



Database & Methods Cyberseminar Series

Meet VIREC: The Researcher's Guide to VA Data

December 3, 2018

Maria Souden, MSI, PhD

Acting Director, VA Information Resource Center





Database & Methods Cyberseminar Series

Informational seminars to help VA researchers access and use VA databases.

Topics

- VA data sources & data access systems
- Application of VA data to research and quality improvement questions
- Limitations of secondary data use
- Resources to support VA data use



FY19 Database & Methods Schedule

First Monday of the month* | 1:00pm-2:00pm ET

Visit HSR&D's
VIReC Cyberseminar
Archive to watch previous
sessions:
<https://www.hsrdr.research.va.gov/cyberseminars/catalog-archive-virec.cfm>

Visit our Education page
on the Internet to register
for an upcoming session:
www.virec.research.va.gov

To disseminate your work
or share suggestions for
future sessions, email
Hira Khan,
hira.khan@va.gov

Date	Topic
10/1/2018	Overview of VA Data & Research Uses https://www.hsrdr.research.va.gov/for_researchers/cyber_seminars/archives/video_archive.cfm?SessionID=3531
11/5/2018	Requesting Access to VA Data https://www.hsrdr.research.va.gov/for_researchers/cyber_seminars/archives/video_archive.cfm?SessionID=3540
12/3/2018	Meet VIReC
1/7/2019	VA Pharmacy Data https://attendee.gotowebinar.com/register/4736875706778090754
2/4/2019	Mortality Ascertainment & Cause of Death https://attendee.gotowebinar.com/register/1080818125004410370
3/4/2019	VA Medicare Data (VA/CMS) https://attendee.gotowebinar.com/register/2611881469612799746
4/1/2019	Race & Ethnicity Data https://attendee.gotowebinar.com/register/6380758840001084674

Additional topics TBA for May 2019 and beyond!

*Schedule shifts by one week in event of VA holiday.



Database & Methods Cyberseminar Series

Session 3 - Meet VIREC: The Researcher's Guide to VA Data

Provide an overview of VIREC, our products, our services, and our Web environments.

Today's objective

By the session's end, you should be able to...

1. Describe VIREC **activities and value** to the research & quality improvement communities.
2. Understand **key VIREC product types** and their use in supporting work with VA data.
3. Navigate **VIREC's web environments** and locate VIREC resources online.
4. Know where to go for **additional questions** and customer service.

Poll #1: Your role as a data user

- What is your role in research and/or quality improvement?
 - Investigator, PI, Co-I
 - Data manager, analyst, or programmer
 - Project coordinator
 - Other – please describe via the Q&A function



Poll #2: Your experience with VA data

How many years of experience do you have working with VA data?

- One year or less
- More than 1, less than 3 years
- At least 3, less than 7 years
- At least 7, less than 10 years
- 10 years or more



Session roadmap for Meet VIREC

- Who are we & what do we do?
 - Staff & mission
 - Relationship to VINCI
- Areas of activity
 - Improving the data environment
 - Special projects
 - Data knowledge & dissemination
- VIREC products & websites (tour)
- Where to go for more help

Who is VIREC?

Core Staff

Name	Key Areas
Chandrea Culbreath, MPH, BSN <i>Customer Svc Lead</i>	Dissem, QUERI, Clinical Data, Informatics
Kristin de Groot, MPH <i>VA/CMS Technical Dir</i>	Data Services, Data Translation, OMOP
Margaret Gonsoulin, PhD <i>Associate Director</i>	Goal 1 Lead, Ops, CDW, Methods, QUERI, EHRM
Meghan Grum, MS <i>Coordinator</i>	Admin, VA/CMS Requests, Travel
Dolores Ippolito <i>Coordinator</i>	VA/CMS Requests, Real SSN, Admin, IRB
Lindsey Jones, MPH <i>Analyst</i>	Data Translation, CDW
Melissa Joyce, MPH <i>Administrative Officer</i>	Ops, Admin, QUERI, VA/CMS Policy, Records
Donghui Kan, MS <i>Analyst</i>	VA/CMS Repository & Data Services
Hira Khan, MPH <i>Education Lead</i>	Dissem, Forums, Web, Info Design, Admin

Name	Key Areas
Linda Kok, MA <i>Data Policy & Access</i>	Goal 3 Lead, Real SSN, Data Systems & Sharing
Bonnie Paris, PhD <i>VA REDCap Lead</i>	Forums, Data Translation, Pharmacy
Dharani Ramanathan, MPH <i>Analyst</i>	Data Translation, CDW, Data Services, Analysis
Maria Souden, PhD <i>PI/Acting Director</i>	Goal 2 Lead, Ops, QUERI, VA/CMS, Forums PI
Jenifer Stelmack, MSW <i>Dissemination Lead</i>	Forums Lead, Web, Editing, COR
Amanda Taylor, PhD <i>VA/CMS Project Mgr</i>	VA/CMS Requests & Policy, ACE, Data Trans
Katrine Weismantle, MSW <i>Coordinator</i>	VA/CMS Requests
Puling Zhang, MA <i>Analyst</i>	VA REDCap, Data Translation, Admin
Qiuying (Lucy) Zhang, MS <i>Analyst</i>	VA/CMS, ACE, Data Services, Analysis

IPAs & Scientific Advisors

Akanksha Aggarwal	Forums, Usability, Analytics, Data Science
Peter Addy, PhD	VA REDCap, Primary Data Collection
Cathy Blake, PhD	Informatics, Data Sci, Info Retrieval, Forums
Ramon Durazo-Arvizu, PhD	Statistical Consulting & Analysis

Charlesnika Evans, PhD, MPH	Health Services Research, Microbiology Data, Epi
Joo Ho Lee	Forums, Analytics, NLP
Denise Hynes, PhD, MPH, RN	Community Care, VA/CMS
Sethi, Shivankit	Forums, User Experience Design, User Testing

What do we do?

Mission

To advance VA capacity to use data effectively for research and quality improvement and to foster communication between data users and the VA healthcare community.

Activities

DEVELOP

data knowledge and methods

Factbooks and User Guides
 Summary information
 Technical documentation
 Cyberseminars
 (hosted by CIDER)

DISSEMINATE

data knowledge

Intranet website
 VHA Data Portal
 (collaboration with NDS & VINCI)
 HelpDesk 1:1 consultation
 HSRData Listserv

IMPROVE

data access and availability

Advocate on national
 committees & workgroups
 Real SSN request reviews
 VA/CMS* Data for Research
 VA REDCap**

*VA/CMS = Veteran data from Centers for Medicare & Medicaid

** VA REDCap = VA Research Electronic Data Capture

VIReC Mission and Areas of Activity

Mission

To advance VA capacity to use data effectively for research and quality improvement and to foster communication between data users and the VA healthcare community.

Activities

DEVELOP

data knowledge and methods

Factbooks and User Guides
 Summary information
 Technical documentation
 Cyberseminars
 (hosted by CIDER)

DISSEMINATE

data knowledge

Intranet website
 VHA Data Portal
 (collaboration with NDS & VINCI)
 HelpDesk 1:1 consultation
 HSRData Listserv

IMPROVE

data access and availability

Advocate on national
 committees & workgroups
 Real SSN request reviews
 VA/CMS* Data for Research
 VA REDCap**

*VA/CMS = Veteran data from Centers for Medicare & Medicaid

** VA REDCap = VA Research Electronic Data Capture

What is the relationship
between VIREC and VINCI?

VA Informatics and Computing Infrastructure



- Secure data environment
- High-speed processing platform
- Workspace with data management and analytic tools
- Tool development – NLP, chart review, cohort, and PTR
- VINCI services – data provisioning, concierge

VINCI Central Website

<http://vaww.vinci.med.va.gov/vincicentral/> (VA Intranet)

VIReC & VINCI Commonalities

Similar Services

- Information about data contents and availability
- Education and training on respective topics
- Help with specific data use issues and problems
- Data advocacy and availability

Collaborative Projects

- Specific education and outreach initiatives
- **Data Access Request Tracker** improvements
- Data centralization
- National Committees, e.g., EHRM
- Policies for data sharing and re-use (with ORD)
- VA/CMS – OMOP data transforms

Complementary roles supporting CDW data use

BISL

Business
Intelligence
Service Line

Data Architects

Build the data
warehouse that
organizes data
Host derived data
sets on CDW
servers
Update, maintain

NDS

National Data
Systems

Data Steward

Grants access to
CDW data
Appropriate use
and oversight
Policy and
permissions focus

VINCI

VA Informatics
& Computing
Infrastructure

Provisioning & Working with Data

Creates subsets
of CDW data for
approved projects
Maintains
workspace & tools
for using data

VIReC

VA Information
Resource
Center

Data Knowledge & Education

Documents CDW
domains
Creates
methodological &
technical guides
HelpDesk &
listserv

Session roadmap for Meet VIReC

- Who are we & what do we do?
 - Staff & mission
 - Relationship to VINCI
- Areas of activity
 - Improving the data environment
 - Special projects
 - Data knowledge & dissemination
- VIReC products & websites (tour)
- Where to go for more help

VIReC Mission and Areas of Activity

Mission

To advance VA capacity to use data effectively for research and quality improvement and to foster communication between data users and the VA healthcare community.

Activities

DEVELOP

data knowledge and methods

Factbooks and User Guides
 Summary information
 Technical documentation
 Cyberseminars
 (hosted by CIDER)

DISSEMINATE

data knowledge

Intranet website
 VHA Data Portal
 (collaboration with NDS & VINCI)
 HelpDesk 1:1 consultation
 HSRData Listserv

IMPROVE

data access and availability

Advocate on national
 committees & workgroups
 Real SSN request reviews
 VA/CMS* Data for Research
 VA REDCap**

*VA/CMS = Veteran data from Centers for Medicare & Medicaid

** VA REDCap = VA Research Electronic Data Capture

III. Improve the data environment

We **collaborate with VA data stewards and program offices** to enhance **data availability** and to **address issues** affecting research that uses data and information systems.

- ✓ Increase available data
- ✓ Streamline data access
- ✓ Improve time to “got my data”
- ✓ Support data re-use
- ✓ Educate on data policy

Special projects to enhance data environment

- VA/CMS Data for Research- repository, provisioning, governance
- OMOP mapping of VA/CMS data
- Manage and support VA REDCap The REDCap logo is a red circle containing a white stylized icon of a red cap.
- Review of research requests for data with Real SSNs for ORD

National committees & workgroups

- **Electronic Health Record Modernization**, aka Cerner transition
(data availability, access)
- **Data Access Request Tracker (DART)** workgroup
(data availability, access, timeliness)
- **Capability management and governance** boards (data availability)
- 1200.12 revisions with **Office of Research & Development**
(data governance, re-use)
- **Research Data Repositories**
(data governance, re-use)
- Work with **data stewards, program offices** on behalf of research and QI data users
(data availability, access, timeliness, re-use)

Goal III Exemplar: VIREC Participation in Electronic Health Record Modernization (EHRM)

Maintaining our Mission in a Shifting Environment

Cerner's Impact on Data Users

- Data availability & use: TBD which Cerner data will be sent back to VA and in what form
 - National reports and datasets may be incomplete once the first location goes to Cerner
- Cerner data will differ in content, organization and structure, so data users will need:
 - Documentation of the mapping of VA data to Cerner HealthIntent
 - Definitions of VA Cerner data domains, tables, columns etc.
 - Information about Cerner's EHR for chart review purposes
- End users will likely need new technical skills / computer skills, such as: R, Python & SQL (on HP Vertica Analytics Platform)

VIReC EHRM Participation

Chief Medical Office (CMO) Side – Functional Req'ts

- Quality, Safety & Value Clinical Council Detail – Research Workgroup
- Reports, Registries, & Research Data Collaborative
- Regulatory Workgroup

Technology Innovation Office (CIO) Side – Technical Req'ts

- Data Migration & Management Group Detail
- Data Resources & Analytics Capabilities Management Board, Data Subcommittee
- VA/DoE Enterprise Architecture Workgroup
- Research & Education Capabilities Management Board

Planning for the Future

VIReC plans to transform this participation into:

- Advocacy for the needs of research and quality improvement data users
- A strategic plan renewal that lines up with the first Cerner site in 2020
- Potential VIReC products that tell the community about:
 - The mapping of VA data to Cerner data models
 - Documentation of the content and meaning of Cerner data
 - Lessons about getting started with R statistical programming

VIReC Mission and Areas of Activity

Mission

To advance VA capacity to use data effectively for research and quality improvement and to foster communication between data users and the VA healthcare community.

Activities

DEVELOP

data knowledge and methods

Factbooks and User Guides
 Summary information
 Technical documentation
 Cyberseminars
 (hosted by CIDER)

DISSEMINATE

data knowledge

Intranet website
 VHA Data Portal
 (collaboration with NDS & VINCI)
 HelpDesk 1:1 consultation
 HSRData Listserv

IMPROVE

data access and availability

Advocate on national
 committees & workgroups
 Real SSN request reviews
 VA/CMS* Data for Research
 VA REDCap**

*VA/CMS = Veteran data from Centers for Medicare & Medicaid

** VA REDCap = VA Research Electronic Data Capture

I. Develop data knowledge & data methods

We **use** the data and **collaborate** with experts in the field to create a **knowledge base of factual and evaluative information** about VA data and information systems.

- ✓ Data content and structure
- ✓ Context of collection
- ✓ How it's been transformed, organized
- ✓ How to work with it, strengths and limitations

II. Disseminate & share knowledge

We **disseminate information** that enables researchers to maximize the power of VA data and information systems and **facilitate knowledge sharing** among the data user community.

- ✓ Produce data knowledge products
- ✓ Internet & Intranet Websites
- ✓ VHA Data Portal (cross-office collaboration)
- ✓ HelpDesk 1:1 consultation
- ✓ HSRData Listserv & Forums

Session roadmap for Meet VIREC

- Who are we & what do we do?
 - Staff & mission
 - Relationship to VINCI
- Areas of activity
 - Improving the data environment
 - Special projects
 - Data knowledge & dissemination
- VIREC products & websites (tour/screenshots)
- Where to go for more help

VIReC Websites & Products - Screenshots

(see archived video for Live Tour)

vaww.virec.research.va.gov

VA network only
 News & new resources
 Resources for working with data

vaww.vhadataportal.med.va.gov

VA network only
 Collaborative with NDS & VINCI
 Data source & access information

www.virec.research.va.gov

Public-facing VIREC overview
 Publications & events
 Cyberseminars

Health

Benefits

Burials & Memorials

About VA

Resources

News Room

Locations

Contact Us



The Researcher's Guide to VA Data

VA Information Resource Center

VIREC Home

About Us

VIREC Resources

Support

Research in the VA

Search VIREC's Site

Go

VA Health Services Research & Development Service



Assisting VA Researchers

Non-VA Researchers

Education

Information for Non-VA Researchers

Learn about research. More...

VIREC overview
Cyberseminars
Publications & events
Public-facing

Welcome to our Internet website.

Looking for VIREC's resources for VA researchers? Visit our Intranet site. [Learn more...](#)

Who We Are

VIREC is an HSR&D funded resource center. Our mission is to advance VA capacity to use data effectively for research and quality improvement and to foster communication between research improvement and to foster

Announcements

VIREC Good Data Practices 2017
It's not too late to check out VIREC's Good Data Practices Series! Learn about best practices in data use and management in this popular cyberseminar series.

Upcoming Events

October 02: Overview of VA Data, Information Systems, National Databases and Research Uses
October 17: Making Laboratory Data Accessible: Pitfalls and Solutions in

VIREc INTRANET

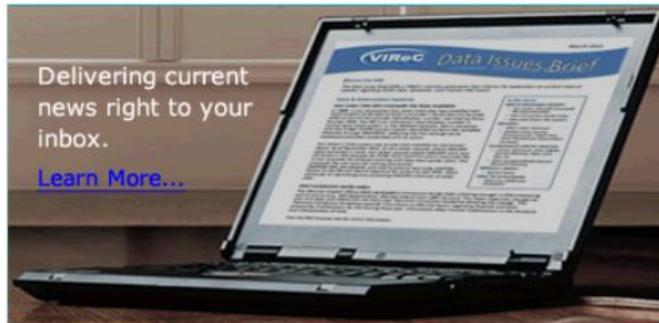
Search All VA Web Pages Search

[» Open Advanced Search](#)

[Report Broken Link](#)

VA INFORMATION RESOURCE CENTER (VIREc)

- VIREc Home
- VA/CMS Home
- About Us
- New Users of VA Data
- FAQs
- Acronyms
- HelpDesk
- Report Broken Link



[Data Issues Brief, September 2017](#)

[Upcoming Cyberseminars](#)

[Real SSN Data Request Process](#)

[VA REDCap Project](#)

[Data Tip of the Month](#)

Resources for working with data

Data news

New VIREc products

VA network only

CONVERSATIONS ABOUT VA DATA

HSRData Listserv

CURRENT VA DATA NEWS

Data Issues Brief

EXPERIENCES FROM THE FIELD

Researcher's Notebook

GATEWAY TO DATA RESOURCES

VHA Data Portal

New from VIREc

[New CDW Factbooks](#)
The latest CDW Factbooks contain technical, clinical, and/or procedural descriptions of tables, columns, and values.

- [LabChem 2.0 Domain](#)
- [Inpatient 3.0 Domain \(Part I - Inpatient\)](#)

[The Researcher's Notebook #9](#)
This issue is devoted to clarifying the diverse content found in the records of the three main tables of CDW's Outpatient Domains: Outpat.Visit, Outpat.Workload and Outpat.VisitLogic.

[The Researcher's Notebook #8](#)
This issue acts as a SQL guide for creating an analytic dataset defined by CPT codes and stop codes.

VIREc Resources

[Learn about VA data:](#)

- Data Sources
- Data Topics
- Data Tools

[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.



VA INFORMATION RESOURCE CENTER (VIREC)

[VIREC Home](#)
[About Us](#)
[VA/CMS Data for Research](#)
[VHA Data Portal](#)
[New Users of VA Data](#)
[FAQs](#)
[Acronyms](#)
[HelpDesk](#)
[Report Broken Link](#)
[How are we doing?](#)

CDW Documentation

Overview

CDW documentation is designed to help new and seasoned CDW users with understanding the structure and contents of the CDW.

Sign-up for VIREC product news and updates. Email the VIREC [HelpDesk](#) to receive notification of VIREC's new CDW products and product updates.

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

Data Documentation

Expand each type of documentation below to view these resources.

+ Expand All

- + [Getting Started with CDW](#)
- + [Factbooks](#)
- + [The Researcher's Notebook](#)
- + [Statistical Snapshot](#)
- + [Domain Layout & Descriptions](#)
- + [Data Contents, Discrete Frequencies, Record & Null Counts](#)

<http://vaww.virec.research.va.gov/CDW/Documentation.htm>
 (VA Intranet)

CDW

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

ICD-10 Implementation

Visit the "CDW ICD-10 Implementation" page to learn more.

General Resources

- + [Data Access](#)
- + [Data Sources](#)
- + [Data Tools](#)
- + [Data Topics](#)
- + [Products & Services](#)
- + [Special Projects](#)

Factbook

VIReC Factbook

Corporate Data Warehouse (CDW)

Outpatient 2.1 Domain

September 2016



Part 3. Clinical Context

According to the *Outpatient Domain Release Document* [28], the primary fact table `Outpat.Visit` contains records from three VistA files: `Visit` (#9000010) file, `Outpatient Encounter` (#409.68) file and the `Patient (2)` file. The VistA file `Visit` (#9000010) is a collection of care and non-care records related to patients and non-patients that

Part 4. Table and Column Descriptions

Part 4 describes each table in the Outpatient 2.1 Domain and selected columns within each table. It is organized by table. The name of the table is presented in large font with a description of its general content immediately following. After each table description, selected columns within that table are described. Table 1 summarizes the various parts of the column descriptions.

Table 1. Content of Column Descriptions

Part 5. Primary and Foreign Key Connections Query

Once you have been granted access to CDW data, this query can be used to generate an up-to-date list of primary and foreign keys associated with this domain.

```
SELECT TOP 1000 [FKSchemaName]
```

Part 6. Example SQL Code for Basic Research Question

This section contains a series of simple research questions that are answered by applying basic SQL queries to the data in this domain. The three research questions include:

- How does `Outpat.Visit` compare to `Outpat.Workload`, in terms of number of records?
- What appointment status is associated with visits at my station last month?
- What are the 10 most common primary diagnoses for outpatient encounters at my station last month?

Question 1. How does `Outpat.Visit` compare to `Outpat.Workload`, in terms of number of records?

```
SELECT COUNT (VisitSID) TotalNumVisitsInJan
FROM CDWork.Outpat.Visit
WHERE VisitDateTime >= CONVERT (DATETIME2(0), '1/1/2015')
AND VisitDateTime <= CONVERT (DATETIME2(0), '1/31/2015') ;
```

TotalNumVisitsInJan

17,652,832

```
SELECT COUNT (VisitSID) as TotalWorkloadVisits
```

The Researcher's Notebook

How do I identify the bed sections for my cohort?

Introduction

This Researcher's Notebook is intended to provide logical steps for identifying Corporate Data Warehouse (CDW). The bed section is commonly referred to type of inpatient service provided and helps categorize the type of care provided. A patient may move from one specialty to another during the inpatient stay. This notebook provides various bed section stays a patient experienced during an inpatient stay.

Step 1 | Become Familiar with the Terminology and Data

These are some terms that used in this notebook:

- Specialty – type of inpatient service, or bed section (e.g. Medicine, Surgery)
- BedSection – type of inpatient service, or specialty (e.g., Medicine, Surgery)
- Treating Specialty – subsection of the specialty (e.g. Cardiology, Surgical ICU)
- PTF Code – "Specialty Code" (e.g., 72 = "ALCOHOL DEPENDENCE TRMT UNIT")
- Inpatient stay – complete stay from admission to discharge (made up of 1 or more bed section stays)
- Bed section stay – duration in a particular specialty or bed section
- LOS in Service – length of stay in a specialty or bed section
- Vista 501 Movement – specialty transfer/bed section movements
- Vista 535 Movement – physical transfer/ward transfer movements (e.g. "1 North")

Step 2 | Understand the Logic of the CDW Inpatient (Inpat) Tables

It is first necessary to understand how and when the information about bed section is entered into the various tables found in the inpatient domain. This understanding of the data has been inductively reasoned via the presence of a LosingSpecialtySID in Inpat.Inpatient and Inpat.SpecialtyTransfer.

- Inpatient data is not populated in the Inpat.Inpatient and Inpat.SpecialtyTransfer until the patient is discharged from the hospital (inpatient stay ends). Upon discharge from the last bed section (and thus the hospital) the data will be populated in these CDW tables.

Step 3 | Identify the Tables/Views and Columns Needed

- SPatient.SPatient is used to identify individual patients and eliminate known and probable test patients; the columns used in this process include: PatientSSN, PatientSID and CDWPossibleTestPatientFlag.
- Dim.Specialty is needed to identify the specialty's code and description; the following columns Specialty and PTFCode will be used.

Step 5 | Write SQL Queries

Step 5 provides basic code to identify bed section records of interest.

5.1 Select bed section stays from Inpat.Inpatient (last or only bed section of discharged patients only)

The following SQL query selects bed section stays of interest (in this example bed section code 72, 73, and 74) from the Inpat.Inpatient table. This is done by selecting the appropriate columns from the Inpat.Inpatient

```
--Inpat.SpecialtyTransfer Records
SELECT
    st.InpatientSID,
    st.PatientSID,
    st.AdmitDateTime, -- same as below if bed section stay is also the first bed section stay
    SpecialtyTransferDateTimeIn=DATEADD(DAY, st.LOSInService*-1, st.SpecialtyTransferDateTimeIn)
    -- DATEADD back calculates start
    st.SpecialtyTransferDateTime as SpecialtyTransferDateTimeOut,
    sp.Specialty,
    sp.PTFCode,
    st.LOSInService,
    InpatCensus='I' -- Flag source
INTO [personal schema].sabuseBSinpat501
FROM Inpat.SpecialtyTransfer st
INNER JOIN Dim.Specialty sp
ON (st.LosingSpecialtySID=sp.SpecialtySID) -- The name of PK and FK differ !!!
WHERE (sp.PTFCode in ('72', '73', '74')) and
    st.LosingSpecialtySID is not null and
    st.LOSInService is not null /* -- ignore rows w/ Treating Specialty change but
    no Specialty changes */

;
```

New to CDW?

[-] Getting Started with CDW

These cyberseminars are designed to help new CDW users with understanding the nature of relational data, becoming familiar with CDW structure and logic, finding documentation of CDW content, and knowing what to expect when first viewing CDW data in SQL Server Management Studio (SSMS) software.

Resources	Released	 Resource
CDW: A Conceptual Overview	Mar 2017	
CDW: Locating Its Documentation	Apr 2017	
Getting the Information You Need From CDW: SQL Starter Language	Jan 2015	
NEW! Querying CDW Metadata Views	May 2018	
Building Your Dataset in CDW: Joining Tables within a Domain	Jul 2015	
Getting CDW Back Together: Joining CDW Tables (Continued)	Oct 2016	
Data Management in SQL: Selected Intermediate SQL Skills	Oct 2016	

<http://vaww.virec.research.va.gov/CDW/Documentation.htm>

Email virec@va.gov to be notified of new CDW products and seminars.


INTRANET

[» Open Advanced Search](#)

VA INFORMATION RESOURCE CENTER (VIREC)

VIREC Home

About Us

VA/CMS Data for Research

VHA Data Portal

New Users of VA Data

FAQs

Acronyms

HelpDesk

Report Broken Link

How are we doing?

Medical SAS Datasets Documentation

Overview

VIREC's documentation on the Medical SAS Inpatient, Inpatient Encounters, and Outpatient Datasets is intended to help new and seasoned data users with understanding the content and variables in these datasets.

Data Documentation

Expand each type of documentation below to view these resources.

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

- Research User Guides**
- Data Contents**
- Frequencies**
- Historical Variable Attributes**
- Historical Stop Codes**

Medical SAS Datasets

- [Overview](#)
- [Inpatient](#)
- [Inpatient Encounters](#)
- [Outpatient](#)
- [Documentation](#)

ICD-10 Implementation

Visit the "ICD-10 Implementation" page to learn more.

General Resources

- [Data Access](#)
- [Data Sources](#)
- [Data Tools](#)
- [Data Topics](#)
- [Products & Services](#)
- [Special Projects](#)

[VIREC Home](#) | [VA/CMS Home](#) | [VHA Data Portal](#) | [VA R&D Home](#) | [VA HSR&D Service](#) | [Viewers](#) | [Sitemap](#) | [Contact Us](#)

<http://vaww.virec.research.va.gov/MedSAS/Documentation.htm>

(VA Intranet)

VIReC Research User Guide

Fiscal Year 2014 VHA Medical SAS

May 2015

2.1 Background

VA health care facility staff members across the United States and Puerto Rico enter patient care information into Veterans Health Information Systems and Technology Architecture (Vista), the main information collection and data management system in the Veterans Health Administration (VHA). A select set of data collected during patient health care occasions are entered in local health care facilities Vista systems and then electronically transferred from each local Vista system upon discharge of a patient or upon collection of quarterly census data only to a centralized Patient Treatment Master File (PTF) maintained at the Austin Information Technology SAS Dataset

National Data and provides project coordination data progress

Figure 1. D: Inpatient D



3.1 List of Variables & their Dataset Locations

This section lists variables and their dataset locations for the fiscal year (FY) 2014 VHA Medical SAS Inpatient Acute Care Main, Bed Section, Procedure and Surgery Datasets. An X in the frequency column indicates VIReC provides additional summary information for this variable in *VIReC Select Variable Frequencies: Medical SAS Datasets, FY2000–2014* [16].

Table 5 provides a short definition of each variable and reports their presence in the FY2014 Inpatient Acute Care Datasets.

Table 5. FY2014 VHA Medical SAS Inpatient Variables and their Dataset Locations

SAS Name	Definition	Main	Bed Section	Surgery	Procedure	Frequency
ABO	Number of days a patient was out of the hospital on pass during an inpatient stay	X				
ADMITDAY	Date of admission of the inpatient stay	X	X	X	X	

Variable Name: ABO

Definition: Number of days a patient was out of the hospital on pass during an inpatient stay

Remarks: This variable is used in the calculation of the LS (number of bed days for the entire episode of care) variable. Chapter 10, "Absences," of the *VHA Manual of Policies (M-1), Operations: Part I, Medical Administration Activities* [17] provides guidelines for granting of authorized absences. Section 10.08 of this manual indicates that an authorized absence for hospital patients may not exceed 96 hours. The 96-hour limit applies to the variables PASS and PASSB. This section suggests that ABO is reserved for absences greater than 96 hours.

Data Type	Numeric
Print Format	None
Label	ABSENT BED OCCUPANT DAYS
Variable Availability in Medical SAS Datasets: Fiscal Years (FY)	Acute Main: FY1970 – to date
Vista Data Source	PTF (45) file, ASIH field



[» Open Advanced Search](#)

VA INFORMATION RESOURCE CENTER (VIREC)

<ul style="list-style-type: none"> VIREC Home About Us VA/CMS Data for Research VHA Data Portal New Users of VA Data FAQs Acronyms HelpDesk Report Broken Link How are we doing? 	<h2 style="margin: 0;">Pharmacy</h2> <h3 style="margin: 0;">Overview</h3> <p>Pharmacy data are available from multiple sources within the VA, including VA's Managerial Cost Accounting (MCA) System (formerly Decision Support System or DSS) , Pharmacy Benefits Management (PBM), and Corporate Data Warehouse (CDW). VistA is the pharmacy data source for MCA, PBM, and CDW data.</p> <p>VIREC's cyberseminar on Examining Veterans' Pharmacy Use with VA and Medicare Pharmacy Data by Walid Gellad, MD, MPH describes the use of pharmacy data in research.</p> <h3 style="margin: 0;">PHA MCA NDE</h3> <p>The Pharmacy Managerial Cost Accounting National Data Extract (PHA MCA NDE) contains pharmacy cost and workload data from FY2005 through the current year. The PHA NDE comprises 55 data elements organized in the DSS.PHA table on the VHA Corporate Data Warehouse (CDW) Raw Server.</p> <p>VIREC's guide to the PHA MCA NDE provides a detailed description of pharmacy dispensing and medication return data currently available in the PHA NDE. Visit the "MCA NDEs Documentation" page for more information about the PHA MCA NDE.</p> <h3 style="margin: 0;">CDW</h3> <p>The CDW is a national repository comprising data from VistA and several other VHA clinical and administrative systems. CDW data are organized into domains. CDW pharmacy data are in the Pharmacy, Outpatient domain. More information about the CDW is available from VIREC's "CDW" page.</p> <h3 style="margin: 0;">PBM</h3> <p>The PBM database is a national database containing records for prescriptions dispensed in the VHA, including VHA's Consolidated Mail Outpatient Pharmacy. More information about the PBM database is available from VIREC's "PBM Database" page.</p> <p>Learn more about PBM data in VIREC's Research User Guide: VHA Pharmacy Prescription Data, 2nd Edition. Refer to VIREC's guide to the Pharmacy Managerial Cost Accounting National Data Extract (PHA MCA NDE) for information about MCA pharmacy data.</p> <h3 style="margin: 0;">VistA</h3> <p>VistA's Computerized Patient Record System (CPRS) contains electronic health record data from all VA treatment settings, including outpatient, inpatient, and long term care. Researchers can access pharmacy data contained in individual patient records. More information about VistA is available from VIREC's "VistA" page.</p>	<div style="background-color: #e0e0e0; padding: 5px; border: 1px solid #ccc;"> General Resources </div> <ul style="list-style-type: none"> Data Access Data Sources Data Tools Data Topics Products & Services Special Projects
--	---	--

<http://vaww.virec.research.va.gov/Pharmacy/Overview.htm>
(VA Intranet)

VIREC INTRANET

Search All VA Web Pages [Open Advanced Search](#)

VA INFORMATION RESOURCE CENTER (VIREC)

VIREC Home
 VA/CMS Home
 About Us
 Updates
 Publications
 Education
 FAQs
 Help

VA/CMS DATA FOR RESEARCH

Learn More About the VA/CMS Project

New: VA/CMS Statistical Snapshot

New: Bibliography of VA & CMS Publications

VA/CMS Data Currently Available

Data Requests

[At a Glance](#): Learn about requesting VA/CMS repository and non-repository data.

[Pre-Request Consultations](#): A recommended step for researchers who are planning on submitting a request.

[Standard Data Request Process](#): Used to request data from the VA/CMS Data Repository, includes an overview of the process, timeline, and cost information.

[Special Data Request Process](#): Used to request VA/CMS non-repository data, includes an overview of the process, timeline, and cost information.

VA/CMS Repository Data

[Understanding Repository Data](#): Information about data maintained in the VA/CMS Data Repository and access point for detailed information on each data type (e.g. [Medicare](#) (including Part D Slim File), [Medicaid](#), [Assessment](#), [HEDIS](#), [MCBS](#), [USRDS](#), [VA/CMS Match Indicator File](#)).

[Cohorts and Identifiers](#): Description of the different cohorts and identifiers available for Veterans and Non-Veterans. Information on the VHA Cohort is available on the [Cohorts and Identifiers Details](#) page.

[Data Documentation](#): Current and historical information about dataset variables, counts, frequencies, and more.

Current Users of VA/CMS Data

[Continuing Use](#): Outlines the requirements for projects that have an active VA/CMS Data Use Agreement.

[Terminating Use](#): Provides the VA/CMS data retention policy and required steps for terminating data use.

[Regulations](#) for research use of VA/CMS data.

Other CMS Data for VA Research Use

[VA/CMS Non-Repository Data](#): Overview of non-repository data including types of data, available cohorts and identifiers, availability and access information.

[CMS Public Use Data and Summary Information](#) (including [Provider data](#)): Overview of public use data including available summary information.

<http://vaww.virec.research.va.gov/Index-VACMS.htm>

(VA Intranet)



VIREC Statistical Snapshot

September 2018

Veterans' Type of Medicare Enrollment in September 2016

Overview

VIREC has developed these tables as a resource to researchers interested in studying Veterans' type of Medicare enrollment, including Parts A and B, fee for services (FFS) and managed care. These tables include Veterans who were enrolled in Veterans Health Administration (VHA) and Medicare in September 2016. We chose to focus on a single month because a person's Medicare enrollment can change over time. Enrollment counts are broken down by age, sex, VA enrollment priority group, and state of residence.

Methods

Veterans enrolled in VHA in September 2016 were identified using the FY2016 VHA Assistant Deputy Under Secretary for Health (ADUSH) Enrollment file¹. Patients in the Enrollment file who were classified as 10,467,543 Veterans enrolled in VHA in September 2016.

From the 2016 Medicare Master Beneficiary Summary File Base file and the ADUSH FY2016 file by VA's Scrambled SSN. We matched 5,265,511

Enrollment groups³ were defined as:

- **Managed care** – Enrollees in a Medicare Advantage managed care plan
- **Part A and B FFS** – Enrollees in Medicare Part A and Part B and HMOIND09=0 or 4)
- **Part A only FFS** – Enrollees in Medicare Part A only and not in a managed care plan (HMOIND09=0 or 4)

Enrollment Priority Group	Managed Care	Part A and Part B FFS	Part A only FFS	Part B only FFS	Total
	Row Percent				N
Group 5	28.51	53.38	17.96	0.15	994,755
Group 6	26.70	58.91	14.36	0.03	271,753
Groups 7A, 7C	33.38	58.18	8.40	0.04	243,457
Groups 8A - 8D	30.16	62.18	7.63	0.04	1,043,146
Groups 8E & 8G	31.36	61.58	7.01	0.05	434,465
Missing	22.07	67.02	10.15	0.76	109,475

Table 3: Type of Medicare Enrollment for Veterans Enrolled in VHA during September 2016, by sex

Sex	Managed Care	Part A and Part B FFS	Part A only FFS	Part B only FFS	Total
	Row Percent				N
Female	18.69	66.02	14.97	0.32	232,125
Male	25.57	60.63	13.74	0.07	5,033,442

Table 4: Type of Medicare Enrollment for Veterans Enrolled in VHA during September 2016, by age as of 9/30/16

Age	Managed Care	Part A and Part B FFS	Part A only FFS	Part B only FFS	Total
	Row Percent				N
Age <55	10.28	62.91	26.81	0.01	191,568
Age 55-64	17.96	56.91	25.13	0.01	378,263
Age 65-74	23.88	58.05	17.98	0.09	2,681,854
Age 75-84	30.19	63.90	5.84	0.07	1,283,959
Age 85+	29.40	67.37	3.07	0.16	729,923



Home About Us Contact Us FAQ Report Broken Link

Department of Veterans Affairs
VHA Data Portal

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 design has recently changed to help get you the information you need. Each one of the badges below links to access information and other relevant resources for a particular data use need, or use the new top navigation menu to locate resources by category. [Tell us what you think.](#)



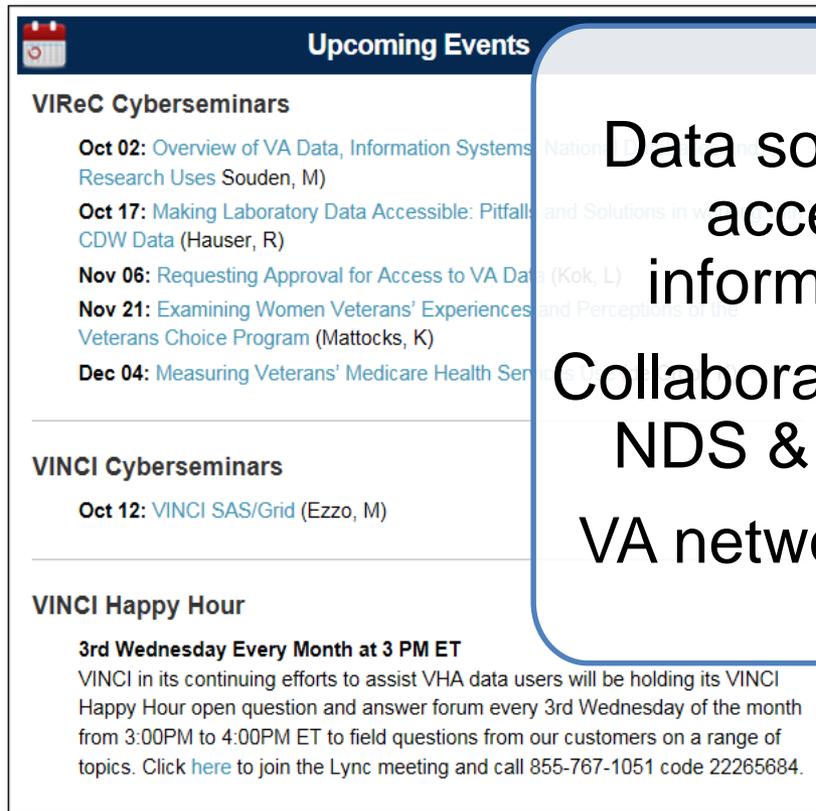
New Data User



Research



Operations & Quality Improvement



Upcoming Events

VIReC Cyberseminars

- Oct 02:** Overview of VA Data, Information Systems National Research Uses (Souden, M)
- Oct 17:** Making Laboratory Data Accessible: Pitfalls and Solutions in CDW Data (Hauser, R)
- Nov 06:** Requesting Approval for Access to VA Data (Kok, L)
- Nov 21:** Examining Women Veterans' Experiences and Perceptions of the Veterans Choice Program (Mattocks, K)
- Dec 04:** Measuring Veterans' Medicare Health Services

VINCI Cyberseminars

- Oct 12:** VINCI SAS/Grid (Ezzo, M)

VINCI Happy Hour

3rd Wednesday Every Month at 3 PM ET

VINCI in its continuing efforts to assist VHA data users will be holding its VINCI Happy Hour open question and answer forum every 3rd Wednesday of the month from 3:00PM to 4:00PM ET to field questions from our customers on a range of topics. [Click here](#) to join the Lync meeting and call 855-767-1051 code 22265684.

Data source & access information
Collaborative with NDS & VINCI
VA network only

VA Data Portal Index of Available Data Sources

Home About Us Contact Us FAQ Report Broken Link

Department of Veterans Affairs
VHA Data Portal

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

Data Sources Overview
ADUSH Enrollment File
AIRC Mainframe
BIRLS Death File
CDW
HERC Cost Data
Homeless Registry
LCSDP Cohort
MCA (formerly DSS) NDEs
MCA (formerly DSS) Web Reports
Medical SAS Inpatient & Outpatient Data Sets
NPCD
OEF/OIF/OND Roster
OSOD
PACT Implementation Index (PII)

VHA Data Portal

edge-sharing culture that
he Portal integrates
single location to promote
facilitate a positive end-

users' needs.

igned to help get you the
edges below links to
sources for a particular
ation menu to locate
link.

er

portal.med.va.gov/DataSources/DataSourcesOverview.aspx

Upcoming Events

VIReC Cyberseminars

Jul 9: Phenotyping Physiologic Measurement of Lung Function in the VA EHR Using Automated Tools (Akgin, K)
Sep 10: Comorbidity Measures Using VA & CMS Data (Hynes, D)

VINCI Training Hour

VINCI in its continuing efforts to assist VHA data users holds the VINCI Training Hour open question and answer forum every 3rd Wednesday of the month at 3:00 PM Eastern to field questions from our customers on a range of topics. Click [here](#) to join the meeting and call 844-368-7954, code 249667084.

News

DART Data Request Memo Changes

Session roadmap for Meet VIREC

- Who are we & what do we do?
 - Staff & mission
 - Relationship to VINCI
- Areas of activity
 - Improving the data environment
 - Special projects
 - Data knowledge & dissemination
- VIREC products & websites (tour/screenshots)
- Where to go for more help

VIReC options for specific questions

HSRData Listserv

- Community knowledge sharing
- ~1,400 VA data users
- Researchers, operations, data stewards, managers
- Subscribe by visiting <http://vaww.virec.research.va.gov/Support/HSRData-L.htm> (VA Intranet)



HelpDesk

- Individualized support



virec@va.gov

(708) 202-2413

Quick links for VA data resources

Quick Guide: Resources for Using VA Data

<http://vaww.virec.research.va.gov/Toolkit/QG-Resources-for-Using-VA-Data.pdf> (VA Intranet)

VIReC: <http://vaww.virec.research.va.gov/Index.htm> (VA Intranet)

VIReC Cyberseminars: <http://www.virec.research.va.gov/Resources/Cyberseminars.asp>

VHA Data Portal: <http://vaww.vhadatportal.med.va.gov/Home.aspx> (VA Intranet)

VINCI: <http://vaww.vinci.med.va.gov/vincicentral/> (VA Intranet)

Health Economics Resource Center (HERC): <http://vaww.herc.research.va.gov> (VA Intranet)

CDW: <https://vaww.cdw.va.gov/Pages/CDWHome.aspx> (VA Intranet)

Archived cyberseminar: What can the HSR&D Resource Centers do for you?

http://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/video_archive.cfm?SessionID=101

Take-away points

1. VIREC is an HSR&D Resource Center dedicated to improving and supporting the use of VA data.
2. Our main enterprise is the production of knowledge about data and how to use it.
3. That knowledge is disseminated through our products, websites, and cyberseminars.
4. VIREC HelpDesk and the HSRData Forums are additional sources for data information and support.
5. We are dedicated to working collaboratively with other Centers, data stewards, program offices, and VACO to improve VA's data ecosystem.

Thanks for joining us!

Maria Souden, MSI, PhD

Acting Director

VA Information Resource Center

Hines VA Hospital

maria.souden@va.gov

virec@va.gov

708-202-2413



**Next session:
January 7, 2019**



Database & Methods Cyberseminar Series

VA Pharmacy Data

Bonnie Paris, PhD – VIREC

Walid Gellad, MD, MPH – CHERP Core Investigator, Pittsburgh VAMC

Register:

<https://attendeegotowebinar.com/register/4736875706778090754>

