

Improving Central Registry Data processing and Quality assurance through Innovation

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Problem

Quality Assurance is a challenge for central registries processing cases from multiple facilities. Changes in software, policy and procedures increase the difficulty.

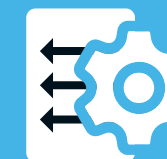
These data anomalies and duplications originate from several sources:



Hospitals routinely submit bundles that are a mixture of unique and **duplicate abstracts**, resulting in extra work.



CRS Plus automatic consolidation rules may override validated values with **new conflicting abstract values**.



Manual consolidation requires CTRs to choose the appropriate value. **Certain identifiers** such as race, ethnicity, gender, etc., should not change in most circumstances. Any **changes must be identified efficiently** for the QA team to review and take corrective action.



Consolidated records may contain values **that are inconsistent with write-backs from vital statistics, and other data sets**. These discrepancies must be identified and reviewed.

A quality control process must be established to actively identify and correct or prevent data changes.

Solution



Through a proprietary hashing process, NAACCR V180 and V21 XML bundles received by Web Plus are analyzed by MQAT. This enables the CTR to export unique abstracts that are not present in the Registry Database. By selective processing, **a large percentage of duplicates can be prevented** before they enter the processing workflow.



At times changes occur to race, DOB, SSN, and such key demographic fields during the normal process. MQAT identifies anomalous changes by examining the CRS Plus change log and comparing those changes to rules that **highlight cases for manual review**.



When unexpected changes to geolocation fields such as Lat/Long and DxCounty make it through consolidation, MQAT can identify and **automatically correct** on the fly via supporting scheduled tasks and reference tables in SQL Server.

Myriddian has developed the **Myriddian Quality Assessment Tool (MQAT)**, a web-based application that provides several tools and workflow processes to address the problem:

MQAT Dashboard Dashboard (Old) Pending Development Export Admin Log Out									
WebPlus Import Pre-Processor									
NAACCR V180 Bundles in WebPlus									
Status	BundleID	Version	Facility	Filename	Uploaded	Records	Errors	WPAT	Reviewed
	F0017750.bun	210	0006320020		02/28/2022 07:13:00	140	0		
REJ	F0017748.bun	210	0006320020		02/28/2022 07:00:00	140	11		
	F0017744.bun	210	0010000286		02/27/2022 11:57:00	15	0		
	F0017742.bun	210	0006320350		02/25/2022 17:47:00	54	0		
	F0017741.bun	210	0006320460		02/25/2022 17:45:00	3	0		
	F0017739.bun	210	0006320180		02/25/2022 17:43:00	36	0		
	F0017737.bun	210	0006320050		02/25/2022 17:40:00	4	0		
	F0017736.bun	210	0006320569		02/25/2022 16:57:00	30	0		
	F0017735.bun	210	0006320220		02/25/2022 15:37:00	191	0		

MQAT Dashboard Dashboard (Old) Pending Export Admin Log Out									
XML Bundle Summary									
BundleID	Filename	Uploaded	Exported	Facility	Records	NAACCR			
F0017184.bun	DC-MD 2020 CASES-Part-2.xml	11/30/2021 11:02:00		0000002200	490	210			
#	Export	First Name	Middle Name	Last Name	SocSec	BirthDate	Race1	Hispanic	Rep Hosp
1	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19390225	01	0	0006330120	202001537
2	<input checked="" type="checkbox"/>	WILLIAM	A	WILLIAM	19650520	15	6	0020000455	202002201
3	<input checked="" type="checkbox"/>	WILLIAM	A	WILLIAM	19460420	01	0	0006330120	202000856
4	<input checked="" type="checkbox"/>	WILLIAM	A	WILLIAM	19390816	99	9	0006330120	202000717
5	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19720103	02	0	0006330120	202000986
6	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19600201	01	6	0006330120	202000962
7	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19650523	99	0	0006330120	202000917
8	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19550921	02	0	0006330120	202001838
9	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19840130	01	0	0006330120	202000902
10	<input checked="" type="checkbox"/>	WILLIAM	A	WILLIAM	19670826	02	0	0006330120	202002004
11	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19860219	01	0	0006330120	202001004
12	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19461230	01	0	0006330120	202000770
13	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19330520	01	0	0006330120	202000796
14	<input checked="" type="checkbox"/>	WILLIAM	A	WILLIAM	19370804	02	0	0006330120	202002398
15	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19520522	02	0	0006330140	202000278
16	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19560522	01	0	0006330140	202000280
17	<input type="checkbox"/>	WILLIAM	A	WILLIAM	19640603	02	0	0006330140	202000198

MQAT

Maryland Cancer Registry - Database Summary

Critical Data Elements

Description	Unresolved	Execution Time
Patients with VitalStatus changed 0 to 1	95	0.03s
Patients with DateLastContact changed if Deceased and FupSourceCentral is set	0	0.21s
Patients with Race1 changed	239	0.03s
Patients with Hispanic changed	144	0.02s
Patients with Sex changed	6	0.00s
Patients with Birthdate changed	135	0.01s
Patients with SocSec changed	445	0.02s

Execution time 0.349 seconds.

Results

Data Quality is a keystone of the Cancer Registry. MQAT has allowed Myriddian to become more efficient in managing the complex task of abstract processing, abstract consolidation, and data validation.

Improved workflow



Identify cases for QA review



Elimination of duplicates

Reduced workload and aggravation



Identify CTR trends for education



Cost savings