or before that PIT and exit dates missing or after that PIT
- $\text{Census Utilization Rate} = \text{Census PIT count} / \# \text{ of Available Beds}$
- $\text{HMIS Utilization Rate} = \text{HMIS PIT count} / \# \text{ of available beds}$

HMIS Participation Code

- % of clients entered = HMIS utilization rate/ Census Utilization Rate

Source	PIT Count	Total Beds	Utilization Rate	Participation Code
Daily Census	70	100	70%	=.5/.7=71% = PS, client level data for less than 75% of clients served
HMIS Count	50	100	50%	

Bed Utilization Rate Monitoring

Facility Name	Program Type	FAM Beds	IND Beds	# of Persons the night of 1/31	Bed Utilization Rate
Provider A	THFAM	90	0	80	89%
Provider B	ESIND	65	0	115	177%
Provider C	ESFAM	116	0	75	65%
Provider D	ESMIX	47	0	46	98%
Provider E	THIND	42	0	22	52%
Provider F	ESIND	75	0	100	133%

Sheltered PIT Count

- One-day census of persons and households in emergency shelter and transitional housing by household-type
- Check HMIS one-day census against bed inventory to ensure reasonable utilization rates
- Extrapolating for non-participating providers (only accurate if HMIS coverage over 65%)

PIT Extrapolation

Step	Description	Source	Result	
1	Unduplicated number of persons in families that used transitional housing participating in HMIS	HMIS data from providers that participate in HMIS	100	Persons
2	Number of transitional housing beds for persons in families included in HMIS (i.e., bed capacity for participating providers)	SuperNOFA Housing Inventory Chart	50	Beds
3	Average number of clients served per bed	Step 1 ÷ Step 2	2.0	Persons per Bed
4	Number of transitional housing beds for persons in families at providers not participating in HMIS (i.e., bed capacity for non-participating providers)	SuperNOFA Housing Inventory Chart	10	Beds
5	Estimated unduplicated number of persons in families served by providers that do not participate in HMIS	Step 3 x Step 4	20	Persons
6	Estimated number of persons in families served by participating and non-participating transitional housing providers.	Step 1 + Step 5	120	Persons
11	Adjustment factor for non-participating providers: This is the factor applied to calculations that are based only on participating providers. It is used to estimate total number of persons in families served by participating and non-participating providers.	Step 6 ÷ Step 1	1.20	is the adjustment factor for non-participating providers.
12	HMIS bed coverage rate	Step 2 ÷ (Step 2 + Step 4)	83.33%	% of beds participating in HMIS

Subpopulation Extrapolation

- Subpopulation Extrapolation= Number of persons served at HMIS participating providers * adjustment factor
- Not applicable for Domestic Violence Victims or unaccompanied youth due to lack of HMIS participation

	# of People Served at HMIS Participating Providers	Adjustment Factor	Estimated Number of People Served in Jurisdiction
Chronically Homeless	10	1.2	12
Severely Mentally Ill	20	1.2	24
Chronic Substance Abuse	15	1.2	18
Veterans	45	1.2	54
Persons with HIV/AIDS	35	1.2	42

Unduplicated Counts

- Identifying duplicate records
 - SSN
 - Algorithm
- How do you get duplicated and unduplicated counts?
 - Automated software
 - HMIS query
 - Other
- What is an acceptable duplication rate?
 - Closed vs. open systems

Data Completeness

- Collection requirements
 - Universal data elements= everyone
 - Program-specific = programs that complete an APR
- Defining the proper universe

Universal Data Elements

Data Element	Universe	“Don’t Know”/”Refused”
Name	All Clients	Not Valid
Social Security Number	All Clients	Valid
Date of Birth	All Clients	Not Valid
Ethnicity and Race	All Clients	Not Valid
Gender	All Clients	Not Valid
Veteran Status	Adults	Valid
Disabling Condition	Adults	Valid
Residence Prior to Program Entry	Adults and Unaccompanied Youths	Valid
Zip Code of Last Permanent Address	Adults and Unaccompanied Youths	Valid
Program Entry Date	All Clients	Not Valid
Program Exit Date	All Clients	Not Valid

Case Study

Client ID	DoB	SSN	Race	Disabled (Y/N)	Prior Zip Code
1	3/10/1972	000-00-3142	Asian		20009
4		111-11-1111	Black		20008
10	2/1/1998		White		
25	8/24/1965	231-55-5987		N	01742
39	9/16/1989		White		
45	1/1/1980	987-65-4321	American Indian	Y	

Data Completion Chart

Variable	Missing Rate
Age	=5/6, 83.3%
SSN	=4/6, 66.6%
Race	=5/6, 83.3%
Disabled	=2/5, 40%
Zip Code of Last Permanent Address	=3/5, 60%

Data Completeness

- Defining Completeness
 - Are “don’t know”/”refused” valid responses?
 - What about partial responses?
- Measuring Success
 - What are acceptable missing data rates?
 - Does this differ by program type? Data element?
- Communicating Results
 - CoC involvement
 - Drill-down to the right people
 - Sticks and carrots

10-Year Plan

Objective	Necessary Data Elements	Calculation
At least 71% of persons in permanent housing stay over 6 mos.	<ul style="list-style-type: none"> •Program Identification Number •Program Entry Date •Program Exit Date 	$\frac{(\# \text{ of persons in PH where exit date-entry date} > 6 \text{ mos. OR current date-entry date} > 6 \text{ mos. and exit date is null})}{\text{Total \# of persons who entered PH at least 6 months ago}}$
At least 61.5% of homeless persons exiting transitional housing move into permanent housing	<ul style="list-style-type: none"> •Program Identification Number •Program Exit Date •Destination 	$\frac{\# \text{ of persons in TH who left the program during the last operating year to enter permanent housing}}{\text{Total \# of persons who left TH during the operating year}}$
At least 18% of homeless persons are employed at program exit	<ul style="list-style-type: none"> •Program Exit Date •Income and Sources •Employment* 	$\frac{\# \text{ of persons receiving earned income at program exit}}{\text{Total \# of persons exiting homeless programs}}$

HMIS-Based APR

- New HMIS-based APR being reviewed by HUD
- All programs will be expected to complete their APR using HMIS data, including SSOs
- No new program-specific data elements
- New cross-tabulations of existing data elements

A Step Beyond Just Collecting the Data and Measuring How Well it is Being Collected.

- Now you have the data – what do you want to do with it?
- What could you do with it?

Reporting

Data currently used for reporting to HUD in a variety of ways:

- Reporting for Exhibit 1
- Reporting for APR
- Reporting for AHAR

- Reporting on 10 Year Plans

Measuring Success

A. Measuring success of the HMIS as an information system – how complete and accurate is the data you are collecting?

Vs

B. Measuring the success of the Continuum as a whole in meeting the needs of the community.

In order to measure B. you have to measure A. to have any confidence in the measurement's accuracy.

Local HMIS Performance

- A. Ensure success of HMIS as a system:
- Data is collected in order to get the whole picture.
- Data quality is about ensuring that you are seeing a true and complete picture.
- It is vital that you know that your local HMIS is providing “accurate” “complete” and “consistent” information.
 - Accurate – true information from the client and all information typed in correctly.
 - Complete – all clients and all fields filled in.
 - Consistent – everyone has the same understanding of the question asked.

Local HMIS Performance

- Regular checks on Data Quality.
- Ensure participating agencies have regular “data quality exception” reports.
 - Exception is, for example:
 - a “null” field – required data is missing.
 - incorrect data type – text in a “number” box.
 - incorrect field length – SSN is 9 digits long
 - logical content – date of birth too early or too late.
 - bogus value – SSN is 111-11-1111
 - conflicts – veterans who are under 18

Local HMIS performance

- Having ensured the quality of the data - you need to be able to ensure that you can report on all the aspects that you would like to measure.
- Not just how many males
- Not just how old are people
- Not just if they are veterans
- Not just how many shelters
- Not just how many nights
- But.....
- How many veteran males between the ages of 35 – 40 were in emergency shelter between January 1st and February 1st 2007 compared to the same period the previous year.

Measuring success of the Continuum

Only once you have confidence in the HMIS as a system to provide accurate, timely, consistent and complete data should you start to look at what the data is telling you.

Goals

- Are changes needed in your community to meet goals of ending/preventing homelessness?
- How do you know if changes are needed?
- How effective are the existing measurement systems – do you in fact measure success of programs and impacts on the overall Continuum's delivery system?
- What does success look like? Compare Outcomes to Goals?
- Does your community rate or rank the success of one program against another?
- How does your community allocate resources to different programs?
- Can HMIS be used to quantify success or measure achievement in meeting goals?

Goals

- HMIS can be used to set goals and measure performance at the “macro” and “micro” level.
- Macro level --- Numbers/percentages at the Continuum level.
 - % of people who moved to permanent housing (placement).
 - % of people who retained permanent housing for at least 6 months (retention).
 - % of people who increased their income.
 - % of people who obtained employment.
 - % of people who accessed benefits.
- Micro level --- Drilling down through the data to look for commonalities in demographics and services.
 - % of people who increased their income
 - What are their characteristics?
 - What services did they receive?
 - Do different populations have different success rates?
 - Use of demographics – ethnicity, race, gender, age, etc. – and comparing to general population data.
 - Setting goals for individual clients and measuring success.

Outcomes

Need to move from

Outputs

to

Outcomes

“X” people increased their income

Because.....

What were the actions that created the result?

Was the result sustained?

Outcomes

- Which programs were effective in:
 - Moving people to permanent housing
 - Keeping people in permanent housing
 - Increasing peoples income
 - Obtaining employment for clients
 - Helping people access benefits.

What actions were taken to create the success?

Was the success sustained?

Outcomes & Performance

- Are some Agencies or Programs better than others in serving certain populations ----- such as more successful with youth than with seniors???
- Are some Agencies or Programs better than others in being successful in a given sector or in providing a specific service ----- such as more successful in keeping people in housing than increasing their income ?????
- Take due account of different populations and difficulties in serving them

Performance and Impact

- How does Continuum of Care utilize this knowledge and disseminate “Lessons Learned”?
 - Identify trends and patterns in what the data is telling you.
 - Are there specific reasons for the trends or patterns?
 - Changes in the economy and/or other external factors??
- Is the information gleaned just programmatic or does it have wider policy implications?
 - Compare HMIS data with other data being collected.
 - Identify gaps in service.
- Are policy makers being presented relevant reports from the system to enable them to better understand the problem?
 - Do resources get reassigned as a result?