

VINCI Data & Data Services

HSR&D Cyber Seminar

February 05, 2015



Agenda

- Quick VINCI Review
- VINCI Data
- VINCI Data Services
- Questions



Quick VINCI Review

- Secure analytical workspace for VA researchers
- High performance servers and storage
- Software tools, custom applications
- Access to data analysis software tools, SAS Grid
- RDP connection – Cloud computing
- Standard and development workspaces
- Large collection of VA datasets
- VINCI Data Managers to assist with project data needs



http://vaww.vinci.med.va.gov/vincicentral/default.aspx

The screenshot shows the VINCI Central website interface. At the top is a navigation bar with the VINCI Central logo and menu items: About, Using VINCI, Data, Guides, Support, and VINCI Workspace. A left sidebar contains sections for Applications (Data Access Request Tracker), Shortcuts (My Collaboration Sites, VINCI Workspace, VHA Data Portal, HSR&D, VIREC, HSRData-L Listserv), and a 'Just Ask a VINCI Concierge' section. Below the sidebar is a 'CRISP Security Scan Schedule' table. The main content area features a 'Home' header, the VINCI logo, and a mission statement. It includes four main action buttons: 'Learn About VINCI', 'I Want to Use VINCI', 'I Am a Current User', and 'Launch the VINCI Workspace'. A 'Did you know?' box is on the right, and an 'Announcements' section is at the bottom.

VINCI Central About Using VINCI Data Guides Support VINCI Workspace

Applications
Data Access Request Tracker

Shortcuts
My Collaboration Sites
VINCI Workspace
VHA Data Portal
HSR&D
VIREC
HSRData-L Listserv

Just Ask a VINCI Concierge

CRISP Security Scan Schedule
(scans slow down the VINCI system)

Jan. 5-11, 2015
Feb. 2-8, 2015
Mar. 2-8, 2015
Mar. 30-Apr. 5, 2015
Apr. 27-May 3, 2015
Jun. 1-7, 2015
Jul. 6-12, 2015
Aug. 3-9, 2015
Sep. 7-13, 2015

Home

VINCI
The mission of VINCI is to improve the healthcare of Veterans by providing researchers access to integrated national data sets and tools for analysis in a secure, high-performance computing environment. The vision of VINCI is to become VA researchers' preferred data source and data-processing environment.

Learn About VINCI
About VINCI Workspace Software Available Data

I Want to Use VINCI
Get a VINCI Workspace How to use VINCI

I Am a Current User
Support Training VINCI Guides SAS Guides FAQs

Launch the VINCI Workspace
UPLOAD files to Workspace DOWNLOAD files from Workspace

Did you know?
VINCI has 4,322 VINCI Workspace users as well as 1,667 research and 306 operations project data folders in the VINCI Workspace.

Announcements
(1 of 2) **Retiring SAS 9.3 Display Manager and Enterprise Guide 5.1 effective Jan. 31st from the VINCI Workspace**
In VINCI's continuing efforts to improve the VINCI environment, we have made available SAS 9.4 and Enterprise Guide 6.1 thus we will be retiring SAS 9.3 Display Manager and Enterprise Guide (EG) 5.1 effective January 31st. Please use SAS 9.4 and EG 6.1 going forward.

Contact Us | Site Map



VINCI Workspace



VA
Informatics and
Computing
Infrastructure

Welcome to VINCI Workspace
Standard and Development Workspaces

Announcements

[\(2 of 2\) Retiring R 3.1.0 effective Jan. 31st from the VINCI Workspace](#)

[In VINCI's continuing efforts to improve the VINCI environment, we have made available R 3.1.2 thus we will be retiring R 3.1.0 effective J](#)

[Standard Workspace](#)

[Development Workspace](#)

[Configuration](#)

[Request a Workspace](#)

[Help](#)

Important Instructions

Click **once** on any icon below to start the application.

When prompted to enter your login, please enter it in the form of **DomainName\Login**.

This site is only supported on the Internet Explorer browser with Java Script enabled.

If you are not able to see the application icons below, [click here](#) to access the VINCI Standard Workspace Desktop to access all applications.



 7-Zip File Manager	 Adobe Reader XI	 Altova XMLSpy	 ArcMap 10	 Explorer	 GATE 5.2.1 GUI	 GuardianEd... Removable Storage	 JMP Pro 10	 MATLAB R2011b	 Microsoft Access 2010
 Microsoft Excel 2010	 Microsoft InfoPath Designer	 Microsoft InfoPath Filler 2010	 Microsoft OneNote 2010	 Microsoft PowerPoint 2010	 Microsoft Word 2010	 Mozilla Firefox	 MySQL Query Browser	 Notepad++	 NVivo 8
 Protégé 3.3.1 (Knowtator)	 Protégé 3.4.8 (Knowtator)	 R x64 3.1.0	 R x64 3.1.2	 RStudio	 SAS 9.3	 SAS 9.4	 SAS Enterprise Guide 5.1	 SAS Enterprise Guide 6.1	 SAS Grid Enterprise Miner
 SAS Universal Viewer	 SAS XML Mapper	 SPSS Modeler 15	 SPSS Statistics 21	 SQL Server Management Studio 2014	 StataMP 11 (64-bit)	 StataMP 12 (64-bit)	 StatTransfer 12	 v3nlpClient	 v3nlpDicto...
 WinDiff									



Poll Question

- Have you heard of VINCI or used it before?
 - I have never heard of VINCI before
 - I know about VINCI, but never used it before
 - I have used VINCI before
 - I am a happy VINCI user



VINCI Data

- CDW production data – Inpatient, Outpatient, Vitals, Pharmacy, Lab, many more
- CDW Raw data – Radiology, Surgery, Oncology, ...
- MCA (DSS NDEs) – SQL format
- Med SAS – SQL format
- Vital Status

CDW Production Data

- Data warehouse modeled data
- Fact and dimension tables
- Extracted through CDW's journaling process from shadow servers
- Unique CDW identifiers (SID)
- Indexed and partitioned for fast queries
- Updated nightly

VINCI Data – Allergy

- This domain contains allergy and adverse drug reaction information generated by the VA.
- The VA GMR allergy package uses additional allergy and adverse drug reaction information provided by the Department of Defense through the Health Data Repository which is not included in this data.
- Contains information about causes hypersensitive reactions, including:
 - Medications
 - Chemicals
 - Foods
 - Noxious stimuli
- Contains information about patient reactions.
- [ER Diagram](#)



VINCI Data – Appointment

- Contains information about appointments, including appointment date, purpose, status, reason cancelled, staff member who cancelled.
- Data tables:
 - Appointment
Scheduled and historical appointments
 - AppointmentMultiple
Sub-appointments for appointments in the Appointment table.
- Dim tables
 - Dim.AppointmentType
 - Dim.CancellationReason
 - Dim.Eligibility
 - Dim.Location
- [ER Diagram](#)



VINCI Data – CPRS Orders

- Contains Orders and Requisitions made through the Order Entry Option (OR) using any CPRS package.
- Tables
 - One data/fact table: CPRSOrder
 - Eight or more dim tables.
- [ER Diagram](#)

VINCI Data – Dental

- Dental
 - Contains records of dental exams, diagnoses, history, transactions, and procedures, including:
 - Basic hygiene
 - Restorative surgery
 - Orthodontics
 - Periodontics
 - Endodontics
 - 24 data/fact tables
 - Four dim tables
- Dental Analytics
 - Contains records of treatments and treatment plans.
 - Five data/fact tables
 - 12 dim tables
- [ER Diagrams](#) (2)



VINCI Data – Dimensions

- Dimension data does not contain any patient data.
- All dimension tables are accessible to all studies.
- Located in the CDWork database on all study database servers
- Contains reference / lookup information, including information about:
 - ICD diagnosis & procedure codes and CPT procedure codes
 - Drugs and drug classes
 - Lab tests and specimen types
 - VistA sites / stations, VISNs, and regions
 - All other descriptive information about terms and items used in VA health care.
- Enables quick and efficient identification of the items to use to select patients for cohorts and to select data with.
- Use of dim tables improves performance of data queries.
- [ER Diagrams](#)



VINCI Data – Health Factors

- Contains information about over 3,000 different types of factors which affecting the health of specific patients. Common health factors include:
 - Tobacco use
 - Alcohol use
 - Drug use
- Usage of health factors varies substantially from site to site.
- Health factors are often used with clinical reminders.
- There are over 485 million health factor records, occupying over 64 GB of data.
- The data goes back to the beginning of FY 2000 (10/1/1999)
- One data/fact table and one dim table
- [ER Diagram](#)



VINCI Data –Immunizations

- Contains records of individual patient immunizations / vaccinations.
- There are over 52 million immunization records, occupying over 64 GB of data.
- One data/fact table
- Records can contain links to outpatient visit records
- [ER Diagram](#)



VINCI Data – Inpatient

- Generated from Inpatient Vista File: PTF, 45 which contains all PTF information generated from admissions, treating specialty transfers, and PTF screen edits.
- Contains records of inpatient admissions/discharges.
- Primary domain tables
 - Inpat_Inpatient
 - Inpat_InpatientDiagnosis
 - Inpat_InpatientCPTProcedure
 - Inpat_InpatientICDProcedure
- More information at :
[http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/Inpatient Encounters Data Description.pdf](http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/Inpatient_Encounters_Data_Description.pdf)



VINCI Data - Lab Chemistry

- Use of the PatientLabChem table is CDW's recommended path to access the LabChem data for most patient analysis projects. This restricts the laboratory results to only those records that refer to human patients and filters out the administrative test, referral test, and research test records.
- Primary domain tables
 - Chem_PatientLabChem
 - Chem_LabPanel
 - Chem_OrderedLabPanel
- More information at :
http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/Lab_Chemistry_Data_Description.pdf



VINCI Data – Mental Health Assessment

- Contains the data collected during the administration of a specified instrument from the MH TESTS AND SURVEYS file (#601.71) given to a patient at a specific date and time.
- Primary domain tables
 - MH_SurveyAdministration
 - MH_SurveyAnswer
 - MH_SurveyAnswerText
 - MH_SurveyResult
- More information at :
[http://vaww.vinci.med.va.gov/vincicentral/documents/Data Descriptions/Mental Health Data Description.pdf](http://vaww.vinci.med.va.gov/vincicentral/documents/Data%20Descriptions/Mental%20Health%20Data%20Description.pdf)



VINCI Data – Microbiology

- AntibioticSensitivity
- Bacteriology
- Supplementary data in PCS Microbiology database
- More information at :
[http://vaww.vinci.med.va.gov/vincicentral/documents/Data Descriptions/Microbiology Data Description.pdf](http://vaww.vinci.med.va.gov/vincicentral/documents/Data%20Descriptions/Microbiology%20Data%20Description.pdf)



VINCI Data - Outpatient

- The Outpatient Visits domain replaced the CDW Encounter domain. Unlike the Enc tables no records are filtered out of Outpat (aside from the normal excluding records before 10/1/1999).
- Contains data from the VistA ENCOUNTER (409.68), VISIT (9000010) and related files.
- Primary domain tables
 - Outpat_Visit
 - Outpat_VDiagnosis
 - Outpat_VProcedure
 - Outpat_ProblemList
- More information at :
http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/Outpatient_Visits_Data_Description.pdf



VINCI Data – Pharmacy BCMA

- This domain describes the medication administration process in VA’s combined inpatient settings.
- BCMAMedicationLog and its children: BCMADispensedDrug, BCMAAdditive, and BCMASolution describe medications that were scanned and attempted to be administered to inpatients.
- Primary domain tables
 - BCMA_BCMAMedicationLog
 - BCMA_BCMADispensedDrug
 - BCMA_BCMAAdditive
 - BCMA_BCMASolution
- More information at :
http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/BCMA_Data_Description.pdf



VINCI Data - Outpatient Rx

- Contains all Outpatient pharmacy data including prescription, refills, dosage, units and instructions to patients on taking medications.
- This data is extracted from the VistA file: PRESCRIPTION (52). It will easily be the largest pharmacy file in time and is pointed to very heavily.
- Domain Table(s)
 - RxOutpat
 - RxOutpatFill
 - RxOutpatMedInstructions
 - RxOutpatSig
- More Information at:
[http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/Outpatient Pharmacy Data Description.pdf](http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/Outpatient_Pharmacy_Data_Description.pdf)



VINCI Data – Purchased Care (Fee)

- Purchased Care contains data regarding the prices of medical care that the VHA pays some external entity to perform.
- This domain collects data from Vista Files: Purchased Care (Fee) 161 and 162.
- Domain Table(s)

FeeAuthorization	FeeInpatInvoiceICDDiagnosis
FeeAuthorizationRemarks	FeeInpatInvoiceICDProcedure
FeeAuthorizationRequest	FeeNotificationRequest
FeeBatch	FeePharmacyInvoice
FeeCHReportOfContact	FeePrescription
FeeCPTModifier	FeeServiceProvided
FeeInitialTreatment	FeeTravelPayment
FeeInpatInvoice	FeeUnauthorizedClaim
- More Information at:

http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/Fee_Data_Description.pdf



VINCI Data - SPatient

- Contains sensitive patient data such as SSN, names, addresses
- Collects data from VistA File: Patient 2
- Domain Table(s)
 - LabReferralPatient
 - LabResearchSubject
 - SPatient
 - SPatientAddress
 - VISNPatient
- More Information at:
[http://vaww.vinci.med.va.gov/vincicentral/documents/
Data Descriptions/SPatient Data Description.pdf](http://vaww.vinci.med.va.gov/vincicentral/documents/Data%20Descriptions/SPatient%20Data%20Description.pdf)



VINCI Data - SStaff

- Contains secured Staff PII data including staff SSN. Data gathered from Vista File: New Person 200
- Basic non PII staff information is under Staff Domain
- Domain Table(s)
 - SFeeCHReportOfContact
 - SFeeServiceProvided
 - SFeeVendor
 - SStaff

- More Information at:

[http://vaww.vinci.med.va.gov/vincicentral/documents/Data Descriptions/Staff Data Description.pdf](http://vaww.vinci.med.va.gov/vincicentral/documents/Data%20Descriptions/Staff%20Data%20Description.pdf)



VINCI Data – Vital Signs

- Contains Vital sign data from all sites. Extracted from VistA file: GMRV Vital Measurement 120.5
- There is no unit of measure with each type of vital. However, it is assumed that Height is measured in inches, weight in pounds, respiration in breaths per minute, pain from 1 to 10 (10 being maximum), pulse in beats per minute, temperature in degrees Fahrenheit, etc. or vital qualifiers which record things like the arm from which the blood pressure was taken.
- Domain Table:
 - VitalSign
- More Information at:
- http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/Vital_Signs_Data_Description.pdf



VINCI Data - TIU

- Text Integration Utility; TIU contains free text documents such as progress notes and consult reports. TIU notes on VINCI are full text indexed.
- This data is extracted from the VistA file: TIU Document (8925).
- Domain Table(s)
 - TIUDocument
 - TIUDocument_8925_02
 - TIUIncompleteRecord
- More Information at:

http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/TIU_Data_Description.pdf

Full-Text Search: <https://msdn.microsoft.com/en-us/library/ms142571.aspx>



VINCI Data – Care Assessment Need (CAN) Scores

- The Care Assessment Need (CAN) score reflects the estimated probability of hospital admission or death within a specified time frame (90 days (or 1 year)).
- Data used to generate the score is obtained from VHA administrative databases including the Corporate Data Warehouse (CDW) for outpatient and the National Patient Care Database (NPCD) for inpatient.
- Domain table(s)
 - CAN_allpts_riskscore
- More information at :
http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/CAN_Data_Description.pdf



CDW Raw Data

- Extracted directly from Vista Caché into SQL Server
- Snapshot data
- Same structure (tables names, fields) as source, not modeled
- Data types and column names standardized by VINCI – indexes added
- Updated weekly, monthly, as needed
- Can be joined with prod. and other data using Sta3n+IEN
- May move to production over time

VINCI Data - CDW-Raw:

Bill Claims (IB)

- [BillClaims] is a CDW-Raw domain and is also known as “IB” (Integrated Billing/Accounts Receivable) after the VISTA module of the same name used by CBO (Chief Business Office).
- The IB VISTA module provides functionality to create first party (patient) and third party (insurance carriers/Medicare) bills.
- The Bill Claims domains is a limited* extract of the VISTA IB module including the following files (among many others):

350	INTEGRATED BILLING ACTION	362.4	IB BILL/CLAIMS PRESCRIPTION REFILL
356	CLAIMS TRACKING	362.5	IB BILL/CLAIMS PROSTHETICS
361.1	EXPLANATION OF BENEFITS	430	ACCOUNTS RECEIVABLE
399	BILL/CLAIMS	433	AR TRANSACTION

- More information at :
<https://vaww.dwh.cdw.portal.va.gov/TechTeam/DBA/SitePages/Raw%20Extractor.aspx>
- *not necessarily every file in the module is extracted to a corresponding table.



VINCI Data – CDW-Raw: Echocardiogram

- The [Echo] domain is a limited* extract of the following VISTA files (among others):

691	ECHO	691.09	RISK FACTOR
691.01	MED(CARDIOLOGY MEDICATION)	691.15	DIAGNOSIS
691.02	PRE-DX	691.19	ICD DIAGNOSIS
691.04	REGIONAL WALL MOTION	691.5	ELECTROCARDIOGRAM (EKG)
691.05	DOPPLER	691.6	HOLTER
691.06	FINDINGS	692.02	EKG
691.08	SYMPTOM	693	MEDICAL DESCRIPTION

- More information at :
<https://vaww.dwh.cdw.portal.va.gov/TechTeam/DBA/SitePages/Raw%20Extractor.aspx>
- *not necessarily every file in the module is extracted to a corresponding table.



VINCI Data – CDW-Raw:

EDIS - Emergency Department Integration Software

- [EDIS] is a CDW-Raw domain and is a limited* extract of the VISTA EDIS module.
- The EDIS VISTA module extends the functionality of the Computerized Patient Record System (CPRS) to help healthcare professionals manage the flow of patient care in the emergency department setting.
- Enables viewing of emergency department patient information on the application's display board.
- Consists of extracts of the following VISTA files (among others):

230	ED LOG	231.9	TRACKING AREA
230.1	ED LOG HISTORY	233.1	TRACKING CODE
231.7	TRACKING STAFF	233.2	TRACKING CODE SET
231.8	TRACKING ROOM-BED		

- More information at :
<https://vaww.dwh.cdw.portal.va.gov/TechTeam/DBA/SitePages/Raw%20Extractor.aspx>
- *not necessarily every file in the module is extracted to a corresponding table.



VINCI Data – CDW-Raw:

Inpatient Medications Intravenous (IV)

- [IV] is a CDW-Raw domain and is a limited* extract of the VISTA Inpatient Medications - IV module.
- Provides pharmacy staff with IV labels, manufacturing worksheets, ward lists for order updates, and management reports. It permits Pharmacy staff to track the manufacture of IV formulas with greater control than manual procedures allow.
- Consists of extracts of the following VISTA files (among others):

50.3	PRIMARY DRUG	52.6	IV ADDITIVES
50.31	APPLICATION	52.7	IV SOLUTIONS
50.606	DOSAGE FORM	55.02	ADDITIVE
51.2	MEDICATION ROUTES	55.04	ACTIVITY LOG
51.23	STANDARD MEDICATION ROUTES	55.11	SOLUTION

- More information at :
<https://vaww.dwh.cdw.portal.va.gov/TechTeam/DBA/SitePages/Raw%20Extractor.aspx>
- *not necessarily every file in the module is extracted to a corresponding table.



VINCI Data – CDW-Raw: Inpatient Medications Unit Dose (UD)

- [RxUD] is a CDW-Raw domain and is a limited* extract of the VISTA Inpatient Medications – Unit Dose module.
- Provides staff with a standard computerized system for dispensing and managing inpatient medications. Timely, accurate, accessible, and up-to-date patient medication information is available from any terminal within the facility. Computer-generated working forms allow personnel to dedicate more time to patient care.
- Consists of extracts of the following VISTA files (among others):

53.3	ACTIVITY LOG REASON	55.07	DISPENSE DRUG
55.06	UNIT DOSE	55.08	COMMENTS
55.0611	DISPENSE LOG	55.6114	LAST RENEW
55.0612	PROVIDER COMMENTS		

- More information at :
<https://vaww.dwh.cdw.portal.va.gov/TechTeam/DBA/SitePages/Raw%20Extractor.aspx>
- *not necessarily every file in the module is extracted to a corresponding table.



VINCI Data – CDW-Raw: Non-VA Meds

- [NonVAMeds] domain is a limited* extract of the following VISTA files:

50.7 PHARMACY ORDERABLE ITEM
55 PHARMACY PATIENT
55.05 NON-VA MEDS

- More information at :
<https://vaww.dwh.cdw.portal.va.gov/TechTeam/DBA/SitePages/Raw%20Extractor.aspx>
- *not necessarily every file in the module is extracted to a corresponding table.



VINCI Data – CDW-Raw: Prosthetics

- [Prosthetics] is a CDW-Raw domain and is a limited* extract of the VISTA Prosthetics module
- The VISTA Prosthetics module automates purchasing and enhances patient care by determining what prosthetic services and devices have been provided to the Veteran in the past, and decreasing the time required for the order, delivery, and/or repair of devices. The Prosthetics package provides control and auditing of expenditures and generates management reports..
- Consists of extracts of the following VISTA files (among others):

420.5	UNIT OF ISSUE	661.14	SYNONYM
661.1	PROSTHETIC HCPCS	661.2	PROS STOCK ITEM RECORD
661.11	PROSTHETICS HCPCS ITEM MASTER FILE	661.3	PROS ITEM LOCATION
661.12	ITEM	661.31	HCPCS
665	PROSTHETICS PATIENT		

- More information at :
<https://vaww.dwh.cdw.portal.va.gov/TechTeam/DBA/SitePages/Raw%20Extractor.aspx>
- *not necessarily every file in the module is extracted



VINCI Data – CDW-Raw: Surgery

- [Surgery] is a CDW-Raw domain and is a limited* extract of the VISTA Surgery module.
- The Surgery module is designed to be used by surgeons, surgical residents, anesthesia providers, operating room nurses, and other surgical staff. The software facilitates morbidity and mortality tracking and other complications, providing vital information to the Chief of Surgery and to VA Central Office.
- Consists of extracts of the following VISTA files (among others):

130	SURGERY	410.02	ITEM
130.01	PROSTHESIS INSTALLED	440	VENDOR
130.055	INDICATIONS FOR OPERATIONS	445.01	INVENTORY ITEM
131.9	PROSTHESIS	445.02	ADDITIONAL STORAGE LOCATION
136	SURGERY PROCEDURE/DIAGNOSIS	660	RECORD OF PROS APPLIANCE/REPAIR
CODES			

- More information at :
<https://vaww.dwh.cdw.portal.va.gov/TechTeam/DBA/SitePages/Raw%20Extractor.aspx>



VINCI Data – CDW-Raw: Oncology

- [Oncology] is a CDW-Raw domain and is a limited extract of the VISTA Oncology module.
- The Oncology module automates the tumor registry and supports tumor registrars in abstracting cancer cases, following up on cancer patients and producing the Hospital Annual Report. The full set of TNM codes is included from the appropriate edition of the AJCC Manual on VISTA Monograph 174 October 2013 Staging of Cancer.
- Consists of extracts of the following VISTA files (among others):

160	ONCOLOGY PATIENT	165.5	ONCOLOGY PRIMARY
160.075	SUSPENSE	165.51	SUBSEQUENT COURSE OF TREATMENT
160.19	FACILITY	165.52	RADIATION TREATMENT
164.18	CHEMOTHERAPEUTIC DRUGS		

- More information at :
<https://vaww.dwh.cdw.portal.va.gov/TechTeam/DBA/SitePages/Raw%20Extractor.aspx>



VINCI Data – CDW-Raw: Radiology

- Largest Raw domain
- 46 tables
- Radiology reports – Will soon be full-text indexed
- More information at :
http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/Radiology%20Data%20Description.pdf



VINCI Data – CDW Production Dim Tables

- Dim tables for CDW Production Domains are publicly available in the CDWork database, on the same server as your study database.
- To use a Dim table, you do a cross database join to the CDWork database, in your query:

```
– SELECT X.VDiagnosisDateTime, ICD.ICD_Code,  
   ICD.ICD_Description  
   FROM Src.Output_VDiagnosis as X  
   INNER JOIN CDWork.Dim.ICD9 as ICD on X.ICDSID =  
   ICD.ICD9SID
```

- More Information at:
[http://vaww.vinci.med.va.gov/vincicentral/documents/Data
_Descriptions/Dimension CDW Data description.pdf](http://vaww.vinci.med.va.gov/vincicentral/documents/Data_Descriptions/Dimension_CDW_Data_description.pdf)



VINCI Data – Managerial Cost Accounting (Formerly Decision Support System(DSS))

- VA’s Managerial Cost Accounting (MCA) System (formerly Decision Support System or DSS) contains fiscal data and clinical information. MCA (formerly DSS) National Data Extracts (NDEs) data originates from various site-level MCA databases and subsystems. NDEs provide clinical and financial information at the patient level.
- MCA NDEs from fiscal year (FY) 2005 through the current year are now in the Corporate Data Warehouse (CDW) in SQL tables
- Domain table(s):

ALBCC	ECS	OIPD	SUA
ALBHR	lab	OUT	SUR
ATTEND	Lar	OUT2	TRT
CHAR4	NOSHOW	PHA	TRTIPD
DDC	OBT	RAD	WARD
DISCH	OCRED	RAI	

- More information at: <http://vaww.virec.research.va.gov/MedSAS/Overview.htm>



VINCI Data – Medical SAS Datasets(MedSAS)

- The VHA Medical SAS (MedSAS) Datasets contain national administrative data on patient care encounters for health care provided by VHA.
- Inpatient, Outpatient, and Inpatient Encounters Medical SAS datasets are available. Inpatient data are extracted from the Patient Treatment File. Outpatient and Inpatient Encounters data are extracted from the Nation Patient Care Database(NPCD).
- Domain Tables:

Inc_PB	Incexc_XM	Incobd_PMO	Inp_PS	Inpnva_NB	Inpobd_PMO
Inc_PM	Incexc_XP	Incobd_PPO	Inpexc_XB	Inpnva_NM	Inpobd_PPO
Inc_PP	Incexc_XS	Inp_PB	Inpexc_XM	Inpnva_NP	Inppce_IE
Inc_PS	Incnva_NM	Inp_PM	Inpexc_XP	Inpnva_NS	Outp_SE
Incexc_XB	Incobd_PBO	Inp_PP	Inpexc_XS	Inpobd_PBO	Outp_SF

- More Info at:
<http://vaww.virec.research.va.gov/MedSAS/Overview.htm>



VINCI Data – Vital Status

- includes date of death, Medicare yearly enrollment indicators, date of last activity, and Veteran status flags, etc.
- Transformed and loaded from SAS to SQL Server tables by VINCI
- Updated quarterly



Poll Question

- In data analysis work, I most commonly use:
 - SAS/SAS Grid
 - STATA
 - SPSS
 - R
 - Other tools

VINCI Data Services

- Data description guides
- Preliminary Consulting & Data Needs Assessment
- Preparatory to Research Access
- VINCI Data Extraction Types
- Cohort Selection
- Data Access and Security
- External Data

Data Description Documents

- <http://vaww.vinci.med.va.gov/vincicentra/|/Data.html>

Home > Data > Available Data

Available Data

The following is a list of the three categories of data available through VINCI. To see a description of the tables and columns contained within a domain, select it from the Data Descriptions on the right.

- See [CDW MetaData Reports Page on CDW site.](#)
- See [CDW-Raw Domains Page on CDW site.](#)

CDW Production

The Veterans Administration's Corporate Data Warehouse (CDW) is a national repository comprising data from several Veterans Health Administration (VHA) clinical and administrative systems. The objective of CDW is to provide data and tools to support management decision making, performance measurement and research objectives. Its premise is that incorporating data from multiple differing data sets throughout the VHA into one standard database structure will facilitate reporting and data analysis at the enterprise level. The CDW operates within the VA Office of Information & Technology Field Operations Business Intelligence Service Line.

CDW data are stored in a relational database. Multiple VA data sources are being merged so that cohorts will be definable by attributes such as ICD-9 codes and CPT codes from both inpatient and outpatient encounters or from abnormal values of vital signs like blood pressure, weight and height, within a target time period. Data are kept current by refreshing on a nightly basis and is available beginning October 1, 1999. CDW is considered to be the best model data.

CDW Raw

The purpose of CDW Raw is to hold domains that have not been obtained through the normal CDW process. The Raw extractor allows us to obtain data quickly and to make changes as subject area experts refine their requirements. Certain domains will be promoted to CDW Prod, and others will not. CDW Raw data domains have limited documentation, entail additional provisioning time, and are more difficult for studies to utilize.

The Raw extraction data are not as refined as the CDW primary data set. They are extracted directly from the VistA sites through a process as data snapshots, rather than continuously as does CDW. The Raw extractions are therefore not kept current. However, some are updated monthly depending on the domain. Extractions may be repeated as needed.

SAS Data Sets

The SAS data sets are national administrative data for VHA-provided health care utilized primarily by veterans, but also by some non-veterans (e.g., employees, research participants). The data sets are provided in SAS format by fiscal year (Oct. 1 - Sept. 30). These data are extracted from the National Patient Care Database (NPCD) maintained by the VHA Office of Information at the Austin Information Technology Center (AITC).

Data Descriptions

CDW PRODUCTION

- Allergy
- Appointment
- Consult
- CAN Score
- CPRS Orders
- Dental
- Dimensions (CDW)
- Health Factors
- Immunization
- Inpatient
- Lab Chemistry
- Lab Microbiology
- Mental Health Assessment
- Outpatient
- Patient
- PCMM
- Pharmacy BCMA
- Pharmacy Outreach
- Purchased Care (Fee)
- SPatient
- Staff
- Vital Signs

CDW RAW

- Beneficiary Travel (CBO)
- Bill Claims (CBO)
- Compensation & Pension Exam
- Dimensions (CDW-Raw)
- Echocardiogram
- Emergency Dept. Int. Software
- Equipment Inventory
- IFCAP
- Intravenous Meds (IV)
- Unit Dose
- My Health Vet
- Non-VA Meds
- Oncology
- Paid
- Prosthetics
- Radiology
- Surgery
- TIU Documents

SAS

- MCA NDE (was DSS NDE)
- MedSAS



Preliminary Consulting & Data Needs Assessment

- Consultation with your study team to prepare you for making a DART request
- Query development and to find estimated cohort size
 - Multiple simple to moderately complex aggregations provided
 - We can assist with determining whether a sufficient sample size is available for your study
 - Contact: vinci@va.gov



Preparatory to Research Work

- All the services of the Data needs assessment plus more
- Primarily used to check study feasibility
- More complex and thorough aggregations
- Your own work database in VINCI
- Access to CDW data
- Use of the VINCI Workspace and all the tools
- Access to individual data records, as needed

VINCI Data Extraction Types

- VINCI Workspace Study
 - All work is done within the secure VINCI workspace
 - Study is able to use VINCI supplied software for their analysis work.
 - All data backed up and secured by VINCI
 - Data can be moved in and out of the secure workspace with the VINCI Upload and Download tools.
 - Approval required
 - Fully audited
- CDW Extract Study
 - Data is placed in a SQL Server database on a server OUTSIDE of the VINCI workspace so that the data may be downloaded to a local server.
 - The study's database is read-only
 - Study must have locally installed tools to download the data and do analysis (SSMS, SAS, etc.)
 - Large datasets take time to download



Data Extraction Process Overview

- Research study team receives project approval from NDS
- Data access group created including research study team participants
 - Used for granting access to data & workspace
- Research study team receives alerts that the correspondence site has been created
 - All communication takes place on the Correspondence Site
 - Correspondence site messages are also sent to study participant's VA email
 - Correspondence Site is easy to use
- Study team either sends cohort or cohort specification to the VINCI Data Managers.
 - Cohort specification may be uploaded to the correspondence site since it contains no PI/PHI
 - Cohort must be uploaded to a secure upload site created by the VINCI Data Manager
- VINCI Data Manager joins the cohort to the relevant domains and extracts data to the study's database
 - Data is presented via tables (cohort) and views (fact tables)
- VINCI Data Manager notifies study via correspondence site that the extraction is complete



Cohort Selection

- VINCI data manager can assist in creating one, if the study does not have a cohort, Research Study Team provides specific criteria (inclusion, exclusion filters)
- Alternatively, the research team can create cohort within VINCI
 - VINCI provides access to data necessary for cohort selection
 - Research Study Team completes additional cohort selection work

Data Access & Security

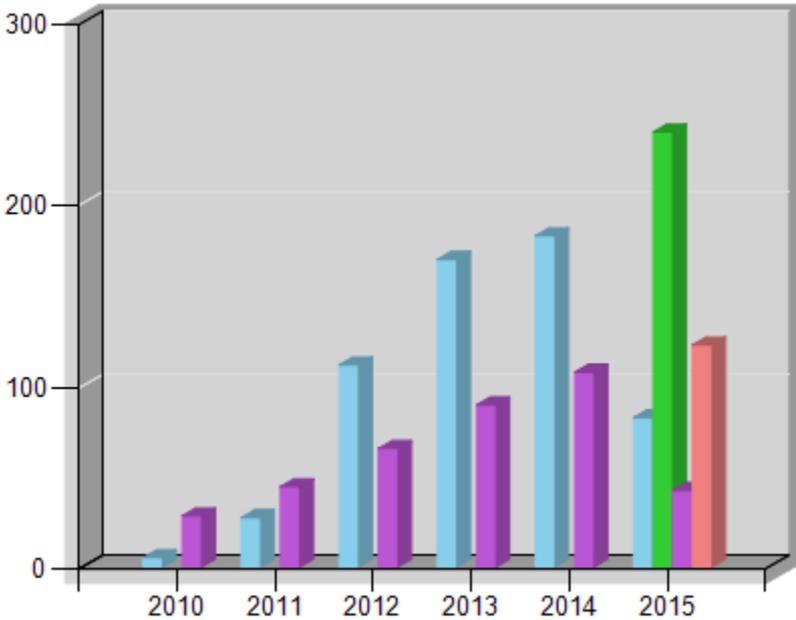
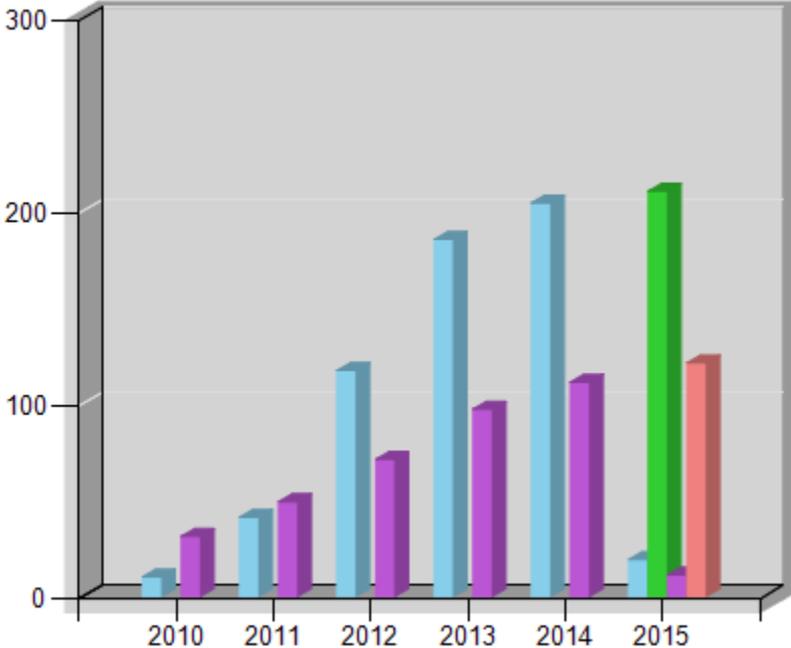
- Access groups created based on IRB and NDS approved research team
- Only research team members have access to the data
- Data stored on secure VINCI servers
- Regular data backup and archiving
- Project work can be performed in VINCI
- Export final result & publication



External Data

- Research Study Team may upload other data for analysis into project database or workspace
- Secure data upload process
- Optional direct database upload
- VINCI data managers work on behalf of research team to upload data from other data providers

Data projects growth over time



Useful Links

- [VINCI Central site](#)
- [VINCI Workspace User Guide and VINCI Database User Guide](#)
- [Guides on Using SAS with VINCI](#)
- [CDW Support site](#)
- [Metadata Report page](#)
- [VHA Data Portal site](#)
- [VIREC- Factbooks for CDW Domains](#)
<http://vaww.virec.research.va.gov/CDW/Documentation.htm>
- [First Time Research Users' Guide to CDW: Getting Started with this Relational Database](#)



Poll Question

- VINCI should provide more
 - High performance servers and storage space
 - Data analysis tools
 - Staff to assist with cohort selection/data analysis, etc.
 - Data domains not currently available in VINCI

Questions?

Have questions?/Need help?

Send email to: vinci@va.gov

VINCI Web site:

<http://vaww.vinci.med.va.gov/vincicentral>

Contact Information:

Hamid Saoudian – hamid.saoudian@va.gov

