

# **CDW Metadata Resources for Researchers Beginning to Use CDW Data**

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# Acknowledgements

- Corporate Data Warehouse management
  - Steve Martin, Jack Bates and Steve Anderson
- VIREC colleagues
  - Dr. Elizabeth Tarlov, Margaret Browning, Kristin de Groot, Linda Kok, Joanne Stevens and Puling Zhang
- Everyone who sends their great questions to the VIREC Help Desk
- All the generous contributors to HSRData listserv

# Objectives

- Provide resources to help you
  - identify the Corporate Data Warehouse (CDW) data elements you need
  - find detailed information about those CDW data elements
- Contacts + support
- Answer questions

# Topics

How to find the answers to questions like:

1. How do I even find out what's in the CDW?
2. I've been using MedSAS data. Which CDW data elements should I use?
3. Is Scrambled SSN available in the CDW?
4. The Outpatient MedSAS variable I'm looking for isn't in the CDW. Why not?

# Topics (more)

- 5. I've been using the DSS National Data Extracts (NDEs). How can I find the names of equivalent variables in the CDW DSS data?
- 6. Do the Vital Signs data include pain scores?
- 7. What is a Health Factor?

# Topics (more)

8. Can you use Health Factors to determine a veteran's smoking status?
9. Where can I find a list of the surveys and tests included in the CDW's Mental Health data?
10. What's the best data element for identifying lab tests in the CDW data?



# Tip

- No one resource can answer all CDW data questions.
- Each resource contains a piece of the puzzle.

# Tip

- Metadata for the CDW is located almost solely on the VA Intranet, behind the VA firewall.
- Links for the resources mentioned in this presentation are on a slide at the end of the presentation.




# Poll Question #1

- What is your role with regard to VA data?
  - Research investigator
  - Research programmer/statistician/project management
  - Research other
  - Operations
  - Other

# Poll Question #2

- How much CDW data have you analyzed?
  - Lots
  - Some
  - A little
  - None. We're just getting started.



1. How do I even find out what's  
in the CDW?

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## VA INFORMATION RESOURCE CENTER (VIReC)

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## VHA Corporate Data Warehouse (CDW)

### Overview

The Veterans Health Administration (VHA) Corporate Data Warehouse (CDW) is a national repository of data from VistA and several other VHA clinical and administrative systems. The CDW is physically located at the Austin Information Technology Center.

The CDW is a relational database organized into a collection of data domains. Domains represent logically or conceptually related sets of data tables. Domain themes generally indicate the application in the VistA electronic health record system from which most of the data elements in the domain come (e.g., Vital Signs or Mental Health Assessment).

### Available Data

Data from October, 1999 to the present are available in CDW domains. CDW's SharePoint site provides an up-to-date list of available domains with some structural documentation in the Metadata Reports section.

CDW data domains are classified as either production or raw. CDW production data domains contain data uploaded from VistA through the Regional Data Warehouses. No filtering of records, editing of content or business rules have been applied to these data. Raw data domains reflect the source system structure (VistA) and are not modeled, standardized, or indexed. Tables in production domains have been structured to support flexibility of queries.

### Access

The method researchers use to request data access depends on the use of the data and the data

#### CDW

- [Overview](#)
- [Data Transition to CDW](#)
- [Documentation](#)

#### General Resources

- + [Data Access](#)
- + [Data Sources](#)
- + [Data Topics](#)
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# VA Corporate Data Warehouse (CDW)

A VIReC Resource Guide

VA Information Resource Center (VIReC)  
June 2012

# VIReC Resource Guide for the CDW

<b>Topic</b>
<u>CDW Description</u>
<u>Data Currently Available</u>
<u>Research Utility- Data Quality</u>
<u>Research Utility- Strengths</u>
<u>Research Utility- Limitations</u>
<u>CDW Documentation</u>
<u>Additional Resources</u>

# VIReC Resource Guide for the CDW

CDW is

- an SQL relational database
- organized into data domains.
  - Each domain is a set of fact tables and dimension tables with a common theme
    - Usually theme = source VistA application
  - Data domains are categorized as “Production” or “Raw.”



# VIReC Resource Guide for the CDW

- Documentation for Production (CDW-Prod) domains and Raw (CDW-Raw) domains are stored in different places on the CDW Intranet site.
- Documentation for Decision Support System (DSS) National Data Extracts is located with the CDW Raw documentation.



# CDW User Manual

## Manual for Data Warehouse Customers Policies, Guidelines and Best Practices \*

### Contents

General Information	3
What is the Data Warehouse?	3
Who are Data Warehouse Customers?	3
Customer Responsibilities	3
Server Resources	4
Other Resources	5
Data Warehouse Policies and Guidelines	5
Policies Introduction	5
Policy Exemptions	6.....etc.

- Find this guide on the Tech Team tab of the CDW SharePoint site on the VA Intranet.

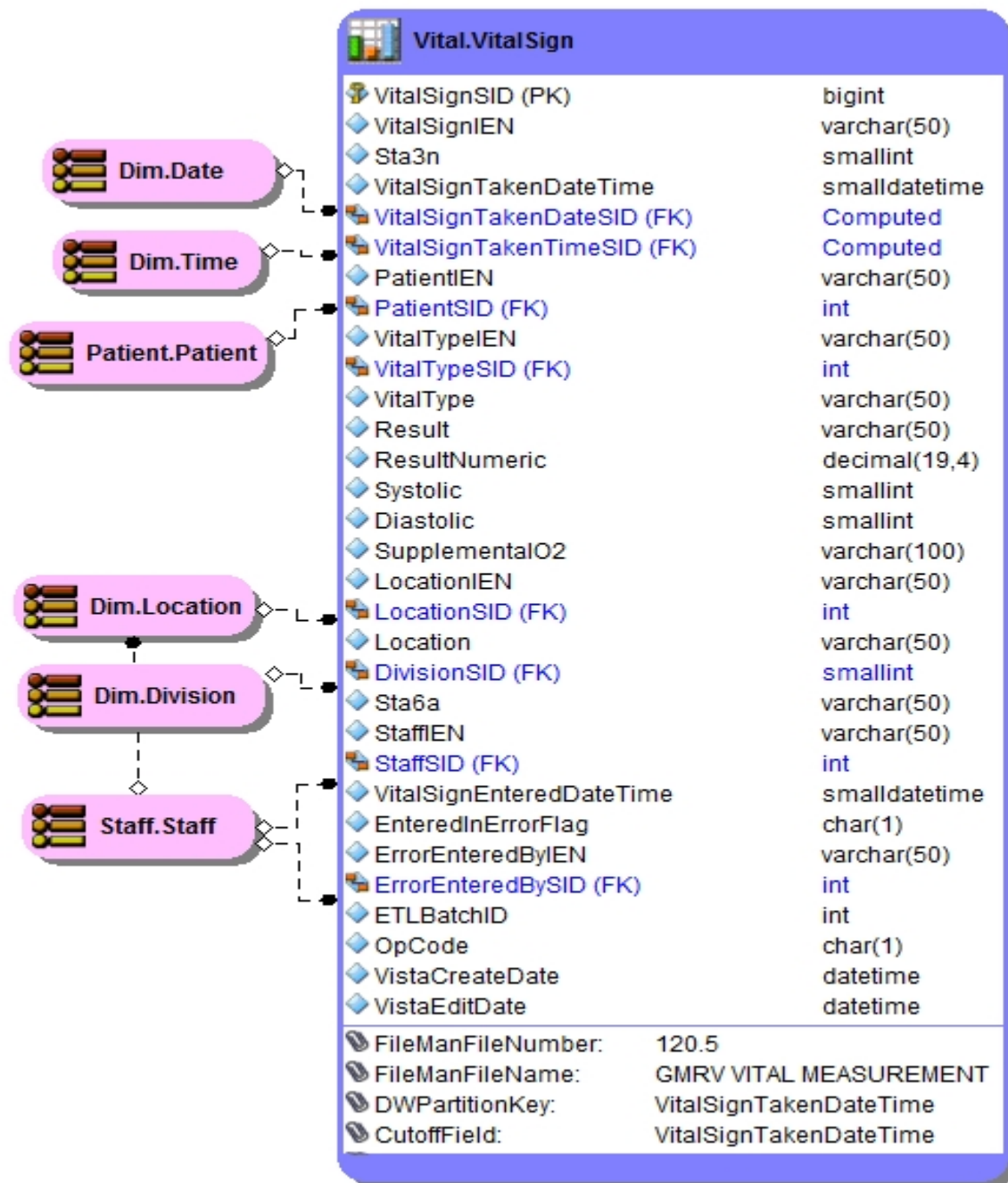
# CDW SharePoint site: Metadata Report

Metadata for Production domains only

- Lists domain specifications such as
  - Domain model (the Entity Relationship model)
  - Table names
  - VistA source file(s)
  - etc.

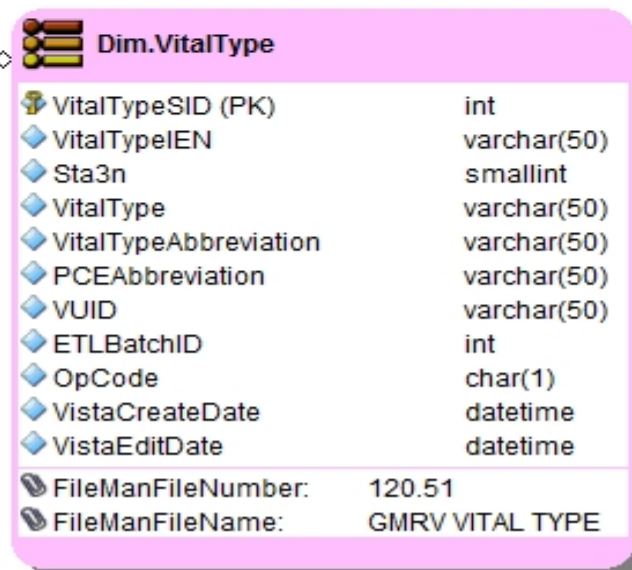
# CDW SharePoint site: Metadata Report

- Lists table specifications such as
  - Field names, data type, length
  - Primary and Foreign key indicators
  - VistA source file and field
  - VistA field description
  - VistA field type
  - etc.



## Vital Signs Domain Entity Relationship (E/R) Model from the CDW Metadata Report

Data from 10/1/1999 to the present  
day is in the table. It is refreshed  
each night.



# CDW SharePoint site: CDW Raw

Browser address bar: <https://vaww.dwh.cdw.portal.va.gov/Pages/welcome.aspx>

Browser tabs: Reporting Services - M..., Pages - welcome

Page Header: Perrin, Ruth ▾

United States Department of Veterans Affairs

Navigation: CDW Home | CDW Support ▾ | Community ▾ | Domain Teams ▾ | Metadata ▾ | TechTeam ▾

Search: Search this site...

Left Sidebar:

- Libraries
- Reporting Services
- Lists
- Shared Documents
- Special Projects

General Announcements

- Medication Image Library Document Update
- DSS has been updated in CDW to FY13 FP04
- DSS has been updated in CDW to FY13 FP02
- CDW February Maintenance Schedule
- Dim.Date Updated To Include Federal Holidays

1 - 5 ▸

BISL UpTime

Latest UpTime Statistics

Access the reports below to review the latest system availability metrics

- Data Warehouse UpTime Report

TechTeam ▾

- TechTeam Home
- Database ▾
  - CDW RAW
  - Database Team Blog
- ETL Team
- BISL Dev Process
- BISL TSA Blog

Training of the Month - Topics - Last Wed of Every Month - 2:00pm-3:00pm CST

Topics Below

- BISL-Training Topic of the Month-NDS Permissions and Project Applications
- VINCI, Research & RDW/VDW - Weds 2/06 10:00 am CST
- Data Warehouse & Research - When to use VINCI
- PowerPivot - PowerView Demo: Slides & Recording
- PowerPivot & PowerView Demo - Replacing ProClarity
- BI-Live Meeting - Training of the Month - 3 Training Topics Added
- Meta Schema Description Document posted.
- CANCELLED! Data Warehouse & Research - When to Use VINCI
- Data Warehouse & Research - When to use VINCI
- Basic SQL Training
- Microsoft Training Classes 2012/2013



# United States Department of Veterans Affairs



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## CDW RAW

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[Site Pages](#)  
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[Reports](#)  
[Pages](#)  
[Database Team Wiki](#)

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[DBA Team Tasks](#)  
[DBA Team Calendar](#)

## Discussions

[Team Discussion](#)

## Database Team Blog

## Site Content

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[Database Team](#)  
[DBA Team Cale](#)  
[DBA Team Task](#)  
[Extraction Sched](#)

CDW Home > TechTeam > Database > Raw Extractor

## Database > Raw Extractor

<a href="#">Raw Inventory</a>	<a href="#">DSS</a>	<a href="#">Vital Status</a>	<a href="#">Access Permissions</a>	<a href="#">Extractor Guide</a>	<a href="#">DBA Handbook</a>	<a href="#">Documentation</a>
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## Extraction Schedule [\(detailed schedule\)](#)

3/19/2013 10:47 AM – Steve Martin

Domain	Stakeholders	Schedule	Last Extract	Next Extract	Time	Size	Failures	Project Notes
<a href="#">Allergies v1</a>  Schema: Allergies  since Dec 2010	<a href="#">Mike.Wrobel@va.gov</a> ; <a href="#">Hamid.Saoudian@va.gov</a> ; <a href="#">Evan.Lott@va.gov</a> ; <a href="#">Samantha.Wright2@va.gov</a> ; <a href="#">matthew.lechtenberg@va.gov</a> ; <a href="#">Richard.Schaefer@va.gov</a> ;	Monday	03/11/13	03/18/13	2 hrs	157M recs 8 GB		PBM Perform extracts on same sched  POC: Mike Wrobel
<a href="#">Beneficiary Travel (CBO) v2</a>  Schema: Travel  since Dec 2010	<a href="#">Larry.McNamara@va.gov</a> ; <a href="#">Rex.Gilmore@va.gov</a> ; <a href="#">Joseph.ErdosMD@va.gov</a> ; <a href="#">David.Riley3@va.gov</a> ; <a href="#">Paul.Perry@va.gov</a> ; <a href="#">Kathleen.Frisbee@va.gov</a> ; <a href="#">Aaron.Grinager@va.gov</a> ; <a href="#">Francis.Archer@va.gov</a> ;	1 <sup>st</sup> & 3 <sup>rd</sup> Wednesday each month	02/13/13	03/13/13	5 hrs	100M recs 42 GB		POC: Larry McNamara
<a href="#">Bill Claims (CBO) v6</a>  AKA: <i>Integrated Billing</i>  Schema: BillClaims  since Oct 2010	<a href="#">Peter.Chang1@va.gov</a> ; <a href="#">Kathleen.Frisbee@va.gov</a> ; <a href="#">John.Derderian@va.gov</a> ; <a href="#">Michael.Smerek@va.gov</a> ; <a href="#">Robert.Justus@va.gov</a> ; <a href="#">Timothy.Borchert@va.gov</a> ; <a href="#">Cheryl.Strickland@va.gov</a> ; <a href="#">Julie.Baker4@va.gov</a> ; <a href="#">Regina.McCasill@va.gov</a> ; <a href="#">Scot.Dingman@va.gov</a> ; <a href="#">Robert.Jacobs@va.gov</a> ; <a href="#">John.Quinn@va.gov</a> ; <a href="#">Karen.Burbage@va.gov</a> ; <a href="#">Steve.Richards@va.gov</a> ; <a href="#">Bruce.Fox@va.gov</a> ;	On demand  Weekend	2/19/13	Q2	weekends	1.6+ recs 214 GB  Date ranged extracts	<a href="#">r2_v23_minneapolis_prod_618</a> Minneapolis upgrade to Caché 2012 scheduled for 3/23/13. All other sites had completed their upgrade by 2/9/2013.	3/18/13 - now requires Privilege  2013 Q1 extract of these tables : 1. accounts_receivable_430 2. ar_transaction_433 3. billclaims_399 4. claims_tracking_356 5. claims_tracking_nonbilla_3 6. claims_tracking_type_356_1 7. explanation_of_benefits_36 8. ib_billclaims_prescripti_36 9. insurance_company_36 10. integrated_billing_action_3 11. patient_enrollment_27_11

# CDW SharePoint site: DSS in CDW

- CDW DSS data are located on the CDW Raw server
- CDW consolidates DSS National Data Extract (NDE) files across years and VISNs
- DSS field names are standardized across years
- CDW DSS metadata are on the SharePoint's CDW Raw page – scroll to the bottom

NDE	fy05	fy06	fy07	fy08	fy09	fy10	fy11	fy12	fy13	Last Load (records)	Description
<a href="#">albcc</a>	X	X	X	X	X	X	X	X	X	767,463	Account Level Budgeter
<a href="#">albhr</a>	X	X	X	X							Account Level Budgeter Hours (ALBCC in 09)
<a href="#">char4</a>								X	X	16,021,849	4 Character National Code (new in FY11)
<a href="#">disch</a>	X	X	X	X	X	X	X	X	X	215,310	Discharge
<a href="#">ecs</a>		X	X	X	X	X	X	X	X	9,095,254	Event Capture System
<a href="#">lar</a>	X	X	X	X	X	X	X	X	X	82,385,654	Lab Results
<a href="#">noshow</a>			X	X	X	X	X	X	X	1,846,130	No Show
<a href="#">obt</a>			X	X	X	X	X	X	X	31,955	Observation Treating Specialty
<a href="#">ocred</a>					X	X	X	X	X	13,754,023	Outpatient Credit Stop (new in FY09)
<a href="#">oipd</a>	X	X	X	X	X	X	X	X	X	102,009,789	Outpatient Intermediate Product Dept
<a href="#">out</a>	X	X	X	X	X	X	X	X	X	60,398,770	Outpatient
<a href="#">out2</a>	X	X	X	X	X	X	X	X	X	1,975,834	Outpatient (zero cost encounters)
<a href="#">trt</a>	X	X	X	X	X	X	X	X	X	388,252	Treating Specialty
<a href="#">trtipd</a>	X	X	X	X	X	X	X	X	X	5,850,146	Treating Specialty Intermediate Product Dept
<a href="#">ward</a>			X	X	X	X	X	X	X	460,883	Inpatient Ward Segments
Annual Updates											
<a href="#">ddc</a>			X	X	X	X	X	X	X	870,812	Denver Distribution Center
<a href="#">lab</a>	X	X	X	X	X	X	X	X	X	64,992,860	Lab
<a href="#">pha</a>	X	X	X	X	X	X	X	X	X	53,207,780	Pharmacy
<a href="#">rad</a>	X	X	X	X	X	X	X	X	X	2,250,963	Radiology
<a href="#">rai</a>			X	X	X	X	X	X	X	42,649	Resident Assessment Index
<a href="#">sua</a>				X	X	X	X	X	X	15,912	Surgery Aborted/Cancelled Cases
<a href="#">sur</a>				X	X	X	X	X	X	546,485	Surgery
Annual Updates											
<a href="#">attend</a>			X				X	X			Attending Physician Workload



# CDW Data Profiling Domain

- Descriptive statistics for Production domains
  - Record counts
  - Null counts
  - Frequencies for discrete variables
- Requires CDW access; not available for research purposes
  - Submit a preparatory to research request to Data Access Request Tracker (DART)

# Coming soon to the VIREC site

- Record Counts, Null Counts and Discrete Variable Frequencies for every table in the CDW Production domains
- Produced by querying the CDW Data Profiling domain
- Access to the CDW not required to see this summary data

# Coming soon to the VReC site

- Sample rows of data: 20 randomly selected records from each table in the Production domains
- De-identified/No personal identifiers/dates appear as YYYY-MM-DD HH:MM:SS
- Access to the CDW not required to see this summary data



2. I've been using the MedSAS data. Which CDW data elements should I use?

# CDW SharePoint site: SAS XWalk

- See SAS XWalk on the SharePoint's NDS page, see the left banner
- Enter a SAS variable name in the textbox provided, select SAS, crosswalk displays the CDW field name in the T-SQL column
- SAS XWalk currently covers MedSAS Outpatient files

# CDW SharePoint site: SAS XWalk

Browser window showing the NDS Report: SAS-Vista-CDW Crosswalk - 1000 rows max returned.

Select: ▼ or enter a **SasField name** or **CdwColumn name** =


SasFile	SasField	SasFieldFormat	SasFieldDescription	VistaFile	VistaField	CdwTable	CdwColumn	T-SQL
SAS IE	DXLSF	No Format	PRIMARY DX STAY (ICD9) (6-DIGIT)	9000010.07	.01	VDiagnosis	ICDIEN	select top 1 v.PatientSID, cast(v.VisitDateTime as date) VIZDAY, d.ICDCode from Cdwwork.Outpat.VDiagnosis v join Cdwwork.Dim.ICD d on v.ICDSID = d.ICDSID and v.PatientSID = 2279318 and cast(v.VisitDateTime as date) = '1/9/2012' and v.PrimarySecondary = 'P' order by v.VDiagnosisSID
SAS IE	DXLSF	No Format	PRIMARY DX STAY (ICD9) (6-DIGIT)	9000010.07	.12	VDiagnosis	PrimarySecondary	select top 1 v.PatientSID, cast(v.VisitDateTime as date) VIZDAY, d.ICDCode from Cdwwork.Outpat.VDiagnosis v join Cdwwork.Dim.ICD d on v.ICDSID = d.ICDSID and v.PatientSID = 2279318 and cast(v.VisitDateTime as date) = '1/9/2012' and v.PrimarySecondary = 'P' order by v.VDiagnosisSID
SAS SE	DXLSF	No Format	PRIMARY DX STAY (ICD9) (6-DIGIT)	9000010.07	.12	VDiagnosis	PrimarySecondary	select top 1 v.PatientSID, cast(v.VisitDateTime as date) VIZDAY, d.ICDCode from Cdwwork.Outpat.VDiagnosis v join Cdwwork.Dim.ICD d on v.ICDSID = d.ICDSID and v.PatientSID = 2279318 and cast(v.VisitDateTime as date) = '1/9/2012' and v.PrimarySecondary = 'P' order by v.VDiagnosisSID
SAS SE	DXLSF	No Format	PRIMARY DX STAY (ICD9) (6-DIGIT)	9000010.07	.01	VDiagnosis	ICDIEN	select top 1 v.PatientSID, cast(v.VisitDateTime as date) VIZDAY, d.ICDCode from Cdwwork.Outpat.VDiagnosis v join Cdwwork.Dim.ICD d on v.ICDSID = d.ICDSID and v.PatientSID = 2279318 and cast(v.VisitDateTime as date) = '1/9/2012' and v.PrimarySecondary = 'P' order by v.VDiagnosisSID

# CDW SharePoint site:

## Metadata Report

- See CDW Metadata report for
  - Primary Key info
  - Foreign Key info
  - Field Description
  - more

# CDW Metadata Report- selected columns

Table Name	Field Name	Field Datatype	Field Length	Vista File 	Vista Field
VDiagnosis	ICDIEN	varchar(50)	50	V POV (9000010.07)	POV (.01)

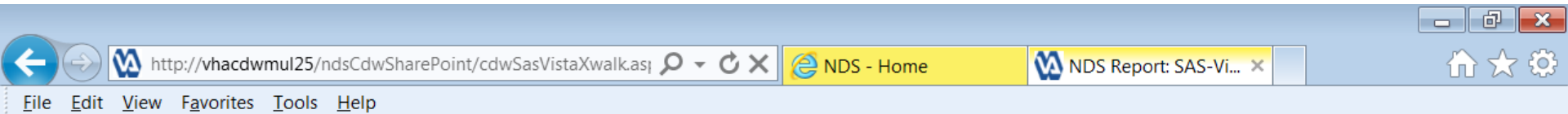
Primary Key	Foreign Key	Vista Field Description	Vista Field Type	Vista File Pointed To
N	N	POV is an abbreviation for "Purpose of Visit". Since Purpose of Visit is often confused with "Chief complaint", another abbreviation might better be "Problem of Visit". This is the Provider's conclusion about what was treated at the visit. The Provider should be able to indicate a preferred narrative for what was treated and an ICD Diagnosis code. If the problem treated is from the Problem List, then the problem list entry information can be used for the "Problem of Visit" entry. The provider can alternatively have this information automatically captured via scanned Encounter Forms (e.g., AICS - the VA's Encounter Form Data Capture package). At VA facilities, the ICD Diagnosis is screened by Inactive Code and it must be appropriate for the Patient's age and sex. At IHS facilities, the ICD Diagnosis is screened by Inactive Code, appropriate for the Patient's age and sex, and Not "E" codes.	Pointer	80





### 3. Is Scrambled SSN available in the CDW?

# CDW SharePoint site: SAS XWalk




## NDS Report: SAS-VistA-CDW Crosswalk - 1000 rows max returned

Select: ▼ or enter a **SasField** name or **CdwColumn** name =

SasFile	SasField	SasFieldFormat	SasFieldDescription	VistAFile	VistAField	CdwTable	CdwColumn	T-SQL
SAS IE	SCRSSN	SSN11.	SCRAMBLED SSN		No Code Equivalent in Vista			SPatient.SPatient.ScrSSN
SAS SE	SCRSSN	SSN11.	SCRAMBLED SSN		No Code Equivalent in Vista			SPatient.SPatient.ScrSSN
SAS SE	SCRSSN	SSN11.	SCRAMBLED SSN	Patient	ScrSSN			SPatient.SPatient.ScrSSN
SAS SE	SCRSSN	SSN11.	SCRAMBLED SSN	No Code Equivalent in Vista	ScrSSN			SPatient.SPatient.ScrSSN
SAS SF	SCRSSN	SSN11.	SCRAMBLED SSN		No Code Equivalent in Vista			SPatient.SPatient.ScrSSN

# Tip regarding SCRSSN

- CDW uses is the same SCRSSN as is used in the MedSAS and other VA databases



4. The Outpatient MedSAS variable I'm looking for isn't in the CDW. Why not?

# VIReC Research User Guides

- MedSAS includes some elements calculated from Vista data.
- In the VIReC Research User Guide for MedSAS data, in the one-page variable description for your target variable, the Vista data source will say “Derived”.

# VIReC Research User Guides

Extracted from the VIReC Guide for Fiscal Year 2009 VHA Medical SAS Outpatient Datasets and Inpatient Encounters Dataset:

Variable Name: NCPTTOT


Definition: Total Number of CPT codes for one encounter

Variable Availability in Medical SAS® datasets:

Event FY2005 – to date;

Inpatient Encounters FY2005 – to date

VistA Data Source: Derived



5. I've been using the DSS  
National Data Extracts (NDEs).  
How can I find the names of  
equivalent variables in the  
CDW DSS data?



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## DECISION SUPPORT SYSTEM

### National Reporting

#### National Data Extracts & Reporting Information

##### NDE (National Data Extract) Technical Guide

[DSS Processing & NDE Pull Schedule FY 2013](#)

[DSS NDE Technical Guide September 2011](#)

[DSS NDE Metadata FY2012](#)

[DSS NDE Layout Specifications FY 2012](#)

The links above provide the most recent versions available for DSS NDE documentation. The 'DSS NDE Layout Specifications FY 2012' spreadsheet contains the very latest field specifications for all DSS NDEs, including all FY 2012 updates. The 'DSS NDE Metadata FY 2012' spreadsheet mirrors the layout spec spreadsheet but includes the detailed descriptions and source information for all the fields, also including updates for FY 2012. An updated version of the 'DSS NDE Technical Guide September 2011' is currently a work-in-process and will be released at a later date. For any questions related to these documents please file a WonderDesk ticket and your questions will be routed to the appropriate staff.

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Extract – selected columns from the DSS NDE Layout Specifications FY2012											
DSS NDE: ALB (Account Level Budgeter) page											
SAS Variables										SQL Variables	
DSS FIELD NAME	FY05 SAS	FY06 SAS	FY07 SAS	FY08 SAS	FY09 SAS	FY10 SAS	FY11 SAS	FY12 SAS	SAS LENG TH	SQL	SQL Data Types
REC TYPE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VISN	visn	visn	visn	visn	visn	visn	visn	visn	4	visn	tinyint
COMPANY CODE	sta3n	sta3n	sta3n	sta3n	sta3n	sta3n	sta3n	sta3n	4	sta3n	smallint
DIVISION	sta6a	sta6a	sta6a	sta6a	sta6a	sta6a	sta6a	sta6a	6	sta6a	varchar(6)
FISCAL YEAR	fy	fy	fy	fy	fy	fy	fy	fy	4	fy	smallint
FISCAL PERIOD	fp	fp	fp	fp	fp	fp	fp	fp	4	fp	smallint
DSS PRODUCTIO N UNIT	produnit	produni t	produnit	produni t	produni t	produni t	produni t	produ nit	2	produni t	varchar(2)
EXEMPT STATUS	exempt	exempt	exempt	exempt	exempt	exempt	exempt	exem pt	1	exempt	varchar(1)
COST CENTER	albcc	albcc	albcc	albcc	albcc	albcc	albcc	albcc	10	albcc	varchar(10)
ACCOUNT CODE	albacct	albacct	albacct	albacct	albacct	albacct	albacct	albacc t	11	albacct	varchar(11)
COST TYPE	N/A	N/A	N/A	N/A	costtyp	costtyp	costtyp	costty p	3	costtyp	varchar(3)
CATEGORY NUMBER	N/A	N/A	N/A	N/A	catnum	catnum	catnum	catnu m	2	catnum	varchar(2)
ACCOUNT TYPE	edi	edi	edi	edi	edi	edi	edi	edi	1	edi	varchar(1)
STATUS	active	active	active	active	active	active	active	active	1	active	varchar(1)
ACT COST	act_dllr	act_dllr	act_dllr	act_dllr	act_dllr	act_dllr	act_dllr	act_dll r	8	ActualD ollars	numeric(2 0,6)
ACT REG COST	reg_dllr	reg_dllr	reg_dllr	reg_dllr	reg_dllr	reg_dllr	reg_dllr	reg_dl lr	8	reg_dllr	numeric(2 0,6)
ACT VSH COST	vsh_dllr	vsh_dll r	vsh_dllr	vsh_dll r	vsh_dll r	vsh_dll r	vsh_dll r	vsh_dl lr	8	vsh_dllr	numeric(2 0,6)
ACT OT COST	ot_dllr	ot_dllr	ot_dllr	ot_dllr	ot_dllr	ot_dllr	ot_dllr	ot_dllr	8	ot_dllr	numeric(2 0,6)
ACT HOURS	act_hou r	act_ho ur	act_hou r	act_ho ur	act_ho ur	act_ho ur	act_ho ur	act_h our	8	ActualH ours	integer
ACT REG HOURS	reg_hou r	reg_ho ur	reg_hou r	reg_ho ur	reg_ho ur	reg_ho ur	reg_ho ur	reg_h our	8	reg_ho ur	integer
ACT VSH HOURS	vsh_hou r	vsh_ho ur	vsh_hou r	vsh_ho ur	vsh_ho ur	vsh_ho ur	vsh_ho ur	vsh_h our	8	vsh_ho ur	integer
ACT OT HOURS	ot_hour	ot_hour	ot_hour	ot_hour	ot_hour	ot_hour	ot_hour	ot_ho ur	8	ot_hour	integer
IPD NUMBER	dcm_de pt	dcm_d ept	dcm_de pt	dcm_d ept	dcm_d ept	dcm_d ept	dcm_d ept	dcm_ dept	10	IPD	varchar(10)
IPD NUMBER DESCRIPTIO N	N/A	N/A	N/A	N/A	IPDDe sc	IPDDe sc	IPDDe sc	IPDDe sc	30	ipddesc	varchar(30)

# “I’m interested in using new data available now for the first time from the CDW”

- Vital Signs
- Health Factors
- Mental Health
- Lab results for all lab tests
- Clinical notes
- More



6. Do the Vital Signs data  
include pain scores?

# VINCI Central

- VINCI Central is the VA Intranet web site where the VINCI group posts useful information and CDW metadata
- VINCI Central has the list of Vital Signs
  - On the Data tab, select Data Available then Vital Signs

# VINCI Central Vital counts

<b>PAIN</b>	363475783
<b>VENTILATOR MINUTE VOLUME</b>	86704
<b>VENTILATOR TIDAL VOLUME</b>	86780
<b>BLOOD PRESSURE</b>	369612858
<b>VENTILATOR MODE</b>	42670
<b>CENTRAL VENOUS PRESSURE</b>	523754
<b>CIRCUMFERENCE/GIRTH</b>	1000887
<b>PULSE</b>	344803275
<b>PULSE OXIMETRY</b>	95485935
<b>RESPIRATION</b>	293103643
<b>TEMPERATURE</b>	287732921
<b>WEIGHT</b>	166764666
<b>HEIGHT</b>	84513025

(as of 4/14/2011)

# CDW SharePoint site: Metadata Report

- See additional, essential metadata on the Vital Signs in the Metadata Report, such as
  - Parameters such as dates and locations
  - EnteredInErrorFlag

# Other resources

- See also
  - Noël PH J Rehabil Res Dev. 2010: VHA Corporate Data Warehouse height and weight data: opportunities and challenges for health services research.



## 7. What is a Health Factor?



# Health Factors

- VistA data elements
- Hold patient info not stored elsewhere such as
  - Family History of Alcohol Abuse
  - Lifetime Non-smoker
  - No Risk Factors for Hepatitis C
- Often used to capture results from clinical reminders
- Not standardized across the VA

# Data Architecture Repository

- List of current health factors available from the VistA Metadata Repository in the Data Architecture Repository (DAR) on the VA Intranet



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INTRANET

## DATA ARCHITECTURE REPOSITORY (DAR) HOME

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Data Architecture  
Repository (DAR) Home

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VA

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VHA

VHA Data Management

VBA

Cooperative Studies  
Program (CSP)

NCA

Corporate Database  
Monograph

DAR User Guide

[VistA Metadata Repository](#)

Email Subscription

Report Issue

[ADR Metadata Repository](#)

Enhancement Request

data, a Data Steward, or a Data Organization

es and describes the characteristics of other data, used to improve both business and technical understanding of data and data-related processes.

lines where the metadata originated, metadata is gathered from multiple repository sources.

allows users to query on a category and to retrieve metaobject types in a similar category.

es a categorization based on the unique characteristics, metadata is always defined by type.

- **Metadata Name:** defines the title given to a specific metadata element, the name is only unique when combined with the metadata type.

Metadata Source:

Metadata Category:

Metadata Type:

Metadata Name:

[+ Metadata Search Help](#)

## VISTA METADATA REPOSITORY

- [Home](#)
[Packages](#)
[Files](#)
[Fields](#)
[Standard Table Data](#)
[Cross Reference](#)
[Indexes](#)
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**Data Architecture  
Repository (DAR) Home**

VA

VHA

**VBA**

**NCA**

DAR User Guide

## Email Subscription

## Report Issue

## Enhancement Request

The **DAR Veterans Health Information Systems and Technology Architecture (Vista) Metadata Repository** provides an easy means to access and navigate the metadata describing Veterans Vista Platinum data structures within the June 30, 2011 Vista Platinum image. Vista Platinum is the master version of the complete Vista system maintained by the Standards and Compliance Office within the Office of Information and Technology. As Vista evolves and Platinum images are updated, the metadata will be added to the DAR with the identified publication date. For additional Vista references refer to the [Vista Monograph](#) and the [Vista Document Library](#).

A listing of VHA national databases can be found within the [DAR VHA Corporate Database Monograph](#). Some of these databases are derived from point-of-service generated data and/or data used for program management and tracking, and are not part of Vista, or included within the DAR Vista Portal.

## How to Find VistA Metadata

There are several options for searching VistA metadata:

- Use Tabs above to search within packages, files, fields, etc.
- Use the general Search VistA box below to search all packages, files, and field names, and descriptions.
- If you know the package name, you can navigate directly to a specific VistA package with drill down capabilities to files and fields using the Package Name select-list.
- If you know the file name, you can navigate directly to a specific VistA file with associated field information using the File Name (#) select-list.

General Search:

Package Name: FEE BASIS CLAIMS SYSTEM

File Name (#): VISIT (9000010) ▼ Search

## VistA Background



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## VISTA METADATA REPOSITORY

Home Packages Files Fields Standard Table Data Cross

Home Standard Table Data


Standard table data files contains reference data (such as state, race, etc.).

History Data

Select Standard Table: HEALTH FACTORS (9999999.64)

Display File Structure

FILE	SF	IEN	FACTOR	CATEGORY	SHORT NAME	USE ONLY WITH SEX	LOWER AGE	UPPER AGE	DISPLAY ON HEALTH SUMMARY	SYN	ENTRY T
9999999.64		101	HTN NO MED CHANGE - COMORBID ILLNESS	598003~HYPERTENSION		~			Y~YES		F~FACTOR
9999999.64		102	HTN NO MED CHANGE - SIDE EFFECTS FROM RX	598003~HYPERTENSION		~			Y~YES		F~FACTOR
9999999.64		103	HTN NO MED CHANGE - LIMITED LIFE EXP	598003~HYPERTENSION		~			Y~YES		F~FACTOR
9999999.64		104	MENTAL HEALTH	~		~			~		C~CATEG
9999999.64		105	CURRENT F/U OR RX FOR DEPRESSION	104~MENTAL HEALTH		~			Y~YES		F~FACTOR
9999999.64		106	REFUSED DEPRESSION SCREENING	104~MENTAL HEALTH		~			Y~YES		F~FACTOR
			DEP SCREEN 2								



8. Can you use Health Factors  
to determine a patient's  
smoking status?

# Smoking Status Health Factors

- Several dozen Health Factors pertain to smoking status
- None of the smoking related Health Factors are standardized across the VA
- Other VA data on smoking status:
  - Tobacco Use related CPT codes not often used

# Other Smoking Status Data Sources

- Tobacco Use related CPT codes (not often used), including codes for tobacco cessation counseling
- Pharmacy data – prescriptions for nicotine or nicotine agonists




# Other resources

Previous studies of smoking among veterans found the CDW Health Factors to be the most reliable smoking status indicators available. See:

## **Validating Smoking Data From the Veteran's Affairs Health Factors Dataset, an Electronic Data Source**

*Kathleen A. McGinnis, M.S., Cynthia A. Brandt, M.D., M.P.H., Melissa Skanderson, M.S.W., et al., Nicotine Tob Res. 2011 Dec;13(12):1233-9.*



9. Where can I find a list of the surveys and tests included in the CDW's Mental Health data?


# Mental Health Dim.Survey

- No list of the surveys in CDW Metadata
- The CDW table Dim.Survey holds the names of the surveys + tests.
- The domain includes data from interviews, surveys and tests available in VA's Mental Health Assistant package, except those that are copyrighted.

# Mental Health

Non-exhaustive lists of tests/surveys/interviews in the Mental Health table Dim.Survey.SurveyName:

- AUDC
- PHQ-2
- PC PTSD
- PHQ-9
- AIMS
- MORSE FALL SCORE
- AIMS
- BRADEN SCALE
- PCLC
- BD12
- PCLM
- BAI
- MMPI2
- AUDIT
- MISS
- MOMC
- MCM13
- SF-36
- BPRS
- MBMD



10. What's the best way to  
identify a lab test in the  
CDW?

# CDW SharePoint site: training available online

- See Richard Pham's course "Laboratory and Chemistry – Round 1" and "...Round 2" for
  - Pros and Cons of using the identifiers LabChemTestName, NationalVACodeIEN and LOINC
  - Suggested code
- On the Support tab, select Training, then on under Training Links, select CDW Data: Datasets and Basic SQL



# Summary: Resources

# Resources

CDW SharePoint site	On the VA Intranet: <a href="https://vaww.dwh.cdw.portal.va.gov/Pages/welcome.aspx">https://vaww.dwh.cdw.portal.va.gov/Pages/welcome.aspx</a>
VIREC web site	On the Internet: <a href="http://vaww.virec.research.va.gov/">http://vaww.virec.research.va.gov/</a> On the VA Intranet: <a href="http://www.virec.research.va.gov/">http://www.virec.research.va.gov/</a>
VINCI Central:	On the VA Intranet at <a href="http://vaww.vinci.med.va.gov/vincicentral/default.aspx">http://vaww.vinci.med.va.gov/vincicentral/default.aspx</a>



# Resources

Data Architecture Repository	On the VA Intranet at <a href="http://vacodeve2.dva.va.gov/pls/apex/f?p=VISTA:1:929649074432930">http://vacodeve2.dva.va.gov/pls/apex/f?p=VISTA:1:929649074432930</a>
Decision Support Office	On the VA Intranet at <a href="http://vaww.dss.med.va.gov/nationalrptg/nr_extracts.asp">http://vaww.dss.med.va.gov/nationalrptg/nr_extracts.asp</a>

# Contacts & Support

<b>VINCI</b>	VINCI users can get support through the VINCI Service Desk from 8:30 to 4:30pm Mountain Time, Monday through Friday.	
	<b>VINCI Contact Method</b>	<b>Contact Information</b>
	Service Desk Phone	801-588-5212
	Email	VINCI@va.gov

<b>Austin Help Desk</b>	The Austin Information Technology Center's National Service Desk offers technical support for users of the CDW 24 hours of every day.	
	<b>NSD Contact Method</b>	<b>Contact Information</b>
	Help Desk Phone	512-326-6780 or 888-326-6780
	TDD	512-326-6638
	Email	<a href="mailto:nsd-aus@va.gov">nsd-aus@va.gov</a> or <a href="mailto:cdco.nsd@va.gov">cdco.nsd@va.gov</a>

VIReC	The VA Information Resource Center is a good resource for VA researchers with questions about CDW data.	
	VIReC Contact Method	Contact Information
	Help Desk Email	<a href="mailto:virec@va.gov">virec@va.gov</a>
	Help Desk Phone	708-202-2413
	Internet website	<a href="http://www.virec.research.va.gov">http://www.virec.research.va.gov</a>
	VA Intranet website	<a href="http://vaww.virec.research.va.gov">http://vaww.virec.research.va.gov</a>
	Physical address	VA Information Resource Center (151V) Health Services Research and Development Service Department of Veterans Affairs Edward J. Hines, Jr. VA Hospital 5000 South 5 <sup>th</sup> Avenue Hines, IL 60141

HSRData Listserv	VIREC hosts this virtual community of VA researchers who share knowledge and experiences about VA data and information systems.
	Please see VIREC's web site for enrollment information.
	The Listserv is only open to individuals with "va.gov" email addresses.

# Questions & Suggestions