

ART Gallery Report 0220
Data Incongruity Locator
Age, Gender and Household Relationships Data Quality Report

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1. INTRODUCTION:

This ART report is the first in a series of reports designed to monitor data quality by locating recorded client data which is missing, is incorrect, or which is inconsistent with other recorded data for the same client. This report focuses on locating errors and incongruities in the areas of age, gender and household relationship.

Twelve common data quality issues are identified:

- Client's date of birth has not been recorded.
- Client's age is negative due to incorrect date of birth.
- Client's age is out of the normal range (>100) - probable incorrect date of birth.
- Client's date of birth is the same as the date that the client was entered into the system - probable date of birth error.
- Client's age (<15) is inconsistent with their HH relationship (mother, grandfather, etc.).
- Client's gender has not been recorded.
- Clients Veteran status = "yes" but age is less than 18.
- Client's gender is inconsistent with his/her HH relationship. (Female-father, male-step-mother, etc.)
- Client's HOH designation = "yes" but relationship to HOH is not equal to "self".
- Client's relationship to HOH = "self", but HOH designation = "no" or null.
- Client is a household member but is missing a household relationship.
- Client is recorded as pregnant, but age or gender is inconsistent with this. (Not female and/or <15).

The "Summary" section reports the number and percentage of clients for whom each of the twelve issues applies. It then lists the clients with identified issues and shows which issue(s) apply to which client(s). The "Detail" section further expands the client list to display and highlight the actual values that are in error or are conflict with each other.

This report is intended for use by Agency Administrators, data entry staff or HMIS Administrators responsible for data quality. The report can be run at any provider level at or above the selected program. Monthly or quarterly use is recommended to monitor data errors and incongruities that may negatively impact reporting.

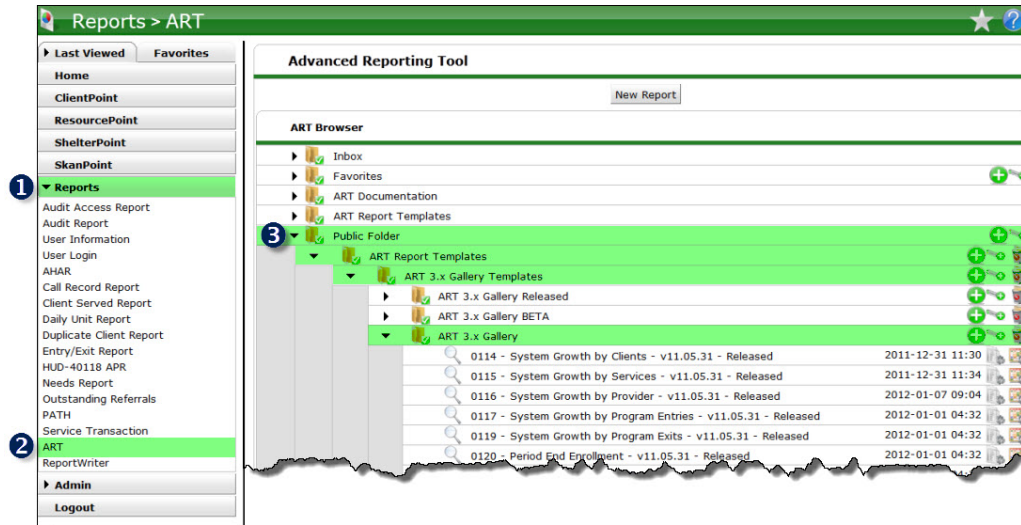
Prerequisites and workflow requirements:

- ServicePoint version 5.X
- ART version 3.X
- Use of a standard HUD Workflow by participating providers.
- Proper recording of Program CoC Code, Program Type Code and Shelter Service Code in the Admin Provider Configurations for each provider in the dataset
- Proper recording of unmet needs for unsheltered clients.

2. REPORT INSTRUCTIONS AND PROMPTS:

The easiest way to start using this report is to navigate to the automapper. This is a folder that has the reports automatically mapped to your site, so that you don't have to map them yourself. You can navigate to the automapper as shown in Diagram 2.1 below:

Diagram 2.1



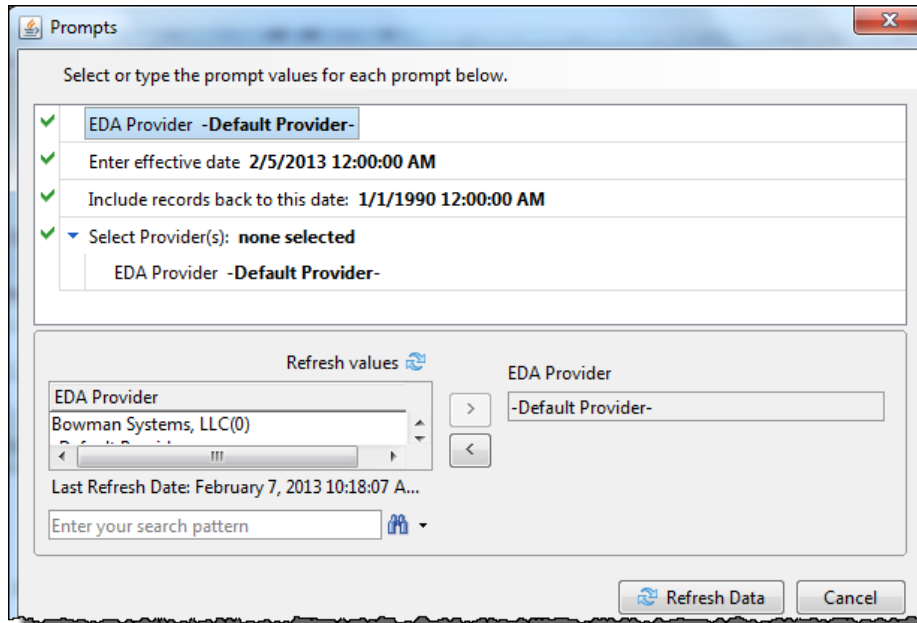
Requests for additional information concerning the report function/design should be directed to Bowman Systems' Customer Support Specialist (CSS) staff.

Before running the report: Prior to running the report the user must have access to:

- A complete list of the CoC's participating Emergency Shelter, Transitional Housing, and Safe Haven providers.
- Exact date of the PIT Count
- The Proper CoC code or list of providers for the data set

How to run: Upon opening the report, the User will be prompted (see Diagram 2.2) to specify parameters which control the data returned by the report. Once the User has provided these parameters by responding to the user prompts, a green check-mark will appear next to each field to indicate that a selection has been made. The User should then single-click the "Refresh Data" button to generate the report.

Diagram 2.2



The user prompts contained in this report are:

1. **EDA Provider:** The user should select the EDA provider to run the report as, or leave it at the "-Default Provider-" if the default has the appropriate security level.
2. **Enter Effective Date:** The user should type in, or select from the calendar the current date so that the most recent values for each of the data elements will be considered.
3. **Include records back to this date:** The user should enter (or select from the calendar) a single date. The report will include all client records from this specified date to present (date of the most recent build).
4. **Select Provider(s):** Click the "refresh list" icon and wait for the left window to refresh. Now select the providers to include by highlighting them in the left window and moving them into the right window using the right selection arrow.

3. DESCRIPTION AND LAYOUT:

3.1. Information common to multiple tabs

This report contains 13 data tabs. Each tab is a sub-report containing three sections:

- **Report Header:** The header contains the title of the report and the tab/sub-report. When running the report in "modify" view, the report header is only visible in print/page layout mode.
- **Report Footer:** The report footer contains the title of the report, the name of the tab/sub-report, the page number, the version number, and the date/time the report was run/printed. Like the header, the footer is only visible in print mode when the report is run in modify view.
- **Report Body:** The report body is the main section of the report located between the header and the footer where the reports data is displayed in a variety of different chart formats.

3.2. Tab A – Summary

This tab contains two tables and a key regarding summary data for the Data Incongruity Locator. The key (for Tabs B through M) lists each of the data quality issues covered in the report.

Figure 3.2a

Data Incongruity Locator Age, Gender, & Household Relationship Issues Summary Includes Records From 1/1/90 - 2/4/13												
Tab	DATA QUALITY ISSUES IDENTIFIED IN THIS REPORT											
B	Includes client records without a recorded date of birth.											
C	Includes client records with an incorrect date of birth that results in a negative age.											
D	Includes client records with a possible incorrect date of birth resulting in an age over 100 years old.											
E	Includes client records with a date of birth that is the same as the date the client was created - probable date of birth error.											
F	Includes client records with an age (<12) that is inconsistent with their HH relationship (mother, grandfather, etc.).											
G	Includes client records without a recorded gender.											
H	Includes client records with a Veteran status of "yes" and an age less than 18.											
I	Includes client records where gender conflicts with the HH relationship. (female-father, male-step-mother, etc.)											
J	Include client records where HoH designation of "Yes" conflicts with relationship to HoH.											
K	Include client records where HoH designation of "No" conflicts with relationship to HoH of "Self".											
L	Includes client records with a household membership but no household relationship.											
M	Includes client records with possible pregnancy errors (not female or not between 12-55).											
SUMMARY												
	B	C	D	E	F	G	H	I	J	K	L	M
Total Clients	32,330	32,330	32,330	32,330	32,330	32,330	32,330	32,330	32,330	32,330	32,330	32,330
Clients Identified With This Issue	507	1	2	8	14	340	20	305	704	192	337	0
Percent Identified With This Issue	1.57%	0.00%	0.01%	0.02%	0.04%	1.05%	0.06%	0.94%	2.18%	0.59%	1.04%	0.00%
DETAIL BY CLIENT												
Percentage of clients identified with one or more of these issues= .059% (1,899 of 32,330)												
client id#	B	C	D	E	F	G	H	I	J	K	L	M
	Null DOB	Negative Age	Age Over 100	DOB Equal to Entry Date	Age Conflicts w/ HH Status	Null Gender	Age Conflicts w/ Vet Status	Gender Conflicts w/ HH Status	HoH & HH Status Conflicts (Yes / Not Self)	HoH & HH Status Conflicts (No / Self)	Null HH Status	Pregnant Status Conflicts Age/Gender
323	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Error	Ok
1132	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Error	Ok	Ok	Ok

Table Information:

- **Summary Table:** This table contains a summary of the number and percentage of issues identified.
- **Detail By Client Table:** This table contains a summary of the issues identified by client. Each of the subsequent tab addresses the different types separately.

3.3. Tabs B to M – Detail

These tabs contain detailed information about the missing or incongruous data. Each labeled tab is structured in the same manner and the records for each error type are highlighted in yellow.

Diagram 3.3

Null DOB Detail												
Includes Records From 1/1/90 - 2/4/13												
DETAIL BY CLIENT												
Client ID#	Age	Gender	Date of Birth	Date Client Added	Household Inactive	HH Relation Ended	Head of Household	Household Relation Inactive	Household Relation	Household ID#	Client Pregnant	Military Vet
29799	Null	Female	Null	1/30/03	No		No	No	daughter	6,302		
29820	Null	Male	Null	1/30/03	No		No	No	son	6,302		
38289	Null	Male	Null	2/7/03	No		No	No	Null	1,742		

Column Explanations:

- **Client Id:** The column header lists the client Id for each client included in the table
- **Age:** This column provides the age of the client.
- **Gender:** This column lists the gender of the client.
- **Date of Birth:** This column will reflect date of birth of the client.
- **Date Client Added:** This column displays the date the client was first added to the HMIS database.
- **Household Inactive:** This column will display a Yes if the household is inactive.
- **HH Relation Ended:** This column will display the date the client was removed from the household.
- **Head of Household:** This column will display a yes if the client is the Head of Household.
- **Household Relation Inactive:** This column will display a Yes if the household relationship is inactive.
- **Household Relation:** This column will display the relationship of the client to the Head of Household.
- **Household Id#:** This column will display the Household Id.
- **Client Pregnant:** This column will display a Yes if the client is pregnant.
- **Military Vet:** This column will display a Yes if the client is a veteran.

3.4. Tab C – Additional Information

Data on the Additional Information tab is provided as a reference to the User running the report and lists the parameters specified in the user prompts and well as the total duplicated (client count) and unduplicated clients counts.

Diagram 3.4

User Prompt Field	Value(s) Selected				
Include records back to this date:	1/1/90				
Enter Effective Date:	2/5/13				
Enter Provider(s) for Report:	0-1-1@QGFYXS(8220); 1 10th Street Shelter(2055); 1 ABC Shelter for Women and Families(8325); 1 AF Faith First Rescue(8596); 1 AF Grace House(8592); 1 AF Mercy Street Station(8599); 1 AF Serenity Services(8574); 1 BMBD HOPWA(8498); 1 Care House(7095); 1 Countywide Electric Company(1251); 1 EFC Ash Street Safe Haven(3663); 1 EFC Cedar Street ReachOut(7768); 1 EFC HH DIGS(7452); 1 EFC HH Transit for Jobs Program(7842); 1 EFC Maple Street THP - PTO(7444); 1 EFC Maple Street THP - STABLE(7442); 1 EFC Maple Street Transitional Housing Program(3334); 1 EFC Oak Street Housing(7443); 1 EFC Oak Street Housing SRO(7445); 1 EFC Oak Street Housing Trail(7880); 1 Evergreen Forest Community(542); 1 FCA - Bass Street Program(7008); 1 FCA - Pike Street Emergency Lodging Program(2804); 1 FCA - Walleye Street Emergency Rent Assistance Prgm (7193); 1 HPRP Apple House(8530); 1 HPRP Cranberry Care Station(8399); 1 HPRP Fig Family Center(8172); 1 HPRP Lemon Lane Lodging(8601); 1 HPRP Mango Mannor(8603)				
Providers Reporting Information					
Combined Providers: (breakdown by provider is not available for this report):	<table border="1"> <thead> <tr> <th>Client Count</th> <th>Unduplicated Client Count</th> </tr> </thead> <tbody> <tr> <td>32,330</td> <td>32,308</td> </tr> </tbody> </table>	Client Count	Unduplicated Client Count	32,330	32,308
Client Count	Unduplicated Client Count				
32,330	32,308				

4. INPUT CONTROLS:

4.1. There are no input controls in this report.

5. ALERTERS:

5.1. Tabs B through M

A sample of incongruous or missing data is shown in Figure 5.1 below. The Date of Birth column is highlighted in yellow to show each client with a missing Date of Birth. The same format is used for each tab and the error type for each tab is included in the Tab Report Header.

A red Null appears where data is missing.

Diagram 5.1

Null DOB Detail												
Includes Records From 1/1/90 - 2/4/13												
DETAIL BY CLIENT												
Client ID#	Age	Gender	Date of Birth	Date Client Added	Household Inactive	HH Relation Ended	Head of Household	Household Relation Inactive	Household Relation	Household ID#	Client Pregnant	Military Vet
29799	Null	Female	Null	1/30/03	No		No	No	daughter	6,302		
29820	Null	Male	Null	1/30/03	No		No	No	son	6,302		
38289	Null	Male	Null	2/7/03	No		No	No	Null	1,749		

6. DIMENSIONS USED:

6.1. Information Common to Tabs A to M – Summary, Detail Tabs

Additional Dimensions	Client Uid, Client Unique Id, Gender, Date of Birth, Age (Calculated), Household Relate. Inactive, Household Relate. Head of Household, Household Relate. Relationship, Household Relate. Date Ended, Client Date Added, Household Inactive, Household Uid, Pregnant?, Is Client US Military Veteran?
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7. TECHNICAL INFORMATION:

7.1. How the data are pulled:

This report utilizes a single query based in the _u (Client Universe).

7.2. Technical notes:

- 1) The report is designed to be comprehensive in terms of which clients are included in the results. Clients are included if they meet any one or more of the following criteria:
 - Client created by provider on or after report start date
 - Provider was last to update client profile on or after report start date
 - Program entry into provider by client or after report start date
 - Provider recorded as a service provider for client or after report start date
 - Service recorded for client by provider on or after the report start date
 - Provider recorded as a need provider for client or after report start date
 - Call record recorded by provider for client or after report start date
 - Goal set for client by provider on or after start date
- 2) ROI recorded for client by provider on or after start date. Inactive clients, inactive entry-exits, inactive needs, inactive services, inactive call records, inactive ROIs and inactive households are excluded from the results.
- 3) It should be noted that in some cases “potential” errors are displayed where the data may be accurate. For example a client could have a calculated age of greater than 100 years old.

7.3. Modification options:

Users with ad-hoc ART licenses may wish to modify/customize this report to better suit their needs and purposes. When modifying an Art Gallery report such as this one, the user will need to make a copy of the original report into a different folder. This copy can be created either by using the “save as” feature or by clicking on the “organize” icon in folder view.

Ad hoc users may choose to customize this report to include only the types of errors relevant to a specific program or specific grouping of programs. The report has been designed in such a way as to facilitate such modification. To remove an un-needed error element from the report, the ad hoc user need only:

- Delete the irrelevant row(s) from the listing in Tab A
- Delete the irrelevant column(s) from the “Summary” section of Tab A
- Delete the irrelevant column(s) from the “Client Detail” section of Tab A and the tables in Tab B
- Delete the irrelevant variable from the report filters in Tabs A and B.

Experienced ad hoc users also will be able to included additional error elements in the report if needed. This would be done by constructing additional error identification variables according to the logic utilized in this report, and by adding related rows, columns and report filters related to the added variables.

8. MAPPING OBJECTS:

A listing of the report objects and their source universe and source folder is provided below.
Objects are arranged by query and by object type.

QUERY NAME	OBJECT TYPE	FIELD NAME	LOCATION
Data _u (Client Universe)	Result Objects:	Client Uid	Clients folder
		Client Unique Id	Clients folder
		Client First Name	Clients / Client Unique Id folder
		Client Last Name	Clients/Assessments
		Gender	Clients / Assessments / APR Entry folder
		Date of Birth	Clients / Assessments / APR Entry folder
		Age (Calculated)	Clients / Assessments / APR Entry folder
		Household Relate. Inactive	Clients / Household Relationships folder
		Household Relate. Head of Household	Clients / Household Relationships folder
		Household Relate. Relationship	Clients / Household Relationships folder
		Household Relate. Date Ended	Clients / Household Relationships folder
		Client Date Added	Clients folder
		Household Inactive	Households folder
		Household Uid	Households folder
		Pregnant?	Clients / Assessments / Medical folder
		US Military Veteran?	Clients / Assessments / APR Entry folder
		Date of Birth Type	Clients / Assessments / APR Entry folder
	Filter Objects:	Entry Exit Entry Date	Clients / Entry Exit (Outer) folder
		Entry Exit Provider Id	Clients / Entry Exit (Outer) folder
		Client Inactive	Clients folder
		Entry Exit Inactive	Clients / Entry Exit (Outer) folder
		Client Provider Creating	Clients folder
		Client Date Updated	Clients folder
		Client Provider Updated	Clients folder
		Needs Inactive	Clients / Needs (Outer) folder
		Need Date Added	Clients / Needs (Outer) folder
		Need Provider	Clients / Needs (Outer) folder
		Call Record Inactive	Clients / Call Records (Outer) folder
		Call Record Date Added	Clients / Call Records (Outer) folder
		Call Record Provider Creating	Clients / Call Records (Outer) folder
		Service Inactive	Clients / Services (Outer) folder
		Service Provide Start Date	Clients / Services (Outer) folder
		Service Provide Provider	Clients / Services (Outer) folder
		Service Provider Creating	Clients / Services (Outer) folder
		Service Date Added	Clients / Services (Outer) folder
		Goal Inactive	Goals folder
		Goal Date Set	Goals folder
	Goal Provider Creating	Goals folder	
	ROI Inactive	Clients / ROI (Outer) folder	
	ROI Provider	Clients / ROI (Outer) folder	
	ROI Date Added	Clients / ROI (Outer) folder	

9. REVISION HISTORY:

Version	Description of Changes
V1	Original version –BETA
V2	Revision for compatibility to SP5x/ART3x
V3	Revision to repair minor defects Tab L and Tab J
V4	Revision: Corrects Veteran's age range from >18 to >=18 on Tab H Revision History added to user manual.
V5	Revision: Altered variable to account for DOB quality and for Inactive Households. Updated user manual.