VA | U.S. Department of Veterans Affairs

DaVINCI DoD Source Data: Overview of Coding Practices in Military Treatment Facilities and TRICARE Claims

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October 8, 2020

Produced by Kennell & Associates, Inc. for Veterans Affairs (VA)

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Purpose

- This the first of four webinars that focus on DaVINCI's DoD Electronic Health Record (EHR) and TRICARE claims data sources.

- This webinar will cover the DoD source data capture and processing flow as well as the key differences in coding between DoD EHR data ("direct care") and TRICARE claims ("private sector care").

- Future Webinars:
  - MHS GENESIS (Cerner EHR) and OMOP
  - Deep dives into Direct and Private Sector Care and OMOP.

Poll Question

I am attending this session because:

1. I am using MHS DaVINCI data
2. I want to use MHS DaVINCI data
3. I’ve heard of DaVINCI and want to learn more
4. Other

Poll Question

My role is:

1. VA Clinician
2. VA Researcher
3. VA Other
4. DoD Affiliated
5. Other

Objectives

After attending the webinar, attendees will be able to:

- Provide a quick overview of the Military Health System (MHS)
  - Refer to following session on DaVINCI Data Academy:
    - https://sps.vinci.med.va.gov/prod/vincipedia/Pages/DaVINCI-Data-Academy.aspx
- Describe the sources and processing flow of DoD EHR data and TRICARE claims data
- Discuss direct care coding completion policies and standards for various DoD encounters
- Describe the completion lag differences (‘run out’) between purchased care and direct care data
- Provide an overview of TRICARE MS-DRGs and DoD Unique Codes
- Discuss the use of global codes and the differences in data capture between DoD EHR and TRICARE Claims data and how they relate to OMOP

Military Health System (MHS)

What is the Military Health System?

- The MHS is a network of military hospitals and clinics (‘direct care’), supplemented by programs to enable beneficiaries to seek care in the private sector (‘private sector care’) in order to fulfill their healthcare needs according to access standards and to assure medical readiness of the force.

- Many VA beneficiaries also have DoD eligibility or have previously had it.
  - For example, 15% of the MHS HEDIS Diabetes Cohort are also enrolled with the VA.

Our Mission

Enhance the Department of Defense and our nation's security by providing health support for the full range of military operations and sustaining the health of all those entrusted to our care.

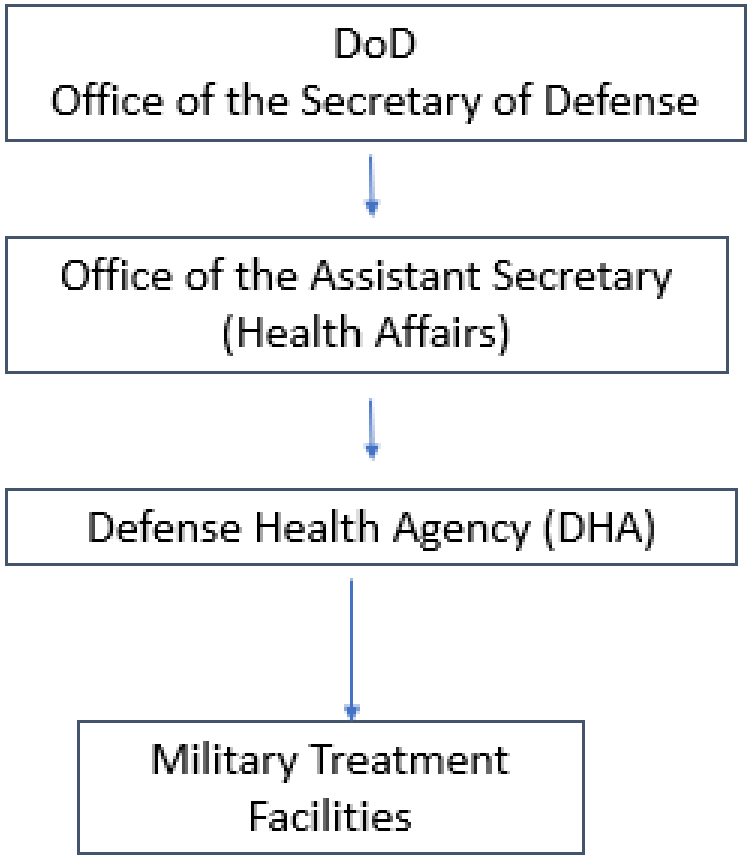
Our Vision

Be a world-class health care system that supports the military mission by fostering, protecting, sustaining and restoring health.

What is the Military Health System?

- Eligible Beneficiaries: 9.4 million
- Number of Hospitals: 50+
- Number of Medical Clinics: 500+
- Number of Dental Clinics: 300+
- Inpatient Admissions to Military Hospitals: 240K
- Inpatient Admissions in the Private Sector: 770K
- Office Visits in Military Hospitals/Clinics: 41M
- Office Visits in the Private Sector: 86M
- Number of Prescriptions from Military Pharmacies: 34M
- Number of Prescription from the Private Sector: 55M

Organizational Structure – Military Hospitals and Clinics

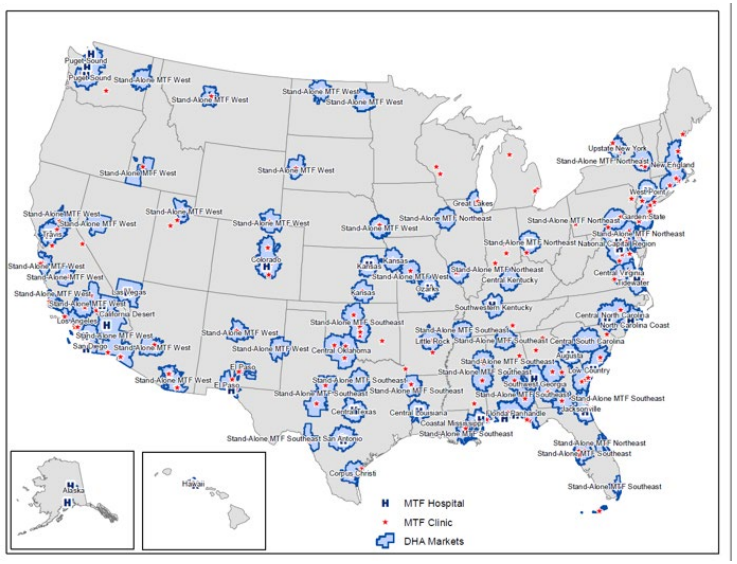


National Defense Authorization Act (NDAA) 2017:

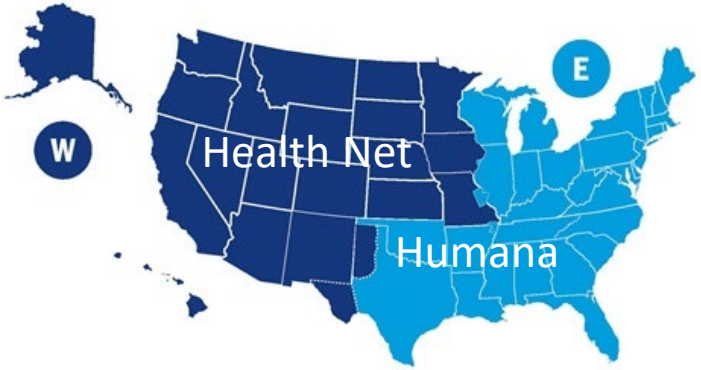
- Transitioned authority for operating military treatment facilities from the Military Service Departments to the Office of the Secretary of Defense
- Gradual implementation of market structure to oversee hospitals and clinics
- Military Services are still responsible for "readiness"

Direct Care vs. Private Sector Care

- MHS Direct Care System
  - Refers to the acute care hospitals, clinics, and dental facilities operated by DoD.
    - Most of the hospitals are small facilities. There are only 6 hospitals with more than 100 patients in their average daily census and scores of hospitals with less than 50.
    - Many hospitals have Graduate Medical Education programs.
    - Clinics can vary from those serving only Active Duty for primary care needs, to full-service clinics with same day surgeries and such.
    - The MHS has an active patient centered medical home (PCMH) program, which most MTFs participate in.
  - There is no cost sharing (other than paying for food for some patients) for care at MTFs. Can be particularly useful when studying the impacts of cost-sharing on access to care.
  - There is an established priority for care and in some places, eligible beneficiaries cannot get appointments at MTFs.



Direct Care vs. Private Sector Care

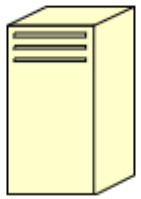


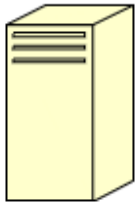
TRICARE Private Sector Care

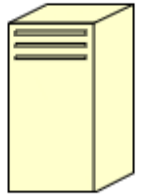
- TRICARE Claims represent more than half of the care provided to MHS beneficiaries.
- Particularly important for those who live near small MTFs and for those who don't have priority at MTFs, such as retirees or Medicare eligibles.
- Only administrative data is available (similar to what would be available for Medicare claims) when TRICARE has obligation for payment.
- Limits the ability to use the data for some studies and some cohorts.
- TRICARE offers numerous health plans with various cost-sharing (e.g., Prime, Select, USFHP, TRICARE Reserve Select, TRICARE for Life). The relationship a beneficiary has with the MHS determines their eligibility for specific plans and premiums/cost-shares.

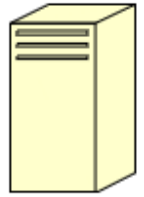
DoD Direct Care Data

Data Collection
CHCS Hosts – Separate Servers





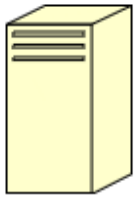


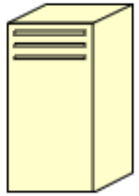


Example of MTFs using the Groton CHCS

CHCS Host	Tmt DMIS ID	Tmt DMIS ID Name
0035	0035	NBHC GROTON
0035	0100	NHC NEW ENGLAND
0035	0321	NBHC PORTSMOUTH
0035	0328	NBHC SARATOGA SPRINGS
0035	5401	ERS-NAVY-NEWPORT HOSPITAL-CIV

Etc… etc…



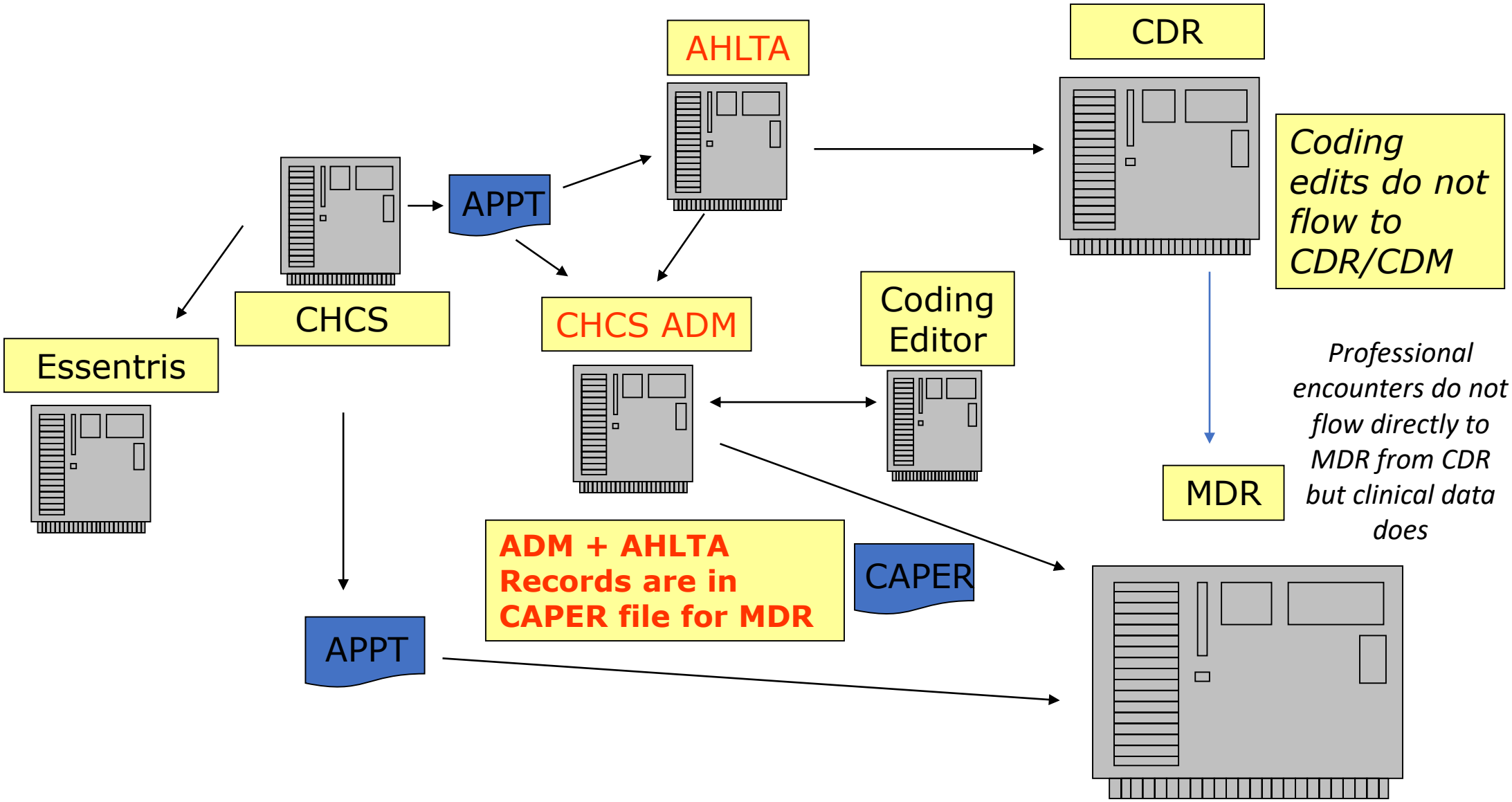


- CHCS was built in the 1980s
- Early hospital operations system
- Local servers only have visibility of local data
- With military members moving so often, CHCS provides a limited view of care provided to patients
- CHCS is a **legacy** system.

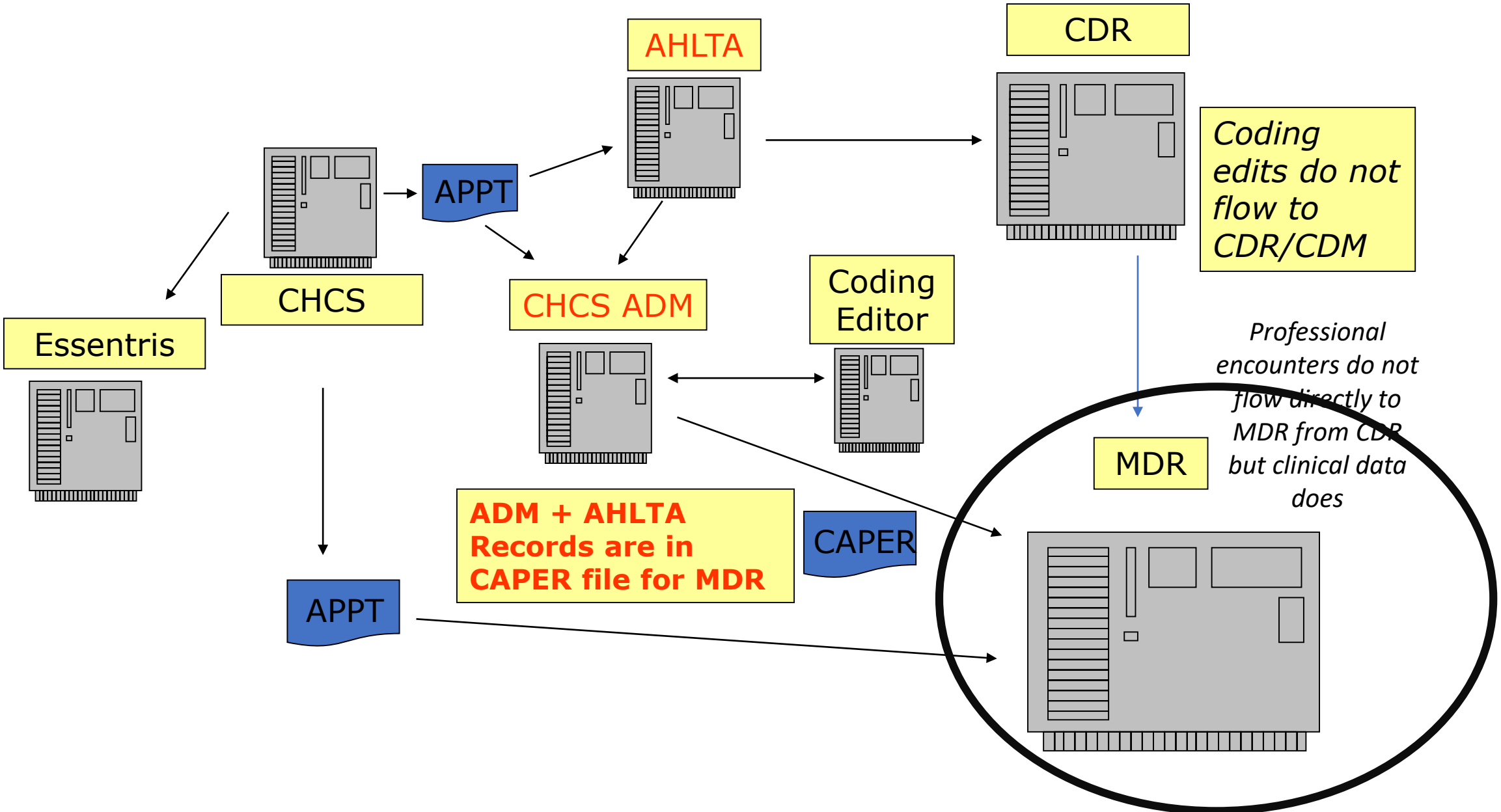
Data Collection
CHCS - AHLTA - Essentris

- When care was documented solely using CHCS , medical records were maintained on paper, and diagnosis and procedure codes were entered to represent the care provided.
- While CHCS is still used (except for GENESIS sites) for most administrative purposes, AHLTA was implemented in the mid-90s. AHLTA is an outpatient electronic health record that works in conjunction with CHCS
  - Much more detailed clinical data is captured in AHLTA than in CHCS
  - One Clinical Data Repository holds MHS-wide data, rather than separate servers like CHCS
  - AHLTA is a **legacy** system
- Essentris is the inpatient EHR.
  - Essentris is also in **legacy** status
  - Essentris data are stored on local servers and not sent to central repositories except upon retirement of the system.

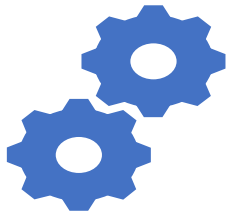
Data Flow: CHCS –AHLTA - Essentris



Data Flow: CHCS –AHLTA - Essentris



CHCS and Essentris



~85% of encounter records are documented in AHLTA

These encounters are automatically written back to CHCS.

When providers document care in Essentris, there is no automatic flow of that data outside of Essentris; therefore:

Coders code ICD-10 PCS codes on inpatient records, but someone must also code the doctor's notes with CPT/HCPCS codes

The capture of CPT/HCPCS codes for inpatient care is not uniformly happening

Data Products from CHCS

SINCE CHCS HOSTS ARE NOT CONNECTED, IT IS CRITICALLY IMPORTANT THAT DATA BE EXPORTED FROM CHCS AND STORED CENTRALLY

NECESSARY TO UNDERSTAND THE COMPLETE HEALTH HISTORY OF PATIENTS

THERE ARE MANY ROUTINE CHCS EXTRACTS GOING TO THE MHS DATA REPOSITORY (MDR), WHICH ARE THEN SENT TO DAVINCI

Routine Data Feeds Available Centrally from CHCS and AHLTA

Source	Name	Content
Standard Inpatient Data Record	SIDR	Inpatient Hospital
Comprehensive Prof Encounter Record	CAPER	Professional Services
Appointment	APPT	Appointments
Referral	REF	Referrals (MTF or Purchased Care)
Chemistry	Chem	Chemistry Exams & Results
Microbiology	Micro	Microbiology Exams & Susceptibility
Pathology	Path	Pathology Exams & Results
Radiology	Rad	Radiology Exams & Results
Schedulable Entity	SE	MTF Appointment Schedules
Pharmacy	RX	Dispensing Events
Subjective/Objective Notes	SO	Clinical Notes (AHLTA based only)
Immunizations	IMM	Immunization History
Vital Signs	Vitals	Vitals and Other questionnaire type data

MHS GENESIS

- Like the VA, the MHS is implementing Cerner's Millennium Electronic Health Record. The MHS product is branded as MHS GENESIS
- MHS GENESIS replaces CHCS, AHLTA and Essentris.
- MHS GENESIS is implemented in the Puget Sound, Sacramento, Mountain Home, some parts of California, and more recently, Las Vegas
- Data are flowing into central systems but not yet considered reliable due to mapping problems.

MHS Genesis Subject Areas

Anesthesia
Application
Blood Bank
Care Management
Case Notes
Clinical Events
Documentation
Emergency Department
Encounter
Family History
General Lab
Health Maintenance

Health Plan
Lighthouse Readmission
Long Text
Maternity
Microbiology
Orders
Pathways
Pharmacy
PowerNote
Procedure/Diagnosis
Profit
Questionnaire

Radiology
Scheduling
Social History
Surgery

MHS GENESIS

MHS GENESIS data files in production

Person	Admissions
Personnel	Encounters
Location	Surgery
Appointment	Immunizations
Lab	Orders
Rad	Encounter History
Referral	Vitals

Private Sector Care

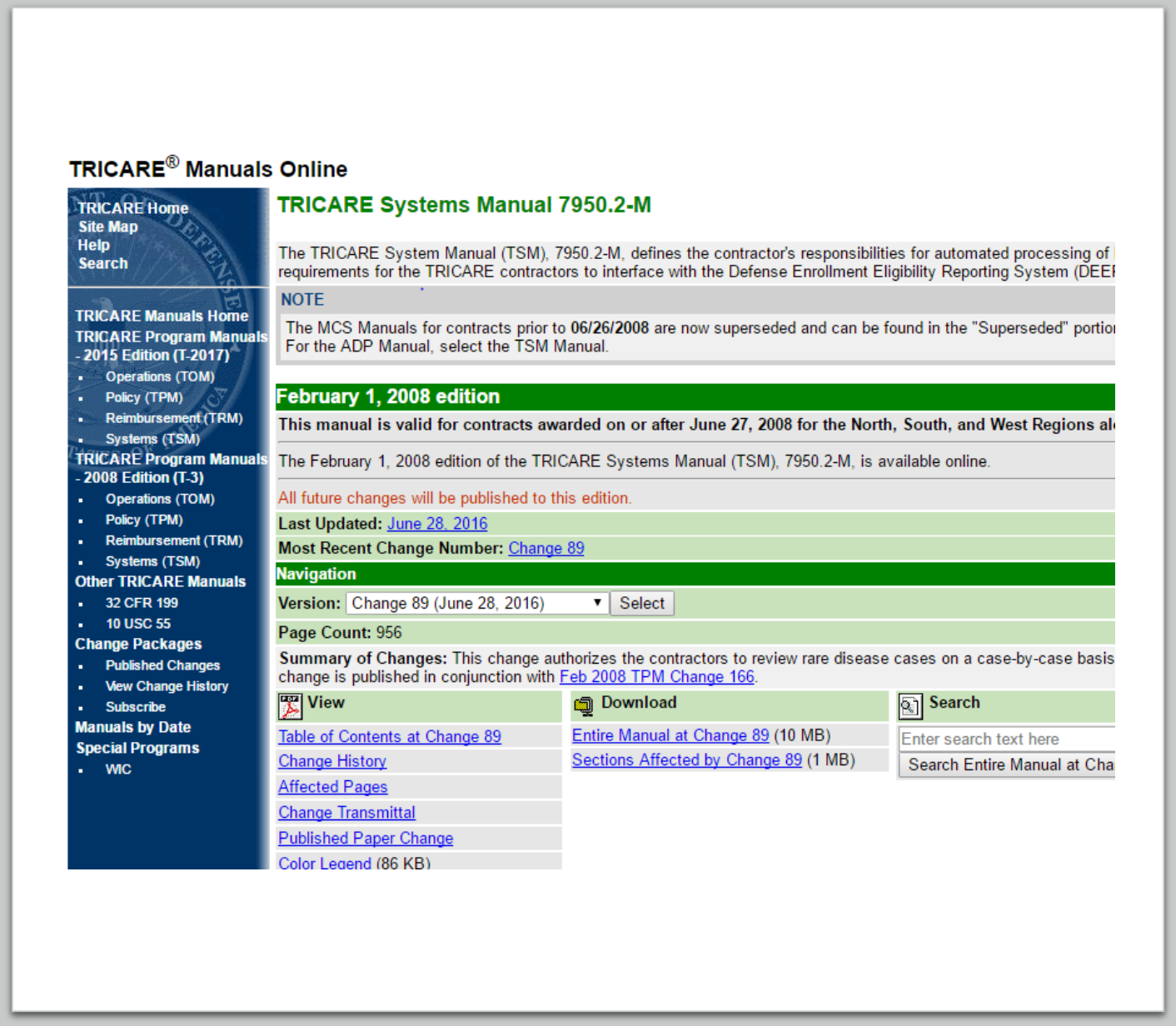
Private Sector Care

- TRICARE Encounter Data (TED) Records
  - Represent care, supplies or services provided to MHS beneficiaries by private sector providers under the TRICARE Program.
  - TRICARE Prime
  - TRICARE Extra/Standard
  - TRICARE for Life
  - TRICARE Reserve Select, TRICARE Retiree Reserve Select, TRICARE Young Adult
  - TRICARE Overseas Prime, TRICARE Global Remote
  - TRICARE Pharmacy
- TED records are abstracts from TRICARE claims used to pay providers under TRICARE

Private Sector Care

- The TRICARE systems manual describes the processing of claims data by the TRICARE Managed Care Support Contractors

- http://manuals.tricare.osd.mil/pages/DisplayManual.aspx?SeriesId=SYSTEMS



Data Available in Purchased Care:
TRICARE Institutional and Non-Institutional Claims

- TRICARE Claims include:
  - Physician Services
  - Hospital Stays or Services
  - Ancillary Services
  - Emergency Room
  - Durable Medical Equipment
  - Pharmacy
  - Home Health
  - Hospice
  - Others

- Individual claims are available
- Diagnosis and Procedure Codes, dates and location of care
- Billing and patient data
- Patient and Provider
- Other administrative data
- Clinical data are not available
  - Lab and Rad CPTs, but no results.
  - No vital signs
  - No electronic notes

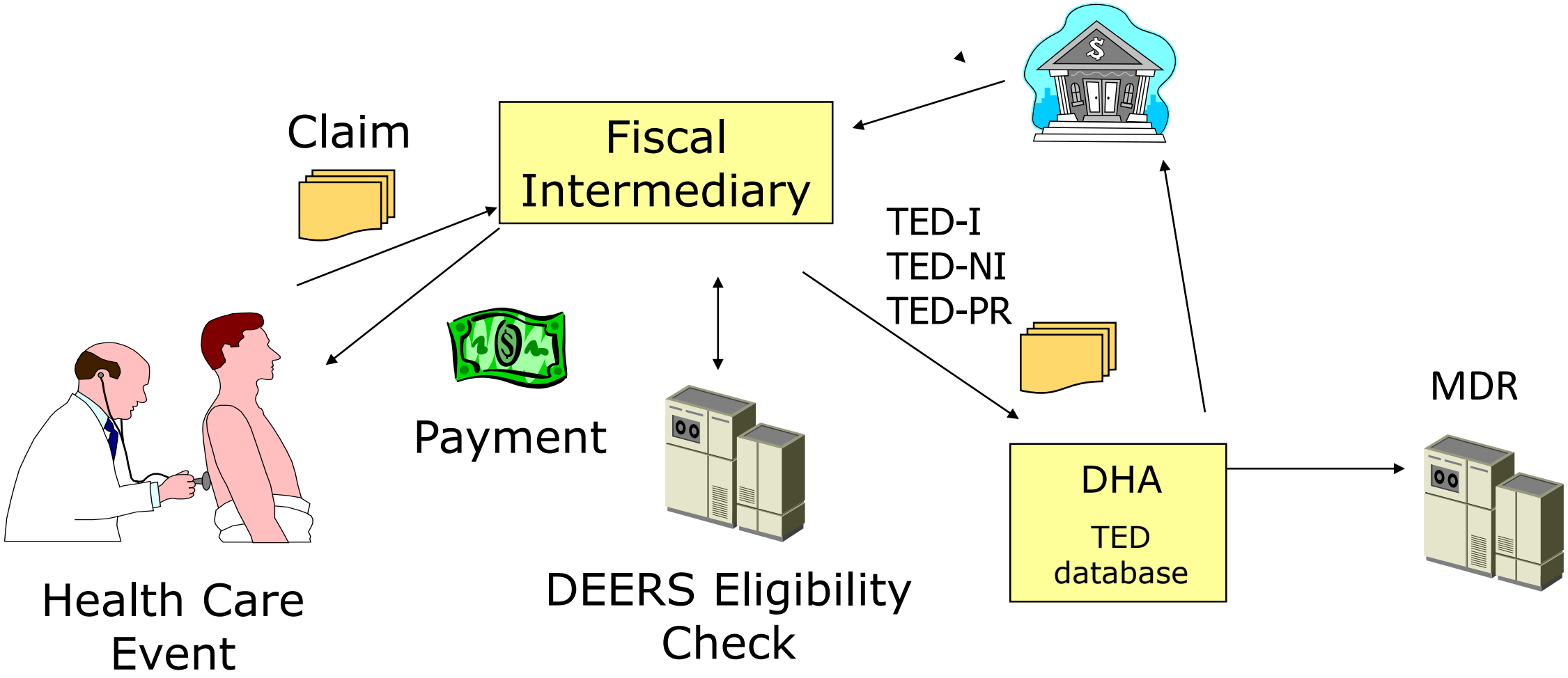
- Claims are only sent to TRICARE if TRICARE has a liability.
- If 100% of the allowed amount is paid by another payor, TRICARE is blind to the fact that the care occurred.

Data Available in Purchased Care:
TRICARE Institutional and Non-Institutional Claims

There are three types of TED records

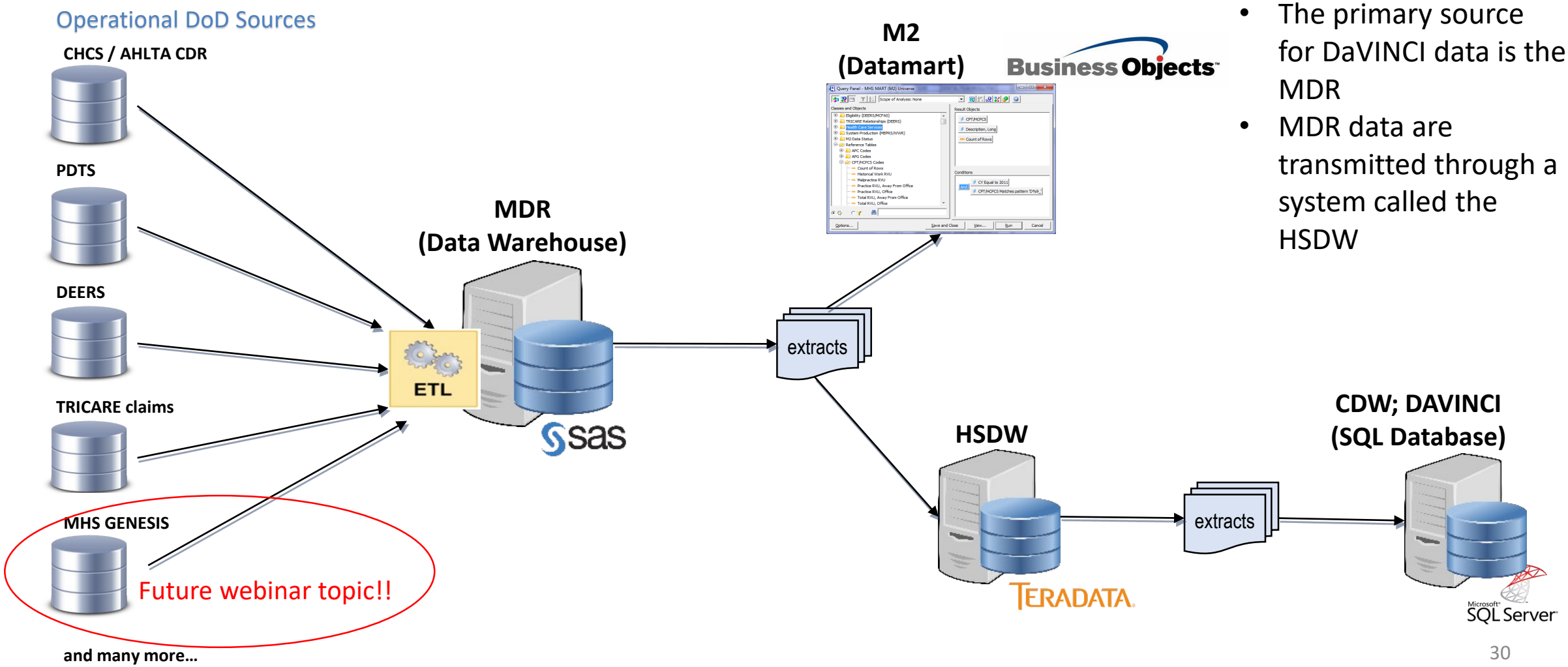
- Institutional TEDs:
  - Claims submitted by institutions for inpatients.
  - Unlike most other pays, institutional bills for outpatients are not included in this data type (Hospital Outpatient Department, ER).
- Non-Institutional TEDs:
  - All other medical and pharmacy claims
  - Contains a mix of professional services, outpatient facility bills, pharmacy, durable medical equipment, lab, rad, etc.
- TED Provider:
  - Contains a record of all providers who can bill TRICARE. Organized by Tax ID.

Claims Payment Process



DoD Source Data to DaVINCI

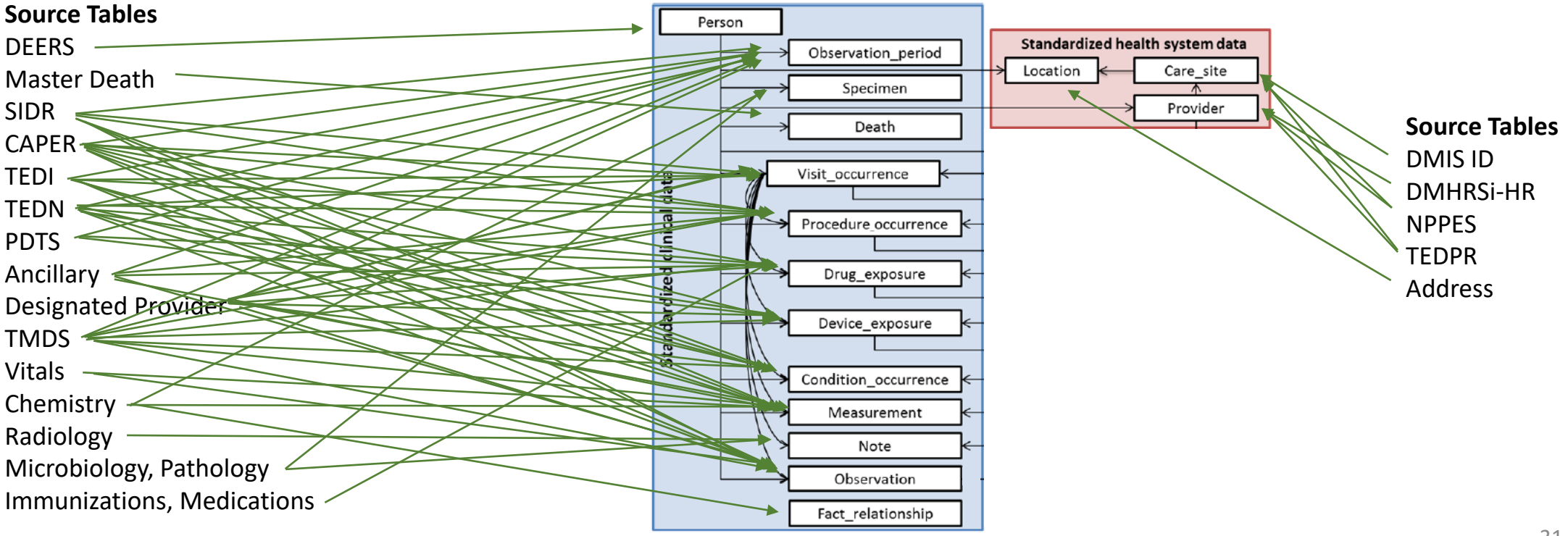
Data Flow Summary



- The primary source for DaVINCI data is the MDR
- MDR data are transmitted through a system called the HSDW

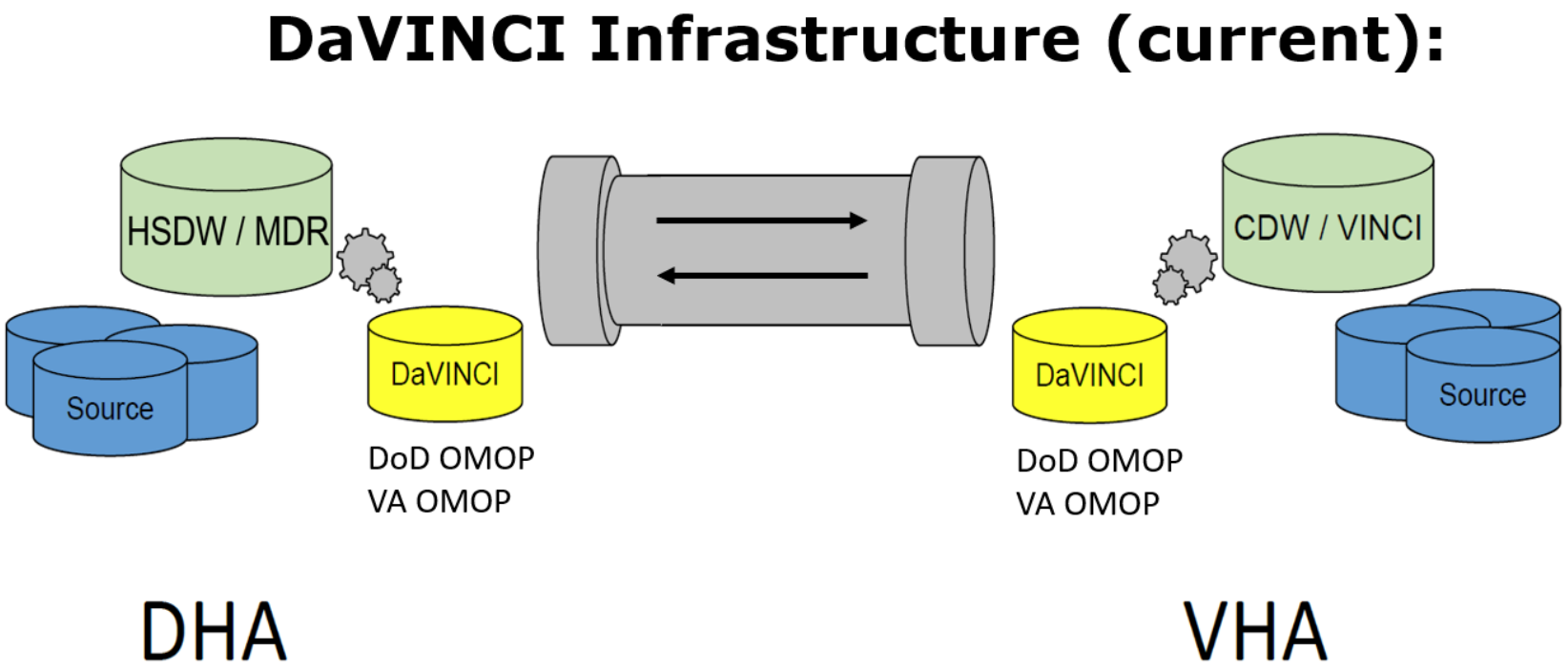
Mapping DoD Source Data to DoD OMOP Clinical Tables

- Advantage of OMOP is that data is mapped from many source tables (e.g., multiple EHR and claims files) to a limited set of standardized tables that allow for easier use.
  - Can write one query to pull all Emergency Department Procedures instead of looking at CAPER and TED-NI
- Very little data cleaning is done during the transformation into the OMOP CDM

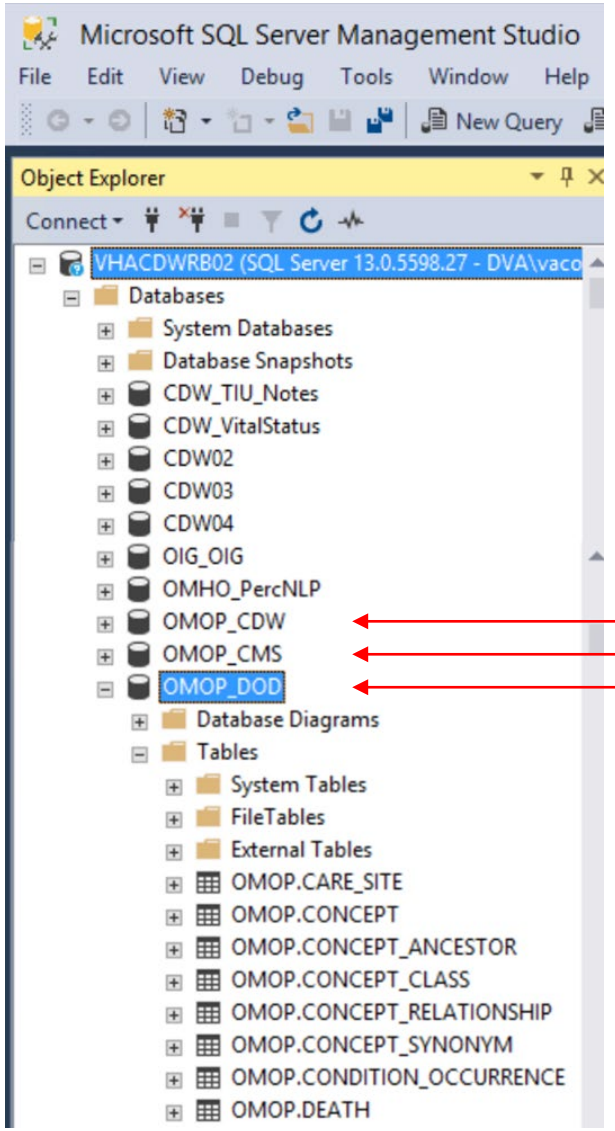


DaVINCI

- Currently, 2 separate DaVINCI databases exist: one lives in a DoD analytic environment (HSDW – Teradata), and the other in the VA analytic environment (VINCI – SQL Server)
- Both contain the same OMOP CDM data tables

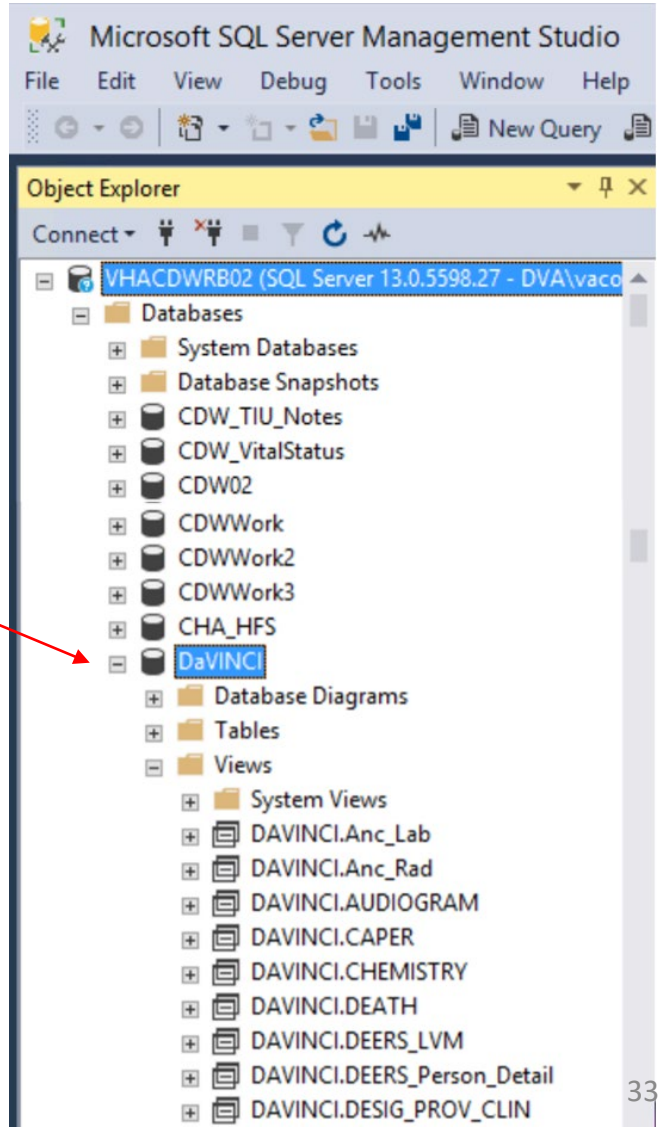


Current status: Data on VINCI RB02



DoD OMOP, alongside CDW and CMS OMOPs

DaVINCI ‘Source’ database



MDR Enhancements

Person Identification Enhancement

Master Person Index (MPI) used to track all known IDs and relationships for each person

If a person has multiple reasons for eligibility, MDR consistently assigns person ID no matter how they present for care

Uses DEERS files to properly assign benefit information, enrollment information and demographics

Groups diagnosis and procedure codes into categories

Diagnosis Related Groups (DRGs) (TRICARE Unique)

Major Diagnostic Categories (MDCs)

Ambulatory Payment Classifications (APCs)

AHRQ Clinical Classification Software

Application of workload weights

Relative Value Units (RVUs)

Relative Weighted Products (DRG weights)

Application of risk scores

Financial risk

DoD Risk Adjustment Model (Concurrent)

Application of estimated costs

Full costs and variable costs for direct care data

Many more!

etc.

What is captured?

EHR vs Claims Data

Direct Care vs. Private Sector Care

- DoD EHR Captures:
  - Medical/Surgical Encounters
  - Clinical Data (e.g., BMI)
  - Administrative
    - Nurse T-Cons
    - Provider Clear and Legible Reports (CLRs)
    - DoD Specific Codes (e.g., Post Deployment Health Assessments)
    - Etc.
- EHRs are intended to capture all utilization/workload.

- TRICARE Claims Capture:
  - Medical/Surgical Care that is billable
    - Can be individual events or one claim that covers a global period
  - No-Clinical/Admin Data
- Claims are intended for payment.

Direct Care vs. Private Sector Care

- Both direct and purchased care data use ICD-10 Diagnosis Codes
- Both direct and purchased care data use CPT/HCPCS codes; **generally** according to industry standards
- Both direct and purchased care use ICD-10 PCS codes

Inpatient Care

- Inpatient Institutional Care is published in the
  - Standard Inpatient Data Record
  - MHS GENESIS Admissions Record
  - TED Institutional Data Record
- TRICARE uses DRGs for acute care stays, but TRICARE DRGs are not the same as Medicare's DRGs.
- TRICARE has a younger population than Medicare and requires different DRGs and DRG weights to account for that.

Inpatient Care

Age Splits

Medicare MS-DRG	MS-DRG Title	Weights
031	VENTRICULAR SHUNT PROCEDURES W MCC	4.3745
032	VENTRICULAR SHUNT PROCEDURES W CC	2.1921
033	VENTRICULAR SHUNT PROCEDURES W/O CC/MCC	1.7009
103	HEADACHES W/O MCC	0.7995
113	ORBITAL PROCEDURES W CC/MCC	2.1321

TRICARE MSDRG	Description	TRICARE Weight
031	VENTRICULAR SHUNT PROCEDURES AGE >17 W MCC	4.3886
032	VENTRICULAR SHUNT PROCEDURES AGE >17 W CC	1.9305
033	VENTRICULAR SHUNT PROCEDURES AGE >17 W/O CC/MCC	1.7088
104	CRANIOTOMY, VENTRICULAR SHUNT & ENDOVASC INTRACRANIAL PROC AGE 0-17	2.0161

- Examples of TRICARE split by age, and TRICARE focus on neonates

Birthweight available

Medicare MS-DRG	MS-DRG Title	Weights
789	NEONATES, DIED OR TRANSFERRED TO ANOTHER ACUTE CARE FACILITY	1.6900
790	EXTREME IMMATURITY OR RESPIRATORY DISTRESS SYNDROME, NEONATE	5.5730
791	PREMATURITY W MAJOR PROBLEMS	3.8062
792	PREMATURITY W/O MAJOR PROBLEMS	2.2965
793	FULL TERM NEONATE W MAJOR PROBLEMS	3.9097
794	NEONATE W OTHER SIGNIFICANT PROBLEMS	1.3838

FY/CY	TRICARE MSDRG	Description	TRICARE Weight
2020	632	NEONATE, BIRTHWT 750-999G, DIED	7.4587
2020	633	NEONATE, BIRTHWT 1000-1499G, W SIGNIF O.R. PROC, DISCHARGED ALIVE	28.2557
2020	634	NEONATE, BIRTHWT 1000-1499G, W/O SIGNIF O.R. PROC, DISCHARGED ALIVE	10.0776
2020	635	NEONATE, BIRTHWT 1000-1499G, DIED	10.9705
2020	636	NEONATE, BIRTHWT 1500-1999G, W SIGNIF O.R. PROC, W MULT MAJOR PROB	31.4632
2020	646	NEONATE, BIRTHWT 1500-1999G, W SIGNIF O.R. PROC, W/O MULT MAJOR PROB	7.6167
2020	647	NEONATE, BIRTHWT 1500-1999G, W/O SIGNIF O.R. PROC, W MULT MAJOR PROB	7.2193
2020	648	NEONATE, BIRTHWT 1500-1999G, W/O SIGNIF O.R. PROC, W MAJOR PROB	4.0931
2020	649	NEONATE, BIRTHWT 1500-1999G, W/O SIGNIF O.R. PROC, W MINOR PROB	3.8363
2020	650	NEONATE, BIRTHWT 1500-1999G, W/O SIGNIF O.R. PROC, W OTHER PROB	2.7126
2020	651	NEONATE, BIRTHWT 2000-2499G, W SIGNIF O.R. PROC, W MULT MAJOR PROB	10.3052

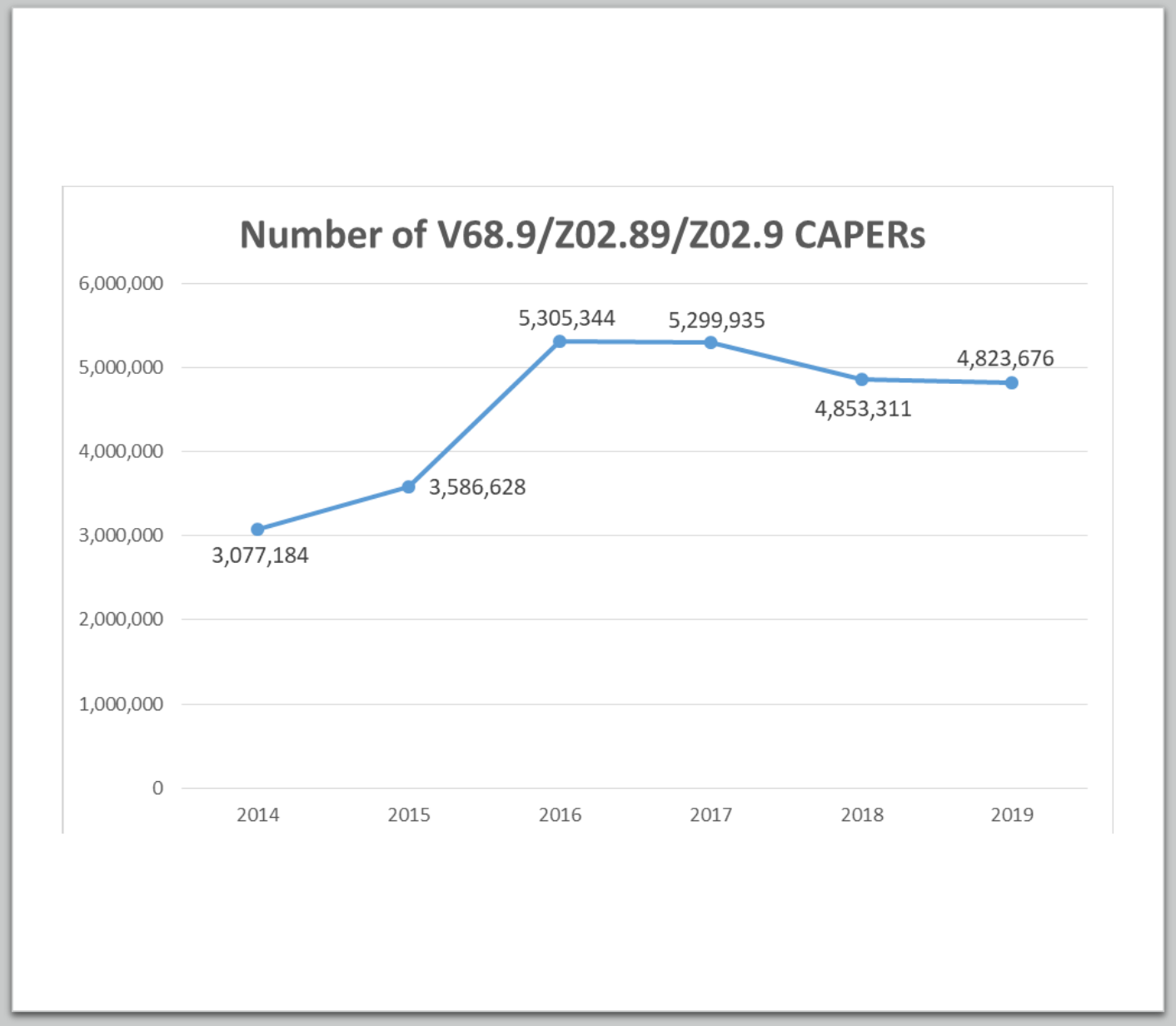
Location of Types of Non-Inpatient Data

- TRICARE Professional Services data are in CAPER, GENESIS Encounter data and TED Non-Institutional Data files, along with many other types of records.

Type of Care	CAPER	TED-N
Office Visits	x	x
Emergency Department	x	x
Inpatient Rounds	Sometimes missing, sometimes extraneous	x
Inpatient Procedures	Incomplete	x
Outpatient Procedures	x	x
Military Unique Codes	x	
Telephone Consults	x	
OP Facility Records	Not Separate	x
In Clinic Ancillaries	x	x
Other Ancillaries, etc.		When not bundled
Supplies	Sometimes	x
Administrative Records	x	
Pharmacy	Administered in clinic	When not bundled

Referral Tracking Encounters

- When patients are referred to the private sector, MTFs create encounter records to use as a reminder to get a report back from the private sector care providers.
- These records do not represent MTF encounters but are in the CAPER!
- You can identify these by:
  - Primary ICD-10 Dx codes : Z0289/Z029/Z7689
  - The one procedure code is 99499
  - Appointment status code is “telephone consult”
- These records should be removed from analysis
- These records are not in claims data



Bundling of CPT/HCPCS Codes

- Bundling:
  - Some CPT/HCPCS codes represent more than one service.
  - Each reported code is intended to represent care provided to include all routine care associated with a procedure.
  - Some items may not be separately reported
  - Examples of bundling:
    - Pre and Post Procedure care in a surgical code
    - Suturing and other necessary activities included in surgical codes
    - Lab panels
- Bundling software is used by payors to ensure payments are made for care that should have been reported bundled.
  - TRICARE requires the use of this for claims payment.
  - Bundling software is **not applied** to direct care data and pre and post operative visits are not bundled
  - Direct care follow up visits are coded with CPT 99024.

Global CPT/HCPCS Codes

- Global codes are surgical/procedural codes that include the post operative (and sometimes pre) care provided associated with the procedure.
- Global period is a lockout period where providers cannot bill for related care
- Global periods are either 0, 10, or 90 days, or for the entire puerperium

- MTFs do record separate pre and post op care while private sector providers cannot.

Global Period	Pre-Operative	Procedure	Post-Operative
000	N/A	Included	N/A
010	Not included	Included	Includes 10 days post-op
090	Included (Day Before)	Included	Includes 90 days post-op
M	Prenatal Included	Included	Includes post-partum

CPT/HCPCS: Global Example

- Example of unbundled direct care procedure
- In direct care, globals are split across multiple records with 99024 used for a post-operative visit and regular E&Ms for pre-ops, if done
- In private sector care, a procedure record with no modifier indicates the entire global packagea was provided

Private Sector Care (Claims) Coding

Record ID/Line Item No	Procedure Code	Procedure Description	CPT Modifier 1	Begin Date Of Care	End Date Of Care
2018325TX 83951 0754055(	66984	CATARACT SURG W/IOL, 1 STAGE		10/30/2018	10/30/2018

Direct Care (MTF) Coding

Pseudo I	Encounter Date	Procedure 1	Procedure 1 Modifier 1	Px Desc	Encounters
0126F29	03/21/2019	66984		CATARACT SURG W/IOL, 1 STAGE	1
	03/22/2019	99024		POSTOPERAT VIS,E/M PERFORM	1
	03/28/2019	99024		POSTOPERAT VIS,E/M PERFORM	1

DoD Unique Codes

- In direct care, DoD unique diagnosis codes are created
- These codes are in the same fields as regular ICD-10 diagnosis codes
- DoD Unique codes start with DoD*
- Only used in direct care records

Placeholders on uncoded SIDR records

ICD-10 Diagnosis	Description, Short	MHS Unique Flag
DOD0010	SIDR E STATUS DX,LIVEBIRTH	D
DOD0011	SIDR E STATUS DX,INJURY	D
DOD0012	SIDR E STATUS DX,OTHER	D

DoD Unique Codes

TBI Levels

ICD-10 Diagnosis	Description, Short	MHS Unique Flag
DOD0101	PERS HX,TBI,LVL-UKN	D
DOD0102	PERS HX,TBI,LVL-MILD	D
DOD0103	PERS HX,TBI,LVL-MODERATE	D
DOD0104	PERS HX,TBI,LVL-SEVERE	D
DOD0105	PERS HX,TBI,LVL-PENETRATNG	D

TBI Screenings

ICD-10 Diagnosis	Description, Short	MHS Unique Flag
DOD0121	SCREEN,TBI,NEGATIVE	D
DOD0122	SCREEN,TBI,POSITIVE	D
DOD0123	SCREEN,TBI,DECLINED	D
DOD0124	SCREEN,TBI,NA,CUR TBI DX	D
DOD0125	SCREEN,TBI,NA,OTHER	D

DoD Unique Codes

Active Duty / Readiness Related Care

ICD-10 Diagnosis	Description, Short	MHS Unique Flag
DOD0210	ASSESS,POST-DEPLY DD2978	D
DOD0211	ASSESS,PRE-DEPLY DD2795	D
DOD0212	ASSESS,POST-DEPLY DD2796	D
DOD0213	ASSESS,POST-DEPLY DD2900	D
DOD0214	EXAM,OCC,BASELINE	D
DOD0215	EXAM,OCC,PERIODIC	D
DOD0216	EXAM,OCC,TERMINATION	D
DOD0217	EXAM,OCC,FLY,LONG	D
DOD0218	EXAM,OCC,FLY,SHORT	D
DOD0219	EVAL,OCC,DES	D

ICD-10 Diagnosis	Description, Short	MHS Unique Flag
DOD0220	EVAL,OCC,MEB	D
DOD0221	EVAL,OCC,PEB	D
DOD0222	EXAM,OCC,RET,SEP,MIL,LONG	D
DOD0223	EXAM,OCC,RET,SEP,MIL,SHORT	D
DOD0224	EXAM,OCC,PRP	D
DOD0225	ASSESSMENT,OCC,PHA DD3024	D
DOD0226	EXAM,OCC,PRT	D
DOD0227	EXAM,OCC,FETAL PROTECTION	D
DOD0228	EXAM,OCC,TDRL	D
DOD0229	EXAM,DOD MERB	D

DoD Unique Codes

Case Management

ICD-10 Diagnosis	Description, Short	MHS Unique Flag
DOD0301	CASE MANAGEMENT START	D
DOD0302	CASE MANAGEMENT CONTINUE	D
DOD0303	CASE MANAGEMENT END	D

- MTF use CAPERs to report case management acuity.
- DoD Unique Diagnosis codes are used to indicate whether an assessment is being done at the start or end of CM Services, or whether a report is just a continuation of a previous report.

Key Takeaways

- Coding differences between Direct Care and Private Sector Care can impact your analysis in DaVINCI!
  - Example: Counting an average number of Prenatal Visits or Post-Op appointments for a specific surgery can only be done with Direct Care data or will bias towards zero!

	A	B	C	D
1	**Procedure_occurrence**	TOC		
2	**Field**	**Source File**	**Source Data Element**	**Business Rules**
15	qualifier_source_value	CAPER TEDN Ancillary All Others	E&M Code 1 Modifier 1 - E&M Code 3 Modifier 1, Procedure 1 Modifier 1 - Procedure 10 Modifier 1 CPT Modifier 1 Procedure Code Modifier 1 N/A	If CAPER and the procedure is a 30 day, 90 day or maternity global, code, set modifier as 54 (procedure only). Else if the procedure code is a CPT/HCPCS code, set to CPT Modifier if available. Else leave blank.
16	X_Source (x_Source_Table with varchar(50) in current table)	N/A	N/A	Derived based on the source of the procedure record: S = SIDR C = CAPER I = TEDI N = TEDN D = Desprov A = Ancillary T = TMDS

- We will deep dive into direct care and purchased care data in the next two webinars!

Data Lag

Direct Care vs. Private Sector Care

Completion Estimates

- Reporting lag associated with coded health care data.
- DoD Source Tables and OMOP are updated every quarter --- <u>some data may not be complete!</u>
  - Amount of lag varies by type of data
  - Much like your ATM balance! ☺
- Analysts must be cautious to not misinterpret missing data as a trend

What you see in your ATM balance isn't really what you have to spend…..

DoD Coding Timeliness

Per DoD guidelines, Military Treatment Facilities are supposed to code their encounter data with diagnosis and procedure codes within the following timelines:

Office Visits: 3 days

Emergency Department/Same Day Surgery: 15 days

Inpatient Stays: 30 days

However, some DoD Encounters are never coded (‘reported’) at all or reported late….

TRICARE allows a year from the date of care to initiate a claims

Coding Completion Impact
MTF Outpatient Encounters (non-GENESIS)

FY	FM	Inferred	Reported	Percent Inferred
2019	1	2,823	3,524,454	0.08%
2019	2	2,555	3,115,958	0.08%
2019	3	2,270	2,584,299	0.09%
2019	4	2,881	3,261,872	0.09%
2019	5	2,146	2,969,467	0.07%
2019	6	2,548	3,205,989	0.08%
2019	7	2,717	3,270,883	0.08%
2019	8	3,097	3,195,735	0.10%
2019	9	2,788	2,873,966	0.10%
2019	10	2,764	3,061,475	0.09%
2019	11	3,851	3,092,147	0.12%
2019	12	3,508	2,848,624	0.12%

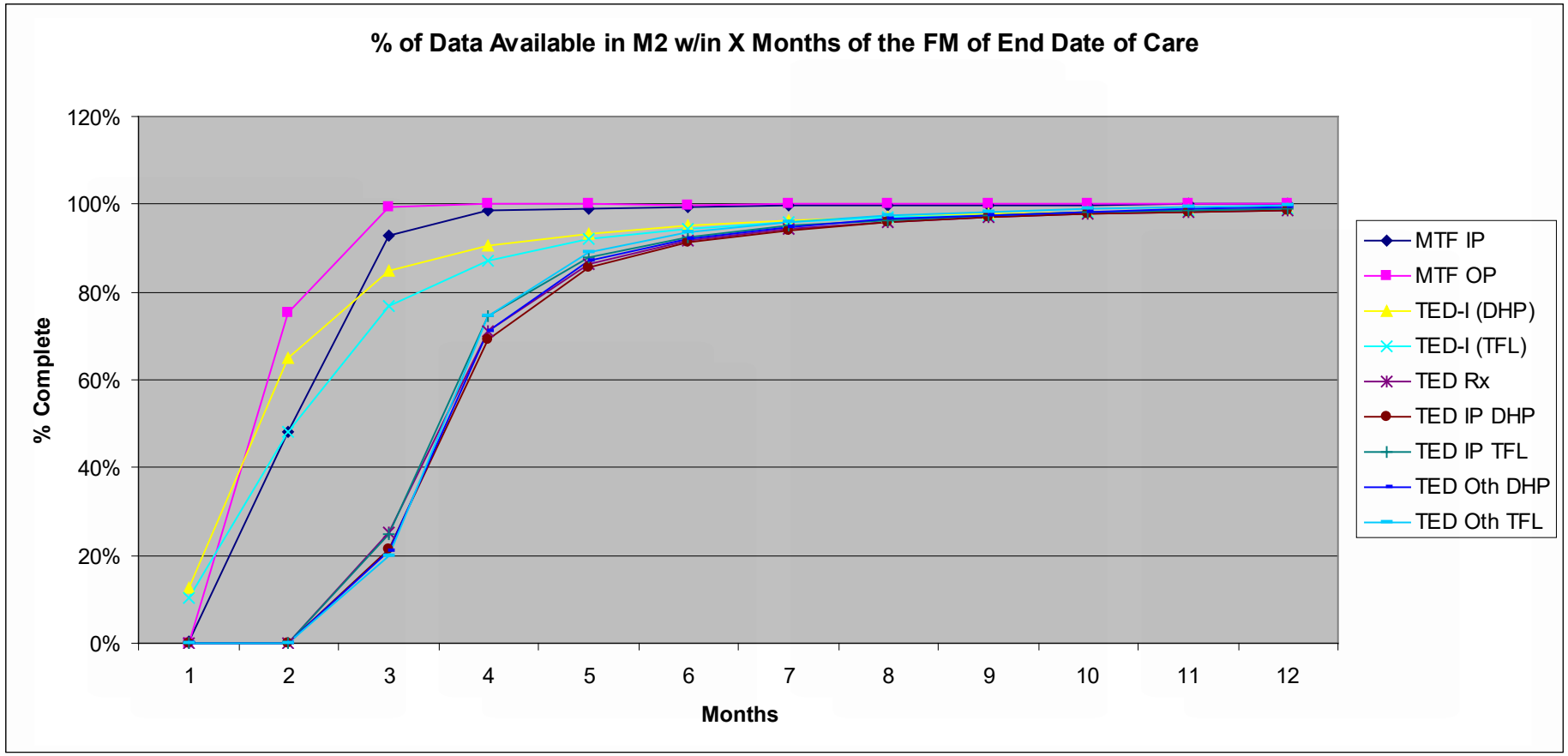
FY	FM	Inferred	Reported	Percent Inferred
2020	1	6,487	3,336,325	0.19%
2020	2	5,190	2,848,113	0.18%
2020	3	7,810	2,723,431	0.29%
2020	4	5,313	3,144,453	0.17%
2020	5	13,083	2,836,529	0.46%
2020	6	7,444	2,877,922	0.26%
2020	7	2,824	1,869,460	0.15%
2020	8	2,547	1,981,587	0.13%
2020	9	4,704	2,602,646	0.18%
2020	10	7,970	2,679,945	0.30%
2020	11	24,485	2,652,715	0.91%
2020	12	28,165	1,204,401	2.29%

Coding Completion Impact
MTF Inpatient (non-GENESIS)

FY	FM	Inferred	Reported	Percent Inferred
2019	1	10	18,556	0.05%
2019	2	6	17,198	0.03%
2019	3	13	17,384	0.07%
2019	4	13	18,397	0.07%
2019	5	29	16,735	0.17%
2019	6	19	19,033	0.10%
2019	7	24	17,655	0.14%
2019	8	6	17,729	0.03%
2019	9	12	16,957	0.07%
2019	10	6	17,231	0.03%
2019	11	13	18,297	0.07%
2019	12	43	17,520	0.24%

FY	FM	Inferred	Reported	Percent Inferred
2020	1	16	17,825	0.09%
2020	2	13	16,341	0.08%
2020	3	13	16,527	0.08%
2020	4	9	17,702	0.05%
2020	5	12	16,802	0.07%
2020	6	21	15,344	0.14%
2020	7	26	11,691	0.22%
2020	8	145	12,992	1.10%
2020	9	243	14,116	1.69%
2020	10	416	14,660	2.76%
2020	11	4,718	10,443	31.12%
2020	12	1,041	304	77.40%

Completeness of DoD Data by Data Type



Key Takeaways: Completeness of DoD Data

- As DaVINCI DoD Source Data and OMOP tables are updated quarterly, direct care DoD data should be mostly complete while private sector care might need additional time.
    - If a DoD Beneficiary has Other Health Insurance (OHI), then TRICARE is the second payer, so it takes additional time to route the claims through both.
- Some DoD EHR Records never get coded with diagnosis/procedure codes and thus will never be included in DaVINCI DoD Source Data/OMOP.

Summary

- We have covered:
  - ✓ Data Collection and Flow of Direct Care (EHR) and Private Sector Care (Claims) data
  - ✓ Key differences between Direct and Private Sector Care Data
  - ✓ Data Lag/Completeness of Direct and Private Sector Care Data
  - ✓DoD Unique Codes

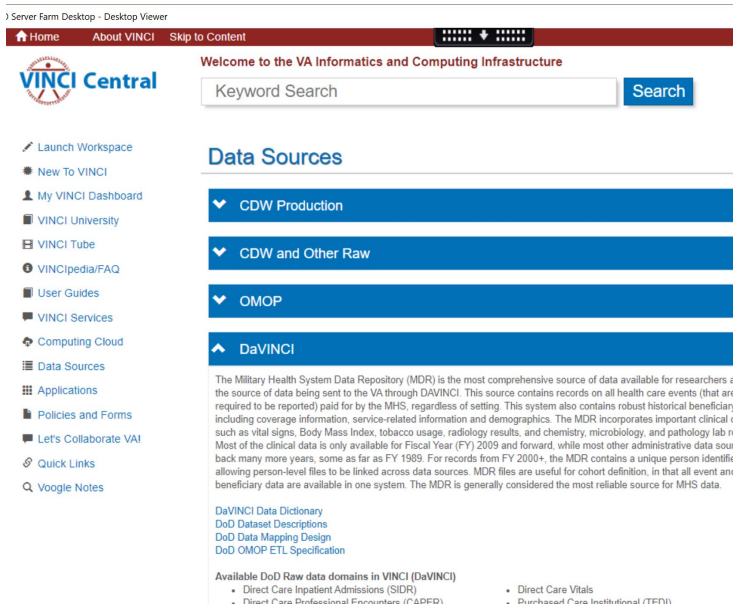
Useful Links: DaVINCI Documentation

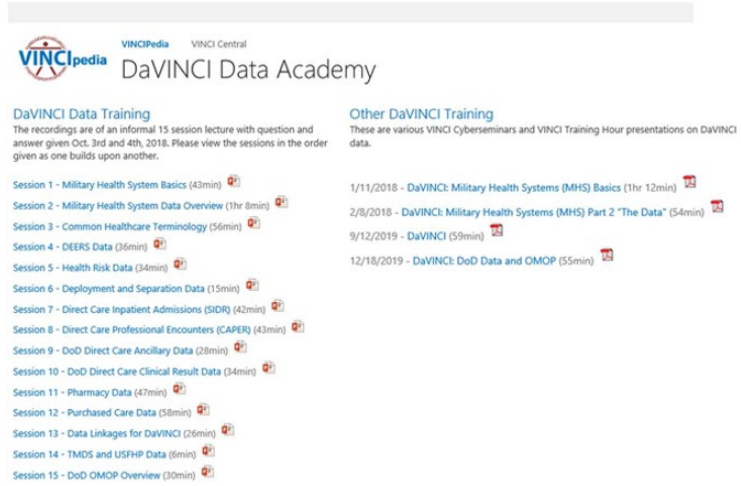
- VINCI Central: Data Sources
  - DaVINCI Data Dictionary, DoD Mapping Design, and OMOP ETL Specification are posted

    https://vaww.vinci.med.va.gov/VinciCentral/DataSources/Index

- DaVINCI Data Academy
  - Also includes DaVINCI Data Dictionary, DoD Mapping Design, and OMOP ETL as well as data training

    https://sps.vinci.med.va.gov/prod/vincipedia/Pages/DaVINCI-Data-Academy.aspx





Questions?