

Traumatic Brain Injury Registry (TBI)

Release Notes



Version 4.2

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Department of Veterans Affairs
Office of Enterprise Development (OED)
Health Data Management Service (HDS)

Revision History

Version	Date	Description	Project Manager	Author
4.2	11/1/2015	Removed reference to .NET 4.5.2, Updated Section 3.1 to include Data dictionary changes to Datamart_Registries Database	John Sanders	D. Hassell
4.1	7/7/2015	Updated for TBI Enhancements Increment 1 – sections 1.2 and 2.1	John Sanders	D. Hassell
4.1	5/7/2014	Updated for Increment 5 Release	John Sanders	K. Jocius
4.0	6/23/2012	Reviewed and formatted	John Sanders	Dan Zaudtke
3.0	4/26/2012	Added Tracker 1524 and 1555 to the list of enhancements.	John Sanders	Scott Smith
2.0	4/26/2012	Updated the related user manual documents.	John Sanders	Scott Smith
1.0	4/18/2012	Create Initial Draft Release Notes document	John Sanders	Scott Smith

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1. Introduction

The Presidential Task Force on Returning Global War on Terror Heroes, as stated in the Global War on Terror report (recommendation P-3) and Public Law 110-181 National Defense Authorization Act 2008 TBI Section 1704 created the requirement for the Traumatic Brain Injury (TBI) Registry. This registry promotes the delivery of quality care by ensuring Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) Veterans are screened for these injuries and that they receive timely follow up evaluations and ongoing treatment.

This release addresses the Traumatic Brain Injury (TBI) Enhancements Increment 1 business requirements to expand the current TBI Registry capabilities. Refer to section 2.1 below for these enhancements.

1.1 Purpose

The purpose of this document is to identify and describe the changes in the TBI Registry software being deployed to the Converged Registries Solution (CRS) operational environment. It summarizes the features and enhancements for Increment 1 of the TBI Enhancements project.

The purpose of the TBI Registry is to facilitate screening, provide comprehensive follow up evaluations to positive screens, and to administer care to the current 615,000 and all future OEF, OIF and Operation New Dawn (OND) veterans through the use of TBI assessment tools, instruments and tracking modules.

1.2 Scope

The scope of this release includes enhancements for the TBI Enhancements Project. Specifically, this release includes the following enhancements/changes:

- Migrated from MDWS to VIA for SOA calls.
- Migrated the reporting environment to Pyramid Analytics.
- Enhanced the Registry DataMart to include additional dimensions for use in the TBI Cube.
- Enhanced the TBI CUBE to allow more robust reporting and analysis of TBI Survey Data.
- Added the ability to view the Last 3 Instruments, and to view all instruments after correctly selecting the appropriate patient.

1.3 Related Documents

- TBI Installation Guide for Increment 2, Version 4.3, November 2015
- TBI Instruments User Manual for Increment 1, Version 5.4, November 2015
- TBI Polytrauma User Manual, Version 4.4, November 2015
- TBI Application User Manual, Version 1.5, November 2015
- TBI System Management Guide, Version 4.2, July 2015

- HREG TBI Requirements Specification Document (RSD):
http://tspr.vista.med.va.gov/warboard/ProjectDocs/TBI_Registry/HREG_TBI_RSD_INC5_2_01312.pdf
- HREG TBI System Design Document (SDD):
http://tspr.vista.med.va.gov/warboard/ProjectDocs/TBI_Registry/TBI_System_Design_Document_Increment_4_2.doc

1.4 **Acronyms and Definitions**

Acronym	Description
CPRS	Computerized Patient Record System
CRS	Converged Registries Solution
DEF	Defect
INCR	Increment
MDWS	Medical Data Web Service
OEF/OIF	Operation Enduring Freedom/Operation Iraqi Freedom
OND	Operation New Dawn
TBI	Traumatic Brain Injury
UAT	User Acceptance Test
VA	Veterans Affairs
VHA	Veterans Health Administration
VIA	Veterans Integration Adapter
VistA	Veterans Health Information Systems and Technology Architecture

2 User Release Notes

2.1 **TBI Registry Enhancements INCR 1**

This release addresses the TBI Enhancements Increment 1 business requirements to expand the current TBI Registry capability as follows:

- 1) Exposed the Data Cube to Pyramid Analytics BIOXel to provide a consolidated, consistent source of TBI Instrument information that can be viewed for all reporting activities.
- 2) Enhanced the Data Cube to provide the ability to view consolidated TBI Instrument information without manually merging tables.
- 3) Enhanced the Data Cube so as new instrument packages are developed, the users have the ability to view their information as part of the consolidated source of Instrument information.
- 4) Enhanced the Data Cube to provide the ability to view summary data elements and outcomes, for all standardized forms in the TBI Instruments package.
- 5) Enhanced the Data Cube to provide the ability to view facility level summary data based on user's preference for keyed variables. (I.E. date, location, gender, age etc.).
- 6) The move to Pyramid Analytics allows users to save reports as templates for reuse.

- 7) Enhanced the Data Cube to provide the ability to view each question within each instrument as a value for reporting.
- 8) Enhanced the Data Cube to provide the ability to view information consolidated from multiple instruments into a single report.
- 9) Enhanced the Data Cube to allow the selection of multiple instruments to report into a single report.
- 10) Provide the ability as new instrument packages are developed, to view their information as part of the Reporting Cube functionality.

2.2 Functional Performance

There are no functional performance requirements for this increment.

3 Technical Release Notes

3.1 Data Dictionary Changes

The Data Dictionary changes were limited to the DataMart_Registries database.

Name	DataMart_Registries.dbo.dimtime2
Dimension Type	Type 0
Primary Key	DateKey
Source	DataMart_Registries.dbo.dimtime
Description	The dimtime2 table is a subset of the dim time table with the addition of a surrogate key for use in the fact tables. It focuses on Fiscal dates.

Column Name	Data Type
DateKey	int
PK_Date	datetime
Date_Name	nvarchar(50)
Year	datetime
Year_Name	nvarchar(50)
Quarter	datetime
Quarter_Name	nvarchar(50)
Month	datetime
Month_Name	nvarchar(50)
Day_Of_Year	int
Day_Of_Year_Name	nvarchar(50)
Day_Of_Quarter	int
Day_Of_Quarter_Name	nvarchar(50)
Day_Of_Month	int
Day_Of_Month_Name	nvarchar(50)
Month_Of_Year	int
Month_Of_Year_Name	nvarchar(50)
Month_Of_Quarter	int
Month_Of_Quarter_Name	nvarchar(50)
Quarter_Of_Year	int
Quarter_Of_Year_Name	nvarchar(50)
Fiscal_Year	datetime
Fiscal_Year_Name	nvarchar(50)
Fiscal_Quarter	datetime
Fiscal_Quarter_Name	nvarchar(50)
Fiscal_Month	datetime
Fiscal_Month_Name	nvarchar(50)
Fiscal_Day	datetime
Fiscal_Day_Name	nvarchar(50)

Fiscal_Day_Of_Year	int
Fiscal_Day_Of_Year_Name	nvarchar(50)
Fiscal_Day_Of_Quarter	int
Fiscal_Day_Of_Quarter_Name	nvarchar(50)
Fiscal_Day_Of_Month	int
Fiscal_Day_Of_Month_Name	nvarchar(50)
Fiscal_Month_Of_Year	int
Fiscal_Month_Of_Year_Name	nvarchar(50)
Fiscal_Month_Of_Quarter	int
Fiscal_Month_Of_Quarter_Name	nvarchar(50)
Fiscal_Quarter_Of_Year	int
Fiscal_Quarter_Of_Year_Name	nvarchar(50)

<u>Name</u>	DataMart_Registries.dbo.dimAgeGroup
<u>Dimension Type</u>	Type 0
<u>Primary Key</u>	AgeGroupKey
<u>Source</u>	N/A
<u>Description</u>	The dimAgeGroup table was created and populated using values supplied by the RSD. It is used to group patients based on age at a point in time.

<u>Column Name</u>	<u>Data Type</u>
AgeGroupKey	[int] IDENTITY(1000,1000)
Age_Group	[nchar](10)

<u>Name</u>	DataMart_Registries.dbo.dimProvider
<u>Dimension Type</u>	Type 0
<u>Primary Key</u>	Provider_id
<u>Source</u>	Registry.dbo.Provider
<u>Description</u>	The dimProvider table is a subset of providers used to identify providers and authors of notes.

<u>Column Name</u>	<u>Data Type</u>
PROVIDER_ID	int
FIRST_NAME	varchar(50)
MIDDLE_NAME	varchar(50)
LAST_NAME	varchar(50)
ADDRESS_LINE1	varchar(100)
ADDRESS_LINE2	varchar(100)
ADDRESS_LINE3	varchar(100)
CITY	varchar(60)
STATE	varchar(50)
COUNTY	varchar(50)
COUNTRY	varchar(50)
POSTAL_CODE	varchar(20)
ZIP_PLUS_4	varchar(6)

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Name	DataMart_Registries.TBICUBE.Patient
Dimension Type	Type 2
Primary Key	Patient_Key
Source	Registry.dbo.patient
Description	The patient table is a subset of the patient table used to identify demographic data for use in TBI analytics.

Column Name	Data Type
Patient_Key	int IDENTITY(1,1)
PATIENT_ICN	varchar(50)
SSN	varchar(20)
FIRST_NAME	varchar(50)
MIDDLE_NAME	varchar(50)
LAST_NAME	varchar(50)
OEF_OIF_IND	varchar(7)
BIRTH_DATE	datetime
GENDER	varchar(100)
OEF_OIF_LOCATION	varchar(100)
CURRENT_AGEGROUP	varchar(5)
SERVICE_BRANCH	varchar(100)
RACE_NAME	varchar(100)
ETHNICITY_NAME	varchar(100)
MaritalStatus	varchar(50)
LastServiceSeparationDate	date
ScdStatus	bit
ScdStartDate	datetime
ScdEndDate	datetime

Name	DataMart_Registries.TBICUBE.dimSurveyDetails
Dimension Type	Type 2
Primary Key	SurveyDetailsID
Source	Registry.dbo.STD_Survey_Type, Registry.dbo.STD_Question, Registry.dbo.STD_Question_Choice
Description	The dimSurveyDetails table is a denormalized view of the Surveys/Instruments, each row contains the Survey, Question and Choice until all combinations are represented in the table.

Column Name	Data Type
SurveyDetailsID	int
SurveyTypeID	int
QuestionID	int
QuestionChoiceID	int
SurveyName	varchar(100)

QuestionNumber	varchar(50)
QuestionText	varchar(950)
QuestionSortOrder	int
ChoiceName	varchar(100)
ChoiceText	varchar(4000)
ChoiceSortOrder	int
ScdStatus	bit DEFAULT ((0))
ScdStartDate	date DEFAULT (getdate())
ScdEndDate	date

Name	DataMart_Registries.dbo.InstitutionOrganization
Dimension Type	Type 2
Primary Key	Institution_Key
Source	Registry.dbo.std_Institution, Registry.dbo.std_facility_type
Description	The InstitutionOrganization table is a subset of Institutions where the std_facility_type has the IsPatientTreating flag=1. It also has a self referencing key used in a parent child hierarchy in the cube database, the VISN parents have been validated with the client.

Column Name	Data Type
Institution_Key	int IDENTITY(1,1)
Institution_id	int
name	varchar(100)
stationNumber	varchar(10)
VISTANAME	varchar(50)
STREETADDRESSLINE1	varchar(100)
STREETADDRESSLINE2	varchar(100)
STREETADDRESSLINE3	varchar(100)
STREETCITY	varchar(50)
STREETSTATE	varchar(100)
STREETPOSTALCODE	varchar(50)
parent_id	int
VISN	varchar(100)
FacilityTypeCode	varchar(50)
FacilityTypeName	varchar(100)
Institution_DisplayName	varchar(121)
visn_id	int
ScdStatus	bit
ScdStartDate	datetime
ScdEndDate	datetime

Name	DataMart_Registries.dbo.SurveyType
Dimension Type	Type 2
Primary Key	SurveyTypeKey

Source	Registry.dbo.STD_Survey_Type
Description	

Column Name	Data Type
SurveyTypeID	Integer
Survey_Name	Varchar(100)
Survey_Type_Abbr	Varchar(15)
Registry_ID	Integer