



Data Spelunking!, or ADVENTURES IN FINDING DATA ABOUT YOUR DATA IN THE VA

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VA Informatics and Computing Infrastructure (VINCI) Resource Center
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HOW EXCITING: YOU HAVE ACCESS TO VA DATA!

- ❖ The VA's corporate data warehouse (CDW) is a vast ecosystem comprised of many different datatypes, pulled from different sources, and standardized, cleaned, and transformed in different ways
- ❖ What you would like is for your project analyst (which could be YOU!) is to hit the ground running; you don't want to end up like the 2 here
- ❖ To that end, I will try to point you to some VA information sources that will help you get your project moving ahead after your team gets data access, or, will help you decide which data to use in your project before you even request access to VA data
- ❖ Be sure to look over the [Appendices](#) after you download the slides from today's presentation—there are a bunch of links to other useful information sources that I won't have time to cover





THE AGENDA

INTRODUCTION

I: SOME MAJOR INFORMATION SOURCES

II: HOW TO USE THE SOURCES: AN IN-DEPTH EXAMPLE

III: FINAL TIPS & TAKEAWAYS FOR DATA SUCCESS

APPENDICES I-III

A COUPLE OF CAVEATS TO KEEP IN MIND

This talk is not going to cover

- ❖ OMOP data
- ❖ DaVINCI data
- ❖ Federal Electronic Health Record (EHR) (formerly known as Cerner Millennium or Oracle Health)
- ❖ VA community care, purchased care

because these are in themselves rich data domains and they may be the topic of future trainings led by other VINCI data domain experts, so please do keep that mind

We are setting a limit for what we'll cover in today's seminar because we have a lot of information to cover in a limited amount of time





INTRODUCTION: THE POWER OF VA DATA WHEN YOU KNOW HOW BEST TO USE IT

I: SOME MAJOR INFORMATION SOURCES

PLACES YOU CAN CHECK WHEN YOU HAVE
QUESTIONS





I: SOME MAJOR INFORMATION SOURCES

1. VINCI Central
 2. VHA Data Portal
 3. VINCI Meta Data Viewer, VINCI Dim Data Viewer, and CDW Meta Data
 4. VIREC: Factbooks, Researcher's Notebooks, and Data Reviews
 5. CIPHER
 6. HERC Cost Data
 7. BISL Code Repositories
 8. CDW Raw Data
 9. Appendices
- These are great first places one might look for more information about data in views provisioned for a project, or fact tables you've been granted access to, for example
 - Sometimes, in fact most times, you'll need multiple sources of information to really get a feel for what you have access to
 - Every project is different, and the outcome of the project always partly depends on how well you understand your data before you do anything with it
 - That understanding will be aided by some of the sources I present to you today



1. WHAT IS VINCI CENTRAL?

The screenshot shows the VINCI Central website interface. At the top left is the VINCI logo and the text "VINCI Central". On the right side of the header, there are icons for settings and help, and the user name "Hardisty, Ben". Below the header is a navigation menu with items: Home, Workspaces, Applications, My VINCI Dashboard, VINCI University, VINCI Data, VINCI Services, Support, and Quick Links. A search bar is located on the right side of the navigation menu. The main content area features a message about VINCI Outage and Maintenance Alerts, a "Welcome to the VA Informatics and Computing Infrastructure" section with a sub-header and a paragraph of text, and an "Announcements" section with a "See all" link and a list of announcements, including "VINCI Monthly Server Updates on Sund...".

VA INFORMATICS AND COMPUTING INFRASTRUCTURE



1. VINCI CENTRAL

1. [VINCI Central - Home \(va.gov\)](https://va.gov)

2. "VINCI provides numerous consultation services throughout the life-cycle of your research project. When you are thinking medical research, think of VINCI first. We can guide you through every step of the process."

Announcements

See all

VINCI provides numerous consultation services throughout the life-cycle of your research project. When you are thinking medical research, think of VINCI first. We can guide you through every step of the process.

Announcement ▾

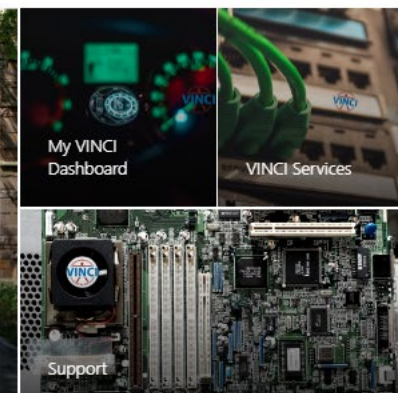
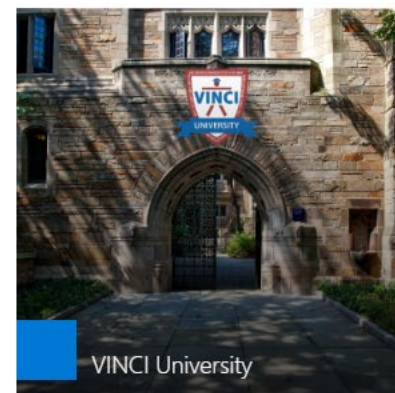
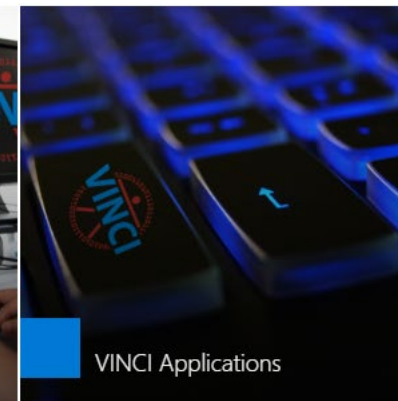
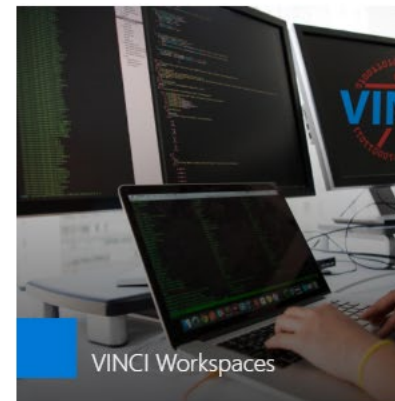
VINCI Monthly Server Updates on Sund...

User Guides and Information

See all

Name ▾

- 📁 DART
- 📁 Database
- 📁 File Transfer
- 📁 Operations
- 📁 Other
- 📁 Policies and Forms
- 📁 Presentations
- 📁 SAS Grid
- 📁 VADDRT
- 📁 Videos
- 📁 VINCI University
- 📁 VINCI User Guides
- 📁 Voogoo
- 📁 Workspace



Applications

VINCI has a lot of applications, both inside and outside the VINCI Workspace, to help our customers achieve their research goals

From VINCI applications and utilities, to pre-installed VINCI Standard Workspace applications, to self-installed VINCI Development Workspace applications.

If you have your own government licensed software, contact VINCI using our [New Software Request Online Form](#) for permission and information on installing it. Due to the lengthy VA acquisition process and limited funding, new software is provided when possible based on popularity and need.

VINCI Applications

These are VINCI created non-VINCI Workspace applications.

Click on an application to launch it.

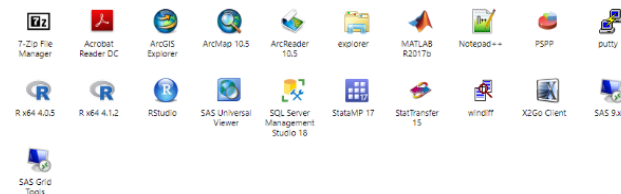
Data Access Request Tracker (DART)	VINCI File Upload	VINCI File Download	Dim Data Viewer

Meta Data Viewer	Let's Collaborate VA!	Voogee Notes

Standard Workspace Applications

Pre-installed applications in the VINCI Standard Workspace

VINCI software applications reside on remote servers within the VINCI Workspace with those listed below available free of charge in the VINCI Standard Workspace. As much of this site licensed software, VINCI does not provide this software outside the VINCI Workspace. You must have VINCI Standard Workspace access to launch the application.



List of pre-installed applications

[See all](#)

Name	Description
7-Zip File Manager	A file archiver with a high compression ratio.
Adobe Reader	PDF Reader
ArcGIS Explorer	ArcGIS Explorer Desktop is a free viewer that gives you an easy way to explore, visualize, and share GIS information.

1. VINCI CENTRAL: VINCI SUPPORT



For personalized, one-on-one support during business hours of
8:30AM to 4:30PM Eastern Time

Email: VINCI@VA.GOV
Phone: **1-801-872-3324**

After hours and weekends, contact the Enterprise Service Desk:

Online: <https://yourit.va.gov/va>
Phone: **1-855-673-4357**

[NMEA Support Instructions](#)

[VINCI Help Desk: Processes, Tips, and Best Practices \(Slides\)](#)

[VINCI Recommendation: Update PIV Card to Latest Version \(va.gov\)](#)

[VINCI Workspace Tips and Tricks \(va.gov\)](#)



2. WHAT IS THE VHA DATA PORTAL?

The [VHA Data Portal](#) [VHA Data Portal > Home \(va.gov\)](#) aims to integrate knowledge to make access and utilization of VHA data as seamless as possible for the user.

Then you should click the button that says “New Data User” because this is just where you can often start your search to learn all you can about your cohort data before you even see any data: [VHA Data Portal > Data Access > New Data User \(va.gov\)](#)

From there the “Data Sources Overview” offers a brief description of a big list of data sources: [Data Sources \(va.gov\)](#)

There is also the Tools Overview [Tools Overview \(va.gov\)](#) which will provide some more details about accessing and using VA data



Department of Veterans Affairs
VHA Data Portal

Search...

Data Sources | Data Access | Tools & Applications | Resources | Training | Policy & Admin | Support

Welcome to the VHA Data Portal

The VHA Data Portal promotes a knowledge-sharing culture that supports the needs of VHA data users. The Portal integrates information from multiple sources into a single location to promote a comprehensive knowledge base and to facilitate a positive end-user experience.

The one-stop-shop for data users' needs.

Our home page is designed to help get you the information you need. The badges below link to access information and other relevant resources for a particular data use need. Check out the top navigation menu to locate resources by category. Tell us what you think.

- New Data User
- Research
- Operations & Quality Improvement
- Access Policy & Administrative Tools
- Quick Links Library

VA Millennium EHR Data

As part of the Electronic Health Record Modernization (EHRM) initiative, VA is migrating to the new VA Millennium EHR developed by Oracle Cerner. While the implementation of the EHR at new facilities is paused for a reset, data generated at facilities already using this new EHR are now available for use in research and operations projects. Visit the VA Millennium EHR page to learn about these data, how to request access, and for links to data documentation and resources.

Upcoming Events

- Cyberseminars
- VINCI Training Hour

News

What's new on the VHA Data Portal?

Learn about these data sources and how to request access.

- Patient-Generated Health Data [released Feb 2024]
- GEDAC Core Files [released Feb 2024]
- All-Payer Claims Data [released Dec 2023]
- Community Care Data [released Dec 2023]
- Patient-Level Quarterly Area Deprivation Index [released Sep 2023]
- Integrated Veteran Care Consolidated Data Sets [released Aug 2023]

NDS wants your feedback!

National Data Systems (NDS) has released a customer satisfaction questionnaire to understand our strengths and also to highlight areas for improvement. Ultimately, your participation will allow NDS to develop and implement strategies to better serve your needs. Your participation is voluntary.

Please click the link below to participate.
[NDS Customer Satisfaction Questionnaire](#)

Last update : 3/7/2024 4:27:18 PM

Sitemap | Section 508 Accessibility | Privacy Policy | OIG Homepage | HSR&D Homepage | VINCI Central



Department of Veterans Affairs
VHA Data Portal

Search...

Data Sources | Data Access | Tools & Applications | Resources | Training | Policy & Admin | Support

Data Access > New Data User

Quick View

VHA grants access to data and information systems based on how the data are going to be used.

New Data Users

Where to Start

The VHA Data Portal provides guidance on VHA data. There are multiple ways to search the VHA Data Portal for resources and information related to data access and data available including:

- The [Data Sources Overview](#) page provides a brief description of all data sources and a link to additional information about each source.
- The [Data Access Overview](#) page provides an overview of how VHA grants access to data and information systems based on the data requested. There is a link to each access category for detailed information on the access process for each data source.
- The [Tools Overview](#) page provides an overview of the applications and tools available for viewing and consuming the data once authorized.

Understanding VistA

The [Veterans Health Information Systems and Technology Architecture \(VistA\)](#) is the source of data for many VHA datasets or databases of interest to researchers. VistA is an integrated system of software applications that directly supports patient care at Veterans Health Administration (VHA) healthcare facilities.

VHA data and information systems exist at a local, VISN and national level. Below is a table that provides a basic description.

Level	Description
Local	Local data reside in the VistA data from multiple local facilities may be combined into a data warehouse.
National	National level data generally refers to databases constructed from all local facility data and housed in a central location.

Resources

- The [VA Acronym Lookup](#) site allows you to lookup up any acronym in the VA.

Quick View

The VHA Data Portal defines a data source as where the data comes from or a place to access data for a project or study.

Data Sources Overview

Overview

In VHA, the term data sources is often used to describe specific bodies of data such as, inpatient data, electronic health record data, mainframe SAS data sets, and the Corporate Data Warehouse (CDW).

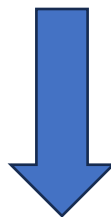
The VHA Data Portal defines a data source as where the data comes from or a place to access data for a project or study. These data sources include data reports, data sets, data files, databases, data warehouses, and data repositories.

Data Sources

Select a data source from the list below to view a brief description and link to more information about each source. Use the "Expand All" button to view all data sources and links to their pages.

[+ Expand All](#)

[All-Payer Claims Databases \(APCDs\)](#)



Data Sources

Select a data source from the list below to view a brief description and link to more information about each source. Use the "Expand All" button to view all data sources and links to their pages.

[+ Expand All](#)

[All-Payer Claims Databases \(APCDs\)](#)

APCDs are large state-owned databases that contain claims collected from private and public healthcare payers. They include utilization, diagnostic, and cost information on Veterans. [Learn more...](#)

Tools & Applications > Tools Overview

Quick View

VHA data tools include applications, analytic workspaces, and collaboration sites that are used for viewing, storing, and working with VHA data.

Tools Overview

Applications

CAPRI

The Compensation and Pension Records Interchange (CAPRI) is an application that allows for read-only access to the electronic health record. Visit the [CAPRI](#) page for more information about this application.

CPRS

The Computerized Patient Record System (CPRS) is a graphical user interface (GUI) for the Veterans Health Information Systems and Technology Architecture (VistA) that allows health care providers to review and update a patient's electronic medical record. Visit the [CPRS](#) page for more information about this application.

DART

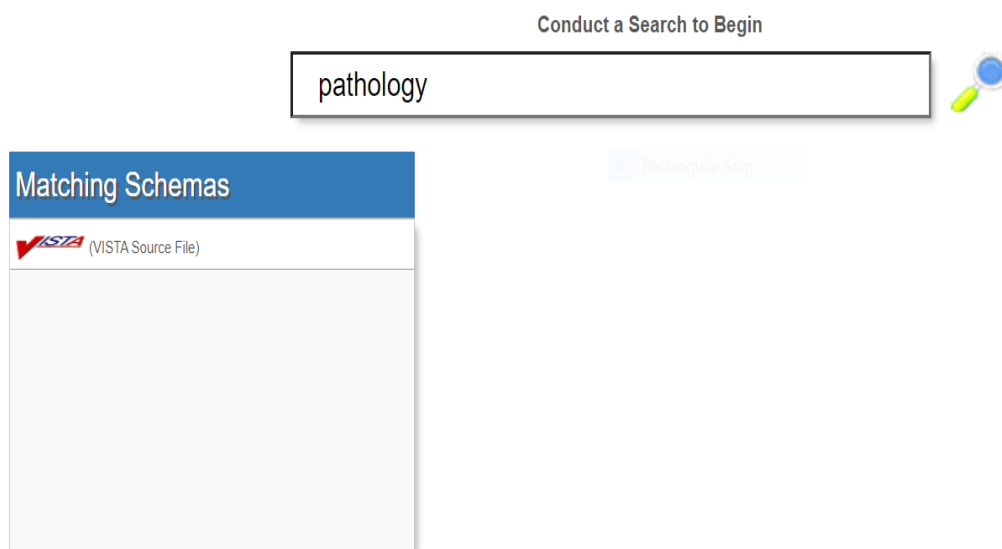
The [Data Access Request Tracker \(DART\)](#) application is a workflow application that guides data users through the process of requesting access to data and guides reviewers through the review process. It gathers and retains required information and documents submitted by the requester and makes them available to the appropriate reviewers. Reviewers receive notifications with links to the request to be reviewed and can approve them or request additional information or actions from projects. E-mail notices from reviewers are sent automatically to the requester at each stage of the review process.

Dim Data Viewer

The [Dim Data Viewer](#) lets you explore CDW's dimension tables.

3. WHAT IS THE VINCI META DATA VIEWER?

Meta Data Viewer




- The **VINCI Meta Data Viewer** is located here: [Meta Data Viewer :: Keyword Search \(va.gov\)](#) and it allows one to search for information about data domains of interest
- Here, I entered a very popular search term, “pathology”, to see what comes up:
- What we have is a link to “VISTA Source File”
- Let’s click on it, and see where it takes us

Meta Data Viewer

Conduct a Search to Begin



Matching Schemas
 (VISTA Source File)

VISTA Files
CYTO <i>pathology</i> #63.09 CYTO <i>pathology</i>
CYTO <i>pathology</i> DIAGNOSIS #63.903
MD SURGICAL <i>pathology</i> RESIDENT
MD SURGICAL <i>pathology</i> STAFF #663029 MD
SURGICAL <i>pathology</i> #63.08 SURGICAL <i>pathology</i>



CYTOPATHOLOGY Fields

Showing 1 to 10 of 44 entries

Filter:

Name	Data Type	PK	FK	Field Codes	ERDiagrams	VISTA File	VISTA Field	VISTA Field #
CYTO <u>pathology</u> DIAGNOSIS	SubFile	N/A	N/A		N/A	N/A	N/A	1.4
BRIEF CLINICAL HISTORY	SubFile	N/A	N/A		N/A	N/A	N/A	.013
COLLECTING SITE	Pointer to INSTITUTION	N/A	N/A		N/A	N/A	N/A	.33
COMMENT	SubFile	N/A	N/A		N/A	N/A	N/A	.99
CYTOPATH ACC #	FreeText(15)	N/A	N/A		N/A	N/A	N/A	.06
CYTOPATH ORGAN/TISSUE	SubFile	N/A	N/A		N/A	N/A	N/A	10



Dim Data Viewer

User Guide

Welcome to the Dim Data Viewer. This application allows you to browse/search most of the Dim Tables within the CDW database for the purpose of constructing research cohorts. Please see the [User Guide](#) for additional information on how to use this application.

Select a Category

- View All Dims
- Administrative (8290750)
- Body Structure (17523)
- Environment (1793888)
- Event (5914)
- Finding (2226592)
- Observable Entity (329)

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3. WHAT IS THE VINCI DIM DATA VIEWER?

- VINCI has also built a **VINCI dim data viewer** as well! It is located here [VINCI - Dim Data Viewer \(va.gov\)](#) and provides information on dim tables in the CDW
- As we did with the VINCI Meta Data Viewer, let's just run a query and see what we find!
- The term we query, to keep a bit of consistency, is: "pathology"



Dim Data Viewer

User Guide

Welcome to the Dim Data Viewer. This application allows you to browse/search most of the Dim Tables within the CDW database for the purpose of constructing research cohorts. Please see the [User Guide](#) for additional information on how to use this application.

pathology

Select a Category

- View All Dims
- Administrative (3521)
- Body Structure (2)
- Environment (1119)
- Event (2)
- Finding (570)
- Physical Object (5)

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pathology

Select a Category

- Product (1)
- Qualifier Value (2)
- Record Artifact (1565)
- Situation (13)
- Social Concept (25)
- Special Concept (6)
- Specimen (1)
- Unassigned (53)

Select a Specimen Dim

- CollectionSample (1)

CollectionSample Description

Collection samples for laboratory specimens.

Select CollectionSample Search Terms

The following are the distinct search terms contained in your selected Dim Table. Select the terms relevant to your search to view the associated Dim Rows.

PATHOLOGY CONSULT

First Previous 1 Next Last

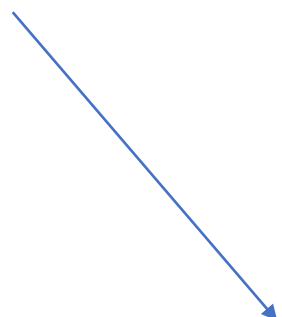
View Dim Rows



pathology

- ### Select a Category
- Product (1)
 - Qualifier Value (2)
 - Record Artifact (1565)
 - Situation (13)
 - Social Concept (25)
 - Special Concept (6)
 - Specimen (1)**
 - Unassigned (53)

- ### Select a Specimen Dim
- CollectionSample (1)**



Select CollectionSample Search Terms

The following are the distinct search terms contained in your selected Dim Table. Select the terms relevant

PATHOLOGY CONSULT

First Previous **1** Next Last

View Dim Rows

CollectionSample

Showing 1 to 1 of 1 entries.

CollectionSampleSID	CollectionSampleIEN	Sta3n	CollectionSample	DefaultTopographySID	DefaultTopography	TubeTopColor	LargeVolume	SmallVolume
1200008043	163	506	PATHOLOGY CONSULT	-1	*Missing*			

CollectionSampleSID CollectionSampleIEN Sta3n CollectionSample DefaultTopographySID DefaultTopography TubeTopColor LargeVolume SmallVolume

Export to CSV Apply Filter Clear Filter

First Previous **1** Next Last



pathology

- ### Select a Category
- Physical Object (5)
 - Procedure (3216)**
 - Product (1)
 - Qualifier Value (2)
 - Record Artifact (1565)
 - Situation (13)
 - Social Concept (25)

- ### Select a Procedure Dim
- ClinicalProcedure (1)
 - CPT (7)
 - CPTCategory (10)**
 - DentalProcedureCodingGuideline (5)
 - GMRCProcedure (7)
 - IBTypeOfService (1)
 - ICD10DescriptionVersion (1)
 - ICD10DiagnosisVersion (1)

CPTCategory Description

This file contains the CPT categories and sub-categories as specified by the AMA. Each CPT entry in the CPT(#81) file is associated with an entry in this category file. This table is the VA's copy of the Current Procedural Terminology (CPT) Category maintained by the AMA with VA responsibility in the STS. Depending on perspective, this is also HCSPCS as there are

Select CPTCategory Search Terms

The following are the distinct search terms contained in your selected Dim Table. Select the terms relevant to your search to view the associated Dim Rows.

- ANATOMIC **PATHOLOGY**
- ANATOMIC **PATHOLOGY** CYTOGENETIC STUDIES
- ANATOMIC **PATHOLOGY** CYTOPATHOLOGY

Select CPTCategory Search Terms

The following are the distinct search terms contained in your selected Dim Table. Select the terms relevant to your search to view the associated Dim Rows.

- ANATOMIC **PATHOLOGY**
- ANATOMIC **PATHOLOGY** CYTOGENETIC STUDIES
- ANATOMIC **PATHOLOGY** CYTOPATHOLOGY
- ANATOMIC **PATHOLOGY** POSTMORTEM EXAMINATION
- CONSULTATIONS (CLINICAL **PATHOLOGY**)
- MOLECULAR PATHOLOGY**
- PATHOLOGY** AND LABORATORY
- SURGICAL **PATHOLOGY**
- SURGICAL **PATHOLOGY** MISCELLANEOUS
- URINALYSIS (CLINICAL **PATHOLOGY**)

First Previous **1** Next Last

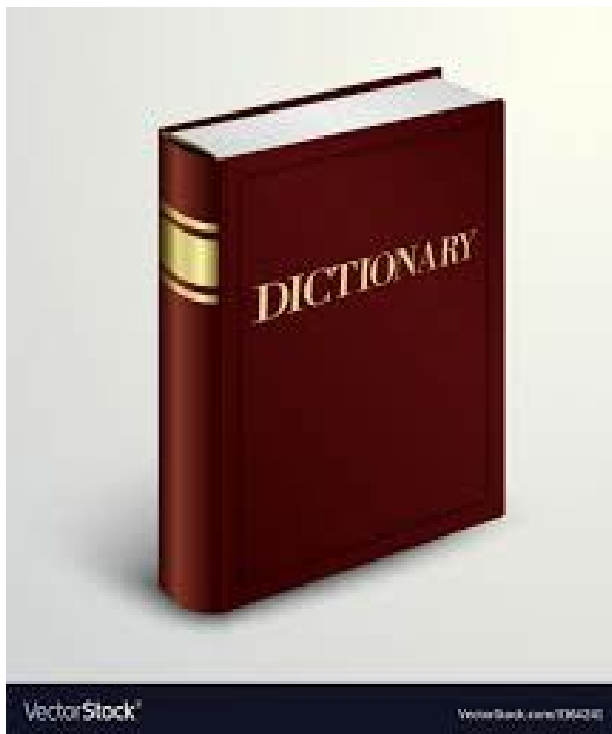
View Dim Rows

CPTCategory

Showing 71 to 80 of 130 entries.

CPTCategorySID	CPTCategoryIEN	sta3n	CPTCategory	TypeOfCategory	MajorCPTCategorySID	MajorCPTCategory	BeginCPTRange	EndCPTRange
1200010545	259	658	MOLECULAR PATHOLOGY	SUB-CATEGORY	1200004498		81105	81599
1200010546	259	515	MOLECULAR PATHOLOGY	SUB-CATEGORY	1200003892		81105	81599
1200010547	259	609	MOLECULAR PATHOLOGY	SUB-CATEGORY	1200003924		81105	81599

3. WHAT IS CDW META DATA?



- Meta data is data... about data!
- A direct query of the **CDW meta data** can be a great way to find information about which tables you might want to use in a project, where those tables are located, and even which JOIN keys you should use in your SQL queries
- Here, I show a sample query only because my colleague Andrew Holbrook will go into detail about CDW meta data next Wednesday in the [VINCI Training Hour](#). Expect use cases, tutorials, and sample scripts!
- The tables most queried in CDW meta data by VINCI data managers are: **Meta.DWViewField**, **Meta.DWViewForeignKey**, and **Meta.DWView**



3. CDW META DATA: A SIMPLE EXAMPLE

```

SELECT TOP (1000)
  [DWViewSchema]
    , [DWViewName]
    , [DWViewFieldName]
    , [DWViewFieldDataTypeFull]
    , [PKFlag]
    , [FKFlag]
    , [CustomDataType]
    , [SourceSystem]
    , [SourceFileNumber]
    , [SourceAttributeName]
    , [FieldType]
    , [FieldCodes]
    , [Piece]
    , [SourceFieldDescription]
    , [ERDiagramTitles]
FROM [CDWork].[Meta].[DWViewField]
WHERE DWViewName LIKE '%surg%' AND DWViewSchema = 'Inpat';

```

	DWViewSchema	DWViewName	DWViewFieldName	DWViewFieldDataTypeFull	PKFlag	FKFlag	CustomDataType	SourceSystem	SourceFileNumber	SourceAttributeName	FieldType	FieldCodes
1	Inpat	CensusSurgicalProcedure	AdmitDateSID	int	N	Y		VistA	NULL	NULL	NULL	NULL
2	Inpat	CensusSurgicalProcedure	AdmitDateTime	datetime2(0)	N	N	TransformedDateTime	VistA	45	ADMISSION DATE	DateTime	NULL
3	Inpat	CensusSurgicalProcedure	AdmitDateTimeTransformSID	bigint	N	N	TransformRule	VistA	45	ADMISSION DATE	DateTime	NULL
4	Inpat	CensusSurgicalProcedure	AdmitVistaErrorDate	varchar(50)	N	N	VistaErrorDate	VistA	45	ADMISSION DATE	DateTime	NULL
5	Inpat	CensusSurgicalProcedure	AnestheticTechnique	varchar(50)	N	N		VistA	45.01	PRINCIPAL ANESTHETIC TECHNIQUE	SetOfCodes	0:NONE;1:INHALATION(OP
6	Inpat	CensusSurgicalProcedure	CategoryOfChiefSurgeon	varchar(50)	N	N		VistA	45.01	CATEGORY OF CHIEF SURG	SetOfCodes	V:VA TEAM;M:MIXED VA&N
7	Inpat	CensusSurgicalProcedure	CategoryOfFirstAssistant	varchar(50)	N	N		VistA	45.01	CATEGORY OF FIRST ASSISTANT	SetOfCodes	1:STAFF, FT;2:STAFF, PT;3
8	Inpat	CensusSurgicalProcedure	CensusDateSID	int	N	Y		VistA	NULL	NULL	NULL	NULL
9	Inpat	CensusSurgicalProcedure	CensusDateTime	datetime2(0)	N	N	TransformedDateTime	VistA	45	DISCHARGE DATE	DateTime	NULL
10	Inpat	CensusSurgicalProcedure	CensusDateTimeTransformSID	bigint	N	N	TransformRule	VistA	45	DISCHARGE DATE	DateTime	NULL

[Tune in next Wednesday](#) for more!

VINCI CDW Metadata Tutorials

CDW Metadata queries are some of the most useful tools on your CDW data analyst belt. In this presentation, VINCI will help you take care of your tools, so your tools can take care of you.

VA Informatics & Computing Infrastructure

Presented by Andrew Holbrook, VINCI Data Services



4. WHAT IS VIREC?



- **VIREC**, the VA Information Resource Center, [VIREC Home \(va.gov\)](http://va.gov) is another great source of information for you to check before you embark on your exploration of VA data
- If you click on “Meet VIREC, your guide to navigating VA data”, [Introduction to VA Information Resource Center \(VIREC\).webm \(sharepoint.com\)](http://sharepoint.com), you can watch a short video (just under 7 minutes in length) that offers an overview of VIREC and its products
- The main VIREC landing page offers links to a huge number of potentially useful sources of information about VA data: from factbooks and researcher’s notebooks, to data sources, data topics, and data tools

4. WHAT ARE VIREC FACTBOOKS AND RESEARCHER'S NOTEBOOKS?

- On the main VIREC page, you can find links to both their Factbooks [CDW Documentation \(va.gov\)](https://www.va.gov/cdw/documentation/) and Researcher's Notebooks [The Researcher's Notebook \(va.gov\)](https://www.va.gov/researchers-notebook/)
- VIREC **factbooks** provide detailed information on the tables, columns, and values in select CDW domains. There are **not** factbooks for all CDW data domains, but for many. The factbooks provide not only information on dim tables and fact tables, they also often include sample SQL query code!
- **The Researcher's Notebooks** are authored by researchers, and show targeted approaches to address specific questions—these also usually include sample SQL query code to illustrate how an approach developed to solve a specific problem or answer a specific question might be implemented
- But VIREC has *many* resources available, and you should try to sit down and peruse many if you have questions about your data!



VA INFORMATION RESOURCE CENTER (VIREC)

- VIREC Home
- About Us
- VA/CMS Data for Research
- VHA Data Portal
- New Users of VA Data
- FAQs
- Acronym Lookup
- HelpDesk
- Report Broken Link
- How are we doing?

VIREC Reports Index

Overview

VIREC produces a variety of reports to assist researchers in using VA data and information systems. These reports are issued periodically to share research results, information on data quality and utility, methodical approaches for working with VA data, and more.

Using the Index

VIREC's Reports Index is organized by type of report and provides access to all current and archived reports. Information in each report is current and accurate for the fiscal years noted in the publication or as of the date released. While previous issues of these reports may be of use to researchers, it is important to remember archived information may no longer be accurate.

Reports

How are we doing? Take our [short survey](#) to share your thoughts about the reports below. We value your feedback.

[+ Expand All](#)

Data Reviews

New! [VIREC Data Review: PGHD Database](#)

Released: February 2024

[+ Abstract](#)

[VIREC Data Review: IVC CDS Referrals](#)

Released: December 2023

[+ Abstract](#)

[VIREC Data Review: IVC CDS PCM System Data Source](#)

Released: August 2023

[+ Abstract](#)

[VIREC Data Review: Patient Identifiers in the Corporate Data Warehouse \(CDW\)](#)

Released: July 2023

[+ Abstract](#)

[VIREC Data Review: IVC CDS](#)

Released: May 2023

[+ Abstract](#)

4. WHAT ARE VIREC DATA REVIEWS?

- ❖ On the main VIREC page, you can find also find a link to VIREC **Data Reviews** if you move your mouse to the right hand side of the main VIREC landing page and scroll down to “Data Reports”: [VIREC Reports Index \(va.gov\)](#)
- ❖ VIREC states that: “Information in each report is current and accurate for the fiscal years noted in the publication or as of the date released. While previous issues of these reports may be of use to researchers, it is important to remember archived information may no longer be accurate ([VIREC Reports Index \(va.gov\)](#)).”
- ❖ The Data Reviews cover a wide variety of topics, from IVC CDS data to VETSNET data to death date sources in CDW data, so this is another rich source of information that may very well contain information on a dataset you’re planning to dig into



Factbooks

CDW Factbooks provide descriptions of tables, columns, and values in select CDW Domains sourced from VistA and include domain-specific SQL "starter language" and sample SQL code.

Note: Factbooks with CDW Millennium after the domain include the most up-to-date information for VistA data as well as associated data from the VA Millennium EHR. Visit the [Electronic Health Record Modernization \(EHRM\) & Implications for Data Users](#) page to learn more about the Cerner data environment, Millennium data, and how to access and use these data.

Domain	Factbook
ADR Enrollment	
Allergy	
Appointment	
Bene Travel	
Consult	
CPRS Orders	
EDIS	
Health Benefits Request	
Health Factor	
Immunization - CDW Millennium	
Immunization	
Inpatient	
Inpatient Fee Lodger	
LabChem	
Mental Health	
MVI	
Non-VA Meds	
Outpatient - CDW Millennium	
Outpatient	
Patient	
Patient Associated	
Patient Enrollment (with EWL)	
Pharmacy Outpatient	
Pharmacy Patient	

RESOURCE CENTER (VIREC)

The Researcher's Notebook

Overview

The Researcher's Notebook lays out methodological approaches to working with VA data. Each issue elaborates on a nuance of data use for a specific topic or research question and conveys practical information from the perspective of data users in the field.

This free publication is produced by VIREC and authored by researchers in the field. The material in each issue represents one potential set of logic that was appropriate to the context in which the author(s) were working at that point in time. Each reader should assess the appropriateness of this logic for their specific context, question, and time of study.

A *Researcher's Notebook* subscription delivers current issues right to your inbox. Contact the [VIREC HelpDesk](#) to subscribe.

Current Issues

How are we doing? Take our [short survey](#), to share your thoughts about *The Researcher's Notebooks* below. We value your feedback.

Note: Notebooks that use Millennium data include an "M" in the issue number.

Title	#	Author	View PDF
New! Defining a Cohort with a Diagnosis & Medication	26M	Jones, L Culbreath, C Gonsoulin, M	
Exploring and Identifying Veteran Patients in VA Millennium	25M	Jones, L Culbreath, C Gonsoulin, M Arnold, N	
Exploring Social History Data in Millennium	24M	Culbreath, C Jones, L Gonsoulin, M	
Identifying Immunizations Administered Pre-and Post-Cerner EHR Transition	22M	Jones, L Culbreath, C Gonsoulin, M	
Using PowerForms to Explore Cerner Millennium Data (Part II)	21-2M	Jones, L Culbreath, C Arnold, N	
Using PowerForms to Explore Cerner Millennium Data (Part I)	21-1M	Culbreath, C Jones, L	
Community Care Data: Comparison of Claims in the CDW FBCC Domain and PIT Domain	20	Arnold, N	
Community Care Data: Comparison of FBCC Domain and Purchased Care Domain Data	19	Arnold, N	
Exploring Relationships between Procedure and Diagnosis Data in the CDW Outpatient Domain	18	Jones, L Culbreath, C	
Overview of Three Community Care Data Sources	17	Arnold, N	
Matching VA Identifier to DoD Identifier: PatientICN to EDIPI Using CDW's MVI Domain	16	Gonsoulin, M Jones, L	
Exploring the Three Procedure Tables in the CDW Inpatient Domain	15	Gonsoulin, M Culbreath, C	
Identifying Encounters in CDW by Clinic Location versus Provider Type	14	Gonsoulin, M Jones, L	





In brief, VIREC has many sources of information about VA data, including:

- ❖ Data Reviews
- ❖ Data Snapshots
- ❖ Historical Stop Codes
- ❖ Quick Peak Videos

I encourage you to explore VIREC if you haven't already!

🌟 New from VIREC

[We're Hiring!](#)
Check out the [Announcements page](#) on our Internet site to see descriptions of currently open positions and required skills.

[Data Issues Brief](#)
The [Fall Issue](#) delivers the most recent data news, including EHRM in action, data updates, and more.

[Upcoming Cyberseminars](#)

- Mar 27: [Delivering Care for Women Veterans after Transitioning from One Electronic Health Record to Another: Perspectives from Staff in the Veterans Health Administration](#)
- Apr 1: [Assessing Race and Ethnicity in VA Data](#)

New & Updated VIREC Products

- Researcher's Notebook MDD: [Defining a Cohort with a Diagnosis & Medication](#) [released: Mar 2024]
- Data Review: [PGHD Database](#) [released: Feb 2024]
- Data Review: [IVC CDS Referrals](#) [released: Dec 2023]
- Data Snapshot: [VACMS Veterans Enrollment Medicare Part D Sept 2021](#) [updated: Dec 2023]
- Data Snapshot: [VACMS Veterans Medicare Enrollment Sept 2021](#) [updated: Dec 2023]
- Data Snapshot: [VHA CMS Enrollment Sept 2021](#) [updated: Dec 2023]
- Researcher's Notebook: [Identifying Transgender and Gender Diverse Veterans in the CDW](#) [updated: Oct 2023]
- [Historical Stop Codes](#) [updated: Oct 2023]

[New Web Page on the VHA Data Portal](#)

📁 VIREC Resources

[Meet VIREC, Your Guide to Navigating VA Data:](#)
Learn about us, our products, and how to navigate our web environments.

[Learn about VA data:](#)

- ➕ Data Sources
- ➕ Data Topics
- ➕ Data Tools

EHRM Resources:

- [EHRM & Implications for Data Users](#)
- [Learn about VA Millennium Data](#)
- [VA Millennium EHR Data Documentation & Resources](#)
- [Guidance on Addressing EHRM in Grant Applications](#)

[VA/CMS Data for Research Project:](#) Data custodian for CMS and USRDS data for VA research.

[Factbooks:](#) Describe tables, columns, and values in select CDW Domains.

[Research User Guides:](#) Detailed information on select data sources, including variable descriptions.

[The Researcher's Notebook:](#) Practical information on using data from researchers in the field.

[Cyberseminars:](#) Expert discussion and guidance on key issues related to using VA data.

[Quick Peek Videos:](#) Short demonstrations on various aspects of VA data or VA data resources.

[Data Reports:](#) Technical reports, data investigations, data reviews, and data quality updates.

5. WHAT IS CIPHER?



VA Phenomics Library
CIPHER
Centralized Interactive PHEnomics Resource



Resources available within the CIPHER Platform

CIPHER Online

- Enhanced Phenotype Knowledgebase
- Interactive Phenotype Entry Form Wizard
- Integrated Data Visualization Tools

CIPHER Wiki

- Phenotyping Resources
- COVID 19 Shared Data Resource
- MVP Investigator Resources
- Partner Pages and Content

- **CIPHER** is the “Centralized interactive Phenomics Resource” [VA Phenomics Library](#) and you can find out more about their mission if you click here: [CIPHER - VA \(ornl.gov\)](#).
- CIPHER is “an interactive knowledgebase to enable the collection, storage, and replication of phenotype algorithms and metadata”
- Shameless plug for my many smart VINCI colleagues: if you type something like “medications sop” into the CIPHER search bar, you will bring up, among your results, the VINCI medication SOP
- See all the VINCI SOPs here: [Category:VINCI SOP - VA Phenomics Library](#)



Special page

Search VA Phenom

Search results

congestive heart failure

[Content pages](#) [Multimedia](#) [Everything](#) [Advanced](#)

Search in namespaces:

- | | | | | | | | |
|---|--|------------------------------------|---|-------------------------------------|--|--|--|
| <input checked="" type="checkbox"/> (Main) | <input type="checkbox"/> Talk | <input type="checkbox"/> MediaWiki | <input type="checkbox"/> MediaWiki talk | <input type="checkbox"/> Property | <input type="checkbox"/> Property talk | <input type="checkbox"/> Rule | <input type="checkbox"/> Rule talk |
| <input type="checkbox"/> User | <input type="checkbox"/> User talk | <input type="checkbox"/> Template | <input type="checkbox"/> Template talk | <input type="checkbox"/> Form | <input type="checkbox"/> Form talk | <input type="checkbox"/> Widget | <input type="checkbox"/> Widget talk |
| <input type="checkbox"/> VA Phenomics Library | <input type="checkbox"/> VA Phenomics Library talk | <input type="checkbox"/> Help | <input type="checkbox"/> Help talk | <input type="checkbox"/> Concept | <input type="checkbox"/> Concept talk | <input checked="" type="checkbox"/> COVID-19 | <input type="checkbox"/> COVID-19 talk |
| <input type="checkbox"/> File | <input type="checkbox"/> File talk | <input type="checkbox"/> Category | <input type="checkbox"/> Category talk | <input type="checkbox"/> smw/schema | <input type="checkbox"/> smw/schema talk | <input checked="" type="checkbox"/> Access | <input type="checkbox"/> Access talk |

Remember selection for future searches

Page title matches

[COVID-19:Congestive heart failure \(COVID\)](#)

"Phenotype" **Congestive Heart Failure** "a. PreIndexCondition **Congestive Heart**

Failure within 2 years

3 KB (359 words) - 10.02, 17 January 2024

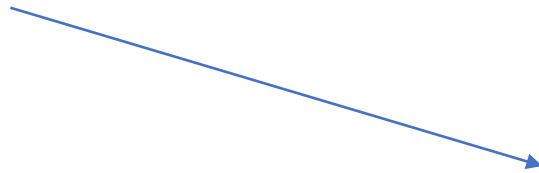
[Congestive heart failure, nonhypertensive \(MAP\)](#)

"Phenotype" **Congestive heart failure**, nonhypertensive ...MAP probability over

0.23 should be categorized as having **Congestive heart failure**, nonhypertensive.

6 KB (838 words) - 11.20, 15 February 2024

[Congestive heart failure \(CHF\) NOS \(MAP\)](#)



COVID-19 [Discussion](#)

[Read](#) [Edit](#) [View history](#) [☆](#) [More](#) [v](#)

Search VA Phenomics Library

COVID-19:Congestive heart failure (COVID)

Contents [\[hide\]](#)

- 1 Definition 1
 - 1.1 Algorithm Overview
 - 1.2 Example SQL Scripts
 - 1.3 Creation Script Page
 - 1.4 Validation
 - 1.5 Source of Phenotype Data

Definition 1 [\[edit\]](#)

Phenotype: Congestive Heart Failure

Short Name / Alias: CHF

Role of Phenotype in Shared Data Resource:

- a. PreIndexCondition Congestive Heart Failure within 2 years
- b. PostIndexCondition Congestive Heart Failure within 60 day

Status: [COVID-19:Working Definition](#)

Algorithm Overview [\[edit\]](#)

Algorithm Description: Mappings pulled from ORDCOVID DIM tables, applied to the following CDW Domains: Inpat, Outpat, FeeServiceProvided, Dental, EDIS, FeeInpatInvoiceICDdiagnosis, IntegratedBilling, Ra

Classification: [COVID-19:Diseases](#), [Lifestyle/Environmental Factors](#)

Related Disease Domain: [Cardiovascular](#)





Category [Discussion](#)

[Read](#) [View source](#) [View history](#)

Category:VINCI SOP

Pages in category "VINCI SOP"

The following 61 pages are in this category, out of 61 total.

A

- VINCI:Addresses (Patient) SOP, VINCI
- VINCI:Age & Gender (VINCI)
- VINCI:All Upcoming Appointments SOP (VINCI)
- VINCI:Appointments - Millennium SOP, VINCI

B

- VINCI:BMI - Millennium SOP, VINCI
- VINCI:BMI (VINCI)

C

- VINCI:Calculate Median, VINCI
- VINCI:CDW Meta Data Search SOP, VINCI
- VINCI:Combat Veterans (VINCI)
- VINCI:COVID-19 SOPs (VINCI)
- VINCI:CPT Codes SOP, VINCI

D

- VINCI:Date of Death SOP, VINCI
- VINCI:Demographic - Millennium SOP, VINCI
- VINCI:Distance (Patient Address from Station) SOP, VINCI

E

- VINCI:EGFR VINCI

F

- VINCI:Facilities SOP, VINCI
- VINCI:Filter By Station SOP (VINCI)

G

- VINCI:Get PatientICN - Millennium SOP, VINCI
- VINCI:Get PersonSID from PatientICN

- VINCI:GIS Distance and Drivetime

H

- VINCI:Health Factor - Millennium SOP, VINCI
- VINCI:Hemoglobin A1C SOP (VINCI)

I

- VINCI:ICD Code PIT SOP (VINCI)
- VINCI:ICD Codes - Millennium SOP, VINCI
- VINCI:ICD Codes SOP, VINCI
- VINCI:ICD Procedure Codes SOP, VINCI

L

- VINCI:Labs - Millennium SOP, VINCI
- VINCI:Labs SOP, VINCI
- VINCI>Last VA Visit SOP (VINCI)
- VINCI:Living Patients SOP, VINCI
- VINCI:Loop to Pull Counts for Columns, VINCI

M

- VINCI:Medications Inpatient - Millennium SOP, VINCI
- VINCI:Medications Outpatient - Millennium SOP, VINCI
- VINCI:Medications SOP, VINCI
- VINCI:Microbiology SOP, VINCI
- VINCI:Most Closed BMI of Certain Interested Date (VINCI)

N

- VINCI:Name and SSN - Millennium SOP, VINCI
- VINCI:Name and SSN SOP (VINCI)

O

- VINCI:OEF/OIF Veterans (VINCI)

P

- VINCI:Patient Contact - Millennium SOP, VINCI
- VINCI:Patient Flag SOP, VINCI
- VINCI:Period of Service SOP, VINCI
- VINCI:Phone Number SOP (VINCI)
- VINCI:PIT CPT and Procedure Codes SOP (VINCI)
- VINCI:Primary Care Provider - Millennium SOP, VINCI
- VINCI:Primary Care Provider SOP, VINCI
- VINCI:Procedures - Millennium SOP, VINCI
- VINCI:Procedures SOP, VINCI

R

- VINCI:Race & Ethnicity (VINCI)
- VINCI:Radiology SOP (VINCI)

S

- VINCI:Search TIU for Keyword, VINCI
- VINCI:Standard Exclusionary Criteria, VINCI
- VINCI:Standard Exclusion - Millennium SOP, VINCI
- VINCI:Stop Codes - Millennium SOP, VINCI
- VINCI:Stop Codes SOP, VINCI
- VINCI:Suicide Flag SOP, VINCI

V

- VINCI:Visits - Millennium SOP, VINCI
- VINCI:Visits SOP, VINCI
- VINCI:Vitals - Millennium SOP, VINCI
- VINCI:Vitals SOP, VINCI

W

- VINCI:Wiki Template (VINCI)



6. WHAT IS HERC COST DATA?

- ❖ The VHA Data Portal offers a handy link to resources about **HERC**: the VA Health Economics Resource Center: [HERC Cost Data \(va.gov\)](https://www.va.gov/HERC/CostData)
- ❖ This is a pretty amazing data source: HERC can tell you things such as the estimated cost of *any* VA service, how much providers and support staff cost at *any* VA facility
- ❖ HERC data even includes a risk score calculation for all VA patients (which might be useful for a variety of research or operations projects)
- ❖ For example, you might want to look at HERC guidebooks if you're interested in a particular set of cost data in the VA [HERC: Guidebooks \(va.gov\)](https://www.va.gov/HERC/Guidebooks)



Quick View

HERC produces and documents five types of economic data including VHA labor costs, wage index data for VA facilities, discharge data with subtotals, V21 & Nosos risk scores, and average inpatient, outpatient, and person-level costs.

On this page

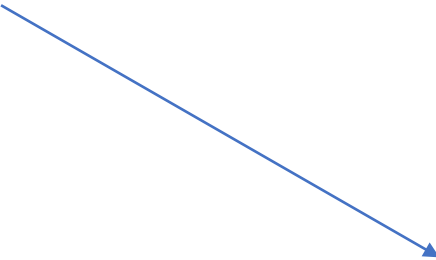
- [Overview](#)
- [Content](#)
- [Features](#)
- [Requesting Data Access](#)
- [Resources](#)

HERC Cost Data

Overview

The VA Health Economics Resource Center (HERC) helps VA data users determine the cost of VA care, assess cost-effectiveness, and evaluate the efficiency of VA programs and providers. HERC produces and documents five types of economic data sets. Detailed descriptions of the HERC data sets are provided below and on the [HERC website](#).

- [HERC Average Cost Data sets](#) include an estimate of the cost of every VA health service. These estimates reflect the expected cost given the nature of the service provided, and do not reflect local differences in cost or efficiency.
- [Nosos Risk Scores](#) are risk scores created specifically for VA patients; researchers can use these scores to adjust for risk when making comparisons of treatments or outcomes.
- [Wage Index for VA Facilities](#) allows adjustments for differences in costs due to geographic differences in the labor costs of different VA medical centers.
- [HERC Discharge Data Sets with Subtotals](#) is based on the Managerial Cost Accounting system (MCA) Treating Specialty file, which includes estimates of every service based on activity-based allocation. The database aggregates records for each single hospital stay into a discharge-level record that includes the costs of 13 different types of service.
- [Labor Costs Data set](#) provides the national average cost of employing different types of health care staff so that analysts may assign costs to the time spent providing a particular service.



Requesting Data Access

VHA grants permission to access data based on how it will be used. These uses are organized into data access categories, which determine the correct request process. Select a category below for information on requesting access to HERC data. If you're not sure which option to choose, visit the [Data Access Overview](#) page for additional guidance.

[Operations/ Non-Research](#)

[Research](#)





- ▶ Fellowship
- ▶ Support
- ▶ About Us

FY23 Nosos Risk Scores Available 2024 Cost-Effectiveness Analysis Seminar Series Medicare Wage Index for VA Facilities Economics of Implementation & QUERI

What We Do

HERC helps VA researchers determine the cost of VA care, assess cost-effectiveness, and evaluate the efficiency of VA programs and providers. [More »](#)

Cost Data	Analytic Methods	Resources & Support
<ul style="list-style-type: none"> ▶ VA Community Care Costs ▶ Inpatient Costs ▶ Outpatient Costs ▶ Pharmacy Costs 	<ul style="list-style-type: none"> ▶ Budget Impact Analysis ▶ Cost-Effectiveness Analysis ▶ Implementation / QUERI ▶ Microcosting ▶ Risk Adjustment 	<ul style="list-style-type: none"> ▶ Consulting Service ▶ Guidebooks ▶ Technical Reports

Health Economics Resource Center (HERC) | 795 Willow Road (152 MPD) | Menlo Park, CA 94025
 Connect: (650) 617-2630 | herc@va.gov



SEMINARS

- Mar 13, 2024
Budget Impact Analysis for Implementation Science
Todd Wagner, Ph.D.
- Mar 20, 2024
Veterans' Use of and Outcomes from VA and non-VA Hospitals
Jean Yoon, Ph.D.
- Mar 27, 2024
CEA Alongside a Clinical Trial
Ciaran Phibbs, Ph.D.
- Apr 3, 2024
Options for Evaluating VA Programs
Kritee Gujral, Ph.D. and Todd Wagner, Ph.D.
- Apr 17, 2024
Financing Strategies to Promote Evidence-Based Practice Implementation and Sustainment: Examples from Behavioral Health

HERC » Publications » Guidebooks

Guidebooks

- HERC Home
- ▶ VA Cost Data Sources
- ▶ Measuring Costs
- ▶ Analytic Methods
- ▶ Seminars
- ▼ Publications
 - Guidebooks
 - Journal Articles
 - Spotlight
 - Technical Reports
 - ▶ Economics of Implementation & QUERI
 - ▶ Fellowship
 - ▶ Support
 - ▶ About Us

HERC guidebooks are grouped by the following categories:

- ▶ [HERC Average Cost Datasets](#)
- ▶ [Managerial Cost Accounting System](#)
- ▶ [Station-Level Cost Data](#)
- ▶ [Resources for Direct Measurement of Intervention Cost](#)
- ▶ [Provider Data](#)
- ▶ [Other Data Sources](#)

HERC Average Cost Datasets

HERC's Average Cost Datasets for VA Inpatient Care
 Wagner TH, Chow A, Su P, Barnett PG
Health Economics Resource Center, June 2023 | [View »](#)

The U.S. Department of Veterans Affairs (VA) provides health care to Veterans at more than 120 inpatient facilities. In 1999, the VA funded the Health Economics Resource Center (HERC) to adapt existing cost methodologies and to expand methods to estimate costs of health care encounters. This guidebook describes HERC's method for estimating the cost of VA inpatient stays back to fiscal year 1998. It discusses methods in building the dataset, assumptions underlying the dataset, and how to use the dataset.

HERC's Outpatient Average Cost Dataset for VA Care

Phibbs CS, Scott WJ, Flores NE, Barnett PG
Health Economics Resource Center, May 2023 | [View »](#)

This document describes the Health Economics Resource Center (HERC) Outpatient Cost files. HERC produces a companion document for the HERC Inpatient Cost files available on the HERC web site. The HERC Outpatient Cost files contain our estimate of the cost for each outpatient encounter reported in national VA databases since October 1, 1997.1 The HERC files can be linked to VA utilization databases to find patient demographics, location of care, services provided, and patient diagnosis. These estimates are designed to be useful to researchers and VA managers who need to estimate the relative value of service units delivered by VA providers and programs. The HERC Outpatient Average Cost files include three different estimates of the resources used in each VA outpatient encounter.

Guidebook to the HERC Person-Level Cost Datasets FY1998-2014

Chen S, Shane A
Health Economics Resource Center, September 2014 | [Download »](#)

This guidebook provides information on how the HERC person-level cost dataset is created, how to detail the categories of inpatient and outpatient care and cost, and how to include pharmacy cost since 1999. A description of how to present HERC average costs at both local and national levels is also included.

Last updated: September 2014. HERC person-level cost data was discontinued after FY2014. No updates to this guidebook are planned.



6. FROM HERC TO COMMUNITY CARE

1. If you're interested in costs, you should also investigate the potential use of VA **Community Care and purchased care** for your project:
2. [HERC: VA Community Care](#) will provide more details on VA community and purchased care data found in multiple locations in VA data

The page I've linked to provides links to:

- ❖ fact books
- ❖ data reviews
- ❖ data dictionaries
- ❖ seminars given by researchers and data domain experts on VA community care data

The page also includes a background write-up on VA community care!

7. BISL CODE REPOSITORIES



- There are multiple sources of **SQL code snippets** that can help make sure your queries are utilizing best practices:
- For example: SQL Office Hours has multiple useful links, including a link to their SQL code snippets [Data Services & Field Support \(sharepoint.com\)](#)
- BISL Script Library: [Script Library - Home Page \(va.gov\)](#)
- There are also the CDW SQL Office Hours, which might offer some SQL tips [Data Services & Field Support - CDW/SQL Office Hours Videos - All Documents \(sharepoint.com\)](#)
- For CDW SQL query best practices: [Corporate Data Warehouse - BISL Public Documents - Current \(sharepoint.com\)](#)

8. WHAT IS CDW RAW DATA?

CDW RAW*

- Audiology
- CAPRI Audit Trail table
- Echocardiogram
- Equipment Inventory
- FBCS (Fee Basis Claim System)
- IFCAP (Integrated Funds Control, Accounting, and Procurement)
- Oncology (includes VHA Cancer Registry Data)
- PAID Data **** (Please see note on next page)**
- Program Integrity Tool Archived (PIT_Archived)
- ***** (Please see note on next page)**
- Pulmonary Function Test (PFT)
- Talent Management System (TMS)

- From the **VINCI Central** home, if you navigate to **VINCI University** and then to **VINCI Data** and, finally, to **Data Sources**, you can find information about CDW raw data
- The difference between CDW raw and CDW production data consists in how raw data are extracted, which are as snapshots from each VistA station, and how often the data are refreshed, which is not daily for CDW raw data
- Some data exists in both raw and production forms, use production if you can get it!
- Before using **CDW raw data** for a project be sure to check the raw data extraction schedule to see if it fits the specifics of your project

- ❖ You can see when the raw data tables you're interested in taking a look at are scheduled to be updated:
- ❖ [VINCI ETL Schedule - Home \(va.gov\)](#),
- ❖ You can also see more details, including notes, about the raw data tables
- ❖ [Database - CDW-Raw Domains and Schedule \(Data in database "CDWWork" on SQL Server "VHACDWA06.vha.med.va.gov"\) - All Items \(sharepoint.com\)](#)
- ❖ From the above, you can also click on the name of the data domain and see more details and a summary of the data

On the VINCI ETL schedule, notice that not all tables listed have a date for when they'll be updated

However, CDW-Raw Domains and Schedule does have the last extract date

II: HOW TO USE THE SOURCES, AN IN-DEPTH EXAMPLE

Case Study Question: Which operating rooms were used for surgical procedures?

Meta Data Viewer

Conduct a Search to Begin



Matching Schemas

Oncology (VINCI Raw)

PCOR (PCOR)

SPatient (CDW Production)

Surg (CDW Production)

surgery (VINCI Raw)

surgery_old (VINCI Raw)

 (VISTA Source File)

Surg Tables/Views

surgeryOtherPostOpDiagnosis #136.04

surgeryPOST #130 surgery

surgeryPRE #130 surgery

surgeryPrincipalAssociatedDiagno...

surgeryPrincipalAssociatedProced...

surgeryPrincipalCPTModifier #136.01

surgeryProcedureDiagnosisCode #136

SurgeryPRE Fields

Showing 1 to 10 of 116 entries

Filter:

Name	Data Type	PK	FK	Field Codes	ERDiagrams	VISTA File	VISTA Field	VISTA Field #
surgeryConsultDate	date(3)	N	N		SurgeryPRE 1.0	surgery	surgery CONSULT DATE	513
surgeryConsultDateTransformSID	bigint(8)	N	N		SurgeryPRE 1.0	surgery	surgery CONSULT DATE	513
surgeryConsultVistaErrorDate	varchar(50)	N	N		SurgeryPRE 1.0	surgery	surgery CONSULT DATE	513
surgeryDateTime	datetime2(6)	N	N		SurgeryPRE 1.0	surgery	DATE OF OPERATION	.09
surgeryDateTimeTransformSID	bigint(8)	N	N		SurgeryPRE 1.0	surgery	DATE OF OPERATION	.09
surgeryVistaErrorDate	varchar(50)	N	N		SurgeryPRE 1.0	surgery	DATE OF OPERATION	.09
AddressPlateCode	varchar(50)	N	N	Y: YES N: NO I: INAPPLICABLE	SurgeryPRE 1.0	surgery	ADDRESS PLATE	.9812
AdmissionDate	date(3)	N	N		SurgeryPRE 1.0	surgery	HOSPITAL ADMISSION DATE	418

II: AN IN-DEPTH EXAMPLE (con't)

However, there isn't anything that sounds like the name of a surgery location field, so next I try the same query in the VINCI Dim Data viewer

User Guide

Dim Data Viewer

Welcome to the Dim Data Viewer. This application allows you to browse/search most of the Dim Tables within the CDW database for the purpose of constructing research cohorts. Please see the [User Guide](#) for additional information on how to use this application.

Select a Category

View All Dims

- Administrative (2)
- Procedure (2)

Select a Procedure Dim

- OrderDialog (2)

OrderDialog Description

This file contains the information needed to describe how to prompt for each order, what values are acceptable, etc.



Select OrderDialog Search Terms

The following are the distinct search terms contained in your selected Dim Table. Select the terms relevant to your search to view the associated Dim Rows.

- OR GTX SURGERY LOCATION
- ORZ PM SURGERY LOCATIONS

First Previous 1 Next Last

View Dim Rows

Select OrderDialog Search Terms

The following are the distinct search terms contained in your selected Dim Table. Select the terms relevant to your search to view the associated Dim Rows.

- OR GTX SURGERY LOCATION
- ORZ PM SURGERY LOCATIONS

OrderDialog

Showing 1 to 3 of 3 entries.

OrderDialogSID	OrderDialogIEN	Sta3n	OrderDialogName	DisplayText	OrderDialogDisable	OrderDialogType	DisplayGroupIEN
1000129021	5109	586	ORZ PM SURGERY LOCATIONS	SET		prompt	
1600192065	22894	436	OR GTX SURGERY LOCATION	SCHEDULE SURGERY BILLINGS MT		prompt	
1200826165	23873	659	OR GTX SURGERY LOCATION	SURGERY LOCATION		prompt	

OrderDialogSID

OrderDialogIEN

Sta3n

OrderDialogName

DisplayText

OrderDialogDisable

OrderDialogType

DisplayGroupIEN

Export to CSV
Apply Filter
Clear Filter



II: AN IN-DEPTH EXAMPLE (con't)

User Guide

Dim Data Viewer

Welcome to the Dim Data Viewer. This application allows you to browse/search most of the Dim Tables within the CDW database for the purpose of constructing research cohorts. Please see the [User Guide](#) for additional information on how to use this application.

Select a Category

- View All Dims
- Administrative (2)
- Procedure (2)

Select a Administrative Dim

- VistaField (1)
- VistaFile (1)

VistaField Description

This file stores the descriptive information for all files in the FileMan managed database. The Vista data dictionary is extracted from each Vista system and is written to two tables, this one and Dim.VistaFile. Just like all other CDW data tables, the nominal refresh cycle is nightly. This table has information about the fields in Vista for each station. Descriptions are sometimes useful,

Select VistaField Search Terms

The following are the distinct search terms contained in your selected Dim Table. Select the terms relevant to your search to view the associated Dim Rows.

SURGERY LOCATION?

First Previous **1** Next Last

View Dim Rows

VistaField








Showing 1 to 10 of 34 entries.

VistaFieldSID	VistaFileSID	VistaFileNumber	VistaFieldNumber	Sta3n	VistaFileName	VistaFieldName	FieldType	FieldLength	FieldCodes	PointsToFileN
802555489	800276106	19607.401	.02	640	LOCATION	SURGERY LOCATION?	SetOfCodes		1:YES;0:NO;	
804473740	800538548	19607.401	.02	600	LOCATION	SURGERY LOCATION?	SetOfCodes		1:YES;0:NO;	
1001762578	1000225836	19607.401	.02	549	LOCATION	SURGERY LOCATION?	SetOfCodes		1:YES;0:NO;	
1002429816	1000298453	19607.401	.02	618	LOCATION	SURGERY LOCATION?	SetOfCodes		1:YES;0:NO;	
803951773	800479076	19607.401	.02	678	LOCATION	SURGERY LOCATION?	SetOfCodes		1:YES;0:NO;	
804390907	800527138	19607.401	.02	593	LOCATION	SURGERY LOCATION?	SetOfCodes		1:YES;0:NO;	
1001603830	1000212040	19607.401	.02	564	LOCATION	SURGERY LOCATION?	SetOfCodes		1:YES;0:NO;	
1600305912	1600038299	19607.401	.02	460	LOCATION	SURGERY LOCATION?	SetOfCodes		1:YES;0:NO;	
1001750656	1000210612	19607.401	.02	671	LOCATION	SURGERY LOCATION?	SetOfCodes		1:YES;0:NO;	
1401430289	1400192843	19607.401	.02	642	LOCATION	SURGERY LOCATION?	SetOfCodes		1:YES;0:NO;	

VistaFieldSID VistaFileSID VistaFileNumber VistaFieldNumber Sta3n VistaFileName VistaFieldName FieldType FieldLength FieldCodes PointsToFileNumt

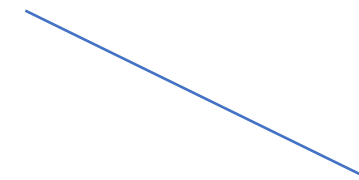
II: AN IN-DEPTH EXAMPLE (con't)

- We've tried querying the VINCI Meta Data and Dim Data viewers, now let's see if a VIREC factbook has anything that points us in the right direction

CPRS Orders	
EDIS	
Health Benefits Request	
Health Factor	
Immunization - CDW Millennium	
Immunization	
Inpatient	



4.19 Inpat.Inpatient501Transaction	97
4.20 Inpat.Inpatient501TransactionDiagnosis	110
4.21 Inpat.Inpatient535Transaction	113
3 VIREC Factbook: CDW Inpatient 3.0 Domain	
4.22 Inpat.InpatientCloseout	119
4.23 Inpat.InpatientCPTProcedure	120
4.24 Inpat.InpatientDiagnosis	123
4.25 Inpat.InpatientDischargeDiagnosis	125
4.26 Inpat.InpatientICDProcedure	127
4.27 Inpat.InpatientRelease	130
4.28 Inpat.InpatientSurgicalProcedure	132



4.28 Inpat.InpatientSurgicalProcedure

The Inpat.InpatientSurgicalProcedure table (version 11) contains an ordinal count of up to twenty procedures or surgeries performed during an episode of care. Via coding systems, the chief surgeon, first assistant, and type of anesthetic technique are identified. If the patient temporarily went outside of the VA for surgery, their form of payment is included. The dates of the admission, surgery and discharge are also recorded in this table.



II: AN IN-DEPTH EXAMPLE (con't)

```
SELECT TOP (1000) *
FROM [CDWork].[Meta].[DWViewField]
WHERE DWViewName like '%surg%';
```

I see something promising after scrolling down: “OperatingRoomIEN” and “OperatingRoomSID”. I scroll to the right hand side of the returned rows and see that OperatingRoomSID has no description, but OperatingRoomIEN says that it is the name of the OR that a procedure occurred in.

Results	Messages	wSchema	DWViewName	ViewVersion	DWViewFieldName	DWViewFieldTypeFull	DWViewFieldType
			SurgeryINTRA	41	NonORProcedureFlag	char(1)	char
			SurgeryINTRA	41	NurseOutDateTime	datetime2(0)	datetime2
			SurgeryINTRA	41	NurseOutDateTimeTransfor...	bigint	bigint
			SurgeryINTRA	41	NurseOutVistaErrorDate	varchar(50)	varchar
			SurgeryINTRA	41	NursePresentDateTime	datetime2(0)	datetime2
			SurgeryINTRA	41	NursePresentDateTimeTran...	bigint	bigint
			SurgeryINTRA	41	NursePresentVistaErrorDate	varchar(50)	varchar
			SurgeryINTRA	41	OpCode	char(1)	char
			SurgeryINTRA	41	OperatingRoomIEN	varchar(50)	varchar
			SurgeryINTRA	41	OperatingRoomSID	int	int

```
SELECT TOP (1000) *
FROM [CDWork].[Meta].[DWViewForeignKey]
WHERE FKViewFieldName like
'%operating%room%';
```

Results	Messages	FKSchemaName	FKViewName	FKViewFieldName	FKViewVersion	PKSchemaName	PKViewName	PKViewFieldName
		Dim	OperatingRoom	OperatingRoomLocationSID	4	Dim	Location	LocationSID
		Dim	OperatingRoom	OperatingRoomTypeSID	4	Dim	OperatingRoomType	OperatingRoomTypeSID
		Dim	OperatingRoomBlockScheduleDate	OperatingRoomSID	1	Dim	OperatingRoom	OperatingRoomSID
		Dim	OperatingRoomSchedule	OperatingRoomSID	1	Dim	OperatingRoom	OperatingRoomSID
		Dim	OperatingRoomScheduleDate	OperatingRoomSID	1	Dim	OperatingRoom	OperatingRoomSID
		Dim	OperatingRoomServiceBlockout	OperatingRoomSID	1	Dim	OperatingRoom	OperatingRoomSID
		Surg	SurgeryINTRA	OperatingRoomSID	41	Dim	OperatingRoom	OperatingRoomSID
		Surg	SurgeryPOST	OperatingRoomSID	3	Dim	OperatingRoom	OperatingRoomSID
		Surg	SurgeryPRE	OperatingRoomSID	83	Dim	OperatingRoom	OperatingRoomSID

II: AN IN-DEPTH EXAMPLE (con't)

- ❖ In this example, we queried multiple sources of information to find data sources that help us begin to figure out: which operating rooms were used for surgical procedures?
- ❖ There are still more steps as far as writing a SQL query, for example, but we now know that the 3 surgery fact tables contain surgery operating room location data
- ❖ I'll leave you to find the join keys to join the surgical fact tables to inpatient and outpatient domain data if you wish, but I'm confident that you're now well on the way to figuring out the rest of the puzzle, and most importantly YOUR puzzle/s!



III: SOME FINAL TIPS & TAKEAWAYS

- ❖ Don't be afraid to search multiple sources! The more sources you can check, the better
- ❖ Try to figure out in advance what sort of information you want to know about your data, and then search accordingly
- ❖ Don't be afraid to email contacts and sources
- ❖ Use the HS R&D **Listserv** (HSRData Listserv) (link here: [VA Internal LISTSERV - Logged Out - VAWW.LISTSERV.VA.GOV](mailto:VA%20Internal%20LISTSERV%20-%20Logged%20Out%20-%20VAWW.LISTSERV.VA.GOV)) if you're not having much luck finding what you need
- ❖ *If you're not already registered on the **Listserv**, register today!*
- ❖ Don't hesitate to contact VINCI support as well, we're here to help!

With the sources I discussed and linked here, I hope I have given you the confidence to explore, experiment, and search multiple sources if you want to get in-depth knowledge of your data before, during, and after the provisioning process so you can hit the ground running!





THANK YOU!

Ben Hardisty: Ben.Hardisty@va.gov

VINCI: VINCI@va.gov

[VINCI Central - Home \(va.gov\)](http://VINCI Central - Home (va.gov))



APPENDIX I: LINKS FROM THE PRESENTATION

VINCI Central [VINCI Central - Home \(va.gov\)](#)

VHA Data Portal [VHA Data Portal > Home \(va.gov\)](#)

VHA Data Portal: New Data User [VHA Data Portal > Data Access > New Data User \(va.gov\)](#)

VHA Data Portal: Data Sources Overview [Data Sources \(va.gov\)](#)

VHA Data Portal: Tools Overview [Tools Overview \(va.gov\)](#)

VINCI Meta Data Viewer [Meta Data Viewer :: Keyword Search \(va.gov\)](#)

VINCI Dim Data Viewer [VINCI - Dim Data Viewer \(va.gov\)](#)

VIReC [VIReC Home \(va.gov\)](#)

“Meet VIReC, your guide to navigating VA data” [Introduction to VA Information Resource Center \(VIReC\).webm \(sharepoint.com\)](#)

VIReC Factbooks [CDW Documentation \(va.gov\)](#)

VIReC The Researcher’s Notebook [The Researcher's Notebook \(va.gov\)](#)

VIReC Data Reports [VIReC Reports Index \(va.gov\)](#)

CIPHER [VA Phenomics Library](#)

About CIPHER [CIPHER - VA \(ornl.gov\)](#)

HERC [HERC: Home \(va.gov\)](#)

HERC Guidebooks [HERC: Guidebooks \(va.gov\)](#)

HERC: VA Community Care [HERC: VA Community Care](#)

SQL Office Hours Code Snippets [Data Services & Field Support \(sharepoint.com\)](#)

CDW/SQL Office Hours Videos [Data Services & Field Support - CDW/SQL Office Hours Videos - All Documents \(sharepoint.com\)](#)





APPENDIX I (con't): LINKS FROM THE PRESENTATION

BISL Script Library: [Script Library - Home Page \(va.gov\)](#)

CDW SQL query best practices [Data Services & Field Support - CDW/SQL Office Hours Videos - All Documents \(sharepoint.com\)](#)

VINCI ETL Schedule [VINCI ETL Schedule - Home \(va.gov\)](#)

CDW-Raw Domains and Schedule [Database \(sharepoint.com\)](#)

VINCI SOPs [Category:VINCI SOP - VA Phenomics Library](#)





APPENDIX II: LINKS TO OTHER INFORMATION SOURCES

HSR (Health Systems Research) [Health Services Research & Development \(va.gov\)](#)

COREs (Consortia of Research) [COnsortia of REsearch \(COREs\) \(va.gov\)](#)

ACCENT (Access and Community Care Engagement Network Team) [Access and Community Care Engagement Network Team \(ACCENT\) \(va.gov\)](#)

VHA Pain/Opioid CORE (Consortium of Research) [VHA Pain/Opioid CORE Hub - Home \(sharepoint.com\)](#)

SPRINT (Suicide Prevention Research Impact Network) [Suicide Prevention Research Impact NeTwork \(SPRINT\) \(va.gov\)](#)

Virtual Care CORE (Consortium of Research) [Virtual Care Consortium of Research \(VC CORE\) \(va.gov\)](#)

VA ORD Research Programs [VA ORD Research Programs](#)

COINs (Centers of Innovation) [VA HSR Centers](#)

HSR&D Resource Centers [HSR&D Resource Centers \(va.gov\)](#)

CIDER [Center for Information Dissemination and Education Resources \(CIDER\) \(va.gov\)](#)

HC IdM (VHA Health Care Identity Management Program) [Health Care Identity Management \(HC IdM\) \(sharepoint.com\)](#)

HIMs (Health Information Management) [Health Information Management Home Page \(sharepoint.com\)](#)

NCVAS (National Center for Veterans Analysis and Statistics) [Veteran Population - National Center for Veterans Analysis and Statistics \(va.gov\)](#)

OPES (Office of Productivity, Efficiency, and Staffing) [Office of Productivity, Efficiency, and Staffing \(sharepoint.com\)](#)

Includes information on the Facility Complexity Model [Pages - Facility Complexity Model \(sharepoint.com\)](#)

PBM (Pharmacy Benefits Management) [PBM Hub \(sharepoint.com\)](#)

EGT (Enterprise Geospatial Team) [Enterprise Geospatial Team \(sharepoint.com\)](#)





Requesting Data Access

Overview

VHA grants access to data and information systems based on how the data will be used. Data access request processes and types of data access granted (e.g., direct access, data extracts, read-only views) depend on the data access category.

How do I request data for research and operations purposes?

VHA maintains patient health information and other data used for a variety of purposes, such as program administration, healthcare quality improvement, program evaluation, and research. Select a category below for information about requesting data access or consult the [Research vs Operations Decision Tool](#) for additional guidance.

- **Operations Access:** VHA employees and contractors require access to data and information systems for healthcare quality assessments, operational reporting, auditing, planning, forecasting, and general administrative duties.
- **Research Access:** VHA researchers with VA approved research protocols require access to data and information systems to conduct research.
- **Preparatory to Research Access:** VHA researchers preparing research proposals require access to data and information systems to determine the feasibility of a proposed study and to demonstrate its significance.

How do I request data access for Veteran Service Organizations?

Authorized VSO representatives require read-only access to electronic health records to help Veterans prepare claims for VA benefits for Veterans whom they hold a current Power of Attorney (POA). Visit the [Veteran Service Organizations Access](#) page for instructions for submitting a data access request.

Resources

- The following resources provide information on determining whether a VHA operations activity constitutes research
 - [Research vs Operations Decision Tool](#)
 - [Program Guide 1200.21: VHA Operations Activities That May Constitute Research](#) (Jan 2019)
- The [Ethical Principles for Access to and Use of Veteran Data](#) framework is intended to be applied by all parties who oversee the access to or the use of Veteran data, or who access or use Veteran data themselves in the context of all other specific clinical, technical, fiscal, regulatory, professional, industry and other standards.

APPENDIX III: VA DATA ACCESS

- If you click on “Data Access Overview” you will be taken to [Data Access Overview \(va.gov\)](#)
- Offers information on how to get research or operations access to VA data
- Includes a “Research or Operations Decision Tool” to help you decide which category a project falls into per VA rules and regulations
- The page also offers a short description each of research, operations and preparatory to research