



CMS DATA MINI-SERIES

Session 4:

Measuring Veteran's Medicare Health Services - Part 2

July 11th, 2023

Hosted by 

Kristin de Groot, MPH
Project Director, VA/CMS Data for Research Project
VA Information Resource Center



CMS DATA CYBERSEMINAR MINI-SERIES

Mini-Series about the research use of data from Centers for Medicare and Medicaid Services (CMS), which provides information on healthcare Veterans received outside the VA.

Sessions Cover...

- Overview of the Types of Data available from VIREC
- Methods for using the data in research
- Limitations of the data
- Requirements for access
- Examples of VA research that use these data



UPCOMING CMS DATA SESSIONS

2nd Tuesday of the month (quarterly) 3:00pm-4:00pm ET

Date	Topic
10/10/23	Overview of CMS & USRDS data from VIREC
1/9/24	Using Medicaid Data in VA Research

Visit the [VIREC Cyberseminars](#) page for more information & registration links.

Visit [HSR&D's VIREC Cyberseminar Archive](#) page to watch previous sessions.

Where can I
download a
copy of the
slides?

VA HSR&D

CYBERSEMINARS



SAMPLE EMAIL

Host: HSR&D Cyberseminars (cyberseminar@va.gov)

Event number (access code): 199 009 5117

Event password: 3844

Registration ID: This event does not require an enrollment ID

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USA Toll Number: 14043971596

Toll-free dialing restrictions:

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Access code: 199 009 5117

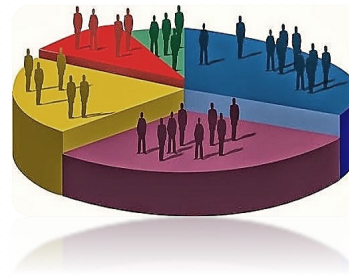
[Please download today's slides](#)

[Please click here for today's live captions](#)

Poll #1:

What is your primary role in projects using VA data?

- Investigator, PI, Co-I
- Statistician, methodologist, biostatistician
- Data manager, analyst, or programmer
- Project coordinator
- Other – please describe via the chat function



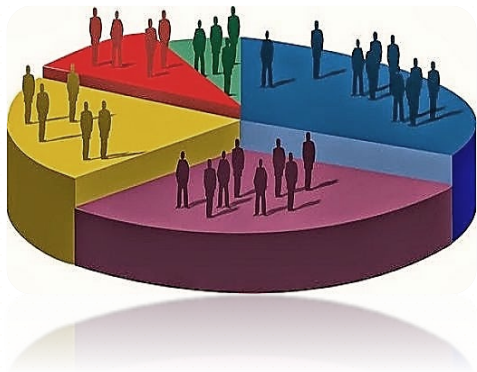
Poll #2:

How many years of experience working with VA data?

- None – I'm brand new to this!
- One year or less
- More than 1, less than 3 years
- At least 3, less than 7 years
- At least 7, less than 10 years
- 10 years or more

Poll #3:

Rate your knowledge of Medicare data.



- None
- Little
- Some
- Moderate
- Expert



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Hosted by  **VIReC**

Kristin de Groot, MPH
Project Director, VA/CMS Data for Research Project
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Session roadmap

- Technical information about Medicare data in VA
- Medicare enrollment data
- Institutional claims
- Non-institutional claims
- Additional information

20 miles

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Pre-requisites

- Parts/Options within Medicare
 - A/B/D
 - FFS vs MA
- Institutional and non-institutional providers
- Claims/billing data

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VIReC CMS Data Mini-Series

Using Medicare Data in VA research: Part 1

by Kristin de Groot, MPH
Seminar date: 4/11/2023

Description: This session will provide an overview of Medicare data available to VA researchers and describe how these data can be used to identify Veterans' use of health services paid by Medicare. Examples of VA research that utilize Medicare data will be presented. The target audience is investigators and data users that have not used Medicare data.

Objectives:

- To describe the Medicare program and the source of Medicare data.
- To identify Medicare data that can be used to assess Veterans' health services use in Medicare.
- To discuss strengths and limitations of using Medicare data

https://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/video_archive.cfm?SessionID=6324&Seriesid=115

What won't be covered?

- Costs, charges, payments
- Medicare Advantage encounters
- Part D events

Session roadmap

- **Technical information about Medicare data in VA**
- Medicare enrollment data
- Institutional claims
- Non-institutional claims
- Additional information

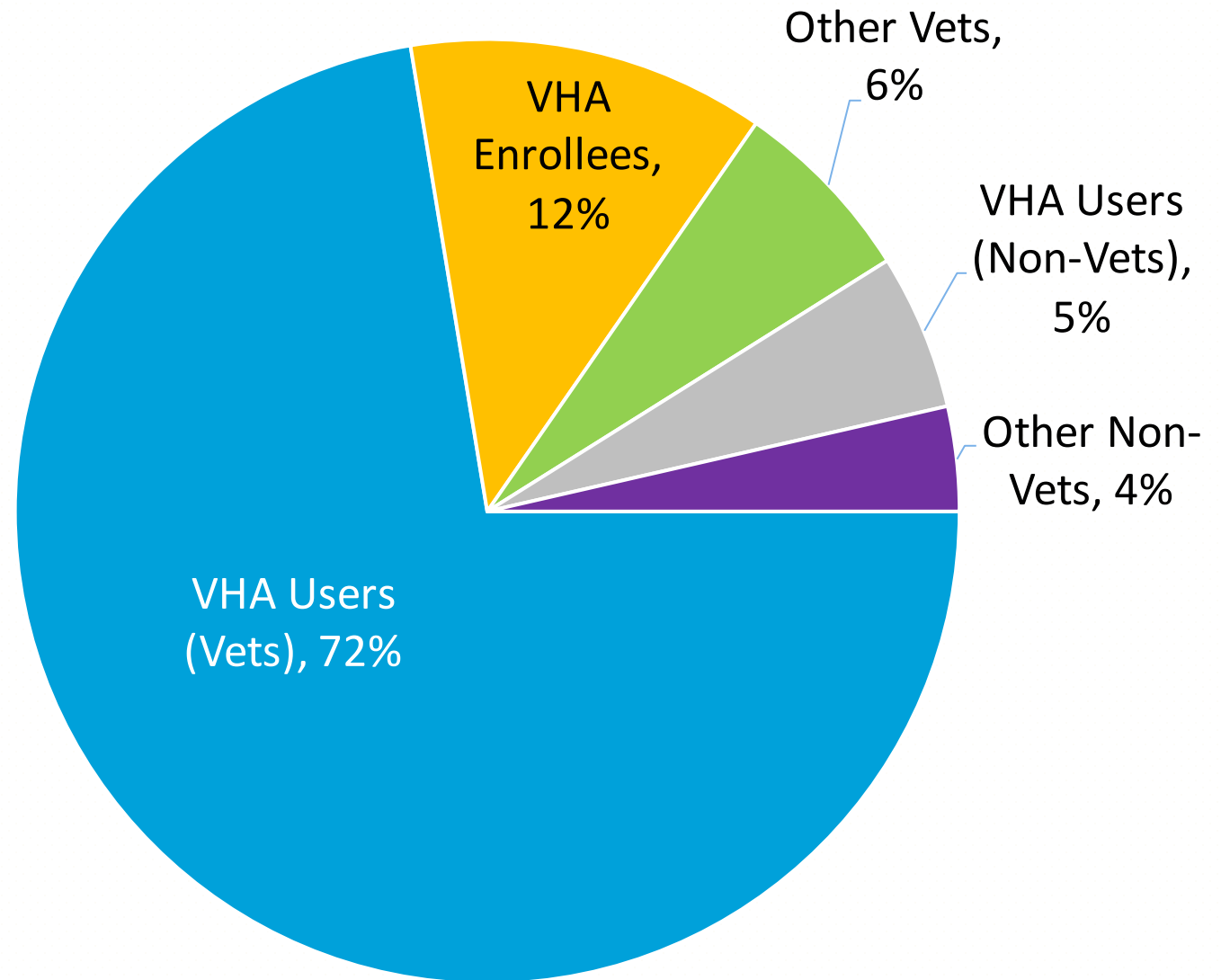
Medicare Data in the VHA

- 1. Which Veterans are in the data?**
2. What identifier is on the data?
3. Timing and lag in data availability
4. After being approved, how to access the data?

VHA cohort (finder file)

- List of SSNs sent to CMS each year to obtain a new year of data
- Updated annually for over 20 years
- SSNs found in VHA enrollment & utilization files, VBA VETSNET
 - Some non-Veterans included
- Cumulative
 - Once in the file, never removed
 - Over 60% are deceased
- Currently over 20 million SSNs

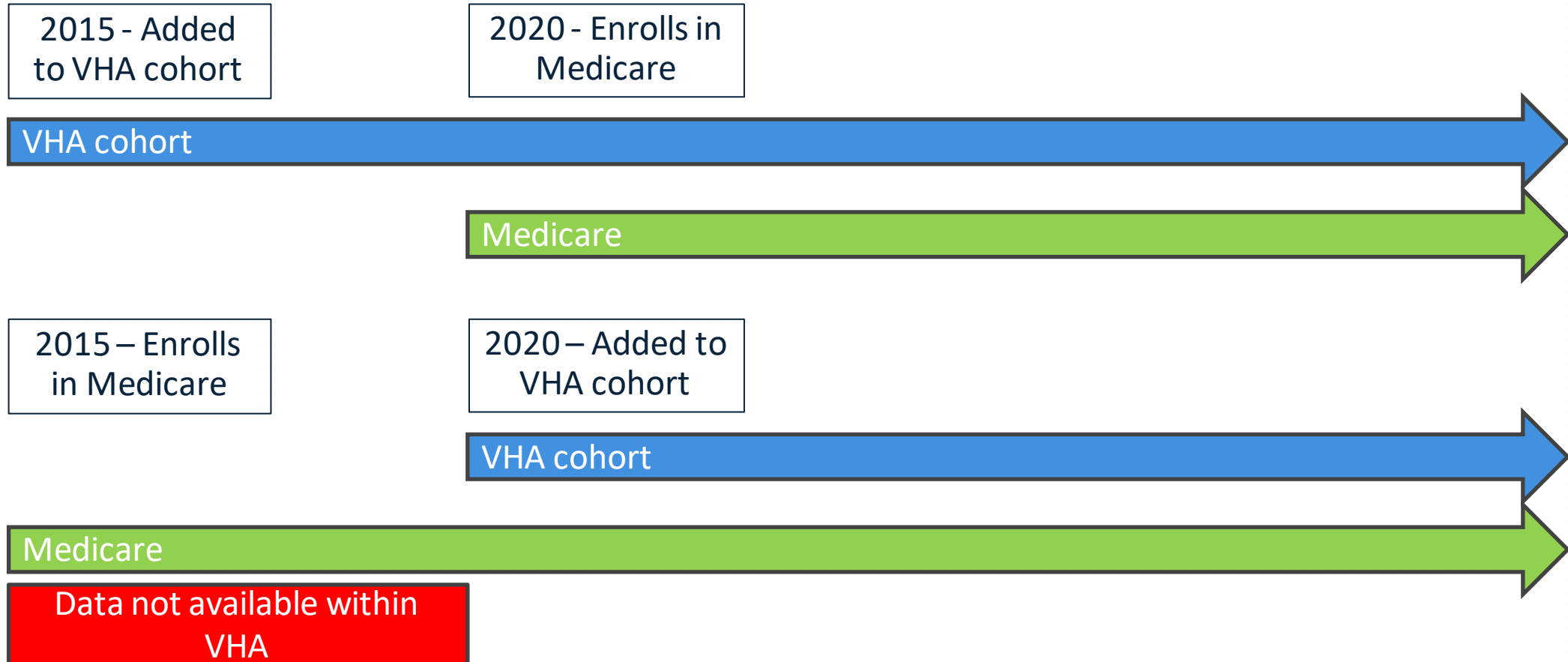
Who's included in the VHA cohort?



VHA cohort indicator file

- Provided with each shipment of CMS data
- One record for each SSN in researcher's cohort
- **FIRST_YR_VHA_COHORT**
 - Missing/null
 - This person's SSN has never been sent to CMS
 - Rare; usually new VHA user or enrollee
 - 1999 to 2021
 - First year this person's SSN was sent to CMS
 - Indicates data availability

Data Availability Based on Inclusion in VHA Cohort



Medicare Data in the VHA

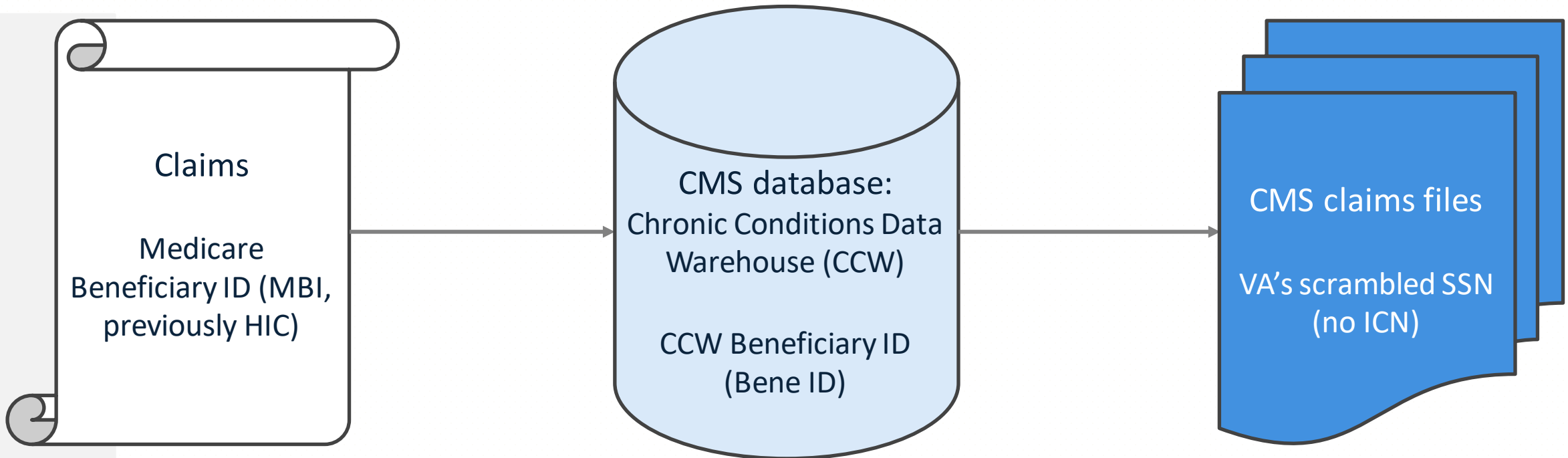
1. Which Veterans are in the data?
- 2. What identifier is on the data?**
3. Timing and lag in data availability
4. After being approved, how to access the data?

Social Security Administration & Medicare

- Part A
 - No premium, if 10+ years of paying Medicare taxes
 - Tracked by SSA
- Part B
 - Premium required, varies based on income
 - Automatic deduction from SSA payments
- Apply for Medicare on SSA website

SSN in Medicare data is reliable

Identifiers



Data Quality Review - Patient Identifiers in CDW (2018)

https://vaww.vhadataportal.med.va.gov/Portals/0/DataQualityProgram/Reports/Patient_Identifiers_in_CDW.pdf

Why not ICN?

- Some people don't have an ICN assigned
- Occasionally 1 ICN \neq 1 SSN
- Handling future ICN-SSN changes

Medicare Data in the VHA

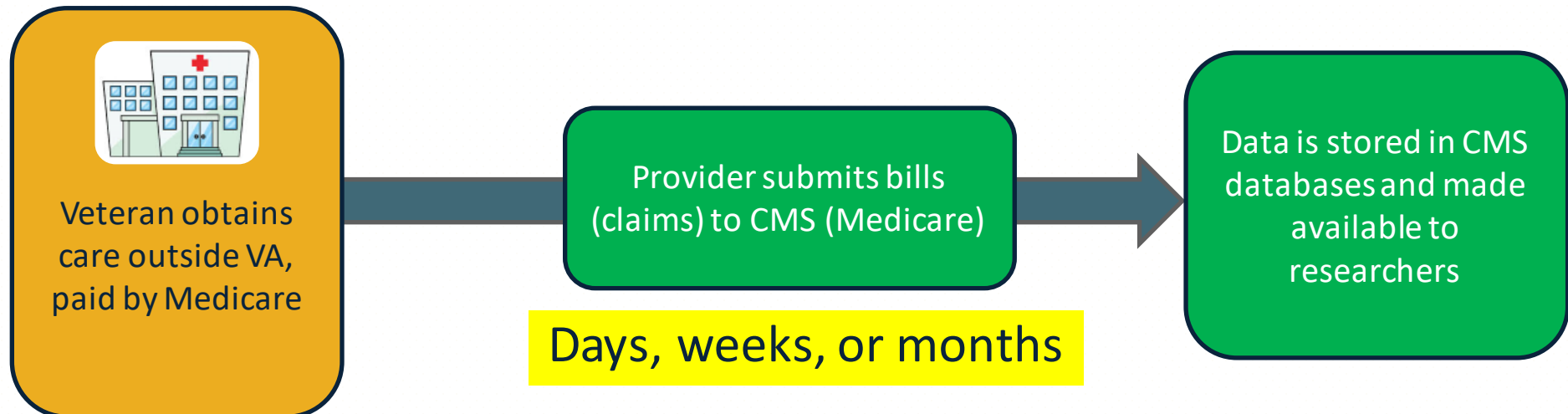
1. Which Veterans are in the data?
2. What identifier is on the data?
- 3. Timing and lag in data availability**
4. After being approved, how to access the data?

Timing of EHR vs. Claims

VA Data Flow



Medicare FFS Data Flow



Timing

- CMS data is provided by calendar years (CY), not fiscal years (FY)
- Each CY file is separate
 - New variables are often added at new CY
 - Newly identified veterans added each CY
- Most files released annually, some quarterly

Annual vs Quarterly data

Annual/Final

- Types of data
 - Enrollment & FFS claims
 - MBSF annual summary files, MedPAR, Part D, et al.
- Uses that year's VHA cohort file
 - 21 VHA cohort → 21 Medicare data
- Gold standard for research
 - “Mature” data

Quarterly/Preliminary

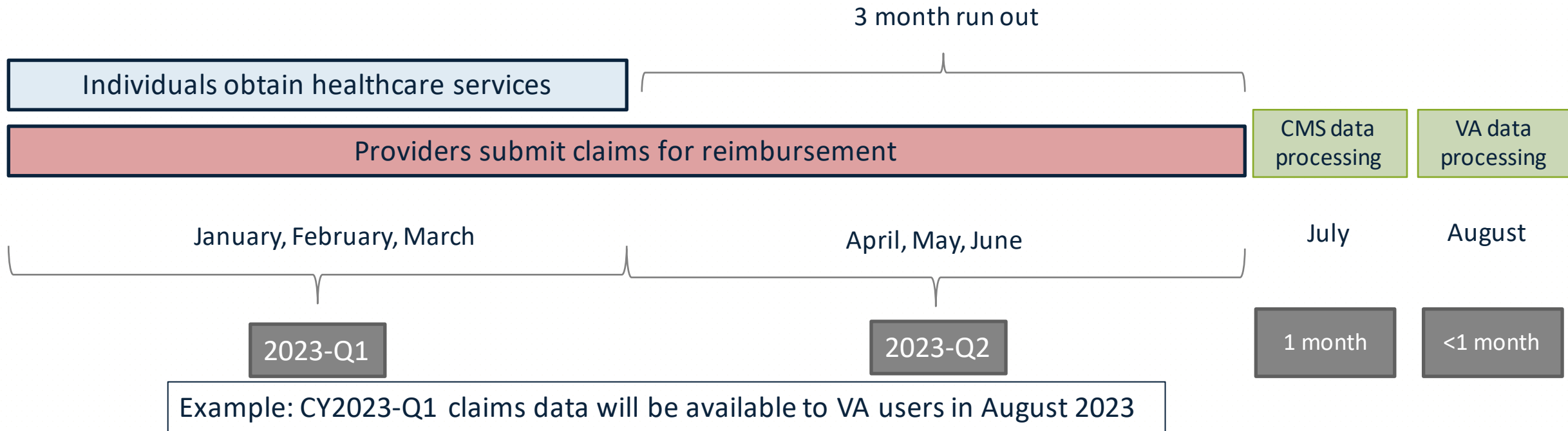
- Types of data
 - Enrollment & FFS claims
- Uses previous year's VHA cohort file
 - 21 VHA cohort → 22Q Medicare data
- Will be replaced with annual data
 - Less mature data

Claims Maturity

- **Completeness** – the percent of claims that have been submitted, compared to the total number that will eventually be submitted
 - Most are submitted to CMS within days of the service, but some are weeks or months later
- **Finality** – the percent of claims that are final (i.e., no revisions will be submitted to CMS)

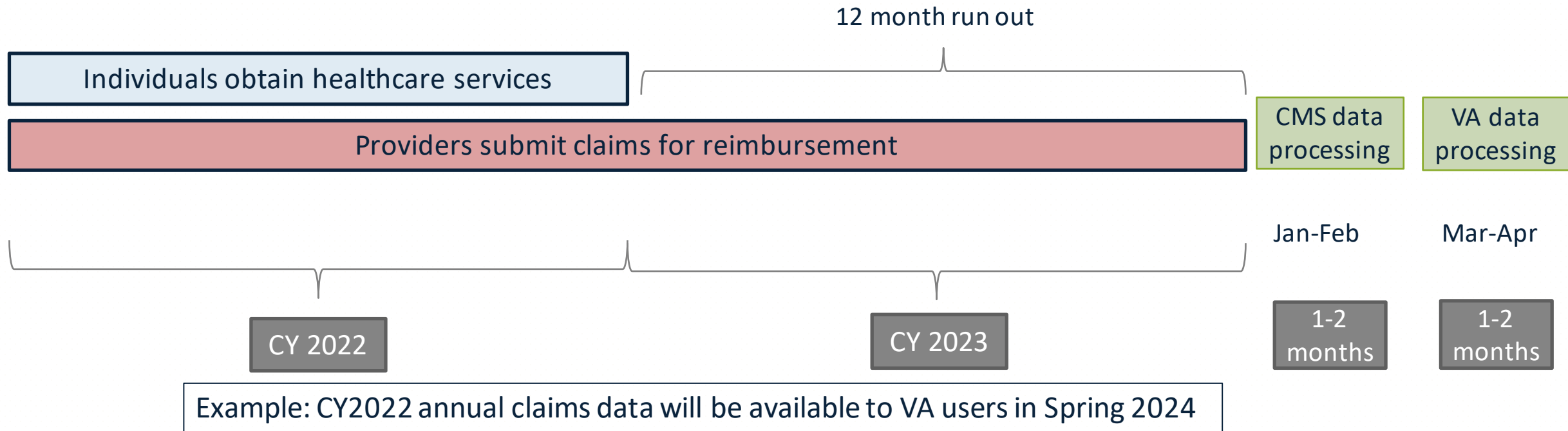
Run out time:
Time allowed for claims to mature

Quarterly Medicare data with 3 month run-out



- Approximately 93% of claims are submitted within 3 months of end of quarter
- Variations due to
 - Type of claim (Inpatient is most mature; Home Health is least mature)
 - Time within quarter (1st week of quarter is more mature than last week of quarter)

Annual Medicare data with 12 month run-out



- Over 99.9% of claims are submitted within 12 months of end of CY

Data Availability

2022 Q4 Medicare
2021 Medicare (annual)

2023 Q2 Medicare

2023 Q4 Medicare
2022 Medicare (annual)

Current

Fall 2023

Spring
2024

Summer
2023

2023 Q1 Medicare

Winter
2023

2023 Q3 Medicare

Medicare Data in the VHA

1. Which Veterans are in the data?
2. What identifier is on the data?
3. Timing and lag in data availability
4. **After being approved, how to access the data?**

SAS views

- Since 2016, CMS data provided as SAS views on VINCI SAS Grid
 - Exclusively since 2020
 - Minimizes storage space
 - Allows for easy data updates
 - Sometimes updates require views to be recreated
 - SAS views can be used like SAS datasets
- Best practice: Request approval for SAS Grid in DART
 - Data Sources tab

VINCI Data Access Request Tracker (DART)

Will data be transferred external to the VHA? *

NDS cannot approve a research request that would include disclosing data and Office of Research and Development (ORD) policy. ORD policy requires external to VHA.

For example:

The HIPAA Privacy Rule permits the transfer of Limited Data Sets for research if "finder" files are to be sent out to Federal or state agencies for the purpose between the PI and the external agency must be submitted with the DART

No

Yes (DUA is required)

Data Access Systems

SAS Grid

IDENTIFIERS (More about identifiers)

Real SSN

Scrambled SSN

Identifiable data but no real or scrambled SSNs

Where can I find the data?

SAS Enterprise
Guide

Servers



SASApp



Libraries




The screenshot shows the SAS Enterprise Guide interface. The 'Servers' pane on the left is highlighted with a red box and contains the following structure:

- Servers
 - SASApp
 - Libraries
 - CDWork: Dim schema on VHACDWRB03
 - CDWork: NDim schema on VHACDWRB03
 - CDWork: ORDCovid schema on VHACDWRB03
 - CMS Public Use Files (VIRc)

The main workspace shows a code editor with a single line of code: '1'. Below the code editor is a log area with the text: 'Run code to generate the log.'















Libraries with CMS data

- Each shipment is a separate library
- Libname = ship###

- ✓  ORD_Southern_201701050D: SIC schema
- >  ORD_Tseng_201512035D: CMS extracts for TSENG-02-A-959
- >  ORD_Tseng_201512035D: CMS extracts for TSENG-02-B-1058

```
proc contents data=ship1058._ALL_; run;
```

SAS views

- >  ORD_Tseng_201512035D: CMS extracts for TSENG-02-A-959
- ✓  ORD_Tseng_201512035D: CMS extracts for TSENG-02-B-1058
 - >  CA14_BASE_SHIP1058
 - >  CA14_LINE_SHIP1058
 - >  CA15_BASE_SHIP1058
 - >  CA15_LINE_SHIP1058
 - >  DM14_BASE_SHIP1058
 - >  DM14_LINE_SHIP1058
 - >  DM15_BASE_SHIP1058
 - >  DM15_LINE_SHIP1058
 - >  ENRL_PTA_DEC16_SHIP1058
 - >  ENRL_PTB_DEC16_SHIP1058
 - >  GHO_DEC16_SHIP1058
 - >  LU14_BASE_SHIP1058

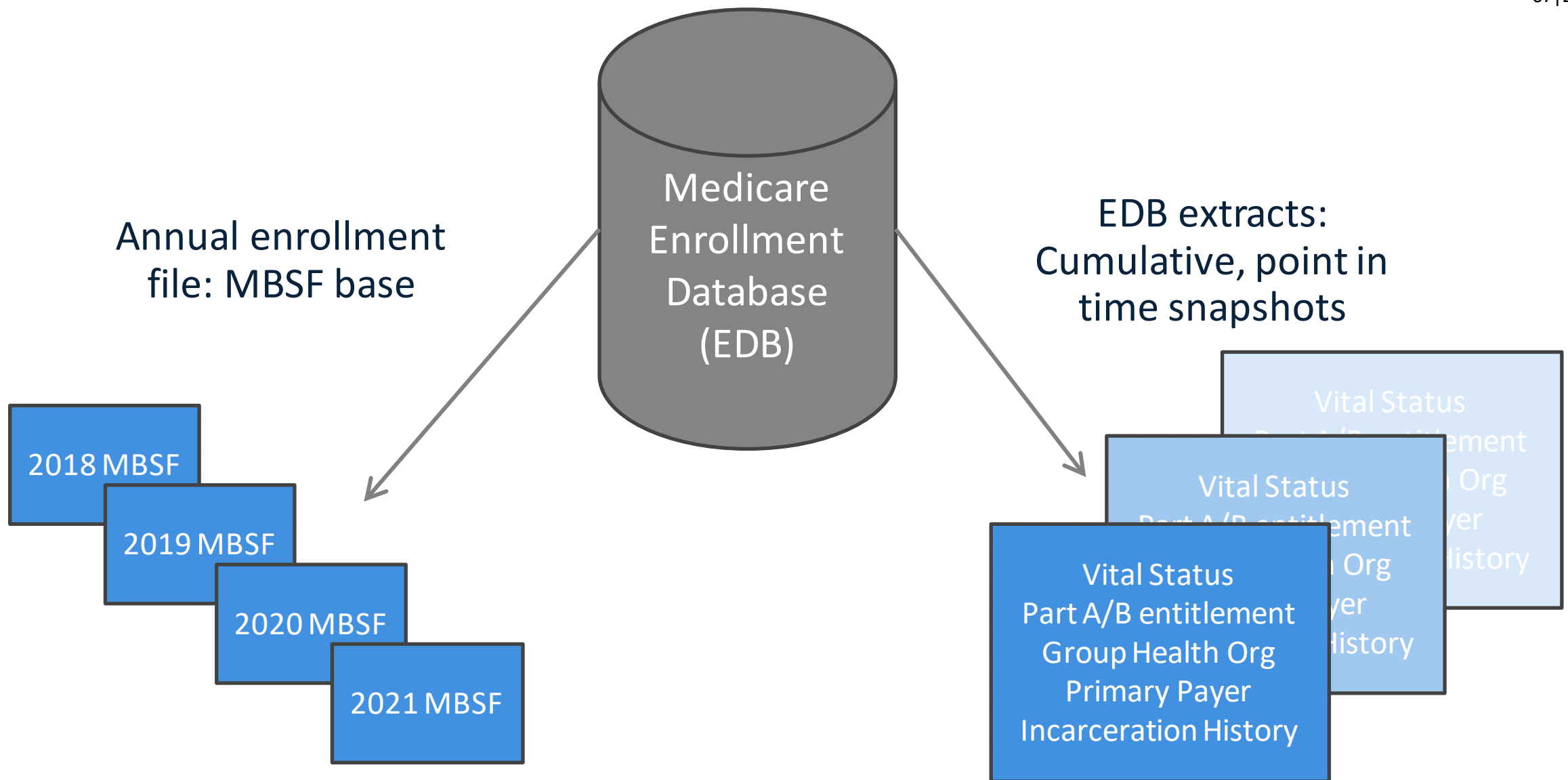
```
ita=ship1058.ca14_base_ship1058;run;
```


Session roadmap

- Technical information about Medicare data in VA
- **Medicare enrollment data**
- Institutional claims
- Non-institutional claims
- Additional information

20 miles

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MBSF = Master Beneficiary Summary File

Comparison

MBSF: Base

- Calendar year, annual files
 - Only people enrolled that CY
 - Need to combine multiple years' files
- Created/frozen at end of CY
 - Good for replicability
- Somewhat delayed
 - 2021 annual; 2022 quarterly

EDB extracts

- Cumulative & historic
 - Ever enrolled in Medicare
 - Single file for all years
- Ever changing
 - Errors corrected; some old info dropped
- Most current
 - April 2023

Types of information included in each

	MBSF: Base	EDB Extracts
Demographics	At end of CY	Vital Status: Most recent
Parts A & B enrollment	X	Part A/B Entitlement & Enrollment History
HMO/MA/GHO enrollment	X	Group Health Organization
Part D enrollment	X	
Medicaid dual eligible & state buy-in	X	
Primary payers		Primary Payer
Change in coverage due to incarceration		Incarceration History
... and much more	X	

Determining Medicare Enrollment

- Part A and/or Part B?
- FFS or MA enrollment?
- Part D? What type of plan?
- Was the state's Medicaid program paying the Part B premium?
 - aka “state buy-in”

Example: Enrollment using monthly variables

Month 01 = January

ID	BUYIN01	HMOIND 01	PTC_CNTRCT_ ID_01	PTDCNTRCT01	Summary
1	1	0	.	N	Part A FFS only
2	3	0	.	S9876	Part A & B FFS with Part D
3	C	C	H1234	H1234	MA with Part D, with state buy-in



Common values for BUYIN

0 = Not entitled
 1 = Part A only
 3 = Part A & B
 C = Part A & B, state buy-in

Common values for HMOIND

0 = Not in GHO
 C = Lock-in, GHO to process all provider claims

 GHO = Group health organization
 aka Medicare Advantage (MA) plan

Common values for PTDCNTRCT

H* = HMO/Managed care
 S* = Stand-alone prescription drug plan (PDP)
 N = Not Part D Enrolled
 0 = Not Medicare enrolled

Example: Enrollment using annual summary variables

ID	A_MO_CNT	B_MO_CNT	HMO_MO	PTD_MO	BUYIN_MO	Summary
1	12	0	0	0	0	Part A FFS only (No MA, no Part D)
2	12	12	0	12	0	Part A & B FFS with Part D
3	12	12	12	12	12	MA with Part D, with state buy-in
4	6	0	0	0	0	Partial year of coverage – new enrollee or decedent
5	12	12	0	12	3	State buy-in status changed mid year
6	12	12	9	12	12	Changed FFS-MA mid year

- Changes during open enrollment take effect in January (usually)
- Enrollment changes mid-year only due to special enrollment period (qualifying event)

Example: Enrollment using EDB extract files

Part A entitlement

ID	PTABEG	PTAEND
1	3/1/2015	12/31/2020
2	7/1/1991	8/31/1997
2	5/1/2005	.
3	10/1/2010	.

Part B entitlement

ID	PTBBEG	PTBEND
2	7/1/1991	8/31/1997
2	5/1/2005	.
3	1/1/2012	.

- Medicare enrollment always starts/end on the first/last day of the month
- First date of Medicare enrollment in MBSF starting in 2011
- GHO (MA) contract number in MBSF starting in 2016

Group Health Organization (MA)

ID	GHOBEG	GHOEND	GHOCNT
2	5/1/2005	12/31/2005	H1111
3	1/1/2012	12/31/2014	H2222
3	1/1/2015	.	H1234

Session roadmap

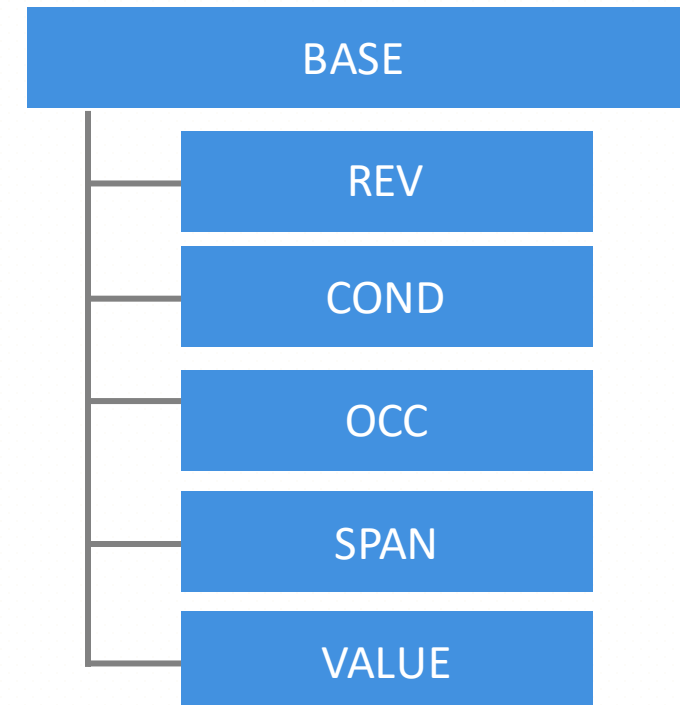
- Technical information about Medicare data in VA
- Medicare enrollment data
- **Institutional claims**
- Non-institutional claims
- Additional information

Form to Data: Institutional Providers

Institutional providers

- Hospitals (IP/OP)
- Skilled Nursing Facilities
- Federally Qualified Health Centers (FQHC)
- Rural Health Clinics
- Dialysis centers
- Home Health Agencies
- Hospices

Form CMS 1450
aka UB-04



1

3

2

1		2		3a PAT. CRTL. #		4 TYPE OF BILL	
				5 FED. TAX NO.		6 STATEMENT COVERS PERIOD FROM THROUGH	
8 PATIENT NAME		9 PATIENT ADDRESS					
10 BIRTHDATE		11 SEX		12 DATE		13 HR 14 TYPE 15 SEC 16 DHR	
17 STAT		18		19		20	
21		22		23		24	
25		26		27		28	
29 ACCT STATE							
31 OCCURRENCE DATE		32 OCCURRENCE DATE		33 OCCURRENCE DATE		34 OCCURRENCE DATE	
35		36		37		38	
39		40		41		42	
43		44		45		46	
47		48		49		50	
51		52		53		54	
55		56		57		58	
59		60		61		62	
63		64		65		66	
67		68		69		70	
71		72		73		74	
75		76		77		78	
79		80		81		82	
83		84		85		86	
87		88		89		90	
91		92		93		94	
95		96		97		98	
99		100		101		102	

Form CMS 1450
aka UB-04

Form CMS 1450/UB-04 (top)

1	2	3a PAT. CNTL #	4 TYPE OF BILL
		b. MED. REC. #	TOB
		5 FED. TAX NO.	6 STATEMENT COVERS PERIOD FROM THROUGH
			7
8 PATIENT NAME	a	9 PATIENT ADDRESS	a
b	b	c	d
10 BIRTHDATE	11 SEX	12 DATE	13
		ADMISSION	14
		15	16
		17	18
		19	20
		21	22
		23	24
		25	26
		27	28
		29	30
31 OCCURRENCE CODE	DATE	32 OCCURRENCE CODE	DATE
33 OCCURRENCE CODE	DATE	34 OCCURRENCE CODE	DATE
35 OCCURRENCE CODE	DATE	36 OCCURRENCE CODE	DATE
37			
38			
39 CODE	VALUE CODES	40 CODE	VALUE CODES
	AMOUNT		AMOUNT
41 CODE	VALUE CODES		VALUE CODES
	AMOUNT		AMOUNT
a			
b			
c			
d			

Admission date

Condition Codes

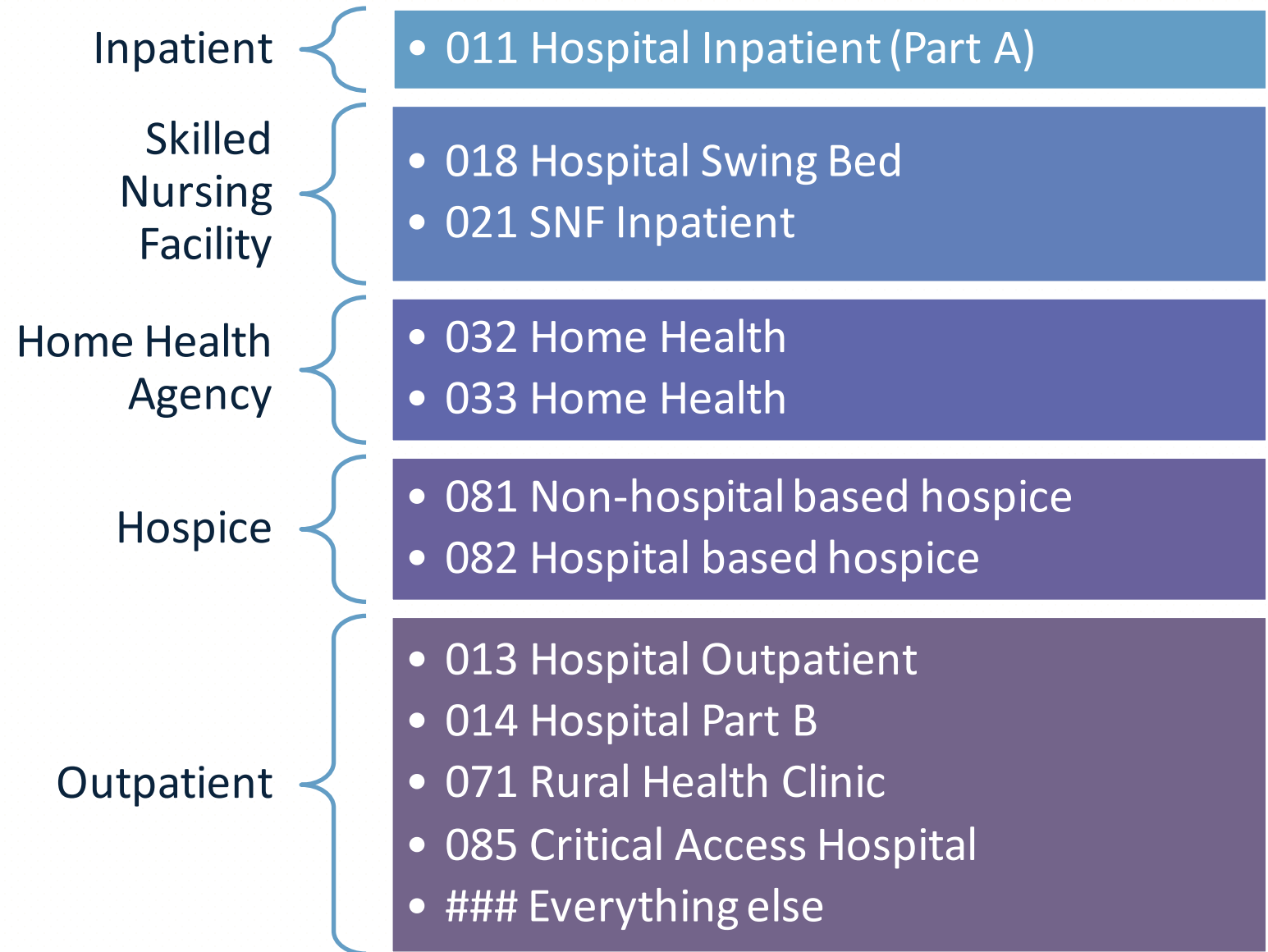
Occurrence Codes/Dates

Occurrence Span Codes/Dates

Value Codes/Amounts

Type of Bill
(TOB)=
FAC_TYPE +
TYPESRVC

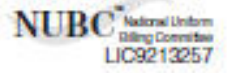
TOB determines
dataset



Form CMS 1450/UB-04 (bottom)

50 PAYER NAME		51 HEALTH PLAN ID		52 REL INFO	53 ASC BEN	54 PRIOR PAYMENTS		55 EST. AMOUNT DUE		56 NPI	Billing provider		
										57 OTHER			
										PRV ID			
58 INSURED'S NAME			59 P.REL	60 INSURED'S UNIQUE ID			61 GROUP NAME			62 INSURANCE GROUP NO.			
63 TREATMENT AUTHORIZATION CODES				64 DOCUMENT CONTROL NUMBER				65 EMPLOYER NAME					
66 ICD Diagnosis Codes											68		
69 ADMIT DX	70 PATIENT REASON DX		a	b	c	71 PPS CODE	72 ECI			73			
74 PRINCIPAL PROCEDURE CODE	DATE	d. OTHER PROCEDURE CODE	DATE	b. OTHER PROCEDURE CODE	DATE	75		76 ATTENDING	NPI	QUAL			
ICD Procedure Codes/Dates									LAST		FIRST		
									77 OPERATING		NPI	QUAL	
									LAST		Physicians		
									78 OTHER		NPI	QUAL	
									LAST		FIRST		
									79 OTHER		NPI	QUAL	
									LAST		FIRST		
80 REMARKS			81CC	a									
			b										
			c										
			d										

UB-04 CMS-1450 APPROVED OMB NO. THE CERTIFICATIONS ON THE REVERSE APPLY TO THIS BILL AND ARE MADE A PART HEREOF.

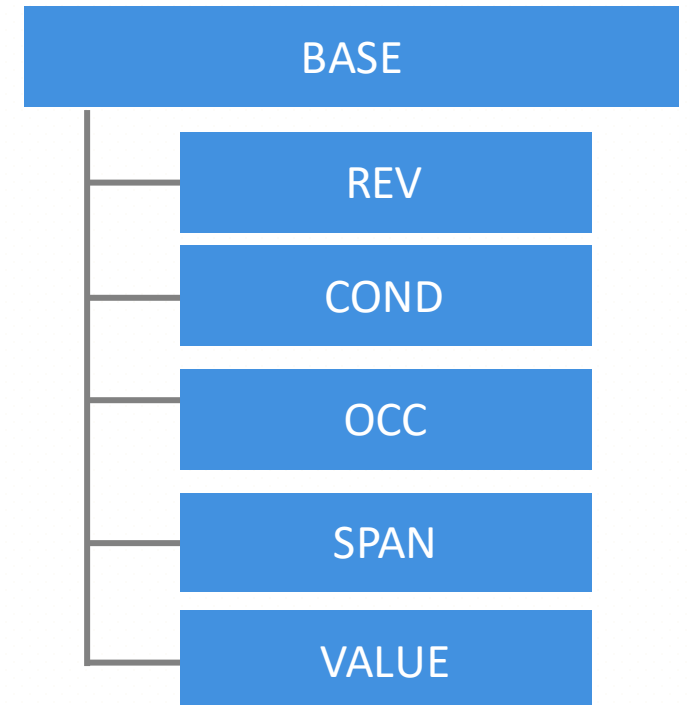


Form CMS 1450/UB-04 – middle (revenue centers)

42 REV. CD.	43 DESCRIPTION	44 HCPCS / RATE / HIPPS CODE	45 SERV. DATE	46 SERV. UNITS	47 TOTAL CHARGES	48 NON-COVERED CHARGES	49
1							1
2							2
3							3
4	REV CD						4
5	Description						5
6	HCPCS/RATE/HIPSS Code						6
7	Service date						7
8	Service unit						8
9	Total charges						9
10	Non covered charges						10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20

Institutional Dataset Structure

- BASE - general or summary claim information, diagnosis codes, and ICD procedure codes/dates
 - 1 BASE record per claim
- REV - Revenue Center
 - Often multiple REV records per claim (average=8)
 - Details about services or procedures (CPT/HCPCS)
- 4 code files
 - Condition codes (COND)
 - Occurrence codes (OCR)
 - Span occurrence codes (SPAN)
 - Value codes (VALUE)



All files linked using CLM_ID

Commonly used variables: BASE

- FROM_DT & THRU_DT
- ADMSN_DT & DSCHRG_DT (IP/SN only)
- PROVIDER – billing provider (facility/agency), uses CMS Certification Number (CCN)
- AT_NPI, OP_NPI, OT_NPI – attending/operating/other physicians' NPI
- SRC_ADM - Admission source (IP/SN only)
- STUS_CD or PTNTSTUS - Discharge status/destination

Commonly used variables: BASE (continued)

- Diagnosis codes (ICD-9 or ICD-10) – up to 25 in recent years
- Procedure codes (ICD-9 or ICD-10) & dates - up to 25 in recent years
 - Used in IP claims
 - Rare in SN/OP claims
 - Not found in HH/HS

Commonly used variables: REV

- CLM_ID – to link to BASE file
- REV_CNTR – Cost centers of a facility
 - Emergency room, laboratory, pharmacy, semi-private room, skilled nursing, physical therapy, radiology
- REV_DT
- REV_UNIT – number of days, units of drug, number of times procedure was performed
 - Most commonly = 1
- HCPCS_CD – CPT and alpha-numeric Medicare created codes
 - Used in OP/HH/HS, sometimes SN, very rare IP

What does a claim represent?

1 claim = multiple
visits

1 claim = 1 visit

Multiple claims = 1
visit

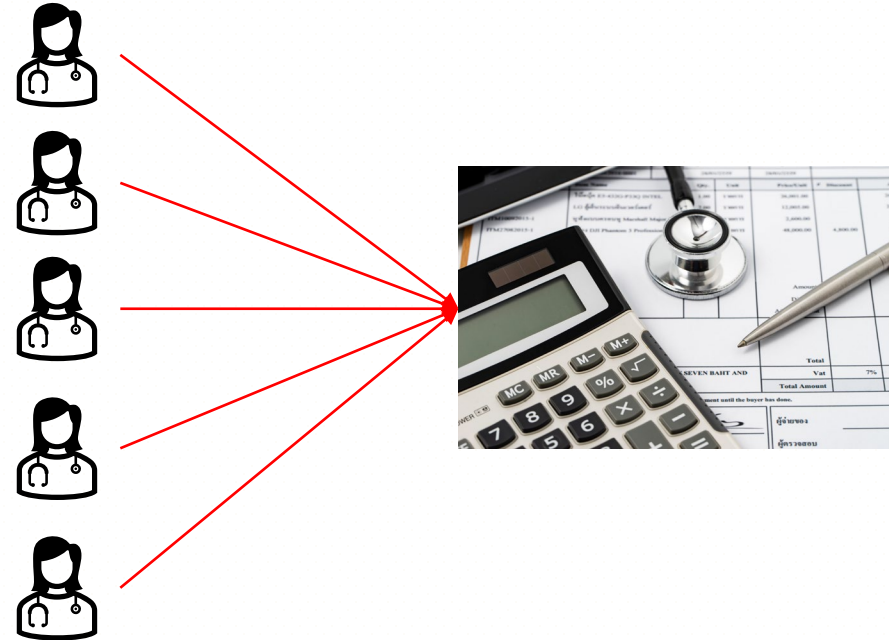
1 claim = multiple visits

Single claim is used for multiple encounters with

- same provider
- same purpose
- short time period

Examples

- Physical therapy
- Dialysis
- Home healthcare

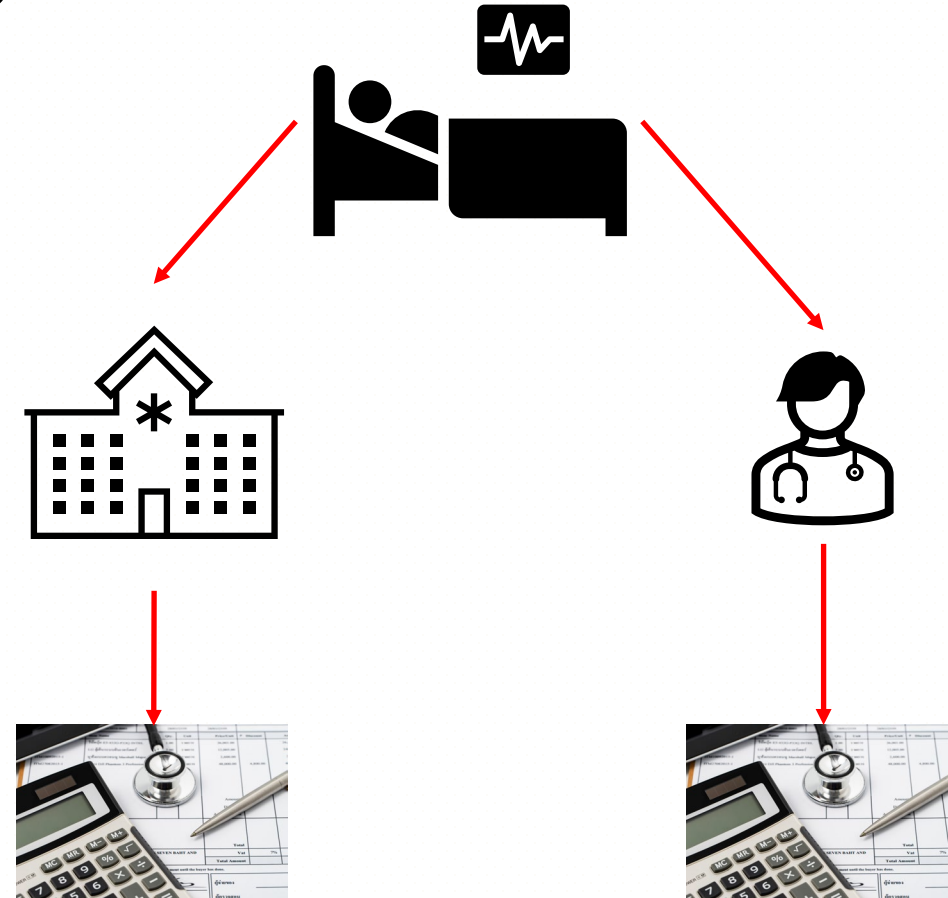


Multiple claims = 1 visits

Facility & physician bill separately

Common in

- Emergency room
- Inpatient hospital
- LTC facility



Example: Inpatient

IP_BASE file

SCR_SSN	CLM_ID	FROM_DT	THRU_DT	ADMSN_DT	DSCHRG_DT	PROVIDER	AT_NPI	DRG_CD	ICD_PRCRD_CD01	ICD_PRC_DR_DT01	ADMTG_DGNS_CD	ICD_DGN_S_CD01
123	987	4/1/19	4/3/19	4/1/19	4/3/19	440099	123456789	673	04VA3DZ	4/2/19	R58	I7773

IP_REV file

SCRSSN	CLM_ID	CLM_LN	REV_CNTR	REV_UNIT	HCPCS_CD
123	987	1	0200 - Intensive care	2	-
123	987	2	0250 - Pharmacy	3225	-
123	987	3	0260 - IV therapy	1	-
123	987	4	0300 - Laboratory	63	-
123	987	5	0320 - Radiology diagnostic	5	-
123	987	6	0352 - CT scan-body scan	1	-
123	987	7	0369 - Operating room services	2	-
123	987	8	0420 - Physical therapy	8	-
123	987	9	0450 - Emergency room	2	-
123	987	10	0001 - Total charges		

Example: Outpatient (single day)

OP_BASE file

SCRSSN	CLM_ID	FROM_DT	THRU_DT	PROVIDER	AT_NPI	ICD_PRCRD_CD01	ICD_PRCDR_DT01	ICD_DGNS_CD01
123	654	4/5/19	4/5/19	440099	123456789			H3581

OP_REV file

SCRSSN	CLM_ID	CLM_LN	REV_DT	REV_CNTR	REV_UNIT	HCPCS_CD
123	654	1	4/5/19	0361 - Operating room services-minor surgery	1	67028
123	654	2	4/5/19	0510 - Clinic	1	92134
123	654	3	4/5/19	0636 - Drugs requiring specific identification	2	J0178
123	654	4		0001 - Total charges		

Example: Outpatient (multiple days)

OP_BASE file

SCRSSN	CLM_ID	FROM_DT	THRU_DT	PROVIDER	AT_NPI	ICD_PRCRD_CD01	ICD_PRCDR_DT01	ICD_DGNS_CD01
123	321	5/1/19	5/30/19	442769	123456789			N186

OP_REV file

74 records

SCRSSN	CLM_ID	CLM_LN	REV_DT	REV_CNTR	REV_UNIT	HCPCS_CD
123	321	1	5/2/19	0821 - Hemodialysis	1	90999
123	321	2	5/2/19	0250 - Pharmacy	1	-
123	321	3	5/5/19	0270 - Medical/surgical supplies	1	A4657
123	321	4	5/5/19	0250 - Pharmacy	1	-
123	321	5	5/5/19	0636 - Drugs requiring identification	200	J0887
123	321	6	5/5/19	0821 - Hemodialysis	1	90999
...
123	321	74		0001 - Total charges		

Examples of institutional code values

Condition Code (No date)

- Patient is employed
- Semi-private room not available

Occurrence Codes (Single date)

- Date of onset of symptoms
- Date of accident

Span Occurrence Codes (2 dates)

- Prior hospitalization dates

Value Codes (Amount or Value)

- Drug deductible
- Physical therapy visits

Demo file

- Claim/Service is provided as part of Medicare demonstration project
 - <https://innovation.cms.gov/innovation-models>
- All claims (institutional & non-institutional)
 - Link to BASE file using CLM_ID
- Small number of beneficiaries/claims are part of demo

Session roadmap

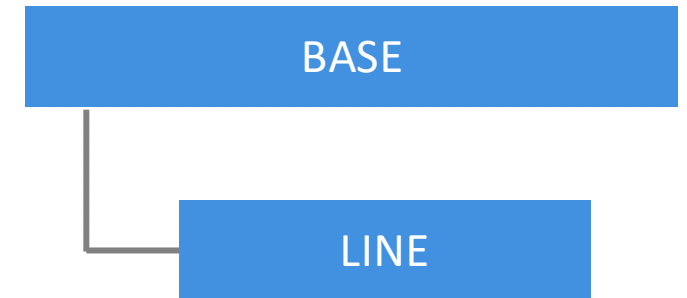
- Technical information about Medicare data in VA
- Medicare enrollment data
- Institutional claims
- **Non-institutional claims**
- Additional information

Form to Data: Non-Institutional Providers

Non-Institutional providers

- Physicians and other individuals
- Physician groups/clinics
- Ambulance companies
- Independent laboratories
- Medical supply companies

CMS 1500 Form



2 datasets from CMS 1500 form

- DME
 - Durable Medical Equipment
 - Prosthetics/Orthotics
 - Supplies (diabetic testing, enteral/parenteral)
 - Oxygen, injectable drugs
- Carrier – everything else, including
 - Physicians and other individuals
 - Physician groups/clinics
 - Ambulance companies
 - Independent laboratories
 - Pharmacies (vaccine administration)



HEALTH INSURANCE CLAIM FORM

APPROVED BY NATIONAL UNIFORM CLAIM COMMITTEE (NUCC) 02/12

1. MEDICARE (Medicare) MEDICAID (Medicaid) TRICARE (TRICARE) CHAMPVA (Member) GROUP HEALTH PLAN (Group Health Plan) FECA/BLK/LUNG (FECA/BLK/LUNG) OTHER (Other)

2. PATIENT'S NAME (Last Name, First Name, Middle Initial)

3. PATIENT'S BIRTH DATE (MM/DD/YY) SEX (M/F)

4. INSURED'S NAME (Last Name, First Name, Middle Initial)

5. PATIENT'S ADDRESS (No., Street)

6. PATIENT RELATIONSHIP TO INSURED (Self/Spouse/Child/Other)

7. INSURED'S ADDRESS (No., Street)

8. RESERVED FOR NUCC USE

9. OTHER INSURED'S NAME (Last Name, First Name, Middle Initial)

10. IS PATIENT'S CONDITION RELATED TO:

11. INSURED'S POLICY GROUP OR FECA NUMBER

12. PATIENT'S OR AUTHORIZED PERSON'S SIGNATURE

13. INSURED'S OR AUTHORIZED PERSON'S SIGNATURE

14. DATE OF CURRENT ILLNESS, INJURY, OR PREGNANCY (MM/DD/YY)

15. OTHER DATE (MM/DD/YY)

16. DATES PATIENT UNABLE TO WORK IN CURRENT OCCUPATION (FROM/TO)

17. NAME OF REFERRING PROVIDER OR OTHER SOURCE (NPI)

18. HOSPITALIZATION DATES RELATED TO CURRENT SERVICES (FROM/TO)

19. ADDITIONAL CLAIM INFORMATION (Designated by NUCC)

20. OUTSIDE LAB? (YES/NO) \$ CHARGES

21. ICD-9 CODE OR NATURE OF ILLNESS OR INJURY (ICD-9)

22. RESUBMISSION CODE ORIGINAL REF. NO.

23. PRIOR AUTHORIZATION NUMBER

A. DATE(S) OF SERVICE (MM/DD/YY)	B. PLACE OF SERVICE (EMG)	C. PROCEDURES, SERVICES, OR SUPPLIES (Ecklin Unusual Circumstances)	D. DIAGNOSIS (ICD-9)	E. CHARGES (\$)	F. DAYS OF CARE	G. HCPCS CODE	H. QUAL.	I. RENDERING PROVIDER ID, #
1								NPI
2								NPI
3								NPI
4								NPI
5								NPI
6								NPI

24. FEDERAL TAX ID NUMBER (SSN/EIN)

25. PATIENT'S ACCOUNT NO.

26. TOTAL CHARGE (\$)

27. AMOUNT PAID (\$)

28. SIGNATURE OF PHYSICIAN OR SUPPLIER

29. SERVICE FACILITY LOCATION INFORMATION

30. BILLING PROVIDER INFO & PH #

NUCC Instruction Manual available at: www.nucc.org PLEASE PRINT OR TYPE APPROVED OMB-0938-1197 FORM 1500 (02-12)

CMS 1500 Form

Form CMS 1500 (middle)

17. NAME OF REFERRING PROVIDER OR OTHER SOURCE										18. HOSPITALIZATION DATES RELATED TO CURRENT SERVICES					
Ordering/Referring Provider										FROM		TO			
19. ADDITIONAL CLAIM INFORMATION (designated by NDC)										20. OUTSIDE LAB? \$ CHARGES					
										<input type="checkbox"/> YES		<input type="checkbox"/> NO			
21. DIAGNOSIS OR NATURE OF ILLNESS OR INJURY (Relate to service line below (24E))										22. RESUBMISSION CODE ORIGINAL REF. NO.					
ICD Diagnosis Codes										23. PRIOR AUTHORIZATION NUMBER					
24. A. DATE(S) OF SERVICE				B.	C.	D. PROCEDURES, SERVICES, OR SUPPLIES			E.	F.	G.	H.	I.	J.	
From To				PLACE OF SERVICE	EMG	(Explain Unusual Circumstances)			DIAGNOSIS POINTER	\$ CHARGES	DAYS or UNITS	EPSCOT Field No.	ID. QUAL.	RENDERING PROVIDER ID. #	
MM	DD	YY	MM	DD	YY		CPT/HCPCS	MODIFIER							
1														NPI	
2														NPI	
3														NPI	
4														NPI	
5														NPI	
6														NPI	

Line Items

- Dates of Service
- Place of Service
- CPT/HCPCS & modifiers
- Diagnosis code
- Charges
- Days/units
- Rendering Provider

PHYSICIAN OR SUPPLIER INFORMATION

Non-Institutional Dataset Structure

- BASE - general or summary claim information and ICD diagnosis codes
 - 1 BASE record per claim
- LINE – Line Item dataset
 - Details about services or procedures (CPT/HCPCS)
 - Often multiple LINE records per claim (average=2)



Files linked using CLM_ID

Commonly used variables: BASE

- FROM_DT & THRU_DT
- RFR_NPI – Referring/ordering provider NPI
- Claim diagnosis codes (ICD-9 or ICD-10) – up to 12 in recent years

Commonly used variables: LINE

- CLM_ID – to link to BASE file
- EXPNSDT1-EXPNSDT2 - Expense dates
- HCPCS_CD
- BETOS – categories of HCPCS codes
 - <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareFeeforSvcPartsAB/downloads/betosdescodes.pdf>
- PLCSRVC - Place of service code
 - [https://www.cms.gov/Medicare/Coding/place-of-service-codes/Place of Service Code Set](https://www.cms.gov/Medicare/Coding/place-of-service-codes/Place_of_Service_Code_Set)
- PRF_NPI or SUP_NPI – Performing provider (CA) or Supplier (DME) NPI
- Line diagnosis code (will always be included as a claim/base diagnosis too)

Provider Info

Base

- Carrier – Referring NPI
 - 20-30% missing; only required for some types of services
 - Often the same as performing NPI
- DME – Ordering NPI
 - Always populated
 - Almost never the same as supplier NPI

Line

- Carrier - Performing NPI
- DME – Supplier NPI
- Provider Tax ID Number (TIN)
 - Group/practice
 - Linkable to Medicare Data on Provider Practice and Specialty (MD-PPAS) file

Denied Claims

- Carrier and DME files contain some denied claims
 - 5% of CA claims
 - 10% of DME claims
- BASE file: PMTNDLCD (claim payment denial code) = 0
- More info
 - LINE files: PRCNGIND (line processing indicator code)
- Keep or drop??
 - Many probably do represent care/supplies received

Carrier Example #1 – outpatient physician visit

BASE file

SCRSSN	CLM_ID	FROM_DT	THRU_DT	ICD_DGNS_CD1	RFR_NPI (Referring)
123	321	10/9/20	10/9/20	L2084	456456456

LINE file

SCRSSN	CLM_ID	LINE_NUM	EXPNSDT1	PLCSRVC	BETOS	HCPCS_CD	SRVC_CNT	LINE_DGNS_CD	PRF_NPI (Performing)
123	321	1	10/9/20	11 - Office	M1B – Office Visit, Established	99213	1	L2084	456456456
123	321	2	10/9/20	11 - Office	P6C – Minor Procedures (other)	96372	1	L298	456456456
123	321	3	10/9/20	11 - Office	O1E – other drugs	J0702	2	L298	456456456
123	321	4	10/9/20	11 - Office	O1E – other drugs	J3301	4	L298	456456456

Carrier Example #2 – Independent laboratory

BASE file

SCRSSN	CLM_ID	FROM_DT	THRU_DT	ICD_DGNS_CD1	RFR_NPI (Referring, 20% missing)
123	456	7/7/20	7/7/20	E7800	987654321

LINE file

SCRSSN	CLM_ID	LINE_NUM	EXPNSDT1	PLCSRVC	BETOS	HCPCS_CD	SRVC_CNT	LINE_DGN_S_CD	PRF_NPI (Performing)
123	456	1	7/7/20	81 - Independent Laboratory	T1D - Lab test, blood counts	85025	1	E7800	321654987
123	456	2	7/7/20	81	T1B - Lab tests, automated profiles	80053	1	E7800	321654987
123	456	3	7/7/20	81	T1H - Lab tests, other	80061	1	E7800	321654987
123	456	4	7/7/20	81	T1H	83036	1	E119	321654987

Carrier Example #3 - in facility physician services

BASE file

SCRSSN	CLM_ID	FROM_DT	THRU_DT	ICD_DGNS_CD1	RFR_NPI (Referring)
123	987	5/8/20	5/10/20	R339	654321987

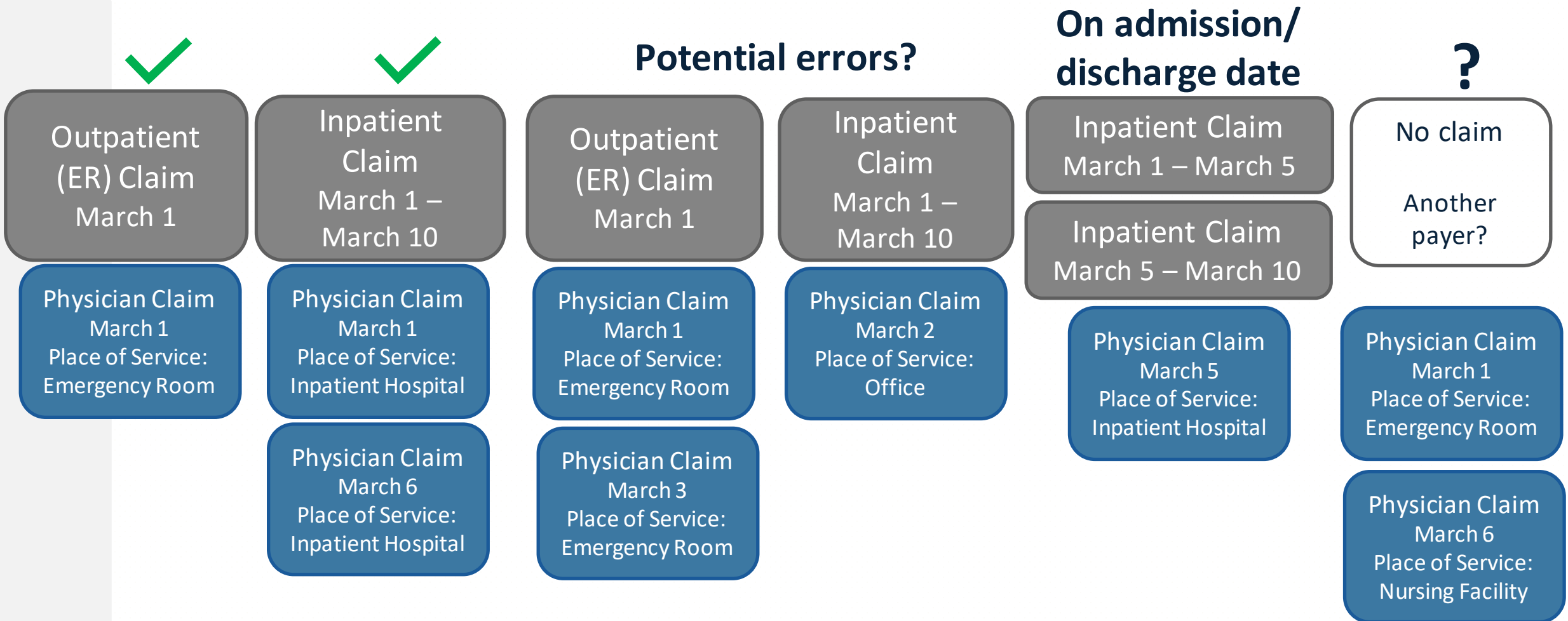
LINE file

SCRSSN	CLM_ID	LINE_NUM	EXPNSDT1	PLCSRVC	BETOS	HCPCS_CD	SRVC_CNT	LINE_DGNS_CD	PRF_NPI (Performing)
123	987	1	5/8/20	21 - Inpatient hospital	M2A - Hospital Visit, Initial	99223	1	R339	654321987
123	987	2	5/10/20	21 - Inpatient hospital	M2B - Hospital Visit, Subsequent	99232	1	R339	654321987



There may be a corresponding inpatient hospital claim

Trying to link institutional & non-institutional claims



Session roadmap

- Technical information about Medicare data in VA
- Medicare enrollment data
- Institutional claims
- Non-institutional claims
- **Additional information**

VIREC's VA/CMS Data for Research Project is the data steward for CMS and USRDS data used for VA research.

- Distributing data from Centers for Medicare & Medicaid Services (CMS) to VA approved projects since 2003
- Providing assistance to VA research projects using CMS data
- No cost to VA researchers

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

(VA intranet only)





- Field office of VHA's Chief Strategy Office
- Data steward for CMS (Medicare) data used for VHA operations
 - VHA Program Offices
 - Quality Improvement/Quality Assurance
- vaww.va.gov/medicareanalysis/ (VA intranet only)

Health Economics Resource Center (HERC)

- VA Cost Data Sources
 - Medicare/Medicaid

- Measuring Costs
 - VA vs. Non-VA Costs
 - Medicare payments

- <https://vaww.herc.research.va.gov/>
(VA intranet only)

The screenshot shows the homepage of the Health Economics Resource Center (HERC) within the U.S. Department of Veterans Affairs website. The header includes the VA logo, the text "U.S. Department of Veterans Affairs", and a search bar. A navigation menu contains links for Health, Benefits, Burials & Memorials, About VA, Resources, Media Room, Locations, and Contact Us. The main content area features a breadcrumb trail "HERC » Home" and the title "Health Economics Resource Center (HERC)". A left sidebar menu lists various resources, with "VA Cost Data Sources" and "Measuring Costs" highlighted. A central banner image shows a keyboard, glasses, and a pen. To the right of the banner, a blue box announces "FY22 Outpatient Average Cost Data Available" with a "Learn more" link. Below the banner, four news items are listed: "FY22 Inpatient Average Cost Data Available", "FY22 Outpatient Average Cost Data Available", "Monthly Cyberseminar Series", and "Economics of Implementation & QUERI". A "What We Do" section at the bottom explains that HERC helps VA researchers determine the cost of VA care, assess cost-effectiveness, and evaluate the efficiency of VA programs and providers, with a "More" link.

HSRData Listserv

- Community knowledge sharing
- ~1,600 VA data users
- Researchers, operations, data stewards, managers
- Subscribe by visiting
<https://vaww.virec.research.va.gov/Support/HSRData-L.htm> (VA Intranet)

VIReC HelpDesk

- Individualized support



<https://varedcap.rcp.vaec.va.gov/redcap/surveys/?s=KXMEN77LXK>



Questions about Using VA Data?

Research Data Assistance Center (ResDAC)



<https://resdac.org/>



[FIND CMS DATA FILES](#) > [REQUEST CMS DATA FILES](#) > [SEARCH DATA VARIABLES](#) > [LEARN ABOUT CMS DATA](#) >

Find, Request and Use CMS Data

GETTING STARTED

New to
CMS data

How to begin

- Who is in the data? →
- What is in the data? →
- What type of data is right for me? →

SUBMITTING A REQUEST

Find the documents you
need & submit a request

How to request identifiable data

- Timeline and process →
- CMS data fee information →
- Request forms generator →

LEARN ABOUT CMS DATA

Get answers about
CMS data

How to understand & use the data

- CMS data training →
- Articles about the data →
- Medicaid data quality resources →

Chronic Conditions Warehouse (CCW)

<https://www.ccwdata.org/>

My CCW Login (Authorized Users Only) FAQ Help

Chronic Conditions Data Warehouse

Your source for national CMS Medicare and Medicaid research data

Search...

Home Medicare Data Medicaid Data **Data Dictionaries** Condition Categories **Analytic Guidance** Pricing

Chronic Conditions Data Warehouse » Home

Welcome to the Chronic Conditions Data Warehouse

The CMS Chronic Conditions Data Warehouse (CCW) provides researchers with Medicare and Medicaid beneficiary, claims, and assessment data linked by beneficiary across the continuum of care. In the past, researchers analyzing data files were required to perform extensive analysis related to beneficiary matching, deduplication, and merging of the files in preparation for their study analysis. With the CCW data, this preliminary linkage work is already accomplished and delivered as part of the data files sent to researchers.

The Chronic Conditions Data Warehouse (CCW) is a research database designed to make Medicare, Medicaid, Assessments, Part C, and Part D Prescription Drug Event data more readily available to support research designed to improve the quality of care and reduce costs and utilization.

Quick Links

- About CCW
- Frequently Asked Questions (FAQ)
- Data Availability
- The Beneficiary Link
- Requesting VRDC Access
- How to Request Data
- News & Events

Medicare Claims Processing Manual

<https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Internet-Only-Manuals-IOMs-Items/CMS018912>



Downloads

[Chapter 1 - General Billing Requirements](#)

[Chapter 1 Crosswalk](#)

[Chapter 2 - Admission and Registration Requirements](#)

[Chapter 2 Crosswalk](#)

[Chapter 3 - Inpatient Hospital Billing](#)

[Chapter 3 Crosswalk](#)

[Chapter 4 - Part B Hospital \(Including Inpatient Hospital Part B and OPPI\)](#)

[Chapter 4 Crosswalk](#)

[Chapter 5 - Part B Outpatient Rehabilitation and CORF/OPT Services](#)

[Chapter 5 Crosswalk](#)

[Chapter 6 - Inpatient Part A Billing and SNF Consolidated Billing](#)

[Chapter 6 Crosswalk](#)

[Chapter 7 - SNF Part B Billing \(Including Inpatient Part B and Outpatient Fee Schedule\)](#)

[Chapter 7 Crosswalk](#)

[Chapter 8 - Outpatient ESRD Hospital, Independent Facility, and Physician/Supplier Claims](#)

[Chapter 8 Crosswalk](#)

[Chapter 9 - Rural Health Clinics/Federally Qualified Health Centers](#)

[Chapter 9 Crosswalk](#)

[Chapter 10 - Home Health Agency Billing](#)

CMS Guidance for Completing Claims Forms

- Institutional Claims Manual (1450/UB-04 Form) <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c25.pdf>

FL 12 - Admission/Start of Care Date

Required For Inpatient and Home Health. The hospital enters the date the patient was admitted for inpatient care (MMDDYY). The HHA enters the same date of admission that was submitted on the RAP for the episode.

FL 13 - Admission Hour

Not Required. If submitted, the data will be ignored.

FL 14 - Priority (Type) of Admission or Visit

Required.

Codes used for Medicare claims are available from Medicare contractors. Codes are also available from the NUBC (www.nubc.org) via the NUBC's Official UB-04 Data Specifications Manual.

FL 15 - Point of Origin for Admission or Visit

Required except for Bill Type 014X. The provider enters the code indicating the source of the referral for this admission or visit.

Codes used for Medicare claims are available from Medicare contractors. Codes are also available from the NUBC (www.nubc.org) via the NUBC's Official UB-04 Data Specifications Manual.

75.2 - Form Locators 16-30

(Rev. 1973, Issued: 05-21-10, Effective: 09-01-10, Implementation: 09-01-10)

FL 16 - Discharge Hour

Not Required.

FL 17 - Patient Discharge Status

Required. (For all Part A inpatient, SNF, hospice, home health agency (HHA) and outpatient hospital services.) This code indicates the patient's discharge status as of the "Through" date of the billing period (FL 6).

Codes used for Medicare claims are available from Medicare contractors. Codes are also available from the NUBC (www.nubc.org) via the NUBC's Official UB-04 Data

- Non-Institutional Claims Manual (1500 Form) <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c26.pdf.pdf>

immediately by the 11 digit NDC code (e.g. N499999999999). Report the NDC quantity in positions 17 through 24 of the same red shaded portion. The quantity is to be preceded by the appropriate qualifier: UN (units), F2 (international units), GR (gram) or ML (milliliter). There are six bytes available for quantity. If the quantity is less than six bytes, left justify and space-fill the remaining positions (e.g., UN2 or F2999999).

Item 24A - Enter a 6-digit or 8-digit (MMDDCCYY) date for each procedure, service, or supply. When "from" and "to" dates are shown for a series of identical services, enter the number of days or units in column G. This is a required field. Return as unprocessable if a date of service extends more than 1 day, and a valid "to" date is not present.

Item 24B - Enter the appropriate place of service code(s) from the list provided in section 10.5. Identify the setting, using a place of service code, for each item used or service performed. This is a required field.

NOTE: When a service is rendered to a patient who is a registered inpatient or an outpatient (off campus or on campus) of a hospital, use the inpatient hospital POS code 21, Off Campus-Outpatient Hospital POS code 19, or On Campus-Outpatient Hospital POS code 22, respectively, as discussed in section 10.5 of this chapter.

Item 24C - Medicare providers are not required to complete this item.

Item 24D - Enter the procedures, services, or supplies using the CMS Healthcare Common Procedure Coding System (HCPCS) code. When applicable, show HCPCS code modifiers with the HCPCS code. The CMS-1500 claim form has the capacity to capture up to four modifiers.

Enter the specific procedure code without a narrative description. However, when reporting an "unlisted procedure code" or a "not otherwise classified" (NOC) code, include a narrative description in item 19 if a coherent description can be given within the confines of that box. Otherwise, an attachment shall be submitted with the claim. This is a required field.

Return as unprocessable if an "unlisted procedure code" or a NOC code is indicated in item 24d, but an accompanying narrative is not present in item 19 or on an attachment.

Item 24E - This is a required field. Enter the diagnosis code reference number or letter (as appropriate, per form version) as shown in item 21 to relate the date of service and the procedures performed to the primary diagnosis. Enter only one reference number/letter

Thank you!
Questions?



CONTACT INFORMATION

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VA/CMS Data for Research Project

kristin.degroot@va.gov





CMS DATA MINI-SERIES

Next session:

10/10/2023 @ 3pm EST

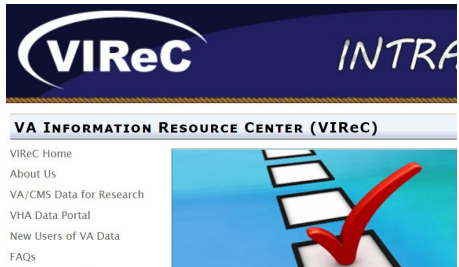
Overview of CMS & USRDS data from VIREC



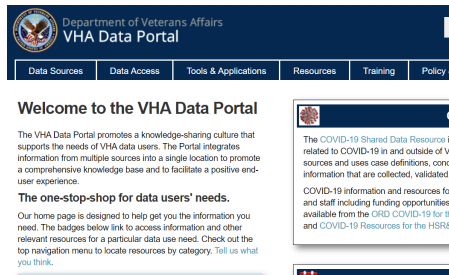
CMS Data Mini-series
BONUS SLIDES

Resources for VA Data Users

Select image to visit page



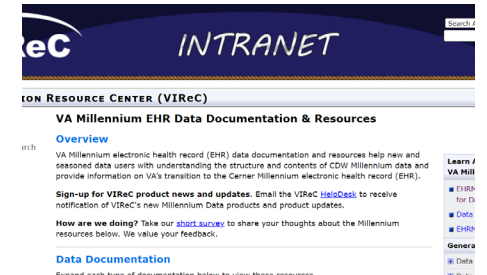
VA Information Resource Center (VIREC) (VA Intranet)



VHA Data Portal (VA Intranet)



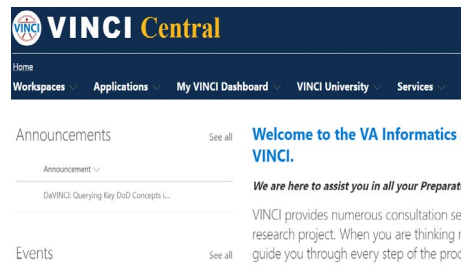
VIREC Cyberseminars



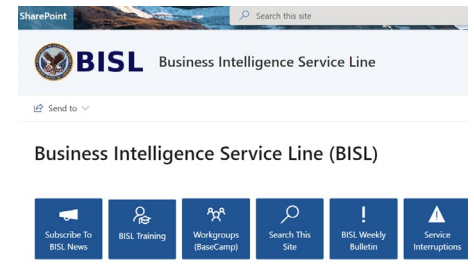
VA Millennium EHR Data Documentation (VA Intranet)



Quick Guide: Resources for Using VA Data (VA Intranet)



VA Informatics and Computing Infrastructure (VINCI) (VA Intranet)



BISL/CDW (VA Intranet)



Health Economics Resource Center (HERC) (VA Intranet)