

# Navigating CDW Data

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VA Informatics &  
Computing  
Infrastructure



# Agenda

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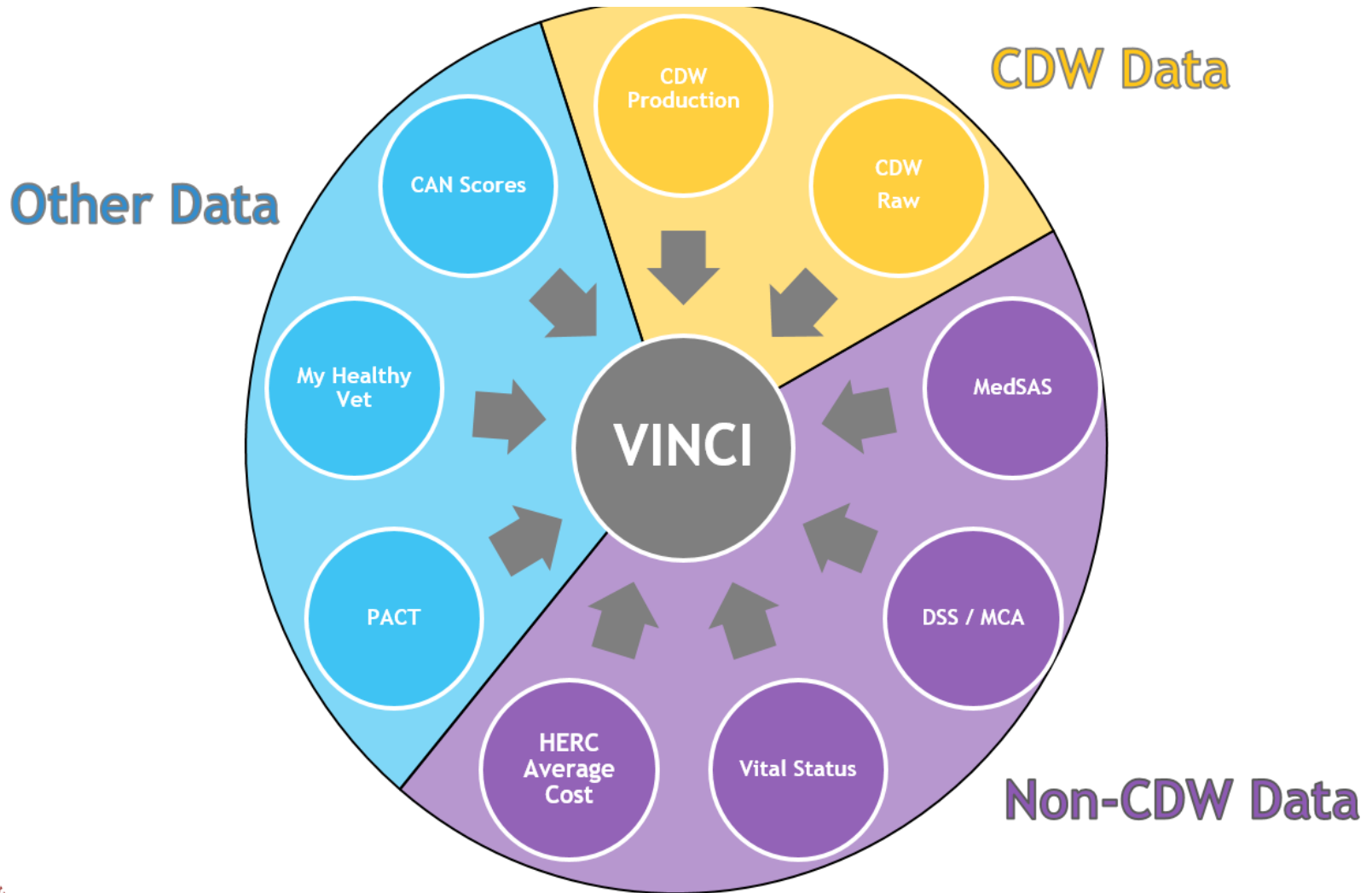
- High level overview of VA Data Sources
- Common uses of specific domains

# Expectations

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- Will have:
  - High level (bird's eye) view of CDW
  - Overview of each domain and it's contents
  - Copious helpful links in references throughout and at the end
- Will not have:
  - Actual data (contains PII and can't be shared in this forum)
  - SQL scripts on how to use the data (but I link the VINCI Services SOPs which do)
  - Cerner/Millennium

# VA Data Sources



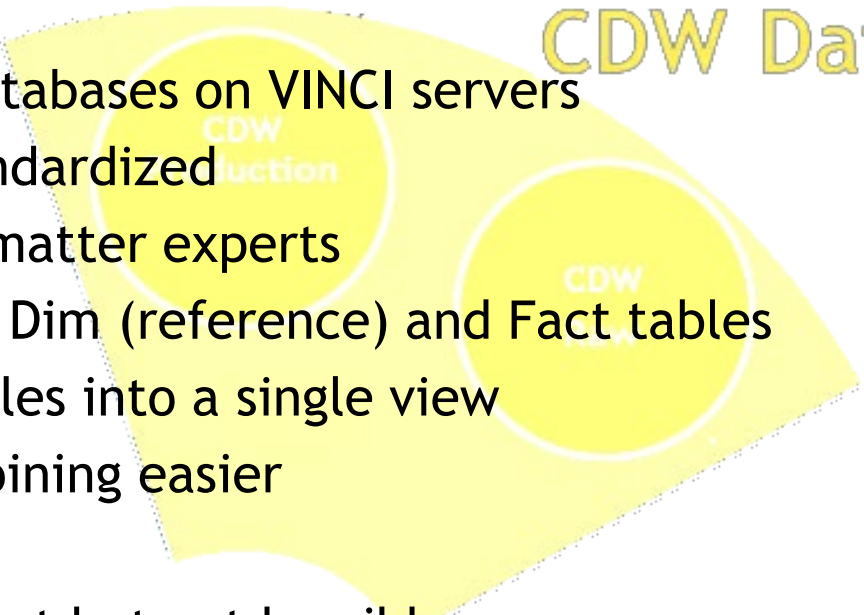
# CDW Data

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- Consists of CDW-Production and CDW-Raw

- Data resides in [CDWork] databases on VINCI servers
- Production data has been standardized
- Reviewed by clinical subject matter experts
- Data objects categorized into Dim (reference) and Fact tables
- May combine multiple VistA files into a single view
- SIDs added by CDW - makes joining easier
- Indexes added by CDW
- Documentation exists; not great but not horrible

CDW Data



# Dimensions (Dim and NDim Schemas)

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- 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 code numbers/definitions
  - CPT procedure code numbers/definitions
  - 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.
  - Used to efficiently identify patients for cohorts and to select data.
- NDIM is a schema for any dimension table that is not sourced from a Vista system.

# ADR Enrollment

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- ❑ Contains data from the Enrollment System Administrative Data Repository
  - ❑ Includes information about Veteran Status, Enrollment status, eligibility, and Priority Group
- ❑ Fact tables:
  - ADR.ADREnrollHistory
  - Veteran.ADRPerson
  - Veteran.ADRPersonMerge
- ❑ Dim tables:
  - NDim.ADRApplicationCloseReason
  - NDim.ADRDeathNotificationSource
  - NDim.ADREnrollCategory
  - NDim.ADREnrollSource
  - NDim.ADREnrollStatus
  - NDim.ADRPriorityGroup
  - NDim.ADRPrioritySubGroup
  - NDim.ADRReferenceType

# Allergy

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- This domain contains allergy and adverse drug reaction information generated by the VA.
  - Contains information about hypersensitive reactions, including:
    - Medications
    - Foods
    - Chemicals
    - Noxious stimuli
  - Contains information about patient reactions
- Fact tables:
    - Allergy.AllergicReaction
    - Allergy.AllergicReactionAssessment
    - Allergy.Allergy
    - Allergy.AllergyComment
    - Allergy.AllergyDrugClass
    - Allergy.AllergyDrugIngredient
  - Dim tables:
    - Dim.Reactant
    - Dim.ReactantDrugClass
    - Dim.ReactantDrugIngredient
    - Dim.ReactantSynonym
    - Dim.Reaction



# AntiCoag

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- Contains information from a combination of VistA File#130 and the Anticoagulation Management Tool
- Not all 130 facilities use this tool so data will be missing from those facilities
- Potential Uses:
  - Includes data on International Normalized Ratio (INR), and indication for anticoagulation treatment
- Fact tables: AntiCoag.Flowsheet and AntiCoag.FlowsheetActivity

# Appointment

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- Contains information about appointments, including appointment date, purpose, status, reason cancelled, staff member who cancelled.
- Can be historical or upcoming/scheduled
- Fact tables:
  - Appt.Appointment:
  - Appt.AppointmentMultiple
  - Appt.AppointmentRequest
  - Appt.RecallReminder
  - SPatient.AppointmentComment
- Dim tables
  - Dim.AppointmentType
  - Dim.CancellationReason
  - Dim.Eligibility
  - Dim.Location
  - Dim.LocationProvider

# Beneficiary Travel (BeneTravel)

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- Contains information on records of travel payments to patients and patient care givers
- Fact tables:
  - BeneTravel.Claim
    - Travel Claims
    - Departure/Destination info
  - BeneTravel.Certification
    - Income Certification Data
- Dim table:
  - Dim.BeneTravelAccount

# Consult

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- The consult domain contains information about requests for services, including clinical specialty care, procedures, and non- VA care.
- Fact tables:
  - Con.Consult
  - Con.ConsultActivity
  - Con.Consult Factor
- Dim tables:
  - Dim.ActivityType
  - Dim.AssociatedStopCode
  - Dim.ClinicalProcedure
  - Dim.GMRCProcedure
  - Dim.ProcedureSubspecialtyType
  - Dim.RequestService

# Consult

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## ■ Potential Uses:

- Who ordered and for whom?
- Location and clinical service of consult
- Details on how the consult was answered

# COVID-19 Shared Data Resource (CSDR)

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- Contains information related to COVID-19 both in and outside of VA
- Collaborative effort utilizing multiple data sources
- Includes case definitions, concept definitions, VA data mappings, and other information
- 33 Fact tables and 7 Dim tables

# CPRS Orders

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- Contains Orders and Requisitions made through the Order Entry Option (OR) using any CPRS package.
  - Includes: Labs, Radiology (x-ray, CT, MRI, DEXA scan), Medications, dietary restrictions, etc.
  
- Fact tables:
  - CPRSOrder.CPRSOrder
  - CPRSOrder.OrderAction
  - CPRSOrder.OrderCheckInstance
  - CPRSOrder.OrderCheckMessage
  - CPRSOrder.OrderCheckOverrideReason
  - CPRSOrder.OrderedItem
  - CPRSOrder.OrderIntervention

# Clinical Reminder Parameters (CRP)

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- Contains information on clinical reminders including:
  - taxonomy
  - definitions
  - resolutions
- 19 Fact tables



# Death Ascertainment File (DAF)

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- Mortality Data from the Master Person Index (MPI) and the Social Security Administration Death Master File
- Includes date of death from multiple sources
- Replaced the Vital Status File (VSF)
- Fact Table: SDAF.DAFMaster

# Dental

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- Dental Data
  - Contains records of dental exams, diagnoses, history, transactions, and procedures, including:
    - Basic hygiene
    - Restorative surgery
    - Orthodontics
    - Periodontics
    - Endodontics
  - 29 Fact tables and 17 Dim tables

# Emergency Department Integration Software (EDIS)

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- Data of patients as they were tracked in the Emergency Department through the Emergency Department Integration Software
  - Includes Patient Arrivals, Dispositions, Departures, and Reasons for visit
- Fact tables:
  - EDIS.EDISLog
  - EDIS.EDISLogDischargeDiagnosis
  - EDIS.EDISLogHistory
  - EDIS.EDISOrder
- Dim tables
  - Dim.EDISRole
  - Dim.EDISRoomBed
  - Dim.EDISStaff
  - Dim.EDISTrackingArea
  - Dim.EDISTrackingCode

# Health Factors

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- Contains information about over 3,000 different types of factors which affect the health of specific patients. Common health factors include:
  - Tobacco use
  - Alcohol use
  - Drug use
- Usage of health factors varies substantially by station.
- Health factors are often used with clinical reminders.
- Health Factor Data uses mostly free text
- Fact table:
  - HF.HealthFactor
- Dim table:
  - Dim.HealthFactorType

# Immunizations

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- ❑ Contains records of individual patient immunizations
- ❑ Records can contain links to outpatient visit records via the VisitSID
- ❑ Fact tables:
  - Immun.Immunization
  - Immun.ImmunizationContraRefusalEvent
- ❑ Dim tables:
  - Dim.ImmunizationAdministrationRoute
  - Dim.ImmunizationAdministrationSite
  - Dim.ImmunizationInformationSource
  - Dim.ImmunizationName

# Inpatient

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- ❑ Generated from Inpatient VistA : Patient Treatment File(PTF), 45 which contains all PTF information generated from admissions, treating specialty transfers, and PTF screen edits.
- ❑ Includes records of inpatient:
  - Admissions
  - Discharges
  - Surgical Procedures
  - ICD/CPT Procedures
  - Primary, secondary...etc. ICD diagnoses for stay
  - Ward location
- ❑ Primary domain tables
  - Inpat.Inpatient
  - Inpat.InpatientDiagnosis
  - Inpat.InpatientCPTProcedure
  - Inpat.InpatientICDProcedure

# Integrated Billing (IB)

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- Contains data from bills generated on behalf of patients referred to as third party bills
- Includes details of the bills and their processing
- Generated from VistA files: Bill/Claims (399) and Accounts Receivable (430)
- 36 Fact tables and 31 Dim tables

# Lab Accession

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- Contains information on Lab Accession Data from VistA File #68
- Includes details of lab specimen accession like where it was received and processed.
- Fact tables:
  - LabAccession.AccessionAreaNumber
  - LabAccession.AccessionAreaPeriod
  - LabAccession.AccessionTest
  - LabAccession.AccessionTestWorkload



# Lab Chemistry (Lab Chem)

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- 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.
- Includes information like lab type, topography, and results.
- Primary Domain tables:
  - Chem\_PatientLabChem
  - Chem\_LabPanel
  - Chem\_OrderedLabPanel
- Primary Dim tables:
  - Dim.LabChemTest
  - Dim.LOINC
  - Dim.Topography

# Lab Order

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- Contains information on Lab Orders found in VistA File #69
- Includes information like provider who ordered the lab, collection status, and keys to join to the Lab Accession domain
- Fact tables:
  - LabOrder.AccessionSpecimen
  - LabOrder.AccessionSpecimenAPDescription
  - LabOrder.AccessionSpecimenDescription
  - LabOrder.AccessionSpecimenTest
  - LabOrder.LabOrder
- DIM table: Dim.LabResultOrderParameter

# Mental Health Assessment (MH)

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- 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
- Includes 300+ surveys like Audit-C, PHQ, and more
- Fact tables:
  - MH.SurveyAdministration
  - MH.SurveyAnswer
  - MH.SurveyAnswerText
  - MH.SurveyResult
- Dim tables:
  - Dim.Survey
  - Dim.SurveyChoice
  - Dim.SurveyChoiceType
  - Dim.SurveyContent
  - Dim.SurveyQuestion
  - Dim.SurveyScale
  - Dim.SurveyScaleGroup
  - Dim.SurveyScoringKey

# Microbiology

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- Contains data of report-level and organism/antibiotic susceptibility-level records
- Includes etiologies involved in pathogenic Microbiology
- Much of the data is text-based
- 15 Fact tables and 2 Dim tables

# Master Person Index (MPI)

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- Formerly known as the Master Veteran Index (MVI)
- A single master index of all Veterans Health Administration patients
- Acts to maintain and synchronize identities and demographic data for VA clients, Veterans, and beneficiaries
- Includes PatientICN status to assist with identifying deactivated PatientICN's
- 4 Fact tables and 11 Dim tables

# Non-VA Medications

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- Table which contains information about medications a patient has taken that were not prescribed or administered by the VA
- Includes date started, date stopped, and date entered the VA system
- Includes dosage, route, and schedule
- If possible, is linked to a LocalDrugSID and/or CPRSOrderSID and/or PharmacyOrderableItemSID

# OMOP

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## International Common Data Model

- Standard Vocabularies
- Standardized Data allowing data interchange
  - Condition
  - Procedure
  - Device Exposure
  - Drug - Exposure, Dose, Era
  - Measurement
  - Observation
- OMOP CDM defines table structures for each of the data domains in a Person and Provider-centric model
- Isn't different data from CDW, but is CDW data transformed into the OMOP model
- Try the OMOP Concept to CDW Dim mappings to make your life easier!

# Outpatient

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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.
- Includes records of outpatient:
  - Visits
  - CPT Procedures
  - ICD diagnoses for visit
  - Workload logic
- Primary domain tables
  - Outpat\_Visit
  - Outpat\_VDiagnosis
  - Outpat\_VProcedure
  - Outpat\_ProblemList



# Pathology

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- Provides data from several pathology VistA files.
- Includes information on autopsies, cytopathology, and surgical pathology
- 69 Fact tables and 2 Dim tables

# Patient Enrollment

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- The data in the Patient Enrollment domain originates in the VistA version of the VA Enrollment data.
  - When a Veteran goes to a VA Medical Center (VAMC) to enroll in VA care, information pertaining to his or her enrollment is stored in the local VistA system and is then sent to the Health Eligibility Center (HEC) for verification. HEC's enrollment data are considered the authoritative source. Therefore, the VistA enrollment data are synchronized with HEC data once a determination is made. A CDW field for SourceOfEnrollment indicates whether or not a particular record has been synchronized.
- Contains information such as: enrollment status, dates of enrollment periods, severity of disability, service-connected disability, military discharge status, type and number of benefits being paid, priority group, etc.
- Fact table: Patient.Enrollment

# PCOR

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- The National Patient-Centered Clinical Research Network (PCORnet) Common Data Model
- Prioritization of analytic functionality
- Data structure may not be normalized
  - For example, some fields may be duplicated across tables
- Like OMOP, this isn't different from CDW data, it's CDW data transformed into the PCOR model

# Pharmacy

## Bar Code Medication Administration (BCMA)

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- Medication administration process for the inpatient setting
  - Dates and times medication was ordered, delivered, and administered; Details of the medication; Variances or deviations of the administration process
- Primary domain tables
  - BCMAMedicationLog (Parent table)
  - BCMADispensedDrug
  - BCMAAdditive
  - BCMASolution

# Pharmacy Outpatient

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- All outpatient pharmacy data: administrative pharmacy services and info on patients receiving prescriptions
  - Fill dates, process dates, number of days' supply, refills, renewals
  - Includes specific drug information:
    - Drug Name
    - VA Drug Class
- Primary domain tables
  - RxOutpat
  - RxOutpatFill
  - RxOutpatMedInstructions
  - RxOutpatSig

# Purchased Care Authorized (Fee)

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- Data on reimbursement of non-VA medical care from an external entity
  - Vendor, reason for visit, dates of service, status of the reimbursement; Amount billed, amount paid, type of payment
  - Patient information such as initial diagnosis, insurance, admission/discharge dates and dispositions
- 12 Fact tables and 9 Dim tables

# Purchased Care (IVC\_CDS)

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- Office of Integrated Veteran Care (IVC) Consolidated Data Sets (CDS)
- Claims data from community care received by Veterans and paid for by the VA
- Includes procedures performed, dates of service, amount billed for the service, and amount paid for the service
- Currently a separate database from CDW but mentioned here with the Fee domain in CDW which also has community care data

# Prosthetics

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- Contains data on prosthetics and prosthetic purchasing transactions
- Generated from VistA file 660
- Includes type of prosthetic, prosthetic visits, issuing of devices
- 28 Fact tables and 22 Dim tables



# Radiology

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- Administrative and Clinical information for radiology exams, orders, reports
- Schemas:
  - Rad: fact tables
    - Includes radiology visit info, radiation doses, and CPT procedures
  - SPatientText: report text, notes, written clinical histories
- 20 Fact tables and 21 Dim tables

# Primary Care Management Module (RPCMM and PCMM)

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- Contains information from the Primary Care Management Module web application
  - Patient and Staff Assignments
    - Patient/Primary Care Provider
  - Healthcare Teams / Patient Assignments
- 13 Fact tables and 8 Dim tables

# Pharmacy ePrescribing

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- Contains data on external electronic prescriptions transmitted to VA pharmacies for Veterans who receive care in the community
- Includes pharmacy costs, workload, and clinical treatment modalities
- 17 Fact tables and 5 Dim tables

# Pharmacy IV (Rx IV)

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- Contains information on VA IV medication activity, renewals, label tracking, and comments from providers
- Generated from VistA file 55
- 7 Fact tables and 2 Dim tables

# Pharmacy Unit Dose (Rx UD)

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- Contains information on VA Rx Unit Dose activity including drug dispensing, and comments from providers
- Generated from VistA file 55
- 7 Fact tables

# SPatient & Patient

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- All patients followed by medical centers and/or outpatient clinics
  - Demographics such as age, race, ethnicity
  - Sensitive patient data such as names, addresses, Real SSN
  - Military service information such as service-connected disabilities, period of service
- Primary domain tables
  - Patient and SPatient
  - SPatientAddress and SPatientPhone
  - MilitaryServiceEpisode

# SStaff & Staff

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- Information on staff affiliated with the VA
  - SStaff: Secured Staff PII data including staff SSN, name, address, DEA number
  - Staff: Basic non-PII staff information
- Primary domain tables
  - Staff and SStaff
  - StaffSub.ProviderTypeAssignment
  - StaffSub.VistaPermission

# Surgery (PRE, INTRA and POST)

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- Data extracted from the Surgery package
- Split vertically into three conceptual groupings:
  - Surgery\_PRE- surgical case scheduling and preparation
  - Surgery\_INTRA - data during a surgical case progression
  - Surgery\_POST - post-case data, provider notes, indications for operations, surgically implanted prosthetics
- Each view has surgery case identifier, patient identifier, date & time of the surgery, location, etc.
- Primary domain tables
  - SurgeryPRE, SurgeryINTRA, SurgeryPOST
  - Tables for associated Diagnosis, Procedure, CPT codes



# Text Integration Utility (TIU)

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- ❑ TIU contains free text documents such as progress notes and consult reports. TIU notes on VINCI are full text indexed
- ❑ Utilize the table value function tvf\_TIU\_FullTextSearch when searching the full text for keyword(s) for best results
- ❑ This data is extracted from the Vista file: TIU Document (8925)
- ❑ Domain tables in CDWork:
  - TIUDocument
  - TIUDocument\_Recent
  - TIUIncompleteRecord

# View Alert

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- Contains information on VistA Alerts including:
  - Recipient of the alert
  - Person assigned the alert
  - Parameters and display text of the alert
- 8 Fact tables and 1 Dim table

# Vital Signs

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- ❑ 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
  - ❑ It is assumed that Height is measured in inches, weight in pounds, respiration in breaths per minute, pain from 1 to 10, 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: Vital.VitalSign
- ❑ Dim table: Dim.VitalType

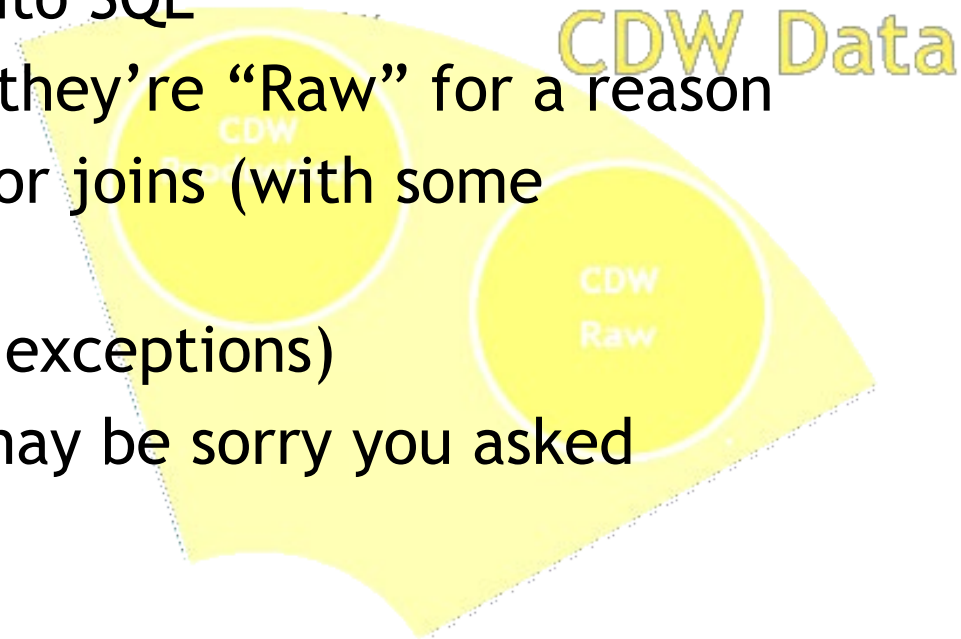
# Women's Health

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- The Women's Health domain provides information from the Women's Health VistA files in the 790 range. The information in the domain contains administrative and clinical information pertaining to care for female veterans.
- Includes diagnosis, procedure, and pregnancy related info
- Domain Tables:
  - WH.WHLabTest
  - WH.WHNotification
  - WH.WHPapRegimenLog
  - WH.PregnancyLog
  - WH.WHRefusal
  - Patient.WHPatient

# CDW-Raw Data

- Minimal processing: the Raw team's goal is to simply get it out of VistA and into SQL
- Swim at your own risk - they're "Raw" for a reason
- Must use [Sta3n]+[IEN] for joins (with some exceptions)
- Not indexed (with some exceptions)
- Documented... but you may be sorry you asked



# Audiology

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- Audiology data is used for hearing care research and clinical practice determinations, and patient treatment as part of the Veterans Integrated Registries Platform (VIRP) project
- Includes audiometry exam data

# CAPRI

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- Provides read-only access to the Veterans electronic health record in a standardized, user-friendly method
- Features:
  - A national user account option with a single access code to view a Veteran's entire VHA health record at any site the Veteran has been seen
  - Compensation and Pension (C&P) exam requests and reports
  - Customizable reports and health summaries
  - A search feature that enables users to review progress notes and discharge summary text
  - Access to Federal Health Information Exchange (FHIE)/ Department of Defense (DoD) health data
  - Ability to restrict access to a patient restricted list

# Echocardiogram

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- ❑ Contains echocardiogram procedures done on a patient.
- ❑ This does not have Echo Reports. However, some Echocardiogram results are in the TIU notes
- ❑ The Echo domain is a limited extract of the following VistA files (among others):

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



# Equipment Inventory

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- Contains the extraction for the "Inventory" domain, which might also be known as AEMS\_MERS (Automated Engineering Management System Medical Equipment Reporting System) work order system & inventory system
- Includes equipment info including manufacturer, maintenance, and date for procurement and replacement

# Fee Basis Claim System (FBCS)

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- Extraction of the "FBCS" domain (Fee Basis Claim System)
- Data from 6/18/2014 to 12/20/2020
- Note data from here is included in the Office of Integrated Veteran Care (IVC) Consolidated Data Sets (CDS)

# Oncology

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- [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.

# PAID

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- Includes data on Employee payments, and time and attendance
- If requested, must include which specific data you are requesting and why access is necessary

# Program Integrity Tool Archived (PIT\_Archived)

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- Archived data from the Program Integrity Tool
  - Includes data on claims data from care received outside the VA and paid for by the VA
- PIT data is designed to evaluate fraud, waste, and abuse and so using the data for research entails multiple caveats

# Pulmonary Function Test (PFT)

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- Includes data on pulmonary function testing including FEV1 and FEC values, whether the patient is a smoker, height and weight at time of test, and the type of testing

# Talent Management System (TMS)

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- Includes data from TMS around course completion including names, location, job title, and completion dates

# Non-CDW Data

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- Highly refined data sets based upon VistA and other data sources
  - Usually very clean
  - Tend to be de-normalized - “flat” not relational
  - Main patient identifier is typically [ScrSSN] ... sometimes [PatientICN]
- Typically predate the concept of CDW
- Intended for very specific business needs, i.e., very focused
- Tend to have *some* demographic information but usually not complete
- Reasonably well documented

Non-CDW Data



# PSSG

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- ❑ The PSSG (Planning Systems Support Group) Geocoded Enrollee files are a group of quarterly datasets comprising detailed and extensive geographic information. These data contain one record per enrollee.
- ❑ VINCI receives SAS files and the data is loaded into SQL server for research access
- ❑ Includes data on patient Addresses including drive times

# VASQIP

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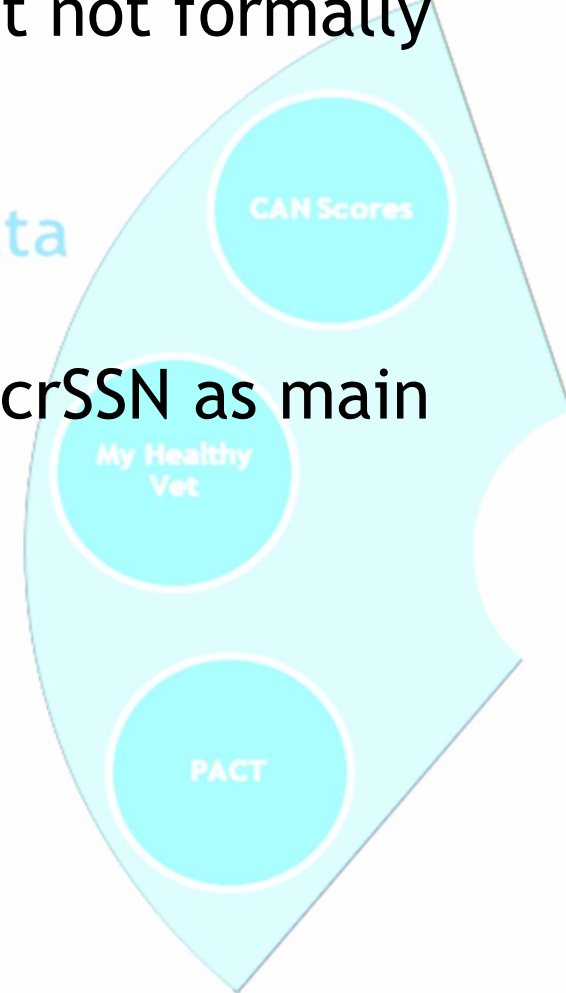
- VA Surgical Quality Improvement Program (VASQIP)
- Produced by the VHA National Surgery Office (NSO)
- Surgical Outcome Data
  - Morbidity and Mortality
- Data on the quality of processes and structures of surgical care



# Other Data

- Data sets based upon CDW data but not formally produced or managed by CDW
- Documentation is hit and miss
- Frequently contain PatientICN or ScrSSN as main patient identifier
- Indexing is hit and miss

Other Data



# VHA Office of the Assistant Deputy Under Secretary for Health (ADUSH)

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- Enrollment Files which project health care utilization and associated expenditures for the enrolled and non-enrolled Veteran population
- Intended for:
  - Produce national statistics on VHA expenditures, enrollment, and patients
  - Develop statistical models to forecast enrollment and expenditures
  - Perform policy analyses to support planning, policy, and budget decisions by VA, the President, and Congress

# Bereaved Family Survey

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- Provides data about how families perceive the care deceased Veterans received from VA inpatient facilities during the last month of life for Veterans who died as inpatients in any VA hospital nationwide
- Administered by the Geriatrics and Extended Care (GEC) Veteran Experience Center (VEC)



# Care Assessment Need (CAN) Score

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- The Care Assessment Need (CAN) score reflects the estimated probability of hospital admission or death within a specified time frame of 90 days or 1 year.
- The score is expressed as a percentile, ranging from 0 (lowest risk) to 99 (highest risk) compared to other VA patients
- Data used to generate the score is obtained from VHA administrative databases



# Clinical Assessment, Reporting, and Tracking Application Suite (CART)

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- Comprehensive patient and procedural information while automating documentation for all invasive cardiac procedures
- Includes patient and facility procedural information on patients undergoing invasive cardiac procedures at VA facilities, including information on comorbidities, prior and concurrent cardiac treatments, primary diagnosis on presentation, primary indicators for procedures, inpatient vs outpatient status at time of procedure, complications, and adverse events



# DaVINCI

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- Department of Defense and VA-VINCI data integration
- Interagency collaboration and resource sharing
- Military Health System Data and service-related information
- Includes:
  - Health care events
  - Historical beneficiary data
  - Service-related information
  - Demographics





# Geriatrics & Extended Care Data Analysis Center (GECDAC) Health Care Risk Measures

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- Data on an aging Veteran's risk of needing long-term services and support such as nursing home care and medical and social care at home
- Uses both VA and CMS data sources

# VA Health Economics Resource Center (HERC)

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- Data to help determine the cost of VA care, assess cost-effectiveness, and evaluate the efficiency of VA programs and providers



# Home Based Primary Care (HBPC)

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- HBPC focuses on patients who have complicated, chronic, progressively disabling disease and provides them with complete long-term home care
- Includes Date, Admission/Discharge Flag, Activities of Daily Living (ADL), Caregiver Burden, and some diagnoses (e.g., diabetes, hypertension, dementia, CHF, COPD, mental health diagnoses, etc.) for Veterans admitted to or discharged from HBPC



# Homeless Veterans Registry

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- Data about Veterans who have experienced homelessness, who have received homeless services from VA or community programs outside of VA, or who are at risk for homelessness since 2006
- Includes demographic, diagnostic, and programmatic data related to housing stability, healthcare and treatment, and VA benefits enrollment



# Lung Cancer Screening Demonstration Project (LCSDP)

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- Project with a goal of understanding the feasibility and implications of programmatic lung cancer screening (LCS) with low-dose computed tomography (LDCT)

# Left Ventricular Ejection Fraction (LVEF)

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- This domain contains information on the left ventricular ejection fraction measurement extracted using Natural Language Processing(NLP)
  - The total amount of blood in the left ventricle that is pumped out with each heartbeat.
- The measurement is given in a range value. The LVEF data set separates the lower and upper values of each range that a patient received

[VINCI NLP Output – LVEF \(va.gov\)](#)

[VINCI LVEF](#) (scroll to the bottom of the page)



# Managerial Cost Accounting (MCA) (Formerly Decision Support System [DSS])

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- Combines clinical and financial data to produce information services that possess detail at the patient level
- Used to analyze costs of providing services from various perspectives

# Medical SAS (MedSAS)

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- Contains inpatient and outpatient data with national summary information on VHA patient health care encounters
- Includes dates of care, diagnoses, treatments, and locations where care occurred as well as administrative data and basic demographic information about patients



# My HealtheVet (MHV)

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- Data to provide insight into Veteran engagement with the My HealtheVet portal such as refilling VA prescriptions online, managing appointments, reviewing laboratory results, and communicating securely with their VA health care team
- Includes links a Veteran selects when visiting the site, authentications completed, on-line prescription refills requested, use of secure messaging features, and dates and times for these activities

# National Precision Oncology Program (NPOP)

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- Data on next generation sequencing (NGS) test results on tumor and blood samples
- Includes test date, test type, test status, submitted diagnosis, patient demographics, ordering clinician/provider, findings, and interpretations

# Office of Mental Health and Suicide Prevention (OMHSP)

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- Data on Veteran suicide and other self-directed violence events and OMHSP Performance Metrics
  - Note that data is intended for clinical operational use and not designed for research
- Includes details of each event including method used and outcome



# Patient Aligned Care Team (PACT)

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- VHA's implementation of the patient-centered medical home model, aims to improve health outcomes through team-based care, improved access and care management.
- Composite scores were constructed for eight core domains of PACT: access, continuity, care coordination, comprehensiveness, self-management support, patient-centered care and communication, shared decision making and team-based care.
- The main outcomes and measures are patient satisfaction, rates of hospitalization and emergency department use, quality of care and staff burnout.

# Resident Assessment Instrument (RAI)

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- A standardized assessment and treatment planning process to identify functional status and health care needs of residents in VHA's Community Living Centers (CLCs) and to support the development of individualized care plans for residents
- Includes resident demographic and clinical information related to hearing, vision, cognitive status, mood and behavior, psychosocial status, physical status, active diagnoses, pain, nutritional status, activities of daily living, and other elements of function



# Traumatic Brain Injury Screening and Evaluation Data

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- Data on TBI screening and evaluation from The Office of Patient Care Services Rehabilitation and Prosthetic Services
- Includes whether the Veteran has been involved in a potential TBI causing event, details about those events, and symptoms reported by the Veteran

# United States Veterans Eligibility Trends and Statistics (USVets)

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- Integrated datasets that combines data from VA, the Department of Defense (DoD), and commercial sources for Veterans enrolled in VA and those who are not
- Includes utilization of VA services and benefits, military history, geography, demographics, and socioeconomic factors

# Veterans Services Network (Vetsnet)

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- Data from the Veterans Benefits Administration's (VBA) Corporate Database
- Includes cumulative information on Veterans and their beneficiaries who receive VA benefits
  - Disability ratings for service connected and non-service connected disabilities
  - Type, amount, and dates of benefits paid
  - Military service branch and entrance and release from active service dates
  - Non-compensation and pension benefits data (i.e. education and burial)



# References

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- VHA Data Portal - [vaww.vhadatportal.med.va.gov](http://vaww.vhadatportal.med.va.gov)
  - Data Sources
  - Data Access
  
- VIREC - [vaww.virec.research.va.gov](http://vaww.virec.research.va.gov)
  - HSRDataL-ListServ - [vaww.virec.research.va.gov/Support/HSRData-L.htm](http://vaww.virec.research.va.gov/Support/HSRData-L.htm)
  - Research User Guides(RUGs)
  - Researcher's Notebook
  
- CDW Support Site - [CDW Support \(sharepoint.com\)](http://CDW Support (sharepoint.com))
  
- BISL- [Business Intelligence Service Line \(BISL\) \(sharepoint.com\)](http://Business Intelligence Service Line (BISL) (sharepoint.com))
  
- CDW-Raw site - [CDW-Raw \(sharepoint.com\)](http://CDW-Raw (sharepoint.com))

# References

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- VINCI Central - [VINCI Central - Home \(va.gov\)](#)
  - Guides
  - Videos
  - VINCI environment documentation
  - VINCI Data Sources: [Data Sources \(va.gov\)](#)
  
- VHA Data Quality -  
<http://vaww.vhadatportal.med.va.gov/AboutUs/DataQualityProgram.aspx>
  
- MCA/DSS - [vaww.dss.med.va.gov/nationalrptg/nr\\_extracts.asp](http://vaww.dss.med.va.gov/nationalrptg/nr_extracts.asp)  
    ✎ <http://vaww.virec.research.va.gov/NDEs/Documentation.htm>
  
- HERC
  - Dataset Guides: [vaww.herc.research.va.gov/include/page.asp?id=guidebooks](http://vaww.herc.research.va.gov/include/page.asp?id=guidebooks)
    - Average Cost data
    - Non-VA Medical Care (Fee Basis)
    - MCA (DSS) Cost Extracts

# References

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- MedSAS: [VIReC/MedSAS/Documentation](#)
- COVID-19 Shared Data Resource: [COVID-19:Shared Data Resource - VA Phenomics Library](#)
- [VA Phenomics Library-CIPHER](#)
- VINCI OMOP Academy: [OMOP Academy \(va.gov\)](#)
- VINCI Services SOPs: [Category:VINCI SOP - VA Phenomics Library](#)

# References

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- Death Ascertainment File: [DAF Data Page](#)

# Questions?

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